RAS #15522 SDG MFK888

9005954

CONTRACT EVIDENCE AUDIT TEAM
(CEAT-TechLaw)

EVIDENCE AUDIT COMPLETION FORM

Audited By: Steven Hensley

Date Audited: 12/18/91

EPA Lab Code: SWOK

Case Number

RAS	SAS
15522	

SDG Number(s)

MFK 888

Site Region: 6

Site Name: Larry Landry Dump

Reviewed By: Sharon Mouine

Date Reviewed: 12-20-91

DOCUMENT INVENTORY

CASE 15522
SDG MFK888

CLERK KC

DOC. CONTROL No.	DOCUMENT	No. OF PAGES
15522-F-1101	Case File Inventory Sheet	1
15522-F-1102	Hard Copy Data Package	110
	RUN LOGS/RAW DATA	
15522-F-1103	ICP	85
15522-F-1104	Furnace	196
15522-F-1105	Mercury	36
15522-F-1106	Cyanide	7
	DIGESTION SHEETS	
15522-F-1107	ICP	2
15522-F-1108	Furnace	2
15522-F-1109	Mercury	12
15522-F-1110	Cyanide	3
15522-F-1110A	Stock Solutions & Standards	7
	SHIPPING MANIFEST	
15522-F-1111	SDG Report	1
15522-F-1112	Airbill	2
15522-F-1113	Traffic Reports	2
15522-F-1114	Chain of Custody Records	3
15522-F-1115	SWOK Sample Log-In	3
15522-F-1116	Sample Log-In	21
15522-F-1117	Sample Tags	30
15522-F-1118	SMO Contract Comp. Screen	11
15522-F-1119	Response to CCS	3
15522-F-1120	Resolution to CCS	8
15522-F-1121	FAX FROM YOUREE HOLLOWAY	2
15522-F-1122	COMMUNICATION LOG	2
15522-F-1123	REGION REVIEW	3
15522-F-1124	SDG REPORT	1
15522-F-1125	RUN LOG SUMMARY	1
15522-F-1126	GRID SHEET	1
15522-F-1127	ARCHIMEDES SCREEN	2
15522-F-1128	SWOK CCS	9
15522-F-1129	SAMPLE BOOKING SHEET	1
15522-F-1130	SWOK INVOICE	3
15522-F-1131	LAB WORKSHEETS	21
15522-F-1132	PERCENT SOLIDS	1

SAMPLES - I = ICP, F = Furnace, H = Mercury, C = Cyanide

	I	F	H	C		I	F	H	C		I	F	H	C
MFK888					MFK895					MFK902D				
MFK889					MFK896					MFK902S				
MFK889S					MFK897					MFK903				
MFK890					MFK898					MFK903D				
MFK891					MFK899									
MFK892					MFK900									
MFK893					MFK901									
MFK894					MFK902									

Designate: Grab ✓ Comp.

Time 08:01 08:03

Month/Day/Year 12/11/90

Station No. SS-6

Project Code 15522

Samplers (Signatures) [signature]

Station Location Far Out

Preservative: Yes ☐ No ☑

ANALYSES

BOD Anions Solids (TSS) (TDS) (SS)	
COD, TOC, Nutrients	
Phenolics	
Mercury	
Metals	✓
Cyanide	✓
Oil and Grease	
Organics GC/MS	
Priority Pollutants	
Volatile Organics	
Pesticides	
Mutagenicity	
Bacteriology	

Remarks: MFK 888

Tag No. 6-035113

Lab Sample No.

Designate: Grab ✓ Comp.

Time 09:34 09:44

Month/Day/Year 12/11/90

Station No. GSS-3

Project Code 15522

Samplers (Signatures) [signature]

Station Location East Salt Stain

Preservative: Yes ☐ No ☑

ANALYSES

BOD Anions Solids (TSS) (TDS) (SS)	
COD, TOC, Nutrients	
Phenolics	
Mercury	
Metals	✓
Cyanide	✓
Oil and Grease	
Organics GC/MS	
Priority Pollutants	
Volatile Organics	
Pesticides	
Mutagenicity	
Bacteriology	

Remarks: MFK 894

Tag No. 6-035101

Lab Sample No.

Designate: Grab ✓ Comp.

Time 0930 0933

Month/Day/Year 12/1/90

Station No. GSS-10

Project Code 15522

Samplers (Signatures) [signature]

Station Location North Canal

Preservative: Yes ☐ No ☑

ANALYSES

BOD Anions Solids (TSS) (TDS) (SS)	
COD, TOC, Nutrients	
Phenolics	
Mercury	
Metals	✓
Cyanide	✓
Oil and Grease	
Organics GC/MS	
Priority Pollutants	
Volatile Organics	
Pesticides	
Mutagenicity	
Bacteriology	

Remarks: MFK 896

Tag No. 6-035129

Lab Sample No.

Designate: Grab ✓ Comp.

Time 08:17 08:20

Month/Day/Year 12/11/90

Station No. SS-5

Project Code 15522

Samplers (Signatures) [signature]

Station Location South Pile

Preservative: Yes ☐ No ☑

ANALYSES

BOD Anions Solids (TSS) (TDS) (SS)	
COD, TOC, Nutrients	
Phenolics	
Mercury	
Metals	✓
Cyanide	✓
Oil and Grease	
Organics GC/MS	
Priority Pollutants	
Volatile Organics	
Pesticides	
Mutagenicity	
Bacteriology	

Remarks: QA/QC MFK 896

Tag No. 6-035109

Lab Sample No.

Designate: Grab ✓ Comp.

Time 09:53 10:02 09:54 GRB

Month/Day/Year 12/11/90

Station No. GSS-4

Project Code 15522

Samplers (Signatures) [signature]

Station Location West Salt Stain

Preservative: Yes ☐ No ☑

ANALYSES

BOD Anions Solids (TSS) (TDS) (SS)	
COD, TOC, Nutrients	
Phenolics	
Mercury	
Metals	✓
Cyanide	✓
Oil and Grease	
Organics GC/MS	
Priority Pollutants	
Volatile Organics	
Pesticides	
Mutagenicity	
Bacteriology	

Remarks: MFK 897

Tag No. 6-035105

Lab Sample No.

Designate: Grab ✓ Comp.

Time 08:25 08:27

Month/Day/Year 12/11/90

Station No. SS-8

Project Code 15522

Samplers (Signatures) [signature]

Station Location Fence ~~Leg~~ MD Pile

Preservative: Yes ☐ No ☑

ANALYSES

BOD Anions Solids (TSS) (TDS) (SS)	
COD, TOC, Nutrients	
Phenolics	
Mercury	
Metals	✓
Cyanide	✓
Oil and Grease	
Organics GC/MS	
Priority Pollutants	
Volatile Organics	
Pesticides	
Mutagenicity	
Bacteriology	

Remarks: MFK 898

Tag No. 6-035121

Lab Sample No.

Designate: Grab ✓ Comp.

Time 08:08 08:1

Month/Day/Year 12/11/90

Station No. SS-9

Project Code 15522

Samplers (Signatures) Julie J. Kohn Cathleen

Station Location Far West

Preservative: Yes ☐ No ☑

ANALYSES

BOD Anions Solids (TSS) (TDS) (SS)	
COD, TOC, Nutrients	
Phenolics	
Mercury	
Metals	✓
Cyanide	✓
Oil and Grease	
Organics GC/MS	
Priority Pollutants	
Volatile Organics	
Pesticides	
Mutagenicity	
Bacteriology	

Remarks: MFK 899

Tag No. 6-035125

Lab Sample No.

Designate: Grab ✓ Comp.

Time 08:20 GKS 08:23

Month/Day/Year 12/11/90

Station No. SS-7

Project Code 15522

Samplers (Signatures) Cathleen Julie J. Kohn

Station Location North Pile

Preservative: Yes ☐ No ☑

ANALYSES

BOD Anions Solids (TSS) (TDS) (SS)	
COD, TOC, Nutrients	
Phenolics	
Mercury	
Metals	✓
Cyanide	✓
Oil and Grease	
Organics GC/MS	
Priority Pollutants	
Volatile Organics	
Pesticides	
Mutagenicity	
Bacteriology	

Remarks: MFK900

Tag No. 6-035117

Lab Sample No.

Designate: Grab ✓ Comp.

Time 10:04 GKS 10:13

Month/Day/Year 12/11/90

Station No. GSS-1

Project Code 15522

Samplers (Signatures) [illegible] Jim Cordon

Station Location North Salt Stain

Preservative: Yes ☐ No ☑

ANALYSES

BOD Anions Solids (TSS) (TDS) (SS)	
COD, TOC, Nutrients	
Phenolics	
Mercury	
Metals	✓
Cyanide	✓
Oil and Grease	
Organics GC/MS	
Priority Pollutants	
Volatile Organics	
Pesticides	
Mutagenicity	
Bacteriology	

Remarks: MFK 901

Tag No. 6-035093

Lab Sample No.

Designate: Grab ✓ Comp.

Time 09:15 09:36

Samplers (Signatures)

Month/Day/Year 12/11/90

Station No. GSS-2

Station Location South salt stain

Project Code 15522

Preservative: Yes ☐ No ☑

ANALYSES

BOD Anions Solids (TSS) (TDS) (SS)	
COD, TOC, Nutrients	
Phenolics	
Mercury	
Metals	✓
Cyanide	✓
Oil and Grease	
Organics GC/MS	
Priority Pollutants	
Volatile Organics	
Pesticides	
Mutagenicity	
Bacteriology	

Remarks: MFK 902

Tag No. 6-035097

Lab Sample No.

Designate: Grab ✓ Comp.

Time 10:15-10:33

Samplers (Signatures)

Month/Day/Year 12/11/90

Station No. GW-1

Station Location well

Project Code 15522

Preservative: Yes ☑ No ☐

ANALYSES

BOD Anions Solids (TSS) (TDS) (SS)	
COD, TOC, Nutrients	
Phenolics	
Mercury	
Metals	
Cyanide	✓
Oil and Grease	
Organics GC/MS	
Priority Pollutants	
Volatile Organics	
Pesticides	
Mutagenicity	
Bacteriology	

Remarks: QA/QC MFK 903

Tag No. 6-035142

Lab Sample No.

Designate: Grab ✓ Comp.

Time 10:15-10:23

Samplers (Signatures)

Month/Day/Year 12/11/90

Station No. GW-1

Station Location well

Project Code 15522

Preservative: Yes ☑ No ☐

ANALYSES

BOD Anions Solids (TSS) (TDS) (SS)	
COD, TOC, Nutrients	
Phenolics	
Mercury	
Metals	✓
Cyanide	
Oil and Grease	
Organics GC/MS	
Priority Pollutants	
Volatile Organics	
Pesticides	
Mutagenicity	
Bacteriology	

Remarks: QA/QC MFK 903

Tag No. 6-035140

Lab Sample No.

Designate: Grab ✓ Comp.

Project Code: 15522

Station No.: GW-1 (GW-1 Dup)

Month/Day/Year: 12/14/90

Time: 1015-1033

Samplers (Signatures): Cathleen

Station Location: well (and Dup well south)

Preservative: Yes ☑ No ☐ (X Dup)

ANALYSES

BOD Anions Solids (TSS) (TDS) (SS)	
COD, TOC, Nutrients	
Phenolics	
Mercury	✓
Metals	✓
Cyanide	
Oil and Grease	
Organics GC/MS	
Priority Pollutants	
Volatile Organics	
Pesticides	
Mutagenicity	
Bacteriology	

Remarks: QA/QC MFK 903

Tag No.: 6-035139

Lab Sample No.:

Designate: Grab ✓ Comp.

Project Code: 15522

Station No.: GW-1

Month/Day/Year: 12/14/90

Time: 1015-1033

Samplers (Signatures): Cathleen

Station Location: well

Preservative: Yes ☑ No ☐ (X)

ANALYSES

BOD Anions Solids (TSS) (TDS) (SS)	
COD, TOC, Nutrients	
Phenolics	
Mercury	
Metals	
Cyanide	✓
Oil and Grease	
Organics GC/MS	
Priority Pollutants	
Volatile Organics	
Pesticides	
Mutagenicity	
Bacteriology	

Remarks: QA/QC MFK 903

Tag No.: 6-035141

Lab Sample No.:

Designate: Grab ✓ Comp.

Project Code: 15522

Station No.: SW-3

Month/Day/Year: 12/12/90

Time: 9:30 9:40

Samplers (Signatures): Lori Cuellar

Station Location: up Mule Creek

Preservative: Yes ☑ No ☐

ANALYSES

BOD Anions Solids (TSS) (TDS) (SS)	
COD, TOC, Nutrients	
Phenolics	
Mercury	
Metals	
Cyanide	✓
Oil and Grease	
Organics GC/MS	
Priority Pollutants	
Volatile Organics	
Pesticides	
Mutagenicity	
Bacteriology	

Remarks: MFK 9006

Tag No.: 6-035220

Lab Sample No.:

Designate: Grab ✓ Comp.

Project Code: 155322

Station No.: SW-3

Station Location: up Mo Creek

Month/Day/Year: 12/12/90

Time: 09:20 09:40

Samplers (Signatures): Chris Cullen

Preservative: Yes ☑ No ☐

ANALYSES	
BOD Anions Solids (TSS) (TDS) (SS)	
COD, TOC, Nutrients	
Phenolics	
Mercury	
Metals	✓
Cyanide	
Oil and Grease	
Organics GC/MS	
Priority Pollutants	
Volatile Organics	
Pesticides	
Mutagenicity	
Bacteriology	

Remarks: ~~FLESO~~ GKS MFK 906

Tag No.: 6-035219

Lab Sample No.:

Designate: Grab ✓ Comp.

Project Code: 155322

Station No.: SW-1

Station Location: Down Canal

Month/Day/Year: 12/12/90

Time: 09:07 09:50

Samplers (Signatures): Chris Cullen

Preservative: Yes ☑ No ☐

ANALYSES	
BOD Anions Solids (TSS) (TDS) (SS)	
COD, TOC, Nutrients	
Phenolics	
Mercury	
Metals	✓
Cyanide	
Oil and Grease	
Organics GC/MS	
Priority Pollutants	
Volatile Organics	
Pesticides	
Mutagenicity	
Bacteriology	

Remarks: ~~QA/QC~~ GKS MFK 905

Tag No.: 6-035195

Lab Sample No.:

Designate: Grab ✓ Comp.

Project Code: 155322

Station No.: SW-1

Station Location: Down Canal

Month/Day/Year: 12/13/90

Time: 09:47 09:50

Samplers (Signatures): Chris Cullen

Preservative: Yes ☑ No ☐

ANALYSES	
BOD Anions Solids (TSS) (TDS) (SS)	
COD, TOC, Nutrients	
Phenolics	
Mercury	
Metals	✓
Cyanide	
Oil and Grease	
Organics GC/MS	
Priority Pollutants	
Volatile Organics	
Pesticides	
Mutagenicity	
Bacteriology	

Remarks: ~~QA/QC~~ GKS MFK 905

Tag No.: 6-035193

Lab Sample No.:

Designate: Grab ✓ Comp.

Time 09:20 09:27

Month/Day/Year 12/17/90

Station No. SW-2

Project Code 16522

Samplers (Signatures) [signature] Chris Lorlan

Station Location up Canal

Preservative: Yes ☑ No ☐

ANALYSES

BOD Anions Solids (TSS) (TDS) (SS)	
COD, TOC, Nutrients	
Phenolics	
Mercury	
Metals	
Cyanide	✓
Oil and Grease	
Organics GC/MS	
Priority Pollutants	
Volatile Organics	
Pesticides	
Mutagenicity	
Bacteriology	

Remarks: MFK 904

Tag No. 6-035212

Lab Sample No.

Designate: Grab ✓ Comp.

Time 09:20 09:27

Month/Day/Year 12/17/90

Station No. SW-2

Project Code 16522

Samplers (Signatures) [signature] Chris Lorlan

Station Location up Canal

Preservative: Yes ☑ No ☐

ANALYSES

BOD Anions Solids (TSS) (TDS) (SS)	
COD, TOC, Nutrients	
Phenolics	
Mercury	
Metals	✓
Cyanide	
Oil and Grease	
Organics GC/MS	
Priority Pollutants	
Volatile Organics	
Pesticides	
Mutagenicity	
Bacteriology	

Remarks: MFK 904

Tag No. 6-035211

Lab Sample No.

Designate: Grab ✓ Comp.

Time 1115-1120

Month/Day/Year 12/17/90

Station No. GGW-4

Project Code 16522

Samplers (Signatures) [signature] Cal Seen

Station Location Geo For West

Preservative: Yes ☐ No ☑

ANALYSES

BOD Anions Solids (TSS) (TDS) (SS)	
COD, TOC, Nutrients	
Phenolics	
Mercury	
Metals	
Cyanide	✓
Oil and Grease	
Organics GC/MS	
Priority Pollutants	
Volatile Organics	
Pesticides	
Mutagenicity	
Bacteriology	

Remarks: MFK 895

Tag No. 6-035174

Lab Sample No.

Designate: Grab ✓ Comp

Time: 1115-1120

Month/Day/Year: 12/12/90

Station No.: GGW-4

Project Code: 15522

Samplers (Signatures): Cathleen

Station Location: Geo Far West

Preservative: Yes ☑ No ☐

ANALYSES

BOD Anions Solids (TSS) (TDS) (SS)	
COD, TOC, Nutrients	
Phenolics	
Mercury	
Metals	✓
Cyanide	
Oil and Grease	
Organics GC/MS	
Priority Pollutants	
Volatile Organics	
Pesticides	
Mutagenicity	
Bacteriology	

Remarks: MFK 895

Tag No.: 6-035173

Lab Sample No.:

Designate: Grab ✓ Comp.

Time: 1101 1109

Month/Day/Year: 12/12/90

Station No.: GGW-2

Project Code: 15522

Samplers (Signatures): Cathleen

Station Location: Geo South

Preservative: Yes ☑ No ☑ KMD

ANALYSES

BOD Anions Solids (TSS) (TDS) (SS)	
COD, TOC, Nutrients	
Phenolics	
Mercury	
Metals	
Cyanide	✓
Oil and Grease	
Organics GC/MS	
Priority Pollutants	
Volatile Organics	
Pesticides	
Mutagenicity	
Bacteriology	

Remarks: MFK 893

Tag No.: 6-035156

Lab Sample No.:

Designate: Grab ✓ Comp.

Time: 1101 1109

Month/Day/Year: 12/12/90

Station No.: GGW-2

Project Code: 15522

Samplers (Signatures): Cathleen

Station Location: Geo South

Preservative: Yes ☑ No ☑ KMD

ANALYSES

BOD Anions Solids (TSS) (TDS) (SS)	
COD, TOC, Nutrients	
Phenolics	
Mercury	
Metals	✓
Cyanide	
Oil and Grease	
Organics GC/MS	
Priority Pollutants	
Volatile Organics	
Pesticides	
Mutagenicity	
Bacteriology	

Remarks: MFK 893

Tag No.: 6-035155

Lab Sample No.:

Project Code	15522
Designate:	Grab ✓ / Comp.
Station No.	GGW-3
Month/Day/Year	12/12/90
Time	1110-1117
Station Location	Geo North
Samplers (Signatures)	[signature]
Tag No.	6-035165
Lab Sample No.	

Preservative: Yes ☑ No ☐

ANALYSES

BOD Anions Solids (TSS) (TDS) (SS)	
COD, TOC, Nutrients	
Phenolics	
Mercury	
Metals	✓
Cyanide	
Oil and Grease	
Organics GC/MS	
Priority Pollutants	
Volatile Organics	
Pesticides	
Mutagenicity	
Bacteriology	

Remarks: MFK 892

Project Code	15522
Designate:	Grab ✓ / Comp.
Station No.	GGW-3
Month/Day/Year	12/12/90
Time	Dec 1110-1117
Station Location	Geo North
Samplers (Signatures)	[signature]
Tag No.	6-035166
Lab Sample No.	

Preservative: Yes ☑ No ☐

ANALYSES

BOD Anions Solids (TSS) (TDS) (SS)	
COD, TOC, Nutrients	
Phenolics	
Mercury	
Metals	
Cyanide	✓
Oil and Grease	
Organics GC/MS	
Priority Pollutants	
Volatile Organics	
Pesticides	
Mutagenicity	
Bacteriology	

Remarks: MFK 892

Project Code	15522
Designate:	Grab ✓ / Comp.
Station No.	GGW-5
Month/Day/Year	12/12/90
Time	1125 1137
Station Location	West Geo
Samplers (Signatures)	[signature]
Tag No.	6-035182
Lab Sample No.	

Preservative: Yes ☑ No ☐

ANALYSES

BOD Anions Solids (TSS) (TDS) (SS)	
COD, TOC, Nutrients	
Phenolics	
Mercury	
Metals	
Cyanide	✓
Oil and Grease	
Organics GC/MS	
Priority Pollutants	
Volatile Organics	
Pesticides	
Mutagenicity	
Bacteriology	

Remarks: MFK 891

Designate: Grab ✓ Comp.

Time 1125 1137

Month/Day/Year 12/12/90

Station No GGW-5

Project Code 15522

Samplers (Signatures) [signature]

Station Location west Geo

Preservative: Yes ☑ No ☐

ANALYSES

BOD Anions Solids (TSS) (TDS) (SS)	
COD, TOC, Nutrients	
Phenolics	
Mercury	
Metals	✓
Cyanide	
Oil and Grease	
Organics GC/MS	
Priority Pollutants	
Volatile Organics	
Pesticides	
Mutagenicity	
Bacteriology	

Remarks: MFK 891

Tag No. 6-035181

Lab Sample No.

Designate: Grab ✓ Comp.

Time

Month/Day/Year 12/12/90

Station No. TB-1

Project Code 15522

Samplers (Signatures) [signature]

Station Location Trip Blank

Preservative: Yes ☑ No ☐

ANALYSES

BOD Anions Solids (TSS) (TDS) (SS)	
COD, TOC, Nutrients	
Phenolics	
Mercury	
Metals	
Cyanide	✓
Oil and Grease	
Organics GC/MS	
Priority Pollutants	
Volatile Organics	
Pesticides	
Mutagenicity	
Bacteriology	

Remarks: MFK 889

Tag No. 6-035228

Lab Sample No.

Designate: Grab ✓ Comp.

Time

Month/Day/Year 12/12/90

Station No. TB-1

Project Code 15522

Samplers (Signatures) [signature]

Station Location Trip Blank

Preservative: Yes ☑ No ☐

ANALYSES

BOD Anions Solids (TSS) (TDS) (SS)	
COD, TOC, Nutrients	
Phenolics	
Mercury	
Metals	✓
Cyanide	
Oil and Grease	
Organics GC/MS	
Priority Pollutants	
Volatile Organics	
Pesticides	
Mutagenicity	
Bacteriology	

Remarks: MFK 889

Tag No. 6-035227

Lab Sample No.

15522-F-1116

SOUTHWEST LABORATORY OF OKLAHOMA, INC.
1700 W. ALBANY SUITE C
BROKEN ARROW, OK 74012

Date: 12/12/90
Episode: 4572
Client: EPAMT1

DEC 12 1990

SID #	DATE	DESCRIPTION	MA	NC	TEST	PRI	DUE	DESCRIPTION	RESULTS	ANALYSTS	DATE/TIME
4572.01	12/12/90	MFK888 (CASE#15522)	S	1	IN120	3	01/10/91	TOTAL CYANIDE			
					MT058	3	01/10/91	ARSENIC			
					MT248	3	01/10/91	LEAD			
					MT310	3	01/10/91	MERCURY			
					MT388	3	01/10/91	SELENIUM			
					MT458	3	01/10/91	THALLIUM			
					MT600	3	01/10/91	ACID DIG ICP/AA			
					MT610	3	01/10/91	ACID DIG. FURN.			
					MT620	3	01/10/91	ACID DIG. C/V			
					MT810	3	01/10/91	ALUMINUM			
								ANTIMONY			
								BARIUM			
								BERYLLIUM			
								CADMIUM			
								CALCIUM			
								CHROMIUM			
								COBALT			
								COPPER			
								IRON			
								MAGNESIUM			
								MANGANESE			
								NICKEL			
								POTASSIUM			
								SILVER			
								SODIUM			
								VANADIUM			

SID #	DATE	DESCRIPTION	MA	NC	TEST	PRI	DUE	DESCRIPTION	RESULTS	ANALYSTS	DATE/TIME
4572.01	(cont)				MT810	3	01/10/91	ZINC			
4572.02	12/12/90	MFK890 (CASE#15522)	S	1	IN120	3	01/10/91	TOTAL CYANIDE			
					MT058	3	01/10/91	ARSENIC			
					MT248	3	01/10/91	LEAD			
					MT310	3	01/10/91	MERCURY			
					MT388	3	01/10/91	SELENIUM			
					MT458	3	01/10/91	THALLIUM			
					MT600	3	01/10/91	ACID DIG ICP/AA			
					MT610	3	01/10/91	ACID DIG. FURN.			
					MT620	3	01/10/91	ACID DIG. C/V			
					MT810	3	01/10/91	ALUMINUM			
								ANTIMONY			
								BARIUM			
								BERYLLIUM			
								CADMIUM			
								CALCIUM			
								CHROMIUM			
								COBALT			
								COPPER			
								IRON			
								MAGNESIUM			
								MANGANESE			
								NICKEL			
								POTASSIUM			
								SILVER			
								SODIUM			
								VANADIUM			

SID #	DATE	DESCRIPTION	MA	NC	TEST	PRI	DUE	DESCRIPTION	RESULTS	ANALYSTS	DATE/TIME
4572.02	(cont)				MT810	3	01/10/91	ZINC			
4572.03	12/12/90	MFK894 (CASE#15522)	S	1	IN120	3	01/10/91	TOTAL CYANIDE			
					MT058	3	01/10/91	ARSENIC			
					MT248	3	01/10/91	LEAD			
					MT310	3	01/10/91	MERCURY			
					MT388	3	01/10/91	SELENIUM			
					MT458	3	01/10/91	THALLIUM			
					MT600	3	01/10/91	ACID DIG ICP/AA			
					MT610	3	01/10/91	ACID DIG. FURN.			
					MT620	3	01/10/91	ACID DIG. C/V			
					MT810	3	01/10/91	ALUMINUM			
								ANTIMONY			
								BARIUM			
								BERYLLIUM			
								CADMIUM			
								CALCIUM			
								CHROMIUM			
								COBALT			
								COPPER			
								IRON			
								MAGNESIUM			
								MANGANESE			
								NICKEL			
								POTASSIUM			
								SILVER			
								SODIUM			
								VANADIUM			

SID #	DATE	DESCRIPTION	MA	NC	TEST	PRI	DUE	DESCRIPTION	RESULTS	ANALYSTS	DATE/TIME
4572.03	(cont)				MT810	3	01/10/91	ZINC			
4572.04	12/12/90	MFK896 (CASE#15522)	S	1	IN120	3	01/10/91	TOTAL CYANIDE			
					MT058	3	01/10/91	ARSENIC			
					MT248	3	01/10/91	LEAD			
					MT310	3	01/10/91	MERCURY			
					MT388	3	01/10/91	SELENIUM			
					MT458	3	01/10/91	THALLIUM			
					MT600	3	01/10/91	ACID DIG ICP/AA			
					MT610	3	01/10/91	ACID DIG. FURN.			
					MT620	3	01/10/91	ACID DIG. C/V			
					MT810	3	01/10/91	ALUMINUM			
								ANTIMONY			
								BARIUM			
								BERYLLIUM			
								CADMIUM			
								CALCIUM			
								CHROMIUM			
								COBALT			
								COPPER			
								IRON			
								MAGNESIUM			
								MANGANESE			
								NICKEL			
								POTASSIUM			
								SILVER			
								SODIUM			
								VANADIUM			

SID #	DATE	DESCRIPTION	MA	NC	TEST	PRI	DUE	DESCRIPTION	RESULTS	ANALYSTS	DATE/TIME
4572.04	(cont)				MT810	3	01/10/91	ZINC			
4572.05	12/12/90	MFK897 (CASE#15522)	S	1	IN120	3	01/10/91	TOTAL CYANIDE			
					MT058	3	01/10/91	ARSENIC			
					MT248	3	01/10/91	LEAD			
					MT310	3	01/10/91	MERCURY			
					MT388	3	01/10/91	SELENIUM			
					MT458	3	01/10/91	THALLIUM			
					MT600	3	01/10/91	ACID DIG ICP/AA			
					MT610	3	01/10/91	ACID DIG. FURN.			
					MT620	3	01/10/91	ACID DIG. C/V			
					MT810	3	01/10/91	ALUMINUM			
								ANTIMONY			
								BARIUM			
								BERYLLIUM			
								CADMIUM			
								CALCIUM			
								CHROMIUM			
								COBALT			
								COPPER			
								IRON			
								MAGNESIUM			
								MANGANESE			
								NICKEL			
								POTASSIUM			
								SILVER			
								SODIUM			
								VANADIUM			

SID #	DATE	DESCRIPTION	MA	NC	TEST	PRI	DUE	DESCRIPTION	RESULTS	ANALYSTS	DATE/TIME
4572.05	(cont)				MT810	3	01/10/91	ZINC			
4572.06	12/12/90	MFK898 (CASE#15522)	S	1	IN120	3	01/10/91	TOTAL CYANIDE			
					MT058	3	01/10/91	ARSENIC			
					MT248	3	01/10/91	LEAD			
					MT310	3	01/10/91	MERCURY			
					MT388	3	01/10/91	SELENIUM			
					MT458	3	01/10/91	THALLIUM			
					MT600	3	01/10/91	ACID DIG ICP/AA			
					MT610	3	01/10/91	ACID DIG. FURN.			
					MT620	3	01/10/91	ACID DIG. C/V			
					MT810	3	01/10/91	ALUMINUM			
								ANTIMONY			
								BARIUM			
								BERYLLIUM			
								CADMIUM			
								CALCIUM			
								CHROMIUM			
								COBALT			
								COPPER			
								IRON			
								MAGNESIUM			
								MANGANESE			
								NICKEL			
								POTASSIUM			
								SILVER			
								SODIUM			
								VANADIUM			

SID #	DATE	DESCRIPTION	MA	NC	TEST	PRI	DUE	DESCRIPTION	RESULTS	ANALYSTS	DATE/TIME
4572.06	(cont)				MT810	3	01/10/91	ZINC			
4572.07	12/12/90	MFK899 (CASE#15522)	S	1	IN120	3	01/10/91	TOTAL CYANIDE			
					MT058	3	01/10/91	ARSENIC			
					MT248	3	01/10/91	LEAD			
					MT310	3	01/10/91	MERCURY			
					MT388	3	01/10/91	SELENIUM			
					MT458	3	01/10/91	THALLIUM			
					MT600	3	01/10/91	ACID DIG ICP/AA			
					MT610	3	01/10/91	ACID DIG. FURN.			
					MT620	3	01/10/91	ACID DIG. C/V			
					MT810	3	01/10/91	ALUMINUM			
								ANTIMONY			
								BARIUM			
								BERYLLIUM			
								CADMIUM			
								CALCIUM			
								CHROMIUM			
								COBALT			
								COPPER			
								IRON			
								MAGNESIUM			
								MANGANESE			
								NICKEL			
								POTASSIUM			
								SILVER			
								SODIUM			
								VANADIUM			

SID #	DATE	DESCRIPTION	MA	NC	TEST	PRI	DUE	DESCRIPTION	RESULTS	ANALYSTS	DATE/TIME
4572.07	(cont)				MT810	3	01/10/91	ZINC			
4572.08	12/12/90	MFK900 (CASE#15522)	S	1	IN120	3	01/10/91	TOTAL CYANIDE			
					MT058	3	01/10/91	ARSENIC			
					MT248	3	01/10/91	LEAD			
					MT310	3	01/10/91	MERCURY			
					MT388	3	01/10/91	SELENIUM			
					MT458	3	01/10/91	THALLIUM			
					MT600	3	01/10/91	ACID DIG ICP/AA			
					MT610	3	01/10/91	ACID DIG. FURN.			
					MT620	3	01/10/91	ACID DIG. C/V			
					MT810	3	01/10/91	ALUMINUM			
								ANTIMONY			
								BARIUM			
								BERYLLIUM			
								CADMIUM			
								CALCIUM			
								CHROMIUM			
								COBALT			
								COPPER			
								IRON			
								MAGNESIUM			
								MANGANESE			
								NICKEL			
								POTASSIUM			
								SILVER			
								SODIUM			
								VANADIUM			

SID #	DATE	DESCRIPTION	MA	NC	TEST	PRI	DUE	DESCRIPTION	RESULTS	ANALYSTS	DATE/TIME
4572.08	(cont)				MT810	3	01/10/91	ZINC			
4572.09	12/12/90	MFK901 (CASE#15522)	S	1	IN120	3	01/10/91	TOTAL CYANIDE			
					MT058	3	01/10/91	ARSENIC			
					MT248	3	01/10/91	LEAD			
					MT310	3	01/10/91	MERCURY			
					MT388	3	01/10/91	SELENIUM			
					MT458	3	01/10/91	THALLIUM			
					MT600	3	01/10/91	ACID DIG ICP/AA			
					MT610	3	01/10/91	ACID DIG. FURN.			
					MT620	3	01/10/91	ACID DIG. C/V			
					MT810	3	01/10/91	ALUMINUM			
								ANTIMONY			
								BARIUM			
								BERYLLIUM			
								CADMIUM			
								CALCIUM			
								CHROMIUM			
								COBALT			
								COPPER			
								IRON			
								MAGNESIUM			
								MANGANESE			
								NICKEL			
								POTASSIUM			
								SILVER			
								SODIUM			
								VANADIUM			

SID #	DATE	DESCRIPTION	MA	NC	TEST	PRI	DUE	DESCRIPTION	RESULTS	ANALYSTS	DATE/TIME
4572.09	(cont)				MT810	3	01/10/91	ZINC			
4572.10	12/12/90	MFK902 (CASE#15522)	S	1	IN120	3	01/10/91	TOTAL CYANIDE			
					MT058	3	01/10/91	ARSENIC			
					MT248	3	01/10/91	LEAD			
					MT310	3	01/10/91	MERCURY			
					MT388	3	01/10/91	SELENIUM			
					MT458	3	01/10/91	THALLIUM			
					MT600	3	01/10/91	ACID DIG ICP/AA			
					MT610	3	01/10/91	ACID DIG. FURN.			
					MT620	3	01/10/91	ACID DIG. C/V			
					MT810	3	01/10/91	ALUMINUM			
								ANTIMONY			
								BARIUM			
								BERYLLIUM			
								CADMIUM			
								CALCIUM			
								CHROMIUM			
								COBALT			
								COPPER			
								IRON			
								MAGNESIUM			
								MANGANESE			
								NICKEL			
								POTASSIUM			
								SILVER			
								SODIUM			
								VANADIUM			

SID #	DATE	DESCRIPTION	MA	NC	TEST	PRI	DUE	DESCRIPTION	RESULTS	ANALYSTS	DATE/TIME
4572.10	(cont)				MT810	3	01/10/91	ZINC			
4572.11	12/12/90	MFK903 (CASE#15522)	W	4	IN120	3	01/10/91	TOTAL CYANIDE			
					MT058	3	01/10/91	ARSENIC			
					MT248	3	01/10/91	LEAD			
					MT310	3	01/10/91	MERCURY			
					MT388	3	01/10/91	SELENIUM			
					MT458	3	01/10/91	THALLIUM			
					MT600	3	01/10/91	ACID DIG ICP/AA			
					MT610	3	01/10/91	ACID DIG. FURN.			
					MT620	3	01/10/91	ACID DIG. C/V			
					MT810	3	01/10/91	ALUMINUM			
								ANTIMONY			
								BARIUM			
								BERYLLIUM			
								CADMIUM			
								CALCIUM			
								CHROMIUM			
								COBALT			
								COPPER			
								IRON			
								MAGNESIUM			
								MANGANESE			
								NICKEL			
								POTASSIUM			
								SILVER			
								SODIUM			
								VANADIUM			

SID #	DATE	DESCRIPTION	MA	NC	TEST	PRI	DUE	DESCRIPTION	RESULTS	ANALYSTS	DATE/TIME
4572.11	(cont)				MT810	3	01/10/91	ZINC			

Total samples = 11

SOUTHWEST LABORATORY OF OKLAHOMA, INC.
1700 W. ALBANY SUITE C
BROKEN ARROW, OK 74012

Date: 12/13/90
Episode: 4585
Client: EPAMT1

DEC 13 1990

SID #	DATE	DESCRIPTION	MA	NC	TEST	PRI	DUE	DESCRIPTION	RESULTS	ANALYSTS	DATE/TIME
4585.01	12/13/90	MFK889 (CASE#15522)	W	2	IN120	3	01/11/91	TOTAL CYANIDE			
					MT058	3	01/11/91	ARSENIC			
					MT248	3	01/11/91	LEAD			
					MT310	3	01/11/91	MERCURY			
					MT388	3	01/11/91	SELENIUM			
					MT458	3	01/11/91	THALLIUM			
					MT600	3	01/11/91	ACID DIG ICP/AA			
					MT610	3	01/11/91	ACID DIG. FURN.			
					MT620	3	01/11/91	ACID DIG. C/V			
					MT810	3	01/11/91	ALUMINUM			
								ANTIMONY			
								BARIUM			
								BERYLLIUM			
								CADMIUM			
								CALCIUM			
								CHROMIUM			
								COBALT			
								COPPER			
								IRON			
								MAGNESIUM			
								MANGANESE			
								NICKEL			
								POTASSIUM			
								SILVER			
								SODIUM			
								VANADIUM			

SID #	DATE	DESCRIPTION	MA	NC	TEST	PRI	DUE	DESCRIPTION	RESULTS	ANALYSTS	DATE/TIME
4585.01	(cont)				MT810	3	01/11/91	ZINC			
4585.02	12/13/90	MFK891 (CASE#15522)	W	2	IN120	3	01/11/91	TOTAL CYANIDE			
					MT058	3	01/11/91	ARSENIC			
					MT248	3	01/11/91	LEAD			
					MT310	3	01/11/91	MERCURY			
					MT388	3	01/11/91	SELENIUM			
					MT458	3	01/11/91	THALLIUM			
					MT600	3	01/11/91	ACID DIG ICP/AA			
					MT610	3	01/11/91	ACID DIG. FURN.			
					MT620	3	01/11/91	ACID DIG. C/V			
					MT810	3	01/11/91	ALUMINUM			
								ANTIMONY			
								BARIUM			
								BERYLLIUM			
								CADMIUM			
								CALCIUM			
								CHROMIUM			
								COBALT			
								COPPER			
								IRON			
								MAGNESIUM			
								MANGANESE			
								NICKEL			
								POTASSIUM			
								SILVER			
								SODIUM			
								VANADIUM			

SID #	DATE	DESCRIPTION	MA	NC	TEST	PRI	DUE	DESCRIPTION	RESULTS	ANALYSTS	DATE/TIME
4585.02	(cont)				MT810	3	01/11/91	ZINC			
4585.03	12/13/90	MFK892 (CASE#15522)	W	2	IN120	3	01/11/91	TOTAL CYANIDE			
					MT058	3	01/11/91	ARSENIC			
					MT248	3	01/11/91	LEAD			
					MT310	3	01/11/91	MERCURY			
					MT388	3	01/11/91	SELENIUM			
					MT458	3	01/11/91	THALLIUM			
					MT600	3	01/11/91	ACID DIG ICP/AA			
					MT610	3	01/11/91	ACID DIG. FURN.			
					MT620	3	01/11/91	ACID DIG. C/V			
					MT810	3	01/11/91	ALUMINUM			
								ANTIMONY			
								BARIUM			
								BERYLLIUM			
								CADMIUM			
								CALCIUM			
								CHROMIUM			
								COBALT			
								COPPER			
								IRON			
								MAGNESIUM			
								MANGANESE			
								NICKEL			
								POTASSIUM			
								SILVER			
								SODIUM			
								VANADIUM			

SID #	DATE	DESCRIPTION	MA	NC	TEST	PRI	DUE	DESCRIPTION	RESULTS	ANALYSTS	DATE/TIME
4585.03	(cont)				MT810	3	01/11/91	ZINC			
4585.04	12/13/90	MFK893 (CASE#15522)	W	2	IN120	3	01/11/91	TOTAL CYANIDE			
					MT058	3	01/11/91	ARSENIC			
					MT248	3	01/11/91	LEAD			
					MT310	3	01/11/91	MERCURY			
					MT388	3	01/11/91	SELENIUM			
					MT458	3	01/11/91	THALLIUM			
					MT600	3	01/11/91	ACID DIG ICP/AA			
					MT610	3	01/11/91	ACID DIG. FURN.			
					MT620	3	01/11/91	ACID DIG. C/V			
					MT810	3	01/11/91	ALUMINUM			
								ANTIMONY			
								BARIUM			
								BERYLLIUM			
								CADMIUM			
								CALCIUM			
								CHROMIUM			
								COBALT			
								COPPER			
								IRON			
								MAGNESIUM			
								MANGANESE			
								NICKEL			
								POTASSIUM			
								SILVER			
								SODIUM			
								VANADIUM			

SID #	DATE	DESCRIPTION	MA	NC	TEST	PRI	DUE	DESCRIPTION	RESULTS	ANALYSTS	DATE/TIME
4585.04	(cont)				MT810	3	01/11/91	ZINC			
4585.05	12/13/90	MFK895 (CASE#15522)	W	2	IN120	3	01/11/91	TOTAL CYANIDE			
					MT058	3	01/11/91	ARSENIC			
					MT248	3	01/11/91	LEAD			
					MT310	3	01/11/91	MERCURY			
					MT388	3	01/11/91	SELENIUM			
					MT458	3	01/11/91	THALLIUM			
					MT600	3	01/11/91	ACID DIG ICP/AA			
					MT610	3	01/11/91	ACID DIG. FURN.			
					MT620	3	01/11/91	ACID DIG. C/V			
					MT810	3	01/11/91	ALUMINUM			
								ANTIMONY			
								BARIUM			
								BERYLLIUM			
								CADMIUM			
								CALCIUM			
								CHROMIUM			
								COBALT			
								COPPER			
								IRON			
								MAGNESIUM			
								MANGANESE			
								NICKEL			
								POTASSIUM			
								SILVER			
								SODIUM			
								VANADIUM			

SID #	DATE	DESCRIPTION	MA	NC	TEST	PRI	DUE	DESCRIPTION	RESULTS	ANALYSTS	DATE/TIME
4585.05	(cont)				MT810	3	01/11/91	ZINC			
4585.06	12/13/90	MFK904 (CASE#15522)	W	2	IN120	3	01/11/91	TOTAL CYANIDE			
					MT058	3	01/11/91	ARSENIC			
					MT248	3	01/11/91	LEAD			
					MT310	3	01/11/91	MERCURY			
					MT388	3	01/11/91	SELENIUM			
					MT458	3	01/11/91	THALLIUM			
					MT600	3	01/11/91	ACID DIG ICP/AA			
					MT610	3	01/11/91	ACID DIG. FURN.			
					MT620	3	01/11/91	ACID DIG. C/V			
					MT810	3	01/11/91	ALUMINUM			
								ANTIMONY			
								BARIUM			
								BERYLLIUM			
								CADMIUM			
								CALCIUM			
								CHROMIUM			
								COBALT			
								COPPER			
								IRON			
								MAGNESIUM			
								MANGANESE			
								NICKEL			
								POTASSIUM			
								SILVER			
								SODIUM			
								VANADIUM			

SID #	DATE	DESCRIPTION	MA	NC	TEST	PRI	DUE	DESCRIPTION	RESULTS	ANALYSTS	DATE/TIME
4585.06	(cont)				MT810	3	01/11/91	ZINC			
4585.07	12/13/90	MFK905 (CASE#15522)	W	2	IN120	3	01/11/91	TOTAL CYANIDE			
					MT058	3	01/11/91	ARSENIC			
					MT248	3	01/11/91	LEAD			
					MT310	3	01/11/91	MERCURY			
					MT388	3	01/11/91	SELENIUM			
					MT458	3	01/11/91	THALLIUM			
					MT600	3	01/11/91	ACID DIG ICP/AA			
					MT610	3	01/11/91	ACID DIG. FURN.			
					MT620	3	01/11/91	ACID DIG. C/V			
					MT810	3	01/11/91	ALUMINUM			
								ANTIMONY			
								BARIUM			
								BERYLLIUM			
								CADMIUM			
								CALCIUM			
								CHROMIUM			
								COBALT			
								COPPER			
								IRON			
								MAGNESIUM			
								MANGANESE			
								NICKEL			
								POTASSIUM			
								SILVER			
								SODIUM			
								VANADIUM			

SID #	DATE	DESCRIPTION	MA	NC	TEST	PRI	DUE	DESCRIPTION	RESULTS	ANALYSTS	DATE/TIME
4585.07	(cont)				MT810	3	01/11/91	ZINC			
4585.08	12/13/90	MFK906 (CASE#15522)	W	2	IN120	3	01/11/91	TOTAL CYANIDE			
					MT058	3	01/11/91	ARSENIC			
					MT248	3	01/11/91	LEAD			
					MT310	3	01/11/91	MERCURY			
					MT388	3	01/11/91	SELENIUM			
					MT458	3	01/11/91	THALLIUM			
					MT600	3	01/11/91	ACID DIG ICP/AA			
					MT610	3	01/11/91	ACID DIG. FURN.			
					MT620	3	01/11/91	ACID DIG. C/V			
					MT810	3	01/11/91	ALUMINUM			
								ANTIMONY			
								BARIUM			
								BERYLLIUM			
								CADMIUM			
								CALCIUM			
								CHROMIUM			
								COBALT			
								COPPER			
								IRON			
								MAGNESIUM			
								MANGANESE			
								NICKEL			
								POTASSIUM			
								SILVER			
								SODIUM			
								VANADIUM			

SID #	DATE	DESCRIPTION	MA	NC	TEST	PRI	DUE	DESCRIPTION	RESULTS	ANALYSTS	DATE/TIME
4585.08	(cont)				MT810	3	01/11/91	ZINC			

Total samples = 8

15522-F-1124

SAMPLE DELIVERY GROUP (SDG)
TRAFFIC REPORT (TR) COVER SHEET

LAB NAME: SOUTHWEST LABORATORY OF OKLAHOMA, INC.
~~68-01-7393~~
LAB CODE: SWOK CONTRACT No.: 68-D9-0089

RAS No.: 15522 SAS No.: _____

SDG No./First Sample in SDG: MFK888
(Lowest EPA Sample Number
in first shipment of samples) Receipt Date 12/12/90

Last Sample in SDG: MFK906
(Highest EPA Sample Number
in last shipment of samples) Receipt Date 12/13/90

EPA Sample Numbers in the SDG (listed in alphanumeric)

1.	MFK888 S 4572.01	11.	MFK903 W 4572.11
2.	MFK890 S 4572.02	12.	MFK889 W 4585.01
3.	MFK894 S 4572.03	13.	MFK891 W 4585.02
4.	MFK896 S 4572.04	14.	MFK892 W 4585.03
5.	MFK897 S 4572.05	15.	MFK893 W 4585.04
6.	MFK898 S 4572.06	16.	MFK895 W 4585.05
7.	MFK899 S 4572.07	17.	MFK904 W 4585.06
8.	MFK900 S 4572.08	18.	MFK905 W 4585.07
9.	MFK901 S 4572.09	19.	MFK906 W 4585.08
10.	MFK902 S 4572.10	20.	_____

Mixed matrix
Full analysis
Low concen.
Jar & Airbill
present

Note: There are a maximum of 20 field samples in SDG.

Attach Traffic Reports to this form in alphanumberic order (i.e., the order listed on this form).

Missy Sherman 12/13/90
Sample Custodian Date

WORD\A:SDGTRCS.DOC

LAN NO.	DATE/TIME	ANALYTE/SAMPLES	Mg. CCV/B	INSTRUMENT
1	12/27 0823	Ag, Al, Ba, Be, Ca, Cd, Co, Cr, Cu, Fe, K, Mg, Mn, Na, Ni, Sb, V, Zn	14	TJA61
2	12/28 0810	Se 15522-F-1125	15	PE5000
3	12/23 1415	Hg	14	BUCK
4	12/26 1305	Hg	22	BUCK
5	12/28 1205	Hg	33	BUCK
6	12/20 1033	CN	14	SPEC21
7	12/27 1940	As	14	PE5100A
8	12/31 1650	As	24	PE5000
9	12/28 0744	Tl	16	PE5100A
10	12/28 1427	Tl	26	PE5100A
11	12/28 2000 ~~2021~~	Tl	35	PE5100A
12	12/31 1527	Tl	45	TJA22
13	12/19 1350	CN	23	SPEC21
14	12/31 1050	Se	25	PE5000
15	1/2/91 0934	Ag, Al, Ba, Be, Ca, Cd, Co, Cr, Cu, Fe, K, Mg, Mn, Na, Ni, Sb, V, Zn	23	TJA61
16	1/2 0834	Pb	14	TJA22

RUN NO.	DATE / TIME	ANALYTE / SAMPLES	Lg. CCV/B	INSTRUMENT
17	1/2 1240	F1	52 (52)	PE5100B
18	1/2 1837	Pb	27	PE5100A
19	1/3 1101	Pb	35	PE5100A
20	1/3 1611	Pb (Pb1)	42	PE5100A

EPA SAMPLE COMPLETION LOG 15522-F-1126

Case/SAS/RAS # 15522 SDG # MFK888

Date Received: 12/13 Date Due: 1/16

SAMPLE STATUS			+12	+26	FURNACE					ICAP														
EPA #	LAB #		Cn	Hg	As	Pb	Se	Tl	Al	Sb	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Mg	Mn	Ni	K	Ag	Na	V	Zn
	PBS																									
	LCSS																									
MFK888	457201																									
MFK890	457202																									
MFK894	457203																									
MFK896	457204																									
MFK897	457205																									
MFK898	457206																									
MFK899	457207																									
MFK900	457208																									
MFK901	457209																									
MFK902	457210	P L																								
MFK902D	457210D																									
MFK902S	457210S								NR						NR			NR	NR			NR	NR			
	PBW																									
	LCSW		NR	NR																						
MFK903	457211	L																								
MFK889	458501	P																								
MFK891	458502																									
MFK892	458503																									
MFK893	458504																									
MFK895	458505																									
MFK904	458506																									
MFK905	458507																									
MFK906	458508																									
MFK903D	457211D																									
MFK889S	458501S								NR						NR			NR	NR			NR	NR			

15522-F-1127

1/10/91 ARCHIMEDES LABORATORY SYSTEMS
8:45 am ARCHY788 CCS REPORT
FOR SDG: MFK888 PAGE: 1

CONCENTRATION 46.1000 FOR 'PB'
ON FORM1 AL EXCEEDS LINEAR RANGE
25.4489 SR

ICS TRUE FOR SOL. AB FOR 'SB'
ON FORM4 AA IS INCONSISTENT WITH INIT ICS FOUND FOR SOL. AB

INITIAL ICS %R FOR 'SB'
ON FORM4 AA IS INCONSISTENT WITH INIT ICS FOUND FOR SOL. AB

ICS TRUE FOR SOL. AB FOR 'SB'
ON FORM4 AA IS INCONSISTENT WITH FINAL ICS FOUND FOR SOL. AB

FINAL ICS %R FOR 'SB'
ON FORM4 AA IS INCONSISTENT WITH FINAL ICS FOUND FOR SOL. AB

ICS TRUE FOR SOL. A 16.0000 FOR 'MN'
ON FORM4 AA IS NOT AT APROPRIATE LEVEL
SHOULD BE 0.0000

ICS TRUE FOR SOL. AB FOR 'K'
ON FORM4 AA IS INCONSISTENT WITH INIT ICS FOUND FOR SOL. AB

INITIAL ICS %R FOR 'K'
ON FORM4 AA IS INCONSISTENT WITH INIT ICS FOUND FOR SOL. AB

ICS TRUE FOR SOL. AB FOR 'K'
ON FORM4 AA IS INCONSISTENT WITH FINAL ICS FOUND FOR SOL. AB

FINAL ICS %R FOR 'K'
ON FORM4 AA IS INCONSISTENT WITH FINAL ICS FOUND FOR SOL. AB

ICS TRUE FOR SOL. AB FOR 'NA'
ON FORM4 AA IS INCONSISTENT WITH INIT ICS FOUND FOR SOL. AB

INITIAL ICS %R FOR 'NA'
ON FORM4 AA IS INCONSISTENT WITH INIT ICS FOUND FOR SOL. AB

ICS TRUE FOR SOL. AB FOR 'NA'
ON FORM4 AA IS INCONSISTENT WITH FINAL ICS FOUND FOR SOL. AB

FINAL ICS %R FOR 'NA'
ON FORM4 AA IS INCONSISTENT WITH FINAL ICS FOUND FOR SOL. AB

ICS TRUE FOR SOL. AB FOR 'SB'
ON FORM4 AB IS INCONSISTENT WITH INIT ICS FOUND FOR SOL. AB

INITIAL ICS %R FOR 'SB'
ON FORM4 AB IS INCONSISTENT WITH INIT ICS FOUND FOR SOL. AB

ICS TRUE FOR SOL. AB FOR 'SB'
ON FORM4 AB IS INCONSISTENT WITH FINAL ICS FOUND FOR SOL. AB

FINAL ICS %R FOR 'SB'
ON FORM4 AB IS INCONSISTENT WITH FINAL ICS FOUND FOR SOL. AB

ICS TRUE FOR SOL. A 16.0000 FOR 'MN'
ON FORM4 AB IS NOT AT APROPRIATE LEVEL
SHOULD BE 0.0000

ICS TRUE FOR SOL. AB FOR 'K'
ON FORM4 AB IS INCONSISTENT WITH INIT ICS FOUND FOR SOL. AB

INITIAL ICS %R FOR 'K'
ON FORM4 AB IS INCONSISTENT WITH INIT ICS FOUND FOR SOL. AB

ICS TRUE FOR SOL. AB FOR 'K'
ON FORM4 AB IS INCONSISTENT WITH FINAL ICS FOUND FOR SOL. AB

FINAL ICS %R FOR 'K'
ON FORM4 AB IS INCONSISTENT WITH FINAL ICS FOUND FOR SOL. AB

ICS TRUE FOR SOL. AB FOR 'NA'
ON FORM4 AB IS INCONSISTENT WITH INIT ICS FOUND FOR SOL. AB

INITIAL ICS %R FOR 'NA'
ON FORM4 AB IS INCONSISTENT WITH INIT ICS FOUND FOR SOL. AB

ICS TRUE FOR SOL. AB FOR 'NA'
ON FORM4 AB IS INCONSISTENT WITH FINAL ICS FOUND FOR SOL. AB

FINAL ICS %R FOR 'NA'
ON FORM4 AB IS INCONSISTENT WITH FINAL ICS FOUND FOR SOL. AB

FINAL CONCENTRATION 92.7000 FOR 'PB' SAMPLE NUMBER MFK894
ON FORM8 AA IS MISCALCULATED
SHOULD BE 18.5000

FINAL CONCENTRATION WITH 'FIRST ADDITION' 10.0000 FOR 'PB' SAMPLE NUMBER MFK894
ON FORM8 AA EXCEEDS LINEAR RANGE
100.0000

FINAL CONCENTRATION WITH 'SECOND ADDITION' 20.0000 FOR 'PB' SAMPLE NUMBER MFK894
ON FORM8 AA EXCEEDS LINEAR RANGE
100.0000

FINAL CONCENTRATION WITH 'THIRD ADDITION' 30.0000 FOR 'PB' SAMPLE NUMBER MFK894
ON FORM8 AA EXCEEDS LINEAR RANGE
100.0000

PREPARATION DATE FOR SAMPLE NUMBER MFK902D
ON FORM13 AB EXCEEDS ANALYSIS DATE
ON FORM14 AF

TIME TO 'CCV' RUN AT 852
ON FORM14 AO EXCEEDS TIME BETWEEN PREVIOUS SAMPLES

TOTAL DEFECTS = 33

15522-F-1128

U.S.E.P.A. CONTRACT LABORATORY PROGRAM

SAMPLE MANAGEMENT OFFICE

INORGANIC CONTRACT COMPLIANCE SCREENING SYSTEM

****
****
****
**** ****
**** SCREENING PACKAGE ****
**** SUMMARY INFORMATION ****
**** ****
**** SDG: MFK888 ****
**** ****
**** CASE: 15522 ****
**** ****
**** LAB: SWOK ****
**** ****
**** CONTRACT: 68-D9-0089 ****
**** ****
**** REGION: 6 ****
**** ****
**** DRD: ****
**** ****
**** FORMAT: A ****
**** ****
**** SCREEN DATE: 1-11-91 ****
**** ****
**** MAIL DATE: 1-11-91 ****
**** ****
**** SCREENER: DM ****
**** ****
****
****
****

U.S.E.P.A. CONTRACT LABORATORY PROGRAM

SAMPLE MANAGEMENT OFFICE

INORGANIC CONTRACT COMPLIANCE SCREENING SYSTEM

DEFECT COUNT BY SAMPLE AND FORM

SDG NUMBER: MFK888 LABORATORY: SWOK CASE NUMBER: 15522

SAMPLE NO.	A COVER PAGE	B FORM 1	CA FORM 2A	CB FORM 2B	D FORM 3	E FORM 4	FA FORM 5A	FB FORM 5B	G FORM 6	H FORM 7	I FORM 8	J FORM 9	L FORM 10	M FORM 11	N FORM 12	R FORM 13	RA FORM 14
MFK888-S																	1
MFK888-1																	1
MFK889-W																	1
MFK889-1																	1
MFK889-8																	1
MFK890-1																	1
MFK891-1																	1
MFK892-1																	1
MFK893-1																	1
MFK894-1																	1
MFK895-1																	1
MFK896-1																	1
MFK897-1																	1
MFK898-1																	1
MFK899-1																	1
MFK900-1																	1
MFK901-1																	1
MFK902-1																	1
MFK902-8																	1
MFK902-9																	1

U.S.E.P.A. CONTRACT LABORATORY PROGRAM

SAMPLE MANAGEMENT OFFICE

INORGANIC CONTRACT COMPLIANCE SCREENING SYSTEM

DEFECT COUNT BY SAMPLE AND FORM

SDG NUMBER: MFK888 LABORATORY: SWOK CASE NUMBER: 15522

SAMPLE NO.	A COVER PAGE	B FORM 1	CA FORM 2A	CB FORM 2B	D FORM 3	E FORM 4	FA FORM 5A	FB FORM 5B	G FORM 6	H FORM 7	I FORM 8	J FORM 9	L FORM 10	M FORM 11	N FORM 12	R FORM 13	RA FORM 14
MFK903-1																	1
MFK903-9																	1
MFK904-1																	1
MFK905-1																	1
MFK906-1																	1

CONTRACT COMPLIANCE SCREENING SUMMARY FOR INORGANICS

CASE: 15522 SAMPLES: 19 DATE MAILED:

LAB CODE: SWOK CONTRACT: 68-D9-0089 SCREENER: DATE SCREENED:

SDG NUMBER: MFK888 REGION: 6 DATE RECEIVED:

SAMPLE NO.	A COVER PAGE	B DATA SHEET	CA CALIBRATION ICV/CCV	CB CALIBRATION CRDL	D BLANK	E ICS	FA SPIKES PRE.	FB SPIKES POST	G DUP.	H LCS	I MSA	J SER. DIL.	KA HOLDING HG	KB TIME CN	L IDL	M CORR. FACTR	N LIN. RANGE	R RAW DATA	T TR	DI-SK
MFK888-S																		R		
MFK888-1																		R		
MFK889-W																		R		
MFK889-1																		R		
MFK889-8																		R		
MFK890-1																		R		
MFK891-1																		R		
MFK892-1																		R		
MFK893-1																		R		
MFK894-1																		R		
MFK895-1																		R		
MFK896-1																		R		
MFK897-1																		R		
MFK898-1																		R		
MFK899-1																		R		
MFK900-1																		R		
MFK901-1																		R		
MFK902-1																		R		
MFK902-8																		R		
MFK902-9																		R		

PROBLEM CODE: E = EXPLAIN, R = RESUBMIT, S = SUBMIT, N = NONCOMPLIANT

CONTRACT COMPLIANCE SCREENING SUMMARY FOR INORGANICS

CASE: 15522 SAMPLES: 19 DATE MAILED:

LAB CODE: SWOK CONTRACT: 68-D9-0089 SCREENER: DATE SCREENED:

SDG NUMBER: MFK888 REGION: 6 DATE RECEIVED:

SAMPLE NO.	A COVER PAGE	B DATA SHEET	CA CALIBRATION ICV/CCV	CB CALIBRATION CRDL	D BLANK	E ICS	FA SPIKES PRE.	FB SPIKES POST	G DUP.	H LCS	I MSA	J SER. DIL.	KA HOLDING TIME HG	KB HOLDING TIME CN	L IDL	M CORR. FACTR	N LIN. RANGE	R RAW DATA	T TR	DI-SK
MFK903-1																		R		
MFK903-9																		R		
MFK904-1																		R		
MFK905-1																		R		
MFK906-1																		R		

PROBLEM CODE: E = EXPLAIN, R = RESUBMIT, S = SUBMIT, N = NONCOMPLIANT

J.S.E.P.A. CONTRACT LABORATORY PROGRAM

SAMPLE MANAGEMENT OFFICE

INORGANIC CONTRACT COMPLIANCE SCREENING SYSTEM

NO DEFECTS FOUND FOR STRUCTURAL REPORT #1

RECORDS WITH INVALID FIELDS

U.S.E.P.A. CONTRACT LABORATORY PROGRAM

SAMPLE MANAGEMENT OFFICE

INORGANIC CONTRACT COMPLIANCE SCREENING SYSTEM

NO DEFECTS FOUND FOR STRUCTURAL REPORT #2

SAMPLE MANAGEMENT OFFICE

INORGANIC CONTRACT COMPLIANCE SCREENING SYSTEM

TECHNICAL DEFECT FREQUENCY REPORT

DEFECT CODE	NUMBER OF DEFECTS	PERCENT OF TOTAL DEFECTS	DEFECT MESSAGE
1712	1	100.0	PREP. DATE EXCEEDS ANALYSIS DATE
	1	100.0	

U.S.E.P.A. CONTRACT LABORATORY PROGRAM

SAMPLE MANAGEMENT OFFICE

INORGANIC CONTRACT COMPLIANCE SCREENING SYSTEM

TEXTUAL DEFECT REPORT

****
* Criterion RA. Form 14. *
****

Preparation date exceeds analysis date. (B36)

SUFFIX	ELEMENT	SAMPLE	METHOD	MATRIX	REPORTED VALUE	COMPARED VALUE
AF		MFK902D	CV		12/26/90	12/23/90

PROJECT OFFICER:_____

COMMERCIAL SAMPLE BOOKING INFORMATION

DISTRIB. DEC 11 1990
SMPL REC_____
INORG._____
EXTRACT_____
MS_____
GC_____
AATS_____

15522-F-1129

DATE OF CALL: 12/7

CLIENT: EPA Reg 6

CLIENT CONTACT: ELENOR

PROJECT: 15522

SHIP DATES: 12/10

REQ'D TAT: 35

DELVERABLES:
CLP / TAB-QC / SPECIAL

MS DEPT.

