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XCG File #3-997-02-08

December 21, 2001

OFF-SITE SURFICIAL SOIL INVESTIGATION
RESIDENTIAL PROPERTIES NEAR
3241 WALDEN AVENUE
DEPEW, NEW YORK

12/21/01

N.L. INDUSTRIES

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1. INTRODUCTION

1.1 Project Background

In August 2001, XCG Consultants Ltd. (XCG) was retained by Norampac, Inc. (Norampac) to carry out an Off-Site Surficial Soil Investigation of selected residential properties located near 3241 Walden Avenue in Depew, New York (referred to as the subject property in this report). This study follows several subsurface investigations conducted by XCG at the subject property, as well as limited sampling at off-site locations. These individual investigations were performed between October 1998 and August 2000, and were summarized in a draft report entitled "Remedial Investigation/Feasibility Study, Former NL Industries Site, 3241 Walden Avenue, Depew, New York," dated July 5, 2001. These investigations identified the presence of elevated levels of metals, such as lead, in the fill soils throughout the 3241 Walden Avenue property. In addition, elevated metals were detected at select off-site lands, including some residential properties on the north side of Walden Avenue.

XCG conducted this investigation under the direction of the New York State Department of Environmental Conservation (NYSDEC) and the New York State Department of Health (DOH). In addition to investigating the metals concentrations in soil, NYSDEC indicated that a nearby resident expressed a concern regarding potential radiation contamination in the soil. As such, NYSDEC requested XCG to take radioactivity readings in soil with a Geiger counter.

1.2 Objectives and Scope of Work

The objective of the current study was to identify the radioactivity and concentrations of metals, and lead in particular, at the nearby residential properties to the north of the subject property.

- Collecting 28 surficial soil samples from 12 residential properties and one road allowance location. The residential properties investigated are situated on Walden Avenue, West Second Street, West Third Street, and Princeton Avenue. The road allowance sample was located on Nardin Drive (intersecting street with Princeton Avenue);
- Collecting 2 surficial soil samples from public properties away from the study area for comparison as possible background samples;
- Submitting 30 soil samples for laboratory analyses of metals;
- Measuring radioactivity in the 30 samples with a Geiger counter provided by NYSDEC; and,
- Preparing a report summarizing the surficial soil conditions at the investigated locations on the neighbouring properties.

2. SITE DESCRIPTION

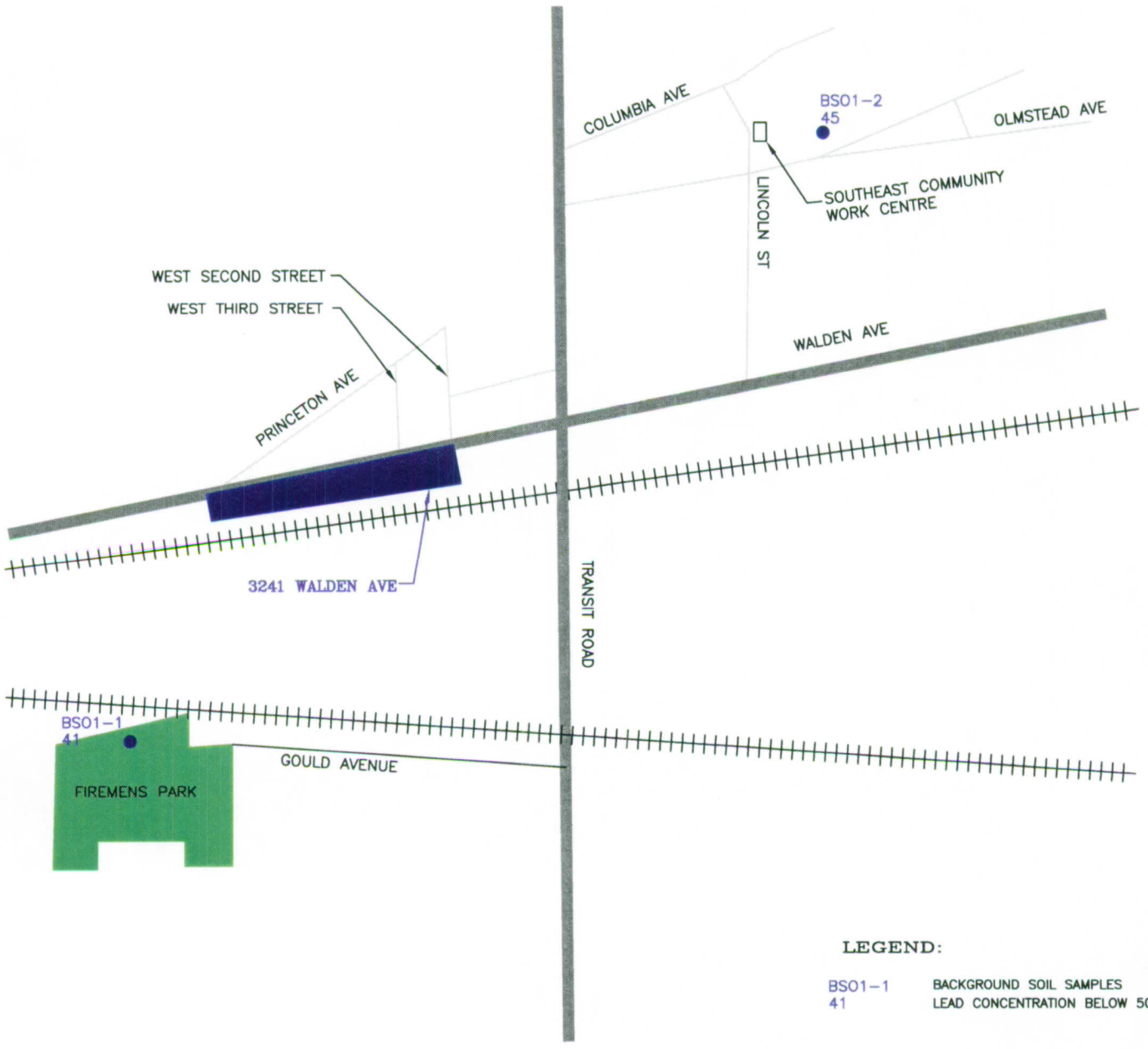
2.1 Site Background

The subject property is located at 3241 Walden Avenue in Depew, New York, a suburb to the east of Buffalo. The property is situated on the south side of Walden Avenue, approximately 584.42 feet (178.1 metres) west of the centre line of Transit Road. The location of the subject property and nearby surrounding lands is shown on Figure 1. The property is legally described as Part of Lot 68, Township 11, Range 7 of the Holland Land Company's Survey in the Village of Depew, Town of Cheektowaga, County of Erie. The site is located in a mixed commercial/industrial and residential area. Commercial/industrial properties adjoin the east and west sides of the subject property. Residential properties are predominantly located across the street, on the north side of Walden Avenue. There are also some commercial establishments on the north side of Walden Avenue (e.g. restaurant, medical clinic). Details of the investigated areas to the north of the subject property are presented in Figure 2.

The property is approximately 3.04 hectares (7.5 acres) in size, of which approximately half is developed. There is one main building located on the east side of the subject property and a small garage situated to the west, at the north property line. Truck loading and unloading operations and trailer parking are conducted on the west side of the plant building. This area is surfaced with gravel and is surrounded by a chain-link fence. The area to the west of the trucking area is undeveloped and approximately half of it is also enclosed by a chain-link fence. The east side of the site is paved with asphalt and is used for employee parking.

As noted previously, several investigations have been conducted on the subject property, as well as limited testing on off-site lands. The findings of these investigations are provided in the aforementioned draft RI/FS report. In brief, historical on-site operations have impacted a majority of the surficial soils on the subject property with metals. The analytical results indicated that concentrations of select metals (e.g. lead, copper, zinc) in the fill material exceeded the NYSDEC's Technical and Administrative Guidance Memorandum (TAGM) 4046 Cleanup Objectives, or Eastern USA/New York State Background Values for metals where Cleanup Objectives have not been established. Lead was identified as the main metal of concern. TCLP metals analyses indicated that the fill material in a majority of the area is hazardous, according to 6NYCRR Part 371 (i.e. lead concentrations in leachate exceeding 5 mg/L). In addition to the subject property, concentrations of lead exceeding the TAGM 4046 Background Values were detected in some off-site samples on the north side of Walden Avenue.

The location and lead concentrations of these previous off-site samples are shown on Figure 2. The samples collected on the residential properties in May and August, 2000 were identified as OS00-1 to OS00-3, while the June 1999 samples located within the road allowance were labelled as JAR2 to JAR12. It should be noted that Figure 2 was based on a tax map obtained from the Erie County municipal office and that the residential property boundaries are only approximate using field observations. A legal survey was not conducted to define the exact limits of each residential property.



LEGEND:

BSO1-1 41	BACKGROUND SOIL SAMPLES LEAD CONCENTRATION BELOW 500 PPM

(NOT TO SCALE)

DRAWING REFERENCE: Drawing based on street map
NOTE: Locations of buildings, underground utilities, etc. are for reference only and should not be relied upon for detail design, excavation, or construction purposes.
(file: P:\STREETSVILLE FILES\ACADdata\NORAMPAC OFF-SITE SAMPLING LOCATIONS.DWG)

SITE LOCATION MAP

3241 WALDEN AVE.
DEPEW, NEW YORK

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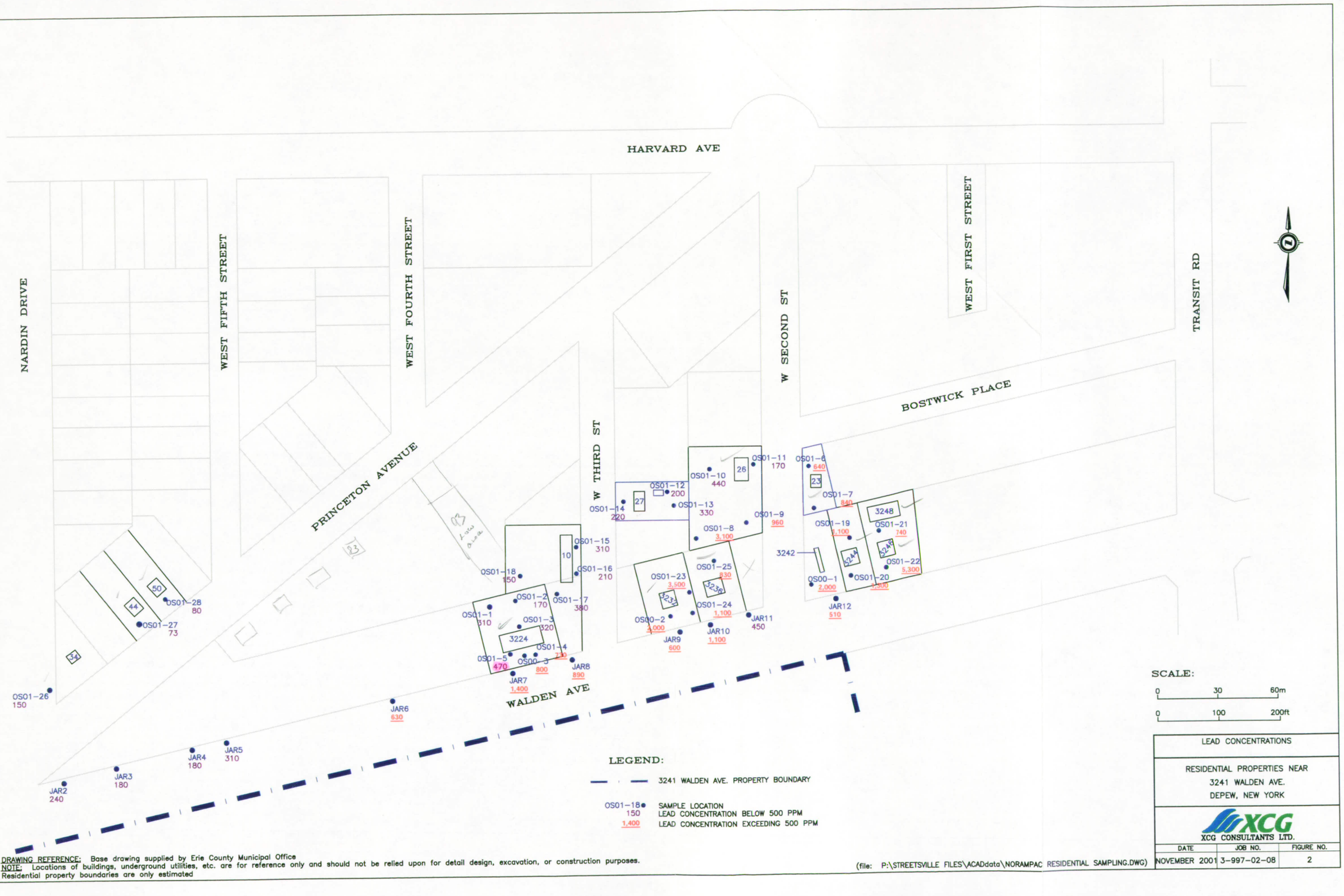
DATE	JOB NO.	FIGURE NO.
NOVEMBER 2001	3-997-02-08	1



LEGEND:

3241 WALDEN AVE. PROPERTY BOUNDARY

OS01-18 — SAMPLE LOCATION
150 — LEAD CONCENTRATION BELOW 500 PPM
1,400 — LEAD CONCENTRATION EXCEEDING 500 PPM

SCALE:

0 30 60m

0 100 200ft

LEAD CONCENTRATIONS

RESIDENTIAL PROPERTIES NEAR
3241 WALDEN AVE.
DEPEW, NEW YORK

XCG CONSULTANTS LTD.

DATE	JOB NO.	FIGURE NO.
NOVEMBER 2001	3-997-02-08	2

DRAWING REFERENCE: Base drawing supplied by Erie County Municipal Office
NOTE: Locations of buildings, underground utilities, etc. are for reference only and should not be relied upon for detail design, excavation, or construction purposes.
Residential property boundaries are only estimated

(file: P:\STREETSVILLE FILES\ACADdata\NORAMPAC RESIDENTIAL SAMPLING.DWG)

3. FIELD INVESTIGATION

The field investigation activities were conducted on August 14 and 15, 2001. The sampling activities were carried out by Mr. Basil Wong, P.Eng., of XCG with the assistance of NYSDEC and DOH. A description of the field investigation methodology used is provided below.

3.1 Soil Sampling Methodology

The surficial soil samples were collected manually with a stainless steel trowel. The samples were obtained from surface to a depth of 0.05 metres (2 inches) below grade. The trowel was cleaned with distilled water and detergent between sampling locations to prevent cross-contamination. The surficial soil samples were placed in laboratory prepared glass jars and stored in a cooler prior to delivery to the laboratory. The samples were sent to the laboratory within approximately 24-hours from the time of collection. The samples were analyzed for metals and were conducted by Philip Analytical Services Corp. (PASC) of Burlington, Ontario. PASC's Burlington laboratory is certified with the New York State Department of Health (ELAP Certification, ID#10756).

The soil samples collected at the residential properties, and the sample from the road allowance, were identified as OS01-1 to OS01-28. The two samples collected for possible use as background values were identified as BS01-1 and BS01-2.

The radiation levels were measured with a Geiger counter provided by NYSDEC. The instrument used was manufactured by The Victorian Instrument Co. of Cleveland, Ohio (OCDM Item No. CDV-700, Model No. 6B). This Geiger counter measures radioactivity in millirems/hr.

3.2 Sampling Locations

The off-site properties and sampling locations were selected by Mr. Gerald Pietraszek of NYSDEC and Ms. Dawn Hettrick of DOH. Surficial soil samples were collected at the following locations:

- 3224 Walden Avenue (OS01-1 to OS01-5)
- 3232 Walden Avenue (OS01-23 and OS01-24)
- 3236 Walden Avenue (OS01-25)
- 3244 Walden Avenue (OS01-19 and OS01-20)
- 3246 Walden Avenue (OS01-22)
- 3248 Walden Avenue (OS01-21)

- 23 West Second Street (OS01-6 and OS01-7)
- 26 West Second Street (OS01-8 to OS01-11)
- 10 West Third Street (OS01-15 to OS01-18)
- 27 West Third Street (OS01-12 to OS01-14)
- Nardin Drive road allowance, west of 34 Princeton Avenue (OS01-26)
- 44 Princeton Avenue (OS01-27)
- 50 Princeton Avenue (OS01-28)
- Fireman's Park (BS01-1)
- Southeast Community Work Centre, 181 Lincoln Street (BS01-2)

3.3 QA/QC Methods

As noted above, the soil samples were analyzed at an ELAP-certified laboratory to ensure proper quality assurance/quality control (QA/QC) methods. Mr. Pietraszek of NYSDEC also collected duplicate soil samples at OS01-24 and OS01-28 for analyses at a separate laboratory. PASC also has a standard internal QA/QC program. As part of these procedures, a lab method blank, method blank spike, blank spike and matrix spike are analyzed during the testing of the samples. In addition, PASC conducts a laboratory duplicate analysis of one soil sample for every fourteen samples submitted. A laboratory duplicate analysis of metals was conducted for soil sample OS01-20. As requested by NYDEC, PASC provided XCG with a Category A report, which includes all the quality control back-up documentation and raw data.

4. APPLICABLE GUIDELINE CRITERIA

In New York State, analytical results of soil are compared to the criteria outlined in the NYSDEC Division of Technical and Administrative Guidance Memorandum (TAGM) 4046, entitled "Determination of Soil Cleanup Objectives and Cleanup Levels," dated January 24, 1994 (revised).

The TAGM 4046 Recommended Soil Cleanup Objectives for certain metals provide the option of using either the specified value or using site background values. There are no site background values available for the study area. As such, the analytical metal results were compared to the specified Cleanup Objectives or the Eastern USA/New York State Background Values (where Cleanup Objectives have not been developed). A range of Eastern USA and New York State Background Values for most metals are provided in TAGM 4046. Background values at the subject property and surrounding area are probably very high as it is located in an industrial area and is adjacent to a railway corridor. Therefore, the high end of the range of Background Values was used in this assessment. For example, the Background Values for lead is 200 ppm to 500 ppm. The results of lead were therefore compared to a Background Value of 500 ppm.

Radiation pollution in New York State is governed by 6NYCRR Part 380 "Rules and Regulations for the Prevention and Control of Environmental Pollution by Radioactive Materials". Subpart 380-5 "Radiation Dose Limits for Individual Members of the Public states:

(a) Each person subject to this Part shall limit disposals and discharges of radioactive material subject to this Part to the environment so that:

(1) The total effective dose equivalent to individual members of the public does not exceed 0.1 rem (1mSv) in a year, exclusive of the dose contribution from the licensee's disposal of licensed material into sanitary sewerage in accordance with section 380-4.2 of this Part; and,

(2) The dose in any unrestricted area in the environment from external sources does not exceed 0.002 rem (0.02 mSv) in any one hour; and,

(3) Doses to individual members of the public are as low as reasonably achievable (ALARA).

5. RESULTS

5.1 Soil Results

In total, 30 soil samples were submitted to PASC for analyses of metals. A summary of the analytical results is presented in Table 1. Copies of the Certificates of Analyses from PASC are included in Appendix A while the report for the duplicate samples collected by NYSDEC are included in Appendix B. The Category A report is provided in Appendix C. The concentrations of a number of metals (beryllium, cadmium, chromium, copper, iron, lead, magnesium, nickel, and zinc) exceeded either the TAGM 4046 Cleanup Objectives or USA/New York State Background Values (for metals where Cleanup Objectives have not been established). However, the following discussion will focus only on the lead concentrations, as this is the main metal of concern. The lead results from the current investigation, as well as previous off-site samples, are discussed below for each individual property and are presented in Figure 2. An overall summary of the results is then provided at the end of this section. The radioactivity measured in all soil samples at the residential properties was relatively low, ranging from 0 to 0.1 millirems/hr. These are well below the exposure limits of 2 millirems/hr identified by 6NYCRR Part 380, Subpart 380-5.

5.1.1 34 Princeton Avenue

One soil sample (OS01-26) was collected from the road allowance just west of 34 Princeton Avenue (i.e. near the curb on the Nardin Drive side of the property). This property is located to the northwest of the subject property. The concentration of lead was 150 parts per million (ppm), which is well below the typical Background Value of 500 ppm (high end of range) found in metropolitan areas (as identified in TAGM 4046).

5.1.2 44 Princeton Avenue

One soil sample (OS01-27) was collected from the front lawn of 44 Princeton Avenue. The lead concentration of 73 ppm was significantly lower than the typical Background Value of 500 ppm found in metropolitan areas.

5.1.3 50 Princeton Avenue

Soil sample OS01-28 was collected from the front lawn of 50 Princeton Avenue. Similar to the results from the other two properties on Princeton Avenue, the concentration of lead on this property (80 ppm) was well below the typical Background Value.

Table 1 Metals Analytical Results in Soil – Off-Site Residential Sampling

PARAMETER (ppm)	MDL	OS01-1	OS01-2	OS01-3	OS01-4	OS01-5	OS01-6	NYSDEC-TAGM 4046	
Depth (m)	–	0-0.05	0-0.05	0-0.05	0-0.05	0-0.05	0-0.05	Cleanup Objectives	Eastern USA Background
Address	-	3224 Walden	3224 Walden	3224 Walden	3224 Walden	3224 Walden	23 West Second		
Location	-	NW corner of backyard	North fence vege garden	Tomato garden north wall	Front Lawn Apt 4	West of steps Apt 1	Front Lawn NW of house		
Lab ID Number	–	046700-01	046701-01	046702-01	046703-01	046704-01	046705-01		
Sampling Date	–	01/08/14	01/08/14	01/08/14	01/08/14	01/08/14	01/08/14		
Aluminum	3	10,000	9800	11,000	9,500	12,000	8,700	SB	33,000
Barium	0.1	81	80	84	76	93	73	300 or SB	15-600
Beryllium	0.1	**0.5**	**0.5**	**0.6**	**0.5**	**0.6**	**0.5**	0.16 or SB	0-1.75
Cadmium	0.2	**1.2**	1.0	**2.3**	**2.0**	**1.3**	**1.6**	1 or SB	0.1-1
Calcium	20	12,000	8,400	11,000	14,000	8,200	16,000	SB	130-35,000*
Chromium	0.4	**18**	**15**	**23**	**22**	**20**	**23**	10 or SB	1.5-40*
Cobalt	1	7.0	6.0	7.0	7.0	8.0	6.0	30 or SB	2.5-60*
Copper	0.6	**200**	**77**	**160**	**420**	**280**	**270**	25 or SB	1-50
Iron	1	**24,000**	**22,000**	**26,000**	**23,000**	28,000	**22,000**	2,000 or SB	2,000-550,000
Lead	2	310	170	320	**730**	470	**640**	SB**	**
Magnesium	5	4,200	3,800	4,600	**5,100**	4,200	7,100	SB	100-5,000
Manganese	0.5	420	390	540	470	580	360	SB	50-5,000
Molybdenum	1	2.0	2.0	2.0	2.0	2.0	2.0	NV	NV
Nickel	1	**21**	**15**	**43**	**23**	**24**	**23**	13 or SB	0.5-25
Phosphorus	6	1,000	940	1,100	870	710	890	NV	NV
Potassium	100	1,700	1,300	1,400	1,400	1,700	1,600	SB	8500-43,000*
Silver	1	<	<	<	<	<	<	SB	NV
Sodium	10	84	64	81	450	97	55	SB	6,000-8,000
Thallium	6	<	<	<	<	<	<	SB	NV
Vanadium	0.5	23	21	24	20	25	20	150 or SB	1-300
Zinc	0.5	**380**	**300**	**380**	**940**	**650**	**540**	20 or SB	9-50

NOTES:

<	Less than laboratory's detection limits	SB	Site Background		
NYSDEC	New York State Department of Environmental Conservation	mg/kg	ppm	NV	No Value
Bold	values indicate exceedance of Recommended Soil Cleanup Objectives	MDL	Method Detection Limit		
Analysis conducted by Philip Analytical Services Corporation, New York State ELAP ID#10756		*	New York State Background		

** Background levels for lead vary widely. Undeveloped, rural areas may range from 4-61 ppm, Metropolitan or suburban areas or near highways may range from 200-500 ppm

TAGM 4046 NYSDEC Technical and Administrative Guidance Memorandum 4046, "Determination of Soil Cleanup Objectives and Cleanup Levels" revised January 24, 1994, Recommended Soil Cleanup Objectives

Table 1 Metals Analytical Results in Soil – Off-Site Residential Sampling

PARAMETER (ppm)	MDL	OS01-7	OS01-8	OS01-9	OS01-10	OS01-11	OS01-12	NYSDEC-TAGM 4046	
Depth (m)	-	0-0.05	0-0.05	0-0.05	0-0.05	0-0.05	0-0.05	Cleanup Objectives	Eastern USA Background
Address	-	23 West 2nd	26 West 2nd	26 West 2nd	26 West 2nd	26 West 2nd	27 West 3rd		
Location	-	Between driveway and south p/l	S/W corner of yard	S/E of house on yard	NW of house in backyard	S/E of house on front yard	Tomato garden east of shed, back yard		
Lab ID Number	-	046706-01	046707-01	046708-01	046709-01	046710-01	046711-01		
Sampling Date	-	01/08/14	01/08/14	01/08/14	01/08/14	01/08/14	01/08/14		
Aluminum	3	7,200	8,200	1,100	11,000	10,000	7,500	SB	33,000
Barium	0.1	65	150	97	80	81	63	300 or SB	15-600
Beryllium	0.1	**0.4**	**0.5**	**0.6**	**0.6**	**0.6**	**0.3**	0.16 or SB	0-1.75
Cadmium	0.2	**2.1**	**3.1**	**1.7**	**1.3**	0.9	0.9	1 or SB	0.1-1
Calcium	20	8,300	11,000	7,600	8,500	10,000	17,000	SB	130-35,000*
Chromium	0.4	**21**	**23**	**20**	**33**	**21**	**13**	10 or SB	1.5-40*
Cobalt	1	6.0	7.0	9.0	7.0	7.0	6.0	30 or SB	2.5-60*
Copper	0.6	**490**	**1,800**	**370**	**230**	**99**	**150**	25 or SB	1-50
Iron	1	**19,000**	**24,000**	**26,000**	**25,000**	**23,000**	**17,000**	2,000 or SB	2,000-550,000
Lead	2	**840**	**3,100**	**960**	440	170	200	SB**	**
Magnesium	5	3,000	2,500	4,000	4,600	3,500	8,300	SB	100-5,000
Manganese	0.5	640	280	450	360	380	340	SB	50-5,000
Molybdenum	1	2.0	3.0	2.0	2.0	2.0	1.0	NV	NV
Nickel	1	**23**	**44**	**26**	**22**	**17**	12	13 or SB	0.5-25
Phosphorus	6	760	1,500	820	760	990	1,100	NV	NV
Potassium	100	800	1,100	1,700	1,300	1,500	1,700	SB	8500-43,000*
Silver	1	<	1.4	<	<	<	<	SB	NV
Sodium	10	150	140	120	48	37	98	SB	6,000-8,000
Thallium	6	<	<	<	<	<	<	SB	NV
Vanadium	0.5	18	21	24	25	22	17	150 or SB	1-300
Zinc	0.5	**840**	**2,400**	**790**	**360**	**190**	**200**	20 or SB	9-50

NOTES:

< Less than laboratory's detection limits
NYSDEC New York State Department of Environmental Conservation
Bold Values indicate exceedance of Recommended Soil Cleanup Objectives
SB Site Background
mg/kg ppm
MDL Method Detection Limit
NV No Value
Analysis conducted by Philip Analytical Services Corporation, New York State ELAP ID#10756
* New York State Background
** Background levels for lead vary widely. Undeveloped, rural areas may range from 4-61 ppm, Metropolitan or suburban areas or near highways may range from 200-500 ppm
TAGM 4046 NYSDEC Technical and Administrative Guidance Memorandum 4046, "Determination of Soil Cleanup Objectives and Cleanup Levels" revised January 24, 1994, Recommended Soil Cleanup Objectives

Table 1 Metals Analytical Results in Soil – Off-Site Residential Sampling

PARAMETER (ppm)	MDL	OS01-13	OS01-14	OS01-15	OS01-16	OS01-17	OS01-18	NYSDEC-TAGM 4046	
Depth (m)	–	0-0.05	0-0.05	0-0.05	0-0.05	0-0.05	0-0.05	Cleanup Objectives	Eastern USA Background
Address	-	27 West 3rd	27 West 3rd	10 West 3rd	10 West 3rd	10 West 3rd	10 West 3rd		
Location	-	Middle of swing set	Front lawn	Front lawn Apt 4	Front Lawn Apt 2	Near P/L with 3224 Walden	Backyard west side		
Lab ID Number	–	046712-01	046713-01	046714-01	046715-01	046716-01	046717-01		
Sampling Date	–	01/08/14	01/08/14	01/08/14	01/08/14	01/08/14	01/08/14		
Aluminum	3	9,600	9,300	9,800	9,100	9,100	10,000	SB	33,000
Barium	0.1	74	78	91	79	69	73	300 or SB	15-600
Beryllium	0.1	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	0.16 or SB	0-1.75
Cadmium	0.2	1.0	0.8	1.0	0.7	0.9	0.6	1 or SB	0.1-1
Calcium	20	5,900	6,000	7,500	9,200	13,000	4,800	SB	130-35,000*
Chromium	0.4	**15**	**15**	**16**	**14**	**17**	**14**	10 or SB	1.5-40*
Cobalt	1	7.0	7.0	7.0	6.0	6.0	5.0	30 or SB	2.5-60*
Copper	0.6	**150**	**120**	**130**	**95**	**150**	**59**	25 or SB	1-50
Iron	1	**23,000**	23,000	**23,000**	**21,000**	**23,000**	**23,000**	2,000 or SB	2,000-550,000
Lead	2	330	220	310	210	380	150	SB**	**
Magnesium	5	3,000	2,900	3,800	4,000	**5,100**	2,800	SB	100-5,000
Manganese	0.5	450	420	400	400	420	400	SB	50-5,000
Molybdenum	1	2.0	2.0	3.0	1.0	2.0	2.0	NV	NV
Nickel	1	**17**	**16**	**18**	**16**	**19**	**14**	13 or SB	0.5-25
Phosphorus	6	730	750	770	650	810	680	NV	NV
Potassium	100	1,000	1,300	1,400	1,200	1,400	1,100	SB	8500-43,000*
Silver	1	<	1.0	<	<	<	<	SB	NV
Sodium	10	81	95	72	74	89	48	SB	6,000-8,000
Thallium	6	<	<	<	<	<	<	SB	NV
Vanadium	0.5	22	21	22	19	20	23	150 or SB	1-300
Zinc	0.5	**290**	**220**	**300**	**240**	**410**	**170**	20 or SB	9-50

NOTES:

<	Less than laboratory's detection limits	SB	Site Background		
NYSDEC	New York State Department of Environmental Conservation	mg/kg	ppm	NV	No Value
Bold	values indicate exceedance of Recommended Soil Cleanup Objectives	MDL	Method Detection Limit		
Analysis conducted by Philip Analytical Services Corporation, New York State ELAP ID#10756		*	New York State Background		

** Background levels for lead vary widely. Undeveloped, rural areas may range from 4-61 ppm, Metropolitan or suburban areas or near highways may range from 200-500 ppm

TAGM 4046 NYSDEC Technical and Administrative Guidance Memorandum 4046, "Determination of Soil Cleanup Objectives and Cleanup Levels" revised January 24, 1994, Recommended Soil Cleanup Objectives

Table 1 Metals Analytical Results in Soil – Off-Site Residential Sampling

PARAMETER (ppm)	MDL	OS01-19	OS01-20	OS01-20 Duplicate	OS01-21	OS01-22	NYSDEC-TAGM 4046	
Depth (m)	–	0-0.05	0-0.05	0-0.05	0-0.05	0-0.05	Cleanup Objectives	Eastern USA Background
Address	-	3244 Walden	3244 Walden	3244 Walden	3248 Walden	3246 Walden		
Location	-	Backyard	Front Lawn	Front Lawn	Front lawn (behind 3246 Walden)	Front Lawn		
Lab ID Number	–	046718-01	046719-01	046719-01	046720-01	046721-01		
Sampling Date	–	01/08/14	01/08/14	01/08/14	01/08/14	01/08/14		
Aluminum	3	8,500	6,800	7,100	6,100	5,200	SB	33,000
Barium	0.1	100	85	86	61	130	300 or SB	15-600
Beryllium	0.1	**0.5**	**0.4**	**0.4**	**0.3**	**0.4**	0.16 or SB	0-1.75
Cadmium	0.2	**3.4**	**2.9**	**2.5**	**1.5**	**4.8**	1 or SB	0.1-1
Calcium	20	21,000	13,000	14,000	8,000	31,000	SB	130-35,000*
Chromium	0.4	**45**	**31**	**34**	**14**	**39**	10 or SB	1.5-40*
Cobalt	1	6.0	6.0	6.0	3.0	5.0	30 or SB	2.5-60*
Copper	0.6	**760**	**910**	**940**	**230**	**2,500**	25 or SB	1-50
Iron	1	**29,000**	**19,000**	**19,000**	**14,000**	21,000	2,000 or SB	2,000-550,000
Lead	2	**1,100**	**1,300**	**1,400**	**740**	**5,300**	SB**	**
Magnesium	5	**5,400**	4,100	4,100	2,700	6,500	SB	100-5,000
Manganese	0.5	450	350	370	290	460	SB	50-5,000
Molybdenum	1	3.0	2.0	2.0	2.0	4.0	NV	NV
Nickel	1	3.0	**27**	**26**	**16**	**48**	13 or SB	0.5-25
Phosphorus	6	1,800	1,200	1,200	1,300	1,600	NV	NV
Potassium	100	1,200	940	980	680	940	SB	8500-43,000*
Silver	1	<	<	<	<	2.6	SB	NV
Sodium	10	760	630	640	53	220	SB	6,000-8,000
Thallium	6	<	<	<	<	<	SB	NV
Vanadium	0.5	20	18	18	16	17	150 or SB	1-300
Zinc	0.5	**1,100**	**1,300**	**1,300**	**540**	**3,500**	20 or SB	9-50

NOTES:

<	Less than laboratory's detection limits	SB	Site Background		
NYSDEC	New York State Department of Environmental Conservation	mg/kg	ppm	NV	No Value
Bold	values indicate exceedance of Recommended Soil Cleanup Objectives	MDL	Method Detection Limit		
Analysis conducted by Philip Analytical Services Corporation, New York State ELAP ID#10756		*	New York State Background		

** Background levels for lead vary widely. Undeveloped, rural areas may range from 4-61 ppm, Metropolitan or suburban areas or near highways may range from 200-500 ppm

TAGM 4046 NYSDEC Technical and Administrative Guidance Memorandum 4046, "Determination of Soil Cleanup Objectives and Cleanup Levels" revised January 24, 1994, Recommended Soil Cleanup Objectives

Table 1 Metals Analytical Results in Soil – Off-Site Residential Sampling

PARAMETER (ppm)	MDL	OS01-23	OS01-24	D22224 (NYSDEC)	OS01-25	OS01-26	OS01-27	NYSDEC-TAGM 4046	
Depth (m)	-	0-0.05	0-0.05	0-0.05	0-0.05	0-0.05	0-0.05	Cleanup Objectives	Eastern USA Background
Address	-	3232 Walden	3232 Walden	3232 Walden	3236 Walden	NA	44 Princeton		
Location	-	Between 3232 and 3236	Front lawn between 3232 and 3236	Front lawn between 3232 and 3236	Backyard under swing	Right of way Princeton and Nardin	Front lawn		
Lab ID Number	-	04701-01	047042-01		047043-01	047044-01	047045-01		
Sampling Date	-	01/08/15	01/08/15	01/08/15	01/08/15	01/08/15	01/08/15		
Aluminum	3	9,400	6,800	8,660	5,000	7,800	7,600	SB	33,000
Barium	0.1	90	94	100	77	62	70	300 or SB	15-600
Beryllium	0.1	**0.6**	**0.4**	**0.48**	**0.3**	**0.4**	**0.4**	0.16 or SB	0-1.75
Cadmium	0.2	**2.9**	**2.4**	**3.0**	**1.1**	0.6	0.4	1 or SB	0.1-1
Calcium	20	8,300	23,000	22,900	28,000	28,000	8,600	SB	130-35,000*
Chromium	0.4	**20**	**20**	**21.5**	**16**	**15**	**15**	10 or SB	1.5-40*
Cobalt	1	9.0	6.0	10.9	4.0	6.0	6.0	30 or SB	2.5-60*
Copper	0.6	**2,800**	580	**9,544**	**460**	**45**	**31**	25 or SB	1-50
Iron	1	**26,000**	**19,000**	**23,500**	**14,000**	**18,000**	**19,000**	2,000 or SB	2,000-550,000
Lead	2	**3,500**	**1,100**	995	**830**	150	73	SB**	**
Magnesium	5	3,200	3,700.	4,030	**11,000**	**6,600**	4,400	SB	100-5,000
Manganese	0.5	510	410	696	250	350	490	SB	50-5,000
Molybdenum	1	4.0	3.0	NA	<	<	1.0	NV	NV
Nickel	1	**58**	**26**	**28.3**	**20**	**16**	**17**	13 or SB	0.5-25
Phosphorus	6	1,300	1,400	NA	1,200	570	750	NV	NV
Potassium	100	1,300	1,100	1,310	680	1,100	1,200	SB	8500-43,000*
Silver	1	1.1	<	0.6	<	<	<	SB	NV
Sodium	10	190	580	652	89	120	64	SB	6,000-8,000
Thallium	6	<	<	1.4	<	<	<	SB	NV
Vanadium	0.5	24	19	21.6	14	19	18	150 or SB	1-300
Zinc	0.5	**3,800**	**1,200**	**1,490**	**760**	**150**	**120**	20 or SB	9-50

NOTES:

<	Less than laboratory's detection limits	SB	Site Background	NA	Not Analyzed
NYSDEC	New York State Department of Environmental Conservation	mg/kg	ppm	NV	No Value
Bold	values indicate exceedance of Recommended Soil Cleanup Objectives	MDL	Method Detection Limit		

Analysis conducted by Philip Analytical Services Corporation, New York State ELAP ID#10756 * New York State Background ** Background levels for lead vary widely. Undeveloped, rural areas may range from 4-61 ppm, Metropolitan or suburban areas or near highways may range from 200-500 ppm TAGM 4046 NYSDEC Technical and Administrative Guidance Memorandum 4046, "Determination of Soil Cleanup Objectives and Cleanup Levels" revised January 24, 1994, Recommended Soil Cleanup Objectives

Table 1 Metals Analytical Results in Soil – Off-Site Residential Sampling

PARAMETER (ppm)	MDL	OS01-28	D22228 (NYSDEC)	BS01-1	BS01-2	NYSDEC-TAGM 4046	
Depth (m)	-	0-0.05		0-0.05	0-0.05	Cleanup Objectives	Eastern USA Background
Address	-	50 Princeton	50 Princeton	Fireman's Park	181 Lincoln		
Location	-	Front lawn	Front lawn	North side of park	East of soccer field		
Lab ID Number	-	047046-01		047047-01	047048-01		
Sampling Date	-	01/08/15	01/08/15	01/08/15	01/08/15		
Aluminum	3	8,400	9,900	9,300	11,000	SB	33,000
Barium	0.1	67	71.4	73	65	300 or SB	15-600
Beryllium	0.1	**0.5**	**0.5**	**0.6**	**0.6**	0.16 or SB	0-1.75
Cadmium	0.2	**1.3**	**1.3**	0.9	<	1 or SB	0.1-1
Calcium	20	12,000	13,200	9,300	2,800	SB	130-35,000*
Chromium	0.4	**46**	**45.4**	**14**	**13**	10 or SB	1.5-40*
Cobalt	1	7.0	7.4	7.0	7.0	30 or SB	2.5-60*
Copper	0.6	**41**	**40.9**	19	20	25 or SB	1-50
Iron	1	**21,000**	**19,100**	**21,000**	**22,000**	2,000 or SB	2,000-550,000
Lead	2	80	77.4	41	45	SB**	**
Magnesium	5	6,000	7,580	4,200	2,900	SB	100-5,000
Manganese	0.5	320	319	810	300	SB	50-5,000
Molybdenum	1	1.0	NA	1.0	<	NV	NV
Nickel	1	**22**	**20.5**	**15**	**17**	13 or SB	0.5-25
Phosphorus	6	840	NA	690	390	NV	NV
Potassium	100	1,200	1,440	1,000	840	SB	8500-43,000*
Silver	1	<	0.5	<	<	SB	NV
Sodium	10	67	94.2	82	34	SB	6,000-8,000
Thallium	6	<	0.56	<	<	SB	NV
Vanadium	0.5	19	20.1	22	23	150 or SB	1-300
Zinc	0.5	**130**	**128**	**92**	**79**	20 or SB	9-50

NOTES:

<	Less than laboratory's detection limits	SB	Site Background	NA	Not Analyzed
NYSDEC	New York State Department of Environmental Conservation	mg/kg	ppm	NV	No Value
Bold	values indicate exceedance of Recommended Soil Cleanup Objectives	MDL	Method Detection Limit		
Analysis conducted by Philip Analytical Services Corporation, New York State ELAP ID#10756		*	New York State Background		

** Background levels for lead vary widely. Undeveloped, rural areas may range from 4-61 ppm, Metropolitan or suburban areas or near highways may range from 200-500 ppm

TAGM 4046 NYSDEC Technical and Administrative Guidance Memorandum 4046, "Determination of Soil Cleanup Objectives and Cleanup Levels" revised January 24, 1994, Recommended Soil Cleanup Objectives

5.1.4 3224 Walden Avenue

Five soil samples were collected from 3224 Walden Avenue in the current study (OS01-1 to OS01-5). In addition, one soil sample was collected from the front lawn of this property in August 2000 (OS00-3). Further, in June 1999, two samples were obtained from the grassed area between the sidewalk and curb, in front of the property (JAR7 and JAR8).

Three of the current samples were located in the backyard. OS01-1 was obtained from a former tomato garden, while OS01-2 and OS01-3 were collected from existing vegetable and tomato gardens, respectively. The lead concentrations in these three samples were 310 ppm, 170 ppm, and 320 ppm, respectively. These results are all below the TAGM 4046 Background Value of 500 ppm.

Soil sample OS01-5 was adjacent to the west of the front steps of Unit 1. The lead concentration of 470 ppm was below the TAGM 4046 Background Value. However, the other samples in the front lawn exceeded the Background Value for lead (OS01-4 = 730 ppm and OS00-3 = 800 ppm). In addition, samples JAR7 and JAR8, which were collected from the grassed area in front of this property, contained lead concentrations of 1,400 ppm and 890 ppm, respectively.

5.1.5 3232 Walden Avenue

At 3232 Walden Avenue, two soil samples were collected near the property boundary with 3236 Walden Avenue, one of which was situated between the two houses (OS01-23) and the other was located in the front lawn area (OS01-24). Another sample was obtained from the centre of the front lawn in August 2000 (OS00-2). The lead concentrations in all three of these samples (1,100 to 3,500 ppm) exceeded the TAGM 4046 Background Value of 500 ppm. A soil sample from the grass area between the sidewalk and curb, in front of this property, contained a lead concentration (JAR9 = 600 ppm) slight above the Background Value.

5.1.6 3236 Walden Avenue

In addition to the above-noted two samples located near the property boundary with 3232 Walden Avenue, one sample was collected in the backyard of 3236 Walden Avenue (OS01-25). The lead concentration of this sample was 830 ppm, which exceeded the TAGM 4046 Background Value of 500 ppm. In June 1999, two soil samples were collected from the grassed area between the sidewalk and curb, in front of this property. One sample exceeded the Background Value for lead (JAR10 = 1,100 ppm) and the other was slightly below this value (JAR11 = 450 ppm).

5.1.7 3242 Walden Avenue

No soil samples were collected from 3242 Walden Avenue during the current investigation; however, in May 2000, one sample was obtained from the front lawn to the southwest of the townhouse (OS00-1) and contained a lead concentration of 4,400 ppm. A soil sample was also collected in June 1999, within the grassed road allowance area in front of this property (JAR12). The lead concentration of 510 ppm was marginally above the TAGM 4046 Background Value.

5.1.8 3244 Walden Avenue

Two soil samples were collected from 3244 Walden Avenue. Both the sample located in the backyard (OS01-19) and the front lawn (OS01-20) contained lead concentrations that exceeded the TAGM 4046 Background Value. The lead concentrations in these two samples were 1,100 ppm and 1,300 ppm, respectively.

5.1.9 3246 Walden Avenue

A soil sample collected from the front lawn of 3244 Walden Avenue (OS01-22) contained a lead concentration (5,300 ppm) well in excess of the TAGM 4046 Background Value.

5.1.10 3248 Walden Avenue

The house at 3248 Walden Avenue is located north of the 3246 Walden Avenue property (see Figure 2). A soil sample was collected from the front lawn of this property (i.e. between the two houses). The concentration of lead in this sample was 740 ppm, which exceeded the TAGM 4046 Background Value.

5.1.11 10 West Third Street

The property at 10 West Third Street is adjacent to the north of 3224 Walden Avenue. Three soil samples were collected from the front lawn area (OS01-15 to OS01-17) and one was obtained from the backyard (OS01-18). The concentrations of lead in all four of these samples were below the TAGM 4046 Background Value (150 ppm to 380 ppm).

5.1.12 27 West Third Street

27 West Third Street is situated two properties to the north of 3232 Walden Avenue. Two soil samples were collected from the backyard, one of which was located in the tomato garden to the east of the shed (OS01-12). The lead concentration of this sample (200 ppm) was below the TAGM 4046 Background Value. The other sample in the backyard (OS01-13) and the sample collected from the front lawn (OS01-14) contained lead concentrations of 330 ppm and 220 ppm, respectively.

5.1.13 26 West Second Street

Two soil samples were collected from the south side of 26 West Second Street (OS01-8 and OS01-9). The property at 3236 Walden Avenue is adjacent to the

south of this sampling area. The lead concentrations in these two samples (3,100 ppm and 960 ppm, respectively) exceeded the TAGM 4046 Background Value. Two other soil samples collected from the northwest (OS01-10 = 440 ppm) and northeast (OS01-11 = 170 ppm) portion of this property contained lead concentrations below the TAGM 4046 Background Value.

5.1.14 23 West Second Street

Two soil samples were collected from 23 West Second Street, which is adjacent to the north of 3242 Walden Avenue. One sample was obtained from the north portion of the property (OS01-6) and one from the south end (OS01-7). The lead concentrations in these two samples were 640 ppm and 840 ppm, respectively, which exceeded the TAGM 4046 Background Value.

5.1.15 Fireman's Park and 181 Lincoln Street

NYSDEC and DOH selected two sampling locations for comparison as possible background samples. One of these samples was collected from the north end of Fireman's Park (BS01-1), which is located approximately 0.3 miles (0.5 kilometres) to the south of the subject property. The other sample (BS01-2) was collected at the Southeast Community Work Centre, which is approximately 0.68 miles (1.1 kilometres) to the northeast of the subject property. The lead concentrations in both samples were relatively low (41 ppm and 45 ppm, respectively).

5.1.16 Summary of Soil Results

In summary, the analytical data has shown that elevated levels of metals exist at selected off-site properties near the subject property. A number of metals, including lead, exceeded the TAGM 4046 Cleanup Objectives or Eastern USA/New York State Background Values (for metals where Cleanup Objectives have not been established). The analytical results indicate that the properties sampled to the northwest of the subject property (i.e. on Princeton Avenue) contained relatively low lead concentrations, below the TAGM 4046 Background Values. As shown on Figure 2, the concentrations of the lead that exceeded the TAGM 4046 Background Values appear to be present primarily along the north side of Walden Avenue, moving towards the east to northeast from about the centre of the 3241 Walden Avenue property. Most of the soil samples along Walden Avenue (between 3224 to 3248 Walden Avenue) exceeded the Background Value for lead. At the lands directly north of the Walden Avenue properties, the lead concentrations were generally below the Background Value. The exceptions were at the two properties on West Second Street (i.e. towards the northeast).

5.2 QA/QC

As mentioned previously, NYSDEC collected two duplicate soil samples at OS01-24 and OS01-28 for analyses at a separate laboratory. NYSDEC submitted the samples to Severn-Trent Laboratories (STL). The lead concentrations in the STL

results were within 90 to 97% of the PASC results. PASC conducted a laboratory duplicate analyses of OS01-20. As shown on Table 2, the analytical results of the duplicate sample were comparable to the original sample, with the variability ranging between 86 and 110 %. Further, the results of PASC's internal QA/QC program (i.e. method blanks, spiked blanks recovery, matrix spike recoveries, and matrix spike duplicate recoveries) were considered representative. PASC's QA/QC Category A report, which includes all the quality control back-up documentation and raw data is included in Appendix C.

6. LIMITATIONS AND CONCLUSIONS

6.1 Limitations

This Off-Site Surficial Soil Investigation focused on identifying the metals concentrations in surficial soils at selected neighbouring properties near 3241 Walden Avenue in Depew, New York.

The conclusions drawn from the Off-Site Surficial Soil Investigation were based on information at selected observation and sampling locations on August 14 and 15, 2001, and previous off-site samples collected in 1999 and 2000. In addition, the conclusions were based on the parameters that were chemically analyzed. Conditions between and beyond these locations may become apparent, during future investigations, which could not be detected or anticipated at the time of this study. The off-site residential properties and sample locations were selected by the New York State Department of Environmental Conservation and New York State Department of Health. The testing program was based on limited information provided by persons knowledgeable about the past and current activities on the site. As such, XCG cannot be held responsible for environmental conditions that were not apparent from the available information.

The scope of this report is limited to the matters expressly covered. This report was prepared for the sole benefit of Norampac, Inc. and may not be relied upon by any other person or entity without written authorization of XCG Consultants Ltd. As such, any use or reuse of this document (or the findings, conclusions, or recommendations represented herein), by parties other than Norampac, Inc., is at the sole risk of those parties.

6.2 Conclusions

The overall conclusion from this Off-Site Surficial Soil Investigation is that surficial soils at residential properties near 3241 Walden Avenue contain metals concentrations, including lead, that exceeded the TAGM 4046 Cleanup Objectives or Eastern USA/New York State Background Values. The higher lead concentrations were generally found to be present at properties directly across the east portion of the subject property, along the north side of Walden Avenue. The radioactivity measured by the Geiger counter indicates that this is not an issue of concern.

Supporting conclusions are as follows:

1. With respect to analytical results:
    - At the three soil sampling locations conducted on Princeton Avenue, the concentrations of lead were relatively low (73 ppm to 150 ppm).
    - Soil samples were collected at seven properties located on Walden Avenue (No.s 3224, 3232, 3236, 3242, 3244, 3246, and 3248). With the exception of the backyard samples at 3224 Walden Avenue (most westerly of these

seven properties), the concentrations of lead in both the backyards and front lawns exceeded the TAGM 4046 Background Value of 500 ppm. The elevated lead concentrations ranged between 730 ppm and 5,300 ppm.

- Soil samples were collected at four properties on West Second and West Third Streets, which are directly north of the Walden Avenue properties. The lead concentrations were relatively low at the westerly properties and exceedances were detected on the properties to the east. At 26 West Second Street, the lead concentrations in the samples collected at the south side of the property (960 ppm and 3,100 ppm) exceeded the TAGM 4046 Background Value (500 ppm), while the samples at the north side were below Background Value. At the property directly across the street to the east, 23 West Second Street, lead concentrations at both the north side (640 ppm) and south side (840 ppm) exceeded the TAGM 4046 Background Value.
- The radioactivity measured in all soil samples at the residential properties was relatively low, ranging from 0 to 0.1 millirems/hr. These are below the exposure limits identified by 6NYCRR Part 380, Subpart 380-5.

APPENDIX A

LABORATORY CERTIFICATES OF ANALYSES

CHAIN OF CUSTODY

ANALYTICAL SERVICES
5555 North Service Road
Burlington, Ontario L7L 5H7

Toll Free: 1-800-668-0639
Tel: (905) 332-8788
Fax: (905) 332-9169

CLIENT INFORMATION

Company Name: XCG Consultants Ltd
Project Manager: Basil Wang
Address: 2620 Bristol Circle
Oakville, Ont. L6H 6Z7
Phone #: 905-829-8880 Fax #: 905-829-8890
Sampled by: Basil Wang

MB-046699

ANALYSIS REQUESTED

Philip Use Only	Field Sample ID	# Bottles	Matrix	Date	Time	ICAP Metals	Level of contamination (low, high, unknown)
046700	OS01-1	1	Soil	Aug 14/01	11:00AM	✓	250.AG
01	OS01-2	"	"	"	11:15	✓	
02	OS01-3	"	"	"	11:30	✓	
03	OS01-4	"	"	"	11:45	✓	
04	OS01-5	"	"	"	11:55	✓	
05	OS01-6	"	"	"	12:10	✓	
06	OS01-7	"	"	"	12:15	✓	
07	OS01-8	"	"	"	12:30	✓	
08	OS01-9	"	"	"	12:37	✓	
09	OS01-10	"	"	"	12:43	✓	

TAT (Turnaround Time)

RUSH TAT MUST HAVE PRIOR APPROVAL

*some exceptions apply please contact Lab

- STD 10 Business Days ☑
- RUSH 5 Business Days ☐
- RUSH 2 Business Days ☐
- RUSH 1 Business Days ☐
- Other Business Days ____

PROJECT INFORMATION

Project #: 3-9917-02-08
Site: Depew, NY
PO#:
Philip Quote #: See Aida Blythe
Philip Project #:
Philip Contact: Aida Blythe

SPECIAL DETECTION LIMITS

MISA ☐

SPECIAL REQUIREMENTS / REGULATIONS

New York TAGM 4046

REMARKS

Client Signature: [signature]
Affiliation: XCG
Date/Time: August 15, 2001 9:00 AM

Received By: [signature]
Affiliation:
Date/Time: 8-15-9:15

Rec'd By: ____
Date/Time ____

WHITE - LAB / YELLOW - CLIENT

SEE OVER FOR COMPLETION & SAMPLING INSTRUCTIONS

CHAIN OF CUSTODY

ANALYTICAL SERVICES
5555 North Service Road
Burlington, Ontario L7L 5H7

Toll Free: 1-800-668-0639
Tel: (905) 332-8788
Fax: (905) 332-9169

CLIENT INFORMATION

Company Name: XCG Consultants Ltd
Project Manager: Basil Wong
Address: 2620 Bristol Circle
Oakville, Ont. L6H 6Z7
Phone #: 905-829-8850 Fax #: 905-829-8890
Sampled by: Basil Wong

ANALYSIS REQUESTED

Philip Use Only	Field Sample ID	# Bottles	Matrix	Date	Time	ICAP metals	250 AG	Level of contamination (low, high, unknown)
046710	OSO1-11	1	Soil	Jan 14,01	12:50	✓	✓	
11	OSO1-12	"	"	"	2:15	✓	✓	
12	OSO1-13	"	"	"	2:20	✓	✓	
13	OSO1-14	"	"	"	2:28	✓	✓	
14	OSO1-15	"	"	"	2:40	✓	✓	
15	OSO1-16	"	"	"	2:45	✓	✓	
16	OSO1-17	"	"	"	3:00	✓	✓	
17	OSO1-18	"	"	"	3:06	✓	✓	
18	OSO1-19	"	"	"	3:25	✓	✓	
19	OSO1-20	"	"	"	3:30	✓	✓	

TAT (Turnaround Time)

RUSH TAT MUST HAVE PRIOR APPROVAL

*some exceptions apply please contact Lab

- STD 10 Business Days ☑
- RUSH 5 Business Days ☐
- RUSH 2 Business Days ☐
- RUSH 1 Business Days ☐
- Other Business Days ____

PROJECT INFORMATION

Project #: 3-997-02-08
Site: Dupew, NY
PO#:
Philip Quote #:
Philip Project #:
Philip Contact: Anita Blythe

SPECIAL DETECTION LIMITS

MISA ☐

SPECIAL REQUIREMENTS / REGULATIONS

New York TAGM 4046

REMARKS

Client Signature:
Affiliation: XCG
Date/Time: January 15, 2001 9:00 AM

Received By:
Affiliation:
Date/Time: 5-15-1 10:15

Rec'd By:
Date/Time

WHITE - LAB / YELLOW - CLIENT

SEE OVER FOR COMPLETION & SAMPLING INSTRUCTIONS

CHAIN OF CUSTODY

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5555 North Service Road
Burlington, Ontario L7L 5H7

Toll Free: 1-800-668-0639
Tel: (905) 332-8788
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CLIENT INFORMATION

Company Name: KCG Consultants Ltd.
Project Manager: Basil Wong
Address: 2620 Bristol Circle
Oakville, Ont., L6H 6Z7
Phone #: 905-829-8880 Fax #: 905-829-8890
Sampled by: Basil Wong

ANALYSIS REQUESTED

Philip Use Only	Field Sample ID	# Bottles	Matrix	Date	Time	ICAP Metals	2 SOAGs	Level of contamination (low, high, unknown)
046720	0501-21	1	Soil	Aug 14, 01	3:40	✓	✓	
21	0501-22	"	"	"	3:45		↓	

TAT (Turnaround Time)

RUSH TAT MUST HAVE PRIOR APPROVAL

*some exceptions apply please contact Lab

- STD 10 Business Days ☑
- RUSH 5 Business Days ☐
- RUSH 2 Business Days ☐
- RUSH 1 Business Days ☐
- Other Business Days ____

PROJECT INFORMATION

Project #: 3-997-02-08
Site: Depew, NY
PO#:
Philip Quote #:
Philip Project #:
Philip Contact: Audra Bly the

SPECIAL DETECTION LIMITS

MISA ☐

SPECIAL REQUIREMENTS / REGULATIONS

REMARKS

Client Signature:
Affiliation: KCG
Date/Time: August 15, 2001 9:00 AM

Received By: S Jones
Affiliation:
Date/Time: 8-15-01 9:15

Rec'd By:
Date/Time

WHITE - LAB / YELLOW - CLIENT

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Phone #: 905-829-8880 Fax #: 905-829-8816
Sampled by:

MB - 47040

ANALYSIS REQUESTED

Philip Use Only	Field Sample ID	# Bottles	Matrix	Date	Time	TCAP metals	250 AG	Level of contamination (low, high, unknown)
41	OS01-23	1	Soil	Aug 15,01	10:10	✓		
42	OS01-24	"	"	"	10:25	✓		
43	OS1-25	"	"	"	10:40	✓		
44	OS01-26	"	"	"	11:00	✓		
45	OS01-27	"	"	"	11:22	✓		
46	OS01-28	"	"	"	11:35	✓		
47	BS01-1	"	"	"	9:40	✓		
48	BS01-2	"	"	"	12:05	✓		

TAT (Turnaround Time)

RUSH TAT MUST HAVE PRIOR APPROVAL

*some exceptions apply please contact Lab

- STD 10 Business Days ☑
- RUSH 5 Business Days ☐
- RUSH 2 Business Days ☐
- RUSH 1 Business Days ☐
- Other Business Days ____

PROJECT INFORMATION

Project #: 3-997-02-05
Site: Depew, NY
PO#:
Philip Quote #:
Philip Project #:
Philip Contact: Andra Blythe

SPECIAL DETECTION LIMITS

MISA ☐

SPECIAL REQUIREMENTS / REGULATIONS

New York TAGM 4046

REMARKS

Client Signature:
Affiliation: KCG
Date/Time: Aug 15, 01 1:50 PM

Received By:
Affiliation:
Date/Time:

Rec'd By:
Date/Time

WHITE - LAB / YELLOW - CLIENT

SEE OVER FOR COMPLETION & SAMPLING INSTRUCTIONS

PSC

ANALYTICAL SERVICES

Certificate of Analysis

CLIENT INFORMATION

Attention:	Basil Wong
Client Name:	XCG Consultants Ltd.
Project:	3-997-02-08
Project Desc:	Depew, NY
Address:	2620 Bristol Circle Suite 300 Oakville, Ontario L6H 6Z7
Fax Number:	829-8890 #62
Phone Number:	829-8880

LABORATORY INFORMATION

Contact:	Ada Blythe, B.Sc., C.Chem.
Project:	AN010997
Date Received:	15-Aug-2001
Date Reported:	23-Aug-2001
Submission No.:	1H0539
Sample No.:	046699-046721

NOTES: *"-" = not analysed '<' = less than Method Detection Limit (MDL) 'NA' = no data available*
LOQ can be determined for all analytes by multiplying the appropriate MDL X 3.33
Blank correction is only performed on oil and grease, BTEX, total purgeable hydrocarbons and VOC analyses when Canadian methods are utilized.
Solids data is based on dry weight except for biota analyses.
Organic analyses are not corrected for extraction recovery standards except for isotope dilution methods, (i.e. CARB 429 PAH, all PCDD/F and DBD/DBF analyses)

Methods used by PSC Analytical Services are based upon those found in 'Standard Methods for the Examination of Water and Wastewater', Nineteenth Edition. Other methods are based on the principles of MISA or EPA methodologies. New York State: ELAP Identification Number 10756.

All work recorded herein has been done in accordance with normal professional standards using accepted testing methodologies, quality assurance and quality control procedures except where otherwise agreed to by the client and testing company in writing. Any and all use of these test results shall be limited to the actual cost of the pertinent analysis done. There is no other warranty expressed or implied. Your samples will be retained at PSC Analytical Services for a period of three weeks from receipt of data or as per contract.

