Data Package

Contract Lab Program Data Package
for
DuPont Env. Remediation Svc.

TYPE IV INORGANICS DATA PACKAGE

DuPont Fort Madison GW Monitoring - 1996 Annual
Water Samples
Collected on 09/17/96 - 09/18/96
Sample No. 2583205-2583210, 2583823-2583827

PA Cert. # 36-037
NY Cert. # 10670
NJ Cert. # 77011

Prepared by Olivia Arasenena /alam

Quality Assurance Review Amy Klopic /alam

Date 10-14-96

Delivery Date 10/17/96

Lancaster Laboratories
A Thermo Analytical Laboratory

Lancaster Laboratories • 2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681

N36820

Sample Reference List for SDG # FMD01 with a Package Type of IV-I

Lab Sample Number	Sample Code	Client Sample Description
2583205	BRA5S	FMN-BRA-5S Water Sample
2583206	BRA4D	FMN-BRA-4D Water Sample
2583207	BR4DD	FMN-BRA-4D-DUP Water Sample
2583208	BRS4S	FMN-BRA-4S Water Sample
2583209	BRS3D	FMN-BRA-3D Unspiked Water Sample
2583210	DRA3S	FMN-BRA-3S Water Sample
2583823	BRA2D	FMN-BRA-2D Water Sample
2583824	BRA2S	FMN-BRA-2S Water Sample
2583825	BRA1D	FMN-BRA-1D Water Sample
2583826	BRA1S	FMN-BRA-1S Water Sample
2583827	BRAF1	FMN-BRA-FBLK-1 Water Sample

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Case Narrative
Conformance/Nonconformance Summary

Lancaster Laboratories
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CASE NARRATIVE FOR INORGANICS

Laboratory Name: Lancaster Laboratories

SDG Number: FMD01

Date Received: 09/19/96

Calibration Standards:
Instrument calibration standards are prepared monthly from stock solutions purchased from Spex Industries Inc., JT Baker, Aldrich Chemical, VWR Scientific, EM Science, or VHG Laboratories.

Case Narrative reviewed and approved by:

Diane L. Lockard Date 10/7/96

Diane L. Lockard, Specialist I Coordinator
Inorganic Data Packages

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COVER PAGE - INORGANIC ANALYSES DATA PACKAGE

Lab Name: LANCASTER_LABORATORIES___ Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: FMD01

SOW No.: ILM04.0

EPA SAMPLE No.	Lab Sample ID.
BR4DD	2583207
BRA1D	2583825
BRA1S	2583826
BRA2D	2583823
BRA2S	2583824
BRA4D	2583206
BRA5S	2583205
BRAF1	2583827
BRS3D	2583209
BRS4S	2583208
DRA3S	2583210

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 diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: Diane L. Lockard Name: Diane L. Lockard

Date: 10/7/96 Title: Specialist I Coordinator Inorganic Data Packages

Sample Data

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

BR4DD

Lab Name: LANCASTER_LABORATORIES___ Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: FMD01

Matrix (soil/water): WATER Lab Sample ID: 2583207

Level (low/med): LOW Date Received: 09/18/96

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L___

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	846			P
7440-36-0	Antimony	1.9	U		P
7440-38-2	Arsenic	1.3	U		F
7440-39-3	Barium	65.6	B		P
7440-41-7	Beryllium	0.56	U		P
7440-43-9	Cadmium	0.38	U		P
7440-70-2	Calcium	202000			P
7440-47-3	Chromium	1.4	B		P
7440-48-4	Cobalt	5.6	B		P
7440-50-8	Copper	3.0	B		P
7439-89-6	Iron	1850			P
7439-92-1	Lead	1.5	B	WN	F
7439-95-4	Magnesium	80800			P
7439-96-5	Manganese	689			P
7439-97-6	Mercury	0.011	B		CV
7440-02-0	Nickel	6.1	B		P
7440-09-7	Potassium	4080	B		P
7782-49-2	Selenium	0.70	U	W	F
7440-22-4	Silver	0.72	U		P
7440-23-5	Sodium	63600			P
7440-28-0	Thallium	1.1	U		F
7440-62-2	Vanadium	2.6	B		P
7440-66-6	Zinc	13.3	B		P

Color Before: COLORLESS_ Clarity Before: CLOUDY____ Texture: _____

Color After: COLORLESS_ Clarity After: CLEAR_____ Artifacts: _____

Comments:

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

BRA1D

Lab Name: LANCASTER_LABORATORIES___ Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: FMD01

Matrix (soil/water): WATER Lab Sample ID: 2583825

Level (low/med): LOW Date Received: 09/19/96

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L___

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	41.2	U		P
7440-36-0	Antimony	1.9	U		P
7440-38-2	Arsenic	1.6	B		F
7440-39-3	Barium	121	B		P
7440-41-7	Beryllium	0.56	U		P
7440-43-9	Cadmium	0.55	B		P
7440-70-2	Calcium	96600			P
7440-47-3	Chromium	0.58	U		P
7440-48-4	Cobalt	1.0	B		P
7440-50-8	Copper	0.48	U		P
7439-89-6	Iron	365			P
7439-92-1	Lead	0.85	B	WN	F
7439-95-4	Magnesium	29400			P
7439-96-5	Manganese	726			P
7439-97-6	Mercury	0.0090	U		CV
7440-02-0	Nickel	2.9	B		P
7440-09-7	Potassium	2950	B		P
7782-49-2	Selenium	0.70	U	W	F
7440-22-4	Silver	0.72	U		P
7440-23-5	Sodium	48900			P
7440-28-0	Thallium	1.1	U		F
7440-62-2	Vanadium	0.50	U		P
7440-66-6	Zinc	22.2			P

Color Before: COLORLESS_ Clarity Before: CLEAR_____ Texture: _____

Color After: COLORLESS_ Clarity After: CLEAR_____ Artifacts: _____

Comments:

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

BRA1S

Lab Name: LANCASTER_LABORATORIES___ Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: FMD01

Matrix (soil/water): WATER Lab Sample ID: 2583826

Level (low/med): LOW Date Received: 09/19/96

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L___

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	224			P
7440-36-0	Antimony	1.9	U		P
7440-38-2	Arsenic	1.3	U		F
7440-39-3	Barium	76.6	B		P
7440-41-7	Beryllium	0.56	U		P
7440-43-9	Cadmium	0.38	U		P
7440-70-2	Calcium	156000			P
7440-47-3	Chromium	0.96	B		P
7440-48-4	Cobalt	0.76	U		P
7440-50-8	Copper	0.48	U		P
7439-89-6	Iron	408			P
7439-92-1	Lead	0.86	B	WN	F
7439-95-4	Magnesium	55800			P
7439-96-5	Manganese	23.5			P
7439-97-6	Mercury	0.0090	U		CV
7440-02-0	Nickel	1.8	B		P
7440-09-7	Potassium	1610	B		P
7782-49-2	Selenium	124			F
7440-22-4	Silver	0.72	U		P
7440-23-5	Sodium	40800			P
7440-28-0	Thallium	1.1	U		F
7440-62-2	Vanadium	1.3	B		P
7440-66-6	Zinc	12.7	B		P

Color Before: COLORLESS_ Clarity Before: CLEAR_____ Texture: _____

Color After: COLORLESS_ Clarity After: CLEAR_____ Artifacts: _____

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

BRA2D

Lab Name: LANCASTER_LABORATORIES___ Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: FMD01

Matrix (soil/water): WATER Lab Sample ID: 2583823

Level (low/med): LOW Date Received: 09/19/96

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L___

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	41.2	U		P
7440-36-0	Antimony	1.9	U		P
7440-38-2	Arsenic	1.3	U		F
7440-39-3	Barium	119	B		P
7440-41-7	Beryllium	0.56	U		P
7440-43-9	Cadmium	0.38	U		P
7440-70-2	Calcium	72700			P
7440-47-3	Chromium	0.58	U		P
7440-48-4	Cobalt	0.76	U		P
7440-50-8	Copper	0.48	U		P
7439-89-6	Iron	358			P
7439-92-1	Lead	1.0	B	WN	F
7439-95-4	Magnesium	30200			P
7439-96-5	Manganese	250			P
7439-97-6	Mercury	0.0090	B		CV
7440-02-0	Nickel	1.6	B		P
7440-09-7	Potassium	5550			P
7782-49-2	Selenium	0.70	U		F
7440-22-4	Silver	0.72	U		P
7440-23-5	Sodium	48300			P
7440-28-0	Thallium	1.1	U		F
7440-62-2	Vanadium	0.58	B		P
7440-66-6	Zinc	9.7	B		P

Color Before: COLORLESS_ Clarity Before: CLEAR_____ Texture: _____

Color After: COLORLESS_ Clarity After: CLEAR_____ Artifacts: _____

Comments:

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

BRA2S

Lab Name: LANCASTER_LABORATORIES___ Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: FMD01

Matrix (soil/water): WATER Lab Sample ID: 2583824

Level (low/med): LOW Date Received: 09/19/96

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L___

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	276			P
7440-36-0	Antimony	1.9	U		P
7440-38-2	Arsenic	1.9	B		F
7440-39-3	Barium	78.0	B		P
7440-41-7	Beryllium	0.56	U		P
7440-43-9	Cadmium	0.49	B		P
7440-70-2	Calcium	197000			P
7440-47-3	Chromium	0.96	B		P
7440-48-4	Cobalt	1.3	B		P
7440-50-8	Copper	0.48	U		P
7439-89-6	Iron	463			P
7439-92-1	Lead	0.96	B	WN	F
7439-95-4	Magnesium	80300			P
7439-96-5	Manganese	670			P
7439-97-6	Mercury	0.0090	U		CV
7440-02-0	Nickel	7.7	B		P
7440-09-7	Potassium	4540	B		P
7782-49-2	Selenium	4.7	B		F
7440-22-4	Silver	0.72	U		P
7440-23-5	Sodium	60100			P
7440-28-0	Thallium	1.1	U		F
7440-62-2	Vanadium	1.7	B		P
7440-66-6	Zinc	9.2	B		P

Color Before: COLORLESS_ Clarity Before: CLEAR_____ Texture: _____

Color After: COLORLESS_ Clarity After: CLEAR_____ Artifacts: _____

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

BRA4D

Lab Name: LANCASTER_LABORATORIES___ Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: FMD01

Matrix (soil/water): WATER Lab Sample ID: 2583206

Level (low/med): LOW Date Received: 09/18/96

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L___

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	344			P
7440-36-0	Antimony	1.9	U		P
7440-38-2	Arsenic	1.3	U		F
7440-39-3	Barium	55.7	B		P
7440-41-7	Beryllium	0.56	U		P
7440-43-9	Cadmium	0.38	U		P
7440-70-2	Calcium	206000			P
7440-47-3	Chromium	0.60	B		P
7440-48-4	Cobalt	5.1	B		P
7440-50-8	Copper	1.7	B		P
7439-89-6	Iron	1030			P
7439-92-1	Lead	0.92	B	WN	F
7439-95-4	Magnesium	82100			P
7439-96-5	Manganese	663			P
7439-97-6	Mercury	0.0090	U		CV
7440-02-0	Nickel	5.5	B		P
7440-09-7	Potassium	3980	B		P
7782-49-2	Selenium	0.70	U	W	F
7440-22-4	Silver	0.72	U		P
7440-23-5	Sodium	61800			P
7440-28-0	Thallium	1.1	U		F
7440-62-2	Vanadium	1.2	B		P
7440-66-6	Zinc	9.6	B		P

Color Before: COLORLESS_ Clarity Before: CLOUDY____ Texture: _____

Color After: COLORLESS_ Clarity After: CLEAR_____ Artifacts: _____

Comments:

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

BRA5S

Lab Name: LANCASTER_LABORATORIES___ Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: FMD01

Matrix (soil/water): WATER Lab Sample ID: 2583205

Level (low/med): LOW Date Received: 09/18/96

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L___

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	49.5	B		P
7440-36-0	Antimony	1.9	U		P
7440-38-2	Arsenic	1.3	U		F
7440-39-3	Barium	29.2	B		P
7440-41-7	Beryllium	0.56	U		P
7440-43-9	Cadmium	0.38	U		P
7440-70-2	Calcium	280000			P
7440-47-3	Chromium	0.58	U		P
7440-48-4	Cobalt	1.1	B		P
7440-50-8	Copper	0.48	U		P
7439-89-6	Iron	125			P
7439-92-1	Lead	1.0	B	WN	F
7439-95-4	Magnesium	94900			P
7439-96-5	Manganese	330			P
7439-97-6	Mercury	0.0090	U		CV
7440-02-0	Nickel	8.8	B		P
7440-09-7	Potassium	3450	B		P
7782-49-2	Selenium	17.0			F
7440-22-4	Silver	0.72	U		P
7440-23-5	Sodium	45400			P
7440-28-0	Thallium	1.1	U		F
7440-62-2	Vanadium	0.50	U		P
7440-66-6	Zinc	14.8	B		P

Color Before: COLORLESS_ Clarity Before: CLEAR_____ Texture: _____

Color After: COLORLESS_ Clarity After: CLEAR_____ Artifacts: _____

Comments:

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

BRAF1

Lab Name: LANCASTER_LABORATORIES___ Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: FMD01

Matrix (soil/water): WATER Lab Sample ID: 2583827

Level (low/med): LOW Date Received: 09/19/96

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L___

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	41.2	U		P
7440-36-0	Antimony	1.9	U		P
7440-38-2	Arsenic	2.1	B		F
7440-39-3	Barium	1.4	B		P
7440-41-7	Beryllium	0.56	U		P
7440-43-9	Cadmium	0.38	U		P
7440-70-2	Calcium	143	B		P
7440-47-3	Chromium	0.58	U		P
7440-48-4	Cobalt	0.76	U		P
7440-50-8	Copper	0.48	U		P
7439-89-6	Iron	45.2	B		P
7439-92-1	Lead	0.84	U	N	F
7439-95-4	Magnesium	38.2	B		P
7439-96-5	Manganese	0.60	B		P
7439-97-6	Mercury	0.0090	U		CV
7440-02-0	Nickel	1.3	U		P
7440-09-7	Potassium	56.0	B		P
7782-49-2	Selenium	0.70	U	W	F
7440-22-4	Silver	0.72	U		P
7440-23-5	Sodium	287	B		P
7440-28-0	Thallium	1.1	U		F
7440-62-2	Vanadium	0.53	B		P
7440-66-6	Zinc	8.3	B		P

Color Before: COLORLESS_ Clarity Before: CLEAR_____ Texture: _____

Color After: COLORLESS_ Clarity After: CLEAR_____ Artifacts: _____

Comments:

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

BRS3D

Lab Name: LANCASTER_LABORATORIES___ Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: FMD01

Matrix (soil/water): WATER Lab Sample ID: 2583209

Level (low/med): LOW Date Received: 09/18/96

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L___

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	41.2	U		P
7440-36-0	Antimony	1.9	U		P
7440-38-2	Arsenic	1.5	B		F
7440-39-3	Barium	153	B		P
7440-41-7	Beryllium	0.56	U		P
7440-43-9	Cadmium	0.38	U		P
7440-70-2	Calcium	67400			P
7440-47-3	Chromium	0.58	U		P
7440-48-4	Cobalt	2.6	B		P
7440-50-8	Copper	0.48	U		P
7439-89-6	Iron	198			P
7439-92-1	Lead	0.86	B	WN	F
7439-95-4	Magnesium	27900			P
7439-96-5	Manganese	772			P
7439-97-6	Mercury	0.0090	U		CV
7440-02-0	Nickel	5.6	B		P
7440-09-7	Potassium	2750	B		P
7782-49-2	Selenium	0.70	U		F
7440-22-4	Silver	0.72	U		P
7440-23-5	Sodium	51400			P
7440-28-0	Thallium	1.1	U		F
7440-62-2	Vanadium	1.0	B		P
7440-66-6	Zinc	12.8	B		P

Color Before: COLORLESS_ Clarity Before: CLEAR_____ Texture: _____

Color After: COLORLESS_ Clarity After: CLEAR_____ Artifacts: _____

Comments:

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

BRS4S

Lab Name: LANCASTER_LABORATORIES___ Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: FMD01

Matrix (soil/water): WATER Lab Sample ID: 2583208

Level (low/med): LOW Date Received: 09/18/96

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L___

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	49.0	B		P
7440-36-0	Antimony	1.9	U		P
7440-38-2	Arsenic	1.3	U		F
7440-39-3	Barium	101	B		P
7440-41-7	Beryllium	0.56	U		P
7440-43-9	Cadmium	0.38	U		P
7440-70-2	Calcium	138000			P
7440-47-3	Chromium	0.58	U		P
7440-48-4	Cobalt	4.3	B		P
7440-50-8	Copper	0.48	U		P
7439-89-6	Iron	116			P
7439-92-1	Lead	1.1	B	WN	F
7439-95-4	Magnesium	55900			P
7439-96-5	Manganese	946			P
7439-97-6	Mercury	0.0090	U		CV
7440-02-0	Nickel	9.3	B		P
7440-09-7	Potassium	2240	B		P
7782-49-2	Selenium	0.70	U		F
7440-22-4	Silver	0.72	U		P
7440-23-5	Sodium	35900			P
7440-28-0	Thallium	1.1	U		F
7440-62-2	Vanadium	1.1	B		P
7440-66-6	Zinc	11.6	B		P

Color Before: COLORLESS_ Clarity Before: CLEAR_____ Texture: _____

Color After: COLORLESS_ Clarity After: CLEAR_____ Artifacts: _____

Comments:

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

DRA3S

Lab Name: LANCASTER_LABORATORIES___ Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: FMD01

Matrix (soil/water): WATER Lab Sample ID: 2583210

Level (low/med): LOW Date Received: 09/18/96

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L___

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	2640			P
7440-36-0	Antimony	1.9	U		P
7440-38-2	Arsenic	4.9	B		F
7440-39-3	Barium	80.0	B		P
7440-41-7	Beryllium	0.56	U		P
7440-43-9	Cadmium	0.38	U		P
7440-70-2	Calcium	245000			P
7440-47-3	Chromium	1.8	B		P
7440-48-4	Cobalt	3.6	B		P
7440-50-8	Copper	1.4	B		P
7439-89-6	Iron	2010			P
7439-92-1	Lead	2.0	B	WN	F
7439-95-4	Magnesium	98500			P
7439-96-5	Manganese	410			P
7439-97-6	Mercury	0.017	B		CV
7440-02-0	Nickel	8.8	B		P
7440-09-7	Potassium	2890	B		P
7782-49-2	Selenium	13.9			F
7440-22-4	Silver	0.72	U		P
7440-23-5	Sodium	47800			P
7440-28-0	Thallium	1.1	U		F
7440-62-2	Vanadium	4.0	B		P
7440-66-6	Zinc	15.0	B		P

Color Before: COLORLESS_ Clarity Before: CLOUDY____ Texture: _____

Color After: COLORLESS_ Clarity After: CLOUDY____ Artifacts: _____

Comments:

DUP050307537

Quality Control Data

U.S. EPA - CLP

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: LANCASTER_LABORATORIES___ Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: FMD01

Initial Calibration Source: LLI_____

Continuing Calibration Source: LLI_____

Concentration Units: ug/L

Analyte	Initial Calibration True	Found	%R(1)	Continuing Calibration True	Found	%R(1)	Found	%R(1)	M
Aluminum	30000.0	29385.00	98.0	25000.0	25071.47	100.3	25732.08	102.9	P
Antimony	600.0	573.47	95.6	500.0	455.31	91.1	470.96	94.2	P
Arsenic	50.0	53.47	106.9	40.0	42.39	106.0	41.90	104.8	F
Barium	600.0	595.58	99.3	500.0	487.36	97.5	506.44	101.3	P
Beryllium	600.0	609.29	101.5	500.0	497.15	99.4	512.20	102.4	P
Cadmium	600.0	592.54	98.8	500.0	492.86	98.6	508.63	101.7	P
Calcium	30000.0	29358.74	97.9	25000.0	25320.26	101.3	25994.52	104.0	P
Chromium	600.0	595.17	99.2	500.0	489.35	97.9	504.82	101.0	P
Cobalt	600.0	592.88	98.8	500.0	485.69	97.1	492.43	98.5	P
Copper	600.0	605.09	100.8	500.0	498.81	99.8	516.15	103.2	P
Iron	30000.0	29266.08	97.6	25000.0	24604.21	98.4	25117.93	100.5	P
Lead	20.0	19.93	99.6	25.0	23.92	95.7	24.99	100.0	F
Magnesium	30000.0	29298.72	97.7	25000.0	24924.19	99.7	25557.46	102.2	P
Manganese	600.0	598.07	99.7	500.0	494.68	98.9	509.50	101.9	P
Mercury	2.0	2.04	102.0	1.0	1.04	104.0	1.05	105.0	CV
Nickel	600.0	597.77	99.6	500.0	495.08	99.0	510.55	102.1	P
Potassium	30000.0	28979.17	96.6	25000.0	25252.24	101.0	26220.91	104.9	P
Selenium	20.0	19.85	99.2	25.0	24.55	98.2	23.78	95.1	F
Silver	600.0	604.82	100.8	500.0	495.99	99.2	512.95	102.6	P
Sodium	30000.0	30124.32	100.4	25000.0	25781.98	103.1	26418.66	105.7	P
Thallium	50.0	49.34	98.7	40.0	41.00	102.5	44.00	110.0	F
Vanadium	600.0	593.05	98.8	500.0	494.09	98.8	510.50	102.1	P
Zinc	600.0	597.61	99.6	500.0	497.07	99.4	513.77	102.8	P

(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: LANCASTER_LABORATORIES___ Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: FMD01

Initial Calibration Source: LLI_____

Continuing Calibration Source: LLI_____

Concentration Units: ug/L

Analyte	Initial Calibration True	Found	%R(1)	Continuing Calibration True	Found	%R(1)	Found	%R(1)	M
Aluminum				25000.0	25042.35	100.2			P
Antimony				500.0	458.89	91.8			P
Arsenic				40.0	41.77	104.4	42.63	106.6	F
Barium				500.0	493.83	98.8			P
Beryllium				500.0	497.49	99.5			P
Cadmium				500.0	497.16	99.4			P
Calcium				25000.0	25247.21	101.0			P
Chromium				500.0	491.58	98.3			P
Cobalt				500.0	472.70	94.5			P
Copper				500.0	499.87	100.0			P
Iron				25000.0	24055.58	96.2			P
Lead				25.0	26.02	104.1	26.16	104.6	F
Magnesium				25000.0	24781.73	99.1			P
Manganese				500.0	494.77	99.0			P
Mercury				1.0	0.97	97.0			CV
Nickel				500.0	500.57	100.1			P
Potassium				25000.0	25671.76	102.7			P
Selenium				25.0	23.23	92.9	23.04	92.2	F
Silver				500.0	498.44	99.7			P
Sodium				25000.0	25721.61	102.9			P
Thallium				40.0	42.30	105.8	43.55	108.9	F
Vanadium				500.0	496.21	99.2			P
Zinc				500.0	500.93	100.2			P

(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: LANCASTER_LABORATORIES___ Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: FMD01

Initial Calibration Source: LLI_____

Continuing Calibration Source: LLI_____

Concentration Units: ug/L

Analyte	Initial Calibration True	Found	%R(1)	Continuing Calibration True	Found	%R(1)	Found	%R(1)	M
Aluminum									NR
Antimony									NR
Arsenic									NR
Barium									NR
Beryllium									NR
Cadmium									NR
Calcium									NR
Chromium									NR
Cobalt									NR
Copper									NR
Iron									NR
Lead				25.0	26.01	104.0			F
Magnesium									NR
Manganese									NR
Mercury									NR
Nickel									NR
Potassium									NR
Selenium	20.0	19.58	97.9	25.0	24.85	99.4	24.76	99.0	F
Silver									NR
Sodium	30000.0	30599.42	102.0	25000.0	26363.00	105.5	26100.69	104.4	P
Thallium	50.0	46.71	93.4	40.0	42.15	105.4	40.61	101.5	F
Vanadium									NR
Zinc									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: LANCASTER_LABORATORIES___ Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: FMD01

Initial Calibration Source: LLI_____

Continuing Calibration Source: LLI_____

Concentration Units: ug/L

Analyte	Initial Calibration True	Found	%R(1)	Continuing Calibration True	Found	%R(1)	Found	%R(1)	M
Aluminum									NR
Antimony									NR
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				25000.0	25967.51	103.9			P
Thallium									NR
Vanadium									NR
Zinc									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: LANCASTER_LABORATORIES___ Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: FMD01

Initial Calibration Source: LLI_____

Continuing Calibration Source: LLI_____

Concentration Units: ug/L

Analyte	Initial Calibration True	Found	%R(1)	Continuing Calibration True	Found	%R(1)	Found	%R(1)	M
Aluminum									NR
Antimony									NR
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	30000.0	28878.07	96.3	25000.0	24193.14	96.8	24625.98	98.5	P
Thallium									NR
Vanadium									NR
Zinc									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: LANCASTER_LABORATORIES___ Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: FMD01

AA CRDL Standard Source: LLI_____

ICP CRDL Standard Source: LLI_____

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	117.55	98.0	116.23	96.9
Arsenic	10.0	12.41	124.1					
Barium								
Beryllium				10.0	10.19	101.9	10.21	102.1
Cadmium				10.0	10.20	102.0	10.41	104.1
Calcium								
Chromium				20.0	20.28	101.4	20.79	104.0
Cobalt				100.0	101.18	101.2	99.57	99.6
Copper				50.0	51.48	103.0	50.44	100.9
Iron								
Lead	3.0	4.29	143.0					
Magnesium								
Manganese				30.0	30.67	102.2	31.02	103.4
Mercury	0.2	0.19	95.0					
Nickel				80.0	81.00	101.2	83.67	104.6
Potassium								
Selenium	5.0	4.07	81.4					
Silver				20.0	20.68	103.4	20.82	104.1
Sodium								
Thallium	10.0	12.38	123.8					
Vanadium				100.0	103.33	103.3	105.42	105.4
Zinc				40.0	40.88	102.2	41.80	104.5

U.S. EPA - CLP

2B
CRDL STANDARD FOR AA AND ICP

Lab Name: LANCASTER_LABORATORIES___ Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: FMD01

AA CRDL Standard Source: LLI_____

ICP CRDL Standard Source: LLI_____

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								
Arsenic								
Barium								
Beryllium								
Cadmium								
Calcium								
Chromium								
Cobalt								
Copper								
Iron								
Lead								
Magnesium								
Manganese								
Mercury								
Nickel								
Potassium								
Selenium	5.0	4.05	81.0					
Silver								
Sodium								
Thallium	10.0	9.64	96.4					
Vanadium								
Zinc								

3
BLANKS

Lab Name: LANCASTER_LABORATORIES___ Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: FMD01

Preparation Blank Matrix (soil/water): WATER_

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

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum	41.2	U	56.3	B	41.2	U	75.2	B	48.160	B	P
Antimony	1.9	U	3.0	B	1.9	U	1.9	U	1.900	U	P
Arsenic	1.6	B	1.3	U	1.3	U	1.7	B	1.300	B	F
Barium	0.16	U	0.16	U	0.16	U	0.16	U	0.160	U	P
Beryllium	0.56	U	0.56	U	0.56	U	0.56	U	0.560	U	P
Cadmium	0.38	B	0.38	B	0.38	U	0.38	U	0.380	U	P
Calcium	80.0	B	125	B	114	B	135	B	106.010	B	P
Chromium	0.58	U	0.58	U	0.58	U	0.58	U	0.580	U	P
Cobalt	0.76	U	0.76	U	0.76	U	0.76	U	0.760	U	P
Copper	0.48	U	0.48	U	-0.99	B	-1.1	B	0.480	U	P
Iron	42.1	B	52.5	B	29.0	B	55.7	B	46.400	B	P
Lead	0.84	U	0.84	U	0.89	B	1.0	B	0.840	U	F
Magnesium	34.8	U	66.5	B	35.4	B	74.5	B	44.640	B	P
Manganese	0.18	U	0.18	U	0.18	U	0.18	U	0.240	B	P
Mercury	-0.017	B	-0.020	B	-0.028	B	-0.031	B	0.010	B	CV
Nickel	1.3	U	1.3	U	1.3	U	1.3	U	1.300	U	P
Potassium	52.6	B	52.8	B	49.1	B	55.0	B	50.170	B	P
Selenium	-0.91	B	-1.1	B	-1.2	B	-1.3	B	-1.1600	B	F
Silver	0.72	U	0.72	U	0.72	U	0.72	U	0.720	U	P
Sodium	189	B	175	B	164	B	173	B	160.980	B	P
Thallium	1.1	U	1.1	U	1.1	U	1.1	U	1.100	U	F
Vanadium	0.50	U	0.50	U	0.50	U	0.50	U	0.500	U	P
Zinc	1.1	U	1.1	U	1.1	U	1.1	U	6.930	B	P

U.S. EPA - CLP

3
BLANKS

Lab Name: LANCASTER_LABORATORIES___ Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: FMD01

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											NR
Antimony											NR
Arsenic			2.0	B							F
Barium											NR
Beryllium											NR
Cadmium											NR
Calcium											NR
Chromium											NR
Cobalt											NR
Copper											NR
Iron											NR
Lead			0.84	U	1.0	B					F
Magnesium											NR
Manganese											NR
Mercury											NR
Nickel											NR
Potassium											NR
Selenium			-2.2	B							F
Silver											NR
Sodium	296	B	299	B	230	B	196	B			P
Thallium			1.1	U							F
Vanadium											NR
Zinc											NR

U.S. EPA - CLP

3
BLANKS

Lab Name: LANCASTER_LABORATORIES___ Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: FMD01

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											NR
Antimony											NR
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	-0.98	B	-1.2	B	-1.5	B					F
Silver											NR
Sodium	174	B	214	B	186	B					P
Thallium	1.1	U	1.1	U	1.1	U					F
Vanadium											NR
Zinc											NR

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4

ICP INTERFERENCE CHECK SAMPLE

Lab Name: LANCASTER_LABORATORIES___ Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: FMD01

ICP ID Number: 05478_____ ICS Source: LLI_____

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	500000	500000	532256	539960.4	108.0	530676	525618.3	105.1
Antimony	0	600	-3	619.2	103.2	-3	603.2	100.5
Arsenic								
Barium	0	500	8	530.8	106.2	8	526.7	105.3
Beryllium	0	500	2	490.5	98.1	2	483.0	96.6
Cadmium	0	1000	1	957.9	95.8	1	952.4	95.2
Calcium	500000	500000	512734	522813.8	104.6	520787	510843.9	102.2
Chromium	0	500	7	499.6	99.9	7	493.8	98.8
Cobalt	0	500	-1	485.8	97.2	-1	464.0	92.8
Copper	0	500	-1	551.5	110.3	-2	541.3	108.3
Iron	200000	200000	208401	211889.5	105.9	206646	202329.9	101.2
Lead								
Magnesium	500000	500000	554176	562507.4	112.5	557004	547774.6	109.6
Manganese	0	500	4	502.6	100.5	4	494.2	98.8
Mercury								
Nickel	0	1000	6	962.2	96.2	6	957.2	95.7
Potassium	0	0	37	56.9		46	45.0	
Selenium								
Silver	0	200	0	218.2	109.1	0	214.9	107.4
Sodium	0	0	176	210.0		266	232.4	
Thallium								
Vanadium	0	500	-2	509.4	101.9	-3	501.7	100.3
Zinc	0	1000	2	1016.9	101.7	5	1010.6	101.1

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4

ICP INTERFERENCE CHECK SAMPLE

Lab Name: LANCASTER_LABORATORIES___ Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: FMD01

ICP ID Number: 05478_____ ICS Source: LLI_____

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	500000	500000	520735	517278.7	103.5	515857	515252.0	103.1
Antimony								
Arsenic								
Barium								
Beryllium								
Cadmium								
Calcium	500000	500000	508923	505512.4	101.1	503098	503749.8	100.7
Chromium								
Cobalt								
Copper								
Iron	200000	200000	205230	203298.7	101.6	203363	202837.9	101.4
Lead								
Magnesium	500000	500000	539390	535339.4	107.1	533886	533781.8	106.8
Manganese								
Mercury								
Nickel								
Potassium								
Selenium								
Silver								
Sodium	0	0	219	225.5		296	235.4	
Thallium								
Vanadium								
Zinc								

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4

ICP INTERFERENCE CHECK SAMPLE

Lab Name: LANCASTER_LABORATORIES___ Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: FMD01

ICP ID Number: 05478_____ ICS Source: LLI_____

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	500000	500000	473163	474555.3	94.9	478946	466421.5	93.3
Antimony								
Arsenic								
Barium								
Beryllium								
Cadmium								
Calcium	500000	500000	463351	467353.6	93.5	463737	451998.0	90.4
Chromium								
Cobalt								
Copper								
Iron	200000	200000	188283	188695.3	94.3	187801	182711.3	91.4
Lead								
Magnesium	500000	500000	486725	488253.2	97.7	489272	477281.9	95.5
Manganese								
Mercury								
Nickel								
Potassium								
Selenium								
Silver								
Sodium	0	0	214	226.2		203	174.7	
Thallium								
Vanadium								
Zinc								

U.S. EPA - CLP

5A
SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

BRS3DS

Lab Name: LANCASTER_LABORATORIES___ Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: FMD01

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

% Solids for Sample: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L_____

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Aluminum	75-125	2126.6300		41.2000	U	2000.00	106.3		P
Antimony	75-125	498.3200		1.9000	U	500.00	99.7		P
Arsenic	75-125	40.9100		1.5300	B	40.00	98.4		F
Barium	75-125	2132.9300		153.0600	B	2000.00	99.0		P
Beryllium	75-125	49.8800		0.5600	U	50.00	99.8		P
Cadmium	75-125	50.0500		0.3800	U	50.00	100.1		P
Calcium									NR
Chromium	75-125	198.8700		0.5800	U	200.00	99.4		P
Cobalt	75-125	490.8000		2.5500	B	500.00	97.6		P
Copper	75-125	254.0600		0.4800	U	250.00	101.6		P
Iron	75-125	1220.4700		197.7500		1000.00	102.3		P
Lead	75-125	15.6500		0.8600	B	20.00	74.0	N	F
Magnesium									NR
Manganese	75-125	1257.8000		771.5600		500.00	97.2		P
Mercury	75-125	1.0900		0.0090	U	1.00	109.0		CV
Nickel	75-125	502.8700		5.6300	B	500.00	99.4		P
Potassium									NR
Selenium	75-125	7.6000		0.7000	U	10.00	76.0		F
Silver	75-125	52.1500		0.7200	U	50.00	104.3		P
Sodium									NR
Thallium	75-125	44.0300		1.1000	U	50.00	88.1		F
Vanadium	75-125	499.9700		1.0000	B	500.00	99.8		P
Zinc	75-125	509.7900		12.8500	B	500.00	99.4		P

Comments:

U.S. EPA - CLP

6
DUPLICATES

EPA SAMPLE NO.

BRS3DD

Lab Name: LANCASTER_LABORATORIES___ Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: FMD01

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

% Solids for Sample: 0.0 % Solids for Duplicate: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L___

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Aluminum		41.2000	U	41.2000	U			P
Antimony		1.9000	U	1.9000	U			P
Arsenic		1.5300	B	1.3000	U	200.0		F
Barium		153.0600	B	152.0400	B	0.7		P
Beryllium		0.5600	U	0.5600	U			P
Cadmium		0.3800	U	0.3800	U			P
Calcium		67439.1700		67306.7100		0.2		P
Chromium		0.5800	U	1.2700	B	200.0		P
Cobalt		2.5500	B	2.9500	B	14.5		P
Copper		0.4800	U	1.0300	B	200.0		P
Iron	100.0	197.7500		189.8500		4.1		P
Lead		0.8600	B	0.8400	U	200.0		F
Magnesium		27941.6800		27885.5600		0.2		P
Manganese		771.5600		782.6300		1.4		P
Mercury		0.0090	U	0.0090	U			CV
Nickel		5.6300	B	12.7400	B	77.4		P
Potassium		2746.4400	B	2776.1900	B	1.1		P
Selenium		0.7000	U	0.7000	U			F
Silver		0.7200	U	0.7200	U			P
Sodium	50000.0	51385.7000		50853.6000		1.0		P
Thallium		1.1000	U	1.1000	U			F
Vanadium		1.0000	B	1.0400	B	3.9		P
Zinc		12.8500	B	13.8400	B	7.4		P

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LABORATORY CONTROL SAMPLE

Lab Name: LANCASTER_LABORATORIES___ Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: FMD01

Solid LCS Source: _____

Aqueous LCS Source: LLI_____

Analyte	Aqueous (ug/L) True	Found	%R	Solid (mg/kg) True	Found	C	Limits		%R
Aluminum	2000.0	2118.78	105.9						
Antimony	500.0	522.61	104.5						
Arsenic	40.0	42.12	105.3						
Barium	2000.0	2050.71	102.5						
Beryllium	50.0	50.94	101.9						
Cadmium	50.0	51.90	103.8						
Calcium	4000.0	4246.28	106.2						
Chromium	200.0	205.18	102.6						
Cobalt	500.0	502.33	100.5						
Copper	250.0	259.12	103.6						
Iron	1000.0	1078.97	107.9						
Lead	20.0	20.83	104.2						
Magnesium	2000.0	2042.05	102.1						
Manganese	500.0	515.74	103.1						
Mercury	1.0	0.80	80.0						
Nickel	500.0	519.45	103.9						
Potassium	4000.0	3740.78	93.5						
Selenium	10.0	8.78	87.8						
Silver	50.0	52.47	104.9						
Sodium	4000.0	4034.82	100.9						
Thallium	50.0	47.28	94.6						
Vanadium	500.0	517.00	103.4						
Zinc	500.0	538.98	107.8						

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STANDARD ADDITION RESULTS

Lab Name: LANCASTER_LABORATORIES___ Contract: ____________

Lab Code: _______ Case No.: __________ SAS No.: _______ SDG No.: FMD01

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

FORM VIII - IN ILM04.0

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ICP SERIAL DILUTIONS

EPA SAMPLE NO.

