06/13/1997

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Columbia Analytical Services, Inc.

June 13, 1997

Service Request No: K9703098

Wes Ganter
Science Application International Corp.
999 18th Street, Suite 855
Denver, CO 80202

ENVIRONMENTAL
PROTECTION AGENCY
SEP 4 - 1997
MONTANA OFFICE

Re: AEH

Dear Wes:

Enclosed are the results of the sample(s) submitted to our laboratory on May 8, 1997. For your reference, these analyses have been assigned our service request number K9703098.

Please note that the fire assay analyses for gold, platinum, palladium, rhodium and silver were performed at Chemrex Laboratories Ltd. Results for these analyses will be sent under separate cover.

All analyses were performed according to our laboratory's quality assurance program. All results are intended to be considered in their entirety, and Columbia Analytical Services, Inc. (CAS) is not responsible for use of less than the complete report. Results apply only to the samples analyzed.

Please call if you have any questions. My extension is 258.

Respectfully submitted,

Columbia Analytical Services, Inc.

Lynda Huckestein

Lynda A. Huckestein
Project Chemist

LAH/td

1317 South 13th Avenue • P.O. Box 479 • Kelso, Washington 98626 • Telephone 360/577-7222 • Fax 360/636-1068

Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
J	Estimated concentration. The value is less than the method reporting limit, but greater than the method detection limit.
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NAN	Not Analyzed
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected at or above the MRL
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

COLUMBIA ANALYTICAL SERVICES, INC.

Client:	Science Application International Corp.	**Service Request No.:**	K9703098
Project:	AEH	**Date Received:**	5/1/97
Sample Matrix:	Water, solid		

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of Columbia Analytical Services, Inc. (CAS). This report contains analytical results for sample(s) designated for Tier III data deliverables. When appropriate to the method, method blank results have been reported with each analytical test. Additional quality control analyses reported herein include: Laboratory Duplicate (DUP), Matrix Spike (MS), Laboratory Control Sample (LCS), Initial Continuing Calibration Verification Standards (ICV/CCV), and Initial Continuing Calibration Blanks (ICB/CCB).

All EPA recommended holding times have been met for analyses in this sample delivery group.

The following difficulties were experienced during analysis of this batch:

Total Metals

The method reporting limit for silicon as SiO2 was elevated to 4000 mg/Kg due instrument baseline fluctuations.

The Matrix Spike (MS) recovery of cadmium for sample Amarillo Brick was outside the normal CAS control limits because of sample heterogeneity. Mixing techniques within the scope of the EPA methodology were used, but were not sufficient for complete homogenization of this sample. No further corrective action was taken.

The Matrix Spike (MS) recoveries of many of the analytes for sample Amaraillo Brick were not calculated. The analyte concentration in the sample was significantly higher than the added spike concentration, preventing accurate evaluation of the spike recovery.

TCLP Metals

The Extraction Method Blank for TCLP/Metals contained low levels of cadmium above the Method Reporting Limit. In accordance with our QA/QC policy, all sample results which are less than twenty times the level found in the Method Blank are flagged as estimated. All flagged results are less than half the of TCLP regulatory limit for cadmium.

The Matrix Spike (MS) recoveries of selenium for sample Pile 436 and lead and cadmium for Pile 265B were not calculated. The analyte concentration in the sample was significantly higher than the added spike concentration, preventing accurate evaluation of the spike recovery.

The Matrix Spike (MS) recovery of barium for sample Pile 265B was outside the normal CAS control limits because of suspected matrix interference. The sample tested positive for sulfate and barium was lost as barium sulfate precipitate. No further corrective action was taken.

Approved by LAH **Date** 6/13/97

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

Columbia Analytical Services, Inc. 1317 South 13th Ave. • Kelso, WA 98626 • (360) 577-7222 • (800) 695-7222 • FAX (360) 636-1068

DATE 5/7/97 PAGE 2 OF 4

PROJECT NAME A&H

PROJECT MANAGER Wes Gunter / Ed Moriarty

COMPANY/ADDRESS SAIC Attn: Wes Gunter

999 18th Street, Suite 855

Denver, Co 80202 PHONE 303 292-2074

SAMPLERS SIGNATURE

SAMPLE I.D.	DATE	TIME	LAB I.D.	SAMPLE MATRIX	NUMBER OF CONTAINERS	Base/Neu/Acid Organics GC/MS 625/8270	Volatile Organics GC/MS 624/8240	Halogenated or Aromatic Volatiles 601/8010 ☐ 602/8020 ☐	Pesticides/PCBs 608/8080	Total Petroleum Hydrocarbons EPA/418.1 ☐ OR/418.1 ☐ WA/418.1 ☐	TPH/Gas/BTEX 5030/8015/8020 Gas ☐ BTEX ☐	TPH/8015 Modified Diesel ☐ Hydrocarbon Scan ☐	TPH/HCID ☐ OR/HCID ☐ WA/HCID ☐ OR/HCID ☐	TCLP Metals ☐	Metals (total or dissolved) List Below	Cyanide	pH, Cond, Cl, SO_4, PO_4, F, Br NO_2, NO_3 (circle)	NH_3-N, COD, Total-P, TKN, TOC (circle)	Total Organic Halides (TOX) 9020 ☐ 1(AOX) 1650A ☐	Fire Assay		REMARKS
Pile 159	5/7/97		10	Solid	2									X	X					X		
East Helena Brick A	0945	0945	11		1									X	X							
East Helena Brick B	0945	0945	12		1									X	X							
Omaha Brick	1000	1000	13		2									X	X					X		
Omaha Brick Fines	1000	1000	14		1																	
Pile 697	1015	1015	15																			
Pile 718	1025	1025	16																			
Pile 487	1035	1035	17																			
Pile 347	1040	1040	18																			
Acid Plant effluent	1055	1055	19	Water	1									X								

RELINQUISHED BY:

Signature

Printed Name

Firm

Date/Time 5/7/97 4:00 pm

RECEIVED BY:

Signature Lori K. Hearn

Printed Name

Firm CAS

Date/Time 050897 1030

TURNAROUND REQUIREMENTS*

___ 24 hr ___ 48 hr. ___ 5 day

X Standard (10-15 working days)

X Provide Verbal Preliminary Results

X Provide FAX preliminary Results

Requested Report Date

REPORT REQUIREMENTS

___ I. Routine Report

___ II. Report (includes DUP.MS. MSD, as required, may be charged as samples)

X III. Data Validation Report (includes All Raw Data)

___ IV. CLP Deliverable Report

INVOICE INFORMATION:

P.O.#

Bill To

SAMPLE RECEIPT:

Shipping VIA:

Shipping #:

Condition:

Lab No:

RELINQUISHED BY:

Signature

Printed Name

Firm

Date/Time

RECEIVED BY:

Signature

Printed Name

Firm

Date/Time

SPECIAL INSTRUCTIONS/COMMENTS:

Total Metals - include precious metals, mercury, & silica

Fire Assay to be subcontracted

00004

DISTRIBUTION: WHITE - return to originator: YELLOW - lab: PINK - retained by originator

400-05

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

Columbia Analytical Services inc. 1317 South 13th Ave. • Kelso, WA 98626 • (360) 577-7222 • (800) 695-7222 • FAX (360) 636-1068

DATE 5/7/97 PAGE 3 OF 4

PROJECT NAME AEH #

PROJECT MANAGER Wes Gunter / Ed Moriarty

COMPANY/ADDRESS SAIC Attn: Wes Gunter

999 18th Street Suite 855

Denver, Co 80202 PHONE 303 292 2074

SAMPLERS SIGNATURE

SAMPLE I.D.	DATE	TIME	LAB I.D.	SAMPLE MATRIX	NUMBER OF CONTAINERS	Base/Neu/Acid Organics GC/MS 625/8270	Volatile Organics GC/MS 624/8240	Halogenated or Aromatic Volatiles 601/8010 ☐ 602/8020 ☐	Pesticides/PCBs 608/8080	Total Petroleum Hydrocarbons EPA/418.1 ☐ OR/418.1 ☐ WA/418.1 ☐	TPH/Gas/BTEX 5030/8015/3020 Gas ☐ BTEX ☐	TPH/8015 Modified Diesel ☐ Hydrocarbon Scan ☐	TPH/HCID ☐ OR/HCID ☐ WA/HCID ☐	TCLP Metals ☐	Semi Pest/ VOA ☐ VOA ☐ Herb ☐	Metals (total) or dissolved) List Below Include precious metals	Cyanide	pH, Cond, Cl, SO_4, PO_4, F, Br NO_2, NO_3, (circle)	NH_3-N, COD, Total-P, TKN, TOC (circle)	Total Organic Halides (TOX) 9020 ☐ (AOX) 1650A ☐	Fire Assay		REMARKS
Lower Lake	5/1/97	1115	20	Water	1									X									
Conductivity Blowdown		1130	21	Water	1									X									
Condensate Blowdown		1130	22	Water	1									X									
Pile 265 A		1420	23	solids	2									X	X					X			
Pile 265 B		1425	24		2									X	X					X			
Pile 320		1435	25											X	X					X			
Pile 213 A		1440	26											X	X					X			
Pile 213 B		1445	27											X	X					X			
Amarillo Brick		1500	28											X	X					X			lab QA/QC
Thermodyne Tank A		1520	29	Water	1									X									

RELINQUISHED BY:
Signature
Printed Name
Firm
5/7/97 4:00pm
Date/Time

RECEIVED BY:
Signature
Printed Name
Firm
050197 1030
Date/Time

TURNAROUND REQUIREMENTS
___ 24 hr ___ 48 hr. ___ 5 day
X Standard (10-15 working days)
X Provide Verbal Preliminary Results
X Provide FAX preliminary Results
Requested Report Date

REPORT REQUIREMENTS
___ I. Routine Report
___ II. Report (includes DUP.MS. MSD, as required, may be charged as samples)
X III. Data Validation Report (includes All Raw Data)
___ IV. CLP Deliverable Report

INVOICE INFORMATION:
P.O.#
Bill To

SAMPLE RECEIPT:
Shipping VIA:
Shipping #:
Condition:
Lab No:

RELINQUISHED BY:
Signature
Printed Name
Firm
Date/Time

RECEIVED BY:
Signature
Printed Name
Firm
Date/Time

SPECIAL INSTRUCTIONS/COMMENTS:
Total Metals - include precious metals, mercury, & silica
Fire Assay to be subcontracted

00005

DISTRIBUTION: WHITE - return to originator; YELLOW - lab; PINK - retained by originator

100-05

Columbia Analytical Services inc.

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

1317 South 13th Ave. • Kelso, WA 98626 • (360) 577-7222 • (800) 695-7222 • FAX (360) 636-1068

DATE 5/7/97 PAGE 1 OF 4

PROJECT NAME AEH #

PROJECT MANAGER Wes Ganter / Ed Moriarty

COMPANY/ADDRESS SAIC Attn: Wes Ganter
999 18th Street Suite 855
Denver, Co 80202 PHONE 303 292 2074

SAMPLERS SIGNATURE [signature]

ANALYSIS REQUESTED

SAMPLE I.D.	DATE	TIME	LAB I.D.	SAMPLE MATRIX	NUMBER OF CONTAINERS	Base/Neu/Acid Organics GC/MS 625/8270	Volatile Organics GC/MS 624/8240	Halogenated or Aromatic Volatiles 601/8010 ☐ 602/8020 ☐	Pesticides/PCBs 608/8080	Total Petroleum Hydrocarbons EPA/418.1 ☐ OR/418.1 ☐ WA/418.1 ☐	TPH/Gas/BTEX 5030/8015/8020 Gas ☐ BTEX ☐	TPH/8015 Modified Diesel ☐ Hydrocarbon Scan ☐	TPH/HCID ☐ OR/HCID ☐ WA/HCID ☐	TCLP Metals ☒ VOA ☐ Semi Pest/ VOA ☐ Herb ☐	Metals (total or dissolved) List Below + Precious Metals	Cyanide	pH, Cond, Cl, SO_4, PO_4, F, Br NO_2, NO_3, (circle)	NH_3-N, COD, Total-P, TKN, TOC (circle)	Total Organic Halides (TOX) 9020 ☐ (AOX) 1650A ☐	Fire Assay		REMARKS
EB-2	5/7/97	0725	1	Water	1										X							
FB-2		0725	2		1										X							
Respirator Wash		0800	3		1									X								
Laundry Wash		0810	4		1									X								
~~Thornock Tank~~		~~0815~~			~~1~~									~~X~~								
Pile 436		0835	5	Solid	2									X	X					X		
Sinter Plant Wash		0845	6	Water	1									X								
Pile 242		0900	7	Solid	2									X	X					X		
Pile 240		0910	8																			
Pile 206		0920	9																			

RELINQUISHED BY:	RECEIVED BY:
[signature]	[signature]
Signature	Signature
Wesley N. Ganter	Wm K. Hawn
Printed Name	Printed Name
SAIC	CAS
Firm	Firm
5/7/97 4:00pm	050897 1030
Date/Time	Date/Time

TURNAROUND REQUIREMENTS

- ___ 24 hr ___ 48 hr. ___ 5 day
- X Standard (10-15 working days)
- X Provide Verbal Preliminary Results
- X Provide FAX preliminary Results

Requested Report Date _____

REPORT REQUIREMENTS

- ___ I. Routine Report
- ___ II. Report (includes DUP.MS. MSD, as required, may be charged as samples)
- X III. Data Validation Report (includes All Raw Data)
- ___ IV. CLP Deliverable Report

INVOICE INFORMATION:

P.O.# _____

Bill To _____

SAMPLE RECEIPT:

Shipping VIA: _____

Shipping #: _____

Condition: _____

Lab No: K97-3098

RELINQUISHED BY:	RECEIVED BY:
Signature	Signature
Printed Name	Printed Name
Firm	Firm
Date/Time	Date/Time

SPECIAL INSTRUCTIONS/COMMENTS:

Fire Assay to be subcontracted
Totals Metals include precious metals, mercury, + Silica

00006

DISTRIBUTION: WHITE - return to originator; YELLOW - lab; PINK - retained by originator

Columbia Analytical Services inc.

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

1317 South 13th Ave. • Kelso, WA 98626 • (360) 577-7222 • (800) 695-7222 • FAX (360) 636-1068

DATE 5/7/97 PAGE 4 OF 4

PROJECT NAME AEH #

PROJECT MANAGER Wes Gunter / Ed Moriarty

COMPANY/ADDRESS SAIC Attn: Wes Gunter
999 18th Street, Suite 855
Denver, Co 80202 PHONE 303 292 2074

SAMPLERS SIGNATURE [signature]

ANALYSIS REQUESTED

SAMPLE I.D.	DATE	TIME	LAB I.D.	SAMPLE MATRIX	NUMBER OF CONTAINERS	Base/Neu/Acid Organics GC/MS 625/8270	Volatile Organics GC/MS 624/8240	Halogenated or Aromatic Volatiles 601/8010 ☐ 602/8020 ☐	Pesticides/PCBs 608/8080	Total Petroleum Hydrocarbons EPA/418.1 ☐ OR/418.1 ☐ WA/418.1 ☐	TPH/Gas/BTEX 5030/8015/8020 Gas ☐ BTEX ☐	TPH/8015 Modified Diesel ☐ Hydrocarbon Scan ☐	TPH/HCID ☐ OR/HCID ☐ WA/HCID ☐	TCLP Metals ☒ VOA ☐ Semi Pest/ VOA ☐ Herb ☐	Metals (total or dissolved) List Below	Cyanide	pH, Cond, Cl, SO_4, PO_4, F, Br NO_2, NO_3, (circle)	NH_3-N, COD, Total-P, TKN, TOC (circle)	Total Organic Halides (TOX) 9020 ☐ (AOX) 1650A ☐			REMARKS
Thornock Tank B	5/7/97	1520	30	Water	1									X								

RELINQUISHED BY:	RECEIVED BY:
Signature [signature]	Signature [signature]
Printed Name Edward J Moriarty	Printed Name Lori K. Hawn
Firm SAIC	Firm CAS
Date/Time	Date/Time 050897 1030

TURNAROUND REQUIREMENTS

___ 24 hr ___ 48 hr. ___ 5 day
X Standard (10-15 working days)
X Provide Verbal Preliminary Results
X Provide FAX preliminary Results
Requested Report Date ___

REPORT REQUIREMENTS

___ I. Routine Report
___ II. Report (includes DUP.MS. MSD, as required, may be charged as samples)
X III. Data Validation Report (includes All Raw Data)
___ IV. CLP Deliverable Report

INVOICE INFORMATION:

P.O.# ___
Bill To ___

SAMPLE RECEIPT:

Shipping VIA: ___
Shipping #: ___
Condition: ___
Lab No: ___

RELINQUISHED BY:	RECEIVED BY:
Signature	Signature
Printed Name	Printed Name
Firm	Firm
Date/Time	Date/Time

SPECIAL INSTRUCTIONS/COMMENTS:

00007

DISTRIBUTION: WHITE - return to originator; YELLOW - lab; PINK - retained by originator

400-05

TOTAL METALS

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Science Application International Corp.
Project: AEH
Sample Matrix: Water

Service Request: K9703098
Date Collected: 5/7/97
Date Received: 5/8/97
Date Extracted: 5/21,23/97

Total Metals
Units: µg/L (ppb)

	Sample Name:	EB-2
	Lab Code:	K9703098-001
	Date Analyzed:	5/21,30/97

Analyte	EPA Method	MRL	
Aluminum	6010A	50	ND
Antimony	200.8	0.02	0.03
Arsenic	200.8	0.5	ND
Barium	6010A	5	ND
Beryllium	200.8	0.02	ND
Boron	6010A	50	ND
Cadmium	200.8	0.02	ND
Calcium	6010A	50	ND
Chromium	6010A	5	ND
Cobalt	200.8	0.02	ND
Copper	6010A	10	ND
Gold	200.8	0.05	ND
Iridium	200.8	0.05	ND
Iron	6010A	20	ND
Lead	6010A	50	ND
Magnesium	6010A	10	ND
Manganese	6010A	5	ND
Mercury	7470A	0.5	ND
Molybdenum	6010A	10	ND
Nickel	6010A	20	ND
Osmium	200.8	0.1	ND
Palladium	200.8	0.2	ND
Platinum	200.8	0.05	ND
Potassium	6010A	2000	ND
Rhenium	200.8	0.05	ND
Rhodium	200.8	0.05	ND
Ruthenium	200.8	0.05	ND
Selenium	200.8	1	ND
Silicon, as SiO_2 (X)	6010A	200	ND
Silver	6010A	10	ND
Sodium	6010A	100	ND
Thallium	200.8	0.02	ND
Tin	6010A	50	ND
Vanadium	6010A	10	ND
Zinc	6010A	10	ND

X HCl soluble SiO_2

Approved By: _____ Date: 6/13/97

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Science Application International Corp.	**Service Request:**	K9703098
Project:	AEH	**Date Collected:**	5/7/97
Sample Matrix:	Water	**Date Received:**	5/8/97
		Date Extracted:	5/21,23/97

Total Metals
Units: µg/L (ppb)

		Sample Name:	**FB-2**
		Lab Code:	K9703098-002
		Date Analyzed:	5/21,30/97
Analyte	**EPA Method**	**MRL**	
Aluminum	6010A	50	ND
Antimony	200.8	0.02	0.02
Arsenic	200.8	0.5	ND
Barium	6010A	5	ND
Beryllium	200.8	0.02	ND
Boron	6010A	50	ND
Cadmium	200.8	0.02	ND
Calcium	6010A	50	ND
Chromium	6010A	5	ND
Cobalt	200.8	0.02	ND
Copper	6010A	10	ND
Gold	200.8	0.05	ND
Iridium	200.8	0.05	ND
Iron	6010A	20	ND
Lead	6010A	50	ND
Magnesium	6010A	10	ND
Manganese	6010A	5	ND
Mercury	7470A	0.5	ND
Molybdenum	6010A	10	ND
Nickel	6010A	20	ND
Osmium	200.8	0.1	ND
Palladium	200.8	0.2	ND
Platinum	200.8	0.05	ND
Potassium	6010A	2000	ND
Rhenium	200.8	0.05	ND
Rhodium	200.8	0.05	ND
Ruthenium	200.8	0.05	ND
Selenium	200.8	1	ND
Silicon, as SiO_2 (X)	6010A	200	ND
Silver	6010A	10	ND
Sodium	6010A	100	ND
Thallium	200.8	0.02	ND
Tin	6010A	50	ND
Vanadium	6010A	10	ND
Zinc	6010A	10	ND

X HCl soluble SiO_2

Approved By: _____ Date: 6/13/97

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Science Application International Corp.	**Service Request:**	K9703098
Project:	AEH	**Date Collected:**	5/7/97
Sample Matrix:	Water	**Date Received:**	5/8/97
		Date Extracted:	5/21/97

Total Metals
Units: µg/L (ppb)

		Sample Name:	Method Blank
		Lab Code:	K9703098-MB
		Date Analyzed:	5/21/97
Analyte	**EPA Method**	**MRL**	
Aluminum	6010A	50	ND
Antimony	6010A	50	ND
Arsenic	6010A	100	ND
Barium	6010A	5	ND
Beryllium	-	-	-
Boron	6010A	50	ND
Cadmium	6010A	4	ND
Calcium	6010A	50	ND
Chromium	6010A	5	ND
Cobalt	6010A	10	ND
Copper	6010A	10	ND
Gold	-	-	-
Iridium	-	-	-
Iron	6010A	20	ND
Lead	6010A	50	ND
Magnesium	6010A	10	ND
Manganese	6010A	5	ND
Mercury	7471A	0.5	ND
Molybdenum	6010A	10	ND
Nickel	6010A	20	ND
Osmium	-	-	-
Palladium	-	0.2	-
Platinum	-	-	-
Potassium	6010A	2000	ND
Rhenium	-	-	-
Rhodium	-	-	-
Ruthenium	-	-	-
Selenium	6010A	100	ND
Silicon, as SiO_2 (X)	6010A	200	ND
Silver	6010A	10	ND
Sodium	6010A	100	ND
Thallium	-	-	-
Tin	6010A	10	ND
Vanadium	6010A	10	ND
Zinc	6010A	10	ND

X HCl soluble SiO_2

Approved By: _____ Date: 6/13/97

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Science Application International Corp.	**Service Request:**	K9703098
Project:	AEH	**Date Collected:**	5/7/97
Sample Matrix:	Water	**Date Received:**	5/8/97
		Date Extracted:	5/23/97

Total Metals
Units: µg/L (ppb)

		Sample Name:	**Method Blank**
		Lab Code:	K9703098-MB
		Date Analyzed:	5/30/97
Analyte	**EPA Method**	**MRL**	
Aluminum	-	-	-
Antimony	200.8	0.02	ND
Arsenic	200.8	0.5	ND
Barium	-	-	-
Beryllium	200.8	0.02	ND
Boron	-	-	-
Cadmium	200.8	0.02	ND
Calcium	-	-	-
Chromium	-	-	-
Cobalt	200.8	0.02	ND
Copper	-	-	-
Gold	200.8	0.05	ND
Iridium	200.8	0.05	ND
Iron	-	-	-
Lead	-	-	-
Magnesium	-	-	-
Manganese	-	-	-
Mercury	-	-	-
Molybdenum	-	-	-
Nickel	-	-	-
Osmium	200.8	0.1	ND
Palladium	200.8	0.2	ND
Platinum	200.8	0.05	ND
Potassium	-	-	-
Rhenium	200.8	0.05	ND
Rhodium	200.8	0.05	ND
Ruthenium	200.8	0.05	ND
Selenium	200.8	1	ND
Silicon, as $SiCl_2$	-	-	-
Silver	-	-	-
Sodium	-	-	-
Thallium	200.8	0.02	ND
Tin	-	-	-
Vanadium	-	-	-
Zinc	-	-	-

Approved By: _____ Date: 6/13/97

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Science Application International Corp.	**Service Request:**	K9703098
Project:	AEH	**Date Collected:**	5/7/97
Sample Matrix:	Solid	**Date Received:**	5/8/97
		Date Extracted:	5/19/97

Total Metals
Units: mg/Kg (ppm)
Dry Weight Basis

		Sample Name:	**Pile 436**
		Lab Code:	K9703098-005
		Date Analyzed:	5/21,22,30/97
Analyte	**EPA Method**	**MRL**	
Aluminum	6010A	10	6520
Antimony	6010A	10	6360
Arsenic	6010A	20	1990
Barium	6010A	1	5190
Beryllium	200.8	0.02	3.43
Boron	6010A	10	7290
Cadmium	6010A	1	594
Calcium	6010A	10	11600
Chromium	6010A	2	1320
Cobalt	6010A	2	40
Copper	6010A	2	16600
Gold	200.8	0.05	559
Iridium	200.8	0.05	1.08
Iron	6010A	4	5790
Lead	6010A	20	17800
Magnesium	6010A	2	70000
Manganese	6010A	1	93
Mercury	7471A	0.5	0.7
Molybdenum	6010A	2	7
Nickel	6010A	10	1050
Osmium	200.8	0.05	0.06
Palladium	200.8	0.2	31.7
Platinum	200.8	0.05	3.94
Potassium	7610	4	184
Rhenium	200.8	0.05	0.06
Rhodium	200.8	0.05	5.13
Ruthenium	200.8	0.05	6.71
Selenium	6010A	20	12800
Silicon, as SiO_2	ICP-OES	4000	140000
Silver	6010A	2	434
Sodium	6010A	20	29600
Thallium	200.8	0.02	12.7
Tin	6010A	10	1160
Vanadium	6010A	2	328
Zinc	6010A	2	1370

Approved By: _____ Date: 6/13/97

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Science Application International Corp.	**Service Request:**	K9703098
Project:	AEH	**Date Collected:**	5/7/97
Sample Matrix:	Solid	**Date Received:**	5/8/97
		Date Extracted:	5/19/97

Total Metals
Units: mg/Kg (ppm)
Dry Weight Basis

		Sample Name:	**Pile 242**
		Lab Code:	K9703098-007
		Date Analyzed:	5/21,22,30/97
Analyte	**EPA Method**	**MRL**	
Aluminum	6010A	10	7220
Antimony	200.8	0.02	2.51
Arsenic	200.8	0.5	1.5
Barium	6010A	1	228
Beryllium	200.8	0.02	0.12
Boron	6010A	10	83
Cadmium	200.8	0.02	0.60
Calcium	6010A	10	237000
Chromium	6010A	2	11
Cobalt	200.8	0.02	3.30
Copper	6010A	2	5840
Gold	200.8	0.05	1.93
Iridium	200.8	0.05	ND
Iron	6010A	4	1140
Lead	6010A	20	162000
Magnesium	6010A	2	4780
Manganese	6010A	1	39
Mercury	7471A	0.5	ND
Molybdenum	6010A	2	7
Nickel	6010A	10	48
Osmium	200.8	0.05	ND
Palladium	200.8	0.2	0.4
Platinum	200.8	0.05	ND
Potassium	7610	4	397
Rhenium	200.8	0.05	ND
Rhodium	200.8	0.05	1.57
Ruthenium	200.8	0.05	ND
Selenium	200.8	2	5
Silicon, as SiO_2	ICP-OES	4000	16000
Silver	6010A	2	101
Sodium	6010A	20	5800
Thallium	200.8	0.02	0.07
Tin	6010A	10	42
Vanadium	200.8	2	3
Zinc	6010A	2	99

Approved By: _____ Date: 6/13/97

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Science Application International Corp.	**Service Request:**	K9703098
Project:	AEH	**Date Collected:**	5/7/97
Sample Matrix:	Solid	**Date Received:**	5/8/97
		Date Extracted:	5/19/97

Total Metals
Units: mg/Kg (ppm)
Dry Weight Basis

		Sample Name:	**Pile 240**
		Lab Code:	K9703098-008
		Date Analyzed:	5/21,22,30/97
Analyte	**EPA Method**	**MRL**	
Aluminum	6010A	10	9550
Antimony	200.8	0.02	9.90
Arsenic	200.8	0.5	15.5
Barium	6010A	1	10
Beryllium	200.8	0.02	0.13
Boron	6010A	10	236
Cadmium	200.8	0.02	2.47
Calcium	6010A	10	727
Chromium	6010A	2	109
Cobalt	6010A	2	96
Copper	6010A	2	2420
Gold	200.8	0.05	3.89
Iridium	200.8	0.05	ND
Iron	6010A	4	197000
Lead	6010A	20	50
Magnesium	6010A	2	99
Manganese	6010A	1	2700
Mercury	7471A	0.5	ND
Molybdenum	6010A	2	20
Nickel	6010A	10	212
Osmium	200.8	0.05	ND
Palladium	200.8	0.2	0.5
Platinum	200.8	0.05	ND
Potassium	7610	4	342
Rhenium	200.8	0.05	ND
Rhodium	200.8	0.05	ND
Ruthenium	200.8	0.05	ND
Selenium	200.8	2	ND
Silicon, as SiO_2	ICP-OES	4000	ND
Silver	6010A	2	343
Sodium	6010A	20	5360
Thallium	200.8	0.02	0.14
Tin	6010A	10	16
Vanadium	6010A	2	9
Zinc	6010A	2	85

Approved By: LAH Date: 6/13/97

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Science Application International Corp.	**Service Request:**	K9703098
Project:	AEH	**Date Collected:**	5/7/97
Sample Matrix:	Solid	**Date Received:**	5/8/97
		Date Extracted:	5/19/97

Total Metals
Units: mg/Kg (ppm)
Dry Weight Basis

Sample Name:	**Pile 206**
Lab Code:	K9703098-009
Date Analyzed:	5/21,22,30/97

Analyte	EPA Method	MRL	
Aluminum	6010A	10	22200
Antimony	200.8	0.02	6.90
Arsenic	200.8	0.5	17.2
Barium	6010A	1	7
Beryllium	200.8	0.02	0.12
Boron	6010A	10	909
Cadmium	200.8	0.02	1.66
Calcium	6010A	10	876
Chromium	6010A	2	144
Cobalt	6010A	2	75
Copper	6010A	2	4190
Gold	200.8	0.05	1.84
Iridium	200.8	0.05	ND
Iron	6010A	4	275000
Lead	6010A	20	49
Magnesium	6010A	2	44
Manganese	6010A	1	3190
Mercury	7471A	0.5	ND
Molybdenum	6010A	2	12
Nickel	6010A	10	157
Osmium	200.8	0.05	0.05
Palladium	200.8	0.2	0.7
Platinum	200.8	0.05	ND
Potassium	7610	4	1390
Rhenium	200.8	0.05	ND
Rhodium	200.8	0.05	ND
Ruthenium	200.8	0.05	ND
Selenium	200.8	2	ND
Silicon, as SiO_2	ICP-OES	4000	ND
Silver	6010A	2	339
Sodium	6010A	20	8150
Thallium	200.8	0.02	0.03
Tin	6010A	10	ND
Vanadium	6010A	2	6
Zinc	6010A	2	159

Approved By: LAH Date: 6/13/97

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Science Application International Corp.
Project: AEH
Sample Matrix: Solid

Service Request: K9703098
Date Collected: 5/7/97
Date Received: 5/8/97
Date Extracted: 5/19/97

Total Metals
Units: mg/Kg (ppm)
Dry Weight Basis

		Sample Name:	Pile 159
		Lab Code:	K9703098-010
		Date Analyzed:	5/21,22,30/97
Analyte	**EPA Method**	**MRL**	
Aluminum	6010A	10	2120
Antimony	200.8	0.02	6.84
Arsenic	200.8	0.5	7.27
Barium	6010A	1	16
Beryllium	200.8	0.02	ND
Boron	6010A	10	766
Cadmium	200.8	0.02	0.13
Calcium	6010A	10	2340
Chromium	6010A	2	39
Cobalt	200.8	0.02	1.29
Copper	6010A	2	21
Gold	200.8	0.05	0.14
Iridium	200.8	0.05	ND
Iron	6010A	4	1010
Lead	6010A	20	111000
Magnesium	6010A	2	113000
Manganese	6010A	1	17
Mercury	7471A	0.5	ND
Molybdenum	6010A	2	ND
Nickel	6010A	10	113
Osmium	200.8	0.05	ND
Palladium	200.8	0.2	ND
Platinum	200.8	0.05	ND
Potassium	7610	4	215
Rhenium	200.8	0.05	ND
Rhodium	200.8	0.05	0.86
Ruthenium	200.8	0.05	ND
Selenium	200.8	2	26
Silicon, as SiO_2	ICP-OES	4000	435000
Silver	6010A	2	32
Sodium	6010A	20	5000
Thallium	200.8	0.02	0.10
Tin	6010A	10	31
Vanadium	6010A	2	15
Zinc	6010A	2	42

Approved By: _____ Date: 6/13/97

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Science Application International Corp.	**Service Request:**	K9703098
Project:	AEH	**Date Collected:**	5/7/97
Sample Matrix:	Solid	**Date Received:**	5/8/97
		Date Extracted:	5/19/97

Total Metals
Units: mg/Kg (ppm)
Dry Weight Basis

Sample Name:		**East Helena Brick A**
Lab Code:		K9703098-011
Date Analyzed:		5/21,22,30/97

Analyte	**EPA Method**	**MRL**	
Aluminum	6010A	10	2990
Antimony	6010A	10	5300
Arsenic	6010A	20	7100
Barium	6010A	1	104
Beryllium	200.8	0.02	0.20
Boron	6010A	10	79
Cadmium	6010A	1	5920
Calcium	6010A	10	84800
Chromium	6010A	2	1490
Cobalt	6010A	2	46
Copper	6010A	2	45500
Gold	200.8	0.05	21.0
Iridium	200.8	0.05	0.07
Iron	6010A	4	16800
Lead	6010A	20	108000
Magnesium	6010A	2	49100
Manganese	6010A	1	433
Mercury	7471A	0.5	26.6
Molybdenum	6010A	2	11
Nickel	6010A	10	450
Osmium	200.8	0.05	0.05
Palladium	200.8	0.2	0.7
Platinum	200.8	0.05	ND
Potassium	7610	4	506
Rhenium	200.8	0.05	20.8
Rhodium	200.8	0.05	1.54
Ruthenium	200.8	0.05	0.23
Selenium	200.8	2	349
Silicon, as SiO_2	ICP-OES	4000	154000
Silver	6010A	2	374
Sodium	6010A	20	15700
Thallium	200.8	0.02	96.1
Tin	6010A	10	1180
Vanadium	6010A	2	40
Zinc	6010A	2	17000

Approved By: _____ Date: 6/12/97

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Science Application International Corp.	**Service Request:**	K9703098
Project:	AEH	**Date Collected:**	5/7/97
Sample Matrix:	Solid	**Date Received:**	5/8/97
		Date Extracted:	5/19/97

Total Metals
Units: mg/Kg (ppm)
Dry Weight Basis

Sample Name:		**East Helena Brick B**
Lab Code:		K9703098-012
Date Analyzed:		5/21,22,30/97

Analyte	**EPA Method**	**MRL**	
Aluminum	6010A	10	1800
Antimony	6010A	10	1140
Arsenic	6010A	20	1970
Barium	6010A	1	162
Beryllium	200.8	0.02	0.20
Boron	6010A	10	168
Cadmium	6010A	1	705
Calcium	6010A	10	126000
Chromium	6010A	2	900
Cobalt	6010A	2	21
Copper	6010A	2	7580
Gold	200.8	0.05	7.65
Iridium	200.8	0.05	0.10
Iron	6010A	4	5600
Lead	6010A	20	21500
Magnesium	6010A	2	48100
Manganese	6010A	1	182
Mercury	7471A	0.5	18.2
Molybdenum	6010A	2	5
Nickel	6010A	10	204
Osmium	200.8	0.05	ND
Palladium	200.8	0.2	ND
Platinum	200.8	0.05	ND
Potassium	7610	4	269
Rhenium	200.8	0.05	32.2
Rhodium	200.8	0.05	0.99
Ruthenium	200.8	0.05	0.13
Selenium	200.8	2	205
Silicon, as SiO_2	ICP-OES	4000	77900
Silver	6010A	2	286
Sodium	6010A	20	5860
Thallium	200.8	0.02	107
Tin	6010A	10	289
Vanadium	6010A	2	38
Zinc	6010A	2	3900

Approved By: LAH Date: 6/13/97

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Science Application International Corp.	**Service Request:**	K9703098
Project:	AEH	**Date Collected:**	5/7/97
Sample Matrix:	Solid	**Date Received:**	5/8/97
		Date Extracted:	5/19/97

Total Metals
Units: mg/Kg (ppm)
Dry Weight Basis

Sample Name:	**Omaha Brick**
Lab Code:	K9703098-013
Date Analyzed:	5/21,22,30/97

Analyte	EPA Method	MRL	
Aluminum	6010A	10	6340
Antimony	6010A	10	6300
Arsenic	6010A	20	2460
Barium	6010A	1	53
Beryllium	200.8	0.02	0.20
Boron	6010A	10	519
Cadmium	6010A	1	251
Calcium	6010A	10	36600
Chromium	6010A	2	46
Cobalt	6010A	2	23
Copper	6010A	2	5670
Gold	200.8	0.05	4.56
Iridium	200.8	0.05	ND
Iron	6010A	4	8280
Lead	6010A	20	71900
Magnesium	6010A	2	3330
Manganese	6010A	1	197
Mercury	7471A	0.5	9.1
Molybdenum	6010A	2	4
Nickel	6010A	10	255
Osmium	200.8	0.05	ND
Palladium	200.8	0.2	ND
Platinum	200.8	0.05	ND
Potassium	7610	4	465
Rhenium	200.8	0.05	0.52
Rhodium	200.8	0.05	0.96
Ruthenium	200.8	0.05	0.11
Selenium	200.8	2	38
Silicon, as SiO_2	ICP-OES	4000	192000
Silver	6010A	2	367
Sodium	6010A	20	8340
Thallium	200.8	0.02	8.41
Tin	6010A	10	1160
Vanadium	6010A	2	23
Zinc	6010A	2	79100

Approved By: _____ Date: 6/13/97

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Science Application International Corp.
Project: AEH
Sample Matrix: Solid

Service Request: K9703098
Date Collected: 5/7/97
Date Received: 5/8/97
Date Extracted: 5/19/97

Total Metals
Units: mg/Kg (ppm)
Dry Weight Basis

Sample Name:		**Omaha Brick Fines**
Lab Code:		K9703098-014
Date Analyzed:		5/21,22,30/97
Analyte	**EPA Method**	**MRL**
Aluminum	6010A	10	13200
Antimony	6010A	20	15400
Arsenic	6010A	20	6860
Barium	6010A	1	125
Beryllium	200.8	0.02	0.34
Boron	6010A	10	1100
Cadmium	6010A	1	985
Calcium	6010A	10	68900
Chromium	6010A	2	68
Cobalt	6010A	2	7
Copper	6010A	2	19200
Gold	200.8	0.05	14.9
Iridium	200.8	0.05	ND
Iron	6010A	4	10700
Lead	6010A	20	170000
Magnesium	6010A	2	8060
Manganese	6010A	1	414
Mercury	7471A	0.5	7.6
Molybdenum	6010A	2	6
Nickel	6010A	10	452
Osmium	200.8	0.05	ND
Palladium	200.8	0.2	0.5
Platinum	200.8	0.05	ND
Potassium	7610	4	1260
Rhenium	200.8	0.05	0.81
Rhodium	200.8	0.05	1.49
Ruthenium	200.8	0.05	0.27
Selenium	200.8	2	163
Silicon, as SiO_2	ICP-OES	4000	187000
Silver	6010A	2	413
Sodium	6010A	20	26600
Thallium	200.8	0.02	27.5
Tin	6010A	10	2430
Vanadium	6010A	2	59
Zinc	6010A	2	38400

Approved By: _____ Date: 6/13/97

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Science Application International Corp.	**Service Request:**	K9703098
Project:	AEH	**Date Collected:**	5/7/97
Sample Matrix:	Solid	**Date Received:**	5/8/97
		Date Extracted:	5/19/97

Total Metals
Units: mg/Kg (ppm)
Dry Weight Basis

Sample Name:		**Pile 697**
Lab Code:		K9703098-015
Date Analyzed:		5/21,22,30/97

Analyte	**EPA Method**	**MRL**	
Aluminum	6010A	10	2360
Antimony	6010A	10	664
Arsenic	6010A	20	3600
Barium	6010A	1	110
Beryllium	200.8	0.02	0.25
Boron	6010A	10	258
Cadmium	6010A	1	4520
Calcium	6010A	10	14900
Chromium	6010A	2	1250
Cobalt	6010A	2	4930
Copper	6010A	2	158000
Gold	200.8	0.05	1.32
Iridium	200.8	0.05	ND
Iron	6010A	4	66500
Lead	6010A	20	174000
Magnesium	6010A	2	2400
Manganese	6010A	1	438
Mercury	7471A	0.5	9.1
Molybdenum	6010A	2	11
Nickel	6010A	10	17200
Osmium	200.8	0.05	ND
Palladium	200.8	0.2	2.0
Platinum	200.8	0.05	ND
Potassium	7610	4	232
Rhenium	200.8	0.05	0.06
Rhodium	200.8	0.05	2.67
Ruthenium	200.8	0.05	0.20
Selenium	200.8	2	38
Silicon, as $SiCl_2$	ICP-OES	4000	49200
Silver	6010A	2	84
Sodium	6010A	20	38500
Thallium	200.8	0.02	4.73
Tin	6010A	10	2290
Vanadium	6010A	2	24
Zinc	6010A	2	43300

Approved By: _____ Date: 6/13/97

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Science Application International Corp.	**Service Request:**	K9703098
Project:	AEH	**Date Collected:**	5/7/97
Sample Matrix:	Solid	**Date Received:**	5/8/97
		Date Extracted:	5/19/97

Total Metals
Units: mg/Kg (ppm)
Dry Weight Basis

Sample Name:	**Pile 718**
Lab Code:	K9703098-016
Date Analyzed:	5/21,22,30/97

Analyte	EPA Method	MRL	
Aluminum	6010A	10	437
Antimony	6010A	10	20900
Arsenic	6010A	20	39200
Barium	6010A	1	16
Beryllium	200.8	0.02	0.03
Boron	6010A	10	17
Cadmium	6010A	1	113
Calcium	6010A	10	3170
Chromium	6010A	2	7
Cobalt	6010A	2	289
Copper	6010A	2	249000
Gold	200.8	0.05	24.3
Iridium	200.8	0.05	0.13
Iron	6010A	4	33800
Lead	6010A	20	66900
Magnesium	6010A	2	777
Manganese	6010A	1	230
Mercury	7471A	0.5	ND
Molybdenum	6010A	2	154
Nickel	6010A	10	4680
Osmium	200.8	0.05	ND
Palladium	200.8	0.2	3.1
Platinum	200.8	0.05	0.12
Potassium	7610	4	201
Rhenium	200.8	0.05	1.82
Rhodium	200.8	0.05	2.18
Ruthenium	200.8	0.05	0.89
Selenium	200.8	2	227
Silicon, as SiO_2	ICP-OES	4000	336000
Silver	6010A	2	413
Sodium	6010A	20	1880
Thallium	200.8	0.02	1.64
Tin	6010A	10	2600
Vanadium	6010A	2	<15(B)
Zinc	6010A	2	4600

B The MRL is elevated because of matrix interferences.

Approved By: _____ Date: 6/13/97

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COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Science Application International Corp.	**Service Request:**	K9703098
Project:	AEH	**Date Collected:**	5/7/97
Sample Matrix:	Solid	**Date Received:**	5/8/97
		Date Extracted:	5/19/97

Total Metals
Units: mg/Kg (ppm)
Dry Weight Basis

		Sample Name:	**Pile 487**
		Lab Code:	K9703098-017
		Date Analyzed:	5/21,22,30/97
Analyte	**EPA Method**	**MRL**	
Aluminum	6010A	10	12200
Antimony	6010A	10	6090
Arsenic	6010A	20	3760
Barium	6010A	1	2060
Beryllium	200.8	0.02	0.39
Boron	6010A	10	2460
Cadmium	6010A	1	4200
Calcium	6010A	10	17600
Chromium	6010A	2	212
Cobalt	6010A	2	16
Copper	6010A	2	3000
Gold	200.8	0.05	9.55
Iridium	200.8	0.05	ND
Iron	6010A	4	27000
Lead	6010A	20	98700
Magnesium	6010A	2	10000
Manganese	6010A	1	616
Mercury	7471A	0.5	9.4
Molybdenum	6010A	2	15
Nickel	6010A	10	659
Osmium	200.8	0.05	ND
Palladium	200.8	0.2	0.3
Platinum	200.8	0.05	ND
Potassium	7610	4	2340
Rhenium	200.8	0.05	1.98
Rhodium	200.8	0.05	0.97
Ruthenium	200.8	0.05	0.19
Selenium	200.8	2	549
Silicon, as SiO_2	ICP-OES	4000	192000
Silver	6010A	2	427
Sodium	6010A	20	38300
Thallium	200.8	0.02	126
Tin	6010A	10	1020
Vanadium	6010A	2	35
Zinc	6010A	2	45000

Approved By: _____ Date: 6/13/97

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COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Science Application International Corp.	**Service Request:**	K9703098
Project:	AEH	**Date Collected:**	5/7/97
Sample Matrix:	Solid	**Date Received:**	5/8/97
		Date Extracted:	5/19/97

Total Metals
Units: mg/Kg (ppm)
Dry Weight Basis

Sample Name:	**Pile 347**
Lab Code:	K9703098-018
Date Analyzed:	5/21,22,30/97

Analyte	EPA Method	MRL	
Aluminum	6010A	10	8810
Antimony	6010A	10	3710
Arsenic	6010A	20	1210
Barium	6010A	1	83
Beryllium	200.8	0.02	0.16
Boron	6010A	10	284
Cadmium	6010A	1	3190
Calcium	6010A	10	14500
Chromium	6010A	2	665
Cobalt	6010A	2	34
Copper	6010A	2	4460
Gold	200.8	0.05	61.1
Iridium	200.8	0.05	ND
Iron	6010A	4	15100
Lead	6010A	20	160000
Magnesium	6010A	2	68300
Manganese	6010A	1	368
Mercury	7471A	0.5	7.0
Molybdenum	6010A	2	5
Nickel	6010A	10	412
Osmium	200.8	0.05	ND
Palladium	200.8	0.2	0.5
Platinum	200.8	0.05	ND
Potassium	7610	4	372
Rhenium	200.8	0.05	0.14
Rhodium	200.8	0.05	2.17
Ruthenium	200.8	0.05	0.09
Selenium	200.8	2	15
Silicon, as SiO_2	ICP-OES	4000	164000
Silver	6010A	2	398
Sodium	6010A	20	3690
Thallium	200.8	0.02	10.3
Tin	6010A	10	326
Vanadium	6010A	2	75
Zinc	6010A	2	38800

Approved By: _____ Date: 6/13/97

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Science Application International Corp.	**Service Request:**	K9703098
Project:	AEH	**Date Collected:**	5/7/97
Sample Matrix:	Solid	**Date Received:**	5/8/97
		Date Extracted:	5/19/97

Total Metals
Units: mg/Kg (ppm)
Dry Weight Basis

Sample Name:	**Pile 265A**	
Lab Code:	K9703098-023	
Date Analyzed:	5/21,22,30/97	

Analyte	EPA Method	MRL	
Aluminum	6010A	10	2300
Antimony	6010A	10	670
Arsenic	6010A	20	2110
Barium	6010A	1	20
Beryllium	200.8	0.02	0.08
Boron	6010A	10	20
Cadmium	6010A	1	2610
Calcium	6010A	10	5420
Chromium	6010A	2	23
Cobalt	6010A	2	3360
Copper	6010A	2	113000
Gold	200.8	0.05	0.17
Iridium	200.8	0.05	ND
Iron	6010A	4	49400
Lead	6010A	20	142000
Magnesium	6010A	2	1620
Manganese	6010A	1	93
Mercury	7471A	0.5	0.6
Molybdenum	6010A	2	ND
Nickel	6010A	10	13800
Osmium	200.8	0.05	ND
Palladium	200.8	0.2	1.6
Platinum	200.8	0.05	ND
Potassium	7610	4	410
Rhenium	200.8	0.05	ND
Rhodium	200.8	0.05	2.09
Ruthenium	200.8	0.05	ND
Selenium	200.8	2	19
Silicon, as SiO_2	ICP-OES	4000	13300
Silver	6010A	2	158
Sodium	6010A	20	128000
Thallium	200.8	0.02	3.08
Tin	6010A	10	1510
Vanadium	6010A	2	4
Zinc	6010A	2	31400

Approved By: _____ Date: 6/13/97

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COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Science Application International Corp.	**Service Request:**	K9703098
Project:	AEH	**Date Collected:**	5/7/97
Sample Matrix:	Solid	**Date Received:**	5/8/97
		Date Extracted:	5/19/97

Total Metals
Units: mg/Kg (ppm)
Dry Weight Basis

Sample Name:	**Pile 265B**
Lab Code:	K9703098-024
Date Analyzed:	5/21,22,30/97

Analyte	EPA Method	MRL	
Aluminum	6010A	10	999
Antimony	6010A	10	394
Arsenic	6010A	20	2020
Barium	6010A	1	21
Beryllium	200.8	0.02	0.09
Boron	6010A	10	17
Cadmium	6010A	1	2530
Calcium	6010A	10	4280
Chromium	6010A	2	38
Cobalt	6010A	2	3010
Copper	6010A	2	112000
Gold	200.8	0.05	0.10
Iridium	200.8	0.05	ND
Iron	6010A	4	43800
Lead	6010A	20	120000
Magnesium	6010A	2	1040
Manganese	6010A	1	74
Mercury	7471A	0.5	0.6
Molybdenum	6010A	2	3
Nickel	6010A	10	7120
Osmium	200.8	0.05	ND
Palladium	200.8	0.2	1.4
Platinum	200.8	0.05	ND
Potassium	7610	4	310
Rhenium	200.8	0.05	ND
Rhodium	200.8	0.05	1.96
Ruthenium	200.8	0.05	ND
Selenium	200.8	2	15
Silicon, as SiO_2	ICP-OES	4000	10100
Silver	6010A	2	49
Sodium	6010A	20	140000
Thallium	200.8	0.02	2.26
Tin	6010A	10	1400
Vanadium	6010A	2	ND
Zinc	6010A	2	25500

Approved By: _____ Date: 6/13/97

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COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Science Application International Corp.	**Service Request:**	K9703098
Project:	AEH	**Date Collected:**	5/7/97
Sample Matrix:	Solid	**Date Received:**	5/8/97
		Date Extracted:	5/19/97

Total Metals
Units: mg/Kg (ppm)
Dry Weight Basis

Sample Name:	**Pile 320B**
Lab Code:	K9703098-025
Date Analyzed:	5/21,22,30/97

Analyte	EPA Method	MRL	
Aluminum	6010A	10	1680
Antimony	6010A	10	578
Arsenic	6010A	20	2050
Barium	6010A	1	78
Beryllium	200.8	0.02	0.13
Boron	6010A	10	719
Cadmium	6010A	1	5200
Calcium	6010A	10	35700
Chromium	6010A	2	439
Cobalt	6010A	2	4410
Copper	6010A	2	157000
Gold	200.8	0.05	0.43
Iridium	200.8	0.05	ND
Iron	6010A	4	46100
Lead	6010A	20	167000
Magnesium	6010A	2	3400
Manganese	6010A	1	612
Mercury	7471A	0.5	1.3
Molybdenum	6010A	2	6
Nickel	6010A	10	20600
Osmium	200.8	0.05	ND
Palladium	200.8	0.2	1.4
Platinum	200.8	0.05	ND
Potassium	7610	4	204
Rhenium	200.8	0.05	ND
Rhodium	200.8	0.05	2.44
Ruthenium	200.8	0.05	0.22
Selenium	200.8	2	32
Silicon, as SiO_2	ICP-OES	4000	25500
Silver	6010A	2	173
Sodium	6010A	20	20200
Thallium	200.8	0.02	29.0
Tin	6010A	10	1360
Vanadium	6010A	2	159
Zinc	6010A	2	35100

Approved By: _____ Date: 6/13/97

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Science Application International Corp.
Project: AEH
Sample Matrix: Solid

Service Request: K9703098
Date Collected: 5/7/97
Date Received: 5/8/97
Date Extracted: 5/19/97

Total Metals
Units: mg/Kg (ppm)
Dry Weight Basis

Sample Name:		**Pile 213A**
Lab Code:		K9703098-026
Date Analyzed:		5/21,22,30/97

Analyte	EPA Method	MRL	
Aluminum	6010A	10	2540
Antimony	6010A	10	675
Arsenic	6010A	20	3040
Barium	6010A	1	151
Beryllium	200.8	0.02	0.47
Boron	6010A	10	192
Cadmium	6010A	1	4940
Calcium	6010A	10	27900
Chromium	6010A	2	460
Cobalt	6010A	2	4900
Copper	6010A	2	163000
Gold	200.8	0.05	0.22
Iridium	200.8	0.05	ND
Iron	6010A	4	80600
Lead	6010A	20	189000
Magnesium	6010A	2	2370
Manganese	6010A	1	432
Mercury	7471A	0.5	2.7
Molybdenum	6010A	2	12
Nickel	6010A	10	15600
Osmium	200.8	0.05	ND
Palladium	200.8	0.2	2.4
Platinum	200.8	0.05	ND
Potassium	7610	4	356
Rhenium	200.8	0.05	0.49
Rhodium	200.8	0.05	3.17
Ruthenium	200.8	0.05	0.13
Selenium	200.8	2	75
Silicon, as SiO_2	ICP-OES	4000	27000
Silver	6010A	2	78
Sodium	6010A	20	39000
Thallium	200.8	0.02	22.0
Tin	6010A	10	2270
Vanadium	6010A	2	40
Zinc	6010A	2	34400

Approved By: _____ Date: 6/13/97

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Science Application International Corp.	**Service Request:**	K9703098
Project:	AEH	**Date Collected:**	5/7/97
Sample Matrix:	Solid	**Date Received:**	5/8/97
		Date Extracted:	5/19/97

Total Metals
Units: mg/Kg (ppm)
Dry Weight Basis

		Sample Name:	**Pile 213B**
		Lab Code:	K9703098-027
		Date Analyzed:	5/21,22,30/97
Analyte	**EPA Method**	**MRL**	
Aluminum	6010A	10	1540
Antimony	6010A	10	504
Arsenic	6010A	20	2690
Barium	6010A	1	118
Beryllium	200.8	0.02	0.33
Boron	6010A	10	198
Cadmium	6010A	1	4240
Calcium	6010A	10	12500
Chromium	6010A	2	415
Cobalt	6010A	2	4370
Copper	6010A	2	170000
Gold	200.8	0.05	0.17
Iridium	200.8	0.05	ND
Iron	6010A	4	70800
Lead	6010A	20	190000
Magnesium	6010A	2	2030
Manganese	6010A	1	387
Mercury	7471A	0.5	1.3
Molybdenum	6010A	2	7
Nickel	6010A	10	14600
Osmium	200.8	0.05	ND
Palladium	200.8	0.2	1.6
Platinum	200.8	0.05	ND
Potassium	7610	4	328
Rhenium	200.8	0.05	0.29
Rhodium	200.8	0.05	3.01
Ruthenium	200.8	0.05	0.11
Selenium	200.8	2	58
Silicon, as $SiCl_2$	ICP-OES	4000	20600
Silver	6010A	2	58
Sodium	6010A	20	38800
Thallium	200.8	0.02	16.1
Tin	6010A	10	2270
Vanadium	6010A	2	53
Zinc	6010A	2	33400

Approved By: _____ Date: 6/13/97

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COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Science Application International Corp.	**Service Request:**	K9703098
Project:	AEH	**Date Collected:**	5/7/97
Sample Matrix:	Solid	**Date Received:**	5/8/97
		Date Extracted:	5/19/97

Total Metals
Units: mg/Kg (ppm)
Dry Weight Basis

Sample Name:		**Amarillo Brick**
Lab Code:		K9703098-028
Date Analyzed:		5/21,22,30/97

Analyte	EPA Method	MRL	
Aluminum	6010A	10	12700
Antimony	6010A	10	4860
Arsenic	6010A	20	2130
Barium	6010A	1	4130
Beryllium	200.8	0.02	0.31
Boron	6010A	10	4740
Cadmium	200.8	0.02	10.3
Calcium	6010A	10	15600
Chromium	6010A	2	1320
Cobalt	6010A	2	34
Copper	6010A	2	15900
Gold	200.8	0.05	386
Iridium	200.8	0.05	0.97
Iron	6010A	4	6640
Lead	6010A	20	9060
Magnesium	6010A	2	45900
Manganese	6010A	1	77
Mercury	7471A	0.5	ND
Molybdenum	6010A	2	5
Nickel	6010A	10	1150
Osmium	200.8	0.05	ND
Palladium	200.8	0.2	40.5
Platinum	200.8	0.05	2.56
Potassium	7610	4	227
Rhenium	200.8	0.05	ND
Rhodium	200.8	0.05	5.77
Ruthenium	200.8	0.05	5.00
Selenium	6010A	20	25500
Silicon, as SiO_2	ICP-OES	4000	142000
Silver	6010A	2	379
Sodium	6010A	20	35800
Thallium	200.8	0.02	2.12
Tin	6010A	10	811
Vanadium	6010A	2	78
Zinc	6010A	2	390

Approved By: _____ Date: 6/13/97

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COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Science Application International Corp.	**Service Request:**	K9703098
Project:	AEH	**Date Collected:**	NA
Sample Matrix:	Solid	**Date Received:**	5/8/97
		Date Extracted:	5/19/97

Total Metals
Units: mg/Kg (ppm)
Dry Weight Basis

Sample Name:		**Method Blank**
Lab Code:		K9703098-MB
Date Analyzed:		5/21,22,30/97

Analyte	**EPA Method**	**MRL**	
Aluminum	6010A	10	ND
Antimony	6010A	10	ND
Arsenic	6010A	20	ND
Barium	6010A	1	ND
Beryllium	-	-	-
Boron	6010A	10	ND
Cadmium	6010A	1	ND
Calcium	6010A	10	ND
Chromium	6010A	2	ND
Cobalt	6010A	2	ND
Copper	6010A	2	ND
Gold	-	-	-
Iridium	-	-	-
Iron	6010A	4	ND
Lead	6010A	20	ND
Magnesium	6010A	2	ND
Manganese	6010A	1	ND
Mercury	7471A	0.5	ND
Molybdenum	6010A	2	ND
Nickel	6010A	10	ND
Osmium	-	-	-
Palladium	-	-	-
Platinum	-	-	-
Potassium	7610	4	ND
Rhenium	-	-	-
Rhodium	-	-	-
Ruthenium	-	-	-
Selenium	6010A	20	ND
Silicon, as SiO_2	ICP-OES	4000	-
Silver	6010A	2	ND
Sodium	6010A	20	ND
Thallium	-	-	-
Tin	6010A	10	ND
Vanadium	6010A	2	ND
Zinc	6010A	2	ND

Approved By: _____ Date: 6/13/97

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Science Application International Corp.	**Service Request:**	K9703098
Project:	AEH	**Date Collected:**	NA
Sample Matrix:	Solid	**Date Received:**	5/8/97
		Date Extracted:	5/19/97

Total Metals
Units: mg/Kg (ppm)
Dry Weight Basis

	Sample Name:	**Method Blank**
	Lab Code:	K9703098-MB
	Date Analyzed:	5/21,22,30/97

Analyte	**EPA Method**	**MRL**	
Aluminum	-	-	-
Antimony	200.8	0.02	ND
Arsenic	200.8	0.5	ND
Barium	-	-	-
Beryllium	200.8	0.02	ND
Boron	-	-	-
Cadmium	200.8	0.02	ND
Calcium	-	-	-
Chromium	-	-	-
Cobalt	200.8	0.02	ND
Copper	-	-	-
Gold	200.8	0.05	ND
Iridium	200.8	0.05	ND
Iron	-	-	-
Lead	-	-	-
Magnesium	-	-	-
Manganese	-	-	-
Mercury	-	-	-
Molybdenum	-	-	-
Nickel	-	-	-
Osmium	200.8	0.05	ND
Palladium	200.8	0.2	ND
Platinum	200.8	0.05	ND
Potassium	-	-	-
Rhenium	200.8	0.05	ND
Rhodium	200.8	0.05	ND
Ruthenium	200.8	0.05	ND
Selenium	200.8	2	ND
Silicon, as SiO_2	-	-	-
Silver	-	-	-
Sodium	-	-	-
Thallium	200.8	0.02	ND
Tin	-	-	-
Vanadium	-	-	-
Zinc	-	-	-

Approved By: _____ Date: 6/13/97

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	Science Application International Corp.	**Service Request:**	K9703098
Project:	AEH	**Date Collected:**	5/7/97
Sample Matrix:	Solid	**Date Received:**	5/8/97
		Date Extracted:	5/19/97
		Date Analyzed:	5/21,29/97

Duplicate Summary
Total Metals
Units: mg/Kg (ppm)
Dry Weight Basis

Sample Name: *Amarillo Brick*
Lab Code: K9703098-028

Analyte	EPA Method	MRL	Sample Result	Duplicate Sample Result	Average	Relative Percent Difference
Aluminum	6010A	10	12700	14500	13600	13
Antimony	6010A	10	4860	6700	5780	32
Arsenic	6010A	20	2130	2850	2490	29
Barium	6010A	1	4130	5070	4600	20
Boron	6010A	10	4740	6080	5410	25
Cadmium	6010A	1	8	9	8	12
Calcium	6010A	10	15600	18000	16800	14
Chromium	6010A	2	1320	924	1120	35
Cobalt	6010A	2	34	33	34	3
Copper	6010A	2	15900	13900	14900	13
Iron	6010A	4	6640	7440	7040	11
Lead	6010A	20	9060	11700	10400	25
Magnesium	6010A	2	45900	35500	40700	26
Manganese	6010A	1	77	85	81	10
Mercury	7471A	0.5	ND	ND	ND	-
Molybdenum	6010A	2	5	6	6	17
Nickel	6010A	10	1150	1570	1360	31
Potassium	7610	4	227	203	215	11
Selenium	6010A	20	25500	29000	27200	27
Silicon, as SiO2	ICP-OES	500	142000	121000	132000	16
Silver	6010A	2	379	368	374	3
Sodium	6010A	20	35800	39500	37600	10
Tin	6010A	10	811	1110	960	31
Vanadium	6010A	2	78	60	69	26
Zinc	6010A	2	390	417	404	7

Approved By: _____ Date: 6/13/97

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	Science Application International Corp.	**Service Request:**	K9703098
Project:	AEH	**Date Collected:**	5/7/97
Sample Matrix:	Solid	**Date Received:**	5/8/58
		Date Extracted:	5/19/97
		Date Analyzed:	5/21,29/97

Matrix Spike Summary
Total Metals
Units: mg/Kg (ppm)
Dry Weight Basis

Sample Name: Amarillo Brick
Lab Code: K9703098-028

Analyte	MRL	Spike Level	Sample Result	Spiked Sample Result	Percent Recovery	CAS Percent Recovery Acceptance Limits
Aluminum	10	400	12700	13100	NA	60-130
Antimony	10	50	4860	7060	NA	60-130
Arsenic	20	400	2130	3220	NA	60-130
Barium	1	400	4130	6210	NA	60-130
Boron	10	200	4740	6040	NA	60-130
Cadmium	1	10	8	23	150(A)	60-130
Chromium	2	40	1320	1190	NA	60-130
Cobalt	2	100	34	117	83	60-130
Copper	2	50	15900	19000	NA	60-130
Iron	4	200	6640	8900	NA	60-130
Lead	20	200	9060	11700	NA	60-130
Manganese	1	100	77	191	114	60-130
Mercury	0.5	3.2	ND	3.2	100	60-130
Molybdenum	2	200	5	195	95	60-130
Nickel	10	100	1150	1570	NA	60-130
Selenium	20	200	25500	34800	NA	60-130
Silver	2	10	379	442	NA	60-130
Tin	10	2000	811	2980	105	60-130
Vanadium	2	100	78	168	90	60-130
Zinc	2	100	390	600	NA	60-130

NA Not Applicable; see case narrative.
A Outside acceptance limits; see case narrative.

Approved By: _____ Date: 6/13/97

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	Science Application International Corp.	**Service Request:**	K9703098
Project:	AEH	**Date Collected:**	5/7/97
Sample Matrix:	Solid	**Date Received:**	5/8/97
		Date Extracted:	5/19/97
		Date Analyzed:	5/30/97

Duplicate Summary
Total Metals
Units: mg/Kg (ppm)
Dry Weight Basis

Sample Name: Pile 240
Lab Code: K9703098-008

Analyte	EPA Method	MRL	Sample Result	Duplicate Sample Result	Average	Relative Percent Difference
Antimony	200.8	0.02	9.90	10.4	10.2	5
Arsenic	200.8	0.5	15.5	17.5	16.5	12
Beryllium	200.8	0.02	0.13	0.12	0.12	8
Cadmium	200.8	0.02	2.47	3.08	2.78	22
Cobalt	200.8	0.02	92.8	103	97.9	10
Gold	200.8	0.05	3.89	2.91	3.40	29
Iridium	200.8	0.05	ND	ND	ND	-
Osmium	200.8	0.05	ND	ND	ND	-
Palladium	200.8	0.2	0.5	0.4	0.4	25
Platinum	200.8	0.05	ND	ND	ND	-
Rhenium	200.8	0.05	ND	ND	ND	-
Rhodium	200.8	0.05	ND	ND	ND	-
Ruthenium	200.8	0.05	ND	ND	ND	-
Selenium	200.8	2	ND	ND	ND	-
Thallium	200.8	0.02	0.14	0.18	0.16	25

Approved By: _____ Date: 6/13/97

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	Science Application International Corp.	**Service Request:**	K9703098
Project:	AEH	**Date Collected:**	5/7/97
Sample Matrix:	Solid	**Date Received:**	5/8/97
		Date Extracted:	5/19/97
		Date Analyzed:	5/30/97

Matrix Spike Summary
Total Metals
Units: mg/Kg (ppm)
Dry Weight Basis

Sample Name: Pile 240
Lab Code: K9703098-008

Analyte	MRL	Spike Level	Sample Result	Spiked Sample Result	Percent Recovery	CAS Percent Recovery Acceptance Limits
Antimony	0.02	110	9.90	118	98	60-130
Arsenic	0.5	56	15.5	66.0	90	60-130
Beryllium	0.02	11	0.13	11.0	99	60-130
Cadmium	0.02	11	2.47	13.7	102	60-130
Cobalt	0.02	110	92.8	215	111	60-130
Gold	0.05	56	3.89	45.2	74	60-130
Iridium	0.05	56	ND	44.1	79	60-130
Osmium	0.05	56	ND	42.7	76	60-130
Palladium	0.2	56	0.5	49.3	87	60-130
Platinum	0.05	56	ND	54.4	97	60-130
Rhenium	0.05	56	ND	59.0	105	60-130
Rhodium	0.05	56	ND	47.0	84	60-130
Ruthenium	0.05	56	ND	55.8	100	60-130
Selenium	2	28	ND	24	86	60-130
Thallium	0.02	22	0.14	23.2	105	60-130

Approved By: _____ Date: 6/12/97

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Science Application International Corp.
Project: AEH
LCS Matrix: Solid

Service Request: K9703098
Date Collected: NA
Date Received: NA
Date Extracted: 5/19/97
Date Analyzed: 5/21,29/97

Laboratory Control Sample Summary
Total Metals

Sample Name: Laboratory Control Sample
Lab Code: K9703098-LCSS
Test Notes:

Units: mg/Kg (ppm)
Basis: Dry

Source: Environmental Resource Associates #230

Analyte	EPA Method	True Value	Result	Percent Recovery	Control Limits
Aluminum	6010A	6210	6380	103	62-138
Antimony	6010A	51.2	27	53	24-176
Arsenic	6010A	62.7	67.6	108	70-130
Barium	6010A	260	269	103	73-127
Boron	6010A	83.2	84.9	102	64-136
Cadmium	6010A	77.4	74.6	96	66-133
Calcium	6010A	2760	2620	95	64-136
Chromium	6010A	76.9	72.5	94	77-123
Cobalt	6010A	101	96.1	95	76-124
Copper	6010A	58.2	57.2	98	79-121
Iron	6010A	15300	13800	90	58-142
Lead	6010A	122	112	92	68-131
Magnesium	6010A	1800	1730	96	80-120
Manganese	6010A	232	231	100	77-123
Mercury	7471A	2.51	2.25	90	64-136
Molybdenum	6010A	152	140	92	72-128
Nickel	6010A	163	162	99	75-125
Potassium	7610	2020	2010	100	70-130
Selenium	6010A	91.7	89.9	98	71-129
Silver	6010A	69.6	74.5	107	74-126
Sodium	6010A	474	442	93	64-136
Tin	6010A	104	97.8	94	61-139
Vanadium	6010A	142	139	98	63-137
Zinc	6010A	114	109	96	74-126

Approved By: _____ Date: 6/12/97

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	Science Application International Corp.	**Service Request:**	K9703098
Project:	AEH	**Date Collected:**	NA
LCS Matrix:	Solid	**Date Received:**	NA
		Date Extracted:	5/19/97
		Date Analyzed:	5/30/97

Laboratory Control Sample Summary
Total Metals

Sample Name:	Laboratory Control Sample	Units:	mg/Kg (ppm)
Lab Code:	K9703098-LCSS	Basis:	Dry
Test Notes:			

Source: Environmental Resource Associates #230

Analyte	EPA Method	True Value	Result	Percent Recovery	Control Limits
Antimony	200.8	51.2	28.9	56	23.8-176
Arsenic	200.8	62.7	54.2	86	70-130
Beryllium	200.8	87.2	89.4	103	76.8-123
Cadmium	200.8	77.4	64.6	83	66-133
Cobalt	200.8	101	93.0	92	76-124
Selenium	200.8	91.7	79.7	87	71-129
Thallium	200.8	50.5	52.7	104	47-152

Approved By: _____ Date: 6/12/97

TCLP/METALS

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Science Applications International Corp.	**Service Request:**	K9703098
Project:	AEH	**Date Collected:**	5/7/97
Sample Matrix:	Solid	**Date Received:**	5/8/97
		Date TCLP Performed:	5/20/97
		Date Extracted:	5/21/97

Toxicity Characteristic Leaching Procedure (TCLP)
EPA Method 1311
Metals
Units: mg/L (ppm) in TCLP Extract

				Sample Name:	**Pile 436**	**Pile 242**	**Pile 240**
				Lab Code:	K9703098-005	K9703098-007	K9703098-008
				Date Analyzed:	5/22/97	5/22/97	5/22/97
Analyte	**EPA Method**	**MRL**	**Regulatory Limit***				
Arsenic	3010A/6010A	0.1	5		11	ND	0.2
Barium	3010A/6010A	0.5	100		5	0.7	ND
Cadmium	3010A/6010A	0.01	1		0.30(E)	ND	0.11(E)
Chromium	3010A/6010A	0.01	5		ND	ND	0.34
Lead	3010A/6010A	0.05	5		0.2	994	0.84
Mercury	7470A	0.001	0.2		ND	ND	ND
Selenium	3010A/6010A	0.1	1		164	ND	ND
Silver	3010A/6010A	0.01	5		ND	ND	2.89

* From 40 CFR Part 261, et al., and *Federal Register*, March 29, 1990 and June 29, 1990.
E Estimated concentration; see case narrative.

Approved By: _____ Date: 6/2/97

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Science Applications International Corp.	**Service Request:**	K9703098
Project:	AEH	**Date Collected:**	5/7/97
Sample Matrix:	Solid	**Date Received:**	5/8/97
		Date TCLP Performed:	5/20/97
		Date Extracted:	5/21/97

Toxicity Characteristic Leaching Procedure (TCLP)
EPA Method 1311
Metals
Units: mg/L (ppm) in TCLP Extract

				Sample Name:	**Pile 206**	**Pile 159**	**East Helena Brick A**
				Lab Code:	K9703098-009	K9703098-010	K9703098-011
				Date Analyzed:	5/22/97	5/22/97	5/22/97
Analyte	**EPA Method**	**MRL**	**Regulatory Limit***				
Arsenic	3010A/6010A	0.1	5		1.1	ND	0.2
Barium	3010A/6010A	0.5	100		ND	ND	ND
Cadmium	3010A/6010A	0.01	1		<0.05(D)	ND	44.7
Chromium	3010A/6010A	0.01	5		1.69	0.01	ND
Lead	3010A/6010A	0.05	5		0.5	768	42.5
Mercury	7470A	0.001	0.2		ND	ND	ND
Selenium	3010A/6010A	0.1	1		<0.5(D)	ND	0.7
Silver	3010A/6010A	0.01	5		2.34	0.01	ND

* From 40 CFR Part 261, et al., and *Federal Register*, March 29, 1990 and June 29, 1990.
D The MRL is elevated because of matrix interferences and because the sample required diluting.

Approved By: _____ Date: 6/2/97

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Science Applications International Corp.	**Service Request:**	K9703098
Project:	AEH	**Date Collected:**	5/7/97
Sample Matrix:	Solid	**Date Received:**	5/8/97
		Date TCLP Performed:	5/20/97
		Date Extracted:	5/21/97

Toxicity Characteristic Leaching Procedure (TCLP)
EPA Method 1311
Metals
Units: mg/L (ppm) in TCLP Extract

				East Helena		**Omaha Brick**
			Sample Name:	**Brick B**	**Omaha Brick**	**Fines**
			Lab Code:	K308912	K9703098-013	K9703098-014
			Date Analyzed:	5/22/97	5/22/97	5/22/97
Analyte	**EPA Method**	**MRL**	**Regulatory Limit***			
Arsenic	3010A/6010A	0.1	5	0.4	ND	2
Barium	3010A/6010A	0.5	100	ND	ND	ND
Cadmium	3010A/6010A	0.01	1	7.21	0.17(E)	6.81
Chromium	3010A/6010A	0.01	5	ND	ND	ND
Lead	3010A/6010A	0.05	5	2.14	4.96	4.61
Mercury	7470A	0.001	0.2	ND	ND	ND
Selenium	3010A/6010A	0.1	1	0.9	ND	0.3
Silver	3010A/6010A	0.01	5	ND	ND	ND

* From 40 CFR Part 261, et al., and *Federal Register*, March 29, 1990 and June 29, 1990.
E Estimated concentration; see case narrative.

Approved By: _____ Date: 6/2/97

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Science Applications International Corp.	**Service Request:**	K9703098
Project:	AEH	**Date Collected:**	5/7/97
Sample Matrix:	Solid	**Date Received:**	5/8/97
		Date TCLP Performed:	5/20/97
		Date Extracted:	5/21/97

Toxicity Characteristic Leaching Procedure (TCLP)
EPA Method 1311
Metals
Units: mg/L (ppm) in TCLP Extract

				Sample Name:	**Pile 697**	**Pile 718**	**Pile 487**
				Lab Code:	K9703098-015	K9703098-016	K9703098-017
				Date Analyzed:	5/22/97	5/22/97	5/22/97
Analyte	**EPA Method**	**MRL**	**Regulatory Limit***				
Arsenic	3010A/6010A	0.1	5		ND	5.2	0.2
Barium	3010A/6010A	0.5	100		ND	ND	0.9
Cadmium	3010A/6010A	0.01	1		35.4	1.43	64.4
Chromium	3010A/6010A	0.01	5		ND	ND	ND
Lead	3010A/6010A	0.05	5		57.1	310	19.2
Mercury	7470A	0.001	0.2		ND	ND	0.074
Selenium	3010A/6010A	0.1	1		ND	ND	1.6
Silver	3010A/6010A	0.01	5		ND	ND	ND

* From 40 CFR Part 261, et al., and *Federal Register*, March 29, 1990 and June 29, 1990.

Approved By: _____ Date: 6/2/97

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Science Applications International Corp.	**Service Request:**	K9703098
Project:	AEH	**Date Collected:**	5/7/97
Sample Matrix:	Solid	**Date Received:**	5/8/97
		Date TCLP Performed:	5/20/97
		Date Extracted:	5/21/97

Toxicity Characteristic Leaching Procedure (TCLP)
EPA Method 1311
Metals
Units: mg/L (ppm) in TCLP Extract

				Sample Name:	**Pile 347**	**Pile 265A**	**Pile 265B**
				Lab Code:	K9703098-018	K9703098-023	K9703098-024
				Date Analyzed:	5/22/97	5/22/97	5/22/97
Analyte	**EPA Method**	**MRL**	**Regulatory Limit***				
Arsenic	3010A/6010A	0.1	5		ND	ND	ND
Barium	3010A/6010A	0.5	100		ND	ND	ND
Cadmium	3010A/6010A	0.01	1		5.73	6.93	58.6
Chromium	3010A/6010A	0.01	5		ND	ND	ND
Lead	3010A/6010A	0.05	5		37.7	0.74	267
Mercury	7470A	0.001	0.2		ND	0.28	0.008
Selenium	3010A/6010A	0.1	1		ND	ND	ND
Silver	3010A/6010A	0.01	5		ND	0.56	0.24

* From 40 CFR Part 261, et al., and *Federal Register*, March 29, 1990 and June 29, 1990.

Approved By: _____ Date: 6/2/97

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Science Applications International Corp.	**Service Request:**	K9703098
Project:	AEH	**Date Collected:**	5/7/97
Sample Matrix:	Solid	**Date Received:**	5/8/97
		Date TCLP Performed:	5/20/97
		Date Extracted:	5/21/97

Toxicity Characteristic Leaching Procedure (TCLP)
EPA Method 1311
Metals
Units: mg/L (ppm) in TCLP Extract

				Sample Name:	**Pile 320B**	**Pile 213A**	**Pile 213B**
				Lab Code:	K9703098-025	K9703098-026	K9703098-027
				Date Analyzed:	5/22/97	5/22/97	5/22/97
Analyte	**EPA Method**	**MRL**	**Regulatory Limit***				
Arsenic	3010A/6010A	0.1	5		ND	ND	ND
Barium	3010A/6010A	0.5	100		ND	ND	ND
Cadmium	3010A/6010A	0.01	1		65.9	73.1	75.9
Chromium	3010A/6010A	0.01	5		ND	ND	ND
Lead	3010A/6010A	0.05	5		49.9	56.3	92.3
Mercury	7470A	0.001	0.2		ND	0.01	ND
Selenium	3010A/6010A	0.1	1		ND	ND	ND
Silver	3010A/6010A	0.01	5		ND	ND	ND

* From 40 CFR Part 261, et al., and *Federal Register*, March 29, 1990 and June 29, 1990.

Approved By: _____ Date: 6/2/97

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Science Applications International Corp.	**Service Request:**	K9703098
Project:	AEH	**Date Collected:**	5/7/97
Sample Matrix:	Solid	**Date Received:**	5/8/97
		Date TCLP Performed:	5/20/97
		Date Extracted:	5/21/97

Toxicity Characteristic Leaching Procedure (TCLP)
EPA Method 1311
Metals
Units: mg/L (ppm) in TCLP Extract

				Sample Name:	**Amarillo Brick**	**Method Blank 1**	**Method Blank 2**
				Lab Code:	K9703098-028	K9703098-MB1	K9703098-MB2
				Date Analyzed:	5/22/97	5/22/97	5/22/97
Analyte	**EPA Method**	**MRL**	**Regulatory Limit***				
Arsenic	3010A/6010A	0.1	5		14.6	ND	ND
Barium	3010A/6010A	0.5	100		4.8	ND	ND
Cadmium	3010A/6010A	0.01	1		0.05(E)	0.02	ND
Chromium	3010A/6010A	0.01	5		11	ND	ND
Lead	3010A/6010A	0.05	5		0.61	ND	ND
Mercury	7470A	0.001	0.2		ND	ND	ND
Selenium	3010A/6010A	0.1	1		816	ND	ND
Silver	3010A/6010A	0.01	5		ND	ND	ND

* From 40 CFR Part 261, et al., and *Federal Register*, March 29, 1990 and June 29, 1990.
E Estimated concentration; see case narrative.

Approved By: _____ Date: 6/2/97

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	Science Applications International Corp.	**Service Request:**	K9703098
Project:	AEH	**Date Collected:**	5/7/97
Sample Matrix:	Solid	**Date Received:**	5/8/97
		Date TCLP Performed:	5/20/97
		Date Extracted:	5/21/97
		Date Analyzed:	5/22/97

Matrix Spike Summary
Toxicity Characteristic Leaching Procedure (TCLP)
EPA Method 1311
Metals
Units: mg/L (ppm) in TCLP Extract

Sample Name: Pile 436
Lab Code: K9703098-005

Analyte	Spike Level	Sample Result	Spiked Sample Result	Percent Recovery*
Arsenic	5	11	16.2	104
Barium	5	5	10.2	104
Cadmium	1	0.30(E)	1.25	95
Chromium	5	ND	4.48	90
Lead	5	0.2	4.83	93
Mercury	0.01	ND	0.008	80
Selenium	1	164	169	NA
Silver	1	ND	0.91	91

* Percent recovery information is provided in order to assess the performance of the method on this matrix.
E Estimated concentration; see case narrative.

Approved By: _____ Date: 6/2/97

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	Science Applications International Corp.	**Service Request:**	K9703098
Project:	AEH	**Date Collected:**	5/7/97
Sample Matrix:	Solid	**Date Received:**	5/8/97
		Date TCLP Performed:	5/20/97
		Date Extracted:	5/21/97
		Date Analyzed:	5/22/97

Matrix Spike Summary
Toxicity Characteristic Leaching Procedure (TCLP)
EPA Method 1311
Metals
Units: mg/L (ppm) in TCLP Extract

Sample Name: Pile 265B
Lab Code: K9703098-024

Analyte	**Spike Level**	**Sample Result**	**Spiked Sample Result**	**Percent Recovery***
Arsenic	5	ND	5.3	106
Barium	5	ND	1.4	28(A)
Cadmium	1	58.6	58.9	NA
Chromium	5	ND	4.41	88
Lead	5	267	350	NA
Mercury	0.01	0.008	0.015	70
Selenium	1	ND	1.4	140
Silver	1	0.24	1.16	92

* Percent recovery information is provided in order to assess the performance of the method on this matrix.
A Outside acceptance limits; see case narrative.

Approved By: _____ Date: 6/2/97

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	Science Applications International Corp.	**Service Request:**	K9703098
Project:	AEH	**Date Collected:**	NA
LCS Matrix:	Water	**Date Received:**	NA
		Date Analyzed:	5/22/97

Laboratory Control Sample Summary #1
TCLP Metals
Units: mg/L (ppm)

Source: Inorganic Ventures

Analyte	EPA Method	True Value	Result	Percent Recovery	CAS Percent Recovery Acceptance Limits
Arsenic	3010A/6010A	5	4.6	92	80-120
Barium	3010A/6010A	5	5.1	102	80-120
Cadmium	3010A/6010A	1	0.98	98	80-120
Chromium	3010A/6010A	5	4.88	98	80-120
Lead	3010A/6010A	5	4.98	100	80-120
Mercury	7470A	0.01	0.010	100	80-120
Selenium	3010A/6010A	1	0.97	97	80-120
Silver	3010A/6010A	1	0.96	96	80-120

Approved By: LAH Date: 6/13/97

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	Science Applications International Corp.	**Service Request:**	K9703098
Project:	AEH	**Date Collected:**	NA
LCS Matrix:	Water	**Date Received:**	NA
		Date Analyzed:	5/22/97

Laboratory Control Sample Summary #2
TCLP Metals
Units: mg/L (ppm)

Source: Inorganic Ventures

Analyte	EPA Method	True Value	Result	Percent Recovery	CAS Percent Recovery Acceptance Limits
Arsenic	3010A/6010A	5	4.7	94	80-120
Barium	3010A/6010A	5	5.1	102	80-120
Cadmium	3010A/6010A	1	0.98	98	80-120
Chromium	3010A/6010A	5	4.88	98	80-120
Lead	3010A/6010A	5	5.00	100	80-120
Mercury	7470A	0.01	0.010	100	80-120
Selenium	3010A/6010A	1	0.96	96	80-120
Silver	3010A/6010A	1	0.97	97	80-120

Approved By: _____ Date: 6/13/97

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Science Applications International Corp.	**Service Request:**	K9703098
Project:	AEH	**Date Collected:**	5/7/97
Sample Matrix:	Water	**Date Received:**	5/8/97
		Date TCLP Performed:	5/20/97
		Date Extracted:	5/21/97

Toxicity Characteristic Leaching Procedure (TCLP)
EPA Method 1311
Metals
Units: mg/L (ppm) in TCLP Extract

						Sinter Plant
			Sample Name:	**Respirator Wash**	**Laundry Wash**	**Wash**
			Lab Code:	K9703098-003	K9703098-004	K9703098-006
			Date Analyzed:	5/22/97	5/22/97	5/22/97
Analyte	**EPA Method**	**MRL**	**Regulatory Limit***			
Arsenic	3010A/6010A	0.1	5	ND	0.2	<0.2(B)
Barium	3010A/6010A	0.5	100	ND	ND	ND
Cadmium	3010A/6010A	0.01	1	0.06	0.2	75.1
Chromium	3010A/6010A	0.01	5	ND	ND	ND
Lead	3010A/6010A	0.05	5	0.58	ND	0.36
Mercury	7470A	0.005	0.2	ND	ND	ND
Selenium	3010A/6010A	0.1	1	ND	ND	0.5
Silver	3010A/6010A	0.01	5	ND	ND	ND

* From 40 CFR Part 261, et al., and *Federal Register*, March 29, 1990 and June 29, 1990.
B The MRL is elevated because of matrix interferences.

Approved By: _____ Date: 6/2/97

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Science Applications International Corp.	**Service Request:**	K9703098
Project:	AEH	**Date Collected:**	5/7/97
Sample Matrix:	Water	**Date Received:**	5/8/97
		Date TCLP Performed:	5/20/97
		Date Extracted:	5/21/97

Toxicity Characteristic Leaching Procedure (TCLP)
EPA Method 1311
Metals
Units: mg/L (ppm) in TCLP Extract

				Acid Plant		**Conductivity**
			Sample Name:	**Effluent**	**Lower Lake**	**Blowdown**
			Lab Code:	K9703098-019	K9703098-020	K9703098-021
			Date Analyzed:	5/22/97	5/22/97	5/22/97
Analyte	**EPA Method**	**MRL**	**Regulatory Limit***			
Arsenic	3010A/6010A	0.1	5	2060	0.2	0.4
Barium	3010A/6010A	0.5	100	0.6	ND	ND
Cadmium	3010A/6010A	0.01	1	222	0.02	0.5
Chromium	3010A/6010A	0.01	5	0.3	ND	ND
Lead	3010A/6010A	0.05	5	14	ND	0.48
Mercury	7470A	0.005	0.2	9.88	ND	ND
Selenium	3010A/6010A	0.1	1	2.2	0.2	ND
Silver	3010A/6010A	0.01	5	ND	ND	ND

* From 40 CFR Part 261, et al., and *Federal Register*, March 29, 1990 and June 29, 1990.

Approved By: _____ Date: 6/2/97

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Science Applications International Corp.	**Service Request:**	K9703098
Project:	AEH	**Date Collected:**	5/7/97
Sample Matrix:	Water	**Date Received:**	5/8/97
		Date TCLP Performed:	5/20/97
		Date Extracted:	5/21/97

Toxicity Characteristic Leaching Procedure (TCLP)
EPA Method 1311
Metals
Units: mg/L (ppm) in TCLP Extract

				Condensate	**Thornock Tank**	**Thornock Tank**
			Sample Name:	**Blowdown**	**A**	**B**
			Lab Code:	K9703098-022	K9703098-029	K308930
			Date Analyzed:	5/22/97	5/22/97	5/22/97
Analyte	**EPA Method**	**MRL**	**Regulatory Limit***			
Arsenic	3010A/6010A	0.1	5	ND	0.7	0.8
Barium	3010A/6010A	0.5	100	ND	ND	ND
Cadmium	3010A/6010A	0.01	1	1.27	9.36	10.3
Chromium	3010A/6010A	0.01	5	ND	ND	ND
Lead	3010A/6010A	0.05	5	0.39	0.22	0.27
Mercury	7470A	0.005	0.2	ND	ND	ND
Selenium	3010A/6010A	0.1	1	0.9	0.6	0.6
Silver	3010A/6010A	0.01	5	ND	ND	ND

* From 40 CFR Part 261, et al., and *Federal Register*, March 29, 1990 and June 29, 1990.

Approved By: _____ Date: 6/2/97

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Science Applications International Corp.	**Service Request:**	K9703098
Project:	AEH	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
		Date TCLP Performed:	5/20/97
		Date Extracted:	5/21/97

Toxicity Characteristic Leaching Procedure (TCLP)
EPA Method 1311
Metals
Units: mg/L (ppm) in TCLP Extract

Sample Name:	**Method Blank**
Lab Code:	K9703098-MB
Date Analyzed:	5/22/97

Analyte	**EPA Method**	**MRL**	**Regulatory Limit***	
Arsenic	3010A/6010A	0.1	5	ND
Barium	3010A/6010A	0.5	100	ND
Cadmium	3010A/6010A	0.01	1	ND
Chromium	3010A/6010A	0.01	5	ND
Lead	3010A/6010A	0.05	5	ND
Mercury	7470A	0.005	0.2	ND
Selenium	3010A/6010A	0.1	1	ND
Silver	3010A/6010A	0.01	5	ND

* From 40 CFR Part 261, et al., and *Federal Register*, March 29, 1990 and June 29, 1990.

Approved By: _____ Date: 6/2/97

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	Science Applications International Corp.	**Service Request:**	K9703098
Project:	AEH	**Date Collected:**	5/7/97
Sample Matrix:	Water	**Date Received:**	5/8/97
		Date TCLP Performed:	5/20/97
		Date Extracted:	5/21/97
		Date Analyzed:	5/22/97

Matrix Spike Summary
Toxicity Characteristic Leaching Procedure (TCLP)
EPA Method 1311
Metals
Units: mg/L (ppm) in TCLP Extract

Sample Name: Respirator Wash
Lab Code: K9703098-003

Analyte	**Spike Level**	**Sample Result**	**Spiked Sample Result**	**Percent Recovery***
Arsenic	5	ND	4.9	98
Barium	5	ND	5.3	106
Cadmium	1	0.06	1.04	98
Chromium	5	ND	4.97	99
Lead	5	0.58	5.43	97
Mercury	0.01	ND	0.012	120
Selenium	1	ND	1.0	100
Silver	1	ND	0.95	95

* Percent recovery information is provided in order to assess the performance of the method on this matrix.

Approved By: _____ Date: 6/2/97

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	Science Applications International Corp.	**Service Request:**	K9703098
Project:	AEH	**Date Collected:**	NA
LCS Matrix:	Water	**Date Received:**	NA
		Date Analyzed:	5/22/97

Laboratory Control Sample Summary
TCLP Metals
Units: mg/L (ppm)

Source: Inorganic Ventures

Analyte	EPA Method	True Value	Result	Percent Recovery	CAS Percent Recovery Acceptance Limits
Arsenic	3010A/6010A	5	4.9	98	80-120
Barium	3010A/6010A	5	5.5	110	80-120
Cadmium	3010A/6010A	1	1.01	101	80-120
Chromium	3010A/6010A	5	5.14	103	80-120
Lead	3010A/6010A	5	5.13	103	80-120
Mercury	7470A	0.01	0.010	100	80-120
Selenium	3010A/6010A	1	1.0	100	80-120
Silver	3010A/6010A	1	0.99	99	80-120

Approved By: LAL Date: 6/13/97

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Science Application International Corp. **Service Request:** K9703098
Project: AEH **Date Analyzed:** 5/21-30/97

Initial Calibration Verification (ICV) Summary
Metals
Units: µg/L (ppb)

ICV Source: Inorganic Ventures ICV

Analyte	EPA Method	True Value	Result	Percent Recovery
Antimony	200.8	50.0	47.7	95
Arsenic	200.8	50.0	48.6	97
Beryllium	200.8	5.00	4.82	96
Cadmium	200.8	25.0	24.4	98
Cobalt	200.8	50.0	49.1	98
Gold	200.8	25.0	25.3	101
Iridium	200.8	25.0	24.7	99
Mercury	7471A	5.00	4.91	98
Osmium	200.8	25.0	25.6	102
Palladium	200.8	25.0	25.1	100
Platinum	200.8	25.0	24.7	99
Potassium	7610	500	498	100
Rhenium	200.8	25.0	24.8	99
Rhodium	200.8	25.0	24.8	99
Ruthenium	200.8	25.0	25.2	101
Selenium	200.8	50.0	48.8	98
Thallium	200.8	50.0	48.7	97

Approved By: _____ Date: 6/11/97

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Science Application International Corp.
Project: AEH

Service Request: K9703098
Date Analyzed: 5/21-30/97

Initial Calibration Verification (ICV) Summary
Metals
Units: µg/L (ppb)

ICV Source: Inorganic Ventures ICV

Analyte	EPA Method	True Value	Result	Percent Recovery
Antimony	200.8	50.0	50.6	101
Arsenic	200.8	50.0	50.6	101
Beryllium	200.8	5.00	5.34	107
Cadmium	200.8	25.0	25.6	102
Cobalt	200.8	50.0	51.8	104
Gold	200.8	25.0	24.9	100
Iridium	200.8	25.0	24.8	99
Mercury	7471A	5.00	-	-
Osmium	200.8	25.0	25.8	103
Palladium	200.8	25.0	25.4	102
Platinum	200.8	25.0	24.7	99
Potassium	7610	500	-	-
Rhenium	200.8	25.0	24.8	99
Rhodium	200.8	25.0	24.9	100
Ruthenium	200.8	25.0	24.9	100
Selenium	200.8	50.0	51.8	104
Thallium	200.8	50.0	51.8	104

Approved By: _____ Date: 6/11/97

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Science Application International Corp.
Project: AEH

Service Request: K9703098
Date Analyzed: 5/21-30/97

Initial Calibration Verification (ICV) Summary
Metals
Units: µg/L (ppb)

ICV Source: Inorganic Ventures ICV

Analyte	EPA Method	True Value	Result	Percent Recovery
Antimony	200.8	50.0	-	-
Arsenic	200.8	50.0	-	-
Beryllium	200.8	5.00	4.98	100
Cadmium	200.8	25.0	-	-
Cobalt	200.8	50.0	-	-
Gold	200.8	25.0	25.4	102
Iridium	200.8	25.0	25.0	100
Mercury	7471A	5.00	-	-
Osmium	200.8	25.0	26.5	106
Palladium	200.8	25.0	25.1	100
Platinum	200.8	25.0	25.8	103
Potassium	7610	500	-	-
Rhenium	200.8	25.0	26.0	104
Rhodium	200.8	25.0	25.0	100
Ruthenium	200.8	25.0	26.0	104
Selenium	200.8	50.0	51.8	104
Thallium	200.8	50.0	50.9	102

Approved By: _____ Date: 6/11/97

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Science Application International Corp. **Service Request:** K9703098
Project: AEH **Date Analyzed:** 5/21-30/97

Initial Calibration Verification (ICV) Summary
Metals
Units: µg/L (ppb)

ICV Source: Inorganic Ventures ICV

Analyte	EPA Method	True Value	Result	Percent Recovery
Antimony	200.8	50.0	-	-
Arsenic	200.8	50.0	-	-
Beryllium	200.8	5.00	5.24	105
Cadmium	200.8	25.0	26.3	105
Cobalt	200.8	50.0	-	-
Gold	200.8	25.0	25.9	104
Iridium	200.8	25.0	25.6	102
Mercury	7471A	5.00	-	-
Osmium	200.8	25.0	26.3	105
Palladium	200.8	25.0	25.0	100
Platinum	200.8	25.0	25.0	100
Potassium	7610	500	-	-
Rhenium	200.8	25.0	25.2	101
Rhodium	200.8	25.0	25.2	101
Ruthenium	200.8	25.0	24.1	96
Selenium	200.8	50.0	54.6	109
Thallium	200.8	50.0	51.9	104

Approved By: _____ Date: 6/11/97

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Science Application International Corp. **Service Request:** K9703098
Project: AEH **Date Analyzed:** 5/21-30/97

Continuing Calibration Verification (CCV) Summary
Metals
Units: µg/L (ppb)

Analyte	EPA Method	True Value	CCV1 Result	Percent Recovery	CCV2 Result	Percent Recovery	CCV3 Result	Percent Recovery
Antimony	200.8	25.0	25.0	100	25.2	101	25.1	100
Arsenic	200.8	25.0	25.5	102	24.6	98	24.7	99
Beryllium	200.8	25.0	25.4	102	25.8	103	25.3	101
Cadmium	200.8	25.0	24.8	99	25.8	103	24.6	98
Cobalt	200.8	25.0	24.9	100	24.7	99	24.9	100
Gold	200.8	25.0	25.2	101	24.1	96	24.4	98
Iridium	200.8	25.0	25.5	102	24.0	96	25.0	100
Mercury	7471A	5.00	5.17	103	5.05	101	5.10	102
Osmium	200.8	25.0	25.2	101	25.0	100	24.7	99
Palladium	200.8	25.0	25.1	100	26.1	104	25.5	102
Platinum	200.8	25.0	24.9	100	24.1	96	24.9	100
Potassium	7610	500	487	97	491	98	493	99
Rhenium	200.8	25.0	25.2	101	23.4	94	25.0	100
Rhodium	200.8	25.0	25.1	100	25.9	104	24.6	98
Ruthenium	200.8	25.0	25.6	102	27.2	109	25.0	100
Selenium	200.8	25.0	25.5	102	24.1	96	25.2	101
Thallium	200.8	25.0	25.2	101	25.3	101	25.2	101

Approved By: _____ Date: 6/11/97

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Science Application International Corp. **Service Request:** K9703098
Project: AEH **Date Analyzed:** 5/21-30/97

Continuing Calibration Verification (CCV) Summary
Metals
Units: µg/L (ppb)

Analyte	EPA Method	True Value	CCV4 Result	Percent Recovery	CCV5 Result	Percent Recovery	CCV6 Result	Percent Recovery
Antimony	200.8	25.0	25.8	103	-	-	-	-
Arsenic	200.8	25.0	24.8	99	-	-	-	-
Beryllium	200.8	25.0	23.1	92	25.5	102	24.5	98
Cadmium	200.8	25.0	25.4	102	-	-	-	-
Cobalt	200.8	25.0	24.8	99	-	-	-	-
Gold	200.8	25.0	23.8	95	25.5	102	24.9	100
Iridium	200.8	25.0	24.6	98	25.4	102	24.4	98
Mercury	7471A	5.00	4.63	93	-	-	-	-
Osmium	200.8	25.0	26.1	104	24.4	98	25.1	100
Palladium	200.8	25.0	24.8	99	25.2	101	24.8	99
Platinum	200.8	25.0	23.9	96	25.3	101	25.3	101
Potassium	7610	500	489	98	-	-	-	-
Rhenium	200.8	25.0	25.5	102	25.2	101	24.4	98
Rhodium	200.8	25.0	24.2	97	25.1	100	25.4	102
Ruthenium	200.8	25.0	24.0	96	25.4	102	25.9	104
Selenium	200.8	25.0	26.5	106	25.4	102	24.6	98
Thallium	200.8	25.0	25.5	102	25.1	100	24.7	99

Approved By: _____ Date: 6/11/97

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Science Application International Corp.
Project: AEH

Service Request: K9703098
Date Analyzed: 5/21-30/97

Continuing Calibration Verification (CCV) Summary
Metals
Units: µg/L (ppb)

Analyte	EPA Method	True Value	CCV7 Result	Percent Recovery	CCV8 Result	Percent Recovery	CCV9 Result	Percent Recovery
Antimony	200.8	25.0	-	-	-	-	-	-
Arsenic	200.8	25.0	-	-	-	-	-	-
Beryllium	200.8	25.0	25.0	100	24.7	99	24.2	97
Cadmium	200.8	25.0	25.4	102	24.8	99	24.8	99
Cobalt	200.8	25.0	-	-	-	-	-	-
Gold	200.8	25.0	25.4	102	26.6	106	27.3	109
Iridium	200.8	25.0	25.4	102	25.5	102	26.0	104
Mercury	7471A	5000	-	-	-	-	-	-
Osmium	200.8	25.0	24.5	98	24.4	98	26.6	106
Palladium	200.8	25.0	24.6	98	24.4	98	24.0	96
Platinum	200.8	25.0	24.9	100	25.5	102	26.0	104
Potassium	7610	5000	-	-	-	-	-	-
Rhenium	200.8	25.0	25.3	101	25.4	102	26.1	104
Rhodium	200.8	25.0	25.1	100	24.7	99	24.3	97
Ruthenium	200.8	25.0	24.3	97	24.2	97	24.2	97
Selenium	200.8	25.0	26.5	106	26.4	106	26.5	106
Thallium	200.8	25.0	25.5	102	25.0	100	25.6	102

Approved By: _____ Date: 6/11/97

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Science Application International Corp.
Project: AEH

Service Request: K9703098
Date Analyzed: 5/21-30/97

Continuing Calibration Blank (CCB) Summary
Metals
Units: µg/L (ppb)

Analyte	EPA Method	MRL	CCB1 Result	CCB2 Result	CCB3 Result	CCB4 Result
Antimony	200.8	0.02	ND	ND	ND	ND
Arsenic	200.8	0.5	ND	ND	ND	ND
Beryllium	200.8	0.02	ND	ND	ND	ND
Cadmium	200.8	0.02	ND	ND	ND	ND
Cobalt	200.8	0.02	ND	ND	ND	ND
Gold	200.8	0.05	ND	ND	ND	ND
Iridium	200.8	0.05	ND	ND	ND	ND
Mercury	7471A	0.1	ND	ND	ND	ND
Osmium	200.8	0.05	ND	ND	ND	ND
Palladium	200.8	0.2	ND	ND	ND	ND
Platinum	200.8	0.05	ND	ND	ND	ND
Potassium	7610	20	ND	ND	ND	ND
Rhenium	200.8	0.05	ND	ND	ND	ND
Rhodium	200.8	0.05	ND	ND	ND	ND
Ruthenium	200.8	0.05	ND	ND	ND	ND
Selenium	200.8	1	ND	ND	ND	ND
Thallium	200.8	0.02	ND	ND	ND	ND

Approved By: _____ Date: 6/11/97

CCB4SMRL/102194

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Science Application International Corp.
Project: AEH

Service Request: K9703098
Date Analyzed: 5/21-30/97

Continuing Calibration Blank (CCB) Summary
Metals
Units: µg/L (ppb)

Analyte	EPA Method	MRL	CCB5 Result	CCB6 Result	CCB7 Result	CCB8 Result
Antimony	200.8	0.02	-	-	-	-
Arsenic	200.8	0.5	-	-	-	-
Beryllium	200.8	0.02	ND	ND	ND	ND
Cadmium	200.8	0.02	-	-	ND	ND
Cobalt	200.8	0.02	-	-	-	-
Gold	200.8	0.05	ND	ND	ND	ND
Iridium	200.8	0.05	ND	ND	ND	ND
Mercury	7471A	0.1	-	-	-	-
Osmium	200.8	0.05	ND	ND	ND	ND
Palladium	200.8	0.2	ND	ND	ND	ND
Platinum	200.8	0.05	ND	ND	ND	ND
Potassium	7610	20	-	-	-	-
Rhenium	200.8	0.05	ND	ND	ND	ND
Rhodium	200.8	0.05	ND	ND	ND	ND
Ruthenium	200.8	0.05	ND	ND	ND	ND
Selenium	200.8	1	ND	ND	ND	ND
Thallium	200.8	0.02	ND	ND	ND	ND

Approved By: _____ Date: 6/11/97

CCB4SMRL/102194

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COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Science Application International Corp.
Project: AEH

Service Request: K9703098
Date Analyzed: 5/21-30/97

Continuing Calibration Blank (CCB) Summary
Metals
Units: µg/L (ppb)

Analyte	EPA Method	MRL	CCB9 Result
Antimony	200.8	0.02	-
Arsenic	200.8	0.5	-
Beryllium	200.8	0.02	ND
Cadmium	200.8	0.02	ND
Cobalt	200.8	0.02	-
Gold	200.8	0.05	ND
Iridium	200.8	0.05	ND
Mercury	7471A	0.1	-
Osmium	200.8	0.05	ND
Palladium	200.8	0.2	ND
Platinum	200.8	0.05	ND
Potassium	7610	20	-
Rhenium	200.8	0.05	ND
Rhodium	200.8	0.05	ND
Ruthenium	200.8	0.05	ND
Selenium	200.8	1	ND
Thallium	200.8	0.02	ND

Approved By: _____ Date: 6/11/97

CCB4SMRL/102194

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Science Application International Corp. **Service Request:** K9703098
Project: AEH **Date Analyzed:** 5/21-30/97

Initial Calibration Verification (ICV) Summary
Metals
Units: µg/L (ppb)

ICV Source: Inorganic Ventures ICV

Analyte	EPA Method	True Value	Result	Percent Recovery
Aluminum	6010A	5000	5190	104
Antimony	6010A	2500	2490	100
Arsenic	6010A	2500	2560	102
Barium	6010A	5000	5200	104
Boron	6010A	5000	5020	100
Cadmium	6010A	1250	1320	106
Calcium	6010A	12500	13100	105
Chromium	6010A	500	515	103
Cobalt	6010A	1250	1300	104
Copper	6010A	625	659	105
Iron	6010A	2500	2600	104
Lead	6010A	2500	2620	105
Magnesium	6010A	12500	12900	103
Manganese	6010A	1250	1290	103
Mercury	7470A	5.00	5.21	104
Molybdenum	6010A	5000	5140	103
Nickel	6010A	1250	1300	104
Potassium	6010A	12500	13200	106
Selenium	6010A	2500	2570	103
Silicon	ICP-OES	40.0	39.8	100
Silver	6010A	625	642	103
Sodium	6010A	12500	12800	102
Tin	6010A	5000	4890	98
Vanadium	6010A	1250	1280	102
Zinc	6010A	1250	1320	106

Approved By: _____ Date: 6/11/97

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Science Application International Corp. **Service Request:** K9703098
Project: AEH **Date Analyzed:** 5/21-30/97

Initial Calibration Verification (ICV) Summary
Metals
Units: µg/L (ppb)

ICV Source: Inorganic Ventures ICV

Analyte	EPA Method	True Value	Result	Percent Recovery
Aluminum	6010A	5000	5230	105
Antimony	6010A	2500	2520	101
Arsenic	6010A	2500	2600	104
Barium	6010A	5000	5360	107
Boron	6010A	5000	4980	100
Cadmium	6010A	1250	1340	107
Calcium	6010A	12500	13200	106
Chromium	6010A	500	525	105
Cobalt	6010A	1250	1310	105
Copper	6010A	625	663	106
Iron	6010A	2500	2610	104
Lead	6010A	2500	2620	105
Magnesium	6010A	12500	13000	104
Manganese	6010A	1250	1310	105
Mercury	7470A	5.00	4.95	99
Molybdenum	6010A	5000	5140	103
Nickel	6010A	1250	1340	107
Potassium	6010A	12500	13000	104
Selenium	6010A	2500	2650	106
Silicon	ICP-OES	40.0	-	-
Silver	6010A	625	654	105
Sodium	6010A	12500	13100	105
Tin	6010A	5000	4980	100
Vanadium	6010A	1250	1300	104
Zinc	6010A	1250	1330	106

Approved By: _____ Date: 6/11/97

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Science Application International Corp.
Project: AEH

Service Request: K9703098
Date Analyzed: 5/21-30/97

Continuing Calibration Verification (CCV) Summary
Metals
Units: µg/L (ppb)

Analyte	EPA Method	True Value	CCV1 Result	Percent Recovery	CCV2 Result	Percent Recovery	CCV3 Result	Percent Recovery
Aluminum	6010A	5000	5020	100	4720	94	4940	99
Antimony	6010A	5000	4930	99	4600	92	4920	98
Arsenic	6010A	2000	2030	102	1900	95	2040	102
Barium	6010A	500	500	100	491	98	494	99
Boron	6010A	10000	10000	100	10100	101	9690	97
Cadmium	6010A	500	502	100	497	99	506	101
Calcium	6010A	5000	5030	101	4900	98	5020	100
Chromium	6010A	5000	5000	100	4860	97	4970	99
Cobalt	6010A	500	504	101	475	95	505	101
Copper	6010A	500	510	102	511	102	499	100
Iron	6010A	5000	5100	102	4900	98	5070	101
Lead	6010A	5000	5000	100	4740	95	5000	100
Magnesium	6010A	5000	5040	101	4800	96	5000	100
Manganese	6010A	500	498	100	473	95	494	99
Mercury	7470A	5.00	5.32	106	5.03	101	4.82	96
Molybdenum	6010A	500	504	101	471	94	509	102
Nickel	6010A	500	504	101	513	103	495	99
Potassium	6010A	25000	24800	99	24500	98	24600	98
Selenium	6010A	2000	2020	101	1840	92	2110	106
Silicon	ICP-OES	20.0	19.5	98	19.8	99	20.1	101
Silver	6010A	500	502	100	489	98	498	100
Sodium	6010A	25000	25000	100	25700	103	24700	99
Tin	6010A	20000	19800	99	18300	92	20700	104
Vanadium	6010A	500	500	100	478	96	500	100
Zinc	6010A	2500	2500	100	2520	101	2480	99

Approved By: _____ Date: 6/11/97

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Science Application International Corp. **Service Request:** K9703098
Project: AEH **Date Analyzed:** 5/21-30/97

Continuing Calibration Verification (CCV) Summary
Metals
Units: µg/L (ppb)

Analyte	EPA Method	True Value	CCV4 Result	Percent Recovery	CCV5 Result	Percent Recovery	CCV6 Result	Percent Recovery
Aluminum	6010A	5000	4940	99	4960	99	5060	101
Antimony	6010A	5000	4900	98	4960	99	5010	100
Arsenic	6010A	2000	1940	97	1920	96	1980	99
Barium	6010A	500	498	100	5012	1002	526	105
Boron	6010A	10000	9950	100	10200	102	10500	105
Cadmium	6010A	500	494	99	5020	1004	505	101
Calcium	6010A	5000	4920	98	4940	99	5020	100
Chromium	6010A	5000	4930	99	5020	100	5060	101
Cobalt	6010A	500	488	98	489	98	498	100
Copper	6010A	500	507	101	536	107	535	107
Iron	6010A	5000	4920	98	4960	99	5070	101
Lead	6010A	5000	5010	100	4930	99	4950	99
Magnesium	6010A	5000	5010	100	4960	99	5020	100
Manganese	6010A	500	492	98	491	98	502	100
Mercury	7470A	5.00	4.96	99	4.99	100	4.72	94
Molybdenum	6010A	500	490	98	495	99	499	100
Nickel	6010A	500	505	101	508	102	528	106
Potassium	6010A	25000	24800	99	24400	98	24200	97
Selenium	6010A	2000	1940	97	1920	96	2020	101
Silicon	ICP-OES	20.0	20.8	104	-	-	-	-
Silver	6010A	500	496	99	502	100	504	101
Sodium	6010A	25000	25500	102	26400	106	27000	108
Tin	6010A	20000	19400	97	19400	97	19300	97
Vanadium	6010A	500	487	97	492	98	505	101
Zinc	6010A	2500	2480	99	2600	104	2520	101

Approved By: _____ Date: 6/11/97

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Science Application International Corp.
Project: AEH

Service Request: K9703098
Date Analyzed: 5/21-30/97

Continuing Calibration Verification (CCV) Summary
Metals
Units: µg/L (ppb)

Analyte	EPA Method	True Value	CCV7 Result	Percent Recovery	CCV8 Result	Percent Recovery	CCV9 Result	Percent Recovery
Aluminum	6010A	5000	4930	99	4930	99	4980	100
Antimony	6010A	5000	4880	98	4760	95	4970	99
Arsenic	6010A	2000	1900	95	1860	93	1940	97
Barium	6010A	500	507	101	488	98	503	101
Boron	6010A	10000	10200	102	9920	99	-	-
Cadmium	6010A	500	503	101	488	98	497	99
Calcium	6010A	5000	4940	99	4970	99	4960	99
Chromium	6010A	5000	4940	99	4800	96	4940	99
Cobalt	6010A	500	487	97	474	95	497	99
Copper	6010A	500	493	99	481	96	507	101
Iron	6010A	5000	4930	99	4870	97	4950	99
Lead	6010A	5000	4840	97	4720	94	4870	97
Magnesium	6010A	5000	4920	98	4960	99	4990	100
Manganese	6010A	500	489	98	475	95	496	99
Mercury	7470A	5.00	5.05	101	4.94	99	-	-
Molybdenum	6010A	500	489	98	476	95	510	102
Nickel	6010A	500	525	105	503	101	503	101
Potassium	6010A	25000	24300	97	23800	95	2330	9
Selenium	6010A	2000	1920	96	1890	95	2020	101
Silicon	ICP-OES	40.0	-	-	-	-	-	-
Silver	6010A	500	496	99	484	97	496	99
Sodium	6010A	25000	26300	105	25400	102	25600	102
Tin	6010A	20000	19200	96	18500	93	-	-
Vanadium	6010A	500	489	98	474	95	496	99
Zinc	6010A	2500	2490	100	2440	98	2440	98

Approved By: _____ Date: 6/11/97

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Science Application International Corp. **Service Request:** K9703098
Project: AEH **Date Analyzed:** 5/21-30/97

Continuing Calibration Verification (CCV) Summary
Metals
Units: µg/L (ppb)

Analyte	EPA Method	True Value	CCV10 Result	Percent Recovery	CCV11 Result	Percent Recovery	CCV12 Result	Percent Recovery
Aluminum	6010A	5000	5020	100	4960	99	5170	103
Antimony	6010A	5000	5000	100	4940	99	5120	102
Arsenic	6010A	2000	2050	103	1990	100	2080	104
Barium	6010A	500	510	102	503	101	534	107
Boron	6010A	10000	10100	101	10100	101	10500	105
Cadmium	6010A	500	506	101	505	101	516	103
Calcium	6010A	5000	5030	101	4960	99	5120	102
Chromium	6010A	5000	5080	102	5020	100	5210	104
Cobalt	6010A	500	506	101	496	99	506	101
Copper	6010A	500	507	101	510	102	527	105
Iron	6010A	5000	5100	102	5280	106	5210	104
Lead	6010A	5000	5000	100	4940	99	5210	104
Magnesium	6010A	5000	5040	101	4970	99	5230	105
Manganese	6010A	500	500	100	494	99	510	102
Mercury	7470A	5.00	-	-	-	-	-	-
Molybdenum	6010A	500	502	100	589	118	510	102
Nickel	6010A	500	515	103	518	104	540	108
Potassium	6010A	25000	24900	100	24800	99	25400	102
Selenium	6010A	2000	2030	102	2010	101	2090	105
Silicon	ICP-OES	20.0	-	-	-	-	-	-
Silver	6010A	500	506	101	500	100	518	104
Sodium	6010A	25000	25300	101	25300	101	26800	107
Tin	6010A	20000	20300	102	20000	100	20200	101
Vanadium	6010A	500	504	101	494	99	516	103
Zinc	6010A	2500	2530	101	2520	101	2580	103

Approved By: _____ Date: 6/11/97

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Science Application International Corp.
Project: AEH

Service Request: K9703098
Date Analyzed: 5/21-30/97

Continuing Calibration Verification (CCV) Summary
Metals
Units: µg/L (ppb)

Analyte	EPA Method	True Value	CCV13 Result	Percent Recovery	CCV14 Result	Percent Recovery	CCV15 Result	Percent Recovery
Aluminum	6010A	5000	4950	99	5120	102	5100	102
Antimony	6010A	5000	4950	99	5070	101	5080	102
Arsenic	6010A	2000	2030	102	2010	101	2000	100
Barium	6010A	500	493	99	517	103	512	102
Boron	6010A	10000	9970	100	10400	104	10200	102
Cadmium	6010A	500	492	98	508	102	517	103
Calcium	6010A	5000	4960	99	5050	101	5110	102
Chromium	6010A	5000	4950	99	5070	101	5100	102
Cobalt	6010A	500	496	99	509	102	510	102
Copper	6010A	500	494	99	-	-	-	-
Iron	6010A	5000	4950	99	5130	103	5150	103
Lead	6010A	5000	4980	100	5190	104	5200	104
Magnesium	6010A	5000	4960	99	5090	102	5090	102
Manganese	6010A	500	495	99	509	102	510	102
Mercury	7470A	5.00	-	-	-	-	-	-
Molybdenum	6010A	500	494	99	506	101	507	101
Nickel	6010A	500	504	101	502	100	504	101
Potassium	6010A	25000	25000	100	25200	101	25400	102
Selenium	6010A	2000	1970	99	2030	102	2010	101
Silicon	ICP-OES	20.0	-	-	-	-	-	-
Silver	6010A	500	498	100	506	101	509	102
Sodium	6010A	25000	24700	99	26000	104	25700	103
Tin	6010A	20000	19800	99	20200	101	20200	101
Vanadium	6010A	500	495	99	509	102	510	102
Zinc	6010A	2500	2500	100	2650	106	2640	106

Approved By: _____ Date: 6/11/97

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Science Application International Corp.
Project: AEH

Service Request: K9703098
Date Analyzed: 5/21-30/97

Continuing Calibration Verification (CCV) Summary
Metals
Units: µg/L (ppb)

Analyte	EPA Method	True Value	CCV16 Result	Percent Recovery	CCV17 Result	Percent Recovery	CCV18 Result	Percent Recovery
Aluminum	6010A	5000	-	-	-	-	-	-
Antimony	6010A	5000	-	-	-	-	-	-
Arsenic	6010A	2000	2060	103	1920	96	1980	99
Barium	6010A	500	506	101	482	96	498	100
Boron	6010A	10000	-	-	-	-	-	-
Cadmium	6010A	500	511	102	509	102	510	102
Calcium	6010A	5000	-	-	-	-	-	-
Chromium	6010A	5000	5000	100	4910	98	5010	100
Cobalt	6010A	500	-	-	-	-	-	-
Copper	6010A	500	-	-	-	-	-	-
Iron	6010A	5000	-	-	-	-	-	-
Lead	6010A	5000	4940	99	4890	98	4980	100
Magnesium	6010A	5000	-	-	-	-	-	-
Manganese	6010A	500	-	-	-	-	-	-
Mercury	7470A	5.00	-	-	-	-	-	-
Molybdenum	6010A	500	-	-	-	-	-	-
Nickel	6010A	500	-	-	-	-	-	-
Potassium	6010A	25000	-	-	-	-	-	-
Selenium	6010A	2000	1990	100	1950	98	2020	101
Silicon	ICP-OES	40.0	-	-	-	-	-	-
Silver	6010A	500	502	100	499	100	502	100
Sodium	6010A	25000	-	-	-	-	-	-
Tin	6010A	20000	-	-	-	-	-	-
Vanadium	6010A	500	-	-	-	-	-	-
Zinc	6010A	2500	-	-	-	-	-	-

Approved By: _____ Date: 6/11/97

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Science Application International Corp.
Project: AEH

Service Request: K9703098
Date Analyzed: 5/21-30/97

Continuing Calibration Verification (CCV) Summary
Metals
Units: µg/L (ppb)

Analyte	EPA Method	True Value	CCV19 Result	Percent Recovery	CCV20 Result	Percent Recovery	CCV21 Result	Percent Recovery
Aluminum	6010A	5000	-	-	-	-	-	-
Antimony	6010A	5000	-	-	-	-	-	-
Arsenic	6010A	2000	2050	103	2010	101	1980	99
Barium	6010A	500	533	107	527	105	499	100
Boron	6010A	10000	-	-	-	-	-	-
Cadmium	6010A	500	523	105	514	103	506	101
Calcium	6010A	5000	-	-	-	-	-	-
Chromium	6010A	5000	5190	104	5140	103	5010	100
Cobalt	6010A	500	-	-	-	-	-	-
Copper	6010A	500	-	-	-	-	-	-
Iron	6010A	5000	-	-	-	-	-	-
Lead	6010A	5000	5130	103	5060	101	4990	100
Magnesium	6010A	5000	-	-	-	-	-	-
Manganese	6010A	500	-	-	-	-	-	-
Mercury	7470A	5.00	-	-	-	-	-	-
Molybdenum	6010A	500	-	-	-	-	-	-
Nickel	6010A	500	-	-	-	-	-	-
Potassium	6010A	25000	-	-	-	-	-	-
Selenium	6010A	2000	2120	106	2080	104	2010	101
Silicon	ICP-OES	20.0	-	-	-	-	-	-
Silver	6010A	500	517	103	512	102	501	100
Sodium	6010A	25000	-	-	-	-	-	-
Tin	6010A	20000	-	-	-	-	-	-
Vanadium	6010A	500	-	-	-	-	-	-
Zinc	6010A	2500	-	-	-	-	-	-

Approved By: _____ Date: 6/11/97

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Science Application International Corp.
Project: AEH

Service Request: K9703098
Date Analyzed: 5/21-30/97

Continuing Calibration Verification (CCV) Summary
Metals
Units: µg/L (ppb)

Analyte	EPA Method	True Value	CCV22 Result	Percent Recovery	CCV23 Result	Percent Recovery	CCV24 Result	Percent Recovery
Aluminum	6010A	5000	-	-	-	-	-	-
Antimony	6010A	5000	-	-	-	-	-	-
Arsenic	6010A	2000	1870	94	1980	99	2100	105
Barium	6010A	500	451	90	503	101	538	108
Boron	6010A	10000	-	-	-	-	-	-
Cadmium	6010A	500	486	97	506	101	521	104
Calcium	6010A	5000	-	-	-	-	-	-
Chromium	6010A	5000	4700	94	5020	100	5270	105
Cobalt	6010A	500	-	-	-	-	-	-
Copper	6010A	500	-	-	-	-	-	-
Iron	6010A	5000	-	-	-	-	-	-
Lead	6010A	5000	4740	95	5000	100	5220	104
Magnesium	6010A	5000	-	-	-	-	-	-
Manganese	6010A	500	-	-	-	-	-	-
Mercury	7470A	5.00	-	-	-	-	-	-
Molybdenum	6010A	500	-	-	-	-	-	-
Nickel	6010A	500	-	-	-	-	-	-
Potassium	6010A	25000	-	-	-	-	-	-
Selenium	6010A	2000	1850	93	1990	100	2160	108
Silicon	ICP-OES	20.0	-	-	-	-	-	-
Silver	6010A	500	475	95	502	100	523	105
Sodium	6010A	25000	-	-	-	-	-	-
Tin	6010A	20000	-	-	-	-	-	-
Vanadium	6010A	500	-	-	-	-	-	-
Zinc	6010A	2500	-	-	-	-	-	-

Approved By: _____ Date: 6/11/97

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Science Application International Corp.
Project: AEH

Service Request: K9703098
Date Analyzed: 5/21-30/97

Continuing Calibration Verification (CCV) Summary
Metals
Units: µg/L (ppb)

Analyte	EPA Method	True Value	CCV25 Result	Percent Recovery
Aluminum	6010A	5000	-	-
Antimony	6010A	5000	-	-
Arsenic	6010A	2000	2110	106
Barium	6010A	500	533	107
Boron	6010A	10000	-	-
Cadmium	6010A	500	522	104
Calcium	6010A	5000	-	-
Chromium	6010A	5000	5240	105
Cobalt	6010A	500	-	-
Copper	6010A	500	-	-
Iron	6010A	5000	-	-
Lead	6010A	5000	5210	104
Magnesium	6010A	5000	-	-
Manganese	6010A	500	-	-
Mercury	7470A	5.00	-	-
Molybdenum	6010A	500	-	-
Nickel	6010A	500	-	-
Potassium	6010A	25000	-	-
Selenium	6010A	2000	2100	105
Silicon	ICP-OES	40.0	-	-
Silver	6010A	500	520	104
Sodium	6010A	25000	-	-
Tin	6010A	20000	-	-
Vanadium	6010A	500	-	-
Zinc	6010A	2500	-	-

Approved By: _____ Date: 6/11/97

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Science Application International Corp.
Project: AEH

Service Request: K9703098
Date Analyzed: 5/21-30/97

Continuing Calibration Blank (CCB) Summary
Metals
Units: µg/L (ppb)

Analyte	EPA Method	MRL	CCB1 Result	CCB2 Result	CCB3 Result	CCB4 Result
Aluminum	6010A	50	ND	ND	ND	ND
Antimony	6010A	50	ND	ND	ND	ND
Arsenic	6010A	100	ND	ND	ND	ND
Barium	6010A	5	ND	ND	ND	ND
Boron	6010A	50	ND	ND	ND	ND
Cadmium	6010A	4	ND	ND	ND	ND
Calcium	6010A	50	ND	ND	ND	ND
Chromium	6010A	10	ND	ND	ND	ND
Cobalt	6010A	10	ND	ND	ND	ND
Copper	6010A	10	ND	ND	ND	ND
Iron	6010A	20	ND	ND	ND	ND
Lead	6010A	50	ND	ND	ND	ND
Magnesium	6010A	10	ND	ND	ND	ND
Manganese	6010A	5	ND	ND	ND	ND
Mercury	7470A	0.5	ND	ND	ND	ND
Molybdenum	6010A	10	ND	ND	ND	ND
Nickel	6010A	20	ND	ND	ND	ND
Potassium	6010A	2000	ND	ND	ND	ND
Selenium	6010A	100	ND	ND	ND	ND
Silicon	ICP-OES	1000	ND	ND	ND	ND
Silver	6010A	10	ND	ND	ND	ND
Sodium	6010A	100	ND	ND	ND	ND
Tin	6010A	50	ND	ND	ND	ND
Vanadium	6010A	10	ND	ND	ND	ND
Zinc	6010A	10	ND	ND	ND	ND

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COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Science Application International Corp.
Project: AEH

Service Request: K9703098
Date Analyzed: 5/21-30/97

Continuing Calibration Blank (CCB) Summary
Metals
Units: µg/L (ppb)

Analyte	EPA Method	MRL	CCB5 Result	CCB6 Result	CCB7 Result	CCB8 Result
Aluminum	6010A	50	ND	ND	ND	ND
Antimony	6010A	50	ND	ND	ND	ND
Arsenic	6010A	100	ND	ND	ND	ND
Barium	6010A	5	ND	ND	ND	ND
Boron	6010A	50	ND	ND	ND	ND
Cadmium	6010A	4	ND	ND	ND	ND
Calcium	6010A	50	ND	ND	ND	ND
Chromium	6010A	10	ND	ND	ND	ND
Cobalt	6010A	10	ND	ND	ND	ND
Copper	6010A	10	ND	ND	ND	ND
Iron	6010A	20	ND	ND	ND	ND
Lead	6010A	50	ND	ND	ND	ND
Magnesium	6010A	10	ND	ND	ND	ND
Manganese	6010A	5	ND	ND	ND	ND
Mercury	7470A	0.5	ND	ND	ND	ND
Molybdenum	6010A	10	ND	ND	ND	ND
Nickel	6010A	20	ND	ND	ND	ND
Potassium	6010A	2000	ND	ND	ND	ND
Selenium	6010A	100	ND	ND	ND	ND
Silicon	ICP-OES	1000	-	-	-	-
Silver	6010A	10	ND	ND	ND	ND
Sodium	6010A	100	ND	ND	ND	ND
Tin	6010A	50	ND	ND	ND	ND
Vanadium	6010A	10	ND	ND	ND	ND
Zinc	6010A	10	ND	ND	ND	ND

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COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Science Application International Corp.
Project: AEH

Service Request: K9703098
Date Analyzed: 5/21-30/97

Continuing Calibration Blank (CCB) Summary
Metals
Units: µg/L (ppb)

Analyte	EPA Method	MRL	CCB9 Result	CCB10 Result	CCB11 Result	CCB12 Result
Aluminum	6010A	50	ND	ND	ND	ND
Antimony	6010A	50	ND	ND	ND	ND
Arsenic	6010A	100	ND	ND	ND	ND
Barium	6010A	5	ND	ND	ND	ND
Boron	6010A	50	ND	ND	ND	ND
Cadmium	6010A	4	ND	ND	ND	ND
Calcium	6010A	50	ND	ND	ND	ND
Chromium	6010A	10	ND	ND	ND	ND
Cobalt	6010A	10	ND	ND	ND	ND
Copper	6010A	10	ND	ND	ND	ND
Iron	6010A	20	ND	ND	ND	ND
Lead	6010A	50	ND	ND	ND	ND
Magnesium	6010A	10	ND	ND	ND	ND
Manganese	6010A	5	ND	ND	ND	ND
Mercury	7470A	0.5	-	-	-	-
Molybdenum	6010A	10	ND	ND	ND	ND
Nickel	6010A	20	ND	ND	ND	ND
Potassium	6010A	2000	ND	ND	ND	ND
Selenium	6010A	100	ND	ND	ND	ND
Silicon	ICP-OES	1000	-	-	-	-
Silver	6010A	10	ND	ND	ND	ND
Sodium	6010A	100	ND	ND	ND	ND
Tin	6010A	50	ND	ND	ND	ND
Vanadium	6010A	10	ND	ND	ND	ND
Zinc	6010A	10	ND	ND	ND	ND

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COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

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Project: AEH

Service Request: K9703098
Date Analyzed: 5/21-30/97

Continuing Calibration Blank (CCB) Summary
Metals
Units: µg/L (ppb)

Analyte	EPA Method	MRL	CCB13 Result	CCB14 Result	CCB15 Result	CCB16 Result
Aluminum	6010A	50	ND	ND	ND	-
Antimony	6010A	50	ND	ND	ND	-
Arsenic	6010A	100	ND	ND	ND	ND
Barium	6010A	5	ND	ND	ND	ND
Boron	6010A	50	ND	ND	ND	-
Cadmium	6010A	4	ND	ND	ND	ND
Calcium	6010A	50	ND	ND	ND	-
Chromium	6010A	10	ND	ND	ND	ND
Cobalt	6010A	10	ND	ND	ND	-
Copper	6010A	10	ND	-	-	-
Iron	6010A	20	ND	ND	ND	-
Lead	6010A	50	ND	ND	ND	ND
Magnesium	6010A	10	ND	ND	ND	-
Manganese	6010A	5	ND	ND	ND	-
Mercury	7470A	0.5	-	-	-	-
Molybdenum	6010A	10	ND	ND	ND	-
Nickel	6010A	20	ND	ND	ND	-
Potassium	6010A	2000	ND	ND	ND	-
Selenium	6010A	100	ND	ND	ND	ND
Silicon	ICP-OES	1000	-	-	-	-
Silver	6010A	10	ND	ND	ND	ND
Sodium	6010A	100	ND	ND	ND	-
Tin	6010A	50	ND	ND	ND	-
Vanadium	6010A	10	ND	ND	ND	-
Zinc	6010A	10	ND	ND	ND	-

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COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

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Service Request: K9703098
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Continuing Calibration Blank (CCB) Summary
Metals
Units: µg/L (ppb)

Analyte	EPA Method	MRL	CCB17 Result	CCB18 Result	CCB19 Result	CCB20 Result
Aluminum	6010A	50	-	-	-	-
Antimony	6010A	50	-	-	-	-
Arsenic	6010A	100	ND	ND	ND	ND
Barium	6010A	5	ND	ND	ND	ND
Boron	6010A	50	-	-	-	-
Cadmium	6010A	4	ND	ND	ND	ND
Calcium	6010A	50	-	-	-	-
Chromium	6010A	10	ND	ND	ND	ND
Cobalt	6010A	10	-	-	-	-
Copper	6010A	10	-	-	-	-
Iron	6010A	20	-	-	-	-
Lead	6010A	50	ND	ND	ND	ND
Magnesium	6010A	10	-	-	-	-
Manganese	6010A	5	-	-	-	-
Mercury	7470A	0.5	-	-	-	-
Molybdenum	6010A	10	-	-	-	-
Nickel	6010A	20	-	-	-	-
Potassium	6010A	2000	-	-	-	-
Selenium	6010A	100	ND	ND	ND	ND
Silicon	ICP-OES	1000	-	-	-	-
Silver	6010A	10	ND	ND	ND	ND
Sodium	6010A	100	-	-	-	-
Tin	6010A	50	-	-	-	-
Vanadium	6010A	10	-	-	-	-
Zinc	6010A	10	-	-	-	-

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COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Science Application International Corp. **Service Request:** K9703098
Project: AEH **Date Analyzed:** 5/21-30/97

Continuing Calibration Blank (CCB) Summary
Metals
Units: µg/L (ppb)

Analyte	EPA Method	MRL	CCB21 Result	CCB22 Result	CCB23 Result	CCB24 Result
Aluminum	6010A	50	-	-	-	-
Antimony	6010A	50	-	-	-	-
Arsenic	6010A	100	ND	ND	ND	ND
Barium	6010A	5	ND	ND	ND	ND
Boron	6010A	50	-	-	-	-
Cadmium	6010A	4	ND	ND	ND	ND
Calcium	6010A	50	-	-	-	-
Chromium	6010A	10	ND	ND	ND	ND
Cobalt	6010A	10	-	-	-	-
Copper	6010A	10	-	-	-	-
Iron	6010A	20	-	-	-	-
Lead	6010A	50	ND	ND	ND	ND
Magnesium	6010A	10	-	-	-	-
Manganese	6010A	5	-	-	-	-
Mercury	7470A	0.5	-	-	-	-
Molybdenum	6010A	10	-	-	-	-
Nickel	6010A	20	-	-	-	-
Potassium	6010A	2000	-	-	-	-
Selenium	6010A	100	ND	ND	ND	ND
Silicon	ICP-OES	1000	-	-	-	-
Silver	6010A	10	ND	ND	ND	ND
Sodium	6010A	100	-	-	-	-
Tin	6010A	50	-	-	-	-
Vanadium	6010A	10	-	-	-	-
Zinc	6010A	10	-	-	-	-

Approved By: _____ Date: 6/11/97

CCB4SMRL/102194

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Science Application International Corp.
Project: AEH

Service Request: K9703098
Date Analyzed: 5/21-30/97

Continuing Calibration Blank (CCB) Summary
Metals
Units: µg/L (ppb)

Analyte	EPA Method	MRL	CCB25 Result
Aluminum	6010A	50	-
Antimony	6010A	50	-
Arsenic	6010A	100	ND
Barium	6010A	5	ND
Boron	6010A	50	-
Cadmium	6010A	4	ND
Calcium	6010A	50	-
Chromium	6010A	10	ND
Cobalt	6010A	10	-
Copper	6010A	10	-
Iron	6010A	20	-
Lead	6010A	50	ND
Magnesium	6010A	10	-
Manganese	6010A	5	-
Mercury	7470A	0.5	-
Molybdenum	6010A	10	-
Nickel	6010A	20	-
Potassium	6010A	2000	-
Selenium	6010A	100	ND
Silicon	ICP-OES	1000	-
Silver	6010A	10	ND
Sodium	6010A	100	-
Tin	6010A	50	-
Vanadium	6010A	10	-
Zinc	6010A	10	-

Approved By: _____ Date: 6/11/97

CCB4SMRL/102194

Columbia Analytical Services -- Kelso
INTERNAL LOGIN SUMMARY REPORT (il01)
09-MAY-97 12:08

00086

Service Req. No. K9703098
Client No. 191725
Client Name Science Application International Corp.