COMMENTS:

(1) Sample concentration(s) too high to differentiate spike

Certified by:

5555 North Service Road, Burlington, Ontario, Canada L7L 5H7 Tel: (905) 332-0778 Fax: (905) 332-0169

			Method	Blank	%	Blank Spike	%	
Client ID:			Blank	Spike	Recovery	Duplicate	Recovery	OS01-1
Lab No.:			046699 01	046699 01	046699 01	046699 01	046699 01	046700 01
Date Sampled:			14-Aug-2001	14-Aug-2001	14-Aug-2001	14-Aug-2001	14-Aug-2001	14-Aug-2001
Component	**MDL**	**Units**						
Metals via SW846 Method 6010								
Aluminum	3	mg/kg	<	200	100	210	100	10000
Barium	0.1	"	<	100	100	100	100	81
Beryllium	0.1	"	<	50	100	52	110	0.5
Cadmium	0.2	"	0.3	49	98	52	100	1.2
Calcium	20	"	<	1100	100	1100	110	12000
Chromium	0.4	"	<	100	100	110	110	18
Cobalt	1	"	<	100	100	110	110	7.0
Copper	0.6	"	<	100	100	110	100	200
Iron	1	"	4.0	1200	100	1300	110	24000
Lead	2	"	<	100	100	110	100	310
Magnesium	5	"	<	1100	100	1200	110	4200
Manganese	0.5	"	<	100	100	110	100	420
Molybdenum	1	"	<	54	110	57	110	2.0
Nickel	1	"	<	51	100	54	110	21
Phosphorus	6	"	<	500	99	520	100	1000
Potassium	100	"	<	1000	99	1100	100	1700
Silver	1.0	"	<	51	100	53	100	<
Sodium	10	"	<	980	99	1000	100	84
Thallium	6	"	<	94	95	100	100	<
Vanadium	0.5	"	<	50	99	52	100	23
Zinc	0.5	"	<	200	100	210	100	380

Client ID:			OS01-2	OS01-3	OS01-4	OS01-5	OS01-6	OS01-7
Lab No.:			046701 01	046702 01	046703 01	046704 01	046705 01	046706 01
Date Sampled:			14-Aug-2001	14-Aug-2001	14-Aug-2001	14-Aug-2001	14-Aug-2001	14-Aug-2001
Component	**MDL**	**Units**						
Metals via SW846 Method 6010								
Aluminum	3	mg/kg	9800	11000	9500	12000	8700	7200
Barium	0.1	"	80	84	76	93	73	65
Beryllium	0.1	"	0.5	0.6	0.5	0.6	0.5	0.4
Cadmium	0.2	"	1.0	2.3	2.0	1.3	1.6	2.1
Calcium	20	"	8400	11000	14000	8200	16000	8300
Chromium	0.4	"	15	23	22	20	23	21
Cobalt	1	"	6.0	7.0	7.0	8.0	6.0	6.0
Copper	0.6	"	77	160	420	280	270	490
Iron	1	"	22000	26000	23000	28000	22000	19000
Lead	2	"	170	320	730	470	640	840
Magnesium	5	"	3800	4600	5100	4200	7100	3000
Manganese	0.5	"	390	540	470	580	360	640
Molybdenum	1	"	2.0	2.0	2.0	2.0	2.0	2.0
Nickel	1	"	15	43	23	24	23	23
Phosphorus	6	"	940	1100	870	710	890	760
Potassium	100	"	1300	1400	1400	1700	1600	800
Silver	1.0	"	<	<	<	<	<	<
Sodium	10	"	64	81	450	97	55	150
Thallium	6	"	<	<	<	<	<	<
Vanadium	0.5	"	21	24	20	25	20	18
Zinc	0.5	"	300	380	940	650	540	840

Client ID:			OS01-8	OS01-9	OS01-10	OS01-11	OS01-12	OS01-13
Lab No.:			046707 01	046708 01	046709 01	046710 01	046711 01	046712 01
Date Sampled:			14-Aug-2001	14-Aug-2001	14-Aug-2001	14-Aug-2001	14-Aug-2001	14-Aug-2001
Component	**MDL**	**Units**						
Metals via SW846 Method 6010								
Aluminum	3	mg/kg	8200	11000	11000	10000	7500	9600
Barium	0.1	"	150	97	80	81	63	74
Beryllium	0.1	"	0.5	0.6	0.6	0.6	0.3	0.5
Cadmium	0.2	"	3.1	1.7	1.3	0.9	0.9	1.0
Calcium	20	"	11000	7600	8500	10000	17000	5900
Chromium	0.4	"	23	20	33	21	13	15
Cobalt	1	"	7.0	9.0	7.0	7.0	6.0	7.0
Copper	0.6	"	1800	370	230	99	150	150
Iron	1	"	24000	26000	25000	23000	17000	23000
Lead	2	"	3100	960	440	170	200	330
Magnesium	5	"	2500	4000	4600	3500	8300	3000
Manganese	0.5	"	280	450	360	380	340	450
Molybdenum	1	"	3.0	2.0	2.0	2.0	1.0	2.0
Nickel	1	"	44	26	22	17	12	17
Phosphorus	6	"	1500	820	760	990	1100	730
Potassium	100	"	1100	1700	1300	1500	1700	1000
Silver	1.0	"	1.4	<	<	<	<	<
Sodium	10	"	140	120	48	37	98	81
Thallium	6	"	<	<	<	<	<	<
Vanadium	0.5	"	21	24	25	22	17	22
Zinc	0.5	"	2400	790	360	190	200	290

Client ID:			OS01-14	OS01-15	OS01-16	OS01-17	OS01-18	OS01-19
Lab No.:			046713 01	046714 01	046715 01	046716 01	046717 01	046718 01
Date Sampled:			14-Aug-2001	14-Aug-2001	14-Aug-2001	14-Aug-2001	14-Aug-2001	14-Aug-2001
Component	**MDL**	**Units**						
Metals via SW846 Method 6010								
Aluminum	3	mg/kg	9300	9800	9100	9100	10000	8500
Barium	0.1	"	78	91	79	69	73	100
Beryllium	0.1	"	0.5	0.5	0.5	0.5	0.5	0.5
Cadmium	0.2	"	0.8	1.0	0.7	0.9	0.6	3.4
Calcium	20	"	6000	7500	9200	13000	4800	21000
Chromium	0.4	"	15	16	14	17	14	45
Cobalt	1	"	7.0	7.0	6.0	6.0	5.0	6.0
Copper	0.6	"	120	130	95	150	59	760
Iron	1	"	23000	23000	21000	23000	23000	29000
Lead	2	"	220	310	210	380	150	1100
Magnesium	5	"	2900	3800	4000	5100	2800	5400
Manganese	0.5	"	420	400	400	420	400	450
Molybdenum	1	"	2.0	3.0	1.0	2.0	2.0	3.0
Nickel	1	"	16	18	16	19	14	30
Phosphorus	6	"	750	770	650	810	680	1800
Potassium	100	"	1300	1400	1200	1400	1100	1200
Silver	1.0	"	1.0	<	<	<	<	<
Sodium	10	"	95	72	74	89	48	760
Thallium	6	"	<	<	<	<	<	<
Vanadium	0.5	"	21	22	19	20	23	20
Zinc	0.5	"	220	300	240	410	170	1100

Client ID:			OS01-20	OS01-20	OS01-20	OS01-20	OS01-20	OS01-20
Lab No.:			046719 01	046719 01	046719 01	046719 01	046719 01	046719 01
Date Sampled:			14-Aug-2001	14-Aug-2001	14-Aug-2001	14-Aug-2001	14-Aug-2001	14-Aug-2001
Component	**MDL**	**Units**		Duplicate	M. Spike	MS % Rec.	MS Dup	MSD % Rec.
Metals via SW846 Method 6010								
Aluminum	3	mg/kg	6800	7100	8900	970(1)	8500	800(1)
Barium	0.1	"	85	86	190	100	190	100
Beryllium	0.1	"	0.4	0.4	48	96	49	98
Cadmium	0.2	"	2.9	2.5	51	96	51	97
Calcium	20	"	13000	14000	14000	85	14000	76
Chromium	0.4	"	31	34	130	95	130	96
Cobalt	1	"	6.0	6.0	100	96	100	98
Copper	0.6	"	910	940	1000	81	1000	68
Iron	1	"	19000	19000	21000	170(1)	20000	120
Lead	2	"	1300	1400	1500	99	1500	110
Magnesium	5	"	4100	4100	5500	130(1)	5500	130
Manganese	0.5	"	350	370	440	85	450	89
Molybdenum	1	"	2.0	2.0	49	94	50	96
Nickel	1	"	27	26	73	93	76	99
Phosphorus	6	"	1200	1200	1500	69	1600	77
Potassium	100	"	940	980	2000	100	1900	97
Silver	1.0	"	<	<	49	97	49	97
Sodium	10	"	630	640	1600	96	1600	94
Thallium	6	"	<	<	87	87	94	94
Vanadium	0.5	"	18	18	67	99	68	100
Zinc	0.5	"	1300	1300	1500	91	1500	94

Client ID:			OS01-21	OS01-22
Lab No.:			046720 01	046721 01
Date Sampled:			14-Aug-2001	14-Aug-2001
Component	**MDL**	**Units**		
Metals via SW846 Method 6010				
Aluminum	3	mg/kg	6100	5200
Barium	0.1	"	61	130
Beryllium	0.1	"	0.3	0.4
Cadmium	0.2	"	1.5	4.8
Calcium	20	"	8000	31000
Chromium	0.4	"	14	39
Cobalt	1	"	3.0	5.0
Copper	0.6	"	230	2500
Iron	1	"	14000	21000
Lead	2	"	740	5300
Magnesium	5	"	2700	6500
Manganese	0.5	"	290	460
Molybdenum	1	"	2.0	4.0
Nickel	1	"	16	48
Phosphorus	6	"	1300	1600
Potassium	100	"	680	940
Silver	1.0	"	<	2.6
Sodium	10	"	53	220
Thallium	6	"	<	<
Vanadium	0.5	"	16	17
Zinc	0.5	"	540	3500

PASC - Summary of Analysis Pre. Dates

Batch Code:	0820SSG1	0820SSG2
Aluminum	046699 01	046719 01
	046700 01	046720 01
	046701 01	046721 01
	046702 01	
	046703 01	
	046704 01	
	046705 01	
	046706 01	
	046707 01	
	046708 01	
	046709 01	
	046710 01	
	046711 01	
	046712 01	
	046713 01	
	046714 01	
	046715 01	
	046716 01	
	046717 01	
	046718 01	
Date Analysed:	01/08/20	01/08/21
Date Prepared:	01/08/20	01/08/20

PSC
ANALYTICAL SERVICES

Certificate of Analysis

CLIENT INFORMATION

Attention:	Basil Wong
Client Name:	XCG Consultants Ltd.
Project:	3-997-02-08
Project Desc:	Depew, NY
Address:	2620 Bristol Circle Suite 300 Oakville, Ontario L6H 6Z7
Fax Number:	829-8890 #62
Phone Number:	829-8880

LABORATORY INFORMATION

Contact:	Ada Blythe, B.Sc., C.Chem.
Project:	AN010997
Date Received:	16-Aug-2001
Date Reported:	23-Aug-2001
Submission No.:	1H0581
Sample No.:	047040-047048

NOTES: *"-' = not analysed '<' = less than Method Detection Limit (MDL) 'NA' = no data available*
LOQ can be determined for all analytes by multiplying the appropriate MDL X 3.33
Blank correction is only performed on oil and grease, BTEX, total purgeable hydrocarbons and VOC analyses when Canadian methods are utilized.
Solids data is based on dry weight except for biota analyses.
Organic analyses are not corrected for extraction recovery standards except for isotope dilution methods, (i.e. CARB 429 PAH, all PCDD/F and DBD/DBF analyses)

Methods used by PSC Analytical Services are based upon those found in 'Standard Methods for the Examination of Water and Wastewater', Nineteenth Edition. Other methods are based on the principles of MISA or EPA methodologies. New York State: ELAP Identification Number 10756.

All work recorded herein has been done in accordance with normal professional standards using accepted testing methodologies, quality assurance and quality control procedures except where otherwise agreed to by the client and testing company in writing. Any and all use of these test results shall be limited to the actual cost of the pertinent analysis done. There is no other warranty expressed or implied. Your samples will be retained at PSC Analytical Services for a period of three weeks from receipt of data or as per contract.

COMMENTS:

Certified by:

5555 North Service Road Burlington Ontario Canada L7L 5H7 Tel (905) 332-0574 Fax (905) 332-9169

PASC - Certificate of Analysis

			Method	Blank	%	Blank Spike	%	
Client ID:			Blank	Spike	Recovery	Duplicate	Recovery	OSO1-23
Lab No.:			047040 01	047040 01	047040 01	047040 01	047040 01	047041 01
Date Sampled:			15-Aug-2001	15-Aug-2001	15-Aug-2001	15-Aug-2001	15-Aug-2001	15-Aug-2001
Component	**MDL**	**Units**						
Metals via SW846 Method 6010								
Aluminum	**3**	mg/kg	<	190	95	190	95	9400
Barium	**0.1**	"	<	95	95	96	96	90
Beryllium	**0.1**	"	<	47	95	48	95	0.6
Cadmium	**0.2**	"	0.2	47	94	47	94	2.9
Calcium	**20**	"	<	970	97	980	97	8300
Chromium	**0.4**	"	<	95	95	96	96	20
Cobalt	**1**	"	<	96	96	97	97	9.0
Copper	**0.6**	"	<	95	95	96	96	2800
Iron	**1**	"	1.0	1200	96	1200	97	26000
Lead	**2**	"	<	94	94	95	95	3500
Magnesium	**5**	"	<	1000	93	1000	94	3200
Manganese	**0.5**	"	<	95	95	96	96	510
Molybdenum	**1**	"	<	47	94	47	95	4.0
Nickel	**1**	"	<	48	95	50	99	58
Phosphorus	**6**	"	<	470	94	480	95	1300
Potassium	**100**	"	<	970	95	1000	98	1300
Silver	**1.0**	"	<	48	95	48	96	1.1
Sodium	**10**	"	<	930	94	940	95	190
Thallium	**6**	"	<	89	90	87	88	<
Vanadium	**0.5**	"	<	47	95	48	96	24
Zinc	**0.5**	"	<	190	93	190	94	3800

Client ID:			OSO1-24	OSO1-25	OSO1-26	OSO1-27	OSO1-28	BSO1-1
Lab No.:			047042 01	047043 01	047044 01	047045 01	047046 01	047047 01
Date Sampled:			15-Aug-2001	15-Aug-2001	15-Aug-2001	15-Aug-2001	15-Aug-2001	15-Aug-2001
Component	**MDL**	**Units**						
Metals via SW846 Method 6010								
Aluminum	3	mg/kg	6800	5000	7800	7600	8400	9300
Barium	0.1	"	94	77	62	70	67	73
Beryllium	0.1	"	0.4	0.3	0.4	0.4	0.5	0.6
Cadmium	0.2	"	2.4	1.1	0.6	0.4	1.3	0.9
Calcium	20	"	23000	28000	28000	8600	12000	9300
Chromium	0.4	"	20	16	15	15	46	14
Cobalt	1	"	6.0	4.0	6.0	6.0	7.0	7.0
Copper	0.6	"	580	460	45	31	41	19
Iron	1	"	19000	14000	18000	19000	21000	21000
Lead	2	"	1100	830	150	73	80	41
Magnesium	5	"	3700	11000	6600	4400	6000	4200
Manganese	0.5	"	410	250	350	490	320	810
Molybdenum	1	"	3.0	<	<	1.0	1.0	1.0
Nickel	1	"	26	20	16	17	22	15
Phosphorus	6	"	1400	1200	570	750	840	690
Potassium	100	"	1100	680	1100	1200	1200	1000
Silver	1.0	"	<	<	<	<	<	<
Sodium	10	"	580	89	120	64	67	82
Thallium	6	"	<	<	<	<	<	<
Vanadium	0.5	"	19	14	19	18	19	22
Zinc	0.5	"	1200	760	150	120	130	92

	Client ID:		BSO1-2
	Lab No.:		047048 01
	Date Sampled:		15-Aug-2001
Component	**MDL**	**Units**	
Metals via SW846 Method 6010			
Aluminum	3	mg/kg	11000
Barium	0.1	"	65
Beryllium	0.1	"	0.6
Cadmium	0.2	"	<
Calcium	20	"	2800
Chromium	0.4	"	13
Cobalt	1	"	7.0
Copper	0.6	"	20
Iron	1	"	22000
Lead	2	"	45
Magnesium	5	"	2900
Manganese	0.5	"	300
Molybdenum	1	"	<
Nickel	1	"	17
Phosphorus	6	"	390
Potassium	100	"	840
Silver	1.0	"	<
Sodium	10	"	34
Thallium	6	"	<
Vanadium	0.5	"	23
Zinc	0.5	"	79

PASC - Summary of Analysis Pre. Dates

Batch Code:	**0820SSG2**
Aluminum	047040 01
	047041 01
	047042 01
	047043 01
	047044 01
	047045 01
	047046 01
	047047 01
	047048 01
Date Analysed:	01/08/21
Date Prepared:	01/08/20

APPENDIX B

NYSDEC Soil Results

SAMPLING REPORT

Former N. L. Industries
Walden Avenue
Depew (V), Erie County
Site No. V 00353-9

October 2, 2001
By G. Pietraszek

The purpose of this sampling was to verify or split soil samples with Norampac, the Volunteer. This is part of the off site soil sampling to determine if the site has impacted local properties. A total of 28 soil samples were collected on August 14 and 15, 2001. Soil samples were taken from the top 3-4 inches of soil in front and or rear yards of private residences and multiple unit residences. XCG Consulting Ltd., Oakville, Ontario, Canada, the Volunteers consultant, performed the sample collection with assistance from the New York State Department's of Health and Environmental Conservation.

Of the 28 soil samples collected, the DEC requested splits on two samples. These were OS01-24 and OS01-28, as described below.

Sample I.D.	Field Location	Sample Description	Analysis
D22224	OS01-24	Collected from the front yard of 3232 Walden Avenue, Depew, NY. This is northeast and across Walden Avenue from the site. Soil sample taken from the middle of a stand of large spruce trees, from 0"- 3" depth.	Metals
D22228	OS01-28	Collected from the front yard of 50 Princeton Avenue, Depew, NY. This is northwest and across the street from the site. Soil was taken from the lawn area west of the driveway, from 0"-3" depth.	Metals

Sevren-Trent performed the analysis on the samples. Weather was clear, dry and ~ 80 degrees.

NYS DEC

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

022228

Contract: NY00-096

Lab Code: STLBFLO Case No.: SH901 SAS No.: SDG NO.: 0815

Matrix (soil/water): SOIL Lab Sample ID: AD116186

Level (low/med): LOW Date Received: 8/16/01

% Solids: 90

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	9900		E	P
7440-36-0	Antimony	1.5	B		P
7440-38-2	Arsenic	5.9			P
7440-39-3	Barium	71.4		E	P
7440-41-7	Beryllium	0.50	B		P
7440-43-9	Cadmium	1.3			P
7440-70-2	Calcium	13200		E	P
7440-47-3	Chromium	45.4		E	P
7440-48-4	Cobalt	7.4		E	P
7440-50-8	Copper	40.9		E	P
7439-89-6	Iron	19100		E	P
7439-92-1	Lead	77.4		E	P
7439-95-4	Magnesium	7580		E	P
7439-96-5	Manganese	319		E	P
7440-02-0	Nickel	20.5		E	P
7440-09-7	Potassium	1440		E	P
7782-49-2	Selenium	1.2			P
7439-97-6	Mercury	0.097			CV
7440-22-4	Silver	0.50	B		P
7440-23-5	Sodium	94.2	B		P
7440-28-0	Thallium	0.56	U		P
7440-62-2	Vanadium	20.1		E	P
7440-66-6	Zinc	128		E	P

From:
50 Princeton Ave
Front yard, grass area.

Color Before: BROWN Clarity Before: Texture: SILT

Color After: YELLOW Clarity After: CLOUDY Artifacts:

Comments:

NYS DEC

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

022224

Contract: NY00-096

Lab Code: STLBFLO Case No.: SH901 SAS No.: SDG NO.: 0815

Matrix (soil/water): SOIL Lab Sample ID: AD116185

Level (low/med): LOW Date Received: 8/16/01

% Solids: 84

Concentration Units (ug/L or mg/kg dry weight): MG/KG

From:
3232 Walden Ave
Front yard, among large spruce trees

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	8660		E	P
7440-36-0	Antimony	6.7	B		P
7440-38-2	Arsenic	9.7			P
7440-39-3	Barium	100		E	P
7440-41-7	Beryllium	0.48	B		P
7440-43-9	Cadmium	3.0			P
7440-70-2	Calcium	22900		E	P
7440-47-3	Chromium	21.5		E	P
7440-48-4	Cobalt	10.9		E	P
7440-50-8	Copper	544		E	P
7439-89-6	Iron	23500		E	P
7439-92-1	Lead	995		E	P
7439-95-4	Magnesium	4030		E	P
7439-96-5	Manganese	696		E	P
7440-02-0	Nickel	28.3		E	P
7440-09-7	Potassium	1310		E	P
7782-49-2	Selenium	2.2			P
7439-97-6	Mercury	0.206			CV
7440-22-4	Silver	0.60	B		P
7440-23-5	Sodium	652			P
7440-28-0	Thallium	1.4			P
7440-62-2	Vanadium	21.6		E	P
7440-66-6	Zinc	1490		E	P

Color Before: BROWN Clarity Before: Texture: SILT

Color After: BROWN Clarity After: CLOUDY Artifacts:

Comments:

APPENDIX C

PASC CATEGORY A REPORT

PHILIP SERVICES

Inorganic Data Package

For

XCG Consultants Ltd.

Project # 3-997-02-08

Prepared by PSC Analytical Services Corp.

5555 North Service Road

Burlington, ON

Canada L7L 5H7

PSC Project #: AN010997

Submission #(s): 1H0539

PSC Sample ID: 046699-046721

Prepared By: Ancy Sebastian - Project Manager Assistant

Reviewed By: Ada Blythe – Project Manager

Philip Analytical Services Inc.
5555 North Service Road Burlington, Ontario Canada L7L 5H7 Tel (905) 332-8788 Fax (905) 332-9169

1. CASE NARRATIVE

PROJECT NARRATIVE

PHILIP Analytical Services Inc (Burlington ON)
Philip Project: AN010997
Philip Submission #:1H0539

Client: XCG Consultants Ltd.
Client Project: 3-997-02-08

I. SAMPLE RECEIPT/ANALYSIS

a) Sample Listing

Philip ID	Client Sample ID	Date Sampled	Date Received	Date Prepped	Run Date
Metals via SW846 Method 6010					
046700 01	OS01-1	01/08/14	01/08/15	01/08/20	01/08/20
046701 01	OS01-2	01/08/14	01/08/15	01/08/20	01/08/20
046702 01	OS01-3	01/08/14	01/08/15	01/08/20	01/08/20
046703 01	OS01-4	01/08/14	01/08/15	01/08/20	01/08/20
046704 01	OS01-5	01/08/14	01/08/15	01/08/20	01/08/20
046705 01	OS01-6	01/08/14	01/08/15	01/08/20	01/08/20
046706 01	OS01-7	01/08/14	01/08/15	01/08/20	01/08/20
046707 01	OS01-8	01/08/14	01/08/15	01/08/20	01/08/20
046708 01	OS01-9	01/08/14	01/08/15	01/08/20	01/08/20
046709 01	OS01-10	01/08/14	01/08/15	01/08/20	01/08/20
046710 01	OS01-11	01/08/14	01/08/15	01/08/20	01/08/20
046711 01	OS01-12	01/08/14	01/08/15	01/08/20	01/08/20
046712 01	OS01-13	01/08/14	01/08/15	01/08/20	01/08/20
046713 01	OS01-14	01/08/14	01/08/15	01/08/20	01/08/20
046714 01	OS01-15	01/08/14	01/08/15	01/08/20	01/08/20
046715 01	OS01-16	01/08/14	01/08/15	01/08/20	01/08/20
046716 01	OS01-17	01/08/14	01/08/15	01/08/20	01/08/20
046717 01	OS01-18	01/08/14	01/08/15	01/08/20	01/08/20
046718 01	OS01-19	01/08/14	01/08/15	01/08/20	01/08/20
046719 01	OS01-20	01/08/14	01/08/15	01/08/20	01/08/21
046720 01	OS01-21	01/08/14	01/08/15	01/08/20	01/08/21
046721 01	OS01-22	01/08/14	01/08/15	01/08/20	01/08/21

Run Date is defined as the date of injection of the last calibration standard (12 hour or less) prior to the samples analyzed within that run sequence. Therefore the time of calibration injection that defines the run date is always within 12 hours of the time of sample injection.

b) Shipping Problems: none encountered

c) Documentation Problems: none encountered

II. SAMPLE PREP:

No problems encountered

III. SAMPLE ANALYSIS:

See also comments within the appropriate Certificate of Analysis.

a) Hold Times: all within recommended hold times

b) Instrument Calibration: all within control limits

c) Surrogate/Internal Recoveries: except where noted otherwise, all within control limits

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. In addition, I certify, that to the best of my knowledge and belief, the data as reported are true and accurate. Release of the data contained in this data package has been authorized by the cognizant laboratory official or his/her designee, as verified by this signature.

Ada Blythe, Project Manager

Date

2. DATA SUMMARY

- Certificate of Analysis –

- Sample analyte result
- Method blank result
- LCS Results with % Recoveries
- Matrix Spike data with % Recoveries
- Matrix Spike Duplicate data with % Recoveries
- Surrogate recoveries

PHILIP SERVICES

Certificate of Analysis

CLIENT INFORMATION

Attention:	Basil Wong
Client Name:	XCG Consultants Ltd.
Project:	3-997-02-08
Project Desc:	Depew, NY
Address:	2620 Bristol Circle Suite 300 Oakville, Ontario L6H 6Z7
Fax Number:	829-8890 #62
Phone Number:	829-8880

LABORATORY INFORMATION

Contact:	Ada Blythe, B.Sc., C.Chem.
Project:	AN010997
Date Received:	15-Aug-2001
Date Reported:	23-Aug-2001
Submission No.:	1H0539
Sample No.:	046699-046721

NOTES: *"-" = not analysed "<" = less than Method Detection Limit (MDL) 'NA' = no data available*
LOQ can be determined for all analytes by multiplying the appropriate MDL X 3.33
Blank correction is only performed on oil and grease, BTEX, total purgeable hydrocarbons and VOC analyses when Canadian methods are utilized.
Solids data is based on dry weight except for biota analyses.
Organic analyses are not corrected for extraction recovery standards except for isotope dilution methods, (i.e. CARB 429 PAH, all PCDD/F and DBD/DBF analyses)

Methods used by PSC Analytical Services are based upon those found in 'Standard Methods for the Examination of Water and Wastewater', Nineteenth Edition. Other methods are based on the principles of MISA or EPA methodologies. New York State: ELAP Identification Number 10756.

All work recorded herein has been done in accordance with normal professional standards using accepted testing methodologies, quality assurance and quality control procedures except where otherwise agreed to by the client and testing company in writing. Any and all use of these test results shall be limited to the actual cost of the pertinent analysis done. There is no other warranty expressed or implied. Your samples will be retained at PSC Analytical Services for a period of three weeks from receipt of data or as per contract.

COMMENTS:

(1) Sample concentration(s) too high to differentiate spike

Certified by:

5555 North Service Road, Burlington, Ontario, Canada L7L 5H7 Tel: (905) 332-8788 Fax: (905) 332-0160

			Method	Blank	%	Blank Spike	%	
Client ID:			Blank	Spike	Recovery	Duplicate	Recovery	OS01-1
Lab No.:			046699 01	046699 01	046699 01	046699 01	046699 01	046700 01
Date Sampled:			14-Aug-2001	14-Aug-2001	14-Aug-2001	14-Aug-2001	14-Aug-2001	14-Aug-2001
Component	MDL	Units						
Metals via SW846 Method 6010								
Aluminum	3	mg/kg	<	200	100	210	100	10000
Barium	0.1	"	<	100	100	100	100	81
Beryllium	0.1	"	<	50	100	52	110	0.5
Cadmium	0.2	"	0.3	49	98	52	100	1.2
Calcium	20	"	<	1100	100	1100	110	12000
Chromium	0.4	"	<	100	100	110	110	18
Cobalt	1	"	<	100	100	110	110	7.0
Copper	0.6	"	<	100	100	110	100	200
Iron	1	"	4.0	1200	100	1300	110	24000
Lead	2	"	<	100	100	110	100	310
Magnesium	5	"	<	1100	100	1200	110	4200
Manganese	0.5	"	<	100	100	110	100	420
Molybdenum	1	"	<	54	110	57	110	2.0
Nickel	1	"	<	51	100	54	110	21
Phosphorus	6	"	<	500	99	520	100	1000
Potassium	100	"	<	1000	99	1100	100	1700
Silver	1.0	"	<	51	100	53	100	<
Sodium	10	"	<	980	99	1000	100	84
Thallium	6	"	<	94	95	100	100	<
Vanadium	0.5	"	<	50	99	52	100	23
Zinc	0.5	"	<	200	100	210	100	380

Client ID:			OS01-2	OS01-3	OS01-4	OS01-5	OS01-6	OS01-7
Lab No.:			046701 01	046702 01	046703 01	046704 01	046705 01	046706 01
Date Sampled:			14-Aug-2001	14-Aug-2001	14-Aug-2001	14-Aug-2001	14-Aug-2001	14-Aug-2001
Component	MDL	Units						
Metals via SW846 Method 6010								
Aluminum	3	mg/kg	9800	11000	9500	12000	8700	7200
Barium	0.1	"	80	84	76	93	73	65
Beryllium	0.1	"	0.5	0.6	0.5	0.6	0.5	0.4
Cadmium	0.2	"	1.0	2.3	2.0	1.3	1.6	2.1
Calcium	20	"	8400	11000	14000	8200	16000	8300
Chromium	0.4	"	15	23	22	20	23	21
Cobalt	1	"	6.0	7.0	7.0	8.0	6.0	6.0
Copper	0.6	"	77	160	420	280	270	490
Iron	1	"	22000	26000	23000	28000	22000	19000
Lead	2	"	170	320	730	470	640	840
Magnesium	5	"	3800	4600	5100	4200	7100	3000
Manganese	0.5	"	390	540	470	580	360	640
Molybdenum	1	"	2.0	2.0	2.0	2.0	2.0	2.0
Nickel	1	"	15	43	23	24	23	23
Phosphorus	6	"	940	1100	870	710	890	760
Potassium	100	"	1300	1400	1400	1700	1600	800
Silver	1.0	"	<	<	<	<	<	<
Sodium	10	"	64	81	450	97	55	150
Thallium	6	"	<	<	<	<	<	<
Vanadium	0.5	"	21	24	20	25	20	18
Zinc	0.5	"	300	380	940	650	540	840

Client ID:			OS01-8	OS01-9	OS01-10	OS01-11	OS01-12	OS01-13
Lab No.:			046707 01	046708 01	046709 01	046710 01	046711 01	046712 01
Date Sampled:			14-Aug-2001	14-Aug-2001	14-Aug-2001	14-Aug-2001	14-Aug-2001	14-Aug-2001
Component	MDL	Units						
Metals via SW846 Method 6010								
Aluminum	3	mg/kg	8200	11000	11000	10000	7500	9600
Barium	0.1	"	150	97	80	81	63	74
Beryllium	0.1	"	0.5	0.6	0.6	0.6	0.3	0.5
Cadmium	0.2	"	3.1	1.7	1.3	0.9	0.9	1.0
Calcium	20	"	11000	7600	8500	10000	17000	5900
Chromium	0.4	"	23	20	33	21	13	15
Cobalt	1	"	7.0	9.0	7.0	7.0	6.0	7.0
Copper	0.6	"	1800	370	230	99	150	150
Iron	1	"	24000	26000	25000	23000	17000	23000
Lead	2	"	3100	960	440	170	200	330
Magnesium	5	"	2500	4000	4600	3500	8300	3000
Manganese	0.5	"	280	450	360	380	340	450
Molybdenum	1	"	3.0	2.0	2.0	2.0	1.0	2.0
Nickel	1	"	44	26	22	17	12	17
Phosphorus	6	"	1500	820	760	990	1100	730
Potassium	100	"	1100	1700	1300	1500	1700	1000
Silver	1.0	"	1.4	<	<	<	<	<
Sodium	10	"	140	120	48	37	98	81
Thallium	6	"	<	<	<	<	<	<
Vanadium	0.5	"	21	24	25	22	17	22
Zinc	0.5	"	2400	790	360	190	200	290

Client ID:			OS01-14	OS01-15	OS01-16	OS01-17	OS01-18	OS01-19
Lab No.:			046713 01	046714 01	046715 01	046716 01	046717 01	046718 01
Date Sampled:			14-Aug-2001	14-Aug-2001	14-Aug-2001	14-Aug-2001	14-Aug-2001	14-Aug-2001
Component	MDL	Units						
Metals via SW846 Method 6010								
Aluminum	3	mg/kg	9300	9800	9100	9100	10000	8500
Barium	0.1	"	78	91	79	69	73	100
Beryllium	0.1	"	0.5	0.5	0.5	0.5	0.5	0.5
Cadmium	0.2	"	0.8	1.0	0.7	0.9	0.6	3.4
Calcium	20	"	6000	7500	9200	13000	4800	21000
Chromium	0.4	"	15	16	14	17	14	45
Cobalt	1	"	7.0	7.0	6.0	6.0	5.0	6.0
Copper	0.6	"	120	130	95	150	59	760
Iron	1	"	23000	23000	21000	23000	23000	29000
Lead	2	"	220	310	210	380	150	1100
Magnesium	5	"	2900	3800	4000	5100	2800	5400
Manganese	0.5	"	420	400	400	420	400	450
Molybdenum	1	"	2.0	3.0	1.0	2.0	2.0	3.0
Nickel	1	"	16	18	16	19	14	30
Phosphorus	6	"	750	770	650	810	680	1800
Potassium	100	"	1300	1400	1200	1400	1100	1200
Silver	1.0	"	1.0	<	<	<	<	<
Sodium	10	"	95	72	74	89	48	760
Thallium	6	"	<	<	<	<	<	<
Vanadium	0.5	"	21	22	19	20	23	20
Zinc	0.5	"	220	300	240	410	170	1100

Client ID:			OS01-20	OS01-20	OS01-20	OS01-20	OS01-20	OS01-20
Lab No.:			046719 01	046719 01	046719 01	046719 01	046719 01	046719 01
Date Sampled:			14-Aug-2001	14-Aug-2001	14-Aug-2001	14-Aug-2001	14-Aug-2001	14-Aug-2001
Component	MDL	Units		Duplicate	M. Spike	MS % Rec.	MS Dup	MSD % Rec.
Metals via SW846 Method 6010								
Aluminum	3	mg/kg	6800	7100	8900	970(1)	8500	800(1)
Barium	0.1	"	85	86	190	100	190	100
Beryllium	0.1	"	0.4	0.4	48	96	49	98
Cadmium	0.2	"	2.9	2.5	51	96	51	97
Calcium	20	"	13000	14000	14000	85	14000	76
Chromium	0.4	"	31	34	130	95	130	96
Cobalt	1	"	6.0	6.0	100	96	100	98
Copper	0.6	"	910	940	1000	81	1000	68
Iron	1	"	19000	19000	21000	170(1)	20000	120
Lead	2	"	1300	1400	1500	99	1500	110
Magnesium	5	"	4100	4100	5500	130(1)	5500	130
Manganese	0.5	"	350	370	440	85	450	89
Molybdenum	1	"	2.0	2.0	49	94	50	96
Nickel	1	"	27	26	73	93	76	99
Phosphorus	6	"	1200	1200	1500	69	1600	77
Potassium	100	"	940	980	2000	100	1900	97
Silver	1.0	"	<	<	49	97	49	97
Sodium	10	"	630	640	1600	96	1600	94
Thallium	6	"	<	<	87	87	94	94
Vanadium	0.5	"	18	18	67	99	68	100
Zinc	0.5	"	1300	1300	1500	91	1500	94

Client ID:			OS01-21	OS01-22
Lab No.:			046720 01	046721 01
Date Sampled:			14-Aug-2001	14-Aug-2001
Component	**MDL**	Units		
Metals via SW846 Method 6010				
Aluminum	3	mg/kg	6100	5200
Barium	0.1	"	61	130
Beryllium	0.1	"	0.3	0.4
Cadmium	0.2	"	1.5	4.8
Calcium	20	"	8000	31000
Chromium	0.4	"	14	39
Cobalt	1	"	3.0	5.0
Copper	0.6	"	230	2500
Iron	1	"	14000	21000
Lead	2	"	740	5300
Magnesium	5	"	2700	6500
Manganese	0.5	"	290	460
Molybdenum	1	"	2.0	4.0
Nickel	1	"	16	48
Phosphorus	6	"	1300	1600
Potassium	100	"	680	940
Silver	1.0	"	<	2.6
Sodium	10	"	53	220
Thallium	6	"	<	<
Vanadium	0.5	"	16	17
Zinc	0.5	"	540	3500

Batch Code:	0820SSG1	0820SSG2
Aluminum	046699 01	046719 01
	046700 01	046720 01
	046701 01	046721 01
	046702 01	
	046703 01	
	046704 01	
	046705 01	
	046706 01	
	046707 01	
	046708 01	
	046709 01	
	046710 01	
	046711 01	
	046712 01	
	046713 01	
	046714 01	
	046715 01	
	046716 01	
	046717 01	
	046718 01	
Date Analysed:	01/08/20	01/08/21
Date Prepared:	01/08/20	01/08/20

3. SAMPLE DATA

Zenon Number	Client	Client ID	Parameter	TS	Result	Dup.	Spike	% Rec.	Dup. Spk	% Rec.	Batch Date	Batch Code	Run Date	Run Code	Day Old	Day In	Analyst's Comments
046699	XCG-US	Method Blank	Calcium	P	-20.	-99999	1050.	104.	1080.	107.	01/08/20	SSG1	01/08/20	NR01	6.	5.	010820.prn
			Magnesium		-5.	-99999	1140.	104.	1190.	108.					6.	5.	
			Sodium		**-10.**	**-99999**	**979.**	**99.**	**1020.**	**102.**					**6.**	**5.**	
			Potassium		-100.	-99999	1020.	96.	1080.	102.					6.	5.	
			Aluminum		-3.	**-99999**	**198.**	**100.**	**208.**	104.					6.	**5.**	
			Barium		-0.1	-99999.	101.0	101.	104.0	104.					6.	5.	
			Beryllium		-0.1	-99999.	50.3	101.	52.3	105.					6.	5.	
			Cadmium		0.3	-99999.	49.1	98.	52.1	104.					6.	5.	
			Chromium		-0.4	-99999.	102.0	101.	105.0	105.					6.	5.	
			Cobalt		-1.	-99999	103.	103.	106.	106.					6.	5.	
			Copper		-0.6	-99999.	101.0	101.	105.0	104.					6.	5.	
			Iron		4.	-99999	1230.	102.	1280.	106.					6.	5.	
			Lead		-2.	-99999	102.	100.	106.	104.					6.	5.	
			Manganese		-0.5	-99999.	100.0	100.	105.0	104.					6.	5.	
			Molybdenum		-1.	-99999	54.	106.	57.	112.					6.	5.	
			Nickel		-1.	-99999	51.	102.	54.	109.					6.	5.	
			Phosphorus		-6.	-99999	497.	99.	520.	103.					6.	5.	
			Silver		-1.0	-99999.	51.0	101.	52.5	104.					6.	5.	
			Thallium		-6.	-99999	94.	95.	100.	100.					6.	5.	
			Vanadium		-0.5	-99999.	49.5	99.	52.2	104.					6.	5.	
			Zinc		-0.5	-99999.	200.0	100.	206.0	103.					6.	5.	
046700	XCG-US	OS01-1	Calcium	P	11700.						01/08/20	SSG1	01/08/20	NR01	6.	5.	010820.prn
			Magnesium		4210.										6.	5.	
			Sodium		84.										6.	5.	
			Potassium		1730.										6.	5.	
			Aluminum		10300.										6.	5.	
			Barium		80.5										6.	5.	
			Beryllium		0.5										6.	5.	
			Cadmium		1.2										6.	5.	
			Chromium		18.2										6.	5.	
			Cobalt		7.										6.	5.	
			Copper		196.0										6.	5.	
			Iron		24000.										6.	5.	
			Lead		314.										6.	5.	
			Manganese		424.0										6.	5.	
			Molybdenum		2.										6.	5.	
			Nickel		21.										6.	5.	
			Phosphorus		1020.										6.	5.	
			Silver		-1.0										6.	5.	
			Thallium		-6.										6.	5.	
			Vanadium		23.0										6.	5.	
			Zinc		380.0										6.	5.	
046701	XCG-US	OS01-2	Calcium	P	8380.						01/08/20	SSG1	01/08/20	NR01	6.	5.	010820.prn
			Magnesium		3780.										6.	5.	
			Sodium		64.										6.	5.	
			Potassium		1330.										6.	5.	
			Aluminum		9830.										6.	5.	
			Barium		80.3										6.	5.	
			Beryllium		0.5										6.	5.	
			Cadmium		1.0										6.	5.	
			Chromium		14.5										6.	5.	
			Cobalt		6.										6.	5.	
			Copper		77.2										6.	5.	
			Iron		22300.										6.	5.	

Zenon Number	Client	Client ID	Parameter	TS	Result	Dup.	Spike	% Rec.	Dup. Spk	% Rec.	Batch Date	Batch Code	Run Date	Run Code	Day Old	Day In	Analyst's Comments
			Lead		169.										6.	5.	
			Manganese		389.0										6.	5.	
			Molybdenum		2.										6.	5.	
			Nickel		15.										6.	5.	
			Phosphorus		938.										6.	5.	
			Silver		-1.0										6.	5.	
			Thallium		-6.										6.	5.	
			Vanadium		20.5										6.	5.	
			Zinc		300.0										6.	5.	
046702	XCG-US	OS01-3	Calcium	P	11200.						01/08/20	SSG1	01/08/20	NR01	6.	5.	010820.prn
			Magnesium		4600.										6.	5.	
			Sodium		81.										6.	5.	
			Potassium		1350.										6.	5.	
			Aluminum		11300.										6.	5.	
			Barium		83.7										6.	5.	
			Beryllium		0.6										6.	5.	
			Cadmium		2.3										6.	5.	
			Chromium		23.3										6.	5.	
			Cobalt		7.										6.	5.	
			Copper		163.0										6.	5.	
			Iron		26200.										6.	5.	
			Lead		322.										6.	5.	
			Manganese		537.0										6.	5.	
			Molybdenum		2.										6.	5.	
			Nickel		43.										6.	5.	
			Phosphorus		1070.										6.	5.	
			Silver		-1.0										6.	5.	
			Thallium		-6.										6.	5.	
			Vanadium		24.1										6.	5.	
			Zinc		377.0										6.	5.	
046703	XCG-US	OS01-4	Calcium	P	13800.						01/08/20	SSG1	01/08/20	NR01	6.	5.	010820.prn
			Magnesium		5070.										6.	5.	
			Sodium		452.										6.	5.	
			Potassium		1420.										6.	5.	
			Aluminum		9460.										6.	5.	
			Barium		75.6										6.	5.	
			Beryllium		0.5										6.	5.	
			Cadmium		2.0										6.	5.	
			Chromium		22.0										6.	5.	
			Cobalt		7.										6.	5.	
			Copper		421.0										6.	5.	
			Iron		23100.										6.	5.	
			Lead		733.										6.	5.	
			Manganese		471.0										6.	5.	
			Molybdenum		2.										6.	5.	
			Nickel		23.										6.	5.	
			Phosphorus		867.										6.	5.	
			Silver		-1.0										6.	5.	
			Thallium		-6.										6.	5.	
			Vanadium		20.3										6.	5.	
			Zinc		943.0										6.	5.	
046704	XCG-US	OS01-5	Calcium	P	8180.						01/08/20	SSG1	01/08/20	NR01	6.	5.	*RSD CD* 010820.PRN
			Magnesium		4180.										6.	5.	
			Sodium		97.										6.	5.	

Zenon Number	Client	Client ID	Parameter	TS	Result	Dup.	Spike	% Rec.	Dup. Spk	% Rec.	Batch Date	Batch Code	Run Date	Run Code	Day Old	Day In	Analyst's Comments
			Potassium		1690.										6.	5.	
			Aluminum		11900.										6.	5.	
			Barium		**92.8**										**6.**	**5.**	
			Beryllium		0.6										6.	5.	
			Cadmium		1.3										6.	**5.**	
			Chromium		20.0										6.	5.	
			Cobalt		8.										6.	5.	
			Copper		278.0										6.	5.	
			Iron		27700.										6.	5.	
			Lead		466.										6.	5.	
			Manganese		575.0										6.	5.	
			Molybdenum		2.										6.	5.	
			Nickel		24.										6.	5.	
			Phosphorus		713.										6.	5.	
			Silver		-1.0										6.	5.	
			Thallium		-6.										6.	5.	
			Vanadium		25.0										6.	5.	
			Zinc		651.0										6.	5.	
046705	XCG-US	OS01-6	Calcium	P	15500.						01/08/20	SSG1	01/08/20	NR01	6.	5.	010820.prn
			Magnesium		7050.										6.	5.	
			Sodium		55.										6.	5.	
			Potassium		1600.										6.	5.	
			Aluminum		8720.										6.	5.	
			Barium		73.1										6.	5.	
			Beryllium		0.5										6.	5.	
			Cadmium		1.6										6.	5.	
			Chromium		23.4										6.	5.	
			Cobalt		6.										6.	5.	
			Copper		265.0										6.	5.	
			Iron		21900.										6.	5.	
			Lead		640.										6.	5.	
			Manganese		358.0										6.	5.	
			Molybdenum		2.										6.	5.	
			Nickel		23.										6.	5.	
			Phosphorus		890.										6.	5.	
			Silver		-1.0										6.	5.	
			Thallium		-6.										6.	5.	
			Vanadium		19.7										6.	5.	
			Zinc		538.0										6.	5.	
046706	XCG-US	OS01-7	Calcium	P	8340.						01/08/20	SSG1	01/08/20	NR01	6.	5.	*RSD CD* 010820.PRN
			Magnesium		3030.										6.	5.	
			Sodium		153.										6.	5.	
			Potassium		798.										6.	5.	
			Aluminum		7220.										6.	5.	
			Barium		64.7										6.	5.	
			Beryllium		0.4										6.	5.	
			Cadmium		2.1										6.	5.	
			Chromium		21.4										6.	5.	
			Cobalt		6.										6.	5.	
			Copper		489.0										6.	5.	
			Iron		19200.										6.	5.	
			Lead		840.										6.	5.	
			Manganese		638.0										6.	5.	
			Molybdenum		2.										6.	5.	

Zenon Number	Client	Client ID	Parameter	TS	Result	Dup.	Spike	% Rec.	Dup. Spk	% Rec.	Batch Date	Batch Code	Run Date	Run Code	Day Old	Day In	Analyst's Comments
			Nickel		23.										6.	5.	
			Phosphorus		762.										6.	5.	
			Silver		-1.0										6.	5.	
			Thallium		-6.										6.	5.	
			Vanadium		17.7										6.	5.	
			Zinc		841.0										6.	5.	
046707	XCG-US	OS01-8	Calcium	P	10500.						01/08/20	SSG1	01/08/20	NR01	6.	5.	010820.prn
			Magnesium		2510.										6.	5.	
			Sodium		135.										6.	5.	
			Potassium		1100.										6.	5.	
			Aluminum		8170.										6.	5.	
			Barium		150.0										6.	5.	
			Beryllium		0.5										6.	5.	
			Cadmium		3.1										6.	5.	
			Chromium		23.4										6.	5.	
			Cobalt		7.										6.	5.	
			Copper		1790.0										6.	5.	
			Iron		23900.										6.	5.	
			Lead		3140.										6.	5.	
			Manganese		283.0										6.	5.	
			Molybdenum		3.										6.	5.	
			Nickel		44.										6.	5.	
			Phosphorus		1520.										6.	5.	
			Silver		1.4										6.	5.	
			Thallium		-6.										6.	5.	
			Vanadium		20.7										6.	5.	
			Zinc		2370.0										6.	5.	
046708	XCG-US	OS01-9	Calcium	P	7610.						01/08/20	SSG1	01/08/20	NR01	6.	5.	010820.prn
			Magnesium		4010.										6.	5.	
			Sodium		117.										6.	5.	
			Potassium		1740.										6.	5.	
			Aluminum		11300.										6.	5.	
			Barium		96.9										6.	5.	
			Beryllium		0.6										6.	5.	
			Cadmium		1.7										6.	5.	
			Chromium		19.6										6.	5.	
			Cobalt		9.										6.	5.	
			Copper		366.0										6.	5.	
			Iron		26300.										6.	5.	
			Lead		957.										6.	5.	
			Manganese		446.0										6.	5.	
			Molybdenum		2.										6.	5.	
			Nickel		26.										6.	5.	
			Phosphorus		823.										6.	5.	
			Silver		-1.0										6.	5.	
			Thallium		-6.										6.	5.	
			Vanadium		23.6										6.	5.	
			Zinc		794.0										6.	5.	
046709	XCG-US	OS01-10	Calcium	P	8470.						01/08/20	SSG1	01/08/20	NR01	6.	5.	010820.prn
			Magnesium		4560.										6.	5.	
			Sodium		48.										6.	5.	
			Potassium		1290.										6.	5.	
			Aluminum		11000.										6.	5.	
			Barium		79.6										6.	5.	

Zenon Number	Client	Client ID	Parameter	TS	Result	Dup.	Spike	% Rec.	Dup. Spk	% Rec.	Batch Date	Batch Code	Run Date	Run Code	Day Old	Day In	Analyst's Comments
			Beryllium		0.6										6.	5.	
			Cadmium		1.3										6.	5.	
			Chromium		**33.3**										**6.**	**5.**	
			Cobalt		7.										6.	5.	
			Copper		**226.0**										6.	**5.**	
			Iron		25300.										6.	5.	
			Lead		442.										6.	5.	
			Manganese		357.0										6.	5.	
			Molybdenum		2.										6.	5.	
			Nickel		22.										6.	5.	
			Phosphorus		763.										6.	5.	
			Silver		-1.0										6.	5.	
			Thallium		-6.										6.	5.	
			Vanadium		24.7										6.	5.	
			Zinc		356.0										6.	5.	
046710	XCG-US	OS01-11	Calcium	P	10400.						01/08/20	SSG1	01/08/20	NR01	6.	5.	010820.prn
			Magnesium		3540.										6.	5.	
			Sodium		37.										6.	5.	
			Potassium		1530.										6.	5.	
			Aluminum		9960.										6.	5.	
			Barium		80.7										6.	5.	
			Beryllium		0.6										6.	5.	
			Cadmium		0.9										6.	5.	
			Chromium		21.2										6.	5.	
			Cobalt		7.										6.	5.	
			Copper		98.9										6.	5.	
			Iron		23400.										6.	5.	
			Lead		172.										6.	5.	
			Manganese		381.0										6.	5.	
			Molybdenum		2.										6.	5.	
			Nickel		17.										6.	5.	
			Phosphorus		986.										6.	5.	
			Silver		-1.0										6.	5.	
			Thallium		-6.										6.	5.	
			Vanadium		21.9										6.	5.	
			Zinc		193.0										6.	5.	
046711	XCG-US	OS01-12	Calcium	P	16700.						01/08/20	SSG1	01/08/20	NR01	6.	5.	*RSD CD* 010820.PRN
			Magnesium		8330.										6.	5.	
			Sodium		98.										6.	5.	
			Potassium		1690.										6.	5.	
			Aluminum		7460.										6.	5.	
			Barium		63.4										6.	5.	
			Beryllium		0.3										6.	5.	
			Cadmium		0.9										6.	5.	
			Chromium		12.5										6.	5.	
			Cobalt		6.										6.	5.	
			Copper		151.0										6.	5.	
			Iron		17300.										6.	5.	
			Lead		196.										6.	5.	
			Manganese		336.0										6.	5.	
			Molybdenum		1.										6.	5.	
			Nickel		12.										6.	5.	
			Phosphorus		1120.										6.	5.	
			Silver		-1.0										6.	5.	

Zenon Number	Client	Client ID	Parameter	TS	Result	Dup.	Spike	% Rec.	Dup. Spk	% Rec.	Batch Date	Batch Code	Run Date	Run Code	Day Old	Day In	Analyst's Comments
			Thallium		-6.										6.	5.	
			Vanadium		17.3										6.	5.	
			Zinc		204.0										6.	5.	
046712	XCG-US	OS01-13	Calcium	P	5870.						01/08/20	SSG1	01/08/20	NR01	6.	5.	010820.prn
			Magnesium		2990.										6.	5.	
			Sodium		81.										6.	5.	
			Potassium		1030.										6.	5.	
			Aluminum		9630.										6.	5.	
			Barium		74.3										6.	5.	
			Beryllium		0.5										6.	5.	
			Cadmium		1.0										6.	5.	
			Chromium		15.2										6.	5.	
			Cobalt		7.										6.	5.	
			Copper		145.0										6.	5.	
			Iron		23100.										6.	5.	
			Lead		332.										6.	5.	
			Manganese		452.0										6.	5.	
			Molybdenum		2.										6.	5.	
			Nickel		17.										6.	5.	
			Phosphorus		729.										6.	5.	
			Silver		-1.0										6.	5.	
			Thallium		-6.										6.	5.	
			Vanadium		22.0										6.	5.	
			Zinc		289.0										6.	5.	
046713	XCG-US	OS01-14	Calcium	P	5980.						01/08/20	SSG1	01/08/20	NR01	6.	5.	*RSD CD* 010820.PRN
			Magnesium		2880.										6.	5.	
			Sodium		95.										6.	5.	
			Potassium		1260.										6.	5.	
			Aluminum		9330.										6.	5.	
			Barium		78.2										6.	5.	
			Beryllium		0.5										6.	5.	
			Cadmium		0.8										6.	5.	
			Chromium		14.7										6.	5.	
			Cobalt		7.										6.	5.	
			Copper		118.0										6.	5.	
			Iron		23000.										6.	5.	
			Lead		216.										6.	5.	
			Manganese		423.0										6.	5.	
			Molybdenum		2.										6.	5.	
			Nickel		16.										6.	5.	
			Phosphorus		745.										6.	5.	
			Silver		1.0										6.	5.	
			Thallium		-6.										6.	5.	
			Vanadium		21.4										6.	5.	
			Zinc		224.0										6.	5.	
046714	XCG-US	OS01-15	Calcium	P	7500.						01/08/20	SSG1	01/08/20	NR01	6.	5.	*RSD CD* 010820.PRN
			Magnesium		3820.										6.	5.	
			Sodium		72.										6.	5.	
			Potassium		1440.										6.	5.	
			Aluminum		9750.										6.	5.	
			Barium		91.3										6.	5.	
			Beryllium		0.5										6.	5.	
			Cadmium		1.0										6.	5.	
			Chromium		16.2										6.	5.	

Zenon Number	Client	Client ID	Parameter	TS	Result	Dup.	Spike	% Rec.	Dup. Spk	% Rec.	Batch Date	Batch Code	Run Date	Run Code	Day Old	Day In	Analyst's Comments
			Cobalt		7.										6.	5.	
			Copper		133.0										6.	5.	
			Iron		**23400.**										**6.**	**5.**	
			Lead		312.										6.	5.	
			Manganese		**404.0**										6.	**5.**	
			Molybdenum		3.										6.	5.	
			Nickel		18.										6.	5.	
			Phosphorus		766.										6.	5.	
			Silver		-1.0										6.	5.	
			Thallium		-6.										6.	5.	
			Vanadium		21.9										6.	5.	
			Zinc		303.0										6.	5.	
046715	XCG-US	OS01-16	Calcium	P	9240.						01/08/20	SSG1	01/08/20	NR01	6.	5.	*RSD NI* 010820.PRN
			Magnesium		4020.										6.	5.	
			Sodium		74.										6.	5.	
			Potassium		1230.										6.	5.	
			Aluminum		9090.										6.	5.	
			Barium		78.6										6.	5.	
			Beryllium		0.5										6.	5.	
			Cadmium		0.7										6.	5.	
			Chromium		14.2										6.	5.	
			Cobalt		6.										6.	5.	
			Copper		95.0										6.	5.	
			Iron		21400.										6.	5.	
			Lead		205.										6.	5.	
			Manganese		402.0										6.	5.	
			Molybdenum		1.										6.	5.	
			Nickel		16.										6.	5.	
			Phosphorus		648.										6.	5.	
			Silver		-1.0										6.	5.	
			Thallium		-6.										6.	5.	
			Vanadium		19.3										6.	5.	
			Zinc		240.0										6.	5.	
046716	XCG-US	OS01-17	Calcium	P	13100.						01/08/20	SSG1	01/08/20	NR01	6.	5.	*RSD CD* 010820.PRN
			Magnesium		5090.										6.	5.	
			Sodium		89.										6.	5.	
			Potassium		1360.										6.	5.	
			Aluminum		9080.										6.	5.	
			Barium		69.3										6.	5.	
			Beryllium		0.5										6.	5.	
			Cadmium		0.9										6.	5.	
			Chromium		17.1										6.	5.	
			Cobalt		6.										6.	5.	
			Copper		154.0										6.	5.	
			Iron		22500.										6.	5.	
			Lead		375.										6.	5.	
			Manganese		423.0										6.	5.	
			Molybdenum		2.										6.	5.	
			Nickel		19.										6.	5.	
			Phosphorus		814.										6.	5.	
			Silver		-1.0										6.	5.	
			Thallium		-6.										6.	5.	
			Vanadium		20.1										6.	5.	
			Zinc		413.0										6.	5.	

Zenon Number	Client	Client ID	Parameter	TS	Result	Dup.	Spike	% Rec.	Dup. Spk	% Rec.	Batch Date	Batch Code	Run Date	Run Code	Day Old	Day In	Analyst's Comments
046717	XCG-US	OS01-18	Calcium	P	4820.						01/08/20	SSG1	01/08/20	NR01	6.	5.	*RSD* 010820.PRN
			Magnesium		2780.										6.	5.	
			Sodium		48.										6.	5.	
			Potassium		1060.										6.	5.	
			Aluminum		**10300.**										**6.**	**5.**	
			Barium		73.4										6.	5.	
			Beryllium		**0.5**										6.	**5.**	
			Cadmium		0.6										6.	5.	
			Chromium		14.1										6.	5.	
			Cobalt		5.										6.	5.	
			Copper		59.0										6.	5.	
			Iron		22500.										6.	5.	
			Lead		147.										6.	5.	
			Manganese		397.0										6.	5.	
			Molybdenum		2.										6.	5.	
			Nickel		14.										6.	5.	
			Phosphorus		678.										6.	5.	
			Silver		-1.0										6.	5.	
			Thallium		-6.										6.	5.	
			Vanadium		22.7										6.	5.	
			Zinc		165.0										6.	5.	
046718	XCG-US	OS01-19	Calcium	P	20700.						01/08/20	SSG1	01/08/20	NR01	6.	5.	*RSD CD* 010820.PRN
			Magnesium		5410.										6.	5.	
			Sodium		762.										6.	5.	
			Potassium		1160.										6.	5.	
			Aluminum		8490.										6.	5.	
			Barium		100.0										6.	5.	
			Beryllium		0.5										6.	5.	
			Cadmium		3.4										6.	5.	
			Chromium		44.8										6.	5.	
			Cobalt		6.										6.	5.	
			Copper		763.0										6.	5.	
			Iron		29400.										6.	5.	
			Lead		1140.										6.	5.	
			Manganese		445.0										6.	5.	
			Molybdenum		3.										6.	5.	
			Nickel		30.										6.	5.	
			Phosphorus		1830.										6.	5.	
			Silver		-1.0										6.	5.	
			Thallium		-6.										6.	5.	
			Vanadium		19.8										6.	5.	
			Zinc		1080.0										6.	5.	
BL0820	INTERNAL		Calcium	P	-20.	-99999	1050.	104.	1080.	107.	01/08/20	SSG1	01/08/20	NR01	$$$	$$$	010820.prn
			Magnesium		-5.	-99999	1140.	104.	1190.	108.					$$$	$$$	
			Sodium		-10.	-99999	979.	99.	1020.	102.					$$$	$$$	
			Potassium		-100.	-99999	1020.	96.	1080.	102.					$$$	$$$	
			Aluminum		-3.	-99999	198.	100.	208.	104.					$$$	$$$	
			Barium		-0.1	-99999.	101.0	101.	104.0	104.					$$$	$$$	
			Beryllium		-0.1	-99999.	50.3	101.	52.3	105.					$$$	$$$	
			Cadmium		0.3	-99999.	49.1	98.	52.1	104.					$$$	$$$	
			Chromium		-0.4	-99999.	102.0	101.	105.0	105.					$$$	$$$	
			Cobalt		-1.	-99999	103.	103.	106.	106.					$$$	$$$	
			Copper		-0.6	-99999.	101.0	101.	105.0	104.					$$$	$$$	
			Iron		4.	-99999	1230.	102.	1280.	106.					$$$	$$$	

1/08/21 12:46:19 Printed by NRAYKHA ICAP DATA TO BE VALIDATED (METVAL') Analyzed by NRAYKH

on ber	Client	Client ID	Parameter	TS	Result	Dup.	Spike	% Rec.	Dup. Spk	% Rec.	Batch Date	Batch Code	Run Date	Run Code	Day Old	Day In	Anal
			Lead		-2.	-99999	102.	100.	106.	104.					$$$	$$$	
			Manganese		-0.5	-99999.	100.0	100.	105.0	104.					$$$	$$$	
			Molybdenum		-1.	-99999	54.	106.	57.	112.					$$$	$$$	
			Nickel		-1.	-99999	51.	102.	54.	109.					$$$	$$$	
			Phosphorus		-6.	-99999	497.	99.	520.	103.					$$$	$$$	
			Silver		-1.0	-99999.	51.0	101.	52.5	104.					$$$	$$$	
			Thallium		-6.	-99999	94.	95.	100.	100.					$$$	$$$	
			Vanadium		-0.5	-99999.	49.5	99.	52.2	104.					$$$	$$$	
			Zinc		-0.5	-99999.	200.0	100.	206.0	103.					$$$	$$$	

21 Tests for 6010-S with an MDL of 20 mg/kg Validated By NR Control Chart Updated _____ IO Requirements m

547	BUFFSEWL	Method Blank	Calcium	PV	-0.200	-99999.0	10.200	101.			01/08/17	STA1	01/08/20	NR01	3.	2.	0108

00021

R2	PASC I.D.	DILUTION	BATCH
1	BL0820	100 x	SSA4
2	BL0820S		
3	ERA 245		
4	047266		
5	266D		
6	266S		
7	267		
8	268		
9	269		
10	270		
11	271		
12	272		
13	273		
14	275		
15	276		
16	BL0820	100x	SSA5
17	BL0820S		
18	047277		
19	277D		
20	277S		
21	278		
22	279		
23	280		
24	281		
25	282		
26	299		
27	300		
28	301		
29	302		
30	BL0817	1x	STA1
31	BL0817S		
32	046616		
33	616D		
34	616S		
35	616x		
36	648		
37	649		
38	046335	10x	
39	336	10x	
40	337	10x	
41	046338	10x	
42	046617	1x	
43	618		
44	619		
45	620		
46	621		
47	622		
48	623		
49	624		
50	625		
51	626		
52	627		
53	047169		
54	170		
55	DC 170	5x	
56	BL0817	1x	STA2
57	BL0817S		
58	046350		
59	350D		
60	350S		

R3	PASC I.D.	DILUTION	BATCH
1	046350x	1x	STA2
2	359		
3	362		
4	047171		
5	172		
6	BL0820	100x	SSA1
7	BL0820S		
8	046860		
9	860D		
10	860S		
11	861		
12	862		
13	863		
14	864		
15	865		
16	866		
17	867		
18	868		
19	869		
20	BL0820	100x	SSA2
21	BL0820S		
22	046870		
23	870D		
24	870S		
25	871		
26	872		
27	873		
28	875		
29	876		
30	877		
31	878		
32	879		
33	880		
34	BL0820	100x	SSA3
35	BL0820S		
36	046881		
37	881D		
38	881S		
39	882		
40	883	DNA	
41	884		
42	885		
43	886		
44	887		
45	888		
46	890		
47	891		
48	BL0817	1x	STF1
49	BL0817S		
50	047289		
51	289D		
52	289S		
53	046459		
54	045690	DNA	
55	046727		
56	047057		
57	058		
58	081		
59	082		
60	047290		

29	STDLOW
38	STDAHIGH
30	STDBHIGH
16	ICVA
14	ICVB

44	ICSA
38	ICSAB
91	CCVA
89	CCVB
106	CCB/ICB

(HF matrix standards are prepared fresh for each day's analysis as required)

R4	PASC I.D.	DILUTION	BATCH
1	047291		
2	BL0817	1x	STA2
3	BL0817S		
4	046326		
5	326D		
6	326S		
7	LEACH BLK		
8	046258		
9	261		
10	046327		
11	328		
12	329		
13	330		
14	047158		
15	046470		
16	046584		
17	BL0817	1x	STL1
18	BL0817S		
19	046757		
20	757D		
21	757S		
22	755		
23	755S		
24	BL0820	100x	SSG1
25	BL0820S		
26	BL0820x		
27	ERA 245		
28	044971		
29	971D		
30	971S		
31	971x		
32	046700		
33	701		
34	702		
35	703		
36	704		
37	705		
38	706		
39	707		
40	708		
41	709		
42	710		
43	711		
44	712		
45	713		
46	714		
47	715		
48	716		
49	717		
50	718		
51	DC 718	500x	
52	BL0820	100x	SSG2
53	BL0820S		
54	BL0820x		
55	046719		
56	719D		
57	719S DNU		
58	719x		
59	720		
60	721		

R5	PASC I.D.	DILUTION	BATCH
1	047041	100x	SSG2
2	042		
3	043		
4	044		
5	045		
6	046		
7	047		
8	048		
9	BL0820	100x	SSG3
10	BL0820S		
11	BL0820x		
12	042499		
13	499D		
14	499S		
15	499x		
16	042500		
17	501	NL	
18	502		
19	505		
20	506		
21	507		
22	043210		
23	211		
24	212		
25	DC 212	500x	
26			
27			
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Method: STD_MTD Sample Name: HCL Operator: NR
Run Time: 08/20/01 13:25:24
Comment: Standardization
Mode: CONC Corr. Factor: 1

Elem	Al	Sb	As	Ba	Be	Cd	Ca
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0151	-.0122	.0078	.0007	-.00008	.0006	.0076
SDev	.0031	.0154	.0108	.0000	.00014	.0014	.0070
%RSD	20.81	125.8	138.7	.0030	176.02	230.7	91.78
#1	.0182	-.0143	.0193	.0007	.00000	-.0010	.0015
#2	.0151	-.0265	-.0022	.0007	.00000	.0015	.0061
#3	.0119	.0041	.0064	.0007	-.00024	.0014	.0153

Elem	Cr	Co	Cu	Fe	Pb	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0018	-.0020	.0000	.0010	-.0176	-.0000	.0001
SDev	.0012	.0013	.0008	.0014	.0041	.0000	.0004
%RSD	65.47	62.93	828e6	138.6	23.07	.0000	458.4
#1	-.0005	-.0008	-.0003	.0002	-.0217	-.0000	-.0000
#2	-.0021	-.0034	-.0006	.0027	-.0135	-.0000	.0005
#3	-.0029	-.0019	.0009	.0002	-.0176	-.0000	-.0002

Elem	Hg	Ni	K	Se	Ag	Na	Tl
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0013	-.0066	.0880	.0092	-.0002	Q-.2106	.0085
SDev	.0047	.0074	.2081	.0210	.0028	.0087	.0446
%RSD	364.3	110.9	236.3	227.5	1560.	4.110	524.6
#1	-.0060	-.0139	.1614	-.0142	-.0018	Q-.2020	.0099
#2	.0033	-.0069	.2495	.0154	.0030	Q-.2193	-.0368
#3	-.0011	.0009	-.1467	.0265	-.0018	Q-.2106	.0523