VOA			BNA			DIOX.			OTHER		
W	S	O	W	S	O	W	S	O	W	S	O

GC DEPT.

PEST/PCB			HERB			PAH			EXPLOS.			OTHER		
W	S	O	W	S	O	W	S	O	W	S	O	W	S	O

INORG. DEPT.

ICP			FURN.			Hg-CV			CN			WET CHEM.		
W	S	O	W	S	O	W	S	O	W	S	O	W	S	O
9	10 →													

AATS

BTEX			TPH MOD-8015			TPH 418.1			O&G			OTHER		
W	S	O	W	S	O	W	S	O	W	S	O	W	S	O

COMMENTS: MT 910 / IN 120

**** INVOICE ****

15522-F-1130

Southwest Laboratory of Oklahoma, Inc.
1700 West Albany
Broken Arrow, Oklahoma 74012
918-251-2858

INVOICE

US EPA Financial Mgmt Division
Mail Drop 32
Customer Assistance Unit
Research Triangle Park, NC. 27711

4391

DATE :03-15-91

Terms : Net Due Upon Receipt

Contract Number: 68-D9-0089
CASE: 15522 SDG: MFK888
Cost for Full Analysis = $124.49

Sample Id.	Analysis	Date Recd	Date Del.	Amount
LCSS	TOTAL METALS & CYANIDE	12-13-90	01-11-91	124.49
LCSW	TOTAL METALS	12-13-90	01-11-91	105.82
MFK888	TOTAL METALS & CYANIDE	12-13-90	01-11-91	124.49
MFK890	TOTAL METALS & CYANIDE	12-13-90	01-11-91	124.49
MFK894	TOTAL METALS & CYANIDE	12-13-90	01-11-91	124.49
MFK896	TOTAL METALS & CYANIDE	12-13-90	01-11-91	124.49
MFK897	TOTAL METALS & CYANIDE	12-13-90	01-11-91	124.49
MFK898	TOTAL METALS & CYANIDE	12-13-90	01-11-91	124.49
MFK899	TOTAL METALS & CYANIDE	12-13-90	01-11-91	124.49
MFK900	TOTAL METALS & CYANIDE	12-13-90	01-11-91	124.49
MFK901	TOTAL METALS & CYANIDE	12-13-90	01-11-91	124.49
MFK902	TOTAL METALS & CYANIDE	12-13-90	01-11-91	124.49
MFK902D	TOTAL METALS & CYANIDE	12-13-90	01-11-91	124.49
MFK902S	TOTAL METALS & CYANIDE	12-13-90	01-11-91	124.49
MFK903	TOTAL METALS & CYANIDE	12-13-90	01-11-91	124.49
MFK903D	TOTAL METALS & CYANIDE	12-13-90	01-11-91	124.49
MFK889	TOTAL METALS & CYANIDE	12-13-90	01-11-91	124.49
MFK889S	TOTAL METALS & CYANIDE	12-13-90	01-11-91	124.49
MFK891	TOTAL METALS & CYANIDE	12-13-90	01-11-91	124.49
MFK892	TOTAL METALS & CYANIDE	12-13-90	01-11-91	124.49
MFK893	TOTAL METALS & CYANIDE	12-13-90	01-11-91	124.49
MFK895	TOTAL METALS & CYANIDE	12-13-90	01-11-91	124.49
MFK904	TOTAL METALS & CYANIDE	12-13-90	01-11-91	124.49
MFK905	TOTAL METALS & CYANIDE	12-13-90	01-11-91	124.49
MFK906	TOTAL METALS & CYANIDE	12-13-90	01-11-91	124.49
*Early Delivery Incentive - 23 samples, 5 days, 1%				143.06
			TOTAL DUE	3236.64

Please remit to address shown above.
Include reference to the above Inv. No. in remittance.

Past due balances are subject to a service charge of 1.5 %
per month on the unpaid balance.

#391

INVOICE FOR EPA SAMPLES

EPA - 1

CLIENT: EPA
CASE No.: 15522
SDG: MFK888

CONTRACT No.: 68-D9-0089
BID LOT No.:
DATE: January 11, 1991

AUTHORIZED BY: S. Martha VBB

ITEM No.	EPA SAMPLE No.	DATE RC'D	DATE DUE	DATE SENT	FRACTION	COMMENTS	+EARLY -LATE
1	LCSS		1/17/91	1/11/91	1		+5
2	LCSW				3		
3	MFK888	12/13/90			1		
4	MFK890				1		
5	MFK894		–		1		
6	MFK896				1		
7	MFK897				1		
8	MFK898				1		
9	MFK899				1		
10	MFK900				1		
11	MFK901				1		
12	MFK902				1		
13	MFK902D				1		
14	MFK902S				1		
15	MFK903				1		

TOTAL No. OF SAMPLES: 25
TOTAL PRICE: $3093.58
EARLY INCENTIVE/LATE PENALTY: EDI 23 samples 143.46
FREIGHT TICKET No.: AB 780469351 (5410)

FRACTION DESCRIPTIONS

1.	Full Analysis	124.49
2.		
3.	Total Metals	105.82
4.	Cyanide Only	18.67
5.		
6.	page 1 of 2	

INVOICE FOR EPA SAMPLES
EPA - 1

CLIENT: _____ CONTRACT No.: _____
CASE No.: 15522 BID LOT No.: _____
SDG: MFK888 DATE: _____

AUTHORIZED BY: _____

ITEM No.	EPA SAMPLE No.	DATE RC'D	DATE DUE	DATE SENT	FRACTION	COMMENTS	+EARLY -LATE
16	MFK903D		1/11/91	1/11/91	1		
17	MFK889	12/13/90			1		
18	MFK889S				1		
19	MFK891				1		
20	MFK892				1		
21	MFK893				1		
22	MFK895				1		
23	MFK904				1		
24	MFK905				1		
25	MFK906				1		

TOTAL No. OF SAMPLES: _____
TOTAL PRICE: _____
EARLY INCENTIVE/LATE PENALTY: _____
FREIGHT TICKET No.: _____

FRACTION DESCRIPTIONS

1. _____ _____
2. _____ _____
3. _____ _____
4. _____ _____
5. _____ _____
6. page 2 of 2 _____

SOUTHWEST LABORATORY OF OKLAHOMA, INC.
1700 W. ALBANY SUITE C
BROKEN ARROW, OK. 74012

Date: 12/12/9
Episode: 4572
Client: EPAMT1

JAN - 3 1991

SID #	DATE	DESCRIPTION	MA	NC	TEST	PRI	DUE	DESCRIPTION	RESULTS	ANALYSTS	DATE/TIME
4572.01	12/12/90	MFK888 (CASE#15522)	S	1	IN120	3	01/10/91	TOTAL CYANIDE		scm	12/19
					MT058	3	01/10/91	ARSENIC			
					MT248	3	01/10/91	LEAD			
					MT310	3	01/10/91	MERCURY	<0.2 ug/l	JK	12-23
					MT388	3	01/10/91	SELENIUM			
					MT458	3	01/10/91	THALLIUM			
					MT600	3	01/10/91	ACID DIG ICP/AA		BW	12/24
					MT610	3	01/10/91	ACID DIG. FURN.		BW	12/26
					MT620	3	01/10/91	ACID DIG. C/V		JK	12-23
					MT810	3	01/10/91	ALUMINUM		KS	1-2
								ANTIMONY			
								BARIUM			
								BERYLLIUM			
								CADMIUM			
								CALCIUM			
								CHROMIUM			
								COBALT			
								COPPER			
								IRON			
								MAGNESIUM			
								MANGANESE			
								NICKEL			
								POTASSIUM			
								SILVER			
								SODIUM			
								VANADIUM			

SID #	DATE	DESCRIPTION	MA	NC	TEST	PRI	DUE	DESCRIPTION	RESULTS	ANALYSTS	DATE/TIME
4572.01	(cont)				MT810	3	01/10/91	ZINC			
4572.02	12/12/90	MEK890 (CASE#15522)	S	1	IN120	3	01/10/91	TOTAL CYANIDE		Scan	12/19
					MT058	3	01/10/91	ARSENIC			
					MT248	3	01/10/91	LEAD			
					MT310	3	01/10/91	MERCURY	1.74 ug/l	JK	12-23
					MT388	3	01/10/91	SELENIUM			
					MT458	3	01/10/91	THALLIUM			
					MT600	3	01/10/91	ACID DIG ICP/AA		BW	12/26
					MT610	3	01/10/91	ACID DIG. FURN.		BW	12/26
					MT620	3	01/10/91	ACID DIG. C/V		JK	12-23
					MT810	3	01/10/91	ALUMINUM			
								ANTIMONY			
								BARIUM			
								BERYLLIUM			
								CADMIUM			
								CALCIUM			
								CHROMIUM			
								COBALT			
								COPPER			
								IRON			
								MAGNESIUM			
								MANGANESE			
								NICKEL			
								POTASSIUM			
								SILVER			
								SODIUM			
								VANADIUM			

SID #	DATE	DESCRIPTION	MA	NC	TEST	PRI	DUE	DESCRIPTION	RESULTS	ANALYSTS	DATE/TIME
4572.02 (cont)					MT810	3	01/10/91	ZINC			
4572.03	12/12/90	MFK894 (CASE#15522)	S	1	IN120	3	01/10/91	TOTAL CYANIDE		scan	12/19
					MT058	3	01/10/91	ARSENIC			
					MT248	3	01/10/91	LEAD			
					MT310	3	01/10/91	MERCURY	0.96 ug/l	JK	12-93
					MT388	3	01/10/91	SELENIUM			
					MT458	3	01/10/91	THALLIUM			
					MT600	3	01/10/91	ACID DIG ICP/AA		BW	12/26
					MT610	3	01/10/91	ACID DIG. FURN.		BW	12/26
					MT620	3	01/10/91	ACID DIG. C/V		JK	12-23
					MT810	3	01/10/91	ALUMINUM			
								ANTIMONY			
								BARIUM			
								BERYLLIUM			
								CADMIUM			
								CALCIUM			
								CHROMIUM			
								COBALT			
								COPPER			
								IRON			
								MAGNESIUM			
								MANGANESE			
								NICKEL			
								POTASSIUM			
								SILVER			
								SODIUM			
								VANADIUM			

SID #	DATE	DESCRIPTION	MA	NC	TEST	PRI	DUE	DESCRIPTION	RESULTS	ANALYSTS	DATE/TIME
4572.03	(cont)				MT610	3	01/10/91	ZINC			
4572.04	12/12/90	MFK896 (CASE#15522)	S	1	IN120	3	01/10/91	TOTAL CYANIDE		scm	12/19
					MT058	3	01/10/91	ARSENIC			
					MT248	3	01/10/91	LEAD			
					MT310	3	01/10/91	MERCURY	0.4 ug/l	JK	12-23
					MT388	3	01/10/91	SELENIUM			
					MT458	3	01/10/91	THALLIUM			
					MT600	3	01/10/91	ACID DIG ICP/AA		BW	12/26
					MT610	3	01/10/91	ACID DIG. FURN.		BW	12/26
					MT620	3	01/10/91	ACID DIG. C/V		JK	12-23
					MT810	3	01/10/91	ALUMINUM			
								ANTIMONY			
								BARIUM			
								BERYLLIUM			
								CADMIUM			
								CALCIUM			
								CHROMIUM			
								COBALT			
								COPPER			
								IRON			
								MAGNESIUM			
								MANGANESE			
								NICKEL			
								POTASSIUM			
								SILVER			
								SODIUM			
								VANADIUM			

SID #	DATE	DESCRIPTION	MA	NC	TEST	PRI	DUE	DESCRIPTION	RESULTS	ANALYSTS	DATE/TIME
4572.04	(cont)				MT810	3	01/10/91	ZINC			
4572.05	12/12/90	MFK897 (CASE#15522)	S	1	IN120	3	01/10/91	TOTAL CYANIDE		scm	12/19
					MT058	3	01/10/91	ARSENIC			
					MT248	3	01/10/91	LEAD			
					MT310	3	01/10/91	MERCURY	0.39 ug/l	JK	12-23
					MT388	3	01/10/91	SELENIUM			
					MT458	3	01/10/91	THALLIUM			
					MT600	3	01/10/91	ACID DIG ICP/AA		BW	12/26
					MT610	3	01/10/91	ACID DIG. FURN.		BW	12/26
					MT620	3	01/10/91	ACID DIG. C/V		JK	12-23
					MT810	3	01/10/91	ALUMINUM			
								ANTIMONY			
								BARIUM			
								BERYLLIUM			
								CADMIUM			
								CALCIUM			
								CHROMIUM			
								COBALT			
								COPPER			
								IRON			
								MAGNESIUM			
								MANGANESE			
								NICKEL			
								POTASSIUM			
								SILVER			
								SODIUM			
								VANADIUM			

SID #	DATE	DESCRIPTION	MA	NC	TEST	PRI	DUE	DESCRIPTION	RESULTS	ANALYSTS	DATE/TIME
4572.05	(cont)				MT810	3	01/10/91	ZINC			
4572.06	12/12/90	MFK898 (CASE#15522)	S	1	IN120	3	01/10/91	TOTAL CYANIDE		SCM	12/19
					MT058	3	01/10/91	ARSENIC			
					MT248	3	01/10/91	LEAD			
					MT310	3	01/10/91	MERCURY	2.30 ug/l	JK	12-23
					MT388	3	01/10/91	SELENIUM			
					MT458	3	01/10/91	THALLIUM			
					MT600	3	01/10/91	ACID DIG ICP/AA		BW	12/26
					MT610	3	01/10/91	ACID DIG. FURN.		BW	12/26
					MT620	3	01/10/91	ACID DIG. C/V		JK	12-23
					MT810	3	01/10/91	ALUMINUM			
								ANTIMONY			
								BARIUM			
								BERYLLIUM			
								CADMIUM			
								CALCIUM			
								CHROMIUM			
								COBALT			
								COPPER			
								IRON			
								MAGNESIUM			
								MANGANESE			
								NICKEL			
								POTASSIUM			
								SILVER			
								SODIUM			
								VANADIUM			

SID #	DATE	DESCRIPTION	MA	NC	TEST	PRI	DUE	DESCRIPTION	RESULTS	ANALYSTS	DATE/TIME
4572.06	(cont)				MT810	3	01/10/91	ZINC			
4572.07	12/12/90	MFK899 (CASE#15522)	S	1	IN120	3	01/10/91	TOTAL CYANIDE		scm	12/19
					MT058	3	01/10/91	ARSENIC			
					MT248	3	01/10/91	LEAD			
					MT310	3	01/10/91	MERCURY	2.08 ug/l	JK	12 23
					MT388	3	01/10/91	SELENIUM			
					MT458	3	01/10/91	THALLIUM			
					MT600	3	01/10/91	ACID DIG ICP/AA		BW	12/26
					MT610	3	01/10/91	ACID DIG. FURN.		BW	12/26
					MT620	3	01/10/91	ACID DIG. C/V		JK	12 23
					MT810	3	01/10/91	ALUMINUM			
								ANTIMONY			
								BARIUM			
								BERYLLIUM			
								CADMIUM			
								CALCIUM			
								CHROMIUM			
								COBALT			
								COPPER			
								IRON			
								MAGNESIUM			
								MANGANESE			
								NICKEL			
								POTASSIUM			
								SILVER			
								SODIUM			
								VANADIUM			

SID #	DATE	DESCRIPTION	MA	NC	TEST	PRI	DUE	DESCRIPTION	RESULTS	ANALYSTS	DATE/TIME
4572.07	(cont)				MT810	3	01/10/91	ZINC			
4572.08	12/12/90	MFK900 (CASE#15522)	S	1	IN120	3	01/10/91	TOTAL CYANIDE		SCM	12/19
					MT058	3	01/10/91	ARSENIC			
					MT248	3	01/10/91	LEAD			
					MT310	3	01/10/91	MERCURY	2.86ug/l	JK	12-23
					MT388	3	01/10/91	SELENIUM			
					MT458	3	01/10/91	THALLIUM			
					MT600	3	01/10/91	ACID DIG ICP/AA		BW	12/26
					MT610	3	01/10/91	ACID DIG. FURN.		BW	12/26
					MT620	3	01/10/91	ACID DIG. C/V		JK	12-23
					MT810	3	01/10/91	ALUMINUM			
								ANTIMONY			
								BARIUM			
								BERYLLIUM			
								CADMIUM			
								CALCIUM			
								CHROMIUM			
								COBALT			
								COPPER			
								IRON			
								MAGNESIUM			
								MANGANESE			
								NICKEL			
								POTASSIUM			
								SILVER			
								SODIUM			
								VANADIUM			

SID #	DATE	DESCRIPTION	MA	NC	TEST	PRI	DUE	DESCRIPTION	RESULTS	ANALYSTS	DATE/TIME
4572.08	(cont)				MT810	3	01/10/91	ZINC			
4572.09	12/12/90	MFK901 (CASE#15522)	S	1	IN120	3	01/10/91	TOTAL CYANIDE		scm	12/19
					MT058	3	01/10/91	ARSENIC			
					MT248	3	01/10/91	LEAD			
					MT310	3	01/10/91	MERCURY	2.52 ug/l	JK	12-23
					MT388	3	01/10/91	SELENIUM			
					MT458	3	01/10/91	THALLIUM			
					MT600	3	01/10/91	ACID DIG ICP/AA		BW	12/26
					MT610	3	01/10/91	ACID DIG. FURN.		BW	12/26
					MT620	3	01/10/91	ACID DIG. C/V		JK	12-23
					MT810	3	01/10/91	ALUMINUM			
								ANTIMONY			
								BARIUM			
								BERYLLIUM			
								CADMIUM			
								CALCIUM			
								CHROMIUM			
								COBALT			
								COPPER			
								IRON			
								MAGNESIUM			
								MANGANESE			
								NICKEL			
								POTASSIUM			
								SILVER			
								SODIUM			
								VANADIUM			

SID #	DATE	DESCRIPTION	MA	NC	TEST	PRI	DUE	DESCRIPTION	RESULTS	ANALYSTS	DATE/TIME
4572.09	(cont)				MT810	3	01/10/91	ZINC			
4572.10	12/12/90	MFK902 (CASE#15522)	S	1	IN120	3	01/10/91	TOTAL CYANIDE		scm	12/19
					MT058	3	01/10/91	ARSENIC			
					MT248	3	01/10/91	LEAD			
					MT310	3	01/10/91	MERCURY	1.63ug/l	JK	12-23
					MT388	3	01/10/91	SELENIUM			
					MT458	3	01/10/91	THALLIUM			
					MT600	3	01/10/91	ACID DIG ICP/AA		BW	12/26
					MT610	3	01/10/91	ACID DIG. FURN.		BW	12/26
					MT620	3	01/10/91	ACID DIG. C/V		JK	12-23
					MT810	3	01/10/91	ALUMINUM			
								ANTIMONY			
								BARIUM			
								BERYLLIUM			
								CADMIUM			
								CALCIUM			
								CHROMIUM			
								COBALT			
								COPPER			
								IRON			
								MAGNESIUM			
								MANGANESE			
								NICKEL			
								POTASSIUM			
								SILVER			
								SODIUM			
								VANADIUM			

SID #	DATE	DESCRIPTION	MA	NC	TEST	PRI	DUE	DESCRIPTION	RESULTS	ANALYSTS	DATE/TIME
4572.10	(cont)				MT810	3	01/10/91	ZINC			
4572.11	12/12/90	MFK903 (CASE#15522)	W	4	IN120	3	01/10/91	TOTAL CYANIDE		SCM	12/20
					MT058	3	01/10/91	ARSENIC			
					MT248	3	01/10/91	LEAD			
					MT310	3	01/10/91	MERCURY	<0.2ug/l	AK	12-28
					MT388	3	01/10/91	SELENIUM			
					MT458	3	01/10/91	THALLIUM			
					MT600	3	01/10/91	ACID DIG ICP/AA			
					MT610	3	01/10/91	ACID DIG. FURN.			
					MT620	3	01/10/91	ACID DIG. C/V		AK	12-28
					MT810	3	01/10/91	ALUMINUM			
								ANTIMONY			
								BARIUM			
								BERYLLIUM			
								CADMIUM			
								CALCIUM			
								CHROMIUM			
								COBALT			
								COPPER			
								IRON			
								MAGNESIUM			
								MANGANESE			
								NICKEL			
								POTASSIUM			
								SILVER			
								SODIUM			
								VANADIUM			

SID #	DATE	DESCRIPTION	MA	NC	TEST	PRI	DUE	DESCRIPTION	RESULTS	ANALYSTS	DATE/TIME
4572.11 (cont)					MT810	3	01/10/91	ZINC			

Total samples = 11

SOUTHWEST LABORATORY OF OKLAHOMA, INC.
1700 W. ALBANY SUITE C
BROKEN ARROW, OK 74012

Date: 12/13/9
Episode: 4585
Client: EPAMT1

JAN - 3 1991

SID #	DATE	DESCRIPTION	MA	NC	TEST	PRI	DUE	DESCRIPTION	RESULTS	ANALYSTS	DATE/TIME
4585.01	12/13/90	MFK889 (CASE#15522)	W	2	IN120	3	01/11/91	TOTAL CYANIDE		Sm	12/20
					MT058	3	01/11/91	ARSENIC			
					MT24B	3	01/11/91	LEAD			
					MT310	3	01/11/91	MERCURY	<0.2 ug/l	JK	12-28
					MT388	3	01/11/91	SELENIUM			
					MT458	3	01/11/91	THALLIUM			
					MT600	3	01/11/91	ACID DIG ICP/AA			
					MT610	3	01/11/91	ACID DIG. FURN.			
					MT620	3	01/11/91	ACID DIG. C/V		JK	12-28
					MT810	3	01/11/91	ALUMINUM			
								ANTIMONY			
								BARIUM			
								BERYLLIUM			
								CADMIUM			
								CALCIUM			
								CHROMIUM			
								COBALT			
								COPPER			
								IRON			
								MAGNESIUM			
								MANGANESE			
								NICKEL			
								POTASSIUM			
								SILVER			
								SODIUM			
								VANADIUM			

SID #	DATE	DESCRIPTION	MA	NC	TEST	PRI	DUE	DESCRIPTION	RESULTS	ANALYSTS	DATE/TIME
4585.01	(cont)				MT810	3	01/11/91	ZINC			
4585.02	12/13/90	MFKB91 (CASE#15522)	W	2	IN120	3	01/11/91	TOTAL CYANIDE		Sam	12/20
					MT058	3	01/11/91	ARSENIC			
					MT248	3	01/11/91	LEAD			
					MT310	3	01/11/91	MERCURY	0.24 ug/l	JK	12-28
					MT388	3	01/11/91	SELENIUM			
					MT458	3	01/11/91	THALLIUM			
					MT600	3	01/11/91	ACID DIG ICP/AA			
					MT610	3	01/11/91	ACID DIG. FURN.			
					MT620	3	01/11/91	ACID DIG. C/V		JK	12-28
					MT810	3	01/11/91	ALUMINUM			
								ANTIMONY			
								BARIUM			
								BERYLLIUM			
								CADMIUM			
								CALCIUM			
								CHROMIUM			
								COBALT			
								COPPER			
								IRON			
								MAGNESIUM			
								MANGANESE			
								NICKEL			
								POTASSIUM			
								SILVER			
								SODIUM			
								VANADIUM			

SID #	DATE	DESCRIPTION	MA	NC	TEST	PRI	DUE	DESCRIPTION	RESULTS	ANALYSTS	DATE/TIME
4585.02	(cont)				MT810	3	01/11/91	ZINC			
4585.03	12/13/90	MFK892 (CASE#15522)	W	2	IN120	3	01/11/91	TOTAL CYANIDE		SCM	12/20
					MT058	3	01/11/91	ARSENIC			
					MT248	3	01/11/91	LEAD			
					MT310	3	01/11/91	MERCURY	0.45 ug/l	JK	12-28
					MT388	3	01/11/91	SELENIUM			
					MT458	3	01/11/91	THALLIUM			
					MT600	3	01/11/91	ACID DIG ICP/AA			
					MT610	3	01/11/91	ACID DIG. FURN.			
					MT620	3	01/11/91	ACID DIG. C/V		JK	12-28
					MT810	3	01/11/91	ALUMINUM			
								ANTIMONY			
								BARIUM			
								BERYLLIUM			
								CADMIUM			
								CALCIUM			
								CHROMIUM			
								COBALT			
								COPPER			
								IRON			
								MAGNESIUM			
								MANGANESE			
								NICKEL			
								POTASSIUM			
								SILVER			
								SODIUM			
								VANADIUM			

SID #	DATE	DESCRIPTION	MA	NC	TEST	PRI	DUE	DESCRIPTION	RESULTS	ANALYSTS	DATE/TIME
4585.03	(cont)				MT810	3	01/11/91	ZINC			
4585.04	12/13/90	MFK893 (CASE#15522)	W	2	IN120	3	01/11/91	TOTAL CYANIDE		SCM	12/20
					MT058	3	01/11/91	ARSENIC			
					MT248	3	01/11/91	LEAD			
					MT310	3	01/11/91	MERCURY	0.24 ug/l	JK	12-29
					MT388	3	01/11/91	SELENIUM			
					MT458	3	01/11/91	THALLIUM			
					MT600	3	01/11/91	ACID DIG ICP/AA			
					MT610	3	01/11/91	ACID DIG. FURN.			
					MT620	3	01/11/91	ACID DIG. C/V		JK	12-28
					MT810	3	01/11/91	ALUMINUM			
								ANTIMONY			
								BARIUM			
								BERYLLIUM			
								CADMIUM			
								CALCIUM			
								CHROMIUM			
								COBALT			
								COPPER			
								IRON			
								MAGNESIUM			
								MANGANESE			
								NICKEL			
								POTASSIUM			
								SILVER			
								SODIUM			
								VANADIUM			

SID #	DATE	DESCRIPTION	MA	NC	TEST	PRI	DUE	DESCRIPTION	RESULTS	ANALYSTS	DATE/TIME
4585.04	(cont)				MT810	3	01/11/91	ZINC			
4585.05	12/13/90	MFK895 (CASE#15522)	W	2	IN120	3	01/11/91	TOTAL CYANIDE		scm	12/20
					MT058	3	01/11/91	ARSENIC			
					MT248	3	01/11/91	LEAD			
					MT310	3	01/11/91	MERCURY	<0.2 ug/l	MK	12-28
					MT388	3	01/11/91	SELENIUM			
					MT458	3	01/11/91	THALLIUM			
					MT600	3	01/11/91	ACID DIG ICP/AA			
					MT610	3	01/11/91	ACID DIG. FURN.			
					MT620	3	01/11/91	ACID DIG. C/V		MK	12-28
					MT810	3	01/11/91	ALUMINUM			
								ANTIMONY			
								BARIUM			
								BERYLLIUM			
								CADMIUM			
								CALCIUM			
								CHROMIUM			
								COBALT			
								COPPER			
								IRON			
								MAGNESIUM			
								MANGANESE			
								NICKEL			
								POTASSIUM			
								SILVER			
								SODIUM			
								VANADIUM			

SID #	DATE	DESCRIPTION	MA	NC	TEST	PRI	DUE	DESCRIPTION	RESULTS	ANALYSTS	DATE/TIME
4585.05	(cont)				MT810	3	01/11/91	ZINC			
4585.06	12/13/90	MFK904 (CASE#15522)	W	2	IN120	3	01/11/91	TOTAL CYANIDE		scm	12/20
					MT058	3	01/11/91	ARSENIC			
					MT248	3	01/11/91	LEAD			
					MT310	3	01/11/91	MERCURY	0.56 ug/l	JK	12-28
					MT388	3	01/11/91	SELENIUM			
					MT458	3	01/11/91	THALLIUM			
					MT600	3	01/11/91	ACID DIG ICP/AA			
					MT610	3	01/11/91	ACID DIG. FURN.			
					MT620	3	01/11/91	ACID DIG. C/V		JK	12-28
					MT810	3	01/11/91	ALUMINUM			
								ANTIMONY			
								BARIUM			
								BERYLLIUM			
								CADMIUM			
								CALCIUM			
								CHROMIUM			
								COBALT			
								COPPER			
								IRON			
								MAGNESIUM			
								MANGANESE			
								NICKEL			
								POTASSIUM			
								SILVER			
								SODIUM			
								VANADIUM			

SID #	DATE	DESCRIPTION	MA	NC	TEST	PRI	DUE	DESCRIPTION	RESULTS	ANALYSTS	DATE/TIME
4585.06	(cont)				MT810	3	01/11/91	ZINC			
4585.07	12/13/90	MFK905 (CASE#15522)	W	2	IN120	3	01/11/91	TOTAL CYANIDE		SCM	12/20
					MT058	3	01/11/91	ARSENIC			
					MT248	3	01/11/91	LEAD			
					MT310	3	01/11/91	MERCURY	<0.2 ug/l	JK	12-28
					MT388	3	01/11/91	SELENIUM			
					MT458	3	01/11/91	THALLIUM			
					MT600	3	01/11/91	ACID DIG ICP/AA			
					MT610	3	01/11/91	ACID DIG. FURN.			
					MT620	3	01/11/91	ACID DIG. C/V		JK	12-28
					MT810	3	01/11/91	ALUMINUM			
								ANTIMONY			
								BARIUM			
								BERYLLIUM			
								CADMIUM			
								CALCIUM			
								CHROMIUM			
								COBALT			
								COPPER			
								IRON			
								MAGNESIUM			
								MANGANESE			
								NICKEL			
								POTASSIUM			
								SILVER			
								SODIUM			
								VANADIUM			

SID #	DATE	DESCRIPTION	MA	NC	TEST	PRI	DUE	DESCRIPTION	RESULTS	ANALYSTS	DATE/TIME
4585.07	(cont)				MT810	3	01/11/91	ZINC			
4585.08	12/13/90	MFK906 (CASE#15522)	W	2	IN120	3	01/11/91	TOTAL CYANIDE		SCM	12/20
					MT058	3	01/11/91	ARSENIC			
					MT248	3	01/11/91	LEAD			
					MT310	3	01/11/91	MERCURY	<0.2ug/l	JK	12-28
					MT388	3	01/11/91	SELENIUM			
					MT458	3	01/11/91	THALLIUM			
					MT600	3	01/11/91	ACID DIG ICP/AA			
					MT610	3	01/11/91	ACID DIG. FURN.			
					MT620	3	01/11/91	ACID DIG. C/V		JK	12-28
					MT810	3	01/11/91	ALUMINUM			
								ANTIMONY			
								BARIUM			
								BERYLLIUM			
								CADMIUM			
								CALCIUM			
								CHROMIUM			
								COBALT			
								COPPER			
								IRON			
								MAGNESIUM			
								MANGANESE			
								NICKEL			
								POTASSIUM			
								SILVER			
								SODIUM			
								VANADIUM			

SID #	DATE	DESCRIPTION	MA	NC	TEST	PRI	DUE	DESCRIPTION	RESULTS	ANALYSTS	DATE/TIME
4585.08 (cont)					MT810	3	01/11/91	ZINC			

Total samples = 8

15522-F-1118

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U.S.E.P.A. CONTRACT LABORATORY PROGRAM

SAMPLE MANAGEMENT OFFICE

INORGANIC CONTRACT COMPLIANCE SCREENING SYSTEM

SCREENING PACKAGE SUMMARY INFORMATION

SDG:	MFK888
CASE:	15522
LAB:	SWOK
CONTRACT:	68-D9-0089
REGION:	6
DRD:	01/12/91
FORMAT:	A
SCREEN DATE:	01/17/91
MAIL DATE 1:	01/24/91
SCREENER:	SS

U.S.E.P.A. CONTRACT LABORATORY PROGRAM

SAMPLE MANAGEMENT OFFICE

INORGANIC CONTRACT COMPLIANCE SCREENING SYSTEM

DEFECT COUNT BY SAMPLE AND FORM

SDG NUMBER: MFK888 LABORATORY: SWOK CASE NUMBER: 15522

SAMPLE NO.	A COVER PAGE	B FORM 1	CA FORM 2A	CB FORM 2B	D FORM 3	E FORM 4	FA FORM 5A	FB FORM 5B	G FORM 6	H FORM 7	I FORM 8	J FORM 9	L FORM 10	M FORM 11	N FORM 12	R FORM 13	RA FORM 14
MFK888-S																	1
MFK888-1																	1
MFK889-W																	1
MFK889-1																	1
MFK889-8																	1
MFK890-1																	1
MFK891-1																	1
MFK892-1																	1
MFK893-1																	1
MFK894-1																	1
MFK895-1																	1
MFK896-1																	1
MFK897-1																	1
MFK898-1																	1
MFK899-1																	1
MFK900-1																	1
MFK901-1																	1
MFK902-1																	1
MFK902-8																	1
MFK902-9																	1

U.S.E.P.A. CONTRACT LABORATORY PROGRAM

SAMPLE MANAGEMENT OFFICE

INORGANIC CONTRACT COMPLIANCE SCREENING SYSTEM

DEFECT COUNT BY SAMPLE AND FORM

SDG NUMBER: MFK888 LABORATORY: SWOK CASE NUMBER: 15522

SAMPLE NO.	A COVER PAGE	B FORM 1	CA FORM 2A	CB FORM 2B	D FORM 3	E FORM 4	FA FORM 5A	FB FORM 5B	G FORM 6	H FORM 7	I FORM 8	J FORM 9	L FORM 10	M FORM 11	N FORM 12	R FORM 13	RA FORM 14
MFK903-1																	1
MFK903-9																	1
MFK904-1																	1
MFK905-1																	1
MFK906-1																	1

U. S. E. P. A. CONTRACT LABORATORY PROGRAM

SAMPLE MANAGEMENT OFFICE

INORGANIC CONTRACT COMPLIANCESCREENING SYSTEM

BUG LIST

NO.	DESCRIPTION OF BUG
1	CONCENTRATION OF ANALYTE ON FORMS 8 AND 1 DISAGREE.

DEFECT CODE(S)	DEFECT MESSAGE
1135	REPORTED CONCENTRATION OF FORMS 1 AND 8 DISAGREE.

STATUS	ACTION
	LAB IS TO IGNORE MESSAGE ON THE PC.

NO.	DESCRIPTION OF BUG
2	FORM 8 MSA FIRST,SECOND,THIRD ADDED CONCENTRATION IS NOT AT THE APPROPRIATE LEVEL.

DEFECT CODE(S)	DEFECT MESSAGE
1121	FIRST ADDED CONCENTRATION IS NOT AT THE APPROPRIATE LEVEL.
1122	SECOND ADDED CONCETRATION IS NOT AT THE APPROPRIATE LEVEL.
1133	THIRD ADDED CONCENTRATION IS NOT AT THE APPROPRIATE LEVEL.

STATUS	ACTION
	LAB IS TO IGNORE MESSAGES ON THE PC.

NO.	DESCRIPTION OF BUG
3	FORM 3 AQUEOUS PREPARATION BLANK IS NOT REPORTED CORRECTLY.

DEFECT CODE(S)	DEFECT MESSAGE
523	AQUEOUS PREPARATION BLANK IS NOT REPORTED CORRECTLY.

STATUS	ACTION
	LAB IS TO IGNORE MESSAGE ON THE PC.

NO	DESCRIPTION OF BUG
4	AN ERROR MESSAGE PRINTS THAT THERE IS DISAGREEMENT BETWEEN A FORM 8 CONCENTRATION REPORTED IN UG/L AND A FORM 6 CONCENTRATION IN MG/KG UNITS. THE COMPUTER CALCULATES THE FINAL CONCENTRATION TO FOUR DECIMAL PLACES ON FORM 8 AND CARRIES THESE PLACES WHEN CONVERTING TO MG/KG FOR COMPARING FORM 6 VALUES. IN CONTRAST THE LAB ROUNDS TO ONE DECIMAL PLACE ON FORM 8 AND CORRECTLY CONVERTS TO MG/KG REPORTED TO FOUR DECIAML PLACES ON FORM 6. IN THIS SITUATION THE LAB IS CORRECT, PROVIDED THE EPA ROUNDING RULES FOR THE FORM 8 FINAL CONCENTRATION ARE FOLLOWED TO ONE DECIMAL PLACE.

DEFECT CODE(S)	DEFECT MESSAGE
1139	REPORTED CONCENTRATION ON FORMS 8 AND 6 DISAGREE.

STATUS	ACTION
	LAB IS TO IGNORE THE MESSAGE ON THE PC WHEN THE ABOVE SITUATION OCCURS.

NO	DESCRIPTION OF BUG
5	REPORTING OF UNDETECTED MERCURY RESULTS. ALL WATER SAMPLES WHICH ARE UNDETECTED FOR HG ARE TO BE REPORTED AS 0.2U. SOIL UNDETECTED MERCURY VALUES SHOULD BE REPORTED IN MG/KG BASED ON THE MERCURY IDL. AN ERROR OCCURS WHEN THE MERCURY IDL IS LESS THAN 0.2U UG/L. THE COMPUTER ERRONEOUSLY CALCULATES THE SOIL IDL BASED ON A CONVERSION OF 0.2 UG/L TO MG/KG. THE COMPUTER INCORRECTLY DOES NOT RECOGNIZE THE MERCURY IDL WHEN IT IS LESS THAN 0.2U, E.G., 0.1U UG/L. IN CONTRAST THE LAB CORRECTLY REPORTS THE SOIL IDL IN MG/KG

BASED ON THE MERCURY IDL REPORTED ON FORM 10.

DEFECT CODE(S)	DEFECT MESSAGE
234	CONCENTRATION FLAG ON FORM 1 COLUMN C DISAGREES WITH THE REPORTED CONCENTRATION.

STATUS	ACTION
	LAB IS TO IGNORE THE MESSAGE ON THE PC WHEN THE ABOVE SITUATION OCCURS.

NO	DESCRIPTION OF BUG
6	DATA ELEMENTS ARE REPORTED WITHOUT A DEFECT MESSAGE.

DEFECT CODE(S)	DEFECT MESSAGE
1416	NO MESSAGE IS PRINTED. HOWEVER THERE ARE REPORTED VALUE/COMPARED VALUE DATA ELEMENTS.

STATUS	ACTION
	LAB IS TO IGNORE THIS SITUATION WHEN IT OCCURS ON THE PC.

NO	DESCRIPTION OF BUG
7	A LEGITIMATE FORM 10 ERROR IS PRINTED WHEN THE LAB DID NOT REPORT AN IDL TO ONE DECIMAL PLACE IN A NUMERIC 6.1 FORMAT. HOWEVER, A CONCOMITANT ERROR MESSAGE WHICH IS ILLOGICAL ALSO PRINTS. THIS MESSAGE STATES THAT THE IDL IS NOT REPORTED TO A WHOLE NUMBER, YET IT IS AND THE LAB IS CORRECT IN THIS REGARD.

DEFECT CODE(S)	DEFECT MESSAGE
1305	IDL IS NOT REPORTED TO A WHOLE NUMBER.

STATUS	ACTION
	LAB IS TO IGNORE THIS MESSAGE ON THE PC WHEN A MESSAGE PRINTS BECAUSE THE IDL IS NOT REPORTED TO ONE DECIMAL PER ERROR CODE 1304. NONETHELESS, THE LAB IS REQUIRED TO CORRECT FOR THE ERROR CODE 1304.

U.S.E.P.A. CONTRACT LABORATORY PROGRAM

SAMPLE MANAGEMENT OFFICE

INORGANIC CONTRACT COMPLIANCE SCREENING SYSTEM

NO DEFECTS FOUND FOR STRUCTURAL REPORT #1

RECORDS WITH INVALID FIELDS

U.S.E.P.A. CONTRACT LABORATORY PROGRAM

SAMPLE MANAGEMENT OFFICE

INORGANIC CONTRACT COMPLIANCE SCREENING SYSTEM

NO DEFECTS FOUND FOR STRUCTURAL REPORT #2

U.S.E.P.A. CONTRACT LABORATORY PROGRAM

SAMPLE MANAGEMENT OFFICE

INORGANIC CONTRACT COMPLIANCE SCREENING SYSTEM

TECHNICAL DEFECT FREQUENCY REPORT

DEFECT CODE	NUMBER OF DEFECTS	PERCENT OF TOTAL DEFECTS	DEFECT MESSAGE
1712	1	100.00	PREP. DATE EXCEEDS ANALYSIS DATE
	=	======	
	1	100.00	

U . S . E . P . A . CONTRACT LABORATORY PROGRAM

SAMPLE MANAGEMENT OFFICE

INORGANIC CONTRACT COMPLIANCE SCREENING SYSTEM

TEXTUAL DEFECT REPORT

****
* Criterion RA. Form 14. *
****

Preparation date exceeds analysis date. (B36)

SUFFIX	ELEMENT	SAMPLE	METHOD	MATRIX	REPORTED VALUE	COMPARED VALUE
AF		MFK902D	CV		12/26/90	12/23/90

ERROR CODE : 1712

U. S. E. P. A. CONTRACT LABORATORY PROGRAM

SAMPLE MANAGEMENT OFFICE

INORGANIC CONTRACT COMPLIANCE SCREENING SYSTEM

MANUAL DEFECT REPORT

****
* DEFECTS FOR SAMPLE MFK889-1 *
****

MD1 COMPLIANCE CANNOT BE DETERMINED, RAW DATA NOT PRESENT FOR POST-DIGESTION SPIKE ANALYSIS FOR ANALYTE(S) TL ON 12/29/90. SEE PAGE(S) 93&359

MD3 RAW DATA IS NOT PRESENT FOR ANALYTE TL AND METHOD AND FOR ANALYTE AND METHOD F

****
* DEFECTS FOR SAMPLE MFK889-8 *
****

MD3 RAW DATA IS NOT PRESENT FOR ANALYTE TL AND METHOD AND FOR ANALYTE AND METHOD F

15522-F-~~HH8~~
1119 KC

Inorganic

Laboratory Response to Results of CCS

Criterion	Comments RAS 15522 SDG MFK888
RA	ERROR CODE: 1712
	Preparation date 12/23/90 on Form 13 does exceed analysis date 12/26/90. Sample ~~MFK903~~ MFK902D was originally prepped and ran test for Hg on 12/23/90, there was a problem with the sample analysis. Therefore the sample was reprepped and reran on 12/26/90. Sample analysis is "X"ed on Form 14 for Hg ran on 12/26/90. No actions required.
MD1/ MD3	Sample ID's on pages 359 & 361 for samples MFK889, the analytical spike for MFK889, and MFK889S were mislabeled. They have been corrected and the pages resubmitted.
	Diana S. Saber 01/31/91

Peak Area (A-s): -0.000 Peak Height (A): 0.006
Background Pk Area (A-s): 0.049 Background Pk Height (A): 0.025
Blank Corrected Pk Area (A-s): 0.000
Concentration (ug/L): 0.04

an Conc (ug/L): -0.12 SD: 0.222 RSD(%): 192.00

****

TI ID: MFK903D Seq. No.: 00031 A/S Pos.: 9 Date: 12/28/90

4572.11D

Replicate 1 Time: 21:50
Peak Area (A-s): 0.007 Peak Height (A): 0.017
Background Pk Area (A-s): 0.054 Background Pk Height (A): 0.029
Blank Corrected Pk Area (A-s): 0.007
Concentration (ug/L): 1.78

Replicate 2 Time: 21:52
Peak Area (A-s): 0.007 Peak Height (A): 0.020
Background Pk Area (A-s): 0.062 Background Pk Height (A): 0.032
Blank Corrected Pk Area (A-s): 0.007
Concentration (ug/L): 1.83

Mean Conc (ug/L): 1.81 SD: 0.040 RSD(%): 2.22

Recovery is 9.6%

18.00 = 9.0% R

****

TI ID: ~~MFK899~~ Seq. No.: 00032 A/S Pos.: 10 Date: 12/28/90

MFK889 4585.01 1/31/91

Replicate 1 Time: 21:55
ak Area (A-s): 0.001 Peak Height (A): 0.005
ackground Pk Area (A-s): 0.0[illegible] Background Pk Height (A): 0.008
Blank Corrected Pk Area (A-s): 0.001
Concentration (ug/L): 0.38

Replicate 2 Time: 21:58
Peak Area (A-s): -0.002 Peak Height (A): 0.006
Background Pk Area (A-s): 0.007 Background Pk Height (A): 0.005
Blank Corrected Pk Area (A-s): -0.002
Concentration (ug/L): -0.39

Mean Conc (ug/L): -0.01 SD: 0.541 RSD(%): 8532.42

****

TI ID: ~~MFK899~~ Seq. No.: 00033 A/S Pos.: 10 Date: 12/28/90

MFK889A 4585.01 1/31/91

Replicate 1 Time: 22:00
Peak Area (A-s): 0.070 Peak Height (A): 0.138
Background Pk Area (A-s): 0.081 Background Pk Height (A): 0.145
Blank Corrected Pk Area (A-s): 0.070
Concentration (ug/L): 17.74

Replicate 2 Time: 22:03
Peak Area (A-s): 0.072 Peak Height (A): 0.136
Background Pk Area (A-s): 0.083 Background Pk Height (A): 0.152
Blank Corrected Pk Area (A-s): 0.072
ncentration (ug/L): 18.17

Mean Conc (ug/L): 17.96 SD: 0.303 RSD(%): 1.69

20.00 = 89.8% R

****

Tl ID: ~~MFK8895~~ Seq. No.: 00036 A/S Pos.: 11 Date: 12/28/90

MFK8895 4585.015 Job 1/31/91

Replicate 1 Time: 22:16
Peak Area (A-s): 0.186 Peak Height (A): 0.310
ckground Pk Area (A-s): 0.226 Background Pk Height (A): 0.418
Blank Corrected Pk Area (A-s): 0.186
Concentration (ug/L): 46.95

Replicate 2 Time: 22:19
Peak Area (A-s): 0.186 Peak Height (A): 0.309
Background Pk Area (A-s): 0.224 Background Pk Height (A): 0.417
Blank Corrected Pk Area (A-s): 0.187
Concentration (ug/L): 47.14

Mean Conc (ug/L): 47.05 SD: 0.131 RSD(%): 0.28

~~/40.00~~ = 50.00 = 94.1%R

****

Tl ID: MFK891 Seq. No.: 00037 A/S Pos.: 12 Date: 12/28/90

4585.02

Replicate 1 Time: 22:22
Peak Area (A-s): 0.002 Peak Height (A): 0.005
Background Pk Area (A-s): 0.044 Background Pk Height (A): 0.023
Blank Corrected Pk Area (A-s): 0.002
Concentration (ug/L): 0.49

Replicate 2 Time: 22:24
Peak Area (A-s): -0.001 Peak Height (A): 0.006
Background Pk Area (A-s): 0.042 Background Pk Height (A): 0.021
Blank Corrected Pk Area (A-s): -0.001
ncentration (ug/L): -0.31

dil 1:4

Mean Conc (ug/L): 0.09 SD: 0.570 RSD(%): 628.17

****

Tl ID: MFK891 A Seq. No.: 00038 A/S Pos.: 12 Date: 12/28/90 Reun

4585.02

Replicate 1 Time: 22:27
Peak Area (A-s): 0.006 Peak Height (A): 0.016
Background Pk Area (A-s): 0.054 Background Pk Height (A): 0.029
Blank Corrected Pk Area (A-s): 0.007
Concentration (ug/L): 1.66

Replicate 2 Time: 22:30
Peak Area (A-s): 0.008 Peak Height (A): 0.014
Background Pk Area (A-s): 0.052 Background Pk Height (A): 0.024
Blank Corrected Pk Area (A-s): 0.008
Concentration (ug/L): 1.99

Mean Conc (ug/L): 1.82 SD: 0.230 RSD(%): 12.61

Recovery is 8.7%

/20.00 = 9.1%R

****

Tl ID: MFK892 Seq. No.: 00039 A/S Pos.: 13 Date: 12/28/90

4585.03

plicate 1 Time: 22:33
Peak Area (A-s): -0.001 Peak Height (A): 0.005
Background Pk Area (A-s): 0.071 Background Pk Height (A): 0.036

15522-F-1120

MAR 2 2 1991

U.S.E.P.A. CONTRACT LABORATORY PROGRAM

SAMPLE MANAGEMENT OFFICE

INORGANIC CONTRACT COMPLIANCE SCREENING SYSTEM

SCREENING PACKAGE SUMMARY INFORMATION

SDG:	MFK888 RESUBMITTED
CASE:	15522
LAB:	SWOK
CONTRACT:	68-D9-0089
REGION:	6
DRD:	02/01/91
FORMAT:	A
SCREEN DATE:	01/17/91
MAIL DATE 1:	01/24/91
MAIL DATE 2:	03/21/91
SCREENER:	SS

INORGANIC CONTRACT COMPLIANCE SCREENING SUMMARY

DEFECT COUNT BY SAMPLE AND FORM
RESUBMITTED

CASE: 15522 SAMPLES: 19 DATE MAILED: 03/21/91

CASE: 15522 SAMPLES: 19 DATE MAILED: 01/24/91

LAB CODE: SWOK CONTRACT: 68-D9-0089 SAS NO: SCREENER: SS DATE SCREENED: 01/17/91

SDG NUMBER: MFK888 REGION: 6 DATE RECEIVED: 02/01/91

SAMPLE NO.	A COVER PAGE	B FORM 1	CA FORM 2A	CB FORM 2B	D FORM 3	E FORM 4	FA FORM 5A	FB FORM 5B	G FORM 6	H FORM 7	I FORM 8	J FORM 9	L FORM 10	M FORM 11	N FORM 12	R FORM 13	RA FORM 14	MANUAL DEFECT
MFK888-S																		
MFK888-1																		
MFK889-W																		
MFK889-1																		
MFK889-8																		
MFK890-1																		
MFK891-1																		
MFK892-1																		
MFK893-1																		
MFK894-1																		
MFK895-1																		
MFK896-1																		
MFK897-1																		
MFK898-1																		
MFK899-1																		
MFK900-1																		
MFK901-1																		
MFK902-1																		
MFK902-8																		

MFK902-9

INORGANIC CONTRACT COMPLIANCE SCREENING SUMMARY

DEFECT COUNT BY SAMPLE AND FORM
RESUBMITTED

CASE: 15522 SAMPLES: 19 DATE MAILED:

CASE: 15522 SAMPLES: 19 DATE MAILED:

LAB CODE: SWOK CONTRACT: 68-D9-0089 SAS NO: SCREENER: DATE SCREENED:

SDG NUMBER: MFK888 REGION: 6 DATE RECEIVED: 02/01/91

SAMPLE NO.	A COVER PAGE	B FORM 1	CA FORM 2A	CB FORM 2B	D FORM 3	E FORM 4	FA FORM 5A	FB FORM 5B	G FORM 6	H FORM 7	I FORM 8	J FORM 9	L FORM 10	M FORM 11	N FORM 12	R FORM 13	RA FORM 14	MANUAL DEFECT
MFK903-1																		
MFK903-9																		
MFK904-1																		
MFK905-1																		
MFK906-1																		

U.S.E.P.A. CONTRACT LABORATORY PROGRAM

SAMPLE MANAGEMENT OFFICE

INORGANIC CONTRACT COMPLIANCE SCREENING SYSTEM

NO DEFECTS FOUND FOR STRUCTURAL REPORT #1

RECORDS WITH INVALID FIELDS

U.S.E.P.A. CONTRACT LABORATORY PROGRAM

SAMPLE MANAGEMENT OFFICE

INORGANIC CONTRACT COMPLIANCE SCREENING SYSTEM

NO DEFECTS FOUND FOR STRUCTURAL REPORT #2

U.S.E.P.A. CONTRACT LABORATORY PROGRAM

SAMPLE MANAGEMENT OFFICE

INORGANIC CONTRACT COMPLIANCE SCREENING SYSTEM

TEXTUAL DEFECT REPORT

NO DEFECT FOUND FOR TEXTUAL DEFECT REPORT

U. S. E. P. A. CONTRACT LABORATORY PROGRAM

SAMPLE MANAGEMENT OFFICE

INORGANIC CONTRACT COMPLIANCE SCREENING SYSTEM

MANUAL DEFECT REPORT

NO DEFECTS FOUND FOR MANUAL REPORT

JAN 30 1991

15522-F-1121

NSI Technology Services Corporation
Environmental Sciences
ESAT Region 6

c/o US EPA 10625 Fallstone Road, Houston, TX 77099 (713) 983-2135

FACSIMILE COVER SHEET

Please deliver the following pages to:

Name Steve Markham

Firm Southwest Labs of OK

City Broken Arrow **State** OK

Telephone (918) 251-2858 **Ext.** _____

Fax Telephone No. (918) 251-2599 **Ext.** _____

Sender:

Name Youree Holloway

Date January 28, 1991 **Time** 3:00 PM

Total Number of pages including this Cover Sheet 2

If you do not receive all the pages or if any pages are unclear, please call: (713) 983-2135

MESSAGES: _____

Fax Model No. Panafax UF-620 Fax No. (713) 983-2248

In Reference to Case
Case 15522 SDC MFK880
Page 1 of 1 pages

Contract Laboratory Program
REGIONAL/LABORATORY COMMUNICATION SYSTEM

Telephone/FAX Record Log

Date of Call: January 28, 1991

Laboratory Name: Southwest Labs of OK

Lab Contact: Steve Markham

Region: 6

Regional Contact: Youree Holloway (ESAT)

Call Initiated by: Region

In reference to data for the following sample numbers:

MFK888, MFK889, MFK890, MFK891, MFK892, MFK893, MFK894, MFK895, MFK896, MFK897, MFK898, MFK899, MFK900, MFK901, MFK902, MFK903, MFK904, MFK905, MFK906

Summary of Questions/Issues Discussed:

There should be a "X" in the selenium column on Form XIV for the determination at 1345 hours (page 100), not at 1210 hours (page 99). See pages 304 and 306.