BRS3D L

Lab Name: LANCASTER_LABORATORIES___ Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: FMD01

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

Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	M
Aluminum	41.20	U	206.00	U			P
Antimony	1.90	U	9.50	U			P
Arsenic							
Barium	153.06	B	152.65	B	0.3		P
Beryllium	0.56	U	2.80	U			P
Cadmium	0.38	U	1.90	U			P
Calcium	67439.17		65112.65		3.4		P
Chromium	0.58	U	2.90	U			P
Cobalt	2.55	B	3.80	U	100.0		P
Copper	0.48	U	2.40	U			P
Iron	197.75		368.45	B	86.3		P
Lead							
Magnesium	27941.68		26637.20		4.7		P
Manganese	771.56		759.15		1.6		P
Mercury							
Nickel	5.63	B	6.50	U	100.0		P
Potassium	2746.44	B	2598.70	B	5.4		P
Selenium							
Silver	0.72	U	3.60	U			P
Sodium	5138.57		5397.15	B	5.0		P
Thallium							
Vanadium	1.00	B	2.55	B	155.0		P
Zinc	12.85	B	27.00	B	110.1		P

Verification of Instrument Parameters

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10
INSTRUMENT DETECTION LIMITS (QUARTERLY)

Lab Name: LANCASTER_LABORATORIES___ Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: FMD01__

ICP ID Number: _____ Date: 07/15/96

Flame AA ID Number: _____

Furnace AA ID Number: ___02803____

Analyte	Wavelength (nm)	Background	CRDL (ug/L)	IDL (ug/L)	M
Aluminum					NR
Antimony					NR
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	276.80	BD	10	1.1	F
Vanadium					NR
Zinc					NR

Comments:

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INSTRUMENT DETECTION LIMITS (QUARTERLY)

Lab Name: LANCASTER_LABORATORIES___ Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: FMD01__

ICP ID Number: _____ Date: 07/15/96

Flame AA ID Number: _____

Furnace AA ID Number: ___03812____

Analyte	Wavelength (nm)	Background	CRDL (ug/L)	IDL (ug/L)	M
Aluminum					NR
Antimony					NR
Arsenic					NR
Barium					NR
Beryllium					NR
Cadmium					NR
Calcium					NR
Chromium					NR
Cobalt					NR
Copper					NR
Iron					NR
Lead	283.30	BZ	3	0.84	F
Magnesium					NR
Manganese					NR
Mercury					NR
Nickel					NR
Potassium					NR
Selenium					NR
Silver					NR
Sodium					NR
Thallium					NR
Vanadium					NR
Zinc					NR

Comments:

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INSTRUMENT DETECTION LIMITS (QUARTERLY)

Lab Name: LANCASTER_LABORATORIES___ Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: FMD01__

ICP ID Number: _____ Date: 07/15/96

Flame AA ID Number: _____

Furnace AA ID Number: ___04724____

Analyte	Wave-length (nm)	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Aluminum					NR
Antimony					NR
Arsenic	193.70	BZ	10	1.3	F
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

Comments:

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INSTRUMENT DETECTION LIMITS (QUARTERLY)

Lab Name: LANCASTER_LABORATORIES___ Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: FMD01__

ICP ID Number: _____ Date: 07/15/96

Flame AA ID Number: _____

Furnace AA ID Number: ___04725____

Analyte	Wavelength (nm)	Background	CRDL (ug/L)	IDL (ug/L)	M
Aluminum					NR
Antimony					NR
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	196.00	BZ	5	0.70	F
Silver					NR
Sodium					NR
Thallium					NR
Vanadium					NR
Zinc					NR

Comments:

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INSTRUMENT DETECTION LIMITS (QUARTERLY)

Lab Name: LANCASTER_LABORATORIES___ Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: FMD01__

ICP ID Number: _____ Date: 07/15/96

Flame AA ID Number: ___05220____

Furnace AA ID Number: _____

Analyte	Wave-length (nm)	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Aluminum					NR
Antimony					NR
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	254.00		0.2	0.0090	CV
Nickel					NR
Potassium					NR
Selenium					NR
Silver					NR
Sodium					NR
Thallium					NR
Vanadium					NR
Zinc					NR

Comments:

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INSTRUMENT DETECTION LIMITS (QUARTERLY)

Lab Name: LANCASTER_LABORATORIES___ Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: FMD01__

ICP ID Number: ___05478____ Date: 07/15/96

Flame AA ID Number: _____

Furnace AA ID Number: _____

Analyte	Wave-length (nm)	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Aluminum	308.21		200	41.2	P
Antimony	206.83		60	1.9	P
Arsenic					NR
Barium	493.40		200	0.16	P
Beryllium	313.04		5	0.56	P
Cadmium	226.50		5	0.38	P
Calcium	317.93		5000	39.3	P
Chromium	267.71		10	0.58	P
Cobalt	228.61		50	0.76	P
Copper	324.75		25	0.48	P
Iron	271.44		100	15.6	P
Lead					NR
Magnesium	279.07		5000	34.8	P
Manganese	257.61		15	0.18	P
Mercury					NR
Nickel	231.60		40	1.3	P
Potassium	766.49		5000	45.3	P
Selenium					NR
Silver	328.06		10	0.72	P
Sodium	330.23		5000	94.3	P
Thallium					NR
Vanadium	292.40		50	0.50	P
Zinc	213.85		20	1.1	P

Comments:

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11A
ICP INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab Name: LANCASTER_LABORATORIES___ Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: FMD01

ICP ID Number: ___05478 ___ Date: 09/12/96

Analyte	Wave-length (nm)	Interelement Correction Factors for: Al	Ca	Fe	Mg	CO
Aluminum	308.21	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Antimony1	206.83	0.0000000	0.0000000	0.0000470	0.0000000	0.0000000
Antimony2	206.83	0.0000040	0.0000000	0.0000550	0.0000000	0.0000000
Arsenic						
Barium	493.40	0.0000000	0.0000000	0.0000030	0.0000000	0.0000000
Beryllium	313.04	-0.0000040	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium	226.50	-0.0000010	0.0000000	0.0000560	0.0000000	-0.0001810
Calcium	317.93	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.71	0.0000000	0.0000000	0.0000140	0.0000000	0.0000000
Cobalt	228.61	0.0000000	0.0000000	0.0000040	0.0000000	0.0000000
Copper	324.75	0.0000000	0.0000000	0.0000140	0.0000000	0.0000000
Iron	271.44	0.0000000	0.0000000	0.0000000	0.0000000	0.0106600
Lead1						
Lead2						
Magnesium	279.07	0.0000000	0.0000000	0.0000000	0.0000000	-0.0006820
Manganese	257.61	-0.0000020	0.0000000	0.0000000	0.0000000	0.0000000
Mercury						
Nickel	231.60	0.0000000	0.0000000	0.0000220	0.0000000	-0.0006690
Potassium	766.49	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium1						
Selenium2						
Silver	328.06	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Sodium	330.23	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium						
Vanadium	292.40	0.0000000	0.0000000	-0.0002070	0.0000000	0.0000000
Zinc	213.85	0.0000190	0.0000000	0.0000730	0.0000180	0.0000000

Comments:

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11B
ICP INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab Name: LANCASTER_LABORATORIES___ Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: FMD01

ICP ID Number: ___05478 ___ Date: 09/12/96

Analyte	Wave-length (nm)	Interelement Correction Factors for: CR	CU	MN	MO	NI
Aluminum	308.21	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Antimony1	206.83	0.0093720	0.0000000	0.0000000	-0.0026820	-0.0018610
Antimony2	206.83	0.0034430	0.0000000	0.0000000	-0.0044830	0.0000000
Arsenic						
Barium	493.40	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Beryllium	313.04	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium	226.50	0.0000000	0.0000000	0.0000000	-0.0000580	0.0000000
Calcium	317.93	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.71	0.0000000	0.0000000	0.0001250	0.0000000	0.0000000
Cobalt	228.61	-0.0007770	0.0000000	0.0000000	-0.0003680	0.0001680
Copper	324.75	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Iron	271.44	0.0009810	0.0000000	0.0000000	0.0038230	0.0000000
Lead1						
Lead2						
Magnesium	279.07	0.0000000	0.0000000	-0.0015070	0.0000000	0.0000000
Manganese	257.61	-0.0000180	0.0000000	0.0000000	0.0000000	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
Selenium1						
Selenium2						
Silver	328.06	0.0000120	0.0000000	-0.0001030	-0.0005270	0.0000000
Sodium	330.23	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium						
Vanadium	292.40	-0.0017640	0.0000000	0.0000000	0.0000000	0.0000000
Zinc	213.85	0.0000000	0.0002170	0.0000000	0.0000000	0.0052470

Comments:

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11B
ICP INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab Name: LANCASTER_LABORATORIES___ Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: FMD01

ICP ID Number: ___05478 ___ Date: 09/12/96

Analyte	Wave-length (nm)	Interelement Correction Factors for: TI	V	__	__	__
Aluminum	308.21	0.0000000	0.0166850	0.0000000	0.0000000	0.0000000
Antimony1	206.83	0.0003700	-0.0043130	0.0000000	0.0000000	0.0000000
Antimony2	206.83	0.0000570	0.0000000	0.0000000	0.0000000	0.0000000
Arsenic						
Barium	493.40	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Beryllium	313.04	0.0000000	0.0003900	0.0000000	0.0000000	0.0000000
Cadmium	226.50	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Calcium	317.93	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.71	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cobalt	228.61	0.0041510	0.0000250	0.0000000	0.0000000	0.0000000
Copper	324.75	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Iron	271.44	0.0000000	0.0233670	0.0000000	0.0000000	0.0000000
Lead1						
Lead2						
Magnesium	279.07	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	257.61	0.0000000	0.0000000	0.0000000	0.0000000	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
Selenium1						
Selenium2						
Silver	328.06	0.0000000	0.0000480	0.0000000	0.0000000	0.0000000
Sodium	330.23	-0.4112480	0.0000000	0.0000000	0.0000000	0.0000000
Thallium						
Vanadium	292.40	0.0006940	0.0000000	0.0000000	0.0000000	0.0000000
Zinc	213.85	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000

Comments:

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ICP LINEAR RANGES (QUARTERLY)

Lab Name: LANCASTER_LABORATORIES___ Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: FMD01__

ICP ID Number: ___05478____ Date: 07/15/96

Analyte	Integ. Time (Sec.)	Concentration (ug/L)	M
Aluminum	10.00	600000.0	P
Antimony	10.00	50000.0	P
Arsenic			NR
Barium	10.00	5000.0	P
Beryllium	10.00	5000.0	P
Cadmium	10.00	20000.0	P
Calcium	10.00	600000.0	P
Chromium	10.00	100000.0	P
Cobalt	10.00	50000.0	P
Copper	10.00	50000.0	P
Iron	10.00	300000.0	P
Lead			NR
Magnesium	10.00	600000.0	P
Manganese	10.00	50000.0	P
Mercury			NR
Nickel	10.00	50000.0	P
Potassium	10.00	50000.0	P
Selenium			NR
Silver	10.00	5000.0	P
Sodium	10.00	50000.0	P
Thallium			NR
Vanadium	10.00	50000.0	P
Zinc	10.00	5000.0	P

Comments:

Preparation and Run Logs

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PREPARATION LOG

Lab Name: LANCASTER_LABORATORIES___ Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: FMD01

Method: P_

EPA Sample No.	Preparation Date	Weight (gram)	Volume (ml)
BR4DD	09/24/96		100
BRA1D	09/24/96		100
BRA1S	09/24/96		100
BRA2D	09/24/96		100
BRA2S	09/24/96		100
BRA4D	09/24/96		100
BRA5S	09/24/96		100
BRAF1	09/24/96		100
BRS3D	09/24/96		100
BRS3DD	09/24/96		100
BRS3DS	09/24/96		100
BRS4S	09/24/96		100
DRA3S	09/24/96		100
LCSW	09/24/96		100
PBW	09/24/96		100

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PREPARATION LOG

Lab Name: LANCASTER_LABORATORIES___ Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: FMD01

Method: F_

EPA Sample No.	Preparation Date	Weight (gram)	Volume (ml)
BR4DD	09/24/96		100
BRA1D	09/24/96		100
BRA1S	09/24/96		100
BRA2D	09/24/96		100
BRA2S	09/24/96		100
BRA4D	09/24/96		100
BRA5S	09/24/96		100
BRAF1	09/24/96		100
BRS3D	09/24/96		100
BRS3DD	09/24/96		100
BRS3DS	09/24/96		100
BRS4S	09/24/96		100
DRA3S	09/24/96		100
LCSW	09/24/96		100
PBW	09/24/96		100

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PREPARATION LOG

Lab Name: LANCASTER_LABORATORIES___ Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: FMD01

Method: CV

EPA Sample No.	Preparation Date	Weight (gram)	Volume (ml)
BR4DD	09/24/96		8
BRA1D	09/24/96		8
BRA1S	09/24/96		8
BRA2D	09/24/96		8
BRA2S	09/24/96		8
BRA4D	09/24/96		8
BRA5S	09/24/96		8
BRAF1	09/24/96		8
BRS3D	09/24/96		8
BRS3DD	09/24/96		8
BRS3DS	09/24/96		8
BRS4S	09/24/96		8
DRA3S	09/24/96		8
LCSW	09/24/96		8
PBW	09/24/96		8

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ANALYSIS RUN LOG

Lab Name: LANCASTER_LABORATORIES___ Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: FMD01__

Instrument ID Number: 05478_ Method: P_

Start Date: 09/24/96 End Date: 09/24/96

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				
S0	1.00	2059		X	X		X	X	X	X	X	X	X	X		X	X		X	X		X	X		X	X				
S	1.00	2104		X						X				X		X				X			X							
S	1.00	2108					X	X	X			X	X				X		X			X			X					
S	1.00	2112			X						X														X					
ICV	1.00	2115		X	X		X	X	X	X	X	X	X	X		X	X		X	X		X	X		X	X				
ICB	1.00	2120		X	X		X	X	X	X	X	X	X	X		X	X		X	X		X	X		X	X				
CRI	1.00	2125			X			X	X		X	X	X				X		X			X			X	X				
ICSA	1.00	2130		X	X		X	X	X	X	X	X	X	X		X	X		X	X		X	X		X	X				
ICSAB	1.00	2135		X	X		X	X	X	X	X	X	X	X		X	X		X	X		X	X		X	X				
CCV	1.00	2140		X	X		X	X	X	X	X	X	X	X		X	X		X	X		X	X		X	X				
CCB	1.00	2145		X	X		X	X	X	X	X	X	X	X		X	X		X	X		X	X		X	X				
PBW	1.00	2150		X	X		X	X	X	X	X	X	X	X		X	X		X	X		X	X		X	X				
LCSW	1.00	2155		X	X		X	X	X	X	X	X	X	X		X	X		X	X		X	X		X	X				
BRS3D	1.00	2200		X	X		X	X	X	X	X	X	X	X		X	X		X	X		X			X	X				
BRS3DA	1.00	2205																												
BRS3DD	1.00	2210		X	X		X	X	X	X	X	X	X	X		X	X		X	X		X			X	X				
BRS3DS	1.00	2215		X	X		X	X	X		X	X	X	X			X		X			X			X	X				
BRS3DL	5.00	2220		X	X		X	X	X	X	X	X	X	X		X	X		X	X		X	X		X	X				
BRA5S	1.00	2225		X	X		X	X	X	X	X	X	X	X		X	X		X	X		X	X		X	X				
BRA4D	1.00	2230		X	X		X	X	X	X	X	X	X	X		X	X		X	X		X			X	X				
BR4DD	1.00	2235		X	X		X	X	X	X	X	X	X	X		X	X		X	X		X			X	X				
CCV	1.00	2240		X	X		X	X	X	X	X	X	X	X		X	X		X	X		X	X		X	X				
CCB	1.00	2245		X	X		X	X	X	X	X	X	X	X		X	X		X	X		X	X		X	X				
BRS4S	1.00	2249		X	X		X	X	X	X	X	X	X	X		X	X		X	X		X	X		X	X				
DRA3S	1.00	2254		X	X		X	X	X	X	X	X	X	X		X	X		X	X		X	X		X	X				
BRA2D	1.00	2259		X	X		X	X	X	X	X	X	X	X		X	X		X	X		X			X	X				
BRA2S	1.00	2304		X	X		X	X	X	X	X	X	X	X		X	X		X	X		X			X	X				
BRA1D	1.00	2309		X	X		X	X	X	X	X	X	X	X		X	X		X	X		X	X		X	X				
BRA1S	1.00	2314		X	X		X	X	X	X	X	X	X	X		X	X		X	X		X	X		X	X				
BRAF1	1.00	2319		X	X		X	X	X	X	X	X	X	X		X	X		X	X		X	X		X	X				
CRI	1.00	2324			X			X	X		X	X	X				X		X			X			X	X				
ICSA	1.00	2329		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: LANCASTER_LABORATORIES___ Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: FMD01__

Instrument ID Number: 05478_ Method: P_

Start Date: 09/24/96 End Date: 09/24/96

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	
ICSAB	1.00	2334		X	X	_	X	X	X	X	X	X	X	X	_	X	X	_	X	X	_	X	X	_	X	X	_
CCV	1.00	2339		X	X	_	X	X	X	X	X	X	X	X	_	X	X	_	X	X	_	X	X	_	X	X	_
CCB	1.00	2344		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: LANCASTER_LABORATORIES___ Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: FMD01__

Instrument ID Number: 05478_ Method: P_

Start Date: 09/26/96 End Date: 09/26/96

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	
S0	1.00	0047																				X				
S	1.00	0052																				X				
S	1.00	0055																								
S	1.00	0059																								
ICV	1.00	0103																				X				
ICB	1.00	0107																				X				
CRI	1.00	0112																								
ICSA	1.00	0116																				X				
ICSAB	1.00	0120																				X				
CCV	1.00	0125																				X				
CCB	1.00	0129																				X				
BRS3D	10.00	0134																				X				
BRS3DA	10.00	0138																								
BRS3DD	10.00	0143																				X				
BRS3DS	10.00	0147																								
BRS3DL	50.00	0151																				X				
BRA4D	10.00	0156																				X				
BR4DD	10.00	0200																				X				
BRA2D	10.00	0205																								
BRA2S	10.00	0209																				X				
CCV	1.00	0214																				X				
CCB	1.00	0218																				X				
CRI	1.00	0222																								
ICSA	1.00	0227																				X				
ICSAB	1.00	0231																				X				
CCV	1.00	0236																				X				
CCB	1.00	0240																				X				

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ANALYSIS RUN LOG

Lab Name: LANCASTER_LABORATORIES___ Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: FMD01__

Instrument ID Number: 05478_ Method: P_

Start Date: 09/30/96 End Date: 09/30/96

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	
SO	1.00	1246																				X				
S	1.00	1250																				X				
S	1.00	1254																								
S	1.00	1258																								
ICV	1.00	1302																				X				
ICB	1.00	1306																				X				
CRI	1.00	1311																								
ICSA	1.00	1315																				X				
ICSAB	1.00	1319																				X				
CCV	1.00	1324																				X				
CCB	1.00	1328																				X				
BRA2D	5.00	1333																				X				
CRI	1.00	1337																								
ICSA	1.00	1341																				X				
ICSAB	1.00	1346																				X				
CCV	1.00	1350																				X				
CCB	1.00	1355																				X				

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ANALYSIS RUN LOG

Lab Name: LANCASTER_LABORATORIES___ Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: FMD01__

Instrument ID Number: 04724_ Method: F_

Start Date: 09/24/96 End Date: 09/25/96

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		
S0	1.00	2109				X																						
S10	1.00	2113				X																						
S20	1.00	2117				X																						
S40	1.00	2121				X																						
S60	1.00	2125				X																						
S80	1.00	2129				X																						
ICV	1.00	2134				X																						
ICB	1.00	2138				X																						
CRA	1.00	2142				X																						
CCV	1.00	2146				X																						
CCB	1.00	2150				X																						
PBW	1.00	2154				X																						
PBWA	1.00	2159	100.7			X																						
LCSW	1.00	2203				X																						
LCSWA	1.00	2207	93.2			X																						
BRA5S	1.00	2212				X																						
BRA5SA	1.00	2216	95.6			X																						
BRA4D	1.00	2220				X																						
BRA4DA	1.00	2225	94.8			X																						
BR4DD	1.00	2229				X																						
BR4DDA	1.00	2233	95.9			X																						
CCV	1.00	2238				X																						
CCB	1.00	2242				X																						
BRS4S	1.00	2246				X																						
BRS4SA	1.00	2250	102.4			X																						
BRS3D	1.00	2254				X																						
BRS3DA	1.00	2258	92.8			X																						
BRS3DD	1.00	2303				X																						
BRS3DDA	1.00	2307	97.5			X																						
BRS3DS	1.00	2311				X																						
ZZZZZZ	1.00	2315																										
DRA3S	1.00	2319				X																						

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ANALYSIS RUN LOG

Lab Name: LANCASTER_LABORATORIES___ Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: FMD01__

Instrument ID Number: 04724_ Method: F_

Start Date: 09/24/96 End Date: 09/25/96

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	
DRA3SA	1.00	2324	87.0			X																				
CCV	1.00	2328				X																				
CCB	1.00	2332				X																				
BRA2D	1.00	2336				X																				
BRA2DA	1.00	2340	101.5			X																				
BRA2S	1.00	2344				X																				
BRA2SA	1.00	2348	89.3			X																				
BRA1D	1.00	2352				X																				
BRA1DA	1.00	2356	96.3			X																				
BRA1S	1.00	0000				X																				
BRA1SA	1.00	0004	107.2			X																				
BRAF1	1.00	0008				X																				
BRAF1A	1.00	0013	104.0			X																				
CCV	1.00	0017				X																				
CCB	1.00	0021				X																				

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ANALYSIS RUN LOG

Lab Name: LANCASTER_LABORATORIES___ Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: FMD01__

Instrument ID Number: 03812_ Method: F_

Start Date: 09/24/96 End Date: 09/25/96

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	
S0	1.00	2048													X												
S3	1.00	2053													X												
S9	1.00	2058													X												
S15	1.00	2103													X												
S30	1.00	2108													X												
S60	1.00	2113													X												
ICV	1.00	2117													X												
ICB	1.00	2122													X												
CRA	1.00	2126													X												
ZZZZZZ	1.00	2131																									
CCV	1.00	2136													X												
CCB	1.00	2141													X												
ZZZZZZ	1.00	2145																									
ZZZZZZ	1.00	2150																									
ZZZZZZ	1.00	2154																									
ZZZZZZ	1.00	2159																									
ZZZZZZ	1.00	2204																									
ZZZZZZ	1.00	2209																									
ZZZZZZ	2.00	2213																									
ZZZZZZ	2.00	2218																									
ZZZZZZ	1.00	2223																									
ZZZZZZ	1.00	2227																									
CCV	1.00	2232													X												
CCB	1.00	2237													X												
PBW	1.00	2241													X												
PBWA	1.00	2246	107.0												X												
LCSW	1.00	2250													X												
LCSWA	1.00	2255	109.1												X												
BRA5S	1.00	2300													X												
BRA5SA	1.00	2304	61.7												X												
BRA4D	1.00	2309													X												
BRA4DA	1.00	2314	68.2												X												

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ANALYSIS RUN LOG

Lab Name: LANCASTER_LABORATORIES___ Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: FMD01__

Instrument ID Number: 03812_ Method: F_

Start Date: 09/24/96 End Date: 09/25/96

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	
BR4DD	1.00	2318													X												
BR4DDA	1.00	2323	61.3												X												
CCV	1.00	2327													X												
CCB	1.00	2332													X												
BRS4S	1.00	2336													X												
BRS4SA	1.00	2341	70.6												X												
BRS3D	1.00	2346													X												
BRS3DA	1.00	2350	72.0												X												
BRS3DD	1.00	2355													X												
BRS3DDA	1.00	0000	94.6												X												
BRS3DS	1.00	0004													X												
ZZZZZZ	1.00	0009																									
DRA3S	1.00	0013													X												
DRA3SA	1.00	0018	65.7												X												
CCV	1.00	0023													X												
CCB	1.00	0027													X												
BRA2D	1.00	0032													X												
BRA2DA	1.00	0037	63.7												X												
BRA2S	1.00	0041													X												
BRA2SA	1.00	0046	62.4												X												
BRA1D	1.00	0051													X												
BRA1DA	1.00	0056	63.6												X												
BRA1S	1.00	0100													X												
BRA1SA	1.00	0105	59.0												X												
BRAF1	1.00	0110													X												
BRAF1A	1.00	0114	114.4												X												
CCV	1.00	0119													X												
CCB	1.00	0124													X												

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ANALYSIS RUN LOG

Lab Name: LANCASTER_LABORATORIES___ Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: FMD01__

Instrument ID Number: 04725_ Method: F_

Start Date: 09/24/96 End Date: 09/24/96

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			
S0	1.00	0123																											
S3	1.00	0127																											
S9	1.00	0131																											
S15	1.00	0135																											
S30	1.00	0139																											
S60	1.00	0143																											
ICV	1.00	0147																											
ICB	1.00	0151																											
CRA	1.00	0155																											
CCV	1.00	0159																											
CCB	1.00	0203																											
ZZZZZZ	1.00	0207																											
ZZZZZZ	1.00	0211																											
ZZZZZZ	1.00	0216																											
ZZZZZZ	1.00	0220																											
ZZZZZZ	1.00	0224																											
ZZZZZZ	1.00	0228																											
BRA2D	1.00	0232																											
BRA2DA	1.00	0237	93.9																										
BRA2S	1.00	0241																											
BRA2SA	1.00	0245	73.7																										
CCV	1.00	0249																											
CCB	1.00	0253																											
BRA1D	1.00	0257																											
BRA1DA	1.00	0301	101.5																										
BRA1S	1.00	0305																											
BRA1SA	1.00	0309	97.6																										
BRA1SD	1.00	0313																											
BRA1SDA	1.00	0317	98.8																										
BRA1SS	1.00	0321																											
ZZZZZZ	1.00	0325																											
BRAF1	1.00	0329																											

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ANALYSIS RUN LOG

Lab Name: LANCASTER_LABORATORIES___ Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: FMD01__

Instrument ID Number: 04725_ Method: F_

Start Date: 09/24/96 End Date: 09/24/96

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	
BRAF1A	1.00	0333	88.0																							
CCV	1.00	0337																								
CCB	1.00	0341																								
ZZZZZZ	1.00	0345																								
ZZZZZZ	1.00	0349																								
ZZZZZZ	1.00	0353																								
ZZZZZZ	1.00	0357																								
ZZZZZZ	1.00	0401																								
ZZZZZZ	1.00	0405																								
ZZZZZZ	1.00	0409																								
ZZZZZZ	1.00	0413																								
ZZZZZZ	1.00	0417																								
ZZZZZZ	1.00	0421																								
CCV	1.00	0426																								
CCB	1.00	0429																								
PBW	1.00	0433																								
PBWA	1.00	0437	0.0																							
LSCW	1.00	0442																								
LCSWA	1.00	0446	120.5																							
BRA5S	1.00	0450																								
BRA5SA	1.00	0454	86.4																							
BRA4D	1.00	0458																								
BRA4DA	1.00	0502	69.0																							
BRA4DD	1.00	0507																								
BRA4DDA	1.00	0511	64.5																							
CCV	1.00	0515																								
CCB	1.00	0519																								
BRS4S	1.00	0523																								
BRS4SA	1.00	0527	91.6																							
BRS3D	1.00	0531																								
BRS4DA	1.00	0535	119.2																							
BRS4DD	1.00	0540																								
BRS4DDA	1.00	0544	125.2																							

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ANALYSIS RUN LOG

Lab Name: LANCASTER_LABORATORIES___ Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: FMD01__

Instrument ID Number: 04725_ Method: F_

Start Date: 09/24/96 End Date: 09/24/96

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	
BRS3DS	1.00	0548																										
ZZZZZZ	1.00	0552																										
DRA3S	1.00	0556																										
DRA3SA	1.00	0600	118.3																									
CCV	1.00	0604																										
CCB	1.00	0608																										
BRA2D	1.00	0612																										
BRA2DA	1.00	0616	90.7																									
BRA2S	1.00	0620																										
BRA2SA	1.00	0624	90.1																									
BRA1D	1.00	0628																										
BRA1DA	1.00	0632	86.8																									
BRA1S	1.00	0636																										
BRA1SA	1.00	0640	-9999.9																									
BRAF1	1.00	0644																										
BRAF1A	1.00	0648	102.7																									
CCV	1.00	0652																										
CCB	1.00	0656																										

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ANALYSIS RUN LOG

Lab Name: LANCASTER_LABORATORIES___ Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: FMD01__

Instrument ID Number: 04725_ Method: F_

Start Date: 09/26/96 End Date: 09/26/96

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	
S0	1.00	0837																		X						
S5	1.00	0841																		X						
S15	1.00	0845																		X						
S25	1.00	0849																		X						
S40	1.00	0853																		X						
S50	1.00	0857																		X						
ICV	1.00	0901																		X						
ICB	1.00	0905																		X						
CRA	1.00	0909																		X						
CCV	1.00	0913																		X						
CCB	1.00	0917																		X						
PBW	1.00	0921																		X						
PBWA	1.00	0925	101.2																	X						
LCSW	1.00	0930																		X						
LCSWA	1.00	0934	108.8																	X						
BRA5S	1.00	0938																		X						
BRA5SA	1.00	0942	86.2																	X						
BRA4D	1.00	0946																		X						
BRA4DA	1.00	0950	72.3																	X						
BR4DD	1.00	0955																		X						
BR4DDA	1.00	0959	84.7																	X						
CCV	1.00	1003																		X						
CCB	1.00	1007																		X						
BRS4S	1.00	1010																		X						
BRS4SA	1.00	1015	99.3																	X						
BRS3D	1.00	1019																		X						
BRS3DA	1.00	1023	88.7																	X						
BRS3DD	1.00	1027																		X						
BRS3DDA	1.00	1031	91.1																	X						
BRS3DS	1.00	1035																		X						
ZZZZZZ	1.00	1039																		X						
DRA3S	1.00	1043																		X						

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ANALYSIS RUN LOG

Lab Name: LANCASTER_LABORATORIES___ Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: FMD01__

Instrument ID Number: 04725_ Method: F_

Start Date: 09/26/96 End Date: 09/26/96

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		
DRA3SA	1.00	1047	94.0																	X							
CCV	1.00	1051																		X							
CCB	1.00	1055																		X							
BRA2D	1.00	1059																		X							
BRA2DA	1.00	1103	99.5																	X							
BRA2S	1.00	1107																		X							
BRA2SA	1.00	1111	94.6																	X							
BRA1D	1.00	1115																									
BRA1DA	1.00	1119	22.9																								
BRA1S	5.00	1123																		X							
BRA1SA	5.00	1127	103.6																	X							
BRAF1	1.00	1131																									
BRAF1A	1.00	1135	175.6																								
CCV	1.00	1139																		X							
CCB	1.00	1143																		X							

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ANALYSIS RUN LOG

Lab Name: LANCASTER_LABORATORIES___ Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: FMD01__

Instrument ID Number: 04725_ Method: F_

Start Date: 09/26/96 End Date: 09/26/96

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	
S0	1.00	1546																		X						
S5	1.00	1550																		X						
S15	1.00	1554																		X						
S25	1.00	1558																		X						
S40	1.00	1602																		X						
S50	1.00	1606																		X						
ICV	1.00	1610																		X						
ICB	1.00	1614																		X						
CRA	1.00	1618																		X						
CCV	1.00	1622																		X						
CCB	1.00	1626																		X						
BRA1D	1.00	1630																		X						
BRA1DA	1.00	1635	123.1																	X						
BRAF1	1.00	1639																		X						
BRAF1A	1.00	1643	131.8																	X						
ZZZZZZ	5.00	1647																								
ZZZZZZ	5.00	1651																								
ZZZZZZ	5.00	1656																								
ZZZZZZ	5.00	1700																								
ZZZZZZ	5.00	1704																								
ZZZZZZ	5.00	1708																								
CCV	1.00	1712																		X						
CCB	1.00	1716																		X						

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ANALYSIS RUN LOG

Lab Name: LANCASTER_LABORATORIES___ Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: FMD01__

Instrument ID Number: 02803_ Method: F_

Start Date: 09/25/96 End Date: 09/25/96

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		
S0	1.00	0523																					X				
S10	1.00	0527																					X				
S20	1.00	0530																					X				
S40	1.00	0534																					X				
S60	1.00	0538																					X				
S80	1.00	0541																					X				
ICV	1.00	0545																					X				
ICB	1.00	0548																					X				
CRA	1.00	0551																					X				
ZZZZZZ	1.00	0555																									
CCV	1.00	0558																					X				
CCB	1.00	0602																					X				
PBW	1.00	0605																					X				
PBWA	1.00	0609	110.3																				X				
LCSW	1.00	0612																					X				
LCSWA	1.00	0615	106.2																				X				
BRA5S	1.00	0619																					X				
BRA5SA	1.00	0622	96.2																				X				
BRA4D	1.00	0626																					X				
BRA4DA	1.00	0629	96.8																				X				
BR4DD	1.00	0633																					X				
BR4DDA	1.00	0636	98.0																				X				
CCV	1.00	0640																					X				
CCB	1.00	0643																					X				
BRS4S	1.00	0646																					X				
BRS4SA	1.00	0650	93.0																				X				
BRS3D	1.00	0653																					-				
BRS3DA	1.00	0657	100.0																				X				
BRS3DD	1.00	0700																					X				
BRS3DDA	1.00	0703	93.5																				X				
BRS3DS	1.00	0706																					X				
ZZZZZZ	1.00	0710																									

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ANALYSIS RUN LOG

Lab Name: LANCASTER_LABORATORIES___ Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: FMD01__

Instrument ID Number: 02803_ Method: F_

Start Date: 09/25/96 End Date: 09/25/96

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		
DRA3S	1.00	0713		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	
DRA3SA	1.00	0717	87.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	
CCV	1.00	0720		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	
CCB	1.00	0723		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	
BRA2D	1.00	0727		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	
BRA2DA	1.00	0730	101.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	
BRA2S	1.00	0733		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	
BRA2SA	1.00	0737	104.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	
BRA1D	1.00	0740		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	
BRA1DA	1.00	0744	105.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	
BRA1S	1.00	0747		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	
BRA1SA	1.00	0751	98.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	
BRAF1	1.00	0754		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	
BRAF1A	1.00	0757	104.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	
CCV	1.00	0801		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	
CCB	1.00	0804		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	
				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

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ANALYSIS RUN LOG

Lab Name: LANCASTER_LABORATORIES___ Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: FMD01__

Instrument ID Number: 02803_ Method: F_

Start Date: 09/25/96 End Date: 09/25/96

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		
S0	1.00	1225																					X				
S10	1.00	1228																					X				
S20	1.00	1232																					X				
S40	1.00	1236																					X				
S60	1.00	1239																					X				
S80	1.00	1243																					X				
ICV	1.00	1246																					X				
ICB	1.00	1250																					X				
CRA	1.00	1253																					X				
ZZZZZZ	1.00	1256																									
CCV	1.00	1300																					X				
CCB	1.00	1303																					X				
BRS3D	1.00	1306																					X				
BRS3DA	1.00	1310	100.0																				X				
ZZZZZZ	1.00	1313																									
ZZZZZZ	1.00	1317																									
ZZZZZZ	1.00	1320																									
ZZZZZZ	1.00	1324																									
ZZZZZZ	1.00	1327																									
ZZZZZZ	1.00	1331																									
ZZZZZZ	1.00	1334																									
ZZZZZZ	1.00	1338																									
CCV	1.00	1341																					X				
CCB	1.00	1344																					X				

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ANALYSIS RUN LOG

Lab Name: LANCASTER_LABORATORIES___ Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: FMD01__

Instrument ID Number: 05220_ Method: CV

Start Date: 09/25/96 End Date: 09/25/96

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	
S0	1.00	1714																X								
S0.2	1.00	1716																X								
S0.5	1.00	1718																X								
S1.0	1.00	1721																X								
S2.5	1.00	1723																X								
S5.0	1.00	1726																X								
ICV	1.00	1728																X								
ICB	1.00	1731																X								
CRA	1.00	1733																X								
CCV	1.00	1735																X								
CCB	1.00	1738																X								
PBW	1.00	1740																X								
LCSW	1.00	1742																X								
BRA5S	1.00	1745																X								
BRA4D	1.00	1747																X								
BR4DD	1.00	1749																X								
BRS4S	1.00	1751																X								
BRS3D	1.00	1754																X								
BRS3DD	1.00	1756																X								
BRS3DS	1.00	1758																X								
DRA3S	1.00	1800																X								
CCV	1.00	1803																X								
CCB	1.00	1805																X								
BRA2D	1.00	1807																X								
BRA2S	1.00	1809																X								
BRA1D	1.00	1812																X								
BRA1S	1.00	1814																X								
BRAF1	1.00	1816																X								
ZZZZZZ	1.00	1818																								
ZZZZZZ	1.00	1821																								
ZZZZZZ	1.00	1823																								
ZZZZZZ	1.00	1825																								

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ANALYSIS RUN LOG

Lab Name: LANCASTER_LABORATORIES___ Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: FMD01__

Instrument ID Number: 05220_ Method: CV

Start Date: 09/25/96 End Date: 09/25/96

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	
ZZZZZZ	1.00	1827																									
CCV	1.00	1830																X									
CCB	1.00	1832																X									

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Raw Data

ICP Data

Page: 1

Lancaster Laboratories

Data Reviewed By: NCH/243 9-25-96

Data Verified By: J. Gilbert 9-25-96

Data File Name: 26806T61.DAT

Analyst: 811

Run Name: 9626806T61

Instrument Parameters:

Rinse Time:	60 sec
Individual Integration Time:	10 sec
Total Integration Time:	30 sec

Element Symbol	Element Name	Wavelength(nm)
Ag	Silver	328.06
Al	Aluminum	308.21
As	Arsenic	189.04
Ba	Barium	493.40
Be	Beryllium	313.04
Ca	Calcium	317.93
Cd	Cadmium	226.50
Co	Cobalt	228.61
Cr	Chromium	267.71
Cu	Copper	324.75
Fe	Iron	271.44
K	Potassium	766.49
Mg	Magnesium	279.07
Mn	Manganese	257.61
Mo	Molybdenum	202.03
Na	Sodium	330.23
Ni	Nickel	231.60
Pb	Lead	220.35/1
Pb	Lead	220.35/2
Sb	Antimony	206.83/1
Sb	Antimony	206.83/2
Se	Selenium	196.02/1
Se	Selenium	196.02/2
Sn	Tin	189.98
Ti	Titanium	334.94
Tl	Thallium	190.86
V	Vanadium	292.40
Y	Yttrium	371.03
Zn	Zinc	213.85

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The 61E TRACE ICP uses a Crawford-Kunselman Noise Reduction Technique for lead, antimony, and selenium. This requires the utilization of the first and second order wavelengths in the calculation of each of these metal determinations. The 61E TRACE ICP also utilizes Yttrium as an internal standard to compensate for fluctuations in nebulization and plasma conditions. All Yttrium readings are expressed in counts.