Bill To: SAIC

999 18th Street
Suite 855
Denver, CO 80202

P.O. No.
Logged In By LHAWN
ISR Num
COC Received Y
Samples Submitted 08-MAY-97

Project No.
Project Name AEH

Report To: SAIC
Wes Ganter
999 18th Street, Suite 855
Denver, CO 80202

Site ID
Project Chemist Lynda Huckestein

Bottles: 17 - 1 L Glass
11 - 1 L Red
19 - 16 oz Glass

Storage: HERK F4;SHELF E

CAS Samp No.	Client Sample No.	Matrix	Collected	DueDate	HG/CVAA	ICP/MS SCAN	MISC METALS	-DIGEST	MISC-OUT	TCLP EXT	ICP SCAN	TCLPM
K9703098-001	EB-2	H2O	07-MAY-97	22-MAY-97	III	III	III	III			III	
K9703098-002	FB-2	H2O	07-MAY-97	22-MAY-97	III	III	III	III			III	
K9703098-003	Respirator Wash	H2O	07-MAY-97	22-MAY-97						III		III
K9703098-004	Laundry Wash	H2O	07-MAY-97	22-MAY-97						III		III
K9703098-005	Pile 436	SOLID	07-MAY-97	22-MAY-97	III	III	III	III	III	III	III	III
K9703098-006	Sinter Plant Wash	H2O	07-MAY-97	22-MAY-97						III		III
K9703098-007	Pile 242	SOLID	07-MAY-97	22-MAY-97	III	III	III	III	III	III	III	III
K9703098-008	Pile 240	SOLID	07-MAY-97	22-MAY-97	III	III	III	III	III	III	III	III
K9703098-009	Pile 206	SOLID	07-MAY-97	22-MAY-97	III	III	III	III	III	III	III	III
K9703098-010	Pile 159	SOLID	07-MAY-97	22-MAY-97	III	III	III	III	III	III	III	III
K9703098-011	East Helena Brick A	SOLID	07-MAY-97	22-MAY-97	III	III	III	III		III	III	III
K9703098-012	East Helena Brick B	SOLID	07-MAY-97	22-MAY-97	III	III	III	III		III	III	III
K9703098-013	Omaha Brick	SOLID	07-MAY-97	22-MAY-97	III	III	III	III	III	III	III	III
K9703098-014	Omaha Brick Fines	SOLID	07-MAY-97	22-MAY-97	III	III	III	III	III	III	III	III
K9703098-015	Pile 697	SOLID	07-MAY-97	22-MAY-97	III	III	III	III	III	III	III	III
K9703098-016	Pile 718	SOLID	07-MAY-97	22-MAY-97	III	III	III	III	III	III	III	III
K9703098-017	Pile 487	SOLID	07-MAY-97	22-MAY-97	III	III	III	III	III	III	III	III
K9703098-018	Pile 347	SOLID	07-MAY-97	22-MAY-97	III	III	III	III	III	III	III	III
K9703098-019	Acid Plant Effluent	H2O	07-MAY-97	22-MAY-97						III		III
K9703098-020	Lower ~~Lake~~ Lake	H2O	07-MAY-97	22-MAY-97						III		III
K9703098-021	Conductivity Blowdown	H2O	07-MAY-97	22-MAY-97						III		III
K9703098-022	Condensate Blowdown	H2O	07-MAY-97	22-MAY-97						III		III
K9703098-023	Pile 265A	SOLID	07-MAY-97	22-MAY-97	III	III	III	III	III	III	III	III
K9703098-024	Pile 265B	SOLID	07-MAY-97	22-MAY-97	III	III	III	III	III	III	III	III
K9703098-025	Pile 320B	SOLID	07-MAY-97	22-MAY-97	III	III	III	III	III	III	III	III
K9703098-026	Pile 213A	SOLID	07-MAY-97	22-MAY-97	III	III	III	III	III	III	III	III
K9703098-027	Pile 213B	SOLID	07-MAY-97	22-MAY-97	III	III	III	III	III	III	III	III
K9703098-028	Amarillo Brick	SOLID	07-MAY-97	22-MAY-97	III	III	III	III	III	III	III	III
K9703098-029	Thornock Tank A	H2O	07-MAY-97	22-MAY-97						III		III
K9703098-030	Thornock Tank B	H2O	07-MAY-97	22-MAY-97						III		III

Samples Found To Be Hazardous: NONE__ ALL__ *SOME__

Reviewed By: [signature]

Columbia Analytical Services -- Kelso
INTERNAL LOGIN SUMMARY REPORT (il01)
09-MAY-97 12:08

Service Req. No. K9703098
Client No. 191725
Client Name Science Application International Corp.

Project No.
Project Name AEH

Bottles: 17 - 1 L Glass
11 - 1 L Red
19 - 16 oz Glass

Bill To: SAIC

999 18th Street
Suite 855
Denver, CO 80202

Report To: SAIC
Wes Ganter
999 18th Street, Suite 855
Denver, CO 80202

P.O. No.
Logged In By LHAWN
ISR Num
COC Received Y
Samples Submitted 08-MAY-97

Site ID
Project Chemist Lynda Huckestein

Storage: HERK F4;SHELF E

CAS Samp No.	Client Sample No.	Matrix	Collected	DueDate	ICP SCAN 21/ICP	TCLPM TCLP/7/ICP	TCLPM TCLP/HG/CVAA
K9703098-001	EB-2	H2O	07-MAY-97	22-MAY-97	III		
K9703098-002	FB-2	H2O	07-MAY-97	22-MAY-97	III		
K9703098-003	Respirator Wash	H2O	07-MAY-97	22-MAY-97		III	III
K9703098-004	Laundry Wash	H2O	07-MAY-97	22-MAY-97		III	III
K9703098-005	Pile 436	SOLID	07-MAY-97	22-MAY-97	III	III	III
K9703098-006	Sinter Plant Wash	H2O	07-MAY-97	22-MAY-97		III	III
K9703098-007	Pile 242	SOLID	07-MAY-97	22-MAY-97	III	III	III
K9703098-008	Pile 240	SOLID	07-MAY-97	22-MAY-97	III	III	III
K9703098-009	Pile 206	SOLID	07-MAY-97	22-MAY-97	III	III	III
K9703098-010	Pile 159	SOLID	07-MAY-97	22-MAY-97	III	III	III
K9703098-011	East Helena Brick A	SOLID	07-MAY-97	22-MAY-97	III	III	III
K9703098-012	East Helena Brick B	SOLID	07-MAY-97	22-MAY-97	III	III	III
K9703098-013	Omaha Brick	SOLID	07-MAY-97	22-MAY-97	III	III	III
K9703098-014	Omaha Brick Fines	SOLID	07-MAY-97	22-MAY-97	III	III	III
K9703098-015	Pile 697	SOLID	07-MAY-97	22-MAY-97	III	III	III
K9703098-016	Pile 718	SOLID	07-MAY-97	22-MAY-97	III	III	III
K9703098-017	Pile 487	SOLID	07-MAY-97	22-MAY-97	III	III	III
K9703098-018	Pile 347	SOLID	07-MAY-97	22-MAY-97	III	III	III
K9703098-019	Acid Plant Effluent	H2O	07-MAY-97	22-MAY-97		III	III
K9703098-020	Lower Luke	H2O	07-MAY-97	22-MAY-97		III	III
K9703098-021	Conductivity Blowdown	H2O	07-MAY-97	22-MAY-97		III	III
K9703098-022	Condensate Blowdown	H2O	07-MAY-97	22-MAY-97		III	III
K9703098-023	Pile 265A	SOLID	07-MAY-97	22-MAY-97	III	III	III
K9703098-024	Pile 265B	SOLID	07-MAY-97	22-MAY-97	III	III	III
K9703098-025	Pile 320B	SOLID	07-MAY-97	22-MAY-97	III	III	III
K9703098-026	Pile 213A	SOLID	07-MAY-97	22-MAY-97	III	III	III
K9703098-027	Pile 213B	SOLID	07-MAY-97	22-MAY-97	III	III	III
K9703098-028	Amarillo Brick	SOLID	07-MAY-97	22-MAY-97	III	III	III
K9703098-029	Thornock Tank A	H2O	07-MAY-97	22-MAY-97		III	III
K9703098-030	Thornock Tank B	H2O	07-MAY-97	22-MAY-97		III	III

Comments:

K9703098 ICP SCAN: = include SiO2. Run ND's by ICP/MS.
K9703098 ICP/MS SCAN: = Ag,Au,Pt,Pd,Ir,Os,Rh,Ru,Re, and also include ND's from ICP Scan.
K9703098 MISC METALS: = total silica w/FBA digest

Samples Found To Be Hazardous: NONE__ ALL__ *SOME__

Reviewed By:_____ _____

00088

Columbia Analytical Services -- Kelso
INTERNAL LOGIN SUMMARY REPORT (il01)
09-MAY-97 12:08

Service Req. No.	K9703098	Project No.		Bottles: 17 - 1 L Glass
Client No.	191725	Project Name	AEH	11 - 1 L Red
Client Name	Science Application International Corp.			19 - 16 oz Glass
Bill To:	SAIC 999 18th Street Suite 855 Denver, CO 80202	Report To:	SAIC Wes Ganter 999 18th Street, Suite 855 Denver, CO 80202	
P.O. No.		Site ID		
Logged In By	LHAWN	Project Chemist	Lynda Huckestein	
ISR Num				
COC Received	Y			
Samples Submitted	08-MAY-97			Storage: HERK F4;SHELF E

CAS Samp No.	Client Sample No.	Matrix	Collected	DueDate	ICP SCAN 21/ICP	TCLPM TCLP/7/ICP	TCLPM TCLP/HG/CVAA
K9703098	MISC-OUT: = Fire Assay sent to Chemex.						
K9703098-028	Use for Lab QC.						

Samples Found To Be Hazardous: NONE__ ALL__ *SOME__

Reviewed By:_____ _____

COLUMBIA ANALYTICAL SERVICES, INC.
1317 South 13th Avenue - P.O. Box 479 - Kelso, WA 98626
ANALYTICAL WORKSHEET

Extr/Analysis Lot
MET9702145

SAMPLE NUMBERS(S):	SERVICE REQUEST NUMBER: 3098
ANALYSIS FOR: TCLP EXTRACTION	METHOD NUMBER: 1311

SAMPLE #	SAMPLE WT (g)	WT FILTRATE + TARE (g)	TARE (g)	WT OF FILTRATE (g)	WT OF SOLIDS (g)	% SOLIDS	EXTRACTION SOLN #	VOLUME EXT. SOLN (ml)
3098-3	482.84	523.10	40.47	482.63	0.21	<0.5	—	—
-4	422.31	462.59	40.39	422.20	0.11	<0.5	—	—
-6	406.69	444.92	40.20	404.72	1.97	<0.5	—	—
-19	394.07	433.02	41.78	391.24	2.83	0.7	1	56.6
-20	433.87	471.66	39.11	432.55	1.32	<0.5	—	—
-21	540.90	581.06	40.89	540.17	0.73	<0.5	—	—
-22	423.94	464.82	41.30	423.52	0.42	<0.5	—	—
-29	494.36	534.64	40.98	493.66	0.70	<0.5	—	—
-30	477.34	518.88	41.62	477.26	0.08	<0.5	—	—

JC 5/20/97

COMMENTS: Extraction solution volume = (.2)(Z)(X) where Z = sample wt., X = % solids

EXTRACTION STARTED:	ANALYST JC	DATE 5/20/97
EXTRACTION FINISHED:	REVIEWER	DATE

[TCLPTARE.FRM]

COLUMBIA ANALYTICAL SERVICES, INC.
1317 South 13th Avenue - P.O. Box 479 - Kelso, WA 98626
DIGESTION DATA

Extr/Analysis Lot
MET9702674

SAMPLE NUMBERS(S): As Listed	SERVICE REQUEST NUMBER: 3098
ANALYSIS FOR: TCLP	METHOD NUMBER: TCLP - Fluid Determination / Extraction

SAMPLE NUMBER	SOLUTION DETERMINATION WEIGHT (gm)	INITIAL pH	ALIQUOT OF 1N HCL (ml)	FINAL pH	SOLUTION TO BE USED	EXTRACTION WEIGHT (gm)	EXTRACTION SOLUTION VOLUME (ml)
(A) 3098 -5	5.0	10.60	3.5	2.13	1 (A)	100	2000
-7		10.66	↓	2.36	1		
-8		2.61	→	→	1		
-9		2.09	→	→			
-10		10.21	3.5	2.23			
-11		10.69		2.06			
-12		10.37		3.63			
-13		10.15		2.28			
-14		10.26		2.46			
(B) -15		7.63		2.06	(B)		
-16		9.05		1.81			
-17		10.34		2.16			
-18		10.01		1.91			
-23		10.29		4.21	↓ ↓		
-24		10.34		5.76	2		
(B) -25		7.63		1.79	1 (B)		
-26		8.39		1.95	↓ ↓		
-27		8.29		1.98			
-28		10.74	↓	5.91	2	↓	↓
			→		→		

PH METER CALIBRATED AT PH4 & PH7 TODAY ☑ YES ☐ NO

COMMENTS: EXTRACTION SOLUTION PREP DATE: Sol'n #1 (A) 4.88 (B) 4.91 Sol #2 2.83

EXTRACTION SOLUTION PH: 5/20/97 →

EXTRACTION STARTED: 5/20/97 2122

EXTRACTION FINISHED: 5/21/97

TUMBLER ROTATIONAL SPEED: Sue #1 29.7 S. #2 29.6

ROOM TEMPERATURE AT BEGINNING OF EXTRACTION: 20.7°C

ANALYST: [signature]	DATE 5/16/97 / 5/20/97	PAGE NUMBER (TCLPEXTR.FRM) 1 of 2
REVIEWER:	DATE	

00090

COLUMBIA ANALYTICAL SERVICES, INC.
1317 South 13th Avenue - P.O. Box 479 - Kelso, WA 98626
DIGESTION DATA

Extr/Analysis Lot
MET9702144

SAMPLE NUMBERS(S): As Listed	SERVICE REQUEST NUMBER: K9703095
ANALYSIS FOR:	METHOD NUMBER: TCLP - Fluid Determination / Extraction

SAMPLE NUMBER	SOLUTION DETERMINATION WEIGHT (gm)	INITIAL pH	ALIQUOT OF 1N HCL (ml)	FINAL pH	SOLUTION TO BE USED	EXTRACTION WEIGHT (gm)	EXTRACTION SOLUTION VOLUME (ml)
(B) 3095-19	5.00	2.60	—	—	(B) #1	2.83	56.6
PBE	—	—	—	—	(A) #1	—	2000
PBF	—	—	—	—	#2	—	2000

JC 5/20/97

PH METER CALIBRATED AT PH4 & PH7 TODAY ☑ YES ☐ NO

COMMENTS: EXTRACTION SOLUTION PREP DATE: _____

EXTRACTION SOLUTION PH: _____

EXTRACTION STARTED: See page one

EXTRACTION FINISHED: _____

TUMBLER ROTATIONAL SPEED: _____

ROOM TEMPERATURE AT BEGINNING OF EXTRACTION: _____

ANALYST:	DATE 5/20/97	PAGE NUMBER (TCLPEXTR.FRM) 2of2
REVIEWER:	DATE	

00091

Columbia Analytical Services
Metals Digestion Sheet

Extr/Analysis Lot
MET9702679

Service Request Number(s): 3098

Method: CLP(ILM04.0) (3010A) 3020A 3050A Other-

Analysis for: ICP/Water ICP/Soil (ICP/TCLP) GFAA/Water GFAA/Soil Other:

Sample	Initial Weight (g)	Dry	Wet	Initial Volume(ml)	Final Volume (ml)	Matrix
PBS-1				50	50	
LCS-2						
3098 -5						
-50						
-55						
-7						
-8						
-9						
-10						
-11						
-12						
-13						
-14						
-15						
-16						
-17						
-18						
-25						
-26						
-27						
-23				50	50	

Lot # Acids Used: HNO3 30344 HCl 30318 H2O2 _____

LCSS (circle appropriate) ERA CLP Soil Lot # 230 EPA Lot # 0287 Other:_____

GFAA LCSW = CLPP CICV-3 (1/200 dil) Lot # L-MEB25125, _____ mls. added

ICP LCSW = CLPP CICV-1 Lot # L-MEB25121, _____ mls. added
CLPP CICV-2 Lot # L-MEB25149, _____ mls. added
CLPP CICV-3 Lot # L-MEB25125, _____ mls. added

SPIKE INFO

SS1-042997_____, _____mls added SS4-041697_____, _____mls added TCLP SPK/LCS

SS1-041697_____, _____mls added SS5-042997_____, _____mls added SS1 50 mls added

SS3-042997_____, _____mls added SS6-042997_____, _____mls added SS2 50 mls adde

Additional spikes:_____

Comments: _____

Digests Received By:_____

Analyst _____ Date 5/21/97

Reviewer _____ Date 5/22/97

metdig.xls
5/16/97

Columbia Analytical Services Inc.
1317 South 13th Avenue
Kelso, WA 98626

TCLP Spike Solution

Service Request No. 3088-5
TCLP Method No. 1311

Solution #	Element	Source	Lot#	Exp. Date	Aliquot of 1000ppm Std.	Final Volume	Solution Conc.	Volume of Solution Added	Initials and Date
1	HNO3	EM Science	36260	-	50ml	500ml	-	5.0	4/21/97
	Ag	CPI	690816	4/3/99	5.0ml	500ml	10		
	Pb	CPI	690916	4/3/99	25.0ml	500ml	50		
2	HNO3	EM Science	36344	-	25ml	500ml	-	5.0	5/14/97
	As	IV	L-AS01119	11/1/97	25.0ml	500ml	50		
	Ba	High Purity	691121	2/28/98	25.0ml	500ml	50		
	Cd	IV	L-CD01101	11/1/97	5.0ml	500ml	10		
	Cr	CPI	690923	4/14/99	25.0ml	500ml	50		
	Se	CPI	690327	3/3/98	5.0ml	500ml	10		

Additional spikes

Element	Source	Lot #	Exp. date	Aliquot of 1000 ppm std		Initials and date

Date Solution #1 was Prepared: 3/21/97 By. Theresa Larson

Date Solution #1 was Analyzed: 3/21/97 By. Jim Cron

Date Solution #2 was Prepared: 3/21/97 By. Theresa Larson

Date Solution #2 was Analyzed: 3/21/97 By. Jim Cron

Columbia Analytical Services
Metals Digestion Sheet

Extr/Analysis Lot
MET9702680

Service Request Number(s) : 3098

Method : CLP(ILM04.0) (3010A)
3020A 3050A Other-

Analysis for : ICP/Water ICP/Soil ICP/TCLP
GFAA/Water GFAA/Soil Other:

Sample	Initial Weight (g)	Dry	Wet	Initial Volume(ml)	Final Volume (ml)	Matrix
PBS-2				50	50	
LCS-2						
3098 -24						
-240						
-245						
-28						

Lot # Acids Used: HNO3 36344 HCl 36318 H2O2 _____

LCSS (circle appropriate) ERA CLP Soil Lot # 230 EPA Lot # 0287 Other:_____

GFAA LCSW = CLPP CICV-3 (1/200 dil) Lot # L-MEB25125 , _____ mls. added
ICP LCSW = CLPP CICV-1 Lot # L-MEB25121 , _____ mls. added
CLPP CICV-2 Lot # L-MEB25149 , _____ mls. added
CLPP CICV-3 Lot # L-MEB25125 , _____ mls. added

SPIKE INFO
SS1-042997_____, _____mls added SS4-041697_____, _____mls added TCLP SPK/LCS
SS1-041697_____, _____mls added SS5-042997_____, _____mls added SS1 5.0 mls added
SS3-042997_____, _____mls added SS6-042997_____, _____mls added SS2 5.0 mls adde

Additional spikes:_____

Comments:_____

Digests Received By:_____

Analyst _____ Date 5/21/97

Reviewer _____ Date 5/22/97

metdig.xls
5/16/97

Columbia Analytical Services Inc.
1317 South 13th Avenue
Kelso, WA 98626

TCLP Spike Solution

Service Request No. 3058-24
TCLP Method No. 1311

Solution #	Element	Source	Lot#	Exp. Date	Aliquot of 1000ppm Std.	Final Volume	Solution Conc.	Volume of Solution Added	Initials and Date
1	HNO3	EM Science	36260	-	50ml	500ml	-	5.0	5/2/97
	Ag	CPI	690816	4/3/99	5.0ml	500ml	10		
	Pb	CPI	690916	4/3/99	25.0ml	500ml	50		
2	HNO3	EM Science	36344	-	25ml	500ml	-	5.0	5/2/97
	As	IV	L-AS01119	11/1/97	25.0ml	500ml	50		
	Ba	High Purity	691121	2/28/98	25.0ml	500ml	50		
	Cd	IV	L-CD01101	11/1/97	5.0ml	500ml	10		
	Cr	CPI	690923	4/14/99	25.0ml	500ml	50		
	Se	CPI	690327	3/3/98	5.0ml	500ml	10		

Additional spikes

Element	Source	Lot #	Exp. date	Aliquot of 1000 ppm std		Initials and date

Date Solution #1 was Prepared: 3/21/97 By. Theresa Larson

Date Solution #1 was Analyzed: 3/21/97 By. Jim Chan

Date Solution #2 was Prepared: 3/21/97 By. Theresa Larson

Date Solution #2 was Analyzed: 3/21/97 By. Jim Chan

Columbia Analytical Services
Metals Digestion Sheet

Extr/Analysis Lot
MET9702678

Service Request Number(s) : 3098

Method : CLP(ILM04.0) (3010A)
3020A 3050A Other-

Analysis for : ICP/Water ICP/Soil (ICP/TCLP)
GFAA/Water GFAA/Soil Other:

Sample	Initial Weight (g)	Dry	Wet	Initial Volume(ml)	Final Volume (ml)	Matrix
PBF				50	50	
LCS						
3098 -3						
-30						
-35						
-4						
-6						
-19 ~~-20~~ 5/21/97						
-20						
-21						
-22						
-29						
-30						

Lot # Acids Used: HNO3 36344 HCl 36318 H2O2 _____

LCSS (circle appropriate) ERA CLP Soil Lot # 230 EPA Lot # 0287 Other:_____

GFAA LCSW = CLPP CICV-3 (1/200 dil) Lot # L-MEB25125 , _____ mls. added
ICP LCSW = CLPP CICV-1 Lot # L-MEB25121 , _____ mls. added
CLPP CICV-2 Lot # L-MEB25149 , _____ mls. added
CLPP CICV-3 Lot # L-MEB25125 , _____ mls. added

SPIKE INFO
SS1-042997_____, _____mls added SS4-041697_____, _____mls added TCLP SPK/LCS
SS1-041697_____, _____mls added SS5-042997_____, _____mls added SS1 50 mls added
SS3-042997_____, _____mls added SS6-042997_____, _____mls added SS2 50 mls adde

Additional spikes:_____

Comments: _____

Digests Received By: _____

Analyst _____ Date 5/21/97

Reviewer _____ Date 5/22/97

metdig.xls
5/16/97

Columbia Analytical Services Inc.
1317 South 13th Avenue
Kelso, WA 98626

TCLP Spike Solution

Service Request No. 3098 - 3
TCLP Method No. 1311

Solution #	Element	Source	Lot#	Exp. Date	Aliquot of 1000ppm Std.	Final Volume	Solution Conc.	Volume of Solution Added	Initials and Date
1	HNO3	EM Science	36260	-	50ml	500ml	-	S.U	3/24/97
	Ag	CPI	690816	4/3/99	5.0ml	500ml	10		
	Pb	CPI	690916	4/3/99	25.0ml	500ml	50		
2	HNO3	EM Science	36344	-	25ml	500ml	-	S.U	5/24/97
	As	IV	L-AS01119	11/1/97	25.0ml	500ml	50		
	Ba	High Purity	691121	2/28/98	25.0ml	500ml	50		
	Cd	IV	L-CD01101	11/1/97	5.0ml	500ml	10		
	Cr	CPI	690923	4/14/99	25.0ml	500ml	50		
	Se	CPI	690327	3/3/98	5.0ml	500ml	10		

Additional spikes

Element	Source	Lot #	Exp. date	Aliquot of 1000 ppm std		Initials and date

Date Solution #1 was Prepared: 3/21/97 By. Theresa Larson

Date Solution #1 was Analyzed: 3/21/97 By. Jim Chan

Date Solution #2 was Prepared: 3/21/97 By. Theresa Larson

Date Solution #2 was Analyzed: 3/21/97 By. Jim Chan

Columbia Analytical Services
Metals Digestion Sheet

Extr/Analysis Lot
MET9702148

Service Request Number(s) : A 3098

Method : CLP(ILM04.0) 3010A
3020A 3050A Other-

Analysis for : ICP/Water ICP/Soil ICP/TCLP
GFAA/Water GFAA/Soil Other: FBA

Sample	Initial Weight (g)	Dry	Wet	Initial Volume(ml)	Final Volume (ml)	Matrix
3098 PB	---				100	FBA
LCS	0.0468		✓			
-5	0.0499	✓				
-7	0.0659					
-8	0.0487					
-9	0.0638					
-10	0.0720					
-11	0.0470					
-12	0.0540					
-13	0.0461					
-14	0.0510					
-15	0.0546					
-16	0.0976					
-17	0.0744					
-18	0.0507					
-23	0.0656					
-24	0.0512					
-25	0.0454					
-26	0.0647					
-27	0.0554					
-28	0.0428					
-28D	0.0699	✓				

SC 5/20/97

Lot # Acids Used: HNO3 36344 HCl 36346 H2O2 _____

LCSS (circle appropriate) ERA CLP Soil Lot # 230 EPA Lot # 0287 Other: NBS 98b Plastic Clay

GFAA LCSW = CLPP CICV-3 (1/200 dil) Lot # L-MEB25125 , _____ mls. added
ICP LCSW = CLPP CICV-1 Lot # L-MEB25121 , _____ mls. added
CLPP CICV-2 Lot # L-MEB25149 , _____ mls. added
CLPP CICV-3 Lot # L-MEB25125 , _____ mls. added

SPIKE INFO
SS1-_____, _____mls added SS4-_____, _____mls added TCLP SPK/LCS
SS2-_____, _____mls added SS5-_____, _____mls added SS1_____mls added
SS3-_____, _____mls added SS6-_____, _____mls added SS2 _____mls added
Additional spikes:_____
Comments: _____

Digests Received By:_____

Analyst _____ Date 5/20/97
Reviewer_____ Date _____

metdig.xls
11/27/96

Columbia Analytical Servi

Extr/Analysis Lot
MET9702237

Service Request Number(s): 3098

Method: CLP(ILM04.0) 3010A
3020A (3050A) Other-

Analysis for: ICP/Water ICP/Soil ICP/TCLP
GFAA/Water GFAA/Soil Other: ICP/MS

Sample	Initial Weight (g)	Dry	Wet	Initial Volume(ml)	Final Volume (ml)	Matrix
3098 PBS	—				100	5% HCl
LCSS	1.00		✓			
-5						
-7						
-8						
-8D						
-8S						
-9						
-10						
-11						
-12						
-13						
-14						
-15						
-16						
-17						
-18						
-23						
-24						
-25						
-26						
-27						
-28	↓		↓		↓	↓

Lot # Acids Used: HNO3 36344 HCl 36346 H2O2 36155636

LCSS (circle appropriate) ERA CLP Soil (Lot # 230) EPA Lot# 0287 Other: SC 5/23/97

GFAA LCSW = CLPP CICV-3 (1/200 dil) Lot # L-MEB25125, _____ mls. added

ICP LCSW = CLPP CICV-1 Lot # L-MEB25121, _____ mls. added
CLPP CICV-2 Lot # L-MEB25149, _____ mls. added
CLPP CICV-3 Lot # L-MEB25125, _____ mls. added

SPIKE INFO

SS1-042997, 2.0 mls added SS4-_____, _____ mls added TCLP SPK/LCS
SS2-041697, 2.0 mls added SS5-042997, 0.25 mls added SS1_____ mls added
SS3-042997, 2.0 mls added SS6-042997, 0.5 mls added SS2_____ mls added

Additional spikes: 2.0 mL of TI CPI 690205 EXP: 3/1/98 (10ppm)

Comments: 500 mL of ICP/MS Standard (SAIC ODD ELEMENT)

Digests Received By: _____

Analyst _____ Date 5/23/97

Reviewer _____ Date _____

metdig.xls
11/27/96

Columbia Analytical Services Inc.
1317 South 13th Avenue
Kelso, WA 98626

Metals Spike Form

Additional Spike. ☐

Service Request # 3098
Q.C. Sample # 3098-S

Initials /Date: JC / 5/23/97

Circle type of digest: GFAA ICP Other: ICP/MS
Circle type of sample: (Soil) Water Other: _____

Solution Name	Element	mls of 1000ppm Std.	Final Volume	Source	Lot#	Exp. Date	Solution Conc. mg/L	Enter mls Added
	HNO3	2.5	500ml	EM Science	36355	-	-	
	Al	100	500ml	IV*	L-AL03045	5/1/98	200	
	Ba	100	500ml	IV*	L-BA01121	5/1/98	200	
	Be	2.5	500ml	CPI	690327	6/7/98	5	
	Cd	2.5	500ml	IV*	L-CD01101	11/1/97	5	
	Co	25.0	500ml	IV*	L-QC001014	9/1/97	50	
SS1-042997	Cu	12.5	500ml	CPI	690816	4/4/99	25	
	Fe	50.0	500ml	CPI	690911	4/16/99	100	
	Pb	25.0	500ml	CPI	690916	4/3/99	50	
	Mn	25.0	500ml	IV*	L-MN02016	5/1/98	50	
	Ni	25.0	500ml	CPI	690503	5/21/98	50	
	V	25.0	500ml	IV*	K-V02011	11/1/97	50	2-U
	Zn	25.0	500ml	IV*	L-ZN01118	5/1/98	50	
Date Prepared:	4/29/97		By					
Date Analyzed:	4/29/97		By					
	HCl	50.0	500ml	EM Science	36036	-	-	
SS2-041697	Sb	25.0	500ml	IV*	L-QSB01030	11/1/97	50	
	Cr	10.0	500ml	CPI	690923	4/14/99	20	2-U
Date Prepared:	4/16/97		By					
Date Analyzed:	4/16/97		By					
	HNO3	5.0	500ml	EM Science	116080	-	-	
SS3-042997	Ag	2.5	500ml	IV*	L-AG01113	5/1/98	5	2-U
Date Prepared:	4/29/97		By					
Date Analyzed:	4/29/97		By					
	HNO3	5.0	500ml	EM Science	36036	-	-	
	As	2.0	500ml	CPI	690917	4/7/99	4	
SS4-041697	Cd	0.5	500ml	IV*	L-CD01101	11/1/97	1	
	Pb	1.0	500ml	IV*	L-PB02078	11/1/97	2	
	Se	0.5	500ml	CPI	691003	4/14/99	1	
	Tl	2.5	500ml	CPI	690205	3/11/98	5	
Date Prepared:	4/16/97		By					
Date Analyzed:	4/16/97		By					
	HCL	50.0	500ml	EM Science	36318	-	-	
SS5-042997	As	100.0	500ml	CPI	690917	4/7/99	200	
	Se	50.0	500ml	CPI	691003	4/14/99	100	
Date Prepared:	4/29/97		By					0.25
Date Analyzed:	4/29/97		By					
	HNO3	2.5	250	E.M. Science	36355	-	-	
	Mo	25	250	IV*	L-MO01104	11/1/97	100	
SS6-042997	B	25	250	IV*	L-BO2002	5/1/98	100	0.5
Date Prepared:	4/29/97		By					
Date Analyzed:	4/29/97		By					

*IV = Inorganic Ventures

Columbia Analytical Services

Extr/Analysis Lot
MET9702214

Service Request Number(s): 3098

Method: CLP(ILM04.0) 3010A
3020A 3050A Other-

Analysis for: ICP/Water ICP/Soil (ONLY) ICP/TCLP
GFAA/Water GFAA/Soil Other: ~~ICP/ICP/ms~~

Sample	Initial Weight (g)	Dry	Wet	Initial Volume(ml)	Final Volume (ml)	Matrix
3098 PBS	←				100	5%2HCl
LCSS	1.0U		✓			
-5						
-7						
-8						
-9						
-10						
-11						
-12						
-13						
-14						
-15						
-16						
-17						
-18						
-23						
-24						
-25						
-26						
-27						
-28						
-28D						
-28S(ICP)						
3098-28S(ICP/ms)	↓		↓		↓	↓

Lot # Acids Used: HNO3 36344 HCl 36346 H2O2 36155630

LCSS (circle appropriate) ERA CLP Soil Lot # 230 EPA Lot # 0287 Other:_____

GFAA LCSW = CLPP CICV-3 (1/200 dil) Lot # L-MEB25125, _____ mls. added
ICP LCSW = CLPP CICV-1 Lot # L-MEB25121, _____ mls. added
CLPP CICV-2 Lot # L-MEB25149, _____ mls. added
CLPP CICV-3 Lot # L-MEB25125, _____ mls. added

Sn: CPI 690403
EXP 4/25/98

SPIKE INFO
SS1-042997, _____ mls added SS4-_____, _____ mls added TCLP SPK/LCS
SS2-041697, _____ mls added SS5-042997, _____ mls added SS1_____ mls added
SS3-042997, _____ mls added SS6-042997, _____ mls added SS2_____ mls added

Tl: CPI 690205
3/11/98

Additional spikes:_____

Comments: ICP(OES) = 2.0mL of SSS#1, #2, #3, #5, #6, Sn (1000)
ICP(MS) = 1.0mL of SSS#1, #2, #3, 0.1mL #5, #6

Digests Received By: 1.0mL 10 ppm Tl, 5.0mL ICP/MS SPK Standard 5/19/97

Analyst _____ Date 5/19/97
Reviewer _____ Date _____

metdig.xls
11/27/96

00101

Columbia Analytical Services Inc.
1317 South 13th Avenue
Kelso, WA 98626

Metals Spike Form

Additional Spike. ☐

Service Request # 3098
Q.C. Sample # 3098-28

Initials /Date: JC / 5/19/97

Circle type of digest: GFAA (ICP) Other: ICP/MS
Circle type of sample: (Soil) Water Other: _____

Solution Name	Element	mls of 1000ppm Std.	Final Volume	Source	Lot#	Exp. Date	Solution Conc. mg/L	Enter mls Added
	HNO3	2.5	500ml	EM Science	36355	-	-	
	Al	100	500ml	IV*	L-AL03045	5/1/98	200	
	Ba	100	500ml	IV*	L-BA01121	5/1/98	200	
	Be	2.5	500ml	CPI	690327	6/7/98	5	
	Cd	2.5	500ml	IV*	L-CD01101	11/1/97	5	
	Co	25.0	500ml	IV*	L-QC001014	9/1/97	50	
SSI-042997	Cu	12.5	500ml	CPI	690816	4/4/99	25	
	Fe	50.0	500ml	CPI	690911	4/16/99	100	
	Pb	25.0	500ml	CPI	690916	4/3/99	50	
	Mn	25.0	500ml	IV*	L-MN02016	5/1/98	50	
	Ni	25.0	500ml	CPI	690503	5/21/98	50	
	V	25.0	500ml	IV*	K-V02011	11/1/97	50	
	Zn	25.0	500ml	IV*	L-ZN01118	5/1/98	50	
Date Prepared:	4/29/97		By					
Date Analyzed:	4/29/97		By					
	HCl	50.0	500ml	EM Science	36036	-	-	
SS2-041697	Sb	25.0	500ml	IV*	L-QSB01030	11/1/97	50	
	Cr	10.0	500ml	CPI	690923	4/14/99	20	
Date Prepared:	4/16/97		By					
Date Analyzed:	4/16/97		By					
	HNO3	5.0	500ml	EM Science	116080	-	-	
SS3-042997	Ag	2.5	500ml	IV*	L-AG01113	5/1/98	5	
Date Prepared:	4/29/97		By					
Date Analyzed:	4/29/97		By					
	HNO3	5.0	500ml	EM Science	36036	-	-	
	As	2.0	500ml	CPI	690917	4/7/99	4	
SS4-041697	Cd	0.5	500ml	IV*	L-CD01101	11/1/97	1	
	Pb	1.0	500ml	IV*	L-PB02078	11/1/97	2	
	Se	0.5	500ml	CPI	691003	4/14/99	1	
	Tl	2.5	500ml	CPI	690205	3/11/98	5	
Date Prepared:	4/16/97		By					
Date Analyzed:	4/16/97		By					
	HCL	50.0	500ml	EM Science	36318	-	-	
SS5-042997	As	100.0	500ml	CPI	690917	4/7/99	200	
	Se	50.0	500ml	CPI	691003	4/14/99	100	
Date Prepared:	4/29/97		By					
Date Analyzed:	4/29/97		By					
	HNO3	2.5	250	E.M. Science	36355	-	-	
	Mo	25	250	IV*	L-MO01104	11/1/97	100	
SS6-042997	B	25	250	IV*	L-BO2002	5/1/98	100	
Date Prepared:	4/29/97		By					
Date Analyzed:	4/29/97		By					

*IV = Inorganic Ventures

SPK 00102

Columbia Analytical Services
Metals Digestion Sheet

Extr/Analysis Lot
MET9702581

Service Request Number(s) : 3098

Method : CLP(ILM04.0) 3010A
3020A 3050A Other- 200.8

Analysis for : ICP/Water ICP/Soil ICP/TCLP
GFAA/Water GFAA/Soil Other: ICP/MS

Sample	Initial Weight (g)	Dry	Wet	Initial Volume(ml)	Final Volume (ml)	Matrix
3098 PBW				50	50	1%HNO3
LCSW				↓	↓	↓
-1						
-2						
-2D						
-2S				↓	↓	↓

5C

5/23/97

Lot # Acids Used: HNO3 36026 HCl _____ H2O2 _____

LCSS (circle appropriate) ERA CLP Soil Lot # 230 EPA Lot # 0287 Other: _____

GFAA LCSW = CLPP CICV-3 (1/200 dil) Lot # L-MEB25125 , _____ mls. added
ICP LCSW = CLPP CICV-1 Lot # L-MEB25121 , _____ mls. added
CLPP CICV-2 Lot # L-MEB25149 , _____ mls. added
CLPP CICV-3 Lot # L-MEB25125 , _____ mls. added

SPIKE INFO

SS1-_____, _____mls added SS4-_____, _____mls added TCLP SPK/LCS
SS2-_____, _____mls added SS5-_____, _____mls added SS1_____mls added
SS3-_____, _____mls added SS6-_____, _____mls added SS2 _____mls added

Additional spikes: _____

Comments: LCSW/spike = 1.0 mL of 200.8 solution
1 ppm Ag 100 mL of ICP/MS Stand'd

Digests Received By: _____

Analyst _____ Date 5/23/97

Reviewer _____ Date _____

Columbia Analytical Services
Metals Digestion Sheet

Extr/Analysis Lot
MET9702578

Service Request Number(s) : 3098

Method : CLP(ILM04.0) 3010A 3020A 3050A Other-

Analysis for : ICP/Water ICP/Soil ICP/TCLP GFAA/Water GFAA/Soil Other:

Sample	Initial Weight (g)	Dry	Wet	Initial Volume(ml)	Final Volume (ml)	Matrix
3098 PBW				50	50	5% HCl
LCSW						
LCSW(Si)						
-1						
-2						
-2D						
-2S						

NOT USED, SEE REDIGEST
JC 6/11/97

JC 5/19/97

Lot # Acids Used: HNO3 36344 HCl 967214 H2O2

LCSS (circle appropriate) ERA CLP Soil Lot # 230 EPA Lot # 0287 Other:

GFAA LCSW = CLPP CICV-3 (1/200 dil) Lot # L-MEB25125 , mls. added
ICP LCSW = CLPP CICV-1 Lot # L-MEB25121 , 0.25 mls. added
CLPP CICV-2 Lot # L-MEB25149 , 0.25 mls. added
CLPP CICV-3 Lot # L-MEB25125 , 0.25 mls. added

SPIKE INFO
SS1- 042997 , 0.5 mls added SS4- , mls added TCLP SPK/LCS
SS2- 041697 , 0.5 mls added SS5- 042997 , 0.5 mls added SS1 mls added
SS3- 042997 , 0.5 mls added SS6- 042997 , 0.5 mls added SS2 mls added

Additional spikes:

Comments: SPIKE/LCSW = 0.25 mL of Sn CPI 690403, 0.25 mL Si
LCSW(Si) = 0.25 mL of Si High Purity 690912 Exp 2/98

Digests Received By:

Analyst [signature] Date 5/19/97
Reviewer Date

metdigests 00104
11/27/96

Columbia Analytical Services Inc.
1317 South 13th Avenue
Kelso, WA 98626

Metals Spike Form

Additional Spike. ☐

Service Request # 3098
Q.C. Sample # 3098-2

Initials /Date: JC 1/5/19/97

Circle type of digest: GFAA (ICP) Other:_____
Circle type of sample: Soil (Water) Other:_____

Solution Name	Element	mls of 1000ppm Std.	Final Volume	Source	Lot#	Exp. Date	Solution Conc. mg/L	Enter mls Added
	HNO3	2.5	500ml	EM Science	36355	-	-	
	Al	100	500ml	IV*	L-AL03045	5/1/98	200	
	Ba	100	500ml	IV*	L-BA01121	5/1/98	200	
	Be	2.5	500ml	CPI	690327	6/7/98	5	
	Cd	2.5	500ml	IV*	L-CD01101	11/1/97	5	
	Co	25.0	500ml	IV*	L-QC001014	9/1/97	50	
SS1-042997	Cu	12.5	500ml	CPI	690816	4/4/99	25	
	Fe	50.0	500ml	CPI	690911	4/16/99	100	
	Pb	25.0	500ml	CPI	690916	4/3/99	50	
	Mn	25.0	500ml	IV*	L-MN02016	5/1/98	50	0.5
	Ni	25.0	500ml	CPI	690503	5/21/98	50	
	V	25.0	500ml	IV*	K-V02011	11/1/97	50	
	Zn	25.0	500ml	IV*	L-ZN01118	5/1/98	50	
Date Prepared:	4/29/97		By					
Date Analyzed:	4/29/97		By					
	HCl	50.0	500ml	EM Science	36036	-	-	
SS2-041697	Sb	25.0	500ml	IV*	L-QSB01030	11/1/97	50	
	Cr	10.0	500ml	CPI	690923	4/14/99	20	0.5
Date Prepared:	4/16/97		By					
Date Analyzed:	4/16/97		By					
	HNO3	5.0	500ml	EM Science	116080	-	-	
SS3-042997	Ag	2.5	500ml	IV*	L-AG01113	5/1/98	5	0.5
Date Prepared:	4/29/97		By					
Date Analyzed:	4/29/97		By					
	HNO3	5.0	500ml	EM Science	36036	-	-	
	As	2.0	500ml	CPI	690917	4/7/99	4	
SS4-041697	Cd	0.5	500ml	IV*	L-CD01101	11/1/97	1	
	Pb	1.0	500ml	IV*	L-PB02078	11/1/97	2	
	Se	0.5	500ml	CPI	691003	4/14/99	1	
	Tl	2.5	500ml	CPI	690205	3/11/98	5	
Date Prepared:	4/16/97		By					
Date Analyzed:	4/16/97		By					
	HCL	50.0	500ml	EM Science	36318	-	-	
SS5-042997	As	100.0	500ml	CPI	690917	4/7/99	200	
	Se	50.0	500ml	CPI	691003	4/14/99	100	0.5
Date Prepared:	4/29/97		By					
Date Analyzed:	4/29/97		By					
	HNO3	2.5	250	E.M. Science	36355	-	-	
	Mo	25	250	IV*	L-MO01104	11/1/97	100	
SS6-042997	B	25	250	IV*	L-BO2002	5/1/98	100	0.5
Date Prepared:	4/29/97		By					
Date Analyzed:	4/29/97		By					

*IV = Inorganic Ventures

Columbia Analytical Services
Metals Digestion Sheet

Extr/Analysis Lot
MET9702149

Service Request Number(s): 3098 Redrgest

Method: CLP(ILM04.0) 3010A
3020A 3050A Other-

Analysis for: (ICP/Water) ICP/Soil ICP/TCLP
GFAA/Water GFAA/Soil Other:

Sample	Initial Weight (g)	Dry	Wet	Initial Volume(ml)	Final Volume (ml)	Matrix
3098 PBW				50	50	5%HCl
LCSW				↓	↓	↓
-1						
-2						
-2D						
-2S				↓	↓	↓
3098 LCSW Si				50	50	5%HCl
		DC				
				SD 2/19		

Lot # Acids Used: HNO3 360344 HCl 967214 H2O2 _____

LCSS (circle appropriate) ERA CLP Soil Lot # 230 EPA Lot # 0287 Other: _____

GFAA LCSW = CLPP CICV-3 (1/200 dil) Lot # L-MEB25125, _____ mls. added

ICP LCSW = CLPP CICV-1 Lot # L-MEB25121, 0.25 mls. added
CLPP CICV-2 Lot # L-MEB25149, 0.25 mls. added
CLPP CICV-3 Lot # L-MEB25125, 0.25 mls. added

Si: High Purity 690912
Exp: 2/98
Sn: CPI 690403 4125K

SPIKE INFO 0.25mL Sn, 0.5mL SSSA6

SS1- 042997, 0.5 mls added SS4- _____, _____ mls added TCLP SPK/LCS
SS2- 041697, 0.5 mls added SS5- 042997, 0.5 mls added SS1 _____ mls added
SS3- 042997, 0.5 mls added SS6- 042997, 0.5 mls added SS2 _____ mls added
Additional spikes: 0.25mL of Si, Sn
Comments: LCSW(Si) = 0.25mL of 1000ppm Si

Digests Received By: _____

Analyst _____ Date 5/21/97
Reviewer _____ Date _____

metdig.xls
11/27/96

00106

Columbia Analytical Services Inc.
1317 South 13th Avenue
Kelso, WA 98626

Metals Spike Form

Additional Spike. ☐

Service Request # 3098 Redigest
Q.C. Sample # 3098-2

Initials /Date: SC / 5/21/97

Circle type of digest: GFAA (ICP) Other:_____
Circle type of sample: Soil (Water) Other:_____

Solution Name	Element	mls of 1000ppm Std.	Final Volume	Source	Lot#	Exp. Date	Solution Conc. mg/L	Enter mls Added
	HNO3	2.5	500ml	EM Science	36355	-	-	
	Al	100	500ml	IV*	L-AL03045	5/1/98	200	
	Ba	100	500ml	IV*	L-BA01121	5/1/98	200	
	Be	2.5	500ml	CPI	690327	6/7/98	5	
	Cd	2.5	500ml	IV*	L-CD01101	11/1/97	5	
	Co	25.0	500ml	IV*	L-QC001014	9/1/97	50	
SS1-042997	Cu	12.5	500ml	CPI	690816	4/4/99	25	
	Fe	50.0	500ml	CPI	690911	4/16/99	100	
	Pb	25.0	500ml	CPI	690916	4/3/99	50	0.5
	Mn	25.0	500ml	IV*	L-MN02016	5/1/98	50	
	Ni	25.0	500ml	CPI	690503	5/21/98	50	
	V	25.0	500ml	IV*	K-V02011	11/1/97	50	
	Zn	25.0	500ml	IV*	L-ZN01118	5/1/98	50	
Date Prepared:	4/29/97		By					
Date Analyzed:	4/29/97		By					
	HCl	50.0	500ml	EM Science	36036	-	-	
SS2-041697	Sb	25.0	500ml	IV*	L-QSB01030	11/1/97	50	
	Cr	10.0	500ml	CPI	690923	4/14/99	20	0.5
Date Prepared:	4/16/97		By					
Date Analyzed:	4/16/97		By					
	HNO3	5.0	500ml	EM Science	116080	-	-	
SS3-042997	Ag	2.5	500ml	IV*	L-AG01113	5/1/98	5	0.5
Date Prepared:	4/29/97		By					
Date Analyzed:	4/29/97		By					
	HNO3	5.0	500ml	EM Science	36036	-	-	
	As	2.0	500ml	CPI	690917	4/7/99	4	
SS4-041697	Cd	0.5	500ml	IV*	L-CD01101	11/1/97	1	
	Pb	1.0	500ml	IV*	L-PB02078	11/1/97	2	
	Se	0.5	500ml	CPI	691003	4/14/99	1	
	Tl	2.5	500ml	CPI	690205	3/11/98	5	
Date Prepared:	4/16/97		By					
Date Analyzed:	4/16/97		By					
	HCL	50.0	500ml	EM Science	36318	-	-	
SS5-042997	As	100.0	500ml	CPI	690917	4/7/99	200	
	Se	50.0	500ml	CPI	691003	4/14/99	100	0.5
Date Prepared:	4/29/97		By					
Date Analyzed:	4/29/97		By					
	HNO3	2.5	250	E.M. Science	36355	-	-	
	Mo	25	250	IV*	L-MO01104	11/1/97	100	
SS6-042997	B	25	250	IV*	L-BO2002	5/1/98	100	0.5
Date Prepared:	4/29/97		By					
Date Analyzed:	4/29/97		By					

*IV = Inorganic Ventures

SPKFRM.DOC

Extr/Analysis Lot
MET9702157

COLUMBIA ANALYTICAL SERVICES, INC.
ANALYTICAL WORKSHEET

PRINTOUT WITH: 3098

Method: FAA	Service Request # : 3098
Analysis For: K	

DATA

Pos.	SAMPLE NUMBER	Initial Sample (g) or (mL)	Initial Dilution (mL)	Dilution Factor	(mg/L) Measured	Sample Actual (mg/kg)	Sample Actual (mg/L)
1	ICV	0.500 mg/L			0.498		100%
2	CCV 1	0.500 mg/L			0.487		97%
3	CCB 1			5/22/97 JC	<0.02		<0.02
4	3098 PBS	—	100	5/8 10	<0.02	<4	
5	LCSS	1.00		1/20	1.007	2010	
6	-5	0.893 (dry)		5/10	0.823	184	
7	-7	0.997		5/10x1/10	0.198	397	
8	-8	0.894		5/10x1/5	0.306	342	
9	-9	0.997		5/10x1/10	0.693	1390	
10	-10	0.998		5/10	1.071	215	
11	-11	0.919		5/10x1/5	0.465	506	
12	-12	0.930		5/10x1/2	0.625	269	
13	-13	0.941		5/10x1/5	0.438	465	
14	CCV 2	0.500 mg/L			0.491		98%
15	CCB 2				<0.02		<0.02
16	3098-14	0.925 (dry)	100	5/10x1/10	0.584	1260	
17	-15	0.806		5/10x1/2	0.467	232	
18	-16	0.979		5/10x1/2	0.491	201	
19	-17	0.892		5/10x1/10	1.042	2340	
20	-18	0.925		5/10x1/2	0.862	0372	
21	-23	0.920		5/10x1/2	0.942 JC 5/22/97	410	
22	-24	0.911		5/10x1/2	0.707	310	
23	-25	0.669		5/10	0.681	204	
24	-26	0.823		5/10x1/2	0.732	356	
25	-27	0.823		5/10x1/2	0.675	328	

Comments:

Analyst: [signature]	Date: 5/22/97	Page Number:
Reviewer	Date:	

[AA.XLW] AA1.XLS

COLUMBIA ANALYTICAL SERVICES, INC.
ANALYTICAL WORKSHEET

PRINTOUT WITH: 3098

MET9702157

Method: FAA	Service Request # : 3098
Analysis For: K	

DATA

Pos.	SAMPLE NUMBER	Initial Sample (g) or (mL)	Initial Dilution (mL)	Dilution Factor	(mg/L) Measured	Sample Actual (mg/kg)	Sample Actual (mg/L)
26	CCV 3	0.500 mg/L			0.493		99%
27	CCB 3				<0.02		<0.02
28	3098-28	0.991 (dry)	100	5/10 X 1/2	0.563	227	
29	↓ -28D	0.991 ↓	100	5/10 x 1/2	0.502	203	
30	CCV 4	0.500 mg/L			0.489		98%
31	CCB 4				<0.02		<0.02
32							
33							
34							
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Comments:

Analyst	Date: 5/22/97	Page Number: 2
Reviewer	Date:	

[AA.XLW] AA2.XLS

Varian SpectrAA 10/20 System Report

Columbia Analytical Services
1317 South 13th Street P.O. Box 479
Kelso, WA 98626 (206) 577-7222

OPERATOR
DATE 05 22 97
BATCH NO.

PROGRAM 24 K

5C
5/22/97

SAMPLE	CONC	%RSD	MEAN ABS	READINGS		
BLANK	0.000		-0.001	-0.000	-0.001	-0.001
STANDARD 1	0.200	3.0	0.078	0.077	0.076	0.081
STANDARD 2	0.500	0.7	0.183	0.182	0.183	0.184
STANDARD 3	1.000	1.1	0.343	0.342	0.348	0.341
BLANK	0.000		0.001	0.001	0.000	0.001
STANDARD 1	0.200	1.7	0.074	0.073	0.075	0.074
STANDARD 2	0.500	1.4	0.182	0.180	0.181	0.184
STANDARD 3	1.000	0.9	0.337	0.334	0.340	0.337
SAMPLE 1	0.498	1.1	0.181	0.180	0.180	0.183
SAMPLE 2	0.487	2.7	0.177	0.183	0.173	0.175
SAMPLE 3	-0.003	11.1	-0.001	-0.001	-0.001	-0.001
SAMPLE 4	0.011	10.8	0.004	0.004	0.004	0.004
SAMPLE 5	1.007	1.3	0.339	0.341	0.334	0.342
SAMPLE 6	0.823	1.4	0.286	0.289	0.287	0.282
SAMPLE 7	0.198	1.6	0.073	0.072	0.073	0.075
SAMPLE 8	0.306	0.7	0.112	0.112	0.113	0.112
SAMPLE 9	0.693	0.4	0.246	0.245	0.245	0.247
SAMPLE 10	1.071	0.9	0.357	0.360	0.354	0.358
SAMPLE 11	0.465	0.7	0.169	0.169	0.170	0.168
SAMPLE 12	0.625	0.3	0.224	0.223	0.224	0.224
SAMPLE 13	0.438	1.3	0.160	0.159	0.158	0.162
SAMPLE 14	0.491	2.0	0.178	0.182	0.176	0.176
SAMPLE 15	0.003	25.4	0.001	0.001	0.001	0.001
SAMPLE 16	0.584	1.3	0.210	0.212	0.211	0.207
SAMPLE 17	0.467	1.5	0.170	0.167	0.169	0.173
SAMPLE 18	0.491	0.4	0.178	0.178	0.179	0.178
SAMPLE 19	1.042	0.2	0.349	0.348	0.349	0.349
SAMPLE 20	0.860	1.2	0.297	0.300	0.298	0.293
SAMPLE 21	0.942	1.2	0.321	0.319	0.318	0.325
SAMPLE 22	0.707	1.1	0.250	0.248	0.253	0.249
SAMPLE 23	0.681	1.1	0.242	0.239	0.241	0.245
SAMPLE 24	0.732	0.8	0.258	0.256	0.260	0.257
SAMPLE 25	0.675	0.3	0.240	0.241	0.240	0.240
SAMPLE 26	0.493	1.8	0.179	0.175	0.181	0.181
SAMPLE 27	0.003	41.3	0.001	0.001	0.002	0.001
SAMPLE 28	0.563	1.4	0.203	0.203	0.206	0.200
SAMPLE 29	0.502	1.8	0.182	0.186	0.179	0.181
SAMPLE 30	0.489	0.3	0.178	0.178	0.178	0.177
SAMPLE 31	0.001	99.9	0.000	0.001	0.000	0.000

Metals Custom Calibration Standard / Spike Solution Data

Project: K + Na FAA Standard

Solution Name: _____

Service Request #: _____

Element	Source	Lot #	Expiration Date	Aliquot of 1000ppm Stock	Check Off	Final Volume	Concentration (µg/L)
HNO3				ml		ml	%
HCl				ml		ml	%
K	SPEX	S-41K	5/31/94	10.0 ml	✓	100 ml	100,000
Na	CPI	690410	5/24/98	1.0 ml	✓	100 ml	100,000
				ml		ml	
K+Na	100	mg/L K+Na		0.2 ml	✓	100 ml	200
K+Na	↓	↓	↓	0.5 ml	✓	100 ml	500
K+Na	↓	↓	↓	1.0 ml	✓	100 ml	1000
				ml		ml	
				ml		ml	
ICV	IV	LMEB25121	12/1/94	0.02 ml	✓	100 ml	500
				ml		ml	
				ml		ml	
				ml		ml	
				ml		ml	
				ml		ml	
				ml		ml	
				ml		ml	
				ml		ml	
				ml		ml	
				ml		ml	
				ml		ml	
				ml		ml	

Prepared By: Jim Ar Date: 3/3/94

CUSTOM.XLS

Extr/Analysis Lot
MET9702733

COLUMBIA ANALYTICAL SERVICES, INC.
ANALYTICAL WORKSHEET

PRINTOUT WITH: 3098

Method: CVAA	Service Request # :
Analysis For: Hg	3098

DATA

Pos.	SAMPLE NUMBER	Initial Sample (g) or (mL)	Initial Dilution (mL)	Dilution Factor	(µg/L) Measured	Sample Actual (mg/kg)	Sample Actual (µg/L)
1	ICV	—	—	—	4.91		98%
2	CCV 1	—	—	—	5.17		103%
3	CCB 1	—	—	—	<0.1		
4	3098-PBS	—	100	—	<0.1	~~<0.2~~ ~~<0.5~~ gm 5/29/97 <1.0	
5	-LCSS	0.384 As Read		—	8.66	2.3	
6	-5 0.22	~~0.248g~~ Dry gm 5/29/97		1/10	0.16	~~0.6~~ <	1.0
7	-7 0.3	~~0.301~~ gm 5/29/97			<0.1	~~<0.5~~	gm 5/29/97
8	-8	0.231			<0.1	<0.5	
9	-9	0.271			<0.1	<0.5	
10	-10	0.284			<0.1	<0.5	
11	-11	0.459		1/100	1.22	26.6	
12	-12	0.341		1/10	6.22	18.2	
13	-13	0.285			2.60	9.1	
14	CCV 2 (5.0)	—	—	—	5.05		101%
15	CCB 2	—	—	—	<0.1		
16	3098-14	0.224 g Dry	100	1/10	1.70	7.6	
17	-15	0.230			2.09	9.1	
18	-16	0.368			0.16	~~<1.0~~	<0.5
19	-17	0.228			2.14	9.4	
20	-18	0.269			1.89	7.0	
21	-23	0.251			0.15	~~<1.0~~	0.6
22	-24	0.249			0.14	~~<1.0~~	0.6
23	-25	0.183			0.23	1.3	
24	-26	0.218			0.58	2.7	
25	-27	0.238			0.32	1.3	

0.7
<0.5

Comments: Reporting Levels:
Waters - 0.5 µg/L
Soil - 0.2 mg/kg
TCLP - 1 µg/L

Water Spike Level : 1.0 µg/L
Soil Spike Level : 1.0 µg/L = mg/kg
TCLP Spike Level : 10.0 µg/L

Analyst Eric Moen	Date: 5/29/97	Page Number: 1
Reviewer	Date:	

COLUMBIA ANALYTICAL SERVICES, INC.
ANALYTICAL WORKSHEET

PRINTOUT WITH: 3098

Method: CVAA	Service Request # : 3098
Analysis For: Hg	

DATA

Pos.	SAMPLE NUMBER	Initial Sample (g) or (mL)	Initial Dilution (mL)	Dilution Factor	(µg/L) Measured	Sample Actual (mg/kg)	Sample Actual (µg/L)
26	CCV 3 (5.0)	—	—	—	5.10		102%
27	CCB 3	—	—	—	<0.1		
28	3098-28	0.306 g Dry	100	1/10	0.12	~~<1.0~~ <0.5	AC 6/11/97
29	-28D	0.243	↓	↓	0.11	<1.0 ↓	
30	-28S	0.309 ↓	↓	↓	1.00	3.2/100	%
31	CCV 4 (5.0)	—	—	—	4.63		93%
32	CCB 4	—	—	—	<0.1		
33							
34							
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50							

Comments: Reporting Levels:

Waters - 0.5 µg/L

Soil - 0.2 mg/kg

TCLP - 1 µg/L

Water Spike Level : 1.0 µg/L

Soil Spike Level : ~~1.0 µg/L = mg/kg~~ 10.0 µg/l = 3.2 mg/kg

TCLP Spike Level : 10.0 µg/L

GM 5/29/97

Analyst Eric Mohn	Date: 5/29/97	Page Number: 2
Reviewer	Date:	

00113

IHGFORM.XLW\ HG2.XLS

Varian SpectrAA 10/20 System Report

Columbia Analytical Services
1317 South 13th Street P.O. Box 479
Kelso, WA 98626 (206) 577-7222

OPERATOR
DATE 05 29 97
BATCH NO.

PROGRAM 22 Hg

SAMPLE	CONC	%RSD	MEAN ABS	READINGS	
BLANK	0.00		0.053	0.054	0.053
STANDARD 1	0.20	12.9	0.004	0.004	0.005
STANDARD 2	0.50	6.0	0.009	0.009	0.009
STANDARD 3	1.00	1.4	0.018	0.018	0.018
STANDARD 4	5.00	0.3	0.092	0.092	0.092
STANDARD 5	10.00	0.1	0.184	0.184	0.184
SAMPLE 1	4.91	0.5	0.090	0.090	0.090
SAMPLE 2	5.17	0.1	0.095	0.095	0.095
SAMPLE 3	0.05	78.1	0.001	0.000	0.002
SAMPLE 4	0.01	99.9	0.000	0.001	-0.000
SAMPLE 5	8.66	0.3	0.159	0.159	0.159
SAMPLE 6	0.16	12.5	0.003	0.004	0.003
SAMPLE 7	0.00	99.9	0.000	0.001	-0.001
SAMPLE 8	0.05	37.3	0.001	0.001	0.001
SAMPLE 9	0.02	99.9	0.000	0.000	0.001
SAMPLE 10	-0.02	99.9	-0.000	0.000	-0.001
SAMPLE 11	1.22	5.0	0.022	0.021	0.023
SAMPLE 12	6.22	0.0	0.114	0.114	0.114
SAMPLE 13	2.60	0.3	0.047	0.047	0.047
SAMPLE 14	5.05	0.7	0.093	0.092	0.093
SAMPLE 15	0.06	30.8	0.001	0.002	0.001
SAMPLE 16	1.70	5.4	0.031	0.032	0.030
SAMPLE 17	2.09	3.6	0.038	0.039	0.037
SAMPLE 18	0.16	7.7	0.003	0.003	0.004
SAMPLE 19	2.14	0.9	0.039	0.039	0.039
SAMPLE 20	1.89	3.6	0.034	0.033	0.035
SAMPLE 21	0.15	10.0	0.003	0.003	0.003
SAMPLE 22	0.14	21.9	0.003	0.003	0.004
SAMPLE 23	0.23	12.0	0.005	0.005	0.005
SAMPLE 24	0.58	7.4	0.011	0.010	0.011
SAMPLE 25	0.32	0.0	0.006	0.006	0.006
SAMPLE 26	5.10	0.8	0.094	0.093	0.094
SAMPLE 27	-0.00	99.9	-0.000	-0.001	0.001
SAMPLE 28	0.12	11.8	0.003	0.002	0.003
SAMPLE 29	0.11	7.8	0.002	0.003	0.002
SAMPLE 30	1.00	3.5	0.018	0.018	0.018
SAMPLE 31	4.63	0.0	0.085	0.085	0.085
SAMPLE 32	0.02	17.8	0.000	0.000	0.000

Extr/Analysis Lot
MET9702732

Columbia Analytical Services
EPA METHOD 7471A

Service Request Number(s): 3098

Sample	Wet Weight (g)	% Solids	Dry Weight (g)	Final Volume (mL)
PBS-(3098)	—	—	—	100 ml
LCSS- ↓	0.384g	(as rec'd)		
(3098- 5	0.248	89.3	0.221	
7	0.301	99.7	0.300	
8	0.258	89.4	0.231	
9	0.272	99.7	0.271	
10	0.285	99.8	0.284	
11	0.499	91.9	0.459	
12	0.367	93.0	0.341	
13	0.303	94.1	0.285	
14	0.248	90.2	0.224	
15	0.285	80.6	0.230	
16	0.376	97.9	0.368	
17	0.256	89.2	0.228	
18	0.291	92.5	0.269	
23	0.273	92.0	0.251	
24	0.273	91.1	0.249	
25	0.275	66.9	0.183	
26	0.265	82.3	0.218	
27	0.289	82.3	0.238	
28	0.309	99.1	0.306	
28D	0.245	99.1	0.243	
28S *	0.312	99.1	0.309	↓
Std. 0.2	0.2 * mL			100
Std. 0.5	0.5 * mL			100
Std. 1.0	1.0 * mL			100
Std. 5.0	5.0 * mL			100
Std. 10.0	10.0 * mL			100
ICV	0.5 ** mL			100

Lot # of Reagents Used:

HNO3: 36036 **K2S2O8: 961874** **NaCl: 954294**

H2SO4: 36331 **KMnO4: K38648** **NH2OH-HCl: 965405**

HCl: 36346 **SnCl2: K42600**

LCSS = ~~**ERA CLP Soil Lot # 230**~~ **Other:** _____

LCSW= **ICV Intermediate stock solution.**

*** Source Standard: Hg S2** _____

**** Source Standard: Hg ICV S1** _____

Comments:	* 1.0 ml of 10 mg/L Hg
Analyst Susan Moler	**Reviewer**
Date 5/29/97	**Date**

[HGFORM.XLW] 7/97

Extr/Analysis Lot
MET9702734

COLUMBIA ANALYTICAL SERVICES, INC.
ANALYTICAL WORKSHEET

PRINTOUT WITH: 3098

Method: CVAA	Service Request # :
Analysis For: Hg	3098

DATA

Pos.	SAMPLE NUMBER	Initial Sample (g) or (mL)	Initial Dilution (mL)	Dilution Factor	(µg/L) Measured	Sample Actual (mg/kg)	Sample Actual (µg/L)
1	ICV 5.0	—	—	—	5.21		104%
2	CCV 1 5.0	—	—	—	5.32		106%
3	CCB 1	—	—	—	<0.1		
4	3098-PBE1	20	20	—	0.12	sm 5/29/97	~~<10~~ <9 <8
5	-LCSE1	↓	↓	—	9.96		10/100%
6	-3	↓	↓	1/10	0.10	sm 5/29/97	~~<10~~ <9 <8
7	-3D	↓	↓	↓	<0.1	sm 5/29/97	~~<10~~ <9 <8
8	-35	↓	↓	↓	1.18		12/120%
9	-4	↓	↓	↓	<0.1	sm 5/29/97	<9 <8
10	-6	↓	↓	↓	<0.1		<9 <8
11	-19	5.0	↓	↓	OVER	Rerun	~~<9~~ sm 5/29/97
12	-19	5.0	↓	1/1000	2.47		9880
13	-20	20	↓	1/10	0.26	sm 5/29/97	<9 <8
14	CCV 2 5.0	—	—	—	5.03	101%	
15	CCB 2	—	—	—	<0.1		
16	3098-21	20	20	1/10	<0.2	sm 5/29/97	<9 <8
17	-22	↓	↓	↓	<0.2		<9
18	-29	↓	↓	↓	<0.2		<9
19	-30	↓	↓	↓	<0.2		<9
20	-PBE2	↓	↓	—	<0.3		<9 ↓
21	-LCSE2	↓	↓	—	9.96		10/100%
22	-5	↓	↓	1/10	<0.2	sm 5/29/97	<9 <8
23	-5D	↓	↓	↓	<0.3		<9 ↓
24	-55	↓	↓	↓	0.85		8/80%
25	-7	↓	↓	↓	<0.3		<8

Comments: Reporting Levels:
Waters - 0.5 µg/L
Soil - 0.2 mg/kg
TCLP - 1 µg/L

Water Spike Level : 1.0 µg/L
Soil Spike Level : 1.0 µg/L = mg/kg
TCLP Spike Level : 10.0 µg/L

Analyst	Eric Mohn	Date: 5/29/97	Page Number: 1
Reviewer		Date:	

00116

COLUMBIA ANALYTICAL SERVICES, INC. PRINTOUT WITH: 3098
ANALYTICAL WORKSHEET

Method: CVAA	Service Request # :
Analysis For: Hg	3098

DATA

Pos.	SAMPLE NUMBER	Initial Sample (g) or (mL)	Initial Dilution (mL)	Dilution Factor	(µg/L) Measured	Sample Actual (mg/kg)	Sample Actual (µg/L)
26	CCV 3 5.0	—	—	—	4.82	96%	
27	CCB 3	—	—	—	<0.2		
28	3098-8	20	20	1/10	0.39		<8
29	-9	↓	↓	↓	<0.2		<8
30	-10				<0.2		<8
31	-11				<0.2		<8
32	-12				<0.2		<8
33	-13				<0.2		<8
34	-14				<0.2		<8
35	-15				<0.2		<8
36	-16				<0.2		<8
37	-17	↓	↓	↓	7.45		74
38	CCV 4 5.0	—	—	—	4.96	99%	
39	CCB 4	—	—	—	<0.1		
40	3098-18	20	20	1/10	<0.2		<2
41	-23	10		1/10	OVER		RERUN
42	-23	↓		1/20	7.00		280
43	-25	20		1/10	<0.2		<2
44	-26	↓	↓	↓	1.04		10
45	-27				0.73		<8
46	-PBE3			—	<0.2		<2
47	-LCSE3	↓	↓	—	9.75		10/100%
48	CCV 5 (5.0)	—	—	—	4.99	100%	
49	CCB 5	—	—	—	<0.2		
50	3098-24	20	20	1/10	0.76	8	~~<8~~ 4 5/31/97

Comments: Reporting Levels:

Waters - 0.5µg/L
Soil - 0.2 mg/kg
TCLP - 1 µg/L

Water Spike Level : 1.0 µg/L
Soil Spike Level : 1.0 µg/L = mg/kg
TCLP Spike Level : 10.0 µg/L

Analyst Eric Molen	Date: 5/29/97	Page Number: 2
Reviewer	Date:	

00117

COLUMBIA ANALYTICAL SERVICES, INC.
ANALYTICAL WORKSHEET

PRINTOUT WITH: 3098

Method: CVAA	Service Request # :
Analysis For: Hg	3098

DATA

Pos.	SAMPLE NUMBER	Initial Sample (g) or (mL)	Initial Dilution (mL)	Dilution Factor	(µg/L) Measured	Sample Actual (mg/kg)	Sample Actual (µg/L)
51	3098-24D	20	20	1/10	0.62	6	~~<8 0.06~~
52	-24S	↓	↓	↓	1.49		15/~~<80~~ 70
53	-28	↓	↓	↓	<0.2		~~<8~~ 4
54	CCV 6 (5.0)	—	—	—	4.72	94%	
55	CCB 6	—	—	—	<0.1		
56							
57							
58							
59							
60							
61							
62							
63							
64							
65							
66							
67							

Comments: Reporting Levels:

Waters - 0.5 µg/L

Soil - 0.2 mg/kg

TCLP - 1 µg/L

Water Spike Level : 1.0 µg/L

Soil Spike Level : 1.0 µg/L = mg/kg

TCLP Spike Level : 10.0 µg/L

Analyst	Date:	Page Number:
Reviewer	Date:	

[HGFORM.XLW] HG3.XLS

00118

Varian SpectrAA 10/20 System Report

Columbia Analytical Services
1317 South 13th Street P.O. Box 479
Kelso, WA 98626 (206) 577-7222

OPERATOR Eric Mohr
DATE 05 29 97
BATCH NO.

PROGRAM 22 Hg

SAMPLE	CONC	%RSD	MEAN ABS	READINGS	
BLANK	0.00		0.051	0.051	0.051
STANDARD 1	0.20	4.8	0.003	0.003	0.002
BLANK	0.00		0.001	0.001	0.001
STANDARD 1	0.20	35.4	0.002	0.002	0.003
BLANK	0.00		-0.000	-0.000	-0.001
STANDARD 1	0.20	14.0	0.003	0.003	0.003
STANDARD 2	0.50	0.0	0.008	0.008	0.008
STANDARD 3	1.00	3.7	0.015	0.015	0.015
STANDARD 4	5.00	0.2	0.086	0.086	0.086
STANDARD 5	10.00	0.4	0.175	0.175	0.176
SAMPLE 1	5.21	0.6	0.090	0.089	0.090
SAMPLE 2	5.32	1.1	0.092	0.091	0.092
SAMPLE 3	0.06	69.5	0.001	0.001	0.000
SAMPLE 4	0.12	19.8	0.002	0.002	0.002
SAMPLE 5	9.96	0.5	0.175	0.174	0.175
SAMPLE 6	0.10	0.0	0.002	0.001	0.002
SAMPLE 7	0.09	17.2	0.001	0.002	0.001
SAMPLE 8	1.18	4.5	0.018	0.018	0.017
SAMPLE 9	0.08	44.7	0.001	0.002	0.001
SAMPLE 10	0.05	73.2	0.001	0.001	0.000
SAMPLE 11	OVER	0.2	1.730	1.732	1.728
SAMPLE 12	2.47	0.3	0.039	0.039	0.039
SAMPLE 13	0.26	10.1	0.004	0.004	0.004
SAMPLE 14	5.03	1.3	0.087	0.086	0.087
SAMPLE 15	-0.09	0.0	-0.001	-0.001	-0.001
SAMPLE 16	-0.09	10.4	-0.001	-0.001	-0.002
SAMPLE 17	-0.05	23.9	-0.001	-0.001	-0.001
SAMPLE 18	-0.11	0.0	-0.002	-0.002	-0.002
SAMPLE 19	-0.19	14.8	-0.003	-0.003	-0.003
SAMPLE 20	-0.27	15.5	-0.004	-0.004	-0.005
SAMPLE 21	9.96	0.1	0.175	0.175	0.175
SAMPLE 22	-0.16	10.7	-0.002	-0.003	-0.002
SAMPLE 23	-0.22	28.6	-0.003	-0.003	-0.004
SAMPLE 24	0.85	0.5	0.013	0.013	0.013
SAMPLE 25	-0.20	27.9	-0.003	-0.004	-0.002
SAMPLE 26	4.82	1.2	0.082	0.082	0.083
SAMPLE 27	-0.14	16.8	-0.002	-0.002	-0.003
BLANK	0.00		-0.003	-0.003	-0.003
SAMPLE 28	0.39	11.1	0.006	0.006	0.007
SAMPLE 29	0.10	23.4	0.002	0.002	0.001
SAMPLE 30	-0.02	88.2	-0.000	-0.000	-0.001
SAMPLE 31	-0.03	99.9	-0.001	-0.001	0.000
SAMPLE 32	-0.09	7.3	-0.001	-0.002	-0.001

Em 5/29/97

SAMPLE	CONC	%RSD	MEAN ABS	READINGS	
SAMPLE 33	-0.05	0.0	-0.001	-0.001	-0.001
SAMPLE 34	-0.08	26.0	-0.001	-0.001	-0.001
SAMPLE 35	-0.13	9.8	-0.002	-0.002	-0.002
SAMPLE 36	-0.04	99.9	-0.001	-0.000	-0.001
SAMPLE 37	7.45	0.1	0.129	0.130	0.129
SAMPLE 38	4.96	0.5	0.085	0.085	0.085
SAMPLE 39	0.06	22.7	0.001	0.001	0.001
SAMPLE 40	-0.04	17.5	-0.001	-0.001	-0.001
SAMPLE 41	OVER	1.1	0.258	0.260	0.256
SAMPLE 42	7.00	0.4	0.121	0.121	0.122
SAMPLE 43	0.06	99.9	0.001	0.000	0.002
SAMPLE 44	1.04	0.0	0.016	0.016	0.016
SAMPLE 45	0.73	0.0	0.011	0.011	0.011
SAMPLE 46	-0.01	97.2	-0.000	-0.000	-0.000
SAMPLE 47	9.75	0.4	0.171	0.170	0.171
SAMPLE 48	4.99	0.1	0.086	0.086	0.086
SAMPLE 49	0.11	9.0	0.002	0.002	0.002
SAMPLE 50	0.76	1.6	0.012	0.011	0.012
SAMPLE 51	0.62	3.3	0.010	0.010	0.009
SAMPLE 52	1.49	1.2	0.023	0.023	0.022
SAMPLE 53	-0.07	78.6	-0.001	-0.002	-0.000
SAMPLE 54	4.72	2.0	0.080	0.079	0.081
SAMPLE 55	-0.07	5.8	-0.001	-0.001	-0.001

Eric Molen
5/29/97
Hg

Columbia Analytical Services
EPA METHOD 7470A

Extr/Analysis Lot
MET9702226

Service Request Number(s) : 3098

Sample	Initial Volume	Final Volume	Sample	Initial Volume	Final Volume
PBE1-(3098)	20ml	20ml	3098-25	20ml	20ml
LCSE1- ↓ *	↓	↓	26	↓	↓
3098-3			27		
3D			PBE2-(3098)		
3S*			LCSE3- ↓ *		
4	↓		3098-24		
16			24D		
19	5.0ml		24S*		
20	20ml		28		
21	↓		↓	↓	↓
22					
29					
↓ 30					
PBE2-(3098)					
LCSE2- ↓ *					
3098-5					
5D					
5S*					
7					
8					
9					
10					
11					
12					
13					
14			Std. 0.2	0.2 *	100
15			Std. 0.5	0.5 *	100
16			Std. 1.0	1.0 *	100
17			Std. 5.0	5.0 *	100
18	↓		Std. 10.0	10.0 *	100
↓ 23	10ml	↓	ICV	0.5 **	100

5/22/97

Lot # of Reagents Used:

HNO3: 36036 **K2S2O8: 961874** **NaCl: 954294**

H2SO4: 36331 **KMnO4: K38648** **NH2OH-HCl: 965405**

HCl: 36346 **SnCl2: K42600**

LCSS = **ERA CLP Soil Lot # 230** **Other:** _____

LCSW= **ICV Intermediate stock solution.**

*** Source Standard: Hg S2** 052297

**** Source Standard: Hg ICV S1** 050197

Comments: * 200µl HgTCLPS2052297

Analyst Chrystal Bond **Reviewer**

Date 5/22/97 **Date**

[HGFORM.XLW] 7470

Extr/Analysis Lot
MET9702142

COLUMBIA ANALYTICAL SERVICES, INC.
ANALYTICAL WORKSHEET

PRINTOUT WITH: 3098

Method: CVAA	Service Request # :
Analysis For: Hg	3098, 2910, 3299, 3258, 3328, 3185, 3238, 3236

DATA

Pos.	SAMPLE NUMBER	Initial Sample (g) or (mL)	Initial Dilution (mL)	Dilution Factor	(µg/L) Measured	Sample Actual (mg/kg)	Sample Actual (µg/L)
1	ICV	5.0µg/L			4.95		99%
2	CCV X 7	5.0µg/L			5.05		101%
3	CCB X 7				<0.2		<0.2
4	PBW-(3098/2910/3299/3258/3328/3185/3238/3236)				<0.1		<0.1
5	LCSW- ↓	20ml	20ml		5.01		5.0/100%
6	3098- 1				<0.1		<0.1
7	2				<0.1		<0.1
8	2D				<0.1		<0.1
9	↓ 2S				0.96		1.0/100%
10	2910- 1				<0.1		<0.1
11	2				<0.1		<0.1
12	↓ 3				<0.1		<0.1
13	3299- 1	↓	↓		<0.1		<0.5
14	CCV X 8	5.0µg/L			4.94		99%
15	CCB X 8				<0.1		<0.1
16	3299- 1D	20ml	20ml		<0.1		<0.5
17	↓ 1S				0.89		0.9/90%
18	3258- 1				<0.1		<0.5
19	1D				<0.1		<0.5
20	↓ 1S	↓			0.82		0.8/80%
21	3328- 1	5.0ml			1.64		6.6
22	2				1.52		6.1
23	↓ 3	↓			1.54		6.2
24	3185- 1	20ml			<0.1		<0.5
25	3238- 1	↓	↓		0.60		0.6

Comments: Reporting Levels:

Waters - 0.5 µg/L

Soil - 0.2 mg/kg

TCLP - 1 µg/L

Water Spike Level : 1.0 µg/L

Soil Spike Level : 1.0 µg/L = mg/kg

TCLP Spike Level : 10.0 µg/L

Analyst: Chrystal Bair	Date: 5/19/97	Page Number:
Reviewer: B	Date: 5/20/97	

00122

MET9702142

COLUMBIA ANALYTICAL SERVICES, INC. PRINTOUT WITH: 3098
ANALYTICAL WORKSHEET

Method: CVAA	Service Request # : 3236
Analysis For: Hg	

DATA

Pos.	SAMPLE NUMBER	Initial Sample (g) or (mL)	Initial Dilution (mL)	Dilution Factor	(µg/L) Measured	Sample Actual (mg/kg)	Sample Actual (µg/L)
26	CCV 3	5.0µg/L			4.89		98%
27	CCB 3				<0.1		<0.1
28	3236-1	20ml	20ml		0.64		0.6
29	↓ 2	↓	↓		0.49		<0.5
30	CCV 4	5.0µg/L			4.83		97%
31	CCB 4				<0.1		<0.1
32							
33							
34							
35							
36							
37							
38							
39							
40							
41							
42							
43							
44							
45							
46							
47							
48							
49							
50							

Comments: Reporting Levels:
Waters - 0.5µg/L
Soil - 0.2 mg/kg
TCLP - 1 µg/L

Water Spike Level : 1.0 µg/L
Soil Spike Level : 1.0 µg/L = mg/kg
TCLP Spike Level : 10.0 µg/L

Analyst: Crystal Baird	Date: 5/19/97	Page Number:
Reviewer	Date:	

00123

Varian SpectrAA 10/20 System Report

Columbia Analytical Services
1317 South 13th Street P.O. Box 479
Kelso, WA 98626 (206) 577-7222

OPERATOR
DATE 05 19 97
BATCH NO.

PROGRAM 22 Hg

SAMPLE	CONC	%RSD	MEAN ABS	READINGS	
BLANK	0.00		-0.000	-0.000	-0.000
STANDARD 1	0.20	1.3	0.005	0.005	0.005
STANDARD 2	0.50	3.5	0.011	0.011	0.011
STANDARD 3	1.00	1.4	0.021	0.020	0.021
STANDARD 4	5.00	0.7	0.095	0.095	0.096
STANDARD 5	10.00	0.9	0.187	0.186	0.188
SAMPLE 1	4.95	0.0	0.095	0.094	0.095
SAMPLE 2	5.05	0.1	0.096	0.096	0.096
SAMPLE 3	0.10	6.1	0.002	0.002	0.003
BLANK	0.00		0.001	0.002	0.001
SAMPLE 4	0.09	10.8	0.002	0.002	0.002
SAMPLE 5	5.01	0.7	0.095	0.095	0.096
SAMPLE 6	0.08	35.0	0.002	0.002	0.001
SAMPLE 7	0.03	0.0	0.001	0.001	0.001
SAMPLE 8	0.06	36.4	0.001	0.001	0.002
SAMPLE 9	0.96	1.5	0.020	0.020	0.020
SAMPLE 10	0.03	14.3	0.001	0.001	0.001
SAMPLE 11	0.01	99.9	0.000	0.001	0.000
SAMPLE 12	-0.03	8.1	-0.001	-0.001	-0.001
SAMPLE 13	-0.00	99.9	-0.000	0.000	-0.000
SAMPLE 14	4.94	0.1	0.094	0.094	0.094
SAMPLE 15	-0.01	72.9	-0.000	-0.000	-0.000
SAMPLE 16	-0.02	28.3	-0.000	-0.000	-0.000
SAMPLE 17	0.89	0.9	0.018	0.018	0.019
SAMPLE 18	-0.02	52.4	-0.001	-0.001	-0.000
SAMPLE 19	-0.02	18.5	-0.001	-0.000	-0.001
SAMPLE 20	0.82	2.2	0.017	0.017	0.017
SAMPLE 21	1.64	0.8	0.033	0.033	0.033
SAMPLE 22	1.52	1.4	0.031	0.031	0.031
SAMPLE 23	1.54	1.5	0.031	0.032	0.031
SAMPLE 24	-0.00	99.9	-0.000	0.000	-0.001
SAMPLE 25	0.60	2.4	0.013	0.013	0.013
SAMPLE 26	4.89	1.9	0.093	0.092	0.095
SAMPLE 27	0.00	0.0	0.000	0.000	0.000
SAMPLE 28	0.64	2.7	0.014	0.014	0.014
SAMPLE 29	0.49	5.5	0.011	0.010	0.011
SAMPLE 30	4.83	1.6	0.092	0.091	0.093

Columbia Analytical Services
EPA METHOD 7470A

Extr/Analysis Lot
MET9702141

Service Request Number(s) :
3098, 2910, 3299, 3258, 3328, 3185, 3238, 3236,

Sample	Initial Volume	Final Volume	Sample	Initial Volume	Final Volume
PBW-(3098/2910/3299/3258/3328/3185/3238/3236)					
LCSW- ↓	20 ml	20 ml			
3098- 1					
2					
2D					
2S *					
2910 - 1					
2					
3					
3299- 1					
1D					
1S *					
3258- 1					
1D					
1S *	↓				
3328- 1	5.0 ml				
2	↓				
3	↓				
3185- 1	20 ml				
3238- 1					
3236- 1					
2	↓	↓			
			Std. 0.2	0.2 *	100
			Std. 0.5	0.5 *	100
			Std. 1.0	1.0 *	100
			Std. 5.0	5.0 *	100
			Std. 10.0	10.0 *	100
			ICV	0.5 **	100

JB 5/19/97

Lot # of Reagents Used:

HNO3: 36036 **K2S2O8:** 961874 **NaCl:** 954294

H2SO4: 36331 **KMnO4:** K38648 **NH2OH-HCl:** 965405

HCl: 36346 **SnCl2:** K42600

LCSS = **ERA CLP Soil Lot # 230** **Other:** _____

LCSW= 100 ml **ICV Intermediate stock solution.**

*** Source Standard:** Hg S2 051997

**** Source Standard:** Hg ICV S1 050197

Comments: * 200 ml HgS2051997

Analyst Chrystal Baird **Reviewer**

Date 5/19/97 **Date**

[HGFORM.XLW] 7470

Method: CUMNCD Sample Name: CUMNCD Operator: WM
Run Time: 05/21/97 09:13:55
Comment: MET9702502
Mode: IR Corr. Factor: 1

Elem	Cd2288	Mn2576
Avge	662.1	.8793
SDev	4.1	.0023
%RSD	.6143	.2585
#1	660.0	.8759
#2	663.0	.8784
#3	666.0	.8789
#4	657.0	.8827
#5	655.0	.8835
#6	662.0	.8801
#7	663.0	.8785
#8	669.0	.8782
#9	664.0	.8790
#10	662.0	.8780

IntStd	1	2	3	4	5	6	7
Mode	*Counts	None	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Cu	--	--	--	--	--	--
Wavlen	324.754	--	--	--	--	--	--
Avge	1366	1	--	--	--	--	--
SDev	10.46900	.0000000	--	--	--	--	--
%RSD	.7666228	.0000000	--	--	--	--	--
#1	1378	1	--	--	--	--	--
#2	1373	1	--	--	--	--	--
#3	1379	1	--	--	--	--	--
#4	1356	1	--	--	--	--	--
#5	1348	1	--	--	--	--	--
#6	1368	1	--	--	--	--	--
#7	1366	1	--	--	--	--	--
#8	1371	1	--	--	--	--	--
#9	1364	1	--	--	--	--	--
#10	1353	1	--	--	--	--	--

Method: EPACLP1 Standard: STD1-Blank

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Avge	.0175	.0001	-.0004	.0039	.0011	.0037	.0001
#1	.0179	.0001	.0003	.0040	.0011	.0037	.0003
#2	.0171	.0000	-.0011	.0039	.0011	.0037	.0000

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Avge	-.0017	.0003	-.0001	.0012	.0254	-.0004	.0001
#1	-.0019	.0006	.0000	.0013	.0254	-.0011	.0001
#2	-.0014	.0000	-.0003	.0011	.0254	.0003	.0001

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Avge	.0006	.0001	.0001	-.0001	.2911	.0017	-.0010
#1	0013	.0000	.0003	-.0006	.2903	.0019	-.0009
#2	.0000	.0001	-.0001	.0004	.2920	.0016	-.0011

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Avge	.0736	.0011	.0002	.0004	.0338	.0111	.0011
#1	.0733	.0006	.0003	.0006	.0341	.0116	.0011
#2	.0740	.0017	.0001	.0003	.0334	.0106	.0011

Elem	Tl1908	Li6707	Sr4215
Avge	-.0007	.0214	-.0001
#1	-.0007	.0214	-.0001
#2	-.0007	.0214	-.0001

Method: EPACLP1 Standard: STD2

Elem	Sb2068	Ba4934	Cd2288	Cr2677	Ni2316	K_7665	Ag3280
Avge	1.161	.1944	.1281	2.902	.1111	1.132	.2065
#1	1.155	.1931	.1281	2.890	.1101	1.127	.2054
#2	1.168	.1956	.1280	2.913	.1121	1.137	.2076

Elem	Na5889
Avge	11.98
#1	11.90
#2	12.06

Method: EPACLP1 Standard: STD4

Elem	B_2496	Sn1899	P_2149	Si2881	Tl1908	Li6707	Sr4215
Avge	.4153	4.827	1.889	2.455	.3529	1.569	4.106
#1	.4131	4.801	1.871	2.439	.3506	1.558	4.075
#2	.4174	4.853	1.908	2.471	.3553	1.581	4.136

Method: EPACLP1 Standard: STD3

Elem	Al3082	As1936	Be3130	Ca3179	Co2286	Cu3247	Fe2599
Avge	1.860	.4222	.2728	1.761	.1291	.2541	2.824
#1	1.864	.4240	.2733	1.763	.1291	.2540	2.828
#2	1.857	.4204	.2723	1.759	.1291	.2543	2.820

Elem	Pb2203	Mg2795	Mg3832	Mn2576	Mo2020	Se1960	V_2924
Avge	1.397	2.602	.2098	.2424	.1151	.3714	.2041
#1	1.396	2.605	.2093	.2429	.1156	.3709	.2043
#2	1.397	2.599	.2103	.2419	.1146	.3719	.2040

Elem	Zn2138	Ti3349
Avge	.6376	.2887
#1	.6380	.2894
#2	.6373	.2880

Method: EPACLP1 Sample Name: ICV Operator: WM
Run Time: 05/21/97 09:34:45
Comment: MET9702502
Mode: CONC Corr. Factor: 1

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.186	2.493	2.562	5.195	.1277	.0110	1.324
#1	5.218	2.507	2.590	5.241	.1284	.0127	1.328
#2	5.153	2.480	2.534	5.150	.1269	.0093	1.321

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	13.08	.5150	1.302	.6592	2.598	2.618	12.87
#1	13.15	.5170	1.313	.6657	2.621	2.631	12.96
#2	13.01	.5131	1.291	.6527	2.575	2.605	12.77

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	12.97	1.294	5.136	1.305	13.25	2.574	.6423
#1	13.02	1.303	5.177	1.314	13.24	2.577	.6441
#2	12.92	1.285	5.096	1.296	13.25	2.571	.6406

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	12.81	-.0148	1.276	1.320	.1716	.0433	-.0000
#1	12.92	-.0228	1.286	1.327	.1751	.0435	-.0000
#2	12.71	-.0068	1.267	1.312	.1681	.0430	-.0000

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	2.549	.0106	.0023
#1	2.517	.0111	.0024
#2	2.581	.0102	.0021

Method: EPACLP1 Sample Name: ICV-STD4 Operator: WM
Run Time: 05/21/97 09:37:05
Comment: MET9702502
Mode: CONC Corr. Factor: 1

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0035	-.0074	.0090	.0026	.0003	5.021	-.0010
#1	-.0004	-.0098	.0028	.0026	.0003	4.964	-.0004
#2	.0074	-.0050	.0152	.0026	.0003	5.078	-.0016

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0160	.0005	-.0457	.0026	.0100	.0104	.0102
#1	.0152	.0002	-.0457	.0028	.0102	.0114	.0099
#2	.0168	.0007	-.0458	.0023	.0097	.0093	.0104

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0069	.0009	.0050	.0058	-.1317	.0070	.0014
#1	-.0651	.0003	.0056	.0071	-.0765	-.0030	.0007
#2	.0513	.0015	.0043	.0046	-.1870	.0170	.0021

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	16.21	4.889	.0002	.0033	5.006	4.736	5.090
#1	16.14	4.882	-.0005	.0045	5.025	4.715	5.072
#2	16.28	4.897	.0009	.0022	4.986	4.757	5.108

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	.0001	5.120	5.011
#1	.0001	5.100	4.991
#2	.0001	5.140	5.032

Method: EPACLP1 Sample Name: CCV1 Operator: WM
Run Time: 05/21/97 09:39:26
Comment: MET9702502
Mode: CONC Corr. Factor: 1

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.025	4.930	2.027	.4996	.4993	.0190	.5022
#1	5.018	4.917	2.019	.4985	.4980	.0242	.5050
#2	5.032	4.943	2.035	.5007	.5007	.0138	.4993

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.032	5.002	.5035	.5097	5.102	5.005	5.043
#1	5.017	4.996	.5024	.5086	5.086	5.005	5.035
#2	5.046	5.009	.5046	.5109	5.119	5.004	5.051

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.055	.4980	.5044	.5035	24.80	2.017	.5016
#1	5.065	.4968	.5044	.5048	24.67	1.983	.5006
#2	5.044	.4992	.5044	.5023	24.93	2.050	.5027

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	25.03	-.0119	.5003	2.532	.0683	.0146	.5067
#1	24.97	-.0099	.4996	2.530	.1088	.0137	.5047
#2	25.10	-.0139	.5010	2.534	.0278	.0155	.5087

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	-.0079	.0069	.0028
#1	.0063	.0055	.0028
#2	-.0221	.0083	.0028

Method: EPACLP1 Sample Name: STD4-CCV1 Operator: WM
Run Time: 05/21/97 09:41:28
Comment: MET9702502
Mode: CONC Corr. Factor: 1

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0199	-.0430	.0091	.0004	-.0000	10.05	-.0009
#1	.0176	-.0430	.0043	.0004	.0000	10.05	-.0015
#2	.0222	-.0429	.0139	.0004	-.0000	10.05	-.0004

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0223	.0059	-.1881	.0000	.0064	.0140	.0055
#1	.0213	.0039	-.1893	.0003	.0066	.0048	.0060
#2	.0233	.0079	-.1870	-.0003	.0061	.0232	.0049

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0377	.0003	.0012	.0080	-.0085	-.0190	-.0007
#1	-.1199	.0003	-.0006	.0060	-.0935	-.0383	-.0014
#2	.0445	.0003	.0031	.0099	.0765	.0003	.0000

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0663	19.77	.0007	.0039	50.12	9.964	.0030
#1	.0693	19.82	-.0010	.0045	50.17	9.985	.0030
#2	.0633	19.72	.0025	.0033	50.07	9.943	.0030

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	10.09	10.03	10.01
#1	10.10	10.09	10.07
#2	10.08	9.960	9.959

Method: EPACLP1 Sample Name: CCB1 Operator: WM
Run Time: 05/21/97 09:45:22
Comment: MET9702502
Mode: CONC Corr. Factor: 1

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0027	.0055	-.0069	-.0004	.0000	.0052	-.0010
#1	.0043	.0043	-.0000	-.0004	.0000	.0069	-.0011
#2	.0012	.0067	-.0138	-.0004	.0000	.0035	-.0010

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0018	.0002	.0011	-.0006	-.0010	.0123	.0014
#1	.0014	.0010	.0011	-.0008	-.0010	.0133	.0016
#2	.0022	-.0005	.0011	-.0003	-.0010	.0113	.0011

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0445	.0003	-.0012	-.0013	-.5737	-.0093	.0007
#1	-.0171	.0003	-.0019	.0032	-.6374	.0031	.0007
#2	-.0719	.0003	-.0006	-.0058	-.5099	-.0216	.0007

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0048	.0036	-.0017	.0006	-.0172	.0088	-.0000
#1	-.0045	.0089	-.0011	.0011	-.0635	.0091	-.0000
#2	-.0051	-.0018	-.0024	.0000	.0291	.0085	-.0000

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	-.0404	.0032	.0026
#1	-.0606	.0037	.0031
#2	-.0202	.0028	.0021

Method: EPACLP1 Sample Name: MRL STD Operator: WM
Run Time: 05/21/97 09:47:19
Comment: MET9702502
Mode: CONC Corr. Factor: 1

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1052	.1012	.1977	.0094	.0100	.0017	.0068
#1	.1067	.1018	.1942	.0094	.0100	-.0000	.0069
#2	.1036	.1006	.2012	.0094	.0100	.0035	.0068

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1029	.0098	.0189	.0195	.0416	.1075	.0214
#1	.1023	.0113	.0189	.0195	.0418	.1086	.0214
#2	.1035	.0083	.0189	.0195	.0413	.1065	.0214

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0138	.0106	-.0006	.0430	3.531	.2014	.0190
#1	.0170	.0103	-.0006	.0404	3.451	.2022	.0187
#2	-.0446	.0109	-.0006	.0456	3.612	.2006	.0194

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.2022	-.0038	.0195	.0200	-.0391	.0038	.0005
#1	.2007	.0025	.0209	.0200	-.0488	.0067	.0010
#2	.2037	-.0100	.0181	.0200	-.0294	.0009	-.0000

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	-.0323	.0023	.0016
#1	-.0323	.0028	.0017
#2	-.0323	.0018	.0014

Method: EPACLP1 Sample Name: ICSA Operator: WM
Run Time: 05/21/97 09:51:22
Comment: MET9702502
Mode: CONC Corr. Factor: 1

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	498.5	.0018	-.0242	.0045	-.0000	.0005	-.0022
#1	495.6	-.0073	-.0328	.0041	-.0000	.0036	-.0015
#2	501.5	.0109	-.0156	.0049	-.0000	-.0026	-.0028

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	476.8	-.0001	.0003	.0107	177.9	-.0217	283.0
#1	473.7	-.0002	.0013	.0095	176.8	-.0197	281.9
#2	480.0	-.0001	-.0008	.0119	179.0	-.0238	284.2

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	489.6	.0260	-.0081	-.0180	-1.181	-.5305	.0042
#1	486.3	.0260	-.0108	-.0148	-1.147	-.4525	.0044
#2	492.8	.0260	-.0055	-.0212	-1.215	-.6085	.0040

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0996	.0209	.0097	.0119	.1004	.1111	.0149
#1	.1011	.0186	.0110	.0109	.1851	.1061	.0149
#2	.0981	.0233	.0084	.0129	.0157	.1160	.0149

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	.1759	.0978	.0080
#1	.1977	.0969	.0080
#2	.1541	.0987	.0080

Method: EPACLP1 Sample Name: ICSAB Operator: WM
Run Time: 05/21/97 09:53:31
Comment: MET9702502
Mode: CONC Corr. Factor: 1

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	495.1	.9741	.0233	.4906	.4754	.0117	.9120
#1	492.9	.9820	.0023	.4880	.4728	.0179	.9144
#2	497.3	.9661	.0444	.4932	.4781	.0055	.9096

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	477.4	.4470	.4397	.4962	177.4	.8995	283.9
#1	475.6	.4482	.4397	.4908	176.6	.8784	283.7
#2	479.2	.4458	.4398	.5016	178.1	.9206	284.1

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	487.4	.4746	.9108	.8929	-.9221	-.5543	.9277
#1	485.0	.4724	.9082	.8826	-.7989	-.5486	.9241
#2	489.8	.4769	.9134	.9032	-1.045	-.5600	.9312

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.3324	.0082	.4762	.9106	.1850	.5793	.0159
#1	.3321	.0036	.4737	.9040	.1891	.5772	.0159
#2	.3327	.0128	.4786	.9172	.1809	.5813	.0159

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	.1388	.0983	.0078
#1	.0785	.1006	.0077
#2	.1991	.0960	.0080

Method: EPACLP1 Sample Name: Method Blank Operator: WM
Run Time: 05/21/97 10:37:48
Comment: PBS 3098 5/10 DILUTION MET9702502
Mode: CONC Corr. Factor: 200

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.552	L-.7444	L-2.237	.0750	L-.0010	5.551	.0270
#1	2.250	L-1.107	L-1.689	.0750	L-.0008	4.855	.0218
#2	.8530	L-.3823	L-2.786	.0750	L-.0013	6.246	.0322

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.431	.8368	.2201	L-.1126	3.727	4.907	1.208
#1	2.877	.8861	.2235	L-.1690	3.676	5.520	1.208
#2	1.985	.7875	.2166	L-.0562	3.778	4.294	1.208

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.784	.0598	L.0005	L-.3857	25.50	4.633	L-.1360
#1	10.26	.0598	L-.1235	.8988	35.70	1.855	L-.1363
#2	L-.6947	.0599	.1245	L-1.670	15.30	7.410	L-.1357

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	14.22	3.204	.2757	.4493	1.503	18.88	L-.0000
#1	13.62	2.257	.2045	.4447	1.101	18.65	L-.0000
#2	14.82	4.151	.3469	.4540	1.906	19.11	L-.0000

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	L-.8193	1.938	.0696
#1	1.605	2.030	.0696
#2	L-3.243	1.846	.0696

Method: EPACLP1 Sample Name: LCSS Operator: WM
Run Time: 05/21/97 10:42:22
Comment: LCSS 3098 5/10 DILUTION MET9702502
Mode: CONC Corr. Factor: 200

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	6380.	27.03	67.56	268.7	85.36	84.86	74.64
#1	6367.	27.03	68.50	268.0	85.09	83.83	74.07
#2	6393.	27.02	66.61	269.4	85.62	85.89	75.21

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2622.	72.54	96.10	57.17	13760.	112.1	1734.
#1	2618.	72.64	96.10	57.00	13740.	112.9	1731.
#2	2625.	72.44	96.09	57.34	13790.	111.4	1737.

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960 *	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1790.	230.6	140.4	161.7	2126.	L25.23	74.53
#1	1795.	230.2	140.5	163.1	2098.	L28.29	74.53
#2	1785.	231.0	140.2	160.3	2155.	L22.17	74.53

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	442.0	97.85	139.1	109.0	903.7	1068.	385.6
#1	443.7	108.6	138.9	108.6	895.4	1070.	386.1
#2	440.2	87.08	139.2	109.3	912.0	1066.	385.1

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	60.78	9.320	73.10
#1	58.03	9.228	72.86
#2	63.54	9.413	73.34

* Se corrected for Fe interference = 89.90

Method: EPACLP1 Sample Name: Amarillo Brick Operator: WM
Run Time: 05/21/97 10:49:02
Comment: 3098-28 5/10 DILUTION MET9702502
Mode: CONC Corr. Factor: 200

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H11930.	H4374.	H2028.	H3953.	.5105	H4496.	1.431
#1	H12030.	H4410.	H2046.	H3984.	.5614	H4517.	1.234
#2	H11840.	H4338.	H2009.	H3923.	.4597	H4475.	1.628

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H14680.	H1223.	33.56	H15690.	H6183.	H8241.	H33690.
#1	H14800.	H1231.	34.03	H15770.	H6231.	H8307.	H33900.
#2	H14570.	H1215.	33.09	H15610.	H6135.	H8176.	H33490.

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H44590.	69.89	4.079	H1063.	218.4	H23580.	H322.1
#1	H44870.	70.43	4.458	H1075.	234.6	H23710.	H324.3
#2	H44300.	69.35	3.701	H1051.	202.3	H23450.	H319.9

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H35240.	H812.1	H73.60	H372.3	H5791.	H599.3	H149.6
#1	H35470.	H825.9	H74.11	H373.8	H5881.	H604.1	H150.8
#2	H35000.	H798.3	H73.09	H370.8	H5701.	H594.5	H148.4

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	12.80	13.57	42.00
#1	6.995	13.66	42.31
#2	18.60	13.47	41.68

MR
wrong Correction factor.
ok 5/23/97

Method: EPACLP1 Sample Name: Fe 500 ppm Operator: WM
Run Time: 05/21/97 11:00:35
Comment: interference correction on Se MET9702502
Mode: CONC Corr. Factor: 1

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1121	L.0285	.2784	.0053	L.0015	.2837	L-.0128
#1	.1168	L.0285	.2642	.0056	L.0015	.2806	L-.0127
#2	.1075	L.0284	.2926	.0049	L.0016	.2868	L-.0129

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0825	.0065	.0089	.1221	H468.1	.0675	.0393
#1	.0837	.0070	.0100	.1356	H467.3	.0723	.0412
#2	.0812	.0060	.0078	.1086	H469.0	.0627	.0373

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	L-.0507	.0432	L-.0132	L.0032	L.4674	L-2.350	.0199
#1	L-.0246	.0430	L-.0139	L.0019	L.4505	L-2.352	.0195
#2	L-.0769	.0434	L-.0124	L.0045	L.4844	L-2.347	.0204

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.4326	L-.0552	.0096	.0102	.0813	2.195	L.0012
#1	.4383	L-.0554	.0110	.0109	.0810	2.192	L.0025
#2	.4269	L-.0550	.0083	.0095	.0815	2.198	L-.0000

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	.7236	.0175	L.0002
#1	.7646	.0175	L.0003
#2	.6826	.0175	L-.0000

Fe interference on Se =
-0.0047 ppm/ppm

Method: EPACLP1 Sample Name: Amarill Brick Operator: WM
Run Time: 05/21/97 11:04:48
Comment: 3098-28 5/10 dilution MET9702502
Mode: CONC Corr. Factor: 201.8

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H12110.	H4430.	H2054.	H4029.	.5124	H4590.	1.145
#1	H12290.	H4510.	H2101.	H4080.	.5594	H4656.	1.304
#2	H11920.	H4350.	H2006.	H3978.	.4654	H4525.	.9866

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H14900.	H1240.	34.33	H15800.	H6277.	H8360.	H34010.
#1	H15160.	H1262.	35.25	H15950.	H6376.	H8503.	H34470.
#2	H14630.	H1218.	33.40	H15640.	H6179.	H8217.	H33560.

Elem	Mn3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H45620.	70.53	4.872	H1081.	216.1	H23900.	H329.3
#1	H46340.	71.56	4.761	H1097.	229.8	H24260.	H334.9
#2	H44900.	69.49	4.984	H1066.	202.4	H23530.	H323.7

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H36180.	H810.6	H74.99	H377.0	H5873.	H612.0	H152.2
#1	H36700.	H832.1	H76.62	H382.3	H5944.	H623.8	H155.3
#2	H35660.	H789.2	H73.35	H371.6	H5802.	H600.2	H149.2

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	15.23	14.06	42.79
#1	23.90	14.71	43.39
#2	6.565	13.41	42.20

Method: EPACLP1 Sample Name: Amarill Brick Operator: WM
Run Time: 05/21/97 11:06:52
Comment: 3098-28D 5/10 dilution MET9702502
Mode: CONC Corr. Factor: 201.8

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H13470.	H6003.	H2691.	H4826.	.4707	H5773.	.3921
#1	H13610.	H6061.	H2727.	H4892.	.5225	H5831.	.1112
#2	H13340.	H5945.	H2654.	H4761.	.4189	H5715.	.6729

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H17100.	H862.4	33.00	H13400.	H6934.	H10630.	H27300.
#1	H17250.	H872.0	33.72	H13580.	H7003.	H10730.	H27500.
#2	H16960.	H852.9	32.28	H13220.	H6866.	H10530.	H27110.

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H34410.	77.00	6.396	H1466.	253.8	H26670.	H347.4
#1	H34690.	77.79	6.155	H1486.	216.1	H26940.	H347.7
#2	H34120.	76.21	6.636	H1445.	291.6	H26390.	H347.2

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H38700.	H1107.	H57.40	H397.9	H5771.	H683.2	H185.3
#1	H39190.	H1109.	H57.76	H401.2	H5817.	H688.1	H187.0
#2	H38220.	H1104.	H57.04	H394.6	H5725.	H678.3	H183.6

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	15.28	15.18	47.08
#1	16.29	15.08	47.67
#2	14.26	15.27	46.48

Method: EPACLP1 Sample Name: CCV2 Operator: WM
Run Time: 05/21/97 11:23:35
Comment: MET9702502
Mode: CONC Corr. Factor: 1

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.717	4.599	1.897	.4906	.4862	.0295	.4973
#1	4.706	4.589	1.907	.4895	.4849	.0347	.4999
#2	4.729	4.610	1.886	.4917	.4875	.0243	.4946

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.902	4.860	.4748	.5111	4.901	4.740	4.804
#1	4.896	4.853	.4715	.5109	4.894	4.734	4.796
#2	4.907	4.867	.4782	.5114	4.908	4.745	4.812

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.076	.4726	.4709	.5132	24.46	1.842	.4891
#1	5.141	.4720	.4697	.5113	24.43	1.837	.4888
#2	5.011	.4732	.4722	.5151	24.49	1.848	.4895

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	25.69	-.0115	.4776	2.516	.1206	.0020	.4893
#1	25.62	-.0116	.4772	2.514	.1686	.0067	.4888
#2	25.77	-.0115	.4780	2.518	.0725	-.0026	.4898

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	.0288	.0152	.0003
#1	.0308	.0166	.0003
#2	.0267	.0138	.0003

Method: EPACLP1 Sample Name: STD4-CCV2 Operator: WM
Run Time: 05/21/97 11:26:13
Comment: MET9702502
Mode: CONC Corr. Factor: 1

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0198	-.0865	-.0069	.0004	.0005	10.14	-.0012
#1	.0217	-.0835	-.0152	.0004	.0005	10.15	.0000
#2	.0178	-.0896	.0015	.0004	.0005	10.14	-.0024

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0217	.0059	-.1737	.0152	.0199	.0091	.0063
#1	.0241	.0064	-.1737	.0161	.0199	.0112	.0066
#2	.0193	.0054	-.1737	.0144	.0199	.0071	.0060

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0239	.0000	-.0019	.0150	.2040	-.0399	.0003
#1	.0445	-.0003	.0006	.0150	.1955	-.0275	.0007
#2	.0034	.0003	-.0043	.0150	.2125	-.0522	-.0000

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1113	18.30	-.0004	.0027	50.51	9.561	.0025
#1	.1107	18.31	.0004	.0033	50.27	9.561	.0025
#2	.1119	18.29	-.0011	.0022	50.76	9.561	.0025

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	10.24	9.808	9.872
#1	10.22	9.791	9.861
#2	10.26	9.825	9.882

Method: EPACLP1 Sample Name: CCB2 Operator: WM
Run Time: 05/21/97 11:30:20
Comment: MET9702502
Mode: CONC Corr. Factor: 1

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0019	-.0086	-.0146	.0004	.0000	.0139	.0007
#1	.0019	-.0006	-.0097	.0004	.0000	.0139	.0012
#2	.0019	-.0166	-.0194	.0004	.0000	.0139	.0002

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0014	-.0002	-.0011	.0034	.0064	.0076	.0005
#1	.0002	.0005	-.0011	.0031	.0061	.0163	.0005
#2	.0026	-.0010	-.0011	.0037	.0066	-.0010	.0005

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0103	.0000	-.0025	.0071	.1020	.0124	-.0007
#1	-.0103	-.0003	-.0031	.0084	.0510	.0201	-.0007
#2	.0308	.0003	-.0019	.0058	.1530	.0046	-.0007

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0414	-.0018	-.0004	-.0006	.0038	-.0099	-.0000
#1	.0375	.0024	-.0004	-.0012	-.0135	-.0120	-.0000
#2	.0453	-.0059	-.0004	-.0000	.0211	-.0079	-.0000

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	-.0222	.0161	.0003
#1	-.0364	.0166	.0003
#2	-.0081	.0157	.0003

Method: EPACLP1 Sample Name: CCV3 Operator: WM
Run Time: 05/21/97 11:48:44
Comment: MET9702502
Mode: CONC Corr. Factor: 1

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.942	4.919	2.039	.4940	.4925	.0190	.5059
#1	4.929	4.904	2.042	.4932	.4917	.0208	.5031
#2	4.956	4.933	2.037	.4947	.4933	.0173	.5087

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.015	4.970	.5046	.4987	5.068	5.002	4.992
#1	5.008	4.956	.5046	.4985	5.062	4.988	4.982
#2	5.023	4.984	.5046	.4990	5.073	5.016	5.001

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.024	.4938	.5094	.4952	24.62	2.114	.4982
#1	5.003	.4938	.5119	.4997	24.68	2.078	.4971
#2	5.044	.4938	.5069	.4907	24.56	2.150	.4992

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	24.69	-.0136	.4990	2.485	.0670	.0167	.4968
#1	24.64	-.0155	.4983	2.484	.0710	.0278	.4968
#2	24.73	-.0117	.4996	2.486	.0630	.0056	.4968

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	.0103	.0180	.0003
#1	.0023	.0194	.0003
#2	.0184	.0166	.0003

Method: EP4CLP1 Sample Name: STD4-CCV3 Operator: WM
Run Time: 05/21/97 11:50:50
Comment: MET9702502
Mode: CONC Corr. Factor: 1

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0162	-.0092	.0117	.0006	.0001	9.688	-.0015
#1	.0197	-.0061	.0151	.0006	.0001	9.733	-.0016
#2	.0127	-.0123	.0083	.0006	.0001	9.642	-.0015

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0202	.0027	-.1864	.0034	.0112	.0181	.0033
#1	.0200	.0025	-.1875	.0037	.0119	.0201	.0028
#2	.0204	.0030	-.1853	.0031	.0104	.0161	.0039

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0135	-.0003	-.0006	.0061	1.893	-.0314	-.0000
#1	.0441	-.0003	.0018	.0048	1.966	-.0256	-.0000
#2	-.0172	-.0003	-.0031	.0074	1.820	-.0372	-.0000

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0707	20.67	.0010	.0023	49.48	9.959	.0018
#1	.0698	20.63	.0011	.0023	49.58	9.967	.0005
#2	.0716	20.70	.0010	.0022	49.38	9.951	.0030

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	9.718	9.923	9.869
#1	9.821	9.901	9.862
#2	9.615	9.946	9.876

Method: EPACLP1 Sample Name: CCB3 Operator: WM
Run Time: 05/21/97 11:53:17
Comment: MET9702502
Mode: CONC Corr. Factor: 1

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0056	-.0025	.0001	.0006	.0001	.0351	.0011
#1	-.0048	.0057	.0096	.0006	.0001	.0387	.0021
#2	-.0063	-.0106	-.0094	.0006	.0001	.0315	.0001

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0002	.0003	.0011	.0026	.0044	.0107	.0014
#1	-.0006	.0000	.0011	.0026	.0049	.0143	.0017
#2	.0002	.0005	.0011	.0026	.0038	.0072	.0011

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0070	.0003	.0006	.0026	1.511	-.0017	-.0011
#1	-.0104	.0003	.0018	.0045	1.443	-.0010	-.0014
#2	-.0036	.0003	-.0006	.0006	1.580	-.0024	-.0007

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0415	.0001	-.0007	.0006	-.0081	.0034	.0000
#1	.0430	-.0042	.0004	.0011	-.0236	.0040	.0000
#2	.0400	.0044	-.0017	.0000	.0075	.0028	.0000

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	-.0110	.0201	.0033
#1	-.0422	.0187	.0032
#2	.0202	.0215	.0035

Method: EPACLP1 Sample Name: Amarillo Brick Operator: WM
Run Time: 05/21/97 12:04:28
Comment: 3098-28S 5/10 dilution MET9702502
Mode: CONC Corr. Factor: 201.8

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H12690.	H6648.	H3048.	H5949.	10.29	H5627.	22.43
#1	H12670.	H6641.	H3047.	H5944.	10.34	H5617.	23.00
#2	H12700.	H6655.	H3050.	H5954.	10.23	H5637.	21.86

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H16820.	H1123.	116.7	H18480.	H8298.	H10910.	H28000.
#1	H16800.	H1122.	116.5	H18420.	H8291.	H10900.	H27990.
#2	H16830.	H1124.	116.9	H18540.	H8304.	H10930.	H28010.

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H33690.	178.7	H195.2	H1457.	498.8	H33030.	H421.7
#1	H33650.	178.6	H195.4	H1454.	H512.6	H33030.	H420.3
#2	H33730.	178.7	H194.9	H1459.	484.9	H33030.	H423.2

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H42680.	H2979.	H159.1	H551.8	H5670.	H1753.	H196.1
#1	H42630.	H2968.	H158.7	H551.0	H5689.	H1751.	H196.1
#2	H42730.	H2989.	H159.4	H552.6	H5651.	H1756.	H196.1

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	20.33	15.60	55.85
#1	21.19	15.79	55.78
#2	19.47	15.41	55.92

Method: EPACLP1 Sample Name: Amarillo Brick Operator: WM
Run Time: 05/21/97 12:09:00
Comment: 3098-28 1/10 dilution MET9702502
Mode: CONC Corr. Factor: 1009

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H12710.	H4863.	H2131.	H4129.	.3070	H4740.	7.742
#1	H12820.	H4889.	H2159.	H4168.	.3056	H4801.	6.867
#2	H12590.	H4838.	H2104.	H4090.	.3084	H4679.	8.617

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H15550.	H1320.	36.87	H15900.	H6641.	H9061.	H43790.
#1	H15700.	H1330.	34.67	H16010.	H6701.	H9143.	H44180.
#2	H15390.	H1311.	39.07	H15790.	H6581.	H8979.	H43390.

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H45900.	76.60	4.591	H1153.	H1849.	H25520.	H379.4
#1	H46400.	77.82	5.214	H1159.	H1871.	H25670.	H385.4
#2	H45390.	75.38	3.968	H1147.	H1828.	H25370.	H373.5

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H35800.	H921.5	H77.98	H390.5	H5927.	H665.8	H156.9
#1	H36100.	H917.5	H78.36	H392.2	H5935.	H678.0	H157.4
#2	H35500.	H925.4	H77.60	H388.8	H5920.	H653.7	H156.4

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	L-22.77	32.49	44.11
#1	L-20.84	32.02	44.46
#2	L-24.70	32.96	43.75

Method: EPACLP1 Sample Name: Amarillo Brick Operator: WM
Run Time: 05/21/97 12:11:10
Comment: 3098-28D 1/10 dilution MET9702502
Mode: CONC Corr. Factor: 1009

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H14510.	H6703.	H2853.	H5074.	.3714	H6084.	8.785
#1	H14520.	H6708.	H2848.	H5076.	.3727	H6073.	10.52
#2	H14500.	H6697.	H2859.	H5071.	.3701	H6094.	7.051

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H18030.	H924.1	39.20	H13860.	H7437.	H11680.	H33980.
#1	H18030.	H923.6	40.29	H13880.	H7433.	H11680.	H33980.
#2	H18030.	H924.6	38.11	H13850.	H7441.	H11690.	H33980.

Elem	Mn3532	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H35500.	84.63	7.219	H1572.	H1931.	H28960.	H368.0
#1	H35540.	84.63	6.604	H1566.	H2001.	H29000.	H369.4
#2	H35450.	84.63	7.834	H1578.	H1862.	H28930.	H366.6

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H39510.	H1264.	H60.47	H416.8	H5859.	H755.8	H194.2
#1	H39560.	H1275.	H60.11	H417.9	H5996.	H762.1	H194.8
#2	H39470.	H1252.	H60.83	H415.6	H5722.	H749.6	H193.7

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	L-21.00	32.49	49.80
#1	L-35.67	32.02	49.80
#2	L-6.324	32.96	49.80

Method: EPACLP1 Sample Name: Amarillo Brick Operator: WM
Run Time: 05/21/97 12:13:20
Comment: 3098-28S 1/10 dilution MET9702502
Mode: CONC Corr. Factor: 1009

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H13130.	H7059.	H3219.	H6209.	10.52	H6036.	23.13
#1	H13190.	H7080.	H3248.	H6240.	10.24	H6057.	24.48
#2	H13070.	H7038.	H3190.	H6178.	10.80	H6014.	21.78

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H17830.	H1193.	128.7	H19030.	H8897.	H11740.	H34230.
#1	H17920.	H1203.	128.7	H19100.	H8944.	H11810.	H34410.
#2	H17740.	H1183.	128.7	H18960.	H8850.	H11680.	H34050.

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H35650.	191.4	H205.2	H1571.	H1875.	H34750.	H441.8
#1	H35820.	192.6	H204.6	H1583.	H1871.	H35000.	H444.6
#2	H35470.	190.2	H205.8	H1559.	H1880.	H34500.	H439.0

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H44680.	H3177.	H168.2	H599.9	H5999.	H1826.	H204.3
#1	H44890.	H3204.	H169.9	H604.4	H5994.	H1829.	H206.9
#2	H44470.	H3150.	H166.5	H595.4	H6004.	H1824.	H201.8

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	23.98	32.49	58.69
#1	15.46	32.02	59.05
#2	32.51	32.96	58.33

Method: EPACLP1 Sample Name: Pile 436 Operator: WM
Run Time: 05/21/97 12:15:58
Comment: 3098-5 1/10 dilution MET9702502
Mode: CONC Corr. Factor: 1120

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H6523.	H6365.	H1991.	H5194.	1.236	H7287.	H593.9
#1	H6590.	H6439.	H2012.	H5262.	1.220	H7387.	H600.5
#2	H6456.	H6291.	H1971.	H5126.	1.252	H7187.	H587.4

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H11550.	H1318.	42.79	H16650.	H5780.	H17810.	H65600.
#1	H11660.	H1334.	42.77	H16840.	H5844.	H18020.	H66270.
#2	H11440.	H1303.	42.81	H16460.	H5716.	H17600.	H64930.

