UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 6
HOUSTON BRANCH
10625 FALLSTONE RD.
HOUSTON, TEXAS 77099

MEMORANDUM

Date: 1-24-1997

Subject: **Contract Laboratory Program Data Review**

From: Melvin L. Ritter, ESAT RPO, 6MD-HC

To: L. Biasco , 6SF-RA

Site: WILCOX OIL

Case#: 25159

SDG#: MFG-Z66

The EPA Region 6 Houston Branch ESAT data validation team has completed a review of the submitted Contract Laboratory Program (CLP) data package for the referenced site. The samples analyzed and reviewed are detailed in the attached Regional data review and assessment report for this case.

The data package was found to be:

( ) Acceptable: No major problems with data package.

(X) Provisional: Use of data requires caution.
Data is acceptable for Regional use. Problems are noted in the review report.

( ) Unacceptable: Some or all of data should not be used.
Problems are noted in the review report.

Questions regarding the data review report can be addressed to me.

Attachments

cc: R. Flores, Region 6 CLP/TPO
M. El-feky, Region 6 Data Coordinator

Files (2)

9417628

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LOCKHEED MARTIN SERVICES GROUP
ONE STERLING PLAZA
10101 SOUTHWEST FREEWAY, SUITE 500
HOUSTON, TEXAS 77074

MEMORANDUM

DATE: January 17, 1997

TO: Dr. Melvin Ritter, ESAT RPO, Region VI

FROM: Dr. Tom C.H. Chiang, ESAT ETM, Region VI

SUBJECT: CLP Data Review

REF: TDF # 6-7129A ESAT File # I2077

Attached is the data review summary for Case #25159
SDG #MFGZ66
Site WILCOX OIL

COMMENTS:

I. CONTRACTUAL ASSESSMENT OF DATA PACKAGE:

A. The hard copy data review confirmed the following contractual noncompliance found by CCS.

The laboratory performed the cyanide matrix spike analysis with the wrong cyanide spike concentration (SOW ILM04.0, page E-23, Table 3). The reviewer determined the wrong cyanide spike concentration did not affect the technical usability of the sample results.

B. The hard copy data review detected the following contractual noncompliances not found by CCS.

1. The data package was received at the Region nine days late for the required 35-day turnaround time.

2. The laboratory did not seal the sample tag in a plastic bag (SOW ILM04.0, page B-13, F.3.d).

II. TECHNICAL/USABILITY ASSESSMENT OF DATA PACKAGE:

A total of 24 results were reviewed for this data package. The data package is technically provisional because of the following problems.

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HOUSTON, TEXAS 77074

MEMORANDUM

Attached is the data review summary for Case #25159
SDG #MFGZ66
Site WILCOX OIL

II. TECHNICAL/USABILITY ASSESSMENT OF DATA PACKAGE, continued:

A. Approximately eight percent of all results were qualified because of technical problems.

B. The matrix spike recoveries were below the QC limits for antimony and lead.

C. The difference between lead laboratory duplicate results exceeded the QC limit.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 6 - HOUSTON BRANCH
10625 FALLSTONE ROAD
HOUSTON, TEXAS 77099

INORGANIC REGIONAL DATA ASSESSMENT

CASE NO. 25159
LABORATORY ARI
CONTRACT # 68-D5-0134
SDG # MFGZ66
SOW# ILM04.0
ACCT # 7FAXJN28 **SF #** FAXUZZ

SITE WILCOX OIL
NO. OF SAMPLES 1
MATRIX SOIL
REVIEWER (IF NOT ESD) ESAT
REVIEWER'S NAME Mervin Doucet
COMPLETION DATE January 17, 1997

SAMPLE NO.: MFG-Z66

DATA ASSESSMENT SUMMARY

	ICP	HG	Cyanide	GFAA
1. HOLDING TIMES	O	O	O	O
2. CALIBRATIONS	O	O	O	O
3. BLANKS	O	O	O	O
4. MATRIX SPIKES	M	O	O	M
5. DUPLICATE ANALYSIS	O	O	O	M
6. ICP QC	O			
7. FAA QC				O
8. LCS	O	O	O	O
9. SAMPLE VERIFICATION	O	O	O	O
10. OTHER QC	N/A	N/A	N/A	N/A
11. OVERALL ASSESSMENT	M	O	O	M

O = Data had no problems.
M = Data qualified because of major or minor problems.
Z = Data unacceptable.
N/A = Not applicable

ACTION ITEMS: The sample tag was not sealed in a plastic bag. The laboratory returned the data package to the Region nine days late.

AREAS OF CONCERN: The matrix spike recoveries were less than 75 percent for antimony and lead. The lead laboratory duplicate difference failed QC criteria. The laboratory used the wrong cyanide spike concentration to perform cyanide matrix spike analysis.

NOTABLE PERFORMANCE:

INORGANIC QA REVIEW
CONTINUATION PAGE

Case 25159 SDG MFGZ66 Site WILCOX OIL Lab ARI

COMMENTS: The package consisted of data for one soil sample for total metals and cyanide analysis by ILM04.0. The laboratory failed to meet the required 35-day data package turnaround time and did not place the sample tag in a sealed plastic bag. The laboratory also performed the cyanide matrix spike analysis with an incorrect spike concentration. Twenty-five percent of the reported results are above the CRDL's.

This data package is technically provisional because of problems with matrix spike recoveries and a laboratory duplicate difference. The technical usability of all reported sample results is appropriately indicated by ESAT's final data qualifiers in the attached Data Summary Sheet.

An Evidence Audit was conducted for the Complete Sample Delivery Group File (CSF), and the Evidence Inventory Checklist is attached to this report.

NOTE: THE FOLLOWING REVIEW NARRATIVE ADDRESSES BOTH CONTRACTUAL AND TECHNICAL ISSUES. THE ASSESSMENT MADE FOR EACH QC PARAMETER IS SOLELY BASED ON THE TECHNICAL DATA USABILITY, WHICH MAY NOT NECESSARILY BE AFFECTED BY CONTRACTUAL PROBLEMS.

1. **Holding Times:** Acceptable. All holding time and sample preservation criteria were met.

2. **Calibrations:** Acceptable. All calibrations were acceptable. Analysis of CRDL standards indicated that instrument performance near the CRDL's was acceptable.

3. **Blanks:** Acceptable. All preparation and calibration blanks met contractual requirements although concentrations for six analytes were reported in the blanks. The potassium result was below the CRDL and affected by the preparation blank concentration.

4. **Pre-digestion/Pre-distillation Matrix Spike Recovery:** Provisional. The results for antimony and lead were qualified as estimated with a low bias because the matrix spike recoveries failed QC criteria.

5. **Duplicate Analysis:** Provisional. The lead laboratory duplicate difference failed technical QC criteria, so the lead result was qualified as estimated.

INORGANIC QA REVIEW
CONTINUATION PAGE

Case 25159 **SDG** MFGZ66 **Site** WILCOX OIL **Lab** ARI

6. **ICP Quality Control:**

   Serial Dilution: Acceptable. All serial dilution differences met QC criteria.

   Interference Check Sample: Acceptable. All ICS results were acceptable indicating correct interelement and background correction.

   ICP Coefficient of Variation: Acceptable. All ICP replicate readings were consistent.

7. **Furnace Atomic Absorption Quality Control:**

   FAA Analytical Spike Recovery: Acceptable. All FAA analytical spike recovery were acceptable.

   FAA Duplicate Injection Relative Standard Deviation: Acceptable. All percent relative standard deviations (%RSD) for duplicate injections were acceptable.

   Method of Standard Addition: Acceptable. All MSA's had acceptable correlation coefficients.

8. **Laboratory Control Sample:** Acceptable. All LCS recoveries were within the QC limits.

9. **Sample Verification:** The reviewer could not verify all reporting errors found by CCS. The reviewer did detect some reporting errors not found by CCS and contacted the laboratory concerning these issues (see attached FAX Record Log).

10. **Other QC:** Not applicable.

11. **Overall Assessment:** The data package is technically provisional because of the following problems.

    The antimony and lead results were qualified because the matrix spike recoveries were below the QC limits.

    The lead result was further qualified because the difference between laboratory duplicate results failed QC criteria.

INORGANIC DATA QUALIFIER DEFINITIONS

The following definitions provide brief explanations of the ESAT-Region 6 qualifiers assigned to results in the inorganic data review process.

U Undetected at the laboratory reported detection limit (IDL).

L Reported concentration is between the IDL and the CRDL.

J Result is estimated because of outlying quality control parameters such as matrix spike, serial dilution, FAA spike recovery, etc.

R Result is unusable.

F A possibility of a false negative exists.

UC Reported concentration should be used as a raised detection limit because of apparent blank contamination.

^ High bias. Actual concentration may be lower than the concentration reported.

v Low bias. Actual concentration may be higher than the concentration reported.

DATA SUMMARY

Case No.: 25159 SDG. No.: MFGZ66 Reviewer: M. Doucet

Laboratory: ARI Matrix: SOIL Units: mg/Kg

EPA TR #=>	MFG-Z66	FLAG	FLAG	FLAG	FLAG	FLAG	COMMENTS
ALUMINUM	1570						
ANTIMONY	10.9	UJv					
ARSENIC	1	L					
BARIUM	15.8	L					
BERYLLIUM	0.22	U					
CADMIUM	0.44	U					
CALCIUM	382	L					
CHROMIUM	3.7						
COBALT	2.1	L					
COPPER	1.9	L					
IRON	3350						
LEAD	15	Jv					
MAGNESIUM	254	L					
MANGANESE	62.3						
MERCURY	0.05	U					
NICKEL	2.2	U					
POTASSIUM	396	LUC					
SELENIUM	0.22	U					
SILVER	0.65	U					
SODIUM	10.9	U					
THALLIUM	0.22	U					
VANADIUM	5.3	L					
ZINC	8.7						
CYANIDE	0.27	U					
% SOLIDS	90.7						

INORGANIC/ORGANIC COMPLETE SDG FILE (CSF) INVENTORY CHECKLIST

Case No.	25159	SDG No.	MFGZ66	SDG Nos. To Follow		SAS No.		Date Rec	1/3/97

EPA Lab ID: ARI

Lab Location: SEATTLE, WA

Region: 6 Audit No.: 25159/MFGZ66

Re_Submitted CSF? Yes _____ No X

Box No(s): 1

COMMENTS:

14/15. The airbill did not require receipt signature and date.

Over for additional comments.

ORIGINALS	YES	NO	N/A
CUSTODY SEALS 1. Present on package?	X		
2. Intact upon receipt?	X		
FORM DC-2 3. Numbering scheme accurate?	X		
4. Are enclosed documents listed?	X		
5. Are listed documents enclosed?	X		
FORM DC-1 6. Present?	X		
7. Complete?	X		
8. Accurate?	X		
CHAIN-OF-CUSTODY RECORD(s) 9. Signed?	X		
10. Dated?	X		
TRAFFIC REPORT(s) PACKING LIST(s) 11. Signed?	X		
12. Dated?	X		
AIRBILLS/AIRBILL STICKER 13. Present?	X		
14. Signed?			X
15. Dated?			X
SAMPLE TAGS 16. Does DC-1 list tags as being included?	X		
17. Present?	X		
OTHER DOCUMENTS 18. Complete?	X		
19. Legible?	X		
20. Original?		X	
20a. If "NO", does the copy indicate where original documents are located?	X		

Audited by: Mervin S Doucet MERVIN DOUCET/ESAT DATA REVIEWER Date 1/7/96

Audited by: _____ _____ Date _____

Audited by: _____ _____ Date _____

Signature Printed Name/Title

TO BE COMPLETED BY CEAT

Date Recvd by CEAT: _____ Date Entered: _____ Date Reviewed: _____

Entered by: _____ _____

Reviewed by: _____ _____

Signature Printed Name/Title

DC-2___

Contract Laboratory Program
REGIONAL/LABORATORY COMMUNICATION SYSTEM
FAX Record Log

Date of FAX: January 17, 1997

Laboratory Name: ARI

Lab Contact: Paul Jay Kuhn

Region: 6

Regional Contact: Mervin Doucet (ESAT)

FAX Initiated by: Region

In reference to data for the following sample number:

MFG-Z66

Summary of Questions/Issues:

1. The sample tag was not sealed in a plastic bag (SOW ILM04.0, page B-13, F.3.d). Please submit an acknowledgement of this contractual deviation and note for future reference.

2. According to the raw data (page 271), the selenium analysis time on the Form 14 (page 53) for sample MFG-Z66 should be 15:33. Please resubmit the corrected Form 14.

3. According to the raw data (page 286), the mercury analysis times for most standards do not match the analysis times on the Form 14 (page 55). Please make the necessary corrections and resubmit.

4. According to the raw data (pages 80-84), the ICP analysis times for all standards do not match the analysis times on the Form 14 (page 53). Please make the necessary corrections and resubmit.

EPA expects the laboratory to look into items and submit data within seven days to Mahmoud El-Feky, U.S. EPA, 10625 Fallstone Road, Houston TX 77099.

Mervin L Doucet
Signature

1/17/97
Date

Distribution: (1) Lab Copy (2) Region Copy

Lockheed Martin Services Group
ESAT Region 6

One Sterling Plaza, 10101 Southwest Freeway, Suite 500
Houston, TX 77074 TEL:(713) 988-2959

FACSIMILE COVER SHEET

Please deliver the following pages to:

Name Paul Jay Kuhn

Firm ARI

City Seattle **State** WA

Telephone 206-621-6490 **Ext.** _____

Fax Telephone No. 206-621-7523 **Ext.** _____

Sender:

Name Mervin Doucet ESAT

Date January 17, 1997 **Time** _____

Total Number of pages including this Cover Sheet 2

If you do not receive all the pages or if any pages are unclear, please call: (713) 988-2959

MESSAGES: _____

Fax No. (713) 988-2994

ENVIRONMENTAL PROTECTION AGENCY
Office of Enforcement

REGION 6
First International Bldg., 1201 Elm St.
Dallas, Texas 75270

CHAIN OF CUSTODY RECORD

PROJ. NO.

PROJECT NAME: Wilcox Oil

SAMPLERS: (Signature) Eric Tate (Eric Tate)

STA. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	VOA	BNAs	Total Metals	TPH			REMARKS
WS-07	11/20/96	1115		X	Tank Drainage Path	3	X	X	X	X			
WS-08	11/20/96	1400		X	Tank Bottom	3	X	X	X	X			

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Eric Tate	11/20/96 1730	FedEx - Tulsa, OK			
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks	

Distribution: Original Accompanies Shipment; Copy to Coordinator Field Files

6-07434

ENVIRONMENTAL PROTECTION AGENCY
Office of Enforcement

REGION 6
First International Bldg., 1201 Elm St.
Dallas, Texas 75270

CHAIN OF CUSTODY RECORD

PROJ. NO.

PROJECT NAME: Wilcox Oil

SAMPLERS: (Signature) Eric Tate (Eric Tate)

STA. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	VOA	RNAs	Total Metals	TPH			REMARKS
WS-01	11/20/96	1430		X	Pond 1	3	X	X	X	X			
WS-02	11/20/96	1450		X	Pond 1	3	X	X	X	X			
WS-03	11/20/96	1310		X	Lee Residence	3	X	X	X	X			
WS-04	11/20/96	1040		X	Pond 2	3	X	X	X	X			
WS-05	11/20/96	1000		X	Pit	3	X	X	X	X			
WS-06	11/20/96	1010		X	Pit	3	X	X	X	X			

FILE COPY

FILE PF (DGW)

NAME OR W.O. NO. 04606-056-026-0600

FILE INDEX NO. OR OTHER 6.3

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Eric Tate	11/20/96 1730	FedEx - Tulsa OK			
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks	

Distribution: Original Accompanies Shipment; Copy to Coordinator Field Files

6-07435

FULL INORGANICS COMPLETE SDG FILE (CSF) INVENTORY SHEET

LABORATORY NAME ARI
CITY/STATE Seattle, WA

CASE NO. 25759 SDG NO. MFG766
SDG NOS. TO FOLLOW
SAS NO.

CONTRACT NO. 68-D5-0134
SOW NO. ILM04.0

All documents delivered in the Complete SDG File must be original documents where possible. (Reference Exhibit B, Section II F and Section III U.)

		Page Nos. From	Page Nos. To	(Please Check:) Lab	(Please Check:) Region
1.	Inventory Sheet (DC-2) (Do not number)			✓	✓
2.	Cover Page	0001	0004	✓	✓
3.	Inorganic Analysis Data Sheet (Form I-IN)	0005	0006	✓	✓
4.	Initial & Continuing Calibration Verification (Form IIA-IN)	0007	0015	✓	✓
5.	CRDL Standards For AA and ICP (Form IIB-IN)	0016	0019	✓	✓
6.	Blanks (Form III-IN)	0020	0025	✓	✓
7.	ICP Interference Check Sample (Form IV-IN)	0026	0029	✓	✓
8.	Spike Sample Recovery (Form VA-IN)	0030	0030	✓	✓
9.	Post Digest Spike Sample Recovery (Form VB-IN)	0031	0031	✓	✓
10.	Duplicates (Form VI-IN)	0032	0032	✓	✓
11.	Laboratory Control Sample (Form VII-IN)	0033	0034	✓	✓
12.	Standard Addition Results (Form VIII-IN)	0035	0035	✓	✓
13.	ICP Serial Dilutions (Form IX-IN)	0036	0036	✓	✓
14.	Instrument Detection Limits (Form X-IN)	0059	0064	✓	✓
15.	ICP Interelement Correction Factors (Form XIA-IN)	0065	0065	✓	✓
16.	ICP Interelement Correction Factors (Form XIB-IN)	0066	0068	✓	✓
17.	ICP Linear Ranges (Form XII-IN)	0069	0069	✓	✓
18.	Preparation Log (Form XIII-IN)	0037	0040	✓	✓
19.	Analysis Run Log (Form XIV-IN)	0041	0058	✓	✓
20.	ICP Raw Data	0070	0228	✓	✓
21.	Furnace AA Raw Data	0229	0280	✓	✓
22.	Mercury Raw Data	0281	0293	✓	✓
23.	Cyanide Raw Data	0294	0298	✓	✓
24.	Preparation Logs Raw Data	0299	0301	✓	✓
25.	Percent Solids Determination Log	0302	0303		✓

	Page Nos. From	Page Nos. To	(Please Check:) Lab	(Please Check:) Region
26. Traffic Report	0306	0306	✓	✓
27. EPA Shipping/Receiving Documents				
Airbill (No. of Shipments 1)	0304	0305	✓	✓
Chain-of-Custody Records	0306	0306	✓	✓
Sample Tags	0307	0307	✓	✓
Sample Log-in Sheet (Lab & DCI)	0308	0314	✓	✓
SDG Cover Sheet	0315	0315	✓	✓
28. Misc. Shipping/Receiving Records (list all individual records)				
Telephone Logs				
29. Internal Lab Sample Transfer Records & Tracking Sheets (describe or list)				
SAMPLE LOG FORM	0316	0317	✓	✓
30. Internal Original Sample Prep & Analysis Records (describe or list)				
Prep Records Spiking log	0318	0318	✓	✓
Analysis Records Standard prep log	0319	0325	✓	✓
Description				
31. Other Records (describe or list)				
Telephone Communications Log				
Special instructions	0326	0327	✓	✓
analyst notes	0328	—	✓	✓

32. Comments:

Completed by (CLP Lab):

[signature] (Signature) — Jeff J. Reitan PM (Print Name & Title) — 12/31/96 (Date)

Audited by (EPA):

Mervin Doucet (Signature) — Mervin Doucet / Dat ESAT Data Reviewer (Print Name & Title) — 1/8/97 (Date)

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Sample Data Package

Case No: 25159

SDG: MFGZ66

ANALYTICAL RESOURCES, INC.
Contract: 68-D5-0134

000001

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Analytical Resources, Incorporated
Analytical Chemists and Consultants

SDG Narrative and Cover Page

Case No: 25159

SDG: MFGZ66

ANALYTICAL RESOURCES, INC.
Contract: 68-D5-0134

000002

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Analytical Resources, Incorporated
Analytical Chemists and Consultants

31 December 1996

Myra Perez
USEPA Region VI
10625 Fallstone Road
Houston, TX 77099

RE: CLP Inorganic Case No. 25159 / SDG# MFGZ66 / Contract: 68-D5-0134
ARI Job No. 5374

Dear Ms. Perez,

Enclosed please find the results for the above referenced samples received on November 20, 1996 for inorganics analysis. This SDG consists of the following listed field soil samples:

MFGZ66

No discrepancies were noted between the sample labels, sample tags, and the traffic report.

Sample Preparation

Samples were prepared for analysis according to the methods specified in the SOW ILM04.0, with the exceptions of four graphite furnace elements. These were prepared according to the instrument manufacturer recommendations: lead was prepared using palladium and magnesium; and arsenic, selenium and thallium were prepared using palladium, magnesium and citric acid.

Sample Analysis

Sample **MFGZ66** was designated as the soil QC sample for spike and duplicate analysis. The following spike recoveries were outside CLP control limits: Pb @ 6.4% and Sb @ 45%. A post digest spike analysis was completed with the following recoveries: Sb @ 76%. The duplicate RPD was elevated for lead (80%).

No other analytical complications were noted for this delivery group. Copies of the reports and all associated raw data will be kept on file at ARI. If you have any questions or require additional information, please contact me at your convenience.

Sincerely,

ANALYTICAL RESOURCES, INC.

Jeff J. Reitan
EPA Inorganics Project Manager
jeff@arilabs.com

Enclosures: Complete SDG File (including diskette)

000003

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U.S. EPA - CLP

COVER PAGE - INORGANIC ANALYSES DATA PACKAGE

Lab Name: ANALYTICAL_RESOURCES_INC. Contract: 68D50134__

Lab Code: ARI___ Case No.: 25159 SAS No.: _____ SDG No.:MFGZ66

SOW No.: ILM04.0

EPA Sample No.	Lab Sample ID
_MFGZ66_____	_5374A_____
_MFGZ66D_____	_5374ADUP_____
_MFGZ66S_____	_5374ASPK_____

Were ICP interelement corrections applied ? Yes/No YES

Were ICP background corrections applied ? Yes/No YES
If yes - were raw data generated before application of background corrections ? Yes/No NO_

Comments:

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. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on floppy diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: _____ Name: PAUL JAY KUHN_____

Date: 12/31/96 Title: INORGANICS LAB MANAGER__

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Sample Data

Case No: 25159

SDG: MFGZ66

ANALYTICAL RESOURCES, INC.
Contract: 68-D5-0134

000005

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U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MFGZ66

Lab Name: ANALYTICAL_RESOURCES_INC. Contract: 68D50134__

Lab Code: ARI___ Case No.: 25159_ SAS No.: _____ SDG No.: MFGZ66

Matrix (soil/water): SOIL_ Lab Sample ID: 5374A

Level (low/med): LOW__ Date Received: 11/20/96

% Solids: _90.7

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	1570			P
7440-36-0	Antimony	10.9	U	N	P
7440-38-2	Arsenic	1.0	B		F
7440-39-3	Barium	15.8	B		P
7440-41-7	Beryllium	0.22	U		P
7440-43-9	Cadmium	0.44	U		P
7440-70-2	Calcium	382	B		P
7440-47-3	Chromium	3.7			P
7440-48-4	Cobalt	2.1	B		P
7440-50-8	Copper	1.9	B		P
7439-89-6	Iron	3350			P
7439-92-1	Lead	15.0		SN*	F
7439-95-4	Magnesium	254	B		P
7439-96-5	Manganese	62.3			P
7439-97-6	Mercury	0.05	U		CV
7440-02-0	Nickel	2.2	U		P
7440-09-7	Potassium	396	B		P
7782-49-2	Selenium	0.22	U		F
7440-22-4	Silver	0.65	U		P
7440-23-5	Sodium	10.9	U		P
7440-28-0	Thallium	0.22	U		F
7440-62-2	Vanadium	5.3	B		P
7440-66-6	Zinc	8.7			P
	Cyanide	0.27	U		CA

Color Before: BROWN____ Clarity Before: _____ Texture: FINE__

Color After: ORANGE___ Clarity After: CLOUDY Artifacts: _____

Comments:

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Quality Control Data

Case No: 25159

SDG: MFGZ66

ANALYTICAL RESOURCES, INC.
Contract: 68-D5-0134

000007

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U.S. EPA - CLP

2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: ANALYTICAL_RESOURCES_INC. Contract: 68D50134__

Lab Code: ARI___ Case No.: 25159_ SAS No.: _____ SDG No.: MFGZ66

Initial Calibration Source: EPA-ICV_____

Continuing Calibration Source: I.V._____

Concentration Units: ug/L

Analyte	Initial Calibration True	Initial Calibration Found	Initial Calibration %R(1)	Continuing Calibration True	Continuing Calibration Found	Continuing Calibration %R(1)	Continuing Calibration Found	Continuing Calibration %R(1)	M
Aluminum	1956.0	1978.70	101.2	5000.0	4946.87	98.9	4973.84	99.5	P
Antimony	970.0	1006.67	103.8	2000.0	1930.95	96.5	1916.38	95.8	P
Arsenic	50.9	53.40	104.9	25.0	26.40	105.6	27.00	108.0	F
Barium	2009.0	1977.26	98.4	1000.0	991.89	99.2	975.47	97.5	P
Beryllium	476.0	454.47	95.5	1000.0	960.42	96.0	952.72	95.3	P
Cadmium	510.0	500.66	98.2	1000.0	1015.17	101.5	1001.18	100.1	P
Calcium	50711.0	49331.63	97.3	5000.0	5014.03	100.3	4985.41	99.7	P
Chromium	471.0	472.43	100.3	1000.0	995.01	99.5	985.14	98.5	P
Cobalt	520.0	523.97	100.8	1000.0	992.18	99.2	983.92	98.4	P
Copper	497.0	489.87	98.6	1000.0	994.67	99.5	994.43	99.4	P
Iron	1985.0	1959.33	98.7	5000.0	4950.62	99.0	4947.10	98.9	P
Lead	98.8	106.00	107.3	40.0	42.30	105.8	38.50	96.2	F
Magnesium	24588.0	24859.97	101.1	5000.0	5012.28	100.2	5007.08	100.1	P
Manganese	491.0	482.83	98.3	1000.0	991.25	99.1	984.13	98.4	P
Mercury	4.9	4.56	93.1	3.0	2.99	99.7	2.96	98.7	CV
Nickel	497.0	488.39	98.3	1000.0	991.40	99.1	995.89	99.6	P
Potassium	49603.0	50444.01	101.7	20000.0	19901.24	99.5	19783.33	98.9	P
Selenium	50.7	50.80	100.2	25.0	25.90	103.6	25.30	101.2	F
Silver	487.0	484.90	99.6	1000.0	1002.74	100.3	994.83	99.5	P
Sodium	48786.0	50158.11	102.8	2000.0	2008.56	100.4	1978.21	98.9	P
Thallium	98.9	105.50	106.7	25.0	24.80	99.2	25.30	101.2	F
Vanadium	492.0	480.72	97.7	1000.0	985.50	98.6	979.29	97.9	P
Zinc	3012.0	2966.29	98.5	1000.0	1003.89	100.4	992.20	99.2	P
Cyanide	90.0	100.04	111.2	100.0	96.26	96.3	95.31	95.3	CA

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

U.S. EPA - CLP

2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: ANALYTICAL_RESOURCES_INC. Contract: 68D50134__

Lab Code: ARI___ Case No.: 25159_ SAS No.: _____ SDG No.: MFGZ66

Initial Calibration Source: EPA-ICV_____

Continuing Calibration Source: I.V._____

Concentration Units: ug/L

Analyte	Initial Calibration True	Initial Calibration Found	Initial Calibration %R(1)	Continuing Calibration True	Continuing Calibration Found	Continuing Calibration %R(1)	Continuing Calibration Found	Continuing Calibration %R(1)	M
Aluminum_				5000.0	4966.47	99.3	4959.17	99.2	P
Antimony_				2000.0	1998.02	99.9	1969.64	98.5	P
Arsenic__				25.0	26.60	106.4	25.80	103.2	F
Barium___				1000.0	997.70	99.8	996.61	99.7	P
Beryllium				1000.0	962.69	96.3	963.48	96.3	P
Cadmium__				1000.0	1023.38	102.3	1021.88	102.2	P
Calcium__				5000.0	5003.74	100.1	4999.31	100.0	P
Chromium_				1000.0	998.41	99.8	997.28	99.7	P
Cobalt___				1000.0	996.68	99.7	995.93	99.6	P
Copper___				1000.0	999.41	99.9	1001.81	100.2	P
Iron____				5000.0	4985.12	99.7	4961.75	99.2	P
Lead____				40.0	38.60	96.5	38.60	96.5	F
Magnesium				5000.0	4996.90	99.9	5010.43	100.2	P
Manganese				1000.0	992.83	99.3	993.31	99.3	P
Mercury__				3.0	3.03	101.0	3.01	100.3	CV
Nickel___				1000.0	1002.65	100.3	1010.64	101.1	P
Potassium				20000.0	20081.80	100.4	20332.36	101.7	P
Selenium_				25.0	25.40	101.6	24.30	97.2	F
Silver___				1000.0	1004.72	100.5	1003.43	100.3	P
Sodium___				2000.0	2004.26	100.2	1998.88	99.9	P
Thallium_				25.0	26.50	106.0			F
Vanadium_				1000.0	984.83	98.5	980.85	98.1	P
Zinc____				1000.0	1011.12	101.1	1011.09	101.1	P
Cyanide__				100.0	93.42	93.4	92.47	92.5	CA

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

U.S. EPA - CLP

2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: ANALYTICAL_RESOURCES_INC. Contract: 68D50134__

Lab Code: ARI___ Case No.: 25159_ SAS No.: _____ SDG No.: MFGZ66

Initial Calibration Source: EPA-ICV_____

Continuing Calibration Source: I.V._____

Concentration Units: ug/L

Analyte	Initial Calibration True	Initial Calibration Found	Initial Calibration %R(1)	Continuing Calibration True	Continuing Calibration Found	Continuing Calibration %R(1)	Continuing Calibration Found	Continuing Calibration %R(1)	M
Aluminum_				5000.0	4936.10	98.7	4857.57	97.2	P
Antimony_				2000.0	1920.35	96.0	1896.98	94.8	P
Arsenic__				25.0	26.30	105.2	25.10	100.4	F
Barium___				1000.0	971.75	97.2	977.19	97.7	P
Beryllium				1000.0	947.87	94.8	948.99	94.9	P
Cadmium__				1000.0	986.67	98.7	985.86	98.6	P
Calcium__				5000.0	4946.91	98.9	4890.67	97.8	P
Chromium_				1000.0	979.52	98.0	975.57	97.6	P
Cobalt___				1000.0	974.34	97.4	971.70	97.2	P
Copper___				1000.0	994.42	99.4	999.14	99.9	P
Iron____				5000.0	4937.79	98.8	4870.88	97.4	P
Lead____				40.0	39.10	97.8	37.50	93.8	F
Magnesium				5000.0	4988.99	99.8	4857.39	97.1	P
Manganese				1000.0	973.38	97.3	969.91	97.0	P
Mercury__				3.0	2.88	96.0			CV
Nickel___				1000.0	984.81	98.5	979.56	98.0	P
Potassium				20000.0	19680.16	98.4	19573.30	97.9	P
Selenium_				25.0	25.00	100.0	25.30	101.2	F
Silver___				1000.0	980.55	98.1	980.25	98.0	P
Sodium___				2000.0	1952.16	97.6	1976.49	98.8	P
Thallium_									NR
Vanadium_				1000.0	967.77	96.8	966.80	96.7	P
Zinc____				1000.0	981.06	98.1	986.41	98.6	P
Cyanide__									NR

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

U.S. EPA - CLP

2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: ANALYTICAL_RESOURCES_INC. Contract: 68D50134__

Lab Code: ARI___ Case No.: 25159_ SAS No.: _____ SDG No.: MFGZ66

Initial Calibration Source: EPA-ICV_____

Continuing Calibration Source: I.V._____

Concentration Units: ug/L

Analyte	Initial Calibration True	Initial Calibration Found	Initial Calibration %R(1)	Continuing Calibration True	Continuing Calibration Found	Continuing Calibration %R(1)	Continuing Calibration Found	Continuing Calibration %R(1)	M
Aluminum_				5000.0	4882.31	97.6	5118.27	102.4	P
Antimony_				2000.0	2001.91	100.1	2016.84	100.8	P
Arsenic__				25.0	26.10	104.4	26.30	105.2	F
Barium___				1000.0	987.63	98.8	1004.41	100.4	P
Beryllium				1000.0	952.18	95.2	985.89	98.6	P
Cadmium__				1000.0	1005.85	100.6	1021.10	102.1	P
Calcium__				5000.0	5165.85	103.3	5070.44	101.4	P
Chromium_				1000.0	986.29	98.6	1012.29	101.2	P
Cobalt___				1000.0	979.76	98.0	1009.09	100.9	P
Copper___				1000.0	1027.40	102.7	1054.52	105.5	P
Iron____				5000.0	4896.78	97.9	5079.31	101.6	P
Lead____				40.0	37.30	93.2			F
Magnesium				5000.0	4898.10	98.0	5119.22	102.4	P
Manganese				1000.0	972.91	97.3	1005.16	100.5	P
Mercury__									NR
Nickel___				1000.0	986.89	98.7	1012.50	101.2	P
Potassium				20000.0	20225.50	101.1	20310.25	101.6	P
Selenium_				25.0	25.10	100.4	25.10	100.4	F
Silver___				1000.0	989.29	98.9	1015.53	101.6	P
Sodium___				2000.0	2050.43	102.5	2028.04	101.4	P
Thallium_									NR
Vanadium_				1000.0	972.09	97.2	1003.75	100.4	P
Zinc____				1000.0	1003.80	100.4	1023.06	102.3	P
Cyanide__									NR

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

U.S. EPA - CLP

2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: ANALYTICAL_RESOURCES_INC. Contract: 68D50134__

Lab Code: ARI___ Case No.: 25159_ SAS No.: _____ SDG No.: MFGZ66

Initial Calibration Source: EPA-ICV_____

Continuing Calibration Source: I.V._____

Concentration Units: ug/L

Analyte	Initial Calibration True	Initial Calibration Found	Initial Calibration %R(1)	Continuing Calibration True	Continuing Calibration Found	Continuing Calibration %R(1)	Continuing Calibration Found	Continuing Calibration %R(1)	M
Aluminum	1956.0	1998.69	102.2	5000.0	5019.72	100.4	5037.56	100.8	P
Antimony	970.0	1054.75	108.7	2000.0	1980.40	99.0	1961.43	98.1	P
Arsenic				25.0	25.80	103.2	26.00	104.0	F
Barium	2009.0	2052.09	102.1	1000.0	1016.11	101.6	1000.69	100.1	P
Beryllium	476.0	454.11	95.4	1000.0	964.45	96.4	953.14	95.3	P
Cadmium	510.0	506.67	99.3	1000.0	1007.34	100.7	1008.31	100.8	P
Calcium	50711.0	49951.03	98.5	5000.0	5084.20	101.7	5093.31	101.9	P
Chromium	471.0	480.91	102.1	1000.0	1010.42	101.0	1003.07	100.3	P
Cobalt	520.0	534.02	102.7	1000.0	1009.87	101.0	1002.08	100.2	P
Copper	497.0	496.47	99.9	1000.0	1016.12	101.6	1008.23	100.8	P
Iron	1985.0	1957.15	98.6	5000.0	4966.38	99.3	4963.04	99.3	P
Lead									NR
Magnesium	24588.0	24931.59	101.4	5000.0	5019.03	100.4	5060.92	101.2	P
Manganese	491.0	490.95	100.0	1000.0	1014.65	101.5	1003.13	100.3	P
Mercury									NR
Nickel	497.0	475.58	95.7	1000.0	994.31	99.4	994.42	99.4	P
Potassium	49603.0	51941.32	104.7	20000.0	20040.83	100.2	20018.14	100.1	P
Selenium				25.0	26.10	104.4	25.60	102.4	F
Silver	487.0	487.52	100.1	1000.0	1006.10	100.6	997.48	99.7	P
Sodium	48786.0	50628.67	103.8	2000.0	2005.22	100.3	1990.38	99.5	P
Thallium									NR
Vanadium	492.0	487.15	99.0	1000.0	1011.12	101.1	998.09	99.8	P
Zinc	3012.0	2976.78	98.8	1000.0	996.65	99.7	995.16	99.5	P
Cyanide									NR

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

U.S. EPA - CLP

2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: ANALYTICAL_RESOURCES_INC. Contract: 68D50134__

Lab Code: ARI___ Case No.: 25159_ SAS No.: _____ SDG No.: MFGZ66

Initial Calibration Source: EPA-ICV_____

Continuing Calibration Source: I.V._____

Concentration Units: ug/L

Analyte	Initial Calibration True	Initial Calibration Found	Initial Calibration %R(1)	Continuing Calibration True	Continuing Calibration Found	Continuing Calibration %R(1)	Continuing Calibration Found	Continuing Calibration %R(1)	M
Aluminum_				5000.0	4927.95	98.6	4919.43	98.4	P
Antimony_				2000.0	1961.12	98.1	1980.08	99.0	P
Arsenic__									NR
Barium___				1000.0	990.20	99.0	998.74	99.9	P
Beryllium				1000.0	947.08	94.7	955.69	95.6	P
Cadmium__				1000.0	1000.95	100.1	1008.59	100.9	P
Calcium__				5000.0	4990.97	99.8	5008.36	100.2	P
Chromium_				1000.0	996.00	99.6	999.42	99.9	P
Cobalt___				1000.0	991.84	99.2	996.76	99.7	P
Copper___				1000.0	1000.25	100.0	983.14	98.3	P
Iron____				5000.0	4900.65	98.0	4909.38	98.2	P
Lead____									NR
Magnesium				5000.0	4939.46	98.8	4918.90	98.4	P
Manganese				1000.0	998.34	99.8	1000.10	100.0	P
Mercury__									NR
Nickel___				1000.0	981.79	98.2	994.33	99.4	P
Potassium				20000.0	19995.46	100.0	20369.74	101.8	P
Selenium_									NR
Silver___				1000.0	991.39	99.1	993.64	99.4	P
Sodium___				2000.0	1969.40	98.5	1970.58	98.5	P
Thallium_									NR
Vanadium_				1000.0	988.56	98.9	990.15	99.0	P
Zinc____				1000.0	989.17	98.9	992.72	99.3	P
Cyanide__									NR

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

U.S. EPA - CLP

2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: ANALYTICAL_RESOURCES_INC. Contract: 68D50134__

Lab Code: ARI___ Case No.: 25159_ SAS No.: _____ SDG No.: MFGZ66

Initial Calibration Source: EPA-ICV_____

Continuing Calibration Source: I.V._____

Concentration Units: ug/L

Analyte	Initial Calibration True	Initial Calibration Found	Initial Calibration %R(1)	Continuing Calibration True	Continuing Calibration Found	Continuing Calibration %R(1)	Continuing Calibration Found	Continuing Calibration %R(1)	M
Aluminum_				5000.0	5018.14	100.4	5008.73	100.2	P
Antimony_				2000.0	2054.58	102.7	2053.15	102.7	P
Arsenic__									NR
Barium___				1000.0	1018.89	101.9	1023.16	102.3	P
Beryllium				1000.0	955.57	95.6	957.98	95.8	P
Cadmium__				1000.0	1025.18	102.5	1026.92	102.7	P
Calcium__				5000.0	5026.76	100.5	5021.49	100.4	P
Chromium_				1000.0	1003.67	100.4	1005.93	100.6	P
Cobalt___				1000.0	1003.37	100.3	1003.55	100.4	P
Copper___				1000.0	986.66	98.7	1006.16	100.6	P
Iron____				5000.0	4945.00	98.9	4941.83	98.8	P
Lead____									NR
Magnesium				5000.0	5028.73	100.6	5013.29	100.3	P
Manganese				1000.0	999.77	100.0	1005.06	100.5	P
Mercury__									NR
Nickel___				1000.0	988.03	98.8	989.21	98.9	P
Potassium				20000.0	20441.57	102.2	20683.52	103.4	P
Selenium_									NR
Silver___				1000.0	1003.34	100.3	1005.33	100.5	P
Sodium___				2000.0	2006.52	100.3	2011.03	100.6	P
Thallium_									NR
Vanadium_				1000.0	991.69	99.2	997.10	99.7	P
Zinc____				1000.0	1004.35	100.4	1013.89	101.4	P
Cyanide__									NR

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

U.S. EPA - CLP

2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: ANALYTICAL_RESOURCES_INC. Contract: 68D50134__

Lab Code: ARI___ Case No.: 25159_ SAS No.: _____ SDG No.: MFGZ66

Initial Calibration Source: EPA-ICV_____

Continuing Calibration Source: I.V._____

Concentration Units: ug/L

Analyte	Initial Calibration True	Initial Calibration Found	Initial Calibration %R(1)	Continuing Calibration True	Continuing Calibration Found	Continuing Calibration %R(1)	Continuing Calibration Found	Continuing Calibration %R(1)	M
Aluminum_				5000.0	4963.90	99.3	5030.57	100.6	P
Antimony_				2000.0	2044.64	102.2	2065.60	103.3	P
Arsenic__									NR
Barium___				1000.0	1011.65	101.2	1018.61	101.9	P
Beryllium				1000.0	949.84	95.0	947.01	94.7	P
Cadmium__				1000.0	1023.88	102.4	1029.23	102.9	P
Calcium__				5000.0	4979.84	99.6	5008.97	100.2	P
Chromium_				1000.0	995.74	99.6	990.38	99.0	P
Cobalt___				1000.0	998.25	99.8	994.80	99.5	P
Copper___				1000.0	987.36	98.7	979.48	97.9	P
Iron____				5000.0	4892.84	97.9	4906.58	98.1	P
Lead____									NR
Magnesium				5000.0	4997.66	100.0	5104.18	102.1	P
Manganese				1000.0	994.18	99.4	986.17	98.6	P
Mercury__									NR
Nickel___				1000.0	979.08	97.9	985.80	98.6	P
Potassium				20000.0	20335.71	101.7	20373.51	101.9	P
Selenium_									NR
Silver___				1000.0	996.70	99.7	991.62	99.2	P
Sodium___				2000.0	2005.22	100.3	1999.09	100.0	P
Thallium_									NR
Vanadium_				1000.0	984.70	98.5	978.43	97.8	P
Zinc____				1000.0	1013.98	101.4	1014.49	101.4	P
Cyanide__									NR

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

U.S. EPA - CLP

2B
CRDL STANDARD FOR AA AND ICP

Lab Name: ANALYTICAL_RESOURCES_INC. Contract: 68D50134__

Lab Code: ARI___ Case No.: 25159_ SAS No.: _____ SDG No.: MFGZ66

AA CRDL Standard Source: I.V._____

ICP CRDL Standard Source: I.V._____

Concentration Units: ug/L

Analyte	CRDL Standard for AA			CRDL Standard for ICP				
					Initial		Final	
	True	Found	%R	True	Found	%R	Found	%R
Aluminum								
Antimony				120.0	111.84	93.2	100.44	83.7
Arsenic	10.0	10.60	106.0					
Barium								
Beryllium				10.0	9.59	95.9	9.50	95.0
Cadmium				10.0	9.27	92.7	9.79	97.9
Calcium								
Chromium				20.0	26.99	135.0	24.16	120.8
Cobalt				100.0	102.07	102.1	101.32	101.3
Copper				50.0	50.98	102.0	50.98	102.0
Iron								
Lead	3.0	2.80	93.3					
Magnesium								
Manganese				30.0	32.09	107.0	31.62	105.4
Mercury	0.2	0.20	100.0					
Nickel				80.0	82.76	103.4	81.78	102.2
Potassium								
Selenium	5.0	5.00	100.0					
Silver				20.0	20.20	101.0	18.79	94.0
Sodium								
Thallium	10.0	9.80	98.0					
Vanadium				100.0	96.69	96.7	97.12	97.1
Zinc				40.0	42.82	107.0	42.82	107.0

Control Limits: no limits have been established by EPA at this time

U.S. EPA - CLP

2B
CRDL STANDARD FOR AA AND ICP

Lab Name: ANALYTICAL_RESOURCES_INC. Contract: 68D50134__

Lab Code: ARI___ Case No.: 25159_ SAS No.: _____ SDG No.: MFGZ66

AA CRDL Standard Source: I.V._____

ICP CRDL Standard Source: I.V._____

Concentration Units: ug/L

Analyte	CRDL Standard for AA			CRDL Standard for ICP				
					Initial		Final	
	True	Found	%R	True	Found	%R	Found	%R
Aluminum								
Antimony				120.0			105.46	87.9
Arsenic								
Barium								
Beryllium				10.0			9.50	95.0
Cadmium				10.0			9.58	95.8
Calcium								
Chromium				20.0			24.45	122.2
Cobalt				100.0			100.94	100.9
Copper				50.0			60.14	120.3
Iron								
Lead								
Magnesium								
Manganese				30.0			31.78	105.9
Mercury								
Nickel				80.0			84.04	105.0
Potassium								
Selenium								
Silver				20.0			21.18	105.9
Sodium								
Thallium								
Vanadium				100.0			96.91	96.9
Zinc				40.0			44.73	111.8

Control Limits: no limits have been established by EPA at this time

U.S. EPA - CLP

2B
CRDL STANDARD FOR AA AND ICP

Lab Name: ANALYTICAL_RESOURCES_INC. Contract: 68D50134__

Lab Code: ARI___ Case No.: 25159_ SAS No.: _____ SDG No.: MFGZ66

AA CRDL Standard Source: I.V._____

ICP CRDL Standard Source: I.V._____

Concentration Units: ug/L

Analyte	CRDL Standard for AA			CRDL Standard for ICP				
					Initial		Final	
	True	Found	%R	True	Found	%R	Found	%R
Aluminum								
Antimony				120.0	118.36	98.6	118.93	99.1
Arsenic								
Barium								
Beryllium				10.0	9.60	96.0	9.60	96.0
Cadmium				10.0	10.39	103.9	10.92	109.2
Calcium								
Chromium				20.0	25.09	125.4	23.67	118.4
Cobalt				100.0	105.21	105.2	105.21	105.2
Copper				50.0	53.64	107.3	51.41	102.8
Iron								
Lead								
Magnesium								
Manganese				30.0	31.50	105.0	31.99	106.6
Mercury								
Nickel				80.0	85.31	106.6	87.91	109.9
Potassium								
Selenium								
Silver				20.0	21.13	105.6	21.83	109.2
Sodium								
Thallium								
Vanadium				100.0	101.26	101.3	101.48	101.5
Zinc				40.0	38.95	97.4	43.50	108.8

Control Limits: no limits have been established by EPA at this time

U.S. EPA - CLP

2B
CRDL STANDARD FOR AA AND ICP

Lab Name: ANALYTICAL_RESOURCES_INC. Contract: 68D50134__

Lab Code: ARI___ Case No.: 25159_ SAS No.: _____ SDG No.: MFGZ66

AA CRDL Standard Source: I.V._____

ICP CRDL Standard Source: I.V._____

Concentration Units: ug/L

Analyte	CRDL Standard for AA			CRDL Standard for ICP				
	True	Found	%R	True	Initial Found	%R	Final Found	%R
Aluminum								
Antimony				120.0			145.26	121.0
Arsenic								
Barium								
Beryllium				10.0			9.34	93.4
Cadmium				10.0			10.73	107.3
Calcium								
Chromium				20.0			20.85	104.2
Cobalt				100.0			103.30	103.3
Copper				50.0			51.65	103.3
Iron								
Lead								
Magnesium								
Manganese				30.0			31.83	106.1
Mercury								
Nickel				80.0			81.64	102.0
Potassium								
Selenium								
Silver				20.0			21.52	107.6
Sodium								
Thallium								
Vanadium				100.0			96.65	96.6
Zinc				40.0			43.52	108.8

Control Limits: no limits have been established by EPA at this time

U.S. EPA - CLP

3
BLANKS

Lab Name: ANALYTICAL_RESOURCES_INC. Contract: 68D50134__

Lab Code: ARI___ Case No.: 25159_ SAS No.: _____ SDG No.: MFGZ66

Preparation Blank Matrix (soil/water): SOIL_

Preparation Blank Concentration Units (ug/L or mg/kg): MG/KG

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum	20.0	U	20.0	U	20.0	U	20.0	U	4.00	U	P
Antimony	50.0	U	50.0	U	50.0	U	50.0	U	10.00	U	P
Arsenic	1.0	U	1.0	U	1.0	U	1.0	U	0.20	U	F
Barium	1.0	U	1.0	U	1.0	U	1.0	U	0.20	U	P
Beryllium	1.2	B	1.0	U	1.0	U	1.0	U	0.20	U	P
Cadmium	2.0	U	2.0	U	2.0	U	2.0	U	0.40	U	P
Calcium	20.0	U	20.0	U	20.0	U	20.0	U	7.26	B	P
Chromium	5.0	U	5.0	U	5.0	U	5.0	U	1.00	U	P
Cobalt	3.0	U	3.0	U	3.0	U	3.0	U	0.60	U	P
Copper	2.0	U	2.0	U	2.0	U	2.0	U	0.40	U	P
Iron	20.0	U	20.0	U	20.0	U	20.0	U	4.00	U	P
Lead	1.0	U	1.0	U	1.0	U	1.0	U	0.20	U	F
Magnesium	20.0	U	20.0	U	20.0	U	20.0	U	4.00	U	P
Manganese	1.1	B	1.0	U	1.0	U	1.1	B	0.20	U	P
Mercury	0.1	U	0.1	U	0.1	U	0.1	U	0.05	U	CV
Nickel	10.0	U	10.0	U	10.0	U	10.0	U	2.00	U	P
Potassium	400.0	U	400.0	U	400.0	U	400.0	U	146.65	B	P
Selenium	1.0	U	1.0	U	1.0	U	1.0	U	0.20	U	F
Silver	3.0	U	3.0	U	3.0	U	3.0	U	0.60	U	P
Sodium	50.0	U	50.0	U	50.0	U	50.0	U	10.00	U	P
Thallium	1.0	U	1.0	U	1.0	U	1.0	U	0.20	U	F
Vanadium	2.0	U	2.0	U	2.0	U	2.0	U	-0.51	B	P
Zinc	4.0	U	4.0	U	4.0	U	4.0	U	0.80	U	P
Cyanide	5.0	U	5.0	U	5.0	U	5.0	U	0.25	U	CA

U.S. EPA - CLP

3
BLANKS

Lab Name: ANALYTICAL_RESOURCES_INC. Contract: 68D50134__

Lab Code: ARI___ Case No.: 25159_ SAS No.: _____ SDG No.: MFGZ66

Preparation Blank Matrix (soil/water): _____

Preparation Blank Concentration Units (ug/L or mg/kg): _____

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum			20.0	U	23.9	B	20.0	U			P
Antimony			50.0	U	50.0	U	50.0	U			P
Arsenic			1.0	U	1.0	U	1.0	U			F
Barium			1.0	U	1.0	U	1.0	U			P
Beryllium			1.0	U	1.0	U	1.0	U			P
Cadmium			2.0	U	2.0	U	2.0	U			P
Calcium			20.0	U	25.4	B	20.0	U			P
Chromium			5.0	U	5.0	U	5.0	U			P
Cobalt			3.0	U	3.0	U	3.0	U			P
Copper			2.0	U	2.0	U	2.0	U			P
Iron			20.0	U	34.7	B	20.0	U			P
Lead			1.0	U	1.0	U	1.0	U			F
Magnesium			20.0	U	30.3	B	20.0	U			P
Manganese			1.4	B	1.0	U	1.0	U			P
Mercury			0.1	U	0.1	U					CV
Nickel			10.0	U	10.0	U	10.0	U			P
Potassium			400.0	U	400.0	U	400.0	U			P
Selenium			-1.0	B	1.0	U	1.0	U			F
Silver			3.0	U	3.0	U	3.0	U			P
Sodium			50.0	U	50.0	U	50.0	U			P
Thallium											NR
Vanadium			2.0	U	2.0	U	2.0	U			P
Zinc			4.0	U	4.0	U	4.0	U			P
Cyanide			5.0	U							CA

U.S. EPA - CLP

3
BLANKS

Lab Name: ANALYTICAL_RESOURCES_INC. Contract: 68D50134__

Lab Code: ARI___ Case No.: 25159_ SAS No.: _____ SDG No.: MFGZ66

Preparation Blank Matrix (soil/water): _____

Preparation Blank Concentration Units (ug/L or mg/kg): _____

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum			20.0	U	24.6	B					P
Antimony			50.0	U	50.0	U					P
Arsenic			1.0	U	1.0	U	1.0	U			F
Barium			1.8	B	1.0	U					P
Beryllium			1.0	U	1.0	U					P
Cadmium			2.0	U	2.0	U					P
Calcium			341.7	B	20.0	U					P
Chromium			5.0	U	5.0	U					P
Cobalt			3.0	U	3.0	U					P
Copper			10.6	B	2.0	U					P
Iron			36.0	B	20.0	U					P
Lead			1.0	U							F
Magnesium			36.1	B	20.6	B					P
Manganese			2.5	B	1.0	U					P
Mercury											NR
Nickel			10.0	U	10.0	U					P
Potassium			400.0	U	714.8	B					P
Selenium			1.0	U	1.0	U	1.0	U			F
Silver			3.0	U	3.0	U					P
Sodium			59.7	B	50.0	U					P
Thallium											NR
Vanadium			2.0	U	2.0	U					P
Zinc			6.8	B	4.0	U					P
Cyanide											NR

U.S. EPA - CLP

3
BLANKS

Lab Name: ANALYTICAL_RESOURCES_INC. Contract: 68D50134__

Lab Code: ARI___ Case No.: 25159_ SAS No.: _____ SDG No.: MFGZ66

Preparation Blank Matrix (soil/water): _____

Preparation Blank Concentration Units (ug/L or mg/kg): _____

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum	20.0	U	20.0	U	51.5	B	20.0	U			P
Antimony	50.0	U	50.0	U	50.0	U	50.0	U			P
Arsenic			1.0	U							F
Barium	1.0	U	1.0	U	1.0	U	1.0	U			P
Beryllium	1.0	U	1.0	U	1.0	U	1.0	U			P
Cadmium	2.0	U	2.0	U	2.0	U	2.0	U			P
Calcium	20.0	U	20.0	U	42.7	B	20.0	U			P
Chromium	5.0	U	5.0	U	5.0	U	5.0	U			P
Cobalt	3.0	U	3.0	U	3.0	U	3.0	U			P
Copper	2.0	U	2.0	U	2.0	U	2.0	U			P
Iron	20.0	U	20.0	U	20.0	U	20.0	U			P
Lead											NR
Magnesium	20.0	U	20.0	U	36.8	B	20.0	U			P
Manganese	1.0	U	1.0	U	1.4	B	1.0	U			P
Mercury											NR
Nickel	10.0	U	10.0	U	10.0	U	10.0	U			P
Potassium	400.0	U	400.0	U	400.0	U	400.0	U			P
Selenium			1.0	U							F
Silver	3.0	U	3.0	U	3.0	U	3.0	U			P
Sodium	50.0	U	50.0	U	50.0	U	50.0	U			P
Thallium											NR
Vanadium	2.0	U	2.0	U	2.0	U	2.0	U			P
Zinc	4.0	U	4.0	U	4.0	U	4.0	U			P
Cyanide											NR

U.S. EPA - CLP

3
BLANKS

Lab Name: ANALYTICAL_RESOURCES_INC. Contract: 68D50134__

Lab Code: ARI___ Case No.: 25159_ SAS No.: _____ SDG No.: MFGZ66

Preparation Blank Matrix (soil/water): _____

Preparation Blank Concentration Units (ug/L or mg/kg): _____

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum			20.0	U	20.5	B	20.0	U			P
Antimony			50.0	U	50.0	U	50.0	U			P
Arsenic											NR
Barium			1.0	U	1.0	U	1.0	U			P
Beryllium			1.0	U	1.0	U	1.0	U			P
Cadmium			2.0	U	2.0	U	2.0	U			P
Calcium			20.0	U	20.0	U	21.8	B			P
Chromium			5.0	U	5.0	U	5.0	U			P
Cobalt			3.0	U	3.0	U	3.0	U			P
Copper			2.0	U	2.0	U	2.8	B			P
Iron			20.0	U	20.0	U	20.0	U			P
Lead											NR
Magnesium			20.0	U	20.0	U	20.0	U			P
Manganese			1.0	U	1.1	B	1.4	B			P
Mercury											NR
Nickel			10.0	U	10.0	U	10.0	U			P
Potassium			400.0	U	400.0	U	400.0	U			P
Selenium											NR
Silver			3.0	U	3.0	U	3.0	U			P
Sodium			50.0	U	50.0	U	50.0	U			P
Thallium											NR
Vanadium			2.0	U	2.0	U	2.0	U			P
Zinc			4.0	U	4.0	U	4.0	U			P
Cyanide											NR

U.S. EPA - CLP

3
BLANKS

Lab Name: ANALYTICAL_RESOURCES_INC. Contract: 68D50134__

Lab Code: ARI___ Case No.: 25159_ SAS No.: _____ SDG No.: MFGZ66

Preparation Blank Matrix (soil/water): _____

Preparation Blank Concentration Units (ug/L or mg/kg): _____

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum			20.0	U	49.5	B					P
Antimony			50.0	U	50.0	U					P
Arsenic											NR
Barium			1.0	U	1.0	U					P
Beryllium			1.0	U	1.0	U					P
Cadmium			2.0	U	2.0	U					P
Calcium			20.0	U	44.3	B					P
Chromium			5.0	U	5.0	U					P
Cobalt			3.0	U	3.0	U					P
Copper			2.0	U	2.0	U					P
Iron			20.0	U	27.7	B					P
Lead											NR
Magnesium			20.0	U	47.8	B					P
Manganese			1.0	U	1.0	U					P
Mercury											NR
Nickel			10.0	U	10.0	U					P
Potassium			400.0	U	400.0	U					P
Selenium											NR
Silver			3.0	U	3.0	U					P
Sodium			50.0	U	50.0	U					P
Thallium											NR
Vanadium			2.0	U	2.0	U					P
Zinc			4.0	U	4.0	U					P
Cyanide											NR

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4

ICP INTERFERENCE CHECK SAMPLE

Lab Name: ANALYTICAL_RESOURCES_INC. Contract: 68D50134__

Lab Code: ARI___ Case No.: 25159_ SAS No: _____ SDG No.: MFGZ66

ICP ID Number: TJA ICP 61__ ICS Source: EPA(0194)___

Concentration Units: ug/L

Analyte	True Sol. A	True Sol. AB	Initial Found Sol. A	Initial Found Sol. AB	Initial Found %R	Final Found Sol. A	Final Found Sol. AB	Final Found %R
Aluminum	495800	505595	526491	510378.9	100.9	522591	513841.6	101.6
Antimony		541	76	581.1	107.4	-10	549.6	101.6
Arsenic								
Barium		467	2	467.5	100.1	3	472.3	101.1
Beryllium		444	0	423.8	95.5	0	426.2	96.0
Cadmium		871	0	908.2	104.3	-3	914.6	105.0
Calcium	457200	467921	475460	460302.6	98.4	467308	459329.9	98.2
Chromium	38	456	35	451.0	98.9	37	451.1	98.9
Cobalt		427	3	429.9	100.7	4	431.2	101.0
Copper		507	17	474.3	93.6	19	482.4	95.1
Iron	186000	177250	181630	177428.8	100.1	179876	177765.1	100.3
Lead								
Magnesium	490700	532422	482173	467816.1	87.9	477025	470293.8	88.3
Manganese	45	484	49	476.6	98.5	50	476.5	98.5
Mercury								
Nickel		857	21	822.9	96.0	9	836.1	97.6
Potassium			-26	191.6		177	176.9	
Selenium								
Silver		207	-7	177.2	85.6	-4	177.5	85.7
Sodium			100	100.6		99	98.6	
Thallium								
Vanadium		460	-5	432.6	94.0	-0	430.7	93.6
Zinc		1008	33	906.4	89.9	28	917.0	91.0

U.S. EPA - CLP

4

ICP INTERFERENCE CHECK SAMPLE

Lab Name: ANALYTICAL_RESOURCES_INC. Contract: 68D50134__

Lab Code: ARI___ Case No.: 25159_ SAS No: _____ SDG No.: MFGZ66

ICP ID Number: TJA ICP 61__ ICS Source: EPA(0194)___

Concentration Units: ug/L

Analyte	True Sol. A	True Sol. AB	Initial Found Sol. A	Initial Found Sol. AB	Initial Found %R	Final Found Sol. A	Final Found Sol. AB	Final Found %R
Aluminum	495800	505595				512081	524060.4	103.7
Antimony		541				23	543.4	100.4
Arsenic								
Barium		467				2	478.5	102.5
Beryllium		444				0	433.5	97.6
Cadmium		871				-2	930.3	106.8
Calcium	457200	467921				459037	464594.5	99.3
Chromium	38	456				37	455.8	100.0
Cobalt		427				3	439.1	102.8
Copper		507				24	498.5	98.3
Iron	186000	177250				178051	180117.1	101.6
Lead								
Magnesium	490700	532422				465824	475696.6	89.3
Manganese	45	484				50	482.7	99.7
Mercury								
Nickel		857				12	853.2	99.6
Potassium						107	567.4	
Selenium								
Silver		207				-5	181.2	87.5
Sodium						123	97.0	
Thallium								
Vanadium		460				-1	438.6	95.3
Zinc		1008				32	933.2	92.6

U.S. EPA - CLP

4
ICP INTERFERENCE CHECK SAMPLE

Lab Name: ANALYTICAL_RESOURCES_INC. Contract: 68D50134__

Lab Code: ARI___ Case No.: 25159_ SAS No: _____ SDG No.: MFGZ66

ICP ID Number: TJA ICP 61__ ICS Source: EPA(0194)___

Concentration Units: ug/L

Analyte	True Sol. A	True Sol. AB	Initial Found Sol. A	Initial Found Sol. AB	Initial Found %R	Final Found Sol. A	Final Found Sol. AB	Final Found %R
Aluminum	495800	505595	532673	520416.9	102.9	525274	508962.9	100.7
Antimony		541	100	591.6	109.4	112	577.2	106.7
Arsenic								
Barium		467	1	483.4	103.5	2	476.7	102.1
Beryllium		444	0	427.3	96.2	0	422.0	95.0
Cadmium		871	1	916.0	105.2	-0	910.5	104.5
Calcium	457200	467921	482879	466440.0	99.7	473152	458140.4	97.9
Chromium	38	456	35	460.0	100.9	38	454.4	99.6
Cobalt		427	4	443.1	103.8	3	435.5	102.0
Copper		507	18	488.6	96.4	19	468.9	92.5
Iron	186000	177250	182149	178681.5	100.8	179716	175909.8	99.2
Lead								
Magnesium	490700	532422	485427	475055.0	89.2	477165	464452.2	87.2
Manganese	45	484	53	491.6	101.6	54	483.3	99.9
Mercury								
Nickel		857	5	836.2	97.6	0	821.3	95.8
Potassium			-684	336.5		-438	-132.3	
Selenium								
Silver		207	-7	182.0	87.9	-4	177.4	85.7
Sodium			88	96.3		94	91.3	
Thallium								
Vanadium		460	-1	445.5	96.8	0	435.8	94.7
Zinc		1008	32	913.5	90.6	32	905.3	89.8

U.S. EPA - CLP

4
ICP INTERFERENCE CHECK SAMPLE

Lab Name: ANALYTICAL_RESOURCES_INC. Contract: 68D50134__

Lab Code: ARI___ Case No.: 25159_ SAS No: _____ SDG No.: MFGZ66

ICP ID Number: TJA ICP 61__ ICS Source: EPA(0194)___

Concentration Units: ug/L

Analyte	True Sol. A	True Sol. AB	Initial Found Sol. A	Initial Found Sol. AB	Initial Found %R	Final Found Sol. A	Final Found Sol. AB	Final Found %R
Aluminum	495800	505595				521177	503690.0	99.6
Antimony		541				84	597.5	110.4
Arsenic								
Barium		467				2	470.4	100.7
Beryllium		444				0	414.6	93.4
Cadmium		871				0	904.3	103.8
Calcium	457200	467921				466782	447418.7	95.6
Chromium	38	456				36	445.9	97.8
Cobalt		427				5	426.2	99.8
Copper		507				20	468.6	92.4
Iron	186000	177250				177802	172897.2	97.5
Lead								
Magnesium	490700	532422				474655	461113.5	86.6
Manganese	45	484				53	475.4	98.2
Mercury								
Nickel		857				4	816.8	95.3
Potassium						-370	-351.6	
Selenium								
Silver		207				-5	175.3	84.7
Sodium						94	91.6	
Thallium								
Vanadium		460				-2	427.6	93.0
Zinc		1008				32	903.6	89.6

U.S. EPA - CLP

5A
SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

MFGZ66S

Lab Name: ANALYTICAL_RESOURCES_INC. Contract: 68D50134

Lab Code: ARI Case No.: 25159 SAS No.: SDG No.: MFGZ66

Matrix (soil/water): SOIL Level (low/med): LOW

% Solids for Sample: 90.7

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

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Aluminum									NR
Antimony	75-125	49.2975		10.9162	U	109.16	45.2	N	P
Arsenic	75-125	9.3006		1.0261	B	8.73	94.8		F
Barium	75-125	446.4812		15.8067	B	436.65	98.6		P
Beryllium	75-125	10.2263		0.2183	U	10.92	93.6		P
Cadmium	75-125	9.9927		0.4366	U	10.92	91.5		P
Calcium									NR
Chromium	75-125	46.2628		3.7486		43.66	97.4		P
Cobalt	75-125	109.1729		2.1003	B	109.16	98.1		P
Copper	75-125	56.6332		1.9213	B	54.58	100.2		P
Iron									NR
Lead	75-125	15.3263		15.0469		4.37	6.4	N	F
Magnesium									NR
Manganese	75-125	172.2947		62.2594		109.16	100.8		P
Mercury	75-125	0.4566		0.0501	U	0.50	91.3		CV
Nickel	75-125	108.8541		2.1832	U	109.16	99.7		P
Potassium									NR
Selenium	75-125	2.0522		0.2183	U	2.18	94.1		F
Silver	75-125	10.3529		0.6550	U	10.92	94.8		P
Sodium									NR
Thallium	75-125	10.5232		0.2183	U	10.92	96.4		F
Vanadium	75-125	111.2994		5.3489	B	109.16	97.1		P
Zinc	75-125	112.2512		8.6675		109.16	94.9		P
Cyanide	75-125	7.8895		0.2729	U	8.27	95.4		CA

Comments:

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5B
POST DIGEST SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

MFGZ66A

Lab Name: ANALYTICAL_RESOURCES_INC. Contract: 68D50134__

Lab Code: ARI___ Case No.: 25159_ SAS No.: _____ SDG No.: MFGZ66

Matrix (soil/water) : SOIL__ Level (low/med): LOW___

Concentration Units: ug/L

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Added (SA)	%R	Q	M
Aluminum									NR
Antimony		90.75		50.00	U	120.0	75.6		P
Arsenic									NR
Barium									NR
Beryllium									NR
Cadmium									NR
Calcium									NR
Chromium									NR
Cobalt									NR
Copper									NR
Iron									NR
Lead									NR
Magnesium									NR
Manganese									NR
Mercury									NR
Nickel									NR
Potassium									NR
Selenium									NR
Silver									NR
Sodium									NR
Thallium									NR
Vanadium									NR
Zinc									NR
Cyanide									NR

Comments:

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6
DUPLICATES

EPA SAMPLE NO.

MFGZ66D

Lab Name: ANALYTICAL_RESOURCES_INC. Contract: 68D50134__

Lab Code: ARI___ Case No.: 25159_ SAS No.: _____ SDG No.: MFGZ66

Matrix (soil/water): SOIL_ Level (low/med): _LOW__

% Solids for Sample: _90.7 % Solids for Duplicate: __90.7

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

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Aluminum		1570.9564		1468.1083		6.8		P
Antimony		10.9162	U	10.9162	U			P
Arsenic		1.0261	B	1.1025	B	7.2		F
Barium		15.8067	B	16.1822	B	2.3		P
Beryllium		0.2183	U	0.2183	U			P
Cadmium		0.4366	U	0.4366	U			P
Calcium		381.8747	B	373.7837	B	2.1		P
Chromium	2.1832	3.7486		3.6875		1.6		P
Cobalt		2.1003	B	1.7728	B	16.9		P
Copper		1.9213	B	1.6418	B	15.7		P
Iron		3346.8883		3302.6668		1.3		P
Lead	3.2749	15.0469		35.0805		79.9	*	F
Magnesium		253.7164	B	236.2680	B	7.1		P
Manganese		62.2594		65.7221		5.4		P
Mercury		0.0501	U	0.0501	U			CV
Nickel		2.1832	U	2.1832	U			P
Potassium		395.7951	B	384.5339	B	2.9		P
Selenium		0.2183	U	0.2205	U			F
Silver		0.6550	U	0.6550	U			P
Sodium		10.9162	U	10.9162	U			P
Thallium		0.2183	U	0.2205	B	200.0		F
Vanadium		5.3489	B	5.4057	B	1.1		P
Zinc	4.3665	8.6675		7.8225		10.2		P
Cyanide		0.2729	U	0.2756	U			CA

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LABORATORY CONTROL SAMPLE

Lab Name: ANALYTICAL_RESOURCES_INC. Contract: 68D50134__

Lab Code: ARI___ Case No.: 25159_ SAS No.: _____ SDG No.: MFGZ66

Solid LCS Source: LCS (0287)__

Aqueous LCS Source: _____

Analyte	Aqueous (ug/L) True	Found	%R	Solid (mg/kg) True	Found	C	Limits		%R
Aluminum				325.0	288.6		193.1	424.2	88.8
Antimony				211.0	199.3		129.4	297.2	94.5
Arsenic				917.0	1004.0		613.6	1247.2	109.5
Barium				4.8	5.2	B	2.5	8.1	108.3
Beryllium				19.4	17.1		15.3	22.2	88.1
Cadmium				45.4	41.1		32.1	51.1	90.5
Calcium				196200.0	174116.7		142933.0	225376.0	88.7
Chromium				99.6	93.0		77.8	115.2	93.4
Cobalt				144.0	130.8		115.4	165.6	90.8
Copper				6910.0	6695.9		5727.3	7633.1	96.9
Iron				22430.0	18535.1		16831.3	25193.0	82.6
Lead				236.0	237.0		167.6	280.5	100.4
Magnesium				118100.0	102052.1		97493.0	128886.0	86.4
Manganese				208.0	191.0		167.9	234.4	91.8
Mercury				12.7	11.6		7.8	16.9	91.3
Nickel				60.9	50.4		43.5	70.1	82.8
Potassium				50.0	113.8	B		379.3	227.6
Selenium				39.2	38.2		17.6	56.4	97.4
Silver				22.2	19.9		13.2	28.5	89.6
Sodium				50.0	31.8	B		277.4	63.6
Thallium				39.0	38.4		24.6	51.6	98.5
Vanadium				65.8	62.5		53.0	78.6	95.0
Zinc				187.0	149.6		127.7	222.1	80.0
Cyanide									

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LABORATORY CONTROL SAMPLE

Lab Name: ANALYTICAL_RESOURCES_INC. Contract: 68D50134__

Lab Code: ARI___ Case No.: 25159_ SAS No.: _____ SDG No.: MFGZ66

Solid LCS Source: LCS (0689)__

Aqueous LCS Source: _____

Analyte	Aqueous (ug/L) True	Found	%R	Solid (mg/kg) True	Found	C	Limits		%R
Aluminum									
Antimony									
Arsenic									
Barium									
Beryllium									
Cadmium									
Calcium									
Chromium									
Cobalt									
Copper									
Iron									
Lead									
Magnesium									
Manganese									
Mercury									
Nickel									
Potassium									
Selenium									
Silver									
Sodium									
Thallium									
Vanadium									
Zinc									
Cyanide				5.6	5.1		4.1	7.1	91.1

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STANDARD ADDITION RESULTS

Lab Name: ANALYTICAL_RESOURCES_INC. Contract:68D50134__

Lab Code: ARI___ Case No.: 25159_ SAS No.:_____ SDG No.:MFGZ66

Concentration Units: ug/L

EPA Sample No.	An	0 ADD ABS	1 ADD CON	1 ADD ABS	2 ADD CON	2 ADD ABS	3 ADD CON	3 ADD ABS	Final Conc.	r	Q
MFGZ66	PB	0.030	5.00	0.042	10.00	0.054	15.00	0.063	13.7	0.9978	
MFGZ66D	PB	0.036	5.00	0.044	10.00	0.058	15.00	0.068	15.7	0.9951	

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ICP SERIAL DILUTION

EPA SAMPLE NO.

MFGZ66L

Lab Name: ANALYTICAL_RESOURCES_INC. Contract: 68D50134__

Lab Code: ARI___ Case No.: 25159_ SAS No.: _____ SDG No.: MFGZ66

Matrix (soil/water): SOIL_ Level (low/med): LOW__

Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	M
Aluminum	7195.53		7379.05		2.6		P
Antimony	50.00	U	250.00	U			P
Arsenic							NR
Barium	72.40	B	74.40	B	2.8		P
Beryllium	1.00	U	5.00	U			P
Cadmium	2.00	U	10.00	U			P
Calcium	1749.12	B	1793.00	B	2.5		P
Chromium	17.17		25.00	U	100.0		P
Cobalt	9.62	B	15.00	U	100.0		P
Copper	8.80	B	10.00	U	100.0		P
Iron	15329.92		15779.70		2.9		P
Lead							NR
Magnesium	1162.11	B	1214.85	B	4.5		P
Manganese	285.17		293.30		2.9		P
Mercury							NR
Nickel	10.00	U	50.00	U			P
Potassium	1812.88	B	3224.10	B	77.8		P
Selenium							NR
Silver	3.00	U	15.00	U			P
Sodium	50.00	U	250.00	U			P
Thallium							NR
Vanadium	24.50	B	23.25	B	5.1		P
Zinc	39.70		54.25	B	36.6		P

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PREPARATION LOG

Lab Name: ANALYTICAL_RESOURCES_INC. Contract: 68D50134__

Lab Code: ARI___ Case No.:_25159_ SAS No.: _____ SDG No.:MFGZ66

Method: P_

EPA Sample No.	Preparation Date	Weight (gram)	Volume (mL)
LCSS	12/03/96	1.01	200
MFGZ66	12/03/96	1.01	200
MFGZ66D	12/03/96	1.01	200
MFGZ66S	12/03/96	1.01	200
PBS	12/03/96	1.00	200

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PREPARATION LOG

Lab Name: ANALYTICAL_RESOURCES_INC. Contract: 68D50134__

Lab Code: ARI___ Case No.:_25159_ SAS No.: _____ SDG No.:MFGZ66

Method: F_

EPA Sample No.	Preparation Date	Weight (gram)	Volume (mL)
LCSS	12/03/96	1.00	200
MFGZ66	12/03/96	1.01	200
MFGZ66D	12/03/96	1.00	200
MFGZ66S	12/03/96	1.01	200
PBS	12/03/96	1.00	200

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PREPARATION LOG

Lab Name: ANALYTICAL_RESOURCES_INC. Contract: 68D50134__

Lab Code: ARI___ Case No.:_25159_ SAS No.: _____ SDG No.:MFGZ66

Method: CV

EPA Sample No.	Preparation Date	Weight (gram)	Volume (mL)
LCSS	12/03/96	0.20	100
MFGZ66	12/03/96	0.22	100
MFGZ66D	12/03/96	0.22	100
MFGZ66S	12/03/96	0.22	100
PBS	12/03/96	0.20	100

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PREPARATION LOG

Lab Name: ANALYTICAL_RESOURCES_INC. Contract: 68D50134__

Lab Code: ARI___ Case No.:_25159_ SAS No.: _____ SDG No.:MFGZ66

Method: CA

EPA Sample No.	Preparation Date	Weight (gram)	Volume (mL)
LCSS	11/26/96	1.00	50
MFGZ66	11/26/96	1.01	50
MFGZ66D	11/26/96	1.00	50
MFGZ66S	11/26/96	1.00	50
PBS	11/26/96	1.00	50
DMLS	11/26/96		50

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ANALYSIS RUN LOG

Lab Name: ANALYTICAL_RESOURCES_INC. Contract: 68D50134__

Lab Code: ARI___ Case No.: 25159_ SAS No.: _____ SDG No.:MFGZ66

Instrument ID Number: TJA ICP 61___ Method: P_

Start Date: 12/15/96 End Date: 12/15/96

EPA Sample No.	D/F	Time	% R	Analytes																							
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
S0	1.00	1320		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
S	1.00	1323					X		X	X	X	X	X				X								X		
S	1.00	1328																		X							
S	1.00	1333			X																						
S	1.00	1337		X		X		X						X	X	X			X		X	X	X	X		X	
ICV	1.00	1358		X	X		X	X	X	X	X	X	X	X		X	X		X	X		X	X		X	X	
ICB	1.00	1405		X	X		X	X	X	X	X	X	X	X		X	X		X	X		X	X		X	X	
CCV	1.00	1411		X	X		X	X	X	X	X	X	X	X		X	X		X	X		X	X		X	X	
CCB	1.00	1417		X	X		X	X	X	X	X	X	X	X		X	X		X	X		X	X		X	X	
CRI	1.00	1423			X			X	X		X	X	X				X		X			X			X	X	
ICSA	1.00	1429		X	X		X	X	X	X	X	X	X	X		X	X		X	X		X	X		X	X	
ICSAB	1.00	1435		X	X		X	X	X	X	X	X	X	X		X	X		X	X		X	X		X	X	
CCV	1.00	1441		X	X		X	X	X	X	X	X	X	X		X	X		X	X		X	X		X	X	
CCB	1.00	1448		X	X		X	X	X	X	X	X	X	X		X	X		X	X		X	X		X	X	
PBS	1.00	1457																									
ZZZZZZ	1.00	1501																									
ZZZZZZ	1.00	1506																									
ZZZZZZ	5.00	1511																									
ZZZZZZ	1.00	1515																									
ZZZZZZ	1.00	1520																									
ZZZZZZ	1.00	1524																									
ZZZZZZ	1.00	1529																									
ZZZZZZ	1.00	1534																									
ZZZZZZ	1.00	1540																									
ZZZZZZ	1.00	1545																									
CCV	1.00	1552		X	X		X	X	X	X	X	X	X	X		X	X		X	X		X	X		X	X	
CCB	1.00	1557		X	X		X	X	X	X	X	X	X	X		X	X		X	X		X	X		X	X	
PBS	1.00	1607		X	X		X	X	X	X	X	X	X	X		X	X		X	X		X	X		X	X	
ZZZZZZ	1.00	1611																									
ZZZZZZ	1.00	1616																									
ZZZZZZ	1.00	1621																									
ZZZZZZ	1.00	1625																									

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ANALYSIS RUN LOG

Lab Name: ANALYTICAL_RESOURCES_INC. Contract: 68D50134__

Lab Code: ARI___ Case No.: 25159_ SAS No.: _____ SDG No.:MFGZ66

Instrument ID Number: TJA ICP 61___ Method: P_

Start Date: 12/15/96 End Date: 12/15/96

EPA Sample No.	D/F	Time	% R	Analytes																							
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
ZZZZZZ	1.00	1632																									
CCV	1.00	1636		X	X		X	X	X	X	X	X	X	X		X	X		X	X		X	X		X	X	
CCB	1.00	1641		X	X		X	X	X	X	X	X	X	X		X	X		X	X		X	X		X	X	
CRI	1.00	1647			X			X	X		X	X	X				X		X			X			X	X	
ICSA	1.00	1653		X	X		X	X	X	X	X	X	X	X		X	X		X	X		X	X		X	X	
ICSAB	1.00	1701		X	X		X	X	X	X	X	X	X	X		X	X		X	X		X	X		X	X	
CCV	1.00	1707		X	X		X	X	X	X	X	X	X	X		X	X		X	X		X	X		X	X	
CCB	1.00	1713		X	X		X	X	X	X	X	X	X	X		X	X		X	X		X	X		X	X	
ZZZZZZ	1.00	1729																									
ZZZZZZ	1.00	1733																									
ZZZZZZ	1.00	1738																									
MFGZ66L	5.00	1745		X	X		X	X	X	X	X	X	X	X		X	X		X	X		X	X		X	X	
MFGZ66	1.00	1749		X	X		X	X	X	X	X	X	X	X		X	X		X	X		X	X		X	X	
MFGZ66D	1.00	1754		X	X		X	X	X	X	X	X	X	X		X	X		X	X		X	X		X	X	
MFGZ66S	1.00	1759			X		X	X	X		X	X	X				X		X			X			X	X	
ZZZZZZ	1.00	1807																									
ZZZZZZ	1.00	1812																									
ZZZZZZ	5.00	1816																									
CCV	1.00	1821		X	X		X	X	X	X	X	X	X	X		X	X		X	X		X	X		X	X	
CCB	1.00	1826		X	X		X	X	X	X	X	X	X	X		X	X		X	X		X	X		X	X	
LCSS	1.00	1830		X	X		X	X	X		X	X	X	X		X	X		X	X		X	X		X	X	
LCSS	2.00	1837								X																	
MFGZ66A	1.00	1849			X																						
ZZZZZZ	1.00	1857																									
ZZZZZZ	1.00	1904																									
CCV	1.00	1909		X	X		X	X	X	X	X	X	X	X		X	X		X	X		X	X		X	X	
CCB	1.00	1913		X	X		X	X	X	X	X	X	X	X		X	X		X	X		X	X		X	X	
CRI	1.00	1920			X			X	X		X	X	X				X		X			X			X	X	
ICSA	1.00	1927		X	X		X	X	X	X	X	X	X	X		X	X		X	X		X	X		X	X	
ICSAB	1.00	1933		X	X		X	X	X	X	X	X	X	X		X	X		X	X		X	X		X	X	
CCV	1.00	1940		X	X		X	X	X	X	X	X	X	X		X	X		X	X		X	X		X	X	
CCB	1.00	1946		X	X		X	X	X	X	X	X	X	X		X	X		X	X		X	X		X	X	

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ANALYSIS RUN LOG

Lab Name: ANALYTICAL_RESOURCES_INC. Contract: 68D50134__

Lab Code: ARI___ Case No.: 25159_ SAS No.: _____ SDG No.:MFGZ66

Instrument ID Number: TJA ICP 61___ Method: P_

Start Date: 12/18/96 End Date: 12/18/96

EPA Sample No.	D/F	Time	% R	Analytes																							
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
S0	1.00	0754		X	X	X	X	X	X	X	X	X	X	X	X	X	X	_	X	X	X	X	X	X	X	X	_
S	1.00	0759		_	_	_	X	_	X	X	X	X	X	_	_	_	X	_	_	_	_	_	_	_	X	_	_
S	1.00	0804		_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	X	_	_	_	_	_	_	_
S	1.00	0808		_	X	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
S	1.00	0813		X	_	X	_	X	_	_	_	_	_	X	X	X	_	_	X	_	X	X	X	X	_	X	_
ICV	1.00	0838		X	X	_	X	X	X	X	X	X	X	X	_	X	X	_	X	X	_	X	X	_	X	X	_
ICB	1.00	0844		X	X	_	X	X	X	X	X	X	X	X	_	X	X	_	X	X	_	X	X	_	X	X	_
CCV	1.00	0849		X	X	_	X	X	X	X	X	X	X	X	_	X	X	_	X	X	_	X	X	_	X	X	_
CCB	1.00	0854		X	X	_	X	X	X	X	X	X	X	X	_	X	X	_	X	X	_	X	X	_	X	X	_
CRI	1.00	0900		_	X	_	_	X	X	_	X	X	X	_	_	_	X	_	X	_	_	X	_	_	X	X	_
ICSA	1.00	0908		X	X	_	X	X	X	X	X	X	X	X	_	X	X	_	X	X	_	X	X	_	X	X	_
ICSAB	1.00	0920		X	X	_	X	X	X	X	X	X	X	X	_	X	X	_	X	X	_	X	X	_	X	X	_
CCV	1.00	0928		X	X	_	X	X	X	X	X	X	X	X	_	X	X	_	X	X	_	X	X	_	X	X	_
CCB	1.00	0933		X	X	_	X	X	X	X	X	X	X	X	_	X	X	_	X	X	_	X	X	_	X	X	_
PBS	1.00	0939		X	X	_	X	X	X	X	X	X	X	X	_	X	X	_	X	X	_	X	X	_	X	X	_
ZZZZZZ	1.00	0944		_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
ZZZZZZ	1.00	0950		_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
ZZZZZZ	1.00	0955		_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
ZZZZZZ	1.00	1000		_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
ZZZZZZ	1.00	1006		_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
ZZZZZZ	1.00	1011		_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
CCV	1.00	1017		X	X	_	X	X	X	X	X	X	X	X	_	X	X	_	X	X	_	X	X	_	X	X	_
CCB	1.00	1022		X	X	_	X	X	X	X	X	X	X	X	_	X	X	_	X	X	_	X	X	_	X	X	_
ZZZZZZ	5.00	1029		_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
ZZZZZZ	1.00	1034		_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
ZZZZZZ	1.00	1039		_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
ZZZZZZ	1.00	1045		_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
ZZZZZZ	1.00	1050		_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
ZZZZZZ	1.00	1056		_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
ZZZZZZ	1.00	1101		_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
ZZZZZZ	1.00	1106		_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
ZZZZZZ	1.00	1112		_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_