LANCASTER LABORATORIES

Run Name: 9626806T61 INSTRUMENT ID: 054

Tube: 1 S0 09/24/96 20:59

ELEM	CONC (ppm)	AVG INTENSITY RATIO	%RSD	INTEGRATIONS #1	#2	#3
__Ag	0.000	-0.00046	12.32	-0.00040	-0.00052	-0.00047
__Al	0.000	0.00655	1.509	0.00657	0.00663	0.00644
__As	0.000	0.00006	583.5	0.00048	-0.00013	-0.00016
__Ba	0.000	0.00006	14.54	0.00007	0.00005	0.00005
__Be	0.000	-0.04990	0.913	-0.05015	-0.05019	-0.04938
__Ca	0.000	-0.00072	3.101	-0.00071	-0.00071	-0.00075
__Cd	0.000	0.00017	8.626	0.00018	0.00016	0.00018
__Co	0.000	-0.00018	51.85	-0.00025	-0.00007	-0.00020
__Cr	0.000	0.00003	96.64	0.00002	0.00007	0.00000
__Cu	0.000	-0.00131	2.795	-0.00131	-0.00134	-0.00127
__Fe	0.000	-0.00001	161.9	0.00001	-0.00002	-0.00002
__K	0.000	0.00316	19.43	0.00387	0.00278	0.00283
__Mg	0.000	0.00021	25.73	0.00025	0.00024	0.00015
__Mn	0.000	0.00038	5.452	0.00040	0.00039	0.00036
__Mo	0.000	-0.00051	29.78	-0.00035	-0.00065	-0.00052
__Na	0.000	-0.00020	17.77	-0.00019	-0.00017	-0.00024
__Ni	0.000	0.00018	56.49	0.00006	0.00023	0.00025
__Pb	0.000	0.00180	38.75	0.00169	0.00116	0.00254
__Sb	0.000	0.00090	30.39	0.00089	0.00119	0.00063
__Se	0.000	-0.00163	33.93	-0.00199	-0.00191	-0.00099
__Sn	0.000	-0.00003	291.6	-0.00012	0.00005	-0.00002
__Ti	0.000	-0.00039	8.906	-0.00036	-0.00037	-0.00043
__Tl	0.000	-0.00109	23.76	-0.00090	-0.00139	-0.00099
__V	0.000	0.00003	65.88	0.00001	0.00002	0.00005
__Y	N/A	168911.00000	0.226	169324.00000	168568.00000	168841.00000
__Zn	0.000	-0.00005	11.24	-0.00004	-0.00005	-0.00005

LANCASTER LABORATORIES

Run Name: 9626806T61 INSTRUMENT ID: 0547

Tube: 2 S1 5 09/24/96 21:04

ELEM	CONC (ppm)	AVG INTENSITY RATIO	%RSD	INTEGRATIONS #1	#2	#3
_Al	50.000	0.68269	0.121	0.68196	0.68359	0.68253
_Ca	50.000	0.74698	0.307	0.74561	0.74570	0.74964
_Fe	50.000	0.22032	0.329	0.21973	0.22011	0.22113
_K	50.000	1.16425	0.150	1.16456	1.16583	1.16237
_Mg	50.000	0.70452	0.194	0.70331	0.70424	0.70601
_Na	50.000	0.10852	0.110	0.10866	0.10847	0.10844
_Y	N/A	169820.32812	0.177	169753.00000	170150.00000	169558.00000

LANCASTER LABORATORIES

Run Name: 9626806T61 INSTRUMENT ID: 0547

Tube: 3 S2 S 09/24/96 21:08

ELEM	CONC (ppm)	AVG INTENSITY RATIO	%RSD	INTEGRATIONS #1	#2	#3
Ag	1.000	0.20739	0.583	0.20639	0.20703	0.20873
As	1.000	0.23178	0.588	0.23041	0.23180	0.23313
Ba	1.000	0.23137	0.640	0.23030	0.23076	0.23306
Be	1.000	4.26776	0.464	4.25455	4.25815	4.29058
Cd	1.000	1.18286	0.497	1.17977	1.17917	1.18964
Co	1.000	0.23704	0.341	0.23647	0.23668	0.23796
Cu	1.000	0.18232	0.690	0.18125	0.18201	0.18371
Mn	1.000	0.97159	0.505	0.96815	0.96942	0.97721
Ni	1.000	0.16178	0.550	0.16103	0.16155	0.16277
Pb	1.000	0.29078	0.461	0.28997	0.29005	0.29233
Se	1.000	0.11607	0.522	0.11558	0.11589	0.11675
Tl	1.000	0.09725	1.544	0.09571	0.09735	0.09871
Y	N/A	171027.67187	0.516	171713.00000	171339.00000	170031.00000
Zn	1.000	0.09568	0.503	0.09531	0.09551	0.09622

LANCASTER LABORATORIES

Run Name: 9626806T61 INSTRUMENT ID: 05478

Tube: 4 S3 S 09/24/96 21:12

ELEM	CONC (ppm)	AVG INTENSITY RATIO	%RSD	INTEGRATIONS #1	#2	#3
__Cr	1.000	0.13241	0.408	0.13237	0.13296	0.13188
__Mo	1.000	0.40038	0.770	0.39719	0.40335	0.40059
__Sb	1.000	0.33157	1.983	0.32445	0.33742	0.33283
__Sn	1.000	0.09380	0.313	0.09373	0.09412	0.09354
__Ti	1.000	0.46603	0.372	0.46580	0.46787	0.46443
__V	1.000	0.13658	0.395	0.13654	0.13713	0.13605
__Y	N/A	170769.67187	0.485	170807.00000	169923.00000	171579.00000

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LANCASTER LABORATORIES

Run Name: 9626806T61 INSTRUMENT ID: 05478

Tube: 5 ICV 09/24/96 21:15

ELEM	AVG (ppm)	%RSD	INTEGRATIONS #1	#2	#3	REREAD	REDIG
Ag	0.60482	0.210	0.60335	0.60555	0.60556		
Al	29.38500	0.226	29.36579	29.45919	29.33003		
As	0.60890	0.676	0.60595	0.60713	0.61361		
Ba	0.59558	0.106	0.59614	0.59570	0.59489		
Be	0.60929	0.505	0.60631	0.60911	0.61246		
Ca	29.35874	0.576	29.18472	29.36904	29.52247		
Cd	0.59254	0.322	0.59114	0.59176	0.59472		
Co	0.59288	0.692	0.58837	0.59388	0.59639		
Cr	0.59517	0.326	0.59359	0.59459	0.59734		
Cu	0.60509	0.213	0.60444	0.60658	0.60426		
Fe	29.26608	0.720	29.02645	29.34920	29.42260		
K	28.97917	0.573	29.12981	29.00704	28.80066		
Mg	29.29872	0.343	29.18828	29.32270	29.38517		
Mn	0.59807	0.316	0.59618	0.59805	0.59997		
Mo	0.60114	0.436	0.59964	0.59961	0.60417		
Na	30.12432	0.496	30.19440	30.22581	29.95274		
Ni	0.59777	0.420	0.59500	0.59840	0.59991		
Pb	0.59272	0.747	0.58851	0.59231	0.59735		
Sb	0.57347	0.540	0.56991	0.57496	0.57555		
Se	0.60060	1.119	0.59358	0.60123	0.60698		
Sn	0.59411	0.677	0.59027	0.59375	0.59830		
Ti	0.60741	0.244	0.60583	0.60764	0.60877		
Tl	0.59313	3.575	0.56933	0.60003	0.61003		
V	0.59305	0.251	0.59154	0.59309	0.59452		
Y	170740.00000	0.394	170509.00000	171498.00000	170213.00000		
Zn	0.59761	0.301	0.59627	0.59689	0.59965		

LANCASTER LABORATORIES

Run Name: 9626806T61 INSTRUMENT ID: 0547E

Type: 6 ICB 09/24/96 21:20

ELEM	AVG (ppm)	%RSD	INTEGRATIONS #1	#2	#3	REREAD	REDIG
Ag	0.00020	162.8	0.00042	0.00038	-0.00018		
Al	0.00188	216.5	0.00656	-0.00102	0.00012		
As	-0.00054	411.6	0.00028	0.00117	-0.00310		
Ba	0.00007	50.02	0.00010	0.00008	0.00003		
Be	0.00031	14.14	0.00030	0.00036	0.00027		
Ca	0.07995	1.832	0.08163	0.07924	0.07898		
Cd	0.00038	6.123	0.00037	0.00040	0.00036		
Co	0.00033	80.24	0.00005	0.00059	0.00035		
Cr	0.00025	76.39	0.00006	0.00045	0.00024		
Cu	0.00001	1784.	0.00021	0.00003	-0.00021		
Fe	0.04209	1.746	0.04253	0.04250	0.04124		
K	0.05260	4.111	0.05027	0.05299	0.05454		
Mg	0.02379	9.791	0.02639	0.02307	0.02191		
Mn	0.00009	17.44	0.00009	0.00007	0.00010		
Mo	0.00104	24.36	0.00100	0.00131	0.00081		
Na	0.18881	15.62	0.15776	0.21648	0.19220		
Ni	-0.00057	221.3	-0.00204	0.00034	-0.00004		
Pb	0.00059	149.7	0.00012	0.00003	0.00161		
Sb	0.00045	448.7	0.00161	0.00168	-0.00191		
Se	-0.00014	317.6	-0.00064	0.00022	0.00000		
Sn	0.00119	74.28	0.00193	0.00143	0.00021		
Ti	0.00020	23.62	0.00024	0.00015	0.00021		
Tl	0.00014	982.6	-0.00098	0.00176	-0.00033		
V	0.00023	69.39	0.00016	0.00011	0.00041		
Y	173548.67187	0.301	173230.00000	174153.00000	173263.00000		
Zn	0.00013	79.69	0.00020	0.00019	0.00001		

LANCASTER LABORATORIES

Run Name: 9626806T61 INSTRUMENT ID: 0547

Tube: 7 CRI 09/24/96 21:25

ELEM	AVG (ppm)	%RSD	INTEGRATIONS #1	#2	#3	REREAD	REDI
Ag	0.02068	2.024	0.02069	0.02110	0.02026		
Al	0.00302	55.33	0.00405	0.00393	0.00109		
As	0.01893	9.615	0.01909	0.01703	0.02067		
Ba	0.00021	23.68	0.00021	0.00026	0.00016		
Be	0.01019	1.548	0.01017	0.01004	0.01036		
Ca	0.07907	0.443	0.07913	0.07938	0.07869		
Cd	0.01020	1.453	0.01035	0.01019	0.01005		
Co	0.10118	0.805	0.10190	0.10133	0.10030		
Cr	0.02028	0.997	0.02036	0.02044	0.02006		
Cu	0.05148	0.546	0.05175	0.05148	0.05119		
Fe	0.04162	32.25	0.03517	0.05706	0.03264		
K	0.04804	17.75	0.04690	0.05708	0.04013		
Mg	0.02568	19.07	0.02422	0.03114	0.02167		
Mn	0.03067	0.282	0.03076	0.03065	0.03059		
Mo	0.00065	109.2	0.00143	0.00004	0.00047		
Na	0.14738	31.98	0.13085	0.20056	0.11073		
Ni	0.08100	1.712	0.08226	0.08122	0.07952		
Pb	0.00612	8.072	0.00557	0.00652	0.00628		
Sb	0.11755	1.206	0.11898	0.11753	0.11614		
Se	0.01018	18.98	0.00800	0.01170	0.01084		
Sn	-0.00006	2539.	-0.00184	0.00113	0.00051		
Ti	0.00032	68.56	0.00030	0.00056	0.00011		
Tl	0.01810	5.907	0.01933	0.01757	0.01739		
V	0.10333	0.356	0.10368	0.10337	0.10295		
Y	171837.67187	0.326	171208.00000	172023.00000	172282.00000		
Zn	0.04088	0.483	0.04110	0.04073	0.04080		

LANCASTER LABORATORIES

Run Name: 9626806T61 INSTRUMENT ID: 05478

Type: 8 ICSA 09/24/96 21:30

ELEM	AVG (ppm)	%RSD	INTEGRATIONS #1	#2	#3	REREAD	REDIG
Ag	0.00005	1103.	-0.00048	-0.00009	0.00074		
Al	532.25592	0.526	535.47369	530.93133	530.36279		
As	-0.00220	37.40	-0.00144	-0.00207	-0.00307		
Ba	0.00770	0.444	0.00773	0.00766	0.00769		
Be	0.00162	3.768	0.00168	0.00156	0.00160		
Ca	512.73449	0.598	509.29757	513.71435	515.19165		
Cd	0.00119	23.11	0.00149	0.00096	0.00111		
Co	-0.00077	77.20	-0.00147	-0.00044	-0.00041		
Cr	0.00660	11.68	0.00576	0.00675	0.00728		
Cu	-0.00104	14.86	-0.00122	-0.00096	-0.00095		
Fe	208.40107	0.329	207.62466	208.65461	208.92393		
K	0.03714	29.53	0.02484	0.04069	0.04590		
Mg	554.17578	0.081	553.70031	554.60400	554.22308		
Mn	0.00421	1.077	0.00425	0.00416	0.00423		
Mo	-0.00072	64.55	-0.00033	-0.00059	-0.00125		
Na	0.17570	38.25	0.12493	0.15026	0.25193		
Ni	0.00608	7.743	0.00622	0.00555	0.00646		
Pb	0.00055	136.9	-0.00026	0.00122	0.00069		
Sb	-0.00303	40.20	-0.00435	-0.00280	-0.00194		
Se	-0.00267	116.4	-0.00043	-0.00136	-0.00623		
Sn	0.00022	890.8	0.00180	-0.00203	0.00091		
Ti	-0.00129	8.638	-0.00141	-0.00128	-0.00119		
Tl	0.00093	229.5	0.00048	-0.00095	0.00326		
V	-0.00201	18.32	-0.00228	-0.00159	-0.00217		
Y	159367.00000	0.202	159441.00000	159647.00000	159013.00000		
Zn	0.00217	7.474	0.00214	0.00235	0.00203		

DUP050307601

LANCASTER LABORATORIES

Run Name: 9626806T61 INSTRUMENT ID: 05478

Tube: 9 ICSAB 09/24/96 21:35

ELEM	AVG (ppm)	%RSD	INTEGRATIONS #1	#2	#3	REREAD	REDIG
Ag	0.21825	0.090	0.21840	0.21803	0.21833		
Al	539.96038	0.092	540.17498	539.39208	540.31402		
As	0.10306	1.395	0.10156	0.10320	0.10442		
Ba	0.53083	0.133	0.53138	0.53003	0.53107		
Be	0.49049	0.334	0.49158	0.48860	0.49127		
Ca	522.81378	0.390	524.41772	520.51483	523.50878		
Cd	0.95787	0.298	0.96008	0.95464	0.95889		
Co	0.48575	0.258	0.48716	0.48475	0.48533		
Cr	0.49960	0.272	0.50096	0.49824	0.49960		
Cu	0.55148	0.051	0.55179	0.55123	0.55140		
Fe	211.88954	0.306	212.42016	211.16601	212.08245		
K	0.05692	1.674	0.05585	0.05767	0.05724		
Mg	562.50744	0.233	563.58367	561.04626	562.89233		
Mn	0.50265	0.301	0.50392	0.50098	0.50307		
Mo	0.00033	293.9	0.00109	-0.00078	0.00069		
Na	0.20998	30.41	0.22987	0.13855	0.26154		
Ni	0.96220	0.348	0.96551	0.95880	0.96229		
Pb	0.05061	3.117	0.04879	0.05155	0.05149		
Sb	0.61917	0.181	0.61787	0.61982	0.61981		
Se	0.04893	4.716	0.05126	0.04664	0.04889		
Sn	-0.00228	45.13	-0.00198	-0.00343	-0.00144		
Ti	-0.00143	14.50	-0.00160	-0.00120	-0.00149		
Tl	0.09945	4.431	0.09456	0.10065	0.10312		
V	0.50938	0.377	0.51047	0.50716	0.51051		
Y	158866.00000	0.255	158494.00000	159298.00000	158806.00000		
Zn	1.01690	0.204	1.01853	1.01455	1.01761		

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LANCASTER LABORATORIES

Run Name: 9626806T61 INSTRUMENT ID: 05478

Item: 10 CCV 09/24/96 21:40

ITEM	AVG (ppm)	%RSD	INTEGRATIONS #1	#2	#3	REREAD	REDIG
Ag	0.49599	0.577	0.49897	0.49572	0.49326		
Al	25.07147	0.445	25.17289	25.08963	24.95189		
As	0.49813	0.606	0.50152	0.49715	0.49572		
Ba	0.48736	0.529	0.49023	0.48664	0.48522		
Be	0.49715	0.530	0.50009	0.49637	0.49499		
Ca	25.32026	0.577	25.47739	25.29534	25.18804		
Cd	0.49286	0.510	0.49556	0.49245	0.49058		
Co	0.48569	0.584	0.48838	0.48597	0.48272		
Cr	0.48935	0.547	0.49205	0.48929	0.48669		
Cu	0.49881	0.485	0.50121	0.49885	0.49636		
Fe	24.60421	0.396	24.70601	24.59486	24.51176		
K	25.25224	0.408	25.35941	25.24394	25.15337		
Mg	24.92419	0.567	25.06753	24.92033	24.78471		
Mn	0.49468	0.549	0.49766	0.49405	0.49233		
Mo	0.49421	0.421	0.49525	0.49558	0.49181		
Na	25.78198	0.321	25.84791	25.80929	25.68875		
Ni	0.49508	0.613	0.49853	0.49391	0.49280		
Pb	0.48995	0.470	0.49245	0.48951	0.48790		
Sb	0.45531	0.498	0.45339	0.45473	0.45782		
Se	0.48910	0.384	0.49126	0.48821	0.48782		
Sn	0.49058	0.704	0.49439	0.48968	0.48766		
Ti	0.49939	0.507	0.50220	0.49871	0.49727		
Tl	0.49092	1.181	0.48424	0.49377	0.49474		
V	0.49409	0.695	0.49762	0.49390	0.49076		
Y	169601.67187	0.872	168156.00000	169537.00000	171112.00000		
Zn	0.49707	0.574	0.50010	0.49670	0.49442		

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DUP050307603

LANCASTER LABORATORIES

Run Name: 9626806T61 INSTRUMENT ID: 05478

Tube: 11 CCB 09/24/96 21:45

ELEM	AVG (ppm)	%RSD	INTEGRATIONS #1	#2	#3	REREAD	REDIG
Ag	0.00020	194.8	0.00065	-0.00010	0.00006		
Al	0.05628	6.375	0.05844	0.05826	0.05214		
As	-0.00154	34.96	-0.00114	-0.00216	-0.00133		
Ba	0.00008	47.72	0.00011	0.00003	0.00008		
Be	0.00013	45.33	0.00008	0.00020	0.00011		
Ca	0.12475	2.939	0.12461	0.12849	0.12116		
Cd	0.00038	33.61	0.00041	0.00024	0.00049		
Co	0.00000	8103.	0.00059	-0.00061	0.00004		
Cr	-0.00001	3151.	0.00051	-0.00014	-0.00041		
Cu	-0.00022	91.48	0.00000	-0.00029	-0.00037		
Fe	0.05253	22.43	0.06595	0.04388	0.04776		
K	0.05280	6.363	0.05662	0.05032	0.05145		
Mg	0.06649	1.010	0.06646	0.06718	0.06584		
Mn	0.00006	93.53	0.00009	0.00009	0.00000		
Mo	0.00116	33.08	0.00142	0.00134	0.00072		
Na	0.17536	26.04	0.22658	0.13885	0.16064		
Ni	0.00067	16.69	0.00059	0.00062	0.00080		
Pb	0.00000	17003	0.00054	-0.00022	-0.00030		
Sb	0.00299	10.44	0.00290	0.00274	0.00334		
Se	0.00069	115.3	-0.00022	0.00119	0.00110		
Sn	0.00149	50.32	0.00064	0.00176	0.00207		
Ti	0.00012	164.5	0.00031	-0.00008	0.00014		
Tl	-0.00056	643.7	0.00257	-0.00455	0.00028		
V	0.00032	94.24	0.00060	0.00038	0.00000		
Y	170718.32812	0.191	170388.00000	170725.00000	171042.00000		
Zn	0.00020	34.89	0.00023	0.00011	0.00024		

DUP050307604

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LANCASTER LABORATORIES

Run Name: 9626806T61 INSTRUMENT ID: 05475

Time: 12 PBW 09/24/96 21:50
***,100-100,DF1,962685720001,8,,

ELEM	AVG (ppm)	%RSD	INTEGRATIONS #1	#2	#3	REREAD	REDIG
✓ Ag	0.00001	3300.	0.00058	-0.00007	-0.00046		
✓ Al	0.04816	8.346	0.04989	0.05103	0.04357		
As	-0.00196	48.47	-0.00141	-0.00141	-0.00306		
✓ Ba	0.00002	132.1	0.00003	0.00006	-0.00001		
✓ Be	0.00014	69.75	0.00010	0.00025	0.00006		
✓ Ca	0.10601	4.071	0.10745	0.10942	0.10116		
✓ Cd	0.00009	108.9	-0.00001	0.00018	0.00010		
✓ Co	0.00013	203.2	0.00044	-0.00008	0.00005		
✓ Cr	0.00033	82.16	0.00055	0.00041	0.00002		
✓ Cu	-0.00021	150.5	0.00015	-0.00035	-0.00045		
✓ Fe	0.04640	14.60	0.05409	0.04383	0.04129		
✓ K	0.05017	4.846	0.05205	0.05103	0.04742		
✓ Mg	0.04464	16.94	0.05022	0.04766	0.03603		
✓ Mn	0.00024	12.75	0.00027	0.00024	0.00021		
Mo	-0.00006	792.7	0.00052	-0.00022	-0.00049		
✓ Na	0.16098	23.72	0.20278	0.12792	0.15223		
✓ Ni	0.00000	5525.	-0.00064	0.00035	0.00025		
Pb	0.00039	104.9	-0.00002	0.00080	0.00041		
✓ Sb	0.00019	473.7	0.00075	0.00069	-0.00086		
Se	0.00067	170.3	-0.00044	0.00061	0.00186		
Sn	0.00074	96.31	0.00027	0.00039	0.00157		
Ti	0.00007	155.3	0.00017	0.00008	-0.00004		
Tl	-0.00081	246.3	0.00114	-0.00071	-0.00288		
✓ V	-0.00011	211.2	0.00016	-0.00030	-0.00021		
Y	172299.00000	0.439	172481.00000	172949.00000	171467.00000		
✓ Zn	0.00693	1.421	0.00697	0.00701	0.00682		

LANCASTER LABORATORIES

Run Name: 9626806T61 INSTRUMENT ID: 0547

Tube: 13 LCSW 09/24/96 21:55
****,1-1,DF1,962685720001,8,,

ELEM	AVG (ppm)	%RSD	INTEGRATIONS #1	#2	#3	REREAD	REDI
✓Ag	0.05247	0.585	0.05277	0.05215	0.05248		
✓Al	2.11878	0.432	2.10860	2.12139	2.12635		
As	2.08573	0.292	2.08415	2.08057	2.09248		
✓Ba	2.05071	0.259	2.04813	2.04717	2.05684		
✓Be	0.05094	0.272	0.05085	0.05088	0.05110		
✓Ca	4.24628	0.273	4.24497	4.23539	4.25849		
✓Cd	0.05190	0.457	0.05217	0.05176	0.05175		
✓Co	0.50233	0.235	0.50275	0.50100	0.50325		
✓Cr	0.20518	0.305	0.20521	0.20453	0.20578		
✓Cu	0.25912	0.223	0.25894	0.25865	0.25976		
✓Fe	1.07897	0.982	1.08219	1.06713	1.08759		
✓K	3.74078	0.202	3.73509	3.73788	3.74937		
✓Mg	2.04205	0.360	2.04244	2.03451	2.04921		
✓Mn	0.51574	0.278	0.51576	0.51429	0.51717		
Mo	2.07577	0.465	2.06639	2.07522	2.08570		
✓Na	4.03482	0.827	4.04727	4.06021	3.99698		
✓Ni	0.51945	0.188	0.51837	0.51970	0.52027		
Pb	0.51712	0.353	0.51797	0.51502	0.51836		
✓Sb	0.52261	0.309	0.52371	0.52075	0.52336		
Se	2.05270	0.342	2.05555	2.04470	2.05785		
Sn	4.11773	0.283	4.12275	4.10437	4.12608		
Ti	1.01707	0.290	1.01593	1.01487	1.02043		
Tl	2.04229	2.831	1.97630	2.06645	2.08412		
✓V	0.51700	0.342	0.51698	0.51524	0.51879		
Y	168687.67187	0.441	168387.00000	169536.00000	168140.00000		
✓Zn	0.53898	0.256	0.53920	0.53750	0.54024		

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LANCASTER LABORATORIES

Run Name: 9626806T61 INSTRUMENT ID: 05478

Line: 14 2583209 BRS3D 09/24/96 22:00
(***,100-100,DF1,962685720001,8,,

ITEM	AVG (ppm)	%RSD	INTEGRATIONS #1	#2	#3	REREAD	REDIG
X Ag	0.00000	2958.	0.00001	-0.00015	0.00015		
X Al	0.03265	1.196	0.03303	0.03267	0.03225		
As	-0.00098	155.8	-0.00256	-0.00090	0.00050		
X Ba	0.15306	0.374	0.15240	0.15345	0.15331		
X Be	-0.00008	22.56	-0.00010	-0.00007	-0.00006		
X Ca	67.43917	0.552	67.00941	67.63230	67.67579		
X Cd	0.00025	57.09	0.00013	0.00021	0.00041		
X Co	0.00255	3.458	0.00266	0.00250	0.00251		
X Cr	0.00004	752.0	-0.00010	-0.00019	0.00043		
X Cu	0.00017	153.1	-0.00011	0.00038	0.00024		
X Fe	0.19775	2.231	0.19975	0.19269	0.20080		
X K	2.74644	0.295	2.73739	2.74889	2.75304		
X Mg	27.94168	0.508	27.77883	28.03952	28.00669		
X Mn	0.77156	0.486	0.76724	0.77345	0.77399		
Mo	0.01252	2.540	0.01230	0.01238	0.01289		
Na	52.11627	0.369	51.89437	52.21729	52.23714	G	
X Ni	0.00563	3.391	0.00567	0.00542	0.00580		
Pb	0.00043	79.04	0.00068	0.00004	0.00057		
X Sb	-0.00048	219.6	-0.00149	0.00063	-0.00060		
Se	-0.00083	278.8	0.00162	-0.00298	-0.00113		
Sn	0.00117	140.2	0.00285	0.00108	-0.00042		
Ti	0.00037	13.51	0.00042	0.00037	0.00032		
Tl	0.00587	79.29	0.01057	0.00577	0.00126		
X V	0.00100	16.14	0.00082	0.00107	0.00112		
Y	169208.67187	0.164	168937.00000	169492.00000	169197.00000		
X Zn	0.01285	0.840	0.01281	0.01276	0.01297		

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DUP050307607

LANCASTER LABORATORIES

Run Name: 9626806T61 INSTRUMENT ID: 0547E

Tube: 15 2583209 BRS3DA 09/24/96 22:05
UP**,100-100,DF1,962685720001,8,,

ELEM	AVG (ppm)	%RSD	INTEGRATIONS #1	#2	#3	REREAD	REDI(
Ag	0.02071	1.699	0.02042	0.02110	0.02062		
Al	0.45415	0.515	0.45621	0.45160	0.45463		
As	0.02030	2.765	0.02013	0.01984	0.02093		
Ba	0.56287	0.378	0.56533	0.56173	0.56156		
Be	0.01016	0.402	0.01020	0.01012	0.01015		
Ca	67.32511	0.355	67.56819	67.31762	67.08953		
Cd	0.01031	1.760	0.01046	0.01036	0.01011		
Co	0.10360	0.343	0.10323	0.10393	0.10365		
Cr	0.02057	0.973	0.02034	0.02066	0.02070		
Cu	0.05221	0.522	0.05250	0.05219	0.05195		
Fe	0.38684	2.175	0.38130	0.39653	0.38269		
K	4.80761	0.662	4.84349	4.78260	4.79675		
Mg	28.52578	0.394	28.65058	28.49469	28.43208		
Mn	0.79004	0.343	0.79294	0.78960	0.78756		
Mo	0.20781	0.364	0.20798	0.20848	0.20699		
Na	53.46469	0.450	53.70262	53.22115	53.47031		
Ni	0.08648	0.146	0.08662	0.08644	0.08638		
Pb	0.01122	9.938	0.01247	0.01031	0.01090		
Sb	0.11054	1.518	0.11145	0.10860	0.11157		
Se	0.01123	9.006	0.01022	0.01122	0.01225		
Sn	0.55796	0.485	0.56107	0.55664	0.55615		
Ti	0.10412	0.284	0.10438	0.10418	0.10379		
Tl	0.01552	23.44	0.01161	0.01881	0.01615		
V	0.10301	0.257	0.10329	0.10286	0.10288		
Y	167878.32812	0.102	167794.00000	168076.00000	167765.00000		
Zn	0.05574	0.460	0.05593	0.05584	0.05545		

LANCASTER LABORATORIES

INSTRUMENT ID: 054

Run Name: 9626806T61

Tube: 16 2583209 BRS3DD 09/24/96 22:10
D***,100-100,DF1,962685720001,8,,

ELEM	AVG (ppm)	%RSD	INTEGRATIONS #1	#2	#3	REREAD	RED
✓Ag	0.00008	294.3	0.00013	0.00032	-0.00019		
✓Al	0.03304	7.311	0.03101	0.03571	0.03239		
As	-0.00077	58.31	-0.00045	-0.00128	-0.00056		
✓Ba	0.15204	0.707	0.15279	0.15252	0.15081		
✓Be	-0.00001	651.3	0.00001	-0.00016	0.00008		
✓Ca	67.30671	0.767	67.55967	67.64842	66.71205		
✓Cd	0.00021	48.66	0.00029	0.00025	0.00009		
✓Co	0.00295	10.39	0.00292	0.00328	0.00266		
✓Cr	0.00127	6.924	0.00136	0.00118	0.00126		
✓Cu	0.00103	9.959	0.00102	0.00114	0.00094		
✓Fe	0.18985	1.021	0.19009	0.19165	0.18780		
✓K	2.77619	0.396	2.78763	2.77529	2.76566		
✓Mg	27.88556	0.708	27.95882	28.03617	27.66169		
✓Mn	0.78263	0.704	0.78568	0.78595	0.77627		
Mo	0.01094	9.725	0.01216	0.01028	0.01037		
✓Na JBW 9-25-96	52.00482	0.358	52.09741	52.12677	51.79028	G	
✓Ni	0.01274	0.921	0.01262	0.01275	0.01285		
Pb	0.00013	599.2	-0.00026	-0.00039	0.00105		
✓Sb	-0.00185	58.92	-0.00311	-0.00132	-0.00112		
Se	0.00009	555.6	0.00011	0.00058	-0.00042		
Sn	0.00124	147.4	-0.00073	0.00158	0.00289		
Ti	0.00054	13.27	0.00060	0.00057	0.00046		
Tl	-0.00040	577.8	0.00193	-0.00042	-0.00271		
✓V	0.00104	16.54	0.00120	0.00086	0.00106		
Y	169756.32812	0.439	169466.00000	169199.00000	170604.00000		
✓Zn	0.01384	1.332	0.01378	0.01404	0.01369		

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LANCASTER LABORATORIES

Run Name: 9626806T61 INSTRUMENT ID: 0547

Tube: 17 2583209 BRS3DS 09/24/96 22:15
R***,100-100,DF1,962685720001,8,,

ELEM	AVG (ppm)	%RSD	INTEGRATIONS #1	#2	#3	REREAD	REDI
✓Ag	0.05215	0.448	0.05238	0.05191	0.05217		
✓Al	2.12663	0.613	2.13189	2.11178	2.13624		
As	0.04404	4.902	0.04459	0.04587	0.04166		
✓Ba	2.13293	0.282	2.13099	2.12811	2.13969		
✓Be	0.04988	0.396	0.04973	0.04982	0.05011		
✓Ca	70.40019	0.408	70.46321	70.08609	70.65127		
✓Cd	0.05005	0.815	0.05001	0.04966	0.05047		
✓Co	0.49080	0.487	0.49276	0.48813	0.49150		
✓Cr	0.19887	0.286	0.19898	0.19826	0.19938		
✓Cu	0.25406	0.354	0.25433	0.25305	0.25479		
✓Fe	1.22047	1.157	1.23432	1.20608	1.22101		
✓K	6.85321	0.379	6.85401	6.82680	6.87883		
✓Mg	29.51737	0.380	29.55412	29.39134	29.60665		
✓Mn	1.25780	0.292	1.25741	1.25433	1.26165		
Mo	2.01472	0.754	1.99942	2.01494	2.02981		
✓Na	55.60460	0.562	55.62997	55.27972	55.90410	G	
✓Ni	0.50287	0.441	0.50210	0.50114	0.50538		
Pb	0.02051	4.974	0.02123	0.01935	0.02097		
✓Sb	0.49832	0.456	0.49603	0.49835	0.50058		
Se	0.01041	12.38	0.00906	0.01053	0.01163		
Sn	4.10938	0.271	4.10890	4.09846	4.12077		
Ti	1.02380	0.307	1.02337	1.02088	1.02714		
Tl	0.04606	8.618	0.04151	0.04883	0.04784		
✓V	0.49997	0.336	0.49993	0.49831	0.50167		
Y	168349.00000	0.156	168197.00000	168654.00000	168196.00000		
✓Zn	0.50979	0.303	0.50909	0.50871	0.51156		

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LANCASTER LABORATORIES

INSTRUMENT ID: 05

Run Name: 9626806T61

Tube: 18 2583209 BRS3DL 09/24/96 22:20
UL**.100-100,DF5,962685720001,8,,

FLEM	AVG (ppm)	%RSD	INTEGRATIONS #1	#2	#3	REREAD	RE
Ag	-0.00010	181.4	-0.00010	0.00008	-0.00029		
Al	0.03867	4.160	0.03686	0.03923	0.03992		
As	-0.00033	314.5	-0.00140	-0.00027	0.00068		
Ba	0.03053	0.546	0.03035	0.03054	0.03068		
Be	-0.00058	9.378	-0.00064	-0.00055	-0.00054		
Ca	13.02253	0.552	12.93959	13.05917	13.06884		
Cd	0.00035	41.53	0.00051	0.00026	0.00026		
Co	-0.00049	24.49	-0.00054	-0.00036	-0.00059		
Cr	0.00032	20.61	0.00025	0.00034	0.00038		
Cu	-0.00061	14.87	-0.00052	-0.00070	-0.00059		
Fe	0.07369	6.408	0.06846	0.07498	0.07763		
K	0.51974	0.412	0.51837	0.52221	0.51865		
Mg	5.32744	0.632	5.28887	5.35099	5.34247		
Mn	0.15183	0.575	0.15082	0.15239	0.15228		
Mo	0.00389	56.80	0.00635	0.00324	0.00207		
Na	10.21795	1.589	10.03613	10.34867	10.26904		
Ni	0.00106	81.34	0.00199	0.00092	0.00027		
Pb	0.00284	13.53	0.00248	0.00325	0.00279		
Sb	0.00140	58.16	0.00133	0.00224	0.00061		
Se	0.00096	166.1	0.00229	-0.00080	0.00139		
Sn	0.00221	17.99	0.00241	0.00247	0.00175		
Ti	-0.00003	524.9	0.00014	-0.00018	-0.00005		
Tl	-0.00732	37.10	-0.00489	-0.00683	-0.01026		
V	0.00051	30.03	0.00037	0.00067	0.00050		
Y	164289.00000	0.429	163483.00000	164587.00000	164797.00000		
Zn	0.00540	4.189	0.00536	0.00565	0.00520		

LANCASTER LABORATORIES

INSTRUMENT ID: 0547

Run Name: 9626806T61

Tube: 19 2583205 BRA5S 09/24/96 22:25
****,100-100,DF1,962685720001,8,,

ELEM	AVG (ppm)	%RSD	INTEGRATIONS #1	#2	#3	REREAD	REDI
X Ag	0.00015	78.87	0.00005	0.00028	0.00011		
X Al	0.04947	3.672	0.04864	0.05155	0.04821		
As	-0.00154	129.4	-0.00204	0.00065	-0.00325		
X Ba	0.02923	0.622	0.02933	0.02935	0.02902		
X Be	-0.00008	103.9	-0.00002	-0.00017	-0.00003		
X Ca	280.44287	0.401	281.39221	280.73797	279.19842		
X Cd	0.00029	38.61	0.00028	0.00018	0.00041		
X Co	0.00108	26.05	0.00091	0.00093	0.00141		
X Cr	-0.00007	513.1	0.00031	-0.00049	-0.00004		
X Cu	0.00028	82.60	0.00001	0.00045	0.00039		
X Fe	0.12530	3.457	0.12851	0.12702	0.12037		
X K	3.44840	0.574	3.46929	3.44602	3.42988		
X Mg	94.94965	0.499	95.36868	95.04567	94.43459		
X Mn	0.33000	0.468	0.33121	0.33053	0.32825		
Mo	0.00083	76.18	0.00124	0.00115	0.00010		
X Na	45.39560	0.432	45.59362	45.39186	45.20131		
X Ni	0.00881	0.148	0.00882	0.00880	0.00880		
Pb	0.00027	182.9	0.00070	-0.00028	0.00042		
X Sb	-0.00143	103.2	-0.00070	-0.00315	-0.00046		
Se	0.02402	2.775	0.02478	0.02370	0.02357		
Sn	0.00240	33.15	0.00230	0.00166	0.00325		
Ti	0.00092	15.25	0.00085	0.00108	0.00082		
Tl	-0.00239	23.70	-0.00175	-0.00281	-0.00263		
X V	0.00047	50.71	0.00045	0.00023	0.00071		
Y	167785.00000	0.131	167535.00000	167866.00000	167954.00000		
X Zn	0.01484	0.963	0.01500	0.01478	0.01473		