Elem	Mn3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H70030.	92.92	7.585	H1054.	H1923.	H12790.	H434.1
#1	H70800.	93.94	6.911	H1048.	H1808.	H12870.	H437.2
#2	H69260.	91.90	8.258	H1060.	H2038.	H12720.	H430.9

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H29590.	H1091.	H328.3	H1372.	H3478.	H866.3	H133.9
#1	H30010.	H1119.	H332.5	H1381.	H3560.	H874.8	H134.4
#2	H29170.	H1064.	H324.0	H1362.	H3396.	H857.7	H133.3

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	54.40	38.15	43.63
#1	56.54	36.59	44.22
#2	52.26	39.71	43.03

Method: EPACLP1 Sample Name: Pile 242 Operator: WM
Run Time: 05/21/97 12:21:53
Comment: 3098-7 1/10 dilution MET9702502
Mode: CONC Corr. Factor: 1003

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H7225.	18.20	20.01	H227.9	.3153	108.8	.4398
#1	H7366.	15.69	27.09	H233.6	.0491	112.4	.9270
#2	H7084.	20.71	12.93	H222.2	.5815	105.2	L-.0473

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H237000.	10.41	3.405	H5842.	H1145.	H161500.	H4781.
#1	H240700.	7.926	5.597	H5958.	H1161.	H164200.	H4861.
#2	H233300.	12.89	1.213	H5726.	H1129.	H158900.	H4701.

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H5199.	38.53	8.718	48.77	H2131.	10.12	H101.0
#1	H5196.	38.83	9.332	46.17	H1989.	L-3.801	H102.7
#2	H5203.	38.22	8.105	51.38	H2273.	24.05	H99.26

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H5801.	L-605.4	3.998	99.25	H102800.	H1585.	74.24
#1	H5928.	L-612.6	3.318	101.5	H104600.	H1609.	76.25
#2	H5675.	L-598.2	4.678	96.98	H101100.	H1561.	72.24

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	L-7.853	73.33	H398.0
#1	L-7.903	73.80	H405.9
#2	L-7.803	72.87	H390.0

Method: EPACLP1 Sample Name: Pile 240 Operator: WM
Run Time: 05/21/97 12:27:39
Comment: 3098-8 1/10 dilution MET9702502
Mode: CONC Corr. Factor: 1.119

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H9550.	14.09	91.60	9.613	L-.2635	260.7	L-1.576
#1	H9681.	17.45	60.45	9.188	L-.5605	257.7	.7497
#2	H9420.	10.74	H122.8	10.04	.0335	263.7	L-3.901

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	727.2	108.7	96.32	H2416.	H197200.	65.65	H98.77
#1	734.9	109.0	97.55	H2450.	H199600.	59.89	H96.62
#2	719.5	108.4	95.08	H2382.	H194800.	71.42	H100.9

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	141.1	H2695.	19.95	H208.1	H2684.	L-373.5	H342.8
#1	123.4	H2725.	21.69	H209.6	H2545.	L-345.0	H345.8
#2	158.8	H2665.	18.20	H206.7	H2823.	L-401.9	H339.8

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H5358.	8.267	9.566	85.00	394.4	201.2	40.31
#1	H5426.	16.83	9.229	85.93	389.6	204.1	40.31
#2	H5289.	L-.2903	9.904	84.06	399.2	198.2	40.31

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	H143.6	25.11	4.137
#1	H106.2	24.07	4.334
#2	H181.0	26.15	3.940

Method: EPACLP1 Sample Name: Pile 206 Operator: WM
Run Time: 05/21/97 12:30:28
Comment: 3098-9 1/10 dilution MET9702502
Mode: CONC Corr. Factor: 1003

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H22160.	11.37	99.64	7.474	L-.2254	H976.4	L-3.245
#1	H22930.	6.413	96.95	8.236	L-.4981	H1015.	L-2.759
#2	H21390.	16.32	H102.3	6.713	.0474	H937.4	L-3.731

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	917.9	143.7	80.95	H4193.	H274600.	48.47	H48.82
#1	948.1	150.1	83.17	H4337.	H284100.	51.40	H50.75
#2	887.7	137.4	78.73	H4049.	H265200.	45.54	H46.89

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	100.1	H3194.	15.83	165.7	H4131.	L-557.9	H339.3
#1	82.21	H3306.	15.51	170.9	H4208.	L-570.7	H349.8
#2	117.9	H3081.	16.15	160.5	H4053.	L-545.2	H328.7

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H8146.	9.470	5.314	158.6	H538.9	262.7	37.64
#1	H8433.	26.59	6.370	163.6	H549.5	267.7	39.14
#2	H7859.	L-7.654	4.258	153.7	H528.2	257.7	36.13

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	H239.4	24.84	H203.5
#1	H194.3	26.24	H210.7
#2	H284.5	23.44	H196.2

Method: EPACLP1 Sample Name: Pile 159 Operator: WM
Run Time: 05/21/97 12:34:51
Comment: 3098-10 1/10 dilution MET9702502
Mode: CONC Corr. Factor: 1002

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H2118.	14.62	L-8.076	18.11	L-.5388	H890.5	1.913
#1	H2152.	17.12	L-1.556	18.11	L-.5402	H925.9	.1759
#2	H2083.	12.12	L-14.60	18.11	L-.5374	H855.1	3.649

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H2472.	42.14	4.551	H280.7	H1010.	H110800.	H100600.
#1	H2511.	42.63	3.453	H332.5	H1034.	H112600.	H102000.
#2	H2432.	41.64	5.649	H228.8	H985.3	H109000.	H99160.

see re-run with std

Elem	Mn3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H113300.	18.47	4.415	111.1	H2034.	37.03	H34.11
#1	H115100.	19.08	5.639	112.4	H2210.	49.49	H34.81
#2	H111600.	17.87	3.191	109.8	H1858.	24.57	H33.42

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H5000.	L-404.5	16.67	48.09	198.1	H1774.	93.71
#1	H5073.	L-410.8	17.05	50.34	208.7	H1795.	95.21
#2	H4926.	L-398.2	16.30	45.83	187.4	H1752.	92.20

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	.6239	42.98	17.66
#1	29.72	43.91	18.01
#2	L-28.47	42.05	17.31

Method: CPACLP1 Sample Name: Pile 159 Operator: WM
Run Time: 05/21/97 12:44:29
Comment: 3098-10 re-run Cu 1/10 dilution MET9702502
Mode: CONC Corr. Factor: 1002

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H1958.	15.28	.0940	16.59	L-.2648	H784.8	.6878
#1	H1962.	20.87	2.797	16.59	L-.5319	H777.5	L-1.006
#2	H1953.	9.701	L-2.609	16.59	.0023	H792.0	2.382

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H2329.	41.89	1.273	41.48	H875.7	H104700.	H95650.
#1	H2339.	42.63	1.248	42.89	H875.7	H104900.	H95850.
#2	H2320.	41.15	1.298	40.06	H875.7	H104400.	H95450.

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H106600.	16.05	L-.4859	115.0	H2558.	28.14	H30.28
#1	H106900.	16.05	L-1.706	105.9	H2442.	27.41	H29.24
#2	H106200.	16.05	.7341	124.1	H2674.	28.87	H31.32

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H4664.	L-385.9	15.18	41.31	225.0	H1657.	88.20
#1	H4682.	L-389.6	14.81	41.34	239.6	H1656.	88.20
#2	H4647.	L-382.2	15.56	41.28	210.3	H1659.	88.20

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	L-3.145	43.45	16.78
#1	L-11.48	42.98	16.95
#2	5.186	43.91	16.60

see 5/10 dilution for Cu
on 5/22/97

00160

Method: EPACLP1 Sample Name: CCV4 Operator: WH
Run Time: 05/21/97 12:46:52
Comment: MET9702502
Mode: CONC Corr. Factor: 1

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.940	4.895	1.944	.4977	.4928	.0316	.4939
#1	4.958	4.914	1.961	.5000	.4955	.0316	.4965
#2	4.922	4.877	1.928	.4954	.4901	.0316	.4913

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.925	4.926	.4880	.5068	4.920	5.008	5.006
#1	4.938	4.941	.4913	.5105	4.928	5.012	5.028
#2	4.911	4.911	.4847	.5031	4.912	5.004	4.984

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.034	.4916	.4903	.5046	24.84	1.936	.4958
#1	5.055	.4934	.4890	.5071	24.83	1.960	.4961
#2	5.014	.4899	.4915	.5020	24.85	1.912	.4954

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	25.46	-.0159	.4866	2.476	.0997	.0102	.4940
#1	25.60	-.0164	.4893	2.479	.0743	.0134	.4960
#2	25.33	-.0155	.4838	2.473	.1252	.0069	.4920

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	.0212	.0224	.0003
#1	.0191	.0215	.0003
#2	.0233	.0234	.0003

Method: EPACLP1 Sample Name: STD4-CCV4 Operator: WM
Run Time: 05/21/97 12:48:50
Comment: MET9702502
Mode: CONC Corr. Factor: 1

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0182	-.0148	.0008	.0006	.0001	9.946	-.0008
#1	.0190	-.0149	-.0040	.0006	.0001	9.957	-.0013
#2	.0175	-.0148	.0055	.0006	.0001	9.935	-.0003

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0239	.0052	-.1798	.0130	.0124	.0856	.0550
#1	.0233	.0059	-.1809	.0139	.0134	.0917	.0627
#2	.0245	.0045	-.1787	.0122	.0114	.0795	.0473

Elem	Mn3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1055	.0000	.0018	.0113	2.171	-.0300	-.0004
#1	.0918	.0003	.0018	.0048	2.077	-.0270	-.0007
#2	.1191	-.0003	.0018	.0178	2.266	-.0329	-.0000

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0804	19.45	.0021	.0034	49.21	9.823	.0028
#1	.0844	19.47	.0025	.0034	48.98	9.826	.0040
#2	.0765	19.43	.0018	.0033	49.44	9.819	.0015

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	9.948	9.944	9.841
#1	9.990	9.984	9.869
#2	9.906	9.904	9.813

Method: EPACLP1 Sample Name: CCB4 Operator: WM
Run Time: 05/21/97 12:53:51
Comment: MET9702502
Mode: CONC Corr. Factor: 1

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0015	.0050	.0089	.0006	.0001	.0190	.0010
#1	.0031	.0057	-.0040	.0006	.0001	.0172	.0001
#2	-.0001	.0044	.0218	.0006	.0001	.0208	.0020

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0025	.0015	.0000	.0045	.0033	.0082	.0030
#1	-.0006	.0015	.0011	.0048	.0023	.0000	.0033
#2	.0055	.0015	-.0011	.0043	.0044	.0163	.0028

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0067	.0003	-.0018	.0078	1.893	-.0127	-.0004
#1	.0305	.0003	-.0018	.0071	1.803	-.0171	-.0007
#2	-.0172	.0003	-.0018	.0084	1.983	-.0083	-.0000

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0452	-.0004	-.0004	-.0000	.0113	.0017	.0000
#1	.0430	-.0019	-.0011	.0011	-.0043	.0017	.0000
#2	.0473	.0010	.0003	-.0011	.0270	.0017	.0000

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	-.0276	.0206	.0005
#1	-.0339	.0197	.0007
#2	-.0214	.0215	.0003

Method: EPACLP1 Sample Name: East Helena Brick A Operator: WM
Run Time: 05/21/97 13:11:09
Comment: 3098-11 1/10 dilution MET9702502
Mode: CONC Corr. Factor: 1088

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H2988.	H5297.	H7101.	103.9	L-.0853	107.3	H5924.
#1	H3074.	H5432.	H7292.	107.2	L-.0900	114.5	H6080.
#2	H2901.	H5162.	H6910.	100.6	L-.0805	100.1	H5768.

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H84820.	H1486.	49.62	H45500.	H16760.	H108000.	H45570.
#1	H87040.	H1525.	49.61	H46750.	H17230.	H110800.	H46740.
#2	H82600.	H1446.	49.63	H44250.	H16290.	H105200.	H44400.

Elem	Mn3833	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H49120.	H433.0	10.45	H492.4	H2722.	H347.1	H374.5
#1	H50510.	H444.8	11.19	H495.9	H2493.	H344.4	H384.3
#2	H47740.	H421.2	9.721	H488.9	H2950.	H349.9	H364.6

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H15700.	H774.8	40.41	H16960.	H3926.	H929.3	96.58
#1	H16180.	H798.5	41.64	H17340.	H4007.	H956.5	H100.1
#2	H15230.	H751.0	39.18	H16580.	H3846.	H902.2	93.05

Elem	T_1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	H216.6	53.75	80.93
#1	H190.6	54.76	83.23
#2	H243.0	52.74	78.63

Method: EPACLP1 Sample Name: East Helena Brick B Operator: WM
Run Time: 05/21/97 13:13:38
Comment: 3098-12 1/10 dilution MET9702502
Mode: CONC Corr. Factor: 1075

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H1802.	H1139.	H1966.	161.8	L-.0587	182.1	H705.0
#1	H1792.	H1129.	H1973.	160.6	L-.0559	184.1	H705.5
#2	H1812.	H1150.	H1960.	163.0	L-.0615	180.1	H704.4

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H126000.	H900.0	21.43	H7577.	H5604.	H21500.	H44450.
#1	H125500.	H897.9	20.24	H7568.	H5578.	H21400.	H44270.
#2	H126500.	H902.1	22.62	H7587.	H5630.	H21600.	H44630.

Elem	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H48140.	182.3	2.094	H204.2	H2118.	H176.1	H285.7
#1	H47990.	181.0	1.436	H201.4	H2251.	H176.9	H284.6
#2	H48280.	183.6	2.753	H207.0	H1984.	H175.4	H286.8

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H5861.	H180.8	33.56	H3900.	H958.1	H703.7	38.73
#1	H5816.	H195.6	32.80	H3899.	H944.0	H704.0	38.73
#2	H5905.	H166.1	34.32	H3901.	H972.2	H703.4	38.73

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	22.12	62.11	75.79
#1	L-33.68	61.11	75.42
#2	77.92	63.11	76.17

Method: EPACLP1 Sample Name: Omaha Brick Operator: WM
Run Time: 05/21/97 13:17:00
Comment: 3098-13 1/10 dilution MET9702502
Mode: CONC Corr. Factor: 1063

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H6345.	H6304.	H2460.	52.70	L-.3058	H533.5	H250.9
#1	H6545.	H6499.	H2500.	53.91	L-.0225	H542.9	H259.3
#2	H6144.	H6110.	H2419.	51.49	L-.5891	H524.1	H242.6

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H36580.	45.83	22.62	H5669.	H8275.	H71860.	H3334.
#1	H37660.	47.40	22.64	H5850.	H8537.	H73980.	H3436.
#2	H35500.	44.25	22.61	H5487.	H8013.	H69730.	H3232.

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H3507.	196.5	8.425	H255.0	H1144.	21.74	H367.0
#1	H3604.	H203.2	5.878	H264.0	H1041.	L-1.323	H376.5
#2	H3410.	189.8	10.97	H246.1	H1247.	44.79	H357.4

Elem	Na5889	Sr1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H8336.	H874.6	22.16	H79060.	H1115.	H768.8	H164.3
#1	H8621.	H906.9	22.47	H81150.	H1167.	H782.9	H170.1
#2	H8050.	H842.3	21.85	H76970.	H1064.	H754.8	H158.4

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	L-2.053	54.00	63.89
#1	50.24	53.51	65.95
#2	L-54.35	54.49	61.83

Method: EPACLP1 Sample Name: Omaha Brick Fines Operator: WM
Run Time: 05/21/97 13:19:17
Comment: 3098-14 1/10 dilution MET9702502
Mode: CONC Corr. Factor: 1081

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H13150.	H15350.	H6860.	125.0	.4043	H1098	H984.7
#1	H13470	H15740.	H7070.	127.8	.3970	H1127.	H1009.
#2	H12830.	H14960.	H6650.	122.1	.4116	H1069.	H960.3

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H86870.	74.11	10.41	H19220.	H10730.	H169600.	H8061.
#1	H89010.	76.52	11.61	H19650.	H10980.	H173900.	H8257.
#2	H84730.	71.70	9.209	H18780.	H10470.	H165300.	H7864.

Elem	Mn3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H8434.	H413.8	6.302	H452.1	H2391.	H128.5	H413.2
#1	H8677.	H424.8	7.658	H460.5	H2396.	H132.6	H423.0
#2	H8192.	H402.8	4.946	H443.7	H2387.	H124.3	H403.5

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H26630.	H1842.	H62.59	H38350.	H2376.	H1261.	H257.3
#1	H27310.	H1880.	H64.48	H39260.	H2470.	H1283.	H263.8
#2	H25960.	H1804.	H60.70	H37430.	H2283.	H1239.	H250.8

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	36.36	88.59	H162.5
#1	64.93	89.59	H166.5
#2	7.792	87.58	H158.5

Method: EPACLP1 Sample Name: Pile 697 Operator: WM
Run Time: 05/21/97 13:21:29
Comment: 3098-15 1/10 dilution MET9702502
Mode: CONC Corr. Factor: 1241

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H2357.	H664.1	H3605.	110.5	.2969	258.5	H4516.
#1	H2414.	H679.4	H3648.	112.9	L-.0407	262.4	H4608.
#2	H2301.	H648.9	H3562.	108.1	.6346	254.7	H4423.

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H14860.	H1253.	H4934.	H165100.	H66910.	H176200.	H2395.
#1	H15180.	H1278.	H5033.	H168400.	H68250.	H179800.	H2446.
#2	H14540.	H1227.	H4834.	H161800.	H65580.	H172500.	H2344.

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H2414.	H438.0	16.60	H17240.	216.9	L-102.5	H83.79
#1	H2457.	H446.1	16.05	H17600.	326.6	L-76.90	H86.11
#2	H2370.	H429.8	17.14	H16870.	107.2	L-128.2	H81.47

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H38520.	H1785.	28.94	H43260.	H15580.	H1173.	H188.7
#1	H39380.	H1924.	30.26	H44130.	H15860.	H1197.	H193.6
#2	H37660.	H1647.	27.62	H42390.	H15300.	H1149.	H183.7

Elem	Ti1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	83.54	37.66	42.00
#1	H115.4	37.08	42.87
#2	51.72	38.23	41.12

Method: EPACLP1 Sample Name: Pile 697 Operator: WM
Run Time: 05/21/97 13:27:39
Comment: 3098-15 1/10 x 1/10 dilution MET9702502
Mode: CONC Corr. Factor: 12410

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H2347.	H600.7	H3569.	111.3	.7234	362.1	H4539.
#1	H2361.	H586.0	H3316.	111.3	.7558	317.6	H4569.
#2	H2332.	H615.3	H3823.	111.3	.6910	406.7	H4508.

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H14690.	H1215.	H4890.	H158400.	H66490.	H174100.	H2382.
#1	H14740.	H1194.	H4904.	H159700.	H66930.	H175500.	H2395.
#2	H14640.	H1237.	H4876.	H157100.	H66060.	H172700.	H2368.

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H1982.	H432.0	25.47	H16970.	L-1341.	L-107.6	H81.34
#1	H1642.	H435.8	17.99	H17090.	L-1999.	L-279.4	H77.07
#2	H2321.	H428.2	32.95	H16840.	L-682.6	64.19	H85.61

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H38710.	H1686.	16.31	H43300.	H15700.	H1088.	H198.9
#1	H38990.	H1629.	7.576	H43500.	H15750.	H1069.	H198.9
#2	H38420.	H1743.	25.05	H43100.	H15660.	H1106.	H198.9

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	L-66.17	H272.7	43.69
#1	H138.8	H255.4	43.69
#2	L-271.2	H290.0	43.69

Method: EPACLP1 Sample Name: Pile 718 Operator: WM
Run Time: 05/21/97 13:30:11
Comment: 3098-16 1/10 dilution MET9702502
Mode: CONC Corr. Factor: 1021

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	497.3	H19980.	H37520.	18.46	.1295	43.62	H113.2
#1	501.0	H20400.	H38250.	18.46	.1280	47.00	H113.5
#2	493.6	H19560.	H36800.	18.46	.1310	40.24	H112.8

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H3476.	7.400	H325.1	H375900.	H32310.	H64050.	H861.6
#1	H3545.	8.169	H334.3	H385700.	H32950.	H65330.	H879.3
#2	H3408.	6.631	H315.8	H366200.	H31670.	H62770.	H843.9

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H830.7	H255.1	H170.5	H5547.	29.57	H214.5	H355.8
#1	H842.9	H260.4	H173.7	H5659.	L-29.09	H202.5	H361.9
#2	H818.4	H249.7	H167.3	H5436.	88.23	H226.6	H349.7

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H2278.	H2636.	L-15.56	H4415.	H25700.	358.8	52.60
#1	H2314.	H2702.	L-15.13	H4508.	H26160.	364.8	53.12
#2	H2241.	H2569.	L-15.99	H4322.	H25230.	352.9	52.09

Elem	Tl1908	Li6707	Sr4215
Unit	ppm	ppm	ppm
Avge	16.50	25.28	6.295
#1	25.14	24.81	6.115
#2	7.870	25.76	6.475

Method: EPACLP1 Sample Name: Pile 718 Operator: WM
Run Time: 05/21/97 13:40:39
Comment: 3098-16 1/10 x 1/10 dilution MET9702502
Mode: CONC Corr. Factor: 10210

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	527.4	H20900.	H39150.	14.10	.7063	87.78	H107.9
#1	475.3	H20870.	H39350.	14.10	.7061	87.73	H122.6
#2	579.5	H20940.	H38940.	14.10	.7064	87.83	93.27

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H3637.	10.77	H340.1	H348800.	H33820.	H66860.	H912.4
#1	H3653.	20.90	H340.4	H349300.	H33980.	H66900.	H915.2
#2	H3620.	.6384	H339.8	H348300.	H33670.	H66830.	H909.6

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	710.5	H270.7	H185.5	H5700.	L-4171.	H283.7	H374.5
#1	640.5	H267.7	H198.0	H5806.	L-3449.	H410.7	H378.1
#2	780.5	H273.7	H173.1	H5594.	L-4893.	H156.8	H371.0

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H2666.	H2814.	L-13.07	H4605.	H26480.	385.4	53.86
#1	H2666.	H2902.	L-12.75	H4604.	H27160.	364.4	41.10
#2	H2666.	H2726.	L-13.39	H4605.	H25810.	406.4	66.62

Elem	Ti1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	L-45.39	H214.9	7.152
#1	L-238.1	H210.1	7.152
#2	H145.0	H219.6	7.152

Method: EPACLP1 Sample Name: Pile 487 Operator: WM
Run Time: 05/21/97 13:48:12
Comment: 3098-17 1/10 dilution MET9702502
Mode: CONC Corr. Factor: 1121

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H12210.	H6087.	H3758.	H2060.	1.133	H2458.	H4204.
#1	H12220.	H6086.	H3757.	H2060.	1.132	H2450.	H4210.
#2	H12210.	H6089.	H3759.	H2060.	1.135	H2466.	H4198.

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H17630.	H211.8	18.45	H2995.	H27010.	H98670.	H10050.
#1	H17650.	H213.4	19.70	H2990.	H27030.	H98820.	H10060.
#2	H17610.	H210.1	17.20	H3000.	H26980.	H98520.	H10040.

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H1C380.	H616.3	16.57	H658.6	H3837.	H476.6	H447.8
#1	H1C400.	H616.9	14.52	H665.1	H3743.	H482.3	H444.4
#2	H1C360.	H615.6	18.61	H652.1	H3931.	H470.8	H451.3

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H35280.	H674.9	33.94	H45050.	H1381.	H938.1	H358.7
#1	H35260.	H696.1	34.28	H45130.	H1418.	H944.0	H358.7
#2	H35290.	H653.7	33.60	H44970.	H1344.	H932.2	H358.7

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	H115.7	55.38	H128.0
#1	90.00	56.43	H128.0
#2	H141.4	54.34	H128.0

Method: EPACLP1 Sample Name. Pile 347 Operator: WM
Run Time: 05/21/97 13:55:56
Comment: 3098-18 1/10 dilution MET9702502
Mode: CONC Corr. Factor: 1081

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H8807.	H3710.	H1189.	83.12	.3614	322.7	H3186.
#1	H8949.	H3786.	H1204.	84.35	.3543	330.0	H3249.
#2	H8665.	H3634.	H1173.	81.89	.3685	315.4	H3122.

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H14530.	H665.4	37.52	H4464.	H15120.	H160100.	H62850.
#1	H14800.	H676.4	39.92	H4517.	H15370.	H163000.	H63910.
#2	H14270.	H654.3	35.11	H4412.	H14880.	H157100.	H61800.

Elem	Mn3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H68300.	H368.0	6.941	H412.1	H886.4	L-5.566	H397.8
#1	H69420.	H373.9	6.979	H428.3	H1058.	L-4.553	H404.2
#2	H67170.	H362.1	6.902	H396.0	H714.5	L-6.578	H391.4

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H3691.	L-277.3	H75.17	H38790.	H1127.	H764.4	H140.6
#1	H3739.	L-260.7	H77.05	H39460.	H1184.	H781.6	H142.7
#2	H3644.	L-293.8	H73.29	H38120.	H1071.	H747.3	H138.4

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	35.15	47.38	49.54
#1	45.67	48.38	49.92
#2	24.63	47.38	49.16

Method: EPACLP1 Sample Name: CCV5 Operator: WM
Run Time: 05/21/97 13:58:13
Comment: MET9702502
Mode: CONC Corr. Factor: 1

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.958	4.959	1.920	.5125	.4979	.0191	.5019
#1	4.943	4.940	1.919	.5106	.4955	.0209	.4992
#2	4.972	4.977	1.921	.5144	.5003	.0173	.5047

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.941	5.017	.4891	.5365	4.955	4.932	4.956
#1	4.931	5.001	.4891	.5404	4.944	4.927	4.942
#2	4.952	5.032	.4890	.5325	4.967	4.937	4.970

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.092	.4914	.4951	.5078	24.40	1.917	.5024
#1	5.055	.4905	.4963	.5123	24.27	1.910	.5017
#2	5.130	.4923	.4939	.5033	24.53	1.925	.5031

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	26.39	-.0345	.4924	2.605	.0896	.0040	.4968
#1	26.30	-.0389	.4889	2.638	.0665	.0022	.4950
#2	26.48	-.0300	.4958	2.572	.1127	.0058	.4985

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	-.0122	.0262	.0005
#1	-.0018	.0271	.0003
#2	-.0226	.0252	.0007

Method: EPACLP1 Sample Name: STD4-CCV5 Operator: WM
Run Time: 05/21/97 14:00:33
Comment: MET9702502
Mode: CONC Corr. Factor: 1

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0194	-.0305	-.0128	.0006	.0001	10.23	.0005
#1	.0268	-.0273	-.0068	.0006	.0001	10.19	.0009
#2	.0120	-.0336	-.0188	.0006	.0001	10.28	-.0000

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0263	.0047	-.1809	.0243	.0149	.0422	.0173
#1	.0313	.0059	-.1809	.0269	.0169	.0488	.0187
#2	.0212	.0035	-.1809	.0218	.0129	.0356	.0159

Elem	Mn3833	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0066	.0003	.0006	.0074	.0201	-.0438	-.0007
#1	.0169	.0003	.0006	.0113	.2278	-.0314	-.0000
#2	-.0036	.0003	.0006	.0035	-.1876	-.0562	-.0014

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0771	19.41	.0007	.0355	50.36	9.956	.0015
#1	.0789	19.39	.0017	.0406	50.19	9.933	.0030
#2	.0752	19.42	-.0003	.0305	50.52	9.979	.0000

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	10.06	10.35	10.15
#1	10.06	10.25	10.08
#2	10.06	10.44	10.22

Method: EPACLP1 Sample Name: CCB5 Operator: WM
Run Time: 05/21/97 14:10:23
Comment: MET9702502
Mode: CONC Corr. Factor: 1

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0020	-.0069	-.0135	.0002	.0001	.0100	.0002
#1	-.0000	-.0069	-.0190	-.0001	.0001	.0100	-.0009
#2	-.0039	-.0069	-.0080	.0006	.0001	.0100	.0012

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0014	-.0005	.0033	.0099	.0044	.0093	.0014
#1	.0002	.0000	.0033	.0099	.0049	.0041	.0017
#2	.0027	-.0010	.0033	.0099	.0039	.0144	.0011

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0271	-.0003	-.0012	-.0078	-.2008	-.0061	-.0011
#1	.0169	-.0003	-.0006	-.0033	-.2406	-.0083	-.0021
#2	.0373	-.0003	-.0018	-.0123	-.1611	-.0039	-.0000

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0297	-.0050	-.0000	.0029	-.0198	-.0051	.0000
#1	.0309	-.0013	.0003	.0034	.0074	-.0101	.0000
#2	.0285	-.0088	-.0004	.0023	-.0471	-.0001	.0000

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	-.0359	.0234	.0007
#1	-.0463	.0234	.0007
#2	-.0256	.0234	.0007

Method: EPACLP1 Sample Name: Pile 265A Operator: WM
Run Time: 05/21/97 14:12:49
Comment: 3098-23 1/10 dilution MET9702502
Mode: CONC Corr. Factor: 1087

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H2305.	H670.1	H2113.	20.48	.0484	35.85	H2611.
#1	H2312.	H663.1	H2121.	20.48	.0498	35.80	H2618.
#2	H2297.	H677.2	H2106.	20.48	.0470	35.91	H2604.

Elem	Ca3179	Cr2677	Co2286	Cu3247 *	Fe2599	Pb2203 *	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H5424.	24.69	H3355.	H114100.	H49390.	H140100.	H1625.
#1	H5436.	23.34	H3362.	H114400.	H49530.	H140400.	H1630.
#2	H5411.	26.03	H3347.	H113900.	H49250.	H139800.	H1621.

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H1671.	93.16	1.932	H13780.	281.3	L-81.78	H158.1
#1	H1638.	92.88	1.954	H13850.	286.1	L-69.74	H158.9
#2	H1705.	93.45	1.910	H13710.	276.5	L-93.81	H157.4

Elem	Na5889	Sn1899	V_2924	Zn2138 *	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H127900.	H983.9	4.561	H30520.	H8784.	H903.9	H104.4
#1	H128300.	H997.6	4.186	H30570.	H8771.	H908.4	H104.4
#2	H127500.	H970.2	4.937	H30470.	H8797.	H899.5	H104.4

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	5.077	32.48	12.07
#1	40.77	31.47	12.26
#2	L-30.62	33.49	11.87

see 1/10 + 1/10 d:1
Cu, Pb, Zn
for

Method: EPACLP1 Sample Name: Pile 265A Operator: WM
Run Time: 05/21/97 14:15:51
Comment: 3098-23 1/10 x 1/10 dilution MET9702502
Mode: CONC Corr. Factor: 10870

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H2285.	H643.5	H2111.	23.26	.6879	126.2	H2692.
#1	H2284.	H554.4	H2112.	23.26	.6735	87.38	H2674.
#2	H2285.	H732.7	H2111.	23.26	.7023	165.0	H2710.

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H5492.	35.79	H3424.	H112700.	H50100.	H142000.	H1662.
#1	H5488.	33.08	H3387.	H111800.	H49720.	H141000.	H1650.
#2	H5497.	38.51	H3460.	H113500	H50470.	H143000.	H1674.

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H1164.	94.69	1.271	H14110.	H3629.	L-101.2	H164.1
#1	H1313.	94.59	1.211	H13970.	H4398.	L-411.1	H171.5
#2	H1015.	94.79	1.331	H14240.	H2861.	H208.8	H156.6

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H129300.	H1009.	.1198	H31410.	H8847.	H927.1	H117.1
#1	H128000.	H1025.	3.835	H31230.	H8594.	H968.6	H130.7
#2	H130600.	H993.9	L-3.596	H31600.	H9099.	H885.6	H103.5

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	L-125.0	H289.4	11.45
#1	L-169.0	H274.2	11.45
#2	L-81.11	H304.6	11.45

Method: EPACLP1 Sample Name: Pile 265B Operator: WM
Run Time: 05/21/97 14:19:12
Comment: 3098-24 1/10 dilution MET9702502
Mode. CONC Corr. Factor: 1098

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H998.9	H395.7	H2022.	21.93	.0639	39.05	H2529.
#1	H1014.	H406.3	H2049.	21.52	.0653	34.93	H2547.
#2	H983.8	H385.2	H1995.	22.35	.0626	43.16	H2512.

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H4281.	38.19	H3009.	H113500.	H43760.	H118800.	H1036.
#1	H4319.	39.29	H3039.	H114600.	H44180.	H120100.	H1047.
#2	H4243.	37.10	H2979.	H112300.	H43350.	H117500.	H1026.

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H1016.	74.12	4.312	H7119.	41.51	L-91.97	H48.91
#1	H1033.	74.57	5.047	H7152.	L-50.69	L-98.01	H48.97
#2	H998.1	73.68	3.577	H7086.	133.7	L-85.92	H48.86

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H139900.	H934.7	.9360	H25090.	H8880.	H815.8	74.69
#1	H141600.	H944.3	.5794	H25340.	H8872.	H826.7	74.69
#2	H138300.	H925.2	1.293	H24850.	H8889.	H804.8	74.69

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	43.23	30.25	12.00
#1	50.99	30.76	12.00
#2	35.47	29.74	12.00

Method: EPACLP1 Sample Name: Pile 265B Operator: WM
Run Time: 05/21/97 14:21:55
Comment: 3098-24 1/10 x 1/10 dilution MET9702502
Mode: CONC Corr. Factor: 10980

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H967.8	H354.5	H1916.	23.49	.7245	110.7	H2550.
#1	H907.7	H299.8	H2051.	23.49	.7101	90.94	H2536.
#2	H1028.	H409.1	H1781.	23.49	.7390	130.4	H2563.

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H4292.	30.64	H3054.	H112500.	H44280.	H119500.	H1051.
#1	H4306.	33.36	H3066.	H112900.	H44400.	H120000.	H1051.
#2	H4279.	27.92	H3041.	H112000.	H44160.	H119000.	H1051.

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	743.5	77.57	L-6.411	H7066.	L-1380.	92.76	H47.25
#1	743.2	74.33	.2906	H7109.	L-1866.	H124.9	H43.49
#2	743.8	80.80	L-13.11	H7023.	L-895.1	60.58	H51.01

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H140400.	H898.6	L-7.597	H25500.	H9356.	H804.4	88.12
#1	H140800.	H964.8	L-3.668	H25570.	H9014.	H772.2	88.12
#2	H140000.	H832.5	L-11.53	H25440.	H9698.	H836.6	88.12

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	L-174.2	H251.5	15.43
#1	L-151.8	H236.2	15.43
#2	L-196.6	H266.8	15.43

Method: EPACLP1 Sample Name: Pile 320B Operator: WM
Run Time: 05/21/97 14:24:24
Comment: 3098-25 1/10 dilution MET9702502
Mode: CONC Corr. Factor: 1495

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H1682.	H577.5	H2049.	77.51	.2968	H805.5	H5198.
#1	H1685.	H572.2	H2064.	78.08	.2891	H813.4	H5214.
#2	H1678.	H582.8	H2034.	76.94	.3045	H797.5	H5183.

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H35680.	H439.3	H4412.	H161700.	H46060.	H167800.	H3398.
#1	H35780.	H437.4	H4418.	H162100.	H46210.	H168000.	H3407.
#2	H35580.	H441.1	H4407.	H161200.	H45900.	H167500.	H3389.

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H3492.	H612.0	10.94	H20620.	L-372.9	L-26.58	H172.9
#1	H3502.	H613.8	10.06	H20680.	L-439.0	L-5.697	H173.0
#2	H3482.	H610.1	11.83	H20570.	L-306.9	L-47.47	H172.9

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H20170.	H729.8	H158.8	H34730.	H18000.	H2144.	H127.9
#1	H20280.	H726.0	H160.8	H34730.	H18190.	H2143.	H130.1
#2	H20070.	H733.6	H156.7	H34720.	H17810.	H2145.	H125.6

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	74.52	47.45	48.48
#1	70.94	47.45	48.48
#2	78.10	47.45	48.48

Method: EPACLP1 Sample Name: Pile 320B Operator: WM
Run Time: 05/21/97 14:27:04
Comment: 3098-25 1/10 x 1/10 dilution MET9702502
Mode: CONC Corr. Factor: 14950

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H1625.	H635.7	H1939.	77.36	.4045	H906.0	H5152.
#1	H1637.	H634.7	H2071.	77.36	.4235	H933.1	H5117.
#2	H1613.	H636.8	H1806.	77.36	.3856	H879.0	H5187.

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H35210.	H441.2	H4383.	H157100.	H45740.	H166700.	H3379.
#1	H34840.	H444.9	H4366.	H155600.	H45250.	H164600.	H3338.
#2	H35570.	H437.5	H4400.	H158700.	H46230.	H168800.	H3420.

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H3241.	H599.9	7.099	H20190.	L-1945.	L-74.02	H161.2
#1	H3090.	H595.3	L-2.081	H20010.	L-822.3	67.45	H161.1
#2	H3393.	H604.5	16.28	H20360.	L-3069.	L-215.5	H161.3

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H20250.	H563.6	H144.9	H35070.	H17770.	H2082.	H138.7
#1	H20150.	H559.2	H139.5	H34810.	H17390.	H2122.	H157.4
#2	H20340.	H568.0	H150.2	H35330.	H18140.	H2043.	H120.0

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	L-122.1	H370.2	52.64
#1	L-400.2	H391.1	52.64
#2	H156.1	H349.4	52.64

Method: EPACLP1 Sample Name: Pile 213A Operator: WM
Run Time: 05/21/97 14:29:57
Comment: 3098-26 1/10 dilution MET9702502
Mode: CONC Corr. Factor: 1215

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H2545.	H674.6	H3039.	150.6	.8718	242.2	H4945.
#1	H2629.	H703.7	H3145.	155.7	1.194	254.1	H5108.
#2	H2460.	H645.5	H2933.	145.5	.5498	230.4	H4782.

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H27910.	H459.8	H4900.	H182600.	H80570.	H202200.	H2374.
#1	H28860.	H473.6	H5066.	H188700.	H83300.	H209000.	H2454.
#2	H26950.	H445.9	H4733.	H176600.	H77850.	H195400.	H2295.

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H2311.	H421.5	13.57	H15560.	L-131.3	L-109.6	H78.20
#1	H2370.	H446.3	15.48	H16110.	L-66.83	L-132.0	H79.81
#2	H2252.	H416.6	11.65	H15010.	L-195.7	L-87.22	H76.58

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H39020.	H1774.	46.84	H36180.	H15970.	H2617.	H194.4
#1	H40290.	H1857.	47.76	H37330.	H16600.	H2700.	H199.3
#2	H37740.	H1691.	45.93	H35030.	H15330.	H2534.	H189.6

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	H127.3	40.82	H158.1
#1	H146.3	44.21	H163.2
#2	H108.2	37.43	H152.9

Method: EPACLP1 Sample Name: Pile 213A Operator: WM
Run Time: 05/21/97 14:38:59
Comment: 3098-26 1/10 x 1/10 dilution MET9702502
Mode: CONC Corr. Factor: 12150

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H2365.	H604.3	H2615.	136.7	.5755	328.2	H4645.
#1	H2384.	H612.4	H2730.	136.7	.5602	349.9	H4664.
#2	H2346.	H596.1	H2500.	136.7	.5908	306.4	H4626.

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H25870.	H446.5	H4543.	H162900.	H75670.	H188900.	H2225.
#1	H25930.	H446.5	H4556.	H163100.	H75810.	H189600.	H2232.
#2	H25820.	H446.5	H4529.	H162700.	H75540.	H188300.	H2218.

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H2120.	H407.7	L-2.872	H14610.	L-2494.	L-174.5	H55.98
#1	H1995.	H407.8	L-10.25	H14690.	L-2601.	L-227.6	H43.42
#2	H2244.	H407.7	4.502	H14530.	L-2387.	L-121.3	H68.53

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H36810.	H1637.	H51.03	H34380.	H15070.	H2388.	H194.7
#1	H36920.	H1703.	H55.03	H34390.	H15280.	H2366.	H194.7
#2	H36700.	H1571.	47.04	H34380.	H14850.	H2409.	H194.7

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	L-47.69	H317.8	H147.7
#1	H204.4	H317.8	H145.6
#2	L-299.8	H317.8	H149.9

Method: EPACLPi Sample Name: Pile 213B Operator: WM
Run Time: 05/21/97 14:42:19
Comment: 3098-27 1/10 dilution MET9702502
Mode: CONC Corr. Factor: 1215

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H1545.	H504.5	H2686.	118.3	.5228	235.6	H4241.
#1	H1547.	H524.6	H2663.	118.8	.5228	224.7	H4267.
#2	H1542.	H484.3	H2708.	117.9	.5228	246.6	H4215.

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H12490.	H415.1	H4368.	H159500.	H70790.	H172500.	H2031.
#1	H12550.	H416.3	H4391.	H160300.	H71040.	H173300.	H2039.
#2	H12440.	H413.9	H4345.	H158700.	H70540.	H171800.	H2023.

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H2109.	H387.2	7.569	H14560.	8.342	L-108.7	H57.65
#1	H2121.	H389.4	6.129	H14630.	L-13.14	L-109.3	H58.10
#2	H2097.	H385.0	9.008	H14500.	29.82	L-108.0	H57.20

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H33810.	H1632.	H53.26	H33410.	H14950.	H1610.	H171.6
#1	H39020.	H1641.	H53.23	H33520.	H14880.	H1613.	H173.2
#2	H33600.	H1623.	H53.29	H33300.	H15030.	H1608.	H170.1

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	67.73	35.17	47.76
#1	94.71	35.17	48.40
#2	40.75	35.17	47.11

Method: EPACLP1 Sample Name: Pile 213B Operator: WM
Run Time: 05/21/97 14:56:55
Comment: 3098-27 1/10 x 1/10 dilution MET9702502
Mode: CONC Corr. Factor: 12150

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H1655.	H560.5	H2865.	127.4	.5119	370.3	H4679.
#1	H1616.	H468.6	H3097.	127.4	.5592	392.4	H4636.
#2	H1693.	H652.3	H2633.	127.4	.4647	348.1	H4722.

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H13760.	H494.7	H4814.	H170300.	H78620.	H189600.	H2248.
#1	H13640.	H488.7	H4773.	H169200.	H78090.	H188400.	H2232.
#2	H13870.	H500.7	H4854.	H171500.	H79160.	H190900.	H2265.

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H2692.	H430.3	12.39	H16210.	L-5286.	L-162.9	H60.63
#1	H2237.	H422.9	4.906	H16110.	L-4749.	L-101.3	H60.51
#2	H3146.	H437.6	19.87	H16310.	L-5823.	L-224.6	H60.76

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H43130.	H1819.	H68.18	H37190.	H16430.	H1749.	H194.7
#1	H42820.	H1725.	H55.49	H36890.	H16120.	H1717.	H194.7
#2	H43440.	H1913.	H80.87	H37480.	H16730.	H1781.	H194.7

Elem	Ti1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	94.32	H283.9	55.63
#1	H146.5	H283.9	55.63
#2	42.14	H283.9	55.63

Method: EPACLP1 Sample Name: CCV6 Operator: WM
Run Time: 05/21/97 15:06:27
Comment: MET9702502
Mode: CONC Corr. Factor: 1

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.065	5.014	1.976	.5258	.5158	.0118	.5052
#1	5.070	5.007	1.962	.5250	.5163	.0100	.5076
#2	5.061	5.021	1.990	.5266	.5153	.0136	.5029

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.017	5.061	.4978	.5351	5.069	4.954	5.021
#1	5.026	5.069	.4979	.5348	5.072	4.960	5.026
#2	5.009	5.053	.4978	.5354	5.065	4.949	5.016

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.225	.5018	.4988	.5285	24.17	2.021	.5045
#1	5.259	.5024	.4988	.5318	24.13	2.030	.5052
#2	5.191	.5012	.4988	.5253	24.21	2.012	.5038

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	26.95	-.0135	.5046	2.517	.1038	.0017	.5080
#1	26.95	-.0063	.5049	2.518	.1348	.0040	.5080
#2	26.95	-.0207	.5042	2.516	.0729	-.0007	.5080

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	.0001	.0248	.0007
#1	.0229	.0252	.0007
#2	-.0228	.0243	.0007

Method: EPACLP1 Sample Name: STD4-CCV6 Operator: WM
Run Time: 05/21/97 15:17:34
Comment: MET9702502
Mode: CONC Corr. Factor: 1

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0162	-.0236	-.0032	.0002	.0001	10.51	-.0014
#1	.0196	-.0211	-.0094	.0006	.0001	10.47	-.0013
#2	.0127	-.0261	.0029	-.0001	.0001	10.56	-.0014

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0218	.0035	-.1875	.0142	.0054	.0344	.0033
#1	.0257	.0045	-.1897	.0150	.0059	.0579	.0044
#2	.0180	.0025	-.1853	.0133	.0049	.0110	.0022

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0002	-.0003	.0012	.0067	-.5014	-.0292	-.0004
#1	.0510	.0003	.0006	.0061	-.5676	-.0299	-.0007
#2	-.0513	-.0009	.0018	.0074	-.4351	-.0285	-.0000

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0576	19.33	.0007	.0028	52.18	10.18	.0000
#1	.0582	19.31	.0011	.0023	52.09	10.16	.0000
#2	.0570	19.35	.0004	.0034	52.27	10.20	.0000

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	10.23	10.70	10.50
#1	10.15	10.67	10.48
#2	10.32	10.74	10.53

Method: EPACLP1 Sample Name: CCB6 Operator: WM
Run Time: 05/21/97 15:23:34
Comment: MET9702502
Mode: CONC Corr. Factor: 1

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0019	-.0006	.0075	-.0001	.0001	.0101	.0016
#1	-.0032	.0094	.0096	-.0001	.0001	.0101	.0021
#2	.0070	-.0106	.0054	-.0001	.0001	.0100	.0011

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0000	.0003	.0022	.0093	.0018	.0164	.0003
#1	-.0022	-.0025	.0011	.0088	.0023	.0113	.0000
#2	.0023	.0030	.0033	.0099	.0013	.0215	.0006

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0172	.0000	-.0000	-.0007	-.2406	.0005	-.0007
#1	-.0717	.0003	-.0018	-.0020	-.3025	.0063	-.0007
#2	.0373	-.0003	.0018	.0006	-.1787	-.0054	-.0007

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0279	.0013	-.0003	.0000	-.0080	-.0027	.0000
#1	.0273	.0004	-.0011	.0000	-.0234	-.0054	.0000
#2	.0285	.0022	.0004	.0000	.0073	-.0001	.0000

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	-.0193	.0248	.0016
#1	-.0172	.0252	.0014
#2	-.0214	.0243	.0018

Method: EPACLP1 Sample Name: 3098-14 Operator: WM
Run Time: 05/21/97 15:32:57
Comment: 1/10 x 1/5 serial dilution MET9702502
Mode: CONC Corr. Factor: 5405

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H13330.	H15530.	H6847.	130.5	.0908	H1170.	H1013.
#1	H13360.	H15550.	H6961.	130.5	.0768	H1209.	H1018.
#2	H13300.	H15500.	H6733.	130.5	.1047	H1131.	H1008.

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H87530.	80.29	6.859	H19760.	H11040.	H170600.	H8280.
#1	H87840.	77.62	6.799	H19740.	H11090.	H171100.	H8305.
#2	H87230.	82.97	6.919	H19770.	H11000.	H170000.	H8254.

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H8610.	H421.3	1.697	H441.6	H1805.	H149.8	H423.6
#1	H8757.	H422.9	4.995	H417.1	H2187.	H106.4	H427.4
#2	H8462.	H419.6	L-1.602	H466.1	H1423.	H193.1	H419.9

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H28050.	H1831.	H65.10	H39410.	H2347.	H1245.	H262.3
#1	H28130.	H1826.	H68.88	H39490.	H2535.	H1240.	H259.6
#2	H27970.	H1835.	H61.32	H39320.	H2158.	H1249.	H265.0

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	L-279.4	H204.2	H169.6
#1	L-234.6	H201.7	H169.6
#2	L-324.2	H206.7	H169.6

Method: EPACLP1 Sample Name: Method Blank Operator: WM
Run Time: 05/21/97 15:43:57
Comment: PBW 3098 MET9702502
Mode: CONC Corr. Factor: 1

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	L.0023	L-.0019	L.0007	L.0006	L.0001	L.0118	L.0011
#1	L.0070	L-.0007	L.0014	L.0006	L.0001	L.0101	L.0011
#2	L-.0024	L-.0031	L.0001	L.0006	L.0001	L.0136	L.0011

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	L.0051	L.0003	L-.0000	.0096	L.0031	L.0143	.0072
#1	L.0067	L.0005	L.0011	.0099	L.0033	L.0113	.0072
#2	L.0035	L.0000	L-.0011	.0093	L.0028	L.0173	.0072

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	L.0033	L.0000	L-.0006	L-.0045	L-.1257	L.0056	L-.0004
#1	L-.0240	L.0003	L.0006	L-.0084	L-.1522	L.0180	L-.0000
#2	L.0305	L-.0003	L-.0018	L-.0007	L-.0992	L-.0068	L-.0007

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	L.0203	L-.0022	L-.0004	L.0023	L-.0042	L.0542	L.0000
#1	L.0194	L.0004	L-.0003	L.0023	L-.0158	L.0562	L.0000
#2	L.0212	L-.0047	L-.0004	L.0023	L.0074	L.0521	L.0000

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	L-.0131	.0252	L.0003
#1	L-.0131	.0243	L.0003
#2	L-.0131	.0262	L.0003

Method: EPACLP1 Sample Name: LCSW Operator: WM
Run Time: 05/21/97 15:47:23
Comment: LCSW 3098 MET9702502
Mode: CONC Corr. Factor: 1

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.075	2.483	2.437	5.308	.1298	.9994	1.272
#1	5.087	2.475	2.449	5.316	.1298	.9905	1.268
#2	5.062	2.491	2.425	5.301	.1298	1.008	1.276

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	12.65	.5044	1.199	.6374	2.507	2.475	12.45
#1	12.64	.5052	1.196	.6374	2.510	2.458	12.44
#2	12.66	.5037	1.202	.6374	2.505	2.492	12.45

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	12.99	1.263	.9731	1.319	12.10	2.473	.6182
#1	13.05	1.262	.9725	1.309	12.04	2.495	.6175
#2	12.93	1.263	.9737	1.330	12.16	2.452	.6189

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	13.39	4.724	1.291	1.246	.1124	.0935	L.0025
#1	13.40	4.701	1.291	1.245	.0947	.0932	L.0025
#2	13.38	4.747	1.292	1.246	.1301	.0938	L.0025

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	2.489	.0299	L.0007
#1	2.556	.0308	L.0007
#2	2.423	.0289	L.0007

Method: EPACLP1 Sample Name: LCSW Si Operator: WM
Run Time: 05/21/97 15:49:25
Comment: LCSW 3098 MET9702502
Mode: CONC Corr. Factor: 1

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	L.0089	L.0044	L-.0129	.0021	L.0001	L.0154	L.0007
#1	L.0078	L.0069	L-.0109	.0021	L.0001	L.0172	L.0001
#2	L.0101	L.0018	L-.0150	.0021	L.0001	L.0136	L.0013

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	L.0136	L.0022	L.0022	.0105	L.0044	L.0133	.0110
#1	L.0132	L.0015	L.0033	.0105	L.0044	L.0195	.0110
#2	L.0140	L.0030	L.0011	.0105	L.0044	L.0072	.0110

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	L.0510	L.0003	L.0012	L-.0020	L.1969	L-.0039	L-.0007
#1	L.0237	L.0003	L.0018	L.0006	L.1306	L-.0112	L-.0007
#2	L.0782	L.0003	L.0006	L-.0045	L.2632	L.0034	L-.0007

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	8.984	L-.0013	L.0007	L.0040	L.0053	4.817	L.0000
#1	9.039	L-.0116	L-.0003	.0057	L.0190	4.825	L.0000
#2	8.929	L.0090	L.0017	L.0023	L-.0083	4.808	L.0000

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	L-.0152	.0285	L.0005
#1	L-.0089	.0289	L.0003
#2	L-.0214	.0280	L.0007

Method: EPACLP1 Sample Name: EB-2 Operator: WM
Run Time: 05/21/97 15:53:07
Comment: 3098-1 MET9702502
Mode: CONC Corr. Factor: 1

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	L.0015	L-.0069	L-.0095	L.0006	L.0001	L.0082	L.0001
#1	L.0015	L-.0056	L-.0135	L.0006	L.0001	L.0065	L.0013
#2	L.0015	L-.0081	L-.0054	L.0006	L.0001	L.0100	L-.0010

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	L.0075	L.0017	L.0011	.0082	L.0036	L.0159	.0080
#1	L.0071	L.0015	L.0011	.0088	L.0038	L.0133	.0082
#2	L.0079	L.0020	L.0011	.0076	L.0033	L.0184	.0077

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	L.0305	L.0009	L-.0012	L.0019	L-.0152	L.0100	L-.0007
#1	L.0237	L.0009	L-.0018	L.0019	L-.1080	L.0019	L-.0007
#2	L.0373	L.0009	L-.0006	L.0019	L.0776	L.0180	L-.0007

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	L.0269	L-.0076	L-.0007	L.0023	L-.0198	.0912	L.0000
#1	L.0266	L-.0087	L-.0011	L.0023	L-.0354	.0926	L.0000
#2	L.0273	L-.0064	L-.0004	L.0023	L-.0043	.0897	L.0000

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	L-.0151	.0262	L.0003
#1	L-.0047	.0262	L.0003
#2	L-.0255	.0262	L.0003

Method: EPACLP1 Sample Name: FB-2 Operator: WM
Run Time: 05/21/97 15:55:05
Comment: 3098-42 wm 5/21/97 MET9702502
Mode: CONC Corr. Factor: 1

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	L-.0001	L-.0132	L-.0088	L.0006	L.0001	L.0101	L.0007
#1	L.0015	L-.0106	L-.0040	L.0006	L.0001	L.0100	L.0012
#2	L-.0017	L-.0157	L-.0135	L.0006	L.0001	L.0101	L.0002

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	L.0010	L-.0012	L.0011	.0057	L.0038	L.0077	.0072
#1	L.0002	L-.0010	L.0011	.0060	L.0033	L.0010	.0072
#2	L.0018	L-.0015	L.0011	.0054	L.0044	L.0143	.0072

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	L-.0172	L.0000	L.0018	L-.0084	L.1085	L-.0222	L-.0011
#1	L-.0104	L-.0003	L-.0006	L-.0071	L-.0020	L-.0156	L-.0014
#2	L-.0240	L.0003	.0043	L-.0097	L.2190	L-.0287	L-.0007

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	L.0273	L-.0068	L-.0003	L.0029	L-.0042	L.0198	L.0000
#1	L.0285	L-.0059	L-.0004	L.0023	L-.0275	L.0210	L.0000
#2	L.0260	L-.0076	L-.0002	L.0034	L.0192	L.0187	L.0000

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	L.0015	.0252	L.0003
#1	L-.0089	.0243	L.0003
#2	L.0119	.0262	L.0003

Method: EPACLP1 Sample Name: FB-2 Operator: WM
Run Time: 05/21/97 15:58:05
Comment: 3098-2D MET9702502
Mode. CONC Corr. Factor: 1

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	L.0038	L-.0025	L.0027	L.0006	L.0001	L.0136	L-.0000
#1	L.0007	L.0019	L.0191	L.0006	L.0001	L.0100	L-.0013
#2	L.0070	L-.0069	L-.0136	L.0006	L.0001	L.0172	L.0013

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	L.0049	L.0007	L.0022	.0054	L.0031	L.0164	.0072
#1	L.0047	L.0015	L.0011	.0054	L.0023	L.0235	.0072
#2	L.0051	L.0000	L.0033	.0054	L.0038	L.0092	.0072

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	L.0203	L.0006	L.0012	L-.0007	L-.0108	L-.0061	L-.0007
#1	L.0237	L.0003	L-.0006	L.0058	L-.0727	L-.0024	L-.0007
#2	L.0169	L.0009	L.0030	L-.0071	L.0511	L-.0098	L-.0007

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0421	L-.0073	L.0011	L.0023	L-.0159	.0612	L.0000
#1	.0400	L-.0030	L.0017	L.0023	L.0074	.0615	L.0000
#2	.0443	L-.0116	L.0004	L.0023	L-.0393	.0609	L.0000

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	L-.0048	.0271	L.0003
#1	L-.0006	.0262	L.0003
#2	L-.0089	.0280	L.0003

Method: EPACLP1 Sample Name: FB-2 Operator: WM
Run Time: 05/21/97 16:00:16
Comment: 3098-2S MET9702502
Mode: CONC Corr. Factor: 1

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.974	.4863	1.853	2.052	.0508	.9964	.0487
#1	1.969	.4831	1.852	2.050	.0508	.9946	.0487
#2	1.979	.4894	1.854	2.054	.0508	.9982	.0487

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	L.0115	.1950	.4400	.2529	.9782	.4878	.0093
#1	L.0138	.1945	.4389	.2527	.9782	.4770	.0093
#2	L.0093	.1955	.4411	.2532	.9782	.4985	.0093

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	L.0246	.4853	.9729	.5021	L.0157	.9463	.0496
#1	L.0416	.4842	.9698	.4943	L.0511	.9573	.0492
#2	L.0075	.4865	.9759	.5099	L-.0197	.9354	.0499

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	8.909	4.618	.4881	.4892	L.0253	4.690	L.0000
#1	8.896	4.600	.4880	.4904	L.0253	4.688	L.0000
#2	8.922	4.636	.4882	.4881	L.0253	4.692	L.0000

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	L-.0037	.0271	L.0005
#1	L-.0307	.0280	L.0007
#2	L.0233	.0262	L.0003

Method: EPACLP1 Sample Name: CCV7 Operator: WM
Run Time: 05/21/97 16:07:29
Comment: MET9702502
Mode: CONC Corr. Factor: 1

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.931	4.878	1.899	.5072	.4958	.0155	.5033
#1	4.996	4.930	1.923	.5144	.5030	.0172	.5058
#2	4.865	4.826	1.875	.5000	.4885	.0137	.5008

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.937	4.944	.4869	.4926	4.931	4.839	4.919
#1	4.987	4.995	.4913	.4997	4.992	4.897	4.973
#2	4.887	4.893	.4826	.4856	4.870	4.781	4.865

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.137	.4890	.4890	.5247	24.30	1.925	.4961
#1	5.177	.4952	.4963	.5331	24.47	1.951	.5010
#2	5.096	.4827	.4817	.5162	24.13	1.900	.4913

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	26.26	-.0035	.4893	2.488	.1053	.0096	.4935
#1	26.64	.0138	.4951	2.511	.0930	.0028	.5000
#2	25.88	-.0208	.4835	2.464	.1176	.0163	.4870

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	.0128	.0308	.0005
#1	.0189	.0317	.0003
#2	.0067	.0299	.0007

Method: EPACLP1 Sample Name: STD4-CCV7 Operator: WM
Run Time: 05/21/97 16:09:26
Comment: MET9702502
Mode: CONC Corr. Factor: 1

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0080	-.0267	-.0066	.0006	.0001	10.22	-.0013
#1	.0112	-.0248	-.0039	.0006	.0001	10.20	-.0013
#2	.0049	-.0286	-.0093	.0006	.0001	10.24	-.0012

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0180	.0040	-.1798	.0034	.0089	.0111	.0039
#1	.0196	.0040	-.1787	.0037	.0099	.0213	.0050
#2	.0164	.0040	-.1809	.0031	.0079	.0008	.0028

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0135	.0000	.0024	.0093	.3958	-.0168	-.0007
#1	.0441	-.0003	.0043	.0100	.5460	-.0153	-.0014
#2	-.0172	.0003	.0006	.0087	.2455	-.0183	-.0000

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0789	19.15	.0001	.0022	50.37	9.882	.0003
#1	.0807	19.16	-.0002	.0022	50.40	9.898	.0000
#2	.0771	19.14	.0004	.0022	50.34	9.865	.0005

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	9.998	10.22	10.01
#1	9.973	10.17	9.983
#2	10.02	10.28	10.04

Method: EPACLP1 Sample Name: CCB7 Operator: WM
Run Time: 05/21/97 16:11:25
Comment: MET9702502
Mode: CONC Corr. Factor: 1

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0044	.0025	-.0019	.0006	.0001	.0351	.0011
#1	-.0056	.0018	-.0026	.0006	.0001	.0459	.0022
#2	-.0032	.0032	-.0013	.0006	.0001	.0244	.0001

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0041	.0012	.0033	.0031	.0046	.0159	.0017
#1	.0018	-.0005	.0011	.0026	.0049	.0102	.0017
#2	.0063	.0030	.0055	.0037	.0044	.0215	.0017

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0169	.0003	.0018	-.0000	.6521	-.0039	-.0004
#1	-.0172	.0003	.0018	-.0058	.6786	-.0127	-.0007
#2	.0510	.0003	.0018	.0058	.6256	.0048	-.0000

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0476	-.0010	.0007	.0006	-.0023	.0052	.0030
#1	.0455	.0016	-.0003	.0000	.0075	.0028	.0030
#2	.0497	-.0036	.0018	.0011	-.0121	.0075	.0030

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	.0056	.0327	.0028
#1	-.0006	.0336	.0032
#2	.0119	.0317	.0025

Method: EPACLP1 Sample Name: ICSA Operator: WM
Run Time: 05/21/97 16:13:36
Comment: MET9702502
Mode: CONC Corr. Factor: 1

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	484.7	.0168	.0575	.0052	.0003	.0225	-.0016
#1	489.9	.0179	.0181	.0052	.0000	.0241	-.0033
#2	479.4	.0156	.0968	.0052	.0006	.0210	.0000

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	462.4	.0005	.0012	.0226	170.3	.0178	273.8
#1	465.2	.0008	.0013	.0238	171.9	.0276	273.6
#2	459.6	.0002	.0012	.0213	168.8	.0080	274.0

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	488.6	.0251	-.0002	-.0169	-.6914	-.5132	.0014
#1	493.7	.0255	-.0023	-.0188	-.9124	-.5168	.0009
#2	483.6	.0247	.0020	-.0149	-.4704	-.5096	.0019

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0734	.0529	.0041	.0115	.3901	.1108	.0160
#1	.0686	.0971	.0037	.0118	.3621	.1138	.0160
#2	.0783	.0087	.0045	.0111	.4181	.1079	.0160

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	.1545	.1243	.0099
#1	.2015	.1229	.0102
#2	.1074	.1257	.0095

Method: EPACLP1 Sample Name: ICSAB Operator: WM
Run Time: 05/21/97 16:16:42
Comment: MET9702502
Mode: CONC Corr. Factor: 1

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	479.5	.9581	.0246	.4863	.4611	.0314	.9001
#1	478.6	.9675	.0453	.4863	.4603	.0316	.8960
#2	480.4	.9487	.0040	.4863	.4619	.0312	.9042

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	459.8	.4345	.4213	.4711	169.0	.9072	273.6
#1	459.5	.4340	.4223	.4688	168.8	.9162	273.7
#2	460.1	.4350	.4202	.4733	169.2	.8983	273.6

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	484.6	.4568	.8792	.8802	-.5986	-.3705	.9046
#1	484.1	.4565	.8786	.8731	-.4881	-.3947	.9050
#2	485.0	.4572	.8798	.8873	-.7091	-.3463	.9043

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.3249	.0318	.4515	.8774	.1847	.5898	.0130
#1	.3298	.0664	.4514	.8746	.2218	.5886	.0130
#2	.3201	-.0028	.4515	.8802	.1477	.5909	.0130

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	.2120	.1215	.0086
#1	.2625	.1201	.0085
#2	.1614	.1229	.0088

Method: EPACLP1 Sample Name: CCV8 Operator: WM
Run Time: 05/21/97 16:18:53
Comment: MET9702502
Mode: CONC Corr. Factor: 1

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.927	4.756	1.858	.4882	.4781	.0191	.4882
#1	4.937	4.739	1.875	.4863	.4757	.0173	.4874
#2	4.918	4.774	1.841	.4901	.4805	.0209	.4890

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.974	4.805	.4738	.4808	4.870	4.720	4.955
#1	4.978	4.778	.4694	.4799	4.862	4.690	4.964
#2	4.971	4.831	.4782	.4816	4.878	4.750	4.946

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.103	.4750	.4763	.5026	23.79	1.892	.4836
#1	5.082	.4732	.4720	.5020	23.77	1.903	.4815
#2	5.123	.4767	.4805	.5033	23.81	1.881	.4857

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	25.38	-.0082	.4739	2.435	.1057	.0058	.4775
#1	25.30	-.0015	.4714	2.427	.1057	.0058	.4750
#2	25.46	-.0149	.4765	2.443	.1056	.0058	.4800

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	-.0225	.0303	.0011
#1	-.0267	.0308	.0011
#2	-.0184	.0299	.0011

Method: EPACLP1 Sample Name: STD4-CCV8 Operator: WM
Run Time: 05/21/97 16:20:54
Comment: MET9702502
Mode: CONC Corr. Factor: 1

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1081	-.0155	.0062	.0006	.0001	9.916	.0003
#1	.1147	-.0173	.0197	.0006	.0001	9.925	.0007
#2	.1014	-.0136	-.0074	.0006	.0001	9.907	-.0001

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1241	.0045	-.1743	.0051	.0625	.0126	.1116
#1	.1327	.0035	-.1743	.0054	.0673	.0141	.1215
#2	.1154	.0055	-.1743	.0048	.0578	.0111	.1017

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1292	.0000	.0018	.0080	.9747	-.0314	-.0010
#1	.1190	-.0003	.0006	.0087	.9703	-.0255	-.0014
#2	.1394	.0003	.0030	.0074	.9791	-.0372	-.0007

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0910	18.51	.0014	.0028	48.73	9.637	.0010
#1	.0935	18.51	.0017	.0034	48.84	9.661	.0010
#2	.0886	18.51	.0011	.0022	48.62	9.612	.0010

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	9.513	9.837	9.651
#1	9.474	9.865	9.682
#2	9.553	9.810	9.620

Method: EPACLP1 Sample Name: CCB8 Operator: WM
Run Time: 05/21/97 16:28:33
Comment: MET9702502
Mode: CONC Corr. Factor: 1

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0044	-.0056	-.0019	.0006	.0001	.0100	.0000
#1	-.0032	-.0019	.0056	.0006	.0001	.0100	-.0001
#2	-.0056	-.0093	-.0094	.0006	.0001	.0100	.0001

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0071	.0012	.0000	.0017	.0101	.0036	.0085
#1	.0095	.0015	.0011	.0026	.0104	.0010	.0099
#2	.0047	.0010	-.0011	.0009	.0099	.0061	.0072

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0206	.0000	.0018	.0052	.5018	-.0090	-.0014
#1	-.0172	-.0003	.0006	-.0020	.6344	-.0112	-.0007
#2	-.0240	.0003	.0030	.0123	.3692	-.0068	-.0021

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0355	-.0084	-.0010	.0000	.0153	-.0036	-.0012
#1	.0358	-.0104	-.0010	.0012	.0697	-.0042	-.0025
#2	.0352	-.0064	-.0010	-.0012	-.0391	-.0030	.0000

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	-.0089	.0294	.0011
#1	.0285	.0280	.0011
#2	-.0463	.0308	.0011

Method: EPACLP1 Sample Name: Amarillo Brick Operator: WM
Run Time: 05/21/97 16:32:20
Comment: 3098-28S ICP/MS SPIKE 5/10 DILUTION MET9702502
Mode: CONC Corr. Factor: 201.8

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H13300.	H6219.	H2557.	H5840.	5.004	H6153.	17.49
#1	H13250.	H6198.	H2550.	H5822.	5.007	H6137.	17.45
#2	H13350.	H6241.	H2564.	H5858.	5.001	H6168.	17.53

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H15600.	H1023.	97.06	H28040.	H7296.	H9893.	H32990.
#1	H15550.	H1018.	97.05	H27910.	H7273.	H9855.	H32900.
#2	H15650.	H1028.	97.08	H28170.	H7319.	H9931.	H33080.

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H42440.	147.0	15.67	H1292.	78.97	H30750.	H468.0
#1	H42310.	146.6	15.42	H1286.	81.65	H30600.	H467.5
#2	H42570.	147.4	15.92	H1298.	76.30	H30910.	H468.6

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H41930.	H1313.	H109.2	H527.8	H6214.	H1213.	H176.8
#1	H41840.	H1311.	H108.4	H525.4	H6156.	H1208.	H176.1
#2	H42020.	H1315.	H110.0	H530.2	H6273.	H1218.	H177.6

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	7.574	18.51	53.07
#1	8.061	18.41	52.93
#2	7.088	18.60	53.22

Method: EPACLPi Sample Name: CCV9 Operator: EM
Run Time: 05/21/97 16:45:43
Comment: MET9702502
Mode: CONC Corr. Factor: 1

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.983	4.967	1.936	.5034	.4952	.0209	.4974
#1	4.971	4.952	1.953	.5023	.4939	.0209	.4945
#2	4.995	4.983	1.920	.5046	.4965	.0209	.5003

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.955	4.942	.4968	.5071	4.947	4.872	4.991
#1	4.947	4.928	.4979	.5059	4.937	4.860	4.982
#2	4.963	4.956	.4956	.5082	4.958	4.885	5.001

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.075	.4955	.5097	.5032	23.34	2.025	.4965
#1	5.089	.4952	.5097	.5110	23.45	2.017	.4955
#2	5.061	.4958	.5097	.4955	23.23	2.033	.4976

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	25.57	-.0089	.4963	2.438	.0974	.0099	.4915
#1	25.51	-.0062	.4946	2.434	.1013	.0116	.4910
#2	25.64	-.0117	.4981	2.442	.0934	.0081	.4920

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	-.0121	.0313	.0003
#1	.0108	.0317	.0003
#2	-.0350	.0308	.0003

Method: EPACLP1 Sample Name: CCB9 Operator: EM
Run Time: 05/21/97 16:47:46
Comment: MET9702502
Mode: CONC Corr. Factor: 1

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0083	.0025	-.0006	.0006	-.0005	.0083	.0022
#1	-.0134	.0019	.0029	.0006	-.0005	.0065	.0022
#2	-.0032	.0032	-.0040	.0006	-.0005	.0100	.0023

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0000	-.0002	.0022	.0060	.0051	.0103	.0011
#1	-.0014	.0000	.0011	.0060	.0054	.0113	.0011
#2	.0014	-.0005	.0033	.0060	.0049	.0093	.0011

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0104	-.0003	-.0012	-.0000	.1571	-.0119	-.0007
#1	-.0036	-.0003	-.0006	-.0045	.0864	-.0112	-.0014
#2	-.0172	-.0003	-.0018	.0045	.2278	-.0127	-.0000

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0348	-.0085	.0013	.0000	.0192	-.0001	.0000
#1	.0358	-.0139	.0024	.0012	.0192	-.0019	.0000
#2	.0339	-.0030	.0003	-.0011	.0192	.0017	.0000

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	-.0235	.0294	.0003
#1	-.0214	.0289	.0003
#2	-.0256	.0299	.0003

Method: EPACLP1 Standard: STD1-Blank

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Avge	.0179	.0004	-.0009	.0039	.0011	.0036	.0000
#1	.0186	.0006	-.0017	.0039	.0011	.0039	.0000
#2	.0173	.0003	.0000	.0039	.0011	.0034	.0000

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Avge	-.0012	.0007	-.0001	.0009	.0281	-.0001	.0006
#1	-.0014	.0003	-.0003	.0009	.0280	-.0004	.0007
#2	-.0011	.0011	.0000	.0010	.0283	.0001	.0006

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Avge	.0009	.0001	.0001	.0003	.3056	.0001	-.0011
#1	.0003	.0000	.0000	.0003	.3036	.0009	-.0013
#2	.0014	.0001	.0003	.0003	.3076	-.0007	-.0010

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Avge	.0737	.0008	.0001	.0004	.0325	.0113	.0013
#1	.0736	.0016	-.0001	.0004	.0330	.0114	.0011
#2	.0739	.0000	.0003	.0004	.0320	.0111	.0014

Elem	Tl1908	Li6707	Sr4215
Avge	-.0004	.0234	.0000
#1	-.0016	.0234	.0000
#2	.0007	.0234	.0000

Method: EPACLP1 Standard: STD2

Elem	Sb2068	Ba4934	Cd2288	Cr2677	Ni2316	K_7665	Ag3280
Avge	1.146	.2006	.1266	2.901	.1115	1.110	.2051
#1	1.137	.1983	.1254	2.874	.1107	1.103	.2034
#2	1.156	.2029	.1277	2.928	.1123	1.116	.2069

Elem	Na5889
Avge	12.62
#1	12.49
#2	12.75

Method: EPACLP1 Standard: STD4

Elem	B_2496	Sn1899	P_2149	Si2881	Tl1908	Li6707	Sr4215
Avge	.4281	4.977	1.917	2.498	.3586	1.735	4.313
#1	.4263	4.982	1.908	2.491	.3580	1.733	4.303
#2	.4300	4.972	1.925	2.504	.3593	1.736	4.323

Method: EPACLP1 Standard: STD3

Elem	Al3082	As1936	Be3130	Ca3179	Co2286	Cu3247	Fe2599
Avge	1.905	.4201	.2873	1.775	.1316	.2614	2.880
#1	1.914	.4229	.2884	1.779	.1320	.2619	2.889
#2	1.896	.4173	.2861	1.770	.1311	.2609	2.872

Elem	Pb2203	Mg2795	Mg3832	Mn2576	Mo2020	Se1960	V_2924
Avge	1.370	2.664	.2211	.2449	.1199	.3910	.2089
#1	1.374	2.671	.2224	.2457	.1200	.3940	.2096
#2	1.366	2.657	.2197	.2441	.1199	.3880	.2083

Elem	Zn2138	Ti3349
Avge	.6241	.2944
#1	.6239	.2956
#2	.6243	.2931

Method: EPACLP1 Sample Name: ICV-2 Operator: WM
Run Time: 05/22/97 12:48:59
Comment: MET9702504
Mode: CONC Corr. Factor: 1

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.228	2.518	2.602	5.355	.1269	.0038	1.340
#1	5.208	2.511	2.566	5.330	.1262	.0038	1.339
#2	5.247	2.526	2.639	5.380	.1276	.0038	1.341

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	13.18	.5253	1.310	.6630	2.614	2.621	12.96
#1	13.16	.5236	1.306	.6603	2.608	2.622	12.94
#2	13.20	.5271	1.315	.6657	2.621	2.619	12.99

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	12.95	1.306	5.140	1.344	13.03	2.648	.6545
#1	12.99	1.302	5.124	1.332	13.11	2.618	.6528
#2	12.91	1.310	5.156	1.355	12.96	2.678	.6563

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	13.08	-.0078	1.302	1.326	.1602	.0428	-.0017
#1	13.05	-.0119	1.297	1.324	.1602	.0431	-.0029
#2	13.12	-.0038	1.307	1.328	.1602	.0425	-.0005

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	2.521	.0067	.0012
#1	2.511	.0067	.0013
#2	2.531	.0067	.0010

Method: EPACLP1 Sample Name: ICV-STD4-2 Operator: WM
Run Time: 05/22/97 12:50:56
Comment: MET9702504
Mode: CONC Corr. Factor: 1

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0012	.0007	.0021	.0022	.0003	4.982	.0008
#1	.0018	-.0005	-.0000	.0022	.0003	4.989	.0019
#2	-.0042	.0019	.0042	.0022	.0003	4.976	-.0004

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0115	-.0008	-.0462	.0034	.0005	.0195	.0070
#1	.0127	-.0013	-.0473	.0039	.0005	.0211	.0072
#2	.0103	-.0003	-.0451	.0028	.0005	.0180	.0067

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0228	.0009	.0071	.0033	-.4841	.0219	.0004
#1	-.0520	.0009	.0071	.0052	-.4352	.0227	.0000
#2	.0065	.0009	.0071	.0013	-.5329	.0212	.0007

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	16.26	4.982	.0025	.0092	5.014	4.773	5.117
#1	16.29	4.971	.0029	.0114	5.067	4.773	5.117
#2	16.22	4.994	.0022	.0069	4.961	4.772	5.118

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	-.0278	5.088	5.011
#1	-.0556	5.104	5.014
#2	.0001	5.073	5.008

Method: EPACLP1 Sample Name: CCV10 Operator: WM
Run Time: 05/22/97 12:53:52
Comment: MET9702504
Mode: CONC Corr. Factor: 1

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.017	5.001	2.046	.5098	.5012	.0166	.5059
#1	5.036	5.017	2.048	.5127	.5037	.0217	.5036
#2	4.998	4.986	2.045	.5069	.4987	.0116	.5081

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.033	5.084	.5062	.5071	5.096	5.005	5.041
#1	5.048	5.100	.5062	.5099	5.111	5.025	5.057
#2	5.018	5.068	.5062	.5044	5.080	4.984	5.026

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.998	.5000	.5015	.5151	24.92	2.033	.5056
#1	5.001	.5009	.5063	.5183	24.99	2.014	.5056
#2	4.995	.4991	.4968	.5119	24.84	2.053	.5056

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	25.26	-.0150	.5042	2.532	.1064	.0207	.5026
#1	25.34	-.0091	.5054	2.535	.1025	.0190	.5035
#2	25.17	-.0208	.5031	2.529	.1104	.0224	.5016

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	.0239	.0046	.0022
#1	.0259	.0050	.0020
#2	.0220	.0042	.0023

Method: EPACLP1 Sample Name: STD4-CCV10 Operator: WM
Run Time: 05/22/97 12:55:53
Comment: MET9702504
Mode: CONC Corr. Factor: 1

Elem	A_3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0179	-.0073	.0140	.0007	-.0000	10.11	.0007
#1	.0171	-.0105	.0112	.0007	-.0000	10.10	.0007
#2	.0186	-.0042	.0168	.0007	-.0000	10.13	.0007

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0201	.0022	-.1879	.0019	-.0033	.0024	.0035
#1	.0187	.0020	-.1879	.0019	-.0030	-.0044	.0035
#2	.0215	.0025	-.1879	.0019	-.0035	.0091	.0035

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0260	.0009	-.0000	.0073	-.5462	.0017	.0007
#1	-.0390	.0009	-.0000	.0041	-.5684	-.0092	.0000
#2	-.0130	.0009	-.0000	.0105	-.5240	.0126	.0014

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0768	20.27	.0013	.0057	50.31	10.05	.0005
#1	.0808	20.25	.0010	.0057	50.49	10.08	.0005
#2	.0729	20.29	.0017	.0057	50.14	10.03	.0005

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	10.00	10.08	10.08
#1	10.03	10.11	10.11
#2	9.978	10.06	10.05

Method: EPACLP1 Sample Name: CCB10 Operator: WM
Run Time: 05/22/97 12:57:54
Comment: MET9702504
Mode: CONC Corr. Factor: 1

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0011	-.0013	.0160	.0000	.0000	.0303	-.0002
#1	-.0041	-.0113	.0112	:0000	.0000	.0421	-.0001
#2	.0019	.0087	.0209	-.0000	-.0000	.0185	-.0002

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0002	.0007	.0022	.0005	.0018	.0110	.0003
#1	-.0002	.0005	.0011	.0003	.0018	.0125	.0003
#2	-.0002	.0010	.0032	.0008	.0018	.0094	.0003

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0130	.0003	.0006	-.0077	-.3331	.0197	-.0000
#1	-.0195	.0003	-.0012	-.0077	-.3730	.0153	-.0007
#2	.0455	.0003	.0024	-.0077	-.2931	.0241	.0007

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0017	-.0034	-.0003	.0012	.0019	.0083	.0005
#1	-.0023	-.0055	-.0010	.0012	-.0094	.0092	.0005
#2	-.0011	-.0014	.0004	.0012	.0131	.0075	.0005

Elem	Ti1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	-.0040	.0038	.0031
#1	-.0000	.0033	.0036
#2	-.0080	.0042	.0026

Method: EPACLP1 Sample Name: MRL STD Operator: WM
Run Time: 05/22/97 13:00:28
Comment: MET9702504
Mode: CONC Corr. Factor: 1

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0959	.0988	.2111	.0102	.0097	.0067	.0085
#1	.0990	.1013	.2062	.0102	.0094	.0084	.0080
#2	.0929	.0963	.2160	.0102	.0099	.0050	.0090

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0971	.0103	.0207	.0206	.0415	.1071	.0196
#1	.0979	.0103	.0207	.0206	.0418	.1097	.0196
#2	.0963	.0103	.0207	.0206	.0413	.1045	.0196

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0099	.0099	.0000	.0359	3.588	.1992	.0191
#1	-.0131	.0096	.0000	.0347	3.570	.2123	.0188
#2	-.0066	.0102	.0000	.0372	3.606	.1860	.0195

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.2012	.0053	.0201	.0205	.0013	.0052	-.0000
#1	.2003	.0004	.0197	.0216	-.0101	.0052	.0005
#2	.2021	.0101	.0204	.0193	.0127	.0052	-.0005

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	-.0378	.0050	.0022
#1	-.0239	.0058	.0026
#2	-.0517	.0042	.0017

Method: EPACLP1 Sample Name: ICSA Operator: WM
Run Time: 05/22/97 13:02:39
Comment: MET9702504
Mode: CONC Corr. Factor: 1

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	492.3	.0196	.1127	.0047	-.0000	.0052	-.0028
#1	491.7	.0096	.1123	.0051	-.0000	.0020	-.0012
#2	492.8	.0295	.1130	.0044	-.0000	.0083	-.0045

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	471.4	-.0004	.0014	.0097	174.6	.0040	275.7
#1	470.5	-.0022	.0014	.0105	174.4	.0170	275.0
#2	472.3	.0013	.0014	.0089	174.8	-.0090	276.3

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	478.7	.0230	.0035	-.0128	-1.230	-.3333	.0033
#1	478.2	.0221	.0029	-.0154	-1.270	-.3021	.0047
#2	479.1	.0239	.0042	-.0103	-1.190	-.3645	.0020

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0555	.0756	.0088	.0137	.1562	.1054	.0141
#1	.0529	.0873	.0084	.0143	.1590	.1034	.0141
#2	.0581	.0639	.0091	.0131	.1535	.1074	.0141

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	.1214	.0881	.0083
#1	.0943	.0893	.0086
#2	.1485	.0868	.0079

Method: EPACLP1 Sample Name: ICSAB Operator: WM
Run Time: 05/22/97 13:05:32
Comment: MET9702504
Mode: CONC Corr. Factor: 1

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	487.1	.9576	.1617	.4840	.4601	.0108	.9163
#1	484.3	.9352	.0796	.4807	.4568	.0120	.9115
#2	489.8	.9799	.2439	.4873	.4633	.0095	.9211

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	469.0	.4402	.4349	.4770	173.3	.9159	275.8
#1	466.6	.4375	.4316	.4728	172.2	.9094	275.2
#2	471.4	.4430	.4382	.4812	174.3	.9225	276.4

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	472.7	.4615	.8850	.8698	-.9903	-.3243	.9186
#1	469.8	.4591	.8777	.8717	-.8527	-.2936	.9156
#2	475.6	.4638	.8923	.8679	-1.128	-.3551	.9215

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.2869	.0143	.4628	.8950	.2508	.5995	.0151
#1	.2840	.0172	.4590	.8894	.2885	.5958	.0151
#2	.2897	.0114	.4667	.9006	.2130	.6032	.0151

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	.1432	.0889	.0076
#1	.1822	.0893	.0076
#2	.1043	.0885	.0076

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Method: EPACLP1 Sample Name: 3098-5 Operator: WM
Run Time: 05/22/97 13:21:50
Comment: 5/10 DILUTION MET9702504
Mode: CONC Corr. Factor: 224

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H6653.	H6309.	H2029.	H5352.	1.117	H7130.	H590.3
#1	H6629.	H6288.	H2026.	H5329.	1.121	H7080.	H589.6
#2	H6677.	H6330.	H2032.	H5375.	1.113	H7181.	H591.0

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H11480.	H1301.	39.96	H17450.	H5726.	H17540.	H49370.
#1	H11450.	H1299.	39.97	H17300.	H5711.	H17490.	H49270.
#2	H11510.	H1303.	39.96	H17610.	H5740.	H17590.	H49470.

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H70480.	91.41	6.507	H1053.	L-27.85	H13040.	H418.6
#1	H70220.	91.15	6.639	H1054.	L-23.87	H12980.	H418.9
#2	H70730.	91.68	6.376	H1053.	L-31.83	H13110.	H418.2

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm *	ppm	ppm	ppm	ppm	ppm
Avge	H30500.	H1092.	H329.5	H1350.	H3370.	H785.8	H137.3
#1	H30400.	H1101.	H328.5	H1343.	H3375.	H783.6	H136.9
#2	H30590.	H1083.	H330.6	H1357.	H3365.	H788.0	H137.7

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	12.90	14.68	43.22
#1	19.62	14.59	43.03
#2	6.170	14.77	43.40

* 1157 Sn corrected for Pb
5/23/97

00223

Method: EPACLP1 Sample Name: 3098-7 Operator: WM
Run Time: 05/22/97 13:23:50
Comment: 5/10 DILUTION MET9702504
Mode: CONC Corr. Factor: 200.6

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H7493.	8.365	5.434	H225.9	.1376	82.93	.8254
#1	H7334.	7.246	7.263	H220.3	.0877	87.68	.6938
#2	H7652.	9.484	3.604	H231.5	.1876	78.17	.9571

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H230600.	11.09	1.183	H6021.	H1071.	H156900.	H4337.
#1	H227300.	11.04	1.619	H5895.	H1048.	H154200.	H4265.
#2	H233900.	11.13	.7465	H6146.	H1094.	H159700.	H4409.

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H4916.	35.42	7.455	48.18	313.6	9.241	H96.77
#1	H4839.	34.65	7.332	48.44	377.7	10.12	H95.17
#2	H4993.	36.18	7.578	47.93	249.4	8.364	H98.37

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H5900.	L-271.8 *	2.863	100.9	H101600.	H1502.	76.17
#1	H5754.	41.95	2.793	101.5	H99270.	H1476.	75.00
#2	H6045.	L-585.6	2.933	100.3	H103900.	H1527.	77.35

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	L-8.085	22.36	H391.7
#1	L-18.00	22.61	H381.8
#2	1.831	22.11	H401.7

* See re-run for Sn on 5/23/97

00224

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Method: EPACLP1 Sample Name: 3098-8 Operator: WM
Run Time: 05/22/97 13:26:31
Comment: 5/10 DILUTION MET9702504
Mode: CONC Corr. Factor: 223.7

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H10300.	14.29	H100.6	9.503	.0216	236.4	L-1.941
#1	H10310.	14.54	H100.1	9.747	.0800	234.7	L-1.792
#2	H10300.	14.05	H101.1	9.259	L-.0367	238.0	L-2.090

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	744.7	116.0	103.2	H2637.	H201200.	49.53	H98.14
#1	756.6	115.8	103.4	H2638.	H201600.	55.39	H100.8
#2	732.7	116.1	102.9	H2636.	H200800.	43.66	H95.44

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	128.2	H2860.	20.59	H211.8	398.4	L-388.7	H360.6
#1	128.7	H2864.	20.52	H209.6	415.3	L-397.2	H361.1
#2	127.6	H2856.	20.67	H213.9	381.5	L-380.2	H360.1

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H5805.	16.46	9.396	92.02	401.7	157.6	44.27
#1	H5789.	9.925	9.171	92.24	399.6	156.9	44.38
#2	H5822.	22.99	9.622	91.81	403.8	158.2	44.16

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	H196.4	3.082	3.594
#1	H213.6	3.175	3.631
#2	H179.2	2.988	3.557

Method: EPACLP1 Sample Name: 3098-7 Operator: WM
Run Time: 05/22/97 13:32:26
Comment: 5/10 DILUTION RE-RUN Sn MET9702504
Mode: CONC Corr. Factor: 200.6

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H7416.	7.499	L-5.414	H222.3	.1367	64.03	.8350
#1	H7304.	8.247	L-8.151	H218.5	.0862	64.72	.6402
#2	H7529.	6.751	L-2.677	H226.1	.1872	63.34	1.030

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H229200.	10.69	.9672	H5865.	H1080.	H155600.	H4290.
#1	H227000.	10.64	1.183	H5766.	H1069.	H153800.	H4245.
#2	H231400.	10.74	.7518	H5964.	H1091.	H157400.	H4334.

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H4879.	35.42	7.098	48.57	359.0	5.895	H95.80
#1	H4830.	35.01	7.335	47.67	377.7	8.095	H94.89
#2	H4928.	35.83	6.861	49.47	340.3	3.696	H96.70

Elem	Na5889	Sn1899 *	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H5854.	L-553.9	3.122	94.36	H100700.	H1492.	75.05
#1	H5758.	L-523.9	3.195	93.68	H99320.	H1476.	74.22
#2	H5950.	L-584.0	3.049	95.04	H102000.	H1508.	75.88

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	L-5.719	22.94	H386.8
#1	L-2.099	22.78	H380.2
#2	L-9.340	23.11	H393.3

* Sn Corrected for Pb = 42.04

Method: EPACLP1 Sample Name: 500ppm Pb Operator: WM
Run Time: 05/22/97 13:37:06
Comment: INTERFERENCE CHECI FOR Sn MET9702504
Mode: CONC Corr. Factor: 1

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	L.0065	L.0100	L-.0245	L.0007	L.0015	L.0117	L.0020
#1	L.0050	L.0037	L-.0126	L.0007	L.0015	L.0084	L.0013
#2	L.0080	L.0162	L-.0363	L.0007	L.0015	L.0151	L.0027

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1468	L-.0015	L.0032	.0181	.0728	H509.5	L.0032
#1	.1623	L-.0010	L.0033	.0189	.0808	H504.6	L.0035
#2	.1313	L-.0020	L.0032	.0173	.0648	H514.4	L.0029

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	L-.0099	L.0000	L-.0024	L-.0064	L.5862	L.0074	L.0007
#1	L-.0132	L-.0003	L-.0012	L-.0026	L.8438	L.0125	L.0007
#2	L-.0067	L.0003	L-.0036	L-.0103	L.3286	L.0022	L.0007

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	L.0137	L-1.847	L.0006	L.0012	.1437	L.0161	L-.0005
#1	L.0176	L-1.837	L.0003	L.0011	.1342	L.0138	L-.0005
#2	L.0097	L-1.858	L.0009	L.0012	.1532	L.0184	L-.0005

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	L-.0062	.0050	L.0002
#1	L-.0162	.0067	L.0000
#2	L.0038	L.0033	L.0003

Pb interference on Sn =
— 0.003697 ppm/ppm

Method: EPACLP1 Sample Name: 3098-9 Operator: WM
Run Time: 05/22/97 13:40:25
Comment: 5/10 DILUTION MET9702504
Mode: CONC Corr. Factor: 200.6

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H21540.	9.413	H132.8	6.847	.1267	H909.1	L-4.670
#1	H21910.	8.049	H133.0	6.992	.0759	H918.7	L-4.615
#2	H21180.	10.78	H132.6	6.701	.1776	H899.5	L-4.724

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	875.7	139.6	74.71	H4168.	H248900.	66.39	H43.90
#1	887.8	141.9	75.80	H4252.	H252400.	77.33	H44.59
#2	863.6	137.3	73.63	H4083.	H245300.	55.44	H43.20

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	107.8	H3059.	11.98	157.2	H2193.	L-501.0	H319.1
#1	113.6	H3103.	12.43	155.0	H2218.	L-503.4	H323.9
#2	102.1	H3014.	11.53	159.4	H2168.	L-498.6	H314.3

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H7916.	80.09	6.223	152.1	H502.6	209.4	35.10
#1	H8068.	21.82	6.380	154.5	496.3	211.7	35.89
#2	H7764.	H138.4	6.067	149.7	H508.8	207.1	34.32

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	H250.1	5.359	H201.8
#1	H238.7	5.359	H205.6
#2	H261.6	5.359	H198.0

Method: EPACLP1 Sample Name: 3098-9 Operator: WM
Run Time: 05/22/97 13:45:40
Comment: 5/10 DILUTION RE-RUN Pb + Sn MET9702504
Mode: CONC Corr. Factor: 200.6

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H20420.	9.343	H127.4	6.555	.1796	H871.2	L-4.484
#1	H20540.	10.64	H127.2	6.555	.1778	H881.4	L-3.843
#2	H20300.	8.047	H127.6	6.555	.1814	H861.0	L-5.126

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	837.4	132.8	71.63	H3896.	H237400.	48.70	H47.82
#1	841.6	133.9	72.29	H3926.	H238900.	48.81	H47.28
#2	833.2	131.7	70.97	H3867.	H236000.	48.59	H48.36

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	105.1	H2916.	9.431	148.8	H2287.	L-498.3	H306.4
#1	113.7	H2934.	9.545	150.6	H2295.	L-489.1	H307.9
#2	96.50	H2898.	9.317	147.0	H2279.	L-507.4	H305.0

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H7447.	5.755	5.524	147.2	H500.5	199.7	32.76
#1	H7497.	7.763	6.001	147.6	H507.1	200.2	32.76
#2	H7397.	3.747	5.046	146.9	494.0	199.3	32.76

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	H232.2	6.029	H188.6
#1	H215.4	6.197	H190.1
#2	H248.9	5.862	H187.0

Method: EPACLP1 Sample Name: CCV11 Operator: WM
Run Time: 05/22/97 13:48:30
Comment: MET9702504
Mode: CONC Corr. Factor: 1

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.959	4.937	1.994	.5029	.4928	.0216	.5047
#1	4.948	4.909	2.012	.5003	.4908	.0284	.5016
#2	4.971	4.965	1.977	.5054	.4948	.0149	.5078

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.961	5.024	.4964	.5102	5.278	4.941	4.970
#1	4.957	5.009	.4931	.5099	5.275	4.912	4.959
#2	4.965	5.039	.4997	.5104	5.281	4.970	4.981

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.965	.4940	.4891	.5177	24.85	2.007	.4997
#1	4.936	.4934	.4873	.5068	24.72	2.006	.4980
#2	4.994	.4945	.4909	.5286	24.98	2.008	.5014

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	25.32	-.0059	.4944	2.519	.1173	.0250	.4972
#1	25.21	-.0029	.4927	2.516	.1440	.0218	.4957
#2	25.44	-.0089	.4962	2.522	.0906	.0282	.4987

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	-.0244	.0067	.0005
#1	.0014	.0067	.0003
#2	-.0503	.0067	.0007

Method: EPACLP1 Sample Name: STD4-CCV11 Operator: WM
Run Time: 05/22/97 13:50:23
Comment: MET9702504
Mode: CONC Corr. Factor: 1

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0342	-.0267	.0026	-.0000	-.0000	10.07	-.0003
#1	.0354	-.0391	-.0030	-.0000	-.0000	10.06	.0009
#2	.0330	-.0142	.0082	.0000	.0000	10.09	-.0015

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0193	.0020	-.1858	.0099	.2219	.0226	.0070
#1	.0211	.0025	-.1814	.0107	.2510	.0227	.0078
#2	.0175	.0015	-.1901	.0091	.1929	.0226	.0062

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0189	.0024	.0000	.0080	-.1954	-.0054	.0000
#1	.0124	.0027	.0000	.0054	-.1332	-.0090	.0000
#2	.0255	.0021	.0000	.0105	-.2576	-.0017	.0000

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0817	19.97	.0003	.0034	50.03	9.953	-.0000
#1	.0831	19.92	.0010	.0022	49.84	9.941	.0005
#2	.0803	20.03	-.0003	.0045	50.22	9.965	-.0005

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	10.05	10.05	9.957
#1	10.06	10.01	9.937
#2	10.04	10.08	9.977

Method: EPACLP1 Sample Name: CCB11 Operator: WM
Run Time: 05/22/97 13:52:38
Comment: MET9702504
Mode: CONC Corr. Factor: 1

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0011	-.0050	-.0015	-.0004	-.0000	.0269	.0012
#1	.0065	-.0012	-.0071	-.0000	-.0000	.0353	.0024
#2	-.0042	-.0087	.0042	-.0007	-.0000	.0185	-.0001

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0014	.0002	.0011	.0047	Q.0943	.0078	.0013
#1	-.0018	.0010	.0033	.0052	Q.1083	.0094	.0019
#2	-.0010	-.0005	-.0011	.0041	Q.0803	.0062	.0008

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0230	.0012	.0000	.0026	-.3819	.0096	-.0014
#1	-.0523	.0015	-.0012	.0077	-.3109	.0183	-.0014
#2	.0063	.0009	.0012	-.0026	-.4530	.0008	-.0014

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0034	-.0020	.0007	-.0000	.0451	.0109	-.0005
#1	-.0000	-.0003	.0010	-.0000	.0167	.0161	-.0005
#2	-.0068	-.0037	.0004	-.0000	.0736	.0057	-.0005

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	-.0122	.0054	.0023
#1	-.0083	.0050	.0023
#2	-.0162	.0058	.0023

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Method: EPACLP1 Sample Name: 3098-10 Operator: WM
Run Time: 05/22/97 13:54:55
Comment: 5/10 DILUTION MET9702504
Mode: CONC Corr. Factor: 200.4

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H2053.	8.855	1.589	16.30	.0398	H765.6	.9097
#1	H2034.	10.22	L-.7709	16.15	.0398	H759.2	.8245
#2	H2071.	7.489	3.948	16.44	.0397	H772.1	.9948

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H2342.	38.98	1.242	21.39	H902.1	H107200.	H61650.
#1	H2320.	38.74	1.672	20.90	H895.8	H106100.	H61390.
#2	H2364.	39.23	.8120	21.89	H908.3	H108200.	H61900.

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H111100.	17.38	1.095	112.9	L-8.010	26.04	H31.83
#1	H110000.	17.21	.8549	110.4	L-10.68	27.06	H31.41
#2	H112200.	17.56	1.334	115.3	L-5.340	25.03	H32.24

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm *	ppm	ppm	ppm	ppm	ppm
Avge	H5002.	L-378.1	15.29	42.29	58.93	H1601.	92.12
#1	H4952.	L-365.1	15.28	41.73	61.18	H1589.	91.34
#2	H5053.	L-391.1	15.29	42.86	56.69	H1614.	92.90

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	4.954	18.91	17.62
#1	12.54	18.74	17.59
#2	L-2.637	19.07	17.66

* Sn Corrected for Pb = 30.75

00233

Method: EPACLP1 Sample Name: CCV12 Operator: WM
Run Time: 05/22/97 13:58:37
Comment: MET9702504
Mode: CONC Corr. Factor: 1

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.172	5.125	2.075	.5341	.5217	.0165	.5158
#1	5.162	5.115	2.065	.5323	.5207	.0249	.5182
#2	5.182	5.136	2.086	.5359	.5227	.0081	.5134

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.116	5.214	.5159	.5271	5.207	5.211	5.234
#1	5.126	5.217	.5149	.5258	5.208	5.238	5.241
#2	5.106	5.210	.5170	.5285	5.207	5.184	5.227

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.294	.5105	.5099	.5389	25.38	2.092	.5175
#1	5.294	.5108	.5075	.5427	25.54	2.072	.5168
#2	5.294	.5102	.5123	.5350	25.22	2.111	.5181

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	26.83	-.0132	.5161	2.585	.0589	.0244	.5218
#1	26.77	-.0037	.5164	2.589	.0211	.0259	.5216
#2	26.89	-.0227	.5158	2.582	.0968	.0230	.5221

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	-.0280	.0029	.0010
#1	-.0061	.0042	.0010
#2	-.0499	.0017	.0010

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Method: EPACLP1 Sample Name: STD4-CCV12 Operator: WM
Run Time: 05/22/97 14:00:55
Comment: MET9702504
Mode: CONC Corr. Factor: 1

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0208	-.0142	.0028	-.0007	-.0000	10.52	-.0009
#1	.0292	-.0129	.0111	-.0000	-.0000	10.33	-.0004
#2	.0124	-.0155	-.0054	-.0015	.0000	10.71	-.0014

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0211	.0047	-.1923	.0036	.0130	.0762	.0531
#1	.0239	.0049	-.1879	.0041	.0173	.0914	.0630
#2	.0183	.0044	-.1966	.0030	.0088	.0611	.0432

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0520	.0006	.0000	.0067	-1.048	-.0121	.0010
#1	.1235	.0009	.0012	.0144	-.6750	-.0005	.0028
#2	-.0195	.0003	-.0012	-.0010	-1.421	-.0238	-.0007

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0748	20.24	.0010	.0046	51.78	10.26	-.0000
#1	.0842	20.01	.0024	.0057	50.91	10.11	.0005
#2	.0655	20.48	-.0004	.0034	52.64	10.40	-.0005

Elem	T_1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	10.34	10.56	10.48
#1	10.08	10.31	10.25
#2	10.61	10.81	10.70

Method: EPACLP1 Sample Name: CCB12 Operator: WM
Run Time: 05/22/97 14:02:52
Comment: MET9702504
Mode: CONC Corr. Factor: 1

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0008	-.0025	.0028	-.0011	-.0000	.0118	.0011
#1	.0019	-.0138	-.0042	-.0015	.0000	.0151	.0000
#2	-.0003	.0087	.0097	-.0007	-.0000	.0084	.0022

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0030	-.0000	.0022	.0016	.0058	.0219	Q.0145
#1	-.0074	.0000	.0011	.0008	.0048	.0250	Q.0180
#2	.0014	-.0000	.0032	.0025	.0068	.0188	Q.0110

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0163	.0003	.0012	-.0058	-.9903	.0080	-.0003
#1	-.0195	.0003	.0000	-.0090	-1.243	.0022	-.0014
#2	-.0130	.0003	.0024	-.0026	-.7372	.0139	.0007

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0125	.0003	.0000	-.0011	-.0019	.0055	.0010
#1	-.0194	.0049	-.0003	-.0011	.0322	-.0000	-.0005
#2	-.0057	-.0043	.0004	-.0011	-.0360	.0109	.0024

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	-.0159	.0033	.0023
#1	-.0199	.0008	.0023
#2	-.0120	.0058	.0023

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Method: EPACLP1 Sample Name: CCV13 Operator: WM
Run Time: 05/22/97 14:09:21
Comment: MET9702504
Mode: CONC Corr. Factor: 1

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.954	4.946	2.032	.4929	.4919	.0184	.4920
#1	4.977	4.972	2.042	.4976	.4962	.0184	.4941
#2	4.931	4.919	2.022	.4882	.4877	.0184	.4900

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.958	4.952	.4959	.4945	4.950	4.985	4.955
#1	4.982	4.984	.4990	.4974	4.986	5.017	4.987
#2	4.933	4.919	.4929	.4916	4.914	4.954	4.923

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.965	.4947	.4939	.5036	24.97	1.968	.4983
#1	5.022	.4980	.4983	.5067	24.99	1.999	.5000
#2	4.909	.4913	.4894	.5006	24.95	1.936	.4966

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	24.74	-.0154	.4947	2.496	.0638	.0253	.4958
#1	24.90	-.0163	.4983	2.510	.0805	.0247	.4995
#2	24.57	-.0145	.4910	2.481	.0472	.0259	.4921

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	-.0234	.0033	.0010
#1	-.0334	.0025	.0010
#2	-.0134	.0042	.0010

Method: EPACLP1 Sample Name: STD4-CCV13 Operator: WM
Run Time: 05/22/97 14:13:00
Comment: MET9702504
Mode: CONC Corr. Factor: 1

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0002	.0150	.0112	-.0014	-.0001	9.967	-.0004
#1	-.0035	.0113	.0086	-.0018	-.0001	10.06	.0007
#2	.0030	.0186	.0137	-.0011	-.0001	9.874	-.0015

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0166	.0034	-.1874	.0012	.0011	.0114	.0038
#1	.0141	.0042	-.1894	.0012	.0008	.0027	.0043
#2	.0192	.0027	-.1853	.0012	.0013	.0201	.0033

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0105	.0006	-.0001	.0001	-.9418	-.0045	-.0005
#1	-.0327	.0003	-.0012	-.0011	-1.214	-.0126	-.0011
#2	.0117	.0008	.0011	.0013	-.6700	.0035	.0002

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0569	19.86	.0013	.0039	49.55	9.948	.0001
#1	.0552	19.85	.0009	.0044	49.99	10.00	-.0006
#2	.0585	19.86	.0016	.0033	49.11	9.894	.0008

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	10.02	9.985	9.947
#1	10.09	10.10	10.07
#2	9.952	9.866	9.825

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Method: EPACLP1 Sample Name: CCB13 Operator: WM
Run Time: 05/22/97 14:15:02
Comment: MET9702504
Mode: CONC Corr. Factor: 1

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0122	-.0097	-.0110	-.0021	-.0004	.0223	.0007
#1	-.0151	-.0122	-.0187	-.0018	-.0006	.0288	.0002
#2	-.0093	-.0073	-.0033	-.0025	-.0001	.0157	.0011

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0014	-.0008	.0001	.0012	-.0035	.0138	-.0003
#1	-.0004	-.0006	-.0010	.0012	-.0035	.0183	-.0003
#2	-.0024	-.0010	.0011	.0012	-.0035	.0092	-.0003

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0390	.0003	-.0012	.0016	-1.200	.0288	-.0001
#1	-.0263	.0003	-.0012	-.0026	-1.178	.0369	-.0005
#2	-.0517	.0003	-.0012	.0059	-1.222	.0208	.0002

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0312	.0122	-.0000	-.0001	-.0158	.0102	-.0006
#1	-.0293	.0141	-.0004	-.0001	-.0103	.0107	-.0006
#2	-.0331	.0103	.0003	-.0001	-.0214	.0096	-.0006

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	.0023	-.0022	Q.0055
#1	.0197	-.0014	Q.0060
#2	-.0150	-.0029	Q.0051

Method: EPACLP1 Sample Name: 3098-11 Operator: WM
Run Time: 05/22/97 14:19:06
Comment: 5/10 DILUTION MET9702504
Mode: CONC Corr. Factor: 217.6

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H3055.	H5254.	H7100.	102.8	.2360	79.89	H5552.
#1	H3022.	H5203.	H7030.	101.3	.2375	79.04	H5510.
#2	H3089.	H5305.	H7169.	104.3	.2345	80.74	H5593.

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H83250.	H1408.	45.90	H50240.	H16020.	H106900.	H35480.
#1	H82360.	H1393.	45.44	H49400.	H15850.	H105700.	H35210.
#2	H84150.	H1423.	46.35	H51090.	H16200.	H108000.	H35750.

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H48620.	H418.6	10.99	H449.7	400.0	H361.3	H369.5
#1	H48090.	H414.0	10.72	H445.2	412.6	H365.7	H366.0
#2	H49150.	H423.1	11.26	H454.1	387.4	H357.0	H372.9

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm *	ppm	ppm	ppm	ppm	ppm
Avge	H15750.	H783.4	40.08	H15560.	H3396.	H837.4	96.68
#1	H15560.	H794.1	39.69	H15390.	H3371.	H829.7	95.77
#2	H15950.	H772.8	40.47	H15730.	H3422.	H845.1	97.60

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	H189.3	18.63	79.71
#1	H193.6	18.63	78.71
#2	H185.0	18.63	80.71

* Sn Corrected for Pb = 1182

m 5/23/97

Method: EPACLP1 Sample Name: 3098-12 Operator: WM
Run Time: 05/22/97 14:25:02
Comment: 5/10 DILUTION MET9702504
Mode: CONC Corr. Factor: 215.1

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H2137.	H1307.	H2341.	185.9	.1380	168.9	H763.7
#1	H2143.	H1311.	H2347.	186.9	.1364	169.6	H763.0
#2	H2131.	H1303.	H2334.	184.8	.1396	168.3	H764.4

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H142800.	H983.5	21.10	H8826.	H6192.	H24200.	H37990.
#1	H142900.	H986.6	20.88	H8847.	H6212.	H24260.	H37970.
#2	H142600.	H980.5	21.32	H8805.	H6172.	H24140.	H38010.

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H55180.	H201.8	4.995	H201.1	L-147.0	H210.0	H320.8
#1	H55360.	H202.5	5.240	H200.6	L-171.0	H211.6	H321.1
#2	H54990.	H201.1	4.749	H201.6	L-123.0	H208.4	H320.6

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm *	ppm	ppm	ppm	ppm	ppm
Avge	H6837.	H209.7	37.72	H4101.	H882.7	H757.6	46.06
#1	H6872.	H220.5	38.15	H4089.	H869.0	H759.2	45.75
#2	H6803.	H198.9	37.30	H4112.	H896.4	H756.0	46.36

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	69.41	20.69	85.59
#1	89.24	20.60	85.96
#2	49.58	20.77	85.22

* Sn = 289.0

Method: EPACLP1 Sample Name: 3098-13 Operator: WM
Run Time: 05/22/97 14:26:53
Comment: 5/10 DILUTION MET9702504
Mode: CONC Corr. Factor: 212.5

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H6856.	H6596.	H2626.	55.27	.0320	H518.9	H253.4
#1	H6877.	H6615.	H2624.	55.56	L-.0199	H519.9	H253.1
#2	H6835.	H6577.	H2629.	54.98	.0839	H517.9	H253.7

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H38110.	45.61	23.09	H6137.	H8583.	H75350.	H3373.
#1	H38120.	45.91	23.09	H6188.	H8595.	H75410.	H3380.
#2	H38090.	45.31	23.09	H6087.	H8570.	H75300.	H3367.

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H3616.	H203.0	4.951	H242.5	364.1	36.31	H373.4
#1	H3632.	H203.2	5.193	H243.0	348.0	33.61	H373.7
#2	H3600.	H202.8	4.710	H242.0	380.2	39.01	H373.1

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm *	ppm	ppm	ppm	ppm	ppm
Avge	H8820.	H895.7	22.74	H69500.	H1006.	H722.1	H176.5
#1	H8861.	H911.8	22.89	H69370.	H1003.	H726.2	H177.1
#2	H8778.	H879.6	22.60	H69620.	H1010.	H718.0	H175.8

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	26.82	25.10	67.03
#1	33.74	24.85	67.27
#2	19.90	25.35	66.80

* S_4 = 1161

Method: EPACLP1 Sample Name: 3098-14 Operator: WM
Run Time: 05/22/97 14:28:55
Comment: 5/10 DILUTION MET9702504
Mode: CONC Corr. Factor: 216.2

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H13170.	H14810.	H6613.	119.1	.4177	H997.8	H934.3
#1	H13460.	H15160.	H6772.	122.5	.4647	H1023.	H949.9
#2	H12870.	H14470.	H6454.	115.7	.3706	H972.1	H918.8

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H83910.	67.51	7.284	H19330.	H10030.	H166800.	H7335.
#1	H85860.	69.25	7.302	H19830.	H10270.	H170700.	H7493.
#2	H81970.	65.77	7.265	H18820.	H9783.	H162900.	H7177.

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H8097.	H388.9	5.852	H397.6	H1979.	H134.8	H382.9
#1	H8297.	H397.9	6.257	H407.5	H1991.	H137.3	H390.8
#2	H7897.	H379.9	5.447	H387.7	H1966.	H132.3	H375.0

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm *	ppm	ppm	ppm	ppm	ppm
Avge	H25570.	H1802.	H59.04	H33860.	H2027.	H1136.	H250.8
#1	H26280.	H1926.	H60.37	H34470.	H2076.	H1165.	H257.5
#2	H24850.	H1678.	H57.72	H33250.	H1978.	H1108.	H244.2

Elem	Ti1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	30.81	50.52	H153.9
#1	24.76	51.71	H158.3
#2	36.87	49.34	H149.4

* Sn corrected for Pb = 2428

Method: EPACLP1 Sample Name: 3098-15 Operator: WM
Run Time: 05/22/97 14:31:03
Comment: 5/10 DILUTION MET9702504
Mode: CONC Corr. Factor: 248.1

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H2013.	H570.4	H3093.	90.55	.1095	184.4	H3921.
#1	H2043.	H579.7	H3141.	92.42	.1059	187.7	H3959.
#2	H1984.	H561.1	H3045.	88.68	.1131	181.1	H3883.

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H12960.	H1064.	H4175.	H169200.	H55820.	H155000.	H2041.
#1	H13130.	H1080.	H4233.	H173600.	H56670.	H157100.	H2071.
#2	H12790.	H1048.	H4117.	H164800.	H54970.	H152900.	H2012.

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H2055.	H372.4	11.32	H13930.	429.5	L-23.10	H70.64
#1	H2100.	H377.6	12.57	H14130.	335.6	L-20.18	H71.99
#2	H2010.	H367.2	10.06	H13740.	H523.5	L-26.03	H69.28

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm *	ppm	ppm	ppm	ppm	ppm
Avge	H31150.	H1640.	23.82	H35670.	H12030.	H941.2	H159.8
#1	H31740.	H1841.	24.76	H36050.	H12170.	H954.9	H163.1
#2	H30560.	H1440.	22.88	H35290.	H11900.	H927.6	H156.6

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	46.26	7.046	33.70
#1	45.44	6.658	34.41
#2	47.08	7.435	33.00

* Sn corrected for Pb =
mm 5/23/97
~~2266~~
2296

00244

Method: EPACLP1 Sample Name: 3098-16 Operator: WM
Run Time: 05/22/97 14:33:37
Comment: 5/10 DILUTION MET9702504
Mode: CONC Corr. Factor: 204.3

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	437.0	H17710.	H33830.	15.60	L-.0220	17.45	H172.8
#1	432.1	H17590.	H33550.	15.46	L-.0710	17.55	H172.0
#2	442.0	H17820.	H34120.	15.74	.0271	17.34	H173.6

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H3169.	6.762	H289.3	H241500.	H28520.	H57370.	H776.9
#1	H3146.	6.855	H287.7	H241400.	H28280.	H57020.	H771.0
#2	H3191.	6.669	H290.8	H241700.	H28760.	H57720.	H782.9

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	768.2	H229.6	H153.5	H4679.	221.7	H254.5	H413.1
#1	758.5	H227.9	H152.7	H4643.	245.4	H254.0	H410.9
#2	777.9	H231.4	H154.2	H4715.	198.1	H255.0	H415.4

Elem	Na5889	Sn1899 *	V_2924 **	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H1873.	H2355.	L-13.65	H3962.	H20070.	281.4	46.37
#1	H1857.	H2345.	L-13.73	H3963.	H19960.	278.1	45.75
#2	H1890.	H2365.	L-13.57	H3961.	H20190.	284.8	46.99

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	.3224	2.361	5.422
#1	L-9.160	2.281	5.292
#2	9.805	2.441	5.551

* Sn corrected = 2602

** V corrected for Mo int. = -13.04

00245

Method: EPACLP1 Sample Name: Mo 10ppm Operator: WM
Run Time: 05/22/97 14:37:05
Comment: INTERFERENCE CHECK FOR V MET9702504
Mode: CONC Corr. Factor: 1

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	L.0114	L.0234	.1055	L-.0014	L-.0000	L.0092	L.0021
#1	L.0002	L.0223	.0881	L-.0011	L-.0000	L.0124	L.0034
#2	.0227	L.0246	.1229	L-.0018	L-.0000	L.0059	L.0008

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0394	L.0002	L-.0030	1.314	.0505	.1462	.0263
#1	.0455	L.0009	L-.0051	1.430	.0556	.1706	.0270
#2	.0333	L-.0004	L-.0010	1.197	.0455	.1219	.0255

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	L-.0360	L.0010	10.10	L.0106	L-.7903	L.0242	L.0010
#1	L.0624	L.0010	9.930	L.0172	L-.3671	L.0316	L.0000
#2	L-.1343	L.0011	10.26	L.0040	L-1.214	L.0168	L.0020

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	L.0054	.0243	L-.0400	.0911	.1535	.1906	L-.0042
#1	L.0127	.0217	L-.0420	.1028	.1698	.1769	L-.0035
#2	L-.0020	.0270	L-.0380	.0794	.1371	.2044	L-.0049

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	L-.0152	L-.0045	L.0003
#1	L-.0075	L-.0037	L.0003
#2	L-.0229	L-.0053	L.0003

Method: EPACLP1 Sample Name: 3098-17 Operator: WM
Run Time: 05/22/97 14:42:13
Comment: 5/10 DILUTION MET9702504
Mode: CONC Corr. Factor: 224.2

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H12420.	H6084.	H3796.	H2081.	1.070	H2324.	H4003.
#1	H12510.	H6123.	H3828.	H2105.	1.016	H2337.	H4003.
#2	H12330.	H6045.	H3764.	H2058.	1.124	H2310.	H4002.

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H17410.	H208.1	15.97	H3267.	H26470.	H99150.	H9466.
#1	H17460.	H208.7	15.74	H3300.	H26630.	H99550.	H9502.
#2	H17350.	H207.5	16.20	H3234.	H26310.	H98750.	H9429.

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H10270.	H609.7	14.95	H614.3	H3632.	H521.8	H427.0
#1	H10330.	H613.0	15.86	H617.4	H3617.	H522.7	H427.9
#2	H10210.	H606.4	14.04	H611.2	H3647.	H520.9	H426.2

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H34780.	H652.9	34.96	H40540.	H1272.	H896.3	H363.3
#1	H35120.	H664.4	34.98	H40550.	H1272.	H900.9	H366.1
#2	H34450.	H641.3	34.94	H40530.	H1271.	H891.7	H360.5

Elem	T_1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	85.70	26.75	H127.8
#1	85.67	26.92	H129.1
#2	85.72	26.57	H126.4

* $S_4 = 101?$

Analysis Report Thu 05-22-97 02:50:52 PM page 1

Method: EPACLP1 Sample Name: 3098-18 Operator: WM
Run Time: 05/22/97 14:47:21
Comment: 5/10 DILUTION MET9702504
Mode: CONC Corr. Factor: 216.2

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H8999.	H3701.	H1208.	82.09	.2058	284.4	H3051.
#1	H8965.	H3697.	H1196.	81.72	.2069	283.8	H3054.
#2	H9033.	H3705.	H1219	82.46	.2048	285.0	H3048.

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H14360.	H652.9	33.58	H4706.	H14940.	H162800.	H46480.
#1	H14350.	H651.9	33.14	H4700.	H14910.	H162500.	H46460.
#2	H14370.	H654.0	34.02	H4713.	H14980.	H163000.	H46490.

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H68040.	H364.2	4.989	H375.5	197.1	14.76	H369.3
#1	H67850.	H363.5	5.471	H378.0	226.9	20.53	H368.9
#2	H68230.	H364.9	4.507	H373.1	167.2	8.979	H369.6

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm *	ppm	ppm	ppm	ppm	ppm
Avge	H3619.	L-264.5	H74.81	H35310.	H1036.	H700.9	H140.8
#1	H3599.	L-268.7	H74.54	H35320.	H1036.	H701.7	H140.2
#2	H3639.	L-260.4	H75.08	H35300.	H1036.	H700.0	H141.5

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	86.80	18.25	48.90
#1	87.74	18.34	48.70
#2	85.86	18.17	49.11

* Sn = 326.3

00248

Method: EPACLP1 Sample Name: 3098-23 Operator: WM
Run Time: 05/22/97 14:51:31
Comment: 5/10 DILUTION MET9702504
Mode: CONC Corr. Factor: 217.4

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H2248.	H647.0	H2119.	19.96	.1089	20.02	H2479.
#1	H2241.	H640.1	H2105.	19.88	.1612	19.77	H2471.
#2	H2256.	H653.9	H2132.	20.03	.0566	20.27	H2487.

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H5224.	23.08	H3221.	H136600.	H47080.	H137800.	H1585.
#1	H5198.	22.97	H3207.	H136200.	H46850.	H137300.	H1581.
#2	H5250.	23.19	H3235.	H137100.	H47320.	H138400.	H1588.

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H1611.	88.27	1.385	H12640.	110.0	L-33.35	H150.1
#1	H1605.	87.65	1.103	H12570.	113.9	L-31.81	H149.3
#2	H1618.	88.89	1.668	H12700.	106.2	L-34.90	H150.9

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm *	ppm	ppm	ppm	ppm	ppm
Avge	H120400.	H984.8	3.690	H28000.	H7530.	H809.5	H100.5
#1	H120200.	H1034.	3.753	H27920.	H7464.	H806.1	H100.3
#2	H120700.	H935.5	3.627	H28090.	H7596.	H812.9	H100.8

Elem	Ti1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	21.07	3.619	11.20
#1	24.34	3.619	11.20
#2	17.80	3.619	11.20

* ~~Sn = 1502~~
1509
— 5/23/97

00249

Method: EPACLP1 Sample Name: CCV14 Operator: WM
Run Time: 05/22/97 14:55:45
Comment: MET9702504
Mode: CONC Corr. Factor: 1

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.115	5.070	2.007	.5168	.5142	.0072	.5077
#1	5.001	4.960	1.975	.5021	.5000	.0056	.5025
#2	5.228	5.181	2.039	.5315	.5284	.0087	.5129

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.054	5.074	.5093	Q1.025	5.131	5.187	5.088
#1	4.975	4.973	.4990	Q1.055	5.026	5.097	4.994
#2	5.132	5.174	.5196	Q.9946	5.236	5.277	5.181

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.165	.5080	.5062	.5018	25.22	2.027	.5061
#1	5.006	.4983	.4932	.4946	24.99	1.957	.5003
#2	5.323	.5176	.5192	.5090	25.45	2.097	.5118

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	25.98	-.0144	.5087	2.646	.0683	.0217	.5108
#1	25.33	-.0100	.4975	2.638	.1047	.0272	.4981
#2	26.64	-.0188	.5198	2.655	.0319	.0162	.5234

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	.0001	-.0041	.0002
#1	-.0131	-.0029	.0003
#2	.0134	-.0053	.0000

Method: EPACLP1 Sample Name: STD4-CCV14 Operator: WM
Run Time: 05/22/97 14:57:44
Comment: MET9702504
Mode: CONC Corr. Factor: 1

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0152	.0294	-.0019	-.0021	-.0001	10.36	.0008
#1	.0181	.0378	-.0071	-.0025	-.0001	10.39	.0008
#2	.0124	.0210	.0033	-.0018	-.0001	10.33	.0007

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0200	.0025	-.1956	.3382	.0112	.0554	.0146
#1	.0184	.0037	-.1977	.3614	.0124	.0666	.0162
#2	.0215	.0013	-.1936	.3149	.0100	.0443	.0131

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0232	.0006	.0011	.0043	-1.637	-.0233	.0012
#1	-.0391	.0003	.0011	.0037	-1.793	-.0112	.0015
#2	-.0073	.0008	.0011	.0049	-1.481	-.0354	.0009

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0724	20.19	.0007	.0706	51.86	10.29	-.0006
#1	.0689	20.20	.0016	.0774	51.94	10.32	-.0006
#2	.0760	20.19	-.0003	.0639	51.78	10.25	-.0006

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	10.33	10.56	10.49
#1	10.32	10.63	10.55
#2	10.33	10.48	10.43

Method: EPACLP1 Sample Name: CCB14 Operator: WM
Run Time: 05/22/97 14:59:42
Comment: MET9702504
Mode: CONC Corr. Factor: 1

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0114	-.0013	-.0006	-.0025	-.0001	.0141	.0017
#1	-.0063	-.0062	.0045	-.0025	-.0001	.0190	.0011
#2	-.0165	.0035	-.0058	-.0025	-.0001	.0092	.0023

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0031	.0001	.0021	Q.2399	.0013	.0372	.0053
#1	-.0028	-.0001	.0031	Q.2489	.0028	.0458	.0064
#2	-.0035	.0004	.0011	Q.2309	-.0001	.0285	.0043

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0041	-.0006	-.0001	-.0014	-1.423	.0201	-.0008
#1	.0244	-.0003	-.0012	-.0050	-1.356	.0234	.0002
#2	-.0327	-.0009	.0011	.0023	-1.490	.0167	-.0018

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0195	.0060	.0006	Q.0353	-.0289	.0017	-.0006
#1	-.0151	.0087	.0009	Q.0381	-.0327	.0036	-.0006
#2	-.0238	.0033	.0003	Q.0325	-.0251	-.0003	-.0006

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	.0273	-.0049	.0033
#1	.0427	-.0045	.0032
#2	.0119	-.0053	.0035

Method: EPACLP1 Sample Name: 3098-24 Operator: WM
Run Time: 05/22/97 15:05:47
Comment: 5/10 DILUTION MET9702504
Mode: CONC Corr. Factor: 219.5

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H1002.	H393.5	H2077.	21.35	.1212	16.90	H2445.
#1	H1008.	H395.1	H2096.	21.58	.1734	16.77	H2457.
#2	H996.4	H391.9	H2057.	21.13	.0690	17.02	H2433.

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H4239.	37.84	H2987.	H140000.	H43110.	H119000.	H1024.
#1	H4269.	38.21	H3006.	H141200.	H43380.	H119600.	H1030.
#2	H4209.	37.47	H2968.	H138800.	H42840.	H118400.	H1017.

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H1039.	72.43	3.165	H6662.	L-59.06	L-22.33	H47.61
#1	H1053.	72.76	3.208	H6706.	L-70.80	L-20.47	H47.93
#2	H1025.	72.11	3.122	H6619.	L-47.33	L-24.20	H47.28

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H133500.	H959.4	.9931	H23610.	H7582.	H757.9	75.96
#1	H134200.	H998.5	1.206	H23730.	H7649.	H766.9	76.47
#2	H132800.	H920.3	.7802	H23490.	H7515.	H748.9	75.45

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	21.20	2.278	11.75
#1	20.32	2.278	11.86
#2	22.09	2.278	11.65

* Sb ≥ 1400

Method: EPACLP1 Sample Name: 3098-25 Operator: WM
Run Time: 05/22/97 15:08:09
Comment: 5/10 DILUTION MET9702504
Mode: CONC Corr. Factor: 299

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H1622.	H530.3	H2044.	73.35	.0321	H719.0	H4836.
#1	H1630.	H531.4	H2048.	74.07	.1018	H725.3	H4832.
#2	H1615.	H529.1	H2041.	72.63	L-.0375	H712.7	H4840.

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H34380.	H415.8	H4180.	H189400.	H43420.	H162500.	H3197.
#1	H34450.	H417.9	H4195.	H191400.	H43630.	H163000.	H3209.
#2	H34300.	H413.7	H4165.	H187300.	H43210.	H162000.	H3185.

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H3323.	H583.3	5.702	H18500.	L-209.7	31.19	H163.0
#1	H3330.	H586.1	6.242	H18570.	L-322.9	33.79	H163.0
#2	H3316.	H580.6	5.162	H18430.	L-96.44	28.59	H163.0

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H18780.	H745.7	H152.2	H31270.	H15900.	H1975.	H121.9
#1	H18950.	H784.6	H152.9	H31240.	H15880.	H1979.	H123.1
#2	H18620.	H706.7	H151.5	H31300.	H15930.	H1971.	H120.7

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	52.09	8.961	44.96
#1	59.49	8.492	45.34
#2	44.69	9.429	44.59

* $S_4 = 1.361$

Method: EPACLP1 Sample Name: 3098-26 Operator: WM
Run Time: 05/22/97 15:10:17
Comment: 5/10 DILUTION MET9702504
Mode: CONC Corr. Factor: 243

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H2223.	H568.8	H2652.	126.8	.6918	192.1	H4240.
#1	H2262.	H581.9	H2707.	129.8	.7477	195.5	H4278.
#2	H2184.	H555.7	H2596.	123.7	.6359	188.7	H4202.

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H24480.	H393.6	H4170.	H195300.	H67680.	H178400.	H2029.
#1	H24820.	H399.9	H4242.	H200800.	H68910.	H180900.	H2060.
#2	H24140.	H387.3	H4097.	H189900.	H66460.	H175900.	H1998.

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H2017.	H369.9	11.59	H12610.	328.7	L-12.86	H66.64
#1	H2035.	H376.2	11.51	H12800.	233.4	L-16.82	H67.78
#2	H1999.	H363.7	11.67	H12420.	423.9	L-8.914	H65.50

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm *	ppm	ppm	ppm	ppm	ppm
Avge	H32620.	H1514.	39.54	H29790.	H12560.	H2225.	H168.3
#1	H33320.	H1548.	40.25	H30080.	H12740.	H2257.	H172.2
#2	H31910.	H1479.	38.83	H29490.	H12380.	H2194.	H164.5

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	71.72	8.615	H132.8
#1	85.09	8.615	H136.0
#2	58.34	8.615	H129.7

* Sn = 2211

00255

Method: EPACLP1 Sample Name: 3098-27 Operator: WM
Run Time: 05/22/97 15:12:42
Comment: 5/10 DILUTION MET9702504
Mode: CONC Corr. Factor: 243

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H1458.	H484.1	H2582.	106.8	L-.0431	197.9	H4069.
#1	H1493.	H502.8	H2647.	110.3	.0109	203.6	H4137.
#2	H1423.	H465.4	H2518.	103.3	L-.0972	192.3	H4001.