Summary of Resolutions:

Lab will look into items and will submit data within ten working days.

Youree L. Holloway — Signature
1/28/91 — Date

Distribution: (1) Lab Copy, (2) Region Copy, (3) SMO Copy

15522-F-1122

JAN 30 1991

In Reference to Case
Case 15522 SDG MFK888
Page 1 of 1 pages

Contract Laboratory Program
REGIONAL/LABORATORY COMMUNICATION SYSTEM

Telephone/FAX Record Log

Date of Call: January 28, 1991

Laboratory Name: Southwest Labs of OK

Lab Contact: Steve Markham

Region: 6

Regional Contact: Youree Holloway (ESAT)

Call Initiated by: Region

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1/28/91
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NSI Technology Services Corporation
Environmental Sciences
ESAT Region 6

c/o US EPA 10625 Fallstone Road, Houston, TX 77099 (713) 983-2135

FACSIMILE COVER SHEET

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Name Steve Markham

Firm Southwest Labs of OK

City Broken Arrow **State** OK

Telephone (918) 251-2858 **Ext.** _____

Fax Telephone No. (918) 251-2599 **Ext.** _____

Sender:

Name Youree Holloway

Date January 28, 1991 **Time** _____

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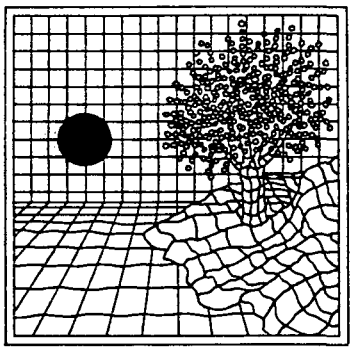
MESSAGES: _____

Fax Model No. Panafax UF-620 Fax No. (713) 983-2248



SOUTHWEST LABORATORY OF OKLAHOMA, INC.

January 31, 1991

Youree Holloway, ESAT
USEPA-Region VI, Laboratory
10625 Fallstone Road
Houston, TX 77099

SUBJECT: Case 15522, SDG MFK888

Mr. Holloway:

The following are the resolutions to your questions/issues for the above mentioned case:

A. We have resubmitted Form XIV with sample MFK903 corrected to read the proper time "X"ed for Selenium.

If you should have any other questions please do not hesitate to contact me at (918) 251-2858.

Sincerely,

Steve L. Markham
Inorganic Program Manager

cc: SMO
EMSL
FILE

1700 WEST ALBANY, SUITE C • BROKEN ARROW, OK 74012
(918) 251-2858 • FAX (918) 251-2599

ANALYSIS RUN LOG

Lab Name: SOUTHWEST LAB OF OK Contract: 68-D9-0089

Lab Code: SWOK Case No.: 15522 SAS No.: SDG No.: MFK888

Instrument ID Number: PE5000 Method: F

Start Date: 12/31/90 End Date: 12/31/90

EPA Sample No.	D/F	Time	% R	Analytes
S0	1.00	1050		X
S5	1.00	1055		X
S25	1.00	1100		X
S50	1.00	1105		X
ICV	2.00	1110		X
ICB	1.00	1115		X
CRA	1.00	1120		X
CCV	1.00	1125		X
CCB	1.00	1130		X
PBW	1.00	1145		
PBWA	1.00	1150	122.9	
LCSW	2.00	1155		X
LCSWA	2.00	1200	62.0	X
MFK903	1.00	1205		
MFK903A	1.00	1210	69.7	
MFK903D	1.00	1215		X
MFK903DA	1.00	1220	93.0	X
MFK889	1.00	1225		X
MFK889A	1.00	1230	122.9	X
CCV	1.00	1235		X
CCB	1.00	1240		X
MFK889S	1.00	1245		X
MFK891	1.00	1250		X
MFK891A	1.00	1255	100.8	X
MFK892	1.00	1300		X
MFK892A	1.00	1305	147.3	X
MFK893	1.00	1310		X
MFK893A	1.00	1315	124.0	X
MFK895	1.00	1320		X
MFK895A	1.00	1325	93.0	X
CCV	1.00	1330		X
CCB	1.00	1335		X

14

ANALYSIS RUN LOG

100

Lab Name: SOUTHWEST LAB OF OK Contract: 68-D9-0089

Lab Code: SWOK Case No.: 15522 SAS No.: SDG No.: MFK888

Instrument ID Number: PE5000 Method: F

Start Date: 12/31/90 End Date: 12/31/90

EPA Sample No.	D/F	Time	% R	Analytes
MFK903	1.00	1340		
MFK903A	1.00	1345	138.4	
ZZZZZ	1.00	1350		
ZZZZZ	1.00	1355		
PBW	1.00	1400		
PBWA	1.00	1405	99.6	
MFK904	1.00	1410		
MFK904A	1.00	1415	100.8	
MFK905	1.00	1420		
MFK905A	1.00	1425	100.8	
CCV	1.00	1430		
CCB	1.00	1435		
MFK906	1.00	1440		
MFK906A	1.00	1445	124.1	
ZZZZZ	1.00	1450		
CCV	1.00	1455		
CCB	1.00	1500		

Analytes																								
ALK	BEN	BAS	BEA	BEN	CHL	CHL	CHL	CHL	CHL	FLU	PBB	MET	MET	HEX	NIT	KET	STY	ANT	NIT	TOL	VIN	ZYL	CYC
																X							
																X							
																X							
																X							
																X							
																X							
																X							
																X							
																X							
																X							
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U. S. EPA - CLP 15522-F-1102.

COVER PAGE - INORGANIC ANALYSIS DATA PACKAGE

Lab Name: SOUTHWEST LAB OF OK Contract: 68-D9-0089

Lab Code: SWOK Case No.: 15522 SAS No.: SDG No.: MFK888

SOW No.: 7/88

EPA Sample No.	Lab Sample ID
MFK888	457201
MFK889	458501
MFK889S	458501S
MFK890	457202
MFK891	458502
MFK892	458503
MFK893	458504
MFK894	457203
MFK895	458505
MFK896	457204
MFK897	457205
MFK898	457206
MFK899	457207
MFK900	457208
MFK901	457209
MFK902	457210
MFK902D	457210D
MFK902S	457210S
MFK903	457211
MFK903D	457211D

Were ICP interelement corrections applied?	Yes/No	YES
Were ICP background corrections applied?	Yes/No	YES
If yes, were raw data generated before application of background corrections?	Yes/No	NO

Comments:

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on floppy diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signatures.

Signature: Steve L Markham Name: Steve L. Markham

Date: Janurary 11, 1991 Title: Inorganic Program Manager

U. S. EPA - CLP 15522-F-1102

COVER PAGE - INORGANIC ANALYSIS DATA PACKAGE

Lab Name: SOUTHWEST LAB OF OK Contract: 68-D9-0089

Lab Code: SWOK Case No.: 15522 SAS No.: SDG No.: MFK888

SOW No.: 7/88

EPA Sample No.	Lab Sample ID
MFK904	458506
MFK905	458507
MFK906	458508

Were ICP interelement corrections applied?	Yes/No	YES
Were ICP background corrections applied?	Yes/No	YES
If yes, were raw data generated before application of background corrections?	Yes/No	NO

Comments:

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on floppy diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signatures.

Signature: _____ Name: _____

Date: _____ Title: _____

15522-F-1102

U.S. EPA - CLP

EPA SAMPLE NO. 002

1

INORGANIC ANALYSIS DATA SHEET

MFK888

Lab Name: SOUTHWEST LAB OF OK Contract: 68-D9-0089

Lab Code: SWOK Case No.: 15522 SAS No.: SDG No.: MFK888

Matrix (soil/water): SOIL Lab Sample ID: 457201

Level (low/med): LOW Date Received: 12/12/90

% Solids: 74.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	13100.00		*	P
7440-36-0	Antimony	18.00		N*	P
7440-38-2	Arsenic	3.00		N	F
7440-39-3	Barium	2370.00		*	P
7440-41-7	Beryllium	.62	B		P
7440-43-9	Cadmium	.96	B		P
7440-70-2	Calcium	1890.00		*	P
7440-47-3	Chromium	25.00			P
7440-48-4	Cobalt	6.50	B		P
7440-50-8	Copper	26.70			P
7439-89-6	Iron	12300.00		*	P
7439-92-1	Lead	50.10			F
7439-95-4	Magnesium	1400.00		*	P
7439-96-5	Manganese	199.00		*	P
7439-97-6	Mercury	.12	U		CV
7440-02-0	Nickel	9.90	B		P
7440-09-7	Potassium	1570.00			P
7782-49-2	Selenium	.77	U		F
7440-22-4	Silver	1.20	B	N	P
7440-23-5	Sodium	3540.00			P
7440-28-0	Thallium	.51	U	NW	F
7440-62-2	Vanadium	18.30			P
7440-66-6	Zinc	201.00		EN*	P
	Cyanide	2.80	U		C

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: COLORLESS Clarity After: Artifacts:

Comments:

15522-F-1102

U.S. EPA - CLP

EPA SAMPLE NO. 003

1

INORGANIC ANALYSIS DATA SHEET

MFK889

Lab Name: SOUTHWEST LAB OF OK Contract: 68-D9-0089

Lab Code: SWOK Case No.: 15522 SAS No.: SDG No.: MFK888

Matrix (soil/water): WATER Lab Sample ID: 458501

Level (low/med): LOW Date Received: 12/12/90

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	32.00	U		P
7440-36-0	Antimony	59.00	U		P
7440-38-2	Arsenic	2.00	U		F
7440-39-3	Barium	7.00	U		P
7440-41-7	Beryllium	1.00	U		P
7440-43-9	Cadmium	2.00	U	N	P
7440-70-2	Calcium	75.40	B		P
7440-47-3	Chromium	5.00	U		P
7440-48-4	Cobalt	5.00	U		P
7440-50-8	Copper	7.00	U		P
7439-89-6	Iron	12.00	U		P
7439-92-1	Lead	2.00	U	W	F
7439-95-4	Magnesium	37.00	U		P
7439-96-5	Manganese	2.00	U		P
7439-97-6	Mercury	.20	U		CV
7440-02-0	Nickel	12.00	U		P
7440-09-7	Potassium	721.00	U		P
7782-49-2	Selenium	3.00	U	W	F
7440-22-4	Silver	3.00	U		P
7440-23-5	Sodium	273.00	B		P
7440-28-0	Thallium	2.00	U		F
7440-62-2	Vanadium	3.00	U		P
7440-66-6	Zinc	7.00	U		P
	Cyanide	10.00	U		C

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

15522F-1102

U.S. EPA - CLP

EPA SAMPLE NO. 004

1

INORGANIC ANALYSIS DATA SHEET

MFK890

Lab Name: SOUTHWEST LAB OF OK Contract: 68-D9-0089

Lab Code: SWOK Case No.: 15522 SAS No.: SDG No.: MFK888

Matrix (soil/water): SOIL Lab Sample ID: 457202

Level (low/med): LOW Date Received: 12/12/90

% Solids: 76.9

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	11600.00		*	P
7440-36-0	Antimony	21.20		N*	P
7440-38-2	Arsenic	5.40		N	F
7440-39-3	Barium	7580.00		*	P
7440-41-7	Beryllium	.68	B		P
7440-43-9	Cadmium	2.60			P
7440-70-2	Calcium	36500.00		*	P
7440-47-3	Chromium	308.00			P
7440-48-4	Cobalt	16.10			P
7440-50-8	Copper	81.50			P
7439-89-6	Iron	16500.00		*	P
7439-92-1	Lead	134.00			F
7439-95-4	Magnesium	2310.00		*	P
7439-96-5	Manganese	492.00		*	P
7439-97-6	Mercury	1.10			CV
7440-02-0	Nickel	15.20			P
7440-09-7	Potassium	1260.00	B		P
7782-49-2	Selenium	.77	U		F
7440-22-4	Silver	1.40	B	N	P
7440-23-5	Sodium	510.00	B		P
7440-28-0	Thallium	.52	U	NW	F
7440-62-2	Vanadium	19.60			P
7440-66-6	Zinc	376.00		EN*	P
	Cyanide	2.70	U		C

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: COLORLESS Clarity After: Artifacts:

Comments:

15522-F-1102

U.S. EPA - CLP

EPA SAMPLE NO. 005

1

INORGANIC ANALYSIS DATA SHEET

MFK891

Lab Name: SOUTHWEST LAB OF OK Contract: 68-D9-0089

Lab Code: SWOK Case No.: 15522 SAS No.: SDG No.: MFK888

Matrix (soil/water): WATER Lab Sample ID: 458502

Level (low/med): LOW Date Received: 12/12/90

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	32.00	U		P
7440-36-0	Antimony	59.00	U		P
7440-38-2	Arsenic	2.00	U		F
7440-39-3	Barium	299.00			P
7440-41-7	Beryllium	1.00	U		P
7440-43-9	Cadmium	2.00	U	N	P
7440-70-2	Calcium	77300.00			P
7440-47-3	Chromium	5.00	U		P
7440-48-4	Cobalt	5.00	U		P
7440-50-8	Copper	7.00	U		P
7439-89-6	Iron	147.00			P
7439-92-1	Lead	2.00	U	W	F
7439-95-4	Magnesium	41800.00			P
7439-96-5	Manganese	127.00			P
7439-97-6	Mercury	.24			CV
7440-02-0	Nickel	12.00	U		P
7440-09-7	Potassium	3300.00	B		P
7782-49-2	Selenium	4.50	B		F
7440-22-4	Silver	3.00	U		P
7440-23-5	Sodium	220000.00			P
7440-28-0	Thallium	10.00	U	E	F
7440-62-2	Vanadium	3.00	U		P
7440-66-6	Zinc	7.00	U		P
	Cyanide	10.00	U		C

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

15522-F-1102

U.S. EPA - CLP

EPA SAMPLE NO. 006

1

INORGANIC ANALYSIS DATA SHEET

MFK892

Lab Name: SOUTHWEST LAB OF OK Contract: 68-D9-0089

Lab Code: SWOK Case No.: 15522 SAS No.: SDG No.: MFK888

Matrix (soil/water): WATER Lab Sample ID: 458503

Level (low/med): LOW Date Received: 12/12/90

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	48.70	B		P
7440-36-0	Antimony	59.00	U		P
7440-38-2	Arsenic	2.00	U		F
7440-39-3	Barium	232.00			P
7440-41-7	Beryllium	1.00	U		P
7440-43-9	Cadmium	2.00	U	N	P
7440-70-2	Calcium	50500.00			P
7440-47-3	Chromium	5.00	U		P
7440-48-4	Cobalt	5.10	B		P
7440-50-8	Copper	7.00	U		P
7439-89-6	Iron	270.00			P
7439-92-1	Lead	3.80			F
7439-95-4	Magnesium	42100.00			P
7439-96-5	Manganese	183.00			P
7439-97-6	Mercury	.45			CV
7440-02-0	Nickel	12.00	U		P
7440-09-7	Potassium	15600.00			P
7782-49-2	Selenium	3.80	B	W	F
7440-22-4	Silver	3.00	U		P
7440-23-5	Sodium	296000.00			P
7440-28-0	Thallium	10.00	U	E	F
7440-62-2	Vanadium	3.00	U		P
7440-66-6	Zinc	60.40			P
	Cyanide	10.00	U		C

Color Before: WHITE Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

15522-F-1102

U.S. EPA - CLP

EPA SAMPLE NO.
007

1
INORGANIC ANALYSIS DATA SHEET

MFK893

Lab Name: SOUTHWEST LAB OF OK Contract: 68-D9-0089

Lab Code: SWOK Case No.: 15522 SAS No.: SDG No.: MFK888

Matrix (soil/water): WATER Lab Sample ID: 458504

Level (low/med): LOW Date Received: 12/12/90

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	84.20	B		P
7440-36-0	Antimony	59.00	U		P
7440-38-2	Arsenic	2.00	U		F
7440-39-3	Barium	282.00			P
7440-41-7	Beryllium	1.00	U		P
7440-43-9	Cadmium	2.00	U	N	P
7440-70-2	Calcium	51400.00			P
7440-47-3	Chromium	5.00	U		P
7440-48-4	Cobalt	6.70	B		P
7440-50-8	Copper	7.00	U		P
7439-89-6	Iron	306.00			P
7439-92-1	Lead	2.00	U		F
7439-95-4	Magnesium	46700.00			P
7439-96-5	Manganese	94.40			P
7439-97-6	Mercury	.24			CV
7440-02-0	Nickel	12.00	U		P
7440-09-7	Potassium	17900.00			P
7782-49-2	Selenium	4.50	B	W	F
7440-22-4	Silver	3.00	U		P
7440-23-5	Sodium	331000.00			P
7440-28-0	Thallium	10.00	U	E	F
7440-62-2	Vanadium	3.00	U		P
7440-66-6	Zinc	10.70	B		P
	Cyanide	10.00	U		C

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

15522-F-1102

U.S. EPA - CLP

EPA SAMPLE NO. 008

1

INORGANIC ANALYSIS DATA SHEET

MFK894

Lab Name: SOUTHWEST LAB OF OK Contract: 68-D9-0089

Lab Code: SWOK Case No.: 15522 SAS No.: SDG No.: MFK888

Matrix (soil/water): SOIL Lab Sample ID: 457203

Level (low/med): LOW Date Received: 12/12/90

% Solids: 78.1

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	7740.00		*	P
7440-36-0	Antimony	14.50	U	N*	P
7440-38-2	Arsenic	.96	B	N	F
7440-39-3	Barium	857.00		*	P
7440-41-7	Beryllium	.40	B		P
7440-43-9	Cadmium	.93	B		P
7440-70-2	Calcium	2730.00		*	P
7440-47-3	Chromium	19.10			P
7440-48-4	Cobalt	2.30	B		P
7440-50-8	Copper	44.70			P
7439-89-6	Iron	5700.00		*	P
7439-92-1	Lead	22.80		MS	F
7439-95-4	Magnesium	367.00	B	*	P
7439-96-5	Manganese	35.00		*	P
7439-97-6	Mercury	.61			CV
7440-02-0	Nickel	3.60	B		P
7440-09-7	Potassium	669.00	B		P
7782-49-2	Selenium	.74	U		F
7440-22-4	Silver	.84	B	N	P
7440-23-5	Sodium	1620.00			P
7440-28-0	Thallium	.49	U	NW	F
7440-62-2	Vanadium	8.90	B		P
7440-66-6	Zinc	590.00		EN*	P
	Cyanide	2.60	U		C

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: COLORLESS Clarity After: Artifacts:

Comments:

15522-F-1102

U.S. EPA - CLP

EPA SAMPLE NO. 009

1

INORGANIC ANALYSIS DATA SHEET

MFK895

Lab Name: SOUTHWEST LAB OF OK Contract: 68-D9-0089

Lab Code: SWOK Case No.: 15522 SAS No.: SDG No.: MFK888

Matrix (soil/water): WATER Lab Sample ID: 458505

Level (low/med): LOW Date Received: 12/12/90

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	445.00			P
7440-36-0	Antimony	59.00	U		P
7440-38-2	Arsenic	2.00	U		F
7440-39-3	Barium	408.00			P
7440-41-7	Beryllium	1.00	U		P
7440-43-9	Cadmium	2.00	U	N	P
7440-70-2	Calcium	134000.00			P
7440-47-3	Chromium	46.00			P
7440-48-4	Cobalt	8.90	B		P
7440-50-8	Copper	7.10	B		P
7439-89-6	Iron	2750.00			P
7439-92-1	Lead	11.70			F
7439-95-4	Magnesium	38500.00			P
7439-96-5	Manganese	2810.00			P
7439-97-6	Mercury	.20	U		CV
7440-02-0	Nickel	12.00	U		P
7440-09-7	Potassium	50800.00			P
7782-49-2	Selenium	7.60			F
7440-22-4	Silver	3.00	U		P
7440-23-5	Sodium	371000.00			P
7440-28-0	Thallium	10.00	U	E	F
7440-62-2	Vanadium	3.00	U		P
7440-66-6	Zinc	507.00			P
	Cyanide	10.00	U		C

Color Before: WHITE Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

15522-F-1102

U.S. EPA - CLP

EPA SAMPLE NO. 010

1

INORGANIC ANALYSIS DATA SHEET

MFK896

Lab Name: SOUTHWEST LAB OF OK Contract: 68-D9-0089

Lab Code: SWOK Case No.: 15522 SAS No.: SDG No.: MFK888

Matrix (soil/water): SOIL Lab Sample ID: 457204

Level (low/med): LOW Date Received: 12/12/90

% Solids: 79.8

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	10300.00		*	P
7440-36-0	Antimony	22.30		N*	P
7440-38-2	Arsenic	5.80		N	F
7440-39-3	Barium	3460.00		*	P
7440-41-7	Beryllium	.68	B		P
7440-43-9	Cadmium	1.50			P
7440-70-2	Calcium	2050.00		*	P
7440-47-3	Chromium	345.00			P
7440-48-4	Cobalt	11.50	B		P
7440-50-8	Copper	38.50			P
7439-89-6	Iron	15900.00		*	P
7439-92-1	Lead	118.00			F
7439-95-4	Magnesium	1290.00		*	P
7439-96-5	Manganese	744.00		*	P
7439-97-6	Mercury	.24			CV
7440-02-0	Nickel	12.70			P
7440-09-7	Potassium	1020.00	B		P
7782-49-2	Selenium	.72	U		F
7440-22-4	Silver	1.60	B	N	P
7440-23-5	Sodium	234.00	B		P
7440-28-0	Thallium	.48	U	N	F
7440-62-2	Vanadium	20.00			P
7440-66-6	Zinc	181.00		EN*	P
	Cyanide	2.90	U		C

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: COLORLESS Clarity After: Artifacts:

Comments:

15522-F-1102

U.S. EPA - CLP

EPA SAMPLE NO. 011

1

INORGANIC ANALYSIS DATA SHEET

MFK897

Lab Name: SOUTHWEST LAB OF OK Contract: 68-D9-0089

Lab Code: SWOK Case No.: 15522 SAS No.: SDG No.: MFK888

Matrix (soil/water): SOIL Lab Sample ID: 457205

Level (low/med): LOW Date Received: 12/12/90

% Solids: 81.9

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	7470.00		*	P
7440-36-0	Antimony	14.10	U	N*	P
7440-38-2	Arsenic	2.50		N	F
7440-39-3	Barium	694.00		*	P
7440-41-7	Beryllium	.56	B		P
7440-43-9	Cadmium	.48	U		P
7440-70-2	Calcium	2090.00		*	P
7440-47-3	Chromium	17.30			P
7440-48-4	Cobalt	4.20	B		P
7440-50-8	Copper	13.20			P
7439-89-6	Iron	7240.00		*	P
7439-92-1	Lead	20.90			F
7439-95-4	Magnesium	1290.00		*	P
7439-96-5	Manganese	169.00		*	P
7439-97-6	Mercury	.16			CV
7440-02-0	Nickel	6.30	B		P
7440-09-7	Potassium	1000.00	B		P
7782-49-2	Selenium	.72	U	W	F
7440-22-4	Silver	.72	U	N	P
7440-23-5	Sodium	404.00	B		P
7440-28-0	Thallium	.48	U	N	F
7440-62-2	Vanadium	11.20	B		P
7440-66-6	Zinc	32.00		EN*	P
	Cyanide	2.10	U		C

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: COLORLESS Clarity After: Artifacts:

Comments:

15522-F-1102

U.S. EPA - CLP

EPA SAMPLE NO. 012

1

INORGANIC ANALYSIS DATA SHEET

MFK898

Lab Name: SOUTHWEST LAB OF OK Contract: 68-D9-0089

Lab Code: SWOK Case No.: 15522 SAS No.: SDG No.: MFK888

Matrix (soil/water): SOIL Lab Sample ID: 457206

Level (low/med): LOW Date Received: 12/12/90

% Solids: 71.1

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	11100.00		*	P
7440-36-0	Antimony	28.20		N*	P
7440-38-2	Arsenic	17.30		N	F
7440-39-3	Barium	12700.00		*	P
7440-41-7	Beryllium	.48	B		P
7440-43-9	Cadmium	6.40			P
7440-70-2	Calcium	4200.00		*	P
7440-47-3	Chromium	287.00			P
7440-48-4	Cobalt	19.10			P
7440-50-8	Copper	70.10			P
7439-89-6	Iron	16200.00		*	P
7439-92-1	Lead	817.00			F
7439-95-4	Magnesium	1800.00		*	P
7439-96-5	Manganese	347.00		*	P
7439-97-6	Mercury	1.40			CV
7440-02-0	Nickel	13.60			P
7440-09-7	Potassium	1330.00	B		P
7782-49-2	Selenium	.86	U	W	F
7440-22-4	Silver	6.50		N	P
7440-23-5	Sodium	363.00	B		P
7440-28-0	Thallium	1.40	B	N	F
7440-62-2	Vanadium	17.70			P
7440-66-6	Zinc	1350.00		EN*	P
	Cyanide	3.20	U		C

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: COLORLESS Clarity After: Artifacts:

Comments:

15522-F-1102

U.S. EPA - CLP

EPA SAMPLE NO. 013

1

INORGANIC ANALYSIS DATA SHEET

MFK899

Lab Name: SOUTHWEST LAB OF OK Contract: 68-D9-0089

Lab Code: SWOK Case No.: 15522 SAS No.: SDG No.: MFK888

Matrix (soil/water): SOIL Lab Sample ID: 457207

Level (low/med): LOW Date Received: 12/12/90

% Solids: 76.3

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	6220.00		*	P
7440-36-0	Antimony	15.00	U	N*	P
7440-38-2	Arsenic	2.40	B	N	F
7440-39-3	Barium	3950.00		*	P
7440-41-7	Beryllium	.39	B		P
7440-43-9	Cadmium	.51	U		P
7440-70-2	Calcium	1650.00		*	P
7440-47-3	Chromium	30.80			P
7440-48-4	Cobalt	7.70	B		P
7440-50-8	Copper	18.10			P
7439-89-6	Iron	7720.00		*	P
7439-92-1	Lead	46.10			F
7439-95-4	Magnesium	911.00	B	*	P
7439-96-5	Manganese	163.00		*	P
7439-97-6	Mercury	1.20			CV
7440-02-0	Nickel	4.20	B		P
7440-09-7	Potassium	803.00	B		P
7782-49-2	Selenium	.76	U	W	F
7440-22-4	Silver	.76	U	N	P
7440-23-5	Sodium	4750.00			P
7440-28-0	Thallium	.51	U	NW	F
7440-62-2	Vanadium	11.40	B		P
7440-66-6	Zinc	184.00		EN*	P
	Cyanide	2.00	U		C

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: COLORLESS Clarity After: Artifacts:

Comments:

15522-F-1102

U.S. EPA - CLP

EPA SAMPLE NO. 014

1

INORGANIC ANALYSIS DATA SHEET

MFK900

Lab Name: SOUTHWEST LAB OF OK Contract: 68-D9-0089

Lab Code: SWOK Case No.: 15522 SAS No.: SDG No.: MFK888

Matrix (soil/water): SOIL Lab Sample ID: 457208

Level (low/med): LOW Date Received: 12/12/90

% Solids: 85.3

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	7300.00		*	P
7440-36-0	Antimony	18.10		N*	P
7440-38-2	Arsenic	7.50		N	F
7440-39-3	Barium	7530.00		*	P
7440-41-7	Beryllium	.49	B		P
7440-43-9	Cadmium	3.90			P
7440-70-2	Calcium	90300.00		*	P
7440-47-3	Chromium	127.00			P
7440-48-4	Cobalt	14.00			P
7440-50-8	Copper	44.00			P
7439-89-6	Iron	13000.00		*	P
7439-92-1	Lead	241.00			F
7439-95-4	Magnesium	2040.00		*	P
7439-96-5	Manganese	444.00		*	P
7439-97-6	Mercury	1.70			CV
7440-02-0	Nickel	9.40			P
7440-09-7	Potassium	759.00	B		P
7782-49-2	Selenium	.61	U	W	F
7440-22-4	Silver	1.90	B	N	P
7440-23-5	Sodium	1710.00			P
7440-28-0	Thallium	.40	U	NW	F
7440-62-2	Vanadium	12.80			P
7440-66-6	Zinc	512.00		EN*	P
	Cyanide	1.90	U		C

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: COLORLESS Clarity After: Artifacts:

Comments:

15522-F-1102

U.S. EPA - CLP

EPA SAMPLE NO 015

1

INORGANIC ANALYSIS DATA SHEET

MFK901

Lab Name: SOUTHWEST LAB OF OK Contract: 68-D9-0089

Lab Code: SWOK Case No.: 15522 SAS No.: SDG No.: MFK888

Matrix (soil/water): SOIL Lab Sample ID: 457209

Level (low/med): LOW Date Received: 12/12/90

% Solids: 76.6

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	7130.00		*	P
7440-36-0	Antimony	20.10		N*	P
7440-38-2	Arsenic	6.10		N	F
7440-39-3	Barium	7160.00		*	P
7440-41-7	Beryllium	.53	B		P
7440-43-9	Cadmium	4.00			F
7440-70-2	Calcium	7610.00		*	P
7440-47-3	Chromium	295.00			P
7440-48-4	Cobalt	13.10			P
7440-50-8	Copper	47.60			P
7439-89-6	Iron	13200.00		*	P
7439-92-1	Lead	183.00			F
7439-95-4	Magnesium	1010.00	B	*	P
7439-96-5	Manganese	371.00		*	P
7439-97-6	Mercury	1.60			CV
7440-02-0	Nickel	8.60	B		P
7440-09-7	Potassium	1050.00	B		P
7782-49-2	Selenium	.73	U		F
7440-22-4	Silver	1.70	B	N	P
7440-23-5	Sodium	2720.00			P
7440-28-0	Thallium	.48	U	NW	F
7440-62-2	Vanadium	15.40			P
7440-66-6	Zinc	1050.00		EN*	P
	Cyanide	2.70	U		C

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: COLORLESS Clarity After: Artifacts:

Comments:

15522-F-1102

U.S. EPA - CLP

016

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

MFK902

Lab Name: SOUTHWEST LAB OF OK Contract: 68-D9-0089

Lab Code: SWOK Case No.: 15522 SAS No.: SDG No.: MFK888

Matrix (soil/water): SOIL Lab Sample ID: 457210

Level (low/med): LOW Date Received: 12/12/90

% Solids: 82.3

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	11600.00		*	P
7440-36-0	Antimony	15.40		N*	P
7440-38-2	Arsenic	1.40	B	NW	F
7440-39-3	Barium	9180.00		*	P
7440-41-7	Beryllium	.67	B		P
7440-43-9	Cadmium	1.50			P
7440-70-2	Calcium	38400.00		*	P
7440-47-3	Chromium	465.00			P
7440-48-4	Cobalt	13.90			P
7440-50-8	Copper	28.10			P
7439-89-6	Iron	10400.00		*	P
7439-92-1	Lead	112.00			F
7439-95-4	Magnesium	3630.00		*	P
7439-96-5	Manganese	706.00		*	P
7439-97-6	Mercury	.99			CV
7440-02-0	Nickel	8.60	B		P
7440-09-7	Potassium	1910.00			P
7782-49-2	Selenium	.73	U		F
7440-22-4	Silver	.93	B	N	P
7440-23-5	Sodium	21300.00			P
7440-28-0	Thallium	.49	U	EN	F
7440-62-2	Vanadium	12.70			P
7440-66-6	Zinc	308.00		EN*	P
	Cyanide	2.40	U		C

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: COLORLESS Clarity After: Artifacts:

Comments:

15522-F-1102

U.S. EPA - CLP

017

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

MFK903

Lab Name: SOUTHWEST LAB OF OK Contract: 68-D9-0089

Lab Code: SWOK Case No.: 15522 SAS No.: SDG No.: MFK888

Matrix (soil/water): WATER Lab Sample ID: 457211

Level (low/med): LOW Date Received: 12/12/90

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	32.00	U		P
7440-36-0	Antimony	59.00	U		P
7440-38-2	Arsenic	2.00	U		F
7440-39-3	Barium	187.00	B		P
7440-41-7	Beryllium	1.00	U		P
7440-43-9	Cadmium	2.00	U	N	P
7440-70-2	Calcium	139000.00			P
7440-47-3	Chromium	5.00	U		P
7440-48-4	Cobalt	5.00	B		P
7440-50-8	Copper	7.20	B		P
7439-89-6	Iron	4800.00			P
7439-92-1	Lead	2.00	U	W	F
7439-95-4	Magnesium	54700.00			P
7439-96-5	Manganese	668.00			P
7439-97-6	Mercury	.20	U		CV
7440-02-0	Nickel	12.00	U		P
7440-09-7	Potassium	2880.00	B		P
7782-49-2	Selenium	3.00	U	W	F
7440-22-4	Silver	3.00	U		P
7440-23-5	Sodium	216000.00			P
7440-28-0	Thallium	10.00	U	E	F
7440-62-2	Vanadium	3.00	U		P
7440-66-6	Zinc	213.00			P
	Cyanide	10.00	U		C

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

15522-F-1102

U.S. EPA - CLP

018

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

MFK904

Lab Name: SOUTHWEST LAB OF OK Contract: 68-D9-0089

Lab Code: SWOK Case No.: 15522 SAS No.: SDG No.: MFK888

Matrix (soil/water): WATER Lab Sample ID: 458506

Level (low/med): LOW Date Received: 12/12/90

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	87.00	B		P
7440-36-0	Antimony	59.00	U		P
7440-38-2	Arsenic	2.00	U		F
7440-39-3	Barium	275.00			P
7440-41-7	Beryllium	1.00	U		P
7440-43-9	Cadmium	2.00	U	N	P
7440-70-2	Calcium	61300.00			P
7440-47-3	Chromium	5.00	U		P
7440-48-4	Cobalt	5.00	U		P
7440-50-8	Copper	7.00	U		P
7439-89-6	Iron	421.00			P
7439-92-1	Lead	2.00	U		F
7439-95-4	Magnesium	39100.00			P
7439-96-5	Manganese	276.00			P
7439-97-6	Mercury	.56			CV
7440-02-0	Nickel	12.00	U		P
7440-09-7	Potassium	3370.00	B		P
7782-49-2	Selenium	4.50	B		F
7440-22-4	Silver	3.00	U		P
7440-23-5	Sodium	216000.00			P
7440-28-0	Thallium	10.00	U	W	F
7440-62-2	Vanadium	3.00	U		P
7440-66-6	Zinc	17.80	B		P
	Cyanide	10.00	U		C

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

15522-F-1102

U.S. EPA - CLP

EPA SAMPLE NO. 019

1

INORGANIC ANALYSIS DATA SHEET

MFK905

Lab Name: SOUTHWEST LAB OF OK Contract: 68-D9-0089

Lab Code: SWOK Case No.: 15522 SAS No.: SDG No.: MFK888

Matrix (soil/water): WATER Lab Sample ID: 458507

Level (low/med): LOW Date Received: 12/12/90

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	198.00	B		P
7440-36-0	Antimony	59.00	U		P
7440-38-2	Arsenic	2.00	U		F
7440-39-3	Barium	214.00			P
7440-41-7	Beryllium	1.00	U		P
7440-43-9	Cadmium	2.00	U	N	P
7440-70-2	Calcium	47800.00			P
7440-47-3	Chromium	5.00	U		P
7440-48-4	Cobalt	5.00	U		P
7440-50-8	Copper	7.00	U		P
7439-89-6	Iron	243.00			P
7439-92-1	Lead	2.20	B		F
7439-95-4	Magnesium	38200.00			P
7439-96-5	Manganese	79.80			P
7439-97-6	Mercury	.20	U		CV
7440-02-0	Nickel	12.00	U		P
7440-09-7	Potassium	5570.00			P
7782-49-2	Selenium	3.80	B		F
7440-22-4	Silver	3.00	U		P
7440-23-5	Sodium	227000.00			P
7440-28-0	Thallium	10.00	U	W	F
7440-62-2	Vanadium	3.00	U		P
7440-66-6	Zinc	11.80	B		P
	Cyanide	10.00	U		C

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

15522-F-1102

U.S. EPA - CLP

EPA SAMPLE 020

1

INORGANIC ANALYSIS DATA SHEET

MFK906

Lab Name: SOUTHWEST LAB OF OK Contract: 68-D9-0089

Lab Code: SWOK Case No.: 15522 SAS No.: SDG No.: MFK888

Matrix (soil/water): WATER Lab Sample ID: 458508

Level (low/med): LOW Date Received: 12/12/90

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	79.10	B		P
7440-36-0	Antimony	59.00	U		P
7440-38-2	Arsenic	2.00	U		F
7440-39-3	Barium	281.00			P
7440-41-7	Beryllium	1.00	U		P
7440-43-9	Cadmium	2.00	U	N	P
7440-70-2	Calcium	62100.00			P
7440-47-3	Chromium	5.00	U		P
7440-48-4	Cobalt	5.00	U		P
7440-50-8	Copper	7.00	U		P
7439-89-6	Iron	409.00			P
7439-92-1	Lead	2.00	U		F
7439-95-4	Magnesium	38900.00			P
7439-96-5	Manganese	294.00			P
7439-97-6	Mercury	.20	U		CV
7440-02-0	Nickel	12.00	U		P
7440-09-7	Potassium	3670.00	B		P
7782-49-2	Selenium	3.80	B	W	F
7440-22-4	Silver	3.00	U		P
7440-23-5	Sodium	214000.00			P
7440-28-0	Thallium	10.00	U	W	F
7440-62-2	Vanadium	3.00	U		P
7440-66-6	Zinc	7.00	U		P
	Cyanide	10.00	U		C

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

15522-F-1102

U.S. EPA - CLP

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: SOUTHWEST LAB OF OK Contract: 68-D9-0089

Lab Code: SWOK Case No.: 15522 SAS No.: SDG No.: MFK088

Initial Calibration Source: EPA-LV

Continuing Calibration Source: IN. VEN. ICV

Concentration Units: ug/L

	Initial Calibration			Continuing Calibration					
Analyte	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	M
Aluminum	2010.0	2035.76	101.3	10000.0	9750.04	97.5	9604.19	96.0	P
Antimony	1010.0	1034.70	102.4	2500.0	2484.35	99.4	2369.35	94.8	P
Arsenic	47.4	43.44	91.6	50.0	48.43	96.9	47.42	94.8	F
Barium	1960.0	2002.69	102.2	10000.0	9957.39	99.6	9736.27	97.4	P
Beryllium	483.0	514.04	106.4	250.0	249.72	99.9	247.12	98.8	P
Cadmium	502.0	512.18	102.0	250.0	234.81	93.9	229.99	92.0	P
Calcium	48700.0	50215.26	103.1	25000.0	25025.67	100.1	24508.87	98.0	P
Chromium	510.0	524.25	102.8	500.0	504.90	101.0	498.62	99.7	P
Cobalt	502.0	500.30	99.7	2500.0	2483.37	99.3	2413.08	96.5	P
Copper	515.0	507.70	98.6	1250.0	1251.42	100.1	1230.23	98.4	P
Iron	2040.0	2004.73	98.3	5000.0	4899.35	98.0	4872.13	97.4	P
Lead	97.5	97.50	100.0	50.0	50.92	101.8	46.30	92.6	F
Magnesium	24600.0	25321.11	102.9	25000.0	25060.41	100.2	24588.13	98.4	P
Manganese	504.0	504.83	100.2	750.0	759.19	101.2	738.03	98.4	P
Mercury	4.9	4.31	88.0	3.0	2.75	91.7	2.52	84.0	CV
Nickel	480.0	490.51	102.2	2000.0	2046.10	102.3	1993.15	99.7	P
Potassium	49000.0	51005.42	104.1	25000.0	25242.05	101.0	25199.49	100.8	P
Selenium	52.6	50.52	96.0	25.0	27.00	108.0	26.15	104.6	F
Silver	500.0	517.81	103.6	1250.0	1258.74	100.7	1254.15	100.3	P
Sodium	49600.0	50691.28	102.2	25000.0	25513.55	102.1	25692.28	102.8	P
Thallium	97.0	93.38	96.3	25.0	27.45	109.8	25.54	102.2	F
Vanadium	488.0	478.36	98.0	2500.0	2478.62	99.1	2408.17	96.3	P
Zinc	3100.0	3238.63	104.5	1000.0	992.90	99.3	948.02	94.8	P
Cyanide	94.0	103.98	110.6	100.0	94.32	94.3	93.99	94.0	C

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

15522-F-1102

U.S. EPA - CLP

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: SOUTHWEST LAB OF OK Contract: 68-D9-0089

Lab Code: SWOK Case No.: 15522 SAS No.: SDG No.: MFK888

Initial Calibration Source:

Continuing Calibration Source: IN. VEN. ICV

Concentration Units: ug/L

Analyte	Initial Calibration True	Found	%R(1)	Continuing Calibration True	Found	%R(1)	Found	%R(1)	M
Aluminum				10000.0	9858.02	98.6	9264.51	92.6	P
Antimony				2500.0	2531.54	101.3	2459.94	98.4	P
Arsenic				50.0	47.64	95.3	47.52	95.0	F
Barium				10000.0	10105.79	101.1	9574.23	95.7	P
Beryllium				250.0	259.89	104.0	250.71	100.3	P
Cadmium				250.0	236.23	94.5	229.70	91.9	P
Calcium				25000.0	25532.13	102.1	24364.99	97.5	P
Chromium				500.0	518.30	103.7	498.42	99.7	P
Cobalt				2500.0	2520.55	100.8	2445.13	97.8	P
Copper				1250.0	1269.32	101.5	1204.60	96.4	P
Iron				5000.0	4991.72	99.8	4750.84	95.0	P
Lead				50.0	48.90	97.8	48.92	97.8	F
Magnesium				25000.0	25423.15	101.7	24263.39	97.1	P
Manganese				750.0	766.38	102.2	733.92	97.9	P
Mercury				3.0	2.52	84.0	2.64	88.0	CV
Nickel				2000.0	2093.03	104.7	2037.74	101.9	P
Potassium				25000.0	25760.72	103.0	24861.69	99.4	P
Selenium				25.0	27.00	108.0	26.13	104.5	F
Silver				1250.0	1280.39	102.4	1221.54	97.7	P
Sodium				25000.0	25787.14	103.1	24773.68	99.1	P
Thallium				25.0	25.98	103.9	23.66	94.6	F
Vanadium				2500.0	2508.05	100.3	2401.66	96.1	P
Zinc				1000.0	980.18	98.0	950.66	95.1	P
Cyanide				100.0	96.32	96.3	95.65	95.6	C

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

15522-F-1102

U.S. EPA - CLP

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: SOUTHWEST LAB OF OK Contract: 68-D9-0089

Lab Code: SWOK Case No.: 15522 SAS No.: SDG No.: MFK888

Initial Calibration Source:

Continuing Calibration Source: IN. VEN. ICV

Concentration Units: ug/L

Analyte	Initial Calibration True	Found	%R(1)	Continuing Calibration True	Found	%R(1).	Found	%R(1)	M
Aluminum									
Antimony									
Arsenic									
Barium									
Beryllium									
Cadmium									
Calcium									
Chromium									
Cobalt									
Copper									
Iron									
Lead									
Magnesium									
Manganese									
Mercury									
Nickel									
Potassium									
Selenium				25.0	26.13	104.5			F
Silver									
Sodium									
Thallium				25.0	23.84	95.4	25.18	100.7	F
Vanadium									
Zinc									
Cyanide									

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

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2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: SOUTHWEST LAB OF OK Contract: 68-D9-0089

Lab Code: SWOK Case No.: 15522 SAS No.: SDG No.: MFK888

Initial Calibration Source: EPA-LV

Continuing Calibration Source: IN. VEN. ICV

Concentration Units: ug/L

	Initial Calibration			Continuing Calibration					
Analyte	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	M
Aluminum	2010.0	2015.93	100.3	10000.0	10236.50	102.4	10206.61	102.1	P
Antimony	1010.0	978.72	96.9	2500.0	2609.48	104.4	2544.55	101.8	P
Arsenic	47.4	47.79	100.8	50.0	50.58	101.2	48.83	97.7	F
Barium	1960.0	2021.53	103.1	10000.0	10157.88	101.6	10113.03	101.1	P
Beryllium	483.0	515.22	106.7	250.0	254.75	101.9	250.76	100.3	P
Cadmium	502.0	502.94	100.2	250.0	254.71	101.9	247.14	98.9	P
Calcium	48700.0	49534.33	101.7	25000.0	24909.40	99.6	24717.23	98.9	P
Chromium	510.0	519.77	101.9	500.0	512.21	102.4	508.62	101.7	P
Cobalt	502.0	496.96	99.0	2500.0	2604.92	104.2	2578.13	103.1	P
Copper	515.0	506.12	98.3	1250.0	1285.04	102.8	1269.32	101.5	P
Iron	2040.0	2016.87	98.9	5000.0	5150.68	103.0	5124.27	102.5	P
Lead	97.5	99.46	102.0	50.0	53.34	106.7	50.54	101.1	F
Magnesium	24600.0	24825.59	100.9	25000.0	24943.15	99.8	24539.70	98.2	P
Manganese	504.0	501.77	99.6	750.0	767.78	102.4	760.75	101.4	P
Mercury	4.9	4.49	91.6	3.0	2.46	82.0	2.99	99.7	CV
Nickel	480.0	495.03	103.1	2000.0	2032.40	101.6	1994.60	99.7	P
Potassium	49000.0	50120.49	102.3	25000.0	25713.76	102.9	25276.34	101.1	P
Selenium	52.6	50.94	96.8	25.0	23.14	92.6	26.24	105.0	F
Silver	500.0	475.19	95.0	1250.0	1219.98	97.6	1204.22	96.3	P
Sodium	49600.0	49856.89	100.5	25000.0	24700.53	98.8	24321.94	97.3	P
Thallium	97.0	97.68	100.7	25.0	25.14	100.6	27.19	108.8	F
Vanadium	488.0	486.42	99.7	2500.0	2560.61	102.4	2603.52	104.1	P
Zinc	3100.0	3197.61	103.1	1000.0	1032.79	103.3	1014.96	101.5	P
Cyanide	94.0	105.15	111.9	100.0	93.98	94.0	93.63	93.6	C

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

15522-F-1102

U.S. EPA - CLP

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: SOUTHWEST LAB OF OK Contract: 68-D9-0089

Lab Code: SWOK Case No.: 15522 SAS No.: SDG No.: MFK088

Initial Calibration Source:

Continuing Calibration Source: IN. VEN. ICV

Concentration Units: ug/L

Analyte	Initial Calibration True	Initial Calibration Found	Initial Calibration %R(1)	Continuing Calibration True	Continuing Calibration Found	Continuing Calibration %R(1)	Continuing Calibration Found	Continuing Calibration %R(1)	M
Aluminum				10000.0	10412.92	104.1			P
Antimony				2500.0	2588.94	103.6			P
Arsenic				50.0	49.18	98.4	51.28	102.6	F
Barium				10000.0	10153.74	101.5			P
Beryllium				250.0	254.71	101.9			P
Cadmium				250.0	257.31	102.9			P
Calcium				25000.0	25070.06	100.3			P
Chromium				500.0	518.73	103.7			P
Cobalt				2500.0	2646.08	105.8			P
Copper				1250.0	1289.71	103.2			P
Iron				5000.0	5241.54	104.8			P
Lead				50.0	51.04	102.1	54.47	108.9	F
Magnesium				25000.0	25079.32	100.3			P
Manganese				750.0	778.36	103.8			P
Mercury									
Nickel				2000.0	2045.93	102.3			P
Potassium				25000.0	25488.50	102.0			P
Selenium				25.0	24.69	98.8	26.24	105.0	F
Silver				1250.0	1228.81	98.3			P
Sodium				25000.0	24500.99	98.0			P
Thallium				25.0	22.42	89.7	23.00	92.0	F
Vanadium				2500.0	2666.20	106.6			P
Zinc				1000.0	1057.59	105.8			P
Cyanide				100.0	94.68	94.7			C

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

15522-F-1102

U.S. EPA - CLP

2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: SOUTHWEST LAB OF OK Contract: 68-D9-0089

Lab Code: SWOK Case No.: 15522 SAS No.: SDG No.: MFK888

Initial Calibration Source:

Continuing Calibration Source: IN. VEN. ICV

Concentration Units: ug/L

Analyte	Initial Calibration True	Initial Calibration Found	Initial Calibration %R(1)	Continuing Calibration True	Continuing Calibration Found	Continuing Calibration %R(1)	Continuing Calibration Found	Continuing Calibration %R(1)	M
Aluminum									
Antimony									
Arsenic									
Barium									
Beryllium									
Cadmium									
Calcium									
Chromium									
Cobalt									
Copper									
Iron									
Lead				50.0	51.01	102.0	51.54	103.1	F
Magnesium									
Manganese									
Mercury									
Nickel									
Potassium									
Selenium				25.0	27.02	108.1			F
Silver									
Sodium									
Thallium				25.0	26.32	105.3	25.98	103.9	F
Vanadium									
Zinc									
Cyanide									

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

15522-F-1102

U.S. EPA - CLP

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: SOUTHWEST LAB OF OK Contract: 68-D9-0089

Lab Code: SWOK Case No.: 15522 SAS No.: SDG No.: MFK888

Initial Calibration Source:

Continuing Calibration Source: IN. VEN. ICV

Concentration Units: ug/L

Analyte	Initial Calibration True	Initial Calibration Found	Initial Calibration %R(1)	Continuing Calibration True	Continuing Calibration Found	Continuing Calibration %R(1)	Continuing Calibration Found	Continuing Calibration %R(1)	M
Aluminum									
Antimony									
Arsenic									
Barium									
Beryllium									
Cadmium									
Calcium									
Chromium									
Cobalt									
Copper									
Iron									
Lead				50.0	52.16	104.3			F
Magnesium									
Manganese									
Mercury									
Nickel									
Potassium									
Selenium									
Silver									
Sodium									
Thallium									
Vanadium									
Zinc									
Cyanide									

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

15522-F-1102

U.S. EPA - CLP

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: SOUTHWEST LAB OF OK Contract: 68-D9-0089

Lab Code: SWOK Case No.: 15522 SAS No.: SDG No.: MFK888

Initial Calibration Source: EPA-LV

Continuing Calibration Source: IN. VEN. ICV

Concentration Units: ug/L

Analyte	Initial Calibration True	Found	%R(1)	Continuing Calibration True	Found	%R(1)	Found	%R(1)	M
Aluminum									
Antimony									
Arsenic									
Barium									
Beryllium									
Cadmium									
Calcium									
Chromium									
Cobalt									
Copper									
Iron									
Lead	97.5	103.87	106.5	50.0	52.42	104.8	51.65	103.3	F
Magnesium									
Manganese									
Mercury	4.9	5.10	104.1	3.0	3.05	101.7	2.62	87.3	CV
Nickel									
Potassium									
Selenium									
Silver									
Sodium									
Thallium	97.0	97.94	101.0	25.0	27.41	109.6	24.77	99.1	F
Vanadium									
Zinc									
Cyanide									

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

15522-F-1102

U.S. EPA - CLP

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: SOUTHWEST LAB OF OK Contract: 68-D9-0089

Lab Code: SWOK Case No.: 15522 SAS No.: SDG No.: MFK888

Initial Calibration Source:

Continuing Calibration Source: IN. VEN. ICV

Concentration Units: ug/L

Analyte	Initial Calibration True	Found	%R(1)	Continuing Calibration True	Found	%R(1)	Found	%R(1)	M
Aluminum									
Antimony									
Arsenic									
Barium									
Beryllium									
Cadmium									
Calcium									
Chromium									
Cobalt									
Copper									
Iron									
Lead				50.0	50.49	101.0	50.06	100.1	F
Magnesium									
Manganese									
Mercury				3.0	2.62	87.3			CV
Nickel									
Potassium									
Selenium									
Silver									
Sodium									
Thallium				25.0	25.36	101.4	26.13	104.5	F
Vanadium									
Zinc									
Cyanide									

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

15522F-1102

U.S. EPA - CLP

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: SOUTHWEST LAB OF OK Contract: 68-D9-0089

Lab Code: SWOK Case No.: 15522 SAS No.: SDG No.: MFK888

Initial Calibration Source:

Continuing Calibration Source: IN. VEN. ICV

Concentration Units: ug/L

Analyte	Initial Calibration True	Initial Calibration Found	Initial Calibration %R(1)	Continuing Calibration True	Continuing Calibration Found	Continuing Calibration %R(1)	Continuing Calibration Found	Continuing Calibration %R(1)	M
Aluminum									
Antimony									
Arsenic									
Barium									
Beryllium									
Cadmium									
Calcium									
Chromium									
Cobalt									
Copper									
Iron									
Lead				50.0	50.45	100.9			F
Magnesium									
Manganese									
Mercury									
Nickel									
Potassium									
Selenium									
Silver									
Sodium									
Thallium				25.0	25.69	102.8			F
Vanadium									
Zinc									
Cyanide									

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

15522-F-1102

U.S. EPA - CLP

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: SOUTHWEST LAB OF OK Contract: 68-D9-0089

Lab Code: SWOK Case No.: 15522 SAS No.: SDG No.: MFK888

Initial Calibration Source: EPA-LV

Continuing Calibration Source: IN. VEN. ICV

Concentration Units: ug/L

Analyte	Initial Calibration True	Found	%R(1)	Continuing Calibration True	Found	%R(1)	Found	%R(1)	M
Aluminum									
Antimony									
Arsenic									
Barium									
Beryllium									
Cadmium									
Calcium									
Chromium									
Cobalt									
Copper									
Iron									
Lead	97.5	103.87	106.5	50.0	49.14	98.3	48.82	97.6	F
Magnesium									
Manganese									
Mercury									
Nickel									
Potassium									
Selenium									
Silver									
Sodium									
Thallium	97.0	103.30	106.5	25.0	26.41	105.6	25.64	102.6	F
Vanadium									
Zinc									
Cyanide									

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

15522-F-1102

U.S. EPA - CLP

2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: SOUTHWEST LAB OF OK Contract: 68-D9-0089

Lab Code: SWOK Case No.: 15522 SAS No.: SDG No.: MFK888

Initial Calibration Source:

Continuing Calibration Source: IN. VEN. ICV

Concentration Units: ug/L

Analyte	Initial Calibration True	Found	%R(1)	Continuing Calibration True	Found	%R(1)	Found	%R(1)	M
Aluminum									
Antimony									
Arsenic									
Barium									
Beryllium							c		
Cadmium									
Calcium									
Chromium									
Cobalt									
Copper									
Iron									
Lead									
Magnesium									
Manganese									
Mercury									
Nickel									
Potassium									
Selenium									
Silver									
Sodium									
Thallium			*	25.0	25.10	100.4	25.87	103.5	F
Vanadium									
Zinc									
Cyanide									

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

15522F-1102

U.S. EPA - CLP

2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: SOUTHWEST LAB OF OK Contract: 68-D9-0089

Lab Code: SWOK Case No.: 15522 SAS No.: SDG No.: MFK000

Initial Calibration Source:

Continuing Calibration Source: IN. VEN. ICV

Concentration Units: ug/L

Analyte	Initial Calibration True	Found	%R(1)	Continuing Calibration True	Found	%R(1)	Found	%R(1)	M
Aluminum									
Antimony									
Arsenic									
Barium									
Beryllium									
Cadmium									
Calcium									
Chromium									
Cobalt									
Copper									
Iron									
Lead									
Magnesium									
Manganese									
Mercury									
Nickel									
Potassium									
Selenium									
Silver									
Sodium									
Thallium				25.0	24.58	98.3			F
Vanadium									
Zinc									
Cyanide									

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

15522-F-1102

U.S. EPA - CLP

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: SOUTHWEST LAB OF OK Contract: 68-D9-0089

Lab Code: SWOK Case No.: 15522 SAS No.: SDG No.: MFK888

Initial Calibration Source: EPA-LV

Continuing Calibration Source: IN. VEN. ICV

Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration					M
	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	
Aluminum									
Antimony									
Arsenic									
Barium									
Beryllium									
Cadmium									
Calcium									
Chromium									
Cobalt									
Copper									
Iron									
Lead									
Magnesium									
Manganese									
Mercury									
Nickel									
Potassium									
Selenium									
Silver									
Sodium									
Thallium	97.0	102.48	105.6	25.0	25.30	101.2	26.96	107.8	F
Vanadium									
Zinc									
Cyanide									

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

U.S. EPA - CLP

2B
CRDL STANDARD FOR AA AND ICP

Lab Name: SOUTHWEST LAB OF OK Contract: 68-D9-0089

Lab Code: SWOK Case No.: 15522 SAS No.: SDG No.: MFK888

AA CRDL Standard Source: PLASMACHEM

ICP CRDL Standard Source: IN. VEN.