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ANALYSIS RUN LOG

Lab Name: ANALYTICAL_RESOURCES_INC. Contract: 68D50134__

Lab Code: ARI___ Case No.: 25159_ SAS No.: _____ SDG No.:MFGZ66

Instrument ID Number: TJA ICP 61___ Method: P_

Start Date: 12/18/96 End Date: 12/18/96

EPA Sample No.	D/F	Time	% R	Analytes																							
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
ZZZZZZ	1.00	1117																									
CCV	1.00	1123		X	X		X	X	X	X	X	X	X	X		X	X		X	X		X	X		X	X	
CCB	1.00	1128		X	X		X	X	X	X	X	X	X	X		X	X		X	X		X	X		X	X	
CRI	1.00	1136			X			X	X		X	X	X				X		X			X			X	X	
ICSA	1.00	1144		X	X		X	X	X	X	X	X	X	X		X	X		X	X		X	X		X	X	
ICSAB	1.00	1156		X	X		X	X	X	X	X	X	X	X		X	X		X	X		X	X		X	X	
CCV	1.00	1204		X	X		X	X	X	X	X	X	X	X		X	X		X	X		X	X		X	X	
CCB	1.00	1210		X	X		X	X	X	X	X	X	X	X		X	X		X	X		X	X		X	X	
ZZZZZZ	1.00	1215																									
ZZZZZZ	2.00	1226																									
ZZZZZZ	1.00	1236																									
ZZZZZZ	1.00	1242																									
ZZZZZZ	1.00	1247																									
ZZZZZZ	5.00	1255																									
ZZZZZZ	1.00	1303																									
CCV	1.00	1308		X	X		X	X	X	X	X	X	X	X		X	X		X	X		X	X		X	X	
CCB	1.00	1314		X	X		X	X	X	X	X	X	X	X		X	X		X	X		X	X		X	X	
ZZZZZZ	1.00	1319																									
ZZZZZZ	1.00	1327																									
ZZZZZZ	1.00	1332																									
ZZZZZZ	1.00	1337																									
ZZZZZZ	1.00	1343																									
ZZZZZZ	1.00	1348																									
ZZZZZZ	1.00	1354																									
ZZZZZZ	1.00	1359																									
ZZZZZZ	1.00	1404																									
ZZZZZZ	1.00	1412																									
CCV	1.00	1418		X	X		X	X	X	X	X	X	X	X		X	X		X	X		X	X		X	X	
CCB	1.00	1423		X	X		X	X	X	X	X	X	X	X		X	X		X	X		X	X		X	X	
CRI	1.00	1429			X			X	X		X	X	X				X		X			X			X	X	
ICSA	1.00	1437		X	X		X	X	X	X	X	X	X	X		X	X		X	X		X	X		X	X	
ICSAB	1.00	1455		X	X		X	X	X	X	X	X	X	X		X	X		X	X		X	X		X	X	

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ANALYSIS RUN LOG

Lab Name: ANALYTICAL_RESOURCES_INC. Contract: 68D50134__

Lab Code: ARI___ Case No.: 25159_ SAS No.: _____ SDG No.:MFGZ66

Instrument ID Number: TJA ICP 61___ Method: P_

Start Date: 12/18/96 End Date: 12/18/96

EPA Sample No.	D/F	Time	% R	Analytes																							
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
CCV	1.00	1503		X	X	_	X	X	X	X	X	X	X	X	_	X	X	_	X	X	_	X	X	_	X	X	_
CCB	1.00	1509		X	X	_	X	X	X	X	X	X	X	X	_	X	X	_	X	X	_	X	X	_	X	X	_

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ANALYSIS RUN LOG

Lab Name: ANALYTICAL_RESOURCES_INC. Contract: 68D50134__

Lab Code: ARI___ Case No.: 25159_ SAS No.: _____ SDG No.:MFGZ66

Instrument ID Number: VARIAN2 300 _ Method: F_

Start Date: 12/14/96 End Date: 12/14/96

EPA Sample No.	D/F	Time	% R	Analytes																							
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
S0	1.00	0948				X																					
S10	1.00	0952				X																					
S20	1.00	0957				X																					
S50	1.00	1002				X																					
ICV	2.00	1008				X																					
ICB	1.00	1012				X																					
CRA	1.00	1016				X																					
CRAA	1.00	1020	99.0			X																					
CCV	1.00	1025				X																					
CCB	1.00	1029				X																					
S0	1.00	1034				X																					
CCV	1.00	1039				X																					
CCB	1.00	1043				X																					
S0	1.00	1048				X																					
S20	1.00	1053				X																					
CCV	1.00	1058				X																					
CCB	1.00	1102				X																					
ZZZZZZ	1.00	1107																									
ZZZZZZA	1.00	1111	110.5																								
ZZZZZZ	200.00	1116																									
ZZZZZZA	200.00	1120	105.0																								
ZZZZZZ	1.00	1125																									
ZZZZZZA	1.00	1129	105.0																								
ZZZZZZ	1.00	1134																									
ZZZZZZA	1.00	1138	104.5																								
ZZZZZZ	2.00	1143																									
ZZZZZZA	2.00	1147	104.0																								
CCV	1.00	1152				X																					
CCB	1.00	1156				X																					
ZZZZZZ	1.00	1201																									
ZZZZZZA	1.00	1205	106.5																								
ZZZZZZ	1.00	1210																									

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ANALYSIS RUN LOG

Lab Name: ANALYTICAL_RESOURCES_INC. Contract: 68D50134__

Lab Code: ARI___ Case No.: 25159_ SAS No.: _____ SDG No.:MFGZ66

Instrument ID Number: VARIAN2 300 _ Method: F_

Start Date: 12/14/96 End Date: 12/14/96

EPA Sample No.	D/F	Time	% R	Analytes																							
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
ZZZZZZA	1.00	1214	104.5																								
ZZZZZZ	1.00	1219																									
ZZZZZZA	1.00	1223	101.5																								
ZZZZZZ	1.00	1228																									
ZZZZZZA	1.00	1232	101.5																								
ZZZZZZ	1.00	1237																									
ZZZZZZA	1.00	1241	100.5																								
CCV	1.00	1246				X																					
CCB	1.00	1250				X																					
ZZZZZZ	1.00	1255																									
ZZZZZZA	1.00	1259	105.0																								
ZZZZZZ	1.00	1304																									
ZZZZZZA	1.00	1308	94.5																								
ZZZZZZ	1.00	1313																									
ZZZZZZA	1.00	1318	98.0																								
ZZZZZZ	1.00	1322																									
ZZZZZZA	1.00	1327	100.5																								
ZZZZZZ	1.00	1331																									
ZZZZZZA	1.00	1336	100.5																								
CCV	1.00	1341				X																					
CCB	1.00	1345				X																					
ZZZZZZ	1.00	1350																									
ZZZZZZA	1.00	1354	106.0																								
ZZZZZZ	1.00	1359																									
ZZZZZZA	1.00	1403	104.0																								
ZZZZZZ	1.00	1408																									
ZZZZZZA	1.00	1413	106.0																								
ZZZZZZ	1.00	1417																									
ZZZZZZA	1.00	1422	101.5																								
ZZZZZZ	1.00	1426																									
ZZZZZZA	1.00	1431	97.0																								
CCV	1.00	1436				X																					

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ANALYSIS RUN LOG

Lab Name: ANALYTICAL_RESOURCES_INC. Contract: 68D50134__

Lab Code: ARI___ Case No.: 25159_ SAS No.: _____ SDG No.:MFGZ66

Instrument ID Number: VARIAN2 300 _ Method: F_

Start Date: 12/14/96 End Date: 12/14/96

EPA Sample No.	D/F	Time	% R	Analytes																								
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
CCB	1.00	1440				X																					
ZZZZZZ	1.00	1445																									
ZZZZZZA	1.00	1449	101.0																								
ZZZZZZ	1.00	1454																									
ZZZZZZA	1.00	1458	98.0																								
ZZZZZZ	1.00	1503																									
ZZZZZZA	1.00	1508	97.0																								
ZZZZZZ	1.00	1512																									
ZZZZZZA	1.00	1517	103.0																								
MFGZ66	1.00	1521				X																					
MFGZ66A	1.00	1526	100.5			X																					
CCV	1.00	1531				X																					
CCB	1.00	1536				X																					
S0	1.00	1541				X																					
CCV	1.00	1546				X																					
CCB	1.00	1550				X																					
MFGZ66D	1.00	1555				X																					
MFGZ66DA	1.00	1559	102.5			X																					
MFGZ66S	2.00	1604				X																					
MFGZ66SA	2.00	1608	102.5			X																					
PBS	1.00	1613				X																					
PBSA	1.00	1617	109.5			X																					
LCSS	200.00	1622				X																					
LCSSA	200.00	1626	102.5			X																					
CCV	1.00	1631				X																					
CCB	1.00	1635				X																					

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ANALYSIS RUN LOG

Lab Name: ANALYTICAL_RESOURCES_INC. Contract: 68D50134__

Lab Code: ARI___ Case No.: 25159_ SAS No.: _____ SDG No.:MFGZ66

Instrument ID Number: VARIAN1 300 _ Method: F_

Start Date: 12/17/96 End Date: 12/17/96

EPA Sample No.	D/F	Time	% R	Analytes																								
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
S0	1.00	1153													X												
S3	1.00	1158													X												
S10	1.00	1204													X												
S20	1.00	1209													X												
S50	1.00	1215													X												
S75	1.00	1221													X												
ICV	5.00	1227													X												
ICB	1.00	1232													X												
CRA	1.00	1238													X												
CRAA	1.00	1243	109.0												X												
CCV	1.00	1249													X												
CCB	1.00	1254													X												
S0	1.00	1300													X												
S20	1.00	1305													X												
CCV	1.00	1311													X												
CCB	1.00	1316													X												
PBS	1.00	1322													X												
PBSA	1.00	1327	102.5												X												
LCSS	50.00	1333													X												
LCSSA	50.00	1338	94.5												X												
MFGZ66	2.00	1344																									
MFGZ66A	2.00	1350	80.5																								
MFGZ66D	2.00	1355																									
MFGZ66DA	2.00	1401	-9999.9																								
MFGZ66S	2.00	1406													X												
MFGZ66SA	1.00	1412	71.5												X												
CCV	1.00	1418													X												
CCB	1.00	1423													X												
S0	1.00	1429													X												
S20	1.00	1435													X												
CCV	1.00	1441													X												
CCB	1.00	1445													X												

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ANALYSIS RUN LOG

Lab Name: ANALYTICAL_RESOURCES_INC. Contract: 68D50134__

Lab Code: ARI___ Case No.: 25159_ SAS No.: _____ SDG No.:MFGZ66

Instrument ID Number: VARIAN1 300 _ Method: F_

Start Date: 12/17/96 End Date: 12/17/96

EPA Sample No.	D/F	Time	% R	Analytes																							
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
MFGZ660_	5.00	1449													X												
MFGZ661_	5.00	1453													X												
MFGZ662_	5.00	1457													X												
MFGZ663_	5.00	1501													X												
MFGZ66D_	5.00	1505																									
MFGZ66DA	5.00	1509	81.0																								
CCV_____	1.00	1514													X												
CCB_____	1.00	1520													X												
S0_____	1.00	1526													X												
CCV_____	1.00	1533													X												
CCB_____	1.00	1536													X												
MFGZ66D0	10.00	1540													X												
MFGZ66D1	10.00	1544													X												
MFGZ66D2	10.00	1547													X												
MFGZ66D3	10.00	1551													X												
CCV_____	1.00	1555													X												
CCB_____	1.00	1601													X												

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ANALYSIS RUN LOG

Lab Name: ANALYTICAL_RESOURCES_INC. Contract: 68D50134__

Lab Code: ARI___ Case No.: 25159_ SAS No.: _____ SDG No.:MFGZ66

Instrument ID Number: VARIAN1 300 _ Method: F_

Start Date: 12/14/96 End Date: 12/14/96

EPA Sample No.	D/F	Time	% R	Analytes																							
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
S0	1.00	0957																			X						
S5	1.00	1001																			X						
S10	1.00	1006																			X						
S20	1.00	1010																			X						
S50	1.00	1015																			X						
ICV	2.00	1020																			X						
ICB	1.00	1024																			X						
CRA	1.00	1029																			X						
CRAA	1.00	1033	99.0																		X						
CCV	1.00	1038																			X						
CCB	1.00	1042																			X						
S0	1.00	1047																			X						
CCV	1.00	1052																			X						
CCB	1.00	1056																			X						
ZZZZZZ	1.00	1101																									
ZZZZZZA	1.00	1105	100.0																								
ZZZZZZ	20.00	1110																									
ZZZZZZA	20.00	1114	89.0																								
ZZZZZZ	1.00	1119																									
ZZZZZZA	1.00	1124	88.0																								
ZZZZZZ	1.00	1128																									
ZZZZZZA	1.00	1133	95.0																								
ZZZZZZ	1.00	1137																									
ZZZZZZA	1.00	1142	88.0																								
CCV	1.00	1147																			X						
CCB	1.00	1151																			X						
ZZZZZZ	1.00	1156																									
ZZZZZZA	1.00	1200	90.0																								
ZZZZZZ	1.00	1205																									
ZZZZZZA	1.00	1209	89.0																								
ZZZZZZ	1.00	1214																									
ZZZZZZA	1.00	1218	78.0																								

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ANALYSIS RUN LOG

Lab Name: ANALYTICAL_RESOURCES_INC. Contract: 68D50134__

Lab Code: ARI___ Case No.: 25159_ SAS No.: _____ SDG No.:MFGZ66

Instrument ID Number: VARIAN1 300 _ Method: F_

Start Date: 12/14/96 End Date: 12/14/96

EPA Sample No.	D/F	Time	% R	Analytes																							
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
ZZZZZZ	1.00	1223																									
ZZZZZZA	1.00	1227	82.0																								
ZZZZZZ	1.00	1232																									
ZZZZZZA	1.00	1236	91.0																								
CCV	1.00	1241																			X						
CCB	1.00	1245																			X						
S0	1.00	1250																			X						
CCV	1.00	1255																			X						
CCB	1.00	1259																			X						
ZZZZZZ	1.00	1304																									
ZZZZZZA	1.00	1309	88.0																								
ZZZZZZ	1.00	1313																									
ZZZZZZA	1.00	1318	81.0																								
ZZZZZZ	1.00	1323																									
ZZZZZZA	1.00	1327	62.0																								
ZZZZZZ	1.00	1332																									
ZZZZZZA	1.00	1337	75.0																								
ZZZZZZ	1.00	1341																									
ZZZZZZA	1.00	1346	79.0																								
CCV	1.00	1351																			X						
CCB	1.00	1355																			X						
ZZZZZZ	1.00	1400																									
ZZZZZZA	1.00	1404	92.0																								
ZZZZZZ	1.00	1409																									
ZZZZZZA	1.00	1413	93.0																								
ZZZZZZ	1.00	1418																									
ZZZZZZA	1.00	1423	93.0																								
ZZZZZZ	1.00	1427																									
ZZZZZZA	1.00	1432	84.0																								
ZZZZZZ	1.00	1436																									
ZZZZZZA	1.00	1441	79.0																								
CCV	1.00	1446																			X						

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ANALYSIS RUN LOG

Lab Name: ANALYTICAL_RESOURCES_INC. Contract: 68D50134__

Lab Code: ARI___ Case No.: 25159_ SAS No.: _____ SDG No.:MFGZ66

Instrument ID Number: VARIAN1 300 _ Method: F_

Start Date: 12/14/96 End Date: 12/14/96

EPA Sample No.	D/F	Time	% R	Analytes																								
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
CCB	1.00	1450																			X						
ZZZZZZ	1.00	1455																									
ZZZZZZA	1.00	1500	90.0																								
ZZZZZZ	1.00	1504																									
ZZZZZZA	1.00	1509	60.0																								
ZZZZZZ	1.00	1514																									
ZZZZZZA	1.00	1518	63.0																								
ZZZZZZ	1.00	1523																									
ZZZZZZA	1.00	1528	91.0																								
MFGZ66	1.00	1532																			X						
MFGZ66A	1.00	1537	92.0																		X						
CCV	1.00	1542																			X						
CCB	1.00	1547																			X						
S0	1.00	1552																			X						
CCV	1.00	1557																			X						
CCB	1.00	1601																			X						
MFGZ66D	1.00	1606																			X						
MFGZ66DA	1.00	1610	98.0																		X						
MFGZ66S	1.00	1615																			X						
MFGZ66SA	1.00	1619	94.0																		X						
PBS	1.00	1624																			X						
PBSA	1.00	1628	107.0																		X						
LCSS	10.00	1633																			X						
LCSSA	10.00	1637	83.0																		X						
CCV	1.00	1642																			X						
CCB	1.00	1646																			X						

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ANALYSIS RUN LOG

Lab Name: ANALYTICAL_RESOURCES_INC. Contract: 68D50134__

Lab Code: ARI___ Case No.: 25159_ SAS No.: _____ SDG No.:MFGZ66

Instrument ID Number: VARIAN2 300 _ Method: F_

Start Date: 12/17/96 End Date: 12/17/96

EPA Sample No.	D/F	Time	% R	Analytes																								
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
S0	1.00	1153																						X			
S10	1.00	1157																						X			
S20	1.00	1202																						X			
S50	1.00	1207																						X			
ICV	5.00	1212																						X			
ICB	1.00	1216																						X			
CRA	1.00	1221																						X			
CRAA	1.00	1225	106.0																					X			
CCV	1.00	1230																						X			
CCB	1.00	1234																						X			
S0	1.00	1239																						X			
CCV	1.00	1244																						X			
CCB	1.00	1248																						X			
PBS	1.00	1253																						X			
PBSA	1.00	1257	104.5																					X			
LCSS	10.00	1302																						X			
LCSSA	10.00	1306	107.5																					X			
MFGZ66	1.00	1311																						X			
MFGZ66A	1.00	1315	103.0																					X			
MFGZ66D	1.00	1320																						X			
MFGZ66DA	1.00	1324	95.5																					X			
MFGZ66S	2.00	1329																						X			
MFGZ66SA	2.00	1333	106.5																					X			
CCV	1.00	1338																						X			
CCB	1.00	1342																						X			

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14
ANALYSIS RUN LOG

Lab Name: ANALYTICAL_RESOURCES_INC. Contract: 68D50134__

Lab Code: ARI___ Case No.: 25159_ SAS No.: _____ SDG No.:MFGZ66

Instrument ID Number: BUCK MERCURY_ Method: CV

Start Date: 12/04/96 End Date: 12/04/96

EPA Sample No.	D/F	Time	% R	Analytes																							
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
S0	1.00	1338																X									
S0.2	1.00	1341																X									
S0.5	1.00	1342																X									
S1	1.00	1345																X									
S5	1.00	1347																X									
S10	1.00	1348																X									
ICV	1.00	1351																X									
ICB	1.00	1353																X									
CCV	1.00	1354																X									
CCB	1.00	1356																X									
CRA	1.00	1358																X									
ZZZZZZ	1.00	1400																									
ZZZZZZ	5.00	1402																									
ZZZZZZ	1.00	1405																									
ZZZZZZ	1.00	1406																									
ZZZZZZ	1.00	1408																									
ZZZZZZ	1.00	1421																									
ZZZZZZ	1.00	1423																									
ZZZZZZ	1.00	1425																									
ZZZZZZ	1.00	1427																									
CCV	1.00	1429																X									
CCB	1.00	1431																X									
CCV	1.00	1442																X									
CCB	1.00	1444																X									
ZZZZZZ	1.00	1447																									
ZZZZZZ	1.00	1449																									
ZZZZZZ	1.00	1451																									
ZZZZZZ	1.00	1453																									
ZZZZZZ	1.00	1455																									
ZZZZZZ	1.00	1457																									
ZZZZZZ	1.00	1459																									
ZZZZZZ	1.00	1501																									

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14
ANALYSIS RUN LOG

Lab Name: ANALYTICAL_RESOURCES_INC. Contract: 68D50134__

Lab Code: ARI___ Case No.: 25159_ SAS No.: _____ SDG No.:MFGZ66

Instrument ID Number: BUCK MERCURY_ Method: CV

Start Date: 12/04/96 End Date: 12/04/96

EPA Sample No.	D/F	Time	% R	Analytes																							
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
ZZZZZZ	1.00	1503																									
ZZZZZZ	1.00	1505																									
CCV	1.00	1507																X									
CCB	1.00	1509																X									
ZZZZZZ	1.00	1511																									
ZZZZZZ	1.00	1513																									
ZZZZZZ	1.00	1515																									
ZZZZZZ	1.00	1518																									
ZZZZZZ	1.00	1520																									
PBS	1.00	1522																X									
LCSS	5.00	1524																X									
MFGZ66	1.00	1526																X									
MFGZ66D	1.00	1528																X									
MFGZ66S	1.00	1531																X									
CCV	1.00	1532																X									
CCB	1.00	1534																X									

U.S. EPA - CLP

14
ANALYSIS RUN LOG

Lab Name: ANALYTICAL_RESOURCES_INC. Contract: 68D50134__

Lab Code: ARI___ Case No.: 25159_ SAS No.: _____ SDG No.:MFGZ66

Instrument ID Number: CYANIDE SPEC_ Method: CA

Start Date: 11/26/96 End Date: 11/26/96

EPA Sample No.	D/F	Time	% R	Analytes																							
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
S0	1.00	1452																									X
S5	1.00	1453																									X
S10	1.00	1454																									X
S50	1.00	1455																									X
S100	1.00	1456																									X
S200	1.00	1457																									X
ICV	1.00	1457																									X
ICB	1.00	1458																									X
CCV	1.00	1459																									X
CCB	1.00	1459																									X
PBS	1.00	1500																									X
DMLS	1.00	1501																									X
LCSS	1.00	1502																									X
MFGZ66	1.00	1503																									X
MFGZ66D	1.00	1503																									X
MFGZ66S	1.00	1504																									X
ZZZZZZ	1.00	1505																									
ZZZZZZ	1.00	1506																									
ZZZZZZ	1.00	1507																									
CCV	1.00	1508																									X
CCB	1.00	1508																									X
ZZZZZZ	1.00	1509																									
ZZZZZZ	1.00	1510																									
ZZZZZZ	1.00	1510																									
ZZZZZZ	1.00	1511																									
ZZZZZZ	1.00	1512																									
ZZZZZZ	1.00	1513																									
ZZZZZZ	1.00	1513																									
ZZZZZZ	1.00	1514																									
ZZZZZZ	1.00	1515																									
CCV	1.00	1516																									X
CCB	1.00	1516																									X

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14
ANALYSIS RUN LOG

Lab Name: ANALYTICAL_RESOURCES_INC. Contract: 68D50134__

Lab Code: ARI___ Case No.: 25159_ SAS No.: _____ SDG No.:MFGZ66

Instrument ID Number: CYANIDE SPEC_ Method: CA

Start Date: 11/26/96 End Date: 11/26/96

EPA Sample No.	D/F	Time	% R	Analytes																							
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
ZZZZZZ	1.00	1517																									
CCV	1.00	1518																									X
CCB	1.00	1519																									X

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Quarterly Verification of Instrument Parameters

Case No: 25159

SDG: MFGZ66

ANALYTICAL RESOURCES, INC.
Contract: 68-D5-0134

000059

333 Ninth Avenue North • Seattle WA 98109-5187 • **206-621-6490** • **206-621-7523** fax

10
Instrument Detection Limits (Quarterly)

Lab Name: ANALYTICAL_RESOURCES_INC. Contract: 68D50134__

Lab Code: ARI___ Case No.: 25159_ SAS No.: _____ SDG No.: MFGZ66

ICP ID Number: TJA_ICP_61__ Date: 10/15/96

Flame AA ID Number : _____

Furnace AA ID Number : _____

Analyte	Wave-length (nm)	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Aluminum	308.22		200	20.0	P
Antimony	206.84		60	50.0	P
Arsenic			10		NR
Barium	455.50		200	1.0	P
Beryllium	313.04		5	1.0	P
Cadmium	228.80		5	2.0	P
Calcium	317.93		5000	20.0	P
Chromium	267.72		10	5.0	P
Cobalt	228.62		50	3.0	P
Copper	324.75		25	2.0	P
Iron	259.94		100	20.0	P
Lead			3		NR
Magnesium	279.08		5000	20.0	P
Manganese	257.61		15	1.0	P
Mercury			0.2		NR
Nickel	231.60		40	10.0	P
Potassium	766.49		5000	400.0	P
Selenium			5		NR
Silver	328.07		10	3.0	P
Sodium	589.00		5000	50.0	P
Thallium			10		NR
Vanadium	292.40		50	2.0	P
Zinc	213.86		20	4.0	P
Cyanide			10		NR

Comments:

U.S. EPA - CLP

10
Instrument Detection Limits (Quarterly)

Lab Name: ANALYTICAL_RESOURCES_INC. Contract: 68D50134__

Lab Code: ARI___ Case No.: 25159_ SAS No.: _____ SDG No.: MFGZ66

ICP ID Number: _____ Date: 10/15/96

Flame AA ID Number : _____

Furnace AA ID Number : VARIAN1_300_

Analyte	Wave-length (nm)	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Aluminum			200		NR
Antimony			60		NR
Arsenic			10		NR
Barium			200		NR
Beryllium			5		NR
Cadmium			5		NR
Calcium			5000		NR
Chromium			10		NR
Cobalt			50		NR
Copper			25		NR
Iron			100		NR
Lead	283.30	BZ	3	1.0	F
Magnesium			5000		NR
Manganese			15		NR
Mercury			0.2		NR
Nickel			40		NR
Potassium			5000		NR
Selenium	196.00	BZ	5	1.0	F
Silver			10		NR
Sodium			5000		NR
Thallium			10		NR
Vanadium			50		NR
Zinc			20		NR
Cyanide			10		NR

Comments:

U.S. EPA - CLP

10
Instrument Detection Limits (Quarterly)

Lab Name: ANALYTICAL_RESOURCES_INC. Contract: 68D50134__

Lab Code: ARI___ Case No.: 25159_ SAS No.: _____ SDG No.: MFGZ66

ICP ID Number: _____ Date: 10/15/96

Flame AA ID Number : BUCK_MERCURY

Furnace AA ID Number : _____

Analyte	Wave-length (nm)	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Aluminum			200		NR
Antimony			60		NR
Arsenic			10		NR
Barium			200		NR
Beryllium			5		NR
Cadmium			5		NR
Calcium			5000		NR
Chromium			10		NR
Cobalt			50		NR
Copper			25		NR
Iron			100		NR
Lead			3		NR
Magnesium			5000		NR
Manganese			15		NR
Mercury	253.70		0.2	0.1	CV
Nickel			40		NR
Potassium			5000		NR
Selenium			5		NR
Silver			10		NR
Sodium			5000		NR
Thallium			10		NR
Vanadium			50		NR
Zinc			20		NR
Cyanide			10		NR

Comments:

U.S. EPA - CLP

10
Instrument Detection Limits (Quarterly)

Lab Name: ANALYTICAL_RESOURCES_INC. Contract: 68D50134__

Lab Code: ARI___ Case No.: 25159_ SAS No.: _____ SDG No.: MFGZ66

ICP ID Number: _____ Date: 10/15/96

Flame AA ID Number : _____

Furnace AA ID Number : VARIAN2_300_

Analyte	Wave-length (nm)	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Aluminum			200		NR
Antimony			60		NR
Arsenic	193.70	BZ	10	1.0	F
Barium			200		NR
Beryllium			5		NR
Cadmium			5		NR
Calcium			5000		NR
Chromium			10		NR
Cobalt			50		NR
Copper			25		NR
Iron			100		NR
Lead			3		NR
Magnesium			5000		NR
Manganese			15		NR
Mercury			0.2		NR
Nickel			40		NR
Potassium			5000		NR
Selenium			5		NR
Silver			10		NR
Sodium			5000		NR
Thallium	276.80	BZ	10	1.0	F
Vanadium			50		NR
Zinc			20		NR
Cyanide			10		NR

Comments:

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10
Instrument Detection Limits (Quarterly)

Lab Name: ANALYTICAL_RESOURCES_INC. Contract: 68D50134__

Lab Code: ARI___ Case No.: 25159_ SAS No.: _____ SDG No.: MFGZ66

ICP ID Number: _____ Date: 10/15/96

Flame AA ID Number : CYANIDE_SPEC

Furnace AA ID Number : _____

Analyte	Wave-length (nm)	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Aluminum			200		NR
Antimony			60		NR
Arsenic			10		NR
Barium			200		NR
Beryllium			5		NR
Cadmium			5		NR
Calcium			5000		NR
Chromium			10		NR
Cobalt			50		NR
Copper			25		NR
Iron			100		NR
Lead			3		NR
Magnesium			5000		NR
Manganese			15		NR
Mercury			0.2		NR
Nickel			40		NR
Potassium			5000		NR
Selenium			5		NR
Silver			10		NR
Sodium			5000		NR
Thallium			10		NR
Vanadium			50		NR
Zinc			20		NR
Cyanide	620.00		10	5.0	CA

Comments:

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11A
ICP INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab Name: ANALYTICAL_RESOURCES_INC. Contract: 68D50134__

Lab Code: ARI___ Case No.: 25159_ SAS No.: _____ SDG No.: MFGZ66

ICP ID Number: TJA ICP 61__ Date: 10/27/96

Analyte	Wave-length (nm)	Interelement Correction Factors for : Al	Ca	Fe	Mg	AS_
Aluminum_	308.22	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Antimony_	206.84	0.0000000	0.0001250	-0.0010330	0.0000907	0.0000000
Arsenic__	197.20	0.0006500	0.0000000	0.0006860	0.0000000	0.0000000
Barium___	455.50	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Beryllium	313.04	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium__	228.80	0.0000000	0.0000000	0.0000000	-0.0000070	0.0061540
Calcium__	317.93	0.0000000	0.0000000	0.0001450	0.0000000	0.0000000
Chromium_	267.72	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cobalt___	228.62	0.0000000	0.0000000	0.0000656	0.0000000	0.0000000
Copper___	324.75	0.0000000	0.0000000	-0.0001400	0.0000000	0.0000000
Iron____	259.94	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Lead____	220.35	0.0015820	0.0000000	0.0001250	0.0000000	0.0000000
Magnesium	279.08	0.0000000	0.0000000	0.0001250	0.0000000	0.0000000
Manganese	257.61	0.0000072	0.0000000	0.0001580	0.0000185	0.0000000
Mercury__						
Nickel___	231.60	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Potassium	766.49	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium_	196.02	0.0001170	0.0001040	-0.0014160	0.0004450	0.0000000
Silver___	328.07	0.0000000	0.0000000	-0.0001970	0.0000000	0.0000000
Sodium___	589.00	0.0000000	-0.0027600	0.0000000	0.0000000	0.0000000
Thallium_	190.86	-0.0002800	0.0000000	0.0037240	0.0003040	0.0000000
Vanadium_	292.40	0.0000000	0.0000000	0.0001550	0.0000000	0.0000000
Zinc____	213.86	0.0000000	0.0000000	0.0001010	0.0000000	0.0000000

Comments:

U.S. EPA - CLP

11B
ICP INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab Name: ANALYTICAL_RESOURCES_INC. Contract: 68D50134__

Lab Code: ARI___ Case No.: 25159_ SAS No.: _____ SDG No.: MFGZ66

ICP ID Number: TJA ICP 61__ Date: 10/27/96

Analyte	Wave-length (nm)	Interelement Correction Factors for : BA_	BE_	CD_	CO_	CR_
Aluminum	308.22	0.0000000	0.0000000	0.0000000	-0.0092870	0.0000000
Antimony	206.84	0.0000000	0.0000000	0.0000000	0.0000000	0.0010240
Arsenic	197.20	0.0000000	0.0000000	0.0000000	0.0080230	0.0000000
Barium	455.50	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Beryllium	313.04	0.0000000	0.0000000	0.0000000	0.0000000	0.0000090
Cadmium	228.80	0.0000000	0.0043650	0.0000000	0.0007290	0.0000000
Calcium	317.93	0.0000000	0.0000000	0.0000000	0.0000000	0.0006970
Chromium	267.72	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cobalt	228.62	0.0007680	0.0000000	0.0008230	0.0000000	0.0003270
Copper	324.75	0.0000000	0.0000000	0.0000000	0.0000130	0.0000000
Iron	259.94	0.0000000	0.0000000	0.0000000	0.0000000	0.0000540
Lead	220.35	0.0000000	0.0000000	0.0000000	-0.0340380	-0.0020700
Magnesium	279.08	0.0000000	0.0000000	0.0000000	-0.0016420	-0.0010290
Manganese	257.61	0.0000000	0.0000000	0.0000000	0.0003330	0.0000220
Mercury						
Nickel	231.60	0.0000000	0.0000000	0.0000000	0.0019020	0.0000000
Potassium	766.49	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	196.02	0.0000000	0.0000000	0.0000000	-0.0011060	0.0000000
Silver	328.07	0.0000000	0.0000000	0.0000000	0.0000000	0.0000130
Sodium	589.00	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium	190.86	0.0000000	0.0000000	0.0000000	0.0059240	0.0007010
Vanadium	292.40	0.0000000	0.0000000	0.0000000	0.0000000	0.0002770
Zinc	213.86	0.0000000	0.0000000	-0.0001850	-0.0000660	0.0000204

Comments:

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11B
ICP INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab Name: ANALYTICAL_RESOURCES_INC. Contract: 68D50134__

Lab Code: ARI___ Case No.: 25159_ SAS No.: _____ SDG No.: MFGZ66

ICP ID Number: TJA ICP 61__ Date: 10/27/96

Analyte	Wave-length (nm)	Interelement Correction Factors for : CU_	MN_	MO_	NI_	PB_
Aluminum	308.22	0.0000000	0.0015000	0.0097740	0.0000000	0.0000000
Antimony	206.84	0.0000000	0.0000000	0.0019160	0.0000000	0.0000000
Arsenic	197.20	0.0000000	0.0000000	0.0042420	0.0000000	0.0094070
Barium	455.50	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Beryllium	313.04	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium	228.80	0.0000000	0.0000000	0.0000000	-0.0002400	0.0000000
Calcium	317.93	0.0000000	0.0000000	0.0003410	0.0000000	0.0000000
Chromium	267.72	0.0000000	0.0000000	-0.0025290	0.0000000	0.0000000
Cobalt	228.62	0.0000000	0.0000000	0.0001610	0.0005820	0.0000000
Copper	324.75	0.0000000	0.0000000	0.0003160	0.0000000	0.0000000
Iron	259.94	0.0000000	-0.0103530	0.0004229	0.0000000	0.0000000
Lead	220.35	-0.0021300	0.0000000	-0.0008810	0.0000000	0.0000000
Magnesium	279.08	0.0000000	-0.0032930	-0.0104470	0.0000000	0.0000000
Manganese	257.61	0.0000000	0.0000000	-0.0002253	0.0000000	0.0000000
Mercury						
Nickel	231.60	0.0000000	0.0000000	-0.0001900	0.0000000	0.0000000
Potassium	766.49	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	196.02	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Silver	328.07	0.0000000	0.0001600	0.0000570	0.0000000	0.0000000
Sodium	589.00	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium	190.86	0.0000000	-0.0113100	-0.0012500	0.0000000	0.0000000
Vanadium	292.40	0.0000000	-0.0001200	-0.0105230	0.0000000	0.0000000
Zinc	213.86	0.0031750	0.0000000	-0.0000720	0.0033520	0.0000000

Comments:

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11B
ICP INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab Name: ANALYTICAL_RESOURCES_INC. Contract: 68D50134__

Lab Code: ARI___ Case No.: 25159_ SAS No.: _____ SDG No.: MFGZ66

ICP ID Number: TJA ICP 61__ Date: 10/27/96

Analyte	Wave-length (nm)	Interelement Correction Factors for : SB_	TI_	TL_	V__	___
Aluminum_	308.22	0.0000000	0.0000000	0.0000000	-0.0246900	
Antimony_	206.84	0.0000000	0.0000000	0.0000000	0.0000000	
Arsenic__	197.20	0.0008600	0.0000000	0.0000000	0.0052830	
Barium___	455.50	0.0000000	0.0000000	0.0000000	0.0000000	
Beryllium	313.04	0.0000000	0.0000000	0.0000000	0.0041490	
Cadmium__	228.80	0.0000000	0.0000000	0.0000000	0.0000000	
Calcium__	317.93	0.0000000	0.0000000	0.0000000	0.0000000	
Chromium_	267.72	0.0000000	0.0000000	0.0000000	0.0007600	
Cobalt___	228.62	0.0000000	0.0017500	0.0000000	0.0000000	
Copper___	324.75	0.0000000	-0.0008740	0.0000000	0.0000000	
Iron____	259.94	0.0000000	0.0000000	0.0000000	0.1429330	
Lead____	220.35	-0.0017550	0.0000000	0.0000000	0.0000000	
Magnesium	279.08	0.0000000	0.0000000	0.0000000	0.0000000	
Manganese	257.61	0.0000000	0.0000000	0.0000000	-0.0001770	
Mercury__						
Nickel___	231.60	0.0000000	0.0000000	0.0006580	0.0000000	
Potassium	766.49	0.0000000	0.0000000	0.0000000	0.0000000	
Selenium_	196.02	0.0000000	0.0000000	0.0000000	0.0000000	
Silver___	328.07	0.0000000	0.0000000	0.0000000	-0.0050300	
Sodium___	589.00	0.0000000	-0.2905300	0.0000000	0.0000000	
Thallium_	190.86	0.0000000	0.0000000	0.0000000	0.0038570	
Vanadium_	292.40	0.0000000	0.0004600	0.0000000	0.0000000	
Zinc____	213.86	0.0000000	0.0000000	0.0000000	0.0000000	

Comments:

U.S. EPA - CLP

12
ICP LINEAR RANGES (QUARTERLY)

Lab Name: ANALYTICAL_RESOURCES_INC. Contract: 68D50134__

Lab Code: ARI___ Case No.: 25159_ SAS No.: _____ SDG No.: MFGZ66

ICP ID Number: TJA ICP 61__ Date: 10/15/96

Analyte	Integ. Time (sec.)	Concentration (ug/L)	M
Aluminum	7.00	650000.0	P
Antimony	7.00	500000.0	P
Arsenic	7.00	750000.0	P
Barium	7.00	250000.0	P
Beryllium	7.00	20000.0	P
Cadmium	7.00	150000.0	P
Calcium	7.00	500000.0	P
Chromium	7.00	500000.0	P
Cobalt	7.00	300000.0	P
Copper	7.00	40000.0	P
Iron	7.00	500000.0	P
Lead	7.00	600000.0	P
Magnesium	7.00	750000.0	P
Manganese	7.00	40000.0	P
Mercury			NR
Nickel	7.00	50000.0	P
Potassium	7.00	500000.0	P
Selenium	7.00	300000.0	P
Silver	7.00	8000.0	P
Sodium	7.00	500000.0	P
Thallium	7.00	250000.0	P
Vanadium	7.00	30000.0	P
Zinc	7.00	100000.0	P

Comments:

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Raw Data

Case No: 25159

SDG: MFGZ66

ANALYTICAL RESOURCES, INC.
Contract: 68-D5-0134

000070

333 Ninth Avenue North • Seattle WA 98109-5187 • **206-621-6490** • **206-621-7523** fax

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CALCULATED DATA FROM FILE: S\IP961215.DBF

ANALYTICAL RESOURCES INCORPORATED

JOB	SAMP	ELEMENT	PREPCODE			RAWVALUE	CALCULATED	UNITS	DILUTION	MASS	INITVOL	FINLVOL	%SOLIDS
5375	D	AG	RCC	I	U	0.0030000	0.0030000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	D	AL	RCC	I		0.2376900	0.2376900	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	D	AS	RCC	I		0.0528600	0.0528600	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	D	B	RCC	I		0.0973800	0.0973800	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	D	BA	RCC	I		1.1704600	1.1704600	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	D	BE	RCC	I	U	0.0010000	0.0010000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	D	CA	RCC	I		75.2055200	75.2055200	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	D	CD	RCC	I	U	0.0020000	0.0020000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	D	CO	RCC	I		0.0051600	0.0051600	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	D	CR	RCC	I	U	0.0050000	0.0050000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	D	CU	RCC	I		0.0068600	0.0068600	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	D	FE	RCC	I		51.2349700	51.2349700	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	D	K	RCC	I		5.9913700	5.9913700	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	D	MG	RCC	I		36.3811600	36.3811600	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	D	MN	RCC	I		0.6195700	0.6195700	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	D	MO	RCC	I	U	0.0050000	0.0050000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	D	NA	RCC	I		17.9495600	17.9495600	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	D	NI	RCC	I	U	0.0100000	0.0100000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	D	PB	RCC	I	U	0.0200000	0.0200000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	D	SB	RCC	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	D	SE	RCC	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	D	SI	RCC	I		13.2783600	13.2783600	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	D	SN	RCC	I	U	0.0100000	0.0100000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	D	SR	RCC	I		0.5989200	0.5989200	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	D	TI	RCC	I		0.0074100	0.0074100	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	D	TL	RCC	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	D	V	RCC	I		0.0020600	0.0020600	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	D	ZN	RCC	I	U	0.0040000	0.0040000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	E	AG	RCC	I	U	0.0030000	0.0030000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	E	AL	RCC	I	U	0.0200000	0.0200000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	E	AS	RCC	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	E	B	RCC	I		0.2911100	0.2911100	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	E	BA	RCC	I		0.5637200	0.5637200	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	E	BE	RCC	I	U	0.0010000	0.0010000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	E	CA	RCC	I		58.1469300	58.1469300	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	E	CD	RCC	I	U	0.0020000	0.0020000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	E	CO	RCC	I		0.0030600	0.0030600	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	E	CR	RCC	I	U	0.0050000	0.0050000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	E	CU	RCC	I		0.0026300	0.0026300	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	E	FE	RCC	I		41.5720400	41.5720400	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	E	K	RCC	I		5.7481800	5.7481800	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	E	MG	RCC	I		38.3732800	38.3732800	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	E	MN	RCC	I		1.8633500	1.8633500	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	E	MO	RCC	I	U	0.0050000	0.0050000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	E	NA	RCC	I		53.8394300	53.8394300	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	E	NI	RCC	I	U	0.0100000	0.0100000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	E	PB	RCC	I	U	0.0200000	0.0200000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	E	SB	RCC	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	E	SE	RCC	I		0.0582400	0.0582400	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	E	SI	RCC	I		9.2286200	9.2286200	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	E	SN	RCC	I	U	0.0100000	0.0100000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	E	SR	RCC	I		0.3955700	0.3955700	mg/L	1.00	0.0000	100.00	100.00	0.00

ANALYTICAL RESOURCES INCORPORATED

JOB	SAMP	ELEMENT	PREPCODE			RAWVALUE	[illegible]ATED	UNITS	DILUTION	MASS	INITVOL	FINVOL	%SOLIDS
5375	E	TI	RCC	I	U	0.0050000	[illegible]000	mg/L	1.00	0.0000	100.00	[illegible]	[illegible]
5375	E	TL	RCC	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	E	V	RCC	I		0.0061700	0.0061700	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	E	ZN	RCC	I	U	0.0040000	0.0040000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	F	AG	RCC	I	U	0.0030000	0.0030000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	F	AL	RCC	I	U	0.0200000	0.0200000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	F	AS	RCC	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	F	B	RCC	I		0.0156600	0.0156600	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	F	BA	RCC	I	U	0.0010000	0.0010000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	F	BE	RCC	I	U	0.0010000	0.0010000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	F	CA	RCC	I		0.0552300	0.0552300	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	F	CD	RCC	I	U	0.0020000	0.0020000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	F	CO	RCC	I	U	0.0030000	0.0030000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	F	CR	RCC	I	U	0.0050000	0.0050000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	F	CU	RCC	I	U	0.0020000	0.0020000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	F	FE	RCC	I		0.0320100	0.0320100	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	F	K	RCC	I	U	0.4000000	0.4000000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	F	MG	RCC	I	U	0.0200000	0.0200000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	F	MN	RCC	I		0.0014100	0.0014100	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	F	MO	RCC	I	U	0.0050000	0.0050000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	F	NA	RCC	I		0.1195800	0.1195800	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	F	NI	RCC	I	U	0.0100000	0.0100000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	F	PB	RCC	I	U	0.0200000	0.0200000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	F	SB	RCC	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	F	SE	RCC	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	F	SI	RCC	I		0.1303800	0.1303800	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	F	SN	RCC	I	U	0.0100000	0.0100000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	F	SR	RCC	I	U	0.0010000	0.0010000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	F	TI	RCC	I	U	0.0050000	0.0050000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	F	TL	RCC	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	F	V	RCC	I	U	0.0020000	0.0020000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	F	ZN	RCC	I	U	0.0040000	0.0040000	mg/L	1.00	0.0000	100.00	100.00	0.00
5374	A	AG	SCC	I	U	0.0030000	0.6535333	mg/kg-dry	1.00	1.0120	0.00	200.00	90.72
5374	A	AL	SCC	I		7.1955300	1567.5060648	mg/kg-dry	1.00	1.0120	0.00	200.00	90.72
5374	A	AS	SCC	I	U	0.0500000	10.8922210	mg/kg-dry	1.00	1.0120	0.00	200.00	90.72
5374	A	B	SCC	I		0.0077900	1.6970080	mg/kg-dry	1.00	1.0120	0.00	200.00	90.72
5374	A	BA	SCC	I		0.0724000	15.7719361	mg/kg-dry	1.00	1.0120	0.00	200.00	90.72
5374	A	BE	SCC	I	U	0.0010000	0.2178444	mg/kg-dry	1.00	1.0120	0.00	200.00	90.72
5374	A	CA	SCC	I		1.7491200	381.0360332	mg/kg-dry	1.00	1.0120	0.00	200.00	90.72
5374	A	CD	SCC	I	U	0.0020000	0.4356888	mg/kg-dry	1.00	1.0120	0.00	200.00	90.72
5374	A	CO	SCC	I		0.0096200	2.0956633	mg/kg-dry	1.00	1.0120	0.00	200.00	90.72
5374	A	CR	SCC	I		0.0171700	3.7403887	mg/kg-dry	1.00	1.0120	0.00	200.00	90.72
5374	A	CU	SCC	I		0.0088000	1.9170309	mg/kg-dry	1.00	1.0120	0.00	200.00	90.72
5374	A	FE	SCC	I		15.3299200	3339.5375424	mg/kg-dry	1.00	1.0120	0.00	200.00	90.72
5374	A	K	SCC	I		1.8128800	394.9257935	mg/kg-dry	1.00	1.0120	0.00	200.00	90.72
5374	A	MG	SCC	I		1.1621100	253.1591798	mg/kg-dry	1.00	1.0120	0.00	200.00	90.72
5374	A	MN	SCC	I		0.2851700	62.1226935	mg/kg-dry	1.00	1.0120	0.00	200.00	90.72
5374	A	MO	SCC	I	U	0.0050000	1.0892221	mg/kg-dry	1.00	1.0120	0.00	200.00	90.72
5374	A	NA	SCC	I	U	0.0500000	10.8922210	mg/kg-dry	1.00	1.0120	0.00	200.00	90.72
5374	A	NI	SCC	I	U	0.0100000	2.1784442	mg/kg-dry	1.00	1.0120	0.00	200.00	90.72
5374	A	PB	SCC	I		0.0485600	10.5785251	mg/kg-dry	1.00	1.0120	0.00	200.00	90.72
5374	A	SB	SCC	I	U	0.0500000	10.8922210	mg/kg-dry	1.00	1.0120	0.00	200.00	90.72
5374	A	SE	SCC	I	U	0.0500000	10.8922210	mg/kg-dry	1.00	1.0120	0.00	200.00	90.72
5374	A	SI	SCC	I		4.1258800	898.7999387	mg/kg-dry	1.00	1.0120	0.00	200.00	90.72
5374	A	SN	SCC	I		0.0115000	2.5052108	mg/kg-dry	1.00	1.0120	0.00	200.00	90.72

ANALYTICAL RESOURCES INCORPORATED

JOB	SAMP	ELEMENT	PREPCODE			RAWVALUE	[illegible]ATED	UNITS	DILUTION	MASS	INITVOL	FINVOL	%SOLIDS
5374	A	SR	SCC	I		0.0133800	[illegible]583	mg/kg-dry	1.00	1.0120	0.00	[illegible]	[illegible]
5374	A	TI	SCC	I		0.1470000	32.0231298	mg/kg-dry	1.00	1.0120	0.00	200.00	90.72
5374	A	TL	SCC	I	U	0.0500000	10.8922210	mg/kg-dry	1.00	1.0120	0.00	200.00	90.72
5374	A	V	SCC	I		0.0245000	5.3371883	mg/kg-dry	1.00	1.0120	0.00	200.00	90.72
5374	A	ZN	SCC	I		0.0397000	8.6484235	mg/kg-dry	1.00	1.0120	0.00	200.00	90.72
5374	ADUP	AG	SCC	I	U	0.0030000	0.6535333	mg/kg-dry	1.00	1.0120	0.00	200.00	90.72
5374	ADUP	AL	SCC	I		6.7244500	1464.8839151	mg/kg-dry	1.00	1.0120	0.00	200.00	90.72
5374	ADUP	AS	SCC	I	U	0.0500000	10.8922210	mg/kg-dry	1.00	1.0120	0.00	200.00	90.72
5374	ADUP	B	SCC	I	U	0.0060000	1.3070665	mg/kg-dry	1.00	1.0120	0.00	200.00	90.72
5374	ADUP	BA	SCC	I		0.0741200	16.1466285	mg/kg-dry	1.00	1.0120	0.00	200.00	90.72
5374	ADUP	BE	SCC	I	U	0.0010000	0.2178444	mg/kg-dry	1.00	1.0120	0.00	200.00	90.72
5374	ADUP	CA	SCC	I		1.7120600	372.9627190	mg/kg-dry	1.00	1.0120	0.00	200.00	90.72
5374	ADUP	CD	SCC	I	U	0.0020000	0.4356888	mg/kg-dry	1.00	1.0120	0.00	200.00	90.72
5374	ADUP	CO	SCC	I		0.0081200	1.7688967	mg/kg-dry	1.00	1.0120	0.00	200.00	90.72
5374	ADUP	CR	SCC	I		0.0168900	3.6793923	mg/kg-dry	1.00	1.0120	0.00	200.00	90.72
5374	ADUP	CU	SCC	I		0.0075200	1.6381900	mg/kg-dry	1.00	1.0120	0.00	200.00	90.72
5374	ADUP	FE	SCC	I		15.1273700	3295.4131550	mg/kg-dry	1.00	1.0120	0.00	200.00	90.72
5374	ADUP	K	SCC	I		1.7613000	383.6893783	mg/kg-dry	1.00	1.0120	0.00	200.00	90.72
5374	ADUP	MG	SCC	I		1.0821900	235.7490537	mg/kg-dry	1.00	1.0120	0.00	200.00	90.72
5374	ADUP	MN	SCC	I		0.3010300	65.5777060	mg/kg-dry	1.00	1.0120	0.00	200.00	90.72
5374	ADUP	MO	SCC	I	U	0.0050000	1.0892221	mg/kg-dry	1.00	1.0120	0.00	200.00	90.72
5374	ADUP	NA	SCC	I	U	0.0500000	10.8922210	mg/kg-dry	1.00	1.0120	0.00	200.00	90.72
5374	ADUP	NI	SCC	I	U	0.0100000	2.1784442	mg/kg-dry	1.00	1.0120	0.00	200.00	90.72
5374	ADUP	PB	SCC	I		0.0492900	10.7375515	mg/kg-dry	1.00	1.0120	0.00	200.00	90.72
5374	ADUP	SB	SCC	I	U	0.0500000	10.8922210	mg/kg-dry	1.00	1.0120	0.00	200.00	90.72
5374	ADUP	SE	SCC	I	U	0.0500000	10.8922210	mg/kg-dry	1.00	1.0120	0.00	200.00	90.72
5374	ADUP	SI	SCC	I		4.3220400	941.5323002	mg/kg-dry	1.00	1.0120	0.00	200.00	90.72
5374	ADUP	SN	SCC	I		0.0140600	3.0628926	mg/kg-dry	1.00	1.0120	0.00	200.00	90.72
5374	ADUP	SR	SCC	I		0.0126900	2.7644457	mg/kg-dry	1.00	1.0120	0.00	200.00	90.72
5374	ADUP	TI	SCC	I		0.1453700	31.6680434	mg/kg-dry	1.00	1.0120	0.00	200.00	90.72
5374	ADUP	TL	SCC	I	U	0.0500000	10.8922210	mg/kg-dry	1.00	1.0120	0.00	200.00	90.72
5374	ADUP	V	SCC	I		0.0247600	5.3938279	mg/kg-dry	1.00	1.0120	0.00	200.00	90.72
5374	ADUP	ZN	SCC	I		0.0358300	7.8053656	mg/kg-dry	1.00	1.0120	0.00	200.00	90.72
5374	ASPK	AG	SCC	I		0.0474200	10.3301824	mg/kg-dry	1.00	1.0120	0.00	200.00	90.72
5374	ASPK	AL	SCC	I		7.4881300	1631.2473423	mg/kg-dry	1.00	1.0120	0.00	200.00	90.72
5374	ASPK	AS	SCC	I		1.9426500	423.1954640	mg/kg-dry	1.00	1.0120	0.00	200.00	90.72
5374	ASPK	B	SCC	I	U	0.0060000	1.3070665	mg/kg-dry	1.00	1.0120	0.00	200.00	90.72
5374	ASPK	BA	SCC	I		2.0450400	445.5005542	mg/kg-dry	1.00	1.0120	0.00	200.00	90.72
5374	ASPK	BE	SCC	I		0.0468400	10.2038327	mg/kg-dry	1.00	1.0120	0.00	200.00	90.72
5374	ASPK	CA	SCC	I		1.8841700	410.4559222	mg/kg-dry	1.00	1.0120	0.00	200.00	90.72
5374	ASPK	CD	SCC	I		0.0457700	9.9707391	mg/kg-dry	1.00	1.0120	0.00	200.00	90.72
5374	ASPK	CO	SCC	I		0.5000500	108.9331026	mg/kg-dry	1.00	1.0120	0.00	200.00	90.72
5374	ASPK	CR	SCC	I		0.2119000	46.1612328	mg/kg-dry	1.00	1.0120	0.00	200.00	90.72
5374	ASPK	CU	SCC	I		0.2594000	56.5088427	mg/kg-dry	1.00	1.0120	0.00	200.00	90.72
5374	ASPK	FE	SCC	I		14.6219800	3185.3167632	mg/kg-dry	1.00	1.0120	0.00	200.00	90.72
5374	ASPK	K	SCC	I		1.0317200	224.7544458	mg/kg-dry	1.00	1.0120	0.00	200.00	90.72
5374	ASPK	MG	SCC	I		1.0300100	224.3819318	mg/kg-dry	1.00	1.0120	0.00	200.00	90.72
5374	ASPK	MN	SCC	I		0.7891700	171.9162815	mg/kg-dry	1.00	1.0120	0.00	200.00	90.72
5374	ASPK	MO	SCC	I	U	0.0050000	1.0892221	mg/kg-dry	1.00	1.0120	0.00	200.00	90.72
5374	ASPK	NA	SCC	I	U	0.0500000	10.8922210	mg/kg-dry	1.00	1.0120	0.00	200.00	90.72
5374	ASPK	NI	SCC	I		0.4985900	108.6150497	mg/kg-dry	1.00	1.0120	0.00	200.00	90.72
5374	ASPK	PB	SCC	I		0.5223800	113.7975685	mg/kg-dry	1.00	1.0120	0.00	200.00	90.72
5374	ASPK	SB	SCC	I		0.2258000	49.1892702	mg/kg-dry	1.00	1.0120	0.00	200.00	90.72
5374	ASPK	SE	SCC	I		1.9341300	421.3394295	mg/kg-dry	1.00	1.0120	0.00	200.00	90.72
5374	ASPK	SI	SCC	I		4.6270600	1007.9792054	mg/kg-dry	1.00	1.0120	0.00	200.00	90.72

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JOB	SAMP	ELEMENT	PREPCODE			RAWVALUE	[illegible]ATED	UNITS	DILUTION	MASS	INITVOL	FINVOL	%SOLIDS
5374	ASPK	SN	SCC	I		0.0105400	[illegible]802	mg/kg-dry	1.00	1.0120	0.00	[illegible]	[illegible]
5374	ASPK	SR	SCC	I		0.0130800	2.8494050	mg/kg-dry	1.00	1.0120	0.00	200.00	90.72
5374	ASPK	TI	SCC	I		0.1151000	25.0738928	mg/kg-dry	1.00	1.0120	0.00	200.00	90.72
5374	ASPK	TL	SCC	I		1.9675700	428.6241469	mg/kg-dry	1.00	1.0120	0.00	200.00	90.72
5374	ASPK	V	SCC	I		0.5097900	111.0549073	mg/kg-dry	1.00	1.0120	0.00	200.00	90.72
5374	ASPK	ZN	SCC	I		0.5141500	112.0047089	mg/kg-dry	1.00	1.0120	0.00	200.00	90.72
5375	CDUP	AG	RCC	I	U	0.0030000	0.0030000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	CDUP	AL	RCC	I		0.5198300	0.5198300	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	CDUP	AS	RCC	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	CDUP	B	RCC	I		0.0775100	0.0775100	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	CDUP	BA	RCC	I		0.9248400	0.9248400	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	CDUP	BE	RCC	I	U	0.0010000	0.0010000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	CDUP	CA	RCC	I		89.9094300	89.9094300	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	CDUP	CD	RCC	I	U	0.0020000	0.0020000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	CDUP	CO	RCC	I		0.0106200	0.0106200	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	CDUP	CR	RCC	I	U	0.0050000	0.0050000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	CDUP	CU	RCC	I	U	0.0020000	0.0020000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	CDUP	FE	RCC	I		77.0060900	77.0060900	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	CDUP	K	RCC	I		12.3364800	12.3364800	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	CDUP	MG	RCC	I		39.7745000	39.7745000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	CDUP	MN	RCC	I		1.6752800	1.6752800	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	CDUP	MO	RCC	I	U	0.0050000	0.0050000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	CDUP	NA	RCC	I		25.8602600	25.8602600	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	CDUP	NI	RCC	I		0.0116000	0.0116000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	CDUP	PB	RCC	I	U	0.0200000	0.0200000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	CDUP	SB	RCC	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	CDUP	SE	RCC	I		0.0524500	0.0524500	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	CDUP	SI	RCC	I		13.5705500	13.5705500	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	CDUP	SN	RCC	I	U	0.0100000	0.0100000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	CDUP	SR	RCC	I		0.8325600	0.8325600	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	CDUP	TI	RCC	I		0.0187700	0.0187700	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	CDUP	TL	RCC	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	CDUP	V	RCC	I		0.0039500	0.0039500	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	CDUP	ZN	RCC	I		0.0232800	0.0232800	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	C	AG	RCC	I	U	0.0030000	0.0030000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	C	AL	RCC	I		0.5157000	0.5157000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	C	AS	RCC	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	C	B	RCC	I		0.0775700	0.0775700	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	C	BA	RCC	I		0.9124100	0.9124100	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	C	BE	RCC	I	U	0.0010000	0.0010000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	C	CA	RCC	I		89.0093100	89.0093100	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	C	CD	RCC	I	U	0.0020000	0.0020000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	C	CO	RCC	I		0.0087700	0.0087700	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	C	CR	RCC	I	U	0.0050000	0.0050000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	C	CU	RCC	I	U	0.0020000	0.0020000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	C	FE	RCC	I		76.5852500	76.5852500	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	C	K	RCC	I		11.8132500	11.8132500	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	C	MG	RCC	I		39.7061400	39.7061400	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	C	MN	RCC	I		1.6674400	1.6674400	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	C	MO	RCC	I	U	0.0050000	0.0050000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	C	NA	RCC	I		25.6074300	25.6074300	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	C	NI	RCC	I		0.0130300	0.0130300	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	C	PB	RCC	I	U	0.0200000	0.0200000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	C	SB	RCC	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	C	SE	RCC	I		0.0768800	0.0768800	mg/L	1.00	0.0000	100.00	100.00	0.00

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JOB	SAMP	ELEMENT	PREPCODE			RAWVALUE	[illegible]ATED	UNITS	DILUTION	MASS	INITVOL	FINVOL	%SOLIDS
5375	C	SI	RCC	I		13.5288000	[illegible]000	mg/L	1.00	0.0000	100.00	[illegible]	[illegible]
5375	C	SN	RCC	I	U	0.0100000	0.0100000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	C	SR	RCC	I		0.8266100	0.8266100	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	C	TI	RCC	I		0.0180700	0.0180700	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	C	TL	RCC	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	C	V	RCC	I		0.0025800	0.0025800	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	C	ZN	RCC	I		0.0218600	0.0218600	mg/L	1.00	0.0000	100.00	100.00	0.00
5374	REF1	AG	SCC	I		0.1005400	19.9484127	mg/kg-dry	1.00	1.0080	0.00	200.00	100.00
5374	REF1	AL	SCC	I		1.4573700	289.1607143	mg/kg-dry	1.00	1.0080	0.00	200.00	100.00
5374	REF1	AS	SCC	I		4.4852000	889.9206349	mg/kg-dry	1.00	1.0080	0.00	200.00	100.00
5374	REF1	B	SCC	I		0.0406400	8.0634921	mg/kg-dry	1.00	1.0080	0.00	200.00	100.00
5374	REF1	BA	SCC	I		0.0261300	5.1845238	mg/kg-dry	1.00	1.0080	0.00	200.00	100.00
5374	REF1	BE	SCC	I		0.0861100	17.0853175	mg/kg-dry	1.00	1.0080	0.00	200.00	100.00
5374	REF1	CA	SCC	I		439.6 ~~834.3648300~~	174444.4444444 ~~165520.7361111~~	mg/kg-dry	2.00 ~~1.00~~	1.0080	0.00	200.00	100.00
5374	REF1	CD	SCC	I		0.2073800	41.1468254	mg/kg-dry	1.00	1.0080	0.00	200.00	100.00
5374	REF1	CO	SCC	I		0.6607100	131.0932540	mg/kg-dry	1.00	1.0080	0.00	200.00	100.00
5374	REF1	CR	SCC	I		0.4697400	93.2023810	mg/kg-dry	1.00	1.0080	0.00	200.00	100.00
5374	REF1	CU	SCC	I		33.8144100	6709.2083333	mg/kg-dry	1.00	1.0080	0.00	200.00	100.00
5374	REF1	FE	SCC	I		93.6024200	18571.9087302	mg/kg-dry	1.00	1.0080	0.00	200.00	100.00
5374	REF1	K	SCC	I		0.5748100	114.0496032	mg/kg-dry	1.00	1.0080	0.00	200.00	100.00
5374	REF1	MG	SCC	I		515.3633400	102254.6309524	mg/kg-dry	1.00	1.0080	0.00	200.00	100.00
5374	REF1	MN	SCC	I		0.9646500	191.3988095	mg/kg-dry	1.00	1.0080	0.00	200.00	100.00
5374	REF1	MO	SCC	I		0.2227800	44.2023810	mg/kg-dry	1.00	1.0080	0.00	200.00	100.00
5374	REF1	NA	SCC	I		0.1605900	31.8630952	mg/kg-dry	1.00	1.0080	0.00	200.00	100.00
5374	REF1	NI	SCC	I		0.2545400	50.5039683	mg/kg-dry	1.00	1.0080	0.00	200.00	100.00
5374	REF1	PB	SCC	I		0.9852300	195.4821429	mg/kg-dry	1.00	1.0080	0.00	200.00	100.00
5374	REF1	SB	SCC	I		1.0065400	199.7103175	mg/kg-dry	1.00	1.0080	0.00	200.00	100.00
5374	REF1	SE	SCC	I		0.1932300	38.3392857	mg/kg-dry	1.00	1.0080	0.00	200.00	100.00
5374	REF1	SI	SCC	I		2.5880900	513.5099206	mg/kg-dry	1.00	1.0080	0.00	200.00	100.00
5374	REF1	SN	SCC	I		0.0375200	7.4444444	mg/kg-dry	1.00	1.0080	0.00	200.00	100.00
5374	REF1	SR	SCC	I		0.2534500	50.2876984	mg/kg-dry	1.00	1.0080	0.00	200.00	100.00
5374	REF1	TI	SCC	I		0.0872700	17.3154762	mg/kg-dry	1.00	1.0080	0.00	200.00	100.00
5374	REF1	TL	SCC	I		0.1578900	31.3273810	mg/kg-dry	1.00	1.0080	0.00	200.00	100.00
5374	REF1	V	SCC	I		0.3154000	62.5793651	mg/kg-dry	1.00	1.0080	0.00	200.00	100.00
5374	REF1	ZN	SCC	I		0.7553100	149.8630952	mg/kg-dry	1.00	1.0080	0.00	200.00	100.00
5375	B	AG	RCC	I	U	0.0030000	0.0030000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	B	AL	RCC	I	U	0.0200000	0.0200000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	B	AS	RCC	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	B	B	RCC	I		0.2674800	0.2674800	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	B	BA	RCC	I		0.5942100	0.5942100	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	B	BE	RCC	I	U	0.0010000	0.0010000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	B	CA	RCC	I		59.4322500	59.4322500	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	B	CD	RCC	I	U	0.0020000	0.0020000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	B	CO	RCC	I	U	0.0030000	0.0030000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	B	CR	RCC	I	U	0.0050000	0.0050000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	B	CU	RCC	I		0.0222800	0.0222800	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	B	FE	RCC	I		41.0687800	41.0687800	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	B	K	RCC	I		5.7187000	5.7187000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	B	MG	RCC	I		39.0652100	39.0652100	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	B	MN	RCC	I		1.7789200	1.7789200	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	B	MO	RCC	I	U	0.0050000	0.0050000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	B	NA	RCC	I		51.8235400	51.8235400	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	B	NI	RCC	I	U	0.0100000	0.0100000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	B	PB	RCC	I	U	0.0200000	0.0200000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	B	SB	RCC	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00

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JOB	SAMP	ELEMENT	PREPCODE			RAWVALUE	[illegible]ATED	UNITS	DILUTION	MASS	INITVOL	FINVOL	%SOLIDS
5375	B	SE	RCC	I	U	0.0500000	[illegible]000	mg/L	1.00	0.0000	100.00	[illegible]	[illegible]
5375	B	SI	RCC	I		9.2227600	9.2227600	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	B	SN	RCC	I	U	0.0100000	0.0100000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	B	SR	RCC	I		0.4039700	0.4039700	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	B	TI	RCC	I	U	0.0050000	0.0050000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	B	TL	RCC	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	B	V	RCC	I		0.0035200	0.0035200	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	B	ZN	RCC	I	U	0.0040000	0.0040000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	REF3	AG	RCC	I		0.9728900	0.9728900	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	REF3	AL	RCC	I		1.9590200	1.9590200	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	REF3	AS	RCC	I		1.9699400	1.9699400	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	REF3	B	RCC	I		0.9872400	0.9872400	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	REF3	BA	RCC	I		0.9654000	0.9654000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	REF3	BE	RCC	I		0.9449500	0.9449500	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	REF3	CA	RCC	I		2.1869300	2.1869300	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	REF3	CD	RCC	I		0.9732900	0.9732900	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	REF3	CO	RCC	I		0.9641900	0.9641900	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	REF3	CR	RCC	I		0.9721900	0.9721900	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	REF3	CU	RCC	I		1.0242700	1.0242700	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	REF3	FE	RCC	I		2.0042500	2.0042500	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	REF3	K	RCC	I		19.5806700	19.5806700	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	REF3	MG	RCC	I		1.9645200	1.9645200	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	REF3	MN	RCC	I		0.9658500	0.9658500	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	REF3	MO	RCC	I		0.9884500	0.9884500	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	REF3	NA	RCC	I		2.0662500	2.0662500	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	REF3	NI	RCC	I		0.9783000	0.9783000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	REF3	PB	RCC	I		1.9394700	1.9394700	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	REF3	SB	RCC	I		1.9187500	1.9187500	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	REF3	SE	RCC	I		2.0043700	2.0043700	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	REF3	SI	RCC	I		2.5330600	2.5330600	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	REF3	SN	RCC	I		0.9552200	0.9552200	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	REF3	SR	RCC	I		0.9633400	0.9633400	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	REF3	TI	RCC	I		0.9454300	0.9454300	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	REF3	TL	RCC	I		1.9620500	1.9620500	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	REF3	V	RCC	I		0.9611500	0.9611500	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	REF3	ZN	RCC	I		0.9793300	0.9793300	mg/L	1.00	0.0000	100.00	100.00	0.00

ANALYTICAL RESOURCES INCORPORATED

EPA ICP SAMPLE LOGBOOK

Page 1 of 3 Date: 12-15-96 Analyst: CG

All corrections made by analyst unless otherwise noted. CG 12-15-96

Sample Number	EPA ID	Prep. Code	Dilution	Comments	Edit Label
S0 (BLANK)	S0				
STD 2	S			STD # 703-1	
5	S			703-4	
4	S			703-3	
3	S			703-2	
ICV				755-1	
ICB					
CCV1				STD # 686-1	
CCB1					
CR1					
ICSA					
ICSAB					
CCV2					
CCB2					
5374 MB	PBS	SCC	DEL	RERUN	
5375 MB	PBW	RCC			
MB1					
C-L	MCRG09L		✓	1/5 CLP SERIAL DIL	
C	MCRG09				
CDup	MCRG09D		✓		
B	MCRG08				
A	MCRG07				
ASPK	MCRG07S		✓		
REF1	LCSW				
~~CCV3~~ AIR	ZZZZZ			PROBE WENT TO WRONG POSITION	

5000F

Rev.2
11/25/96

ANALYTICAL RESOURCES INCORPORATED

EPA ICP SAMPLE LOGBOOK

Page 2 of 3 Date: 12-15-96 Analyst: CTB

All corrections made by analyst unless otherwise noted CTB 12-15-96

Sample Number	EPA ID	Prep. Code	Dilution	Comments	Edit Label
~~CCB3~~ CCV3					
CCB3					
5374 MB	PBS	SCC	DEL ✓	RETURN	
5375 MB	PBW	RCC	✓		
MB1			✓		
A	MCRG07				
ASPK	MCRG07S		✓		
REF1	LCSW		✓		
CCV4					
CCB4					
CR1					
ICSA					
ICSAB					
CCV5					
CCB5					
5375 D	MCRG10	RCC			
E	MCRG12				
F	MCRG13				
5374 A-L0	MFGZ66L	SCC	✓	1/5 CLP SERIAL DIL0	
A	MFGZ66				
ADup	MFGZ66D		✓		
ASPK	MFGZ66S			Sb 45%R → DO POST SPK	
5375 CDup	MCRG09D	RCC	✓		
C	MCRG09				
C-L	MCRG09L		✓	1/5 CLP SERIAL DIL0	

ANALYTICAL
RESOURCES
INCORPORATED

EPA ICP SAMPLE LOGBOOK

Page 3 of 3 Date: 12-15-96 Analyst: GG

All corrections made by analyst unless otherwise noted.

Sample Number	EPA ID	Prep. Code	Dilution	Comments	Edit Label
CCV 6					
CCB 6					
5374 REF1	LCSS	SCC	✓		
↓ ↓	↓	↓	1/2 ✓	Ca ONLY	
↓ APOST	MFGZ66A	↓	✓	767.R, 0.012ml 100mg/L Sb to 10ml sample	
5375 B	MCRG08	RCC			
↓ REF3	LCSW	↓	✓		
CCV 7					
CCB 7					
CRI					
ICSA					
ICSAB					
CCV 8					
CCB 8					
		GG 12-15-96			

5000F

Rev.2
11/25/96

12-15-96
CTY

TJA ICP 61

✓ 12-16-96
A-5

Standardization Rpt. SO Sun 12-15-96 01:22:53 PM page 1

Method: ICPCLP1 Standard: STD1-Blank

Elem	AG	AL	AS	B	BA	BE	CA
Avge	-.0390	.4552	.0676	.0229	.0019	.0929	.0371
SDev	.0041	.0266	.0216	.0029	.0008	.0014	.0029
%RSD	10.56	5.832	31.99	12.50	43.30	1.538	7.692
#1	-.0343	.4429	.0429	.0257	.0029	.0914	.0400
#2	-.0414	.4857	.0771	.0200	.0014	.0943	.0371
#3	-.0414	.4371	.0829	.0229	.0014	.0929	.0343

Elem	CD	CO	CR	CU	FE	K	MG
Avge	.0205	.0067	.0071	.0486	.0195	-.1552	.0048
SDev	.0030	.0030	.0014	.0029	.0109	.0246	.0060
%RSD	14.52	44.61	20.00	5.882	55.89	15.84	124.9
#1	.0229	.0057	.0071	.0486	.0171	-.1271	.0029
#2	.0214	.0100	.0057	.0514	.0314	-.1657	.0114
#3	.0171	.0043	.0086	.0457	.0100	-.1729	.0000

Elem	MN	MO	NA	NI	PB	SB	SE
Avge	.0019	.0029	.5867	-.0686	.0129	.0548	.0238
SDev	.0008	.0029	.0208	.0029	.0124	.0064	.0060
%RSD	43.30	100.0	3.548	4.167	96.86	11.76	24.98
#1	.0014	.0000	.6100	-.0714	.0071	.0543	.0171
#2	.0029	.0029	.5700	-.0657	.0043	.0614	.0257
#3	.0014	.0057	.5800	-.0686	.0271	.0486	.0286

Elem	SI	SN	SR	TI	TL	V	ZN
Avge	.1529	-.0033	.0629	.0129	-.0886	-.0248	.0119
SDev	.0043	.0064	.0000	.0000	.0311	.0064	.0008
%RSD	2.804	193.3	.0000	.0000	35.15	26.01	6.928
#1	.1571	-.0029	.0629	.0129	-.1029	-.0243	.0114
#2	.1529	.0029	.0629	.0129	-.0529	-.0186	.0114
#3	.1486	-.0100	.0629	.0129	-.1100	-.0314	.0129

Standardization Rpt. S Sun 12-15-96 01:28:45 PM page 1

Method: ICPCLP1 Standard: STD2

Elem	BA	CA	CD	CO	CR	CU	MN
Avge	52.48	23.67	55.15	25.29	16.91	61.41	30.10
SDev	.16	.07	.13	.10	.05	.22	.08
%RSD	.3103	.2942	.2424	.3785	.2854	.3653	.2747
#1	52.66	23.74	55.28	25.39	16.95	61.64	30.17
#2	52.44	23.68	55.16	25.29	16.92	61.41	30.13
#3	52.35	23.60	55.01	25.19	16.86	61.19	30.01

Elem	V
Avge	63.46
SDev	.32
%RSD	.5100
#1	63.76
#2	63.50
#3	63.12

Standardization Rpt. S Sun 12-15-96 01:33:03 PM page 1

Method: ICPCLP1 Standard: STD5

Elem	K
Avge	12.77
SDev	.05
%RSD	.4121
#1	12.83
#2	12.74
#3	12.73

Standardization Rpt. S Sun 12-15-96 01:37:42 PM page 1

Method: ICPCLP1 Standard: STD4

Elem	MO	SB	SI	SN	TI
Avge	21.28	18.06	28.68	10.81	55.77
SDev	.03	.11	.18	.03	.37
%RSD	.1622	.5859	.6345	.3107	.6551
#1	21.32	18.16	28.88	10.85	56.19
#2	21.25	18.06	28.61	10.80	55.61
#3	21.28	17.95	28.54	10.79	55.51

Method: ICPCLP1 Standard: STD3

Elem	AG	AL	AS	B	BE	FE	MG
Avge	3.336	29.52	10.50	24.35	166.4	24.87	7.388
SDev	.011	.11	.07	.14	.6	.08	.028
%RSD	.3233	.3712	.6696	.5843	.3784	.3290	.3781
#1	3.324	29.39	10.43	24.19	165.7	24.78	7.380
#2	3.346	29.59	10.57	24.40	166.8	24.90	7.419
#3	3.337	29.57	10.51	24.46	166.7	24.94	7.364

Elem	NA	NI	PB	SE	SR	TL	ZN
Avge	44.83	52.41	13.43	7.482	48.70	10.86	9.844
SDev	.16	.27	.04	.027	.20	.06	.014
%RSD	.3617	.5209	.3057	.3629	.4043	.5095	.1454
#1	44.65	52.11	13.40	7.454	48.47	10.80	9.830
#2	44.97	52.64	13.41	7.509	48.82	10.91	9.843
#3	44.86	52.49	13.47	7.483	48.80	10.87	9.859

Standardization Report Sun 12-15-96 01:50:16 PM page 1

Method: ICPCLP1 Slope = IR/Conc(SIR)

Element	Wavelen	High std	Low std	Slope	BEC	Date Standardized
AG	328.068	STD3	STD1-Blank	3.38142	.011548	12/15/96 01:37:49
AL	308.215	STD3	STD1-Blank	2.90638	.156634	12/15/96 01:37:49
AS	197.197	STD3	STD1-Blank	1.03224	.065507	12/15/96 01:37:49
B	249.678	STD3	STD1-Blank	2.42776	.009415	12/15/96 01:37:49
BA	455.495	STD2	STD1-Blank	5.24824	.000363	12/15/96 01:37:49
BE	313.042	STD3	STD1-Blank	16.6294	.005584	12/15/96 01:37:49
CA	317.933	STD2	STD1-Blank	2.36197	.015725	12/15/96 01:37:49
CD	228.802	STD2	STD1-Blank	5.50889	.003717	12/15/96 01:37:49
CO	228.616	STD2	STD1-Blank	2.52188	.002644	12/15/96 01:37:49
CR	267.716	STD2	STD1-Blank	1.68900	.004229	12/15/96 01:37:49
CU	324.754	STD2	STD1-Blank	6.13611	.007916	12/15/96 01:37:49
FE	259.940	STD3	STD1-Blank	2.48529	.007856	12/15/96 01:37:49
K	766.491	STD5	STD1-Blank	.129233	1.20122	12/15/96 01:37:49
MG	279.079	STD3	STD1-Blank	.738193	.006451	12/15/96 01:37:49
MN	257.610	STD2	STD1-Blank	3.00942	.000633	12/15/96 01:37:49
MO	202.030	STD4	STD1-Blank	2.12819	.001343	12/15/96 01:37:49
NA	588.995	STD3	STD1-Blank	4.42414	.132606	12/15/96 01:37:49
NI	231.604	STD3	STD1-Blank	5.24455	.013075	12/15/96 01:37:49
PB	220.353	STD3	STD1-Blank	1.33905	.009602	12/15/96 01:37:49
SB	206.838	STD4	STD1-Blank	1.79661	.030481	12/15/96 01:37:49
SE	196.022	STD3	STD1-Blank	.746447	.031897	12/15/96 01:37:49
SI	288.158	STD4	STD1-Blank	2.85238	.053589	12/15/96 01:37:49
SN	189.989	STD4	STD1-Blank	1.08094	.003084	12/15/96 01:37:49
SR	421.552	STD3	STD1-Blank	4.86329	.012925	12/15/96 01:37:49
TI	334.941	STD4	STD1-Blank	5.57548	.002306	12/15/96 01:37:49
TL	190.864	STD3	STD1-Blank	1.09082	.081197	12/15/96 01:37:49
V	292.402	STD2	STD1-Blank	6.34738	.003901	12/15/96 01:37:49
ZN	213.856	STD3	STD1-Blank	.979807	.012150	12/15/96 01:37:49

Analysis Report QC Standard Sun 12-15-96 02:04:58 PM page 1

Method: ICPCLP1 Sample Name: ICV Operator: CTG
Run Time: 12/15/96 13:58:55
Comment:
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.4849	1.979	-.0009	.0041	1.977	.4545	49.33
SDev	.0015	.005	.0112	.0009	.002	.0003	.08
%RSD	.3032	.2514	1253.	21.60	.0830	.0596	.1561
#1	.4858	1.977	-.0111	.0049	1.979	.4547	49.42
#2	.4858	1.984	-.0028	.0043	1.977	.4546	49.31
#3	.4832	1.975	.0112	.0032	1.976	.4542	49.27

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.5007	.5240	.4724	.4899	1.959	50.44	24.86
SDev	.0041	.0021	.0008	.0014	.004	.17	.03
%RSD	.8218	.4080	.1781	.2967	.1956	.3326	.1383
#1	.5028	.5225	.4724	.4894	1.961	50.41	24.85
#2	.5033	.5264	.4733	.4887	1.962	50.29	24.90
#3	.4959	.5231	.4716	.4915	1.955	50.62	24.83

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.4828	-.0012	50.16	.4884	4.892	1.007	.0129
SDev	.0007	.0016	.12	.0110	.007	.024	.0423
%RSD	.1502	130.1	.2369	2.257	.1403	2.402	328.5
#1	.4836	-.0003	50.28	.4912	4.895	1.023	.0454
#2	.4827	-.0030	50.04	.4977	4.897	.9788	.0282
#3	.4822	-.0003	50.16	.4762	4.884	1.019	-.0350

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0048	.0013	.0570	.0011	.0060	.4807	2.966
SDev	.0025	.0069	.0000	.0003	.0149	.0012	.005
%RSD	51.86	515.8	.0025	26.22	249.7	.2563	.1693
#1	.0060	-.0039	.0569	.0009	-.0063	.4816	2.969
#2	.0065	.0092	.0570	.0009	.0225	.4813	2.969
#3	.0019	-.0013	.0570	.0014	.0016	.4793	2.960

Analysis Report Blank Sample Sun 12-15-96 02:11:07 PM page 1

Method: ICPCLP1 Sample Name: Blank ICB Operator: CTG
Run Time: 12/15/96 14:05:04
Comment:
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0001	-.0038	-.0194	-.0012	.0005	H.0012	-.0034
SDev	.0006	.0077	.0346	.0056	.0002	.0015	.0035
%RSD	467.0	205.9	178.5	474.5	28.87	123.8	103.4
#1	.0006	-.0106	L-.0546	.0023	.0007	H.0029	.0006
#2	-.0003	-.0053	.0147	L-.0076	.0005	.0003	-.0060
#3	-.0007	.0046	-.0184	.0018	.0005	.0004	-.0048

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0008	.0009	-.0003	-.0001	.0040	.1105	.0032
SDev	.0006	.0003	.0005	.0005	.0058	.1218	.0084
%RSD	76.05	33.88	172.7	650.6	143.5	110.2	260.9
#1	-.0003	.0013	-.0008	-.0005	.0094	-.0147	.0091
#2	-.0007	.0008	.0000	-.0002	-.0021	.1179	-.0064
#3	-.0015	.0008	-.0000	.0005	.0048	.2285	.0071

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H.0011	.0002	.0145	.0028	.0036	-.0109	.0160
SDev	.0006	.0014	.0072	.0055	.0087	.0208	.0226
%RSD	49.48	630.6	49.71	194.7	243.8	191.1	141.4
#1	H.0017	.0013	.0224	.0079	.0097	.0109	-.0089
#2	.0008	.0007	.0082	-.0030	.0074	-.0305	.0217
#3	.0008	-.0013	.0130	.0035	-.0064	-.0130	.0351

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0075	.0066	.0001	.0032	-.0096	.0003	.0024
SDev	.0100	.0041	.0002	.0033	.0106	.0008	.0000
%RSD	132.8	62.03	173.0	103.0	110.3	269.4	.7771
#1	.0190	H.0110	.0003	H.0069	-.0210	.0010	.0024
#2	.0015	.0056	.0000	.0013	.0000	-.0006	.0024
#3	.0020	.0030	.0000	.0013	-.0079	.0005	.0024

Analysis Report QC Standard Sun 12-15-96 02:17:14 PM page 1

Method: ICPCLP1 Sample Name: CV CCV1 Operator: CTG
Run Time: 12/15/96 14:11:12
Comment:
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.003	4.947	2.024	.9954	.9919	.9604	5.014
SDev	.004	.026	.040	.0073	.0058	.0075	.027
%RSD	.4271	.5271	1.976	.7366	.5862	.7769	.5463
#1	.9995	4.930	1.979	.9895	.9885	.9549	4.995
#2	1.001	4.934	2.037	.9931	.9885	.9575	5.001
#3	1.008	4.977	2.056	1.004	.9986	.9689	5.045

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.015	.9922	.9950	.9947	4.951	19.90	5.012
SDev	.003	.0058	.0064	.0049	.026	.08	.009
%RSD	.3241	.5831	.6458	.4876	.5322	.3941	.1882
#1	1.015	.9873	.9905	.9916	4.930	19.97	5.023
#2	1.012	.9907	.9922	.9921	4.941	19.92	5.008
#3	1.019	.9986	1.002	1.000	4.980	19.82	5.006

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.9913	.9881	2.009	.9914	1.977	1.931	1.997
SDev	.0060	.0114	.002	.0107	.025	.035	.024
%RSD	.6100	1.150	.0851	1.082	1.258	1.794	1.185
#1	.9883	.9785	2.008	.9790	1.950	1.970	1.971
#2	.9873	.9852	2.011	.9975	1.980	1.903	2.003
#3	.9982	1.001	2.007	.9977	2.000	1.920	2.017

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.006	.9538	.9832	.9709	1.980	.9855	1.004
SDev	.004	.0079	.0076	.0064	.055	.0098	.003
%RSD	.1821	.8276	.7689	.6558	2.772	.9945	.3320
#1	2.008	.9455	.9784	.9675	1.918	.9804	1.002
#2	2.001	.9546	.9793	.9670	1.999	.9793	1.002
#3	2.007	.9613	.9919	.9783	2.023	.9968	1.008

Analysis Report Blank Sample Sun 12-15-96 02:23:23 PM page 1

Method: ICPCLP1 Sample Name: Blank Operator: CTG
Run Time: 12/15/96 14:17:20 CCB1
Comment:
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0000	-.0095	-.0101	-.0016	.0004	.0001	-.0123
SDev	.0006	.0016	.0027	.0029	.0002	.0001	.0003
%RSD	17520.	16.84	27.22	185.2	43.30	72.58	2.850
#1	.0006	-.0077	-.0128	-.0035	.0005	.0001	-.0121
#2	-.0007	-.0107	-.0102	.0018	.0005	.0003	-.0127
#3	.0001	-.0101	-.0073	-.0029	.0002	.0001	-.0121