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H12090.	H394.4	H4103.	H183200.	H65260.	H167800.	H1919.
#1	H12380.	H404.1	H4211.	H188800.	H66930.	H171800.	H1967.
#2	H11800.	H384.7	H3995.	H177500.	H63600.	H163900.	H1872.

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H1933.	H366.7	7.094	H12950.	465.1	L-27.13	H54.91
#1	H1992.	H376.3	6.811	H13290.	428.3	L-29.07	H56.35
#2	H1874.	H357.1	7.377	H12610.	H501.9	L-25.20	H53.47

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm *	ppm	ppm	ppm	ppm	ppm
Avge	H34530.	H1570.	47.70	H30480.	H12950.	H1481.	H159.8
#1	H35570.	H1607.	48.88	H31050.	H13240.	H1519.	H165.2
#2	H33490.	H1534.	46.51	H29910.	H12660.	H1444.	H154.5

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	54.20	6.235	42.88
#1	92.38	5.950	44.22
#2	16.03	6.521	41.53

* Sn = 2270

Method: EPACLP1 Sample Name: CCV15 Operator: WM
Run Time: 05/22/97 15:17:50
Comment: MET9702504
Mode: CONC Corr. Factor: 1

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.100	5.083	1.999	.5120	.5099	.0088	.5166
#1	5.101	5.089	2.014	.5123	.5101	.0088	.5164
#2	5.098	5.078	1.983	.5117	.5096	.0088	.5167

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.108	5.100	.5103	Q1.315	5.151	5.196	5.090
#1	5.104	5.098	.5093	Q1.361	5.152	5.211	5.088
#2	5.112	5.103	.5113	Q1.269	5.149	5.181	5.093

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.158	.5105	.5073	.5036	25.43	2.014	.5091
#1	5.152	.5097	.5090	.5187	25.33	2.018	.5071
#2	5.165	.5114	.5057	.4885	25.53	2.011	.5111

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	25.67	-.0174	.5097	2.639	.0591	.0223	.5110
#1	25.74	-.0188	.5085	2.650	.0443	.0184	.5108
#2	25.61	-.0161	.5110	2.628	.0738	.0261	.5112

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	-.0076	-.0022	.0005
#1	.0097	-.0022	.0006
#2	-.0249	-.0022	.0003

Method: EPACLP1 Sample Name: STD4-CCV15 Operator: WM
Run Time: 05/22/97 15:20:02
Comment: MET9702504
Mode: CONC Corr. Factor: 1

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0106	.0324	.0156	-.0014	-.0001	10.22	.0001
#1	.0088	.0342	.0007	-.0011	-.0001	10.16	.0008
#2	.0124	.0306	.0305	-.0018	-.0001	10.28	-.0007

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0219	.0032	-.1904	.5639	.0222	.0504	.0046
#1	.0227	.0027	-.1915	.5922	.0263	.0555	.0053
#2	.0211	.0037	-.1894	.5357	.0181	.0454	.0038

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0327	.0008	.0005	.0110	-1.142	-.0219	.0005
#1	-.0454	.0008	.0022	.0122	-1.044	-.0004	.0002
#2	-.0200	.0008	-.0012	.0098	-1.240	-.0434	.0009

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0667	20.24	.0003	.0549	51.15	10.19	-.0004
#1	.0672	20.18	.0004	.0605	51.11	10.14	-.0002
#2	.0661	20.31	.0003	.0493	51.19	10.24	-.0006

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	10.27	10.29	10.29
#1	10.24	10.22	10.21
#2	10.31	10.37	10.37

Method: EPACLP1 Sample Name: CCB15 Operator: WM
Run Time: 05/22/97 15:22:00
Comment: MET9702504
Mode: CONC Corr. Factor: 1

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0034	.0053	.0038	-.0018	-.0001	.0223	.0022
#1	-.0049	.0059	.0058	-.0018	-.0001	.0255	.0022
#2	-.0020	.0047	.0018	-.0018	-.0001	.0190	.0022

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0018	.0004	.0032	Q.4237	.0104	.0280	.0007
#1	.0012	-.0010	.0032	Q.4369	.0119	.0295	.0007
#2	.0023	.0018	.0032	Q.4105	.0090	.0265	.0007

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0181	.0006	-.0018	.0016	-.6700	.0208	.0012
#1	-.0010	.0008	-.0023	.0047	-.7502	.0127	.0002
#2	.0371	.0003	-.0012	-.0014	-.5898	.0288	.0022

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0154	.0049	.0012	Q.0280	-.0216	.0094	-.0004
#1	-.0151	.0006	.0009	Q.0302	-.0437	.0063	-.0006
#2	-.0156	.0093	.0016	Q.0258	.0005	.0124	-.0002

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	-.0228	-.0025	.0030
#1	-.0305	-.0029	.0032
#2	-.0151	-.0022	.0028

Method: EPACLP1 Sample Name: Method Blank Operator: EM
Run Time: 05/22/97 15:37:17
Comment: 3098-PBF TCLP MET9702504
Mode: CONC Corr. Factor: 1

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	L.0194	L.0041	L.0147	.0325	L-.0004	.0485	L.0009
#1	L.0162	L.0058	L-.0060	.0325	L-.0006	.0550	L.0023
#2	.0227	L.0023	L.0354	.0325	L-.0001	.0419	L-.0004

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0347	L.0008	L.0011	.0540	L-.0028	L.0132	L.0033
#1	.0337	L.0018	L.0011	.0551	L-.0030	L.0082	L.0033
#2	.0356	L-.0001	L.0011	.0530	L-.0025	L.0183	L.0033

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	L-.0073	L.0017	L.0005	L-.0002	L-1.623	L.0120	L.0005
#1	L-.0263	L.0014	L-.0001	L-.0038	L-1.748	L.0194	L-.0005
#2	L.0118	L.0020	L.0011	L.0035	L-1.499	L.0046	L.0015

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.5628	L-.0110	L.0006	.0302	L-.0695	.1860	L-.0006
#1	.5650	L-.0123	L-.0003	.0303	L-.0695	.1840	L-.0006
#2	.5606	L-.0096	L.0016	.0302	L-.0696	.1879	L-.0006

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	L-.0400	L-.0065	.0013
#1	L-.0612	L-.0061	.0013
#2	L-.0188	L-.0069	.0013

Method: EPACLP1 Sample Name: LCSF Operator: EM
Run Time: '05/22/97 15:39:25
Comment: 3098-LCSF TCLP MET9702504
Mode: CONC Corr. Factor: 1

Elem	A_3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	L.0079	L-.0018	4.926	5.456	L-.0006	L-.0007	1.006
#1	L.0068	L-.0025	4.979	5.467	L-.0006	L.0026	1.007
#2	L.0090	L-.0011	4.872	5.446	L-.0006	L-.0039	1.005

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0376	5.144	.0055	.0500	L.0030	5.130	.0071
#1	.0376	5.162	.0055	.0514	L.0032	5.137	.0074
#2	.0376	5.127	.0055	.0487	L.0028	5.123	.0069

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	L-.0232	L.0017	L-.0012	L-.0008	L-1.793	1.019	.9945
#1	L-.0390	L.0020	L-.0006	L.0034	L-1.793	1.028	.9948
#2	L-.0073	L.0014	L-.0018	L-.0050	L-1.793	1.009	.9941

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0612	L-.0255	L.0008	.0089	L-.0068	.1466	L-.0006
#1	.0650	L-.0278	L.0011	.0089	L-.0030	.1472	L-.0006
#2	.0574	L-.0232	L.0004	.0089	L-.0105	.1461	L-.0006

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	L-.0266	L-.0084	L.0003
#1	L.0004	L-.0084	L.0003
#2	L-.0535	L-.0084	L.0003

Method: EPACLP1 Sample Name: Respirator Wash Operator: EM
Run Time: 05/22/97 15:41:30
Comment: 3098-3 TCLP MET9702504
Mode: CONC Corr. Factor: 1

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	L.0198	L.0233	.0911	.0469	L-.0006	.0439	.0621
#1	L.0140	L.0191	.0899	.0476	L-.0006	.0439	.0616
#2	.0256	L.0275	.0924	.0462	L-.0006	.0439	.0627

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	19.22	L.0013	L.0011	.1781	.0243	.5851	4.775
#1	19.38	L.0023	L.0011	.1813	.0239	.6075	4.823
#2	19.06	L.0004	L.0011	.1750	.0248	.5628	4.726

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.842	.0071	L.0033	L-.0002	L-.3671	L.0429	L.0019
#1	4.880	.0071	L.0022	L-.0002	L-.5097	L.0436	L.0015
#2	4.804	.0071	.0045	L-.0002	L-.2245	L.0423	L.0022

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	9.448	L-.0053	L.0010	.3642	2.090	7.203	L.0005
#1	9.564	L-.0107	L.0016	.3670	2.112	7.262	L-.0006
#2	9.332	L.0001	L.0004	.3614	2.068	7.144	L.0017

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	L-.0034	L-.0002	.0975
#1	L.0120	L-.0022	.0989
#2	L-.0189	L.0018	.0960

Method: EPACLP1 Sample Name: Respirator Wash Operator: EM
Run Time: 05/22/97 15:43:46
Comment: 3098-3D TCLP MET9702504
Mode: CONC Corr. Factor: 1

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	L.0114	L.0233	.0815	.0448	L-.0001	.0439	.0633
#1	L.0132	L.0227	.0834	.0448	L-.0001	.0406	.0628
#2	L.0095	L.0239	.0795	.0448	L-.0001	.0471	.0639

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	19.29	L.0032	L.0001	.1715	.0248	.5714	4.793
#1	19.26	L.0037	L.0011	.1718	.0239	.5790	4.776
#2	19.31	L.0027	L-.0010	.1713	.0258	.5638	4.810

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.870	.0062	L.0039	L.0059	L-.2290	L.0161	L-.0005
#1	4.823	.0065	L.0022	L.0047	L-.1265	L.0168	L-.0005
#2	4.918	.0059	.0056	L.0071	L-.3314	L.0154	L-.0005

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	9.521	L-.0007	L.0017	.3704	2.108	5.968	L.0005
#1	9.437	L.0012	L.0017	.3704	2.086	5.956	L.0017
#2	9.604	L-.0026	L.0017	.3704	2.130	5.981	L-.0006

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	L-.0189	L-.0006	.0975
#1	L-.0304	L.0010	.0967
#2	L-.0073	L-.0022	.0983

Method: EPACLP1 Sample Name: Respirator Wash Operator: EM
Run Time: 05/22/97 15:45:51
Comment: 3098-3S TCLP MET9702504
Mode: CONC Corr. Factor: 1

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0362	L.0248	4.869	5.312	L-.0001	.0554	1.037
#1	.0329	L.0280	4.874	5.280	L-.0001	.0570	1.030
#2	.0394	L.0216	4.864	5.343	L-.0001	.0537	1.044

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	18.73	4.966	.0056	.1623	.0330	5.425	4.643
#1	18.62	4.938	.0056	.1623	.0325	5.391	4.619
#2	18.83	4.994	.0056	.1623	.0335	5.460	4.667

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.727	.0068	L.0011	L.0028	L.0116	1.010	.9550
#1	4.670	.0065	L.0005	L-.0002	L.0606	1.005	.9500
#2	4.784	.0071	L.0017	L.0059	L-.0374	1.015	.9600

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	9.282	L-.0204	L.0014	.3563	1.991	7.192	L.0017
#1	9.231	L-.0203	L.0013	.3547	2.009	7.167	L.0031
#2	9.333	L-.0204	L.0014	.3580	1.972	7.217	L.0003

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	L-.0054	L.0002	.0941
#1	L.0119	L.0002	.0935
#2	L-.0227	L.0002	.0948

Method: EPACLP1 Sample Name: Laundry Wash Operator: EM
Run Time: 05/22/97 15:47:54
Comment: 3098-4 TCLP MET9702504
Mode: CONC Corr. Factor: 1

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0445	.0311	.2193	.0729	L-.0004	.0811	.2035
#1	.0430	L.0263	.2336	.0729	L-.0001	.0827	.2061
#2	.0460	.0359	.2050	.0729	L-.0006	.0794	.2009

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	23.47	L-.0003	L.0032	.0593	.0095	.0427	6.354
#1	23.55	L-.0006	L.0011	.0588	.0109	.0508	6.376
#2	23.39	L-.0001	.0052	.0598	.0080	.0346	6.332

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	6.574	.0144	L.0028	L.0059	L-.8571	L.0228	L.0002
#1	6.625	.0144	L.0033	L.0071	L-.9195	L.0396	L-.0011
#2	6.524	.0144	L.0022	L.0047	L-.7948	L.0060	L.0015

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	7.109	L-.0002	L.0007	.2766	.0734	9.492	L.0017
#1	7.146	L-.0026	L.0010	.2783	.0788	9.515	L.0017
#2	7.072	L.0022	L.0004	.2749	.0680	9.469	L.0017

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	L-.0110	L.0014	.1256
#1	L-.0110	L.0018	.1261
#2	L-.0110	L.0010	.1251

Method: EPACLP1 Sample Name: Sinter Plant Wash Operator: EM
Run Time: 05/22/97 15:50:02
Comment: 3098-6 TCLP MET9702504
Mode: CONC Corr. Factor: 1

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1042	.6782	L-.1919	.2066	L-.0004	1.331	71.01
#1	.0973	.6566	L-.1843	.2025	L-.0001	1.299	70.71
#2	.1110	.6998	L-.1995	.2107	L-.0006	1.364	71.32

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	380.9	L.0032	.0295	.0614	.0490	.3606	13.64
#1	377.4	.0061	.0305	.0651	.0510	.3621	13.49
#2	384.5	L.0004	.0285	.0577	.0471	.3590	13.78

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	15.09	12.70	.0987	.1722	149.1	.5117	L-.0003
#1	14.83	12.54	.0958	.1758	146.2	.5003	L-.0013
#2	15.35	12.86	.1015	.1686	151.9	.5231	L.0007

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H520.6	L.0028	L.0007	39.87	.9560	7.961	L.0026
#1	H509.5	L.0061	L.0025	39.63	.9531	7.863	L.0031
#2	H531.7	L-.0005	L-.0011	40.10	.9590	8.058	L.0022

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	6.362	.1448	1.255
#1	6.069	.1451	1.228
#2	6.655	.1444	1.282

See 1/10 dilution
Em 5/22/97
-Ran after next sample
OVER L.R. for Cd
Em 5/22/97

00266

Method: EPACLP1 Sample Name: Acid Plant Effluent Operator: EM
Run Time: 05/22/97 16:03:36
Comment: 3098-19 TCLP MET9702504
Mode: CONC Corr. Factor: 1

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.866	97.31	H1762.	.5758	L-.0002	4.663	H191.7
#1	4.827	96.72	H1750.	.5720	L-.0002	4.631	H190.4
#2	4.906	97.90	H1773.	.5796	L-.0002	4.696	H192.9

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	123.4	.2993	L-.0427	.0554	11.72	12.21	3.725
#1	122.6	.2976	L-.0468	.0549	11.63	12.13	3.699
#2	124.3	.3009	L-.0385	.0559	11.81	12.29	3.750

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.227	.5884	.2929	L.0030	73.01	2.193	L.0014
#1	4.139	.5844	.2906	L.0024	72.74	2.198	L.0011
#2	4.316	.5924	.2951	L.0036	73.28	2.189	L.0017

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	348.5	1.834	.0198	39.13	2.168	98.68	.1271
#1	346.5	1.812	.0201	38.87	2.151	97.97	.1266
#2	350.5	1.855	.0196	39.39	2.186	99.38	.1276

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	20.24	.0496	.2382
#1	20.06	.0503	.2366
#2	20.43	.0488	.2398

Pb, Cd - See 1/20 dilution, ran after next sample
As - See 1/200 dilution, ran after CCB 16
Tim 5/22/97

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Method: EPACLP1 Sample Name: Sinter Plant Wash Operator: EM
Run Time: 05/22/97 16:11:42
Comment: 3098-6 1/10 DILUTION TCLP MET9702504
Mode: CONC Corr. Factor: 10

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0854	.7267	.8419	.1913	L-.0015	1.414	75.13
#1	.0820	.7569	.9518	.1878	L-.0015	1.365	74.68
#2	.0889	.6966	.7319	.1947	L-.0014	1.463	75.58

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	384.1	L.0038	.0633	.0674	.0135	.5499	14.47
#1	381.9	.0132	.0736	.0700	.0185	.6720	14.39
#2	386.2	L-.0057	.0529	.0647	.0086	.4278	14.56

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	15.22	13.28	.1009	.2334	134.1	.6239	.0038
#1	15.41	13.19	.0896	.2394	132.8	.6642	L.0005
#2	15.03	13.37	.1122	.2274	135.4	.5836	.0071

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H516.8	L.0008	.0107	42.67	.4080	7.936	L-.0018
#1	H511.4	.0224	.0200	42.45	.5919	7.887	L.0029
#2	H522.2	L-.0208	L.0013	42.89	.2241	7.986	L-.0064

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	6.318	.1391	1.275
#1	5.739	.1508	1.264
#2	6.897	.1273	1.286

Method: EPACLP1 Sample Name: Acid Plant Effluent Operator: EM
Run Time: 05/22/97 16:14:38
Comment: 3098-19 1/20 DILUTION TCLP MET9702504
Mode: CONC Corr. Factor: 20

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.084	H108.0	H2059.	.5745	L-.0029	4.991	H221.8
#1	5.156	H107.5	H2055.	.5676	L-.0030	4.958	H221.5
#2	5.012	H108.4	H2062.	.5813	L-.0029	5.024	H222.2

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	135.9	.3199	L-.0201	.1304	12.83	13.99	4.151
#1	135.9	.3388	L-.0202	.1304	12.79	13.91	4.146
#2	136.0	.3010	L-.0200	.1304	12.87	14.07	4.156

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.089	.6602	.3167	L-.0754	57.35	2.482	.0055
#1	5.660	.6545	.3392	L-.1236	58.59	2.737	.0056
#2	4.517	.6659	.2941	L-.0272	56.10	2.227	.0055

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	368.2	1.952	.0208	45.72	1.356	113.5	.1135
#1	367.1	1.828	.0406	45.69	1.318	113.2	.0901
#2	369.3	2.075	L.0010	45.75	1.395	113.9	.1368

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	21.20	L-.0118	.2559
#1	20.46	L-.0118	.2591
#2	21.93	L-.0118	.2527

Method: EPACLP1 Sample Name: CCV16 Operator: EM
Run Time: 05/22/97 16:17:20
Comment: MET9702504
Mode: CONC Corr. Factor: 1

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.034	4.990	2.063	.5058	.5017	.0089	.5108
#1	5.036	5.014	2.067	.5062	.5019	.0089	.5102
#2	5.033	4.966	2.059	.5055	.5014	.0089	.5114

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.014	5.005	.4989	.5069	5.028	4.939	5.009
#1	5.023	5.013	.5010	.5066	5.025	4.950	5.012
#2	5.006	4.997	.4969	.5071	5.031	4.928	5.006

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.051	.5003	.4983	.4916	25.19	1.986	.5023
#1	5.076	.5006	.5000	.4910	25.21	1.987	.5017
#2	5.025	.5000	.4966	.4922	25.17	1.985	.5030

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	25.58	-.0192	.5013	2.492	.0252	.0278	.5035
#1	25.55	-.0200	.5023	2.497	.0269	.0278	.5037
#2	25.61	-.0185	.5002	2.488	.0234	.0278	.5033

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	.0601	-.0022	.0005
#1	.0755	-.0022	.0006
#2	.0446	-.0022	.0003

Method: EPACLP1 Sample Name: CCB16 Operator: EM
Run Time: 05/22/97 16:19:13
Comment: MET9702504
Mode: CONC Corr. Factor: 1

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0012	.0029	.0596	-.0018	-.0001	-.0039	.0015
#1	.0002	.0095	.0784	-.0018	-.0001	-.0039	.0013
#2	-.0027	-.0038	.0408	-.0018	-.0001	-.0039	.0017

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0016	-.0003	.0021	.0044	-.0040	.0077	-.0001
#1	.0035	-.0010	.0011	.0049	-.0035	.0061	.0002
#2	-.0004	.0004	.0031	.0038	-.0044	.0092	-.0003

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0073	.0006	-.0018	-.0044	-.7680	.0214	.0009
#1	-.0009	.0008	-.0023	.0010	-.6077	.0275	.0015
#2	-.0136	.0003	-.0012	-.0098	-.9284	.0154	.0002

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0162	-.0042	.0009	.0016	-.0215	.0022	.0008
#1	-.0118	-.0064	.0003	.0022	-.0178	.0019	-.0006
#2	-.0205	-.0021	.0016	.0011	-.0252	.0025	.0022

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	.0139	-.0041	.0000
#1	.0235	-.0045	.0000
#2	.0042	-.0037	.0000

Method: EPACLP1 Sample Name: Acid Plant Effluent Operator: EM
Run Time: 05/22/97 16:23:33
Comment: 3098-19 1/200 DILUTION TCLP MET9702504
Mode: CONC Corr. Factor: 200

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.100	H103.8	H2006.	.1917	L-.0285	4.122	H217.2
#1	3.660	H104.5	H2008.	.1917	L-.0285	4.450	H217.0
#2	4.539	H103.1	H2004.	.1917	L-.0285	3.794	H217.3

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	131.8	L-.0193	.0089	.8201	11.59	14.53	3.959
#1	132.1	L-.0193	L-.1988	.7672	11.69	13.61	3.959
#2	131.6	L-.0193	.2167	.8729	11.49	15.44	3.959

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	L-4.662	.6810	.1022	L-.5138	L-87.67	5.774	L-.0272
#1	L-6.566	.6245	.2150	L-.7545	L-101.9	2.552	.0397
#2	L-2.757	.7376	L-.0106	L-.2731	L-73.42	8.997	L-.0941

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	355.8	1.257	L-.0643	45.11	L-9.530	111.7	L-.0352
#1	357.2	1.634	L-.0617	44.89	L-5.098	111.2	L-.0352
#2	354.4	.8796	L-.0670	45.34	L-13.96	112.2	L-.0352

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	13.91	L-.8230	.3159
#1	11.60	L-1.058	.3159
#2	16.22	L-.5879	.3159

Method: EPACLP1 Sample Name: Lower Lake Operator: EM
Run Time: 05/22/97 16:25:54
Comment: 3098-20 TCLP MET9702504
Mode: CONC Corr. Factor: 1

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0411	.5486	.2272	.2063	L-.0001	.7352	.0232
#1	.0392	.5438	.2155	.2032	L-.0001	.7238	.0250
#2	.0430	.5533	.2388	.2094	L-.0001	.7467	.0215

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	266.8	L-.0022	L-.0020	.0300	.0324	L.0203	8.798
#1	263.8	L-.0019	L-.0051	.0292	.0314	L.0182	8.695
#2	269.8	L-.0024	L.0011	.0308	.0333	L.0223	8.900

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	9.745	.0804	.1178	L.0029	56.45	.2095	L-.0001
#1	9.672	.0796	.1173	L.0071	55.96	.2088	L-.0011
#2	9.818	.0813	.1184	L-.0013	56.94	.2102	L.0009

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	446.8	L.0017	L.0012	.1538	.0521	7.675	L.0022
#1	440.8	L.0049	L.0018	.1515	.0523	7.580	L.0022
#2	452.8	L-.0016	L.0005	.1560	.0519	7.770	L.0022

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	.2190	.0829	.6405
#1	.2556	.0832	.6315
#2	.1824	.0825	.6495

Method: EPACLP1 Sample Name: Conductivity Blowdow Operator: EM
Run Time: 05/22/97 16:28:08
Comment: 3098-21 TCLP MET9702504
Mode: CONC Corr. Factor: 1

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0373	.1344	.3753	.1874	L-.0002	.1478	.4978
#1	.0398	.1307	.3746	.1888	L-.0002	.1527	.4978
#2	.0347	.1380	.3760	.1861	L-.0002	.1429	.4978

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	152.5	L.0013	L.0001	.0580	.4274	.4824	H34.31
#1	152.9	L.0018	L.0011	.0588	.4293	.4885	H34.41
#2	152.1	L.0009	L-.0010	.0572	.4255	.4763	H34.22

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	37.63	.0471	.0395	L.0089	85.95	L.0413	L.0003
#1	37.83	.0474	.0395	L.0071	86.30	L.0454	L.0003
#2	37.44	.0468	.0395	L.0107	85.60	L.0373	L.0003

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	109.6	L.0072	.0073	.5741	15.61	43.01	L.0022
#1	110.4	L.0077	.0070	.5735	15.66	42.93	L.0022
#2	108.9	L.0066	.0077	.5746	15.57	43.10	L.0022

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	.1210	.1009	1.074
#1	.1576	.1028	1.081
#2	.0844	.0989	1.067

Reran 1/5 but Se still <1ppm
See next sample
Em 5/22/97

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Method: EPACLP1 Sample Name: Condensate Blowdown Operator: EM
Run Time: 05/22/97 16:30:25
Comment: 3098-22 TCLP MET9702504
Mode: CONC Corr. Factor: 1

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0376	.1344	L-.0256	.2029	L-.0009	1.471	1.266
#1	.0347	.1333	L-.0308	.2046	L-.0011	1.486	1.268
#2	.0405	.1356	L-.0205	.2011	L-.0006	1.457	1.265

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	224.0	L.0039	L-.0102	.0207	.0537	.3919	11.49
#1	224.9	L.0032	L-.0113	.0202	.0535	.3949	11.55
#2	223.1	L.0046	L-.0092	.0213	.0539	.3889	11.44

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	12.68	.0971	.0259	.0264	135.5	.8952	L-.0001
#1	12.78	.0977	.0259	.0288	136.6	.8952	L-.0011
#2	12.58	.0965	.0259	.0240	134.4	.8952	L.0009

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	S4361.	L.0042	L.0019	.6498	.3596	5.613	L.0003
#1	S4361.	L.0050	L.0022	.6521	.3612	5.656	L.0003
#2	S4361.	L.0034	L.0016	.6476	.3580	5.569	L.0003

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	12.77	.1158	2.661
#1	12.75	.1162	2.689
#2	12.78	.1154	2.634

Ignore crossouts
report Cd + Pb from
This run
[illegible]
5/23/97

00275

Method: EPACLP1 Sample Name: Condensate Blowdown Operator: EM
Run Time: 05/22/97 16:33:24
Comment: 3098-22 2/10 DILUTION TCLP MET9702504
Mode: CONC Corr. Factor: 5

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	L.0115	.1106	.0806	.1882	L-.0007	1.410	1.268
#1	L-.0359	.0775	.1198	.1899	L-.0007	1.418	1.262
#2	.0589	.1437	.0414	.1865	L-.0007	1.402	1.274

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	215.5	L-.0052	L-.0048	.0337	.0256	.4241	11.43
#1	217.3	L-.0029	L-.0152	.0297	.0280	.4164	11.54
#2	213.8	L-.0076	.0056	.0376	.0232	.4319	11.32

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	12.13	.0948	.0223	.0293	121.9	.8358	L.0026
#1	12.24	.0948	.0223	L.0173	122.3	.8560	L-.0057
#2	12.02	.0948	.0223	.0414	121.5	.8156	.0110

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H645.8	L-.0549	L.0021	.6563	.0815	5.386	L-.0032
#1	H654.0	L-.0158	.0053	.6619	L.0076	5.445	L-.0032
#2	H637.5	L-.0940	L-.0011	.6506	.1554	5.327	L-.0032

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	12.61	.1009	2.547
#1	12.83	.0950	2.581
#2	12.38	.1067	2.513

NR
5/23/97

Method: EPACLP1 Sample Name: Thornock Tank A Operator: EM
Run Time: 05/22/97 16:35:36
Comment: 3098-29 TCLP MET9702504
Mode: CONC Corr. Factor: 1

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0315	.8118	.6828	.2224	L-.0001	1.335	9.363
#1	.0264	.8015	.6718	.2217	L-.0001	1.342	9.325
#2	.0365	.8220	.6938	.2231	L-.0001	1.329	9.400

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	313.2	L-.0023	.0085	.1166	.0318	.2191	11.33
#1	312.5	L-.0028	.0074	.1153	.0314	.2236	11.29
#2	314.0	L-.0019	.0095	.1179	.0323	.2145	11.36

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	12.62	3.631	.3350	.0559	114.7	.5533	L-.0006
#1	12.60	3.620	.3339	.0505	114.4	.5567	L-.0022
#2	12.64	3.642	.3362	.0614	115.0	.5500	L.0011

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	476.5	L-.0018	L-.0012	3.967	.2566	8.431	L.0022
#1	474.8	L-.0053	L-.0016	3.955	.2364	8.396	L.0022
#2	478.3	L.0017	L-.0009	3.978	.2769	8.466	L.0022

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	2.419	.1181	1.198
#1	2.348	.1177	1.194
#2	2.490	.1185	1.202

Analysis Report Thu 05-22-97 04:39:55 PM page 1

Method: EPACLP1 Sample Name: Thornock Tank B Operator: EM
Run Time: 05/22/97 16:38:13
Comment: 3098-30 TCLP MET9702504
Mode: CONC Corr. Factor: 1

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0305	.8640	.7538	.2073	L-.0001	1.414	10.29
#1	.0341	.8675	.7589	.2094	L-.0001	1.420	10.28
#2	.0269	.8604	.7486	.2053	L-.0001	1.407	10.30

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	342.1	L-.0014	.0085	.1166	.0431	.2683	12.27
#1	342.6	L-.0023	.0074	.1179	.0423	.2673	12.30
#2	341.6	L-.0004	.0095	.1153	.0438	.2694	12.24

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	13.60	3.917	.3638	.0571	122.2	.5647	L-.0013
#1	13.75	3.930	.3666	.0553	123.2	.5916	L-.0023
#2	13.46	3.903	.3610	.0589	121.2	.5379	L-.0003

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	498.3	L.0038	L.0001	4.248	.3296	9.027	L.0019
#1	H502.9	L.0087	L.0005	4.250	.3366	9.052	L.0017
#2	493.6	L-.0010	L-.0002	4.247	.3226	9.002	L.0022

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	2.517	.1275	1.258
#1	2.498	.1295	1.269
#2	2.537	.1256	1.247

00278

CCB carryover Check GM 5/22/97

Analysis Report Thu 05-22-97 04:45:58 PM page 1

Method: EPACLP1 Sample Name: Method Blank GM 5/22/97 Operator: EM
Run Time: 05/22/97 16:43:22
Comment: ~~3098 PBE1~~ TCLP MET9702504
Mode: CONC Corr. Factor: 1

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	L-.0133	L.0011	L.0221	L-.0004	L-.0004	L.0059	L.0019
#1	L-.0209	L-.0013	L.0293	L-.0004	L-.0006	L.0059	L.0029
#2	L-.0056	L.0035	L.0149	L-.0004	L-.0001	L.0059	L.0009

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0441	L-.0018	L.0000	L.0028	L.0004	L.0056	L.0009
#1	.0501	L-.0039	L-.0010	L.0028	L.0013	L.0031	L.0017
#2	.0380	L.0004	L.0011	L.0028	L-.0006	L.0082	L.0002

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	L-.0866	L.0006	L-.0001	L-.0032	L.7823	L.0194	L.0002
#1	L-.1406	L.0003	L-.0012	L-.0062	1.059	L.0261	L-.0005
#2	L-.0327	L.0008	L.0011	L-.0002	L.5061	L.0127	L.0009

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.3619	L-.0034	L-.0003	L.0022	L.0009	L.0047	L-.0006
#1	.4559	L-.0059	L-.0010	L.0022	L.0121	L.0052	L-.0006
#2	.2679	L-.0010	L.0003	L.0022	L-.0104	L.0041	L-.0006

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	L-.0054	L.0002	L.0002
#1	L.0081	L.0010	L.0000
#2	L-.0189	L-.0006	L.0003

Method: EPACLP1 Sample Name: Method Blank Operator: EM
Run Time: 05/22/97 16:46:56
Comment: 3098-PBE1 TCLP MET9702504
Mode: CONC Corr. Factor: 1

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	L.0020	L-.0037	L.0155	.0681	L-.0004	.0665	.0218
#1	L-.0013	L-.0061	L.0149	.0688	L-.0006	.0649	.0218
#2	L.0052	L-.0013	L.0161	.0675	L-.0001	.0681	.0218

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0713	L.0013	L.0011	.0065	L-.0032	L.0168	.0066
#1	.0705	L.0009	L.0011	.0054	L-.0044	L.0112	.0069
#2	.0721	L.0018	L.0011	.0075	L-.0020	L.0224	.0064

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	L-.0549	L.0020	.0044	L.0083	L-.8260	L.0167	L-.0001
#1	L-.0644	L.0020	.0044	L.0059	L-1.249	L.0100	L-.0012
#2	L-.0454	L.0020	.0045	L.0107	L-.4027	L.0234	L.0009

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	S4361.	L-.0034	L-.0009	.0858	L-.0620	.1832	L-.0004
#1	S4361.	L.0033	L-.0015	.0864	L-.0582	.1758	L-.0006
#2	S4361.	L-.0101	L-.0002	.0852	L-.0657	.1906	L-.0002

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	.0524	L-.0010	.0092
#1	.0466	L-.0045	.0095
#2	.0582	L.0025	.0088

Method: EPACLP1 Sample Name: LCSE Operator: EM
Run Time: 05/22/97 16:49:13
Comment: 3098-LCSE1 TCLP MET9702504
Mode: CONC Corr. Factor: 1

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	L.0035	L.0007	4.648	5.071	L-.0001	L.0141	.9829
#1	L-.0041	L-.0029	4.691	5.099	L-.0002	L.0157	.9825
#2	L.0111	L.0044	4.605	5.043	L-.0001	L.0124	.9834

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0390	4.885	L.0035	L.0036	L-.0008	4.979	.0066
#1	.0384	4.899	L.0036	L.0033	L-.0011	4.978	.0064
#2	.0395	4.871	L.0035	L.0038	L-.0006	4.979	.0069

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	L.0213	L.0006	L-.0000	L-.0044	L-.6299	.9690	.9647
#1	L.0054	L.0003	L-.0006	L.0022	L-.7502	.9717	.9647
#2	L.0371	L.0008	L.0005	L-.0110	L-.5097	.9663	.9647

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.5503	L-.0215	L.0015	L.0044	L-.0124	.2319	L.0003
#1	.6440	L-.0244	L.0018	L.0044	L-.0031	.2302	L.0003
#2	.4565	L-.0186	L.0011	L.0045	L-.0217	.2335	L.0003

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	.0466	L-.0045	L.0000
#1	.0736	L-.0053	L.0000
#2	L.0196	L-.0037	L.0000

Method: EPACLP1 Sample Name: CCV17 Operator: EM
Run Time: 05/22/97 16:51:17
Comment: MET9702504
Mode: CONC Corr. Factor: 1

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.893	4.906	1.922	.4815	.4764	.0155	.5090
#1	4.923	4.942	1.919	.4835	.4788	.0155	.5140
#2	4.863	4.870	1.924	.4794	.4740	.0155	.5040

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.963	4.907	.4886	.4841	4.901	4.892	4.925
#1	4.995	4.933	.4907	.4855	4.932	4.922	4.954
#2	4.932	4.880	.4866	.4828	4.871	4.863	4.895

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.962	.4892	.4853	.4843	25.69	1.948	.4986
#1	4.981	.4926	.4898	.4825	25.90	1.950	.5023
#2	4.943	.4858	.4808	.4862	25.48	1.946	.4949

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	24.53	-.0154	.4850	2.497	.0616	.0385	.4839
#1	24.71	-.0206	.4884	2.514	.0871	.0399	.4860
#2	24.36	-.0102	.4816	2.480	.0361	.0371	.4818

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	.0083	.0029	.0002
#1	.0064	.0041	.0003
#2	.0103	.0018	.0000

Method: EPACLP1 Sample Name: CCB17 Operator: EM
Run Time: 05/22/97 16:53:20
Comment: MET9702504
Mode: CONC Corr. Factor: 1

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0100	.0071	.0175	-.0004	-.0002	-.0023	.0015
#1	-.0093	.0095	.0226	-.0004	-.0001	-.0007	.0019
#2	-.0107	.0047	.0123	-.0004	-.0002	-.0039	.0010

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0002	.0032	.0021	.0030	.0013	.0128	.0002
#1	.0016	.0042	.0011	.0038	.0018	.0092	.0002
#2	-.0012	.0023	.0032	.0022	.0008	.0163	.0002

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0022	.0006	-.0006	.0029	.6932	.0308	.0002
#1	.0117	.0003	.0011	.0035	.7378	.0449	.0002
#2	-.0073	.0008	-.0023	.0022	.6487	.0167	.0002

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0926	-.0037	.0019	.0016	-.0012	.0044	-.0006
#1	Q.1043	-.0047	.0016	.0022	-.0142	.0052	-.0006
#2	.0809	-.0026	.0022	.0010	.0117	.0036	-.0006

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	-.0015	.0014	.0002
#1	-.0381	.0018	.0003
#2	.0350	.0010	.0000

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Method: EPACLP1 Sample Name: Pile 436 Operator: EM
Run Time: 05/22/97 16:55:45
Comment: 3098-5 TCLP MET9702504
Mode: CONC Corr. Factor: 1

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0657	18.08	10.96	5.033	L-.0002	91.73	.3008
#1	.0610	17.90	10.88	4.970	L-.0002	90.63	.3000
#2	.0705	18.26	11.03	5.095	L-.0002	92.83	.3015

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	197.8	L-.0027	.2036	1.021	.0403	.2052	H74.75
#1	196.2	L-.0025	.2036	1.007	.0398	.2078	H74.14
#2	199.5	L-.0029	.2037	1.035	.0408	.2027	H75.36

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	87.55	.2146	.0580	3.688	3.460	H177.6	L.0005
#1	86.63	.2126	.0575	3.659	3.580	H175.1	L.0002
#2	88.47	.2166	.0586	3.718	3.340	H180.2	L.0009

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	S4361.	L-.0083	.0075	.7401	.8302	9.841	L.0022
#1	S4361.	L-.0107	.0075	.7335	.7976	9.769	L.0022
#2	S4361.	L-.0059	.0075	.7467	.8628	9.913	L.0022

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	.1282	.1640	.5492
#1	.1609	.1608	.5428
#2	.0954	.1671	.5557

See 1/20 dilution
Em 5/22/97

Se over L.R.
Em 5/22/97

00284

Method: EPACLP1 Sample Name: Pile 436 Operator: EM
Run Time: 05/22/97 16:58:09
Comment: 3098-5D TCLP MET9702504
Mode: CONC Corr. Factor: 1

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0628	17.77	10.80	4.958	L-.0002	90.77	.2980
#1	.0617	17.80	10.81	4.980	L-.0002	91.04	.3007
#2	.0639	17.74	10.79	4.935	L-.0002	90.50	.2954

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	195.1	L-.0029	.2013	1.004	.0379	.2550	H73.86
#1	195.4	L-.0024	.2013	1.008	.0374	.2606	H73.98
#2	194.7	L-.0034	.2013	.9999	.0384	.2494	H73.74

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	85.93	.2118	.0592	3.605	3.397	H176.5	L-.0001
#1	86.21	.2120	.0586	3.609	3.348	H176.9	L-.0005
#2	85.64	.2115	.0597	3.601	3.446	H176.1	L.0002

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	S4361.	L-.0056	.0072	.7292	.8124	10.07	L.0022
#1	S4361.	L-.0064	.0068	.7291	.7545	10.12	L.0022
#2	S4361.	L-.0048	.0075	.7292	.8703	10.01	L.0022

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	.0954	.1596	.5416
#1	.0992	.1608	.5440
#2	.0915	.1585	.5393

See 1/20 dilution
Gm 5/22/97

Method: EPACLP1 Sample Name: Pile 436 Operator: EM
Run Time: 05/22/97 17:05:41
Comment: 3098-5 1/20 DILUTION TCLP MET9702504
Mode: CONC Corr. Factor: 20

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	L-.0221	17.39	10.61	4.887	L-.0028	93.57	.3122
#1	L-.0374	17.39	10.82	4.900	L-.0028	93.76	.3207
#2	L-.0068	17.39	10.41	4.873	L-.0028	93.37	.3038

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	195.2	L-.0114	.2394	1.038	L-.0892	.2791	H82.84
#1	195.5	.0075	.1983	1.027	L-.0892	.2886	H83.01
#2	194.8	L-.0303	.2804	1.048	L-.0892	.2697	H82.67

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	84.14	.2206	.0326	3.902	L-12.69	H163.8	.0104
#1	84.39	.2206	.0439	4.046	L-13.40	H164.0	.0038
#2	83.89	.2206	.0213	3.757	L-11.98	H163.6	.0171

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H2176.	L-.1710	L-.0123	.7706	L-.3197	9.105	L-.0129
#1	H2182.	L-.1924	L-.0056	.7701	L-.0621	9.116	L-.0129
#2	H2171.	L-.1496	L-.0190	.7711	L-.5773	9.094	L-.0129

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	L-.6440	.0901	.5371
#1	L-.2973	.0979	.5371
#2	L-.9907	.0822	.5371

Method: EPACLP1 Sample Name: Pile 436 Operator: EM
Run Time: 05/22/97 17:08:29
Comment: 3098-5D 1/20 DILUTION TCLP MET9702504
Mode: CONC Corr. Factor: 20

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	L-.0301	18.37	11.05	5.188	L-.0030	97.92	.3512
#1	L-.0520	18.31	10.79	5.147	L-.0031	96.38	.3650
#2	L-.0082	18.43	11.31	5.229	L-.0030	99.46	.3373

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	206.2	L-.0256	.2395	1.085	L-.1181	.5839	H87.67
#1	205.6	L-.0209	.2391	1.059	L-.0989	.6753	H87.25
#2	206.8	L-.0303	.2398	1.112	L-.1373	.4924	H88.08

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	90.80	.2320	.0890	3.938	L-15.27	H171.2	L-.0027
#1	90.74	.2320	.0890	3.805	L-10.91	H170.0	L-.0093
#2	90.87	.2320	.0890	4.070	L-19.64	H172.4	.0040

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H2305.	L-.0149	.0467	.8042	L-.1158	9.782	L-.0129
#1	H2285.	L-.0202	.0595	.8159	L-.7426	9.688	L-.0129
#2	H2324.	L-.0095	.0338	.7925	.5110	9.875	L-.0129

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	L-.0276	.0822	.5718
#1	L-.2202	.0822	.5623
#2	.1651	.0822	.5813

See 1/20 dilution
EM 5/22/97

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Method: EPACLP1 Sample Name: Pile 436 Operator: EM
Run Time: 05/22/97 17:11:55
Comment: 3098-5S TCLP MET9702504
Mode: CONC Corr. Factor: 1

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0764	19.99	16.17	10.20	L-.0002	94.80	1.246
#1	.0786	20.03	16.19	10.23	L-.0002	95.07	1.249
#2	.0742	19.94	16.15	10.18	L-.0002	94.53	1.243

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	200.4	4.479	.2116	1.067	.0422	4.827	H75.90
#1	201.0	4.497	.2126	1.070	.0432	4.831	H76.08
#2	199.9	4.461	.2106	1.063	.0412	4.822	H75.71

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	89.90	.2214	.0604	3.744	2.916	H186.2	.9136
#1	90.30	.2217	.0626	3.739	2.939	H186.3	.9159
#2	89.51	.2211	.0581	3.749	2.894	H186.1	.9113

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	54361.	L-.0181	.0087	.7461	.8221	22.64	L.0022
#1	54361.	L-.0123	.0081	.7489	.8137	22.71	L.0022
#2	54361.	L-.0238	.0092	.7432	.8305	22.57	L.0022

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	.1051	.1671	.5720
#1	.0762	.1679	.5734
#2	.1340	.1663	.5706

Method: EPACLP1 Sample Name: Pile 436 Operator: EM
Run Time: 05/22/97 17:14:53
Comment: 3098-5S 1/20 DILUTION TCLP MET9702504
Mode: CONC Corr. Factor: 20

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	L-.0805	19.21	15.48	9.809	L-.0029	96.68	1.256
#1	L-.0804	19.28	15.40	9.877	L-.0029	97.69	1.257
#2	L-.0806	19.14	15.56	9.740	L-.0030	95.66	1.255

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	199.4	4.534	.2379	1.054	L-.0844	5.096	H84.87
#1	200.1	4.577	.2379	1.059	L-.0796	4.923	H85.21
#2	198.6	4.491	.2378	1.048	L-.0892	5.268	H84.53

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	85.79	.2206	.0434	3.938	L-19.37	H168.8	.9397
#1	85.79	.2206	.0434	3.950	L-20.89	H169.5	.9530
#2	85.79	.2206	.0434	3.926	L-17.86	H168.2	.9264

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H2218.	L-.0672	.0181	.8154	.1188	20.77	.0105
#1	H2233.	L-.0614	.0054	.8378	.1556	20.92	L-.0129
#2	H2204.	L-.0729	.0308	.7930	.0819	20.61	.0339

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	.1647	.0431	.5560
#1	.0877	.0196	.5623
#2	.2418	.0666	.5497

Pb over L.R.

See 1/20 dilution
EM 5/22/97

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Method: EPACLP1 Sample Name: Pile 242 Operator: EM
Run Time: 05/22/97 17:17:11
Comment: 3098-7 TCLP MET9702504
Mode: CONC Corr. Factor: 1

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	35.19	.0338	L-.0360	.6817	L-.0004	14.98	L.0039
#1	35.15	L.0260	L.0071	.6817	L-.0006	14.98	L.0034
#2	35.23	.0416	L-.0791	.6817	L-.0002	14.97	.0044

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	206.6	L.0011	L.0035	6.586	3.833	H1187.	1.424
#1	206.7	L.0032	L.0035	6.584	3.832	H1193.	1.426
#2	206.4	L-.0011	L.0035	6.587	3.834	H1181.	1.423

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.779	.0817	L-.0073	L.0083	8.213	.0633	.0050
#1	1.817	.0817	L-.0085	L.0143	8.178	.0774	.0040
#2	1.741	.0817	L-.0062	L.0022	8.249	L.0492	.0060

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	S4361.	L-4.237	L.0024	.1992	1.601	1.960	.1102
#1	S4361.	L-4.256	.0033	.1981	1.621	1.960	.1117
#2	S4361.	L-4.218	L.0014	.2003	1.581	1.961	.1088

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	.0933	.0660	.2061
#1	.1396	.0668	.2063
#2	.0471	.0652	.2060

00290

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Method: EPACLP1 Sample Name: Pile 242 Operator: EM
Run Time: 05/22/97 17:20:10
Comment: 3098-7 1/20 DILUTION TCLP MET9702504
Mode: CONC Corr. Factor: 20

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	35.42	L.0213	.1045	.6841	L-.0030	16.69	.0101
#1	34.93	.1173	.3547	.6773	L-.0030	16.69	.0183
#2	35.91	L-.0748	L-.1458	.6910	L-.0030	16.69	L.0020

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	219.7	L.0027	.0220	6.800	4.111	H993.9	1.589
#1	218.3	L-.0020	.0220	6.732	4.077	H985.6	1.584
#2	221.2	.0074	.0221	6.869	4.144	H1002.	1.594

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.700	.0859	L-.0006	L.0089	14.13	.8710	L-.0088
#1	2.255	.0859	L-.0006	L-.0032	19.21	.9785	.0046
#2	3.144	.0859	L-.0006	.0209	9.053	.7635	L-.0222

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H1488.	L-3.635	.0446	.2338	1.192	2.250	.1275
#1	H1468.	L-3.543	.0446	.2226	1.675	2.404	.1368
#2	H1508.	L-3.726	.0446	.2450	.7095	2.096	.1181

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	L-.3123	.0352	.2085
#1	L-.0811	.0196	.2022
#2	L-.5435	.0509	.2148

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Method: EPACLP1 Sample Name: Pile 240 Operator: EM
Run Time: 05/22/97 17:22:24
Comment: 3098-8 TCLP MET9702504
Mode: CONC Corr. Factor: 1

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	288.3	L.0244	.2430	.0551	.0028	8.664	.1070
#1	290.8	L.0207	.2387	.0558	.0028	8.734	.1053
#2	285.9	L.0281	.2472	.0544	.0028	8.594	.1088

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	32.34	.3453	3.140	H116.0	H714.5	.8394	3.376
#1	32.51	.3463	3.160	H117.5	H719.2	.8576	3.394
#2	32.17	.3442	3.120	H114.5	H709.7	.8212	3.359

Se 1/10 dilut. Em 5/22/

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	3.856	84.86	L-.0020	5.220	6.993	L-.7686	2.557
#1	3.910	85.45	L-.0035	5.239	6.895	L-.8086	2.565
#2	3.802	84.27	L-.0005	5.201	7.091	L-.7286	2.548

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	S4361.	L-.0148	L-.0057	4.048	7.907	1.575	.0153
#1	S4361.	L-.0207	L-.0060	4.067	7.994	1.583	.0153
#2	S4361.	L-.0089	L-.0055	4.029	7.819	1.567	.0153

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	.7396	.0331	.2469
#1	.7059	.0323	.2499
#2	.7733	.0339	.2439

Se 1/10 dilution, after CCB18 Em 5/22/97

$$Se = -\left(7828.9\,Fe \times \frac{.4287\,Se}{500\,Fe}\right) + (-.7686\,Se) = .0579\ ppm\ Se$$

Em 5/22/97 Em 5/22/97

Method: EPACLP1 Sample Name: 500 ppm Fe Operator: EM
Run Time: 05/22/97 17:30:09
Comment: MET9702504
Mode: CONC Corr. Factor: 1

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	L.0015	L.0051	.1191	L.0006	L-.0006	.0353	L-.0035
#1	L.0054	L.0043	.1175	L.0003	L-.0006	.0427	L-.0051
#2	L-.0025	L.0059	.1208	L.0010	L-.0006	.0280	L-.0020

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0693	L-.0020	.0072	.0248	H489.0	L.0227	L.0007
#1	.0709	L-.0022	.0051	.0271	H491.0	L.0171	L.0007
#2	.0678	L-.0018	.0093	.0226	H487.1	L.0283	L.0007

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1253	.0116	L-.0047	L-.0243	L-.6344	L-.4287	.0032
#1	L.1011	.0113	L-.0027	L-.0339	L-.7502	L-.4146	.0038
#2	.1495	.0119	L-.0068	L-.0146	L-.5186	L-.4427	L.0026

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1452	L-.0001	L-.0149	L.0047	.2044	L.0107	L-.0006
#1	.1605	L.0076	L-.0158	L.0034	.1992	L.0096	L-.0006
#2	.1299	L-.0079	L-.0140	.0061	.2095	L.0118	L-.0006

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	.2997	L.0022	L-.0008
#1	.2915	L.0025	L-.0006
#2	.3079	L.0018	L-.0009

Method: EPACLP1 Sample Name: CCV18 Operator: EM
Run Time: 05/22/97 17:32:39
Comment: MET9702504
Mode: CONC Corr. Factor: 1

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.990	5.013	1.975	.4983	.4956	.0350	.5102
#1	4.981	5.003	1.979	.4966	.4937	.0317	.5057
#2	4.998	5.023	1.970	.5000	.4976	.0383	.5147

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.040	5.013	.5041	.5040	5.167	4.976	5.030
#1	5.025	4.998	.5010	.5029	5.171	5.001	5.017
#2	5.054	5.028	.5072	.5050	5.163	4.951	5.044

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.117	.5000	.5028	.4976	25.20	2.018	.5024
#1	5.139	.4995	.5034	.4946	25.15	2.015	.5017
#2	5.095	.5006	.5023	.5006	25.26	2.022	.5030

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	24.94	-.0213	.5007	2.515	.0780	.0369	.4972
#1	24.89	-.0217	.5004	2.509	.0632	.0388	.4972
#2	24.99	-.0209	.5011	2.520	.0928	.0349	.4972

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	.0115	-.0002	.0003
#1	.0095	-.0006	.0003
#2	.0134	.0002	.0003

Method: EPACLP1 Sample Name: CCB18 Operator: EM
Run Time: 05/22/97 17:34:29
Comment: MET9702504
Mode: CONC Corr. Factor: 1

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0086	-.0121	.0084	-.0014	-.0001	.0141	-.0001
#1	-.0115	-.0121	.0019	-.0011	-.0001	.0157	-.0000
#2	-.0057	-.0121	.0149	-.0018	-.0001	.0124	-.0002

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0059	-.0022	.0001	.0062	.0008	.0041	-.0019
#1	-.0055	-.0020	.0011	.0065	.0008	.0092	-.0019
#2	-.0063	-.0025	-.0010	.0059	.0008	-.0010	-.0019

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0105	.0008	-.0001	-.0008	-.3849	.0154	-.0005
#1	-.0009	.0008	.0011	-.0002	-.3760	.0234	-.0011
#2	-.0200	.0008	-.0012	-.0014	-.3938	.0073	.0002

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0021	.0033	.0009	.0005	-.0233	-.0033	-.0006
#1	.0007	.0054	.0016	.0011	-.0178	-.0025	-.0006
#2	.0034	.0011	.0003	-.0001	-.0288	-.0041	-.0006

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	-.0054	-.0022	.0002
#1	-.0189	-.0022	.0000
#2	.0081	-.0022	.0003

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Em 5/22/97
TCLP

Method: EPACLP1 Sample Name: Pile 240 Operator: EM
Run Time: 05/22/97 17:50:11
Comment: 3098-8 1/10 DILUTION MET9702504
Mode: CONC Corr. Factor: 10

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	302.5	L.0198	L-.0185	.0439	L-.0015	9.476	.1297
#1	302.2	L-.0104	.1016	.0439	L-.0015	9.395	.1337
#2	302.9	.0500	L-.1387	.0439	L-.0015	9.558	.1256

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	34.84	.3670	3.530	H118.4	H828.9	.8568	3.674
#1	34.84	.3765	3.530	H118.3	H827.7	.8980	3.669
#2	34.85	.3576	3.531	H118.5	H830.2	.8156	3.679

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	3.793	91.59	L-.0203	5.839	L.0268	L-.7331	2.886
#1	4.177	91.44	L-.0262	5.803	L.7842	L-.6739	2.880
#2	3.409	91.75	L-.0145	5.875	L-.7306	L-.7924	2.893

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H1653.	.0238	.0044	4.492	8.449	1.766	L.0029
#1	H1652.	.0343	.0043	4.481	8.677	1.747	L.0029
#2	H1655.	L.0132	.0045	4.503	8.222	1.785	L.0029

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	.1441	.0059	.2543
#1	L-.2393	.0098	.2527
#2	.5275	L.0019	.2559

Use Fe number for Se correction. Em 5/22/97

00296

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Method: EPACLP1 Sample Name: Pile 206 Operator: EM
Run Time: 05/22/97 17:52:30
Comment: 3098-9 TCLP MET9702504
Mode: CONC Corr. Factor: 1

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	k425.6	k-.0701	k.0188	.2029	k.0036	k21.94	k.0970
#1	k423.3	k-.0509	k.0007	.2018	k.0034	k21.82	k.1020
#2	k427.8	k-.0893	k.0368	.2039	k.0039	k22.07	k.0920

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	31.75	k1.610	k2.840	k184.6	S3839.	k-.0130	1.948
#1	31.57	k1.602	k2.825	k183.6	S3839.	k-.0074	1.938
#2	31.93	k1.618	k2.855	k185.6	S3839.	k-.0186	1.958

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	k-.8123	k101.5	k.2310	k4.107	94.20	k-.8813	k2.321
#1	k-.8757	k101.0	k.2462	k4.102	93.84	k-.8682	k2.309
#2	k-.7488	k102.0	k.2158	k4.112	94.56	k-.8944	k2.333

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	S4361.	k.4013	k-.0429	k6.212	k6.134	5.412	.1584
#1	S4361.	k.4489	k-.0397	k6.174	k6.010	5.377	.1594
#2	S4361.	k.3537	k-.0460	k6.251	k6.258	5.448	.1575

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	k-2.590	.1169	4.475
#1	k-2.580	.1169	4.455
#2	k-2.600	.1169	4.496

See 1/5 dilution
Em 5/22/97

00297

Method: EPACLP1 Sample Name: Pile 206 Operator: EM
Run Time: 05/22/97 17:57:07
Comment: 3098-9 2/10 DILUTION TCLP MET9702504
Mode: CONC Corr. Factor: 5

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	441.1	L.0258	1.083	.1967	L.0007	24.25	.0216
#1	441.9	L.0261	1.029	.1967	L-.0005	24.28	.0226
#2	440.3	L.0255	1.136	.1967	L.0019	24.22	.0207

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	34.69	1.693	3.124	H170.8	H2543.	.4750	2.080
#1	34.75	1.693	3.129	H171.2	H2547.	.4482	2.085
#2	34.64	1.693	3.119	H170.5	H2539.	.5018	2.075

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.750	106.6	L-.0138	4.499	95.73	L-2.615	2.343
#1	2.645	106.8	L-.0104	4.599	96.49	L-2.470	2.345
#2	2.856	106.4	L-.0173	4.400	94.97	L-2.760	2.340

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H1653.	.0581	L-.0557	7.164	14.90	5.818	.1629
#1	H1658.	.1277	L-.0588	7.172	14.88	5.814	.1605
#2	H1649.	L-.0115	L-.0526	7.157	14.91	5.822	.1652

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	1.868	.1126	4.468
#1	1.809	.1146	4.480
#2	1.926	.1107	4.456

$Se = (-2.615) - \left(\frac{2788\,Fe - .4287}{500\,Fe}\right) = -.1246$ ppm Se

↑ Se 1/50 dilution
Em 5/22/97

Method: EPACLP1 Sample Name: Pile 206 Operator: EM
Run Time: 05/22/97 18:02:46
Comment: 3098-9 1/50 DILUTION TCLP MET9702504
Mode: CONC Corr. Factor: 50

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	454.5	L-.3872	1.457	.1508	L-.0071	26.35	.0868
#1	453.6	L-.0831	1.726	.1508	L-.0071	26.77	.0289
#2	455.4	L-.6913	1.188	.1508	L-.0071	25.94	.1448

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	36.35	1.825	3.491	H177.9	H2788.	.8536	2.165
#1	36.29	1.742	3.492	H177.4	H2782.	1.008	2.204
#2	36.41	1.908	3.489	H178.5	H2794.	.6992	2.126

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	3.782	112.2	.0197	5.200	104.2	L-2.187	2.548
#1	2.529	112.0	L-.0094	5.652	112.2	L-2.126	2.564
#2	5.036	112.4	.0489	4.748	96.14	L-2.248	2.532

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H1718.	.2566	L-.0271	7.684	13.84	6.038	.1550
#1	H1714.	.1873	L-.0280	7.740	13.87	5.873	.1550
#2	H1722.	.3259	L-.0262	7.629	13.81	6.203	.1550

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	.2716	.0685	4.557
#1	.4803	.0489	4.549
#2	.0628	.0881	4.565

To quantify Fe only on 5/23/97

See 1/10 dilution for Pb
Em 5/22/97
Pb over L.R.

Analysis Report Thu 05-22-97 06:19:23 PM page 1

Method: EPACLP1 Sample Name: Pile 159 Operator: EM
Run Time: 05/22/97 18:17:33
Comment: 3098-10 TCLP MET9702504
Mode: CONC Corr. Factor: 1

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.2431	L.0107	L-.0508	.2299	L-.0002	13.86	L.0023
#1	.2472	L.0162	L-.0612	.2286	L-.0001	13.79	L.0030
#2	.2391	L.0053	L-.0404	.2313	L-.0002	13.93	L.0017

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.089	.0139	L.0025	.0471	.0826	H804.0	H109.2
#1	4.060	.0127	L.0035	.0477	.0824	H799.6	H108.6
#2	4.118	.0150	L.0014	.0466	.0829	H808.4	H109.8

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	130.4	.0204	L-.0057	.1282	L.3279	L.0356	.0109
#1	129.8	.0212	L-.0079	.1336	L.3101	L.0383	.0109
#2	131.1	.0195	L-.0034	.1228	L.3457	L.0329	.0109

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	S4361.	L-2.927	L.0021	.1179	.1890	.6200	L.0003
#1	S4361.	L-2.934	L.0008	.1162	.1853	.6181	L.0003
#2	S4361.	L-2.921	.0035	.1196	.1928	.6220	L.0003

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	L-.0227	.1017	.0542
#1	L-.0342	.0997	.0540
#2	L-.0112	.1036	.0543

00300

Analysis Report Thu 05-22-97 06:22:16 PM page 1

Method: EPACLP1 Sample Name: Pile 159 Operator: EM
Run Time: 05/22/97 18:20:40
Comment: 3098-10 1/10 DILUTION TCLP MET9702504
Mode: CONC Corr. Factor: 10

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.2271	L-.0368	L-.0417	.2015	L-.0015	13.70	.0062
#1	.2632	L-.0360	L-.0358	.2015	L-.0015	13.65	.0116
#2	.1909	L-.0376	L-.0477	.2015	L-.0014	13.75	L.0008

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.030	.0108	.0215	.1387	.0371	H767.9	H121.4
#1	4.019	.0085	.0115	.1387	.0419	H765.2	H121.0
#2	4.042	.0132	.0315	.1387	.0323	H770.5	H121.8

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	124.1	.0254	L-.0006	.1008	L-7.814	.1606	.0254
#1	124.0	.0254	L-.0119	.2153	L-6.433	.1807	.0221
#2	124.3	.0254	.0107	L-.0137	L-9.195	.1404	.0287

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H1426.	L-2.793	.0095	.1224	L-.2480	.6217	.0076
#1	H1421.	L-2.790	.0156	.1220	L-.2479	.6245	L-.0064
#2	H1432.	L-2.796	.0034	.1228	L-.2482	.6190	.0216

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	L-.1308	.0607	.0521
#1	L-.1885	.0568	.0505
#2	L-.0730	.0646	.0537

00301

See 1/5 dilution for Cd
EM 5/22/97
Cd over L.R.

Analysis Report Thu 05-22-97 06:24:31 PM page 1

Method: EPACLP1 Sample Name: East Helena Brick Operator: EM
Run Time: 05/22/97 18:22:44
Comment: 3098-11 TCLP MET9702504
Mode: CONC Corr. Factor: 1

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0370	.8281	.2448	.3766	L-.0006	2.296	45.70
#1	.0428	.8209	.2369	.3753	L-.0006	2.293	45.56
#2	.0312	.8353	.2526	.3780	L-.0006	2.299	45.85

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	120.7	L.0016	.0831	.2618	.0704	42.49	H81.25
#1	120.4	L.0027	.0831	.2605	.0700	42.33	H81.03
#2	121.1	L.0004	.0831	.2632	.0709	42.64	H81.46

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	94.36	1.338	.0056	.4535	11.46	.7453	L.0024
#1	94.08	1.334	.0090	.4613	11.43	.7366	.0034
#2	94.64	1.343	L.0022	.4457	11.49	.7540	L.0014

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	S4361.	L-.1537	L.0019	H202.9	1.366	6.684	L-.0002
#1	S4361.	L-.1518	L.0020	H202.4	1.324	6.648	L.0003
#2	S4361.	L-.1556	L.0018	H203.4	1.407	6.720	L-.0006

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	.5276	.1115	.4582
#1	.5314	.1122	.4568
#2	.5238	.1107	.4597

00302

Method: EPACLP1 Sample Name: East Helena Brick Operator: EM
Run Time: 05/22/97 18:25:23
Comment: 3098-11 2/10 DILUTION TCLP MET9702504
Mode: CONC Corr. Factor: 5

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	L.0058	.7740	.2142	.3424	L-.0007	2.192	44.74
#1	L-.0123	.8009	.1917	.3476	L-.0007	2.232	44.92
#2	.0239	.7471	.2367	.3373	L-.0007	2.151	44.55

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	114.4	L-.0052	.0894	.2714	.0499	41.59	H84.67
#1	115.1	L-.0029	.0893	.2780	.0475	41.91	H85.28
#2	113.7	L-.0076	.0895	.2648	.0523	41.27	H84.07

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	88.12	1.277	L.0025	.4239	8.411	.7048	.0042
#1	88.69	1.287	L-.0059	.3968	7.966	.7081	L.0008
#2	87.55	1.267	.0110	.4511	8.857	.7014	.0075

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H1713.	L-.1653	.0034	H209.3	1.274	6.242	L-.0032
#1	H1734.	L-.1855	L.0016	H210.7	1.226	6.287	L-.0032
#2	H1692.	L-.1451	.0052	H208.0	1.321	6.196	L-.0032

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	.3666	.0989	.4265
#1	.3667	.0989	.4328
#2	.3664	.0989	.4202

Se 1/5 dilution for Cd, Se, Pb
EM 5/22/97

Se close to R.L.

Analysis Report Thu 05-22-97 06:29:22 PM page 1

Method: EPACLP1 Sample Name: East Helena Brick B Operator: EM
Run Time: 05/22/97 18:27:35
Comment: 3098-12 TCLP MET9702504
Mode: CONC Corr. Factor: 1

Elem	Al3082	Sb2068	As1938	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	L.0189	9.872	.3881	.2580	L-.0004	1.963	6.792
#1	.0207	9.910	.3906	.2601	L-.0002	1.972	6.802
#2	L.0170	9.833	.3855	.2560	L-.0006	1.953	6.782

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	168.1	L-.0039	.0622	1.334	.0661	1.931	H185.2
#1	168.3	L-.0029	.0643	1.342	.0661	1.951	H185.1
#2	167.8	L-.0048	.0601	1.326	.0661	1.911	H185.3

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm *	ppm
Avge	259.4	.5353	.0107	.3957	3.620	.8830	L-.0012
#1	260.7	.5376	.0090	.3999	3.340	.8911	L-.0005
#2	258.1	.5330	.0124	.3915	3.901	.8749	L-.0019

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	S4361.	L-.0018	L.0019	39.55	.4964	7.606	L.0003
#1	S4361.	L-.0091	L.0025	39.59	.5023	7.626	L.0003
#2	S4361.	L.0054	L.0013	39.52	.4904	7.586	L.0003

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	.2215	.0911	.3840
#1	.2735	.0919	.3870
#2	.1695	.0903	.3810

* report Se from this run 1gMeas crossed out
EM 5/23/97

00304

Method: EPACLP1 Sample Name: East Helena Brick B Operator: EM
Run Time: 05/22/97 18:30:53
Comment: 3098-12 2/10 DILUTION TCLP MET9702504
Mode: CONC Corr. Factor: 5

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	L-.0053	10.32	.4145	.2670	L-.0007	2.166	7.213
#1	L.0020	10.35	.4048	.2687	L-.0007	2.182	~~7.236~~
#2	L-.0127	10.29	.4242	.2653	L-.0007	2.150	7.191

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	176.5	L-.0123	.0739	1.444	.0464	2.137	H249.4
#1	177.3	L-.0147	.0791	1.456	.0511	2.125	H250.5
#2	175.8	L-.0100	.0688	1.432	.0416	2.150	H248.3

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm *	ppm
Avge	273.0	.5774	L.0025	.4270	L-3.439	~~.8995~~	L-.0058
#1	274.5	.5817	.0053	.4149	L-3.796	.9096	L-.0058
#2	271.5	.5732	L-.0003	.4390	L-3.083	.8895	L-.0057

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H1637.	L-.0280	.0065	42.81	.5848	7.922	L-.0056
#1	H1647.	L-.0428	.0049	42.92	.6638	7.968	L-.0079
#2	H1627.	L-.0132	.0080	42.69	.5058	7.877	L-.0032

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	.1640	.0774	.4115
#1	.1833	.0793	.4139
#2	.1447	.0754	.4091

* repeat Se run straight run on 5/24/97

Method: EPACLP1 Sample Name: CCV19 Operator: EM
Run Time: 05/22/97 18:32:43
Comment: MET9702504
Mode: CONC Corr. Factor: 1

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.216	5.186	2.050	.5326	.5275	.0186	.5226
#1	5.227	5.193	2.040	.5343	.5289	.0186	.5239
#2	5.206	5.178	2.060	.5308	.5260	.0186	.5214

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.197	5.190	.5175	.5309	5.182	5.131	5.243
#1	5.212	5.200	.5196	.5330	5.194	5.136	5.261
#2	5.183	5.179	.5155	.5288	5.171	5.126	5.225

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.272	.5139	.5186	.5187	25.49	2.118	.5168
#1	5.266	.5148	.5226	.5199	25.59	2.117	.5185
#2	5.279	.5131	.5147	.5175	25.40	2.120	.5151

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	26.85	-.0214	.5204	2.595	.0249	.0336	.5227
#1	26.95	-.0159	.5212	2.604	.0248	.0355	.5248
#2	26.74	-.0268	.5197	2.585	.0250	.0316	.5206

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	-.0038	-.0033	.0003
#1	.0096	-.0045	.0003
#2	-.0173	-.0022	.0003

Method: EPACLP1 Sample Name: CCB19 Operator: EM
Run Time: 05/22/97 18:35:11
Comment: MET9702504
Mode: CONC Corr. Factor: 1

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0071	-.0008	.0006	-.0021	-.0001	.0026	.0016
#1	-.0056	.0022	.0097	-.0025	-.0001	.0026	-.0001
#2	-.0086	-.0037	-.0085	-.0018	-.0001	.0026	.0034

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0035	.0013	.0000	.0065	-.0049	.0173	.0043
#1	.0063	.0023	.0011	.0070	-.0044	.0183	.0053
#2	.0008	.0004	-.0010	.0059	-.0054	.0163	.0033

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0041	.0017	-.0001	-.0026	-1.013	-.0034	.0005
#1	-.0327	.0020	-.0001	-.0074	-1.044	.0060	.0009
#2	.0245	.0014	-.0001	.0023	-.9819	-.0128	.0002

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0285	-.0031	.0006	.0056	-.0602	.0041	-.0018
#1	.0389	.0017	-.0003	.0067	-.0435	.0063	-.0030
#2	.0182	-.0080	.0016	.0044	-.0769	.0019	-.0006

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	-.0034	-.0057	.0000
#1	-.0381	-.0053	.0000
#2	.0312	-.0061	.0000

Analysis Report Thu 05-22-97 06:43:05 PM page 1

Method: EPACLP1 Sample Name: Omaha Brick Operator: EM
Run Time: 05/22/97 18:40:28
Comment: 3098-13 TCLP MET9702504
Mode: CONC Corr. Factor: 1

Ignore cross out OK 6/12

Elem	Al3082	Sb2068	As1938	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0283	.4679	.0557	.2608	L-.0004	14.92	.1699
#1	.0272	.4606	.0511	.2580	L-.0006	14.73	.1677
#2	.0293	.4751	.0602	.2635	L-.0001	15.11	.1720

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	146.9	L-.0020	.0190	.0313	.0251	4.539	16.69
#1	145.8	L-.0025	.0200	.0318	.0252	4.499	16.55
#2	148.0	L-.0015	.0180	.0308	.0251	4.578	16.83

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	18.24	.3640	.0225	.1059	23.23	.0805	L-.0025
#1	18.02	.3615	.0225	.1011	23.06	.0678	L-.0025
#2	18.46	.3666	.0225	.1107	23.41	.0933	L-.0025

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	S4361.	L-.0285	L.0012	H446.1	1.998	9.014	L-.0002
#1	S4361.	L-.0355	L.0015	H444.1	2.022	8.922	L-.0006
#2	S4361.	L-.0215	L.0009	H448.0	1.973	9.105	L.0003

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	.0498	.3281	.4933
#1	.0517	.3230	.4878
#2	.0479	.3332	.4988

See 4/5 dilution
Em 5/22/97

Pb close to R.L

00308

Method: EPACLP1 Sample Name: Omaha Brick Operator: EM
Run Time: 05/22/97 18:44:56
Comment: 3098-13 2/10 DILUTION TCLP MET9702504
Mode: CONC Corr. Factor: 5

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	L-.0044	.4957	L.0257	.2602	L-.0007	15.59	.1867
#1	L.0011	.4927	.0614	.2584	L-.0007	15.61	.1863
#2	L-.0100	.4987	L-.0099	.2619	L-.0007	15.56	.1871

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	153.3	L-.0029	.0213	.0442	L-.0037	4.958	17.94
#1	153.2	L-.0029	.0264	.0456	L-.0037	4.937	17.92
#2	153.4	L-.0029	.0161	.0429	L-.0037	4.978	17.97

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	18.62	.3835	.0166	.1137	19.24	.0635	L-.0041
#1	18.46	.3835	.0166	.1137	20.08	.0970	L-.0024
#2	18.78	.3835	.0166	.1137	18.39	L.0299	L-.0057

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H1709.	L-.0616	.0068	H576.5	2.158	9.091	L-.0032
#1	H1706.	L-.0886	.0052	H576.5	2.260	9.109	L.0015
#2	H1711.	L-.0347	.0084	H576.4	2.056	9.074	L-.0079

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	L-.0022	.3065	.5047
#1	.0459	.3105	.5039
#2	L-.0503	.3026	.5055

See 1/5 dilution
Em 5/22/97
Pb close to R.L.

Analysis Report Thu 05-22-97 06:50:49 PM page 1

Method: EPACLP1 Sample Name: Omaha Brick Fines Operator: EM
Run Time: 05/22/97 18:49:08
Comment: 3098-14 TCLP MET9702504
Mode: CONC Corr. Factor: 1

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0278	9.775	1.956	.3667	L-.0002	21.38	6.713
#1	.0288	9.775	1.935	.3684	L-.0002	21.40	6.705
#2	.0267	9.775	1.978	.3650	L-.0002	21.36	6.720

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	334.4	L.0004	.0745	.2035	.0441	4.489	H33.30
#1	334.3	L.0008	.0734	.2045	.0436	4.478	H33.30
#2	334.6	L-.0001	.0755	.2024	.0446	4.500	H33.31

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	37.26	1.046	.0101	.7265	44.88	.2578	L-.0019
#1	37.32	1.048	.0124	.7193	44.75	.2477	L-.0026
#2	37.21	1.044	.0078	.7337	45.00	.2678	L-.0012

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	S4361.	L-.0102	L.0026	147.6	.8575	5.181	L.0026
#1	S4361.	L-.0080	L.0020	147.4	.8389	5.183	L.0031
#2	S4361.	L-.0123	.0032	147.8	.8761	5.178	L.0022

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	.1943	.8276	1.760
#1	.1885	.8307	1.767
#2	.2000	.8245	1.753

Method: EPACLP1 Sample Name: Omaha Brick Fines Operator: EM
Run Time: 05/22/97 18:51:17
Comment: 3098-14 2/10 DILUTION TCLP MET9702504
Mode: CONC Corr. Factor: 5

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	L.0056	9.529	1.889	.3476	L-.0031	21.04	6.807
#1	L.0018	9.508	1.954	.3476	L-.0032	20.98	6.806
#2	L.0093	9.550	1.825	.3476	L-.0031	21.10	6.808

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	329.9	L-.0040	.0798	.2053	.0467	4.611	H34.64
#1	329.7	L-.0029	.0798	.2067	.0527	4.695	H34.57
#2	330.2	L-.0052	.0798	.2040	.0407	4.527	H34.71

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	36.08	1.046	.0194	.7162	40.73	.2179	L-.0042
#1	36.01	1.043	.0279	.7102	41.24	.2112	L-.0058
#2	36.14	1.049	.0110	.7223	40.22	.2246	L-.0025

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H1800.	L-.0118	.0037	156.8	.9221	4.639	L.0038
#1	H1791.	L-.0400	.0088	156.9	1.014	4.606	L-.0032
#2	H1810.	L.0165	L-.0013	156.7	.8297	4.672	.0108

Elem	Ti1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	.0745	.7727	1.681
#1	.0744	.7806	1.671
#2	.0745	.7649	1.690

See Ys dilution Em 5/22/97
Cd over L.R

Analysis Report Thu 05-22-97 06:55:02 PM page 1

Method: EPACLP1 Sample Name: Pile 697 Operator: EM
Run Time: 05/22/97 18:53:16
Comment: 3098-15 TCLP MET9702504
Mode: CONC Corr. Factor: 1

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	L.0154	L-.0322	L.0073	.0376	L-.0004	2.876	33.50
#1	.0215	L-.0381	L-.0011	.0393	L-.0006	3.015	34.20
#2	L.0092	L-.0263	L.0158	.0359	L-.0002	2.737	32.81

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	232.3	L.0006	8.808	H102.1	.0315	53.15	12.50
#1	238.8	L-.0020	9.130	H108.7	.0286	54.77	12.90
#2	225.9	L.0032	8.486	95.65	.0345	51.53	12.10

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	13.66	.8198	L.0011	23.76	4.235	L.0070	L.0008
#1	14.29	.8489	.0045	24.67	3.518	L-.0143	L.0021
#2	13.04	.7906	L-.0023	22.84	4.952	L.0282	L-.0006

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	S4361.	L-.2098	L-.0011	H222.4	7.654	9.459	.0064
#1	S4361.	L-.1982	L-.0046	H226.9	7.915	9.806	L.0031
#2	S4361.	L-.2214	L.0023	H218.0	7.394	9.113	.0096

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	L.0258	.0680	.0681
#1	L.0392	.0676	.0720
#2	L.0125	.0684	.0641

00312

Method: EPACLP1 Sample Name: Pile 697 Operator: EM
Run Time: 05/22/97 18:55:46
Comment: 3098-15 2/10 DILUTION TCLP MET9702504
Mode: CONC Corr. Factor: 5

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	L.0138	L-.0361	L.0028	.0322	L-.0007	3.170	35.41
#1	.0221	L-.0393	L-.0160	.0322	L-.0007	3.170	35.17
#2	L.0055	L-.0329	L.0216	.0322	L-.0007	3.169	35.64

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	244.0	L-.0017	9.617	H103.6	.0074	57.11	13.64
#1	241.2	L-.0076	9.456	H101.7	.0122	56.45	13.47
#2	246.8	L.0042	9.779	H105.5	L.0026	57.78	13.82

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	14.64	.8874	L.0025	26.15	L-1.434	.0842	.0076
#1	14.12	.8761	.0053	25.66	L-.1871	.0979	.0143
#2	15.16	.8987	L-.0003	26.63	L-2.682	.0705	L.0009

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H2307.	L-.2987	.0081	H254.0	7.931	9.514	L-.0009
#1	H2263.	L-.2799	.0082	H251.4	7.858	9.431	L-.0032
#2	H2350.	L-.3175	.0081	H256.5	8.003	9.596	L.0015

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	.0559	.0637	.0719
#1	L-.0018	.0676	.0711
#2	.1136	.0597	.0727

See 1/5 dilution
Em 5/22/97
Pb over L.R.

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Method: EPACLP1 Sample Name: Pile 718 Operator: EM
Run Time: 05/22/97 18:57:47
Comment: 3098-16 TCLP MET9702504
Mode: CONC Corr. Factor: 1

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.8513	1.990	5.093	.1535	L-.0001	.1557	1.331
#1	.8542	1.999	5.175	.1545	L-.0001	.1540	1.330
#2	.8484	1.981	5.012	.1525	L-.0001	.1574	1.333

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	70.51	.0099	.3244	H180.8	6.016	H294.6	22.08
#1	70.61	.0099	.3223	H182.4	6.044	H295.1	22.14
#2	70.40	.0099	.3264	H179.2	5.987	H294.1	22.02

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	23.72	4.798	L-.0008	2.395	1.566	.0839	.0071
#1	23.80	4.814	L-.0002	2.403	1.459	.1014	.0064
#2	23.64	4.782	L-.0014	2.388	1.673	.0664	.0077

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	54361.	L-1.131	L-.0063	36.26	11.15	6.947	.0073
#1	54361.	L-1.125	L-.0060	36.28	11.07	6.974	.0078
#2	54361.	L-1.136	L-.0067	36.23	11.23	6.919	.0068

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	.0498	.0206	.1354
#1	L-.0001	.0198	.1362
#2	.0997	.0213	.1346

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Method: EPACLP1 Sample Name: Pile 718 Operator: EM
Run Time: 05/22/97 19:00:05
Comment: 3098-16 2/10 DILUTION TCLP MET9702504
Mode: CONC Corr. Factor: 5

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.7924	1.982	5.230	.1470	L-.0007	.1839	1.434
#1	.8415	2.039	5.317	.1488	L-.0007	.1674	1.438
#2	.7432	1.924	5.143	.1453	L-.0007	.2004	1.429

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	73.49	.0126	.3487	H173.8	6.253	H310.5	23.56
#1	74.32	.0114	.3541	H177.4	6.335	H314.1	23.88
#2	72.65	.0138	.3434	H170.3	6.170	H306.9	23.24

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	24.33	5.009	L.0035	2.509	L-1.212	.1161	.0045
#1	24.76	5.084	.0063	2.566	L-2.726	.1565	.0079
#2	23.91	4.934	L.0007	2.451	L.3030	.0757	L.0012

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H1541.	L-1.202	L.0008	38.88	12.00	7.089	.0085
#1	H1573.	L-1.202	L-.0039	39.31	12.04	7.200	L.0015
#2	H1509.	L-1.202	.0055	38.44	11.97	6.977	.0155

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	.0439	.0108	.1390
#1	L-.0997	L.0049	.1422
#2	.1875	.0166	.1358

00315

Cd over L.R
See 1/5 dilution
Em 5/22/97

Analysis Report Thu 05-22-97 07:03:54 PM page 1

Method: EPACLP1 Sample Name: Pile 487 Operator: EM
Run Time: 05/22/97 19:02:09
Comment: 3098-17 TCLP MET9702504
Mode: CONC Corr. Factor: 1

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	L.0144	1.461	.1818	.9018	L-.0004	45.12	59.33
#1	L.0126	1.431	.1605	.8798	L-.0006	44.10	58.72
#2	L.0163	1.491	.2032	.9237	L-.0002	46.15	59.95

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	103.6	L.0032	.0629	.5064	.0425	17.48	H55.54
#1	102.4	L.0037	.0587	.5230	.0433	17.25	H54.84
#2	104.9	L.0027	.0671	.4897	.0418	17.72	H56.24

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	62.52	1.258	.0214	.6458	66.75	1.573	.0044
#1	61.31	1.238	.0191	.6301	65.49	1.536	.0047
#2	63.74	1.278	.0236	.6614	68.02	1.610	.0041

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	S4361.	L-.0656	L.0026	177.1	1.402	13.44	L-.0002
#1	S4361.	L-.0672	L.0022	175.4	1.425	13.19	L.0003
#2	S4361.	L-.0640	L.0030	178.8	1.378	13.69	L-.0006

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	.8828	.2544	1.176
#1	.8729	.2494	1.149
#2	.8927	.2595	1.204

00316

Method: EPACLP1 Sample Name: Pile 487 Operator: EM
Run Time: 05/22/97 19:04:45
Comment: 3098-17 2/10 DILUTION TCLP MET9702504
Mode: CONC Corr. Factor: 5

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	L-.0073	1.530	.1719	.9423	L-.0007	48.29	64.36
#1	L-.0017	1.523	.1719	.9268	L-.0007	47.73	64.21
#2	L-.0128	1.536	.1719	.9577	L-.0007	48.84	64.50

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	110.5	L.0019	.0747	.6477	.0210	19.21	H63.03
#1	109.7	L-.0005	.0797	.6741	.0282	19.14	H62.45
#2	111.3	L.0042	.0696	.6213	.0137	19.28	H63.60

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	65.57	1.354	.0194	.7162	65.70	1.611	L.0025
#1	64.99	1.340	.0166	.6740	67.08	1.615	.0042
#2	66.16	1.369	.0223	.7584	64.32	1.608	L.0008

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H2091.	L-.0535	.0086	H201.5	1.462	13.90	L-.0009
#1	H2057.	L-.0158	.0085	H200.5	1.399	13.76	L.0015
#2	H2125.	L-.0912	.0087	H202.5	1.526	14.04	L-.0032

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	.9936	.2576	1.234
#1	.8490	.2595	1.213
#2	1.138	.2556	1.254

Method: EPACLP1 Sample Name: CCV20 Operator: EM
Run Time: 05/22/97 19:14:46
Comment: MET9702504
Mode: CONC Corr. Factor: 1

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.165	5.140	2.010	.5267	.5243	.0268	.5137
#1	5.165	5.144	1.994	.5267	.5251	.0251	.5123
#2	5.166	5.135	2.027	.5267	.5236	.0285	.5152

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.111	5.137	.5114	.5280	5.153	5.061	5.155
#1	5.116	5.138	.5114	.5288	5.161	5.061	5.155
#2	5.107	5.135	.5114	.5272	5.145	5.060	5.155

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.257	.5108	.5186	.5169	25.25	2.083	.5118
#1	5.317	.5102	.5192	.5163	25.13	2.071	.5118
#2	5.196	.5114	.5181	.5175	25.37	2.095	.5118

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	26.29	-.0158	.5181	2.540	.0548	.0374	.5182
#1	26.30	-.0169	.5184	2.543	.0399	.0366	.5197
#2	26.29	-.0148	.5177	2.538	.0698	.0382	.5168

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	.0117	-.0033	.0003
#1	.0097	-.0045	.0003
#2	.0136	-.0022	.0003

Method: EPACLP1 Sample Name: CCB20 Operator: EM
Run Time: 05/22/97 19:16:46
Comment: MET9702504
Mode: CONC Corr. Factor: 1

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0063	-.0049	-.0026	-.0025	-.0001	.0075	.0000
#1	-.0013	-.0037	-.0098	-.0025	-.0001	.0092	.0001
#2	-.0114	-.0061	.0046	-.0025	-.0001	.0059	-.0000

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0031	-.0010	.0011	.0094	-.0066	.0173	-.0003
#1	-.0024	-.0006	.0011	.0096	-.0064	.0092	-.0003
#2	-.0039	-.0015	.0011	.0091	-.0068	.0255	-.0003

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0073	.0011	-.0006	.0016	-1.289	.0161	.0002
#1	-.0073	.0008	-.0012	.0059	-1.356	.0194	-.0005
#2	-.0073	.0014	-.0001	-.0026	-1.222	.0127	.0009

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0118	-.0032	-.0000	.0044	-.0602	.0011	-.0006
#1	-.0124	-.0059	.0003	.0055	-.0362	.0014	-.0006
#2	-.0113	-.0005	-.0003	.0033	-.0841	.0008	-.0006

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	-.0150	-.0061	.0000
#1	.0120	-.0069	.0000
#2	-.0419	-.0053	.0000

Analysis Report QC Standard Thu 05-22-97 07:56:35 PM page 1

Method: EPACLP1 Sample Name: CCV21 Operator: EM
Run Time: 05/22/97 19:54:59
Comment: MET9702504
Mode: CONC Corr. Factor: 1

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.992	5.031	1.977	.4987	.4998	.0138	.5062
#1	4.984	5.023	1.991	.4987	.4995	.0155	.5039
#2	5.000	5.038	1.962	.4987	.5000	.0122	.5086

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.025	5.008	.5010	.4990	5.004	4.990	5.011
#1	5.026	5.008	.5000	.4992	5.007	4.999	5.012
#2	5.025	5.008	.5020	.4987	5.001	4.981	5.010

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.027	.5017	.5000	.4905	25.10	2.009	.5013
#1	5.027	.5017	.5027	.4857	25.00	2.008	.5013
#2	5.027	.5017	.4973	.4952	25.20	2.010	.5013

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	24.94	-.0260	.4988	2.504	.0421	.0223	.5000
#1	24.94	-.0238	.5001	2.508	.0606	.0228	.5005
#2	24.94	-.0281	.4975	2.500	.0236	.0217	.4995

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	.0120	-.0037	.0003
#1	-.0130	-.0045	.0003
#2	.0371	-.0029	.0003

Method: EPACLP1 Sample Name: CCB21 Operator: EM
Run Time: 05/22/97 19:56:50
Comment: MET9702504
Mode: CONC Corr. Factor: 1

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0083	-.0038	.0052	-.0032	-.0003	-.0007	-.0001
#1	-.0100	-.0038	.0161	-.0032	-.0003	-.0007	-.0002
#2	-.0065	-.0038	-.0056	-.0032	-.0003	-.0007	.0001

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0009	.0017	.0001	.0031	-.0072	.0182	.0009
#1	.0012	.0027	.0011	.0031	-.0063	.0122	.0016
#2	-.0030	.0008	-.0009	.0031	-.0082	.0242	.0001

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0055	.0011	.0015	-.0020	-1.275	.0095	.0003
#1	-.0146	.0014	.0021	-.0002	-1.280	.0031	.0003
#2	.0036	.0008	.0010	-.0038	-1.271	.0160	.0003

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0235	-.0034	.0006	.0011	-.0325	.0017	-.0008
#1	-.0251	.0022	.0010	.0022	-.0214	.0008	-.0008
#2	-.0220	-.0091	.0003	-.0000	-.0436	.0025	-.0008

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	-.0092	-.0049	.0000
#1	-.0034	-.0045	.0000
#2	-.0150	-.0053	.0000

Method: EPACLP1 Sample Name: Pile 347 Operator: EM
Run Time: 05/22/97 19:59:04
Comment: 3098-18 TCLP MET9702504
Mode: CONC Corr. Factor: 1

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	L.0189	.4472	L-.0290	.3137	L-.0008	3.372	5.728
#1	.0231	.4471	L-.0322	.3124	L-.0008	3.341	5.696
#2	L.0147	.4472	L-.0258	.3150	L-.0008	3.403	5.759

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	116.6	L-.0011	.0554	.0144	.0442	37.69	H146.2
#1	116.2	L.0003	.0564	.0144	.0442	37.50	H145.7
#2	117.0	L-.0025	.0544	.0144	.0442	37.89	H146.7

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	190.1	.6954	L.0010	.2484	8.511	L.0031	L-.0008
#1	189.4	.6926	L.0021	.2424	8.493	L-.0008	L.0002
#2	190.9	.6982	L-.0001	.2543	8.529	L.0070	L-.0018

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	S4204.	L-.1392	.0035	108.9	.6823	.4613	L-.0008
#1	S4204.	L-.1158	.0035	108.5	.6309	.4685	L-.0008
#2	S4204.	L-.1627	.0035	109.3	.7338	.4542	L-.0008

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	.1084	.1926	.4475
#1	.1526	.1922	.4458
#2	.0641	.1929	.4492

Method: EPACLP1 Sample Name: Pile 265A Operator: EM
Run Time: 05/22/97 20:01:19
Comment: 3098-23 TCLP MET9702504
Mode: CONC Corr. Factor: 1

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	L-.0074	.0913	.0406	.0722	L-.0002	.1742	6.934
#1	L-.0069	.0854	.0425	.0722	L-.0002	.1725	6.942
#2	L-.0080	.0972	L.0387	.0722	L-.0002	.1758	6.926

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	18.16	L-.0008	4.312	H556.2	L-.0022	.7366	1.310
#1	18.13	L.0008	4.322	H561.4	L-.0017	.7383	1.307
#2	18.18	L-.0024	4.301	H551.0	L-.0027	.7349	1.313

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.395	.0946	.0451	3.943	12.97	.0693	.5627
#1	1.404	.0946	.0446	3.941	12.89	.0706	.5637
#2	1.386	.0946	.0457	3.944	13.06	.0681	.5618

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	S4204.	.0264	L-.0213	56.91	27.02	7.524	.0179
#1	S4204.	.0270	L-.0210	56.92	26.95	7.536	.0183
#2	S4204.	.0259	L-.0216	56.90	27.10	7.513	.0174

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	L.0271	.0210	.0207
#1	L.0251	.0213	.0209
#2	L.0290	.0206	.0205

Clover L.R. See 4/5 dilution Ew 5/22/97

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Method: EPACLP1 Sample Name: Pile 320B Operator: EM
Run Time: 05/22/97 20:03:46
Comment: 3098-25 TCLP MET9702504
Mode: CONC Corr. Factor: 1

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0382	L-.0712	L-.0104	.0444	L-.0007	14.26	63.12
#1	.0388	L-.0734	L-.0199	.0434	L-.0007	14.13	62.76
#2	.0376	L-.0690	L-.0009	.0453	L-.0008	14.39	63.48

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	657.6	L.0017	17.71	H104.0	.0603	47.48	H31.16
#1	652.2	L.0017	17.55	H102.2	.0603	47.13	H30.91
#2	662.9	L.0017	17.87	H105.9	.0602	47.84	H31.41

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	35.11	3.522	L-.0088	50.60	2.521	L.0013	L.0015
#1	34.68	3.489	L-.0077	50.08	2.611	L-.0023	L.0012
#2	35.54	3.555	L-.0099	51.12	2.431	L.0049	L.0018

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	S4204.	L-.1715	L-.0016	H265.8	8.158	14.57	.0092
#1	S4204.	L-.1648	L-.0019	H264.7	8.100	14.42	.0092
#2	S4204.	L-.1783	L-.0013	H267.0	8.216	14.72	.0092

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	.3536	.0887	.3431
#1	.3206	.0887	.3384
#2	.3865	.0887	.3478

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Method: EPACLP1 Sample Name: Pile 320B Operator: EM
Run Time: 05/22/97 20:06:08
Comment: 3098-25 2/10 DILUTION TCLP MET9702504
Mode: CONC Corr. Factor: 5

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	L-.0064	L-.0534	L-.0373	.0365	L-.0038	14.56	65.94
#1	L.0019	L-.0229	L-.0281	.0365	L-.0038	14.69	66.29
#2	L-.0147	L-.0838	L-.0466	.0365	L-.0038	14.43	65.60

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	664.6	L-.0065	18.65	98.09	.0667	49.86	H33.45
#1	668.7	L-.0077	18.74	98.75	.0725	50.06	H33.63
#2	660.4	L-.0053	18.57	97.43	.0608	49.66	H33.28

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	35.07	3.643	L-.0168	53.41	L-3.270	.0871	L-.0041
#1	35.40	3.658	L-.0114	53.54	L-3.517	.1192	L.0009
#2	34.73	3.628	L-.0223	53.27	L-3.022	.0551	L-.0090

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H1887.	L-.2098	L.0016	H304.7	8.744	14.30	.0076
#1	H1893.	L-.2475	L.0017	H305.8	8.927	14.38	.0144
#2	H1881.	L-.1721	L.0014	H303.6	8.560	14.22	L.0008

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	.3205	.1342	.3420
#1	.4072	.1420	.3428
#2	.2338	.1263	.3412

Cd over L.R. See 1/5 dilution GM 5/22/97

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Method: EPACLP1 Sample Name: Pile 213A Operator: EM
Run Time: 05/22/97 20:08:09
Comment: 3098-26 TCLP MET9702504
Mode: CONC Corr. Factor: 1

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0235	L-.0659	L.0083	.0303	L-.0003	2.973	67.46
#1	.0212	L-.0677	L.0182	.0303	L-.0003	2.937	67.04
#2	.0257	L-.0640	L-.0015	.0303	L-.0003	3.009	67.87

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	278.5	L.0024	8.525	17.89	.0332	51.79	10.38
#1	276.5	L.0027	8.474	17.70	.0325	51.46	10.31
#2	280.4	L.0022	8.576	18.09	.0339	52.12	10.44

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	11.21	1.959	L-.0028	28.44	11.74	L.0496	L-.0016
#1	11.12	1.945	L-.0012	28.24	11.75	L.0432	L-.0013
#2	11.30	1.973	L-.0045	28.63	11.74	.0559	L-.0019

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	S4204.	L-.1976	L.0011	H247.1	2.940	11.75	L.0024
#1	S4204.	L-.1955	L.0012	H246.0	2.940	11.62	L.0029
#2	S4204.	L-.1998	L.0011	H248.2	2.940	11.87	L.0020

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	.0446	.0676	1.025
#1	.0792	.0684	1.015
#2	L.0101	.0668	1.034

Method: EPACLP1 Sample Name: Pile 213A Operator: EM
Run Time: 05/22/97 20:10:45
Comment: 3098-26 2/10 DILUTION TCLP MET9702504
Mode: CONC Corr. Factor: 5

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	L-.0000	L-.0745	.0882	.0201	L-.0015	3.220	73.12
#1	L-.0075	L-.0618	.1008	.0201	L-.0015	3.236	73.51
#2	L.0074	L-.0872	.0756	.0201	L-.0015	3.203	72.73

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	294.7	L-.0007	9.338	18.52	.0107	56.33	11.34
#1	296.6	L-.0123	9.424	18.77	.0095	56.66	11.43
#2	292.7	.0110	9.252	18.27	.0119	56.01	11.25

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	11.70	2.103	L-.0087	31.32	9.476	.1638	L-.0006
#1	11.68	2.119	L-.0060	31.42	8.778	.1637	L-.0022
#2	11.71	2.088	L-.0114	31.21	10.17	.1639	L.0011

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H2352.	L-.2529	.0062	H288.3	3.079	11.82	L.0030
#1	H2378.	L-.2556	.0047	H289.7	3.015	11.91	L-.0038
#2	H2327.	L-.2501	.0077	H286.9	3.144	11.74	.0098

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	.0835	.0774	1.077
#1	.1702	.0832	1.090
#2	L-.0032	.0715	1.065

Cd over L.R.

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Method: EPACLP1 Sample Name: Pile 213B Operator: EM
Run Time: 05/22/97 20:12:46
Comment: 3098-27 TCLP MET9702504
Mode: CONC Corr. Factor: 1

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	L.0159	L-.0518	L-.0252	.0854	L-.0008	3.245	76.69
#1	L.0139	L-.0472	L-.0174	.0854	L-.0008	3.252	76.46
#2	L.0179	L-.0563	L-.0330	.0854	L-.0008	3.238	76.91

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	214.9	L.0038	10.07	26.09	.0468	92.14	11.36
#1	214.4	L.0045	10.06	26.06	.0468	91.89	11.33
#2	215.5	L.0031	10.09	26.12	.0467	92.39	11.38

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	12.10	2.407	L-.0088	34.11	12.73	.0559	L-.0007
#1	12.06	2.400	L-.0066	33.98	12.83	L.0475	L-.0007
#2	12.14	2.413	L-.0110	34.24	12.64	.0642	L-.0007

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	S4204.	L-.3577	L.0023	H270.0	3.644	15.08	L.0029
#1	S4204.	L-.3506	L.0030	H269.3	3.605	15.04	L.0029
#2	S4204.	L-.3647	L.0016	H270.7	3.682	15.11	L.0029

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	.1196	.0562	.6077
#1	.0907	.0558	.6075
#2	.1486	.0566	.6078

Method: EPACLP1 Sample Name: Pile 213B Operator: EM
Run Time: 05/22/97 20:14:51
Comment: 3098-27 2/10 DILUTION TCLP MET9702504
Mode: CONC Corr. Factor: 5

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	L-.0361	L-.0353	.0594	.0726	L-.0015	3.228	75.94
#1	L-.0594	L-.0077	.0977	.0726	L-.0014	3.334	76.45
#2	L-.0127	L-.0629	L.0211	.0725	L-.0015	3.121	75.42

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	207.1	L-.0018	10.06	24.66	.0114	92.31	11.31
#1	208.6	L-.0123	10.13	24.97	.0091	93.28	11.40
#2	205.7	.0086	9.988	24.36	.0138	91.34	11.22

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	11.53	2.361	L-.0060	34.25	6.481	.0986	L-.0072
#1	11.50	2.375	L-.0114	34.39	5.851	L.0342	L-.0089
#2	11.56	2.347	L-.0005	34.10	7.112	.1630	L-.0055

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H2361.	L-.3930	L.0016	H289.0	3.495	14.28	L-.0038
#1	H2388.	L-.3823	L-.0078	H291.3	3.458	14.42	L-.0038
#2	H2333.	L-.4037	.0111	H286.8	3.532	14.14	L-.0038

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	L.0186	.0480	.5860
#1	.0764	.0441	.5939
#2	L-.0393	.0519	.5781

Method: EPACLP1 Sample Name: CCV22 Operator: EM
Run Time: 05/22/97 20:21:50
Comment: MET9702504
Mode: CONC Corr. Factor: 1

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.625	4.707	1.867	.4511	.4527	.0174	.4860
#1	4.610	4.709	1.855	.4501	.4513	.0190	.4857
#2	4.640	4.705	1.880	.4521	.4541	.0157	.4864

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.764	4.701	.4697	.4569	4.655	4.744	4.707
#1	4.759	4.694	.4717	.4577	4.652	4.749	4.701
#2	4.770	4.708	.4677	.4561	4.658	4.739	4.713

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.611	.4695	.4635	.4685	24.50	1.847	.4747
#1	4.596	.4692	.4624	.4667	24.55	1.853	.4747
#2	4.626	.4698	.4645	.4703	24.45	1.841	.4747

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	22.60	-.0188	.4606	2.411	.0556	.0278	.4600
#1	22.52	-.0186	.4587	2.415	.0576	.0267	.4596
#2	22.69	-.0190	.4625	2.408	.0537	.0289	.4605

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	.0300	.0010	.0003
#1	.0031	.0010	.0003
#2	.0570	.0010	.0003

Method: EPACLP1 Sample Name: CCB22 Operator: EM
Run Time: 05/22/97 20:26:32
Comment: MET9702504
Mode: CONC Corr. Factor: 1

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0125	-.0049	-.0011	-.0016	-.0003	.0059	.0017
#1	-.0135	-.0037	-.0056	-.0012	-.0003	.0059	.0012
#2	-.0115	-.0061	.0033	-.0019	-.0003	.0059	.0021

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0010	.0024	.0011	.0069	-.0025	.0157	.0014
#1	.0039	.0031	.0031	.0077	-.0016	.0183	.0021
#2	-.0019	.0017	-.0009	.0062	-.0035	.0131	.0006

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0402	.0014	.0004	.0028	.1883	.0121	-.0001
#1	.0706	.0014	-.0001	.0022	.3864	.0096	.0003
#2	.0097	.0014	.0010	.0034	-.0099	.0147	-.0004

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0051	-.0093	.0015	.0055	-.0105	.0019	-.0008
#1	.0117	-.0123	.0022	.0055	-.0327	.0052	-.0008
#2	-.0015	-.0064	.0009	.0055	.0117	-.0014	-.0008

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	-.0131	-.0002	.0000
#1	-.0112	-.0006	.0000
#2	-.0150	.0002	.0000

Method: EPACLP1 Sample Name: CCV23 Operator: EM
Run Time: 05/22/97 20:39:35
Comment: MET9702504
Mode: CONC Corr. Factor: 1

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.032	5.015	1.984	.5026	.5023	.0122	.5065
#1	5.046	5.020	1.988	.5048	.5044	.0122	.5042
#2	5.018	5.010	1.981	.5004	.5003	.0122	.5088

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.028	5.021	.5090	.5014	5.020	5.003	5.019
#1	5.045	5.039	.5101	.5028	5.034	5.016	5.033
#2	5.011	5.003	.5079	.5000	5.005	4.990	5.005

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.013	.5009	.5030	.5083	25.21	1.988	.5018
#1	5.053	.5024	.5067	.5064	25.16	1.999	.5025
#2	4.974	.4994	.4994	.5102	25.26	1.976	.5011

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	25.09	-.0113	.5036	2.506	.0862	.0209	.5010
#1	25.19	-.0133	.5057	2.516	.0749	.0201	.5030
#2	25.00	-.0093	.5014	2.497	.0975	.0217	.4990

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	-.0227	.0018	.0003
#1	-.0247	.0033	.0003
#2	-.0208	.0002	.0003

Method: EPACLP1 Sample Name: CCB23 Operator: EM
Run Time: 05/22/97 20:41:36
Comment: MET9702504
Mode: CONC Corr. Factor: 1

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0055	.0046	.0042	.0005	.0001	.0059	.0005
#1	-.0032	.0129	.0140	.0002	.0001	.0059	.0010
#2	-.0078	-.0037	-.0055	.0009	.0001	.0059	.0001

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0041	-.0005	.0022	.0040	.0050	.0022	.0006
#1	-.0004	-.0005	.0011	.0043	.0052	.0032	.0009
#2	-.0078	-.0005	.0033	.0038	.0047	.0011	.0003

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0259	.0009	.0012	.0032	.4192	.0173	-.0004
#1	-.0390	.0009	.0024	-.0026	.4956	.0252	-.0001
#2	-.0127	.0009	.0000	.0089	.3427	.0094	-.0008

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0168	.0001	.0000	.0024	.0007	.0000	-.0004
#1	.0197	.0001	-.0003	.0024	.0376	.0030	-.0004
#2	.0139	.0001	.0004	.0023	-.0362	-.0030	-.0004

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	-.0035	-.0014	.0000
#1	.0081	-.0022	.0000
#2	-.0150	-.0006	.0000

Method: EPACLP1 Sample Name: Method Blank Operator: EM
Run Time: 05/22/97 20:43:55
Comment: 3098-PBE2 TCLP MET9702504
Mode: CONC Corr. Factor: 1

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0322	L.0135	L.0332	.0404	L.0001	.0370	.0053
#1	.0287	L.0116	L.0221	.0404	L.0001	.0386	.0043
#2	.0358	L.0154	.0443	.0404	L.0001	.0354	.0064

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0375	L.0023	L.0022	.0193	L.0052	L.0227	.0063
#1	.0362	L.0020	L.0011	.0190	L.0047	L.0237	.0063
#2	.0387	L.0025	L.0033	.0195	L.0057	L.0216	.0063

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	L-.0028	.0073	L-.0012	L-.0000	L-.4264	L.0108	L-.0008
#1	L-.0061	.0076	L-.0012	L-.0000	L-.3770	L.0209	L-.0015
#2	L.0005	.0070	L-.0012	L-.0000	L-.4759	L.0007	L-.0001

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	37.58	L-.0034	L.0007	.0522	L-.0549	.3876	L-.0002
#1	37.65	L.0017	L.0003	.0522	L-.0512	.3854	L.0001
#2	37.50	L-.0085	L.0010	.0522	L-.0586	.3898	L-.0004

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	L-.0130	L-.0041	.0013
#1	L-.0034	L-.0061	.0013
#2	L-.0226	L-.0022	.0013

Method: EPACLP1 Sample Name: LCSE Operator: EM
Run Time: 05/22/97 20:46:12
Comment: 3098-LCSE2 TCLP MET9702504
Mode: CONC Corr. Factor: 1

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0280	L-.0048	4.728	5.071	L.0001	.0304	.9774
#1	.0256	L.0034	4.763	5.089	L.0001	.0321	.9747
#2	.0304	L-.0131	4.693	5.054	L.0001	.0288	.9801

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1305	4.884	.0050	.0128	.0088	4.999	.0869
#1	.1312	4.888	L.0039	.0128	.0078	4.997	.0867
#2	.1299	4.881	.0061	.0128	.0098	5.001	.0872

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	L.0630	.0064	L-.0011	L.0006	L.4731	.9564	.9660
#1	L.0400	.0064	L-.0005	L-.0013	L.4416	.9730	.9664
#2	L.0861	.0064	L-.0017	L.0025	L.5046	.9399	.9657

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.3413	L-.0140	L.0017	.0795	L.0205	.3367	L.0001
#1	.3422	L-.0115	L.0018	.0789	L.0003	.3370	L-.0004
#2	.3405	L-.0164	L.0017	.0801	L.0407	.3364	L.0006

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	L-.0034	L.0006	L.0006
#1	L.0120	L-.0006	L.0006
#2	L-.0188	L.0018	L.0006

Cd, Pb over L.R.
See 45 dilution
Em 5/22/97

Analysis Report Thu 05-22-97 08:50:15 PM page 1

Method: EPACLP1 Sample Name: Pile 265B Operator: EM
Run Time: 05/22/97 20:48:31
Comment: 3098-24 TCLP MET9702504
Mode: CONC Corr. Factor: 1

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0720	L-.0184	.0936	.0617	L.0002	.2031	57.89
#1	.0687	L-.0351	.0797	.0617	L.0002	.2031	57.90
#2	.0753	L-.0017	.1074	.0617	L.0002	.2031	57.88

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	44.46	L.0015	16.18	H746.1	.0467	H248.7	9.055
#1	44.43	L.0000	16.17	H747.6	.0469	H248.4	9.055
#2	44.50	L.0030	16.19	H744.6	.0464	H249.0	9.056

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	9.551	.2989	.0182	22.86	13.44	.0597	.2283
#1	9.571	.2986	.0182	22.84	13.35	.0756	.2283
#2	9.531	.2992	.0182	22.87	13.54	L.0439	.2283

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	S4574.	L-.8744	L-.0242	H484.5	37.49	49.84	.0275
#1	S4574.	L-.8712	L-.0253	H484.4	37.40	49.84	.0275
#2	S4574.	L-.8777	L-.0232	H484.6	37.59	49.84	.0275

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	.0441	.0315	.1382
#1	L.0075	.0315	.1384
#2	.0807	.0315	.1381

Cd, Pb over L.R.
See 1/5 dilution
Em 5/22/97

Analysis Report Thu 05-22-97 08:52:28 PM page 1

Method: EPACLP1 Sample Name: Pile 265B Operator: EM
Run Time: 05/22/97 20:50:38
Comment: 3098-24D TCLP MET9702504
Mode: CONC Corr. Factor: 1

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0686	L-.0280	.0917	.0976	L.0002	.2194	58.58
#1	.0720	L-.0227	.1059	.0968	L.0002	.2161	58.30
#2	.0652	L-.0334	.0775	.0983	L.0002	.2226	58.87

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	45.02	L.0010	16.36	H761.2	.0540	H315.3	9.173
#1	44.36	L.0015	16.28	H750.1	.0545	H313.9	9.125
#2	45.19	L.0005	16.45	H772.4	.0535	H316.8	9.220

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	9.749	.3026	.0255	23.10	13.93	.0667	.2328
#1	9.690	.3016	.0255	22.95	13.84	.0654	.2311
#2	9.808	.3035	.0255	23.25	14.02	.0680	.2346

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	S4574.	L-1.125	L-.0241	H489.3	38.02	51.08	.0275
#1	S4574.	L-1.121	L-.0237	H488.3	37.65	50.66	.0275
#2	S4574.	L-1.129	L-.0244	H490.3	38.40	51.50	.0275

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	.0438	.0304	.1426
#1	.0805	.0308	.1412
#2	L.0071	.0300	.1441

See Y5-dilution
Em 5/22/97

Analysis Report Thu 05-22-97 08:54:45 PM page 1

Method: EPACLP1 Sample Name: Pile 265B Operator: EM
Run Time: 05/22/97 20:53:06
Comment: 3098-24S TCLP MET9702504
Mode: CONC Corr. Factor: 1

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0837	L-.0427	5.311	1.390	L.0002	.2161	59.70
#1	.0766	L-.0594	5.425	1.398	L.0002	.2226	60.00
#2	.0909	L-.0260	5.198	1.381	L.0002	.2096	59.39

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	45.08	4.409	16.46	H770.4	.0550	H334.4	9.206
#1	45.23	4.438	16.57	H786.8	.0535	H336.0	9.260
#2	44.93	4.380	16.35	H754.0	.0566	H332.8	9.153

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	9.854	.3044	.0189	23.28	13.97	1.389	1.160
#1	9.946	.3071	.0177	23.48	13.87	1.405	1.172
#2	9.762	.3016	.0201	23.09	14.07	1.373	1.149

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	S4574.	L-1.172	L-.0233	H489.3	38.39	33.72	.0303
#1	S4574.	L-1.144	L-.0236	H489.9	38.66	34.10	.0290
#2	S4574.	L-1.200	L-.0230	H488.7	38.12	33.34	.0315

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	.1014	.0300	.1428
#1	.0878	.0292	.1450
#2	.1151	.0308	.1406

Analysis Report Thu 05-22-97 08:57:16 PM page 1

Method: EPACLP1 Sample Name: Pile 265B Operator: EM
Run Time: 05/22/97 20:55:39
Comment: 3098-24 2/10 DILUTION TCLP MET9702504
Mode: CONC Corr. Factor: 5

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1121	L-.0775	.1050	.0613	L.0008	.1988	58.56
#1	.1014	L-.0735	.1398	.0631	L.0008	.1905	58.80
#2	.1229	L-.0815	.0703	.0594	L.0008	.2070	58.32

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	46.55	L-.0011	17.32	H590.6	.0282	H267.4	9.585
#1	46.72	L-.0048	17.37	H591.2	.0307	H268.4	9.615
#2	46.37	L.0027	17.26	H590.0	.0256	H266.4	9.554

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	9.636	.3141	.0092	24.77	8.775	.1784	.2361
#1	9.948	.3156	.0062	24.87	8.955	.2252	.2378
#2	9.323	.3126	.0122	24.66	8.595	.1317	.2343

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	S22870.	L-.9655	L-.0186	H594.5	41.18	49.93	.0229
#1	S22870.	L-.9453	L-.0187	H596.2	41.10	50.14	.0229
#2	S22870.	L-.9857	L-.0185	H592.8	41.27	49.72	.0229

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	L.0343	.0186	.1414
#1	L-.0235	.0166	.1406
#2	.0922	.0206	.1422

and redistilled
Reran V after CCB24
to confirm Pb number
EM 5/22/97

Analysis Report Thu 05-22-97 08:59:21 PM page 1

Method: EPACLP1 Sample Name: Pile 265B Operator: EM
Run Time: 05/22/97 20:57:45
Comment: 3098-24D 2/10 DILUTION TCLP MET9702504
Mode: CONC Corr. Factor: 5

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1364	L-.0762	.0933	.0979	L.0008	.2069	59.53
#1	.1572	L-.0700	.1595	.0961	L.0008	.2069	59.54
#2	.1156	L-.0825	L.0272	.0997	L.0008	.2069	59.53

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	47.49	L-.0011	17.75	H619.8	.0256	H340.7	9.800
#1	47.47	L-.0023	17.72	H614.8	.0282	H340.1	9.779
#2	47.52	L.0002	17.78	H624.8	.0231	H341.3	9.822

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	9.866	.3216	.0153	25.36	6.346	.0590	.2448
#1	9.817	.3216	.0243	25.35	6.976	.0879	.2518
#2	9.916	.3216	.0062	25.37	5.717	L.0301	.2378

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	S22870.	L-1.178	L-.0270	H604.6	42.32	51.24	.0267
#1	S22870.	L-1.172	L-.0285	H604.3	42.04	51.08	.0204
#2	S22870.	L-1.185	L-.0255	H604.8	42.59	51.39	.0329

Elem	T_1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	L-.0530	.0147	.1516
#1	L-.1203	.0127	.1516
#2	L.0144	.0166	.1516

Method: EPACLP1 Sample Name: Pile 265B Operator: EM
Run Time: 05/22/97 20:59:39
Comment: 3098-24S 2/10 DILUTION TCLP MET9702504
Mode: CONC Corr. Factor: 5

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1620	L-.0511	4.857	1.735	L.0008	.1987	58.86
#1	.1451	L-.1180	4.930	1.751	L.0008	.1905	58.95
#2	.1788	L.0157	4.784	1.718	L.0008	.2069	58.78

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	46.16	4.551	17.16	H589.3	.0358	H349.7	9.488
#1	46.18	4.561	17.20	H595.0	.0307	H350.5	9.513
#2	46.14	4.541	17.11	H583.6	.0409	H348.9	9.462

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	9.800	.3141	.0299	24.41	8.910	1.270	1.158
#1	9.883	.3156	.0360	24.46	8.460	1.320	1.163
#2	9.718	.3126	.0238	24.36	9.360	1.219	1.152

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	S22870.	L-1.194	L-.0192	H589.5	41.12	31.81	.0304
#1	S22870.	L-1.170	L-.0208	H590.0	41.82	32.03	.0379
#2	S22870.	L-1.219	L-.0176	H588.9	40.42	31.59	.0229

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	.0731	.0245	.1422
#1	L.0153	.0206	.1437
#2	.1309	.0284	.1406

THIS SAMPLE TESTED POSITIVE FOR QUALITATIVE SULFATE TEST. Ba SPIKE LOW DUE TO LOSS As $BaSO_4$ ↓.

Se over L.R.
Se 1/50 dilution
Em 5/22/97

Analysis Report Thu 05-22-97 09:04:46 PM page 1

Method: EPACLP1 Sample Name: Amarillo Brick Operator: EM
Run Time: 05/22/97 21:02:49
Comment: 3098-28 TCLP MET9702504
Mode: CONC Corr. Factor: 1

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.9838	9.966	14.61	4.805	L.0005	69.76	.0491
#1	.9795	9.860	14.50	4.763	L.0005	69.12	.0492
#2	.9881	10.07	14.73	4.846	L.0005	70.41	.0490

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	267.0	11.03	.1982	13.23	.1132	.6075	H145.6
#1	264.6	10.94	.1959	13.11	.1121	.6009	H144.6
#2	269.4	11.12	.2004	13.36	.1142	.6141	H146.6

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	189.3	.1839	.0164	5.607	6.964	H823.6	L.0009
#1	187.6	.1827	.0170	5.585	6.919	H815.0	L.0008
#2	190.9	.1851	.0158	5.628	7.009	H832.2	L.0009

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	S4574.	L-.0097	.0502	4.494	1.790	68.22	.0061
#1	S4574.	L-.0037	.0497	4.464	1.837	67.61	.0076
#2	S4574.	L-.0158	.0508	4.525	1.743	68.82	.0046

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	.0639	.1561	.6056
#1	.0485	.1561	.5999
#2	.0794	.1561	.6113

00342

Method: EPACLP1 Sample Name: Amarillo Brick Operator: EM
Run Time: 05/22/97 21:07:43
Comment: 3098-28 1/50 DILUTION TCLP MET9702504
Mode: CONC Corr. Factor: 50

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.8184	9.764	15.30	4.861	.0066	75.73	.1463
#1	.4285	10.05	15.94	4.842	.0066	76.06	.1671
#2	1.208	9.477	14.67	4.879	.0067	75.41	.1256

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	281.5	11.95	.3458	14.78	L-.0054	1.143	H193.4
#1	281.9	11.89	.2890	14.86	L-.0181	.7095	H193.6
#2	281.2	12.01	.4026	14.69	.0074	1.576	H193.2

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	194.7	.2119	L-.0609	5.857	L-27.17	H815.8	L-.0205
#1	195.3	.2270	L-.0608	5.633	L-24.25	H815.0	L-.0379
#2	194.0	.1968	L-.0609	6.081	L-30.09	H816.7	L-.0030

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H1603.	.0792	.0965	5.606	.0669	70.12	L-.0324
#1	H1604.	.2537	.1134	5.665	.4358	69.66	.1046
#2	H1603.	L-.0952	.0795	5.547	L-.3020	70.57	L-.1695

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	L-.5561	.0097	.6318
#1	L-.3632	.0097	.6318
#2	L-.7490	.0097	.6318

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Method: EPACLP1 Sample Name: CCV24 Operator: EM
Run Time: 05/22/97 21:10:12
Comment: MET9702504
Mode: CONC Corr. Factor: 1

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.318	5.241	2.102	.5381	.5396	.0349	.5214
#1	5.330	5.232	2.099	.5392	.5406	.0382	.5203
#2	5.305	5.249	2.105	.5370	.5385	.0316	.5225

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.259	5.268	.5324	.5457	5.308	5.222	5.271
#1	5.256	5.275	.5324	.5474	5.313	5.212	5.275
#2	5.263	5.262	.5324	.5440	5.303	5.232	5.268

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.305	.5276	.5236	.5448	25.82	2.164	.5230
#1	5.289	.5279	.5200	.5396	25.78	2.181	.5223
#2	5.322	.5273	.5273	.5499	25.86	2.148	.5237

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	26.74	-.0202	.5314	2.595	.0515	.0558	.5339
#1	26.82	-.0186	.5313	2.592	.0459	.0839	.5369
#2	26.66	-.0219	.5315	2.598	.0570	.0278	.5309

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	.0210	.0006	.0005
#1	.0325	.0002	.0006
#2	.0095	.0010	.0003

Method: EPACLP1 Sample Name: CCB24 Operator: EM
Run Time: 05/22/97 21:12:20
Comment: MET9702504
Mode: CONC Corr. Factor: 1

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0019	-.0038	.0097	-.0013	.0001	.0059	-.0001
#1	-.0016	-.0037	-.0028	-.0013	.0001	.0059	.0000
#2	.0054	-.0038	.0223	-.0013	.0001	.0059	-.0003

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0049	-.0010	.0011	.0060	-.0034	.0097	-.0016
#1	-.0041	-.0010	.0011	.0066	-.0034	.0075	-.0019
#2	-.0057	-.0010	.0011	.0055	-.0034	.0119	-.0013

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0390	.0006	-.0006	-.0058	-.8987	.0166	-.0001
#1	-.0193	.0003	.0000	-.0013	-.8897	.0281	-.0008
#2	-.0588	.0009	-.0012	-.0103	-.9077	.0050	.0006

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0126	-.0118	.0003	.0012	-.0454	.0014	-.0016
#1	-.0084	-.0161	.0004	.0012	-.0547	-.0030	-.0004
#2	-.0169	-.0075	.0003	.0012	-.0362	.0058	-.0029

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	-.0092	-.0041	.0000
#1	.0119	-.0037	.0000
#2	-.0304	-.0045	.0000

Method: EPACLP1 Sample Name: Pile 265A Operator: EM
Run Time: 05/22/97 21:25:28
Comment: 3098-24 2/10 DILUTION TCLP MET9702504
Mode: CONC Corr. Factor: 5

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1111	L-.0233	.0823	.0594	L-.0018	.2234	56.80
#1	.1186	L-.0554	.0857	.0594	L-.0018	.2397	56.80
#2	.1036	L.0088	.0788	.0594	L-.0018	.2070	56.80

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	45.16	L-.0023	16.76	H577.2	.0282	H257.8	9.262
#1	45.22	L.0002	16.75	H578.4	.0282	H257.9	9.273
#2	45.10	L-.0048	16.77	H576.0	.0282	H257.6	9.251

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	9.454	.3050	.0183	23.89	9.225	.2188	.2326
#1	9.520	.3035	.0304	23.89	9.315	.1324	.2273
#2	9.389	.3065	.0062	23.89	9.135	.3052	.2378

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	S22870.	L-.9035	L-.0201	H579.3	39.57	47.71	.0242
#1	S22870.	L-.8644	L-.0215	H579.4	39.39	47.76	.0254
#2	S22870.	L-.9426	L-.0187	H579.2	39.76	47.66	.0229

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	L.0352	.0225	.1374
#1	.2855	.0206	.1374
#2	L-.2152	.0245	.1374

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5/23/97

Method: EPACLP1 Sample Name: Pile 265A Operator: EM
Run Time: 05/22/97 21:28:28
Comment: 3098-24 2/10x1/5 SERIAL DILUTION TCLP MET9702504
Mode: CONC Corr. Factor: 25

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	L.0076	L-.1609	.1087	.0591	.0035	.3085	59.21
#1	.0933	L-.3214	L-.0487	.0591	.0035	.3902	58.96
#2	L-.0780	L-.0004	.2662	.0591	.0035	.2268	59.47

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	46.68	L-.0117	17.32	H562.2	.0287	H268.8	9.490
#1	46.52	.0257	17.21	H557.5	.0415	H267.7	9.435
#2	46.84	L-.0491	17.44	H566.9	.0160	H269.8	9.544

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	9.152	.3173	.0157	24.91	18.91	.9489	.2436
#1	9.728	.3098	.0308	24.91	20.26	.6789	.2436
#2	8.575	.3248	L.0005	24.91	17.56	1.219	.2436

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H5946.	L-1.002	L-.0080	H616.4	42.82	48.63	.0149
#1	H5901.	L-.8735	L-.0075	H614.0	41.67	48.57	.0149
#2	H5991.	L-1.130	L-.0084	H618.9	43.97	48.68	.0149

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	L-.4971	.0440	.1343
#1	L-.6897	.0440	.1343
#2	L-.3046	.0440	.1343

Method: EPACLP1 Sample Name: Thornock Tank B Operator: EM
Run Time: 05/22/97 21:30:52
Comment: 3098-30 2/10 SERIAL DILUTION TCLP MET9702504
Mode: CONC Corr. Factor: 5

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0445	.7991	.7491	.1913	L.0007	1.303	9.834
#1	.0600	.8247	.7279	.1913	L.0007	1.336	9.803
#2	.0289	.7736	.7703	.1913	L.0007	1.271	9.865

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	311.9	L-.0097	.0224	.3216	.0552	.3164	11.60
#1	310.9	L.0028	.0280	.3484	.0578	.3570	11.56
#2	312.8	L-.0222	.0168	.2949	.0527	.2757	11.64

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	12.11	3.667	.3242	.0768	104.0	.5978	L-.0007
#1	12.25	3.658	.3333	.0832	104.1	.5797	L-.0007
#2	11.96	3.676	.3151	.0704	103.9	.6158	L-.0008

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	446.5	L.0151	L.0013	4.187	.2473	7.812	L-.0008
#1	443.8	.0247	.0067	4.198	.2468	7.811	L-.0020
#2	449.2	L.0056	L-.0041	4.175	.2477	7.814	L.0005

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	2.250	.1263	1.077
#1	2.057	.1263	1.071
#2	2.442	.1263	1.084

Method: EPACLP1 Sample Name: Pile 487 Operator: EM
Run Time: 05/22/97 21:37:18
Comment: 3098-17 1/5x1/5 SERIAL DILUTION TCLP MET9702504
Mode: CONC Corr. Factor: 25

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1364	1.541	.4866	.9929	.0034	49.01	67.97
#1	.0968	1.542	.3820	.9929	.0033	49.09	68.05
#2	.1760	1.541	.5913	.9929	.0035	48.93	67.90

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	117.0	L.0007	.1688	.5729	.0648	20.23	H67.29
#1	117.1	.0381	.1411	.5870	.0775	20.05	H67.31
#2	116.8	L-.0366	.1966	.5588	.0521	20.41	H67.27

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	67.12	1.457	.0611	.6718	74.01	1.512	.0071
#1	68.68	1.457	.0914	.7678	74.46	1.890	.0159
#2	65.55	1.457	.0308	.5757	73.56	1.134	L-.0018

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	H2190.	L-.1934	.0277	H215.3	1.220	13.79	L-.0100
#1	H2186.	L-.1595	.0456	H215.2	.6631	13.87	L-.0100
#2	H2194.	L-.2274	.0097	H215.5	1.778	13.71	L-.0100

Elem	T_1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	.2707	.2791	1.220
#1	.5114	.2987	1.224
#2	L.0300	.2595	1.216

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Method: EPACLP1 Sample Name: ICSA Operator: EM
Run Time: 05/22/97 21:39:37
Comment: MET9702504
Mode: CONC Corr. Factor: 1

Elem	A_3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	509.9	.0324	.0452	.0046	.0004	.0022	.0003
#1	507.3	.0318	.0218	.0046	.0006	.0016	-.0000
#2	512.5	.0330	.0686	.0046	.0001	.0028	.0007

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	486.4	-.0021	.0026	.0201	178.9	.0139	280.9
#1	484.7	-.0046	.0037	.0209	178.2	.0183	280.7
#2	488.0	.0004	.0015	.0193	179.7	.0095	281.1

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	495.8	.0248	.0032	-.0026	-.8537	-.3136	.0011
#1	493.0	.0246	-.0005	-.0128	-.7638	-.3399	.0014
#2	498.6	.0250	.0070	.0077	-.9437	-.2874	.0009

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1235	.0432	.0042	.0234	-.0322	.1125	.0155
#1	.1312	.0667	.0044	.0247	-.0099	.1142	.0155
#2	.1157	.0196	.0040	.0222	-.0545	.1109	.0155

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	.1383	.0817	.0070
#1	.1888	.0817	.0070
#2	.0879	.0817	.0070

Method: EPACLP1 Sample Name: ICSAB Operator: EM
Run Time: 05/22/97 21:41:36
Comment: MET9702504
Mode: CONC Corr. Factor: 1

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	512.4	1.008	.0891	.5092	.4934	.0076	.9354
#1	512.7	1.033	.1133	.5099	.4936	.0026	.9385
#2	512.1	.9822	.0649	.5084	.4931	.0126	.9323

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	438.8	.4580	.4581	.4996	180.0	.9497	281.2
#1	438.9	.4563	.4559	.4976	180.0	.9538	281.1
#2	438.8	.4598	.4603	.5016	180.0	.9456	281.3

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	498.5	.4882	.9295	.9239	-.8897	-.2963	.9470
#1	498.9	.4879	.9325	.9367	-.9077	-.2934	.9478
#2	498.1	.4885	.9265	.9111	-.8717	-.2992	.9463

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.3427	.0390	.4853	.9176	-.0182	.5967	.0155
#1	.3485	.0727	.4864	.9146	-.0685	.6000	.0155
#2	.3370	.0053	.4842	.9205	.0320	.5934	.0155

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	.0543	.0821	.0071
#1	.0389	.0817	.0073
#2	.0697	.0825	.0070

Method. EPACLP1 Sample Name: CCV25 Operator: EM
Run Time: 05/22/97 21:43:55
Comment: MET9702504
Mode: CONC Corr. Factor: 1

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.379	5.218	2.112	.5330	.5341	.0054	.5218
#1	5.402	5.209	2.125	.5341	.5354	.0054	.5211
#2	5.357	5.226	2.100	.5319	.5328	.0054	.5225

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.379	5.243	.5279	.5321	5.354	5.211	5.378
#1	5.412	5.258	.5279	.5350	5.374	5.221	5.407
#2	5.347	5.229	.5279	.5293	5.335	5.201	5.349

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.371	.5240	.5224	.5262	25.70	2.098	.5201
#1	5.401	.5255	.5261	.5294	25.85	2.083	.5201
#2	5.342	.5224	.5188	.5230	25.55	2.113	.5201

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	26.51	-.0174	.5265	2.588	.0342	.0176	.5284
#1	26.57	-.0187	.5273	2.600	.0044	.0195	.5299
#2	26.45	-.0162	.5257	2.576	.0640	.0157	.5269

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	-.0293	-.0002	.0003
#1	-.0332	.0010	.0003
#2	-.0254	-.0014	.0003

Method: EPACLP1 Sample Name: CCB25 Operator: EM
Run Time: 05/22/97 21:46:17
Comment: MET9702504
Mode: CONC Corr. Factor: 1

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0073	-.0018	.0020	-.0006	.0001	.0010	-.0000
#1	.0093	-.0012	-.0057	-.0006	.0001	-.0039	.0001
#2	.0054	-.0025	.0097	-.0006	.0001	.0059	-.0001

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mg2795
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0004	-.0012	-.0000	.0038	.0055	.0086	.0025
#1	-.0004	-.0005	.0011	.0038	.0063	.0086	.0031
#2	-.0004	-.0020	-.0012	.0038	.0047	.0086	.0020

Elem	Mg3832	Mn2576	Mo2020	Ni2316	K_7665	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0038	.0003	-.0006	-.0019	-.2285	.0144	.0003
#1	-.0061	.0003	.0000	.0013	-.2870	.0151	.0006
#2	.0137	.0003	-.0012	-.0051	-.1701	.0137	-.0001

Elem	Na5889	Sn1899	V_2924	Zn2138	P_2149	Si2881	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0064	.0022	.0003	.0006	-.0308	.0008	-.0004
#1	-.0078	.0001	.0004	.0000	-.0511	-.0008	-.0004
#2	-.0049	.0044	.0003	.0012	-.0106	.0025	-.0004

Elem	Tl1908	Li6707	Sr4215
Units	ppm	ppm	ppm
Avge	-.0054	-.0006	.0002
#1	.0004	-.0006	.0003
#2	-.0112	-.0006	.0000

Method: SI Standard: STD1-Blank

Elem	Si2881
Avge	4.102
#1	4.057
#2	4.147

Method: SI Standard: STD4

Elem	Si2881
Avge	10.66
#1	11.29
#2	10.03

Method: SI Standard: STD1-Blank

Elem	Si2881
Avge	2.083
#1	2.009
#2	2.158

Method: SI Standard: STD4

Elem	Si2881
Avge	2.898
#1	2.357
#2	3.439

Method: SI Standard: STD4

Elem	Si2881
Avge	3.233
#1	3.241
#2	3.225

Method: SI Standard: STD1-Blank

Elem	Si2881
Avge	1.403
#1	1.436
#2	1.371

Method: SI Standard: STD4

Elem	Si2881

5/29/97 SC

Avge 4.652

#1	4.661
#2	4.643

Method: SI Sample Name: ICV Operator: JC
Run Time: 05/29/97 21:43:55
Comment: FBA MET9702509
Mode: CONC Corr. Factor: 1

Elem	Si2881
Units	ppm
Avge	39.79
#1	38.68
#2	40.90

Method: SI Sample Name: CCV Operator: JC
Run Time: 05/29/97 21:55:44
Comment: MET9702509
Mode: CONC Corr. Factor: 1

Elem	Si2881
Units	ppm
Avge	19.46
#1	19.91
#2	19.02

Method: SI Sample Name: CCB Operator: JC
Run Time: 05/29/97 21:57:52
Comment: MET9702509
Mode: CONC Corr. Factor: 1

Elem	Si2881
Units	ppm
Avge	Q.9435
#1	Q.5581
#2	Q1.329

Method: SI Sample Name: 3098 PB Operator: JC
Run Time: 05/29/97 22:00:38
Comment: FBA MET9702509
Mode: CONC Corr. Factor: 1

Elem	Si2881
Units	ppm
Avge	1.283
#1	1.410
#2	1.157

Method: SI Sample Name: 3098 LCS Operator: JC
Run Time: 05/29/97 22:02:25
Comment: FBA WT % MET9702509
Mode: CONC Corr. Factor: .2137

Elem	Si2881
Units	ppm *
Avge	29.33
#1	30.13
#2	28.53

*corrected by Blank subtraction
29.33/.2137 = 137.2 - 1.283 = 135.9 * .2137 = 29.04
5/30/97

Method: SI Sample Name: 3098-28 Operator: JC
Run Time: 05/29/97 22:04:07
Comment: FBA DRY WT BASIS MET9702509
Mode: CONC Corr. Factor: 2336

Elem	Si2881
Units	ppm
Avge	69290.
#1	70280.
#2	68300.

corrected = 66200

Method: SI Sample Name: 3098-28D Operator: JC
Run Time: 05/29/97 22:05:29
Comment: FBA DRY WT BASIS MET9702509
Mode: CONC Corr. Factor: 1431

Elem	Si2881
Units	ppm
Avge	58250.
#1	57610.
#2	58900.

corrected = 56410

Method: SI Sample Name: 3098-5 Operator: JC
Run Time: 05/29/97 22:07:44
Comment: FBA DRY WT BASIS MET9702509
Mode: CONC Corr. Factor: 2004

Elem	Si2881
Units	ppm
Avge	67980.
#1	69420.
#2	66540.

corrected = 65410

Method: SI Sample Name: 3098-7 Operator: JC
Run Time: 05/29/97 22:08:56
Comment: FBA DRY WT BASIS MET9702509
Mode: CONC Corr. Factor: 1517

Elem Si2881

Units ppm
Avge 9413.

corrected = 7467

#1 9283.
#2 9542.