Concentration Units: ug/L

Analyte	CRDL Standard for AA			CRDL Standard for ICP				
				Initial			Final	
	True	Found	%R	True	Found	%R	Found	%R
Aluminum								
Antimony				120.0	129.48	107.9	109.80	91.5
Arsenic	10.0	10.19	101.9					
Barium								
Beryllium				10.0	10.28	102.8	10.58	105.8
Cadmium				10.0	8.94	89.4	8.54	85.4
Calcium								
Chromium				20.0	20.82	104.1	20.25	101.2
Cobalt				100.0	99.00	99.0	98.97	99.0
Copper				50.0	50.34	100.7	49.24	98.5
Iron								
Lead	3.0	1.91	63.7					
Magnesium								
Manganese				30.0	29.26	97.5	30.33	101.1
Mercury								
Nickel				80.0	77.95	97.4	78.74	98.4
Potassium								
Selenium	5.0	6.13	122.6					
Silver				20.0	12.88	64.4	12.96	64.8
Sodium								
Thallium	10.0	11.62	116.2					
Vanadium				100.0	89.40	89.4	86.92	86.9
Zinc				40.0	41.62	104.0	38.02	95.0

U.S. EPA - CLP

2B
CRDL STANDARD FOR AA AND ICP

Lab Name: SOUTHWEST LAB OF OK Contract: 68-D9-0089

Lab Code: SWOK Case No.: 15522 SAS No.: SDG No.: MFK888

AA CRDL Standard Source: PLASMACHEM

ICP CRDL Standard Source: IN. VEN.

Concentration Units: ug/L

Analyte	CRDL Standard for AA			CRDL Standard for ICP				
				Initial			Final	
	True	Found	%R	True	Found	%R	Found	%R
Aluminum								
Antimony				120.0	132.91	110.8	113.81	94.8
Arsenic	10.0	8.97	89.7					
Barium								
Beryllium				10.0	10.28	102.8	10.30	103.0
Cadmium				10.0	9.64	96.4	11.08	110.8
Calcium								
Chromium				20.0	18.58	92.9	21.44	107.2
Cobalt				100.0	100.87	100.9	103.89	103.9
Copper				50.0	51.63	103.3	51.88	103.8
Iron								
Lead	3.0	3.58	119.3					
Magnesium								
Manganese				30.0	29.94	99.8	30.62	102.1
Mercury								
Nickel				80.0	72.75	90.9	85.12	106.4
Potassium								
Selenium	5.0	6.09	121.8					
Silver				20.0	12.85	64.2	12.53	62.6
Sodium								
Thallium	10.0	11.80	118.0					
Vanadium				100.0	91.76	91.8	97.90	97.9
Zinc				40.0	36.43	91.1	36.66	91.6

U.S. EPA - CLP

2B
CRDL STANDARD FOR AA AND ICP

Lab Name: SOUTHWEST LAB OF OK Contract: 68-D9-0089

Lab Code: SWOK Case No.: 15522 SAS No.: SDG No.: MFK888

AA CRDL Standard Source: PLASMACHEM

ICP CRDL Standard Source:

Concentration Units: ug/L

Analyte	CRDL Standard for AA			CRDL Standard for ICP				
				Initial			Final	
	True	Found	%R	True	Found	%R	Found	%R
Aluminum								
Antimony								
Arsenic								
Barium								
Beryllium								
Cadmium								
Calcium								
Chromium								
Cobalt								
Copper								
Iron								
Lead	3.0	4.04	134.7					
Magnesium								
Manganese								
Mercury								
Nickel								
Potassium								
Selenium								
Silver								
Sodium								
Thallium	10.0	11.63	116.3					
Vanadium								
Zinc								

15522F-1102

U.S. EPA - CLP

2B
CRDL STANDARD FOR AA AND ICP

Lab Name: SOUTHWEST LAB OF OK Contract: 68-D9-0089

Lab Code: SWOK Case No.: 15522 SAS No.: SDG No.: MFK088

AA CRDL Standard Source: PLASMACHEM

ICP CRDL Standard Source:

Concentration Units: ug/L

Analyte	CRDL Standard for AA			CRDL Standard for ICP				
					Initial		Final	
	True	Found	%R	True	Found	%R	Found	%R
Aluminum								
Antimony								
Arsenic								
Barium								
Beryllium								
Cadmium								
Calcium								
Chromium								
Cobalt								
Copper								
Iron								
Lead	3.0	1.76	58.7					
Magnesium								
Manganese								
Mercury								
Nickel								
Potassium								
Selenium								
Silver								
Sodium								
Thallium	10.0	10.07	100.7					
Vanadium								
Zinc								

U.S. EPA - CLP

2B
CRDL STANDARD FOR AA AND ICP

Lab Name: SOUTHWEST LAB OF OK Contract: 68-D9-0089

Lab Code: SWOK Case No.: 15522 SAS No.: SDG No.: MFK888

AA CRDL Standard Source: PLASMACHEM

ICP CRDL Standard Source:

Concentration Units: ug/L

Analyte	CRDL Standard for AA			CRDL Standard for ICP				
				Initial			Final	
	True	Found	%R	True	Found	%R	Found	%R
Aluminum								
Antimony								
Arsenic								
Barium								
Beryllium								
Cadmium								
Calcium								
Chromium								
Cobalt								
Copper								
Iron								
Lead								
Magnesium								
Manganese								
Mercury								
Nickel								
Potassium								
Selenium								
Silver								
Sodium								
Thallium	10.0	11.05	110.5					
Vanadium								
Zinc								

15522-F-1102

U.S. EPA - CLP

3
BLANKS

Lab name: SOUTHWEST LAB OF OK Contract: 68-D9-0089

Lab code: SWOK Case No.: 15522 SAS No.: SDG No.: MFK888

Preparation Blank Matrix (soil/water): SOIL

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

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum	32.0	U	32.0	U	32.0	U	32.0	U	6.400	U	P
Antimony	59.0	U	59.0	U	59.0	U	59.0	U	11.800	U	P
Arsenic	2.0	U	2.0	U	2.0	U	2.0	U	.400	U	F
Barium	7.0	U	7.0	U	7.0	U	7.0	U	1.400	U	P
Beryllium	1.0	U	1.0	U	1.0	U	1.0	U	.200	U	P
Cadmium	2.0	U	2.0	U	2.0	U	2.0	U	.400	U	P
Calcium	41.0	U	41.0	U	41.0	U	41.0	U	8.200	U	P
Chromium	5.0	U	5.0	U	5.0	U	5.0	U	1.000	U	P
Cobalt	5.0	U	5.0	U	5.0	U	5.0	U	1.000	U	P
Copper	7.0	U	7.0	U	7.0	U	7.0	U	1.400	U	P
Iron	12.0	U	32.4	B	12.0	U	48.2	B	2.400	U	P
Lead	2.0	U	2.0	U	2.0	U	2.0	U	.400	U	F
Magnesium	37.0	U	37.0	U	37.0	U	37.0	U	7.400	U	P
Manganese	2.0	U	2.0	U	2.0	U	2.0	U	.400	U	P
Mercury	.2	U	.2	U	.2	U	.2	U	.100	U	CV
Nickel	12.0	U	12.0	U	12.0	U	12.0	U	2.400	U	P
Potassium	721.0	U	721.0	U	721.0	U	721.0	U	144.200	U	P
Selenium	3.0	U	3.0	U	3.0	U	-3.4	B	-.684	B	F
Silver	3.0	U	3.0	U	3.0	U	3.0	U	.600	U	P
Sodium	-185.7	B	342.8	B	-192.4	B	595.8	B	-37.343	B	P
Thallium	2.0	U	2.0	U	2.0	U	2.0	U	.400	U	F
Vanadium	3.0	U	3.0	U	3.0	U	3.0	U	.600	U	P
Zinc	7.0	U	7.0	U	7.0	U	7.0	U	1.400	U	P
Cyanide	10.0	U	10.0	U	10.0	U	10.0	U	1.000	U	C

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U.S. EPA - CLP

3
BLANKS

Lab name: SOUTHWEST LAB OF OK Contract: 68-D9-0089

Lab code: SWOK Case No.: 15522 SAS No.: SDG No.: MFK888

Preparation Blank Matrix (soil/water): SOIL

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

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum			32.0	U							P
Antimony			59.0	U							P
Arsenic			2.0	U							F
Barium			7.0	U							P
Beryllium			1.0	U							P
Cadmium			2.0	U							P
Calcium			41.0	U							P
Chromium			5.0	U							P
Cobalt			5.0	U							P
Copper			7.0	U							F
Iron			12.0	U							P
Lead			2.0	U							F
Magnesium			37.0	U							P
Manganese			2.0	B							P
Mercury			.2	U					.100	U	CV
Nickel			12.0	U							P
Potassium			721.0	U							P
Selenium			3.0	U	-3.4	B					F
Silver			3.0	U							P
Sodium			-144.1	B							P
Thallium			2.0	U	2.0	U	2.0	U			F
Vanadium			3.0	U							P
Zinc			7.0	U							P
Cyanide			10.0	U							C

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U.S. EPA - CLP

3
BLANKS

Lab name: SOUTHWEST LAB OF OK Contract: 68-D9-0089

Lab code: SWOK Case No.: 15522 SAS No.: SDG No.: MFK088

Preparation Blank Matrix (soil/water): WATER

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

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum	32.0	U	-35.4	B	32.0	U	-33.6	B	-35.000	B	P
Antimony	59.0	U	59.0	U	59.0	U	59.0	U	59.000	U	P
Arsenic	2.0	U	2.0	U	2.0	U	2.0	U	2.000	U	F
Barium	7.0	U	7.0	U	7.0	U	7.0	U	7.000	U	P
Beryllium	1.0	U	1.0	U	1.0	U	1.0	U	1.000	U	P
Cadmium	2.0	U	2.0	U	2.0	U	2.0	U	2.000	U	P
Calcium	-41.9	B	-43.0	B	-41.5	B	41.0	U	-49.500	B	P
Chromium	5.0	U	5.0	U	5.0	U	5.0	U	5.000	U	P
Cobalt	5.0	U	5.0	U	5.0	U	5.0	U	5.000	U	P
Copper	7.0	U	7.0	U	7.0	U	7.0	U	7.000	U	P
Iron	-15.3	B	12.0	U	-15.4	B	-14.5	B	-14.500	B	P
Lead	2.0	U	2.0	U	2.0	U	2.0	U	2.000	U	F
Magnesium	37.0	U	37.0	U	37.0	U	37.0	U	37.000	U	P
Manganese	2.0	U	2.0	U	2.0	U	2.0	U	2.000	U	P
Mercury	.2	U	.2	U	.2	U			.200	U	CV
Nickel	12.0	U	12.0	U	12.0	U	12.0	U	12.000	U	P
Potassium	721.0	U	721.0	U	721.0	U	721.0	U	721.000	U	P
Selenium	3.0	U	3.0	B	3.0	U	4.5	B	3.000	U	F
Silver	3.3	B	3.0	U	3.6	B	3.4	B	3.000	U	P
Sodium	52.0	U	-59.9	B	52.0	U	-83.5	B	-79.400	B	P
Thallium	2.0	U	2.0	U	2.0	U	2.0	U	2.000	U	F
Vanadium	3.0	U	3.0	U	3.0	U	3.0	U	3.000	U	P
Zinc	7.0	U	7.0	U	7.0	U	7.0	U	7.000	U	P
Cyanide	10.0	U	10.0	U	10.0	U	10.0	U	10.000	U	C

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U.S. EPA - CLP

3
BLANKS

Lab name: SOUTHWEST LAB OF OK Contract: 68-D9-0089

Lab code: SWOK Case No.: 15522 SAS No.: SDG No.: MFK088

Preparation Blank Matrix (soil/water): WATER

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

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum											
Antimony											
Arsenic			2.0	U							F
Barium											
Beryllium											
Cadmium											
Calcium											
Chromium											
Cobalt											
Copper											
Iron											
Lead			2.0	U	2.0	U	2.0	U			F
Magnesium											
Manganese											
Mercury											
Nickel											
Potassium											
Selenium			3.0	B	4.5	B					F
Silver											
Sodium											
Thallium			2.0	U	2.0	U	2.0	U			F
Vanadium											
Zinc											
Cyanide											

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BLANKS

Lab name: SOUTHWEST LAB OF OK Contract: 68-D9-0089

Lab code: SWOK Case No.: 15522 SAS No.: SDG No.: MFK888

Preparation Blank Matrix (soil/water): WATER

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

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1.	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum											
Antimony											
Arsenic											
Barium											
Beryllium											
Cadmium											
Calcium											
Chromium											
Cobalt											
Copper											
Iron											
Lead			2.0	U							F
Magnesium											
Manganese											
Mercury											
Nickel											
Potassium											
Selenium											
Silver											
Sodium											
Thallium											
Vanadium											
Zinc											
Cyanide											

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3
BLANKS

Lab name: SOUTHWEST LAB OF OK Contract: 68-D9-0089

Lab code: SWOK Case No.: 15522 SAS No.: SDG No.: MFK888

Preparation Blank Matrix (soil/water): WATER

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

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum											
Antimony											
Arsenic											
Barium											
Beryllium											
Cadmium											
Calcium											
Chromium											
Cobalt											
Copper											
Iron											
Lead	2.0	U	2.0	U	2.0	U	2.0	U			F
Magnesium											
Manganese											
Mercury	.2	U	.2	U	.2	U	.2	U			CV
Nickel											
Potassium											
Selenium											
Silver											
Sodium											
Thallium	2.0	U	2.0	U	2.0	U	2.0	U			F
Vanadium											
Zinc											
Cyanide											

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BLANKS

Lab name: SOUTHWEST LAB OF OK Contract: 68-D9-0089

Lab code: SWOK Case No.: 15522 SAS No.: SDG No.: MFK888

Preparation Blank Matrix (soil/water): WATER

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

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum											
Antimony											
Arsenic											
Barium											
Beryllium											
Cadmium											
Calcium											
Chromium											
Cobalt											
Copper											
Iron											
Lead			2.0	U	2.0	U					F
Magnesium											
Manganese											
Mercury											
Nickel											
Potassium											
Selenium											
Silver											
Sodium											
Thallium			2.0	U	2.0	U					F
Vanadium											
Zinc											
Cyanide											

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BLANKS

Lab name: SOUTHWEST LAB OF OK Contract: 68-D9-0089

Lab code: SWOK Case No.: 15522 SAS No.: SDG No.: MFK888

Preparation Blank Matrix (soil/water): WATER

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

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum											
Antimony											
Arsenic											
Barium											
Beryllium											
Cadmium											
Calcium											
Chromium											
Cobalt											
Copper											
Iron											
Lead	2.0	U	2.0	U	2.0	U					F
Magnesium											
Manganese											
Mercury											
Nickel											
Potassium											
Selenium											
Silver											
Sodium											
Thallium	2.0	U	2.0	U	2.0	U	2.0	U			F
Vanadium											
Zinc											
Cyanide											

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BLANKS

Lab name: SOUTHWEST LAB OF OK Contract: 68-D9-0089

Lab code: SWOK Case No.: 15522 SAS No.: SDG No.: MFK888

Preparation Blank Matrix (soil/water): WATER

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

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum											
Antimony											
Arsenic											
Barium											
Beryllium											
Cadmium											
Calcium											
Chromium											
Cobalt											
Copper											
Iron											
Lead											
Magnesium											
Manganese											
Mercury											
Nickel											
Potassium											
Selenium											
Silver											
Sodium											
Thallium			2.0	U	2.0	U					F
Vanadium											
Zinc											
Cyanide											

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BLANKS

Lab name: SOUTHWEST LAB OF OK Contract: 68-D9-0089

Lab code: SWOK Case No.: 15522 SAS No.: SDG No.: MFK888

Preparation Blank Matrix (soil/water): WATER

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

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum											
Antimony											
Arsenic											
Barium											
Beryllium											
Cadmium											
Calcium											
Chromium											
Cobalt											
Copper											
Iron											
Lead											
Magnesium											
Manganese											
Mercury											
Nickel											
Potassium											
Selenium											
Silver											
Sodium											
Thallium	2.0	U	2.0	U	2.0	U					F
Vanadium											
Zinc											
Cyanide											

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4

ICP INTERFERENCE CHECK SAMPLE

Lab Name: SOUTHWEST LAB OF OK Contract: 68-D9-0089

Lab Code: SWOK Case No.: 15522 SAS No.: SDG No.: MFK888

ICP ID Number: TJA61 ICS Source: EPA-LV89

Concentration Units: ug/L

Analyte	True Sol. A	True Sol. AB	Initial Found Sol. A	Initial Found Sol. AB	Initial Found %R	Final Found Sol. A	Final Found Sol. AB	Final Found %R
Aluminum	481000	469700	482100	475609.9	101.3	463324	457992.1	97.5
Antimony			124	133.1		193	223.2	
Arsenic								
Barium		456	7	467.9	102.6	15	457.5	100.3
Beryllium		472	0	475.5	100.7	0	484.1	102.6
Cadmium		958	2	861.4	89.9	-1	856.5	89.4
Calcium	448250	445800	462951	460444.8	103.3	456316	454259.4	101.9
Chromium	25	525	14	510.6	97.3	15	508.6	96.9
Cobalt		494	58	484.5	98.1	57	481.3	97.4
Copper		523	-32	461.2	88.2	-31	451.1	86.3
Iron	182650	178650	174779	172177.1	96.4	170352	169491.6	94.9
Lead								
Magnesium	450900	445200	487391	481992.1	108.3	476733	473565.9	106.4
Manganese	16	530	60	499.1	94.2	62	493.0	93.0
Mercury								
Nickel		940	87	930.7	99.0	75	931.1	99.1
Potassium			-532	-348.4		-396	-359.1	
Selenium								
Silver		990	10	951.0	96.1	8	928.8	93.8
Sodium			221	235.0		277	274.9	
Thallium								
Vanadium		471	-12	405.2	86.0	-14	396.3	84.1
Zinc		1026	9	952.8	92.9	6	921.6	89.8

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ICP INTERFERENCE CHECK SAMPLE

Lab Name: SOUTHWEST LAB OF OK Contract: 68-D9-0089

Lab Code: SWOK Case No.: 15522 SAS No.: SDG No.: MFK888

ICP ID Number: TJA61 ICS Source: EPA-LV89

Concentration Units: ug/L

Analyte	True Sol. A	True Sol. AB	Initial Found Sol. A	Initial Found Sol. AB	Initial Found %R	Final Found Sol. A	Final Found Sol. AB	Final Found %R
Aluminum	481000	469700	516110	517104.3	110.1	520319	515238.7	109.7
Antimony			151	192.2		76	117.6	
Arsenic								
Barium		456	7	495.2	108.6	.7	485.6	106.5
Beryllium		472	0	512.7	108.6	0	505.5	107.1
Cadmium		958	3	949.9	99.2	2	930.6	97.1
Calcium	448250	445800	489263	492863.0	110.6	498285	492464.5	110.5
Chromium	25	525	14	543.7	103.6	14	542.7	103.4
Cobalt		494	64	523.8	106.0	64	522.2	105.7
Copper		523	-28	489.8	93.7	-31	480.8	91.9
Iron	182650	178650	187534	187596.7	105.0	188633	187722.7	105.1
Lead								
Magnesium	450900	445200	518186	518892.8	116.6	514222	511397.8	114.9
Manganese	16	530	56	526.5	99.3	54	523.5	98.8
Mercury								
Nickel		940	92	989.0	105.2	92	972.8	103.5
Potassium			-435	-400.8		-385	-31.4	
Selenium								
Silver		990	7	946.9	95.6	6	935.4	94.5
Sodium			381	434.7		353	349.3	
Thallium								
Vanadium		471	-7	430.3	91.4	-7	448.6	95.2
Zinc		1026	11	1048.9	102.2	12	1055.4	102.9

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U.S. EPA - CLP

5A

SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

MFK889S

Lab Name: SOUTHWEST LAB OF OK Contract: 68-D9-0089

Lab Code: SWOK Case No.: 15522 SAS No.: SDG No.: MFK888

Matrix: WATER Level (low/med): LOW

% Solids for Sample: 0.0

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

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Aluminum	75-125	2043.1544		32.0000	U	2000.00	102.2		P
Antimony	75-125	528.6027		59.0000	U	500.00	105.7		P
Arsenic	75-125	35.9000		2.0000	U	40.00	89.8		F
Barium	75-125	2027.9185		7.0000	U	2000.00	101.4		P
Beryllium	75-125	49.8738		1.0000	U	50.00	99.7		P
Cadmium	75-125	73.0726		2.0000	U	50.00	146.1	N	P
Calcium									NR
Chromium	75-125	209.7056		5.0000	U	200.00	104.9		P
Cobalt	75-125	521.2715		5.0000	U	500.00	104.3		P
Copper	75-125	257.3694		7.0000	U	250.00	102.9		P
Iron	75-125	1045.5236		12.0000	U	1000.00	104.6		P
Lead	75-125	20.1300		2.0000	U	20.00	100.6		F
Magnesium									NR
Manganese	75-125	520.0248		2.0000	U	500.00	104.0		P
Mercury	75-125	.8870		.2000	U	1.00	88.7		CV
Nickel	75-125	511.4977		12.0000	U	500.00	102.3		P
Potassium									NR
Selenium	75-125	12.2900		3.0000	U	10.00	122.9		F
Silver	75-125	45.8059		3.0000	U	50.00	91.6		P
Sodium									NR
Thallium	75-125	47.0450		2.0000	U	50.00	94.1		F
Vanadium	75-125	528.7572		3.0000	U	500.00	105.8		P
Zinc	75-125	514.9811		7.0000	U	500.00	103.0		P
Cyanide	75-125	96.3200		10.0000	U	100.00	96.3		C

Comments:

15522-F-1102

U.S. EPA - CLP

5A
SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.
MFK902S

Lab Name: SOUTHWEST LAB OF OK Contract: 68-D9-0089

Lab Code: SWOK Case No.: 15522 SAS No.: SDG No.: MFK888

Matrix: SOIL Level (low/med): LOW

% Solids for Sample: 82.3

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

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Aluminum									NR
Antimony	75-125	29.7702		15.3644		121.51	11.9	N	P
Arsenic	75-125	7.2939		1.3584	B	9.26	64.1	N	F
Barium		9094.8796		9175.2715		486.03	-16.5		P
Beryllium	75-125	13.1801		.6689	B	12.15	103.0		P
Cadmium	75-125	15.9352		1.5403		12.15	118.5		P
Calcium									NR
Chromium		378.0155		464.9023		48.60	-178.8		P
Cobalt	75-125	133.5120		13.8685		121.51	98.5		P
Copper	75-125	88.8861		28.1005		60.75	100.1		P
Iron									NR
Lead		79.8472		112.1507		4.63	-697.7		F
Magnesium									NR
Manganese		372.5263		706.2406		121.51	-274.6		P
Mercury	75-125	1.6707		.9903		.61	111.5		CV
Nickel	75-125	133.8391		8.5991	B	121.51	103.1		P
Potassium									NR
Selenium	75-125	2.0228		.7290	U	2.31	87.6		F
Silver	75-125	9.1027		.9258	B	12.15	67.3	N	P
Sodium									NR
Thallium	75-125	1.0033	B	.4860	U	11.57	8.7	N	F
Vanadium	75-125	134.6944		12.7175		121.51	100.4		P
Zinc	75-125	335.9121		308.1780		121.51	22.8	N	P
Cyanide	75-125	25.4819		2.4013	U	11.51	221.4	N	C

Comments:

15522-F-1102

U.S. EPA - CLP

5B

POST DIGEST SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

MFK889A

Lab Name: SOUTHWEST LAB OF OK Contract: 68-D9-0089

Lab Code: SWOK Case No.: 15522 SAS No.: SDG No.: MFK888

Matrix: WATER Level (low/med): LOW

Concentration Units: ug/L

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Aluminum									NR
Antimony									NR
Arsenic									NR
Barium									NR
Beryllium									NR
Cadmium		21.32		2.00	U	10.0	213.2		P
Calcium									NR
Chromium									NR
Cobalt									NR
Copper									NR
Iron									NR
Lead									NR
Magnesium									NR
Manganese									NR
Mercury									NR
Nickel									NR
Potassium									NR
Selenium									NR
Silver									NR
Sodium									NR
Thallium									NR
Vanadium									NR
Zinc									NR
Cyanide									NR

Comments:

15522-F-1102

U.S. EPA - CLP

5B

POST DIGEST SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

MFK902A

Lab Name: SOUTHWEST LAB OF OK Contract: 68-D9-0089

Lab Code: SWOK Case No.: 15522 SAS No.: SDG No.: MFK888

Matrix: SOIL Level (low/med): LOW

Concentration Units: ug/L

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Aluminum									NR
Antimony		160.03		63.22		130.0	74.5		P
Arsenic									NR
Barium									NR
Beryllium									NR
Cadmium									NR
Calcium									NR
Chromium									NR
Cobalt									NR
Copper									NR
Iron									NR
Lead									NR
Magnesium									NR
Manganese									NR
Mercury									NR
Nickel									NR
Potassium									NR
Selenium									NR
Silver									NR
Sodium									NR
Thallium									NR
Vanadium									NR
Zinc		3798.50		1268.15		2600.0	97.3		P
Cyanide									NR

Comments:

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U.S. EPA - CLP

EPA SAMPLE NO.

6
DUPLICATES

MFK902D

Lab Name: SOUTHWEST LAB OF OK Contract: 68-D9-0089

Lab Code: SWOK Case No.: 15522 SAS No.: SDG No.: MFK888

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

% Solids for Sample: 82.3 % Solids for Duplicate: 82.3

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

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	%RPD	Q	M
Aluminum		11588.8030		6966.6841		49.8	*	P
Antimony	14.6	15.3644		14.1958	U	200.0	*	P
Arsenic		1.3584	B	.9287	B	37.6		F
Barium		9175.2715		5994.6217		41.9	*	P
Beryllium		.6689	B	.5854	B	13.3		P
Cadmium	1.2	1.5403		.6323	B	83.6		P
Calcium		38375.4890		9271.7513		122.2	*	P
Chromium		464.9023		451.8075		2.9		P
Cobalt	12.2	13.8685		9.6771	B	35.6		P
Copper	6.1	28.1005		22.3823		22.7		P
Iron		10443.2840		7202.7776		36.7	*	P
Lead		112.1507		72.4228		43.0	*	F
Magnesium	1215.1	3625.4196		1027.7365	B	111.7	*	P
Manganese		706.2406		169.6250		122.5	*	P
Mercury		.9903		.9113	.	8.3		CV
Nickel		8.5991	B	6.2101	B	32.3		P
Potassium	1215.1	1911.3483		1640.9114		15.2		P
Selenium		.7290	U	.7218	U			F
Silver		.9258	B	.7218	U	200.0		P
Sodium		21269.9780		19088.5190		10.8		P
Thallium		.4860	U	.4812	U			F
Vanadium	12.2	12.7175		8.7358	B	37.1		P
Zinc		308.1780		153.1781		67.2	*	P
Cyanide		2.4013	U	2.2926	U			C

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DUPLICATES

EPA SAMPLE NO.
MFK903D

Lab Name: SOUTHWEST LAB OF OK Contract: 68-D9-0089

Lab Code: SWOK Case No.: 15522 SAS No.: SDG No.: MFK888

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

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

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

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	%RPD	Q	M
Aluminum		32.0000	U	32.0000	U			P
Antimony		59.0000	U	59.0000	U			P
Arsenic		2.0000	U	2.0000	U			F
Barium		187.2586	B	184.9493	B	1.2		P
Beryllium		1.0000	U	1.0000	U			P
Cadmium		2.0000	U	2.0000	U			P
Calcium		139493.6700		136768.5300		2.0		P
Chromium		5.0000	U	5.0000	U			P
Cobalt		5.0449	B	6.9928	B	32.4		P
Copper		7.1899	B	7.0000	U	200.0		P
Iron		4801.5142		4718.0024		1.8		P
Lead		2.0000	U	2.3700	B	200.0		F
Magnesium		54660.2730		53761.6710		1.7		P
Manganese		668.3571		657.0941		1.7		P
Mercury		.2000	U	.2000	U			CV
Nickel		12.0000	U	12.0000	U			P
Potassium		2883.8599	B	2561.6848	B	11.8		P
Selenium		3.0000	U	4.5400	B	200.0		F
Silver		3.0000	U	3.0000	U			P
Sodium		215638.6200		213529.4000		1.0		P
Thallium		10.0000	U	10.0000	U			F
Vanadium		3.0000	U	3.0000	U			P
Zinc		212.9024		205.7665		3.4		P
Cyanide		10.0000	U	10.0000	U			C

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LABORATORY CONTROL SAMPLE

Lab Name: SOUTHWEST LAB OF OK Contract: 68-D9-0089

Lab Code: SWOK Case No.: 15522 SAS No.: SDG No.: MFK888

Solid LCS Source: EPA0287

Aqueous LCS Source: EPA-LV

Analyte	Aqueous (ug/L) True	Found	%R	Solid (mg/kg) True	Found	C	Limits		%R
Aluminum	2010.0	1944.83	96.8	325.0	337.3		225.0	424.0	103.8
Antimony	1010.0	961.04	95.2	211.0	218.2		127.0	294.0	103.4
Arsenic	47.4	43.94	92.7	917.0	818.3		635.0	1199.0	89.2
Barium	1960.0	1947.37	99.4	4.8	5.9	B	0.0	40.0	122.9
Beryllium	483.0	502.25	104.0	19.4	19.4		16.5	22.3	100.0
Cadmium	502.0	444.63	88.6	45.4	42.3		35.7	55.1	93.2
Calcium	48700.0	48081.33	98.7	196200.0	195113.2		166800.0	225600.0	99.4
Chromium	510.0	512.75	100.5	99.6	101.0		79.2	120.0	101.4
Cobalt	502.0	492.50	98.1	144.0	139.6		124.0	162.0	96.9
Copper	515.0	489.20	95.0	6910.0	7037.1		6006.0	7820.0	101.8
Iron	2040.0	1962.29	96.2	22430.0	22596.2		17770.0	27080.0	100.7
Lead	97.5	105.00	107.7	236.0	242.1		188.0	285.0	102.6
Magnesium	24600.0	24370.06	99.1	118100.0	112967.2		100400.0	129900.0	95.7
Manganese	504.0	495.56	98.3	208.0	207.2		177.0	239.0	99.6
Mercury				12.7	10.4		8.5	17.0	81.9
Nickel	480.0	479.45	99.9	60.9	56.5		49.2	72.6	92.8
Potassium	49000.0	48915.60	99.8	50.0	144.2	U	0.0	1000.0	0.0
Selenium	52.6	54.04	102.7	39.2	24.4		19.1	59.4	62.2
Silver	500.0	468.27	93.7	22.2	22.8		15.5	29.0	102.7
Sodium	49600.0	47958.89	96.7	50.0	139.9	B	0.0	1000.0	279.8
Thallium	97.0	113.05	116.5	39.0	45.7		24.6	53.5	117.2
Vanadium	488.0	489.28	100.3	65.8	63.1		51.7	79.9	95.9
Zinc	3100.0	3248.17	104.8	187.0	170.5		138.0	236.0	91.2
Cyanide				5.6	6.3		4.3	6.9	112.5

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LABORATORY CONTROL SAMPLE

Lab Name: SOUTHWEST LAB OF OK Contract: 68-D9-0089

Lab Code: SWOK Case No.: 15522 SAS No.: SDG No.: MFK888

Solid LCS Source: EPA0287

Aqueous LCS Source:

Analyte	Aqueous (ug/L) True	Found	%R	Solid (mg/kg) True	Found	C	Limits		%R
Aluminum									
Antimony									
Arsenic									
Barium									
Beryllium									
Cadmium									
Calcium									
Chromium									
Cobalt									
Copper									
Iron									
Lead									
Magnesium									
Manganese									
Mercury				12.7	14.4		8.5	17.0	113.4
Nickel									
Potassium									
Selenium									
Silver									
Sodium									
Thallium									
Vanadium									
Zinc									
Cyanide									

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Standard Addition Results

Lab Name: SOUTHWEST LAB OF OK Contract: 68-D9-0089

Lab Code: SWOK Case No.: 15522 SAS No.: SDG No.: MFK888

Concentration Units: ug/L

EPA Sample No.	An	0 ADD ABS	1 ADD CON	1 ADD ABS	2 ADD CON	2 ADD ABS	3 ADD CON	3 ADD ABS	Final Conc.	r	Q
MFK894	PB	.117	10.00	.180	20.00	.246	30.00	.306	92.7	.9998	

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ICP SERIAL DILUTIONS

EPA SAMPLE NO.

MFK902L

Lab Name: SOUTHWEST LAB OF OK Contract: 68-D9-0089

Lab Code: SWOK Case No.: 15522 SAS No.: SDG No.: MFK888

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

Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	M
Aluminum	47687.93		49507.17		3.8		P
Antimony	63.22		295.00	U	100.0		P
Arsenic							
Barium	37756.24		38238.43		1.3		P
Beryllium	2.75	B	5.00	U	100.0		P
Cadmium	6.34		10.00	U	100.0		P
Calcium	157915.14		164537.46		4.2		P
Chromium	1913.07		2007.52		4.9		P
Cobalt	57.07		60.80	B	6.5		P
Copper	115.63		101.90	B	11.9		P
Iron	42974.12		45039.29		4.8		P
Lead							
Magnesium	14918.60		15617.40	B	4.7		P
Manganese	2906.18		3036.29		4.5		P
Mercury							
Nickel	35.39	B	60.00	U	100.0		P
Potassium	7865.20		8671.13	B	10.2		P
Selenium							
Silver	3.81	B	15.00	U	100.0		P
Sodium	87525.96		90346.01		3.2		P
Thallium							
Vanadium	52.33		56.06	B	7.1		P
Zinc	1268.15		1614.54		27.3	E	P

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ICP SERIAL DILUTIONS

EPA SAMPLE NO.

MFK903L

Lab Name: SOUTHWEST LAB OF OK Contract: 68-D9-0089

Lab Code: SWOK Case No.: 15522 SAS No.: SDG No.: MFK888

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

Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	M
Aluminum	32.00	U	324.35	B			P
Antimony	59.00	U	295.00	U			P
Arsenic							
Barium	187.26	B	193.53	B	3.3		P
Beryllium	1.00	U	5.00	U			P
Cadmium	2.00	U	10.00	U			P
Calcium	139493.67		140033.80		.4		P
Chromium	5.00	U	25.00	U			P
Cobalt	5.04	B	25.00	U	100.0		P
Copper	7.19	B	35.00	U	100.0		P
Iron	4801.51		4820.07		.4		P
Lead							
Magnesium	54660.27		54710.27		.1		P
Manganese	668.36		674.09		.9		P
Mercury							
Nickel	12.00	U	60.00	U			P
Potassium	2883.86	B	5448.16	B	88.9		P
Selenium							
Silver	3.00	U	15.00	U			P
Sodium	215638.62		219041.21		1.6		P
Thallium							
Vanadium	3.00	U	15.00	U			P
Zinc	212.90		213.35		.2		P

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INSTRUMENT DETECTION LIMITS (QUARTERLY)

Lab Name: SOUTHWEST LAB OF OK Contract: 68-D9-0089

Lab Code: SWOK Case No.: 15522 SAS No.: SDG No.: MFK888

ICP ID Number: TJA61 Date: 10/10/90

Flame AA ID Number: BUCK

Furnace AA ID Number:

Analyte	Wave-length (nm)	Background	CRDL (ug/L)	IDL (ug/L)	M
Aluminum	308.22		200	32.0	P
Antimony	217.58		60	59.0	P
Arsenic			10		
Barium	493.41		200	7.0	P
Beryllium	313.04		5	1.0	P
Cadmium	228.80		5	2.0	P
Calcium	317.93		5000	41.0	P
Chromium	267.72		10	5.0	P
Cobalt	228.62		50	5.0	P
Copper	324.75		25	7.0	P
Iron	259.94		100	12.0	P
Lead			3		
Magnesium	279.08		5000	37.0	P
Manganese	257.61		15	2.0	P
Mercury	253.70		0.2	.2	CV
Nickel	221.60		40	12.0	P
Potassium	776.49		5000	721.0	P
Selenium			5		
Silver	328.07		10	3.0	P
Sodium	588.99		5000	52.0	P
Thallium			10		
Vanadium	292.40		50	3.0	P
Zinc	213.86		20	7.0	P

Comments:

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INSTRUMENT DETECTION LIMITS (QUARTERLY)

Lab Name: SOUTHWEST LAB OF OK Contract: 68-D9-0089

Lab Code: SWOK Case No.: 15522 SAS No.: SDG No.: MFK868

ICP ID Number: Date: 12/19/90

Flame AA ID Number:

Furnace AA ID Number: PE5000

Analyte	Wave-length (nm)	Back ground	CRDL (ug/L)	IDL (ug/L)	M
Aluminum			200		
Antimony			60		
Arsenic	193.70	BZ	10	2.0	F
Barium			200		
Beryllium			5		
Cadmium			5		
Calcium			5000		
Chromium			10		
Cobalt			50		
Copper			25		
Iron			100		
Lead			3		
Magnesium			5000		
Manganese			15		
Mercury			0.2		
Nickel			40		
Potassium			5000		
Selenium	196.00	BZ	5	3.0	F
Silver			10		
Sodium			5000		
Thallium			10		
Vanadium			50		
Zinc			20		

Comments:

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INSTRUMENT DETECTION LIMITS (QUARTERLY)

Lab Name: SOUTHWEST LAB OF OK Contract: 68-D9-0089

Lab Code: SWOK Case No.: 15522 SAS No.: SDG No.: MFK888

ICP ID Number: Date: 12/05/90

Flame AA ID Number:

Furnace AA ID Number: PE5100A

Analyte	Wave-length (nm)	Back ground	CRDL (ug/L)	IDL (ug/L)	M
Aluminum			200		
Antimony			60		
Arsenic	193.70	BZ	10	1.0	F
Barium			200		
Beryllium			5		
Cadmium			5		
Calcium			5000		
Chromium			10		
Cobalt			50		
Copper			25		
Iron			100		
Lead	283.30	BZ	3	2.0	F
Magnesium			5000		
Manganese			15		
Mercury			0.2		
Nickel			40		
Potassium			5000		
Selenium			5		
Silver			10		
Sodium			5000		
Thallium	176.80	BZ	10	2.0	F
Vanadium			50		
Zinc			20		

Comments:

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INSTRUMENT DETECTION LIMITS (QUARTERLY)

Lab Name: SOUTHWEST LAB OF OK Contract: 68-D9-0089

Lab Code: SWOK Case No.: 15522 SAS No.: SDG No.: MFK888

ICP ID Number: Date: 12/19/90

Flame AA ID Number:

Furnace AA ID Number: PE5100B

Analyte	Wave-length (nm)	Background	CRDL (ug/L)	IDL (ug/L)	M
Aluminum			200		
Antimony			60		
Arsenic			10		
Barium			200		
Beryllium			5		
Cadmium			5		
Calcium			5000		
Chromium			10		
Cobalt			50		
Copper			25		
Iron			100		
Lead			3		
Magnesium			5000		
Manganese			15		
Mercury			0.2		
Nickel			40		
Potassium			5000		
Selenium			5		
Silver			10		
Sodium			5000		
Thallium	176.80	BZ	10	2.0	F
Vanadium			50		
Zinc			20		

Comments:

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INSTRUMENT DETECTION LIMITS (QUARTERLY)

Lab Name: SOUTHWEST LAB OF OK Contract: 68-D9-0089

Lab Code: SWOK Case No.: 15522 SAS No.: SDG No.: MFK888

ICP ID Number: Date: 12/21/90

Flame AA ID Number:

Furnace AA ID Number: TJA22

Analyte	Wave-length (nm)	Background	CRDL (ug/L)	IDL (ug/L)	M
Aluminum			200		
Antimony			60		
Arsenic			10		
Barium			200		
Beryllium			5		
Cadmium			5		
Calcium			5000		
Chromium			10		
Cobalt			50		
Copper			25		
Iron			100		
Lead	283.30	BS	3	1.0	F
Magnesium			5000		
Manganese			15		
Mercury			0.2		
Nickel			40		
Potassium			5000		
Selenium			5		
Silver			10		
Sodium			5000		
Thallium	176.80	BS	10	2.0	F
Vanadium			50		
Zinc			20		

Comments:

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ICP Interelement Correction Factors (Annually)

Lab Name: SOUTHWEST LAB OF OK Contract: 68-D9-0089

Lab Code: SWOK Case No.: 15522 SAS No.: SDG No.: MFK888

ICP ID Number: TJA61 Date: 4/10/90

Analyte	Wave-length (nm)	Interelement Correction Factors for: Al	Ca	Fe	Mg	V
Aluminum	308.22	0.0000000	0.0000000	0.0000000	0.0000000	.0002730
Antimony	217.58	.0003790	0.0000000	-.0006200	.0005340	.0015580
Arsenic						
Barium	493.41	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Beryllium	313.04	0.0000000	0.0000000	0.0000000	0.0000000	.0024140
Cadmium	228.80	0.0000000	0.0000000	-.0000900	0.0000000	0.0000000
Calcium	317.93	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.72	.0000210	0.0000000	.0000130	0.0000000	.0003890
Cobalt	228.62	0.0000000	0.0000000	.0000340	0.0000000	0.0000000
Copper	324.75	0.0000000	0.0000000	-.0000900	.0000570	0.0000000
Iron	259.94	0.0000000	0.0000000	0.0000000	0.0000000	.0004000
Lead						
Magnesium	279.08	0.0000000	0.0000000	0.0000000	0.0000000	-.0031500
Manganese	257.61	.0000330	0.0000000	0.0000000	0.0000000	0.0000000
Mercury						
Nickel	231.60	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Potassium	776.49	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium						
Silver	328.07	0.0000000	0.0000000	-.0003300	0.0000000	-.0046400
Sodium	589.00	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium						
Vanadium	292.40	0.0000000	0.0000000	-.0001700	0.0000000	0.0000000
Zinc	213.86	0.0000000	0.0000000	0.0000000	0.0000000	-.0021900

Comments:

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ICP Interelement Correction Factors (Annually)

Lab Name: SOUTHWEST LAB OF OK Contract: 68-D9-0089

Lab Code: SWOK Case No.: 15522 SAS No.: SDG No.: MFK888

ICP ID Number: TJA61 Date: 4/10/90

Analyte	Wave-length (nm)	Interelement Correction Factors for: MN	CR	NI	TI	CU
Aluminum	308.22	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Antimony	217.58	0.0000000	0.0000000	-.2713200	0.0000000	0.0000000
Arsenic						
Barium	493.41	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Beryllium	313.04	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium	228.80	0.0000000	0.0000000	-.0020900	0.0000000	0.0000000
Calcium	317.93	.0047310	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.72	.0000880	0.0000000	0.0000000	.0001510	0.0000000
Cobalt	228.62	0.0000000	.0003060	-.0010300	.0017600	0.0000000
Copper	324.75	0.0000000	0.0000000	0.0000000	-.0005500	0.0000000
Iron	259.94	.0009190	0.0000000	0.0000000	.0005280	0.0000000
Lead						
Magnesium	279.08	-.0035900	-.0022200	0.0000000	0.0000000	0.0000000
Manganese	257.61	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Mercury						
Nickel	231.60	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Potassium	776.49	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium						
Silver	328.07	.0001840	0.0000000	0.0000000	-.0026200	0.0000000
Sodium	589.00	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium						
Vanadium	292.40	0.0000000	-.0017000	0.0000000	.0003210	0.0000000
Zinc	213.86	0.0000000	0.0000000	.0033420	0.0000000	.0031250

Comments:

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ICP Linear Ranges (Quarterly)

Lab Name: SOUTHWEST LAB OF OK Contract: 68-D9-0089

Lab Code: SWOK Case No.: 15522 SAS No.: SDG No.: MFK888

ICP ID Number: TJA61 Date: 10/12/90

Analyte	Integ. Time (sec.)	Concentration (ug/L)	M
Aluminum	7.00	600000.0	
Antimony	7.00	50000.0	
Arsenic			NR
Barium	7.00	55000.0	
Beryllium	7.00	5500.0	
Cadmium	7.00	5000.0	
Calcium	7.00	500000.0	
Chromium	7.00	55000.0	
Cobalt	7.00	55000.0	
Copper	7.00	45000.0	
Iron	7.00	450000.0	
Lead			NR
Magnesium	7.00	600000.0	
Manganese	7.00	55000.0	
Mercury			NR
Nickel	7.00	55000.0	
Potassium	7.00	600000.0	
Selenium			NR
Silver	7.00	55000.0	
Sodium	7.00	600000.0	
Thallium			NR
Vanadium	7.00	55000.0	
Zinc	7.00	55000.0	

Comments:

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PREPARATION LOG

Lab Name: SOUTHWEST LAB OF OK Contract: 68-D9-0089

Lab Code: SWOK Case No.: 15522 SAS No: SDG No.: MFK888

Method: C

EPA Sample No.	Preparation Date	Weight (gram)	Volume (mL)
LCSS	12/18/90	5.00	250
MFK888	12/18/90	2.39	250
MFK889	12/19/90		250
MFK889S	12/19/90		250
MFK890	12/18/90	2.37	250
MFK891	12/19/90		250
MFK892	12/19/90		250
MFK893	12/19/90		250
MFK894	12/18/90	2.47	250
MFK895	12/19/90		250
MFK896	12/18/90	2.17	250
MFK897	12/18/90	2.95	250
MFK898	12/18/90	2.22	250
MFK899	12/18/90	3.23	250
MFK900	12/18/90	3.04	250
MFK901	12/18/90	2.45	250
MFK902	12/18/90	2.53	250
MFK902D	12/18/90	2.65	250
MFK902S	12/18/90	2.64	250
MFK903	12/19/90		250
MFK903D	12/19/90		250
MFK904	12/19/90		250
MFK905	12/19/90		250
MFK906	12/19/90		250
PBS	12/18/90	5.00	250
PBW	12/19/90		250

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PREPARATION LOG

Lab Name: SOUTHWEST LAB OF OK Contract: 68-D9-0089

Lab Code: SWOK Case No.: 15522 SAS No: SDG No.: MFK888

Method: CV

EPA Sample No.	Preparation Date	Weight (gram)	Volume (mL)
LCSS	12/23/90	.20	100
LCSS2	12/26/90	1.00	100
MFK888	12/23/90	.22	100
MFK889	12/28/90		100
MFK889S	12/28/90		100
MFK890	12/23/90	.20	100
MFK891	12/28/90		100
MFK892	12/28/90		100
MFK893	12/28/90		100
MFK894	12/23/90	.20	100
MFK895	12/28/90		100
MFK896	12/23/90	.21	100
MFK897	12/23/90	.22	100
MFK898	12/23/90	.23	100
MFK899	12/23/90	.23	100
MFK900	12/23/90	.20	100
MFK901	12/23/90	.21	100
MFK902	12/23/90	.20	100
MFK902D	12/23/90	.20	100
MFK902D	12/26/90	.20	100
MFK902S	12/23/90	.20	100
MFK903	12/28/90		100
MFK903D	12/28/90		100
MFK904	12/28/90		100
MFK905	12/28/90		100
MFK906	12/28/90		100
PBS	12/23/90	1.00	100
PBS2	12/26/90	1.00	100
PBW	12/28/90		100

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PREPARATION LOG

Lab Name: SOUTHWEST LAB OF OK Contract: 68-D9-0089

Lab Code: SWOK Case No.: 15522 SAS No: SDG No.: MFK888

Method: F

EPA Sample No.	Preparation Date	Weight (gram)	Volume (mL)
LCSS	12/26/90	1.00	200
LCSW	12/27/90		100
MFK888	12/26/90	1.05	200
MFK889	12/27/90		100
MFK889S	12/27/90		100
MFK890	12/26/90	1.01	200
MFK891	12/27/90		100
MFK892	12/27/90		100
MFK893	12/27/90		100
MFK894	12/26/90	1.04	200
MFK895	12/27/90		100
MFK896	12/26/90	1.05	200
MFK897	12/26/90	1.02	200
MFK898	12/26/90	.98	200
MFK899	12/26/90	1.03	200
MFK900	12/26/90	1.16	200
MFK901	12/26/90	1.08	200
MFK902	12/26/90	1.00	200
MFK902D	12/26/90	1.01	200
MFK902S	12/26/90	1.05	200
MFK903	12/27/90		100
MFK903D	12/27/90		100
MFK904	12/27/90		100
MFK905	12/27/90		100
MFK906	12/27/90		100
PBS	12/26/90	1.00	200
PBW	12/27/90		100

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PREPARATION LOG

Lab Name: SOUTHWEST LAB OF OK Contract: 68-D9-0089

Lab Code: SWOK Case No.: 15522 SAS No: SDG No.: MFK888

Method: P

EPA Sample No.	Preparation Date	Weight (gram)	Volume (mL)
LCSS	12/26/90	1.00	200
LCSW	12/27/90		100
MFK888	12/26/90	1.05	200
MFK889	12/27/90		100
MFK889S	12/27/90		100
MFK890	12/26/90	1.01	200
MFK891	12/27/90		100
MFK892	12/27/90		100
MFK893	12/27/90		100
MFK894	12/26/90	1.04	200
MFK895	12/27/90		100
MFK896	12/26/90	1.05	200
MFK897	12/26/90	1.02	200
MFK898	12/26/90	.98	200
MFK899	12/26/90	1.03	200
MFK900	12/26/90	1.16	200
MFK901	12/26/90	1.08	200
MFK902	12/26/90	1.00	200
MFK902D	12/26/90	1.01	200
MFK902S	12/26/90	1.00	200
MFK903	12/27/90		100
MFK903D	12/27/90		100
MFK904	12/27/90		100
MFK905	12/27/90		100
MFK906	12/27/90		100
PBS	12/26/90	1.00	200
PBW	12/27/90		100