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0009	.0004	-.0006	.0002	-.0036	.0626	-.0007
SDev	.0006	.0007	.0005	.0007	.0007	.0507	.0108
%RSD	68.92	173.9	87.34	457.6	18.25	80.87	1657.
#1	-.0005	-.0004	-.0009	.0009	-.0032	.0516	-.0123
#2	-.0005	.0008	.0000	-.0005	-.0033	.0184	.0091
#3	-.0016	.0008	-.0009	.0000	-.0044	.1179	.0013

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0008	-.0009	.0158	.0005	-.0043	-.0061	.0217
SDev	.0000	.0027	.0108	.0052	.0059	.0181	.0153
%RSD	.0636	301.7	68.31	1140.	139.6	297.6	70.60
#1	.0008	-.0013	.0243	.0027	-.0106	.0148	.0217
#2	.0008	.0020	.0037	-.0055	.0011	-.0162	.0064
#3	.0008	-.0034	.0195	.0041	-.0032	-.0170	.0370

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0032	.0009	.0003	.0008	.0005	.0009	.0024
SDev	.0042	.0020	.0000	.0008	.0072	.0006	.0000
%RSD	132.3	231.7	.0022	100.2	1602.	61.31	.7885
#1	.0080	-.0009	.0003	.0015	-.0065	.0014	.0024
#2	.0010	.0030	.0003	-.0000	.0079	.0003	.0025
#3	.0005	.0004	.0003	.0008	.0000	.0009	.0024

Analysis Report QC Standard Sun 12-15-96 02:29:30 PM page 1

Method: ICPCLP1 Sample Name: CRI Operator: CTG
Run Time: 12/15/96 14:23:28
Comment:
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0202	.0007	.0226	-.0019	.0002	.0096	-.0065
SDev	.0009	.0095	.0112	.0006	.0005	.0003	.0036
%RSD	4.356	1425.	49.82	30.23	300.0	2.886	56.32
#1	.0192	.0113	.0244	-.0020	.0007	.0099	-.0030
#2	.0205	-.0069	.0328	-.0025	-.0004	.0094	-.0103
#3	.0209	-.0024	.0105	-.0014	.0002	.0095	-.0061

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0093	.1021	.0270	.0510	.0254	.1511	.0087
SDev	.0008	.0006	.0015	.0007	.0088	.2268	.0129
%RSD	8.084	.5491	5.434	1.367	34.64	150.1	148.3
#1	.0095	.1021	.0261	.0503	.0356	-.0700	.0229
#2	.0084	.1015	.0287	.0510	.0201	.1400	-.0023
#3	.0099	.1026	.0261	.0517	.0206	.3832	.0055

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0321	-.0000	.0082	.0828	-.0015	.1118	.0410
SDev	.0008	.0012	.0023	.0094	.0056	.0104	.0117
%RSD	2.555	3868.	27.63	11.40	387.4	9.299	28.42
#1	.0330	-.0014	.0056	.0869	-.0036	.1166	.0486
#2	.0316	.0006	.0091	.0720	-.0057	.1190	.0467
#3	.0316	.0006	.0098	.0894	.0049	.0999	.0276

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0077	-.0014	.0001	.0010	.0482	.0967	.0428
SDev	.0033	.0041	.0002	.0000	.0110	.0007	.0000
%RSD	43.26	284.3	172.9	.0789	22.75	.7536	.0748
#1	-.0099	.0021	.0003	.0010	.0608	.0964	.0428
#2	-.0094	-.0005	.0000	.0010	.0425	.0962	.0429
#3	-.0039	-.0059	.0000	.0010	.0412	.0975	.0428

Analysis Report QC Standard Sun 12-15-96 02:35:38 PM page 1

Method: ICPCLP1 Sample Name: ICSA Operator: CTG
Run Time: 12/15/96 14:29:36
Comment:
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0066	526.5	-.0258	.1052	.0019	.0000	475.5
SDev	.0011	4.7	.0319	.0069	.0002	.0001	3.1
%RSD	16.31	.8934	123.7	6.504	8.248	434.4	.6444
#1	-.0071	528.5	-.0042	.1050	.0018	.0000	477.4
#2	-.0054	521.1	-.0624	.0986	.0021	-.0001	471.9
#3	-.0074	529.9	-.0108	.1122	.0018	.0001	477.1

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0002	.0033	.0353	.0171	181.6	-.0258	482.2
SDev	.0015	.0008	.0010	.0006	1.4	.5038	3.9
%RSD	892.8	23.71	2.777	3.609	.7797	1953.	.8002
#1	-.0003	.0041	.0347	.0167	182.1	-.3906	484.3
#2	-.0010	.0025	.0347	.0178	180.0	.5490	477.7
#3	.0018	.0035	.0364	.0167	182.7	-.2358	484.5

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0487	.0040	.0996	.0209	-.0096	.0759	-.0329
SDev	.0012	.0043	.0100	.0120	.0240	.0454	.0791
%RSD	2.407	108.6	9.991	57.52	250.6	59.82	240.3
#1	.0499	.0077	.1034	.0079	.0143	.1256	-.0675
#2	.0475	-.0008	.1070	.0316	-.0337	.0364	-.0889
#3	.0488	.0050	.0883	.0234	-.0094	.0658	.0576

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0429	.0083	.2144	.0055	.0654	-.0049	.0326
SDev	.0019	.0060	.0020	.0005	.0144	.0007	.0009
%RSD	4.425	72.43	.9330	9.670	22.11	13.87	2.917
#1	.0416	.0078	.2152	.0051	.0564	-.0056	.0321
#2	.0451	.0025	.2121	.0053	.0576	-.0042	.0337
#3	.0421	.0145	.2158	.0061	.0820	-.0050	.0320

Analysis Report QC Standard Sun 12-15-96 02:41:46 PM page 1

Method: ICPCLP1 Sample Name: ICSAB Operator: CTG
Run Time: 12/15/96 14:35:44
Comment:
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1772	510.4	.0557	.1047	.4675	.4238	460.3
SDev	.0016	3.3	.0185	.0033	.0022	.0021	2.3
%RSD	.8816	.6539	33.13	3.167	.4658	.4937	.4937
#1	.1787	510.9	.0344	.1011	.4675	.4239	461.1
#2	.1772	513.4	.0656	.1077	.4697	.4259	462.1
#3	.1756	506.8	.0671	.1052	.4654	.4217	457.7

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.9082	.4299	.4511	.4743	177.4	.1916	467.8
SDev	.0064	.0026	.0026	.0026	.8	.2225	3.5
%RSD	.7012	.6091	.5702	.5516	.4505	116.2	.7390
#1	.9118	.4320	.4505	.4732	177.4	.4274	469.7
#2	.9121	.4308	.4539	.4773	178.2	.1621	469.9
#3	.9009	.4270	.4488	.4724	176.6	-.0147	463.8

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.4766	.0019	.1006	.8229	.0356	.5811	.0516
SDev	.0034	.0040	.0053	.0154	.0219	.0314	.0468
%RSD	.7037	208.1	5.226	1.866	61.39	5.398	90.69
#1	.4767	.0040	.1067	.8394	.0569	.5491	.0098
#2	.4799	-.0027	.0970	.8204	.0368	.6118	.1023
#3	.4732	.0044	.0983	.8090	.0132	.5826	.0428

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0422	-.0016	.2086	.0058	.1091	.4326	.9064
SDev	.0091	.0061	.0010	.0005	.0757	.0032	.0049
%RSD	21.66	387.2	.4757	9.429	69.34	.7302	.5447
#1	.0366	.0054	.2085	.0055	.1811	.4315	.9093
#2	.0527	-.0046	.2097	.0064	.1160	.4362	.9093
#3	.0371	-.0055	.2077	.0054	.0303	.4302	.9007

Analysis Report QC Standard Sun 12-15-96 02:47:54 PM page 1

Method: ICPCLP1 Sample Name: CV Operator: CTG
Run Time: 12/15/96 14:41:52 CCV2
Comment:
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.9948	4.974	1.971	.9829	.9755	.9527	4.985
SDev	.0055	.051	.041	.0093	.0083	.0085	.039
%RSD	.5571	1.035	2.067	.9453	.8468	.8899	.7724
#1	.9914	4.966	1.967	.9748	.9703	.9482	4.971
#2	1.001	5.029	2.014	.9930	.9850	.9625	5.029
#3	.9918	4.927	1.933	.9808	.9711	.9475	4.957

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.001	.9839	.9851	.9944	4.947	19.78	5.007
SDev	.007	.0054	.0077	.0099	.045	.51	.039
%RSD	.6788	.5514	.7821	.9976	.9062	2.566	.7884
#1	.9967	.9800	.9795	.9860	4.929	19.47	4.980
#2	1.009	.9901	.9939	1.005	4.998	20.37	5.052
#3	.9979	.9817	.9821	.9919	4.914	19.51	4.988

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.9841	.9888	1.978	.9959	1.968	1.916	2.031
SDev	.0069	.0158	.015	.0049	.020	.032	.006
%RSD	.6973	1.597	.7493	.4947	1.015	1.673	.2862
#1	.9807	.9725	1.966	1.000	1.949	1.887	2.036
#2	.9920	1.004	1.995	.9973	1.989	1.951	2.024
#3	.9797	.9899	1.974	.9904	1.967	1.912	2.032

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.001	.9573	.9731	.9604	1.941	.9793	.9922
SDev	.007	.0148	.0081	.0075	.027	.0089	.0109
%RSD	.3290	1.547	.8370	.7809	1.394	.9100	1.099
#1	2.003	.9440	.9681	.9555	1.921	.9758	.9859
#2	2.006	.9733	.9825	.9691	1.931	.9894	1.005
#3	1.993	.9547	.9687	.9567	1.972	.9726	.9859

Analysis Report Blank Sample Sun 12-15-96 02:54:03 PM page 1

Method: ICPCLP1 Sample Name: Blank Operator: CTG
Run Time: 12/15/96 14:48:00 CCB2
Comment:
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0004	-.0006	-.0106	.0014	.0005	.0001	.0002
SDev	.0006	.0045	.0212	.0024	.0000	.0001	.0040
%RSD	152.7	704.4	200.9	174.0	.0000	70.85	1999.
#1	.0010	-.0047	-.0268	-.0000	.0005	.0001	-.0042
#2	-.0003	-.0013	.0134	-.0000	.0005	.0003	.0012
#3	.0006	.0041	-.0183	.0041	.0005	.0001	.0036

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0005	.0004	.0006	.0002	.0027	.1437	.0135
SDev	.0007	.0013	.0013	.0011	.0022	.0556	.0089
%RSD	120.7	347.9	230.7	684.0	80.83	38.72	66.17
#1	-.0012	-.0004	.0008	-.0005	.0002	.0847	.0032
#2	.0001	.0019	-.0008	-.0005	.0042	.1953	.0187
#3	-.0005	-.0004	.0017	.0014	.0036	.1511	.0187

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0008	-.0018	-.0013	-.0012	-.0022	-.0262	.0096
SDev	.0000	.0014	.0011	.0047	.0147	.0032	.0138
%RSD	.0756	77.83	87.80	394.7	676.8	12.25	144.7
#1	.0008	-.0034	-.0002	.0022	.0138	-.0257	.0006
#2	.0008	-.0007	-.0012	-.0066	-.0053	-.0297	.0255
#3	.0008	-.0013	-.0025	.0008	-.0150	-.0233	.0025

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0043	.0012	.0003	.0012	.0126	.0001	.0010
SDev	.0003	.0020	.0000	.0003	.0196	.0005	.0015
%RSD	6.720	161.9	.0255	24.75	155.0	354.2	151.1
#1	.0045	-.0010	.0003	.0010	-.0092	.0003	.0010
#2	.0040	.0030	.0003	.0010	.0183	-.0004	.0025
#3	.0045	.0017	.0003	.0015	.0288	.0005	-.0005

Analysis Report Sun 12-15-96 03:01:37 PM page 1

Method: ICPCLP1 Sample Name: 5374 MB SCC Operator: CTG
Run Time: 12/15/96 14:57:03
Comment: PBS
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0001	.0115	-.0060	.0033	.0002	-.0000	.0105
SDev	.0011	.0125	.0272	.0015	.0000	.0000	.0120
%RSD	745.1	109.1	454.6	44.52	.0000	146.3	114.6
#1	-.0011	.0025	.0190	.0035	.0002	-.0001	.0018
#2	.0010	.0061	-.0350	.0047	.0002	-.0000	.0054
#3	-.0003	.0257	-.0020	.0018	.0002	-.0000	.0242

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0003	-.0006	-.0003	.0005	.0021	.3943	.0084
SDev	.0007	.0003	.0005	.0009	.0043	.1089	.0062
%RSD	211.9	57.39	171.9	199.5	205.1	27.61	74.43
#1	-.0007	-.0004	-.0000	-.0005	.0002	.4827	.0110
#2	-.0006	-.0009	-.0009	.0005	-.0009	.4274	.0013
#3	.0004	-.0004	-.0000	.0014	.0071	.2727	.0129

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0013	-.0018	.0075	.0005	.0035	-.0352	.0077
SDev	.0000	.0008	.0036	.0016	.0149	.0110	.0080
%RSD	.0664	43.26	47.14	347.1	432.4	31.26	104.1
#1	.0013	-.0013	.0040	.0022	-.0086	-.0289	.0102
#2	.0013	-.0027	.0111	-.0000	-.0012	-.0480	.0140
#3	.0013	-.0013	.0075	-.0008	.0202	-.0289	-.0013

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0603	.0096	-.0003	.0009	.0066	-.0008	.0019
SDev	.0078	.0066	.0005	.0006	.0237	.0030	.0008
%RSD	12.89	68.98	173.0	75.54	360.7	388.8	43.50
#1	.0571	.0030	-.0009	.0003	-.0157	L-.0042	.0010
#2	.0546	.0095	-.0000	.0008	.0039	.0012	.0024
#3	.0691	.0162	-.0000	.0015	.0314	.0007	.0024

Analysis Report Sun 12-15-96 03:06:17 PM page 1

Method: ICPCLP1 Sample Name: 5375 MB RCC Operator: CTG
Run Time: 12/15/96 15:01:43
Comment: PBW
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0003	.0054	.0010	.0177	.0001	.0001	-.0036
SDev	.0009	.0022	.0110	.0012	.0004	.0001	.0010
%RSD	313.0	40.67	1118.	6.701	458.3	85.97	28.89
#1	.0010	.0031	-.0100	.0165	.0005	.0000	-.0042
#2	.0006	.0075	.0120	.0188	.0002	.0001	-.0042
#3	-.0007	.0056	.0010	.0176	-.0004	.0001	-.0024

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0015	.0009	.0000	.0002	-.0006	.2248	.0052
SDev	.0007	.0017	.0015	.0006	.0017	.0830	.0089
%RSD	44.58	182.5	90100.	264.2	290.9	36.91	171.9
#1	-.0011	.0013	.0017	.0005	-.0015	.1400	-.0045
#2	L-.0022	-.0009	-.0008	.0007	-.0015	.2285	.0129
#3	-.0011	.0025	-.0008	-.0005	.0013	.3058	.0071

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0005	.0007	.0353	-.0034	-.0064	-.0183	.0153
SDev	.0003	.0029	.0020	.0069	.0047	.0174	.0173
%RSD	58.05	438.8	5.712	205.5	72.69	95.37	112.8
#1	.0003	-.0007	.0369	.0044	-.0118	-.0384	.0332
#2	.0008	.0040	.0330	-.0090	-.0033	-.0082	-.0013
#3	.0003	-.0013	.0359	-.0055	-.0042	-.0082	.0140

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1462	.0035	.0000	.0005	-.0004	.0001	.0024
SDev	.0039	.0040	.0000	.0004	.0102	.0011	.0000
%RSD	2.674	116.2	28.87	86.61	2340.	1296.	.9537
#1	.1417	.0043	.0000	.0008	.0079	-.0002	.0024
#2	.1483	.0070	.0000	.0008	-.0118	.0012	.0025
#3	.1487	-.0009	.0000	-.0000	.0026	-.0008	.0024

Analysis Report Sun 12-15-96 03:10:56 PM page 1

Method: ICPCLP1 Sample Name: 5375 MB1 RCC Operator: CTG
Run Time: 12/15/96 15:06:22
Comment: PBW
Mode: CONC Corr. Factor: 1

REMN

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0006	.0041	.0065	.0112	.0001	.0000	-.0067
SDev	.0002	.0047	.0097	.0006	.0004	.0001	.0018
%RSD	43.73	114.7	149.0	5.243	458.3	421.8	27.30
#1	-.0007	.0007	.0009	.0106	.0002	.0001	-.0067
#2	-.0007	.0022	.0177	.0118	.0005	-.0001	-.0048
#3	-.0003	.0095	.0009	.0112	-.0004	.0001	-.0085

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0004	-.0017	.0003	-.0002	-.0029	.3537	.0032
SDev	.0007	.0012	.0020	.0008	.0013	.2438	.0070
%RSD	193.7	69.46	701.9	361.3	46.30	68.92	216.6
#1	.0002	-.0021	-.0008	-.0005	-.0021	.4164	-.0026
#2	-.0012	-.0004	-.0009	.0007	-.0044	.5601	.0109
#3	-.0001	-.0026	.0025	-.0009	-.0021	.0847	.0013

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0008	-.0009	.0210	.0000	-.0015	-.0239	.0096
SDev	.0000	.0017	.0041	.0027	.0119	.0078	.0029
%RSD	.0759	188.1	19.54	1575000.	774.8	32.73	30.55
#1	.0008	-.0007	.0234	.0027	.0074	-.0193	.0064
#2	.0008	-.0027	.0234	-.0000	-.0150	-.0193	.0102
#3	.0008	.0007	.0163	-.0027	.0030	-.0329	.0121

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1085	-.0018	.0000	.0005	.0044	.0012	.0015
SDev	.0074	.0038	.0000	.0003	.0154	.0002	.0008
%RSD	6.852	209.1	27.30	49.97	349.6	18.05	58.38
#1	.1022	.0004	.0000	.0003	-.0131	.0010	.0010
#2	.1067	.0004	.0000	.0005	.0105	.0014	.0010
#3	.1167	-.0063	.0000	.0008	.0157	.0012	.0024

Analysis Report Sun 12-15-96 03:15:35 PM page 1

Method: ICPCLP1 Sample Name: 5375 C-L RCC Operator: CTG
Run Time: 12/15/96 15:11:01
Comment: MCRG09L; 1/5 SERIAL DIL
Mode: CONC Corr. Factor: 1

Rerun

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0009	.0934	.0085	.0131	.1847	-.0001	18.52
SDev	.0005	.0074	.0104	.0013	.0000	.0000	.09
%RSD	57.85	7.952	122.3	10.10	.0000	3.533	.5086
#1	-.0014	.0886	.0040	.0139	.1847	-.0001	18.51
#2	-.0006	.0897	.0204	.0139	.1847	-.0001	18.61
#3	-.0006	.1020	.0011	.0116	.1847	-.0001	18.42

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0000	.0007	.0006	-.0006	15.93	2.664	8.215
SDev	.0010	.0000	.0005	.0000	.08	.166	.028
%RSD	20200.	.6001	88.59	2.080	.4872	6.229	.3355
#1	.0010	.0007	.0008	-.0006	15.91	2.671	8.246
#2	-.0009	.0007	-.0000	-.0005	16.01	2.826	8.196
#3	-.0000	.0007	.0008	-.0006	15.86	2.495	8.202

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.3429	-.0025	5.162	-.0016	-.0096	-.0147	.0196
SDev	.0011	.0033	.035	.0014	.0093	.0123	.0253
%RSD	.3163	131.8	.6764	88.09	96.72	83.78	129.3
#1	.3423	.0013	5.160	-.0027	L-.0203	-.0179	-.0079
#2	.3442	-.0047	5.198	-.0022	-.0032	-.0011	.0420
#3	.3423	-.0041	5.128	-.0000	-.0054	-.0251	.0246

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.736	.0032	.1682	.0041	.0115	.0011	.0052
SDev	.021	.0028	.0009	.0004	.0221	.0008	.0014
%RSD	.7531	86.97	.5326	11.09	192.7	71.90	27.90
#1	2.738	.0041	.1680	.0038	.0364	.0004	.0038
#2	2.756	.0055	.1691	.0046	-.0058	.0010	.0067
#3	2.715	.0001	.1674	.0038	.0039	.0019	.0052

Analysis Report Sun 12-15-96 03:20:14 PM page 1

Method: ICPCLP1 Sample Name: 5375 C RCC Operator: CTG
Run Time: 12/15/96 15:15:40
Comment: MCRG09
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0020	.5204	.0202	.0756	.9279	-.0001	90.84
SDev	.0017	.0105	.0141	.0031	.0006	.0000	.13
%RSD	86.24	2.023	70.14	4.142	.0611	2.797	.1416
#1	L-.0039	.5139	.0221	.0745	.9281	-.0001	90.70
#2	-.0017	.5149	.0333	.0791	.9284	-.0001	90.85
#3	-.0004	.5326	.0051	.0732	.9273	-.0001	90.96

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0008	.0093	.0023	.0002	77.54	12.22	40.38
SDev	.0011	.0006	.0005	.0008	.17	.09	.14
%RSD	141.8	7.013	21.73	505.4	.2161	.7179	.3435
#1	-.0015	.0097	.0025	-.0003	77.38	12.19	40.26
#2	.0005	.0085	.0025	-.0003	77.54	12.16	40.35
#3	-.0014	.0096	.0017	.0011	77.71	12.32	40.53

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.688	.0000	25.93	.0169	.0015	-.0083	.0790
SDev	.003	.0021	.04	.0115	.0134	.0234	.0428
%RSD	.1532	13840.	.1645	68.48	876.0	281.3	54.13
#1	1.685	.0022	25.98	.0212	.0026	-.0268	.1164
#2	1.688	-.0018	25.90	.0038	-.0124	-.0163	.0324
#3	1.691	-.0004	25.91	.0256	.0144	.0180	.0881

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	13.67	.0080	.8365	.0185	.0303	.0026	.0222
SDev	.02	.0053	.0007	.0003	.0160	.0006	.0001
%RSD	.1718	66.16	.0881	1.534	52.89	25.30	.2137
#1	13.64	.0048	.8358	.0187	.0174	.0020	.0222
#2	13.67	.0142	.8364	.0187	.0482	.0024	.0223
#3	13.69	.0051	.8372	.0182	.0252	.0033	.0222

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Method: ICPCLP1 Sample Name: 5375 CDUP RCC Operator: CTG
Run Time: 12/15/96 15:20:19 RERUN
Comment: MCRG09D
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0016	.5259	.0170	.0778	.9284	-.0001	91.21
SDev	.0014	.0062	.0044	.0013	.0103	.0000	.64
%RSD	84.27	1.182	25.79	1.699	1.114	2.101	.7028
#1	-.0008	.5306	.0216	.0764	.9303	-.0001	91.36
#2	-.0009	.5188	.0165	.0780	.9172	-.0001	90.51
#3	L-.0032	.5282	.0129	.0790	.9376	-.0001	91.76

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0013	.0107	.0039	.0006	78.16	12.16	40.75
SDev	.0003	.0005	.0018	.0006	.66	.11	.42
%RSD	25.06	4.770	44.71	111.1	.8433	.9106	1.043
#1	-.0015	.0107	.0034	.0007	78.23	12.20	41.03
#2	-.0015	.0102	.0059	.0011	77.46	12.03	40.26
#3	-.0009	.0112	.0025	-.0001	78.77	12.24	40.96

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.701	-.0002	25.99	.0150	-.0038	.0039	.0573
SDev	.013	.0010	.28	.0060	.0071	.0046	.0227
%RSD	.7806	598.9	1.081	39.55	185.2	117.2	39.64
#1	1.703	-.0004	26.01	.0131	-.0102	.0010	.0445
#2	1.687	.0009	25.69	.0103	.0037	.0091	.0439
#3	1.714	-.0010	26.25	.0217	-.0050	.0015	.0835

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	13.79	.0079	.8396	.0190	.0197	.0040	.0212
SDev	.10	.0078	.0089	.0005	.0419	.0005	.0009
%RSD	.7580	99.40	1.066	2.837	212.6	13.04	4.316
#1	13.79	.0158	.8399	.0185	.0036	.0034	.0207
#2	13.68	.0076	.8305	.0189	-.0118	.0040	.0223
#3	13.89	.0002	.8484	.0196	.0672	.0045	.0206

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Method: ICPCLP1 Sample Name: 5375 B RCC Operator: CTG
Run Time: 12/15/96 15:24:58
Comment: MCRG08
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0009	.0051	.0443	.2691	.5978	-.0000	59.59
SDev	.0006	.0044	.0256	.0019	.0048	.0001	.33
%RSD	67.36	86.02	57.67	.7041	.8048	219.3	.5533
#1	-.0004	.0078	.0165	.2702	.6001	.0001	59.86
#2	-.0008	.0075	.0667	.2669	.5922	-.0001	59.23
#3	-.0016	.0000	.0497	.2702	.6009	-.0001	59.69

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0016	.0017	.0000	.0015	41.64	5.501	39.65
SDev	.0015	.0013	.0009	.0003	.25	.125	.52
%RSD	92.00	77.16	76870.	17.29	.5970	2.264	1.304
#1	-.0015	.0010	.0009	.0012	41.77	5.358	40.13
#2	-.0002	.0033	-.0009	.0016	41.36	5.579	39.10
#3	L-.0032	.0010	-.0000	.0017	41.81	5.568	39.71

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.806	.0019	51.78	-.0015	-.0030	-.0173	.0282
SDev	.011	.0035	.38	.0036	.0090	.0271	.0177
%RSD	.6272	185.0	.7306	246.0	296.9	156.4	62.60
#1	1.813	.0059	51.88	-.0055	.0054	-.0398	.0320
#2	1.793	-.0008	51.36	-.0005	-.0126	-.0249	.0090
#3	1.813	.0006	52.09	.0016	-.0020	.0128	.0437

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	9.366	.0051	.4060	.0013	.0340	.0049	.0031
SDev	.044	.0024	.0026	.0004	.0448	.0021	.0017
%RSD	.4739	47.08	.6417	32.43	131.6	42.02	53.87
#1	9.392	.0038	.4069	.0017	.0649	.0027	.0041
#2	9.315	.0037	.4031	.0011	-.0173	.0067	.0012
#3	9.391	.0079	.4081	.0009	.0544	.0053	.0040

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Method: ICPCLP1 Sample Name: 5375 A RCC Operator: CTG
Run Time: 12/15/96 15:29:37
Comment: MCRG07
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0029	-.0028	.0153	.1219	.5082	-.0001	62.03
SDev	.0014	.0073	.0236	.0008	.0097	.0000	.73
%RSD	47.62	261.6	154.7	.6716	1.917	36.57	1.182
#1	-.0013	.0018	.0425	.1212	.4969	-.0001	61.19
#2	L-.0034	-.0112	.0039	.1216	.5138	-.0001	62.43
#3	L-.0038	.0011	-.0005	.1228	.5138	-.0002	62.48

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0010	.0012	.0008	-.0014	94.21	3.324	35.50
SDev	.0010	.0022	.0017	.0002	1.27	.183	.67
%RSD	102.4	186.5	200.5	13.77	1.352	5.495	1.874
#1	-.0017	.0022	.0025	-.0012	92.74	3.235	34.73
#2	-.0014	.0026	.0008	-.0014	94.91	3.534	35.82
#3	.0002	-.0013	-.0008	-.0016	94.99	3.202	35.94

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.646	.0009	76.05	.0029	-.0146	-.0051	.0194
SDev	.060	.0029	1.21	.0115	.0164	.0305	.0359
%RSD	1.296	310.4	1.594	397.6	112.4	599.2	185.4
#1	4.577	.0040	74.66	.0043	-.0020	-.0306	-.0218
#2	4.681	-.0019	76.63	.0136	L-.0331	-.0135	.0361
#3	4.681	.0008	76.87	-.0093	-.0087	.0287	.0438

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	14.66	.0024	.3878	.0015	.0209	.0038	-.0027
SDev	.17	.0107	.0069	.0003	.0226	.0010	.0001
%RSD	1.171	443.5	1.771	20.60	107.9	26.10	4.736
#1	14.46	-.0048	.3799	.0019	.0180	.0050	-.0026
#2	14.76	-.0026	.3913	.0015	.0448	.0032	-.0028
#3	14.76	.0147	.3922	.0012	-.0000	.0033	-.0028

Analysis Report Sun 12-15-96 03:38:50 PM page 1

Method: ICPCLP1 Sample Name: 5375 ASPK RCC Operator: CTG
Run Time: 12/15/96 15:34:16
Comment: MCRG07S
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0472	1.985	1.987	.1205	2.482	.0472	62.19
SDev	.0011	.011	.005	.0041	.002	.0002	.05
%RSD	2.386	.5687	.2286	3.434	.0768	.4127	.0749
#1	.0459	1.988	1.982	.1166	2.484	.0470	62.22
#2	.0480	1.973	1.989	.1249	2.480	.0473	62.14
#3	.0476	1.995	1.990	.1201	2.482	.0473	62.22

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0486	.4905	.1970	.2408	95.08	3.548	35.22
SDev	.0004	.0003	.0018	.0004	.07	.227	.22
%RSD	.8676	.0671	.8922	.1634	.0776	6.402	.6218
#1	.0490	.4907	.1984	.2410	95.05	3.313	35.35
#2	.0487	.4907	.1975	.2410	95.03	3.766	34.97
#3	.0481	.4901	.1950	.2403	95.17	3.567	35.35

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.134	-.0003	75.70	.4897	.4859	.5101	2.048
SDev	.004	.0020	.16	.0078	.0131	.0418	.024
%RSD	.0845	585.0	.2108	1.590	2.697	8.190	1.189
#1	5.133	-.0004	75.87	.4987	.5009	.5129	2.060
#2	5.130	-.0023	75.55	.4854	.4764	.5503	2.064
#3	5.138	.0017	75.67	.4851	.4805	.4669	2.020

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	14.60	-.0007	.3867	.0022	1.933	.4948	.4935
SDev	.02	.0061	.0003	.0004	.047	.0008	.0015
%RSD	.1109	854.4	.0875	20.33	2.427	.1717	.2965
#1	14.62	.0046	.3869	.0017	1.935	.4939	.4935
#2	14.59	.0007	.3863	.0024	1.885	.4952	.4950
#3	14.60	-.0074	.3869	.0024	1.979	.4954	.4920

Analysis Report Sun 12-15-96 03:45:21 PM page 1

Method: ICPCLP1 Sample Name: 5375 REF1 RCC Operator: CTG
Run Time: 12/15/96 15:40:47
Comment: LCSW
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.9916	1.998	1.972	1.025	.9769	.9547	1.985
SDev	.0040	.013	.051	.008	.0059	.0057	.006
%RSD	.4052	.6583	2.584	.7570	.6081	.5993	.2828
#1	.9870	1.991	1.926	1.017	.9717	.9484	1.979
#2	.9930	1.989	1.963	1.027	.9757	.9563	1.987
#3	.9947	2.013	2.027	1.032	.9834	.9595	1.990

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.9948	.9853	.9860	.9904	1.975	19.77	1.977
SDev	.0050	.0040	.0035	.0068	.009	.21	.013
%RSD	.5003	.4008	.3584	.6906	.4627	1.041	.6528
#1	.9899	.9808	.9820	.9831	1.965	19.79	1.974
#2	.9948	.9870	.9888	.9917	1.977	19.55	1.966
#3	.9998	.9881	.9871	.9966	1.983	19.96	1.991

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.9879	.9878	2.036	.9880	1.973	1.930	2.013
SDev	.0043	.0064	.005	.0116	.011	.021	.026
%RSD	.4403	.6475	.2278	1.171	.5687	1.081	1.280
#1	.9831	.9804	2.031	.9951	1.960	1.952	1.984
#2	.9888	.9918	2.038	.9943	1.982	1.927	2.020
#3	.9916	.9911	2.039	.9746	1.976	1.911	2.034

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.841	.9689	.9713	.9586	1.943	.9774	.9901
SDev	.011	.0099	.0051	.0045	.007	.0049	.0047
%RSD	.4047	1.017	.5293	.4708	.3449	.4982	.4739
#1	2.831	.9575	.9661	.9539	1.936	.9719	.9848
#2	2.854	.9746	.9714	.9592	1.949	.9794	.9920
#3	2.839	.9745	.9764	.9628	1.945	.9810	.9935

Analysis Report QC Standard Sun 12-15-96 03:50:02 PM page 1

Method: ICPCLP1 Sample Name: ~~CV~~ AIR ZZZZZ Operator: CTG
Run Time: 12/15/96 15:45:27 12-15-96 PROBE WENT TO WRONG POSITION
Comment:
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	Q-.0063	Q-.0678	Q-.0030	Q.0027	Q-.0002	Q-.0014	Q-.0179
SDev	.0011	.0059	.0050	.0024	.0002	.0001	.0018
%RSD	16.77	8.656	169.4	89.39	86.60	7.897	10.30
#1	Q-.0062	Q-.0623	Q.0013	Q-.0000	Q-.0004	Q-.0013	Q-.0175
#2	Q-.0074	Q-.0671	Q-.0017	Q.0035	Q-.0001	Q-.0013	Q-.0200
#3	Q-.0053	Q-.0740	Q-.0085	Q.0047	Q-.0001	Q-.0015	Q-.0163

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	Q-.0009	Q-.0013	Q-.0011	Q-.0011	Q.0027	Q-.2469	Q-.0136
SDev	.0008	.0012	.0005	.0005	.0012	.3113	.0056
%RSD	83.85	89.60	42.65	44.71	44.45	126.1	41.02
#1	Q-.0001	Q-.0009	Q-.0009	Q-.0009	Q.0031	Q-.1695	Q-.0104
#2	Q-.0016	Q-.0026	Q-.0017	Q-.0016	Q.0036	Q-.5896	Q-.0200
#3	Q-.0011	Q-.0004	Q-.0009	Q-.0007	Q.0014	Q.0184	Q-.0103

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	Q.0010	Q-.0016	Q.0608	Q-.0028	Q-.0210	Q-.0177	Q.0128
SDev	.0003	.0030	.0049	.0047	.0075	.0115	.0144
%RSD	28.69	193.0	8.035	166.7	35.71	64.61	112.4
#1	Q.0013	Q-.0047	Q.0663	Q-.0044	Q-.0288	Q-.0209	Q.0045
#2	Q.0008	Q.0013	Q.0592	Q.0025	Q-.0139	Q-.0050	Q.0294
#3	Q.0008	Q-.0013	Q.0569	Q-.0065	Q-.0202	Q-.0273	Q.0045

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	Q-.0214	Q-.0023	Q.0018	Q-.0000	Q.0035	Q.0019	Q.0015
SDev	.0029	.0046	.0005	.0003	.0054	.0034	.0017
%RSD	13.41	202.6	28.86	15540.	156.5	176.2	114.2
#1	Q-.0246	Q-.0076	Q.0024	Q-.0000	Q-.0026	Q-.0020	Q-.0005
#2	Q-.0190	Q.0004	Q.0015	Q-.0003	Q.0052	Q.0039	Q.0024
#3	Q-.0205	Q.0003	Q.0015	Q.0003	Q.0078	Q.0039	Q.0025

Analysis Report QC Standard Sun 12-15-96 03:57:24 PM page 1

Method: ICPCLP1 Sample Name: CV Operator: CTG
Run Time: 12/15/96 15:52:48 CCV3
Comment:
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.005	4.966	1.980	.9971	.9977	.9627	5.004
SDev	.005	.018	.019	.0036	.0016	.0025	.012
%RSD	.4511	.3643	.9421	.3582	.1645	.2583	.2426
#1	1.008	4.985	1.995	.9954	.9994	.9653	5.015
#2	1.007	4.965	1.987	1.001	.9975	.9625	5.005
#3	.9995	4.949	1.959	.9948	.9962	.9603	4.991

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.023	.9967	.9984	.9994	4.985	20.08	4.997
SDev	.003	.0023	.0035	.0032	.019	.06	.054
%RSD	.3198	.2295	.3514	.3178	.3877	.2913	1.073
#1	1.021	.9991	1.002	1.002	5.005	20.04	5.056
#2	1.027	.9963	.9973	1.001	4.984	20.06	4.983
#3	1.022	.9946	.9956	.9958	4.966	20.15	4.952

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.9928	.9964	2.004	1.003	2.004	1.998	2.053
SDev	.0032	.0072	.004	.017	.020	.033	.015
%RSD	.3249	.7215	.2193	1.707	.9831	1.672	.7282
#1	.9954	.9926	2.009	1.006	2.026	2.036	2.045
#2	.9939	.9919	2.003	.9841	1.995	1.982	2.070
#3	.9892	1.005	2.001	1.018	1.990	1.976	2.044

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.004	.9518	.9857	.9740	1.985	.9848	1.011
SDev	.005	.0067	.0028	.0021	.031	.0023	.004
%RSD	.2275	.7089	.2842	.2110	1.568	.2340	.4423
#1	2.006	.9590	.9884	.9760	1.957	.9866	1.015
#2	2.007	.9456	.9860	.9742	1.981	.9857	1.012
#3	1.999	.9509	.9828	.9719	2.019	.9822	1.006

Analysis Report Blank Sample Sun 12-15-96 04:02:04 PM page 1

Method: ICPCLP1 Sample Name: Blank CCB3 Operator: CTG
Run Time: 12/15/96 15:57:29
Comment:
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0004	.0021	.0148	.0031	.0005	.0004	-.0089
SDev	.0009	.0057	.0071	.0022	.0002	.0001	.0014
%RSD	212.8	264.6	48.35	71.04	28.87	26.85	15.74
#1	.0006	.0081	.0188	.0047	.0007	.0004	-.0097
#2	-.0007	.0016	.0189	.0041	.0005	.0004	-.0073
#3	-.0011	-.0033	.0065	.0006	.0005	.0003	-.0097

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0016	-.0006	.0017	.0010	.0100	.3243	.0007
SDev	.0003	.0013	.0008	.0011	.0058	.1373	.0062
%RSD	17.95	229.0	49.83	108.9	58.51	42.35	957.2
#1	-.0018	.0002	.0025	.0019	.0163	.2506	-.0065
#2	-.0012	-.0021	.0008	.0014	.0088	H.4827	.0032
#3	-.0017	.0002	.0017	-.0002	.0048	.2395	.0052

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H.0011	.0002	.0011	.0056	.0021	-.0220	.0198
SDev	.0003	.0010	.0076	.0027	.0087	.0073	.0166
%RSD	24.74	456.9	709.3	47.85	420.8	33.41	83.78
#1	H.0013	-.0007	.0082	.0087	.0117	-.0177	.0294
#2	H.0013	.0013	.0020	.0038	-.0001	-.0305	.0294
#3	.0008	.0000	-.0070	.0044	-.0054	-.0178	.0006

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0048	.0026	.0003	.0011	.0135	.0011	.0019
SDev	.0014	.0085	.0000	.0006	.0146	.0007	.0008
%RSD	29.81	329.4	.0088	58.14	108.2	60.11	43.45
#1	.0040	-.0036	.0003	.0018	.0078	.0019	.0024
#2	.0040	-.0010	.0003	.0010	.0301	.0005	.0024
#3	.0065	H.0123	.0003	.0005	.0026	.0010	.0010

Analysis Report Sun 12-15-96 04:11:40 PM page 1

Method: ICPCLP1 Sample Name: 5374 MB SCC Operator: CTG
Run Time: 12/15/96 16:07:06
Comment: PBS
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0011	.0047	.0167	.0035	.0008	.0000	.0363
SDev	.0008	.0041	.0152	.0020	.0002	.0001	.0032
%RSD	74.37	86.90	91.25	58.00	19.25	258.2	8.820
#1	-.0011	.0001	.0010	.0059	.0007	-.0001	.0399
#2	-.0020	.0060	.0176	.0023	.0007	.0001	.0339
#3	-.0003	.0080	.0314	.0023	.0010	.0001	.0351

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0010	.0006	.0017	-.0004	.0058	.7333	.0045
SDev	.0015	.0003	.0022	.0006	.0101	.0815	.0078
%RSD	155.5	56.93	132.4	151.9	175.9	11.11	173.5
#1	-.0016	.0007	.0008	-.0005	.0002	.8254	.0090
#2	L-.0020	.0002	-.0000	-.0009	-.0004	.6706	.0090
#3	.0008	.0008	.0042	.0002	.0174	.7038	-.0045

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0009	-.0013	.0119	.0037	-.0057	-.0278	.0172
SDev	.0003	.0013	.0049	.0100	.0030	.0243	.0115
%RSD	28.76	100.3	41.37	269.1	52.82	87.27	66.96
#1	.0008	.0000	.0146	.0153	-.0075	-.0265	.0293
#2	.0008	-.0027	.0062	-.0019	-.0022	L-.0527	.0064
#3	.0013	-.0013	.0150	-.0022	-.0075	-.0042	.0160

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0561	.0061	-.0000	.0002	.0105	L-.0026	.0005
SDev	.0044	.0049	.0000	.0004	.0226	.0005	.0009
%RSD	7.782	81.12	8.821	224.6	216.3	20.76	184.6
#1	.0511	.0083	-.0000	.0005	-.0026	-.0020	-.0005
#2	.0581	.0095	-.0000	-.0003	-.0026	L-.0029	.0010
#3	.0591	.0004	-.0000	.0003	.0366	L-.0029	.0010

Analysis Report Sun 12-15-96 04:16:19 PM page 1

Method: ICPCLP1 Sample Name: 5375 MB RCC Operator: CTG
Run Time: 12/15/96 16:11:45
Comment: PBW
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0006	-.0024	.0148	.0163	-.0001	-.0001	-.0056
SDev	.0010	.0006	.0100	.0021	.0005	.0001	.0015
%RSD	173.6	23.51	67.45	12.70	519.6	71.22	26.96
#1	.0006	-.0027	.0177	.0141	.0005	-.0003	-.0073
#2	-.0011	-.0028	.0231	.0182	-.0004	-.0001	-.0042
#3	-.0011	-.0018	.0037	.0165	-.0004	-.0001	-.0054

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0010	-.0004	-.0003	-.0005	-.0015	.1290	-.0046
SDev	.0012	.0010	.0010	.0005	.0021	.1737	.0070
%RSD	110.7	262.0	335.3	100.6	135.6	134.7	153.0
#1	-.0018	-.0009	-.0009	-.0005	-.0032	-.0258	-.0065
#2	.0003	.0008	-.0008	-.0009	-.0021	.3169	-.0103
#3	-.0017	-.0009	.0008	.0000	.0008	.0958	.0032

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0003	-.0034	.0274	-.0039	-.0039	-.0140	.0096
SDev	.0005	.0018	.0080	.0038	.0088	.0280	.0029
%RSD	150.2	52.83	29.06	98.32	221.6	199.5	30.55
#1	.0008	-.0040	.0359	-.0063	-.0140	-.0464	.0121
#2	-.0002	-.0013	.0263	-.0060	.0000	.0029	.0102
#3	.0003	-.0047	.0201	.0005	.0021	.0013	.0064

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1451	.0039	.0000	.0009	.0122	-.0000	.0024
SDev	.0021	.0028	.0000	.0003	.0186	.0007	.0000
%RSD	1.436	71.72	26.95	34.63	151.8	1910.	.6020
#1	.1427	.0016	.0000	.0010	-.0078	.0007	.0025
#2	.1457	.0031	.0000	.0005	.0157	-.0006	.0025
#3	.1467	.0071	.0000	.0010	.0288	-.0002	.0024

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Method: ICPCLP1 Sample Name: 5375 MB1 RCC Operator: CTG
Run Time: 12/15/96 16:16:24
Comment: PBW
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0008	-.0072	.0074	.0116	.0004	-.0000	-.0081
SDev	.0006	.0070	.0223	.0009	.0002	.0001	.0014
%RSD	76.54	97.48	300.7	7.737	43.30	297.6	17.31
#1	.0010	-.0151	.0037	.0118	.0005	-.0001	-.0073
#2	.0001	-.0047	-.0128	.0106	.0005	-.0001	-.0097
#3	.0014	-.0017	.0314	.0124	.0002	.0001	-.0073

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0012	.0002	.0006	.0004	-.0013	.5343	.0052
SDev	.0009	.0015	.0013	.0003	.0019	.1351	.0084
%RSD	79.49	809.0	230.3	69.01	138.6	25.28	163.8
#1	-.0001	-.0004	.0008	.0007	-.0027	.5048	-.0007
#2	-.0016	-.0010	-.0008	.0002	-.0021	.4164	.0148
#3	-.0018	.0019	.0017	.0002	.0008	.6817	.0013

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0006	-.0011	.0192	.0049	-.0018	-.0249	.0115
SDev	.0003	.0004	.0043	.0068	.0044	.0090	.0145
%RSD	43.26	34.71	22.30	138.7	241.4	35.97	126.2
#1	.0003	-.0013	.0224	.0027	.0021	-.0201	.0179
#2	.0008	-.0007	.0143	.0125	-.0065	-.0353	.0217
#3	.0008	-.0013	.0208	-.0006	-.0010	-.0193	-.0051

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1074	.0012	.0000	.0010	-.0052	.0007	.0024
SDev	.0024	.0040	.0000	.0003	.0139	.0012	.0000
%RSD	2.207	322.4	17.31	25.01	264.5	161.1	.9346
#1	.1092	.0004	.0000	.0008	-.0209	-.0002	.0024
#2	.1047	.0056	.0000	.0010	.0000	.0003	.0024
#3	.1082	-.0023	.0000	.0013	.0052	.0021	.0024

Analysis Report Sun 12-15-96 04:25:38 PM page 1

Method: ICPCLP1 Sample Name: 5375 A RCC Operator: CTG
Run Time: 12/15/96 16:21:04
Comment: MCRG07
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0014	.0007	-.0003	.1226	.5065	.0000	62.21
SDev	.0008	.0033	.0175	.0014	.0052	.0001	.46
%RSD	61.07	498.6	6819.	1.153	1.021	648.3	.7331
#1	-.0019	-.0028	.0016	.1215	.5078	.0001	62.45
#2	-.0004	.0037	-.0186	.1222	.5008	.0001	61.68
#3	-.0018	.0011	.0163	.1242	.5108	-.0001	62.49

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0012	.0008	.0017	-.0013	93.92	3.453	35.07
SDev	.0004	.0017	.0008	.0011	.78	.243	.49
%RSD	32.54	210.8	49.80	89.29	.8256	7.032	1.406
#1	-.0014	-.0007	.0017	-.0008	94.17	3.324	35.37
#2	-.0008	.0005	.0025	-.0005	93.05	3.733	34.50
#3	-.0015	.0027	.0008	L-.0026	94.54	3.302	35.34

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.641	.0003	75.48	.0032	-.0075	-.0091	.0382
SDev	.038	.0021	.78	.0092	.0139	.0275	.0166
%RSD	.8252	773.0	1.037	291.7	186.5	302.7	43.35
#1	4.653	.0021	75.73	-.0074	L-.0235	.0033	.0410
#2	4.598	-.0020	74.60	.0098	.0000	-.0406	.0533
#3	4.671	.0008	76.11	.0071	.0011	.0100	.0205

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	14.62	-.0021	.3853	.0023	.0256	.0033	-.0007
SDev	.09	.0101	.0042	.0003	.0189	.0012	.0016
%RSD	.6043	475.5	1.088	11.76	73.81	34.84	218.7
#1	14.65	-.0055	.3863	.0025	.0251	.0029	.0002
#2	14.52	L-.0100	.3807	.0024	.0446	.0046	-.0026
#3	14.69	.0092	.3889	.0020	.0069	.0024	.0002

Analysis Report Sun 12-15-96 04:30:17 PM page 1

Method: ICPCLP1 Sample Name: 5375 ASPK RCC Operator: CTG
Run Time: 12/15/96 16:25:43
Comment: MCRG07S
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0482	1.966	1.980	.1227	2.425	.0468	61.30
SDev	.0016	.013	.010	.0027	.010	.0003	.08
%RSD	3.429	.6605	.5050	2.189	.3987	.5550	.1358
#1	.0481	1.954	1.968	.1205	2.419	.0465	61.25
#2	.0498	1.964	1.983	.1257	2.419	.0469	61.26
#3	.0465	1.980	1.987	.1219	2.436	.0470	61.40

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0477	.4821	.1947	.2450	93.84	3.629	34.70
SDev	.0014	.0034	.0005	.0008	.28	.050	.19
%RSD	2.984	.7135	.2506	.3437	.3011	1.373	.5411
#1	.0488	.4784	.1942	.2443	93.60	3.633	34.76
#2	.0482	.4829	.1950	.2459	93.76	3.677	34.49
#3	.0461	.4851	.1950	.2448	94.15	3.578	34.85

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.074	-.0000	74.54	.4742	.4722	.4647	2.018
SDev	.015	.0014	.36	.0044	.0096	.0076	.051
%RSD	.2911	227800.	.4876	.9366	2.034	1.638	2.508
#1	5.062	-.0012	74.38	.4732	.4729	.4623	1.989
#2	5.071	.0016	74.29	.4704	.4815	.4585	1.988
#3	5.091	-.0004	74.96	.4791	.4623	.4732	2.076

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	14.50	.0070	.3804	.0022	1.926	.4889	.4849
SDev	.04	.0040	.0015	.0008	.079	.0039	.0015
%RSD	.2437	57.52	.4008	35.84	4.078	.8039	.3075
#1	14.46	.0104	.3796	.0023	1.835	.4844	.4849
#2	14.50	.0026	.3796	.0028	1.966	.4905	.4864
#3	14.53	.0080	.3822	.0013	1.976	.4918	.4834

Analysis Report Sun 12-15-96 04:36:48 PM page 1

Method: ICPCLP1 Sample Name: 5375 REF1 RCC Operator: CTG
Run Time: 12/15/96 16:32:14
Comment: LCSW
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.9855	1.988	1.961	1.015	.9698	.9458	1.970
SDev	.0032	.008	.024	.008	.0025	.0029	.005
%RSD	.3267	.4071	1.202	.7675	.2608	.3050	.2646
#1	.9832	1.992	1.939	1.007	.9670	.9442	1.971
#2	.9891	1.994	1.958	1.021	.9719	.9492	1.975
#3	.9840	1.979	1.986	1.018	.9706	.9441	1.964

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.9868	.9753	.9781	.9921	1.952	19.93	1.964
SDev	.0025	.0024	.0018	.0021	.006	.28	.024
%RSD	.2508	.2425	.1789	.2151	.3033	1.396	1.229
#1	.9893	.9780	.9795	.9898	1.954	19.64	1.983
#2	.9868	.9745	.9787	.9940	1.957	19.97	1.972
#3	.9844	.9734	.9761	.9926	1.946	20.19	1.937

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.9757	.9837	2.017	.9865	1.948	1.900	1.995
SDev	.0021	.0052	.003	.0115	.010	.018	.047
%RSD	.2193	.5330	.1697	1.166	.5044	.9492	2.370
#1	.9755	.9777	2.021	.9736	1.937	1.914	1.988
#2	.9779	.9864	2.014	.9957	1.952	1.880	2.045
#3	.9736	.9871	2.016	.9902	1.955	1.907	1.951

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.808	.9578	.9651	.9520	1.942	.9678	.9843
SDev	.010	.0076	.0022	.0018	.029	.0040	.0036
%RSD	.3452	.7911	.2305	.1891	1.484	.4122	.3682
#1	2.806	.9534	.9626	.9503	1.942	.9653	.9804
#2	2.819	.9665	.9667	.9539	1.913	.9724	.9876
#3	2.800	.9534	.9661	.9518	1.971	.9656	.9848

Analysis Report QC Standard Sun 12-15-96 04:41:30 PM page 1

Method: ICPCLP1 Sample Name: CV CCV4 Operator: CTG
Run Time: 12/15/96 16:36:54
Comment:
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.003	4.959	2.000	.9901	.9966	.9635	4.999
SDev	.001	.018	.018	.0021	.0009	.0020	.005
%RSD	.0642	.3562	.9249	.2156	.0878	.2095	.1098
#1	1.003	4.941	2.012	.9877	.9956	.9612	5.000
#2	1.004	4.960	2.009	.9907	.9970	.9643	4.993
#3	1.003	4.977	1.978	.9919	.9973	.9649	5.004

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.022	.9959	.9973	1.002	4.962	20.33	5.010
SDev	.003	.0029	.0014	.001	.009	.35	.020
%RSD	.2447	.2863	.1448	.1169	.1885	1.742	.4075
#1	1.024	.9963	.9981	1.001	4.952	20.62	4.990
#2	1.022	.9929	.9981	1.003	4.964	19.94	5.031
#3	1.019	.9986	.9956	1.002	4.970	20.44	5.010

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.9933	.9950	1.999	1.011	1.996	1.970	2.051
SDev	.0015	.0125	.004	.006	.008	.014	.063
%RSD	.1538	1.254	.2062	.5694	.3780	.7144	3.071
#1	.9916	.9812	2.000	1.005	2.004	1.972	2.015
#2	.9944	.9986	1.994	1.010	1.989	1.982	2.015
#3	.9939	1.005	2.002	1.017	1.995	1.955	2.124

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.008	.9526	.9853	.9725	1.995	.9809	1.011
SDev	.004	.0068	.0014	.0015	.031	.0030	.003
%RSD	.1945	.7142	.1471	.1521	1.553	.3092	.3016
#1	2.005	.9601	.9837	.9708	1.977	.9775	1.012
#2	2.007	.9509	.9860	.9734	1.977	.9817	1.014
#3	2.012	.9468	.9863	.9734	2.030	.9834	1.008

Analysis Report Blank Sample Sun 12-15-96 04:46:10 PM page 1

Method: ICPCLP1 Sample Name: Blank Operator: CTG
Run Time: 12/15/96 16:41:35 CCB4
Comment:
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0000	.0041	-.0151	.0016	.0006	.0003	-.0071
SDev	.0005	.0018	.0248	.0065	.0002	.0001	.0030
%RSD	10310.	43.01	164.3	413.9	24.74	19.10	42.26
#1	-.0003	.0045	.0135	-.0059	.0007	.0003	-.0091
#2	.0006	.0056	-.0294	.0059	.0005	.0002	-.0085
#3	-.0003	.0022	-.0293	.0047	.0007	.0003	-.0036

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0009	-.0002	.0006	.0004	.0083	.1327	.0065
SDev	.0009	.0003	.0013	.0008	.0070	.2909	.0145
%RSD	106.2	169.6	228.1	192.2	84.77	219.3	224.6
#1	-.0017	-.0004	-.0008	-.0005	.0048	-.2027	.0071
#2	.0001	.0002	.0017	.0007	.0037	.2837	-.0084
#3	-.0009	-.0004	.0008	.0009	.0163	.3169	H.0206

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H.0014	.0004	.0008	.0042	-.0150	-.0228	.0198
SDev	.0003	.0024	.0058	.0077	.0049	.0211	.0282
%RSD	19.14	528.0	772.6	185.9	32.54	92.60	142.5
#1	H.0013	.0027	-.0009	H.0131	-.0160	-.0011	-.0128
#2	H.0013	.0007	-.0041	.0005	-.0097	-.0432	.0351
#3	H.0017	-.0020	.0072	-.0011	-.0193	-.0241	.0370

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0062	-.0005	.0003	.0012	.0144	.0007	.0019
SDev	.0032	.0030	.0000	.0003	.0103	.0012	.0008
%RSD	51.58	592.5	.0189	24.78	71.29	181.1	43.01
#1	.0025	-.0022	.0003	.0010	.0196	-.0006	.0024
#2	.0080	-.0023	.0003	.0010	.0210	.0019	.0024
#3	.0080	.0030	.0003	.0015	.0026	.0007	.0010

Analysis Report QC Standard Sun 12-15-96 04:53:03 PM page 1

Method: ICPCLP1 Sample Name: CRI Operator: CTG
Run Time: 12/15/96 16:47:00
Comment:
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0188	.0004	.0088	-.0029	-.0000	.0095	-.0087
SDev	.0008	.0056	.0269	.0027	.0004	.0001	.0043
%RSD	4.486	1548.	304.7	93.29	5715e6	.4908	49.38
#1	.0188	.0049	.0384	-.0061	.0005	.0095	-.0079
#2	.0196	.0020	.0023	-.0013	-.0001	.0095	-.0049
#3	.0180	-.0059	-.0142	-.0013	-.0004	.0096	-.0133

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0098	.1013	.0242	.0510	.0101	.2579	-.0062
SDev	.0010	.0003	.0021	.0005	.0035	.5234	.0155
%RSD	10.40	.3254	8.808	.9119	34.78	202.9	250.6
#1	.0105	.1015	.0244	.0510	.0132	.1842	-.0062
#2	.0086	.1015	.0261	.0505	.0109	.8143	.0093
#3	.0103	.1009	.0219	.0515	.0063	-.2248	-.0217

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0316	-.0018	.0006	.0818	-.0090	.1004	.0327
SDev	.0000	.0008	.0053	.0066	.0060	.0223	.0287
%RSD	.0038	42.63	812.9	8.011	66.67	22.25	87.75
#1	.0316	-.0027	-.0051	.0766	-.0101	.0896	.0563
#2	.0316	-.0014	.0017	.0796	-.0025	.1262	.0410
#3	.0316	-.0014	.0053	.0891	-.0143	.0856	.0008

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0112	.0043	.0000	.0002	.0198	.0971	.0428
SDev	.0025	.0066	.0000	.0004	.0114	.0008	.0000
%RSD	22.45	156.3	49.36	240.1	57.58	.8218	.0527
#1	-.0109	.0113	.0000	.0002	.0294	.0964	.0428
#2	-.0089	.0035	.0000	.0005	.0229	.0971	.0428
#3	-.0139	-.0020	.0000	-.0003	.0072	.0980	.0428

Analysis Report QC Standard Sun 12-15-96 04:59:12 PM page 1

Method: ICPCLP1 Sample Name: ICSA Operator: CTG
Run Time: 12/15/96 16:53:09
Comment:
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0039	522.6	-.0307	.1188	.0027	.0000	467.3
SDev	.0005	4.0	.0538	.0020	.0002	.0001	2.2
%RSD	12.59	.7733	175.3	1.689	5.774	338.2	.4810
#1	-.0044	518.1	-.0777	.1165	.0029	.0001	464.9
#2	-.0037	523.9	-.0423	.1202	.0026	-.0001	467.7
#3	-.0035	525.8	.0280	.1198	.0026	.0001	469.3

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0028	.0040	.0372	.0193	179.9	.1769	477.0
SDev	.0007	.0011	.0000	.0007	1.2	.3940	3.2
%RSD	25.13	28.22	.0028	3.712	.6928	222.8	.6693
#1	-.0036	.0032	.0372	.0189	178.5	.6154	473.7
#2	-.0022	.0053	.0372	.0201	180.2	.0626	477.4
#3	-.0026	.0036	.0372	.0188	180.9	-.1474	480.0

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0504	.0006	.0986	.0090	-.0186	-.0103	.0042
SDev	.0016	.0006	.0056	.0105	.0181	.0183	.0799
%RSD	3.218	92.69	5.682	117.4	97.26	178.5	1923.
#1	.0488	.0000	.0957	.0108	.0022	-.0140	-.0650
#2	.0503	.0006	.1051	.0184	-.0275	-.0264	.0916
#3	.0521	.0012	.0950	-.0024	-.0305	.0096	-.0142

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0369	-.0038	.2119	.0063	.1749	-.0003	.0284
SDev	.0060	.0074	.0019	.0005	.0735	.0005	.0008
%RSD	16.34	196.9	.8893	7.967	42.02	182.8	2.778
#1	.0426	.0043	.2099	.0058	.1488	-.0008	.0280
#2	.0306	-.0054	.2122	.0063	.1180	-.0002	.0293
#3	.0376	-.0103	.2136	.0068	.2579	.0002	.0278

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Method: ICPCLP1 Sample Name: ICSAB Operator: CTG
Run Time: 12/15/96 17:01:42
Comment:
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1775	513.8	.0569	.1029	.4723	.4262	459.3
SDev	.0014	3.6	.0290	.0009	.0033	.0026	2.5
%RSD	.7858	.7008	51.04	.8324	.7043	.6175	.5489
#1	.1762	514.2	.0281	.1022	.4730	.4259	459.3
#2	.1790	517.3	.0862	.1039	.4752	.4290	461.9
#3	.1773	510.1	.0564	.1026	.4686	.4238	456.8

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.9146	.4312	.4511	.4824	177.8	.1363	470.3
SDev	.0109	.0025	.0026	.0022	.9	.0418	3.5
%RSD	1.189	.5885	.5740	.4483	.5226	30.70	.7355
#1	.9170	.4297	.4505	.4819	177.6	.1069	470.6
#2	.9242	.4341	.4539	.4848	178.8	.1842	473.6
#3	.9028	.4298	.4488	.4806	176.9	.1179	466.7

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.4765	.0044	.0922	.8361	.0404	.5496	.0418
SDev	.0028	.0026	.0056	.0157	.0079	.0718	.0018
%RSD	.5934	57.81	6.026	1.874	19.52	13.07	4.215
#1	.4752	.0039	.0967	.8190	.0443	.6178	.0401
#2	.4797	.0072	.0941	.8498	.0457	.5563	.0417
#3	.4745	.0021	.0860	.8396	.0314	.4746	.0436

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0323	-.0014	.2096	.0051	.1618	.4307	.9170
SDev	.0055	.0066	.0015	.0001	.0736	.0019	.0029
%RSD	17.12	461.7	.6974	2.561	45.49	.4433	.3214
#1	.0296	-.0048	.2100	.0050	.0987	.4307	.9181
#2	.0387	.0061	.2108	.0051	.1441	.4326	.9193
#3	.0286	-.0056	.2080	.0053	.2426	.4288	.9137

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Method: ICPCLP1 Sample Name: CV Operator: CTG
Run Time: 12/15/96 17:07:50 CCV5
Comment:
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.9806	4.936	1.975	.9841	.9718	.9479	4.947
SDev	.0053	.026	.004	.0040	.0074	.0047	.032
%RSD	.5352	.5357	.2217	.4055	.7580	.4986	.6425
#1	.9864	4.963	1.971	.9872	.9798	.9533	4.978
#2	.9791	4.936	1.974	.9796	.9700	.9446	4.949
#3	.9762	4.910	1.979	.9855	.9654	.9458	4.914

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.9867	.9743	.9795	.9944	4.938	19.68	4.989
SDev	.0076	.0039	.0051	.0039	.034	.16	.071
%RSD	.7663	.4033	.5249	.3946	.6934	.7990	1.417
#1	.9953	.9788	.9854	.9989	4.976	19.86	5.058
#2	.9834	.9715	.9770	.9914	4.929	19.61	4.992
#3	.9813	.9727	.9761	.9930	4.909	19.57	4.917

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.9734	.9910	1.952	.9848	1.951	1.920	1.991
SDev	.0038	.0028	.018	.0126	.007	.021	.025
%RSD	.3935	.2820	.9168	1.278	.3779	1.080	1.269
#1	.9778	.9919	1.968	.9989	1.959	1.922	1.996
#2	.9712	.9879	1.956	.9746	1.948	1.940	2.013
#3	.9712	.9933	1.933	.9809	1.945	1.899	1.963

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.967	.9644	.9659	.9522	1.973	.9678	.9811
SDev	.011	.0086	.0064	.0053	.027	.0058	.0044
%RSD	.5680	.8870	.6623	.5525	1.383	.6006	.4485
#1	1.980	.9679	.9731	.9580	1.958	.9744	.9859
#2	1.961	.9706	.9640	.9509	2.004	.9638	.9772
#3	1.961	.9546	.9608	.9478	1.956	.9650	.9801

Analysis Report Blank Sample Sun 12-15-96 05:20:02 PM page 1

Method: ICPCLP1 Sample Name: Blank Operator: CTG
Run Time: 12/15/96 17:13:59 CCB5
Comment:
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0006	H.0239	-.0055	-.0036	.0003	.0002	H.0254
SDev	.0004	.0081	.0105	.0012	.0002	.0001	.0081
%RSD	74.62	33.97	192.4	32.99	57.74	20.90	32.04
#1	.0006	.0154	-.0129	-.0036	.0005	.0003	.0163
#2	.0001	H.0247	.0066	-.0047	.0002	.0002	H.0321
#3	.0010	H.0316	-.0101	-.0024	.0002	.0003	H.0278

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0011	.0011	.0011	.0009	H.0347	.3758	H.0303
SDev	.0001	.0014	.0024	.0006	.0083	.2051	.0135
%RSD	5.833	125.9	216.3	68.27	23.90	54.58	44.67
#1	-.0010	.0025	.0025	.0009	H.0278	H.5711	H.0245
#2	-.0012	-.0004	-.0017	.0002	H.0324	.1621	H.0458
#3	-.0011	.0013	.0025	.0014	H.0439	.3943	H.0207

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0008	.0002	.0002	-.0020	-.0100	-.0164	.0192
SDev	.0000	.0014	.0042	.0013	.0059	.0017	.0173
%RSD	.1154	629.5	1935.	63.20	59.47	10.06	90.01
#1	.0008	-.0013	-.0044	-.0027	-.0042	-.0146	.0026
#2	.0008	.0007	.0037	-.0027	-.0161	-.0169	.0370
#3	.0008	.0013	.0014	-.0005	-.0096	-.0177	.0179

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0013	.0030	.0003	.0008	-.0023	.0004	.0019
SDev	.0063	.0026	.0000	.0000	.0072	.0007	.0008
%RSD	467.9	86.77	.0516	.1911	312.9	155.0	43.09
#1	.0015	.0004	.0003	.0008	.0025	.0003	.0024
#2	-.0050	.0030	.0003	.0008	.0012	-.0001	.0010
#3	.0075	.0057	.0003	.0008	-.0106	.0012	.0024

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Method: ICPCLP1 Sample Name: 5375 D RCC Operator: CTG
Run Time: 12/15/96 17:29:15
Comment: MCRG10
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0020	.2377	.0529	.0974	1.170	-.0001	75.21
SDev	.0019	.0010	.0331	.0020	.011	.0002	.38
%RSD	94.97	.4178	62.60	2.054	.9419	184.5	.5012
#1	-.0000	.2377	.0652	.0992	1.168	-.0001	75.22
#2	-.0022	.2367	.0780	.0952	1.161	.0001	74.82
#3	L-.0037	.2387	.0154	.0977	1.183	-.0003	75.58

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0017	.0052	.0037	.0069	51.23	5.991	36.38
SDev	.0002	.0014	.0010	.0027	.35	.422	.57
%RSD	12.31	28.03	26.60	39.23	.6910	7.046	1.566
#1	-.0018	.0067	.0042	.0048	51.18	6.452	36.42
#2	-.0019	.0050	.0042	.0099	50.91	5.899	35.79
#3	-.0015	.0038	.0025	.0058	51.61	5.623	36.93

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.6196	.0031	17.95	.0010	-.0123	-.0059	.0348
SDev	.0045	.0017	.15	.0118	.0129	.0082	.0098
%RSD	.7202	54.07	.8570	1217.	105.1	138.2	28.28
#1	.6191	.0013	17.94	-.0088	.0009	-.0046	.0334
#2	.6154	.0047	17.80	-.0025	-.0129	.0015	.0257
#3	.6243	.0034	18.11	.0141	L-.0248	-.0146	.0452

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	13.28	.0015	.5989	.0074	.0291	.0021	.0016
SDev	.06	.0015	.0056	.0005	.0301	.0007	.0001
%RSD	.4750	102.3	.9376	7.091	103.4	32.15	4.278
#1	13.30	-.0003	.5973	.0080	.0319	.0024	.0016
#2	13.21	.0023	.5943	.0072	-.0023	.0013	.0016
#3	13.33	.0025	.6052	.0070	.0577	.0025	.0015

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Method: ICPCLP1 Sample Name: 5375 E RCC Operator: CTG
Run Time: 12/15/96 17:33:54
Comment: MCRG12
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0002	.0051	.0462	.2911	.5637	-.0001	58.15
SDev	.0009	.0048	.0153	.0028	.0022	.0001	.16
%RSD	356.2	95.26	33.04	.9506	.3903	183.6	.2820
#1	-.0012	.0079	.0319	.2880	.5634	-.0001	58.18
#2	.0001	-.0005	.0623	.2932	.5661	-.0001	58.29
#3	.0004	.0079	.0444	.2922	.5617	.0001	57.97

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0014	.0031	.0003	.0026	41.57	5.748	38.37
SDev	.0012	.0007	.0005	.0012	.12	.071	.21
%RSD	83.54	21.63	174.0	44.14	.2995	1.236	.5548
#1	L-.0023	.0027	-.0000	.0014	41.57	5.800	38.27
#2	-.0018	.0027	.0008	.0028	41.70	5.667	38.62
#3	-.0001	.0038	.0000	.0037	41.45	5.778	38.23

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.863	.0013	53.84	.0086	-.0044	.0009	.0582
SDev	.006	.0020	.27	.0107	.0048	.0304	.0279
%RSD	.3076	150.0	.4983	124.5	109.4	3316.	47.94
#1	1.864	-.0007	53.91	.0021	-.0041	-.0158	.0385
#2	1.869	.0013	54.06	.0210	-.0093	.0360	.0902
#3	1.857	.0033	53.54	.0027	.0003	-.0175	.0460

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	9.229	.0030	.3956	.0014	.0252	.0062	.0026
SDev	.039	.0041	.0012	.0004	.0172	.0001	.0025
%RSD	.4257	138.8	.3085	27.83	68.30	1.552	97.51
#1	9.244	-.0015	.3952	.0010	.0393	.0062	-.0003
#2	9.258	.0066	.3969	.0013	.0060	.0062	.0040
#3	9.184	.0037	.3946	.0018	.0305	.0061	.0041

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Method: ICPCLP1 Sample Name: 5375 F RCC Operator: CTG
Run Time: 12/15/96 17:38:34
Comment: MCRG13
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0008	.0028	.0117	.0157	.0004	-.0001	.0552
SDev	.0002	.0059	.0119	.0024	.0002	.0000	.0021
%RSD	29.56	207.7	102.4	15.63	43.30	4.172	3.844
#1	-.0007	.0046	.0206	.0176	.0005	-.0001	.0550
#2	-.0007	.0076	.0163	.0165	.0002	-.0001	.0532
#3	-.0011	-.0037	-.0019	.0129	.0005	-.0001	.0575

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0012	.0004	-.0017	.0000	.0320	.0663	.0064
SDev	.0001	.0012	.0015	.0005	.0043	.4708	.0056
%RSD	6.200	311.3	86.47	9106.	13.60	709.9	86.98
#1	-.0013	.0008	-.0008	-.0005	.0370	-.0811	.0032
#2	-.0012	-.0009	-.0034	.0005	.0301	-.3132	.0032
#3	-.0011	.0013	-.0009	.0000	.0289	.5932	.0129

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0014	-.0022	.1196	-.0003	-.0142	-.0122	.0460
SDev	.0003	.0010	.0056	.0048	.0171	.0209	.0124
%RSD	19.27	45.81	4.708	1691.	120.3	171.8	27.09
#1	.0017	-.0013	.1235	-.0052	L-.0310	-.0273	.0466
#2	.0013	-.0034	.1222	-.0000	-.0150	-.0209	.0581
#3	.0013	-.0020	.1131	.0044	.0033	.0117	.0332

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1304	-.0005	.0001	-.0001	.0134	.0008	.0024
SDev	.0036	.0030	.0002	.0003	.0111	.0009	.0000
%RSD	2.727	640.7	175.0	375.2	83.03	112.9	.6767
#1	.1272	.0030	.0003	-.0002	.0130	.0003	.0024
#2	.1342	-.0023	-.0000	-.0002	.0248	.0018	.0024
#3	.1297	-.0022	-.0000	.0003	.0025	.0003	.0024

Analysis Report Sun 12-15-96 05:49:40 PM page 1

Method: ICPCLP1 Sample Name: 5374 A-L SCC Operator: CTG
Run Time: 12/15/96 17:45:05
Comment: MFGZ66L 1/5 CLP SERIAL DIL
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0003	1.476	.0043	.0006	.0149	.0000	.3586
SDev	.0009	.008	.0263	.0003	.0000	.0001	.0030
%RSD	251.2	.5565	606.8	54.58	.0000	1064.	.8485
#1	-.0013	1.485	-.0214	.0004	.0149	.0001	.3582
#2	-.0001	1.468	.0311	.0010	.0149	-.0001	.3558
#3	.0004	1.474	.0033	.0004	.0149	.0001	.3618

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0011	.0012	.0034	.0012	3.156	.6448	.2430
SDev	.0009	.0006	.0017	.0002	.017	.3343	.0084
%RSD	79.87	52.82	50.20	19.76	.5292	51.84	3.477
#1	-.0015	.0005	.0017	.0009	3.173	.3611	.2371
#2	-.0018	.0016	.0034	.0012	3.140	1.013	.2527
#3	-.0001	.0016	.0051	.0014	3.155	.5601	.2391

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0587	-.0021	.0129	-.0000	-.0098	-.0114	.0041
SDev	.0000	.0014	.0099	.0028	.0104	.0098	.0159
%RSD	.0046	66.23	76.34	18260.	105.9	86.00	384.4
#1	.0587	-.0037	.0124	.0016	-.0187	-.0042	-.0009
#2	.0587	-.0010	.0230	-.0033	-.0123	-.0225	.0220
#3	.0587	-.0017	.0033	.0016	.0016	-.0074	-.0086

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.8553	.0069	.0026	.0305	.0193	.0047	.0109
SDev	.0026	.0046	.0000	.0005	.0236	.0005	.0000
%RSD	.3004	66.72	.0021	1.678	122.1	10.23	.0994
#1	.8575	.0043	.0026	.0305	-.0004	.0043	.0108
#2	.8525	.0042	.0026	.0310	.0128	.0045	.0109
#3	.8560	.0122	.0026	.0300	.0455	.0052	.0108

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Method: ICPCLP1 Sample Name: 5374 A SCC Operator: CTG
Run Time: 12/15/96 17:49:45
Comment: MFGZ66
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0013	7.196	.0091	.0078	.0724	.0005	1.749
SDev	.0006	.081	.0223	.0010	.0008	.0002	.018
%RSD	50.99	1.131	245.9	12.86	1.149	39.41	1.020
#1	-.0014	7.110	.0128	.0073	.0715	.0007	1.732
#2	-.0006	7.203	-.0149	.0090	.0726	.0003	1.748
#3	-.0018	7.273	.0293	.0071	.0731	.0004	1.767

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0015	.0096	.0172	.0088	15.33	1.813	1.162
SDev	.0003	.0017	.0020	.0005	.14	.307	.011
%RSD	20.29	17.73	11.38	5.361	.9176	16.95	.9492
#1	-.0012	.0113	.0161	.0088	15.17	1.588	1.171
#2	-.0015	.0079	.0160	.0083	15.37	1.688	1.150
#3	-.0018	.0096	.0194	.0093	15.45	2.163	1.165

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.2852	-.0014	.0411	.0073	.0486	-.0216	.0425
SDev	.0027	.0019	.0034	.0027	.0097	.0192	.0317
%RSD	.9388	140.4	8.162	37.82	20.07	88.71	74.63
#1	.2822	-.0003	.0372	.0076	.0598	-.0191	.0780
#2	.2860	-.0036	.0431	.0043	.0425	-.0038	.0323
#3	.2874	-.0002	.0431	.0098	.0434	-.0419	.0171

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.126	.0115	.0134	.1470	-.0144	.0245	.0397
SDev	.039	.0070	.0003	.0019	.0048	.0016	.0017
%RSD	.9374	61.18	2.532	1.258	33.19	6.635	4.256
#1	4.081	.0035	.0132	.1450	-.0152	.0227	.0388
#2	4.144	.0169	.0132	.1475	-.0093	.0258	.0417
#3	4.152	.0141	.0138	.1485	-.0187	.0251	.0387

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Method: ICPCLP1 Sample Name: 5374 ADUP SCC Operator: CTG
Run Time: 12/15/96 17:54:24
Comment: MFGZ66D
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0001	6.724	.0123	.0056	.0741	.0005	1.712
SDev	.0011	.033	.0111	.0021	.0009	.0000	.004
%RSD	1068.	.4902	90.07	37.66	1.180	.9511	.2066
#1	.0011	6.691	.0186	.0038	.0745	.0005	1.711
#2	.0003	6.757	.0187	.0079	.0748	.0005	1.716
#3	-.0010	6.726	-.0005	.0050	.0731	.0005	1.709

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	L-.0021	.0081	.0169	.0075	15.13	1.761	1.082
SDev	.0004	.0009	.0008	.0003	.05	.188	.016
%RSD	17.80	10.68	5.030	3.569	.3147	10.69	1.463
#1	L-.0023	.0091	.0169	.0074	15.08	1.776	1.100
#2	L-.0023	.0074	.0177	.0074	15.18	1.942	1.069
#3	-.0016	.0079	.0160	.0078	15.12	1.566	1.078

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.3010	-.0012	.0383	.0100	.0493	-.0184	.0301
SDev	.0010	.0019	.0036	.0025	.0167	.0104	.0259
%RSD	.3261	166.3	9.472	24.84	33.78	56.54	86.02
#1	.3002	-.0023	.0414	.0122	.0679	-.0089	.0033
#2	.3021	.0011	.0343	.0103	.0442	-.0294	.0321
#3	.3007	-.0023	.0392	.0073	.0358	-.0168	.0550

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.322	.0141	.0127	.1454	.0100	.0248	.0358
SDev	.017	.0026	.0002	.0004	.0168	.0011	.0025
%RSD	.4023	18.75	1.335	.2693	168.0	4.611	7.027
#1	4.306	.0141	.0126	.1449	.0141	.0236	.0373
#2	4.340	.0167	.0129	.1457	-.0085	.0258	.0373
#3	4.320	.0114	.0126	.1455	.0244	.0249	.0329

Analysis Report Sun 12-15-96 06:03:38 PM page 1

Method: ICPCLP1 Sample Name: 5374 ASPK SCC Operator: CTG
Run Time: 12/15/96 17:59:03
Comment: MFGZ66S
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0474	7.488	1.943	.0029	2.045	.0468	1.884
SDev	.0011	.098	.021	.0013	.029	.0005	.024
%RSD	2.379	1.305	1.071	43.15	1.418	1.054	1.279
#1	.0464	7.418	1.919	.0022	2.024	.0465	1.865
#2	.0473	7.447	1.952	.0022	2.033	.0466	1.876
#3	.0486	7.600	1.957	.0044	2.078	.0474	1.911

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0458	.5001	.2119	.2594	14.62	1.032	1.030
SDev	.0012	.0059	.0034	.0031	.16	.228	.008
%RSD	2.535	1.174	1.595	1.186	1.122	22.07	.7601
#1	.0468	.4961	.2085	.2566	14.49	1.290	1.035
#2	.0445	.4972	.2119	.2589	14.57	.9470	1.021
#3	.0460	.5068	.2153	.2627	14.81	.8585	1.035

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.7892	-.0022	.0311	.4986	.5224	.2258	1.934
SDev	.0088	.0007	.0019	.0094	.0133	.0037	.033
%RSD	1.111	31.40	6.228	1.889	2.543	1.645	1.690
#1	.7826	-.0029	.0292	.4952	.5266	.2217	1.934
#2	.7859	-.0022	.0311	.4914	.5330	.2289	1.902
#3	.7991	-.0015	.0330	.5092	.5075	.2268	1.967

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.627	.0105	.0131	.1151	1.968	.5098	.5142
SDev	.047	.0056	.0002	.0019	.067	.0070	.0092
%RSD	1.010	52.74	1.294	1.612	3.399	1.365	1.790
#1	4.590	.0043	.0129	.1142	1.933	.5044	.5088
#2	4.611	.0123	.0132	.1139	1.925	.5073	.5088
#3	4.680	.0150	.0132	.1172	2.045	.5176	.5248

Analysis Report Sun 12-15-96 06:12:01 PM page 1

Method: ICPCLP1 Sample Name: 5375 CDUP RCC Operator: CTG
Run Time: 12/15/96 18:07:27
Comment: MCRG09D
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0013	.5198	.0145	.0775	.9248	-.0001	89.91
SDev	.0012	.0089	.0248	.0015	.0092	.0000	.74
%RSD	93.66	1.717	170.5	1.900	.9968	6.370	.8246
#1	-.0026	.5099	-.0140	.0791	.9352	-.0001	90.76
#2	-.0002	.5223	.0267	.0762	.9175	-.0001	89.40
#3	-.0010	.5273	.0309	.0772	.9219	-.0001	89.57

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0006	.0106	.0042	-.0001	77.01	12.34	39.77
SDev	.0010	.0009	.0017	.0014	.55	.13	.75
%RSD	166.3	8.534	39.99	957.3	.7083	1.035	1.885
#1	-.0013	.0096	.0025	-.0017	77.62	12.19	40.63
#2	.0005	.0114	.0059	.0003	76.58	12.41	39.22
#3	-.0010	.0108	.0042	.0010	76.82	12.41	39.48

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.675	.0016	25.86	.0116	.0010	.0101	.0525
SDev	.012	.0007	.28	.0040	.0118	.0043	.0294
%RSD	.6935	42.64	1.069	34.56	1214.	42.90	56.04
#1	1.688	.0016	26.18	.0147	-.0059	.0148	.0592
#2	1.666	.0022	25.66	.0130	.0146	.0092	.0203
#3	1.672	.0009	25.74	.0071	-.0058	.0063	.0779

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	13.57	.0057	.8326	.0188	-.0009	.0040	.0233
SDev	.09	.0074	.0080	.0005	.0109	.0016	.0031
%RSD	.6488	130.6	.9575	2.601	1213.	39.70	13.22
#1	13.67	-.0029	.8414	.0184	.0033	.0022	.0208
#2	13.50	.0099	.8258	.0185	.0073	.0044	.0267
#3	13.54	.0100	.8305	.0193	-.0132	.0052	.0223

Analysis Report Sun 12-15-96 06:16:41 PM page 1

Method: ICPCLP1 Sample Name: 5375 C RCC Operator: CTG
Run Time: 12/15/96 18:12:06
Comment: MCRG09
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0029	.5157	.0145	.0776	.9124	-.0001	89.01
SDev	.0006	.0027	.0165	.0045	.0024	.0000	.25
%RSD	22.21	.5323	114.3	5.817	.2674	3.381	.2834
#1	-.0023	.5144	.0145	.0732	.9140	-.0001	89.29
#2	-.0028	.5189	-.0021	.0822	.9096	-.0001	88.81
#3	L-.0036	.5139	.0310	.0773	.9137	-.0001	88.92

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0008	.0088	.0031	.0002	76.59	11.81	39.71
SDev	.0009	.0012	.0026	.0007	.18	.26	.29
%RSD	116.4	13.49	83.40	373.9	.2298	2.181	.7336
#1	-.0009	.0091	.0059	-.0004	76.70	12.10	39.90
#2	.0002	.0097	.0008	.0009	76.38	11.60	39.37
#3	-.0016	.0075	.0025	.0000	76.67	11.74	39.85

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.667	.0011	25.61	.0130	-.0104	.0119	.0769
SDev	.004	.0014	.02	.0048	.0091	.0067	.0539
%RSD	.2204	130.5	.0925	37.02	87.32	56.72	70.10
#1	1.670	.0022	25.63	.0168	-.0197	.0085	.1197
#2	1.663	-.0005	25.59	.0147	-.0015	.0075	.0946
#3	1.669	.0015	25.59	.0076	-.0101	.0197	.0163

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	13.53	-.0007	.8266	.0181	.0290	.0026	.0219
SDev	.02	.0070	.0020	.0006	.0332	.0008	.0008
%RSD	.1646	1060.	.2416	3.420	114.5	30.42	3.812
#1	13.54	-.0059	.8273	.0188	.0669	.0030	.0223
#2	13.50	-.0034	.8244	.0177	.0053	.0031	.0224
#3	13.54	.0073	.8282	.0177	.0147	.0017	.0209

Analysis Report Sun 12-15-96 06:21:21 PM page 1

Method: ICPCLP1 Sample Name: 5375 C-L RCC Operator: CTG
Run Time: 12/15/96 18:16:46
Comment: MCRG09L 1/5 CLP SERIAL DIL
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0002	.0979	-.0005	.0147	.1807	-.0000	18.01
SDev	.0015	.0046	.0151	.0011	.0018	.0001	.11
%RSD	728.5	4.679	2799.	7.798	.9881	299.4	.6087
#1	.0002	.0926	-.0014	.0159	.1809	-.0001	18.08
#2	.0010	.1000	-.0152	.0136	.1787	-.0001	17.88
#3	-.0019	.1009	.0150	.0147	.1823	.0001	18.06

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	L-.0021	.0019	.0006	.0000	15.63	2.679	7.972
SDev	.0010	.0006	.0013	.0010	.08	.267	.078
%RSD	47.47	30.33	230.4	5078.	.5150	9.958	.9738
#1	-.0011	.0019	-.0008	.0003	15.65	2.384	8.059
#2	L-.0030	.0013	.0008	.0008	15.54	2.749	7.910
#3	L-.0022	.0024	.0017	-.0011	15.70	2.904	7.946

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.3374	-.0007	5.026	-.0015	-.0113	-.0083	.0302
SDev	.0021	.0007	.055	.0049	.0073	.0088	.0115
%RSD	.6304	92.22	1.094	340.3	64.41	106.4	38.13
#1	.3376	-.0007	5.068	.0005	-.0170	-.0165	.0417
#2	.3352	-.0014	4.964	.0022	-.0138	-.0094	.0186
#3	.3395	-.0001	5.047	-.0071	-.0031	.0010	.0303

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.700	.0049	.1642	.0040	-.0044	.0013	.0038
SDev	.011	.0067	.0013	.0004	.0067	.0012	.0000
%RSD	.3934	137.1	.8188	10.71	151.3	91.45	.3516
#1	2.705	.0040	.1645	.0038	.0007	.0006	.0038
#2	2.688	-.0013	.1627	.0045	-.0119	.0026	.0038
#3	2.708	.0120	.1653	.0038	-.0020	.0006	.0038