Elem	V	Zn	B	Bi	Mo	P	S
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0003	.0021	-.0046	-.0337	.0021	-.0024	-.0182
SDev	.0013	.0016	.0043	.0321	.0007	.0139	.0064
%RSD	519.5	76.09	91.71	95.10	34.66	570.3	35.15
#1	-.0005	.0012	-.0009	-.0284	.0016	.0126	-.0126
#2	-.0005	.0039	-.0037	Q-.0681	.0016	-.0051	-.0252
#3	.0018	.0011	-.0093	-.0046	.0029	-.0148	-.0169

Elem	Si	Sr	Sn	Ti	Y	Zr
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0146	.0000	.0115	.0013	.0010	.0040
SDev	.0111	.0004	.0064	.0000	.0000	.0010
%RSD	75.63	575900.	55.94	.0000	.0015	25.71
#1	.0060	-.0005	.0045	.0013	.0010	.0050
#2	.0108	.0003	.0128	.0013	.0010	.0030
#3	.0271	.0003	.0171	.0013	.0010	.0040

Method: STD_MTD Sample Name: HCL Operator: NR
Run Time: 08/20/01 13:29:29
Comment: Standardization
Mode: CONC Corr. Factor: 1

Elem	Al	Sb	As	Ba	Be	Cd	Ca
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0125	.0224	.0050	.0007	-.00016	.0003	.0076
SDev	.0139	.0106	.0138	.0000	.00013	.0013	.0027
%RSD	111.0	47.24	277.8	.0012	84.120	443.3	34.81
#1	.0276	.0286	.0149	.0007	-.00000	-.0010	.0061
#2	.0003	.0102	-.0108	.0007	-.00023	.0016	.0107
#3	.0097	.0286	.0107	.0007	-.00023	.0002	.0061

Elem	Cr	Co	Cu	Fe	Pb	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0008	-.0010	.0013	-.0004	-.0162	.0001	.0001
SDev	.0016	.0015	.0004	.0017	.0059	.0002	.0001
%RSD	208.3	144.4	30.00	396.9	36.07	173.2	173.2
#1	-.0013	.0007	.0017	.0002	-.0197	-.0000	.0002
#2	.0010	-.0019	.0009	-.0023	-.0196	.0003	.0000
#3	-.0021	-.0019	.0013	.0008	-.0095	-.0000	-.0000

Elem	Hg	Ni	K	Se	Ag	Na	Tl
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0016	-.0023	-.1467	.0209	.0034	Q-.2106	-.0198
SDev	.0065	.0035	.3082	.0146	.0015	.0087	.0265
%RSD	393.2	151.6	210.0	70.05	45.55	4.109	133.9
#1	-.0000	-.0061	-.0147	.0098	.0025	Q-.2020	-.0283
#2	-.0088	-.0017	.0734	.0375	.0025	Q-.2193	.0099
#3	.0038	.0009	-.4989	.0154	.0052	Q-.2106	-.0410

Elem	V	Zn	B	Bi	Mo	P	S
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0003	.0011	-.0056	-.0126	.0012	-.0065	-.0043
SDev	.0019	.0000	.0043	.0110	.0028	.0067	.0363
%RSD	754.9	1.261	76.36	87.96	230.9	103.7	849.2
#1	.0018	.0011	-.0009	-.0007	-.0021	-.0136	.0167
#2	-.0005	.0011	-.0093	-.0225	.0029	-.0057	.0167
#3	-.0020	.0011	-.0065	-.0145	.0029	-.0002	-.0462

Elem	Si	Sr	Sn	Ti	Y	Zr
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0195	-.0005	.0091	.0013	.0006	.0024
SDev	.0009	.0000	.0044	.0000	.0006	.0010
%RSD	4.811	.0052	47.70	.0000	86.60	41.24
#1	.0189	-.0005	.0049	.0013	.0010	.0030
#2	.0189	-.0005	.0136	.0013	.0000	.0013
#3	.0206	-.0005	.0089	.0013	.0010	.0030

Method: STD_MTD Standard: STDLOW
Run Time: 08/20/01 13:35:21

Elem	Al	Sb	As	Ba	Be	Cd	Ca
Avge	.0165	-.0001	.0003	.0000	.00080	-.0003	.0007
SDev	.0073	.0006	.0026	.0000	.00000	.0003	.0001
%RSD	43.82	458.3	780.8	.0000	.00000	114.6	17.32
#1	.0156	.0004	.0002	.0000	.00080	.0000	.0006
#2	.0098	-.0008	-.0022	.0000	.00080	-.0002	.0006
#3	.0242	.0000	.0030	.0000	.00080	-.0006	.0008

Elem	Cr	Co	Cu	Fe	Fe	Pb	Mg
Avge	.0002	-.0011	.0001	-.0009	.0003	.0012	.0017
SDev	.0005	.0005	.0008	.0022	.0006	.0005	.0008
%RSD	264.6	47.19	1212.	240.9	173.2	44.10	45.43
#1	.0004	-.0010	.0002	-.0034	.0000	.0010	.0020
#2	-.0004	-.0016	-.0008	.0010	.0000	.0008	.0008
#3	.0006	-.0006	.0008	-.0004	.0010	.0018	.0022

Elem	Mg	Mn	Hg	Ni	K	Se	Ag
Avge	.0004	.0007	.0001	-.0022	.0040	.0004	.0041
SDev	.0000	.0001	.0016	.0023	.0009	.0005	.0017
%RSD	.0000	17.32	2425.	103.3	22.91	132.3	40.29
#1	.0004	.0008	.0018	-.0012	.0030	.0010	.0060
#2	.0004	.0006	-.0014	-.0006	.0042	.0002	.0036
#3	.0004	.0006	-.0002	-.0048	.0048	.0000	.0028

Elem	Na	Tl	V	Zn	B	Bi	Mo
Avge	.0192	.0027	-.0007	.0003	.0002	.0012	-.0003
SDev	.0006	.0005	.0005	.0004	.0003	.0007	.0003
%RSD	3.125	17.32	69.28	156.1	173.2	60.09	114.6
#1	.0192	.0024	-.0004	.0006	.0000	.0018	.0000
#2	.0186	.0024	-.0012	-.0002	.0006	.0014	-.0002
#3	.0198	.0032	-.0004	.0004	.0000	.0004	-.0006

Elem	P	S	Si	Sr	Sn	Ti	Y
Avge	.0049	-.0001	.0060	.0000	-.0007	-.0001	-.0002
SDev	.0029	.0020	.0011	.0000	.0050	.0002	.0003
%RSD	58.80	1480.	17.64	.0000	682.5	173.2	173.2
#1	.0020	.0008	.0064	.0000	.0044	.0000	.0000
#2	.0050	-.0024	.0048	.0000	-.0056	-.0004	-.0006
#3	.0078	.0012	.0068	.0000	-.0010	.0000	.0000

Elem	Zr
Avge	.0007
SDev	.0008
%RSD	110.2
#1	.0006
#2	.0000
#3	.0016

Method: STD_MTD Standard: STDAHIGH
Run Time: 08/20/01 13:39:29

Elem	Al	As	Ba	Be	Cd	Ca	Cr
Avge	5.153	.4585	1.983	4.1518	.8720	4.079	2.448
SDev	.061	.0050	.029	.0425	.0081	.031	.022
%RSD	1.191	1.088	1.457	1.0244	.9342	.7715	.9166
#1	5.085	.4528	1.953	4.1038	.8644	4.044	2.423
#2	5.203	.4622	2.011	4.1848	.8806	4.106	2.467
#3	5.172	.4604	1.986	4.1668	.8710	4.086	2.454

Elem	Co	Cu	Fe	Pb	Mg	Mn	Hg
Avge	3.747	5.312	6.125	.9123	4.325	7.842	.6527
SDev	.031	.072	.061	.0048	.052	.082	.0453
%RSD	.8254	1.346	.9974	.5231	1.207	1.047	6.938
#1	3.713	5.233	6.058	.9084	4.266	7.751	.7040
#2	3.773	5.372	6.177	.9176	4.367	7.910	.6356
#3	3.755	5.331	6.139	.9108	4.341	7.866	.6184

Elem	Ni	K	Se	Ag	Na	Tl	V
Avge	1.090	.4656	.5127	1.882	2.404	.8661	1.266
SDev	.014	.0039	.0065	.020	.032	.0133	.014
%RSD	1.304	.8385	1.271	1.045	1.336	1.536	1.080
#1	1.073	.4618	.5052	1.860	2.369	.8510	1.251
#2	1.099	.4696	.5156	1.899	2.431	.8762	1.277
#3	1.097	.4654	.5172	1.886	2.413	.8710	1.270

Elem	Zn	B	Bi	P	Sr	Y
Avge	5.803	.7257	.4984	15.51	1.312	2.074
SDev	.048	.0093	.0056	.13	.019	.024
%RSD	.8340	1.284	1.124	.8572	1.415	1.158
#1	5.748	.7150	.4920	15.38	1.292	2.049
#2	5.838	.7322	.5008	15.65	1.329	2.097
#3	5.824	.7298	.5024	15.51	1.313	2.074

Method: STD_MTD Standard: STDBHIGH
Run Time: 08/20/01 13:44:11

Elem	Sb	Fe	Mg	Mo	S	Si	Sn
Avge	.1631	4.516	5.755	.7671	.9305	2.378	4.244
SDev	.0024	.063	.064	.0113	.0196	.031	.023
%RSD	1.473	1.400	1.119	1.468	2.109	1.294	.5496
#1	.1606	4.444	5.682	.7544	.9090	2.343	4.217
#2	.1632	4.559	5.779	.7712	.9352	2.391	4.252
#3	.1654	4.547	5.803	.7758	.9474	2.400	4.262

Elem	Ti	Zr
Avge	2.048	5.714
SDev	.029	.074
%RSD	1.395	1.290
#1	2.015	5.630
#2	2.060	5.744
#3	2.068	5.768

Method: STD_MTD Sample Name: ICVA Operator: NR
Run Time: 08/20/01 13:48:20
Comment: Standardization
Mode: CONC Corr. Factor: 1

Elem	Al	Sb	As	Ba	Be	Cd	Ca
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	9.874	.0919	2.505	4.980	2.4519	2.467	50.58
SDev	.063	.0248	.069	.048	.0150	.017	.30
%RSD	.6355	26.94	2.769	.9651	.61139	.6954	.5852
#1	9.837	.0654	2.452	4.951	2.4411	2.449	50.32
#2	9.838	.1144	2.481	4.954	2.4456	2.470	50.52
#3	9.946	.0960	2.584	5.035	2.4690	2.483	50.90

Elem	Cr	Co	Cu	Fe	Pb	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.963	4.967	4.960	10.00	4.959	47.45	4.945
SDev	.035	.029	.042	.07	.034	.27	.033
%RSD	.7041	.5751	.8548	.6819	.6919	.5724	.6645
#1	4.932	4.941	4.933	9.954	4.942	47.22	4.918
#2	4.955	4.962	4.939	9.967	4.937	47.38	4.936
#3	5.001	4.997	5.009	10.08	4.999	47.75	4.982

Elem	Hg	Ni	K	Se	Ag	Na	Tl
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.468	2.519	49.25	2.435	2.474	49.14	4.999
SDev	.062	.006	.32	.039	.015	.50	.086
%RSD	4.216	.2270	.6593	1.605	.5999	1.022	1.723
#1	1.539	2.515	48.91	2.397	2.464	48.88	4.910
#2	1.438	2.526	49.56	2.434	2.468	48.82	5.006
#3	1.426	2.517	49.26	2.475	2.491	49.72	5.082

Elem	V	Zn	B	Bi	Mo	P	S
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.467	9.888	4.972	2.472	.0135	24.63	-.0179
SDev	.014	.065	.049	.080	.0052	.20	.0205
%RSD	.5770	.6613	.9933	3.241	38.52	.8046	114.3
#1	2.455	9.841	4.943	2.410	.0135	24.41	-.0186
#2	2.463	9.860	4.943	2.444	.0187	24.69	-.0381
#3	2.483	9.962	5.029	2.562	.0083	24.80	.0029

Elem	Si	Sr	Sn	Ti	Y	Zr
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0191	2.471	.0008	.0020	4.895	-.0151
SDev	.0026	.025	.0045	.0011	.034	.0004
%RSD	13.48	1.024	531.7	57.74	.6939	2.685
#1	.0169	2.456	.0010	.0026	4.875	-.0153
#2	.0185	2.457	-.0037	.0026	4.875	-.0146
#3	.0219	2.500	.0052	.0007	4.934	-.0153

Method: STD_MTD Sample Name: ICVB Operator: NR
Run Time: 08/20/01 13:53:22
Comment: Standardization
Mode: CONC Corr. Factor: 1

Elem	Al	Sb	As	Ba	Be	Cd	Ca
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0565	2.520	-.0083	.0000	-.00064	.0040	-.0394
SDev	.0141	.052	.0206	.0000	.00014	.0015	.0142
%RSD	24.93	2.068	248.7	35.95	21.222	37.47	35.95
#1	.0581	2.467	-.0166	.0000	-.00048	.0026	-.0312
#2	.0698	2.522	-.0234	.0000	-.00073	.0039	-.0312
#3	.0417	2.571	.0151	.0000	-.00071	.0056	-.0557

Elem	Cr	Co	Cu	Fe	Pb	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0015	.0110	.0043	51.93	.0189	5.141	-.0013
SDev	.0026	.0036	.0019	.51	.0147	.075	.0006
%RSD	175.6	32.73	45.28	.9790	77.38	1.450	42.51
#1	.0004	.0128	.0059	51.42	.0263	5.067	-.0007
#2	-.0004	.0133	.0048	51.94	.0285	5.139	-.0015
#3	-.0045	.0068	.0021	52.44	.0021	5.216	-.0017

Elem	Hg	Ni	K	Se	Ag	Na	Tl
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0039	.0058	.3038	-.0069	.0379	.0665	-.2068
SDev	.0096	.0112	.6905	.0284	.0014	.0243	.0177
%RSD	244.9	193.0	227.3	412.2	3.706	36.62	8.554
#1	.0146	.0082	.9944	.0076	.0369	.0946	-.2193
#2	.0010	-.0064	.3038	.0113	.0374	.0525	-.2146
#3	-.0039	.0156	-.3867	-.0396	.0395	.0523	-.1866

Elem	V	Zn	B	Bi	Mo	P	S
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0018	-.0105	.0129	-.0763	2.575	.0116	5.066
SDev	.0039	.0006	.0042	.0357	.046	.0059	.068
%RSD	221.2	5.977	32.73	46.75	1.771	50.92	1.340
#1	.0001	-.0111	.0138	-.0362	2.530	.0069	4.990
#2	.0009	-.0104	.0165	-.1044	2.574	.0096	5.118
#3	-.0062	-.0099	.0083	-.0884	2.621	.0182	5.091

Elem	Si	Sr	Sn	Ti	Y	Zr
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.139	.0005	5.203	4.988	.0006	5.021
SDev	.086	.0004	.064	.087	.0006	.081
%RSD	1.665	86.70	1.235	1.746	86.62	1.616
#1	5.053	.0008	5.131	4.904	.0010	4.944
#2	5.139	.0008	5.224	4.982	.0010	5.013
#3	5.224	-.0000	5.255	5.077	-.0000	5.106

Method: STD_MTD Sample Name: HCL Operator: NR
Run Time: 08/20/01 13:57:29
Comment: Standardization
Mode: CONC Corr. Factor: 1

Elem	Al	Sb	As	Ba	Be	Cd	Ca
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0016	-.0204	-.0068	.0000	-.00016	.0024	-.0033
SDev	.0072	.0245	.0132	.0000	.00014	.0016	.0028
%RSD	455.2	120.0	194.8	86.51	87.333	66.11	86.51
#1	.0057	-.0449	.0030	.0000	.00000	.0027	-.0016
#2	-.0067	.0041	-.0217	.0000	-.00024	.0007	-.0066
#3	.0058	-.0204	-.0015	.0000	-.00024	.0039	-.0016

Elem	Cr	Co	Cu	Fe	Pb	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0016	-.0000	-.0014	.0030	-.0228	.0002	-.0005
SDev	.0014	.0011	.0011	.0008	.0133	.0002	.0001
%RSD	86.63	126400.	83.32	24.75	58.27	86.60	28.86
#1	-.0033	-.0009	-.0016	.0022	-.0243	.0003	-.0006
#2	-.0008	.0012	-.0024	.0035	-.0353	.0003	-.0003
#3	-.0008	-.0004	-.0001	.0035	-.0088	.0000	-.0006

Elem	Hg	Ni	K	Se	Ag	Na	Tl
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0010	.0049	-.1874	-.0039	-.0002	Q-.0671	-.0496
SDev	.0098	.0107	.5839	.0068	.0040	.0145	.0398
%RSD	955.6	219.7	311.6	173.2	2240.	21.65	80.11
#1	-.0070	.0092	.3892	-.0078	.0044	Q-.0755	-.0078
#2	-.0064	-.0073	-.7783	-.0078	-.0025	Q-.0755	Q-.0869
#3	.0103	.0128	-.1730	.0039	-.0025	Q-.0503	-.0543

Elem	V	Zn	B	Bi	Mo	P	S
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0013	-.0005	.0092	.0174	.0052	-.0170	.0079
SDev	.0008	.0004	.0032	.0193	.0060	.0194	.0205
%RSD	60.00	86.84	34.63	110.9	115.5	114.1	259.1
#1	-.0005	-.0010	.0055	.0141	.0122	-.0288	.0272
#2	-.0021	-.0002	.0110	-.0000	.0017	-.0275	.0101
#3	-.0013	-.0003	.0110	.0382	.0017	.0054	-.0136

Elem	Si	Sr	Sn	Ti	Y	Zr
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0450	-.0008	.0087	.0007	.0010	.0027
SDev	.0010	.0000	.0167	.0000	.0000	.0020
%RSD	2.165	.0037	192.3	.0000	.0006	75.31
#1	.0455	-.0008	.0230	.0007	.0010	.0050
#2	.0438	-.0008	.0126	.0007	.0010	.0015
#3	.0455	-.0008	-.0096	.0007	.0010	.0015

Method: STD_MTD Sample Name: ICB Operator: NR
Run Time: 08/20/01 14:03:20
Comment: Standardization
Mode: CONC Corr. Factor: 1

Elem	Al	Sb	As	Ba	Be	Cd	Ca
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0185	-.0225	-.0171	.0000	.00000	Q.0022	-.0065
SDev	.0210	.0302	.0038	.0000	.00000	.0037	.0049
%RSD	113.8	134.5	22.07	74.88	24.742	167.5	74.88
#1	-.0247	Q-.0572	-.0194	.0000	.00001	.0007	-.0065
#2	.0050	-.0020	-.0128	.0000	.00000	Q.0064	-.0016
#3	Q-.0357	-.0082	-.0193	.0000	.00001	-.0005	-.0114

Elem	Cr	Co	Cu	Fe	Pb	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0025	.0002	-.0018	-.0004	-.0176	-.0003	-.0006
SDev	.0016	.0019	.0017	.0017	.0167	.0000	.0003
%RSD	66.68	1087.	96.63	397.1	94.73	.0000	42.86
#1	-.0008	.0023	-.0016	.0015	.0001	-.0003	-.0006
#2	-.0025	-.0014	-.0001	-.0011	Q-.0331	-.0003	-.0003
#3	Q-.0041	-.0004	-.0035	-.0017	-.0198	-.0003	-.0009

Elem	Hg	Ni	K	Se	Ag	Na	Tl
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0008	.0031	-.1874	.0072	-.0002	.0671	-.0535
SDev	.0077	.0130	.3359	.0177	.0040	.0000	.0115
%RSD	944.1	424.6	179.2	247.3	2235.	.0036	21.43
#1	.0072	Q-.0119	-.5621	.0000	.0044	.0671	-.0403
#2	-.0014	Q.0110	-.0865	.0274	-.0025	.0671	Q-.0613
#3	-.0082	Q.0101	.0865	-.0059	-.0025	.0671	-.0589

Elem	V	Zn	B	Bi	Mo	P	S
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0018	-.0007	-.0000	-.0013	-.0017	-.0178	.0051
SDev	.0005	.0011	.0048	.0101	.0030	.0174	.0464
%RSD	24.74	158.0	1614000.	751.9	173.2	97.46	912.1
#1	-.0021	.0005	-.0055	.0080	-.0035	.0022	.0101
#2	-.0013	-.0017	.0028	-.0120	.0017	-.0295	.0487
#3	-.0021	-.0010	.0028	-.0000	-.0035	-.0262	-.0436

Elem	Si	Sr	Sn	Ti	Y	Zr
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0017	-.0003	.0028	-.0013	Q-.0019	-.0008
SDev	.0000	.0004	.0104	.0000	.0017	.0014
%RSD	.0000	173.2	365.6	.0000	86.60	173.2
#1	-.0017	-.0008	.0145	-.0013	-.0000	-.0016
#2	-.0017	-.0000	-.0006	-.0013	Q-.0029	.0008
#3	-.0017	-.0000	-.0054	-.0013	Q-.0029	-.0016

Method: STD_MTD Sample Name: ICB Operator: NR
Run Time: 08/20/01 14:11:29
Comment: Standardization
Mode: CONC Corr. Factor: 1

Elem	Al	Sb	As	Ba	Be	Cd	Ca
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0177	.0102	.0016	.0007	.00000	Q.0039	-.0049
SDev	.0258	.0106	.0100	.0012	.00000	.0023	.0029
%RSD	145.6	103.9	622.3	173.2	43.299	58.78	58.04
#1	-.0044	-.0020	.0121	.0000	.00000	Q.0037	-.0066
#2	Q-.0475	.0163	-.0080	Q.0020	.00000	.0017	-.0016
#3	-.0013	.0163	.0008	.0000	.00000	Q.0062	-.0066

Elem	Cr	Co	Cu	Fe	Pb	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0011	.0039	-.0001	-.0004	-.0147	.0002	-.0007
SDev	.0012	.0011	.0019	..0011	.0068	.0002	.0004
%RSD	114.6	27.27	1500.	259.9	45.99	86.60	57.28
#1	-.0008	.0050	-.0001	.0009	Q-.0221	.0000	-.0003
#2	.0000	.0039	.0018	-.0011	-.0131	.0003	-.0011
#3	-.0025	.0028	-.0020	-.0011	-.0088	.0003	-.0006

Elem	Hg	Ni	K	Se	Ag	Na	Tl
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0072	.0085	.0577	-.0137	-.0002	.0671	-.0466
SDev	.0022	.0019	.1637	.0137	.0025	.0000	.0256
%RSD	30.89	22.30	283.9	100.00	1412.	.0046	55.05
#1	.0090	Q.0101	.1297	-.0039	.0018	.0671	Q-.0636
#2	.0078	.0064	.1730	-.0078	-.0030	.0671	-.0171
#3	.0047	.0092	-.1297	-.0293	.0007	.0671	-.0590

Elem	V	Zn	B	Bi	Mo	P	S
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0011	-.0012	-.0009	.0127	.0035	.0082	.0079
SDev	.0005	.0011	.0016	.0271	.0030	.0155	.0346
%RSD	43.30	88.79	172.0	213.3	86.61	190.2	436.8
#1	-.0013	-.0010	-.0000	-.0141	.0017	.0260	.0402
#2	-.0005	-.0023	-.0028	.0120	.0017	.0009	-.0286
#3	-.0013	-.0003	-.0000	.0402	.0069	-.0024	.0122

Elem	Si	Sr	Sn	Ti	Y	Zr
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0017	-.0003	.0112	-.0007	-.0010	-.0005
SDev	.0051	.0004	.0039	.0011	.0017	.0017
%RSD	300.0	173.2	34.59	173.2	173.2	370.0
#1	-.0017	-.0008	.0079	-.0013	-.0000	-.0013
#2	-.0067	-.0000	.0102	.0007	Q-.0029	.0015
#3	.0034	-.0000	.0154	-.0013	-.0000	-.0016

Method: STD_MTD Standard: STDLOW
Run Time: 08/20/01 14:16:52

Elem	Cd
Avge	.0002
SDev	.0002
%RSD	100.0
#1	.0002
#2	.0000
#3	.0004

Method: STD_MTD Sample Name: ICB Operator: NR
Run Time: 08/20/01 14:18:28
Comment: Standardization
Mode: CONC Corr. Factor: 1

Elem	Al	Sb	As	Ba	Be	Cd	Ca
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0146	.0041	.0067	-.0000	-.00000	Q-.0020	.0032
SDev	.0067	.0061	.0203	.0000	.00001	.0016	.0049
%RSD	46.09	150.0	303.8	151.6	526.76	79.58	151.6
#1	.0159	-.0020	-.0128	.0000	.00001	-.0010	-.0017
#2	.0073	.0041	.0052	-.0000	-.00000	-.0012	.0032
#3	.0205	.0102	Q.0276	-.0000	-.00001	Q-.0039	.0081

Elem	Cr	Co	Cu	Fe	Pb	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0003	.0041	.0021	.0011	.0022	.0002	-.0003
SDev	.0024	.0013	.0024	.0023	.0080	.0002	.0004
%RSD	865.6	32.86	110.2	210.7	366.2	86.60	129.9
#1	-.0025	.0028	.0003	.0035	-.0045	.0003	-.0006
#2	.0016	.0039	.0014	-.0011	-.0000	.0000	.0002
#3	.0016	.0055	.0048	.0009	.0110	.0003	-.0006

Elem	Hg	Ni	K	Se	Ag	Na	Tl
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0012	Q.0107	.3171	-.0085	.0032	.0839	-.0217
SDev	.0040	.0011	.1800	.0079	.0039	.0222	.0236
%RSD	325.5	9.897	56.77	93.19	122.8	26.46	108.6
#1	.0029	Q.0101	.1730	-.0156	.0002	.0587	-.0264
#2	-.0014	Q.0101	.2594	-.0000	.0076	.0923	-.0427
#3	-.0051	Q.0119	.5189	-.0098	.0018	Q.1006	.0039

Elem	V	Zn	B	Bi	Mo	P	S
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0005	.0002	-.0000	.0254	.0017	-.0084	.0566
SDev	.0028	.0008	.0073	.0392	.0000	.0272	.0200
%RSD	526.7	431.5	106600.	153.9	.0447	323.8	35.30
#1	-.0021	-.0003	-.0055	Q.0643	.0017	-.0269	Q.0659
#2	.0003	-.0003	-.0028	.0261	.0017	.0228	.0336
#3	.0034	.0011	.0083	-.0141	.0017	-.0211	Q.0701

Elem	Si	Sr	Sn	Ti	Y	Zr
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0051	.0000	-.0058	.0007	.0003	.0008
SDev	.0051	.0000	.0049	.0019	.0006	.0012
%RSD	100.00	151.6	84.64	300.0	173.2	148.5
#1	.0000	-.0000	-.0025	-.0013	.0010	.0015
#2	.0101	.0000	-.0035	.0007	.0000	-.0006
#3	.0051	.0000	-.0115	.0026	.0000	.0015

Method: STD_MTD Sample Name: CRI Operator: NR
Run Time: 08/20/01 14:22:43
Comment: Standardization
Mode: CONC Corr. Factor: 1

Elem	Al	Sb	As	Ba	Be	Cd	Ca
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1584	.1593	.0890	.0040	.00501	.0107	.5361
SDev	.0101	.0248	.0127	.0000	.00000	.0012	.0075
%RSD	6.365	15.54	14.33	.0006	.03972	11.38	1.397
#1	.1555	.1634	Q.0785	.0040	.00501	.0093	.5279
#2	.1696	Q.1818	.1032	.0040	.00501	.0112	.5426
#3	.1500	.1328	.0853	.0040	.00501	.0115	.5378

Elem	Cr	Co	Cu	Fe	Pb	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0207	.0594	.0318	.0555	.0974	.2642	.0253
SDev	.0005	.0014	.0031	.0030	.0155	.0030	.0004
%RSD	2.279	2.376	9.874	5.434	15.90	1.140	1.538
#1	.0204	.0583	.0308	.0538	.1122	.2624	.0249
#2	.0204	Q.0610	.0353	.0590	.0989	.2624	.0254
#3	.0212	.0589	.0292	.0538	.0813	.2676	.0257

Elem	Hg	Ni	K	Se	Ag	Na	Tl
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0030	.0501	2.581	.3049	Q.0025	.5954	.2913
SDev	.0031	.0101	.548	.0090	.0068	.0084	.0289
%RSD	102.3	20.23	21.22	2.940	270.6	1.408	9.922
#1	.0059	Q.0394	2.163	.3127	Q-.0014	.5870	.3247
#2	.0034	.0513	Q3.200	.2951	Q.0103	Q.6038	.2735
#3	-.0003	.0595	2.379	.3069	Q-.0014	.5954	.2758

Elem	V	Zn	B	Bi	Mo	P	S
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0239	.0260	Q.1269	Q.2323	.0573	.2462	.3258
SDev	.0008	.0010	.0028	.0137	.0033	.0080	.0215
%RSD	3.297	3.976	2.175	5.885	5.719	3.255	6.584
#1	.0232	.0251	Q.1242	Q.2370	.0539	Q.2369	.3051
#2	.0247	.0271	Q.1269	.2430	.0578	.2505	.3479
#3	.0239	.0257	Q.1297	Q.2169	Q.0604	.2511	.3243

Elem	Si	Sr	Sn	Ti	Y	Zr
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.5278	.0053	.2776	.0508	.0051	.0411
SDev	.0118	.0000	.0078	.0011	.0006	.0074
%RSD	2.236	.0014	2.800	2.221	10.82	18.04
#1	.5143	.0053	.2834	.0495	.0048	Q.0327
#2	.5329	.0053	.2688	.0514	.0058	.0439
#3	.5363	.0053	.2806	.0514	.0048	.0467

Method: STD_MTD Sample Name: ICSA Operator: NR
Run Time: 08/20/01 14:26:51
Comment: Standardization
Mode: CONC Corr. Factor: 1

Elem	Al	Sb	As	Ba	Be	Cd	Ca
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	295.1	.0204	-.0284	-.0002	-.00009	.0034	499.4
SDev	1.3	.0154	.0255	.0012	.00014	.0082	1.4
%RSD	.4436	75.50	89.87	761.6	155.73	243.8	.2719
#1	296.5	.0225	-.0098	-.0015	-.00025	.0078	500.9
#2	293.9	.0041	-.0179	.0005	-.00001	Q-.0061	498.2
#3	295.0	.0347	Q-.0575	.0005	-.00001	Q.0085	499.0

Elem	Cr	Co	Cu	Fe	Pb	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0028	-.0032	-.0043	211.3	-.0046	483.7	-.0079
SDev	.0012	.0010	.0020	1.2	.0007	2.1	.0005
%RSD	41.81	30.51	46.69	.5767	15.07	.4273	6.175
#1	-.0038	-.0031	-.0065	210.6	-.0054	485.8	-.0085
#2	-.0031	-.0042	-.0028	210.6	-.0042	481.7	-.0076
#3	-.0015	-.0023	-.0035	212.8	-.0042	483.4	-.0077

Elem	Hg	Ni	K	Se	Ag	Na	Tl
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0125	.0046	1.196	-.0643	-.0073	-.0852	-.0078
SDev	.0033	.0183	.835	.0275	.0037	.0131	.0498
%RSD	26.00	400.0	69.84	42.79	51.20	15.39	639.4
#1	-.0101	.0229	.2319	-.0360	-.0069	-.0994	.0491
#2	-.0113	.0046	1.652	-.0909	-.0038	-.0735	-.0432
#3	-.0162	Q-.0137	1.703	-.0661	-.0112	-.0828	-.0292

Elem	V	Zn	B	Bi	Mo	P	S
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0039	.0008	-.0046	-.0274	.0137	.0438	Q-.2884
SDev	.0004	.0003	.0080	.0294	.0000	.0076	.1056
%RSD	11.39	44.57	173.4	107.2	.2117	17.31	36.63
#1	.0044	.0012	.0000	-.0379	.0138	.0489	Q-.3644
#2	.0036	.0007	.0000	.0058	.0137	.0351	Q-.1678
#3	.0036	.0005	-.0138	-.0502	.0137	.0473	Q-.3331

Elem	Si	Sr	Sn	Ti	Y	Zr
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0253	.0169	-.0130	.0059	.0000	.0072
SDev	.0000	.0004	.0094	.0011	.0017	.0002
%RSD	.0000	2.619	72.32	19.25	4854.	2.794
#1	.0253	.0172	-.0219	.0065	-.0019	.0071
#2	.0253	.0172	-.0139	.0046	.0010	.0075
#3	.0253	.0164	-.0032	.0065	.0010	.0071

Method: STD_MTD Sample Name: ICSA Operator: NR
Run Time: 08/20/01 14:32:33
Comment: Standardization
Mode: CONC Corr. Factor: 1

Elem	Al	Sb	As	Ba	Be	Cd	Ca
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	292.6	.0123	-.0199	.0005	-.00017	-.0034	494.7
SDev	3.4	.0035	.0079	.0000	.00014	.0030	4.3
%RSD	1.163	28.87	39.76	2.429	79.183	89.86	.8722
#1	289.7	.0102	-.0256	.0005	-.00025	-.0037	490.7
#2	291.7	.0102	-.0232	.0005	-.00001	-.0002	494.0
#3	296.3	.0163	-.0109	.0005	-.00026	Q-.0062	499.3

Elem	Cr	Co	Cu	Fe	Pb	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0046	-.0004	-.0023	209.7	.0061	480.6	-.0077
SDev	.0012	.0016	.0021	2.2	.0220	4.9	.0008
%RSD	26.20	405.1	94.77	1.058	359.2	1.020	10.48
#1	-.0032	.0014	-.0005	207.5	-.0193	476.5	-.0086
#2	-.0048	-.0009	-.0046	209.8	.0184	479.3	-.0075
#3	-.0056	-.0016	-.0016	211.9	.0193	486.0	-.0070

Elem	Hg	Ni	K	Se	Ag	Na	Tl
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0092	.0250	.6977	-.0541	-.0050	-.0758	-.0021
SDev	.0099	.0045	.3585	.0040	.0011	.0109	.0321
%RSD	106.9	18.05	51.38	7.482	22.18	14.38	1529.
#1	.0010	.0220	.3402	-.0588	-.0059	-.0633	.0176
#2	-.0101	.0229	.6957	-.0516	-.0038	-.0812	.0152
#3	-.0187	.0302	1.057	-.0519	-.0054	-.0830	-.0391

Elem	V	Zn	B	Bi	Mo	P	S
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0051	.0005	-.0092	.0108	.0154	.0559	.0752
SDev	.0014	.0020	.0016	.0612	.0030	.0187	.0291
%RSD	27.65	387.3	17.30	567.1	19.20	33.54	38.66
#1	.0035	.0018	-.0083	-.0475	.0188	.0460	.0468
#2	.0059	.0015	-.0083	.0053	.0137	.0775	.1049
#3	.0060	-.0018	-.0110	.0746	.0138	.0442	.0740

Elem	Si	Sr	Sn	Ti	Y	Zr
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0247	.0169	.0094	.0072	.0000	.0064
SDev	.0049	.0005	.0106	.0011	.0017	.0012
%RSD	19.68	2.813	112.7	15.75	6705.	18.90
#1	.0219	.0163	.0032	.0065	-.0019	.0071
#2	.0304	.0171	.0034	.0085	.0010	.0050
#3	.0219	.0172	.0217	.0065	.0010	.0071

Method: STD_MTD Sample Name: ICSAB Operator: NR
Run Time: 08/20/01 14:36:41
Comment: Standardization
Mode: CONC Corr. Factor: 1

Elem	Al	Sb	As	Ba	Be	Cd	Ca
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	292.1	1.017	.9206	.4752	.47803	.9825	493.1
SDev	3.7	.028	.0108	.0061	.00581	.0185	5.8
%RSD	1.281	2.782	1.176	1.293	1.2147	1.887	1.168
#1	288.2	.9845	.9319	.4685	.47193	.9684	487.0
#2	292.5	1.033	.9104	.4765	.47868	.9757	494.0
#3	295.7	1.033	.9195	.4806	.48349	1.004	498.4

Elem	Cr	Co	Cu	Fe	Pb	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.4747	.4834	.4802	212.0	.9835	479.9	.4656
SDev	.0053	.0012	.0068	1.6	.0176	5.6	.0069
%RSD	1.119	.2542	1.423	.7362	1.787	1.162	1.480
#1	.4686	.4822	.4739	210.2	.9854	474.0	.4581
#2	.4777	.4846	.4792	212.7	.9651	480.4	.4670
#3	.4778	.4835	.4875	213.1	1.000	485.1	.4716

Elem	Hg	Ni	K	Se	Ag	Na	Tl
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0069	.9915	1.135	.9415	.9735	-.0819	.0087
SDev	.0172	.0069	.152	.0348	.0151	.0135	.0428
%RSD	248.4	.6933	13.43	3.693	1.547	16.46	493.9
#1	-.0073	.9835	1.035	.9346	.9573	-.0887	.0264
#2	-.0240	.9954	1.310	.9106	.9759	-.0906	.0397
#3	.0105	.9954	1.059	.9792	.9871	-.0664	-.0401

Elem	V	Zn	B	Bi	Mo	P	S
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.4802	.9854	-.0146	-.0425	.0186	.0389	.0172
SDev	.0068	.0131	.0028	.0713	.0008	.0180	.0577
%RSD	1.425	1.324	18.90	167.8	4.036	46.32	335.5
#1	.4741	.9710	-.0146	-.1217	.0189	.0181	.0528
#2	.4789	.9885	-.0174	-.0223	.0177	.0494	-.0494
#3	.4876	.9966	-.0119	.0165	.0191	.0492	.0481

Elem	Si	Sr	Sn	Ti	Y	Zr
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0320	.0171	-.0020	.0065	-.0009	.0011
SDev	.0017	.0008	.0074	.0000	.0017	.0020
%RSD	5.263	4.592	369.3	.0000	176.1	192.5
#1	.0320	.0171	-.0104	.0065	.0010	.0022
#2	.0337	.0164	.0011	.0065	-.0019	-.0013
#3	.0304	.0179	.0033	.0065	-.0019	.0022

Method: STD_MTD Sample Name: STDAHIGH Operator: NR
Run Time: 08/20/01 14:42:36
Comment: Standardization
Mode: CONC Corr. Factor: 1

Elem	Al	Sb	As	Ba	Be	Cd	Ca
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	19.64	.1450	5.131	9.739	5.0696	5.031	101.8
SDev	.49	.0267	.134	.298	.1272	.097	2.0
%RSD	2.519	18.42	2.619	3.061	2.5095	1.925	1.996
#1	19.07	.1266	4.990	Q9.402	4.9256	4.921	99.46
#2	19.84	.1757	5.146	9.848	5.1165	5.069	102.6
#3	20.00	.1328	Q5.257	9.968	5.1668	5.103	103.3

Elem	Cr	Co	Cu	Fe	Pb	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	10.14	10.17	9.788	20.13	10.31	98.68	10.14
SDev	.22	.21	.283	.47	.18	2.55	.24
%RSD	2.134	2.111	2.889	2.352	1.707	2.582	2.361
#1	9.899	9.931	Q9.470	19.60	10.11	95.81	9.872
#2	10.22	10.26	9.886	20.30	10.38	99.56	10.23
#3	10.31	10.34	10.01	20.51	10.44	100.7	10.33

Elem	Hg	Ni	K	Se	Ag	Na	Tl
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.267	5.119	97.76	5.077	4.927	97.25	10.31
SDev	.115	.129	2.86	.087	.120	2.77	.19
%RSD	9.082	2.526	2.929	1.718	2.437	2.844	1.891
#1	1.157	4.970	Q94.46	5.003	4.790	Q94.15	10.09
#2	1.256	5.196	99.39	5.054	4.974	98.14	10.36
#3	1.387	5.191	99.44	5.173	5.016	99.47	10.47

Elem	V	Zn	B	Bi	Mo	P	S
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.028	20.09	9.981	4.959	.0102	51.20	.1022
SDev	.121	.43	.304	.066	.0046	.92	.0455
%RSD	2.398	2.154	3.051	1.326	44.90	1.793	44.54
#1	4.891	19.60	9.635	4.897	.0097	50.18	.0764
#2	5.071	20.23	10.10	4.952	.0150	51.50	.0754
#3	5.120	20.43	10.21	5.028	.0059	51.94	.1547

Elem	Si	Sr	Sn	Ti	Y	Zr
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0208	4.907	-.0129	.0046	9.875	-.0261
SDev	.0010	.145	.0063	.0000	.260	.0013
%RSD	4.681	2.958	49.11	.0000	2.628	4.829
#1	.0219	Q4.744	-.0062	.0046	9.581	-.0247
#2	.0202	4.957	-.0135	.0046	9.973	-.0265
#3	.0202	5.021	-.0188	.0046	10.07	-.0272

Method: STD_MTD Sample Name: STDBHIGH Operator: NR
Run Time: 08/20/01 14:47:56
Comment: Standardization
Mode: CONC Corr. Factor: 1

Elem	Al	Sb	As	Ba	Be	Cd	Ca
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1123	5.059	-.0143	.0000	-.00120	-.0009	-.0902
SDev	.0089	.032	.0131	.0020	.00000	.0026	.0049
%RSD	7.907	.6409	92.05	745300.	.29011	289.0	5.441
#1	.1097	5.035	-.0090	-.0020	-.00119	-.0029	-.0902
#2	.1050	5.096	-.0292	.0000	-.00119	.0020	-.0951
#3	.1222	5.047	-.0046	.0020	-.00120	-.0018	-.0853

Elem	Cr	Co	Cu	Fe	Pb	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0033	.0173	.0058	103.9	.0144	10.31	-.0027
SDev	.0014	.0000	.0028	.4	.0200	.08	.0003
%RSD	42.55	.2101	48.07	.4087	139.5	.8031	10.87
#1	-.0025	.0173	.0036	104.1	-.0003	10.33	-.0023
#2	-.0049	.0174	.0048	103.5	.0372	10.38	-.0028
#3	-.0025	.0173	.0089	104.3	.0063	10.22	-.0029

Elem	Hg	Ni	K	Se	Ag	Na	Tl
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0093	.0067	.3484	-.0386	.0654	.0742	-.4020
SDev	.0036	.0070	.2838	.0229	.0043	.0193	.0204
%RSD	39.03	104.1	81.47	59.38	6.533	26.01	5.068
#1	.0134	.0128	.0893	-.0184	.0613	.0630	-.4190
#2	.0066	-.0009	.3042	-.0338	.0650	.0631	-.4075
#3	.0078	.0082	.6518	-.0635	.0698	.0965	-.3794

Elem	V	Zn	B	Bi	Mo	P	S
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0048	-.0175	.0175	-.1547	5.143	.0380	10.21
SDev	.0014	.0004	.0057	.0472	.049	.0103	.06
%RSD	28.51	2.465	32.92	30.54	.9566	27.08	.5544
#1	-.0056	-.0180	.0221	-.1768	5.154	.0398	10.18
#2	-.0056	-.0172	.0110	-.1868	5.185	.0473	10.27
#3	-.0032	-.0173	.0193	-.1004	5.089	.0269	10.17

Elem	Si	Sr	Sn	Ti	Y	Zr
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	10.12	-.0000	10.49	10.10	.0010	10.11
SDev	.08	.0000	.05	.10	.0000	.12
%RSD	.7780	5.441	.4415	1.027	.0010	1.154
#1	10.08	-.0000	10.47	10.14	.0010	10.16
#2	10.21	-.0000	Q10.54	10.18	.0010	10.19
#3	10.07	-.0000	10.45	9.986	.0010	9.974

Method: STD_MTD Sample Name: HCL Operator: NR
Run Time: 08/20/01 14:52:07
Comment: Standardization
Mode: CONC Corr. Factor: 1

Elem	Al	Sb	As	Ba	Be	Cd	Ca
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0115	.0000	.0045	.0000	.00000	-.0008	-.0017
SDev	.0066	.0071	.0222	.0000	.00001	.0009	.0049
%RSD	57.37	2279e6	499.4	297.1	305.55	108.0	297.1
#1	.0191	.0041	-.0106	.0000	.00001	.0002	-.0066
#2	.0081	.0041	-.0060	.0000	.00000	-.0011	-.0017
#3	.0073	-.0082	.0300	-.0000	-.00000	-.0016	.0033

Elem	Cr	Co	Cu	Fe	Pb	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0027	.0018	.0005	.0059	-.0192	.0005	-.0003
SDev	.0009	.0011	.0002	.0054	.0163	.0002	.0003
%RSD	34.63	59.98	43.30	92.52	84.90	43.30	74.97
#1	-.0033	.0018	.0006	.0120	-.0133	.0007	-.0003
#2	-.0033	.0028	.0003	.0041	-.0066	.0003	-.0006
#3	-.0016	.0007	.0006	.0015	-.0375	.0003	-.0001

Elem	Hg	Ni	K	Se	Ag	Na	Tl
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0057	.0040	-.0576	-.0274	.0035	-.0196	-.0427
SDev	.0037	.0090	.3626	.0153	.0022	.0097	.0101
%RSD	65.13	227.7	629.2	55.78	62.50	49.49	23.76
#1	-.0101	.0082	.1730	-.0098	.0028	-.0252	-.0357
#2	-.0033	.0101	-.4756	-.0371	.0018	-.0252	-.0380
#3	-.0039	-.0064	.1297	-.0352	.0060	-.0084	-.0543

Elem	V	Zn	B	Bi	Mo	P	S
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0008	.0002	.0074	.0281	.0091	-.0150	.0129
SDev	.0024	.0004	.0016	.0296	.0092	.0106	.0066
%RSD	305.5	198.1	21.64	105.2	100.3	70.72	50.77
#1	-.0029	.0004	.0083	.0221	.0187	-.0269	.0144
#2	-.0013	-.0003	.0083	Q.0602	.0083	-.0062	.0057
#3	.0018	.0005	.0055	.0020	.0004	-.0120	.0186

Elem	Si	Sr	Sn	Ti	Y	Zr
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	Q.0697	.0003	.0113	.0013	-.0010	.0044
SDev	.0172	.0004	.0055	.0011	.0017	.0028
%RSD	24.71	173.2	48.65	86.60	173.2	63.32
#1	Q.0894	-.0000	.0173	.0026	-.0000	.0071
#2	Q.0624	-.0000	.0065	.0007	-.0029	.0047
#3	Q.0573	.0008	.0102	.0007	.0000	.0015

Method: STD_MTD Sample Name: HCL Operator: NR
Run Time: 08/20/01 14:56:17
Comment: Standardization
Mode: CONC Corr. Factor: 1

Elem	Al	Sb	As	Ba	Be	Cd	Ca
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0125	-.0102	.0104	.0007	-.00008	-.0013	-.0049
SDev	.0103	.0255	.0123	.0012	.00014	.0002	.0028
%RSD	82.38	249.8	118.2	173.2	176.08	14.13	57.43
#1	.0034	-.0020	-.0038	.0000	.00000	-.0011	-.0017
#2	.0104	-.0388	.0165	.0000	-.00000	-.0014	-.0065
#3	.0237	.0102	.0186	.0020	-.00024	-.0014	-.0066

Elem	Cr	Co	Cu	Fe	Pb	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0033	.0021	.0014	-.0002	-.0147	.0003	-.0002
SDev	.0028	.0017	.0028	.0015	.0046	.0000	.0001
%RSD	86.59	80.36	205.9	692.8	31.03	.0000	86.59
#1	-.0065	.0028	-.0016	-.0011	-.0199	.0003	-.0001
#2	-.0016	.0002	.0018	-.0011	-.0133	.0003	-.0003
#3	-.0016	.0034	.0040	.0015	-.0111	.0003	-.0001

Elem	Hg	Ni	K	Se	Ag	Na	Tl
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0035	.0043	.1297	-.0020	.0043	-.0140	-.0458
SDev	.0013	.0151	.6544	.0218	.0022	.0128	.0364
%RSD	36.67	353.6	504.4	1111.	52.06	91.65	79.48
#1	-.0045	.0046	-.0865	.0176	.0018	-.0000	Q-.0845
#2	-.0039	.0192	-.3892	-.0254	.0060	-.0168	-.0124
#3	-.0021	-.0110	.8648	.0019	.0050	-.0252	-.0403

Elem	V	Zn	B	Bi	Mo	P	S
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0000	-.0005	.0064	.0141	.0017	.0024	.0137
SDev	.0012	.0005	.0042	.0279	.0013	.0140	.0075
%RSD	20e6	94.02	65.55	198.4	74.99	594.0	55.06
#1	-.0013	-.0002	.0055	-.0181	.0030	-.0133	.0208
#2	.0003	-.0010	.0110	.0321	.0004	.0067	.0058
#3	.0011	-.0002	.0028	.0281	.0017	.0138	.0144

Elem	Si	Sr	Sn	Ti	Y	Zr
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0377	.0003	.0028	.0000	-.0006	.0005
SDev	.0059	.0004	.0086	.0011	.0011	.0009
%RSD	15.72	173.2	303.8	2906e6	173.2	198.4
#1	.0320	-.0000	.0013	-.0013	-.0000	-.0006
#2	.0371	.0008	-.0049	.0007	-.0000	.0012
#3	.0438	-.0000	.0121	.0007	-.0019	.0008

Method: STD_MTD Sample Name: BL0820 100 Operator: NR1
Run Time: 08/21/01 05:52:54
Comment: 0820 SSG1 DG3050B
Mode: CONC Corr. Factor: 1

Elem	Al	Sb	As	Ba	Be	Cd	Ca
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0075	-.0020	-.0142	.0007	.00016	.0032	.0878
SDev	.0219	.0173	.0078	.0000	.00015	.0019	.0029
%RSD	292.9	866.0	55.07	.0012	89.230	59.62	3.284
#1	-.0295	-.0120	-.0149	.0007	.00008	.0011	.0895
#2	.0143	-.0120	-.0061	.0007	.00008	.0047	.0845
#3	-.0072	.0179	-.0218	.0007	.00033	.0037	.0895

Elem	Cr	Co	Cu	Fe	Pb	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0033	-.0011	.0026	.0377	.0192	.0112	.0014
SDev	.0017	.0009	.0002	.0012	.0100	.0002	.0003
%RSD	52.04	86.43	8.660	3.111	51.74	1.883	18.77
#1	.0014	-.0016	.0025	.0384	.0089	.0110	.0017
#2	.0038	-.0016	.0025	.0363	.0288	.0113	.0012
#3	.0047	-.0000	.0029	.0384	.0200	.0113	.0014

Elem	Hg	Ni	K	Se	Ag	Na	Tl
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0053	-.0009	.6137	.0103	.0040	-.0565	-.0016
SDev	.0079	.0120	.2473	.0336	.0023	.0103	.0086
%RSD	150.8	1266.	40.29	326.1	56.75	18.23	523.2
#1	.0136	-.0139	.7335	-.0131	.0047	-.0684	.0033
#2	.0044	.0013	.3294	-.0048	.0058	-.0506	-.0115
#3	-.0022	.0098	.7784	.0489	.0015	-.0506	.0033

Elem	V	Zn	B	Bi	Mo	P	S
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0023	.0018	-.0009	.0317	.0043	.0374	.0111
SDev	.0005	.0015	.0057	.0387	.0033	.0039	.0126
%RSD	21.64	80.88	601.3	122.2	76.97	10.40	112.9
#1	.0025	.0035	.0047	.0626	.0024	.0390	-.0024
#2	.0017	.0014	-.0009	.0441	.0024	.0403	.0134
#3	.0025	.0006	-.0066	-.0117	.0081	.0330	.0224

Elem	Si	Sr	Sn	Ti	Y	Zr
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0106	.0000	.0046	.0022	.0013	.0031
SDev	.0041	.0000	.0082	.0013	.0000	.0017
%RSD	38.49	3.284	180.3	57.74	.0004	55.43
#1	.0059	.0000	.0076	.0036	.0013	.0040
#2	.0130	.0000	-.0047	.0014	.0013	.0011
#3	.0130	.0000	.0109	.0014	.0013	.0040

Method: STD_MTD Sample Name: BL0820S 100 Operator: NR1
Run Time: 08/21/01 05:57:14
Comment: 0820 SSG1 DG3050B
Mode: CONC Corr. Factor: 1

Elem	Al	Sb	As	Ba	Be	Cd	Ca
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.984	.5245	.4904	1.006	.50278	.4910	10.47
SDev	.031	.0125	.0024	.014	.00591	.0120	.07
%RSD	1.561	2.375	.4955	1.415	1.1756	2.451	.6589
#1	1.951	.5205	.4892	.9904	.49601	.4771	10.39
#2	1.991	.5385	.4888	1.018	.50693	.4974	10.52
#3	2.012	.5146	.4932	1.011	.50540	.4986	10.51

Elem	Cr	Co	Cu	Fe	Pb	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.016	1.031	1.010	12.30	1.022	11.42	1.002
SDev	.009	.011	.008	- .13	.005	.14	.016
%RSD	.9107	1.057	.7927	1.071	.4936	1.249	1.556
#1	1.006	1.019	1.002	12.15	1.017	11.26	.9842
#2	1.022	1.040	1.018	12.40	1.025	11.51	1.012
#3	1.021	1.035	1.011	12.36	1.025	11.50	1.011

Elem	Hg	Ni	K	Se	Ag	Na	Tl
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1590	.5102	10.22	.4841	.5095	9.790	.9443
SDev	.0072	.0118	.13	.0172	.0025	.139	.0657
%RSD	4.545	2.306	1.265	3.546	.4935	1.424	6.959
#1	.1507	.4967	10.30	.4704	.5067	9.630	L.8685
#2	.1638	.5175	10.07	.4786	.5100	9.862	.9798
#3	.1625	.5165	10.30	.5034	.5117	9.880	.9847

Elem	V	Zn	B	Bi	Mo	P	S
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.4950	2.000	.9963	.4698	.5363	4.972	1.059
SDev	.0083	.012	.0100	.0290	.0095	.062	.036
%RSD	1.676	.5940	.9995	6.170	1.771	1.239	3.402
#1	.4854	1.987	.9860	.4973	.5258	4.938	1.039
#2	.4998	2.010	1.006	.4726	.5387	4.934	1.100
#3	.4998	2.004	.9973	L.4396	.5444	5.043	1.037

Elem	Si	Sr	Sn	Ti	Y	Zr
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.9358	.4972	1.014	1.049	.9883	1.031
SDev	.0096	.0108	.021	.017	.0129	.012
%RSD	1.025	2.166	2.046	1.667	1.301	1.208
#1	.9252	.4848	.9910	1.029	.9736	1.017
#2	.9438	.5030	1.032	1.059	.9976	1.040
#3	.9385	.5039	1.018	1.059	.9936	1.036

Analysis Report 08/21/01 06:05:46 AM

Method: STD_MTD Sample Name: BL0820X 100 Operator: NR1
Run Time: 08/21/01 06:01:34
Comment: 0820 SSG1 DG3050B
Mode: CONC Corr. Factor: 1

Elem	Al	Sb	As	Ba	Be	Cd	Ca
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.078	.5445	.5256	1.041	.52266	.5208	10.76
SDev	.019	.0158	.0168	.007	.00308	.0021	.08
%RSD	.9071	2.907	3.191	.7057	.58904	.3978	.7711
#1	2.057	.5385	.5063	1.041	.52089	.5198	10.68
#2	2.086	.5325	.5354	1.034	.52088	.5194	10.74
#3	2.092	H.5624	.5353	1.049	.52622	.5232	10.85

Elem	Cr	Co	Cu	Fe	Pb	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.051	1.062	1.047	12.75	1.058	11.86	1.046
SDev	.014	.010	.009	.08	.018	.08	.006
%RSD	1.369	.9137	.8662	.6409	1.690	.6603	.6012
#1	1.037	1.054	1.043	12.70	1.039	11.80	1.041
#2	1.051	1.059	1.041	12.71	1.074	11.82	1.043
#3	1.066	1.073	1.058	12.85	1.061	11.95	1.053

Elem	Hg	Ni	K	Se	Ag	Na	Tl
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1625	.5437	10.76	.5267	.5252	10.18	.9954
SDev	.0272	.0129	.23	.0195	.0032	.06	.0387
%RSD	16.73	2.365	2.138	3.707	.6113	.6133	3.884
#1	.1848	.5289	10.70	.5115	.5215	10.14	.9600
#2	.1322	.5506	11.02	.5487	.5276	10.16	1.037
#3	.1704	.5516	10.57	.5197	.5265	10.25	.9896

Elem	V	Zn	B	Bi	Mo	P	S
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.5218	2.057	1.034	.4967	H.5653	5.201	1.020
SDev	.0037	.014	.010	.0168	.0033	.056	.047
%RSD	.7064	.6895	.9889	3.384	.5826	1.075	4.646
#1	.5192	2.044	1.026	.5160	H.5615	5.157	.9680
#2	.5201	2.057	1.031	.4850	H.5672	5.182	1.030
#3	.5260	2.072	1.046	.4892	H.5672	5.264	1.061

Elem	Si	Sr	Sn	Ti	Y	Zr
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.9843	.5229	1.043	1.105	1.023	1.076
SDev	.0082	.0022	.028	.006	.006	.010
%RSD	.8368	.4193	2.727	.5181	.6109	.9576
#1	.9775	.5221	1.015	1.100	1.021	1.071
#2	.9819	.5213	1.041	1.103	1.018	1.070
#3	.9934	.5254	1.072	H1.111	1.030	1.088

Analysis Report 08/21/01 06:11:59 AM

Method: STD_MTD Sample Name: ERA245 100 Operator: NR1
Run Time: 08/21/01 06:07:47
Comment: 0820 SSG1 DG3050B
Mode: CONC Corr. Factor: 1

Elem	Al	Sb	As	Ba	Be	Cd	Ca
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	71.70	1.151	1.351	1.386	.99139	1.232	126.4
SDev	.46	.056	.009	.016	.00573	.017	1.2
%RSD	.6410	4.831	.6564	1.179	.57825	1.346	.9183
#1	71.30	1.089	1.354	1.375	.98579	1.249	125.2
#2	71.60	H1.197	1.341	1.377	.99113	1.229	126.3
#3	72.20	1.167	1.358	1.404	.99725	1.216	127.5

Elem	Cr	Co	Cu	Fe	Pb	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.9120	1.225	1.291	159.6	1.510	29.14	3.273
SDev	.0078	.007	.015	1.5	.019	.13	.012
%RSD	.8600	.5712	1.187	.9552	1.241	.4622	.3724
#1	.9032	1.217	1.279	160.4	1.499	29.00	3.262
#2	.9147	1.229	1.285	160.6	1.532	29.14	3.269
#3	.9182	1.229	1.308	157.9	1.499	29.27	3.286

Elem	Hg	Ni	K	Se	Ag	Na	Tl
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	L.0243	1.699	33.53	.9190	1.295	7.726	1.364
SDev	.0151	.012	.51	.0302	.013	.034	.007
%RSD	62.38	.7313	1.512	3.292	1.039	.4385	.5496
#1	L.0094	1.685	34.09	.9449	1.283	7.687	1.356
#2	L.0396	1.701	33.42	.9263	1.294	7.750	1.371
#3	L.0238	1.710	33.10	.8858	1.310	7.742	1.365

Elem	V	Zn	B	Bi	Mo	P	S
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.7855	.6682	1.208	-.0609	1.075	10.49	7.153
SDev	.0010	.0069	.020	.0201	.001	.09	.120
%RSD	.1221	1.036	1.667	32.97	.0768	.8809	1.680
#1	.7844	.6636	1.190	-.0830	1.074	10.39	7.203
#2	.7861	.6649	1.204	-.0437	1.075	10.51	7.016
#3	.7860	.6762	1.230	-.0561	1.075	10.58	7.240

Elem	Si	Sr	Sn	Ti	Y	Zr
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.728	.8492	1.020	2.008	.0786	.0664
SDev	.049	.0043	.012	.011	.0017	.0059
%RSD	.8536	.5017	1.161	.5701	2.207	8.896
#1	5.699	.8480	1.007	1.999	.0776	.0725
#2	5.701	.8456	1.030	2.004	.0776	.0659
#3	5.785	.8539	1.023	2.021	.0806	.0607

Analysis Report 08/21/01 06:16:20 AM

Method: STD_MTD Sample Name: 044971 100 Operator: NR1
Run Time: 08/21/01 06:12:08
Comment: 0820 SSG1 DG3050B
Mode: CONC Corr. Factor: 1

Elem	Al	Sb	As	Ba	Be	Cd	Ca
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	40.75	.0319	.1005	1.026	.00487	.0197	572.9
SDev	.44	.0192	.0070	.008	.00014	.0012	1.9
%RSD	1.073	60.27	7.015	.8150	2.8800	6.097	.3301
#1	40.25	.0239	.0944	1.018	.00470	.0198	571.6
#2	41.03	.0179	.0990	1.035	.00495	.0185	575.1
#3	40.98	.0538	.1082	1.026	.00494	.0209	572.1

Elem	Cr	Co	Cu	Fe	Pb	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.6806	.0425	1.042	305.1	2.934	91.82	9.620
SDev	.0032	.0022	.005	3.6	.010	.60	.116
%RSD	.4692	5.060	.4487	1.186	.3451	.6551	1.210
#1	.6772	.0450	1.037	301.1	2.945	91.25	9.486
#2	.6836	.0412	1.046	308.2	2.926	92.45	9.679
#3	.6811	.0414	1.042	306.1	2.931	91.77	9.695

Elem	Hg	Ni	K	Se	Ag	Na	Tl
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0150	.2965	5.444	L-.0094	L-.0027	3.069	L-.0198
SDev	.0198	.0158	.213	.0318	.0025	.062	.0289
%RSD	132.4	5.321	3.904	339.3	92.19	2.017	145.6
#1	.0277	.3015	5.689	.0215	L-.0042	3.005	L-.0346
#2	.0250	.3091	5.302	L-.0075	.0002	3.074	L-.0383
#3	L-.0079	.2788	5.342	L-.0421	L-.0042	3.128	.0134

Elem	V	Zn	B	Bi	Mo	P	S
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1913	3.568	.0908	L-.0816	.0489	13.77	14.47
SDev	.0035	.019	.0043	.0095	.0050	.20	.03
%RSD	1.815	.5382	4.778	11.60	10.24	1.423	.1931
#1	.1881	3.547	.0899	L-.0763	.0493	13.55	14.44
#2	.1909	3.586	.0956	L-.0759	.0436	13.83	14.48
#3	.1950	3.571	.0870	L-.0925	.0536	13.93	14.49

Elem	Si	Sr	Sn	Ti	Y	Zr
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	9.955	1.458	.0959	1.870	.0708	.0761
SDev	.096	.026	.0085	.025	.0006	.0014
%RSD	.9611	1.762	8.895	1.322	.8121	1.832
#1	9.845	1.428	.1057	1.841	.0715	.0751
#2	10.02	1.471	.0922	1.883	.0705	.0754
#3	10.00	1.475	.0899	1.886	.0705	.0777

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Method: STD_MTD Sample Name: 044971D 100 Operator: NR1
Run Time: 08/21/01 06:16:27
Comment: 0820 SSG1 DG3050B
Mode: CONC Corr. Factor: 1

Elem	Al	Sb	As	Ba	Be	Cd	Ca
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	41.07	.0239	.1457	.9162	.00514	.0234	562.0
SDev	.15	.0104	.0027	.0032	.00015	.0051	1.3
%RSD	.3669	43.30	1.838	.3485	2.8641	21.95	.2360
#1	40.92	.0359	.1479	.9135	.00497	~~.0175~~ NLCS?	560.6
#2	41.23	.0179	.1464	.9197	.00522	.0264	563.1
#3	41.07	.0179	.1427	.9155	.00523	.0264	562.5

Elem	Cr	Co	Cu	Fe	Pb	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.5545	.0402	2.674	336.1	4.240	89.62	9.871
SDev	.0008	.0022	.008	.4	.039	.30	.045
%RSD	.1494	5.600	.2972	.1337	.9290	.3330	.4577
#1	.5544	.0377	2.667	336.5	4.212	89.35	9.822
#2	.5537	.0420	2.683	336.1	4.223	89.94	9.911
#3	.5553	.0410	2.672	335.6	4.285	89.58	9.881

Elem	Hg	Ni	K	Se	Ag	Na	Tl
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	L-.0021	.2276	5.650	L-.0397	L-.0023	3.079	.0047
SDev	.0150	.0198	.114	.0089	.0022	.021	.0254
%RSD	701.2	8.688	2.012	22.33	98.32	.6732	538.6
#1	.0145	.2504	5.636	L-.0337	L-.0026	3.067	.0114
#2	L-.0144	.2182	5.770	L-.0356	L-.0043	3.067	L-.0233
#3	L-.0065	.2144	5.544	L-.0499	.0001	3.103	.0261