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ANALYSIS RUN LOG

Lab Name: SOUTHWEST LAB OF OK | Contract: 68-D9-0089

Lab Code: SWOK | Case No.: 15522 | SAS No.: | SDG No.: MFK888

Instrument ID Number: TJA61 | Method: P

Start Date: 12/27/90 | End Date: 12/27/90

EPA Sample No.	D/F	Time	% R	AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
S0	1.00	823		X	X		X	X	X	X	X	X	X	X		X	X		X	X		X	X		X	X	
S	1.00	827																				X					
S	1.00	831		X			X	X		X	X	X	X	X		X	X		X	X			X		X	X	
S	1.00	835							X																		
S	1.00	839			X																						
S	1.00	842																									
ICV	1.00	843		X	X		X	X	X	X	X	X	X	X		X	X		X	X		X	X		X	X	
ICB	1.00	848		X	X		X	X	X	X	X	X	X	X		X	X		X	X		X	X		X	X	
ICSAI	1.00	853		X	X		X	X	X		X	X	X	X		X	X		X	X		X	X		X	X	
ICSAI	2.00	857								X																	
ICSABI	1.00	902		X	X		X	X	X		X	X	X	X		X	X		X	X		X	X		X	X	
ICSABI	2.00	907								X																	
CRII	1.00	911			X			X	X		X	X	X				X		X			X			X	X	
CCV	1.00	916		X	X		X	X	X	X	X	X	X	X		X	X		X	X		X	X		X	X	
CCB	1.00	921		X	X		X	X	X	X	X	X	X	X		X	X		X	X		X	X		X	X	
PBS	1.00	926		X	X		X	X	X	X	X	X	X	X		X	X		X	X		X	X		X	X	
LCSS	1.00	930		X	X		X	X	X		X	X	X	X		X	X		X	X		X	X		X	X	
LCSS	5.00	935								X																	
MFK888	1.00	940		X	X		X	X	X	X	X	X	X	X		X	X		X	X		X	X		X	X	
MFK890	1.00	944		X	X		X	X	X	X	X	X	X	X		X	X		X	X		X	X		X	X	
MFK894	1.00	949		X	X		X	X	X	X	X	X	X	X		X	X		X	X		X	X		X	X	
MFK896	1.00	954		X	X		X	X	X	X	X	X	X	X		X	X		X	X		X	X		X	X	
MFK897	1.00	958		X	X		X	X	X	X	X	X	X	X		X	X		X	X		X	X		X	X	
MFK898	1.00	1003		X	X		X	X	X	X	X	X	X	X		X	X		X	X		X	X		X	X	
CCV	1.00	1008		X	X		X	X	X	X	X	X	X	X		X	X		X	X		X	X		X	X	
CCB	1.00	1012		X	X		X	X	X	X	X	X	X	X		X	X		X	X		X	X		X	X	
MFK899	1.00	1017		X	X		X	X	X	X	X	X	X	X		X	X		X	X		X	X		X	X	
MFK900	1.00	1022		X	X		X	X	X		X	X	X	X		X	X		X	X		X	X		X	X	
MFK901	1.00	1026		X	X		X	X	X	X	X	X	X	X		X	X		X	X		X	X		X	X	
MFK902	1.00	1031		X	X		X	X	X	X	X	X	X	X		X	X		X	X		X	X		X	X	
MFK902D	1.00	1036		X	X		X	X	X	X	X	X	X	X		X	X		X	X		X	X		X	X	
MFK902L	5.00	1040		X	X		X	X	X	X	X	X	X	X		X	X		X	X		X	X		X	X	

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ANALYSIS RUN LOG

Lab Name: SOUTHWEST LAB OF OK   Contract: 68-D9-0089

Lab Code: SWOK   Case No.: 15522   SAS No.:   SDG No.: MFK888

Instrument ID Number: TJA61   Method: P

Start Date: 12/27/90   End Date: 12/27/90

EPA Sample No.	D/F	Time	% R	AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
MFK902S	1.00	1045			X		X	X	X		X	X	X				X		X			X			X	X	
CCV	1.00	1050		X	X		X	X	X	X	X	X	X	X		X	X		X	X		X	X		X	X	
CCB	1.00	1054		X	X		X	X	X	X	X	X	X	X		X	X		X	X		X	X		X	X	
MFK902A	1.00	1101			X																					X	
MFK900	2.00	1106								X																	
ICSAF	1.00	1111		X	X		X	X	X		X	X	X	X		X	X		X	X		X	X		X	X	
ICSAF	2.00	1115								X																	
ICSABF	1.00	1120		X	X		X	X	X		X	X	X	X		X	X		X	X		X	X		X	X	
ICSABF	2.00	1125								X																	
CRIF	1.00	1130			X			X	X		X	X	X				X		X			X			X	X	
CCV	1.00	1134		X	X		X	X	X	X	X	X	X	X		X	X		X	X		X	X		X	X	
CCB	1.00	1139		X	X		X	X	X	X	X	X	X	X		X	X		X	X		X	X		X	X	

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ANALYSIS RUN LOG

Lab Name: SOUTHWEST LAB OF OK Contract: 68-D9-0089

Lab Code: SWOK Case No.: 15522 SAS No.: SDG No.: MFK888

Instrument ID Number: PE5000 Method: F

Start Date: 12/28/90 End Date: 12/28/90

EPA Sample No.	D/F	Time	% R	Analytes
SO	1.00	810		SE
SS	1.00	815		SE
S25	1.00	820		SE
S50	1.00	825		SE
ICV	2.00	830		SE
ICB	1.00	835		SE
CRA	1.00	840		SE
CCV	1.00	845		SE
CCB	1.00	850		SE
PBS	1.00	855		
[illegible]SA	1.00	900	78.7	
LCSS	10.00	905		SE
LCSSA	10.00	910	95.7	SE
MFK888	1.00	915		SE
MFK888A	1.00	920	96.1	SE
MFK890	1.00	925		
MFK890A	1.00	930	70.0	
MFK894	1.00	935		
MFK894A	1.00	940	104.8	
CCV	1.00	945		SE
CCB	1.00	950		SE
MFK896	1.00	955		SE
MFK896A	1.00	1000	87.4	SE
MFK897	1.00	1005		SE
MFK897A	1.00	1010	148.3	SE
MFK898	1.00	1015		SE
MFK898A	1.00	1020	139.6	SE
MFK899	1.00	1025		SE
MFK899A	1.00	1030	157.0	SE
MFK900	1.00	1035		SE
MFK900A	1.00	1040	139.6	SE
CCV	1.00	1045		SE

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ANALYSIS RUN LOG

Lab Name: SOUTHWEST LAB OF OK Contract: 68-D9-0089

Lab Code: SWOK Case No.: 15522 SAS No.: SDG No.: MFK888

Instrument ID Number: PE5000 Method: F

Start Date: 12/28/90 End Date: 12/28/90

EPA Sample No.	D/F	Time	% R	Analytes
CCB	1.00	1050		KS
MFK890	1.00	1055		KS
MFK890A	1.00	1100	113.5	KS
MFK894	1.00	1105		KS
MFK894A	1.00	1110	104.8	KS
PBS	1.00	1115		KS
PBSA	1.00	1120	96.1	KS
CCV	1.00	1125		KS
CCB	1.00	1130		KS
MFK901	1.00	1135		KS
MFK901A	1.00	1140	104.8	KS
MFK902	1.00	1145		KS
MFK902A	1.00	1150	87.4	KS
MFK902D	1.00	1155		
MFK902DA	1.00	1200	78.7	
MFK902S	1.00	1205		KS
MFK902D	1.00	1210		KS
MFK902DA	1.00	1215	78.7	KS
CCV	1.00	1220		KS
CCB	1.00	1225		KS

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ANALYSIS RUN LOG

Lab Name: SOUTHWEST LAB OF OK Contract: 68-D9-0089

Lab Code: SWOK Case No.: 15522 SAS No.: SDG No.: MFK888

Instrument ID Number: BUCK Method: CV

Start Date: 12/23/90 End Date: 12/23/90

EPA Sample No.	D/F	Time	% R	Analytes																							
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
S0	1.00	1415																X									
S0.5	1.00	1419																X									
S1	1.00	1423																X									
S3	1.00	1427																X									
S6	1.00	1431																X									
ICV	1.00	1435																X									
ICB	1.00	1439																X									
CCV	1.00	1443																X									
CCB	1.00	1447																X									
ZZZZZ	1.00	1451																									
ZZZZZ	10.00	1455																									
ZZZZZ	1.00	1459																									
ZZZZZ	1.00	1503																									
ZZZZZ	1.00	1507																									
ZZZZZ	1.00	1511																									
ZZZZZ	1.00	1515																									
ZZZZZ	1.00	1519																									
ZZZZZ	1.00	1523																									
CCV	1.00	1527																X									
CCB	1.00	1531																X									
PBS	1.00	1535																X									
LCSS	1.00	1539																X									
MFK888	1.00	1543																X									
MFK890	1.00	1547																X									
MFK894	1.00	1551																X									
MFK896	1.00	1555																X									
MFK897	1.00	1559																X									
MFK898	1.00	1603																X									
CCV	1.00	1607																X									
CCB	1.00	1611																X									
MFK899	1.00	1615																X									
MFK900	1.00	1619																X									

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ANALYSIS RUN LOG

Lab Name: SOUTHWEST LAB OF OK Contract: 68-D9-0089

Lab Code: SWOK Case No.: 15522 SAS No.: SDG No.: MFK888

Instrument ID Number: BUCK Method: CV

Start Date: 12/23/90 End Date: 12/23/90

EPA Sample No.	D/F	Time	% R	Analytes
MFK901	1.00	1623		X
MFK902	1.00	1627		X
MFK902D	1.00	1631		
MFK902S	1.00	1635		X
ZZZZZ	1.00	1639		
CCV	1.00	1643		X
CCB	1.00	1647		X

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ANALYSIS RUN LOG

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Lab Name: SOUTHWEST LAB OF OK Contract: 68-D9-0089

Lab Code: SWOK Case No.: 15522 SAS No.: SDG No.: MFK888

Instrument ID Number: BUCK Method: CV

Start Date: 12/26/90 End Date: 12/26/90

EPA Sample No.	D/F	Time	% R	Analytes																								
				ALK	BS	ASA	BE	BD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	AN	AL	TL	V	ZN	CN
SO	1.00	1305															X											
SO.5	1.00	1309															X											
S1	1.00	1313															X											
S3	1.00	1317															X											
S6	1.00	1321															X											
ICV	1.00	1325															X											
ICB	1.00	1329															X											
CCV	1.00	1333															X											
CCB	1.00	1337															X											
PBS2	1.00	1341															X											
LSS2	10.00	1345															X											
FK902D	1.00	1349																										
MFK902D	1.00	1353															X											
CCV	1.00	1357															X											
CCB	1.00	1401															X											

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ANALYSIS RUN LOG

Lab Name: SOUTHWEST LAB OF OK Contract: 68-D9-0089

Lab Code: SWOK Case No.: 15522 SAS No.: SDG No.: MFK888

Instrument ID Number: BUCK Method: CV

Start Date: 12/28/90 End Date: 12/28/90

EPA Sample No.	D/F	Time	% R	Analytes																							
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
S0	1.00	1205																X									
S0.5	1.00	1209																X									
S1	1.00	1213																X									
S3	1.00	1217																X									
S6	1.00	1221																X									
ICV	1.00	1225																X									
ICB	1.00	1229																X									
CCV	1.00	1233																X									
CCB	1.00	1237																X									
PBW	1.00	1241																X									
MFK903	1.00	1245																X									
MFK903D	1.00	1249																X									
MFK889	1.00	1253																X									
MFK889S	1.00	1257																X									
MFK891	1.00	1301																X									
MFK892	1.00	1305																X									
MFK893	1.00	1309																X									
CCV	1.00	1313																X									
CCB	1.00	1317																X									
MFK895	1.00	1321																X									
MFK904	1.00	1325																X									
MFK905	1.00	1329																X									
MFK906	1.00	1333																X									
ZZZZZ	1.00	1337																									
ZZZZZ	1.00	1341																									
ZZZZZ	1.00	1345																									
ZZZZZ	1.00	1349																									
CCV	1.00	1353																X									
CCB	1.00	1357																X									

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ANALYSIS RUN LOG

Lab Name: SOUTHWEST LAB OF OK   Contract: 68-D9-0089

Lab Code: SWOK   Case No.: 15522   SAS No.:   SDG No.: MFK888

Instrument ID Number: SPEC21   Method: C

Start Date: 12/20/90   End Date: 12/20/90

EPA Sample No.	D/F	Time	% R	AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
S0	1.00	1033																									X
S20	1.00	1034																									X
S100	1.00	1035																									X
S200	1.00	1036																									X
S400	1.00	1037																									X
ICV	1.00	1112																									X
ICB	1.00	1113																									X
CCV	1.00	1114																									X
CCB	1.00	1115																									X
ZZZZZ	1.00	1116																									X
ZZZZZ	1.00	1117																									X
ZZZZZ	1.00	1118																									
ZZZZZ	1.00	1119																									
ZZZZZ	1.00	1120																									
ZZZZZ	1.00	1121																									
ZZZZZ	1.00	1122																									
ZZZZZ	1.00	1225																									
ZZZZZ	1.00	1226																									
PBW	1.00	1227																									X
CCV	1.00	1228																									X
CCB	1.00	1229																									X
MFK903	1.00	1230																									X
MFK903D	1.00	1231																									X
MFK889	1.00	1232																									X
MFK889S	1.00	1233																									X
MFK891	1.00	1234																									X
MFK892	1.00	1323																									X
MFK893	1.00	1324																									X
MFK895	1.00	1325																									X
MFK904	1.00	1326																									X
MFK905	1.00	1327																									X
CCV	1.00	1328																									X

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ANALYSIS RUN LOG

Lab Name: SOUTHWEST LAB OF OK Contract: 68-D9-0089

Lab Code: SWOK Case No.: 15522 SAS No.: SDG No.: MFK888

Instrument ID Number: SPEC21 Method: C

Start Date: 12/20/90 End Date: 12/20/90

EPA Sample No.	D/F	Time	% R	AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
CCB	1.00	1329																									X
MFK906	1.00	1330																									X
ZZZZZ	1.00	1331																									
ZZZZZ	1.00	1332																									
ZZZZZ	1.00	1357																									
ZZZZZ	1.00	1358																									
CCV	1.00	1359																									X
CCB	1.00	1400																									X

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ANALYSIS RUN LOG

Lab Name: SOUTHWEST LAB OF OK Contract: 68-D9-0089

Lab Code: SWOK Case No.: 15522 SAS No.: SDG No.: MFK888

Instrument ID Number: PE5100A Method: F

Start Date: 12/27/90 End Date: 12/27/90

EPA Sample No.	D/F	Time	% R	Analytes
S0	1.00	1940		X
S10	1.00	1945		X
S50	1.00	1951		X
S100	1.00	1956		X
ICV	1.00	2004		X
ICB	1.00	2009		X
CRA	1.00	2014		X
CCV	1.00	2020		X
CCB	1.00	2025		X
ZZZZZ	1.00	2030		
ZZZZZ	1.00	2035		
LCSS	100.00	2041		X
LCSSA	100.00	2046	100.2	X
MFK888	1.00	2052		X
MFK888A	1.00	2057	100.5	X
MFK890	1.00	2102		X
MFK890A	1.00	2108	92.5	X
MFK894	1.00	2113		X
MFK894A	1.00	2119	98.0	X
CCV	1.00	2124		X
CCB	1.00	2130		X
MFK896	1.00	2135		X
MFK896A	1.00	2140	91.2	X
MFK897	1.00	2146		X
MFK897A	1.00	2151	96.0	X
MFK898	1.00	2157		X
MFK898A	1.00	2202	97.6	X
MFK899	1.00	2208		X
MFK899A	1.00	2213	93.5	X
MFK900	1.00	2219		X
MFK900A	1.00	2224	105.2	X
CCV	1.00	2230		X

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ANALYSIS RUN LOG

Lab Name: SOUTHWEST LAB OF OK Contract: 68-D9-0089

Lab Code: SWOK Case No.: 15522 SAS No.: SDG No.: MFK888

Instrument ID Number: PE5100A Method: F

Start Date: 12/27/90 End Date: 12/27/90

EPA Sample No.	D/F	Time	% R	Analytes																							
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
CCB	1.00	2235				X																					
MFK901	1.00	2240				X																					
MFK901A	1.00	2246	90.7			X																					
MFK902	1.00	2251				X																					
MFK902A	1.00	2256	80.8			X																					
MFK902D	1.00	2302				X																					
MFK902DA	1.00	2307	88.8			X																					
MFK902S	1.00	2312				X																					
PBS	1.00	2318				X																					
PBSA	1.00	2323	103.6			X																					
CCV	1.00	2328				X																					
CCB	1.00	2333				X																					

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ANALYSIS RUN LOG

Lab Name: SOUTHWEST LAB OF OK Contract: 68-D9-0089

Lab Code: SWOK Case No.: 15522 SAS No.: SDG No.: MFK888

Instrument ID Number: PE5000 Method: F

Start Date: 12/31/90 End Date: 12/31/90

EPA Sample No.	D/F	Time	% R	Analytes
S0	1.00	1650		X
S10	1.00	1655		X
S50	1.00	1700		X
S100	1.00	1705		X
ICV	1.00	1710		X
ICB	1.00	1715		X
CRA	1.00	1720		X
CCV	1.00	1725		X
CCB	1.00	1730		X
PBW	1.00	1735		X
[illegible]WA	1.00	1740	99.1	X
[illegible]CSW	1.00	1745		X
LCSWA	1.00	1750	94.4	X
MFK903	1.00	1755		X
MFK903A	1.00	1800	106.1	X
MFK903D	1.00	1805		X
MFK903DA	1.00	1810	107.8	X
MFK889	1.00	1815		X
MFK889A	1.00	1820	97.3	X
CCV	1.00	1825		X
CCB	1.00	1830		X
MFK889S	1.00	1835		X
MFK891	1.00	1840		
MFK891A	1.00	1845	50.1	
MFK892	1.00	1850		X
MFK892A	1.00	1855	113.1	X
MFK893	1.00	1900		X
MFK893A	1.00	1905	111.3	X
MFK895	1.00	1910		X
MFK895A	1.00	1915	104.3	X
CCV	1.00	1920		X
CCB	1.00	1925		X

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ANALYSIS RUN LOG

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Lab Name: SOUTHWEST LAB OF OK Contract: 68-D9-0089

Lab Code: SWOK Case No.: 15522 SAS No.: SDG No.: MFK888

Instrument ID Number: PE5000 Method: F

Start Date: 12/31/90 End Date: 12/31/90

EPA Sample No.	D/F	Time	% R	Analytes																								
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
MFK904	1.00	1930				X																					
MFK904A	1.00	1935	95.6			X																					
MFK905	1.00	1940				X																					
MFK905A	1.00	1945	92.1			X																					
MFK906	1.00	1950				X																					
MFK906A	1.00	1955	107.8			X																					
MFK891	1.00	2000				X																					
MFK891A	1.00	2005	107.8			X																					
CCV	1.00	2010				X																					
CCB	1.00	2015				X																					

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ANALYSIS RUN LOG

Lab Name: SOUTHWEST LAB OF OK Contract: 68-D9-0089

Lab Code: SWOK Case No.: 15522 SAS No.: SDG No.: MFK888

Instrument ID Number: PE5100A Method: F

Start Date: 12/28/90 End Date: 12/28/90

EPA Sample No.	D/F	Time	% R	Analytes																										
				ALL	SBS	AAA	BBE	BCD	CAR	CRO	CUE	FER	PRB	MGN	MNG	HGI	NK	SE	AG	NAL	T	V	ZN	CN
S0	1.00	747																			X			
S10	1.00	752																			X			
S25	1.00	758																			X			
S50	1.00	803																			X			
ICV	1.00	809																			X			
ICB	1.00	814																			X			
CRA	1.00	820																			X			
CCV	1.00	825																			X			
CCB	1.00	830																			X			
ZZZZZ	1.00	836																						
ZZZZZ	1.00	841																						
CCV	1.00	852																			X			
CCB	1.00	857																			X			
ZZZZZ	1.00	903																						
ZZZZZ	1.00	908																						
ZZZZZ	1.00	913																						
ZZZZZ	1.00	919																						
ZZZZZ	1.00	924																						
ZZZZZ	1.00	930																						
ZZZZZ	1.00	935																						
ZZZZZ	1.00	940																						
ZZZZZ	1.00	946																						
ZZZZZ	1.00	951																						
CCV	1.00	957																			X			
CCB	1.00	1002																			X			
ZZZZZ	1.00	1008																						
ZZZZZ	1.00	1013																						
CCV	1.00	1020																			X			
CCB	1.00	1025																			X			
ZZZZZ	1.00	1031																						
ZZZZZ	1.00	1036																						
ZZZZZ	1.00	1042																						

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ANALYSIS RUN LOG

Lab Name: SOUTHWEST LAB OF OK Contract: 68-D9-0089

Lab Code: SWOK Case No.: 15522 SAS No.: SDG No.: MFK888

Instrument ID Number: PE5100A Method: F

Start Date: 12/28/90 End Date: 12/28/90

EPA Sample No.	D/F	Time	% R	Analytes																							
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
ZZZZZ	1.00	1047																									
ZZZZZ	1.00	1052																									
ZZZZZ	1.00	1058																									
ZZZZZ	1.00	1103																									
PBS	1.00	1109																						X			
PBSA	1.00	1115	94.0																					X			
CCV	1.00	1120																						X			
CCB	1.00	1126																						X			
LCSS	1.00	1131																						X			
LCSSA	1.00	1136	51.1																					X			
MFK888	1.00	1142																						X			
MFK888A	1.00	1147	62.1																					X			
MFK890	1.00	1153																						X			
MFK890A	1.00	1158	63.9																					X			
MFK894	1.00	1204																						X			
MFK894A	1.00	1209	77.3																					X			
MFK896	1.00	1215																						X			
MFK896A	1.00	1220	90.0																					X			
CCV	1.00	1226																						X			
CCB	1.00	1231																						X			

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ANALYSIS RUN LOG

Lab Name: SOUTHWEST LAB OF OK Contract: 68-D9-0089

Lab Code: SWOK Case No.: 15522 SAS No.: SDG No.: MFK888

Instrument ID Number: PE5100A Method: F

Start Date: 12/28/90 End Date: 12/28/90

EPA Sample No.	D/F	Time	% R	Analytes
S0	1.00	1427		X
S10	1.00	1432		X
S25	1.00	1438		X
S50	1.00	1443		X
ICV	1.00	1454		X
ICB	1.00	1459		X
CRA	1.00	1505		X
CCV	1.00	1510		X
CCB	1.00	1515		X
MFK897	1.00	1532		X
MFK897A	1.00	1537	91.8	X
MFK898	1.00	1542		X
MFK898A	1.00	1548	87.1	X
MFK899	1.00	1553		
MFK899A	1.00	1558	37.8	
MFK900	1.00	1604		X
MFK900A	1.00	1609	49.0	X
CCV	1.00	1614		X
CCB	1.00	1620		X
ZZZZZ	1.00	1625		
ZZZZZ	1.00	1630		
CCV	1.00	1637		X
CCB	1.00	1642		X
ZZZZZ	1.00	1648		
ZZZZZ	1.00	1653		
CCV	1.00	1659		X
CCB	1.00	1704		X
MFK901	1.00	1709		X
MFK901A	1.00	1714	62.9	X
MFK902	1.00	1720		
MFK902A	1.00	1725	19.2	
MFK902D	1.00	1730		

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ANALYSS RUN LOG

Lab Name: SOUTHWEST LAB OF OK Contract: 68-D9-0089

Lab Code: SWOK Case No.: 15522 SAS No.: SDG No.: MFK888

Instrument ID Number: PE5100A Method: F

Start Date: 12/28/90 End Date: 12/28/90

EPA Sample No.	D/F	Time	% R	Analytes																									
				ALK	BS	ANA	BEN	BCD	CAR	CRO	CHR	CUE	FLB	PHG	MEN	HEX	NIT	KES	SEG	ANA	NTL	TOL	VN	ZN	CN
MFK902DA	1.00	1736	24.5																										
MFK902S	1.00	1741																						X					
CCV	1.00	1747																						X					
CCB	1.00	1752																						X					
MFK899	1.00	1802																						X					
MFK899A	1.00	1807	44.8																					X					
MFK902	1.00	1813																						X					
MFK902A	1.00	1818	37.9																					X					
MFK902D	1.00	1823																						X					
MFK902DA	1.00	1829	39.9																					X					
MFK902S	1.00	1834																											
CCV	1.00	1840																						X					
CCB	1.00	1845																						X					

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ANALYSIS RUN LOG

Lab Name: SOUTHWEST LAB OF OK Contract: 68-D9-0089

Lab Code: SWOK Case No.: 15522 SAS No.: SDG No.: MFK888

Instrument ID Number: PE5100A Method: F

Start Date: 12/28/90 End Date: 12/29/90

EPA Sample No.	D/F	Time	% R	Analytes
S0	1.00	2000		X
S10	1.00	2005		X
S25	1.00	2011		X
S50	1.00	2016		X
ICV	4.00	2021		X
ICB	1.00	2027		X
CRA	1.00	2032		X
CCV	1.00	2037		X
CCB	1.00	2043		X
ZZZZZ	1.00	2048		
ZZZZ	1.00	2053		
CCV	1.00	2059		X
CCB	1.00	2105		X
PBW	1.00	2110		X
PBWA	1.00	2115	88.7	X
LCSW	5.00	2120		X
LCSWA	5.00	2126	67.9	X
MFK903	1.00	2131		
MFK903A	1.00	2136	12.9	
MFK903D	1.00	2142		
MFK903DA	1.00	2147	9.0	
MFK889	1.00	2152		X
MFK889A	1.00	2158	89.8	X
CCV	1.00	2203		X
CCB	1.00	2209		X
MFK889S	1.00	2214		X
MFK891	1.00	2219		
MFK891A	1.00	2224	9.1	
MFK892	1.00	2230		
MFK892A	1.00	2235	9.1	
MFK893	1.00	2241		
MFK893A	1.00	2246	10.7	

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ANALYSIS RUN LOG

Lab Name: SOUTHWEST LAB OF OK Contract: 68-D9-0089

Lab Code: SWOK Case No.: 15522 SAS No.: SDG No.: MFK888

Instrument ID Number: PE5100A Method: F

Start Date: 12/28/90 End Date: 12/29/90

EPA Sample No.	D/F	Time	% R	Analytes																								
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
MFK895	1.00	2252																									
MFK895A	1.00	2257	0.0																								
CCV	1.00	2303																						X			
CCB	1.00	2308																						X			
MFK903	5.00	2320																						X			
MFK903A	5.00	2325	18.1																					X			
MFK903D	5.00	2331																						X			
MFK903DA	5.00	2336	15.2																					X			
MFK891	5.00	2341																						X			
MFK891A	5.00	2347	14.6																					X			
MFK892	5.00	2352																						X			
MFK892A	5.00	2358	11.4																					X			
MFK893	5.00	3																						X			
MFK893A	5.00	8	0.0																					X			
CCV	1.00	14																						X			
CCB	1.00	20																						X			

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ANALYSIS RUN LOG

Lab Name: SOUTHWEST LAB OF OK Contract: 68-D9-0089

Lab Code: SWOK Case No.: 15522 SAS No.: SDG No.: MFK888

Instrument ID Number: TJA22 Method: F

Start Date: 12/31/90 End Date: 12/31/90

EPA Sample No.	D/F	Time	% R	Analytes
S0	1.00	1527		X
S25	1.00	1531		X
S10	1.00	1535		
S10	1.00	1539		X
S20	1.00	1543		X
S50	1.00	1547		X
ICV	5.00	1550		X
ICB	1.00	1554		X
CRA	1.00	1558		X
CCV	1.00	1602		X
CB	1.00	1606		X
ZZZZZ	1.00	1615		
ZZZZZ	1.00	1622		
CCV	1.00	1630		X
CCB	1.00	1634		X
ZZZZZ	1.00	1638		
ZZZZZ	1.00	1642		
MFK895	5.00	1646		X
MFK895A	5.00	1650	23.0	X
MFK904	1.00	1654		
MFK904A	1.00	1658	31.8	
MFK905	1.00	1702		
MFK905A	1.00	1706	32.3	
CCV	1.00	1710		X
CCB	1.00	1714		X
ZZZZZ	1.00	1718		
ZZZZZ	1.00	1722		
CCV	1.00	1726		X
CCB	1.00	1730		X
MFK906	1.00	1734		
MFK906A	1.00	1738	35.9	
ZZZZZ	1.00	1742		

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ANALYSIS RUN LOG

Lab Name: SOUTHWEST LAB OF OK Contract: 68-D9-0089

Lab Code: SWOK Case No.: 15522 SAS No.: SDG No.: MFK888

Instrument ID Number: TJA22 Method: F

Start Date: 12/31/90 End Date: 12/31/90

EPA Sample No.	D/F	Time	% R	Analytes
ZZZZZ	1.00	1745		
ZZZZZ	1.00	1750		
ZZZZZ	1.00	1754		
ZZZZZ	1.00	1758		
ZZZZZ	1.00	1802		
CCV	1.00	1806		X
CCB	1.00	1810		X

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ANALYSIS RUN LOG

Lab Name: SOUTHWEST LAB OF OK Contract: 68-D9-0089

Lab Code: SWOK Case No.: 15522 SAS No.: SDG No.: MFK888

Instrument ID Number: SPEC21 Method: C

Start Date: 12/19/90 End Date: 12/19/90

EPA Sample No.	D/F	Time	% R	Analytes
S0	1.00	1350		X
S20	1.00	1351		X
S100	1.00	1352		X
S200	1.00	1353		X
S400	1.00	1354		X
ICV	1.00	1426		X
ICB	1.00	1427		X
CCV	1.00	1428		X
CCB	1.00	1429		X
PBS	1.00	1430		X
LCSS	1.00	1431		X
MFK888	1.00	1432		X
MFK890	1.00	1433		X
MFK894	1.00	1434		X
MFK896	1.00	1435		X
MFK897	1.00	1436		X
MFK898	1.00	1453		X
MFK899	1.00	1454		X
MFK900	1.00	1455		X
CCV	1.00	1456		X
CCB	1.00	1457		X
MFK901	1.00	1458		X
MFK902	1.00	1459		X
MFK902D	1.00	1500		X
MFK902S	1.00	1501		X
ZZZZZ	1.00	1502		
ZZZZZ	1.00	1517		
ZZZZZ	1.00	1518		
ZZZZZ	1.00	1519		
ZZZZZ	1.00	1520		
ZZZZZ	1.00	1521		
CCV	1.00	1522		X

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ANALYSIS RUN LOG

Lab Name: SOUTHWEST LAB OF OK   Contract: 68-D9-0089

Lab Code: SWOK   Case No.: 1552   SAS No.:   SDG No.: MFK888

Instrument ID Number: SPEC21   Method: C

Start Date: 12/19/90   End Date: 12/19/90

EPA Sample No.	D/F	Time	% R	AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
CCB	1.00	1523																									X

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ANALYSIS RUN LOG

Lab Name: SOUTHWEST LAB OF OK Contract: 68-D9-0089

Lab Code: SWOK Case No.: 15522 SAS No.: SDG No.: MFK888

Instrument ID Number: PE5000 Method: F

Start Date: 12/31/90 End Date: 12/31/90

EPA Sample No.	D/F	Time	% R	Analytes
SO	1.00	1050		X
S5	1.00	1055		X
S25	1.00	1100		X
S50	1.00	1105		X
ICV	2.00	1110		X
ICB	1.00	1115		X
CRA	1.00	1120		X
CCV	1.00	1125		X
CCB	1.00	1130		X
PBW	1.00	1145		
[illegible]WA	1.00	1150	122.9	
[illegible]CSW	2.00	1155		X
LCSWA	2.00	1200	62.0	X
MFK903	1.00	1205		X
MFK903A	1.00	1210	69.7	X
MFK903D	1.00	1215		X
MFK903DA	1.00	1220	93.0	X
MFK889	1.00	1225		X
MFK889A	1.00	1230	122.9	X
CCV	1.00	1235		X
CCB	1.00	1240		X
MFK889S	1.00	1245		X
MFK891	1.00	1250		X
MFK891A	1.00	1255	100.8	X
MFK892	1.00	1300		X
MFK892A	1.00	1305	147.3	X
MFK893	1.00	1310		X
MFK893A	1.00	1315	124.0	X
MFK895	1.00	1320		X
MFK895A	1.00	1325	93.0	X
CCV	1.00	1330		X
CCB	1.00	1335		X

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ANALYSIS RUN LOG

Lab Name: SOUTHWEST LAB OF OK Contract: 68-D9-0089

Lab Code: SWOK Case No.: 15522 SAS No.: SDG No.: MFK888

Instrument ID Number: PE5000 Method: F

Start Date: 12/31/90 End Date: 12/31/90

EPA Sample No.	D/F	Time	% R	Analytes
MFK903	1.00	1340		
MFK903A	1.00	1345	138.4	
ZZZZZ	1.00	1350		
ZZZZZ	1.00	1355		
PBW	1.00	1400		X
PBWA	1.00	1405	99.6	X
MFK904	1.00	1410		X
MFK904A	1.00	1415	100.8	X
MFK905	1.00	1420		X
MFK905A	1.00	1425	100.8	X
CCV	1.00	1430		X
CCB	1.00	1435		X
MFK906	1.00	1440		X
MFK906A	1.00	1445	124.1	X
ZZZZZ	1.00	1450		
CCV	1.00	1455		X
CCB	1.00	1500		X

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ANALYSIS RUN LOG

Lab Name: SOUTHWEST LAB OF OK Contract: 68-D9-0089

Lab Code: SWOK Case No.: 15522 SAS No.: SDG No.: MFK888

Instrument ID Number: TJA61 Method: P

Start Date: 1/02/91 End Date: 1/02/91

EPA Sample No.	D/F	Time	% R	Analytes
SO	1.00	934		X X _ X X X X X X X X _ X X _ X X _ X X _ X X _
S	1.00	939		_ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ X _ _ _ _ _
S	1.00	943		X _ _ X X _ X X X X X _ X X _ X X _ _ X _ X X _
S	1.00	947		_ _ _ _ _ X _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _
S	1.00	951		_ X _
S	1.00	954		_ _
ICV	1.00	955		X X _ X X X X X X X X _ X X _ X X _ X X _ X X _
ICB	1.00	1000		X X _ X X X X X X X X _ X X _ X X _ X X _ X X _
ICSAI	1.00	1005		X X _ X X X _ X X X X _ X X _ X X _ X X _ X X _
ICSAI	2.00	1009		_ _ _ _ _ _ X _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _
ICSABI	1.00	1014		X X _ X X X _ X X X X _ X X _ X X _ X X _ X X _
ICSABI	2.00	1019		_ _ _ _ _ _ X _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _
CRII	1.00	1023		_ X _ _ X X _ X X X _ _ _ X _ X _ _ X _ _ X X _
CCV	1.00	1028		X X _ X X X X X X X X _ X X _ X X _ X X _ X X _
CCB	1.00	1033		X X _ X X X X X X X X _ X X _ X X _ X X _ X X _
PBW	1.00	1037		X X _ X X X X X X X X _ X X _ X X _ X X _ X X _
LCSW	1.00	1042		X X _ X X X X X X X X _ X X _ X X _ X X _ X X _
MFK903	1.00	1047		X X _ X X X X X X X X _ X X _ X X _ X X _ X X _
MFK903D	1.00	1051		X X _ X X X X X X X X _ X X _ X X _ X X _ X X _
MFK903L	5.00	1056		X X _ X X X X X X X X _ X X _ X X _ X X _ X X _
MFK889	1.00	1101		X X _ X X X X X X X X _ X X _ X X _ X X _ X X _
MFK889S	1.00	1106		X X _ X X X _ X X X X _ _ X _ X _ _ X _ _ X X _
MFK891	1.00	1110		X X _ X X X X X X X X _ X X _ X X _ X X _ X X _
MFK892	1.00	1115		X X _ X X X X X X X X _ X X _ X X _ X X _ X X _
MFK893	1.00	1120		X X _ X X X X X X X X _ X X _ X X _ X X _ X X _
CCV	1.00	1124		X X _ X X X X X X X X _ X X _ X X _ X X _ X X _
CCB	1.00	1129		X X _ X X X X X X X X _ X X _ X X _ X X _ X X _
MFK895	1.00	1134		X X _ X X X X X X X X _ X X _ X X _ X X _ X X _
MFK904	1.00	1138		X X _ X X X X X X X X _ X X _ X X _ X X _ X X _
MFK905	1.00	1143		X X _ X X X X X X X X _ X X _ X X _ X X _ X X _
MFK906	1.00	1148		X X _ X X X X X X X X _ X X _ X X _ X X _ X X _
MFK889A	1.00	1152		_ _ _ _ _ X _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _

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ANALYSIS RUN LOG

Lab Name: SOUTHWEST LAB OF OK　　　　Contract: 68-D9-0089

Lab Code: SWOK　　Case No.: 15522　　SAS No.:　　SDG No.: MFK888

Instrument ID Number: TJA61　　　　Method: P

Start Date: 1/02/91　　　　End Date: 1/02/91

EPA Sample No.	D/F	Time	% R	AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
ICSAF	1.00	1157		X	X		X	X	X		X	X	X	X		X	X		X	X		X	X		X	X	
ICSAF	2.00	1202								X																	
ICSABF	1.00	1206		X	X		X	X	X		X	X	X	X		X	X		X	X		X	X		X	X	
ICSABF	2.00	1211								X																	
CRIF	1.00	1216			X			X	X		X	X	X				X		X			X			X	X	
CCV	1.00	1221		X	X		X	X	X	X	X	X	X	X		X	X		X	X		X	X		X	X	
CCB	1.00	1225		X	X		X	X	X	X	X	X	X	X		X	X		X	X		X	X		X	X	

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ANALYSIS RUN LOG

Lab Name: SOUTHWEST LAB OF OK Contract: 68-D9-0089

Lab Code: SWOK Case No.: 15522 SAS No.: SDG No.: MFK888

Instrument ID Number: TJA22 Method: F

Start Date: 1/02/91 End Date: 1/02/91

EPA Sample No.	D/F	Time	% R	Analytes
S0	1.00	834		X
S25	1.00	838		X
S3	1.00	842		
S20	1.00	846		X
S50	1.00	850		X
S3	1.00	854		X
ICV	1.00	1100		X
ICB	1.00	1104		X
CRA	1.00	1108		X
CCV	1.00	1112		X
CCB	1.00	1116		X
PBW	1.00	1120		X
PBWA	1.00	1124	105.2	X
LCSW	5.00	1128		X
LCSWA	5.00	1132	114.4	X
MFK903	1.00	1136		
MFK903A	1.00	1140	108.4	
MFK903D	1.00	1144		X
MFK903DA	1.00	1148	108.6	X
CCV	1.00	1152		X
CCB	1.00	1156		X
MFK889	1.00	1200		X
MFK889A	1.00	1204	116.6	X
MFK889S	1.00	1208		X
MFK891	1.00	1212		X
MFK891A	1.00	1216	116.9	X
MFK892	1.00	1220		X
MFK892A	1.00	1224	112.0	X
MFK893	1.00	1228		X
MFK893A	1.00	1232	113.5	X
CCV	1.00	1236		X
CCB	1.00	1240		X

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ANALYSIS RUN LOG

Lab Name: SOUTHWEST LAB OF OK Contract: 68-D9-0089

Lab Code: SWOK Case No.: 15522 SAS No.: SDG No.: MFK888

Instrument ID Number: TJA22 Method: F

Start Date: 1/02/91 End Date: 1/02/91

EPA Sample No.	D/F	Time	% R	Analytes
MFK895	1.00	1244		X
MFK895A	1.00	1248	93.7	X
MFK904	1.00	1252		X
MFK904A	1.00	1256	97.7	X
MFK905	1.00	1300		X
MFK905A	1.00	1304	85.4	X
MFK906	1.00	1308		X
MFK906A	1.00	1312	101.5	X
MFK903	1.00	1316		X
MFK903A	1.00	1320	121.0	X
CCV	1.00	1324		X
CCB	1.00	1328		X

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ANALYSIS RUN LOG

Lab Name: SOUTHWEST LAB OF OK Contract: 68-D9-0089

Lab Code: SWOK Case No.: 15522 SAS No.: SDG No.: MFK888

Instrument ID Number: PE5100B Method: F

Start Date: 1/02/91 End Date: 1/02/91

EPA Sample No.	D/F	Time	% R	Analytes
S0	1.00	1240		X
S10	1.00	1246		X
S25	1.00	1252		X
S50	1.00	1258		X
ICV	1.00	1331		X
ICB	1.00	1337		X
CRA	1.00	1342		X
CCV	1.00	1348		X
CCB	1.00	1354		X
MFK904	5.00	1403		X
MFK904A	5.00	1409	51.4	X
MFK905	5.00	1415		X
MFK905A	5.00	1420	48.0	X
MFK906	5.00	1426		X
MFK906A	5.00	1432	41.3	X
ZZZZZ	1.00	1438		
ZZZZZ	1.00	1445		
CCV	1.00	1450		X
CCB	1.00	1456		X

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ANALYSIS RUN LOG

Lab Name: SOUTHWEST LAB OF OK Contract: 68-D9-0089

Lab Code: SWOK Case No.: 15522 SAS No.: SDG No.: MFK888

Instrument ID Number: PE5100A Method: F

Start Date: 1/02/91 End Date: 1/02/91

EPA Sample No.	D/F	Time	% R	Analytes
S0	1.00	1837		
S3	1.00	1842		
S50	1.00	1848		
S100	1.00	1854		
S100	1.00	1900		
ICV	1.00	1906		
ICB	1.00	1911		
CRA	1.00	1917		
CCV	1.00	1922		
CCB	1.00	1928		
ZZZZZ	1.00	1934		
ZZZZZ	1.00	1939		
CCV	1.00	1946		
CCB	1.00	1951		
PBS	1.00	1957		
PBSA	1.00	2003	117.6	
LCSS	25.00	2008		
LCSSA	25.00	2014	102.7	
MFK888	1.00	2020		
MFK888A	1.00	2026	60.1	
MFK890	1.00	2031		
MFK890A	1.00	2037	7.9	
ZZZZZ	1.00	2044		
CCV	1.00	2049		
CCB	1.00	2055		
MFK894	1.00	2101		
MFK894A	1.00	2107	70.2	
MFK896	1.00	2112		
MFK896A	1.00	2118	20.6	
MFK897	1.00	2124		
MFK897A	1.00	2130	82.7	
MFK898	1.00	2136		

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ANALYSIS RUN LOG

Lab Name: SOUTHWEST LAB OF OK Contract: 68-D9-0089

Lab Code: SWOK Case No.: 15522 SAS No.: SDG No.: MFK888

Instrument ID Number: PE5100A Method: F

Start Date: 1/02/91 End Date: 1/02/91

EPA Sample No.	D/F	Time	% R	Analytes																										
				ALK	BS	ASA	BBE	BED	CAR	CRO	CUE	CEB	FIG	PNG	MIG	MNE	HGI	NAK	SE	AG	NA	TAL	V	ZN	CN
MFK898A	1.00	2142	18.6																											
ZZZZZ	1.00	2147																												
CCV	1.00	2153											X																	
CCB	1.00	2159											X																	
ZZZZZ	1.00	2205																												
ZZZZZ	1.00	2210																												
CCV	1.00	2217											X																	
CCB	1.00	2223											X																	
MFK899	1.00	2228																												
MFK899A	1.00	2234	46.3																											
MFK900	1.00	2240																												
MFK900A	1.00	2245	11.4																											
MFK901	1.00	2251																												
MFK901A	1.00	2257	-14.0																											
MFK902	1.00	2302																												
MFK902A	1.00	2308	7.8																											
ZZZZZ	1.00	2314																												
CCV	1.00	2319											X																	
CCB	1.00	2325											X																	
MFK902D	1.00	2330																												
MFK902DA	1.00	2336	29.7																											
MFK902S	1.00	2342																												
ZZZZZ	1.00	2347																												
CCV	1.00	2353											X																	
CCB	1.00	2358											X																	

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ANALYSIS RUN LOG

Lab Name: SOUTHWEST LAB OF OK Contract: 68-D9-0089

Lab Code: SWOK Case No.: 15522 SAS No.: SDG No.: MFK888

Instrument ID Number: PE5100A Method: F

Start Date: 1/03/91 End Date: 1/03/91

EPA Sample No.	D/F	Time	% R	Analytes
S0	1.00	1611		X
S3	1.00	1616		X
S50	1.00	1622		X
S100	1.00	1628		X
ICV	2.00	1634		X
ICB	1.00	1639		X
CRA	1.00	1645		X
CCV	1.00	1650		X
CCB	1.00	1656		X
MFK888	25.00	1702		X
MFK888A	25.00	1707	113.2	X
MFK890	100.00	1713		X
MFK890A	100.00	1719	114.0	X
MFK896	100.00	1724		X
MFK896A	100.00	1730	114.3	X
MFK897	2.00	1736		X
MFK897A	2.00	1742	86.0	X
MFK898	100.00	1748		X
MFK898A	100.00	1753	109.3	X
CCV	1.00	1759		X
CCB	1.00	1805		X
MFK899	100.00	1811		
MFK899A	100.00	1816	112.8	
MFK900	100.00	1822		X
MFK900A	100.00	1828	111.3	X
MFK901	100.00	1834		X
MFK901A	100.00	1840	109.2	X
MFK902	100.00	1845		X
MFK902A	100.00	1851	110.5	X
MFK902D	100.00	1857		X
MFK902DA	100.00	1903	110.4	X
CCV	1.00	1909		X

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ANALYSIS RUNLOG

Lab Name: SOUTHWEST LAB OF OK Contract: 68-D9-0089

Lab Code: SWOK Case No.: 15522 SAS No.: SDG No.: MFK888

Instrument ID Number: PE5100A Method: F

Start Date: 1/03/91 End Date: 1/03/91

EPA Sample No.	D/F	Time	% R	Analytes																							
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
CCB	1.00	1914													X												
MFK902S	100.00	1920													X												
CCV	1.00	1926													X												
CCB	1.00	1931													X												
MFK899	1.00	1944													X												
MFK899A	1.00	1950	114.1												X												
PBS	1.00	1955													X												
PBSA	1.00	2001	101.8												X												
ZZZZZ	1.00	2007																									
ZZZZZ	1.00	2013																									
CCV	1.00	2019													X												
CCB	1.00	2024													X												

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ANALYSIS RUN LOG

Lab Name: SOUTHWEST LAB OF OK Contract: 68-D9-0089

Lab Code: SWOK Case No.: 15522 SAS No.: SDG No.: MFK888

Instrument ID Number: PE5100A Method: F

Start Date: 1/03/91 End Date: 1/03/91

EPA Sample No.	D/F	Time	% R	Analytes
S0	1.00	1611		X
S3	1.00	1616		X
S50	1.00	1622		X
S100	1.00	1628		X
ICV	4.00	2036		X
ICB	1.00	2039		X
CRA	1.00	2042		X
CCV	1.00	2044		X
CCB	1.00	2047		X
ZZZZZ	1.00	2052		
ZZZZ	1.00	2054		
ZZZZZ	1.00	2057		
ZZZZZ	1.00	2100		
ZZZZZ	1.00	2103		
ZZZZZ	1.00	2106		
ZZZZZ	1.00	2109		
ZZZZZ	1.00	2112		
MFK8940	5.00	2115		X
MFK8941	5.00	2118		X
MFK8942	5.00	2121		X
MFK8943	5.00	2124		X
CCV	1.00	2126		X
CCB	1.00	2129		X

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ICP RUN LOG

Analyst K.S. /mo Date 12/22/90

Instrument TJA61 Calibration Std.: Source

Client I.D.	SWLO I.D.	Time	Percent Recovery	Dilution Factor	MF K8881, ASC Analytes
	STD 0	0823			Ag, Al, Ba, Be, Ca, Cd, Cr, Co, Cu, Fe, K, Mg, Mn, Na, Ni, Sb, V, Zn
	STD 4	0827			Ag
	STD 2	0831			Al, Ba, Be, Ca, Cr, Co, Cu, Fe, K, Mg, Mn, Na, Ni, V, Zn
	STD 3	0835			Cd
	STD 6	0839			Sb
	STD 7	0843			—
	TCV	0843			Ag, Al, Ba, Be, Ca, Cd, Cr, Co, Cu, Fe, K, Mg, Mn, Na, Ni, Sb, V, Zn
	ICB	0848			"
	ICSA I	0853			Ag, Al, Ba, Be, Cd, Cr, Co, Cu, Fe, K, Mg, Mn, Na, Ni, Sb, V, Zn
	ICSA I	0857		2	Ca
	ICSAB I	0902			Ag, Al, Ba, Be, Cd, Cr, Co, Cu, Fe, K, Mg, Mn, Na, Ni, Sb, V, Zn
	ICSAB I	0907		2	Ca
	CRI II	0911			Ag, Be, Cd, Cr, Co, Cu, Mn, Ni, Sb, V, Zn
	CCV	0916			Ag, Al, Ba, Be, Ca, Cd, Cr, Co, Cu, Fe, K, Mg, Mn, Na, Ni, Sb, V, Zn
	CCB	0921			"
	PBS	0926			"
	LCSS	0930			Ag, Al, Ba, Be, Cd, Cr, Co, Cu, Fe, K, Mg, Mn, Na, Ni, Sb, V, Zn
	LCSS	0935		5	Ca
MFK888 MEK888	4572.01	0940			Ag, Al, Ba, Be, Ca, Cd, Cr, Co, Cu, Fe, K, Mg, Mn, Na, Ni, Sb, V, Zn
MFK890 MEK890	4572.02	0944			"
MFK894 MEK894	4572.03	0949			"
MEK896 MFK896	4572.04	0954			"

MP 12/27

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ICP RUN LOG

Analyst KS. /mo Date 12/27/90 (cont'd)

Instrument _____ Calibration Std.: Source _____

Client I.D.	SWLO I.D.	Time	Percent Recovery	Dilution Factor	Analytes
MFK897 MEK897	4572.05	0958			Ag, Al, Ba, Be, Ca, Cd, Cr, Co, Cu, Fe, K, Mg, Mn, Na, Ni, Sb, V, Zn
MFK898 MEK898	4572.06	1003			"
	CCV	1008			"
	CCB	1012			"
MFK899 MEK899	4572.07	1017			"
MFK900 MEK900	4572.08	1022			Ag, Al, Ba, Be, Cd, Cr, Co, Cu, Fe, K, Mg, Mn, Na, Ni, Sb, V, Zn
MFK901 MEK901	4572.09	1026			Ag, Al, Ba, Be, Ca, Cd, Cr, Co, Cu, Fe, K, Mg, Mn, Na, Ni, Sb, V, Zn
MFK902 MEK902	4572.10	1031			"
MFK902D MEK902D	4572.10 D	1036			"
MFK902L MEK902L	4572.10 L	1040			"
MFK902S MEK902S	4572.10 S	1045			Ag, Ba, Be, Cd, Cr, Co, Cu, Mn, Ni, Sb, V, Zn
	CCV	1050			Ag, Al, Ba, Be, Ca, Cd, Cr, Co, Cu, Fe, K, Mg, Mn, Na, Ni, Sb, V, Zn
	CCB	1054			"
MFK902A MEK902A	4572.10 AP	1101			Sb = 130 ug/L Zn = 2600 ug/L
MFK900 MEK900	4572.08	1106		2	Ca
	ICSAF	1111			Ag, Al, Ba, Be, Cd, Cr, Co, Cu, Fe, K, Mg, Mn, Na, Ni, Sb, V, Zn
	ICSAF	1115		2	Ca
	ICSABF	1120			Ag, Al, Ba, Be, Cd, Cr, Co, Cu, Fe, K, Mg, Mn, Na, Ni, Sb, V, Zn
	ICSABF	1125		2	Ca
	ORIF	1130			Ag, Be, Cd, Cr, Co, Cu, Mn, Ni, Sb, V, Zn
	CCV	1134			Ag, Al, Ba, Be, Ca, Cd, Cr, Co, Cu, Fe, K, Mg, Mn, Na, Ni, Sb, V, Zn
	CCB	1139			"

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Standardization Rpt. Thu 12-27-90 08:23:16 AM page 1

Standard: STD0

Elem	Ag	Al	Ba	Be	Ca	Cd	Co
Avge	-.00182	.01545	.00004	.00412	.01310	.00016	.00021
SDev	.00030	.00242	.00005	.00010	.00318	.00044	.00008
%RSD	-16.288	15.691	127.66	2.3210	24.276	279.70	39.665
#1	-.00196	.01540	.00000	.00400	.01050	-.00017	.00011
#2	-.00199	.01220	.00005	.00420	.01020	.00000	.00021
#3	-.00137	.01800	.00009	.00420	.01570	.00000	.00031
#4	-.00195	.01620	.00000	.00410	.01600	.00080	.00020

Elem	Cr	Cu	Fe	K	Mg	Mn	Na
Avge	.00098	.00232	.10060	.04125	.00054	.01760	.06158
SDev	.00033	.00025	.00037	.00254	.00065	.00000	.00095
%RSD	33.888	10.770	.36297	6.1600	120.23	.00000	1.5485
#1	.00120	.00260	.10020	.03780	.00137	.01760	.06100
#2	.00080	.00239	.10080	.04140	-.00021	.01760	.06060
#3	.00130	.00228	.10100	.04390	.00048	.01760	.06270
#4	.00060	.00200	.10040	.04190	.00052	.01760	.06200

Elem	Ni	Pb	Sb	Ti	V	Zn
Avge	.00130	-.00011	-.00040	.00195	.00018	.00037
SDev	.00202	.00176	.00071	.00034	.00029	.00005
%RSD	155.09	-1535.0	-177.95	17.516	164.13	14.226
#1	.00320	.00127	.00000	.00180	.00010	.00040
#2	.00021	.00112	-.00040	.00160	.00000	.00040
#3	-.00099	-.00032	.00020	.00240	.00060	.00029
#4	.00278	-.00253	-.00140	.00200	.00000	.00040

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Standardization Rpt. Thu 12-27-90 08:27:22 AM page 1

Standard: STD4

Elem	Ag	Al	Ba	Be	Ca	Cd	Co
Avge	1.9041	.02148	.00080	.00400	.10125	-.00001	.00023
SDev	.0101	.00076	.00000	.00000	.00368	.00028	.00015
%RSD	.52997	3.5540	.00000	.00000	3.6365	-3585.7	65.479
#1	1.8922	.02240	.00080	.00400	.10040	.00000	.00031
#2	1.8999	.02080	.00080	.00400	.10380	-.00041	.00041
#3	1.9095	.02090	.00080	.00400	.09640	.00017	.00011
#4	1.9148	.02180	.00080	.00400	.10440	.00020	.00011

Elem	Cr	Cu	Fe	K	Mg	Mn	Na
Avge	.00133	.00233	.10620	.03985	.00126	.01760	.04940
SDev	.00170	.00039	.00033	.00413	.00164	.00000	.00097
%RSD	128.28	16.601	.30753	10.360	129.93	.00000	1.9557
#1	.00130	.00261	.10660	.04140	.00292	.01760	.04920
#2	.00200	.00231	.10620	.04340	.00107	.01760	.05080
#3	-.00100	.00179	.10620	.03390	-.00092	.01760	.04860
#4	.00300	.00260	.10580	.04070	.00198	.01760	.04900

Elem	Ni	Pb	Sb	Ti	V	Zn
Avge	-.00019	.00012	-.00060	.00205	.00010	.00040
SDev	.00128	.00056	.00043	.00019	.00062	.00000
%RSD	-682.30	456.84	-72.008	9.3408	621.83	.00000
#1	-.00184	.00073	-.00080	.00180	.00020	.00040
#2	.00020	.00010	-.00060	.00220	.00060	.00040
#3	-.00034	.00028	-.00100	.00200	-.00080	.00040
#4	.00123	-.00062	.00000	.00220	.00040	.00040