Analysis Report QC Standard Sun 12-15-96 06:26:02 PM page 1

Method: ICPCLP1 Sample Name: CV Operator: CTG
Run Time: 12/15/96 18:21:27 CCV6
Comment:
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.9803	4.858	1.964	.9824	.9772	.9490	4.891
SDev	.0054	.041	.026	.0154	.0110	.0083	.033
%RSD	.5508	.8497	1.337	1.565	1.128	.8710	.6689
#1	.9744	4.814	1.936	.9661	.9662	.9405	4.857
#2	.9812	4.863	1.968	.9843	.9771	.9495	4.893
#3	.9851	4.896	1.988	.9967	.9883	.9570	4.922

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.9859	.9717	.9756	.9991	4.871	19.57	4.857
SDev	.0071	.0070	.0069	.0068	.032	.13	.050
%RSD	.7179	.7196	.7032	.6773	.6653	.6847	1.022
#1	.9805	.9636	.9677	.9925	4.837	19.45	4.800
#2	.9832	.9755	.9795	.9988	4.874	19.55	4.880
#3	.9939	.9760	.9795	1.006	4.901	19.72	4.892

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.9699	.9915	1.976	.9796	1.931	1.897	2.021
SDev	.0080	.0119	.014	.0213	.027	.030	.031
%RSD	.8219	1.196	.7250	2.177	1.377	1.595	1.523
#1	.9612	.9778	1.963	.9635	1.907	1.868	1.986
#2	.9717	.9973	1.974	.9714	1.959	1.928	2.043
#3	.9769	.9993	1.992	1.004	1.927	1.895	2.034

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.974	.9475	.9711	.9547	1.960	.9668	.9864
SDev	.003	.0094	.0095	.0098	.048	.0090	.0079
%RSD	.1333	.9892	.9830	1.024	2.435	.9325	.8050
#1	1.976	.9387	.9616	.9444	1.912	.9574	.9787
#2	1.971	.9573	.9710	.9557	1.963	.9675	.9860
#3	1.975	.9466	.9807	.9639	2.007	.9754	.9946

Analysis Report Blank Sample Sun 12-15-96 06:30:43 PM page 1

Method: ICPCLP1 Sample Name: Blank Operator: CTG
Run Time: 12/15/96 18:26:08 CCB6
Comment:
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0006	-.0028	.0051	-.0020	.0005	.0004	-.0024
SDev	.0006	.0049	.0097	.0050	.0002	.0001	.0006
%RSD	114.8	175.1	190.8	254.4	28.87	26.23	24.98
#1	-.0011	-.0077	.0009	-.0000	.0005	.0004	-.0018
#2	.0001	.0021	-.0018	.0018	.0007	.0004	-.0030
#3	-.0007	-.0028	.0161	L-.0077	.0005	.0003	-.0024

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0002	-.0002	.0028	-.0005	.0088	.2616	.0007
SDev	.0004	.0021	.0005	.0000	.0015	.1820	.0078
%RSD	157.9	1109.	17.36	.0749	17.28	69.56	1202.
#1	.0004	.0008	.0025	-.0005	.0082	.0516	-.0065
#2	.0004	-.0026	.0025	-.0005	.0106	.3611	.0090
#3	-.0002	.0013	.0034	-.0005	.0077	.3722	-.0006

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0008	.0002	.0026	.0011	.0018	-.0109	.0153
SDev	.0005	.0008	.0052	.0039	.0013	.0040	.0077
%RSD	60.15	350.0	202.1	360.3	73.06	36.83	50.49
#1	.0003	-.0007	-.0034	-.0033	.0011	-.0146	.0141
#2	H.0013	.0007	.0056	.0022	.0010	-.0114	.0083
#3	.0008	.0007	.0056	.0043	.0032	-.0066	.0236

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0012	.0031	.0003	.0010	.0048	-.0002	.0024
SDev	.0140	.0000	.0000	.0003	.0212	.0003	.0000
%RSD	1201.	.3838	.0038	25.02	443.2	151.9	.5436
#1	-.0110	.0030	.0003	.0008	-.0144	-.0002	.0024
#2	.0165	.0031	.0003	.0013	.0013	.0001	.0024
#3	-.0020	.0031	.0003	.0010	.0275	-.0006	.0024

Analysis Report Sun 12-15-96 06:35:23 PM page 1

Method: ICPCLP1 Sample Name: 5374 REF1 SCC Operator: CTG
Run Time: 12/15/96 18:30:48
Comment: LCSS
Mode: CONC Corr. Factor: 1

SEE NEXT (1/2 FOR CA)

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1005	1.457	4.485	.0406	.0261	.0861	H834.3
SDev	.0005	.019	.039	.0027	.0003	.0010	6.4
%RSD	.4836	1.303	.8790	6.539	1.203	1.137	.7694
#1	.1000	1.436	4.440	.0377	.0258	.0850	H827.4
#2	.1007	1.463	4.512	.0427	.0263	.0863	H835.2
#3	.1009	1.473	4.503	.0415	.0263	.0870	H840.2

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.2074	.6607	.4697	33.81	93.60	.5748	515.4
SDev	.0030	.0086	.0051	.49	1.15	.1801	6.1
%RSD	1.451	1.300	1.081	1.437	1.234	31.33	1.192
#1	.2041	.6510	.4647	33.30	92.40	.4938	508.9
#2	.2081	.6639	.4697	33.88	93.70	.7812	516.0
#3	.2100	.6673	.4748	34.26	94.70	.4495	521.1

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.9647	.2228	.1606	.2545	.9852	1.007	.1932
SDev	.0121	.0027	.0031	.0051	.0057	.049	.0881
%RSD	1.251	1.213	1.939	1.998	.5830	4.847	45.61
#1	.9522	.2198	.1570	.2594	.9862	1.051	.2138
#2	.9656	.2234	.1629	.2550	.9791	1.015	.0966
#3	.9762	.2251	.1619	.2493	.9904	.9542	.2693

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.588	.0375	.2535	.0873	.1579	.3154	.7553
SDev	.036	.0052	.0028	.0018	.0318	.0059	.0094
%RSD	1.387	13.97	1.120	2.020	20.12	1.879	1.240
#1	2.550	.0434	.2505	.0852	.1215	.3094	.7454
#2	2.593	.0332	.2538	.0884	.1800	.3155	.7566
#3	2.621	.0361	.2561	.0882	.1722	.3213	.7640

Analysis Report Sun 12-15-96 06:41:55 PM page 1

Method: ICPCLP1 Sample Name: 5374 REF1 SCC Operator: CTG
Run Time: 12/15/96 18:37:20
Comment: LCSS; 1/2 DIL
Mode: CONC Corr. Factor: 1

FOR Ca ONLY

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0515	.7331	2.341	.0248	.0135	.0457	439.6
SDev	.0008	.0057	.051	.0043	.0000	.0003	1.8
%RSD	1.634	.7780	2.192	17.42	.0000	.5628	.4169
#1	.0512	.7272	2.314	.0198	.0135	.0456	438.8
#2	.0525	.7336	2.310	.0274	.0135	.0454	438.3
#3	.0509	.7385	2.400	.0271	.0135	.0460	441.7

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1051	.3487	.2483	17.18	49.63	.4385	270.5
SDev	.0018	.0026	.0018	.14	.28	.0482	.6
%RSD	1.724	.7440	.7116	.8066	.5626	10.99	.2304
#1	.1072	.3472	.2488	17.12	49.44	.4938	270.1
#2	.1044	.3472	.2463	17.09	49.51	.4164	270.2
#3	.1038	.3517	.2497	17.34	49.95	.4053	271.2

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.5062	.1144	.0866	.1351	.5361	.5446	.1025
SDev	.0028	.0029	.0092	.0081	.0048	.0141	.0433
%RSD	.5593	2.547	10.57	6.001	.8909	2.584	42.25
#1	.5044	.1164	.0899	.1279	.5345	.5331	.1484
#2	.5048	.1110	.0937	.1336	.5323	.5603	.0624
#3	.5095	.1157	.0763	.1439	.5414	.5404	.0966

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.329	.0167	.1298	.0468	.1316	.1660	.4047
SDev	.004	.0026	.0009	.0008	.0544	.0013	.0048
%RSD	.2652	15.44	.6657	1.787	41.32	.8079	1.180
#1	1.326	.0166	.1296	.0459	.0735	.1660	.4034
#2	1.329	.0194	.1290	.0471	.1401	.1646	.4006
#3	1.333	.0142	.1307	.0475	.1813	.1673	.4099

Analysis Report Sun 12-15-96 06:54:04 PM page 1

Method: ICPCLP1 Sample Name: 5374 APOST SCC Operator: CTG
Run Time: 12/15/96 18:49:29
Comment: MFGZ66A
Mode: CONC Corr. Factor: 1

Sb ONLY

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0001	7.144	-.0005	.0071	.0737	.0005	2.687
SDev	.0009	.065	.0262	.0019	.0009	.0000	.461
%RSD	844.8	.9088	5423.	27.09	1.280	.2807	17.15
#1	-.0002	7.077	.0297	.0080	.0731	.0005	3.159
#2	-.0006	7.207	-.0178	.0049	.0731	.0005	2.664
#3	.0011	7.147	-.0134	.0085	.0748	.0005	2.238

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0010	.0074	.0163	.1346	15.17	1.632	1.227
SDev	.0010	.0006	.0005	.0193	.11	.280	.023
%RSD	102.3	7.853	2.988	14.37	.7507	17.17	1.858
#1	.0003	.0079	.0160	.1545	15.05	1.754	1.247
#2	.0005	.0068	.0161	.1333	15.26	1.312	1.202
#3	.0021	.0074	.0169	.1159	15.21	1.831	1.233

Elem	MN	MO	NA	NI	PB	SB 76	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.2812	-.0003	.0728	.0113	.0419	.0908	.0440
SDev	.0025	.0020	.0099	.0061	.0092	.0053	.0080
%RSD	.8869	700.3	13.58	53.42	21.93	5.788	18.27
#1	.2784	-.0023	.0737	.0049	.0379	.0967	.0412
#2	.2831	.0017	.0624	.0123	.0525	.0890	.0531
#3	.2822	-.0003	.0821	.0169	.0355	.0866	.0377

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.111	.0109	.0145	.1472	-.0012	.0234	.0442
SDev	.031	.0031	.0008	.0011	.0207	.0003	.0000
%RSD	.7503	28.33	5.780	.7736	1718.	1.452	.0766
#1	4.076	.0091	.0155	.1459	.0219	.0231	.0441
#2	4.120	.0144	.0141	.1479	-.0181	.0233	.0442
#3	4.136	.0091	.0141	.1478	-.0075	.0238	.0442

Analysis Report Sun 12-15-96 07:02:28 PM page 1

Method: ICPCLP1 Sample Name: 5375 B RCC Operator: CTG
Run Time: 12/15/96 18:57:53
Comment: MCRG08
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0006	.0002	.0374	.2675	.5942	-.0001	59.43
SDev	.0009	.0066	.0018	.0028	.0077	.0002	.46
%RSD	133.5	2936.	4.752	1.034	1.303	177.2	.7797
#1	-.0001	.0050	.0394	.2672	.5906	-.0001	59.33
#2	.0016	.0030	.0363	.2649	.5890	.0001	59.03
#3	.0004	-.0073	.0363	.2704	.6031	-.0003	59.94

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0002	.0021	.0008	.0223	41.07	5.719	39.07
SDev	.0008	.0020	.0017	.0003	.35	.282	.61
%RSD	370.8	93.45	201.0	1.245	.8542	4.929	1.566
#1	-.0011	.0033	.0008	.0223	40.89	5.722	38.98
#2	.0005	.0033	.0025	.0220	40.84	5.999	38.50
#3	-.0000	-.0002	-.0009	.0226	41.47	5.435	39.72

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.779	-.0001	51.82	.0041	-.0065	-.0141	.0252
SDev	.015	.0007	.63	.0049	.0221	.0128	.0483
%RSD	.8389	549.9	1.221	121.1	341.6	90.84	192.0
#1	1.773	-.0008	51.53	.0068	-.0146	-.0278	.0428
#2	1.768	.0006	51.39	-.0016	.0185	-.0023	.0621
#3	1.796	-.0001	52.55	.0071	L-.0233	-.0123	-.0295

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	9.223	.0098	.4040	.0016	.0089	.0035	.0011
SDev	.069	.0056	.0053	.0005	.0364	.0016	.0025
%RSD	.7428	57.06	1.321	30.83	407.0	45.58	222.7
#1	9.189	.0114	.4010	.0014	.0183	.0029	-.0003
#2	9.177	.0036	.4007	.0021	-.0312	.0023	-.0003
#3	9.302	.0143	.4101	.0012	.0397	.0053	.0040

Analysis Report Sun 12-15-96 07:09:00 PM page 1

Method: ICPCLP1 Sample Name: 5375 REF3 RCC Operator: CTG
Run Time: 12/15/96 19:04:26
Comment: LCSW
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.9729	1.959	1.970	.9872	.9654	.9450	2.187
SDev	.0017	.004	.050	.0050	.0008	.0019	.004
%RSD	.1754	.2144	2.529	.5098	.0846	.1956	.1726
#1	.9709	1.960	1.953	.9878	.9662	.9470	2.183
#2	.9739	1.962	2.026	.9819	.9646	.9434	2.188
#3	.9739	1.954	1.931	.9920	.9654	.9445	2.190

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.9733	.9642	.9722	1.024	2.004	19.58	1.965
SDev	.0038	.0053	.0021	.002	.005	.24	.013
%RSD	.3928	.5440	.2191	.1862	.2272	1.239	.6685
#1	.9708	.9672	.9719	1.026	2.001	19.44	1.979
#2	.9714	.9672	.9745	1.025	2.009	19.44	1.954
#3	.9777	.9581	.9702	1.022	2.003	19.86	1.960

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.9659	.9885	2.066	.9783	1.939	1.919	2.004
SDev	.0024	.0047	.010	.0155	.014	.021	.017
%RSD	.2472	.4759	.4997	1.580	.7213	1.080	.8658
#1	.9684	.9831	2.075	.9671	1.930	1.932	2.020
#2	.9655	.9918	2.068	.9719	1.956	1.895	1.986
#3	.9636	.9905	2.055	.9959	1.933	1.929	2.007

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.533	.9552	.9633	.9454	1.962	.9612	.9793
SDev	.008	.0030	.0015	.0009	.027	.0023	.0017
%RSD	.3326	.3141	.1565	.0976	1.401	.2374	.1703
#1	2.543	.9535	.9646	.9462	1.934	.9615	.9803
#2	2.527	.9587	.9617	.9457	1.989	.9632	.9774
#3	2.530	.9535	.9637	.9444	1.963	.9587	.9803

Analysis Report QC Standard Sun 12-15-96 07:13:41 PM page 1

Method: ICPCLP1 Sample Name: CV Operator: CTG
Run Time: 12/15/96 19:09:06 CCV 7
Comment:
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.9893	4.882	1.972	.9900	.9876	.9522	5.166
SDev	.0030	.023	.011	.0035	.0056	.0045	.022
%RSD	.3009	.4780	.5429	.3564	.5677	.4742	.4275
#1	.9923	4.909	1.984	.9937	.9929	.9560	5.188
#2	.9863	4.866	1.964	.9896	.9817	.9472	5.166
#3	.9893	4.872	1.969	.9867	.9883	.9533	5.143

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.006	.9798	.9863	1.027	4.897	20.23	4.898
SDev	.005	.0034	.0037	.006	.024	.17	.034
%RSD	.5001	.3503	.3752	.5705	.4927	.8162	.6906
#1	1.009	.9828	.9880	1.034	4.918	20.10	4.932
#2	1.000	.9760	.9821	1.023	4.870	20.16	4.897
#3	1.009	.9805	.9889	1.025	4.903	20.41	4.865

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.9729	.9957	2.050	.9869	1.977	2.002	2.041
SDev	.0041	.0076	.016	.0121	.003	.048	.045
%RSD	.4259	.7583	.7959	1.228	.1672	2.379	2.209
#1	.9764	.9939	2.066	.9924	1.977	1.948	2.087
#2	.9683	.9892	2.051	.9730	1.974	2.019	1.997
#3	.9740	1.004	2.034	.9953	1.980	2.039	2.038

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.983	.9461	.9774	.9621	1.979	.9721	1.004
SDev	.005	.0032	.0058	.0046	.033	.0032	.004
%RSD	.2743	.3328	.5892	.4804	1.667	.3317	.3607
#1	1.989	.9442	.9828	.9665	1.941	.9749	1.008
#2	1.978	.9444	.9713	.9573	1.990	.9686	1.000
#3	1.981	.9497	.9781	.9624	2.004	.9728	1.003

Analysis Report Blank Sample Sun 12-15-96 07:18:22 PM page 1

Method: ICPCLP1 Sample Name: Blank CCB7 Operator: CTG
Run Time: 12/15/96 19:13:47
Comment:
Mode: CONC Corr. Factor: 1

ALL "H" < CRDLS

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0023	.0077	.0078	.0008	H.0018	.0008	H.3417
SDev	.0011	.0096	.0184	.0022	.0000	.0001	.0189
%RSD	49.69	125.2	237.7	292.1	.0000	16.06	5.544
#1	.0010	-.0023	-.0132	-.0018	H.0018	.0008	H.3290
#2	.0027	.0169	.0217	.0017	H.0018	.0007	H.3326
#3	H.0031	.0085	.0148	.0023	H.0018	.0009	H.3635

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0018	.0007	.0017	H.0106	H.0360	.2800	H.0361
SDev	.0007	.0010	.0015	.0007	.0027	.1182	.0089
%RSD	38.64	132.0	86.48	6.736	7.557	42.21	24.52
#1	.0010	.0013	.0025	H.0098	H.0370	.3058	H.0265
#2	H.0024	.0013	.0025	H.0112	H.0330	.1511	H.0439
#3	.0019	-.0004	.0000	H.0107	H.0382	.3832	H.0381

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H.0025	.0016	H.0597	-.0005	.0053	-.0127	-.0013
SDev	.0007	.0004	.0041	.0050	.0178	.0170	.0213
%RSD	28.71	24.70	6.844	1089.	332.1	133.4	1657.
#1	H.0027	.0020	H.0553	-.0060	H.0256	-.0321	.0217
#2	H.0017	.0013	H.0605	.0008	-.0021	-.0003	-.0051
#3	H.0032	.0013	H.0634	.0038	-.0075	-.0058	-.0204

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0095	.0066	H.0015	.0017	.0090	.0002	H.0068
SDev	.0087	.0015	.0000	.0005	.0104	.0011	.0015
%RSD	91.79	22.60	.0241	30.70	114.9	706.2	21.80
#1	-.0005	.0083	H.0015	.0013	-.0027	-.0010	H.0082
#2	.0155	.0057	H.0015	.0016	.0130	.0003	H.0068
#3	.0135	.0057	H.0015	.0023	.0169	.0012	H.0053

Analysis Report QC Standard Sun 12-15-96 07:27:20 PM page 1

Method: ICPCLP1 Sample Name: CRI Operator: CTG
Run Time: 12/15/96 19:20:55
Comment:
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0212	.0034	.0142	-.0053	.0008	.0095	.2486
SDev	.0009	.0104	.0275	.0007	.0002	.0001	.0173
%RSD	4.140	300.9	193.5	12.92	19.25	.5508	6.956
#1	.0205	-.0074	.0452	-.0049	.0007	.0095	.2582
#2	.0222	.0044	.0050	-.0049	.0010	.0096	.2286
#3	.0209	.0133	-.0075	-.0061	.0007	.0095	.2588

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0096	.1009	.0245	.0601	.0318	.4938	.0280
SDev	.0011	.0017	.0017	.0006	.0034	.2219	.0188
%RSD	11.37	1.685	6.925	.9729	10.65	44.94	67.10
#1	.0094	.1009	.0228	.0608	.0292	.2395	.0074
#2	.0086	.1026	.0262	.0601	.0304	.6485	.0442
#3	.0108	.0992	.0244	.0596	.0356	.5932	.0325

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0318	-.0003	.0482	.0840	.0017	.1055	.0326
SDev	.0012	.0017	.0078	.0045	.0069	.0324	.0040
%RSD	3.757	658.3	16.25	5.403	406.3	30.69	12.20
#1	.0307	-.0000	.0418	.0891	-.0057	.1238	.0314
#2	.0316	.0013	.0460	.0804	.0029	.1245	.0295
#3	.0330	-.0020	.0569	.0826	.0080	.0681	.0371

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0074	.0016	.0003	.0011	.0285	.0969	.0447
SDev	.0058	.0030	.0000	.0001	.0077	.0011	.0017
%RSD	78.22	183.7	.1112	12.88	26.91	1.128	3.800
#1	-.0129	-.0018	.0003	.0010	.0228	.0964	.0428
#2	-.0014	.0035	.0003	.0013	.0372	.0962	.0457
#3	-.0079	.0033	.0003	.0010	.0254	.0982	.0457

Analysis Report QC Standard Sun 12-15-96 07:33:50 PM page 1

Method: ICPCLP1 Sample Name: ICSA Operator: CTG
Run Time: 12/15/96 19:27:25
Comment:
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0052	512.1	.0192	.1176	.0020	.0002	459.0
SDev	.0007	3.7	.0259	.0039	.0002	.0001	2.4
%RSD	12.48	.7150	135.1	3.320	7.873	50.94	.5167
#1	-.0060	508.8	.0025	.1156	.0018	.0001	457.4
#2	-.0047	516.1	.0490	.1221	.0021	.0003	461.7
#3	-.0049	511.3	.0060	.1151	.0021	.0003	458.0

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0016	.0034	.0369	.0244	178.1	.1069	465.8
SDev	.0009	.0006	.0027	.0010	1.0	.2489	2.9
%RSD	57.34	17.68	7.377	4.115	.5461	232.9	.6142
#1	-.0015	.0027	.0389	.0253	177.1	-.0368	464.1
#2	-.0007	.0037	.0381	.0246	179.1	-.0368	469.1
#3	-.0026	.0038	.0338	.0233	178.0	.3943	464.3

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0505	.0026	.1230	.0124	.0018	.0228	.0159
SDev	.0006	.0028	.0116	.0063	.0173	.0110	.1035
%RSD	1.214	106.7	9.410	50.80	936.2	48.39	650.7
#1	.0502	.0040	.1364	.0075	.0095	.0134	.1251
#2	.0512	.0045	.1170	.0103	.0139	.0200	.0035
#3	.0501	-.0006	.1157	.0196	-.0179	.0349	-.0809

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0363	-.0038	.2099	.0068	.1250	-.0010	.0315
SDev	.0051	.0130	.0018	.0006	.0600	.0012	.0017
%RSD	14.19	339.7	.8375	9.262	48.01	115.6	5.400
#1	.0376	.0089	.2080	.0070	.1805	.0003	.0326
#2	.0406	-.0033	.2114	.0072	.1332	-.0018	.0323
#3	.0306	-.0171	.2103	.0060	.0613	-.0016	.0295

Analysis Report QC Standard Sun 12-15-96 07:40:20 PM page 1

Method: ICPCLP1 Sample Name: ICSAB Operator: CTG
Run Time: 12/15/96 19:33:55
Comment:
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1812	524.1	.0612	.1056	.4785	.4335	464.6
SDev	.0010	1.9	.0352	.0041	.0022	.0023	1.6
%RSD	.5729	.3536	57.56	3.893	.4633	.5300	.3382
#1	.1803	522.1	.1011	.1025	.4760	.4309	463.0
#2	.1810	525.8	.0341	.1040	.4801	.4348	464.6
#3	.1824	524.3	.0484	.1102	.4795	.4349	466.2

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.9303	.4391	.4558	.4985	180.1	.5674	475.7
SDev	.0014	.0039	.0021	.0022	.9	.1797	1.5
%RSD	.1509	.8961	.4635	.4321	.5085	31.67	.3126
#1	.9316	.4375	.4539	.4961	179.1	.6043	474.0
#2	.9304	.4363	.4555	.5000	180.5	.3722	476.5
#3	.9288	.4436	.4581	.4996	180.8	.7259	476.6

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.4827	-.0038	.0970	.8532	.0204	.5434	-.0140
SDev	.0028	.0063	.0028	.0022	.0105	.0289	.0981
%RSD	.5760	164.0	2.903	.2589	51.48	5.308	700.0
#1	.4796	.0031	.0950	.8558	.0189	.5263	-.1234
#2	.4836	-.0056	.0957	.8519	.0107	.5273	.0663
#3	.4850	-.0090	.1002	.8519	.0315	.5768	.0150

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0369	.0033	.2132	.0050	.1154	.4386	.9332
SDev	.0071	.0076	.0008	.0004	.0093	.0022	.0050
%RSD	19.31	230.4	.3860	8.527	8.062	.4999	.5391
#1	.0417	.0116	.2123	.0055	.1100	.4361	.9280
#2	.0287	.0017	.2137	.0046	.1261	.4403	.9336
#3	.0402	-.0034	.2137	.0050	.1100	.4393	.9380

Analysis Report QC Standard Sun 12-15-96 07:46:51 PM page 1

Method: ICPCLP1 Sample Name: CV CCV8 Operator: CTG
Run Time: 12/15/96 19:40:26
Comment:
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.016	5.118	2.052	1.008	1.004	.9859	5.070
SDev	.002	.043	.032	.005	.002	.0006	.019
%RSD	.2138	.8311	1.556	.5040	.2459	.0609	.3738
#1	1.017	5.163	2.022	1.007	1.007	.9866	5.091
#2	1.016	5.113	2.085	1.004	1.004	.9856	5.067
#3	1.013	5.079	2.049	1.014	1.002	.9855	5.053

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.021	1.009	1.012	1.055	5.079	20.31	5.119
SDev	.005	.004	.002	.003	.026	.40	.093
%RSD	.4489	.3621	.2111	.3191	.5072	1.967	1.826
#1	1.025	1.008	1.013	1.058	5.109	20.03	5.221
#2	1.023	1.006	1.010	1.054	5.069	20.14	5.099
#3	1.016	1.013	1.014	1.052	5.060	20.77	5.037

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.005	1.029	2.028	1.013	2.026	2.017	2.109
SDev	.002	.006	.007	.005	.004	.027	.014
%RSD	.1963	.5437	.3379	.4764	.2073	1.345	.6566
#1	1.007	1.024	2.031	1.017	2.023	2.014	2.118
#2	1.003	1.027	2.033	1.013	2.031	1.991	2.093
#3	1.006	1.035	2.020	1.007	2.024	2.045	2.116

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.040	.9814	1.003	.9893	2.032	1.004	1.023
SDev	.004	.0053	.002	.0024	.059	.001	.002
%RSD	.1741	.5430	.1630	.2376	2.924	.0536	.2166
#1	2.044	.9761	1.005	.9919	1.997	1.004	1.025
#2	2.040	.9813	1.003	.9888	1.999	1.003	1.021
#3	2.037	.9868	1.002	.9872	2.101	1.004	1.024

Analysis Report Blank Sample Sun 12-15-96 07:53:22 PM page 1

Method: ICPCLP1 Sample Name: Blank CCB8 Operator: CTG
Run Time: 12/15/96 19:46:56
Comment:
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0006	H.0246	.0166	-.0024	.0001	.0004	.0079
SDev	.0008	.0217	.0178	.0012	.0002	.0002	.0022
%RSD	147.6	88.36	107.0	49.65	173.2	43.74	27.73
#1	-.0003	.0159	.0340	-.0035	.0002	.0003	.0060
#2	.0006	H.0494	.0175	-.0012	-.0001	.0006	.0103
#3	.0014	.0085	-.0016	-.0024	.0002	.0003	.0073

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0013	.0011	.0017	.0018	.0094	H.7148	H.0206
SDev	.0008	.0017	.0015	.0005	.0120	.1567	.0116
%RSD	64.48	152.8	86.80	27.03	127.8	21.92	56.34
#1	-.0013	H.0030	.0034	H.0023	.0013	H.8364	H.0207
#2	-.0005	-.0004	.0008	.0014	H.0232	H.5380	H.0323
#3	L-.0022	.0008	.0008	.0016	.0036	H.7701	.0090

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0006	-.0000	-.0040	-.0011	-.0046	-.0119	.0179
SDev	.0007	.0023	.0020	.0047	.0199	.0184	.0088
%RSD	114.8	77740.	49.54	432.1	428.4	153.9	49.12
#1	.0008	.0013	-.0044	-.0038	.0118	.0093	.0083
#2	H.0013	.0013	-.0057	-.0038	.0009	-.0225	.0198
#3	-.0002	-.0027	-.0018	.0044	L-.0267	-.0225	.0255

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0032	.0013	-.0000	.0007	.0008	.0009	.0015
SDev	.0035	.0031	.0000	.0001	.0084	.0014	.0008
%RSD	110.9	240.2	27.74	21.73	1011.	155.6	58.38
#1	-.0035	.0031	-.0000	.0005	.0105	.0012	.0024
#2	-.0065	.0030	-.0000	.0008	-.0053	H.0021	.0010
#3	.0005	-.0023	-.0000	.0008	-.0026	-.0006	.0010

CALCULATED DATA FROM FILE: C:\LIMS\IP961218.DBF 8 5374

JOB	SAMP	ELEMENT	PREPCODE			RAWVALUE	CALCULATED	UNITS	DILUTION	MASS	INITVOL	FINLVOL	%SOLIDS
5374	MB	AG	SCC	I	U	0.0030000	0.6000000	mg/kg-dry	1.00	1.0000	0.00	200.00	100.00
5374	MB	AL	SCC	I		0.0278600	5.5720000	mg/kg-dry	1.00	1.0000	0.00	200.00	100.00
5374	MB	AS	SCC	I	U	0.0500000	10.0000000	mg/kg-dry	1.00	1.0000	0.00	200.00	100.00
5374	MB	B	SCC	I	U	0.0060000	1.2000000	mg/kg-dry	1.00	1.0000	0.00	200.00	100.00
5374	MB	BA	SCC	I	U	0.0010000	0.2000000	mg/kg-dry	1.00	1.0000	0.00	200.00	100.00
5374	MB	BE	SCC	I	U	0.0010000	0.2000000	mg/kg-dry	1.00	1.0000	0.00	200.00	100.00
5374	MB	CA	SCC	I		0.1080200	21.6040000	mg/kg-dry	1.00	1.0000	0.00	200.00	100.00
5374	MB	CD	SCC	I	U	0.0020000	0.4000000	mg/kg-dry	1.00	1.0000	0.00	200.00	100.00
5374	MB	CO	SCC	I	U	0.0030000	0.6000000	mg/kg-dry	1.00	1.0000	0.00	200.00	100.00
5374	MB	CR	SCC	I	U	0.0050000	1.0000000	mg/kg-dry	1.00	1.0000	0.00	200.00	100.00
5374	MB	CU	SCC	I	U	0.0020000	0.4000000	mg/kg-dry	1.00	1.0000	0.00	200.00	100.00
5374	MB	FE	SCC	I	U	0.0200000	4.0000000	mg/kg-dry	1.00	1.0000	0.00	200.00	100.00
5374	MB	K	SCC	I	U	0.4000000	80.0000000	mg/kg-dry	1.00	1.0000	0.00	200.00	100.00
5374	MB	MG	SCC	I	U	0.0200000	4.0000000	mg/kg-dry	1.00	1.0000	0.00	200.00	100.00
5374	MB	MN	SCC	I		0.0014300	0.2860000	mg/kg-dry	1.00	1.0000	0.00	200.00	100.00
5374	MB	MO	SCC	I	U	0.0050000	1.0000000	mg/kg-dry	1.00	1.0000	0.00	200.00	100.00
5374	MB	NA	SCC	I	U	0.0500000	10.0000000	mg/kg-dry	1.00	1.0000	0.00	200.00	100.00
5374	MB	NI	SCC	I	U	0.0100000	2.0000000	mg/kg-dry	1.00	1.0000	0.00	200.00	100.00
5374	MB	PB	SCC	I	U	0.0200000	4.0000000	mg/kg-dry	1.00	1.0000	0.00	200.00	100.00
5374	MB	SB	SCC	I	U	0.0500000	10.0000000	mg/kg-dry	1.00	1.0000	0.00	200.00	100.00
5374	MB	SE	SCC	I	U	0.0500000	10.0000000	mg/kg-dry	1.00	1.0000	0.00	200.00	100.00
5374	MB	SI	SCC	I	U	0.0600000	12.0000000	mg/kg-dry	1.00	1.0000	0.00	200.00	100.00
5374	MB	SN	SCC	I		0.0162900	3.2580000	mg/kg-dry	1.00	1.0000	0.00	200.00	100.00
5374	MB	SR	SCC	I	U	0.0010000	0.2000000	mg/kg-dry	1.00	1.0000	0.00	200.00	100.00
5374	MB	TI	SCC	I	U	0.0050000	1.0000000	mg/kg-dry	1.00	1.0000	0.00	200.00	100.00
5374	MB	TL	SCC	I	U	0.0500000	10.0000000	mg/kg-dry	1.00	1.0000	0.00	200.00	100.00
5374	MB	V	SCC	I	U	0.0020000	0.4000000	mg/kg-dry	1.00	1.0000	0.00	200.00	100.00
5374	MB	ZN	SCC	I	U	0.0040000	0.8000000	mg/kg-dry	1.00	1.0000	0.00	200.00	100.00
5375	MB	AG	RCC	I	U	0.0030000	0.0030000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	MB	AL	RCC	I		0.0250800	0.0250800	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	MB	AS	RCC	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	MB	B	RCC	I		0.0234200	0.0234200	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	MB	BA	RCC	I	U	0.0010000	0.0010000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	MB	BE	RCC	I	U	0.0010000	0.0010000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	MB	CA	RCC	I	U	0.0200000	0.0200000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	MB	CD	RCC	I	U	0.0020000	0.0020000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	MB	CO	RCC	I	U	0.0030000	0.0030000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	MB	CR	RCC	I	U	0.0050000	0.0050000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	MB	CU	RCC	I	U	0.0020000	0.0020000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	MB	FE	RCC	I	U	0.0200000	0.0200000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	MB	K	RCC	I	U	0.4000000	0.4000000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	MB	MG	RCC	I	U	0.0200000	0.0200000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	MB	MN	RCC	I	U	0.0010000	0.0010000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	MB	MO	RCC	I	U	0.0050000	0.0050000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	MB	NA	RCC	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	MB	NI	RCC	I	U	0.0100000	0.0100000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	MB	PB	RCC	I	U	0.0200000	0.0200000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	MB	SB	RCC	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	MB	SE	RCC	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	MB	SI	RCC	I		0.1439900	0.1439900	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	MB	SN	RCC	I	U	0.0100000	0.0100000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	MB	SR	RCC	I	U	0.0010000	0.0010000	mg/L	1.00	0.0000	100.00	100.00	0.00

JOB	SAMP	ELEMENT	PREPCODE			RAWVALUE	CALCULATED	UNITS	DILUTION	MASS	INITVOL	FINVOL	%SOLIDS
5375	MB	TI	RCC	I	U	0.0050000	0.0050000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	MB	TL	RCC	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	MB	V	RCC	I	U	0.0020000	0.0020000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	MB	ZN	RCC	I	U	0.0040000	0.0040000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	MB1	AG	RCC	I	U	0.0030000	0.0030000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	MB1	AL	RCC	I	U	0.0200000	0.0200000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	MB1	AS	RCC	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	MB1	B	RCC	I		0.0140400	0.0140400	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	MB1	BA	RCC	I	U	0.0010000	0.0010000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	MB1	BE	RCC	I	U	0.0010000	0.0010000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	MB1	CA	RCC	I	U	0.0200000	0.0200000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	MB1	CD	RCC	I	U	0.0020000	0.0020000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	MB1	CO	RCC	I	U	0.0030000	0.0030000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	MB1	CR	RCC	I	U	0.0050000	0.0050000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	MB1	CU	RCC	I	U	0.0020000	0.0020000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	MB1	FE	RCC	I	U	0.0200000	0.0200000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	MB1	K	RCC	I	U	0.4000000	0.4000000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	MB1	MG	RCC	I	U	0.0200000	0.0200000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	MB1	MN	RCC	I	U	0.0010000	0.0010000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	MB1	MO	RCC	I	U	0.0050000	0.0050000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	MB1	NA	RCC	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	MB1	NI	RCC	I	U	0.0100000	0.0100000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	MB1	PB	RCC	I	U	0.0200000	0.0200000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	MB1	SB	RCC	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	MB1	SE	RCC	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	MB1	SI	RCC	I		0.1049700	0.1049700	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	MB1	SN	RCC	I	U	0.0100000	0.0100000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	MB1	SR	RCC	I	U	0.0010000	0.0010000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	MB1	TI	RCC	I	U	0.0050000	0.0050000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	MB1	TL	RCC	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	MB1	V	RCC	I	U	0.0020000	0.0020000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	MB1	ZN	RCC	I	U	0.0040000	0.0040000	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	B	AG	RCC	I	U	0.0030000	0.0030000	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	B	AL	RCC	I		0.2663700	0.2663700	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	B	AS	RCC	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	B	B	RCC	I		0.0383200	0.0383200	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	B	BA	RCC	I		0.0297100	0.0297100	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	B	BE	RCC	I	U	0.0010000	0.0010000	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	B	CA	RCC	I		13.5049500	13.5049500	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	B	CD	RCC	I	U	0.0020000	0.0020000	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	B	CO	RCC	I	U	0.0030000	0.0030000	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	B	CR	RCC	I	U	0.0050000	0.0050000	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	B	CU	RCC	I		0.0023500	0.0023500	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	B	FE	RCC	I		0.8556700	0.8556700	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	B	K	RCC	I		1.6483300	1.6483300	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	B	MG	RCC	I		4.8025700	4.8025700	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	B	MN	RCC	I		0.0868400	0.0868400	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	B	MO	RCC	I	U	0.0050000	0.0050000	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	B	NA	RCC	I		9.0969600	9.0969600	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	B	NI	RCC	I	U	0.0100000	0.0100000	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	B	PB	RCC	I	U	0.0200000	0.0200000	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	B	SB	RCC	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	B	SE	RCC	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	B	SI	RCC	I		2.9415900	2.9415900	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	B	SN	RCC	I	U	0.0100000	0.0100000	mg/L	1.00	0.0000	100.00	100.00	0.00

JOB	SAMP	ELEMENT	PREPCODE			RAWVALUE	CALCULATED	UNITS	DILUTION	MASS	INITVOL	FINVOL	%SOLIDS
5376	B	SR	RCC	I		0.0555500	0.0555500	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	B	TI	RCC	I		0.0050200	0.0050200	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	B	TL	RCC	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	B	V	RCC	I	U	0.0020000	0.0020000	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	B	ZN	RCC	I		0.0271700	0.0271700	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	A	AG	RCC	I	U	0.0030000	0.0030000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	A	AL	RCC	I	U	0.0200000	0.0200000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	A	AS	RCC	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	A	B	RCC	I		0.1329100	0.1329100	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	A	BA	RCC	I		0.5115300	0.5115300	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	A	BE	RCC	I	U	0.0010000	0.0010000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	A	CA	RCC	I		62.2256200	62.2256200	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	A	CD	RCC	I	U	0.0020000	0.0020000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	A	CO	RCC	I	U	0.0030000	0.0030000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	A	CR	RCC	I	U	0.0050000	0.0050000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	A	CU	RCC	I	U	0.0020000	0.0020000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	A	FE	RCC	I		93.2524800	93.2524800	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	A	K	RCC	I		3.2021400	3.2021400	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	A	MG	RCC	I		34.7253600	34.7253600	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	A	MN	RCC	I		4.6971700	4.6971700	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	A	MO	RCC	I	U	0.0050000	0.0050000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	A	NA	RCC	I		75.3029800	75.3029800	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	A	NI	RCC	I		0.0103400	0.0103400	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	A	PB	RCC	I	U	0.0200000	0.0200000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	A	SB	RCC	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	A	SE	RCC	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	A	SI	RCC	I		14.6367900	14.6367900	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	A	SN	RCC	I	U	0.0100000	0.0100000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	A	SR	RCC	I		0.3836300	0.3836300	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	A	TI	RCC	I	U	0.0050000	0.0050000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	A	TL	RCC	I		0.0739800	0.0739800	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	A	V	RCC	I		0.0050200	0.0050200	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	A	ZN	RCC	I	U	0.0040000	0.0040000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	ASPK	AG	RCC	I		0.0479900	0.0479900	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	ASPK	AL	RCC	I		1.9810100	1.9810100	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	ASPK	AS	RCC	I		1.9787900	1.9787900	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	ASPK	B	RCC	I		0.1290900	0.1290900	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	ASPK	BA	RCC	I		2.4802400	2.4802400	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	ASPK	BE	RCC	I		0.0468700	0.0468700	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	ASPK	CA	RCC	I		61.6084800	61.6084800	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	ASPK	CD	RCC	I		0.0470900	0.0470900	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	ASPK	CO	RCC	I		0.4874600	0.4874600	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	ASPK	CR	RCC	I		0.1958700	0.1958700	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	ASPK	CU	RCC	I		0.2475600	0.2475600	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	ASPK	FE	RCC	I		93.4113600	93.4113600	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	ASPK	K	RCC	I		3.0395800	3.0395800	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	ASPK	MG	RCC	I		34.4921200	34.4921200	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	ASPK	MN	RCC	I		5.1461600	5.1461600	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	ASPK	MO	RCC	I	U	0.0050000	0.0050000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	ASPK	NA	RCC	I		75.1338500	75.1338500	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	ASPK	NI	RCC	I		0.4866100	0.4866100	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	ASPK	PB	RCC	I		0.4662200	0.4662200	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	ASPK	SB	RCC	I		0.5085600	0.5085600	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	ASPK	SE	RCC	I		1.9766600	1.9766600	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	ASPK	SI	RCC	I		14.5059000	14.5059000	mg/L	1.00	0.0000	100.00	100.00	0.00

JOB	SAMP	ELEMENT	PREPCODE			RAWVALUE	CALCULATED	UNITS	DILUTION	MASS	INITVOL	FINVOL	%SOLIDS
5375	ASPK	SN	RCC	I	U	0.0100000	0.0100000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	ASPK	SR	RCC	I		0.3819800	0.3819800	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	ASPK	TI	RCC	I	U	0.0050000	0.0050000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	ASPK	TL	RCC	I		1.9320600	1.9320600	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	ASPK	V	RCC	I		0.4960700	0.4960700	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	ASPK	ZN	RCC	I		0.4797100	0.4797100	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	REF1	AG	RCC	I		0.9894000	0.9894000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	REF1	AL	RCC	I		2.0128600	2.0128600	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	REF1	AS	RCC	I		1.9715800	1.9715800	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	REF1	B	RCC	I		1.0250100	1.0250100	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	REF1	BA	RCC	I		1.0036600	1.0036600	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	REF1	BE	RCC	I		0.9488400	0.9488400	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	REF1	CA	RCC	I		2.0316900	2.0316900	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	REF1	CD	RCC	I		1.0130200	1.0130200	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	REF1	CO	RCC	I		0.9981000	0.9981000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	REF1	CR	RCC	I		0.9962900	0.9962900	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	REF1	CU	RCC	I		1.0058200	1.0058200	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	REF1	FE	RCC	I		1.9744200	1.9744200	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	REF1	K	RCC	I		20.2941200	20.2941200	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	REF1	MG	RCC	I		1.9636300	1.9636300	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	REF1	MN	RCC	I		1.0000000	1.0000000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	REF1	MO	RCC	I		1.0006200	1.0006200	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	REF1	NA	RCC	I		2.0372900	2.0372900	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	REF1	NI	RCC	I		0.9804200	0.9804200	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	REF1	PB	RCC	I		1.9745100	1.9745100	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	REF1	SB	RCC	I		1.9777100	1.9777100	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	REF1	SE	RCC	I		1.9771100	1.9771100	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	REF1	SI	RCC	I		2.8288700	2.8288700	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	REF1	SN	RCC	I		0.9628300	0.9628300	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	REF1	SR	RCC	I		0.9747700	0.9747700	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	REF1	TI	RCC	I		0.9710500	0.9710500	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	REF1	TL	RCC	I		1.9952100	1.9952100	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	REF1	V	RCC	I		0.9872700	0.9872700	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	REF1	ZN	RCC	I		0.9940000	0.9940000	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	P	AG	RCC	I	U	0.0030000	0.0030000	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	P	AL	RCC	I		1.8895100	1.8895100	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	P	AS	RCC	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	P	B	RCC	I		0.0417300	0.0417300	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	P	BA	RCC	I		0.0358400	0.0358400	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	P	BE	RCC	I	U	0.0010000	0.0010000	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	P	CA	RCC	I		12.9238000	12.9238000	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	P	CD	RCC	I	U	0.0020000	0.0020000	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	P	CO	RCC	I	U	0.0030000	0.0030000	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	P	CR	RCC	I	U	0.0050000	0.0050000	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	P	CU	RCC	I		0.0037400	0.0037400	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	P	FE	RCC	I		2.0000700	2.0000700	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	P	K	RCC	I		1.9243100	1.9243100	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	P	MG	RCC	I		4.7611200	4.7611200	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	P	MN	RCC	I		0.0954500	0.0954500	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	P	MO	RCC	I	U	0.0050000	0.0050000	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	P	NA	RCC	I		6.6857800	6.6857800	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	P	NI	RCC	I	U	0.0100000	0.0100000	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	P	PB	RCC	I	U	0.0200000	0.0200000	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	P	SB	RCC	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	P	SE	RCC	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00

JOB	SAMP	ELEMENT	PREPCODE			RAWVALUE	CALCULATED	UNITS	DILUTION	MASS	INITVOL	FINVOL	%SOLIDS
5376	P	SI	RCC	I		4.7735600	4.7735600	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	P	SN	RCC	I	U	0.0100000	0.0100000	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	P	SR	RCC	I		0.0541000	0.0541000	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	P	TI	RCC	I		0.0492500	0.0492500	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	P	TL	RCC	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	P	V	RCC	I		0.0035300	0.0035300	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	P	ZN	RCC	I		0.0290900	0.0290900	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	PDUP	AG	RCC	I	U	0.0030000	0.0030000	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	PDUP	AL	RCC	I		1.9398500	1.9398500	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	PDUP	AS	RCC	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	PDUP	B	RCC	I		0.0366400	0.0366400	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	PDUP	BA	RCC	I		0.0368600	0.0368600	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	PDUP	BE	RCC	I	U	0.0010000	0.0010000	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	PDUP	CA	RCC	I		12.9986500	12.9986500	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	PDUP	CD	RCC	I	U	0.0020000	0.0020000	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	PDUP	CO	RCC	I	U	0.0030000	0.0030000	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	PDUP	CR	RCC	I	U	0.0050000	0.0050000	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	PDUP	CU	RCC	I		0.0045400	0.0045400	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	PDUP	FE	RCC	I		2.0125800	2.0125800	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	PDUP	K	RCC	I		2.0641900	2.0641900	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	PDUP	MG	RCC	I		4.7643300	4.7643300	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	PDUP	MN	RCC	I		0.0954400	0.0954400	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	PDUP	MO	RCC	I	U	0.0050000	0.0050000	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	PDUP	NA	RCC	I		6.7697000	6.7697000	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	PDUP	NI	RCC	I	U	0.0100000	0.0100000	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	PDUP	PB	RCC	I	U	0.0200000	0.0200000	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	PDUP	SB	RCC	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	PDUP	SE	RCC	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	PDUP	SI	RCC	I		4.9233700	4.9233700	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	PDUP	SN	RCC	I	U	0.0100000	0.0100000	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	PDUP	SR	RCC	I		0.0546800	0.0546800	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	PDUP	TI	RCC	I		0.0511500	0.0511500	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	PDUP	TL	RCC	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	PDUP	V	RCC	I		0.0039600	0.0039600	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	PDUP	ZN	RCC	I		0.0270800	0.0270800	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	PSPK	AG	RCC	I		0.0504300	0.0504300	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	PSPK	AL	RCC	I		4.0398100	4.0398100	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	PSPK	AS	RCC	I		1.9779000	1.9779000	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	PSPK	B	RCC	I		0.0457300	0.0457300	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	PSPK	BA	RCC	I		2.0311900	2.0311900	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	PSPK	BE	RCC	I		0.0477100	0.0477100	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	PSPK	CA	RCC	I		12.8292500	12.8292500	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	PSPK	CD	RCC	I		0.0507200	0.0507200	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	PSPK	CO	RCC	I		0.4993500	0.4993500	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	PSPK	CR	RCC	I		0.2012300	0.2012300	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	PSPK	CU	RCC	I		0.2472200	0.2472200	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	PSPK	FE	RCC	I		3.0623100	3.0623100	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	PSPK	K	RCC	I		2.3061500	2.3061500	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	PSPK	MG	RCC	I		4.7145300	4.7145300	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	PSPK	MN	RCC	I		0.5876600	0.5876600	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	PSPK	MO	RCC	I	U	0.0050000	0.0050000	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	PSPK	NA	RCC	I		6.7086900	6.7086900	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	PSPK	NI	RCC	I		0.4986300	0.4986300	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	PSPK	PB	RCC	I		0.4979900	0.4979900	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	PSPK	SB	RCC	I		0.5098400	0.5098400	mg/L	1.00	0.0000	100.00	100.00	0.00

JOB	SAMP	ELEMENT	PREPCODE			RAWVALUE	CALCULATED	UNITS	DILUTION	MASS	INITVOL	FINVOL	%SOLIDS
5376	PSPK	SE	RCC	I		1.9588500	1.9588500	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	PSPK	SI	RCC	I		5.1654600	5.1654600	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	PSPK	SN	RCC	I	U	0.0100000	0.0100000	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	PSPK	SR	RCC	I		0.0542900	0.0542900	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	PSPK	TI	RCC	I		0.0541900	0.0541900	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	PSPK	TL	RCC	I		1.8736400	1.8736400	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	PSPK	V	RCC	I		0.4975200	0.4975200	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	PSPK	ZN	RCC	I		0.5145600	0.5145600	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	D	AG	RCC	I	U	0.0030000	0.0030000	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	D	AL	RCC	I		0.0452700	0.0452700	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	D	AS	RCC	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	D	B	RCC	I		0.0288500	0.0288500	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	D	BA	RCC	I		0.0010200	0.0010200	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	D	BE	RCC	I	U	0.0010000	0.0010000	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	D	CA	RCC	I		0.0517700	0.0517700	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	D	CD	RCC	I	U	0.0020000	0.0020000	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	D	CO	RCC	I	U	0.0030000	0.0030000	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	D	CR	RCC	I	U	0.0050000	0.0050000	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	D	CU	RCC	I	U	0.0020000	0.0020000	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	D	FE	RCC	I		0.0542000	0.0542000	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	D	K	RCC	I	U	0.4000000	0.4000000	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	D	MG	RCC	I		0.0271200	0.0271200	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	D	MN	RCC	I		0.0014300	0.0014300	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	D	MO	RCC	I	U	0.0050000	0.0050000	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	D	NA	RCC	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	D	NI	RCC	I	U	0.0100000	0.0100000	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	D	PB	RCC	I	U	0.0200000	0.0200000	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	D	SB	RCC	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	D	SE	RCC	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	D	SI	RCC	I		0.1858600	0.1858600	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	D	SN	RCC	I	U	0.0100000	0.0100000	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	D	SR	RCC	I	U	0.0010000	0.0010000	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	D	TI	RCC	I	U	0.0050000	0.0050000	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	D	TL	RCC	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	D	V	RCC	I	U	0.0020000	0.0020000	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	D	ZN	RCC	I	U	0.0040000	0.0040000	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	F	AG	RCC	I	U	0.0030000	0.0030000	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	F	AL	RCC	I		0.1347100	0.1347100	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	F	AS	RCC	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	F	B	RCC	I		0.0323500	0.0323500	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	F	BA	RCC	I		0.0253400	0.0253400	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	F	BE	RCC	I	U	0.0010000	0.0010000	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	F	CA	RCC	I		12.9853300	12.9853300	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	F	CD	RCC	I	U	0.0020000	0.0020000	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	F	CO	RCC	I	U	0.0030000	0.0030000	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	F	CR	RCC	I	U	0.0050000	0.0050000	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	F	CU	RCC	I		0.0034700	0.0034700	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	F	FE	RCC	I		0.3921600	0.3921600	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	F	K	RCC	I		1.6294200	1.6294200	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	F	MG	RCC	I		4.2575000	4.2575000	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	F	MN	RCC	I		0.0480300	0.0480300	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	F	MO	RCC	I	U	0.0050000	0.0050000	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	F	NA	RCC	I		7.7987300	7.7987300	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	F	NI	RCC	I	U	0.0100000	0.0100000	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	F	PB	RCC	I	U	0.0200000	0.0200000	mg/L	1.00	0.0000	100.00	100.00	0.00

JOB	SAMP	ELEMENT	PREPCODE			RAWVALUE	CALCULATED	UNITS	DILUTION	MASS	INITVOL	FINVOL	%SOLIDS
5376	F	SB	RCC	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	F	SE	RCC	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	F	SI	RCC	I		2.4675800	2.4675800	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	F	SN	RCC	I	U	0.0100000	0.0100000	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	F	SR	RCC	I		0.0513500	0.0513500	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	F	TI	RCC	I	U	0.0050000	0.0050000	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	F	TL	RCC	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	F	V	RCC	I		0.0022900	0.0022900	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	F	ZN	RCC	I		0.0206500	0.0206500	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	G	AG	RCC	I	U	0.0030000	0.0030000	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	G	AL	RCC	I		0.1507100	0.1507100	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	G	AS	RCC	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	G	B	RCC	I		0.0325200	0.0325200	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	G	BA	RCC	I		0.0273900	0.0273900	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	G	BE	RCC	I	U	0.0010000	0.0010000	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	G	CA	RCC	I		13.6840300	13.6840300	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	G	CD	RCC	I	U	0.0020000	0.0020000	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	G	CO	RCC	I	U	0.0030000	0.0030000	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	G	CR	RCC	I	U	0.0050000	0.0050000	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	G	CU	RCC	I	U	0.0020000	0.0020000	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	G	FE	RCC	I		0.4436700	0.4436700	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	G	K	RCC	I		1.5538100	1.5538100	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	G	MG	RCC	I		4.5255300	4.5255300	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	G	MN	RCC	I		0.0630600	0.0630600	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	G	MO	RCC	I	U	0.0050000	0.0050000	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	G	NA	RCC	I		8.3605800	8.3605800	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	G	NI	RCC	I	U	0.0100000	0.0100000	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	G	PB	RCC	I	U	0.0200000	0.0200000	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	G	SB	RCC	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	G	SE	RCC	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	G	SI	RCC	I		2.6607400	2.6607400	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	G	SN	RCC	I	U	0.0100000	0.0100000	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	G	SR	RCC	I		0.0543800	0.0543800	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	G	TI	RCC	I	U	0.0050000	0.0050000	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	G	TL	RCC	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	G	V	RCC	I	U	0.0020000	0.0020000	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	G	ZN	RCC	I		0.0211400	0.0211400	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	H	AG	RCC	I	U	0.0030000	0.0030000	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	H	AL	RCC	I		0.7875300	0.7875300	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	H	AS	RCC	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	H	B	RCC	I		0.0486200	0.0486200	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	H	BA	RCC	I		0.0384400	0.0384400	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	H	BE	RCC	I	U	0.0010000	0.0010000	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	H	CA	RCC	I		11.8878000	11.8878000	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	H	CD	RCC	I	U	0.0020000	0.0020000	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	H	CO	RCC	I		0.0043400	0.0043400	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	H	CR	RCC	I	U	0.0050000	0.0050000	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	H	CU	RCC	I		0.0041900	0.0041900	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	H	FE	RCC	I		2.5387900	2.5387900	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	H	K	RCC	I		3.2626300	3.2626300	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	H	MG	RCC	I		6.1434300	6.1434300	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	H	MN	RCC	I		0.2421100	0.2421100	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	H	MO	RCC	I	U	0.0050000	0.0050000	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	H	NA	RCC	I		13.1416300	13.1416300	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	H	NI	RCC	I	U	0.0100000	0.0100000	mg/L	1.00	0.0000	100.00	100.00	0.00

JOB	SAMP	ELEMENT	PREPCODE			RAWVALUE	CALCULATED	UNITS	DILUTION	MASS	INITVOL	FINVOL	%SOLIDS
5376	H	PB	RCC	I	U	0.0200000	0.0200000	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	H	SB	RCC	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	H	SE	RCC	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	H	SI	RCC	I		4.8871600	4.8871600	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	H	SN	RCC	I	U	0.0100000	0.0100000	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	H	SR	RCC	I		0.0626300	0.0626300	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	H	TI	RCC	I		0.0190900	0.0190900	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	H	TL	RCC	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	H	V	RCC	I		0.0034800	0.0034800	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	H	ZN	RCC	I		0.0280100	0.0280100	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	I	AG	RCC	I	U	0.0030000	0.0030000	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	I	AL	RCC	I		0.0795100	0.0795100	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	I	AS	RCC	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	I	B	RCC	I		0.0258700	0.0258700	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	I	BA	RCC	I		0.0010200	0.0010200	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	I	BE	RCC	I	U	0.0010000	0.0010000	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	I	CA	RCC	I		0.0632900	0.0632900	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	I	CD	RCC	I	U	0.0020000	0.0020000	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	I	CO	RCC	I	U	0.0030000	0.0030000	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	I	CR	RCC	I	U	0.0050000	0.0050000	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	I	CU	RCC	I		0.0037600	0.0037600	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	I	FE	RCC	I		0.1332400	0.1332400	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	I	K	RCC	I	U	0.4000000	0.4000000	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	I	MG	RCC	I		0.0322900	0.0322900	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	I	MN	RCC	I		0.0033300	0.0033300	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	I	MO	RCC	I	U	0.0050000	0.0050000	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	I	NA	RCC	I		0.0763900	0.0763900	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	I	NI	RCC	I	U	0.0100000	0.0100000	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	I	PB	RCC	I	U	0.0200000	0.0200000	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	I	SB	RCC	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	I	SE	RCC	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	I	SI	RCC	I		0.2481400	0.2481400	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	I	SN	RCC	I	U	0.0100000	0.0100000	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	I	SR	RCC	I	U	0.0010000	0.0010000	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	I	TI	RCC	I	U	0.0050000	0.0050000	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	I	TL	RCC	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	I	V	RCC	I	U	0.0020000	0.0020000	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	I	ZN	RCC	I		0.0075500	0.0075500	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	REF2	AG	RCC	I		0.9841900	0.9841900	mg/L	1.00	0.0000	100.00	100.00	100.00
5376	REF2	AL	RCC	I		2.0007900	2.0007900	mg/L	1.00	0.0000	100.00	100.00	100.00
5376	REF2	AS	RCC	I		1.9635600	1.9635600	mg/L	1.00	0.0000	100.00	100.00	100.00
5376	REF2	B	RCC	I		0.9953700	0.9953700	mg/L	1.00	0.0000	100.00	100.00	100.00
5376	REF2	BA	RCC	I		0.9999500	0.9999500	mg/L	1.00	0.0000	100.00	100.00	100.00
5376	REF2	BE	RCC	I		0.9474300	0.9474300	mg/L	1.00	0.0000	100.00	100.00	100.00
5376	REF2	CA	RCC	I		2.0060000	2.0060000	mg/L	1.00	0.0000	100.00	100.00	100.00
5376	REF2	CD	RCC	I		1.0059300	1.0059300	mg/L	1.00	0.0000	100.00	100.00	100.00
5376	REF2	CO	RCC	I		0.9910600	0.9910600	mg/L	1.00	0.0000	100.00	100.00	100.00
5376	REF2	CR	RCC	I		0.9937400	0.9937400	mg/L	1.00	0.0000	100.00	100.00	100.00
5376	REF2	CU	RCC	I		0.9805000	0.9805000	mg/L	1.00	0.0000	100.00	100.00	100.00
5376	REF2	FE	RCC	I		1.9464800	1.9464800	mg/L	1.00	0.0000	100.00	100.00	100.00
5376	REF2	K	RCC	I		19.9916800	19.9916800	mg/L	1.00	0.0000	100.00	100.00	100.00
5376	REF2	MG	RCC	I		1.9752000	1.9752000	mg/L	1.00	0.0000	100.00	100.00	100.00
5376	REF2	MN	RCC	I		0.9921600	0.9921600	mg/L	1.00	0.0000	100.00	100.00	100.00
5376	REF2	MO	RCC	I		0.9996600	0.9996600	mg/L	1.00	0.0000	100.00	100.00	100.00
5376	REF2	NA	RCC	I		2.0020000	2.0020000	mg/L	1.00	0.0000	100.00	100.00	100.00

JOB	SAMP	ELEMENT	PREPCODE			RAWVALUE	CALCULATED	UNITS	DILUTION	MASS	INITVOL	FINVOL	%SOLIDS
5376	REF2	NI	RCC	I		0.9843300	0.9843300	mg/L	1.00	0.0000	100.00	100.00	100.00
5376	REF2	PB	RCC	I		1.9573100	1.9573100	mg/L	1.00	0.0000	100.00	100.00	100.00
5376	REF2	SB	RCC	I		1.9411500	1.9411500	mg/L	1.00	0.0000	100.00	100.00	100.00
5376	REF2	SE	RCC	I		2.0213200	2.0213200	mg/L	1.00	0.0000	100.00	100.00	100.00
5376	REF2	SI	RCC	I		2.4448600	2.4448600	mg/L	1.00	0.0000	100.00	100.00	100.00
5376	REF2	SN	RCC	I		0.9715100	0.9715100	mg/L	1.00	0.0000	100.00	100.00	100.00
5376	REF2	SR	RCC	I		0.9735000	0.9735000	mg/L	1.00	0.0000	100.00	100.00	100.00
5376	REF2	TI	RCC	I		0.9686300	0.9686300	mg/L	1.00	0.0000	100.00	100.00	100.00
5376	REF2	TL	RCC	I		1.9315600	1.9315600	mg/L	1.00	0.0000	100.00	100.00	100.00
5376	REF2	V	RCC	I		0.9849300	0.9849300	mg/L	1.00	0.0000	100.00	100.00	100.00
5376	REF2	ZN	RCC	I		0.9870000	0.9870000	mg/L	1.00	0.0000	100.00	100.00	100.00
5376	REF1	AG	SCC	I		0.1097900	21.9580000	mg/kg-dry	1.00	1.0000	0.00	200.00	100.00
5376	REF1	AL	SCC	I		1.5867000	317.3400000	mg/kg-dry	1.00	1.0000	0.00	200.00	100.00
5376	REF1	AS	SCC	I		4.8991400	979.8280000	mg/kg-dry	1.00	1.0000	0.00	200.00	100.00
5376	REF1	B	SCC	I		0.0559100	11.1820000	mg/kg-dry	1.00	1.0000	0.00	200.00	100.00
5376	REF1	BA	SCC	I		0.0267400	5.3480000	mg/kg-dry	1.00	1.0000	0.00	200.00	100.00
5376	REF1	BE	SCC	I		0.0867400	17.3480000	mg/kg-dry	1.00	1.0000	0.00	200.00	100.00
5376	REF1	CA	SCC	I		~~040.6899400~~ 454.9	~~169337.9880000~~ 181.960	mg/kg-dry	~~1.00~~ 2.00	1.0000	0.00	200.00	100.00
5376	REF1	CD	SCC	I		0.2085200	41.7040000	mg/kg-dry	1.00	1.0000	0.00	200.00	100.00
5376	REF1	CO	SCC	I		0.7054900	141.0980000	mg/kg-dry	1.00	1.0000	0.00	200.00	100.00
5376	REF1	CR	SCC	I		0.4785300	95.7060000	mg/kg-dry	1.00	1.0000	0.00	200.00	100.00
5376	REF1	CU	SCC	I		33.9239200	6784.7840000	mg/kg-dry	1.00	1.0000	0.00	200.00	100.00
5376	REF1	FE	SCC	I		101.1115100	20222.3020000	mg/kg-dry	1.00	1.0000	0.00	200.00	100.00
5376	REF1	K	SCC	I	U	0.4000000	80.0000000	mg/kg-dry	1.00	1.0000	0.00	200.00	100.00
5376	REF1	MG	SCC	I		527.0723200	105414.4640000	mg/kg-dry	1.00	1.0000	0.00	200.00	100.00
5376	REF1	MN	SCC	I		0.9998900	199.9780000	mg/kg-dry	1.00	1.0000	0.00	200.00	100.00
5376	REF1	MO	SCC	I		0.2456500	49.1300000	mg/kg-dry	1.00	1.0000	0.00	200.00	100.00
5376	REF1	NA	SCC	I		0.1420200	28.4040000	mg/kg-dry	1.00	1.0000	0.00	200.00	100.00
5376	REF1	NI	SCC	I		0.2621200	52.4240000	mg/kg-dry	1.00	1.0000	0.00	200.00	100.00
5376	REF1	PB	SCC	I		1.0309300	206.1860000	mg/kg-dry	1.00	1.0000	0.00	200.00	100.00
5376	REF1	SB	SCC	I		1.1226000	224.5200000	mg/kg-dry	1.00	1.0000	0.00	200.00	100.00
5376	REF1	SE	SCC	I		0.1117000	22.3400000	mg/kg-dry	1.00	1.0000	0.00	200.00	100.00
5376	REF1	SI	SCC	I		2.6005300	520.1060000	mg/kg-dry	1.00	1.0000	0.00	200.00	100.00
5376	REF1	SN	SCC	I		0.0395500	7.9100000	mg/kg-dry	1.00	1.0000	0.00	200.00	100.00
5376	REF1	SR	SCC	I		0.2581100	51.6220000	mg/kg-dry	1.00	1.0000	0.00	200.00	100.00
5376	REF1	TI	SCC	I		0.0936800	18.7360000	mg/kg-dry	1.00	1.0000	0.00	200.00	100.00
5376	REF1	TL	SCC	I		0.2616600	52.3320000	mg/kg-dry	1.00	1.0000	0.00	200.00	100.00
5376	REF1	V	SCC	I		0.3305900	66.1180000	mg/kg-dry	1.00	1.0000	0.00	200.00	100.00
5376	REF1	ZN	SCC	I		0.8067800	161.3560000	mg/kg-dry	1.00	1.0000	0.00	200.00	100.00
5376	MSPK	AG	SCC	I		0.0510500	30.9118824	mg/kg-dry	1.00	1.0890	0.00	200.00	30.33
5376	MSPK	AL	SCC	I		34.3460200	20797.2601354	mg/kg-dry	1.00	1.0890	0.00	200.00	30.33
5376	MSPK	AS	SCC	I		1.9532900	1182.7594653	mg/kg-dry	1.00	1.0890	0.00	200.00	30.33
5376	MSPK	B	SCC	I		0.0335300	20.3031423	mg/kg-dry	1.00	1.0890	0.00	200.00	30.33
5376	MSPK	BA	SCC	I		2.3438400	1419.2459620	mg/kg-dry	1.00	1.0890	0.00	200.00	30.33
5376	MSPK	BE	SCC	I		0.0502300	30.4153546	mg/kg-dry	1.00	1.0890	0.00	200.00	30.33
5376	MSPK	CA	SCC	I		10.0514400	6086.3649534	mg/kg-dry	1.00	1.0890	0.00	200.00	30.33
5376	MSPK	CD	SCC	I		0.0581000	35.1808103	mg/kg-dry	1.00	1.0890	0.00	200.00	30.33
5376	MSPK	CO	SCC	I		0.5407900	327.4600757	mg/kg-dry	1.00	1.0890	0.00	200.00	30.33
5376	MSPK	CR	SCC	I		0.2755600	166.8575574	mg/kg-dry	1.00	1.0890	0.00	200.00	30.33
5376	MSPK	CU	SCC	I		0.3784200	229.1415186	mg/kg-dry	1.00	1.0890	0.00	200.00	30.33
5376	MSPK	FE	SCC	I		56.8450100	34420.8866230	mg/kg-dry	1.00	1.0890	0.00	200.00	30.33
5376	MSPK	K	SCC	I		3.5575200	2154.1555289	mg/kg-dry	1.00	1.0890	0.00	200.00	30.33
5376	MSPK	MG	SCC	I		7.9333200	4803.7973476	mg/kg-dry	1.00	1.0890	0.00	200.00	30.33
5376	MSPK	MN	SCC	I		2.5066900	1517.8551695	mg/kg-dry	1.00	1.0890	0.00	200.00	30.33
5376	MSPK	MO	SCC	I	U	0.0050000	3.0276085	mg/kg-dry	1.00	1.0890	0.00	200.00	30.33

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JOB	SAMP	ELEMENT	PREPCODE			RAWVALUE	CALCULATED	UNITS	DILUTION	MASS	INITVOL	FINVOL	%SOLIDS
5376	MSPK	NA	SCC	I		0.2495100	151.0837173	mg/kg-dry	1.00	1.0890	0.00	200.00	30.33
5376	MSPK	NI	SCC	I		0.5568500	337.1847541	mg/kg-dry	1.00	1.0890	0.00	200.00	30.33
5376	MSPK	PB	SCC	I		0.6444500	390.2284543	mg/kg-dry	1.00	1.0890	0.00	200.00	30.33
5376	MSPK	SB	SCC	I		0.1977700	119.7540250	mg/kg-dry	1.00	1.0890	0.00	200.00	30.33
5376	MSPK	SE	SCC	I		1.9678000	1191.5455850	mg/kg-dry	1.00	1.0890	0.00	200.00	30.33
5376	MSPK	SI	SCC	I		9.3079500	5636.1656308	mg/kg-dry	1.00	1.0890	0.00	200.00	30.33
5376	MSPK	SN	SCC	I		0.0384800	23.3004747	mg/kg-dry	1.00	1.0890	0.00	200.00	30.33
5376	MSPK	SR	SCC	I		0.0267300	16.1855948	mg/kg-dry	1.00	1.0890	0.00	200.00	30.33
5376	MSPK	TI	SCC	I		0.5590200	338.4987361	mg/kg-dry	1.00	1.0890	0.00	200.00	30.33
5376	MSPK	TL	SCC	I		1.8401600	1114.2567963	mg/kg-dry	1.00	1.0890	0.00	200.00	30.33
5376	MSPK	V	SCC	I		0.5568800	337.2029197	mg/kg-dry	1.00	1.0890	0.00	200.00	30.33
5376	MSPK	ZN	SCC	I		2.0113800	1217.9342204	mg/kg-dry	1.00	1.0890	0.00	200.00	30.33
5376	MDUP	AG	SCC	I		0.0033700	2.0294267	mg/kg-dry	1.00	1.0950	0.00	200.00	30.33
5376	MDUP	AL	SCC	I		34.5453500	20803.3398221	mg/kg-dry	1.00	1.0950	0.00	200.00	30.33
5376	MDUP	AS	SCC	I	U	0.0500000	30.1101882	mg/kg-dry	1.00	1.0950	0.00	200.00	30.33
5376	MDUP	B	SCC	I		0.0395400	23.8111369	mg/kg-dry	1.00	1.0950	0.00	200.00	30.33
5376	MDUP	BA	SCC	I		0.3068800	184.8042913	mg/kg-dry	1.00	1.0950	0.00	200.00	30.33
5376	MDUP	BE	SCC	I		0.0042000	2.5292558	mg/kg-dry	1.00	1.0950	0.00	200.00	30.33
5376	MDUP	CA	SCC	I		10.2664600	6182.5008619	mg/kg-dry	1.00	1.0950	0.00	200.00	30.33
5376	MDUP	CD	SCC	I		0.0128300	7.7262743	mg/kg-dry	1.00	1.0950	0.00	200.00	30.33
5376	MDUP	CO	SCC	I		0.0420000	25.2925581	mg/kg-dry	1.00	1.0950	0.00	200.00	30.33
5376	MDUP	CR	SCC	I		0.0785700	47.3151498	mg/kg-dry	1.00	1.0950	0.00	200.00	30.33
5376	MDUP	CU	SCC	I		0.1355800	81.6467864	mg/kg-dry	1.00	1.0950	0.00	200.00	30.33
5376	MDUP	FE	SCC	I		59.2302700	35668.6915768	mg/kg-dry	1.00	1.0950	0.00	200.00	30.33
5376	MDUP	K	SCC	I		3.6406900	2192.4372240	mg/kg-dry	1.00	1.0950	0.00	200.00	30.33
5376	MDUP	MG	SCC	I		8.3844700	5049.1593988	mg/kg-dry	1.00	1.0950	0.00	200.00	30.33
5376	MDUP	MN	SCC	I		2.0473600	1232.9278996	mg/kg-dry	1.00	1.0950	0.00	200.00	30.33
5376	MDUP	MO	SCC	I	U	0.0050000	3.0110188	mg/kg-dry	1.00	1.0950	0.00	200.00	30.33
5376	MDUP	NA	SCC	I		0.2634900	158.6746700	mg/kg-dry	1.00	1.0950	0.00	200.00	30.33
5376	MDUP	NI	SCC	I		0.0672400	40.4921811	mg/kg-dry	1.00	1.0950	0.00	200.00	30.33
5376	MDUP	PB	SCC	I		0.1626400	97.9424203	mg/kg-dry	1.00	1.0950	0.00	200.00	30.33
5376	MDUP	SB	SCC	I	U	0.0500000	30.1101882	mg/kg-dry	1.00	1.0950	0.00	200.00	30.33
5376	MDUP	SE	SCC	I	U	0.0500000	30.1101882	mg/kg-dry	1.00	1.0950	0.00	200.00	30.33
5376	MDUP	SI	SCC	I		8.8221000	5312.7018324	mg/kg-dry	1.00	1.0950	0.00	200.00	30.33
5376	MDUP	SN	SCC	I		0.0419500	25.2624479	mg/kg-dry	1.00	1.0950	0.00	200.00	30.33
5376	MDUP	SR	SCC	I		0.0274200	16.5124272	mg/kg-dry	1.00	1.0950	0.00	200.00	30.33
5376	MDUP	TI	SCC	I		0.6239400	375.7390169	mg/kg-dry	1.00	1.0950	0.00	200.00	30.33
5376	MDUP	TL	SCC	I	U	0.0500000	30.1101882	mg/kg-dry	1.00	1.0950	0.00	200.00	30.33
5376	MDUP	V	SCC	I		0.0626400	37.7220438	mg/kg-dry	1.00	1.0950	0.00	200.00	30.33
5376	MDUP	ZN	SCC	I		1.5704800	945.7489683	mg/kg-dry	1.00	1.0950	0.00	200.00	30.33
5376	M	AG	SCC	I	U	0.0030000	1.8215832	mg/kg-dry	1.00	1.0860	0.00	200.00	30.33
5376	M	AL	SCC	I		33.5041100	20343.5080900	mg/kg-dry	1.00	1.0860	0.00	200.00	30.33
5376	M	AS	SCC	I	U	0.0500000	30.3597202	mg/kg-dry	1.00	1.0860	0.00	200.00	30.33
5376	M	B	SCC	I		0.0351800	21.3610991	mg/kg-dry	1.00	1.0860	0.00	200.00	30.33
5376	M	BA	SCC	I		0.2877500	174.7201896	mg/kg-dry	1.00	1.0860	0.00	200.00	30.33
5376	M	BE	SCC	I		0.0040300	2.4469934	mg/kg-dry	1.00	1.0860	0.00	200.00	30.33
5376	M	CA	SCC	I		9.8843000	6001.6916436	mg/kg-dry	1.00	1.0860	0.00	200.00	30.33
5376	M	CD	SCC	I		0.0117600	7.1406062	mg/kg-dry	1.00	1.0860	0.00	200.00	30.33
5376	M	CO	SCC	I		0.0401200	24.3606395	mg/kg-dry	1.00	1.0860	0.00	200.00	30.33
5376	M	CR	SCC	I		0.0763000	46.3289330	mg/kg-dry	1.00	1.0860	0.00	200.00	30.33
5376	M	CU	SCC	I		0.1265300	76.8283079	mg/kg-dry	1.00	1.0860	0.00	200.00	30.33
5376	M	FE	SCC	I		56.7604700	34464.6397303	mg/kg-dry	1.00	1.0860	0.00	200.00	30.33
5376	M	K	SCC	I		3.9242300	2382.7704945	mg/kg-dry	1.00	1.0860	0.00	200.00	30.33
5376	M	MG	SCC	I		7.9395900	4820.8746150	mg/kg-dry	1.00	1.0860	0.00	200.00	30.33
5376	M	MN	SCC	I		1.9717500	1197.2355653	mg/kg-dry	1.00	1.0860	0.00	200.00	30.33

JOB	SAMP	ELEMENT	PREPCODE			RAWVALUE	CALCULATED	UNITS	DILUTION	MASS	INITVOL	FINVOL	%SOLIDS
5376	M	MO	SCC	I	U	0.0050000	3.0359720	mg/kg-dry	1.00	1.0860	0.00	200.00	30.33
5376	M	NA	SCC	I		0.2484300	150.8453057	mg/kg-dry	1.00	1.0860	0.00	200.00	30.33
5376	M	NI	SCC	I		0.0565600	34.3429155	mg/kg-dry	1.00	1.0860	0.00	200.00	30.33
5376	M	PB	SCC	I		0.1530000	92.9007438	mg/kg-dry	1.00	1.0860	0.00	200.00	30.33
5376	M	SB	SCC	I	U	0.0500000	30.3597202	mg/kg-dry	1.00	1.0860	0.00	200.00	30.33
5376	M	SE	SCC	I	U	0.0500000	30.3597202	mg/kg-dry	1.00	1.0860	0.00	200.00	30.33
5376	M	SI	SCC	I		9.6218000	5842.3031127	mg/kg-dry	1.00	1.0860	0.00	200.00	30.33
5376	M	SN	SCC	I		0.0330300	20.0556312	mg/kg-dry	1.00	1.0860	0.00	200.00	30.33
5376	M	SR	SCC	I		0.0266400	16.1756589	mg/kg-dry	1.00	1.0860	0.00	200.00	30.33
5376	M	TI	SCC	I		0.6031800	366.2475204	mg/kg-dry	1.00	1.0860	0.00	200.00	30.33
5376	M	TL	SCC	I	U	0.0500000	30.3597202	mg/kg-dry	1.00	1.0860	0.00	200.00	30.33
5376	M	V	SCC	I		0.0612600	37.1967292	mg/kg-dry	1.00	1.0860	0.00	200.00	30.33
5376	M	ZN	SCC	I		1.4909800	905.3147119	mg/kg-dry	1.00	1.0860	0.00	200.00	30.33
5376	MB1	AG	SCC	I	U	0.0030000	0.6000000	mg/kg-dry	1.00	1.0000	0.00	200.00	100.00
5376	MB1	AL	SCC	I		0.0237700	4.7540000	mg/kg-dry	1.00	1.0000	0.00	200.00	100.00
5376	MB1	AS	SCC	I	U	0.0500000	10.0000000	mg/kg-dry	1.00	1.0000	0.00	200.00	100.00
5376	MB1	B	SCC	I		0.0066300	1.3260000	mg/kg-dry	1.00	1.0000	0.00	200.00	100.00
5376	MB1	BA	SCC	I	U	0.0010000	0.2000000	mg/kg-dry	1.00	1.0000	0.00	200.00	100.00
5376	MB1	BE	SCC	I	U	0.0010000	0.2000000	mg/kg-dry	1.00	1.0000	0.00	200.00	100.00
5376	MB1	CA	SCC	I		0.0337800	6.7560000	mg/kg-dry	1.00	1.0000	0.00	200.00	100.00
5376	MB1	CD	SCC	I	U	0.0020000	0.4000000	mg/kg-dry	1.00	1.0000	0.00	200.00	100.00
5376	MB1	CO	SCC	I	U	0.0030000	0.6000000	mg/kg-dry	1.00	1.0000	0.00	200.00	100.00
5376	MB1	CR	SCC	I	U	0.0050000	1.0000000	mg/kg-dry	1.00	1.0000	0.00	200.00	100.00
5376	MB1	CU	SCC	I		0.0046900	0.9380000	mg/kg-dry	1.00	1.0000	0.00	200.00	100.00
5376	MB1	FE	SCC	I	U	0.0200000	4.0000000	mg/kg-dry	1.00	1.0000	0.00	200.00	100.00
5376	MB1	K	SCC	I	U	0.4000000	80.0000000	mg/kg-dry	1.00	1.0000	0.00	200.00	100.00
5376	MB1	MG	SCC	I	U	0.0200000	4.0000000	mg/kg-dry	1.00	1.0000	0.00	200.00	100.00
5376	MB1	MN	SCC	I		0.0011100	0.2220000	mg/kg-dry	1.00	1.0000	0.00	200.00	100.00
5376	MB1	MO	SCC	I	U	0.0050000	1.0000000	mg/kg-dry	1.00	1.0000	0.00	200.00	100.00
5376	MB1	NA	SCC	I	U	0.0500000	10.0000000	mg/kg-dry	1.00	1.0000	0.00	200.00	100.00
5376	MB1	NI	SCC	I	U	0.0100000	2.0000000	mg/kg-dry	1.00	1.0000	0.00	200.00	100.00
5376	MB1	PB	SCC	I	U	0.0200000	4.0000000	mg/kg-dry	1.00	1.0000	0.00	200.00	100.00
5376	MB1	SB	SCC	I	U	0.0500000	10.0000000	mg/kg-dry	1.00	1.0000	0.00	200.00	100.00
5376	MB1	SE	SCC	I	U	0.0500000	10.0000000	mg/kg-dry	1.00	1.0000	0.00	200.00	100.00
5376	MB1	SI	SCC	I		0.0637700	12.7540000	mg/kg-dry	1.00	1.0000	0.00	200.00	100.00
5376	MB1	SN	SCC	I		0.0180100	3.6020000	mg/kg-dry	1.00	1.0000	0.00	200.00	100.00
5376	MB1	SR	SCC	I	U	0.0010000	0.2000000	mg/kg-dry	1.00	1.0000	0.00	200.00	100.00
5376	MB1	TI	SCC	I	U	0.0050000	1.0000000	mg/kg-dry	1.00	1.0000	0.00	200.00	100.00
5376	MB1	TL	SCC	I	U	0.0500000	10.0000000	mg/kg-dry	1.00	1.0000	0.00	200.00	100.00
5376	MB1	V	SCC	I	U	0.0020000	0.4000000	mg/kg-dry	1.00	1.0000	0.00	200.00	100.00
5376	MB1	ZN	SCC	I	U	0.0040000	0.8000000	mg/kg-dry	1.00	1.0000	0.00	200.00	100.00
5376	J	AG	RCC	I	U	0.0030000	0.0030000	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	J	AL	RCC	I		0.0211500	0.0211500	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	J	AS	RCC	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	J	B	RCC	I		0.0152100	0.0152100	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	J	BA	RCC	I	U	0.0010000	0.0010000	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	J	BE	RCC	I	U	0.0010000	0.0010000	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	J	CA	RCC	I		0.2109800	0.2109800	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	J	CD	RCC	I	U	0.0020000	0.0020000	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	J	CO	RCC	I	U	0.0030000	0.0030000	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	J	CR	RCC	I	U	0.0050000	0.0050000	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	J	CU	RCC	I		0.0026200	0.0026200	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	J	FE	RCC	I	U	0.0200000	0.0200000	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	J	K	RCC	I	U	0.4000000	0.4000000	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	J	MG	RCC	I	U	0.0200000	0.0200000	mg/L	1.00	0.0000	100.00	100.00	0.00

JOB	SAMP	ELEMENT	PREPCODE			RAWVALUE	CALCULATED	UNITS	DILUTION	MASS	INITVOL	FINVOL	%SOLIDS
5376	J	MN	RCC	I	U	0.0010000	0.0010000	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	J	MO	RCC	I	U	0.0050000	0.0050000	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	J	NA	RCC	I		0.5953100	0.5953100	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	J	NI	RCC	I	U	0.0100000	0.0100000	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	J	PB	RCC	I	U	0.0200000	0.0200000	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	J	SB	RCC	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	J	SE	RCC	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	J	SI	RCC	I		0.3507700	0.3507700	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	J	SN	RCC	I	U	0.0100000	0.0100000	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	J	SR	RCC	I	U	0.0010000	0.0010000	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	J	TI	RCC	I	U	0.0050000	0.0050000	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	J	TL	RCC	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	J	V	RCC	I	U	0.0020000	0.0020000	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	J	ZN	RCC	I	U	0.0040000	0.0040000	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	N	AG	RCC	I	U	0.0030000	0.0030000	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	N	AL	RCC	I		1.8837900	1.8837900	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	N	AS	RCC	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	N	B	RCC	I		0.0303900	0.0303900	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	N	BA	RCC	I		0.0377900	0.0377900	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	N	BE	RCC	I	U	0.0010000	0.0010000	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	N	CA	RCC	I		13.5804300	13.5804300	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	N	CD	RCC	I	U	0.0020000	0.0020000	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	N	CO	RCC	I	U	0.0030000	0.0030000	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	N	CR	RCC	I	U	0.0050000	0.0050000	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	N	CU	RCC	I		0.0062900	0.0062900	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	N	FE	RCC	I		2.0242200	2.0242200	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	N	K	RCC	I		2.0452900	2.0452900	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	N	MG	RCC	I		4.9232200	4.9232200	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	N	MN	RCC	I		0.1031200	0.1031200	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	N	MO	RCC	I	U	0.0050000	0.0050000	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	N	NA	RCC	I		6.9019300	6.9019300	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	N	NI	RCC	I	U	0.0100000	0.0100000	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	N	PB	RCC	I	U	0.0200000	0.0200000	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	N	SB	RCC	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	N	SE	RCC	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	N	SI	RCC	I		4.7277200	4.7277200	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	N	SN	RCC	I	U	0.0100000	0.0100000	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	N	SR	RCC	I		0.0561400	0.0561400	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	N	TI	RCC	I		0.0470700	0.0470700	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	N	TL	RCC	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	N	V	RCC	I		0.0046600	0.0046600	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	N	ZN	RCC	I		0.0331000	0.0331000	mg/L	1.00	0.0000	100.00	100.00	0.00
5376	O	AG	RCC	I	U	0.0030000	0.0030000	mg/L	1.00	0.0000	50.00	50.00	0.00
5376	O	AL	RCC	I		1.4319600	1.4319600	mg/L	1.00	0.0000	50.00	50.00	0.00
5376	O	AS	RCC	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	50.00	50.00	0.00
5376	O	B	RCC	I		0.0367300	0.0367300	mg/L	1.00	0.0000	50.00	50.00	0.00
5376	O	BA	RCC	I		0.0341700	0.0341700	mg/L	1.00	0.0000	50.00	50.00	0.00
5376	O	BE	RCC	I	U	0.0010000	0.0010000	mg/L	1.00	0.0000	50.00	50.00	0.00
5376	O	CA	RCC	I		13.2270600	13.2270600	mg/L	1.00	0.0000	50.00	50.00	0.00
5376	O	CD	RCC	I	U	0.0020000	0.0020000	mg/L	1.00	0.0000	50.00	50.00	0.00
5376	O	CO	RCC	I	U	0.0030000	0.0030000	mg/L	1.00	0.0000	50.00	50.00	0.00
5376	O	CR	RCC	I	U	0.0050000	0.0050000	mg/L	1.00	0.0000	50.00	50.00	0.00
5376	O	CU	RCC	I		0.0056300	0.0056300	mg/L	1.00	0.0000	50.00	50.00	0.00
5376	O	FE	RCC	I		1.8767000	1.8767000	mg/L	1.00	0.0000	50.00	50.00	0.00
5376	O	K	RCC	I		1.9091900	1.9091900	mg/L	1.00	0.0000	50.00	50.00	0.00