Elem	V	Zn	B	Bi	Mo	P	S
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1849	4.147	.1192	L-.0418	.0393	14.63	15.40
SDev	.0017	.010	.0066	.0657	.0079	.09	.11
%RSD	.9178	.2458	5.501	157.2	20.20	.6362	.7387
#1	.1849	4.136	.1155	.0181	.0322	14.53	15.50
#2	.1866	4.156	.1155	L-.0314	.0479	14.67	15.44
#3	.1832	4.148	.1268	L-.1120	.0379	14.71	15.28

Elem	Si	Sr	Sn	Ti	Y	Zr
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	9.017	1.498	.1171	1.903	.0675	.0726
SDev	.020	.009	.0083	.010	.0000	.0020
%RSD	.2222	.5925	7.114	.5052	.0039	2.791
#1	9.003	1.488	.1075	1.892	.0675	.0707
#2	9.040	1.505	.1223	1.911	.0675	.0747
#3	9.007	1.500	.1215	1.906	.0675	.0725

Analysis Report 08/21/01 06:24:59 AM page 1

Method: STD_MTD Sample Name: 044971S 100 Operator: NR1
Run Time: 08/21/01 06:20:47
Comment: 0820 SSG1 DG3050B
Mode: CONC Corr. Factor: 1

Elem	Al	Sb	As	Ba	Be	Cd	Ca
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	45.68	.5325	.5920	1.960	.49295	.4847	579.5
SDev	2.21	.0120	.0293	.060	.02385	.0522	8.4
%RSD	4.838	2.247	4.953	3.058	4.8390	10.76	1.453
#1	46.90	.5445	.6032	1.990	.50594	.5198	582.1
#2	47.02	.5325	.6141	1.998	.50748	.5095	586.2
#3	43.13	.5205	.5587	1.891	.46542	~~.4247~~	570.0

Elem	Cr	Co	Cu	Fe	Pb	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.554	1.009	2.145	306.7	4.479	97.93	10.89
SDev	.033	.021	.049	27.5	.144	2.31	.60
%RSD	2.136	2.119	2.304	8.963	3.225	2.362	5.519
#1	1.566	1.016	2.162	325.0	4.564	98.85	11.24
#2	1.580	1.026	2.183	319.9	4.562	99.63	11.24
#3	1.517	.9848	2.089	275.1	4.313	95.29	10.20

Elem	Hg	Ni	K	Se	Ag	Na	Tl
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1675	.6709	16.62	.4909	.5032	13.20	.7916
SDev	.0099	.0426	.53	.0236	.0071	.67	.0947
%RSD	5.920	6.350	3.187	4.808	1.412	5.097	11.96
#1	.1779	.7031	16.80	.5104	.5065	13.57	.8418
#2	.1582	.6870	16.03	.4976	.5081	13.60	.8507
#3	.1663	.6226	17.04	.4646	.4951	12.42	.6824

Elem	V	Zn	B	Bi	Mo	P	S
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.6571	6.191	1.081	.3960	.5418	18.02	15.40
SDev	.0504	.164	.037	.0610	.0414	1.08	.38
%RSD	7.664	2.645	3.387	15.40	7.644	5.986	2.459
#1	.6891	6.265	1.091	.4135	.5613	18.60	15.57
#2	.6830	6.304	1.111	.4464	.5699	18.68	15.66
#3	.5990	6.003	1.040	.3282	.4943	16.77	14.96

Elem	Si	Sr	Sn	Ti	Y	Zr
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	8.224	1.994	1.332	2.961	1.025	1.048
SDev	.310	.150	.039	.176	.034	.034
%RSD	3.775	7.503	2.906	5.938	3.274	3.217
#1	8.396	2.083	1.370	3.064	1.043	1.066
#2	8.409	2.077	1.332	3.061	1.047	1.069
#3	7.865	1.821	1.293	2.758	.9867	1.009

Analysis Report 08/21/01 06:29:19 AM

Method: STD_MTD Sample Name: 044971X 100 Operator: NR1
Run Time: 08/21/01 06:25:07
Comment: 0820 SSG1 DG3050B
Mode: CONC Corr. Factor: 1

Elem	Al	Sb	As	Ba	Be	Cd	Ca
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	48.37	.5205	.6080	1.911	.49728	.4857	588.9
SDev	.30	.0158	.0237	.010	.00310	.0088	1.5
%RSD	.6104	3.041	3.900	.5315	.62280	1.817	.2520
#1	48.68	.5265	.6250	1.920	.50066	.4956	589.3
#2	48.10	.5026	.5809	1.900	.49458	.4786	587.3
#3	48.32	.5325	.6181	1.914	.49660	.4831	590.1

Elem	Cr	Co	Cu	Fe	Pb	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.556	1.023	2.066	301.3	4.010	100.9	10.16
SDev	.009	.006	.008	1.8	.029	.3	.07
%RSD	.5551	.5665	.3884	.5887	.7217	.3190	.6619
#1	1.561	1.020	2.073	301.1	4.035	101.1	10.23
#2	1.546	1.018	2.057	303.2	3.978	100.5	10.10
#3	1.561	1.029	2.067	299.6	4.018	101.0	10.14

Elem	Hg	Ni	K	Se	Ag	Na	Tl
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1552	.6709	16.52	.4553	.5097	13.22	.8626
SDev	.0042	.0287	.63	.0107	.0036	.09	.0440
%RSD	2.731	4.273	3.834	2.354	.6996	.7050	5.099
#1	.1503	.6482	17.02	.4457	.5099	13.33	.9130
#2	.1569	.7031	15.81	.4533	.5060	13.16	.8316
#3	.1582	.6615	16.74	.4669	.5132	13.18	.8433

Elem	V	Zn	B	Bi	Mo	P	S
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.6572	5.864	1.065	.4411	.5756	19.77	16.41
SDev	.0063	.022	.007	.0464	.0038	.20	.08
%RSD	.9660	.3774	.6713	10.51	.6557	1.011	.5009
#1	.6631	5.887	1.071	.3903	.5742	20.00	16.37
#2	.6505	5.843	1.057	.4522	.5728	19.68	16.35
#3	.6580	5.862	1.065	.4810	.5799	19.63	16.50

Elem	Si	Sr	Sn	Ti	Y	Zr
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	8.583	1.953	1.031	2.968	1.036	1.053
SDev	.045	.019	.012	.021	.005	.006
%RSD	.5301	.9789	1.193	.7127	.4462	.5942
#1	8.634	1.975	1.042	2.991	1.039	1.059
#2	8.546	1.938	1.017	2.950	1.031	1.047
#3	8.569	1.946	1.033	2.962	1.039	1.053

Analysis Report 08/21/01 06:35:33 AM

Method: STD_MTD Sample Name: 046700 100 Operator: NR1
Run Time: 08/21/01 06:31:20
Comment: 0820 SSG1 DG3050B
Mode: CONC Corr. Factor: 1

Elem	Al	Sb	As	Ba	Be	Cd	Ca
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	103.0	.0359	L-.0279	.8046	.00511	.0124	116.5
SDev	.9	.0158	.0114	.0053	.00001	.0011	.7
%RSD	.9195	44.10	41.02	.6544	.19372	9.087	.6046
#1	102.1	.0179	L-.0354	.8039	.00512	.0126	115.7
#2	102.9	.0479	L-.0336	.7997	.00511	.0112	116.8
#3	104.0	.0419	L-.0147	.8102	.00510	.0135	117.0

Elem	Cr	Co	Cu	Fe	Pb	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1821	.0680	1.963	239.9	3.139	42.05	4.244
SDev	.0033	.0004	.006	2.9	.061	.41	.052
%RSD	1.820	.5395	.2862	1.198	1.955	.9867	1.218
#1	.1817	.0677	1.961	236.6	3.086	41.62	4.191
#2	.1790	.0678	1.958	241.9	3.124	42.10	4.246
#3	.1856	.0684	1.969	241.3	3.206	42.44	4.295

Elem	Hg	Ni	K	Se	Ag	Na	Tl
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	L-.0009	.1904	17.33	L-.0223	.0018	.8353	L-.0566
SDev	.0110	.0295	.21	.0023	.0030	.0306	.0135
%RSD	1213.	15.49	1.193	10.14	166.2	3.665	23.83
#1	.0118	~~.1594~~	17.27	L-.0246	L-.0002	.8066	L-.0505
#2	L-.0066	.2182	17.15	L-.0223	.0003	.8318	L-.0472
#3	L-.0079	.1935	17.56	L-.0201	.0053	.8676	L-.0721

Elem	V	Zn	B	Bi	Mo	P	S
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.2296	3.796	.0681	L-.0406	.0239	10.20	7.898
SDev	.0039	.023	.0033	.0123	.0022	.12	.085
%RSD	1.710	.5993	4.819	30.35	9.125	1.131	1.081
#1	.2261	3.772	.0643	L-.0327	.0216	10.07	7.806
#2	.2288	3.799	.0700	L-.0343	.0244	10.24	7.975
#3	.2339	3.817	.0700	L-.0548	.0258	10.29	7.912

Elem	Si	Sr	Sn	Ti	Y	Zr
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.813	.4768	.5707	1.515	.0813	.0545
SDev	.039	.0066	.0082	.015	.0006	.0080
%RSD	.6631	1.381	1.429	1.003	.7125	14.73
#1	5.800	.4718	.5705	1.501	.0806	.0637
#2	5.783	.4743	.5627	1.514	.0816	.0490
#3	5.856	.4842	.5790	1.531	.0816	.0508

Analysis Report 08/21/01 06:39:52 AM

Method: STD_MTD Sample Name: 046701 100 Operator: NR1
Run Time: 08/21/01 06:35:40
Comment: 0820 SSG1 DG3050B
Mode: CONC Corr. Factor: 1

Elem	Al	Sb	As	Ba	Be	Cd	Ca
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	98.30	.0219	L-.0189	.8026	.00483	.0098	83.83
SDev	.51	.0151	.0373	.0032	.00014	.0013	.16
%RSD	.5237	68.63	196.9	.3982	2.9674	13.43	.1912
#1	97.80	.0239	.0072	.7998	.00467	.0107	83.65
#2	98.28	.0060	L-.0023	.8019	.00491	.0083	83.95
#3	98.83	.0359	L-.0616	.8061	.00492	.0105	83.89

Elem	Cr	Co	Cu	Fe	Pb	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1448	.0606	.7723	222.5	1.686	37.84	3.891
SDev	.0012	.0027	.0047	. .9	.021	.12	.014
%RSD	.8445	4.435	.6080	.4156	1.236	.3160	.3505
#1	.1459	.0598	.7679	223.0	1.690	37.71	3.876
#2	.1451	.0635	.7718	223.0	1.704	37.90	3.895
#3	.1435	.0583	.7773	221.4	1.663	37.93	3.902

Elem	Hg	Ni	K	Se	Ag	Na	Tl
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	L-.0079	.1462	13.26	L-.0558	.0009	.6357	L-.0129
SDev	.0099	.0125	.67	.0415	.0000	.0289	.0291
%RSD	126.1	8.572	5.076	74.33	.0302	4.542	225.6
#1	.0027	.1509	12.71	L-.0491	.0009	.6148	L-.0054
#2	L-.0092	.1557	14.01	L-.0181	.0009	.6237	L-.0450
#3	L-.0171	.1320	13.06	L-.1003	.0009	.6687	.0117

Elem	V	Zn	B	Bi	Mo	P	S
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.2046	3.003	.0482	L-.0154	.0220	9.380	6.501
SDev	.0017	.014	.0059	.0090	.0033	.090	.003
%RSD	.8256	.4547	12.27	58.49	14.99	.9636	.0390
#1	.2029	2.989	.0529	L-.0217	.0201	9.290	6.502
#2	.2063	3.003	.0501	L-.0051	.0258	9.378	6.502
#3	.2046	3.017	.0416	L-.0195	.0201	9.471	6.498

Elem	Si	Sr	Sn	Ti	Y	Zr
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.435	.3524	.1776	1.027	.0739	.0458
SDev	.017	.0021	.0160	.007	.0006	.0004
%RSD	.3083	.5920	9.000	.7298	.7822	.9287
#1	5.422	.3505	.1607	1.023	.0735	.0460
#2	5.429	.3522	.1924	1.023	.0745	.0460
#3	5.454	.3546	.1797	1.036	.0735	.0453

Analysis Report 08/21/01 06:44:12 AM

Method: STD_MTD Sample Name: 046702 100 Operator: NR1
Run Time: 08/21/01 06:40:00
Comment: 0820 SSG1 DG3050B
Mode: CONC Corr. Factor: 1

Elem	Al	Sb	As	Ba	Be	Cd 0.0274	Ca
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	113.3	.0499	L-.0351	.8367	.00576	.0246	112.2
SDev	1.0	.0509	.0110	.0128	.00014	.0035	1.0
%RSD	.8771	102.1	31.37	1.528	2.4370	14.18	.9079
#1	113.9	.0299	L-.0394	.8395	.00584	.0225 recalc	111.8
#2	112.1	.1077	L-.0226	.8227	.00560	~~.0286~~	111.4
#3	113.8	.0120	L-.0434	.8478	.00585	.0226	113.3

Elem	Cr	Co	Cu	Fe	Pb	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.2332	.0696	1.627	262.4	3.219	45.99	5.371
SDev	.0007	.0021	.018	4.6	.007	.28	.038
%RSD	.2867	3.074	1.114	1.769	.2261	.6082	.7049
#1	.2325	.0677	1.628	267.3	3.227	46.11	5.398
#2	.2335	.0719	1.609	262.0	3.215	45.67	5.328
#3	.2337	.0691	1.645	258.0	3.214	46.19	5.388

Elem	Hg	Ni	K	Se	Ag	Na	Tl
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	L-.0044	.4281	13.47	L-.0484	.0004	.8098	L-.0004
SDev	.0107	.0282	.17	.0232	.0018	.0055	.0365
%RSD	241.4	6.587	1.251	47.89	451.1	.6828	10420.
#1	L-.0119	.4607	13.63	L-.0376	L-.0009	.8055	.0417
#2	.0078	.4105	13.48	L-.0750	.0024	.8160	L-.0186
#3	L-.0093	.4133	13.29	L-.0325	L-.0003	.8080	L-.0241

Elem	V	Zn	B	Bi	Mo	P	S
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.2409	3.767	.0482	L-.0272	.0197	10.67	4.591
SDev	.0035	.032	.0016	.0142	.0050	.06	.044
%RSD	1.453	.8434	3.406	52.14	25.39	.5172	.9625
#1	.2447	3.766	.0472	L-.0434	.0145	10.68	4.616
#2	.2378	3.735	.0472	L-.0213	.0202	10.60	4.540
#3	.2402	3.799	.0501	L-.0170	.0245	10.71	4.617

Elem	Si	Sr	Sn	Ti	Y	Zr
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.331	.3447	.4507	1.126	.0969	.0476
SDev	.038	.0043	.0114	.011	.0006	.0014
%RSD	.7152	1.235	2.538	.9862	.5979	2.927
#1	5.333	.3483	.4639	1.135	.0966	.0460
#2	5.293	.3400	.4447	1.113	.0966	.0482
#3	5.369	.3458	.4435	1.129	.0976	.0486

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Method: STD_MTD Sample Name: 046703 100 Operator: NR1
Run Time: 08/21/01 06:44:20
Comment: 0820 SSG1 DG3050B
Mode: CONC Corr. Factor: 1

Elem	Al	Sb	As	Ba	Be	Cd	Ca
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	94.59	.0838	L-.0129	.7564	.00458	.0203	137.6
SDev	.66	.0299	.0157	.0073	.00014	.0009	.7
%RSD	.6940	35.71	121.4	.9714	3.1000	4.696	.4767
#1	94.56	.0538	L-.0309	.7557	.00466	.0214	136.9
#2	95.25	.1137	L-.0054	.7641	.00467	.0198	138.2
#3	93.94	.0838	L-.0024	.7494	.00442	.0197	137.5

Elem	Cr	Co	Cu	Fe	Pb	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.2203	.0666	4.214	230.9	7.333	50.65	4.714
SDev	.0013	.0011	.029	2.2	.031	.27	.030
%RSD	.6071	1.656	.6776	.9436	.4166	.5317	.6322
#1	.2219	.0659	4.201	232.9	7.305	50.48	4.716
#2	.2195	.0660	4.247	231.3	7.366	50.96	4.743
#3	.2196	.0679	4.194	228.6	7.329	50.51	4.683

Elem	Hg	Ni	K	Se	Ag	Na	Tl
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	L-.0044	.2254	14.23	L-.0133	.0014	4.515	.0087
SDev	.0072	.0147	.33	.0182	.0009	.025	.0025
%RSD	166.1	6.514	2.352	137.0	68.85	.5568	28.94
#1	L-.0092	.2258	14.00	L-.0332	.0008	4.530	.0074
#2	.0040	.2400	14.09	.0024	.0008	4.530	.0071
#3	L-.0079	.2106	14.62	L-.0090	.0025	4.486	.0116

Elem	V	Zn	B	Bi	Mo	P	S
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.2029	9.434	.1126	L-.0076	.0240	8.671	10.43
SDev	.0026	.042	.0057	.0356	.0033	.079	.11
%RSD	1.300	.4471	5.046	467.0	13.67	.9057	1.011
#1	.2057	9.403	.1069	.0131	.0259	8.753	10.36
#2	.2023	9.482	.1126	L-.0488	.0203	8.596	10.55
#3	.2005	9.417	.1183	.0128	.0259	8.665	10.38

Elem	Si	Sr	Sn	Ti	Y	Zr
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.606	.3019	1.379	1.138	.0643	.0516
SDev	.045	.0034	.015	.009	.0015	.0004
%RSD	.8110	1.143	1.059	.7683	2.379	.8228
#1	5.637	.3030	1.367	1.139	.0626	.0519
#2	5.629	.3046	1.395	1.146	.0656	.0512
#3	5.554	.2980	1.375	1.129	.0646	.0519

Analysis Report 08/21/01 06:52:53 AM page 1

Method: STD_MTD Sample Name: 046704 100 Operator: NR1
Run Time: 08/21/01 06:48:41
Comment: 0820 SSG1 DG3050B
Mode: CONC Corr. Factor: 1

Elem	Al	Sb	As	Ba	Be	Cd	Ca
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	118.6	.0658	L-.0251	.9275	.00565	.0133	81.83
SDev	1.6	.0261	.0085	.0055	.00015	.0035	.48
%RSD	1.308	39.63	34.05	.5968	2.5582	26.04	.5887
#1	117.2	.0479	L-.0227	.9233	.00559	.0146	81.62
#2	118.4	.0538	L-.0345	.9254	.00582	.0160	81.50
#3	120.3	.0957	L-.0180	.9337	.00555	.0094	82.39

Elem	Cr	Co	Cu	Fe	Pb	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.2004	.0811	2.776	277.3	4.663	41.78	5.748
SDev	.0021	.0013	.019	4.2	.056	.50	.084
%RSD	1.037	1.625	.6729	1.503	1.204	1.186	1.469
#1	.1998	.0806	2.763	272.6	4.636	41.34	5.668
#2	.1987	.0801	2.767	278.6	4.625	41.68	5.741
#3	.2028	.0826	2.797	280.6	4.727	42.31	5.836

Elem	Hg	Ni	K	Se	Ag	Na	Tl
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0131	.2387	16.91	L-.0283	.0023	.9723	L-.0059
SDev	.0184	.0178	.54	.0284	.0024	.0192	.0261
%RSD	140.7	7.470	3.177	100.3	102.0	1.971	439.7
#1	L-.0001	.2182	17.10	L-.0115	.0051	.9916	.0164
#2	.0052	.2475	17.34	L-.0611	.0013	.9719	L-.0346
#3	.0341	.2504	16.31	L-.0123	.0007	.9532	.0004

Elem	V	Zn	B	Bi	Mo	P	S
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.2500	6.511	.0633	L-.0455	.0239	7.129	5.706
SDev	.0079	.057	.0043	.0658	.0033	.194	.150
%RSD	3.143	.8755	6.851	144.5	13.72	2.716	2.629
#1	.2415	6.465	.0643	L-.1189	.0258	6.915	5.540
#2	.2518	6.492	.0586	L-.0255	.0258	7.181	5.747
#3	.2569	6.574	.0671	.0080	.0201	7.291	5.832

Elem	Si	Sr	Sn	Ti	Y	Zr
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.508	.3032	.8293	1.084	.0695	.0536
SDev	.082	.0058	.0052	.014	.0000	.0015
%RSD	1.486	1.914	.6282	1.299	.0014	2.858
#1	5.492	.2974	.8246	1.070	.0695	.0541
#2	5.435	.3032	.8285	1.083	.0695	.0519
#3	5.597	.3090	.8349	1.098	.0695	.0548

Analysis Report 08/21/01 06:57:12 AM

Method: STD_MTD Sample Name: 046705 100 Operator: NR1
Run Time: 08/21/01 06:53:00
Comment: 0820 SSG1 DG3050B
Mode: CONC Corr. Factor: 1

Elem	Al	Sb	As	Ba	Be	Cd	Ca
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	87.24	.0379	L-.0015	.7305	.00468	.0156	155.1
SDev	.99	.0301	.0023	.0111	.00001	.0007	1.4
%RSD	1.138	79.47	150.5	1.515	.15755	4.568	.9097
#1	86.62	.0658	L-.0025	.7264	.00468	.0148	153.9
#2	88.39	.0060	.0011	.7431	.00467	.0160	156.6
#3	86.72	.0419	L-.0031	.7222	.00469	.0160	154.7

Elem	Cr	Co	Cu	Fe	Pb	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.2340	.0641	2.652	218.7	6.400	70.46	3.582
SDev	.0020	.0018	.032	1.8	.039	.70	.038
%RSD	.8713	2.800	1.214	.8201	.6161	.9998	1.059
#1	.2318	.0629	2.629	217.9	6.369	69.93	3.564
#2	.2343	.0662	2.689	217.5	6.445	71.26	3.626
#3	.2358	.0632	2.639	220.8	6.388	70.20	3.557

Elem	Hg	Ni	K	Se	Ag	Na	Tl
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	L-.0083	.2318	15.96	L-.0253	.0024	.5483	L-.0475
SDev	.0234	.0125	.30	.0127	.0025	.0190	.0091
%RSD	282.0	5.397	1.871	50.30	104.0	3.456	19.15
#1	L-.0131	.2182	15.70	L-.0305	.0054	.5695	L-.0517
#2	L-.0289	.2428	16.28	L-.0346	.0010	.5425	L-.0371
#3	.0171	.2343	15.89	L-.0108	.0010	.5330	L-.0538

Elem	V	Zn	B	Bi	Mo	P	S
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1972	5.378	.0775	L-.0158	.0172	8.897	7.671
SDev	.0029	.046	.0043	.0324	.0030	.025	.060
%RSD	1.484	.8505	5.595	204.3	17.25	.2807	.7827
#1	.1969	5.332	.0728	L-.0222	.0148	8.893	7.625
#2	.2003	5.423	.0785	L-.0445	.0163	8.924	7.739
#3	.1944	5.379	.0813	.0192	.0205	8.875	7.648

Elem	Si	Sr	Sn	Ti	Y	Zr
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.591	.2286	.9210	1.107	.0990	.0578
SDev	.058	.0038	.0175	.015	.0023	.0022
%RSD	1.040	1.666	1.896	1.368	2.336	3.822
#1	5.600	.2277	.9121	1.100	.0977	.0578
#2	5.645	.2327	.9412	1.124	.1017	.0600
#3	5.529	.2253	.9098	1.096	.0977	.0556

Analysis Report QC Standard 08/21/01 07:03:22 AM page 1

Method: STD_MTD Sample Name: CCVA Operator: NR1
Run Time: 08/21/01 06:59:12
Comment: 0820 SSG1 DG3050B
Mode: CONC Corr. Factor: 1

Elem	Al	Sb	As	Ba	Be	Cd	Ca
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	3.928	.0479	.9787	2.007	.98047	.9422	21.28
SDev	.038	.0261	.0103	.045	.01503	.0144	.10
%RSD	.9641	54.49	1.055	2.267	1.5333	1.533	.4902
#1	3.967	.0359	.9844	2.043	.99496	.9573	21.28
#2	3.891	.0778	.9849	1.956	.96495	.9408	21.18
#3	3.927	.0299	.9668	2.023	.98151	.9285	21.39

Elem	Cr	Co	Cu	Fe	Pb	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.074	2.091	2.025	4.093	2.117	20.59	1.989
SDev	.011	.008	.035	.044	.045	.22	.022
%RSD	.5505	.3682	1.738	1.069	2.130	1.054	1.097
#1	2.080	2.093	2.051	4.126	2.095	20.80	2.010
#2	2.061	2.082	1.985	4.043	2.168	20.37	1.967
#3	2.081	2.097	2.040	4.110	2.086	20.61	1.990

Elem	Hg	Ni	K	Se	Ag	Na	Tl
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.9718	1.010	20.92	.9684	1.011	19.36	1.948
SDev	.0217	.010	.68	.0169	.012	.42	.027
%RSD	2.237	1.038	3.248	1.746	1.200	2.194	1.375
#1	.9612	1.020	20.44	.9642	1.020	19.74	1.941
#2	.9968	1.011	21.70	.9870	.9972	18.91	1.978
#3	.9573	.9987	20.62	.9539	1.016	19.44	1.926

Elem	V	Zn	B	Bi	Mo	P	S
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.9734	4.073	1.996	.9974	.0048	9.809	.0146
SDev	.0098	.038	.036	.0358	.0033	.199	.0198
%RSD	1.006	.9328	1.790	3.590	68.16	2.033	135.6
#1	.9847	4.101	2.030	.9581	.0086	10.00	-.0042
#2	.9686	4.029	1.959	1.006	.0029	9.602	.0352
#3	.9669	4.088	2.001	1.028	.0029	9.826	.0127

Elem	Si	Sr	Sn	Ti	Y	Zr
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0171	.9586	.0002	.0036	1.990	-.0031
SDev	.0121	.0220	.0164	.0022	.035	.0045
%RSD	70.42	2.291	10710.	60.00	1.739	146.6
#1	.0077	.9804	-.0103	.0014	2.017	-.0070
#2	.0307	.9365	.0191	.0058	1.951	.0018
#3	.0130	.9589	-.0084	.0036	2.002	-.0040

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Method: STD_MTD Sample Name: CCVB Operator: NR1
Run Time: 08/21/01 07:03:28
Comment: 0820 SSG1 DG3050B
Mode: CONC Corr. Factor: 1

Elem	Al	Sb	As	Ba	Be	Cd	Ca
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0154	.9753	-.0305	-.0014	-.00016	.0007	-.0133
SDev	.0026	.0104	.0034	.0000	.00001	.0008	.0029
%RSD	17.00	1.063	11.12	.0006	3.9804	104.8	21.50
#1	.0135	.9693	-.0335	-.0014	-.00016	.0012	-.0100
#2	.0184	.9872	-.0268	-.0014	-.00017	-.0002	-.0150
#3	.0143	.9693	-.0313	-.0014	-.00016	.0012	-.0149

Elem	Cr	Co	Cu	Fe	Pb	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0002	.0041	.0022	20.12	-.0067	2.056	.0001
SDev	.0014	.0027	.0012	.11	.0235	.014	.0004
%RSD	578.8	64.80	53.91	.5473	349.8	.6808	623.0
#1	.0006	.0041	.0009	20.22	-.0333	2.069	.0004
#2	.0006	.0068	.0025	20.00	.0022	2.041	-.0004
#3	-.0019	.0015	.0032	20.12	.0110	2.058	.0002

Elem	Hg	Ni	K	Se	Ag	Na	Tl
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0061	.0003	.9788	.0124	.0157	-.1158	-.1135
SDev	.0209	.0058	.3368	.0318	.0022	.0137	.0249
%RSD	340.1	1825.	34.41	256.3	13.98	11.81	21.94
#1	.0189	.0032	.7845	-.0028	.0135	-.1277	-.1399
#2	-.0180	-.0063	1.368	.0489	.0157	-.1008	-.1102
#3	.0175	.0041	.7842	-.0089	.0179	-.1187	-.0904

Elem	V	Zn	B	Bi	Mo	P	S
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0026	-.0030	.0038	.0138	1.018	.0042	2.013
SDev	.0026	.0011	.0016	.0103	.009	.0091	.033
%RSD	100.9	35.91	43.48	74.56	.8890	215.1	1.614
#1	-.0054	-.0028	.0047	.0035	1.029	.0098	2.022
#2	-.0003	-.0021	.0019	.0242	1.013	-.0062	1.977
#3	-.0020	-.0042	.0047	.0138	1.013	.0091	2.040

Elem	Si	Sr	Sn	Ti	Y	Zr
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.072	-.0000	2.056	2.003	.0010	2.036
SDev	.016	.0000	.009	.019	.0006	.012
%RSD	.7736	21.50	.4139	.9389	57.74	.5881
#1	2.087	-.0000	2.056	2.018	.0003	2.048
#2	2.055	-.0000	2.047	1.982	.0013	2.024
#3	2.074	-.0000	2.064	2.010	.0013	2.035

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Method: STD_MTD Sample Name: CCB Operator: NR1
Run Time: 08/21/01 07:09:38
Comment: 0820 SSG1 DG3050B
Mode: CONC Corr. Factor: 1

Elem	Al	Sb	As	Ba	Be	Cd	Ca
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0080	.0080	.0008	.0007	.00009	-.0000	.0000
SDev	.0108	.0242	.0081	.0000	.00000	.0033	.0050
%RSD	135.7	303.1	998.7	.0021	5.0553	26910.	136000.
#1	-.0154	-.0179	-.0082	.0007	.00008	Q.0035	.0050
#2	-.0129	.0120	.0031	.0007	.00009	Q-.0030	-.0050
#3	.0044	.0299	.0075	.0007	.00009	-.0005	-.0000

Elem	Cr	Co	Cu	Fe	Pb	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0016	-.0005	.0001	-.0002	.0192	.0001	.0004
SDev	.0009	.0027	.0000	..0018	.0169	.0002	.0003
%RSD	57.73	499.6	.0000	794.1	87.93	173.2	69.29
#1	-.0011	.0021	.0001	.0011	.0155	.0004	.0001
#2	-.0027	-.0032	.0001	-.0023	.0045	-.0000	.0006
#3	-.0011	-.0005	.0001	.0005	Q.0377	-.0000	.0006

Elem	Hg	Ni	K	Se	Ag	Na	Tl
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0013	.0006	.1796	-.0083	.0009	.0000	-.0206
SDev	.0095	.0093	.7638	.0261	.0036	.0258	.0076
%RSD	724.4	1472.	425.2	316.6	394.0	2759000.	36.70
#1	.0096	.0060	Q1.048	.0117	.0042	-.0149	-.0289
#2	-.0061	Q-.0101	-.3892	-.0378	-.0029	-.0149	-.0190
#3	-.0075	.0060	-.1197	.0014	.0015	.0298	-.0140

Elem	V	Zn	B	Bi	Mo	P	S
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0011	.0005	-.0019	.0103	.0043	.0197	-.0098
SDev	.0018	.0004	.0033	.0351	.0033	.0053	.0269
%RSD	156.1	91.40	173.1	340.3	76.98	26.75	275.8
#1	.0008	-.0000	.0019	.0089	.0024	.0137	-.0399
#2	-.0025	.0007	-.0038	-.0241	.0081	.0217	.0121
#3	-.0017	.0007	-.0038	.0461	.0024	.0237	-.0015

Elem	Si	Sr	Sn	Ti	Y	Zr
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0035	-.0006	-.0014	.0007	-.0003	-.0007
SDev	.0072	.0005	.0075	.0013	.0021	.0006
%RSD	202.1	86.61	529.2	173.2	624.5	86.60
#1	.0024	.0000	-.0071	.0014	.0003	.0000
#2	.0112	-.0008	.0071	-.0007	Q-.0027	-.0011
#3	-.0030	-.0008	-.0043	.0014	Q.0013	-.0011

Analysis Report 08/21/01 07:18:07 AM

Method: STD_MTD Sample Name: 046706 100 Operator: NR1
Run Time: 08/21/01 07:13:55
Comment: 0820 SSG1 DG3050B
Mode: CONC Corr. Factor: 1

Elem	Al	Sb	As	Ba	Be	Cd	Ca
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	72.17	.0738	.0032	.6470	.00371	.0215	83.40
SDev	.16	.0069	.0157	.0021	.00001	.0029	.57
%RSD	.2260	9.362	486.8	.3232	.15328	13.35	.6831
#1	72.11	.0778	L-.0026	.6450	.00371	.0224	82.75
#2	72.35	.0778	.0210	.6491	.00372	.0183	83.64
#3	72.03	.0658	L-.0087	.6470	.00372	.0238	83.80

Elem	Cr	Co	Cu	Fe	Pb	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.2140	.0586	4.889	192.1	8.400	30.32	6.379
SDev	.0005	.0024	.019	1.0	.062	.08	.018
%RSD	.2478	4.169	.3911	.5250	.7361	.2641	.2776
#1	.2134	.0586	4.867	193.2	8.338	30.24	6.375
#2	.2143	.0561	4.898	192.0	8.462	30.40	6.399
#3	.2144	.0610	4.902	191.2	8.398	30.33	6.364

Elem	Hg	Ni	K	Se	Ag	Na	Tl
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0005	.2292	7.983	L-.0173	.0076	1.531	L-.0338
SDev	.0084	.0081	.415	.0091	.0023	.010	.0780
%RSD	1627.	3.514	5.201	52.34	30.04	.6578	230.9
#1	L-.0091	.2210	7.507	L-.0239	.0083	1.537	L-.1144
#2	.0053	.2295	8.267	L-.0070	.0050	1.537	.0413
#3	.0053	.2371	8.175	L-.0211	.0094	1.520	L-.0282

Elem	V	Zn	B	Bi	Mo	P	S
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1767	8.408	.0690	.0116	.0233	7.620	8.292
SDev	.0023	.042	.0016	.0347	.0030	.027	.113
%RSD	1.278	.4981	2.371	298.6	12.75	.3485	1.365
#1	.1793	8.360	.0700	.0419	.0200	7.623	8.203
#2	.1751	8.429	.0671	L-.0262	.0242	7.592	8.254
#3	.1759	8.436	.0700	.0191	.0257	7.645	8.419

Elem	Si	Sr	Sn	Ti	Y	Zr
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.701	.2154	1.480	.9152	.0662	.0480
SDev	.017	.0014	.005	.0025	.0006	.0047
%RSD	.3040	.6645	.3449	.2730	.8715	9.715
#1	5.702	.2163	1.480	.9166	.0665	.0530
#2	5.717	.2163	1.475	.9166	.0665	.0471
#3	5.683	.2138	1.486	.9123	.0655	.0438

Analysis Report 08/21/01 07:22:27 AM

Method: STD_MTD Sample Name: 046707 100 Operator: NR1
Run Time: 08/21/01 07:18:15
Comment: 0820 SSG1 DG3050B
Mode: CONC Corr. Factor: 1

Elem	Al	Sb	As	Ba	Be	Cd	Ca
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	81.69	.2732	.0156	1.499	.00517	.0311	104.8
SDev	.42	.0509	.0150	.004	.00001	.0006	.2
%RSD	.5141	18.62	96.10	.2905	.15803	1.780	.2016
#1	81.98	.3111	.0161	1.501	.00516	.0307	104.6
#2	81.88	.2932	.0303	1.503	.00517	.0318	105.0
#3	81.21	.2154	.0004	1.494	.00517	.0309	104.8

Elem	Cr	Co	Cu	Fe	Pb	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.2339	.0658	17.95	238.6	31.42	25.06	2.829
SDev	.0031	.0012	.04	1.7	.09	.12	.020
%RSD	1.309	1.893	.1997	.7036	.2740	.4967	.7094
#1	.2352	.0647	17.93	240.4	31.47	25.16	2.848
#2	.2361	.0654	17.99	238.3	31.45	25.10	2.832
#3	.2304	.0671	17.92	237.0	31.32	24.92	2.808

Elem	Hg	Ni	K	Se	Ag	Na	Tl
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0066	.4433	11.01	L-.0051	.0142	1.346	L-.0203
SDev	.0139	.0029	.24	.0256	.0000	.061	.0147
%RSD	210.3	.6528	2.195	503.7	.0180	4.564	72.65
#1	.0053	.4465	11.29	L-.0112	.0142	1.381	L-.0093
#2	.0211	.4427	10.92	L-.0270	.0142	1.381	L-.0146
#3	L-.0066	.4408	10.83	.0230	.0142	1.275	L-.0370

Elem	V	Zn	B	Bi	Mo	P	S
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.2065	23.73	.1050	.0464	.0332	15.24	14.90
SDev	.0032	.05	.0033	.0280	.0033	.12	.12
%RSD	1.569	.2010	3.126	60.32	9.924	.8018	.7884
#1	.2102	23.74	.1069	.0148	.0370	15.30	14.91
#2	.2042	23.77	.1069	.0560	.0313	15.33	15.01
#3	.2050	23.68	.1012	.0682	.0313	15.10	14.78

Elem	Si	Sr	Sn	Ti	Y	Zr
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.769	.4526	5.664	1.188	.0546	.0423
SDev	.010	.0046	.001	.009	.0017	.0013
%RSD	.2095	1.019	.0257	.7361	3.176	3.012
#1	4.775	.4568	5.665	1.196	.0536	.0409
#2	4.774	.4534	5.663	1.189	.0566	.0431
#3	4.757	.4476	5.666	1.178	.0536	.0431

Analysis Report 08/21/01 07:26:47 AM

Method: STD_MTD Sample Name: 046708 100 Operator: NR1
Run Time: 08/21/01 07:22:35
Comment: 0820 SSG1 DG3050B
Mode: CONC Corr. Factor: 1

Elem	Al	Sb	As	Ba	Be	Cd	Ca
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	113.0	.0658	L-.0078	.9693	.00611	.0165	76.07
SDev	1.9	.0060	.0039	.0131	.00002	.0020	.68
%RSD	1.645	9.091	49.46	1.348	.25677	11.91	.8934
#1	110.9	.0658	L-.0052	.9547	.00613	.0169	75.39
#2	114.2	.0718	L-.0060	.9798	.00610	.0144	76.75
#3	114.0	.0598	L-.0122	.9735	.00610	.0182	76.09

Elem	Cr	Co	Cu	Fe	Pb	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1959	.0895	3.665	262.7	9.568	40.08	4.461
SDev	.0015	.0037	.044	4.4	.063	.57	.076
%RSD	.7771	4.088	1.200	1.672	.6603	1.411	1.701
#1	.1942	.0856	3.618	257.8	9.498	39.42	4.373
#2	.1964	.0899	3.705	264.0	9.619	40.42	4.500
#3	.1971	.0929	3.671	266.3	9.588	40.38	4.509

Elem	Hg	Ni	K	Se	Ag	Na	Tl
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0061	.2573	17.45	L-.0011	.0080	1.173	L-.0385
SDev	.0020	.0030	.48	.0362	.0043	.030	.0476
%RSD	32.77	1.183	2.733	3163.	53.73	2.554	123.7
#1	.0039	.2608	17.06	L-.0351	.0129	1.157	L-.0838
#2	.0078	.2551	17.30	.0369	.0058	1.155	.0112
#3	.0065	.2561	17.98	L-.0052	.0052	1.208	L-.0429

Elem	V	Zn	B	Bi	Mo	P	S
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.2356	7.937	.0718	L-.0080	.0168	8.230	9.859
SDev	.0062	.087	.0059	.0343	.0030	.134	.161
%RSD	2.643	1.101	8.229	428.1	17.72	1.627	1.633
#1	.2284	7.842	.0699	.0113	.0144	8.081	9.711
#2	.2395	8.014	.0671	L-.0476	.0201	8.271	10.03
#3	.2388	7.954	.0784	.0123	.0158	8.339	9.837

Elem	Si	Sr	Sn	Ti	Y	Zr
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.469	.2819	1.405	1.291	.1132	.0572
SDev	.071	.0067	.020	.024	.0006	.0006
%RSD	1.302	2.396	1.426	1.889	.5113	.9834
#1	5.387	.2742	1.383	1.263	.1125	.0567
#2	5.513	.2850	1.413	1.304	.1135	.0578
#3	5.507	.2866	1.420	1.306	.1135	.0570

Analysis Report 08/21/01 07:31:07 AM

Method: STD_MTD Sample Name: 046709 100 Operator: NR1
Run Time: 08/21/01 07:26:55
Comment: 0820 SSG1 DG3050B
Mode: CONC Corr. Factor: 1

Elem	Al	Sb	As	Ba	Be	Cd	Ca
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	110.0	.0598	.0014	.7956	.00558	.0127	84.73
SDev	1.6	.0104	.0131	.0111	.00001	.0021	.93
%RSD	1.415	17.32	925.6	1.391	.11640	16.28	1.101
#1	109.3	.0538	L-.0124	.7914	.00558	.0133	84.19
#2	111.8	.0718	.0137	.8082	.00557	.0104	85.81
#3	109.0	.0538	.0029	.7872	.00558	.0143	84.19

Elem	Cr	Co	Cu	Fe	Pb	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.3332	.0697	2.257	253.3	4.417	45.59	3.574
SDev	.0021	.0022	.028	1.8	.035	.55	.047
%RSD	.6346	3.121	1.241	.7265	.8007	1.201	1.320
#1	.3324	.0711	2.245	252.6	4.389	45.30	3.551
#2	.3356	.0672	2.289	255.4	4.457	46.22	3.629
#3	.3316	.0707	2.238	252.0	4.405	45.25	3.543

Elem	Hg	Ni	K	Se	Ag	Na	Tl
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	L-.0027	.2226	12.87	L-.0526	.0017	.4824	L-.0180
SDev	.0108	.0090	.13	.0129	.0016	.0218	.0360
%RSD	398.7	4.044	.9935	24.43	92.94	4.510	199.3
#1	L-.0119	.2229	13.02	L-.0675	.0026	.4798	L-.0000
#2	.0091	.2134	12.80	L-.0459	L-.0001	.5054	.0053
#3	L-.0053	.2314	12.79	L-.0445	.0026	.4621	L-.0595

Elem	V	Zn	B	Bi	Mo	P	S
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.2469	3.559	.0567	.0013	.0188	7.633	6.123
SDev	.0026	.040	.0016	.0239	.0025	.127	.136
%RSD	1.043	1.110	2.899	1808.	13.11	1.666	2.225
#1	.2443	3.538	.0558	L-.0057	.0202	7.580	6.059
#2	.2494	3.605	.0586	.0279	.0159	7.779	6.279
#3	.2468	3.535	.0558	L-.0182	.0202	7.542	6.030

Elem	Si	Sr	Sn	Ti	Y	Zr
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.610	.2168	.7199	1.362	.0869	.0526
SDev	.088	.0032	.0220	.019	.0023	.0013
%RSD	1.569	1.451	3.054	1.385	2.662	2.422
#1	5.591	.2154	.7096	1.354	.0855	.0519
#2	5.706	.2204	.7451	1.384	.0895	.0519
#3	5.533	.2146	.7050	1.349	.0855	.0541

Analysis Report 08/21/01 07:35:27 AM

Method: STD_MTD Sample Name: 046710 100 Operator: NR1
Run Time: 08/21/01 07:31:15
Comment: 0820 SSG1 DG3050B
Mode: CONC Corr. Factor: 1

Elem	Al	Sb	As	Ba	Be	Cd	Ca
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	99.61	.0000	.0402	.8067	.00573	.0093	103.8
SDev	1.53	.0311	.0095	.0128	.00013	.0019	.8
%RSD	1.534	.0000	23.56	1.585	2.3065	20.04	.8015
#1	101.4	.0359	.0421	.8207	.00588	.0076	104.6
#2	98.66	L-.0179	.0486	.7956	.00565	.0113	102.9
#3	98.81	L-.0179	.0299	.8039	.00566	.0091	103.9

Elem	Cr	Co	Cu	Fe	Pb	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.2122	.0661	.9894	234.3	1.715	35.40	3.805
SDev	.0047	.0029	.0121	3.0	.035	.47	.059
%RSD	2.193	4.354	1.228	1.274	2.058	1.330	1.546
#1	.2176	.0688	1.003	237.0	1.755	35.94	3.873
#2	.2095	.0630	.9802	235.0	1.688	35.09	3.770
#3	.2097	.0666	.9849	231.1	1.703	35.17	3.773

Elem	Hg	Ni	K	Se	Ag	Na	Tl
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	L-.0000	.1737	15.35	L-.0266	.0002	.3678	L-.0099
SDev	.0241	.0074	.21	.0323	.0011	.0215	.0374
%RSD	201200.	4.260	1.396	121.5	523.3	5.834	377.5
#1	.0276	.1689	15.20	L-.0627	L-.0007	.3431	L-.0178
#2	L-.0105	.1699	15.24	L-.0163	L-.0001	.3797	L-.0428
#3	L-.0171	.1822	15.59	L-.0006	.0015	.3807	.0308

Elem	V	Zn	B	Bi	Mo	P	S
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.2193	1.930	.0548	L-.0126	.0181	9.861	8.006
SDev	.0060	.017	.0043	.0381	.0033	.140	.155
%RSD	2.729	.8613	7.910	302.0	18.17	1.424	1.938
#1	.2261	1.948	.0558	.0209	.0200	10.02	8.185
#2	.2168	1.915	.0501	L-.0541	.0143	9.807	7.925
#3	.2150	1.928	.0586	L-.0047	.0200	9.755	7.908

Elem	Si	Sr	Sn	Ti	Y	Zr
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.972	.3184	.2311	1.163	.0969	.0502
SDev	.073	.0072	.0081	.021	.0006	.0015
%RSD	1.463	2.271	3.495	1.827	.5974	3.054
#1	5.054	.3267	.2236	1.187	.0976	.0519
#2	4.946	.3151	.2299	1.150	.0966	.0497
#3	4.916	.3134	.2397	1.150	.0966	.0490

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Method: STD_MTD Sample Name: 046711 100 Operator: NR1
Run Time: 08/21/01 07:35:35
Comment: 0820 SSG1 DG3050B
Mode: CONC Corr. Factor: 1

Elem	Al	Sb	As	Ba	Be	Cd	Ca
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	74.56	.0199	L-.0040	.6342	.00347	.0059	166.9
SDev	.51	.0226	.0440	.0042	.00000	.0049	1.0
%RSD	.6795	113.6	1099.	.6595	.12148	82.30	.5920
#1	74.65	L-.0060	L-.0481	.6342	.00347	.0070	166.2
#2	75.02	.0299	.0400	.6384	.00347	~~.0006~~	168.1
#3	74.02	.0359	L-.0039	.6301	.00347	.0101	166.5

Elem	Cr	Co	Cu	Fe	Pb	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1245	.0558	1.507	172.5	1.963	83.30	3.364
SDev	.0013	.0019	.009	1.0	.025	.47	.022
%RSD	1.057	3.425	.6037	.5961	1.279	.5585	.6558
#1	.1230	.0555	1.505	173.6	1.939	83.14	3.369
#2	.1256	.0540	1.517	172.3	1.989	83.83	3.384
#3	.1248	.0578	1.499	171.6	1.962	82.94	3.340

Elem	Hg	Ni	K	Se	Ag	Na	Tl
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	L-.0253	.1156	16.92	.0016	L-.0001	.9835	L-.0993
SDev	.0072	.0029	.38	.0316	.0014	.0086	.0499
%RSD	28.59	2.504	2.274	1930.	2130.	.8753	50.27
#1	L-.0183	.1187	17.28	.0329	.0010	.9921	L-.1279
#2	L-.0328	.1130	16.51	.0024	L-.0017	.9834	L-.0417
#3	L-.0249	.1149	16.96	L-.0304	.0005	.9749	L-.1283

Elem	V	Zn	B	Bi	Mo	P	S
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1728	2.042	.0340	L-.0327	.0131	11.24	8.937
SDev	.0017	.011	.0059	.0372	.0033	.05	.119
%RSD	.9672	.5363	17.39	113.9	25.09	.4324	1.328
#1	.1712	2.039	.0387	L-.0367	.0150	11.29	8.870
#2	.1745	2.054	.0274	L-.0677	.0093	11.23	9.074
#3	.1728	2.033	.0359	.0064	.0150	11.19	8.867

Elem	Si	Sr	Sn	Ti	Y	Zr
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.596	.2790	.3038	1.933	.0570	.0325
SDev	.022	.0027	.0143	.015	.0006	.0015
%RSD	.4780	.9567	4.696	.7527	1.012	4.713
#1	4.592	.2801	.2873	1.938	.0567	.0342
#2	4.620	.2809	.3114	1.945	.0567	.0313
#3	4.576	.2759	.3126	1.917	.0577	.0320

Analysis Report 08/21/01 07:44:07 AM

Method: STD_MTD Sample Name: 046712 100 Operator: NR1
Run Time: 08/21/01 07:39:55
Comment: 0820 SSG1 DG3050B
Mode: CONC Corr. Factor: 1

Elem	Al	Sb	As	Ba	Be	Cd	Ca
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	96.28	.0339	.0107	.7427	.00463	.0088	58.75
SDev	.81	.0091	.0097	.0032	.00002	.0028	.25
%RSD	.8433	26.96	91.12	.4304	.32872	32.13	.4213
#1	95.53	.0359	.0219	.7434	.00464	.0104	59.03
#2	96.17	.0419	.0045	.7392	.00462	.0056	58.66
#3	97.14	.0239	.0056	.7455	.00461	.0106	58.56

Elem	Cr	Co	Cu	Fe	Pb	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1515	.0715	1.451	231.4	3.315	29.91	4.519
SDev	.0014	.0016	.003	3.5	.012	.17	.041
%RSD	.9356	2.300	.2148	1.517	.3760	.5534	.9143
#1	.1528	.0733	1.454	227.8	3.306	29.76	4.479
#2	.1518	.0713	1.448	231.7	3.329	29.90	4.517
#3	.1500	.0700	1.451	234.8	3.309	30.09	4.562

Elem	Hg	Ni	K	Se	Ag	Na	Tl
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0048	.1645	10.31	L-.0326	.0038	.8069	.0080
SDev	.0233	.0055	.38	.0430	.0025	.0042	.0091
%RSD	483.5	3.324	3.653	131.8	66.65	.5257	114.7
#1	.0316	.1613	10.11	.0024	.0009	.8021	L-.0001
#2	L-.0105	.1708	10.75	L-.0196	.0053	.8099	.0179
#3	L-.0066	.1613	10.08	L-.0806	.0052	.8089	.0061

Elem	V	Zn	B	Bi	Mo	P	S
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.2195	2.889	.0321	L-.0575	.0176	7.291	6.214
SDev	.0060	.002	.0043	.0286	.0016	.064	.056
%RSD	2.747	.0613	13.52	49.80	9.340	.8792	.8940
#1	.2132	2.887	.0359	L-.0282	.0185	7.268	6.270
#2	.2201	2.889	.0330	L-.0589	.0185	7.242	6.158
#3	.2252	2.890	.0273	L-.0854	.0157	7.364	6.214

Elem	Si	Sr	Sn	Ti	Y	Zr
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.068	.2262	.4505	1.052	.0575	.0427
SDev	.030	.0037	.0090	.011	.0030	.0004
%RSD	.5924	1.650	1.993	1.035	5.222	.8621
#1	5.034	.2226	.4425	1.042	.0575	.0423
#2	5.091	.2260	.4489	1.051	.0545	.0431
#3	5.077	.2301	.4602	1.064	.0605	.0427

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Method: STD_MTD Sample Name: 046713 100 Operator: NR1
Run Time: 08/21/01 07:44:15
Comment: 0820 SSG1 DG3050B
Mode: CONC Corr. Factor: 1

Elem	Al	Sb	As	Ba	Be	Cd	Ca
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	93.28	.0239	.0133	.7817	.00455	.0084	59.84
SDev	.30	.0274	.0157	.0012	.00015	.0036	.06
%RSD	.3170	114.6	118.0	.1545	3.1759	43.23	.0989
#1	93.03	.0179	L-.0048	.7810	.00439	.0045	59.86
#2	93.22	.0000	.0212	.7810	.00464	.0091	59.78
#3	93.61	.0538	.0234	.7831	.00463	.0116	59.89

Elem	Cr	Co	Cu	Fe	Pb	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1471	.0669	1.180	229.6	2.161	28.85	4.229
SDev	.0028	.0020	.003	.7	.015	.06	.015
%RSD	1.919	3.026	.2310	.2899	.7090	.2106	.3635
#1	.1455	.0646	1.178	229.7	2.168	28.80	4.217
#2	.1455	.0678	1.179	228.9	2.143	28.82	4.225
#3	.1504	.0683	1.184	230.2	2.171	28.92	4.246

Elem	Hg	Ni	K	Se	Ag	Na	Tl
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0105	.1607	12.59	L-.0118	.0102	.9537	L-.0164
SDev	.0086	.0033	.65	.0207	.0006	.0002	.0347
%RSD	82.00	2.070	5.198	175.3	5.376	.0215	211.2
#1	.0118	.1576	13.34	.0102	.0102	.9537	L-.0494
#2	.0184	.1642	12.13	L-.0308	.0108	.9539	.0197
#3	.0013	.1604	12.31	L-.0148	.0097	.9535	L-.0196

Elem	V	Zn	B	Bi	Mo	P	S
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.2144	2.235	.0406	L-.0382	.0180	7.448	6.714
SDev	.0013	.006	.0059	.0306	.0033	.090	.061
%RSD	.6067	.2889	14.56	79.97	18.25	1.209	.9045
#1	.2133	2.228	.0387	L-.0307	.0199	7.384	6.644
#2	.2141	2.240	.0359	L-.0121	.0142	7.551	6.747
#3	.2158	2.238	.0472	L-.0719	.0199	7.409	6.752

Elem	Si	Sr	Sn	Ti	Y	Zr
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.057	.1920	.2888	.9188	.0615	.0534
SDev	.005	.0014	.0044	.0037	.0000	.0013
%RSD	.1027	.7477	1.524	.4079	.0002	2.389
#1	5.060	.1912	.2927	.9166	.0615	.0541
#2	5.059	.1912	.2896	.9166	.0615	.0519
#3	5.051	.1937	.2840	.9231	.0615	.0541

Analysis Report 08/21/01 07:52:47 AM

Method: STD_MTD Sample Name: 046714 100 Operator: NR1
Run Time: 08/21/01 07:48:35
Comment: 0820 SSG1 DG3050B
Mode: CONC Corr. Factor: 1

Elem	Al	Sb	As	Ba	Be	Cd	Ca
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	97.45	.0299	.0088	.9128	.00488	.0097	75.04
SDev	1.15	.0158	.0154	.0117	.00001	.0026	.87
%RSD	1.185	52.92	175.1	1.276	.18398	27.16	1.153
#1	97.15	.0239	.0127	.9107	.00488	.0067	74.43
#2	98.73	.0479	.0218	.9254	.00487	.0116	76.03
#3	96.48	.0179	L-.0082	.9024	.00489	.0108	74.67

Elem	Cr	Co	Cu	Fe	Pb	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1615	.0664	1.332	233.7	3.123	38.20	4.042
SDev	.0043	.0044	.016	1.7	.014	.40	.048
%RSD	2.691	6.685	1.171	.7319	.4534	1.049	1.184
#1	.1582	.0668	1.324	234.8	3.108	38.06	4.030
#2	.1665	.0706	1.349	234.5	3.135	38.65	4.094
#3	.1600	.0617	1.321	231.7	3.127	37.89	4.001

Elem	Hg	Ni	K	Se	Ag	Na	Tl
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	L-.0228	.1838	14.38	L-.0324	.0024	.7191	L-.0168
SDev	.0066	.0049	.09	.0232	.0025	.0151	.0381
%RSD	29.05	2.645	.6204	71.64	106.3	2.101	227.1
#1	L-.0237	.1879	14.36	L-.0320	.0009	.7099	.0065
#2	L-.0290	.1850	14.31	L-.0093	.0009	.7365	.0039
#3	L-.0158	.1784	14.48	L-.0557	.0053	.7108	L-.0608

Elem	V	Zn	B	Bi	Mo	P	S
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.2190	3.026	.0453	L-.0489	.0272	7.663	7.187
SDev	.0036	.026	.0033	.0200	.0062	.118	.166
%RSD	1.627	.8725	7.236	40.95	22.84	1.539	2.314
#1	.2202	3.009	.0416	L-.0606	.0201	7.552	7.084
#2	.2218	3.056	.0472	L-.0603	.0301	7.787	7.379
#3	.2150	3.012	.0472	L-.0258	.0315	7.651	7.097

Elem	Si	Sr	Sn	Ti	Y	Zr
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.813	.3012	.4402	1.069	.0675	.0436
SDev	.067	.0046	.0086	.014	.0027	.0015
%RSD	1.394	1.517	1.962	1.317	3.923	3.518
#1	4.772	.3015	.4303	1.068	.0665	.0431
#2	4.890	.3057	.4466	1.083	.0705	.0453
#3	4.776	.2965	.4436	1.055	.0655	.0423

Analysis Report 08/21/01 07:57:07 AM

Method: STD_MTD Sample Name: 046715 100 Operator: NR1
Run Time: 08/21/01 07:52:55
Comment: 0820 SSG1 DG3050B
Mode: CONC Corr. Factor: 1

Elem	Al	Sb	As	Ba	Be	Cd	Ca
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	90.94	.0000	.0020	.7858	.00461	.0066	92.36
SDev	.31	.0180	.0250	.0024	.00015	.0018	.30
%RSD	.3445	2343e6	1241.	.3076	3.1374	26.54	.3289
#1	91.23	L-.0179	L-.0018	.7872	.00469	.0059	92.02
#2	91.00	.0179	L-.0209	.7872	.00469	.0086	92.46
#3	90.61	.0000	.0287	.7830	.00444	.0054	92.60

Elem	Cr	Co	Cu	Fe	Pb	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1421	.0620	.9502	214.1	2.047	40.17	4.023
SDev	.0016	.0028	.0023	2.2	.008	.08	.015
%RSD	1.149	4.458	.2460	1.019	.4123	.1977	.3709
#1	.1408	.0607	.9502	212.3	2.039	40.25	4.037
#2	.1439	.0652	.9526	216.5	2.048	40.19	4.023
#3	.1416	.0601	.9479	213.4	2.055	40.09	4.008

Elem	Hg	Ni	K	Se	Ag	Na	Tl
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	L-.0122	.1553	12.30	L-.0047	L-.0016	.7398	L-.0367
SDev	.0202	.0271	.07	.0363	.0023	.0057	.0287
%RSD	165.3	17.42	.5427	774.0	139.8	.7750	78.19
#1	.0014	.1272	12.37	.0199	.0009	.7432	L-.0691
#2	L-.0355	.1812	12.29	.0124	L-.0024	.7332	L-.0264
#3	L-.0026	.1576	12.24	L-.0464	L-.0035	.7430	L-.0145

Elem	V	Zn	B	Bi	Mo	P	S
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1928	2.396	.0293	L-.0407	.0144	6.484	5.354
SDev	.0013	.002	.0043	.0487	.0000	.006	.047
%RSD	.6570	.0923	14.85	119.6	.0101	.0912	.8841
#1	.1942	2.393	.0302	L-.0916	.0144	6.491	5.330
#2	.1926	2.397	.0245	L-.0358	.0144	6.480	5.409
#3	.1917	2.396	.0330	.0053	.0144	6.482	5.324

Elem	Si	Sr	Sn	Ti	Y	Zr
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.635	.4171	.2662	.8841	.0615	.0431
SDev	.019	.0034	.0231	.0078	.0000	.0000
%RSD	.4208	.8021	8.663	.8823	.0010	.0000
#1	4.615	.4202	.2464	.8928	.0615	.0431
#2	4.635	.4177	.2608	.8820	.0615	.0431
#3	4.654	.4136	.2916	.8777	.0615	.0431

Zenon Number	Client	Client ID		Parameter	TS	Result	Dup.	Spike	% Rec.	Dup. Spk	% Rec.	Batch Date	Batch Code	Run Date	Run Code	Day Old	Day In	Analyst's Comments
047401	PASC-MIS	TONOLLI SLAG	TNV	Arsenic	PV	12.500						01/08/20	STA3	01/08/21	NR01	3.	3.	010821.prn
				Barium		**1.400**										**3.**	**3.**	
				Boron		**3.120**										**3.**	**3.**	
				Cadmium		**0.061**										**3.**	3.	
				Chromium		**-0.091**										**3.**	3.	
				Lead		0.176										3.	3.	
				Selenium		-0.091										3.	3.	
				Silver		-0.091										3.	3.	
BL0820	INTERNAL			Arsenic	PV	-0.091	-99999.0	0.471	94.			01/08/20	STA3	01/08/21	NR01	$$$	$$$	010821.prn
				Barium		-0.091	-99999.0	1.010	101.							$$$	$$$	
				Boron		-0.091	-99999.0	1.020	100.							$$$	$$$	
				Cadmium		-0.009	-99999.0	0.501	100.							$$$	$$$	
				Chromium		-0.091	-99999.0	1.010	101.							$$$	$$$	
				Lead		-0.091	-99999.0	1.020	101.							$$$	$$$	
				Selenium		-0.091	-99999.0	0.491	95.							$$$	$$$	
				Silver		-0.091	-99999.0	0.512	102.							$$$	$$$	

2 Tests for 558ICP with an MDL of 0.100 mg/L Validated By AW Control Chart Updated _____ IO Requirements met ___

Zenon Number	Client	Client ID		Parameter	TS	Result	Dup.	Spike	% Rec.	Dup. Spk	% Rec.	Batch Date	Batch Code	Run Date	Run Code	Day Old	Day In	Analyst's Comments
046719	XCG-US	OS01-20		Calcium	PV	13400.	13500.	14300.	85.	14200.	76.	01/08/20	SSG2	01/08/21	NR01	6.	5.	*RSD CD/CTHSPK* 010821
				Magnesium		4050.	4120.	5540.	132.	5460.	125.					6.	5.	
				Sodium		627.	643.	1590.	96.	1570.	94.					6.	5.	
				Potassium		940.	976.	1980.	103.	1930.	97.					6.	5.	
				Aluminum		6780.	7080.	8870.	969.	8540.	803.					6.	5.	
				Barium		84.7	86.0	187.0	102.	185.0	100.					6.	5.	
				Beryllium		0.4	0.4	48.2	96.	49.2	98.					6.	5.	
				Cadmium		2.9	2.5	50.8	96.	51.0	97.					6.	5.	
				Chromium		31.1	33.5	127.0	95.	128.0	96.					6.	5.	
				Cobalt		6.	6.	102.	96.	104.	98.					6.	5.	
				Copper		912.0	943.0	1010.0	81.	995.0	68.					6.	5.	
				Iron		18500.	19100.	20900.	173.	20300.	124.					6.	5.	
				Lead		1330.	1360.	1450.	99.	1460.	108.					6.	5.	
				Manganese		346.0	371.0	444.0	85.	448.0	89.					6.	5.	
				Molybdenum		2.	2.	49.	94.	50.	96.					6.	5.	
				Nickel		27.	26.	73.	93.	76.	99.					6.	5.	
				Phosphorus		1190.	1190.	1530.	69.	1570.	77.					6.	5.	
				Silver		-1.0	-1.0	48.9	97.	48.6	97.					6.	5.	
				Thallium		-6.	-6.	87.	87.	94.	94.					6.	5.	
				Vanadium		17.6	18.2	67.4	99.	68.3	101.					6.	5.	
				Zinc		1250.0	1280.0	1450.0	91.	1450.0	94.					6.	5.	
046720	XCG-US	OS01-21		Calcium	PV	7970.						01/08/20	SSG2	01/08/21	NR01	6.	5.	*RSD CD* 010821Z.PRN
				Magnesium		2680.										6.	5.	
				Sodium		53.										6.	5.	
				Potassium		675.										6.	5.	
				Aluminum		6050.										6.	5.	
				Barium		60.6										6.	5.	
				Beryllium		0.3										6.	5.	
				Cadmium		1.5										6.	5.	
				Chromium		14.3										6.	5.	
				Cobalt		3.										6.	5.	
				Copper		226.0										6.	5.	
				Iron		14200.										6.	5.	