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Standard: STD2

Elem	Ag	Al ✓	Ba ✓	Be ✓	Ca ✓	Cd	Co ✓
Avge	-.01059	3.5397	5.1520	.89790	55.649	-.00338	.47738
SDev	.00029	.0161	.0305	.00473	.218	.00008	.00147
%RSD	-2.7541	.45478	.59231	.52687	.39143	-2.3886	.30775
#1	-.01049	3.5628	5.1962	.90450	55.960	-.00334	.47948
#2	-.01059	3.5271	5.1289	.89380	55.471	-.00350	.47659
#3	-.01098	3.5382	5.1481	.89800	55.631	-.00334	.47728
#4	-.01029	3.5306	5.1349	.89530	55.534	-.00334	.47619

Elem	Cr ✓	Cu ✓	Fe ✓	K ✓	Mg ✓	Mn ✓	Na ✓
Avge	.70342	.76216	4.3207	.51120	5.1054	.58135	3.8173
SDev	.00273	.00333	.0191	.00405	.0217	.00269	.0203
%RSD	.38801	.43724	.44193	.79235	.42602	.46274	.53300
#1	.70740	.76692	4.3474	.51720	5.1356	.58520	3.8392
#2	.70210	.75942	4.3054	.50970	5.0860	.57960	3.8282
#3	.70130	.76187	4.3213	.50830	5.1060	.58120	3.8080
#4	.70290	.76042	4.3086	.50960	5.0941	.57940	3.7937

Elem	Ni ✓	Pb	Sb	Ti	V ✓	Zn ✓
Avge	1.1622	-.01109	.00185	-.00060	1.7132	.11214
SDev	.0052	.00125	.00044	.00016	.0079	.00042
%RSD	.45072	-11.272	23.971	-27.217	.46238	.36972
#1	1.1672	-.01105	.00240	-.00080	1.7218	.11269
#2	1.1587	-.00970	.00200	-.00040	1.7027	.11213
#3	1.1568	-.01273	.00160	-.00060	1.7152	.11204
#4	1.1662	-.01087	.00140	-.00060	1.7130	.11169

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Standard: STD3

Elem	Ag	Al	Ba	Be	Ca	Cd	Co
Avge	-.00152	.02313	.00258	.00435	.07090	.14310	.00019
SDev	.00026	.00139	.00068	.00010	.00578	.00119	.00029
%RSD	-17.120	6.0062	26.220	2.2989	8.1521	.82881	152.07
#1	-.00179	.02480	.00320	.00440	.07700	.14132	.00006
#2	-.00155	.02140	.00170	.00420	.06340	.14373	.00057
#3	-.00116	.02320	.00300	.00440	.07330	.14353	-.00009
#4	-.00156	.02310	.00240	.00440	.06990	.14380	.00021

Elem	Cr	Cu	Fe	K	Mg	Mn	Na
Avge	.00205	.00243	.10320	.04145	.00373	.01780	.05228
SDev	.00098	.00022	.00052	.00244	.00094	.00000	.00074
%RSD	47.545	8.8673	.50038	5.8782	25.121	.00000	1.4090
#1	.00090	.00269	.10340	.04460	.00311	.01780	.05200
#2	.00270	.00219	.10260	.03870	.00302	.01780	.05260
#3	.00160	.00249	.10380	.04090	.00505	.01780	.05310
#4	.00300	.00235	.10300	.04160	.00376	.01780	.05140

Elem	Ni	Pb	Sb	Ti	V	Zn
Avge	.00192	.17445	-.00010	.00188	.00065	.00060
SDev	.00143	.00430	.00042	.00019	.00019	.00014
%RSD	74.395	2.4623	-416.33	10.096	29.459	23.570
#1	.00041	.16833	.00040	.00200	.00060	.00050
#2	.00320	.17829	-.00060	.00160	.00040	.00050
#3	.00099	.17506	.00000	.00200	.00080	.00080
#4	.00306	.17612	-.00020	.00190	.00080	.00060

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Standard: STD6

Elem	Ag	Al	Ba	Be	Ca	Cd	Co
Avge	-.00183	.01855	.00082	.00400	.03298	.00011	.00013
SDev	.00035	.00180	.00005	.00000	.00100	.00034	.00015
%RSD	-19.122	9.6985	5.6926	.00000	3.0161	310.26	120.45
#1	-.00210	.01780	.00080	.00400	.03290	.00061	.00000
#2	-.00215	.01640	.00080	.00400	.03240	-.00002	.00020
#3	-.00159	.01960	.00089	.00400	.03220	-.00015	.00031
#4	-.00147	.02040	.00080	.00400	.03440	.00000	.00000

Elem	Cr	Cu	Fe	K	Mg	Mn	Na
Avge	.00080	.00177	.10045	.03985	.00155	.01760	.04628
SDev	.00036	.00015	.00030	.00164	.00012	.00000	.00126
%RSD	44.488	8.2894	.29865	4.1055	7.9415	.00000	2.7299
#1	.00110	.00191	.10060	.03780	.00147	.01760	.04720
#2	.00030	.00159	.10000	.04060	.00171	.01760	.04460
#3	.00080	.00172	.10060	.03940	.00159	.01760	.04600
#4	.00100	.00188	.10060	.04160	.00144	.01760	.04730

Elem	Ni	Pb	Sb	Ti	V	Zn
Avge	-.00023	.00027	.27905	.00175	.00010	.00042
SDev	.00163	.00098	.00105	.00019	.00035	.00005
%RSD	-710.00	359.95	.37528	10.942	346.41	11.070
#1	-.00179	-.00108	.27880	.00160	.00020	.00040
#2	-.00002	.00053	.27890	.00160	-.00040	.00040
#3	-.00107	.00038	.28050	.00200	.00020	.00049
#4	.00196	.00127	.27800	.00180	.00040	.00040

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Standard: STD7

Elem	Ag	Al	Ba	Be	Ca	Cd	Co
Avge	-.00805	.04635	.00065	.00405	.11735	.00037	.00179
SDev	.00037	.00119	.00019	.00006	.00347	.00005	.00016
%RSD	-4.5930	2.5740	29.459	1.4256	2.9605	13.163	8.9920
#1	-.00796	.04570	.00040	.00400	.11840	.00041	.00162
#2	-.00777	.04550	.00060	.00400	.11490	.00040	.00173
#3	-.00786	.04810	.00080	.00410	.12180	.00031	.00183
#4	-.00859	.04610	.00080	.00410	.11430	.00035	.00200

Elem	Cr	Cu	Fe	K	Mg	Mn	Na
Avge	-.01558	.00113	.11430	.04148	-.01014	.01820	.05130
SDev	.00133	.00012	.00020	.00282	.00046	.00000	.00149
%RSD	-8.5400	10.393	.17498	6.8007	-4.5644	.00000	2.9131
#1	-.01570	.00103	.11420	.04280	-.01024	.01820	.05170
#2	-.01730	.00103	.11420	.03950	-.01001	.01820	.05300
#3	-.01410	.00124	.11460	.04480	-.00960	.01820	.05110
#4	-.01520	.00123	.11420	.03880	-.01071	.01820	.04940

Elem	Ni	Pb	Sb	Ti	V	Zn
Avge	.00094	.00221	.00117	5.6845	-.31427	.00061
SDev	.00106	.00171	.00129	.0111	.00226	.00008
%RSD	113.17	77.113	109.95	.19487	-.72063	13.412
#1	.00002	.00249	.00290	5.6785	-.31260	.00071
#2	.00029	.00243	.00120	5.6780	-.31420	.00061
#3	.00105	.00403	-.00020	5.7010	-.31750	.00051
#4	.00239	-.00009	.00080	5.6803	-.31280	.00061

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Analysis Report QC Standard Thu 12-27-90 08:48:26 AM page 1

Method: CLP Sample Name: ICV Operator: SLM
Run Time: 12/27/90 08:43:54
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	Ba	Be	Ca	Cd	Co
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	517.81	2035.8	2002.7	514.04	50215.	512.18	500.30
SDev	2.22	9.7	8.1	1.99	201.	3.18	3.09
%RSD	.42962	.47774	.40320	.38682	.40101	.62174	.61666
#1	519.81	2039.5	2010.5	516.07	50377.	516.86	498.46
#2	515.23	2040.0	1992.2	511.84	49994.	511.41	498.43
#3	519.53	2042.3	2007.3	515.33	50395.	509.84	504.88
#4	516.68	2021.3	2000.7	512.92	50095.	510.62	499.45
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	498.00	2172.0	2041.0	510.00	51519.	498.00	520.00
Range	10.000	10.000	10.000	10.000	10.000	10.000	10.000

Elem	Cr	Cu	Fe	K	Mg	Mn	Na
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	524.25	507.70	2004.7	51005.	25321.	504.83	50691.
SDev	2.38	2.92	8.2	640.	88.	1.00	193.
%RSD	.45367	.57490	.40864	1.2556	.34689	.19904	.38078
#1	526.54	510.04	2013.5	51234.	25380.	505.96	50651.
#2	520.97	504.50	1995.2	50053.	25194.	503.57	50963.
#3	525.25	510.30	2009.2	51298.	25380.	505.17	50506.
#4	524.26	505.95	2000.9	51436.	25331.	504.63	50645.
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	510.00	519.00	2044.0	52068.	25745.	516.00	51368.
Range	10.000	10.000	10.000	10.000	10.000	10.000	10.000

Elem	Ni	Pb	Sb	Ti	V	Zn
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	490.51	4815.5	1034.7	.65418	478.36	3238.6
SDev	7.92	35.2	23.7	4.6954	1.93	7.1
%RSD	1.6141	.73010	2.2938	717.75	.40401	.22019
#1	496.63	4817.3	1016.8	7.3408	480.85	3241.5
#2	478.98	4783.2	1038.3	-.04887	476.17	3228.2
#3	494.43	4863.9	1066.9	-1.1059	478.51	3244.2
#4	492.00	4797.7	1016.8	-3.5693	477.93	3240.6
Errors	QC Pass	QC Pass	QC Pass	NOCHECK	QC Pass	QC Pass
Value	497.00	5140.0	978.00		507.00	3316.0
Range	10.000	10.000	10.000		10.000	10.000

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Analysis Report QC Standard Thu 12-27-90 08:53:09 AM page 1

Method: CLP Sample Name: ICB Operator: SLM
Run Time: 12/27/90 08:48:38
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	Ba	Be	Ca	Cd	Co
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	1.2647	-7.6620	1.3648	.08400	2.8309	-.13328	-.14087
SDev	.5810	7.9455	.1031	.08625	.6334	1.18857	.81551
%RSD	45.943	-103.70	7.5556	102.67	22.373	-891.79	-578.89
#1	.42710	-16.175	1.4163	-.01309	2.3366	-1.3607	-.07911
#2	1.4479	-11.635	1.2101	.15597	3.2353	.81972	.91902
#3	1.4136	1.9864	1.4163	.15738	2.2467	-.94097	-1.0473
#4	1.7702	-4.8249	1.4163	.03575	3.5049	.94883	-.35606
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.00000	.00000	.00000	.00000	.00000	.00000	.00000
Range	10.000	200.00	200.00	5.0000	5000.0	5.0000	50.000

Elem	Cr	Cu	Fe	K	Mg	Mn	Na
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	.17809	-2.8991	.11756	135.65	6.2751	.13335	-185.72
SDev	1.0740	.5896	.45444	108.98	2.9404	.26628	18.07
%RSD	603.04	-20.338	386.55	80.337	46.859	199.69	-9.7304
#1	-1.3911	-3.6786	.47368	37.238	9.2652	.00053	-210.01
#2	1.0345	-2.5362	-.00118	58.516	2.9739	.53277	-170.07
#3	.60629	-2.3615	.47345	271.31	8.1701	-.00007	-188.71
#4	.46264	-3.0201	-.47570	175.55	4.6913	.00016	-174.07
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.00000	.00000	.00000	.00000	.00000	.00000	.00000
Range	10.000	25.000	100.00	5000.0	5000.0	15.000	5000.0

Elem	Ni	Pb	Sb	Ti	V	Zn
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	-1.0131	11.615	24.152	.96784	.80246	.49195
SDev	8.3580	17.363	17.863	.20338	1.5350	.02731
%RSD	-824.97	149.49	73.962	21.013	191.29	5.5515
#1	-12.998	8.4703	25.049	1.1442	-.51274	.53157
#2	5.1770	-7.9203	28.628	.79163	.65805	.46981
#3	-.44242	Q34.261	42.937	1.1437	.07404	.48677
#4	4.2108	11.647	-.00563	.79178	2.9905	.47966
Errors	QC Pass	QC Pass	QC Pass	NOCHECK	QC Pass	QC Pass
Value	.00000	.00000	.00000		.00000	.00000
Range	40.000	33.000	60.000		50.000	20.000

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Analysis Report Thu 12-27-90 08:57:48 AM

Method: CLP Sample Name: ICSAI Operator: KS
Run Time: 12/27/90 08:53:20
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	Ba	Be	Ca	Cd	Co
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	9.6921	482100.	7.2151	.21578	565008.	1.9135	58.166
SDev	.5983	1815.	.5490	.05804	23.	1.3092	1.021
%RSD	6.1730	.37649	7.6091	26.897	.03556	68.416	1.7553
#1	10.356	480750.	6.8269	.18595	565007.	1.4066	56.901
#2	9.2128	483720.	6.8269	.30284	564991.	2.6073	58.474
#3	9.1601	483600.	7.2151	.18691	565041.	3.3010	59.343
#4	10.040	480320.	7.9915	.18743	564993.	.33924	57.946
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	55000.	600000.	55000.	5500.0	500000.	5000.0	55000.
Low	-10.000	-200.00	-200.00	-5.0000	-5000.0	-5.0000	-50.000

Elem	Cr	Cu	Fe	K	Mg	Mn	Na
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	13.546	L-31.966	174780.	-531.97	487390.	60.222	221.00
SDev	1.536	.318	724.	580.96	2034.	.060	14.68
%RSD	11.339	-.99413	.41404	-109.21	.41736	.09946	6.6425
#1	11.404	L-32.129	174260.	-58.517	485380.	60.266	202.69
#2	13.467	L-31.546	175480.	-388.34	489350.	60.168	217.34
#3	14.756	L-32.278	175310.	-1377.8	488920.	60.172	237.31
#4	14.556	L-31.910	174060.	-303.22	485910.	60.280	226.66
Errors	LC Pass	LC Low	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	55000.	45000.	450000.	600000.	600000.	55000.	600000.
Low	-10.000	-25.000	-100.00	-5000.0	-5000.0	-15.000	-5000.0

Elem	Ni	Pb	Sb	Ti	V	Zn
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	86.652	L-103.68	123.80	-54.245	-12.253	9.2964
SDev	5.221	38.54	24.26	.168	.399	5.6229
%RSD	6.0248	-37.177	19.596	-.31060	-3.2550	60.485
#1	93.951	L-132.98	153.73	-54.114	-11.763	7.6014
#2	82.265	L-92.702	115.41	-54.465	-12.715	5.1073
#3	86.780	-53.835	129.90	-54.114	-12.159	6.8943
#4	83.614	L-135.20	96.183	-54.289	-12.376	17.582
Errors	LC Pass	LC Low	LC Pass	NOCHECK	LC Pass	LC Pass
High	55000.	50000.	50000.		55000.	55000.
Low	-40.000	-56.000	-60.000		-50.000	-20.000

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Analysis Report Thu 12-27-90 09:02:28 AM page 1

Method: CLP Sample Name: ICSAI 1:1 Operator: KS
Run Time: 12/27/90 08:57:59
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	Ba	Be	Ca	Cd	Co
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	5.2139	239860.	4.4188	-.05964	231480.	-.58079	28.113
SDev	.7751	646.	.2062	.00363	755.	2.17972	2.181
%RSD	14.865	.26925	4.6671	-6.0797	.32619	-375.31	7.7573
#1	5.9395	239620.	4.5219	-.06304	231710.	-1.7694	30.814
#2	4.8027	240800.	4.5219	-.06242	232440.	2.0920	27.355
#3	4.3297	239320.	4.5219	-.05722	230840.	.19302	25.640
#4	5.7838	239710.	4.1095	-.05586	230920.	-2.8387	28.645
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	55000.	600000.	55000.	5500.0	500000.	5000.0	55000.
Low	-10.000	-200.00	-200.00	-5.0000	-5000.0	-5.0000	-50.000

Elem	Cr	Cu	Fe	K	Mg	Mn	Na
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	7.0104	-16.624	90110.	-74.476	242420.	34.143	132.13
SDev	.2257	.604	302.	198.381	833.	.021	15.75
%RSD	3.2193	-3.6329	.33548	-266.37	.34376	.06242	11.922
#1	6.8346	-15.839	90252.	218.11	242630.	34.151	146.78
#2	6.8074	-16.722	90463.	-122.35	243460.	34.112	122.81
#3	7.1332	-16.628	89805.	-186.19	241500.	34.161	144.11
#4	7.2665	-17.309	89919.	-207.47	242080.	34.148	114.83
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	55000.	45000.	450000.	600000.	600000.	55000.	600000.
Low	-10.000	-25.000	-100.00	-5000.0	-5000.0	-15.000	-5000.0

Elem	Ni	Pb	Sb	Ti	V	Zn
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	36.511	L-62.671	86.207	-26.925	-4.9629	4.7949
SDev	8.647	18.396	29.739	.176	1.5019	1.4746
%RSD	23.683	-29.354	34.497	-.65359	-30.264	30.754
#1	42.205	-52.871	50.467	-27.013	-3.5530	3.5260
#2	44.896	-55.028	92.677	-27.013	-3.8083	6.3857
#3	32.825	-52.567	79.562	-27.013	-5.9633	3.5545
#4	26.119	L-90.216	122.12	-26.661	-6.5268	5.7136
Errors	LC Pass	LC Low	LC Pass	NOCHECK	LC Pass	LC Pass
High	55000.	50000.	50000.		55000.	55000.
Low	-40.000	-56.000	-60.000		-50.000	-20.000

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Analysis Report Thu 12-27-90 09:07:07 AM

Method: CLP Sample Name: ICSABI Operator: KS
Run Time: 12/27/90 09:02:38
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	Ba	Be	Ca	Cd	Co
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	950.96	475610.	467.88	475.47	565118.	861.38	484.47
SDev	2.93	922.	1.71	1.08	19.	3.96	1.07
%RSD	.30790	.19379	.36464	.22714	.02970	.45980	.21996
#1	949.74	475720.	469.31	476.72	565137.	857.24	483.20
#2	947.67	474520.	465.45	474.08	565132.	864.74	484.02
#3	951.92	475440.	467.99	475.63	565103.	858.75	485.16
#4	954.50	476760.	468.76	475.45	565100.	864.80	485.52
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	55000.	600000.	55000.	5500.0	500000.	5000.0	55000.
Low	-10.000	-200.00	-200.00	-5.0000	-5000.0	-5.0000	-50.000

Elem	Cr	Cu	Fe	K	Mg	Mn	Na
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	510.57	461.24	172180.	-348.44	481990.	499.05	234.98
SDev	.45	1.86	309.	558.30	907.	.86	27.12
%RSD	.08907	.40373	.17969	-160.23	.18813	.17193	11.541
#1	510.31	462.07	172490.	-664.96	482260.	499.65	243.96
#2	510.63	458.45	171820.	-760.72	480730.	498.62	247.96
#3	511.18	462.06	172030.	-430.90	482100.	498.06	194.70
#4	510.15	462.37	172370.	462.81	482880.	499.88	253.28
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	55000.	45000.	450000.	600000.	600000.	55000.	600000.
Low	-10.000	-25.000	-100.00	-5000.0	-5000.0	-15.000	-5000.0

Elem	Ni	Pb	Sb	Ti	V	Zn
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	930.71	4098.8	133.13	-53.808	405.18	952.78
SDev	8.84	22.3	9.88	.601	1.50	5.09
%RSD	.94949	.54508	7.4211	-1.1173	.37129	.53401
#1	921.73	4107.8	141.19	-53.192	404.72	953.47
#2	936.17	4120.3	142.05	-53.896	403.44	948.14
#3	924.80	4067.9	123.20	-54.600	405.52	949.86
#4	940.14	4099.1	126.07	-53.544	407.04	959.65
Errors	LC Pass	LC Pass	LC Pass	NOCHECK	LC Pass	LC Pass
High	55000.	50000.	50000.		55000.	55000.
Low	-40.000	-56.000	-60.000		-50.000	-20.000

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Method: CLP . Sample Name: ICSABI 1:1 Operator: KS
Run Time: 12/27/90 09:07:18
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	Ba	Be	Ca	Cd	Co
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	487.84	239810.	238.91	246.11	230220.	415.33	251.14
SDev	2.68	2175.	2.16	2.63	2038.	2.06	4.50
%RSD	.54878	.90695	.90262	1.0668	.88538	.49577	1.7936
#1	484.65	237000.	236.02	242.63	227420.	414.37	244.49
#2	490.84	242020.	240.91	248.75	232040.	418.42	252.43
#3	486.86	239310.	238.58	245.72	230060.	414.26	253.20
#4	489.01	240900.	240.14	247.32	231370.	414.27	254.42
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	55000.	600000.	55000.	5500.0	500000.	5000.0	55000.
Low	-10.000	-200.00	-200.00	-5.0000	-5000.0	-5.0000	-50.000

Elem	Cr	Cu	Fe	K	Mg	Mn	Na
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	269.53	237.35	90082.	127.67	243000.	260.67	202.69
SDev	2.31	3.97	709.	258.36	1985.	1.70	9.54
%RSD	.85782	1.6723	.78759	202.36	.81707	.65114	4.7059
#1	266.42	231.61	89115.	79.795	240260.	258.37	212.01
#2	272.00	240.45	90763.	-58.517	244830.	262.46	197.37
#3	269.64	237.88	90035.	505.37	242920.	260.96	209.35
#4	270.04	239.46	90413.	-15.960	243990.	260.90	192.04
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	55000.	45000.	450000.	600000.	600000.	55000.	600000.
Low	-10.000	-25.000	-100.00	-5000.0	-5000.0	-15.000	-5000.0

Elem	Ni	Pb	Sb	Ti	V	Zn
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	479.39	2131.2	81.980	-27.568	211.98	491.88
SDev	9.45	25.0	47.356	.925	2.65	6.74
%RSD	1.9715	1.1730	57.765	-3.3546	1.2497	1.3711
#1	466.62	2102.9	73.161	-26.731	208.46	482.14
#2	481.26	2142.3	19.738	-28.844	214.58	494.78
#3	489.42	2119.7	128.71	-27.084	213.29	497.51
#4	480.27	2159.8	106.31	-27.612	211.60	493.09
Errors	LC Pass	LC Pass	LC Pass	NOCHECK	LC Pass	LC Pass
High	55000.	50000.	50000.		55000.	55000.
Low	-40.000	-56.000	-60.000		-50.000	-20.000

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Analysis Report Thu 12-27-90 09:16:26 AM

Method: CLP Sample Name: CRII Operator: KS
Run Time: 12/27/90 09:11:57
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	Ba	Be	Ca	Cd	Co
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	12.882	514.05	393.84	10.283	126.29	8.9356	98.998
SDev	.448	12.96	2.87	.054	14.26	1.0148	2.480
%RSD	3.4741	2.5215	.72879	.52127	11.294	11.357	2.5051
#1	12.254	517.31	395.00	10.255	141.99	7.6663	96.488
#2	13.254	529.23	391.12	10.255	133.01	9.0920	100.53
#3	13.144	511.64	391.90	10.260	120.88	8.8459	97.328
#4	12.876	498.02	397.33	10.364	109.28	10.138	101.65
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	55000.	600000.	55000.	5500.0	500000.	5000.0	55000.
Low	-10.000	-200.00	-200.00	-5.0000	-5000.0	-5.0000	-50.000

Elem	Cr	Cu	Fe	K	Mg	Mn	Na
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	20.824	50.337	220.68	101.07	82.140	29.264	45.597
SDev	2.627	.674	6.73	238.22	18.146	.000	27.585
%RSD	12.613	1.3390	3.0501	235.69	22.092	.00146	60.497
#1	19.111	49.411	229.40	15.959	96.584	29.264	48.260
#2	23.963	50.995	220.86	441.54	91.149	29.264	8.3206
#3	21.966	50.605	219.44	58.516	84.958	29.264	74.886
#4	18.254	50.338	213.04	-111.71	55.870	29.265	50.923
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	55000.	45000.	450000.	600000.	600000.	55000.	600000.
Low	-10.000	-25.000	-100.00	-5000.0	-5000.0	-15.000	-5000.0

Elem	Ni	Pb	Sb	Ti	V	Zn
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	77.948	55.548	129.48	-.48941	89.402	41.623
SDev	4.365	6.375	25.70	.38969	1.902	2.500
%RSD	5.6004	11.476	19.847	-79.624	2.1277	6.0053
#1	80.922	60.040	114.27	-.97290	89.401	39.818
#2	73.012	61.622	160.78	-.27026	89.408	45.123
#3	75.610	48.141	103.54	-.09376	87.070	39.827
#4	82.249	52.389	139.33	-.62072	91.730	41.726
Errors	LC Pass	LC Pass	LC Pass	NOCHECK	LC Pass	LC Pass
High	55000.	50000.	50000.		55000.	55000.
Low	-40.000	-56.000	-60.000		-50.000	-20.000

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Analysis Report QC Standard Thu 12-27-90 09:21:10 AM page 1

Method: CLP Sample Name: CCV2 Operator: KS
Run Time: 12/27/90 09:16:38
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	Ba	Be	Ca	Cd	Co
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	1258.7	9750.0	9957.4	249.72	25026.	234.81	2483.4
SDev	4.2	44.2	76.7	1.58	116.	2.93	11.6
%RSD	.33723	.45346	.77012	.63243	.46406	1.2482	.46641
#1	1259.4	9720.0	9942.0	249.26	25013.	236.10	2476.2
#2	1253.4	9712.6	9863.0	247.79	24878.	236.64	2470.9
#3	1263.7	9809.1	10047.	251.50	25158.	236.08	2493.9
#4	1258.4	9758.6	9977.1	250.33	25054.	230.43	2492.5
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	1250.0	10000.	10000.	250.00	25000.	250.00	2500.0
Range	10.000	10.000	10.000	10.000	10.000	10.000	10.000

Elem	Cr	Cu	Fe	K	Mg	Mn	Na
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	504.90	1251.4	4899.3	25242.	25060.	759.19	25514.
SDev	2.36	6.0	23.9	343.	89.	4.27	116.
%RSD	.46653	.48211	.48694	1.3602	.35365	.56183	.45440
#1	506.44	1251.1	4893.2	25551.	25046.	758.86	25495.
#2	501.59	1243.5	4872.6	25508.	24950.	753.80	25524.
#3	504.86	1258.0	4930.2	24848.	25164.	764.18	25659.
#4	506.72	1253.1	4901.3	25061.	25082.	759.92	25376.
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	500.00	1250.0	5000.0	25000.	25000.	750.00	25000.
Range	10.000	10.000	10.000	10.000	10.000	10.000	10.000

Elem	Ni	Pb	Sb	Ti	V	Zn
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	2046.1	912.49	2484.4	-3.0363	2478.6	992.90
SDev	11.2	13.08	30.0	.8384	12.5	2.65
%RSD	.54887	1.4335	1.2075	-27.612	.50588	.26690
#1	2056.3	919.04	2444.1	-3.2127	2471.8	991.53
#2	2030.2	Q892.92	2515.7	-1.8036	2466.5	991.63
#3	2047.1	917.84	2494.1	-3.5642	2495.1	996.87
#4	2050.7	920.16	2483.4	-3.5647	2481.1	991.56
Errors	QC Pass	QC Pass	QC Pass	NOCHECK	QC Pass	QC Pass
Value	2000.0	1000.0	2500.0		2500.0	1000.0
Range	10.000	10.000	10.000		10.000	10.000

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Analysis Report QC Standard Thu 12-27-90 09:25:53 AM page 1

Method: CLP Sample Name: CCB2 Operator: KS
Run Time: 12/27/90 09:21:22
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	Ba	Be	Ca	Cd	Co
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	.63879	18.019	2.3353	-.01292	-2.3816	-.17034	.37894
SDev	1.1882	5.490	.6951	.11355	3.2656	.77955	1.7512
%RSD	186.01	30.469	29.765	-879.06	-137.12	-457.64	462.12
#1	1.0504	17.877	2.7629	-.07179	-.53922	-.01127	-2.1670
#2	-.84334	14.472	2.9691	-.06686	-4.2239	.10479	.61797
#3	.36892	25.823	2.1927	-.07039	-5.9314	.51473	1.5297
#4	1.9792	13.905	1.4163	.15738	1.1683	-1.2896	1.5351
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.00000	.00000	.00000	.00000	.00000	.00000	.00000
Range	10.000	200.00	200.00	5.0000	5000.0	5.0000	50.000

Elem	Cr	Cu	Fe	K	Mg	Mn	Na
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	-1.3207	-3.5091	32.356	-369.72	9.7847	-.13369	342.81
SDev	.2968	.7712	2.801	249.42	5.4101	.26611	17.57
%RSD	-22.471	-21.978	8.6579	-67.462	55.291	-199.05	5.1264
#1	-1.3922	-3.3684	28.919	-260.67	16.671	-.00059	338.49
#2	-1.6769	-4.3760	31.290	-558.57	8.3402	-.53286	367.77
#3	-1.2495	-3.7582	34.134	-590.49	3.6363	-.00085	326.50
#4	-.96409	-2.5339	35.082	-69.156	10.492	-.00046	338.49
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.00000	.00000	.00000	.00000	.00000	.00000	.00000
Range	10.000	25.000	100.00	5000.0	5000.0	15.000	5000.0

Elem	Ni	Pb	Sb	Ti	V	Zn
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	-5.7555	8.0438	19.690	-.17563	-.58002	.71746
SDev	4.5474	11.649	10.732	.10160	.96421	.41089
%RSD	-79.009	144.82	54.505	-57.849	-166.24	57.271
#1	-11.887	1.4846	28.628	-.26360	.07555	.52818
#2	-3.5150	21.413	14.326	-.08755	-1.9663	.49887
#3	-6.2442	13.643	28.638	-.26364	-.50667	.50926
#4	-1.3759	-4.3660	7.1678	-.08774	.07735	1.3335
Errors	QC Pass	QC Pass	QC Pass	NOCHECK	QC Pass	QC Pass
Value	.00000	.00000	.00000		.00000	.00000
Range	40.000	33.000	60.000		50.000	20.000

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Analysis Report QC Standard Thu 12-27-90 09:30:36 AM page 1

Method: CLP Sample Name: PBS Operator: KS
Run Time: 12/27/90 09:26:04
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	Ba	Be	Ca	Cd	Co
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	1.1740	-7.3781	.73697	-.04596	-3.7745	.27844	.67473
SDev	1.4000	9.1569	.48847	.05730	.7076	1.1838	4.1701
%RSD	119.26	-124.11	66.281	-124.68	-18.748	425.17	618.04
#1	.35473	-12.202	.63992	-.07461	-3.8644	.31218	1.1651
#2	1.4471	-5.9592	.63992	.03998	-4.6732	-1.2063	2.0248
#3	-.13177	-16.175	.25172	-.07320	-2.9657	1.6918	-5.1655
#4	3.0259	4.8236	1.4163	-.07602	-3.5948	.31611	4.6745
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.00000	.00000	.00000	.00000	.00000	.00000	.00000
Range	10.000	200.00	200.00	5.0000	5000.0	5.0000	50.000

Elem	Cr	Cu	Fe	K	Mg	Mn	Na
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	.82039	-2.6965	-3.2002	61.176	.95316	-.26595	-186.72
SDev	.81133	.7020	1.1848	388.92	16.052	.30731	8.52
%RSD	98.896	-26.032	-37.024	635.74	1684.0	-115.55	-4.5655
#1	-.39246	-2.9796	-3.3181	58.516	-2.1710	-.53198	-199.36
#2	1.1771	-2.7119	-2.8445	122.35	1.6261	-.53219	-183.39
#3	1.1777	-3.3699	-4.7409	-441.54	-17.311	.00053	-183.39
#4	1.3193	-1.7247	-1.8973	505.37	21.669	-.00016	-180.73
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.00000	.00000	.00000	.00000	.00000	.00000	.00000
Range	10.000	25.000	100.00	5000.0	5000.0	15.000	5000.0

Elem	Ni	Pb	Sb	Ti	V	Zn
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	-3.9375	6.0234	7.1553	-.39617	1.2405	.86740
SDev	5.8321	16.468	18.470	.63232	.4766	2.0497
%RSD	-148.12	273.40	258.13	-159.61	38.422	236.31
#1	-12.645	-18.119	-14.312	-.96778	1.2384	-.53588
#2	-1.7231	13.975	14.312	-.26428	1.2412	2.1809
#3	-1.0381	18.385	.01140	-.79221	.65748	3.0225
#4	-.34414	9.8521	28.610	.43960	1.8250	-1.1979
Errors	QC Pass	QC Pass	QC Pass	NOCHECK	QC Pass	QC Pass
Value	.00000	.00000	.00000		.00000	.00000
Range	40.000	33.000	60.000		50.000	20.000

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Analysis Report Thu 12-27-90 09:35:15 AM page 1

Method: CLP Sample Name: LCSS Operator: KS
Run Time: 12/27/90 09:30:46
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	Ba	Be	Ca	Cd	Co
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	113.92	1686.6	29.315	96.994	559549.	211.26	698.00
SDev	.95	9.4	.103	.910	68.	1.56	5.02
%RSD	.83784	.55997	.35175	.93840	.11469	.73756	.71907
#1	113.49	1676.8	29.367	95.825	559634.	209.24	691.10
#2	112.87	1697.2	29.367	98.048	559510.	210.91	698.49
#3	115.08	1691.6	29.367	97.076	559573.	212.05	703.10
#4	114.23	1680.8	29.161	97.027	559480.	212.83	699.30
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	55000.	600000.	55000.	5500.0	500000.	5000.0	55000.
Low	-10.000	-200.00	-200.00	-5.0000	-5000.0	-5.0000	-50.000

Elem	Cr	Cu	Fe	K	Mg	Mn	Na
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	504.90	35185.	112980.	-2.6601	564840.	1036.0	699.27
SDev	3.31	322.	808.	499.137	4671.	7.7	4.61
%RSD	.65649	.91584	.71556	-18764.	.82703	.74231	.65952
#1	500.75	34732.	111830.	-164.91	558100.	1024.8	695.28
#2	505.00	35482.	113710.	-633.05	568830.	1042.4	705.93
#3	508.86	35317.	113220.	462.81	566630.	1038.2	697.94
#4	505.01	35211.	113170.	324.50	565790.	1038.7	697.94
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	55000.	45000.	450000.	600000.	600000.	55000.	600000.
Low	-10.000	-25.000	-100.00	-5000.0	-5000.0	-15.000	-5000.0

Elem	Ni	Pb	Sb	Ti	V	Zn
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	282.64	945.91	1090.8	-30.929	315.74	852.68
SDev	7.89	16.78	15.3	.528	2.40	4.63
%RSD	2.7909	1.7735	1.4025	-1.7068	.75996	.54285
#1	289.14	932.21	1073.1	-31.368	313.42	846.82
#2	271.19	940.94	1107.9	-30.665	318.12	853.66
#3	285.88	940.13	1098.0	-31.370	317.46	852.21
#4	284.34	970.37	1084.2	-30.313	313.95	858.05
Errors	LC Pass	LC Pass	LC Pass	NOCHECK	LC Pass	LC Pass
High	55000.	50000.	50000.		55000.	55000.
Low	-40.000	-56.000	-60.000		-50.000	-20.000

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Analysis Report Thu 12-27-90 09:39:55 AM page 1

Method: CLP Sample Name: LCSS 1:4 Operator: KS
Run Time: 12/27/90 09:35:26
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	Ba	Be	Ca	Cd	Co
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	19.421	340.81	6.3477	22.240	195110.	50.421	162.25
SDev	.678	9.53	.1820	.187	873.	1.529	1.12
%RSD	3.4915	2.7965	2.8667	.83874	.44769	3.0325	.68759
#1	20.281	333.43	6.0747	22.236	195890.	50.414	162.33
#2	19.556	348.75	6.4387	22.014	193930.	52.552	161.15
#3	19.171	349.32	6.4387	22.240	195000.	49.690	163.76
#4	18.674	331.73	6.4387	22.470	195640.	49.029	161.75
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	55000.	600000.	55000.	5500.0	500000.	5000.0	55000.
Low	-10.000	-200.00	-200.00	-5.0000	-5000.0	-5.0000	-50.000

Elem	Cr	Cu	Fe	K	Mg	Mn	Na
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	117.36	7091.7	20736.	-55.857	122520.	242.43	263.60
SDev	1.91	29.8	70.	199.117	446.	.79	26.01
%RSD	1.6257	.41959	.33953	-356.47	.36401	.32787	9.8657
#1	119.32	7099.2	20802.	207.47	122960.	243.30	239.97
#2	114.76	7052.7	20660.	-47.878	122010.	241.44	273.25
#3	117.90	7090.3	20693.	-111.71	122280.	242.24	295.88
#4	117.47	7124.6	20789.	-271.31	122810.	242.77	245.29
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	55000.	45000.	450000.	600000.	600000.	55000.	600000.
Low	-10.000	-25.000	-100.00	-5000.0	-5000.0	-15.000	-5000.0

Elem	Ni	Pb	Sb	Ti	V	Zn
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	60.883	242.04	202.25	-4.8703	60.958	176.93
SDev	9.403	16.42	23.99	.5179	1.137	3.18
%RSD	15.445	6.7828	11.863	-10.633	1.8660	1.7994
#1	71.439	233.82	208.31	-4.1668	62.504	177.72
#2	59.964	254.10	226.62	-4.8696	59.846	179.81
#3	48.766	222.97	169.24	-5.0464	61.024	177.82
#4	63.364	257.27	204.81	-5.3982	60.457	172.38
Errors	LC Pass	LC Pass	LC Pass	NOCHECK	LC Pass	LC Pass
High	55000.	50000.	50000.		55000.	55000.
Low	-40.000	-56.000	-60.000		-50.000	-20.000

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Analysis Report Thu·12-27-90 09:44:34 AM page 1

ethod: CLP Sample Name: MZK888 Operator: KS
Run Time: 12/27/90 09:40:06
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	Ba	Be	Ca	Cd	Co
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	4.6955	50818.	9216.5	2.4206	7335.5	3.7149	25.323
SDev	.8567	66.	29.8	.0554	12.9	1.2446	2.298
%RSD	18.245	.13044	.32283	2.2902	.17544	33.503	9.0767
#1	5.1180	50811.	9214.4	2.3947	7352.1	4.3975	26.323
#2	3.6706	50754.	9202.4	2.3927	7330.1	2.3720	22.510
#3	4.3678	50910.	9258.7	2.3912	7321.9	5.0842	27.856
#4	5.6258	50796.	9190.5	2.5037	7338.2	3.0058	24.602
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	55000.	600000.	55000.	5500.0	500000.	5000.0	55000.
Low	-10.000	-200.00	-200.00	-5.0000	-5000.0	-5.0000	-50.000

Elem	Cr	Cu	Fe	K	Mg	Mn	Na
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	97.126	103.81	47760.	6085.8	5428.5	771.48	13763.
SDev	2.572	9.37	82.	626.5	13.8	1.26	92.
%RSD	2.6479	9.0217	.17241	10.295	.25502	.16284	.66795
#1	100.16	116.10	47782.	6378.3	5417.3	772.41	13646.
#2	94.025	105.82	47657.	5186.7	5420.0	769.75	13851.
#3	96.445	98.326	47855.	6165.5	5428.8	772.41	13735.
#4	97.876	94.980	47743.	6612.4	5447.9	771.35	13819.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	55000.	45000.	450000.	600000.	600000.	55000.	600000.
Low	-10.000	-25.000	-100.00	-5000.0	-5000.0	-15.000	-5000.0

Elem	Ni	Pb	Sb	Ti	V	Zn
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	38.620	153.30	70.051	352.53	71.213	780.55
SDev	2.416	24.13	15.862	1.13	.982	6.94
%RSD	6.2552	15.740	22.644	.31931	1.3785	.88875
#1	36.054	147.81	50.394	351.87	70.055	788.16
#2	39.895	127.95	78.963	351.69	70.898	773.79
#3	37.207	186.02	86.177	354.16	71.520	775.62
#4	41.322	151.41	64.669	352.40	72.378	784.61
Errors	LC Pass	LC Pass	LC Pass	NOCHECK	LC Pass	LC Pass
High	55000.	50000.	50000.		55000.	55000.
Low	-40.000	-56.000	-60.000		-50.000	-20.000

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Analysis Report Thu 12-27-90 09:49:14 AM page 1

Method: CLP Sample Name: MZK890F Operator: KS
Run Time: 12/27/90 09:44:45 mo 12/27
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	Ba	Be	Ca	Cd	Co
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	5.4708	45181.	29426.	2.6381	141850.	10.282	62.480
SDev	1.2065	333.	228.	.1413	929.	.458	3.752
%RSD	22.054	.73698	.77394	5.3564	.65509	4.4582	6.0048
#1	6.2516	44701.	29085.	2.4962	140580.	10.186	62.918
#2	4.4961	45220.	29553.	2.6119	141920.	9.6774	57.046
#3	6.7486	45445.	29533.	2.8339	142790.	10.707	65.112
#4	4.3869	45357.	29534.	2.6105	142120.	10.556	64.843
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	55000.	600000.	55000.	5500.0	500000.	5000.0	55000.
Low	-10.000	-200.00	-200.00	-5.0000	-5000.0	-5.0000	-50.000

Elem	Cr	Cu	Fe	K	Mg	Mn	Na
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	1197.9	316.49	63952.	4910.1	8982.3	1912.0	1981.3
SDev	5.3	2.69	449.	676.7	59.8	13.8	18.0
%RSD	.43885	.84969	.70220	13.782	.66520	.72067	.90980
#1	1190.8	318.91	63316.	4995.2	8941.8	1892.2	1986.6
#2	1197.7	317.01	64147.	4761.1	8948.6	1918.3	1998.6
#3	1203.4	317.41	64354.	5761.3	9070.3	1923.6	1956.0
#4	1199.7	312.65	63990.	4122.8	8968.6	1914.0	1984.0
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	55000.	45000.	450000.	600000.	600000.	55000.	600000.
Low	-10.000	-25.000	-100.00	-5000.0	-5000.0	-15.000	-5000.0

Elem	Ni	Pb	Sb	Ti	V	Zn
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	59.174	390.24	82.144	452.96	76.036	1461.3
SDev	7.500	20.93	19.466	2.97	1.338	7.9
%RSD	12.674	5.3628	23.698	.65548	1.7597	.53727
#1	55.277	367.30	67.640	448.87	75.476	1455.0
#2	68.907	382.11	75.114	452.74	75.048	1454.9
#3	60.830	416.71	110.87	455.56	78.011	1471.2
#4	51.684	394.82	74.952	454.68	75.608	1464.0
Errors	LC Pass	LC Pass	LC Pass	NOCHECK	LC Pass	LC Pass
High	55000.	50000.	50000.		55000.	55000.
Low	-40.000	-56.000	-60.000		-50.000	-20.000

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Analysis Report Thu 12-27-90 09:53:54 AM page 1

Method: CLP Sample Name: MZK894 F Operator: KS
Run Time: 12/27/90 09:49:25 M2
Comment:
Mode: CONC Corr. Factor: 1 12/27

Elem	Ag	Al	Ba	Be	Ca	Cd	Co
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	3.4060	31433.	3478.5	1.6172	11081.	3.7703	9.4496
SDev	.6005	114.	13.3	.0658	47.	.4219	.9922
%RSD	17.630	.36246	.38153	4.0671	.42625	11.190	10.500
#1	3.2935	31309.	3464.1	1.6742	11030.	3.9924	8.3113
#2	2.6065	31584.	3496.2	1.6741	11142.	3.2921	8.9831
#3	3.7783	31410.	3476.7	1.5624	11065.	4.2324	10.528
#4	3.9457	31429.	3477.1	1.5581	11086.	3.5641	9.9761
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	55000.	600000.	55000.	5500.0	500000.	5000.0	55000.
Low	-10.000	-200.00	-200.00	-5.0000	-5000.0	-5.0000	-50.000

Elem	Cr	Cu	Fe	K	Mg	Mn	Na
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	77.474	181.42	23147.	2718.4	1489.4	142.04	6569.7
SDev	1.965	2.04	57.	194.1	10.1	.26	26.7
%RSD	2.5360	1.1250	.24660	7.1386	.67864	.18549	.40613
#1	78.084	183.87	23072.	2516.2	1483.0	141.65	6571.7
#2	77.933	181.93	23210.	2856.7	1484.2	142.17	6567.7
#3	74.656	180.89	23155.	2590.7	1504.5	142.18	6537.1
#4	79.222	178.98	23152.	2909.9	1486.0	142.17	6602.3
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	55000.	45000.	450000.	600000.	600000.	55000.	600000.
Low	-10.000	-25.000	-100.00	-5000.0	-5000.0	-15.000	-5000.0

Elem	Ni	Pb	Sb	Ti	V	Zn
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	14.823	81.728	38.308	281.08	36.149	2397.6
SDev	3.349	11.271	44.737	.99	.737	6.7
%RSD	22.592	13.790	116.78	.35185	2.0386	.28122
#1	17.145	82.665	91.098	280.25	36.283	2387.8
#2	10.838	68.588	8.7680	282.18	36.306	2402.2
#3	13.311	79.675	-5.5230	281.65	35.125	2401.9
#4	17.999	95.987	58.887	280.25	36.882	2398.5
Errors	LC Pass	LC Pass	LC Pass	NOCHECK	LC Pass	LC Pass
High	55000.	50000.	50000.		55000.	55000.
Low	-40.000	-56.000	-60.000		-50.000	-20.000

Analysis Report Thu 12-27-90 09:58:34 AM page 1

Method: CLP Sample Name: MBK896F Operator: KS
Run Time: 12/27/90 09:54:05 MD 12/27
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	Ba	Be	Ca	Cd	Co
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	6.4994	42972.	14491.	2.8625	8569.1	6.3702	48.240
SDev	1.6440	161.	81.	.1059	22.8	.2972	1.401
%RSD	25.295	.37451	.56005	3.7010	.26573	4.6649	2.9042
#1	4.1248	43024.	14555.	2.7089	8563.0	6.3637	47.284
#2	7.8991	42835.	14418.	2.9348	8548.5	6.1654	49.893
#3	6.8543	43176.	14567.	2.9310	8601.6	6.7925	48.892
#4	7.1195	42851.	14424.	2.8753	8563.1	6.1590	46.892
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	55000.	600000.	55000.	5500.0	500000.	5000.0	55000.
Low	-10.000	-200.00	-200.00	-5.0000	-5000.0	-5.0000	-50.000

Elem	Cr	Cu	Fe	K	Mg	Mn	Na
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	1445.9	161.12	66448.	4258.4	5389.5	3118.2	981.84
SDev	3.8	1.13	279.	503.3	21.6	12.9	15.31
%RSD	.26547	.70167	.41961	11.818	.40158	.41370	1.5593
#1	1446.3	161.27	66657.	3601.4	5364.4	3126.9	980.18
#2	1443.0	161.80	66179.	4707.9	5379.9	3107.2	962.87
#3	1451.1	161.93	66718.	4133.4	5413.2	3131.7	1000.1
#4	1443.0	159.48	66238.	4590.9	5400.6	3107.2	984.17
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	55000.	45000.	450000.	600000.	600000.	55000.	600000.
Low	-10.000	-25.000	-100.00	-5000.0	-5000.0	-15.000	-5000.0

Elem	Ni	Pb	Sb	Ti	V	Zn
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	53.237	363.74	93.597	282.11	83.964	757.41
SDev	3.712	21.81	23.286	.97	1.268	2.08
%RSD	6.9717	5.9964	24.879	.34280	1.5096	.27511
#1	48.971	360.68	65.096	283.03	82.323	759.22
#2	53.163	392.90	93.487	281.28	83.693	755.61
#3	52.789	361.35	93.673	282.86	85.259	759.21
#4	58.025	340.04	122.13	281.28	84.579	755.61
Errors	LC Pass	LC Pass	LC Pass	NOCHECK	LC Pass	LC Pass
High	55000.	50000.	50000.		55000.	55000.
Low	-40.000	-56.000	-60.000		-50.000	-20.000

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Analysis Report Thu 12-27-90 10:03:14 AM page 1

F
mg 12/27

Method: CLP Sample Name: MBK897 Operator: KS
Run Time: 12/27/90 09:58:45
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	Ba	Be	Ca	Cd	Co
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	2.2867	31202.	2897.3	2.3219	8716.7	1.7189	17.613
SDev	1.3298	92.	11.4	.0306	26.0	.7989	1.362
%RSD	58.153	.29587	.39344	1.3170	.29826	46.477	7.7306
#1	1.0477	31121.	2890.6	2.3348	8686.0	1.7181	18.268
#2	2.8451	31294.	2900.7	2.3376	8735.3	.88363	19.126
#3	1.3568	31269.	2911.7	2.3390	8741.0	2.7956	16.033
#4	3.8970	31124.	2886.1	2.2761	8704.4	1.4783	17.023
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	55000.	600000.	55000.	5500.0	500000.	5000.0	55000.
Low	-10.000	-200.00	-200.00	-5.0000	-5000.0	-5.0000	-50.000

Elem	Cr	Cu	Fe	K	Mg	Mn	Na
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	72.213	55.016	30242.	4186.6	5407.9	707.97	1686.1
SDev	1.461	1.476	88.	86.4	26.2	2.23	25.5
%RSD	2.0233	2.6829	.29213	2.0646	.48490	.31501	1.5097
#1	70.575	54.914	30118.	4154.7	5371.9	704.92	1701.7
#2	71.426	56.776	30261.	4239.8	5429.7	708.64	1692.4
#3	73.709	55.199	30328.	4271.7	5405.2	710.23	1648.5
#4	73.142	53.174	30259.	4080.2	5424.7	708.11	1701.7
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	55000.	45000.	450000.	600000.	600000.	55000.	600000.
Low	-10.000	-25.000	-100.00	-5000.0	-5000.0	-15.000	-5000.0

Elem	Ni	Pb	Sb	Ti	V	Zn
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	26.243	90.695	37.120	239.02	46.847	133.78
SDev	6.494	30.346	25.694	1.01	1.056	2.72
%RSD	24.747	33.459	69.221	.42241	2.2535	2.0360
#1	27.267	55.616	11.148	238.89	47.406	131.50
#2	35.032	75.470	68.397	239.60	46.266	136.98
#3	21.161	120.04	21.943	239.95	45.698	135.12
#4	21.510	111.66	46.990	237.66	48.018	131.53
Errors	LC Pass	LC Pass	LC Pass	NOCHECK	LC Pass	LC Pass
High	55000.	50000.	50000.		55000.	55000.
Low	-40.000	-56.000	-60.000		-50.000	-20.000

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Analysis Report Thu 12-27-90 10:07:54 AM page 1

Method: CLP Sample Name: MEK898F Operator: KS
Run Time: 12/27/90 10:03:24 mo 12/27
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	Ba	Be	Ca	Cd	Co
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	22.539	38792.	44130.	1.6705	14626.	22.176	66.683
SDev	2.128	179.	266.	.1135	58.	1.555	3.854
%RSD	9.4399	.46079	.60171	6.7945	.39370	7.0114	5.7798
#1	20.284	38829.	44254.	1.6128	14624.	20.874	62.868
#2	25.367	38617.	43841.	1.8407	14588.	22.897	70.753
#3	22.659	38695.	43989.	1.6143	14584.	24.026	69.144
#4	21.845	39025.	44435.	1.6140	14708.	20.906	63.966
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	55000.	600000.	55000.	5500.0	500000.	5000.0	55000.
Low	-10.000	-200.00	-200.00	-5.0000	-5000.0	-5.0000	-50.000

Elem	Cr	Cu	Fe	K	Mg	Mn	Na
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	1000.7	244.10	56373.	4625.5	6263.5	1207.5	1265.7
SDev	4.6	1.04	271.	410.8	30.8	5.6	23.3
%RSD	.45956	.42654	.47989	8.8815	.49204	.46404	1.8389
#1	1003.7	243.67	56396.	4537.7	6269.2	1207.2	1242.4
#2	996.69	244.61	56105.	5197.4	6242.6	1201.9	1249.1
#3	996.97	242.88	56253.	4548.4	6237.5	1205.6	1287.7
#4	1005.7	245.24.	56738.	4218.5	6304.8	1215.2	1283.7
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	55000.	45000.	450000.	600000.	600000.	55000.	600000.
Low	-10.000	-25.000	-100.00	-5000.0	-5000.0	-15.000	-5000.0

Elem	Ni	Pb	Sb	Ti	V	Zn
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	47.246	2392.6	98.325	369.86	61.555	4717.8
SDev	1.601	20.6	34.722	2.31	.526	7.7
%RSD	3.3883	.86217	35.314	.62537	.85494	.16311
#1	48.251	2388.2	56.274	369.73	61.709	4717.6
#2	45.826	2389.0	138.49	367.62	62.231	4710.3
#3	45.942	2371.9	88.461	369.03	61.090	4714.8
#4	48.967	2421.2	110.07	373.08	61.189	4728.4
Errors	LC Pass	LC Pass	LC Pass	NOCHECK	LC Pass	LC Pass
High	55000.	50000.	50000.		55000.	55000.
Low	-40.000	-56.000	-60.000		-50.000	-20.000

Analysis Report QC Standard Thu 12-27-90 10:12:37 AM page 1

Method: CLP Sample Name: CCV Operator: KS
Run Time: 12/27/90 10:08:06
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	Ba	Be	Ca	Cd	Co
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	1254.1	9604.2	9736.3	247.12	24509.	229.99	2413.1
SDev	12.5	89.4	123.6	2.86	242.	2.63	23.0
%RSD	.99875	.93069	1.2691	1.1572	.98930	1.1418	.95203
#1	1266.3	9680.2	9809.9	248.91	24711.	233.51	2437.9
#2	1263.0	9680.2	9872.1	250.20	24714.	229.70	2424.0
#3	1247.1	9548.6	9634.8	244.94	24379.	227.14	2405.5
#4	1240.2	9507.7	9628.3	244.46	24232.	229.62	2385.0
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	1250.0	10000.	10000.	250.00	25000.	250.00	2500.0
Range	10.000	10.000	10.000	10.000	10.000	10.000	10.000

Elem	Cr	Cu	Fe	K	Mg	Mn	Na
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	498.62	1230.2	4872.1	25199.	24588.	738.03	25692.
SDev	4.46	13.8	45.9	560.	294.	7.80	188.
%RSD	.89534	1.1218	.94228	2.2210	1.1947	1.0562	.73026
#1	500.89	1238.6	4911.5	25412.	24852.	744.75	25794.
#2	501.03	1244.9	4910.8	25051.	24816.	744.22	25904.
#3	500.63	1221.9	4843.8	25827.	24433.	734.38	25510.
#4	491.93	1215.5	4822.4	24508.	24251.	728.79	25561.
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	500.00	1250.0	5000.0	25000.	25000.	750.00	25000.
Range	10.000	10.000	10.000	10.000	10.000	10.000	10.000

Elem	Ni	Pb	Sb	Ti	V	Zn
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	1993.2	Q895.82	2369.3	-1.4948	2408.2	948.02
SDev	27.7	13.40	22.1	.5820	31.6	10.02
%RSD	1.3913	1.4955	.93403	-38.933	1.3106	1.0564
#1	1998.1	909.07	2379.9	-.92349	2429.2	959.29
#2	2030.2	Q878.37	2372.7	-2.1554	2440.3	951.99
#3	1968.5	Q892.94	2387.4	-1.8033	2388.9	944.97
#4	1975.8	902.90	2337.4	-1.0971	2374.3	935.82
Errors	QC Pass	QC Fail	QC Pass	NOCHECK	QC Pass	QC Pass
Value	2000.0	1000.0	2500.0		2500.0	1000.0
Range	10.000	10.000	10.000		10.000	10.000