LANCASTER LABORATORIES

Run Name: 9626806T61 INSTRUMENT ID: 054

Tube: 20 2583206 BRA4D 09/24/96 22:30
****,100-100,DF1,962685720001,8,,

ELEM	AVG (ppm)	%RSD	INTEGRATIONS #1	#2	#3	REREAD	RED
X Ag	-0.00038	42.40	-0.00048	-0.00047	-0.00019		
X Al	0.34437	0.804	0.34744	0.34207	0.34359		
As	-0.00183	34.89	-0.00133	-0.00255	-0.00161		
X Ba	0.05566	0.272	0.05583	0.05555	0.05559		
X Be	-0.00006	116.0	-0.00011	0.00002	-0.00009		
X Ca	205.54829	0.295	205.62783	204.90425	206.11280		
X Cd	0.00024	39.02	0.00013	0.00032	0.00026		
X Co	0.00512	5.751	0.00525	0.00478	0.00532		
X Cr	0.00060	68.75	0.00012	0.00088	0.00080		
X Cu	0.00168	17.37	0.00135	0.00177	0.00191		
X Fe	1.02805	0.128	1.02816	1.02931	1.02668		
X K	3.98313	0.412	4.00125	3.96915	3.97900		
X Mg	82.11156	0.278	82.19277	81.85302	82.28889		
X Mn	0.66318	0.245	0.66394	0.66130	0.66428		
Mo	0.00648	4.359	0.00652	0.00673	0.00617		
Na	62.07401	0.235	62.22286	61.93017	62.06900	G	
X Ni	0.00546	1.682	0.00543	0.00539	0.00557		
Pb	0.00035	162.3	0.00052	-0.00028	0.00081		
X Sb	-0.00255	19.37	-0.00305	-0.00205	-0.00256		
Se	0.00000	93968	0.00020	0.00171	-0.00190		
Sn	0.00032	291.8	-0.00045	0.00138	0.00005		
Ti	0.01067	5.837	0.01051	0.01014	0.01136		
Tl	-0.00072	363.5	-0.00242	0.00230	-0.00204		
X V	0.00122	21.47	0.00092	0.00140	0.00136		
Y	167530.00000	0.284	167140.00000	168062.00000	167388.00000		
X Zn	0.00961	0.882	0.00953	0.00960	0.00970		

LANCASTER LABORATORIES

Run Name: 9626806T61 INSTRUMENT ID: 05478

Tube: 21 2583207 BR4DD 09/24/96 22:35
****,100-100,DF1,962685720001,8,,

ELEM	AVG (ppm)	%RSD	INTEGRATIONS #1	#2	#3	REREAD	REDIG
X Ag	-0.00013	226.5	0.00018	-0.00016	-0.00043		
X Al	0.84648	0.780	0.85281	0.84698	0.83963		
As	-0.00086	28.37	-0.00079	-0.00066	-0.00114		
X Ba	0.06556	0.218	0.06548	0.06548	0.06573		
X Be	-0.00018	19.62	-0.00019	-0.00014	-0.00020		
X Ca	202.37734	0.145	202.66539	202.07684	202.38983		
X Cd	0.00036	50.96	0.00056	0.00032	0.00020		
X Co	0.00559	6.173	0.00595	0.00555	0.00527		
X Cr	0.00145	29.92	0.00184	0.00152	0.00098		
X Cu	0.00296	5.235	0.00296	0.00280	0.00311		
X Fe	1.85463	0.506	1.86347	1.84476	1.85565		
X K	4.08196	0.143	4.08774	4.08213	4.07600		
X Mg	80.82465	0.101	80.78174	80.77294	80.91927		
X Mn	0.68881	0.113	0.68896	0.68796	0.68951		
Mo	0.00593	2.846	0.00585	0.00581	0.00612		
Na	64.23705	0.149	64.12642	64.29570	64.28902	G	
X Ni	0.00611	2.235	0.00626	0.00610	0.00598		
Pb	0.00016	367.7	0.00073	-0.00047	0.00023		
X Sb	-0.00053	49.56	-0.00042	-0.00083	-0.00034		
Se	0.00077	72.52	0.00099	0.00119	0.00013		
Sn	0.00068	157.1	0.00092	0.00163	-0.00049		
Ti	0.02759	3.855	0.02855	0.02778	0.02645		
Tl	-0.00183	145.7	-0.00015	-0.00492	-0.00043		
X V	0.00258	13.59	0.00292	0.00260	0.00222		
Y	165510.32812	0.242	165679.00000	165800.00000	165052.00000		
X Zn	0.01331	1.391	0.01342	0.01341	0.01310		

DUP050307614

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LANCASTER LABORATORIES

Run Name: 9626806T61 INSTRUMENT ID: 05478

Tube: 22 CCV 09/24/96 22:40

ITEM	AVG (ppm)	%RSD	INTEGRATIONS #1	#2	#3	REREAD	REDIG
Ag	0.51295	2.303	0.52656	0.50530	0.50699		
Al	25.73208	2.494	26.47300	25.37452	25.34871		
As	0.51611	2.020	0.52815	0.51003	0.51015		
Ba	0.50644	2.285	0.51980	0.49990	0.49962		
Be	0.51220	2.225	0.52535	0.50509	0.50616		
Ca	25.99452	2.320	26.69038	25.62315	25.67003		
Cd	0.50863	2.208	0.52156	0.50131	0.50302		
Co	0.49243	2.366	0.50588	0.48520	0.48623		
Cr	0.50482	2.271	0.51805	0.49775	0.49867		
Cu	0.51615	2.400	0.53045	0.50908	0.50891		
Fe	25.11793	2.362	25.80303	24.76909	24.78168		
K	26.22091	2.261	26.90563	25.88622	25.87087		
Mg	25.55746	2.385	26.26052	25.17593	25.23593		
Mn	0.50950	2.275	0.52288	0.50252	0.50311		
Mo	0.51152	1.595	0.52093	0.50630	0.50734		
Na	26.41866	2.319	27.12618	26.06829	26.06150		
Ni	0.51055	2.456	0.52497	0.50217	0.50452		
Pb	0.50194	1.311	0.50952	0.49770	0.49859		
Sb	0.47096	0.837	0.47524	0.46748	0.47017		
Se	0.50620	1.095	0.51258	0.50350	0.50252		
Sn	0.50011	2.470	0.51437	0.49286	0.49308		
Ti	0.51563	2.321	0.52945	0.50879	0.50864		
Tl	0.50935	0.444	0.51183	0.50740	0.50880		
V	0.51050	2.231	0.52364	0.50341	0.50445		
Y	163520.00000	2.323	159135.00000	165804.00000	165621.00000		
Zn	0.51377	2.379	0.52786	0.50603	0.50740		

DUP050307615

LANCASTER LABORATORIES

Run Name: 9626806T61 INSTRUMENT ID: 0547

Tube: 23 CCB 09/24/96 22:45

ELEM	AVG (ppm)	%RSD	INTEGRATIONS #1	#2	#3	REREAD	REDI
Ag	0.00002	517.8	0.00004	0.00012	-0.00010		
Al	0.01948	28.05	0.02527	0.01440	0.01879		
As	-0.00006	633.7	-0.00021	0.00039	-0.00037		
Ba	0.00004	62.65	0.00007	0.00001	0.00004		
Be	0.00000	2500.	-0.00008	0.00007	0.00002		
Ca	0.11384	2.672	0.11699	0.11360	0.11092		
Cd	0.00006	367.4	-0.00020	0.00012	0.00029		
Co	-0.00001	2247.	0.00038	-0.00048	0.00004		
Cr	-0.00025	124.2	-0.00028	-0.00055	0.00007		
Cu	-0.00099	23.82	-0.00078	-0.00125	-0.00094		
Fe	0.02903	25.23	0.02146	0.02952	0.03609		
K	0.04907	2.356	0.04899	0.05027	0.04796		
Mg	0.03539	5.400	0.03755	0.03392	0.03470		
Mn	0.00009	18.32	0.00011	0.00007	0.00010		
Mo	0.00075	134.3	0.00154	0.00111	-0.00039		
Na	0.16356	12.61	0.18707	0.14849	0.15511		
Ni	-0.00077	127.8	0.00029	-0.00166	-0.00096		
Pb	0.00041	290.5	-0.00096	0.00122	0.00097		
Sb	0.00094	134.5	0.00227	0.00079	-0.00024		
Se	0.00022	892.7	0.00230	-0.00162	-0.00001		
Sn	0.00122	54.53	0.00129	0.00184	0.00052		
Ti	0.00026	111.6	0.00012	0.00061	0.00006		
Tl	0.00063	568.4	-0.00332	0.00146	0.00377		
V	0.00000	1048.	0.00008	0.00003	-0.00009		
Y	168330.00000	0.694	167003.00000	168776.00000	169211.00000		
Zn	0.00012	149.2	0.00011	-0.00005	0.00031		

LANCASTER LABORATORIES

Run Name: 9626806T61 INSTRUMENT ID: 05478

Tube: 24 2583208 DR545 09/24/96 22:49
+***,100-100,DF1,962685720001,8,,

ELEM	AVG (ppm)	%RSD	INTEGRATIONS #1	#2	#3	REREAD	REDIG
X Ag	0.00044	53.45	0.00029	0.00071	0.00031		
X Al	0.04901	1.255	0.04854	0.04971	0.04879		
As	-0.00008	1808.	-0.00177	0.00111	0.00041		
X Ba	0.10141	0.605	0.10072	0.10160	0.10190		
X Be	-0.00004	161.8	0.00000	-0.00011	0.00000		
X Ca	137.78384	0.206	137.47343	137.84457	138.03350		
X Cd	0.00022	19.32	0.00018	0.00026	0.00024		
X Co	0.00426	3.847	0.00420	0.00444	0.00413		
X Cr	0.00053	48.35	0.00045	0.00082	0.00032		
X Cu	0.00033	89.75	0.00022	0.00067	0.00010		
X Fe	0.11578	8.735	0.10983	0.12746	0.11005		
X K	2.23712	0.457	2.22664	2.23762	2.24711		
X Mg	55.88039	0.359	55.66714	55.90744	56.06658		
X Mn	0.94599	0.342	0.94246	0.94667	0.94883		
Mo	0.00199	24.86	0.00187	0.00157	0.00254		
X Na	35.85942	0.380	35.71160	35.98054	35.88611		
X Ni	0.00932	7.943	0.00847	0.00986	0.00961		
Pb	-0.00009	539.3	-0.00005	0.00038	-0.00060		
X Sb	-0.00116	95.66	-0.00166	-0.00195	0.00011		
Se	0.00465	25.09	0.00598	0.00414	0.00382		
Sn	0.00181	61.64	0.00191	0.00288	0.00065		
Ti	0.00060	21.25	0.00061	0.00072	0.00047		
Tl	-0.00001	7681.	-0.00123	0.00064	0.00055		
X V	0.00106	36.22	0.00088	0.00151	0.00080		
Y	167364.67187	0.281	167847.00000	166904.00000	167343.00000		
X Zn	0.01162	0.373	0.01157	0.01163	0.01166		

LANCASTER LABORATORIES

Run Name: 9626806T61 INSTRUMENT ID: 0547

Tube: 25 2583210 DRA3S 09/24/96 22:54
****,100-100,DF1;962685720001,8,,

ELEM	AVG (ppm)	%RSD	INTEGRATIONS #1	#2	#3	REREAD	REDI
X Ag	0.00043	137.8	-0.00020	0.00052	0.00099		
X Al	2.63741	1.949	2.57895	2.67559	2.65769		
As	0.00190	49.93	0.00191	0.00284	0.00094		
X Ba	0.07998	1.488	0.07862	0.08048	0.08083		
X Be	0.00021	117.3	0.00049	0.00013	0.00000		
X Ca	244.61120	2.011	239.01487	246.56326	248.25546		
X Cd	0.00025	67.90	0.00013	0.00018	0.00045		
X Co	0.00357	14.97	0.00295	0.00384	0.00391		
X Cr	0.00177	29.88	0.00120	0.00187	0.00225		
X Cu	0.00136	10.32	0.00124	0.00133	0.00152		
X Fe	2.00778	2.577	1.95344	2.01343	2.05646		
X K	2.89321	1.063	2.85902	2.90196	2.91864		
X Mg	98.49494	1.697	96.58389	99.21250	99.68842		
X Mn	0.40961	1.803	0.40119	0.41267	0.41498		
Mo	0.00467	14.28	0.00391	0.00517	0.00494		
X Na	47.80621	1.007	47.25038	48.07551	48.09273		
X Ni	0.00875	7.698	0.00915	0.00797	0.00913		
Pb	0.00183	24.74	0.00220	0.00132	0.00197		
Y Sb	0.00040	232.1	-0.00056	0.00130	0.00047		
Se	0.02173	9.065	0.01946	0.02273	0.02300		
Sn	0.00293	15.69	0.00276	0.00346	0.00258		
Ti	0.06660	4.101	0.06422	0.06958	0.06601		
Tl	-0.00189	154.5	-0.00145	-0.00502	0.00079		
X V	0.00402	7.328	0.00369	0.00409	0.00427		
Y	167917.67187	1.570	170859.00000	167130.00000	165764.00000		
X Zn	0.01505	1.949	0.01472	0.01516	0.01528		

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LANCASTER LABORATORIES

Run Name: 962680616I

INSTRUMENT ID: 0547

Time: 26 2583823 BRAD 09/24/96 22:59

****.100-100.DF1,962685720001,8,,

ELEM	AVG (ppm)	%RSD	INTEGRATIONS #1	#2	#3	REREAD	REDI
X Ag	0.00020	107.3	0.00000	0.00016	0.00042		
X Al	0.03663	8.441	0.04011	0.03559	0.03419		
As	-0.00029	596.1	-0.00231	0.00061	0.00081		
X Ba	0.11852	0.740	0.11945	0.11840	0.11771		
X Be	-0.00009	109.8	-0.00020	0.00000	-0.00007		
X Ca	72.66211	0.723	73.23554	72.54710	72.20368		
X Cd	0.00002	546.9	-0.00013	0.00004	0.00016		
X Co	0.00054	57.86	0.00058	0.00021	0.00083		
X Cr	-0.00011	100.3	-0.00007	-0.00002	-0.00025		
X Cu	-0.00126	8.167	-0.00132	-0.00114	-0.00132		
X Fe	0.35827	0.888	0.35967	0.36052	0.35463		
X K	5.55003	0.806	5.59495	5.54965	5.50548		
X Mg	30.16716	0.713	30.39034	30.15035	29.96080		
X Mn	0.24957	0.714	0.25151	0.24921	0.24800		
Mo	0.00832	1.437	0.00831	0.00820	0.00844		
Na	51.04218	0.678	51.42179	50.96075	50.74400	G	
X Ni	0.00159	7.312	0.00146	0.00162	0.00169		
Pb	0.00068	129.3	0.00074	-0.00023	0.00152		
X Sb	-0.00109	27.42	-0.00076	-0.00115	-0.00135		
Se	0.00079	108.8	0.00000	0.00171	0.00065		
Sn	0.00098	87.60	0.00109	0.00007	0.00178		
Ti	0.00029	34.13	0.00019	0.00039	0.00028		
Tl	-0.00035	720.6	0.00045	0.00170	-0.00323		
X V	0.00058	37.00	0.00035	0.00061	0.00078		
Y	167361.32812	0.622	166173.00000	167796.00000	168115.00000		
X Zn	0.00969	0.811	0.00978	0.00963	0.00967		

LANCASTER LABORATORIES

Run Name: 9626806T61 INSTRUMENT ID: 0547

Tube: 27 2583824 BRA2S 09/24/96 23:04
****,100-100,DF1,962685720001,8,,

ELEM	AVG (ppm)	%RSD	INTEGRATIONS #1	#2	#3	REREAD	REDI
$\overline{X}$ Ag	0.00032	108.0	0.00066	-0.00004	0.00035		
$\overline{X}$ Al	0.27574	0.061	0.27586	0.27582	0.27555		
$\overline{X}$ As	-0.00049	377.1	0.00124	-0.00026	-0.00246		
$\overline{X}$ Ba	0.07801	0.413	0.07838	0.07787	0.07778		
$\overline{X}$ Be	-0.00021	38.53	-0.00028	-0.00012	-0.00024		

DUP050307620

LANCASTER LABORATORIES

Run Name: 9626806T61 INSTRUMENT ID: 0547

Tube: 28 2583825 BRAID 09/24/96 23:09
****,100-100,DF1.962685720001,8,.

ELEM	AVG (ppm)	%RSD	INTEGRATIONS #1	#2	#3	REREAD	REDIC
X Ag	0.00040	32.81	0.00026	0.00052	0.00041		
X Al	0.03019	3.470	0.02914	0.03019	0.03124		
As	-0.00010	2349.	-0.00086	0.00268	-0.00213		
X Ba	0.12122	0.613	0.12045	0.12128	0.12193		
X Be	0.00013	49.27	0.00021	0.00008	0.00012		
X Ca	96.62507	0.680	95.88851	96.83293	97.15376		
X Cd	0.00055	13.53	0.00053	0.00063	0.00049		
X Co	0.00101	26.90	0.00101	0.00074	0.00128		
X Cr	0.00027	40.90	0.00025	0.00039	0.00017		
X Cu	-0.00024	50.82	-0.00029	-0.00033	-0.00010		
X Fe	0.36489	1.210	0.35989	0.36827	0.36651		
X K	2.94537	0.243	2.94326	2.93948	2.95337		
X Mg	29.44571	0.529	29.27752	29.47409	29.58551		
X Mn	0.72579	0.711	0.72005	0.72726	0.73006		
Mo	0.00745	11.37	0.00806	0.00648	0.00781		
X Na	48.87559	0.249	48.79664	48.81419	49.01594		
X Ni	0.00286	20.18	0.00228	0.00286	0.00344		
Pb	0.00145	21.05	0.00135	0.00180	0.00121		
X Sb	-0.00143	68.55	-0.00243	-0.00137	-0.00047		
Se	-0.00085	211.1	-0.00204	-0.00174	0.00122		
Sn	0.00093	200.5	-0.00122	0.00214	0.00189		
Ti	0.00002	352.9	0.00010	-0.00006	0.00003		
Tl	-0.00192	176.4	0.00017	-0.00011	-0.00583		
X V	0.00038	100.5	0.00000	0.00077	0.00038		
Y	170530.32812	0.533	171572.00000	169894.00000	170125.00000		
X Zn	0.02222	0.539	0.02209	0.02224	0.02232		

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LANCASTER LABORATORIES

Run Name: 9626806T61 INSTRUMENT ID: 05478

Tube: 29 2583826 BRAIS 09/24/96 23:14
****,100-100,DF1,962685720001,8,,

ELEM	AVG (ppm)	%RSD	INTEGRATIONS #1	#2	#3	REREAD	REDIG
X Ag	0.00043	99.21	0.00000	0.00086	0.00045		
X Al	0.22354	1.108	0.22626	0.22295	0.22141		
As	-0.00040	36.30	-0.00023	-0.00052	-0.00044		
X Ba	0.07660	0.341	0.07689	0.07640	0.07651		
X Be	0.00003	44.43	0.00005	0.00003	0.00001		
X Ca	155.89045	0.090	155.82397	155.79457	156.05284		
X Cd	0.00023	37.67	0.00033	0.00020	0.00016		
X Co	0.00037	81.13	0.00003	0.00048	0.00060		
X Cr	0.00096	25.65	0.00067	0.00112	0.00108		
X Cu	-0.00065	51.14	-0.00092	-0.00028	-0.00076		
X Fe	0.40792	1.817	0.40193	0.41621	0.40563		
X K	1.60855	0.358	1.61204	1.60189	1.61170		
X Mg	55.77170	0.095	55.82098	55.71517	55.77894		
X Mn	0.02354	0.369	0.02362	0.02345	0.02355		
Mo	0.00061	46.84	0.00094	0.00041	0.00048		
X Na	40.82687	0.176	40.89031	40.84182	40.74847		
X Ni	0.00183	28.00	0.00222	0.00125	0.00203		
Pb	-0.00027	44.63	-0.00039	-0.00026	-0.00015		
X Sb	-0.00091	122.8	-0.00213	-0.00067	0.00007		
Se	0.15390	0.490	0.15303	0.15424	0.15443		
Sn	0.00083	52.96	0.00108	0.00032	0.00108		
Ti	0.00711	5.993	0.00684	0.00689	0.00760		
Tl	-0.00056	343.5	-0.00100	-0.00222	0.00154		
X V	0.00131	11.95	0.00118	0.00127	0.00149		
Y	167837.00000	0.221	167568.00000	168262.00000	167681.00000		
X Zn	0.01268	1.122	0.01285	0.01261	0.01259		

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DUP050307622

LANCASTER LABORATORIES

Run Name: 962680GT61 INSTRUMENT ID: 0547

Tube: 30 2583827 BRAF1 09/24/96 23:19
****,100-100,DF1,962685720001,8,,

ELEM	AVG (ppm)	%RSD	INTEGRATIONS #1	#2	#3	REREAD	REDI
X Ag	0.00031	54.29	0.00026	0.00050	0.00017		
X Al	0.02393	5.600	0.02239	0.02450	0.02488		
As	-0.00036	316.8	0.00080	-0.00039	-0.00151		
X Ba	0.00144	3.019	0.00140	0.00148	0.00145		
X Be	0.00016	50.95	0.00026	0.00009	0.00013		
X Ca	0.14265	1.001	0.14429	0.14205	0.14163		
X Cd	0.00018	161.3	-0.00005	0.00051	0.00009		
X Co	-0.00005	885.4	0.00002	0.00041	-0.00061		
X Cr	0.00027	115.4	0.00007	0.00064	0.00011		
X Cu	-0.00107	15.63	-0.00090	-0.00123	-0.00108		
X Fe	0.04518	17.93	0.03869	0.05427	0.04259		
X K	0.05603	16.52	0.06081	0.04536	0.06193		
X Mg	0.03819	2.053	0.03893	0.03827	0.03737		
X Mn	0.00060	13.68	0.00060	0.00069	0.00052		
Mo	-0.00073	23.85	-0.00068	-0.00093	-0.00059		
X Na	0.28660	16.16	0.30848	0.31792	0.23339		
X Ni	0.00003	770.4	-0.00028	0.00016	0.00022		
Pb	0.00092	56.62	0.00032	0.00118	0.00127		
X Sb	-0.00146	46.46	-0.00217	-0.00139	-0.00081		
Se	0.00179	38.77	0.00255	0.00119	0.00163		
Sn	0.00072	131.6	0.00027	0.00008	0.00183		
Ti	0.00035	32.15	0.00047	0.00033	0.00025		
Tl	-0.00147	40.38	-0.00082	-0.00161	-0.00199		
X V	0.00053	38.41	0.00046	0.00077	0.00038		
Y	170858.32812	0.300	171388.00000	170362.00000	170825.00000		
X Zn	0.00829	0.664	0.00823	0.00833	0.00831		

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LANCASTER LABORATORIES

Run Name: 9626806T61 INSTRUMENT ID: 05478

Tube: 31 CRI 09/24/96 23:24

ELEM	AVG (ppm)	%RSD	INTEGRATIONS #1	#2	#3	REREAD	REDIC
Ag	0.02082	0.814	0.02100	0.02079	0.02067		
Al	0.02252	5.228	0.02380	0.02226	0.02149		
As	0.01953	3.167	0.02025	0.01915	0.01920		
Ba	0.00012	12.62	0.00011	0.00011	0.00014		
Be	0.01021	0.060	0.01021	0.01022	0.01020		
Ca	0.10133	4.221	0.10540	0.09687	0.10174		
Cd	0.01041	1.988	0.01021	0.01040	0.01062		
Co	0.09957	0.863	0.09981	0.09862	0.10029		
Cr	0.02079	1.339	0.02079	0.02051	0.02107		
Cu	0.05044	0.080	0.05048	0.05042	0.05041		
Fe	0.03517	11.12	0.03516	0.03126	0.03909		
K	0.05167	13.70	0.05236	0.04427	0.05837		
Mg	0.02707	6.036	0.02775	0.02521	0.02826		
Mn	0.03102	0.472	0.03115	0.03086	0.03104		
Mo	-0.00047	54.28	-0.00066	-0.00058	-0.00018		
Na	0.19095	12.19	0.16800	0.19029	0.21455		
Ni	0.08367	0.733	0.08436	0.08350	0.08316		
Pb	0.00643	2.215	0.00651	0.00652	0.00627		
Sb	0.11623	1.805	0.11399	0.11654	0.11815		
Se	0.00901	7.077	0.00835	0.00962	0.00908		
Sn	0.00132	83.65	0.00248	0.00027	0.00122		
Ti	0.00005	124.2	0.00005	-0.00001	0.00013		
Tl	0.01848	24.07	0.01337	0.02058	0.02149		
V	0.10542	0.551	0.10545	0.10483	0.10599		
Y	168668.67187	0.372	168823.00000	169205.00000	167978.00000		
Zn	0.04180	0.264	0.04192	0.04171	0.04176		

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LANCASTER LABORATORIES

Run Name: 9626806T61 INSTRUMENT ID: 05478

Tube: 32 ICSA 09/24/96 23:29

Elem	AVG (ppm)	%RSD	INTEGRATIONS #1	#2	#3	REREAD	REDIG
Ag	0.00029	25.52	0.00020	0.00035	0.00031	____	____
Al	530.67584	0.542	533.10260	527.49487	531.43011	____	____
As	-0.00141	82.23	-0.00228	-0.00185	-0.00009	____	____
Ba	0.00791	0.982	0.00794	0.00782	0.00796	____	____
Be	0.00152	3.573	0.00154	0.00156	0.00146	____	____
Ca	520.78656	0.535	523.27294	517.77099	521.31573	____	____
Cd	0.00116	17.20	0.00136	0.00117	0.00096	____	____
Co	-0.00082	35.54	-0.00097	-0.00101	-0.00048	____	____
Cr	0.00688	1.416	0.00683	0.00681	0.00699	____	____
Cu	-0.00220	5.759	-0.00210	-0.00234	-0.00216	____	____
Fe	206.64642	0.494	207.70159	205.66278	206.57490	____	____
K	0.04599	6.450	0.04922	0.04338	0.04537	____	____
Mg	557.00427	0.453	559.48828	554.43414	557.09039	____	____
Mn	0.00415	1.157	0.00421	0.00413	0.00412	____	____
Mo	-0.00068	61.80	-0.00032	-0.00115	-0.00057	____	____
Na	0.26587	13.35	0.28127	0.22527	0.29107	____	____
Ni	0.00591	5.563	0.00629	0.00575	0.00570	____	____
Pb	0.00051	141.4	0.00018	0.00000	0.00134	____	____
Sb	-0.00277	55.56	-0.00102	-0.00393	-0.00334	____	____
Se	-0.00028	584.2	0.00120	-0.00210	0.00003	____	____
Sn	0.00021	642.8	-0.00135	0.00086	0.00112	____	____
Sr	-0.00137	6.676	-0.00148	-0.00131	-0.00132	____	____
Ti	-0.00274	83.83	-0.00450	-0.00359	-0.00013	____	____
V	-0.00286	8.947	-0.00256	-0.00302	-0.00299	____	____
Y	158261.00000	0.600	157173.00000	158924.00000	158686.00000	____	____
Zn	0.00469	2.742	0.00459	0.00484	0.00464	____	____

DUP050307625

LANCASTER LABORATORIES

Run Name: 9626806T61 INSTRUMENT ID: 0547E

Tube: 33 ICSAB 09/24/96 23:34

ELEM	AVG (ppm)	%RSD	INTEGRATIONS #1	#2	#3	REREAD	REDIG
Ag	0.21486	0.380	0.21456	0.21424	0.21579		
Al	525.61828	0.438	525.34515	523.46441	528.04534		
As	0.10247	2.886	0.09940	0.10531	0.10270		
Ba	0.52672	0.315	0.52685	0.52500	0.52831		
Be	0.48300	0.249	0.48216	0.48245	0.48437		
Ca	510.84393	0.370	509.60488	509.90307	513.02380		
Cd	0.95240	0.288	0.95030	0.95138	0.95551		
Co	0.46405	0.335	0.46277	0.46360	0.46579		
Cr	0.49380	0.367	0.49221	0.49341	0.49577		
Cu	0.54133	0.398	0.54143	0.53912	0.54344		
Fe	202.32991	0.354	201.90391	201.92813	203.15766		
K	0.04505	20.65	0.05488	0.04388	0.03639		
Mg	547.77459	0.370	547.10620	546.16296	550.05456		
Mn	0.49415	0.275	0.49358	0.49316	0.49570		
Mo	-0.00026	170.2	-0.00031	-0.00068	0.00021		
Na	0.23238	25.89	0.22549	0.29571	0.17594		
Ni	0.95717	0.430	0.95459	0.95499	0.96191		
Pb	0.05010	1.062	0.05018	0.05059	0.04953		
Sb	0.60317	0.530	0.60211	0.60064	0.60676		
Se	0.04607	4.770	0.04733	0.04353	0.04735		
Sn	-0.00093	235.9	0.00159	-0.00201	-0.00236		
Ti	-0.00128	11.96	-0.00145	-0.00118	-0.00120		
Tl	0.09747	2.249	0.09502	0.09815	0.09925		
V	0.50166	0.222	0.50185	0.50046	0.50267		
Y	160215.32812	0.319	159954.00000	160805.00000	159887.00000		
Zn	1.01058	0.340	1.00909	1.00813	1.01452		

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LANCASTER LABORATORIES

Run Name: 9626806T61 INSTRUMENT ID: 05478

Tube: 34 CCV 09/24/96 23:39

ELEM	AVG (ppm)	%RSD	INTEGRATIONS #1	#2	#3	REREAD	REDIG
Ag	0.49844	0.899	0.50360	0.49622	0.49550		
Al	25.04235	0.985	25.32475	24.86749	24.93480		
As	0.50335	1.001	0.50743	0.50491	0.49772		
Ba	0.49383	0.797	0.49837	0.49160	0.49151		
Be	0.49749	0.917	0.50237	0.49679	0.49332		
Ca	25.24721	0.988	25.51770	25.19831	25.02563		
Cd	0.49716	1.039	0.50270	0.49632	0.49247		
Co	0.47270	0.997	0.47757	0.47238	0.46816		
Cr	0.49158	0.901	0.49630	0.49094	0.48750		
Cu	0.49987	0.949	0.50533	0.49668	0.49761		
Fe	24.05558	0.908	24.28882	24.02210	23.85581		
K	25.67176	1.037	25.97438	25.47349	25.56742		
Mg	24.78173	1.017	25.06969	24.67432	24.60118		
Mn	0.49477	0.864	0.49948	0.49369	0.49113		
Mo	0.49909	0.426	0.49858	0.50143	0.49727		
Na	25.72161	0.995	26.00544	25.50789	25.65150		
Ni	0.50057	1.028	0.50651	0.49788	0.49732		
Pb	0.49044	0.537	0.49333	0.48982	0.48817		
Sb	0.45889	0.362	0.45699	0.46003	0.45966		
Se	0.49393	0.478	0.49498	0.49558	0.49122		
Sn	0.48616	0.751	0.49035	0.48449	0.48364		
Ti	0.49934	0.737	0.50349	0.49806	0.49647		
Tl	0.49929	1.057	0.49405	0.49920	0.50461		
V	0.49621	0.806	0.50073	0.49477	0.49312		
Y	167860.00000	0.715	166528.00000	168190.00000	168862.00000		
Zn	0.50093	0.930	0.50609	0.49969	0.49702		

LANCASTER LABORATORIES

Run Name: 9626806T61 INSTRUMENT ID: 05478

Tube: 35 CCB 09/24/96 23:44

ELEM	AVG (ppm)	%RSD	INTEGRATIONS #1	#2	#3	REREAD	REDIG
Ag	0.00014	198.2	0.00047	0.00003	-0.00007		
Al	0.07520	7.872	0.07704	0.07999	0.06858		
As	-0.00106	210.7	-0.00108	-0.00328	0.00118		
Ba	0.00005	108.0	0.00011	0.00006	0.00000		
Be	0.00015	69.38	0.00019	0.00003	0.00024		
Ca	0.13536	5.153	0.14132	0.13707	0.12769		
Cd	0.00021	6.771	0.00020	0.00022	0.00021		
Co	-0.00023	120.1	-0.00040	0.00008	-0.00038		
Cr	-0.00001	1193.	0.00016	-0.00014	-0.00005		
Cu	-0.00106	25.99	-0.00079	-0.00135	-0.00104		
Fe	0.05569	20.38	0.06871	0.05050	0.04787		
K	0.05504	11.51	0.06229	0.05059	0.05223		
Mg	0.07452	10.25	0.08090	0.07662	0.06605		
Mn	0.00004	52.12	0.00004	0.00001	0.00006		
Mo	0.00033	81.78	0.00061	0.00006	0.00033		
Na	0.17263	11.25	0.19491	0.15922	0.16376		
Ni	-0.00028	7.541	-0.00027	-0.00026	-0.00030		
Pb	0.00076	49.67	0.00060	0.00049	0.00120		
Sb	0.00153	70.64	0.00216	0.00214	0.00028		
Se	0.00073	64.49	0.00024	0.00118	0.00077		
Sn	0.00000	32186	0.00052	0.00046	-0.00098		
Ti	0.00005	89.45	0.00002	0.00010	0.00003		
Tl	-0.00198	178.0	0.00061	-0.00600	-0.00055		
V	0.00031	89.27	0.00060	0.00030	0.00004		
Y	169146.32812	0.230	169560.00000	168786.00000	169093.00000		
Zn	0.00016	22.33	0.00011	0.00018	0.00018		

Data Reviewed by: NCH/243 9-25-96

Data Verified by: J. Gallweiler 9-25-96

Page: 1

Lancaster Laboratories

Data Reviewed By: 142 9/26/96

Data Verified By: J. Gilweiler 9-27-96

Data File Name: 27001T61.DAT

Analyst: 142

Run Name: 9627001T61

Instrument Parameters:

Rinse Time:	60 sec
Individual Integration Time:	10 sec
Total Integration Time:	30 sec

Element Symbol	Element Name	Wavelength(nm)
Ag	Silver	328.06
Al	Aluminum	308.21
As	Arsenic	189.04
Ba	Barium	493.40
Be	Beryllium	313.04
Ca	Calcium	317.93
Cd	Cadmium	226.50
Co	Cobalt	228.61
Cr	Chromium	267.71
Cu	Copper	324.75
Fe	Iron	271.44
K	Potassium	766.49
Mg	Magnesium	279.07
Mn	Manganese	257.61
Mo	Molybdenum	202.03
Na	Sodium	330.23
Ni	Nickel	231.60
Pb	Lead	220.35/1
Pb	Lead	220.35/2
Sb	Antimony	206.83/1
Sb	Antimony	206.83/2
Se	Selenium	196.02/1
Se	Selenium	196.02/2
Sn	Tin	189.98
Ti	Titanium	334.94
Tl	Thallium	190.86
V	Vanadium	292.40
Y	Yttrium	371.03
Zn	Zinc	213.85

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DUP050307629

The GBC TRACE ICP uses a Cranford-Kunselman Noise Reduction Technique for lead, antimony, and selenium. This requires the utilization of the first and second order wavelengths in the calculation of each of these metal determinations. The GBC TRACE ICP also utilizes Yttrium as an internal standard to compensate for fluctuations in nebulization and plasma conditions. All Yttrium readings are expressed in counts.