ion mber	Client	Client ID	Parameter	TS	Result	Dup.	Spike	% Rec.	Dup. Spk	% Rec.	Batch Date	Batch Code	Run Date	Run Code	Day Old	Day In	Analyst's Comments
			Lead		736.										6.	5.	
			Manganese		285.0										6.	5.	
			Molybdenum		2.										6.	5.	
			Nickel		16.										6.	5.	
			Phosphorus		1260.										6.	5.	
			Silver		**-1.0**										6.	5.	
			Thallium		-6.										6.	5.	
			Vana**dium**		15.8										6.	**5.**	
			Zinc		544.0										6.	5.	
721	XCG-US	OS01-22	Calcium	PV	30700.						01/08/20	SSG2	01/08/21	NR01	6.	5.	010821z.prn
			Magnesium		6460.										6.	5.	
			Sodium		217.										6.	5.	
			Potassium		937.										6.	5.	
			Aluminum		5190.										6.	5.	
			Barium		125.0										6.	5.	
			Beryllium		0.4										6.	5.	
			Cadmium		4.8										6.	5.	
			Chromium		38.9										6.	5.	
			Cobalt		5.										6.	5.	
			Copper		2460.0										6.	5.	
			Iron		21400.										6.	5.	
			Lead		5300.										6.	5.	
			Manganese		464.0										6.	5.	
			Molybdenum		4.										6.	5.	
			Nickel		48.										6.	5.	
			Phosphorus		1640.										6.	5.	
			Silver		2.6										6.	5.	
			Thallium		-6.										6.	5.	
			Vanadium		16.5										6.	5.	
			Zinc		3500.0										6.	5.	
040	XCG-US	Method Blank	Calcium	PV	-20.	-99999	971.	97.	976.	97.	01/08/20	SSG2	01/08/21	NR01	5.	4.	010821z.prn

U0073

R2	PASC I.D.	DILUTION	BATCH
1	BL0817	1x	STF1
2	BL0817S		
3	047289		
4	289D		
5	289S		
6	046459		
7	045690		
8	046727		
9	047057		
10	058		
11	081		
12	082		
13	047290		
14	291	↓	
15	BL0821	2x	SSB1
16	BL0821S		
17	048134		
18	134D		
19	134S		
20	133		
21	135		
22	136		
23	137	↓	
24	BL0820	100x	SSG2
25	BL0820S		
26	BL0820X		
27	046719		
28	719D		
29	719S		
30	719x		
31	720		
32	721		
33	047041 ~~727~~ NR.		
34	047042		
35	043		
36	044		
37	045		
38	046		
39	047		
40	048	↓	
41	EPA 245		
42	BL0820	100x	SSG3
43	BL0820S		
44	BL0820X		
45	042499		
46	499D		
47	499S		
48	499x		
49	042500		
50	501		
51	502		
52	043 ~~2~~ 805		
53	043 ~~2~~ 506		
54	043 ~~2~~ 507		
55	043210		
56	211		
57	212	↓	
58	DC 212	500x	
59	BL0820	100x	SSA3
60	BL0820S	↓	

29	STDLOW
38	STDAHIGH
30	STDBHIGH
16	ICVA
14	ICVB

R3	PASC I.D.	DILUTION	BATCH
1	046881	100x	SSA3
2	881D		
3	881S		
4	882		
5	883		
6	884		
7	885		
8	886		
9	887		
10	888		
11	890		
12	891	↓	
13	BL0820	600x	MNA1
14	BL0820S		
15	BL0820X		
16	046524		
17	524D		
18	524S		
19	524x		
20	525		
21	526		
22	527		
23	528		
24	529		
25	530		
26	531		
27	532		
28	533		
29	534		
30	535		
31	536		
32	537		
33	538		
34	539		
35	540		
36	541		
37	542		
38	543	↓	
39	DC 543	3000x	
40	544	600x	
41	BL0820	1x	STA2
42	BL0820S		
43	046691		
44	691D		
45	691S		
46	683		
47	692		
48	046388		
49	389		
50	390		
51	391		
52	046742		
53	743		
54	744	↓	
55	BL0820	1x	STA3
56	BL0820S		
57	046728		
58	728D		
59	728S		
60	729	↓	

44	ICSA
38	ICSAB
91	CCVA
89	CCVB
106	CCB/ICB

(HF matrix standards are prepared fresh for each day's analysis as required)

R4	PASC I.D.	DILUTION	BATCH
1	046730	1x	STA3
2	745		
3	746		
4	747		
5	748		
6	046969		
7	970		
8	047401		
9	LEACH BLK	↓	
10	BL0820	1x	STA1
11	BL0820S		
12	046386		
13	386D		
14	386S		
15	379		
16	387		
17	048274	↓	
18	046656	100x	
19	657	10x	
20	659	10x	
21	660	1x	
22	662	10x	
23	BL0821	100x	SSA1
24	BL0821S		
25	ERA 245		
26	047397		
27	397D		
28	397S		
29	046972		
30	973		
31	974		
32	975		
33	047006		
34	007		
35	047304		
36	305		
37	388	↓	
38	BL0821	100x	SSA2
39	BL0821S		
40	047389		
41	389D		
42	389S		
43	390		
44	391		
45	047177		
46	178		
47	047373		
48	374		
49	375		
50	376		
51	377		
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53			
54			
55			
56	NC		
57			
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59			
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R5	PASC I.D.	DILUTION	BATCH
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Analysis Report QC Standard 08/21/01 10:50:13 AM

Method: STD_MTD Sample Name: HCL Operator: NR
Run Time: 08/21/01 10:46:15
Comment: Standardization
Mode: CONC Corr. Factor: 1

Elem	Al	Sb	As	Ba	Be	Cd	Ca
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0273	-.0000	-.0009	-.0000	.00008	-.0004	.0066
SDev	.0058	.0374	.0073	.0012	.00025	.0022	.0057
%RSD	21.31	6018e6	792.0	6093000.	305.15	528.5	86.72
#1	.0267	-.0120	-.0039	-.0014	-.00017	-.0029	-.0000
#2	.0333	.0419	-.0062	.0007	.00008	.0009	.0099
#3	.0217	-.0299	.0074	.0007	.00034	.0007	.0099

Elem	Cr	Co	Cu	Fe	Pb	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0003	-.0007	.0001	-.0009	.0095	.0001	.0004
SDev	.0026	.0012	.0031	.0012	.0244	.0002	.0001
%RSD	964.9	173.4	2381.	129.9	255.6	173.2	34.63
#1	-.0027	-.0021	-.0034	-.0016	-.0067	-.0000	.0004
#2	.0022	.0000	.0013	.0005	.0376	.0004	.0006
#3	.0014	.0000	.0025	-.0016	-.0023	-.0000	.0004

Elem	Hg	Ni	K	Se	Ag	Na	Tl
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0013	.0000	-.1646	.0323	-.0011	Q-.0536	-.0429
SDev	.0088	.0058	.1347	.0321	.0023	.0206	.0276
%RSD	664.9	2486e6	81.82	99.10	208.3	38.49	64.33
#1	-.0035	-.0063	-.1646	.0014	-.0029	-.0417	-.0635
#2	-.0088	.0013	-.0299	Q.0654	.0015	-.0417	-.0115
#3	.0083	.0051	-.2994	.0303	-.0018	Q-.0774	-.0536

Elem	V	Zn	B	Bi	Mo	P	S
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0008	.0002	-.0019	-.0103	-.0014	.0186	-.0076
SDev	.0008	.0011	.0033	.0477	.0033	.0231	.0138
%RSD	100.0	468.4	173.4	462.6	231.0	124.5	182.5
#1	-.0000	.0014	.0019	Q-.0551	-.0033	-.0062	.0075
#2	.0008	-.0007	-.0038	.0399	-.0033	.0224	-.0106
#3	.0017	-.0000	-.0038	-.0158	.0024	.0396	-.0196

Elem	Si	Sr	Sn	Ti	Y	Zr
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0266	.0000	.0041	.0014	.0013	.0009
SDev	.0062	.0000	.0053	.0000	.0000	.0011
%RSD	23.41	86.72	128.6	.0000	.0009	130.9
#1	.0201	-.0000	.0081	.0014	.0013	-.0004
#2	.0272	.0000	.0062	.0014	.0013	.0011
#3	.0325	.0000	-.0019	.0014	.0013	.0018

Standardization Rpt. 08/21/01 10:56:07 AM

Method: STD_MTD Standard: STDLOW
Run Time: 08/21/01 10:52:06

Elem	Al	Sb	As	Ba	Be	Cd	Ca
Avge	.0143	.0004	-.0003	.0000	.00067	.0001	.0005
SDev	.0037	.0004	.0006	.0000	.00012	.0006	.0001
%RSD	25.44	100.0	173.2	.0000	17.321	866.0	21.65
#1	.0176	.0004	.0000	.0000	.00060	.0004	.0006
#2	.0104	.0000	-.0010	.0000	.00060	-.0006	.0004
#3	.0150	.0008	.0000	.0000	.00080	.0004	.0006

Elem	Cr	Co	Cu	Fe	Fe	Pb	Mg
Avge	-.0000	-.0006	-.0003	-.0022	.0005	.0007	.0010
SDev	.0005	.0002	.0009	.0026	.0004	.0010	.0005
%RSD	3636e6	33.33	270.6	119.2	89.21	137.3	52.92
#1	.0002	-.0004	.0006	-.0026	.0008	-.0002	.0016
#2	.0004	-.0006	-.0012	.0006	.0000	.0006	.0006
#3	-.0006	-.0008	-.0004	-.0046	.0006	.0018	.0008

Elem	Mg	Mn	Hg	Ni	K	Se	Ag
Avge	.0004	.0003	-.0009	-.0009	.0023	.0018	.0045
SDev	.0000	.0001	.0016	.0014	.0015	.0021	.0003
%RSD	.0000	43.30	188.0	155.0	64.33	116.0	6.739
#1	.0004	.0002	-.0020	-.0026	.0032	.0042	.0042
#2	.0004	.0004	-.0016	.0000	.0006	.0008	.0046
#3	.0004	.0002	.0010	-.0002	.0032	.0004	.0048

Elem	Na	Tl	V	Zn	B	Bi	Mo
Avge	.0223	.0025	-.0009	.0001	-.0001	.0049	.0003
SDev	.0007	.0010	.0004	.0003	.0003	.0034	.0005
%RSD	3.145	38.94	48.04	458.3	229.1	69.32	173.2
#1	.0230	.0032	-.0004	-.0002	.0002	.0010	.0000
#2	.0224	.0030	-.0012	.0004	-.0002	.0072	.0000
#3	.0216	.0014	-.0010	.0000	-.0004	.0066	.0008

Elem	P	S	Si	Sr	Sn	Ti	Y
Avge	.0071	.0001	.0061	-.0001	-.0012	-.0001	-.0004
SDev	.0045	.0027	.0016	.0001	.0030	.0002	.0003
%RSD	63.62	2014.	26.36	173.2	251.7	173.2	86.60
#1	.0032	.0032	.0080	.0000	-.0008	.0000	-.0002
#2	.0120	-.0018	.0052	-.0002	.0016	.0000	-.0008
#3	.0060	-.0010	.0052	.0000	-.0044	-.0004	-.0002

Elem	Zr
Avge	.0004
SDev	.0007
%RSD	173.2
#1	.0000
#2	.0000
#3	.0012

Standardization Rpt. 08/21/01 10:59:29 AM

Method: STD_MTD Standard: STDAHIGH
Run Time: 08/21/01 10:56:15

Elem	Al	As	Ba	Be	Cd	Ca	Cr
Avge	5.295	.4829	2.018	4.3982	.9236	4.381	2.637
SDev	.048	.0034	.026	.0312	.0043	.022	.016
%RSD	.9073	.7105	1.293	.70992	.4690	.5011	.5936
#1	5.270	.4824	2.004	4.3840	.9230	4.363	2.624
#2	5.350	.4866	2.048	4.4340	.9282	4.406	2.654
#3	5.264	.4798	2.001	4.3766	.9196	4.374	2.631

Elem	Co	Cu	Fe	Pb	Mg	Mn	Hg
Avge	4.032	5.420	6.451	1.005	4.416	8.434	.6853
SDev	.026	.053	.046	.005	.038	.059	.0257
%RSD	.6459	.9865	.7056	.4901	.8641	.6976	3.745
#1	4.012	5.394	6.420	1.000	4.398	8.400	.7144
#2	4.062	5.481	6.503	1.010	4.460	8.502	.6758
#3	4.023	5.384	6.429	1.006	4.390	8.401	.6658

Elem	Ni	K	Se	Ag	Na	Tl	V
Avge	1.190	.4675	.5475	1.941	2.408	.9499	1.350
SDev	.009	.0045	.0043	.016	.023	.0069	.010
%RSD	.7573	.9569	.7855	.8215	.9682	.7300	.7318
#1	1.191	.4624	.5438	1.934	2.398	.9422	1.344
#2	1.199	.4706	.5522	1.959	2.435	.9556	1.361
#3	1.181	.4696	.5464	1.930	2.391	.9520	1.344

Elem	Zn	B	Bi	P	Sr	Y
Avge	6.082	.7434	.5157	16.66	1.349	2.170
SDev	.033	.0064	.0008	.11	.016	.022
%RSD	.5488	.8630	.1615	.6830	1.198	1.012
#1	6.063	.7400	.5166	16.78	1.341	2.158
#2	6.120	.7508	.5150	16.66	1.367	2.195
#3	6.062	.7394	.5154	16.55	1.338	2.156

Standardization Rpt. 08/21/01 11:03:38 AM page 1

Method: STD_MTD Standard: STDBHIGH
Run Time: 08/21/01 11:00:56

Elem	Sb	Fe	Mg	Mo	S	Si	Sn
Avge	.1723	4.954	6.264	.8376	.9901	2.562	4.753
SDev	.0033	.018	.096	.0149	.0159	.047	.055
%RSD	1.923	.3534	1.527	1.785	1.606	1.825	1.166
#1	.1688	4.937	6.163	.8220	.9742	2.512	4.697
#2	.1726	4.955	6.275	.8390	.9900	2.572	4.755
#3	.1754	4.972	6.354	.8518	1.006	2.604	4.808

Elem	Ti	Zr
Avge	2.187	6.118
SDev	.036	.094
%RSD	1.654	1.544
#1	2.149	6.020
#2	2.189	6.126
#3	2.221	6.208

Analysis Report QC Standard 08/21/01 11:09:06 AM

Method: STD_MTD Sample Name: ICVA Operator: NR
Run Time: 08/21/01 11:05:06
Comment: Standardization
Mode: CONC Corr. Factor: 1

Elem	Al	Sb	As	Ba	Be	Cd	Ca
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	9.794	.0795	2.470	4.918	2.4551	2.446	51.30
SDev	.049	.0331	.036	.047	.0264	.043	.70
%RSD	.5013	41.61	1.465	.9461	1.0769	1.753	1.369
#1	9.757	.0524	2.428	4.864	2.4397	2.447	50.56
#2	9.850	.0698	2.491	4.949	2.4856	2.489	51.39
#3	9.776	.1164	2.490	4.941	2.4400	2.403	51.95

Elem	Cr	Co	Cu	Fe	Pb	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.018	5.051	4.939	10.03	5.042	46.93	4.929
SDev	.064	.080	.050	.09	.066	.38	.052
%RSD	1.274	1.575	1.020	.8485	1.315	.8055	1.061
#1	4.947	4.972	4.880	9.936	4.966	46.55	4.907
#2	5.032	5.052	4.968	10.11	5.082	47.30	4.989
#3	5.073	5.131	4.967	10.04	5.080	46.95	4.892

Elem	Hg	Ni	K	Se	Ag	Na	Tl
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.506	2.523	49.05	2.401	2.461	48.80	4.965
SDev	.085	.013	.55	.039	.022	.49	.113
%RSD	5.618	.5308	1.126	1.644	.8802	1.005	2.277
#1	1.602	2.508	48.42	2.391	2.436	48.31	5.047
#2	1.473	2.526	49.28	2.444	2.477	49.29	5.013
#3	1.442	2.534	49.45	2.367	2.469	48.80	4.836

Elem	V	Zn	B	Bi	Mo	P	S
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.447	9.998	4.993	2.517	.0045	24.54	.0547
SDev	.037	.145	.053	.037	.0000	.25	.0195
%RSD	1.516	1.450	1.058	1.482	.3074	1.009	35.65
#1	2.444	9.845	4.932	2.474	.0045	24.52	.0740
#2	2.486	10.02	5.021	2.536	.0045	24.80	.0350
#3	2.412	10.13	5.026	2.540	.0045	24.31	.0552

Elem	Si	Sr	Sn	Ti	Y	Zr
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0115	2.421	-.0016	.0024	4.852	-.0117
SDev	.0033	.041	.0115	.0000	.036	.0005
%RSD	28.39	1.701	740.7	.0000	.7506	4.283
#1	.0151	2.419	.0108	.0024	4.812	-.0121
#2	.0089	2.463	-.0036	.0024	4.884	-.0118
#3	.0104	2.381	-.0120	.0024	4.858	-.0111

Analysis Report QC Standard 08/21/01 11:14:08 AM

Method: STD_MTD Sample Name: ICVB Operator: NR
Run Time: 08/21/01 11:10:07
Comment: Standardization
Mode: CONC Corr. Factor: 1

Elem	Al	Sb	As	Ba	Be	Cd	Ca
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0530	2.521	-.0107	-.0007	-.00052	-.0024	-.0473
SDev	.0220	.054	.0211	.0011	.00023	.0011	.0053
%RSD	41.53	2.144	197.6	173.2	43.630	44.64	11.12
#1	.0360	2.583	-.0170	.0000	-.00029	-.0016	-.0443
#2	.0779	2.484	-.0279	.0000	-.00075	-.0036	-.0443
#3	.0451	2.496	.0129	-.0020	-.00052	-.0020	-.0534

Elem	Cr	Co	Cu	Fe	Pb	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0007	.0077	.0020	50.43	-.0015	5.028	-.0014
SDev	.0012	.0003	.0015	.15	.0191	.027	.0001
%RSD	159.9	3.582	75.78	.3021	1275.	.5429	9.823
#1	-.0020	.0080	.0006	50.57	-.0115	5.003	-.0012
#2	.0003	.0075	.0036	50.45	-.0136	5.057	-.0014
#3	-.0005	.0075	.0017	50.27	.0205	5.023	-.0014

Elem	Hg	Ni	K	Se	Ag	Na	Tl
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0108	-.0039	-.0302	-.0357	.0333	-.0366	-.2269
SDev	.0077	.0100	.3432	.0230	.0031	.0366	.0212
%RSD	72.11	255.7	1137.	64.28	9.333	100.1	9.355
#1	.0195	-.0120	-.3732	-.0615	.0362	-.0785	-.2255
#2	.0078	.0073	.3132	-.0284	.0337	-.0114	-.2488
#3	.0049	-.0070	-.0306	-.0173	.0301	-.0197	-.2064

Elem	V	Zn	B	Bi	Mo	P	S
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0046	-.0092	.0179	-.1017	2.503	.0121	4.917
SDev	.0015	.0010	.0027	.0271	.025	.0083	.066
%RSD	33.72	11.37	15.01	26.66	.9897	68.76	1.352
#1	-.0051	-.0094	.0153	-.0717	2.477	.0099	4.864
#2	-.0058	-.0101	.0206	-.1245	2.525	.0051	4.991
#3	-.0028	-.0081	.0179	-.1089	2.508	.0212	4.894

Elem	Si	Sr	Sn	Ti	Y	Zr
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.071	.0002	5.066	4.926	.0009	4.985
SDev	.048	.0000	.032	.066	.0000	.030
%RSD	.9527	.0213	.6367	1.339	.0012	.6003
#1	5.020	.0002	5.102	4.854	.0009	4.967
#2	5.116	.0002	5.054	4.984	.0009	5.020
#3	5.075	.0002	5.041	4.939	.0009	4.969

Analysis Report QC Standard 08/21/01 11:18:13 AM page 1

Method: STD_MTD Sample Name: HCL Operator: NR
Run Time: 08/21/01 11:14:15
Comment: Standardization
Mode: CONC Corr. Factor: 1

Elem	Al	Sb	As	Ba	Be	Cd	Ca
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0053	-.0019	.0128	-.0007	.00000	-.0006	-.0000
SDev	.0199	.0220	.0296	.0011	.00013	.0021	.0053
%RSD	371.6	1136.	230.9	173.2	3425.3	377.4	60900.
#1	.0262	-.0116	.0376	.0000	-.00007	.0013	-.0031
#2	-.0135	-.0175	.0207	-.0000	.00015	-.0029	.0061
#3	.0033	.0233	-.0199	-.0020	-.00007	-.0001	-.0031

Elem	Cr	Co	Cu	Fe	Pb	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0020	-.0005	-.0001	.0027	-.0140	.0001	.0001
SDev	.0016	.0005	.0007	.0034	.0091	.0002	.0004
%RSD	78.08	99.80	600.0	127.1	64.68	173.2	458.8
#1	-.0038	-.0000	-.0009	.0066	-.0234	.0000	.0002
#2	-.0008	-.0005	-.0001	.0004	-.0053	.0003	.0004
#3	-.0015	-.0010	.0006	.0010	-.0133	.0000	-.0003

Elem	Hg	Ni	K	Se	Ag	Na	Tl
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0051	-.0022	.3719	-.0263	.0007	Q-.1398	-.0452
SDev	.0003	.0010	.1734	.0092	.0000	.0145	.0358
%RSD	6.675	43.30	46.63	35.10	.1603	10.39	79.05
#1	.0055	-.0011	.1859	-.0165	.0007	Q-.1314	Q-.0862
#2	.0049	-.0028	.4005	-.0349	.0007	Q-.1565	-.0290
#3	.0049	-.0028	.5292	-.0275	.0007	Q-.1314	-.0205

Elem	V	Zn	B	Bi	Mo	P	S
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0015	.0004	.0054	-.0235	-.0016	-.0194	.0236
SDev	.0015	.0007	.0041	.0233	.0083	.0156	.0249
%RSD	104.1	146.9	76.35	99.43	519.5	80.24	105.8
#1	-.0020	.0004	.0099	-.0072	.0080	-.0068	Q.0512
#2	.0002	-.0002	.0018	-.0130	-.0064	-.0146	.0168
#3	-.0027	.0011	.0045	Q-.0502	-.0064	-.0368	.0027

Elem	Si	Sr	Sn	Ti	Y	Zr
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0214	.0002	.0011	.0006	.0009	.0031
SDev	.0098	.0000	.0096	.0018	.0016	.0014
%RSD	45.70	.0214	857.7	300.0	173.2	44.61
#1	.0323	.0002	-.0038	.0024	.0018	.0046
#2	.0183	.0002	.0122	.0006	-.0009	.0026
#3	.0136	.0002	-.0051	-.0012	.0018	.0020

Analysis Report QC Standard 08/21/01 11:24:04 AM

Method: STD_MTD Sample Name: ICB Operator: NR
Run Time: 08/21/01 11:20:06
Comment: Standardization
Mode: CONC Corr. Factor: 1

Elem	Al	Sb	As	Ba	Be	Cd	Ca
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0099	-.0097	.0135	.0000	.00008	.0009	-.0046
SDev	.0132	.0299	.0214	.0000	.00013	.0030	.0115
%RSD	133.6	307.9	158.8	251.2	171.13	334.3	251.2
#1	.0147	-.0175	Q.0377	.0000	.00016	Q-.0020	-.0168
#2	.0200	.0233	-.0030	-.0000	.00015	.0008	.0061
#3	-.0051	Q-.0349	.0057	.0000	-.00007	Q.0039	-.0030

Elem	Cr	Co	Cu	Fe	Pb	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0005	.0002	.0011	.0008	-.0000	.0000	.0002
SDev	.0023	.0015	.0011	.0007	.0182	.0000	.0003
%RSD	458.5	917.7	96.23	86.58	84640.	.0000	115.5
#1	-.0015	.0005	-.0001	.0004	-.0194	.0000	.0004
#2	.0030	.0015	.0017	.0017	.0026	.0000	-.0001
#3	-.0000	-.0015	.0017	.0004	.0167	.0000	.0004

Elem	Hg	Ni	K	Se	Ag	Na	Tl
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0041	.0062	.6007	-.0196	.0017	-.0000	-.0332
SDev	.0022	.0149	.2440	.0094	.0018	.0048	.0139
%RSD	54.13	242.5	40.62	48.08	103.9	348900.	41.84
#1	.0066	-.0070	.5292	-.0220	.0038	.0028	-.0184
#2	.0025	.0031	.8724	-.0092	.0007	.0028	-.0353
#3	.0031	Q.0224	.4005	-.0275	.0007	-.0056	-.0459

Elem	V	Zn	B	Bi	Mo	P	S
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0002	-.0002	.0063	-.0241	-.0024	-.0156	.0128
SDev	.0011	.0006	.0016	.0596	.0007	.0240	.0175
%RSD	458.3	251.9	24.75	247.3	28.86	153.7	136.2
#1	-.0012	-.0002	.0045	.0358	-.0016	-.0350	.0029
#2	.0010	-.0009	.0072	-.0248	-.0028	.0112	.0026
#3	-.0005	.0003	.0072	Q-.0834	-.0028	-.0230	.0330

Elem	Si	Sr	Sn	Ti	Y	Zr
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0089	.0002	-.0028	.0000	-.0000	.0011
SDev	.0045	.0000	.0035	.0011	.0016	.0030
%RSD	50.94	.0465	124.9	2721e6	18e6	277.1
#1	-.0115	.0002	-.0000	-.0012	.0009	-.0007
#2	-.0037	.0002	-.0068	.0006	.0009	.0046
#3	-.0115	.0002	-.0017	.0006	Q-.0018	-.0007

Analysis Report QC Standard 08/21/01 11:28:12 AM

Method: STD_MTD Sample Name: CRI Operator: NR
Run Time: 08/21/01 11:24:11
Comment: Standardization
Mode: CONC Corr. Factor: 1

Elem	Al	Sb	As	Ba	Be	Cd	Ca
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1591	.1435	.0999	.0053	.00495	.0113	.5204
SDev	.0097	.0089	.0054	.0011	.00013	.0001	.0027
%RSD	6.085	6.193	5.380	21.66	2.6477	.7230	.5093
#1	.1703	.1513	.1006	.0059	.00488	.0113	.5174
#2	.1535	.1338	.1049	Q.0040	.00510	.0112	.5220
#3	.1535	.1455	.0942	.0059	.00487	.0114	.5220

Elem	Cr	Co	Cu	Fe	Pb	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0200	.0539	.0303	.0513	.1030	.2537	.0252
SDev	.0019	.0013	.0026	.0016	.0023	.0012	.0001
%RSD	9.557	2.315	8.652	3.201	2.232	.4764	.5432
#1	.0182	.0541	.0279	.0531	.1043	.2529	.0253
#2	.0197	.0551	.0298	.0500	.1043	.2551	.0251
#3	.0220	.0526	.0331	.0506	.1003	.2532	.0253

Elem	Hg	Ni	K	Se	Ag	Na	Tl
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0023	.0498	2.847	.2813	Q.0031	.5031	.2867
SDev	.0019	.0070	.043	.0262	.0022	.0048	.0204
%RSD	82.24	14.03	1.507	9.325	69.04	.9622	7.130
#1	.0031	.0476	2.804	.3101	Q.0038	.5058	.2782
#2	.0037	.0577	2.890	.2587	Q.0007	.5058	.3100
#3	.0001	.0442	2.847	.2752	Q.0048	.4975	.2719

Elem	V	Zn	B	Bi	Mo	P	S
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0252	.0259	Q.1346	Q.2183	.0490	.2496	.3138
SDev	.0011	.0011	.0041	.0318	.0025	.0085	.0191
%RSD	4.492	4.458	3.058	14.56	5.076	3.394	6.091
#1	.0239	.0272	Q.1310	.2431	.0498	.2406	.3286
#2	.0254	.0252	Q.1337	Q.2294	.0510	.2574	.3205
#3	.0262	.0252	Q.1391	Q.1825	.0462	.2508	.2922

Elem	Si	Sr	Sn	Ti	Y	Zr
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.5038	.0047	.2633	.0500	.0058	.0415
SDev	.0024	.0000	.0089	.0000	.0005	.0053
%RSD	.4744	.0006	3.392	.0000	9.114	12.67
#1	.5033	.0047	.2667	.0500	Q.0065	Q.0360
#2	.5018	.0047	.2532	.0500	.0055	.0422
#3	.5065	.0047	.2700	.0500	.0055	.0464

Analysis Report QC Standard 08/21/01 11:32:21 AM

Method: STD_MTD Sample Name: ICSA Operator: NR
Run Time: 08/21/01 11:28:19
Comment: Standardization
Mode: CONC Corr. Factor: 1

Elem	Al	Sb	As	Ba	Be	Cd	Ca
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	293.4	-.0388	Q-.0550	.0005	-.00009	-.0001	480.8
SDev	.7	.0470	.0329	.0000	.00000	.0046	1.6
%RSD	.2241	121.2	59.96	.8791	2.1826	7653.	.3292
#1	292.7	Q-.0931	Q-.0903	.0005	-.00009	.0005	479.2
#2	294.0	-.0116	-.0250	.0005	-.00009	Q-.0049	482.3
#3	293.5	-.0116	Q-.0496	.0005	-.00009	.0043	481.1

Elem	Cr	Co	Cu	Fe	Pb	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0017	-.0010	-.0023	202.2	-.0147	479.9	-.0072
SDev	.0020	.0011	.0007	1.8	.0025	1.2	.0002
%RSD	117.3	110.3	31.58	.9097	17.14	.2504	2.591
#1	-.0010	-.0021	-.0031	201.0	-.0119	478.6	-.0071
#2	-.0041	.0001	-.0016	204.3	-.0167	481.0	-.0070
#3	-.0002	-.0011	-.0023	201.2	-.0155	480.1	-.0074

Elem	Hg	Ni	K	Se	Ag	Na	Tl
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0111	Q-.0017	.5001	-.0749	-.0071	-.1828	-.0363
SDev	.0058	.0092	.3888	.0441	.0003	.0053	.0352
%RSD	51.87	550.8	77.74	58.83	4.215	2.910	96.76
#1	-.0150	.0073	.0521	-.0299	-.0073	-.1767	-.0370
#2	-.0139	Q-.0112	.7498	-.0767	-.0073	-.1864	-.0009
#3	-.0045	Q-.0011	.6984	-.1180	-.0067	-.1854	-.0712

Elem	V	Zn	B	Bi	Mo	P	S
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0057	.0021	-.0027	-.0757	.0119	.0361	.2172
SDev	.0008	.0005	.0056	.0523	.0025	.0196	.0247
%RSD	13.71	24.44	208.4	69.02	20.78	54.43	11.36
#1	.0057	.0027	.0018	Q-.1333	.0147	.0352	.1909
#2	.0065	.0017	-.0090	-.0312	.0111	.0169	.2210
#3	.0049	.0020	-.0009	-.0627	.0099	.0562	.2398

Elem	Si	Sr	Sn	Ti	Y	Zr
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0209	.0172	.0057	.0061	.0010	.0071
SDev	.0065	.0004	.0081	.0000	.0016	.0002
%RSD	31.22	2.568	141.7	.0000	166.3	2.665
#1	.0229	.0169	-.0007	.0061	-.0009	.0069
#2	.0261	.0177	.0030	.0061	.0019	.0072
#3	.0136	.0169	.0149	.0061	.0019	.0072

Analysis Report QC Standard 08/21/01 11:37:00 AM

Method: STD_MTD Sample Name: ICSA Operator: NR
Run Time: 08/21/01 11:32:59
Comment: Standardization
Mode: CONC Corr. Factor: 1

Elem	Al	Sb	As	Ba	Be	Cd	Ca
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	293.1	.0039	-.0274	-.0008	-.00001	.0036	480.0
SDev	1.7	.0396	.0235	.0011	.00013	.0024	3.0
%RSD	.5766	1021.	85.63	145.9	1712.8	66.87	.6222
#1	292.2	.0349	-.0380	-.0014	-.00008	.0063	477.0
#2	295.0	-.0407	-.0005	.0005	-.00008	.0024	483.0
#3	292.0	.0175	Q-.0438	-.0014	.00014	.0020	480.1

Elem	Cr	Co	Cu	Fe	Pb	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0033	-.0025	-.0041	201.9	-.0307	479.7	-.0076
SDev	.0008	.0015	.0017	1.6	.0033	2.9	.0002
%RSD	25.29	59.54	40.99	.8135	10.66	.6040	3.278
#1	-.0041	-.0035	-.0057	200.2	-.0327	477.9	-.0078
#2	-.0024	-.0031	-.0042	202.1	-.0269	483.1	-.0073
#3	-.0033	-.0008	-.0023	203.5	-.0324	478.2	-.0076

Elem	Hg	Ni	K	Se	Ag	Na	Tl
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0029	Q-.0025	.8283	-.0583	-.0093	-.1967	-.0328
SDev	.0085	.0072	.7457	.0099	.0015	.0050	.0589
%RSD	292.2	287.4	90.02	17.02	16.62	2.551	179.6
#1	.0125	.0039	.3498	-.0664	-.0093	-.1931	-.0985
#2	.0002	Q-.0011	.4476	-.0611	-.0078	-.1945	.0154
#3	-.0039	Q-.0104	1.687	-.0472	-.0109	Q-.2024	-.0153

Elem	V	Zn	B	Bi	Mo	P	S
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0030	.0019	-.0027	-.0732	.0115	.0382	.2071
SDev	.0016	.0011	.0068	.0579	.0018	.0128	.0710
%RSD	53.09	60.30	252.1	79.16	15.62	33.40	34.29
#1	.0012	.0008	-.0036	Q-.1393	.0111	.0518	.1730
#2	.0035	.0031	.0045	-.0311	.0099	.0364	.1596
#3	.0043	.0018	-.0090	-.0492	.0135	.0265	Q.2888

Elem	Si	Sr	Sn	Ti	Y	Zr
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0156	.0169	.0041	.0061	-.0018	.0069
SDev	.0039	.0000	.0092	.0000	.0016	.0006
%RSD	25.17	.1767	222.7	.0000	88.17	8.248
#1	.0151	.0169	-.0025	.0061	-.0009	.0062
#2	.0198	.0169	.0146	.0061	Q-.0036	.0072
#3	.0120	.0169	.0003	.0061	-.0009	.0072

Analysis Report QC Standard 08/21/01 11:41:24 AM page 1

Method: STD_MTD Sample Name: ICSAB Operator: NR
Run Time: 08/21/01 11:37:23
Comment: Standardization
Mode: CONC Corr. Factor: 1

Elem	Al	Sb	As	Ba	Be	Cd	Ca
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	290.5	.9775	.9001	.4744	.46494	.9670	475.0
SDev	1.1	.0116	.0050	.0034	.00142	.0027	1.3
%RSD	.3913	1.190	.5523	.7231	.30531	.2783	.2664
#1	290.1	.9659	.9035	.4724	.46449	.9695	474.4
#2	291.7	.9775	.8944	.4784	.46654	.9641	476.5
#3	289.6	.9891	.9023	.4724	.46381	.9673	474.2

Elem	Cr	Co	Cu	Fe	Pb	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.4584	.4638	.4787	201.2	.9145	475.9	.4535
SDev	.0013	.0025	.0040	.3	.0170	1.5	.0018
%RSD	.2818	.5402	.8242	.1617	1.865	.3208	.3995
#1	.4598	.4638	.4763	201.4	.9340	475.0	.4523
#2	.4577	.4663	.4833	200.8	.9024	477.7	.4555
#3	.4576	.4613	.4766	201.4	.9071	475.1	.4525

Elem	Hg	Ni	K	Se	Ag	Na	Tl
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0092	.9292	1.079	.9041	.9650	-.1930	-.0201
SDev	.0099	.0206	.074	.0157	.0075	.0082	.0576
%RSD	107.8	2.219	6.835	1.740	.7771	4.253	286.3
#1	-.0160	.9468	1.035	.9033	.9577	-.1929	-.0821
#2	-.0137	.9342	1.038	.9202	.9727	-.1848	.0318
#3	.0022	.9065	1.164	.8887	.9644	-.2012	-.0101

Elem	V	Zn	B	Bi	Mo	P	S
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.4701	.9648	-.0098	-.0865	.0144	.0611	.1871
SDev	.0017	.0038	.0108	.0054	.0037	.0036	.0988
%RSD	.3618	.3974	110.5	6.193	25.55	5.862	52.82
#1	.4691	.9619	.0010	-.0847	.0135	.0602	.1996
#2	.4721	.9691	-.0205	-.0824	.0184	.0580	.2790
#3	.4691	.9634	-.0098	-.0926	.0112	.0650	.0826

Elem	Si	Sr	Sn	Ti	Y	Zr
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0167	.0171	-.0072	.0061	-.0009	.0013
SDev	.0056	.0004	.0017	.0000	.0028	.0011
%RSD	33.80	2.461	23.64	.0000	309.5	86.60
#1	.0120	.0169	-.0084	.0061	-.0037	.0020
#2	.0229	.0169	-.0052	.0061	-.0009	.0020
#3	.0151	.0176	-.0079	.0061	.0019	-.0000

Analysis Report QC Standard 08/21/01 11:47:19 AM

Method: STD_MTD Sample Name: STDAHIGH Operator: NR
Run Time: 08/21/01 11:43:18
Comment: Standardization
Mode: CONC Corr. Factor: 1

Elem	Al	Sb	As	Ba	Be	Cd	Ca
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	19.41	.1222	5.005	9.656	4.8902	4.917	98.00
SDev	.15	.0058	.046	.098	.0436	.039	.93
%RSD	.7700	4.762	.9133	1.013	.89131	.8012	.9520
#1	19.25	.1280	4.959	9.561	4.8415	4.874	96.97
#2	19.44	.1164	5.005	9.649	4.9034	4.924	98.23
#3	19.54	.1222	5.051	9.756	4.9256	4.952	98.79

Elem	Cr	Co	Cu	Fe	Pb	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	9.800	9.794	9.689	19.56	9.863	97.20	9.829
SDev	.091	.093	.091	.16	.066	.89	.093
%RSD	.9259	.9465	.9368	.8288	.6684	.9130	.9430
#1	9.702	9.693	9.595	19.39	9.790	96.25	9.728
#2	9.817	9.813	9.695	19.59	9.883	97.34	9.849
#3	9.881	9.876	9.776	19.71	9.917	98.01	9.910

Elem	Hg	Ni	K	Se	Ag	Na	Tl
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.637	4.890	97.11	4.909	4.855	96.98	9.878
SDev	.082	.068	.93	.054	.038	.96	.058
%RSD	4.994	1.388	.9559	1.102	.7877	.9915	.5862
#1	1.545	4.812	96.23	4.855	4.814	95.95	9.814
#2	1.666	4.928	97.01	4.910	4.860	97.14	9.925
#3	1.700	4.930	98.08	4.963	4.890	97.85	9.895

Elem	V	Zn	B	Bi	Mo	P	S
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.896	19.53	9.755	4.907	.0031	49.04	.1262
SDev	.046	.16	.130	.107	.0025	.41	.0475
%RSD	.9495	.8299	1.336	2.173	78.63	.8297	37.61
#1	4.847	19.36	9.613	4.874	.0059	48.58	.0993
#2	4.902	19.55	9.785	4.821	.0023	49.19	.1810
#3	4.940	19.68	9.868	5.027	.0012	49.36	.0983

Elem	Si	Sr	Sn	Ti	Y	Zr
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0193	4.851	-.0125	.0055	9.677	-.0234
SDev	.0096	.049	.0093	.0011	.077	.0013
%RSD	49.54	1.002	73.93	19.25	.7981	5.639
#1	.0276	4.803	-.0174	.0061	9.604	-.0219
#2	.0089	4.849	-.0018	.0043	9.670	-.0242
#3	.0214	4.900	-.0183	.0061	9.758	-.0242

Analysis Report QC Standard 08/21/01 11:52:21 AM

Method: STD_MTD Sample Name: STDBHIGH Operator: NR
Run Time: 08/21/01 11:48:20
Comment: Standardization
Mode: CONC Corr. Factor: 1

Elem	Al	Sb	As	Ba	Be	Cd	Ca
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1384	4.948	-.0010	.0000	-.00098	-.0007	-.0779
SDev	.0051	.054	.0025	.0000	.00000	.0042	.0026
%RSD	3.663	1.086	257.1	3.395	.00845	601.4	3.395
#1	.1440	4.917	-.0038	.0000	-.00098	.0023	-.0763
#2	.1371	5.010	.0005	.0000	-.00098	-.0055	-.0809
#3	.1341	4.917	.0004	.0000	-.00098	.0011	-.0763

Elem	Cr	Co	Cu	Fe	Pb	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0010	.0165	.0074	101.0	.0123	10.01	-.0019
SDev	.0007	.0025	.0013	1.2	.0080	.03	.0002
%RSD	76.90	15.04	17.56	1.204	65.25	.2829	11.80
#1	-.0009	.0137	.0073	99.83	.0123	9.995	-.0021
#2	-.0017	.0180	.0062	101.1	.0043	10.04	-.0016
#3	-.0002	.0179	.0087	102.3	.0203	9.993	-.0019

Elem	Hg	Ni	K	Se	Ag	Na	Tl
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0025	.0006	.6980	-.0636	.0665	.0135	-.3838
SDev	.0097	.0099	.4650	.0072	.0003	.0255	.0276
%RSD	383.2	1768.	66.61	11.30	.4467	189.2	7.197
#1	.0066	.0090	.3090	-.0711	.0661	-.0085	-.3586
#2	.0096	.0031	1.213	-.0569	.0667	.0414	-.3796
#3	-.0086	-.0104	.5721	-.0628	.0667	.0076	-.4133

Elem	V	Zn	B	Bi	Mo	P	S
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0029	-.0153	.0134	-.2079	4.963	.0276	10.01
SDev	.0000	.0007	.0095	.0370	.028	.0168	.01
%RSD	1.114	4.853	70.41	17.79	.5676	60.78	.0911
#1	-.0030	-.0146	.0233	-.2497	4.933	.0460	10.02
#2	-.0029	-.0153	.0125	-.1949	4.989	.0236	10.01
#3	-.0029	-.0161	.0045	-.1792	4.965	.0132	10.00

Elem	Si	Sr	Sn	Ti	Y	Zr
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	9.939	.0002	10.06	9.851	-.0000	9.830
SDev	.060	.0000	.07	.029	.0016	.035
%RSD	.6018	.0107	.7147	.2984	1025000.	.3570
#1	9.870	.0002	10.00	9.830	-.0009	9.804
#2	9.968	.0002	10.14	9.884	.0018	9.870
#3	9.978	.0002	10.04	9.839	-.0009	9.816

Analysis Report QC Standard 08/21/01 11:56:26 AM

Method: STD_MTD Sample Name: HCL Operator: NR
Run Time: 08/21/01 11:52:28
Comment: Standardization
Mode: CONC Corr. Factor: 1

Elem	Al	Sb	As	Ba	Be	Cd	Ca
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0148	-.0194	.0177	-.0007	.00008	.0012	-.0015
SDev	.0092	.0067	.0106	.0011	.00013	.0022	.0070
%RSD	62.53	34.64	59.48	173.2	159.48	181.2	453.2
#1	.0201	-.0116	.0056	-.0020	.00016	-.0005	-.0076
#2	.0041	-.0233	.0249	.0000	-.00007	.0037	-.0030
#3	.0201	-.0233	.0227	-.0000	.00016	.0004	.0061

Elem	Cr	Co	Cu	Fe	Pb	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0018	-.0013	-.0001	.0048	-.0067	.0002	.0002
SDev	.0004	.0017	.0017	.0011	.0162	.0002	.0002
%RSD	24.75	131.6	1375.	22.59	241.7	86.60	150.1
#1	-.0023	-.0015	-.0016	.0054	-.0214	.0003	.0002
#2	-.0015	-.0030	-.0005	.0054	.0107	.0000	.0004
#3	-.0015	.0005	.0017	.0035	-.0094	.0003	-.0001

Elem	Hg	Ni	K	Se	Ag	Na	Tl
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0041	.0014	-.1287	-.0318	-.0003	Q-.1202	-.0438
SDev	.0009	.0037	.3044	.0328	.0018	.0194	.0185
%RSD	21.80	261.5	236.5	103.3	516.9	16.11	42.20
#1	-.0051	.0039	-.4577	Q-.0679	.0007	Q-.1314	-.0523
#2	-.0039	-.0028	.1430	-.0239	-.0024	Q-.1314	-.0226
#3	-.0033	.0031	-.0715	-.0037	.0007	Q-.0978	-.0565

Elem	V	Zn	B	Bi	Mo	P	S
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0025	-.0004	.0054	-.0189	.0064	-.0166	.0142
SDev	.0011	.0004	.0056	.0137	.0055	.0136	.0224
%RSD	45.83	86.75	104.0	72.42	86.61	81.98	157.9
#1	-.0035	-.0009	-.0009	-.0345	.0127	-.0320	.0351
#2	-.0027	-.0002	.0072	-.0130	.0032	-.0116	-.0094
#3	-.0012	-.0002	.0099	-.0091	.0032	-.0062	.0168

Elem	Si	Sr	Sn	Ti	Y	Zr
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0323	.0002	.0039	.0006	.0009	.0046
SDev	.0159	.0000	.0086	.0018	.0000	.0020
%RSD	49.11	.0282	219.0	300.0	.0015	44.61
#1	.0496	.0002	.0101	.0024	.0009	.0069
#2	.0292	.0002	.0076	.0006	.0009	.0029
#3	.0183	.0002	-.0059	-.0012	.0009	.0039

Analysis Report QC Standard 08/21/01 12:00:31 PM

Method: STD_MTD Sample Name: HCL Operator: NR
Run Time: 08/21/01 11:56:32
Comment: Standardization
Mode: CONC Corr. Factor: 1

Elem	Al	Sb	As	Ba	Be	Cd	Ca
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0127	.0116	.0028	-.0000	-.00000	-.0008	.0015
SDev	.0175	.0058	.0118	.0000	.00013	.0011	.0121
%RSD	137.6	50.00	423.3	796.6	164e6	145.2	796.6
#1	.0246	.0058	.0141	-.0000	-.00008	.0005	.0152
#2	.0208	.0116	-.0094	.0000	.00015	-.0013	-.0076
#3	-.0073	.0175	.0036	.0000	-.00007	-.0015	-.0030

Elem	Cr	Co	Cu	Fe	Pb	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0025	-.0008	.0006	.0019	.0060	.0001	.0001
SDev	.0012	.0010	.0016	.0009	.0024	.0004	.0001
%RSD	45.84	124.9	261.5	50.92	39.28	346.4	173.4
#1	-.0015	-.0020	-.0005	.0010	.0046	.0003	.0002
#2	-.0038	-.0000	.0025	.0017	.0046	.0003	.0002
#3	-.0023	-.0005	-.0001	.0029	.0087	-.0003	-.0001

Elem	Hg	Ni	K	Se	Ag	Na	Tl
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0006	.0059	.0143	-.0190	.0009	Q-.1314	-.0304
SDev	.0073	.0018	.5804	.0122	.0003	.0084	.0416
%RSD	1250.	29.74	4057.	64.42	34.66	6.383	137.0
#1	-.0068	.0073	-.0286	-.0110	.0007	Q-.1230	-.0544
#2	.0078	.0064	.6150	-.0129	.0012	Q-.1398	.0177
#3	.0008	.0039	-.5435	-.0330	.0007	Q-.1314	-.0544

Elem	V	Zn	B	Bi	Mo	P	S
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0000	.0006	.0081	-.0208	.0000	-.0056	.0236
SDev	.0004	.0010	.0015	.0264	.0018	.0066	.0101
%RSD	850600.	158.0	19.23	126.9	120e6	117.9	42.69
#1	.0002	.0017	.0072	.0065	-.0016	.0010	.0167
#2	.0002	.0004	.0099	-.0228	.0020	-.0122	.0351
#3	-.0005	-.0002	.0072	-.0463	-.0004	-.0056	.0189

Elem	Si	Sr	Sn	Ti	Y	Zr
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0115	-.0002	.0038	.0000	.0000	.0014
SDev	.0024	.0004	.0107	.0011	.0016	.0005
%RSD	20.83	173.3	281.8	2721e6	52e6	35.25
#1	.0136	.0002	-.0038	.0006	-.0018	.0020
#2	.0120	-.0005	.0160	.0006	.0009	.0010
#3	.0089	-.0005	-.0008	-.0012	.0009	.0013

Analysis Report QC Standard 08/21/01 10:46:08 AM

Method: STD_MTD Sample Name: HCL Operator: NR
Run Time: 08/21/01 10:42:10
Comment: Standardization
Mode: CONC Corr. Factor: 1

Elem	Al	Sb	As	Ba	Be	Cd	Ca
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0176	.0000	-.0023	.0007	.00000	-.0012	-.0000
SDev	.0100	.0104	.0073	.0000	.00014	.0014	.0050
%RSD	56.91	3338e6	311.6	.0021	6728.8	109.9	44500.
#1	.0111	.0120	.0007	.0007	-.00016	-.0004	-.0050
#2	.0292	-.0060	-.0107	.0007	.00008	-.0028	.0050
#3	.0127	-.0060	.0029	.0007	.00008	-.0005	-.0000

Elem	Cr	Co	Cu	Fe	Pb	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0011	-.0012	-.0012	.0023	.0081	-.0000	.0003
SDev	.0022	.0019	.0020	.0041	.0092	.0000	.0003
%RSD	198.4	150.5	171.1	183.3	114.3	.0000	115.5
#1	-.0027	-.0032	-.0034	.0059	.0111	-.0000	.0001
#2	-.0019	-.0011	-.0006	.0032	-.0023	-.0000	.0006
#3	.0014	.0005	.0005	-.0023	.0155	-.0000	.0001

Elem	Hg	Ni	K	Se	Ag	Na	Tl
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0061	.0000	-.5688	.0262	-.0005	Q-.0595	-.0297
SDev	.0117	.0070	.3564	.0230	.0018	.0236	.0338
%RSD	190.5	4498e6	62.66	87.93	321.1	39.69	113.8
#1	-.0101	-.0054	-.9729	.0468	-.0013	Q-.0863	-.0239
#2	.0070	-.0025	-.4340	.0014	-.0018	Q-.0506	-.0660
#3	-.0153	.0079	-.2994	.0303	.0015	-.0417	.0008

Elem	V	Zn	B	Bi	Mo	P	S
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0008	.0012	.0019	-.0200	.0024	-.0164	-.0083
SDev	.0015	.0008	.0000	.0109	.0000	.0017	.0438
%RSD	173.2	69.90	.1657	54.75	.0173	10.21	530.6
#1	-.0025	.0007	.0019	-.0117	.0024	-.0162	-.0240
#2	.0000	.0021	.0019	-.0158	.0024	-.0148	.0413
#3	-.0000	.0007	.0019	-.0323	.0024	-.0182	-.0421

Elem	Si	Sr	Sn	Ti	Y	Zr
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0219	-.0000	-.0071	.0000	.0013	.0007
SDev	.0163	.0000	.0013	.0013	.0000	.0016
%RSD	74.31	44500.	17.63	3219e6	.0007	217.9
#1	.0041	-.0000	-.0076	-.0007	.0013	.0015
#2	.0360	.0000	-.0057	.0014	.0013	.0018
#3	.0254	-.0000	-.0081	-.0007	.0013	-.0011

Analysis Report 08/21/01 02:37:49 PM page 1

Method: STD_MTD Sample Name: BL0820 100 Operator: NR1
Run Time: 08/21/01 14:33:37
Comment: 0820 SSG2 DGICPS
Mode: CONC Corr. Factor: 1

Elem	Al	Sb	As	Ba	Be	Cd	Ca
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0165	.0078	.0120	-.0000	.00008	.0020	.0487
SDev	.0034	.0067	.0037	.0000	.00013	.0016	.0070
%RSD	20.77	86.60	30.99	14.32	157.11	81.18	14.32
#1	.0132	-.0000	.0142	-.0000	.00015	.0038	.0426
#2	.0200	.0116	.0077	-.0000	.00015	.0006	.0472
#3	.0163	.0116	.0142	-.0000	-.00007	.0016	.0563

Elem	Cr	Co	Cu	Fe	Pb	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0015	-.0005	.0014	.0130	-.0007	.0042	.0005
SDev	.0015	.0013	.0010	.0025	.0076	.0000	.0001
%RSD	100.0	263.7	72.16	19.24	1079.	.0000	28.91
#1	-.0015	.0010	.0021	.0116	.0046	.0042	.0006
#2	.0000	-.0010	.0017	.0159	.0026	.0042	.0004
#3	-.0030	-.0015	.0002	.0116	-.0094	.0042	.0004

Elem	Hg	Ni	K	Se	Ag	Na	Tl
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0006	.0017	.2146	-.0165	.0005	-.0699	-.0134
SDev	.0037	.0021	.3014	.0115	.0003	.0294	.0288
%RSD	630.9	125.8	140.5	69.35	58.19	42.14	214.4
#1	-.0016	.0039	.1860	-.0129	.0007	-.0727	-.0311
#2	.0049	-.0003	.5292	-.0073	.0007	-.0391	-.0290
#3	-.0016	.0014	-.0715	-.0294	.0002	-.0978	.0198

Elem	V	Zn	B	Bi	Mo	P	S
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0017	.0015	.0009	-.0293	-.0032	.0222	.0399
SDev	.0021	.0015	.0015	.0317	.0055	.0088	.0174
%RSD	123.7	99.33	173.0	108.0	173.2	39.37	43.63
#1	-.0005	.0024	.0018	-.0091	-.0064	.0322	.0245
#2	-.0005	-.0002	-.0009	-.0658	-.0064	.0184	.0588
#3	-.0042	.0024	.0018	-.0130	.0032	.0160	.0365

Elem	Si	Sr	Sn	Ti	Y	Zr
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0120	.0000	-.0011	.0006	.0018	-.0001
SDev	.0024	.0004	.0091	.0000	.0000	.0005
%RSD	19.92	87870.	803.4	.0000	.0008	458.3
#1	-.0146	-.0005	.0080	.0006	.0018	.0003
#2	-.0099	.0002	-.0013	.0006	.0018	-.0007
#3	-.0115	.0002	-.0101	.0006	.0018	-.0000

Analysis Report 08/21/01 02:42:06 PM

Method: STD_MTD Sample Name: BL0820S 100 Operator: NR1
Run Time: 08/21/01 14:37:56
Comment: 0820 SSG2 DGICPS
Mode: CONC Corr. Factor: 1

Elem	Al	Sb	As	Ba	Be	Cd	Ca
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.908	.4500	.4899	.9450	.47383	.4718	9.707
SDev	.020	.0178	.0086	.0061	.00433	.0032	.053
%RSD	1.028	3.950	1.749	.6409	.91350	.6736	.5450
#1	1.886	.4538	.4901	.9437	.47018	.4681	9.658
#2	1.914	.4655	.4984	.9517	.47861	.4735	9.763
#3	1.925	L.4306	.4813	.9398	.47269	.4737	9.699

Elem	Cr	Co	Cu	Fe	Pb	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.9456	.9551	.9538	11.58	.9355	10.27	.9484
SDev	.0053	.0066	.0071	.07	.0046	.07	.0057
%RSD	.5613	.6889	.7412	.5955	.4969	.7067	.6052
#1	.9418	.9513	.9490	11.52	.9382	10.20	.9443
#2	.9516	.9627	.9619	11.66	.9382	10.35	.9550
#3	.9433	.9513	.9505	11.55	.9302	10.25	.9460

Elem	Hg	Ni	K	Se	Ag	Na	Tl
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0777	.4789	9.740	.4484	.4768	9.328	L.8870
SDev	.0110	.0121	.236	.0184	.0019	.076	.0149
%RSD	14.12	2.531	2.428	4.097	.3903	.8104	1.679
#1	.0742	.4859	9.754	L.4276	.4753	9.256	L.8715
#2	.0900	.4649	9.969	.4624	.4789	9.406	L.8884
#3	.0689	.4859	9.497	.4551	.4763	9.323	.9012

Elem	V	Zn	B	Bi	Mo	P	S
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.4729	1.870	.9423	L.3608	.4656	4.710	.9365
SDev	.0013	.015	.0148	.0249	.0066	.006	.0438
%RSD	.2715	.7897	1.574	6.903	1.428	.1252	4.679
#1	.4721	1.860	.9271	L.3771	.4585	4.713	L.8872
#2	.4744	1.887	.9567	L.3732	.4668	4.713	.9710
#3	.4721	1.863	.9432	L.3321	.4716	4.703	.9514

Elem	Si	Sr	Sn	Ti	Y	Zr
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	L.8309	.4757	.9284	.9347	.9240	.9309
SDev	.0046	.0037	.0120	.0053	.0067	.0047
%RSD	.5517	.7687	1.287	.5649	.7215	.5020
#1	L.8257	.4740	.9146	.9317	.9206	.9268
#2	L.8343	.4799	.9361	.9408	.9317	.9360
#3	L.8327	.4732	.9345	.9317	.9197	.9298

Analysis Report 08/21/01 02:46:23 PM

Method: STD_MTD Sample Name: BL0820X 100 Operator: NR1
Run Time: 08/21/01 14:42:13
Comment: 0820 SSG2 DGICPS
Mode: CONC Corr. Factor: 1

Elem	Al	Sb	As	Ba	Be	Cd	Ca
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.922	.4635	.4784	.9596	.47587	.4734	9.758
SDev	.020	.0168	.0074	.0020	.00137	.0006	.012
%RSD	1.022	3.624	1.546	.2066	.28783	.1378	.1240
#1	1.938	.4538	.4855	.9576	.47724	.4737	9.745
#2	1.927	.4829	.4791	.9616	.47587	.4727	9.763
#3	1.900	.4538	.4707	.9596	.47451	.4739	9.768

Elem	Cr	Co	Cu	Fe	Pb	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.9564	.9682	.9635	11.66	.9535	10.36	.9566
SDev	.0079	.0047	.0012	.01	.0137	.01	.0007
%RSD	.8258	.4886	.1231	.0884	1.431	.1212	.0757
#1	.9501	.9687	.9626	11.66	.9381	10.36	.9564
#2	.9539	.9632	.9648	11.68	.9642	10.37	.9574
#3	.9653	.9726	.9630	11.66	.9582	10.34	.9559

Elem	Hg	Ni	K	Se	Ag	Na	Tl
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0850	.4962	9.983	L.4471	.4799	9.393	L.8672
SDev	.0039	.0084	.248	.0064	.0019	.053	.0110
%RSD	4.596	1.703	2.482	1.441	.3875	.5669	1.273
#1	.0859	.5052	9.840	L.4477	.4820	9.423	L.8608
#2	.0807	.4884	10.27	.4533	.4784	9.423	L.8799
#3	.0883	.4951	9.840	L.4404	.4794	9.331	L.8608

Elem	V	Zn	B	Bi	Mo	P	S
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.4763	1.880	.9468	L.4390	.4704	4.747	.9440
SDev	.0023	.002	.0136	.0030	.0032	.030	.0284
%RSD	.4749	.0928	1.433	.6812	.6717	.6315	3.004
#1	.4744	1.880	.9486	L.4397	.4728	4.780	.9469
#2	.4788	1.881	.9594	L.4416	.4716	4.739	.9144
#3	.4758	1.878	.9324	L.4358	.4668	4.722	.9709

Elem	Si	Sr	Sn	Ti	Y	Zr
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	L.8317	.4809	.9357	.9420	.9344	.9437
SDev	.0066	.0004	.0066	.0011	.0000	.0024
%RSD	.8001	.0890	.7086	.1121	.0000	.2600
#1	L.8343	.4807	.9285	.9408	.9344	.9409
#2	L.8241	.4814	.9416	.9426	.9344	.9451
#3	L.8366	.4807	.9370	.9426	.9344	.9451

Analysis Report 08/21/01 02:52:33 PM

Method: STD_MTD Sample Name: 046719 100 Operator: NR1
Run Time: 08/21/01 14:48:23
Comment: 0820 SSG2 DGICPS
Mode: CONC Corr. Factor: 1

Elem	Al	Sb	As	Ba	Be	Cd	Ca
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	67.78	.0873	.0672	.8469	.00434	.0287	133.7
SDev	.27	.0058	.0204	.0030	.00013	.0029	.7
%RSD	.4052	6.667	30.41	.3575	2.9890	9.938	.4904
#1	67.48	.0815	.0575	.8442	.00427	.0263	133.0
#2	67.84	.0873	.0534	.8502	.00427	.0319	133.8
#3	68.02	.0931	.0907	.8462	.00449	.0280	134.3

Elem	Cr	Co	Cu	Fe	Pb	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.3113	.0568	9.124	184.9	13.32	40.52	3.465
SDev	.0031	.0019	.039	2.0	.09	.21	.017
%RSD	1.003	3.250	.4223	1.075	.6778	.5261	.4762
#1	.3077	.0566	9.080	183.7	13.22	40.28	3.446
#2	.3123	.0551	9.152	183.7	13.34	40.57	3.472
#3	.3137	.0587	9.141	187.2	13.39	40.70	3.476

Elem	Hg	Ni	K	Se	Ag	Na	Tl
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0086	.2720	9.398	L-.0526	.0047	6.269	.0144
SDev	.0037	.0102	.436	.0306	.0006	.042	.0224
%RSD	42.41	3.734	4.638	58.16	12.72	.6646	156.1
#1	.0075	.2642	8.938	L-.0198	.0054	6.230	L-.0006
#2	.0057	.2835	9.453	L-.0804	.0044	6.263	.0036
#3	.0127	.2684	9.805	L-.0577	.0044	6.313	.0401

Elem	V	Zn	B	Bi	Mo	P	S
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1755	12.46	.0888	L-.0183	.0209	11.86	10.93
SDev	.0008	.07	.0056	.0185	.0025	.11	.11
%RSD	.4485	.5450	6.318	101.0	11.89	.9153	1.009
#1	.1755	12.38	.0933	L-.0191	.0217	11.74	10.80
#2	.1747	12.49	.0906	.0005	.0181	11.93	11.01
#3	.1763	12.51	.0825	L-.0364	.0229	11.92	10.97

Elem	Si	Sr	Sn	Ti	Y	Zr
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.121	.3173	2.159	.8609	.0685	.0465
SDev	.064	.0013	.008	.0046	.0000	.0068
%RSD	1.247	.4065	.3590	.5347	.0019	14.61
#1	5.052	.3159	2.150	.8567	.0685	.0543
#2	5.178	.3181	2.164	.8603	.0685	.0438
#3	5.133	.3181	2.163	.8658	.0685	.0415

Analysis Report 08/21/01 02:56:52 PM

Method: STD_MTD Sample Name: 046719D 100 Operator: NR1
Run Time: 08/21/01 14:52:40
Comment: 0820 SSG2 DGICPS
Mode: CONC Corr. Factor: 1

Elem	Al	Sb	As	Ba	Be	Cd	Ca
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	70.79	.1125	.0814	.8601	.00448	.0252	135.2
SDev	.68	.0204	.0238	.0086	.00000	.0029	1.1
%RSD	.9659	18.16	29.23	1.004	.06257	11.48	.7979
#1	71.12	.1106	.1030	.8660	.00448	.0223	135.4
#2	70.01	.0931	.0559	.8502	.00448	.0252	134.1
#3	71.25	.1338	.0852	.8640	.00448	.0280	136.2

Elem	Cr	Co	Cu	Fe	Pb	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.3350	.0556	9.431	191.2	13.64	41.19	3.715
SDev	.0027	.0008	.092	.7	.05	.35	.033
%RSD	.8033	1.453	.9808	.3883	.3832	.8445	.8790
#1	.3347	.0548	9.475	192.1	13.62	41.27	3.725
#2	.3324	.0554	9.324	190.8	13.60	40.81	3.678
#3	.3378	.0564	9.493	190.8	13.70	41.49	3.741

Elem	Hg	Ni	K	Se	Ag	Na	Tl
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0072	.2603	9.757	L-.0679	.0009	6.426	L-.0063
SDev	.0038	.0100	.345	.0140	.0006	.071	.0337
%RSD	52.04	3.849	3.536	20.69	67.19	1.108	532.0
#1	.0115	.2684	9.388	L-.0743	.0002	6.428	.0306
#2	.0045	.2491	10.07	L-.0518	.0012	6.354	L-.0354
#3	.0057	.2634	9.814	L-.0775	.0012	6.496	L-.0142

Elem	V	Zn	B	Bi	Mo	P	S
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1821	12.81	.0897	L-.0246	.0181	11.88	11.07
SDev	.0011	.09	.0041	.0382	.0000	.05	.01
%RSD	.6106	.6812	4.587	155.3	.0271	.4598	.1256
#1	.1809	12.83	.0906	L-.0610	.0181	11.88	11.07
#2	.1823	12.71	.0852	L-.0281	.0181	11.82	11.05
#3	.1831	12.88	.0933	.0152	.0181	11.93	11.08

Elem	Si	Sr	Sn	Ti	Y	Zr
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.916	.3253	2.229	.9048	.0715	.0366
SDev	.047	.0037	.016	.0069	.0005	.0011
%RSD	.7886	1.127	.7384	.7654	.7461	3.093
#1	5.955	.3277	2.229	.9079	.0712	.0360
#2	5.864	.3211	2.213	.8969	.0712	.0360
#3	5.928	.3270	2.246	.9097	.0722	.0379