Analysis Report QC Standard Thu 12-27-90 10:17:20 AM page 1

Method: CLP Sample Name: CCB Operator: KS
Run Time: 12/27/90 10:12:49
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	Ba	Be	Ca	Cd	Co
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	-.20511	-9.9320	4.3096	.01591	-1.9996	-.08102	.93946
SDev	1.50340	15.2779	1.0135	.06083	1.4424	.71945	.64809
%RSD	-732.97	-153.83	23.517	382.41	-72.132	-887.95	68.986
#1	-.39205	-14.472	5.2498	.10713	-1.1683	.11549	1.6055
#2	-2.2340	-29.228	4.9101	-.01309	-2.5164	-.54218	.06745
#3	.60764	5.3916	4.1095	-.01450	-3.7745	-.74447	.91035
#4	1.1980	-1.4190	2.9691	-.01591	-.53922	.84707	1.1746
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.00000	.00000	.00000	.00000	.00000	.00000	.00000
Range	10.000	200.00	200.00	5.0000	5000.0	5.0000	50.000

Elem	Cr	Cu	Fe	K	Mg	Mn	Na
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	.32168	-1.9321	1.0675	-247.37	-.80515	-.26588	-192.37
SDev	.70824	.9023	1.7899	463.14	10.3439	.30784	18.93
%RSD	220.17	-46.703	167.67	-187.23	-1284.7	-115.78	-9.8418
#1	-.10551	-2.0528	2.3721	-686.24	-3.2827	.00048	-206.02
#2	-.24883	-3.1534	2.3711	-462.82	-12.729	.00096	-210.01
#3	.32094	-1.1273	.94859	-228.75	12.268	-.53256	-170.07
#4	1.3201	-1.3948	-1.4217	388.34	.52317	-.53238	-183.39
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.00000	.00000	.00000	.00000	.00000	.00000	.00000
Range	10.000	25.000	100.00	5000.0	5000.0	15.000	5000.0

Elem	Ni	Pb	Sb	Ti	V	Zn
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	-.89610	11.260	17.004	-.61603	-.65561	4.2090
SDev	4.06752	6.089	27.010	.49770	1.53492	1.7204
%RSD	-453.91	54.078	158.85	-80.792	-234.12	40.873
#1	2.8544	11.120	35.798	-.96788	-2.8439	3.8408
#2	1.9918	11.902	42.962	-.96788	-.51045	3.1215
#3	-5.8267	18.449	-14.322	.08791	.07363	6.7398
#4	-2.6039	3.5705	3.5768	-.61627	.65829	3.1339
Errors	QC Pass	QC Pass	QC Pass	NOCHECK	QC Pass	QC Pass
Value	.00000	.00000	.00000		.00000	.00000
Range	40.000	33.000	60.000		50.000	20.000

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Analysis Report Thu 12-27-90 10:22:00 AM page 1

Method: CLP Sample Name: MEK899F Operator: KS
Run Time: 12/27/90 10:17:31 mo 12/27
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	Ba	Be	Ca	Cd	Co
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	2.7495	24422.	15511.	1.5386	6487.8	1.6759	30.441
SDev	.9155	82.	61.	.0040	16.3	1.3450	2.279
%RSD	33.296	.33625	.39479	.25990	.25122	80.251	7.4860
#1	4.0617	24335.	15446.	1.5339	6470.5	3.5209	31.230
#2	2.5242	24393.	15491.	1.5367	6484.1	.37016	31.229
#3	1.9313	24530.	15593.	1.5415	6509.8	1.1126	32.211
#4	2.4807	24432.	15512.	1.5423	6486.9	1.7001	27.094
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	55000.	600000.	55000.	5500.0	500000.	5000.0	55000.
Low	-10.000	-200.00	-200.00	-5.0000	-5000.0	-5.0000	-50.000

Elem	Cr	Cu	Fe	K	Mg	Mn	Na
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	121.21	71.144	30326.	3154.6	3580.9	639.12	18649.
SDev	1.25	2.171	127.	417.5	14.6	2.77	116.
%RSD	1.0320	3.0512	.41914	13.235	.40822	.43375	.62432
#1	121.64	74.153	30169.	3569.5	3584.6	635.93	18506.
#2	122.78	71.223	30310.	3399.3	3568.5	638.32	18761.
#3	120.35	69.988	30478.	2633.3	3600.0	642.58	18605.
#4	120.07	69.211	30346.	3016.3	3570.5	639.65	18724.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	55000.	45000.	450000.	600000.	600000.	55000.	600000.
Low	-10.000	-25.000	-100.00	-5000.0	-5000.0	-15.000	-5000.0

Elem	Ni	Pb	Sb	Ti	V	Zn
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	16.417	173.78	41.616	375.19	44.976	721.31
SDev	5.998	12.65	17.906	3.55	1.657	8.23
%RSD	36.535	7.2792	43.026	.94626	3.6831	1.1411
#1	19.389	189.44	43.335	377.39	46.919	710.95
#2	22.598	177.68	21.941	375.80	45.778	723.54
#3	14.921	167.80	64.921	370.00	43.761	730.76
#4	8.7584	160.22	36.265	377.56	43.447	719.99
Errors	LC Pass	LC Pass	LC Pass	NOCHECK	LC Pass	LC Pass
High	55000.	50000.	50000.		55000.	55000.
Low	-40.000	-56.000	-60.000		-50.000	-20.000

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Analysis Report Thu 12-27-90 10:26:40 AM page 1

Method: CLP Sample Name: MBK900 Operator: KS
Run Time: 12/27/90 10:22:11
Comment:
Mode: CONC Corr. Factor: 1

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Elem	Ag	Al	Ba	Be	Ca	Cd	Co
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	9.5895	36128.	37276.	2.4402	S65325.	19.426	69.101
SDev	1.5113	69.	158.	.0541	10.	2.208	2.004
%RSD	15.760	.19019	.42269	2.2185	.01531	11.366	2.9002
#1	8.6501	36145.	37375.	2.4146	S65339.	16.241	69.618
#2	10.149	36045.	37105.	2.4146	S65324.	19.802	67.403
#3	8.1085	36210.	37440.	2.4103	S65321.	21.276	71.716
#4	11.450	36113.	37185.	2.5214	S65316.	20.384	67.666
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	55000.	600000.	55000.	5500.0	500000.	5000.0	55000.
Low	-10.000	-200.00	-200.00	-5.0000	-5000.0	-5.0000	-50.000

Elem	Cr	Cu	Fe	K	Mg	Mn	Na
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	626.34	217.52	64306.	3753.1	10077.	2194.6	8457.1
SDev	3.29	.66	106.	491.3	21.	2.8	25.5
%RSD	.52485	.30382	.16423	13.090	.20441	.12811	.30208
#1	621.74	217.42	64182.	3261.0	10046.	2190.9	8420.9
#2	627.59	217.03	64257.	3452.5	10081.	2193.8	8464.8
#3	626.58	218.49	64414.	3952.5	10089.	2197.0	8462.1
#4	629.44	217.16	64370.	4346.2	10090.	2196.5	8480.8
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	55000.	45000.	450000.	600000.	600000.	55000.	600000.
Low	-10.000	-25.000	-100.00	-5000.0	-5000.0	-15.000	-5000.0

Elem	Ni	Pb	Sb	Ti	V	Zn
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	46.564	991.59	89.706	287.52	63.091	2534.0
SDev	6.559	23.11	5.388	1.19	1.569	6.5
%RSD	14.086	2.3302	6.0058	.41315	2.4867	.25682
#1	38.362	1019.2	85.168	286.77	61.822	2524.4
#2	44.200	978.04	92.391	286.42	61.845	2535.9
#3	52.283	1001.3	95.998	289.06	63.621	2536.9
#4	51.411	967.87	85.269	287.82	65.076	2538.7
Errors	LC Pass	LC Pass	LC Pass	NOCHECK	LC Pass	LC Pass
High	55000.	50000.	50000.		55000.	55000.
Low	-40.000	-56.000	-60.000		-50.000	-20.000

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Analysis Report Thu 12-27-90 10:31:21 AM page 1

Method: CLP Sample Name: MBK901F Operator: KS
Run Time: 12/27/90 10:26:51 mo 12/27
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	Ba	Be	Ca	Cd	Co
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	7.0854	29487.	29604.	2.2097	31492.	16.388	53.998
SDev	.5559	88.	117.	.1435	51.	1.361	2.103
%RSD	7.8457	.29796	.39568	6.4941	.16302	8.3060	3.8938
#1	6.9440	29545.	29653.	2.0696	31516.	15.450	56.203
#2	6.3581	29578.	29747.	2.4105	31541.	17.233	51.166
#3	7.5400	29401.	29504.	2.1786	31492.	15.027	54.613
#4	7.4994	29423.	29513.	2.1800	31421.	17.842	54.009
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	55000.	600000.	55000.	5500.0	500000.	5000.0	55000.
Low	-10.000	-200.00	-200.00	-5.0000	-5000.0	-5.0000	-50.000

Elem	Cr	Cu	Fe	K	Mg	Mn	Na
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	1219.9	197.09	54528.	4346.2	4166.9	1532.8	11253.
SDev	2.6	1.68	148.	241.2	6.9	5.0	57.
%RSD	.21429	.85022	.27079	5.5500	.16603	.32702	.50402
#1	1218.2	199.25	54546.	4027.0	4173.2	1531.8	11314.
#2	1223.8	197.57	54722.	4612.2	4165.9	1540.0	11289.
#3	1219.1	195.84	54472.	4356.8	4170.8	1530.7	11207.
#4	1218.5	195.69	54372.	4388.8	4157.5	1528.6	11202.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	55000.	45000.	450000.	600000.	600000.	55000.	600000.
Low	-10.000	-25.000	-100.00	-5000.0	-5000.0	-15.000	-5000.0

Elem	Ni	Pb	Sb	Ti	V	Zn
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	35.399	643.55	83.035	422.56	63.651	4325.5
SDev	6.228	8.35	25.739	3.08	.987	8.6
%RSD	17.593	1.2968	30.999	.72810	1.5500	.19776
#1	33.114	643.67	49.027	426.52	62.338	4316.6
#2	31.226	653.84	106.38	423.17	63.545	4330.8
#3	32.591	633.41	77.661	421.24	64.661	4334.6
#4	44.663	643.29	99.069	419.30	64.059	4320.1
Errors	LC Pass	LC Pass	LC Pass	NOCHECK	LC Pass	LC Pass
High	55000.	50000.	50000.		55000.	55000.
Low	-40.000	-56.000	-60.000		-50.000	-20.000

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Analysis Report Thu 12-27-90 10:36:01 AM

Method: CLP Sample Name: MEK902F Operator: KS
Run Time: 12/27/90 10:31:31 mo 12/27
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	Ba	Be	Ca	Cd	Co
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	3.8095	47688.	37756.	2.7526	157920.	6.3382	57.069
SDev	.8916	195.	199.	.0571	430.	1.0084	1.920
%RSD	23.404	.40793	.52743	2.0746	.27239	15.910	3.3636
#1	3.5443	47854.	37929.	2.6670	158180.	5.7586	55.828
#2	4.1507	47561.	37607.	2.7817	157620.	5.3320	55.224
#3	2.7238	47855.	37927.	2.7802	158370.	6.6593	59.432
#4	4.8191	47482.	37562.	2.7817	157480.	7.6028	57.792
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	55000.	600000.	55000.	5500.0	500000.	5000.0	55000.
Low	-10.000	-200.00	-200.00	-5.0000	-5000.0	-5.0000	-50.000

Elem	Cr	Cu	Fe	K	Mg	Mn	Na
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	1913.1	115.63	42974.	7865.2	14919.	2906.2	87526.
SDev	7.6	1.31	129.	319.0	42.	9.4	779.
%RSD	.39477	1.1348	.29935	4.0557	.27941	.32271	.88991
#1	1916.2	117.58	43095.	8165.8	14956.	2914.0	88293.
#2	1907.2	114.85	42892.	7633.8	14893.	2902.1	86559.
#3	1922.3	114.87	43072.	7548.7	14952.	2913.8	87999.
#4	1906.6	115.24	42838.	8112.6	14873.	2894.9	87253.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	55000.	45000.	450000.	600000.	600000.	55000.	600000.
Low	-10.000	-25.000	-100.00	-5000.0	-5000.0	-15.000	-5000.0

Elem	Ni	Pb	Sb	Ti	V	Zn
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	35.385	349.85	63.225	426.29	52.332	1268.2
SDev	9.898	19.74	17.906	4.70	.315	7.0
%RSD	27.972	5.6424	28.321	1.1028	.60115	.55533
#1	41.858	340.49	72.163	429.50	52.213	1270.3
#2	45.256	337.70	72.181	422.99	52.162	1270.3
#3	23.972	379.35	36.366	431.08	52.803	1274.0
#4	30.454	341.88	72.188	421.58	52.152	1257.9
Errors	LC Pass	LC Pass	LC Pass	NOCHECK	LC Pass	LC Pass
High	55000.	50000.	50000.		55000.	55000.
Low	-40.000	-56.000	-60.000		-50.000	-20.000

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Analysis Report Thu 12-27-90 10:40:41 AM page 1

Method: CLP Sample Name: MBLK902D Operator: KS
Run Time: 12/27/90 10:36:12
Comment:
Mode: CONC Corr. Factor: 1

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Elem	Ag	Al	Ba	Be	Ca	Cd	Co
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	2.6909	28955.	24915.	2.4332	38535.	2.6278	40.220
SDev	.7240	63.	75.	.1546	55.	1.0796	1.794
%RSD	26.905	.21734	.30047	6.3556	.14216	41.085	4.4604
#1	2.8498	28884.	24858.	2.5877	38461.	1.7460	39.626
#2	2.9388	29033.	24968.	2.3626	38592.	2.1010	42.544
#3	3.3250	28970.	24989.	2.5317	38551.	2.4810	40.450
#4	1.6499	28931.	24842.	2.2510	38535.	4.1835	38.259
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	55000.	600000.	55000.	5500.0	500000.	5000.0	55000.
Low	-10.000	-200.00	-200.00	-5.0000	-5000.0	-5.0000	-50.000

Elem	Cr	Cu	Fe	K	Mg	Mn	Na
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	1877.8	93.024	29936.	6819.9	4271.4	704.99	79335.
SDev	4.6	.607	75.	446.5	9.8	2.31	607.
%RSD	.24414	.65263	.24897	6.5467	.22897	.32746	.76489
#1	1876.2	93.847	29884.	7123.1	4271.1	702.86	78790.
#2	1880.2	93.036	30010.	6612.4	4281.2	707.11	79891.
#3	1882.5	92.810	29989.	7250.8	4275.3	706.85	79828.
#4	1872.1	92.405	29861.	6293.2	4258.1	703.12	78830.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	55000.	45000.	450000.	600000.	600000.	55000.	600000.
Low	-10.000	-25.000	-100.00	-5000.0	-5000.0	-15.000	-5000.0

Elem	Ni	Pb	Sb	Ti	V	Zn
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	25.810	187.67	35.721	231.23	36.307	636.63
SDev	8.726	13.14	23.652	3.00	1.300	5.92
%RSD	33.808	7.0039	66.213	1.2977	3.5817	.92971
#1	29.752	206.19	5.2964	228.72	37.608	629.90
#2	16.324	187.71	62.571	231.36	35.887	644.33
#3	21.250	177.14	33.955	235.41	37.054	636.17
#4	35.915	179.63	41.060	229.42	34.681	636.12
Errors	LC Pass	LC Pass	LC Pass	NOCHECK	LC Pass	LC Pass
High	55000.	50000.	50000.		55000.	55000.
Low	-40.000	-56.000	-60.000		-50.000	-20.000

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Analysis Report Thu 12-27-90 10:45:21 AM page 1

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Method: CLP Sample Name: MBK902L Operator: KS
Run Time: 12/27/90 10:40:52 m. 12/27
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	Ba	Be	Ca	Cd	Co
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	1.0078	9901.4	7647.7	.51722	32907.	1.3662	12.161
SDev	1.3750	19.3	26.3	.13174	105.	2.2017	2.111
%RSD	136.43	.19485	.34443	25.471	.31895	161.16	17.357
#1	2.9131	9912.4	7630.1	.69812	32926.	-.26592	13.564
#2	.54744	9879.4	7624.7	.42016	32754.	.91398	9.0947
#3	-.34135	9922.0	7682.5	.53188	32976.	4.5880	13.547
#4	.91215	9891.9	7653.4	.41871	32974.	.22866	12.438
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	55000.	600000.	55000.	5500.0	500000.	5000.0	55000.
Low	-10.000	-200.00	-200.00	-5.0000	-5000.0	-5.0000	-50.000

Elem	Cr	Cu	Fe	K	Mg	Mn	Na
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	401.50	20.380	9007.9	1734.2	3123.5	607.26	18069.
SDev	3.30	1.481	37.1	439.9	37.3	2.23	35.
%RSD	.82295	7.2660	.41131	25.367	1.1942	.36756	.19589
#1	405.71	22.373	9010.5	2175.8	3166.0	608.19	18114.
#2	397.72	20.625	8955.0	1271.4	3075.3	603.93	18080.
#3	400.72	19.127	9038.2	2037.5	3129.9	608.19	18049.
#4	401.86	19.393	9027.8	1452.3	3122.8	608.72	18034.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	55000.	45000.	450000.	600000.	600000.	55000.	600000.
Low	-10.000	-25.000	-100.00	-5000.0	-5000.0	-15.000	-5000.0

Elem	Ni	Pb	Sb	Ti	V	Zn
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	4.2678	89.009	19.846	87.092	11.212	322.91
SDev	6.0345	9.598	14.775	.932	1.542	5.52
%RSD	141.40	10.783	74.450	1.0700	13.749	1.7108
#1	13.028	94.950	.13486	86.563	13.407	326.05
#2	-.61376	94.445	21.638	88.325	9.8837	315.30
#3	1.5676	74.753	21.642	87.268	11.070	322.50
#4	3.0895	91.888	35.969	86.212	10.487	327.77
Errors	LC Pass	LC Pass	LC Pass	NOCHECK	LC Pass	LC Pass
High	55000.	50000.	50000.		55000.	55000.
Low	-40.000	-56.000	-60.000		-50.000	-20.000

Analysis Report Thu 12-27-90 10:50:02 AM page 1

Method: CLP Sample Name: MBK902S F Operator: KS
Run Time: 12/27/90 10:45:32 MO
Comment: 12/27
Mode: CONC Corr. Factor: 1

Elem	Ag ✓	Al	Ba ✓	Be ✓	Ca	Cd ✓	Co ✓
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	37.457	54159.	37425.	54.236	75729.	65.573	549.40
SDev	2.598	345.	187.	.429	591.	3.292	4.46
%RSD	6.9364	.63754	.50006	.79147	.78027	5.0206	.81156
#1	34.077	53716.	37219.	53.661	74958.	62.306	543.96
#2	40.301	54054.	37319.	54.163	75576.	69.998	549.17
#3	37.182	54435.	37613.	54.615	76219.	65.888	554.88
#4	38.271	54431.	37552.	54.506	76164.	64.102	549.60
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	55000.	600000.	55000.	5500.0	500000.	5000.0	55000.
Low	-10.000	-200.00	-200.00	-5.0000	-5000.0	-5.0000	-50.000

Elem	Cr ✓	Cu ✓	Fe	K	Mg	Mn ✓	Na
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	1555:5	365.77	55029.	7867.9	7379.9	1532.9	83944.
SDev	12.7	2.07	312.	297.5	64.1	8.2	920.
%RSD	.81340	.56580	.56662	3.7815	.86916	.53626	1.0962
#1	1540.6	362.81	54640.	7570.0	7288.6	1522.4	82709.
#2	1549.5	367.55	54916.	7963.6	7381.9	1530.4	84087.
#3	1567.0	366.71	55296.	8240.2	7427.3	1540.3	84937.
#4	1565.0	365.99	55266.	7697.6	7421.9	1538.7	84043.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	55000.	45000.	450000.	600000.	600000.	55000.	600000.
Low	-10.000	-25.000	-100.00	-5000.0	-5000.0	-15.000	-5000.0

Elem	Ni ✓	Pb	Sb ✓	Ti	V ✓	Zn ✓
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	550.75	679.01	122.50	519.21	554.27	1382.3
SDev	8.84	30.64	9.42	3.42	3.42	12.3
%RSD	1.6054	4.5122	7.6905	.65914	.61763	.88870
#1	555.01	643.32	109.07	514.60	549.43	1366.1
#2	541.28	678.45	126.94	518.64	554.75	1380.5
#3	545.83	676.09	123.43	521.63	557.47	1387.7
#4	560.87	718.17	130.58	521.98	555.42	1394.8
Errors	LC Pass	LC Pass	LC Pass	NOCHECK	LC Pass	LC Pass
High	55000.	50000.	50000.		55000.	55000.
Low	-40.000	-56.000	-60.000		-50.000	-20.000

Analysis Report QC Standard Thu 12-27-90 10:54:45 AM page 1

Method: CLP Sample Name: CCV2 Operator: KS
Run Time: 12/27/90 10:50:14
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	Ba	Be	Ca	Cd	Co
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	1280.4	9858.0	10106.	259.89	25532.	236.23	2520.6
SDev	36.4	303.3	382.	9.51	781.	6.76	76.2
%RSD	2.8441	3.0768	3.7823	3.6578	3.0602	2.8601	3.0228
#1	1311.4	10127.	10405.	267.06	26126.	241.61	2584.2
#2	1312.4	10114.	10466.	269.08	26286.	242.45	2588.6
#3	1248.3	9592.8	9752.0	250.87	24822.	231.48	2460.4
#4	1249.4	9597.9	9799.8	252.55	24894.	229.39	2449.0
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	1250.0	10000.	10000.	250.00	25000.	250.00	2500.0
Range	10.000	10.000	10.000	10.000	10.000	10.000	10.000

Elem	Cr	Cu	Fe	K	Mg	Mn	Na
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	518.30	1269.3	4991.7	25761.	25423.	766.38	25787.
SDev	14.26	42.2	161.9	707.	771.	24.73	972.
%RSD	2.7520	3.3246	3.2428	2.7434	3.0335	3.2263	3.7680
#1	531.22	1303.9	5122.9	26444.	26026.	785.73	26420.
#2	529.79	1307.7	5140.6	26285.	26153.	789.73	26810.
#3	503.47	1230.3	4851.1	25040.	24728.	743.96	25041.
#4	508.74	1235.4	4852.3	25274.	24786.	746.09	24877.
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	500.00	1250.0	5000.0	25000.	25000.	750.00	25000.
Range	10.000	10.000	10.000	10.000	10.000	10.000	10.000

Elem	Ni	Pb	Sb	Ti	V	Zn
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	2093.0	933.10	2531.5	-3.0398	2508.1	980.18
SDev	51.9	37.66	65.2	1.5365	88.9	24.57
%RSD	2.4808	4.0361	2.5743	-50.545	3.5462	2.5065
#1	2139.0	972.23	2550.8	-2.5153	2577.4	1005.7
#2	2135.3	957.77	2615.1	-5.3306	2592.0	996.74
#3	2036.7	907.57	2487.3	-2.1560	2424.2	959.18
#4	2061.1	0894.84	2473.0	-2.1574	2438.5	959.11
Errors	QC Pass	QC Pass	QC Pass	NOCHECK	QC Pass	QC Pass
Value	2000.0	1000.0	2500.0		2500.0	1000.0
Range	10.000	10.000	10.000		10.000	10.000

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Analysis Report QC Standard Thu 12-27-90 10:59:28 AM page 1

Method: CLP Sample Name: CCB2 Operator: KS
Run Time: 12/27/90 10:54:57
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	Ba	Be	Ca	Cd	Co
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	.11109	24.972	4.6129	.04401	-1.9547	-.24586	.47837
SDev	2.2403	16.769	1.1130	.00425	4.5497	1.61621	1.0275
%RSD	2016.8	67.150	24.127	9.6478	-232.76	-657.36	214.79
#1	2.2700	19.013	6.0747	.03854	4.5834	-1.7026	.05832
#2	.05617	34.904	4.8859	.04772	-5.3922	.08840	-.20815
#3	-2.9633	4.2570	3.7455	.04700	-4.6732	-1.2614	.05514
#4	1.0814	41.714	3.7455	.04278	-2.3366	1.8922	2.0082
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.00000	.00000	.00000	.00000	.00000	.00000	.00000
Range	10.000	200.00	200.00	5.0000	5000.0	5.0000	50.000

Elem	Cr	Cu	Fe	K	Mg	Mn	Na
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	-1.2140	-3.2321	48.238	-484.09	2.1328	.79775	595.76
SDev	1.9473	1.6903	.810	369.28	9.2408	.53252	55.66
%RSD	-160.40	-52.298	1.6784	-76.282	433.27	66.752	9.3435
#1	.89024	-1.6990	49.305	58.516	5.5509	1.5965	540.84
#2	-3.8182	-3.1396	48.357	-760.72	7.7580	.53123	576.79
#3	-.82048	-5.6088	47.883	-579.85	-11.661	.53224	592.77
#4	-1.1076	-2.4812	47.409	-654.33	6.8836	.53101	672.64
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.00000	.00000	.00000	.00000	.00000	.00000	.00000
Range	10.000	25.000	100.00	5000.0	5000.0	15.000	5000.0

Elem	Ni	Pb	Sb	Ti	V	Zn
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	-11.199	2.2072	26.859	-.39563	-.43125	-1.1759
SDev	4.718	24.950	25.043	.63265	1.75894	1.4536
%RSD	-42.125	1130.4	93.242	-159.91	-407.87	-123.62
#1	-6.0836	18.106	57.273	-.26420	1.8331	-3.0898
#2	-12.101	5.2217	35.800	.08899	-1.9670	-1.3873
#3	-9.3756	Q-33.960	.03700	-1.3196	-1.6703	-.54495
#4	-17.238	19.461	14.324	-.08770	.07924	.31847
Errors	QC Pass	QC Pass	QC Pass	NOCHECK	QC Pass	QC Pass
Value	.00000	.00000	.00000		.00000	.00000
Range	40.000	33.000	60.000		50.000	20.000

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Analysis Report Thu 12-27-90 11:05:28 AM page 1

Method: CLP Sample Name: MEK902A F Operator: KS
Run Time: 12/27/90 11:01:24 mo 12/27
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	Ba	Be	Ca	Cd	Co
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	3.8582	46774.	37260.	4.2924	157610.	8.5458	59.718
SDev	1.1547	220.	259.	.2328	549.	.7557	1.017
%RSD	29.929	.47005	.69411	5.4246	.34819	8.8435	1.7029
#1	3.1958	46832.	37419.	4.0932	157690.	8.6311	58.902
#2	5.4423	46607.	36971.	4.1457	157300.	9.5702	61.013
#3	3.9572	47061.	37529.	4.3209	158340.	8.1341	58.910
#4	2.8374	46597.	37120.	4.6096	157090.	7.8477	60.047
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	55000.	600000.	55000.	5500.0	500000.	5000.0	55000.
Low	-10.000	-200.00	-200.00	-5.0000	-5000.0	-5.0000	-50.000

Elem	Cr	Cu	Fe	K	Mg	Mn	Na
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	1903.1	137.34	42577.	8660.5	14750.	2879.1	87698.
SDev	8.7	2.96	172.	189.0	54.	11.6	489.
%RSD	.45534	2.1557	.40486	2.1827	.36712	.40337	.55796
#1	1906.4	135.33	42640.	8484.9	14755.	2883.4	88000.
#2	1897.7	135.23	42369.	8527.5	14694.	2864.8	87406.
#3	1913.8	137.23	42775.	8889.2	14822.	2892.2	88214.
#4	1894.7	141.56	42526.	8740.3	14727.	2876.0	87173.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	55000.	45000.	450000.	600000.	600000.	55000.	600000.
Low	-10.000	-25.000	-100.00	-5000.0	-5000.0	-15.000	-5000.0

Elem	Ni	Pb	Sb	Ti	V	Zn
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	49.612	363.65	160.03	421.19	55.310	3798.5
SDev	9.593	11.78	6.83	4.01	1.021	11.6
%RSD	19.337	3.2397	4.2673	.95125	1.8461	.30575
#1	39.349	350.15	151.10	422.29	54.743	3795.0
#2	45.335	378.90	165.37	417.36	56.723	3784.2
#3	52.045	362.75	165.37	426.33	55.362	3811.1
#4	61.718	362.82	158.29	418.77	54.411	3803.8
Errors	LC Pass	LC Pass	LC Pass	NOCHECK	LC Pass	LC Pass
High	55000.	50000.	50000.		55000.	55000.
Low	-40.000	-56.000	-60.000		-50.000	-20.000

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Method: CLP Sample Name: MEK900 1:1 Operator: KS
Run Time: 12/27/90 11:06:25
Comment:
Mode: CONC Corr. Factor: 1

F
MD
12/27

Elem	Ag	Al	Ba	Be	Ca	Cd	Co
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	3.6138	18140.	18724.	1.6826	223440.	10.566	38.109
SDev	.9730	98.	110.	.0008	1261.	.666	2.467
%RSD	26.924	.53888	.58587	.04502	.56420	6.2990	6.4734
#1	4.4868	18136.	18656.	1.6830	223370.	10.131	38.019
#2	2.7691	18244.	18835.	1.6829	224630.	10.532	41.581
#3	2.7738	18171.	18797.	1.6815	224040.	11.517	35.930
#4	4.4253	18010.	18607.	1.6831	221720.	10.083	36.907
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	55000.	600000.	55000.	5500.0	500000.	5000.0	55000.
Low	-10.000	-200.00	-200.00	-5.0000	-5000.0	-5.0000	-50.000

Elem	Cr	Cu	Fe	K	Mg	Mn	Na
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	325.57	125.53	33366.	2409.8	5175.1	1150.0	5823.5
SDev	2.54	.58	197.	243.7	33.9	6.7	46.3
%RSD	.77870	.46549	.58932	10.113	.65438	.58300	.79456
#1	324.00	125.90	33310.	2335.4	5170.9	1149.9	5796.9
#2	328.13	124.95	33516.	2250.2	5211.5	1155.7	5799.5
#3	327.27	125.12	33526.	2282.2	5186.9	1153.6	5804.8
#4	322.86	126.15	33112.	2771.6	5130.9	1140.6	5892.7
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	55000.	45000.	450000.	600000.	600000.	55000.	600000.
Low	-10.000	-25.000	-100.00	-5000.0	-5000.0	-15.000	-5000.0

Elem	Ni	Pb	Sb	Ti	V	Zn
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	35.824	511.29	58.476	149.89	32.797	1362.1
SDev	4.563	15.21	28.985	.46	.314	9.3
%RSD	12.737	2.9750	49.568	.30874	.95675	.68150
#1	34.173	532.98	43.237	149.41	32.639	1372.9
#2	39.414	504.34	100.56	150.29	32.682	1365.7
#3	39.597	498.16	36.191	149.58	33.266	1358.5
#4	30.113	509.67	53.918	150.29	32.603	1351.4
Errors	LC Pass	LC Pass	LC Pass	NOCHECK	LC Pass	LC Pass
High	55000.	50000.	50000.		55000.	55000.
Low	-40.000	-56.000	-60.000		-50.000	-20.000

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Analysis Report Thu 12-27-90 11:15:46 AM page 1

Method: CLP Sample Name: ICSAF Operator: KS
Run Time: 12/27/90 11:11:16
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	Ba	Be	Ca	Cd	Co
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	8.1515	463320.	14.785	.19074	565105.	-.73821	57.425
SDev	1.7671	2108.	.924	.09539	8.	2.17259	1.290
%RSD	21.679	.45496	6.2517	50.010	.01299	-294.30	2.2471
#1	5.9563	466120.	15.392	.18729	565106.	-1.9584	57.160
#2	10.232	463750.	15.343	.19032	565103.	-2.0823	55.834
#3	8.5363	461450.	14.979	.30945	565096.	-1.4025	57.773
#4	7.8812	461970.	13.426	.07589	565116.	2.4904	58.933
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	55000.	600000.	55000.	5500.0	500000.	5000.0	55000.
Low	-10.000	-200.00	-200.00	-5.0000	-5000.0	-5.0000	-50.000

Elem	Cr	Cu	Fe	K	Mg	Mn	Na
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	14.995	L-31.224	170350.	-396.32	476730.	62.239	276.91
SDev	1.280	.666	548.	336.38	1298.	.507	22.91
%RSD	8.5335	-2.1314	.32186	-84.876	.27223	.81387	8.2750
#1	13.607	L-31.304	171030.	-345.78	478100.	61.814	242.63
#2	16.661	L-30.461	170500.	-430.90	477310.	62.957	290.56
#3	15.150	L-31.061	169730.	5.3192	475070.	61.968	286.56
#4	14.562	L-32.069	170150.	-813.92	476450.	62.217	287.90
Errors	LC Pass	LC Low	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	55000.	45000.	450000.	600000.	600000.	55000.	600000.
Low	-10.000	-25.000	-100.00	-5000.0	-5000.0	-15.000	-5000.0

Elem	Ni	Pb	Sb	Ti	V	Zn
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	75.470	L-98.695	192.94	-52.970	-13.746	5.6326
SDev	7.929	15.813	14.45	1.154	1.292	.9444
%RSD	10.506	-16.022	7.4897	-2.1786	-9.3987	16.766
#1	77.081	L-98.316	204.09	-54.641	-12.319	7.0357
#2	82.555	L-92.876	176.46	-52.530	-13.572	5.3259
#3	64.122	L-120.46	185.21	-52.706	-15.457	5.1604
#4	78.121	L-83.127	206.00	-52.002	-13.635	5.0083
Errors	LC Pass	LC Low	LC Pass	NOCHECK	LC Pass	LC Pass
High	55000.	50000.	50000.		55000.	55000.
Low	-40.000	-56.000	-60.000		-50.000	-20.000

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Analysis Report Thu 12-27-90 11:20:28 AM page 1

Method: CLP Sample Name: ICSAF 1:1 Operator: KS
Run Time: 12/27/90 11:15:57
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	Ba	Be	Ca	Cd	Co
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	4.4235	231790.	7.6275	.09940	228160.	-1.0895	26.388
SDev	1.3717	757.	.6339	.08661	725.	1.2595	1.750
%RSD	31.009	.32651	8.3111	87.129	.31788	-115.60	6.6303
#1	4.6991	231390.	8.4039	.05513	227480.	-2.0027	24.119
#2	2.5333	232060.	7.6275	.17231	228320.	-1.0302	26.525
#3	5.8190	231000.	7.6275	.17115	227720.	.67096	28.388
#4	4.6427	232720.	6.8511	-.00099	229110.	-1.9963	26.518
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	55000.	600000.	55000.	5500.0	500000.	5000.0	55000.
Low	-10.000	-200.00	-200.00	-5.0000	-5000.0	-5.0000	-50.000

Elem	Cr	Cu	Fe	K	Mg	Mn	Na
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	8.8749	-17.564	88658.	-218.11	238800.	35.474	147.11
SDev	1.2599	.732	341.	215.08	821.	.025	25.64
%RSD	14.197	-4.1653	.38422	-98.612	.34365	.07040	17.429
#1	10.742	-16.866	88378.	90.435	238030.	35.487	142.78
#2	8.2950	-18.216	88938.	-409.62	239480.	35.465	136.13
#3	8.4673	-16.999	88349.	-271.31	238140.	35.500	184.05
#4	7.9953	-18.176	88968.	-281.95	239530.	35.443	125.48
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	55000.	45000.	450000.	600000.	600000.	55000.	600000.
Low	-10.000	-25.000	-100.00	-5000.0	-5000.0	-15.000	-5000.0

Elem	Ni	Pb	Sb	Ti	V	Zn
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	30.796	L-78.340	123.41	-27.277	-5.5754	2.3566
SDev	6.186	26.876	27.04	.601	.4406	.9371
%RSD	20.087	-34.307	21.911	-2.2021	-7.9029	39.766
#1	26.978	L-64.044	119.32	-27.016	-5.0373	1.8906
#2	39.324	-51.295	100.75	-27.365	-6.1114	3.7622
#3	31.304	L-85.289	162.33	-26.661	-5.6296	1.8753
#4	25.577	L-112.73	111.22	-28.069	-5.5233	1.8983
Errors	LC Pass	LC Low	LC Pass	NOCHECK	LC Pass	LC Pass
High	55000.	50000.	50000.		55000.	55000.
Low	-40.000	-56.000	-60.000		-50.000	-20.000

Analysis Report Thu 12-27-90 11:25:09 AM page 1

Method: CLP Sample Name: ICSABF Operator: KS
Run Time: 12/27/90 11:20:40
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	Ba	Be	Ca	Cd	Co
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	928.84	457990.	457.50	484.10	565174.	856.54	481.27
SDev	3.88	2309.	3.03	3.45	7.	6.47	1.84
%RSD	.41721	.50408	.66228	.71205	.01011	.75577	.38183
#1	931.77	457910.	457.50	482.75	565178.	854.69	483.80
#2	924.29	456360.	455.56	483.50	565179.	851.79	481.44
#3	932.33	461280.	461.77	489.05	565164.	866.08	480.02
#4	926.96	456410.	455.15	481.10	565174.	853.59	479.81
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	55000.	600000.	55000.	5500.0	500000.	5000.0	55000.
Low	-10.000	-200.00	-200.00	-5.0000	-5000.0	-5.0000	-50.000

Elem	Cr	Cu	Fe	K	Mg	Mn	Na
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	508.62	451.13	169490.	-359.08	473570.	493.05	274.92
SDev	4.78	1.88	809.	682.99	2184.	1.91	21.45
%RSD	.93964	.41748	.47752	-190.21	.46108	.38639	7.8022
#1	510.15	451.97	169410.	367.06	473200.	492.52	294.55
#2	508.19	449.48	168990.	79.795	472030.	492.04	265.26
#3	513.78	453.39	170660.	-920.31	476750.	495.87	290.56
#4	502.34	449.68	168910.	-962.87	472280.	491.77	249.29
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	55000.	45000.	450000.	600000.	600000.	55000.	600000.
Low	-10.000	-25.000	-100.00	-5000.0	-5000.0	-15.000	-5000.0

Elem	Ni	Pb	Sb	Ti	V	Zn
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	931.13	4112.3	223.21	-51.871	396.25	921.56
SDev	9.70	38.0	33.94	1.199	3.01	3.25
%RSD	1.0419	.92363	15.206	-2.3107	.75854	.35278
#1	939.79	4132.1	215.34	-50.728	395.73	922.96
#2	930.89	4057.9	184.08	-51.783	393.90	917.26
#3	917.64	4115.8	227.25	-53.545	400.62	921.12
#4	936.18	4143.4	266.19	-51.430	394.76	924.88
Errors	LC Pass	LC Pass	LC Pass	NOCHECK	LC Pass	LC Pass
High	55000.	50000.	50000.		55000.	55000.
Low	-40.000	-56.000	-60.000		-50.000	-20.000

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Analysis Report Thu 12-27-90 11:29:51 AM page 1

Method: CLP Sample Name: ICSABF 1:1 Operator: KS
Run Time: 12/27/90 11:25:20
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	Ba	Be	Ca	Cd	Co
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	475.86	230260.	233.10	250.11	227130.	413.54	251.27
SDev	2.80	1637.	2.36	2.42	1413.	3.55	3.43
%RSD	.58919	.71087	1.0140	.96905	.62204	.85798	1.3658
#1	475.98	230960.	234.34	251.17	227480.	408.97	251.68
#2	472.67	228250.	230.41	247.34	225590.	414.25	249.23
#3	475.31	229770.	231.96	249.06	226550.	413.35	248.24
#4	479.47	232070.	235.68	252.89	228900.	417.58	255.94
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	55000.	600000.	55000.	5500.0	500000.	5000.0	55000.
Low	-10.000	-200.00	-200.00	-5.0000	-5000.0	-5.0000	-50.000

Elem	Cr	Cu	Fe	K	Mg	Mn	Na
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	266.18	232.41	88414.	-178.21	238080.	258.39	218.33
SDev	1.32	.83	525.	208.20	1305.	1.48	16.10
%RSD	.49632	.35513	.59414	-116.83	.54797	.57121	7.3740
#1	266.13	232.67	88609.	37.238	238550.	259.10	194.70
#2	264.77	231.36	87832.	-207.47	236560.	257.06	225.32
#3	265.87	232.26	88173.	-90.436	237610.	257.28	230.65
#4	267.96	233.33	89041.	-452.18	239610.	260.13	222.66
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	55000.	45000.	450000.	600000.	600000.	55000.	600000.
Low	-10.000	-25.000	-100.00	-5000.0	-5000.0	-15.000	-5000.0

Elem	Ni	Pb	Sb	Ti	V	Zn
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	477.20	2139.4	143.57	-26.511	206.95	476.50
SDev	8.37	19.3	13.91	.599	1.92	3.39
%RSD	1.7544	.90305	9.6914	-2.2604	.93000	.71227
#1	472.16	2129.2	126.17	-26.731	208.37	471.55
#2	475.37	2139.0	138.52	-26.026	204.73	478.73
#3	471.76	2122.9	155.49	-26.027	205.96	477.05
#4	489.53	2166.6	154.08	-27.259	208.74	478.68
Errors	LC Pass	LC Pass	LC Pass	NOCHECK	LC Pass	LC Pass
High	55000.	50000.	50000.		55000.	55000.
Low	-40.000	-56.000	-60.000		-50.000	-20.000

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Analysis Report Thu 12-27-90 11:34:34 AM page 1

Method: CLP Sample Name: CRIF Operator: KS
Run Time: 12/27/90 11:30:02
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	Ba	Be	Ca	Cd	Co
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	12.960	514.05	381.76	10.576	131.39	8.5363	98.966
SDev	1.304	3.02	3.19	.055	9.09	.6170	3.633
%RSD	10.065	.58681	.83450	.51748	6.9161	7.2277	3.6707
#1	13.108	517.88	380.85	10.604	144.87	9.0990	103.74
#2	12.893	515.04	380.25	10.494	127.26	8.7198	97.346
#3	14.512	511.64	379.48	10.601	125.10	7.6566	95.240
#4	11.326	511.64	386.46	10.604	128.33	8.6696	99.544
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	55000.	600000.	55000.	5500.0	500000.	5000.0	55000.
Low	-10.000	-200.00	-200.00	-5.0000	-5000.0	-5.0000	-50.000

Elem	Cr	Cu	Fe	K	Mg	Mn	Na
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	20.254	49.242	229.16	199.49	87.558	30.329	60.242
SDev	.534	.751	3.17	507.01	15.498	.000	30.163
%RSD	2.6351	1.5245	1.3853	254.16	17.700	.00033	50.070
#1	20.253	50.029	232.24	750.08	102.52	30.329	69.561
#2	19.541	48.322	228.21	-79.796	75.161	30.329	34.947
#3	20.396	49.637	225.13	484.09	99.310	30.329	98.850
#4	20.824	48.980	231.05	-356.42	73.242	30.329	37.609
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	55000.	45000.	450000.	600000.	600000.	55000.	600000.
Low	-10.000	-25.000	-100.00	-5000.0	-5000.0	-15.000	-5000.0

Elem	Ni	Pb	Sb	Ti	V	Zn
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	78.736	60.534	109.80	-.31328	86.923	38.021
SDev	10.304	18.308	12.18	.36286	1.203	2.067
%RSD	13.087	30.244	11.089	-115.83	1.3842	5.4377
#1	75.892	76.086	110.69	.08267	87.070	36.230
#2	93.388	72.415	121.44	-.26910	85.318	39.770
#3	76.439	57.914	114.27	-.26933	88.236	36.232
#4	69.224	35.721	92.815	-.79738	87.071	39.853
Errors	LC Pass	LC Pass	LC Pass	NOCHECK	LC Pass	LC Pass
High	55000.	50000.	50000.		55000.	55000.
Low	-40.000	-56.000	-60.000		-50.000	-20.000

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Analysis Report QC Standard Thu 12-27-90 11:39:17 AM page 1

Method: CLP Sample Name: CCV Operator: KS
Run Time: 12/27/90 11:34:46
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	Ba	Be	Ca	Cd	Co
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	1221.5	9264.5	9574.2	250.71	24365.	229.70	2445.1
SDev	2.8	33.2	41.9	1.18	85.	3.10	12.2
%RSD	.22590	.35847	.43775	.47178	.35045	1.3482	.49736
#1	1220.1	9259.1	9611.2	251.71	24383.	234.00	2442.9
#2	1218.5	9220.5	9514.2	249.00	24240.	228.31	2429.2
#3	1224.7	9281.3	9589.4	250.97	24427.	229.67	2457.4
#4	1222.9	9297.1	9582.1	251.14	24409.	226.81	2451.0
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	1250.0	10000.	10000.	250.00	25000.	250.00	2500.0
Range	10.000	10.000	10.000	10.000	10.000	10.000	10.000

Elem	Cr	Cu	Fe	K	Mg	Mn	Na
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	498.42	1204.6	4750.8	24862.	24263.	733.92	24774.
SDev	3.44	4.1	17.5	330.	93.	2.56	101.
%RSD	.68999	.34209	.36922	1.3261	.38295	.34824	.40889
#1	501.20	1207.1	4758.7	25157.	24293.	735.45	24856.
#2	493.64	1198.5	4725.0	25114.	24126.	730.13	24861.
#3	500.63	1207.0	4763.9	24699.	24330.	735.45	24720.
#4	498.20	1205.7	4755.8	24476.	24305.	734.65	24658.
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	500.00	1250.0	5000.0	25000.	25000.	750.00	25000.
Range	10.000	10.000	10.000	10.000	10.000	10.000	10.000

Elem	Ni	Pb	Sb	Ti	V	Zn
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	2037.7	916.95	2459.9	-2.7706	2401.7	950.66
SDev	13.2	18.42	74.7	.9264	6.6	5.12
%RSD	.64548	2.0086	3.0379	-33.438	.27523	.53845
#1	2053.1	923.92	2355.3	-3.5633	2405.8	946.68
#2	2042.3	922.51	2459.1	-1.4495	2391.8	946.71
#3	2022.1	931.41	2501.9	-2.8592	2404.1	951.84
#4	2033.5	Q889.95	2523.4	-3.2105	2404.9	957.43
Errors	QC Pass	QC Pass	QC Pass	NOCHECK	QC Pass	QC Pass
Value	2000.0	1000.0	2500.0		2500.0	1000.0
Range	10.000	10.000	10.000		10.000	10.000

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Analysis Report QC Standard Thu 12-27-90 11:44:00 AM page 1

Method: CLP Sample Name: CCB Operator: KS
Run Time: 12/27/90 11:39:29
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	Ba	Be	Ca	Cd	Co
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	.98726	13.479	2.5688	.17029	4.4486	.63487	-.06661
SDev	.63196	10.881	.5376	.02867	1.7695	.20955	1.66217
%RSD	64.011	80.728	20.929	16.835	39.776	33.007	-2495.3
#1	1.4600	25.256	3.3331	.15597	6.7402	.90518	1.9010
#2	.11664	16.742	2.5567	.15738	4.2239	.43533	.06613
#3	.92400	-.85165	2.1927	.15456	4.4036	.50907	-.06950
#4	1.4484	12.770	2.1927	.21326	2.4265	.68991	-2.1641
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.00000	.00000	.00000	.00000	.00000	.00000	.00000
Range	10.000	200.00	200.00	5.0000	5000.0	5.0000	50.000

Elem	Cr	Cu	Fe	K	Mg	Mn	Na
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	.39183	-2.4699	11.080	-218.11	21.602	1.9960	-144.11
SDev	1.3262	.5065	1.275	439.79	8.667	.2664	11.43
%RSD	338.45	-20.506	11.505	-201.64	40.122	13.349	-7.9288
#1	-.82167	-1.8264	12.324	-792.64	25.858	1.5963	-128.80
#2	.89154	-2.3615	10.665	-260.67	13.440	2.1290	-154.10
#3	-.53560	-3.0206	11.850	260.67	15.399	2.1295	-142.12
#4	2.0330	-2.6712	9.4795	-79.796	31.709	2.1291	-151.44
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.00000	.00000	.00000	.00000	.00000	.00000	.00000
Range	10.000	25.000	100.00	5000.0	5000.0	15.000	5000.0

Elem	Ni	Pb	Sb	Ti	V	Zn
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	-3.9896	6.5508	32.196	-.30807	.65888	-2.2539
SDev	6.3684	10.451	22.255	.89012	.47541	.9516
%RSD	-159.63	159.53	69.124	-288.94	72.155	-42.220
#1	3.7003	2.6043	50.082	.79212	.65702	-1.4385
#2	-1.3753	21.776	35.778	-.61616	.07629	-1.4211
#3	-7.9985	-1.9741	42.941	-1.3197	1.2408	-3.0806
#4	-10.285	3.7968	-.01690	-.08852	.66140	-3.0753
Errors	QC Pass	QC Pass	QC Pass	NOCHECK	QC Pass	QC Pass
Value	.00000	.00000	.00000		.00000	.00000
Range	40.000	33.000	60.000		50.000	20.000

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ICP RUN LOG

Analyst KS./MO Date 1-2-91

Instrument TJA61 Calibration Std.: Source

Client I.D.	SWLO I.D.	Time	Percent Recovery	Dilution Factor	MFK9031.ASC Analytes JAN - 3 1991
	STD 0	0934			Ag, Al, Ba, Be, Ca, Cd, Co, Cr, Cu, Fe, K, Mg, Mn, Na, Ni, Sb, V, Zn
	STD 1	0939			Ag
	STD 2	0943			Al, Ba, Be, Ca, Co, Cr, Cu, Fe, K, Mg, Mn, Na, Ni, V, Zn
	STD 3	0947			Cd
	STD 6	0951			Sb
	STD 7	0955			—
	ICV	0955			Ag, Al, Ba, Be, Ca, Cd, Co, Cr, Cu, Fe, K, Mg, Mn, Na, Ni, Sb, V, Zn
	ICB	1000			"
	ICSAI	1005			Ag, Al, Ba, Be, Cd, Co, Cr, Cu, Fe, K, Mg, Mn, Na, Ni, Sb, V, Zn
	ICSAI	1009		2	Ca
	ICSABI	1014			Ag, Al, Ba, Be, Cd, Co, Cr, Cu, Fe, K, Mg, Mn, Na, Ni, Sb, V, Zn
	ICSABI	1019		2	Ca
	CRI I	1023			Ag, Be, Cd, Co, Cr, Cu, Mn, Ni, Sb, V, Zn
	CCV	1028			Ag, Al, Ba, Be, Ca, Cd, Co, Cr, Cu, Fe, K, Mg, Mn, Na, Ni, Sb, V, Zn
	CCB	1033			"
	PBW	1037			"
	LCSW	1042			"
MFK903	4572.11	1047			"
MFK903A	4572.11D	1051			"
MFK903L	4572.11L	1054			"
MFK889	4585.01	1101			"
MFK889S	4585.01S	1106			Ag, Al, Ba, Be, Cd, Co, Cr, Cu, Fe, Mn, Ni, Sb, V, Zn

ICP RUN LOG

Analyst K.S./MD Date 1-2-91 (Cont'd)

Instrument _____ Calibration Std.: Source _____

Client I.D.	SWLO I.D.	Time	Percent Recovery	Dilution Factor	Analytes
MFK891	4585.02	1110			Ag, Al, Ba, Be, Ca, Cd, Co, Cr, Cu, Fe, K, Mg, Mn, Na, Ni, Sb, V, Zn
MFK892	4585.03	1115			"
MFK893	4585.04	1120			"
	CCV	1124			"
	CCB	1129			"
MFK895	4585.05	1134			"
MFK904	4585.06	1138			"
MFK905	4585.07	1143			"
MFK906	4585.08	1148			"
MFK889A	4585.01A	1152			Cd = 10 ug/l
	ICSAF	1157			Ag, Al, Ba, Be, Cd, Co, Cr, Cu, Fe, K, Mg, Mn, Na, Ni, Sb, V, Zn
	ICSAF	1202		2	Ca
	ICSABF	1206			Ag, Al, Ba, Be, Cd, Co, Cr, Cu, Fe, K, Mg, Mn, Na, Ni, Sb, V, Zn
	ICSABF	1211		2	Ca
	CRIF	1216			Ag, Be, Cd, Co, Cr, Cu, Mn, Ni, Sb, V, Zn
	CCV	1221			Ag, Al, Ba, Be, Ca, Cd, Co, Cr, Cu, Fe, K, Mg, Mn, Na, Ni, Sb, V, Zn
	CCB	1225			"

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Standard: STD0

Elem	Ag ✓	Al ✓	Ba ✓	Be ✓	Ca ✓	Cd ✓	Co ✓
Avge	-.00118	.02030	.00015	.00460	.08087	.00003	.00029
SDev	.00070	.00223	.00010	.00033	.01370	.00034	.00031
%RSD	-58.839	10.986	66.787	7.1000	16.935	1288.5	105.38
#1	-.00041	.01780	.00029	.00500	.07690	.00052	.00045
#2	-.00086	.02140	.00009	.00460	.06340	-.00021	.00061
#3	-.00201	.01920	.00011	.00420	.08920	-.00020	-.00009
#4	-.00144	.02280	.00009	.00460	.09400	.00000	.00020

Elem	Cr ✓	Cu ✓	Fe ✓	K ✓	Mg ✓	Mn ✓	Na ✓
Avge	.00125	.00270	.14645	.04648	.00491	.02417	.06715
SDev	.00254	.00038	.00284	.00464	.00133	.00013	.00303
%RSD	202.96	13.972	1.9357	9.9869	27.144	.52050	4.5129
#1	.00500	.00301	.14420	.05340	.00549	.02420	.07080
#2	.00020	.00299	.14400	.04460	.00378	.02420	.06620
#3	-.00060	.00221	.14780	.04350	.00384	.02400	.06800
#4	.00040	.00260	.14980	.04440	.00651	.02430	.06360

Elem	Ni ✓	Pb	Sb ✓	Ti	V ✓	Zn ✓
Avge	.00050	-.00005	-.00045	.00120	.00040	.00077
SDev	.00081	.00189	.00066	.00028	.00028	.00025
%RSD	160.92	-3900.2	-146.85	23.570	70.711	32.484
#1	-.00040	-.00286	.00020	.00120	.00080	.00109
#2	.00121	.00090	-.00120	.00140	.00020	.00080
#3	.00117	.00116	-.00080	.00140	.00040	.00069
#4	.00004	.00061	.00000	.00080	.00020	.00049

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Standard: STD4

Elem	Ag	Al	Ba	Be	Ca	Cd	Co
Avge	2.1036	.02543	.00095	.00455	.16010	.00040	.00023
SDev	.0084	.00239	.00006	.00019	.01353	.00058	.00023
%RSD	.40015	9.3978	6.6635	4.2085	8.4537	144.12	100.75
#1	2.1067	.02820	.00100	.00460	.15600	-.00011	.00031
#2	2.1139	.02640	.00089	.00440	.15270	-.00009	.00009
#3	2.0949	.02270	.00101	.00480	.18020	.00091	.00000
#4	2.0989	.02440	.00089	.00440	.15150	.00091	.00052

Elem	Cr	Cu	Fe	K	Mg	Mn	Na
Avge	.00167	.00399	.15043	.04702	.00283	.02430	.06750
SDev	.00152	.00036	.00067	.00412	.00190	.00020	.00144
%RSD	90.853	9.0101	.44222	8.7651	67.283	.82304	2.1298
#1	.00360	.00428	.15020	.04710	.00214	.02420	.06880
#2	-.00010	.00348	.15020	.04240	.00428	.02420	.06840
#3	.00140	.00420	.15140	.05240	.00445	.02460	.06720
#4	.00180	.00400	.14990	.04620	.00045	.02420	.06560

Elem	Ni	Pb	Sb	Ti	V	Zn
Avge	.00094	.00089	.00058	.00182	.00045	.00062
SDev	.00143	.00157	.00069	.00052	.00062	.00005
%RSD	152.74	176.52	119.12	28.428	137.59	7.5188
#1	.00099	.00234	.00080	.00260	.00080	.00060
#2	-.00072	-.00083	.00030	.00160	-.00040	.00060
#3	.00072	.00209	-.00020	.00160	.00100	.00069
#4	.00276	-.00005	.00140	.00150	.00040	.00060