Method: SI Sample Name: 3098-8 Operator: JC
Run Time: 05/29/97 22:10:53
Comment: FBA DRY WT BASIS MET9702509
Mode: CONC Corr. Factor: 2053

Elem Si2881
Units ppm
Avge 4357.

corrected = 1720

#1 4607.
#2 4108.

Method: SI Sample Name: 3098-9 Operator: JC
Run Time: 05/29/97 22:14:13
Comment: FBA DRY WT BASIS MET9702509
Mode: CONC Corr. Factor: 1567

Elem Si2881
Units ppm
Avge 2260.

corrected = 249.5

#1 2396.
#2 2124.

Method: SI Sample Name: 3098-10 Operator: JC
Run Time: 05/29/97 22:15:36
Comment: FBA DRY WT BASIS MET9702509
Mode: CONC Corr. Factor: 1389

Elem Si2881
Units ppm
Avge 205100.

corrected = 207300

#1 201100.
#2 209000.

Method: SI Sample Name: 3098-10L Operator: JC
Run Time: 05/29/97 22:19:34
Comment: FBA DRY WT BASIS 2/10 DILUTION MET9702509
Mode: CONC Corr. Factor: 6944

Elem Si2881
Units ppm
Avge 228700.

corrected = 219800

#1 226900.
#2 230500.

Method: SI Sample Name: CCV2 Operator: JC
Run Time: 05/29/97 22:22:19
Comment: MET9702509
Mode: CONC Corr. Factor: 1

Elem	Si2881
Units	ppm
Avge	19.79
#1	18.27
#2	21.31

Method: SI Sample Name: CCB2 Operator: JC
Run Time: 05/29/97 22:24:06
Comment: FBA DRY WT BASIS MET9702509
Mode: CONC Corr. Factor: 1

Elem	Si2881
Units	ppm
Avge	.2905
#1	.2844
#2	.2965

Method: SI Sample Name: 3098-11 Operator: JC
Run Time: 05/29/97 22:25:20
Comment: FBA DRY WT BASIS MET9702509
Mode: CONC Corr. Factor: 2128

Elem	Si2881
Units	ppm
Avge	74570.
#1	72300.
#2	76830.

corrected = 71840

Method: SI Sample Name: 3098-12 Operator: JC
Run Time: 05/29/97 22:26:43
Comment: FBA DRY WT BASIS MET9702509
Mode: CONC Corr. Factor: 1852

Elem	Si2881
Units	ppm
Avge	38760.
#1	38600.
#2	38910.

corrected = 36380

Method: SI Sample Name: 3098-13 Operator: JC
Run Time: 05/29/97 22:27:51

Comment: FBA DRY WT BASIS MET9702509
Mode: CONC Corr. Factor: 2169

Elem	Si2881
Units	ppm
Avge	92320.

corrected = 89540

#1	91100.
#2	93540.

Method: SI Sample Name: 3098-14 Operator: JC
Run Time: 05/29/97 22:28:53
Comment: FBA DRY WT BASIS MET9702509
Mode: CONC Corr. Factor: 1961

Elem	Si2881
Units	ppm
Avge	89860.

corrected = 87340

#1	90330.
#2	89400.

Method: SI Sample Name: 3098-15 Operator: JC
Run Time: 05/29/97 22:30:40
Comment: FBA DRY WT BASIS MET9702509
Mode: CONC Corr. Factor: 1832

Elem	Si2881
Units	ppm
Avge	25350.

corrected = 23000

#1	24520.
#2	26170.

Method: SI Sample Name: 3098-16 Operator: JC
Run Time: 05/29/97 22:32:03
Comment: FBA DRY WT BASIS MET9702509
Mode: CONC Corr. Factor: 1025

Elem	Si2881
Units	ppm
Avge	158100.

corrected = 156800

#1	157100.
#2	159100.

Method: SI Sample Name: 3098-17 Operator: JC
Run Time: 05/29/97 22:33:49
Comment: FBA DRY WT BASIS MET9702509
Mode: CONC Corr. Factor: 1344

Elem	Si2881
Units	ppm
Avge	91510.

corrected = 89790

#1 89240.
#2 93790.

Method: SI Sample Name: 3098-18 Operator: JC
Run Time: 05/29/97 22:35:08
Comment: FBA DRY WT BASIS MET9702509
Mode: CONC Corr. Factor: 1972

Elem Si2881
Units ppm
Avge 79210. corrected = 76680

#1 79140.
#2 79280.

Method: SI Sample Name: 3098-23 Operator: JC
Run Time: 05/29/97 22:36:42
Comment: FBA DRY WT BASIS MET9702509
Mode: CONC Corr. Factor: 1524

Elem Si2881
Units ppm
Avge 8172. corrected = 6217

#1 8256.
#2 8088.

Method: SI Sample Name: 3098-24 Operator: JC
Run Time: 05/29/97 22:39:13
Comment: FBA DRY WT BASIS MET9702509
Mode: CONC Corr. Factor: 1953

Elem Si2881
Units ppm
Avge 7223. corrected = 4717

#1 7007.
#2 7439.

Method: SI Sample Name: CCV3 Operator: JC
Run Time: 05/29/97 22:40:28
Comment: MET9702509
Mode: CONC Corr. Factor: 1

Elem Si2881
Units ppm
Avge 20.07

#1 18.95
#2 21.18

Method: SI Sample Name: CCB3 Operator: JC
Run Time: 05/29/97 22:42:03
Comment: FBA DRY WT BASIS MET9702509
Mode: CONC Corr. Factor: 1

Elem	Si2881
Units	ppm
Avge	-.0850
#1	-.1417
#2	-.0284

Method: SI Sample Name: 3098-25 Operator: JC
Run Time: 05/29/97 22:43:13
Comment: FBA DRY WT BASIS MET9702509
Mode: CONC Corr. Factor: 2203

Elem	Si2881
Units	ppm
Avge	14760.
#1	14930.
#2	14590.

Corrected = 11930

Method: SI Sample Name: 3098-26 Operator: JC
Run Time: 05/29/97 22:44:27
Comment: FBA DRY WT BASIS MET9702509
Mode: CONC Corr. Factor: 1546

Elem	Si2881
Units	ppm
Avge	14620.
#1	14560.
#2	14670.

Corrected = 12640

Method: SI Sample Name: 3098-27 Operator: JC
Run Time: 05/29/97 22:46:39
Comment: FBA DRY WT BASIS MET9702509
Mode: CONC Corr. Factor: 1805

Elem	Si2881
Units	ppm
Avge	11940.
#1	11840.
#2	12040.

Corrected = 9624

Method: SI Sample Name: CCV4 Operator: JC
Run Time: 05/29/97 22:47:44
Comment: MET9702509
Mode: CONC Corr. Factor: 1

Elem S:2881

Units	ppm
Avge	20.75
#1	21.62
#2	19.88

Method: SI Sample Name: CCB4 Operator: JC
Run Time: 05/29/97 22:49:41
Comment: FBA DRY WT BASIS MET9702509
Mode: CONC Corr. Factor: 1

Elem	Si2881
Units	ppm
Avge	.0336
#1	-.0554
#2	.1226

PLASMAQUAD INSTRUMENT LOG

Date: 5/30/97 Operator: JDR

Pressures

(i) Pumping state Anal(3):

(ii) Operate state

Expn (2): 2.3×10^{0} Inter(1): 1.0×10^{-4} Anal(3): 2.7×10^{-6}

Ion lens settings

EXTR: 1.22 L1: 7.16 L3: 6.50

COLL: 8.08 L2: 2.72 L4: 3.40 Pole Bias: 5.10

SX300 quadrupole

Max mass >280 amu? Y / N

ICP generator parameters at normal forward power (1350 W)

Refl.pwr: <5 Plate current: 0.74 Grid Current: 0.00

PA Voltage: 0.40

PA Fillament: 0.80

Multiplier high voltage settings

HT1 (ext. dyn. range only): 3.94 HT2: 3.00

Scans on performance monitoring solution

Full range?: (Y) / N Low mass?: Y / N High mass?: Y / N

Water/Gas

Water Temp: 10 °C Water Level: Full 5/30/97

Gas flows

Neb: 1.090 Aux: 2.3 Cool: 13.5 Neb back pressure:

Other comments: (Changes to instrument/faults noted/service work carried out etc.):

25ppb I_n → 7.6×10^{5}

Filename: PLASQUAD/09-18-91

00366

PLASMAQUAD INSTRUMENT LOG

Date: 6/2/97 Operator: PJ2

Pressures

(i) Pumping state Anal(3):

(ii) Operate state

Expn (2): 2.3×10^{0} Inter(1): 1.0×10^{-4} Anal(3): 2.6×10^{-6}

Ion lens settings

EXTR: 1.08 L1: 7.18 L3: 6.48

COLL: 8.14 L2: 2.72 L4: 3.40 Pole Bias: 5.08

SX300 quadrupole

Max mass >280 amu? Y / N

ICP generator parameters at normal forward power (135-0 W)

Refl.pwr: 25 Plate current: 0 - 74 Grid Current: 0-20

PA Voltage: 0-90

PA Fillament: 0-78

Multiplier high voltage settings

HT1 (ext. dyn. range only): 3.94 HT2: 3.00

Scans on performance monitoring solution

Full range?: ~~Y~~ / N Low mass?: Y / N High mass?: Y / N

Water/Gas

Water Temp: 10°C Water Level: Full

6/2/97

Gas flows

Neb: 1.080 Aux: 2.3 Cool: 13.5 Neb back pressure:

Other comments: (Changes to instrument/faults noted/service work carried out etc.):

25ppb In → 6.0×10^{5}

Filename: PLASQUAD/09-18-91

00367

ICP-MS ICV Intermediate Stock and Working Solutions

Solution Name: ICP-MS Intermediate ICV Stock Solution #1
Solution Source: Inorganic Ventures CLPP-CICV-1
Analyst: [signature] Date: 11/26/96

Solution	Source	Lot #	Expiration Date	Aliquot of Stock	Check Off	Final Volume
HNO3	Fisher Optima	7697-37-2	-	5ml	✓	100ml
CLPP-CICV-1	Inorganic Vent.	L-MEB25121	7/1/97	2ml	✓	100ml

Solution Name: ICP-MS Intermediate ICV Stock Solution #2
Solution Source: Inorganic Ventures CLPP-CICV-2
Analyst: [signature] Date: 11/26/96

Solution	Source	Lot #	Expiration Date	Aliquot of Stock	Check Off	Final Volume
HNO3	Fisher Optima	7697-37-2	-	5ml	✓	100ml
CLPP-CICV-2	Inorganic Vent.	L-MEB25149	12/1/97	1ml	✓	100ml

Solution Name: ICP-MS Intermediate ICV Stock Solution #3
Solution Source: Inorganic Ventures CLPP-CICV-3
Analyst: [signature] Date: 11/26/96

Solution	Source	Lot #	Expiration Date	Aliquot of Stock	Check Off	Final Volume
HNO3	Fisher Optima	7697-37-2	-	5ml	✓	100ml
CLPP-CICV-3	Inorganic Vent.	L-MEB25125	7/1/97	1ml	✓	100ml

Solution Name: ICP-MS Initial Calibration Verification Solution
Analyst: [signature] Date: 5/30/97

Solution	Aliquot of Stock	Check Off	Final Volume
HNO3 (Fisher Optima-7697-37-2)	1ml	✓	100ml
ICP-MS Intermediate ICV Stock Solution #1	1ml	✓	100ml
ICP-MS Intermediate ICV Stock Solution #2	1ml	✓	100ml
[illegible]S Intermediate ICV Stock Solution #3	1ml	✓	100ml

Added 250ml of 10ppm SAIC CAD element standard to 100ml for calibration standard

00368

MSICV1.XLS

ICP-MS ICV Intermediate Stock and Working Solutions

Solution Name: ICP-MS Intermediate ICV Stock Solution #1
Solution Source: Inorganic Ventures CLPP-CICV-I
Analyst: [signature] Date: 11/26/96

Solution	Source	Lot #	Expiration Date	Aliquot of Stock	Check Off	Final Volume
HNO3	Fisher Optima	7697-37-2	-	5ml	✓	100ml
CLPP-CICV-1	Inorganic Vent.	L-MEB25121	7/1/97	2ml	✓	100ml

Solution Name: ICP-MS Intermediate ICV Stock Solution #2
Solution Source: Inorganic Ventures CLPP-CICV-2
Analyst: [signature] Date: 11/26/96

Solution	Source	Lot #	Expiration Date	Aliquot of Stock	Check Off	Final Volume
HNO3	Fisher Optima	7697-37-2	-	5ml	✓	100ml
CLPP-CICV-2	Inorganic Vent.	L-MEB25149	12/1/97	1ml	✓	100ml

tion Name: ICP-MS Intermediate ICV Stock Solution #3
olution Source: Inorganic Ventures CLPP-CICV-3
Analyst: [signature] Date: 11/26/96

Solution	Source	Lot #	Expiration Date	Aliquot of Stock	Check Off	Final Volume
HNO3	Fisher Optima	7697-37-2	-	5ml	✓	100ml
CLPP-CICV-3	Inorganic Vent.	L-MEB25125	7/1/97	1ml	✓	100ml

Solution Name: ICP-MS Initial Calibration Verification Solution
Analyst: [signature] Date: 6/2/97

Solution	Aliquot of Stock	Check Off	Final Volume
HNO3 (Fisher Optima-7697-37-2)	1ml	✓	100ml
ICP-MS Intermediate ICV Stock Solution #1	1ml	✓	100ml
ICP-MS Intermediate ICV Stock Solution #2	1ml	✓	100ml
IS Intermediate ICV Stock Solution #3	1ml	✓	100ml

SOLUTION: ICP-MS, 200.8 INTERMEDIATE STOCK
MATRIX: 5% HNO3 (Optima)
VOLUME: 1000 ml.
DATE: 4/30/97
ANALYST: [signature] **SOLUTION EXPIRATION DATE:** 11/1/97

ELEMENT	SOURCE	LOT #	EXPIRATION DATE	ALIQUOT PER 1000 ml.	CHECK OFF	CONCENTRATION (µg/L)
HNO3	Fischer	7697-37-2	-	50.0 ml.	✓	5%
Al	I.V.	L-AL03044	1/1/98	1.0 ml.	✓	1000
Sb	I.V.	L-QSB01030	11/1/97	1.0 ml.	✓	1000
As	I.V.	L-AS01119	11/1/97	1.0 ml.	✓	1000
Ba	I.V.	L-BA01121	5/1/98	1.0 ml.	✓	1000
Be	I.V.	K-BE01076	5/1/98	1.0 ml.	✓	1000
Cd	I.V.	K-CD01101	11/1/97	1.0 ml.	✓	1000
Cr	CPI	690923	4/14/99	1.0 ml.	✓	1000
Co	High Purit	690416	1/1/98	1.0 ml.	✓	1000
Cu	I.V.	L-CU02031	11/1/97	1.0 ml.	✓	1000
Pb	I.V.	L-PB02078	11/1/97	1.0 ml.	✓	1000
Mn	I.V.	K-MN02016	5/1/98	1.0 ml.	✓	1000
Mo	CPI	690627	4/11/99	1.0 ml.	✓	1000
Ni	CPI	690503	5/21/98	1.0 ml.	✓	1000
Se	High Purit	708605	5/1/98	1.0 ml.	✓	1000
Tl	I.V.	L-TL01060	11/1/97	1.0 ml.	✓	1000
V	I.V.	K-V02011	11/1/97	1.0 ml.	✓	1000
U	SPEX	5-74U	1/15/98	1.0 ml.	✓	1000
Zn	I.V.	K-ZN01118	5/1/98	1.0 ml.	✓	1000

* I.V. = Inorganic Ventures

SOLUTION: ICP-MS, 200.8 SILVER INTERMEDIATE STOCK
MATRIX: 5% HNO3 (Optima)
VOLUME: 1000 ml.
DATE: 4/30/97
ANALYST: [signature] **SOLUTION EXPIRATION DATE:** 5/1/98

ELEMENT	SOURCE	LOT #	EXPIRATION DATE	ALIQUOT PER 1000 ml.	CHECK OFF	CONCENTRATION (µg/L)
HNO3	Fischer	7697-37-2	-	50.0	✓	5%
Ag	I.V.	K-AG01113	5/1/98	1.0	✓	1000

SOLUTION: ICP-MS 25ppb Calibration Standard
MATRIX: 1% HNO3 (Optima)
VOLUME: 100 ml.
DATE: 5/30/97
ANALYST: [signature] Added 25ml of 100ppm SAIC old element Standard to 100ml FOR I.C.V. Solution

SOURCE	ALIQUOT PER 100 ml.	CHECK OFF	CONCENTRATION (µg/L)
HNO3 (Optima)	1.0	✓	1%
IMTERMEDIATE STOCK	2.5	✓	25.0
SILVER IMTERMEDIATE STOCK	2.5	✓	25.0

SOLUTION: ICP-MS, 200.8 INTERMEDIATE STOCK
MATRIX: 5% HNO3 (Optima)
VOLUME: 1000 ml.
DATE: 4/30/97
ANALYST: [signature] SOLUTION EXPIRATION DATE: 11/1/97

ELEMENT	SOURCE	LOT #	EXPIRATION DATE	ALIQUOT PER 1000 ml.	CHECK OFF	CONCENTRATION (µg/L)
HNO3	Fischer	7697-37-2	-	50.0 ml.	✓	5%
Al	I.V.	L-AL03044	1/1/98	1.0 ml.	✓	1000
Sb	I.V.	L-QSB01030	11/1/97	1.0 ml.	✓	1000
As	I.V.	L-AS01119	11/1/97	1.0 ml.	✓	1000
Ba	I.V.	L-BA01121	5/1/98	1.0 ml.	✓	1000
Be	I.V.	K-BE01076	5/1/98	1.0 ml.	✓	1000
Cd	I.V.	K-CD01101	11/1/97	1.0 ml.	✓	1000
Cr	CPI	690923	4/14/99	1.0 ml.	✓	1000
Co	High Purit	690416	1/1/98	1.0 ml.	✓	1000
Cu	I.V.	L-CU02031	11/1/97	1.0 ml.	✓	1000
Pb	I.V.	L-PB02078	11/1/97	1.0 ml.	✓	1000
Mn	I.V.	K-MN02016	5/1/98	1.0 ml.	✓	1000
Mo	CPI	690627	4/11/99	1.0 ml.	✓	1000
Ni	CPI	690503	5/21/98	1.0 ml.	✓	1000
Se	High Purit	708605	5/1/98	1.0 ml.	✓	1000
Tl	I.V.	L-TL01060	11/1/97	1.0 ml.	✓	1000
V	I.V.	K-V02011	11/1/97	1.0 ml.	✓	1000
U	SPEX	5-74U	1/15/98	1.0 ml.	✓	1000
Zn	I.V.	K-ZN01118	5/1/98	1.0 ml.	✓	1000

* I.V. = Inorganic Ventures

SOLUTION: ICP-MS, 200.8 SILVER INTERMEDIATE STOCK
MATRIX: 5% HNO3 (Optima)
VOLUME: 1000 ml.
DATE: 4/30/97
ANALYST: [signature] SOLUTION EXPIRATION DATE: 5/1/98

ELEMENT	SOURCE	LOT #	EXPIRATION DATE	ALIQUOT PER 1000 mL	CHECK OFF	CONCENTRATION (µg/L)
HNO3	Fischer	7697-37-2	-	50.0	✓	5%
Ag	I.V.	K-AG01113	5/1/98	1.0	✓	1000

SOLUTION: ICP-MS 25ppb Calibration Standard
MATRIX: 1% HNO3 (Optima)
VOLUME: 100 ml.
DATE: 6/2/97
ANALYST: [signature]

SOURCE	ALIQUOT PER 100 ml.	CHECK OFF	CONCENTRATION (µg/L)
HNO3 (Optima)	1.0	✓	1%
IMTERMEDIATE STOCK	2.5	✓	25.0
SILVER IMTERMEDIATE STOCK	2.5	✓	25.0

Daily ICP-MS Resolution Check Worksheet

Low Mass Range: Mg^{24}

	Measured Value (cm)
1 amu (atomic mass units)	9.1
Peak Height	11.0
Peak Width @ 5% of Height	6.8

RESOLTION = Peak Width @ 5% / 1 amu = 6.8 / 9.1 = 0.75

High Mass Range: Pb^{208}

	Measured Value (cm)
1 amu (atomic mass units)	8.5
Peak Height	11.0
Peak Width @ 5% of Height	6.4

5/30/97

RESOLTION = Peak Width @ 5% / 1 amu = 6.4 / 8.5 = ~~6.4~~ 0.75

Analyst: _____ Date: 5/30/97

Daily ICP-MS Resolution Check Worksheet

Low Mass Range: Mg^{24}

	Measured Value (cm)
1 amu (atomic mass units)	8.2
Peak Height	11.0
Peak Width @ 5% of Height	6.3

$$\text{RESOLTION} = \frac{\text{Peak Width @ 5\%}}{\text{1 amu}} = \frac{6.3}{8.2} = 0.77$$

High Mass Range: Pb^{208}

	Measured Value (cm)
1 amu (atomic mass units)	8.6
Peak Height	11.0
Peak Width @ 5% of Height	6.5

$$\text{RESOLTION} = \frac{\text{Peak Width @ 5\%}}{\text{1 amu}} = \frac{6.5}{8.6} = 0.76$$

Analyst: _____ Date: 6/2/97

PROJECT _____ Continued From Page _____

MASS CALIBRATION Date	Initials	Integrals Be	In	Bi	MASS CALIBRATION Date	Initials	Integrals Be	In	Bi
2/6/97		120000	219000	227000	4/9/97		115000	335000	308000
2/7/97		128000	238000	248000	4/11/97		91000	317000	257000
2/10/97		162000	459000	411000	4/14/97		115000	391000	373000
2/11/97		135000	349000	358000	4/15/97		125000	472000	372000
2/13/97		145000	333000	327000	4/17/97		54000	317000	332000
2/18/97		114000	357000	182000	4/21/97		80000	380000	316000
2/19/97		118000	411000	313000	4/22/97		64000	362000	290000
2/20/97		76000	209000	221000	4/23/97		60000	310000	305000
2/21/97		122000	348000	362000	4/23/97		71000	297000	265000
2/24/97		134000	416000	325000	4/25/97		153000	436000	320000
2/25/97		146000	345000	305000	4/28/97		124000	420000	342000
2/26/97		140000	425000	375000	4/29/97		103000	452000	326000
2/27/97		148000	387000	265000	4/30/97		132000	498000	402000
3/3/97		161000	406000	273000	5/1/97		142000	450000	310000
3/4/97		154000	428000	345000	5/5/97		111000	348000	300000
3/5/97		176000	415000	351000	5/6/97		84000	331000	305000
3/7/97		110000	417000	360000	5/8/97		109000	392000	312000
3/10/97		157000	464000	346000	5/9/97		100000	287000	248000
3/12/97		130000	375000	328000	5/12/97		100000	245000	230000
3/13/97		108000	344000	235000	5/13/97		115000	213000	172000
3/19/97		115000	253000	191000	5/14/97		79000	365000	314000
3/19/97		85000	298000	272000	5/15/97		106000	428000	374000
3/20/97		69000	337000	371000	5/16/97		161000	460000	350000
3/25/97		113000	594000	612000	5/19/97		83000	342000	243000
3/26/97		79000	373000	355000	5/20/97		95000	374000	248000
3/28/97		94000	378000	343000	5/21/97		90000	361000	267000
3/31/97		120000	628000	536000	5/22/97		48000	307000	293000
4/1/97		113000	385000	316000	5/23/97		103000	412000	290000
4/2/97		59000	341000	304000	5/28/97		50000	356000	317000
4/4/97		98000	350000	284000	5/29/97		62000	365000	351000
4/7/97		117000	367000	323000	5/30/97		109000	569000	545000
4/8/97		111000	333000	273000					

Continued on Page

Read and Understood By

Signed Date

Notebook No. _____

PROJECT _____

Continued From Page _____

MASS CALIBRATION INTEGRALS

Date	Initials	Be	In	Bi
6/2/97	[illegible]	92000	394000	312000

Continued on Page

Read and Understood By

Signed _____ Date _____ Signed _____ Date _____

00375

Metals Custom Calibration Standard / Spike Solution Data

Project: ICP/MS ICV

Solution Name: S.A. IC. 000 element

Service Request #: K9703098

Element	Source	Lot #	Expiration Date	Aliquot of 1000ppm Stock	Check Off	Final Volume	Concentration (µg/L)
HNO3	EmScience	36026		2.0 ml	✓	100 ml	2.0%
HCl				ml		ml	%
Iridium	High-Purity	705706	6/98	1.0 ml	✓	100 ml	10,000
Osmium	IV	K-0501030	10/19/96	ml	✓	ml	
Palladium	High-Purity	691017	6/98	ml	✓	ml	
Platinum		691016	6/98	ml	✓	ml	
Rhenium		691213	6/98	ml	✓	ml	
Rhodium		705208	6/98	ml	✓	ml	
Ruthenium	↓	705215	6/98	↓ ml	✓	↓ ml	↓
Gold	IV	K-QAU0195	1/1/98	1.0 ml	✓	100 ml	10,000
Sn	ICV	K-QSn0011	9/1/97	1.0 ml	✓	100 ml	10,000
				ml		ml	
				ml		ml	
				ml		ml	
				ml		ml	
				ml		ml	
				ml		ml	
				ml		ml	
				ml		ml	
				ml		ml	
				ml		ml	
				ml		ml	
				ml		ml	
				ml		ml	

Prepared By: [signature] **Date:** 5/13/97

Metals Custom Calibration Standard / Spike Solution Data

Project: ICP/MS Standard

Solution Name: S.A.I.C ODD element

Service Request #: K9703098

Element	Source	Lot #	Expiration Date	Aliquot of 1000ppm Stock	Check Off	Final Volume	Concentration (µg/L)
HNO3	Emscience	36026		2.0 ml	✓	100 ml	2.0 %
HCl				ml		ml	%
Iridium	IV*	L-IRO101018	6/1/98	1.0 ml	✓	100 ml	10,000
Osmium		M-OSO1035	6/1/98	ml		ml	
Palladium		M-PDO200	6/1/98	ml		ml	
Platinum		L-PTO1042	6/1/98	ml		ml	
Rhenium		L-QREO1013	6/1/98	ml		ml	
Rhodium		L-RHO1087	6/1/98	ml		ml	
Ruthenium	↓	K-QRUO1012	6/1/98	ml	↓	ml	↓
Gold	SPEX	4-267AU	1/15/98	1.0 ml	✓	100 ml	10,000
Sn	C.P.I	690403	4/25/98	1.0 ml	✓	100 ml	10,000
				ml		ml	
				ml		ml	
				ml		ml	
				ml		ml	
				ml		ml	
				ml		ml	
				ml		ml	
				ml		ml	
				ml		ml	
				ml		ml	
				ml		ml	
				ml		ml	

Prepared By: [signature] Date: 5/13/97

* Inorganic Ventures

CUSTOM.XLS

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Columbia Analytical Services

Bill To: P.O. Box 479 • Kelso, WA 98626

PURCHASE REQUEST/ORDER

PURCHASE ORDER

[illegible]

00378

Purchase Order # [illegible] EAR #

*Date: 4/20/97

*Date Required: 5/9/97 *If next day AM required ☐

*Vendor: HIGH PURITY STANDARDS

Phone: 1 803 556-3411

*Requested by: GREG X#

*Approved by: [illegible]

*Check here if RUSH order ☐

*Check here if Capital Item ☐

(Attach Completed EAR Form)

Order Reference #

Order Desk: [illegible]

Date Ordered: 5/2 By: [illegible]

Ship Date: 5/7

Ship Method:

Terms:

Are Items Taxable? ☐Yes ☐No

Ship to:

DO NOT WRITE IN SHADED COLUMNS

ANSWER REQUIRED ON * ITEMS

SPECIAL INSTRUCTIONS:

* LAB BRANCH [illegible]

* Check Department:

☐ Local Admin.	100	☐ GCMS	223
☒ Metals	101	☐ Facilities	301
☐ Gen Chem	102	☐ SMO	302
☐ VOA	103	☐ Bottle Prep.	306
☐ Semi-VOA/GC	104	☐ Local Marketing	500
☐ Petro	108	☐ CAS/Admin.	980
☐ Out Lab	110	☐ Corp. Marketing	995
☐ Inorganics	215	☐ Other	
☐ Organics	220		

*Check One:
Consumables/Supplies ☐
Maintenance/Repair ☐
Capital/Fixed Asset ☐

Date Rec'd	*Qty	*Vendor Item#	*Description	*Catalog Price	Current Price	Our Cost	Extended Cost
	1 ea	~~10m 40-2~~ 100040-2	1000 mg/l PLATINUM STANDARD	[illegible]			[illegible]
	1 ea	~~10m 38-1~~ 100038-2	PALLADIUM	37.00			[illegible]
	1 ea	100025-2	IRIDIUM	[illegible]			[illegible]
	1 ea	100044-2	RHODIUM	[illegible]			[illegible]
	1 ea	100046-2	RUTHENIUM	[illegible]			[illegible]
	1 ea	100043-1	RHENIUM	22.50			[illegible]
							$350.50
			Complete 5/8/97				

White - AP Yellow - AP Pink - Purchasing Goldenrod - Originator/Supervisor

01/95 PR/O

Columbia Analytical Services

Bill To: P.O. Box 479 • Kelso, WA 98626

PURCHASE REQUEST/ORDER

PURCHASE ORDER

9332

00379

Purchase Order # 9333 EAR #

*Date: 4/30/97

*Date Required: 5/9/97 *If next day AM required ☐

*Vendor: Inorganic Ventures

Phone:

*Requested by: GREC X#

*Approved by: [illegible]

*Check here if RUSH order ☐

*Check here if Capital Item ☐

(Attach Completed EAR Form)

Order Reference # 2874

Order Desk: Yolanda

Date Ordered: 4-30-97 By: [illegible]

Ship Date: 5-7-97

Ship Method: UPS Orange

Terms:

Are Items Taxable? ☐ Yes ☐ No

Ship to:

DO NOT WRITE IN SHADED COLUMNS

ANSWER REQUIRED ON * ITEMS

*LAB BRANCH Kelso

*Check Department:

☐ Local Admin.	100	☐ GCMS	223
☒ Metals	101	☐ Facilities	301
☐ Gen Chem	102	☐ SMO	302
☐ VOA	103	☐ Bottle Prep.	306
☐ Semi-VOA/GC	104	☐ Local Marketing	500
☐ Petro	108	☐ CAS/Admin.	980
☐ Out Lab	110	☐ Corp. Marketing	995
☐ Inorganics	215	☐ Other	
☐ Organics	220		

SPECIAL INSTRUCTIONS:

*Check One:
Consumables/Supplies ☐
Maintenance/Repair ☐
Capital/Fixed Asset ☐

Date Rec'd	Qty	Vendor Item#	*Description	*Catalog Price	Current Price	Our Cost	Extended Cost
✓	1 ea	CGPT 1-1	1000 mg/l Platinum Standard				50.00
✓	1 ea	CGPD 1-1	Palladium				33.00
✓	1 ea	CGIR 1-1	Iridium				70.00
✓	1 ea	CGOS 1-1	Osmium				70.00
✓	1 ea	CGRH 1-1	Rhodium				70.00
✓	1 ea	CGRU 1-1	Ruthenium				50.00
✓	1 ea	CGRE 1-1	Rhenium				50.00
			Complete 5/7				$393.00
			No packing slip				

White - AP Yellow - AP Pink - Purchasing Goldenrod - Originator/Supervisor

01/95 PR/O

Multi-Element Calibration Fri May 30 1997

Calibration graph coefficients for selected isotopes.

User Name : MANAGER Experiment name : ANALYSIS

Analysis procedure : 200.8

Introduction method : DEFAULT

First sample started at : Fri May 30 1997 13:34:39

Last sample started at : **********

Internal standards : Sc 45 Y 89 Bi 209 (Interpol

Polynomial fit : y = a0 + a1.x + a2.x^2

Units of response : y = counts per second

Units of concentration : x = ppb

Extr/Analysis Lot MET9700921

Element	Symbol	Mass	a0	a1	a2	regression
Beryllium	Be	9	53.28	6456	0.0	1.0000
Cobalt	Co	59	67.35	19457	0.0	1.0000
Arsenic	As	75	1299	2111	0.0	1.0000
Selenium	Se	77	458.1	180.0	0.0	1.0000
Selenium	Se	78	2622	541.8	0.0	1.0000
Selenium	Se	82	537.6	212.6	0.0	1.0000
Molybdenum	Mo	95	71.18	2859	0.0	1.0000
Molybdenum	Mo	97	59.62	1852	0.0	1.0000
Molybdenum	Mo	98	75.33	4791	0.0	1.0000
Ruthenium	Ru	99	31.93	2854	0.0	1.0000
Ruthenium	Ru	101	20.44	4117	0.0	1.0000
Ruthenium	Ru	102	42.81	8225	0.0	1.0000
Rhodium	Rh	103	27.04	23712	0.0	1.0000
Palladium	Pd	104	133.8	7388	0.0	1.0000
Palladium	Pd	105	11093	4922	0.0	1.0000
Silver	Ag	107	140.8	12662	0.0	1.0000
Silver	Ag	109	119.5	12410	0.0	1.0000
Cadmium	Cd	111	46.92	2563	0.0	1.0000
Cadmium	Cd	112	79.14	4718	0.0	1.0000
Tin	Sn	114	71.80	5934	0.0	1.0000
Cadmium	Cd	114	71.90	5934	0.0	1.0000
Tin	Sn	117	169.9	1449	0.0	1.0000
Tin	Sn	118	485.5	4837	0.0	1.0000
Tin	Sn	120	755.6	6965	0.0	1.0000
Antimony	Sb	121	139.9	7102	0.0	1.0000
Tin	Sn	122	113.2	991.3	0.0	1.0000
Antimony	Sb	123	114.4	5447	0.0	1.0000
Rhenium	Re	185	26.21	11265	0.0	1.0000
Rhenium	Re	187	50.08	20529	0.0	1.0000
Osmium	Os	188	279.7	4936	0.0	1.0000
Osmium	Os	189	371.8	5993	0.0	1.0000
Osmium	Os	190	572.2	9834	0.0	1.0000
Iridium	Ir	191	9993	10417	0.0	1.0000
Iridium	Ir	193	204.0	17850	0.0	1.0000
Platinum	Pt	194	96.39	6460	0.0	1.0000

Element	Symbol	Mass	a0	a1	a2	regression
Platinum	Pt	195	105.0	6681	0.0	1.0000

00380

Thallium	Tl	207	81.03	9827	0.0	1.0000
Thallium	Tl	205	191.5	21899	0.0	1.0000

Multi-Element Concentrations Fri May 20 1977
Statistics for Concentration Determination.

Analysis procedure : 200.2

Sample name : Calibration Check Solution #2 Site=M01980005a ppb

Run 2	0.0001	-0.0002	-0.8535	-0.0132	-0.2617	-0.0141	-0.0018
Run 3	-0.0005	0.0004	0.4723	-0.2187	-0.0144	-0.2194	0.0023
Mean	0.0000	0.0000	-0.0000	0.0	0.0000	-0.0000	0.0000
Std Dev	0.0004	0.0003	0.7405	0.2252	0.2693	0.2281	0.0021
%SD	36920	50933	162410000	0.0	16311000	34073000	59615

Element	Molybdenum	Molybdenum	Ruthenium	Ruthenium	Ruthenium	Rhodium
Isotope	Mo 97	Mo 98	Ru 99	Ru 101	Ru 102	Rh 103
Detector	PC	PC	PC	PC	PC	PC
Run 1	-0.0034	0.0009	0.0027	0.0002	0.0007	0.0000
Run 2	0.0029	0.0000	0.0000	-0.0004	-0.0005	0.0003
Run 3	0.0005	-0.0009	-0.0029	0.0002	-0.0002	-0.0002
Mean	0.0000	-0.0000	0.0000	-0.0000	0.0000	0.0000
Std Dev	0.0032	0.0009	0.0029	0.0003	0.0006	0.0003
%SD	724070	1009700	119320	100300	285070	12229

Element	Palladium	Palladium	Silver	Silver	Cadmium	Cadmium
Isotope	Pd 104	Pd 105	Ag 107	Ag 109	Cd 111	Cd 112
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.0018	-0.0201	0.0021	-0.0023	0.0010	-0.0018
Run 2	-0.0008	-0.0121	-0.0002	0.0003	0.0001	0.0006
Run 3	-0.0011	0.0322	-0.0019	0.0020	-0.0011	0.0011
Mean	0.0000	-0.0000	0.0000	0.0000	0.0000	0.0000
Std Dev	0.0015	0.0262	0.0020	0.0021	0.0016	0.0015
%SD	104070	3518600	79199	54829	93622	692160

Element	Tin	Cadmium	Tin	Tin	Tin	Antimony
Isotope	Sn 114	Cd 114	Sn 117	Sn 119	Sn 120	Sb 121
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.0002	0.0002	-0.0109	-0.0004	0.0296	0.0036
Run 2	0.0001	0.0001	0.0142	-0.0129	-0.0121	-0.0010
Run 3	-0.0003	-0.0003	-0.0033	0.0132	-0.0175	-0.0027
Mean	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Std Dev	0.0003	0.0003	0.0129	0.0130	0.0257	0.0033
%SD	23949	23949	579780	2231400	4402900	987380

Element	Tin	Antimony	Rhenium	Rhenium	Osmium	Osmium

00381

Element	Tin	Antimony	Rhenium	Rhenium	Osmium	Osmium
Isotope	Sn 122	Sb 123	Re 185	Re 187	Os 188	Os 189
Detector	PC	PC	PC	PC	PC	PC
Isotope	Sn 122	Sb 123	Re 185	Re 187	Os 189	Os 189
Detector	PC	PC	PC	PC	PC	PC
Run 1	-0.0145	0.0034	0.0008	0.0002	0.0012	0.0042
Run 2	0.0047	-0.0025	-0.0008	-0.0000	0.0056	-0.0002
Run 3	0.0098	-0.0009	-0.0000	-0.0001	-0.0068	-0.0040
Mean	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Std Dev	0.0129	0.0030	0.0008	0.0002	0.0063	0.0041
%SD	1796300	113760	32552	9252	1115000	248320

Element	Osmium	Iridium	Iridium	Platinum	Platinum	Platinum
Isotope	Os 190	Ir 191	Ir 193	Pt 194	Pt 195	Pt 196
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.0014	0.0325	-0.0000	0.0017	0.0005	-0.0004
Run 2	0.0009	-0.0101	0.0023	0.0000	-0.0002	-0.0013
Run 3	-0.0024	-0.0224	-0.0023	-0.0017	-0.0003	0.0017
Mean	0.0000	0.0000	0.0000	0.0000	-0.0000	0.0000
Std Dev	0.0021	0.0288	0.0023	0.0017	0.0004	0.0015
%SD	5875100	7673800	100410	116940	231580	98636

Element	Gold	Thallium	Thallium
Isotope	Au 197	Tl 203	Tl 205
Detector	PC	PC	PC
Run 1	-0.0006	0.0010	-0.0005
Run 2	-0.0004	0.0008	0.0002
Run 3	0.0011	-0.0018	0.0003
Mean	0.0000	0.0000	0.0000
Std Dev	0.0009	0.0015	0.0005
%SD	767230	719690	25590

Internal Standard Drift: % relative to mean of first sample :

Element	Scandium	Yttrium	Bismuth
Isotope	Sc 45	Y 89	Bi 209
Detector	PC	PC	PC
Run 1	100.2	99.64	99.22
Run 2	100.6	101.6	101.2
Run 3	99.16	99.76	99.55
Mean	100.00	100.00	100.00
Std Dev	0.7585	1.494	1.069

Multi-Element Concentrations Fri May 30 1997
Statistics for Concentration Determination.
Analysis procedure : 200.8

Sample name : 25.0 ppb Calibration Standard

First repeat started at : Fri May 30 1997 13:38:39

Last repeat started at : Fri May 30 1997 13:40:47

Interference Equations : DEFAULT

Dilution Factor : 1.0000 Concentration units : ppb

Element	Beryllium	Cobalt	Arsenic	Selenium	Selenium	Selenium	Molybdenum
Isotope	Be 9	Co 59	As 75	Se 77	Se 78	Se 82	Mo 95
Detector	PC	PC	PC	PC	PC	PC	PC
Run 1	24.59	24.84	25.06	25.86	24.70	25.88	24.35
Run 2	24.78	25.29	24.74	24.52	25.00	24.48	24.76
Run 3	25.63	24.87	25.20	24.63	25.30	24.64	25.89
Mean	25.00	25.00	25.00	25.00	25.00	25.00	25.00
Std Dev	0.5529	0.2541	0.2391	0.7442	0.2984	0.7631	0.7977
%SD	2.211	1.016	0.9564	2.977	1.193	3.052	3.191

Element	Molybdenum	Molybdenum	Ruthenium	Ruthenium	Ruthenium	Rhodium
Isotope	Mo 97	Mo 98	Ru 99	Ru 101	Ru 102	Rh 103
Detector	PC	PC	PC	PC	PC	PC
Run 1	24.13	24.76	0.0059	0.0014	-0.0013	0.0004
Run 2	24.69	24.14	0.0056	0.0016	-0.0010	-0.0002
Run 3	26.19	26.10	0.0057	0.0018	-0.0003	0.0009
Mean	25.00	25.00	0.0057	0.0016	-0.0009	0.0004
Std Dev	1.064	1.002	0.0001	0.0002	0.0005	0.0005
%SD	4.257	4.008	2.330	13.33	51.63	139.4

Element	Palladium	Palladium	Silver	Silver	Cadmium	Cadmium
Isotope	Pd 104	Pd 105	Ag 107	Ag 109	Cd 111	Cd 112
Detector	PC	PC	PC	PC	PC	PC
Run 1	-0.0007	0.1574	24.91	24.52	25.17	24.77
Run 2	0.0023	-0.0827	24.55	24.72	24.47	24.70
Run 3	0.0028	-0.0655	25.54	25.76	25.35	25.53
Mean	0.0015	0.0031	25.00	25.00	25.00	25.00
Std Dev	0.0019	0.1339	0.4976	0.6664	0.4629	0.4595
%SD	129.1	4367	1.990	2.666	1.852	1.838

Element	Tin	Cadmium	Tin	Tin	Tin	Antimony
Isotope	Sn 114	Cd 114	Sn 117	Sn 119	Sn 120	Sb 121
Detector	PC	PC	PC	PC	PC	PC
Run 1	25.07	25.07	24.83	25.24	24.17	25.05
Run 2	24.72	24.72	24.45	24.83	25.89	24.74
Run 3	25.20	25.20	25.72	24.93	24.94	25.21
Mean	25.00	25.00	25.00	25.00	25.00	25.00
Std Dev	0.2479	0.2479	0.6511	0.2137	0.8631	0.2360
%SD	0.9915	0.9915	2.604	0.8548	3.453	0.9438

Element	Tin	Antimony	Rhenium	Rhenium	Osmium	Osmium

00383

Element	Tin	Antimony	Rhenium	Rhenium	Osmium	Osmium
Isotope	Sn 122	Sb 123	Re 185	Re 187	Os 189	Os 189
Detector	PC	PC	PC	PC	PC	PC
Isotope	Sn 122	Sb 123	Re 185	Re 187	Os 189	Os 189
Detector	PC	PC	PC	PC	PC	PC
Run 1	25.50	25.07	-0.0007	-0.0000	-0.0018	-0.0071
Run 2	24.05	25.04	0.0000	-0.0002	-0.0139	-0.0150
Run 3	25.45	24.89	-0.0006	0.0000	-0.0185	-0.0175
Mean	25.00	25.00	-0.0004	-0.0001	-0.0114	-0.0132
Std Dev	0.8252	0.0933	0.0004	0.0001	0.0086	0.0054
%SD	3.301	0.3730	96.02	184.3	75.82	41.21

Element	Osmium	Iridium	Iridium	Platinum	Platinum	Platinum
Isotope	Os 190	Ir 191	Ir 193	Pt 194	Pt 195	Pt 196
Detector	PC	PC	PC	PC	PC	PC
Run 1	-0.0075	-0.0120	-0.0024	0.0022	-0.0016	-0.0000
Run 2	-0.0083	-0.0109	-0.0024	0.0017	0.0003	0.0012
Run 3	-0.0172	-0.0476	-0.0020	0.0002	-0.0007	-0.0015
Mean	-0.0110	-0.0235	-0.0023	0.0014	-0.0007	-0.0001
Std Dev	0.0054	0.0209	0.0002	0.0011	0.0010	0.0014
%SD	49.11	88.84	10.51	77.74	148.7	1464

Element	Gold	Thallium	Thallium
Isotope	Au 197	Tl 203	Tl 205
Detector	PC	PC	PC
Run 1	0.0019	25.55	25.25
Run 2	0.0001	25.02	25.21
Run 3	-0.0069	24.43	24.53
Mean	-0.0016	25.00	25.00
Std Dev	0.0046	0.5597	0.4071
%SD	285.0	2.239	1.628

Internal Standard Drift; % relative to mean of first sample :

Element	Scandium	Yttrium	Bismuth
Isotope	Sc 45	Y 89	Bi 209
Detector	PC	PC	PC
Run 1	100.8	98.53	96.44
Run 2	100.9	100.3	95.94
Run 3	101.1	98.96	100.2
Mean	100.9	99.26	97.54
Std Dev	0.1606	0.9202	2.350

Multi-Element Concentrations Fri May 30 1997
Statistics for Concentration Determination.
Analysis procedure : 200.8

Sample name : 25.0 ppb Odd Element Calib. Standard

First repeat started at : Fri May 30 1997 13:42:13

Last repeat started at : Fri May 30 1997 13:44:21

Interference Equations : DEFAULT

Dilution Factor : 1.0000 Concentration units : ppb

Element	Beryllium	Cobalt	Arsenic	Selenium	Selenium	Selenium	Molybdenum
Isotope	Be 9	Co 59	As 75	Se 77	Se 78	Se 82	Mo 95
Detector	PC	PC	PC	PC	PC	PC	PC
Run 1	0.0193	0.0125	-0.4468	0.2078	0.1332	0.2107	0.2879
Run 2	0.0066	0.0083	0.4312	0.0953	0.1581	0.0991	0.1149
Run 3	0.0051	0.0031	-0.2533	0.0397	0.1989	0.0487	0.0598
Mean	0.0103	0.0079	-0.0896	0.1143	0.1634	0.1195	0.1542
Std Dev	0.0078	0.0047	0.4613	0.0857	0.0332	0.0829	0.1189
%SD	75.43	59.36	514.6	74.94	20.30	69.35	77.15

Element	Molybdenum	Molybdenum	Ruthenium	Ruthenium	Ruthenium	Rhodium
Isotope	Mo 97	Mo 98	Ru 99	Ru 101	Ru 102	Rh 103
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.2666	2.287	24.69	24.66	24.47	24.41
Run 2	0.1117	2.191	24.94	25.13	25.29	25.41
Run 3	0.0719	2.124	25.36	25.22	25.23	25.17
Mean	0.1500	2.202	25.00	25.00	25.00	25.00
Std Dev	0.1029	0.0809	0.3406	0.3006	0.4567	0.5224
%SD	68.59	3.674	1.362	1.202	1.827	2.090

Element	Palladium	Palladium	Silver	Silver	Cadmium	Cadmium
Isotope	Pd 104	Pd 105	Ag 107	Ag 109	Cd 111	Cd 112
Detector	PC	PC	PC	PC	PC	PC
Run 1	24.95	24.90	0.0851	0.0837	0.0163	0.0153
Run 2	24.84	25.32	0.0301	0.0269	0.0061	0.0093
Run 3	25.21	24.78	0.0156	0.0168	0.0026	0.0002
Mean	25.00	25.00	0.0436	0.0425	0.0083	0.0083
Std Dev	0.1864	0.2808	0.0366	0.0361	0.0071	0.0076
%SD	0.7454	1.123	84.04	84.91	85.54	92.13

Element	Tin	Cadmium	Tin	Tin	Tin	Antimony
Isotope	Sn 114	Cd 114	Sn 117	Sn 119	Sn 120	Sb 121
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.0122	0.0122	-0.0043	-0.0162	-0.0319	0.1777
Run 2	0.0112	0.0112	-0.0160	-0.0142	-0.0361	0.0974
Run 3	0.0031	0.0031	0.0243	0.0142	0.0191	0.0698
Mean	0.0088	0.0088	0.0013	-0.0054	-0.0163	0.1150
Std Dev	0.0050	0.0050	0.0207	0.0179	0.0307	0.0561
%SD	56.26	56.26	1543	315.4	188.5	48.76

Element	Tin	Antimony	Rhenium	Rhenium	Osmium	Osmium

00385

Element	Tin	Antimony	Rhenium	Rhenium	Osmium	Osmium
Isotope	Sn 122	Sb 123	Re 185	Re 187	Os 188	Os 189
Detector	PC	PC	PC	PC	PC	PC
Isotope	Sn 122	Sb 123	Re 185	Re 187	Os 188	Os 189
Detector	PC	PC	PC	PC	PC	PC
Run 1	-0.0103	0.1703	25.32	24.96	24.07	24.44
Run 2	-0.0282	0.0930	24.88	24.90	25.54	25.10
Run 3	-0.0325	0.0775	24.80	25.06	25.39	25.46
Mean	-0.0237	0.1136	25.00	25.00	25.00	25.00
Std Dev	0.0118	0.0497	0.2767	0.0539	0.8087	0.5190
%SD	49.89	43.76	1.107	0.2156	3.235	2.072

Element	Osmium	Iridium	Iridium	Platinum	Platinum	Platinum
Isotope	Os 190	Ir 191	Ir 193	Pt 194	Pt 195	Pt 196
Detector	PC	PC	PC	PC	PC	PC
Run 1	24.91	24.93	25.25	25.36	25.23	25.05
Run 2	25.05	24.95	24.87	24.70	24.98	25.03
Run 3	25.04	25.12	24.88	24.94	24.79	24.92
Mean	25.00	25.00	25.00	25.00	25.00	25.00
Std Dev	0.0753	0.1075	0.2204	0.3362	0.2212	0.0682
%SD	0.3013	0.4300	0.8815	1.345	0.8847	0.2727

Element	Gold	Thallium	Thallium
Isotope	Au 197	Tl 203	Tl 205
Detector	PC	PC	PC
Run 1	24.92	0.1374	0.0527
Run 2	25.45	0.1143	0.0310
Run 3	24.63	0.1166	0.0216
Mean	25.00	0.1227	0.0351
Std Dev	0.4180	0.0127	0.0160
%SD	1.672	10.36	45.46

Internal Standard Drift; % relative to mean of first sample :

Element	Scandium	Yttrium	Bismuth
Isotope	Sc 45	Y 89	Bi 209
Detector	PC	PC	PC
Run 1	104.4	103.2	99.60
Run 2	102.8	101.4	100.1
Run 3	105.4	102.0	100.8
Mean	104.2	102.2	100.2
Std Dev	1.279	0.9235	0.5954

Multi-Element Concentrations Fri May 30 1997
Statistics for Concentration Determination.
Analysis procedure : 200.8

Sample name : 1

First repeat started at : Fri May 30 1997 13:45:56

Last repeat started at : Fri May 30 1997 13:48:03

Interference Equations : DEFAULT

Dilution Factor : 1.0000 Concentration units : ppb

Element	Beryllium	Cobalt	Arsenic	Selenium	Selenium	Selenium	Molybdenum
Isotope	Be 9	Co 59	As 75	Se 77	Se 78	Se 82	Mo 95
Detector	PC	PC	PC	PC	PC	PC	PC
Run 1	0.0037	0.0024	0.4329	-0.0389	0.1653	-0.0326	0.0296
Run 2	0.0042	0.0017	-0.6293	-0.0747	0.1183	-0.0699	0.0182
Run 3	0.0013	0.0017	0.3819	0.1532	0.7165	0.1579	0.0157
Mean	0.0031	0.0019	0.0618	0.0132	0.3334	0.0218	0.0212
Std Dev	0.0015	0.0004	0.5990	0.1225	0.3327	0.1279	0.0074
%SD	49.93	22.19	969.0	928.1	99.79	586.3	34.95

Element	Molybdenum	Molybdenum	Ruthenium	Ruthenium	Ruthenium	Rhodium
Isotope	Mo 97	Mo 98	Ru 99	Ru 101	Ru 102	Rh 103
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.0379	2.057	25.13	24.86	24.55	24.63
Run 2	0.0389	2.119	25.27	24.70	25.06	24.97
Run 3	0.0210	2.107	25.19	25.10	24.81	25.00
Mean	0.0326	2.094	25.20	24.89	24.81	24.86
Std Dev	0.0100	0.0330	0.0708	0.2006	0.2567	0.2039
%SD	30.73	1.575	0.2810	0.8062	1.035	0.8199

ICV-2

Element	Palladium	Palladium	Silver	Silver	Cadmium	Cadmium
Isotope	Pd 104	Pd 105	Ag 107	Ag 109	Cd 111	Cd 112
Detector	PC	PC	PC	PC	PC	PC
Run 1	24.86	25.31	0.0139	0.0079	0.0032	0.0005
Run 2	25.39	25.22	0.0107	0.0087	0.0036	0.0001
Run 3	25.90	25.51	0.0078	0.0077	0.0086	-0.0009
Mean	25.38	25.35	0.0108	0.0081	0.0051	-0.0001
Std Dev	0.5202	0.1476	0.0031	0.0005	0.0030	0.0006
%SD	2.050	0.5823	28.34	6.649	59.01	793.3

Element	Tin	Cadmium	Tin	Tin	Tin	Antimony
Isotope	Sn 114	Cd 114	Sn 117	Sn 118	Sn 120	Sb 121
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.0007	0.0007	-0.0302	0.0079	-0.0420	0.0656
Run 2	0.0050	0.0050	-0.0267	0.0488	-0.0420	0.0669
Run 3	0.0031	0.0031	-0.0285	-0.0258	-0.0383	0.0442
Mean	0.0029	0.0029	-0.0295	0.0103	-0.0408	0.0589
Std Dev	0.0022	0.0022	0.0017	0.0374	0.0021	0.0127
%SD	74.44	74.44	6.009	362.8	5.185	21.60

Element	Tin	Antimony	Rhenium	Rhenium	Osmium	Osmium

00387

Element	Tin	Antimony	Rhenium	Rhenium	Osmium	Osmium
Isotope	Sn 122	Sb 123	Re 185 ✓	Re 187	Os 188	Os 189 ✓
Detector	PC	PC	PC	PC	PC	PC
Isotope	Sn 122	Sb 123	Re 185	Re 187	Os 188	Os 189
Detector	PC	PC	PC	PC	PC	PC
Run 1	-0.0331	0.0693	24.57	24.96	25.99	25.61
Run 2	-0.0377	0.0554	25.17	24.63	25.46	26.14
Run 3	-0.0192	0.0504	24.56	24.64	25.09	25.60
Mean	-0.0300	0.0584	24.75	24.75	25.51	25.79
Std Dev	0.0096	0.0099	0.3644	0.1844	0.4512	0.3122
%SD	32.09	16.80	1.472	0.7451	1.769	1.211

ICV-2

Element	Osmium	Iridium	Iridium ✓	Platinum	Platinum ✓	Platinum
Isotope	Os 190	Ir 191	Ir 193	Pt 194	Pt 195	Pt 196
Detector	PC	PC	PC	PC	PC	PC
Run 1	25.33	25.34	25.01	25.22	24.51	24.93
Run 2	25.61	24.76	24.89	25.17	25.18	24.89
Run 3	25.01	24.32	24.43	24.42	24.29	24.90
Mean	25.32	24.80	24.78	24.93	24.66	24.91
Std Dev	0.3008	0.5143	0.3104	0.4459	0.4635	0.0185
%SD	1.188	2.074	1.253	1.788	1.880	0.0743

Element	Gold ✓	Thallium	Thallium
Isotope	Au 197	Tl 203	Tl 205
Detector	PC	PC	PC
Run 1	24.93	0.1013	0.0181
Run 2	24.89	0.1056	0.0182
Run 3	24.88	0.1077	0.0179
Mean	24.90	0.1048	0.0180
Std Dev	0.0292	0.0032	0.0001
%SD	0.1134	3.090	0.7641

Internal Standard Drift; % relative to mean of first sample :

Element	Scandium	Yttrium	Bismuth
Isotope	Sc 45	Y 89	Bi 209
Detector	PC	PC	PC
Run 1	105.0	102.6	101.7
Run 2	106.1	104.3	101.6
Run 3	108.4	103.1	101.7
Mean	106.5	103.3	101.6
Std Dev	1.712	0.8590	0.0498

Multi-Element Concentrations Fri May 30 1997

Statistics for Concentration Determination.

Analysis procedure : 200.8

Sample name : 2

First repeat started at : Fri May 30 1997 13:50:58

Last repeat started at : Fri May 30 1997 13:53:06

Interference Equations : DEFAULT

Dilution Factor : 1.0000 Concentration units : ppb

Element	Beryllium	Cobalt	Arsenic	Selenium	Selenium	Selenium	Molybdenum
Isotope	Be 9	Co 59	As 75	Se 77	Se 78	Se 82	Mo 95
Detector	PC	PC	PC	PC	PC	PC	PC
Run 1	5.333	50.90	50.79	52.61	52.21	52.77	53.17
Run 2	5.301	51.34	50.01	51.25	52.48	51.31	52.95
Run 3	5.392	53.03	50.97	51.36	53.50	51.45	53.84
Mean	5.342	51.76	50.59	51.74	52.73	51.84	53.32
Std Dev	0.0460	1.125	0.5102	0.7554	0.6798	0.8021	0.4650
%SD	0.8604	2.173	1.008	1.460	1.289	1.547	0.8720

Element	Molybdenum	Molybdenum	Ruthenium	Ruthenium	Ruthenium	Rhodium
Isotope	Mo 97	Mo 98	Ru 99	Ru 101	Ru 102	Rh 103
Detector	PC	PC	PC	PC	PC	PC
Run 1	52.97	53.28	0.0085	0.0108	0.0087	0.0044
Run 2	51.91	53.71	0.0064	0.0077	0.0050	0.0031
Run 3	53.08	53.83	0.0085	0.0053	0.0045	0.0031
Mean	52.65	53.60	0.0078	0.0079	0.0061	0.0035
Std Dev	0.6453	0.2923	0.0012	0.0028	0.0023	0.0007
%SD	1.226	0.5452	15.25	35.09	37.47	20.71

ICV-2

Element	Palladium	Palladium	Silver	Silver	Cadmium	Cadmium
Isotope	Pd 104	Pd 105	Ag 107	Ag 109	Cd 111	Cd 112
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.0533	0.2341	32.77	32.17	25.23	26.19
Run 2	0.0433	0.2349	31.39	31.79	25.62	25.91
Run 3	0.0337	0.1551	33.46	33.29	26.08	27.13
Mean	0.0435	0.2081	32.54	32.42	25.64	26.38
Std Dev	0.0098	0.0458	1.054	0.7791	0.4237	0.6802
%SD	22.56	22.02	3.240	2.403	1.652	2.578

Element	Tin	Cadmium	Tin	Tin	Tin	Antimony
Isotope	Sn 114	Cd 114	Sn 117	Sn 118	Sn 120	Sb 121
Detector	PC	PC	PC	PC	PC	PC
Run 1	25.79	25.79	24.45	24.49	22.98	50.30
Run 2	25.79	25.79	24.38	24.19	24.59	50.01
Run 3	26.52	26.52	27.94	25.93	24.82	51.37
Mean	26.03	26.03	25.59	24.87	24.13	50.56
Std Dev	0.4214	0.4214	2.036	0.9327	1.0000	0.7161
%SD	1.619	1.619	7.956	3.750	4.144	1.416

Element	Tin	Antimony	Rhenium	Rhenium	Osmium	Osmium

00389

Element	Tin	Antimony	Rhenium	Rhenium	Osmium	Osmium
Isotope	Sn 122	Sb 123	Re 185	Re 187	Os 188	Os 189
Detector	PC	PC	PC	PC	PC	PC
Isotope	Sn 122	Sb 123	Re 185	Re 187	Os 188	Os 189
Detector	PC	PC	PC	PC	PC	PC
Run 1	25.58	49.95	0.0033	0.0053	0.0833	0.0554
Run 2	23.91	49.93	0.0037	0.0031	0.0370	0.0240
Run 3	24.15	50.79	0.0023	0.0030	0.0102	0.0144
Mean	24.55	50.19	0.0031	0.0038	0.0435	0.0346
Std Dev	0.8992	0.5196	0.0007	0.0013	0.0370	0.0271
%SD	3.663	1.035	23.63	33.62	85.01	78.27

Element	Osmium	Iridium	Iridium	Platinum	Platinum	Platinum
Isotope	Os 190	Ir 191	Ir 193	Pt 194	Pt 195	Pt 196
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.0763	0.0767	0.0516	0.0113	0.0139	0.0080
Run 2	0.0329	0.0077	0.0351	0.0063	0.0039	0.0098
Run 3	0.0179	0.0037	0.0348	0.0072	0.0034	0.0045
Mean	0.0424	0.0293	0.0405	0.0083	0.0071	0.0074
Std Dev	0.0303	0.0410	0.0096	0.0027	0.0059	0.0027
%SD	71.60	139.8	23.67	32.43	83.83	36.38

Element	Gold	Thallium	Thallium
Isotope	Au 197	Tl 203	Tl 205
Detector	PC	PC	PC
Run 1	0.0672	50.53	52.33
Run 2	0.0350	50.47	51.35
Run 3	0.0258	49.47	51.60
Mean	0.0427	50.15	51.76
Std Dev	0.0218	0.5952	0.5079
%SD	50.96	1.187	0.9812

ICV-2

Internal Standard Drift; % relative to mean of first sample :

Element	Scandium	Yttrium	Bismuth
Isotope	Sc 45	Y 89	Bi 209
Detector	PC	PC	PC
Run 1	101.6	97.27	98.32
Run 2	99.94	97.08	98.69
Run 3	98.31	95.10	100.4
Mean	99.96	96.49	99.15
Std Dev	1.656	1.203	1.139

Multi-Element Concentrations Fri May 30 1997
Statistics for Concentration Determination.
Analysis procedure : 200.8

Sample name : 3

First repeat started at : Fri May 30 1997 13:54:49

Last repeat started at : Fri May 30 1997 13:56:56

Interference Equations : DEFAULT

Dilution Factor : 1.0000 Concentration units : ppb

Element	Beryllium	Cobalt	Arsenic	Selenium	Selenium	Selenium	Molybdenum
Isotope	Be 9	Co 59	As 75	Se 77	Se 78	Se 82	Mo 95
Detector	PC	PC	PC	PC	PC	PC	PC
Run 1	0.0020	0.0287	0.5211	0.2379	0.6206	0.2441	0.4448
Run 2	0.0011	0.0098	0.4935	0.0036	1.021	0.0096	0.2366
Run 3	0.0007	0.0042	0.6713	0.0324	0.1904	0.0430	0.1239
Mean	0.0013	0.0142	0.5619	0.0913	0.6108	0.0989	0.2684
Std Dev	0.0006	0.0129	0.0957	0.1278	0.4156	0.1269	0.1628
%SD	48.45	90.27	17.03	140.0	68.04	128.3	60.64

Element	Molybdenum	Molybdenum	Ruthenium	Ruthenium	Ruthenium	Rhodium
Isotope	Mo 97	Mo 98	Ru 99	Ru 101	Ru 102	Rh 103
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.4952	2.524	24.43	24.81	24.19	24.55
Run 2	0.2344	2.315	24.67	25.10	25.02	24.47
Run 3	0.1469	2.157	24.97	24.93	25.31	24.93
Mean	0.2921	2.332	24.69	24.95	24.84	24.65
Std Dev	0.1812	0.1839	0.2705	0.1485	0.5806	0.2452
%SD	62.03	7.883	1.096	0.5952	2.337	0.9948

CCV 3

Element	Palladium	Palladium	Silver	Silver	Cadmium	Cadmium
Isotope	Pd 104	Pd 105	Ag 107	Ag 109	Cd 111	Cd 112
Detector	PC	PC	PC	PC	PC	PC
Run 1	25.20	25.54	0.0747	0.0702	0.0145	0.0182
Run 2	24.81	25.35	0.0306	0.0318	0.0127	0.0067
Run 3	25.69	25.63	0.0227	0.0295	-0.0022	0.0005
Mean	25.23	25.51	0.0427	0.0408	0.0083	0.0085
Std Dev	0.4354	0.1436	0.0281	0.0261	0.0092	0.0090
%SD	1.725	0.5628	65.74	63.84	110.1	106.0

Element	Tin	Cadmium	Tin	Tin	Tin	Antimony
Isotope	Sn 114	Cd 114	Sn 117	Sn 118	Sn 120	Sb 121
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.0179	0.0179	0.0001	-0.0156	0.0160	0.4689
Run 2	0.0069	0.0069	0.0133	-0.0207	-0.0349	0.2597
Run 3	0.0071	0.0071	-0.0137	-0.0262	-0.0342	0.1706
Mean	0.0106	0.0106	-0.0001	-0.0208	-0.0177	0.2997
Std Dev	0.0063	0.0063	0.0135	0.0053	0.0292	0.1531
%SD	59.22	59.22	12094	25.58	164.6	51.08

Element	Tin	Antimony	Rhenium	Rhenium	Osmium	Osmium

00391

Element	Tin	Antimony	Rhenium	Rhenium	Osmium	Osmium
Isotope	Sn 122	Sb 123	Re 185	Re 187	Os 188	Os 189
Detector	PC	PC	PC	PC	PC	PC
Isotope	Sn 122	Sb 123	Re 185	Re 187	Os 188	Os 189
Detector	PC	PC	PC	PC	PC	PC
Run 1	-0.0305	0.5067	24.92	25.00	23.29	24.19
Run 2	-0.0233	0.2603	25.10	25.12	24.51	24.72
Run 3	-0.0244	0.1918	24.95	25.47	24.95	25.68
Mean	-0.0260	0.3163	24.99	25.19	24.25	24.86
Std Dev	0.0039	0.1695	0.0946	0.2463	0.8568	0.4431
%SD	14.95	53.60	0.3786	0.9775	3.533	1.796

Element	Osmium	Iridium	Iridium	Platinum	Platinum	Platinum
Isotope	Os 190	Ir 191	Ir 193	Pt 194	Pt 195	Pt 196
Detector	PC	PC	PC	PC	PC	PC
Run 1	23.69	24.80	24.72	25.00	25.12	24.70
Run 2	24.52	25.06	24.77	24.85	24.64	24.94
Run 3	25.16	25.11	24.52	24.95	24.83	24.99
Mean	24.46	24.99	24.67	24.90	24.86	24.88
Std Dev	0.7353	0.1661	0.1337	0.0954	0.2424	0.1517
%SD	3.006	0.6645	0.5420	0.3432	0.9753	0.6097

Element	Gold	Thallium	Thallium
Isotope	Au 197	Tl 203	Tl 205
Detector	PC	PC	PC
Run 1	23.94	0.1611	0.0660
Run 2	24.50	0.1222	0.0359
Run 3	24.62	0.1214	0.0253
Mean	24.35	0.1349	0.0424
Std Dev	0.3660	0.0227	0.0211
%SD	1.503	16.83	49.87

Internal Standard Drift; % relative to mean of first sample :

Element	Scandium	Yttrium	Bismuth
Isotope	Sc 45	Y 89	Bi 209
Detector	PC	PC	PC
Run 1	98.61	96.46	98.12
Run 2	99.38	97.25	98.95
Run 3	100.5	96.79	100.6
Mean	99.50	96.83	99.23
Std Dev	0.9559	0.3969	1.274

Multi-Element Concentrations Fri May 30 1997
Statistics for Concentration Determination.
Analysis procedure : 200.8

Sample name : 1

First repeat started at : Fri May 30 1997 13:58:38

Last repeat started at : Fri May 30 1997 14:00:15

Interference Equations : DEFAULT

Dilution Factor : 1.0000 Concentration units : ppb

Element	Beryllium	Cobalt	Arsenic	Selenium	Selenium	Selenium	Molybdenum
Isotope	Be 9	Co 59	As 75	Se 77	Se 78	Se 82	Mo 95
Detector	$PC_{25.38}$	$PC_{25.03}$	$PC_{25.38}$	$PC_{25.39}$	$PC_{25.85}$	$PC_{25.43}$	$PC_{24.94}$
Run 1							
Run 2	25.73	24.77	24.33	25.57	26.15	25.59	25.32
Run 3	24.94	24.90	24.39	24.69	25.69	24.69	24.95
Mean	25.32	24.90	24.70	25.22	25.90	25.24	25.07
Std Dev	0.4506	0.1294	0.5865	0.4640	0.2337	0.4799	0.2158
%SD	1.780	0.5198	2.375	1.840	0.9026	1.897	0.8601

Element	Molybdenum	Molybdenum	Ruthenium	Ruthenium	Ruthenium	Rhodium
Isotope	Mo 97	Mo 98	Ru 99	Ru 101	Ru 102	Rh 103
Detector	PC	PC	PC	PC	PC	PC
Run 1	24.89	24.99	0.0133	0.0146	0.0181	0.0101
Run 2	24.59	25.01	0.0070	0.0060	0.0073	0.0045
Run 3	24.77	24.94	0.0077	0.0051	0.0056	0.0030
Mean	24.75	24.98	0.0093	0.0086	0.0103	0.0059
Std Dev	0.1508	0.0326	0.0035	0.0053	0.0068	0.0037
%SD	0.6093	0.1304	37.12	61.51	65.73	63.60

CCV3

Element	Palladium	Palladium	Silver	Silver	Cadmium	Cadmium
Isotope	Pd 104	Pd 105	Ag 107	Ag 109	Cd 111	Cd 112
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.0900	0.4066	25.01	25.09	24.28	25.02
Run 2	0.0501	0.3122	25.26	25.22	24.17	25.17
Run 3	0.0374	0.1890	24.97	24.50	25.19	25.41
Mean	0.0591	0.2956	25.07	24.93	24.55	25.27
Std Dev	0.0274	0.1363	0.1702	0.3844	0.5580	0.3029
%SD	46.37	47.72	0.6792	1.541	2.273	1.198

Element	Tin	Cadmium	Tin	Tin	Tin	Antimony
Isotope	Sn 114	Cd 114	Sn 117	Sn 118	Sn 120	Sb 121
Detector	PC	PC	PC	PC	PC	PC
Run 1	24.91	24.91	24.74	24.68	24.18	24.86
Run 2	24.91	24.91	26.00	25.15	23.81	25.12
Run 3	24.91	24.91	25.73	23.97	24.66	25.25
Mean	24.91	24.91	25.49	24.57	24.22	25.07
Std Dev	0.0019	0.0019	0.6622	0.6501	0.4277	0.1971
%SD	0.0075	0.0075	2.598	2.646	1.766	0.7861

00393

Element	Tin	Antimony	Rhenium	Rhenium	Osmium	Osmium

Element	Tin	Antimony	Rhenium	Rhenium	Osmium	Osmium
Isotope	Sn 122	Sb 123	Re 185	Re 187	Os 188	Os 189
Detector	PC	PC	PC	PC	PC	PC
Isotope	Sn 122	Sb 123	Re 185	Re 187	Os 189	Os 189
Detector	PC	PC	PC	PC	PC	PC
Run 1	23.20	24.64	0.0118	0.0275	0.5646	0.5608
Run 2	25.52	24.73	0.0050	0.0103	0.2113	0.2051
Run 3	23.92	24.56	0.0025	0.0063	0.1370	0.1037
Mean	24.21	24.64	0.0064	0.0147	0.3043	0.2899
Std Dev	1.189	0.0834	0.0048	0.0113	0.2285	0.2400
%SD	4.909	0.3383	74.64	76.50	75.09	82.81

CCV-3

Element	Osmium	Iridium	Iridium	Platinum	Platinum	Platinum
Isotope	Os 190	Ir 191	Ir 193	Pt 194	Pt 195	Pt 196
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.5524	0.0567	0.0541	0.0323	0.0341	0.0327
Run 2	0.2134	0.0184	0.0285	0.0110	0.0029	0.0072
Run 3	0.1223	-0.0162	0.0204	0.0001	0.0023	0.0045
Mean	0.2960	0.0196	0.0344	0.0144	0.0131	0.0148
Std Dev	0.2267	0.0364	0.0176	0.0164	0.0181	0.0156
%SD	76.57	185.7	51.27	113.2	138.3	105.0

Element	Gold	Thallium	Thallium
Isotope	Au 197	Tl 203	Tl 205
Detector	PC	PC	PC
Run 1	0.1512	24.84	24.93
Run 2	0.0701	24.96	25.60
Run 3	0.0365	24.88	25.12
Mean	0.0859	24.89	25.22
Std Dev	0.0590	0.0577	0.3421
%SD	68.61	0.2317	1.356

Internal Standard Drift; % relative to mean of first sample :

Element	Scandium	Yttrium	Bismuth
Isotope	Sc 45	Y 89	Bi 209
Detector	PC	PC	PC
Run 1	101.2	98.37	100.1
Run 2	99.97	97.66	99.28
Run 3	100.9	99.15	101.9
Mean	100.7	98.39	100.4
Std Dev	0.6299	0.7478	1.326

Multi-Element Concentrations Fri May 30 1997
Statistics for Concentration Determination.
Analysis procedure : 200.8

Sample name : 5

First repeat started at : Fri May 30 1997 14:12:52

Last repeat started at : Fri May 30 1997 14:14:59

Interference Equations : DEFAULT

Dilution Factor : 1.0000 Concentration units : ppb

Element	Beryllium	Cobalt	Arsenic	Selenium	Selenium	Selenium	Molybdenum
Isotope	Be 9	Co 59	As 75	Se 77	Se 79	Se 82	Mo 95
Detector	PC	PC	PC	PC	PC	PC	PC
Run 1	-0.0025	0.0015	0.0221	-0.1092	0.3529	-0.1179	0.0041
Run 2	-0.0006	-0.0002	-0.5121	-0.0555	0.1839	-0.0642	-0.0020
Run 3	-0.0017	-0.0004	-0.2529	0.0596	0.5449	0.0576	0.0000
Mean	-0.0016	0.0002	-0.2476	-0.0351	0.3605	-0.0412	0.0007
Std Dev	0.0009	0.0011	0.2671	0.0862	0.1806	0.0895	0.0031
%SD	59.34	485.9	107.9	246.0	50.10	217.3	448.7

Element	Molybdenum	Molybdenum	Ruthenium	Ruthenium	Ruthenium	Rhodium
Isotope	Mo 97	Mo 98	Ru 99	Ru 101	Ru 102	Rh 103
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.0116	0.0062	-0.0013	0.0008	0.0016	-0.0003
Run 2	0.0155	0.0021	-0.0044	0.0033	0.0019	0.0000
Run 3	-0.0009	0.0037	0.0031	0.0024	0.0009	-0.0002
Mean	0.0087	0.0040	-0.0009	0.0022	0.0015	-0.0002
Std Dev	0.0086	0.0020	0.0038	0.0013	0.0006	0.0001
%SD	98.41	50.91	429.6	57.45	41.14	98.95

CCB-3

Element	Palladium	Palladium	Silver	Silver	Cadmium	Cadmium
Isotope	Pd 104	Pd 105	Ag 107	Ag 109	Cd 111	Cd 112
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.0382	0.0826	0.0518	~~0.0512~~	0.0077	0.0088
Run 2	0.0194	0.1877	0.0104	0.0096	-0.0005	-0.0007
Run 3	0.0066	0.1341	0.0061	0.0058	0.0001	0.0010
Mean	0.0214	0.1348	0.0228	~~0.0222~~ 0.0077	0.0024	0.0031
Std Dev	0.0159	0.0526	0.0252	0.0252	0.0045	0.0051
%SD	74.26	39.00	110.7	113.3	185.7	165.0

5/30/97 OD

Element	Tin	Cadmium	Tin	Tin	Tin	Antimony
Isotope	Sn 114	Cd 114	Sn 117	Sn 119	Sn 120	Sb 121
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.0103	0.0103	0.0484	0.0445	0.0182	0.0046
Run 2	0.0024	0.0024	-0.0039	-0.0006	-0.0179	0.0039
Run 3	0.0035	0.0035	-0.0009	-0.0125	-0.0136	0.0049
Mean	0.0054	0.0054	0.0145	0.0105	-0.0044	0.0045
Std Dev	0.0043	0.0043	0.0294	0.0301	0.0197	0.0005
%SD	79.68	79.68	201.9	287.7	443.2	11.71

Element	Tin	Antimony	Rhenium	Rhenium	Osmium	Osmium

00395

Element	Tin	Antimony	Rhenium	Rhenium	Osmium	Osmium
Isotope	Sn 122	Sb 123	Re 185	Re 187	Os 188	Os 189
Detector	PC	PC	PC	PC	PC	PC
Isotope	Sn 122	Sb 123	Re 185	Re 187	Os 188	Os 189
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.0255	0.0054	-0.0011	0.0022	0.0977	~~0.0878~~
Run 2	0.0190	0.0034	-0.0013	0.0018	0.0461	0.0416
Run 3	-0.0070	0.0068	-0.0006	0.0010	0.0381	0.0307
Mean	0.0125	0.0051	-0.0010	0.0017	0.0606	~~0.0534~~
Std Dev	0.0172	0.0015	0.0004	0.0006	0.0324	0.0303
%SD	137.6	30.35	35.20	35.96	53.35	56.83

Element	Osmium	Iridium	Iridium	Platinum	Platinum	Platinum
Isotope	Os 190	Ir 191	Ir 193	Pt 194	Pt 195	Pt 196
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.0986	-0.0542	-0.0010	0.0068	0.0063	0.0041
Run 2	0.0506	-0.0520	-0.0033	0.0015	0.0029	0.0014
Run 3	0.0390	-0.0541	0.0009	0.0021	0.0011	0.0043
Mean	0.0624	-0.0534	-0.0011	0.0035	0.0035	0.0033
Std Dev	0.0320	0.0013	0.0021	0.0029	0.0026	0.0015
%SD	51.26	2.366	190.9	84.03	76.02	50.25

Element	Gold	Thallium	Thallium
Isotope	Au 197	Tl 203	Tl 205
Detector	PC	PC	PC
Run 1	0.0082	0.0004	-0.0000
Run 2	-0.0039	-0.0021	0.0009
Run 3	-0.0069	0.0004	0.0002
Mean	-0.0009	-0.0004	0.0003
Std Dev	0.0080	0.0014	0.0005
%SD	907.8	345.7	136.1

Internal Standard Drift; % relative to mean of first sample :

Element	Scandium	Yttrium	Bismuth
Isotope	Sc 45	Y 89	Bi 209
Detector	PC	PC	PC
Run 1	105.2	108.2	114.1
Run 2	100.7	103.8	108.9
Run 3	99.99	100.6	105.2
Mean	102.0	104.2	109.5
Std Dev	2.840	3.859	4.742

Multi Element Concentrations Fri May 30 1997
Statistics for Concentration Determination.
Analysis procedure : 200.8

Sample name : 6_

First repeat started at : Fri May 30 1997 14:17:12

Last repeat started at : Fri May 30 1997 14:19:19

Interference Equations : DEFAULT

Dilution Factor : 1.0000 Concentration units : ppb

Element	Beryllium	Cobalt	Arsenic	Selenium	Selenium	Selenium	Molybdenum
Isotope	Be 9	Co 59	As 75	Se 77	Se 78	Se 82	Mo 95
Detector	PC	PC	PC	PC	PC	PC	PC
Run 1	-0.0001	0.0009	-0.0294	-0.0750	0.0879	-0.0743	-0.0050
Run 2	-0.0033	0.0008	0.2013	0.0264	0.3650	0.0262	0.0033
Run 3	-0.0013	0.0007	0.2806	-0.0470	0.4464	-0.0439	-0.0013
Mean	-0.0015	0.0008	0.1512	-0.0319	0.3064	-0.0306	-0.0010
Std Dev	0.0016	0.0001	0.1605	0.0524	0.1960	0.0515	0.0042
%SD	106.1	13.58	106.2	164.2	63.96	168.2	405.7

Element	Molybdenum	Molybdenum	Ruthenium	Ruthenium	Ruthenium	Rhodium
Isotope	Mo 97	Mo 98	Ru 99	Ru 101	Ru 102	Rh 103
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.0163	0.0155	0.0223	0.0256	0.0216	-0.0002
Run 2	0.0077	0.0117	0.0283	0.0242	0.0215	-0.0001
Run 3	0.0227	0.0111	0.0179	0.0257	0.0235	-0.0006
Mean	0.0156	0.0128	0.0229	0.0252	0.0222	-0.0003
Std Dev	0.0076	0.0024	0.0053	0.0008	0.0012	0.0003
%SD	48.51	18.64	23.10	3.309	5.277	91.31

3094 method BLANK Soils 1/10

Element	Palladium	Palladium	Silver	Silver	Cadmium	Cadmium
Isotope	Pd 104	Pd 105	Ag 107	Ag 109	Cd 111	Cd 112
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.0122	0.0765	0.0262	0.0288	0.0008	0.1699
Run 2	0.0153	-0.0019	0.0259	0.0262	-0.0006	0.1533
Run 3	0.0138	-0.0138	0.0295	0.0266	0.0050	0.1624
Mean	0.0137	0.0206	0.0272	0.0272	0.0017	0.1613
Std Dev	0.0015	0.0489	0.0020	0.0014	0.0029	0.0075
%SD	11.22	237.8	7.480	5.099	169.1	4.624

Element	Tin	Cadmium	Tin	Tin	Tin	Antimony
Isotope	Sn 114	Cd 114	Sn 117	Sn 118	Sn 120	Sb 121
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.0936	0.0936	4.615	4.518	4.430	0.0489
Run 2	0.0957	0.0957	4.628	4.463	4.266	0.0415
Run 3	0.0928	0.0928	4.704	4.487	4.290	0.0465
Mean	0.0940	0.0940	4.649	4.489	4.329	0.0456
Std Dev	0.0015	0.0015	0.0479	0.0275	0.0885	0.0039
%SD	1.583	1.583	1.031	0.6119	2.045	8.502

00397

Element	Tin	Antimony	Rhenium	Rhenium	Osmium	Osmium

Element	Tin	Antimony	Rhenium	Rhenium	Osmium	Osmium
Isotope	Sn 122	Sb 123	Re 185	Re 187	Os 188	Os 189
Detector	PC	PC	PC	PC	PC	PC
Isotope	Sn 122	Sb 123	Re 185	Re 187	Os 188	Os 189
Detector	PC	PC	PC	PC	PC	PC
Run 1	4.507	0.0419	-0.0003	0.0008	0.0242	0.0154
Run 2	4.494	0.0463	-0.0010	-0.0001	0.0130	0.0100
Run 3	4.504	0.0568	-0.0001	0.0011	0.0126	0.0039
Mean	4.501	0.0483	-0.0005	0.0004	0.0166	0.0098
Std Dev	0.0068	0.0077	0.0005	0.0006	0.0065	0.0057
%SD	0.1512	15.85	108.4	169.1	39.39	58.84

Element	Osmium	Iridium	Iridium	Platinum	Platinum	Platinum
Isotope	Os 190	Ir 191	Ir 193	Pt 194	Pt 195	Pt 196
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.0161	-0.0053	-0.0042	0.0018	0.0003	0.0015
Run 2	0.0112	-0.0700	-0.0056	0.0008	-0.0021	0.0044
Run 3	0.0060	-0.0407	-0.0069	-0.0010	-0.0022	-0.0024
Mean	0.0111	-0.0387	-0.0055	0.0005	-0.0013	0.0011
Std Dev	0.0051	0.0324	0.0013	0.0014	0.0014	0.0035
%SD	45.98	83.71	23.79	299.6	104.3	316.2

Element	Gold	Thallium	Thallium
Isotope	Au 197	Tl 203	Tl 205
Detector	PC	PC	PC
Run 1	-0.0134	0.0035	0.0001
Run 2	-0.0142	0.0012	-0.0004
Run 3	-0.0163	-0.0021	-0.0010
Mean	-0.0146	0.0009	-0.0004
Std Dev	0.0015	0.0028	0.0006
%SD	10.49	321.2	128.8

Internal Standard Drift; % relative to mean of first sample :

Element	Scandium	Yttrium	Bismuth
Isotope	Sc 45	Y 89	Bi 209
Detector	PC	PC	PC
Run 1	101.3	101.0	103.3
Run 2	101.0	101.0	103.4
Run 3	101.9	100.6	102.9
Mean	101.4	100.9	103.2
Std Dev	0.3758	0.2609	0.3118

Multi-Element Concentrations Fri May 30 1997

Statistics for Concentration Determination.

Analysis procedure : 200.8

Sample name : 7

First repeat started at : Fri May 30 1997 14:24:16

Last repeat started at : Fri May 30 1997 14:26:23

Interference Equations : DEFAULT

Dilution Factor : 1.0000 Concentration units : ppb

Element	Beryllium	Cobalt	Arsenic	Selenium	Selenium	Selenium	Molybdenum
Isotope	Be 9	Co 59	As 75	Se 77	Se 78	Se 82	Mo 95
Detector	PC	PC	PC	PC	PC	PC	PC
Run 1	44.94	46.51	26.46	39.63	39.85	38.84	65.76
Run 2	44.81	46.39	27.61	41.73	40.24	41.09	65.93
Run 3	44.36	46.54	27.21	40.29	40.14	39.64	67.52
Mean	44.70	46.48	27.09	40.55	40.08	39.86	66.40
Std Dev	0.3065	0.0792	0.5851	1.075	0.2032	1.141	0.9673
%SD	0.6857	0.1705	2.160	2.650	0.5071	2.862	1.457

Element	Molybdenum	Molybdenum	Ruthenium	Ruthenium	Ruthenium	Rhodium
Isotope	Mo 97	Mo 98	Ru 99	Ru 101	Ru 102	Rh 103
Detector	PC	PC	PC	PC	PC	PC
Run 1	64.57	65.35	0.0118	0.0110	0.0115	0.0005
Run 2	65.89	66.82	0.0098	0.0111	0.0101	0.0014
Run 3	66.89	67.58	0.0180	0.0130	0.0096	0.0013
Mean	65.78	66.58	0.0132	0.0117	0.0104	0.0011
Std Dev	1.163	1.137	0.0043	0.0011	0.0010	0.0005
%SD	1.769	1.708	32.32	9.704	9.709	43.80

3098
LCSS
1/10 + 1/2

Element	Palladium	Palladium	Silver	Silver	Cadmium	Cadmium
Isotope	Pd 104	Pd 105	Ag 107	Ag 109	Cd 111	Cd 112
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.0315	0.0140	30.25	30.49	32.24	34.09
Run 2	0.0379	-0.0801	30.88	30.84	32.55	34.63
Run 3	0.0283	-0.0299	30.99	30.35	32.07	34.78
Mean	0.0325	-0.0320	30.71	30.56	32.28	34.50
Std Dev	0.0049	0.0471	0.4033	0.2478	0.2430	0.3637
%SD	15.02	147.2	1.313	0.8107	0.7526	1.054

Element	Tin	Cadmium	Tin	Tin	Tin	Antimony
Isotope	Sn 114	Cd 114	Sn 117	Sn 118	Sn 120	Sb 121
Detector	PC	PC	PC	PC	PC	PC
Run 1	33.13	33.13	63.68	61.47	59.33	14.21
Run 2	33.40	33.40	63.84	61.92	59.61	14.53
Run 3	33.57	33.57	63.95	61.59	59.62	14.64
Mean	33.36	33.36	63.82	61.66	59.52	14.46
Std Dev	0.2226	0.2226	0.1374	0.2299	0.1646	0.2239
%SD	0.6670	0.6670	0.2153	0.3728	0.2766	1.548

00399

Element	Tin	Antimony	Rhenium	Rhenium	Osmium	Osmium

Element	Tin	Antimony	Rhenium	Rhenium	Osmium	Osmium
Isotope	Sn 122	Sb 123	Re 185	Re 187	Os 188	Os 189
Detector	PC	PC	PC	PC	PC	PC
Isotope	Sn 122	Sb 123	Re 185	Re 187	Os 188	Os 189
Detector	PC	PC	PC	PC	PC	PC
Run 1	61.11	14.61	0.0011	0.0002	0.0014	-0.0180
Run 2	60.76	14.68	0.0002	-0.0000	-0.0123	-0.0157
Run 3	61.49	14.56	0.0019	-0.0004	-0.0126	-0.0189
Mean	61.12	14.62	0.0011	-0.0001	-0.0078	-0.0175
Std Dev	0.3668	0.0625	0.0008	0.0003	0.0080	0.0017
%SD	0.6002	0.4275	80.24	342.9	102.5	9.672

Element	Osmium	Iridium	Iridium	Platinum	Platinum	Platinum
Isotope	Os 190	Ir 191	Ir 193	Pt 194	Pt 195	Pt 196
Detector	PC	PC	PC	PC	PC	PC
Run 1	-0.0119	-0.1707	-0.0060	0.0161	0.0100	0.0197
Run 2	-0.0097	-0.1467	-0.0040	0.0187	0.0230	0.0274
Run 3	-0.0143	-0.1569	-0.0059	0.0249	0.0214	0.0271
Mean	-0.0120	-0.1581	-0.0053	0.0199	0.0182	0.0247
Std Dev	0.0023	0.0121	0.0011	0.0045	0.0071	0.0043
%SD	18.83	7.640	21.54	22.76	39.12	17.51

Element	Gold	Thallium	Thallium
Isotope	Au 197	Tl 203	Tl 205
Detector	PC	PC	PC
Run 1	-0.0064	24.93	26.22
Run 2	-0.0070	25.06	25.91
Run 3	-0.0074	25.34	26.97
Mean	-0.0069	25.11	26.37
Std Dev	0.0005	0.2102	0.5425
%SD	7.716	0.8371	2.057

3098
LC55
1/18 + 1/12

Internal Standard Drift: % relative to mean of first sample :

Element	Scandium	Yttrium	Bismuth
Isotope	Sc 45	Y 89	Bi 209
Detector	PC	PC	PC
Run 1	99.63	114.8	102.9
Run 2	101.3	112.9	102.4
Run 3	100.4	112.6	100.7
Mean	100.5	113.4	102.0
Std Dev	0.8596	1.248	1.170

Multi-Element Concentrations Fri May 30 1997
Statistics for Concentration Determination.
Analysis procedure : 200.8

Sample name : 9

First repeat started at : Fri May 30 1997 14:30:36

Last repeat started at : Fri May 30 1997 14:32:44

Interference Equations : DEFAULT

Dilution Factor : 1.0000 Concentration units : ppb

Element	Beryllium	Cobalt	Arsenic	Selenium	Selenium	Selenium	Molybdenum
Isotope	Be 9	Co 59	As 75	Se 77	Se 78	Se 82	Mo 95
Detector	PC	PC	PC	PC	PC	PC	PC
Run 1	0.1209	3.294	1.383	5.039	8.275	5.043	10.06
Run 2	0.1193	3.281	1.580	5.109	9.364	5.131	10.36
Run 3	0.1287	3.282	1.445	5.557	9.093	5.539	10.23
Mean	0.1229	3.286	1.469	5.235	8.911	5.238	10.22
Std Dev	0.0054	0.0075	0.1007	0.2812	0.5673	0.2647	0.1531
%SD	4.404	0.2274	6.853	5.372	6.367	5.053	1.499

Element	Molybdenum	Molybdenum	Ruthenium	Ruthenium	Ruthenium	Rhodium
Isotope	Mo 97	Mo 98	Ru 99	Ru 101	Ru 102	Rh 103
Detector	PC	PC	PC	PC	PC	PC
Run 1	9.727	10.08	0.0324	0.0324	0.2827	1.575
Run 2	10.34	10.50	0.0399	0.0417	0.3027	1.623
Run 3	9.975	10.14	0.0427	0.0361	0.2812	1.503
Mean	10.01	10.24	0.0383	0.0367	0.2889	1.567
Std Dev	0.3061	0.2297	0.0053	0.0047	0.0120	0.0602
%SD	3.057	2.243	13.92	12.80	4.159	3.842

3094-7
1/10

Element	Palladium	Palladium	Silver	Silver	Cadmium	Cadmium
Isotope	Pd 104	Pd 105	Ag 107	Ag 109	Cd 111	Cd 112
Detector	PC	PC	PC	PC	PC	PC
Run 1	9.725	0.4062	83.30	80.63	0.5793	1.233
Run 2	10.24	0.4084	82.79	80.63	0.5886	1.253
Run 3	9.461	0.2474	81.24	80.99	0.6363	1.275
Mean	9.809	0.3540	82.45	80.75	0.6014	1.253
Std Dev	0.3974	0.0923	1.070	0.2077	0.0306	0.0211
%SD	4.051	26.09	1.298	0.2572	5.083	1.686

Element	Tin	Cadmium	Tin	Tin	Tin	Antimony
Isotope	Sn 114	Cd 114	Sn 117	Sn 118	Sn 120	Sb 121
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.9693	0.9693	16.97	16.54	15.55	2.520
Run 2	1.040	1.040	17.45	16.49	16.00	2.530
Run 3	1.005	1.005	17.05	16.50	15.71	2.461
Mean	1.005	1.005	17.13	16.51	15.75	2.503
Std Dev	0.0352	0.0352	0.2947	0.0254	0.2286	0.0373
%SD	3.506	3.506	1.721	0.1539	1.451	1.491

Element	Tin	Antimony	Rhenium	Rhenium	Osmium	Osmium

00401

Element	Tin	Antimony	Rhenium	Rhenium	Osmium	Osmium
Isotope	Sn 122	Sb 123	Re 185	Re 187	Os 188	Os 189
Detector	PC	PC	PC	PC	PC	PC
Isotope	Sn 122	Sb 123	Re 185	Re 187	Os 188	Os 189
Detector	PC	PC	PC	PC	PC	PC
Run 1	16.35	2.576	0.0034	0.0020	-0.0143	-0.0165
Run 2	16.28	2.573	0.0022	0.0014	-0.0070	-0.0089
Run 3	16.22	2.542	0.0026	0.0005	-0.0009	-0.0162
Mean	16.28	2.564	0.0028	0.0013	-0.0074	-0.0138
Std Dev	0.0661	0.0187	0.0006	0.0007	0.0067	0.0043
%SD	0.4061	0.7295	22.60	57.83	90.18	31.25

Element	Osmium	Iridium	Iridium	Platinum	Platinum	Platinum
Isotope	Os 190	Ir 191	Ir 193	Pt 194	Pt 195	Pt 196
Detector	PC	PC	PC	PC	PC	PC
Run 1	-0.0155	-0.0401	0.0106	0.0211	0.0245	0.0250
Run 2	-0.0151	-0.0408	0.0115	0.0237	0.0234	0.0314
Run 3	-0.0144	-0.0426	0.0101	0.0271	0.0240	0.0286
Mean	-0.0150	-0.0412	0.0107	0.0240	0.0240	0.0283
Std Dev	0.0006	0.0013	0.0007	0.0030	0.0005	0.0032
%SD	3.841	3.215	6.458	12.59	2.222	11.27

Element	Gold	Thallium	Thallium
Isotope	Au 197	Tl 203	Tl 205
Detector	PC	PC	PC
Run 1	1.921	0.0695	0.0998
Run 2	1.907	0.0600	0.0897
Run 3	1.933	0.0646	0.0908
Mean	1.921	0.0613	0.0934
Std Dev	0.0130	0.0076	0.0055
%SD	0.6752	12.31	5.921

3094-1
11/0

Internal Standard Drift: % relative to mean of first sample :

Element	Scandium	Yttrium	Bismuth
Isotope	Sc 45	Y 89	Bi 209
Detector	PC	PC	PC
Run 1	93.26	81.84	79.16
Run 2	82.73	79.58	80.65
Run 3	80.79	81.35	83.14
Mean	82.26	80.92	80.98
Std Dev	1.299	1.191	2.014

Multi-Element Concentrations Fri May 30 1997
Statistics for Concentration Determination.
Analysis procedure : 200.8

Sample name : 9

First repeat started at : Fri May 30 1997 14:34:34

Last repeat started at : Fri May 30 1997 14:36:42

Interference Equations : DEFAULT

Dilution Factor : 1.0000 Concentration units : ppb

Element	Beryllium	Cobalt	Arsenic	Selenium	Selenium	Selenium	Molybdenum
Isotope	Be 9	Co 59	As 75	Se 77	Se 78	Se 82	Mo 95
Detector	PC	PC	PC	PC	PC	PC	PC
Run 1	0.1157	82.28	13.41	0.8545	1.290	0.8236	24.53
Run 2	0.1096	83.13	13.89	0.9848	1.773	0.9472	24.63
Run 3	0.1115	83.53	14.30	1.092	1.708	1.066	25.12
Mean	0.1123	82.98	13.87	0.9773	1.587	0.9456	24.76
Std Dev	0.0031	0.6374	0.4453	0.1191	0.2681	0.1212	0.3150
%SD	2.797	0.7681	3.212	12.19	16.89	12.82	1.272

Element	Molybdenum	Molybdenum	Ruthenium	Ruthenium	Ruthenium	Rhodium
Isotope	Mo 97	Mo 98	Ru 99	Ru 101	Ru 102	Rh 103
Detector	PC	PC	PC	PC	PC	PC
Run 1	24.25	24.36	0.0278	0.0264	0.0387	0.0169
Run 2	23.78	24.88	0.0403	0.0248	0.0344	0.0153
Run 3	24.85	24.58	0.0330	0.0345	0.0386	0.0148
Mean	24.29	24.61	0.0337	0.0286	0.0372	0.0156
Std Dev	0.5328	0.2653	0.0063	0.0052	0.0024	0.0010
%SD	2.193	1.078	18.76	18.19	6.552	6.633

3098-4
1/10

Element	Palladium	Palladium	Silver	Silver	Cadmium	Cadmium
Isotope	Pd 104	Pd 105	Ag 107	Ag 109	Cd 111	Cd 112
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.1723	0.4708	177.8	175.6	2.159	3.770
Run 2	0.1892	0.3832	179.5	176.2	2.259	3.641
Run 3	0.1667	0.4226	183.6	175.8	2.205	3.668
Mean	0.1761	0.4255	180.3	175.8	2.207	3.693
Std Dev	0.0117	0.0439	2.971	0.3165	0.0506	0.0677
%SD	6.645	10.31	1.648	0.1800	2.293	1.834

Element	Tin	Cadmium	Tin	Tin	Tin	Antimony
Isotope	Sn 114	Cd 114	Sn 117	Sn 118	Sn 120	Sb 121
Detector	PC	PC	PC	PC	PC	PC
Run 1	3.001	3.001	42.60	40.44	39.39	8.778
Run 2	3.072	3.072	42.03	40.35	39.41	9.011
Run 3	3.068	3.068	43.00	40.86	39.40	8.776
Mean	3.047	3.047	42.54	40.55	39.40	8.855
Std Dev	0.0400	0.0400	0.4856	0.2712	0.0077	0.1352
%SD	1.314	1.314	1.141	0.6688	0.0196	1.526

00403

Element	Tin	Antimony	Rhenium	Rhenium	Osmium	Osmium

Element	Tin	Antimony	Rhenium	Rhenium	Osmium	Osmium
Isotope	Sn 122	Sb 123	Re 185	Re 187	Os 189	Os 189
Detector	PC	PC	PC	PC	PC	PC
Isotope	Sn 122	Sb 123	Re 185	Re 187	Os 189	Os 189
Detector	PC	PC	PC	PC	PC	PC
Run 1	38.92	8.755	0.0050	0.0049	-0.0085	-0.0167
Run 2	40.01	8.817	0.0040	0.0049	-0.0039	-0.0155
Run 3	39.09	8.944	0.0045	0.0046	-0.0169	-0.0157
Mean	39.34	8.839	0.0045	0.0048	-0.0099	-0.0160
Std Dev	0.5869	0.0965	0.0005	0.0002	0.0066	0.0007
%SD	1.492	1.091	10.31	3.359	67.83	4.148

Element	Osmium	Iridium	Iridium	Platinum	Platinum	Platinum
Isotope	Os 190	Ir 191	Ir 193	Pt 194	Pt 195	Pt 196
Detector	PC	PC	PC	PC	PC	PC
Run 1	-0.0055	-0.0247	0.0006	0.0340	0.0331	0.0339
Run 2	-0.0125	-0.0179	0.0009	0.0429	0.0467	0.0367
Run 3	-0.0151	-0.0387	-0.0009	0.0355	0.0375	0.0353
Mean	-0.0110	-0.0271	0.0002	0.0375	0.0391	0.0353
Std Dev	0.0050	0.0106	0.0010	0.0048	0.0069	0.0014
%SD	45.30	39.13	423.5	12.69	17.77	4.047

Element	Gold	Thallium	Thallium
Isotope	Au 197	Tl 203	Tl 205
Detector	PC	PC	PC
Run 1	3.362	0.1217	0.1220
Run 2	3.536	0.1270	0.1286
Run 3	3.538	0.1132	0.1236
Mean	3.479	0.1207	0.1281
Std Dev	0.1011	0.0070	0.0042
%SD	2.906	5.776	3.279

Internal Standard Drift; % relative to mean of first sample :

Element	Scandium	Yttrium	Bismuth
Isotope	Sc 45	Y 89	Bi 209
Detector	PC	PC	PC
Run 1	91.03	98.04	111.3
Run 2	85.19	92.92	103.8
Run 3	85.11	90.16	104.2
Mean	87.11	93.71	106.4
Std Dev	3.395	3.997	4.189

Multi Element Concentrations Fri May 30 1997
Statistics for Concentration Determination.
Analysis procedure : 200.8

Sample name : 10

First repeat started at : Fri May 30 1997 14:38:10

Last repeat started at : Fri May 30 1997 14:40:17

Interference Equations : DEFAULT

Dilution Factor : 1.0000 Concentration units : ppb

Element	Beryllium	Cobalt	Arsenic	Selenium	Selenium	Selenium	Molybdenum
Isotope	Be 9	Co 59	As 75	Se 77	Se 78	Se 82	Mo 95
Detector	PC	PC	PC	PC	PC	PC	PC
Run 1	0.1101	92.13	15.90	1.464	2.412	1.431	25.76
Run 2	0.1028	90.10	15.86	1.302	2.194	1.258	25.45
Run 3	0.1072	93.78	15.14	1.343	2.388	1.296	25.46
Mean	0.1067	92.01	15.64	1.370	2.299	1.325	25.56
Std Dev	0.0037	1.839	0.4273	0.0842	0.1702	0.0931	0.1769
%SD	3.448	1.999	2.732	6.151	7.401	7.029	0.6922

Element	Molybdenum	Molybdenum	Ruthenium	Ruthenium	Ruthenium	Rhodium
Isotope	Mo 97	Mo 98	Ru 99	Ru 101	Ru 102	Rh 103
Detector	PC	PC	PC	PC	PC	PC
Run 1	25.64	26.01	0.0339	0.0235	0.0333	0.0199
Run 2	25.20	25.09	0.0319	0.0290	0.0311	0.0181
Run 3	24.53	24.91	0.0410	0.0258	0.0309	0.0179
Mean	25.12	25.33	0.0356	0.0261	0.0318	0.0186
Std Dev	0.5608	0.5955	0.0048	0.0028	0.0013	0.0011
%SD	2.232	2.351	13.48	10.66	4.162	5.893

3098-8 DUP
1/10

Element	Palladium	Palladium	Silver	Silver	Cadmium	Cadmium
Isotope	Pd 104	Pd 105	Ag 107	Ag 109	Cd 111	Cd 112
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.1298	0.4414	190.6	186.9	2.742	4.322
Run 2	0.1349	0.3411	192.9	185.6	2.793	4.313
Run 3	0.1267	0.1845	190.7	183.2	2.716	4.102
Mean	0.1305	0.3223	191.4	185.3	2.750	4.249
Std Dev	0.0042	0.1295	1.170	1.829	0.0394	0.1213
%SD	3.201	40.16	0.6112	1.020	1.432	2.856

Element	Tin	Cadmium	Tin	Tin	Tin	Antimony
Isotope	Sn 114	Cd 114	Sn 117	Sn 118	Sn 120	Sb 121
Detector	PC	PC	PC	PC	PC	PC
Run 1	3.620	3.620	42.32	41.59	39.98	9.347
Run 2	3.605	3.605	42.63	41.07	40.15	9.239
Run 3	3.539	3.539	42.55	41.95	40.41	9.213
Mean	3.588	3.588	42.50	41.54	40.25	9.266
Std Dev	0.0433	0.0433	0.1631	0.4414	0.3259	0.0710
%SD	1.207	1.207	0.3837	1.063	0.8096	0.7660

Element	Tin	Antimony	Rhenium	Rhenium	Osmium	Osmium

00405

Element	Tin	Antimony	Rhenium	Rhenium	Osmium	Osmium
Isotope	Sn 122	Sb 123	Re 185	Re 187	Os 188	Os 189
Detector	PC	PC	PC	PC	PC	PC
Isotope	Sn 122	Sb 123	Re 185	Re 187	Os 188	Os 189
Detector	PC	PC	PC	PC	PC	PC
Run 1	42.03	9.244	0.0071	0.0051	-0.0110	-0.0200
Run 2	41.62	9.284	0.0066	0.0054	-0.0132	-0.0166
Run 3	40.97	9.061	0.0045	0.0043	-0.0103	-0.0217
Mean	41.54	9.196	0.0060	0.0049	-0.0115	-0.0194
Std Dev	0.5306	0.1186	0.0014	0.0006	0.0015	0.0026
%SD	1.277	1.289	22.96	11.82	13.23	13.42

Element	Osmium	Iridium	Iridium	Platinum	Platinum	Platinum
Isotope	Os 190	Ir 191	Ir 193	Pt 194	Pt 195	Pt 196
Detector	PC	PC	PC	PC	PC	PC
Run 1	-0.0103	-0.0272	0.0006	0.0289	0.0324	0.0395
Run 2	-0.0185	-0.0361	0.0011	0.0335	0.0338	0.0386
Run 3	-0.0169	-0.0380	0.0020	0.0315	0.0339	0.0400
Mean	-0.0152	-0.0338	0.0012	0.0313	0.0334	0.0387
Std Dev	0.0043	0.0057	0.0007	0.0023	0.0009	0.0018
%SD	28.53	17.00	56.83	7.290	2.560	4.736

Element	Gold	Thallium	Thallium
Isotope	Au 197	Tl 203	Tl 205
Detector	PC	PC	PC
Run 1	2.606	0.1587	0.1627
Run 2	2.590	0.1589	0.1567
Run 3	2.598	0.1633	0.1645
Mean	2.598	0.1603	0.1613
Std Dev	0.0079	0.0026	0.0041
%SD	0.3034	1.633	2.517

3099-4 DUP 1/10

Internal Standard Drift; % relative to mean of first sample :

Element	Scandium	Yttrium	Bismuth
Isotope	Sc 45	Y 89	Bi 209
Detector	PC	PC	PC
Run 1	78.17	83.39	93.71
Run 2	75.17	82.49	93.73
Run 3	72.80	82.00	94.02
Mean	75.38	82.60	93.82
Std Dev	2.689	0.6578	0.1753

Multi-Element Concentrations Fri Mar 30 1997
Statistics for Concentration Determination.
Analysis procedure : 200.8

Sample name : 11

First repeat started at : Fri May 30 1997 14:41:55

Last repeat started at : Fri May 30 1997 14:44:04

Interference Equations : DEFAULT

Dilution Factor : 1.0000 Concentration units : ppb

Element	Beryllium	Cobalt	Arsenic	Selenium	Selenium	Selenium	Molybdenum
Isotope	Be 9	Co 59	As 75	Se 77	Se 78	Se 82	Mo 95
Detector	PC	PC	PC	PC	PC	PC	PC
Run 1	9.775	190.8	58.94	22.26	22.25	22.05	69.99
Run 2	9.933	191.8	58.13	21.94	22.17	21.65	70.64
Run 3	9.843	193.7	58.89	21.67	21.97	21.29	68.59
Mean	9.850	192.1	58.65	21.96	22.09	21.66	69.74
Std Dev	0.0791	1.434	0.4489	0.2977	0.2010	0.3798	1.048
%SD	0.8034	0.7464	0.7654	1.356	0.9096	1.753	1.503

Element	Molybdenum	Molybdenum	Ruthenium	Ruthenium	Ruthenium	Rhodium
Isotope	Mo 97	Mo 98	Ru 99	Ru 101	Ru 102	Rh 103
Detector	PC	PC	PC	PC	PC	PC
Run 1	69.46	73.85	49.75	50.72	50.82	42.64
Run 2	71.29	75.64	49.77	49.42	49.46	41.72
Run 3	68.53	75.36	48.34	49.63	48.52	41.63
Mean	69.76	74.95	49.29	49.92	49.60	42.00
Std Dev	1.398	0.9662	0.8189	0.6996	1.153	0.5600
%SD	2.005	1.289	1.662	1.401	2.325	1.333

3099-85K
4/10

Element	Palladium	Palladium	Silver	Silver	Cadmium	Cadmium
Isotope	Pd 104	Pd 105	Ag 107	Ag 109	Cd 111	Cd 112
Detector	PC	PC	PC	PC	PC	PC
Run 1	47.49	44.16	283.9	280.5	12.29	15.05
Run 2	49.19	44.15	287.1	286.2	12.20	15.36
Run 3	48.52	44.00	285.9	281.1	12.17	15.12
Mean	48.40	44.10	285.6	282.6	12.22	15.18
Std Dev	0.8524	0.0907	1.627	3.111	0.0644	0.1589
%SD	1.761	0.2056	0.5698	1.101	0.5274	1.047

Element	Tin	Cadmium	Tin	Tin	Tin	Antimony
Isotope	Sn 114	Cd 114	Sn 117	Sn 118	Sn 120	Sb 121
Detector	PC	PC	PC	PC	PC	PC
Run 1	13.55	13.55	94.05	86.67	85.78	105.4
Run 2	13.49	13.49	90.98	89.99	89.41	106.2
Run 3	13.76	13.76	92.91	89.96	87.03	104.6
Mean	13.60	13.60	92.65	88.87	87.41	105.4
Std Dev	0.1458	0.1458	1.555	1.907	1.846	0.8226
%SD	1.072	1.072	1.678	2.146	2.112	0.7804

Element	Tin	Antimony	Rhenium	Rhenium	Osmium	Osmium

00407

Element	Tin	Antimony	Rhenium	Rhenium	Osmium	Osmium
Isotope	Sn 122	Sb 123	Re 185	Re 187	Os 188	Os 189
Detector	PC	PC	PC	PC	PC	PC
Isotope	Sn 122	Sb 123	Re 185	Re 187	Os 188	Os 189
Detector	PC	PC	PC	PC	PC	PC
Run 1	88.89	102.8	53.33	52.97	37.92	37.50
Run 2	89.27	107.8	52.41	52.06	38.17	38.92
Run 3	87.56	106.1	52.56	53.47	38.24	38.19
Mean	88.57	105.6	52.76	52.83	38.11	38.20
Std Dev	0.8959	2.542	0.4926	0.7145	0.1680	0.7094
%SD	1.011	2.408	0.9335	1.352	0.4409	1.857

Element	Osmium	Iridium	Iridium	Platinum	Platinum	Platinum
Isotope	Os 190	Ir 191	Ir 193	Pt 194	Pt 195	Pt 196
Detector	PC	PC	PC	PC	PC	PC
Run 1	37.35	39.47	39.45	48.17	48.51	49.35
Run 2	39.41	39.29	39.95	49.86	49.73	49.44
Run 3	37.58	39.35	38.97	47.40	47.64	47.14
Mean	38.11	39.37	39.46	48.48	48.63	48.64
Std Dev	1.127	0.0888	0.4897	1.260	1.045	1.303
%SD	2.957	0.2255	1.241	2.599	2.149	2.678

3098-85PK
1/10

Element	Gold	Thallium	Thallium
Isotope	Au 197	Tl 203	Tl 205
Detector	PC	PC	PC
Run 1	40.10	19.64	20.38
Run 2	41.66	20.59	21.00
Run 3	39.47	19.33	20.83
Mean	40.41	19.85	20.74
Std Dev	1.129	0.6527	0.3194
%SD	2.794	3.287	1.540

Internal Standard Drift; % relative to mean of first sample :

Element	Scandium	Yttrium	Bismuth
Isotope	Sc 45	Y 89	Bi 209
Detector	PC	PC	PC
Run 1	71.04	75.43	91.75
Run 2	68.86	75.07	90.85
Run 3	66.89	75.38	93.03
Mean	68.93	75.29	91.88
Std Dev	2.079	0.1946	1.098

Multi Element Concentrations Fri May 30 1997
Statistics for Concentration Determination.
Analysis procedure : 200.8

Sample name : 12

First repeat started at : Fri May 30 1997 14:48:58

Last repeat started at : Fri May 30 1997 14:51:06

Interference Equations : DEFAULT

Dilution Factor : 1.0000 Concentration units : ppb

Element	Beryllium	Cobalt	Arsenic	Selenium	Selenium	Selenium	Molybdenum
Isotope	Be 9	Co 59	As 75	Se 77	Se 78	Se 82	Mo 95
Detector	PC	PC	PC	PC	PC	PC	PC
Run 1	0.1192	106.5	16.61	1.566	2.273	1.500	29.25
Run 2	0.1153	107.2	17.37	1.932	2.320	1.876	29.70
Run 3	0.1199	106.0	17.40	2.043	2.909	1.981	29.40
Mean	0.1181	106.6	17.13	1.847	2.500	1.786	29.45
Std Dev	0.0025	0.5771	0.4497	0.2499	0.3536	0.2527	0.2300
%SD	2.089	0.5416	2.626	13.53	14.14	14.15	0.7811

Element	Molybdenum	Molybdenum	Ruthenium	Ruthenium	Ruthenium	Rhodium
Isotope	Mo 97	Mo 98	Ru 99	Ru 101	Ru 102	Rh 103
Detector	PC	PC	PC	PC	PC	PC
Run 1	28.55	30.39	0.0394	0.0282	0.0462	0.0309
Run 2	30.62	30.11	0.0357	0.0300	0.0461	0.0297
Run 3	29.99	29.32	0.0380	0.0297	0.0443	0.0292
Mean	29.72	29.94	0.0377	0.0293	0.0455	0.0299
Std Dev	1.061	0.5520	0.0019	0.0010	0.0010	0.0009
%SD	3.572	1.844	5.027	3.373	2.269	2.965

3098-9
11/3

Element	Palladium	Palladium	Silver	Silver	Cadmium	Cadmium
Isotope	Pd 104	Pd 105	Ag 107	Ag 109	Cd 111	Cd 112
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.2772	0.6841	228.4	235.4	1.569	2.983
Run 2	0.2733	0.7307	235.6	244.3	1.692	2.993
Run 3	0.2655	0.6303	240.6	245.9	1.692	2.911
Mean	0.2720	0.6817	234.9	241.9	1.651	2.962
Std Dev	0.0059	0.0502	6.127	5.648	0.0708	0.0448
%SD	2.182	7.371	2.609	2.335	4.288	1.513

Element	Tin	Cadmium	Tin	Tin	Tin	Antimony
Isotope	Sn 114	Cd 114	Sn 117	Sn 118	Sn 120	Sb 121
Detector	PC	PC	PC	PC	PC	PC
Run 1	2.397	2.397	41.34	39.04	38.25	6.941
Run 2	2.347	2.347	39.80	38.38	37.57	7.051
Run 3	2.424	2.424	39.84	38.50	36.80	6.635
Mean	2.389	2.389	40.33	38.64	37.54	6.876
Std Dev	0.0394	0.0394	0.8794	0.3548	0.7228	0.2157
%SD	1.648	1.648	2.180	0.9182	1.925	3.137

Element	Tin	Antimony	Rhenium	Rhenium	Osmium	Osmium

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Element	Tin	Antimony	Rhenium	Rhenium	Osmium	Osmium
Isotope	Sn 122	Sb 123	Re 185	Re 187	Os 188	Os 189
Detector	PC	PC	PC	PC	PC	PC
Isotope	Sn 122	Sb 123	Re 185	Re 187	Os 188	Os 189
Detector	PC	PC	PC	PC	PC	PC
Run 1	37.66	7.070	0.0055	0.0081	0.0946	0.0855
Run 2	38.97	7.092	0.0035	0.0059	0.0459	0.0466
Run 3	37.11	6.794	0.0041	0.0043	0.0336	0.0221
Mean	37.91	6.985	0.0044	0.0061	0.0580	0.0514
Std Dev	0.9581	0.1661	0.0010	0.0019	0.0323	0.0320
%SD	2.527	2.378	23.15	30.72	55.67	62.17

Element	Osmium	Iridium	Iridium	Platinum	Platinum	Platinum
Isotope	Os 190	Ir 191	Ir 193	Pt 194	Pt 195	Pt 196
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.0893	-0.0596	0.0512	0.0289	0.0230	0.0303
Run 2	0.0519	-0.0442	0.0354	0.0318	0.0221	0.0231
Run 3	0.0286	-0.0804	0.0313	0.0180	0.0212	0.0217
Mean	0.0566	-0.0614	0.0393	0.0262	0.0221	0.0250
Std Dev	0.0306	0.0182	0.0105	0.0073	0.0009	0.0046
%SD	54.08	29.60	26.71	27.74	4.163	18.47

Element	Gold	Thallium	Thallium
Isotope	Au 197	Tl 203	Tl 205
Detector	PC	PC	PC
Run 1	1.781	0.0352	0.0314
Run 2	1.872	0.0240	0.0300
Run 3	1.836	0.0295	0.0299
Mean	1.830	0.0296	0.0301
Std Dev	0.0455	0.0056	0.0012
%SD	2.486	18.96	4.110

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Internal Standard Drift; % relative to mean of first sample :

Element	Scandium	Yttrium	Bismuth
Isotope	Sc 45	Y 89	Bi 209
Detector	PC	PC	PC
Run 1	64.83	73.79	89.99
Run 2	63.85	70.57	85.30
Run 3	64.56	71.99	86.30
Mean	64.41	72.12	87.20
Std Dev	0.5090	1.610	2.469

Multi-Element Concentrations Fri May 30 1997
Statistics for Concentration Determination.
Analysis procedure : 200.8

Sample name : 13

First repeat started at : Fri May 30 1997 14:53:13

Last repeat started at : Fri May 30 1997 14:55:21

Interference Equations : DEFAULT

Dilution Factor : 1.0000 Concentration units : ppb

Element	Beryllium	Cobalt	Arsenic	Selenium	Selenium	Selenium	Molybdenum
Isotope	Be 9	Co 59	As 75	Se 77	Se 78	Se 82	Mo 95
Detector	PC	PC	PC	PC	PC	PC	PC
Run 1	0.0370	1.301	7.035	25.43	27.18	25.26	0.6442
Run 2	0.0441	1.287	7.112	26.17	28.57	26.02	0.6059
Run 3	0.0384	1.275	7.621	27.90	27.68	26.76	0.5547
Mean	0.0398	1.288	7.256	26.20	27.81	26.01	0.6016
Std Dev	0.0038	0.0134	0.3182	0.7882	0.7061	0.7534	0.0449
%SD	9.460	1.043	4.385	3.009	2.539	2.896	7.464

Element	Molybdenum	Molybdenum	Ruthenium	Ruthenium	Ruthenium	Rhodium
Isotope	Mo 97	Mo 98	Ru 99	Ru 101	Ru 102	Rh 103
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.6387	0.6232	0.0331	0.0357	0.1372	0.8618
Run 2	0.5935	0.6179	0.0339	0.0220	0.1293	0.8741
Run 3	0.6063	0.6165	0.0224	0.0235	0.1448	0.8383
Mean	0.6128	0.6192	0.0298	0.0271	0.1371	0.8581
Std Dev	0.0233	0.0035	0.0064	0.0075	0.0078	0.0182
%SD	3.808	0.5714	21.63	27.61	5.657	2.119

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1/10

Element	Palladium	Palladium	Silver	Silver	Cadmium	Cadmium
Isotope	Pd 104	Pd 105	Ag 107	Ag 109	Cd 111	Cd 112
Detector	PC	PC	PC	PC	PC	PC
Run 1	5.629	0.0832	15.80	15.48	0.1402	0.3472
Run 2	5.469	0.1845	15.36	15.03	0.1248	0.3853
Run 3	5.603	0.0524	14.98	14.99	0.1315	0.3560
Mean	5.567	0.1067	15.38	15.17	0.1322	0.3628
Std Dev	0.0857	0.0691	0.4109	0.2716	0.0077	0.0199
%SD	1.540	64.80	2.671	1.791	5.822	5.496

Element	Tin	Cadmium	Tin	Tin	Tin	Antimony
Isotope	Sn 116	Cd 114	Sn 117	Sn 118	Sn 120	Sb 121
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.2573	0.2573	7.163	6.805	6.536	7.069
Run 2	0.2691	0.2691	7.017	6.753	6.544	6.762
Run 3	0.2558	0.2558	7.044	6.767	6.482	6.647
Mean	0.2607	0.2607	7.075	6.775	6.521	6.826
Std Dev	0.0073	0.0073	0.0774	0.0270	0.0336	0.2181
%SD	2.793	2.793	1.093	0.3978	0.5154	3.195

00411

Element	Tin	Antimony	Rhenium	Rhenium	Osmium	Osmium

Element	Tin	Antimony	Rhenium	Rhenium	Osmium	Osmium
Isotope	Sn 122	Sb 123	Re 185	Re 187	Os 188	Os 189
Detector	PC	PC	PC	PC	PC	PC
Isotope	Sn 122	Sb 123	Re 185	Re 187	Os 188	Os 189
Detector	PC	PC	PC	PC	PC	PC
Run 1	7.732	6.637	0.0040	0.0028	0.0314	0.0220
Run 2	7.870	6.667	0.0017	0.0005	0.0115	0.0125
Run 3	7.761	6.730	0.0019	0.0018	0.0071	0.0067
Mean	7.788	6.678	0.0025	0.0017	0.0167	0.0138
Std Dev	0.0727	0.0474	0.0013	0.0011	0.0129	0.0077
%SD	0.9330	0.7099	51.95	67.12	77.61	56.00

Element	Osmium	Iridium	Iridium	Platinum	Platinum	Platinum
Isotope	Os 190	Ir 191	Ir 193	Pt 194	Pt 195	Pt 196
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.0338	0.0264	0.0062	0.0121	0.0120	0.0214
Run 2	0.0128	0.0583	0.0019	0.0130	0.0094	0.0102
Run 3	0.0075	0.0671	-0.0022	0.0050	0.0077	0.0093
Mean	0.0180	0.0506	0.0020	0.0100	0.0097	0.0136
Std Dev	0.0139	0.0214	0.0042	0.0044	0.0022	0.0067
%SD	77.35	42.38	214.7	44.03	22.52	49.23

Element	Gold	Thallium	Thallium
Isotope	Au 197	Tl 203	Tl 205
Detector	PC	PC	PC
Run 1	0.1426	0.0819	0.0967
Run 2	0.1506	0.0751	0.1077
Run 3	0.1291	0.0792	0.1039
Mean	0.1408	0.0787	0.1027
Std Dev	0.0109	0.0034	0.0056
%SD	7.714	4.323	5.439

Internal Standard Drift; % relative to mean of first sample :

Element	Scandium	Yttrium	Bismuth
Isotope	Sc 45	Y 89	Bi 209
Detector	PC	PC	PC
Run 1	90.92	93.90	96.62
Run 2	79.29	91.51	93.47
Run 3	80.46	94.98	95.89
Mean	90.22	93.46	95.32
Std Dev	0.8395	1.680	1.644

Multi-Element Concentrations Fri May 30 1997
Statistics for Concentration Determination.
Analysis procedure : 200.8

Sample name : 14

First repeat started at : Fri May 30 1997 14:57:02

Last repeat started at : Fri May 30 1997 14:59:10

Interference Equations : DEFAULT

Dilution Factor : 1.0000 Concentration units : ppb

Element	Beryllium	Cobalt	Arsenic	Selenium	Selenium	Selenium	Molybdenum
Isotope	Be 9	Co 59	As 75	Se 77	Se 78	Se 82	Mo 95
Detector	PC	PC	PC	PC	PC	PC	PC
Run 1	0.3310	39.44	3184	26229	23661	25603	8.860
Run 2	0.3317	39.26	3290	27693	25380	27088	9.882
Run 3	0.3394	40.27	3436	28574	25769	27981	8.794
Mean	0.3340	39.66	3300	27498	24936	26891	9.845
Std Dev	0.0046	0.5356	127.3	1185	1122	1201	0.0460
%SD	1.387	1.351	3.858	4.310	4.498	4.467	0.5205

Element	Molybdenum	Molybdenum	Ruthenium	Ruthenium	Ruthenium	Rhodium
Isotope	Mo 97	Mo 98	Ru 99	Ru 101	Ru 102	Rh 103
Detector	PC	PC	PC	PC	PC	PC
Run 1	9.065	9.951	5.140	5.[illegible]	5.126	5.986
Run 2	9.055	10.02	5.130	5.091	5.918	5.719
Run 3	9.117	10.14	5.147	5.167	6.112	5.819
Mean	9.079	10.00	5.139	5.156	5.052	5.841
Std Dev	0.0330	0.1431	0.0086	0.[illegible]	0.1165	0.1349
%SD	0.3630	1.431	0.1657	2.[illegible]	01.925	2.310

Element	Palladium	Palladium	Silver	Silver	Cadmium	Cadmium
Isotope	Pd 104	Pd 105	Ag 107	Ag 109	Cd 111	Cd 112
Detector	PC	PC	PC	PC	PC	PC
Run 1	17.85	42.75	242.4	242.[illegible]	10.35	102.0
Run 2	17.49	41.34	233.9	236.4	10.07	99.99
Run 3	17.30	42.09	237.0	237.0	10.03	100.2
Mean	17.55	42.06	237.8	238.6	10.15	100.4
Std Dev	0.2822	0.7022	4.326	3.282	0.1757	1.500
%SD	1.608	1.669	1.819	1.375	1.731	1.494

Element	Tin	Cadmium	Tin	Tin	Tin	Antimony
Isotope	Sn 114	Cd 114	Sn 117	Sn 118	Sn 120	Sb 121
Detector	PC	PC	PC	PC	PC	PC
Run 1	65.92	65.92	2889	2650	2445	2074
Run 2	60.55	60.55	2640	2451	2247	2134
Run 3	60.71	60.71	2709	2434	2241	2098
Mean	62.39	62.39	2746	2512	2311	2102
Std Dev	3.055	3.055	129.4	120.4	116.4	30.44
%SD	4.897	4.897	4.676	4.795	5.039	1.448

Element	Tin	Antimony	Rhenium	Rhenium	Osmium	Osmium

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00413

Element	Tin	Antimony	Rhenium	Rhenium	Osmium	Osmium
Isotope	Sn 122	Sb 123	Re 185	Re 187	Os 188	Os 189
Detector	PC	PC	PC	PC	PC	PC
Isotope	Sn 122	Sb 123	Re 185	Re 187	Os 188	Os 189
Detector	PC	PC	PC	PC	PC	PC
Run 1	4257	3667	0.0105	0.0163	0.0935	0.0671
Run 2	3977	3578	0.0061	0.0130	0.0422	0.0537
Run 3	3940	3590	0.0091	0.0103	0.0309	0.0279
Mean	4061	3609	0.0092	0.0132	0.0555	0.0496
Std Dev	178.9	50.91	0.0022	0.0030	0.0333	0.0199
%SD	4.406	1.411	26.97	22.65	60.01	40.19

Element	Osmium	Iridium	Iridium	Platinum	Platinum	Platinum
Isotope	Os 190	Ir 191	Ir 193	Pt 194	Pt 195	Pt 196
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.0975	2.421	1.809	4.679	4.637	4.768
Run 2	0.0429	1.656	1.417	3.799	3.721	3.726
Run 3	0.0260	1.466	1.333	3.492	3.494	3.468
Mean	0.0554	1.847	1.520	3.990	3.951	3.987
Std Dev	0.0374	0.5053	0.2540	0.6164	0.6050	0.6881
%SD	67.38	27.35	16.71	15.45	15.31	17.26

Element	Gold	Thallium	Thallium
Isotope	Au 197	Tl 203	Tl 205
Detector	PC	PC	PC
Run 1	536.5	0.3232	0.3409
Run 2	515.9	0.2452	0.2679
Run 3	482.5	0.2222	0.2389
Mean	545.0	0.2635	0.2826
Std Dev	81.05	0.0529	0.0525
%SD	14.87	20.09	18.59

Internal Standard Drift; % relative to mean of first sample :

Element	Scandium	Yttrium	Bismuth
Isotope	Sc 45	Y 89	Bi 209
Detector	PC	PC	PC
Run 1	66.22	79.61	45.41
Run 2	65.22	77.13	56.47
Run 3	64.12	75.17	62.33
Mean	65.18	77.31	54.73
Std Dev	1.050	2.225	8.591

Internal Standard Drift outside drift window.
Failed isotopes = Bi 209
Specified action is to continue with procedure.