JOB	SAMP	ELEMENT	PREPCODE			RAWVALUE	CALCULATED	UNITS	DILUTION	MASS	INITVOL	FINVOL	%SOLIDS
5376	O	MG	RCC	I		4.8495500	4.8495500	mg/L	1.00	0.0000	50.00	50.00	0.00
5376	O	MN	RCC	I		0.0759400	0.0759400	mg/L	1.00	0.0000	50.00	50.00	0.00
5376	O	MO	RCC	I	U	0.0050000	0.0050000	mg/L	1.00	0.0000	50.00	50.00	0.00
5376	O	NA	RCC	I		7.7130800	7.7130800	mg/L	1.00	0.0000	50.00	50.00	0.00
5376	O	NI	RCC	I	U	0.0100000	0.0100000	mg/L	1.00	0.0000	50.00	50.00	0.00
5376	O	PB	RCC	I	U	0.0200000	0.0200000	mg/L	1.00	0.0000	50.00	50.00	0.00
5376	O	SB	RCC	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	50.00	50.00	0.00
5376	O	SE	RCC	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	50.00	50.00	0.00
5376	O	SI	RCC	I		4.0721600	4.0721600	mg/L	1.00	0.0000	50.00	50.00	0.00
5376	O	SN	RCC	I	U	0.0100000	0.0100000	mg/L	1.00	0.0000	50.00	50.00	0.00
5376	O	SR	RCC	I		0.0562400	0.0562400	mg/L	1.00	0.0000	50.00	50.00	0.00
5376	O	TI	RCC	I		0.0396100	0.0396100	mg/L	1.00	0.0000	50.00	50.00	0.00
5376	O	TL	RCC	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	50.00	50.00	0.00
5376	O	V	RCC	I		0.0031100	0.0031100	mg/L	1.00	0.0000	50.00	50.00	0.00
5376	O	ZN	RCC	I		0.0316000	0.0316000	mg/L	1.00	0.0000	50.00	50.00	0.00
5376	A	AG	SCC	I		0.0033400	1.8432264	mg/kg-dry	1.00	1.0180	0.00	200.00	35.60
5376	A	AL	SCC	I		34.1525200	18847.5530341	mg/kg-dry	1.00	1.0180	0.00	200.00	35.60
5376	A	AS	SCC	I	U	0.0500000	27.5932099	mg/kg-dry	1.00	1.0180	0.00	200.00	35.60
5376	A	B	SCC	I		0.0741500	40.9207302	mg/kg-dry	1.00	1.0180	0.00	200.00	35.60
5376	A	BA	SCC	I		0.2921200	161.2105693	mg/kg-dry	1.00	1.0180	0.00	200.00	35.60
5376	A	BE	SCC	I		0.0041000	2.2626432	mg/kg-dry	1.00	1.0180	0.00	200.00	35.60
5376	A	CA	SCC	I		5.6190700	3100.9635549	mg/kg-dry	1.00	1.0180	0.00	200.00	35.60
5376	A	CD	SCC	I		0.0092700	5.1157811	mg/kg-dry	1.00	1.0180	0.00	200.00	35.60
5376	A	CO	SCC	I		0.0379500	20.9432463	mg/kg-dry	1.00	1.0180	0.00	200.00	35.60
5376	A	CR	SCC	I		0.0992000	54.7449284	mg/kg-dry	1.00	1.0180	0.00	200.00	35.60
5376	A	CU	SCC	I		0.1722400	95.0530893	mg/kg-dry	1.00	1.0180	0.00	200.00	35.60
5376	A	FE	SCC	I		82.7656900	45675.4210724	mg/kg-dry	1.00	1.0180	0.00	200.00	35.60
5376	A	K	SCC	I		4.1019200	2263.7027880	mg/kg-dry	1.00	1.0180	0.00	200.00	35.60
5376	A	MG	SCC	I		8.8964000	4909.6046445	mg/kg-dry	1.00	1.0180	0.00	200.00	35.60
5376	A	MN	SCC	I		1.7149000	946.3919119	mg/kg-dry	1.00	1.0180	0.00	200.00	35.60
5376	A	MO	SCC	I	U	0.0050000	2.7593210	mg/kg-dry	1.00	1.0180	0.00	200.00	35.60
5376	A	NA	SCC	I		0.1725800	95.2407232	mg/kg-dry	1.00	1.0180	0.00	200.00	35.60
5376	A	NI	SCC	I		0.0680600	37.5598773	mg/kg-dry	1.00	1.0180	0.00	200.00	35.60
5376	A	PB	SCC	I		0.2349000	129.6328999	mg/kg-dry	1.00	1.0180	0.00	200.00	35.60
5376	A	SB	SCC	I	U	0.0500000	27.5932099	mg/kg-dry	1.00	1.0180	0.00	200.00	35.60
5376	A	SE	SCC	I	U	0.0500000	27.5932099	mg/kg-dry	1.00	1.0180	0.00	200.00	35.60
5376	A	SI	SCC	I		9.5084600	5247.3786451	mg/kg-dry	1.00	1.0180	0.00	200.00	35.60
5376	A	SN	SCC	I		0.0433800	23.9398689	mg/kg-dry	1.00	1.0180	0.00	200.00	35.60
5376	A	SR	SCC	I		0.0242700	13.3937441	mg/kg-dry	1.00	1.0180	0.00	200.00	35.60
5376	A	TI	SCC	I		0.6439700	355.3839871	mg/kg-dry	1.00	1.0180	0.00	200.00	35.60
5376	A	TL	SCC	I	U	0.0500000	27.5932099	mg/kg-dry	1.00	1.0180	0.00	200.00	35.60
5376	A	V	SCC	I		0.0717200	39.5797002	mg/kg-dry	1.00	1.0180	0.00	200.00	35.60
5376	A	ZN	SCC	I		1.3669300	754.3597272	mg/kg-dry	1.00	1.0180	0.00	200.00	35.60
5376	C	AG	SCC	I	U	0.0030000	1.4281233	mg/kg-dry	1.00	1.0580	0.00	200.00	39.71
5376	C	AL	SCC	I		28.9132400	13763.8902840	mg/kg-dry	1.00	1.0580	0.00	200.00	39.71
5376	C	AS	SCC	I	U	0.0500000	23.8020545	mg/kg-dry	1.00	1.0580	0.00	200.00	39.71
5376	C	B	SCC	I		0.0449800	21.4123282	mg/kg-dry	1.00	1.0580	0.00	200.00	39.71
5376	C	BA	SCC	I		0.2480100	118.0629507	mg/kg-dry	1.00	1.0580	0.00	200.00	39.71
5376	C	BE	SCC	I		0.0033700	1.6042585	mg/kg-dry	1.00	1.0580	0.00	200.00	39.71
5376	C	CA	SCC	I		4.0352000	1920.9210062	mg/kg-dry	1.00	1.0580	0.00	200.00	39.71
5376	C	CD	SCC	I		0.0068900	3.2799231	mg/kg-dry	1.00	1.0580	0.00	200.00	39.71
5376	C	CO	SCC	I		0.0398200	18.9559562	mg/kg-dry	1.00	1.0580	0.00	200.00	39.71
5376	C	CR	SCC	I		0.1014600	48.2991290	mg/kg-dry	1.00	1.0580	0.00	200.00	39.71
5376	C	CU	SCC	I		0.6251000	297.5732853	mg/kg-dry	1.00	1.0580	0.00	200.00	39.71
5376	C	FE	SCC	I		86.4773000	41166.7481490	mg/kg-dry	1.00	1.0580	0.00	200.00	39.71

JOB	SAMP	ELEMENT	PREPCODE			RAWVALUE	CALCULATED	UNITS	DILUTION	MASS	INITVOL	FINVOL	%SOLIDS
5376	C	K	SCC	I		4.5631500	2172.2468997	mg/kg-dry	1.00	1.0580	0.00	200.00	39.71
5376	C	MG	SCC	I		6.0183100	2864.9628521	mg/kg-dry	1.00	1.0580	0.00	200.00	39.71
5376	C	MN	SCC	I		1.8370000	874.4874823	mg/kg-dry	1.00	1.0580	0.00	200.00	39.71
5376	C	MO	SCC	I		0.0074300	3.5369853	mg/kg-dry	1.00	1.0580	0.00	200.00	39.71
5376	C	NA	SCC	I		0.1755900	83.5880550	mg/kg-dry	1.00	1.0580	0.00	200.00	39.71
5376	C	NI	SCC	I		0.0652000	31.0378791	mg/kg-dry	1.00	1.0580	0.00	200.00	39.71
5376	C	PB	SCC	I		0.6868400	326.9640622	mg/kg-dry	1.00	1.0580	0.00	200.00	39.71
5376	C	SB	SCC	I	U	0.0500000	23.8020545	mg/kg-dry	1.00	1.0580	0.00	200.00	39.71
5376	C	SE	SCC	I	U	0.0500000	23.8020545	mg/kg-dry	1.00	1.0580	0.00	200.00	39.71
5376	C	SI	SCC	I		9.9428600	4733.2099117	mg/kg-dry	1.00	1.0580	0.00	200.00	39.71
5376	C	SN	SCC	I		0.0849700	40.4492114	mg/kg-dry	1.00	1.0580	0.00	200.00	39.71
5376	C	SR	SCC	I		0.0263600	12.5484431	mg/kg-dry	1.00	1.0580	0.00	200.00	39.71
5376	C	TI	SCC	I		0.5489100	261.3037147	mg/kg-dry	1.00	1.0580	0.00	200.00	39.71
5376	C	TL	SCC	I	U	0.0500000	23.8020545	mg/kg-dry	1.00	1.0580	0.00	200.00	39.71
5376	C	V	SCC	I		0.0850000	40.4634926	mg/kg-dry	1.00	1.0580	0.00	200.00	39.71
5376	C	ZN	SCC	I		1.3737100	653.9424057	mg/kg-dry	1.00	1.0580	0.00	200.00	39.71
5376	E	AG	SCC	I	U	0.0030000	1.2578337	mg/kg-dry	1.00	1.1660	0.00	200.00	40.91
5376	E	AL	SCC	I		37.8943100	15888.2465086	mg/kg-dry	1.00	1.1660	0.00	200.00	40.91
5376	E	AS	SCC	I	U	0.0500000	20.9638947	mg/kg-dry	1.00	1.1660	0.00	200.00	40.91
5376	E	B	SCC	I		0.0411000	17.2323215	mg/kg-dry	1.00	1.1660	0.00	200.00	40.91
5376	E	BA	SCC	I		0.3163500	132.6385619	mg/kg-dry	1.00	1.1660	0.00	200.00	40.91
5376	E	BE	SCC	I		0.0050000	2.0963895	mg/kg-dry	1.00	1.1660	0.00	200.00	40.91
5376	E	CA	SCC	I		6.1357600	2572.5885337	mg/kg-dry	1.00	1.1660	0.00	200.00	40.91
5376	E	CD	SCC	I		0.0097500	4.0879595	mg/kg-dry	1.00	1.1660	0.00	200.00	40.91
5376	E	CO	SCC	I		0.0408000	17.1065381	mg/kg-dry	1.00	1.1660	0.00	200.00	40.91
5376	E	CR	SCC	I		0.1376700	57.7219877	mg/kg-dry	1.00	1.1660	0.00	200.00	40.91
5376	E	CU	SCC	I		0.2501100	104.8655942	mg/kg-dry	1.00	1.1660	0.00	200.00	40.91
5376	E	FE	SCC	I		135.3047400	56730.2864968	mg/kg-dry	1.00	1.1660	0.00	200.00	40.91
5376	E	K	SCC	I		4.6652300	1956.0278115	mg/kg-dry	1.00	1.1660	0.00	200.00	40.91
5376	E	MG	SCC	I		8.9830200	3766.3817114	mg/kg-dry	1.00	1.1660	0.00	200.00	40.91
5376	E	MN	SCC	I		1.5442800	647.4824668	mg/kg-dry	1.00	1.1660	0.00	200.00	40.91
5376	E	MO	SCC	I		0.0113500	4.7588041	mg/kg-dry	1.00	1.1660	0.00	200.00	40.91
5376	E	NA	SCC	I		0.1573000	65.9524128	mg/kg-dry	1.00	1.1660	0.00	200.00	40.91
5376	E	NI	SCC	I		0.0914500	38.3429634	mg/kg-dry	1.00	1.1660	0.00	200.00	40.91
5376	E	PB	SCC	I		0.3106900	130.2654490	mg/kg-dry	1.00	1.1660	0.00	200.00	40.91
5376	E	SB	SCC	I	U	0.0500000	20.9638947	mg/kg-dry	1.00	1.1660	0.00	200.00	40.91
5376	E	SE	SCC	I	U	0.0500000	20.9638947	mg/kg-dry	1.00	1.1660	0.00	200.00	40.91
5376	E	SI	SCC	I		11.1246700	4664.3282141	mg/kg-dry	1.00	1.1660	0.00	200.00	40.91
5376	E	SN	SCC	I		0.0590200	24.7457813	mg/kg-dry	1.00	1.1660	0.00	200.00	40.91
5376	E	SR	SCC	I		0.0375800	15.7564633	mg/kg-dry	1.00	1.1660	0.00	200.00	40.91
5376	E	TI	SCC	I		0.7272400	304.9156560	mg/kg-dry	1.00	1.1660	0.00	200.00	40.91
5376	E	TL	SCC	I	U	0.0500000	20.9638947	mg/kg-dry	1.00	1.1660	0.00	200.00	40.91
5376	E	V	SCC	I		0.0877100	36.7748641	mg/kg-dry	1.00	1.1660	0.00	200.00	40.91
5376	E	ZN	SCC	I		1.5360800	644.0443881	mg/kg-dry	1.00	1.1660	0.00	200.00	40.91
5376	K	AG	SCC	I	U	0.0030000	0.8500973	mg/kg-dry	1.00	1.0080	0.00	200.00	70.02
5376	K	AL	SCC	I		16.5133200	4679.3093130	mg/kg-dry	1.00	1.0080	0.00	200.00	70.02
5376	K	AS	SCC	I	U	0.0500000	14.1682875	mg/kg-dry	1.00	1.0080	0.00	200.00	70.02
5376	K	B	SCC	I		0.0204400	5.7919959	mg/kg-dry	1.00	1.0080	0.00	200.00	70.02
5376	K	BA	SCC	I		0.1149500	32.5728930	mg/kg-dry	1.00	1.0080	0.00	200.00	70.02
5376	K	BE	SCC	I		0.0016500	0.4675535	mg/kg-dry	1.00	1.0080	0.00	200.00	70.02
5376	K	CA	SCC	I		2.9275200	829.5589015	mg/kg-dry	1.00	1.0080	0.00	200.00	70.02
5376	K	CD	SCC	I	U	0.0020000	0.5667315	mg/kg-dry	1.00	1.0080	0.00	200.00	70.02
5376	K	CO	SCC	I		0.0266800	7.5601982	mg/kg-dry	1.00	1.0080	0.00	200.00	70.02
5376	K	CR	SCC	I		0.0404200	11.4536436	mg/kg-dry	1.00	1.0080	0.00	200.00	70.02
5376	K	CU	SCC	I		0.0527500	14.9475433	mg/kg-dry	1.00	1.0080	0.00	200.00	70.02

JOB	SAMP	ELEMENT	PREPCODE			RAWVALUE	CALCULATED	UNITS	DILUTION	MASS	INITVOL	FINVOL	%SOLIDS
5376	K	FE	SCC	I		55.6805800	15777.9693330	mg/kg-dry	1.00	1.0080	0.00	200.00	70.02
5376	K	K	SCC	I		2.2910200	649.1966014	mg/kg-dry	1.00	1.0080	0.00	200.00	70.02
5376	K	MG	SCC	I		6.4509700	1827.9839547	mg/kg-dry	1.00	1.0080	0.00	200.00	70.02
5376	K	MN	SCC	I		0.7089400	200.8893151	mg/kg-dry	1.00	1.0080	0.00	200.00	70.02
5376	K	MO	SCC	I	U	0.0050000	1.4168288	mg/kg-dry	1.00	1.0080	0.00	200.00	70.02
5376	K	NA	SCC	I		0.0799400	22.6522581	mg/kg-dry	1.00	1.0080	0.00	200.00	70.02
5376	K	NI	SCC	I		0.0562400	15.9364898	mg/kg-dry	1.00	1.0080	0.00	200.00	70.02
5376	K	PB	SCC	I		0.0602300	17.0671191	mg/kg-dry	1.00	1.0080	0.00	200.00	70.02
5376	K	SB	SCC	I	U	0.0500000	14.1682875	mg/kg-dry	1.00	1.0080	0.00	200.00	70.02
5376	K	SE	SCC	I	U	0.0500000	14.1682875	mg/kg-dry	1.00	1.0080	0.00	200.00	70.02
5376	K	SI	SCC	I		3.0893400	875.4131473	mg/kg-dry	1.00	1.0080	0.00	200.00	70.02
5376	K	SN	SCC	I		0.0236700	6.7072673	mg/kg-dry	1.00	1.0080	0.00	200.00	70.02
5376	K	SR	SCC	I		0.0163900	4.6443646	mg/kg-dry	1.00	1.0080	0.00	200.00	70.02
5376	K	TI	SCC	I		0.2449800	69.4189415	mg/kg-dry	1.00	1.0080	0.00	200.00	70.02
5376	K	TL	SCC	I	U	0.0500000	14.1682875	mg/kg-dry	1.00	1.0080	0.00	200.00	70.02
5376	K	V	SCC	I		0.0309100	8.7588353	mg/kg-dry	1.00	1.0080	0.00	200.00	70.02
5376	K	ZN	SCC	I		0.6436500	182.3883652	mg/kg-dry	1.00	1.0080	0.00	200.00	70.02
5376	L	AG	SCC	I	U	0.0030000	0.9904265	mg/kg-dry	1.00	1.1480	0.00	200.00	52.77
5376	L	AL	SCC	I		36.3659200	12005.9240713	mg/kg-dry	1.00	1.1480	0.00	200.00	52.77
5376	L	AS	SCC	I	U	0.0500000	16.5071090	mg/kg-dry	1.00	1.1480	0.00	200.00	52.77
5376	L	B	SCC	I		0.0310000	10.2344075	mg/kg-dry	1.00	1.1480	0.00	200.00	52.77
5376	L	BA	SCC	I		0.3452300	113.9749845	mg/kg-dry	1.00	1.1480	0.00	200.00	52.77
5376	L	BE	SCC	I		0.0044900	1.4823384	mg/kg-dry	1.00	1.1480	0.00	200.00	52.77
5376	L	CA	SCC	I		9.1600800	3024.1287713	mg/kg-dry	1.00	1.1480	0.00	200.00	52.77
5376	L	CD	SCC	I		0.0102000	3.3674502	mg/kg-dry	1.00	1.1480	0.00	200.00	52.77
5376	L	CO	SCC	I		0.0450400	14.8696037	mg/kg-dry	1.00	1.1480	0.00	200.00	52.77
5376	L	CR	SCC	I		0.0901600	29.7656189	mg/kg-dry	1.00	1.1480	0.00	200.00	52.77
5376	L	CU	SCC	I		0.1273900	42.0568122	mg/kg-dry	1.00	1.1480	0.00	200.00	52.77
5376	L	FE	SCC	I		80.5171400	26582.1040489	mg/kg-dry	1.00	1.1480	0.00	200.00	52.77
5376	L	K	SCC	I		4.6954700	1550.1726974	mg/kg-dry	1.00	1.1480	0.00	200.00	52.77
5376	L	MG	SCC	I		11.1679100	3686.9981426	mg/kg-dry	1.00	1.1480	0.00	200.00	52.77
5376	L	MN	SCC	I		1.7608100	581.3176503	mg/kg-dry	1.00	1.1480	0.00	200.00	52.77
5376	L	MO	SCC	I	U	0.0050000	1.6507109	mg/kg-dry	1.00	1.1480	0.00	200.00	52.77
5376	L	NA	SCC	I		0.1854900	61.2380728	mg/kg-dry	1.00	1.1480	0.00	200.00	52.77
5376	L	NI	SCC	I		0.0887600	29.3034198	mg/kg-dry	1.00	1.1480	0.00	200.00	52.77
5376	L	PB	SCC	I		0.1956100	64.5791116	mg/kg-dry	1.00	1.1480	0.00	200.00	52.77
5376	L	SB	SCC	I	U	0.0500000	16.5071090	mg/kg-dry	1.00	1.1480	0.00	200.00	52.77
5376	L	SE	SCC	I	U	0.0500000	16.5071090	mg/kg-dry	1.00	1.1480	0.00	200.00	52.77
5376	L	SI	SCC	I		9.8650600	3256.8724047	mg/kg-dry	1.00	1.1480	0.00	200.00	52.77
5376	L	SN	SCC	I		0.0353800	11.6804303	mg/kg-dry	1.00	1.1480	0.00	200.00	52.77
5376	L	SR	SCC	I		0.0427100	14.1003725	mg/kg-dry	1.00	1.1480	0.00	200.00	52.77
5376	L	TI	SCC	I		0.6840800	225.8436618	mg/kg-dry	1.00	1.1480	0.00	200.00	52.77
5376	L	TL	SCC	I	U	0.0500000	16.5071090	mg/kg-dry	1.00	1.1480	0.00	200.00	52.77
5376	L	V	SCC	I		0.0739500	24.4140141	mg/kg-dry	1.00	1.1480	0.00	200.00	52.77
5376	L	ZN	SCC	I		1.5728300	519.2575234	mg/kg-dry	1.00	1.1480	0.00	200.00	52.77
5376	MB2	AG	RCC	I	U	0.0030000	0.0030000	mg/L	1.00	0.0000	100.00	100.00	100.00
5376	MB2	AL	RCC	I		0.0249100	0.0249100	mg/L	1.00	0.0000	100.00	100.00	100.00
5376	MB2	AS	RCC	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	100.00
5376	MB2	B	RCC	I		0.0257600	0.0257600	mg/L	1.00	0.0000	100.00	100.00	100.00
5376	MB2	BA	RCC	I	U	0.0010000	0.0010000	mg/L	1.00	0.0000	100.00	100.00	100.00
5376	MB2	BE	RCC	I	U	0.0010000	0.0010000	mg/L	1.00	0.0000	100.00	100.00	100.00
5376	MB2	CA	RCC	I	U	0.0200000	0.0200000	mg/L	1.00	0.0000	100.00	100.00	100.00
5376	MB2	CD	RCC	I	U	0.0020000	0.0020000	mg/L	1.00	0.0000	100.00	100.00	100.00
5376	MB2	CO	RCC	I	U	0.0030000	0.0030000	mg/L	1.00	0.0000	100.00	100.00	100.00
5376	MB2	CR	RCC	I	U	0.0050000	0.0050000	mg/L	1.00	0.0000	100.00	100.00	100.00

JOB	SAMP	ELEMENT	PREPCODE			RAWVALUE	CALCULATED	UNITS	DILUTION	MASS	INITVOL	FINVOL	%SOLIDS
5376	MB2	CU	RCC	I	U	0.0020000	0.0020000	mg/L	1.00	0.0000	100.00	100.00	100.00
5376	MB2	FE	RCC	I	U	0.0200000	0.0200000	mg/L	1.00	0.0000	100.00	100.00	100.00
5376	MB2	K	RCC	I	U	0.4000000	0.4000000	mg/L	1.00	0.0000	100.00	100.00	100.00
5376	MB2	MG	RCC	I	U	0.0200000	0.0200000	mg/L	1.00	0.0000	100.00	100.00	100.00
5376	MB2	MN	RCC	I	U	0.0010000	0.0010000	mg/L	1.00	0.0000	100.00	100.00	100.00
5376	MB2	MO	RCC	I	U	0.0050000	0.0050000	mg/L	1.00	0.0000	100.00	100.00	100.00
5376	MB2	NA	RCC	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	100.00
5376	MB2	NI	RCC	I	U	0.0100000	0.0100000	mg/L	1.00	0.0000	100.00	100.00	100.00
5376	MB2	PB	RCC	I	U	0.0200000	0.0200000	mg/L	1.00	0.0000	100.00	100.00	100.00
5376	MB2	SB	RCC	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	100.00
5376	MB2	SE	RCC	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	100.00
5376	MB2	SI	RCC	I		0.1704000	0.1704000	mg/L	1.00	0.0000	100.00	100.00	100.00
5376	MB2	SN	RCC	I	U	0.0100000	0.0100000	mg/L	1.00	0.0000	100.00	100.00	100.00
5376	MB2	SR	RCC	I	U	0.0010000	0.0010000	mg/L	1.00	0.0000	100.00	100.00	100.00
5376	MB2	TI	RCC	I	U	0.0050000	0.0050000	mg/L	1.00	0.0000	100.00	100.00	100.00
5376	MB2	TL	RCC	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	100.00
5376	MB2	V	RCC	I	U	0.0020000	0.0020000	mg/L	1.00	0.0000	100.00	100.00	100.00
5376	MB2	ZN	RCC	I	U	0.0040000	0.0040000	mg/L	1.00	0.0000	100.00	100.00	100.00
R116	MB	AG	LEN	I	U	0.0030000	0.0030000	mg/L	1.00	0.0000	100.00	100.00	0.00
R116	MB	AL	LEN	I		0.0342900	0.0342900	mg/L	1.00	0.0000	100.00	100.00	0.00
R116	MB	AS	LEN	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
R116	MB	B	LEN	I		0.0222400	0.0222400	mg/L	1.00	0.0000	100.00	100.00	0.00
R116	MB	BA	LEN	I		0.0258300	0.0258300	mg/L	1.00	0.0000	100.00	100.00	0.00
R116	MB	BE	LEN	I	U	0.0010000	0.0010000	mg/L	1.00	0.0000	100.00	100.00	0.00
R116	MB	CA	LEN	I		0.7753900	0.7753900	mg/L	1.00	0.0000	100.00	100.00	0.00
R116	MB	CD	LEN	I	U	0.0020000	0.0020000	mg/L	1.00	0.0000	100.00	100.00	0.00
R116	MB	CO	LEN	I	U	0.0030000	0.0030000	mg/L	1.00	0.0000	100.00	100.00	0.00
R116	MB	CR	LEN	I	U	0.0050000	0.0050000	mg/L	1.00	0.0000	100.00	100.00	0.00
R116	MB	CU	LEN	I	U	0.0020000	0.0020000	mg/L	1.00	0.0000	100.00	100.00	0.00
R116	MB	FE	LEN	I		0.0345000	0.0345000	mg/L	1.00	0.0000	100.00	100.00	0.00
R116	MB	K	LEN	I	U	0.4000000	0.4000000	mg/L	1.00	0.0000	100.00	100.00	0.00
R116	MB	MG	LEN	I		0.2368100	0.2368100	mg/L	1.00	0.0000	100.00	100.00	0.00
R116	MB	MN	LEN	I		0.0021800	0.0021800	mg/L	1.00	0.0000	100.00	100.00	0.00
R116	MB	MO	LEN	I	U	0.0050000	0.0050000	mg/L	1.00	0.0000	100.00	100.00	0.00
R116	MB	NA	LEN	I		1433.3059000	1433.3059000	mg/L	1.00	0.0000	100.00	100.00	0.00
R116	MB	NI	LEN	I	U	0.0100000	0.0100000	mg/L	1.00	0.0000	100.00	100.00	0.00
R116	MB	PB	LEN	I	U	0.0200000	0.0200000	mg/L	1.00	0.0000	100.00	100.00	0.00
R116	MB	SB	LEN	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
R116	MB	SE	LEN	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
R116	MB	SI	LEN	I	U	0.0600000	0.0600000	mg/L	1.00	0.0000	100.00	100.00	0.00
R116	MB	SN	LEN	I	U	0.0100000	0.0100000	mg/L	1.00	0.0000	100.00	100.00	0.00
R116	MB	SR	LEN	I		0.0038700	0.0038700	mg/L	1.00	0.0000	100.00	100.00	0.00
R116	MB	TI	LEN	I	U	0.0050000	0.0050000	mg/L	1.00	0.0000	100.00	100.00	0.00
R116	MB	TL	LEN	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
R116	MB	V	LEN	I	U	0.0020000	0.0020000	mg/L	1.00	0.0000	100.00	100.00	0.00
R116	MB	ZN	LEN	I		0.0323100	0.0323100	mg/L	1.00	0.0000	100.00	100.00	0.00
R116	ADUP	AG	LEN	I	U	0.0030000	0.0030000	mg/L	1.00	0.0000	100.00	100.00	0.00
R116	ADUP	AL	LEN	I		0.1475300	0.1475300	mg/L	1.00	0.0000	100.00	100.00	0.00
R116	ADUP	AS	LEN	I	U	0.0500000	0.0500000	mg/L	1.00	0.0000	100.00	100.00	0.00
R116	ADUP	B	LEN	I		0.9394800	0.9394800	mg/L	1.00	0.0000	100.00	100.00	0.00
R116	ADUP	BA	LEN	I		0.2739600	0.2739600	mg/L	1.00	0.0000	100.00	100.00	0.00
R116	ADUP	BE	LEN	I	U	0.0010000	0.0010000	mg/L	1.00	0.0000	100.00	100.00	0.00
R116	ADUP	CA	LEN	I		232.7310100	232.7310100	mg/L	1.00	0.0000	100.00	100.00	0.00
R116	ADUP	CD	LEN	I		0.0588600	0.0588600	mg/L	1.00	0.0000	100.00	100.00	0.00
R116	ADUP	CO	LEN	I		0.0211000	0.0211000	mg/L	1.00	0.0000	100.00	100.00	0.00

ANALYTICAL RESOURCES INCORPORATED

EPA ICP SAMPLE LOGBOOK

Page 1 of 3 Date: 12-18-96 Analyst: [illegible]

All corrections made by analyst unless otherwise noted. [illegible] 12-18-96

Sample Number	EPA ID	Prep. Code	Dilution	Comments	Edit Label
Std 1 (blk)	SO				
2	S			Std # 756-12	
5	S			-15	
4	S			-14	
3	S			-13	
ICV				755-1	
ICB					
CCV 1				Std # 6686-1	
CCB 1					
CRI					
ICSA			✓		
ICSAB			✓		
CCV 2					
CCB2					
5374 MB	PBS	SCC			
5375 MB	PBW	RCC			
MB1	PBW				
5376 B ~~A~~	MBPF28				
5375 A ~~Asp~~	MCRG07				
Aspk	MCRG07S		✓		
Refl	LCSW		✓		
CCV3					
CCB3					
5376 P-L	MBPF47L	RCC	1/5	Serial dilution	
P	MBPF47				

5000F

Rev.2 11/25/96

ANALYTICAL RESOURCES INCORPORATED

EPA ICP SAMPLE LOGBOOK

Page 2 of 3 Date: 12/15/96 Analyst: [illegible]

All corrections made by analyst unless otherwise noted.

Sample Number	EPA ID	Prep. Code	Dilution	Comments	Edit Label
5376 PDup	MBPF47D	RCC		✓	
Pspk	MBPF47S			✓	
D	MBPF30				
F	MBPF32				
G	MBPF33				
H	MBPE67				
I	MBPF34				
ref2	LCSW		✓		
CCV4					
CCB4					
CQ1					
ICSA					
ICSAB					
CCV5					
CCB5					
5376 Ref1	LCSS	SCC	✓		
Ref1	LCSS		1/2	✓ Ca only PA 12/19/96	
Mspk	MBPF44S			Sb 39.68	
MDup	MBPF44D				
M	MBPF44				
M-L	MBPF44L		1/5	Cu out serial dilution	
MB1	PBS				
CCV6					
CCB6					
5376 J	MBPF35	RCC			

ANALYTICAL
RESOURCES
INCORPORATED

EPA ICP SAMPLE LOGBOOK

Page 3 of 3 Date: 12-18-96 Analyst: [illegible]

All corrections made by analyst unless otherwise noted.

Sample Number	EPA ID	Prep. Code	Dilution	Comments	Edit Label
5376 N	MBPF45	RCC			
O	MBPF~~44~~ 46 12-19-96				
A	MBPF 27	SCC			
C	MBPF 29				
E	MBPF 31				
K	MBPF 42				
L	MBPF 43				
MPost	MBPF44A			95.18R 0.012 mL Sb100 / 10mL Sample	
MB2	PBS				
CCV 7					
CCB 7					
CR1					
ICSA					
ICSAB					
CCV 8					
CCB 8					

[illegible] 12-18-96

5000F

000013 000163

Rev.2
11/25/96

TJA ICP 61
12-18-96

Standardization Rpt. 50 Wed 12-18-96 07:56:51 AM page 1

Method: ICPCLP1 Standard: STD1-Blank

Elem	AG	AL	AS	B	BA	BE	CA
Avge	-.0419	.3976	.0657	.0119	.0005	.0876	-.0033
SDev	.0016	.0111	.0151	.0033	.0008	.0022	.0030
%RSD	3.936	2.791	23.01	27.71	173.2	2.491	89.21
#1	-.0429	.3943	.0600	.0100	.0000	.0900	-.0057
#2	-.0400	.4100	.0829	.0100	.0000	.0871	-.0043
#3	-.0429	.3886	.0543	.0157	.0014	.0857	.0000

Elem	CD	CO	CR	CU	FE	K	MG
Avge	.0162	.0043	.0071	.0419	.0081	-.0995	.0033
SDev	.0044	.0025	.0014	.0008	.0030	.0095	.0036
%RSD	26.96	57.74	20.00	1.968	36.74	9.557	107.9
#1	.0114	.0071	.0071	.0414	.0071	-.1043	.0029
#2	.0200	.0029	.0057	.0429	.0057	-.1057	.0000
#3	.0171	.0029	.0086	.0414	.0114	-.0886	.0071

Elem	MN	MO	NA	NI	PB	SB	SE
Avge	.0014	.0000	.6157	-.0700	.0024	.0195	.0310
SDev	.0000	.0071	.0171	.0351	.0143	.0184	.0186
%RSD	.0000	.0000	2.784	50.11	601.0	94.08	60.24
#1	.0014	.0000	.5986	-.0786	-.0114	.0329	.0329
#2	.0014	.0071	.6157	-.0314	.0014	-.0014	.0486
#3	.0014	-.0071	.6329	-.1000	.0171	.0271	.0114

Elem	SI	SN	SR	TI	TL	V	ZN
Avge	.1510	-.0048	.0629	.0162	-.0881	-.0238	.0114
SDev	.0136	.0033	.0000	.0016	.0073	.0022	.0000
%RSD	8.995	69.28	.0000	10.19	8.322	9.165	.0000
#1	.1371	-.0029	.0629	.0143	-.0943	-.0243	.0114
#2	.1643	-.0086	.0629	.0171	-.0800	-.0214	.0114
#3	.1514	-.0029	.0629	.0171	-.0900	-.0257	.0114

Standardization Rpt. S Wed 12-18-96 08:04:12 AM page 1

Method: ICPCLP1 Standard: STD2

Elem	BA	CA	CD	CO	CR	CU	MN
Avge	51.28	23.54	54.62	24.97	16.85	59.87	29.75
SDev	.22	.09	.21	.09	.07	.27	.12
%RSD	.4282	.4018	.3863	.3453	.3894	.4464	.4186
#1	51.17	23.48	54.44	24.93	16.80	59.79	29.65
#2	51.54	23.65	54.85	25.07	16.92	60.16	29.89
#3	51.15	23.49	54.56	24.91	16.82	59.65	29.73

Elem	V
Avge	62.94
SDev	.31
%RSD	.4928
#1	62.86
#2	63.28
#3	62.68

Standardization Rpt. 5 Wed 12-18-96 08:08:30 AM page 1

Method: ICPCLP1 Standard: STD5

Elem	K
Avge	12.50
SDev	.07
%RSD	.5639
#1	12.45
#2	12.58
#3	12.46

Standardization Rpt. 5 Wed 12-18-96 08:13:09 AM page 1

Method: ICPCLP1 Standard: STD4

Elem	MO	SB	SI	SN	TI
Avge	19.86	16.83	28.82	10.81	55.17
SDev	.20	.11	.08	.08	.24
%RSD	1.003	.6483	.2880	.7534	.4338
#1	19.65	16.71	28.73	10.74	54.92
#2	19.91	16.91	28.84	10.80	55.19
#3	20.04	16.88	28.90	10.90	55.40

Standardization Rpt. 5 Wed 12-18-96 08:18:10 AM page 1

Method: ICPCLP1 Standard: STD3

Elem	AG	AL	AS	B	BE	FE	MG
Avge	3.345	29.45	9.905	24.46	168.6	25.14	7.379
SDev	.003	.08	.005	.09	.6	.06	.021
%RSD	.0889	.2613	.0464	.3632	.3470	.2574	.2812
#1	3.344	29.37	9.901	24.36	168.0	25.07	7.399
#2	3.349	29.51	9.910	24.49	169.1	25.20	7.380
#3	3.343	29.49	9.903	24.53	168.8	25.15	7.357

Elem	NA	NI	PB	SE	SR	TL	ZN
Avge	44.87	53.08	13.30	7.019	48.70	10.64	9.470
SDev	.17	.14	.03	.030	.18	.07	.009
%RSD	.3777	.2694	.2623	.4231	.3742	.6647	.0981
#1	44.70	53.22	13.29	6.984	48.51	10.57	9.461
#2	45.04	53.07	13.34	7.036	48.88	10.64	9.480
#3	44.88	52.94	13.27	7.036	48.70	10.71	9.470

Analysis Report QC Standard Wed 12-18-96 08:44:03 AM page 1

Method: ICPCLP1 Sample Name: ICV Operator: ALA
Run Time: 12/18/96 08:38:44
Comment:
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.4875	1.999	.0044	.0115	2.052	.4541	49.95
SDev	.0038	.011	.0199	.0019	.017	.0038	.29
%RSD	.7869	.5726	453.9	16.18	.8132	.8398	.5805
#1	.4832	1.989	.0174	.0094	2.037	.4507	49.67
#2	.4891	1.996	.0144	.0123	2.049	.4534	49.94
#3	.4904	2.011	-.0185	.0129	2.070	.4583	50.25

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.5067	.5340	.4809	.4965	1.957	51.94	24.93
SDev	.0013	.0043	.0034	.0070	.013	.55	.05
%RSD	.2598	.8091	.7122	1.409	.6737	1.066	.2161
#1	.5053	.5310	.4772	.4890	1.945	51.48	24.95
#2	.5079	.5321	.4815	.4976	1.956	51.79	24.87
#3	.5068	.5390	.4840	.5028	1.971	52.55	24.97

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.4910	.0025	50.63	.4756	4.874	1.055	.0282
SDev	.0043	.0021	.32	.0081	.032	.018	.0278
%RSD	.8868	84.27	.6293	1.701	.6471	1.708	98.53
#1	.4870	.0037	50.35	.4726	4.855	1.034	.0596
#2	.4903	.0001	50.57	.4847	4.857	Q1.067	.0187
#3	.4956	.0036	50.97	.4694	4.911	1.063	.0064

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0025	.0046	.0575	.0005	.0273	.4872	2.977
SDev	.0088	.0046	.0006	.0006	.0161	.0038	.014
%RSD	351.9	100.3	1.012	104.6	58.86	.7844	.4585
#1	-.0068	.0093	.0569	.0001	.0122	.4842	2.963
#2	.0106	.0041	.0575	.0011	.0256	.4858	2.978
#3	.0037	.0002	.0581	.0004	.0442	.4915	2.990

Analysis Report Blank Sample Wed 12-18-96 08:49:27 AM page 1

Method: ICPCLP1 Sample Name: Blank Operator: ALA
Run Time: 12/18/96 08:44:08
Comment: 1UB
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0001	.0100	.0038	.0014	.0006	.0003	.0117
SDev	.0013	.0011	.0118	.0038	.0002	.0001	.0006
%RSD	915.7	11.53	311.4	276.2	24.74	34.77	5.191
#1	.0001	.0107	.0146	.0057	.0007	.0004	.0123
#2	-.0015	.0087	-.0088	-.0014	.0005	.0002	.0117
#3	.0010	.0107	.0056	-.0002	.0007	.0002	.0111

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0004	.0017	.0000	-.0000	.0034	-.1588	.0019
SDev	.0011	.0020	.0026	.0007	.0007	.2043	.0125
%RSD	287.1	115.2	193100.	434600.	19.18	128.6	639.8
#1	.0009	.0029	-.0025	.0006	.0030	-.2987	-.0123
#2	-.0011	-.0006	.0000	-.0008	.0030	-.2533	.0071
#3	-.0009	.0029	.0025	.0002	.0042	.0756	.0110

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0010	.0005	.0020	-.0018	.0090	.0054	.0150
SDev	.0000	.0008	.0066	.0018	.0132	.0231	.0127
%RSD	.0566	174.0	324.1	101.8	145.9	429.7	85.11
#1	.0010	-.0000	.0094	-.0024	.0026	-.0210	.0048
#2	.0010	-.0000	-.0036	-.0032	.0003	.0147	.0293
#3	.0010	.0014	.0003	.0003	H.0242	.0224	.0109

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0010	.0027	-.0000	-.0005	.0053	-.0001	.0020
SDev	.0111	.0073	.0000	.0008	.0069	.0003	.0017
%RSD	1110.	274.0	5.185	153.2	128.7	184.4	86.06
#1	.0091	-.0023	-.0000	.0002	.0036	-.0003	.0030
#2	-.0128	H.0111	-.0000	-.0014	.0129	-.0003	.0000
#3	.0007	-.0008	-.0000	-.0003	-.0005	.0002	.0030

Analysis Report QC Standard Wed 12-18-96 08:54:52 AM page 1

Method: ICPCLP1 Sample Name: CV Operator: ALA
Run Time: 12/18/96 08:49:33 CCV1
Comment:
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.006	5.020	1.979	1.002	1.016	.9645	5.084
SDev	.011	.054	.032	.015	.014	.0127	.048
%RSD	1.059	1.081	1.592	1.522	1.410	1.316	.9453
#1	.9938	4.958	1.953	.9857	1.000	.9501	5.029
#2	1.012	5.043	2.014	1.003	1.020	.9690	5.104
#3	1.013	5.058	1.970	1.016	1.028	.9743	5.119

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.007	1.010	1.010	1.016	4.966	20.04	5.019
SDev	.010	.009	.008	.013	.049	.40	.050
%RSD	1.033	.8976	.8035	1.236	.9882	1.977	1.005
#1	.9958	.9995	1.002	1.002	4.911	19.58	4.978
#2	1.010	1.014	1.011	1.021	4.985	20.26	5.004
#3	1.016	1.016	1.018	1.026	5.004	20.28	5.075

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.015	1.005	2.005	.9943	1.968	1.980	2.009
SDev	.009	.014	.014	.0117	.014	.042	.058
%RSD	.9315	1.399	.6765	1.179	.7027	2.109	2.901
#1	1.004	.9895	1.991	.9820	1.953	1.995	1.952
#2	1.018	1.009	2.008	.9957	1.980	1.933	2.007
#3	1.022	1.017	2.017	1.005	1.970	2.013	2.068

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.020	.9768	.9962	.9894	1.967	1.011	.9967
SDev	.016	.0134	.0145	.0118	.037	.012	.0094
%RSD	.8113	1.375	1.456	1.188	1.878	1.150	.9417
#1	2.001	.9698	.9801	.9761	1.936	.9980	.9861
#2	2.033	.9683	1.000	.9938	1.957	1.015	.9997
#3	2.025	.9923	1.008	.9984	2.008	1.020	1.004

Analysis Report Blank Sample Wed 12-18-96 09:00:16 AM page 1

Method: ICPCLP1 Sample Name: Blank Operator: ALA
Run Time: 12/18/96 08:54:58
Comment: CCB1
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0006	.0066	.0170	.0041	.0006	.0004	.0055
SDev	.0004	.0091	.0285	.0041	.0002	.0002	.0015
%RSD	75.71	138.9	167.4	100.4	24.74	42.61	27.97
#1	.0006	.0018	.0499	H.0080	.0007	.0006	.0057
#2	.0001	.0008	-.0016	.0045	.0007	.0005	.0069
#3	.0010	.0171	.0028	-.0002	.0005	.0002	.0038

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0001	.0029	.0003	.0010	.0038	.0454	.0000
SDev	.0008	.0006	.0013	.0008	.0022	.1736	.0129
%RSD	1234.	19.96	452.7	81.02	56.64	382.7	63990.
#1	-.0001	.0029	-.0008	.0018	.0047	-.0491	.0110
#2	.0010	H.0034	.0000	.0002	.0053	.2457	.0033
#3	-.0006	.0023	.0017	.0011	.0013	-.0605	-.0142

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0010	.0012	-.0030	.0026	.0044	.0003	.0061
SDev	.0000	.0015	.0103	.0109	.0066	.0052	.0118
%RSD	.0628	125.1	343.1	420.5	149.8	1820.	192.2
#1	.0010	.0007	.0071	-.0100	-.0028	-.0031	.0129
#2	.0010	.0029	-.0136	.0094	.0102	.0062	.0129
#3	.0010	-.0000	-.0026	.0083	.0058	-.0023	-.0075

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0063	.0062	.0003	.0003	.0116	.0001	.0010
SDev	.0041	.0040	.0000	.0003	.0088	.0011	.0017
%RSD	64.34	65.61	.0097	115.1	75.87	1210.	173.6
#1	.0081	.0070	.0003	-.0001	.0035	-.0003	.0000
#2	.0017	.0097	.0003	.0004	.0102	-.0007	-.0000
#3	.0091	.0018	.0003	.0004	.0209	.0013	.0030

Analysis Report QC Standard Wed 12-18-96 09:05:40 AM page 1

Method: ICPCLP1 Sample Name: CRI Operator: ALA
Run Time: 12/18/96 09:00:22
Comment:
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0211	.0113	.0091	.0029	.0001	.0096	.0105
SDev	.0012	.0077	.0216	.0042	.0003	.0001	.0018
%RSD	5.729	68.05	237.2	141.0	346.4	1.336	17.33
#1	.0225	.0032	.0012	.0067	.0005	.0096	.0123
#2	.0204	.0121	.0336	-.0015	-.0001	.0095	.0087
#3	.0204	.0185	-.0074	.0037	-.0001	.0097	.0105

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0104	.1052	.0251	.0536	.0147	.2042	.0100
SDev	.0002	.0017	.0010	.0000	.0006	.1794	.0098
%RSD	1.600	1.633	3.928	.0012	3.853	87.90	97.87
#1	.0103	.1069	.0262	.0536	.0153	.3592	.0191
#2	.0103	.1035	.0245	.0536	.0142	.0076	-.0004
#3	.0106	.1052	.0245	.0536	.0147	.2457	.0113

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0315	.0005	-.0003	.0853	.0144	.1184	.0117
SDev	.0006	.0022	.0011	.0050	.0109	.0081	.0293
%RSD	1.760	483.2	346.4	5.902	75.75	6.843	250.7
#1	.0312	.0028	.0003	.0813	.0260	.1277	.0335
#2	.0312	-.0015	.0003	.0910	.0129	.1133	-.0217
#3	.0322	-.0000	-.0016	.0837	.0043	.1141	.0233

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0067	.0017	.0001	.0003	.0296	.1013	.0390
SDev	.0064	.0043	.0002	.0001	.0235	.0010	.0000
%RSD	95.56	253.6	173.5	44.03	79.46	.9950	.0438
#1	.0003	.0035	.0003	.0004	.0389	.1002	.0390
#2	-.0081	.0047	-.0000	.0004	.0470	.1013	.0389
#3	-.0121	-.0032	-.0000	.0002	.0028	.1022	.0390

Analysis Report QC Standard Wed 12-18-96 09:13:41 AM page 1

Method: ICPCLP1 Sample Name: ICSA Operator: ALA
Run Time: 12/18/96 09:08:22
Comment:
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0068	532.7	-.0213	.1172	.0007	.0001	482.9
SDev	.0010	3.4	.0164	.0023	.0000	.0001	1.9
%RSD	14.63	.6429	76.75	1.946	.0000	87.03	.3842
#1	-.0072	529.3	-.0399	.1173	.0007	.0001	481.1
#2	-.0057	532.6	-.0148	.1148	.0007	.0001	482.8
#3	-.0075	536.1	-.0092	.1194	.0007	.0002	484.8

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0014	.0042	.0351	.0183	182.1	-.6843	485.4
SDev	.0011	.0018	.0005	.0026	1.2	.4420	2.1
%RSD	78.47	43.06	1.434	14.15	.6623	64.60	.4300
#1	.0025	.0058	.0357	.0207	180.9	-.4348	483.7
#2	.0003	.0046	.0348	.0185	182.1	-.4234	484.9
#3	.0016	.0023	.0348	.0156	183.4	-1.195	487.7

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0534	.0053	.0876	.0047	.0038	.1002	.0184
SDev	.0015	.0061	.0059	.0050	.0117	.0523	.0832
%RSD	2.787	115.6	6.759	106.7	307.4	52.24	452.7
#1	.0517	.0115	.0943	.0089	.0169	.0610	.0358
#2	.0539	-.0007	.0830	-.0009	-.0058	.0798	.0915
#3	.0546	.0050	.0855	.0061	.0004	.1596	-.0722

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0371	-.0004	.2176	.0048	.0527	-.0010	.0320
SDev	.0013	.0192	.0017	.0002	.1053	.0010	.0017
%RSD	3.539	4627.	.7980	3.446	199.7	92.32	5.193
#1	.0366	-.0191	.2158	.0049	-.0604	-.0006	.0301
#2	.0361	-.0014	.2178	.0046	.0707	-.0004	.0331
#3	.0386	.0193	.2192	.0048	.1479	-.0021	.0329

Analysis Report QC Standard Wed 12-18-96 09:25:51 AM page 1

Method: ICPCLP1 Sample Name: ICSAB Operator: ALA
Run Time: 12/18/96 09:20:32
Comment:
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1820	520.4	.0368	.1171	.4834	.4273	466.4
SDev	.0001	4.6	.0408	.0046	.0047	.0036	3.0
%RSD	.0365	.8898	110.8	3.899	.9802	.8497	.6483
#1	.1820	515.5	.0104	.1140	.4788	.4234	463.0
#2	.1819	521.0	.0838	.1224	.4832	.4279	467.6
#3	.1821	524.8	.0162	.1149	.4882	.4306	468.7

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.9160	.4431	.4600	.4886	178.7	.3365	475.1
SDev	.0095	.0028	.0027	.0032	1.2	.2787	2.9
%RSD	1.041	.6231	.5900	.6608	.6755	82.84	.6091
#1	.9064	.4403	.4569	.4858	177.3	.2231	471.9
#2	.9159	.4431	.4620	.4878	179.0	.6540	475.7
#3	.9255	.4459	.4612	.4921	179.7	.1323	477.5

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.4916	.0009	.0963	.8362	.0286	.5916	.0372
SDev	.0035	.0063	.0039	.0174	.0174	.0588	.0074
%RSD	.7189	690.5	4.027	2.082	60.83	9.931	20.01
#1	.4876	.0053	.0923	.8178	.0482	.5632	.0445
#2	.4930	-.0063	.0965	.8524	.0149	Q.6592	.0297
#3	.4942	.0037	.1001	.8383	.0227	.5525	.0374

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0439	-.0152	.2124	.0047	.1673	.4455	.9135
SDev	.0072	.0120	.0022	.0007	.0572	.0018	.0084
%RSD	16.44	78.86	1.013	14.33	34.21	.4135	.9244
#1	.0392	-.0036	.2102	.0051	.1469	.4434	.9041
#2	.0522	-.0144	.2125	.0051	.2319	.4462	.9159
#3	.0402	-.0276	.2145	.0039	.1230	.4469	.9205

Analysis Report QC Standard Wed 12-18-96 09:33:52 AM page 1

Method: ICPCLP1 Sample Name: CV Operator: ALA
Run Time: 12/18/96 09:28:33 CCV2
Comment:
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.9975	5.038	1.973	.9920	1.001	.9531	5.093
SDev	.0027	.020	.019	.0072	.001	.0031	.023
%RSD	.2757	.4063	.9746	.7222	.0579	.3291	.4529
#1	.9947	5.033	1.956	.9857	1.001	.9499	5.110
#2	.9976	5.060	1.970	.9904	1.000	.9534	5.103
#3	1.000	5.020	1.994	.9998	1.001	.9561	5.067

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.008	1.002	1.003	1.008	4.963	20.02	5.061
SDev	.002	.001	.002	.004	.005	.39	.056
%RSD	.2284	.1320	.1971	.4458	.1004	1.940	1.103
#1	1.006	1.003	1.002	1.006	4.960	20.38	5.125
#2	1.011	1.001	1.002	1.005	4.961	20.07	5.029
#3	1.008	1.003	1.005	1.013	4.969	19.61	5.029

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.003	1.002	1.990	.9944	1.975	1.961	1.992
SDev	.003	.010	.004	.0065	.006	.012	.023
%RSD	.2913	1.026	.2117	.6524	.2815	.6112	1.131
#1	1.001	.9909	1.986	.9884	1.981	1.963	1.966
#2	1.002	1.005	1.995	.9935	1.970	1.972	2.003
#3	1.006	1.011	1.990	1.001	1.973	1.949	2.007

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.005	.9728	.9788	.9775	1.965	.9981	.9952
SDev	.005	.0085	.0015	.0020	.042	.0023	.0040
%RSD	.2526	.8703	.1511	.2055	2.154	.2334	.4035
#1	2.006	.9790	.9775	.9759	1.918	.9962	.9922
#2	2.000	.9632	.9786	.9769	2.001	.9974	.9997
#3	2.010	.9763	.9804	.9798	1.975	1.001	.9936

Analysis Report Blank Sample Wed 12-18-96 09:39:17 AM page 1

Method: ICPCLP1 Sample Name: Blank Operator: ALA
Run Time: 12/18/96 09:33:58
Comment:
Mode: CONC Corr. Factor: 1

CLBZ

All # < CRDL

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0013	H.0515	.0039	.0056	.0008	.0006	H.0427
SDev	.0009	.0246	.0327	.0051	.0002	.0003	.0273
%RSD	68.48	47.73	845.2	90.35	19.25	51.55	63.95
#1	.0010	H.0795	-.0207	H.0080	H.0010	.0009	H.0736
#2	.0006	H.0411	-.0087	H.0092	.0007	.0004	H.0324
#3	.0022	H.0338	.0410	-.0002	.0007	.0004	H.0220

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0001	.0008	-.0006	.0012	.0184	-.0302	H.0368
SDev	.0011	.0022	.0021	.0008	.0112	.3962	.0258
%RSD	1777.	285.7	377.5	70.05	60.89	1310.	70.13
#1	.0003	.0023	.0017	.0011	H.0309	.3251	H.0652
#2	.0010	-.0017	-.0025	.0004	.0150	L-.4574	.0148
#3	-.0011	.0017	-.0008	H.0021	.0093	.0416	H.0303

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H.0014	-.0000	.0013	.0028	-.0025	.0128	-.0020
SDev	.0005	.0012	.0012	.0065	.0135	.0164	.0103
%RSD	33.30	110900.	90.14	233.4	531.0	128.6	502.9
#1	H.0019	.0014	-.0000	-.0040	.0036	.0258	-.0116
#2	H.0014	-.0007	.0016	.0089	-.0180	.0181	-.0034
#3	.0010	-.0007	.0023	.0035	.0068	-.0057	.0088

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0025	.0014	.0003	.0001	-.0045	.0008	.0010
SDev	.0010	.0016	.0000	.0001	.0273	.0013	.0018
%RSD	41.26	114.7	.1733	164.5	605.2	153.3	177.7
#1	.0017	.0032	.0003	.0002	-.0139	.0020	.0030
#2	.0022	.0005	.0003	-.0001	-.0259	.0010	-.0000
#3	.0037	.0004	.0003	.0002	.0263	-.0005	-.0000

Analysis Report Wed 12-18-96 09:44:40 AM page 1

Method: ICPCLP1 Sample Name: 5374_MB SCC Operator: ALA
Run Time: 12/18/96 09:39:22
Comment: PBS
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0004	.0279	.0014	.0049	.0006	.0001	.1080
SDev	.0019	.0098	.0090	.0014	.0003	.0001	.0092
%RSD	451.8	35.34	664.4	27.70	49.49	43.88	8.508
#1	.0014	.0210	.0058	.0057	.0005	.0001	.1015
#2	-.0024	.0234	-.0090	.0033	.0010	.0001	.1040
#3	-.0003	.0391	.0073	.0057	.0005	.0001	.1185

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0005	.0017	.0006	-.0001	.0055	.2042	.0155
SDev	.0006	.0020	.0018	.0011	.0033	.4209	.0056
%RSD	109.1	115.4	311.2	1376.	59.58	206.2	36.10
#1	.0001	.0029	-.0008	.0009	.0036	.1663	.0090
#2	-.0008	.0029	.0026	-.0013	.0036	.6427	.0188
#3	-.0009	-.0006	.0000	.0002	.0093	-.1966	.0187

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0014	.0012	-.0029	-.0015	.0076	.0003	-.0095
SDev	.0000	.0015	.0054	.0031	.0070	.0022	.0114
%RSD	.0152	124.9	185.6	200.7	92.41	827.0	119.1
#1	.0014	-.0000	-.0019	.0002	.0047	-.0014	.0027
#2	.0014	.0029	.0019	-.0051	.0155	.0028	-.0116
#3	.0014	.0007	-.0087	.0003	.0024	-.0006	-.0198

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0548	.0163	-.0000	-.0004	.0281	.0000	.0000
SDev	.0045	.0023	.0000	.0007	.0170	.0003	.0000
%RSD	8.245	13.98	8.507	178.0	60.50	2233.	285.0
#1	.0590	.0189	-.0000	.0004	.0477	.0002	-.0000
#2	.0500	.0150	-.0000	-.0009	.0183	.0002	.0000
#3	.0555	.0150	-.0000	-.0009	.0183	-.0003	-.0000

Analysis Report Wed 12-18-96 09:50:04 AM page 1

Method: ICPCLP1 Sample Name: 5375 MB RCC Operator: ALA
Run Time: 12/18/96 09:44:46
Comment: PBW
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0004	.0251	-.0191	.0234	.0004	.0001	.0144
SDev	.0015	.0063	.0168	.0029	.0004	.0000	.0019
%RSD	351.3	24.96	88.07	12.57	114.6	1.720	12.90
#1	.0018	.0210	-.0323	.0261	.0007	.0001	.0148
#2	-.0011	.0219	-.0248	.0203	-.0001	.0001	.0123
#3	.0006	.0323	-.0002	.0238	.0005	.0001	.0160

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0001	.0006	-.0003	.0011	.0038	-.0302	.0136
SDev	.0006	.0035	.0005	.0017	.0003	.3242	.0207
%RSD	560.5	605.6	173.7	154.5	8.616	1072.	152.9
#1	.0006	.0029	-.0000	.0030	.0036	.3251	.0245
#2	.0003	L-.0034	-.0009	.0006	.0036	-.3100	-.0104
#3	-.0006	.0023	.0000	-.0003	.0042	-.1059	.0265

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0010	-.0005	.0318	-.0042	-.0015	.0014	.0048
SDev	.0000	.0018	.0039	.0035	.0147	.0204	.0143
%RSD	.1307	372.7	12.39	82.78	1012.	1443.	300.2
#1	.0010	-.0007	.0362	-.0008	-.0039	-.0014	-.0055
#2	.0010	-.0022	.0284	-.0040	-.0148	.0190	-.0014
#3	.0010	.0014	.0310	-.0078	.0143	-.0218	.0211

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1440	.0053	.0001	-.0002	.0370	-.0001	.0030
SDev	.0041	.0041	.0002	.0006	.0242	.0002	.0015
%RSD	2.820	77.41	173.7	349.8	65.32	289.6	49.57
#1	.1487	.0044	.0003	.0002	.0343	.0001	.0030
#2	.1412	.0097	-.0000	-.0009	.0143	-.0003	.0046
#3	.1422	.0017	-.0000	.0002	.0624	-.0001	.0015

Analysis Report Wed 12-18-96 09:55:27 AM page 1

Method: ICPCLP1 Sample Name: 5375 MB1 RCC Operator: ALA
Run Time: 12/18/96 09:50:09
Comment: PBW
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0004	.0187	.0224	.0140	.0006	.0002	.0144
SDev	.0005	.0025	.0162	.0021	.0002	.0001	.0025
%RSD	114.2	13.20	72.20	14.64	24.74	57.78	17.59
#1	.0010	.0210	.0381	.0139	.0007	.0001	.0172
#2	.0001	.0161	.0058	.0162	.0007	.0002	.0136
#3	.0001	.0190	.0234	.0121	.0005	.0002	.0123

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0004	.0017	.0009	.0012	.0068	.1021	.0168
SDev	.0008	.0000	.0008	.0012	.0038	.2622	.0019
%RSD	208.6	.2208	99.44	102.6	55.40	256.8	11.50
#1	-.0014	.0017	.0009	.0009	.0059	.4045	.0149
#2	.0001	.0017	.0000	.0002	.0110	-.0605	.0187
#3	.0000	.0017	.0017	.0025	.0036	-.0378	.0168

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0010	.0010	.0183	-.0073	.0058	-.0076	-.0211
SDev	.0000	.0015	.0068	.0048	.0029	.0146	.0156
%RSD	.0488	156.7	37.20	65.80	49.45	190.6	73.91
#1	.0010	.0021	.0261	L-.0127	.0025	-.0099	-.0381
#2	.0010	.0014	.0142	-.0057	.0079	-.0210	-.0177
#3	.0010	-.0007	.0145	-.0035	.0069	.0079	-.0075

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1050	.0070	-.0000	-.0006	.0089	.0005	.0020
SDev	.0040	.0014	.0000	.0003	.0069	.0003	.0018
%RSD	3.835	19.18	17.57	43.00	78.08	54.27	86.46
#1	.1093	.0057	-.0000	-.0006	.0129	.0002	.0031
#2	.1043	.0070	-.0000	-.0003	.0129	.0006	.0030
#3	.1013	.0084	-.0000	-.0009	.0009	.0006	.0000

Analysis Report Wed 12-18-96 10:00:50 AM page 1

Method: ICPCLP1 Sample Name: 5376 B RCC Operator: ALA
Run Time: 12/18/96 09:55:32
Comment: MBPF28
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0003	.2664	.0119	.0383	.0297	.0001	13.50
SDev	.0021	.0130	.0017	.0055	.0000	.0001	.03
%RSD	795.6	4.886	13.98	14.44	.0000	85.47	.1911
#1	.0007	.2638	.0107	.0426	.0297	.0001	13.48
#2	.0011	.2805	.0138	.0403	.0297	.0002	13.52
#3	-.0027	.2549	.0112	.0321	.0297	.0001	13.52

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0001	.0020	-.0000	.0024	.8557	1.648	4.803
SDev	.0012	.0028	.0026	.0010	.0009	.562	.033
%RSD	890.5	140.2	981700.	40.98	.1021	34.10	.6869
#1	-.0001	.0033	-.0000	.0029	.8549	2.094	4.771
#2	.0014	.0039	.0025	.0029	.8555	1.834	4.800
#3	-.0009	-.0012	-.0026	.0012	.8566	1.017	4.837

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0868	.0002	9.097	.0021	.0053	-.0106	.0306
SDev	.0006	.0025	.035	.0063	.0195	.0120	.0324
%RSD	.6380	1622.	.3864	290.5	369.4	113.8	105.9
#1	.0862	.0004	9.083	.0089	.0247	-.0128	-.0061
#2	.0872	.0026	9.071	.0011	.0053	.0024	.0551
#3	.0872	-.0025	9.137	-.0035	-.0142	-.0213	.0428

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.942	.0069	.0556	.0050	-.0027	.0009	.0272
SDev	.011	.0043	.0005	.0004	.0132	.0016	.0000
%RSD	.3902	61.51	.9152	8.934	485.0	182.5	.0847
#1	2.930	.0021	.0553	.0048	.0120	.0014	.0272
#2	2.953	.0100	.0553	.0055	-.0134	.0021	.0272
#3	2.941	.0086	.0561	.0048	-.0067	-.0009	.0272

Analysis Report Wed 12-18-96 10:06:13 AM page 1

Method: ICPCLP1 Sample Name: 5375 A RCC Operator: ALA
Run Time: 12/18/96 10:00:55
Comment: MCRG07
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0010	.0195	.0006	.1329	.5115	-.0000	62.23
SDev	.0006	.0124	.0307	.0033	.0014	.0001	.14
%RSD	63.44	63.61	5343.	2.493	.2686	454.4	.2220
#1	-.0012	.0259	-.0020	.1295	.5100	.0000	62.10
#2	-.0015	.0273	.0325	.1361	.5125	.0000	62.38
#3	-.0003	.0052	-.0287	.1332	.5122	-.0001	62.20

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0008	.0011	.0008	-.0006	93.25	3.202	34.73
SDev	.0014	.0003	.0008	.0007	.38	.146	.19
%RSD	170.3	31.36	100.5	129.2	.4039	4.568	.5462
#1	.0004	.0015	.0017	.0003	92.82	3.161	34.53
#2	-.0006	.0009	.0009	-.0008	93.52	3.365	34.75
#3	L-.0023	.0009	-.0000	-.0011	93.41	3.081	34.90

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.697	.0008	75.30	.0103	-.0048	.0225	.0354
SDev	.023	.0022	.22	.0100	.0140	.0244	.0191
%RSD	.4817	267.8	.2878	96.12	293.1	108.4	53.96
#1	4.671	.0008	75.06	.0201	-.0112	.0436	.0145
#2	4.714	.0030	75.36	.0002	.0113	.0282	.0398
#3	4.706	-.0013	75.48	.0107	-.0145	-.0042	.0519

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	14.64	.0008	.3836	.0007	.0740	.0050	-.0019
SDev	.04	.0023	.0015	.0004	.0320	.0011	.0000
%RSD	.2992	278.0	.3973	53.73	43.26	21.31	.7409
#1	14.59	.0020	.3819	.0008	.0678	.0047	-.0019
#2	14.66	.0023	.3845	.0003	.0455	.0062	-.0019
#3	14.67	-.0018	.3845	.0011	.1086	.0041	-.0019

Analysis Report Wed 12-18-96 10:11:36 AM page 1

Method: ICPCLP1 Sample Name: 5375 ASPK RCC Operator: ALA
Run Time: 12/18/96 10:06:18
Comment: MCRG07S
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0480	1.981	1.979	.1291	2.480	.0469	61.61
SDev	.0014	.007	.016	.0035	.006	.0002	.30
%RSD	2.865	.3456	.7921	2.677	.2377	.4007	.4800
#1	.0472	1.987	1.979	.1263	2.485	.0470	61.87
#2	.0472	1.983	1.963	.1330	2.482	.0470	61.67
#3	.0496	1.973	1.994	.1280	2.474	.0467	61.29

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0471	.4875	.1959	.2476	93.41	3.040	34.49
SDev	.0005	.0023	.0005	.0004	.43	.229	.34
%RSD	1.111	.4686	.2527	.1704	.4572	7.540	.9769
#1	.0474	.4899	.1956	.2480	93.80	2.775	34.88
#2	.0465	.4871	.1964	.2475	93.48	3.172	34.25
#3	.0474	.4854	.1956	.2472	92.96	3.172	34.34

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.146	.0023	75.13	.4866	.4662	.5086	1.977
SDev	.025	.0021	.36	.0041	.0062	.0230	.030
%RSD	.4881	92.89	.4798	.8431	1.329	4.515	1.519
#1	5.169	.0011	75.43	.4820	.4627	.5304	1.975
#2	5.150	.0047	75.24	.4881	.4734	.5106	2.007
#3	5.119	.0010	74.73	.4897	.4626	.4846	1.948

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	14.51	.0048	.3820	.0013	1.932	.4961	.4797
SDev	.06	.0107	.0015	.0003	.031	.0021	.0017
%RSD	.4221	223.5	.3856	21.45	1.620	.4241	.3582
#1	14.56	.0147	.3834	.0010	1.896	.4980	.4807
#2	14.52	-.0066	.3822	.0015	1.955	.4963	.4807
#3	14.44	.0063	.3804	.0014	1.945	.4939	.4777

Analysis Report Wed 12-18-96 10:16:59 AM page 1

Method: ICPCLP1 Sample Name: 5375 REF1 RCC Operator: ALA
Run Time: 12/18/96 10:11:41
Comment: LCSW
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.9894	2.013	1.972	1.025	1.004	.9488	2.032
SDev	.0043	.007	.023	.004	.003	.0021	.005
%RSD	.4319	.3475	1.189	.4118	.2794	.2252	.2540
#1	.9902	2.005	1.995	1.021	1.003	.9472	2.034
#2	.9932	2.018	1.972	1.030	1.007	.9513	2.036
#3	.9848	2.015	1.948	1.024	1.001	.9480	2.026

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.013	.9981	.9963	1.006	1.974	20.29	1.964
SDev	.002	.0040	.0020	.002	.007	.06	.013
%RSD	.1740	.4052	.1977	.2266	.3752	.3078	.6455
#1	1.014	.9973	.9951	1.004	1.974	20.30	1.951
#2	1.014	1.002	.9986	1.008	1.982	20.35	1.976
#3	1.011	.9945	.9952	1.005	1.967	20.23	1.964

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.000	1.001	2.037	.9804	1.975	1.978	1.977
SDev	.001	.006	.014	.0131	.004	.052	.020
%RSD	.1206	.6277	.7040	1.338	.2059	2.622	1.019
#1	.9998	.9937	2.048	.9874	1.979	2.002	1.987
#2	1.001	1.006	2.043	.9886	1.972	2.013	1.954
#3	.9989	1.002	2.021	.9653	1.972	1.918	1.991

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.829	.9628	.9748	.9711	1.995	.9873	.9940
SDev	.012	.0074	.0024	.0022	.054	.0029	.0030
%RSD	.4098	.7684	.2454	.2221	2.708	.2976	.3004
#1	2.831	.9699	.9737	.9704	1.955	.9840	.9940
#2	2.839	.9634	.9775	.9735	2.057	.9895	.9970
#3	2.816	.9552	.9731	.9693	1.974	.9884	.9910

Analysis Report QC Standard Wed 12-18-96 10:22:24 AM page 1

Method: ICPCLP1 Sample Name: CV Operator: ALA
Run Time: 12/18/96 10:17:05
Comment:
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.9914	4.928	1.984	.9885	.9902	.9471	4.991
SDev	.0039	.024	.023	.0035	.0041	.0026	.014
%RSD	.3964	.4837	1.145	.3558	.4144	.2785	.2733
#1	.9896	4.916	1.962	.9881	.9924	.9467	4.994
#2	.9959	4.955	2.007	.9922	.9927	.9499	5.003
#3	.9887	4.913	1.983	.9852	.9855	.9447	4.976

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.001	.9918	.9960	1.000	4.901	20.00	4.939
SDev	.004	.0009	.0015	.005	.016	.11	.032
%RSD	.4376	.0870	.1476	.4877	.3355	.5270	.6475
#1	1.004	.9926	.9952	.9964	4.910	19.92	4.976
#2	1.003	.9920	.9977	1.006	4.911	19.95	4.918
#3	.9959	.9909	.9952	.9986	4.882	20.12	4.924

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.9983	1.000	1.969	.9818	1.968	1.961	1.970
SDev	.0022	.002	.008	.0122	.006	.034	.011
%RSD	.2201	.2310	.4121	1.241	.3071	1.730	.5394
#1	.9988	.9974	1.966	.9863	1.963	1.972	1.976
#2	1.000	1.002	1.979	.9680	1.975	1.923	1.976
#3	.9959	1.001	1.963	.9911	1.966	1.989	1.958

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.996	.9618	.9684	.9670	1.968	.9886	.9892
SDev	.005	.0057	.0038	.0032	.032	.0037	.0027
%RSD	.2511	.5945	.3966	.3350	1.646	.3711	.2679
#1	1.991	.9553	.9701	.9671	2.003	.9856	.9877
#2	2.001	.9657	.9710	.9702	1.939	.9927	.9922
#3	1.996	.9646	.9640	.9637	1.963	.9874	.9876

Analysis Report Blank Sample Wed 12-18-96 10:27:49 AM page 1

Method: ICPCLP1 Sample Name: Blank Operator: ALA
Run Time: 12/18/96 10:22:30
Comment:
Mode: CONC Corr. Factor: 1

CRB3

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0011	.0172	-.0196	.0039	.0006	.0002	.0081
SDev	.0012	.0025	.0277	.0044	.0002	.0000	.0028
%RSD	107.8	14.72	141.3	113.4	24.74	2.358	34.36
#1	.0018	H.0200	.0117	H.0080	.0007	.0002	.0111
#2	-.0003	.0151	-.0410	.0045	.0007	.0002	.0075
#3	.0018	.0165	-.0295	-.0008	.0005	.0002	.0057

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0006	.0021	.0003	.0005	.0053	.1550	.0065
SDev	.0015	.0007	.0013	.0007	.0026	.0886	.0146
%RSD	232.9	31.48	455.9	152.6	49.01	57.15	224.7
#1	.0004	.0029	.0017	.0006	.0076	.2571	H.0207
#2	H.0023	.0017	-.0008	-.0003	.0059	.1096	.0071
#3	-.0007	.0017	.0000	.0011	.0025	.0983	-.0084

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0010	.0010	-.0046	.0003	-.0010	.0139	.0109
SDev	.0000	.0011	.0017	.0002	.0135	.0061	.0162
%RSD	.0542	114.1	35.80	46.18	1339.	44.16	148.8
#1	.0010	.0022	-.0065	.0005	-.0006	.0071	.0048
#2	.0010	.0000	-.0042	.0003	-.0146	.0156	.0293
#3	.0010	.0007	-.0032	.0003	.0123	.0190	-.0014

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0023	.0018	.0003	-.0001	.0089	.0006	-.0015
SDev	.0023	.0048	.0000	.0003	.0120	.0013	.0015
%RSD	98.76	264.4	.0176	302.9	135.5	206.5	99.83
#1	.0037	.0031	.0003	.0002	-.0032	.0018	-.0000
#2	-.0003	-.0035	.0003	-.0001	.0089	.0008	-.0015
#3	.0037	.0058	.0003	-.0003	.0209	-.0007	-.0030

Analysis Report Wed 12-18-96 10:34:22 AM page 1

Method: ICPCLP1 Sample Name: 5376 P-L RCC Operator: ALA
Run Time: 12/18/96 10:29:04
Comment: MBPF47L 1/5 SERIAL DILUTION
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0009	.3976	.0008	.0119	.0077	.0002	2.609
SDev	.0011	.0048	.0053	.0018	.0000	.0001	.007
%RSD	114.7	1.212	642.6	14.82	.0000	58.85	.2562
#1	.0019	.3922	.0052	.0136	.0077	.0002	2.602
#2	-.0002	.4015	-.0050	.0119	.0077	.0002	2.613
#3	.0011	.3991	.0023	.0101	.0077	.0001	2.614

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0002	.0017	.0000	.0006	.4040	.2571	.9628
SDev	.0004	.0006	.0008	.0004	.0006	.1978	.0123
%RSD	227.4	34.19	19880.	58.68	.1416	76.92	1.276
#1	.0001	.0022	.0009	.0009	.4040	.4839	.9699
#2	-.0001	.0011	-.0008	.0002	.4034	.1663	.9487
#3	-.0006	.0017	-.0000	.0007	.4046	.1210	.9699

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0201	.0021	1.340	.0004	.0098	-.0130	.0038
SDev	.0005	.0022	.011	.0062	.0062	.0291	.0220
%RSD	2.389	101.5	.8068	1765.	63.54	223.5	574.5
#1	.0196	.0021	1.328	.0019	.0169	-.0380	.0290
#2	.0201	.0043	1.348	-.0065	.0062	.0190	-.0118
#3	.0206	-.0000	1.345	.0056	.0062	-.0201	-.0057

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.9769	.0032	.0108	.0107	.0074	.0015	.0040
SDev	.0083	.0034	.0000	.0010	.0119	.0006	.0018
%RSD	.8492	107.1	.0011	9.139	159.9	41.17	44.30
#1	.9743	.0058	.0108	.0103	-.0059	.0022	.0030
#2	.9703	-.0007	.0108	.0100	.0115	.0013	.0060
#3	.9862	.0045	.0108	.0119	.0168	.0010	.0030

Analysis Report Wed 12-18-96 10:39:45 AM page 1

Method: ICPCLP1 Sample Name: 5376 P RCC Operator: ALA
Run Time: 12/18/96 10:34:27
Comment: MBPF47
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0004	1.890	.0095	.0417	.0358	.0002	12.92
SDev	.0005	.009	.0287	.0024	.0003	.0001	.03
%RSD	110.9	.4863	301.7	5.669	.7772	73.69	.2090
#1	.0001	1.881	.0121	.0431	.0358	.0000	12.95
#2	-.0007	1.888	-.0204	.0390	.0356	.0003	12.90
#3	-.0007	1.899	.0368	.0431	.0361	.0002	12.92

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0006	.0019	.0025	.0037	2.000	1.924	4.761
SDev	.0005	.0013	.0000	.0004	.003	.207	.080
%RSD	84.98	70.93	.1877	9.674	.1715	10.76	1.671
#1	-.0009	.0003	.0025	.0038	2.000	1.788	4.852
#2	-.0007	.0026	.0025	.0041	1.996	1.822	4.705
#3	-.0000	.0026	.0025	.0034	2.003	2.162	4.726

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0955	-.0002	6.686	-.0032	.0087	.0096	-.0149
SDev	.0006	.0014	.004	.0041	.0087	.0188	.0201
%RSD	.5808	788.8	.0628	127.7	100.4	194.8	135.5
#1	.0951	-.0016	6.690	-.0078	-.0007	.0028	-.0210
#2	.0951	-.0002	6.686	.0003	.0102	.0309	.0076
#3	.0961	.0013	6.682	-.0022	.0166	-.0048	-.0312

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.774	.0064	.0541	.0493	.0101	.0035	.0291
SDev	.027	.0060	.0000	.0025	.0165	.0015	.0017
%RSD	.5742	93.25	.0009	5.071	164.1	43.33	5.971
#1	4.746	.0051	.0541	.0474	-.0038	.0053	.0271
#2	4.775	.0012	.0541	.0482	.0056	.0030	.0301
#3	4.800	.0130	.0541	.0521	.0283	.0023	.0301

Analysis Report Wed 12-18-96 10:45:09 AM page 1

Method: ICPCLP1 Sample Name: 5376 PDUP RCC Operator: ALA
Run Time: 12/18/96 10:39:50
Comment: MBPF47D
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0012	1.940	-.0047	.0366	.0369	.0002	13.00
SDev	.0023	.001	.0294	.0046	.0003	.0000	.07
%RSD	186.5	.0648	623.8	12.48	.8726	2.743	.5689
#1	-.0003	1.941	-.0027	.0390	.0372	.0002	13.08
#2	.0039	1.940	-.0351	.0396	.0367	.0002	12.95
#3	.0001	1.938	.0237	.0314	.0367	.0002	12.96

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0005	.0019	.0017	.0045	2.013	2.064	4.764
SDev	.0008	.0020	.0017	.0011	.010	.253	.049
%RSD	165.7	108.4	100.6	24.01	.5183	12.25	1.022
#1	-.0008	-.0002	-.0000	.0034	2.024	1.777	4.819
#2	.0004	.0020	.0017	.0055	2.004	2.253	4.748
#3	-.0010	.0038	.0034	.0048	2.009	2.162	4.726

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0954	-.0023	6.770	-.0058	.0079	.0218	.0151
SDev	.0006	.0022	.051	.0044	.0029	.0237	.0101
%RSD	.5782	92.38	.7557	74.60	36.27	108.7	66.61
#1	.0961	-.0045	6.828	-.0084	.0067	-.0039	.0198
#2	.0951	-.0002	6.733	-.0083	.0112	.0428	.0219
#3	.0951	-.0023	6.748	-.0008	.0058	.0266	.0035

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.923	.0065	.0547	.0512	.0118	.0040	.0271
SDev	.028	.0070	.0006	.0002	.0294	.0014	.0000
%RSD	.5674	108.1	1.072	.3090	249.1	34.88	.0560
#1	4.954	.0090	.0553	.0513	.0456	.0025	.0271
#2	4.917	.0118	.0541	.0511	-.0024	.0041	.0271
#3	4.899	-.0014	.0547	.0511	-.0078	.0052	.0271

Analysis Report Wed 12-18-96 10:50:32 AM page 1

Method: ICPCLP1 Sample Name: 5376 PSPK RCC Operator: ALA
Run Time: 12/18/96 10:45:13
Comment: MBPF47S
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0504	4.040	1.978	.0457	2.031	.0477	12.83
SDev	.0015	.020	.023	.0010	.013	.0003	.07
%RSD	2.980	.5052	1.172	2.213	.6554	.6826	.5180
#1	.0490	4.018	1.988	.0452	2.019	.0474	12.76
#2	.0520	4.059	1.994	.0451	2.046	.0481	12.89
#3	.0503	4.042	1.951	.0469	2.028	.0477	12.83

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0507	.4994	.2012	.2472	3.062	2.306	4.715
SDev	.0028	.0014	.0026	.0016	.019	.438	.049
%RSD	5.454	.2868	1.287	.6446	.6170	18.98	1.045
#1	.0535	.4978	.1990	.2459	3.042	2.162	4.684
#2	.0508	.4995	.2007	.2490	3.080	1.958	4.771
#3	.0479	.5007	.2041	.2468	3.065	2.798	4.688

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.5877	-.0008	6.709	.4986	.4980	.5098	1.959
SDev	.0032	.0011	.050	.0036	.0117	.0244	.015
%RSD	.5434	138.9	.7411	.7213	2.352	4.783	.7822
#1	.5841	-.0006	6.672	.4957	.5012	.5161	1.950
#2	.5904	-.0020	6.765	.5027	.4850	.4830	1.977
#3	.5885	.0002	6.689	.4975	.5078	.5305	1.950

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.165	.0055	.0543	.0542	1.874	.4975	.5146
SDev	.040	.0050	.0003	.0030	.045	.0048	.0009
%RSD	.7793	90.64	.6227	5.504	2.386	.9662	.1707
#1	5.120	.0113	.0541	.0512	1.822	.4920	.5141
#2	5.197	.0032	.0547	.0541	1.899	.5008	.5140
#3	5.179	.0021	.0541	.0572	1.899	.4997	.5156

Analysis Report Wed 12-18-96 10:55:55 AM page 1

Method: ICPCLP1 Sample Name: 5376 D RCC Operator: ALA
Run Time: 12/18/96 10:50:37
Comment: MBPF30
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0011	.0453	.0067	.0289	.0010	.0001	.0518
SDev	.0017	.0117	.0138	.0012	.0000	.0000	.0047
%RSD	148.9	25.80	205.4	4.220	.0000	10.92	9.154
#1	.0031	.0323	-.0088	.0302	.0010	.0001	.0542
#2	.0002	.0550	.0115	.0279	.0010	.0000	.0548
#3	.0002	.0485	.0175	.0285	.0010	.0001	.0463

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0007	.0019	.0017	.0018	.0542	.0907	.0271
SDev	.0010	.0009	.0008	.0006	.0010	.2061	.0107
%RSD	150.5	45.90	50.13	31.37	1.818	227.2	39.29
#1	-.0003	.0011	.0008	.0021	.0553	.2571	.0381
#2	.0017	.0029	.0025	.0011	.0536	.1550	.0265
#3	.0006	.0017	.0017	.0021	.0536	-.1399	.0168

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0014	.0000	.0456	-.0021	.0040	.0108	.0082
SDev	.0000	.0013	.0076	.0022	.0103	.0135	.0183
%RSD	.0326	441700.	16.75	104.6	258.8	125.4	222.6
#1	.0014	-.0014	.0500	-.0025	-.0061	.0173	-.0034
#2	.0014	.0007	.0500	-.0041	.0144	.0199	-.0013
#3	.0014	.0007	.0368	.0003	.0036	-.0048	.0293

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1859	.0080	.0003	.0005	.0252	.0014	.0025
SDev	.0051	.0055	.0000	.0001	.0172	.0013	.0009
%RSD	2.734	68.49	.0301	28.48	68.19	98.92	34.71
#1	.1895	.0098	.0003	.0004	.0448	.0004	.0015
#2	.1801	.0018	.0003	.0004	.0181	.0029	.0030
#3	.1880	.0123	.0003	.0007	.0127	.0008	.0030

Analysis Report Wed 12-18-96 11:01:19 AM page 1

Method: ICPCLP1 Sample Name: 5376 F RCC Operator: ALA
Run Time: 12/18/96 10:56:00
Comment: MBPF32
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0011	.1347	-.0162	.0324	.0253	.0002	12.99
SDev	.0011	.0036	.0119	.0006	.0002	.0002	.03
%RSD	105.0	2.651	73.66	1.805	.6345	78.75	.2556
#1	.0015	.1365	-.0299	.0324	.0255	.0000	13.02
#2	-.0002	.1306	-.0093	.0329	.0253	.0004	12.99
#3	.0019	.1370	-.0093	.0318	.0253	.0002	12.95