Analysis Report 08/21/01 03:01:11 PM

Method: STD_MTD Sample Name: 046719S 100 Operator: NR1
Run Time: 08/21/01 14:56:59
Comment: 0820 SSG2 DGICPS
Mode: CONC Corr. Factor: 1

Elem	Al	Sb	As	Ba	Be	Cd	Ca
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	88.67	.4616	.5532	1.875	.48206	.5078	143.0
SDev	.19	.0134	.0223	.005	.00184	.0064	.6
%RSD	.2194	2.911	4.028	.2499	.38134	1.265	.3858
#1	88.47	.4538	.5373	1.873	.48039	.5091	142.3
#2	88.85	.4538	.5436	1.871	.48403	.5134	143.4
#3	88.69	.4771	.5786	1.880	.48175	.5008	143.2

Elem	Cr	Co	Cu	Fe	Pb	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.268	1.015	10.09	208.8	14.47	55.36	4.437
SDev	.008	.002	.02	1.0	.07	.15	.014
%RSD	.6656	.1673	.1597	.4715	.4826	.2734	.3068
#1	1.259	1.014	10.07	207.9	14.40	55.20	4.421
#2	1.276	1.017	10.10	208.8	14.46	55.50	4.447
#3	1.269	1.016	10.09	209.8	14.54	55.39	4.443

Elem	Hg	Ni	K	Se	Ag	Na	Tl
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0791	.7308	19.85	.4049	.4888	15.92	.8743
SDev	.0056	.0284	.35	.0199	.0019	.03	.0196
%RSD	7.063	3.890	1.741	4.925	.3806	.1824	2.240
#1	.0738	.7260	19.49	.4217	.4867	15.90	.8798
#2	.0849	.7613	20.18	.3829	.4903	15.95	.8905
#3	.0785	.7050	19.88	.4101	.4893	15.90	.8525

Elem	V	Zn	B	Bi	Mo	P	S
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.6744	14.46	.9889	.4591	.4878	15.34	11.69
SDev	.0020	.05	.0097	.0323	.0032	.17	.10
%RSD	.2933	.3511	.9821	7.027	.6479	1.132	.8853
#1	.6721	14.40	.9862	.4596	.4854	15.18	11.58
#2	.6759	14.51	.9997	.4910	.4866	15.52	11.78
#3	.6751	14.47	.9808	.4265	.4914	15.32	11.71

Elem	Si	Sr	Sn	Ti	Y	Zr
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	7.790	.8145	3.024	1.659	1.024	.1543
SDev	.028	.0011	.023	.006	.002	.0011
%RSD	.3616	.1396	.7760	.3670	.2078	.7339
#1	7.761	.8133	2.997	1.654	1.023	.1537
#2	7.790	.8148	3.042	1.658	1.023	.1537
#3	7.818	.8155	3.033	1.666	1.027	.1556

Analysis Report 08/21/01 03:05:30 PM

Method: STD_MTD Sample Name: 046719X 100 Operator: NR1
Run Time: 08/21/01 15:01:18
Comment: 0820 SSG2 DGICPS
Mode: CONC Corr. Factor: 1

Elem	Al	Sb	As	Ba	Be	Cd	Ca
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	85.36	.4422	.5757	1.852	.49192	.5104	142.1
SDev	.54	.0058	.0082	.007	.00384	.0066	.7
%RSD	.6363	1.316	1.420	.3858	.78056	1.300	.5253
#1	84.95	.4480	.5852	1.846	.48926	.5095	141.6
#2	85.15	.4422	.5712	1.850	.49017	.5042	141.7
#3	85.97	.4364	.5708	1.860	.49632	.5174	143.0

Elem	Cr	Co	Cu	Fe	Pb	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.283	1.037	9.954	203.0	14.56	54.57	4.484
SDev	.008	.007	.059	1.6	.01	.36	.025
%RSD	.6558	.7093	.5965	.7915	.0421	.6591	.5497
#1	1.280	1.029	9.905	202.4	14.56	54.30	4.468
#2	1.277	1.039	9.936	201.7	14.55	54.42	4.471
#3	1.292	1.043	10.02	204.8	14.56	54.98	4.512

Elem	Hg	Ni	K	Se	Ag	Na	Tl
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0830	.7599	19.32	.4414	.4858	15.74	.9392
SDev	.0012	.0049	.20	.0288	.0025	.10	.0568
%RSD	1.473	.6475	1.019	6.516	.5234	.6449	6.047
#1	.0843	.7579	19.13	.4551	.4846	15.67	.9470
#2	.0826	.7562	19.30	.4608	.4841	15.69	.8789
#3	.0820	.7655	19.52	.4084	.4888	15.86	.9917

Elem	V	Zn	B	Bi	Mo	P	S
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.6826	14.52	1.002	.4529	.5001	15.71	11.62
SDev	.0018	.09	.019	.0426	.0042	.11	.17
%RSD	.2567	.5931	1.937	9.405	.8378	.6714	1.448
#1	.6816	14.46	.9862	.4313	.4997	15.61	11.55
#2	.6816	14.48	.9970	.4255	.5045	15.71	11.49
#3	.6846	14.62	1.024	.5020	.4962	15.82	11.81

Elem	Si	Sr	Sn	Ti	Y	Zr
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	7.200	.8071	3.077	1.581	1.023	.1636
SDev	.021	.0035	.011	.008	.003	.0009
%RSD	.2908	.4349	.3417	.5186	.3165	.5770
#1	7.194	.8044	3.076	1.576	1.019	.1641
#2	7.182	.8059	3.066	1.576	1.023	.1641
#3	7.223	.8111	3.087	1.590	1.026	.1625

Analysis Report 08/21/01 03:11:43 PM

Method: STD_MTD Sample Name: 046720 100 Operator: NR1
Run Time: 08/21/01 15:07:30
Comment: 0820 SSG2 DGICPS
Mode: CONC Corr. Factor: 1

Elem	Al	Sb	As	Ba	Be	Cd	Ca
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	60.47	.0233	.0787	.6058	.00302	.0152	79.69
SDev	.35	.0308	.0112	.0030	.00013	.0032	.36
%RSD	.5720	132.3	14.30	.4998	4.1620	20.99	.4468
#1	60.16	.0465	.0754	.6025	.00295	.0119	79.33
#2	60.40	L-.0116	.0912	.6065	.00295	.0183	79.70
#3	60.84	.0349	.0694	.6084	.00317	.0153	80.05

Elem	Cr	Co	Cu	Fe	Pb	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1426	.0341	2.260	141.9	7.363	26.77	2.849
SDev	.0023	.0038	.014	.7	.032	.12	.016
%RSD	1.638	11.21	.6289	.5044	.4319	.4489	.5498
#1	.1401	.0299	2.246	142.5	7.359	26.65	2.833
#2	.1432	.0350	2.259	141.1	7.334	26.75	2.849
#3	.1446	.0373	2.274	142.0	7.397	26.89	2.864

Elem	Hg	Ni	K	Se	Ag	Na	Tl
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	L-.0048	.1595	6.754	L-.0795	.0022	.5277	L-.0494
SDev	.0092	.0097	.321	.0214	.0021	.0130	.0289
%RSD	190.1	6.077	4.751	26.91	93.68	2.462	58.49
#1	.0010	.1483	6.384	L-.0552	.0003	.5164	L-.0161
#2	L-.0001	.1651	6.939	L-.0878	.0019	.5419	L-.0672
#3	L-.0154	.1651	6.941	L-.0955	.0045	.5248	L-.0649

Elem	V	Zn	B	Bi	Mo	P	S
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1583	5.441	.0475	.0098	.0191	12.57	6.722
SDev	.0026	.030	.0000	.0466	.0052	.09	.035
%RSD	1.640	.5551	.0134	476.8	27.20	.6953	.5282
#1	.1559	5.416	.0476	.0306	.0227	12.52	6.695
#2	.1580	5.433	.0475	.0423	.0215	12.52	6.709
#3	.1610	5.475	.0475	L-.0436	.0132	12.67	6.762

Elem	Si	Sr	Sn	Ti	Y	Zr
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.126	.1523	.9940	.6847	.0425	.0271
SDev	.018	.0015	.0059	.0055	.0000	.0014
%RSD	.3488	.9760	.5950	.8014	.0017	5.252
#1	5.117	.1508	.9880	.6792	.0425	.0255
#2	5.115	.1523	.9998	.6847	.0425	.0278
#3	5.147	.1537	.9940	.6902	.0426	.0281

Analysis Report 08/21/01 03:16:02 PM

Method: STD_MTD Sample Name: 046721 100 Operator: NR1
Run Time: 08/21/01 15:11:50
Comment: 0820 SSG2 DGICPS
Mode: CONC Corr. Factor: 1

Elem	Al	Sb	As	Ba	Be	Cd	Ca
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	51.86	.4344	.1095	1.251	.00407	.0480	307.3
SDev	.32	.0121	.0187	.006	.00001	.0023	1.5
%RSD	.6095	2.788	17.05	.4572	.13717	4.761	.4738
#1	51.51	.4306	.1306	1.244	.00407	.0484	305.7
#2	51.95	.4480	.1026	1.254	.00407	.0455	307.8
#3	52.12	.4247	.0952	1.254	.00406	.0500	308.5

Elem	Cr	Co	Cu	Fe	Pb	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.3888	.0516	24.59	213.9	52.97	64.60	4.643
SDev	.0015	.0008	.17	.3	.25	.44	.026
%RSD	.3986	1.510	.6825	.1421	.4686	.6759	.5498
#1	.3872	.0514	24.41	214.1	52.69	64.12	4.615
#2	.3903	.0510	24.64	213.9	53.09	64.72	4.650
#3	.3888	.0525	24.73	213.5	53.14	64.97	4.665

Elem	Hg	Ni	K	Se	Ag	Na	Tl
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0063	.4814	9.368	L-.0749	.0259	2.174	L-.0148
SDev	.0048	.0086	.194	.0138	.0018	.026	.0438
%RSD	76.04	1.782	2.068	18.41	6.917	1.177	296.4
#1	.0010	.4716	9.569	L-.0769	.0279	2.146	.0313
#2	.0075	.4850	9.354	L-.0603	.0248	2.196	L-.0197
#3	.0104	.4875	9.182	L-.0877	.0248	2.179	L-.0558

Elem	V	Zn	B	Bi	Mo	P	S
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1652	35.03	.2496	.1071	.0439	16.39	22.01
SDev	.0022	.21	.0027	.0524	.0030	.28	.39
%RSD	1.340	.6044	1.080	48.89	6.848	1.719	1.784
#1	.1630	34.80	.2469	.0491	.0411	16.10	21.57
#2	.1652	35.08	.2523	.1215	.0471	16.41	22.12
#3	.1674	35.21	.2496	.1508	.0436	16.67	22.34

Elem	Si	Sr	Sn	Ti	Y	Zr
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	6.726	.4372	8.158	1.032	.0614	.0441
SDev	.045	.0023	.028	.005	.0000	.0023
%RSD	.6756	.5213	.3491	.4462	.0047	5.185
#1	6.673	.4347	8.134	1.027	.0614	.0441
#2	6.750	.4377	8.151	1.032	.0614	.0464
#3	6.754	.4392	8.190	1.036	.0614	.0418

Method: STD_MTD Sample Name: 047041 100 Operator: NR1
Run Time: 08/21/01 15:16:09
Comment: 0820 SSG2 DGICPS
Mode: CONC Corr. Factor: 1

Elem	Al	Sb	As	Ba	Be	Cd	Ca
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	93.59	.3084	.1733	.9005	.00577	.0291	82.66
SDev	.94	.0058	.0118	.0114	.00013	.0017	.76
%RSD	1.006	1.887	6.783	1.271	2.3209	5.995	.9171
#1	93.01	.3142	.1824	.8939	.00593	.0271	82.17
#2	93.10	.3084	.1775	.8939	.00570	.0305	82.28
#3	94.68	.3026	.1600	.9138	.00569	.0296	83.54

Elem	Cr	Co	Cu	Fe	Pb	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.2043	.0888	28.01	256.5	35.28	31.99	5.059
SDev	.0031	.0021	.32	2.2	.30	.28	.051
%RSD	1.507	2.381	1.135	.8660	.8570	.8657	1.007
#1	.2008	.0902	27.79	254.0	35.06	31.80	5.025
#2	.2052	.0864	27.86	257.9	35.15	31.86	5.034
#3	.2067	.0898	28.37	257.7	35.62	32.31	5.118

Elem	Hg	Ni	K	Se	Ag	Na	Tl
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0069	.5785	12.54	L-.0693	.0110	1.881	L-.0282
SDev	.0080	.0144	.15	.0090	.0039	.029	.0274
%RSD	115.5	2.498	1.164	12.92	35.42	1.522	96.97
#1	.0032	.5723	12.62	L-.0604	.0093	1.865	.0032
#2	.0015	.5681	12.63	L-.0691	.0155	1.864	L-.0407
#3	.0161	.5950	12.37	L-.0783	.0083	1.915	L-.0471

Elem	V	Zn	B	Bi	Mo	P	S
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.2428	38.24	.1139	.0961	.0355	12.47	8.702
SDev	.0012	.35	.0016	.0301	.0018	.11	.123
%RSD	.4839	.9076	1.367	31.37	5.140	.9032	1.410
#1	.2418	37.98	.1121	.0848	.0359	12.37	8.621
#2	.2426	38.10	.1148	.0732	.0336	12.44	8.642
#3	.2441	38.64	.1148	.1303	.0371	12.59	8.843

Elem	Si	Sr	Sn	Ti	Y	Zr
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.190	.2778	8.277	1.176	.0693	.0389
SDev	.051	.0030	.051	.013	.0016	.0012
%RSD	.9815	1.081	.6104	1.146	2.306	3.030
#1	5.157	.2761	8.259	1.166	.0684	.0379
#2	5.164	.2761	8.238	1.171	.0684	.0402
#3	5.248	.2813	8.334	1.191	.0711	.0386

Analysis Report 08/21/01 03:24:40 PM

Method: STD_MTD Sample Name: 047042 100 Operator: NR1
Run Time: 08/21/01 15:20:28
Comment: 0820 SSG2 DGICPS
Mode: CONC Corr. Factor: 1

Elem	Al	Sb	As	Ba	Be	Cd	Ca
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	68.06	.0659	.0499	.9437	.00364	.0244	230.9
SDev	.32	.0242	.0249	.0011	.00013	.0022	.8
%RSD	.4723	36.74	49.90	.1212	3.4692	9.064	.3470
#1	67.70	.0582	.0633	.9431	.00357	.0220	230.0
#2	68.13	.0465	.0651	.9450	.00356	.0263	231.1
#3	68.33	.0931	.0211	.9431	.00378	.0248	231.5

Elem	Cr	Co	Cu	Fe	Pb	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.2009	.0595	5.776	187.9	10.62	37.14	4.139
SDev	.0011	.0033	.020	2.0	.02	.14	.015
%RSD	.5599	5.569	.3536	1.074	.2100	.3752	.3737
#1	.2007	.0564	5.753	185.7	10.62	36.99	4.122
#2	.1999	.0591	5.781	188.2	10.64	37.18	4.142
#3	.2021	.0630	5.793	189.7	10.60	37.26	4.152

Elem	Hg	Ni	K	Se	Ag	Na	Tl
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0072	.2622	11.28	L-.0664	L-.0009	5.785	L-.0318
SDev	.0026	.0121	.26	.0042	.0021	.022	.0258
%RSD	36.46	4.632	2.323	6.278	236.3	.3749	81.32
#1	.0045	.2483	11.10	L-.0706	L-.0029	5.760	L-.0413
#2	.0098	.2684	11.58	L-.0623	L-.0009	5.801	L-.0515
#3	.0074	.2701	11.16	L-.0664	.0012	5.793	L-.0025

Elem	V	Zn	B	Bi	Mo	P	S
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1850	12.19	.2433	L-.0514	.0312	14.44	16.52
SDev	.0027	.04	.0056	.0361	.0052	.11	.08
%RSD	1.435	.3491	2.304	70.17	16.66	.7905	.4763
#1	.1822	12.15	.2415	L-.0287	.0372	14.37	16.52
#2	.1852	12.21	.2388	L-.0325	.0288	14.38	16.44
#3	.1875	12.23	.2496	L-.0930	.0276	14.57	16.60

Elem	Si	Sr	Sn	Ti	Y	Zr
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.891	.4811	1.418	.7786	.0616	.0309
SDev	.020	.0011	.005	.0038	.0005	.0004
%RSD	.3336	.2370	.3864	.4890	.8645	1.220
#1	5.868	.4799	1.418	.7743	.0613	.0307
#2	5.902	.4814	1.412	.7798	.0622	.0307
#3	5.902	.4821	1.423	.7817	.0613	.0314

Analysis Report 08/21/01 03:29:00 PM

Method: STD_MTD Sample Name: 047043 100 Operator: NR1
Run Time: 08/21/01 15:24:48
Comment: 0820 SSG2 DGICPS
Mode: CONC Corr. Factor: 1

Elem	Al	Sb	As	Ba	Be	Cd	Ca
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	50.06	.0504	.1696	.7704	.00277	.0109	279.4
SDev	.31	.0242	.0121	.0059	.00000	.0020	1.2
%RSD	.6099	48.04	7.157	.7716	.14108	18.07	.4365
#1	50.30	.0698	.1740	.7764	.00277	.0087	280.0
#2	49.72	.0582	.1559	.7645	.00277	.0122	278.0
#3	50.17	.0233	.1790	.7704	.00276	.0119	280.1

Elem	Cr	Co	Cu	Fe	Pb	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1561	.0380	4.600	134.7	8.273	109.8	2.516
SDev	.0016	.0009	.033	1.2	.009	.7	.011
%RSD	1.010	2.386	.7126	.9141	.1135	.6345	.4454
#1	.1574	.0379	4.626	135.5	8.284	110.3	2.523
#2	.1566	.0371	4.563	133.3	8.267	109.0	2.503
#3	.1544	.0389	4.612	135.3	8.268	110.1	2.522

Elem	Hg	Ni	K	Se	Ag	Na	Tl
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0038	.1973	6.822	L-.0399	L-.0027	.8939	L-.0680
SDev	.0038	.0092	.131	.0164	.0014	.0095	.0189
%RSD	98.60	4.687	1.917	41.03	50.01	1.064	27.74
#1	.0011	.2079	6.939	L-.0444	L-.0038	.8880	L-.0468
#2	.0023	.1912	6.847	L-.0217	L-.0032	.8888	L-.0745
#3	.0081	.1928	6.681	L-.0535	L-.0012	.9049	L-.0828

Elem	V	Zn	B	Bi	Mo	P	S
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1384	7.605	.0520	L-.0605	.0095	12.25	6.373
SDev	.0015	.042	.0056	.0169	.0048	.03	.084
%RSD	1.119	.5541	10.78	28.02	50.00	.2380	1.321
#1	.1372	7.621	.0583	L-.0422	.0095	12.27	6.277
#2	.1378	7.557	.0475	L-.0756	.0143	12.21	6.406
#3	.1401	7.636	.0502	L-.0637	.0048	12.26	6.436

Elem	Si	Sr	Sn	Ti	Y	Zr
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.546	.3761	1.378	.7378	.0540	.0275
SDev	.039	.0030	.027	.0048	.0000	.0000
%RSD	.8475	.7994	1.958	.6560	.0045	.0000
#1	4.571	.3788	1.359	.7396	.0540	.0275
#2	4.501	.3729	1.366	.7323	.0540	.0275
#3	4.565	.3766	1.409	.7414	.0540	.0275

Analysis Report 08/21/01 03:33:19 PM

Method: STD_MTD Sample Name: 047044 100 Operator: NR1
Run Time: 08/21/01 15:29:07
Comment: 0820 SSG2 DGICPS
Mode: CONC Corr. Factor: 1

Elem	Al	Sb	As	Ba	Be	Cd	Ca
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	78.22	.0000	.0596	.6171	.00447	.0057	279.1
SDev	.49	.0210	.0120	.0030	.00000	.0036	2.0
%RSD	.6314	3379e6	20.14	.4898	.06388	64.29	.7176
#1	77.69	L-.0058	.0569	.6138	.00447	.0035	277.1
#2	78.30	.0233	.0492	.6178	.00448	.0036	279.0
#3	78.67	L-.0175	.0727	.6197	.00447	.0099	281.1

Elem	Cr	Co	Cu	Fe	Pb	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1503	.0594	.4511	181.6	1.518	66.31	3.487
SDev	.0009	.0027	.0032	.4	.020	.43	.023
%RSD	.5784	4.538	.7148	.2342	1.327	.6424	.6697
#1	.1498	.0563	.4475	181.1	1.497	65.88	3.463
#2	.1513	.0612	.4519	181.8	1.521	66.32	3.488
#3	.1498	.0607	.4538	181.9	1.537	66.73	3.510

Elem	Hg	Ni	K	Se	Ag	Na	Tl
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0016	.1634	10.65	L-.0557	L-.0056	1.145	L-.0231
SDev	.0033	.0047	.47	.0249	.0042	.030	.0193
%RSD	207.4	2.860	4.448	44.77	74.35	2.624	83.53
#1	.0045	.1685	10.19	L-.0641	L-.0080	1.120	L-.0309
#2	.0022	.1592	11.13	L-.0277	L-.0080	1.137	L-.0011
#3	L-.0019	.1626	10.62	L-.0754	L-.0008	1.179	L-.0372

Elem	V	Zn	B	Bi	Mo	P	S
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1845	1.512	.0520	L-.0638	.0073	5.693	5.155
SDev	.0011	.009	.0016	.0192	.0027	.097	.088
%RSD	.6143	.5658	2.996	30.16	37.45	1.706	1.701
#1	.1843	1.503	.0529	L-.0698	.0089	5.596	5.107
#2	.1836	1.513	.0529	L-.0423	.0089	5.790	5.101
#3	.1858	1.520	.0502	L-.0793	.0042	5.691	5.256

Elem	Si	Sr	Sn	Ti	Y	Zr
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.899	.4749	.0941	.9652	.0872	.0464
SDev	.039	.0026	.0044	.0064	.0000	.0000
%RSD	.8008	.5523	4.684	.6655	.0046	.0000
#1	4.854	.4722	.0903	.9591	.0872	.0464
#2	4.916	.4752	.0931	.9646	.0872	.0464
#3	4.927	.4774	.0990	.9719	.0872	.0464

Analysis Report 08/21/01 03:37:38 PM

Method: STD_MTD Sample Name: 047045 100 Operator: NR1
Run Time: 08/21/01 15:33:26
Comment: 0820 SSG2 DGICPS
Mode: CONC Corr. Factor: 1

Elem	Al	Sb	As	Ba	Be	Cd	Ca
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	75.64	.0019	.2807	.6996	.00433	.0045	86.30
SDev	.69	.0089	.0103	.0091	.00013	.0005	.66
%RSD	.9135	458.3	3.670	1.298	3.0260	10.49	.7699
#1	74.95	.0116	.2768	.6917	.00426	.0042	85.63
#2	75.63	L-.0058	.2729	.6976	.00425	.0042	86.33
#3	76.33	L-.0000	.2924	.7095	.00448	.0050	86.95

Elem	Cr	Co	Cu	Fe	Pb	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1544	.0635	.3112	186.0	.7272	43.69	4.873
SDev	.0023	.0013	.0009	1.9	.0035	.31	.039
%RSD	1.464	1.997	.2984	1.013	.4787	.7144	.7973
#1	.1522	.0649	.3102	184.4	.7306	43.38	4.834
#2	.1567	.0629	.3113	185.5	.7272	43.69	4.871
#3	.1543	.0626	.3121	188.1	.7237	44.01	4.912

Elem	Hg	Ni	K	Se	Ag	Na	Tl
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	L-.0027	.1721	11.66	L-.0448	L-.0039	.6380	L-.0294
SDev	.0026	.0067	.09	.0227	.0011	.0053	.0141
%RSD	97.28	3.913	.7489	50.62	27.82	.8338	48.01
#1	L-.0002	.1786	11.57	L-.0222	L-.0030	.6442	L-.0184
#2	L-.0025	.1727	11.75	L-.0446	L-.0035	.6354	L-.0246
#3	L-.0055	.1651	11.67	L-.0675	L-.0051	.6346	L-.0454

Elem	V	Zn	B	Bi	Mo	P	S
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1820	1.194	.0484	L-.0655	.0130	7.488	5.286
SDev	.0011	.009	.0056	.0281	.0007	.050	.020
%RSD	.6346	.7896	11.59	42.90	5.273	.6741	.3871
#1	.1807	1.187	.0421	L-.0331	.0134	7.462	5.285
#2	.1829	1.191	.0529	L-.0799	.0134	7.455	5.308
#3	.1823	1.205	.0502	L-.0835	.0122	7.546	5.267

Elem	Si	Sr	Sn	Ti	Y	Zr
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.665	.2692	.0454	.8621	.0819	.0402
SDev	.036	.0026	.0022	.0120	.0021	.0014
%RSD	.7777	.9695	4.824	1.391	2.601	3.544
#1	4.626	.2665	.0433	.8493	.0794	.0409
#2	4.673	.2694	.0451	.8640	.0831	.0412
#3	4.697	.2717	.0477	.8731	.0831	.0386

Analysis Report 08/21/01 03:41:58 PM

Method: STD_MTD Sample Name: 047046 100 Operator: NR1
Run Time: 08/21/01 15:37:46
Comment: 0820 SSG2 DGICPS
Mode: CONC Corr. Factor: 1

Elem	Al	Sb	As	Ba	Be	Cd	Ca
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	83.61	.0233	.0830	.6731	.00468	.0132	115.4
SDev	.35	.0154	.0214	.0030	.00000	.0013	.4
%RSD	.4167	66.14	25.78	.4498	.04767	9.546	.3235
#1	83.22	.0116	.1023	.6698	.00469	.0122	115.0
#2	83.73	.0175	.0866	.6738	.00468	.0147	115.6
#3	83.88	.0407	.0600	.6757	.00468	.0128	115.7

Elem	Cr	Co	Cu	Fe	Pb	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.4553	.0720	.4110	208.1	.7981	59.77	3.168
SDev	.0012	.0035	.0029	1.8	.0060	.30	.013
%RSD	.2564	4.866	.7013	.8421	.7573	.4964	.4188
#1	.4543	.0679	.4076	206.8	.7963	59.43	3.153
#2	.4566	.0743	.4124	207.4	.7932	59.91	3.174
#3	.4549	.0736	.4128	210.1	.8048	59.98	3.178

Elem	Hg	Ni	K	Se	Ag	Na	Tl
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0144	.2189	11.48	L-.0718	.0013	.6742	L-.0076
SDev	.0102	.0117	.35	.0350	.0018	.0101	.0115
%RSD	70.35	5.330	3.038	48.79	138.9	1.492	150.0
#1	.0092	.2113	11.39	L-.0358	.0034	.6858	L-.0071
#2	.0080	.2323	11.86	L-.1058	.0003	.6688	.0035
#3	.0262	.2130	11.18	L-.0736	.0003	.6680	L-.0194

Elem	V	Zn	B	Bi	Mo	P	S
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1919	1.254	.0448	L-.0213	.0144	8.407	5.373
SDev	.0009	.002	.0027	.0899	.0025	.091	.046
%RSD	.4615	.1701	6.018	422.7	17.20	1.078	.8576
#1	.1909	1.252	.0448	.0692	.0172	8.303	5.361
#2	.1924	1.253	.0421	L-.1105	.0136	8.471	5.424
#3	.1925	1.256	.0475	L-.0224	.0124	8.447	5.334

Elem	Si	Sr	Sn	Ti	Y	Zr
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.186	.2779	.0654	.8146	.0822	.0436
SDev	.035	.0013	.0053	.0037	.0000	.0007
%RSD	.6798	.4634	8.083	.4491	.0009	1.561
#1	5.150	.2764	.0714	.8109	.0822	.0428
#2	5.188	.2786	.0632	.8146	.0822	.0441
#3	5.220	.2786	.0615	.8182	.0822	.0438

Analysis Report 08/21/01 03:46:17 PM

Method: STD_MTD Sample Name: 047047 100 Operator: NR1
Run Time: 08/21/01 15:42:05
Comment: 0820 SSG2 DGICPS
Mode: CONC Corr. Factor: 1

Elem	Al	Sb	As	Ba	Be	Cd	Ca
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	93.29	.0213	.0626	.7327	.00553	.0088	93.00
SDev	.92	.0134	.0059	.0070	.00000	.0022	.85
%RSD	.9818	62.98	9.417	.9501	.03796	25.17	.9152
#1	92.27	.0058	.0562	.7254	.00553	.0063	92.02
#2	94.03	.0291	.0678	.7393	.00553	.0105	93.54
#3	93.58	.0291	.0639	.7333	.00553	.0095	93.44

Elem	Cr	Co	Cu	Fe	Pb	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1393	.0665	.1898	206.6	.4072	42.29	8.128
SDev	.0018	.0023	.0036	1.1	.0083	.39	.081
%RSD	1.282	3.496	1.868	.5141	2.043	.9250	.9948
#1	.1403	.0685	.1892	206.8	.3980	41.84	8.035
#2	.1403	.0671	.1936	205.5	.4143	42.57	8.186
#3	.1372	.0639	.1866	207.6	.4093	42.46	8.162

Elem	Hg	Ni	K	Se	Ag	Na	Tl
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	L-.0010	.1461	10.38	L-.0882	L-.0030	.8234	L-.0253
SDev	.0007	.0090	.22	.0252	.0043	.0125	.0363
%RSD	65.30	6.145	2.129	28.54	142.2	1.523	143.6
#1	L-.0003	.1559	10.25	L-.0613	L-.0008	.8208	L-.0147
#2	L-.0014	.1441	10.63	L-.0922	L-.0080	.8125	L-.0657
#3	L-.0014	.1383	10.25	L-.1112	L-.0003	.8371	.0046

Elem	V	Zn	B	Bi	Mo	P	S
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.2185	.9207	.0502	L-.0421	.0118	6.932	6.801
SDev	.0008	.0123	.0027	.0227	.0045	.068	.064
%RSD	.3809	1.331	5.364	53.96	38.27	.9863	.9361
#1	.2190	.9068	.0502	L-.0638	.0170	6.925	6.732
#2	.2190	.9300	.0529	L-.0185	.0086	7.004	6.858
#3	.2176	.9252	.0475	L-.0439	.0098	6.867	6.813

Elem	Si	Sr	Sn	Ti	Y	Zr
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.173	.2737	.0153	.9829	.0939	.0470
SDev	.047	.0026	.0018	.0097	.0005	.0035
%RSD	1.132	.9540	11.55	.9848	.5686	7.377
#1	4.121	.2710	.0144	.9719	.0933	.0464
#2	4.213	.2762	.0174	.9902	.0942	.0507
#3	4.184	.2739	.0142	.9865	.0942	.0438

Analysis Report 08/21/01 03:50:37 PM

Method: STD_MTD Sample Name: 047048 100 Operator: NR1
Run Time: 08/21/01 15:46:24
Comment: 0820 SSG2 DGICPS
Mode: CONC Corr. Factor: 1

Elem	Al	Sb	As	Ba	Be	Cd	Ca
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	104.7	.0291	.0764	.6509	.00550	.0010	27.64
SDev	.8	.0116	.0090	.0023	.00000	.0022	.21
%RSD	.8034	40.00	11.81	.3516	.04050	221.4	.7540
#1	103.8	.0407	.0661	.6483	.00550	L-.0007	27.41
#2	105.4	.0175	.0803	.6522	.00550	.0002	27.81
#3	105.0	.0291	.0828	.6522	.00550	.0034	27.69

Elem	Cr	Co	Cu	Fe	Pb	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1330	.0702	.1945	223.0	.4472	29.14	2.956
SDev	.0015	.0014	.0012	1.1	.0135	.22	.022
%RSD	1.157	2.044	.6100	.4908	3.020	.7387	.7547
#1	.1313	.0687	.1940	221.8	.4319	28.90	2.931
#2	.1342	.0715	.1958	223.4	.4524	29.33	2.975
#3	.1334	.0705	.1936	223.9	.4574	29.17	2.961

Elem	Hg	Ni	K	Se	Ag	Na	Tl
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0003	.1674	8.406	L-.0861	L-.0016	.3439	L-.0038
SDev	.0088	.0164	.276	.0162	.0024	.0415	.0194
%RSD	2822.	9.809	3.289	18.78	152.4	12.08	507.3
#1	.0103	.1811	8.688	L-.0960	L-.0043	.3639	.0002
#2	L-.0032	.1492	8.392	L-.0949	L-.0007	.3717	L-.0250
#3	L-.0061	.1718	8.136	L-.0674	.0003	.2961	.0133

Elem	V	Zn	B	Bi	Mo	P	S
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.2293	.7871	.0286	L-.1035	.0068	3.855	3.340
SDev	.0009	.0076	.0047	.0298	.0028	.013	.095
%RSD	.3854	.9659	16.31	28.76	40.28	.3423	2.858
#1	.2283	.7791	.0313	L-.1370	.0084	3.841	3.230
#2	.2298	.7942	.0232	L-.0936	.0037	3.867	3.406
#3	.2299	.7881	.0313	L-.0800	.0084	3.855	3.383

Elem	Si	Sr	Sn	Ti	Y	Zr
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.201	.1142	.0284	.7707	.0848	.0403
SDev	.073	.0011	.0080	.0048	.0016	.0015
%RSD	1.407	.9933	28.07	.6279	1.882	3.745
#1	5.117	.1132	.0195	.7652	.0830	.0412
#2	5.244	.1154	.0308	.7725	.0858	.0412
#3	5.244	.1139	.0349	.7743	.0858	.0386

Analysis Report 08/21/01 03:55:00 PM

Method: STD_MTD Sample Name: ERA245 100 Operator: NR1
Run Time: 08/21/01 15:50:44
Comment: 0820 SSG2 DGICPS
Mode: CONC Corr. Factor: 1

Elem	Al	Sb	As	Ba	Be	Cd	Ca
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	70.17	1.061	1.410	1.321	.98494	1.290	123.2
SDev	.12	.012	.003	.006	.00203	.005	.5
%RSD	.1729	1.142	.1898	.4584	.20644	.4052	.3671
#1	70.23	1.047	1.409	1.328	.98387	1.296	122.8
#2	70.24	1.065	1.413	1.320	.98728	1.286	123.7
#3	70.03	1.071	1.408	1.316	.98366	1.288	123.1

Elem	Cr	Co	Cu	Fe	Pb	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.8890	1.199	1.232	152.0	1.504	27.93	3.303
SDev	.0052	.006	.003	1.1	.024	.07	.009
%RSD	.5882	.4984	.2249	.6930	1.625	.2677	.2635
#1	.8830	1.194	1.233	150.9	1.476	27.88	3.297
#2	.8920	1.206	1.233	153.0	1.520	28.02	3.313
#3	.8920	1.198	1.228	152.2	1.516	27.90	3.299

Elem	Hg	Ni	K	Se	Ag	Na	Tl
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	L.0146	1.732	31.76	.8940	1.247	7.534	1.440
SDev	.0099	.015	.49	.0114	.001	.013	.030
%RSD	67.85	.8542	1.558	1.269	.0633	.1684	2.082
#1	L.0214	1.736	31.58	.8809	1.247	7.523	1.435
#2	L.0190	1.715	31.37	.9005	1.248	7.531	1.472
#3	L.0032	1.744	32.31	.9007	1.247	7.548	1.412

Elem	V	Zn	B	Bi	Mo	P	S
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.8076	.6508	1.175	-.0969	1.018	10.69	6.574
SDev	.0044	.0029	.008	.0242	.007	.07	.028
%RSD	.5513	.4475	.6611	25.01	.6534	.6257	.4321
#1	.8075	.6481	1.166	-.0839	1.025	10.63	6.557
#2	.8120	.6539	1.180	-.1249	1.017	10.76	6.606
#3	.8031	.6506	1.180	-.0819	1.012	10.68	6.557

Elem	Si	Sr	Sn	Ti	Y	Zr
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.842	.8509	.9893	1.889	.0795	.0539
SDev	.020	.0037	.0019	.006	.0000	.0012
%RSD	.3412	.4353	.1912	.3113	.0011	2.185
#1	5.852	.8546	.9871	1.893	.0795	.0543
#2	5.820	.8509	.9902	1.891	.0795	.0549
#3	5.856	.8472	.9905	1.882	.0795	.0526

Analysis Report QC Standard 08/21/01 04:02:11 PM page 1

Method: STD_MTD Sample Name: CCVA Operator: NR1
Run Time: 08/21/01 15:57:53
Comment: 0820 SSG2 DG3050B
Mode: CONC Corr. Factor: 1

Elem	Al	Sb	As	Ba	Be	Cd	Ca
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	3.830	.0000	.9741	1.917	.98196	.9932	20.52
SDev	.019	.0058	.0276	.006	.00429	.0024	.10
%RSD	.5061	2462e6	2.835	.3160	.43690	.2449	.4668
#1	3.811	-.0000	.9422	1.918	.97727	.9911	20.42
#2	3.828	-.0058	.9890	1.922	.98294	.9926	20.56
#3	3.850	.0058	.9910	1.910	.98568	.9959	20.60

Elem	Cr	Co	Cu	Fe	Pb	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.997	2.019	1.922	4.035	2.072	19.48	1.994
SDev	.014	.010	.006	.023	.014	.10	.009
%RSD	.6905	.5177	.3160	.5647	.6961	.5349	.4331
#1	1.981	2.007	1.915	4.009	2.076	19.37	1.984
#2	2.008	2.025	1.926	4.047	2.056	19.52	1.999
#3	2.001	2.025	1.926	4.050	2.084	19.56	2.000

Elem	Hg	Ni	K	Se	Ag	Na	Tl
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.5227	1.017	18.96	.9755	.9573	18.96	2.060
SDev	.0220	.011	.60	.0316	.0036	.07	.034
%RSD	4.214	1.074	3.180	3.238	.3790	.3778	1.629
#1	.5472	1.028	18.33	.9620	.9535	18.89	2.068
#2	.5167	1.017	19.53	.9528	.9576	18.95	2.089
#3	.5044	1.006	19.02	1.012	.9607	19.03	2.023

Elem	V	Zn	B	Bi	Mo	P	S
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.9928	3.918	1.952	.9203	.0002	9.899	.0155
SDev	.0056	.019	.012	.0847	.0021	.064	.0344
%RSD	.5597	.4814	.6008	9.200	1356.	.6500	221.9
#1	.9864	3.897	1.938	1.013	-.0010	9.907	.0469
#2	.9961	3.929	1.957	.9014	-.0010	9.831	-.0212
#3	.9961	3.930	1.960	Q.8467	.0025	9.959	.0208

Elem	Si	Sr	Sn	Ti	Y	Zr
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0063	.9650	-.0073	.0012	1.914	-.0045
SDev	.0024	.0024	.0066	.0011	.005	.0013
%RSD	38.19	.2469	89.75	86.60	.2375	29.57
#1	-.0037	.9640	-.0126	.0006	1.912	-.0042
#2	-.0068	.9677	-.0093	.0006	1.920	-.0033
#3	-.0083	.9633	.0000	.0024	1.911	-.0059

Analysis Report QC Standard 08/21/01 04:06:36 PM

Method: STD_MTD Sample Name: CCVB Operator: NR1
Run Time: 08/21/01 16:02:22
Comment: 0820 SSG2 DG3050B
Mode: CONC Corr. Factor: 1

Elem	Al	Sb	As	Ba	Be	Cd	Ca
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0368	.9368	.0065	.0000	.00008	.0009	-.0153
SDev	.0269	.0254	.0023	.0000	.00013	.0028	.0070
%RSD	73.14	2.707	35.96	45.54	159.31	325.1	45.54
#1	.0413	.9193	.0050	.0000	.00016	.0038	-.0168
#2	.0079	.9251	.0052	.0000	-.00007	.0005	-.0213
#3	.0611	.9659	.0091	.0000	.00015	-.0017	-.0077

Elem	Cr	Co	Cu	Fe	Pb	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0016	.0029	.0004	20.05	.0079	1.974	-.0007
SDev	.0020	.0020	.0021	.25	.0268	.025	.0005
%RSD	129.3	69.79	568.6	1.227	339.4	1.275	68.89
#1	-.0031	.0032	.0010	19.79	-.0115	1.947	-.0003
#2	-.0023	.0007	-.0020	20.28	-.0034	1.997	-.0013
#3	.0007	.0047	.0021	20.09	.0385	1.979	-.0006

Elem	Hg	Ni	K	Se	Ag	Na	Tl
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0057	.0028	.2507	-.0209	.0122	.0363	-.0757
SDev	.0033	.0019	.6867	.0175	.0020	.0350	.0256
%RSD	58.72	69.28	273.9	83.63	16.04	96.39	33.85
#1	.0066	.0039	.2787	-.0318	.0136	.0643	-.0559
#2	.0020	.0006	-.4495	-.0007	.0100	-.0029	-.1046
#3	.0084	.0039	.9230	-.0301	.0131	.0474	-.0665

Elem	V	Zn	B	Bi	Mo	P	S
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0014	-.0036	.0063	-.0540	.9841	.0046	1.979
SDev	.0022	.0012	.0031	.0285	.0055	.0137	.020
%RSD	154.8	31.95	49.52	52.77	.5606	295.3	1.001
#1	-.0014	-.0023	.0099	-.0416	.9777	.0147	1.957
#2	-.0036	-.0043	.0045	-.0338	.9873	-.0109	1.991
#3	.0008	-.0043	.0045	-.0865	.9873	.0100	1.991

Elem	Si	Sr	Sn	Ti	Y	Zr
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.988	.0002	1.996	1.918	.0006	1.920
SDev	.018	.0007	.027	.025	.0021	.026
%RSD	.8860	300.2	1.357	1.317	346.4	1.375
#1	1.971	.0010	1.967	1.891	.0018	1.891
#2	2.006	-.0005	2.020	1.941	-.0018	1.943
#3	1.987	.0002	2.003	1.920	.0018	1.925

Analysis Report QC Standard 08/21/01 04:12:45 PM page 1

Method: STD_MTD Sample Name: CCB Operator: NR1
Run Time: 08/21/01 16:08:36
Comment: 0820 SSG2 DG3050B
Mode: CONC Corr. Factor: 1

Elem	Al	Sb	As	Ba	Be	Cd	Ca
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	Q.0302	.0116	.0140	.0007	.00022	.0009	.0061
SDev	.0216	.0254	.0076	.0011	.00012	.0012	.0137
%RSD	71.58	217.9	53.91	173.2	54.931	130.8	226.1
#1	Q.0542	.0291	Q.0203	Q.0020	.00036	.0015	.0197
#2	.0124	-.0175	.0056	-.0000	.00015	-.0005	.0061
#3	.0239	.0233	.0163	.0000	.00016	.0016	-.0076

Elem	Cr	Co	Cu	Fe	Pb	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0000	.0041	.0033	.0019	.0079	.0001	-.0000
SDev	.0039	.0042	.0052	.0029	.0220	.0002	.0005
%RSD	911400.	102.1	155.7	157.5	277.6	173.2	842600.
#1	Q.0046	.0089	Q.0091	.0041	Q.0226	.0003	.0006
#2	-.0023	.0025	.0017	-.0014	.0186	.0000	-.0003
#3	-.0023	.0010	-.0009	.0029	-.0174	.0000	-.0003

Elem	Hg	Ni	K	Se	Ag	Na	Tl
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0021	-.0022	.6436	.0006	.0012	.0783	-.0269
SDev	.0029	.0057	1.101	.0165	.0049	.0384	.0064
%RSD	137.6	255.3	171.1	2752.	408.5	49.10	23.73
#1	.0025	.0022	Q1.859	.0018	.0064	Q.1202	-.0333
#2	-.0010	-.0003	.3576	-.0165	-.0034	.0699	-.0269
#3	.0049	-.0087	-.2860	.0165	.0007	.0447	-.0205

Elem	V	Zn	B	Bi	Mo	P	S
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0020	.0007	.0063	-.0137	-.0016	.0090	.0181
SDev	.0038	.0007	.0056	.0342	.0000	.0106	.0242
%RSD	192.4	110.7	89.21	249.7	.0670	117.8	133.6
#1	Q.0062	.0011	Q.0126	-.0228	-.0016	.0142	.0106
#2	.0010	.0011	.0018	.0241	-.0016	.0160	-.0014
#3	-.0012	-.0002	.0045	-.0424	-.0016	-.0032	.0452

Elem	Si	Sr	Sn	Ti	Y	Zr
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0057	.0005	.0017	.0012	Q.0018	.0023
SDev	.0009	.0004	.0137	.0028	.0000	.0025
%RSD	15.75	86.59	813.0	229.1	.0015	107.9
#1	-.0052	.0002	.0152	.0043	Q.0018	.0049
#2	-.0052	.0010	-.0122	.0006	Q.0018	.0020
#3	-.0068	.0002	.0021	-.0012	Q.0018	-.0000

4. SHIPPING AND RECEIVING DOCUMENTS

Airbills
Chain-of-Custody Records
Sample Log-In Sheets
Miscellaneous Shipping/Receiving Records

CHAIN OF CUSTODY

ANALYTICAL SERVICES
5555 North Service Road
Burlington, Ontario L7L 5H7

Toll Free: 1-800-668-0639
Tel: (905) 332-8788
Fax: (905) 332-9169

CLIENT INFORMATION

Company Name: XCG Consultants Ltd
Project Manager: Basil Wong
Address: 2620 Bristol Circle
Oakville, Ont. L6H 6Z7
Phone #: 905-829-8550 Fax #: 905-829-8510
Sampled by: Basil Wong

10-046699

ANALYSIS REQUESTED

Philip Use Only	Field Sample ID	# Bottles	Matrix	Date	Time	ICAP Metals	Level of contamination (low, high, unknown)
046700	OS01-1	1	Soil	Aug 14/01	11:00AM	✓	250AG
01	OS01-2	"	"	"	11:15	✓	
02	OS01-3	"	"	"	11:30	✓	
03	OS01-4	"	"	"	11:45	✓	
04	OS01-5	"	"	"	11:55	✓	
05	OS01-6	"	"	"	12:10	✓	
06	OS01-7	"	"	"	12:15	✓	
07	OS01-8	"	"	"	12:30	✓	
08	OS01-9	"	"	"	12:37	✓	
09	OS01-10	"	"	"	12:43	✓	

001114

TAT (Turnaround Time)

RUSH TAT MUST HAVE PRIOR APPROVAL

*some exceptions apply please contact Lab

- STD 10 Business Days ☑
- RUSH 5 Business Days ☐
- RUSH 2 Business Days ☐
- RUSH 1 Business Days ☐
- Other Business Days ____

PROJECT INFORMATION

Project #: 3-907-02-04
Site: Depew, NY
PO#:
Philip Quote #: See Aida Blythe
Philip Project #:
Philip Contact: Aida Blythe

SPECIAL DETECTION LIMITS

MISA ☐

SPECIAL REQUIREMENTS / REGULATIONS

New York TAGM 4046

REMARKS

Client Signature:
Affiliation: XCG
Date/Time: August 15, 2001 9:00 AM

Received By:
Affiliation:
Date/Time: 8-15-01 9:00

Rec'd By:
Date/Time

WHITE - LAB / YELLOW - CLIENT

SEE OVER FOR COMPLETION & SAMPLING INSTRUCTIONS

CHAIN OF CUSTODY

ANALYTICAL SERVICES
5555 North Service Road
Burlington, Ontario L7L 5H7

Toll Free: 1-800-668-0639
Tel: (905) 332-8788
Fax: (905) 332-9169

CLIENT INFORMATION

Company Name: XCG Consultants Ltd.
Project Manager: Basil Wong
Address: 2620 Bristol Circle
Oakville, Ont. L6H 6Z7
Phone #: 905-829-8850 Fax #: 905-829-8890
Sampled by: Basil Wong

ANALYSIS REQUESTED

Philip Use Only	Field Sample ID	# Bottles	Matrix	Date	Time	ICAP metals	Level of contamination (low, high, unknown)
046710	OSO1-11	1	Soil	Aug 14,01	12:50	✓	250 AG
11	OSO1-12	"	"	"	2:15	✓	
12	OSO1-13	"	"	"	2:20	✓	
13	OSO1-14	"	"	"	2:28	✓	
14	OSO1-15	"	"	"	2:40	✓	
15	OSO1-16	"	"	"	2:45	✓	
16	OSO1-17	"	"	"	3:00	✓	
17	OSO1-18	"	"	"	3:06	✓	
18	OSO1-19	"	"	"	3:25	✓	
19	OSO1-20	"	"	"	3:30	✓	

00115

TAT (Turnaround Time)

RUSH TAT MUST HAVE PRIOR APPROVAL

*some exceptions apply please contact Lab

- STD 10 Business Days ☑
- RUSH 5 Business Days ☐
- RUSH 2 Business Days ☐
- RUSH 1 Business Days ☐
- Other Business Days ___

PROJECT INFORMATION

Project #: 3-997-02-08
Site: Dopew, NY
PO#:
Philip Quote #:
Philip Project #:
Philip Contact: Anita Blythe

SPECIAL DETECTION LIMITS

MISA ☐

SPECIAL REQUIREMENTS / REGULATIONS

New York TAGM 4046

REMARKS

Client Signature:
Affiliation: XCG
Date/Time: August 15, 2001 9:00 AM

Received By:
Affiliation:
Date/Time: 8-15-1 10:15

Rec'd By:
Date/Time

SEE OVER FOR COMPLETION & SAMPLING INSTRUCTIONS

WHITE - LAB / YELLOW - CLIENT

CHAIN OF CUSTODY

ANALYTICAL SERVICES
5555 North Service Road
Burlington, Ontario L7L 5H7

Toll Free: 1-800-668-0639
Tel: (905) 332-8788
Fax: (905) 332-9169

CLIENT INFORMATION

Company Name: KCA Consultants Ltd.
Project Manager: Basil Wong
Address: 2620 Bristol Circle
Oakville, Ont. L6H 6Z7
Phone #: 905-829-8880 Fax #: 905-829-8890
Sampled by: Basil Wong

ANALYSIS REQUESTED

Philip Use Only	Field Sample ID	# Bottles	Matrix	Date	Time	ICAP Metals	Level of contamination (low, high, unknown)
046720	0501-21	1	Soil	Aug 14, 01	3:40	✓	250 AGS
21	0501-22	1	"	"	3:45	✓	↓

00116

TAT (Turnaround Time)

RUSH TAT MUST HAVE PRIOR APPROVAL

*some exceptions apply please contact Lab

- STD 10 Business Days ☑
- RUSH 5 Business Days ☐
- RUSH 2 Business Days ☐
- RUSH 1 Business Days ☐
- Other Business Days ____

PROJECT INFORMATION

Project #: 3-997-02-08
Site: Depew, NY
PO#:
Philip Quote #:
Philip Project #:
Philip Contact: Audra Blythe

SPECIAL DETECTION LIMITS

MISA ☐

SPECIAL REQUIREMENTS / REGULATIONS

REMARKS

Client Signature:
Affiliation: KCA
Date/Time: August 15, 2001 9:00 AM

Received By: E. Jones
Affiliation:
Date/Time: Aug 15-01 9:15

Rec'd By:
Date/Time

WHITE - LAB / YELLOW - CLIENT

SEE OVER FOR COMPLETION & SAMPLING INSTRUCTIONS

00117

Page ___ of ___

US SAMPLE LOG IN SHEET

XCG

Lab Name: Philip Analytical Services Corporation, Burlington Laboratory

Received By (Print Name): Patrick Hyatt

Received By (Signature):

Client Project ID:

REMARKS:		Condition of Samples/Sample Shipment:
Custody Seal(s)	Present ___ Absent ✓	Rec'd Unbroken
Chain of Custody Records	Present ✓ Absent ___	
Airbill	Present ___ Absent ✓	
Airbill No.		
Does Information on Custody Records and Samples Agree?	Yes ✓ No ___	
Date Received at Lab	8-15-1	
Time Received	1:30	

Temperature of Coolers

Cooler ID:	Temperature
1 cooler	2.4

Relinquished By:

Date: 8-15-1

Logbook No:

Logbook Page No.

5. OTHER RECORDS

PHILIP SERVICES

Inorganic Data Package

For

XCG Consultants Ltd.

Project # 3-997-02-08

Prepared by PSC Analytical Services Corp.

5555 North Service Road

Burlington, ON

Canada L7L 5H7

PSC Project #: AN010997

Submission #(s): 1H0581

PSC Sample ID: 047040 01 – 047048 01

Prepared By: Tara Bovenkamp - Project Manager Assistant

Reviewed By: Ada Blythe – Project Manager

1. CASE NARRATIVE

PROJECT NARRATIVE

PHILIP Analytical Services Inc (Burlington ON)
Philip Project: AN010997
Philip Submission #:1H0581

Client: XCG Consultants Ltd.
Client Project: 3-997-02-08

I. SAMPLE RECEIPT/ANALYSIS

a) Sample Listing

Philip ID	Client Sample ID	Date Sampled	Date Received	Date Prepped	Run Date
Metals via SW846 Method 6010					
047040 01	Method Blank	01/08/15	01/08/16	01/08/20	01/08/21
047041 01	OSO1-23	01/08/15	01/08/16	01/08/20	01/08/21
047042 01	OSO1-24	01/08/15	01/08/16	01/08/20	01/08/21
047043 01	OSO1-25	01/08/15	01/08/16	01/08/20	01/08/21
047044 01	OSO1-26	01/08/15	01/08/16	01/08/20	01/08/21
047045 01	OSO1-27	01/08/15	01/08/16	01/08/20	01/08/21
047046 01	OSO1-28	01/08/15	01/08/16	01/08/20	01/08/21
047047 01	BSO1-1	01/08/15	01/08/16	01/08/20	01/08/21
047048 01	BSO1-2	01/08/15	01/08/16	01/08/20	01/08/21

Run Date is defined as the date of injection of the last calibration standard (12 hour or less) prior to the samples analyzed within that run sequence. Therefore the time of calibration injection that defines the run date is always within 12 hours of the time of sample injection.

b) Shipping Problems: none encountered

c) Documentation Problems: none encountered

II. SAMPLE PREP:

No problems encountered

III. SAMPLE ANALYSIS:

See also comments within the appropriate Certificate of Analysis.

a) Hold Times: all within recommended hold times

b) Instrument Calibration: all within control limits

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. In addition, I certify, that to the best of my knowledge and belief, the data as reported are true and accurate. Release of the data contained in this data package has been authorized by the cognizant laboratory official or his/her designee, as verified by this signature.

Ada Blythe, Project Manager

Nov. 19, 2001
Date

2. DATA SUMMARY

- Certificate of Analysis –

- Sample analyte result
- Method blank result
- LCS Results with % Recoveries
- Matrix Spike data with % Recoveries
- Matrix Spike Duplicate data with % Recoveries
- Surrogate recoveries

PSC
PHILIP SERVICES

Certificate of Analysis

CLIENT INFORMATION

Attention: Basil Wong
Client Name: XCG Consultants Ltd.
Project: 3-997-02-08
Project Desc: Depew, NY

Address: 2620 Bristol Circle
Suite 300
Oakville, Ontario
L6H 6Z7
Fax Number: 829-8890 #62
Phone Number: 829-8880

LABORATORY INFORMATION

Contact: Ada Blythe, B.Sc., C.Chem.
Project: AN010997
Date Received: 16-Aug-2001
Date Reported: 23-Aug-2001

Submission No.: 1H0581
Sample No.: 047040-047048

NOTES: *'-' = not analysed '<' = less than Method Detection Limit (MDL) 'NA' = no data available*
LOQ can be determined for all analytes by multiplying the appropriate MDL X 3.33
Blank correction is only performed on oil and grease, BTEX, total purgeable hydrocarbons and VOC analyses when Canadian methods are utilized.
Solids data is based on dry weight except for biota analyses.
Organic analyses are not corrected for extraction recovery standards except for isotope dilution methods, (i.e. CARB 429 PAH, all PCDD/F and DBD/DBF analyses)

Methods used by PSC Analytical Services are based upon those found in 'Standard Methods for the Examination of Water and Wastewater', Nineteenth Edition. Other methods are based on the principles of MISA or EPA methodologies. New York State: ELAP Identification Number 10756.

All work recorded herein has been done in accordance with normal professional standards using accepted testing methodologies, quality assurance and quality control procedures except where otherwise agreed to by the client and testing company in writing. Any and all use of these test results shall be limited to the actual cost of the pertinent analysis done. There is no other warranty expressed or implied. Your samples will be retained at PSC Analytical Services for a period of three weeks from receipt of data or as per contract.

COMMENTS:

Certified by:

[illegible] (905) 332-8788 FAX (905) 332-0169

			Method	Blank	%	Blank Spike	%	
Client ID:			Blank	Spike	Recovery	Duplicate	Recovery	OSO1-23
Lab No.:			047040 01	047040 01	047040 01	047040 01	047040 01	047041 01
Date Sampled:			15-Aug-2001	15-Aug-2001	15-Aug-2001	15-Aug-2001	15-Aug-2001	15-Aug-2001
Component	MDL	Units						
Metals via SW846 Method 6010								
Aluminum	3	mg/kg	<	190	95	190	95	9400
Barium	0.1	"	<	95	95	96	96	90
Beryllium	0.1	"	<	47	95	48	95	0.6
Cadmium	0.2	"	0.2	47	94	47	94	2.9
Calcium	20	"	<	970	97	980	97	8300
Chromium	0.4	"	<	95	95	96	96	20
Cobalt	1	"	<	96	96	97	97	9.0
Copper	0.6	"	<	95	95	96	96	2800
Iron	1	"	1.0	1200	96	1200	97	26000
Lead	2	"	<	94	94	95	95	3500
Magnesium	5	"	<	1000	93	1000	94	3200
Manganese	0.5	"	<	95	95	96	96	510
Molybdenum	1	"	<	47	94	47	95	4.0
Nickel	1	"	<	48	95	50	99	58
Phosphorus	6	"	<	470	94	480	95	1300
Potassium	100	"	<	970	95	1000	98	1300
Silver	1.0	"	<	48	95	48	96	1.1
Sodium	10	"	<	930	94	940	95	190
Thallium	6	"	<	89	90	87	88	<
Vanadium	0.5	"	<	47	95	48	96	24
Zinc	0.5	"	<	190	93	190	94	3800

PASC - Certificate of Analysis

Client ID:		OSO1-24	OSO1-25	OSO1-26	OSO1-27	OSO1-28	BSO1-1
Lab No.:		047042 01	047043 01	047044 01	047045 01	047046 01	047047 01
Date Sampled:		15-Aug-2001	15-Aug-2001	15-Aug-2001	15-Aug-2001	15-Aug-2001	15-Aug-2001
Component	**MDL**	**Units**					
Metals via SW846 Method 6010							
Aluminum	3	mg/kg	6800	5000	7800	7600	8400	9300
Barium	0.1	"	94	77	62	70	67	73
Beryllium	0.1	"	0.4	0.3	0.4	0.4	0.5	0.6
Cadmium	0.2	"	2.4	1.1	0.6	0.4	1.3	0.9
Calcium	20	"	23000	28000	28000	8600	12000	9300
Chromium	0.4	"	20	16	15	15	46	14
Cobalt	1	"	6.0	4.0	6.0	6.0	7.0	7.0
Copper	0.6	"	580	460	45	31	41	19
Iron	1	"	19000	14000	18000	19000	21000	21000
Lead	2	"	1100	830	150	73	80	41
Magnesium	5	"	3700	11000	6600	4400	6000	4200
Manganese	0.5	"	410	250	350	490	320	810
Molybdenum	1	"	3.0	<	<	1.0	1.0	1.0
Nickel	1	"	26	20	16	17	22	15
Phosphorus	6	"	1400	1200	570	750	840	690
Potassium	100	"	1100	680	1100	1200	1200	1000
Silver	1.0	"	<	<	<	<	<	<
Sodium	10	"	580	89	120	64	67	82
Thallium	6	"	<	<	<	<	<	<
Vanadium	0.5	"	19	14	19	18	19	22
Zinc	0.5	"	1200	760	150	120	130	92

Client ID:			BSO1-2
Lab No.:			047048 01
Date Sampled:			15-Aug-2001
Component	**MDL**	**Units**	
Metals via SW846 Method 6010			
Aluminum	3	mg/kg	11000
Barium	0.1	"	65
Beryllium	0.1	"	0.6
Cadmium	0.2	"	<
Calcium	20	"	2800
Chromium	0.4	"	13
Cobalt	1	"	7.0
Copper	0.6	"	20
Iron	1	"	22000
Lead	2	"	45
Magnesium	5	"	2900
Manganese	0.5	"	300
Molybdenum	1	"	<
Nickel	1	"	17
Phosphorus	6	"	390
Potassium	100	"	840
Silver	1.0	"	<
Sodium	10	"	34
Thallium	6	"	<
Vanadium	0.5	"	23
Zinc	0.5	"	79

Batch Code:	**0820SSG2**
Aluminum	047040 01
	047041 01
	047042 01
	047043 01
	047044 01
	047045 01
	047046 01
	047047 01
	047048 01
Date Analysed:	01/08/21
Date Prepared:	01/08/20

3. RAW DATA

Inorganic Analysis Action/Comment Form

* Please note any action or anomalies impacting this set of samples

* For additional comments, please staple additional pages(s)

Client ID: XCG-US

PSC sample ID range: 047040-048

Analysis: ICP

Submission #: 1H0581

Actions:	Impacted sample Ids
Additional digestion needed	#:
Re-analysis needed (alternate technique)	#:
Re-analysis needed (contract technique)	#:
Bottle discrepancies	#:
Interferences observed	#:
Dilutions needed	#:
Internal calculations modified	#:
Field/Trip blanks missing	#:
Other _____	#:

Explanation/comments:

Analyst: NR

Zenon Number	Client	Client ID	Parameter	TS	Result	Dup.	Spike	% Rec.	Dup. Spk	% Rec.	Batch Date	Batch Code	Run Date	Run Code	Day Old	Day In	Analyst's Comments
046719	XCG-US	OS01-20	Calcium	PV	13400.	13500.	14300.	85.	14200.	76.	01/08/20	SSG2	01/08/21	NR01	6.	5.	*RSD CD/CTHSPK* 010821
			Magnesium		4050.	4120.	5540.	132.	5460.	125.					6.	5.	
			Sodium		627.	643.	1590.	96.	1570.	94.					6.	5.	
			Potassium		**940.**	**976.**	**1980.**	**103.**	**1930.**	**97.**					**6.**	**5.**	
			Aluminum		6780.	7080.	8870.	969.	8540.	803.					6.	5.	
			Barium		**84.7**	**86.0**	**187.0**	102.	**185.0**	**100.**					**6.**	5.	
			Beryllium		0.4	0.4	48.2	96.	49.2	98.					6.	5.	
			Cadmium		2.9	2.5	50.8	96.	51.0	97.					6.	5.	
			Chromium		31.1	33.5	127.0	95.	128.0	96.					6.	5.	
			Cobalt		6.	6.	102.	96.	104.	98.					6.	5.	
			Copper		912.0	943.0	1010.0	81.	995.0	68.					6.	5.	
			Iron		18500.	19100.	20900.	173.	20300.	124.					6.	5.	
			Lead		1330.	1360.	1450.	99.	1460.	108.					6.	5.	
			Manganese		346.0	371.0	444.0	85.	448.0	89.					6.	5.	
			Molybdenum		2.	2.	49.	94.	50.	96.					6.	5.	
			Nickel		27.	26.	73.	93.	76.	99.					6.	5.	
			Phosphorus		1190.	1190.	1530.	69.	1570.	77.					6.	5.	
			Silver		-1.0	-1.0	48.9	97.	48.6	97.					6.	5.	
			Thallium		-6.	-6.	87.	87.	94.	94.					6.	5.	
			Vanadium		17.6	18.2	67.4	99.	68.3	101.					6.	5.	
			Zinc		1250.0	1280.0	1450.0	91.	1450.0	94.					6.	5.	
046720	XCG-US	OS01-21	Calcium	PV	7970.						01/08/20	SSG2	01/08/21	NR01	6.	5.	*RSD CD* 010821Z.PRN
			Magnesium		2680.										6.	5.	
			Sodium		53.										6.	5.	
			Potassium		675.										6.	5.	
			Aluminum		6050.										6.	5.	
			Barium		60.6										6.	5.	
			Beryllium		0.3										6.	5.	
			Cadmium		1.5										6.	5.	
			Chromium		14.3										6.	5.	
			Cobalt		3.										6.	5.	
			Copper		226.0										6.	5.	
			Iron		14200.										6.	5.	
			Lead		736.										6.	5.	
			Manganese		285.0										6.	5.	
			Molybdenum		2.										6.	5.	
			Nickel		16.										6.	5.	
			Phosphorus		1260.										6.	5.	
			Silver		-1.0										6.	5.	
			Thallium		-6.										6.	5.	
			Vanadium		15.8										6.	5.	
			Zinc		544.0										6.	5.	
046721	XCG-US	OS01-22	Calcium	PV	30700.						01/08/20	SSG2	01/08/21	NR01	6.	5.	010821z.prn
			Magnesium		6460.										6.	5.	
			Sodium		217.										6.	5.	
			Potassium		937.										6.	5.	
			Aluminum		5190.										6.	5.	
			Barium		125.0										6.	5.	
			Beryllium		0.4										6.	5.	
			Cadmium		4.8										6.	5.	
			Chromium		38.9										6.	5.	
			Cobalt		5.										6.	5.	
			Copper		2460.0										6.	5.	
			Iron		21400.										6.	5.	