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Multi-Element Concentrations Fri May 30 1997
Statistics for Concentration Determination.
Analysis procedure : 200.8

Sample name : 15

First repeat started at : Fri May 30 1997 15:03:52

Last repeat started at : Fri May 30 1997 15:06:00

Interference Equations : DEFAULT

Dilution Factor : 1.0000 Concentration units : ppb

Element	Beryllium	Cobalt	Arsenic	Selenium	Selenium	Selenium	Molybdenum
Isotope	Be 9	Co 59	As 75	Se 77	Se 78	Se 82	Mo 95
Detector	PC	PC	PC	PC	PC	PC	PC
Run 1	0.1498	20.16	1569	12274	11934	12009	3.904
Run 2	0.1463	19.58	1566	12367	12182	12120	3.991
Run 3	0.1429	19.32	1571	12568	12036	12276	4.064
Mean	0.1464	19.69	1569	12403	12051	12135	3.986
Std Dev	0.0034	0.4312	2.418	150.7	124.4	138.3	0.0800
%SD	2.354	2.191	0.1542	1.215	1.032	1.103	2.006

Element	Molybdenum	Molybdenum	Ruthenium	Ruthenium	Ruthenium	Rhodium
Isotope	Mo 97	Mo 98	Ru 99	Ru 101	Ru 102	Rh 103
Detector	PC	PC	PC	PC	PC	PC
Run 1	4.041	4.358	2.354	2.295	2.586	2.525
Run 2	3.931	4.434	2.331	2.281	2.726	2.529
Run 3	3.996	4.420	2.213	2.202	2.689	2.511
Mean	3.986	4.404	2.299	2.253	2.667	2.522
Std Dev	0.0547	0.0404	0.0753	0.0750	0.0725	0.0096
%SD	1.373	0.9183	3.275	3.329	2.719	0.3821

Element	Palladium	Palladium	Silver	Silver	Cadmium	Cadmium
Isotope	Pd 104	Pd 105	Ag 107	Ag 109	Cd 111	Cd 112
Detector	PC	PC	PC	PC	PC	PC
Run 1	7.766	18.15	100.3	98.68	3.884	39.26
Run 2	7.617	18.48	100.5	97.44	3.894	38.57
Run 3	7.552	18.04	98.57	97.15	3.837	36.99
Mean	7.645	18.22	99.79	97.76	3.871	38.27
Std Dev	0.1097	0.2290	1.064	0.8141	0.0307	1.161
%SD	1.435	1.261	1.066	0.8328	0.7923	3.034

Element	Tin	Cadmium	Tin	Tin	Tin	Antimony
Isotope	Sn 114	Cd 114	Sn 117	Sn 118	Sn 120	Sb 121
Detector	PC	PC	PC	PC	PC	PC
Run 1	23.62	23.62	1015	961.8	899.0	2028
Run 2	23.67	23.67	983.9	952.3	895.9	2093
Run 3	23.09	23.09	981.2	942.8	902.0	2061
Mean	23.46	23.46	993.4	952.3	898.8	2061
Std Dev	0.3216	0.3216	19.74	9.545	3.093	32.62
%SD	1.371	1.371	1.987	1.002	0.3442	1.583

Element	Tin	Antimony	Rhenium	Rhenium	Osmium	Osmium

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Element	Tin	Antimony	Rhenium	Rhenium	Osmium	Osmium
Isotope	Sn 122	Sb 123	Re 185	Re 187	Os 188	Os 189
Detector	PC	PC	PC	PC	PC	PC
Isotope	Sn 122	Sb 123	Re 185	Re 187	Os 188	Os 189
Detector	PC	PC	PC	PC	PC	PC
Run 1	1346	2351	-0.0009	-0.0002	-0.0288	-0.0375
Run 2	1385	2382	-0.0012	-0.0004	-0.0312	-0.0421
Run 3	1354	2355	-0.0007	-0.0005	-0.0384	-0.0407
Mean	1362	2363	-0.0009	-0.0004	-0.0328	-0.0401
Std Dev	20.73	16.96	0.0002	0.0002	0.0050	0.0023
%SD	1.522	0.7176	25.75	51.59	15.25	5.839

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Element	Osmium	Iridium	Iridium	Platinum	Platinum	Platinum
Isotope	Os 190	Ir 191	Ir 193	Pt 194	Pt 195	Pt 196
Detector	PC	PC	PC	PC	PC	PC
Run 1	-0.0327	-0.5628	0.1238	0.3223	0.3166	0.3102
Run 2	-0.0382	-0.5554	0.1271	0.3238	0.3140	0.2993
Run 3	-0.0380	-0.5657	0.1190	0.3124	0.3011	0.3031
Mean	-0.0363	-0.5613	0.1250	0.3195	0.3105	0.3042
Std Dev	0.0031	0.0053	0.0053	0.0062	0.0083	0.0055
%SD	8.584	0.9424	4.222	1.947	2.672	1.809

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Element	Gold	Thallium	Thallium
Isotope	Au 197	Tl 203	Tl 205
Detector	PC	PC	PC
Run 1	41.54	0.0101	0.0099
Run 2	39.59	0.0101	0.0076
Run 3	39.88	0.0088	0.0083
Mean	40.34	0.0096	0.0086
Std Dev	1.053	0.0008	0.0012
%SD	2.609	7.903	13.73

Sample contains Internal Standard

Internal Standard Drift; % relative to mean of first sample :

Element	Scandium	Yttrium	Bismuth
Isotope	Sc 45	Y 89	Bi 209
Detector	PC	PC	PC
Run 1	64.83	76.49	567.1
Run 2	63.69	74.17	586.4
Run 3	63.08	75.49	593.3
Mean	63.87	75.38	582.3
Std Dev	0.8894	1.164	13.60

Internal Standard Drift outside drift window.
Failed isotopes = Bi 209
Specified action is to continue with procedure.

Multi-Element Concentrations Fri May 30 1997
Statistics for Concentration Determination.
Analysis procedure : 200.8

Sample name : 16

First repeat started at : Fri May 30 1997 15:08:10

Last repeat started at : Fri May 30 1997 15:10:19

Interference Equations : DEFAULT

Dilution Factor : 1.0000 Concentration units : ppb

Element	Beryllium	Cobalt	Arsenic	Selenium	Selenium	Selenium	Molybdenum
Isotope	Be 9	Co 59	As 75	Se 77	Se 78	Se 82	Mo 95
Detector	PC	PC	PC	PC	PC	PC	PC
Run 1	0.0019	0.0085	0.9127	7.612	7.668	7.346	0.0129
Run 2	0.0011	0.0042	0.2334	3.537	4.608	3.496	0.0157
Run 3	0.0009	0.0042	0.1316	2.491	3.568	2.385	0.0026
Mean	0.0013	0.0057	0.4259	4.580	5.281	4.409	0.0104
Std Dev	0.0006	0.0025	0.4246	2.688	2.131	2.603	0.0069
%SD	42.21	43.82	99.70	58.69	40.36	59.04	66.37

Element	Molybdenum	Molybdenum	Ruthenium	Ruthenium	Ruthenium	Rhodium
Isotope	Mo 97	Mo 98	Ru 99	Ru 101	Ru 102	Rh 103
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.0345	1.962	23.93	23.52	24.07	24.22
Run 2	0.0203	1.921	23.30	24.53	24.23	24.31
Run 3	0.0125	1.978	23.73	23.87	24.40	24.03
Mean	0.0225	1.954	23.66	23.97	24.23	24.19
Std Dev	0.0111	0.0295	0.3211	0.5159	0.1676	0.1429
%SD	49.50	1.512	1.357	2.152	0.6915	0.5906

CV-4

Element	Palladium	Palladium	Silver	Silver	Cadmium	Cadmium
Isotope	Pd 104	Pd 105	Ag 107	Ag 109	Cd 111	Cd 112
Detector	PC	PC	PC	PC	PC	PC
Run 1	24.65	24.62	0.6087	0.5916	0.0025	0.0249
Run 2	24.78	24.63	0.5281	0.5087	0.0015	0.0182
Run 3	24.05	25.03	0.4887	0.4676	-0.0045	0.0087
Mean	24.50	24.76	0.5418	0.5226	-0.0002	0.0173
Std Dev	0.3882	0.2349	0.0611	0.0632	0.0038	0.0081
%SD	1.585	0.9487	11.28	12.09	2107	46.82

Element	Tin	Cadmium	Tin	Tin	Tin	Antimony
Isotope	Sn 114	Cd 114	Sn 117	Sn 118	Sn 120	Sb 121
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.0164	0.0164	0.7086	0.6695	0.6367	1.803
Run 2	0.0090	0.0090	0.3389	0.3856	0.3555	1.048
Run 3	0.0122	0.0122	0.2396	0.2277	0.1906	0.6482
Mean	0.0125	0.0125	0.4290	0.4276	0.3943	1.166
Std Dev	0.0037	0.0037	0.2471	0.2239	0.2256	0.5862
%SD	29.50	29.50	57.60	52.35	57.22	50.26

00417

Element	Tin	Antimony	Rhenium	Rhenium	Osmium	Osmium

Element	Tin	Antimony	Rhenium	Rhenium	Osmium	Osmium
Isotope	Sn 122	Sb 123	Re 185	Re 187	Os 188	Os 189
Detector	PC	PC	PC	PC	PC	PC
Isotope	Sn 122	Sb 123	Re 185	Re 187	Os 188	Os 189
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.9831	1.927	25.46	25.53	25.76	25.89
Run 2	0.5785	1.099	25.63	24.80	26.04	26.29
Run 3	0.3419	0.6659	25.36	25.17	26.59	26.07
Mean	0.6345	1.197	25.49	25.17	26.40	26.09
Std Dev	0.3243	0.5867	0.1399	0.3630	0.5681	0.1993
%SD	51.10	49.02	0.5490	1.442	2.152	0.7640

CCV-4

Element	Osmium	Iridium	Iridium	Platinum	Platinum	Platinum
Isotope	Os 190	Ir 191	Ir 193	Pt 194	Pt 195	Pt 196
Detector	PC	PC	PC	PC	PC	PC
Run 1	25.45	24.60	24.25	23.46	23.62	23.69
Run 2	25.88	24.39	24.66	24.07	23.81	23.94
Run 3	26.51	24.84	24.98	24.09	24.19	24.24
Mean	25.94	24.61	24.63	23.87	23.87	23.96
Std Dev	0.5322	0.2264	0.3659	0.3554	0.2926	0.2751
%SD	2.051	0.9200	1.485	1.489	1.226	1.148

Element	Gold	Thallium	Thallium
Isotope	Au 197	Tl 203	Tl 205
Detector	PC	PC	PC
Run 1	23.62	0.0879	0.0106
Run 2	23.87	0.0898	0.0122
Run 3	23.79	0.0919	0.0165
Mean	23.76	0.0899	0.0131
Std Dev	0.1258	0.0020	0.0031
%SD	0.5293	2.232	23.38

Internal Standard Drift: % relative to mean of first sample :

Element	Scandium	Yttrium	Bismuth
Isotope	Sc 45	Y 89	Bi 209
Detector	PC	PC	PC
Run 1	66.88	82.36	108.0
Run 2	67.97	81.59	104.7
Run 3	68.19	80.74	102.6
Mean	67.68	81.56	105.1
Std Dev	0.6971	0.8103	2.704

Multi-Element Concentrations Fri May 30 1997
Statistics for Concentration Determination.
Analysis procedure : 200.8

Sample name : 17

First repeat started at : Fri May 30 1997 15:13:50

Last repeat started at : Fri May 30 1997 15:15:59

Interference Equations : DEFAULT

Dilution Factor : 1.0000 Concentration units : ppb

Element	Beryllium	Cobalt	Arsenic	Selenium	Selenium	Selenium	Molybdenum
Isotope	Be 9	Co 59	As 75	Se 77	Se 78	Se 82	Mo 95
Detector	PC	PC	PC	PC	PC	PC	PC
Run 1	22.93	24.79	25.03	27.40	27.32	26.85	24.18
Run 2	22.89	24.89	24.91	27.45	27.87	26.86	24.13
Run 3	23.48	24.92	24.49	26.45	27.49	25.89	25.29
Mean	23.10	24.84	24.81	27.10	27.53	26.53	24.54
Std Dev	0.3294	0.0519	0.2838	0.5640	0.2979	0.5822	0.6570
%SD	1.426	0.2091	1.144	2.081	1.082	2.119	2.677

Element	Molybdenum	Molybdenum	Ruthenium	Ruthenium	Ruthenium	Rhodium
Isotope	Mo 97	Mo 98	Ru 99	Ru 101	Ru 102	Rh 103
Detector	PC	PC	PC	PC	PC	PC
Run 1	23.82	24.55	0.0085	0.0069	0.0061	0.0054
Run 2	24.50	25.06	0.0105	0.0037	0.0072	0.0047
Run 3	24.10	24.27	0.0066	0.0059	0.0025	0.0031
Mean	24.14	24.63	0.0085	0.0055	0.0053	0.0044
Std Dev	0.3448	0.4044	0.0019	0.0017	0.0024	0.0012
%SD	1.428	1.642	22.87	30.34	46.55	26.56

Element	Palladium	Palladium	Silver	Silver	Cadmium	Cadmium
Isotope	Pd 104	Pd 105	Ag 107	Ag 109	Cd 111	Cd 112
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.0369	0.1159	25.09	25.06	25.59	25.49
Run 2	0.0272	0.0271	25.57	25.53	25.49	25.88
Run 3	0.0207	0.0373	25.03	25.29	25.00	25.49
Mean	0.0282	0.0601	25.23	25.29	25.35	25.62
Std Dev	0.0081	0.0486	0.2957	0.2379	0.3147	0.2248
%SD	28.84	80.93	1.172	0.9407	1.241	0.8773

Element	Tin	Cadmium	Tin	Tin	Tin	Antimony
Isotope	Sn 114	Cd 114	Sn 117	Sn 118	Sn 120	Sb 121
Detector	PC	PC	PC	PC	PC	PC
Run 1	25.21	25.21	25.96	25.69	23.26	25.38
Run 2	25.27	25.27	25.54	26.04	24.52	26.04
Run 3	25.31	25.31	25.88	24.96	23.96	26.03
Mean	25.26	25.26	25.79	25.56	23.91	25.82
Std Dev	0.0484	0.0484	0.2242	0.5492	0.6289	0.3788
%SD	0.1917	0.1917	0.8692	2.148	2.630	1.467

Element	Tin	Antimony	Rhenium	Rhenium	Osmium	Osmium

CCV-4

00419

Element	Tin	Antimony	Rhenium	Rhenium	Osmium	Osmium
Isotope	Sn 122	Sb 123	Re 185	Re 187	Os 188	Os 189
Detector	PC	PC	PC	PC	PC	PC
Isotope	Sn 122	Sb 123	Re 185	Re 187	Os 188	Os 189
Detector	PC	PC	PC	PC	PC	PC
Run 1	25.47	25.37	0.0038	0.0074	0.1136	0.1086
Run 2	24.21	26.08	0.0031	0.0054	0.0605	0.0555
Run 3	25.66	25.48	0.0039	0.0040	0.0519	0.0495
Mean	25.11	25.64	0.0036	0.0056	0.0753	0.0716
Std Dev	0.7868	0.3823	0.0005	0.0017	0.0334	0.0323
%SD	3.133	1.491	12.61	30.20	44.37	45.11

Element	Osmium	Iridium	Iridium	Platinum	Platinum	Platinum
Isotope	Os 190	Ir 191	Ir 193	Pt 194	Pt 195	Pt 196
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.1121	-0.0871	0.0157	0.0014	0.0020	0.0059
Run 2	0.0594	-0.0772	0.0105	0.0030	0.0011	0.0009
Run 3	0.0426	-0.0979	0.0068	0.0003	-0.0011	-0.0022
Mean	0.0714	-0.0874	0.0110	0.0016	0.0007	0.0015
Std Dev	0.0363	0.0103	0.0045	0.0013	0.0016	0.0040
%SD	50.83	11.82	40.45	85.00	245.5	271.7

CCV-4

Element	Gold	Thallium	Thallium
Isotope	Au 197	Tl 203	Tl 205
Detector	PC	PC	PC
Run 1	0.1131	24.85	25.23
Run 2	0.0931	25.38	25.80
Run 3	0.0776	25.17	25.47
Mean	0.0946	25.13	25.50
Std Dev	0.0178	0.2683	0.2890
%SD	18.77	1.067	1.129

Internal Standard Drift; % relative to mean of first sample :

Element	Scandium	Yttrium	Bismuth
Isotope	Sc 45	Y 89	Bi 209
Detector	PC	PC	PC
Run 1	69.92	80.59	98.93
Run 2	68.39	79.39	96.77
Run 3	68.85	80.00	97.84
Mean	69.06	79.99	97.86
Std Dev	0.7857	0.6042	1.077

Multi-Element Concentrations Fri May 30 1997

Statistics for Concentration Determination.

Analysis procedure : 200.8

Sample name : 19

First repeat started at : Fri May 30 1997 15:23:32

Last repeat started at : Fri May 30 1997 15:25:41

Interference Equations : DEFAULT

Dilution Factor : 1.0000 Concentration units : ppb

Element	Beryllium	Cobalt	Arsenic	Selenium	Selenium	Selenium	Molybdenum
Isotope	Be 9	Co 59	As 75	Se 77	Se 78	Se 82	Mo 95
Detector	PC	PC	PC	PC	PC	PC	PC
Run 1	0.0026	0.0007	0.1119	0.3070	0.3963	0.2450	0.0116
Run 2	0.0023	0.0016	0.3731	0.1646	0.3712	0.1159	0.0053
Run 3	0.0026	0.0012	-0.3657	0.0274	0.7365	-0.0089	0.0035
Mean	0.0025	0.0012	0.0398	0.1663	0.5014	0.1173	0.0068
Std Dev	0.0002	0.0004	0.3747	0.1398	0.2040	0.1270	0.0043
%SD	7.073	36.35	942.5	84.03	40.70	108.2	62.47

Element	Molybdenum	Molybdenum	Ruthenium	Ruthenium	Ruthenium	Rhodium
Isotope	Mo 97	Mo 98	Ru 99	Ru 101	Ru 102	Rh 103
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.0331	0.0173	-0.0002	-0.0012	-0.0005	0.0004
Run 2	0.0296	0.0113	0.0040	0.0008	-0.0015	0.0000
Run 3	0.0103	0.0143	0.0024	-0.0018	-0.0012	-0.0002
Mean	0.0243	0.0143	0.0021	-0.0007	-0.0011	0.0001
Std Dev	0.0123	0.0030	0.0021	0.0013	0.0005	0.0003
%SD	50.35	21.13	102.3	192.7	47.62	317.5

Element	Palladium	Palladium	Silver	Silver	Cadmium	Cadmium
Isotope	Pd 104	Pd 105	Ag 107	Ag 109	Cd 111	Cd 112
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.0174	-0.3650	0.2892	0.2701	-0.0003	0.0038
Run 2	0.0126	-0.2955	0.2440	0.2503	-0.0025	-0.0017
Run 3	0.0056	-0.1873	0.2334	0.2231	-0.0048	0.0006
Mean	0.0119	-0.2826	0.2555	0.2479	-0.0025	0.0009
Std Dev	0.0059	0.0896	0.0296	0.0236	0.0022	0.0028
%SD	49.90	31.69	11.60	9.536	87.93	304.7

Element	Tin	Cadmium	Tin	Tin	Tin	Antimony
Isotope	Sn 114	Cd 114	Sn 117	Sn 118	Sn 120	Sb 121
Detector	PC	PC	PC	PC	PC	
Run 1	0.0035	0.0035	0.0632	0.0436	0.0374	~~0.0416~~
Run 2	0.0029	0.0029	0.0425	0.0514	0.0337	0.0468
Run 3	0.0015	0.0015	0.0447	0.0490	0.1241	0.0473
Mean	0.0026	0.0026	0.0501	0.0480	0.0651	~~0.0519~~
Std Dev	0.0010	0.0010	0.0114	0.0040	0.0512	0.0084
%SD	38.84	38.84	22.68	8.389	78.63	16.22

Element	Tin	Antimony	Rhenium	Rhenium	Osmium	Osmium

CCB-4

5/30/97 0.0476

00421

Element	Tin	Antimony	Rhenium	Rhenium	Osmium	Osmium
Isotope	Sn 122	Sb 123	Re 185	Re 187	Os 188	Os 189
Detector	PC	PC	PC	PC	PC	PC
Isotope	Sn 122	Sb 123	Re 185	Re 187	Os 188	Os 189
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.0763	0.0661	-0.0009	0.0014	0.0429	0.0355
Run 2	0.1309	0.0570	-0.0011	-0.0000	0.0149	0.0127
Run 3	0.0444	0.0511	-0.0012	0.0000	0.0048	0.0040
Mean	0.0839	0.0580	-0.0011	0.0005	0.0209	0.0174
Std Dev	0.0437	0.0076	0.0002	0.0008	0.0197	0.0163
%SD	52.15	13.01	15.10	169.4	94.59	93.52

CB,4

Element	Osmium	Iridium	Iridium	Platinum	Platinum	Platinum
Isotope	Os 190	Ir 191	Ir 193	Pt 194	Pt 195	Pt 196
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.0358	-0.1497	-0.0039	0.0019	0.0008	0.0059
Run 2	0.0087	-0.1187	-0.0044	0.0034	0.0011	0.0025
Run 3	0.0055	-0.1189	-0.0055	0.0016	0.0007	0.0049
Mean	0.0167	-0.1291	-0.0046	0.0023	0.0008	0.0044
Std Dev	0.0167	0.0179	0.0009	0.0009	0.0002	0.0018
%SD	100.00	13.82	19.63	40.76	27.63	39.65

Element	Gold	Thallium	Thallium
Isotope	Au 197	Tl 203	Tl 205
Detector	PC	PC	PC
Run 1	0.0196	0.0008	0.0025
Run 2	0.0185	-0.0002	0.0017
Run 3	0.0127	0.0017	0.0004
Mean	0.0170	0.0005	0.0015
Std Dev	0.0037	0.0012	0.0010
%SD	21.84	228.6	68.08

Internal Standard Drift; % relative to mean of first sample :

Element	Scandium	Yttrium	Bismuth
Isotope	Sc 45	Y 89	Bi 209
Detector	PC	PC	PC
Run 1	74.81	89.80	113.8
Run 2	74.43	86.67	108.8
Run 3	75.46	85.17	106.3
Mean	74.90	87.21	109.6
Std Dev	0.5191	2.360	3.820

Multi-Element Calibration Fri May 30 1997

Calibration graph coefficients for selected isotopes.

User Name : MANAGER Experiment name : ANALYSIS

Analysis procedure : 200.8

Introduction method : DEFAULT

First sample started at : Fri May 30 1997 15:35:02

Last sample started at : **********

Internal standards : Sc 45 Y 89 Bi 209 (Interpolat

Polynomial fit : y = a0 + a1.x + a2.x^2

Units of response : y = counts per second

Units of concentration : x = ppb

Extr/Analysis Lot MET9700922

Element	Symbol	Mass	a0	a1	a2	regression
Beryllium	Be	9	50.43	5639	0.0	1.0000
Selenium	Se	77	430.5	173.9	0.0	1.0000
Selenium	Se	78	3138	498.7	0.0	1.0000
Selenium	Se	82	507.4	204.2	0.0	1.0000
Molybdenum	Mo	95	86.24	2625	0.0	1.0000
Molybdenum	Mo	97	99.66	1680	0.0	1.0000
Molybdenum	Mo	98	157.0	4327	0.0	1.0000
Ruthenium	Ru	99	33.96	2531	0.0	1.0000
Ruthenium	Ru	101	21.35	3605	0.0	1.0000
Ruthenium	Ru	102	39.43	7422	0.0	1.0000
Rhodium	Rh	103	22.30	21335	0.0	1.0000
Palladium	Pd	104	149.9	6645	0.0	1.0000
Palladium	Pd	105	10433	4539	0.0	1.0000
Rhenium	Re	185	19.65	10785	0.0	1.0000
Rhenium	Re	187	52.80	19728	0.0	1.0000
Osmium	Os	188	282.0	1929	0.0	1.0000
Osmium	Os	189	368.2	5959	0.0	1.0000
Osmium	Os	190	592.6	9634	0.0	1.0000
Iridium	Ir	191	9185	9942	0.0	1.0000
Iridium	Ir	193	103.7	16892	0.0	1.0000
Platinum	Pt	194	110.3	6057	0.0	1.0000
Platinum	Pt	195	119.8	6216	0.0	1.0000
Platinum	Pt	196	89.67	4751	0.0	1.0000
Gold	Au	197	437.8	8324	0.0	1.0000
Thallium	Tl	203	81.62	9302	0.0	1.0000
Thallium	Tl	205	208.3	21492	0.0	1.0000

Multi-Element Concentrations Fri May 30 1997
Statistics for Concentration Determination.
Analysis procedure : 200.8

Sample name : Calibration Blank

First repeat started at : Fri May 30 1997 15:35:02

Last repeat started at : Fri May 30 1997 15:37:07

Interference Equations : DEFAULT

Dilution Factor : 1.0000 Concentration units : ppb

Element	Beryllium	Selenium	Selenium	Selenium	Molybdenum	Molybdenum	Molybdenum
Isotope	Be 9	Se 77	Se 78	Se 82	Mo 95	Mo 97	Mo 98
Detector	PC	PC	PC	PC	PC	PC	PC
Run 1	-0.0006	0.0589	0.7311	0.0631	0.0032	-0.0043	0.0084
Run 2	0.0009	-0.0334	-0.2632	-0.0362	0.0021	0.0131	-0.0015
Run 3	-0.0003	-0.0255	-0.4679	-0.0269	-0.0053	-0.0088	-0.0069
Mean	0.0000	-0.0000	0.0000	-0.0000	0.0000	0.0000	0.0000
Std Dev	0.0008	0.0512	0.6414	0.0549	0.0046	0.0115	0.0077
%SD	116290	43942000	23198000	9160700	412580	834600	491420

Element	Ruthenium	Ruthenium	Ruthenium	Rhodium	Palladium	Palladium
Isotope	Ru 99	Ru 101	Ru 102	Rh 103	Pd 104	Pd 105
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.0021	-0.0010	0.0002	-0.0004	0.0054	-0.0115
Run 2	-0.0027	0.0009	0.0002	0.0001	-0.0036	0.0650
Run 3	0.0006	0.0001	-0.0004	0.0003	-0.0018	-0.0534
Mean	-0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Std Dev	0.0025	0.0009	0.0003	0.0003	0.0047	0.0600
%SD	472520	36755	16575	9472	345550	4653600

Element	Rhenium	Rhenium	Osmium	Osmium	Osmium	Iridium
Isotope	Re 185	Re 187	Os 188	Os 189	Os 190	Ir 191
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.0004	0.0014	0.0335	0.0389	0.0335	0.0175
Run 2	-0.0004	-0.0002	-0.0114	-0.0107	-0.0096	0.0003
Run 3	0.0000	-0.0012	-0.0221	-0.0282	-0.0239	-0.0177
Mean	0.0000	0.0000	-0.0000	0.0000	0.0000	0.0000
Std Dev	0.0004	0.0013	0.0295	0.0348	0.0299	0.0176
%SD	16470	2637200	24186000	1492700	1288800	3160200

Element	Iridium	Platinum	Platinum	Platinum	Gold	Thallium
Isotope	Ir 193	Pt 194	Pt 195	Pt 196	Au 197	Tl 203
Detector	PC	PC	PC	PC	PC	PC
Run 1	-0.0007	0.0021	0.0027	0.0032	0.0070	-0.0002
Run 2	0.0007	-0.0025	-0.0009	-0.0001	0.0013	0.0004
Run 3	-0.0000	0.0004	-0.0017	-0.0031	-0.0082	-0.0002
Mean	-0.0000	0.0000	0.0000	0.0000	-0.0000	0.0000
Std Dev	0.0007	0.0023	0.0023	0.0031	0.0077	0.0003
%SD	117960	112430	99560	224130	1949400	36096

00424

Element	Thallium

Element	Thallium
Isotope	Tl 205
Detector	PC
Isotope	Tl 205
Detector	PC
Run 1	-0.0007
Run 2	0.0012
Run 3	-0.0005
Mean	0.0000
Std Dev	0.0010
%SD	53239

Internal Standard Drift; % relative to mean of first sample :

Element	Scandium	Yttrium	Bismuth
Isotope	Sc 45	Y 89	Bi 209
Detector	PC	PC	PC
Run 1	107.6	106.1	102.2
Run 2	97.60	98.59	98.28
Run 3	94.82	95.29	99.52
Mean	100.00	100.00	100.00
Std Dev	6.710	5.560	2.005

Multi-Element Concentrations Fri May 30 1997
Statistics for Concentration Determination.
Analysis procedure : 200.8

Sample name : 25.0 ppb Calibration Standard

First repeat started at : Fri May 30 1997 15:38:26

Last repeat started at : Fri May 30 1997 15:40:31

Interference Equations : DEFAULT

Dilution Factor : 1.0000 Concentration units : ppb

Element	Beryllium	Selenium	Selenium	Selenium	Molybdenum	Molybdenum	Molybdenum
Isotope	Be 9	Se 77	Se 78	Se 82	Mo 95	Mo 97	Mo 98
Detector	PC	PC	PC	PC	PC	PC	PC
Run 1	24.51	24.27	24.61	24.35	25.20	24.86	24.72
Run 2	25.69	25.38	25.04	25.35	24.97	25.55	25.24
Run 3	24.81	25.35	25.35	25.30	24.83	24.59	25.04
Mean	25.00	25.00	25.00	25.00	25.00	25.00	25.00
Std Dev	0.6132	0.6298	0.3710	0.5633	0.1861	0.4986	0.2637
%SD	2.453	2.519	1.484	2.253	0.7443	1.994	1.055

Element	Ruthenium	Ruthenium	Ruthenium	Rhodium	Palladium	Palladium
Isotope	Ru 99	Ru 101	Ru 102	Rh 103	Pd 104	Pd 105
Detector	PC	PC	PC	PC	PC	PC
Run 1	-0.0032	-0.0022	0.0001	0.0007	-0.0053	-0.0017
Run 2	-0.0020	0.0001	-0.0016	0.0004	-0.0049	0.0154
Run 3	-0.0011	0.0017	-0.0014	0.0004	-0.0056	-0.0355
Mean	-0.0021	-0.0001	-0.0010	0.0005	-0.0053	-0.0240
Std Dev	0.0010	0.0020	0.0010	0.0002	0.0004	0.0540
%SD	49.22	1532	99.96	38.13	6.861	225.3

Element	Rhenium	Rhenium	Osmium	Osmium	Osmium	Iridium
Isotope	Re 185	Re 187	Os 188	Os 189	Os 190	Ir 191
Detector	PC	PC	PC	PC	PC	PC
Run 1	-0.0000	-0.0008	-0.0339	-0.0354	-0.0345	-0.0113
Run 2	-0.0003	-0.0010	-0.0350	-0.0445	-0.0409	-0.0422
Run 3	0.0001	-0.0012	-0.0359	-0.0429	-0.0430	-0.0287
Mean	-0.0001	-0.0010	-0.0349	-0.0412	-0.0395	-0.0274
Std Dev	0.0002	0.0002	0.0010	0.0043	0.0044	0.0155
%SD	225.3	22.00	2.738	10.34	11.16	56.60

Element	Iridium	Platinum	Platinum	Platinum	Gold	Thallium
Isotope	Ir 193	Pt 194	Pt 195	Pt 196	Au 197	Tl 203
Detector	PC	PC	PC	PC	PC	PC
Run 1	-0.0004	-0.0026	-0.0012	0.0001	-0.0060	24.92
Run 2	-0.0001	-0.0023	-0.0041	-0.0023	-0.0086	24.80
Run 3	-0.0003	-0.0019	-0.0046	-0.0033	-0.0079	25.27
Mean	-0.0003	-0.0023	-0.0033	-0.0018	-0.0075	25.00
Std Dev	0.0002	0.0004	0.0018	0.0017	0.0014	0.2450
%SD	57.55	16.50	54.74	94.78	18.06	0.9799

00426

Element	Thallium

Element	Thallium
Isotope	Tl 205
Detector	PC
Isotope	Tl 205
Detector	PC
Run 1	25.06
Run 2	24.84
Run 3	25.09
Mean	25.00
Std Dev	0.1359
%SD	0.5435

Internal Standard Drift; % relative to mean of first sample :

Element	Scandium	Yttrium	Bismuth
Isotope	Sc 45	Y 89	Bi 209
Detector	PC	PC	PC
Run 1	92.38	93.07	94.87
Run 2	88.08	91.88	97.18
Run 3	87.63	91.83	96.12
Mean	89.36	92.26	96.06
Std Dev	2.621	0.7000	1.157

Multi-Element Concentrations Fri May 30 1997
Statistics for Concentration Determination.
Analysis procedure : 200.8

Sample name : 25.0 ppb Odd Element Calib. Standard

First repeat started at : Fri May 30 1997 15:41:51

Last repeat started at : Fri May 30 1997 15:43:56

Interference Equations : DEFAULT

Dilution Factor : 1.0000 Concentration units : ppb

Element	Beryllium	Selenium	Selenium	Selenium	Molybdenum	Molybdenum	Molybdenum
Isotope	Be 9	Se 77	Se 78	Se 82	Mo 95	Mo 97	Mo 98
Detector	PC	PC	PC	PC	PC	PC	PC
Run 1	0.0169	0.2138	-0.5404	0.2034	0.2605	0.2707	2.276
Run 2	0.0102	-0.0027	-0.6490	-0.0159	0.0993	0.0881	2.112
Run 3	0.0041	0.3419	-0.8030	0.3277	0.0497	0.0369	2.080
Mean	0.0104	0.1843	-0.6641	0.1718	0.1365	0.1319	2.156
Std Dev	0.0064	0.1742	0.1319	0.1740	0.1102	0.1229	0.1047
%SD	61.44	94.48	19.87	101.3	80.72	93.17	4.857

Element	Ruthenium	Ruthenium	Ruthenium	Rhodium	Palladium	Palladium
Isotope	Ru 99	Ru 101	Ru 102	Rh 103	Pd 104	Pd 105
Detector	PC	PC	PC	PC	PC	PC
Run 1	25.19	25.60	25.44	24.71	24.75	25.10
Run 2	24.54	24.09	25.11	25.31	24.43	24.72
Run 3	25.27	25.31	24.44	24.98	25.82	25.18
Mean	25.00	25.00	25.00	25.00	25.00	25.00
Std Dev	0.4003	0.8039	0.5098	0.3042	0.7292	0.2417
%SD	1.601	3.216	2.039	1.217	2.917	0.9668

Element	Rhenium	Rhenium	Osmium	Osmium	Osmium	Iridium
Isotope	Re 185	Re 187	Os 188	Os 189	Os 190	Ir 191
Detector	PC	PC	PC	PC	PC	PC
Run 1	25.37	25.00	23.79	24.03	24.71	25.08
Run 2	24.58	24.96	24.93	24.44	24.61	25.08
Run 3	25.04	25.03	26.28	26.52	25.68	24.84
Mean	25.00	25.00	25.00	25.00	25.00	25.00
Std Dev	0.3952	0.0357	1.248	1.336	0.5906	0.1366
%SD	1.581	0.1429	4.993	5.344	2.362	0.5463

Element	Iridium	Platinum	Platinum	Platinum	Gold	Thallium
Isotope	Ir 193	Pt 194	Pt 195	Pt 196	Au 197	Tl 203
Detector	PC	PC	PC	PC	PC	PC
Run 1	24.44	24.71	25.34	25.19	24.65	0.1565
Run 2	24.73	24.45	24.13	24.76	25.04	0.1061
Run 3	25.84	25.83	25.52	25.04	25.31	0.1027
Mean	25.00	25.00	25.00	25.00	25.00	0.1218
Std Dev	0.7389	0.7345	0.7582	0.2172	0.3338	0.0301
%SD	2.955	2.938	3.033	0.8689	1.335	24.73

Element	Thallium

Element	Thallium
Isotope	Tl 205
Detector	PC
Isotope	Tl 205
Detector	PC
Run 1	0.0670
Run 2	0.0278
Run 3	0.0250
Mean	0.0399
Std Dev	0.0235
%SD	58.79

Internal Standard Drift: % relative to mean of first sample :

Element	Scandium	Yttrium	Bismuth
Isotope	Sc 45	Y 89	Bi 209
Detector	PC	PC	PC
Run 1	86.71	89.95	95.52
Run 2	85.82	89.90	97.66
Run 3	85.69	89.91	94.06
Mean	86.07	89.92	95.75
Std Dev	0.5563	0.0275	1.810

Multi-Element Concentrations Fri May 30 1997
Statistics for Concentration Determination.
Analysis procedure : 200.8

Sample name : 1

First repeat started at : Fri May 30 1997 15:45:17

Last repeat started at : Fri May 30 1997 15:47:21

Interference Equations : DEFAULT

Dilution Factor : 1.0000 Concentration units : ppb

Element	Beryllium	Selenium	Selenium	Selenium	Molybdenum	Molybdenum	Molybdenum
Isotope	Be 9	Se 77	Se 78	Se 82	Mo 95	Mo 97	Mo 98
Detector	PC	PC	PC	PC	PC	PC	PC
Run 1	0.0024	0.0155	-0.9792	0.0073	0.0248	0.0203	2.092
Run 2	0.0037	-0.1081	-1.074	-0.1180	0.0191	0.0113	2.009
Run 3	0.0041	-0.2336	-0.8025	-0.2462	0.0126	-0.0009	2.014
Mean	0.0034	-0.1087	-0.9520	-0.1190	0.0188	0.0102	2.039
Std Dev	0.0009	0.1245	0.1380	0.1268	0.0061	0.0106	0.0465
%SD	25.27	114.5	14.49	106.5	32.57	103.8	2.279

Element	Ruthenium	Ruthenium	Ruthenium	Rhodium	Palladium	Palladium
Isotope	Ru 99	Ru 101	Ru 102	Rh 103	Pd 104	Pd 105
Detector	PC	PC	PC	PC	PC	PC
Run 1	24.39	25.68	25.51	25.44	25.30	25.32
Run 2	25.31	26.35	25.01	24.87	24.91	26.35
Run 3	25.21	26.03	24.90	24.83	25.16	25.57
Mean	24.97	26.02	25.14	25.05	25.12	25.75
Std Dev	0.5055	0.3366	0.3280	0.3395	0.2011	0.5401
%SD	2.025	1.293	1.304	1.356	0.8006	2.098

ICV-3

Element	Rhenium	Rhenium	Osmium	Osmium	Osmium	Iridium
Isotope	Re 185	Re 187	Os 188	Os 189	Os 190	Ir 191
Detector	PC	PC	PC	PC	PC	PC
Run 1	25.67	25.14	25.32	25.78	25.73	25.17
Run 2	26.28	24.79	25.72	26.99	26.45	25.13
Run 3	25.89	25.61	25.62	26.71	26.65	24.99
Mean	25.95	25.18	25.55	26.46	26.28	25.10
Std Dev	0.3068	0.4123	0.2048	0.5993	0.4843	0.0966
%SD	1.182	1.637	0.8015	2.264	1.843	0.3850

Element	Iridium	Platinum	Platinum	Platinum	Gold	Thallium
Isotope	Ir 193	Pt 194	Pt 195	Pt 196	Au 197	Tl 203
Detector	PC	PC	PC	PC	PC	PC
Run 1	24.69	24.46	25.10	25.37	24.97	0.1021
Run 2	24.97	25.28	26.17	25.26	25.56	0.1059
Run 3	25.28	26.13	26.07	25.11	25.79	0.1090
Mean	24.98	25.29	25.78	25.25	25.44	0.1057
Std Dev	0.2940	0.8353	0.5930	0.1324	0.4251	0.0035
%SD	1.177	3.303	2.300	0.5246	1.671	3.298

00430

Element	Thallium

Element	Thallium
Isotope	Tl 205
Detector	PC
Isotope	Tl 205
Detector	PC
Run 1	0.0173
Run 2	0.0162
Run 3	0.0167
Mean	0.0167
Std Dev	0.0005
%SD	3.272

Internal Standard Drift; % relative to mean of first sample :

Element	Scandium	Yttrium	Bismuth
Isotope	Sc 45	Y 89	Bi 209
Detector	PC	PC	PC
Run 1	85.28	97.78	96.66
Run 2	84.08	87.11	94.21
Run 3	84.30	88.23	93.34
Mean	84.55	87.71	94.74
Std Dev	0.6375	0.5661	1.720

Multi-Element Concentrations Fri May 30 1997
Statistics for Concentration Determination.
Analysis procedure : 200.8

Sample name : 2

First repeat started at : Fri May 30 1997 15:50:16

Last repeat started at : Fri May 30 1997 15:52:20

Interference Equations : DEFAULT

Dilution Factor : 1.0000 Concentration units : ppb

Element	Beryllium	Selenium	Selenium	Selenium	Molybdenum	Molybdenum	Molybdenum
Isotope	Be	Se 77	Se 78	Se 82	Mo 95	Mo 97	Mo 98
Detector	PC	PC	PC	PC	PC	PC	PC
Run 1	5.303	52.45	54.77	52.39	51.45	50.78	50.73
Run 2	5.673	51.27	52.79	51.39	50.63	51.55	52.42
Run 3	5.715	51.63	54.26	51.67	52.28	51.34	53.65
Mean	5.563	51.78	53.94	51.81	51.45	51.22	52.27
Std Dev	0.2259	0.6051	1.027	0.5170	0.8251	0.4012	1.467
%SD	4.062	1.169	1.904	0.9977	1.604	0.7833	2.806

Element	Ruthenium	Ruthenium	Ruthenium	Rhodium	Palladium	Palladium
Isotope	Ru 99	Ru 101	Ru 102	Rh 103	Pd 104	Pd 105
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.0182	0.0179	0.0225	0.0160	0.0976	0.3797
Run 2	0.0101	0.0110	0.0100	0.0084	0.0589	0.4640
Run 3	0.0055	0.0099	0.0075	0.0074	0.0446	0.2460
Mean	0.0113	0.0129	0.0133	0.0106	0.0670	0.3632
Std Dev	0.0064	0.0044	0.0080	0.0047	0.0274	0.1100
%SD	57.14	34.06	60.39	44.51	40.89	30.28

ICV-3

Element	Rhenium	Rhenium	Osmium	Osmium	Osmium	Iridium
Isotope	Re 185	Re 187	Os 188	Os 189	Os 190	Ir 191
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.0163	0.0241	0.3644	0.3878	0.3858	0.1150
Run 2	0.0100	0.0096	0.0765	0.0681	0.0734	0.0784
Run 3	0.0061	0.0067	0.0265	0.0303	0.0241	0.0497
Mean	0.0108	0.0135	0.1558	0.1620	0.1611	0.0810
Std Dev	0.0052	0.0094	0.1824	0.1964	0.1962	0.0327
%SD	47.89	69.64	117.1	121.2	121.7	40.41

Element	Iridium	Platinum	Platinum	Platinum	Gold	Thallium
Isotope	Ir 193	Pt 194	Pt 195	Pt 196	Au 197	Tl 203
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.1420	0.0535	0.0447	0.0446	0.2054	49.82
Run 2	0.0734	0.0122	0.0070	0.0051	0.0604	52.50
Run 3	0.0518	0.0054	-0.0007	0.0061	0.0288	52.06
Mean	0.0891	0.0237	0.0170	0.0186	0.0982	51.46
Std Dev	0.0471	0.0260	0.0243	0.0225	0.0942	1.435
%SD	52.95	110.0	143.0	120.8	95.92	2.789

Element	Thallium

00432

Element	Thallium
Isotope	Tl 205
Detector	PC
Isotope	Tl 205
Detector	PC
Run 1	50.84
Run 2	50.47
Run 3	51.47
Mean	50.93
Std Dev	0.5085
%SD	0.9986

Internal Standard Drift; % relative to mean of first sample :

Element	Scandium	Yttrium	Bismuth
Isotope	Sc 45	Y 89	Bi 209
Detector	PC	PC	PC
Run 1	91.98	85.54	94.14
Run 2	87.10	88.44	91.74
Run 3	85.47	87.88	93.87
Mean	84.81	87.28	93.25
Std Dev	2.670	1.537	1.315

Multi-Element Concentrations Fri May 30 1997
Statistics for Concentration Determination.
Analysis procedure : 200.8

Sample name : 3

First repeat started at : Fri May 30 1997 15:53:46

Last repeat started at : Fri May 30 1997 15:55:51

Interference Equations : DEFAULT

Dilution Factor : 1.0000 Concentration units : ppb

Element	Beryllium	Selenium	Selenium	Selenium	Molybdenum	Molybdenum	Molybdenum
Isotope	Be 9	Se 77	Se 78	Se 82	Mo 95	Mo 97	Mo 98
Detector	PC	PC	PC	PC	PC	PC	PC
Run 1	0.0051	0.3098	-0.2144	0.3024	0.3758	0.4139	2.442
Run 2	0.0032	-0.1177	0.0905	-0.1227	0.1585	0.1617	2.209
Run 3	0.0010	-0.0604	-0.3847	-0.0669	0.0922	0.0954	2.184
Mean	0.0031	0.0439	-0.1695	0.0376	0.2088	0.2236	2.265
Std Dev	0.0021	0.2320	0.2408	0.2310	0.1483	0.1631	0.1567
%SD	67.03	528.7	142.0	614.9	71.04	75.15	6.917

Element	Ruthenium	Ruthenium	Ruthenium	Rhodium	Palladium	Palladium
Isotope	Ru 99	Ru 101	Ru 102	Rh 103	Pd 104	Pd 105
Detector	PC	PC	PC	PC	PC	PC
Run 1	24.82	24.86	24.44	24.70	25.97	25.05
Run 2	25.40	25.41	24.88	25.29	26.00	25.01
Run 3	25.72	26.07	24.67	25.36	25.98	25.69
Mean	25.32	25.44	24.66	25.11	25.98	25.25
Std Dev	0.4559	0.6035	0.2222	0.3579	0.0180	0.3783
%SD	1.801	2.372	0.9009	1.425	0.0694	1.498

Element	Rhenium	Rhenium	Osmium	Osmium	Osmium	Iridium
Isotope	Re 185	Re 187	Os 188	Os 189	Os 190	Ir 191
Detector	PC	PC	PC	PC	PC	PC
Run 1	25.14	24.82	24.10	23.75	23.88	25.27
Run 2	24.82	24.62	24.02	23.97	23.79	25.02
Run 3	25.65	25.48	25.36	25.32	25.20	24.80
Mean	25.20	24.98	24.49	24.35	24.29	25.03
Std Dev	0.4150	0.4498	0.7539	0.8478	0.7851	0.2355
%SD	1.646	1.801	3.077	3.482	3.232	0.9408

Element	Iridium	Platinum	Platinum	Platinum	Gold	Thallium
Isotope	Ir 193	Pt 194	Pt 195	Pt 196	Au 197	Tl 203
Detector	PC	PC	PC	PC	PC	PC
Run 1	25.30	25.47	25.54	24.81	25.18	0.1484
Run 2	25.30	24.89	24.61	24.64	25.12	0.1294
Run 3	25.66	25.41	25.66	25.03	26.19	0.1165
Mean	25.42	25.26	25.27	24.83	25.50	0.1311
Std Dev	0.2049	0.3169	0.5732	0.1981	0.6038	0.0161
%SD	0.8059	1.254	2.268	0.7981	2.367	12.30

Element	Thallium

CCV-5

00434

Element	Thallium
Isotope	Tl 205
Detector	PC
Isotope	Tl 205
Detector	PC
Run 1	0.0501
Run 2	0.0339
Run 3	0.0276
Mean	0.0372
Std Dev	0.0116
%SD	31.25

Internal Standard Drift; % relative to mean of first sample :

Element	Scandium	Yttrium	Bismuth
Isotope	Sc 45	Y 89	Bi 209
Detector	PC	PC	PC
Run 1	89.43	91.91	92.98
Run 2	90.34	91.89	95.17
Run 3	93.46	90.52	92.91
Mean	97.41	91.44	93.69
Std Dev	0.9428	0.7967	1.285

Multi-Element Concentrations Fri May 30 1997

Statistics for Concentration Determination.

Analysis procedure : 200.8

Sample name : 4

First repeat started at : Fri May 30 1997 15:57:22

Last repeat started at : Fri May 30 1997 15:59:27

Interference Equations : DEFAULT

Dilution Factor : 1.0000 Concentration units : ppb

Element	Beryllium	Selenium	Selenium	Selenium	Molybdenum	Molybdenum	Molybdenum
Isotope	Be 9	Se 77	Se 79	Se 82	Mo 95	Mo 97	Mo 98
Detector	PC	PC	PC	PC	PC	PC	PC
Run 1	4.970	52.52	53.84	52.00	49.47	49.03	49.30
Run 2	5.024	52.50	54.72	51.91	50.06	50.35	50.08
Run 3	5.036	54.78	55.19	54.17	50.31	51.68	52.17
Mean	4.977	53.27	54.58	52.69	49.95	50.35	50.52
Std Dev	0.0330	1.309	0.6807	1.281	0.4328	1.326	1.481
%SD	1.868	2.457	1.247	2.430	0.8665	2.634	2.932

Element	Ruthenium	Ruthenium	Ruthenium	Rhodium	Palladium	Palladium
Isotope	Ru 99	Ru 101	Ru 102	Rh 103	Pd 104	Pd 105
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.0170	0.0134	0.0207	0.0151	0.0907	0.1831
Run 2	0.0047	0.0112	0.0116	0.0076	0.0534	0.0183
Run 3	0.0087	0.0095	0.0048	0.0045	0.0408	0.0274
Mean	0.0101	0.0114	0.0124	0.0091	0.0616	0.0763
Std Dev	0.0063	0.0020	0.0080	0.0055	0.0259	0.0928
%SD	62.27	17.22	64.41	59.90	42.09	121.4

ICV-3 rerun for Be

Element	Rhenium	Rhenium	Osmium	Osmium	Osmium	Iridium
Isotope	Re 185	Re 187	Os 188	Os 189	Os 190	Ir 191
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.0153	0.0228	0.3794	0.3898	0.3529	0.1029
Run 2	0.0096	0.0093	0.1047	0.0968	0.0987	0.0292
Run 3	0.0054	0.0058	0.0656	0.0418	0.0497	-0.0029
Mean	0.0101	0.0126	0.1832	0.1761	0.1671	0.0430
Std Dev	0.0049	0.0090	0.1710	0.1871	0.1628	0.0542
%SD	48.82	70.99	93.33	106.2	97.41	126.0

Element	Iridium	Platinum	Platinum	Platinum	Gold	Thallium
Isotope	Ir 193	Pt 194	Pt 195	Pt 196	Au 197	Tl 203
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.1357	0.0446	0.0345	0.0399	0.2048	54.00
Run 2	0.0564	0.0044	0.0097	0.0066	0.0446	51.45
Run 3	0.0424	0.0013	-0.0037	0.0005	0.0170	52.52
Mean	0.0782	0.0167	0.0135	0.0157	0.0888	52.66
Std Dev	0.0503	0.0242	0.0194	0.0212	0.1014	1.282
%SD	64.33	144.4	143.8	135.3	114.2	2.435

Element	Thallium

00436

Element	Thallium
Isotope	Tl 205
Detector	PC
Isotope	Tl 205
Detector	PC
Run 1	52.39
Run 2	50.82
Run 3	50.44
Mean	51.22
Std Dev	1.033
%SD	2.018

Internal Standard Drift; % relative to mean of first sample :

Element	Scandium	Yttrium	Bismuth
Isotope	Sc 45	Y 89	Bi 209
Detector	PC	PC	PC
Run 1	72.38	81.14	91.26
Run 2	70.50	79.95	94.52
Run 3	68.95	79.05	94.58
Mean	70.61	79.71	93.45
Std Dev	1.718	1.557	1.902

Multi-Element Concentrations Fri May 30 1997
Statistics for Concentration Determination.
Analysis procedure : 200.8

Sample name : 5

First repeat started at : Fri May 30 1997 16:02:40

Last repeat started at : Fri May 30 1997 16:04:45

Interference Equations : DEFAULT

Dilution Factor : 1.0000 Concentration units : ppb

Element	Beryllium	Selenium	Selenium	Selenium	Molybdenum	Molybdenum	Molybdenum
Isotope	Be 9	Se 77	Se 78	Se 82	Mo 95	Mo 97	Mo 98
Detector	PC	PC	PC	PC	PC	PC	PC
Run 1	25.53	24.75	25.31	24.66	24.23	23.79	24.21
Run 2	25.70	25.69	25.74	25.65	24.58	24.62	25.28
Run 3	25.15	26.04	26.38	26.03	24.52	24.89	25.11
Mean	25.46	25.49	25.81	25.44	24.45	24.43	24.87
Std Dev	0.2782	0.6669	0.5362	0.7093	0.1842	0.5737	0.5765
%SD	1.092	2.616	2.078	2.788	0.7536	2.348	2.318

Element	Ruthenium	Ruthenium	Ruthenium	Rhodium	Palladium	Palladium
Isotope	Ru 99	Ru 101	Ru 102	Rh 103	Pd 104	Pd 105
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.0037	0.0014	0.0021	0.0015	0.0213	0.0768
Run 2	0.0050	-0.0004	0.0005	0.0016	0.0128	0.1765
Run 3	-0.0026	0.0015	0.0012	0.0009	0.0104	0.0866
Mean	0.0020	0.0008	0.0012	0.0014	0.0148	0.1133
Std Dev	0.0041	0.0011	0.0008	0.0004	0.0057	0.0550
%SD	198.3	126.3	66.11	28.47	38.69	48.52

Element	Rhenium	Rhenium	Osmium	Osmium	Osmium	Iridium
Isotope	Re 185	Re 187	Os 188	Os 189	Os 190	Ir 191
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.0017	0.0016	0.0629	0.0610	0.0612	-0.0036
Run 2	0.0007	0.0018	0.0473	0.0445	0.0418	-0.0029
Run 3	0.0004	0.0019	0.0408	0.0331	0.0319	-0.0138
Mean	0.0009	0.0018	0.0503	0.0462	0.0450	-0.0068
Std Dev	0.0007	0.0001	0.0114	0.0140	0.0149	0.0061
%SD	70.27	6.636	22.58	30.40	33.06	90.10

Element	Iridium	Platinum	Platinum	Platinum	Gold	Thallium
Isotope	Ir 193	Pt 194	Pt 195	Pt 196	Au 197	Tl 203
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.0151	-0.0074	-0.0075	-0.0045	0.0105	26.01
Run 2	0.0165	-0.0039	-0.0066	-0.0061	0.0122	25.53
Run 3	0.0095	-0.0060	-0.0066	-0.0072	0.0046	24.95
Mean	0.0137	-0.0058	-0.0069	-0.0059	0.0091	25.49
Std Dev	0.0037	0.0017	0.0005	0.0013	0.0040	0.5298
%SD	27.16	29.92	7.163	22.66	43.72	2.078

Element	Thallium

00438

Element	Thallium
Isotope	Tl 205
Detector	PC
Isotope	Tl 205
Detector	PC
Run 1	25.68
Run 2	24.50
Run 3	25.02
Mean	25.07
Std Dev	0.5950
%SD	2.374

Internal Standard Drift; % relative to mean of first sample :

Element	Scandium	Yttrium	Bismuth
Isotope	Sc 45	Y 89	Bi 209
Detector	PC	PC	PC
Run 1	82.90	88.19	93.00
Run 2	83.77	87.53	92.64
Run 3	84.25	87.30	94.42
Mean	83.64	87.67	93.36
Std Dev	0.6824	0.4613	0.9398

Multi-Element Concentrations Fri May 30 1997
Statistics for Concentration Determination.
Analysis procedure : 200.8

Sample name : 6

First repeat started at : Fri May 30 1997 16:10:54

Last repeat started at : Fri May 30 1997 16:12:59

Interference Equations : DEFAULT

Dilution Factor : 1.0000 Concentration units : ppb

Element	Beryllium	Selenium	Selenium	Selenium	Molybdenum	Molybdenum	Molybdenum
Isotope	Be 9	Se 77	Se 78	Se 82	Mo 95	Mo 97	Mo 98
Detector	PC	PC	PC	PC	PC	PC	PC
Run 1	0.0058	-0.0103	-0.2091	-0.0109	0.0308	0.0138	0.0157
Run 2	0.0011	-0.1187	-0.2875	-0.1230	0.0095	0.0141	0.0162
Run 3	0.0004	0.0068	-0.0815	-0.0026	0.0080	0.0117	0.0025
Mean	0.0025	-0.0408	-0.1927	-0.0455	0.0161	0.0132	0.0115
Std Dev	0.0029	0.0681	0.1039	0.0672	0.0127	0.0013	0.0078
%SD	118.8	166.9	53.93	147.8	79.13	10.03	67.63

Element	Ruthenium	Ruthenium	Ruthenium	Rhodium	Palladium	Palladium
Isotope	Ru 99	Ru 101	Ru 102	Rh 103	Pd 104	Pd 105
Detector	PC	PC	PC	PC	PC	PC
Run 1	-0.0012	0.0003	0.0004	0.0001	-0.0002	0.2686
Run 2	-0.0020	-0.0009	-0.0003	-0.0003	-0.0019	0.3524
Run 3	-0.0024	-0.0019	-0.0011	0.0000	-0.0018	0.0682
Mean	-0.0018	-0.0009	-0.0003	-0.0000	-0.0013	0.2297
Std Dev	0.0006	0.0011	0.0007	0.0002	0.0010	0.1460
%SD	33.28	134.3	223.4	449.3	74.30	63.55

CCB-5

Element	Rhenium	Rhenium	Osmium	Osmium	Osmium	Iridium
Isotope	Re 185	Re 187	Os 188	Os 189	Os 190	Ir 191
Detector	PC	PC	PC	PC	PC	PC
Run 1	-0.0002	0.0009	0.0173	0.0143	0.0224	0.0217
Run 2	0.0009	-0.0002	0.0208	0.0187	0.0082	-0.0023
Run 3	-0.0005	0.0007	0.0119	0.0035	0.0027	-0.0108
Mean	0.0001	0.0005	0.0167	0.0121	0.0111	0.0029
Std Dev	0.0007	0.0006	0.0045	0.0079	0.0102	0.0168
%SD	1415	136.0	26.83	64.69	91.59	590.1

Element	Iridium	Platinum	Platinum	Platinum	Gold	Thallium
Isotope	Ir 193	Pt 194	Pt 195	Pt 196	Au 197	Tl 203
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.0021	-0.0078	-0.0056	-0.0066	-0.0245	0.0022
Run 2	0.0019	-0.0070	-0.0087	-0.0079	-0.0208	0.0021
Run 3	0.0018	-0.0061	-0.0072	-0.0073	-0.0240	0.0007
Mean	0.0020	-0.0070	-0.0072	-0.0073	-0.0231	0.0017
Std Dev	0.0002	0.0008	0.0015	0.0006	0.0020	0.0008
%SD	8.206	12.05	21.11	8.573	8.602	50.81

Element	Thallium

00440

Element	Thallium
Isotope	Tl 205
Detector	PC
Isotope	Tl 205
Detector	PC
Run 1	0.0002
Run 2	-0.0003
Run 3	-0.0008
Mean	-0.0003
Std Dev	0.0005
%SD	154.4

Internal Standard Drift: % relative to mean of first sample :

Element	Scandium	Yttrium	Bismuth
Isotope	Sc 45	Y 89	Bi 209
Detector	PC	PC	PC
Run 1	92.10	92.30	93.10
Run 2	92.83	94.16	94.94
Run 3	92.19	95.29	96.20
Mean	92.37	93.92	94.75
Std Dev	0.4005	1.510	1.557

Multi-Element Concentrations_ Fri May 30 1997
Statistics for Concentration Determination.
Analysis procedure : 200.8

Sample name : Z_

First repeat started at : Fri May 30 1997 16:14:45

Last repeat started at : Fri May 30 1997 16:16:50

Interference Equations : DEFAULT

Dilution Factor : 1.0000 Concentration units : ppb

Element	Beryllium	Selenium	Selenium	Selenium	Molybdenum	Molybdenum	Molybdenum
Isotope	Be 9	Se 77	Se 78	Se 82	Mo 95	Mo 97	Mo 98
Detector	PC	PC	PC	PC	PC	PC	PC
Run 1	3.274	12337	13045	12353	11.26	10.75	12.00
Run 2	3.218	12669	13194	12687	11.54	11.74	12.79
Run 3	3.242	12583	13140	12577	11.49	11.19	12.64
Mean	3.245	12530	13126	12539	11.43	11.23	12.48
Std Dev	0.0283	172.3	75.63	170.2	0.1496	0.4951	0.4200
%SD	0.8725	1.375	0.5762	1.357	1.309	4.411	3.366

Element	Ruthenium	Ruthenium	Ruthenium	Rhodium	Palladium	Palladium
Isotope	Ru 99	Ru 101	Ru 102	Rh 103	Pd 104	Pd 105
Detector	PC	PC	PC	PC	PC	PC
Run 1	6.013	6.081	6.350	4.382	13.73	26.87
Run 2	6.045	6.108	6.644	4.642	13.84	26.59
Run 3	6.145	6.089	6.525	4.531	14.18	27.58
Mean	6.067	6.093	6.506	4.518	13.91	27.01
Std Dev	0.0689	0.0136	0.1479	0.1307	0.2618	0.5134
%SD	1.135	0.2228	2.273	2.892	1.883	1.901

Element	Rhenium	Rhenium	Osmium	Osmium	Osmium	Iridium
Isotope	Re 185	Re 187	Os 188	Os 189	Os 190	Ir 191
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.0229	0.0203	-0.0314	-0.0308	-0.0334	-0.1715
Run 2	0.0238	0.0229	-0.0203	-0.0295	-0.0327	-0.1028
Run 3	0.0247	0.0221	-0.0241	-0.0295	-0.0311	-0.1133
Mean	0.0238	0.0218	-0.0252	-0.0295	-0.0324	-0.1292
Std Dev	0.0010	0.0013	0.0035	0.0013	0.0012	0.0370
%SD	4.025	6.055	13.63	4.264	3.554	28.65

Element	Iridium	Platinum	Platinum	Platinum	Gold	Thallium
Isotope	Ir 193	Pt 194	Pt 195	Pt 196	Au 197	Tl 203
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.3855	1.386	1.360	1.331	182.1	4.022
Run 2	0.3906	1.430	1.417	1.403	190.1	4.085
Run 3	0.4109	1.489	1.499	1.448	202.8	4.252
Mean	0.3890	1.435	1.425	1.394	191.7	4.120
Std Dev	0.0227	0.0514	0.0702	0.0581	10.45	0.1198
%SD	5.829	3.579	4.924	4.167	5.450	2.885

Element	Thallium

00442

Element	Thallium
Isotope	Tl 205
Detector	PC
Isotope	Tl 205
Detector	PC
Run 1	3.870
Run 2	3.939
Run 3	4.162
Mean	3.990
Std Dev	0.1525
%SD	3.823

Internal Standard Drift; % relative to mean of first sample :

Element	Scandium	Yttrium	Bismuth
Isotope	Sc 45	Y 89	Bi 209
Detector	PC	PC	PC
Run 1	79.93	81.89	248.9
Run 2	79.63	81.49	237.9
Run 3	80.64	83.95	229.0
Mean	80.07	82.44	238.6
Std Dev	0.5204	1.319	9.965

Internal Standard Drift outside drift window.
Failed isotopes = Bi 209
Specified action is to continue with procedure.

Multi-Element Concentrations Fri May 30 1997
Statistics for Concentration Determination.
Analysis procedure : 200.8

Sample name : 8

First repeat started at : Fri May 30 1997 16:18:22

Last repeat started at : Fri May 30 1997 16:20:28

Interference Equations : DEFAULT

Dilution Factor : 1.0000 Concentration units : ppb

Element	Beryllium	Selenium	Selenium	Selenium	Molybdenum	Molybdenum	Molybdenum
Isotope	Be 9	Se 77	Se 78	Se 82	Mo 95	Mo 97	Mo 98
Detector	PC	PC	PC	PC	PC	PC	PC
Run 1	0.2285	289.4	294.8	290.6	12.54	12.09	12.47
Run 2	0.2312	305.0	320.3	307.2	13.27	12.49	12.19
Run 3	0.2398	303.4	320.2	304.7	12.96	12.74	12.85
Mean	0.2331	299.3	311.8	300.8	12.92	12.44	12.51
Std Dev	0.0059	8.599	14.71	8.933	0.3703	0.3294	0.3321
%SD	2.523	2.873	4.717	2.970	2.865	2.648	2.655

Element	Ruthenium	Ruthenium	Ruthenium	Rhodium	Palladium	Palladium
Isotope	Ru 99	Ru 101	Ru 102	Rh 103	Pd 104	Pd 105
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.2148	0.2197	0.3533	1.253	7.779	0.5620
Run 2	0.2367	0.2098	0.3742	1.256	7.829	0.5739
Run 3	0.2102	0.2152	0.3578	1.302	8.080	0.4991
Mean	0.2206	0.2149	0.3618	1.282	7.829	0.5780
Std Dev	0.0142	0.0049	0.0110	0.0215	0.2506	0.0820
%SD	6.426	2.297	3.045	1.678	2.932	14.19

Element	Rhenium	Rhenium	Osmium	Osmium	Osmium	Iridium
Isotope	Re 185	Re 187	Os 188	Os 189	Os 190	Ir 191
Detector	PC	PC	PC	PC	PC	PC
Run 1	4.113	3.831	-0.0364	-0.0420	-0.0427	-0.7342
Run 2	4.122	3.875	-0.0396	-0.0456	-0.0448	-0.7324
Run 3	4.185	4.005	-0.0403	-0.0470	-0.0459	-0.7284
Mean	4.140	3.904	-0.0388	-0.0449	-0.0445	-0.7317
Std Dev	0.0394	0.0907	0.0021	0.0026	0.0016	0.0029
%SD	0.9527	2.323	5.317	5.823	3.568	0.4021

Element	Iridium	Platinum	Platinum	Platinum	Gold	Thallium
Isotope	Ir 193	Pt 194	Pt 195	Pt 196	Au 197	Tl 203
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.0059	-0.0059	-0.0089	0.0118	2.858	10.72
Run 2	0.0054	-0.0049	-0.0071	0.0136	2.765	10.23
Run 3	0.0061	-0.0055	-0.0073	0.0193	2.865	10.74
Mean	0.0058	-0.0054	-0.0078	0.0149	2.829	10.56
Std Dev	0.0004	0.0005	0.0010	0.0040	0.0559	0.2910
%SD	6.333	9.461	12.41	26.58	1.977	2.754

Element	Thallium

00444

Element	Thallium
Isotope	Tl 205
Detector	PC
Isotope	Tl 205
Detector	PC
Run 1	9.474
Run 2	9.263
Run 3	9.833
Mean	9.523
Std Dev	0.2881
%SD	3.025

Internal Standard Drift; % relative to mean of first sample :

Element	Scandium	Yttrium	Bismuth
Isotope	Sc 45	Y 89	Bi 209
Detector	PC	PC	PC
Run 1	94.78	94.70	936.5
Run 2	95.24	92.80	967.7
Run 3	95.08	95.04	910.3
Mean	95.03	94.18	938.2
Std Dev	0.2337	1.206	28.71

Internal Standard Drift outside drift window.
Failed isotopes = Bi 209
Specified action is to continue with procedure.

Multi-Element Concentrations Fri May 30 1997
Statistics for Concentration Determination.
Analysis procedure : 200.8

Sample name : 2_

First repeat started at : Fri May 30 1997 16:31:09

Last repeat started at : Fri May 30 1997 16:33:14

Interference Equations : DEFAULT

Dilution Factor : 1.0000 Concentration units : ppb

Element	Beryllium	Selenium	Selenium	Selenium	Molybdenum	Molybdenum	Molybdenum
Isotope	Be 9	Se 77	Se 78	Se 82	Mo 95	Mo 97	Mo 98
Detector	PC	PC	PC	PC	PC	PC	PC
Run 1	0.2524	26.88	31.50	27.11	14.99	14.92	15.89
Run 2	0.2471	27.01	32.82	27.27	14.53	14.64	15.40
Run 3	0.2470	28.19	36.01	28.55	15.00	14.80	15.30
Mean	0.2489	27.36	33.44	27.65	14.84	14.79	15.53
Std Dev	0.0031	0.7249	2.320	0.7905	0.2728	0.1380	0.3144
%SD	1.243	2.650	6.938	2.859	1.838	0.9337	2.024

Element	Ruthenium	Ruthenium	Ruthenium	Rhodium	Palladium	Palladium
Isotope	Ru 99	Ru 101	Ru 102	Rh 103	Pd 104	Pd 105
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.3105	0.1749	0.3645	2.109	10.15	1.905
Run 2	0.3198	0.1617	0.3698	2.134	10.14	1.943
Run 3	0.3171	0.1695	0.3746	2.227	10.25	1.929
Mean	0.3158	0.1687	0.3696	2.168	10.18	1.925
Std Dev	0.0048	0.0066	0.0051	0.0604	0.1475	0.0198
%SD	1.520	3.926	1.373	2.785	1.448	0.9750

Element	Rhenium	Rhenium	Osmium	Osmium	Osmium	Iridium
Isotope	Re 185	Re 187	Os 188	Os 189	Os 190	Ir 191
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.0236	0.0231	0.0099	0.0079	0.0040	-0.4137
Run 2	0.0222	0.0225	-0.0006	0.0009	-0.0057	-0.3820
Run 3	0.0236	0.0230	-0.0009	-0.0066	-0.0067	-0.3783
Mean	0.0231	0.0229	0.0028	0.0007	-0.0029	-0.3913
Std Dev	0.0008	0.0003	0.0062	0.0072	0.0059	0.0194
%SD	3.423	1.228	218.6	1007	213.0	4.970

Element	Iridium	Platinum	Platinum	Platinum	Gold	Thallium
Isotope	Ir 193	Pt 194	Pt 195	Pt 196	Au 197	Tl 203
Detector	PC	PC	PC	PC	PC	PC
Run 1	-0.0017	-0.0002	-0.0053	0.0079	0.4290	1.718
Run 2	-0.0000	-0.0004	-0.0025	0.0089	0.4514	1.780
Run 3	-0.0012	0.0018	-0.0002	0.0106	0.4557	1.793
Mean	-0.0010	0.0004	-0.0027	0.0091	0.4453	1.764
Std Dev	0.0009	0.0012	0.0026	0.0014	0.0143	0.0400
%SD	89.77	297.2	95.86	14.96	3.217	2.270

Element	Thallium

00446

Element	Thallium
Isotope	Tl 205
Detector	PC
Isotope	Tl 205
Detector	PC
Run 1	1.786
Run 2	1.778
Run 3	1.803
Mean	1.789
Std Dev	0.0132
%SD	0.7357

Internal Standard Drift; % relative to mean of first sample :

Element	Scandium	Yttrium	Bismuth
Isotope	Sc 45	Y 89	Bi 209
Detector	PC	PC	PC
Run 1	104.8	101.0	181.8
Run 2	105.7	101.0	173.4
Run 3	105.4	99.18	168.2
Mean	105.3	100.1	174.5
Std Dev	0.4629	1.630	6.846

Internal Standard Drift outside drift window.
Failed isotopes = Bi 209
Specified action is to continue with procedure.

Multi-Element Concentrations Fri May 30 1997
Statistics for Concentration Determination.
Analysis procedure : 200.8

Sample name : 10

First repeat started at : Fri May 30 1997 16:34:55

Last repeat started at : Fri May 30 1997 16:36:59

Interference Equations : DEFAULT

Dilution Factor : 1.0000 Concentration units : ppb

Element	Beryllium	Selenium	Selenium	Selenium	Molybdenum	Molybdenum	Molybdenum
Isotope	Be 9	Se 77	Se 78	Se 82	Mo 95	Mo 97	Mo 98
Detector	PC	PC	PC	PC	PC	PC	PC
Run 1	0.0721	17.47	24.80	17.62	4.571	4.669	5.179
Run 2	0.0748	17.25	24.55	17.33	4.596	4.484	4.893
Run 3	0.0774	16.50	24.24	16.57	4.689	4.629	5.055
Mean	0.0748	17.08	24.53	17.17	4.619	4.594	5.042
Std Dev	0.0026	0.5125	0.2797	0.5418	0.0623	0.0974	0.1432
%SD	3.515	3.001	1.140	3.155	1.349	2.121	2.839

Element	Ruthenium	Ruthenium	Ruthenium	Rhodium	Palladium	Palladium
Isotope	Ru 99	Ru 101	Ru 102	Rh 103	Pd 104	Pd 105
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.1805	0.0416	0.2049	1.926	9.195	1.743
Run 2	0.1822	0.0414	0.2146	1.902	9.246	1.359
Run 3	0.1779	0.0447	0.2450	1.940	8.919	1.251
Mean	0.1802	0.0425	0.2215	1.922	9.120	1.451
Std Dev	0.0022	0.0019	0.0209	0.0193	0.1758	0.2589
%SD	1.228	4.398	9.447	1.002	1.928	17.85

3094-23
1/10

Element	Rhenium	Rhenium	Osmium	Osmium	Osmium	Iridium
Isotope	Re 185	Re 187	Os 188	Os 189	Os 190	Ir 191
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.0361	0.0338	0.0304	0.0309	0.0205	0.0788
Run 2	0.0337	0.0352	0.0309	0.0252	0.0160	0.0704
Run 3	0.0357	0.0320	0.0273	0.0265	0.0154	0.0432
Mean	0.0352	0.0337	0.0295	0.0275	0.0173	0.0641
Std Dev	0.0013	0.0016	0.0019	0.0030	0.0029	0.0186
%SD	3.683	4.698	6.590	10.75	16.00	29.05

Element	Iridium	Platinum	Platinum	Platinum	Gold	Thallium
Isotope	Ir 193	Pt 194	Pt 195	Pt 196	Au 197	Tl 203
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.0017	0.0039	-0.0012	0.0088	0.1660	2.785
Run 2	0.0018	0.0029	0.0007	0.0128	0.1646	2.844
Run 3	0.0011	0.0043	-0.0029	0.0038	0.1499	2.688
Mean	0.0015	0.0037	-0.0011	0.0085	0.1602	2.772
Std Dev	0.0004	0.0007	0.0018	0.0045	0.0089	0.0789
%SD	23.81	18.85	161.1	53.43	5.548	2.846

Element	Thallium

00448

Element	Thallium
Isotope	Tl 205
Detector	PC
Isotope	Tl 205
Detector	PC
Run 1	2.824
Run 2	2.851
Run 3	2.813
Mean	2.830
Std Dev	0.0194
%SD	0.6851

Internal Standard Drift; % relative to mean of first sample :

Element	Scandium	Yttrium	Bismuth
Isotope	Sc 45	Y 89	Bi 209
Detector	PC	PC	PC
Run 1	104.7	101.4	78.27
Run 2	104.2	103.9	77.31
Run 3	103.5	103.3	81.51
Mean	104.2	102.8	79.03
Std Dev	0.5828	1.309	2.202

Multi-Element Concentrations Fri May 30 1997
Statistics for Concentration Determination.
Analysis procedure : 200.8

Sample name : 11

First repeat started at : Fri May 30 1997 16:38:21

Last repeat started at : Fri May 30 1997 16:40:27

Interference Equations : DEFAULT

Dilution Factor : 1.0000 Concentration units : ppb

Element	Beryllium	Selenium	Selenium	Selenium	Molybdenum	Molybdenum	Molybdenum
Isotope	Be 9	Se 77	Se 78	Se 82	Mo 95	Mo 97	Mo 98
Detector	PC	PC	PC	PC	PC	PC	PC
Run 1	0.0793	14.26	21.24	14.34	4.782	4.747	5.212
Run 2	0.0791	14.13	21.31	14.21	4.658	4.918	5.312
Run 3	0.0849	13.71	21.62	13.77	4.627	4.740	5.151
Mean	0.0811	14.03	21.39	14.11	4.689	4.802	5.225
Std Dev	0.0033	0.2910	0.2017	0.3006	0.0823	0.1009	0.0815
%SD	4.089	2.074	0.9430	2.131	1.755	2.102	1.560

Element	Ruthenium	Ruthenium	Ruthenium	Rhodium	Palladium	Palladium
Isotope	Ru 99	Ru 101	Ru 102	Rh 103	Pd 104	Pd 105
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.1797	0.0380	0.2085	1.754	8.144	1.267
Run 2	0.1909	0.0429	0.2035	1.825	8.041	1.432
Run 3	0.1787	0.0484	0.2055	1.780	8.311	1.156
Mean	0.1831	0.0431	0.2058	1.786	8.165	1.285
Std Dev	0.0067	0.0052	0.0025	0.0352	0.1359	0.1391
%SD	3.686	12.09	1.227	2.002	1.664	10.82

Element	Rhenium	Rhenium	Osmium	Osmium	Osmium	Iridium
Isotope	Re 185	Re 187	Os 188	Os 189	Os 190	Ir 191
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.0321	0.0313	0.0307	0.0257	0.0223	0.0909
Run 2	0.0310	0.0284	0.0308	0.0266	0.0209	0.1088
Run 3	0.0310	0.0299	0.0295	0.0219	0.0229	0.0890
Mean	0.0314	0.0299	0.0303	0.0247	0.0220	0.0963
Std Dev	0.0007	0.0014	0.0007	0.0025	0.0010	0.0109
%SD	2.074	4.836	2.449	10.15	4.607	11.35

Element	Iridium	Platinum	Platinum	Platinum	Gold	Thallium
Isotope	Ir 193	Pt 194	Pt 195	Pt 196	Au 197	Tl 203
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.0026	0.0058	0.0016	0.0115	0.0882	2.011
Run 2	0.0013	0.0036	0.0012	0.0081	0.0855	1.974
Run 3	0.0039	0.0059	0.0034	0.0056	0.0866	1.988
Mean	0.0026	0.0051	0.0021	0.0084	0.0868	1.991
Std Dev	0.0013	0.0013	0.0012	0.0030	0.0014	0.0186
%SD	48.70	24.95	57.29	35.32	1.563	0.9343

Element	Thallium

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1110

00450

Element	Thallium
Isotope	Tl 205
Detector	PC
Isotope	Tl 205
Detector	PC
Run 1	2.089
Run 2	2.023
Run 3	2.056
Mean	2.056
Std Dev	0.0327
%SD	1.592

Internal Standard Drift; % relative to mean of first sample :

Element	Scandium	Yttrium	Bismuth
Isotope	Sc 45	Y 89	Bi 209
Detector	PC	PC	PC
Run 1	106.3	105.1	75.65
Run 2	106.3	105.4	78.07
Run 3	107.8	107.5	79.83
Mean	106.8	106.0	77.52
Std Dev	0.8650	1.306	1.659

Multi-Element Concentrations Fri May 30 1997
Statistics for Concentration Determination.
Analysis procedure : 200.8

Sample name : 12

First repeat started at : Fri May 30 1997 16:41:51

Last repeat started at : Fri May 30 1997 16:43:56

Interference Equations : DEFAULT

Dilution Factor : 1.0000 Concentration units : ppb

Element	Beryllium	Selenium	Selenium	Selenium	Molybdenum	Molybdenum	Molybdenum
Isotope	Be 9	Se 77	Se 78	Se 82	Mo 95	Mo 97	Mo 98
Detector	PC	PC	PC	PC	PC	PC	PC
Run 1	0.1044	18.05	24.60	18.18	8.739	8.780	9.613
Run 2	0.1121	19.36	24.10	19.54	9.009	9.052	9.652
Run 3	0.0968	19.09	24.37	19.22	9.166	9.161	9.548
Mean	0.1044	18.83	24.35	18.98	8.988	8.997	9.604
Std Dev	0.0077	0.6918	0.2488	0.7106	0.1896	0.1967	0.0526
%SD	7.329	3.673	1.021	3.744	2.109	2.186	0.5477

Element	Ruthenium	Ruthenium	Ruthenium	Rhodium	Palladium	Palladium
Isotope	Ru 99	Ru 101	Ru 102	Rh 103	Pd 104	Pd 105
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.2193	0.1160	0.2793	1.607	0.233	0.9589
Run 2	0.2304	0.1072	0.2936	1.689	0.220	0.8581
Run 3	0.2280	0.1179	0.2925	1.644	0.176	0.8825
Mean	0.2259	0.1137	0.2885	1.647	0.209	0.8332
Std Dev	0.0058	0.0057	0.0080	0.0291	0.0297	0.1399
%SD	2.580	5.012	2.764	1.774	0.3603	16.79

Element	Rhenium	Rhenium	Osmium	Osmium	Osmium	Iridium
Isotope	Re 185	Re 187	Os 188	Os 189	Os 190	Ir 191
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.0093	0.0089	0.0048	0.0018	0.0024	-0.4429
Run 2	0.0078	0.0073	-0.0040	-0.0030	-0.0079	-0.4268
Run 3	0.0084	0.0082	-0.0041	-0.0075	-0.0083	-0.4279
Mean	0.0085	0.0082	-0.0011	-0.0029	-0.0046	-0.4325
Std Dev	0.0007	0.0008	0.0051	0.0046	0.0060	0.0090
%SD	8.759	9.781	464.4	161.1	131.1	2.083

Element	Iridium	Platinum	Platinum	Platinum	Gold	Thallium
Isotope	Ir 193	Pt 194	Pt 195	Pt 196	Au 197	Tl 203
Detector	PC	PC	PC	PC	PC	PC
Run 1	-0.0025	0.0124	0.0092	0.0151	0.0059	9.345
Run 2	-0.0024	0.0124	0.0052	0.0123	0.0049	9.239
Run 3	-0.0027	0.0076	0.0059	0.0125	0.0065	9.442
Mean	-0.0025	0.0108	0.0068	0.0133	0.0058	9.342
Std Dev	0.0001	0.0028	0.0022	0.0016	0.0008	0.1012
%SD	5.708	25.73	31.90	11.71	13.82	1.083

Element	Thallium

5/30/97 Run D
Out of (cont)

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00452

Element	Thallium
Isotope	Tl 205
Detector	PC
Isotope	Tl 205
Detector	PC
Run 1	9.485
Run 2	9.291
Run 3	9.639
Mean	9.472
Std Dev	0.1743
%SD	1.841

Internal Standard Drift; % relative to mean of first sample :

Element	Scandium	Yttrium	Bismuth
Isotope	Sc 45	Y 89	Bi 209
Detector	PC	PC	PC
Run 1	111.4	108.9	185.3
Run 2	111.9	107.7	184.7
Run 3	112.3	109.9	184.6
Mean	111.9	108.8	184.8
Std Dev	0.4571	1.094	0.3623

Internal Standard Drift outside drift window.
Failed isotopes = Bi 209
Specified action is to continue with procedure.

Multi-Element Concentrations Fri May 30 1997
Statistics for Concentration Determination.
Analysis procedure : 200.8

Sample name : 13

First repeat started at : Fri May 30 1997 16:45:49

Last repeat started at : Fri May 30 1997 16:47:55

Interference Equations : DEFAULT

Dilution Factor : 1.0000 Concentration units : ppb

Element	Beryllium	Selenium	Selenium	Selenium	Molybdenum	Molybdenum	Molybdenum
Isotope	Be 9	Se 77	Se 78	Se 82	Mo 95	Mo 97	Mo 98
Detector	PC	PC	PC	PC	PC	PC	PC
Run 1	0.4203	51.27	60.33	51.77	22.56	21.98	23.34
Run 2	0.4365	52.02	60.04	52.63	22.62	22.19	23.10
Run 3	0.4401	50.84	60.70	51.29	22.56	22.54	23.21
Mean	0.4323	51.38	60.36	51.90	22.58	22.24	23.22
Std Dev	0.0105	0.6007	0.3343	0.6765	0.0372	0.2829	0.1192
%SD	2.430	1.169	0.5538	1.303	0.1648	1.271	0.5135

Element	Ruthenium	Ruthenium	Ruthenium	Rhodium	Palladium	Palladium
Isotope	Ru 99	Ru 101	Ru 102	Rh 103	Pd 104	Pd 105
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.1959	0.0602	0.3519	2.641	13.53	1.572
Run 2	0.2074	0.0546	0.3507	2.716	13.93	1.535
Run 3	0.1785	0.0583	0.3654	2.615	13.54	1.341
Mean	0.1939	0.0577	0.3560	2.657	13.67	1.483
Std Dev	0.0145	0.0029	0.0082	0.0512	0.2052	0.1240
%SD	7.491	4.944	2.305	1.926	1.501	8.359

Element	Rhenium	Rhenium	Osmium	Osmium	Osmium	Iridium
Isotope	Re 185	Re 187	Os 188	Os 189	Os 190	Ir 191
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.1776	0.1780	0.0181	0.0065	0.0069	-0.4501
Run 2	0.1820	0.1870	0.0361	0.0262	0.0305	-0.4465
Run 3	0.1854	0.1856	0.0464	0.0415	0.0369	-0.4478
Mean	0.1817	0.1835	0.0335	0.0247	0.0248	-0.4481
Std Dev	0.0039	0.0048	0.0143	0.0175	0.0158	0.0018
%SD	2.157	2.640	42.79	70.95	63.91	0.4071

Element	Iridium	Platinum	Platinum	Platinum	Gold	Thallium
Isotope	Ir 193	Pt 194	Pt 195	Pt 196	Au 197	Tl 203
Detector	PC	PC	PC	PC	PC	PC
Run 1	-0.0025	0.0113	0.0079	0.0129	0.0224	8.013
Run 2	-0.0013	0.0122	0.0078	0.0081	0.0236	7.979
Run 3	-0.0017	0.0112	0.0073	0.0098	0.0238	7.970
Mean	-0.0018	0.0116	0.0077	0.0103	0.0233	7.987
Std Dev	0.0006	0.0006	0.0003	0.0024	0.0008	0.0229
%SD	35.23	4.775	3.777	23.60	3.229	0.2866

Element	Thallium

00454

Element	Thallium
Isotope	Tl 205
Detector	PC
Isotope	Tl 205
Detector	PC
Run 1	8.056
Run 2	7.978
Run 3	8.040
Mean	8.024
Std Dev	0.0409
%SD	0.5097

Internal Standard Drift; % relative to mean of first sample :

Element	Scandium	Yttrium	Bismuth
Isotope	Sc 45	Y 89	Bi 209
Detector	PC	PC	PC
Run 1	110.5	105.3	179.4
Run 2	112.7	105.8	183.3
Run 3	111.7	107.2	183.7
Mean	111.6	106.1	182.1
Std Dev	1.097	1.027	2.379

Internal Standard Drift outside drift window.
Failed isotopes = Bi 209
Specified action is to continue with procedure.

Multi-Element Concentrations Fri May 30 1997

Statistics for Concentration Determination.

Analysis procedure : 200.8

Sample name : 14

First repeat started at : Fri May 30 1997 16:49:32

Last repeat started at : Fri May 30 1997 16:51:37

Interference Equations : DEFAULT

Dilution Factor : 1.0000 Concentration units : ppb

Element	Beryllium	Selenium	Selenium	Selenium	Molybdenum	Molybdenum	Molybdenum
Isotope	Be 9	Se 77	Se 78	Se 82	Mo 95	Mo 97	Mo 98
Detector	PC	PC	PC	PC	PC	PC	PC
Run 1	0.3192	39.34	47.97	39.77	14.07	13.91	14.01
Run 2	0.3301	39.68	50.17	40.25	13.89	13.80	14.27
Run 3	0.3280	39.01	50.34	39.44	13.68	13.41	14.20
Mean	0.3258	39.35	49.49	39.82	13.88	13.71	14.16
Std Dev	0.0058	0.3319	1.323	0.4067	0.1951	0.2628	0.1317
%SD	1.771	0.8435	2.674	1.021	1.405	1.914	0.9301

Element	Ruthenium	Ruthenium	Ruthenium	Rhodium	Palladium	Palladium
Isotope	Ru 99	Ru 101	Ru 102	Rh 103	Pd 104	Pd 105
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.1626	0.0558	0.3721	2.672	13.97	1.014
Run 2	0.1585	0.0541	0.3756	2.760	14.76	1.231
Run 3	0.1535	0.0495	0.3719	2.660	14.82	1.070
Mean	0.1582	0.0531	0.3732	2.698	14.52	1.105
Std Dev	0.0046	0.0032	0.0021	0.0546	0.4749	0.1127
%SD	2.900	6.048	0.5577	2.022	3.271	10.20

Element	Rhenium	Rhenium	Osmium	Osmium	Osmium	Iridium
Isotope	Re 185	Re 187	Os 188	Os 189	Os 190	Ir 191
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.1238	0.1257	0.0795	0.0714	0.0735	-0.3757
Run 2	0.1222	0.1242	0.0609	0.0489	0.0558	-0.3629
Run 3	0.1207	0.1198	0.0233	0.0175	0.0152	-0.3656
Mean	0.1222	0.1233	0.0545	0.0459	0.0482	-0.3681
Std Dev	0.0016	0.0030	0.0286	0.0271	0.0299	0.0067
%SD	1.271	2.473	52.50	58.99	62.11	1.829

Element	Iridium	Platinum	Platinum	Platinum	Gold	Thallium
Isotope	Ir 193	Pt 194	Pt 195	Pt 196	Au 197	Tl 203
Detector	PC	PC	PC	PC	PC	PC
Run 1	-0.0018	0.0129	0.0101	0.0173	0.0201	6.619
Run 2	-0.0016	0.0134	0.0119	0.0159	0.0211	6.508
Run 3	-0.0016	0.0157	0.0111	0.0158	0.0191	6.715
Mean	-0.0016	0.0140	0.0111	0.0163	0.0201	6.614
Std Dev	0.0001	0.0015	0.0009	0.0008	0.0010	0.1037
%SD	8.295	10.94	8.310	5.190	4.923	1.568

Element	Thallium

INTERNAL STANDARD OK + OK CONTROL

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00456

Element	Thallium
Isotope	Tl 205
Detector	PC
Isotope	Tl 205
Detector	PC
Run 1	6.877
Run 2	6.716
Run 3	6.804
Mean	6.799
Std Dev	0.0805
%SD	1.184

Internal Standard Drift; % relative to mean of first sample :

Element	Scandium	Yttrium	Bismuth
Isotope	Sc 45	Y 89	Bi 209
Detector	PC	PC	PC
Run 1	110.8	104.6	158.8
Run 2	111.5	102.3	156.4
Run 3	109.6	103.6	154.3
Mean	110.6	103.5	156.5
Std Dev	0.9596	1.167	2.244

Internal Standard Drift outside drift window.
Failed isotopes = Bi 209
Specified action is to continue with procedure.

Multi-Element Concentrations Fri May 30 1997
Statistics for Concentration Determination.
Analysis procedure : 200.8

Sample name : 15

First repeat started at : Fri May 30 1997 16:53:28

Last repeat started at : Fri May 30 1997 16:55:33

Interference Equations : DEFAULT

Dilution Factor : 1.0000 Concentration units : ppb

Element	Beryllium	Selenium	Selenium	Selenium	Molybdenum	Molybdenum	Molybdenum
Isotope	Be 9	Se 77	Se 78	Se 82	Mo 95	Mo 97	Mo 98
Detector	PC	PC	PC	PC	PC	PC	PC
Run 1	-0.0001	0.0024	2.295	-0.0187	0.0604	0.0811	2.212
Run 2	-0.0012	0.0514	2.384	0.0310	0.0312	0.0355	2.165
Run 3	0.0014	-0.0864	2.575	-0.1046	0.0282	0.0281	2.111
Mean	0.0001	-0.0109	2.418	-0.0308	0.0399	0.0482	2.163
Std Dev	0.0013	0.0698	0.1438	0.0686	0.0178	0.0287	0.0505
%SD	2523	640.3	5.946	223.0	44.48	59.55	2.335

Element	Ruthenium	Ruthenium	Ruthenium	Rhodium	Palladium	Palladium
Isotope	Ru 99	Ru 101	Ru 102	Rh 103	Pd 104	Pd 105
Detector	PC	PC	PC	PC	PC	PC
Run 1	25.48	25.95	25.85	25.30	25.27	24.57
Run 2	25.17	25.81	24.87	25.26	25.54	24.97
Run 3	25.50	26.01	25.36	25.55	25.71	25.00
Mean	25.39	25.92	25.36	25.37	25.51	24.85
Std Dev	0.1960	0.1036	0.4867	0.1552	0.2225	0.2395
%SD	0.7725	0.3996	1.919	0.6116	0.8724	0.9638

CCV-6

Element	Rhenium	Rhenium	Osmium	Osmium	Osmium	Iridium
Isotope	Re 185	Re 187	Os 188	Os 189	Os 190	Ir 191
Detector	PC	PC	PC	PC	PC	PC
Run 1	24.51	24.91	23.61	24.15	24.84	24.61
Run 2	23.97	24.38	24.97	25.47	24.87	24.80
Run 3	24.57	24.91	25.55	25.75	25.70	24.48
Mean	24.35	24.73	24.71	25.12	25.14	24.63
Std Dev	0.3277	0.3059	0.9944	0.8560	0.4882	0.1615
%SD	1.346	1.237	4.024	3.407	1.942	0.6556

Element	Iridium	Platinum	Platinum	Platinum	Gold	Thallium
Isotope	Ir 193	Pt 194	Pt 195	Pt 196	Au 197	Tl 203
Detector	PC	PC	PC	PC	PC	PC
Run 1	24.14	24.59	25.58	24.73	24.56	0.1493
Run 2	24.53	24.94	24.94	24.14	24.91	0.1353
Run 3	24.66	25.04	25.44	24.86	25.33	0.1240
Mean	24.45	24.85	25.32	24.58	24.93	0.1362
Std Dev	0.2703	0.2364	0.3375	0.3820	0.3872	0.0127
%SD	1.106	0.9510	1.333	1.554	1.553	9.315

00458

Element	Thallium

Element	Thallium
Isotope	Tl 205
Detector	PC
Isotope	Tl 205
Detector	PC
Run 1	0.0751
Run 2	0.0530
Run 3	0.0427
Mean	0.0569
Std Dev	0.0165
%SD	29.06

Internal Standard Drift; % relative to mean of first sample :

Element	Scandium	Yttrium	Bismuth
Isotope	Sc 45	Y 89	Bi 209
Detector	PC	PC	PC
Run 1	100.2	107.8	106.9
Run 2	96.29	103.3	103.6
Run 3	94.02	100.3	101.5
Mean	96.83	103.8	104.0
Std Dev	3.113	3.779	2.742

Multi-Element Concentrations_ Fri May 30 1997_
Statistics for Concentration Determination.
Analysis procedure : 200.8

Sample name : 16

First repeat started at : Fri May 30 1997 16:57:26

Last repeat started at : Fri May 30 1997 16:59:31

Interference Equations : DEFAULT

Dilution Factor : 1.0000 Concentration units : ppb

Element	Beryllium	Selenium	Selenium	Selenium	Molybdenum	Molybdenum	Molybdenum
Isotope	Be [illegible]	Se 77	Se 78	Se 82	Mo 95	Mo 97	Mo 98
Detector	PC	PC	PC	PC	PC	PC	PC
Run 1	29.36	24.01	27.70	23.94	24.68	24.54	26.12
Run 2	28.31	24.22	26.31	24.10	24.29	24.34	25.88
Run 3	28.15	24.36	27.10	24.27	24.39	24.40	25.06
Mean	28.28	24.20	27.04	24.10	24.46	24.43	25.69
Std Dev	0.1097	0.1791	0.6961	0.1653	0.2024	0.1015	0.5541
%SD	0.3880	0.7404	2.575	0.6856	0.8276	0.4153	2.157

Element	Ruthenium	Ruthenium	Ruthenium	Rhodium	Palladium	Palladium
Isotope	Ru 99	Ru 101	Ru 102	Rh 103	Pd 104	Pd 105
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.0110	0.0044	0.0113	0.0054	0.0512	0.4595
Run 2	0.0055	0.0070	0.0070	0.0054	0.0318	0.2161
Run 3	0.0082	0.0077	0.0060	0.0045	0.0231	0.1695
Mean	0.0082	0.0064	0.0081	0.0051	0.0354	0.2817
Std Dev	0.0027	0.0017	0.0028	0.0005	0.0144	0.1557
%SD	33.40	26.97	35.00	9.871	40.68	55.27

CCV-6

Element	Rhenium	Rhenium	Osmium	Osmium	Osmium	Iridium
Isotope	Re 185	Re 187	Os 188	Os 189	Os 190	Ir 191
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.0022	0.0126	0.3158	0.3101	0.3102	0.1177
Run 2	0.0035	0.0052	0.0959	0.0918	0.0797	0.0837
Run 3	0.0029	0.0035	0.0405	0.0387	0.0394	0.0429
Mean	0.0029	0.0071	0.1507	0.1469	0.1431	0.0814
Std Dev	0.0006	0.0048	0.1456	0.1438	0.1461	0.0374
%SD	22.70	68.39	96.62	97.93	102.1	45.96

Element	Iridium	Platinum	Platinum	Platinum	Gold	Thallium
Isotope	Ir 193	Pt 194	Pt 195	Pt 196	Au 197	Tl 203
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.0777	0.0114	0.0101	0.0096	0.1117	24.55
Run 2	0.0431	-0.0024	0.0009	-0.0001	0.0534	25.07
Run 3	0.0271	0.0017	-0.0029	0.0005	0.0357	25.25
Mean	0.0493	0.0036	0.0027	0.0033	0.0670	24.96
Std Dev	0.0259	0.0071	0.0067	0.0054	0.0398	0.3638
%SD	52.45	196.9	250.4	163.9	59.42	1.457

00460

Element	Thallium

Element	Thallium
Isotope	Tl 205
Detector	PC
Isotope	Tl 205
Detector	PC
Run 1	24.94
Run 2	25.21
Run 3	25.62
Mean	25.26
Std Dev	0.3428
%SD	1.357

Internal Standard Drift: % relative to mean of first sample :

Element	Scandium	Yttrium	Bismuth
Isotope	Sc 45	Y 89	Bi 209
Detector	PC	PC	PC
Run 1	90.70	95.71	98.47
Run 2	93.61	95.15	95.80
Run 3	89.45	94.09	94.93
Mean	89.25	94.98	96.40
Std Dev	1.254	0.8228	1.947

Multi-Element Concentrations Fri May 30 1997

Statistics for Concentration Determination.

Analysis procedure : 200.8

Sample name : 17

First repeat started at : Fri May 30 1997 17:04:27

Last repeat started at : Fri May 30 1997 17:06:33

Interference Equations : DEFAULT

Dilution Factor : 1.0000 Concentration units : ppb

Element	Beryllium	Selenium	Selenium	Selenium	Molybdenum	Molybdenum	Molybdenum
Isotope	Be 9	Se 77	Se 78	Se 82	Mo 95	Mo 97	Mo 98
Detector	PC	PC	PC	PC	PC	PC	PC
Run 1	24.01	24.75	25.41	24.32	24.78	24.92	25.02
Run 2	24.68	25.07	25.77	24.72	24.60	24.30	25.51
Run 3	24.75	25.12	25.41	24.63	24.11	23.97	24.81
Mean	24.48	24.98	25.53	24.56	24.50	24.39	25.11
Std Dev	0.4094	0.2019	0.2123	0.2067	0.3464	0.4850	0.3576
%SD	1.672	0.8081	0.8316	0.8416	1.414	1.988	1.424

Element	Ruthenium	Ruthenium	Ruthenium	Rhodium	Palladium	Palladium
Isotope	Ru 99	Ru 101	Ru 102	Rh 103	Pd 104	Pd 105
Detector	PC	PC	PC	PC	PC	PC
Run 1	-0.0004	0.0040	0.0011	0.0021	0.0063	-0.0148
Run 2	0.0009	0.0052	0.0036	0.0017	0.0041	-0.0165
Run 3	0.0044	0.0057	0.0012	0.0023	0.0010	-0.0108
Mean	0.0016	0.0050	0.0020	0.0020	0.0038	-0.0140
Std Dev	0.0025	0.0009	0.0014	0.0003	0.0026	0.0029
%SD	152.1	17.43	71.58	14.37	69.42	20.81

CV-6 Rerun for Be

Element	Rhenium	Rhenium	Osmium	Osmium	Osmium	Iridium
Isotope	Re 185	Re 187	Os 188	Os 189	Os 190	Ir 191
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.0008	0.0019	0.0286	0.0264	0.0312	-0.0541
Run 2	0.0005	0.0011	0.0207	0.0216	0.0196	-0.0301
Run 3	0.0003	0.0003	0.0139	0.0101	0.0106	-0.0496
Mean	0.0005	0.0011	0.0210	0.0194	0.0205	-0.0446
Std Dev	0.0003	0.0007	0.0073	0.0084	0.0103	0.0127
%SD	49.26	67.38	34.80	43.37	50.46	28.53

Element	Iridium	Platinum	Platinum	Platinum	Gold	Thallium
Isotope	Ir 193	Pt 194	Pt 195	Pt 196	Au 197	Tl 203
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.0023	-0.0012	-0.0053	-0.0029	0.0040	24.27
Run 2	0.0026	-0.0058	-0.0054	-0.0053	-0.0049	25.07
Run 3	0.0031	-0.0078	-0.0101	-0.0037	0.0025	25.29
Mean	0.0026	-0.0050	-0.0069	-0.0039	0.0005	24.88
Std Dev	0.0004	0.0034	0.0028	0.0012	0.0047	0.5337
%SD	16.05	68.09	40.04	30.84	870.3	2.145

Element	Thallium

00462

Element	Thallium
Isotope	Tl 205
Detector	PC
Isotope	Tl 205
Detector	PC
Run 1	24.48
Run 2	24.91
Run 3	24.77
Mean	24.72
Std Dev	0.2196
%SD	0.8883

Internal Standard Drift; % relative to mean of first sample :

Element	Scandium	Yttrium	Bismuth
Isotope	Sc 45	Y 89	Bi 209
Detector	PC	PC	PC
Run 1	71.22	83.81	103.7
Run 2	70.48	81.10	100.1
Run 3	68.98	82.60	98.45
Mean	70.23	82.51	100.7
Std Dev	1.139	1.358	2.660

Multi-Element Concentrations Fri May 30 1997
Statistics for Concentration Determination.
Analysis procedure : 200.8

Sample name : 19

First repeat started at : Fri May 30 1997 17:11:21

Last repeat started at : Fri May 30 1997 17:13:26

Interference Equations : DEFAULT

Dilution Factor : 1.0000 Concentration units : ppb

Element	Beryllium	Selenium	Selenium	Selenium	Molybdenum	Molybdenum	Molybdenum
Isotope	Be 9	Se 77	Se 78	Se 82	Mo 95	Mo 97	Mo 98
Detector	PC	PC	PC	PC	PC	PC	PC
Run 1	0.0035	-0.2014	1.017	-0.2257	0.0167	0.0312	0.0255
Run 2	0.0034	-0.3333	1.680	-0.3459	0.0097	0.0151	0.0198
Run 3	0.0022	-0.0311	1.815	-0.0514	-0.0005	0.0179	0.0132
Mean	0.0031	-0.1886	1.504	-0.2076	0.0086	0.0214	0.0195
Std Dev	0.0007	0.1515	0.4273	0.1481	0.0086	0.0086	0.0062
%SD	23.81	80.32	28.40	71.32	100.6	40.23	31.55

Element	Ruthenium	Ruthenium	Ruthenium	Rhodium	Palladium	Palladium
Isotope	Ru 99	Ru 101	Ru 102	Rh 103	Pd 104	Pd 105
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.0021	0.0003	0.0013	0.0009	-0.0011	-0.0584
Run 2	0.0060	0.0002	-0.0002	0.0009	-0.0011	-0.0019
Run 3	0.0015	0.0020	0.0005	0.0011	-0.0085	0.1924
Mean	0.0032	0.0008	0.0005	0.0010	-0.0036	0.0440
Std Dev	0.0025	0.0010	0.0007	0.0001	0.0042	0.1315
%SD	76.55	121.8	143.1	9.027	118.8	298.6

Element	Rhenium	Rhenium	Osmium	Osmium	Osmium	Iridium
Isotope	Re 185	Re 187	Os 188	Os 189	Os 190	Ir 191
Detector	PC	PC	PC	PC	PC	PC
Run 1	-0.0001	0.0013	0.0435	0.0419	0.0447	-0.0365
Run 2	0.0001	0.0011	0.0379	0.0214	0.0292	0.0002
Run 3	0.0001	0.0003	0.0230	0.0199	0.0138	0.0244
Mean	0.0000	0.0009	0.0348	0.0277	0.0292	-0.0040
Std Dev	0.0001	0.0005	0.0106	0.0123	0.0154	0.0307
%SD	214.8	56.52	30.48	44.28	52.87	768.5

Element	Iridium	Platinum	Platinum	Platinum	Gold	Thallium
Isotope	Ir 193	Pt 194	Pt 195	Pt 196	Au 197	Tl 203
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.0003	-0.0023	-0.0019	-0.0035	-0.0201	0.0125
Run 2	-0.0003	-0.0018	-0.0051	-0.0038	-0.0217	0.0060
Run 3	0.0006	-0.0062	-0.0074	-0.0043	-0.0219	0.0073
Mean	0.0002	-0.0034	-0.0048	-0.0039	-0.0212	0.0086
Std Dev	0.0005	0.0024	0.0028	0.0004	0.0010	0.0034
%SD	216.1	70.46	58.94	10.52	4.540	39.62

Element Thallium

CCB-6

00464

Element	Thallium
Isotope	Tl 205
Detector	PC
Isotope	Tl 205
Detector	PC
Run 1	0.0082
Run 2	0.0061
Run 3	0.0044
Mean	0.0062
Std Dev	0.0019
%RSD	31.17

Internal Standard Drift; % relative to mean of first sample :

Element	Scandium	Yttrium	Bismuth
Isotope	Sc 45	Y 89	Bi 209
Detector	PC	PC	PC
Run 1	87.11	95.24	104.6
Run 2	86.65	90.69	97.92
Run 3	84.80	91.06	96.61
Mean	86.19	92.33	99.71
Std Dev	1.222	2.524	4.281

Intervals for : MASS SALID STD .

Peak	Be 9	Mg 24	Co 59	In 115	La 139	Pb 208	Bi 209	U 238
CPS	91544	210963	290344	393529	421775	202585	311987	375002

MASS CALIBRATION DATA
Mon Jun 3 1991
07:32:59

Actual Mass	Found DAC	Calculated DAC	Calculated Mass
9.01218E+0	2004	1999	9.03909E+0
2.39650E+1	5289	5293	2.39641E+1
5.89332E+1	12984	12989	5.89108E+1
1.14904E+2	25332	25322	1.14946E+2
1.38906E+2	30606	30615	1.38864E+2
2.07977E+2	45861	45858	2.07991E+2
2.08980E+2	46086	46079	2.09010E+2
2.38051E+2	52494	52500	2.38023E+2

New Mass calibration coeffs
y = a + bx + cx^2 + dx^3

-1.76692E-2	4.84464E-3	-1.72587E-10	0.00000E+0

Regression coeff = 1.0000E+0

Multi Element Calibration Mon Jun 2 1997

Calibration graph coefficients for selected isotopes.

User Name : MANAGER Experiment name : CALIB

Analysis procedure : SHORT TERM STAWILITY PROC

Introduction method : DEFAULT

First sample started at : Mon Jun 2 1997 07:34:41

Last sample started at : **********

Polynomial fit : y = a0 + a1.x + a2.x^2

Units of response : y = counts per second

Units of concentration : x = ppb

Element	Symbol	Mass	a0	a1	a2	regression
Beryllium	Be	9	0.0	3724	0.0	1.0000
Magnesium	Mg	24	0.0	8480	0.0	1.0000
Cobalt	Co	59	0.0	11709	0.0	1.0000
Indium	In	115	0.0	16294	0.0	1.0000
Lanthanum	La	139	0.0	17069	0.0	1.0000
Lead	Pb	208	0.0	9934	0.0	1.0000
Bismuth	Bi	209	0.0	13197	0.0	1.0000

Multi-Element Concentrations Mon Jun 2 1997

Statistics for Concentration Determination.

Analysis procedure : SHORT TERM STABILITY PROC

Sample name : 25ppb Tune Solution

First repeat started at : Mon Jun 2 1997 07:34:41

Last repeat started at : Mon Jun 2 1997 07:34:41

Dilution Factor : 1.0000 Concentration units : ppb

Element	Beryllium	Magnesium	Cobalt	Indium	Lanthanum	Lead	Bismuth
Isotope	Be 9	Mg 24	Co 59	In 115	La 139	Pb 208	Bi 209
Detector	PC	PC	PC	PC	PC	PC	PC
Run 1	25.00	25.00	25.00	25.00	25.00	25.00	25.00
Mean	25.00	25.00	25.00	25.00	25.00	25.00	25.00
Std Dev	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%SD	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Multi-Element Concentrations Mon Jun 2 1997

Statistics for Concentration Determination.

Analysis procedure : SHORT TERM STABILITY PROC

Sample name : SHORT TERM STABILITY CHECK

First repeat started at : Mon Jun 2 1997 07:36:02

Last repeat started at : Mon Jun 2 1997 07:40:31

Dilution Factor : 1.0000 Concentration units : ppb

Element	Beryllium	Magnesium	Cobalt	Indium	Lanthanum	Lead	Bismuth
Isotope	Be 9	Mg 24	Co 59	In 115	La 139	Pb 208	Bi 209
Detector	PC	PC	PC	PC	PC	PC	PC
Run 1	25.61	25.30	24.67	25.00	24.25	24.89	25.55
Run 2	25.25	24.84	24.46	25.89	25.51	25.47	26.36
Run 3	24.67	24.73	25.08	24.89	24.73	25.48	26.45
Run 4	24.73	24.67	25.39	25.41	25.49	25.21	25.19
Run 5	24.84	23.93	25.01	24.74	24.73	25.69	25.99
Mean	25.02	24.69	24.92	25.19	24.94	25.35	25.91
Std Dev	0.3997	0.4919	0.3640	0.4661	0.5478	0.3077	0.5353
%SD	1.597	1.992	1.461	1.851	2.196	1.214	2.066

Multi-Element Concentrations Mon Jun 2 1997

Concentration summary for samples.

User Name : MANAGER
Experiment name : CALIB
Analysis procedure : SHORT TERM STABILITY PROC

Introduction method : DEFAULT
First sample started at : Mon Jun 2 1997 07:34:41
Last sample started at : Mon Jun 2 1997 07:36:02

Concentration units : ppb

Sample Name		25ppb Tune Solution	SHORT TERM STABILITY CHECK
Dilution Factor		1.0000	1.0000
Element	Isotope	Concentration	Concentration
Beryllium	Be 9	25.00	25.02
Magnesium	Mg 24	25.00	24.69
Cobalt	Co 59	25.00	24.92
Indium	In 115	25.00	25.19
Lanthanum	La 139	25.00	24.94
Lead	Pb 208	25.00	25.35
Bismuth	Bi 209	25.00	25.91

Multi-Element Calibration Mon Jun 2 1997

Calibration graph coefficients for selected isotopes.

User Name : MANAGER Experiment name : ANALYSIS

Analysis procedure : 200.8

Introduction method : DEFAULT

First sample started at : Mon Jun 2 1997 07:44:36

Last sample started at : **********

Internal standards : Sc 45 Y 89 Lu 175 (Interpolati

Polynomial fit : y = a0 + a1.x + a2.x^2

Units of response : y = counts per second

Units of concentration : x = ppb

Extr/Analysis Lot MET9700923

Element	Symbol	Mass	a0	a1	a2	regression
Beryllium	Be	9	59.49	5111	0.0	1.0000
Selenium	Se	77	282.1	150.5	0.0	1.0000
Selenium	Se	78	2903	420.7	0.0	1.0000
Selenium	Se	82	332.5	176.7	0.0	1.0000
Ruthenium	Ru	99	41.63	2576	0.0	1.0000
Ruthenium	Ru	101	23.45	3755	0.0	1.0000
Ruthenium	Ru	102	42.05	7205	0.0	1.0000
Rhodium	Rh	103	22.12	20686	0.0	1.0000
Palladium	Pd	104	51.84	6367	0.0	1.0000
Palladium	Pd	105	7662	4283	0.0	1.0000
Cadmium	Cd	111	59.66	2179	0.0	1.0000
Cadmium	Cd	112	131.7	4292	0.0	1.0000
Cadmium	Cd	114	144.9	5277	0.0	1.0000
Rhenium	Re	185	21.67	10288	0.0	1.0000
Rhenium	Re	187	24.73	19917	0.0	1.0000
Osmium	Os	188	67.68	5060	0.0	1.0000
Osmium	Os	189	79.81	6298	0.0	1.0000
Osmium	Os	190	116.5	10199	0.0	1.0000
Iridium	Ir	191	9682	9559	0.0	1.0000
Iridium	Ir	193	95.01	15910	0.0	1.0000
Platinum	Pt	194	141.7	5941	0.0	1.0000
Platinum	Pt	195	149.1	6079	0.0	1.0000
Platinum	Pt	196	116.3	4534	0.0	1.0000
Gold	Au	197	144.6	8028	0.0	1.0000
Thallium	Tl	203	103.0	7839	0.0	1.0000
Thallium	Tl	205	225.4	20139	0.0	1.0000

Multi-Element Concentrations Mon Jun 2 1997
Statistics for Concentration Determination.
Analysis procedure : 200.8

Sample name : Calibration Blank

First repeat started at : Mon Jun 2 1997 07:44:36

Last repeat started at : Mon Jun 2 1997 07:46:40

Interference Equations : DEFAULT

Dilution Factor : 1.0000 Concentration units : ppb

Element	Beryllium	Selenium	Selenium	Selenium	Ruthenium	Ruthenium	Ruthenium
Isotope	Be 9	Se 77	Se 78	Se 82	Ru 99	Ru 101	Ru 102
Detector	PC	PC	PC	PC	PC	PC	PC
Run 1	0.0030	-0.0336	0.2941	-0.0355	0.0020	-0.0009	0.0010
Run 2	-0.0007	-0.0015	-0.0208	0.0010	0.0007	-0.0003	-0.0001
Run 3	-0.0024	0.0351	-0.2733	0.0345	-0.0027	0.0013	-0.0009
Mean	0.0000	0.0000	-0.0000	0.0000	0.0000	0.0000	0.0000
Std Dev	0.0027	0.0343	0.2843	0.0350	0.0024	0.0011	0.0010
%SD	220500	919760	29012000	1600700	202840	39450	458730

Element	Rhodium	Palladium	Palladium	Cadmium	Cadmium	Cadmium
Isotope	Rh 103	Pd 104	Pd 105	Cd 111	Cd 112	Cd 114
Detector	PC	PC	PC	PC	PC	PC
Run 1	-0.0001	0.0005	-0.0297	0.0012	-0.0003	0.0011
Run 2	0.0000	-0.0002	0.0578	-0.0012	0.0002	0.0012
Run 3	0.0000	-0.0003	-0.0281	-0.0000	0.0001	-0.0023
Mean	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Std Dev	0.0001	0.0005	0.0501	0.0012	0.0002	0.0020
%SD	5379	129220	2125400	48030	8153	75148

Element	Rhenium	Rhenium	Osmium	Osmium	Osmium	Iridium
Isotope	Re 185	Re 187	Os 188	Os 189	Os 190	Ir 191
Detector	PC	PC	PC	PC	PC	PC
Run 1	-0.0004	-0.0001	0.0007	0.0000	0.0013	0.0089
Run 2	0.0007	0.0002	0.0012	0.0017	-0.0006	-0.0059
Run 3	-0.0003	-0.0001	-0.0019	-0.0018	-0.0007	-0.0030
Mean	0.0000	0.0000	-0.0000	0.0000	-0.0000	-0.0000
Std Dev	0.0006	0.0002	0.0016	0.0019	0.0012	0.0078
%SD	52986	98731	5744800	53924	1637900	4610900

Element	Iridium	Platinum	Platinum	Platinum	Gold	Thallium
Isotope	Ir 193	Pt 194	Pt 195	Pt 196	Au 197	Tl 203
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.0002	0.0036	0.0018	0.0032	0.0005	0.0014
Run 2	0.0007	-0.0001	-0.0016	0.0012	-0.0021	-0.0003
Run 3	-0.0009	-0.0035	-0.0002	-0.0044	0.0016	-0.0011
Mean	-0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Std Dev	0.0008	0.0036	0.0017	0.0040	0.0019	0.0013
%SD	629240	151810	59563	174770000	530580	44785

Element	Thallium

00473

Element	Thallium
Isotope	Tl 205
Detector	PC
Isotope	Tl 205
Detector	PC
Run 1	0.0004
Run 2	0.0010
Run 3	-0.0014
Mean	0.0000
Std Dev	0.0012
%SD	86093

Internal Standard Drift; % relative to mean of first sample :

Element	Scandium	Yttrium	Lutetium
Isotope	Sc 45	Y 89	Lu 175
Detector	PC	PC	PC
Run 1	100.9	101.7	99.98
Run 2	100.00	98.83	100.5
Run 3	99.14	99.45	99.54
Mean	100.00	100.00	100.00
Std Dev	0.8535	1.517	0.4721

Multi Element Concentrations Mon Jun 2 1997
Statistics for Concentration Determination.
Analysis procedure : 200.8

Sample name : 25.0 ppb Calibration Standard

First repeat started at : Mon Jun 2 1997 07:48:10

Last repeat started at : Mon Jun 2 1997 07:50:15

Interference Equations : DEFAULT

Dilution Factor : 1.0000 Concentration units : ppb

Element	Beryllium	Selenium	Selenium	Selenium	Ruthenium	Ruthenium	Ruthenium
Isotope	Be 9	Se 77	Se 78	Se 82	Ru 99	Ru 101	Ru 102
Detector	PC	PC	PC	PC	PC	PC	PC
Run 1	24.29	23.79	23.92	23.76	-0.0006	0.0004	-0.0026
Run 2	25.24	25.05	25.32	25.08	0.0057	-0.0008	-0.0036
Run 3	25.47	26.16	25.76	26.15	-0.0006	-0.0001	-0.0031
Mean	25.00	25.00	25.00	25.00	0.0015	-0.0002	-0.0031
Std Dev	0.6273	1.185	0.9639	1.199	0.0037	0.0006	0.0005
%SD	2.509	4.738	3.856	4.798	239.9	365.0	16.66

Element	Rhodium	Palladium	Palladium	Cadmium	Cadmium	Cadmium
Isotope	Rh 103	Pd 104	Pd 105	Cd 111	Cd 112	Cd 114
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.0002	0.0004	-0.0668	24.38	24.45	24.28
Run 2	0.0003	0.0001	-0.1022	25.36	25.20	25.50
Run 3	0.0005	0.0010	-0.0575	25.27	25.34	25.22
Mean	0.0003	0.0005	-0.0755	25.00	25.00	25.00
Std Dev	0.0001	0.0005	0.0236	0.5433	0.4797	0.6410
%SD	41.52	96.49	31.27	2.173	1.918	2.564

Element	Rhenium	Rhenium	Osmium	Osmium	Osmium	Iridium
Isotope	Re 185	Re 187	Os 188	Os 189	Os 190	Ir 191
Detector	PC	PC	PC	PC	PC	PC
Run 1	-0.0001	0.0000	-0.0025	-0.0003	-0.0013	-0.0191
Run 2	-0.0007	0.0002	-0.0035	-0.0026	-0.0034	-0.0068
Run 3	-0.0007	-0.0000	-0.0027	-0.0035	-0.0029	-0.0554
Mean	-0.0005	0.0001	-0.0029	-0.0021	-0.0022	-0.0271
Std Dev	0.0004	0.0001	0.0005	0.0017	0.0011	0.0253
%SD	70.42	161.4	18.37	79.30	49.57	93.22

Element	Iridium	Platinum	Platinum	Platinum	Gold	Thallium
Isotope	Ir 193	Pt 194	Pt 195	Pt 196	Au 197	Tl 203
Detector	PC	PC	PC	PC	PC	PC
Run 1	-0.0000	-0.0044	-0.0052	-0.0025	0.3095	24.72
Run 2	0.0003	-0.0026	-0.0026	-0.0042	0.3392	25.23
Run 3	-0.0004	-0.0037	-0.0056	-0.0025	0.3376	25.04
Mean	-0.0000	-0.0036	-0.0045	-0.0031	0.3288	25.00
Std Dev	0.0004	0.0009	0.0016	0.0010	0.0167	0.2609
%SD	986.9	25.49	36.19	31.56	5.086	1.044

Element	Thallium

00475

Element	Thallium
Isotope	Tl 205
Detector	PC
Isotope	Tl 205
Detector	PC
Run 1	24.86
Run 2	25.31
Run 3	24.82
Mean	25.00
Std Dev	0.2669
%SD	1.068

Internal Standard Drift: % relative to mean of first sample :

Element	Strandium	Yttrium	Lutetium
Isotope	Sr 45	Y 89	Lu 175
Detector	PC	PC	PC
Run 1	94.68	98.74	100.7
Run 2	93.35	95.37	99.19
Run 3	92.00	95.09	101.2
Mean	93.34	96.40	100.4
Std Dev	1.341	2.031	1.040

Multi Element Concentrations Mon Jun 2 1997
Statistics for Concentration Determination.
Analysis procedure : 200.8

Sample name : 25.0 ppb Odd Element Calib. Standard

First repeat started at : Mon Jun 2 1997 07:51:31

Last repeat started at : Mon Jun 2 1997 07:53:36

Interference Equations : DEFAULT

Dilution Factor : 1.0000 Concentration units : ppb

Element	Beryllium	Selenium	Selenium	Selenium	Ruthenium	Ruthenium	Ruthenium
Isotope	Be 9	Se 77	Se 78	Se 82	Ru 99	Ru 101	Ru 102
Detector	PC	PC	PC	PC	PC	PC	PC
Run 1	0.0616	0.2379	-0.7821	0.2279	24.86	24.32	24.60
Run 2	0.0040	0.0893	-1.093	0.0750	24.85	24.92	24.83
Run 3	0.0019	0.1579	-0.9559	0.1573	25.29	25.76	25.57
Mean	0.0225	0.1617	-0.9403	0.1531	25.00	25.00	25.00
Std Dev	0.0339	0.0743	0.1513	0.0761	0.2499	0.7213	0.5039
%SD	150.6	45.98	16.09	49.70	0.9995	2.885	2.016

Element	Rhodium	Palladium	Palladium	Cadmium	Cadmium	Cadmium
Isotope	Rh 103	Pd 104	Pd 105	Cd 111	Cd 112	Cd 114
Detector	PC	PC	PC	PC	PC	PC
Run 1	24.59	24.55	24.13	0.0466	0.0472	0.0465
Run 2	24.95	24.68	25.00	-0.0039	-0.0031	-0.0022
Run 3	25.46	25.77	25.88	0.0067	-0.0083	-0.0027
Mean	25.00	25.00	25.00	0.0165	0.0119	0.0139
Std Dev	0.4390	0.6702	0.8749	0.0266	0.0307	0.0282
%SD	1.756	2.681	3.499	161.9	257.0	203.7

Element	Rhenium	Rhenium	Osmium	Osmium	Osmium	Iridium
Isotope	Re 185	Re 187	Os 188	Os 189	Os 190	Ir 191
Detector	PC	PC	PC	PC	PC	PC
Run 1	24.46	24.80	23.60	23.61	23.27	24.72
Run 2	25.13	24.89	25.51	24.91	25.19	25.24
Run 3	25.41	25.30	25.89	26.48	26.53	25.04
Mean	25.00	25.00	25.00	25.00	25.00	25.00
Std Dev	0.4890	0.2658	1.226	1.439	1.637	0.2641
%SD	1.956	1.063	4.903	5.756	6.548	1.056

Element	Iridium	Platinum	Platinum	Platinum	Gold	Thallium
Isotope	Ir 193	Pt 194	Pt 195	Pt 196	Au 197	Tl 203
Detector	PC	PC	PC	PC	PC	PC
Run 1	24.80	24.67	24.51	25.12	24.04	0.1932
Run 2	24.77	24.83	25.10	25.00	25.34	0.1108
Run 3	25.44	25.51	25.38	24.88	25.62	0.1076
Mean	25.00	25.00	25.00	25.00	25.00	0.1372
Std Dev	0.3799	0.4460	0.4430	0.1167	0.8443	0.0485
%SD	1.520	1.784	1.772	0.4666	3.377	35.37

Element	Thallium

00477

Element	Thallium
Isotope	Tl 205
Detector	PC
Isotope	Tl 205
Detector	PC
Run 1	0.1131
Run 2	0.0339
Run 3	0.0295
Mean	0.0588
Std Dev	0.0470
%SD	80.02

Internal Standard Drift; % relative to mean of first sample :

Element	Scandium	Yttrium	Lutetium
Isotope	Sc 45	Y 89	Lu 175
Detector	PC	PC	PC
Run 1	91.76	96.33	100.3
Run 2	98.48	94.38	99.29
Run 3	90.86	91.32	97.52
Mean	90.36	94.01	99.05
Std Dev	1.696	2.523	1.418

Multi-Element Concentrations Mon Jun 2 1997

Statistics for Concentration Determination.