LANCASTER LABORATORIES

Run Name: 9627001T61 INSTRUMENT ID: 05478

Tube: 1 SO 09/26/96 00:47

ELEM	CONC (ppm)	AVG INTENSITY RATIO	%RSD	INTEGRATIONS #1	#2	#3
Ag	0.000	-0.00055	6.815	-0.00053	-0.00052	-0.00059
Al	0.000	0.00747	1.537	0.00759	0.00744	0.00736
As	0.000	0.00027	85.31	0.00046	0.00034	0.00001
Ba	0.000	0.00037	2.093	0.00038	0.00036	0.00036
Be	0.000	-0.05706	1.286	-0.05790	-0.05673	-0.05654
Ca	0.000	-0.00086	2.336	-0.00086	-0.00088	-0.00084
Cd	0.000	0.00071	30.43	0.00069	0.00093	0.00050
Co	0.000	-0.00040	17.01	-0.00033	-0.00047	-0.00039
Cr	0.000	0.00008	40.44	0.00004	0.00010	0.00009
Cu	0.000	-0.00160	1.316	-0.00159	-0.00159	-0.00162
Fe	0.000	-0.00005	21.67	-0.00004	-0.00006	-0.00006
K	0.000	0.00271	6.400	0.00285	0.00252	0.00276
Mg	0.000	0.00005	109.0	0.00011	0.00004	0.00000
Mn	0.000	0.00027	15.52	0.00022	0.00027	0.00031
Mo	0.000	-0.00061	59.32	-0.00039	-0.00041	-0.00103
Na	0.000	-0.00046	49.24	-0.00069	-0.00046	-0.00023
Ni	0.000	0.00011	33.47	0.00015	0.00013	0.00007
Pb	0.000	0.00231	37.88	0.00135	0.00252	0.00307
Sb	0.000	0.00009	585.7	0.00054	0.00024	-0.00051
Se	0.000	-0.00172	32.88	-0.00214	-0.00194	-0.00108
Sn	0.000	-0.00015	39.08	-0.00008	-0.00015	-0.00020
Ti	0.000	-0.00045	5.556	-0.00044	-0.00047	-0.00043
Tl	0.000	-0.00121	13.48	-0.00103	-0.00134	-0.00126
V	0.000	0.00000	1183.	-0.00009	0.00001	0.00005
Y	N/A	158808.32812	0.768	157731.00000	158560.00000	160134.00000
Zn	0.000	-0.00005	6.186	-0.00005	-0.00005	-0.00005

LANCASTER LABORATORIES

Run Name: 9627001T61 INSTRUMENT ID: 0547E

Tube: 2 S1 S 09/26/96 00:52

ELEM	CONC (ppm)	AVG INTENSITY RATIO	%RSD	INTEGRATIONS #1	#2	#3
__Al	50.000	0.74430	0.517	0.74286	0.74138	0.74866
__Ca	50.000	0.79077	0.311	0.78798	0.79168	0.79264
__Fe	50.000	0.23392	0.300	0.23317	0.23402	0.23457
__K	50.000	1.29236	0.635	1.29354	1.28363	1.29993
__Mg	50.000	0.74804	0.401	0.74558	0.74714	0.75138
__Na	50.000	0.11612	0.394	0.11580	0.11591	0.11664
__Y	N/A	158188.32812	0.143	158248.00000	157937.00000	158380.00000

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LANCASTER LABORATORIES

Run Name: 9627001T61 INSTRUMENT ID: 0547E

Tube: 3 S2 S 09/26/96 00:55

ELEM	CONC (ppm)	AVG INTENSITY RATIO	%RSD	INTEGRATIONS #1	#2	#3
__Ag	1.000	0.21662	0.210	0.21696	0.21610	0.21680
__As	1.000	0.24724	0.733	0.24653	0.24588	0.24930
__Ba	1.000	0.25187	0.253	0.25227	0.25113	0.25220
__Be	1.000	4.49950	0.258	4.49222	4.49336	4.51293
__Cd	1.000	1.24150	0.239	1.23977	1.23981	1.24493
__Co	1.000	0.24569	0.277	0.24503	0.24565	0.24639
__Cu	1.000	0.19565	0.202	0.19595	0.19520	0.19579
__Mn	1.000	1.01814	0.211	1.01824	1.01595	1.02024
__Ni	1.000	0.17172	0.268	0.17172	0.17126	0.17219
__Pb	1.000	0.30359	0.591	0.30545	0.30187	0.30345
__Se	1.000	0.12578	0.376	0.12632	0.12555	0.12546
__Tl	1.000	0.10101	3.438	0.09710	0.10219	0.10374
__Y	N/A	158416.32812	0.370	157870.00000	159037.00000	158342.00000
__Zn	1.000	0.09936	0.174	0.09932	0.09921	0.09955

LANCASTER LABORATORIES

Run Name: 9627001T61 INSTRUMENT ID: 05478

Tube: 4 S3 S 09/26/96 00:59

ELEM	CONC (ppm)	AVG INTENSITY RATIO	%RSD	INTEGRATIONS #1	#2	#3
Cr	1.000	0.14023	1.533	0.13776	0.14131	0.14163
Mo	1.000	0.42169	2.146	0.41150	0.42479	0.42879
Sb	1.000	0.35304	3.376	0.33929	0.36054	0.35929
Sn	1.000	0.09728	1.558	0.09553	0.09825	0.09806
Ti	1.000	0.50048	1.631	0.49137	0.50292	0.50715
V	1.000	0.14608	1.504	0.14356	0.14709	0.14759
Y	N/A	159489.32812	0.924	161191.00000	158595.00000	158682.00000

LANCASTER LABORATORIES

Run Name: 9627001T61 INSTRUMENT ID: 05478

Tube: 5 ICV 09/26/96 01:03

ELEM	AVG (ppm)	%RSD	INTEGRATIONS #1	#2	#3	REREAD	REDIG
Ag	0.63473	2.190	0.62109	0.63422	0.64889		
Al	30.04846	2.223	29.38157	30.04573	30.71808		
As	0.63203	2.787	0.61601	0.62918	0.65089		
Ba	0.62292	2.125	0.60977	0.62274	0.63625		
Be	0.63095	2.593	0.61464	0.63083	0.64737		
Ca	30.28512	2.747	29.46532	30.26113	31.12890		
Cd	0.61944	2.588	0.60314	0.62001	0.63519		
Co	0.62269	2.646	0.60631	0.62250	0.63927		
Cr	0.61512	2.635	0.59965	0.61371	0.63198		
Cu	0.63082	2.024	0.61808	0.63074	0.64362		
Fe	30.13233	2.666	29.34440	30.10236	30.95025		
K	29.67563	1.430	29.26378	29.65132	30.11178		
Mg	30.18623	2.512	29.43643	30.16948	30.95277		
Mn	0.62608	2.488	0.61075	0.62559	0.64190		
Mo	0.62587	2.599	0.60919	0.62674	0.64170		
Na	30.59942	1.776	30.09057	30.53549	31.17221		
Ni	0.62730	2.645	0.61127	0.62623	0.64440		
Pb	0.61954	2.350	0.60375	0.62243	0.63243		
Sb	0.60438	2.242	0.59087	0.60429	0.61797		
Se	0.61884	2.104	0.60457	0.62184	0.63010		
Sn	0.61535	2.662	0.59958	0.61419	0.63229		
Ti	0.62577	2.362	0.61126	0.62523	0.64081		
Tl	0.62476	6.262	0.58038	0.63965	0.65425		
V	0.61157	2.495	0.59681	0.61060	0.62729		
Y	156779.32812	1.603	159035.00000	157233.00000	154070.00000		
Zn	0.62401	2.435	0.60909	0.62347	0.63947		

LANCASTER LABORATORIES

Prep Name: 9627001T61 INSTRUMENT ID: 05478

Type: 6 ICB 09/26/96 01:07

Elem	AVG (ppm)	%RSD	INTEGRATIONS #1	#2	#3	REREAD	REDIG
Ag	0.00082	32.14	0.00106	0.00053	0.00089		
Al	0.02639	31.91	0.03296	0.02933	0.01689		
As	-0.00223	22.28	-0.00167	-0.00240	-0.00262		
Ba	-0.00104	8.434	-0.00095	-0.00105	-0.00112		
Be	0.00030	8.767	0.00033	0.00028	0.00030		
Ca	0.09432	3.451	0.09767	0.09413	0.09117		
Cd	0.00000	1070.	-0.00007	0.00011	-0.00001		
Co	0.00109	23.41	0.00135	0.00084	0.00107		
Cr	0.00010	471.9	0.00013	-0.00040	0.00057		
Cu	0.00015	56.04	0.00021	0.00005	0.00018		
Fe	0.05480	15.31	0.06091	0.04523	0.05827		
K	0.07842	3.421	0.07536	0.08037	0.07954		
Mg	0.04136	8.496	0.04541	0.03915	0.03951		
Mn	0.00033	12.96	0.00038	0.00032	0.00030		
Mo	0.00188	113.3	0.00433	0.00084	0.00046		
Na	0.29597	18.26	0.27818	0.25305	0.35667		
Ni	0.00002	1763.	0.00047	-0.00025	-0.00014		
Pb	-0.00128	62.03	-0.00037	-0.00161	-0.00186		
Sb	0.00020	208.7	0.00063	-0.00020	0.00018		
Se	0.00195	77.53	0.00309	0.00253	0.00023		
Sn	0.00206	40.59	0.00109	0.00257	0.00250		
Ti	0.00050	26.49	0.00066	0.00041	0.00045		
Tl	0.00554	49.89	0.00859	0.00318	0.00486		
V	0.00066	40.45	0.00044	0.00057	0.00096		
Y	159510.32812	0.201	159352.00000	159298.00000	159881.00000		
Zn	0.00037	18.68	0.00045	0.00033	0.00033		

LANCASTER LABORATORIES

Run Name: 9627001T61 INSTRUMENT ID: 05478

Tube: 7 CRI 09/26/96 01:12

ELEM	AVG (ppm)	%RSD	INTEGRATIONS #1	#2	#3	REREAD	REDIG
Ag	0.02128	3.188	0.02107	0.02072	0.02203		
Al	0.01640	21.82	0.01400	0.01469	0.02052		
As	0.01819	2.055	0.01782	0.01819	0.01856		
Ba	-0.00105	8.128	-0.00101	-0.00115	-0.00100		
Be	0.01035	1.797	0.01035	0.01053	0.01016		
Ca	0.08790	1.500	0.08909	0.08813	0.08648		
Cd	0.00996	3.499	0.00960	0.00997	0.01030		
Co	0.10489	1.630	0.10315	0.10496	0.10657		
Cr	0.01960	0.744	0.01944	0.01968	0.01970		
Cu	0.05256	1.062	0.05216	0.05232	0.05320		
Fe	0.03955	38.59	0.04565	0.02218	0.05082		
K	0.06015	4.332	0.05754	0.06275	0.06015		
Mg	0.03252	14.35	0.03529	0.02713	0.03515		
Mn	0.03140	0.986	0.03108	0.03144	0.03170		
Mo	0.00029	176.7	0.00063	-0.00030	0.00054		
Na	0.20798	18.87	0.21079	0.16739	0.24577		
Ni	0.08282	1.301	0.08161	0.08316	0.08369		
Pb	0.00558	14.45	0.00484	0.00644	0.00547		
Sb	0.11825	2.593	0.11477	0.12056	0.11943		
Se	0.01133	13.59	0.01023	0.01067	0.01309		
Sn	0.00155	61.27	0.00091	0.00109	0.00264		
Ti	0.00034	31.73	0.00042	0.00022	0.00039		
Tl	0.02207	15.15	0.02039	0.02593	0.01990		
V	0.10397	1.590	0.10216	0.10434	0.10541		
Y	160292.32812	1.094	162108.00000	160161.00000	158608.00000		
Zn	0.04147	1.155	0.04097	0.04152	0.04192		

LANCASTER LABORATORIES

Run Name: 9627001T61 INSTRUMENT ID: 05478

Tube: 8 ICSA 09/26/96 01:16

ELEM	AVG (ppm)	%RSD	INTEGRATIONS #1	#2	#3	REREAD	REDIG
Ag	0.00009	570.0	-0.00034	-0.00003	0.00065		
Al	520.73486	0.632	518.21203	519.53149	524.46112		
As	-0.00513	37.67	-0.00694	-0.00309	-0.00537		
Ba	-0.00015	74.11	-0.00025	-0.00002	-0.00019		
Be	0.00198	6.071	0.00207	0.00203	0.00185		
Ca	508.92257	0.989	506.24517	505.79296	514.72961		
Cd	0.00003	527.1	0.00017	-0.00016	0.00009		
Co	0.00028	187.9	0.00000	-0.00004	0.00088		
Cr	0.00873	6.655	0.00815	0.00871	0.00931		
Cu	0.00665	6.843	0.00634	0.00643	0.00717		
Fe	205.23049	0.860	204.14961	204.27267	207.26921		
K	0.04921	18.00	0.05781	0.04010	0.04973		
Mg	539.39044	0.824	536.67382	536.97186	544.52569		
Mn	0.00767	1.426	0.00761	0.00759	0.00779		
Mo	0.00067	83.07	0.00096	0.00002	0.00102		
Na	0.21937	39.35	0.12332	0.24429	0.29050		
Ni	0.01263	2.725	0.01227	0.01296	0.01265		
Pb	0.00268	35.19	0.00364	0.00265	0.00175		
Sb	-0.00597	33.13	-0.00467	-0.00826	-0.00500		
Se	0.00030	549.6	0.00116	0.00138	-0.00163		
Sn	0.00049	329.6	-0.00124	0.00200	0.00072		
Ti	0.01088	1.860	0.01073	0.01081	0.01111		
Tl	0.00591	19.60	0.00457	0.00657	0.00659		
V	-0.00127	20.86	-0.00136	-0.00147	-0.00097		
Y	153300.00000	0.635	153489.00000	154166.00000	152245.00000		
Zn	0.00069	24.38	0.00067	0.00087	0.00053		

LANCASTER LABORATORIES

Run Name: 9627001T61 INSTRUMENT ID: 05478

Tube: 9 ICSAB 09/26/96 01:20

ELEM	AVG (ppm)	%RSD	INTEGRATIONS #1	#2	#3	REREAD	REDIG
Ag	1.06068	1.126	1.07323	1.05939	1.04943		
Al	517.27868	1.205	524.06158	515.97546	511.79901		
As	-0.00465	12.81	-0.00396	-0.00498	-0.00501		
Ba	0.50306	1.066	0.50876	0.50229	0.49811		
Be	0.47247	0.862	0.47633	0.47287	0.46822		
Ca	505.51239	1.139	510.81079	506.34378	499.38259		
Cd	0.92054	1.016	0.92990	0.92053	0.91119		
Co	0.47566	1.164	0.48112	0.47582	0.47005		
Cr	0.47607	0.967	0.48042	0.47654	0.47125		
Cu	0.54039	1.159	0.54722	0.53905	0.53491		
Fe	203.29870	1.113	205.48196	203.45169	200.96246		
K	0.05761	8.651	0.05897	0.06178	0.05209		
Mg	535.33935	1.075	541.13586	535.26275	529.61944		
Mn	0.49012	1.033	0.49508	0.49034	0.48496		
Mo	0.00036	178.2	-0.00008	0.00111	0.00006		
Na	0.22551	33.47	0.15574	0.30566	0.21515		
Ni	0.93547	1.156	0.94618	0.93569	0.92455		
Pb	0.96702	0.723	0.97000	0.97203	0.95903		
Sb	-0.00668	35.65	-0.00397	-0.00845	-0.00762		
Se	0.00017	1226.	-0.00129	-0.00085	0.00268		
Sn	0.00132	296.3	0.00559	-0.00209	0.00046		
Ti	0.01104	2.102	0.01116	0.01118	0.01077		
Tl	0.00112	528.3	0.00091	0.00718	-0.00471		
V	0.48530	1.153	0.49114	0.48479	0.47998		
Y	153988.32812	0.802	152722.00000	154052.00000	155191.00000		
Zn	0.97211	1.104	0.98273	0.97234	0.96126		

LANCASTER LABORATORIES

Run Name: 9627001T61 INSTRUMENT ID: 05478

Tube: 10 CCV 09/26/96 01:25

ELEM	AVG (ppm)	%RSD	INTEGRATIONS #1	#2	#3	REREAD	REDIG
Ag	0.52040	1.118	0.52365	0.52388	0.51368		
Al	25.92806	1.375	26.11571	26.15173	25.51675		
As	0.51598	1.559	0.51892	0.52215	0.50688		
Ba	0.50780	1.217	0.51089	0.51183	0.50068		
Be	0.51245	1.149	0.51640	0.51527	0.50568		
Ca	26.10304	1.351	26.37229	26.23324	25.70359		
Cd	0.50939	1.262	0.51432	0.51173	0.50212		
Co	0.51179	1.179	0.51551	0.51504	0.50483		
Cr	0.50126	1.109	0.50494	0.50399	0.49486		
Cu	0.52413	1.184	0.52662	0.52871	0.51707		
Fe	25.51128	1.326	25.71233	25.70081	25.12070		
K	25.83683	1.161	25.97335	26.04434	25.49280		
Mg	25.86033	1.331	26.08057	26.03691	25.46350		
Mn	0.51503	1.175	0.51897	0.51806	0.50806		
Mo	0.51022	0.930	0.51190	0.51391	0.50487		
Na	26.36300	0.925	26.50925	26.49827	26.08149		
Ni	0.51010	1.169	0.51466	0.51229	0.50335		
Pb	0.50798	0.768	0.51086	0.50954	0.50354		
Sb	0.49749	0.456	0.49681	0.50003	0.49564		
Se	0.50103	0.830	0.49963	0.50571	0.49775		
Sn	0.50678	0.851	0.50781	0.51050	0.50205		
Ti	0.51401	1.156	0.51734	0.51754	0.50714		
Tl	0.50842	3.680	0.48693	0.52113	0.51720		
V	0.50651	1.242	0.51082	0.50942	0.49929		
Y	157151.00000	0.839	156151.00000	156656.00000	158646.00000		
Zn	0.51414	1.100	0.51740	0.51740	0.50760		

LANCASTER LABORATORIES

Run Name: 9627001T61 INSTRUMENT ID: 05478

Tube: 11 CCB 09/26/96 01:29

ELEM	AVG (ppm)	%RSD	INTEGRATIONS #1	#2	#3	REREAD	REDIG
Ag	0.00070	64.39	0.00123	0.00042	0.00046		
Al	0.06780	13.26	0.07348	0.07249	0.05743		
As	-0.00178	156.6	0.00143	-0.00357	-0.00322		
Ba	-0.00110	9.323	-0.00098	-0.00115	-0.00118		
Be	0.00038	21.11	0.00046	0.00030	0.00039		
Ca	0.14708	6.661	0.15630	0.14814	0.13679		
Cd	0.00000	3776.	0.00006	-0.00021	0.00017		
Co	0.00076	93.41	0.00156	0.00018	0.00054		
Cr	-0.00015	389.6	-0.00044	-0.00053	0.00052		
Cu	0.00055	67.06	0.00098	0.00028	0.00040		
Fe	0.06285	29.64	0.08236	0.06095	0.04524		
K	0.06124	7.793	0.06011	0.05713	0.06648		
Mg	0.08923	11.79	0.09882	0.09089	0.07797		
Mn	0.00027	32.01	0.00034	0.00017	0.00030		
Mo	0.00143	133.2	0.00362	0.00059	0.00008		
Na	0.29879	53.93	0.28893	0.14279	0.46466		
Ni	-0.00015	541.2	-0.00001	-0.00106	0.00060		
Pb	-0.00043	190.8	-0.00118	-0.00059	0.00046		
Sb	0.00073	85.43	0.00006	0.00082	0.00130		
Se	-0.00030	244.2	-0.00035	0.00046	-0.00102		
Sn	0.00177	27.95	0.00192	0.00122	0.00218		
Ti	0.00037	68.05	0.00066	0.00022	0.00022		
Tl	0.00359	227.9	0.01281	0.00080	-0.00283		
V	0.00066	98.71	0.00086	-0.00006	0.00120		
Y	160966.67187	1.111	162919.00000	159404.00000	160577.00000		
Zn	0.00029	32.96	0.00039	0.00027	0.00020		

LANCASTER LABORATORIES

Run Name: 9627001T61 INSTRUMENT ID: 05478

Type: 12 2583209 BRS3D 09/26/96 01:34

(***,100-100,DF10,962685720001,8,,

ITEM	AVG (ppm)	%RSD	INTEGRATIONS #1	#2	#3	REREAD	REDIG
Ag	0.00037	126.0	-0.00011	0.00042	0.00081		
Al	0.06234	8.608	0.05873	0.06851	0.05979		
As	-0.00222	25.16	-0.00286	-0.00184	-0.00195		
Ba	0.01432	1.423	0.01409	0.01439	0.01448		
Be	0.00007	140.9	0.00015	0.00013	-0.00004		
Ca	6.72471	1.432	6.62229	6.73843	6.81342		
Cd	0.00005	361.9	-0.00016	0.00009	0.00022		
Co	0.00030	238.9	-0.00019	-0.00002	0.00114		
Cr	-0.00006	578.1	-0.00032	-0.00022	0.00035		
Cu	0.00032	72.50	0.00005	0.00040	0.00049		
Fe	0.08641	9.087	0.08056	0.08334	0.09534		
K	0.29910	0.932	0.29588	0.30081	0.30060		
Mg	2.79713	1.245	2.75829	2.80752	2.82559		
Mn	0.07850	1.275	0.07742	0.07868	0.07939		
Mo	0.00030	82.69	0.00003	0.00053	0.00036		
Na	5.13857	1.567	5.10242	5.08244	5.23086		
Ni	0.00072	77.14	0.00036	0.00044	0.00137		
Pb	0.00166	22.27	0.00189	0.00187	0.00123		
Sb	0.00239	33.84	0.00314	0.00252	0.00153		
Se	0.00000	13671	0.00127	-0.00008	-0.00119		
Sn	0.00133	117.0	-0.00032	0.00154	0.00278		
Ti	-0.00004	196.9	-0.00012	-0.00004	0.00004		
Tl	-0.00553	25.44	-0.00467	-0.00715	-0.00476		
V	0.00054	55.79	0.00036	0.00037	0.00089		
Y	158638.67187	0.442	159352.00000	158615.00000	157949.00000		
Zn	0.00463	4.701	0.00438	0.00471	0.00479		

LANCASTER LABORATORIES

Run Name: 9627001T61 INSTRUMENT ID: 05478

Tube: 13 2583209 BRS3DA 09/26/96 01:38
UP**,100-100,DF10,962685720001,8,,

ELEM	AVG (ppm)	%RSD	INTEGRATIONS #1	#2	#3	REREAD	REDIG
Ag	0.02108	1.038	0.02128	0.02085	0.02111		
Al	0.47474	3.683	0.49480	0.46668	0.46273		
As	0.01732	9.106	0.01782	0.01858	0.01555		
Ba	0.43503	0.772	0.43811	0.43144	0.43553		
Be	0.01012	1.403	0.00996	0.01013	0.01025		
Ca	7.72682	0.555	7.76613	7.68097	7.73335		
Cd	0.01011	0.549	0.01007	0.01017	0.01009		
Co	0.10375	1.043	0.10463	0.10254	0.10407		
Cr	0.02039	1.901	0.02079	0.02037	0.02002		
Cu	0.05281	0.484	0.05310	0.05262	0.05270		
Fe	0.26627	3.767	0.27750	0.25819	0.26312		
K	2.18034	0.589	2.19459	2.16961	2.17682		
Mg	3.78194	0.815	3.81299	3.75129	3.78155		
Mn	0.10962	0.550	0.11013	0.10895	0.10978		
Mo	0.19756	0.135	0.19776	0.19765	0.19725		
Na	7.24628	1.176	7.34373	7.20959	7.18552		
Ni	0.08303	1.263	0.08373	0.08182	0.08354		
Pb	0.01168	7.229	0.01265	0.01128	0.01112		
Sb	0.10774	0.209	0.10798	0.10753	0.10773		
Se	0.00986	7.704	0.00956	0.00930	0.01072		
Sn	0.55275	0.684	0.55659	0.54902	0.55265		
Ti	0.10397	0.656	0.10447	0.10319	0.10425		
Tl	0.01504	12.43	0.01720	0.01399	0.01393		
V	0.10259	0.435	0.10299	0.10211	0.10268		
Y	158222.67187	0.806	156815.00000	159302.00000	158551.00000		
Zn	0.04281	0.415	0.04295	0.04261	0.04286		

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LANCASTER LABORATORIES

Run Name: 9627001T61 INSTRUMENT ID: 05478

Tube: 14 2583209 BRS3DD 09/26/96 01:43
***,100-100,DF10,962685720001,8,,

ITEM	AVG (ppm)	%RSD	INTEGRATIONS #1	#2	#3	REREAD	REDIG
Ag	0.00046	64.07	0.00079	0.00022	0.00037		
Al	0.03533	11.28	0.03992	0.03282	0.03323		
As	-0.00251	85.67	-0.00036	-0.00468	-0.00250		
Ba	0.01411	1.263	0.01431	0.01396	0.01406		
Be	0.00001	2019.	-0.00024	0.00017	0.00010		
Ca	6.59697	0.885	6.63222	6.52957	6.62913		
Cd	-0.00014	16.56	-0.00013	-0.00017	-0.00013		
Co	0.00011	474.0	0.00042	-0.00053	0.00046		
Cr	-0.00032	146.6	-0.00036	-0.00076	0.00017		
Cu	-0.00001	1009.	0.00013	-0.00002	-0.00016		
Fe	0.06401	13.78	0.07417	0.05823	0.05962		
K	0.28615	3.418	0.28851	0.27540	0.29454		
Mg	2.71967	0.860	2.73848	2.69347	2.72706		
Mn	0.07878	0.769	0.07907	0.07808	0.07918		
Mo	0.00049	38.37	0.00069	0.00048	0.00031		
Na	5.08536	1.854	5.09780	4.98543	5.17284		
Ni	0.00158	63.92	0.00158	0.00057	0.00259		
Pb	0.00098	38.97	0.00118	0.00054	0.00123		
Sb	0.00195	23.11	0.00247	0.00173	0.00165		
Se	0.00090	114.7	0.00090	-0.00013	0.00192		
Sn	0.00140	59.61	0.00167	0.00046	0.00206		
Ti	0.00008	250.0	0.00029	-0.00010	0.00004		
Tl	-0.00685	23.30	-0.00527	-0.00846	-0.00682		
V	0.00042	31.83	0.00045	0.00027	0.00053		
Y	159576.67187	0.795	158407.00000	160927.00000	159396.00000		
Zn	0.01279	0.960	0.01284	0.01265	0.01289		

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LANCASTER LABORATORIES

Run Name: 9627001T61 INSTRUMENT ID: 05478

Tube: 15 2583209 BRS3DS 09/26/96 01:47
R***,100-100,DF10,962685720001,8,,

ELEM	AVG (ppm)	%RSD	INTEGRATIONS #1	#2	#3	REREAD	REDIG
__Ag	0.00562	9.649	0.00554	0.00620	0.00512		
__Al	0.23305	1.458	0.23400	0.23588	0.22928		
__As	0.00204	49.05	0.00115	0.00313	0.00185		
__Ba	0.21744	0.449	0.21823	0.21774	0.21635		
__Be	0.00494	2.731	0.00489	0.00484	0.00510		
__Ca	7.04566	0.446	7.07729	7.04531	7.01439		
__Cd	0.00485	1.465	0.00480	0.00493	0.00482		
__Co	0.05081	1.498	0.05094	0.05150	0.04999		
__Cr	0.02026	1.643	0.01991	0.02057	0.02029		
__Cu	0.02566	1.071	0.02557	0.02597	0.02545		
__Fe	0.16686	4.454	0.16834	0.17345	0.15880		
__K	0.63205	1.213	0.63763	0.63521	0.62330		
__Mg	2.91947	0.557	2.93235	2.92489	2.90118		
__Mn	0.12851	0.480	0.12905	0.12864	0.12784		
__Mo	0.20252	0.449	0.20151	0.20327	0.20278		
✓Na	5.50877	0.839	5.50913	5.55484	5.46233		
__Ni	0.05210	1.062	0.05247	0.05238	0.05147		
__Pb	0.00252	19.40	0.00305	0.00243	0.00209		
__Sb	0.05121	3.545	0.05091	0.04956	0.05316		
__Se	0.00127	77.37	0.00237	0.00095	0.00048		
__Sn	0.41475	0.808	0.41548	0.41769	0.41110		
__Ti	0.10293	0.416	0.10319	0.10316	0.10244		
__Tl	-0.00251	81.38	-0.00479	-0.00086	-0.00186		
__V	0.05096	1.202	0.05086	0.05161	0.05040		
__Y	158951.32812	0.746	157604.00000	159408.00000	159842.00000		
__Zn	0.05261	0.441	0.05276	0.05273	0.05235		

LANCASTER LABORATORIES

Run Name: 9627001T61 INSTRUMENT ID: 05478

Tube: 16 2583209 BRS3DL 09/26/96 01:51
ID **,100-100.0F50,962685720001,8,,

ELEM	AVG (ppm)	%RSD	INTEGRATIONS #1	#2	#3	REREAD	REDIG
Ag	-0.00003	899.9	0.00027	-0.00025	-0.00011		
Al	0.02442	9.796	0.02185	0.02482	0.02659		
As	-0.00239	19.80	-0.00284	-0.00189	-0.00245		
Ba	0.00187	3.905	0.00194	0.00179	0.00187		
Be	0.00012	29.44	0.00009	0.00016	0.00012		
Ca	1.39663	0.429	1.39577	1.39111	1.40302		
Cd	-0.00032	32.46	-0.00022	-0.00031	-0.00043		
Co	-0.00024	65.83	-0.00010	-0.00041	-0.00021		
Cr	-0.00053	24.94	-0.00040	-0.00053	-0.00067		
Cu	-0.00030	65.86	-0.00008	-0.00047	-0.00037		
Fe	0.04571	5.933	0.04788	0.04658	0.04267		
K	0.10435	7.356	0.10868	0.09548	0.10888		
Mg	0.56896	0.045	0.56893	0.56872	0.56923		
Mn	0.01557	0.411	0.01555	0.01551	0.01564		
Mo	-0.00018	175.3	-0.00040	-0.00033	0.00018		
Na	1.07943	1.552	1.09733	1.07683	1.06412		
Ni	0.00010	652.6	-0.00066	0.00061	0.00035		
Pb	0.00163	33.98	0.00218	0.00165	0.00107		
Sb	0.00180	48.88	0.00135	0.00124	0.00282		
Se	0.00048	200.4	0.00145	0.00048	-0.00048		
Sn	0.00146	98.63	0.00206	-0.00018	0.00250		
Ti	-0.00008	157.4	0.00007	-0.00017	-0.00017		
Tl	-0.00451	9.509	-0.00432	-0.00500	-0.00421		
V	0.00005	221.7	0.00005	-0.00007	0.00018		
Y	159813.32812	0.369	159131.00000	160169.00000	160140.00000		
Zn	0.00357	2.762	0.00361	0.00365	0.00346		

LANCASTER LABORATORIES

Run Name: 9627001T61 INSTRUMENT ID: 05478

Tube: 17 2583206 BRA4D 09/26/96 01:56
****,100-100,DF10,962685720001,8,,

ELEM	AVG (ppm)	%RSD	INTEGRATIONS #1	#2	#3	REREAD	REDIG
Ag	0.00061	48.94	0.00029	0.00088	0.00066		
Al	0.05056	5.629	0.05221	0.04728	0.05220		
As	-0.00227	56.34	-0.00197	-0.00116	-0.00367		
Ba	0.00447	1.461	0.00444	0.00443	0.00455		
Be	0.00008	84.49	0.00008	0.00015	0.00001		
Ca	20.32574	0.937	20.27176	20.16794	20.53752		
Cd	-0.00017	69.40	-0.00023	-0.00024	-0.00003		
Co	0.00092	13.69	0.00079	0.00092	0.00104		
Cr	-0.00039	64.70	-0.00067	-0.00032	-0.00018		
Cu	-0.00032	41.24	-0.00023	-0.00025	-0.00047		
Fe	0.15149	7.375	0.14047	0.15119	0.16281		
K	0.38120	1.230	0.37770	0.37937	0.38653		
Mg	7.94437	0.826	7.93246	7.88546	8.01519		
Mn	0.06888	0.835	0.06874	0.06839	0.06952		
Mo	-0.00031	53.28	-0.00023	-0.00050	-0.00020		
X Na	6.17558	1.115	6.14912	6.12383	6.25380		
Ni	0.00108	28.72	0.00076	0.00111	0.00138		
Pb	0.00112	38.27	0.00150	0.00122	0.00065		
Sb	0.00054	94.14	0.00045	0.00109	0.00008		
Se	-0.00002	3900.	-0.00090	0.00112	-0.00029		
Sn	0.00052	149.0	0.00109	-0.00036	0.00083		
Ti	0.00066	18.07	0.00056	0.00064	0.00080		
Tl	-0.00403	34.20	-0.00505	-0.00246	-0.00459		
V	0.00049	39.40	0.00029	0.00051	0.00069		
Y	160219.32812	0.618	159774.00000	161355.00000	159529.00000		
Zn	0.00256	2.448	0.00251	0.00255	0.00263		

LANCASTER LABORATORIES

Run Name: 9627001T61 INSTRUMENT ID: 05478

Tube: 18 2583207 BR4 DD 09/26/96 02:00
+***,100-100.DF10.962685720001.8,,

ELEM	AVG (ppm)	%RSD	INTEGRATIONS #1	#2	#3	REREAD	REDIG
Ag	0.00030	14.47	0.00027	0.00028	0.00035		
Al	0.10143	14.59	0.11056	0.10937	0.08434		
As	-0.00244	33.51	-0.00245	-0.00325	-0.00161		
Ba	0.00540	3.015	0.00545	0.00553	0.00522		
Be	-0.00016	212.8	-0.00036	-0.00036	0.00024		
Ca	19.90632	2.405	20.01983	20.31830	19.38083		
Cd	-0.00015	74.79	-0.00028	-0.00009	-0.00007		
Co	0.00056	47.75	0.00060	0.00027	0.00081		
Cr	-0.00008	133.4	-0.00016	-0.00011	0.00004		
Cu	0.00011	102.0	0.00015	-0.00001	0.00019		
Fe	0.23043	1.169	0.23147	0.23245	0.22737		
K	0.40598	2.875	0.40101	0.41932	0.39762		
Mg	7.79379	2.477	7.84697	7.95470	7.57970		
Mn	0.07100	2.415	0.07147	0.07244	0.06910		
Mo	-0.00065	82.22	-0.00056	-0.00124	-0.00016		
X Na	6.35961	1.023	6.32388	6.43473	6.32021		
Ni	0.00130	115.3	0.00266	-0.00031	0.00156		
Pb	0.00156	59.48	0.00263	0.00091	0.00115		
Sb	0.00155	134.7	-0.00046	0.00370	0.00141		
Se	0.00059	141.1	0.00069	0.00137	-0.00029		
Sn	0.00212	23.64	0.00194	0.00174	0.00269		
Ti	0.00180	12.47	0.00197	0.00155	0.00189		
Tl	-0.00342	89.19	-0.00652	-0.00331	-0.00042		
V	0.00073	43.99	0.00064	0.00046	0.00108		
Y	156045.67187	2.323	154371.00000	153560.00000	160206.00000		
Zn	0.00270	5.338	0.00256	0.00285	0.00268		

LANCASTER LABORATORIES

Run Name: 9627001T61 INSTRUMENT ID: 05478

Tube: 19 2583823 BRAD 09/26/96 02:05
****,100-100,DF10,962685720001,8,,

ELEM	AVG (ppm)	%RSD	INTEGRATIONS #1	#2	#3	REREAD	REDIG
Ag	0.00070	50.30	0.00072	0.00105	0.00034		
Al	0.01699	62.15	0.02870	0.01407	0.00819		
As	-0.00220	60.20	-0.00072	-0.00261	-0.00328		
Ba	0.01059	2.734	0.01092	0.01046	0.01039		
Be	0.00008	351.0	-0.00023	0.00014	0.00034		
Ca	7.26962	2.188	7.45315	7.17167	7.18403		
Cd	-0.00016	61.40	-0.00004	-0.00022	-0.00022		
Co	0.00070	98.76	0.00025	0.00151	0.00035		
Cr	-0.00019	114.4	-0.00007	-0.00005	-0.00045		
Cu	0.00007	222.0	-0.00003	0.00027	-0.00001		
Fe	0.08658	12.19	0.08934	0.09550	0.07492		
K	0.51855	3.098	0.53333	0.52088	0.50145		
Mg	2.97514	2.294	3.05394	2.93718	2.93431		
Mn	0.02539	2.532	0.02613	0.02507	0.02497		
Mo	-0.00014	434.5	-0.00048	-0.00054	0.00059		
Na	4.99208	2.448	5.12400	4.96963	4.88260	DF5	
Ni	0.00047	117.5	0.00091	0.00067	-0.00015		
Pb	0.00114	45.10	0.00084	0.00174	0.00085		
Sb	0.00204	48.46	0.00286	0.00232	0.00094		
Se	0.00065	183.2	-0.00043	0.00045	0.00195		
Sn	0.00199	26.07	0.00154	0.00256	0.00186		
Ti	0.00000	2360.	0.00000	0.00014	-0.00017		
Tl	-0.00292	69.19	-0.00379	-0.00061	-0.00436		
V	0.00058	31.51	0.00077	0.00057	0.00040		
Y	159766.32812	2.176	155752.00000	161831.00000	161716.00000		
Zn	0.01316	2.690	0.01357	0.01301	0.01290		

LANCASTER LABORATORIES

Run Name: 9627001T61 INSTRUMENT ID: 05478

Tube: 20 2583824 BRAAS 09/26/96 02:09
****,100-100,DF10,962685720001,8,,

ELEM	AVG (ppm)	%RSD	INTEGRATIONS #1	#2	#3	REREAD	REDIG
Ag	0.00023	373.8	0.00000	-0.00050	0.00120		
Al	0.03443	10.49	0.03144	0.03845	0.03339		
As	-0.00215	52.73	-0.00263	-0.00296	-0.00085		
Ba	0.00642	1.537	0.00639	0.00635	0.00653		
Be	0.00015	94.89	0.00020	0.00027	-0.00001		
Ca	19.11459	0.677	19.03349	19.04625	19.26402		
Cd	-0.00018	82.17	-0.00007	-0.00034	-0.00012		
Co	-0.00003	2607.	-0.00042	-0.00067	0.00099		
Cr	-0.00043	162.5	-0.00009	-0.00125	0.00003		
Cu	0.00034	97.10	0.00039	-0.00001	0.00065		
Fe	0.08355	16.08	0.07790	0.07387	0.09890		
K	0.42207	1.957	0.42868	0.41281	0.42473		
Mg	7.68192	0.526	7.64108	7.68272	7.72197		
Mn	0.06761	0.644	0.06733	0.06739	0.06812		
Mo	-0.00061	97.25	-0.00072	-0.00115	0.00002		
X Na	6.00928	1.871	5.93643	5.95263	6.13878		
Ni	0.00117	58.34	0.00109	0.00053	0.00190		
Pb	0.00043	143.6	0.00083	0.00076	-0.00028		
Sb	0.00236	44.95	0.00340	0.00127	0.00243		
Se	0.00185	27.11	0.00127	0.00220	0.00208		
Sn	0.00088	116.7	0.00013	0.00045	0.00206		
Ti	0.00066	57.81	0.00051	0.00037	0.00110		
Tl	-0.00536	18.98	-0.00641	-0.00528	-0.00438		
V	0.00014	386.9	0.00006	-0.00036	0.00071		
Y	159799.67187	0.404	159685.00000	160495.00000	159219.00000		
Zn	0.00172	2.079	0.00170	0.00169	0.00176		