Zenon Number	Client	Client ID	Parameter	TS	Result	Dup.	Spike	% Rec.	Dup. Spk	% Rec.	Batch Date	Batch Code	Run Date	Run Code	Day Old	Day In	Analyst's Comments
			Lead		5300.										6.	5.	
			Manganese		464.0										6.	5.	
			Molybdenum		4.										6.	5.	
			Nickel		**48.**										**6.**	**5.**	
			Phosphorus		**1640.**										6.	5.	
			Silver		**2.6**										**6.**	5.	
			Thallium		-6.										6.	5.	
			Vanadium		16.5										6.	5.	
			Zinc		3500.0										6.	5.	
047040	XCG-US	MB R456	Calcium	PV	-20.	-99999	971.	97.	976.	97.	01/08/20	SSG2	01/08/21	NR01	5.	4.	010821z.prn
			Magnesium		-5.	-99999	1030.	93.	1040.	94.					5.	4.	
			Sodium		-10.	-99999	933.	94.	939.	95.					5.	4.	
			Potassium		-100.	-99999	974.	95.	998.	98.					5.	4.	
			Aluminum		-3.	-99999	191.	95.	192.	95.					5.	4.	
			Barium		-0.1	-99999.	94.5	95.	96.0	96.					5.	4.	
			Beryllium		-0.1	-99999.	47.4	95.	47.6	95.					5.	4.	
			Cadmium		0.2	-99999.	47.2	94.	47.3	94.					5.	4.	
			Chromium		-0.4	-99999.	94.6	95.	95.6	96.					5.	4.	
			Cobalt		-1.	-99999	96.	96.	97.	97.					5.	4.	
			Copper		-0.6	-99999.	95.4	95.	96.4	96.					5.	4.	
			Iron		1.	-99999	1160.	96.	1170.	97.					5.	4.	
			Lead		-2.	-99999	94.	94.	95.	95.					5.	4.	
			Manganese		-0.5	-99999.	94.8	95.	95.7	96.					5.	4.	
			Molybdenum		-1.	-99999	47.	94.	47.	95.					5.	4.	
			Nickel		-1.	-99999	48.	95.	50.	99.					5.	4.	
			Phosphorus		-6.	-99999	471.	94.	475.	95.					5.	4.	
			Silver		-1.0	-99999.	47.7	95.	48.0	96.					5.	4.	
			Thallium		-6.	-99999	89.	90.	87.	88.					5.	4.	
			Vanadium		-0.5	-99999.	47.3	95.	47.6	96.					5.	4.	
			Zinc		-0.5	-99999.	187.0	93.	188.0	94.					5.	4.	
047041	XCG-US	OSO1-23	Calcium	PV	8270.						01/08/20	SSG2	01/08/21	NR01	5.	4.	010821z.prn
			Magnesium		3200.										5.	4.	
			Sodium		188.										5.	4.	
			Potassium		1250.										5.	4.	
			Aluminum		9360.										5.	4.	
			Barium		90.1										5.	4.	
			Beryllium		0.6										5.	4.	
			Cadmium		2.9										5.	4.	
			Chromium		20.4										5.	4.	
			Cobalt		9.										5.	4.	
			Copper		2800.0										5.	4.	
			Iron		25700.										5.	4.	
			Lead		3530.										5.	4.	
			Manganese		506.0										5.	4.	
			Molybdenum		4.										5.	4.	
			Nickel		58.										5.	4.	
			Phosphorus		1250.										5.	4.	
			Silver		1.1										5.	4.	
			Thallium		-6.										5.	4.	
			Vanadium		24.3										5.	4.	
			Zinc		3820.0										5.	4.	
047042	XCG-US	OSO1-24	Calcium	PV	23100.						01/08/20	SSG2	01/08/21	NR01	5.	4.	010821z.prn
			Magnesium		3710.										5.	4.	
			Sodium		578.										5.	4.	

Zenon Number	Client	Client ID	Parameter	TS	Result	Dup.	Spike	% Rec.	Dup. Spk	% Rec.	Batch Date	Batch Code	Run Date	Run Code	Day Old	Day In	Analyst's Comments
			Potassium		1130.										5.	4.	
			Aluminum		6810.										5.	4.	
			Barium		94.4										5.	4.	
			Beryllium		0.4										5.	4.	
			Cadmium		2.4										5.	4.	
			Chromium		20.1										5.	4.	
			Cobalt		6.										5.	4.	
			Copper		578.0										5.	4.	
			Iron		18800.										5.	4.	
			Lead		1060.										5.	4.	
			Manganese		414.0										5.	4.	
			Molybdenum		3.										5.	4.	
			Nickel		26.										5.	4.	
			Phosphorus		1440.										5.	4.	
			Silver		-1.0										5.	4.	
			Thallium		-6.										5.	4.	
			Vanadium		18.5										5.	4.	
			Zinc		1220.0										5.	4.	
047043	XCG-US	OSO1-25	Calcium	PV	27900.						01/08/20	SSG2	01/08/21	NR01	5.	4.	010821z.prn
			Magnesium		11000.										5.	4.	
			Sodium		89.										5.	4.	
			Potassium		682.										5.	4.	
			Aluminum		5010.										5.	4.	
			Barium		77.0										5.	4.	
			Beryllium		0.3										5.	4.	
			Cadmium		1.1										5.	4.	
			Chromium		15.6										5.	4.	
			Cobalt		4.										5.	4.	
			Copper		460.0										5.	4.	
			Iron		13500.										5.	4.	
			Lead		827.										5.	4.	
			Manganese		252.0										5.	4.	
			Molybdenum		-1.										5.	4.	
			Nickel		20.										5.	4.	
			Phosphorus		1220.										5.	4.	
			Silver		-1.0										5.	4.	
			Thallium		-6.										5.	4.	
			Vanadium		13.8										5.	4.	
			Zinc		760.0										5.	4.	
047044	XCG-US	OSO1-26	Calcium	PV	27900.						01/08/20	SSG2	01/08/21	NR01	5.	4.	*RSD CD* 010821Z.PRN
			Magnesium		6630.										5.	4.	
			Sodium		115.										5.	4.	
			Potassium		1060.										5.	4.	
			Aluminum		7820.										5.	4.	
			Barium		61.7										5.	4.	
			Beryllium		0.4										5.	4.	
			Cadmium		0.6										5.	4.	
			Chromium		15.0										5.	4.	
			Cobalt		6.										5.	4.	
			Copper		45.1										5.	4.	
			Iron		18200.										5.	4.	
			Lead		152.										5.	4.	
			Manganese		349.0										5.	4.	
			Molybdenum		-1.										5.	4.	

Zenon Number	Client	Client ID	Parameter	TS	Result	Dup.	Spike	% Rec.	Dup. Spk	% Rec.	Batch Date	Batch Code	Run Date	Run Code	Day Old	Day In	Analyst's Comments
			Nickel		16.										5.	4.	
			Phosphorus		569.										5.	4.	
			Silver		-1.0										5.	4.	
			Thallium		**-6.**										**5.**	**4.**	
			Vanadium		18.5										5.	4.	
			Zinc		**151.0**										**5.**	4.	
047045	XCG-US	OSO1-27	Calcium	PV	8630.						01/08/20	SSG2	01/08/21	NR01	5.	4.	010821z.prn
			Magnesium		4370.										5.	4.	
			Sodium		64.										5.	4.	
			Potassium		1170.										5.	4.	
			Aluminum		7560.										5.	4.	
			Barium		70.0										5.	4.	
			Beryllium		0.4										5.	4.	
			Cadmium		0.4										5.	4.	
			Chromium		15.4										5.	4.	
			Cobalt		6.										5.	4.	
			Copper		31.1										5.	4.	
			Iron		18600.										5.	4.	
			Lead		73.										5.	4.	
			Manganese		487.0										5.	4.	
			Molybdenum		1.										5.	4.	
			Nickel		17.										5.	4.	
			Phosphorus		749.										5.	4.	
			Silver		-1.0										5.	4.	
			Thallium		-6.										5.	4.	
			Vanadium		18.2										5.	4.	
			Zinc		119.0										5.	4.	
047046	XCG-US	OSO1-28	Calcium	PV	11500.						01/08/20	SSG2	01/08/21	NR01	5.	4.	010821z.prn
			Magnesium		5980.										5.	4.	
			Sodium		67.										5.	4.	
			Potassium		1150.										5.	4.	
			Aluminum		8360.										5.	4.	
			Barium		67.3										5.	4.	
			Beryllium		0.5										5.	4.	
			Cadmium		1.3										5.	4.	
			Chromium		45.5										5.	4.	
			Cobalt		7.										5.	4.	
			Copper		41.1										5.	4.	
			Iron		20800.										5.	4.	
			Lead		80.										5.	4.	
			Manganese		317.0										5.	4.	
			Molybdenum		1.										5.	4.	
			Nickel		22.										5.	4.	
			Phosphorus		841.										5.	4.	
			Silver		-1.0										5.	4.	
			Thallium		-6.										5.	4.	
			Vanadium		19.2										5.	4.	
			Zinc		125.0										5.	4.	
047047	XCG-US	BSO1-1	Calcium	PV	9300.						01/08/20	SSG2	01/08/21	NR01	5.	4.	*RSD CD* 010821Z.PRN
			Magnesium		4230.										5.	4.	
			Sodium		82.										5.	4.	
			Potassium		1040.										5.	4.	
			Aluminum		9330.										5.	4.	
			Barium		73.3										5.	4.	

Zenon Number	Client	Client ID	Parameter	TS	Result	Dup.	Spike	% Rec.	Dup. Spk	% Rec.	Batch Date	Batch Code	Run Date	Run Code	Day Old	Day In	Analyst's Comments
			Beryllium		0.6										5.	4.	
			Cadmium		0.9										5.	4.	
			Chromium		13.9										5.	4.	
			Cobalt		**7.**										**5.**	**4.**	
			Copper		19.0										5.	4.	
			Iron		20**700.**										**5.**	4.	
			Lead		41.										5.	4.	
			Manganese		813.0										5.	4.	
			Molybdenum		1.										5.	4.	
			Nickel		15.										5.	4.	
			Phosphorus		693.										5.	4.	
			Silver		-1.0										5.	4.	
			Thallium		-6.										5.	4.	
			Vanadium		21.9										5.	4.	
			Zinc		92.1										5.	4.	
047048	XCG-US	BSO1-2	Calcium	PV	2760.						01/08/20	SSG2	01/08/21	NR01	5.	4.	010821z.prn
			Magnesium		2910.										5.	4.	
			Sodium		34.										5.	4.	
			Potassium		841.										5.	4.	
			Aluminum		10500.										5.	4.	
			Barium		65.1										5.	4.	
			Beryllium		0.6										5.	4.	
			Cadmium		-0.2										5.	4.	
			Chromium		13.3										5.	4.	
			Cobalt		7.										5.	4.	
			Copper		19.5										5.	4.	
			Iron		22300.										5.	4.	
			Lead		45.										5.	4.	
			Manganese		296.0										5.	4.	
			Molybdenum		-1.										5.	4.	
			Nickel		17.										5.	4.	
			Phosphorus		385.										5.	4.	
			Silver		-1.0										5.	4.	
			Thallium		-6.										5.	4.	
			Vanadium		22.9										5.	4.	
			Zinc		78.7										5.	4.	
BL0820	INTERNAL		Calcium	PV	-20.	-99999	971.	97.	976.	97.	01/08/20	SSG2	01/08/21	NR01	$$$	$$$	010821z.prn
			Magnesium		-5.	-99999	1030.	93.	1040.	94.					$$$	$$$	
			Sodium		-10.	-99999	933.	94.	939.	95.					$$$	$$$	
			Potassium		-100.	-99999	974.	95.	998.	98.					$$$	$$$	
			Aluminum		-3.	-99999	191.	95.	192.	95.					$$$	$$$	
			Barium		-0.1	-99999.	94.5	95.	96.0	96.					$$$	$$$	
			Beryllium		-0.1	-99999.	47.4	95.	47.6	95.					$$$	$$$	
			Cadmium		0.2	-99999.	47.2	94.	47.3	94.					$$$	$$$	
			Chromium		-0.4	-99999.	94.6	95.	95.6	96.					$$$	$$$	
			Cobalt		-1.	-99999	96.	96.	97.	97.					$$$	$$$	
			Copper		-0.6	-99999.	95.4	95.	96.4	96.					$$$	$$$	
			Iron		1.	-99999	1160.	96.	1170.	97.					$$$	$$$	
			Lead		-2.	-99999	94.	94.	95.	95.					$$$	$$$	
			Manganese		-0.5	-99999.	94.8	95.	95.7	96.					$$$	$$$	
			Molybdenum		-1.	-99999	47.	94.	47.	95.					$$$	$$$	
			Nickel		-1.	-99999	48.	95.	50.	99.					$$$	$$$	
			Phosphorus		-6.	-99999	471.	94.	475.	95.					$$$	$$$	
			Silver		-1.0	-99999.	47.7	95.	48.0	96.					$$$	$$$	

Zenon Number	Client	Client ID	Parameter	TS	Result	Dup.	Spike	% Rec.	Dup. Spk	% Rec.	Batch Date	Batch Code	Run Date	Run Code	Day Old	Day In	Analyst's Comments
			Thallium		-6.	-99999	89.	90.	87.	88.					$$$	$$$	
			Vanadium		-0.5	-99999.	47.3	95.	47.6	96.					$$$	$$$	
			Zinc		-0.5	-99999.	187.0	93.	188.0	94.					$$$	$$$	

13 Tests for 6010-S with an MDL of 20 mg/kg Validated By NR Control Chart Updated N/A IO Requirements met N/A

ICP AUTOSAMPLER RUN LOG

Analyst: NR U WW DQ Run Date: 010821 Run Code: NR01

R2	PASC I.D.	DILUTION	BATCH
1	BL0817	1x	STF1
2	BL0817S		
3	047289		
4	289D		
5	289S		
6	046459		
7	045690		
8	046727		
9	047057		
10	058		
11	081		
12	082		
13	047290		
14	291		
15	BL0821	2x	SSB1
16	BL0821S		
17	048134		
18	134D		
19	134S		
20	133		
21	135		
22	136		
23	137		
24	BL0820	100x	SSG2
25	BL0820S		
26	BL0820X		
27	046719		
28	719D		
29	719S		
30	719X		
31	720		
32	721		
33	047041 ~~722~~ NR.		
34	047042		
35	043		
36	044		
37	045		
38	046		
39	047		
40	048		
41	ERA 245		
42	BL0820	100x	SSG3
43	BL0820S		
44	BL0820X		
45	042499		
46	499D		
47	499S		
48	499X		
49	042500		
50	501		
51	502		
52	043205		
53	043206		
54	043207		
55	043210		
56	211		
57	212		
58	DC 212	500x	
59	BL0820	100x	SSA3
60	BL0820S		

29	STDLOW
38	STDAHIGH
30	STDBHIGH
16	ICVA
14	ICVB

R3	PASC I.D.	DILUTION	BATCH
1	046881	100x	SSA3
2	881D		
3	881S		
4	882		
5	883		
6	884		
7	885		
8	886		
9	887		
10	888		
11	890		
12	891		
13	BL0820	600x	MNA1
14	BL0820S		
15	BL0820X		
16	046524		
17	524D		
18	524S		
19	524X		
20	525		
21	526		
22	527		
23	528		
24	529		
25	530		
26	531		
27	532		
28	533		
29	534		
30	535		
31	536		
32	537		
33	538		
34	539		
35	540		
36	541		
37	542		
38	543		
39	DC 543	3000X	
40	544	600x	
41	BL0820	1x	STA2
42	BL0820S		
43	046691		
44	691D		
45	691S		
46	683		
47	692		
48	046388		
49	389		
50	390		
51	391		
52	046742		
53	743		
54	744		
55	BL0820	18	STA3
56	BL0820S		
57	046728		
58	728D		
59	728S		
60	729		

44	ICSA
38	ICSAB
91	CCVA
89	CCVB
106	CCB/ICB

(HF matrix standards are prepared fresh for each day's analysis as required)

R4	PASC I.D.	DILUTION	BATCH
1	046730	1x	STA3
2	745		
3	746		
4	747		
5	748		
6	046969		
7	970		
8	047401		
9	LEACH BLK		
10	BL0820	1x	STA1
11	BL0820S		
12	046386		
13	386D		
14	386S		
15	379		
16	387		
17	048274		
18	046656	100x	
19	657	10x	
20	659	10x	
21	660	1x	
22	662	10x	
23	BL0821	100x	SSA1
24	BL0821S		
25	ERA 245		
26	047397		
27	397D		
28	397S		
29	046972		
30	973		
31	974		
32	975		
33	047006		
34	007		
35	047304		
36	305		
37	388		
38	BL0821	100x	SSA2
39	BL0821S		
40	047389		
41	389D		
42	389S		
43	390		
44	391		
45	047177		
46	178		
47	047373		
48	374		
49	375		
50	376		
51	377		
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R5	PASC I.D.	DILUTION	BATCH
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Revision 1
Effective 001017

EPA 3050B SOIL PREPARATION LOG

DG3050B

Check List

- [Y] Digest Code done/Tubes labeled
- [Y] Samples weighed out
- [Y] Samples spiked
- [Y] Acids added
- [Y] Samples digested
- [HS] Peroxide step performed
- [ ] HCL acid added
- [ ] Samples bulked/centrifuged
- [ ] Rack order checked

MS

	#	Sample I.D.	B.Code	Init.Wt.	F. Vol.	Dil.	Comment
	1	BL 0820	SSG 2	0.5	50 ml.	100	47040
	2	BL S	"	"	"	"	(ICP Spike) 100 ul. Of "QCA" + 100 ul. Of "QCB"
	3	BL DS	"	"	"	"	(ICP Spike) 100 ul. Of "QCA" + 100 ul. Of "QCB"
	4	External Reference Material		"	"	"	
1	5	46719	"	0.504	"	"	
1	6	D	"	0.502	"	"	
1	7	S	"	0.497	"	"	(ICP Spike) 100 ul. Of "QCA" + 100 ul. Of "QCB"
1	8	DS	"	0.497	"	"	(ICP Spike) 100 ul. Of "QCA" + 100 ul. Of "QCB"
2	9	20	"	0.498	"	"	
3	10	21	"	0.501	"	"	
4	11	47041	"	0.505	"	"	
5	12	42	"	0.496	"	"	
	13	43	"	0.501	"	"	
7	14	44	"	0.499	"	"	
8	15	45	"	0.504	"	"	
9	16	46	"	0.498	"	"	
10	17	47	"	0.497	"	"	
11	18	48	"	0.503	"	"	
12	19		"	"	"	"	
13	20		"	"	"	"	
14	21		"	"	"	"	
15	22		"	"	"	"	
16	23		"	"	"	"	
17	24		"	"	"	"	
18	25		"	"	"	"	
19	26		"	"	"	"	
20	27		"	"	"	"	

Notes:

***DO NOT CENTRIFUGE THE FINAL DIGEST AT SPEEDS GREATER THAN 2000 RPM

Method: STD_MTD Sample Name: HCL Operator: NR
Run Time: 08/21/01 10:46:15
Comment: Standardization
Mode: CONC Corr. Factor: 1

Elem	Al	Sb	As	Ba	Be	Cd	Ca
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0273	-.0000	-.0009	-.0000	.00008	-.0004	.0066
SDev	.0058	.0374	.0073	.0012	.00025	.0022	.0057
%RSD	21.31	6018e6	792.0	6093000.	305.15	528.5	86.72
#1	.0267	-.0120	-.0039	-.0014	-.00017	-.0029	-.0000
#2	.0333	.0419	-.0062	.0007	.00008	.0009	.0099
#3	.0217	-.0299	.0074	.0007	.00034	.0007	.0099

Elem	Cr	Co	Cu	Fe	Pb	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0003	-.0007	.0001	-.0009	.0095	.0001	.0004
SDev	.0026	.0012	.0031	.0012	.0244	.0002	.0001
%RSD	964.9	173.4	2381.	129.9	255.6	173.2	34.63
#1	-.0027	-.0021	-.0034	-.0016	-.0067	-.0000	.0004
#2	.0022	.0000	.0013	.0005	.0376	.0004	.0006
#3	.0014	.0000	.0025	-.0016	-.0023	-.0000	.0004

Elem	Hg	Ni	K	Se	Ag	Na	Tl
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0013	.0000	-.1646	.0323	-.0011	Q-.0536	-.0429
SDev	.0088	.0058	.1347	.0321	.0023	.0206	.0276
%RSD	664.9	2486e6	81.82	99.10	208.3	38.49	64.33
#1	-.0035	-.0063	-.1646	.0014	-.0029	-.0417	-.0635
#2	-.0088	.0013	-.0299	Q.0654	.0015	-.0417	-.0115
#3	.0083	.0051	-.2994	.0303	-.0018	Q-.0774	-.0536

Elem	V	Zn	B	Bi	Mo	P	S
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0008	.0002	-.0019	-.0103	-.0014	.0186	-.0076
SDev	.0008	.0011	.0033	.0477	.0033	.0231	.0138
%RSD	100.0	468.4	173.4	462.6	231.0	124.5	182.5
#1	-.0000	.0014	.0019	Q-.0551	-.0033	-.0062	.0075
#2	.0008	-.0007	-.0038	.0399	-.0033	.0224	-.0106
#3	.0017	-.0000	-.0038	-.0158	.0024	.0396	-.0196

Elem	Si	Sr	Sn	Ti	Y	Zr
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0266	.0000	.0041	.0014	.0013	.0009
SDev	.0062	.0000	.0053	.0000	.0000	.0011
%RSD	23.41	86.72	128.6	.0000	.0009	130.9
#1	.0201	-.0000	.0081	.0014	.0013	-.0004
#2	.0272	.0000	.0062	.0014	.0013	.0011
#3	.0325	.0000	-.0019	.0014	.0013	.0018

Method: STD_MTD Standard: STDLOW
Run Time: 08/21/01 10:52:06

Elem	Al	Sb	As	Ba	Be	Cd	Ca
Avge	.0143	.0004	-.0003	.0000	.00067	.0001	.0005
SDev	.0037	.0004	.0006	.0000	.00012	.0006	.0001
%RSD	25.44	100.0	173.2	.0000	17.321	866.0	21.65
#1	.0176	.0004	.0000	.0000	.00060	.0004	.0006
#2	.0104	.0000	-.0010	.0000	.00060	-.0006	.0004
#3	.0150	.0008	.0000	.0000	.00080	.0004	.0006

Elem	Cr	Co	Cu	Fe	Fe	Pb	Mg
Avge	-.0000	-.0006	-.0003	-.0022	.0005	.0007	.0010
SDev	.0005	.0002	.0009	.0026	.0004	.0010	.0005
%RSD	3636e6	33.33	270.6	119.2	89.21	137.3	52.92
#1	.0002	-.0004	.0006	-.0026	.0008	-.0002	.0016
#2	.0004	-.0006	-.0012	.0006	.0000	.0006	.0006
#3	-.0006	-.0008	-.0004	-.0046	.0006	.0018	.0008

Elem	Mg	Mn	Hg	Ni	K	Se	Ag
Avge	.0004	.0003	-.0009	-.0009	.0023	.0018	.0045
SDev	.0000	.0001	.0016	.0014	.0015	.0021	.0003
%RSD	.0000	43.30	188.0	155.0	64.33	116.0	6.739
#1	.0004	.0002	-.0020	-.0026	.0032	.0042	.0042
#2	.0004	.0004	-.0016	.0000	.0006	.0008	.0046
#3	.0004	.0002	.0010	-.0002	.0032	.0004	.0048

Elem	Na	Tl	V	Zn	B	Bi	Mo
Avge	.0223	.0025	-.0009	.0001	-.0001	.0049	.0003
SDev	.0007	.0010	.0004	.0003	.0003	.0034	.0005
%RSD	3.145	38.94	48.04	458.3	229.1	69.32	173.2
#1	.0230	.0032	-.0004	-.0002	.0002	.0010	.0000
#2	.0224	.0030	-.0012	.0004	-.0002	.0072	.0000
#3	.0216	.0014	-.0010	.0000	-.0004	.0066	.0008

Elem	P	S	Si	Sr	Sn	Ti	Y
Avge	.0071	.0001	.0061	-.0001	-.0012	-.0001	-.0004
SDev	.0045	.0027	.0016	.0001	.0030	.0002	.0003
%RSD	63.62	2014.	26.36	173.2	251.7	173.2	86.60
#1	.0032	.0032	.0080	.0000	-.0008	.0000	-.0002
#2	.0120	-.0018	.0052	-.0002	.0016	.0000	-.0008
#3	.0060	-.0010	.0052	.0000	-.0044	-.0004	-.0002

Elem	Zr
Avge	.0004
SDev	.0007
%RSD	173.2
#1	.0000
#2	.0000
#3	.0012

Method: STD_MTD Standard: STDAHIGH
Run Time: 08/21/01 10:56:15

Elem	Al	As	Ba	Be	Cd	Ca	Cr
Avge	5.295	.4829	2.018	4.3982	.9236	4.381	2.637
SDev	.048	.0034	.026	.0312	.0043	.022	.016
%RSD	.9073	.7105	1.293	.70992	.4690	.5011	.5936
#1	5.270	.4824	2.004	4.3840	.9230	4.363	2.624
#2	5.350	.4866	2.048	4.4340	.9282	4.406	2.654
#3	5.264	.4798	2.001	4.3766	.9196	4.374	2.631

Elem	Co	Cu	Fe	Pb	Mg	Mn	Hg
Avge	4.032	5.420	6.451	1.005	4.416	8.434	.6853
SDev	.026	.053	.046	.005	.038	.059	.0257
%RSD	.6459	.9865	.7056	.4901	.8641	.6976	3.745
#1	4.012	5.394	6.420	1.000	4.398	8.400	.7144
#2	4.062	5.481	6.503	1.010	4.460	8.502	.6758
#3	4.023	5.384	6.429	1.006	4.390	8.401	.6658

Elem	Ni	K	Se	Ag	Na	Tl	V
Avge	1.190	.4675	.5475	1.941	2.408	.9499	1.350
SDev	.009	.0045	.0043	.016	.023	.0069	.010
%RSD	.7573	.9569	.7855	.8215	.9682	.7300	.7318
#1	1.191	.4624	.5438	1.934	2.398	.9422	1.344
#2	1.199	.4706	.5522	1.959	2.435	.9556	1.361
#3	1.181	.4696	.5464	1.930	2.391	.9520	1.344

Elem	Zn	B	Bi	P	Sr	Y
Avge	6.082	.7434	.5157	16.66	1.349	2.170
SDev	.033	.0064	.0008	.11	.016	.022
%RSD	.5488	.8630	.1615	.6830	1.198	1.012
#1	6.063	.7400	.5166	16.78	1.341	2.158
#2	6.120	.7508	.5150	16.66	1.367	2.195
#3	6.062	.7394	.5154	16.55	1.338	2.156

Method: STD_MTD Standard: STDBHIGH
Run Time: 08/21/01 11:00:56

Elem	Sb	Fe	Mg	Mo	S	Si	Sn
Avge	.1723	4.954	6.264	.8376	.9901	2.562	4.753
SDev	.0033	.018	.096	.0149	.0159	.047	.055
%RSD	1.923	.3534	1.527	1.785	1.606	1.825	1.166
#1	.1688	4.937	6.163	.8220	.9742	2.512	4.697
#2	.1726	4.955	6.275	.8390	.9900	2.572	4.755
#3	.1754	4.972	6.354	.8518	1.006	2.604	4.808

Elem	Ti	Zr
Avge	2.187	6.118
SDev	.036	.094
%RSD	1.654	1.544
#1	2.149	6.020
#2	2.189	6.126
#3	2.221	6.208

Analysis Report QC Standard 08/21/01 11:09:06 AM page 1

Method: STD_MTD Sample Name: ICVA Operator: NR
Run Time: 08/21/01 11:05:06
Comment: Standardization
Mode: CONC Corr. Factor: 1

Elem	Al	Sb	As	Ba	Be	Cd	Ca
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	9.794	.0795	2.470	4.918	2.4551	2.446	51.30
SDev	.049	.0331	.036	.047	.0264	.043	.70
%RSD	.5013	41.61	1.465	.9461	1.0769	1.753	1.369
#1	9.757	.0524	2.428	4.864	2.4397	2.447	50.56
#2	9.850	.0698	2.491	4.949	2.4856	2.489	51.39
#3	9.776	.1164	2.490	4.941	2.4400	2.403	51.95

Elem	Cr	Co	Cu	Fe	Pb	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.018	5.051	4.939	10.03	5.042	46.93	4.929
SDev	.064	.080	.050	.09	.066	.38	.052
%RSD	1.274	1.575	1.020	.8485	1.315	.8055	1.061
#1	4.947	4.972	4.880	9.936	4.966	46.55	4.907
#2	5.032	5.052	4.968	10.11	5.082	47.30	4.989
#3	5.073	5.131	4.967	10.04	5.080	46.95	4.892

Elem	Hg	Ni	K	Se	Ag	Na	Tl
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.506	2.523	49.05	2.401	2.461	48.80	4.965
SDev	.085	.013	.55	.039	.022	.49	.113
%RSD	5.618	.5308	1.126	1.644	.8802	1.005	2.277
#1	1.602	2.508	48.42	2.391	2.436	48.31	5.047
#2	1.473	2.526	49.28	2.444	2.477	49.29	5.013
#3	1.442	2.534	49.45	2.367	2.469	48.80	4.836

Elem	V	Zn	B	Bi	Mo	P	S
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.447	9.998	4.993	2.517	.0045	24.54	.0547
SDev	.037	.145	.053	.037	.0000	.25	.0195
%RSD	1.516	1.450	1.058	1.482	.3074	1.009	35.65
#1	2.444	9.845	4.932	2.474	.0045	24.52	.0740
#2	2.486	10.02	5.021	2.536	.0045	24.80	.0350
#3	2.412	10.13	5.026	2.540	.0045	24.31	.0552

Elem	Si	Sr	Sn	Ti	Y	Zr
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0115	2.421	-.0016	.0024	4.852	-.0117
SDev	.0033	.041	.0115	.0000	.036	.0005
%RSD	28.39	1.701	740.7	.0000	.7506	4.283
#1	.0151	2.419	.0108	.0024	4.812	-.0121
#2	.0089	2.463	-.0036	.0024	4.884	-.0118
#3	.0104	2.381	-.0120	.0024	4.858	-.0111

Method: STD_MTD Sample Name: ICVB Operator: NR
Run Time: 08/21/01 11:10:07
Comment: Standardization
Mode: CONC Corr. Factor: 1

Elem	Al	Sb	As	Ba	Be	Cd	Ca
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0530	2.521	-.0107	-.0007	-.00052	-.0024	-.0473
SDev	.0220	.054	.0211	.0011	.00023	.0011	.0053
%RSD	41.53	2.144	197.6	173.2	43.630	44.64	11.12
#1	.0360	2.583	-.0170	.0000	-.00029	-.0016	-.0443
#2	.0779	2.484	-.0279	.0000	-.00075	-.0036	-.0443
#3	.0451	2.496	.0129	-.0020	-.00052	-.0020	-.0534

Elem	Cr	Co	Cu	Fe	Pb	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0007	.0077	.0020	50.43	-.0015	5.028	-.0014
SDev	.0012	.0003	.0015	.15	.0191	.027	.0001
%RSD	159.9	3.582	75.78	.3021	1275.	.5429	9.823
#1	-.0020	.0080	.0006	50.57	-.0115	5.003	-.0012
#2	.0003	.0075	.0036	50.45	-.0136	5.057	-.0014
#3	-.0005	.0075	.0017	50.27	.0205	5.023	-.0014

Elem	Hg	Ni	K	Se	Ag	Na	Tl
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0108	-.0039	-.0302	-.0357	.0333	-.0366	-.2269
SDev	.0077	.0100	.3432	.0230	.0031	.0366	.0212
%RSD	72.11	255.7	1137.	64.28	9.333	100.1	9.355
#1	.0195	-.0120	-.3732	-.0615	.0362	-.0785	-.2255
#2	.0078	.0073	.3132	-.0284	.0337	-.0114	-.2488
#3	.0049	-.0070	-.0306	-.0173	.0301	-.0197	-.2064

Elem	V	Zn	B	Bi	Mo	P	S
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0046	-.0092	.0179	-.1017	2.503	.0121	4.917
SDev	.0015	.0010	.0027	.0271	.025	.0083	.066
%RSD	33.72	11.37	15.01	26.66	.9897	68.76	1.352
#1	-.0051	-.0094	.0153	-.0717	2.477	.0099	4.864
#2	-.0058	-.0101	.0206	-.1245	2.525	.0051	4.991
#3	-.0028	-.0081	.0179	-.1089	2.508	.0212	4.894

Elem	Si	Sr	Sn	Ti	Y	Zr
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.071	.0002	5.066	4.926	.0009	4.985
SDev	.048	.0000	.032	.066	.0000	.030
%RSD	.9527	.0213	.6367	1.339	.0012	.6003
#1	5.020	.0002	5.102	4.854	.0009	4.967
#2	5.116	.0002	5.054	4.984	.0009	5.020
#3	5.075	.0002	5.041	4.939	.0009	4.969

Method: STD_MTD Sample Name: HCL Operator: NR
Run Time: 08/21/01 11:14:15
Comment: Standardization
Mode: CONC Corr. Factor: 1

Elem	Al	Sb	As	Ba	Be	Cd	Ca
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0053	-.0019	.0128	-.0007	.00000	-.0006	-.0000
SDev	.0199	.0220	.0296	.0011	.00013	.0021	.0053
%RSD	371.6	1136.	230.9	173.2	3425.3	377.4	60900.
#1	.0262	-.0116	.0376	.0000	-.00007	.0013	-.0031
#2	-.0135	-.0175	.0207	-.0000	.00015	-.0029	.0061
#3	.0033	.0233	-.0199	-.0020	-.00007	-.0001	-.0031

Elem	Cr	Co	Cu	Fe	Pb	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0020	-.0005	-.0001	.0027	-.0140	.0001	.0001
SDev	.0016	.0005	.0007	.0034	.0091	.0002	.0004
%RSD	78.08	99.80	600.0	127.1	64.68	173.2	458.8
#1	-.0038	-.0000	-.0009	.0066	-.0234	.0000	.0002
#2	-.0008	-.0005	-.0001	.0004	-.0053	.0003	.0004
#3	-.0015	-.0010	.0006	.0010	-.0133	.0000	-.0003

Elem	Hg	Ni	K	Se	Ag	Na	Tl
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0051	-.0022	.3719	-.0263	.0007	Q-.1398	-.0452
SDev	.0003	.0010	.1734	.0092	.0000	.0145	.0358
%RSD	6.675	43.30	46.63	35.10	.1603	10.39	79.05
#1	.0055	-.0011	.1859	-.0165	.0007	Q-.1314	Q-.0862
#2	.0049	-.0028	.4005	-.0349	.0007	Q-.1565	-.0290
#3	.0049	-.0028	.5292	-.0275	.0007	Q-.1314	-.0205

Elem	V	Zn	B	Bi	Mo	P	S
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0015	.0004	.0054	-.0235	-.0016	-.0194	.0236
SDev	.0015	.0007	.0041	.0233	.0083	.0156	.0249
%RSD	104.1	146.9	76.35	99.43	519.5	80.24	105.8
#1	-.0020	.0004	.0099	-.0072	.0080	-.0068	Q.0512
#2	.0002	-.0002	.0018	-.0130	-.0064	-.0146	.0168
#3	-.0027	.0011	.0045	Q-.0502	-.0064	-.0368	.0027

Elem	Si	Sr	Sn	Ti	Y	Zr
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0214	.0002	.0011	.0006	.0009	.0031
SDev	.0098	.0000	.0096	.0018	.0016	.0014
%RSD	45.70	.0214	857.7	300.0	173.2	44.61
#1	.0323	.0002	-.0038	.0024	.0018	.0046
#2	.0183	.0002	.0122	.0006	-.0009	.0026
#3	.0136	.0002	-.0051	-.0012	.0018	.0020

Analysis Report QC Standard 08/21/01 11:24:04 AM

Method: STD_MTD Sample Name: ICB Operator: NR
Run Time: 08/21/01 11:20:06
Comment: Standardization
Mode: CONC Corr. Factor: 1

Elem	Al	Sb	As	Ba	Be	Cd	Ca
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0099	-.0097	.0135	.0000	.00008	.0009	-.0046
SDev	.0132	.0299	.0214	.0000	.00013	.0030	.0115
%RSD	133.6	307.9	158.8	251.2	171.13	334.3	251.2
#1	.0147	-.0175	Q.0377	.0000	.00016	Q-.0020	-.0168
#2	.0200	.0233	-.0030	-.0000	.00015	.0008	.0061
#3	-.0051	Q-.0349	.0057	.0000	-.00007	Q.0039	-.0030

Elem	Cr	Co	Cu	Fe	Pb	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0005	.0002	.0011	.0008	-.0000	.0000	.0002
SDev	.0023	.0015	.0011	.0007	.0182	.0000	.0003
%RSD	458.5	917.7	96.23	86.58	84640.	.0000	115.5
#1	-.0015	.0005	-.0001	.0004	-.0194	.0000	.0004
#2	.0030	.0015	.0017	.0017	.0026	.0000	-.0001
#3	-.0000	-.0015	.0017	.0004	.0167	.0000	.0004

Elem	Hg	Ni	K	Se	Ag	Na	Tl
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0041	.0062	.6007	-.0196	.0017	-.0000	-.0332
SDev	.0022	.0149	.2440	.0094	.0018	.0048	.0139
%RSD	54.13	242.5	40.62	48.08	103.9	348900.	41.84
#1	.0066	-.0070	.5292	-.0220	.0038	.0028	-.0184
#2	.0025	.0031	.8724	-.0092	.0007	.0028	-.0353
#3	.0031	Q.0224	.4005	-.0275	.0007	-.0056	-.0459

Elem	V	Zn	B	Bi	Mo	P	S
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0002	-.0002	.0063	-.0241	-.0024	-.0156	.0128
SDev	.0011	.0006	.0016	.0596	.0007	.0240	.0175
%RSD	458.3	251.9	24.75	247.3	28.86	153.7	136.2
#1	-.0012	-.0002	.0045	.0358	-.0016	-.0350	.0029
#2	.0010	-.0009	.0072	-.0248	-.0028	.0112	.0026
#3	-.0005	.0003	.0072	Q-.0834	-.0028	-.0230	.0330

Elem	Si	Sr	Sn	Ti	Y	Zr
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0089	.0002	-.0028	.0000	-.0000	.0011
SDev	.0045	.0000	.0035	.0011	.0016	.0030
%RSD	50.94	.0465	124.9	2721e6	18e6	277.1
#1	-.0115	.0002	-.0000	-.0012	.0009	-.0007
#2	-.0037	.0002	-.0068	.0006	.0009	.0046
#3	-.0115	.0002	-.0017	.0006	Q-.0018	-.0007

Analysis Report QC Standard 08/21/01 11:28:12 AM

Method: STD_MTD Sample Name: CRI Operator: NR
Run Time: 08/21/01 11:24:11
Comment: Standardization
Mode: CONC Corr: Factor: 1

Elem	Al	Sb	As	Ba	Be	Cd	Ca
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1591	.1435	.0999	.0053	.00495	.0113	.5204
SDev	.0097	.0089	.0054	.0011	.00013	.0001	.0027
%RSD	6.085	6.193	5.380	21.66	2.6477	.7230	.5093
#1	.1703	.1513	.1006	.0059	.00488	.0113	.5174
#2	.1535	.1338	.1049	Q.0040	.00510	.0112	.5220
#3	.1535	.1455	.0942	.0059	.00487	.0114	.5220

Elem	Cr	Co	Cu	Fe	Pb	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0200	.0539	.0303	.0513	.1030	.2537	.0252
SDev	.0019	.0013	.0026	.0016	.0023	.0012	.0001
%RSD	9.557	2.315	8.652	3.201	2.232	.4764	.5432
#1	.0182	.0541	.0279	.0531	.1043	.2529	.0253
#2	.0197	.0551	.0298	.0500	.1043	.2551	.0251
#3	.0220	.0526	.0331	.0506	.1003	.2532	.0253

Elem	Hg	Ni	K	Se	Ag	Na	Tl
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0023	.0498	2.847	.2813	Q.0031	.5031	.2867
SDev	.0019	.0070	.043	.0262	.0022	.0048	.0204
%RSD	82.24	14.03	1.507	9.325	69.04	.9622	7.130
#1	.0031	.0476	2.804	.3101	Q.0038	.5058	.2782
#2	.0037	.0577	2.890	.2587	Q.0007	.5058	.3100
#3	.0001	.0442	2.847	.2752	Q.0048	.4975	.2719

Elem	V	Zn	B	Bi	Mo	P	S
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0252	.0259	Q.1346	Q.2183	.0490	.2496	.3138
SDev	.0011	.0011	.0041	.0318	.0025	.0085	.0191
%RSD	4.492	4.458	3.058	14.56	5.076	3.394	6.091
#1	.0239	.0272	Q.1310	.2431	.0498	.2406	.3286
#2	.0254	.0252	Q.1337	Q.2294	.0510	.2574	.3205
#3	.0262	.0252	Q.1391	Q.1825	.0462	.2508	.2922

Elem	Si	Sr	Sn	Ti	Y	Zr
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.5038	.0047	.2633	.0500	.0058	.0415
SDev	.0024	.0000	.0089	.0000	.0005	.0053
%RSD	.4744	.0006	3.392	.0000	9.114	12.67
#1	.5033	.0047	.2667	.0500	Q.0065	Q.0360
#2	.5018	.0047	.2532	.0500	.0055	.0422
#3	.5065	.0047	.2700	.0500	.0055	.0464

Method: STD_MTD Sample Name: ICSA Operator: NR
Run Time: 08/21/01 11:28:19
Comment: Standardization
Mode: CONC Corr. Factor: 1

Elem	Al	Sb	As	Ba	Be	Cd	Ca
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	293.4	-.0388	Q-.0550	.0005	-.00009	-.0001	480.8
SDev	.7	.0470	.0329	.0000	.00000	.0046	1.6
%RSD	.2241	121.2	59.96	.8791	2.1826	7653.	.3292
#1	292.7	Q-.0931	Q-.0903	.0005	-.00009	.0005	479.2
#2	294.0	-.0116	-.0250	.0005	-.00009	Q-.0049	482.3
#3	293.5	-.0116	Q-.0496	.0005	-.00009	.0043	481.1

Elem	Cr	Co	Cu	Fe	Pb	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0017	-.0010	-.0023	202.2	-.0147	479.9	-.0072
SDev	.0020	.0011	.0007	1.8	.0025	1.2	.0002
%RSD	117.3	110.3	31.58	.9097	17.14	.2504	2.591
#1	-.0010	-.0021	-.0031	201.0	-.0119	478.6	-.0071
#2	-.0041	.0001	-.0016	204.3	-.0167	481.0	-.0070
#3	-.0002	-.0011	-.0023	201.2	-.0155	480.1	-.0074

Elem	Hg	Ni	K	Se	Ag	Na	Tl
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0111	Q-.0017	.5001	-.0749	-.0071	-.1828	-.0363
SDev	.0058	.0092	.3888	.0441	.0003	.0053	.0352
%RSD	51.87	550.8	77.74	58.83	4.215	2.910	96.76
#1	-.0150	.0073	.0521	-.0299	-.0073	-.1767	-.0370
#2	-.0139	Q-.0112	.7498	-.0767	-.0073	-.1864	-.0009
#3	-.0045	Q-.0011	.6984	-.1180	-.0067	-.1854	-.0712

Elem	V	Zn	B	Bi	Mo	P	S
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0057	.0021	-.0027	-.0757	.0119	.0361	.2172
SDev	.0008	.0005	.0056	.0523	.0025	.0196	.0247
%RSD	13.71	24.44	208.4	69.02	20.78	54.43	11.36
#1	.0057	.0027	.0018	Q-.1333	.0147	.0352	.1909
#2	.0065	.0017	-.0090	-.0312	.0111	.0169	.2210
#3	.0049	.0020	-.0009	-.0627	.0099	.0562	.2398

Elem	Si	Sr	Sn	Ti	Y	Zr
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0209	.0172	.0057	.0061	.0010	.0071
SDev	.0065	.0004	.0081	.0000	.0016	.0002
%RSD	31.22	2.568	141.7	.0000	166.3	2.665
#1	.0229	.0169	-.0007	.0061	-.0009	.0069
#2	.0261	.0177	.0030	.0061	.0019	.0072
#3	.0136	.0169	.0149	.0061	.0019	.0072

Analysis Report QC Standard 08/21/01 11:37:00 AM

Method: STD_MTD Sample Name: ICSA Operator: NR
Run Time: 08/21/01 11:32:59
Comment: Standardization
Mode: CONC Corr. Factor: 1

Elem	Al	Sb	As	Ba	Be	Cd	Ca
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	293.1	.0039	-.0274	-.0008	-.00001	.0036	480.0
SDev	1.7	.0396	.0235	.0011	.00013	.0024	3.0
%RSD	.5766	1021.	85.63	145.9	1712.8	66.87	.6222
#1	292.2	.0349	-.0380	-.0014	-.00008	.0063	477.0
#2	295.0	-.0407	-.0005	.0005	-.00008	.0024	483.0
#3	292.0	.0175	Q-.0438	-.0014	.00014	.0020	480.1

Elem	Cr	Co	Cu	Fe	Pb	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0033	-.0025	-.0041	201.9	-.0307	479.7	-.0076
SDev	.0008	.0015	.0017	1.6	.0033	2.9	.0002
%RSD	25.29	59.54	40.99	.8135	10.66	.6040	3.278
#1	-.0041	-.0035	-.0057	200.2	-.0327	477.9	-.0078
#2	-.0024	-.0031	-.0042	202.1	-.0269	483.1	-.0073
#3	-.0033	-.0008	-.0023	203.5	-.0324	478.2	-.0076

Elem	Hg	Ni	K	Se	Ag	Na	Tl
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0029	Q-.0025	.8283	-.0583	-.0093	-.1967	-.0328
SDev	.0085	.0072	.7457	.0099	.0015	.0050	.0589
%RSD	292.2	287.4	90.02	17.02	16.62	2.551	179.6
#1	.0125	.0039	.3498	-.0664	-.0093	-.1931	-.0985
#2	.0002	Q-.0011	.4476	-.0611	-.0078	-.1945	.0154
#3	-.0039	Q-.0104	1.687	-.0472	-.0109	Q-.2024	-.0153

Elem	V	Zn	B	Bi	Mo	P	S
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0030	.0019	-.0027	-.0732	.0115	.0382	.2071
SDev	.0016	.0011	.0068	.0579	.0018	.0128	.0710
%RSD	53.09	60.30	252.1	79.16	15.62	33.40	34.29
#1	.0012	.0008	-.0036	Q-.1393	.0111	.0518	.1730
#2	.0035	.0031	.0045	-.0311	.0099	.0364	.1596
#3	.0043	.0018	-.0090	-.0492	.0135	.0265	Q.2888

Elem	Si	Sr	Sn	Ti	Y	Zr
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0156	.0169	.0041	.0061	-.0018	.0069
SDev	.0039	.0000	.0092	.0000	.0016	.0006
%RSD	25.17	.1767	222.7	.0000	88.17	8.248
#1	.0151	.0169	-.0025	.0061	-.0009	.0062
#2	.0198	.0169	.0146	.0061	Q-.0036	.0072
#3	.0120	.0169	.0003	.0061	-.0009	.0072

Analysis Report QC Standard 08/21/01 11:41:24 AM

Method: STD_MTD Sample Name: ICSAB Operator: NR
Run Time: 08/21/01 11:37:23
Comment: Standardization
Mode: CONC Corr. Factor: 1

Elem	Al	Sb	As	Ba	Be	Cd	Ca
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	290.5	.9775	.9001	.4744	.46494	.9670	475.0
SDev	1.1	.0116	.0050	.0034	.00142	.0027	1.3
%RSD	.3913	1.190	.5523	.7231	.30531	.2783	.2664
#1	290.1	.9659	.9035	.4724	.46449	.9695	474.4
#2	291.7	.9775	.8944	.4784	.46654	.9641	476.5
#3	289.6	.9891	.9023	.4724	.46381	.9673	474.2

Elem	Cr	Co	Cu	Fe	Pb	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.4584	.4638	.4787	201.2	.9145	475.9	.4535
SDev	.0013	.0025	.0040	.3	.0170	1.5	.0018
%RSD	.2818	.5402	.8242	.1617	1.865	.3208	.3995
#1	.4598	.4638	.4763	201.4	.9340	475.0	.4523
#2	.4577	.4663	.4833	200.8	.9024	477.7	.4555
#3	.4576	.4613	.4766	201.4	.9071	475.1	.4525

Elem	Hg	Ni	K	Se	Ag	Na	Tl
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0092	.9292	1.079	.9041	.9650	-.1930	-.0201
SDev	.0099	.0206	.074	.0157	.0075	.0082	.0576
%RSD	107.8	2.219	6.835	1.740	.7771	4.253	286.3
#1	-.0160	.9468	1.035	.9033	.9577	-.1929	-.0821
#2	-.0137	.9342	1.038	.9202	.9727	-.1848	.0318
#3	.0022	.9065	1.164	.8887	.9644	-.2012	-.0101

Elem	V	Zn	B	Bi	Mo	P	S
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.4701	.9648	-.0098	-.0865	.0144	.0611	.1871
SDev	.0017	.0038	.0108	.0054	.0037	.0036	.0988
%RSD	.3618	.3974	110.5	6.193	25.55	5.862	52.82
#1	.4691	.9619	.0010	-.0847	.0135	.0602	.1996
#2	.4721	.9691	-.0205	-.0824	.0184	.0580	.2790
#3	.4691	.9634	-.0098	-.0926	.0112	.0650	.0826

Elem	Si	Sr	Sn	Ti	Y	Zr
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0167	.0171	-.0072	.0061	-.0009	.0013
SDev	.0056	.0004	.0017	.0000	.0028	.0011
%RSD	33.80	2.461	23.64	.0000	309.5	86.60
#1	.0120	.0169	-.0084	.0061	-.0037	.0020
#2	.0229	.0169	-.0052	.0061	-.0009	.0020
#3	.0151	.0176	-.0079	.0061	.0019	-.0000

Analysis Report QC Standard 08/21/01 11:47:19 AM

Method: STD_MTD Sample Name: STDAHIGH Operator: NR
Run Time: 08/21/01 11:43:18
Comment: Standardization
Mode: CONC Corr. Factor: 1

Elem	Al	Sb	As	Ba	Be	Cd	Ca
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	19.41	.1222	5.005	9.656	4.8902	4:917	98.00
SDev	.15	.0058	.046	.098	.0436	.039	.93
%RSD	.7700	4.762	.9133	1.013	.89131	.8012	.9520
#1	19.25	.1280	4.959	9.561	4.8415	4.874	96.97
#2	19.44	.1164	5.005	9.649	4.9034	4.924	98.23
#3	19.54	.1222	5.051	9.756	4.9256	4.952	98.79

Elem	Cr	Co	Cu	Fe	Pb	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	9.800	9.794	9.689	19.56	9.863	97.20	9.829
SDev	.091	.093	.091	.16	.066	.89	.093
%RSD	.9259	.9465	.9368	.8288	.6684	.9130	.9430
#1	9.702	9.693	9.595	19.39	9.790	96.25	9.728
#2	9.817	9.813	9.695	19.59	9.883	97.34	9.849
#3	9.881	9.876	9.776	19.71	9.917	98.01	9.910

Elem	Hg	Ni	K	Se	Ag	Na	Tl
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.637	4.890	97.11	4.909	4.855	96.98	9.878
SDev	.082	.068	.93	.054	.038	.96	.058
%RSD	4.994	1.388	.9559	1.102	.7877	.9915	.5862
#1	1.545	4.812	96.23	4.855	4.814	95.95	9.814
#2	1.666	4.928	97.01	4.910	4.860	97.14	9.925
#3	1.700	4.930	98.08	4.963	4.890	97.85	9.895

Elem	V	Zn	B	Bi	Mo	P	S
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.896	19.53	9.755	4.907	.0031	49.04	.1262
SDev	.046	.16	.130	.107	.0025	.41	.0475
%RSD	.9495	.8299	1.336	2.173	78.63	.8297	37.61
#1	4.847	19.36	9.613	4.874	.0059	48.58	.0993
#2	4.902	19.55	9.785	4.821	.0023	49.19	.1810
#3	4.940	19.68	9.868	5.027	.0012	49.36	.0983

Elem	Si	Sr	Sn	Ti	Y	Zr
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0193	4.851	-.0125	.0055	9.677	-.0234
SDev	.0096	.049	.0093	.0011	.077	.0013
%RSD	49.54	1.002	73.93	19.25	.7981	5.639
#1	.0276	4.803	-.0174	.0061	9.604	-.0219
#2	.0089	4.849	-.0018	.0043	9.670	-.0242
#3	.0214	4.900	-.0183	.0061	9.758	-.0242

Analysis Report QC Standard 08/21/01 11:52:21 AM

Method: STD_MTD Sample Name: STDBHIGH Operator: NR
Run Time: 08/21/01 11:48:20
Comment: Standardization
Mode: CONC Corr. Factor: 1

Elem	Al	Sb	As	Ba	Be	Cd	Ca
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1384	4.948	-.0010	.0000	-.00098	-.0007	-.0779
SDev	.0051	.054	.0025	.0000	.00000	.0042	.0026
%RSD	3.663	1.086	257.1	3.395	.00845	601.4	3.395
#1	.1440	4.917	-.0038	.0000	-.00098	.0023	-.0763
#2	.1371	5.010	.0005	.0000	-.00098	-.0055	-.0809
#3	.1341	4.917	.0004	.0000	-.00098	.0011	-.0763

Elem	Cr	Co	Cu	Fe	Pb	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0010	.0165	.0074	101.0	.0123	10.01	-.0019
SDev	.0007	.0025	.0013	1.2	.0080	.03	.0002
%RSD	76.90	15.04	17.56	1.204	65.25	.2829	11.80
#1	-.0009	.0137	.0073	99.83	.0123	9.995	-.0021
#2	-.0017	.0180	.0062	101.1	.0043	10.04	-.0016
#3	-.0002	.0179	.0087	102.3	.0203	9.993	-.0019

Elem	Hg	Ni	K	Se	Ag	Na	Tl
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0025	.0006	.6980	-.0636	.0665	.0135	-.3838
SDev	.0097	.0099	.4650	.0072	.0003	.0255	.0276
%RSD	383.2	1768.	66.61	11.30	.4467	189.2	7.197
#1	.0066	.0090	.3090	-.0711	.0661	-.0085	-.3586
#2	.0096	.0031	1.213	-.0569	.0667	.0414	-.3796
#3	-.0086	-.0104	.5721	-.0628	.0667	.0076	-.4133

Elem	V	Zn	B	Bi	Mo	P	S
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0029	-.0153	.0134	-.2079	4.963	.0276	10.01
SDev	.0000	.0007	.0095	.0370	.028	.0168	.01
%RSD	1.114	4.853	70.41	17.79	.5676	60.78	.0911
#1	-.0030	-.0146	.0233	-.2497	4.933	.0460	10.02
#2	-.0029	-.0153	.0125	-.1949	4.989	.0236	10.01
#3	-.0029	-.0161	.0045	-.1792	4.965	.0132	10.00

Elem	Si	Sr	Sn	Ti	Y	Zr
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	9.939	.0002	10.06	9.851	-.0000	9.830
SDev	.060	.0000	.07	.029	.0016	.035
%RSD	.6018	.0107	.7147	.2984	1025000.	.3570
#1	9.870	.0002	10.00	9.830	-.0009	9.804
#2	9.968	.0002	10.14	9.884	.0018	9.870
#3	9.978	.0002	10.04	9.839	-.0009	9.816

Analysis Report QC Standard 08/21/01 11:56:26 AM

Method: STD_MTD Sample Name: HCL Operator: NR
Run Time: 08/21/01 11:52:28
Comment: Standardization
Mode: CONC Corr. Factor: 1

Elem	Al	Sb	As	Ba	Be	Cd	Ca
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0148	-.0194	.0177	-.0007	.00008	.0012	-.0015
SDev	.0092	.0067	.0106	.0011	.00013	.0022	.0070
%RSD	62.53	34.64	59.48	173.2	159.48	181.2	453.2
#1	.0201	-.0116	.0056	-.0020	.00016	-.0005	-.0076
#2	.0041	-.0233	.0249	.0000	-.00007	.0037	-.0030
#3	.0201	-.0233	.0227	-.0000	.00016	.0004	.0061

Elem	Cr	Co	Cu	Fe	Pb	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0018	-.0013	-.0001	.0048	-.0067	.0002	.0002
SDev	.0004	.0017	.0017	.0011	.0162	.0002	.0002
%RSD	24.75	131.6	1375.	22.59	241.7	86.60	150.1
#1	-.0023	-.0015	-.0016	.0054	-.0214	.0003	.0002
#2	-.0015	-.0030	-.0005	.0054	.0107	.0000	.0004
#3	-.0015	.0005	.0017	.0035	-.0094	.0003	-.0001

Elem	Hg	Ni	K	Se	Ag	Na	Tl
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0041	.0014	-.1287	-.0318	-.0003	Q-.1202	-.0438
SDev	.0009	.0037	.3044	.0328	.0018	.0194	.0185
%RSD	21.80	261.5	236.5	103.3	516.9	16.11	42.20
#1	-.0051	.0039	-.4577	Q-.0679	.0007	Q-.1314	-.0523
#2	-.0039	-.0028	.1430	-.0239	-.0024	Q-.1314	-.0226
#3	-.0033	.0031	-.0715	-.0037	.0007	Q-.0978	-.0565

Elem	V	Zn	B	Bi	Mo	P	S
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0025	-.0004	.0054	-.0189	.0064	-.0166	.0142
SDev	.0011	.0004	.0056	.0137	.0055	.0136	.0224
%RSD	45.83	86.75	104.0	72.42	86.61	81.98	157.9
#1	-.0035	-.0009	-.0009	-.0345	.0127	-.0320	.0351
#2	-.0027	-.0002	.0072	-.0130	.0032	-.0116	-.0094
#3	-.0012	-.0002	.0099	-.0091	.0032	-.0062	.0168

Elem	Si	Sr	Sn	Ti	Y	Zr
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0323	.0002	.0039	.0006	.0009	.0046
SDev	.0159	.0000	.0086	.0018	.0000	.0020
%RSD	49.11	.0282	219.0	300.0	.0015	44.61
#1	.0496	.0002	.0101	.0024	.0009	.0069
#2	.0292	.0002	.0076	.0006	.0009	.0029
#3	.0183	.0002	-.0059	-.0012	.0009	.0039

Analysis Report QC Standard 08/21/01 12:00:31 PM

Method: STD_MTD Sample Name: HCL Operator: NR
Run Time: 08/21/01 11:56:32
Comment: Standardization
Mode: CONC Corr. Factor: 1

Elem	Al	Sb	As	Ba	Be	Cd	Ca
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0127	.0116	.0028	-.0000	-.00000	-.0008	.0015
SDev	.0175	.0058	.0118	.0000	.00013	.0011	.0121
%RSD	137.6	50.00	423.3	796.6	164e6	145.2	796.6
#1	.0246	.0058	.0141	-.0000	-.00008	.0005	.0152
#2	.0208	.0116	-.0094	.0000	.00015	-.0013	-.0076
#3	-.0073	.0175	.0036	.0000	-.00007	-.0015	-.0030

Elem	Cr	Co	Cu	Fe	Pb	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0025	-.0008	.0006	.0019	.0060	.0001	.0001
SDev	.0012	.0010	.0016	.0009	.0024	.0004	.0001
%RSD	45.84	124.9	261.5	50.92	39.28	346.4	173.4
#1	-.0015	-.0020	-.0005	.0010	.0046	.0003	.0002
#2	-.0038	-.0000	.0025	.0017	.0046	.0003	.0002
#3	-.0023	-.0005	-.0001	.0029	.0087	-.0003	-.0001

Elem	Hg	Ni	K	Se	Ag	Na	Tl
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0006	.0059	.0143	-.0190	.0009	Q-.1314	-.0304
SDev	.0073	.0018	.5804	.0122	.0003	.0084	.0416
%RSD	1250.	29.74	4057.	64.42	34.66	6.383	137.0
#1	-.0068	.0073	-.0286	-.0110	.0007	Q-.1230	-.0544
#2	.0078	.0064	.6150	-.0129	.0012	Q-.1398	.0177
#3	.0008	.0039	-.5435	-.0330	.0007	Q-.1314	-.0544

Elem	V	Zn	B	Bi	Mo	P	S
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0000	.0006	.0081	-.0208	.0000	-.0056	.0236
SDev	.0004	.0010	.0015	.0264	.0018	.0066	.0101
%RSD	850600.	158.0	19.23	126.9	120e6	117.9	42.69
#1	.0002	.0017	.0072	.0065	-.0016	.0010	.0167
#2	.0002	.0004	.0099	-.0228	.0020	-.0122	.0351
#3	-.0005	-.0002	.0072	-.0463	-.0004	-.0056	.0189

Elem	Si	Sr	Sn	Ti	Y	Zr
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0115	-.0002	.0038	.0000	.0000	.0014
SDev	.0024	.0004	.0107	.0011	.0016	.0005
%RSD	20.83	173.3	281.8	2721e6	52e6	35.25
#1	.0136	.0002	-.0038	.0006	-.0018	.0020
#2	.0120	-.0005	.0160	.0006	.0009	.0010
#3	.0089	-.0005	-.0008	-.0012	.0009	.0013

Analysis Report 08/21/01 02:37:49 PM page 1

Method: STD_MTD Sample Name: BL0820 100 Operator: NR1
Run Time: 08/21/01 14:33:37
Comment: 0820 SSG2 DGICPS
Mode: CONC Corr. Factor: 1

Elem	Al	Sb	As	Ba	Be	Cd	Ca
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0165	.0078	.0120	-.0000	.00008	.0020	.0487
SDev	.0034	.0067	.0037	.0000	.00013	.0016	.0070
%RSD	20.77	86.60	30.99	14.32	157.11	81.18	14.32
#1	.0132	-.0000	.0142	-.0000	.00015	.0038	.0426
#2	.0200	.0116	.0077	-.0000	.00015	.0006	.0472
#3	.0163	.0116	.0142	-.0000	-.00007	.0016	.0563

Elem	Cr	Co	Cu	Fe	Pb	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0015	-.0005	.0014	.0130	-.0007	.0042	.0005
SDev	.0015	.0013	.0010	.0025	.0076	.0000	.0001
%RSD	100.0	263.7	72.16	19.24	1079.	.0000	28.91
#1	-.0015	.0010	.0021	.0116	.0046	.0042	.0006
#2	.0000	-.0010	.0017	.0159	.0026	.0042	.0004
#3	-.0030	-.0015	.0002	.0116	-.0094	.0042	.0004

Elem	Hg	Ni	K	Se	Ag	Na	Tl
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0006	.0017	.2146	-.0165	.0005	-.0699	-.0134
SDev	.0037	.0021	.3014	.0115	.0003	.0294	.0288
%RSD	630.9	125.8	140.5	69.35	58.19	42.14	214.4
#1	-.0016	.0039	.1860	-.0129	.0007	-.0727	-.0311
#2	.0049	-.0003	.5292	-.0073	.0007	-.0391	-.0290
#3	-.0016	.0014	-.0715	-.0294	.0002	-.0978	.0198

Elem	V	Zn	B	Bi	Mo	P	S
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0017	.0015	.0009	-.0293	-.0032	.0222	.0399
SDev	.0021	.0015	.0015	.0317	.0055	.0088	.0174
%RSD	123.7	99.33	173.0	108.0	173.2	39.37	43.63
#1	-.0005	.0024	.0018	-.0091	-.0064	.0322	.0245
#2	-.0005	-.0002	-.0009	-.0658	-.0064	.0184	.0588
#3	-.0042	.0024	.0018	-.0130	.0032	.0160	.0365