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0012	.0028	.0014	.0035	.3922	1.629	4.258
SDev	.0010	.0011	.0010	.0010	.0013	.228	.019
%RSD	86.41	40.63	69.17	27.74	.3341	13.97	.4548
#1	-.0007	.0028	.0008	.0040	.3929	1.414	4.277
#2	-.0005	.0017	.0025	.0024	.3929	1.607	4.257
#3	L-.0024	.0040	.0009	.0040	.3907	1.868	4.238

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0480	.0006	7.799	.0030	.0114	.0225	.0207
SDev	.0006	.0011	.024	.0065	.0053	.0037	.0272
%RSD	1.154	174.3	.3037	221.8	46.75	16.47	131.2
#1	.0484	.0004	7.803	.0073	.0175	.0250	.0139
#2	.0474	-.0003	7.820	-.0046	.0077	.0242	-.0024
#3	.0484	.0018	7.773	.0062	.0089	.0182	.0507

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.468	.0046	.0514	.0019	.0049	.0023	.0207
SDev	.012	.0053	.0002	.0004	.0077	.0007	.0009
%RSD	.4896	114.4	.3291	20.44	156.4	30.73	4.306
#1	2.482	.0099	.0515	.0024	.0094	.0021	.0196
#2	2.461	.0046	.0515	.0016	.0094	.0017	.0212
#3	2.461	-.0007	.0512	.0019	-.0040	.0031	.0211

Analysis Report Wed 12-18-96 11:06:43 AM page 1

Method: ICPCLP1 Sample Name: 5376 G RCC Operator: ALA
Run Time: 12/18/96 11:01:24
Comment: MBPF33
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0004	.1507	.0045	.0325	.0274	.0002	13.68
SDev	.0006	.0115	.0017	.0009	.0002	.0001	.10
%RSD	176.4	7.644	37.40	2.745	.5871	59.03	.7540
#1	.0011	.1640	.0056	.0335	.0272	.0002	13.56
#2	.0002	.1438	.0026	.0323	.0275	.0001	13.74
#3	-.0002	.1443	.0054	.0317	.0275	.0002	13.74

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0002	.0026	.0009	.0016	.4437	1.554	4.526
SDev	.0009	.0003	.0017	.0004	.0029	.186	.016
%RSD	514.1	12.63	199.8	23.14	.6415	12.00	.3428
#1	.0007	.0022	-.0009	.0017	.4408	1.414	4.540
#2	.0007	.0028	.0009	.0012	.4465	1.482	4.509
#3	-.0009	.0028	.0026	.0019	.4437	1.766	4.527

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0631	.0016	8.361	.0053	-.0045	.0017	.0056
SDev	.0006	.0023	.071	.0043	.0100	.0095	.0123
%RSD	.8794	146.9	.8481	82.21	223.1	546.1	218.2
#1	.0627	-.0011	8.281	.0045	-.0128	-.0090	.0179
#2	.0637	.0033	8.385	.0014	-.0073	.0054	-.0066
#3	.0627	.0025	8.416	.0099	.0067	.0088	.0056

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.661	.0055	.0544	.0030	.0031	.0013	.0211
SDev	.017	.0042	.0005	.0003	.0275	.0003	.0000
%RSD	.6240	77.46	.9320	8.393	901.4	18.83	.0750
#1	2.643	.0072	.0538	.0032	.0320	.0014	.0212
#2	2.676	.0085	.0547	.0027	-.0228	.0010	.0212
#3	2.663	.0006	.0547	.0030	-.0001	.0015	.0211

Analysis Report Wed 12-18-96 11:12:07 AM page 1

Method: ICPCLP1 Sample Name: 5376 H RCC Operator: ALA
Run Time: 12/18/96 11:06:48
Comment: MBPE67
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0004	.7875	-.0010	.0486	.0384	.0002	11.89
SDev	.0005	.0069	.0114	.0021	.0003	.0001	.02
%RSD	131.9	.8742	1159.	4.350	.8367	28.47	.1327
#1	-.0006	.7803	-.0067	.0510	.0381	.0001	11.88
#2	-.0006	.7882	-.0084	.0469	.0386	.0002	11.91
#3	.0002	.7941	.0122	.0480	.0386	.0002	11.88

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0005	.0043	.0023	.0042	2.539	3.263	6.143
SDev	.0020	.0006	.0005	.0015	.006	.138	.011
%RSD	428.2	13.14	21.71	36.60	.2377	4.215	.1794
#1	-.0008	.0038	.0017	.0048	2.532	3.183	6.152
#2	L-.0024	.0049	.0025	.0024	2.544	3.421	6.147
#3	.0017	.0043	.0025	.0053	2.540	3.183	6.131

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.2421	-.0002	13.14	.0004	.0169	-.0113	.0094
SDev	.0010	.0014	.01	.0040	.0102	.0136	.0112
%RSD	.4124	633.9	.1093	955.3	60.43	120.2	119.7
#1	.2410	-.0002	13.13	.0003	.0054	-.0246	.0203
#2	.2429	.0012	13.16	.0045	.0248	-.0119	-.0022
#3	.2424	-.0017	13.14	-.0035	.0205	.0026	.0101

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.887	.0045	.0626	.0191	.0268	.0035	.0280
SDev	.013	.0007	.0005	.0004	.0310	.0014	.0017
%RSD	.2703	16.14	.8118	2.355	115.6	41.77	6.217
#1	4.874	.0053	.0623	.0194	-.0088	.0043	.0270
#2	4.900	.0040	.0632	.0194	.0473	.0043	.0300
#3	4.888	.0041	.0623	.0186	.0420	.0018	.0270

Analysis Report Wed 12-18-96 11:17:31 AM page 1

Method: ICPCLP1 Sample Name: 5376-I-RCC Operator: ALA
Run Time: 12/18/96 11:12:12
Comment: MBPF34
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0013	.0795	.0126	.0259	.0010	.0001	.0633
SDev	.0009	.0026	.0212	.0003	.0000	.0001	.0021
%RSD	67.81	3.238	169.0	1.297	.0000	90.36	3.322
#1	.0023	.0810	.0262	.0261	.0010	.0001	.0645
#2	.0010	.0810	-.0119	.0261	.0010	.0002	.0645
#3	.0006	.0765	.0234	.0255	.0010	.0001	.0609

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0008	.0015	.0014	.0038	.1332	.0416	.0323
SDev	.0003	.0003	.0005	.0009	.0000	.1487	.0051
%RSD	31.95	21.86	34.83	22.90	.0006	357.7	15.89
#1	.0011	.0011	.0008	.0047	.1332	.1777	.0342
#2	.0008	.0017	.0017	.0030	.1332	.0643	.0265
#3	.0006	.0017	.0017	.0035	.1332	-.1172	.0362

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0033	.0005	.0764	.0005	-.0019	.0083	.0145
SDev	.0000	.0015	.0037	.0036	.0056	.0295	.0457
%RSD	.0051	309.9	4.805	681.4	303.3	353.3	316.1
#1	.0033	-.0007	.0775	.0008	.0024	-.0004	-.0380
#2	.0033	.0000	.0794	-.0032	.0003	-.0157	.0458
#3	.0033	.0022	.0723	.0040	-.0082	.0412	.0356

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.2481	.0076	.0003	.0011	.0027	.0012	.0076
SDev	.0040	.0033	.0000	.0001	.0067	.0003	.0000
%RSD	1.623	44.16	.0134	13.27	253.0	27.72	.1764
#1	.2458	.0111	.0003	.0012	.0018	.0015	.0075
#2	.2528	.0044	.0003	.0012	-.0036	.0013	.0076
#3	.2458	.0072	.0003	.0010	.0098	.0008	.0075

Analysis Report Wed 12-18-96 11:22:55 AM page 1

Method: ICPCLP1 Sample Name: 5376 REF2 RCC Operator: ALA
Run Time: 12/18/96 11:17:36
Comment: LCSW
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.9842	2.001	1.964	.9954	1.0000	.9474	2.006
SDev	.0059	.008	.057	.0029	.00529	.0060	.009
%RSD	.6016	.4121	2.894	.2954	.5293	.6345	.4405
#1	.9784	1.992	1.903	.9923	.9941	.9412	1.996
#2	.9902	2.002	2.016	.9981	1.004	.9532	2.013
#3	.9839	2.008	1.972	.9958	1.001	.9479	2.009

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.006	.9911	.9937	.9805	1.946	19.99	1.975
SDev	.003	.0036	.0040	.0039	.011	.15	.018
%RSD	.3211	.3584	.4050	.3924	.5583	.7375	.9017
#1	1.002	.9871	.9892	.9769	1.935	20.16	1.985
#2	1.007	.9922	.9969	.9846	1.957	19.91	1.955
#3	1.009	.9939	.9952	.9800	1.947	19.90	1.986

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.9922	.9997	2.002	.9843	1.957	1.941	2.021
SDev	.0049	.0079	.022	.0087	.011	.022	.060
%RSD	.4912	.7924	1.108	.8832	.5769	1.117	2.962
#1	.9869	.9915	1.986	.9791	1.950	1.942	1.974
#2	.9965	1.007	2.027	.9944	1.952	1.962	2.001
#3	.9931	1.000	1.992	.9796	1.970	1.919	2.089

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.445	.9715	.9735	.9686	1.932	.9849	.9870
SDev	.014	.0030	.0052	.0062	.040	.0047	.0046
%RSD	.5668	.3083	.5298	.6419	2.045	.4781	.4657
#1	2.432	.9698	.9681	.9618	1.888	.9796	.9820
#2	2.460	.9698	.9784	.9740	1.940	.9886	.9910
#3	2.443	.9750	.9740	.9701	1.966	.9865	.9880

Analysis Report QC Standard Wed 12-18-96 11:28:20 AM page 1

Method: ICPCLP1 Sample Name: CV Operator: ALA
Run Time: 12/18/96 11:23:00 cerix
Comment:
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.9936	4.919	1.983	.9930	.9987	.9557	5.008
SDev	.0026	.021	.022	.0089	.0057	.0056	.019
%RSD	.2574	.4248	1.101	.9009	.5718	.5812	.3765
#1	.9934	4.931	1.982	.9881	.9988	.9545	5.010
#2	.9912	4.895	1.962	.9875	.9930	.9508	4.989
#3	.9963	4.932	2.005	1.003	1.004	.9618	5.026

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.009	.9968	.9994	.9831	4.909	20.37	4.919
SDev	.002	.0054	.0034	.0070	.034	.34	.063
%RSD	.2366	.5400	.3415	.7139	.6988	1.672	1.285
#1	1.009	.9949	.9994	.9800	4.896	20.04	4.938
#2	1.006	.9926	.9960	.9783	4.883	20.72	4.848
#3	1.011	1.003	1.003	.9912	4.948	20.35	4.971

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.000	1.008	1.971	.9943	1.983	1.980	2.094
SDev	.004	.010	.007	.0116	.006	.054	.037
%RSD	.3992	1.033	.3604	1.162	.2810	2.708	1.769
#1	.9988	1.001	1.971	.9820	1.980	1.925	2.134
#2	.9969	1.002	1.963	.9962	1.979	1.983	2.060
#3	1.005	1.020	1.978	1.005	1.990	2.032	2.089

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.010	.9755	.9740	.9724	1.975	.9902	.9927
SDev	.008	.0008	.0051	.0053	.029	.0032	.0046
%RSD	.3946	.0811	.5200	.5475	1.472	.3177	.4637
#1	2.004	.9749	.9731	.9720	1.992	.9888	.9938
#2	2.007	.9764	.9695	.9673	1.991	.9879	.9877
#3	2.019	.9752	.9795	.9779	1.941	.9937	.9967

Analysis Report Blank Sample Wed 12-18-96 11:33:45 AM page 1

Method: ICPCLP1 Sample Name: Blank Operator: ALA
Run Time: 12/18/96 11:28:25
Comment: CRB 4
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0001	.0121	-.0029	.0035	.0008	.0006	.0047
SDev	.0013	.0026	.0191	.0043	.0002	.0001	.0019
%RSD	886.9	21.36	650.6	122.9	19.25	15.23	39.84
#1	.0014	.0136	.0175	.0051	H.0010	.0007	.0063
#2	-.0011	.0091	-.0204	-.0014	.0007	.0006	.0026
#3	.0001	.0136	-.0060	H.0068	.0007	.0006	.0051

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0002	.0017	.0006	-.0002	.0099	-.1437	.0007
SDev	.0009	.0030	.0013	.0006	.0118	.1458	.0157
%RSD	546.7	176.7	228.7	252.4	119.9	101.5	2388.
#1	-.0005	.0029	.0009	.0004	.0036	-.0378	.0033
#2	.0008	-.0017	-.0008	-.0008	.0025	-.3100	-.0161
#3	-.0008	H.0040	.0017	-.0003	H.0235	-.0832	.0149

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0010	.0005	-.0054	.0032	-.0025	.0003	-.0034
SDev	.0005	.0008	.0043	.0045	.0107	.0223	.0221
%RSD	50.33	170.5	80.57	139.7	435.0	7672.	651.3
#1	H.0014	.0014	-.0036	-.0016	.0026	-.0091	.0211
#2	.0010	.0000	-.0103	.0073	-.0148	-.0159	-.0095
#3	.0005	.0000	-.0023	.0040	.0048	.0258	-.0218

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0017	.0062	.0003	-.0005	.0009	.0002	-.0020
SDev	.0033	.0028	.0000	.0004	.0109	.0008	.0018
%RSD	199.8	45.54	.0117	76.43	1275.	533.1	86.77
#1	-.0053	.0070	.0003	-.0001	.0129	.0011	.0000
#2	-.0008	.0030	.0003	-.0009	-.0084	-.0005	-.0031
#3	.0012	.0085	.0003	-.0006	-.0019	-.0001	-.0030

Analysis Report QC Standard Wed 12-18-96 11:41:27 AM page 1

Method: ICPCLP1 Sample Name: CRI Operator: ALA
Run Time: 12/18/96 11:36:08
Comment:
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0218	.0044	.0230	.0041	.0001	.0096	.0089
SDev	.0011	.0057	.0147	.0039	.0003	.0001	.0024
%RSD	4.861	128.4	64.15	94.60	346.4	.5203	27.59
#1	.0208	.0042	.0366	.0061	.0005	.0096	.0111
#2	.0230	-.0012	.0251	-.0004	-.0001	.0096	.0063
#3	.0217	.0102	.0073	.0067	-.0001	.0096	.0093

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0109	.1052	.0237	.0514	.0128	-.0491	.0009
SDev	.0014	.0023	.0022	.0010	.0012	.0907	.0143
%RSD	13.25	2.173	9.502	1.934	9.264	184.6	1515.
#1	.0093	.1052	.0262	.0503	.0142	.0416	.0171
#2	.0120	.1029	.0220	.0522	.0119	-.1399	-.0042
#3	.0115	.1075	.0228	.0517	.0125	-.0491	-.0100

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0320	-.0000	-.0033	.0879	-.0014	.1189	.0349
SDev	.0007	.0019	.0061	.0046	.0132	.0314	.0190
%RSD	2.291	6357.	181.6	5.201	944.2	26.39	54.46
#1	.0326	.0021	-.0087	.0861	.0129	.0971	.0131
#2	.0312	-.0015	.0032	.0845	-.0130	.1048	.0478
#3	.0321	-.0007	-.0045	.0931	-.0041	.1549	.0437

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0027	-.0036	-.0000	.0003	.0309	.1015	.0435
SDev	.0075	.0086	.0000	.0001	.0061	.0005	.0000
%RSD	282.1	237.9	27.55	59.12	19.82	.4976	.0360
#1	-.0037	.0047	-.0000	.0002	.0256	.1009	.0435
#2	.0053	-.0125	-.0000	.0004	.0376	.1018	.0435
#3	-.0096	-.0031	-.0000	.0002	.0296	.1018	.0435

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Analysis Report QC Standard Wed 12-18-96 11:49:27 AM page 1

Method: ICPCLP1 Sample Name: ICSA Operator: ALA
Run Time: 12/18/96 11:44:08
Comment:
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0035	525.3	-.0344	.1261	.0022	.0002	473.2
SDev	.0007	3.1	.0511	.0053	.0002	.0001	1.9
%RSD	20.22	.5807	148.3	4.191	7.217	61.34	.3970
#1	-.0029	522.8	-.0387	.1239	.0021	.0000	471.2
#2	-.0032	524.3	.0186	.1222	.0024	.0002	473.4
#3	-.0043	528.7	-.0832	.1321	.0021	.0002	474.9

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0005	.0031	.0379	.0187	179.7	-.4385	477.2
SDev	.0013	.0018	.0013	.0006	1.0	.3334	2.2
%RSD	232.2	58.15	3.385	3.168	.5370	76.03	.4637
#1	-.0015	.0048	.0382	.0180	178.8	-.3440	475.5
#2	-.0011	.0031	.0390	.0191	179.6	-.1626	476.4
#3	.0009	.0013	.0365	.0190	180.7	-.8090	479.7

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0545	.0059	.0939	.0004	.0061	.1118	-.0882
SDev	.0002	.0060	.0020	.0067	.0087	.0369	.1154
%RSD	.3939	101.8	2.146	1900.	141.8	33.01	130.9
#1	.0547	.0098	.0955	-.0046	.0124	.1526	.0447
#2	.0545	-.0010	.0946	.0080	.0097	.0808	-.1635
#3	.0543	.0089	.0917	-.0023	-.0038	.1019	-.1457

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0316	.0099	.2134	.0055	.1389	.0002	.0323
SDev	.0056	.0114	.0017	.0001	.0556	.0026	.0017
%RSD	17.83	115.3	.7818	2.267	40.06	1427.	5.127
#1	.0351	.0197	.2124	.0054	.0765	.0016	.0304
#2	.0346	-.0026	.2124	.0056	.1567	.0018	.0333
#3	.0251	.0126	.2153	.0055	.1834	-.0028	.0332

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Analysis Report QC Standard Wed 12-18-96 12:01:59 PM page 1

Method: ICPCLP1 Sample Name: ICSAB Operator: ALA
Run Time: 12/18/96 11:56:40
Comment:
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1774	509.0	.0590	.1182	.4767	.4220	458.1
SDev	.0005	3.7	.0165	.0043	.0042	.0029	2.7
%RSD	.3061	.7200	27.90	3.636	.8772	.6895	.5817
#1	.1768	506.0	.0450	.1150	.4726	.4191	455.6
#2	.1773	513.0	.0772	.1166	.4810	.4249	460.9
#3	.1779	507.9	.0549	.1231	.4765	.4220	457.9

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.9105	.4355	.4544	.4689	175.9	-.1323	464.5
SDev	.0063	.0023	.0022	.0044	1.1	.0944	2.8
%RSD	.6949	.5255	.4932	.9345	.6460	71.37	.5938
#1	.9051	.4359	.4535	.4642	174.8	-.0265	463.6
#2	.9175	.4375	.4569	.4729	177.0	-.2079	467.5
#3	.9090	.4330	.4527	.4697	175.9	-.1626	462.2

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.4833	.0010	.0913	.8213	.0230	.5772	.0847
SDev	.0034	.0013	.0062	.0198	.0146	.0295	.0359
%RSD	.6953	129.4	6.742	2.410	63.33	5.108	42.42
#1	.4800	-.0001	.0881	.8019	.0398	.5648	.0467
#2	.4868	.0006	.0875	.8205	.0165	.5559	.1181
#3	.4832	.0024	.0984	.8415	.0129	.6108	.0892

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0377	-.0008	.2084	.0051	.2061	.4358	.9053
SDev	.0018	.0169	.0018	.0007	.0093	.0035	.0052
%RSD	4.827	2030.	.8377	12.84	4.503	.7938	.5700
#1	.0362	.0162	.2068	.0048	.2138	.4324	.8999
#2	.0397	-.0012	.2103	.0046	.2088	.4394	.9102
#3	.0372	-.0175	.2080	.0059	.1958	.4357	.9057

Analysis Report QC Standard Wed 12-18-96 12:10:00 PM page 1

Method: ICPCLP1 Sample Name: CV Operator: ALA
Run Time: 12/18/96 12:04:41
Comment: CCV5
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.003	5.018	2.006	.9887	1.019	.9556	5.027
SDev	.009	.029	.014	.0087	.008	.0074	.022
%RSD	.9001	.5823	.6842	.8836	.7752	.7712	.4388
#1	.9929	4.985	1.991	.9787	1.010	.9473	5.001
#2	1.008	5.041	2.017	.9922	1.022	.9580	5.037
#3	1.009	5.028	2.011	.9951	1.025	.9614	5.042

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.025	1.003	1.004	.9867	4.945	20.44	5.029
SDev	.004	.002	.005	.0055	.026	.31	.036
%RSD	.3966	.2023	.4733	.5589	.5275	1.504	.7104
#1	1.021	1.001	.9986	.9804	4.915	20.15	5.069
#2	1.026	1.004	1.005	.9910	4.956	20.41	5.015
#3	1.029	1.005	1.008	.9886	4.964	20.76	5.002

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.9998	1.012	2.007	.9880	2.000	2.055	2.067
SDev	.0063	.013	.018	.0036	.016	.022	.051
%RSD	.6353	1.235	.8836	.3686	.8191	1.092	2.489
#1	.9926	.9981	1.986	.9846	1.993	2.059	2.019
#2	1.002	1.017	2.018	.9876	1.988	2.030	2.122
#3	1.005	1.022	2.016	.9919	2.019	2.074	2.060

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.006	.9665	.9883	.9850	1.994	.9917	1.004
SDev	.013	.0067	.0074	.0081	.025	.0052	.007
%RSD	.6285	.6937	.7465	.8200	1.244	.5190	.6888
#1	1.992	.9648	.9798	.9759	1.996	.9858	.9968
#2	2.010	.9739	.9927	.9881	1.968	.9939	1.006
#3	2.017	.9608	.9924	.9912	2.017	.9953	1.010

Analysis Report Blank Sample Wed 12-18-96 12:15:25 PM page 1

Method: ICPCLP1 Sample Name: Blank Operator: ALA
Run Time: 12/18/96 12:10:06
Comment: CCB5
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0006	H.0205	.0068	.0043	.0008	.0004	.0144
SDev	.0017	.0017	.0067	.0030	.0002	.0001	.0036
%RSD	296.1	8.228	98.58	70.30	19.25	21.28	24.75
#1	.0023	H.0215	.0029	.0050	H.0010	.0006	.0184
#2	-.0011	.0186	.0030	.0010	.0007	.0004	.0129
#3	.0006	H.0215	.0145	H.0068	.0007	.0004	.0117

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0004	.0015	.0006	.0003	.0192	-.0605	-.0045
SDev	.0009	.0003	.0018	.0015	.0181	.2164	.0103
%RSD	234.9	21.67	316.8	453.8	94.46	357.7	225.9
#1	-.0009	.0011	-.0000	.0016	H.0400	-.2873	-.0162
#2	.0007	.0017	-.0009	-.0013	.0076	-.0378	-.0007
#3	-.0010	.0017	.0025	.0006	.0099	.1437	.0032

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H.0011	-.0022	-.0067	-.0029	.0018	-.0042	.0395
SDev	.0003	.0026	.0057	.0061	.0063	.0194	.0106
%RSD	24.62	120.1	85.24	212.7	346.5	458.5	26.78
#1	H.0014	-.0014	-.0032	-.0051	-.0018	-.0005	.0273
#2	.0010	L-.0050	-.0132	-.0075	-.0018	-.0252	.0456
#3	.0010	-.0000	-.0036	.0040	.0090	.0130	.0456

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0003	.0018	.0003	.0002	-.0014	.0012	.0015
SDev	.0141	.0027	.0000	.0005	.0194	.0007	.0026
%RSD	4157.	153.6	.0225	297.7	1379.	59.57	171.2
#1	.0156	.0018	.0003	.0007	-.0139	.0019	.0030
#2	-.0123	-.0009	.0003	-.0003	.0209	.0006	-.0015
#3	-.0023	.0044	.0003	.0002	-.0112	.0011	.0030

Analysis Report Wed 12-18-96 12:20:49 PM page 1

Method: ICPCLP1 Sample Name: 5376 REF1 SCC Operator: ALA
Run Time: 12/18/96 12:15:30
Comment: LCSS
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1098	1.587	4.899	.0559	.0267	.0867	H846.7
SDev	.0015	.025	.063	.0034	.0002	.0009	7.5
%RSD	1.359	1.593	1.287	6.073	.6014	1.014	.8830
#1	.1084	1.559	4.829	.0540	.0266	.0858	H839.0
#2	.1114	1.609	4.917	.0598	.0266	.0876	H853.9
#3	.1096	1.592	4.951	.0539	.0269	.0868	H847.2

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.2085	.7055	.4785	33.92	101.1	.0076	527.1
SDev	.0049	.0039	.0044	.40	1.0	.2564	5.0
%RSD	2.339	.5570	.9114	1.169	1.016	3391.	.9529
#1	.2030	.7027	.4737	33.51	100.0	.1777	522.0
#2	.2104	.7100	.4822	34.30	102.1	-.2873	532.1
#3	.2122	.7038	.4797	33.96	101.3	.1323	527.1

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.9999	.2457	.1420	.2621	1.031	1.123	.1117
SDev	.0102	.0044	.0038	.0137	.008	.010	.0470
%RSD	1.018	1.786	2.680	5.206	.7447	.8904	42.09
#1	.9890	.2412	.1388	.2522	1.031	1.114	.1127
#2	1.009	.2499	.1462	.2777	1.023	1.120	.1582
#3	1.002	.2459	.1411	.2565	1.038	1.134	.0642

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.601	.0396	.2581	.0937	.2617	.3306	.8068
SDev	.033	.0082	.0031	.0027	.0408	.0034	.0090
%RSD	1.256	20.69	1.200	2.859	15.61	1.016	1.110
#1	2.570	.0479	.2549	.0908	.2378	.3268	.7966
#2	2.635	.0316	.2611	.0960	.3088	.3331	.8135
#3	2.596	.0392	.2583	.0943	.2384	.3319	.8102

Analysis Report Wed 12-18-96 12:31:24 PM page 1

Method: ICPCLP1 Sample Name: 5376 REF1 SCC Operator: ALA
Run Time: 12/18/96 12:26:06
Comment: LCSS 1/2 DILUTION
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0567	.8058	2.597	.0258	.0139	.0465	454.9
SDev	.0006	.0051	.053	.0036	.0002	.0003	2.8
%RSD	1.146	.6280	2.044	13.87	1.155	.6208	.6124
#1	.0565	.8000	2.535	.0221	.0138	.0461	451.8
#2	.0562	.8079	2.628	.0293	.0138	.0466	457.3
#3	.0575	.8094	2.626	.0259	.0141	.0466	455.6

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1122	.3767	.2544	17.35	53.97	.0265	279.2
SDev	.0014	.0023	.0013	.15	.41	.2058	1.4
%RSD	1.274	.6077	.5090	.8709	.7583	777.8	.4958
#1	.1109	.3743	.2530	17.20	53.51	.1777	277.6
#2	.1121	.3788	.2547	17.50	54.28	.1096	280.2
#3	.1137	.3771	.2555	17.35	54.14	-.2079	279.8

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.5296	.1300	.0715	.1463	.5696	.6437	.1694
SDev	.0043	.0019	.0075	.0120	.0094	.0174	.0468
%RSD	.8206	1.439	10.41	8.212	1.656	2.710	27.63
#1	.5246	.1293	.0684	.1560	.5657	.6607	.1480
#2	.5321	.1321	.0662	.1329	.5803	.6445	.1370
#3	.5321	.1285	.0800	.1501	.5627	.6259	.2230

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.348	.0174	.1339	.0486	.1634	.1739	.4356
SDev	.015	.0095	.0010	.0010	.0225	.0013	.0048
%RSD	1.104	54.43	.7321	1.975	13.77	.7332	1.112
#1	1.330	.0147	.1329	.0477	.1495	.1724	.4306
#2	1.355	.0096	.1348	.0496	.1513	.1748	.4402
#3	1.357	.0280	.1340	.0484	.1894	.1744	.4361

Analysis Report Wed 12-18-96 12:42:00 PM page 1

Method: ICPCLP1 Sample Name: 5376 MSPK SCC Operator: ALA
Run Time: 12/18/96 12:36:41
Comment: MBPF44S
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm N/R	ppm	ppm	ppm	ppm	ppm
Avge	.0511	34.35	1.953	.0335	2.344	.0502	10.05
SDev	.0003	.31	.004	.0011	.025	.0001	.08
%RSD	.6948	.9031	.2294	3.374	1.046	.1605	.7828
#1	.0507	34.01	1.958	.0329	2.319	.0501	9.966
#2	.0512	34.39	1.952	.0348	2.345	.0503	10.07
#3	.0513	34.63	1.950	.0329	2.368	.0503	10.12

Elem	CD	CO	CR	CU	FE N/R	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0581	.5408	.2756	.3784	56.85	3.558	7.933
SDev	.0003	.0049	.0026	.0031	.50	.241	.081
%RSD	.4894	.9010	.9388	.8307	.8738	6.785	1.019
#1	.0578	.5355	.2727	.3748	56.31	3.818	7.844
#2	.0581	.5417	.2761	.3797	56.95	3.512	7.956
#3	.0584	.5451	.2778	.3807	57.28	3.342	8.000

Elem	MN	MO	NA	NI	PB	SB 39.568	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.507	.0022	.2495	.5569	.6445	.1978	1.968
SDev	.022	.0011	.0026	.0051	.0133	.0242	.062
%RSD	.8787	50.13	1.027	.9198	2.068	12.21	3.154
#1	2.482	.0024	.2485	.5567	.6453	.2253	1.909
#2	2.513	.0031	.2476	.5620	.6307	.1800	1.962
#3	2.525	.0010	.2524	.5518	.6574	.1880	2.032

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	9.308	.0385	.0267	.5590	1.840	.5569	2.011
SDev	.068	.0056	.0003	.0053	.063	.0043	.024
%RSD	.7353	14.61	1.264	.9558	3.430	.7819	1.181
#1	9.232	.0322	.0265	.5534	1.768	.5521	1.986
#2	9.326	.0402	.0265	.5596	1.865	.5581	2.016
#3	9.365	.0430	.0271	.5640	1.887	.5605	2.033

Analysis Report Wed 12-18-96 12:47:23 PM page 1

Method: ICPCLP1 Sample Name: 5376 MDUP SCC Operator: ALA
Run Time: 12/18/96 12:42:05
Comment: MBPF44D
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0034	34.55	.0164	.0395	.3069	.0042	10.27
SDev	.0011	.15	.0150	.0045	.0019	.0001	.05
%RSD	31.46	.4233	91.36	11.34	.6354	2.042	.5023
#1	.0038	34.50	.0156	.0344	.3077	.0041	10.22
#2	.0042	34.43	.0317	.0420	.3047	.0042	10.25
#3	.0022	34.71	.0018	.0423	.3083	.0043	10.32

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0128	.0420	.0786	.1356	59.23	3.641	8.384
SDev	.0011	.0009	.0020	.0008	.29	.292	.106
%RSD	8.277	2.056	2.497	.5560	.4814	8.017	1.270
#1	.0116	.0411	.0763	.1356	59.07	3.489	8.482
#2	.0136	.0422	.0797	.1348	59.06	3.977	8.271
#3	.0133	.0427	.0797	.1363	59.56	3.455	8.401

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.047	.0036	.2635	.0672	.1626	.0137	-.0158
SDev	.011	.0011	.0053	.0127	.0026	.0071	.0210
%RSD	.5191	30.66	2.014	18.93	1.584	51.35	132.8
#1	2.041	.0024	.2615	.0819	.1598	.0141	.0078
#2	2.041	.0045	.2695	.0599	.1632	.0065	-.0228
#3	2.060	.0039	.2595	.0599	.1649	.0206	-.0324

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	8.822	.0420	.0274	.6239	.0092	.0626	1.570
SDev	.045	.0084	.0005	.0022	.0204	.0005	.008
%RSD	.5059	20.12	1.852	.3554	222.0	.7922	.4862
#1	8.783	.0322	.0271	.6237	.0231	.0627	1.563
#2	8.812	.0467	.0271	.6219	-.0143	.0631	1.570
#3	8.871	.0469	.0280	.6263	.0189	.0621	1.579

Analysis Report Wed 12-18-96 12:52:47 PM page 1

Method: ICPCLP1 Sample Name: 5376 M SCC Operator: ALA
Run Time: 12/18/96 12:47:28
Comment: MBPF44
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0018	33.50	-.0090	.0352	.2878	.0040	9.884
SDev	.0002	.19	.0135	.0009	.0016	.0000	.057
%RSD	12.25	.5702	150.2	2.690	.5589	.0640	.5756
#1	.0016	33.39	-.0009	.0341	.2868	.0040	9.852
#2	.0020	33.40	-.0246	.0359	.2868	.0040	9.851
#3	.0017	33.72	-.0015	.0355	.2896	.0040	9.950

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0118	.0401	.0763	.1265	56.76	3.924	7.940
SDev	.0001	.0010	.0015	.0014	.32	.144	.102
%RSD	.6975	2.438	1.928	1.069	.5577	3.660	1.290
#1	.0117	.0390	.0755	.1252	56.60	3.977	8.004
#2	.0119	.0407	.0780	.1266	56.55	4.034	7.821
#3	.0117	.0407	.0755	.1279	57.12	3.762	7.994

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.972	.0020	.2484	.0566	.1530	-.0020	.0138
SDev	.012	.0008	.0024	.0032	.0127	.0183	.0230
%RSD	.5883	41.08	.9752	5.732	8.290	903.9	167.4
#1	1.966	.0015	.2460	.0534	.1489	.0040	.0333
#2	1.965	.0029	.2485	.0564	.1672	.0125	-.0117
#3	1.985	.0015	.2508	.0599	.1429	-.0226	.0197

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	9.622	.0330	.0266	.6032	.0343	.0613	1.491
SDev	.046	.0076	.0002	.0035	.0197	.0006	.007
%RSD	.4769	23.01	.6325	.5788	57.30	1.013	.4628
#1	9.584	.0286	.0265	.6021	.0500	.0612	1.485
#2	9.608	.0418	.0265	.6003	.0408	.0619	1.489
#3	9.673	.0287	.0268	.6071	.0122	.0607	1.499

Analysis Report Wed 12-18-96 01:00:47 PM page 1

Method: ICPCLP1 Sample Name: 5376 M-L SCC Operator: ALA
Run Time: 12/18/96 12:55:28
Comment: MBPF44L 1/5 SERIAL DILUTION
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0005	6.950	-.0131	.0110	.0604	.0010	2.072
SDev	.0010	.027	.0128	.0024	.0008	.0001	.008
%RSD	207.6	.3836	97.75	21.84	1.330	4.835	.4097
#1	.0016	6.925	-.0220	.0132	.0595	.0009	2.066
#2	.0004	6.948	.0016	.0114	.0609	.0009	2.069
#3	-.0005	6.978	-.0190	.0084	.0609	.0010	2.082

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0017	.0087	.0161	.0286	11.81	.8053	1.650
SDev	.0010	.0021	.0017	.0010	.06	.1048	.011
%RSD	61.46	23.84	10.60	3.350	.5135	13.01	.6436
#1	.0014	.0110	.0178	.0291	11.75	.7448	1.640
#2	.0028	.0070	.0144	.0292	11.82	.7448	1.661
#3	.0008	.0081	.0161	.0275	11.87	.9262	1.650

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.4070	-.0013	.0490	.0117	.0403	.0061	.0006
SDev	.0019	.0040	.0047	.0034	.0036	.0059	.0105
%RSD	.4744	317.7	9.608	29.42	8.894	96.27	1717.
#1	.4052	.0031	.0539	.0078	.0444	.0128	-.0110
#2	.4067	-.0049	.0484	.0142	.0377	.0019	.0095
#3	.4091	-.0020	.0445	.0132	.0388	.0036	.0034

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.008	.0089	.0055	.1237	-.0046	.0130	.3220
SDev	.008	.0046	.0000	.0000	.0199	.0006	.0038
%RSD	.3991	51.21	.0028	.0009	427.7	4.578	1.181
#1	2.000	.0142	.0055	.1237	-.0249	.0129	.3185
#2	2.016	.0063	.0055	.1237	-.0038	.0126	.3215
#3	2.009	.0063	.0055	.1237	.0148	.0137	.3260

Analysis Report Wed 12-18-96 01:08:46 PM page 1

Method: ICPCLP1 Sample Name: 5376 MB1 SCC Operator: ALA
Run Time: 12/18/96 13:03:28
Comment: PBS
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0008	.0238	.0068	.0066	.0005	.0001	.0338
SDev	.0013	.0074	.0137	.0003	.0000	.0001	.0014
%RSD	153.5	31.05	199.9	5.110	.0000	53.41	4.148
#1	.0006	.0299	.0160	.0062	.0005	.0001	.0330
#2	.0022	.0259	.0133	.0068	.0005	.0001	.0354
#3	-.0003	.0156	-.0089	.0068	.0005	.0001	.0330

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0003	.0019	.0011	.0047	.0025	.0189	.0026
SDev	.0007	.0016	.0010	.0011	.0011	.0300	.0062
%RSD	216.0	86.68	86.64	23.30	45.93	158.7	240.1
#1	-.0005	.0029	.0017	.0037	.0036	-.0151	-.0045
#2	.0006	-.0000	.0017	.0059	.0013	.0416	.0071
#3	.0008	.0029	-.0000	.0045	.0025	.0302	.0052

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0011	-.0000	.0057	-.0000	-.0003	-.0113	.0129
SDev	.0006	.0007	.0026	.0095	.0155	.0172	.0266
%RSD	49.60	17650.	45.40	133300.	4576.	151.5	205.3
#1	.0014	.0007	.0084	-.0081	.0112	-.0142	.0272
#2	.0014	-.0000	.0055	-.0024	-.0179	.0071	-.0177
#3	.0005	-.0007	.0032	.0105	.0058	-.0269	.0293

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0638	.0180	-.0003	.0002	.0053	-.0002	.0030
SDev	.0045	.0008	.0005	.0005	.0161	.0013	.0000
%RSD	7.008	4.438	172.8	294.2	300.7	878.5	1.070
#1	.0610	.0176	-.0009	.0002	.0062	.0004	.0030
#2	.0689	.0189	-.0000	.0007	.0210	.0008	.0030
#3	.0614	.0175	-.0000	-.0003	-.0112	-.0017	.0030

Analysis Report QC Standard Wed 12-18-96 01:14:12 PM page 1

Method: ICPCLP1 Sample Name: CV Operator: ALA
Run Time: 12/18/96 13:08:52 cavu
Comment:
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.005	5.009	2.034	.9898	1.023	.9580	5.021
SDev	.012	.035	.020	.0174	.011	.0106	.039
%RSD	1.150	.7057	.9680	1.760	1.070	1.111	.7802
#1	.9925	4.969	2.012	.9706	1.011	.9462	4.986
#2	1.015	5.037	2.049	1.004	1.030	.9669	5.063
#3	1.009	5.020	2.041	.9945	1.029	.9609	5.015

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.027	1.004	1.006	1.006	4.942	20.68	5.013
SDev	.008	.005	.007	.013	.047	.37	.051
%RSD	.8039	.5248	.6780	1.275	.9569	1.765	1.027
#1	1.018	.9977	.9994	.9919	4.890	21.02	4.963
#2	1.035	1.008	1.013	1.010	4.983	20.73	5.066
#3	1.028	1.005	1.005	1.017	4.952	20.30	5.011

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.005	1.016	2.011	.9892	1.991	2.053	2.040
SDev	.009	.010	.031	.0128	.014	.034	.039
%RSD	.8918	.9422	1.525	1.296	.7195	1.661	1.894
#1	.9955	1.005	1.981	.9753	1.980	2.057	1.997
#2	1.013	1.024	2.042	.9919	2.007	2.017	2.054
#3	1.007	1.018	2.011	1.000	1.985	2.085	2.070

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.008	.9779	.9922	.9887	1.973	.9971	1.014
SDev	.021	.0130	.0106	.0096	.044	.0103	.009
%RSD	1.054	1.326	1.064	.9714	2.205	1.028	.9089
#1	1.984	.9634	.9801	.9777	1.923	.9854	1.006
#2	2.024	.9884	.9998	.9956	1.996	1.005	1.024
#3	2.017	.9820	.9966	.9927	2.000	1.001	1.012

Analysis Report Blank Sample Wed 12-18-96 01:19:36 PM page 1

Method: ICPCLP1 Sample Name: Blank Operator: ALA
Run Time: 12/18/96 13:14:17
Comment:
Mode: CONC Corr. Factor: 1

CRB6 All + LCROL

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0011	.0094	-.0099	.0006	.0008	.0006	H.0218
SDev	.0013	.0076	.0140	.0067	.0002	.0002	.0049
%RSD	113.6	80.61	141.8	1146.	19.25	41.33	22.63
#1	.0023	.0058	-.0207	H.0080	H.0010	.0007	.0184
#2	-.0003	.0181	-.0148	-.0049	.0007	.0007	.0196
#3	.0014	.0043	.0059	-.0014	.0007	.0003	H.0275

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0005	.0010	-.0006	H.0028	.0038	-.0227	.0013
SDev	.0009	.0007	.0005	.0009	.0012	.1265	.0101
%RSD	191.3	69.60	86.37	30.90	31.23	557.5	776.2
#1	.0013	.0006	-.0008	H.0037	.0048	-.0718	-.0103
#2	-.0005	.0017	-.0000	H.0021	.0042	.1210	.0071
#3	.0007	.0006	-.0008	H.0025	.0025	-.1172	.0071

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H.0014	.0000	-.0073	.0028	.0051	.0062	-.0034
SDev	.0005	.0000	.0071	.0022	.0104	.0086	.0295
%RSD	33.35	114.2	97.19	78.93	204.9	138.4	865.7
#1	H.0019	.0000	-.0039	.0043	.0144	.0156	-.0116
#2	H.0014	.0000	-.0155	.0037	.0069	.0045	-.0279
#3	.0010	-.0000	-.0026	.0003	-.0061	-.0014	.0293

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0068	.0018	.0003	.0002	.0169	.0017	-.0000
SDev	.0051	.0013	.0000	.0000	.0109	.0006	.0000
%RSD	74.66	75.10	.0313	.3492	64.63	34.51	47.75
#1	.0126	.0031	.0003	.0002	.0196	H.0022	-.0000
#2	.0047	.0005	.0003	.0002	.0263	.0020	-.0000
#3	.0032	.0018	.0003	.0002	.0049	.0011	-.0000

Analysis Report Wed 12-18-96 01:25:00 PM page 1

Method: ICPCLP1 Sample Name: 5376 J RCC Operator: ALA
Run Time: 12/18/96 13:19:41
Comment: MBPF35
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0001	.0212	-.0098	.0152	.0008	.0002	.2110
SDev	.0005	.0067	.0104	.0003	.0002	.0000	.0109
%RSD	355.4	31.70	106.0	2.206	19.25	.4678	5.156
#1	.0001	.0264	.0001	.0156	.0007	.0002	.2041
#2	-.0007	.0136	-.0088	.0150	.0007	.0002	.2053
#3	.0001	.0234	-.0207	.0150	.0010	.0002	.2235

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0002	.0011	.0003	.0026	.0195	.1323	.0090
SDev	.0017	.0015	.0010	.0001	.0011	.1857	.0146
%RSD	845.1	132.2	348.7	5.253	5.821	140.3	161.9
#1	L-.0022	.0023	.0008	.0028	.0195	.1777	.0071
#2	.0007	-.0006	-.0009	.0025	.0184	-.0718	-.0045
#3	.0008	.0017	.0008	.0026	.0207	.2911	.0245

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0010	-.0007	.5953	-.0010	.0000	.0156	.0041
SDev	.0000	.0007	.0027	.0118	.0114	.0103	.0130
%RSD	.1003	100.3	.4611	1207.	31370.	66.37	318.1
#1	.0010	-.0014	.5981	-.0073	-.0104	.0037	-.0034
#2	.0010	-.0007	.5926	-.0083	-.0018	.0207	.0191
#3	.0010	.0000	.5952	.0126	.0123	.0224	-.0034

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.3508	.0005	.0003	-.0001	-.0152	-.0000	.0015
SDev	.0028	.0047	.0000	.0007	.0093	.0003	.0000
%RSD	.8082	958.9	.0698	436.3	61.45	2439.	2.595
#1	.3539	.0044	.0003	-.0001	-.0219	.0001	.0015
#2	.3499	-.0048	.0003	-.0008	-.0192	.0001	.0015
#3	.3485	.0018	.0003	.0005	-.0045	-.0003	.0015

Analysis Report Wed 12-18-96 01:32:21 PM page 1

Method: ICPCLP1 Sample Name: 5376 N RCC Operator: ALA
Run Time: 12/18/96 13:27:02
Comment: MBPF45
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0012	1.884	.0076	.0304	.0378	.0002	13.58
SDev	.0013	.014	.0208	.0009	.0000	.0001	.02
%RSD	103.6	.7619	272.8	2.946	.0000	69.30	.1242
#1	.0027	1.889	.0311	.0296	.0378	.0000	13.57
#2	.0001	1.895	.0002	.0314	.0378	.0002	13.60
#3	.0010	1.868	-.0084	.0302	.0378	.0002	13.57

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0002	.0019	.0025	.0063	2.024	2.045	4.923
SDev	.0013	.0013	.0000	.0004	.001	.086	.016
%RSD	691.1	71.56	.2256	5.802	.0322	4.199	.3344
#1	-.0010	.0026	.0025	.0062	2.024	2.083	4.935
#2	-.0008	.0026	.0025	.0067	2.024	2.106	4.930
#3	.0013	.0003	.0025	.0060	2.025	1.947	4.905

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1031	-.0004	6.902	.0038	.0004	-.0094	-.0089
SDev	.0003	.0018	.005	.0056	.0084	.0145	.0041
%RSD	.2679	415.9	.0725	145.6	2000.	153.8	46.05
#1	.1033	-.0024	6.906	-.0024	-.0038	.0053	-.0089
#2	.1033	-.0002	6.896	.0056	.0101	-.0236	-.0048
#3	.1028	.0012	6.904	.0083	-.0050	-.0100	-.0129

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.728	.0007	.0561	.0471	.0136	.0047	.0331
SDev	.011	.0033	.0000	.0008	.0206	.0015	.0000
%RSD	.2372	492.6	.0006	1.590	151.7	32.71	.0555
#1	4.727	-.0028	.0561	.0475	-.0038	.0064	.0331
#2	4.717	.0011	.0561	.0475	.0363	.0041	.0331
#3	4.739	.0037	.0561	.0462	.0082	.0035	.0331

Analysis Report Wed 12-18-96 01:37:45 PM page 1

Method: ICPCLP1 Sample Name: 5376 O RCC Operator: ALA
Run Time: 12/18/96 13:32:26
Comment: MBPF46
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0005	1.432	.0036	.0367	.0342	.0001	13.23
SDev	.0011	.004	.0264	.0036	.0000	.0002	.03
%RSD	217.3	.2823	731.1	9.707	.0000	176.0	.2036
#1	.0009	1.428	.0038	.0391	.0342	-.0000	13.20
#2	.0014	1.435	-.0228	.0385	.0342	.0000	13.22
#3	-.0008	1.433	.0299	.0326	.0342	.0004	13.26

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0000	.0015	.0011	.0056	1.877	1.909	4.850
SDev	.0005	.0025	.0013	.0005	.005	.298	.038
%RSD	7409.	166.6	114.8	8.820	.2748	15.63	.7808
#1	-.0003	-.0014	-.0000	.0055	1.871	1.720	4.881
#2	-.0002	.0026	.0008	.0062	1.877	1.754	4.860
#3	.0005	.0032	.0025	.0052	1.881	2.253	4.808

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0759	.0010	7.713	.0027	.0008	.0055	-.0001
SDev	.0000	.0011	.023	.0051	.0123	.0153	.0118
%RSD	.0012	111.0	.3001	190.9	1533.	277.9	15310.
#1	.0759	-.0002	7.689	.0040	-.0129	-.0016	-.0069
#2	.0759	.0012	7.715	.0070	.0044	-.0050	-.0069
#3	.0759	.0020	7.735	-.0030	.0109	.0231	.0136

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.072	.0059	.0562	.0396	.0088	.0031	.0316
SDev	.007	.0053	.0002	.0008	.0121	.0006	.0000
%RSD	.1642	89.07	.3006	2.004	137.4	18.28	.0584
#1	4.077	.0050	.0562	.0389	-.0023	.0030	.0316
#2	4.065	.0116	.0562	.0394	.0070	.0037	.0316
#3	4.075	.0012	.0564	.0405	.0217	.0026	.0316

Analysis Report Wed 12-18-96 01:43:09 PM page 1

Method: ICPCLP1 Sample Name: 5376 A SCC Operator: ALA
Run Time: 12/18/96 13:37:50
Comment: MBPF27
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0033	34.15	.0003	.0742	.2921	.0041	5.619
SDev	.0008	.22	.0148	.0033	.0021	.0001	.034
%RSD	23.53	.6434	5165.	4.493	.7199	2.325	.6035
#1	.0042	33.92	-.0079	.0720	.2899	.0040	5.585
#2	.0027	34.18	-.0087	.0780	.2924	.0042	5.620
#3	.0032	34.36	.0174	.0725	.2941	.0042	5.653

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0093	.0380	.0992	.1722	82.77	4.102	8.896
SDev	.0010	.0003	.0008	.0002	.55	.023	.040
%RSD	11.13	.7643	.8532	.1167	.6687	.5530	.4496
#1	.0081	.0378	.0984	.1725	82.16	4.102	8.864
#2	.0097	.0378	.0992	.1721	82.88	4.125	8.885
#3	.0100	.0383	.1001	.1722	83.25	4.079	8.941

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.715	.0041	.1726	.0681	.2349	.0091	.0030
SDev	.013	.0007	.0066	.0127	.0068	.0136	.0178
%RSD	.7617	16.13	3.835	18.69	2.876	149.5	596.5
#1	1.701	.0048	.1659	.0569	.2278	.0122	-.0080
#2	1.717	.0041	.1727	.0653	.2413	-.0058	.0236
#3	1.727	.0034	.1791	.0819	.2356	.0209	-.0066

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	9.508	.0434	.0243	.6440	.0044	.0717	1.367
SDev	.055	.0006	.0000	.0040	.0335	.0008	.009
%RSD	.5812	1.331	.0026	.6254	761.5	1.042	.6582
#1	9.449	.0440	.0243	.6395	.0051	.0711	1.358
#2	9.519	.0429	.0243	.6452	-.0294	.0725	1.367
#3	9.558	.0432	.0243	.6473	.0375	.0716	1.376

Analysis Report Wed 12-18-96 01:48:33 PM page 1

Method: ICPCLP1 Sample Name: 5376 C SCC Operator: ALA
Run Time: 12/18/96 13:43:14
Comment: MBPF29
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0005	28.91	.0154	.0450	.2480	.0034	4.035
SDev	.0010	.49	.0139	.0014	.0045	.0000	.053
%RSD	214.7	1.697	90.37	3.158	1.830	1.325	1.308
#1	.0014	28.35	.0246	.0434	.2428	.0034	3.976
#2	.0006	29.12	-.0006	.0457	.2501	.0033	4.052
#3	-.0006	29.27	.0221	.0459	.2512	.0034	4.078

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0069	.0398	.1015	.6251	86.48	4.563	6.018
SDev	.0009	.0009	.0010	.0112	1.33	.181	.081
%RSD	13.68	2.199	.9653	1.800	1.541	3.964	1.349
#1	.0074	.0401	.1009	.6126	84.98	4.714	5.925
#2	.0075	.0388	.1009	.6282	86.91	4.363	6.060
#3	.0058	.0405	.1026	.6345	87.54	4.612	6.070

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.837	.0074	.1756	.0652	.6868	.0363	.0410
SDev	.028	.0004	.0091	.0141	.0102	.0289	.0328
%RSD	1.545	5.317	5.157	21.62	1.486	79.44	79.93
#1	1.805	.0075	.1843	.0494	.6882	.0122	.0778
#2	1.847	.0070	.1762	.0696	.6760	.0286	.0150
#3	1.859	.0078	.1662	.0766	.6963	.0683	.0302

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	9.943	.0850	.0264	.5489	-.0091	.0850	1.374
SDev	.128	.0027	.0005	.0071	.0158	.0013	.020
%RSD	1.286	3.212	1.926	1.298	173.0	1.511	1.424
#1	9.797	.0878	.0258	.5411	-.0237	.0837	1.353
#2	10.03	.0847	.0267	.5505	-.0115	.0852	1.376
#3	9.998	.0824	.0267	.5551	.0077	.0862	1.392

Analysis Report Wed 12-18-96 01:53:57 PM page 1

Method: ICPCLP1 Sample Name: 5376 E SCC Operator: ALA
Run Time: 12/18/96 13:48:38
Comment: MBPF31
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0016	37.89	.0074	.0411	.3164	.0050	6.136
SDev	.0010	.12	.0260	.0005	.0007	.0001	.020
%RSD	63.12	.3122	350.0	1.232	.2330	.9579	.3203
#1	.0016	37.80	-.0226	.0414	.3161	.0049	6.116
#2	.0026	37.86	.0226	.0405	.3158	.0050	6.136
#3	.0006	38.03	.0222	.0414	.3172	.0050	6.155

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0098	.0408	.1377	.2501	135.3	4.665	8.983
SDev	.0003	.0003	.0018	.0005	.5	.335	.047
%RSD	2.693	.7390	1.279	.1935	.3742	7.172	.5268
#1	.0098	.0405	.1357	.2499	134.8	4.283	9.021
#2	.0095	.0410	.1382	.2507	135.3	4.907	8.930
#3	.0100	.0410	.1391	.2498	135.8	4.805	8.998

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.544	.0114	.1573	.0915	.3107	.0281	.0469
SDev	.007	.0018	.0059	.0071	.0072	.0077	.0165
%RSD	.4788	15.46	3.763	7.762	2.327	27.26	35.29
#1	1.537	.0132	.1527	.0992	.3177	.0197	.0332
#2	1.543	.0111	.1640	.0900	.3111	.0347	.0421
#3	1.552	.0097	.1553	.0852	.3033	.0301	.0653

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	11.12	.0590	.0376	.7272	.0211	.0877	1.536
SDev	.04	.0067	.0002	.0030	.0198	.0003	.005
%RSD	.4023	11.31	.4504	.4130	93.60	.3312	.2997
#1	11.08	.0557	.0375	.7245	.0367	.0874	1.531
#2	11.13	.0546	.0375	.7268	-.0011	.0880	1.537
#3	11.17	.0667	.0378	.7304	.0278	.0877	1.540

Analysis Report Wed 12-18-96 01:59:22 PM page 1

Method: ICPCLP1 Sample Name: 5376 K SCC Operator: ALA
Run Time: 12/18/96 13:54:03
Comment: MBPF42
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0009	16.51	-.0196	.0204	.1150	.0017	2.928
SDev	.0006	.11	.0042	.0023	.0007	.0001	.025
%RSD	65.32	.6413	21.48	11.18	.6411	2.839	.8603
#1	-.0011	16.44	-.0233	.0179	.1144	.0017	2.914
#2	-.0002	16.47	-.0204	.0213	.1147	.0016	2.912
#3	-.0014	16.63	-.0150	.0222	.1158	.0016	2.957

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0009	.0267	.0404	.0528	55.68	2.291	6.451
SDev	.0008	.0006	.0010	.0005	.34	.178	.078
%RSD	80.07	2.061	2.422	.9281	.6193	7.770	1.214
#1	.0014	.0267	.0399	.0523	55.46	2.231	6.498
#2	.0001	.0261	.0399	.0533	55.51	2.491	6.361
#3	.0013	.0272	.0416	.0527	56.08	2.151	6.494

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.7089	.0031	.0799	.0562	.0602	.0050	.0035
SDev	.0038	.0015	.0076	.0043	.0032	.0249	.0066
%RSD	.5399	47.36	9.575	7.648	5.403	500.8	187.0
#1	.7055	.0048	.0729	.0519	.0622	-.0055	-.0036
#2	.7083	.0019	.0881	.0605	.0621	-.0130	.0047
#3	.7130	.0027	.0788	.0564	.0565	.0334	.0095

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	3.089	.0237	.0164	.2450	.0089	.0309	.6437
SDev	.016	.0072	.0000	.0023	.0171	.0006	.0046
%RSD	.5103	30.39	.0029	.9227	192.9	2.044	.7132
#1	3.076	.0315	.0164	.2434	-.0069	.0315	.6397
#2	3.086	.0222	.0164	.2440	.0064	.0310	.6427
#3	3.107	.0173	.0164	.2476	.0271	.0302	.6487

Analysis Report Wed 12-18-96 02:04:46 PM page 1

Method: ICPCLP1 Sample Name: 5376 L SCC Operator: ALA
Run Time: 12/18/96 13:59:27
Comment: MBPF43
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0012	36.37	-.0067	.0310	.3452	.0045	9.160
SDev	.0006	.18	.0079	.0031	.0013	.0001	.049
%RSD	50.33	.5000	118.4	9.975	.3638	1.942	.5372
#1	.0017	36.17	-.0137	.0282	.3439	.0046	9.105
#2	.0005	36.40	-.0081	.0343	.3453	.0045	9.176
#3	.0014	36.53	.0019	.0306	.3464	.0044	9.199

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0102	.0450	.0902	.1274	80.52	4.695	11.17
SDev	.0005	.0024	.0010	.0005	.44	.311	.01
%RSD	5.312	5.343	1.088	.3677	.5494	6.634	.0500
#1	.0108	.0458	.0907	.1271	80.05	5.043	11.17
#2	.0097	.0469	.0907	.1272	80.56	4.601	11.16
#3	.0102	.0423	.0890	.1279	80.94	4.442	11.17

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.761	.0046	.1855	.0888	.1956	.0231	-.0053
SDev	.010	.0008	.0028	.0022	.0114	.0387	.0095
%RSD	.5823	18.17	1.520	2.525	5.839	167.3	178.0
#1	1.750	.0041	.1879	.0863	.2086	.0654	.0015
#2	1.761	.0055	.1824	.0895	.1909	-.0105	-.0162
#3	1.771	.0041	.1862	.0906	.1873	.0145	-.0014

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	9.865	.0354	.0427	.6841	-.0042	.0740	1.573
SDev	.054	.0014	.0005	.0031	.0041	.0006	.010
%RSD	.5463	3.994	1.190	.4557	96.85	.8466	.6384
#1	9.808	.0340	.0424	.6811	-.0040	.0734	1.561
#2	9.872	.0353	.0424	.6839	-.0084	.0738	1.578
#3	9.915	.0368	.0433	.6873	-.0002	.0746	1.579

Analysis Report Wed 12-18-96 02:10:10 PM page 1

Method: ICPCLP1 Sample Name: 5376 MPOST SCC Operator: ALA
Run Time: 12/18/96 14:04:51
Comment: MBPF44A
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0031	33.58	-.0101	.0357	.2881	.0040	9.855
SDev	.0016	.21	.0125	.0013	.0020	.0001	.058
%RSD	51.38	.6401	124.1	3.583	.6994	1.931	.5898
#1	.0019	33.39	-.0244	.0344	.2871	.0039	9.793
#2	.0025	33.81	-.0045	.0369	.2904	.0040	9.908
#3	.0049	33.53	-.0013	.0360	.2868	.0040	9.864

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0111	.0398	.0766	.1236	56.50	3.622	7.954
SDev	.0008	.0018	.0010	.0010	.33	.375	.105
%RSD	7.477	4.446	1.282	.8203	.5859	10.36	1.316
#1	.0113	.0402	.0772	.1225	56.19	3.592	7.959
#2	.0117	.0378	.0755	.1245	56.85	3.263	8.056
#3	.0101	.0413	.0772	.1237	56.46	4.011	7.847

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.958	.0039	.2758	.0525	.1689	.1141	.0290
SDev	.011	.0008	.0028	.0038	.0078	.0173	.0128
%RSD	.5490	21.04	1.023	7.160	4.635	15.15	44.07
#1	1.947	.0043	.2734	.0527	.1686	.1311	.0205
#2	1.969	.0029	.2789	.0486	.1612	.1147	.0438
#3	1.958	.0044	.2750	.0561	.1769	.0965	.0229

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	9.713	.0412	.0264	.6025	.0058	.0605	1.499
SDev	.064	.0028	.0003	.0036	.0435	.0021	.009
%RSD	.6537	6.753	1.283	.6035	753.7	3.485	.6158
#1	9.646	.0433	.0260	.5988	-.0409	.0581	1.491
#2	9.772	.0422	.0265	.6060	.0131	.0612	1.509
#3	9.722	.0381	.0265	.6027	.0451	.0622	1.497

Analysis Report Wed 12-18-96 02:18:09 PM page 1

Method: ICPCLP1 Sample Name: 5376 MB2 RCC Operator: ALA
Run Time: 12/18/96 14:12:51
Comment: ~~LCSS~~ PBW 12-19-96
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0008	.0249	.0029	.0258	.0001	.0001	.0127
SDev	.0018	.0084	.0283	.0029	.0003	.0001	.0009
%RSD	207.2	33.77	975.4	11.44	346.4	86.21	7.273
#1	.0022	.0160	.0147	.0285	.0005	.0001	.0136
#2	.0014	.0328	.0235	.0262	-.0001	.0001	.0117
#3	-.0011	.0259	-.0294	.0226	-.0001	.0002	.0129

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0002	.0006	-.0003	.0009	.0080	-.1210	-.0045
SDev	.0010	.0000	.0010	.0016	.0009	.1102	.0077
%RSD	412.8	.2516	347.0	178.6	10.89	91.06	171.5
#1	-.0004	.0006	.0008	.0025	.0082	-.0265	-.0123
#2	-.0002	.0006	-.0008	.0006	.0087	-.2420	-.0045
#3	.0014	.0006	-.0009	-.0006	.0070	-.0945	.0032

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0010	.0002	.0255	.0056	-.0007	.0088	.0252
SDev	.0000	.0011	.0036	.0019	.0039	.0178	.0074
%RSD	.0196	458.5	14.27	32.93	539.4	203.1	29.24
#1	.0010	.0000	.0274	.0078	-.0018	-.0116	.0272
#2	.0010	.0014	.0278	.0046	-.0039	.0164	.0313
#3	.0010	-.0007	.0213	.0046	.0036	.0215	.0170

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1704	.0031	-.0000	.0003	.0009	.0002	.0025
SDev	.0110	.0074	.0000	.0005	.0164	.0009	.0009
%RSD	6.472	238.0	7.265	206.9	1873.	378.1	35.39
#1	.1830	-.0036	-.0000	.0007	.0076	-.0008	.0015
#2	.1656	.0018	-.0000	.0004	-.0178	.0008	.0030
#3	.1626	.0111	-.0000	-.0003	.0129	.0006	.0030

Analysis Report QC Standard Wed 12-18-96 02:23:35 PM page 1

Method: ICPCLP1 Sample Name: CV CCV7 Operator: ALA
Run Time: 12/18/96 14:18:15
Comment:
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.9967	4.964	2.025	.9803	1.012	.9498	4.980
SDev	.0056	.041	.022	.0088	.008	.0079	.031
%RSD	.5584	.8265	1.095	.8970	.7808	.8348	.6285
#1	.9916	4.928	2.000	.9747	1.006	.9430	4.947
#2	.9958	4.956	2.031	.9758	1.009	.9480	4.982
#3	1.003	5.008	2.044	.9905	1.021	.9585	5.010

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.024	.9983	.9957	.9874	4.893	20.34	4.998
SDev	.004	.0052	.0103	.0091	.033	.56	.042
%RSD	.3630	.5215	1.030	.9246	.6797	2.730	.8488
#1	1.022	.9926	.9850	.9802	4.865	19.74	5.034
#2	1.022	.9994	.9969	.9843	4.884	20.84	4.951
#3	1.028	1.003	1.005	.9976	4.929	20.42	5.008

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.9942	1.007	2.005	.9791	1.968	2.045	2.084
SDev	.0067	.015	.011	.0180	.021	.045	.064
%RSD	.6782	1.465	.5554	1.841	1.087	2.216	3.073
#1	.9878	.9923	1.994	.9607	1.944	1.994	2.095
#2	.9935	1.008	2.005	.9968	1.976	2.060	2.015
#3	1.001	1.022	2.016	.9798	1.984	2.080	2.142

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.994	.9726	.9811	.9779	1.980	.9847	1.014
SDev	.019	.0087	.0081	.0085	.023	.0081	.006
%RSD	.9454	.8944	.8304	.8684	1.144	.8238	.6177
#1	1.973	.9711	.9742	.9702	1.963	.9776	1.009
#2	1.999	.9647	.9789	.9766	1.971	.9830	1.012
#3	2.009	.9820	.9901	.9870	2.005	.9935	1.021

Analysis Report Blank Sample Wed 12-18-96 02:29:00 PM page 1

Method: ICPCLP1 Sample Name: Blank Operator: ALA
Run Time: 12/18/96 14:23:40 CCN
Comment:
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0014	.0103	.0175	.0041	.0002	.0004	.0069
SDev	.0007	.0055	.0164	.0038	.0005	.0000	.0016
%RSD	51.74	53.29	93.77	91.98	259.8	.1568	23.35
#1	.0022	.0116	.0146	H.0068	.0007	.0004	.0087
#2	.0010	.0043	.0352	-.0002	-.0001	.0004	.0057
#3	.0010	.0151	.0027	.0057	-.0001	.0004	.0063

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0008	.0013	.0003	.0011	.0040	.1096	.0091
SDev	.0014	.0007	.0005	.0008	.0017	.4059	.0089
%RSD	177.5	49.50	171.9	74.28	43.57	370.3	98.01
#1	.0001	.0006	.0000	H.0021	.0036	H.5633	.0188
#2	-.0000	.0017	-.0000	.0006	.0059	-.2193	.0013
#3	L-.0025	.0017	.0009	.0006	.0025	-.0151	.0071

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0010	.0019	-.0032	.0029	.0076	.0099	.0204
SDev	.0000	.0018	.0092	.0060	.0097	.0280	.0174
%RSD	.0638	94.42	286.2	208.7	128.3	283.0	85.02
#1	.0010	.0022	.0016	-.0038	.0036	.0020	.0211
#2	.0010	-.0000	.0026	.0078	.0005	.0411	.0027
#3	.0010	.0036	-.0139	.0046	.0187	-.0133	.0374

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0008	.0027	.0003	.0001	.0053	.0009	.0020
SDev	.0055	.0031	.0000	.0008	.0172	.0001	.0017
%RSD	655.8	116.0	.0102	859.6	322.3	15.85	86.35
#1	.0071	.0044	.0003	.0010	.0249	.0009	.0000
#2	-.0018	.0045	.0003	-.0003	-.0018	.0008	.0030
#3	-.0028	-.0009	.0003	-.0003	-.0071	.0011	.0030

Analysis Report QC Standard Wed 12-18-96 02:34:25 PM page 1

Method: ICPCLP1 Sample Name: CRI Operator: ALA
Run Time: 12/18/96 14:29:05
Comment:
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0215	.0058	.0390	-.0015	-.0001	.0093	.0063
SDev	.0024	.0085	.0125	.0020	.0000	.0001	.0032
%RSD	11.29	147.1	32.00	132.3	.0000	.5352	51.31
#1	.0229	.0085	.0439	-.0004	-.0001	.0094	.0075
#2	.0229	.0125	.0484	-.0004	-.0001	.0093	.0087
#3	.0187	-.0038	.0248	-.0039	-.0001	.0093	.0026

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0107	.1033	.0209	.0517	.0039	-.0907	.0003
SDev	.0008	.0012	.0013	.0016	.0011	.2675	.0107
%RSD	7.127	1.148	6.215	3.148	29.06	294.8	3640.
#1	.0111	.1046	.0211	.0529	.0039	-.1172	.0055
#2	.0113	.1029	.0220	.0522	.0051	.1890	.0074
#3	.0099	.1024	.0194	.0498	.0028	-.3440	-.0120

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0318	-.0000	-.0063	.0816	.0108	.1453	.0294
SDev	.0006	.0000	.0125	.0074	.0029	.0123	.0159
%RSD	1.739	5.112	196.6	9.087	26.84	8.463	54.26
#1	.0322	-.0000	-.0006	.0872	.0130	.1515	.0192
#2	.0322	-.0000	.0023	.0845	.0075	.1311	.0478
#3	.0312	-.0000	-.0207	.0732	.0118	.1532	.0212

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0073	.0013	-.0000	.0001	.0225	.0967	.0435
SDev	.0086	.0031	.0000	.0008	.0047	.0003	.0000
%RSD	116.7	234.5	51.20	1027.	20.84	.2712	.0685
#1	-.0037	-.0004	-.0000	.0004	.0270	.0963	.0435
#2	-.0012	-.0005	-.0000	.0007	.0176	.0968	.0435
#3	-.0171	.0049	-.0000	-.0009	.0230	.0968	.0436

Analysis Report QC Standard Wed 12-18-96 02:42:26 PM page 1

Method: ICPCLP1 Sample Name: ICSA Operator: ALA
Run Time: 12/18/96 14:37:06
Comment:
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0048	521.2	-.0512	.1194	.0022	.0001	466.8
SDev	.0001	2.5	.0550	.0027	.0002	.0001	1.0
%RSD	2.756	.4737	107.3	2.234	7.217	56.91	.2179
#1	-.0049	519.0	-.0031	.1190	.0021	.0002	466.3
#2	-.0049	520.7	-.0394	.1223	.0021	.0002	466.1
#3	-.0047	523.8	-.1111	.1170	.0024	.0001	468.0

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0004	.0053	.0362	.0197	177.8	-.3705	474.7
SDev	.0015	.0018	.0018	.0003	.7	.1254	2.0
%RSD	410.2	33.42	4.922	1.466	.3792	33.86	.4174
#1	-.0017	.0072	.0382	.0197	177.3	-.2533	473.4
#2	-.0007	.0038	.0348	.0200	177.6	-.5028	473.6
#3	.0013	.0049	.0356	.0194	178.6	-.3554	476.9

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0529	.0047	.0938	.0040	.0290	.0836	.0450
SDev	.0002	.0069	.0065	.0152	.0119	.0434	.0063
%RSD	.3047	148.0	6.961	382.3	41.02	51.93	13.89
#1	.0531	.0126	.0897	.0069	.0423	.0779	.0486
#2	.0530	.0011	.0904	.0174	.0254	.0434	.0487
#3	.0528	.0002	.1014	-.0125	.0194	.1297	.0378

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0346	.0014	.2115	.0047	.0894	-.0017	.0320
SDev	.0069	.0051	.0009	.0004	.0247	.0007	.0015
%RSD	19.99	350.6	.4160	7.899	27.66	41.02	4.841
#1	.0386	.0029	.2107	.0048	.0805	-.0011	.0335
#2	.0266	.0056	.2113	.0043	.0704	-.0024	.0320
#3	.0386	-.0042	.2125	.0050	.1174	-.0014	.0304

Analysis Report QC Standard Wed 12-18-96 03:01:04 PM page 1

Method: ICPCLP1 Sample Name: ICSAB Operator: ALA
Run Time: 12/18/96 14:55:45
Comment:
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1753	503.7	.0501	.1169	.4704	.4146	447.4
SDev	.0010	2.1	.0434	.0044	.0024	.0018	1.3
%RSD	.5581	.4098	86.62	3.805	.5163	.4367	.2857
#1	.1756	504.7	.0320	.1189	.4721	.4154	447.9
#2	.1761	505.0	.0187	.1201	.4715	.4160	448.4
#3	.1742	501.3	.0997	.1119	.4676	.4126	446.0

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.9043	.4262	.4459	.4686	172.9	-.3516	461.1
SDev	.0030	.0018	.0022	.0029	.5	.2135	2.3
%RSD	.3305	.4219	.5056	.6234	.3073	60.72	.5071
#1	.9071	.4269	.4476	.4695	173.2	-.4574	462.9
#2	.9048	.4275	.4468	.4709	173.2	-.4915	462.0
#3	.9011	.4241	.4434	.4653	172.3	-.1059	458.5

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.4754	.0064	.0916	.8168	.0548	.5975	.0445
SDev	.0022	.0039	.0045	.0086	.0131	.0276	.0646
%RSD	.4686	60.65	4.940	1.059	23.99	4.612	145.2
#1	.4770	.0099	.0872	.8070	.0697	.6279	.0194
#2	.4765	.0071	.0913	.8234	.0498	.5906	.1178
#3	.4729	.0022	.0962	.8200	.0449	.5741	-.0038

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0320	-.0078	.2054	.0040	.2031	.4277	.9036
SDev	.0058	.0175	.0007	.0005	.0601	.0007	.0031
%RSD	18.07	223.5	.3189	12.22	29.59	.1602	.3445
#1	.0386	.0118	.2058	.0045	.2357	.4269	.9061
#2	.0291	-.0134	.2058	.0040	.2398	.4282	.9045
#3	.0281	-.0219	.2047	.0035	.1337	.4279	.9001

Analysis Report QC Standard Wed 12-18-96 03:09:06 PM page 1

Method: ICPCLP1 Sample Name: CV Operator: ALA
Run Time: 12/18/96 15:03:46 CCV8
Comment:
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.9916	5.031	1.994	.9735	1.019	.9470	5.009
SDev	.0049	.008	.031	.0079	.004	.0043	.007
%RSD	.4911	.1529	1.555	.8139	.4047	.4578	.1415
#1	.9899	5.038	2.026	.9659	1.017	.9439	5.017
#2	.9878	5.023	1.965	.9729	1.016	.9451	5.003
#3	.9971	5.031	1.991	.9817	1.023	.9520	5.008

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.029	.9948	.9904	.9795	4.907	20.37	5.104
SDev	.004	.0030	.0022	.0067	.014	.21	.066
%RSD	.4147	.3029	.2166	.6867	.2876	1.021	1.291
#1	1.028	.9960	.9901	.9738	4.901	20.45	5.172
#2	1.026	.9914	.9884	.9778	4.896	20.14	5.040
#3	1.034	.9971	.9927	.9869	4.923	20.54	5.100

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.9862	1.009	1.999	.9858	1.968	2.066	2.044
SDev	.0039	.009	.017	.0101	.009	.019	.054
%RSD	.3965	.8937	.8590	1.021	.4830	.9036	2.646
#1	.9835	.9995	1.997	.9774	1.957	2.087	1.982
#2	.9844	1.010	1.983	.9830	1.975	2.056	2.064
#3	.9907	1.017	2.017	.9970	1.971	2.054	2.085

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.971	.9626	.9823	.9774	2.003	.9784	1.014
SDev	.012	.0120	.0042	.0034	.067	.0028	.002
%RSD	.6101	1.243	.4316	.3464	3.333	.2889	.2233
#1	1.959	.9609	.9798	.9751	1.932	.9768	1.012
#2	1.973	.9515	.9798	.9759	2.014	.9769	1.015
#3	1.983	.9753	.9872	.9813	2.064	.9817	1.016

Analysis Report Blank Sample Wed 12-18-96 03:14:31 PM page 1

Method: ICPCLP1 Sample Name: Blank Operator: ALA
Run Time: 12/18/96 15:09:12
Comment: CCB 8
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0014	H.0495	-.0099	.0029	.0007	.0007	H.0443
SDev	.0007	.0099	.0033	.0054	.0000	.0000	.0110
%RSD	51.67	19.98	32.88	186.6	.0000	.2112	24.86
#1	.0023	H.0505	-.0061	.0045	.0007	.0007	H.0487
#2	.0010	H.0589	-.0118	H.0074	.0007	.0007	H.0524
#3	.0010	H.0392	-.0117	-.0031	.0007	.0007	H.0318

Elem	CD	CO	CR	CU	FE	K	MG
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0002	.0021	.0014	.0018	H.0277	.0265	H.0478
SDev	.0005	.0013	.0018	.0007	.0145	.2723	.0275
%RSD	226.6	62.98	124.2	38.95	52.47	1029.	57.45
#1	.0002	.0029	.0000	H.0025	H.0229	.1663	H.0691
#2	.0008	.0029	.0034	.0011	H.0440	.2004	H.0575
#3	-.0003	.0006	.0009	.0018	.0161	-.2873	.0168

Elem	MN	MO	NA	NI	PB	SB	SE
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0010	.0014	-.0038	.0012	.0032	-.0028	-.0034
SDev	.0000	.0026	.0068	.0031	.0137	.0047	.0236
%RSD	.3722	180.4	180.1	249.0	423.8	166.6	693.6
#1	.0010	.0036	.0029	.0008	.0187	-.0031	.0150
#2	.0010	-.0014	-.0036	.0045	-.0018	.0020	.0048
#3	.0010	.0022	-.0107	-.0016	-.0072	-.0074	-.0300

Elem	SI	SN	SR	TI	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0013	.0013	.0003	.0003	.0079	.0008	.0010
SDev	.0032	.0033	.0000	.0004	.0192	.0004	.0009
%RSD	239.8	251.8	.0699	150.3	243.1	49.04	87.70
#1	.0027	.0044	.0003	.0007	-.0032	.0011	-.0000
#2	-.0023	.0018	.0003	-.0001	.0301	.0004	.0015
#3	.0037	-.0022	.0003	.0002	-.0032	.0009	.0015

end CP

ASIZIKA.WSL

5374

10

CALCULATED DATA FROM FILE: [illegible]S\AS961214

ANALYTICAL RESOURCES INCORPORATED

JOB	SAMP	ELEMENT	PREPCODE		RAWVALUE	CALCULATED	UNITS	DILUTION	MASS	INITVOL	FINLVOL	%SOLIDS
5373	MB	AS	SCN	U	0.0010000	0.2000000	mg/kg-dry	1.00	1.0000	0.00	200.00	100.00
5373	REF1	AS	SCN		0.0266000	1064.0000000	mg/kg-dry	200.00	1.0000	0.00	200.00	100.00
5373	A	AS	SCN		0.0056000	1.3459856	mg/kg-dry	1.00	1.0160	0.00	200.00	81.90
5373	ADUP	AS	SCN		0.0056000	1.3459856	mg/kg-dry	1.00	1.0160	0.00	200.00	81.90
5373	ASPK	AS	SCN		0.0226000	10.8640266	mg/kg-dry	2.00	1.0160	0.00	200.00	81.90
5373	B	AS	SCN		0.0040000	0.9326114	mg/kg-dry	1.00	1.0370	0.00	200.00	82.72
5373	C	AS	SCN		0.0086000	2.0986103	mg/kg-dry	1.00	1.0250	0.00	200.00	79.96
5373	D	AS	SCN		0.0158000	3.8429218	mg/kg-dry	1.00	1.0050	0.00	200.00	81.82
5373	E	AS	SCN		0.0045000	1.1006048	mg/kg-dry	1.00	1.0020	0.00	200.00	81.61
5373	F	AS	SCN		0.0055000	1.3022412	mg/kg-dry	1.00	1.0240	0.00	200.00	82.49
5373	G	AS	SCN		0.0051000	1.2845319	mg/kg-dry	1.00	1.0040	0.00	200.00	79.09
5373	H	AS	SCN		0.0104000	2.3533772	mg/kg-dry	1.00	1.0270	0.00	200.00	86.06
5373	I	AS	SCN		0.0058000	1.4990003	mg/kg-dry	1.00	1.0690	0.00	200.00	72.39
5373	J	AS	SCN		0.0079000	1.8244673	mg/kg-dry	1.00	1.0420	0.00	200.00	83.11
5373	K	AS	SCN		0.0084000	1.9774495	mg/kg-dry	1.00	1.0160	0.00	200.00	83.62
5373	L	AS	SCN		0.0038000	0.8980329	mg/kg-dry	1.00	1.0580	0.00	200.00	79.99
5373	M	AS	SCN		0.0064000	1.5567844	mg/kg-dry	1.00	1.0590	0.00	200.00	77.64
5373	N	AS	SCN		0.0057000	1.3670048	mg/kg-dry	1.00	1.0170	0.00	200.00	82.00
5373	O	AS	SCN		0.0062000	1.4794135	mg/kg-dry	1.00	1.0050	0.00	200.00	83.40
5373	P	AS	SCN		0.0057000	1.3144883	mg/kg-dry	1.00	1.0160	0.00	200.00	85.36
5373	Q	AS	SCN		0.0064000	1.5474965	mg/kg-dry	1.00	1.0360	0.00	200.00	79.84
5373	R	AS	SCN		0.0069000	1.5365136	mg/kg-dry	1.00	1.0760	0.00	200.00	83.47
5373	S	AS	SCN		0.0072000	1.7310576	mg/kg-dry	1.00	1.0060	0.00	200.00	82.69
5373	T	AS	SCN		0.0048000	1.0212288	mg/kg-dry	1.00	1.0640	0.00	200.00	88.35
5374	A	AS	SCN		0.0047000	1.0299754	mg/kg-dry	1.00	1.0060	0.00	200.00	90.72
5374	ADUP	AS	SCN		0.0050000	1.0968087	mg/kg-dry	1.00	1.0050	0.00	200.00	90.72
5374	ASPK	AS	SCN		0.0213000	9.3355213	mg/kg-dry	2.00	1.0060	0.00	200.00	90.72
5374	MB	AS	SCN	U	0.0010000	0.2000000	mg/kg-dry	1.00	1.0000	0.00	200.00	100.00
5374	REF1	AS	SCN		0.0251000	1002.9970030	mg/kg-dry	200.00	1.0010	0.00	200.00	100.00

Element: As

ANALYTICAL RESOURCES INCORPORATED

000230

VARIAN 2 - EPA CLP GRAPHITE FURNACE SUMMARY LOGBOOK

ALL CORRECTIONS MADE BY ANALYST UNLESS OTHERWISE NOTED.

IDL/Reporting Limit: 1.0 µg/L **Date:** 12-14-96 **Analyst:** [illegible]

Edit Label/ Dil.	Load Data	Sample ID	EPA ID	Prep Code	Dilution Used	Calculated Value (µg/L)	Analytical Spike (µg/L)	Analytical Spike % R or MSA r	Flag	Comments	Time
		S0									0948
		S10									
		S20									
		S50									1002
		ICV			2X	26.7				105.7% ✓	1008
		ICB				0.2				✓	
		CRI 10 µg/L				10.6	30.4	99.0		✓	
		CCV1				26.4				105.6% ✓	1025
		CCB1				0.1				✓	
		S0									
		CCV2				27.0				107.9% ✓	1039
		CCB2				0.0				✓	
		S0									
		S20				98.6%	S 20				

U = Undetected (See IDL/Reporting Limit Above)

000006

5053F

Rev. 1
12/02/96

Element: As

ANALYTICAL RESOURCES INCORPORATED

VARIAN 2 - EPA CLP GRAPHITE FURNACE SUMMARY LOGBOOK

ALL CORRECTIONS MADE BY ANALYST UNLESS OTHERWISE NOTED.

000231

IDL/Reporting Limit: 1.0 µg/L | Date: 12-14-96 | Analyst: [illegible]

Edit Label/ Dil.	Load Data	Sample ID	EPA ID	Prep Code	Dilution Used	Calculated Value (µg/L)	Analytical Spike (µg/L)	Analytical Spike % R or MSA r	Flag	Comments	Time
		CCV3				26.6				106.2%	1058
		CCB3				0.1					
	✓	5373 MB	PBS	SCN	1x	U	22.1	110.5			
✓	✓	Rebl	LCSS		200x	26.6	47.6	105.3		1,064 mg/kg	
	✓	A	MFGZ44		1x	5.6	26.6	105.3			
	✓	ADup	MFGZ44D			5.6	26.5	104.3			
	✓	Aspk	MFGZ44S		2x	22.6	43.4	104.2		99.0% R	
		CCV4				25.8				103.0%	1152
		CCB4				-0.0					
	✓	5373 B	MFGZ45	SCN	1x	4.0	25.3	106.7			
	✓	C	MFGZ46			8.6	29.5	104.5			
	✓	D	MFGZ47			15.8	36.1	101.6			
	✓	E	MFGZ49			4.5	24.8	101.5			
	✓	F	MFGZ50			5.5	25.6	100.2			

U = Undetected (See IDL/Reporting Limit Above)

5053F

000007

Rev. 1
12/02/96

Element: As

ANALYTICAL RESOURCES INCORPORATED

000232

VARIAN 2 - EPA CLP GRAPHITE FURNACE SUMMARY LOGBOOK

ALL CORRECTIONS MADE BY ANALYST UNLESS OTHERWISE NOTED.