Analysis procedure : 200.8

Sample name : 1

First repeat started at : Mon Jun 2 1997 07:54:55

Last repeat started at : Mon Jun 2 1997 07:57:00

Interference Equations : DEFAULT

Dilution Factor : 1.0000 Concentration units : ppb

Element	Beryllium	Selenium	Selenium	Selenium	Ruthenium	Ruthenium	Ruthenium
Isotope	Be 9	Se 77	Se 78	Se 82	Ru 99	Ru 101	Ru 102
Detector	PC	PC	PC	PC	PC	PC	PC
Run 1	-0.0001	0.1554	-1.058	0.1449	24.95	24.72	25.10
Run 2	-0.0022	0.2481	-1.129	0.2350	24.61	23.38	24.67
Run 3	-0.0033	0.3589	-1.337	0.3476	25.00	24.07	25.48
Mean	-0.0019	0.2541	-1.175	0.2425	24.85	24.06	25.08
Std Dev	0.0016	0.1019	0.1446	0.1016	0.2094	0.6715	0.4027
%SD	86.29	40.09	12.31	41.89	0.8424	2.791	1.605

Element	Rhodium	Palladium	Palladium	Cadmium	Cadmium	Cadmium
Isotope	Rh 103	Pd 104	Pd 105	Cd 111	Cd 112	Cd 114
Detector	PC	PC	PC	PC	PC	PC
Run 1	25.45	25.95	25.28	0.0003	-0.0049	-0.0034
Run 2	25.19	24.88	24.83	-0.0114	-0.0079	-0.0054
Run 3	25.10	25.39	24.96	-0.0048	-0.0104	-0.0082
Mean	25.25	25.40	25.02	-0.0053	-0.0077	-0.0056
Std Dev	0.1859	0.5328	0.2351	0.0058	0.0027	0.0024
%SD	0.7366	2.097	0.9396	110.0	35.35	42.89

ICV-4

Element	Rhenium	Rhenium	Osmium	Osmium	Osmium	Iridium
Isotope	Re 185	Re 187	Os 188	Os 189	Os 190	Ir 191
Detector	PC	PC	PC	PC	PC	PC
Run 1	25.09	25.05	26.30	26.43	26.34	24.68
Run 2	25.10	25.38	26.85	26.06	25.95	25.27
Run 3	25.28	25.49	27.60	26.49	26.16	25.79
Mean	25.16	25.31	26.92	26.33	26.15	25.25
Std Dev	0.1080	0.2286	0.6512	0.2328	0.1964	0.5536
%SD	0.4292	0.9031	2.419	0.8844	0.7511	2.193

Element	Iridium	Platinum	Platinum	Platinum	Gold	Thallium
Isotope	Ir 193	Pt 194	Pt 195	Pt 196	Au 197	Tl 203
Detector	PC	PC	PC	PC	PC	PC
Run 1	25.17	25.30	24.77	24.75	25.89	0.1048
Run 2	25.52	24.76	24.84	25.30	25.80	0.0974
Run 3	26.07	24.96	25.42	25.81	26.09	0.1002
Mean	25.58	25.01	25.01	25.29	25.93	0.1008
Std Dev	0.4534	0.2720	0.3586	0.5284	0.1452	0.0038
%SD	1.772	1.088	1.434	2.090	0.5601	3.741

Element	Thallium

00479

Element	Thallium
Isotope	Tl 205
Detector	PC
Isotope	Tl 205
Detector	PC
Run 1	0.0279
Run 2	0.0259
Run 3	0.0232
Mean	0.0257
Std Dev	0.0024
%RD	9.190

Internal Standard Drift; % relative to mean of first sample :

Element	Scandium	Yttrium	Lutetium
Isotope	Sc 45	Y 89	Lu 175
Detector	PC	PC	PC
Run 1	98.21	92.52	98.77
Run 2	98.77	93.99	99.13
Run 3	98.17	92.62	97.99
Mean	98.38	93.04	98.63
Std Dev	0.3339	0.8213	0.5853

Multi-Element Concentrations Mon Jun 2 1997
Statistics for Concentration Determination.
Analysis procedure : 200.8

Sample name : 2_

First repeat started at : Mon Jun 2 1997 07:58:55

Last repeat started at : Mon Jun 2 1997 08:00:59

Interference Equations : DEFAULT

Dilution Factor : 1.0000 Concentration units : ppb

Element	Beryllium	Selenium	Selenium	Selenium	Ruthenium	Ruthenium	Ruthenium
Isotope	Be 9	Se 77	Se 78	Se 82	Ru 99	Ru 101	Ru 102
Detector	PC	PC	PC	PC	PC	PC	PC
Run 1	5.191	53.70	52.00	53.56	0.0119	0.0110	0.0190
Run 2	5.291	55.16	54.59	54.97	0.0068	0.0076	0.0093
Run 3	5.223	55.47	54.11	55.20	0.0063	0.0030	0.0072
Mean	5.235	54.78	53.56	54.58	0.0083	0.0072	0.0118
Std Dev	0.0509	0.9471	1.380	0.8874	0.0031	0.0040	0.0063
%SD	0.9722	1.729	2.575	1.626	37.33	55.32	53.34

Element	Rhodium	Palladium	Palladium	Cadmium	Cadmium	Cadmium
Isotope	Rh 103	Pd 104	Pd 105	Cd 111	Cd 112	Cd 114
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.0119	0.0743	0.1483	25.95	25.57	25.94
Run 2	0.0066	0.0501	0.0889	26.34	26.09	26.24
Run 3	0.0061	0.0360	-0.0060	26.50	25.62	25.97
Mean	0.0082	0.0535	0.0771	26.26	25.76	26.05
Std Dev	0.0032	0.0193	0.0778	0.2820	0.2862	0.1624
%SD	39.64	36.13	100.9	1.074	1.111	0.6235

ICV-4

Element	Rhenium	Rhenium	Osmium	Osmium	Osmium	Iridium
Isotope	Re 185	Re 187	Os 188	Os 189	Os 190	Ir 191
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.0111	0.0350	0.8214	0.8060	0.7996	0.0176
Run 2	0.0065	0.0127	0.2007	0.1986	0.1990	0.0150
Run 3	0.0049	0.0079	0.1085	0.1057	0.1099	0.0169
Mean	0.0075	0.0185	0.3769	0.3701	0.3695	0.0165
Std Dev	0.0032	0.0145	0.3877	0.3804	0.3752	0.0013
%SD	42.94	78.08	102.9	102.8	101.5	7.979

Element	Iridium	Platinum	Platinum	Platinum	Gold	Thallium
Isotope	Ir 193	Pt 194	Pt 195	Pt 196	Au 197	Tl 203
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.0634	0.0230	0.0165	0.0186	0.2224	52.23
Run 2	0.0408	0.0045	0.0099	0.0051	0.0929	52.33
Run 3	0.0297	0.0051	0.0012	-0.0023	0.0575	51.89
Mean	0.0447	0.0109	0.0092	0.0071	0.1243	52.15
Std Dev	0.0171	0.0105	0.0077	0.0106	0.0868	0.2302
%SD	38.40	96.52	83.35	148.1	69.83	0.4414

Element	Thallium

00481

Element	Thallium
Isotope	Tl 205
Detector	PC
Isotope	Tl 205
Detector	PC
Run 1	52.10
Run 2	51.87
Run 3	51.84
Mean	51.93
Std Dev	0.1405
%SD	0.2706

Internal Standard Drift; % relative to mean of first sample :

Element	Scandium	Yttrium	Lutetium
Isotope	Sc 45	Y 89	Lu 175
Detector	PC	PC	PC
Run 1	87.95	92.82	99.64
Run 2	85.33	91.87	97.66
Run 3	86.09	92.58	99.45
Mean	86.79	92.42	98.92
Std Dev	1.016	0.4950	1.093

Multi-Element Concentration: Mon Jun 2 1997
Statistics for Concentration Determination.
Analysis procedure : 200.8

Sample name : 3

First repeat started at : Mon Jun 2 1997 08:02:34

Last repeat started at : Mon Jun 2 1997 08:04:40

Interference Equations : DEFAULT

Dilution Factor : 1.0000 Concentration units : ppb

Element	Beryllium	Selenium	Selenium	Selenium	Ruthenium	Ruthenium	Ruthenium
Isotope	Be 9	Se 77	Se 78	Se 82	Ru 99	Ru 101	Ru 102
Detector	PC	PC	PC	PC	PC	PC	PC
Run 1	0.0011	0.2438	-1.295	0.2270	25.31	24.09	24.90
Run 2	-0.0019	0.3562	-1.411	0.3417	24.51	24.20	24.94
Run 3	-0.0037	0.4093	-1.459	0.3940	25.36	24.75	24.77
Mean	-0.0015	0.3365	-1.389	0.3209	25.06	24.34	24.87
Std Dev	0.0024	0.0845	0.0840	0.0854	0.4769	0.3540	0.0895
%SD	162.5	25.11	6.053	26.62	1.903	1.454	0.3598

Element	Rhodium	Palladium	Palladium	Cadmium	Cadmium	Cadmium
Isotope	Rh 103	Pd 104	Pd 105	Cd 111	Cd 112	Cd 114
Detector	PC	PC	PC	PC	PC	PC
Run 1	24.92	24.88	24.70	-0.0020	-0.0017	0.0012
Run 2	25.22	25.58	23.89	0.0023	-0.0044	-0.0034
Run 3	25.03	25.71	25.19	-0.0006	-0.0073	-0.0095
Mean	25.06	25.39	24.60	-0.0001	-0.0045	-0.0039
Std Dev	0.1523	0.4454	0.6569	0.0022	0.0028	0.0053
%SD	0.6077	1.754	2.671	2193	62.64	136.5

CCV-7

Element	Rhenium	Rhenium	Osmium	Osmium	Osmium	Iridium
Isotope	Re 185	Re 187	Os 188	Os 189	Os 190	Ir 191
Detector	PC	PC	PC	PC	PC	PC
Run 1	24.84	24.04	22.81	23.19	22.92	24.78
Run 2	25.62	25.31	25.41	24.53	25.13	25.65
Run 3	25.35	24.73	25.60	25.69	25.65	24.74
Mean	25.27	24.69	24.60	24.47	24.57	25.05
Std Dev	0.3934	0.6339	1.558	1.252	1.454	0.5152
%SD	1.557	2.567	6.330	5.117	5.917	2.056

Element	Iridium	Platinum	Platinum	Platinum	Gold	Thallium
Isotope	Ir 193	Pt 194	Pt 195	Pt 196	Au 197	Tl 203
Detector	PC	PC	PC	PC	PC	PC
Run 1	25.15	24.48	24.42	24.53	24.71	0.1318
Run 2	25.50	25.01	24.94	25.40	25.50	0.1175
Run 3	25.58	25.40	25.39	24.90	26.08	0.1031
Mean	25.41	24.96	24.92	24.95	25.43	0.1175
Std Dev	0.2294	0.4632	0.4844	0.4376	0.6848	0.0144
%SD	0.9029	1.856	1.944	1.754	2.693	12.23

00483

Element	Thallium

Element	Thallium
Isotope	Tl 205
Detector	PC
Isotope	Tl 205
Detector	PC
Run 1	0.0593
Run 2	0.0407
Run 3	0.0329
Mean	0.0443
Std Dev	0.0134
%SD	30.75

Internal Standard Drift; % relative to mean of first sample :

Element	Scandium	Yttrium	Lutetium
Isotope	Sc 45	Y 89	Lu 175
Detector	PC	PC	PC
Run 1	97.91	94.41	104.0
Run 2	88.43	94.07	100.5
Run 3	89.39	94.23	100.8
Mean	88.21	94.24	101.8
Std Dev	0.3410	0.1718	1.942

Multi-Element Concentrations Mon Jun 2 1997

Statistics for Concentration Determination.

Analysis procedure : 200.8

Sample name : 4

First repeat started at : Mon Jun 2 1997 08:06:01

Last repeat started at : Mon Jun 2 1997 08:08:06

Interference Equations : DEFAULT

Dilution Factor : 1.0000 Concentration units : ppb

Element	Beryllium	Selenium	Selenium	Selenium	Ruthenium	Ruthenium	Ruthenium
Isotope	Be 9	Se 77	Se 78	Se 82	Ru 99	Ru 101	Ru 102
Detector	PC	PC	PC	PC	PC	PC	PC
Run 1	24.79	25.84	23.92	25.71	0.0225	0.0170	0.0287
Run 2	24.88	26.61	25.19	26.47	0.0039	0.0035	0.0071
Run 3	25.29	27.36	23.10	27.28	0.0014	0.0085	0.0029
Mean	24.98	26.60	24.17	26.47	0.0093	0.0090	0.0129
Std Dev	0.2681	0.7588	0.9255	0.7681	0.0116	0.0071	0.0139
%SD	1.073	2.852	3.829	2.902	124.8	78.64	107.7

Element	Rhodium	Palladium	Palladium	Cadmium	Cadmium	Cadmium
Isotope	Rh 103	Pd 104	Pd 105	Cd 111	Cd 112	Cd 114
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.0199	0.1131	0.1891	25.41	25.06	25.38
Run 2	0.0060	0.0501	0.0618	25.01	25.48	25.23
Run 3	0.0036	0.0301	-0.0598	25.85	25.64	25.58
Mean	0.0098	0.0644	0.0637	25.42	25.40	25.40
Std Dev	0.0089	0.0433	0.1245	0.4195	0.2975	0.1754
%SD	89.15	67.20	195.3	1.650	1.171	0.6905

CCV-1

Element	Rhenium	Rhenium	Osmium	Osmium	Osmium	Iridium
Isotope	Re 185	Re 187	Os 188	Os 189	Os 190	Ir 191
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.0172	0.0512	1.284	1.278	1.251	0.1632
Run 2	0.0048	0.0154	0.3641	0.3469	0.3523	0.0174
Run 3	0.0025	0.0087	0.2008	0.2088	0.2237	0.0078
Mean	0.0082	0.0251	0.6163	0.6111	0.6089	0.0628
Std Dev	0.0079	0.0229	0.5840	0.5814	0.5596	0.0871
%SD	96.31	91.19	94.76	95.14	91.89	138.7

Element	Iridium	Platinum	Platinum	Platinum	Gold	Thallium
Isotope	Ir 193	Pt 194	Pt 195	Pt 196	Au 197	Tl 203
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.1659	0.0312	0.0310	0.0385	0.7275	26.10
Run 2	0.0638	0.0009	-0.0014	-0.0008	0.4860	25.19
Run 3	0.0443	-0.0045	-0.0040	-0.0080	0.4396	25.55
Mean	0.0913	0.0092	0.0086	0.0092	0.5510	25.62
Std Dev	0.0653	0.0193	0.0195	0.0238	0.1545	0.4569
%SD	71.53	209.2	227.9	258.3	28.05	1.784

Element	Thallium

00485

Element	Thallium
Isotope	Tl 205
Detector	PC
Isotope	Tl 205
Detector	PC
Run 1	25.51
Run 2	25.07
Run 3	25.86
Mean	25.48
Std Dev	0.3941
%SD	1.547

Internal Standard Drift; % relative to mean of first sample :

Element	Scandium	Yttrium	Lutetium
Isotope	Sc 45	Y 89	Lu 175
Detector	PC	PC	PC
Run 1	87.35	94.02	99.88
Run 2	88.11	95.02	101.7
Run 3	88.46	94.52	100.6
Mean	87.97	94.52	100.8
Std Dev	0.5691	0.4975	0.9334

Multi-Element Concentrations Mon Jun 2 1997
Statistics for Concentration Determination.
Analysis procedure : 200.8

Sample name : 5

First repeat started at : Mon Jun 2 1997 08:17:12

Last repeat started at : Mon Jun 2 1997 08:19:17

Interference Equations : DEFAULT

Dilution Factor : 1.0000 Concentration units : ppb

Element	Beryllium	Selenium	Selenium	Selenium	Ruthenium	Ruthenium	Ruthenium
Isotope	Be 9	Se 77	Se 78	Se 82	Ru 99	Ru 101	Ru 102
Detector	PC	PC	PC	PC	PC	PC	PC
Run 1	-0.0053	0.4086	-1.455	0.3871	0.0073	0.0001	0.0056
Run 2	-0.0041	0.4527	-1.134	0.4523	0.0049	-0.0019	0.0032
Run 3	-0.0040	0.5291	-1.259	0.5186	0.0022	-0.0012	0.0039
Mean	-0.0045	0.4631	-1.283	0.4527	0.0048	-0.0010	0.0042
Std Dev	0.0007	0.0604	0.1618	0.0658	0.0026	0.0010	0.0013
%SD	16.60	13.05	12.60	14.52	53.63	99.81	29.89

Element	Rhodium	Palladium	Palladium	Cadmium	Cadmium	Cadmium
Isotope	Rh 103	Pd 104	Pd 105	Cd 111	Cd 112	Cd 114
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.0011	0.0293	-0.0384	0.0105	-0.0020	-0.0006
Run 2	0.0013	0.0169	-0.0692	0.0016	-0.0028	0.0046
Run 3	0.0008	0.0149	0.0624	-0.0054	-0.0013	-0.0045
Mean	0.0011	0.0204	-0.0151	0.0022	-0.0020	-0.0002
Std Dev	0.0003	0.0078	0.0688	0.0079	0.0007	0.0046
%SD	25.27	38.28	456.9	358.1	35.54	2556

CCB-1

Element	Rhenium	Rhenium	Osmium	Osmium	Osmium	Iridium
Isotope	Re 185	Re 187	Os 188	Os 189	Os 190	Ir 191
Detector	PC	PC	PC	PC	PC	PC
Run 1	-0.0003	0.0030	0.0893	0.0843	0.0914	-0.0170
Run 2	-0.0005	0.0024	0.0694	0.0692	0.0696	-0.0061
Run 3	-0.0005	0.0012	0.0574	0.0715	0.0579	-0.0069
Mean	-0.0004	0.0022	0.0720	0.0750	0.0726	-0.0100
Std Dev	0.0001	0.0009	0.0161	0.0081	0.0174	0.0061
%SD	23.80	41.34	22.33	10.83	23.94	60.68

Element	Iridium	Platinum	Platinum	Platinum	Gold	Thallium
Isotope	Ir 193	Pt 194	Pt 195	Pt 196	Au 197	Tl 203
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.0072	-0.0021	-0.0027	-0.0010	0.0216	-0.0011
Run 2	0.0006	-0.0042	-0.0054	-0.0102	0.0150	-0.0010
Run 3	0.0028	-0.0081	-0.0092	-0.0112	0.0164	-0.0025
Mean	0.0035	-0.0048	-0.0058	-0.0075	0.0176	-0.0015
Std Dev	0.0034	0.0030	0.0032	0.0056	0.0035	0.0008
%SD	94.47	63.42	56.03	74.80	19.79	53.30

Element	Thallium

00487

Element	Thallium
Isotope	Tl 205
Detector	PC
Isotope	Tl 205
Detector	PC
Run 1	0.0003
Run 2	-0.0012
Run 3	-0.0006
Mean	-0.0005
Std Dev	0.0008
%SD	158.3

Internal Standard Drift; % relative to mean of first sample :

Element	Scandium	Yttrium	Lutetium
Isotope	Sc 45	Y 89	Lu 175
Detector	PC	PC	PC
Run 1	101.0	110.2	105.7
Run 2	102.4	103.2	103.2
Run 3	99.15	103.0	102.6
Mean	100.8	105.5	103.8
Std Dev	1.626	3.991	1.594

Multi-Element Concentrations Mon Jun 2 1997

Statistics for Concentration Determination.

Analysis procedure : 200.8

Sample name : 6

First repeat started at : Mon Jun 2 1997 08:21:56

Last repeat started at : Mon Jun 2 1997 08:24:01

Interference Equations : DEFAULT

Dilution Factor : 1.0000 Concentration units : ppb

Element	Beryllium	Selenium	Selenium	Selenium	Ruthenium	Ruthenium	Ruthenium
Isotope	Be 9	Se 77	Se 78	Se 82	Ru 99	Ru 101	Ru 102
Detector	PC	PC	PC	PC	PC	PC	PC
Run 1	3.086	12356	12414	12283	6.152	5.913	6.590
Run 2	2.979	12886	12733	12908	6.290	5.975	6.579
Run 3	3.135	12937	13235	12973	6.259	6.096	6.927
Mean	3.067	12727	12794	12721	6.233	5.995	6.695
Std Dev	0.0798	321.8	414.1	381.1	0.0720	0.0929	0.2007
%SD	2.602	2.528	3.237	2.995	1.156	1.550	2.998

Element	Rhodium	Palladium	Palladium	Cadmium	Cadmium	Cadmium
Isotope	Rh 103	Pd 104	Pd 105	Cd 111	Cd 112	Cd 114
Detector	PC	PC	PC	PC	PC	PC
Run 1	4.490	14.33	27.82	497.9	586.8	542.2
Run 2	4.569	14.60	28.28	510.9	587.3	559.9
Run 3	4.688	15.07	28.81	512.4	598.8	542.4
Mean	4.582	14.67	28.30	507.1	591.0	548.2
Std Dev	0.0998	0.3748	0.4967	7.975	6.786	10.14
%SD	2.177	2.555	1.755	1.573	1.148	1.850

3098-5
1/10

Element	Rhenium	Rhenium	Osmium	Osmium	Osmium	Iridium
Isotope	Re 185	Re 187	Os 188	Os 189	Os 190	Ir 191
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.0541	0.0505	0.0640	0.0633	0.0632	0.9134
Run 2	0.0520	0.0526	0.0570	0.0564	0.0548	0.9739
Run 3	0.0526	0.0506	0.0521	0.0518	0.0490	0.9405
Mean	0.0529	0.0512	0.0577	0.0572	0.0557	0.9426
Std Dev	0.0011	0.0012	0.0060	0.0058	0.0071	0.0303
%SD	2.015	2.368	10.37	10.13	12.81	3.212

Element	Iridium	Platinum	Platinum	Platinum	Gold	Thallium
Isotope	Ir 193	Pt 194	Pt 195	Pt 196	Au 197	Tl 203
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.9634	3.496	3.406	3.378	494.9	11.20
Run 2	0.9788	3.537	3.438	3.490	501.2	11.46
Run 3	0.9461	3.521	3.493	3.483	496.9	11.27
Mean	0.9628	3.518	3.446	3.450	491.3	11.31
Std Dev	0.0164	0.0210	0.0439	0.0629	14.58	0.1347
%SD	1.700	0.5956	1.270	1.821	2.968	1.191

Gold Dilution 5 (1997)

Element	Thallium

00489

Element	Thallium
Isotope	Tl 205
Detector	PC
Isotope	Tl 205
Detector	PC
Run 1	11.28
Run 2	11.33
Run 3	11.42
Mean	11.36
Std Dev	0.0742
%SD	0.6536

Internal Standard Drift; % relative to mean of first sample :

Element	Scandium	Yttrium	Lutetium
Isotope	Sc 45	Y 89	Lu 175
Detector	PC	PC	PC
Run 1	95.62	93.23	95.79
Run 2	93.10	94.98	94.86
Run 3	84.63	95.62	97.44
Mean	91.12	94.61	96.03
Std Dev	4.820	1.233	1.306

Multi-Element Concentrations Mon Jun 2 1997

Statistics for Concentration Determination.

Analysis procedure : 200.8

Sample name : Z

First repeat started at : Mon Jun 2 1997 08:25:56

Last repeat started at : Mon Jun 2 1997 08:28:01

Interference Equations : DEFAULT

Dilution Factor : 1.0000 Concentration units : ppb

Element	Beryllium	Selenium	Selenium	Selenium	Ruthenium	Ruthenium	Ruthenium
Isotope	Be 9	Se 77	Se 78	Se 82	Ru 99	Ru 101	Ru 102
Detector	PC	PC	PC	PC	PC	PC	PC
Run 1	0.1906	316.5	319.2	319.3	0.2182	0.2024	0.3807
Run 2	0.1833	317.0	340.4	320.1	0.2260	0.1990	0.3973
Run 3	0.1905	318.6	333.7	322.4	0.2402	0.2232	0.3820
Mean	0.1881	317.4	331.1	320.6	0.2281	0.2082	0.3867
Std Dev	0.0042	1.123	10.86	1.588	0.0111	0.0131	0.0092
%SD	2.233	0.3540	3.279	0.4952	4.874	6.291	2.389

Element	Rhodium	Palladium	Palladium	Cadmium	Cadmium	Cadmium
Isotope	Rh 103	Pd 104	Pd 105	Cd 111	Cd 112	Cd 114
Detector	PC	PC	PC	PC	PC	PC
Run 1	1.379	8.617	0.6633	3581	3160	2891
Run 2	1.449	9.835	0.7310	3595	3132	2895
Run 3	1.426	9.987	0.5507	3594	3078	2887
Mean	1.418	9.813	0.6483	3590	3123	2891
Std Dev	0.0356	0.1860	0.0911	7.891	41.84	3.913
%SD	2.510	2.110	14.05	0.2198	1.340	0.1353

Element	Rhenium	Rhenium	Osmium	Osmium	Osmium	Iridium
Isotope	Re 185	Re 187	Os 188	Os 189	Os 190	Ir 191
Detector	PC	PC	PC	PC	PC	PC
Run 1	19.07	18.35	0.0451	0.0529	0.0448	0.0424
Run 2	19.39	17.67	0.0421	0.0414	0.0420	0.0616
Run 3	19.02	18.06	0.0468	0.0467	0.0389	0.0602
Mean	19.16	18.03	0.0447	0.0470	0.0419	0.0547
Std Dev	0.2009	0.3432	0.0024	0.0057	0.0030	0.0107
%SD	1.049	1.904	5.304	12.19	7.119	19.59

Element	Iridium	Platinum	Platinum	Platinum	Gold	Thallium
Isotope	Ir 193	Pt 194	Pt 195	Pt 196	Au 197	Tl 203
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.0591	0.0440	0.0460	0.1803	19.84	90.53
Run 2	0.0614	0.0489	0.0339	0.1977	19.08	90.61
Run 3	0.0601	0.0459	0.0383	0.1907	19.09	91.94
Mean	0.0602	0.0462	0.0394	0.1896	19.34	91.03
Std Dev	0.0012	0.0025	0.0062	0.0088	0.4405	0.7890
%SD	1.928	5.331	15.62	4.630	2.278	0.8667

Element	Thallium

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00491

Element	Thallium
Isotope	Tl 205
Detector	PC
Isotope	Tl 205
Detector	PC
Run 1	28.06
Run 2	28.16
Run 3	28.84
Mean	28.35
Std Dev	0.4254
%SD	0.4815

Internal Standard Drift; % relative to mean of first sample :

Element	Scandium	Yttrium	Lutetium
Isotope	Sc 45	Y 89	Lu 175
Detector	PC	PC	PC
Run 1	97.61	93.28	75.45
Run 2	97.73	92.72	76.51
Run 3	101.2	94.33	78.04
Mean	98.85	93.45	76.67
Std Dev	2.031	0.8153	1.301

Multi-Element Concentrations Mon Jun 2 199?

Statistics for Concentration Determination.

Analysis procedure : 200.8

Sample name : 9

First repeat started at : Mon Jun 2 1997 08:29:45

Last repeat started at : Mon Jun 2 1997 08:31:50

Interference Equations : DEFAULT

Dilution Factor : 1.0000 Concentration units : ppb

Element	Beryllium	Selenium	Selenium	Selenium	Ruthenium	Ruthenium	Ruthenium
Isotope	Be 9	Se 77	Se 78	Se 82	Ru 99	Ru 101	Ru 102
Detector	PC	PC	PC	PC	PC	PC	PC
Run 1	0.1883	186.5	187.1	187.9	0.1311	0.1274	0.2870
Run 2	0.1817	190.1	195.1	192.5	0.1516	0.1200	0.2926
Run 3	0.1901	188.6	194.0	190.5	0.1428	0.1236	0.2948
Mean	0.1867	188.4	192.1	190.3	0.1418	0.1237	0.2914
Std Dev	0.0044	1.829	4.311	2.315	0.0103	0.0037	0.0040
%SD	2.372	0.9706	2.245	1.216	7.261	3.010	1.379

Element	Rhodium	Palladium	Palladium	Cadmium	Cadmium	Cadmium
Isotope	Rh 103	Pd 104	Pd 105	Cd 111	Cd 112	Cd 114
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.8994	5.805	0.2413	1450	1414	1415
Run 2	0.9314	5.861	0.0998	1454	1461	1418
Run 3	0.9234	5.868	0.1671	1453	1434	1422
Mean	0.9181	5.845	0.1694	1452	1436	1419
Std Dev	0.0167	0.0343	0.0708	2.146	23.47	3.448
%SD	1.817	0.5862	41.77	0.1480	1.634	0.2431

Element	Rhenium	Rhenium	Osmium	Osmium	Osmium	Iridium
Isotope	Re 185	Re 187	Os 188	Os 189	Os 190	Ir 191
Detector	PC	PC	PC	PC	PC	PC
Run 1	29.22	27.64	0.0479	0.0373	0.0416	0.0793
Run 2	30.31	28.54	0.0438	0.0357	0.0366	0.0965
Run 3	30.27	28.74	0.0393	0.0359	0.0378	0.1092
Mean	29.93	28.31	0.0437	0.0363	0.0386	0.0950
Std Dev	0.6202	0.5866	0.0043	0.0009	0.0026	0.0150
%SD	2.072	2.072	9.884	2.506	6.755	15.80

Element	Iridium	Platinum	Platinum	Platinum	Gold	Thallium
Isotope	Ir 193	Pt 194	Pt 195	Pt 196	Au 197	Tl 203
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.0851	0.0181	0.0180	0.0728	6.915	101.9
Run 2	0.0947	0.0210	0.0146	0.0937	7.127	102.3
Run 3	0.0914	0.0246	0.0169	0.0867	7.307	105.9
Mean	0.0904	0.0212	0.0165	0.0844	7.116	103.3
Std Dev	0.0048	0.0032	0.0018	0.0106	0.1963	2.123
%SD	5.364	15.15	10.76	12.61	2.759	2.055

Element	Thallium

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1/10

00493

Element	Thallium
Isotope	Tl 205
Detector	PC
Isotope	Tl 205
Detector	PC
Run 1	97.67
Run 2	99.72
Run 3	100.7
Mean	99.37
Std Dev	1.562
RSD	1.572

Internal Standard Drift: % relative to mean of first sample :

Element	Scandium	Yttrium	Lutetium
Isotope	Sc 45	Y 89	Lu 175
Detector	PC	PC	PC
Run 1	100.4	97.20	97.55
Run 2	104.0	96.37	95.22
Run 3	102.7	97.22	93.57
Mean	102.4	96.93	95.45
Std Dev	1.950	0.4833	1.999

Multi-Element Concentration Mon Jun 2 1997
Statistics for Concentration Determination.
Analysis procedure : 200.8

Sample name : 9

First repeat started at : Mon Jun 2 1997 08:33:37

Last repeat started at : Mon Jun 2 1997 08:35:42

Interference Equations : DEFAULT

Dilution Factor : 1.0000 Concentration units : ppb

Element	Beryllium	Selenium	Selenium	Selenium	Ruthenium	Ruthenium	Ruthenium
Isotope	Be 9	Se 77	Se 78	Se 82	Ru 99	Ru 101	Ru 102
Detector	PC	PC	PC	PC	PC	PC	PC
Run 1	0.1809	35.35	33.53	35.82	0.1246	0.1002	0.2070
Run 2	0.1980	35.22	32.53	35.77	0.1214	0.0985	0.2098
Run 3	0.1822	34.23	31.31	34.70	0.1268	0.1099	0.2143
Mean	0.1870	34.93	32.63	35.43	0.1242	0.1029	0.2104
Std Dev	0.0095	0.6132	0.8626	0.6314	0.0027	0.0062	0.0037
%SD	5.080	1.755	2.644	1.782	2.181	5.980	1.737

Element	Rhodium	Palladium	Palladium	Cadmium	Cadmium	Cadmium
Isotope	Rh 103	Pd 104	Pd 105	Cd 111	Cd 112	Cd 114
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.9052	6.465	0.2651	196.7	293.8	250.7
Run 2	0.8990	6.682	0.1162	198.9	294.1	253.5
Run 3	0.9068	6.842	0.0726	196.7	293.5	254.4
Mean	0.9037	6.663	0.1513	197.4	293.9	252.9
Std Dev	0.0041	0.1893	0.1010	1.257	0.2537	1.942
%SD	0.4560	2.842	66.73	0.6369	0.0863	0.7679

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Element	Rhenium	Rhenium	Osmium	Osmium	Osmium	Iridium
Isotope	Re 185	Re 187	Os 188	Os 189	Os 190	Ir 191
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.4831	0.4601	0.0450	0.0314	0.0387	0.0099
Run 2	0.4956	0.4591	0.0320	0.0398	0.0385	0.0925
Run 3	0.5021	0.4653	0.0380	0.0357	0.0348	0.0391
Mean	0.4936	0.4615	0.0383	0.0357	0.0373	0.0472
Std Dev	0.0096	0.0033	0.0065	0.0042	0.0022	0.0419
%SD	1.954	0.7230	16.95	11.83	5.795	88.80

Element	Iridium	Platinum	Platinum	Platinum	Gold	Thallium
Isotope	Ir 193	Pt 194	Pt 195	Pt 196	Au 197	Tl 203
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.0090	0.0100	0.0066	0.0249	4.244	8.381
Run 2	0.0110	0.0072	0.0075	0.0297	4.292	8.141
Run 3	0.0090	0.0053	0.0066	0.0254	4.352	8.211
Mean	0.0097	0.0075	0.0069	0.0267	4.293	8.244
Std Dev	0.0012	0.0023	0.0005	0.0026	0.0546	0.1237
%SD	11.89	31.33	7.039	9.868	1.272	1.500

Element	Thallium

00495

Element	Thallium
Isotope	Tl 205
Detector	PC
Isotope	Tl 205
Detector	PC
Run 1	8.075
Run 2	7.776
Run 3	7.891
Mean	7.914
Std Dev	0.1506
%RD	1.902

Internal Standard Drift; % relative to mean of first sample :

Element	Scandium	Yttrium	Lutetium
Isotope	Sc 45	Y 89	Lu 175
Detector	PC	PC	PC
Run 1	116.8	107.6	96.65
Run 2	118.3	107.3	95.35
Run 3	119.1	109.5	94.99
Mean	118.0	108.1	95.63
Std Dev	1.195	1.177	0.9159

Multi-Element Concentrations Mon Jun 2 1997

Statistics for Concentration Determination.

Analysis procedure : 200.8

Sample name : 10

First repeat started at : Mon Jun 2 1997 08:40:23

Last repeat started at : Mon Jun 2 1997 08:42:28

Interference Equations : DEFAULT

Dilution Factor : 1.0000 Concentration units : ppb

Element	Beryllium	Selenium	Selenium	Selenium	Ruthenium	Ruthenium	Ruthenium
Isotope	Be 9	Se 77	Se 78	Se 82	Ru 99	Ru 101	Ru 102
Detector	PC	PC	PC	PC	PC	PC	PC
Run 1	0.3085	148.7	152.0	150.6	0.2719	0.2394	0.4397
Run 2	0.3190	145.9	150.6	147.9	0.2753	0.2628	0.4200
Run 3	0.3132	151.3	157.1	153.4	0.2712	0.2616	0.4529
Mean	0.3136	148.6	153.2	150.6	0.2728	0.2546	0.4375
Std Dev	0.0053	2.756	3.423	2.750	0.0022	0.0132	0.0166
%SD	1.678	1.855	2.234	1.826	0.8132	5.177	3.786

Element	Rhodium	Palladium	Palladium	Cadmium	Cadmium	Cadmium
Isotope	Rh 103	Pd 104	Pd 105	Cd 111	Cd 112	Cd 114
Detector	PC	PC	PC	PC	PC	PC
Run 1	1.349	8.831	0.3881	722.8	823.9	776.5
Run 2	1.366	8.734	0.4134	702.6	821.8	797.7
Run 3	1.416	9.037	0.4547	719.9	810.0	786.5
Mean	1.377	8.867	0.4188	715.1	818.6	783.6
Std Dev	0.0348	0.1549	0.0336	10.88	7.464	6.177
%SD	2.530	1.747	8.027	1.521	0.9119	0.7883

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1/10

Element	Rhenium	Rhenium	Osmium	Osmium	Osmium	Iridium
Isotope	Re 185	Re 187	Os 188	Os 189	Os 190	Ir 191
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.8021	0.7570	0.0384	0.0392	0.0389	0.0045
Run 2	0.7941	0.7519	0.0388	0.0324	0.0360	0.0057
Run 3	0.7980	0.7405	0.0306	0.0275	0.0345	-0.0146
Mean	0.7981	0.7499	0.0359	0.0330	0.0365	-0.0015
Std Dev	0.0040	0.0084	0.0046	0.0059	0.0022	0.0114
%SD	0.5053	1.125	12.77	17.80	6.073	780.1

Element	Iridium	Platinum	Platinum	Platinum	Gold	Thallium
Isotope	Ir 193	Pt 194	Pt 195	Pt 196	Au 197	Tl 203
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.0252	0.0415	0.0364	0.0650	13.51	26.65
Run 2	0.0275	0.0390	0.0347	0.0699	14.00	27.20
Run 3	0.0264	0.0383	0.0378	0.0644	13.66	27.03
Mean	0.0264	0.0396	0.0363	0.0664	13.75	26.96
Std Dev	0.0011	0.0018	0.0015	0.0030	0.2143	0.2785
%SD	4.339	4.538	4.232	4.579	1.558	1.033

Element	Thallium

00497

Element	Thallium
Isotope	Tl 205
Detector	PC
Isotope	Tl 205
Detector	PC
Run 1	26.00
Run 2	25.12
Run 3	25.29
Mean	25.47
Std Dev	0.4719
RSD	1.853

Internal Standard Drift; % relative to mean of first sample :

Element	Scandium	Yttrium	Lutetium
Isotope	Sc 45	Y 89	Lu 175
Detector	PC	PC	PC
Run 1	105.0	96.85	79.29
Run 2	107.0	97.39	77.21
Run 3	105.0	96.05	79.91
Mean	105.6	96.76	78.13
Std Dev	1.155	0.6756	0.9599

Multi-Element Concentrations Mon Jun 2 1997

Statistics for Concentration Determination.

Analysis procedure : 200.8

Sample name : 11

First repeat started at : Mon Jun 2 1997 08:44:32

Last repeat started at : Mon Jun 2 1997 08:46:38

Interference Equations : DEFAULT

Dilution Factor : 1.0000 Concentration units : ppb

Element	Beryllium	Selenium	Selenium	Selenium	Ruthenium	Ruthenium	Ruthenium
Isotope	Be 9	Se 77	Se 78	Se 82	Ru 99	Ru 101	Ru 102
Detector	PC	PC	PC	PC	PC	PC	PC
Run 1	0.1898	29.03	27.80	29.61	0.2977	0.1632	0.3668
Run 2	0.2101	30.63	31.31	31.21	0.3031	0.1539	0.3885
Run 3	0.2106	30.81	31.32	31.44	0.2923	0.1676	0.3759
Mean	0.2035	30.15	30.14	30.75	0.2977	0.1616	0.3770
Std Dev	0.0119	0.9795	2.031	1.0000	0.0054	0.0070	0.0109
%SD	5.816	3.248	6.739	3.252	1.812	4.355	2.895

Element	Rhodium	Palladium	Palladium	Cadmium	Cadmium	Cadmium
Isotope	Rh 103	Pd 104	Pd 105	Cd 111	Cd 112	Cd 114
Detector	PC	PC	PC	PC	PC	PC
Run 1	2.128	10.59	1.616	3019	2800	2627
Run 2	2.153	10.61	1.603	3173	2893	2711
Run 3	2.172	10.60	1.581	3138	2830	2671
Mean	2.152	10.60	1.600	3110	2841	2670
Std Dev	0.0224	0.0167	0.0176	80.67	47.75	42.28
%SD	1.041	0.1578	1.097	2.594	1.681	1.584

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1/10

Element	Rhenium	Rhenium	Osmium	Osmium	Osmium	Iridium
Isotope	Re 185	Re 187	Os 188	Os 189	Os 190	Ir 191
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.0503	0.0449	0.0335	0.0297	0.0337	0.0329
Run 2	0.0517	0.0483	0.0367	0.0270	0.0345	0.0500
Run 3	0.0451	0.0422	0.0304	0.0300	0.0335	0.0801
Mean	0.0491	0.0452	0.0336	0.0289	0.0339	0.0543
Std Dev	0.0035	0.0031	0.0031	0.0017	0.0005	0.0239
%SD	7.087	6.776	9.384	5.799	1.502	43.96

Element	Iridium	Platinum	Platinum	Platinum	Gold	Thallium
Isotope	Ir 193	Pt 194	Pt 195	Pt 196	Au 197	Tl 203
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.0030	0.0105	0.0124	0.0353	1.061	3.997
Run 2	0.0032	0.0125	0.0117	0.0371	1.068	4.076
Run 3	0.0039	0.0163	0.0121	0.0351	1.044	3.925
Mean	0.0034	0.0131	0.0121	0.0358	1.064	3.999
Std Dev	0.0005	0.0030	0.0004	0.0011	0.0223	0.0756
%SD	14.52	22.59	3.216	3.149	2.092	1.891

Element	Thallium

00499

Element	Thallium
Isotope	Tl 205
Detector	PC
Isotope	Tl 205
Detector	PC
Run 1	3.736
Run 2	3.895
Run 3	3.802
Mean	3.811
Std Dev	0.0799
%SD	2.097

Internal Standard Drift; % relative to mean of first sample :

Element	Scandium	Yttrium	Lutetium
Isotope	Sc 45	Y 89	Lu 175
Detector	PC	PC	PC
Run 1	110.9	96.78	77.95
Run 2	104.3	91.69	75.48
Run 3	104.5	90.70	76.63
Mean	106.6	93.06	76.69
Std Dev	3.712	3.265	1.239

Multi-Element Concentrations Mon Jun 2 1997
Statistics for Concentration Determination.
Analysis procedure : 200.8

Sample name : 12

First repeat started at : Mon Jun 2 1997 08:48:15

Last repeat started at : Mon Jun 2 1997 08:50:21

Interference Equations : DEFAULT

Dilution Factor : 1.0000 Concentration units : ppb

Element	Beryllium	Selenium	Selenium	Selenium	Ruthenium	Ruthenium	Ruthenium
Isotope	Be 9	Se 77	Se 78	Se 82	Ru 99	Ru 101	Ru 102
Detector	PC	PC	PC	PC	PC	PC	PC
Run 1	0.0282	216.4	222.0	219.0	0.9182	0.8819	0.9291
Run 2	0.0331	220.3	231.9	223.6	0.9150	0.8672	0.9052
Run 3	0.0230	219.9	227.5	223.4	0.9442	0.8557	0.9350
Mean	0.0281	218.8	227.2	222.0	0.9324	0.8713	0.9231
Std Dev	0.0050	2.146	4.968	2.579	0.0275	0.0085	0.0157
%SD	17.93	0.9807	2.187	1.161	2.951	0.9722	1.706

Element	Rhodium	Palladium	Palladium	Cadmium	Cadmium	Cadmium
Isotope	Rh 103	Pd 104	Pd 105	Cd 111	Cd 112	Cd 114
Detector	PC	PC	PC	PC	PC	PC
Run 1	2.081	4.156	3.183	52.41	121.5	93.38
Run 2	2.122	4.290	3.023	50.91	118.6	90.44
Run 3	2.203	4.413	2.934	50.97	120.8	91.36
Mean	2.135	4.287	3.047	51.43	120.3	91.72
Std Dev	0.0617	0.1285	0.1263	0.8497	1.474	1.505
%SD	2.890	2.996	4.147	1.652	1.225	1.641

3098-16
1/16

Element	Rhenium	Rhenium	Osmium	Osmium	Osmium	Iridium
Isotope	Re 185	Re 187	Os 188	Os 189	Os 190	Ir 191
Detector	PC	PC	PC	PC	PC	PC
Run 1	1.827	1.724	0.0323	0.0395	0.0379	0.1823
Run 2	1.739	1.659	0.0288	0.0269	0.0302	0.1607
Run 3	1.766	1.701	0.0296	0.0252	0.0319	0.1699
Mean	1.777	1.695	0.0302	0.0305	0.0333	0.1709
Std Dev	0.0449	0.0329	0.0018	0.0079	0.0040	0.0109
%SD	2.524	1.941	6.026	25.82	12.15	6.363

Element	Iridium	Platinum	Platinum	Platinum	Gold	Thallium
Isotope	Ir 193	Pt 194	Pt 195	Pt 196	Au 197	Tl 203
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.1363	0.1204	0.1139	0.1141	23.63	1.696
Run 2	0.1274	0.1203	0.1132	0.1175	23.68	1.630
Run 3	0.1287	0.1251	0.1185	0.1308	24.18	1.695
Mean	0.1308	0.1219	0.1152	0.1208	23.83	1.674
Std Dev	0.0048	0.0027	0.0029	0.0088	0.3036	0.0379
%SD	3.669	2.243	2.508	7.291	1.274	2.265

00501

Element	Thallium

Element	Thallium
Isotope	Tl 205
Detector	PC
Isotope	Tl 205
Detector	PC
Run 1	1.635
Run 2	1.582
Run 3	1.596
Mean	1.603
Std Dev	0.0274
%SD	1.712

Internal Standard Drift; % relative to mean of first sample :

Element	Scandium	Yttrium	Lutetium
Isotope	Sc 45	Y 89	Lu 175
Detector	PC	PC	PC
Run 1	111.4	103.5	99.39
Run 2	116.9	105.8	99.46
Run 3	119.5	106.4	99.30
Mean	115.8	105.2	99.05
Std Dev	3.710	1.549	0.5474

Multi-Element Concentrations Mon Jun 2 199?
Statistics for Concentration Determination.
Analysis procedure : 200.8

Sample name : 13

First repeat started at : Mon Jun 2 1997 08:51:44

Last repeat started at : Mon Jun 2 1997 08:53:49

Interference Equations : DEFAULT

Dilution Factor : 1.0000 Concentration units : ppb

Element	Beryllium	Selenium	Selenium	Selenium	Ruthenium	Ruthenium	Ruthenium
Isotope	Be 9	Se 77	Se 78	Se 82	Ru 99	Ru 101	Ru 102
Detector	PC	PC	PC	PC	PC	PC	PC
Run 1	0.5398	2795	2802	2782	1.245	1.231	1.378
Run 2	0.5849	2882	2972	2889	1.251	1.219	1.363
Run 3	0.5819	2908	2948	2909	1.230	1.230	1.345
Mean	0.5689	2961	2907	2860	1.242	1.227	1.362
Std Dev	0.0252	65.97	91.67	68.41	0.0104	0.0064	0.0163
%SD	4.429	2.306	3.153	2.392	0.8389	0.5237	1.197

Element	Rhodium	Palladium	Palladium	Cadmium	Cadmium	Cadmium
Isotope	Rh 103	Pd 104	Pd 105	Cd 111	Cd 112	Cd 114
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.9596	2.978	5.470	103.8	123.1	115.1
Run 2	0.9670	2.980	5.740	106.4	124.0	118.4
Run 3	0.9496	2.994	5.594	104.5	124.7	117.3
Mean	0.9587	2.984	5.601	104.9	123.9	116.9
Std Dev	0.0088	0.0086	0.1351	1.376	0.8339	1.660
%SD	0.9193	0.2893	2.412	1.311	0.5161	1.419

Element	Rhenium	Rhenium	Osmium	Osmium	Osmium	Iridium
Isotope	Re 185	Re 187	Os 188	Os 189	Os 190	Ir 191
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.0121	0.0146	0.0387	0.0332	0.0382	0.1742
Run 2	0.0103	0.0109	0.0324	0.0317	0.0326	0.1717
Run 3	0.0101	0.0112	0.0330	0.0317	0.0351	0.1797
Mean	0.0108	0.0122	0.0347	0.0322	0.0353	0.1752
Std Dev	0.0011	0.0020	0.0034	0.0008	0.0029	0.0041
%SD	10.08	16.66	9.892	2.564	8.226	2.330

Element	Iridium	Platinum	Platinum	Platinum	Gold	Thallium
Isotope	Ir 193	Pt 194	Pt 195	Pt 196	Au 197	Tl 203
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.1847	0.6361	0.6484	0.6609	98.76	2.232
Run 2	0.1854	0.6620	0.6694	0.6566	100.2	2.193
Run 3	0.1930	0.6817	0.6693	0.6423	100.5	2.230
Mean	0.1947	0.6599	0.6620	0.6533	99.83	2.218
Std Dev	0.0017	0.0229	0.0118	0.0096	0.9360	0.0216
%SD	0.9293	3.466	1.789	1.471	0.9376	0.9753

Element	Thallium

3098-5
1/10 x 15 Dilution for Au

00503

Element	Thallium
Isotope	Tl 205
Detector	PC
Isotope	Tl 205
Detector	PC
Run 1	2.134
Run 2	2.135
Run 3	2.120
Mean	2.130
Std Dev	0.0083
%SD	0.3920

Internal Standard Drift; % relative to mean of first sample :

Element	Scandium	Yttrium	Lutetium
Isotope	Sc 45	Y 89	Lu 175
Detector	PC	PC	PC
Run 1	110.5	115.6	109.1
Run 2	106.4	109.8	107.9
Run 3	106.5	109.9	107.8
Mean	107.8	111.8	108.0
Std Dev	2.354	3.297	1.032

Multi-Element Concentrations Mon Jun 2 1997
Statistics for Concentration Determination.
Analysis procedure : 200.8

Sample name : 14

First repeat started at : Mon Jun 2 1997 08:55:19

Last repeat started at : Mon Jun 2 1997 08:57:24

Interference Equations : DEFAULT

Dilution Factor : 1.0000 Concentration units : ppb

Element	Beryllium	Selenium	Selenium	Selenium	Ruthenium	Ruthenium	Ruthenium
Isotope	Be 9	Se 77	Se 78	Se 82	Ru 99	Ru 101	Ru 102
Detector	PC	PC	PC	PC	PC	PC	PC
Run 1	274.7	277.2	279.6	277.0	0.0259	0.0149	0.0129
Run 2	280.5	290.7	291.7	291.0	0.0219	0.0081	0.0091
Run 3	280.7	284.5	291.9	284.1	0.0099	0.0057	0.0042
Mean	278.6	284.1	287.7	284.0	0.0192	0.0096	0.0088
Std Dev	3.393	6.736	7.056	7.039	0.0083	0.0048	0.0044
%SD	1.218	2.371	2.452	2.478	43.33	49.76	49.91

Element	Rhodium	Palladium	Palladium	Cadmium	Cadmium	Cadmium
Isotope	Rh 103	Pd 104	Pd 105	Cd 111	Cd 112	Cd 114
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.0045	0.0364	-0.0722	292.9	280.0	281.3
Run 2	0.0040	0.0268	-0.0595	296.5	296.3	292.0
Run 3	0.0045	0.0241	-0.2068	292.0	296.5	288.6
Mean	0.0043	0.0291	-0.1129	293.8	294.3	287.3
Std Dev	0.0003	0.0065	0.0818	2.400	3.891	5.470
%SD	7.403	22.17	72.33	0.8169	1.299	1.904

300 ug/l
200.8
Standard

Element	Rhenium	Rhenium	Osmium	Osmium	Osmium	Iridium
Isotope	Re 185	Re 187	Os 188	Os 189	Os 190	Ir 191
Detector	PC	PC	PC	PC	PC	PC
Run 1	-0.0001	0.0015	0.0248	0.0250	0.0263	0.0137
Run 2	-0.0003	0.0014	0.0247	0.0282	0.0276	0.0351
Run 3	-0.0001	0.0010	0.0281	0.0297	0.0305	0.0436
Mean	-0.0001	0.0013	0.0259	0.0276	0.0281	0.0308
Std Dev	0.0001	0.0003	0.0019	0.0024	0.0021	0.0154
%SD	76.92	19.42	7.354	8.590	7.603	50.14

Element	Iridium	Platinum	Platinum	Platinum	Gold	Thallium
Isotope	Ir 193	Pt 194	Pt 195	Pt 196	Au 197	Tl 203
Detector	PC	PC	PC	PC	PC	PC
Run 1	-0.0001	-0.0115	-0.0131	-0.0166	0.5046	315.7
Run 2	0.0008	-0.0143	-0.0126	-0.0125	0.1893	317.5
Run 3	0.0009	-0.0160	-0.0157	-0.0138	0.1093	314.6
Mean	0.0005	-0.0139	-0.0138	-0.0143	0.2674	316.0
Std Dev	0.0005	0.0023	0.0017	0.0021	0.2092	1.432
%SD	108.6	16.29	12.02	14.45	78.22	0.4531

Element	Thallium

00505

Element	Thallium
Isotope	Tl 205
Detector	PC
Isotope	Tl 205
Detector	PC
Run 1	295.8
Run 2	297.1
Run 3	299.1
Mean	297.3
Std Dev	1.667
%SD	0.5608

Internal Standard Drift; % relative to mean of first sample :

Element	Scandium	Yttrium	Lutetium
Isotope	Sc 45	Y 89	Lu 175
Detector	PC	PC	PC
Run 1	107.5	112.0	109.2
Run 2	106.2	108.7	107.3
Run 3	106.0	111.1	106.5
Mean	106.5	110.6	107.7
Std Dev	0.8041	1.737	1.331

Multi-Element Concentrations Mon Jun 2 1997

Statistics for Concentration Determination.

Analysis procedure : 200.8

Sample name : 15

First repeat started at : Mon Jun 2 1997 09:00:00

Last repeat started at : Mon Jun 2 1997 09:02:06

Interference Equations : DEFAULT

Dilution Factor : 1.0000 Concentration units : ppb

Element	Beryllium	Selenium	Selenium	Selenium	Ruthenium	Ruthenium	Ruthenium
Isotope	Be 9	Se 77	Se 78	Se 82	Ru 99	Ru 101	Ru 102
Detector	PC	PC	PC	PC	PC	PC	PC
Run 1	0.1029	1.049	-0.8733	1.041	25.29	24.54	24.78
Run 2	0.0502	0.7675	-1.091	0.7566	25.19	23.82	24.07
Run 3	0.0491	0.9501	-1.339	0.9394	25.14	24.17	24.18
Mean	0.0674	0.9222	-1.101	0.9125	25.20	24.17	24.41
Std Dev	0.0307	0.1428	0.2327	0.1443	0.0727	0.3592	0.4978
%SD	45.63	15.49	21.14	15.81	0.2885	1.486	2.039

Element	Rhodium	Palladium	Palladium	Cadmium	Cadmium	Cadmium
Isotope	Rh 103	Pd 104	Pd 105	Cd 111	Cd 112	Cd 114
Detector	PC	PC	PC	PC	PC	PC
Run 1	24.71	24.71	24.14	0.1039	0.1220	0.1175
Run 2	24.29	25.17	24.51	0.0401	0.0566	0.0505
Run 3	25.01	25.02	24.44	0.0560	0.0629	0.0576
Mean	24.67	24.97	24.36	0.0666	0.0805	0.0752
Std Dev	0.3621	0.2322	0.1962	0.0332	0.0361	0.0369
%SD	1.467	0.9302	0.8051	49.88	44.85	48.98

CCV.4

Element	Rhenium	Rhenium	Osmium	Osmium	Osmium	Iridium
Isotope	Re 185	Re 187	Os 188	Os 189	Os 190	Ir 191
Detector	PC	PC	PC	PC	PC	PC
Run 1	25.53	24.67	24.12	23.59	23.35	25.27
Run 2	25.13	24.69	24.72	24.10	24.49	25.18
Run 3	25.53	24.96	25.49	25.47	25.20	25.04
Mean	25.39	24.77	24.78	24.42	24.51	25.16
Std Dev	0.2337	0.1635	0.6845	0.9349	0.6747	0.1195
%SD	0.9204	0.6602	2.763	3.829	2.753	0.4747

Element	Iridium	Platinum	Platinum	Platinum	Gold	Thallium
Isotope	Ir 193	Pt 194	Pt 195	Pt 196	Au 197	Tl 203
Detector	PC	PC	PC	PC	PC	PC
Run 1	25.26	25.56	25.42	25.54	26.22	0.2091
Run 2	25.58	25.66	25.39	25.38	26.53	0.1459
Run 3	25.77	26.03	25.80	25.31	27.06	0.1526
Mean	25.54	25.75	25.54	25.41	26.61	0.1689
Std Dev	0.2592	0.2384	0.2297	0.1199	0.4262	0.0341
%SD	1.015	0.9257	0.8994	0.4718	1.602	20.21

00507

Element Thallium

Element	Thallium
Isotope	Tl 205
Detector	PC
Isotope	Tl 205
Detector	PC
Run 1	0.1219
Run 2	0.0593
Run 3	0.0679
Mean	0.0830
Std Dev	0.0339
%SD	40.89

Internal Standard Drift; % relative to mean of first sample :

Element	Scandium	Yttrium	Lutetium
Isotope	Sc 45	Y 89	Lu 175
Detector	PC	PC	PC
Run 1	109.8	112.7	107.5
Run 2	106.6	111.5	105.4
Run 3	105.4	111.3	104.1
Mean	107.3	111.8	105.7
Std Dev	1.335	0.7404	1.707

Multi-Element Concentrations Mon Jun 2 199[illegible]
Statistics for Concentration Determination.
Analysis procedure : 200.8

Sample name : 16

First repeat started at : Mon Jun 2 1997 09:03:33

Last repeat started at : Mon Jun 2 1997 09:05:39

Interference Equations : DEFAULT

Dilution Factor : 1.0000 Concentration units : ppb

Element	Beryllium	Selenium	Selenium	Selenium	Ruthenium	Ruthenium	Ruthenium
Isotope	Be 9	Se 77	Se 78	Se 82	Ru 99	Ru 101	Ru 102
Detector	PC	PC	PC	PC	PC	PC	PC
Run 1	24.46	26.21	24.94	26.27	0.0153	0.0101	0.0213
Run 2	25.16	26.57	24.94	25.63	0.0098	0.0020	0.0139
Run 3	24.61	26.18	25.05	26.18	0.0024	0.0029	0.0092
Mean	24.74	26.32	24.98	26.36	0.0092	0.0050	0.0148
Std Dev	0.3666	0.2130	0.0655	0.2361	0.0065	0.0044	0.0061
%SD	1.481	0.8094	0.2621	0.8958	70.61	88.64	41.17

Element	Rhodium	Palladium	Palladium	Cadmium	Cadmium	Cadmium
Isotope	Rh 103	Pd 104	Pd 105	Cd 111	Cd 112	Cd 114
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.0121	0.0935	0.0730	24.68	24.29	24.93
Run 2	0.0077	0.0547	-0.0464	25.19	25.22	24.82
Run 3	0.0055	0.0304	-0.0857	24.56	24.32	24.36
Mean	0.0085	0.0596	-0.0197	24.81	24.61	24.70
Std Dev	0.0033	0.0318	0.0827	0.3374	0.5293	0.3031
%SD	39.50	53.46	419.9	1.360	2.147	1.227

Element	Rhenium	Rhenium	Osmium	Osmium	Osmium	Iridium
Isotope	Re 185	Re 187	Os 188	Os 189	Os 190	Ir 191
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.0099	0.0387	1.049	1.035	1.029	0.1257
Run 2	0.0087	0.0167	0.3458	0.3413	0.3539	0.0860
Run 3	0.0034	0.0095	0.1945	0.1961	0.1994	0.0628
Mean	0.0073	0.0216	0.5299	0.5240	0.5275	0.0915
Std Dev	0.0035	0.0152	0.4562	0.4481	0.4414	0.0318
%SD	47.46	70.39	86.09	85.52	83.67	34.72

Element	Iridium	Platinum	Platinum	Platinum	Gold	Thallium
Isotope	Ir 193	Pt 194	Pt 195	Pt 196	Au 197	Tl 203
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.1154	0.0238	0.0193	0.0184	0.7350	25.76
Run 2	0.0514	-0.0008	-0.0007	0.0011	0.5491	25.81
Run 3	0.0360	-0.0042	-0.0079	-0.0060	0.4907	25.95
Mean	0.0676	0.0063	0.0035	0.0045	0.5916	25.84
Std Dev	0.0421	0.0153	0.0141	0.0126	0.1275	0.1019
%SD	62.31	243.2	397.4	279.8	21.56	0.3944

Element	Thallium

(CV-4

00509

Element	Thallium
Isotope	Tl 205
Detector	PC
Isotope	Tl 205
Detector	PC
Run 1	24.73
Run 2	25.30
Run 3	25.13
Mean	25.05
Std Dev	0.2911
%SD	1.162

Internal Standard Drift; % relative to mean of first sample :

Element	Scandium	Yttrium	Lutetium
Isotope	Sc 45	Y 89	Lu 175
Detector	PC	PC	PC
Run 1	107.8	109.2	103.2
Run 2	106.8	108.1	101.6
Run 3	107.4	111.1	103.0
Mean	107.3	109.5	102.9
Std Dev	0.5053	1.543	1.206

Multi-Element Concentration Mon Jun 2 1997
Statistics for Concentration Determination.
Analysis procedure : 200.8

Sample name : 17

First repeat started at : Mon Jun 2 1997 09:15:43

Last repeat started at : Mon Jun 2 1997 09:17:47

Interference Equations : DEFAULT

Dilution Factor : 1.0000 Concentration units : ppb

Element	Beryllium	Selenium	Selenium	Selenium	Ruthenium	Ruthenium	Ruthenium
Isotope	Be 9	Se 77	Se 78	Se 82	Ru 99	Ru 101	Ru 102
Detector	PC	PC	PC	PC	PC	PC	PC
Run 1	0.0039	0.7089	-1.984	0.6911	-0.0013	-0.0005	0.0371
Run 2	0.0055	0.5780	-1.366	0.5659	0.0051	0.0006	0.0413
Run 3	-0.0008	0.8306	-1.332	0.8234	0.0014	0.0036	0.0442
Mean	0.0029	0.7059	-1.561	0.6935	0.0018	0.0012	0.0408
Std Dev	0.0033	0.1263	0.3669	0.1287	0.0032	0.0021	0.0036
%SD	114.5	17.90	23.51	18.56	183.4	169.2	8.759

Element	Rhodium	Palladium	Palladium	Cadmium	Cadmium	Cadmium
Isotope	Rh 103	Pd 104	Pd 105	Cd 111	Cd 112	Cd 114
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.0110	0.0216	-0.1470	0.0016	0.0043	0.0045
Run 2	0.0148	0.0166	-0.1140	0.0002	0.0040	0.0016
Run 3	0.0154	0.0121	-0.0912	0.0034	0.0021	0.0046
Mean	0.0138	0.0168	-0.1007	0.0017	0.0034	0.0036
Std Dev	0.0024	0.0048	0.0541	0.0017	0.0012	0.0017
%SD	17.35	28.34	53.75	99.95	35.25	48.19

CCB-4

Element	Rhenium	Rhenium	Osmium	Osmium	Osmium	Iridium
Isotope	Re 185	Re 187	Os 188	Os 189	Os 190	Ir 191
Detector	PC	PC	PC	PC	PC	PC
Run 1	-0.0004	0.0024	0.0541	0.0527	0.0529	0.0179
Run 2	0.0003	0.0016	0.0513	0.0520	0.0510	0.0084
Run 3	-0.0006	0.0018	0.0457	0.0492	0.0456	0.0202
Mean	-0.0002	0.0020	0.0537	0.0547	0.0532	0.0154
Std Dev	0.0005	0.0004	0.0095	0.0071	0.0088	0.0062
%SD	214.6	20.88	17.61	13.01	16.60	40.20

Element	Iridium	Platinum	Platinum	Platinum	Gold	Thallium
Isotope	Ir 193	Pt 194	Pt 195	Pt 196	Au 197	Tl 203
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.0015	-0.0091	-0.0086	-0.0085	0.0424	0.0056
Run 2	0.0006	-0.0081	-0.0108	-0.0105	0.0333	0.0036
Run 3	0.0009	-0.0115	-0.0084	-0.0125	0.0295	0.0035
Mean	0.0010	-0.0096	-0.0092	-0.0105	0.0351	0.0042
Std Dev	0.0005	0.0017	0.0013	0.0020	0.0066	0.0012
%SD	46.30	17.92	14.29	19.26	18.92	27.70

Element	Thallium

00511

Element	Thallium
Isotope	Tl 205
Detector	PC
Isotope	Tl 205
Detector	PC
Run 1	0.0062
Run 2	0.0025
Run 3	0.0021
Mean	0.0036
Std Dev	0.0023
%SD	61.97

Internal Standard Drift; % relative to mean of first sample :

Element	Scandium	Yttrium	Lutetium
Isotope	Sc 45	Y 89	Lu 175
Detector	PC	PC	PC
Run 1	106.9	114.5	109.5
Run 2	104.3	109.7	105.1
Run 3	103.1	106.7	102.9
Mean	104.8	110.3	105.8
Std Dev	1.959	3.969	3.432

Multi-Element Concentrations Mon Jun 2 1997
Statistics for Concentration Determination.
Analysis procedure : 200.8

Sample name : 19

First repeat started at : Mon Jun 2 1997 09:20:03

Last repeat started at : Mon Jun 2 1997 09:22:09

Interference Equations : DEFAULT

Dilution Factor : 1.0000 Concentration units : ppb

Element	Beryllium	Selenium	Selenium	Selenium	Ruthenium	Ruthenium	Ruthenium
Isotope	Be 9	Se 77	Se 78	Se 82	Ru 99	Ru 101	Ru 102
Detector	PC	PC	PC	PC	PC	PC	PC
Run 1	0.3613	433.1	437.2	433.7	0.1743	0.1573	0.2879
Run 2	0.3451	450.3	458.1	453.0	0.2144	0.1799	0.2890
Run 3	0.3452	450.1	471.3	455.1	0.2034	0.1721	0.2968
Mean	0.3505	444.5	454.9	448.6	0.1973	0.1699	0.2912
Std Dev	0.0093	9.854	17.13	10.64	0.0207	0.0115	0.0048
%SD	2.665	2.217	3.765	2.374	10.51	6.759	1.656

Element	Rhodium	Palladium	Palladium	Cadmium	Cadmium	Cadmium
Isotope	Rh 103	Pd 104	Pd 105	Cd 111	Cd 112	Cd 114
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.8550	6.050	0.2893	4178	3295	2882
Run 2	0.8615	6.105	0.3016	4214	3341	2900
Run 3	0.8860	6.142	0.2267	4319	3368	2919
Mean	0.8675	6.099	0.2725	4237	3335	2900
Std Dev	0.0163	0.0468	0.0402	73.15	36.94	18.59
%SD	1.884	0.7666	14.75	1.726	1.108	0.6411

Element	Rhenium	Rhenium	Osmium	Osmium	Osmium	Iridium
Isotope	Re 185	Re 187	Os 188	Os 189	Os 190	Ir 191
Detector	PC	PC	PC	PC	PC	PC
Run 1	1.717	1.643	0.0414	0.0347	0.0368	0.0742
Run 2	1.789	1.690	0.0378	0.0378	0.0376	0.0942
Run 3	1.791	1.655	0.0414	0.0326	0.0320	0.0826
Mean	1.763	1.663	0.0402	0.0350	0.0354	0.0836
Std Dev	0.0394	0.0244	0.0021	0.0026	0.0030	0.0101
%SD	2.237	1.467	5.127	7.444	8.586	12.05

Element	Iridium	Platinum	Platinum	Platinum	Gold	Thallium
Isotope	Ir 193	Pt 194	Pt 195	Pt 196	Au 197	Tl 203
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.0265	0.0315	0.0291	0.0490	8.365	116.1
Run 2	0.0252	0.0359	0.0294	0.0618	8.701	117.0
Run 3	0.0261	0.0334	0.0225	0.0593	8.500	117.8
Mean	0.0259	0.0336	0.0270	0.0567	8.522	117.0
Std Dev	0.0007	0.0022	0.0039	0.0068	0.1692	0.8265
%SD	2.576	6.533	14.52	11.96	1.985	0.7065

Element	Thallium

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00513

Element	Thallium
Isotope	Tl 205
Detector	PC
Isotope	Tl 205
Detector	PC
Run 1	111.7
Run 2	113.6
Run 3	112.2
Mean	112.9
Std Dev	0.9903
%SD	0.8772

Internal Standard Drift; % relative to mean of first sample :

Element	Scandium	Yttrium	Lutetium
Isotope	Sc 45	Y 89	Lu 175
Detector	PC	PC	PC
Run 1	105.6	103.8	92.51
Run 2	106.0	104.2	92.44
Run 3	108.5	101.8	95.49
Mean	106.7	103.2	93.48
Std Dev	1.542	1.293	1.740

Multi-Element Concentrations Mon Jun 2 1997

Statistics for Concentration Determination.

Analysis procedure : 200.8

Sample name : 19

First repeat started at : Mon Jun 2 1997 09:24:17

Last repeat started at : Mon Jun 2 1997 09:26:24

Interference Equations : DEFAULT

Dilution Factor : 1.0000 Concentration units : ppb

Element	Beryllium	Selenium	Selenium	Selenium	Ruthenium	Ruthenium	Ruthenium
Isotope	Be 9	Se 77	Se 78	Se 82	Ru 99	Ru 101	Ru 102
Detector	PC	PC	PC	PC	PC	PC	PC
Run 1	0.1443	13.23	12.96	13.57	0.1167	0.0870	0.3461
Run 2	0.1475	13.82	13.10	14.18	0.1334	0.0878	0.3659
Run 3	0.1459	14.47	12.89	14.85	0.1249	0.0793	0.3732
Mean	0.1459	13.84	12.98	14.20	0.1250	0.0847	0.3618
Std Dev	0.0016	0.6230	0.1114	0.6421	0.0084	0.0047	0.0140
%SD	1.105	4.500	0.8585	4.522	6.687	5.516	3.877

Element	Rhodium	Palladium	Palladium	Cadmium	Cadmium	Cadmium
Isotope	Rh 103	Pd 104	Pd 105	Cd 111	Cd 112	Cd 114
Detector	PC	PC	PC	PC	PC	PC
Run 1	1.941	13.48	0.4593	282.0	287.3	288.1
Run 2	2.025	14.57	0.4848	287.7	299.2	289.3
Run 3	2.054	14.30	0.5099	284.8	297.6	292.6
Mean	2.007	14.12	0.4846	284.8	294.7	290.0
Std Dev	0.0586	0.5670	0.0252	2.866	6.506	2.324
%SD	2.922	4.016	5.209	1.006	2.207	0.8012

Element	Rhenium	Rhenium	Osmium	Osmium	Osmium	Iridium
Isotope	Re 185	Re 187	Os 188	Os 189	Os 190	Ir 191
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.1235	0.1220	0.0269	0.0266	0.0246	0.1078
Run 2	0.1302	0.1201	0.0260	0.0323	0.0309	0.1258
Run 3	0.1307	0.1220	0.0295	0.0306	0.0300	0.1159
Mean	0.1281	0.1214	0.0275	0.0298	0.0285	0.1165
Std Dev	0.0040	0.0011	0.0018	0.0029	0.0034	0.0090
%SD	3.140	0.8921	6.573	9.768	12.01	7.729

Element	Iridium	Platinum	Platinum	Platinum	Gold	Thallium
Isotope	Ir 193	Pt 194	Pt 195	Pt 196	Au 197	Tl 203
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.0051	0.0209	0.0157	0.0442	55.33	10.03
Run 2	0.0052	0.0174	0.0177	0.0479	56.35	9.755
Run 3	0.0044	0.0245	0.0148	0.0497	57.77	10.13
Mean	0.0049	0.0209	0.0161	0.0473	56.49	9.971
Std Dev	0.0004	0.0036	0.0015	0.0028	1.226	0.1947
%SD	8.485	16.97	9.421	5.962	2.171	1.952

Element	Thallium

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1110

00515

Element	Thallium
Isotope	Tl 205
Detector	PC
Isotope	Tl 205
Detector	PC
Run 1	9.479
Run 2	9.466
Run 3	9.518
Mean	9.488
Std Dev	0.0267
%RSD	0.2817

Internal Standard Drift; % relative to mean of first sample :

Element	Scandium	Yttrium	Lutetium
Isotope	Sc 45	Y 89	Lu 175
Detector	PC	PC	PC
Run 1	106.9	89.83	72.15
Run 2	106.3	89.26	72.23
Run 3	109.6	91.73	70.86
Mean	107.6	90.28	71.75
Std Dev	1.816	1.294	0.7719

Multi-Element Concentrations Mon Jun 2 1997

Statistics for Concentration Determination.

Analysis procedure : 200.8

Sample name : 20

First repeat started at : Mon Jun 2 1997 09:28:18

Last repeat started at : Mon Jun 2 1997 09:30:23

Interference Equations : DEFAULT

Dilution Factor : 1.0000 Concentration units : ppb

Element	Beryllium	Selenium	Selenium	Selenium	Ruthenium	Ruthenium	Ruthenium
Isotope	Be 9	Se 77	Se 78	Se 82	Ru 99	Ru 101	Ru 102
Detector	PC	PC	PC	PC	PC	PC	PC
Run 1	0.0975	21.53	19.85	21.95	0.2551	0.1416	0.3378
Run 2	0.0920	20.43	18.93	20.77	0.2400	0.1473	0.3826
Run 3	0.0813	21.63	21.15	22.03	0.2906	0.1534	0.4120
Mean	0.0903	21.19	19.98	21.58	0.2619	0.1474	0.3775
Std Dev	0.0083	0.6659	1.120	0.7022	0.0205	0.0059	0.0374
%SD	9.144	3.142	5.606	3.253	7.816	3.975	9.906

Element	Rhodium	Palladium	Palladium	Cadmium	Cadmium	Cadmium
Isotope	Rh 103	Pd 104	Pd 105	Cd 111	Cd 112	Cd 114
Detector	PC	PC	PC	PC	PC	PC
Run 1	1.658	8.397	1.061	3081	2772	2579
Run 2	1.584	8.167	0.8559	2989	2741	2554
Run 3	1.651	8.240	0.9625	3142	2819	2628
Mean	1.631	8.268	0.9597	3071	2777	2587
Std Dev	0.0409	0.1175	0.1024	77.08	38.99	37.71
%SD	2.510	1.421	10.67	2.510	1.404	1.457

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1110

Element	Rhenium	Rhenium	Osmium	Osmium	Osmium	Iridium
Isotope	Re 185	Re 187	Os 188	Os 189	Os 190	Ir 191
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.0170	0.0158	0.0320	0.0284	0.0283	0.0989
Run 2	0.0155	0.0149	0.0295	0.0287	0.0267	0.0793
Run 3	0.0161	0.0172	0.0277	0.0305	0.0306	0.0994
Mean	0.0162	0.0160	0.0297	0.0292	0.0285	0.0852
Std Dev	0.0008	0.0012	0.0021	0.0012	0.0020	0.0060
%SD	4.764	7.312	7.188	3.954	6.833	6.993

Element	Iridium	Platinum	Platinum	Platinum	Gold	Thallium
Isotope	Ir 193	Pt 194	Pt 195	Pt 196	Au 197	Tl 203
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.0024	0.0288	0.0334	0.0288	0.4543	19.98
Run 2	0.0021	0.0279	0.0314	0.0348	0.2333	20.13
Run 3	0.0036	0.0318	0.0265	0.0378	0.1816	20.14
Mean	0.0027	0.0295	0.0304	0.0338	0.2997	20.08
Std Dev	0.0008	0.0020	0.0036	0.0046	0.1449	0.0893
%SD	30.06	6.876	11.74	13.50	50.01	0.4445

00517

Element	Thallium

Element	Thallium
Isotope	Tl 205
Detector	PC
Isotope	Tl 205
Detector	PC
Run 1	19.33
Run 2	19.17
Run 3	19.65
Mean	19.38
Std Dev	0.2437
%SD	1.257

Internal Standard Drift; % relative to mean of first sample :

Element	Scandium	Yttrium	Lutetium
Isotope	Sc 45	Y 89	Lu 175
Detector	PC	PC	PC
Run 1	106.4	93.67	81.73
Run 2	104.6	94.02	82.01
Run 3	102.9	91.05	81.72
Mean	104.7	92.91	81.82
Std Dev	1.770	1.623	0.1643

Multi-Element Concentrations Mon Jun 2 1997
Statistics for Concentration Determination.
Analysis procedure : 200.8

Sample name : 21

First repeat started at : Mon Jun 2 1997 09:31:55

Last repeat started at : Mon Jun 2 1997 09:34:00

Interference Equations : DEFAULT

Dilution Factor : 1.0000 Concentration units : ppb

Element	Beryllium	Selenium	Selenium	Selenium	Ruthenium	Ruthenium	Ruthenium
Isotope	Be 9	Se 77	Se 78	Se 82	Ru 99	Ru 101	Ru 102
Detector	PC	PC	PC	PC	PC	PC	PC
Run 1	0.3884	61.40	66.21	62.80	0.2339	0.1134	0.4934
Run 2	0.3942	60.40	65.68	61.49	0.2328	0.1109	0.5004
Run 3	0.3764	58.96	63.89	60.08	0.2290	0.0969	0.5242
Mean	0.3863	60.25	65.26	61.46	0.2335	0.1054	0.5060
Std Dev	0.0091	1.227	1.215	1.359	0.0050	0.0165	0.0161
%SD	2.344	2.036	1.862	2.211	2.139	15.63	3.191

Element	Rhodium	Palladium	Palladium	Cadmium	Cadmium	Cadmium
Isotope	Rh 103	Pd 104	Pd 105	Cd 111	Cd 112	Cd 114
Detector	PC	PC	PC	PC	PC	PC
Run 1	2.585	13.47	1.983	3643	3295	3140
Run 2	2.617	13.65	1.998	3731	3302	3059
Run 3	2.633	13.11	1.851	3627	3292	3001
Mean	2.612	13.41	1.944	3667	3293	3067
Std Dev	0.0241	0.2757	0.0811	56.24	10.38	69.70
%SD	0.9242	2.056	4.170	1.534	0.3151	2.273

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Element	Rhenium	Rhenium	Osmium	Osmium	Osmium	Iridium
Isotope	Re 185	Re 187	Os 188	Os 189	Os 190	Ir 191
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.3955	0.3561	0.0256	0.0269	0.0258	0.0892
Run 2	0.4139	0.3812	0.0319	0.0265	0.0287	0.0673
Run 3	0.4051	0.3704	0.0346	0.0286	0.0350	0.0834
Mean	0.4048	0.3692	0.0307	0.0273	0.0299	0.0800
Std Dev	0.0092	0.0126	0.0046	0.0011	0.0047	0.0113
%SD	2.265	3.404	15.07	3.969	15.80	14.16

Element	Iridium	Platinum	Platinum	Platinum	Gold	Thallium
Isotope	Ir 193	Pt 194	Pt 195	Pt 196	Au 197	Tl 203
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.0053	0.0429	0.0259	0.0421	0.1875	19.09
Run 2	0.0055	0.0356	0.0372	0.0500	0.1966	19.24
Run 3	0.0044	0.0371	0.0334	0.0479	0.1783	18.87
Mean	0.0050	0.0385	0.0322	0.0467	0.1841	19.07
Std Dev	0.0006	0.0039	0.0058	0.0041	0.0051	0.1856
%SD	11.35	10.05	18.01	8.735	2.752	0.9732

00519

Element	Thallium

Element	Thallium
Isotope	Tl 205
Detector	PC
Isotope	Tl 205
Detector	PC
Run 1	18.14
Run 2	18.29
Run 3	17.96
Mean	18.13
Std Dev	0.1577
%SD	0.8691

Internal Standard Drift; % relative to mean of first sample :

Element	Scandium	Yttrium	Lutetium
Isotope	Sc 45	Y 89	Lu 175
Detector	PC	PC	PC
Run 1	96.07	91.32	70.36
Run 2	93.64	82.90	69.70
Run 3	97.19	95.14	70.28
Mean	95.63	83.09	70.11
Std Dev	1.814	1.929	0.3621

Multi-Element Concentrations Mon Jun 2 1997
Statistics for Concentration Determination.
Analysis procedure : 200.8

Sample name : 22

First repeat started at : Mon Jun 2 1997 09:35:31

Last repeat started at : Mon Jun 2 1997 09:37:36

Interference Equations : DEFAULT

Dilution Factor : 1.0000 Concentration units : ppb

Element	Beryllium	Selenium	Selenium	Selenium	Ruthenium	Ruthenium	Ruthenium
Isotope	Be 9	Se 77	Se 78	Se 82	Ru 99	Ru 101	Ru 102
Detector	PC	PC	PC	PC	PC	PC	PC
Run 1	0.2710	47.63	50.36	48.71	0.2065	0.0852	0.5290
Run 2	0.2683	45.52	49.75	46.33	0.2226	0.0829	0.4807
Run 3	0.2726	47.54	50.91	48.58	0.2129	0.0991	0.5049
Mean	0.2706	46.89	50.34	47.87	0.2140	0.0890	0.5049
Std Dev	0.0022	1.193	0.5794	1.338	0.0081	0.0088	0.0241
%SD	0.8111	2.545	1.151	2.795	3.778	9.855	4.783

Element	Rhodium	Palladium	Palladium	Cadmium	Cadmium	Cadmium
Isotope	Rh 103	Pd 104	Pd 105	Cd 111	Cd 112	Cd 114
Detector	PC	PC	PC	PC	PC	PC
Run 1	2.536	13.68	1.365	2666	2511	2415
Run 2	2.410	12.57	1.217	2638	2476	2379
Run 3	2.496	13.32	1.406	2680	2537	2412
Mean	2.481	13.19	1.329	2661	2508	2402
Std Dev	0.0642	0.5649	0.0993	21.56	30.40	19.70
%SD	2.586	4.282	7.473	0.8100	1.212	0.8200

Element	Rhenium	Rhenium	Osmium	Osmium	Osmium	Iridium
Isotope	Re 185	Re 187	Os 188	Os 189	Os 190	Ir 191
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.2336	0.2218	0.0325	0.0297	0.0294	0.0791
Run 2	0.2478	0.2183	0.0352	0.0358	0.0312	0.0809
Run 3	0.2340	0.2209	0.0402	0.0365	0.0355	0.0913
Mean	0.2384	0.2203	0.0360	0.0340	0.0320	0.0838
Std Dev	0.0081	0.0018	0.0039	0.0037	0.0032	0.0066
%SD	3.391	0.8332	10.79	10.98	9.855	7.847

Element	Iridium	Platinum	Platinum	Platinum	Gold	Thallium
Isotope	Ir 193	Pt 194	Pt 195	Pt 196	Au 197	Tl 203
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.0035	0.0353	0.0301	0.0463	0.1402	13.99
Run 2	0.0028	0.0292	0.0322	0.0357	0.1355	13.86
Run 3	0.0028	0.0313	0.0383	0.0406	0.1390	14.09
Mean	0.0030	0.0320	0.0335	0.0409	0.1383	13.98
Std Dev	0.0004	0.0031	0.0043	0.0053	0.0024	0.1148
%SD	12.60	9.704	12.82	12.99	1.771	0.8215

Element	Thallium

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00521

Element	Thallium
Isotope	Tl 205
Detector	PC
Isotope	Tl 205
Detector	PC
Run 1	13.22
Run 2	13.28
Run 3	13.36
Mean	13.29
Std Dev	0.0703
%SD	0.5287

Internal Standard Drift; % relative to mean of first sample :

Element	Scandium	Yttrium	Lutetium
Isotope	Sc 45	Y 89	Lu 175
Detector	PC	PC	PC
Run 1	93.42	79.22	72.02
Run 2	90.40	80.15	72.53
Run 3	93.09	79.57	71.57
Mean	92.30	79.64	72.04
Std Dev	1.654	0.4687	0.4812

Multi-Element Concentrations Mon Jun 2 1997
Statistics for Concentration Determination.
Analysis procedure : 200.8

Sample name : 23

First repeat started at : Mon Jun 2 1997 09:39:26

Last repeat started at : Mon Jun 2 1997 09:41:32

Interference Equations : DEFAULT

Dilution Factor : 1.0000 Concentration units : ppb

Element	Beryllium	Selenium	Selenium	Selenium	Ruthenium	Ruthenium	Ruthenium
Isotope	Be 9	Se 77	Se 78	Se 82	Ru 99	Ru 101	Ru 102
Detector	PC	PC	PC	PC	PC	PC	PC
Run 1	0.3191	27703	26793	27648	5.095	4.952	5.983
Run 2	0.2889	28027	26394	27975	5.050	4.901	5.995
Run 3	0.3099	27603	26291	27611	5.207	5.021	6.025
Mean	0.3060	27778	26490	27744	5.117	4.958	6.001
Std Dev	0.0155	221.9	268.9	200.3	0.0805	0.0605	0.0216
%SD	5.064	0.7989	1.015	0.7220	1.574	1.220	0.3603

Element	Rhodium	Palladium	Palladium	Cadmium	Cadmium	Cadmium
Isotope	Rh 103	Pd 104	Pd 105	Cd 111	Cd 112	Cd 114
Detector	PC	PC	PC	PC	PC	PC
Run 1	5.739	17.50	39.95	11.00	98.33	55.76
Run 2	5.650	17.45	40.30	9.781	95.61	53.30
Run 3	5.767	17.40	40.22	9.895	97.10	53.34
Mean	5.719	17.45	40.16	10.23	97.01	54.47
Std Dev	0.0612	0.0503	0.1833	0.6752	1.383	1.123
%SD	1.070	0.2882	0.4564	6.602	1.567	2.062

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110

Element	Rhenium	Rhenium	Osmium	Osmium	Osmium	Iridium
Isotope	Re 185	Re 187	Os 188	Os 189	Os 190	Ir 191
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.0043	0.0074	0.0471	0.0510	0.0482	0.8896
Run 2	0.0041	0.0069	0.0430	0.0462	0.0453	0.8917
Run 3	0.0029	0.0059	0.0315	0.0415	0.0368	0.8624
Mean	0.0038	0.0067	0.0405	0.0462	0.0434	0.8812
Std Dev	0.0007	0.0007	0.0081	0.0047	0.0059	0.0163
%SD	19.33	10.96	19.99	10.24	13.60	1.851

Element	Iridium	Platinum	Platinum	Platinum	Gold	Thallium
Isotope	Ir 193	Pt 194	Pt 195	Pt 196	Au 197	Tl 203
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.9696	2.593	2.603	2.583	383.0	0.2504
Run 2	0.9525	2.535	2.500	2.486	376.3	0.1947
Run 3	0.9610	2.578	2.611	2.568	387.7	0.1917
Mean	0.9610	2.569	2.638	2.546	382.3	0.2123
Std Dev	0.0085	0.0299	0.0565	0.0523	5.713	0.0331
%SD	0.8857	1.162	2.227	2.055	1.494	15.58

Element	Thallium

Element	Thallium
Isotope	Tl 205
Detector	PC
Isotope	Tl 205
Detector	PC
Run 1	0.2423
Run 2	0.1997
Run 3	0.1866
Mean	0.2096
Std Dev	0.0291
%RSD	13.90

Internal Standard Drift; % relative to mean of first sample :

Element	Scandium	Yttrium	Lutetium
Isotope	Sc 45	Y 89	Lu 175
Detector	PC	PC	PC
Run 1	89.57	94.30	93.30
Run 2	90.55	95.35	94.95
Run 3	92.90	95.91	93.96
Mean	91.04	95.19	94.24
Std Dev	1.697	0.8172	0.8182

Multi-Element Concentrations Mon Jun 2 1997
Statistics for Concentration Determination.
Analysis procedure : 200.8

Sample name : 24

First repeat started at : Mon Jun 2 1997 09:44:53

Last repeat started at : Mon Jun 2 1997 09:46:58

Interference Equations : DEFAULT

Dilution Factor : 1.0000 Concentration units : ppb

Element	Beryllium	Selenium	Selenium	Selenium	Ruthenium	Ruthenium	Ruthenium
Isotope	Be 9	Se 77	Se 78	Se 82	Ru 99	Ru 101	Ru 102
Detector	PC	PC	PC	PC	PC	PC	PC
Run 1	0.0546	97.87	98.00	97.60	0.0295	0.0289	0.0511
Run 2	0.0544	98.62	95.51	98.11	0.0228	0.0275	0.0494
Run 3	0.0546	98.60	97.36	98.34	0.0279	0.0282	0.0469
Mean	0.0545	98.36	96.96	98.02	0.0267	0.0282	0.0491
Std Dev	0.0001	0.4290	1.290	0.3768	0.0035	0.0007	0.0021
%SD	0.2239	0.4362	1.331	0.3844	12.97	2.339	4.283

Element	Rhodium	Palladium	Palladium	Cadmium	Cadmium	Cadmium
Isotope	Rh 103	Pd 104	Pd 105	Cd 111	Cd 112	Cd 114
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.1327	0.9673	-0.1878	879.0	844.7	851.4
Run 2	0.1301	0.9446	-0.2487	875.7	832.8	832.2
Run 3	0.1303	0.8940	-0.1767	885.6	831.4	842.5
Mean	0.1310	0.9353	-0.2044	880.1	836.3	842.0
Std Dev	0.0015	0.0375	0.0388	5.067	7.308	9.634
%SD	1.110	4.011	18.96	0.5757	0.8739	1.144

Element	Rhenium	Rhenium	Osmium	Osmium	Osmium	Iridium
Isotope	Re 185	Re 187	Os 188	Os 189	Os 190	Ir 191
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.2924	0.2731	0.0256	0.0206	0.0239	-0.0011
Run 2	0.2812	0.2670	0.0239	0.0210	0.0244	-0.0010
Run 3	0.2936	0.2711	0.0182	0.0148	0.0165	-0.0304
Mean	0.2891	0.2704	0.0226	0.0188	0.0216	-0.0108
Std Dev	0.0068	0.0031	0.0039	0.0035	0.0044	0.0170
%SD	2.369	1.151	17.21	18.41	20.41	156.9

Element	Iridium	Platinum	Platinum	Platinum	Gold	Thallium
Isotope	Ir 193	Pt 194	Pt 195	Pt 196	Au 197	Tl 203
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.0033	-0.0102	-0.0106	-0.0049	1.954	19.97
Run 2	0.0019	-0.0098	-0.0082	-0.0080	1.792	19.72
Run 3	0.0018	-0.0121	-0.0115	-0.0089	1.698	19.74
Mean	0.0023	-0.0107	-0.0101	-0.0073	1.815	19.81
Std Dev	0.0009	0.0012	0.0017	0.0021	0.1295	0.1415
%SD	37.04	11.62	16.75	28.51	7.137	0.7142

Element	Thallium

3098-17
1/10 x 1/5
Dilution
for SP

00525

Element	Thallium
Isotope	Tl 205
Detector	PC
Isotope	Tl 205
Detector	PC
Run 1	18.98
Run 2	19.55
Run 3	19.34
Mean	19.29
Std Dev	0.2860
%SD	1.482

Internal Standard Drift: % relative to mean of first sample :

Element	Scandium	Yttrium	Lutetium
Isotope	Sc 45	Y 89	Lu 175
Detector	PC	PC	PC
Run 1	116.4	123.1	121.9
Run 2	114.1	123.2	122.7
Run 3	113.5	120.0	123.1
Mean	114.6	122.1	122.6
Std Dev	1.509	1.798	0.6225

Multi-Element Concentrations_ Mon Jun 2 1997_
Statistics for Concentration Determination.
Analysis procedure : 200.8

Sample name : 25

First repeat started at : Mon Jun 2 1997 09:47:24

Last repeat started at : Mon Jun 2 1997 09:51:28

Interference Equations : DEFAULT

Dilution Factor : 1.0000 Concentration units : ppb

Element	Beryllium	Selenium	Selenium	Selenium	Ruthenium	Ruthenium	Ruthenium
Isotope	Be 9	Se 77	Se 78	Se 82	Ru 99	Ru 101	Ru 102
Detector	PC	PC	PC	PC	PC	PC	PC
Run 1	-0.0032	3.979	1.200	3.937	24.54	24.43	24.07
Run 2	-0.0010	3.267	0.1391	3.214	24.53	24.27	25.01
Run 3	-0.0029	2.709	-0.6004	2.673	24.63	23.76	24.45
Mean	-0.0024	3.318	0.2463	3.275	24.57	24.15	24.51
Std Dev	0.0012	0.6361	0.9051	0.6341	0.0529	0.3474	0.4744
%SD	49.78	19.17	367.5	19.36	0.2151	1.438	1.935

Element	Rhodium	Palladium	Palladium	Cadmium	Cadmium	Cadmium
Isotope	Rh 103	Pd 104	Pd 105	Cd 111	Cd 112	Cd 114
Detector	PC	PC	PC	PC	PC	PC
Run 1	24.17	24.89	24.34	0.5757	0.5667	0.5739
Run 2	24.37	24.58	24.02	0.3396	0.3466	0.3414
Run 3	24.41	24.63	23.67	0.2854	0.3114	0.2819
Mean	24.32	24.70	24.01	0.4002	0.4082	0.3990
Std Dev	0.1257	0.1634	0.3365	0.1543	0.1384	0.1543
%SD	0.5167	0.6618	1.401	38.56	33.90	38.67

Element	Rhenium	Rhenium	Osmium	Osmium	Osmium	Iridium
Isotope	Re 185	Re 187	Os 189	Os 189	Os 190	Ir 191
Detector	PC	PC	PC	PC	PC	PC
Run 1	26.38	25.60	26.64	26.17	26.69	25.31
Run 2	26.41	25.65	27.07	26.88	27.79	25.65
Run 3	25.64	25.65	27.55	26.94	26.95	25.87
Mean	26.14	25.63	27.09	26.63	27.14	25.61
Std Dev	0.4340	0.0239	0.4534	0.4001	0.5758	0.2829
%SD	1.660	0.0932	1.674	1.502	2.122	1.104

Element	Iridium	Platinum	Platinum	Platinum	Gold	Thallium
Isotope	Ir 193	Pt 194	Pt 195	Pt 196	Au 197	Tl 203
Detector	PC	PC	PC	PC	PC	PC
Run 1	26.18	25.75	26.00	25.55	27.07	0.1459
Run 2	25.59	25.77	26.04	26.12	27.26	0.1132
Run 3	26.38	26.16	25.87	26.34	27.57	0.1244
Mean	26.05	25.89	25.97	26.00	27.30	0.1278
Std Dev	0.4082	0.2325	0.0892	0.4078	0.2507	0.0165
%SD	1.567	0.8979	0.3433	1.568	0.9184	12.94

Element	Thallium

CCV-9

00527

Element	Thallium
Isotope	Tl 205
Detector	PC
Isotope	Tl 205
Detector	PC
Run 1	0.0631
Run 2	0.0437
Run 3	0.0424
Mean	0.0497
Std Dev	0.0116
%SD	23.33

Internal Standard Drift; % relative to mean of first sample :

Element	Scandium	Yttrium	Lutetium
Isotope	Sc 45	Y 89	Lu 175
Detector	PC	PC	PC
Run 1	93.88	102.1	104.3
Run 2	90.57	101.0	102.6
Run 3	93.16	101.8	102.1
Mean	92.53	101.6	103.0
Std Dev	1.737	0.5879	1.179

Multi-Element Concentrations Mon Jun 2 1997

Statistics for Concentration Determination.

Analysis procedure : 200.8

Sample name : 26

First repeat started at : Mon Jun 2 1997 09:53:23

Last repeat started at : Mon Jun 2 1997 09:55:28

Interference Equations : DEFAULT

Dilution Factor : 1.0000 Concentration units : ppb

Element	Beryllium	Selenium	Selenium	Selenium	Ruthenium	Ruthenium	Ruthenium
Isotope	Be 9	Se 77	Se 78	Se 82	Ru 99	Ru 101	Ru 102
Detector	PC	PC	PC	PC	PC	PC	PC
Run 1	23.94	28.29	24.68	29.08	0.0224	0.0171	0.0199
Run 2	24.29	28.52	25.00	28.34	0.0234	0.0124	0.0182
Run 3	24.35	28.47	25.02	28.21	0.0152	0.0113	0.0132
Mean	24.19	28.43	24.90	28.21	0.0203	0.0136	0.0171
Std Dev	0.2180	0.1231	0.1896	0.1432	0.0045	0.0031	0.0035
%SD	0.9009	0.4331	0.7614	0.5076	21.92	22.74	20.60

Element	Rhodium	Palladium	Palladium	Cadmium	Cadmium	Cadmium
Isotope	Rh 103	Pd 104	Pd 105	Cd 111	Cd 112	Cd 114
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.0102	0.0801	-0.0377	24.54	24.52	24.58
Run 2	0.0098	0.0507	-0.1691	25.02	24.77	24.65
Run 3	0.0079	0.0380	-0.1557	24.97	24.44	24.75
Mean	0.0093	0.0563	-0.1208	24.84	24.58	24.66
Std Dev	0.0012	0.0216	0.0723	0.2619	0.1715	0.0892
%SD	13.28	38.41	59.85	1.054	0.6978	0.3619

Element	Rhenium	Rhenium	Osmium	Osmium	Osmium	Iridium
Isotope	Re 185	Re 187	Os 189	Os 189	Os 190	Ir 191
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.0065	0.0277	0.7579	0.7677	0.7552	0.0269
Run 2	0.0038	0.0128	0.2426	0.2295	0.2561	-0.0009
Run 3	0.0037	0.0074	0.1304	0.1322	0.1319	0.0222
Mean	0.0047	0.0160	0.3770	0.3765	0.3811	0.0161
Std Dev	0.0016	0.0105	0.3347	0.3423	0.3299	0.0149
%SD	34.08	65.86	88.77	90.92	86.57	92.59

Element	Iridium	Platinum	Platinum	Platinum	Gold	Thallium
Isotope	Ir 193	Pt 194	Pt 195	Pt 196	Au 197	Tl 203
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.0436	0.0067	0.0049	0.0017	0.5277	26.13
Run 2	0.0267	-0.0049	-0.0047	-0.0062	0.5452	25.86
Run 3	0.0187	-0.0080	-0.0094	-0.0068	0.5130	25.54
Mean	0.0297	-0.0021	-0.0031	-0.0038	0.5620	25.84
Std Dev	0.0127	0.0078	0.0073	0.0048	0.0591	0.2957
%SD	42.82	372.3	238.5	127.1	10.52	1.144

Element	Thallium

CCV-9

00529

Element	Thallium
Isotope	Tl 205
Detector	PC
Isotope	Tl 205
Detector	PC
Run 1	25.49
Run 2	25.65
Run 3	25.62
Mean	25.59
Std Dev	0.0933
%SD	0.3254

Internal Standard Drift; % relative to mean of first sample :

Element	Scandium	Yttrium	Lutetium
Isotope	Sc 45	Y 89	Lu 175
Detector	PC	PC	PC
Run 1	92.62	101.6	102.2
Run 2	91.98	100.0	102.1
Run 3	92.15	99.71	101.1
Mean	92.25	100.4	101.8
Std Dev	0.3322	0.9944	0.6263

Multi Element Concentrations Mon Jun 2 1997
Statistics for Concentration Determination.
Analysis procedure : 200.8

Sample name : 27

First repeat started at : Mon Jun 2 1997 09:57:21

Last repeat started at : Mon Jun 2 1997 09:59:38

Interference Equations : DEFAULT

Dilution Factor : 1.0000 Concentration units : ppb

Element	Beryllium	Selenium	Selenium	Selenium	Ruthenium	Ruthenium	Ruthenium
Isotope	Be 9	Se 77	Se 78	Se 82	Ru 99	Ru 101	Ru 102
Detector	PC	PC	PC	PC	PC	PC	PC
Run 1	21.78	45.44	50.13	45.52	0.1523	0.0809	0.0799
Run 2	7.394	6315	12020	7115	41.72	14.35	10.34
Run 3	23.78	26.27	22.20	26.03	0.0212	0.0269	0.0148
Mean	17.72	2129	4031	2396	13.96	4.825	3.477
Std Dev	8.986	3625	6919	4087	24.04	8.251	10.62
%SD	50.72	170.3	171.6	170.6	172.1	171.5	171.9

Element	Rhodium	Palladium	Palladium	Cadmium	Cadmium	Cadmium
Isotope	Rh 103	Pd 104	Pd 105	Cd 111	Cd 112	Cd 114
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.0385	0.2252	0.2380	24.84	25.03	23.58
Run 2	4.723	62.77	181.7	359.5	479.8	515.6
Run 3	0.0103	0.0411	-0.2533	23.98	23.92	23.85
Mean	1.590	21.01	60.57	136.5	242.9	187.7
Std Dev	2.713	36.17	104.9	199.3	378.4	284.0
%SD	170.5	172.1	173.2	146.9	155.8	151.3

Element	Rhenium	Rhenium	Osmium	Osmium	Osmium	Iridium
Isotope	Re 185	Re 187	Os 188	Os 189	Os 190	Ir 191
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.0210	0.0968	3.002	3.025	3.027	2.260
Run 2	4.889	21.47	907.2	874.8	875.9	337.4
Run 3	0.0070	0.0083	0.0994	0.1027	0.1033	-0.0298
Mean	1.639	7.190	303.4	292.7	293.0	113.2
Std Dev	2.814	12.34	522.9	504.2	504.8	194.2
%SD	171.7	171.6	172.3	172.3	172.3	171.5

Element	Iridium	Platinum	Platinum	Platinum	Gold	Thallium
Isotope	Ir 193	Pt 194	Pt 195	Pt 196	Au 197	Tl 203
Detector	PC	PC	PC	PC	PC	PC
Run 1	2.133	0.1192	0.1133	0.1111	0.8654	24.58
Run 2	349.3	46.96	51.52	41.34	202.0	181.2
Run 3	0.9094	-0.0027	-0.0049	-0.0015	0.4787	25.76
Mean	117.2	15.69	17.21	13.82	67.78	77.17
Std Dev	201.1	27.08	29.72	23.84	116.2	90.07
%SD	171.6	172.6	172.7	172.5	171.5	116.7

Element	Thallium

TVB + NO3 mix 0.2% HCl 6/2/97

00531

Element	Thallium
Isotope	Tl 205
Detector	PC
Isotope	Tl 205
Detector	PC
Run 1	25.82
Run 2	133.3
Run 3	25.36
Mean	78.09
Std Dev	91.11
%SD	116.7

Internal Standard Drift; % relative to mean of first sample :

Element	Scandium	Yttrium	Lutetium
Isotope	Sc 45	Y 89	Lu 175
Detector	PC	PC	PC
Run 1	13.82	14.06	13.13
Run 2	0.1891	0.0319	0.0295
Run 3	94.77	105.4	107.1
Mean	36.26	39.83	40.10
Std Dev	51.13	57.20	58.42

Internal Standard Drift outside drift window.
Failed isotopes = Sc 45Y 89Lu 175
Specified action is to continue with procedure.

Multi Element Concentrations Mon Jun 2 1997
Statistics for Concentration Determination.
Analysis procedure : 200.8

Sample name : 28

First repeat started at : Mon Jun 2 1997 10:02:11

Last repeat started at : Mon Jun 2 1997 10:04:16

Interference Equations : DEFAULT

Dilution Factor : 1.0000 Concentration units : ppb

Element	Beryllium	Selenium	Selenium	Selenium	Ruthenium	Ruthenium	Ruthenium
Isotope	Be 9	Se 77	Se 78	Se 82	Ru 99	Ru 101	Ru 102
Detector	PC	PC	PC	PC	PC	PC	PC
Run 1	23.89	26.07	21.95	25.94	0.0148	0.0066	0.0077
Run 2	24.52	26.74	23.70	26.57	0.0120	0.0071	0.0061
Run 3	24.26	27.06	24.04	26.89	0.0137	0.0056	0.0065
Mean	24.22	26.63	23.23	26.47	0.0135	0.0064	0.0068
Std Dev	0.3132	0.5062	1.122	0.4865	0.0014	0.0008	0.0008
%SD	1.293	1.901	4.832	1.838	10.40	12.29	12.30

Element	Rhodium	Palladium	Palladium	Cadmium	Cadmium	Cadmium
Isotope	Rh 103	Pd 104	Pd 105	Cd 111	Cd 112	Cd 114
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.0043	0.0230	-0.1642	24.33	24.15	24.04
Run 2	0.0045	0.0194	-0.2211	24.49	24.05	24.62
Run 3	0.0053	0.0143	-0.2432	24.48	24.12	24.43
Mean	0.0047	0.0189	-0.2095	24.44	24.11	24.36
Std Dev	0.0005	0.0044	0.0408	0.0930	0.0515	0.2968
%SD	11.16	23.35	19.46	0.3808	0.2140	1.219

CCV-9 never found

Element	Rhenium	Rhenium	Osmium	Osmium	Osmium	Iridium
Isotope	Re 185	Re 187	Os 188	Os 189	Os 190	Ir 191
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.0003	0.0024	0.0704	0.0693	0.0709	-0.0244
Run 2	0.0004	0.0022	0.0630	0.0600	0.0624	-0.0108
Run 3	0.0002	0.0024	0.0480	0.0495	0.0548	-0.0141
Mean	0.0004	0.0024	0.0605	0.0596	0.0627	-0.0165
Std Dev	0.0003	0.0001	0.0114	0.0099	0.0081	0.0071
%SD	71.34	4.674	18.87	16.61	12.94	43.09

Element	Iridium	Platinum	Platinum	Platinum	Gold	Thallium
Isotope	Ir 193	Pt 194	Pt 195	Pt 196	Au 197	Tl 203
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.0027	-0.0113	-0.0141	-0.0151	0.4474	25.58
Run 2	0.0029	-0.0127	-0.0166	-0.0149	0.4492	26.08
Run 3	0.0019	-0.0142	-0.0139	-0.0137	0.4624	26.39
Mean	0.0025	-0.0127	-0.0149	-0.0146	0.4530	26.02
Std Dev	0.0005	0.0015	0.0015	0.0007	0.0082	0.4117
%SD	21.21	11.58	10.10	4.920	1.816	1.582

Element	Thallium

00533

Element	Thallium
Isotope	Tl 205
Detector	PC
Isotope	Tl 205
Detector	PC
Run 1	25.07
Run 2	25.39
Run 3	26.03
Mean	25.50
Std Dev	0.4914
%SD	1.927

Internal Standard Drift; % relative to mean of first sample :

Element	Scandium	Yttrium	Lutetium
Isotope	Sc 45	Y 89	Lu 175
Detector	PC	PC	PC
Run 1	95.13	102.4	105.9
Run 2	92.98	101.1	102.9
Run 3	92.00	99.90	100.2
Mean	93.37	101.1	103.0
Std Dev	1.600	1.229	2.909

Multi-Element Concentrations Mo. Jun 2 1997
Statistics for Concentration Determination.
Analysis procedure : 200.8

Sample name : 29

First repeat started at : Mon Jun 2 1997 10:10:53

Last repeat started at : Mon Jun 2 1997 10:12:58

Interference Equations : DEFAULT

Dilution Factor : 1.0000 Concentration units : ppb

Element	Beryllium	Selenium	Selenium	Selenium	Ruthenium	Ruthenium	Ruthenium
Isotope	Be 9	Se 77	Se 78	Se 82	Ru 99	Ru 101	Ru 102
Detector	PC	PC	PC	PC	PC	PC	PC
Run 1	9.394	4227	9415	4632	31.94	11.36	11.86
Run 2	7.225	5548	10323	6121	47.91	14.68	9.497
Run 3	7.224	5697	11022	6293	35.10	13.90	13.77
Mean	7.948	5157	9920	5682	38.32	13.31	11.71
Std Dev	1.253	809.5	1349	913.4	8.456	1.738	2.143
%SD	15.76	15.69	13.60	16.07	22.07	13.06	18.30

Element	Rhodium	Palladium	Palladium	Cadmium	Cadmium	Cadmium
Isotope	Rh 103	Pd 104	Pd 105	Cd 111	Cd 112	Cd 114
Detector	PC	PC	PC	PC	PC	PC
Run 1	2.402	16.50	46.41	222.7	294.7	279.4
Run 2	4.118	23.09	61.84	274.5	383.8	342.9
Run 3	4.043	30.39	63.79	321.8	414.1	348.8
Mean	3.521	23.33	57.35	272.7	364.2	323.7
Std Dev	0.9696	6.948	9.521	49.61	62.03	38.48
%SD	27.54	29.78	16.61	18.20	17.03	11.89

Element	Rhenium	Rhenium	Osmium	Osmium	Osmium	Iridium
Isotope	Re 185	Re 187	Os 188	Os 189	Os 190	Ir 191
Detector	PC	PC	PC	PC	PC	PC
Run 1	4.042	9.485	240.3	254.1	251.6	58.57
Run 2	4.660	9.767	260.3	262.9	254.3	66.12
Run 3	5.145	9.391	282.1	273.3	259.4	61.66
Mean	4.949	9.548	260.9	263.4	254.8	62.12
Std Dev	1.081	0.1959	20.93	9.598	3.404	3.793
%SD	21.84	2.052	8.023	3.643	1.336	6.105

Element	Iridium	Platinum	Platinum	Platinum	Gold	Thallium
Isotope	Ir 193	Pt 194	Pt 195	Pt 196	Au 197	Tl 203
Detector	PC	PC	PC	PC	PC	PC
Run 1	55.01	32.42	29.13	26.48	56.22	87.26
Run 2	59.86	29.89	28.72	22.65	59.06	92.21
Run 3	56.79	29.98	29.70	34.25	55.36	93.81
Mean	57.22	30.76	29.18	27.79	59.88	91.10
Std Dev	2.457	1.436	0.4930	5.913	7.096	3.412
%SD	4.294	4.668	1.689	21.27	11.85	3.745

Element	Thallium

Tube not in solution 6/10/97

00535

Element	Thallium
Isotope	Tl 205
Detector	PC
Isotope	Tl 205
Detector	PC
Run 1	82.70
Run 2	95.40
Run 3	95.23
Mean	94.44
Std Dev	1.510
%SD	1.799

Internal Standard Drift; % relative to mean of first sample :

Element	Scandium	Yttrium	Lutetium
Isotope	Sc 45	Y 89	Lu 175
Detector	PC	PC	PC
Run 1	0.1422	0.0482	0.0423
Run 2	0.1320	0.0392	0.0380
Run 3	0.1302	0.0376	0.0369
Mean	0.1348	0.0417	0.0388
Std Dev	0.0064	0.0057	0.0032

Internal Standard Drift outside drift window.
Failed isotopes = Sc 45Y 89Lu 175
Specified action is to continue with procedure.

Multi Element Concentrations Mon Jun 2 1997
Statistics for Concentration Determination.
Analysis procedure : 200.8

Sample name : 3C

First repeat started at : Mon Jun 2 1997 10:15:25

Last repeat started at : Mon Jun 2 1997 10:17:30

Interference Equations : DEFAULT

Dilution Factor : 1.0000 Concentration units : ppb

Element	Beryllium	Selenium	Selenium	Selenium	Ruthenium	Ruthenium	Ruthenium
Isotope	Be 9	Se 77	Se 78	Se 82	Ru 99	Ru 101	Ru 102
Detector	PC	PC	PC	PC	PC	PC	PC
Run 1	-0.0032	0.7273	-2.395	0.6909	0.0058	0.0088	0.0109
Run 2	-0.0005	0.8336	-2.275	0.8122	0.0119	0.0044	0.0059
Run 3	-0.0023	0.9492	-2.374	0.9271	0.0070	0.0098	0.0060
Mean	-0.0020	0.9367	-2.348	0.8101	0.0082	0.0077	0.0076
Std Dev	0.0013	0.1110	0.0639	0.1181	0.0032	0.0029	0.0028
%SD	66.98	13.27	2.720	14.58	38.63	37.96	37.36

Element	Rhodium	Palladium	Palladium	Cadmium	Cadmium	Cadmium
Isotope	Rh 103	Pd 104	Pd 105	Cd 111	Cd 112	Cd 114
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.0042	0.0183	-0.2388	-0.0004	0.0015	0.0011
Run 2	0.0026	0.0099	-0.2718	-0.0071	-0.0034	-0.0019
Run 3	0.0030	0.0113	-0.2297	-0.0047	-0.0031	0.0016
Mean	0.0033	0.0132	-0.2468	-0.0041	-0.0016	0.0003
Std Dev	0.0008	0.0045	0.0222	0.0034	0.0028	0.0019
%SD	24.76	34.13	8.987	83.62	168.3	723.9

CCB-9

Element	Rhenium	Rhenium	Osmium	Osmium	Osmium	Iridium
Isotope	Re 185	Re 187	Os 188	Os 189	Os 190	Ir 191
Detector	PC	PC	PC	PC	PC	PC
Run 1	-0.0009	0.0008	0.0444	0.0463	0.0459	-0.0567
Run 2	-0.0004	0.0005	0.0364	0.0343	0.0352	-0.0274
Run 3	-0.0003	0.0007	0.0325	0.0322	0.0292	-0.0083
Mean	-0.0006	0.0007	0.0378	0.0376	0.0368	-0.0308
Std Dev	0.0003	0.0002	0.0061	0.0076	0.0085	0.0244
%SD	55.81	21.85	16.12	20.24	22.98	79.28

Element	Iridium	Platinum	Platinum	Platinum	Gold	Thallium
Isotope	Ir 193	Pt 194	Pt 195	Pt 196	Au 197	Tl 203
Detector	PC	PC	PC	PC	PC	PC
Run 1	-0.0001	-0.0091	-0.0085	-0.0094	0.0350	0.0052
Run 2	-0.0017	-0.0124	-0.0121	-0.0126	0.0245	0.0035
Run 3	-0.0008	-0.0153	-0.0121	-0.0134	0.0255	0.0023
Mean	-0.0009	-0.0122	-0.0109	-0.0118	0.0284	0.0037
Std Dev	0.0008	0.0031	0.0021	0.0021	0.0058	0.0014
%SD	90.28	25.43	19.22	17.82	20.41	39.67

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Element	Thallium

Element	Thallium
Isotope	Tl 205
Detector	PC
Isotope	Tl 205
Detector	PC
Run 1	0.0093
Run 2	0.0034
Run 3	0.0017
Mean	0.0045
Std Dev	0.0034
%SD	75.55

Internal Standard Drift; % relative to mean of first sample :

Element	Scandium	Yttrium	Lutetium
Isotope	Sc 45	Y 89	Lu 175
Detector	PC	PC	PC
Run 1	95.88	109.0	111.5
Run 2	95.03	102.8	104.4
Run 3	94.42	102.2	104.3
Mean	95.11	104.7	106.7
Std Dev	0.7307	3.779	4.100

Analysis for : MASS CALIB STD 1

Peak	Be 9	P 31	Mg 24	Co 59	In 115	La 139	Pb 208	Bi 209	U 238
CPS	107801	317889	418099	507722	593740	754562	544824	623760	

MASS CALIBRATION DATA
Fri May 30 1997
07:58:15

Actual Mass	Found DAC	Calculated DAC	Calculated Mass
9.01218E+0	2004	1994	9.05589E+0
2.39850E+1	5280	5289	2.39442E+1
5.89332E+1	12975	12982	5.89017E+1
1.14904E+2	25327	25311	1.14957E+2
1.38906E+2	30597	30602	1.38884E+2
2.08930E+2	46059	46059	2.08930E+2
2.38051E+2	52476	52476	2.38048E+2

New Mass calibration coeffs
y = a + bx + cx^2 + dx^3
-5.33291E-2 4.34584E-3 -1.61964E-10 0.00000E+0
Regression coeff = 1.0000E+0

Multi-Element Calibratio... Fri May 30 [illegible]
Calibration graph coefficients for selected isotopes.
User Name : MANAGER Experiment name : CALIB
Analysis procedure : SHORT TERM STABILITY PROC

Introduction method : DEFAULT
First sample started at : Fri May 30 1997 07:59:50
Last sample started at : **********

Polynomial fit : y = a0 + a1.x + a2.x^2
Units of response : y = counts per second
Units of concentration : x = ppb

Element	Symbol	Mass	a0	a1	a2	regression
Beryllium	Be	9	0.0	4425	0.0	1.0000
Magnesium	Mg	24	0.0	12769	0.0	1.0000
Cobalt	Co	59	0.0	16834	0.0	1.0000
Indium	In	115	0.0	23124	0.0	1.0000
Lanthanum	La	139	0.0	23924	0.0	1.0000
Lead	Pb	208	0.0	13233	0.0	1.0000
Bismuth	Bi	209	0.0	20842	0.0	1.0000

Multi-Element Concentrations_ Fri May 30 1997_
Statistics for Concentration Determination.
Analysis procedure : SHORT TERM STABILITY PROC

Sample name : 25ppb Tune Solution_

First repeat started at : Fri May 30 1997 07:59:50

Last repeat started at : Fri May 30 1997 07:59:50

Dilution Factor : 1.0000 Concentration units : ppb

Element	Beryllium	Magnesium	Cobalt	Indium	Lanthanum	Lead	Bismuth
Isotope	Be 9	Mg 24	Co 59	In 115	La 139	Pb 208	Bi 209
Detector	PC	PC	PC	PC	PC	PC	PC
Run 1	25.00	25.00	25.00	25.00	25.00	25.00	25.00
Mean	25.00	25.00	25.00	25.00	25.00	25.00	25.00
Std Dev	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%SD	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Multi-Element Concentrations [illegible] Fri Mar 28 1997
Statistics for Concentration Determination.
Analysis procedure : SHORT TERM STABILITY PROC

Sample name : SHORT TERM STABILITY CHECK

First repeat started at : Fri May 30 1997 08:01:20

Last repeat started at : Fri May 30 1997 08:05:50

Dilution Factor : 1.0000 Concentration units : ppb

Element	Beryllium	Magnesium	Cobalt	Indium	Lanthanum	Lead	Bismuth
Isotope	Be 9	Mg 24	Co 59	In 115	La 139	Pb 208	Bi 209
Detector	PC	PC	PC	PC	PC	PC	PC
Run 1	25.56	25.65	24.72	23.99	24.29	24.22	24.06
Run 2	24.08	24.83	24.37	24.54	24.66	24.27	24.96
Run 3	24.57	24.92	25.26	23.53	24.19	25.00	24.76
Run 4	25.22	25.21	24.47	23.58	24.31	25.02	24.24
Run 5	24.80	25.08	24.07	23.62	23.62	24.47	24.33
Mean	24.85	25.14	24.58	23.85	24.33	24.59	24.47
Std Dev	0.5707	0.3219	0.4465	0.4259	0.4863	0.3914	0.3750
%SD	2.297	1.280	1.817	1.786	1.998	1.592	1.532

Multi-Element Concentrations Fri May 30 1997

Concentration summary for samples.

User Name : MANAGER
Experiment name : CALIB
Analysis procedure : SHORT TERM STABILITY PROC

Introduction method : DEFAULT
First sample started at : Fri May 30 1997 07:59:50
Last sample started at : Fri May 30 1997 08:01:20

Concentration units : ppb

Sample Name	25ppb Tune Solution	SHORT TERM STABILITY CHECK
Dilution Factor	1.0000	1.0000

Element	Isotope	Concentration	Concentration
Beryllium	Be 9	25.00	24.85
Magnesium	Mg 24	25.00	25.14
Cobalt	Co 59	25.00	24.58
Indium	In 115	25.00	23.85
Lanthanum	La 139	25.00	24.33
Lead	Pb 208	25.00	24.59
Bismuth	Bi 209	25.00	24.47

Multi-Element Calibration Fri May 30 1997

Calibration graph coefficients for selected isotopes.