Elem	Si	Sr	Sn	Ti	Y	Zr
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0120	.0000	-.0011	.0006	.0018	-.0001
SDev	.0024	.0004	.0091	.0000	.0000	.0005
%RSD	19.92	87870.	803.4	.0000	.0008	458.3
#1	-.0146	-.0005	.0080	.0006	.0018	.0003
#2	-.0099	.0002	-.0013	.0006	.0018	-.0007
#3	-.0115	.0002	-.0101	.0006	.0018	-.0000

Analysis Report 08/21/01 02:42:06 PM page 1

Method: STD_MTD Sample Name: BL0820S 100 Operator: NR1
Run Time: 08/21/01 14:37:56
Comment: 0820 SSG2 DGICPS
Mode: CONC Corr. Factor: 1

Elem	Al	Sb	As	Ba	Be	Cd	Ca
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.908	.4500	.4899	.9450	.47383	.4718	9.707
SDev	.020	.0178	.0086	.0061	.00433	.0032	.053
%RSD	1.028	3.950	1.749	.6409	.91350	.6736	.5450
#1	1.886	.4538	.4901	.9437	.47018	.4681	9.658
#2	1.914	.4655	.4984	.9517	.47861	.4735	9.763
#3	1.925	L.4306	.4813	.9398	.47269	.4737	9.699

Elem	Cr	Co	Cu	Fe	Pb	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.9456	.9551	.9538	11.58	.9355	10.27	.9484
SDev	.0053	.0066	.0071	.07	.0046	.07	.0057
%RSD	.5613	.6889	.7412	.5955	.4969	.7067	.6052
#1	.9418	.9513	.9490	11.52	.9382	10.20	.9443
#2	.9516	.9627	.9619	11.66	.9382	10.35	.9550
#3	.9433	.9513	.9505	11.55	.9302	10.25	.9460

Elem	Hg	Ni	K	Se	Ag	Na	Tl
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0777	.4789	9.740	.4484	.4768	9.328	L.8870
SDev	.0110	.0121	.236	.0184	.0019	.076	.0149
%RSD	14.12	2.531	2.428	4.097	.3903	.8104	1.679
#1	.0742	.4859	9.754	L.4276	.4753	9.256	L.8715
#2	.0900	.4649	9.969	.4624	.4789	9.406	L.8884
#3	.0689	.4859	9.497	.4551	.4763	9.323	.9012

Elem	V	Zn	B	Bi	Mo	P	S
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.4729	1.870	.9423	L.3608	.4656	4.710	.9365
SDev	.0013	.015	.0148	.0249	.0066	.006	.0438
%RSD	.2715	.7897	1.574	6.903	1.428	.1252	4.679
#1	.4721	1.860	.9271	L.3771	.4585	4.713	L.8872
#2	.4744	1.887	.9567	L.3732	.4668	4.713	.9710
#3	.4721	1.863	.9432	L.3321	.4716	4.703	.9514

Elem	Si	Sr	Sn	Ti	Y	Zr
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	L.8309	.4757	.9284	.9347	.9240	.9309
SDev	.0046	.0037	.0120	.0053	.0067	.0047
%RSD	.5517	.7687	1.287	.5649	.7215	.5020
#1	L.8257	.4740	.9146	.9317	.9206	.9268
#2	L.8343	.4799	.9361	.9408	.9317	.9360
#3	L.8327	.4732	.9345	.9317	.9197	.9298

Analysis Report 08/21/01 02:46:23 PM

Method: STD_MTD Sample Name: BL0820X 100 Operator: NR1
Run Time: 08/21/01 14:42:13
Comment: 0820 SSG2 DGICPS
Mode: CONC Corr. Factor: 1

Elem	Al	Sb	As	Ba	Be	Cd	Ca
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.922	.4635	.4784	.9596	.47587	.4734	9.758
SDev	.020	.0168	.0074	.0020	.00137	.0006	.012
%RSD	1.022	3.624	1.546	.2066	.28783	.1378	.1240
#1	1.938	.4538	.4855	.9576	.47724	.4737	9.745
#2	1.927	.4829	.4791	.9616	.47587	.4727	9.763
#3	1.900	.4538	.4707	.9596	.47451	.4739	9.768

Elem	Cr	Co	Cu	Fe	Pb	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.9564	.9682	.9635	11.66	.9535	10.36	.9566
SDev	.0079	.0047	.0012	.01	.0137	.01	.0007
%RSD	.8258	.4886	.1231	.0884	1.431	.1212	.0757
#1	.9501	.9687	.9626	11.66	.9381	10.36	.9564
#2	.9539	.9632	.9648	11.68	.9642	10.37	.9574
#3	.9653	.9726	.9630	11.66	.9582	10.34	.9559

Elem	Hg	Ni	K	Se	Ag	Na	Tl
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0850	.4962	9.983	L.4471	.4799	9.393	L.8672
SDev	.0039	.0084	.248	.0064	.0019	.053	.0110
%RSD	4.596	1.703	2.482	1.441	.3875	.5669	1.273
#1	.0859	.5052	9.840	L.4477	.4820	9.423	L.8608
#2	.0807	.4884	10.27	.4533	.4784	9.423	L.8799
#3	.0883	.4951	9.840	L.4404	.4794	9.331	L.8608

Elem	V	Zn	B	Bi	Mo	P	S
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.4763	1.880	.9468	L.4390	.4704	4.747	.9440
SDev	.0023	.002	.0136	.0030	.0032	.030	.0284
%RSD	.4749	.0928	1.433	.6812	.6717	.6315	3.004
#1	.4744	1.880	.9486	L.4397	.4728	4.780	.9469
#2	.4788	1.881	.9594	L.4416	.4716	4.739	.9144
#3	.4758	1.878	.9324	L.4358	.4668	4.722	.9709

Elem	Si	Sr	Sn	Ti	Y	Zr
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	L.8317	.4809	.9357	.9420	.9344	.9437
SDev	.0066	.0004	.0066	.0011	.0000	.0024
%RSD	.8001	.0890	.7086	.1121	.0000	.2600
#1	L.8343	.4807	.9285	.9408	.9344	.9409
#2	L.8241	.4814	.9416	.9426	.9344	.9451
#3	L.8366	.4807	.9370	.9426	.9344	.9451

Analysis Report 08/21/01 02:52:33 PM

Method: STD_MTD Sample Name: 046719 100 Operator: NR1
Run Time: 08/21/01 14:48:23
Comment: 0820 SSG2 DGICPS
Mode: CONC Corr. Factor: 1

Elem	Al	Sb	As	Ba	Be	Cd	Ca
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	67.78	.0873	.0672	.8469	.00434	.0287	133.7
SDev	.27	.0058	.0204	.0030	.00013	.0029	.7
%RSD	.4052	6.667	30.41	.3575	2.9890	9.938	.4904
#1	67.48	.0815	.0575	.8442	.00427	.0263	133.0
#2	67.84	.0873	.0534	.8502	.00427	.0319	133.8
#3	68.02	.0931	.0907	.8462	.00449	.0280	134.3

Elem	Cr	Co	Cu	Fe	Pb	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.3113	.0568	9.124	184.9	13.32	40.52	3.465
SDev	.0031	.0019	.039	2.0	.09	.21	.017
%RSD	1.003	3.250	.4223	1.075	.6778	.5261	.4762
#1	.3077	.0566	9.080	183.7	13.22	40.28	3.446
#2	.3123	.0551	9.152	183.7	13.34	40.57	3.472
#3	.3137	.0587	9.141	187.2	13.39	40.70	3.476

Elem	Hg	Ni	K	Se	Ag	Na	Tl
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0086	.2720	9.398	L-.0526	.0047	6.269	.0144
SDev	.0037	.0102	.436	.0306	.0006	.042	.0224
%RSD	42.41	3.734	4.638	58.16	12.72	.6646	156.1
#1	.0075	.2642	8.938	L-.0198	.0054	6.230	L-.0006
#2	.0057	.2835	9.453	L-.0804	.0044	6.263	.0036
#3	.0127	.2684	9.805	L-.0577	.0044	6.313	.0401

Elem	V	Zn	B	Bi	Mo	P	S
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1755	12.46	.0888	L-.0183	.0209	11.86	10.93
SDev	.0008	.07	.0056	.0185	.0025	.11	.11
%RSD	.4485	.5450	6.318	101.0	11.89	.9153	1.009
#1	.1755	12.38	.0933	L-.0191	.0217	11.74	10.80
#2	.1747	12.49	.0906	.0005	.0181	11.93	11.01
#3	.1763	12.51	.0825	L-.0364	.0229	11.92	10.97

Elem	Si	Sr	Sn	Ti	Y	Zr
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.121	.3173	2.159	.8609	.0685	.0465
SDev	.064	.0013	.008	.0046	.0000	.0068
%RSD	1.247	.4065	.3590	.5347	.0019	14.61
#1	5.052	.3159	2.150	.8567	.0685	.0543
#2	5.178	.3181	2.164	.8603	.0685	.0438
#3	5.133	.3181	2.163	.8658	.0685	.0415

Analysis Report 08/21/01 02:56:52 PM

Method: STD_MTD Sample Name: 046719D 100 Operator: NR1
Run Time: 08/21/01 14:52:40
Comment: 0820 SSG2 DGICPS
Mode: CONC Corr. Factor: 1

Elem	Al	Sb	As	Ba	Be	Cd	Ca
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	70.79	.1125	.0814	.8601	.00448	.0252	135.2
SDev	.68	.0204	.0238	.0086	.00000	.0029	1.1
%RSD	.9659	18.16	29.23	1.004	.06257	11.48	.7979
#1	71.12	.1106	.1030	.8660	.00448	.0223	135.4
#2	70.01	.0931	.0559	.8502	.00448	.0252	134.1
#3	71.25	.1338	.0852	.8640	.00448	.0280	136.2

Elem	Cr	Co	Cu	Fe	Pb	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.3350	.0556	9.431	191.2	13.64	41.19	3.715
SDev	.0027	.0008	.092	.7	.05	.35	.033
%RSD	.8033	1.453	.9808	.3883	.3832	.8445	.8790
#1	.3347	.0548	9.475	192.1	13.62	41.27	3.725
#2	.3324	.0554	9.324	190.8	13.60	40.81	3.678
#3	.3378	.0564	9.493	190.8	13.70	41.49	3.741

Elem	Hg	Ni	K	Se	Ag	Na	Tl
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0072	.2603	9.757	L-.0679	.0009	6.426	L-.0063
SDev	.0038	.0100	.345	.0140	.0006	.071	.0337
%RSD	52.04	3.849	3.536	20.69	67.19	1.108	532.0
#1	.0115	.2684	9.388	L-.0743	.0002	6.428	.0306
#2	.0045	.2491	10.07	L-.0518	.0012	6.354	L-.0354
#3	.0057	.2634	9.814	L-.0775	.0012	6.496	L-.0142

Elem	V	Zn	B	Bi	Mo	P	S
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1821	12.81	.0897	L-.0246	.0181	11.88	11.07
SDev	.0011	.09	.0041	.0382	.0000	.05	.01
%RSD	.6106	.6812	4.587	155.3	.0271	.4598	.1256
#1	.1809	12.83	.0906	L-.0610	.0181	11.88	11.07
#2	.1823	12.71	.0852	L-.0281	.0181	11.82	11.05
#3	.1831	12.88	.0933	.0152	.0181	11.93	11.08

Elem	Si	Sr	Sn	Ti	Y	Zr
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.916	.3253	2.229	.9048	.0715	.0366
SDev	.047	.0037	.016	.0069	.0005	.0011
%RSD	.7886	1.127	.7384	.7654	.7461	3.093
#1	5.955	.3277	2.229	.9079	.0712	.0360
#2	5.864	.3211	2.213	.8969	.0712	.0360
#3	5.928	.3270	2.246	.9097	.0722	.0379

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Method: STD_MTD Sample Name: 046719S 100 Operator: NR1
Run Time: 08/21/01 14:56:59
Comment: 0820 SSG2 DGICPS
Mode: CONC Corr. Factor: 1

Elem	Al	Sb	As	Ba	Be	Cd	Ca
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	88.67	.4616	.5532	1.875	.48206	.5078	143.0
SDev	.19	.0134	.0223	.005	.00184	.0064	.6
%RSD	.2194	2.911	4.028	.2499	.38134	1.265	.3858
#1	88.47	.4538	.5373	1.873	.48039	.5091	142.3
#2	88.85	.4538	.5436	1.871	.48403	.5134	143.4
#3	88.69	.4771	.5786	1.880	.48175	.5008	143.2

Elem	Cr	Co	Cu	Fe	Pb	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.268	1.015	10.09	208.8	14.47	55.36	4.437
SDev	.008	.002	.02	1.0	.07	.15	.014
%RSD	.6656	.1673	.1597	.4715	.4826	.2734	.3068
#1	1.259	1.014	10.07	207.9	14.40	55.20	4.421
#2	1.276	1.017	10.10	208.8	14.46	55.50	4.447
#3	1.269	1.016	10.09	209.8	14.54	55.39	4.443

Elem	Hg	Ni	K	Se	Ag	Na	Tl
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0791	.7308	19.85	.4049	.4888	15.92	.8743
SDev	.0056	.0284	.35	.0199	.0019	.03	.0196
%RSD	7.063	3.890	1.741	4.925	.3806	.1824	2.240
#1	.0738	.7260	19.49	.4217	.4867	15.90	.8798
#2	.0849	.7613	20.18	.3829	.4903	15.95	.8905
#3	.0785	.7050	19.88	.4101	.4893	15.90	.8525

Elem	V	Zn	B	Bi	Mo	P	S
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.6744	14.46	.9889	.4591	.4878	15.34	11.69
SDev	.0020	.05	.0097	.0323	.0032	.17	.10
%RSD	.2933	.3511	.9821	7.027	.6479	1.132	.8853
#1	.6721	14.40	.9862	.4596	.4854	15.18	11.58
#2	.6759	14.51	.9997	.4910	.4866	15.52	11.78
#3	.6751	14.47	.9808	.4265	.4914	15.32	11.71

Elem	Si	Sr	Sn	Ti	Y	Zr
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	7.790	.8145	3.024	1.659	1.024	.1543
SDev	.028	.0011	.023	.006	.002	.0011
%RSD	.3616	.1396	.7760	.3670	.2078	.7339
#1	7.761	.8133	2.997	1.654	1.023	.1537
#2	7.790	.8148	3.042	1.658	1.023	.1537
#3	7.818	.8155	3.033	1.666	1.027	.1556

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Method: STD_MTD Sample Name: 046719X 100 Operator: NR1
Run Time: 08/21/01 15:01:18
Comment: 0820 SSG2 DGICPS
Mode: CONC Corr. Factor: 1

Elem	Al	Sb	As	Ba	Be	Cd	Ca
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	85.36	.4422	.5757	1.852	.49192	.5104	142.1
SDev	.54	.0058	.0082	.007	.00384	.0066	.7
%RSD	.6363	1.316	1.420	.3858	.78056	1.300	.5253
#1	84.95	.4480	.5852	1.846	.48926	.5095	141.6
#2	85.15	.4422	.5712	1.850	.49017	.5042	141.7
#3	85.97	.4364	.5708	1.860	.49632	.5174	143.0

Elem	Cr	Co	Cu	Fe	Pb	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.283	1.037	9.954	203.0	14.56	54.57	4.484
SDev	.008	.007	.059	1.6	.01	.36	.025
%RSD	.6558	.7093	.5965	.7915	.0421	.6591	.5497
#1	1.280	1.029	9.905	202.4	14.56	54.30	4.468
#2	1.277	1.039	9.936	201.7	14.55	54.42	4.471
#3	1.292	1.043	10.02	204.8	14.56	54.98	4.512

Elem	Hg	Ni	K	Se	Ag	Na	Tl
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0830	.7599	19.32	.4414	.4858	15.74	.9392
SDev	.0012	.0049	.20	.0288	.0025	.10	.0568
%RSD	1.473	.6475	1.019	6.516	.5234	.6449	6.047
#1	.0843	.7579	19.13	.4551	.4846	15.67	.9470
#2	.0826	.7562	19.30	.4608	.4841	15.69	.8789
#3	.0820	.7655	19.52	.4084	.4888	15.86	.9917

Elem	V	Zn	B	Bi	Mo	P	S
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.6826	14.52	1.002	.4529	.5001	15.71	11.62
SDev	.0018	.09	.019	.0426	.0042	.11	.17
%RSD	.2567	.5931	1.937	9.405	.8378	.6714	1.448
#1	.6816	14.46	.9862	.4313	.4997	15.61	11.55
#2	.6816	14.48	.9970	.4255	.5045	15.71	11.49
#3	.6846	14.62	1.024	.5020	.4962	15.82	11.81

Elem	Si	Sr	Sn	Ti	Y	Zr
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	7.200	.8071	3.077	1.581	1.023	.1636
SDev	.021	.0035	.011	.008	.003	.0009
%RSD	.2908	.4349	.3417	.5186	.3165	.5770
#1	7.194	.8044	3.076	1.576	1.019	.1641
#2	7.182	.8059	3.066	1.576	1.023	.1641
#3	7.223	.8111	3.087	1.590	1.026	.1625

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Method: STD_MTD Sample Name: 046720 100 Operator: NR1
Run Time: 08/21/01 15:07:30
Comment: 0820 SSG2 DGICPS
Mode: CONC Corr. Factor: 1

Elem	Al	Sb	As	Ba	Be	Cd	Ca
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	60.47	.0233	.0787	.6058	.00302	.0152	79.69
SDev	.35	.0308	.0112	.0030	.00013	.0032	.36
%RSD	.5720	132.3	14.30	.4998	4.1620	20.99	.4468
#1	60.16	.0465	.0754	.6025	.00295	.0119	79.33
#2	60.40	L-.0116	.0912	.6065	.00295	.0183	79.70
#3	60.84	.0349	.0694	.6084	.00317	.0153	80.05

Elem	Cr	Co	Cu	Fe	Pb	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1426	.0341	2.260	141.9	7.363	26.77	2.849
SDev	.0023	.0038	.014	.7	.032	.12	.016
%RSD	1.638	11.21	.6289	.5044	.4319	.4489	.5498
#1	.1401	.0299	2.246	142.5	7.359	26.65	2.833
#2	.1432	.0350	2.259	141.1	7.334	26.75	2.849
#3	.1446	.0373	2.274	142.0	7.397	26.89	2.864

Elem	Hg	Ni	K	Se	Ag	Na	Tl
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	L-.0048	.1595	6.754	L-.0795	.0022	.5277	L-.0494
SDev	.0092	.0097	.321	.0214	.0021	.0130	.0289
%RSD	190.1	6.077	4.751	26.91	93.68	2.462	58.49
#1	.0010	.1483	6.384	L-.0552	.0003	.5164	L-.0161
#2	L-.0001	.1651	6.939	L-.0878	.0019	.5419	L-.0672
#3	L-.0154	.1651	6.941	L-.0955	.0045	.5248	L-.0649

Elem	V	Zn	B	Bi	Mo	P	S
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1583	5.441	.0475	.0098	.0191	12.57	6.722
SDev	.0026	.030	.0000	.0466	.0052	.09	.035
%RSD	1.640	.5551	.0134	476.8	27.20	.6953	.5282
#1	.1559	5.416	.0476	.0306	.0227	12.52	6.695
#2	.1580	5.433	.0475	.0423	.0215	12.52	6.709
#3	.1610	5.475	.0475	L-.0436	.0132	12.67	6.762

Elem	Si	Sr	Sn	Ti	Y	Zr
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.126	.1523	.9940	.6847	.0425	.0271
SDev	.018	.0015	.0059	.0055	.0000	.0014
%RSD	.3488	.9760	.5950	.8014	.0017	5.252
#1	5.117	.1508	.9880	.6792	.0425	.0255
#2	5.115	.1523	.9998	.6847	.0425	.0278
#3	5.147	.1537	.9940	.6902	.0426	.0281

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Method: STD_MTD Sample Name: 046721 100 Operator: NR1
Run Time: 08/21/01 15:11:50
Comment: 0820 SSG2 DGICPS
Mode: CONC Corr. Factor: 1

Elem	Al	Sb	As	Ba	Be	Cd	Ca
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	51.86	.4344	.1095	1.251	.00407	.0480	307.3
SDev	.32	.0121	.0187	.006	.00001	.0023	1.5
%RSD	.6095	2.788	17.05	.4572	.13717	4.761	.4738
#1	51.51	.4306	.1306	1.244	.00407	.0484	305.7
#2	51.95	.4480	.1026	1.254	.00407	.0455	307.8
#3	52.12	.4247	.0952	1.254	.00406	.0500	308.5

Elem	Cr	Co	Cu	Fe	Pb	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.3888	.0516	24.59	213.9	52.97	64.60	4.643
SDev	.0015	.0008	.17	.3	.25	.44	.026
%RSD	.3986	1.510	.6825	.1421	.4686	.6759	.5498
#1	.3872	.0514	24.41	214.1	52.69	64.12	4.615
#2	.3903	.0510	24.64	213.9	53.09	64.72	4.650
#3	.3888	.0525	24.73	213.5	53.14	64.97	4.665

Elem	Hg	Ni	K	Se	Ag	Na	Tl
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0063	.4814	9.368	L-.0749	.0259	2.174	L-.0148
SDev	.0048	.0086	.194	.0138	.0018	.026	.0438
%RSD	76.04	1.782	2.068	18.41	6.917	1.177	296.4
#1	.0010	.4716	9.569	L-.0769	.0279	2.146	.0313
#2	.0075	.4850	9.354	L-.0603	.0248	2.196	L-.0197
#3	.0104	.4875	9.182	L-.0877	.0248	2.179	L-.0558

Elem	V	Zn	B	Bi	Mo	P	S
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1652	35.03	.2496	.1071	.0439	16.39	22.01
SDev	.0022	.21	.0027	.0524	.0030	.28	.39
%RSD	1.340	.6044	1.080	48.89	6.848	1.719	1.784
#1	.1630	34.80	.2469	.0491	.0411	16.10	21.57
#2	.1652	35.08	.2523	.1215	.0471	16.41	22.12
#3	.1674	35.21	.2496	.1508	.0436	16.67	22.34

Elem	Si	Sr	Sn	Ti	Y	Zr
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	6.726	.4372	8.158	1.032	.0614	.0441
SDev	.045	.0023	.028	.005	.0000	.0023
%RSD	.6756	.5213	.3491	.4462	.0047	5.185
#1	6.673	.4347	8.134	1.027	.0614	.0441
#2	6.750	.4377	8.151	1.032	.0614	.0464
#3	6.754	.4392	8.190	1.036	.0614	.0418

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Method: STD_MTD Sample Name: 047041 100 Operator: NR1
Run Time: 08/21/01 15:16:09
Comment: 0820 SSG2 DGICPS
Mode: CONC Corr. Factor: 1

Elem	Al	Sb	As	Ba	Be	Cd	Ca
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	93.59	.3084	.1733	.9005	.00577	.0291	82.66
SDev	.94	.0058	.0118	.0114	.00013	.0017	.76
%RSD	1.006	1.887	6.783	1.271	2.3209	5.995	.9171
#1	93.01	.3142	.1824	.8939	.00593	.0271	82.17
#2	93.10	.3084	.1775	.8939	.00570	.0305	82.28
#3	94.68	.3026	.1600	.9138	.00569	.0296	83.54

Elem	Cr	Co	Cu	Fe	Pb	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.2043	.0888	28.01	256.5	35.28	31.99	5.059
SDev	.0031	.0021	.32	2.2	.30	.28	.051
%RSD	1.507	2.381	1.135	.8660	.8570	.8657	1.007
#1	.2008	.0902	27.79	254.0	35.06	31.80	5.025
#2	.2052	.0864	27.86	257.9	35.15	31.86	5.034
#3	.2067	.0898	28.37	257.7	35.62	32.31	5.118

Elem	Hg	Ni	K	Se	Ag	Na	Tl
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0069	.5785	12.54	L-.0693	.0110	1.881	L-.0282
SDev	.0080	.0144	.15	.0090	.0039	.029	.0274
%RSD	115.5	2.498	1.164	12.92	35.42	1.522	96.97
#1	.0032	.5723	12.62	L-.0604	.0093	1.865	.0032
#2	.0015	.5681	12.63	L-.0691	.0155	1.864	L-.0407
#3	.0161	.5950	12.37	L-.0783	.0083	1.915	L-.0471

Elem	V	Zn	B	Bi	Mo	P	S
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.2428	38.24	.1139	.0961	.0355	12.47	8.702
SDev	.0012	.35	.0016	.0301	.0018	.11	.123
%RSD	.4839	.9076	1.367	31.37	5.140	.9032	1.410
#1	.2418	37.98	.1121	.0848	.0359	12.37	8.621
#2	.2426	38.10	.1148	.0732	.0336	12.44	8.642
#3	.2441	38.64	.1148	.1303	.0371	12.59	8.843

Elem	Si	Sr	Sn	Ti	Y	Zr
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.190	.2778	8.277	1.176	.0693	.0389
SDev	.051	.0030	.051	.013	.0016	.0012
%RSD	.9815	1.081	.6104	1.146	2.306	3.030
#1	5.157	.2761	8.259	1.166	.0684	.0379
#2	5.164	.2761	8.238	1.171	.0684	.0402
#3	5.248	.2813	8.334	1.191	.0711	.0386

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Method: STD_MTD Sample Name: 047042 100 Operator: NR1
Run Time: 08/21/01 15:20:28
Comment: 0820 SSG2 DGICPS
Mode: CONC Corr. Factor: 1

Elem	Al	Sb	As	Ba	Be	Cd	Ca
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	68.06	.0659	.0499	.9437	.00364	.0244	230.9
SDev	.32	.0242	.0249	.0011	.00013	.0022	.8
%RSD	.4723	36.74	49.90	.1212	3.4692	9.064	.3470
#1	67.70	.0582	.0633	.9431	.00357	.0220	230.0
#2	68.13	.0465	.0651	.9450	.00356	.0263	231.1
#3	68.33	.0931	.0211	.9431	.00378	.0248	231.5

Elem	Cr	Co	Cu	Fe	Pb	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.2009	.0595	5.776	187.9	10.62	37.14	4.139
SDev	.0011	.0033	.020	2.0	.02	.14	.015
%RSD	.5599	5.569	.3536	1.074	.2100	.3752	.3737
#1	.2007	.0564	5.753	185.7	10.62	36.99	4.122
#2	.1999	.0591	5.781	188.2	10.64	37.18	4.142
#3	.2021	.0630	5.793	189.7	10.60	37.26	4.152

Elem	Hg	Ni	K	Se	Ag	Na	Tl
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0072	.2622	11.28	L-.0664	L-.0009	5.785	L-.0318
SDev	.0026	.0121	.26	.0042	.0021	.022	.0258
%RSD	36.46	4.632	2.323	6.278	236.3	.3749	81.32
#1	.0045	.2483	11.10	L-.0706	L-.0029	5.760	L-.0413
#2	.0098	.2684	11.58	L-.0623	L-.0009	5.801	L-.0515
#3	.0074	.2701	11.16	L-.0664	.0012	5.793	L-.0025

Elem	V	Zn	B	Bi	Mo	P	S
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1850	12.19	.2433	L-.0514	.0312	14.44	16.52
SDev	.0027	.04	.0056	.0361	.0052	.11	.08
%RSD	1.435	.3491	2.304	70.17	16.66	.7905	.4763
#1	.1822	12.15	.2415	L-.0287	.0372	14.37	16.52
#2	.1852	12.21	.2388	L-.0325	.0288	14.38	16.44
#3	.1875	12.23	.2496	L-.0930	.0276	14.57	16.60

Elem	Si	Sr	Sn	Ti	Y	Zr
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.891	.4811	1.418	.7786	.0616	.0309
SDev	.020	.0011	.005	.0038	.0005	.0004
%RSD	.3336	.2370	.3864	.4890	.8645	1.220
#1	5.868	.4799	1.418	.7743	.0613	.0307
#2	5.902	.4814	1.412	.7798	.0622	.0307
#3	5.902	.4821	1.423	.7817	.0613	.0314

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Method: STD_MTD Sample Name: 047043 100 Operator: NR1
Run Time: 08/21/01 15:24:48
Comment: 0820 SSG2 DGICPS
Mode: CONC Corr. Factor: 1

Elem	Al	Sb	As	Ba	Be	Cd	Ca
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	50.06	.0504	.1696	.7704	.00277	.0109	279.4
SDev	.31	.0242	.0121	.0059	.00000	.0020	1.2
%RSD	.6099	48.04	7.157	.7716	.14108	18.07	.4365
#1	50.30	.0698	.1740	.7764	.00277	.0087	280.0
#2	49.72	.0582	.1559	.7645	.00277	.0122	278.0
#3	50.17	.0233	.1790	.7704	.00276	.0119	280.1

Elem	Cr	Co	Cu	Fe	Pb	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1561	.0380	4.600	134.7	8.273	109.8	2.516
SDev	.0016	.0009	.033	1.2	.009	.7	.011
%RSD	1.010	2.386	.7126	.9141	.1135	.6345	.4454
#1	.1574	.0379	4.626	135.5	8.284	110.3	2.523
#2	.1566	.0371	4.563	133.3	8.267	109.0	2.503
#3	.1544	.0389	4.612	135.3	8.268	110.1	2.522

Elem	Hg	Ni	K	Se	Ag	Na	Tl
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0038	.1973	6.822	L-.0399	L-.0027	.8939	L-.0680
SDev	.0038	.0092	.131	.0164	.0014	.0095	.0189
%RSD	98.60	4.687	1.917	41.03	50.01	1.064	27.74
#1	.0011	.2079	6.939	L-.0444	L-.0038	.8880	L-.0468
#2	.0023	.1912	6.847	L-.0217	L-.0032	.8888	L-.0745
#3	.0081	.1928	6.681	L-.0535	L-.0012	.9049	L-.0828

Elem	V	Zn	B	Bi	Mo	P	S
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1384	7.605	.0520	L-.0605	.0095	12.25	6.373
SDev	.0015	.042	.0056	.0169	.0048	.03	.084
%RSD	1.119	.5541	10.78	28.02	50.00	.2380	1.321
#1	.1372	7.621	.0583	L-.0422	.0095	12.27	6.277
#2	.1378	7.557	.0475	L-.0756	.0143	12.21	6.406
#3	.1401	7.636	.0502	L-.0637	.0048	12.26	6.436

Elem	Si	Sr	Sn	Ti	Y	Zr
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.546	.3761	1.378	.7378	.0540	.0275
SDev	.039	.0030	.027	.0048	.0000	.0000
%RSD	.8475	.7994	1.958	.6560	.0045	.0000
#1	4.571	.3788	1.359	.7396	.0540	.0275
#2	4.501	.3729	1.366	.7323	.0540	.0275
#3	4.565	.3766	1.409	.7414	.0540	.0275

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Method: STD_MTD Sample Name: 047044 100 Operator: NR1
Run Time: 08/21/01 15:29:07
Comment: 0820 SSG2 DGICPS
Mode: CONC Corr. Factor: 1

Elem	Al	Sb	As	Ba	Be	Cd	Ca
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	78.22	.0000	.0596	.6171	.00447	.0057	279.1
SDev	.49	.0210	.0120	.0030	.00000	.0036	2.0
%RSD	.6314	3379e6	20.14	.4898	.06388	64.29	.7176
#1	77.69	L-.0058	.0569	.6138	.00447	.0035	277.1
#2	78.30	.0233	.0492	.6178	.00448	.0036	279.0
#3	78.67	L-.0175	.0727	.6197	.00447	.0099	281.1

Elem	Cr	Co	Cu	Fe	Pb	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1503	.0594	.4511	181.6	1.518	66.31	3.487
SDev	.0009	.0027	.0032	.4	.020	.43	.023
%RSD	.5784	4.538	.7148	.2342	1.327	.6424	.6697
#1	.1498	.0563	.4475	181.1	1.497	65.88	3.463
#2	.1513	.0612	.4519	181.8	1.521	66.32	3.488
#3	.1498	.0607	.4538	181.9	1.537	66.73	3.510

Elem	Hg	Ni	K	Se	Ag	Na	Tl
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0016	.1634	10.65	L-.0557	L-.0056	1.145	L-.0231
SDev	.0033	.0047	.47	.0249	.0042	.030	.0193
%RSD	207.4	2.860	4.448	44.77	74.35	2.624	83.53
#1	.0045	.1685	10.19	L-.0641	L-.0080	1.120	L-.0309
#2	.0022	.1592	11.13	L-.0277	L-.0080	1.137	L-.0011
#3	L-.0019	.1626	10.62	L-.0754	L-.0008	1.179	L-.0372

Elem	V	Zn	B	Bi	Mo	P	S
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1845	1.512	.0520	L-.0638	.0073	5.693	5.155
SDev	.0011	.009	.0016	.0192	.0027	.097	.088
%RSD	.6143	.5658	2.996	30.16	37.45	1.706	1.701
#1	.1843	1.503	.0529	L-.0698	.0089	5.596	5.107
#2	.1836	1.513	.0529	L-.0423	.0089	5.790	5.101
#3	.1858	1.520	.0502	L-.0793	.0042	5.691	5.256

Elem	Si	Sr	Sn	Ti	Y	Zr
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.899	.4749	.0941	.9652	.0872	.0464
SDev	.039	.0026	.0044	.0064	.0000	.0000
%RSD	.8008	.5523	4.684	.6655	.0046	.0000
#1	4.854	.4722	.0903	.9591	.0872	.0464
#2	4.916	.4752	.0931	.9646	.0872	.0464
#3	4.927	.4774	.0990	.9719	.0872	.0464

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Method: STD_MTD Sample Name: 047045 100 Operator: NR1
Run Time: 08/21/01 15:33:26
Comment: 0820 SSG2 DGICPS
Mode: CONC Corr. Factor: 1

Elem	Al	Sb	As	Ba	Be	Cd	Ca
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	75.64	.0019	.2807	.6996	.00433	.0045	86.30
SDev	.69	.0089	.0103	.0091	.00013	.0005	.66
%RSD	.9135	458.3	3.670	1.298	3.0260	10.49	.7699
#1	74.95	.0116	.2768	.6917	.00426	.0042	85.63
#2	75.63	L-.0058	.2729	.6976	.00425	.0042	86.33
#3	76.33	L-.0000	.2924	.7095	.00448	.0050	86.95

Elem	Cr	Co	Cu	Fe	Pb	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1544	.0635	.3112	186.0	.7272	43.69	4.873
SDev	.0023	.0013	.0009	1.9	.0035	.31	.039
%RSD	1.464	1.997	.2984	1.013	.4787	.7144	.7973
#1	.1522	.0649	.3102	184.4	.7306	43.38	4.834
#2	.1567	.0629	.3113	185.5	.7272	43.69	4.871
#3	.1543	.0626	.3121	188.1	.7237	44.01	4.912

Elem	Hg	Ni	K	Se	Ag	Na	Tl
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	L-.0027	.1721	11.66	L-.0448	L-.0039	.6380	L-.0294
SDev	.0026	.0067	.09	.0227	.0011	.0053	.0141
%RSD	97.28	3.913	.7489	50.62	27.82	.8338	48.01
#1	L-.0002	.1786	11.57	L-.0222	L-.0030	.6442	L-.0184
#2	L-.0025	.1727	11.75	L-.0446	L-.0035	.6354	L-.0246
#3	L-.0055	.1651	11.67	L-.0675	L-.0051	.6346	L-.0454

Elem	V	Zn	B	Bi	Mo	P	S
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1820	1.194	.0484	L-.0655	.0130	7.488	5.286
SDev	.0011	.009	.0056	.0281	.0007	.050	.020
%RSD	.6346	.7896	11.59	42.90	5.273	.6741	.3871
#1	.1807	1.187	.0421	L-.0331	.0134	7.462	5.285
#2	.1829	1.191	.0529	L-.0799	.0134	7.455	5.308
#3	.1823	1.205	.0502	L-.0835	.0122	7.546	5.267

Elem	Si	Sr	Sn	Ti	Y	Zr
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.665	.2692	.0454	.8621	.0819	.0402
SDev	.036	.0026	.0022	.0120	.0021	.0014
%RSD	.7777	.9695	4.824	1.391	2.601	3.544
#1	4.626	.2665	.0433	.8493	.0794	.0409
#2	4.673	.2694	.0451	.8640	.0831	.0412
#3	4.697	.2717	.0477	.8731	.0831	.0386

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Method: STD_MTD Sample Name: 047046 100 Operator: NR1
Run Time: 08/21/01 15:37:46
Comment: 0820 SSG2 DGICPS
Mode: CONC Corr. Factor: 1

Elem	Al	Sb	As	Ba	Be	Cd	Ca
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	83.61	.0233	.0830	.6731	.00468	.0132	115.4
SDev	.35	.0154	.0214	.0030	.00000	.0013	.4
%RSD	.4167	66.14	25.78	.4498	.04767	9.546	.3235
#1	83.22	.0116	.1023	.6698	.00469	.0122	115.0
#2	83.73	.0175	.0866	.6738	.00468	.0147	115.6
#3	83.88	.0407	.0600	.6757	.00468	.0128	115.7

Elem	Cr	Co	Cu	Fe	Pb	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.4553	.0720	.4110	208.1	.7981	59.77	3.168
SDev	.0012	.0035	.0029	1.8	.0060	.30	.013
%RSD	.2564	4.866	.7013	.8421	.7573	.4964	.4188
#1	.4543	.0679	.4076	206.8	.7963	59.43	3.153
#2	.4566	.0743	.4124	207.4	.7932	59.91	3.174
#3	.4549	.0736	.4128	210.1	.8048	59.98	3.178

Elem	Hg	Ni	K	Se	Ag	Na	Tl
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0144	.2189	11.48	L-.0718	.0013	.6742	L-.0076
SDev	.0102	.0117	.35	.0350	.0018	.0101	.0115
%RSD	70.35	5.330	3.038	48.79	138.9	1.492	150.0
#1	.0092	.2113	11.39	L-.0358	.0034	.6858	L-.0071
#2	.0080	.2323	11.86	L-.1058	.0003	.6688	.0035
#3	.0262	.2130	11.18	L-.0736	.0003	.6680	L-.0194

Elem	V	Zn	B	Bi	Mo	P	S
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1919	1.254	.0448	L-.0213	.0144	8.407	5.373
SDev	.0009	.002	.0027	.0899	.0025	.091	.046
%RSD	.4615	.1701	6.018	422.7	17.20	1.078	.8576
#1	.1909	1.252	.0448	.0692	.0172	8.303	5.361
#2	.1924	1.253	.0421	L-.1105	.0136	8.471	5.424
#3	.1925	1.256	.0475	L-.0224	.0124	8.447	5.334

Elem	Si	Sr	Sn	Ti	Y	Zr
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.186	.2779	.0654	.8146	.0822	.0436
SDev	.035	.0013	.0053	.0037	.0000	.0007
%RSD	.6798	.4634	8.083	.4491	.0009	1.561
#1	5.150	.2764	.0714	.8109	.0822	.0428
#2	5.188	.2786	.0632	.8146	.0822	.0441
#3	5.220	.2786	.0615	.8182	.0822	.0438

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Method: STD_MTD Sample Name: 047047 100 Operator: NR1
Run Time: 08/21/01 15:42:05
Comment: 0820 SSG2 DGICPS
Mode: CONC Corr. Factor: 1

Elem	Al	Sb	As	Ba	Be	Cd	Ca
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	93.29	.0213	.0626	.7327	.00553	.0088	93.00
SDev	.92	.0134	.0059	.0070	.00000	.0022	.85
%RSD	.9818	62.98	9.417	.9501	.03796	25.17	.9152
#1	92.27	.0058	.0562	.7254	.00553	.0063	92.02
#2	94.03	.0291	.0678	.7393	.00553	.0105	93.54
#3	93.58	.0291	.0639	.7333	.00553	.0095	93.44

Elem	Cr	Co	Cu	Fe	Pb	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1393	.0665	.1898	206.6	.4072	42.29	8.128
SDev	.0018	.0023	.0036	1.1	.0083	.39	.081
%RSD	1.282	3.496	1.868	.5141	2.043	.9250	.9948
#1	.1403	.0685	.1892	206.8	.3980	41.84	8.035
#2	.1403	.0671	.1936	205.5	.4143	42.57	8.186
#3	.1372	.0639	.1866	207.6	.4093	42.46	8.162

Elem	Hg	Ni	K	Se	Ag	Na	Tl
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	L-.0010	.1461	10.38	L-.0882	L-.0030	.8234	L-.0253
SDev	.0007	.0090	.22	.0252	.0043	.0125	.0363
%RSD	65.30	6.145	2.129	28.54	142.2	1.523	143.6
#1	L-.0003	.1559	10.25	L-.0613	L-.0008	.8208	L-.0147
#2	L-.0014	.1441	10.63	L-.0922	L-.0080	.8125	L-.0657
#3	L-.0014	.1383	10.25	L-.1112	L-.0003	.8371	.0046

Elem	V	Zn	B	Bi	Mo	P	S
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.2185	.9207	.0502	L-.0421	.0118	6.932	6.801
SDev	.0008	.0123	.0027	.0227	.0045	.068	.064
%RSD	.3809	1.331	5.364	53.96	38.27	.9863	.9361
#1	.2190	.9068	.0502	L-.0638	.0170	6.925	6.732
#2	.2190	.9300	.0529	L-.0185	.0086	7.004	6.858
#3	.2176	.9252	.0475	L-.0439	.0098	6.867	6.813

Elem	Si	Sr	Sn	Ti	Y	Zr
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.173	.2737	.0153	.9829	.0939	.0470
SDev	.047	.0026	.0018	.0097	.0005	.0035
%RSD	1.132	.9540	11.55	.9848	.5686	7.377
#1	4.121	.2710	.0144	.9719	.0933	.0464
#2	4.213	.2762	.0174	.9902	.0942	.0507
#3	4.184	.2739	.0142	.9865	.0942	.0438

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Method: STD_MTD Sample Name: 047048 100 Operator: NR1
Run Time: 08/21/01 15:46:24
Comment: 0820 SSG2 DGICPS
Mode: CONC Corr. Factor: 1

Elem	Al	Sb	As	Ba	Be	Cd	Ca
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	104.7	.0291	.0764	.6509	.00550	.0010	27.64
SDev	.8	.0116	.0090	.0023	.00000	.0022	.21
%RSD	.8034	40.00	11.81	.3516	.04050	221.4	.7540
#1	103.8	.0407	.0661	.6483	.00550	L-.0007	27.41
#2	105.4	.0175	.0803	.6522	.00550	.0002	27.81
#3	105.0	.0291	.0828	.6522	.00550	.0034	27.69

Elem	Cr	Co	Cu	Fe	Pb	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1330	.0702	.1945	223.0	.4472	29.14	2.956
SDev	.0015	.0014	.0012	1.1	.0135	.22	.022
%RSD	1.157	2.044	.6100	.4908	3.020	.7387	.7547
#1	.1313	.0687	.1940	221.8	.4319	28.90	2.931
#2	.1342	.0715	.1958	223.4	.4524	29.33	2.975
#3	.1334	.0705	.1936	223.9	.4574	29.17	2.961

Elem	Hg	Ni	K	Se	Ag	Na	Tl
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0003	.1674	8.406	L-.0861	L-.0016	.3439	L-.0038
SDev	.0088	.0164	.276	.0162	.0024	.0415	.0194
%RSD	2822.	9.809	3.289	18.78	152.4	12.08	507.3
#1	.0103	.1811	8.688	L-.0960	L-.0043	.3639	.0002
#2	L-.0032	.1492	8.392	L-.0949	L-.0007	.3717	L-.0250
#3	L-.0061	.1718	8.136	L-.0674	.0003	.2961	.0133

Elem	V	Zn	B	Bi	Mo	P	S
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.2293	.7871	.0286	L-.1035	.0068	3.855	3.340
SDev	.0009	.0076	.0047	.0298	.0028	.013	.095
%RSD	.3854	.9659	16.31	28.76	40.28	.3423	2.858
#1	.2283	.7791	.0313	L-.1370	.0084	3.841	3.230
#2	.2298	.7942	.0232	L-.0936	.0037	3.867	3.406
#3	.2299	.7881	.0313	L-.0800	.0084	3.855	3.383

Elem	Si	Sr	Sn	Ti	Y	Zr
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.201	.1142	.0284	.7707	.0848	.0403
SDev	.073	.0011	.0080	.0048	.0016	.0015
%RSD	1.407	.9933	28.07	.6279	1.882	3.745
#1	5.117	.1132	.0195	.7652	.0830	.0412
#2	5.244	.1154	.0308	.7725	.0858	.0412
#3	5.244	.1139	.0349	.7743	.0858	.0386

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Method: STD_MTD Sample Name: ERA245 100 Operator: NRi
Run Time: 08/21/01 15:50:44
Comment: 0820 SSG2 DGICPS
Mode: CONC Corr. Factor: 1

Elem	Al	Sb	As	Ba	Be	Cd	Ca
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	70.17	1.061	1.410	1.321	.98494	1.290	123.2
SDev	.12	.012	.003	.006	.00203	.005	.5
%RSD	.1729	1.142	.1898	.4584	.20644	.4052	.3671
#1	70.23	1.047	1.409	1.328	.98387	1.296	122.8
#2	70.24	1.065	1.413	1.320	.98728	1.286	123.7
#3	70.03	1.071	1.408	1.316	.98366	1.288	123.1

Elem	Cr	Co	Cu	Fe	Pb	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.8890	1.199	1.232	152.0	1.504	27.93	3.303
SDev	.0052	.006	.003	1.1	.024	.07	.009
%RSD	.5882	.4984	.2249	.6930	1.625	.2677	.2635
#1	.8830	1.194	1.233	150.9	1.476	27.88	3.297
#2	.8920	1.206	1.233	153.0	1.520	28.02	3.313
#3	.8920	1.198	1.228	152.2	1.516	27.90	3.299

Elem	Hg	Ni	K	Se	Ag	Na	Tl
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	L.0146	1.732	31.76	.8940	1.247	7.534	1.440
SDev	.0099	.015	.49	.0114	.001	.013	.030
%RSD	67.85	.8542	1.558	1.269	.0633	.1684	2.082
#1	L.0214	1.736	31.58	.8809	1.247	7.523	1.435
#2	L.0190	1.715	31.37	.9005	1.248	7.531	1.472
#3	L.0032	1.744	32.31	.9007	1.247	7.548	1.412

Elem	V	Zn	B	Bi	Mo	P	S
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.8076	.6508	1.175	-.0969	1.018	10.69	6.574
SDev	.0044	.0029	.008	.0242	.007	.07	.028
%RSD	.5513	.4475	.6611	25.01	.6534	.6257	.4321
#1	.8075	.6481	1.166	-.0839	1.025	10.63	6.557
#2	.8120	.6539	1.180	-.1249	1.017	10.76	6.606
#3	.8031	.6506	1.180	-.0819	1.012	10.68	6.557

Elem	Si	Sr	Sn	Ti	Y	Zr
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.842	.8509	.9893	1.889	.0795	.0539
SDev	.020	.0037	.0019	.006	.0000	.0012
%RSD	.3412	.4353	.1912	.3113	.0011	2.185
#1	5.852	.8546	.9871	1.893	.0795	.0543
#2	5.820	.8509	.9902	1.891	.0795	.0549
#3	5.856	.8472	.9905	1.882	.0795	.0526

Analysis Report QC Standard 08/21/01 04:02:11 PM

Method: STD_MTD Sample Name: CCVA Operator: NR1
Run Time: 08/21/01 15:57:53
Comment: 0820 SSG2 DG3050B
Mode: CONC Corr. Factor: 1

Elem	Al	Sb	As	Ba	Be	Cd	Ca
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	3.830	.0000	.9741	1.917	.98196	.9932	20.52
SDev	.019	.0058	.0276	.006	.00429	.0024	.10
%RSD	.5061	2462e6	2.835	.3160	.43690	.2449	.4668
#1	3.811	-.0000	.9422	1.918	.97727	.9911	20.42
#2	3.828	-.0058	.9890	1.922	.98294	.9926	20.56
#3	3.850	.0058	.9910	1.910	.98568	.9959	20.60

Elem	Cr	Co	Cu	Fe	Pb	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.997	2.019	1.922	4.035	2.072	19.48	1.994
SDev	.014	.010	.006	.023	.014	.10	.009
%RSD	.6905	.5177	.3160	.5647	.6961	.5349	.4331
#1	1.981	2.007	1.915	4.009	2.076	19.37	1.984
#2	2.008	2.025	1.926	4.047	2.056	19.52	1.999
#3	2.001	2.025	1.926	4.050	2.084	19.56	2.000

Elem	Hg	Ni	K	Se	Ag	Na	Tl
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.5227	1.017	18.96	.9755	.9573	18.96	2.060
SDev	.0220	.011	.60	.0316	.0036	.07	.034
%RSD	4.214	1.074	3.180	3.238	.3790	.3778	1.629
#1	.5472	1.028	18.33	.9620	.9535	18.89	2.068
#2	.5167	1.017	19.53	.9528	.9576	18.95	2.089
#3	.5044	1.006	19.02	1.012	.9607	19.03	2.023

Elem	V	Zn	B	Bi	Mo	P	S
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.9928	3.918	1.952	.9203	.0002	9.899	.0155
SDev	.0056	.019	.012	.0847	.0021	.064	.0344
%RSD	.5597	.4814	.6008	9.200	1356.	.6500	221.9
#1	.9864	3.897	1.938	1.013	-.0010	9.907	.0469
#2	.9961	3.929	1.957	.9014	-.0010	9.831	-.0212
#3	.9961	3.930	1.960	Q.8467	.0025	9.959	.0208

Elem	Si	Sr	Sn	Ti	Y	Zr
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0063	.9650	-.0073	.0012	1.914	-.0045
SDev	.0024	.0024	.0066	.0011	.005	.0013
%RSD	38.19	.2469	89.75	86.60	.2375	29.57
#1	-.0037	.9640	-.0126	.0006	1.912	-.0042
#2	-.0068	.9677	-.0093	.0006	1.920	-.0033
#3	-.0083	.9633	.0000	.0024	1.911	-.0059

Analysis Report - QC Standard 08/21/01 04:06:36 PM page 1

Method: STD_MTD Sample Name: CCVB Operator: NR1
Run Time: 08/21/01 16:02:22
Comment: 0820 SSG2 DG3050B
Mode: CONC Corr. Factor: 1

Elem	Al	Sb	As	Ba	Be	Cd	Ca
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0368	.9368	.0065	.0000	.00008	.0009	-.0153
SDev	.0269	.0254	.0023	.0000	.00013	.0028	.0070
%RSD	73.14	2.707	35.96	45.54	159.31	325.1	45.54
#1	.0413	.9193	.0050	.0000	.00016	.0038	-.0168
#2	.0079	.9251	.0052	.0000	-.00007	.0005	-.0213
#3	.0611	.9659	.0091	.0000	.00015	-.0017	-.0077

Elem	Cr	Co	Cu	Fe	Pb	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0016	.0029	.0004	20.05	.0079	1.974	-.0007
SDev	.0020	.0020	.0021	.25	.0268	.025	.0005
%RSD	129.3	69.79	568.6	1.227	339.4	1.275	68.89
#1	-.0031	.0032	.0010	19.79	-.0115	1.947	-.0003
#2	-.0023	.0007	-.0020	20.28	-.0034	1.997	-.0013
#3	.0007	.0047	.0021	20.09	.0385	1.979	-.0006

Elem	Hg	Ni	K	Se	Ag	Na	Tl
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0057	.0028	.2507	-.0209	.0122	.0363	-.0757
SDev	.0033	.0019	.6867	.0175	.0020	.0350	.0256
%RSD	58.72	69.28	273.9	83.63	16.04	96.39	33.85
#1	.0066	.0039	.2787	-.0318	.0136	.0643	-.0559
#2	.0020	.0006	-.4495	-.0007	.0100	-.0029	-.1046
#3	.0084	.0039	.9230	-.0301	.0131	.0474	-.0665

Elem	V	Zn	B	Bi	Mo	P	S
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0014	-.0036	.0063	-.0540	.9841	.0046	1.979
SDev	.0022	.0012	.0031	.0285	.0055	.0137	.020
%RSD	154.8	31.95	49.52	52.77	.5606	295.3	1.001
#1	-.0014	-.0023	.0099	-.0416	.9777	.0147	1.957
#2	-.0036	-.0043	.0045	-.0338	.9873	-.0109	1.991
#3	.0008	-.0043	.0045	-.0865	.9873	.0100	1.991

Elem	Si	Sr	Sn	Ti	Y	Zr
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.988	.0002	1.996	1.918	.0006	1.920
SDev	.018	.0007	.027	.025	.0021	.026
%RSD	.8860	300.2	1.357	1.317	346.4	1.375
#1	1.971	.0010	1.967	1.891	.0018	1.891
#2	2.006	-.0005	2.020	1.941	-.0018	1.943
#3	1.987	.0002	2.003	1.920	.0018	1.925

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Method: STD_MTD Sample Name: CCB Operator: NR1
Run Time: 08/21/01 16:08:36
Comment: 0820 SSG2 DG3050B
Mode: CONC Corr. Factor: 1

Elem	Al	Sb	As	Ba	Be	Cd	Ca
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	Q.0302	.0116	.0140	.0007	.00022	.0009	.0061
SDev	.0216	.0254	.0076	.0011	.00012	.0012	.0137
%RSD	71.58	217.9	53.91	173.2	54.931	130.8	226.1
#1	Q.0542	.0291	Q.0203	Q.0020	.00036	.0015	.0197
#2	.0124	-.0175	.0056	-.0000	.00015	-.0005	.0061
#3	.0239	.0233	.0163	.0000	.00016	.0016	-.0076

Elem	Cr	Co	Cu	Fe	Pb	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0000	.0041	.0033	.0019	.0079	.0001	-.0000
SDev	.0039	.0042	.0052	.0029	.0220	.0002	.0005
%RSD	911400.	102.1	155.7	157.5	277.6	173.2	842600.
#1	Q.0046	.0089	Q.0091	.0041	Q.0226	.0003	.0006
#2	-.0023	.0025	.0017	-.0014	.0186	.0000	-.0003
#3	-.0023	.0010	-.0009	.0029	-.0174	.0000	-.0003

Elem	Hg	Ni	K	Se	Ag	Na	Tl
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0021	-.0022	.6436	.0006	.0012	.0783	-.0269
SDev	.0029	.0057	1.101	.0165	.0049	.0384	.0064
%RSD	137.6	255.3	171.1	2752.	408.5	49.10	23.73
#1	.0025	.0022	Q1.859	.0018	.0064	Q.1202	-.0333
#2	-.0010	-.0003	.3576	-.0165	-.0034	.0699	-.0269
#3	.0049	-.0087	-.2860	.0165	.0007	.0447	-.0205

Elem	V	Zn	B	Bi	Mo	P	S
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0020	.0007	.0063	-.0137	-.0016	.0090	.0181
SDev	.0038	.0007	.0056	.0342	.0000	.0106	.0242
%RSD	192.4	110.7	89.21	249.7	.0670	117.8	133.6
#1	Q.0062	.0011	Q.0126	-.0228	-.0016	.0142	.0106
#2	.0010	.0011	.0018	.0241	-.0016	.0160	-.0014
#3	-.0012	-.0002	.0045	-.0424	-.0016	-.0032	.0452

Elem	Si	Sr	Sn	Ti	Y	Zr
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0057	.0005	.0017	.0012	Q.0018	.0023
SDev	.0009	.0004	.0137	.0028	.0000	.0025
%RSD	15.75	86.59	813.0	229.1	.0015	107.9
#1	-.0052	.0002	.0152	.0043	Q.0018	.0049
#2	-.0052	.0010	-.0122	.0006	Q.0018	.0020
#3	-.0068	.0002	.0021	-.0012	Q.0018	-.0000

Analysis Report QC Standard 08/21/01 06:25:36 PM page 1

Method: STD_MTD Sample Name: ICSA Operator: NR1
Run Time: 08/21/01 18:21:24
Comment: 0820 SSG3 DG3050B
Mode: CONC Corr. Factor: 1

Elem	Al	Sb	As	Ba	Be	Cd	Ca
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	294.8	.0237	Q-.1343	-.0007	-.00025	.0000	480.3
SDev	2.9	.0213	.0456	.0012	.00000	.0052	4.7
%RSD	.9928	90.14	33.94	164.1	.07518	31200.	.9762
#1	291.9	.0178	Q-.1164	-.0014	-.00025	Q-.0056	475.8
#2	297.7	.0059	Q-.1862	.0007	-.00025	.0046	485.1
#3	294.9	.0474	Q-.1004	-.0014	-.00025	.0010	479.9

Elem	Cr	Co	Cu	Fe	Pb	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0004	-.0031	-.0030	197.4	-.0083	482.1	-.0072
SDev	.0014	.0010	.0005	2.8	.0100	5.1	.0001
%RSD	364.3	30.98	15.06	1.394	120.9	1.062	1.762
#1	-.0012	-.0039	-.0033	195.0	-.0182	476.8	-.0073
#2	.0012	-.0034	-.0033	200.4	.0018	487.0	-.0071
#3	-.0012	-.0021	-.0025	196.9	-.0084	482.5	-.0073

Elem	Hg	Ni	K	Se	Ag	Na	Tl
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0143	Q-.0087	.4357	-.0384	-.0044	Q-.2144	.0026
SDev	.0071	.0147	.4344	.0373	.0022	.0065	.0297
%RSD	49.58	168.2	99.71	97.10	50.41	3.052	1152.
#1	-.0063	.0026	.1489	.0020	-.0020	Q-.2069	.0243
#2	-.0196	Q-.0253	.2227	-.0715	-.0047	Q-.2190	.0147
#3	-.0170	Q-.0035	.9355	-.0458	-.0064	Q-.2172	-.0313

Elem	V	Zn	B	Bi	Mo	P	S
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0040	.0017	-.0113	-.0635	.0121	.0652	Q.2679
SDev	.0001	.0004	.0043	.0307	.0049	.0184	.0827
%RSD	1.842	22.45	38.19	48.29	40.95	28.18	30.86
#1	.0040	.0021	-.0151	-.0857	.0120	.0629	.1789
#2	.0041	.0013	-.0123	-.0762	.0171	.0846	Q.3422
#3	.0040	.0017	-.0066	-.0285	.0072	.0480	Q.2827

Elem	Si	Sr	Sn	Ti	Y	Zr
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1212	.0177	.0238	.0057	-.0016	.0067
SDev	.0076	.0005	.0216	.0011	.0006	.0016
%RSD	6.301	2.801	90.80	19.25	34.84	23.49
#1	.1299	.0172	.0007	.0045	Q-.0023	.0049
#2	.1185	.0180	.0272	.0064	-.0013	.0076
#3	.1153	.0180	.0435	.0064	-.0013	.0076

4. SHIPPING AND RECEIVING DOCUMENTS

Airbills
Chain-of-Custody Records
Sample Log-In Sheets
Miscellaneous Shipping/Receiving Records

Analysis Report QC Standard 08/21/01 06:29:55 PM page 1

Method: STD_MTD Sample Name: ICSAB Operator: NR1
Run Time: 08/21/01 18:25:43
Comment: 0820 SSG3 DG3050B
Mode: CONC Corr. Factor: 1

Elem	Al	Sb	As	Ba	Be	Cd	Ca
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	294.2	.9925	.8238	.4806	.47016	.9729	480.5
SDev	1.6	.0326	.0083	.0021	.00377	.0108	2.7
%RSD	.5354	3.285	1.010	.4387	.80237	1.109	.5695
#1	292.8	.9945	.8201	.4806	.46691	.9608	478.2
#2	294.0	.9590	.8333	.4785	.46929	.9766	479.8
#3	295.9	1.024	.8179	.4827	.47430	.9814	483.6

Elem	Cr	Co	Cu	Fe	Pb	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.4675	.4684	.4879	198.5	.9539	482.2	.4573
SDev	.0024	.0026	.0002	1.7	.0099	3.0	.0031
%RSD	.5175	.5625	.0462	.8503	1.042	.6259	.6751
#1	.4648	.4654	.4876	197.1	.9652	479.4	.4545
#2	.4695	.4705	.4880	197.9	.9463	481.7	.4568
#3	.4680	.4693	.4880	200.4	.9502	485.4	.4606

Elem	Hg	Ni	K	Se	Ag	Na	Tl
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0224	.9321	.8172	.9716	.9771	-.1819	.0036
SDev	.0047	.0196	.7338	.0369	.0022	.0145	.0098
%RSD	21.11	2.106	89.80	3.795	.2252	7.982	269.3
#1	-.0206	.9330	1.659	.9960	.9751	-.1900	.0032
#2	-.0188	.9121	.4816	.9292	.9767	-.1906	-.0059
#3	-.0277	.9313	.3111	.9897	.9794	-.1652	.0136

Elem	V	Zn	B	Bi	Mo	P	S
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.4806	.9748	-.0055	-.0223	.0138	.0620	.2705
SDev	.0040	.0062	.0033	.0455	.0031	.0206	.0343
%RSD	.8391	.6368	59.39	204.3	22.17	33.21	12.66
#1	.4772	.9686	-.0074	-.0024	.0171	.0803	.3084
#2	.4795	.9747	-.0074	.0099	.0110	.0397	.2417
#3	.4850	.9811	-.0017	-.0743	.0135	.0659	.2615

Elem	Si	Sr	Sn	Ti	Y	Zr
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0954	.0177	.0097	.0070	-.0020	.0040
SDev	.0041	.0004	.0056	.0011	.0006	.0010
%RSD	4.265	2.429	58.24	15.75	28.48	26.19
#1	.0991	.0180	.0059	.0083	-.0013	.0049
#2	.0911	.0180	.0162	.0064	-.0023	.0042
#3	.0959	.0172	.0070	.0064	-.0023	.0028

CHAIN OF CUSTODY

PSC **ANALYTICAL SERVICES**
5555 North Service Road
Burlington, Ontario L7L 5H7
Toll Free: 1-800-668-0639
Tel: (905) 332-8788
Fax: (905) 332-9169

CLIENT INFORMATION

Company Name: KCG Consultants Ltd.
Project Manager: Basil Wong
Address: 2620 Bristol Circle
Oakville, ON
Phone #: 905-829-8880 Fax #: 905-829-8890
Sampled by:

MB - 47060

ANALYSIS REQUESTED: ICAP metals; Level of contamination (low, high, unknown)

Philip Use Only	Field Sample ID	# Bottles	Matrix	Date	Time	ICAP metals									Level of contamination (low, high, unknown)
Metals 41	0501-23	1	Soil	Aug 15, 01	10:10	/					250AB				
42	0501-24	"	"	"	10:25	/									
43	0501-25	"	"	"	10:40	/									
44	0501-26	"	"	"	11:00	/									
45	0501-27	"	"	"	11:22	/									
46	0501-28	"	"	"	11:35	/									
47	BS01-1	"	"	"	9:40	/									
48	BS01-2	"	"	"	12:05	/									

TAT (Turnaround Time)

RUSH TAT MUST HAVE PRIOR APPROVAL

**some exceptions apply please contact Lab*

- STD 10 Business Days ☑
- RUSH 5 Business Days ☐
- RUSH 2 Business Days ☐
- RUSH 1 Business Days ☐
- Other Business Days ____

PROJECT INFORMATION

Project #: 3-997-02-08
Site: Depew, NY
PO#:
Philip Quote #:
Philip Project #:
Philip Contact: Aidan Blythe

SPECIAL DETECTION LIMITS

MISA ☐

SPECIAL REQUIREMENTS / REGULATIONS

New York TAGM 4046

REMARKS

Client Signature: [signature]
Affiliation: KCG
Date/Time: Aug 15, 01 1:50 PM

Received By:
Affiliation:
Date/Time:

Rec'd By:
Date/Time

00061

WHITE - LAB / YELLOW - CLIENT

SEE OVER FOR COMPLETION & SAMPLING INSTRUCTIONS

00062

US SAMPLE LOG IN SHEET

XCG

Lab Name: Philip Analytical Services Corporation, Burlington Laboratory

Received By (Print Name): JOAN TRACEY Buffalo NY

Received By (Signature):

Client Project ID: ANO1997

REMARKS:		Condition of Samples/Sample Shipment:
Custody Seal(s)	Present ✓ Absent ___	
Chain of Custody Records	Present ✓ Absent ___	
Airbill	Present ___ Absent ✓	
Airbill No.		
Does Information on Custody Records and Samples Agree?	Yes ___ No ___	
Date Received at Lab	8-16-1	
Time Received	12:00	

Temperature of Coolers

Cooler ID:	Temperature
1 cooler	23.4

Relinquished By: E Jones

Date: 8-16-1

Logbook No: ___

Logbook Page No: ___

5. OTHER RECORDS