IDL/Reporting Limit: 1.0 µg/L | Date: 12-14-96 | Analyst: [illegible]

Edit Label/ Dil.	Load Data	Sample ID	EPA ID	Prep Code	Dilution Used	Calculated Value (µg/L)	Analytical Spike (µg/L)	Analytical Spike % R or MSA r	Flag	Comments	Time
		CCV5				26.3				105.0% ✓	1246
		CCB5				0.1				✓	
	✓	5373 G	MFGZ56	SCN	1X	5.1	26.1	105.1			
	✓	H	MFGZ57			10.4	29.3	94.2			
	✓	I	MFGZ58			5.8	25.4	97.9			
	✓	J	MFGZ64			7.9	28.0	100.5			
	✓	K	MFGZ65			8.4	28.5	100.1			
		CCV6				25.1				100.5% ✓	1341
		CCB6				0.4				✓	
	✓	5373 L	MFGZ48	SCN	1X	3.8	25.0	106.2			
	✓	M	MFGZ51			6.4	27.2	103.5			
	✓	N	MFGZ52			5.7	26.9	105.8			
	✓	O	MFGZ53			6.2	26.5	101.5			
	✓	P	MFGZ54			5.7	25.1	96.7			

U = Undetected (See IDL/Reporting Limit Above)

000008

5053F

Rev. 1
12/02/96

Element: As

ANALYTICAL RESOURCES INCORPORATED

000233

VARIAN 2 - EPA CLP GRAPHITE FURNACE SUMMARY LOGBOOK

ALL CORRECTIONS MADE BY ANALYST UNLESS OTHERWISE NOTED. 12/14/96

IDL/Reporting Limit: 1.0 µg/L | Date: 12-14-96 | Analyst: AA

Edit Label/ Dil.	Load Data	Sample ID	EPA ID	Prep Code	Dilution Used	Calculated Value (µg/L)	Analytical Spike (µg/L)	Analytical Spike % R or MSA r	Flag	Comments	Time
		CCV7	~~26.1~~			26.1				104.4% ✓	1436
		CCB7	~~0.1~~			0.1				✓	
	✓	5373 Q	MFGZ55	SCN	1x	6.4	26.6	100.8			
	✓	R	MFGZ59			6.9	26.5	98.2			
	✓	S	MFGZ60			7.2	26.6	97.4			
	✓	T	MFGZ63			4.8	25.4	103.1			
X	✓	5374 A	MFGZ66			4.7	24.8	100.5			
		CCV8				26.3				105.0% ✓	1531
		CCB8				0.2				✓	
		SO									
		CCV9				25.8				103.3% ✓	1546
		CCB9				-0.0				✓	
	✓	5374 ADup	MFGZ66D	SCN	1x	5.0	25.5	102.2		✓ 6.2% RPD	
	✓	Aspk	MFGZ66S		2x	21.3	41.8	102.7		94.8% R ✓	

U = Undetected (See IDL/Reporting Limit Above)

Element: As

ANALYTICAL RESOURCES INCORPORATED

VARIAN 2 - EPA CLP GRAPHITE FURNACE SUMMARY LOGBOOK

ALL CORRECTIONS MADE BY ANALYST UNLESS OTHERWISE NOTED.

000234

IDL/Reporting Limit: 1.0 µg/L | Date: 12-14-96 | Analyst: AA

Edit Label/ Dil.	Load Data	Sample ID	EPA ID	Prep Code	Dilution Used	Calculated Value (µg/L)	Analytical Spike (µg/L)	Analytical Spike % R or MSA r	Flag	Comments	Time
	✓	5374 MB	PBS	SCN	14	U	21.9	109.9			
X	✓	↓ Ref1	LCSS	↓	200X	25.1	45.6	102.9		AA 12-17-96 1,004 mg/kg ✓	
		CCV 10				26.0				103.9% ✓	1631
		CCB10				0.1				—	1635

end Run

U = Undetected (See IDL/Reporting Limit Above)

000010

5053F

Rev. 1
12/02/96

ANALYTICAL
RESOURCES
INCORPORATED

VARIAN GRAPHITE FURNACE INSTRUMENT LOG

Varian 1 Varian 2

Element: As	Date: 12-14-96	Analyst: AA
Wavelength: 193.7 nm	Slit: 1.0 nm	Program No.: 21
Lamp: Photron 8346	HCL Current: 12 mA	Boost Current: 20 mA
Cuvette Type: platform	Cuvette Condit: used	Platform Condition: used

Calibration: Curve, Single Additions, MSA, CLP-EPA

Intermediate Standard
Concentration and Source: 2.0 mg/L IV Std.# 755-9

Autosampler Calibration
Stock Std. Concentration: 50 ug/L Std.# 755-10

Calibration Verification
Standard Concentration and Source: ICV 50.9 ug/L EPA ICV-2 CCV 25.0 ug/L IVCV-GFA Std.# 539-5 755-14

Matrix Modifier: 5uL Pd/Mg/CA mod to 15uL sample

Program Number and Comments:

Integration: Peak Area

ABS for 10 µg/L: 0.034

ABS for 1.0 µg/L:

Notes: 001104

5004F

000235

Rev. 1
02/17/94

ANALYTICAL RESOURCES INC.
VARIAN 2 300

✓ 4h
12-16-96

OPERATOR ALA
DATE 12/14/96
BATCH As961214

COPY
ORIGINAL WITH
SDG MFG 244
BA 12/21/96

QC PROTOCOL PARAMETERS

QC STANDARD POSITION	45
IF THERE IS AN ERROR	STOP
QC SPIKE POSITION	44
RECOVERY LIMITS (%)	85 TO 115
RECOVERY MINIMUM LIMIT (%)	40
CORRELATION COEFFICIENT (r)	0.995
OVERRANGE VOLUME REDUCTION	1
REPLICATE RSD LIMIT (%)	100.0

PROGRAM 21 As CLP

INSTRUMENT MODE	ABSORBANCE
CALIBRATION MODE	CONCENTRATION
MEASUREMENT MODE	PEAK AREA
LAMP POSITION	1
LAMP CURRENT (mA)	12
SLIT WIDTH (nm)	1.0
SLIT HEIGHT	NORMAL
WAVELENGTH (nm)	193.7
SAMPLE INTRODUCTION	SAMPLER AUTOMIXING
TIME CONSTANT	0.05
MEASUREMENT TIME (sec)	1.0
REPLICATES	2
BACKGROUND CORRECTION	ON
MAXIMUM ABSORBANCE	0.95

FURNACE PARAMETERS

STEP NO.	TEMPERATURE (C)	TIME (sec)	GAS FLOW (L/min)	GAS TYPE	READ COMMAND
1	300	35.0	3.0	ALTERNATE	NO
2	600	10.0	3.0	ALTERNATE	NO
3	1300	5.0	3.0	ALTERNATE	NO
4	1300	5.0	3.0	ALTERNATE	NO
5	1300	1.0	0.0	NORMAL	NO
6	2500	0.6	0.0	NORMAL	YES
7	2500	2.0	0.0	NORMAL	YES
8	2500	1.0	3.0	NORMAL	NO
9	2600	2.0	3.0	NORMAL	NO
10	40	12.8	3.0	NORMAL	NO

SAMPLER PARAMETERS
VOLUMES (µL)

BLANK	--	15	5
STANDARD 1	3	12	5
STANDARD 2	6	9	5
STANDARD 3	15	0	5
SAMPLE	15	0	5

RECALIBRATION RATE 0
RESLOPE RATE 0

MULTIPLE INJECT NO HOT INJECT YES PRE INJECT NO
TEMPERATURE 150
INJECT RATE 5

COPY
ORIGINAL WITH
SDG MFG244
bH 12/21/96

QC PROTOCOL PARAMETERS

QC STANDARD RATE	0	
QC STANDARD VOLUME (µL)	15	
QC STANDARD CONCENTRATION	25.0	ug/L
QC STANDARD LIMITS (%)	90 TO 110	
QC SPIKE RATE	0	
QC SPIKE VOLUME (µL)	6	
QC SPIKE CONCENTRATION	50.0	ug/L
MATRIX SPIKE CONCENTRATION	0.1	ug/L
REQUIRED DETECTION LIMIT	4.0	ug/L

MIXED MODIFIER SOLUTION: 500 mg/L Pd from Pd(NO3)2, 1000 mg/L Mg from Mg(NO3)2 and 1% citric acid

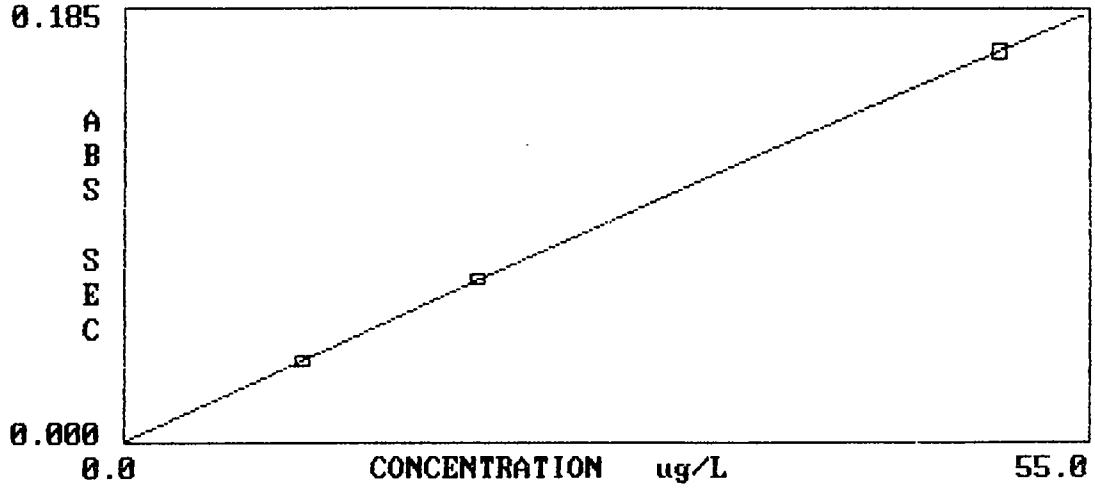
CUVETTE TYPE: Platform

LAMP TYPE: Photron Super Lamp

SAMPLE	CONC ug/L	%RSD	MEAN ABS	READINGS	
BLANK	0.0		0.000	0.000	0.000
QC S0				14Sep96	09:48
STANDARD 1	10.0	1.7	0.034	0.034	0.035
QC S10				14Sep96	09:53
STANDARD 2	20.0	1.6	0.069	0.068	0.070
QC S20				14Sep96	09:58

	ug/L		ABS		
STANDARD 3	50.0	1.1	0.168	0.166	0.169
QC S SO				14Sep96	10:02

COPY
ORIGINAL WITH
SDG MFG244
12/21/96



ICV	26.7	0.6	0.091	0.092	0.091
QC				14Sep96	10:08
ICB	0.2	99.9	0.001	0.000	0.001
QC				14Sep96	10:12
				~~RPD =~~	~~177.7~~ 12/14/96
CRA 10 ug/L	10.6	2.5	0.036	0.037	0.036
QC				14Sep96	10:16
				~~%R =~~	~~10409.6~~ 12/14/96
CRAA	30.4	0.0	0.104	0.104	0.104
QC				14Sep96	10:21
CCV 1	26.4	0.8	0.090	0.090	0.091
QC				14Sep96	10:25
CCB 1	0.1	93.0	0.000	0.000	0.000
QC				14Sep96	10:29
BLANK	0.0		0.001	0.001	0.001
QC SO				14Sep96	10:35

	ug/L		ABS		
QCSTANDARD QC CCV2	27.0	1.9	0.092	0.091 14Sep96 %R =	0.094 10:39 107.9
QCBLANK QC CCB2	0.0	99.9	0.000	0.001 14Sep96 ABS =	-0.001 10:44 0.000
BLANK QC SO	0.0		-0.001	-0.001 14Sep96	-0.001 10:49
RESLOPE 2 QC S20	20.0	0.7	0.068	0.068 14Sep96	0.068 10:54
QCSTANDARD QC CCV3	26.6	1.0	0.090	0.089 14Sep96 %R =	0.090 10:58 106.2
QCBLANK QC CCB3	0.1	99.9	0.000	0.000 14Sep96 ABS =	0.001 11:02 0.000
5373 MB 1 QC PBS	-0.1	99.9	-0.000	-0.001 14Sep96	0.001 11:07
QCSPIKE QC PBSA	22.1	1.1	0.075	0.074 14Sep96 %R =	0.076 11:11 ~~110.7~~ 110.5 AA 12/14/96
5373 ~~RF~~1 200 Reb AA 12/14/96 QC LCSS	26.6	1.4	0.090	0.089 14Sep96 ~~RPD =~~	0.091 11:16 ~~201.2~~ AA 12/14/96
QCSPIKE QC LCSSA	47.6	0.9	0.158	0.159 14Sep96 %R =	0.157 11:20 105.3
5373 A 1 QC MFGZ44	5.6	2.2	0.019	0.019 14Sep96 ~~%R =~~	0.019 11:25 ~~-21005.6~~ AA 12/14/96
QCSPIKE QC MFGZ44A	26.6	0.3	0.090	0.090 14Sep96 %R =	0.090 11:29 105.3
5373 ADUP 1 QC MFGZ 44D	5.6	2.1	0.019	0.019 14Sep96	0.019 11:34
QCSPIKE QC MFGZ 44DA	26.5	0.7	0.089	0.090 14Sep96 %R =	0.089 11:38 104.3
5373 ASPK 2 QC MFGZ44S	22.6	1.2	0.077	0.076 14Sep96	0.077 11:43
QCSPIKE QC MFGZ44SA	43.4	0.6	0.145	0.144 14Sep96 %R =	0.145 11:47 104.2

COPY
ORIGINAL WITH
SDG MFG244
BH 12/21/96

	ug/L		ABS		
QCSTANDARD QC CCV4	25.8	0.2	0.087	0.087 14Sep96 %R =	0.087 11:52 103.0
QCBLANK QC CCB4	-0.0	99.9	-0.000	0.001 14Sep96 ABS =	-0.001 11:56 -0.000
5373 B 1 QC MFGZ45	4.0	3.5	0.013	0.013 14Sep96	0.014 12:00
QCSPIKE QC MFGZ45A	25.3	1.5	0.086	0.087 14Sep96 %R =	0.085 12:05 106.7
5373 C 1 QC MFGZ46	8.6	0.2	0.029	0.029 14Sep96	0.029 12:09
QCSPIKE QC MFGZ46A	29.5	0.1	0.099	0.099 14Sep96 %R =	0.099 12:14 104.5
5373 D 1 QC MFGZ47	15.8	1.5	0.053	0.054 14Sep96	0.053 12:19
QCSPIKE QC MFGZ47A	36.1	0.2	0.121	0.121 14Sep96 %R =	0.121 12:23 101.6
5373 E 1 QC MFGZ49	4.5	2.2	0.015	0.016 14Sep96	0.015 12:28
QCSPIKE QC MFGZ49A	24.8	2.5	0.084	0.083 14Sep96 %R =	0.085 12:32 101.5
5373 F 1 QC MFGZ50	5.5	3.7	0.019	0.019 14Sep96	0.018 12:37
QCSPIKE QC MFGZ50A	25.6	1.7	0.087	0.085 14Sep96 %R =	0.088 12:41 100.2
QCSTANDARD QC CCV5	26.3	0.5	0.089	0.088 14Sep96 %R =	0.089 12:46 105.0
QCBLANK QC CCB5	0.1	99.9	0.000	0.000 14Sep96 ABS =	0.000 12:50 0.000
5373 G 1 QC MFGZ56	5.1	0.0	0.017	0.017 14Sep96	0.017 12:55
QCSPIKE QC MFGZ56A	26.1	0.3	0.088	0.088 14Sep96 %R =	0.088 12:59 105.1

COPY
ORIGINAL WITH
SDG MFGZ44
AH 12/21/96

	ug/L		ABS		
5373 H 1 QC MFGZ57	10.4	0.6	0.035	0.035 14Sep96	0.036 13:04
QCSPIKE QC MFGZ57A	29.3	1.0	0.099	0.098 14Sep96 %R =	0.099 13:08 94.2
5373 I 1 QC MFGZ58	5.8	2.7	0.020	0.019 14Sep96	0.020 13:13
QCSPIKE QC MFGZ58A	25.4	0.5	0.086	0.086 14Sep96 %R =	0.086 13:18 97.9
5373 J 1 QC MFGZ64	7.9	2.2	0.027	0.026 14Sep96	0.027 13:22
QCSPIKE QC MFGZ64A	28.0	0.2	0.095	0.094 14Sep96 %R =	0.095 13:27 100.5
5373 K 1 QC MFGZ65	8.4	2.2	0.029	0.029 14Sep96	0.028 13:31
QCSPIKE QC MFGZ65A	28.5	0.6	0.096	0.096 14Sep96 %R =	0.096 13:36 100.1
QCSTANDARD QC CCV6	25.1	2.1	0.085	0.084 14Sep96 %R =	0.086 13:41 100.5
QCBLANK QC CCB6	0.4	23.5	0.001	0.001 14Sep96 ABS =	0.001 13:45 0.001
5373 L 1 QC MFGZ48	3.8	2.2	0.013	0.013 14Sep96	0.013 13:49
QCSPIKE QC MFGZ48A	25.0	1.9	0.085	0.086 14Sep96 %R =	0.083 13:54 106.2
5373 M 1 QC MFGZ51	6.4	2.6	0.022	0.022 14Sep96	0.021 13:59
QCSPIKE QC MFGZ51A	27.2	1.6	0.092	0.091 14Sep96 %R =	0.093 14:04 103.5
5373 N 1 QC MFGZ52	5.7	2.6	0.019	0.020 14Sep96	0.019 14:08
QCSPIKE QC MFGZ52A	26.9	1.5	0.091	0.092 14Sep96 %R =	0.090 14:13 105.8

COPY
ORIGINAL WITH
SDG MFG244
BH 12/21/96

	ug/L		ABS		
5373 O 1 QC MFGZ53	6.2	2.3	0.021	0.021 14Sep96	0.021 14:17
QCSPIKE QC MFGZ53A	26.5	1.6	0.089	0.088 14Sep96 %R =	0.091 14:22 101.5
5373 P 1 QC MFGZ54	5.7	2.0	0.019	0.020 14Sep96	0.019 14:27
QCSPIKE QC MFGZ54A	25.1	0.7	0.085	0.085 14Sep96 %R =	0.084 14:31 96.7
QCSTANDARD QC CCV7	26.1	0.4	0.088	0.088 14Sep96 %R =	0.088 14:36 104.4
QCBLANK QC CCB7	0.1	99.9	0.000	0.001 14Sep96 ABS =	-0.000 14:40 0.000
5373 Q 1 QC MFGZ55	6.4	0.0	0.022	0.022 14Sep96	0.022 14:45
QCSPIKE QC MFGZ55A	26.6	0.3	0.090	0.090 14Sep96 %R =	0.089 14:50 100.8
5373 R 1 QC MFGZ59	6.9	2.2	0.023	0.023 14Sep96	0.024 14:54
QCSPIKE QC MFGZ59A	26.5	0.0	0.090	0.090 14Sep96 %R =	0.090 14:59 98.2
5373 S 1 QC MFGZ60	7.2	1.2	0.024	0.024 14Sep96	0.024 15:03
QCSPIKE QC MFGZ60A	26.6	0.0	0.090	0.090 14Sep96 %R =	0.090 15:08 97.4
5373 T 1 QC MFGZ63	4.8	0.6	0.016	0.016 14Sep96	0.016 15:12
QCSPIKE QC MFGZ63A	25.4	0.0	0.086	0.086 14Sep96 %R =	0.086 15:17 103.1
5374 A 1 QC MFGZ66	4.7	1.8	0.016	0.016 14Sep96	0.016 15:21
QCSPIKE QC MFGZ66A	24.8	1.3	0.084	0.083 14Sep96 %R =	0.085 15:26 100.5

COPY
ORIGINAL WITH
SDG MFGZ44
BH 12/21/96

	ug/L		ABS		
QCSTANDARD QC CCV8	26.3	0.8	0.089	0.089 14Sep96 %R =	0.088 15:31 105.0
QCBLANK QC CCB8	0.2	49.4	0.001	0.001 14Sep96 ABS =	0.001 15:35 0.001
BLANK QC SO	0.0		0.002	0.002 14Sep96	0.002 15:41
QCSTANDARD QC CCV9	25.8	1.1	0.087	0.087 14Sep96 %R =	0.088 15:46 103.3
QCBLANK QC CCB9	-0.0	99.9	-0.000	0.000 14Sep96 ABS =	-0.000 15:50 0.001
5374 ADUP 1 QC MFGZ66D	5.0	0.5	0.017	0.017 14Sep96	0.017 15:54
QCSPIKE QC MFGZ66DA	25.5	1.5	0.086	0.085 14Sep96 %R =	0.087 15:59 102.2
5374 ASPK 2 QC MFGZ66S	21.3	0.5	0.072	0.072 14Sep96	0.072 16:03
QCSPIKE QC MFGZ66SA	41.8	0.0	0.139	0.139 14Sep96 %R =	0.140 16:08 102.7
5374 MB 1 QC PBS	-0.2	68.6	-0.001	-0.000 14Sep96	-0.001 16:12
QCSPIKE QC PBSA	21.9	0.7	0.074	0.074 14Sep96 %R =	0.075 16:17 ~~110.4~~ 109.9 AK 12-16-96
5374 ~~RF~~ Ref 1 200 AK 2-16-96 QC LCSS	25.1	0.1	0.085	0.085 14Sep96	0.085 16:21
QCSPIKE QC LCSSA	45.6	3.9	0.152	0.148 14Sep96 %R =	0.156 16:26 102.9
QCSTANDARD QC CCV10	26.0	1.9	0.088	0.089 14Sep96 %R =	0.087 16:31 103.9
QCBLANK QC CCB10	0.1	41.6	0.000	0.000 14Sep96 ABS =	0.000 16:35 0.001

COPY
ORIGINAL WITH
SDG MFG244
BH 12/21/96

7 5374

16:00 PB1217a.WSL

CALCULATED DATA FROM FILE: [illegible]S\PB961217

ANALYTICAL RESOURCES INCORPORATED

JOB	SAMP	ELEMENT	PREPCODE		RAWVALUE	CALCULATED	UNITS	DILUTION	MASS	INITVOL	FINLVOL	%SOLIDS
5374	MB	PB	SCN	U	0.0010000	0.2000000	mg/kg-dry	1.00	1.0000	0.00	200.00	100.00
5374	REF1	PB	SCN		0.0237000	236.7632368	mg/kg-dry	50.00	1.0010	0.00	200.00	100.00
5374	ASPK	PB	SCN		0.0351000	15.3838872	mg/kg-dry	2.00	1.0060	0.00	200.00	90.72
5374	A	PB	SCN		0.0137000	15.0113429	mg/kg-dry	5.00	1.0060	0.00	200.00	90.72
5374	ADUP	PB	SCN		0.0157000	34.4397940	mg/kg-dry	10.00	1.0050	0.00	200.00	90.72
5375	MB	PB	RCN	U	0.0010000	0.0010000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	MB1	PB	RCN		0.0018000	0.0018000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	REF2	PB	RCN		0.0200000	0.1000000	mg/L	5.00	0.0000	100.00	100.00	0.00
5375	REF4	PB	RCN		0.0201000	0.1005000	mg/L	5.00	0.0000	100.00	100.00	0.00
5375	A	PB	RCN	U	0.0010000	0.0010000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	ASPK	PB	RCN		0.0183000	0.0183000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	C	PB	RCN		0.0047000	0.0047000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	CDUP	PB	RCN		0.0057000	0.0057000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	B	PB	RCN		0.0011000	0.0011000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	D	PB	RCN	U	0.0010000	0.0010000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	E	PB	RCN	U	0.0010000	0.0010000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	F	PB	RCN	U	0.0010000	0.0010000	mg/L	1.00	0.0000	100.00	100.00	0.00

Element: Pb

ANALYTICAL RESOURCES INCORPORATED

000245

VARIAN 1 - EPA CLP GRAPHITE FURNACE SUMMARY LOGBOOK

ALL CORRECTIONS MADE BY ANALYST UNLESS OTHERWISE NOTED. NSJ 12-17-96

IDL/Reporting Limit: 1.0 µg/L | Date: 12-17-96 | Analyst: NSJ

Edit Label/ Dil.	Load Data	Sample ID	EPA ID	Prep Code	Dilution Used	Calculated Value (µg/L)	Analytical Spike (µg/L)	Analytical Spike % R or MSA r	Flag	Comments	Time
		S0 (BLANK)									11:53
		S3	STD. # 758-2							NOTE:	
		S10		-3						SAMPLE PREDILUTIONS BASED	
		S20		-4						ON 12/15/96 ICP DATA.	
		S50		-6							~~12:21~~
		S75		-7							12:21
		ICV			5x	21.2				107.3% ✓	12:27
		ICB				0.4				✓	
		CRA 3µg/L				2.8	24.6	109.0		✓	
		CCV 1				42.3				105.8% ✓	12:49
		CCB 1				-0.5				✓	
		S0									
		S20				RESLOPE = 106.3% OF S20					
		CCV 2				38.5				96.2% ✓	13:11

U = Undetected (See IDL/Reporting Limit Above)

5055F

Rev.1 12/02/96

Element: Pb

ANALYTICAL RESOURCES INCORPORATED

000246

VARIAN 1 - EPA CLP GRAPHITE FURNACE SUMMARY LOGBOOK

ALL CORRECTIONS MADE BY ANALYST UNLESS OTHERWISE NOTED.

IDL/Reporting Limit: 1.0 µg/L | Date: 12-17-96 | Analyst: NSJ

Edit Label/ Dil.	Load Data	Sample ID	EPA ID	Prep Code	Dilution Used	Calculated Value (µg/L)	Analytical Spike (µg/L)	Analytical Spike % R or MSA r	Flag	Comments	Time
		CCB 2				0.1				✓	
	✓	5374 MB	PBS	SCN	1x	U	20.5	102.5			
	✓	REF1	LCSS		50x	23.7	42.6	94.5		237 mg/kg ✓	
		A	MFGZ66		2x	29.2	45.3	80.9		MSA-2x, 5x	
		ADUP	D			66.7	OVER	–		5x	
	✓	ASPK	S			35.1	(49.4	71.9)	N.	8.5% R-OUT	
		CCV 3				38.6				96.5% ✓	14:18
		CCB 3				0.2				✓	
		S0									
		S20				RE SLOPE = 110.4% OF S20					
		CCV 4				38.6				96.6% ✓	14:41
		CCB 4				0.1				✓	
12-19 MSA	✓	5374 A	MFGZ66	SCN	5x	13.7		.9978			
		ADUP	D			25.2	41.4	80.8		MSA-10x	

U = Undetected (See IDL/Reporting Limit Above)

000016

5055F

Rev.1 12/02/96

Element: Pb

ANALYTICAL RESOURCES INCORPORATED

000247

VARIAN 1 - EPA CLP GRAPHITE FURNACE SUMMARY LOGBOOK

ALL CORRECTIONS MADE BY ANALYST UNLESS OTHERWISE NOTED.

IDL/Reporting Limit:	1.0 µg/L	Date: 12-17-96	Analyst: NSJ

Edit Label/ Dil.	Load Data	Sample ID	EPA ID	Prep Code	Dilution Used	Calculated Value (µg/L)	Analytical Spike (µg/L)	Analytical Spike % R or MSA r	Flag	Comments	Time
X		CCV 5				39.1				97.8% ✓	15:14
X		CCB 5				0.4				✓	
		S0									
		CCV 6				37.5				93.7% ✓	15:33
		CCB 6				0.2				✓	
	✓	5374ADUP	MFGZ66D	SCN	10x	15.7		.9951	*	79.4% RPD - OUT	
		CCV 7				37.3				93.3% ✓	15:55
		CCB 7				-0.5				✓	
		S0									
		S20				RESLOPE = 104.2% OF S20					
		CCV 8				40.7				101.7% ✓	16:19
		CCB 8				-0.6				✓	
	✓	5375 MB	PBW	RCN	1x	U	21.1	105.5			
	✓	↓ MB1	PBW	↓	↓	1.8	21.6	99.2			

12/23/96

U = Undetected (See IDL/Reporting Limit Above)

000017

5055F

Rev.1
12/02/96

MSA CALCULATIONS (VARIAN)
SPIKE CONCENTRATION vs. ABSORBANCE

ELEMENT: Pb

DATE: 12/17/96

PAGE 1 OF 2

10 ug/L Abs: 0.027
(Corrected for reslope)

SAMPLE NAME & DILUTION:		5374 A 5x MFGZ66	
SPIKE ADDED ug/L	Abs		
0	0.03	INTERCEPT =	-13.69
5	0.042	R-VALUE =	0.99782
10	0.054	1/SLOPE =	0.00223
15	0.063	Relative % Recovery	82.58

MSA CALCULATIONS (VARIAN)
SPIKE CONCENTRATION vs. ABSORBANCE

ELEMENT: Pb

DATE: 12/17/96

PAGE 2 OF 2

10 ug/L Abs: 0.026

SAMPLE NAME & DILUTION:	5374 ADUP 10x MFEZ66D		
SPIKE ADDED ug/L	Abs		
0	0.036	INTERCEPT =	-15.68
5	0.044	R-VALUE =	0.99508
10	0.058	1/SLOPE =	0.00222
15	0.068	Relative % Recovery	85.45

All crossouts by NSJ.

ANALYTICAL RESOURCES INCORPORATED

VARIAN GRAPHITE FURNACE INSTRUMENT LOG

Varian 1 Varian 2

Element: Pb	Date: 12-17-94	Analyst: NSJ
Wavelength: ~~217~~ 283.3nm	Slit: 0.5 nm	Program No.: 17
Lamp: Starna 1604302	HCL Current: 5 mA	Boost Current: 15 mA
Cuvette Type: Platform	Cuvette Condit: Used	Platform Condition: Used

Calibration: ✓ Curve, Single Additions, MSA, ✓ CLP - EPA

Intermediate Standard Concentration and Source: 2 mg/L IV Std.# 758-1

Autosampler Calibration Stock Std. Concentration: SEE SUMMARY LOG Std.#

Calibration Verification Standard Concentration and Source: 98.8 ug/L EPA ICV-4 539-4; 40.0 " IVCV Std.# 758-9

Matrix Modifier: 5µL Pd/Mg/Citric Acid to 15µL sample

Program Number and Comments:

Integration: Peak Area

ABS for 10 µg/L: 0.026

ABS for 1.0 µg/L:

Notes:

001271

5004F

Rev. 1
02/17/94

000250

✓ 12-18-96 (A)
✓ 12-19-96

Varian SpectrAA 300/400 Zeeman
QC Protocol Report

ANALYTICAL RESOURCES INC.
VARIAN 1 300

OPERATOR NSJ
DATE 12/17/96
BATCH Pb961217

All corrections by NSJ. 12/17/96

QC PROTOCOL PARAMETERS

QC STANDARD POSITION	45
IF THERE IS AN ERROR	STOP
QC SPIKE POSITION	44
RECOVERY LIMITS (%)	85 TO 115
RECOVERY MINIMUM LIMIT (%)	40
CORRELATION COEFFICIENT (r)	0.995
OVERRANGE VOLUME REDUCTION	1
REPLICATE RSD LIMIT (%)	100.0

COPY
ORIGINAL WITH
SDG MCRGD7
12/23/96

PROGRAM 17 Pb CLP

INSTRUMENT MODE	ABSORBANCE
CALIBRATION MODE	CONCENTRATION
MEASUREMENT MODE	PEAK AREA
LAMP POSITION	2
LAMP CURRENT (mA)	5
SLIT WIDTH (nm)	0.5
SLIT HEIGHT	NORMAL
WAVELENGTH (nm)	283.3
SAMPLE INTRODUCTION	SAMPLER PREMIXED
TIME CONSTANT	0.05
MEASUREMENT TIME (sec)	1.0
REPLICATES	2
BACKGROUND CORRECTION	ON
MAXIMUM ABSORBANCE	1.40

FURNACE PARAMETERS

STEP NO.	TEMPERATURE (C)	TIME (sec)	GAS FLOW (L/min)	GAS TYPE	READ COMMAND
1	300	35.0	3.0	ALTERNATE	NO
2	600	10.0	3.0	ALTERNATE	NO
3	1000	5.0	3.0	ALTERNATE	NO
4	1000	30.0	3.0	ALTERNATE	NO
5	150	4.3	0.0	NORMAL	NO
6	2300	1.1	0.0	NORMAL	YES
7	2300	2.0	0.0	NORMAL	YES
8	2300	1.0	3.0	NORMAL	NO
9	2700	2.0	3.0	NORMAL	NO
10	40	13.3	3.0	NORMAL	NO

SAMPLER PARAMETERS
VOLUMES (µL)

	SOLUTION	BLANK	MODIFIER
BLANK	--	15	5
STANDARD 1	15	0	5
STANDARD 2	15	0	5
STANDARD 3	15	0	5
STANDARD 4	15	0	5
STANDARD 5	15	0	5
SAMPLE	15	0	5

RECALIBRATION RATE 0
RESLOPE RATE 0

MULTIPLE INJECT NO HOT INJECT YES PRE INJECT NO
TEMPERATURE 150
INJECT RATE 5

QC PROTOCOL PARAMETERS

QC STANDARD RATE	0
QC STANDARD VOLUME (µL)	15
QC STANDARD CONCENTRATION	40.0
QC STANDARD LIMITS (%)	90 TO 110
QC SPIKE RATE	0
QC SPIKE VOLUME (µL)	6
QC SPIKE CONCENTRATION	50.0
MATRIX SPIKE CONCENTRATION	0.1
REQUIRED DETECTION LIMIT	4.0

MIXED MODIFIER SOLUTION: 500 mg/L Pd from Pd(NO3)2, 1000 mg/L Mg from Mg(NO3)2 and 1% citric acid

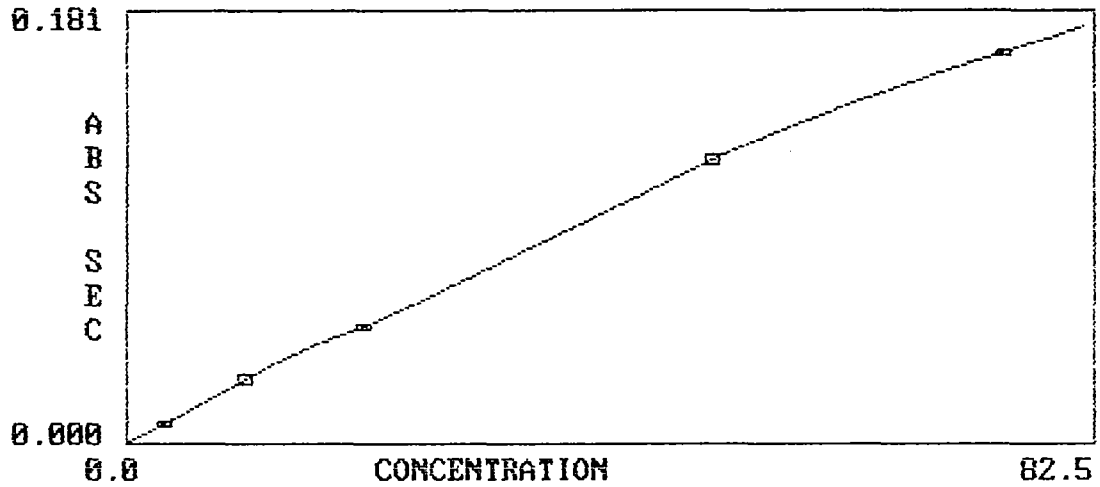
CUVETTE TYPE: Platform

COPY
ORIGINAL WITH
MCRG07

BH 12/23/96

SAMPLE	CONC	%RSD	MEAN ABS	READINGS	
BLANK	0.0		0.008	0.009	0.008
QC 50				17Sep96	11:53
STANDARD 1	3.0	4.0	0.007	0.008	0.007
QC 53				17Sep96	11:59
STANDARD 2	10.0	5.1	0.026	0.027	0.025
QC 510				17Sep96	12:04

SAMPLE	CONC	%RSD	MEAN ABS	READINGS	
STANDARD 3 QC 520	20.0	1.1	0.048	0.048 17Sep96	0.048 12:10
STANDARD 4 QC 550	50.0	1.0	0.120	0.121 17Sep96	0.119 12:15
STANDARD 5 QC 575	75.0	0.1	0.165	0.165 17Sep96	0.165 12:21



COPY
ORIGINAL WITH
SDG MCRG07

ICV QC	21.2	0.4	0.051	0.051 17Sep96	0.051 12:27
ICB QC	0.4	51.6	0.001	0.001 17Sep96 ~~RPD =~~	0.001 12:32 ~~192.0~~
CRA 3ug/L QC	2.8	0.9	0.007	0.007 17Sep96 ~~%R =~~	0.007 12:38 ~~2428.7~~
CRAA QC	24.6	1.4	0.059	0.059 17Sep96	0.058 12:43
CCV 1 QC	42.3	3.7	0.101	0.099 17Sep96	0.104 12:49

BH 12/23/96

SAMPLE	CONC	%RSD	MEAN ABS	READINGS	
CCB 1 QC	-0.5	10.8	-0.001	-0.001 17Sep96	-0.001 12:54
BLANK QC 50	0.0		-0.000	-0.000 17Sep96	-0.000 13:01
RESLOPE 3 QC 520	20.0	2.6	0.051	0.050 17Sep96	0.052 13:06
QCSTANDARD QC CCV2	38.5	0.7	0.097	0.097 17Sep96 %R =	0.098 13:11 96.2
QCBLANK QC CCB2	0.1	99.9	0.000	0.001 17Sep96 ABS =	-0.001 13:17 0.003
5374 MB 1 QC PBS	0.2	99.9	0.000	0.001 17Sep96	0.000 13:22
QCSPIKE QC PBSA	20.5	0.6	0.052	0.052 17Sep96 %R =	0.052 13:28 ~~101.7~~ 102.5
5374 REF1 50 QC LCSS	23.7	3.1	0.060	0.061 17Sep96	0.059 13:33
QCSPIKE QC LCSSA	42.6	0.9	0.108	0.107 17Sep96 %R =	0.109 13:39 94.5
5374 A 2 QC MFG266	29.2	3.6	0.074	0.076 17Sep96	0.072 13:45
QCSPIKE QC MFG266A	45.3	1.7 N	0.115	0.113 17Sep96 %R =	0.116 13:50 80.9
				%R FAILED, REPEAT BY STANDARD ADDITIONS	
5374 ADUP 2 QC MFG266D	66.7	2.9	0.158	0.161 17Sep96	0.154 13:56
QCSPIKE QC MFG266DA	OVER	0.4 E	0.187	0.188 17Sep96 %R =	0.187 14:02 0.0
				~~%R LESS THAN MINIMUM LIMIT~~	
5374 ASPK 2 QC MFG266S	35.1	2.7	0.089	0.087 17Sep96	0.091 14:07
QCSPIKE QC MFG266SA	49.4	0.3 N	0.124	0.124 17Sep96 %R =	0.125 14:13 71.9
				~~%R FAILED, REPEAT BY STANDARD ADDITIONS~~	
QCSTANDARD QC CCV3	38.6	2.2	0.098	0.096 17Sep96 %R =	0.099 14:18 96.5

COPY
ORIGINAL WITH
SDG MCRG07

BH 12/23/96

SAMPLE	CONC	%RSD	MEAN ABS	READINGS	
QCBLANK QC CCB 3	0.2	34.8	0.001	0.001 17Sep96 ABS =	0.000 14:24 0.003
BLANK QC SO	0.0		0.004	0.004 17Sep96	0.004 14:31
RESLOPE 3 QC S20	20.0	2.4	0.053	0.054 17Sep96	0.052 14:36
QCSTANDARD QC CCV 4	38.6	0.5	0.102	0.101 17Sep96 %R =	0.102 14:41 96.6
QCBLANK QC CCB 4	0.1	22.2	0.000	0.000 17Sep96 ABS =	0.000 14:47 0.004
5374 A 5 MSA QC	~~12.5~~	~~24.2~~	~~0.036~~	0.030 MF6266-0 17Sep96	0.042 MF6266-1 14:52
~~QCSPIKE~~ QC	~~22.0~~	~~10.8~~ ~~N~~	~~0.050~~	0.054 MF6266-2 17Sep96 ~~%R = 47.4~~ ~~%R FAILED, REPEAT BY STANDARD ADDITIONS~~	0.063 MF6266-3 14:58
5374 ADUP 5 QC	25.2	0.8	0.067	0.067 17Sep96	0.066 15:03
QCSPIKE QC	41.4	2.1 N	0.109	0.107 17Sep96 %R =	0.111 15:09 80.8
				%R FAILED, REPEAT BY STANDARD ADDITIONS	
CCV 5 ~~5375 MB 1~~ QC	39.1	1.4	0.103	0.102 17Sep96	0.104 15:14
CCB 5 ~~QCSPIKE~~ QC	0.4	19.7 ~~E~~	0.001	0.001 17Sep96 ~~%R = 193.5~~ ~~%R LESS THAN MINIMUM LIMIT~~	0.001 15:20
BLANK QC SO	0.0		-0.001	-0.001 17Sep96	-0.002 15:27
QCSTANDARD QC ~~S20~~ CCV 6	37.5	1.7	0.099	0.100 17Sep96 %R =	0.098 15:33 93.7
QCBLANK QC CCB 6	0.2	32.3	0.001	0.001 17Sep96 ABS =	0.000 15:38 0.004
5374 ADUP 10 MSA QC	~~14.5~~	~~14.4~~	~~0.040~~	0.036 MF6266D-0 17Sep96	0.044 MF6266D-1 15:43
~~QCSPIKE~~ QC	~~23.8~~	~~10.9~~ ~~N~~	~~0.063~~	0.058 MF6266D-2 17Sep96 ~~%R = 46.4~~ ~~%R FAILED, REPEAT BY STANDARD ADDITIONS~~	0.068 MF6266D-3 15:49

COPY
ORIGINAL WITH
SDG MCRG07
BH 12/23/96

Conc. = 13.7 ppb
r = 0.9978

Conc. = 15.7 ppb
r = 0.9951

000255

SAMPLE	CONC	%RSD	MEAN ABS	READINGS	
QCSTANDARD QC CCV 7	37.3	1.8	0.098	0.097 17Sep96 %R =	0.100 15:55 93.3
QCBLANK QC CCB 7	-0.5	54.8	-0.001	-0.002 17Sep96 ABS =	-0.001 16:00 0.002
BLANK QC SO	0.0		0.002	0.002 17Sep96	0.002 16:08
RESLOPE 3 QC S20	20.0	1.8	0.050	0.049 17Sep96	0.051 16:13
QCSTANDARD QC CCV 8	40.7	0.4	0.102	0.102 17Sep96 %R =	0.101 16:19 101.7
QCBLANK QC CCB 8	-0.5	26.2	-0.001	-0.001 17Sep96 ABS =	-0.002 16:24 0.003
5375 MB 1 QC PBW	0.3	6.8	0.001	0.001 17Sep96	0.001 16:30
QCSPIKE QC PBWA	21.1	0.6	0.053	0.053 17Sep96 %R =	0.053 16:35 ~~104.0~~ 105.5
5375 MB1 1 QC PBW	1.8	38.4	0.005	0.003 17Sep96	0.006 16:41
QCSPIKE QC PBWA	21.6	2.2	0.054	0.053 17Sep96 %R =	0.055 16:47 99.2
5375 REF2 5 QC LCSW	20.0	3.5	0.050	0.051 17Sep96	0.049 16:52
QCSPIKE QC LCSWA	38.1	1.2	0.095	0.094 17Sep96 %R =	0.096 16:58 90.6
5375 REF4 5 QC LCSW	20.1	0.7	0.050	0.050 17Sep96	0.051 17:03
QCSPIKE QC LCSWA	37.9	2.6	0.095	0.093 17Sep96 %R =	0.096 17:09 88.9
5375 A 1 QC MCRG07	0.7	4.9	0.002	0.002 17Sep96	0.002 17:14
QCSPIKE QC MCRG07A	16.5	0.5 N	0.043	0.043 17Sep96 %R =	0.043 17:20 ~~79.3~~ 82.5

~~%R FAILED, REPEAT BY STANDARD ADDITIONS~~

COPY
ORIGINAL WITH
SDG MCRG07

BH ~~12/09/96~~ 12/23/96
BH

BH 12/23/96

000256

10 5374

CALCULATED DATA FROM FILE: [illegible]S\SE961214

ANALYTICAL RESOURCES INCORPORATED

JOB	SAMP	ELEMENT	PREPCODE		RAWVALUE	CALCULATED	UNITS	DILUTION	MASS	INITVOL	FINLVOL	%SOLIDS
5373	MB	SE	SCN	U	0.0010000	0.2000000	mg/kg-dry	1.00	1.0000	0.00	200.00	100.00
5373	REF1	SE	SCN		0.0095000	38.0000000	mg/kg-dry	20.00	1.0000	0.00	200.00	100.00
5373	A	SE	SCN	U	0.0010000	0.2403546	mg/kg-dry	1.00	1.0160	0.00	200.00	81.90
5373	ADUP	SE	SCN	U	0.0010000	0.2403546	mg/kg-dry	1.00	1.0160	0.00	200.00	81.90
5373	ASPK	SE	SCN		0.0085000	2.0430139	mg/kg-dry	1.00	1.0160	0.00	200.00	81.90
5373	B	SE	SCN	U	0.0010000	0.2331528	mg/kg-dry	1.00	1.0370	0.00	200.00	82.72
5373	C	SE	SCN	U	0.0010000	0.2440245	mg/kg-dry	1.00	1.0250	0.00	200.00	79.96
5373	D	SE	SCN	U	0.0010000	0.2432229	mg/kg-dry	1.00	1.0050	0.00	200.00	81.82
5373	E	SE	SCN	U	0.0010000	0.2445788	mg/kg-dry	1.00	1.0020	0.00	200.00	81.61
5373	F	SE	SCN	U	0.0010000	0.2367711	mg/kg-dry	1.00	1.0240	0.00	200.00	82.49
5373	G	SE	SCN	U	0.0010000	0.2518690	mg/kg-dry	1.00	1.0040	0.00	200.00	79.09
5373	H	SE	SCN	U	0.0010000	0.2262863	mg/kg-dry	1.00	1.0270	0.00	200.00	86.06
5373	I	SE	SCN	U	0.0010000	0.2584483	mg/kg-dry	1.00	1.0690	0.00	200.00	72.39
5373	J	SE	SCN	U	0.0010000	0.2309452	mg/kg-dry	1.00	1.0420	0.00	200.00	83.11
5373	K	SE	SCN	U	0.0010000	0.2354107	mg/kg-dry	1.00	1.0160	0.00	200.00	83.62
5373	L	SE	SCN	U	0.0010000	0.2363244	mg/kg-dry	1.00	1.0580	0.00	200.00	79.99
5373	M	SE	SCN	U	0.0010000	0.2432476	mg/kg-dry	1.00	1.0590	0.00	200.00	77.64
5373	N	SE	SCN	U	0.0010000	0.2398254	mg/kg-dry	1.00	1.0170	0.00	200.00	82.00
5373	O	SE	SCN	U	0.0010000	0.2386151	mg/kg-dry	1.00	1.0050	0.00	200.00	83.40
5373	P	SE	SCN	U	0.0010000	0.2306120	mg/kg-dry	1.00	1.0160	0.00	200.00	85.36
5373	Q	SE	SCN	U	0.0010000	0.2417963	mg/kg-dry	1.00	1.0360	0.00	200.00	79.84
5373	R	SE	SCN	U	0.0010000	0.2226831	mg/kg-dry	1.00	1.0760	0.00	200.00	83.47
5373	S	SE	SCN	U	0.0010000	0.2404247	mg/kg-dry	1.00	1.0060	0.00	200.00	82.69
5373	T	SE	SCN	U	0.0010000	0.2127560	mg/kg-dry	1.00	1.0640	0.00	200.00	88.35
5374	A	SE	SCN	U	0.0010000	0.2191437	mg/kg-dry	1.00	1.0060	0.00	200.00	90.72
5374	ADUP	SE	SCN	U	0.0010000	0.2193617	mg/kg-dry	1.00	1.0050	0.00	200.00	90.72
5374	ASPK	SE	SCN		0.0094000	2.0599507	mg/kg-dry	1.00	1.0060	0.00	200.00	90.72
5374	MB	SE	SCN	U	0.0010000	0.2000000	mg/kg-dry	1.00	1.0000	0.00	200.00	100.00
5374	REF1	SE	SCN		0.0191000	38.1618382	mg/kg-dry	10.00	1.0010	0.00	200.00	100.00

Element: Se

ANALYTICAL RESOURCES INCORPORATED

VARIAN 1 - EPA CLP GRAPHITE FURNACE SUMMARY LOGBOOK

ALL CORRECTIONS MADE BY ANALYST UNLESS OTHERWISE NOTED. AA 12-14-96 AA 12-14-96 14

IDL/Reporting Limit: 1.0 µg/L | Date: 12-12-96 | Analyst: AA

Edit Label/ Dil.	Load Data	Sample ID	EPA ID	Prep Code	Dilution Used	Calculated Value (µg/L)	Analytical Spike (µg/L)	Analytical Spike % R or MSA r	Flag	Comments	Time
		S0									0957
		S5								Std 755-10 at 10X	
		S10								755-12	
		S20								755-11	
		S50								755-10	1015
		ICV			2X	25.4				100.2% ✓	1020
		ICB				0.3				✓	
		CRA 5.0 µg/L				5.0	14.9	99.0		✓	
		CCV1				25.9				103.6% ✓	1038
		CCB1				-0.6				✓	
		S0									
		CCV2				25.3				101.4% ✓	1052
		CCB2				-0.1				✓	
	✓	5373 MB	PBS	SCN	1X	U	10.0	100.0			

U Undetected (See IDL/Reporting Limit Above)

000010

000258

5055F

Rev.1
12/02/96

Element: Se

ANALYTICAL RESOURCES INCORPORATED

VARIAN 1 - EPA CLP GRAPHITE FURNACE SUMMARY LOGBOOK

ALL CORRECTIONS MADE BY ANALYST UNLESS OTHERWISE NOTED.

IDL/Reporting Limit: 1.0 µg/L **Date:** 12/14/96 **Analyst:** Ana

Edit Label/ Dil.	Load Data	Sample ID	EPA ID	Prep Code	Dilution Used	Calculated Value (µg/L)	Analytical Spike (µg/L)	Analytical Spike % R or MSA r	Flag	Comments	Time
	✓	5373 Refl	LCSS	SCN	20x	9.5	18.4	89.2		38 mg/kg ✓	
	✓	A	MFGZ44		1x	U	8.8	88.0			
	✓	ADup	MFGZ44D			U	9.5	95.0		✓	
	✓	Aspk	MFGZ44S			8.5	17.3	88.5		85% R ✓	
		CCV 3				25.4				101.8% ✓	1147
		CCB 3				-0.7				✓	
	✓	5373 B	MFGZ45	SCN	1x	U	9.0	90.0			
	✓	C	MFGZ46			U	8.9	89.0			
	✓	D	MFGZ47			U	7.8	78.0	W		
	✓	E	MFGZ~~48~~ 49			U	8.2	82.0	W		
	✓	F	MFGZ50			U	9.1	91.0			
		CCV 4				24.3				97.0% ✓	1241
		CCB 4				-1.0				✓	
		SO									

U = Undetected (See IDL/Reporting Limit Above)

000259

000011

5055F

Rev.1
12/02/96

Element: Se

ANALYTICAL RESOURCES INCORPORATED

VARIAN 1 - EPA CLP GRAPHITE FURNACE SUMMARY LOGBOOK

ALL CORRECTIONS MADE BY ANALYST UNLESS OTHERWISE NOTED.

IDL/Reporting Limit: 1.0 µg/L **Date:** 12-14-96 **Analyst:** AK

Edit Label/ Dil.	Load Data	Sample ID	EPA ID	Prep Code	Dilution Used	Calculated Value (µg/L)	Analytical Spike (µg/L)	Analytical Spike % R or MSA r	Flag	Comments	Time
		CCV 5				25.0				100.1% ✓	1255
		CCB 5				0.1				✓	
	✓	5373 G	MFGZ56	SCN	1X	U	8.8	88.0			
	✓	H	MFGZ57			U	8.1	81.0	W		
	✓	I	MFGZ58			U	6.2	62.0	W		
	✓	J	MFGZ64			U	7.5	75.0	W		
	✓	K	MFGZ65			U	7.9	79.0	W		
		CCV 6				25.3				101.3% ✓	1351
		CCB 6				-0.2				✓	
	✓	5373 L	MFGZ48	SCN	1X	U	9.2	92.0			
	✓	M	MFGZ51			U	9.3	93.0			
	✓	N	MFGZ52			U	9.3	93.0			
	✓	O	MFGZ53			U	8.4	84.0	W		
	✓	P	MFGZ54			U	7.9	79.0	W		

U = Undetected (See IDL/Reporting Limit Above)

000020

000012

5055F

Rev.1
12/02/96

Element: Se

ANALYTICAL RESOURCES INCORPORATED

VARIAN 1 - EPA CLP GRAPHITE FURNACE SUMMARY LOGBOOK

ALL CORRECTIONS MADE BY ANALYST UNLESS OTHERWISE NOTED.

IDL/Reporting Limit: 1.0 µg/L | Date: 12-14-96 | Analyst: AA

Edit Label/ Dil.	Load Data	Sample ID	EPA ID	Prep Code	Dilution Used	Calculated Value (µg/L)	Analytical Spike (µg/L)	Analytical Spike % R or MSA r	Flag	Comments	Time
		CCV 7				25.1				100.4% ✓	1446
		CCB 7				-0.2				✓	
	✓	5373 Q	MFGZ55	SCN	1X	U	9.0	90.0			
	✓	R	MFGZ59			U	6.0	60.0	W		
	✓	S	MFGZ60			U	6.3	63.0	W		
	✓	T	MFGZ63			U	9.1	91.0			
✓ 12-16	✓	5374 A	MFGZ66			U	9.2	92.0			
		CCV 8				25.1				100.5% ✓	1542
		CCB 8				-0.1				✓	
		SO									
		CCV 9				26.1				104.3% ✓	1557
2/16/96		CCB 9				0.3				✓	
✓	✓	5374 ADup	MFGZ66D	SCN	1X	U	9.8	98.0		✓	
✓	✓	Aspk	MFGZ66S			9.4	18.8	94.3		94% R ✓	

U = Undetected (See IDL/Reporting Limit Above)

000013

5055F

Rev.1 12/02/96

Element: Se

ANALYTICAL RESOURCES INCORPORATED

VARIAN 1 - EPA CLP GRAPHITE FURNACE SUMMARY LOGBOOK

ALL CORRECTIONS MADE BY ANALYST UNLESS OTHERWISE NOTED. Ant 12-16-96

IDL/Reporting Limit: 1.0 µg/L **Date:** 12-14-96 **Analyst:** Ant

Edit Label/ Dil.	Load Data	Sample ID	EPA ID	Prep Code	Dilution Used	Calculated Value (µg/L)	Analytical Spike (µg/L)	Analytical Spike % R or MSA r	Flag	Comments	Time
	✓	5374 MB	PBS	SCN	1X	U	10.7	107.0 ~~103.~~			
	✓	↓ Ref 1	LCSS	↓	10X	19.1	27.4	83.5	GW 12-16	38.2 mg/kg ✓ ~~38.2 mg~~	
		CCV 10				25.6				102.5% ✓ BH 12/21/96	1642
		CCB 10				0.3				✓	1646

cond Run

Ant

000262

L = Undetected (See IDL/Reporting Limit Above)

000014

5055F

Rev.1
12/02/96

ANALYTICAL
RESOURCES
INCORPORATED

VARIAN GRAPHITE FURNACE INSTRUMENT LOG

Varian 1 Varian 2

Element: Se	Date: 12-14-96	Analyst: AA
Wavelength: 196.0 nm	Slit: 1.0 nm	Program No.: 25
Lamp: Photron 3617	HCL Current: 8 mA	Boost Current: 25 mA
Cuvette Type: platform	Cuvette Condit: new	Platform Condition: used

Calibration: Curve, Single Additions, MSA, CLP-EPA

Intermediate Standard
Concentration and Source: 2.0 ug/L Std.# 755-9

Autosampler Calibration
Stock Std. Concentration: See Summary logbook Std.#

Calibration Verification ICV 50.7 ug/L EPA ICV-2 539-5
Standard Concentration and Source: CCV 25.2 ug/L IVCV GFA Std.# 755-14

Matrix Modifier: 5 uL Pd/Mg/Ct mod to 15 uL sample

Program Number and Comments:

Integration: Peak Area

ABS for 10 µg/L: 0.024

ABS for 1.0 µg/L:

Notes:

001270

✓ 12-16-96

Varian SpectrAA 300/400 Zeeman
QC Protocol Report

ANALYTICAL RESOURCES INC.
VARIAN 1 300

COPY
ORIGINAL WITH
SDG MFG 244
BH 12/21/96

OPERATOR	ALA
DATE	12/14/96
BATCH	Se961214

QC PROTOCOL PARAMETERS

QC STANDARD POSITION	45
IF THERE IS AN ERROR	STOP
QC SPIKE POSITION	44
RECOVERY LIMITS (%)	85 TO 115
RECOVERY MINIMUM LIMIT (%)	40
CORRELATION COEFFICIENT (r)	0.995
OVERRANGE VOLUME REDUCTION	1
REPLICATE RSD LIMIT (%)	100.0

PROGRAM 25 Se CLP

INSTRUMENT MODE	ABSORBANCE
CALIBRATION MODE	CONCENTRATION
MEASUREMENT MODE	PEAK AREA
LAMP POSITION	1
LAMP CURRENT (mA)	8
SLIT WIDTH (nm)	1.0
SLIT HEIGHT	NORMAL
WAVELENGTH (nm)	196.0
SAMPLE INTRODUCTION	SAMPLER PREMIXED
TIME CONSTANT	0.05
MEASUREMENT TIME (sec)	1.0
REPLICATES	2
BACKGROUND CORRECTION	ON
MAXIMUM ABSORBANCE	1.20

FURNACE PARAMETERS

STEP NO.	TEMPERATURE (C)	TIME (sec)	GAS FLOW (L/min)	GAS TYPE	READ COMMAND
1	300	35.0	3.0	ALTERNATE	NO
2	600	10.0	3.0	ALTERNATE	NO
3	1300	5.0	3.0	ALTERNATE	NO
4	1300	5.0	3.0	ALTERNATE	NO
5	1300	1.0	0.0	NORMAL	NO
6	2500	0.6	0.0	NORMAL	YES
7	2500	2.0	0.0	NORMAL	YES
8	2500	1.0	3.0	NORMAL	NO
9	2600	2.0	3.0	NORMAL	NO
10	40	12.8	3.0	NORMAL	NO

SAMPLER PARAMETERS
VOLUMES (µL)

	SOLUTION	BLANK	MODIFIER
BLANK	--	15	5
STANDARD 1	15	0	5
STANDARD 2	15	0	5
STANDARD 3	15	0	5
STANDARD 4	15	0	5
SAMPLE	15	0	5

RECALIBRATION RATE 0
RESLOPE RATE 0

MULTIPLE INJECT NO HOT INJECT YES PRE INJECT NO
TEMPERATURE 150
INJECT RATE 5

COPY
ORIGINAL WITH
SDG MFG244
BSH 12/21/96

QC PROTOCOL PARAMETERS

QC STANDARD RATE	0
QC STANDARD VOLUME (µL)	15
QC STANDARD CONCENTRATION	25.0 ug/L
QC STANDARD LIMITS (%)	90 TO 110
QC SPIKE RATE	0
QC SPIKE VOLUME (µL)	6
QC SPIKE CONCENTRATION	25.0 ug/L
MATRIX SPIKE CONCENTRATION	0.1 ug/L
REQUIRED DETECTION LIMIT	4.0 ug/L

MIXED MODIFIER SOLUTION: 500 mg/L Pd from Pd(NO3)2, 1000 mg/L Mg from Mg(NO3)2 and 1% citric acid

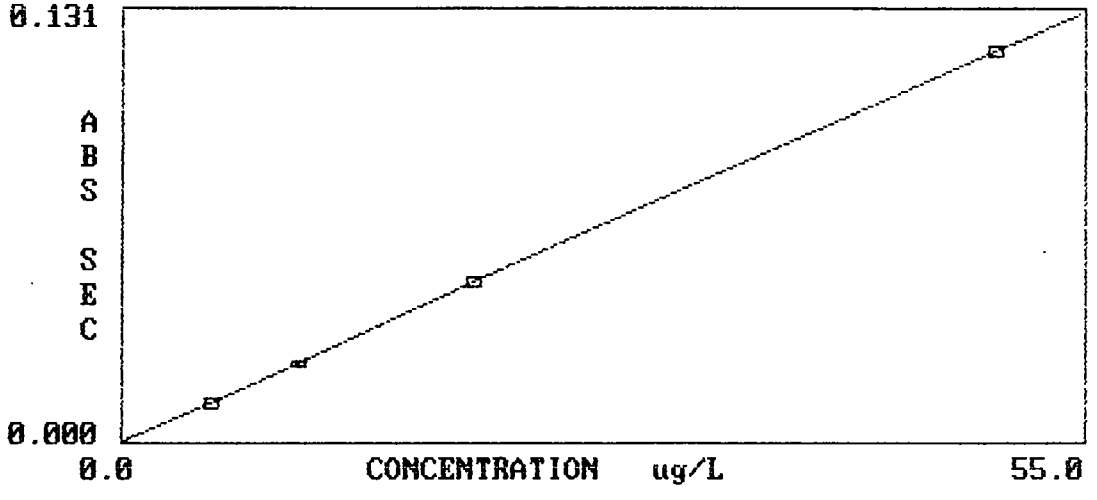
CUVETTE TYPE: Platform

LAMP TYPE: Photron Super Lamp

SAMPLE	CONC ug/L	%RSD	MEAN ABS	READINGS	
BLANK	0.0		0.007	0.007	0.006
QC So				14Sep96	09:57
STANDARD 1	5.0	4.8	0.012	0.012	0.011
QC S5				14Sep96	10:02
STANDARD 2	10.0	1.4	0.024	0.024	0.024
QC S10				14Sep96	10:06

SAMPLE	CONC ug/L	%RSD	MEAN ABS	READINGS	
STANDARD 3 QC S20	20.0	1.9	0.049	0.049 14Sep96	0.048 10:11
STANDARD 4 QC S50	50.0	0.5	0.119	0.120 14Sep96	0.119 10:15

COPY
ORIGINAL WITH
SDG MFG244
12/21/96



Crossouts by AA 12/14/96

ICV QC	25.4	2.7	0.061	0.063 14Sep96	0.060 10:20
ICB QC	0.3	0.0	0.001	0.001 14Sep96	0.001 10:25
				~~RPD =~~	~~195.3~~
CRA 5.0 ug/L QC	5.0	3.4	0.012	0.012 14Sep96	0.011 10:29
				~~%R =~~	~~4713.2~~
CRAA QC	14.9	2.8	0.036	0.035 14Sep96	0.037 10:33
CCV1 QC	25.9	2.6	0.063	0.064 14Sep96	0.062 10:38
CCB1 QC	-0.6	0.0	-0.001	-0.001 14Sep96	-0.001 10:42

SAMPLE	CONC ug/L	%RSD	MEAN ABS	READINGS	
BLANK QC SO	0.0		0.003	0.003 14Sep96	0.003 10:48
QCSTANDARD QC CCV2	25.3	2.5	0.061	0.060 14Sep96 %R =	0.062 10:52 101.4
QCBLANK QC CCB2	-0.1	99.9	-0.000	-0.001 14Sep96 ABS =	0.001 10:57 0.003
5373 MB 1 QC PBS	-0.4	66.1	-0.001	-0.001 14Sep96	-0.001 11:01
QCSPIKE QC PBSA	10.0	3.5	0.024	0.024 14Sep96 %R =	0.023 11:06 ~~104.1~~ 100.0
5373 REF1 20 QC LCSS	9.5	3.1	0.022	0.022 14Sep96 ~~RPD =~~	0.023 11:10 ~~217.9~~
QCSPIKE QC LCSSA	18.4	3.6	0.045	0.043 14Sep96 %R =	0.046 11:15 89.2
5373 A 1 QC MFG244	-0.1	0.0	-0.000	-0.000 14Sep96 ~~%R =~~	-0.000 11:20 ~~-9609.9~~
QCSPIKE QC MFG244A	8.8	2.8	0.021	0.021 14Sep96 %R =	0.020 11:24 ~~89.5~~ 88.0
5373 ADUP 1 QC MFG244D	-0.3	67.3	-0.001	-0.000 14Sep96	-0.001 11:29
QCSPIKE QC MFG244DA	9.5	4.9	0.022	0.022 14Sep96 %R =	0.023 11:33 ~~97.1~~ 95.0
5373 ASPK 1 QC MFG244S	8.5	0.0	0.020	0.020 14Sep96	0.020 11:38
QCSPIKE QC MFG244SA	17.3	4.9	0.042	0.040 14Sep96 %R =	0.043 11:42 88.5
QCSTANDARD QC CCV3	25.4	0.7	0.062	0.062 14Sep96 %R =	0.061 11:47 101.8
QCBLANK QC CCB3	-0.7	66.2	-0.002	-0.001 14Sep96 ABS =	-0.002 11:51 0.002
5373 B 1 QC MFG245	-0.8	13.3	-0.002	-0.002 14Sep96	-0.002 11:56

Crosscheck by DM 12/14/96

COPY
ORIGINAL WITH
SDG MFG244

12/21/96

Crossouts by AS 12/14/96

COPY
ORIGINAL WITH
SDG MFG244
BH 12/21/96

SAMPLE	CONC ug/L	%RSD	MEAN ABS	READINGS	
QCSPIKE QC MFGZ45A	9.0	1.6	0.021	0.021 14Sep96 %R =	0.022 12:00 ~~97.8~~ 90.0
5373 C 1 QC MFGZ46	-0.1	99.9	-0.000	0.001 14Sep96	-0.002 12:05
QCSPIKE QC MFGZ46A	8.9	1.3	0.021	0.021 14Sep96 %R =	0.021 12:09 ~~89.3~~ 89.0
5373 D 1 QC MFGZ47	-0.4	33.9	-0.001	-0.001 14Sep96	-0.001 12:14
QCSPIKE QC MFGZ47A	7.8	0.5 N	0.018	0.018 14Sep96 %R =	0.018 12:19 ~~81.3~~ 78.0
				%R FAILED. REPEAT BY STANDARD ADDITIONS	
5373 E 1 QC MFGZ49	-0.8	56.4	-0.002	-0.001 14Sep96	-0.002 12:23
QCSPIKE QC MFGZ49A	8.2	1.1	0.019	0.019 14Sep96 %R =	0.020 12:28 ~~89.9~~ 82.0
5373 F 1 QC MFGZ50	-0.6	47.6	-0.001	-0.001 14Sep96	-0.002 12:32
QCSPIKE QC MFGZ50A	9.1	2.3	0.022	0.021 14Sep96 %R =	0.022 12:37 ~~97.2~~ 91.0
QCSTANDARD QC CCV4	24.3	0.9	0.059	0.059 14Sep96 %R =	0.058 12:41 97.0
QCBLANK QC CCB4	-1.0	41.0	-0.002	-0.003 14Sep96 ABS =	-0.002 12:46 0.001
BLANK QC So	0.0		-0.003	-0.002 14Sep96	-0.004 12:51
QCSTANDARD QC CCV5	25.0	0.9	0.061	0.061 14Sep96 %R =	0.060 12:55 100.1
QCBLANK QC CCB5	0.1	99.9	0.000	0.001 14Sep96 ABS =	-0.000 13:00 0.003
5373 G 1 QC MFGZ56	-0.3	99.9	-0.001	-0.001 14Sep96	-0.000 13:04
QCSPIKE QC MFGZ56A	8.8	0.9	0.021	0.021 14Sep96 %R =	0.021 13:09 ~~91.1~~ 88.0

SAMPLE	CONC ug/L	%RSD	MEAN ABS	READINGS	
5373 H 1 QC MFGZ57	0.2	99.9	0.000	0.001 14Sep96	0.000 13:13
QCSPIKE QC MFGZ57A	8.1	5.6 N	0.019	0.018 14Sep96 %R =	0.020 13:18 ~~79.0~~ 81.0
				%R FAILED, REPEAT BY STANDARD ADDITIONS	
5373 I 1 QC MFGZ58	0.3	99.9	0.001	0.001 14Sep96	-0.000 13:23
QCSPIKE QC MFGZ58A	6.2	8.7 N	0.014	0.015 14Sep96 %R =	0.014 13:27 ~~59.3~~ 62.0
				%R FAILED, REPEAT BY STANDARD ADDITIONS	
5373 J 1 QC MFGZ64	0.0	0.0	0.000	0.000 14Sep96	0.000 13:32
QCSPIKE QC MFGZ64A	7.5	5.9 N	0.018	0.017 14Sep96 %R =	0.018 13:37 ~~74.8~~ 75.0
				%R FAILED, REPEAT BY STANDARD ADDITIONS	
5373 K 1 QC MFGZ65	0.1	99.9	0.000	0.001 14Sep96	-0.001 13:41
QCSPIKE QC MFGZ65A	7.9	2.1 N	0.019	0.019 14Sep96 %R =	0.018 13:46 ~~78.0~~ 79.0
				%R FAILED, REPEAT BY STANDARD ADDITIONS	
QCSTANDARD QC CONC	25.3	0.2	0.061	0.061 14Sep96 %R =	0.061 13:51 101.3
QCBLANK QC CCB6	-0.2	95.7	-0.000	-0.000 14Sep96 ABS =	-0.001 13:55 0.002
5373 L 1 QC MFGZ48	-0.1	99.9	-0.000	-0.001 14Sep96	0.000 14:00
QCSPIKE QC MFGZ48A	9.2	9.4	0.022	0.023 14Sep96 %R =	0.020 14:04 ~~93.2~~ 92.0
5373 M 1 QC MFGZ51	-0.4	21.4	-0.001	-0.001 14Sep96	-0.001 14:09
QCSPIKE QC MFGZ51A	9.3	2.1	0.022	0.022 14Sep96 %R =	0.022 14:14 ~~97.4~~ 93.0
5373 N 1 QC MFGZ52	-0.3	16.9	-0.001	-0.001 14Sep96	-0.001 14:18

Crossouts by AM 12/18/96

COPY
ORIGINAL WITH
SDG MFG244
BH 12/21/96

SAMPLE	CONC ug/L	%RSD	MEAN ABS	READINGS	
QCSPIKE QC MFGZ52A	9.3	4.7	0.022	0.023 14Sep96 %R =	0.021 14:23 ~~95.7~~ 93.0
5373 O 1 QC MFGZ53	-0.3	99.9	-0.001	-0.001 14Sep96	0.000 14:28
QCSPIKE QC MFGZ53A	8.4	12.6	0.020	0.018 14Sep96 %R =	0.022 14:33 ~~86.6~~ 84.0
5373 P 1 QC MFGZ54	0.1	99.9	0.000	0.001 14Sep96	-0.001 14:37
QCSPIKE QC MFGZ54A	7.9	7.4 N	0.019	0.018 14Sep96 %R =	0.020 14:42 ~~78.0~~ 79.0
				%R FAILED. REPEAT BY STANDARD ADDITIONS	
QCSTANDARD QC CCV7	25.1	2.4	0.061	0.060 14Sep96 %R =	0.062 14:46 100.4
QCBLANK QC CCB7	-0.2	79.0	-0.000	-0.001 14Sep96 ABS =	-0.000 14:51 0.002
5373 Q 1 QC MFGZ55	-0.9	29.0	-0.002	-0.002 14Sep96	-0.002 14:55
QCSPIKE QC MFGZ55A	9.0	2.9	0.021	0.022 14Sep96 %R =	0.021 15:00 ~~98.8~~ 90.0
5373 R 1 QC MFGZ59	-0.2	99.9	-0.001	-0.000 14Sep96	-0.001 15:05
QCSPIKE QC MFGZ59A	6.0	5.0 N	0.014	0.015 14Sep96 %R =	0.014 15:09 ~~62.1~~ 60.0
				%R FAILED. REPEAT BY STANDARD ADDITIONS	
5373 S 1 QC MFGZ60	-0.1	75.4	-0.000	-0.000 14Sep96	-0.000 15:14
QCSPIKE QC MFGZ60A	6.3	1.9 N	0.015	0.015 14Sep96 %R =	0.014 15:19 ~~63.6~~ 63.0
				%R FAILED. REPEAT BY STANDARD ADDITIONS	
5373 T 1 QC MFGZ63	-0.6	33.7	-0.002	-0.001 14Sep96	-0.002 15:23
QCSPIKE QC MFGZ63A	9.1	2.8	0.022	0.022 14Sep96 %R =	0.021 15:28 ~~98.0~~ 91.0

Crossouts by AA 12/14/96

COPY
ORIGINAL WITH
SDG MFG244
BA 12/21/96

SAMPLE	CONC ug/L	%RSD	MEAN ABS	READINGS	
5374 A1 QC MFGZ66	-0.6	53.8	-0.001	-0.002 14Sep96	-0.001 15:33
QCSPIKE QC MFGZ66A	9.2	2.0	0.022	0.022 14Sep96 %R =	0.022 15:37 ~~98.0~~ 92.0
QCSTANDARD QC CCV8	25.1	3.8	0.061	0.059 14Sep96 %R =	0.062 15:42 100.5
QCBLANK QC CCB8	-0.1	89.3	-0.000	-0.000 14Sep96 ABS =	-0.000 15:46 0.002
BLANK QC SO	0.0		0.001	0.003 14Sep96	-0.001 15:52
QCSTANDARD QC CCV9	26.1	0.3	0.063	0.063 14Sep96 %R =	0.063 15:57 104.3
QCBLANK QC CCB9	0.3	99.9	0.001	0.001 14Sep96 ABS =	0.000 16:01 0.004
5374 ~~5373~~ ADUP 1 QC MFGZ66D	0.2	99.2	0.001	0.000 14Sep96	0.001 16:05
QCSPIKE QC MFGZ66DA	9.8	5.5	0.023	0.022 14Sep96 %R =	0.024 16:10 ~~96.1~~ 98.0
5374 ~~5372~~ ASPK 1 QC MFGZ66S	9.4	2.7	0.022	0.023 14Sep96	0.022 16:14
QCSPIKE QC MFGZ66SA	18.8	0.2	0.046	0.046 14Sep96 %R =	0.046 16:19 94.3
5374 MB 1 QC PBS	0.4	71.1	0.001	0.000 14Sep96	0.001 16:24
QCSPIKE QC PBSA	10.7	5.1	0.025	0.025 14Sep96 %R =	0.026 16:28 ~~103.0~~ 107.0
5374 REF1 10 QC LCSS	19.1	0.8	0.046	0.046 14Sep96	0.047 16:33
QCSPIKE QC LCSSA	27.4	0.0 N	0.066	0.066 14Sep96 %R =	0.066 16:37 83.5
				%R FAILED, REPEAT BY STANDARD ADDITIONS	
QCSTANDARD QC ~~CCB~~ 10 CCV	25.6	0.4	0.062	0.062 14Sep96 %R =	0.062 16:42 102.5

Crossouts by AA

COPY
ORIGINAL WITH
SDG MFG244
BH 12/21/96

BH ~~[illegible]~~
BH 12/21/96

000271

SAMPLE	CONC ug/L	%RSD	MEAN ABS	READINGS	
QCBLANK	0.3	77.4	0.001	0.000	0.001
QC ~~ECV~~ 10 CCB				14Sep96	16:46
				ABS =	0.004

Bdt 12/14/96

COPY
ORIGINAL WITH
SDG MFG244
Bdt 12/21/96

3
13:42

5374

CALCULATED DATA FROM FILE: [illegible]S\TL961217

ANALYTICAL RESOURCES INCORPORATED

JOB	SAMP	ELEMENT	PREPCODE		RAWVALUE	CALCULATED	UNITS	DILUTION	MASS	INITVOL	FINLVOL	%SOLIDS
5374	MB	TL	SCN	U	0.0010000	0.2000000	mg/kg-dry	1.00	1.0000	0.00	200.00	100.00
5374	REF1	TL	SCN		0.0192000	38.3616384	mg/kg-dry	10.00	1.0010	0.00	200.00	100.00
5374	A	TL	SCN	U	0.0010000	0.2191437	mg/kg-dry	1.00	1.0060	0.00	200.00	90.72
5374	ADUP	TL	SCN		0.0010000	0.2193617	mg/kg-dry	1.00	1.0050	0.00	200.00	90.72
5374	ASPK	TL	SCN		0.0241000	10.5627259	mg/kg-dry	2.00	1.0060	0.00	200.00	90.72
5375	MB	TL	RCN	U	0.0010000	0.0010000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	MB1	TL	RCN	U	0.0010000	0.0010000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	REF2	TL	RCN		0.0189000	0.0945000	mg/L	5.00	0.0000	100.00	100.00	0.00
5375	REF4	TL	RCN		0.0206000	0.1030000	mg/L	5.00	0.0000	100.00	100.00	0.00
5375	A	TL	RCN		0.0035000	0.0035000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	ASPK	TL	RCN		0.0235000	0.0470000	mg/L	2.00	0.0000	100.00	100.00	0.00
5375	C	TL	RCN		0.0027000	0.0027000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	CDUP	TL	RCN		0.0030000	0.0030000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	B	TL	RCN		0.0016000	0.0016000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	D	TL	RCN		0.0014000	0.0014000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	E	TL	RCN		0.0021000	0.0021000	mg/L	1.00	0.0000	100.00	100.00	0.00
5375	F	TL	RCN	U	0.0010000	0.0010000	mg/L	1.00	0.0000	100.00	100.00	0.00

Element: TL

ANALYTICAL RESOURCES INCORPORATED

000274

VARIAN 2 - EPA CLP GRAPHITE FURNACE SUMMARY LOGBOOK

ALL CORRECTIONS MADE BY ANALYST UNLESS OTHERWISE NOTED. NSJ 12-17-96

IDL/Reporting Limit: 1.0 µg/L | Date: 12-17-96 | Analyst: NSJ

Edit Label/ Dil.	Load Data	Sample ID	EPA ID	Prep Code	Dilution Used	Calculated Value (µg/L)	Analytical Spike (µg/L)	Analytical Spike % R or MSA r	Flag	Comments	Time
		SO									11:53
		S10									
		S20									
		S50									12:07
		ICV			5x	21.1				106.7% ✓	12:12
		ICB				0.6				✓	
		CRA 10µg/L				9.8	31.0	106.0		✓	
		CCV 1				24.8				99.2% ✓	12:30
		CCB 1				0.2				✓	
		SO									
		CCV 2				25.3				101.2% ✓	12:44
		CCB 2				0.2				✓	
	✓	5374 MB	PBS	SCN	1x	U	20.9	104.5			
	✓	↓ REF1	LCSS	↓	~~50x~~ 10x	19.2	40.7	107.2		38.4 mg/kg ✓	

U = Undetected (See IDL/Reporting Limit Above)

5053F

000019

Rev. 1
12/02/96

Element: TL

ANALYTICAL RESOURCES INCORPORATED

VARIAN 2 - EPA CLP GRAPHITE FURNACE SUMMARY LOGBOOK

ALL CORRECTIONS MADE BY ANALYST UNLESS OTHERWISE NOTED. NSJ 12-17-96

000275

IDL/Reporting Limit: 1.0 µg/L | Date: 12-17-96 | Analyst: NSJ

Edit Label/ Dil.	Load Data	Sample ID	EPA ID	Prep Code	Dilution Used	Calculated Value (µg/L)	Analytical Spike (µg/L)	Analytical Spike % R or MSA r	Flag	Comments	Time
	✓	5374 A	MFGZ66	SCN	1x	U	20.6	103.0			
	✓	↓ ARUP	↓ D	↓	↓	1.0	20.1	95.7		✓	
	✓	↓ ASPK	↓ S	↓	2x	24.1	45.4	106.1		96.4% ✓	
		CCV 3			X	26.5				106.1% ✓	13:38
		CCB 3				0.5				✓	
	✓	5375 MB	PBW	RCN	1x	U	~~21.4~~ 19.5	~~107.0~~ 97.5			
	✓	↓ MB1	PBW	↓	↓	U	21.4	107.0			
	✓	↓ REF2	LCSW	↓	5x	18.9	38.9	99.7		94.5% ✓	
	✓	↓ REF4	LCSW	↓	↓	20.6	40.3	98.7		103.0% ✓	
	✓	↓ A	MCRG07	↓	↓	3.5	19.3	79.2	W		
		CCV 4		X		24.5				98.0% ✓	14:31
		CCB 4				0.5				✓	
	✓	5375ASPK	MCRG075	RCN	2x	23.5	42.2	93.4		87.0% ✓	
	✓	↓ C	MCRG09	↓	1x	2.7	13.2	52.5	W		

~~BH~~ 12/23/96

U = Undetected (See IDL/Reporting Limit Above)

000020

5053F

Rev. 1
12/02/96

All crossouts by NSJ.