12%

LANCASTER LABORATORIES

Run Name: 9627001T61 INSTRUMENT ID: 05478

Tube: 21 CCV 09/26/96 02:14

ELEM	AVG (ppm)	%RSD	INTEGRATIONS #1	#2	#3	REREAD	REDIG
Ag	0.51487	0.549	0.51168	0.51708	0.51585		
Al	25.45551	0.285	25.40457	25.53877	25.42320		
As	0.51076	0.885	0.50810	0.51598	0.50819		
Ba	0.50183	0.564	0.49884	0.50447	0.50219		
Be	0.50865	0.919	0.50325	0.51150	0.51119		
Ca	25.69828	0.878	25.43749	25.82464	25.83271		
Cd	0.50460	0.766	0.50013	0.50668	0.50698		
Co	0.50798	0.836	0.50311	0.51098	0.50983		
Cr	0.49847	1.063	0.49235	0.50137	0.50170		
Cu	0.51812	0.335	0.51644	0.51991	0.51802		
Fe	25.31158	0.912	25.04565	25.46159	25.42750		
K	25.53759	0.412	25.59648	25.60020	25.41607		
Mg	25.38333	0.607	25.20604	25.48574	25.45820		
Mn	0.51004	0.798	0.50534	0.51256	0.51223		
Mo	0.50568	1.339	0.49796	0.51064	0.50843		
Na	26.10069	0.337	26.00108	26.13267	26.16831		
Ni	0.50586	0.620	0.50235	0.50840	0.50682		
Pb	0.50425	1.005	0.49840	0.50747	0.50687		
Sb	0.49521	1.149	0.48873	0.49749	0.49941		
Se	0.49741	1.263	0.49017	0.50137	0.50070		
Sn	0.50087	0.961	0.49534	0.50415	0.50313		
Ti	0.50866	0.726	0.50445	0.51139	0.51013		
Tl	0.50598	3.471	0.48592	0.51864	0.51337		
V	0.50299	0.874	0.49796	0.50612	0.50489		
Y	158915.32812	0.724	160238.00000	158369.00000	158139.00000		
Zn	0.50957	0.685	0.50554	0.51168	0.51150		

LANCASTER LABORATORIES

Run Name: 9627001T61 INSTRUMENT ID: 05478

Tube: 22 CCB 09/26/96 02:18

ELEM	AVG (ppm)	%RSD	INTEGRATIONS #1	#2	#3	REREAD	REDIG
Ag	0.00022	22.48	0.00026	0.00024	0.00016		
Al	0.01230	16.42	0.01391	0.01003	0.01296		
As	-0.00185	73.63	-0.00042	-0.00199	-0.00314		
Ba	-0.00113	5.458	-0.00108	-0.00112	-0.00120		
Be	0.00033	22.11	0.00041	0.00032	0.00026		
Ca	0.09421	3.512	0.09789	0.09323	0.09150		
Cd	-0.00017	20.80	-0.00020	-0.00013	-0.00019		
Co	0.00075	30.88	0.00090	0.00048	0.00087		
Cr	-0.00065	63.43	-0.00053	-0.00031	-0.00111		
Cu	0.00063	37.27	0.00077	0.00076	0.00036		
Fe	0.03959	16.88	0.04135	0.04522	0.03220		
K	0.06935	20.10	0.08010	0.07435	0.05360		
Mg	0.03772	10.12	0.04195	0.03668	0.03453		
Mn	0.00021	24.96	0.00024	0.00024	0.00015		
Mo	0.00160	24.41	0.00190	0.00175	0.00116		
Na	0.23035	18.70	0.20469	0.28009	0.20626		
Ni	-0.00077	109.4	-0.00153	0.00014	-0.00095		
Pb	-0.00079	22.03	-0.00090	-0.00059	-0.00090		
Sb	0.00195	35.75	0.00275	0.00143	0.00167		
Se	0.00106	332.1	0.00412	0.00184	-0.00279		
Sn	0.00214	37.45	0.00122	0.00271	0.00251		
Ti	0.00031	21.52	0.00035	0.00036	0.00023		
Tl	0.00563	52.31	0.00678	0.00784	0.00228		
V	0.00032	147.0	0.00014	0.00087	-0.00003		
Y	159603.67187	0.452	160294.00000	158852.00000	159665.00000		
Zn	0.00021	62.15	0.00034	0.00007	0.00021		

LANCASTER LABORATORIES

Run Name: 9627001T61

INSTRUMENT ID: 0547E

Tube: 23 CRI

09/26/96 - 02:22

ELEM	AVG (ppm)	%RSD	INTEGRATIONS #1	#2	#3	REREAD	REDIG
Ag	0.02162	1.440	0.02194	0.02131	0.02161		
Al	0.01036	48.57	0.01605	0.00854	0.00649		
As	0.01875	7.946	0.01830	0.02042	0.01754		
Ba	-0.00112	2.122	-0.00110	-0.00112	-0.00114		
Be	0.01038	1.271	0.01025	0.01037	0.01051		
Ca	0.09115	1.190	0.09240	0.09054	0.09050		
Cd	0.00982	2.162	0.00976	0.00964	0.01005		
Co	0.10666	0.656	0.10680	0.10590	0.10728		
Cr	0.01999	1.276	0.02000	0.01973	0.02024		
Cu	0.05352	0.281	0.05369	0.05346	0.05341		
Fe	0.04076	14.50	0.04690	0.03510	0.04028		
K	0.05672	21.08	0.05150	0.04825	0.07040		
Mg	0.03334	4.313	0.03472	0.03344	0.03185		
Mn	0.03157	0.418	0.03161	0.03142	0.03167		
Mo	-0.00011	344.7	-0.00046	-0.00016	0.00029		
Na	0.20442	7.970	0.20090	0.19018	0.22219		
Ni	0.08268	0.894	0.08350	0.08206	0.08248		
Pb	0.00466	10.12	0.00415	0.00476	0.00507		
Sb	0.11955	1.043	0.11951	0.12083	0.11833		
Se	0.01128	13.20	0.00977	0.01131	0.01275		
Sn	0.00169	52.16	0.00264	0.00154	0.00089		
Ti	0.00020	42.72	0.00027	0.00024	0.00010		
Tl	0.01812	3.737	0.01749	0.01803	0.01883		
V	0.10494	0.264	0.10471	0.10486	0.10525		
Y	158422.67187	0.493	158681.00000	159042.00000	157545.00000		
Zn	0.04213	0.633	0.04228	0.04182	0.04228		

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LANCASTER LABORATORIES

Run Name: 9627001T61 INSTRUMENT ID: 05478

Tube: 24 ICSA 09/26/96 02:27

ITEM	AVG (ppm)	%RSD	INTEGRATIONS #1	#2	#3	REREAD	REDIG
Ag	0.00045	68.02	0.00080	0.00020	0.00037		
Al	515.85723	0.964	510.12066	518.47668	518.97436		
As	-0.00283	56.18	-0.00459	-0.00241	-0.00149		
Ba	-0.00024	13.76	-0.00020	-0.00025	-0.00027		
Be	0.00189	3.868	0.00187	0.00198	0.00184		
Ca	503.09796	0.366	501.21170	503.18359	504.89862		
Cd	0.00024	74.60	0.00024	0.00006	0.00042		
Co	0.00043	52.38	0.00069	0.00034	0.00026		
Cr	0.00873	9.526	0.00969	0.00836	0.00815		
Cu	0.00696	3.498	0.00724	0.00680	0.00683		
Fe	203.36317	0.455	202.31600	203.70195	204.07156		
K	0.05056	24.32	0.05752	0.03636	0.05780		
Mg	533.88616	0.632	530.07580	535.07366	536.50903		
Mn	0.00760	1.271	0.00771	0.00752	0.00757		
Mo	-0.00125	31.07	-0.00161	-0.00130	-0.00084		
Na	0.29634	23.15	0.37527	0.26294	0.25082		
Ni	0.01282	6.273	0.01374	0.01223	0.01250		
Pb	0.00139	68.03	0.00164	0.00034	0.00219		
Sb	-0.00485	48.37	-0.00321	-0.00754	-0.00379		
Se	-0.00041	336.7	0.00046	-0.00203	0.00032		
Sn	0.00255	143.5	0.00667	-0.00037	0.00136		
Ti	0.01082	0.947	0.01090	0.01070	0.01085		
Tl	0.00076	480.3	-0.00121	0.00498	-0.00147		
V	-0.00100	68.44	-0.00021	-0.00138	-0.00143		
Y	154161.67187	0.442	154859.00000	154130.00000	153496.00000		
Zn	0.00017	76.82	0.00011	0.00032	0.00007		

LANCASTER LABORATORIES

Run Name: 9627001T61 INSTRUMENT ID: 05478

Tube: 25 ICSAB 09/26/96 02:31

ELEM	AVG (ppm)	%RSD	INTEGRATIONS #1	#2	#3	REREAD	REDIG
Ag	1.05636	0.608	1.05228	1.05302	1.06376		
Al	515.25201	0.685	513.05895	513.37164	519.32550		
As	-0.00241	144.3	-0.00536	0.00142	-0.00329		
Ba	0.49836	0.626	0.49673	0.49639	0.50196		
Be	0.47031	0.480	0.46815	0.47012	0.47266		
Ca	503.74984	0.529	501.19100	503.54367	506.51486		
Cd	0.91223	0.474	0.90829	0.91154	0.91687		
Co	0.47351	0.492	0.47194	0.47241	0.47619		
Cr	0.47323	0.534	0.47071	0.47321	0.47577		
Cu	0.53760	0.635	0.53610	0.53519	0.54152		
Fe	202.83786	0.507	201.96687	202.57188	203.97482		
K	0.04949	11.51	0.05602	0.04695	0.04551		
Mg	533.78179	0.515	531.87677	532.53112	536.93743		
Mn	0.48594	0.496	0.48394	0.48526	0.48862		
Mo	0.00038	135.8	0.00048	-0.00018	0.00083		
Na	0.23538	20.71	0.20771	0.29168	0.20675		
Ni	0.92449	0.607	0.92060	0.92194	0.93093		
Pb	0.95762	0.496	0.95411	0.95572	0.96303		
Sb	-0.00491	19.11	-0.00400	-0.00486	-0.00588		
Se	0.00115	263.0	0.00016	0.00457	-0.00126		
Sn	0.00041	504.8	-0.00199	0.00195	0.00130		
Ti	0.01080	0.519	0.01076	0.01086	0.01078		
Tl	0.00218	144.7	0.00555	0.00168	-0.00069		
V	0.48107	0.500	0.47892	0.48062	0.48367		
Y	154384.00000	0.438	154599.00000	154928.00000	153625.00000		
Zn	0.96613	0.478	0.96243	0.96466	0.97132		

LANCASTER LABORATORIES

Run Name: 9627001T61 INSTRUMENT ID: 05478

Tube: 26 CCV 09/26/96 02:36

ELEM	AVG (ppm)	%RSD	INTEGRATIONS #1	#2	#3	REREAD	REDIG
__Ag	0.51269	0.651	0.51026	0.51650	0.51130	_____	_____
__Al	25.43849	0.477	25.40324	25.57368	25.33854	_____	_____
__As	0.50725	0.723	0.50344	0.51077	0.50755	_____	_____
__Ba	0.49816	0.560	0.49605	0.50132	0.49711	_____	_____
__Be	0.50554	0.675	0.50313	0.50945	0.50404	_____	_____
__Ca	25.72545	0.613	25.66606	25.90437	25.60591	_____	_____
__Cd	0.50113	0.691	0.49879	0.50511	0.49949	_____	_____
__Co	0.50536	0.468	0.50409	0.50809	0.50389	_____	_____
__Cr	0.49473	0.708	0.49224	0.49873	0.49320	_____	_____
__Cu	0.51426	0.553	0.51197	0.51745	0.51335	_____	_____
__Fe	25.16716	0.658	25.09326	25.35708	25.05112	_____	_____
__K	25.32871	0.301	25.29812	25.41569	25.27233	_____	_____
__Mg	25.43416	0.598	25.37113	25.60778	25.32357	_____	_____
__Mn	0.50620	0.613	0.50411	0.50976	0.50471	_____	_____
__Mo	0.50129	0.751	0.49701	0.50413	0.50271	_____	_____
__Na	25.96751	0.589	25.96374	26.12256	25.81624	_____	_____
__Ni	0.50087	1.014	0.49677	0.50656	0.49929	_____	_____
__Pb	0.50228	0.846	0.49902	0.50709	0.50074	_____	_____
__Sb	0.49524	0.961	0.49053	0.50005	0.49514	_____	_____
__Se	0.49396	1.005	0.48850	0.49820	0.49519	_____	_____
__Sn	0.49874	1.241	0.49593	0.50584	0.49445	_____	_____
__Ti	0.50546	0.585	0.50326	0.50882	0.50430	_____	_____
__Tl	0.49705	3.837	0.47503	0.50826	0.50787	_____	_____
__V	0.49903	0.769	0.49641	0.50344	0.49726	_____	_____
__Y	157661.67187	0.665	158389.00000	156458.00000	158138.00000	_____	_____
__Zn	0.50626	0.640	0.50371	0.50991	0.50515	_____	_____

LANCASTER LABORATORIES

Run Name: 9627001T61 INSTRUMENT ID: 05478

Tube: 27 CCB 09/26/96 02:40

ELEM	AVG (ppm)	%RSD	INTEGRATIONS #1	#2	#3	REREAD	REDIG
__Ag	0.00061	75.10	0.00101	0.00010	0.00072		
__Al	0.07781	25.45	0.09407	0.08362	0.05575		
__As	-0.00312	17.68	-0.00367	-0.00311	-0.00257		
__Ba	-0.00112	6.009	-0.00104	-0.00117	-0.00115		
__Be	0.00021	21.87	0.00022	0.00016	0.00026		
__Ca	0.14776	11.10	0.16487	0.14630	0.13213		
__Cd	-0.00019	97.57	-0.00041	-0.00006	-0.00011		
__Co	0.00086	64.86	0.00148	0.00037	0.00074		
__Cr	-0.00056	32.25	-0.00076	-0.00039	-0.00053		
__Cu	0.00049	51.42	0.00065	0.00019	0.00061		
__Fe	0.07199	14.97	0.08351	0.07032	0.06215		
__K	0.06929	10.50	0.07526	0.06119	0.07142		
__Mg	0.08990	17.45	0.10635	0.08824	0.07510		
__Mn	0.00021	25.29	0.00025	0.00023	0.00015		
__Mo	0.00078	7.875	0.00079	0.00084	0.00071		
__Na	0.19631	22.97	0.19339	0.24280	0.15274		
__Ni	-0.00028	52.67	-0.00039	-0.00032	-0.00011		
__Pb	-0.00216	12.18	-0.00193	-0.00210	-0.00245		
__Sb	0.00096	38.01	0.00137	0.00066	0.00085		
__Se	0.00121	30.91	0.00112	0.00088	0.00161		
__Sn	0.00090	48.67	0.00115	0.00115	0.00039		
__Ti	0.00033	31.76	0.00044	0.00023	0.00034		
__Tl	0.00610	56.10	0.01004	0.00391	0.00434		
__V	0.00020	53.73	0.00032	0.00019	0.00010		
__Y	158659.67187	0.983	157787.00000	157730.00000	160462.00000		
__Zn	0.00267	5.386	0.00281	0.00268	0.00252		

Data Reviewed by: MM142 9/26/96

Data Verified by: J. Jolliveil 9-27-96

Lancaster Laboratories

Data Reviewed By: 9-30-96

Data Verified By: 10-1-96

The 61E TRACE ICP uses a Crawford-Kunselman Noise Reduction Technique for lead, antimony, and selenium. This requires the utilization of the first and second order wavelengths in the calculation of each of these metal determinations. The 61E TRACE ICP also utilizes Yttrium as an internal standard to compensate for fluctuations in nebulization and plasma conditions. All Yttrium readings are expressed in counts.

LANCASTER LABORATORIES

Run Name: 9627404T61 INSTRUMENT ID: 0547E

Tube: 1 SO 09/30/96 12:46

ELEM	CONC (ppm)	AVG INTENSITY RATIO	%RSD	INTEGRATIONS #1	#2	#3
Ag	0.000	-0.00046	17.01	-0.00043	-0.00039	-0.00054
Al	0.000	0.00834	0.347	0.00833	0.00837	0.00832
As	0.000	-0.00046	65.36	-0.00012	-0.00070	-0.00057
Ba	0.000	0.00002	19.96	0.00002	0.00003	0.00002
Be	0.000	-0.06633	0.384	-0.06645	-0.06651	-0.06604
Ca	0.000	-0.00085	0.599	-0.00085	-0.00085	-0.00086
Cd	0.000	0.00032	29.99	0.00037	0.00020	0.00037
Co	0.000	-0.00029	31.04	-0.00028	-0.00020	-0.00038
Cr	0.000	0.00001	62.45	0.00002	0.00000	0.00002
Cu	0.000	-0.00159	1.071	-0.00157	-0.00159	-0.00160
Fe	0.000	-0.00010	32.75	-0.00011	-0.00006	-0.00013
K	0.000	0.00147	5.445	0.00138	0.00149	0.00153
Mg	0.000	0.00009	44.14	0.00008	0.00014	0.00006
Mn	0.000	0.00033	5.763	0.00034	0.00030	0.00033
Mo	0.000	-0.00070	4.290	-0.00073	-0.00067	-0.00070
Na	0.000	-0.00040	11.48	-0.00035	-0.00040	-0.00044
Ni	0.000	0.00010	24.14	0.00012	0.00008	0.00009
Pb	0.000	0.00216	8.625	0.00237	0.00208	0.00202
Sb	0.000	-0.00001	1848.	-0.00005	0.00025	-0.00024
Se	0.000	-0.00135	3.981	-0.00129	-0.00139	-0.00138
Sn	0.000	0.00001	347.7	0.00004	0.00005	-0.00005
Ti	0.000	-0.00047	10.18	-0.00046	-0.00043	-0.00053
Tl	0.000	-0.00116	18.59	-0.00093	-0.00120	-0.00136
V	0.000	0.00005	40.46	0.00002	0.00005	0.00006
Y	N/A	171449.67187	0.117	171223.00000	171607.00000	171519.00000
Zn	0.000	-0.00007	8.552	-0.00007	-0.00008	-0.00008

LANCASTER LABORATORIES

Run Name: 9627404T61 INSTRUMENT ID: 0547E

Tube: 2 S1 5 09/30/96 12:50

ELEM	CONC (ppm)	AVG INTENSITY RATIO	%RSD	INTEGRATIONS #1	#2	#3
__Al	50.000	0.66046	11.05	0.61560	0.74473	0.62104
__Ca	50.000	0.52436	10.80	0.48920	0.58973	0.49415
__Fe	50.000	0.16800	11.10	0.15642	0.18954	0.15805
__K	50.000	1.30951	9.095	1.23768	1.44700	1.24385
__Mg	50.000	0.59573	11.44	0.55392	0.67440	0.55887
__Na	50.000	0.10579	10.12	0.09941	0.11816	0.09981
__Y	N/A	160970.00000	8.978	170085.00000	144306.00000	168519.00000

LANCASTER LABORATORIES

Run Name: 9627404T61 INSTRUMENT ID: 0547

Tube: 3 S2 S 09/30/96 12:54

ELEM	CONC (ppm)	AVG INTENSITY RATIO	%RSD	INTEGRATIONS #1	#2	#3
Ag	1.000	0.17233	2.984	0.17818	0.16851	0.17030
As	1.000	0.16639	1.679	0.16955	0.16422	0.16542
Ba	1.000	0.23728	3.258	0.24611	0.23169	0.23405
Be	1.000	2.95870	2.126	3.02933	2.90861	2.93816
Cd	1.000	0.77855	2.377	0.79943	0.76414	0.77209
Co	1.000	0.16444	2.456	0.16901	0.16134	0.16297
Cu	1.000	0.18170	3.753	0.18951	0.17692	0.17867
Mn	1.000	0.70371	2.586	0.72440	0.69019	0.69653
Ni	1.000	0.11102	2.550	0.11421	0.10881	0.11005
Pb	1.000	0.21208	3.509	0.22057	0.20670	0.20897
Se	1.000	0.09017	2.924	0.09318	0.08826	0.08908
Tl	1.000	0.07728	1.910	0.07885	0.07593	0.07706
Y	N/A	171444.32812	3.527	164522.00000	175700.00000	174111.00000
Zn	1.000	0.06593	2.647	0.06792	0.06466	0.06521

LANCASTER LABORATORIES

Run Name: 9627404T61 INSTRUMENT ID: 05478

Tube: 4 S3 5 09/30/96 12:58

ELEM	CONC (ppm)	AVG INTENSITY RATIO	%RSD	INTEGRATIONS #1	#2	#3
__Cr	1.000	0.08952	0.259	0.08978	0.08934	0.08943
__Mo	1.000	0.28014	0.766	0.27768	0.28107	0.28165
__Sb	1.000	0.25182	0.351	0.25131	0.25132	0.25285
__Sn	1.000	0.05936	0.332	0.05959	0.05927	0.05922
__Ti	1.000	0.38802	0.179	0.38883	0.38762	0.38762
__V	1.000	0.10290	0.207	0.10314	0.10273	0.10283
__Y	N/A	171677.00000	0.497	170693.00000	172229.00000	172109.00000

LANCASTER LABORATORIES

Run Name: 9627404T61 INSTRUMENT ID: 05478

Tube: 5 ICV 09/30/96 13:02

ELEM	AVG (ppm)	%RSD	INTEGRATIONS #1	#2	#3	REREAD	REDIG
Ag	0.60293	0.238	0.60280	0.60443	0.60157		
Al	27.84004	0.345	27.83715	27.93763	27.74534		
As	0.61614	0.234	0.61502	0.61777	0.61563		
Ba	0.59026	0.330	0.58950	0.59247	0.58880		
Be	0.60626	0.033	0.60622	0.60648	0.60608		
Ca	28.02760	0.087	28.05401	28.00587	28.02292		
Cd	0.59383	0.059	0.59384	0.59348	0.59418		
Co	0.59071	0.096	0.59133	0.59056	0.59022		
Cr	0.61356	0.065	0.61377	0.61381	0.61310		
Cu	0.59581	0.474	0.59562	0.59872	0.59307		
Fe	27.82422	0.086	27.83789	27.83833	27.79644		
K	29.27866	0.443	29.26930	29.41302	29.15366		
Mg	27.96108	0.260	27.94831	28.03933	27.89560		
Mn	0.59648	0.077	0.59680	0.59670	0.59595		
Mo	0.62072	0.261	0.61906	0.62079	0.62230		
Na	28.87807	0.711	28.94215	29.04394	28.64812		
Ni	0.59700	0.180	0.59759	0.59766	0.59576		
Pb	0.58768	0.285	0.58731	0.58622	0.58952		
Sb	0.61149	0.077	0.61192	0.61098	0.61156		
Se	0.59963	0.380	0.59702	0.60120	0.60068		
Sn	0.62068	0.324	0.62127	0.62234	0.61844		
Ti	0.62929	0.076	0.62921	0.62980	0.62885		
Tl	0.59343	0.508	0.59013	0.59605	0.59410		
V	0.61195	0.118	0.61219	0.61252	0.61114		
Y	171430.00000	0.093	171583.00000	171263.00000	171444.00000		
Zn	0.59923	0.090	0.59936	0.59969	0.59863		

LANCASTER LABORATORIES

Run Name: 9627404T61 INSTRUMENT ID: 05478

Type: 6 ICB 09/30/96 13:06

ELEM	AVG (ppm)	%RSD	INTEGRATIONS #1	#2	#3	REREAD	REDIG
Ag	0.00079	39.14	0.00047	0.00110	0.00081		
Al	0.02576	121.9	0.05747	0.02518	-0.00537		
As	0.00144	60.61	0.00119	0.00071	0.00241		
Ba	0.00054	30.75	0.00069	0.00058	0.00036		
Be	0.00095	65.80	0.00035	0.00090	0.00161		
Ca	0.11133	2.984	0.11321	0.10750	0.11330		
Cd	0.00032	35.52	0.00040	0.00037	0.00019		
Co	0.00081	20.82	0.00079	0.00099	0.00065		
Cr	0.00051	62.61	0.00037	0.00087	0.00027		
Cu	0.00015	188.7	-0.00016	0.00038	0.00022		
Fe	0.06166	7.771	0.05861	0.06718	0.05918		
K	0.07616	7.391	0.08113	0.07730	0.07004		
Mg	0.04952	14.78	0.05728	0.04855	0.04274		
Mn	0.00025	61.70	0.00040	0.00028	0.00008		
Mo	0.00221	74.32	0.00401	0.00184	0.00078		
Na	0.17438	26.05	0.13456	0.22387	0.16471		
Ni	0.00017	353.2	-0.00032	-0.00002	0.00088		
Pb	0.00138	42.50	0.00152	0.00073	0.00188		
Sb	0.00308	9.527	0.00309	0.00279	0.00338		
Se	0.00038	693.6	0.00275	0.00084	-0.00246		
Sn	0.00042	174.9	0.00119	0.00038	-0.00029		
Ti	0.00086	9.603	0.00089	0.00092	0.00077		
Tl	0.00319	44.03	0.00289	0.00195	0.00472		
V	0.00050	52.06	0.00032	0.00081	0.00038		
Y	174566.00000	3.385	169105.00000	173751.00000	180842.00000		
Zn	0.00091	16.16	0.00108	0.00082	0.00083		

LANCASTER LABORATORIES

Run Name: 9627404T61 INSTRUMENT ID: 05478

Tube: 7 CRI 09/30/96 13:11

ELEM	AVG (ppm)	%RSD	INTEGRATIONS #1	#2	#3	REREAD	REDIG
Ag	0.02056	1.928	0.02094	0.02058	0.02015		
Al	0.02177	9.756	0.01951	0.02208	0.02373		
As	0.02037	5.202	0.02141	0.02041	0.01929		
Ba	0.00029	16.41	0.00033	0.00029	0.00024		
Be	0.01048	0.543	0.01054	0.01048	0.01042		
Ca	0.08982	1.999	0.09157	0.08990	0.08798		
Cd	0.00990	1.217	0.00978	0.00989	0.01002		
Co	0.10138	0.702	0.10213	0.10072	0.10128		
Cr	0.02048	2.196	0.02055	0.02089	0.02000		
Cu	0.04993	0.067	0.04991	0.04997	0.04991		
Fe	0.04518	18.64	0.05359	0.04521	0.03674		
K	0.06300	7.989	0.06852	0.05866	0.06182		
Mg	0.03383	2.843	0.03477	0.03285	0.03387		
Mn	0.03034	0.210	0.03040	0.03032	0.03028		
Mo	0.00044	168.1	0.00128	0.00019	-0.00014		
Na	0.18787	7.022	0.17632	0.18505	0.20225		
Ni	0.08171	1.002	0.08183	0.08083	0.08246		
Pb	0.00699	10.18	0.00705	0.00768	0.00625		
Sb	0.12169	1.043	0.12098	0.12093	0.12315		
Se	0.00974	12.58	0.01072	0.01013	0.00836		
Sn	-0.00084	186.5	-0.00224	0.00087	-0.00117		
Ti	0.00026	45.30	0.00035	0.00029	0.00012		
Tl	0.02047	22.08	0.01527	0.02353	0.02260		
V	0.10566	0.209	0.10562	0.10590	0.10547		
Y	172868.67187	0.242	173159.00000	173058.00000	172389.00000		
Zn	0.04107	0.911	0.04150	0.04091	0.04080		

LANCASTER LABORATORIES

Run Name: 9627404T61

INSTRUMENT ID: 05478

Tube: 8 ICSA 09/30/96 13:15

ELEM	AVG (ppm)	%RSD	INTEGRATIONS #1	#2	#3	REREAD	REDIG
Ag	0.00032	90.91	0.00041	0.00055	0.00000		
Al	473.16271	0.136	472.42547	473.62301	473.43969		
As	0.00121	101.5	0.00235	-0.00009	0.00138		
Ba	0.00803	0.341	0.00802	0.00806	0.00801		
Be	0.00103	20.37	0.00104	0.00081	0.00123		
Ca	463.35134	0.131	462.65051	463.69302	463.71047		
Cd	0.01005	1.253	0.01016	0.00991	0.01008		
Co	0.00017	279.8	0.00032	0.00058	-0.00038		
Cr	0.00610	10.78	0.00680	0.00599	0.00550		
Cu	-0.00161	22.01	-0.00134	-0.00147	-0.00201		
Fe	188.28256	0.116	188.10267	188.52581	188.21917		
K	0.06269	20.13	0.07725	0.05599	0.05482		
Mg	486.72454	0.239	485.39471	487.56787	487.21109		
Mn	0.00400	3.102	0.00414	0.00399	0.00389		
Mo	-0.00047	162.7	-0.00086	-0.00097	0.00041		
Na	0.21399	31.73	0.29228	0.17108	0.17860		
Ni	0.00537	11.68	0.00609	0.00510	0.00492		
Pb	0.00425	28.10	0.00287	0.00496	0.00493		
Sb	-0.00141	57.29	-0.00152	-0.00055	-0.00217		
Se	-0.00499	11.92	-0.00508	-0.00553	-0.00435		
Sn	-0.00084	172.9	0.00061	-0.00229	-0.00084		
Ti	-0.00077	10.97	-0.00072	-0.00071	-0.00086		
Tl	-0.00030	635.3	0.00130	-0.00241	0.00019		
V	-0.01385	5.781	-0.01298	-0.01401	-0.01456		
Y	162077.32812	0.153	162128.00000	161807.00000	162297.00000		
Zn	0.00964	1.438	0.00951	0.00979	0.00961		

LANCASTER LABORATORIES

Run Name: 9627404T61 INSTRUMENT ID: 05478

Tube: 9 ICSAB 09/30/96 13:19

ELEM	AVG (ppm)	%RSD	INTEGRATIONS #1	#2	#3	REREAD	REDIG
__Ag	0.21005	0.788	0.20828	0.21157	0.21028	_____	_____
__Al	474.55526	0.725	470.64202	477.11825	475.90548	_____	_____
__As	0.10243	0.305	0.10275	0.10212	0.10241	_____	_____
__Ba	0.50995	0.808	0.50519	0.51234	0.51232	_____	_____
__Be	0.47979	0.445	0.47751	0.48175	0.48011	_____	_____
__Ca	467.35357	0.389	465.78482	469.34988	466.92599	_____	_____
__Cd	0.94036	0.450	0.93561	0.94373	0.94174	_____	_____
__Co	0.47119	0.408	0.46962	0.47333	0.47061	_____	_____
__Cr	0.49891	0.437	0.49666	0.50102	0.49905	_____	_____
__Cu	0.53433	0.862	0.52903	0.53733	0.53664	_____	_____
__Fe	188.69532	0.411	188.00679	189.53729	188.54191	_____	_____
__K	0.06502	18.41	0.07867	0.06013	0.05626	_____	_____
__Mg	488.25317	0.677	484.47030	490.58535	489.70388	_____	_____
__Mn	0.48458	0.448	0.48228	0.48660	0.48487	_____	_____
__Mo	0.00040	113.8	0.00056	0.00074	-0.00011	_____	_____
__Na	0.22616	3.291	0.22128	0.22246	0.23472	_____	_____
__Ni	0.94466	0.558	0.93865	0.94856	0.94676	_____	_____
__Pb	0.05285	0.947	0.05303	0.05325	0.05229	_____	_____
__Sb	0.61836	0.640	0.61597	0.62294	0.61619	_____	_____
__Se	0.04622	6.699	0.04681	0.04898	0.04287	_____	_____
__Sn	0.00114	440.3	0.00685	-0.00072	-0.00269	_____	_____
__Ti	-0.00093	7.224	-0.00097	-0.00085	-0.00096	_____	_____
__Tl	0.10016	3.138	0.09780	0.09895	0.10373	_____	_____
__V	0.49853	0.477	0.49599	0.50070	0.49890	_____	_____
__Y	161026.32812	0.564	162074.00000	160437.00000	160568.00000	_____	_____
__Zn	0.98902	0.641	0.98179	0.99365	0.99162	_____	_____

LANCASTER LABORATORIES

Run Name: 9627404T61 INSTRUMENT ID: 05478

Tube: 10 CCV 09/30/96 13:24

ELEM	AVG (ppm)	%RSD	INTEGRATIONS #1	#2	#3	REREAD	REDIG
Ag	0.50716	0.605	0.51069	0.50571	0.50508		
Al	23.61434	1.475	23.99235	23.54494	23.30572		
As	0.51118	0.339	0.51226	0.51211	0.50918		
Ba	0.49251	0.924	0.49742	0.49168	0.48843		
Be	0.50976	0.577	0.51300	0.50724	0.50903		
Ca	24.18463	0.867	24.42605	24.04792	24.07992		
Cd	0.50513	0.460	0.50778	0.50342	0.50420		
Co	0.49197	0.672	0.49547	0.48888	0.49155		
Cr	0.51637	0.391	0.51853	0.51452	0.51606		
Cu	0.49789	1.017	0.50324	0.49725	0.49317		
Fe	23.12799	0.902	23.36532	22.97257	23.04606		
K	24.56135	0.992	24.81412	24.54244	24.32748		
Mg	23.69168	1.405	24.05587	23.61666	23.40252		
Mn	0.50404	0.546	0.50718	0.50201	0.50293		
Mo	0.52326	0.320	0.52314	0.52165	0.52500		
Na	24.19314	0.800	24.38476	24.19737	23.99730		
Ni	0.50751	0.501	0.51037	0.50551	0.50665		
Pb	0.49456	0.373	0.49553	0.49243	0.49571		
Sb	0.50634	0.196	0.50734	0.50631	0.50535		
Se	0.49936	0.815	0.50286	0.50031	0.49489		
Sn	0.52180	0.380	0.52230	0.52349	0.51961		
Ti	0.52610	0.659	0.53009	0.52429	0.52390		
Tl	0.49923	0.555	0.50059	0.50106	0.49604		
V	0.52024	0.535	0.52346	0.51872	0.51856		
Y	170786.00000	0.678	169492.00000	171136.00000	171730.00000		
Zn	0.50728	0.594	0.51070	0.50503	0.50609		

LANCASTER LABORATORIES

Run Name: 9627404T61 INSTRUMENT ID: 05478

Tube: 11 CCB 09/30/96 13:28

ELEM	AVG (ppm)	%RSD	INTEGRATIONS #1	#2	#3	REREAD	REDIG
Ag	0.00092	30.48	0.00121	0.00065	0.00089		
Al	0.09809	21.00	0.11973	0.09584	0.07870		
As	0.00013	352.1	0.00050	-0.00040	0.00031		
Ba	0.00051	30.06	0.00069	0.00043	0.00041		
Be	0.00091	28.41	0.00118	0.00087	0.00067		
Ca	0.17802	15.45	0.20873	0.16974	0.15559		
Cd	0.00053	50.53	0.00078	0.00057	0.00024		
Co	0.00111	28.42	0.00131	0.00074	0.00127		
Cr	0.00051	47.06	0.00061	0.00023	0.00069		
Cu	-0.00017	135.1	0.00009	-0.00035	-0.00026		
Fe	0.09717	14.91	0.11345	0.08567	0.09239		
K	0.08429	14.58	0.09846	0.07792	0.07650		
Mg	0.11787	21.23	0.14585	0.11014	0.09762		
Mn	0.00028	52.43	0.00046	0.00021	0.00018		
Mo	0.00204	57.42	0.00316	0.00212	0.00082		
Na	0.21388	10.31	0.23850	0.20723	0.19589		
Ni	0.00010	496.4	0.00073	-0.00017	-0.00022		
Pb	0.00147	62.87	0.00186	0.00215	0.00041		
Sb	0.00306	30.18	0.00349	0.00369	0.00200		
Se	0.00029	332.1	-0.00074	0.00117	0.00044		
Sn	0.00157	73.46	0.00191	0.00253	0.00028		
Ti	0.00065	28.19	0.00085	0.00058	0.00051		
Tl	0.00292	66.67	0.00514	0.00211	0.00150		
V	0.00052	74.12	0.00092	0.00015	0.00049		
Y	173631.00000	0.926	175487.00000	172761.00000	172645.00000		
Zn	0.00084	21.33	0.00098	0.00090	0.00064		

LANCASTER LABORATORIES

INSTRUMENT ID: 05478

Run Name: 9627404T61

Tube: 12 2583823 BRAD 09/30/96 13:33
****,100-100,DF5,962685720001,8,,

ELEM	AVG (ppm)	%RSD	INTEGRATIONS #1	#2	#3	REREAD	REDIG
Ag	0.00026	157.3	-0.00021	0.00050	0.00051		
Al	0.05621	23.26	0.07067	0.05271	0.04523		
As	0.00113	146.9	0.00029	0.00306	0.00005		
Ba	0.02363	1.427	0.02402	0.02346	0.02341		
Be	0.00009	219.5	-0.00014	0.00021	0.00020		
Ca	14.01200	0.796	14.14011	13.96038	13.93550		
Cd	0.00011	28.08	0.00007	0.00012	0.00014		
Co	0.00073	57.50	0.00032	0.00070	0.00116		
Cr	0.00033	82.60	0.00064	0.00017	0.00017		
Cu	-0.00047	35.91	-0.00057	-0.00028	-0.00058		
Fe	0.11938	6.881	0.11034	0.12142	0.12639		
K	1.04428	1.718	1.06496	1.03516	1.03274		
Mg	5.79346	1.430	5.88809	5.75861	5.73369		
Mn	0.05133	1.039	0.05195	0.05102	0.05103		
Mo	0.00259	3.772	0.00252	0.00256	0.00270		
X Na	9.66835	1.798	9.84382	9.49601	9.66521		
Ni	0.00144	48.63	0.00225	0.00104	0.00103		
Pb	0.00171	26.73	0.00221	0.00131	0.00160		
Sb	0.00240	65.68	0.00329	0.00058	0.00332		
Se	-0.00005	1369.	0.00076	-0.00072	-0.00021		
Sn	0.00162	103.4	0.00311	-0.00019	0.00196		
Ti	0.00032	62.26	0.00009	0.00045	0.00043		
Tl	0.00019	65.37	0.00023	0.00005	0.00030		
V	0.00034	35.29	0.00046	0.00033	0.00022		
Y	170259.32812	1.111	168082.00000	171187.00000	171509.00000		
Zn	0.00719	0.887	0.00727	0.00716	0.00715		