User Name : MANAGER Experiment name : ANALYSIS

Analysis procedure : 200.8

Introduction method : DEFAULT

First sample started at : Fri May 30 1997 11:08:48

Last sample started at : Fri May 30 1997 12:30:53

Internal standards : Sc 45 Y 89 Bi 209 (Interpola

Polynomial fit : y = a0 + a1.x + a2.x^2

Units of response : y = counts per second

Units of concentration : x = ppb

Extr/Analysis Lot
MET9700920

Element	Symbol	Mass	a0	a1	a2	regression
Beryllium	Be	9	49.63	8414	0.0	1.0000
Aluminium	Al	27	2787	16902	0.0	1.0000
Vanadium	V	51	1119	16918	0.0	1.0000
Chromium	Cr	52	3639	15934	0.0	1.0000
Chromium	Cr	53	412.5	1806	0.0	1.0000
Manganese	Mn	55	565.4	23507	0.0	1.0000
Cobalt	Co	59	99.45	20376	0.0	1.0000
Nickel	Ni	60	292.0	4245	0.0	1.0000
Nickel	Ni	62	865.5	823.6	0.0	1.0000
Copper	Cu	63	682.8	10172	0.0	1.0000
Copper	Cu	65	204.8	4779	0.0	1.0000
Zinc	Zn	66	399.1	2794	0.0	1.0000
Zinc	Zn	67	129.9	456.1	0.0	1.0000
Zinc	Zn	68	338.8	1989	0.0	1.0000
Arsenic	As	75	1464	2345	0.0	1.0000
Selenium	Se	77	521.5	205.0	0.0	1.0000
Selenium	Se	78	2959	603.1	0.0	1.0000
Selenium	Se	82	614.7	241.5	0.0	1.0000
Molybdenum	Mo	95	75.05	3089	0.0	1.0000
Molybdenum	Mo	97	59.32	1957	0.0	1.0000
Molybdenum	Mo	98	76.95	5176	0.0	1.0000
Ruthenium	Ru	99	43.92	2947	0.0	1.0000
Ruthenium	Ru	101	55.09	4131	0.0	1.0000
Ruthenium	Ru	102	95.06	8554	0.0	1.0000
Rhodium	Rh	103	28.36	24778	0.0	1.0000
Palladium	Pd	104	55.58	7684	0.0	1.0000
Palladium	Pd	105	12100	5152	0.0	1.0000
Silver	Ag	107	188.9	12956	0.0	1.0000
Silver	Ag	109	152.0	12650	0.0	1.0000
Cadmium	Cd	111	53.75	2811	0.0	1.0000
Cadmium	Cd	112	65.96	4972	0.0	1.0000
Tin	Sn	114	70.60	6202	0.0	1.0000
Cadmium	Cd	114	70.60	6208	0.0	1.0000
Tin	Sn	117	110.6	1431	0.0	1.0000
Tin	Sn	118	312.0	4676	0.0	1.0000

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Element	Symbol	Mass	a0	a1	a2	regression
Tin	Sn	120	608.3	6704	0.0	1.0000

Antimony	Sb	123	56.01	5980	0.0	1.0000
Barium	Ba	135	36.20	2120	0.0	1.0000
Barium	Ba	137	34.34	3702	0.0	1.0000
Barium	Ba	138	197.5	24275	0.0	1.0000
Rhenium	Re	185	19.43	12212	0.0	1.0000
Rhenium	Re	187	80.94	21645	0.0	1.0000
Osmium	Os	188	603.3	5128	0.0	1.0000
Osmium	Os	189	779.4	6261	0.0	1.0000
Osmium	Os	190	1213	10314	0.0	1.0000
Iridium	Ir	191	10701	10934	0.0	1.0000
Iridium	Ir	193	171.8	18721	0.0	1.0000
Platinum	Pt	194	81.86	6715	0.0	1.0000
Platinum	Pt	195	87.76	7100	0.0	1.0000
Platinum	Pt	196	70.53	5364	0.0	1.0000
Gold	Au	197	84.95	9513	0.0	1.0000
Thallium	Tl	203	33.63	9540	0.0	1.0000
Thallium	Tl	205	154.2	21967	0.0	1.0000
Lead	Pb	206	157.3	7292	0.0	1.0000
Lead	Pb	207	122.1	6334	0.0	1.0000
Lead	Pb	208	571.0	29374	0.0	1.0000

Multi-Element Concentrations. Fri May 30 1997
Statistics for Concentration Determination.
Analysis procedure : 200.8

Sample name : Calibration Blank

First repeat started at : Fri May 30 1997 11:08:48

Last repeat started at : Fri May 30 1997 11:10:58

Interference Equations : DEFAULT

Dilution Factor : 1.0000 Concentration units : ppb

Element	Beryllium	Aluminium	Vanadium	Chromium	Chromium	Manganese	Cobalt
Isotope	Be 9	Al 27	V 51	Cr 52	Cr 53	Mn 55	Co 59
Detector	PC	PC	PC	PC	PC	PC	PC
Run 1	-0.0009	-0.0007	-0.0009	-0.0010	-0.0010	0.0009	0.0002
Run 2	0.0004	-0.0018	0.0031	0.0020	0.0020	0.0012	0.0005
Run 3	0.0005	0.0023	-0.0022	-0.0010	-0.0010	-0.0020	-0.0007
Mean	0.0000	-0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Std Dev	0.0008	0.0020	0.0028	0.0017	0.0017	0.0018	0.0006
%SD	39323	353950	283090	119210	242300	206250	29078

Element	Nickel	Nickel	Copper	Copper	Zinc	Zinc
Isotope	Ni 60	Ni 62	Cu 63	Cu 65	Zn 66	Zn 67
Detector	PC	PC	PC	PC	PC	PC
Run 1	-0.0020	0.1319	-0.0024	0.0009	-0.0027	0.0350
Run 2	-0.0037	-0.0473	-0.0029	-0.0008	0.0091	0.0229
Run 3	0.0057	-0.0845	0.0054	-0.0001	-0.0064	-0.0579
Mean	-0.0000	0.0000	0.0000	0.0000	0.0000	-0.0000
Std Dev	0.0050	0.1157	0.0047	0.0009	0.0081	0.0505
%SD	607300	9103600	237180	70253	592560	12414000

Element	Zinc	Arsenic	Selenium	Selenium	Selenium	Molybdenum
Isotope	Zn 68	As 75	Se 77	Se 78	Se 82	Mo 95
Detector	PC	PC	PC	PC	PC	PC
Run 1	-0.0216	0.0665	0.1852	-0.0514	0.1862	0.0011
Run 2	0.0224	-0.0669	-0.2340	-0.0867	-0.2323	-0.0028
Run 3	-0.0007	0.0004	0.0488	0.1381	0.0461	0.0017
Mean	0.0000	0.0000	0.0000	0.0000	-0.0000	0.0000
Std Dev	0.0220	0.0667	0.2138	0.1209	0.2130	0.0025
%SD	2773700	10390000	14853000	8965200	50621000	364510

Element	Molybdenum	Molybdenum	Ruthenium	Ruthenium	Ruthenium	Rhodium
Isotope	Mo 97	Mo 98	Ru 99	Ru 101	Ru 102	Rh 103
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.0062	0.0013	0.0038	-0.0004	0.0025	-0.0001
Run 2	-0.0019	0.0016	-0.0016	-0.0003	-0.0011	-0.0000
Run 3	-0.0043	-0.0030	-0.0022	0.0008	-0.0014	0.0001
Mean	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Std Dev	0.0055	0.0026	0.0033	0.0007	0.0022	0.0001
%SD	554130	437600	221780	33587	244980	2590

Element	Palladium	Palladium	Silver	Silver	Cadmium	Cadmium

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Element	Palladium	Palladium	Silver	Silver	Cadmium	Cadmium
Isotope	Pd 104	Pd 105	Ag 107	Ag 109	Cd 111	Cd 112
Detector	PC	PC	PC	PC	PC	PC
Isotope	Pd 104	Pd 105	Ag 107	Ag 109	Cd 111	Cd 112
Detector	PC	PC	PC	PC	PC	PC
Run 1	-0.0003	-0.1163	-0.0004	0.0000	-0.0035	0.0002
Run 2	0.0004	0.1140	0.0001	0.0011	0.0026	-0.0026
Run 3	-0.0001	0.0024	0.0003	-0.0011	0.0009	0.0024
Mean	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Std Dev	0.0003	0.1152	0.0004	0.0011	0.0031	0.0025
%SD	11353	6514100	11917	203150	110060	139910

Element	Tin	Cadmium	Tin	Tin	Tin	Antimony
Isotope	Sn 114	Cd 114	Sn 117	Sn 118	Sn 120	Sb 121
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.0012	0.0012	0.0271	-0.0009	-0.0259	-0.0002
Run 2	0.0011	0.0011	-0.0005	0.0050	0.0552	-0.0009
Run 3	-0.0023	-0.0023	-0.0266	-0.0041	-0.0293	0.0011
Mean	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Std Dev	0.0020	0.0020	0.0269	0.0046	0.0478	0.0010
%SD	190790	190790	843170	330350	1970400	97967

Element	Tin	Antimony	Barium	Barium	Barium	Rhenium
Isotope	Sn 122	Sb 123	Ba 135	Ba 137	Ba 138	Re 185
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.0216	-0.0002	0.0061	-0.0023	-0.0009	-0.0000
Run 2	-0.0104	-0.0014	-0.0043	0.0014	-0.0001	0.0003
Run 3	-0.0112	0.0016	-0.0018	0.0009	0.0009	-0.0003
Mean	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Std Dev	0.0197	0.0015	0.0054	0.0020	0.0009	0.0003
%SD	1121200	71051	1195300	221800	41102	15831

Element	Rhenium	Osmium	Osmium	Osmium	Iridium	Iridium
Isotope	Re 187	Os 188	Os 189	Os 190	Ir 191	Ir 193
Detector	PC	PC	PC	PC	PC	PC
Run 1	-0.0002	0.0119	0.0197	0.0182	0.0182	-0.0010
Run 2	0.0005	0.0102	-0.0024	-0.0032	-0.0025	-0.0009
Run 3	-0.0003	-0.0221	-0.0173	-0.0150	-0.0143	0.0019
Mean	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Std Dev	0.0005	0.0192	0.0186	0.0168	0.0282	0.0016
%SD	35279	14045000	586570	880420	1064500	181400

Element	Platinum	Platinum	Platinum	Gold	Thallium	Thallium
Isotope	Pt 194	Pt 195	Pt 196	Au 197	Tl 203	Tl 205
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.0007	-0.0036	-0.0016	0.0016	0.0007	-0.0002
Run 2	0.0014	0.0003	0.0001	-0.0007	-0.0000	0.0008
Run 3	-0.0021	0.0033	0.0015	-0.0009	-0.0007	-0.0006
Mean	0.0000	-0.0000	0.0000	0.0000	-0.0000	0.0000
Std Dev	0.0019	0.0035	0.0015	0.0013	0.0007	0.0007
%SD	2150700	1939000	40305	520800	235750	25403

Element	Lead	Lead	Lead

Element	Lead	Lead	Lead
Isotope	Pb 206	Pb 207	Pb 208
Detector	PC	PC	PC
Isotope	Pb 206	Pb 207	Pb 208
Detector	PC	PC	PC
Run 1	0.0024	-0.0008	0.0005
Run 2	0.0004	0.0006	0.0011

Mean	0.0000	0.0000	0.0000
Std Dev	0.0026	0.0007	0.0014
%SD	291400	41269	90679

Internal Standard Drift; % relative to mean of first sample :

Element	Scandium	Yttrium	Bismuth
Isotope	Sc 45	Y 89	Bi 209
Detector	PD	PD	PD
Run 1	98.71	98.45	100.9
Run 2	100.8	100.2	99.15
Run 3	100.4	101.4	99.98
Mean	100.00	100.00	100.00
Std Dev	1.139	1.463	0.8566

Multi-Element Concentrations Fri May 30 1997
Statistics for Concentration Determination..
Analysis procedure : 200.8

Sample name : 25.0 ppb Calibration Standard

First repeat started at : Fri May 30 1997 11:14:07

Last repeat started at : Fri May 30 1997 11:16:16

Interference Equations : DEFAULT

Dilution Factor : 1.0000 Concentration units : ppb

Element	Beryllium	Aluminium	Vanadium	Chromium	Chromium	Manganese	Cobalt
Isotope	Be 9	Al 27	V 51	Cr 52	Cr 53	Mn 55	Co 59
Detector	PC	PC	PC	PC	PC	PC	PC
Run 1	24.56	24.52	24.84	24.67	24.85	25.40	25.34
Run 2	25.07	25.30	25.40	25.56	25.56	25.03	25.43
Run 3	25.35	25.18	24.74	24.77	24.78	24.54	24.22
Mean	25.00	25.00	25.00	25.00	25.00	25.00	25.00
Std Dev	0.3860	0.4221	0.3515	0.4859	0.4362	0.4205	0.6747
%SD	1.544	1.688	1.406	1.944	1.745	1.682	2.699

Element	Nickel	Nickel	Copper	Copper	Zinc	Zinc
Isotope	Ni 60	Ni 62	Cu 63	Cu 65	Zn 66	Zn 67
Detector	PC	PC	PC	PC	PC	PC
Run 1	25.40	25.37	25.50	25.38	24.97	24.88
Run 2	25.30	24.68	24.55	24.91	25.43	24.78
Run 3	24.30	24.95	24.95	24.71	24.60	25.35
Mean	25.00	25.00	25.00	25.00	25.00	25.00
Std Dev	0.6058	0.3511	0.5401	0.3454	0.4164	0.3060
%SD	2.423	1.405	2.160	1.381	1.666	1.224

Element	Zinc	Arsenic	Selenium	Selenium	Selenium	Molybdenum
Isotope	Zn 68	As 75	Se 77	Se 78	Se 82	Mo 95
Detector	PC	PC	PC	PC	PC	PC
Run 1	25.32	24.62	25.02	24.73	25.03	24.98
Run 2	24.78	25.41	25.59	25.88	25.59	24.51
Run 3	24.90	24.97	24.39	24.39	24.38	25.51
Mean	25.00	25.00	25.00	25.00	25.00	25.00
Std Dev	0.2800	0.3982	0.6034	0.7773	0.6093	0.5020
%SD	1.120	1.593	2.414	3.109	2.437	2.008

Element	Molybdenum	Molybdenum	Ruthenium	Ruthenium	Ruthenium	Rhodium
Isotope	Mo 97	Mo 98	Ru 99	Ru 101	Ru 102	Rh 103
Detector	PC	PC	PC	PC	PC	PC
Run 1	25.53	25.53	0.0123	0.0030	0.0056	0.0009
Run 2	24.82	24.66	0.0032	-0.0009	0.0060	0.0000
Run 3	24.64	24.81	0.0034	-0.0020	0.0034	0.0004
Mean	25.00	25.00	0.0063	0.0000	0.0050	0.0004
Std Dev	0.4726	0.4653	0.0052	0.0026	0.0014	0.0004
%SD	1.890	1.861	82.72	7403	27.85	98.16

Element	Palladium	Palladium	Silver	Silver	Cadmium	Cadmium

00550

Element	Palladium	Palladium	Silver	Silver	Cadmium	Cadmium
Isotope	Pd 104	Pd 105	Ag 107	Ag 109	Cd 111	Cd 112
Detector	PC	PC	PC	PC	PC	PC
Isotope	Pd 104	Pd 105	Ag 107	Ag 109	Cd 111	Cd 112
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.0072	-0.0255	24.95	25.43	25.10	25.50
Run 2	0.0048	-0.0942	25.25	24.95	24.96	24.65
Run 3	0.0033	-0.2496	24.79	24.62	24.94	24.85
Mean	0.0051	-0.1231	25.00	25.00	25.00	25.00
Std Dev	0.0020	0.1148	0.2327	0.4039	0.0845	0.4474
%SD	38.30	93.27	0.9306	1.615	0.3379	1.790

Element	Tin	Cadmium	Tin	Tin	Tin	Antimony
Isotope	Sn 114	Cd 114	Sn 117	Sn 118	Sn 120	Sb 121
Detector	PC	PC	PC	PC	PC	PC
Run 1	24.96	24.96	25.97	23.27	24.33	24.68
Run 2	24.78	24.78	24.60	27.45	26.38	25.30
Run 3	25.25	25.25	24.43	24.27	24.30	25.01
Mean	25.00	25.00	25.00	25.00	25.00	25.00
Std Dev	0.2360	0.2360	0.8416	2.183	1.192	0.3079
%SD	0.9442	0.9442	3.366	8.734	4.770	1.231

Element	Tin	Antimony	Barium	Barium	Barium	Rhenium
Isotope	Sn 122	Sb 123	Ba 135	Ba 137	Ba 138	Re 185
Detector	PC	PC	PC	PC	PC	PC
Run 1	24.49	25.01	25.37	25.03	25.36	-0.0003
Run 2	25.82	24.99	25.19	25.02	24.88	0.0003
Run 3	24.69	25.00	24.43	24.95	24.76	-0.0001
Mean	25.00	25.00	25.00	25.00	25.00	-0.0000
Std Dev	0.7181	0.0117	0.4982	0.0435	0.3215	0.0003
%SD	2.872	0.0469	1.993	0.1739	1.286	828.6

Element	Rhenium	Osmium	Osmium	Osmium	Iridium	Iridium
Isotope	Re 187	Os 188	Os 189	Os 190	Ir 191	Ir 193
Detector	PC	PC	PC	PC	PC	PC
Run 1	-0.0012	-0.0404	-0.0405	-0.0405	-0.0428	-0.0037
Run 2	-0.0009	-0.0409	-0.0485	-0.0424	-0.0378	-0.0020
Run 3	-0.0010	-0.0509	-0.0629	-0.0466	-0.0665	-0.0027
Mean	-0.0010	-0.0441	-0.0506	-0.0432	-0.0490	-0.0028
Std Dev	0.0001	0.0059	0.0113	0.0031	0.0153	0.0009
%SD	13.57	13.44	22.39	7.252	31.20	30.89

Element	Platinum	Platinum	Platinum	Gold	Thallium	Thallium
Isotope	Pt 194	Pt 195	Pt 196	Au 197	Tl 203	Tl 205
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.0010	0.0020	-0.0019	0.0065	24.95	24.85
Run 2	0.0025	-0.0015	-0.0037	0.0045	25.10	25.21
Run 3	0.0003	-0.0033	-0.0029	0.0012	24.95	24.94
Mean	0.0013	-0.0009	-0.0028	0.0041	25.00	25.00
Std Dev	0.0011	0.0027	0.0009	0.0027	0.0845	0.1854
%SD	85.98	284.1	32.04	66.00	0.3378	0.7417

Element	Lead	Lead	Lead

Element	Lead	Lead	Lead
Isotope	Pb 206	Pb 207	Pb 208
Detector	PC	PC	PC
Isotope	Pb 206	Pb 207	Pb 208
Detector	PC	PC	PC
Run 1	24.39	24.75	24.70
Run 2	25.68	25.31	25.42

Std Dev	0.6487	0.2871	0.3745
%SD	2.595	1.148	1.498

Internal Standard Drift: % relative to mean of first sample :

Element	Scandium	Yttrium	Bismuth
Isotope	Sc 45	Y 89	Bi 209
Detector	PC	PC	PC
Run 1	100.8	101.0	106.0
Run 2	98.70	99.03	101.9
Run 3	99.67	100.4	101.7
Mean	99.71	100.1	103.2
Std Dev	1.033	1.000	2.443

Multi-Element Concentrations Fri May 30 1997
Statistics for Concentration Determination.
Analysis procedure : 200.8

Sample name : 25.0 ppb Odd Element Calib. Standard

First repeat started at : Fri May 30 1997 11:18:21

Last repeat started at : Fri May 30 1997 11:20:30

Interference Equations : DEFAULT

Dilution Factor : 1.0000 Concentration units : ppb

Element	Beryllium	Aluminium	Vanadium	Chromium	Chromium	Manganese	Cobalt
Isotope	Be 9	Al 27	V 51	Cr 52	Cr 53	Mn 55	Co 59
Detector	PC	PC	PC	PC	PC	PC	PC
Run 1	0.0135	0.2492	0.0334	0.0190	0.0189	0.0257	0.0150
Run 2	0.0071	0.1897	0.0251	0.0126	0.0126	0.0238	0.0059
Run 3	0.0047	0.1606	-0.0182	-0.0038	-0.0038	0.0249	0.0034
Mean	0.0084	0.1998	0.0134	0.0093	0.0092	0.0251	0.0084
Std Dev	0.0046	0.0451	0.0277	0.0118	0.0117	0.0016	0.0067
%SD	53.93	22.59	206.3	126.5	126.7	6.244	79.79

Element	Nickel	Nickel	Copper	Copper	Zinc	Zinc
Isotope	Ni 60	Ni 62	Cu 63	Cu 65	Zn 66	Zn 67
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.0662	0.0460	0.0775	0.0947	0.1664	0.1992
Run 2	0.0629	0.0966	0.0943	0.0910	0.2025	0.2250
Run 3	0.0739	0.0726	0.0865	0.0890	0.1723	0.2709
Mean	0.0677	0.0717	0.0861	0.0916	0.1804	0.2317
Std Dev	0.0056	0.0253	0.0084	0.0029	0.0194	0.0363
%SD	8.348	35.25	9.765	3.153	10.75	15.67

Element	Zinc	Arsenic	Selenium	Selenium	Selenium	Molybdenum
Isotope	Zn 68	As 75	Se 77	Se 78	Se 82	Mo 95
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.1477	-0.0017	0.0087	-0.2951	0.0034	0.2318
Run 2	0.1565	-0.0412	-0.2268	0.0343	-0.2293	0.0920
Run 3	0.1267	-0.0086	0.0134	-0.2481	0.0133	0.0463
Mean	0.1436	-0.0172	-0.0682	-0.1696	-0.0709	0.1234
Std Dev	0.0153	0.0211	0.1374	0.1782	0.1373	0.0967
%SD	10.65	123.0	201.4	105.0	193.8	78.35

Element	Molybdenum	Molybdenum	Ruthenium	Ruthenium	Ruthenium	Rhodium
Isotope	Mo 97	Mo 98	Ru 99	Ru 101	Ru 102	Rh 103
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.2493	2.188	24.79	24.21	24.96	25.10
Run 2	0.1147	2.068	25.38	25.67	24.90	24.47
Run 3	0.0770	2.031	24.83	25.12	25.14	25.44
Mean	0.1470	2.095	25.00	25.00	25.00	25.00
Std Dev	0.0906	0.0816	0.3283	0.7332	0.1253	0.4916
%SD	61.63	3.895	1.313	2.933	0.5011	1.966

Element	Palladium	Palladium	Silver	Silver	Cadmium	Cadmium

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Element	Palladium	Palladium	Silver	Silver	Cadmium	Cadmium
Isotope	Pd 104	Pd 105	Ag 107	Ag 109	Cd 111	Cd 112
Detector	PC	PC	PC	PC	PC	PC
Isotope	Pd 104	Pd 105	Ag 107	Ag 109	Cd 111	Cd 112
Detector	PC	PC	PC	PC	PC	PC
Run 1	24.72	24.27	0.1087	0.1134	0.0274	0.0270
Run 2	24.83	25.40	0.0513	0.0512	0.0043	0.0138
Run 3	25.46	25.33	0.0321	0.0332	0.0112	0.0161
Mean	25.00	25.00	0.0641	0.0660	0.0143	0.0190
Std Dev	0.3989	0.6352	0.0399	0.0421	0.0118	0.0070
%SD	1.596	2.541	62.25	63.78	82.74	37.11

Element	Tin	Cadmium	Tin	Tin	Tin	Antimony
Isotope	Sn 114	Cd 114	Sn 117	Sn 118	Sn 120	Sb 121
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.0224	0.0224	0.0533	0.1037	0.0379	0.1679
Run 2	0.0205	0.0205	0.0467	0.0862	0.0185	0.1023
Run 3	0.0143	0.0143	0.0305	0.0275	0.0074	0.0999
Mean	0.0191	0.0191	0.0435	0.0725	0.0213	0.1233
Std Dev	0.0042	0.0042	0.0118	0.0399	0.0155	0.0386
%SD	22.01	22.01	27.06	55.05	72.67	31.27

Element	Tin	Antimony	Barium	Barium	Barium	Rhenium
Isotope	Sn 122	Sb 123	Ba 135	Ba 137	Ba 138	Re 185
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.0390	0.1731	0.0139	0.0215	0.0159	25.55
Run 2	0.0062	0.1107	0.0064	0.0157	0.0095	25.07
Run 3	0.0270	0.0942	0.0084	0.0148	0.0066	24.38
Mean	0.0241	0.1260	0.0096	0.0173	0.0107	25.00
Std Dev	0.0166	0.0416	0.0039	0.0036	0.0048	0.5855
%SD	68.85	33.05	40.83	20.97	44.60	2.342

Element	Rhenium	Osmium	Osmium	Osmium	Iridium	Iridium
Isotope	Re 187	Os 188	Os 189	Os 190	Ir 191	Ir 193
Detector	PC	PC	PC	PC	PC	PC
Run 1	25.22	24.98	24.60	24.66	25.23	25.16
Run 2	24.69	24.38	24.43	24.68	24.50	24.92
Run 3	25.10	25.65	25.97	25.66	25.27	24.92
Mean	25.00	25.00	25.00	25.00	25.00	25.00
Std Dev	0.2775	0.6353	0.8424	0.5708	0.4312	0.1387
%SD	1.110	2.541	3.370	2.283	1.725	0.5549

Element	Platinum	Platinum	Platinum	Gold	Thallium	Thallium
Isotope	Pt 194	Pt 195	Pt 196	Au 197	Tl 203	Tl 205
Detector	PC	PC	PC	PC	PC	PC
Run 1	25.51	25.31	24.78	24.96	0.1285	0.0358
Run 2	24.12	24.87	24.98	24.57	0.1047	0.0235
Run 3	25.37	24.82	25.23	25.47	0.1031	0.0202
Mean	25.00	25.00	25.00	25.00	0.1121	0.0265
Std Dev	0.7657	0.2703	0.2247	0.4534	0.0142	0.0082
%SD	3.063	1.081	0.8987	1.813	12.68	30.95

Element	Lead	Lead	Lead

Element	Lead	Lead	Lead
Isotope	Pb 206	Pb 207	Pb 208
Detector	PC	PC	PC
Isotope	Pb 206	Pb 207	Pb 208
Detector	PC	PC	PC
Run 1	0.2080	0.1508	0.1851
Run 2	0.1867	0.1438	0.1760

Mean	[illegible]	[illegible]	[illegible]
Std Dev	0.0113	0.0037	0.0065
%SD	5.655	2.509	3.678

Internal Standard Drift: % relative to mean of first sample :

Element	Scandium	Yttrium	Bismuth
Isotope	Sc 45	Y 89	Bi 209
Detector	PC	PC	PC
Run 1	100.5	102.3	99.26
Run 2	99.86	100.8	101.2
Run 3	100.0	100.1	100.9
Mean	100.1	101.1	100.5
Std Dev	0.3052	1.140	1.057

Multi-Element Concentrations Fri May 30 1997
Statistics for Concentration Determination.
Analysis procedure : 200.8

Sample name : 1

First repeat started at : Fri May 30 1997 11:22:51

Last repeat started at : Fri May 30 1997 11:25:00

Interference Equations : DEFAULT

Dilution Factor : 1.0000 Concentration units : ppb

Element	Beryllium	Aluminium	Vanadium	Chromium	Chromium	Manganese	Cobalt
Isotope	Be 9	Al 27	V 51	Cr 52	Cr 53	Mn 55	Co 59
Detector	PC	PC	PC	PC	PC	PC	PC
Run 1	0.0043	0.1741	-0.0136	0.0012	0.0011	0.0164	0.0027
Run 2	0.0014	0.1766	-0.0014	0.0074	0.0073	0.0191	0.0026
Run 3	-0.0033	0.1664	0.0160	-0.0028	-0.0028	0.0137	0.0014
Mean	0.0008	0.1724	0.0003	0.0019	0.0019	0.0164	0.0022
Std Dev	0.0038	0.0053	0.0148	0.0052	0.0051	0.0027	0.0007
%SD	477.6	3.096	4299	269.1	275.0	16.39	33.06

Element	Nickel	Nickel	Copper	Copper	Zinc	Zinc
Isotope	Ni 60	Ni 62	Cu 63	Cu 65	Zn 66	Zn 67
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.0755	-0.0439	0.0878	0.0660	0.1886	0.2126
Run 2	0.0723	0.1076	0.0674	0.0920	0.1678	0.2035
Run 3	0.0758	-0.0391	0.0687	0.0787	0.1492	0.1991
Mean	0.0745	0.0082	0.0746	0.0789	0.1685	0.2051
Std Dev	0.0019	0.0861	0.0114	0.0130	0.0197	0.0069
%SD	2.586	1052	15.31	16.50	11.69	3.353

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Element	Zinc	Arsenic	Selenium	Selenium	Selenium	Molybdenum
Isotope	Zn 68	As 75	Se 77	Se 78	Se 82	Mo 95
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.2010	-0.0287	-0.1177	-0.0549	-0.1201	0.0257
Run 2	0.1491	-0.0565	-0.3221	-0.0904	-0.3286	0.0193
Run 3	0.1108	-0.0068	0.0834	-0.2327	0.0829	0.0133
Mean	0.1536	-0.0307	-0.1188	-0.1260	-0.1219	0.0195
Std Dev	0.0452	0.0249	0.2028	0.0941	0.2058	0.0062
%SD	29.45	81.28	170.7	74.68	168.8	31.76

Element	Molybdenum	Molybdenum	Ruthenium	Ruthenium	Ruthenium	Rhodium
Isotope	Mo 97	Mo 98	Ru 99	Ru 101J	Ru 102	Rh 103J
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.0417	2.056	25.42	24.96	24.82	25.34
Run 2	0.0093	2.001	24.62	25.35	24.16	24.76
Run 3	0.0174	2.048	24.90	25.39	24.19	24.44
Mean	0.0228	2.035	24.98	25.23	24.39	24.85
Std Dev	0.0169	0.0297	0.4097	0.2350	0.3710	0.4578
%SD	74.18	1.459	1.640	0.9314	1.521	1.842

Element	Palladium	Palladium	Silver	Silver	Cadmium	Cadmium

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Element	Palladium	Palladium	Silver	Silver	Cadmium	Cadmium
Isotope	Pd 104	Pd 105	Ag 107	Ag 109	Cd 111	Cd 112
Detector	PC	PC	PC	PC	PC	PC
Isotope	Pd 104	Pd 105	Ag 107	Ag 109	Cd 111	Cd 112
Detector	PC	PC	PC	PC	PC	PC
Run 1	25.53	25.13	0.0168	0.0149	0.0052	0.0118
Run 2	25.29	24.96	0.0146	0.0181	0.0076	0.0083
Run 3	24.46	24.01	0.0131	0.0161	0.0063	0.0066
Mean	25.09	24.70	0.0148	0.0163	0.0064	0.0091
Std Dev	0.5596	0.6028	0.0018	0.0016	0.0012	0.0026
%SD	2.230	2.440	12.36	9.765	18.71	29.03

Element	Tin	Cadmium	Tin	Tin	Tin	Antimony
Isotope	Sn 114	Cd 114	Sn 117	Sn 118	Sn 120	Sb 121
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.0143	0.0143	0.0921	0.0339	0.0018	0.0811
Run 2	0.0081	0.0081	0.0372	0.0240	0.0032	0.0750
Run 3	0.0080	0.0080	0.0302	0.0241	0.0021	0.0764
Mean	0.0101	0.0101	0.0532	0.0273	0.0024	0.0775
Std Dev	0.0036	0.0036	0.0339	0.0056	0.0007	0.0032
%SD	35.87	35.87	63.80	20.53	29.06	4.146

Element	Tin	Antimony	Barium	Barium	Barium	Rhenium
Isotope	Sn 122	Sb 123	Ba 135	Ba 137	Ba 138	Re 185
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.0631	0.0721	0.0050	0.0073	0.0045	24.16
Run 2	0.0196	0.0718	0.0065	0.0118	0.0051	25.19
Run 3	0.0065	0.0752	0.0026	0.0074	0.0043	24.94
Mean	0.0298	0.0730	0.0047	0.0089	0.0046	24.77
Std Dev	0.0296	0.0019	0.0019	0.0026	0.0004	0.5358
%SD	99.56	2.582	41.34	29.09	8.817	2.164

Element	Rhenium	Osmium	Osmium	Osmium	Iridium	Iridium
Isotope	Re 187	Os 188	Os 189	Os 190	Ir 191	Ir 193
Detector	PC	PC	PC	PC	PC	PC
Run 1	24.89	25.69	25.42	24.76	24.42	24.52
Run 2	25.09	26.36	25.80	25.36	24.92	25.32
Run 3	24.58	25.17	25.57	25.36	24.06	24.30
Mean	24.86	25.74	25.60	25.16	24.47	24.71
Std Dev	0.2595	0.5983	0.1906	0.3492	0.4321	0.5372
%SD	1.044	2.324	0.7446	1.388	1.766	2.174

Element	Platinum	Platinum	Platinum	Gold	Thallium	Thallium
Isotope	Pt 194	Pt 195	Pt 196	Au 197	Tl 203	Tl 205
Detector	PC	PC	PC	PC	PC	PC
Run 1	25.28	24.44	24.33	24.93	0.1037	0.0189
Run 2	25.11	25.11	25.04	26.02	0.1092	0.0175
Run 3	25.46	24.65	24.67	24.87	0.1048	0.0156
Mean	25.62	24.73	24.68	25.27	0.1059	0.0173
Std Dev	0.4341	0.3414	0.3576	0.6458	0.0029	0.0017
%SD	1.694	1.380	1.449	2.555	2.746	9.745

Element	Lead	Lead	Lead
Isotope	Pb 206	Pb 207	Pb 208
Detector	PC	PC	PC
Isotope	Pb 206	Pb 207	Pb 208
Detector	PC	PC	PC
Run 1	0.1821	0.1573	0.1661
Run 2	0.2018	0.1538	0.1764

00557

Std Dev	0.0099	0.0167	0.0087
%SD	5.161	11.45	5.198

Internal Standard Drift; % relative to mean of first sample :

Element	Scandium	Yttrium	Bismuth
Isotope	Sc 45	Y 89	Bi 209
Detector	PC	PC	PC
Run 1	100.00	100.9	102.6
Run 2	99.25	101.8	98.80
Run 3	100.1	100.3	101.5
Mean	99.77	101.0	100.9
Std Dev	0.4548	0.7562	1.950

Multi-Element Concentrations Fri May 30 1997
Statistics for Concentration Determination.
Analysis procedure : 200.8

Sample name : 2

First repeat started at : Fri May 30 1997 11:27:10

Last repeat started at : Fri May 30 1997 11:29:20

Interference Equations : DEFAULT

Dilution Factor : 1.0000 Concentration units : ppb

Element	Beryllium	Aluminium	Vanadium	Chromium	Chromium	Manganese	Cobalt
Isotope	Be 9	Al 27	V 51	Cr 52	Cr 53	Mn 55	Co 59
Detector	PC	PC	PC	PC	PC	PC	PC
Run 1	4.784	195.2	49.00	19.31	19.30	49.04	49.61
Run 2	4.847	198.0	49.55	19.29	19.30	49.26	50.37
Run 3	4.831	196.4	48.77	19.25	19.24	48.95	47.30
Mean	4.821	196.5	49.11	19.28	19.29	49.08	49.09
Std Dev	0.0324	1.393	0.4020	0.0294	0.0303	0.1576	1.599
%SD	0.6723	0.7087	0.8186	0.1524	0.1570	0.3211	3.257

Element	Nickel	Nickel	Copper	Copper	Zinc	Zinc
Isotope	Ni 60	Ni 62	Cu 63	Cu 65	Zn 66	Zn 67
Detector	PC	PC	PC	PC	PC	PC
Run 1	48.69	48.42	24.04	24.19	47.80	55.14
Run 2	48.82	48.42	24.17	23.82	50.11	54.07
Run 3	49.73	49.86	23.94	23.81	48.58	54.13
Mean	49.08	48.90	24.05	23.94	48.83	54.45
Std Dev	0.5692	0.8320	0.1141	0.2092	1.176	0.6025
%SD	1.160	1.701	0.4743	0.8740	2.409	1.107

ICV-1

Element	Zinc	Arsenic	Selenium	Selenium	Selenium	Molybdenum
Isotope	Zn 68	As 75	Se 77	Se 78	Se 82	Mo 95
Detector	PC	PC	PC	PC	PC	PC
Run 1	52.53	47.76	46.42	50.01	46.31	47.24
Run 2	51.22	50.12	51.00	51.03	51.04	49.76
Run 3	51.09	47.95	49.21	50.56	49.13	48.44
Mean	51.62	48.61	48.88	50.53	48.83	48.48
Std Dev	0.7957	1.314	2.310	0.5097	2.384	1.264
%SD	1.543	2.703	4.727	1.009	4.883	2.608

Element	Molybdenum	Molybdenum	Ruthenium	Ruthenium	Ruthenium	Rhodium
Isotope	Mo 97	Mo 98	Ru 99	Ru 101	Ru 102	Rh 103
Detector	PC	PC	PC	PC	PC	PC
Run 1	46.10	47.12	0.0580	0.0342	0.0317	0.0138
Run 2	49.15	47.46	0.0291	0.0281	0.0292	0.0047
Run 3	46.90	48.23	0.0294	0.0261	0.0243	0.0023
Mean	47.38	47.61	0.0385	0.0295	0.0284	0.0069
Std Dev	1.581	0.5686	0.0169	0.0042	0.0037	0.0060
%SD	3.336	1.194	43.96	14.35	13.16	87.21

Element	Palladium	Palladium	Silver	Silver	Cadmium	Cadmium

00559

Element	Palladium	Palladium	Silver	Silver	Cadmium	Cadmium
Isotope	Pd 104	Pd 105	Ag 107	Ag 109	Cd 111	Cd 112
Detector	PC	PC	PC	PC	PC	PC
Isotope	Pd 104	Pd 105	Ag 107	Ag 109	Cd 111	Cd 112
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.0582	0.0994	26.51	27.38	24.50	22.91
Run 2	0.0386	-0.0320	26.87	27.77	24.46	23.99
Run 3	0.0309	0.0263	26.84	27.39	24.29	23.51
Mean	0.0426	0.0309	26.74	27.51	24.42	23.47
Std Dev	0.0140	0.0653	0.2007	0.2226	0.1091	0.5447
%SD	32.97	211.6	0.7508	0.8090	0.4426	2.321

Element	Tin	Cadmium	Tin	Tin	Tin	Antimony
Isotope	Sn 114	Cd 114	Sn 117	Sn 118	Sn 120	Sb 121
Detector	PC	PC	PC	PC	PC	PC
Run 1	23.74	23.74	26.38	25.22	25.04	46.77
Run 2	24.00	24.00	25.16	26.35	23.30	48.44
Run 3	23.39	23.39	25.80	24.30	22.75	47.96
Mean	23.71	23.71	25.78	25.29	23.70	47.72
Std Dev	0.3086	0.3086	0.6112	1.027	1.196	0.8610
%SD	1.302	1.302	2.371	4.061	5.046	1.804

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Element	Tin	Antimony	Barium	Barium	Barium	Rhenium
Isotope	Sn 122	Sb 123	Ba 135	Ba 137	Ba 138	Re 185
Detector	PC	PC	PC	PC	PC	PC
Run 1	22.80	46.99	190.6	192.4	193.1	0.0188
Run 2	25.88	50.07	197.6	195.6	193.4	0.0048
Run 3	24.31	48.20	194.2	194.8	190.6	0.0017
Mean	24.33	48.42	194.2	194.3	192.4	0.0084
Std Dev	1.543	1.549	3.513	1.681	1.514	0.0091
%SD	6.342	3.199	1.809	0.8652	0.7871	107.7

Element	Rhenium	Osmium	Osmium	Osmium	Iridium	Iridium
Isotope	Re 187	Os 188	Os 189	Os 190	Ir 191	Ir 193
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.0256	0.4476	0.4806	0.4734	0.1056	0.0640
Run 2	0.0067	0.1431	0.1453	0.1375	0.0767	0.0365
Run 3	0.0038	0.0612	0.0605	0.0668	0.0672	0.0240
Mean	0.0120	0.2173	0.2299	0.2259	0.0832	0.0415
Std Dev	0.0118	0.2036	0.2221	0.2172	0.0200	0.0205
%SD	98.35	93.71	97.01	96.17	24.07	49.30

Element	Platinum	Platinum	Platinum	Gold	Thallium	Thallium
Isotope	Pt 194	Pt 195	Pt 196	Au 197	Tl 203	Tl 205
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.0303	0.0367	0.0349	0.2760	48.60	47.87
Run 2	0.0163	0.0110	0.0085	0.1647	49.40	49.67
Run 3	0.0094	0.0004	-0.0020	0.1030	49.03	48.57
Mean	0.0187	0.0160	0.0138	0.1813	49.01	48.71
Std Dev	0.0107	0.0187	0.0190	0.0877	0.3994	0.9072
%SD	57.08	116.5	137.7	48.38	0.8150	1.863

Element	Lead	Lead	Lead

Element	Lead	Lead	Lead
Isotope	Pb 206	Pb 207	Pb 208
Detector	PC	PC	PC
Isotope	Pb 206	Pb 207	Pb 208
Detector	PC	PC	PC
Run 1	48.95	47.84	48.02
Run 2	50.16	50.02	49.30

Std Dev	0.7977	1.189	0.7599
%SD	1.620	2.359	1.569

Internal Standard Drift; % relative to mean of first sample :

Element	Scandium	Yttrium	Bismuth
Isotope	Sc 45	Y 89	Bi 209
Detector	PC	PC	PC
Run 1	96.12	98.48	98.91
Run 2	94.39	94.13	96.01
Run 3	93.87	95.47	97.54
Mean	94.79	96.03	97.49
Std Dev	1.179	2.228	1.454

Multi-Element Concentrations Fri May 30 1997
Statistics for Concentration Determination.
Analysis procedure : 200.8

Sample name : 3

First repeat started at : Fri May 30 1997 11:31:18

Last repeat started at : Fri May 30 1997 11:33:28

Interference Equations : DEFAULT

Dilution Factor : 1.0000 Concentration units : ppb

Element	Beryllium	Aluminium	Vanadium	Chromium	Chromium	Manganese	Cobalt
Isotope	Be 9	Al 27	V 51	Cr 52	Cr 53	Mn 55	Co 59
Detector	PC	PC	PC	PC	PC	PC	PC
Run 1	0.0037	0.2921	-0.0039	0.0233	0.0233	0.0388	0.0270
Run 2	0.0034	0.2408	0.0250	0.0135	0.0135	0.0242	0.0144
Run 3	0.0011	0.2194	0.0336	-0.0003	-0.0004	0.0225	0.0055
Mean	0.0027	0.2508	0.0185	0.0122	0.0121	0.0285	0.0156
Std Dev	0.0014	0.0374	0.0191	0.0119	0.0119	0.0090	0.0108
%SD	50.70	14.90	103.3	97.41	98.12	31.46	68.90

Element	Nickel	Nickel	Copper	Copper	Zinc	Zinc
Isotope	Ni 60	Ni 62	Cu 63	Cu 65	Zn 66	Zn 67
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.0955	0.1145	0.0876	0.1020	0.1797	0.2944
Run 2	0.0811	0.1676	0.0871	0.0780	0.1321	0.2842
Run 3	0.0755	0.2619	0.0920	0.0782	0.1665	0.2037
Mean	0.0840	0.1747	0.0889	0.0861	0.1594	0.2574
Std Dev	0.0103	0.0640	0.0027	0.0138	0.0246	0.0465
%SD	12.24	36.65	3.066	16.00	15.43	18.06

Element	Zinc	Arsenic	Selenium	Selenium	Selenium	Molybdenum
Isotope	Zn 68	As 75	Se 77	Se 78	Se 82	Mo 95
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.1881	-0.0226	-0.0942	0.3554	-0.0972	0.4107
Run 2	0.1723	0.0119	0.0033	-0.3909	0.0023	0.1909
Run 3	0.1500	-0.0241	0.0531	0.6054	0.0471	0.1126
Mean	0.1701	-0.0116	-0.0126	0.1900	-0.0159	0.2381
Std Dev	0.0192	0.0204	0.0749	0.5184	0.0739	0.1548
%SD	11.26	175.5	594.9	272.8	464.1	64.92

Element	Molybdenum	Molybdenum	Ruthenium	Ruthenium	Ruthenium	Rhodium
Isotope	Mo 97	Mo 98	Ru 99	Ru 101	Ru 102	Rh 103
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.4078	2.354	24.68	25.99	25.18	25.05
Run 2	0.1823	2.187	24.36	25.49	25.59	25.45
Run 3	0.0988	2.100	24.89	25.26	24.51	24.83
Mean	0.2296	2.214	24.64	25.58	25.09	25.11
Std Dev	0.1598	0.1291	0.2668	0.3699	0.5472	0.3123
%SD	69.62	5.834	1.083	1.446	2.180	1.244

Element	Palladium	Palladium	Silver	Silver	Cadmium	Cadmium

00562

Element	Palladium	Palladium	Silver	Silver	Cadmium	Cadmium
Isotope	Pd 104	Pd 105	Ag 107	Ag 109	Cd 111	Cd 112
Detector	PC	PC	PC	PC	PC	PC
Isotope	Pd 104	Pd 105	Ag 107	Ag 109	Cd 111	Cd 112
Detector	PC	PC	PC	PC	PC	PC
Run 1	25.65	25.90	0.1234	0.1239	0.0102	0.0156
Run 2	24.24	24.72	0.0530	0.0525	0.0126	0.0191
Run 3	24.53	24.64	0.0302	0.0307	0.0097	0.0081
Mean	24.81	25.09	0.0706	0.0690	0.0108	0.0143
Std Dev	0.7411	0.7062	0.0514	0.0488	0.0015	0.0057
%SD	2.987	2.815	72.85	70.67	14.31	39.69

Element	Tin	Cadmium	Tin	Tin	Tin	Antimony
Isotope	Sn 114	Cd 114	Sn 117	Sn 118	Sn 120	Sb 121
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.0213	0.0213	0.0548	0.0508	0.0323	0.2937
Run 2	0.0148	0.0148	0.0489	0.0259	0.0088	0.2027
Run 3	0.0097	0.0097	0.0406	0.0442	0.0038	0.1443
Mean	0.0153	0.0153	0.0481	0.0403	0.0150	0.2135
Std Dev	0.0058	0.0058	0.0071	0.0129	0.0152	0.0753
%SD	38.04	38.04	14.75	32.11	101.5	35.26

Element	Tin	Antimony	Barium	Barium	Barium	Rhenium
Isotope	Sn 122	Sb 123	Ba 135	Ba 137	Ba 138	Re 185
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.0343	0.2819	0.1003	0.1177	0.0963	25.12
Run 2	0.0669	0.1740	0.0590	0.0482	0.0439	24.77
Run 3	0.0472	0.1410	0.0335	0.0298	0.0225	24.79
Mean	0.0495	0.1990	0.0643	0.0652	0.0542	25.22
Std Dev	0.0164	0.0737	0.0337	0.0463	0.0380	0.7744
%SD	33.17	37.04	52.40	71.03	70.07	3.070

Element	Rhenium	Osmium	Osmium	Osmium	Iridium	Iridium
Isotope	Re 187	Os 188	Os 189	Os 190	Ir 191	Ir 193
Detector	PC	PC	PC	PC	PC	PC
Run 1	25.37	25.24	25.07	24.37	25.90	26.33
Run 2	24.90	24.96	24.51	24.51	24.75	24.88
Run 3	24.90	25.20	25.99	25.14	25.38	25.16
Mean	25.06	25.13	25.19	24.67	25.34	25.46
Std Dev	0.2700	0.1503	0.7500	0.4107	0.5786	0.7680
%SD	1.077	0.5982	2.977	1.665	2.283	3.016

Element	Platinum	Platinum	Platinum	Gold	Thallium	Thallium
Isotope	Pt 194	Pt 195	Pt 196	Au 197	Tl 203	Tl 205
Detector	PC	PC	PC	PC	PC	PC
Run 1	26.04	25.07	25.46	26.11	0.1552	0.0523
Run 2	25.76	24.75	24.54	24.46	0.1182	0.0329
Run 3	25.41	25.00	24.61	24.93	0.1092	0.0260
Mean	25.74	24.94	24.87	25.17	0.1275	0.0371
Std Dev	0.3162	0.1676	0.5109	0.8474	0.0244	0.0136
%SD	1.229	0.6722	2.054	3.367	19.11	36.77

Element	Lead	Lead	Lead
Isotope	Pb 206	Pb 207	Pb 208
Detector	PC	PC	PC
Isotope	Pb 206	Pb 207	Pb 208
Detector	PC	PC	PC
Run 1	0.2152	0.1804	0.2054
Run 2	0.2113	0.1421	0.1790

CCV-1

00563

Std Dev	0.0024	0.0219	0.0167
%SD	1.109	14.09	8.987

Internal Standard Drift; % relative to mean of first sample :

Element	Scandium	Yttrium	Bismuth
Isotope	Sc 45	Y 89	Bi 209
Detector	PC	PC	PC
Run 1	94.58	95.61	95.12
Run 2	94.95	95.30	99.09
Run 3	95.21	97.16	97.66
Mean	94.91	96.02	97.29
Std Dev	0.3169	0.9984	2.006

Multi-Element Concentrations Fri May 30 1997
Statistics for Concentration Determination.
Analysis procedure : 200.8

Sample name : 4

First repeat started at : Fri May 30 1997 11:35:31

Last repeat started at : Fri May 30 1997 11:37:41

Interference Equations : DEFAULT

Dilution Factor : 1.0000 Concentration units : ppb

Element	Beryllium	Aluminium	Vanadium	Chromium	Chromium	Manganese	Cobalt
Isotope	Be 9	Al 27	V 51	Cr 52	Cr 53	Mn 55	Co 59
Detector	PC	PC	PC	PC	PC	PC	PC
Run 1	25.99	26.17	25.00	25.70	25.69	24.44	24.52
Run 2	24.87	25.23	24.31	24.77	24.78	24.72	25.07
Run 3	25.37	25.29	24.55	24.58	24.59	25.05	25.09
Mean	25.41	25.56	24.62	25.02	25.02	24.73	24.89
Std Dev	0.5596	0.5299	0.3521	0.6026	0.5906	0.3051	0.3205
%SD	2.202	2.073	1.430	2.409	2.360	1.233	1.287

Element	Nickel	Nickel	Copper	Copper	Zinc	Zinc
Isotope	Ni 60	Ni 62	Cu 63	Cu 65	Zn 66	Zn 67
Detector	PC	PC	PC	PC	PC	PC
Run 1	25.55	24.18	24.58	24.42	25.41	24.29
Run 2	25.32	25.40	24.31	25.17	25.46	25.16
Run 3	25.34	24.84	24.94	24.31	25.19	25.38
Mean	25.40	24.81	24.61	24.63	25.35	24.94
Std Dev	0.1262	0.6090	0.3133	0.4681	0.1534	0.5759
%SD	0.4968	2.455	1.273	1.900	0.6050	2.309

Element	Zinc	Arsenic	Selenium	Selenium	Selenium	Molybdenum
Isotope	Zn 68	As 75	Se 77	Se 78	Se 82	Mo 95
Detector	PC	PC	PC	PC	PC	PC
Run 1	24.99	25.43	24.86	26.03	24.80	24.46
Run 2	24.80	25.62	25.39	28.01	25.48	25.82
Run 3	24.53	25.42	26.16	26.02	26.20	24.85
Mean	24.80	25.49	25.47	26.69	25.50	25.04
Std Dev	0.2382	0.1126	0.6524	1.148	0.6986	0.7032
%SD	0.9604	0.4417	2.561	4.302	2.740	2.808

Element	Molybdenum	Molybdenum	Ruthenium	Ruthenium	Ruthenium	Rhodium
Isotope	Mo 97	Mo 98	Ru 99	Ru 101	Ru 102	Rh 103
Detector	PC	PC	PC	PC	PC	PC
Run 1	23.58	23.21	0.0678	0.0657	0.0655	0.0114
Run 2	25.26	24.78	0.0355	0.0326	0.0356	0.0059
Run 3	24.83	25.22	0.0385	0.0312	0.0230	0.0022
Mean	24.55	24.40	0.0473	0.0432	0.0414	0.0064
Std Dev	0.8739	1.058	0.0178	0.0195	0.0218	0.0046
%SD	3.559	4.337	37.75	45.23	52.66	71.96

Element	Palladium	Palladium	Silver	Silver	Cadmium	Cadmium

00565

Element	Palladium	Palladium	Silver	Silver	Cadmium	Cadmium
Isotope	Pd 104	Pd 105	Ag 107	Ag 109	Cd 111	Cd 112
Detector	PC	PC	PC	PC	PC	PC
Isotope	Pd 104	Pd 105	Ag 107	Ag 109	Cd 111	Cd 112
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.0548	0.0249	24.98	24.55	24.64	24.49
Run 2	0.0327	-0.1131	24.97	25.50	25.97	26.00
Run 3	0.0240	0.1133	25.44	25.22	25.11	24.03
Mean	0.0372	0.0084	25.13	25.09	25.24	24.84
Std Dev	0.0159	0.1141	0.2666	0.4859	0.6761	1.032
%SD	42.66	1366	1.061	1.936	2.678	4.154

Element	Tin	Cadmium	Tin	Tin	Tin	Antimony
Isotope	Sn 114	Cd 114	Sn 117	Sn 118	Sn 120	Sb 121
Detector	PC	PC	PC	PC	PC	PC
Run 1	24.16	24.16	26.46	26.12	24.84	24.38
Run 2	24.93	24.93	25.28	26.05	24.63	25.68
Run 3	24.59	24.59	24.17	25.54	24.38	24.84
Mean	24.56	24.56	25.30	25.90	24.62	24.96
Std Dev	0.3891	0.3891	1.145	0.3142	0.2332	0.6600
%SD	1.584	1.584	4.526	1.213	0.9474	2.644

Element	Tin	Antimony	Barium	Barium	Barium	Rhenium
Isotope	Sn 122	Sb 123	Ba 135	Ba 137	Ba 138	Re 185
Detector	PC	PC	PC	PC	PC	PC
Run 1	23.32	24.23	24.46	24.67	24.68	0.0117
Run 2	24.29	24.93	25.38	25.74	24.67	0.0067
Run 3	24.65	25.23	24.69	25.00	24.53	0.0009
Mean	24.09	24.79	24.84	25.14	24.63	0.0064
Std Dev	0.6894	0.5148	0.4789	0.5520	0.0809	0.0054
%SD	2.862	2.076	1.928	2.196	0.3286	85.13

Element	Rhenium	Osmium	Osmium	Osmium	Iridium	Iridium
Isotope	Re 187	Os 188	Os 189	Os 190	Ir 191	Ir 193
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.0250	0.6174	0.6581	0.6617	0.0592	0.0588
Run 2	0.0107	0.2508	0.2578	0.2482	0.0472	0.0268
Run 3	0.0059	0.1478	0.1380	0.1299	0.0087	0.0196
Mean	0.0139	0.3387	0.3513	0.3466	0.0383	0.0350
Std Dev	0.0100	0.2468	0.2723	0.2792	0.0264	0.0205
%SD	71.93	72.87	77.53	80.57	68.76	57.38

Element	Platinum	Platinum	Platinum	Gold	Thallium	Thallium
Isotope	Pt 194	Pt 195	Pt 196	Au 197	Tl 203	Tl 205
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.0348	0.0323	0.0299	0.1678	25.12	25.86
Run 2	0.0084	0.0106	0.0148	0.0791	25.93	25.09
Run 3	0.0025	0.0043	0.0034	0.0493	25.12	24.73
Mean	0.0152	0.0157	0.0160	0.0987	25.41	25.23
Std Dev	0.0172	0.0147	0.0133	0.0617	0.4479	0.5792
%SD	113.1	93.61	83.10	62.45	1.762	2.296

Element	Lead	Lead	Lead
Isotope	Pb 206	Pb 207	Pb 208
Detector	PC	PC	PC
Isotope	Pb 206	Pb 207	Pb 208
Detector	PC	PC	PC
Run 1	25.81	25.26	25.09
Run 2	24.03	25.76	25.50

CV-1

00566

Mean	15.08	13.99	13.22
Std Dev	0.1522	0.2766	0.3250
%SD	0.5896	1.087	1.288

Internal Standard Drift; % relative to mean of first sample :

Element	Scandium	Yttrium	Bismuth
Isotope	Sc 45	Y 89	Bi 209
Detector	PC	PC	PC
Run 1	96.12	98.21	95.51
Run 2	97.51	95.09	93.99
Run 3	97.47	96.56	96.55
Mean	97.03	96.61	95.35
Std Dev	0.7938	1.561	1.299

Multi-Element Concentrations Fri May 30 1997

Statistics for Concentration Determination.

Analysis procedure : 200.8

Sample name : 5

First repeat started at : Fri May 30 1997 11:45:57

Last repeat started at : Fri May 30 1997 11:48:06

Interference Equations : DEFAULT

Dilution Factor : 1.0000 Concentration units : ppb

Element	Beryllium	Aluminium	Vanadium	Chromium	Chromium	Manganese	Cobalt
Isotope	Be 9	Al 27	V 51	Cr 52	Cr 53	Mn 55	Co 59
Detector	PC	PC	PC	PC	PC	PC	PC
Run 1	-0.0007	0.0061	-0.0082	-0.0044	-0.0044	0.0023	0.0007
Run 2	0.0013	0.0087	-0.0077	0.0044	0.0044	0.0036	0.0001
Run 3	-0.0001	0.0124	0.0049	0.0088	0.0087	0.0035	0.0012
Mean	0.0002	0.0091	-0.0037	0.0029	0.0029	0.0032	0.0007
Std Dev	0.0010	0.0032	0.0074	0.0068	0.0067	0.0007	0.0005
%SD	592.0	34.87	199.0	231.2	228.1	22.77	83.22

Element	Nickel	Nickel	Copper	Copper	Zinc	Zinc
Isotope	Ni 60	Ni 62	Cu 63	Cu 65	Zn 66	Zn 67
Detector	PC	PC	PC	PC	PC	PC
Run 1	-0.0025	0.0996	0.0011	0.0022	-0.0089	-0.0077
Run 2	-0.0038	0.2656	-0.0054	0.0094	-0.0108	-0.0168
Run 3	-0.0045	-0.0659	-0.0027	0.0037	0.0018	-0.0063
Mean	-0.0036	0.0998	-0.0023	0.0051	-0.0060	-0.0103
Std Dev	0.0010	0.1657	0.0033	0.0038	0.0068	0.0057
%SD	28.12	166.0	140.2	75.32	113.9	55.71

CCB-1

Element	Zinc	Arsenic	Selenium	Selenium	Selenium	Molybdenum
Isotope	Zn 68	As 75	Se 77	Se 78	Se 82	Mo 95
Detector	PC	PC	PC	PC	PC	PC
Run 1	-0.0222	-0.0287	-0.1211	-0.0237	-0.1169	0.0142
Run 2	-0.0125	-0.0119	-0.0803	0.0396	-0.0785	0.0059
Run 3	-0.0038	-0.0699	-0.2679	-0.2403	-0.2725	0.0005
Mean	-0.0129	-0.0369	-0.1564	-0.0748	-0.1560	0.0069
Std Dev	0.0092	0.0299	0.0986	0.1468	0.1027	0.0069
%SD	71.60	81.04	63.03	196.2	65.86	100.3

Element	Molybdenum	Molybdenum	Ruthenium	Ruthenium	Ruthenium	Rhodium
Isotope	Mo 97	Mo 98	Ru 99	Ru 101	Ru 102	Rh 103
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.0140	0.0189	0.0136	0.0110	0.0061	0.0001
Run 2	0.0046	0.0209	0.0092	0.0055	0.0110	0.0001
Run 3	0.0081	0.0076	0.0023	0.0028	0.0049	0.0001
Mean	0.0089	0.0158	0.0083	0.0064	0.0073	0.0001
Std Dev	0.0048	0.0072	0.0057	0.0042	0.0033	0.0000
%SD	53.65	45.40	68.29	65.12	44.51	46.05

00568

Element	Palladium	Palladium	Silver	Silver	Cadmium	Cadmium

Element	Palladium	Palladium	Silver	Silver	Cadmium	Cadmium
Isotope	Pd 104	Pd 105	Ag 107	Ag 109	Cd 111	Cd 112
Detector	PC	PC	PC	PC	PC	PC
Isotope	Pd 104	Pd 105	Ag 107	Ag 109	Cd 111	Cd 112
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.0102	-0.0896	0.0014	0.0050	-0.0077	0.0008
Run 2	0.0092	-0.1545	0.0023	0.0020	0.0002	0.0004
Run 3	0.0097	-0.0366	0.0004	0.0005	-0.0001	-0.0012
Mean	0.0097	-0.0936	0.0014	0.0025	-0.0025	0.0000
Std Dev	0.0005	0.0591	0.0009	0.0023	0.0044	0.0010
%SD	5.110	63.13	68.67	91.52	174.6	4436

CCB-1

Element	Tin	Cadmium	Tin	Tin	Tin	Antimony
Isotope	Sn 114	Cd 114	Sn 117	Sn 118	Sn 120	Sb 121
Detector	PC	PC	PC	PC	PC	PC
Run 1	-0.0001	-0.0001	0.0262	0.0029	-0.0243	0.0119
Run 2	0.0009	0.0009	0.0043	0.0079	0.0137	0.0106
Run 3	0.0016	0.0016	0.0088	0.0059	-0.0222	0.0103
Mean	0.0008	0.0008	0.0131	0.0055	-0.0110	0.0109
Std Dev	0.0009	0.0009	0.0116	0.0025	0.0214	0.0009
%SD	107.3	107.3	88.28	45.25	194.9	7.940

Element	Tin	Antimony	Barium	Barium	Barium	Rhenium
Isotope	Sn 122	Sb 123	Ba 135	Ba 137	Ba 138	Re 185
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.0114	0.0072	0.0073	0.0047	0.0009	0.0001
Run 2	0.0136	0.0060	-0.0046	0.0053	-0.0001	-0.0003
Run 3	-0.0043	0.0025	0.0010	-0.0011	0.0005	-0.0000
Mean	0.0069	0.0052	0.0012	0.0030	0.0004	-0.0001
Std Dev	0.0098	0.0024	0.0060	0.0036	0.0005	0.0002
%SD	141.8	46.33	490.6	120.6	108.0	286.5

Element	Rhenium	Osmium	Osmium	Osmium	Iridium	Iridium
Isotope	Re 187	Os 188	Os 189	Os 190	Ir 191	Ir 193
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.0029	0.0764	0.0697	0.0780	0.0134	-0.0014
Run 2	0.0016	0.0692	0.0461	0.0437	0.0095	-0.0005
Run 3	0.0005	0.0399	0.0446	0.0521	0.0252	0.0024
Mean	0.0017	0.0618	0.0535	0.0579	0.0160	0.0002
Std Dev	0.0012	0.0194	0.0141	0.0179	0.0081	0.0020
%SD	71.58	31.38	26.33	30.88	50.53	1131

Element	Platinum	Platinum	Platinum	Gold	Thallium	Thallium
Isotope	Pt 194	Pt 195	Pt 196	Au 197	Tl 203	Tl 205
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.0058	-0.0012	0.0053	0.0055	-0.0006	-0.0007
Run 2	0.0032	0.0007	0.0013	0.0040	-0.0004	-0.0004
Run 3	-0.0008	-0.0020	-0.0014	0.0039	-0.0002	-0.0006
Mean	0.0029	-0.0008	0.0017	0.0045	-0.0004	-0.0005
Std Dev	0.0033	0.0014	0.0034	0.0009	0.0002	0.0002
%SD	120.4	184.6	196.6	20.88	58.66	31.33

Element	Lead	Lead	Lead
Isotope	Pb 206	Pb 207	Pb 208
Detector	PC	PC	PC
Isotope	Pb 206	Pb 207	Pb 208
Detector	PC	PC	PC
Run 1	-0.0002	0.0025	0.0013
Run 2	0.0017	0.0034	-0.0002

Std Dev	0.0010	0.0020	0.0019
%SD	149.3	112.8	466.5

Internal Standard Drift: % relative to mean of first sample :

Element	Scandium	Yttrium	Bismuth
Isotope	^{45}Sc 45	Y 89	Bi 209
Detector	PC	PC	PC
Run 1	99.40	96.91	97.57
Run 2	97.99	97.35	98.28
Run 3	97.39	99.13	99.11
Mean	97.92	97.80	98.32
Std Dev	0.5162	1.179	0.7745

Multi-Element Concentrations Fri May 30 1997
Statistics for Concentration Determination.
Analysis procedure : 200.8

Sample name : 6

First repeat started at : Fri May 30 1997 11:51:01

Last repeat started at : Fri May 30 1997 11:53:11

Interference Equations : DEFAULT

Dilution Factor : 1.0000 Concentration units : ppb

Element	Beryllium	Aluminium	Vanadium	Chromium	Chromium	Manganese	Cobalt
Isotope	Be 9	Al 27	V 51	Cr 52	Cr 53	Mn 55	Co 59
Detector	PC	PC	PC	PC	PC	PC	PC
Run 1	-0.0010	-0.0247	0.0092	-0.0037	-0.0036	0.0008	0.0002
Run 2	0.0014	-0.0204	0.0014	0.0105	0.0106	-0.0002	0.0007
Run 3	-0.0032	-0.0223	0.0175	0.0029	0.0029	-0.0004	-0.0004
Mean	-0.0009	-0.0224	0.0094	0.0032	0.0033	0.0001	0.0002
Std Dev	0.0023	0.0021	0.0080	0.0071	0.0071	0.0006	0.0005
%SD	249.4	9.572	85.53	220.3	217.2	904.0	321.5

Element	Nickel	Nickel	Copper	Copper	Zinc	Zinc
Isotope	Ni 60	Ni 62	Cu 63	Cu 65	Zn 66	Zn 67
Detector	PC	PC	PC	PC	PC	PC
Run 1	-0.0169	-0.1901	-0.0164	-0.0191	-0.0473	-0.0576
Run 2	-0.0053	-0.0388	-0.0172	-0.0160	-0.0552	-0.0731
Run 3	-0.0183	0.0147	-0.0224	-0.0129	-0.0489	-0.0419
Mean	-0.0134	-0.0714	-0.0187	-0.0160	-0.0504	-0.0641
Std Dev	0.0071	0.1063	0.0032	0.0032	0.0042	0.0080
%SD	52.98	148.8	17.33	19.69	8.293	12.51

Element	Zinc	Arsenic	Selenium	Selenium	Selenium	Molybdenum
Isotope	Zn 68	As 75	Se 77	Se 78	Se 82	Mo 95
Detector	PC	PC	PC	PC	PC	PC
Run 1	-0.0647	-0.0465	-0.2313	0.2620	-0.2284	0.0063
Run 2	-0.0614	0.0093	0.0518	0.5471	0.0566	-0.0045
Run 3	-0.0646	0.0692	0.2554	0.5634	0.2569	-0.0040
Mean	-0.0636	0.0107	0.0253	0.4575	0.0283	-0.0007
Std Dev	0.0019	0.0579	0.2444	0.1695	0.2438	0.0061
%SD	2.915	541.9	966.0	37.04	861.0	821.6

Element	Molybdenum	Molybdenum	Ruthenium	Ruthenium	Ruthenium	Rhodium
Isotope	Mo 97	Mo 98	Ru 99	Ru 101	Ru 102	Rh 103
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.0042	0.0077	0.0152	0.0078	0.0142	0.0003
Run 2	-0.0040	0.0042	0.0148	0.0078	0.0139	-0.0004
Run 3	0.0025	0.0070	0.0168	0.0160	0.0112	-0.0008
Mean	0.0009	0.0063	0.0156	0.0105	0.0131	-0.0003
Std Dev	0.0043	0.0019	0.0010	0.0047	0.0016	0.0005
%SD	497.4	29.32	6.677	44.85	12.51	155.5

Element	Palladium	Palladium	Silver	Silver	Cadmium	Cadmium

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Element	Palladium	Palladium	Silver	Silver	Cadmium	Cadmium
Isotope	Pd 104	Pd 105	Ag 107	Ag 109	Cd 111	Cd 112
Detector	PC	PC	PC	PC	PC	PC
Isotope	Pd 104	Pd 105	Ag 107	Ag 109	Cd 111	Cd 112
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.0107	-0.0249	-0.0037	-0.0037	-0.0031	-0.0022
Run 2	0.0136	-0.1236	-0.0036	-0.0029	-0.0033	-0.0010
Run 3	0.0102	-0.1145	-0.0054	-0.0049	-0.0039	0.0002
Mean	0.0115	-0.0877	-0.0043	-0.0038	-0.0034	-0.0010
Std Dev	0.0018	0.0545	0.0010	0.0009	0.0004	0.0012
%SD	15.91	62.21	24.05	24.83	10.47	118.5

Element	Tin	Cadmium	Tin	Tin	Tin	Antimony
Isotope	Sn 114	Cd 114	Sn 117	Sn 118	Sn 120	Sb 121
Detector	PC	PC	PC	PC	PC	PC
Run 1	-0.0007	-0.0007	0.0054	0.0023	-0.0322	0.0064
Run 2	-0.0011	-0.0011	-0.0199	0.0023	-0.0325	0.0048
Run 3	0.0014	0.0014	0.0131	-0.0052	-0.0251	0.0037
Mean	-0.0001	-0.0001	-0.0005	-0.0002	-0.0303	0.0050
Std Dev	0.0013	0.0013	0.0173	0.0043	0.0036	0.0014
%SD	1046	1046	3567	1898	11.86	27.33

Element	Tin	Antimony	Barium	Barium	Barium	Rhenium
Isotope	Sn 122	Sb 123	Ba 135	Ba 137	Ba 138	Re 185
Detector	PC	PC	PC	PC	PC	PC
Run 1	-0.0116	0.0036	-0.0051	-0.0001	-0.0036	0.0000
Run 2	0.0012	0.0025	-0.0026	0.0024	-0.0029	0.0001
Run 3	0.0090	0.0013	-0.0040	-0.0007	-0.0041	-0.0004
Mean	-0.0008	0.0025	-0.0039	0.0005	-0.0035	-0.0001
Std Dev	0.0100	0.0011	0.0012	0.0016	0.0006	0.0002
%SD	1252	46.09	31.51	311.4	18.12	354.0

Element	Rhenium	Osmium	Osmium	Osmium	Iridium	Iridium
Isotope	Re 187	Os 188	Os 189	Os 190	Ir 191	Ir 193
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.0001	0.0072	-0.0079	-0.0004	0.0444	-0.0012
Run 2	-0.0004	-0.0078	-0.0102	-0.0098	0.0161	-0.0013
Run 3	0.0005	-0.0131	-0.0262	-0.0170	0.0432	-0.0018
Mean	0.0001	-0.0046	-0.0148	-0.0090	0.0346	-0.0014
Std Dev	0.0005	0.0105	0.0099	0.0083	0.0160	0.0003
%SD	622.1	229.5	67.37	92.23	46.30	23.79

Element	Platinum	Platinum	Platinum	Gold	Thallium	Thallium
Isotope	Pt 194	Pt 195	Pt 196	Au 197	Tl 203	Tl 205
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.0004	-0.0019	-0.0016	0.0035	0.0005	0.0002
Run 2	-0.0041	-0.0055	-0.0030	0.0055	0.0009	-0.0004
Run 3	-0.0007	-0.0004	-0.0024	0.0010	-0.0016	-0.0005
Mean	-0.0015	-0.0026	-0.0023	0.0034	-0.0001	-0.0002
Std Dev	0.0024	0.0026	0.0007	0.0023	0.0013	0.0004
%SD	158.9	103.1	31.21	67.14	2219	147.5

Element	Lead	Lead	Lead

Element	Lead	Lead	Lead
Isotope	Pb 206	Pb 207	Pb 208
Detector	PC	PC	PC
Isotope	Pb 206	Pb 207	Pb 208
Detector	PC	PC	PC
Run 1	-0.0003	-0.0039	-0.0039
Run 2	-0.0019	-0.0022	-0.0042

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00572

Mean	-0.0033	-0.0006	-0.0042
Std Dev	0.0039	0.0010	0.0003
%SD	117.1	30.47	5.315

Internal Standard Drift: % relative to mean of first sample :

Element	Scandium	Yttrium	Bismuth
Isotope	Sc 45	Y 89	Bi 209
Detector	PC	PC	PC
Run 1	97.39	96.32	96.19
Run 2	99.13	97.54	97.57
Run 3	97.53	97.15	98.05
Mean	98.01	97.00	97.57
Std Dev	0.9679	0.6239	1.378

Multi-Element Concentrations Fri May 30 1997
Statistics for Concentration Determination.
Analysis procedure : 200.8

Sample name : Z

First repeat started at : Fri May 30 1997 11:57:01

Last repeat started at : Fri May 30 1997 11:59:12

Interference Equations : DEFAULT

Dilution Factor : 1.0000 Concentration units : ppb

Element	Beryllium	Aluminium	Vanadium	Chromium	Chromium	Manganese	Cobalt
Isotope	Be 9	Al 27	V 51	Cr 52	Cr 53	Mn 55	Co 59
Detector	PC	PC	PC	PC	PC	PC	PC
Run 1	0.0005	4.801	0.0101	0.0312	0.0312	0.0469	0.0030
Run 2	0.0005	4.847	0.0086	0.0382	0.0383	0.0437	0.0031
Run 3	-0.0025	4.855	0.0149	0.0474	0.0474	0.0461	0.0059
Mean	-0.0005	4.834	0.0112	0.0390	0.0390	0.0456	0.0040
Std Dev	0.0018	0.0290	0.0033	0.0081	0.0081	0.0017	0.0015
%SD	367.8	0.6000	29.27	20.83	20.79	3.718	39.77

Element	Nickel	Nickel	Copper	Copper	Zinc	Zinc
Isotope	Ni 60	Ni 62	Cu 63	Cu 65	Zn 66	Zn 67
Detector	PC	PC	PC	PC	PC	PC
Run 1	-0.0006	0.0806	0.2904	0.2983	0.3805	0.3406
Run 2	-0.0097	-0.0782	0.2874	0.2719	0.3727	0.3145
Run 3	-0.0100	-0.0448	0.2853	0.3193	0.3942	0.3505
Mean	-0.0068	-0.0141	0.2877	0.2965	0.3824	0.3352
Std Dev	0.0054	0.0837	0.0025	0.0239	0.0109	0.0186
%SD	78.77	592.3	0.8777	8.027	2.846	5.553

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Element	Zinc	Arsenic	Selenium	Selenium	Selenium	Molybdenum
Isotope	Zn 68	As 75	Se 77	Se 78	Se 82	Mo 95
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.3836	0.0082	-0.0087	0.4506	-0.0083	0.0043
Run 2	0.3703	-0.0966	-0.4585	0.5059	-0.4574	0.0121
Run 3	0.3913	-0.0100	-0.1822	0.9184	-0.1834	0.0105
Mean	0.3817	-0.0328	-0.2165	0.6250	-0.2164	0.0090
Std Dev	0.0106	0.0560	0.2269	0.2557	0.2263	0.0042
%SD	2.783	170.7	104.8	40.91	104.6	46.36

Element	Molybdenum	Molybdenum	Ruthenium	Ruthenium	Ruthenium	Rhodium
Isotope	Mo 97	Mo 98	Ru 99	Ru 101	Ru 102	Rh 103
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.0176	0.0111	-0.0045	-0.0029	-0.0023	0.0023
Run 2	0.0063	0.0219	-0.0015	-0.0079	-0.0009	0.0035
Run 3	0.0111	0.0164	-0.0026	-0.0036	-0.0033	0.0029
Mean	0.0117	0.0165	-0.0029	-0.0048	-0.0022	0.0029
Std Dev	0.0057	0.0054	0.0015	0.0027	0.0012	0.0006
%SD	48.52	32.57	51.52	57.00	55.10	21.17

00574

Element	Palladium	Palladium	Silver	Silver	Cadmium	Cadmium

Element	Palladium	Palladium	Silver	Silver	Cadmium	Cadmium
Isotope	Pd 104	Pd 105	Ag 107	Ag 109	Cd 111	Cd 112
Detector	PC	PC	PC	PC	PC	PC
Isotope	Pd 104	Pd 105	Ag 107	Ag 109	Cd 111	Cd 112
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.0002	-0.0583	0.0224	0.0235	-0.0022	0.0003
Run 2	-0.0010	-0.0972	0.0282	0.0247	0.0014	-0.0025
Run 3	-0.0023	-0.1924	0.0237	0.0269	0.0002	-0.0001
Mean	-0.0010	-0.1160	0.0248	0.0250	-0.0002	-0.0008
Std Dev	0.0013	0.0691	0.0030	0.0017	0.0018	0.0015
%SD	124.9	59.54	12.28	6.960	1061	195.5

Element	Tin	Cadmium	Tin	Tin	Tin	Antimony
Isotope	Sn 114	Cd 114	Sn 117	Sn 119	Sn 120	Sb 121
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.0020	0.0020	0.0306	0.0164	-0.0095	0.0275
Run 2	0.0016	0.0016	0.0173	0.0210	0.0488	0.0320
Run 3	0.0014	0.0014	0.0367	0.0110	-0.0073	0.0297
Mean	0.0016	0.0016	0.0282	0.0161	0.0110	0.0294
Std Dev	0.0003	0.0003	0.0099	0.0050	0.0327	0.0023
%SD	16.90	16.90	35.25	30.76	297.5	7.973

Element	Tin	Antimony	Barium	Barium	Barium	Rhenium
Isotope	Sn 122	Sb 123	Ba 135	Ba 137	Ba 138	Re 185
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.0217	0.0268	0.0818	0.0640	0.0701	0.0006
Run 2	0.0375	0.0279	0.0688	0.0804	0.0663	0.0011
Run 3	-0.0097	0.0279	0.0702	0.0744	0.0703	-0.0005
Mean	0.0165	0.0275	0.0736	0.0730	0.0689	0.0004
Std Dev	0.0241	0.0006	0.0071	0.0084	0.0022	0.0008
%SD	145.9	2.281	9.675	11.51	3.259	191.8

Element	Rhenium	Osmium	Osmium	Osmium	Iridium	Iridium
Isotope	Re 187	Os 188	Os 189	Os 190	Ir 191	Ir 193
Detector	PC	PC	PC	PC	PC	PC
Run 1	-0.0014	-0.0419	-0.0461	-0.0382	0.0454	-0.0019
Run 2	-0.0013	-0.0438	-0.0555	-0.0473	0.0219	0.0004
Run 3	-0.0008	-0.0520	-0.0558	-0.0505	0.0230	-0.0019
Mean	-0.0011	-0.0459	-0.0525	-0.0453	0.0301	-0.0011
Std Dev	0.0003	0.0054	0.0055	0.0064	0.0132	0.0012
%SD	26.99	11.83	10.47	14.10	44.01	116.8

Element	Platinum	Platinum	Platinum	Gold	Thallium	Thallium
Isotope	Pt 194	Pt 195	Pt 196	Au 197	Tl 203	Tl 205
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.0030	0.0038	0.0024	-0.0013	-0.0000	0.0007
Run 2	0.0020	-0.0016	0.0009	0.0014	0.0014	0.0003
Run 3	0.0031	0.0001	0.0010	-0.0022	-0.0004	0.0005
Mean	0.0027	0.0008	0.0014	-0.0009	0.0003	0.0005
Std Dev	0.0006	0.0027	0.0009	0.0021	0.0009	0.0002
%SD	23.06	352.9	59.28	227.1	273.5	44.96

Element	Lead	Lead	Lead

Element	Lead	Lead	Lead
Isotope	Pb 206	Pb 207	Pb 208
Detector	PC	PC	PC
Isotope	Pb 206	Pb 207	Pb 208
Detector	PC	PC	PC
Run 1	0.1410	0.1491	0.1407
Run 2	0.1443	0.1452	0.1441

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00575

Std Dev	0.0053	0.0038	0.0019
%SD	3.425	2.589	1.297

Internal Standard Drift; % relative to mean of first sample :

Element	Scandium	Yttrium	Bismuth
Isotope	Sc 45	Y 89	Bi 209
Detector	PC	PC	PC
Run 1	97.06	96.95	95.63
Run 2	97.03	96.49	95.52
Run 3	96.69	97.09	99.15
Mean	96.92	96.84	96.43
Std Dev	0.2078	0.3128	1.488

Multi-Element Concentrations_ Fri May 30 1997
Statistics for Concentration Determination.
Analysis procedure : 200.8

Sample name : 9

First repeat started at : Fri May 30 1997 12:00:53

Last repeat started at : Fri May 30 1997 12:03:03

Interference Equations : DEFAULT

Dilution Factor : 1.0000 Concentration units : ppb

Element	Beryllium	Aluminium	Vanadium	Chromium	Chromium	Manganese	Cobalt
Isotope	Be 9	Al 27	V 51	Cr 52	Cr 53	Mn 55	Co 59
Detector	PC	PC	PC	PC	PC	PC	PC
Run 1	0.0020	1.452	0.0054	0.0755	0.0757	0.0155	0.0044
Run 2	0.0020	1.395	0.0059	0.0606	0.0607	0.0162	0.0036
Run 3	-0.0018	1.429	0.0151	0.0815	0.0815	0.0174	0.0029
Mean	0.0007	1.425	0.0088	0.0725	0.0727	0.0164	0.0036
Std Dev	0.0022	0.0293	0.0055	0.0107	0.0107	0.0011	0.0008
%SD	296.9	1.985	62.64	14.80	14.77	6.761	22.58

Element	Nickel	Nickel	Copper	Copper	Zinc	Zinc
Isotope	Ni 60	Ni 62	Cu 63	Cu 65	Zn 66	Zn 67
Detector	PC	PC	PC	PC	PC	PC
Run 1	-0.0092	0.0435	0.0883	0.0977	0.3392	0.2357
Run 2	-0.0131	0.0221	0.0958	0.1098	0.3083	0.3789
Run 3	-0.0042	0.0800	0.0950	0.1009	0.3400	0.3016
Mean	-0.0088	0.0485	0.0930	0.1027	0.3292	0.3054
Std Dev	0.0045	0.0293	0.0041	0.0063	0.0181	0.0716
%SD	50.49	60.29	4.453	6.124	5.491	23.44

3048.2

Element	Zinc	Arsenic	Selenium	Selenium	Selenium	Molybdenum
Isotope	In 68	As 75	Se 77	Se 78	Se 82	Mo 95
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.3573	0.0300	0.1727	0.7190	0.1831	-0.0034
Run 2	0.2904	-0.0196	-0.0997	0.8742	-0.0961	-0.0060
Run 3	0.3326	-0.0034	-0.0291	0.7145	-0.0293	-0.0094
Mean	0.3268	0.0023	0.0147	0.7699	0.0196	-0.0062
Std Dev	0.0338	0.0253	0.1414	0.0921	0.1456	0.0029
%SD	10.34	1091	964.7	11.96	744.6	46.03

Element	Molybdenum	Molybdenum	Ruthenium	Ruthenium	Ruthenium	Rhodium
Isotope	Mo 97	Mo 99	Ru 99	Ru 101	Ru 102	Rh 103
Detector	PC	PC	PC	PC	PC	PC
Run 1	-0.0068	0.0068	-0.0027	-0.0050	-0.0046	-0.0003
Run 2	-0.0028	0.0035	-0.0065	-0.0104	-0.0071	-0.0002
Run 3	0.0081	0.0026	-0.0001	-0.0048	-0.0054	-0.0001
Mean	-0.0005	0.0043	-0.0031	-0.0067	-0.0057	-0.0002
Std Dev	0.0077	0.0022	0.0032	0.0032	0.0013	0.0001
%SD	1545	51.51	104.5	47.22	22.70	68.13

00577

Element	Palladium	Palladium	Silver	Silver	Cadmium	Cadmium

Element	Palladium	Palladium	Silver	Silver	Cadmium	Cadmium
Isotope	Pd 104	Pd 105	Ag 107	Ag 109	Cd 111	Cd 112
Detector	PC	PC	PC	PC	PC	PC
Isotope	Pd 104	Pd 105	Ag 107	Ag 109	Cd 111	Cd 112
Detector	PC	PC	PC	PC	PC	PC
Run 1	-0.0014	0.1244	0.0259	0.0256	0.0080	0.0026
Run 2	-0.0035	-0.0806	0.0235	0.0270	0.0045	0.0032
Run 3	-0.0017	-0.1101	0.0298	0.0251	-0.0070	0.0002
Mean	-0.0022	-0.0221	0.0263	0.0259	0.0019	0.0020
Std Dev	0.0011	0.1277	0.0030	0.0010	0.0078	0.0016
%SD	49.76	578.0	11.29	3.907	421.6	79.34

Element	Tin	Cadmium	Tin	Tin	Tin	Antimony
Isotope	Sn 114	Cd 114	Sn 117	Sn 118	Sn 120	Sb 121
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.0029	0.0028	0.0072	0.0173	-0.0204	0.0229
Run 2	0.0011	0.0011	0.0099	0.0115	-0.0153	0.0192
Run 3	0.0041	0.0041	0.0050	0.0135	-0.0143	0.0213
Mean	0.0026	0.0026	0.0074	0.0141	-0.0166	0.0211
Std Dev	0.0015	0.0015	0.0025	0.0029	0.0033	0.0019
%SD	55.51	55.51	33.54	20.81	19.79	8.916

Element	Tin	Antimony	Barium	Barium	Barium	Rhenium
Isotope	Sn 122	Sb 123	Ba 135	Ba 137	Ba 138	Re 185
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.0159	0.0183	0.0074	0.0214	0.0172	0.0009
Run 2	-0.0045	0.0113	0.0125	0.0226	0.0177	-0.0004
Run 3	0.0189	0.0215	0.0195	0.0155	0.0132	0.0001
Mean	0.0101	0.0170	0.0128	0.0199	0.0160	0.0002
Std Dev	0.0127	0.0052	0.0055	0.0038	0.0025	0.0007
%SD	126.3	30.75	43.40	19.29	15.52	366.8

Element	Rhenium	Osmium	Osmium	Osmium	Iridium	Iridium
Isotope	Re 187	Os 188	Os 189	Os 190	Ir 191	Ir 193
Detector	PC	PC	PC	PC	PC	PC
Run 1	-0.0015	-0.0483	-0.0571	-0.0498	0.0541	-0.0028
Run 2	-0.0021	-0.0433	-0.0523	-0.0590	0.0518	-0.0031
Run 3	-0.0003	-0.0566	-0.0644	-0.0634	0.0140	-0.0030
Mean	-0.0013	-0.0494	-0.0613	-0.0574	0.0400	-0.0030
Std Dev	0.0009	0.0067	0.0038	0.0070	0.0225	0.0002
%SD	69.23	13.53	6.139	12.17	56.22	5.719

Element	Platinum	Platinum	Platinum	Gold	Thallium	Thallium
Isotope	Pt 194	Pt 195	Pt 196	Au 197	Tl 203	Tl 205
Detector	PC	PC	PC	PC	PC	PC
Run 1	-0.0006	0.0007	-0.0016	-0.0022	0.0040	0.0036
Run 2	-0.0017	0.0013	-0.0021	0.0011	0.0047	0.0054
Run 3	0.0009	0.0012	0.0002	-0.0019	-0.0010	0.0041
Mean	-0.0005	0.0011	-0.0012	-0.0010	0.0026	0.0044
Std Dev	0.0013	0.0003	0.0012	0.0019	0.0031	0.0010
%SD	297.8	31.99	102.3	197.6	120.8	22.95

Element	Lead	Lead	Lead

Element	Lead	Lead	Lead
Isotope	Pb 206	Pb 207	Pb 208
Detector	PC	PC	PC
Isotope	Pb 206	Pb 207	Pb 208
Detector	PC	PC	PC
Run 1	0.0068	0.0077	0.0076
Run 2	0.0059	0.0072	0.0046

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00578

Mean	0.0039	0.0003	0.0017
Std Dev	0.0039	0.0003	0.0017
%RSD	44.25	3.679	79.37

Internal Standard Drift; % relative to mean of first sample :

Element	Scandium	Yttrium	Bismuth
Isotope	Sc 45	Y 89	Bi 209
Detector	PC	PC	PC
Run 1	97.60	94.41	93.69
Run 2	99.68	99.41	96.09
Run 3	99.53	98.26	98.65
Mean	98.94	97.36	96.14
Std Dev	1.161	2.591	2.479

Multi-Element Concentrations (Fri May 30 1997)
Statistics for Concentration Determination.
Analysis procedure : 200.8

Sample name : 9

First repeat started at : Fri May 30 1997 12:04:39

Last repeat started at : Fri May 30 1997 12:06:48

Interference Equations : DEFAULT

Dilution Factor : 1.0000 Concentration units : ppb

Element	Beryllium	Aluminium	Vanadium	Chromium	Chromium	Manganese	Cobalt
Isotope	Be 9	Al 27	V 51	Cr 52	Cr 53	Mn 55	Co 59
Detector	PC	PC	PC	PC	PC	PC	PC
Run 1	-0.0010	11.49	0.0275	0.0709	0.0712	0.0475	0.0061
Run 2	-0.0002	12.19	0.0302	0.0573	0.0574	0.0470	0.0047
Run 3	0.0012	11.43	0.0742	0.1729	0.1733	0.0463	0.0059
Mean	0.0000	11.70	0.0440	0.1004	0.1006	0.0469	0.0056
Std Dev	0.0011	0.4253	0.0262	0.0632	0.0633	0.0007	0.0008
%SD	4746	3.634	59.53	62.96	62.89	1.398	14.04

Element	Nickel	Nickel	Copper	Copper	Zinc	Zinc
Isotope	Ni 60	Ni 62	Cu 63	Cu 65	Zn 66	Zn 67
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.4643	0.7188	0.4410	0.4338	1.262	1.016
Run 2	0.5217	0.5873	0.4166	0.4253	1.215	1.026
Run 3	0.5145	0.7607	0.4402	0.4316	1.155	1.046
Mean	0.5001	0.6889	0.4324	0.4302	1.211	1.029
Std Dev	0.0313	0.0905	0.0138	0.0044	0.0539	0.0152
%SD	6.251	13.13	3.201	1.029	4.445	1.472

Element	Zinc	Arsenic	Selenium	Selenium	Selenium	Molybdenum
Isotope	Zn 68	As 75	Se 77	Se 78	Se 82	Mo 95
Detector	PC	PC	PC	PC	PC	PC
Run 1	1.212	0.0385	0.0029	1.103	0.0159	0.0020
Run 2	1.106	-0.0266	-0.1552	0.3818	-0.1608	0.0043
Run 3	1.180	0.0619	0.1219	1.187	0.1329	0.0032
Mean	1.166	0.0245	-0.0135	0.8907	-0.0044	0.0032
Std Dev	0.0544	0.0458	0.1442	0.4427	0.1478	0.0012
%SD	4.666	186.5	1067	49.70	3394	37.22

Element	Molybdenum	Molybdenum	Ruthenium	Ruthenium	Ruthenium	Rhodium
Isotope	Mo 97	Mo 98	Ru 99	Ru 101	Ru 102	Rh 103
Detector	PC	PC	PC	PC	PC	PC
Run 1	-0.0022	0.0064	-0.0088	-0.0041	-0.0039	-0.0001
Run 2	0.0053	0.0095	-0.0026	-0.0073	-0.0034	-0.0000
Run 3	0.0029	0.0091	-0.0030	-0.0014	-0.0023	0.0002
Mean	0.0020	0.0083	-0.0048	-0.0043	-0.0032	0.0001
Std Dev	0.0038	0.0017	0.0035	0.0030	0.0008	0.0002
%SD	195.7	20.28	72.19	69.19	25.42	299.7

Element	Palladium	Palladium	Silver	Silver	Cadmium	Cadmium

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00580

Element	Palladium	Palladium	Silver	Silver	Cadmium	Cadmium
Isotope	Pd 104	Pd 105	Ag 107	Ag 109	Cd 111	Cd 112
Detector	PC	PC	PC	PC	PC	PC
Isotope	Pd 104	Pd 105	Ag 107	Ag 109	Cd 111	Cd 112
Detector	PC	PC	PC	PC	PC	PC
Run 1	-0.0019	-0.1070	0.0349	0.0300	0.0127	0.0144
Run 2	0.0006	-0.3671	0.0292	0.0329	0.0082	0.0152
Run 3	-0.0001	-0.1244	0.0333	0.0307	0.0081	0.0186
Mean	-0.0004	-0.1995	0.0325	0.0312	0.0097	0.0161
Std Dev	0.0013	0.1454	0.0029	0.0015	0.0026	0.0022
%SD	301.6	72.87	9.031	4.831	27.24	13.84

Element	Tin	Cadmium	Tin	Tin	Tin	Antimony
Isotope	Sn 114	Cd 114	Sn 117	Sn 118	Sn 120	Sb 121
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.0126	0.0126	0.0315	0.0490	0.0152	0.2371
Run 2	0.0171	0.0171	0.0481	0.0369	0.0146	0.2196
Run 3	0.0135	0.0135	0.0295	0.0510	0.0199	0.2416
Mean	0.0144	0.0144	0.0364	0.0457	0.0165	0.2394
Std Dev	0.0024	0.0024	0.0102	0.0077	0.0029	0.0211
%SD	16.51	16.51	28.11	16.77	17.42	8.823

Element	Tin	Antimony	Barium	Barium	Barium	Rhenium
Isotope	Sn 122	Sb 123	Ba 135	Ba 137	Ba 138	Re 185
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.0196	0.2439	0.3604	0.3458	0.3662	0.0006
Run 2	0.0539	0.2484	0.3281	0.4051	0.3459	0.0002
Run 3	0.0418	0.2325	0.3608	0.3557	0.3558	0.0013
Mean	0.0384	0.2416	0.3498	0.3689	0.3560	0.0007
Std Dev	0.0174	0.0082	0.0188	0.0318	0.0101	0.0006
%SD	45.22	3.392	5.366	8.615	2.849	79.98

Element	Rhenium	Osmium	Osmium	Osmium	Iridium	Iridium
Isotope	Re 187	Os 188	Os 189	Os 190	Ir 191	Ir 193
Detector	PC	PC	PC	PC	PC	PC
Run 1	-0.0010	-0.0601	-0.0637	-0.0612	0.0531	-0.0008
Run 2	-0.0014	-0.0643	-0.0685	-0.0655	0.0313	-0.0034
Run 3	-0.0012	-0.0632	-0.0764	-0.0705	-0.0531	-0.0031
Mean	-0.0012	-0.0625	-0.0695	-0.0657	0.0104	-0.0024
Std Dev	0.0002	0.0022	0.0064	0.0047	0.0561	0.0014
%SD	13.61	3.512	9.268	7.123	536.9	58.37

Element	Platinum	Platinum	Platinum	Gold	Thallium	Thallium
Isotope	Pt 194	Pt 195	Pt 196	Au 197	Tl 203	Tl 205
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.0027	0.0023	-0.0015	-0.0038	0.0083	0.0086
Run 2	0.0020	-0.0028	-0.0033	-0.0015	0.0091	0.0096
Run 3	0.0011	0.0026	-0.0012	-0.0021	0.0079	0.0106
Mean	0.0019	0.0007	-0.0020	-0.0025	0.0081	0.0096
Std Dev	0.0008	0.0030	0.0011	0.0012	0.0011	0.0010
%SD	42.59	442.8	56.98	49.27	13.54	10.49

Element	Lead	Lead	Lead

Element	Lead	Lead	Lead
Isotope	Pb 206	Pb 207	Pb 208
Detector	PC	PC	PC
Isotope	Pb 206	Pb 207	Pb 208
Detector	PC	PC	PC
Run 1	1.004	0.9127	0.9583
Run 2	0.9730	0.9487	0.9492

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Std Dev	0.1545	0.0180	0.0270
%SD	15.19	1.937	2.781

Internal Standard Drift; % relative to mean of first sample :

Element	Scandium	Yttrium	Bismuth
Isotope	Sc 45	Y 89	Bi 209
Detector	PC	PC	PC
Run 1	103.0	99.73	97.66
Run 2	103.2	101.5	97.47
Run 3	104.0	100.3	104.2
Mean	103.4	100.2	99.78
Std Dev	0.5551	1.389	3.937

Multi-Element Concentrations Fri May 30 1997
Statistics for Concentration Determination.
Analysis procedure : 200.8

Sample name : 10

First repeat started at : Fri May 30 1997 12:09:36

Last repeat started at : Fri May 30 1997 12:11:45

Interference Equations : DEFAULT

Dilution Factor : 1.0000 Concentration units : ppb

Element	Beryllium	Aluminium	Vanadium	Chromium	Chromium	Manganese	Cobalt
Isotope	Be 9	Al 27	V 51	Cr 52	Cr 53	Mn 55	Co 59
Detector	PC	PC	PC	PC	PC	PC	PC
Run 1	19.40	20.06	19.35	19.52	19.52	20.34	19.99
Run 2	19.58	20.32	19.08	19.77	19.79	19.46	19.23
Run 3	19.12	19.66	19.93	19.90	19.81	19.99	19.90
Mean	19.36	20.01	19.45	19.70	19.70	19.86	19.71
Std Dev	0.2320	0.3315	0.4695	0.1540	0.1564	0.4436	0.4155
%SD	1.199	1.656	2.412	0.7817	0.7939	2.233	2.109

Element	Nickel	Nickel	Copper	Copper	Zinc	Zinc
Isotope	Ni 60	Ni 62	Cu 63	Cu 65	Zn 66	Zn 67
Detector	PC	PC	PC	PC	PC	PC
Run 1	19.89	20.37	20.12	19.73	19.30	19.80
Run 2	19.99	19.57	19.76	19.49	19.63	20.06
Run 3	19.99	19.54	19.50	19.76	19.84	20.19
Mean	19.89	19.83	19.79	19.66	19.59	19.68
Std Dev	0.0983	0.4675	0.3125	0.1443	0.2749	0.7652
%SD	0.4437	2.358	1.579	0.7340	1.403	3.888

3098.25K

Element	Zinc	Arsenic	Selenium	Selenium	Selenium	Molybdenum
Isotope	In 68	As 75	Se 77	Se 78	Se 82	Mo 95
Detector	PC	PC	PC	PC	PC	PC
Run 1	19.42	20.19	18.96	20.30	19.00	20.76
Run 2	19.35	19.83	19.40	20.75	19.44	20.88
Run 3	19.92	20.19	19.94	20.83	20.02	20.90
Mean	19.57	20.07	19.44	20.63	19.49	20.85
Std Dev	0.3117	0.2066	0.4913	0.2890	0.5151	0.0732
%SD	1.593	1.029	2.528	1.401	2.644	0.3509

Element	Molybdenum	Molybdenum	Ruthenium	Ruthenium	Ruthenium	Rhodium
Isotope	Mo 97	Mo 98	Ru 99	Ru 101	Ru 102	Rh 103
Detector	PC	PC	PC	PC	PC	PC
Run 1	20.57	22.08	20.85	21.46	20.88	20.73
Run 2	19.71	21.00	20.90	22.46	20.38	20.41
Run 3	21.07	22.20	21.06	22.29	21.18	20.88
Mean	20.45	21.76	20.94	22.07	20.81	20.67
Std Dev	0.6861	0.6576	0.1081	0.5360	0.4050	0.2433
%SD	3.355	3.022	0.5164	2.429	1.946	1.177

Element	Palladium	Palladium	Silver	Silver	Cadmium	Cadmium

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Element	Palladium	Palladium	Silver	Silver	Cadmium	Cadmium
Isotope	Pd 104	Pd 105	Ag 107	Ag 109	Cd 111	Cd 112
Detector	PC	PC	PC	PC	PC	PC
Isotope	Pd 104	Pd 105	Ag 107	Ag 109	Cd 111	Cd 112
Detector	PC	PC	PC	PC	PC	PC
Run 1	20.67	21.20	20.12	20.36	19.41	20.36
Run 2	20.89	21.67	19.88	20.01	19.58	20.20
Run 3	21.59	21.72	20.74	20.42	19.65	21.01
Mean	21.05	21.53	20.25	20.26	19.59	20.52
Std Dev	0.4773	0.2900	0.4435	0.2215	0.1479	0.4271
%SD	2.267	1.347	2.199	1.093	0.7556	2.081

Element	Tin	Cadmium	Tin	Tin	Tin	Antimony
Isotope	Sn 114	Cd 114	Sn 117	Sn 118	Sn 120	Sb 121
Detector	PC	PC	PC	PC	PC	PC
Run 1	19.90	19.90	20.92	20.42	21.11	19.94
Run 2	20.01	20.01	21.83	18.76	19.88	19.95
Run 3	20.37	20.37	20.19	22.44	20.39	19.99
Mean	20.10	20.10	20.98	20.54	20.46	19.93
Std Dev	0.2433	0.2433	0.8239	1.845	0.6193	0.0695
%SD	1.210	1.210	3.927	8.981	3.027	0.3487

Element	Tin	Antimony	Barium	Barium	Barium	Rhenium
Isotope	Sn 122	Sb 123	Ba 135	Ba 137	Ba 138	Re 185
Detector	PC	PC	PC	PC	PC	PC
Run 1	21.59	19.59	19.77	19.33	19.24	19.25
Run 2	19.56	19.76	19.66	19.80	19.53	19.65
Run 3	20.33	20.15	20.17	19.77	19.19	19.68
Mean	20.49	19.83	19.87	19.63	19.32	19.53
Std Dev	1.022	0.2875	0.2668	0.2615	0.1854	0.2418
%SD	4.988	1.450	1.343	1.332	0.9593	1.238

Element	Rhenium	Osmium	Osmium	Osmium	Iridium	Iridium
Isotope	Re 187	Os 188	Os 189	Os 190	Ir 191	Ir 193
Detector	PC	PC	PC	PC	PC	PC
Run 1	19.70	20.16	20.04	19.71	19.50	18.62
Run 2	19.58	20.80	20.48	20.58	19.67	19.74
Run 3	19.91	19.93	20.39	19.80	19.77	19.25
Mean	19.70	20.27	20.30	20.03	19.65	19.20
Std Dev	0.1154	0.4939	0.2318	0.4755	0.1346	0.5619
%SD	0.5857	2.437	1.141	2.374	0.6851	2.926

Element	Platinum	Platinum	Platinum	Gold	Thallium	Thallium
Isotope	Pt 194	Pt 195	Pt 196	Au 197	Tl 203	Tl 205
Detector	PC	PC	PC	PC	PC	PC
Run 1	19.47	19.24	18.76	18.27	18.24	20.21
Run 2	19.77	19.42	19.45	19.16	19.85	20.61
Run 3	19.30	19.89	19.24	18.57	19.59	20.49
Mean	19.51	19.52	19.15	18.67	19.56	20.44
Std Dev	0.2393	0.3369	0.3519	0.4509	0.3093	0.2064
%SD	1.227	1.726	1.837	2.415	1.666	1.010

Element	Lead	Lead	Lead

Element	Lead	Lead	Lead
Isotope	Pb 206	Pb 207	Pb 208
Detector	PC	PC	PC
Isotope	Pb 206	Pb 207	Pb 208
Detector	PC	PC	PC
Run 1	20.11	19.61	19.63
Run 2	20.21	20.75	20.23

3098-25PF

Mean	[illegible]	[illegible]	[illegible]
Std Dev	0.0594	0.6250	0.3145
%SD	0.2944	3.120	1.582

Internal Standard Drift: % relative to mean of first sample :

Element	Scandium	Yttrium	Bismuth
Isotope	Sc 45	Y 89	Bi 209
Detector	PC	PC	PC
Run 1	95.83	94.84	107.5
Run 2	96.32	95.50	104.3
Run 3	96.99	94.34	107.2
Mean	96.38	94.89	106.3
Std Dev	0.5846	0.5804	1.752

Multi-Element Concentrations Fri May 30 1997
Statistics for Concentration Determination.
Analysis procedure : 200.8

Sample name : 11

First repeat started at : Fri May 30 1997 12:12:25

Last repeat started at : Fri May 30 1997 12:14:35

Interference Equations : DEFAULT

Dilution Factor : 1.0000 Concentration units : ppb

Element	Beryllium	Aluminium	Vanadium	Chromium	Chromium	Manganese	Cobalt
Isotope	Be 9	Al 27	V 51	Cr 52	Cr 53	Mn 55	Co 59
Detector	PC	PC	PC	PC	PC	PC	PC
Run 1	21.20	20.40	19.49	19.25	19.26	19.81	19.56
Run 2	20.39	19.95	19.32	19.19	19.20	19.84	19.48
Run 3	20.49	19.77	19.78	19.78	19.79	19.85	19.65
Mean	20.72	20.04	19.53	19.41	19.41	19.84	19.56
Std Dev	0.4883	0.3272	0.2296	0.3260	0.3282	0.0197	0.0855
%SD	2.357	1.633	1.175	1.680	1.691	0.0941	0.4370

Element	Nickel	Nickel	Copper	Copper	Zinc	Zinc
Isotope	Ni 60	Ni 62	Cu 63	Cu 65	Zn 66	Zn 67
Detector	PC	PC	PC	PC	PC	PC
Run 1	19.83	20.10	19.33	19.06	18.71	18.63
Run 2	18.92	19.92	18.87	19.09	18.40	19.02
Run 3	19.33	19.91	19.07	18.67	18.75	18.97
Mean	19.36	19.99	19.09	18.94	18.62	18.87
Std Dev	0.4563	0.1096	0.2299	0.2341	0.1925	0.2151
%SD	2.357	0.5487	1.204	1.236	1.034	1.140

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LCSW

Element	Zinc	Arsenic	Selenium	Selenium	Selenium	Molybdenum
Isotope	Zn 68	As 75	Se 77	Se 78	Se 82	Mo 95
Detector	PC	PC	PC	PC	PC	PC
Run 1	18.79	19.57	18.69	19.71	18.71	21.25
Run 2	18.44	19.65	17.76	19.07	17.81	21.09
Run 3	18.42	19.24	18.39	18.75	18.45	21.65
Mean	18.55	19.48	18.28	19.18	18.32	21.33
Std Dev	0.2068	0.2183	0.4780	0.4903	0.4623	0.2900
%SD	1.115	1.121	2.614	2.557	2.523	1.359

Element	Molybdenum	Molybdenum	Ruthenium	Ruthenium	Ruthenium	Rhodium
Isotope	Mo 97	Mo 98	Ru 99	Ru 101	Ru 102	Rh 103
Detector	PC	PC	PC	PC	PC	PC
Run 1	20.98	22.27	20.99	21.34	21.24	20.97
Run 2	21.10	22.98	20.68	21.66	20.81	21.28
Run 3	21.73	23.00	21.16	21.59	21.14	20.86
Mean	21.27	22.75	20.94	21.53	21.06	21.04
Std Dev	0.4038	0.4136	0.2450	0.1646	0.2221	0.2180
%SD	1.898	1.818	1.170	0.7647	1.054	1.036

00586

Element	Palladium	Palladium	Silver	Silver	Cadmium	Cadmium

Element	Palladium	Palladium	Silver	Silver	Cadmium	Cadmium
Isotope	Pd 104	Pd 105	Ag 107	Ag 109	Cd 111	Cd 112
Detector	PC	PC	PC	PC	PC	PC
Isotope	Pd 104	Pd 105	Ag 107	Ag 109	Cd 111	Cd 112
Detector	PC	PC	PC	PC	PC	PC
Run 1	20.83	21.01	20.08	19.90	19.74	20.10
Run 2	21.14	21.17	19.74	19.26	19.34	20.34
Run 3	21.08	21.14	20.00	19.49	19.62	20.79
Mean	21.02	21.12	19.94	19.54	19.91	20.41
Std Dev	0.1708	0.0928	0.1792	0.3342	0.3260	0.3508
%SD	0.8123	0.4393	0.8986	1.710	2.041	1.719

Element	Tin	Cadmium	Tin	Tin	Tin	Antimony
Isotope	Sn 114	Cd 114	Sn 117	Sn 118	Sn 120	Sb 121
Detector	PC	PC	PC	PC	PC	PC
Run 1	20.06	20.06	21.23	21.40	20.56	20.27
Run 2	20.14	20.14	20.91	21.31	21.16	19.81
Run 3	20.59	20.59	23.20	20.41	19.50	20.69
Mean	20.26	20.26	21.78	21.04	20.41	20.06
Std Dev	0.2837	0.2837	1.240	0.5483	0.8432	0.2309
%SD	1.400	1.400	5.691	2.606	4.132	1.151

Element	Tin	Antimony	Barium	Barium	Barium	Rhenium
Isotope	Sn 122	Sb 123	Ba 135	Ba 137	Ba 138	Re 185
Detector	PC	PC	PC	PC	PC	PC
Run 1	19.88	19.53	18.92	18.98	19.20	18.98
Run 2	19.35	19.58	19.36	19.09	18.40	18.41
Run 3	22.56	20.27	19.95	19.17	19.84	19.09
Mean	20.60	19.79	19.07	19.08	18.81	18.83
Std Dev	1.718	0.4106	0.2446	0.0946	0.4026	0.3654
%SD	8.343	2.074	1.282	0.4960	2.140	1.941

Element	Rhenium	Osmium	Osmium	Osmium	Iridium	Iridium
Isotope	Re 187	Os 188	Os 189	Os 190	Ir 191	Ir 193
Detector	PC	PC	PC	PC	PC	PC
Run 1	19.70	21.18	21.33	20.50	19.97	19.06
Run 2	19.20	19.71	20.11	19.57	19.31	19.04
Run 3	19.30	20.23	19.32	20.00	19.67	19.70
Mean	19.40	20.37	20.26	20.02	19.64	19.26
Std Dev	0.2650	0.7490	1.013	0.4642	0.3314	0.3772
%SD	1.366	3.677	5.000	2.318	1.689	1.961

Element	Platinum	Platinum	Platinum	Gold	Thallium	Thallium
Isotope	Pt 194	Pt 195	Pt 196	Au 197	Tl 203	Tl 205
Detector	PC	PC	PC	PC	PC	PC
Run 1	20.20	19.32	19.30	19.13	18.68	19.68
Run 2	20.00	19.18	18.43	19.01	18.35	19.87
Run 3	19.94	19.07	19.49	19.17	18.52	20.16
Mean	20.05	19.19	19.07	19.10	18.52	19.90
Std Dev	0.1358	0.1286	0.5634	0.0843	0.1637	0.2423
%SD	0.6774	0.6702	2.954	0.4411	0.8841	1.217

Element	Lead	Lead	Lead

Element	Lead	Lead	Lead
Isotope	Pb 206	Pb 207	Pb 208
Detector	PC	PC	PC
Isotope	Pb 206	Pb 207	Pb 208
Detector	PC	PC	PC
Run 1	19.72	20.09	19.96
Run 2	19.79	19.90	19.75

3094
LCSW

00587

Std Dev	0.3697	0.1314	0.2732
%SD	1.955	0.6551	1.366

Internal Standard Drift; % relative to mean of first sample :

Element	Scandium	Yttrium	Bismuth
Isotope	Sc 45	Y 89	Bi 209
Detector	PC	PC	PC
Run 1	104.2	104.1	105.5
Run 2	106.2	104.3	108.4
Run 3	106.4	104.4	106.1
Mean	105.6	104.3	106.8
Std Dev	1.216	0.1566	1.480

Multi-Element Concentrations Fri May 30 1997
Statistics for Concentration Determination.
Analysis procedure : 200.8

Sample name : 12

First repeat started at : Fri May 30 1997 12:16:57

Last repeat started at : Fri May 30 1997 12:19:06

Interference Equations : DEFAULT

Dilution Factor : 1.0000 Concentration units : ppb

Element	Beryllium	Aluminium	Vanadium	Chromium	Chromium	Manganese	Cobalt
Isotope	Be 9	Al 27	V 51	Cr 52	Cr 53	Mn 55	Co 59
Detector	PC	PC	PC	PC	PC	PC	PC
Run 1	0.0144	0.2491	-0.0180	0.0363	0.0365	0.0280	0.0119
Run 2	0.0018	0.2590	0.0100	0.0050	0.0050	0.0224	0.0041
Run 3	0.0014	0.2547	0.0540	0.0145	0.0146	0.0213	0.0031
Mean	0.0059	0.2542	0.0153	0.0186	0.0187	0.0239	0.0064
Std Dev	0.0074	0.0049	0.0363	0.0160	0.0161	0.0036	0.0048
%SD	126.7	1.943	236.6	86.27	86.25	15.00	75.24

Element	Nickel	Nickel	Copper	Copper	Zinc	Zinc
Isotope	Ni 60	Ni 62	Cu 63	Cu 65	Zn 66	Zn 67
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.0799	0.4537	0.1030	0.1003	0.1549	0.3447
Run 2	0.0804	0.2391	0.1106	0.0857	0.1598	0.2289
Run 3	0.0823	0.3019	0.0979	0.0880	0.1704	0.2692
Mean	0.0805	0.3316	0.1038	0.0913	0.1617	0.2909
Std Dev	0.0012	0.1103	0.0064	0.0079	0.0079	0.0582
%SD	2.192	33.27	6.142	8.590	4.892	20.93

CCV-2

Element	Zinc	Arsenic	Selenium	Selenium	Selenium	Molybdenum
Isotope	Zn 68	As 75	Se 77	Se 78	Se 82	Mo 95
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.1671	-0.0457	-0.0866	0.6254	-0.0783	0.1659
Run 2	0.1720	-0.0508	-0.2474	0.3009	-0.2660	0.0893
Run 3	0.1424	-0.0072	-0.0921	0.8136	-0.0785	0.0408
Mean	0.1605	-0.0346	-0.1454	0.5800	-0.1409	0.0983
Std Dev	0.0159	0.0239	0.1057	0.2593	0.1083	0.0631
%SD	9.875	69.08	72.72	44.72	76.87	64.21

Element	Molybdenum	Molybdenum	Ruthenium	Ruthenium	Ruthenium	Rhodium
Isotope	Mo 97	Mo 98	Ru 99	Ru 101	Ru 102	Rh 103
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.1639	2.261	26.38	27.29	26.37	26.39
Run 2	0.0867	2.224	25.16	27.47	25.78	25.09
Run 3	0.0577	2.120	25.97	26.79	25.79	26.10
Mean	0.1028	2.201	26.14	27.18	25.98	25.86
Std Dev	0.0549	0.0733	0.2585	0.3597	0.3383	0.6843
%SD	53.42	3.329	0.9889	1.323	1.302	2.646

Element	Palladium	Palladium	Silver	Silver	Cadmium	Cadmium

00589

Element	Palladium	Palladium	Silver	Silver	Cadmium	Cadmium
Isotope	Pd 104	Pd 105	Ag 107	Ag 109	Cd 111	Cd 112
Detector	PC	PC	PC	PC	PC	PC
Isotope	Pd 104	Pd 105	Ag 107	Ag 109	Cd 111	Cd 112
Detector	PC	PC	PC	PC	PC	PC
Run 1	26.48	26.10	0.0961	0.1061	0.0177	0.0293
Run 2	26.18	26.10	0.0533	0.0453	0.0122	0.0185
Run 3	25.62	26.02	0.0367	0.0329	0.0107	0.0115
Mean	26.10	26.07	0.0620	0.0614	0.0135	0.0199
Std Dev	0.4376	0.0452	0.0306	0.0392	0.0037	0.0090
%SD	1.677	0.1732	49.37	63.85	27.21	45.57

Element	Tin	Cadmium	Tin	Tin	Tin	Antimony
Isotope	Sn 114	Cd 114	Sn 117	Sn 118	Sn 120	Sb 121
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.0198	0.0199	0.0669	0.0685	0.0800	0.1065
Run 2	0.0107	0.0107	0.1265	0.0499	0.0293	0.0999
Run 3	0.0150	0.0150	0.0652	0.0525	0.0112	0.0989
Mean	0.0151	0.0151	0.0862	0.0570	0.0402	0.1017
Std Dev	0.0046	0.0046	0.0350	0.0100	0.0356	0.0042
%SD	30.11	30.11	40.60	17.60	88.70	4.112

Element	Tin	Antimony	Barium	Barium	Barium	Rhenium
Isotope	Sn 122	Sb 123	Ba 135	Ba 137	Ba 138	Re 185
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.0545	0.1075	0.0154	0.0244	0.0139	23.06
Run 2	0.0689	0.0877	0.0168	0.0132	0.0064	22.95
Run 3	0.0463	0.0970	0.0099	0.0082	0.0061	24.06
Mean	0.0566	0.0974	0.0140	0.0153	0.0088	23.36
Std Dev	0.0115	0.0099	0.0036	0.0083	0.0044	0.6131
%SD	20.25	10.15	25.97	54.30	49.61	2.625

Element	Rhenium	Osmium	Osmium	Osmium	Iridium	Iridium
Isotope	Re 187	Os 188	Os 189	Os 190	Ir 191	Ir 193
Detector	PC	PC	PC	PC	PC	PC
Run 1	23.59	24.45	24.81	24.18	23.86	23.30
Run 2	24.03	25.06	24.94	24.81	23.94	24.09
Run 3	24.64	25.59	25.24	24.99	24.18	24.48
Mean	24.09	25.03	25.00	24.63	24.00	23.96
Std Dev	0.5257	0.5670	0.2169	0.3945	0.1664	0.5986
%SD	2.183	2.265	0.8675	1.602	0.6935	2.499

Element	Platinum	Platinum	Platinum	Gold	Thallium	Thallium
Isotope	Pt 194	Pt 195	Pt 196	Au 197	Tl 203	Tl 205
Detector	PC	PC	PC	PC	PC	PC
Run 1	24.51	24.10	23.01	24.09	0.1040	0.0361
Run 2	24.58	24.10	23.92	24.14	0.0983	0.0217
Run 3	24.46	24.09	23.59	24.12	0.1059	0.0230
Mean	24.52	24.09	23.50	24.12	0.1027	0.0269
Std Dev	0.0575	0.0138	0.4605	0.0247	0.0040	0.0079
%SD	0.2346	0.0573	1.959	0.1026	3.857	29.50

Element	Lead	Lead	Lead

Element	Lead	Lead	Lead
Isotope	Pb 206	Pb 207	Pb 208
Detector	PC	PC	PC
Isotope	Pb 206	Pb 207	Pb 208
Detector	PC	PC	PC
Run 1	0.2117	0.1529	0.1877
Run 2	0.1966	0.1277	0.1720

CCV-2

00590

Mean	0.2047	0.1497	0.1734
Std Dev	0.0076	0.0126	0.0099
%SD	3.725	8.961	5.619

Internal Standard Drift: % relative to mean of first sample :

Element	Scandium	Yttrium	Bismuth
Isotope	Sc 45	Y 89	Bi 209
Detector	PC	PC	PC
Run 1	107.0	103.9	110.6
Run 2	104.5	103.9	109.3
Run 3	104.3	102.9	106.9
Mean	105.3	103.5	108.9
Std Dev	1.487	0.5242	1.884

Multi-Element Concentrations Fri May 30 1997
Statistics for Concentration Determination.
Analysis procedure : 200.8

Sample name : 13

First repeat started at : Fri May 30 1997 12:20:50

Last repeat started at : Fri May 30 1997 12:23:00

Interference Equations : DEFAULT

Dilution Factor : 1.0000 Concentration units : ppb

Element	Beryllium	Aluminium	Vanadium	Chromium	Chromium	Manganese	Cobalt
Isotope	Be 9	Al 27	V 51	Cr 52	Cr 53	Mn 55	Co 59
Detector	PC	PC	PC	PC	PC	PC	PC
Run 1	25.63	25.74	24.62	25.21	25.22	24.63	24.60
Run 2	25.83	26.14	24.59	24.71	24.71	24.82	24.38
Run 3	25.89	25.46	24.57	24.43	24.41	24.69	25.02
Mean	25.79	25.78	24.61	24.78	24.78	24.71	24.67
Std Dev	0.1335	0.3413	0.0616	0.3951	0.4052	0.1009	0.3219
%SD	0.5178	1.324	0.2503	1.594	1.635	0.4081	1.305

Element	Nickel	Nickel	Copper	Copper	Zinc	Zinc
Isotope	Ni 60	Ni 62	Cu 63	Cu 65	Zn 66	Zn 67
Detector	PC	PC	PC	PC	PC	PC
Run 1	25.05	25.06	24.26	24.35	24.11	24.35
Run 2	25.24	25.79	24.50	24.32	24.76	24.51
Run 3	25.09	25.38	23.93	24.13	24.51	25.18
Mean	25.12	25.41	24.23	24.27	24.46	24.68
Std Dev	0.1053	0.3560	0.2963	0.1197	0.3275	0.4398
%SD	0.4190	1.440	1.181	0.4932	1.339	1.782

CCV.2

Element	Zinc	Arsenic	Selenium	Selenium	Selenium	Molybdenum
Isotope	Zn 68	As 75	Se 77	Se 78	Se 82	Mo 95
Detector	PC	PC	PC	PC	PC	PC
Run 1	23.93	24.26	23.22	25.02	23.28	26.58
Run 2	24.42	25.00	25.11	25.26	25.13	26.75
Run 3	24.40	24.61	23.89	26.99	23.83	26.40
Mean	24.25	24.62	24.07	25.76	24.08	26.58
Std Dev	0.2777	0.3672	0.9564	1.073	0.9493	0.1723
%SD	1.145	1.491	3.973	4.168	3.943	0.6484

Element	Molybdenum	Molybdenum	Ruthenium	Ruthenium	Ruthenium	Rhodium
Isotope	Mo 97	Mo 98	Ru 99	Ru 101	Ru 102	Rh 103
Detector	PC	PC	PC	PC	PC	PC
Run 1	26.26	26.64	0.0548	0.0541	0.0483	0.0326
Run 2	26.96	26.44	0.0076	0.0183	0.0137	0.0066
Run 3	25.54	24.79	0.0131	0.0113	0.0033	0.0039
Mean	26.25	25.96	0.0252	0.0279	0.0219	0.0143
Std Dev	0.7077	1.014	0.0258	0.0230	0.0235	0.0159
%SD	2.695	3.905	102.6	82.30	108.1	110.5

00592

Element	Palladium	Palladium	Silver	Silver	Cadmium	Cadmium

Element	Palladium	Palladium	Silver	Silver	Cadmium	Cadmium
Isotope	Pd 104	Pd 105	Ag 107	Ag 109	Cd 111	Cd 112
Detector	PC	PC	PC	PC	PC	PC
Isotope	Pd 104	Pd 105	Ag 107	Ag 109	Cd 111	Cd 112
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.0489	0.0999	24.67	24.78	24.48	25.84
Run 2	0.0237	-0.2616	25.67	25.13	24.18	25.45
Run 3	0.0170	-0.3306	24.48	24.99	24.29	26.00
Mean	0.0299	-0.1641	24.94	24.96	24.31	25.76
Std Dev	0.0168	0.2312	0.6379	0.1759	0.1502	0.2919
%SD	56.40	140.9	2.557	0.7045	0.6179	1.094

Element	Tin	Cadmium	Tin	Tin	Tin	Antimony
Isotope	Sn 114	Cd 114	Sn 117	Sn 119	Sn 120	Sb 121
Detector	PC	PC	PC	PC	PC	PC
Run 1	25.31	25.31	24.61	26.57	24.61	25.46
Run 2	26.28	26.28	24.78	25.05	24.10	24.92
Run 3	26.24	26.24	25.66	23.42	22.28	25.36
Mean	25.94	25.94	25.68	25.01	23.66	25.25
Std Dev	0.5517	0.5517	0.9121	1.575	1.226	0.2944
%SD	2.127	2.127	3.551	6.297	5.181	1.135

Element	Tin	Antimony	Barium	Barium	Barium	Rhenium
Isotope	Sn 122	Sb 123	Ba 135	Ba 137	Ba 138	Re 185
Detector	PC	PC	PC	PC	PC	PC
Run 1	24.92	24.77	24.73	24.74	24.29	0.0241
Run 2	23.85	24.96	24.82	24.30	24.21	0.0047
Run 3	23.81	24.63	24.19	24.12	24.13	0.0021
Mean	24.19	24.78	24.60	24.39	24.21	0.0103
Std Dev	0.6330	0.1659	0.3688	0.3212	0.0823	0.0120
%SD	2.616	0.6694	1.499	1.317	0.3401	117.1

Element	Rhenium	Osmium	Osmium	Osmium	Iridium	Iridium
Isotope	Re 187	Os 188	Os 189	Os 190	Ir 191	Ir 193
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.0512	0.8498	0.8268	0.9325	0.0386	0.0873
Run 2	0.0117	0.2073	0.1829	0.2224	-0.0531	0.0346
Run 3	0.0054	0.0997	0.0826	0.0912	-0.0659	0.0210
Mean	0.0229	0.3856	0.3641	0.3820	-0.0268	0.0476
Std Dev	0.0248	0.4056	0.4039	0.3956	0.0570	0.0350
%SD	108.9	105.2	110.9	103.6	212.7	73.51

Element	Platinum	Platinum	Platinum	Gold	Thallium	Thallium
Isotope	Pt 194	Pt 195	Pt 196	Au 197	Tl 203	Tl 205
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.0606	0.0514	0.0596	0.2148	23.38	25.51
Run 2	0.0163	0.0122	0.0104	0.0927	23.16	25.47
Run 3	0.0048	0.0029	0.0017	0.0596	23.20	25.02
Mean	0.0272	0.0221	0.0239	0.1190	23.25	25.33
Std Dev	0.0294	0.0258	0.0312	0.0837	0.1196	0.2711
%SD	108.2	116.5	130.5	70.36	0.5100	1.070

Element	Lead	Lead	Lead
Isotope	Pb 206	Pb 207	Pb 208
Detector	PC	PC	PC
Isotope	Pb 206	Pb 207	Pb 208
Detector	PC	PC	PC
Run 1	25.71	25.52	25.48
Run 2	25.59	25.32	25.38

00593

Std Dev	0.0806	0.2615	0.0520
%RSD	0.3139	1.038	0.2044

Internal Standard Drift; % relative to mean of first sample :

Element	Scandium	Yttrium	Bismuth
Isotope	Sc 45	Y 89	Bi 209
Detector	PC	PC	PC
Run 1	101.9	100.4	107.6
Run 2	99.89	99.71	105.7
Run 3	99.09	101.4	109.1
Mean	100.3	100.5	107.1
Std Dev	1.439	0.8294	1.252

Multi-Element Concentrations Fri May 30 1997
Statistics for Concentration Determination.
Analysis procedure : 200.8

Sample name : 14

First repeat started at : Fri May 30 1997 12:30:53

Last repeat started at : Fri May 30 1997 12:33:04

Interference Equations : DEFAULT

Dilution Factor : 1.0000 Concentration units : ppb

Element	Beryllium	Aluminium	Vanadium	Chromium	Chromium	Manganese	Cobalt
Isotope	Be 9	Al 27	V 51	Cr 52	Cr 53	Mn 55	Co 59
Detector	PC	PC	PC	PC	PC	PC	PC
Run 1	0.0029	0.0502	-0.0110	-0.0028	-0.0028	0.0048	0.0020
Run 2	0.0003	0.0445	-0.0068	-0.0011	-0.0011	0.0029	0.0016
Run 3	-0.0019	0.0443	0.0010	0.0201	0.0201	0.0013	0.0014
Mean	0.0005	0.0463	-0.0056	0.0054	0.0054	0.0030	0.0017
Std Dev	0.0023	0.0034	0.0061	0.0129	0.0129	0.0017	0.0003
%SD	500.7	7.317	109.2	236.5	235.7	59.26	19.95

Element	Nickel	Nickel	Copper	Copper	Zinc	Zinc
Isotope	Ni 60	Ni 62	Cu 63	Cu 65	Zn 66	Zn 67
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.0931	0.1182	0.0278	0.0222	0.0311	-0.0251
Run 2	0.1190	0.1712	0.0254	0.0261	0.0167	0.0661
Run 3	0.0989	0.1963	0.0251	0.0266	0.0279	0.0951
Mean	0.1036	0.1585	0.0261	0.0250	0.0252	0.0417
Std Dev	0.0136	0.0358	0.0015	0.0024	0.0076	0.0595
%SD	13.15	22.57	5.811	9.617	30.09	142.8

CCB-2

Element	Zinc	Arsenic	Selenium	Selenium	Selenium	Molybdenum
Isotope	Zn 68	As 75	Se 77	Se 78	Se 82	Mo 95
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.0157	0.0200	0.0503	-0.0274	0.0519	0.0073
Run 2	0.0376	-0.0345	-0.0397	-0.0942	-0.0392	0.0063
Run 3	0.0345	0.0156	0.0354	0.4619	0.0365	0.0006
Mean	0.0293	0.0004	0.0153	0.1131	0.0164	0.0047
Std Dev	0.0119	0.0303	0.0482	0.3031	0.0488	0.0036
%SD	40.50	7740	314.5	267.9	296.9	77.12

Element	Molybdenum	Molybdenum	Ruthenium	Ruthenium	Ruthenium	Rhodium
Isotope	Mo 97	Mo 98	Ru 99	Ru 101	Ru 102	Rh 103
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.0065	0.0186	0.0091	0.0145	0.0064	0.0001
Run 2	0.0145	0.0112	0.0048	0.0044	0.0035	0.0001
Run 3	0.0026	0.0052	0.0018	0.0054	0.0037	0.0002
Mean	0.0079	0.0117	0.0049	0.0081	0.0046	0.0001
Std Dev	0.0061	0.0067	0.0032	0.0055	0.0016	0.0000
%SD	77.34	57.38	64.60	68.17	35.57	39.66

Element	Palladium	Palladium	Silver	Silver	Cadmium	Cadmium

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Element	Palladium	Palladium	Silver	Silver	Cadmium	Cadmium
Isotope	Pd 104	Pd 105	Ag 107	Ag 109	Cd 111	Cd 112
Detector	PC	PC	PC	PC	PC	PC
Isotope	Pd 104	Pd 105	Ag 107	Ag 109	Cd 111	Cd 112
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.0047	-0.0661	0.0040	0.0045	-0.0019	0.0076
Run 2	0.0041	0.0294	0.0022	0.0038	-0.0044	0.0050
Run 3	0.0029	-0.0881	0.0016	0.0016	0.0027	0.0032
Mean	0.0039	-0.0446	0.0026	0.0033	-0.0012	0.0053
Std Dev	0.0009	0.0573	0.0012	0.0015	0.0036	0.0023
%SD	23.31	128.7	47.44	46.43	306.6	42.75

EB-2

Element	Tin	Cadmium	Tin	Tin	Tin	Antimony
Isotope	Sn 114	Cd 114	Sn 117	Sn 119	Sn 120	Sb 121
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.0028	0.0028	0.0188	0.0068	0.0564	0.0072
Run 2	0.0037	0.0037	-0.0084	0.0200	-0.0215	0.0055
Run 3	0.0005	0.0005	0.0176	-0.0008	-0.0095	0.0052
Mean	0.0023	0.0023	0.0093	0.0087	0.0085	0.0060
Std Dev	0.0017	0.0017	0.0154	0.0105	0.0419	0.0010
%SD	71.97	71.97	165.1	121.4	493.6	17.60

Element	Tin	Antimony	Barium	Barium	Barium	Rhenium
Isotope	Sn 122	Sb 123	Ba 135	Ba 137	Ba 138	Re 185
Detector	PC	PC	PC	PC	PC	PC
Run 1	-0.0057	0.0017	-0.0019	0.0049	0.0008	0.0000
Run 2	0.0103	0.0039	0.0121	0.0052	0.0015	0.0007
Run 3	0.0151	0.0029	0.0065	0.0082	0.0025	0.0002
Mean	0.0066	0.0028	0.0055	0.0061	0.0016	0.0003
Std Dev	0.0109	0.0011	0.0070	0.0018	0.0009	0.0003
%SD	166.8	38.58	126.9	29.16	54.15	108.7

Element	Rhenium	Osmium	Osmium	Osmium	Iridium	Iridium
Isotope	Re 187	Os 188	Os 189	Os 190	Ir 191	Ir 193
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.0017	0.0581	0.0592	0.0667	-0.1097	-0.0017
Run 2	0.0015	0.0428	0.0462	0.0487	-0.0867	-0.0009
Run 3	0.0006	0.0374	0.0272	0.0319	-0.0299	-0.0018
Mean	0.0013	0.0461	0.0442	0.0491	-0.0754	-0.0015
Std Dev	0.0006	0.0107	0.0161	0.0174	0.0411	0.0005
%SD	47.66	23.29	36.43	35.43	54.47	33.72

Element	Platinum	Platinum	Platinum	Gold	Thallium	Thallium
Isotope	Pt 194	Pt 195	Pt 196	Au 197	Tl 203	Tl 205
Detector	PC	PC	PC	PC	PC	PC
Run 1	0.0039	0.0003	-0.0001	0.0061	0.0012	0.0022
Run 2	0.0006	0.0018	-0.0029	0.0024	-0.0009	0.0011
Run 3	0.0007	0.0026	-0.0004	0.0007	0.0002	0.0012
Mean	0.0017	0.0016	-0.0011	0.0031	0.0001	0.0015
Std Dev	0.0019	0.0012	0.0015	0.0027	0.0010	0.0006
%SD	108.8	76.12	137.4	88.80	710.0	40.65

Element	Lead	Lead	Lead

Element	Lead	Lead	Lead
Isotope	Pb 206	Pb 207	Pb 208
Detector	PC	PC	PC
Isotope	Pb 206	Pb 207	Pb 208
Detector	PC	PC	PC
Run 1	0.0177	0.0119	0.0164
Run 2	0.0256	0.0185	0.0188

Mean	0.0151	0.0150	0.0151
Std Dev	0.0060	0.0033	0.0014
%SD	31.26	22.10	9.451

Internal Standard Drift; % relative to mean of first sample :

Element	Scandium	Yttrium	Bismuth
Isotope	Sc 45	Y 89	Bi 209
Detector	PC	PC	PC
Run 1	101.4	100.9	113.5
Run 2	100.1	99.93	109.0
Run 3	98.07	98.71	103.8
Mean	100.2	99.85	108.8
Std Dev	1.194	1.100	4.844