ANALYTICAL RESOURCES INCORPORATED

VARIAN GRAPHITE FURNACE INSTRUMENT LOG

Varian 1 Varian 2

Element: Tl	Date: 12-17-96	Analyst: NSJ
Wavelength: 276.8 nm	Slit: 1.0 nm	Program No.: 13
Lamp: Photron 3955	HCL Current: 10 mA	Boost Current: 15 mA
Cuvette Type: Platform	Cuvette Condit: Used	Platform Condition: Used

Calibration: ✓ Curve, Single Additions, MSA, ✓ CLP-EPA

Intermediate Standard Concentration and Source: 2 mg/L IV Std.# 758-1

Autosampler Calibration Stock Std. Concentration: 50 µg/L Std.# 758-6

Calibration Verification Standard Concentration and Source: ~~50.4~~ 98.9 µg/L EPA ICV-4 539-4; 25.0 µg/L IVCV Std.# 758-8

Matrix Modifier: 5 µL Pd/Mg/Citric Acid to 15 µL

Program Number and Comments:

Integration: Peak Area

ABS for 10 µg/L: 0.023

ABS for 1.0 µg/L:

Notes:

001106

001107

5004F

Rev. 1
02/17/94

000276

✓ 12-18-96 (A)
✓ 12-19-9

Varian SpectrAA 300/400 Zeeman
QC Protocol Report

ANALYTICAL RESOURCES INC.
VARIAN 2 300

OPERATOR NSJ
DATE 12/17/96
BATCH T1961217

All corrections by NSJ. 12/17/96

QC PROTOCOL PARAMETERS

QC STANDARD POSITION	45
IF THERE IS AN ERROR	RESLOPE AND REPEAT
QC SPIKE POSITION	44
RECOVERY LIMITS (%)	85 TO 115
RECOVERY MINIMUM LIMIT (%)	40
CORRELATION COEFFICIENT (r)	0.995
OVERRANGE VOLUME REDUCTION	1
REPLICATE RSD LIMIT (%)	100.0

COPY
ORIGIN[illegible] WITH
SPG BH 12/23/96 (MCRG07)

PROGRAM 13 T1 CLP

INSTRUMENT MODE	ABSORBANCE
CALIBRATION MODE	CONCENTRATION
MEASUREMENT MODE	PEAK AREA
LAMP POSITION	1
LAMP CURRENT (mA)	10
SLIT WIDTH (nm)	0.5
SLIT HEIGHT	NORMAL
WAVELENGTH (nm)	276.8
SAMPLE INTRODUCTION	SAMPLER AUTOMIXING
TIME CONSTANT	0.05
MEASUREMENT TIME (sec)	1.0
REPLICATES	2
BACKGROUND CORRECTION	ON
MAXIMUM ABSORBANCE	0.55

FURNACE PARAMETERS

STEP NO.	TEMPERATURE (C)	TIME (sec)	GAS FLOW (L/min)	GAS TYPE	READ COMMAND
1	300	35.0	3.0	ALTERNATE	NO
2	600	10.0	3.0	ALTERNATE	NO
3	1100	5.0	3.0	ALTERNATE	NO
4	1100	5.0	3.0	ALTERNATE	NO
5	1100	1.0	0.0	NORMAL	NO
6	2300	0.6	0.0	NORMAL	YES
7	2300	2.0	0.0	NORMAL	YES
8	2300	1.0	3.0	NORMAL	NO
9	2600	2.0	3.0	NORMAL	NO
10	40	12.8	3.0	NORMAL	NO

SAMPLER PARAMETERS
VOLUMES (µL)

	SOLUTION	BLANK	MODIFIER
BLANK	--	15	5
STANDARD 1	3	12	5
STANDARD 2	6	9	5
STANDARD 3	15	0	5
SAMPLE	15	0	5

RECALIBRATION RATE 0
RESLOPE RATE 0

MULTIPLE INJECT NO HOT INJECT YES PRE INJECT NO
TEMPERATURE 150
INJECT RATE 5

QC PROTOCOL PARAMETERS

QC STANDARD RATE	0
QC STANDARD VOLUME (µL)	15
QC STANDARD CONCENTRATION	25.0 ug/L
QC STANDARD LIMITS (%)	90 TO 110
QC SPIKE RATE	0
QC SPIKE VOLUME (µL)	6
QC SPIKE CONCENTRATION	50.0 ug/L
MATRIX SPIKE CONCENTRATION	1.0 ug/L
REQUIRED DETECTION LIMIT	4.0 ug/L

MIXED MODIFIER SOLUTION: 500 mg/L Pd from Pd(NO3)2, 1000 mg/L Mg from Mg(NO3)2 and 1% citric acid

CUVETTE TYPE: Platform

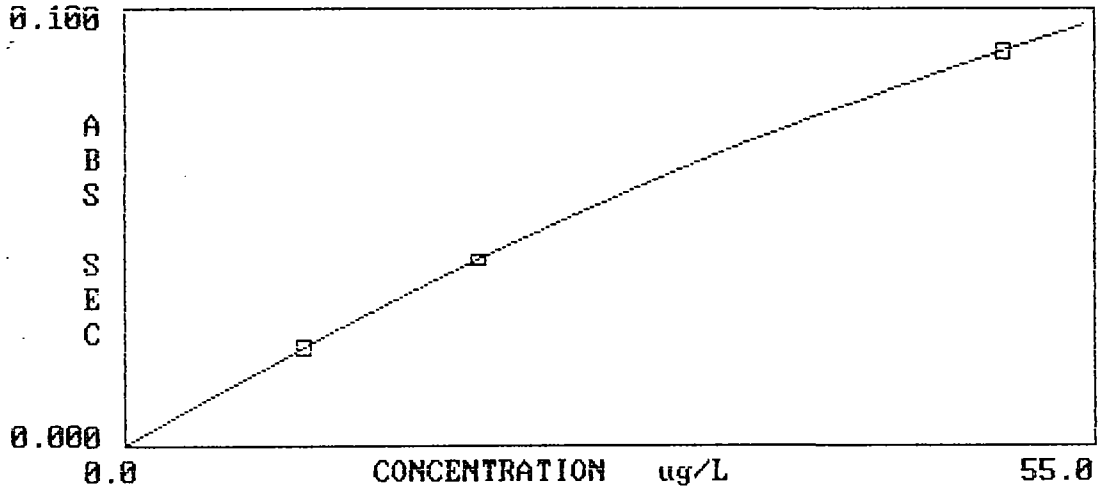
LAMP TYPE: Photron Super Lamp

COPY
ORIGINAL WITH
SDG MCB607
BH 12/23/96

SAMPLE	CONC ug/L	%RSD	MEAN ABS	READINGS	
BLANK	0.0		0.000	0.000	0.000
QC S0				17Sep96	11:53
STANDARD 1	10.0	5.6	0.023	0.024	0.022
QC S10				17Sep96	11:58
STANDARD 2	20.0	0.8	0.043	0.043	0.043
QC S20				17Sep96	12:02

SAMPLE	CONC ug/L	%RSD	MEAN ABS	READINGS	
STANDARD 3 QC 550	50.0	1.5	0.091	0.090 17Sep96	0.092 12:07

COPY
ORIGINAL WITH
SDG MCRG07 BH 12/23/96



ICV QC	21.1	1.9	0.045	0.046 17Sep96	0.045 12:12
ICB QC	0.6	20.8	0.001	0.002 17Sep96	0.001 12:17
				~~RPD =~~	~~189.1~~
CRA 10ug/L QC	9.8	1.7	0.022	0.022 17Sep96	0.023 12:21
				~~%R =~~	~~222.8~~
CRAA QC	31.0	1.3	0.063	0.062 17Sep96	0.063 12:25
CCV / QC	24.8	2.1	0.052	0.053 17Sep96	0.051 12:30
CCB / QC	0.2	72.6	0.000	0.001 17Sep96	0.000 12:34
BLANK QC 50	0.0		-0.001	-0.001 17Sep96	-0.002 12:39

SAMPLE	CONC ug/L	%RSD	MEAN ABS	READINGS	
QCSTANDARD QC CCV 2	25.3	2.9	0.053	0.052 17Sep96 %R =	0.054 12:44 101.2
QCBLANK QC CCB 2	-0.2	33.7	-0.000	-0.001 17Sep96 ABS =	-0.000 12:48 -0.001
5374 MB 1 QC PBS	0.1	99.9	0.000	0.001 17Sep96	-0.000 12:52
QCSPIKE QC PBSA	20.9	3.9	0.045	0.046 17Sep96 %R =	0.044 12:57 ~~104.1~~ 104.5
5374 REF1 10 QC LCSS	19.2	4.7	0.041	0.040 17Sep96	0.043 13:02
QCSPIKE QC LCSSA	40.7	0.1	0.078	0.078 17Sep96 %R =	0.078 13:06 107.2
5374 A 1 QC MFEZ66	0.5	83.0	0.001	0.001 17Sep96	0.002 13:11
QCSPIKE QC MFEZ66A	20.6	0.9	0.044	0.044 17Sep96 %R =	0.045 13:15 ~~100.5~~ 103.0
5374 ADUP 1 QC MFEZ66D	1.0	12.6	0.002	0.002 17Sep96	0.002 13:19
QCSPIKE QC MFEZ66DA	20.1	1.2	0.043	0.044 17Sep96 %R =	0.043 13:24 95.7
5374 ASPK 2 QC MFEZ66S	24.1	0.6	0.051	0.051 17Sep96	0.051 13:28
QCSPIKE QC MFEZ66SA	45.4	1.3	0.085	0.084 17Sep96 %R =	0.086 13:33 106.1
QCSTANDARD QC CCV 3	26.5	0.2	0.055	0.055 17Sep96 %R =	0.055 13:38 106.1
QCBLANK QC CCB 3	0.5	19.4	0.001	0.001 17Sep96 ABS =	0.001 13:42 0.001
~~5375 MB 1~~ QC PBW	~~-0.0~~	~~99.9~~	~~-0.000~~	~~0.001~~ ~~17Sep96~~	~~-0.001~~ ~~13:46~~
QCSPIKE QC PBWA	19.5	2.1	0.042	0.041 17Sep96 %R =	0.043 13:51 ~~97.4~~ 97.5

COPY
ORIGINAL WITH
SDG MCRG07
PBH 12/23/96

[illegible] 0280

CALCULATED DATA FROM FILE: [illegible]S\HG961204 5

5374

ANALYTICAL RESOURCES INCORPORATED

JOB	SAMP	ELEMENT	PREPCODE		RAWVALUE	CALCULATED	UNITS	DILUTION	MASS	INITVOL	FINLVOL	%SOLIDS
5373	MB	HG	SCM	U	0.0001000	0.0500000	mg/kg-dry	1.00	0.2000	0.00	100.00	100.00
5373	REF1	HG	SCM		0.0043654	10.9135000	mg/kg-dry	5.00	0.2000	0.00	100.00	100.00
5373	A	HG	SCM	U	0.0001000	0.0517373	mg/kg-dry	1.00	0.2360	0.00	100.00	81.90
5373	ADUP	HG	SCM	U	0.0001000	0.0519575	mg/kg-dry	1.00	0.2350	0.00	100.00	81.90
5373	ASPK	HG	SCM		0.0009349	0.4836924	mg/kg-dry	1.00	0.2360	0.00	100.00	81.90
5373	B	HG	SCM	U	0.0001000	0.0527903	mg/kg-dry	1.00	0.2290	0.00	100.00	82.72
5373	C	HG	SCM	U	0.0001000	0.0534455	mg/kg-dry	1.00	0.2340	0.00	100.00	79.96
5373	D	HG	SCM	U	0.0001000	0.0477420	mg/kg-dry	1.00	0.2560	0.00	100.00	81.82
5373	E	HG	SCM	U	0.0001000	0.0583495	mg/kg-dry	1.00	0.2100	0.00	100.00	81.61
5373	F	HG	SCM	U	0.0001000	0.0515859	mg/kg-dry	1.00	0.2350	0.00	100.00	82.49
5373	G	HG	SCM	U	0.0001000	0.0511896	mg/kg-dry	1.00	0.2470	0.00	100.00	79.09
5373	H	HG	SCM		0.0003445	0.1779121	mg/kg-dry	1.00	0.2250	0.00	100.00	86.06
5373	I	HG	SCM	U	0.0001000	0.0554782	mg/kg-dry	1.00	0.2490	0.00	100.00	72.39
5373	J	HG	SCM		0.0001728	0.0841770	mg/kg-dry	1.00	0.2470	0.00	100.00	83.11
5373	K	HG	SCM		0.0001625	0.0891429	mg/kg-dry	1.00	0.2180	0.00	100.00	83.62
5373	L	HG	SCM	U	0.0001000	0.0563133	mg/kg-dry	1.00	0.2220	0.00	100.00	79.99
5373	M	HG	SCM	U	0.0001000	0.0532230	mg/kg-dry	1.00	0.2420	0.00	100.00	77.64
5373	N	HG	SCM	U	0.0001000	0.0523396	mg/kg-dry	1.00	0.2330	0.00	100.00	82.00
5373	O	HG	SCM	U	0.0001000	0.0573704	mg/kg-dry	1.00	0.2090	0.00	100.00	83.40
5373	P	HG	SCM	U	0.0001000	0.0520671	mg/kg-dry	1.00	0.2250	0.00	100.00	85.36
5373	Q	HG	SCM	U	0.0001000	0.0579863	mg/kg-dry	1.00	0.2160	0.00	100.00	79.84
5373	R	HG	SCM	U	0.0001000	0.0539656	mg/kg-dry	1.00	0.2220	0.00	100.00	83.47
5373	S	HG	SCM	U	0.0001000	0.0525798	mg/kg-dry	1.00	0.2300	0.00	100.00	82.69
5373	T	HG	SCM	U	0.0001000	0.0469652	mg/kg-dry	1.00	0.2410	0.00	100.00	88.35
5374	MB	HG	SCM	U	0.0001000	0.0500000	mg/kg-dry	1.00	0.2000	0.00	100.00	100.00
5374	REF1	HG	SCM		0.0046502	11.5676617	mg/kg-dry	5.00	0.2010	0.00	100.00	100.00
5374	A	HG	SCM	U	0.0001000	0.0512694	mg/kg-dry	1.00	0.2150	0.00	100.00	90.72
5374	ADUP	HG	SCM	U	0.0001000	0.0512694	mg/kg-dry	1.00	0.2150	0.00	100.00	90.72
5374	ASPK	HG	SCM		0.0009109	0.4627090	mg/kg-dry	1.00	0.2170	0.00	100.00	90.72

ANALYTICAL RESOURCES INCORPORATED

MERCURY ANALYSIS LOGBOOK

Page 1 of 2 Date: 12/04/96 Analyst: TM

Std # 701-8 ICV # 12-14 CCV# 701-9

Sample ID		Prep. Code	Dilution	CV/CB (ppb)	Comments
ARI ID	Client ID				
	S0	SCM	1X		
	S0.2				
	S0.5				
	S1				
	S5				
	S10				
ICV	ICV			4.56	93% R
ICB	ICB			0.00	
CCV	CCV			2.99	99% R
CCB	~~CRA~~ CCB			0.01	
CRA	CRA			0.20	100 R
5373 MB	PBS		1X		
" Ref1	ECSS		5X	4.37	10.9 Mg/kg ✓
" A	MFGZ 44		1X	0.02	NO RPD undetected
" ADup	MFGZ 44D			0.02	
" ASpK	MFGZ44S			0.93	93% R
" B	MFGZ 45				change DATA disk soft error ware
" C	MFGZ46				
" D	MFGZ47				
" E	MFGZ49				
CCV	CCV			2.96	98% R
CCB	CCB			0.01	
CCV	CCV			3.03	Change tube 101% R
CCB	CCB			0.01	
5373 F	MFGZ50				
" G	MFGZ 56				
" H	MFGZ57				
" I	MFGZ58				
" J	MFGZ64				
" K	MFGZ65	SCM	1X		

ANALYTICAL RESOURCES INCORPORATED

MERCURY ANALYSIS LOGBOOK

Page 2 of 2 Date: 12/04/96 Analyst: TM

Std # 701-8 ICV # 12-14 CCV# 701-9

Sample ID		Prep. Code	Dilution	CV/CB (ppb)	Comments
ARI ID	Client ID				
5373 L	MFGZ48	SCM	1X		
" M	MFGZ51				
" N	MFGZ52				EDIT N
" O	MFGZ53				
CCV	CCV			3.01	100% R
CCB	CCB			0.01	
5373 P	MFGZ54				
" Q	MFGZ55				
" R	MFGZ59				
" S	MFGZ60				
" T	MFGZ63				
5374MB	PBS		1X		
" Ref1	LCSS		5X	4.65	11.56 mg/kg ✓
" A	MFGZ66		1X	0.01	NORPD - Undetected
" ADup	MFGZ66D			0.02	
" Aspk	MFGZ66S			0.91	91% R
CCV	CCV			2.88	96% R
CCB	CCB	SCM	1X	0.01	~~96%~~ TM 12/4/96
			TM	12/04/96	

ANALYTICAL RESOURCES INCORPORATED

MERCURY STANDARD PREP LOG

ANALYST: TTM DATE: 12/04/96

MATRIX: SOIL PREP CODE: SCM

Standard ID #	Stock Standard ID #	Intermediate Volume Added (mL)	Standard Conc. (ug/L)	Number Made	Digest Start	Digest End
* STD0	701-8	0.00	0.0	2	1200	1230
* STD1		0.02	0.2	2		
* STD2		0.05	0.5	2		
* STD3		0.10	1.0	2		
STD —	—	— 0.20	2.0	—		
* STD4		0.50	5.0	2		
* STD 5		1.00	10.0	2		
CRA	701-8	0.02	0.2	1		
ICB/CCB	—	0.00	0.0	1/5		
ICV/LCS	1214	1.00	4.9	1		
CCV	701-9	0.30	3.0	5	1200	1230

ANALYST: DATE:

MATRIX: PREP CODE:

Standard ID #	Stock Standard ID #	Intermediate Volume Added (mL)	Standard Conc. (ug/L)	Number Made	Digest Start	Digest End
* STD0		0.00	0.0	1		
* STD1		0.02	0.2			
* STD2		0.05	0.5			
* STD		0.10	1.0			
STD		0.20	2.0			
* STD		0.50	5.0			
* STD		1.00	10.0			
CRA		0.02	0.2			
ICB/CCB		0.00	0.0			
ICV/LCS						
CCV		0.30	3.0			

* Calibration standard required by EPA CLP

5008F

Revision 3
9/20/95

COPY
ORIGINAL WITH
SDG MFG244
BH 12/07/96

12/04/96
Buck Mercury
TTM Data Disk 7
Buck Mercury
12/05/96

MERCURY ANALYSIS RESULTS
12-04-1996

ANALYST: TTM

SAMPLE RESULTS FILE: B:\HG961204.TXT
CLP RESULTS FILE: B:\HG961204.CLP

CONDITIONING SAMPLE RESULT

BASELINE: 29.0
RAW PEAK: 867.0
PEAK HEIGHT: 838.0

CONDITIONING SAMPLE RESULT

BASELINE: 24.1
RAW PEAK: 394.0
PEAK HEIGHT: 369.9

CONDITIONING SAMPLE RESULT

BASELINE: 19.7
RAW PEAK: 211.2
PEAK HEIGHT: 191.5

CONDITIONING SAMPLE RESULT

BASELINE: 14.4
RAW PEAK: 109.4
PEAK HEIGHT: 95.0

CONDITIONING SAMPLE RESULT

BASELINE: 12.6
RAW PEAK: 56.4
PEAK HEIGHT: 43.9

CONDITIONING SAMPLE RESULT

BASELINE: 13.0
RAW PEAK: 18.4
PEAK HEIGHT: 5.4

BEGINNING CALIBRATION PROCEDURE

All corrections on this page made by BH 12/07/96

COPY
ORIGINAL WITH
SDG MFG244
BH 12/07/96

CALIBRATION BLANK RESULT
12-04-1996 13:38:10

BASELINE: 16.7
RAW PEAK: 23.0
PEAK HEIGHT: 6.3

S0

STANDARD CONCENTRATIONS

STANDARD # 1 = .2 ppb
STANDARD # 2 = .5 ppb
STANDARD # 3 = 1 ppb
STANDARD # 4 = 5 ppb
STANDARD # 5 = 10 ppb

STANDARD # 1 RESULT
12-04-1996 13:40:40

BASELINE: 24.4
RAW PEAK: 70.4
PEAK HEIGHT: 46.0

S0.2

STANDARD # 2 RESULT
12-04-1996 13:42:17

BASELINE: 29.9
RAW PEAK: 137.0
PEAK HEIGHT: 107.1

S0.5

STANDARD # 3 RESULT
12-04-1996 13:43:56

BASELINE: 35.5
RAW PEAK: 245.2
PEAK HEIGHT: 209.7

S1

STANDARD # 4 RESULT
12-04-1996 13:46:15

BASELINE: 48.7
RAW PEAK: 955.4
PEAK HEIGHT: 906.7

~~S2~~ S5
BH 12/07/96

STANDARD # 5 RESULT
12-04-1996 13:47:52

BASELINE: 64.5
RAW PEAK: 1658.2
PEAK HEIGHT: 1593.7

S10

STANDARD CURVE EQUATION:
CONC(ppb) = 1.084702E-06 X2 + 4.552175E-03 X + -1.197135E-02

000286

Apparent standard concentrations:
BLANK: 1.678606E-02

Standard # 2 = .4880564
Standard # 3 = .9901681
Standard # 4 = 5.007355
Standard # 5 = 9.997761
Calibration curve saved to file: B:\HG961204.CUV

COPY
ORIGINAL WITH
SDG MFG244
BH 12/07/96

ANALYTICAL RESULTS:

CLIENT ID : ICV
RESULTS FOR SAMPLE ICV
12-04-1996 13:51:36

BASELINE: 31.47
RAW PEAK: 868.6
PEAK HEIGHT: 837.13
CONCENTRATION = 4.56 ppb

CLIENT ID : ICB
RESULTS FOR SAMPLE ICB
12-04-1996 13:53:12

BASELINE: 28.35
RAW PEAK: 31
PEAK HEIGHT: 2.65
CONCENTRATION = 0.00 ppb U

CLIENT ID : CCV
RESULTS FOR SAMPLE CCV
12-04-1996 13:54:53

BASELINE: 25.13
RAW PEAK: 605
PEAK HEIGHT: 579.87
CONCENTRATION = 2.99 ppb

CLIENT ID : CCB
RESULTS FOR SAMPLE CCB
12-04-1996 13:56:45

BASELINE: 22.75
RAW PEAK: 27.4
PEAK HEIGHT: 4.649998
CONCENTRATION = 0.01 ppb U

CLIENT ID : CRA
RESULTS FOR SAMPLE CRA
12-04-1996 13:58:24

BASELINE: 19.32
RAW PEAK: 65.2
PEAK HEIGHT: 45.88
CONCENTRATION = 0.20 ppb

CLIENT ID : PBS
RESULTS FOR SAMPLE 5373 MB SCM
12-04-1996 14:00:35

BASELINE: 21.01
RAW PEAK: 28.6
PEAK HEIGHT: 7.59
CONCENTRATION = 0.02 ppb U

CLIENT ID : LCSS
RESULTS FOR SAMPLE 5373 REF1 SCM 5X 10.9 mg/kg — TTM 12/07/96
12-04-1996 14:02:32

BASELINE: 28.02
RAW PEAK: 834.6
PEAK HEIGHT: 806.58
CONCENTRATION = 4.37 ppb

COPY
ORIGINAL WITH
SDG MFGZ44
BH 12/07/96

CLIENT ID : MFGZ44
RESULTS FOR SAMPLE 5373 A SCM
12-04-1996 14:05:01

BASELINE: 33.26
RAW PEAK: 40.8
PEAK HEIGHT: 7.539997
CONCENTRATION = 0.02 ppb U

CLIENT ID : MFGZ44D
RESULTS FOR SAMPLE 5373 ADUP SCM
12-04-1996 14:06:51

BASELINE: 34.48
RAW PEAK: 42
PEAK HEIGHT: 7.519997
CONCENTRATION = 0.02 ppb U

CLIENT ID : MFGZ44S
RESULTS FOR SAMPLE 5373 ASPK SCM
12-04-1996 14:08:42

BASELINE: 33.8
RAW PEAK: 232.4
PEAK HEIGHT: 198.6
CONCENTRATION = 0.93 ppb ← Software Error Here

Change to Disk 8

MERCURY ANALYSIS RESULTS
12-04-1996

Continue from File (Filecurve)

ANALYST: TTM

SAMPLE RESULTS FILE: B:\HG961204.TXT
CLP RESULTS FILE: B:\HG961204.CLP

12/04/96
DATA Disk 8
Back Mercury TTM

STANDARD CURVE EQUATION:
CONC(ppb) = 1.101336E-06 X2 + 4.519903E-03 X + -1.237018E-03

Apparent standard concentrations:
BLANK: -1.237018E-03
Standard # 1 = .2090551
Standard # 2 = .495525
Standard # 3 = .9948674
Standard # 4 = 5.002504
Standard # 5 = 9.999312
Calibration curve saved to file: B:\HG961204.CUV

BH 12/05/96

ANALYTICAL RESULTS:

000288

CLIENT ID : MFGZ45
RESULTS FOR SAMPLE 5373 B SCM
12-04-1996 14:21:12

BASELINE: 18.38
RAW PEAK: 21.6
PEAK HEIGHT: 3.219999
CONCENTRATION = 0.01 ppb U

COPY
ORIGINAL WITH
SDG MFGZ44
BH 12/07/96

CLIENT ID : MFGZ46
RESULTS FOR SAMPLE 5373 C SCM
12-04-1996 14:23:48

BASELINE: 24.63
RAW PEAK: 31.6
PEAK HEIGHT: 6.97
CONCENTRATION = 0.03 ppb U

CLIENT ID : MFGZ47
RESULTS FOR SAMPLE 5373 D SCM
12-04-1996 14:25:34

BASELINE: 31.25
RAW PEAK: 45.4
PEAK HEIGHT: 14.15001
CONCENTRATION = 0.06 ppb U

CLIENT ID : MFGZ49
RESULTS FOR SAMPLE 5373 E SCM
12-04-1996 14:27:50

BASELINE: 36.71
RAW PEAK: 40.4
PEAK HEIGHT: 3.690003
CONCENTRATION = 0.02 ppb U

CLIENT ID : CCV
RESULTS FOR SAMPLE CCV
12-04-1996 14:29:27

BASELINE: 42.47
RAW PEAK: 617.6
PEAK HEIGHT: 575.13
CONCENTRATION = 2.96 ppb

CLIENT ID : CCB
RESULTS FOR SAMPLE CCB
12-04-1996 14:31:11

BASELINE: 41.46
RAW PEAK: 40
PEAK HEIGHT: -1.459999
CONCENTRATION = -0.01 ppb U

CLIENT ID : CCV
RESULTS FOR SAMPLE CCV
12-04-1996 14:42:56

BASELINE: 2.4
RAW PEAK: 589
PEAK HEIGHT: 586.6
CONCENTRATION = 3.03 ppb

CLIENT ID : CCB

12-04-1996 14:44:43

BASELINE: 1.06
RAW PEAK: 2.8
PEAK HEIGHT: 1.74
CONCENTRATION = 0.01 ppb U

COPY
ORIGINAL WITH
SDG MFGZ44
BH 12/07/96

CLIENT ID : MFGZ50
RESULTS FOR SAMPLE 5373 F SCM
12-04-1996 14:47:07

BASELINE: 1.54
RAW PEAK: 6.6
PEAK HEIGHT: 5.06
CONCENTRATION = 0.02 ppb U

CLIENT ID : MFGZ56
RESULTS FOR SAMPLE 5373 G SCM
12-04-1996 14:49:10

BASELINE: 2.63
RAW PEAK: 15
PEAK HEIGHT: 12.37
CONCENTRATION = 0.05 ppb U

CLIENT ID : MFGZ57
RESULTS FOR SAMPLE 5373 H SCM
12-04-1996 14:51:22

BASELINE: 2.89
RAW PEAK: 78
PEAK HEIGHT: 75.11
CONCENTRATION = 0.34 ppb

CLIENT ID : MFGZ58
RESULTS FOR SAMPLE 5373 I SCM
12-04-1996 14:53:32

BASELINE: 3.46
RAW PEAK: 13.4
PEAK HEIGHT: 9.939999
CONCENTRATION = 0.04 ppb U

CLIENT ID : MFGZ64
RESULTS FOR SAMPLE 5373 J SCM
12-04-1996 14:55:41

BASELINE: 1.85
RAW PEAK: 40
PEAK HEIGHT: 38.15
CONCENTRATION = 0.17 ppb

CLIENT ID : MFGZ65
RESULTS FOR SAMPLE 5373 K SCM
12-04-1996 14:57:34

BASELINE: -2.51
RAW PEAK: 33.4
PEAK HEIGHT: 35.91
CONCENTRATION = 0.16 ppb

RESULTS FOR SAMPLE 5373 L SCM
12-04-1996 14:59:27

BASELINE: -6.35
RAW PEAK: 2
PEAK HEIGHT: 8.350001
CONCENTRATION = 0.04 ppb U

COPY
ORIGINAL WITH
SDG MFG744
Rat 12/07/96

CLIENT ID : MFGZ51
RESULTS FOR SAMPLE 5373 M SCM
12-04-1996 15:01:27

BASELINE: -8.040001
RAW PEAK: .8
PEAK HEIGHT: 8.840001
CONCENTRATION = 0.04 ppb U

CLIENT ID : MFGZ52
RESULTS FOR SAMPLE 5373 M SCM Edit N
12-04-1996 15:03:28 N
12/07/96
TLM

BASELINE: -9
RAW PEAK: -4.6
PEAK HEIGHT: 4.4
CONCENTRATION = 0.02 ppb U

CLIENT ID : MFGZ53
RESULTS FOR SAMPLE 5373 O SCM
12-04-1996 15:05:27

BASELINE: -8.640001
RAW PEAK: 3.6
PEAK HEIGHT: 12.24
CONCENTRATION = 0.05 ppb U

CLIENT ID : CCV
RESULTS FOR SAMPLE CCV
12-04-1996 15:07:57

BASELINE: 2.55
RAW PEAK: 585.2
PEAK HEIGHT: 582.65
CONCENTRATION = 3.01 ppb

CLIENT ID : CCB
RESULTS FOR SAMPLE CCB
12-04-1996 15:09:37

BASELINE: 2.37
RAW PEAK: 5.4
PEAK HEIGHT: 3.03
CONCENTRATION = 0.01 ppb U

CLIENT ID : MFGZ54
RESULTS FOR SAMPLE 5373 P SCM
12-04-1996 15:11:34

BASELINE: 2.33
RAW PEAK: 11.4
PEAK HEIGHT: 9.07

COPY
ORIGINAL WITH
SDG MFGZ44
CH 12/07/96

CLIENT ID : MFGZ55
RESULTS FOR SAMPLE 5373 Q SCM
12-04-1996 15:13:31

BASELINE: 2.49
RAW PEAK: 6.2
PEAK HEIGHT: 3.71
CONCENTRATION = 0.02 ppb U

CLIENT ID : MFGZ59
RESULTS FOR SAMPLE 5373 R SCM
12-04-1996 15:15:31

BASELINE: .3800001
RAW PEAK: 6.2
PEAK HEIGHT: 5.82
CONCENTRATION = 0.03 ppb U

CLIENT ID : MFGZ60
RESULTS FOR SAMPLE 5373 S SCM
12-04-1996 15:18:36

BASELINE: -6.8
RAW PEAK: 3
PEAK HEIGHT: 9.8
CONCENTRATION = 0.04 ppb U

CLIENT ID : MFGZ63
RESULTS FOR SAMPLE 5373 T SCM
12-04-1996 15:20:43

BASELINE: -10.71
RAW PEAK: 6
PEAK HEIGHT: 16.71
CONCENTRATION = 0.07 ppb U

CLIENT ID : PBS
RESULTS FOR SAMPLE 5374 MB SCM
12-04-1996 15:22:49

BASELINE: -11.28
RAW PEAK: -8.600001
PEAK HEIGHT: 2.679999
CONCENTRATION = 0.01 ppb U

CLIENT ID : LCSS
RESULTS FOR SAMPLE 5374 REF1 SCM 5X 11.5 mg/kg TM 12/07/96
12-04-1996 15:24:42

BASELINE: -5.160001
RAW PEAK: 847
PEAK HEIGHT: 852.16
CONCENTRATION = 4.65 ppb

CLIENT ID : MFGZ66
RESULTS FOR SAMPLE 5374 A SCM
12-04-1996 15:26:46

RAW PEAK: 3.6
PEAK HEIGHT: 3.1
CONCENTRATION = 0.01 ppb U

COPY
ORIGINAL WITH
SDG MFG-Z44
BH 12/07/96

CLIENT ID : MFGZ66D
RESULTS FOR SAMPLE 5374 ADUP SCM
12-04-1996 15:28:47

BASELINE: -1.08
RAW PEAK: 4
PEAK HEIGHT: 5.08
CONCENTRATION = 0.02 ppb U

CLIENT ID : MFGZ66S
RESULTS FOR SAMPLE 5374 ASPK SCM
12-04-1996 15:31:04

BASELINE: 3.05
RAW PEAK: 195.8
PEAK HEIGHT: 192.75
CONCENTRATION = 0.91 ppb

CLIENT ID : CCV
RESULTS FOR SAMPLE CCV
12-04-1996 15:32:41

BASELINE: 7.010001
RAW PEAK: 567.6
PEAK HEIGHT: 560.59
CONCENTRATION = 2.88 ppb

CLIENT ID : CCB
RESULTS FOR SAMPLE CCB
12-04-1996 15:34:52

BASELINE: 2.34
RAW PEAK: 5.2
PEAK HEIGHT: 2.86
CONCENTRATION = 0.01 ppb U

4 5374 CN 1126

CLP CN BENCHSHEET (Distillate Analysis)
PBA SPECTROPHOTOMETRIC
ONLY ONE SHEET FOR EACH CLP BATCH DATE/TIME !!!

ARI Job #: 5374/5373	EPA SDG #: MFGZ 66/64
Analyst: SRS	
Distill Batch Date/time:	11/26/96 8:25
Analysis Date/time:	11/26/96 14:52

CRDL = 10 µg/L IDL = 5 µg/L IDL date: 10/15/96 *IDL OK !*

KCN Stock Standard Preparation

ARI Number: CN#5 | Prep Date: *8/29/96* | Concentration 1.0 mg/mL

Standardization of Stock (Rhodanine titration)

AgNO3 standardization		ml AgNO3 TITRANT		
	BLANK	0.24	0.20	0.21
ml NaCl STD =	2.00	1.72	1.73	1.75
Normality AgNO3 =		**0.0186**		

NaCl Primary Standard
grams NaCl to 1000mL 0.8233
Prep Date 8/29/96
Normality NaCl 0.0141

Stock KCN Standard		ml AgNO3 TITRANT		
	BLANK	0.03	0.03	0.05
ml KCN Stock =	3.00	3.31	3.12	3.04

mg CN /ml = 1.01

KCN Stock
1.0 mg/mL

Intermediate KCN Std (1 ml/100 ml) = 10.00 *mg CN /l* *Used to prepare curve standards and matrix spikes*

STANDARD CURVE DATA *all stds prepared to a volume of* **200** *mL*

ml INTERMEDIATE	CONC (µg/l)	ABS @ 578		AVG	*Regressed µg/L*	
0.0	S0 0.0	0.010	A:52	0.010	*-0.3*	*<IDL*
0.1	S5 5.0	0.021		0.021	*4.9*	*98%*
0.2	S10 10	0.031		0.031	*9.6*	*96%*
1.0	SSD **50**	0.117		0.117	*50*	*101%*
2.0	S100 100	0.224		0.224	*101*	*101%*
4.0	S200 200	0.432	A:57	0.432	*199*	*100%*

Regresssion Data
CONC = (ABS-intercept)/ slope
intercept = 0.0106
slope = 0.0021
r2 = 0.9999

Comment: Calibration OK!

Calibration Verification Standards

ICV Source	EPA ICV-6(1191)			*Stock Conc*	9,000	*µg/L CN*
Dilution	1.0	*mL stock to*	100	*mL =*	90	*µg/L CN*
ICV	50	*mL to*	50	*mL =*	**90**	***µg/L CN***
CCV Source	SPEX #1099-AS			*Stock Conc*	1,000	*mg/L CN*
Dilution	2.5	*mL stock to*	250	*mL =*	10	*mg/L CN*
CCV	2.00	*mL dilution to*	200	*mL =*	**100**	***µg/L CN***
LCSS Source	EPA Lot #0689			*Cert. Conc.*	**5.62**	*mg/kg*
			Certified Limits	**4.1**	to	**7.1**

Distilled Mid-Level Standard
A mid-range calibration standard must be distilled along with each distillation batch. Use the 50 µg/L std for this purpose. It is identified as the DMLS.

DMLS = 50 µg/L

Initial QC Data

Dilution = mL final vol / mL distillate added

EPA Sample ID	24 hr time		Spectrophotometric data Abs	Dilution	µg/L	CONC (µg/l)	NOTES		
ICV (LCSW)			0.222	1	100.0	100		**111%**	*OK !*
ICB			0.010	1	-0.3	<5	< IDL	**U**	*OK!*
CCV	14:59		0.214	1	96.3	96		**96%**	*OK !*
CCB			0.012	1	0.6	<5	< IDL	**U**	*OK!*
PBS			0.013	1	1.1	<5	< IDL	**U**	*#DIV/0!*
DMLS			0.110	1	47.0	47		**94%**	*OK !*
LCSS	*g distilled =*	1.0042	0.225	1	101.5	101	5.05 mg/kg	**89.89%**	*OK !*
Sample Data Follows (no more than 10 analyses between CB's)							Range	"C" code	
MFGZ 66			0.012	1	0.6	<5	< IDL	**U**	
MFGZ 66D			0.011	1	0.2	<5	*NA*		
MFGZ 66S			0.313	1	143.1	143	*% Recov =*	*95.41%*	*OK*
spike =	0.75	*ml of intermediate Std =*		8	*µg CN =*	150.00	*µg/L distillate*		
PBS 2			0.011	1	0.2	<5	< IDL	**U**	*#DIV/0!*
LCSS 2	*g distilled =*	1.0052	0.226	1	101.9	102	5.07 mg/kg	**90.22%**	*OK !*
MFGZ 64			0.015	1	2.1	<5	< IDL	**U**	
CCV	15:08		0.212	1	95.3	95		**95%**	*OK !*
CCB			0.010	1	-0.3	<5	< IDL	**U**	*OK!*
MFGZ 65			0.015	1	2.1	<5	< IDL	**U**	
MFGZ 48			0.012	1	0.6	<5	< IDL	**U**	
MFGZ 51			0.013	1	1.1	<5	< IDL	**U**	
MFGZ 52			0.013	1	1.1	<5	< IDL	**U**	
MFGZ 53			0.014	1	1.6	<5	< IDL	**U**	
MFGZ 54			0.016	1	2.5	<5	< IDL	**U**	
MFGZ 55			0.013	1	1.1	<5	< IDL	**U**	
MFGZ 59			0.014	1	1.6	<5	< IDL	**U**	
MFGZ 60			0.013	1	1.1	<5	< IDL	**U**	
CCV	15:16		0.208	1	93.4	93		**93%**	*OK !*
CCB			0.014	1	1.6	<5	< IDL	**U**	*OK!*
MFGZ 63			0.013	1	1.1	<5	< IDL	**U**	
CCV	15:18		0.206	1	92.5	92		**92%**	*OK !*
CCB			0.011	1	0.2	<5	< IDL	**U**	*OK!*

CLP CN BENCHSHEET (Aqueous samples)
SPECTROPHOTOMETRIC
ONLY ONE SHEET FOR EACH CLP BATCH DATE/TIME !!!

ARI Job #: 5374/5373 EPA SDG #: MFGZ 66/64
Analyst: SRS
Batch Date/time: 11/26/96 8:25

CRDL = 10 µg/L IDL = 5 µg/L IDL date: 10/15/96 *new IDL required !*

KCN Stock Standard Preparation

ARI Number: CN #5 Prep Date: 8/29/96 Concentration 1.0 mg/mL

Standardization of Stock (Rhodanine titration)

AgNO3 standardization		ml AgNO3 TITRANT		
	BLANK	.24	.20	.21
ml NaCl STD =	2.50	1.72	1.73	1.75

Normality AgNO3 =

NaCl Primary Standard
grams NaCl to 1000mL 0.8233
Prep Date 8/29/96
Normality NaCl 0.0141

Stock KCN Standard		ml AgNO3 TITRANT		
	BLANK	.03	.03	.05
ml KCN Stock =	3.50	3.31	3.12	3.04

mg CN /ml =

KCN Stock
mg/mL

Intermediate KCN Std (1 ml/100 ml) = 0.00 mg CN /l *Used to prepare curve standards and matrix spikes*

STANDARD CURVE DATA *(all stds prepared to 200 mL volume except 50 Std which is 1000mL)* **Analysis Date/Time:** 11/26/96 14:52

ml INTERMEDIATE	CONC (µg/l)	ABS @ 578		AVG	% Recovery
0.0	~~50~~ 0.0	.010	14:52		
0.1	~~5~~ 5 ~~0.0~~	.021			
0.2	~~10~~ 10 ~~0.0~~	.031			
~~1.0~~ ~~5.0~~	~~50~~ 50 ~~0.0~~	.117			
2.0	~~100~~ 100 ~~0.0~~	.224			
4.0	~~200~~ 200 ~~0.0~~	.432	14:57		

Regresssion Data
CONC = (ABS-intercept)/ slope
intercept =
slope =
r2 =
Comment:

Calibration Verification Standards

Source	SPEX	AS	*Stock Conc*	1,000	*mg/L CN*
Dilution	2.5	*mL stock to*	250	*mL =* 10	*mg/L CN*
ICV	EPA ICV-6 (1191)				**90 µg/L CN**
CCV	2.00	*mL init. to*	200	*mL =*	**100 µg/L CN**

LCSS EPA REF MATL 0689

Sample Data
Distill ratio = mL sample distilled / mL final volume *Dilution = mL final vol / mL distillate added*

EPA Sample ID	24 hr time	Distill ratio	Spectrophotometric data Abs	Dilution	µg/L	CONC (µg/l)	NOTES Range
ICV (LCSW)		1.00	.222	1			
ICB		na	.010	1			
CCV	14:59	na	.214	1			
CCB		na	.012	1			
~~DMLS~~ PBS		1.00	.013	1			
Sample Data Follows (no more than 10 analyses between CB's)							Range / "C" code
DMLS		1.00	.110	1			
LCSS		1.00	.225	1			
MFGZ 66		1.00	.012	1			
MFGZ 66D		1.00	.011	1			
MFGZ 66S		1.00	.313	1			
PBS 2		1.00	.011	1			
LCSS2		1.00	.226	1			
MFGZ 64		1.00	.015	1			
CCV	15:08	1.00	.212	1			
CCB		1.00	.0010	SRS 11/26/96			
MFGZ 65		1.00	.115	1			
MFGZ 48		1.00	.012	1			
MFGZ 51		1.00	.013	1			
MFGZ 52		1.00	.013	1			
MFGZ 53		1.00	.014	1			
MFGZ 54		1.00	.016	1			
MFGZ 55		1.00	.013	1			
MFGZ 59		1.00	.014	1			
MFGZ 60		1.00	.013	1			
CCV	15:16	1.00	.208	1			
CCB		1.00	.014	1			
MFGZ 63		1.00	.013	1			
CCV	15:18	1.00	.206	1			
CCB		1.00	.011	1			
		1.00		1			
		1.00		1			
SRS 11/26/96		1.00	SRS 11/26/96	1			
		1.00		1			
		1.00		1			
		1.00		1			

PHOTOMETRY/CLP CN 11/26/96 14:52

ID	ABS	CONC	
STD 1	0.010	0.000	S0
STD 2	0.021	5.000	S5
STD 3	0.031	10.00	S10
STD 4	0.117	50.00	S50
STD 5	0.224	100.0	S100
STD 6	0.432	200.0	S200

K= 473.7 A0= 0.011

PHOTOMETRY/CLP CN 11/26/96 14:57

ID	ABS	CONC	F
ICV 7	0.222	100.2	
ICB 8	0.010	-0.655	LO
CCV 9	0.214	96.25	

PHOTOMETRY/CLP CN 11/26/96 14:59

N= 330 MEAN= 17.63 SD= 42.21 CV= 239.5

CCB 10	0.012	0.733	LO		
PBS 11	0.013	0.964	LO	5374 MB1	BH 12/23/96
DMLS 12	0.110	47.11			
LCSS 13	0.225	101.2		5374 REF3/2	
MFGZ660 14	0.012	0.501	LO	5374 A	
MFGZ660D 15	0.011	0.270	LO	ADUP	
MFGZ660S 16	0.313	143.3		ASPK	
PBS2 17	0.011	0.039	LO	5373 MB1	
LCSS2 18	0.226	102.0		5373 REF3	
MFGZ654 19	0.015	1.889	LO	5373 J	
CCV 20	0.212	95.33			

PHOTOMETRY/CLP CN 11/26/96 15:08

N= 341 MEAN= 18.50 SD= 42.86 CV= 231.6

CCB 21	0.010	-0.308	LO		
MFGZ665 22	0.015	2.120	LO	5373 K	
MFGZAB 23	0.012	0.733	LO		L
MFGZ51 24	0.013	0.964	LO		M
MFGZ52 25	0.013	1.079	LO		N
MFGZ553 26	0.014	1.542	LO		O
MFGZ554 27	0.016	2.583	LO		P
MFGZ55 28	0.013	1.079	LO		Q
MFGZ59 29	0.014	1.426	LO		R
MFGZ60 30	0.013	0.964	LO		S
CCV 31	0.208	93.13			

PHOTOMETRY/CLP CN 11/26/96 15:16

N= 352 MEAN= 18.22 SD= 42.47 CV= 233.0

CCB 32	0.014	1.658	LO	
MFGZ663 33	0.013	0.964	LO	5373 T
CCV 34	0.206	92.55		

PHOTOMETRY/CLP CN 11/26/96 15:18

N= 355 MEAN= 18.34 SD= 42.49 CV= 231.7

000296

CCB 35	0.011	0.154	LO

PHOTOMETRY/CLP CN 11/26/96 15:19

N= 356 MEAN= 18.29 SD= 42.44 CV= 232.1

PHOTOMETRY/CLP CN 11/26/96 14:52

ID	ABS	CONC	
STD 1	0.010	0.000	50
STD 2	0.021	5.000	55
STD 3	0.031	10.00	510
STD 4	0.117	50.00	550
STD 5	0.224	100.0	5100
STD 6	0.432	200.0	6200

K= 473.7 A0= 0.011

PHOTOMETRY/CLP CN 11/26/96 14:57

ID	ABS	CONC	F
ICV 7	0.222	100.2	
ICB 8	0.010	-0.655	LO
CCV 9	0.214	96.25	

PHOTOMETRY/CLP CN 11/26/96 14:59

N= 330 MEAN= 17.63 SD= 42.21 CV= 239.5

CCB 10	0.012	0.733	LO	
PBS 11	0.013	0.964	LO	
DMLS 12	0.110	47.11		
LCSS 13	0.225	101.2		
MFG2660 14	0.012	0.501	LO	5374 A
MFG2660D 15	0.011	0.270	LO	ADUP
MFG2660S 16	0.313	143.3		ASPK
PBS2 17	0.011	0.039	LO	
LCSS2 18	0.226	102.0		
MFG2641 19	0.015	1.889	LO	5373 J
CCV 20	0.212	95.33		

PHOTOMETRY/CLP CN 11/26/96 15:08

N= 341 MEAN= 18.50 SD= 42.86 CV= 231.6

CCB 21	0.010	-0.308	LO	
MFG2665 22	0.015	2.120	LO	5373 K
MFG2A8 23	0.012	0.733	LO	L
MFG2511 24	0.013	0.964	LO	M
MFG2512 25	0.013	1.079	LO	N
MFG2533 26	0.014	1.542	LO	O
MFG2542 27	0.016	2.583	LO	P
MFG2552 28	0.013	1.079	LO	Q
MFG2591 29	0.014	1.426	LO	R
MFG2601 30	0.013	0.964	LO	S
CCV 31	0.208	93.13		

PHOTOMETRY/CLP CN 11/26/96 15:16

N= 352 MEAN= 18.22 SD= 42.47 CV= 233.0

CCB 32	0.014	1.658	LO	
MFG2663 33	0.013	0.964	LO	5373 T
CCV 34	0.206	92.55		

PHOTOMETRY/CLP CN 11/26/96 15:18

N= 355 MEAN= 18.34 SD= 42.49 CV= 231.7

000297

CCB 35	0.011	0.154	LO

PHOTOMETRY/CLP CN 11/26/96 15:19

CLP CN Distillation Log | **Batch Date/time:** 11/26/96 | **SDG #:** MFGZ 66/64 | **ARI #:** 5374/5373 | **Analyst:** RS

Comments and notes regarding distillation procedure: 8:25

- *all distillations = 500 mL sample unless midi*
- *all spikes at 2.5 mL 10 mg/L Std*

Physical descriptors:
Color: red, yellow, green, white, brown, black, colorless, etc.
Clarity: clear, cloudy, opaque
Texture: fine (powdery), medium (sand), coarse (rocks etc.)
Artifacts: yes or leave blank if none

Sample ID ARI #	Sample ID Client #	Sample Pre-testing pH	Chlorine	Sulfide	Distillation Volume (mL) Weight (g)	Final Volume (ml)	Spikes & Standards mL added	Std Conc. (µg/L)		NOTES: enter brief physical description of sample Color	Clarity	Texture	Artifacts
matrix	ICV	N. APPLIC	N. APPLIC	N. APPLIC	50 mL	50 mL	5 mL	ICV 6	before / after	EPA REF MATL		ICV 6 (1191)	
matrix	PBS								before / after				
matrix	DMLS						50 mL	50 µg/L	before / after	N HSE STD.			
matrix	LCSS				1.0042g				before / after	EPA REF MATL.		0689	
5374 A#1 matrix	MFGZ66				1.0096				before / after				
A#1 dup matrix	MFGZ66D				1.0019				before / after				
A#1 spk matrix	MFGZ66S				1.0049g		75 mL	10 ppm	before / after	N HSE STD.			
matrix	PBS 2				50 mL				before / after				
matrix	LCSS 2				1.0052g				before / after	EPA REF MATL		0689	
5373 J#1 matrix	MFGZ64				1.0066				before / after				
K#1 matrix	MFGZ65				1.0077				before / after				
L#1 matrix	MFGZ48				1.0033				before / after				
M#1 matrix	MFGZ51				1.0015				before / after				
N#1 matrix	MFGZ52				1.0092				before / after				
O#1 matrix	MFGZ53				1.0045				before / after				
P#1 matrix	MFGZ54				1.0027				before / after				
Q#1 matrix	MFGZ55				1.0058				before / after				
R#1 matrix	MFGZ59				1.0044				before / after				
S#1 matrix	MFGZ60				1.0019				before / after				
T#1 matrix	MFGZ63				1.0076				before / after				
matrix	4PS 11/26/96				4PS 11/26/96				before / after				
matrix									before / after				

6149F

ANALYTICAL RESOURCES, INCORPORATED

Revision 1
1/15/96

00044

000293

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Digestion and Distillation Logs

Case No: 25159

SDG: MFGZ66

ANALYTICAL RESOURCES, INC.
Contract: 68-D5-0134

000299

333 Ninth Avenue North • Seattle WA 98109-5187 • **206-621-6490** • **206-621-7523** fax

ANALYTICAL RESOURCES INCORPORATED

CLP DIGESTION LOG

ANALYST: TTM

DATE: 12/03/96

MATRIX: soil

START TIME: 1715

ARI Sample ID	Client Sample ID	*pH <2	ICP Prep Code: SCC Initial Weight (g) Vol. (mL)	ICP Prep Code: SCC Final Volume (mL)	GFA Prep Code: SCN Initial Weight (g) Vol. (mL)	GFA Prep Code: SCN Final Volume (mL)	**Appearance Predigest Color/Clarity Texture	**Appearance Postdigest Color/Clarity	Comments
5374A	MFGZ66	–	1.012	200.0	1.006	200.0	Brown Fine cloudy	Orange cloudy	BTL#1
" ADup	MFGZ66D	–	1.012	↓	1.005	↓	↓	↓	BTL#1
TM 12/04/96 " ASpK	MFGZ66S	–	1.012	↓	1.006	↓	↓	↓	BTL#1
" Ref1	LCSS	–	1.008	↓	1.001	↓	Brown Fine cloudy	Orange cloudy	0287
" MB	PBS	–	—	200.0	—	200.0	Colorless clear	Colorless clear	
						TTM	12/03/96		

* pH <2 - required for water samples only

** Color - red, blue, yellow, green, orange, violet, white, brown, gray, black, colorless

Clarity - clear, cloudy, opaque

Texture - fine (powdery), medium (sand), coarse (large crystals or rocks)

5049F

Rev. 0
04/26/95

ANALYTICAL RESOURCES INCORPORATED

CLP MERCURY DIGESTION LOG

ANALYST: TTM

DATE: 12/03/96

MATRIX: SOIL

DIGEST START/END TIME: 1800-1830

ARI Sample ID	Client Sample ID	*pH <2	Btl #	Prep Code: SCM Initial Weight (g) Vol. (mL)	Final Volume (mL)	# KMnO4 Aliquots	**Appearance Predigest Color/Clarity Texture	Postdigest Color/Clarity	Comments
5373 MB	PBB	–	G19	—	100.0	12/1 Y	colorless clear	violet opaque	
" Ref 1	LCSS	–	G23	0.200		1	Brown Fine cloudy		.0287
5374 A	MFGZ66	–	I11	0.215		12/1 Y			BTL #1
" ADup	MFGZ66D	–	I14	0.215		1			
" ASpK	MFGZ66S	–	I15	0.217		1			BTL #1
" Ref 1	LCSS	–	I16	0.201		1	Brown Fine cloudy		0287
" MB	PBS	–	I20	—	100.0	1	Colorless Clear	violet opaque	

TTM 12/3/96

*pH<2 - required for water samples only

** Color - red, blue, yellow, green, orange, violet, white, brown, gray, black, colorless

Clarity - clear, cloudy, opaque

Texture - fine (powdery), medium (sand), coarse (large crystals or rocks)

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Date: 12/04/96 Analyst: TTM

JOB	SAMPLE	CLIENTID	TAREWEIGHT	SAMPDISH	DRYWEIGHT	SOLIDS
5374	A	MFGZ66	1.549	9.224	8.512	90.72
5374	ADUP	MFGZ66D	1.290	9.720	8.937	90.71

BH 12/14/96

ANALYTICAL RESOURCES INCORPORATED

Percent Total Solids

OVEN IN		
Analyst: TM	Date: 12/03/96	Time: 1700
OVEN OUT		
Analyst: JLN	Date: 12/04/96	Time: 0930

ARI Sample ID	Client Sample ID	Tare Weight (g)	Tare + Sample Wet (g)	Tare + Sample Dry (g)	% Total Solids
5373 A	MFGZ44	1.292 g	9.891 g	8.335 g	
" ADup	MFGZ44D	1.540	9.707	8.246	
" B	MFGZ 45	1.289	9.907	8.418	
" C	MFGZ 46	1.284	9.945	8.209	
" D	MFGZ 47	1.294	9.935	8.364	
" E	MFGZ 49	1.290	9.191	7.738	
" F	MFGZ 50	1.296	9.218	7.831	
" G	MFGZ 56	1.280	9.855	8.062	
" H	MFGZ 57	1.291	9.340	8.218	
" I	MFGZ 58	1.301	10.216	7.755	
" J	MFGZ 64	1.293	10.148	8.694	
" K	MFGZ 65	1.294	9.566	8.211	
" L	MFGZ 48	1.301	10.067	8.313	
" M	MFGZ 51	1.287	9.847	7.933	
" N	MFGZ 52	1.285	10.136	8.543	
" O	MFGZ 53	1.292	9.749	8.345	
" P	MFGZ 54 TM 12/3/96 ~~1.288~~	1.288	9.842	8.590	
" Q	MFGZ 55	1.292	9.843	8.119	
" R	MFGZ 59	1.282	9.892	8.469	
" S	MFGZ 60	1.280	10.945	9.272	
" T	MFGZ 63	1.286	9.414	8.467	
5374 A	MFGZ66	1.549 g	9.224 g	8.512 g	
" ADup	MFGZ66D	1.290	9.720	8.937	

Comments:

5050F

Rev. 0
04/26/95

Analytical Resources, Incorporated
Analytical Chemists and Consultants

EPA Shipping/Receiving Documents

Case No: 25159

SDG: MFGZ66

ANALYTICAL RESOURCES, INC.
Contract: 68-D5-0134

000304

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FedEx USA Airbill

Tracking Number 7802823346

FedEx Retrieval Copy

358 500 2378988 5293M

1 From

Date 11/19/96 Sender's FedEx Account Number 1369-4305-7

Sender's Name Eric Tate Phone (713)957-3267

Company ROY F WESTON INC Dept./Floor Suite/Room

Address 1234 N POST OAK STE 120

City HOUSTON State TX Zip 77055

2 Your Internal Billing Reference Information 000910046060560210600 00

3 To

Recipient's Name Jay Kuhn Phone (206) 621-6490

Company ARI Dept./Floor Suite/Room

Address (To "HOLD" at FedEx location, print FedEx address here) 400 9th Avenue North

City Seattle, State WA Zip 98109

For "HOLD" Service check here

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For Saturday Delivery check here

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305

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4 Service*

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[ ]
7 [ ] FedEx Overnight Freight
8 [ ] FedEx 2Day Freight
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*Delivery commitment may be later in some areas.

5 Packaging

6 [ ] FedEx Letter* 2 [ ] FedEx Pak* 3 [ ] FedEx Box 4 [ ] FedEx Tube 1 [X] Other Packaging

*Declared value limit $500.

6 Special Handling

Does this shipment contain dangerous goods?
4 [ ] Yes (As per attached Shipper's Declaration) [ ] Yes (Shipper's Declaration not required)
6 [ ] Dry Ice Dry Ice, 9, UN 1845 III ____ x ____ kg 904 (Dangerous Goods Shipper's Declaration not required)
CA [ ] Cargo Aircraft Only

7 Payment

[ ] Obtain Recipient FedEx Account No.

Bill to: 1 [X] Sender (Account no. in section 1 will be billed) 2 [ ] Recipient 3 [ ] Third Party 4 [ ] Credit Card 5 [ ] Cash/Check (Enter FedEx account no. or Credit Card no. below)

FedEx Account No.

Credit Card No. Exp. Date

Total Packages 1 Total Weight 42 [redacted] Total Charges $

*When declaring a value higher than $100 per package, you pay an additional charge. See SERVICE CONDITIONS, DECLARED VALUE AND LIMIT OF LIABILITY section for further information

Credit Card Auth.

8 Release Signature

Your signature authorizes Federal Express to deliver this shipment without obtaining a signature and agrees to indemnify and hold harmless Federal Express from any resulting claims.

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WCSL 0996
Rev. Date 7/95 • PART #147381
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EPA United States Environmental Protection Agency
Contract Laboratory Program

Inorganic Traffic Report & Chain of Custody Record
(For Inorganic CLP Analysis)

Case No. 25159

1. Matrix (Enter in Column A)
1. Surface Water
2. Ground Water
3. Leachate
4. Field QC
5. Soil/Sediment
6. Oil (High only)
7. Waste (High only)
8. Other (specify in Column A)

2. Preservative (Enter in Column D)
1. HCl
2. HNO3
3. NaOH
4. H_2SO_4
5. $K_2CR_2O_7$
6. Ice only
7. Other (specify in Column D)
N. Not preserved

2. Region No. 6
Sampling Co. Roy F. Weston
Sampler (Name) Eric Tate
Sampler Signature Eric Tate
3. Purpose* Lead: SF, PRP, ST, FED
Early Action: CLEM, PA, REM, RI, SI, ESI
Long-Term Action: FS, RD, RA, O&M, NPLD

4. Date Shipped 11/19/96
Carrier Fed Ex
Airbill Number 7802823346
5. Ship To ARI 400 9th Avenue North Seattle, WA 98109 (206) 621-6490
ATTN: Jay Kuhn

6. Date Received 11/20/96 Received by: Janet Felkins
Laboratory Contract Number 68-D5-0134
Unit Price 77.65
7. Transfer to:
Date Received
Received by
Contract Number
Price

CLP Sample Numbers (from labels)	A Matrix (from Box 1) Other:	B Conc. Low Med High	C Sample Type: Comp./ Grab	D Preservative (from Box 2) Other:	E – RAS Analysis: Diss. Metals	Total Metals	Cyanide	Low only: NO_2/NO_3	Fluoride	High only: pH	Conduct.	F Regional Specific Tracking Number or Tag Numbers	G Station Location Identifier	H Mo/Day/ Year/Time Sample Collection	I Corresponding CLP Organic Sample No.	J Sampler Initials	K High Phases: Solids	Water-Miscible Liq.	Water-Immis. Liq.
MFG248	5	L	G	6		X	X					6-015020	SE005	11/19/96 1430	FFG06	ECT			
MFG251	5	L	G	6		X	X					6-015032	SE008	11/19/96 1020	FFG09	ECT			
MFG252	5	L	G	6		X	X					6-015036	SE009	11/19/96 1105	FFG10	ECT			
MFG253	5	L	G	6		X	X					6-015040	SS01	11/19/96 1210	FFG11	ECT			
MFG254	5	L	G	6		X	X					6-015044	SS02	11/19/96 1215	FFG12	ECT			
MFG255	5	L	G	6		X	X					6-015048	SS03	11/19/96 1230	FFG13	ECT			
MFG259	5	L	G	6		X	X					6-015064	SS07	11/19/96 1405	FFG17	ECT			
MFG260	5	L	G	6		X	X					6-015068	SS08	11/19/96 1415	FFG18	ECT			
MFG263	5	L	G	6		X	X					6-015080	SS11	11/19/96 1350	FFG21	ECT			
MFG266	5	L	G	6		X	X					6-015092	SE010	11/19/96 1535	FFG24	ECT			

Shipment for Case Complete? (Y/N) Y
Page 1 of 1
Sample(s) to be Used for Laboratory QC: MFG266
Additional Sampler Signatures
Chain of Custody Seal Number(s)

CHAIN OF CUSTODY RECORD

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Eric Tate	11/19/96 1800	Fed Ex Tulsa, OK			
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks Is custody seal intact? Y/N/none	
		Janet Felkins	11/20/96 0 11:00		

DISTRIBUTION: Green - Region Copy; White - Lab Copy for Return to Region; Pink - CLASS Copy; Yellow - Lab Copy for Return to SMO

EPA Form 9110-1

SEE REVERSE FOR ADDITIONAL STANDARD INSTRUCTIONS
*SEE REVERSE FOR PURPOSE CODE DEFINITIONS

COPY ORIGINAL WITH SDG MFG244

A21-012-14 REV.

369024

Preservative: ICE

Yes ☒ No ☐

Designate		
Grab. X	Volatile Organics	
	Semi Volatiles (ABN)	
Comp.	Pesticides/PCB	
	Total Metals	X
	Cyanide	X
	Alkalinity/Hardness	
	TCLP	
	☐ VOA	
	☐ ABN	
	☐ METALS	
	Asbestos	
	Dioxin	
	Oil and Grease	

Time: 1535

Month/Day/Year: 11/19/96

Station #: SED-10

000307

Remarks: MFGZ66

Concentration: ☒ L ☐ M ☐ H

Project Code 1 CLP Case #: 25157

Tag Number: 6- 015092

96-19829

5374A#2

SAMPLE LOG-IN SHEET

Lab Name: Analytical Resources Inc. 333 9th Ave North, Seattle, WA 98109

Page 1 of 1

Received By (Print Name): Janet Felkins

Log-In Date:

Received By (Signature): Janet Felkins

Case Number: 25159

Sample Delivery Group No.: MFB266

SAS Number: 9f.

REMARKS:

1. Custody Seal(s) — Present/Absent* Intact/Broken
2. Custody Seal Nos.: none 9f.
3. Chain of Custody Records — Present/Absent*
4. Traffic Reports or Packing List — Present/Absent*
5. Airbill — Airbill/Sticker Present/Absent*
6. Airbill No.: 7802823346 9f.
7. Sample Tags — Present/Absent*
   Sample Tag Numbers — Listed/Not Listed on Chain-of-Custody
8. Sample Condition: Intact/Broken*/Leaking
   cooler temp. 2°c
9. ~~Does information on~~ custody records, traffic reports, and sample tags agree? Yes/No*
10. Date Received at Lab: 11/20/96
11. Time Received: 0111:00

	EPA SAMPLE #	CORRESPONDING SAMPLE TAG #	CORRESPONDING ASSIGNED LAB #	REMARKS: CONDITION OF SAMPLE SHIPMENT, ETC.
	MFB266	6-015092	5374A	OK

SAMPLE TRANSFER

Fraction:	metals	Conv
Area	metals Lab	Conv Lab
By:	Janet	Janet
On:	11/20/96	11/20/96

11/20/96 9f.

* Contact SMO and attach record of resolution

Reviewed By: [signature]

Logbook No: #2

Date: November 22, 1996

Logbook Page No.: 1025-1026

000308

0007F

FORM DC-1

Rev. 1
02/21/94

Reviewed By:	Jeff 11/22/96
Authorized By:	↓
SMO CONTACT:	Mistie 2.0C

Cooler Temp: 2

USEPA CLP
RAS / SAS
SERVICE REQUEST

Page 1 of 1

EPA PROJECT: 25159	ARI JOB NUMBER: 5374
SDG NUMBER: MFGZ66	Corresponding Job No.: 5373, 5373 II
VTSR: 11/20/96	Due Date 12/20/96

CASE COMPLETE: (Y) / N 11/20/96

MS/MSD ASSIGNED: (Y) / N

RAD Survey: Background

(✓) RAS
( ) SAS

ASSIGNED MS/MSD SAMPLE: MFGZ66

	SMO SAMPLE ID	ARI SAMPLE ID	SAMPLE MATRIX	Analysis Requested: ABNs	CN ~~VOAs~~	PEST/ PCBs	Tot metals	MS/MSD	REMARKS & COMMENTS
1	MFGZ66	5374A	Soil		✓		✓	✓	OK
2									
3									
4									
5									
6									
7									
8									
9									
10									

11/20/96 JF.

Instructions/Comments: Return Tags to Jeff as soon as done!

000309

Analytical Resources Incorporated
333 Ninth Ave. North
Seattle, WA 98109-5187

PHONE: (206) 621-6490
FAX: (206) 621-7523

USEPA CLP/RAS/SAS Service Request ARI Form #0016f

0016F

1026

Rev. 3
06/29/95

ANALYSIS SUMMARY 11/20/96

NEWSUM.rpt

Logged by: Jan

Analysis Requested: 11/20/96

ODiscard: 2/18/97

MDiscard:

ARI Job No: 5374

PC: Jeff

VTSR: 11/20/96

Data Due: 12/20/96

Project No: 25159

Inquiry Number: Form

Contact: Llewellyn, Mistie

Client: USEPA

Validatable Data Pkg: YES

Special Instructions:

SDG No:MF6Z66

Analytical Protocol:

Deliverables: FORMSMASTER DELIVERABLES

PM OK Date 11/22/96

Cooler Temp. Deg. C: 2

FOLDERS DONE (date) 11-22-96

2 by KM

Deliverables Require Spectra (Circle one) YES NO

✓ See enclosed instructions

___ No enclosed instructions

1 Sample

	LIMS ID	ARI ID	Client ID	Sampled	Matrix	TOT MET	Conv	WARD Metals	
1.	96-19829	5374A	MF6Z66	11/19/96	Soil/Sed	X	X	X	
						MS/MSD this sample. Metals/Conv sharing one jar.			Okay

000310

METALS ANALYSIS SUMMARY 11/20/96

Project No: 25159

ARI Job NO: 5374
PC: Jeff
VTSR: 11/20/96
Due to PM: 12/16/96

Contact: Llewellyn, Mistie
Validatable Package: YES
Protocol:

SEE ENCLOSED INSTRUCTIONS ✓

No enclosed instructions ___

1 Sample

PM OK [signature] Date 11/22/96

LIMS ID	ARI ID	CLIENT ID		DATE SAMPLED	MATRIX	COND	FIELD FLTR	TOT	DISS	TCLP	SPLP	pH	HARD	ORG LEN	CNV LEN	CNV CEC	COMMENTS
96-19829	5374A	MF6Z66	✓	11/19/96	Soil/Sed	Okay		WARD+CN									MS/MSD this sample. Metals/Conv sharing one jar.

0003311

Metals Analyses to complete 11/20/96

ARI Job NO: 5374
VTSR: 11/20/96
Due to PM: 12/16/96

PC: Jeff

Contact: Llewellyn, Mistie
Client: USEPA

Project No: 25159

Protocol:
Validatable Package: YES
Deliverables - Special Inst: FORMSMASTER DELIVERABLES

OK MM 11/22/96

ID	SAMPLE	MATRIX	ANALYSIS	AG	AL	AS	AU	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	LI	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	SR	TH	TI	TL	U	V	W	ZN
96-19829-A	MFGZ66	Soil/Sed	TOTAL	I	I	G			I	I	I	I	I	I	I	I	C	I		I	I		I	I	G	I	G						G		I		I

000312

Conv Analyses to complete 11/20/96
cnvlist2.rpt

Client: USEPA
Project: 25159
Date Received: 11/20/96

✓ See enclosed instructions
___No enclosed instructions
Protocol:

Validatable Data Package (Raw Data): YES
Special Instructions:
Deliverables - Special Inst: FORMSMASTER DELIVERABLES

PM OK [signature] Date 11/22/96

LIMS ID	ARI ID	CLIENT ID	MATRIX	SAMPLED	DATA DUE	RT	COMMENTS - CONVENTIONALS	COMMENTS - ALL LABS
96-19829	5374A	MFGZ66	Soil/Sed	11/19/96	12/12/96	20		MS/MSD this sample. Metals/Conv sharing one jar.
			Soil Total Cyanide					

000313

**** LAST PAGE OF THIS SAMPLE SET ****

Conventionals Summary 11/20/96
convlist.rpt

Contact: Llewellyn, Mistie
Client: USEPA

Protocol:

ARI Job NO: 5374
VTSR: 11/20/96
Report Due: 12/12/96
PC: Jeff

Project No: 25159

5374 A Sampled: 11/19/96

Deliverables - Special Inst: FORMSMASTER DELIVERABLES

*** = See "Conv Analyses to Complete" Sheet

ID	MATR	PH	COND	DO	BOD	COD	TOC	DOC	TCOL	FCOL	STRP	COLR	TURB	SS	TS	TSPR	TDS	TSS	TVS	VSS	ALK	CARB	BIC	ACID	NH3	NO2	NO3	N2N3	TKN	CL	F	BR	I	S=	AVS	SOLS	SO4	SO3	TOTP	SRP	O&G	NPOG	CN-t	CN-a	CN-w	Cr6	Phnl	ChlA	TOX	CEC	MISC
A	S																																											X									

Validatable Data Package: YES
Comments: _____

**** LAST PAGE OF THIS SAMPLE SET ****

ANALYTICAL
RESOURCES
INCORPORATED

SAMPLE DELIVERY GROUP (SDG)
TRAFFIC REPORT (TR) COVER SHEET

Lab Name: **ANALYTICAL RESOURCES INC.** Contract No: **68-D5-0134**

Lab Code: **ARI** Case No: **25159**

Full Sample Analysis Price in Contract: **$77.65**

SDG No/first sample in SDG: **MFGZ66** Sample Receipt Date: **11/20/96**
(Lowest EPA Sample No. of first shipment)

MR 12/31/96 ~~SDG No~~/last sample in SDG: **MFGZ66** Sample Receipt Date: **11/20/96**
(Highest EPA Sample No. of last shipment)

	CLP Sample Numbers	ARI Lab ID	Matrix	VTSR
1	MFGZ66	5374A	Soil/Sed	11/20/96

Janet Felkins
Sample Custodian

12/31/96
Date

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Additional Records

Case No: 25159

SDG: MFGZ66

ANALYTICAL RESOURCES, INC.

Contract: 68-D5-0134

000316

333 Ninth Avenue North • Seattle WA 98109-5187 • **206-621-6490** • **206-621-7523** fax

* SHARE WITH CONVENTIONALS

USE EPA ICV/LCSS

ILM04.0 CLP

TOTAL METALS SAMPLE LOGFORM

PM OK ____ Date _____

ARI JOB NO: 5374 | Client Name: USEPA | Project: 25159

Prep Due Date: 12/05 | Analysis Due Date 12/12 | Data Due Date 12/16 | Surcharge/Discount: _____

Prep Memo: EPA-CLP | Analysis Memo EPA-CLP | General Memo EPA-CLP | Prepared by: BH | Date: 11/25/96

ARI SMP ID	METALS MATRIX	Ag	Al	As	Ba	Be	Ca	Cd	Co	Cr	Cu	Fe	Hg	K	Mg	Mn	Mo	Na	Ni	Pb	Sb	Se	Sn	Tl	V	Zn	B	Si	Preparation Codes ① SCC	② SCN	③ SCM			
A *	Soil/S T	I	I	G	I	I	I	I	I	I	I	I	C	I	I	I		I	I	G	I	G		G	I	I			—	—	—			
ADUP																													—	—	—			
ASPK																													—	—	—			
MB																													—	—	—			
REF1	EPA 0287																												—	—	—			

000317

Computer Generated Replacement for 5019F (Rev.1 02/17/94)

SOP Rev. Date: _____

ANALYTICAL RESOURCES INCORPORATED

SPIKING LOG

Sample ID: 5374 AsPK Sample Volume: 200 mL Date: 12/3/96 Spiked By: NSJ

All cross-outs made by analyst unless otherwise noted. 100 mL for SCM digest

Prep. Code				SCL	SCN
Spike Solution Added	ICP ROUTINE	GFA ROUTINE	ICP MINUS	ICP CLP	GFA CLP
Standard No.				017-4	615-2
Vol. Added: mL				2.0	2.0

ELEMENT REQUESTED

Ag					
Al					
As					
Ba					
Be					
Ca					
Cd					
Co					
Cr					
Cu					
Fe					
K					
Mg					
Mn					
Na					
Ni					
Pb					
Se					
Tl					
V					
Zn					
Li					
Sr					

Single Element Spikes

Element	Prep. Code	Anal. Code	Stock Conc. mg/L	Stock Added mL	Spike Added mg/L	Spike Added Plus Solution mg/L	Std. No.
Hg	SCM	CVA	1	0.1	0.001		544-3
Sb		ICP	2500	0.1	2.5		
Sb		GFA	100	0.1	0.1		
Sb CLP	RCC	ICP	1000	0.05	0.5		
Sb CLP	SCC	ICP	1000	0.1	0.5		610-8
Ag		ICP	250	0.1	0.25		
Cd		ICP	100	0.1	0.1		
As		ICP	1000	0.25	2.5		
Pb		ICP	1000	0.1	1		
Se		ICP	1000	0.25	2.5		
Tl		ICP	1000	0.25	2.5		
B		ICP	300	0.1	0.3		
Mo		ICP	250	0.1	0.25		
Si		ICP	5000	0.1	5		
Sn		ICP	500	0.1	0.5		
Ti		ICP	2500	0.1	2.5		

Notes:

WITNESSED 003423

5033F

Rev. 6
2/26/96

ANALYTICAL RESOURCES INCORPORATED

METALS WORKING STANDARD PREPARATION LOG

Standard Number	Solution Name	Stock Number	Stock Soln. Conc. or Name	Stock Soln. Volume	Final Volume	Matrix	Final Conc.	Preparation Date	Expiration Date	Analyst Initials	Analytical Verification
686-1	EPA CCV	13-1	ARICPCV-1	10.0ml	1000ml	5% HCl, 1% HNO3	SEE ICP SOP	15:45 11-1-96		LTG	
		13-2	-2								
		13-3	-3								
		STD 616-4	Al 1000mg/L	3.0ml			TOTAL 5.0mg/L				
		-5	Ca								
		-6	Fe								
		-8	Mg								
686-2	EPA ICSA	12-19	Part A	20.0ml	200ml	5% HCl 1% HNO3	SEE CERT	11/2/96		AA	
686-3	EPA ICSA B	12-19	Part A								
		12-20	Part B								
686-4	ICP STD 2	STD 611-1	ICP STD 2 Stock	2.00ml	100ml	5% HCl 1% HNO3	See ICP SOP	7:15 11/4/96		AM	
686-5	3	611-2	3								
686-6	4	612-1	4								
686-7	5	612-2	5	4.00ml							
686-8	GFA CAL INT	STD 613-8	GFA CAL STK	1.00 ml	100.0ml	2% HNO3	See GFA	11/4/96		NSJ	
		610-8	SG 1000	0.20			SOP				

000313

ANALYTICAL RESOURCES INCORPORATED

000320

METALS WORKING STANDARD PREPARATION LOG

Standard Number	Solution Name	Stock Number	Stock Soln. Conc. or Name	Stock Soln. Volume	Final Volume	Matrix	Final Conc.	Preparation Date	Expiration Date	Analyst Initials	Analytical Verification
703-1	GFA CU 25	STD 613-6	GFA CU std	0.50 mL	100 mL	0.5% HNO_3	25 µg/L	0845 12/6/96		AA	
703-2	↓ 40	↓	↓	0.80 ↓	↓	↓	40 ↓	↓		↓	
703-3	Hg Inst STD	12-17	Hg AA Grade	0.1 mL	100.0 mL	0.5% HNO_3	1.0 mg/L	850 12/9/96		DM	
703-4	Hg Inst CV	12-16	Hg CG Grade	0.1 mL	100.0 mL	0.5% HNO_3	1.0 mg/L	850 12/9/96		DM	
703-5	GFA CAL INT	STD CAL-2	GFA CAL STOCK	1.00 mL		2% HNO_3	See GFA	10:00 12-9-96		NSJ	
↓	↓	STD CAL-3	Sb 1000	0.20		↓	SOP				
703-6	GFA CAL -2	STD 703-5	GFA CAL INT	0.10		0.5% HNO_3	2 µg/L				
703-7	-10			0.50			10				
703-8	-20			1.00			20				
703-9	-25			1.25			25				
703-10	-50			2.50			50				
703-11	GFA CU -25	STD 613-6	GFA CU INT	0.50 ↓			25				
703-12	↓ -30	↓	↓	0.60 mL	100.0 mL	0.5% HNO_3	30 µg/L	5:00 pm (17:00) 12-9-96		NSJ	
703-13	GFA CAL -0.4	STD 703-5	GFA CAL INT	0.20 ↓	↓	↓	0.4 ↓	↓		↓	
703-14	Hg Inst STD	12-17	Hg AA Grade	0.1 mL	100.0 mL	0.5% HNO_3	01.0 mg/L	810 12/10/96		DM	
703-15	Hg Inst CV	12-16	Hg CG Grade	0.1 mL	100.0 mL	0.5% HNO_3	1.0 mg/L	810 12/10/96		DM	

ANALYTICAL RESOURCES INCORPORATED

METALS WORKING STANDARD PREPARATION LOG

Standard Number	Solution Name	Stock Number	Stock Soln. Conc. or Name	Stock Soln. Volume	Final Volume	Matrix	Final Conc.	Preparation Date	Expiration Date	Analyst Initials	Analytical Verification
701-1	GFA MOD 50	STD 698-5	GFA Cal mix	2.50 mL	100 mL	0.5% HNO_3	50 ug/L	9:45 12/4/96		Am	
701-2	GFA cal mix	STD 691-2	GFA cal stock	1.00		2.0% HNO_3	50 GFA SDP				
↓	↓	↓ 691-3	Sb 1000	0.20		↓					
701-3	GFA cal 50	STD 701-2	GFA Cal mix	2.50		0.5% HNO_3	50 ug/L				
701-4	CRA 0.4	↓	↓	0.20			0.4				
701-5	ICV 2.5	STD 613-6	GFA CV mix	0.25			2.5				
701-6	CV 3.0			0.3			3.0				
701-7	CV 40	↓	↓	0.8	↓	↓	40	↓		↓	
701-8	Hg INST STD	12-17	Hg AA grade	0.1 ml	100.0	0.5% HNO_3	1.0 mg/L	12/04/96		TTM	
701-9	Hg INST CV	12-16	Hg CG grade	0.1 ml	100.0	0.5% HNO_3	1.0 mg/L	12/04/96		TTM	
701-10	Sb Flame 0.5	STD 691-3	Sb 1000	0.05 mL		2% HNO_3	0.5 mg/L	10:20 12-4-96		NSJ	
701-11	2.0			0.20			2.0				
701-12	5.0			0.50			5.0				
701-13	10.0			1.00			10.0				
701-14	Flame CV 4.0	—	AA GFA CV-1	8.00			4.0				
701-15	GFA CV 25	STD 613-6	GFA CV INT	0.50 mL	100.0 mL	0.5% HNO_3	25 ug/L				

701

5015F

Rev. 2
05/23/94

ANALYTICAL
RESOURCES
INCORPORATED

METALS WORKING STANDARD PREPARATION LOG

Standard Number	Solution Name	Stock Number	Stock Soln. Conc. or Name	Stock Soln. Volume	Final Volume	Matrix	Final Conc.	Preparation Date	Expiration Date	Analyst Initials	Analytical Verification
539-1	SPEX ICP 2	12-9	SPEX ICP2 CONC	5.0 ml	500 ml	5% HCl, 1% HNO_3	SEE CERT	3-6-96	2-15-97	LG	
539-2	EPA ICV-1	12-10	ICV-1 CONC	100.0 ml	1000.0 ml	2% HNO_3	SEE CERT	3-6-96		LG	
539-3	↓ ICV-3	12-11	↓ -3 ↓	↓	↓	↓	↓	↓		↓	
539-4	↓ ICV-4	12-12	↓ -4 ↓	↓	↓	↓	↓	↓		↓	
539-5	↓ ICV-2	12-13	↓ -2 ↓	100.0 ml	2000 ml	↓	↓	↓		↓	
539-6	↓ ICV-5	12-14	↓ -5 ↓	20.0 ml	2000 ml	↓	↓	↓		↓	
539-7	GFA CAL INT	515-10	GFA CAL STOCK	1.0	100 ml	2% HNO_3	2 ug/L	3/7/96	time 9:15	SCM	
↓	↓ Sb	435-1	Sb 1000	0.2	↓	↓	↓	↓	↓	↓	
539-8	GFA CAL 50	539-7	GFA CAL INT	2.5	↓	0.5% HNO_3	50 ug/L	↓	↓	↓	
539-9	↓ 25	↓	↓	1.25	↓	↓	25	↓	↓	↓	
539-10	↓ 20	↓	↓	1.0	↓	↓	20	↓	↓	↓	
539-11	↓ 10	↓	↓	0.5	↓	↓	10	↓	↓	↓	
539-12	GFA CV 30	486-9	GFA CV INT	0.6	↓	↓	30	↓	↓	↓	
539-13	↓ 25	↓	↓	0.5	↓	↓	25	↓	↓	↓	
539-14	Hg int. STD	10-3	Hg AA grade	0.1 mL	100.0 mL	0.5% HNO_3	1.0 mg/L	1025 03-07-96		BH	
539-15	Hg int. CV	10-4	Hg CG grade	0.1 mL	100.0 mL	0.5% HNO_3	1.0 mg/L	1025 03-07-96		BH	

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Rev. 2
05/23/94

ANALYTICAL RESOURCES INCORPORATED

METALS WORKING STANDARD PREPARATION LOG

All corrections made by analyst unless otherwise noted.

Standard Number	Solution Name	Stock Number	Stock Soln. Conc. or Name	Stock Soln. Volume	Final Volume	Matrix	Final Conc.	Prep. Date	Prep. Time	Expiration Date	Analyst Initials
758-1	GFA CAL INT	STD 691-2	GFA CAL STK	1.00 mL	100.0 mL	2% HNO_3	See GFA	12-17-96	8:00		NSJ
↓	↓	STD 691-3	561000	0.20		↓	SOP				
758-2	GFA CAL-3	STD 758-1	GFA CAL INT	0.15		0.5% HNO_3	3 µg/L				
758-3	-10			0.50			10				
758-4	-20			1.00			20				
758-5	-25			1.25			25				
758-6	-50			2.50			50				
758-7	-75			3.75			75				
758-8	GFA CU-25	STD 613-6	GFA CU INT	0.50			25				
758-9	↓ -40	↓	↓	0.80			40				
758-10	GFA CU-40	STD 613-6	GFA CU INT	0.80 ↓	↓	↓	40 ↓	↓	9:00		
758-11	GFA CAL-50 (mid)	STD 758-1	GFA CAL INT	2.50 ↓	↓	↓	50 ↓	↓	↓		↓
758-12	Hg INST STD	12-17	Hg grade AA	0.1 ml	100.0	0.5% HNO_3	1.0 mg/L	12/17/96	11:00		TTM
758-13	Hg INST CU	12-6	Hg GG grade	0.1 ml	100.0	0.5% HNO_3	1.0 mg/L	12/17/96	11:00		TTM
758-14	Hg inst STD	12-17	Hg AA Grade	0.1 mL	100.0 mL	0.5% HNO_3	1.0 mg/L	12/18/96	08:25		DM
758-15	Hg inst CV	12-16	Hg CG Grade	0.1 mL	100.0 mL	0.5% HNO_3	1.0 mg/L	12/18/96	08:25		DM

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Rev. 3
12/3/96

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METALS WORKING STANDARD PREPARATION LOG

All corrections made by analyst unless otherwise noted.

Standard Number	Solution Name	Stock Number	Stock Soln. Conc. or Name	Stock Soln. Volume	Final Volume	Matrix	Final Conc.	Prep. Date	Prep. Time	Expiration Date	Analyst Initials
755-1	EPA CLP ICV	15-11A	EPA ICV-1 conc	100 mL	1000 mL	5% HCl 1% HNO3	SEE CERT	12-11-96	12:55		[illegible]
↓	↓	15-12A	EPA ICV-2 conc	↓	↓	↓	↓	↓			↓
755-2	GFA CV 25	STD 613-6	GFA CV int	0.5 mL ~~100 mL~~	100 mL	0.5% HNO3	25 ug/L	12-12-96	0725		[illegible]
755-3	Hg Inst STD	12-17	Hg AA Grade	0.1 mL	100.0 mL	0.5% HNO3	1.0 mg/L	12-12-96	0815		DM
755-4	Hg Inst CV	12-16	Hg CG Grade	0.1 mL	100.0 mL	0.5% HNO3	1.0 mg/L	12-12-96	0815		DM
755-5	GFA CRI 0.4	STD 704-5	GFA cal int	0.20 mL	100 mL	0.5% HNO3	0.4 ug/L	12-13-96	0815		[illegible]
755-6	CV 40	STD 613-6	GFA CV int	0.80	↓	↓	40 ug/L	↓	↓		↓
755-7	CV 25	↓	↓	0.50	↓	↓	25 ug/L	↓	↓		↓
755-8	GFA CV-25	STD 613-6	GFA CV INT	0.50 mL	100.0 mL	0.5% HNO3	25 ↓	12-13-96	11:30		NSJ
755-9	GFA cal int	STD 691-2	GFA cal stock	1.00 mL	100 mL	2% HNO3	SEE GFA SOP	12-14-96 ~~0905~~	0905 ~~12~~		[illegible]
↓	↓	691-3	Sb 1000	0.20	↓	↓	↓	↓	↓		↓
755-10	GFA cal 50	755-9	GFA cal int	2.50	↓	0.5% HNO3	50 ug/L	↓	↓		↓
755-11	↓ 20	↓	↓	1.00	↓	↓	20 ↓	↓	↓		↓
755-12	↓ 10	↓	↓	0.50	↓	↓	10 ↓	↓	↓		↓
755-13	Spk 25	↓	↓	1.25	↓	↓	25 ↓	↓	↓		↓
755-14	↓ CV 25	↓ 613-6	GFA CV int	0.50	↓	↓	25 ↓	↓	↓		↓

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CONVENTIONALS STOCK SOLUTION PREPARATION LOG

Dissolve 0.8 g NaOH and 2.51 g KCN in 1000 mL. DI.
Determine the cyande concentration of the stock solution by standardizion against silver nitrate titrant.

STOC.Log Number	Solution Name	Source	Lot Number	Date Received	Date of Expiration	ARI Log No.	Matrix	Concentration (ppm)	Date Prepared	Date Disposed	Analyst Initials	Notes
CN-1	Cyanide	SM	CJ458	—	—	✓	H2O	1,000 ppm (approximate)	~~12/4/94~~ 12/16/93	4.26.95	BSB	
CN-2	"	SM	CJ458	—	—	—	H_2O	~1000	4.26.95	10/23/95	PJZ	
CN#3	"	SM	CJ458	—	—	—	H_2O	▲1000	10/23/95	4/23/96	PJZ	
CN#4	"	SM	CJ458	—	—	—	H_2O	~1000	4/23/96	8/29/96	PJZ	
CN#5	"	SM	CJ458	—	—	—	H_2O	~1000	8/29/96		PJZ	

SM: spectrum

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Rev. 0
02/03/94

ARI Job No.: 5374

VTSR: 11/20/96

TAT: 35 days

Requested TAT: 35 days

Client Name: USEPA

Client Project: SDG # MFGZ66 Case # 28159

Prepared By: Jeff

Project Manager: J

ANALYTICAL RESOURCES INCORPORATED

SPECIAL ANALYSIS AND REPORTING REQUIREMENTS

ANALYSIS (Specify Method)	ABN	VOA	GC	Metals CLP-TAL	Convent. CLP-CN⁻	Radchem	(Additional Analyses)	
Calibration - (In-House)								
(PSEP)/(PSDDA)								
(EPA-CLP)				X	X			
(Other)								
Deliverables FORM 1 (basic report)				X	X			
FORM 2 (Surr. % Rec. summ.)								
FORM 3 (ms/msd)				X	X			
FORM 4 (MB associate)								
FORM 5 (Inst. check)								
FORM 6 (Curve)								
FORM 7 (Cont. Std.)								
FORM 8 (IS Summary)			(Run log RTs)					
FORM 9 (GPC & Florisil Check)								
FORM 10 (% D / Columns)								
Full CLP Deliverables				X	X			
Disk Deliverables				X	X			

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***SEE REVERSE SIDE FOR ADDITIONAL INFORMATION**

Rev. 5
6/12/96

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SPECIAL ANALYSIS AND REPORTING REQUIREMENTS

ANALYSIS (Specify Method)	ABN	VOA	GC	Metals CLP-TAL	Convent. CLP-CN--	Radchem		
Extractables (Low,Med,CLP,PSEP/PSDDA)								
Duplicate				X	X			
Triplicate								
Matrix Spike				X	X			
Matrix Spike Dup.								
Lab Control Sample (LCS)				X	X			
Special Analytes								
Special Det. Limit				CRDL	CRDL			
Special Spike Compounds								
Special Surrogates								
QC Limits**				CLP	CLP			
Splits/Composites								
Unknowns (TICs)								
Verification Std./SRM								

**Specify limits to be used: In-House, CLP, or Other. If "Other", see attached paperwork for required limits.

Additional Requirements

Use 5374A (MFGZ66) for soil QC (spk/dup/serial dilution)

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*SEE REVERSE SIDE FOR ADDITIONAL INFORMATION

Rev. 5
6/12/96

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Summary ~~ANALYST NOTES - Metals~~

ARI Job No: 5374 Client Name: USEPA

Parameter: Metal + CN Case ~~Client Project~~: 25159

☐ Job OK, no corrective action required

Case consisted of 1 soil sample for which QC was done
All QC was in control with the following exceptions.

Sb spike 45.2% a post spike was done with 75.6% recovery.

Both the spike & dup for Pb by GFA were out.
Spike 6.4% recovery and 79.9% RPD

12/31/96

Analyst: Date Analyzed:

5048F

Rev. 4
04/18/95