DUP050307669

RUN NAME: 9627002F05 LANCASTER LABORATORIES
PAGE: 1 INSTRUMENT ID: 04725
ANALYST: 68 GFAA ELEMENT: SE

TUBE:	1	09/26/96 15:46			
SAMPLE	CLASS	IVOL/WT	FVOL	DF	BATCH NUMBER
S0		0	0	1	

AVG(ppb)	%RPD	AVG abs	BURN 1	BURN 2
0.0000	35.6	-0.001	-0.001	-0.002

TUBE:	2	09/26/96 15:50			
SAMPLE	CLASS	IVOL/WT	FVOL	DF	BATCH NUMBER
S5		0	0	1	

AVG(ppb)	%RPD	AVG abs	BURN 1	BURN 2
0.0000	4.6	0.012	0.013	0.012

TUBE:	3	09/26/96 15:54			
SAMPLE	CLASS	IVOL/WT	FVOL	DF	BATCH NUMBER
S15		0	0	1	

AVG(ppb)	%RPD	AVG abs	BURN 1	BURN 2
16.1300	0.5	0.039	0.039	0.039

TUBE:	4	09/26/96 15:58			
SAMPLE	CLASS	IVOL/WT	FVOL	DF	BATCH NUMBER
S25		0	0	1	

AVG(ppb)	%RPD	AVG abs	BURN 1	BURN 2
23.2700	1.1	0.061	0.061	0.061

TUBE:	5	09/26/96 16:02			
SAMPLE	CLASS	IVOL/WT	FVOL	DF	BATCH NUMBER
S40		0	0	1	

AVG(ppb)	%RPD	AVG abs	BURN 1	BURN 2
37.3200	1.1	0.092	0.092	0.093

TUBE:	6	09/26/96 16:06			
SAMPLE	CLASS	IVOL/WT	FVOL	DF	BATCH NUMBER
S50		0	0	1	

AVG(ppb)	%RPD	AVG abs	BURN 1	BURN 2
49.2100	1.1	0.116	0.115	0.117

TUBE:	7	09/26/96 16:10			
SAMPLE	CLASS	IVOL/WT	FVOL	DF	BATCH NUMBER
ICV		0	0	1	

AVG(ppb)	%RPD	AVG abs	BURN 1	BURN 2
19.5800	0.3	0.047	0.047	0.047

%RECOVERY = 97.9

RUN NAME: 9627002F05 LANCASTER LABORATORIES
PAGE: 2 INSTRUMENT ID: 04725
ANALYST: 68 OPAA ELEMENT: SE

TUBE: 8 09/26/96 16:14

SAMPLE	CLASS	IVOL/WT	FVOL	DF	BATCH NUMBER
ICB		0	0	1	

AVG(ppb)	%RPD	AVG abs	BURN 1	BURN 2
-0.9800	17.2	0.000	-0.001	-0.000

TUBE: 9 09/26/96 16:18

SAMPLE	CLASS	IVOL/WT	FVOL	DF	BATCH NUMBER
CRA		0	0	1	

AVG(ppb)	%RPD	AVG abs	BURN 1	BURN 2
4.0500	7.5	0.011	0.012	0.011

TUBE: 10 09/26/96 16:22

SAMPLE	CLASS	IVOL/WT	FVOL	DF	BATCH NUMBER
CCV 1		0	0	1	

AVG(ppb)	%RPD	AVG abs	BURN 1	BURN 2
24.8500	0.7	0.059	0.059	0.059

%RECOVERY = 99.4

TUBE: 11 09/26/96 16:26

SAMPLE	CLASS	IVOL/WT	FVOL	DF	BATCH NUMBER
CCB 1		0	0	1	

AVG(ppb)	%RPD	AVG abs	BURN 1	BURN 2
-1.2300	17.5	-0.001	-0.001	-0.001

TUBE: 12 09/26/96 16:30

SAMPLE	CLASS	IVOL/WT	FVOL	DF	BATCH NUMBER
2583825 BRAID	*******	100	100	1	962681056001

U	AVG(ppb)	%RPD	AVG abs	BURN 1	BURN 2	RR	RD
X	-0.5300	8.2	0.001	0.001	0.001	---	---

TUBE: 13 09/26/96 16:35

SAMPLE	CLASS	IVOL/WT	FVOL	DF	BATCH NUMBER
2583825 BRAIDA	*****A*	100	100	1	962681056001

AVG(ppb)	%RPD	AVG abs	BURN 1	BURN 2
12.3100	1.7	0.030	0.030	0.030

%RECOVERY = 123.1

RUN NAME: 9627002F05 LANCASTER LABORATORIES
PAGE: 3 INSTRUMENT ID: 04725
ANALYST: 68 GFAA ELEMENT: SC

TUBE: 14 09/26/96 16:39

SAMPLE	CLASS	IVOL/WT	FVOL	DF	BATCH NUMBER
2583827 BRAF1	*******	100	100	1	962681056001

V	AVG(ppb)	%RPD	AVG abs	BURN 1	BURN 2	RR	RD
X	-0.7300	58.2	0.000	0.001	-0.000		

TUBE: 15 09/26/96 16:43

SAMPLE	CLASS	IVOL/WT	FVOL	DF	BATCH NUMBER
2583827 BRAF1A	*****A*	100	100	1	962681056001

AVG(ppb)	%RPD	AVG abs	BURN 1	BURN 2
13.1800	0.5	0.032	0.032	0.032

%RECOVERY = 131.8

TUBE: 16 09/26/96 16:47

SAMPLE	CLASS	IVOL/WT	FVOL	DF	BATCH NUMBER
2585279 ZZZ	U******	100	100	5	962691056001

V	AVG(ppb)	%RPD	AVG abs	BURN 1	BURN 2	RR	RD
-	19.0700	1.5	0.046	0.045	0.046	54	

TUBE: 17 09/26/96 16:51

SAMPLE	CLASS	IVOL/WT	FVOL	DF	BATCH NUMBER
2585279 ZZ	U*****A*	100	100	5	962691056001

AVG(ppb)	%RPD	AVG abs	BURN 1	BURN 2
30.8900	0.0	0.073	0.073	0.073

%RECOVERY = 118.2

TUBE: 18 09/26/96 16:56

SAMPLE	CLASS	IVOL/WT	FVOL	DF	BATCH NUMBER
2585279 ZZZ	D******	100	100	5	962691056001

V	AVG(ppb)	%RPD	AVG abs	BURN 1	BURN 2	RR	RD
-	20.2100	3.9	0.048	0.049	0.047	54	

TUBE: 19 09/26/96 17:00

SAMPLE	CLASS	IVOL/WT	FVOL	DF	BATCH NUMBER
2585279	D*****A*	100	100	5	962691056001

AVG(ppb)	%RPD	AVG abs	BURN 1	BURN 2
32.4100	6.7	0.076	0.073	0.080

%RECOVERY = 122.0

PAGE: 4 INSTRUMENT ID: 04720
ANALYST: 68 OFAA ELEMENT: SE

TUBE: 20 09/26/96 17:04

SAMPLE	CLASS	IVOL/WT	FVOL	DF	BATCH NUMBER
2585279 ZZZZZZ	R*******	100	100	5	962691056001

AVG(ppb)	%RPD	AVG abs	BURN 1	BURN 2	RR	RD
20.1300	2.0	0.048	0.049	0.047	___	___

TUBE: 21 09/26/96 17:08

SAMPLE	CLASS	IVOL/WT	FVOL	DF	BATCH NUMBER
ZZZZZZ	R****A*	.0	0	5	

AVG(ppb)	%RPD	AVG abs	BURN 1	BURN 2
31.0400	1.7	0.073	0.072	0.074

%RECOVERY = NOT APPLICABLE

TUBE: 22 09/26/96 17:12

SAMPLE	CLASS	IVOL/WT	FVOL	DF	BATCH NUMBER
CCV 2		0	0	.1	

AVG(ppb)	%RPD	AVG abs	BURN 1	BURN 2
24.7600	2.4	0.059	0.058	0.060

%RECOVERY = 99.0

TUBE: 23 09/26/96 17:16

SAMPLE	CLASS	IVOL/WT	FVOL	DF	BATCH NUMBER
CCB 2		0	0	1	

AVG(ppb)	%RPD	AVG abs	BURN 1	BURN 2
-1.4600	24.1	-0.001	-0.002	-0.001

TUBE: 24 09/26/96 17:20

SAMPLE	CLASS	IVOL/WT	FVOL	DF	BATCH NUMBER
2585276	*******	100	100	1	962691056001

AVG(ppb)	%RPD	AVG abs	BURN 1	BURN 2	RR	RD
1.3700	3.3	0.005	0.005	0.005	___	___

TUBE: 25 09/26/96 17:24

SAMPLE	CLASS	IVOL/WT	FVOL	DF	BATCH NUMBER
2585276	*****A*	100	100	1	962691056001

AVG(ppb)	%RPD	AVG abs	BURN 1	BURN 2
10.8900	1.9	0.027	0.027	0.026

%RECOVERY = 95.2

20

DUP050307724

LANCASTER LABORATORIES

GRAPHITE FURNACE ATOMIC ABSORPTION

DATA REVIEWED BY: EDT809

DATA VERIFIED BY: RDG 114 9/25/96

DATA FILE NAME: TL96902
RUN NAME: 9626902F01

INSTRUMENT NO: 02803
BKG CORR: BD

ANALYST: 859

ELEMENT: TL

205

Concentration is used to evaluate if sample results are within calibration range.

RUN NAME: 9626902F01 LANCASTER LABORATORIES
PAGE: 1 INSTRUMENT ID: 02003
ANALYST: 859 GFAA ELEMENT: TL

TUBE: 1	09/25/96 05:23				
SAMPLE	CLASS	IVOL/WT	FVOL	DF	BATCH NUMBER
S0		0	0	1	

AVG(ppb)	%RPD	AVG abs	BURN 1	BURN 2
0.0000	0.0	0.014	0.019	0.009

TUBE: 2	09/25/96 05:27				
SAMPLE	CLASS	IVOL/WT	FVOL	DF	BATCH NUMBER
S10		0	0	1	

AVG(ppb)	%RPD	AVG abs	BURN 1	BURN 2
10.0000	7.3	0.049	0.047	0.052

TUBE: 3	09/25/96 05:30				
SAMPLE	CLASS	IVOL/WT	FVOL	DF	BATCH NUMBER
S20		0	0	1	

AVG(ppb)	%RPD	AVG abs	BURN 1	BURN 2
20.0000	9.6	0.118	0.110	0.126

TUBE: 4	09/25/96 05:34				
SAMPLE	CLASS	IVOL/WT	FVOL	DF	BATCH NUMBER
S40		0	0	1	

AVG(ppb)	%RPD	AVG abs	BURN 1	BURN 2
40.0000	3.1	0.222	0.217	0.227

TUBE: 5	09/25/96 05:38				
SAMPLE	CLASS	IVOL/WT	FVOL	DF	BATCH NUMBER
S60		0	0	1	

AVG(ppb)	%RPD	AVG abs	BURN 1	BURN 2
60.0000	0.1	0.338	0.338	0.338

TUBE: 6	09/25/96 05:41				
SAMPLE	CLASS	IVOL/WT	FVOL	DF	BATCH NUMBER
S80		0	0	1	

AVG(ppb)	%RPD	AVG abs	BURN 1	BURN 2
80.0000	7.1	0.399	0.420	0.379

TUBE: 7	09/25/96 05:45				
SAMPLE	CLASS	IVOL/WT	FVOL	DF	BATCH NUMBER
ICV		0	0	1	

AVG(ppb)	%RPD	AVG abs	BURN 1	BURN 2
49.3400	1.2	0.276	0.278	0.274

%RECOVERY = 98.7

204

RUN NAME: 962690ZF01 LANCASTER LABORATORIES
PAGE: 2 INSTRUMENT ID: 02003
ANALYST: 059 OFAA ELEMENT: TL

TUBE:	8	09/25/96 05:48				
SAMPLE		CLASS	IVOL/WT	FVOL	DF	BATCH NUMBER
ICB			0	0	1	

AVG(ppb)	%RPD	AVG abs	BURN 1	BURN 2
-0.9000	95.8	-0.004	-0.001	-0.007

TUBE:	9	09/25/96 05:51				
SAMPLE		CLASS	IVOL/WT	FVOL	DF	BATCH NUMBER
CRA			0	0	1	

AVG(ppb)	%RPD	AVG abs	BURN 1	BURN 2
12.3800	8.0	0.063	0.067	0.060

TUBE:	10	09/25/96 05:55				
SAMPLE		CLASS	IVOL/WT	FVOL	DF	BATCH NUMBER
ZZZZZZ		*******	0	0	1	

AVG(ppb)	%RPD	AVG abs	BURN 1	BURN 2
31.5900	4.2	0.160	0.165	0.174

TUBE:	11	09/25/96 05:58				
SAMPLE		CLASS	IVOL/WT	FVOL	DF	BATCH NUMBER
CCV 1			0	0	1	

AVG(ppb)	%RPD	AVG abs	BURN 1	BURN 2
41.0000	3.9	0.228	0.234	0.222

%RECOVERY = 102.5

TUBE:	12	09/25/96 06:02				
SAMPLE		CLASS	IVOL/WT	FVOL	DF	BATCH NUMBER
CCB 1			0	0	1	

AVG(ppb)	%RPD	AVG abs	BURN 1	BURN 2
0.2000	99.9	0.001	0.002	0.000

TUBE:	13	09/25/96 06:05				
SAMPLE		CLASS	IVOL/WT	FVOL	DF	BATCH NUMBER
PBW A		*******	100	100	1	962681056001

AVG(ppb)	%RPD	AVG abs	BURN 1	BURN 2	RR	RD
-0.8900	49.6	-0.004	-0.003	-0.006		

RUN NAME: 9626902F01 LANCASTER LABORATORIES
PAGE: 3 INSTRUMENT ID: 02803
ANALYST: 859 GFAA ELEMENT: TL

TUBE: 14	09/25/96 06:09				
SAMPLE	CLASS	IVOL/WT	FVOL	DF	BATCH NUMBER
PBW	******A*	100	100	1	962681056001

AVG(ppb)	%RPD	AVG abs	BURN 1	BURN 2
22.0600	12.3	0.129	0.140	0.118

%RECOVERY = 110.3

TUBE: 15	09/25/96 06:12				
SAMPLE	CLASS	IVOL/WT	FVOL	DF	BATCH NUMBER
LCSW	********	1	1	1	962681056001

V	AVG(ppb)	%RPD	AVG abs	BURN 1	BURN 2	RR	RD
X	47.2000	0.4	0.264	0.265	0.263	___	___

TUBE: 16	09/25/96 06:15				
SAMPLE	CLASS	IVOL/WT	FVOL	DF	BATCH NUMBER
LCSW A	******A*	1	1	1	962681056001

AVG(ppb)	%RPD	AVG abs	BURN 1	BURN 2
68.5100	0.9	0.368	0.366	0.371

%RECOVERY = 106.2

TUBE: 17	09/25/96 06:19				
SAMPLE	CLASS	IVOL/WT	FVOL	DF	BATCH NUMBER
2583205 BRASS	********	100	100	1	962681056001

V	AVG(ppb)	%RPD	AVG abs	BURN 1	BURN 2	RR	RD
X	-2.0800	38.0	-0.010	-0.007	-0.013	___	___

TUBE: 18	09/25/96 06:22				
SAMPLE	CLASS	IVOL/WT	FVOL	DF	BATCH NUMBER
2583205 BRASSA	******A*	100	100	1	962681056001

AVG(ppb)	%RPD	AVG abs	BURN 1	BURN 2
19.2500	1.8	0.112	0.110	0.113

%RECOVERY = 96.2

TUBE: 19	09/25/96 06:26				
SAMPLE	CLASS	IVOL/WT	FVOL	DF	BATCH NUMBER
2583206 BRASD	********	100	100	1	962681056001

V	AVG(ppb)	%RPD	AVG abs	BURN 1	BURN 2	RR	RD
X	-0.9700	10.9	-0.005	-0.005	-0.004	___	___

206

RUN NAME: 9626902F01 — LANCASTER LABORATORIES
PAGE: 4 — INSTRUMENT ID: 02803
ANALYST: 859 — GFAA ELEMENT: TL

TUBE: 20 09/25/96 06:29

SAMPLE	CLASS	IVOL/WT	FVOL	DF	BATCH NUMBER
2583206 BR4D	******A*	100	100	1	962681056001

AVG(ppb)	%RPD	AVG abs	BURN 1	BURN 2
19.3700	2.4	0.113	0.115	0.111

%RECOVERY = 96.8

TUBE: 21 09/25/96 06:33

SAMPLE	CLASS	IVOL/WT	FVOL	DF	BATCH NUMBER
2583207 BR4DD	********	100	100	1	962681056001

V	AVG(ppb)	%RPD	AVG abs	BURN 1	BURN 2	RR	RD
X	-1.2700	10.4	-0.006	-0.006	-0.007		

TUBE: 22 09/25/96 06:36

SAMPLE	CLASS	IVOL/WT	FVOL	DF	BATCH NUMBER
2583207 BR4DDA	******A*	100	100	1	962681056001

AVG(ppb)	%RPD	AVG abs	BURN 1	BURN 2
19.5900	6.9	0.114	0.107	0.120

%RECOVERY = 98.0

TUBE: 23 09/25/96 06:40

SAMPLE	CLASS	IVOL/WT	FVOL	DF	BATCH NUMBER
CCV 2		0	0	1	

AVG(ppb)	%RPD	AVG abs	BURN 1	BURN 2
44.0000	7.6	0.245	0.232	0.258

%RECOVERY = 110.0

TUBE: 24 09/25/96 06:43

SAMPLE	CLASS	IVOL/WT	FVOL	DF	BATCH NUMBER
CCB 2		0	0	1	

AVG(ppb)	%RPD	AVG abs	BURN 1	BURN 2
0.1700	99.9	0.001	0.004	-0.002

TUBE: 25 09/25/96 06:46

SAMPLE	CLASS	IVOL/WT	FVOL	DF	BATCH NUMBER
2583208 BRS4S	********	100	100	1	962681056001

V	AVG(ppb)	%RPD	AVG abs	BURN 1	BURN 2	RR	RD
X	-1.2800	58.5	-0.006	-0.004	-0.009		

20%

RUN NAME: 9626902F01 LANCASTER LABORATORIES
PAGE: 6 INSTRUMENT ID: 02303
ANALYST: 859 GFAA ELEMENT: TL

TUBE: 26 09/25/96 06:50

SAMPLE	CLASS	IVOL/WT	FVOL	DF	BATCH NUMBER
2583208 BRS4SA	******A*	100	100	1	962681056001

AVG(ppb)	%RPD	AVG abs	BURN 1	BURN 2
18.6000	7.8	0.106	0.112	0.101

%RECOVERY = 93.0

TUBE: 27 09/25/96 06:53

SAMPLE	CLASS	IVOL/WT	FVOL	DF	BATCH NUMBER
2583209 BRS3D	D*******	100	100	1	962681056001

V	AVG(ppb)	%RPD	AVG abs	BURN 1	BURN 2	RR	RD
—	-1.5400	99.9	-0.008	0.004	-0.019	R	—

TUBE: 28 09/25/96 06:57

SAMPLE	CLASS	IVOL/WT	FVOL	DF	BATCH NUMBER
2583209 BRS3DA	D****A*	100	100	1	962681056001

AVG(ppb)	%RPD	AVG abs	BURN 1	BURN 2
20.0100	23.2	0.110	0.090	0.137

%RECOVERY = 100.0

TUBE: 29 09/25/96 07:00

SAMPLE	CLASS	IVOL/WT	FVOL	DF	BATCH NUMBER
2583209 BRS3DD	D*******	100	100	1	962681056001

V	AVG(ppb)	%RPD	AVG abs	BURN 1	BURN 2	RR	RD
X	0.7500	23.0	0.004	0.004	0.003	—	—

TUBE: 30 09/25/96 07:03

SAMPLE	CLASS	IVOL/WT	FVOL	DF	BATCH NUMBER
2583209 BRS3DDA	D****A*	100	100	1	962681056001

AVG(ppb)	%RPD	AVG abs	BURN 1	BURN 2
18.7000	10.1	0.107	0.115	0.100

%RECOVERY = 93.5

TUBE: 31 09/25/96 07:06

SAMPLE	CLASS	IVOL/WT	FVOL	DF	BATCH NUMBER
2583209 BRS3DS	R*******	100	100	1	962681056001

V	AVG(ppb)	%RPD	AVG abs	BURN 1	BURN 2	RR	RD
X	44.0300	0.7	0.245	0.246	0.244	—	—

RUN NAME: 9626902F01 LANCASTER LABORATORIES
PAGE: 6 INSTRUMENT ID: 02803
ANALYST: 659 DFAA ELEMENT: TL

TUBE: 32 09/25/96 07:10

SAMPLE	CLASS	IVOL/WT	FVOL	DF	BATCH NUMBER
ZZZZZZ	R*****A*	0	0	1	

AVG(ppb)	%RPD	AVG abs	BURN 1	BURN 2
57.5900	1.6	0.324	0.320	0.320

%RECOVERY = NOT APPLICABLE

TUBE: 33 09/25/96 07:13

SAMPLE	CLASS	IVOL/WT	FVOL	DF	BATCH NUMBER
2583210 DRA3S	*******	100	100	1	962681056001

V	AVG(ppb)	%RPD	AVG abs	BURN 1	BURN 2	RR	RD
X	-3.9000	7.3	-0.019	-0.018	-0.020		

TUBE: 34 09/25/96 07:17

SAMPLE	CLASS	IVOL/WT	FVOL	DF	BATCH NUMBER
2583210 DRA3SA	*****A*	100	100	1	962681056001

AVG(ppb)	%RPD	AVG abs	BURN 1	BURN 2
17.3900	11.1	0.097	0.090	0.105

%RECOVERY = 87.0

TUBE: 35 09/25/96 07:20

SAMPLE	CLASS	IVOL/WT	FVOL	DF	BATCH NUMBER
CCV 3		0	0	1	

AVG(ppb)	%RPD	AVG abs	BURN 1	BURN 2
42.3000	4.3	0.235	0.243	0.228

%RECOVERY = 105.8

TUBE: 36 09/25/96 07:23

SAMPLE	CLASS	IVOL/WT	FVOL	DF	BATCH NUMBER
CCB 3		0	0	1	

AVG(ppb)	%RPD	AVG abs	BURN 1	BURN 2
1.0800	99.9	0.005	0.002	0.009

TUBE: 37 09/25/96 07:27

SAMPLE	CLASS	IVOL/WT	FVOL	DF	BATCH NUMBER
2583823 BRA3D	*******	100	100	1	962681056001

V	AVG(ppb)	%RPD	AVG abs	BURN 1	BURN 2	RR	RD
X	-2.8900	52.0	-0.014	-0.019	-0.009		

RUN NAME: 9626902F01 LANCASTER LABORATORIES
PAGE: 7 INSTRUMENT ID: 02803
ANALYST: 859 GFAA ELEMENT: TL

TUBE: 38 09/25/96 07:30

SAMPLE	CLASS	IVOL/WT	FVOL	DF	BATCH NUMBER
2583823 BRA2DA	*****A*	100	100	1	962681056001

AVG(ppb)	%RPD	AVG abs	BURN 1	BURN 2
20.2200	0.9	0.119	0.120	0.118

%RECOVERY = 101.1

TUBE: 39 09/25/96 07:33

SAMPLE	CLASS	IVOL/WT	FVOL	DF	BATCH NUMBER
2583824 BRA2S	*******	100	100	1	962681056001

V	AVG(ppb)	%RPD	AVG abs	BURN 1	BURN 2	RR	RD
X	-2.3700	13.9	-0.012	-0.010	-0.013		

TUBE: 40 09/25/96 07:37

SAMPLE	CLASS	IVOL/WT	FVOL	DF	BATCH NUMBER
2583824 BRA2SA	*****A*	100	100	1	962681056001

AVG(ppb)	%RPD	AVG abs	BURN 1	BURN 2
20.9600	13.9	0.123	0.111	0.135

%RECOVERY = 104.8

TUBE: 41 09/25/96 07:40

SAMPLE	CLASS	IVOL/WT	FVOL	DF	BATCH NUMBER
2583825 BRAID	*******	100	100	1	962681056001

V	AVG(ppb)	%RPD	AVG abs	BURN 1	BURN 2	RR	RD
X	-2.5400	99.9	-0.012	-0.003	-0.022		

TUBE: 42 09/25/96 07:44

SAMPLE	CLASS	IVOL/WT	FVOL	DF	BATCH NUMBER
2583825 BRAIDA	*****A*	100	100	1	962681056001

AVG(ppb)	%RPD	AVG abs	BURN 1	BURN 2
21.0500	1.0	0.124	0.123	0.124

%RECOVERY = 105.2

TUBE: 43 09/25/96 07:47

SAMPLE	CLASS	IVOL/WT	FVOL	DF	BATCH NUMBER
2583826 BRA1S	*******	100	100	1	962681056001

V	AVG(ppb)	%RPD	AVG abs	BURN 1	BURN 2	RR	RD
X	-0.3000	99.9	-0.001	-0.007	0.004		

210

RUN NAME: 9626902F01 LANCASTER LABORATORIES
PAGE: 8 INSTRUMENT ID: 02603
ANALYST: 859 GFAA ELEMENT: TL

TUBE: 44 09/25/96 07:51

SAMPLE	CLASS	IVOL/WT	FVOL	DF	BATCH NUMBER
2583826 BRA1SA	******A*	100	100	1	962681056001

AVG(ppb)	%RPD	AVG abs	BURN 1	BURN 2
19.6700	9.4	0.115	0.123	0.107

%RECOVERY = 98.4

TUBE: 45 09/25/96 07:54

SAMPLE	CLASS	IVOL/WT	FVOL	DF	BATCH NUMBER
2583827 BRAF1	********	100	100	1	962681056001

V	AVG(ppb)	%RPD	AVG abs	BURN 1	BURN 2	RR	RD
X	0.9900	80.3	0.005	0.002	0.008		

TUBE: 46 09/25/96 07:57

SAMPLE	CLASS	IVOL/WT	FVOL	DF	BATCH NUMBER
2583827 BRAF1A	******A*	100	100	1	962681056001

AVG(ppb)	%RPD	AVG abs	BURN 1	BURN 2
20.7900	1.2	0.122	0.123	0.121

%RECOVERY = 104.0

TUBE: 47 09/25/96 08:01

SAMPLE	CLASS	IVOL/WT	FVOL	DF	BATCH NUMBER
CCV 4		0	0	1	

AVG(ppb)	%RPD	AVG abs	BURN 1	BURN 2
43.5500	2.0	0.242	0.239	0.246

%RECOVERY = 108.9

TUBE: 48 09/25/96 08:04

SAMPLE	CLASS	IVOL/WT	FVOL	DF	BATCH NUMBER
CCB 4		0	0	1	

AVG(ppb)	%RPD	AVG abs	BURN 1	BURN 2
-0.2900	67.1	-0.001	-0.002	-0.001

TUBE: 49 09/25/96 08:07

SAMPLE	CLASS	IVOL/WT	FVOL	DF	BATCH NUMBER
PBW	********	100	100	1	962681056002

V	AVG(ppb)	%RPD	AVG abs	BURN 1	BURN 2	RR	RD
X	-1.7200	30.7	-0.008	-0.010	-0.007		

21

DUP050307733

LANCASTER LABORATORIES

GRAPHITE FURNACE ATOMIC ABSORPTION

DATA REVIEWED BY: JM 5068

DATA VERIFIED BY: RDG all alerted

DATA FILE NAME: TL26909 INSTRUMENT NO: 02803
RUN NAME: 9626903F01 BKG CORR: BD

ANALYST: 809 ELEMENT: TL

212

Concentration is used to evaluate if sample results are within calibration range.

RUN NAME: 9626903F01 LANCASTER LABORATORIES
PAGE: 1 INSTRUMENT ID: 0203
ANALYST: 009 OPAA ELEMENT: TL

TUBE:	1	09/25/96 12:25				
SAMPLE		CLASS	IVOL/WT	FVOL	DF	BATCH NUMBER
S0			0	0	1	

AVG(ppb)	%RPD	AVG abs	BURN 1	BURN 2
0.0000	0.0	-0.017	-0.019	-0.014

TUBE:	2	09/25/96 12:28				
SAMPLE		CLASS	IVOL/WT	FVOL	DF	BATCH NUMBER
S10			0	0	1	

AVG(ppb)	%RPD	AVG abs	BURN 1	BURN 2
10.0000	2.5	0.067	0.068	0.065

TUBE:	3	09/25/96 12:32				
SAMPLE		CLASS	IVOL/WT	FVOL	DF	BATCH NUMBER
S20			0	0	1	

AVG(ppb)	%RPD	AVG abs	BURN 1	BURN 2
20.0000	5.2	0.121	0.125	0.116

TUBE:	4	09/25/96 12:36				
SAMPLE		CLASS	IVOL/WT	FVOL	DF	BATCH NUMBER
S40			0	0	1	

AVG(ppb)	%RPD	AVG abs	BURN 1	BURN 2
40.0000	5.4	0.227	0.236	0.219

TUBE:	5	09/25/96 12:39				
SAMPLE		CLASS	IVOL/WT	FVOL	DF	BATCH NUMBER
S60			0	0	1	

AVG(ppb)	%RPD	AVG abs	BURN 1	BURN 2
60.0000	1.6	0.313	0.317	0.310

TUBE:	6	09/25/96 12:43				
SAMPLE		CLASS	IVOL/WT	FVOL	DF	BATCH NUMBER
S80			0	0	1	

AVG(ppb)	%RPD	AVG abs	BURN 1	BURN 2
80.0000	3.0	0.395	0.387	0.404

TUBE:	7	09/25/96 12:46				
SAMPLE		CLASS	IVOL/WT	FVOL	DF	BATCH NUMBER
ICV			0	0	1	

AVG(ppb)	%RPD	AVG abs	BURN 1	BURN 2
46.7100	0.5	0.259	0.258	0.260

%RECOVERY = 93.4

219

RUN NAME: 9626903F01 — LANCASTER LABORATORIES
PAGE: 7 — INSTRUMENT ID: 02803
ANALYST: 809 — GFAA ELEMENT: TL

TUBE:	8	09/25/96 12:50				
SAMPLE		CLASS	IVOL/WT	FVOL	DF	BATCH NUMBER
ICB			0	0	1	

AVG(ppb)	%RPD	AVG abs	BURN 1	BURN 2
-0.3500	23.8	-0.002	-0.002	0.003

TUBE:	9	09/25/96 12:53				
SAMPLE		CLASS	IVOL/WT	FVOL	DF	BATCH NUMBER
CRA			0	0	1	

AVG(ppb)	%RPD	AVG abs	BURN 1	BURN 2
9.6400	19.8	0.064	0.055	0.073

TUBE:	10	09/25/96 12:56				
SAMPLE		CLASS	IVOL/WT	FVOL	DF	BATCH NUMBER
ZZZZZZ		*******	0	0	1	

AVG(ppb)	%RPD	AVG abs	BURN 1	BURN 2
30.8800	3.0	0.180	0.184	0.177

TUBE:	11	09/25/96 13:00				
SAMPLE		CLASS	IVOL/WT	FVOL	DF	BATCH NUMBER
CCV 1			0	0	1	

AVG(ppb)	%RPD	AVG abs	BURN 1	BURN 2
42.1500	2.9	0.238	0.233	0.242

%RECOVERY = 105.4

TUBE:	12	09/25/96 13:03				
SAMPLE		CLASS	IVOL/WT	FVOL	DF	BATCH NUMBER
CCB 1			0	0	1	

AVG(ppb)	%RPD	AVG abs	BURN 1	BURN 2
0.6100	60.8	0.004	0.006	0.002

TUBE:	13	09/25/96 13:06				
SAMPLE		CLASS	IVOL/WT	FVOL	DF	BATCH NUMBER
2583209 BRS3D		U*******	100	100	1	962681056001

AVG(ppb)	%RPD	AVG abs	BURN 1	BURN 2	RR	KD
1.0900	31.1	0.007	0.009	0.006		

214

RUN NAME: 9626903F01 LANCASTER LABORATORIES
PAGE: 3 INSTRUMENT ID: 02003
ANALYST: 809 GFAA ELEMENT: TL

TUBE: 14 09/25/96 13:10

SAMPLE	CLASS	IVOL/WT	FVOL	DF	BATCH NUMBER
2583209 BRS3DA	U*****A*	100	100	1	962681056001

AVG(ppb)	%RPD	AVG abs	BURN 1	BURN 2
20.0100	0.5	0.121	0.120	0.121

%RECOVERY = 94.6

TUBE: 15 09/25/96 13:15

SAMPLE	CLASS	IVOL/WT	FVOL	DF	BATCH NUMBER
2583830 ZZZZZZ	********	100	100	1	962681056002

V	AVG(ppb)	%RPD	AVG abs	BURN 1	BURN 2	RR	RD
X	2.1300	16.4	0.014	0.016	0.013		

TUBE: 16 09/25/96 13:17

SAMPLE	CLASS	IVOL/WT	FVOL	DF	BATCH NUMBER
2583830 ZZZZZZ	*****A*	100	100	1	962681056002

AVG(ppb)	%RPD	AVG abs	BURN 1	BURN 2
20.5900	1.0	0.124	0.125	0.123

%RECOVERY = 92.3

TUBE: 17 09/25/96 13:20

SAMPLE	CLASS	IVOL/WT	FVOL	DF	BATCH NUMBER
2583831 ZZZZZZ	********	100	100	1	962681056002

V	AVG(ppb)	%RPD	AVG abs	BURN 1	BURN 2	RR	RD
X	-0.3700	99.9	-0.002	0.003	-0.008		

TUBE: 18 09/25/96 13:24

SAMPLE	CLASS	IVOL/WT	FVOL	DF	BATCH NUMBER
2583831	*****A*	100	100	1	962681056002

AVG(ppb)	%RPD	AVG abs	BURN 1	BURN 2
20.1100	0.2	0.121	0.122	0.121

%RECOVERY = 100.6

TUBE: 19 09/25/96 13:27

SAMPLE	CLASS	IVOL/WT	FVOL	DF	BATCH NUMBER
2583832 ZZZZZZ	*******	100	100	1	962681056002

V	AVG(ppb)	%RPD	AVG abs	BURN 1	BURN 2	RR	RD
X	0.7400	55.0	0.005	0.003	0.007		

215

RUN NAME: 962690JF01 LANCASTER LABORATORIES
PAGE: 4 INSTRUMENT ID: 02003
ANALYST: 609 GFAA ELEMENT: TL

TUBE: 20 09/25/96 13:31

SAMPLE	CLASS	IVOL/WT	FVOL	DF	BATCH NUMBER
2583832 ZZZZZ	******A*	100	100	1	962681056002

AVG(ppb)	%RPD	AVG abs	BURN 1	BURN 2
18.7300	4.0	0.114	0.113	0.111

%RECOVERY = 93.6

TUBE: 21 09/25/96 13:34

SAMPLE	CLASS	IVOL/WT	FVOL	DF	BATCH NUMBER
2583833 ZZZZZ	********	100	100	1	962681056002

V	AVG(ppb)	%RPD	AVG abs	BURN 1	BURN 2	RR	RD
X	0.6100	99.9	0.004	0.008	0.001		

TUBE: 22 09/25/96 13:36

SAMPLE	CLASS	IVOL/WT	FVOL	DF	BATCH NUMBER
2583833 ZZZZZ	******A*	100	100	1	962681056002

AVG(ppb)	%RPD	AVG abs	BURN 1	BURN 2
19.7100	5.1	0.119	0.115	0.124

%RECOVERY = 98.6

TUBE: 23 09/25/96 13:41

SAMPLE	CLASS	IVOL/WT	FVOL	DF	BATCH NUMBER
CCV 2		0	0	1	

AVG(ppb)	%RPD	AVG abs	BURN 1	BURN 2
40.6100	1.2	0.230	0.232	0.228

%RECOVERY = 101.5

TUBE: 24 09/25/96 13:44

SAMPLE	CLASS	IVOL/WT	FVOL	DF	BATCH NUMBER
CCB 2		0	0	1	

AVG(ppb)	%RPD	AVG abs	BURN 1	BURN 2
-0.3800	69.4	-0.003	-0.001	-0.004

TUBE: 25 09/25/96 13:46

SAMPLE	CLASS	IVOL/WT	FVOL	DF	BATCH NUMBER
2583834	********	100	100	1	962681056002

V	AVG(ppb)	%RPD	AVG abs	BURN 1	BURN 2	RR	RD
X	0.2700	99.9	0.002	0.008	-0.004		

Mercury Data

LANCASTER LABORATORIES

MERCURY ANALYZER

DATA REVIEWED BY: NSM823 9/25/96

DATA VERIFIED BY: 383

DATA FILE NAME: 9626903.PRN INSTRUMENT NO: 05220
RUN NAME: 9626903M03

ANALYST: 823 ELEMENT: HG

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RUN NAME: 092690SM04
PAGE: 3
ANALYST: 023

[illegible]
INSTRUMENT ID: 05[illegible]
CV ELEMENT: HG

TUBE: 1 09/25/96 17:14

SAMPLE	CLASS	IVOL/WT	FVOL	DF	BATCH NUMBER
S0	*******	0	0	1	

AVG(ppb)	Intensity
0.0000	773.0

TUBE: 2 09/25/96 17:16

SAMPLE	CLASS	IVOL/WT	FVOL	DF	BATCH NUMBER
S0.2	*******	0	0	1	

AVG(ppb)	Intensity
0.2000	20180.0

TUBE: 3 09/25/96 17:18

SAMPLE	CLASS	IVOL/WT	FVOL	DF	BATCH NUMBER
S0.5	*******	0	0	1	

AVG(ppb)	Intensity
0.5000	54192.0

TUBE: 4 09/25/96 17:21

SAMPLE	CLASS	IVOL/WT	FVOL	DF	BATCH NUMBER
S1.0	*******	0	0	1	

AVG(ppb)	Intensity
1.0000	103361.0

TUBE: 5 09/25/96 17:23

SAMPLE	CLASS	IVOL/WT	FVOL	DF	BATCH NUMBER
S2.5	*******	0	0	1	

AVG(ppb)	Intensity
2.5000	249425.0

TUBE: 6 09/25/96 17:26

SAMPLE	CLASS	IVOL/WT	FVOL	DF	BATCH NUMBER
S5.0	*******	0	0	1	

AVG(ppb)	Intensity
5.0000	498296.0

Correlation Coefficient = 0.99996

TUBE: 7 09/25/96 17:28

SAMPLE	CLASS	IVOL/WT	FVOL	DF	BATCH NUMBER
ICV	*******	0	0	1	

AVG(ppb)	Intensity
2.0400	204247.0

%RECOVERY = 102.0

219

RUN NAME: 9626903M03
PAGE: 7
ANALYST: 823

LANCASTER LABORATORIES
INSTRUMENT ID: [illegible]
CV ELEMENT: NO

TUBE: 8 09/25/96 17:31

SAMPLE	CLASS	IVOL/WT	FVOL	DF	BATCH NUMBER
ICB	********	0	0	1	

AVG(ppb)	Intensity
-0.0170	539.0

TUBE: 9 09/25/96 17:33

SAMPLE	CLASS	IVOL/WT	FVOL	DF	BATCH NUMBER
CRA	********	0	0	1	

AVG(ppb)	Intensity
0.1900	21052.0

TUBE: 10 09/25/96 17:35

SAMPLE	CLASS	IVOL/WT	FVOL	DF	BATCH NUMBER
CCV 1	********	0	0	1	

AVG(ppb)	Intensity
1.0400	105717.0

%RECOVERY = 104.0

TUBE: 11 09/25/96 17:38

SAMPLE	CLASS	IVOL/WT	FVOL	DF	BATCH NUMBER
CCB 1	********	0	0	1	

AVG(ppb)	Intensity
-0.0200	229.0

TUBE: 12 09/25/96 17:40

SAMPLE	CLASS	IVOL/WT	FVOL	DF	BATCH NUMBER
PBW	********	8	8	1	9626808021001

V	AVG(ppb)	Intensity	RR	RD
✓	0.0100	3216.0	---	---

TUBE: 13 09/25/96 17:42

SAMPLE	CLASS	IVOL/WT	FVOL	DF	BATCH NUMBER
LCSW	********	1	1	1	9626808021001

V	AVG(ppb)	Intensity	RR	RD
✓	0.0020	81022.0	---	---

TUBE: 14 09/25/96 17:43

SAMPLE	CLASS	IVOL/WT	FVOL	DF	BATCH NUMBER
2583205 BRASS	********	8	8	1	9626808021001

V	AVG(ppb)	Intensity	RR	RD
✓	-0.0020	2006.0	---	---

RUN NAME: 9626903M03
PAGE: 3
ANALYST: 823

LANCASTER LABRATURIES
INSTRUMENT ID: 05220
CV ELEMENT: HG

TUBE: 15 09/25/96 17:47

SAMPLE	CLASS	IVOL/WT	FVOL	DF	BATCH NUMBER
2583206 BRA4D	*******	0	8	1	962680821001

V	AVG(ppb)	Intensity	RR	RD
✓	0.0060	2767.0		

TUBE: 16 09/25/96 17:49

SAMPLE	CLASS	IVOL/WT	FVOL	DF	BATCH NUMBER
2583207 BR4 DD	*******	0	8	1	962680821001

V	AVG(ppb)	Intensity	RR	RD
✓	0.0110	3243.0		

TUBE: 17 09/25/96 17:51

SAMPLE	CLASS	IVOL/WT	FVOL	DF	BATCH NUMBER
2583208 BRS4S	*******	0	8	1	962680821001

V	AVG(ppb)	Intensity	RR	RD
✓	0.0050	2670.0		

TUBE: 18 09/25/96 17:54

SAMPLE	CLASS	IVOL/WT	FVOL	DF	BATCH NUMBER
2583209 BRS3D	*******	0	8	1	962680821001

V	AVG(ppb)	Intensity	RR	RD
✓	0.0030	2494.0		

TUBE: 19 09/25/96 17:56

SAMPLE	CLASS	IVOL/WT	FVOL	DF	BATCH NUMBER
2583209 BRS3DD	*******	0	8	1	962680821001

V	AVG(ppb)	Intensity	RR	RD
✓	0.0040	2631.0		

TUBE: 20 09/25/96 17:58

SAMPLE	CLASS	IVOL/WT	FVOL	DF	BATCH NUMBER
2583209 BRS3DS	*******	0	8	1	962680821001

V	AVG(ppb)	Intensity	RR	RD
✓	1.0900	110152.0		

RUN NAME: 9626903M03
PAGE: 4
ANALYST: 823

CHEMSTATION LABORATORIES
INSTRUMENT ID: 05210
CV ELEMENT: HG

TUBE: 21 09/25/96 10:00
SAMPLE CLASS IVOL/WT FVOL DF BATCH NUMBER
2583210 DRA3S ******** 8 8 1 96260808210001

V AVG(ppb) Intensity RR RD
0.0170 3888.0

TUBE: 22 09/25/96 10:03
SAMPLE CLASS IVOL/WT FVOL DF BATCH NUMBER
CCV 2 ******** 0 0 1

AVG(ppb) Intensity
1.0500 106189.0

%RECOVERY = 105.0

TUBE: 23 09/25/96 10:05
SAMPLE CLASS IVOL/WT FVOL DF BATCH NUMBER
CCB 2 ******** 0 0 1

AVG(ppb) Intensity
-0.0280 -616.0

TUBE: 24 09/25/96 10:07
SAMPLE CLASS IVOL/WT FVOL DF BATCH NUMBER
2583823 BRA2D ******** 8 8 1 96260808210001

V AVG(ppb) Intensity RR RD
0.0090 3088.0

TUBE: 25 09/25/96 10:09
SAMPLE CLASS IVOL/WT FVOL DF BATCH NUMBER
2583824 BRA2S ******** 8 8 1 96260808210001

V AVG(ppb) Intensity RR RD
0.0010 2252.0

TUBE: 26 09/25/96 10:12
SAMPLE CLASS IVOL/WT FVOL DF BATCH NUMBER
2583825 BRA1D ******** 8 8 1 96260808210001

V AVG(ppb) Intensity RR RD
0.0010 2203.0

TUBE: 27 09/25/96 10:14
SAMPLE CLASS IVOL/WT FVOL DF BATCH NUMBER
2583826 BRA1S ******** 8 8 1 96260808210001

V AVG(ppb) Intensity RR RD
-0.0010 2079.0

DUP050307744

RUN NAME: 9626903M03
PAGE: 5
ANALYST: 823

LANCASTER LABORATORIES
INSTRUMENT ID: 05220
CV ELEMENT: HG

TUBE: 28 09/25/96 18:16

SAMPLE	CLASS	IVOL/WT	FVOL	DF	BATCH NUMBER
2583827 BRAFI	*******	8	8	1	962680821001

V	AVG(ppb)	Intensity	RR	RD
✓	0.0030	2486.0		

TUBE: 29 09/25/96 18:18

SAMPLE	CLASS	IVOL/WT	FVOL	DF	BATCH NUMBER
PBW	*******	8	8	1	962680821002

V	AVG(ppb)	Intensity	RR	RD
✓	0.0000	2237.0		

TUBE: 30 09/25/96 18:21

SAMPLE	CLASS	IVOL/WT	FVOL	DF	BATCH NUMBER
LCSW	*******	1	1	1	962680821002

V	AVG(ppb)	Intensity	RR	RD
✓	1.0700	108785.0		

TUBE: 31 09/25/96 18:23

SAMPLE	CLASS	IVOL/WT	FVOL	DF	BATCH NUMBER
2583222	*******	8	8	1	962680821002

V	AVG(ppb)	Intensity	RR	RD
✓	0.0030	2489.0		

TUBE: 32 09/25/96 18:25

SAMPLE	CLASS	IVOL/WT	FVOL	DF	BATCH NUMBER
2583223	*******	8	8	1	962680821002

V	AVG(ppb)	Intensity	RR	RD
✓	0.0010	2244.0		

TUBE: 33 09/25/96 18:27

SAMPLE	CLASS	IVOL/WT	FVOL	DF	BATCH NUMBER
2583224	*******	8	8	1	962680821002

V	AVG(ppb)	Intensity	RR	RD
✓	0.0070	2908.0		

RUN NAME: 9626903M03
PAGE: 6
ANALYST: 823

CANBERRA LABORATORIES
INSTRUMENT ID: 03
CV ELEMENT: NO

TUBE: 34 09/25/96 18:30

SAMPLE	CLASS	IVOL/WT	FVOL	DF	BATCH NUMBER
CCV 3	*******	0	0	1	

AVG(ppb)	Intensity
0.9660	98044.0

%RECOVERY = 96.6

TUBE: 35 09/25/96 18:32

SAMPLE	CLASS	IVOL/WT	FVOL	DF	BATCH NUMBER
CCB 3	*******	0	0	1	

AVG(ppb)	Intensity
-0.0310	-870.0

TUBE: 36 09/25/96 18:34

SAMPLE	CLASS	IVOL/WT	FVOL	DF	BATCH NUMBER
2583225	*******	0	0	1	962680821002

V	AVG(ppb)	Intensity	RR	RD
✓	0.0470	6853.0	---	---

TUBE: 37 09/25/96 18:37

SAMPLE	CLASS	IVOL/WT	FVOL	DF	BATCH NUMBER
2583226	U*******	0	0	1	962680821002

V	AVG(ppb)	Intensity	RR	RD
✓	-0.0010	2096.0	---	---

TUBE: 38 09/25/96 18:39

SAMPLE	CLASS	IVOL/WT	FVOL	DF	BATCH NUMBER
2583226	D*******	0	0	1	962680821002

V	AVG(ppb)	Intensity	RR	RD
✓	0.0030	2487.0	---	---

TUBE: 39 09/25/96 18:41

SAMPLE	CLASS	IVOL/WT	FVOL	DF	BATCH NUMBER
2583226	R*******	0	0	1	962680821002

V	AVG(ppb)	Intensity	RR	RD
✓	1.0600	107281.0	---	---

TUBE: 40 09/25/96 18:44

SAMPLE	CLASS	IVOL/WT	FVOL	DF	BATCH NUMBER
2583227	*******	0	0	1	962680821002

V	AVG(ppb)	Intensity	RR	RD
✓	-0.0010	2128.0	---	---

DUP050307746

Extraction/Distillation/Digestion Logs

Lancaster Laboratories

Water Digestion Logbook
ICP-20

Batch # 962685720001

	Sample #	T	Initial Vol (mL)	Final Vol (mL)	EPA #	SDG #	Date	Init
1	2583205	1	100	100	BRA5S	FMD01	9/24/96	cmc 9/25/96
2	3206				BR4D			
3	3207				BR4DD			
4	3208				BR5S			
5	3209				BR53D			
6	3210				DRA3S			
7	3823				BRA2D			
8	3824				BRA2S			
9	3825				BRA1D			
10	3826				BRA1S			
11	3827				BRAF1			
12								
13								
14								
15								
16								
17								
18								
19								
20								
Dup	2583206	1	100	100	BR53D D	FMD01		
Spike	3206				BR53D S			
Blank	BLANK							

wrong entry cmc 9/24/96

Sample #	Spike Information						
QC	Soln ID	1	2	11	12	13
2583206	Lot #	234	249	239	149	115
	Vol. Added (mL)	2.0				
LCS cmc 9/24/96	Soln ID	1	2	3	4	5
	Lot #	234	249	239	234	232
	Vol. Added (mL)	2.0				

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1151 Rev. 08/22/95

Lancaster Laboratories

Digest Type 5720 COC (Y/N)

	Before Color	Before Clarity	After Color	After Clarity
1	CL	CR	CL	CR
2		CY		CR
3		CY		CR
4		CR		CR
5		↓		CR
6		CY		CY
7		CR		CR
8				
9				
10				
11	↓	↓	↓	↓
12				
13				
14				
15				
16				
17				
18				
19				
20				
Dup	CL	CR	CL	CR
Spike	↓	↓	↓	↓
Blank				

C=0=C ; M ; CCSI

Reagent	1:1 HNO_3
Lot #	092

1151a Rev. 08/22

DUP05307748

Lancaster Laboratories
2425 New Holland Pike • Lancaster, PA 17601-5994

Water Digestion Logbook
Graphite Furnace - 20

Batch # 9 6 2 6 8 | 1 0 5 6 | 0 0 1

Digest Type 1056 COC (Y/N)

	Sample #	T	Initial Vol (ml)	Final Vol (ml)	EPA #	SDG #	Date	Init
1	2583205	1	100	100	BRA5S	FMD01	9/24/96	cmc/328
2	3206				BRA4D			
3	3207				BRA4DD			
4	3208				BRS4S			
5	3209				BRS3D			
6	3210				DRA3S			
7	3823				BRA2D			
8	3824				BRA2S			
9	3825				BRA1D			
10	3826				BRA1S			
11	3827				BRAFI			
12								
13								
14								
15								
16								
17								
18								
19								
20								
Dup	2583206	1	100	100	BRS5D D	FMD01		
Spike	3206				BRS3D S			
Blank	BLANK							

(8) wrong entry cmc 3/28 9/24/96

(3) cmc 3/28 9/24/96

	Before Color	Before Clarity	After Color	After Clarity
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
Dup				
Spike				
Blank				

Batch 0-0=0

Sample #	Spike Information		
QC	Soln ID	8	0.25 ppm Ag
2583209	Lot #	241	
LCS	Vol. Added (ml)	1.0	
	Lot #	241	
	Vol. Added (ml)	1.0	

Reagent	1:1 HNO_3
Lot #	092

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1204 Rev. 03/08/95

1204a Rev. 03/08/95

DUP050307749

Lancaster Laboratories
3425 New Holland Pike • Lancaster, PA 17601-5994

Analysis #0821
Water Digestion Logbook

Batch # 9 6 2 6 8 | 0 8 2 1 | 0 0 1

Digest Type Mercury CLP 4 COC (Y/N

	Sample #	T	Initial Vol (ml)	Final Vol (ml)	DF	EPA #	SDG #	Date	Init
1	258 3205		8	8		BRA 5S	FMD01	9/24/96	NSM 823
2	3206					BRA 4D			
3	3207					BRA 4DD			
4	3208					BRS 4S			
5	32094					BRS3D			
6	3210					DRA 3S			
7	3823					BRA3D BRS3F			
8	3824					BRA 2S			
9	3825					BRA 1D			
10	3826					BRA 1S			
11	3827					BRA1F			
12									
13									
14									
15									
16									
17									
18									
19									
20									
Dup	258 3209D		8	8		BRS3D D	FMD01	9/24/96	NSM 823
Spike	3209R					S			
Blank	BLANK								

Sample Number	Spike Information		Date	Init
LCS	Soln ID	1 ppm Hg	9/24/96	NSM 823
	Lot #	Hg268 CONT		
	Vol. Added (ml)	0.1ml→100		
QC 2583209	Soln ID	0.1 ppm Hg		
	Lot #	268 CONT		
	Vol. Added (ml)	0.1ml→10		

	Before		After		
	Color	Clarity	Color	Clarity	
1					Leeman
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
Dup					Leeman
Spike					
Blank					

Notes

1386 Rev. 03/23/94

1386a Rev. 03/23/94

DUP050307750

Chain-of-Custody Record

DUP050307751

CONOCO

Environmental Sample Chain of Custody and Log
Research and Engineering

Acct 7032 #

#2

Project

Type or Print Data

Facility Name: DUPONT FORT MADISON	Telephone Number: 1430 (319) 372- ~~1238~~
Facility Address: 501 35th STREET FORT MADISON, IA 52627	Transporter Name: FEDERAL EXPRESS
Facility Supervisor: RAY KROGMEIER	Transporter Address:
Process Producing Sample: GW MONITORING-1995 ANNUAL	Method of Shipping: OVERNIGHT AIR
Employee(s) Sampling:	Special Shipping Instructions: PACK IN WET ICE TO LANCASTER LABS
Other Employee(s) Handling:	Remarks: *REPORT BY CURRENT CLP STANDARDS. PLEASE FURNISH INTERNAL CHAINS* **TOTMET & DISMET=TAL LIST**

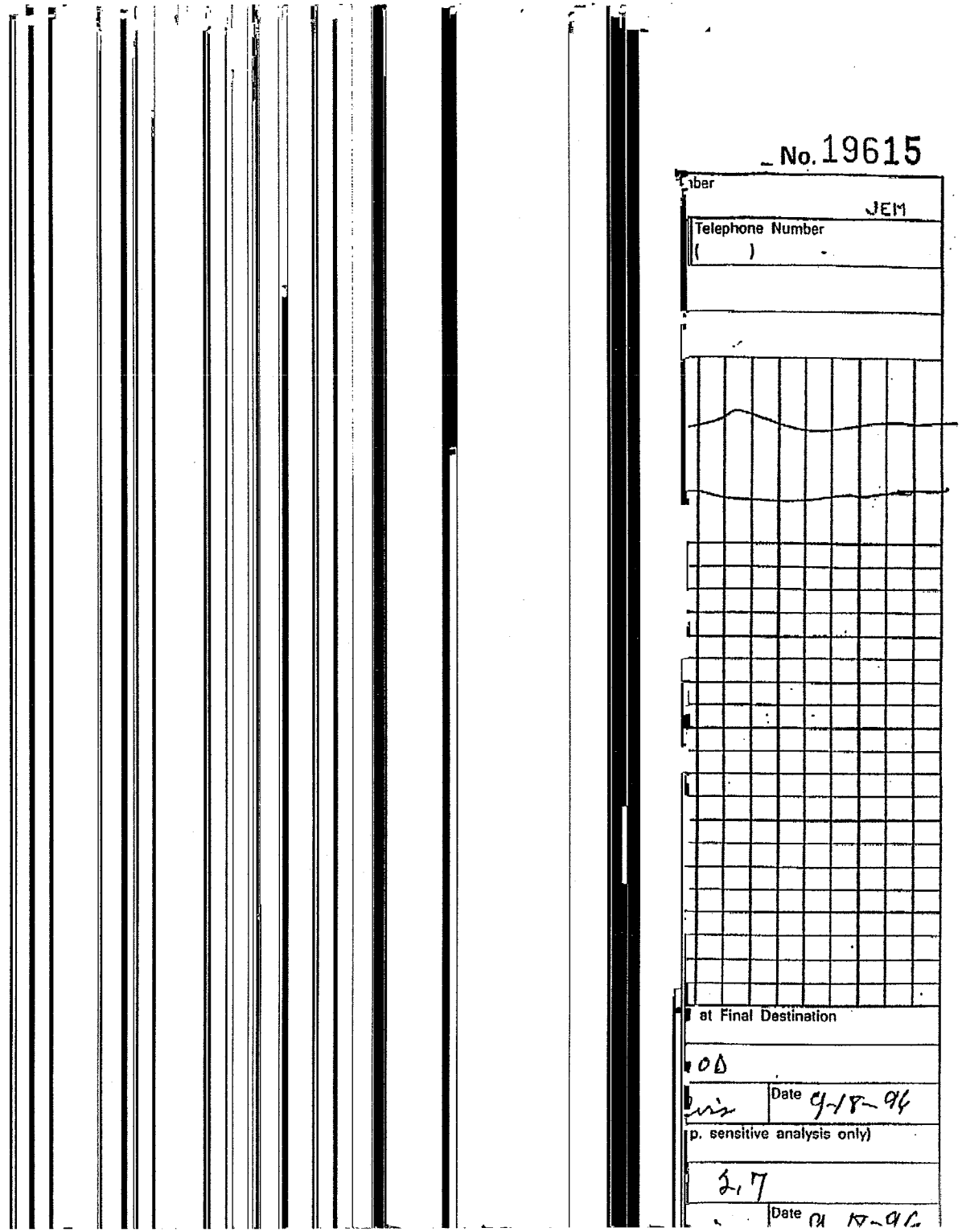
Sample I.D. No. and Description	Date	Time	Sample Type	Total Volume	Containers Type	No.	Analysis Req. ▶ Preservative	TCL VOA	TOT MET	DIS MET
FMN-BRA-5S	9/17/96	8:20A	WATER-G	40 ML	AG/S	3	HCL	X		
FMN-BRA-5S	9/17/96	8:20A	WATER-G	500 ML	DTP	2	HNO3		X	
FMN-BRA-5S-DIS	9/17/96	8:20A	WATER-G	500 ML	DTP	2	HNO3			X
FMN-BRA-4D	9/17/96	8:55A	WATER-G	40 ML	AG/S	3	HCL	X		
FMN-BRA-4D	9/17/96	8:55A	WATER-G	500 ML	DTP	2	HNO3		X	
FMN-BRA-4D-DIS	9/17/96	8:55A	WATER-G	500 ML	DTP	2	HNO3			X
FMN-BRA-4D-DUP	9/17/96	8:55A	WATER-G	40 ML	AG/S	3	HCL	X		
FMN-BRA-4D-DUP	9/17/96	8:55A	WATER-G	500 ML	DTP	2	HNO3		X	
FMN-BRA-4D-DUP-DIS	9/17/96	8:55A	WATER-G	500 ML	DTP	2	HNO3			X
FMN-BRA-4S	9/17/96	10:05A	WATER-G	40 ML	AG/S	3	HCL	X		
FMN-BRA-4S	9/17/96	10:05A	WATER-G	500 ML	DTP	2	HNO3		X	
FMN-BRA-4S-DIS	9/17/96	10:05A	WATER-G	500 ML	DTP	2	HNO3			X
FMN-BRA-3D	9/17/96	10:50A	WATER-G	40 ML	AG/S	3	HCL	X		
FMN-BRA-3D	9/17/96	10:50A	WATER-G	500 ML	DTP	2	HNO3		X	
FMN-BRA-3D-DIS	9/17/96	10:50A	WATER-G	500 ML	DTP	2	HNO3			X
FMN-BRA-3D-MS	9/17/96	10:50A	WATER-G	40 ML	AG/S	3	HCL	X		
FMN-BRA-3D-MS	9/17/96	10:50A	WATER-G	500 ML	DTP	2	HNO3		X	
FMN-BRA-3D-MS-DIS	9/17/96	10:50A	WATER-G	500 ML	DTP	2	HNO3			X

Signatures

	Date/Time		Date/Time		
Bottles Relinquished by: D. Engelking	9-17-96 1300	Bottles Received by: Ray Krogmeier	9/17/96 10:30A	Condition of Samples Upon	
Relinquished by: Ray Krogmeier	9/17/96 1:15P	Received by			
Relinquished by		Received by		Signature: Harlan	
Relinquished by		Received by		Temp. of Samples on Arriva	
Relinquished by		Received by			
Relinquished by		Received by: Harlan Collins	9-18-96 10:30A	Signature	

5-157 X3. 10-91

DUP05030752



CONOCO

Environmental Sample Chain of Custody and Log

Research and Engineering

Lab No. #503
#258 3523-28
2588 3530-34

No. 19616

Project Number: JEM

Type or Print Data

Facility Name: DUPONT FORT MADISON

Telephone Number: (319) 372-~~1790~~ 1430

Transporter Name: FEDERAL EXPRESS

Telephone Number: ( ) -

Facility Address: 801 35th STREET FORT MADISON, IA 52627

Transporter Address:

Facility Supervisor: RAY KROGMEIER

Method of Shipping: OVERNIGHT AIR

Process Producing Sample: GW MONITORING-1996 ANNUAL

Special Shipping Instructions: PACK IN WET ICE TO LANCASTER LABS

Employee(s) Sampling:

Remarks: *REPORT BY CURRENT CLP STANDARDS. PLEASE FURNISH INTERNAL CHAINS* **TOTMET & DISMET=TAL LIST**

Other Employee(s) Handling:

Sample I.D. No. and Description	Date	Time	Sample Type	Total Volume	Containers Type	No.	Preservative	TCL VOA	TOTMET	DISMET
FMN-BRA-2D	9/18/96	12:45	WATER-G	40 ML	AG/S	3	HCL	X		
FMN-BRA-2D	9/18/96	12:45	WATER-G	500 ML	DTP	2	HNO3		X	
FMN-BRA-2D-DIS	9/18/96	12:45	WATER-G	500 ML	DTP	2	HNO3			X
FMN-BRA-2S	9/18/96	11:40A	WATER-G	40 ML	AG/S	3	HCL	X		
FMN-BRA-2S	9/18/96	11:40A	WATER-G	500 ML	DTP	2	HNO3		X	
FMN-BRA-2S-DIS	9/18/96	11:40A	WATER-G	500 ML	DTP	2	HNO3			X
FMN-BRA-1D	9/18/96	3:00P	WATER-G	40 ML	AG/S	3	HCL	X		
FMN-BRA-1D	9/18/96	3:00P	WATER-G	500 ML	DTP	2	HNO3		X	
FMN-BRA-1D-DIS	9/18/96	3:00P	WATER-G	500 ML	DTP	2	HNO3			X
FMN-BRA-1S	9/18/96	3:30P	WATER-G	40 ML	AG/S	3	HCL	X		
FMN-BRA-1S	9/18/96	3:30P	WATER-G	500 ML	DTP	2	HNO3		X	
FMN-BRA-1S-DIS	9/18/96	3:30P	WATER-G	500 ML	DTP	2	HNO3			X
FMN-BRA-FBLK-1	9/18/96	12:25P	WATER	40 ML	AG/S	3	HCL	X		
FMN-BRA-FBLK-1	9/18/96	12:25P	WATER	500 ML	DTP	2	HNO3		X	
FMN-BRA-FBLK-1-DIS	9/18/96	12:25P	WATER	500 ML	DTP	2	HNO3			X
FMN-BRA-TBLK-2	9-11-96	1055	WATER	40 ML	AG/S	3	HCL	X		

Signatures

Relinquished by	Date/Time	Received by	Date/Time
Bottles Relinquished by: S. Engelberg	9-11-96 1315	Bottles Received by: Ray Krogmeier	9/12/96 10:30A
Relinquished by: Ray Krogmeier	9/18/96 5:15P	Received by	Date/Time
Relinquished by	Date/Time	Received by	Date/Time
Relinquished by	Date/Time	Received by	Date/Time
Relinquished by	Date/Time	Received by	Date/Time
Relinquished by	Date/Time	Received by: Harlan Collins	9-19-96 0955

Condition of Samples Upon Arrival at Final Destination: GOOD

Signature: Harlan Collins Date: 9-19-96

Temp. of Samples on Arrival (Temp. sensitive analysis only): 2.1

Signature: Harlan Collins Date: 9-19-96

E157 Y2 10.91 LAB FILE COPY

DUP050307754

Lancaster Laboratories
2425 New Holland Pike • Lancaster, PA 17601-5994

Sample Administration
Receipt Documentation Log

Client/Project: CONOCO

Date of Receipt: 9-18-96

Time of Receipt: 0920

Source Code: FI

COC Seal: Present / Not Present on cooler

Broken / Intact

Package: Chilled / Not Chilled

Unpacker Emp. No.: 87

Temperature of Samples	
#1	#2
Thermometer ID: 10103	Thermometer ID:
Corrected Temp.: 2.7	Corrected Temp.:
Bottle / Air	Bottle / Air
Wet Ice / Dry Ice / Ice Packs	Wet Ice / Dry Ice / Ice Packs
Ice Present? Y / N	Ice Present? Y / N
#3	#4
Thermometer ID:	Thermometer ID:
Corrected Temp.:	Corrected Temp.:
Bottle / Air	Bottle / Air
Wet Ice / Dry Ice / Ice Packs	Wet Ice / Dry Ice / Ice Packs
Ice Present? Y / N	Ice Present? Y / N

Paperwork Discrepancy/Unpacking Problems:

Sample Administration Chain of Custody			
Name	Date	Time	Reason for Transfer
Karla Collins	9-18-96	1019	Unpacking
T DiLoreto	9-18-96	1100	Place in Storage or Entry
T DiLoreto	9-18-96	1400	Remove from Storage or Entry
			Place in Storage or Entry
			Entry

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Rev. 2174 09/09/96

DUP050307755

Lancaster Laboratories
2425 New Holland Pike • Lancaster, PA 17601-5994

Sample Administration
Receipt Documentation Log

Client/Project: Conoco

Date of Receipt: 9-19-96

Time of Receipt: 0955

Source Code: FI

COC Seal: Present / Not Present on cooler

Broken / Intact

Package: Chilled / Not Chilled

Unpacker Emp. No.: 87

Temperature of Samples	
#1	**#2**
Thermometer ID: 10103	Thermometer ID:
Corrected Temp.: 3.1	Corrected Temp.:
Bottle / Air	Bottle / Air
Wet Ice / Dry Ice / Ice Packs	Wet Ice / Dry Ice / Ice Packs
Ice Present? Y / N	Ice Present? Y / N
#3	**#4**
Thermometer ID:	Thermometer ID:
Corrected Temp.:	Corrected Temp.:
Bottle / Air	Bottle / Air
Wet Ice / Dry Ice / Ice Packs	Wet Ice / Dry Ice / Ice Packs
Ice Present? Y / N	Ice Present? Y / N

Paperwork Discrepancy/Unpacking Problems:

Sample Administration Chain of Custody			
Name	**Date**	**Time**	**Reason for Transfer**
Harlan Gillin	9-19-96	1017	Unpacking
T DiLazzaro	9-19-96	1100	Place in Storage or Entry
T DiLazzaro	9-19-96	1200	Remove from Storage & Entry
			Place in Storage or Entry
			Entry

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Rev. 2174 09/09/96

DUP050307756

Lancaster Laboratories
2425 New Holland Pike • Lancaster, PA 17601-5994

Locked Storage Chain of Custody
Original Sample

Client/Project: DuPont Env Remediation Services - Fort Madison

Preservative: HNO3 Matrix: (W) SDG: FMD01

Sample # Range of Entry Group: 2583205-11 Bottle Type: 500ml plastic

Sample Number(s) in Custody	Released By	Received By	Date of Transfer	Time of Transfer	Reason for Change of Custody	Dist., Extr., or Digest Chain Created (X)
2583205-10	D. Lagan	SA Held Storage	9/18/96	1530	From entry to SA Held Storage	
2583205-10	SA H&O storage	C. Beattie 103	9-18-96	2100	preservation check	
2583205-10	C. Beattie 103	B. Cunningham 315	9-18-96	2115	storage	
2583205-10	179	405	9/24/96	0700	Prep. Room	
2583205-10	405	C. Coulin 328	9/24/96	09:00	metals prep	
2583205-10	C. Coulin 328	L. Pilon 336	9/24/96	1400	sample storage	
2583205-10	L. Pilon 336	Marney 823	9/24/96	1530	Hg Digestion	
2583205-10	Marney 823	C. Beattie 103	9/24/96	2100	Storage	

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DUP050307757

Lancaster Laboratories
2425 New Holland Pike • Lancaster, PA 17601-5994

Locked Storage Chain of Custody
Original Sample

Client/Project: DuPont Env Remediation Svcs. Fort Madison

Preservative: HNO3 Matrix: WW SDG: FMD01

Sample # Range of Entry Group: 2583823-28 Bottle Type: 500 ml brown plastic

Sample Number(s) in Custody	Released By	Received By	Date of Transfer	Time of Transfer	Reason for Change of Custody	Dist., Extr., or Digest Chain Created (X)
2583823-27	D. Lyons	SA Hold storage	9-19-96	1300	From entry to SA Hold Storage	
2583823-27	SA Hold Storage	C. Bowser 103	9-20-96	2000	preservation check	
2583823-27	C. Bowser 103	B. Cummings 315	9-20-96	2010	storage	
2583823-27 (2583828)	179	42[illegible]	9/24/96	0700	Prep Room	
2583823-27	42[illegible]	C. Conein 328	9/24/96	0900	metals prep	
2583823-27	C. Conein 328	Lora 336 Pilon	9/24/96	1400	Sample Storage	
2583823-27	L. 336 Pilon	Merrill 823	9/24/96	1530	Hg Digestion	
2583823-27	Merrill 823	C. Bowser 103	9/24/96	2100	Storage	

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2016 Rev. 09/05/95

DUP050307758

Lancaster Laboratories
3625 New Holland Pike • Lancaster, PA 17601-5994

Locked Storage Chain of Custody
Metals

Client/Project: Du Pont

Sample #: 2583205-10, 2583823-27 SDG: FMD01

Digest Type (circle one): Hg (Metals) GF Hydrides Trial No: _____ (If not 1, fill in)

Batch No: 96268 5720 001

Sample Number(s) in Custody	Released By	Received By	Date of Transfer	Time of Transfer	Reason for Change of Custody
2583205-10 2583823-27	C. Conein 328	ICP storage	9/24/96	16:30	locked storage
2583205-10 2583823-7	ICP STORAGE	[signature] 8.1	9-24-96	17:0	ICP ANALYSIS
2583205-10 2583823-7	[signature] 8.11	ICP STORAGE	9-24-96	17:3	ICP STORAGE
2583205-10 2583823-27	ICP Storage	T Linville 191	9-25-96	1445	ICP analysis
2583205-10 2583823-27	T Linville 191	ICP Storage	9-25-96	1500	ICP storage
2583823-827	ICP Storage	[signature] 142	9-25-96	2235	ICP analysis
2583823-27	[signature] 142	ICP Storage	9-25-96	2245	ICP Storage/ Analysis 9/30/96
2583823	ICP storage	N Haller 243	9-30-96	1030	ICP analysis
2583823	N Haller 243	ICP storage	9-30-96	1035	ICP storage

DUP050307759

Lancaster Laboratories
2425 New Holland Pike • Lancaster, PA 17601-5994

Locked Storage Chain of Custody
Metals

Client/Project: Du Pont

Sample #: 2583205-10, 2583823-27 SDG: FMD01

Digest Type (circle one): Hg Metals (GF) Hydrides Trial No: _____ (If not 1, fill in)

Batch No: 96268 1056 001

Sample Number(s) in Custody	Released By	Received By	Date of Transfer	Time of Transfer	Reason for Change of Custody
2583205-10 2583823-27	C. Cowin 328	GF Storage	9/24/96	17:45	locked storage
2583205-10, 2583823-27	AA Storage	J Schuldt 328	9/24/96	20:00	Analysis Se
2583205-10, 2583823-27	J Schuldt 328	AA Storage	9/24/96	20:05	Storage AA
2583205-10, 2583823-27	AA Storage	RJ	9/24/96	20:05	Analysis As
2583205-10, 2583823-27	RJ	AA Storage	9/24/96	20:10	Storage AA
2583205-10, 2583823-27	AA Storage	J Schuldt 328	9/24/96	20:45	Analysis Pb
2583205-10, 2583823-27	J Schuldt 328	AA Storage	9/24/96	20:50	Storage AA
2583205-10,3823-27	AA Storage	Stan Jenkins 859	9/25/96	0510	Analysis TI
2583205-10,3823-27	Stan Jenkins 859	AA Storage	9/25/96	0515	Storage AA
2583205-10,3823-27	DA Storage	East 805	9/25/96	0910	Analysis Se
2583205-10 3823-27	East 809	DA Storage	9/25/96	0925	Storage AA
2583209	DA Storage	East 809	9/25/96	1110	Analysis TI
2583209	East 809	DA Storage	9/25/96	1115	Storage AA
2583205-10,3823-27	DA Storage	East 809	9/25/96	1500	Analysis Se
2583205-10,3823-27	East	DA Storage	9/25/96	1510	Storage AA

not clear RWW 10/14/96

DUP050307760

Lancaster Laboratories
2425 New Holland Pike • Lancaster, PA 17601-5994

Locked Storage Chain of Custody
Metals

Client/Project: Du Pont

Sample #: 2583205-10, 2583823-27 SDG: FMD01

Digest Type (circle one): Hg Metals (GF) Hydrides Trial No: _____ (If not 1, fill in)

Batch No: 96268 1056 001

Sample Number(s) in Custody	Released By	Received By	Date of Transfer	Time of Transfer	Reason for Change of Custody
2583205-10 2583823-27	C. Cousin 328	GF Storage	9/24/96	17:45	locked storage
2583205-10, 2583823-27	AA Storage	[signature]	9/24/96	20:00	Analysis Se
2583205-10, 2583823-27	[signature]	AA Storage	9/24/96	20:05	Storage AA
2583205-10, 2583823-27	AA Storage	[signature]	9/24/96	20:05	Analysis As
2583205-10, 2583823-27	[signature]	AA Storage	9/24/96	20:10	Storage AA
2583205-10, 2583823-27	AA Storage	[signature]	9/24/96	20:45	Analysis Pb
2583205-10, 2583823-27	[signature]	AA Storage	9/24/96	20:50	Storage AA
2583205-10,3823-27	AA Storage	[signature]	9/25/96	0510	Analysis TI
2583205-10,3823-27	[signature]	AA Storage	9/25/96	0515	Storage AA
2583205-10,3823-27	DA Storage	East 805	9/25/96	0910	Analysis Se
2583205-10 3823-27	East 809	DA Storage	9/25/96	0925	Storage DA
2583209	DA Storage	East 809	9/25/96	1110	Analysis TI
2583209	East 809	DA Storage	9/25/96	1115	Storage DA
2583205-10,3823-27	DA Storage	East 809	9/25/96	1500	Analysis Se
2583205-10,3823-27	East	DA Storage	9/25/96	1510	Storage AA

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DUP050307761

Lancaster Laboratories
2425 New Holland Pike • Lancaster, PA 17601-5994

Locked Storage Chain of Custody
Metals

Client/Project: DuPont

Sample #: 2583205-10, 2583823-27 SDG: FMDW

Digest Type (circle one): Hg Metals (GF) Hydrides Trial No: 1 (If not 1, fill in)

Batch No: 96768 1056 01

Sample Number(s) in Custody	Released By	Received By	Date of Transfer	Time of Transfer	Reason for Change of Custody
2583205-10 2583823-27	[signature]	[signature]	9/26/96	0830	Analysis
2583205-10 2583823-27	[signature]	[signature]	9/26/96	0905	Storage
2583825.27	AA Storage	[signature]	9-26-96	15:25	Analysis
2583825.27	[signature]	AA Storage	9-26-96	15:30	Storage AA

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DUP050307762

Lancaster Laboratories
2425 New Holland Pike • Lancaster, PA 17601-5994

Locked Storage Chain of Custody
Metals

Client/Project: DU PONT Env Remediation Services - FORT Madison

Sample #: 2583205-10, 258 3823-27 SDG: FM001

Digest Type (circle one): (Hg) Metals GF Hydrides Trial No: _____ (If not 1, fill in)

Batch No: 96268 0821 001

Sample Number(s) in Custody	Released By	Received By	Date of Transfer	Time of Transfer	Reason for Change of Custody
2583205-10 258 3823-27	Mermac 823	Instrum. AP200	9/24/96	2020	Hg Digestion
2583205-10 2583823-27	Instrument AP200	383	9/25/96	0730	continue digestion
2583205-10 2583823-27	380	Mermac 823	9/25/96	1400	shift change Analysis, Disear

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DUP050307763