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Standard: STD2

Elem	Ag	Al ✓	Ba ✓	Be ✓	Ca ✓	Cd	Co ✓
Avge	-.01151	3.9515	5.2981	1.3481	74.761	-.00480	.72977
SDev	.00293	.0243	.0433	.0101	.354	.00069	.00366
%RSD	-25.438	.61454	.81759	.74830	.47345	-14.392	.50123
#1	-.00729	3.9168	5.2382	1.3350	74.497	-.00470	.72691
#2	-.01369	3.9551	5.3106	1.3489	74.423	-.00506	.72636
#3	-.01327	3.9729	5.3413	1.3596	74.985	-.00554	.73234
#4	-.01178	3.9612	5.3021	1.3490	75.138	-.00390	.73348

Elem	Cr ✓	Cu ✓	Fe ✓	K ✓	Mg ✓	Mn ✓	Na ✓
Avge	.94828	.82590	5.8594	.52370	6.4060	.79695	4.0325
SDev	.00490	.00678	.0285	.00500	.0391	.00407	.0228
%RSD	.51629	.82086	.48628	.95512	.61002	.51118	.56439
#1	.94500	.81631	5.8264	.52220	6.3564	.79180	4.0094
#2	.94340	.82652	5.8466	.51810	6.3932	.79560	4.0428
#3	.95090	.83203	5.8903	.52440	6.4355	.80060	4.0185
#4	.95380	.82872	5.8745	.53010	6.4390	.79980	4.0593

Elem	Ni ✓	Pb	Sb	Ti	V ✓	Zn ✓
Avge	1.7628	-.01981	.00357	-.00120	2.2619	.18475
SDev	.0151	.00220	.00126	.00037	.0164	.00091
%RSD	.85472	-11.090	35.262	-30.429	.72504	.49377
#1	1.7502	-.02060	.00420	-.00080	2.2447	.18377
#2	1.7500	-.02252	.00170	-.00140	2.2510	.18417
#3	1.7793	-.01762	.00400	-.00160	2.2762	.18557
#4	1.7719	-.01850	.00440	-.00100	2.2756	.18548

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Standard: STD3

Elem	Ag	Al	Ba	Be	Ca	Cd	Co
Avge	-.00036	.03503	.00292	.00488	.14050	.18492	.00051
SDev	.00112	.00368	.00093	.00030	.01806	.00176	.00047
%RSD	-312.26	10.494	31.884	6.1253	12.851	.95383	93.362
#1	.00062	.03730	.00429	.00530	.16740	.18663	.00043
#2	-.00059	.03420	.00269	.00480	.13260	.18271	.00077
#3	-.00184	.03020	.00240	.00460	.12860	.18434	-.00012
#4	.00038	.03840	.00229	.00480	.13340	.18601	.00095

Elem	Cr	Cu	Fe	K	Mg	Mn	Na
Avge	.00188	.00414	.14240	.04597	.00524	.02430	.06625
SDev	.00250	.00057	.00186	.00467	.00310	.00020	.00049
%RSD	133.32	13.838	1.3075	10.166	59.137	.82304	.74458
#1	.00340	.00480	.14420	.05140	.00816	.02460	.06680
#2	.00240	.00408	.14100	.04590	.00408	.02420	.06600
#3	-.00180	.00341	.14060	.04000	.00141	.02420	.06650
#4	.00350	.00427	.14380	.04660	.00733	.02420	.06570

Elem	Ni	Pb	Sb	Ti	V	Zn
Avge	.00156	.25486	.00050	.00148	.00110	.00060
SDev	.00144	.00320	.00096	.00062	.00118	.00014
%RSD	92.415	1.2544	191.83	41.930	107.57	22.648
#1	.00258	.25688	.00100	.00200	.00280	.00069
#2	.00055	.25501	-.00020	.00110	.00040	.00069
#3	.00011	.25030	-.00040	.00080	.00020	.00041
#4	.00301	.25727	.00160	.00200	.00100	.00060

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Standard: STD6

Elem	Ag	Al	Ba	Be	Ca	Cd	Co
Avge	-.00103	.01945	.00064	.00442	.04405	.00012	.00018
SDev	.00061	.00289	.00006	.00021	.00399	.00042	.00030
%RSD	-58.845	14.839	9.0035	4.6589	9.0531	363.79	166.29
#1	-.00129	.01880	.00069	.00420	.04160	.00044	-.00005
#2	-.00174	.01580	.00060	.00430	.04260	-.00019	-.00011
#3	-.00036	.02260	.00059	.00460	.05000	.00052	.00049
#4	-.00075	.02060	.00069	.00460	.04200	-.00031	.00039

Elem	Cr	Cu	Fe	K	Mg	Mn	Na
Avge	.00060	.00346	.14070	.04510	.00181	.02423	.06453
SDev	.00137	.00036	.00081	.00404	.00196	.00005	.00164
%RSD	228.93	10.503	.57448	8.9611	108.65	.20640	2.5477
#1	-.00100	.00317	.14000	.04040	.00077	.02420	.06260
#2	.00000	.00312	.14020	.04620	-.00043	.02420	.06650
#3	.00210	.00379	.14180	.05000	.00371	.02430	.06400
#4	.00130	.00376	.14080	.04380	.00318	.02420	.06500

Elem	Ni	Pb	Sb	Ti	V	Zn
Avge	.00127	.00055	.41830	.00155	.00035	.00040
SDev	.00249	.00076	.00215	.00053	.00077	.00018
%RSD	196.73	136.55	.51422	33.935	220.70	46.012
#1	.00254	-.00043	.41780	.00160	.00000	.00029
#2	-.00195	.00141	.41860	.00080	-.00040	.00020
#3	.00069	.00067	.42100	.00180	.00140	.00049
#4	.00379	.00057	.41580	.00200	.00040	.00060

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Standard: STD7

Elem	Ag	Al	Ba	Be	Ca	Cd	Co
Avge	-.00873	.05207	.00041	.00405	.14905	-.00011	.00269
SDev	.00052	.00459	.00002	.00010	.00454	.00037	.00046
%RSD	-6.0003	8.8214	4.9700	2.4691	3.0449	-327.36	17.010
#1	-.00801	.05810	.00043	.00420	.15320	-.00002	.00301
#2	-.00911	.04820	.00040	.00400	.15060	.00000	.00219
#3	-.00912	.04880	.00040	.00400	.14980	-.00064	.00314
#4	-.00866	.05320	.00039	.00400	.14260	.00022	.00243

Elem	Cr	Cu	Fe	K	Mg	Mn	Na
Avge	-.02225	.00213	.15660	.04493	-.01518	.02445	.06745
SDev	.00072	.00057	.00134	.00170	.00173	.00030	.00169
%RSD	-3.2305	26.672	.85355	3.7792	-11.408	1.2270	2.5087
#1	-.02280	.00296	.15860	.04410	-.01303	.02480	.06780
#2	-.02240	.00202	.15580	.04700	-.01699	.02420	.06560
#3	-.02120	.00187	.15600	.04550	-.01463	.02460	.06680
#4	-.02260	.00167	.15600	.04310	-.01607	.02420	.06960

Elem	Ni	Pb	Sb	Ti	V	Zn
Avge	.00084	.00237	.00055	6.9774	-.40320	.00055
SDev	.00275	.00173	.00179	.0305	.00316	.00010
%RSD	325.96	73.160	325.75	.43725	-.78430	17.566
#1	-.00109	.00491	.00300	6.9888	-.40640	.00062
#2	-.00082	.00162	-.00120	6.9913	-.40280	.00052
#3	.00044	.00187	.00060	6.9976	-.40460	.00043
#4	.00484	.00107	-.00020	6.9320	-.39900	.00062

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Analysis Report QC Standard Wed 01-02-91 10:00:08 AM page 1

Method: CLP Sample Name: ICV Operator: SLM
Run Time: 01/02/91 09:55:37
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	Ba	Be	Ca	Cd	Co
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	475.19	2015.9	2021.5	515.22	49534.	502.94	496.96
SDev	3.78	23.3	9.4	2.35	335.	2.95	2.73
%RSD	.79488	1.1574	.46268	.45612	.67656	.58576	.54889
#1	470.49	1981.2	2017.6	515.90	49240.	499.94	492.88
#2	473.97	2031.6	2011.5	511.96	49295.	501.03	498.37
#3	477.21	2026.0	2033.4	517.55	49641.	506.21	498.12
#4	479.08	2025.0	2023.6	515.49	49961.	504.57	498.49
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	498.00	2172.0	2041.0	510.00	51519.	498.00	520.00
Range	10.000	10.000	10.000	10.000	10.000	10.000	10.000

Elem	Cr	Cu	Fe	K	Mg	Mn	Na
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	519.77	506.12	2016.9	50120.	24826.	501.77	49857.
SDev	4.17	2.99	10.4	709.	107.	1.90	219.
%RSD	.80247	.59033	.51342	1.4151	.43273	.37913	.43924
#1	514.58	502.63	2007.8	49088.	24692.	500.22	49788.
#2	519.34	504.69	2008.3	50241.	24790.	500.22	49647.
#3	520.40	509.01	2023.2	50492.	24885.	502.55	50164.
#4	524.74	508.16	2028.1	50660.	24935.	504.10	49829.
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	510.00	519.00	2044.0	52068.	25745.	516.00	51368.
Range	10.000	10.000	10.000	10.000	10.000	10.000	10.000

Elem	Ni	Pb	Sb	Ti	V	Zn
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	495.03	4813.3	978.72	.00680	486.42	3197.6
SDev	4.21	40.1	11.98	3.5239	5.63	18.6
%RSD	.85005	.83375	1.2236	51809.	1.1579	.58160
#1	490.55	4772.8	962.09	5.0252	479.79	3177.7
#2	492.35	4827.6	990.67	-.13643	483.77	3186.4
#3	498.86	4790.0	981.07	-2.1435	490.40	3209.4
#4	498.38	4862.7	981.05	-2.7180	491.74	3217.0
Errors	QC Pass	QC Pass	QC Pass	NOCHECK	QC Pass	QC Pass
Value	497.00	5140.0	978.00		507.00	3316.0
Range	10.000	10.000	10.000		10.000	10.000

Analysis Report QC Standard Wed 01-02-91 10:04:52 AM page 1

Method: CLP Sample Name: ICB Operator: SLM
Run Time: 01/02/91 10:00:20
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag ✓	Al ✓	Ba ✓	Be ✓	Ca ✓	Cd ✓	Co ✓
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	3.3411	-6.2326	-.03244	-.13260	-41.946	1.3685	3.4851
SDev	3.6210	49.7767	.58037	.11204	4.594	2.5805	9.2593
%RSD	108.38	-798.65	-1788.9	-84.493	-10.952	188.56	265.68
#1	3.0692	-20.860	.55446	-.15139	-43.569	-.39277	.00215
#2	.20846	-36.633	.37751	-.18524	-45.176	.53632	-1.3648
#3	1.6045	-35.106	-.55446	-.22335	-43.904	.13367	-2.0136
#4	8.4823	67.668	-.50728	.02957	-35.133	Q5.1970	17.317
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.00000	.00000	.00000	.00000	.00000	.00000	.00000
Range	10.000	200.00	200.00	5.0000	5000.0	5.0000	50.000

Elem	Cr ✓	Cu ✓	Fe ✓	K ✓	Mg ✓	Mn ✓	Na ✓
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	.00028	.04686	-15.322	96.915	-1.3280	-.92220	5.3588
SDev	2.7111	3.5087	2.516	1057.9	42.4295	.50026	158.74
%RSD	968780.	7488.0	-16.421	1091.6	-3195.0	-54.247	2962.2
#1	-.47570	-.95896	-16.547	55.005	-20.887	-1.5043	-71.242
#2	-1.7449	-1.8901	-17.247	-846.04	-21.235	-1.1154	-90.156
#3	-1.7449	-2.2127	-15.846	-405.99	-25.431	-.72705	-59.894
#4	3.9666	5.2491	-11.647	1584.7	62.241	-.34206	242.73
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.00000	.00000	.00000	.00000	.00000	.00000	.00000
Range	10.000	25.000	100.00	5000.0	5000.0	15.000	5000.0

Elem	Ni ✓	Pb	Sb ✓	Ti	V ✓	Zn ✓
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	2.4596	14.320	58.502	1.2184	-.33406	-3.3382
SDev	8.7000	43.018	130.52	.9465	2.71400	1.7203
%RSD	353.71	300.40	223.11	77.684	-812.42	-51.532
#1	.79923	2.9634	-8.3488	1.1469	-.44556	-4.0468
#2	.59191	-21.920	-8.3403	.57383	-2.2154	-5.2080
#3	-6.1349	-.45859	-3.5616	.57383	-2.2151	-2.9310
#4	14.582	Q76.696	Q254.26	2.5791	3.5398	-1.1671
Errors	QC Pass	QC Pass	QC Pass	NOCHECK	QC Pass	QC Pass
Value	.00000	.00000	.00000		.00000	.00000
Range	40.000	33.000	60.000		50.000	20.000

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Analysis Report Wed 01-02-91 10:09:32 AM page 1

Method: CLP Sample Name: ICSAI Operator: KS
Run Time: 01/02/91 10:05:02
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag ✓	Al ✓	Ba ✓	Be ✓	Ca	Cd ✓	Co ✓
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	7.2477	516110.	7.1726	-.01109	S46023.	3.3342	63.921
SDev	1.3452	3875.	.6494	.05496	59.	1.9986	1.977
%RSD	18.561	.75090	9.0545	-495.45	.12736	59.941	3.0929
#1	5.5533	517070.	6.2407	.01543	S46108.	3.7683	66.618
#2	7.7811	518980.	7.3496	.05356	S45988.	3.1095	63.715
#3	8.7224	517980.	7.7507	-.05985	S45980.	5.6505	63.483
#4	6.9339	510420.	7.3496	-.05351	S46016.	.80857	61.868
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	55000.	600000.	55000.	5500.0	500000.	5000.0	55000.
Low	-10.000	-200.00	-200.00	-5.0000	-5000.0	-5.0000	-50.000

Elem	Cr ✓	Cu ✓	Fe ✓	K ✓	Mg ✓	Mn ✓	Na ✓
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	14.391	L-27.726	187530.	-434.81	518190.	56.033	380.80
SDev	1.754	1.376	1408.	100.63	3583.	.128	13.87
%RSD	12.188	-4.9646	.75074	-23.144	.69144	.22824	3.6424
#1	16.540	L-28.026	187660.	-479.33	516230.	56.001	368.82
#2	14.577	L-27.078	188910.	-521.24	521580.	55.938	371.34
#3	14.187	L-26.300	187980.	-447.90	520800.	55.971	399.08
#4	12.261	L-29.498	185580.	-290.74	514140.	56.221	383.95
Errors	LC Pass	LC Low	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	55000.	45000.	450000.	600000.	600000.	55000.	600000.
Low	-10.000	-25.000	-100.00	-5000.0	-5000.0	-15.000	-5000.0

Elem	Ni ✓	Pb	Sb ✓	Ti	V ✓	Zn ✓
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	92.396	L-351.97	150.63	-51.353	-7.2466	11.286
SDev	9.270	37.41	18.98	.939	1.4546	1.995
%RSD	10.033	-10.627	12.598	-1.8286	-20.073	17.674
#1	96.535	L-327.22	128.68	-52.464	-6.3925	12.641
#2	91.223	L-344.02	144.99	-51.460	-6.3999	12.212
#3	101.75	L-329.68	154.81	-50.170	-6.7826	11.968
#4	80.075	L-406.97	174.07	-51.317	-9.4113	8.3231
Errors	LC Pass	LC Low	LC Pass	NOCHECK	LC Pass	LC Pass
High	55000.	50000.	50000.		55000.	55000.
Low	-40.000	-56.000	-60.000		-50.000	-20.000

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Analysis Report Wed 01-02-91 10:14:11 AM page 1

Method: CLP Sample Name: ICSAI 1:1 Operator: KS
Run Time: 01/02/91 10:09:42
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	Ba	Be	Ca	Cd	Co
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	3.4427	256580.	3.4359	-.08086	244630.	.18234	30.146
SDev	.4802	1845.	.4118	.07044	1223.	1.5637	1.581
%RSD	13.950	.71899	11.984	-87.116	.49982	857.59	5.2445
#1	3.9013	255700.	3.1734	-.13606	244660.	-1.3323	28.871
#2	3.0053	259310.	3.7987	-.06239	246340.	.35665	30.185
#3	3.0512	255300.	2.9965	-.13605	243970.	-.58155	32.362
#4	3.8128	256010.	3.7751	.01107	243560.	2.2866	29.166
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	55000.	600000.	55000.	5500.0	500000.	5000.0	55000.
Low	-10.000	-200.00	-200.00	-5.0000	-5000.0	-5.0000	-50.000

Elem	Cr	Cu	Fe	K	Mg	Mn	Na
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	5.9759	-14.631	96300.	-426.95	256370.	31.779	242.73
SDev	2.2778	.956	506.	109.22	1615.	.204	26.29
%RSD	38.116	-6.5361	.52554	-25.581	.62988	.64191	10.830
#1	3.5096	-13.982	96088.	-563.15	255420.	31.614	242.73
#2	8.0790	-15.437	97058.	-301.22	258790.	31.883	214.99
#3	4.5773	-15.462	96035.	-395.52	255640.	32.015	235.16
#4	7.7376	-13.640	96018.	-447.90	255630.	31.603	278.03
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	55000.	45000.	450000.	600000.	600000.	55000.	600000.
Low	-10.000	-25.000	-100.00	-5000.0	-5000.0	-15.000	-5000.0

Elem	Ni	Pb	Sb	Ti	V	Zn
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	38.410	L-197.88	109.37	-25.515	-5.9766	6.4430
SDev	6.119	25.88	13.48	.536	1.0537	1.5015
%RSD	15.931	-13.081	12.321	-2.1021	-17.631	23.304
#1	34.454	L-210.00	121.42	-24.942	-6.7907	4.3354
#2	44.707	L-190.41	92.590	-26.232	-5.7314	7.5176
#3	32.029	L-225.52	119.04	-25.372	-6.7980	6.3968
#4	42.448	L-165.58	104.43	-25.515	-4.5861	7.5221
Errors	LC Pass	LC Low	LC Pass	NOCHECK	LC Pass	LC Pass
High	55000.	50000.	50000.		55000.	55000.
Low	-40.000	-56.000	-60.000		-50.000	-20.000

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Analysis Report Wed 01-02-91 10:18:51 AM page 1

Method: CLP Sample Name: ICSABI Operator: KS
Run Time: 01/02/91 10:14:22
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag ✓	Al ✓	Ba ✓	Be ✓	Ca	Cd ✓	Co ✓
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	946.93	517100.	495.20	512.71	546053.	949.87	523.84
SDev	5.24	3312.	2.55	3.37	74.	6.94	2.98
%RSD	.55375	.64048	.51589	.65824	.15960	.73074	.56887
#1	941.24	512230.	491.62	507.94	546153.	943.74	523.10
#2	951.41	517870.	496.15	512.84	546059.	957.94	527.11
#3	951.37	519370.	497.61	515.63	545982.	953.37	525.03
#4	943.70	518950.	495.40	514.42	546019.	944.43	520.10
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	55000.	600000.	55000.	5500.0	500000.	5000.0	55000.
Low	-10.000	-200.00	-200.00	-5.0000	-5000.0	-5.0000	-50.000

Elem	Cr ✓	Cu ✓	Fe ✓	K ✓	Mg ✓	Mn ✓	Na ✓
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	543.71	489.83	187600.	-400.75	518890.	526.52	434.70
SDev	1.94	2.67	1062.	813.93	2639.	2.69	24.46
%RSD	.35756	.54570	.56610	-203.10	.50859	.51015	5.6264
#1	541.03	487.32	186050.	683.64	515170.	522.61	454.56
#2	545.64	491.37	188250.	-395.52	520290.	527.86	440.69
#3	544.34	492.79	188340.	-615.54	521140.	528.59	444.48
#4	543.83	487.83	187740.	-1275.6	518980.	527.05	399.08
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	55000.	45000.	450000.	600000.	600000.	55000.	600000.
Low	-10.000	-25.000	-100.00	-5000.0	-5000.0	-15.000	-5000.0

Elem	Ni ✓	Pb	Sb ✓	Ti	V ✓	Zn ✓
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	989.02	4197.7	192.24	-51.890	430.30	1048.9
SDev	17.65	93.6	55.62	.683	3.37	7.3
%RSD	1.7844	2.2306	28.933	-1.3154	.78337	.69775
#1	965.01	4161.2	213.04	-51.459	426.83	1039.8
#2	1003.2	4243.0	221.46	-51.747	432.96	1053.8
#3	1001.3	4300.3	225.28	-51.460	433.42	1055.7
#4	986.57	4086.4	109.16	-52.893	428.01	1046.2
Errors	LC Pass	LC Pass	LC Pass	NOCHECK	LC Pass	LC Pass
High	55000.	50000.	50000.		55000.	55000.
Low	-40.000	-56.000	-60.000		-50.000	-20.000

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Analysis Report Wed 01-02-91 10:23:32 AM page 1

Method: CLP Sample Name: ICSABI 1:1 Operator: KS
Run Time: 01/02/91 10:19:02
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	Ba	Be	Ca	Cd	Co
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	474.53	257460.	248.16	261.33	246430.	448.63	269.58
SDev	2.96	989.	.55	.68	893.	3.19	1.87
%RSD	.62272	.38423	.22204	.25855	.36252	.70994	.69462
#1	475.28	257210.	248.20	261.46	246710.	453.02	270.31
#2	470.71	256230.	247.40	260.55	245110.	447.53	266.98
#3	474.31	258550.	248.71	262.18	246820.	445.49	269.64
#4	477.84	257860.	248.33	261.15	247080.	448.50	271.37
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	55000.	600000.	55000.	5500.0	500000.	5000.0	55000.
Low	-10.000	-200.00	-200.00	-5.0000	-5000.0	-5.0000	-50.000

Elem	Cr	Cu	Fe	K	Mg	Mn	Na
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	283.05	247.72	97332.	-172.87	257440.	275.17	201.43
SDev	3.04	2.00	337.	608.79	1006.	.95	11.71
%RSD	1.0725	.80572	.34656	-352.15	.39083	.34554	5.8135
#1	282.63	248.32	97490.	201.69	257580.	275.47	207.42
#2	279.06	244.75	96826.	-929.85	255980.	273.95	191.03
#3	284.29	248.99	97491.	-385.04	257960.	275.04	192.29
#4	286.21	248.80	97520.	421.71	258240.	276.22	214.99
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	55000.	45000.	450000.	600000.	600000.	55000.	600000.
Low	-10.000	-25.000	-100.00	-5000.0	-5000.0	-15.000	-5000.0

Elem	Ni	Pb	Sb	Ti	V	Zn
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	508.03	2147.0	93.813	-26.235	222.69	539.53
SDev	9.45	19.0	19.138	.429	3.00	1.89
%RSD	1.8609	.88455	20.400	-1.6371	1.3479	.35094
#1	506.16	2156.5	67.649	-26.450	223.27	541.18
#2	496.82	2168.9	101.93	-26.449	218.28	537.93
#3	509.40	2128.8	93.207	-26.450	224.59	541.17
#4	519.73	2133.6	112.47	-25.590	224.60	537.86
Errors	LC Pass	LC Pass	LC Pass	NOCHECK	LC Pass	LC Pass
High	55000.	50000.	50000.		55000.	55000.
Low	-40.000	-56.000	-60.000		-50.000	-20.000

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109A

Analysis Report Wed 01-02-91 10:28:12 AM page 1

Method: CLP Sample Name: CRII Operator: KS
Run Time: 01/02/91 10:23:42
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag ✓	Al	Ba	Be ✓	Ca	Cd ✓	Co ✓
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	12.846	508.53	399.51	10.279	49.561	9.6375	100.87
SDev	.863	5.96	2.14	.092	8.398	.8033	.94
%RSD	6.7159	1.1711	.53453	.89918	16.945	8.3356	.92709
#1	13.588	517.43	399.51	10.373	58.332	9.2634	100.03
#2	13.387	506.24	398.00	10.293	50.834	10.201	100.59
#3	12.737	505.22	402.53	10.299	50.967	8.6882	102.21
#4	11.672	505.22	398.00	10.152	38.113	10.397	100.66
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	55000.	600000.	55000.	5500.0	500000.	5000.0	55000.
Low	-10.000	-200.00	-200.00	-5.0000	-5000.0	-5.0000	-50.000

Elem	Cr ✓	Cu ✓	Fe	K	Mg	Mn ✓	Na
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	18.582	51.629	210.23	-327.41	27.087	29.937	128.93
SDev	1.965	.886	3.79	421.31	18.007	.448	15.63
%RSD	10.577	1.7162	1.8009	-128.68	66.480	1.4977	12.120
#1	20.222	52.265	214.17	-70.721	36.609	30.325	141.85
#2	19.587	52.227	209.27	55.005	45.539	29.549	130.51
#3	18.741	51.658	212.07	-405.99	21.769	30.326	136.81
#4	15.778	50.367	205.41	-887.95	4.4296	29.549	106.55
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	55000.	45000.	450000.	600000.	600000.	55000.	600000.
Low	-10.000	-25.000	-100.00	-5000.0	-5000.0	-15.000	-5000.0

Elem	Ni ✓	Pb	Sb ✓	Ti	V ✓	Zn ✓
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	72.745	60.364	132.91	.21013	91.759	36.434
SDev	3.555	14.350	15.26	.43025	1.861	2.410
%RSD	4.8864	23.772	11.484	204.75	2.0278	6.6141
#1	74.531	55.439	141.86	-.00531	92.426	37.264
#2	74.701	48.834	144.25	.56823	93.749	32.896
#3	74.330	81.342	134.71	-.29161	91.539	37.264
#4	67.418	55.840	110.84	.56923	89.323	38.311
Errors	LC Pass	LC Pass	LC Pass	NOCHECK	LC Pass	LC Pass
High	55000.	50000.	50000.		55000.	55000.
Low	-40.000	-56.000	-60.000		-50.000	-20.000

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Analysis Report QC Standard Wed 01-02-91 10:32:56 AM page 1

Method: CLP Sample Name: CCV/ICB Operator: KS
Run Time: 01/02/91 10:28:24
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag ✓	Al ✓	Ba ✓	Be ✓	Ca ✓	Cd ✓	Co ✓
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	1220.0	10237.	10158.	254.75	24909.	254.71	2604.9
SDev	7.0	71.	92.	2.27	116.	1.04	15.4
%RSD	.57611	.69390	.90882	.88962	.46623	.41010	.59153
#1	1228.1	10320.	10282.	257.37	25026.	256.02	2621.3
#2	1211.1	10149.	10060.	251.89	24750.	253.51	2584.3
#3	1221.5	10224.	10135.	254.48	24946.	254.42	2608.9
#4	1219.3	10253.	10155.	255.27	24916.	254.90	2605.2
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	1250.0	10000.	10000.	250.00	25000.	250.00	2500.0
Range	10.000	10.000	10.000	10.000	10.000	10.000	10.000

Elem	Cr ✓	Cu ✓	Fe ✓	K ✓	Mg ✓	Mn ✓	Na ✓
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	512.21	1285.0	5150.7	25714.	24943.	767.78	24701.
SDev	2.89	9.7	36.3	501.	142.	4.93	176.
%RSD	.56414	.75705	.70561	1.9473	.56874	.64201	.71122
#1	515.03	1297.0	5196.5	26353.	25130.	772.98	24739.
#2	508.91	1273.2	5107.6	25347.	24787.	761.14	24893.
#3	514.20	1284.5	5150.3	25871.	24942.	769.10	24468.
#4	510.70	1285.4	5148.4	25284.	24913.	767.93	24703.
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	500.00	1250.0	5000.0	25000.	25000.	750.00	25000.
Range	10.000	10.000	10.000	10.000	10.000	10.000	10.000

Elem	Ni ✓	Pb	Sb ✓	Ti	V ✓	Zn ✓
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	2032.4	978.70	2609.5	-.49292	2560.6	1032.8
SDev	6.3	28.19	34.9	.91835	23.8	5.3
%RSD	.30785	2.8805	1.3356	-186.31	.92873	.50927
#1	2037.6	953.04	2581.3	-1.8554	2596.1	1033.0
#2	2029.5	984.98	2622.1	-.13369	2547.0	1025.3
#3	2037.5	1015.8	2653.1	-.13508	2547.0	1036.7
#4	2024.9	961.02	2581.4	.15253	2552.3	1036.2
Errors	QC Pass	QC Pass	QC Pass	NOCHECK	QC Pass	QC Pass
Value	2000.0	1000.0	2500.0		2500.0	1000.0
Range	10.000	10.000	10.000		10.000	10.000

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Analysis Report QC Standard Wed 01-02-91 10:37:40 AM page 1

Method: CLP Sample Name: CCB/ICB Operator: KS
Run Time: 01/02/91 10:33:08
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag ✓	Al ✓	Ba ✓	Be ✓	Ca ✓	Cd ✓	Co ✓
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	1.8892	-35.361	.38930	-.08735	-43.000	-.63057	-.06556
SDev	1.3480	11.819	.63573	.06441	2.204	1.92354	1.61300
%RSD	71.353	-33.425	163.30	-73.729	-5.1256	-305.05	-2460.4
#1	3.4409	-39.176	-.15336	-.00428	-40.489	-.58721	.80931
#2	2.5906	-17.807	1.3095	-.07409	-45.712	-.46905	-.68477
#3	.84405	-41.212	.20055	-.15457	-43.569	-3.0836	-2.0132
#4	.68119	-43.247	.20055	-.11648	-42.230	1.6176	1.6265
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.00000	.00000	.00000	.00000	.00000	.00000	.00000
Range	10.000	200.00	200.00	5.0000	5000.0	5.0000	50.000

Elem	Cr ✓	Cu ✓	Fe ✓	K ✓	Mg ✓	Mn ✓	Na ✓
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	.55646	-.99931	-11.381	243.60	-28.732	.04972	-59.894
SDev	2.6616	.16360	.663	291.86	9.446	.00039	31.699
%RSD	478.31	-16.371	-5.8245	119.81	-32.877	.78453	-52.925
#1	3.1231	-.98690	-11.294	243.60	-35.993	.04984	-69.981
#2	-.05207	-.99705	-10.944	348.37	-21.272	.04914	-37.197
#3	-2.9103	-1.2067	-12.344	-154.54	-19.907	.04991	-100.24
#4	2.0650	-.80662	-10.944	536.96	-37.755	.04998	-32.154
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.00000	.00000	.00000	.00000	.00000	.00000	.00000
Range	10.000	25.000	100.00	5000.0	5000.0	15.000	5000.0

Elem	Ni ✓	Pb	Sb ✓	Ti	V ✓	Zn ✓
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	-4.0394	4.4971	12.558	-.50185	.66181	-6.5207
SDev	3.8441	11.594	19.820	.42984	1.1137	1.0852
%RSD	-95.166	257.81	157.83	-85.651	168.29	-16.642
#1	-3.5165	14.517	15.547	-.28751	1.7709	-7.3736
#2	-3.5975	4.0799	39.416	.00001	-.88575	-5.1256
#3	-9.1799	-11.630	-1.1768	-.85930	.87668	-6.1951
#4	.13647	11.021	-3.5537	-.86061	.88540	-7.3884
Errors	QC Pass	QC Pass	QC Pass	NOCHECK	QC Pass	QC Pass
Value	.00000	.00000	.00000		.00000	.00000
Range	40.000	33.000	60.000		50.000	20.000

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Analysis Report QC Standard Wed 01-02-91 10:42:24 AM page 1

Method: CLP Sample Name: PBW Operator: KS
Run Time: 01/02/91 10:37:52
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag ✓	Al ✓	Ba ✓	Be ✓	Ca ✓	Cd ✓	Co ✓
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	.71234	-34.979	-.08848	-.11194	-49.478	-.10878	-.81765
SDev	.43247	9.621	.19397	.07291	4.095	1.13022	3.13571
%RSD	60.712	-27.505	-219.22	-65.133	-8.2757	-1039.0	-383.50
#1	.80758	-49.352	.20055	-.07409	-46.247	-.60800	.89382
#2	.07614	-31.036	-.20055	-.07302	-53.344	-1.3380	.81381
#3	1.0049	-30.527	-.15336	-.07943	-45.645	.21763	.53739
#4	.96072	-29.001	-.20055	-.22122	-52.675	1.2932	-5.5156
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.00000	.00000	.00000	.00000	.00000	.00000	.00000
Range	10.000	200.00	200.00	5.0000	5000.0	5.0000	50.000

Elem	Cr ✓	Cu ✓	Fe ✓	K ✓	Mg ✓	Mn ✓	Na ✓
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	-.31625	-1.9038	-14.532	-62.863	-32.144	-.43577	-79.438
SDev	1.59652	1.5028	.722	587.559	8.841	.37213	24.569
%RSD	-504.83	-78.938	-4.9666	-934.66	-27.504	-85.395	-30.929
#1	-.89821	-2.3831	-13.745	400.75	-38.011	.05018	-59.894
#2	-1.3217	-2.7829	-14.094	-301.22	-26.549	-.72719	-72.503
#3	2.0645	.33268	-15.146	432.19	-22.823	-.33882	-69.981
#4	-1.1095	-2.7819	-15.144	-783.17	-41.193	-.72726	-115.37
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.00000	.00000	.00000	.00000	.00000	.00000	.00000
Range	10.000	25.000	100.00	5000.0	5000.0	15.000	5000.0

Elem	Ni ✓	Pb	Sb ✓	Ti	V ✓	Zn ✓
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	-1.9012	.10011	5.9931	-.10742	-.99730	-5.7091
SDev	2.8996	13.121	5.5180	.58923	1.81979	.5920
%RSD	-152.51	13107.	92.073	-548.50	-182.47	-10.369
#1	-5.2739	-12.757	10.778	-.14311	-.88768	-6.2083
#2	-2.7358	-2.7272	10.766	-.85972	-1.3303	-5.1922
#3	1.6688	18.435	1.2063	.57283	1.3266	-6.2351
#4	-1.2640	-2.5509	1.2224	.00029	-3.0977	-5.2009
Errors	QC Pass	QC Pass	QC Pass	NOCHECK	QC Pass	QC Pass
Value	.00000	.00000	.00000		.00000	.00000
Range	40.000	33.000	60.000		50.000	20.000

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Analysis Report QC Standard Wed 01-02-91 10:47:08 AM page 1

Method: CLP Sample Name: LCSW Operator: KS
Run Time: 01/02/91 10:42:36
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	Ba	Be	Ca	Cd	Co
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	468.27	1944.8	1947.4	502.25	48081.	444.63	492.50
SDev	6.22	28.2	17.1	6.48	579.	6.43	7.99
%RSD	1.3274	1.4483	.87732	1.2905	1.2035	1.4464	1.6224
#1	459.00	1919.6	1923.5	492.79	47218.	434.99	481.11
#2	470.83	1921.7	1964.1	506.72	48326.	447.51	494.33
#3	472.25	1973.6	1950.6	503.30	48331.	448.00	494.78
#4	471.02	1964.4	1951.2	506.19	48451.	448.01	499.80
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	498.00	2172.0	2041.0	510.00	51519.	498.00	520.00
Range	20.000	20.000	20.000	20.000	20.000	20.000	20.000

Elem	Cr	Cu	Fe	K	Mg	Mn	Na
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	512.75	489.20	1962.3	48916.	24370.	495.56	47959.
SDev	5.86	4.91	23.5	457.	295.	5.71	309.
%RSD	1.1433	1.0044	1.1956	.93355	1.2109	1.1517	.64530
#1	504.42	482.03	1927.1	48460.	23934.	487.02	47769.
#2	514.26	490.86	1974.0	48837.	24574.	498.67	48288.
#3	514.16	490.72	1973.5	48816.	24449.	498.67	47631.
#4	518.18	493.19	1974.5	49549.	24523.	497.89	48148.
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	510.00	519.00	2044.0	52068.	25745.	516.00	51368.
Range	20.000	20.000	20.000	20.000	20.000	20.000	20.000

Elem	Ni	Pb	Sb	Ti	V	Zn
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	479.45	4800.7	961.04	-5.2592	489.28	3248.2
SDev	8.11	86.8	24.63	.8477	4.29	59.7
%RSD	1.6913	1.8075	2.5627	-16.119	.87579	1.8386
#1	469.81	4682.7	924.26	-4.5762	483.51	3159.2
#2	477.06	4788.5	971.69	-6.4422	493.48	3283.7
#3	481.80	4869.0	976.52	-4.7221	488.84	3268.4
#4	489.10	4862.7	971.70	-5.2965	491.28	3281.5
Errors	QC Pass	QC Pass	QC Pass	NOCHECK	QC Pass	QC Pass
Value	497.00	5140.0	978.00		507.00	3316.0
Range	20.000	20.000	20.000		20.000	20.000

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Method: CLP Sample Name: MFK903 Operator: KS
Run Time: 01/02/91 10:47:19
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag ✓	Al ✓	Ba ✓	Be ✓	Ca ✓	Cd ✓	Co ✓
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	.46387	-1.0176	187.26	-.00204	139490.	.74034	5.0449
SDev	2.2177	22.7460	1.05	.08802	668.	1.4659	1.6095
%RSD	478.08	-2235.3	.55977	-4310.6	.47903	198.00	31.904
#1	.85006	-11.702	188.00	.07208	139280.	-.73547	5.0959
#2	-.27623	-13.737	185.89	.07623	138800.	-.07522	5.0043
#3	3.2861	33.071	187.00	-.08038	140390.	1.1867	7.0105
#4	-2.0045	-11.702	188.15	-.07610	139500.	2.5853	3.0691
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	55000.	600000.	55000.	5500.0	500000.	5000.0	55000.
Low	-10.000	-200.00	-200.00	-5.0000	-5000.0	-5.0000	-50.000

Elem	Cr ✓	Cu ✓	Fe ✓	K ✓	Mg ✓	Mn ✓	Na ✓
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	.41379	7.1899	4801.5	2883.9	54660.	668.36	215640.
SDev	1.6800	1.5320	27.7	381.3	356.	3.90	958.
%RSD	406.00	21.307	.57746	13.223	.65089	.58376	.44420
#1	1.7900	8.0527	4795.8	3135.3	54424.	667.29	216220.
#2	.73223	6.8040	4766.4	3208.7	54291.	663.41	214210.
#3	1.1532	8.6883	4832.0	2821.0	55009.	672.34	216080.
#4	-2.0203	5.2145	4811.9	2370.5	54917.	670.40	216050.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	55000.	45000.	450000.	600000.	600000.	55000.	600000.
Low	-10.000	-25.000	-100.00	-5000.0	-5000.0	-15.000	-5000.0

Elem	Ni ✓	Pb	Sb ✓	Ti	V ✓	Zn ✓
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	-2.1432	13.480	-6.4896	-14.299	1.0523	212.90
SDev	4.1235	15.027	2.9473	.939	.8497	1.35
%RSD	-192.39	111.48	-45.416	-6.5675	80.748	.63243
#1	-6.5022	15.880	-3.3791	-14.764	1.7165	211.41
#2	3.3916	15.150	-10.488	-14.621	.82583	212.26
#3	-2.1472	29.619	-6.0739	-12.901	1.7217	214.48
#4	-3.3151	-6.7291	-6.0171	-14.908	-.05476	213.46
Errors	LC Pass	LC Pass	LC Pass	NOCHECK	LC Pass	LC Pass
High	55000.	50000.	50000.		55000.	55000.
Low	-40.000	-56.000	-60.000		-50.000	-20.000

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Method: CLP Sample Name: MFK903D Operator: KS
Run Time: 01/02/91 10:51:59
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag ✓	Al ✓	Ba ✓	Be ✓	Ca ✓	Cd ✓	Co ✓
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	.27834	-4.0703	184.95	-.15300	136770.	-.52077	6.9928
SDev	2.4208	19.2085	1.01	.06225	589.	1.01049	1.3995
%RSD	869.73	-471.92	.54567	-40.688	.43093	-194.04	20.013
#1	1.5598	1.5264	185.13	-.15497	137590.	-.94260	7.7371
#2	-3.2487	-32.053	184.38	-.22852	136660.	-.95387	5.1013
#3	2.1003	11.702	184.00	-.15246	136640.	.98657	6.8295
#4	.70197	2.5439	186.29	-.07606	136180.	-1.1732	8.3032
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	55000.	600000.	55000.	5500.0	500000.	5000.0	55000.
Low	-10.000	-200.00	-200.00	-5.0000	-5000.0	-5.0000	-50.000

Elem	Cr ✓	Cu ✓	Fe ✓	K ✓	Mg ✓	Mn ✓	Na ✓
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	.67971	6.9161	4718.0	2561.7	53762.	657.09	213530.
SDev	1.3286	1.7372	16.2	353.6	145.	2.42	617.
%RSD	195.46	25.118	.34259	13.803	.26956	.36872	.28905
#1	1.4731	7.9991	4739.4	2810.5	53953.	660.30	214210.
#2	-.96015	4.6840	4719.8	2202.8	53755.	656.41	212940.
#3	2.0025	8.5484	4701.2	2915.3	53602.	654.47	213080.
#4	.20343	6.4328	4711.6	2318.1	53737.	657.19	213890.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	55000.	45000.	450000.	600000.	600000.	55000.	600000.
Low	-10.000	-25.000	-100.00	-5000.0	-5000.0	-15.000	-5000.0

Elem	Ni ✓	Pb	Sb ✓	Ti	V ✓	Zn ✓
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	-1.5040	13.219	3.4922	-13.367	.43072	205.77
SDev	2.3699	12.688	15.710	.946	.58395	.07
%RSD	-157.57	95.981	449.86	-7.0796	135.57	.03619
#1	1.9618	9.2553	-15.108	-13.761	1.0434	205.71
#2	-2.5914	5.2562	4.1057	-14.478	-.06888	205.74
#3	-3.3359	32.080	23.262	-12.328	.81673	205.74
#4	-2.0506	6.2850	1.7089	-12.901	-.06832	205.88
Errors	LC Pass	LC Pass	LC Pass	NOCHECK	LC Pass	LC Pass
High	55000.	50000.	50000.		55000.	55000.
Low	-40.000	-56.000	-60.000		-50.000	-20.000

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Method: CLP Sample Name: MFK903L Operator: KS
Run Time: 01/02/91 10:56:39
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag ✓	Al ✓	Ba ✓	Be ✓	Ca ✓	Cd ✓	Co ✓
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	1.4909	64.870	38.706	-.20993	28007.	.68293	1.4838
SDev	2.3462	12.136	.000	.07089	189.	.52874	.9072
%RSD	157.37	18.709	.00000	-33.768	.67372	77.422	61.142
#1	-1.9457	48.335	38.706	-.30105	28245.	1.1158	.49856
#2	3.2917	75.809	38.706	-.15500	28009.	-.04319	2.3053
#3	2.0604	71.739	38.706	-.23122	27990.	1.0308	.92914
#4	2.5572	63.598	38.706	-.15246	27784.	.62822	2.2020
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	55000.	600000.	55000.	5500.0	500000.	5000.0	55000.
Low	-10.000	-200.00	-200.00	-5.0000	-5000.0	-5.0000	-50.000

Elem	Cr ✓	Cu ✓	Fe ✓	K ✓	Mg ✓	Mn ✓	Na ✓
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	1.1505	-1.4331	964.01	1089.6	10942.	134.82	43808.
SDev	1.4702	1.3087	6.56	449.7	71.	1.00	465.
%RSD	127.79	-91.319	.68042	41.271	.64999	.74382	1.0619
#1	-.48937	-3.2510	971.59	495.05	11016.	135.98	44259.
#2	2.6848	-.21004	965.28	1364.7	10981.	135.21	44110.
#3	.35595	-.85211	963.53	1500.9	10917.	134.43	43621.
#4	2.0504	-1.4194	955.65	997.96	10855.	133.65	43243.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	55000.	45000.	450000.	600000.	600000.	55000.	600000.
Low	-10.000	-25.000	-100.00	-5000.0	-5000.0	-15.000	-5000.0

Elem	Ni ✓	Pb	Sb ✓	Ti	V ✓	Zn ✓
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	5.2477	-2.2465	-17.206	-2.2221	.16873	42.669
SDev	2.6116	5.8307	15.781	.3608	1.2509	1.052
%RSD	49.766	-259.54	-91.720	-16.238	741.32	2.4664
#1	8.8809	-2.7984	-37.530	-2.5802	-1.6003	41.821
#2	4.4913	5.7191	.67889	-2.2942	1.0553	44.018
#3	4.9383	-8.2721	-13.615	-1.7201	1.0511	42.994
#4	2.6802	-3.6348	-18.358	-2.2940	.16882	41.844
Errors	LC Pass	LC Pass	LC Pass	NOCHECK	LC Pass	LC Pass
High	55000.	50000.	50000.		55000.	55000.
Low	-40.000	-56.000	-60.000		-50.000	-20.000

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Method: CLP Sample Name: MFK889 Operator: KS
Run Time: 01/02/91 11:01:21
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag ✓	Al ✓	Ba ✓	Be ✓	Ca ✓	Cd ✓	Co ✓
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	-.04874	-8.9037	.01180	-.07517	75.422	.68902	-1.1835
SDev	1.29022	19.2601	.65386	.10606	16.372	1.7101	1.4828
%RSD	-2647.1	-216.31	5542.6	-141.10	21.708	248.19	-125.29
#1	-.05318	-19.843	-.55446	-.22442	65.295	2.9066	-.47320
#2	-1.0807	-15.772	-.17696	-.07729	69.513	-1.0909	.17295
#3	1.7718	19.843	.95557	-.00108	99.843	1.0139	-1.1883
#4	-.83289	-19.843	-.17696	.00213	67.036	-.07357	-3.2455
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	55000.	600000.	55000.	5500.0	500000.	5000.0	55000.
Low	-10.000	-200.00	-200.00	-5.0000	-5000.0	-5.0000	-50.000

Elem	Cr ✓	Cu ✓	Fe ✓	K ✓	Mg ✓	Mn ✓	Na ✓
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	.52954	-3.8061	2.2319	243.60	3.4971	.63142	273.30
SDev	1.5876	1.1784	1.6381	368.84	19.190	.38814	31.13
%RSD	299.82	-30.960	73.393	151.42	548.74	61.472	11.391
#1	-.26351	-5.0994	.96387	-18.335	-17.811	.04920	272.99
#2	-1.3232	-4.3874	1.6624	138.82	-5.5553	.82583	230.12
#3	1.8518	-2.4227	4.6389	788.41	26.023	.82466	301.99
#4	1.8531	-3.3148	1.6626	65.483	11.331	.82597	288.12
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	55000.	45000.	450000.	600000.	600000.	55000.	600000.
Low	-10.000	-25.000	-100.00	-5000.0	-5000.0	-15.000	-5000.0

Elem	Ni ✓	Pb	Sb ✓	Ti	V ✓	Zn ✓
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	-1.9869	.82874	.60060	.35822	-.44060	-5.0871
SDev	3.3780	13.927	19.139	.48933	1.08259	.8805
%RSD	-170.01	1680.5	3186.7	136.60	-245.71	-17.309
#1	-6.3306	15.847	8.3786	-.28662	-1.7678	-6.1982
#2	-2.4630	6.1701	-27.453	.28704	.43992	-5.0476
#3	1.7501	-17.116	5.9509	.57289	.44584	-4.0435
#4	-.90425	-1.5858	15.526	.85958	-.88033	-5.0591
Errors	LC Pass	LC Pass	LC Pass	NOCHECK	LC Pass	LC Pass
High	55000.	50000.	50000.		55000.	55000.
Low	-40.000	-56.000	-60.000		-50.000	-20.000

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Method: CLP Sample Name: MFK889S Operator: KS
Run Time: 01/02/91 11:06:01
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag ✓	Al ✓	Ba ✓	Be ✓	Ca	Cd ✓	Co ✓
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	45.806	2043.2	2027.9	49.874	9.8922	73.073	521.27
SDev	.492	8.3	21.8	.537	2.7171	1.398	6.34
%RSD	1.0739	.40785	1.0727	1.0768	27.467	1.9128	1.2167
#1	45.094	2049.4	2034.4	50.094	12.202	71.881	523.39
#2	46.119	2044.3	2052.6	50.467	12.068	75.055	528.13
#3	45.861	2047.9	2024.2	49.725	8.6536	72.990	520.57
#4	46.149	2031.1	2000.4	49.208	6.6450	72.364	512.99
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	55000.	600000.	55000.	5500.0	500000.	5000.0	55000.
Low	-10.000	-200.00	-200.00	-5.0000	-5000.0	-5.0000	-50.000

Elem	Cr ✓	Cu ✓	Fe ✓	K	Mg	Mn ✓	Na
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	209.71	257.37	1045.5	-120.49	4.2596	520.02	246.83
SDev	2.64	2.33	13.1	296.39	12.400	6.08	23.69
%RSD	1.2570	.90543	1.2523	-245.99	291.10	1.1698	9.5970
#1	211.82	258.09	1055.1	-238.36	20.498	523.13	230.12
#2	212.03	259.95	1057.5	295.98	-.97308	526.24	235.16
#3	208.22	257.08	1039.7	-395.52	6.1610	518.47	281.82
#4	206.75	254.36	1029.9	-144.06	-8.6473	512.26	240.21
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	55000.	45000.	450000.	600000.	600000.	55000.	600000.
Low	-10.000	-25.000	-100.00	-5000.0	-5000.0	-15.000	-5000.0

Elem	Ni ✓	Pb	Sb ✓	Ti	V ✓	Zn ✓
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	511.50	499.80	528.60	1.6650	528.76	514.98
SDev	4.62	2.37	10.21	.6200	6.72	6.73
%RSD	.90375	.47320	1.9309	37.233	1.2711	1.3068
#1	515.00	500.48	516.05	1.3778	532.13	514.68
#2	513.56	501.89	525.62	1.0911	535.67	524.59
#3	512.71	500.42	539.94	1.6654	527.04	510.31
#4	504.71	496.40	532.80	2.5259	520.19	510.33
Errors	LC Pass	LC Pass	LC Pass	NOCHECK	LC Pass	LC Pass
High	55000.	50000.	50000.		55000.	55000.
Low	-40.000	-56.000	-60.000		-50.000	-20.000

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Method: CLP Sample Name: MFK891 Operator: KS
Run Time: 01/02/91 11:10:41
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag ✓	Al ✓	Ba ✓	Be ✓	Ca ✓	Cd ✓	Co ✓
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	.08446	13.101	298.71	-.15586	77299.	-.04935	3.9098
SDev	2.0365	10.812	2.75	.05702	525.	1.69150	2.3090
%RSD	2411.1	82.526	.92121	-36.583	.67880	-3427.6	59.057
#1	-2.3887	3.0527	298.59	-.22661	76875.	2.1000	.68339
#2	2.5975	23.913	294.96	-.08697	76838.	.33278	6.0364
#3	.13297	20.860	301.40	-.15519	77888.	-.76110	4.9379
#4	-.00393	4.5791	299.89	-.15466	77594.	-1.8691	3.9814
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	55000.	600000.	55000.	5500.0	500000.	5000.0	55000.
Low	-10.000	-200.00	-200.00	-5.0000	-5000.0	-5.0000	-50.000

Elem	Cr ✓	Cu ✓	Fe ✓	K ✓	Mg ✓	Mn ✓	Na ✓
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	1.2950	-6.3893	147.32	3302.9	41796.	126.66	219870.
SDev	1.9459	1.8089	1.70	1034.7	232.	.90	1248.
%RSD	150.26	-28.311	1.1536	31.325	.55455	.70813	.56753
#1	-.47694	-8.0813	144.78	1961.9	41646.	125.88	219750.
#2	3.9664	-4.3533	147.93	4245.9	41573.	125.88	218160.
#3	.26274	-5.3890	148.28	3030.5	42081.	127.44	220940.
#4	1.4277	-7.7337	148.28	3973.5	41884.	127.44	220630.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	55000.	45000.	450000.	600000.	600000.	55000.	600000.
Low	-10.000	-25.000	-100.00	-5000.0	-5000.0	-15.000	-5000.0

Elem	Ni ✓	Pb	Sb ✓	Ti	V ✓	Zn ✓
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	3.4071	5.3636	-7.8980	-6.8091	1.4086	1.2067
SDev	5.5777	13.973	19.5839	.4299	2.2155	.5771
%RSD	163.71	260.51	-247.96	-6.3130	157.29	47.827
#1	1.8420	3.4144	-20.946	-7.1672	-.85954	.34159
#2	1.2292	5.1479	-1.8173	-6.5949	4.4512	1.5045
#3	11.569	23.469	17.023	-6.3071	1.1308	1.4659
#4	-1.0116	-10.576	-25.851	-7.1672	.91186	1.5148
Errors	LC Pass	LC Pass	LC Pass	NOCHECK	LC Pass	LC Pass
High	55000.	50000.	50000.		55000.	55000.
Low	-40.000	-56.000	-60.000		-50.000	-20.000

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Method: CLP Sample Name: MFK892 Operator: KS
Run Time: 01/02/91 11:15:22
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag ✓	Al ✓	Ba ✓	Be ✓	Ca ✓	Cd ✓	Co ✓
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	.01503	48.716	232.49	-.21025	50527.	-.07771	5.0542
SDev	1.8776	23.030	.99	.03719	216.	1.23941	2.3349
%RSD	12496.	47.274	.42471	-17.688	.42769	-1595.0	46.197
#1	-.72672	49.352	232.65	-.22452	50460.	-1.0345	4.1911
#2	.42427	54.440	231.90	-.23306	50383.	-1.2522	6.1888
#3	2.3952	73.265	233.81	-.22868	50848.	.84211	7.5911
#4	-2.0327	17.807	231.59	-.15471	50417.	1.1337	2.2458
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	55000.	600000.	55000.	5500.0	500000.	5000.0	55000.
Low	-10.000	-200.00	-200.00	-5.0000	-5000.0	-5.0000	-50.000

Elem	Cr ✓	Cu ✓	Fe ✓	K ✓	Mg ✓	Mn ✓	Na ✓
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	.86918	-1.5331	269.75	15572.	42052.	182.88	295970.
SDev	1.5200	1.1572	1.96	257.	168.	.86	874.
%RSD	174.88	-75.478	.72626	1.6499	.40006	.47090	.29542
#1	-1.1149	-1.5148	268.00	15331.	41983.	182.20	295820.
#2	.47154	-1.1539	269.05	15834.	41978.	182.59	296800.
#3	2.0594	-.35455	272.55	15750.	42303.	184.14	294810.
#4	2.0607	-3.1091	269.40	15373.	41945.	182.59	296440.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	55000.	45000.	450000.	600000.	600000.	55000.	600000.
Low	-10.000	-25.000	-100.00	-5000.0	-5000.0	-15.000	-5000.0

Elem	Ni ✓	Pb	Sb ✓	Ti	V ✓	Zn ✓
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	1.7488	11.333	-12.746	-3.7989	.26909	60.418
SDev	8.0849	7.230	17.521	1.0822	1.5108	1.255
%RSD	462.31	63.800	-137.46	-28.489	561.46	2.0763
#1	13.093	1.0156	-11.513	-3.4403	-1.7231	61.469
#2	1.8634	13.003	-11.517	-4.0136	1.8149	59.327
#3	-3.0480	17.916	7.4111	-2.5807	.05066	59.338
#4	-4.9132	13.396	-35.365	-5.1609	.93389	61.540
Errors	LC Pass	LC Pass	LC Pass	NOCHECK	LC Pass	LC Pass
High	55000.	50000.	50000.		55000.	55000.
Low	-40.000	-56.000	-60.000		-50.000	-20.000

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Method: CLP Sample Name: MFK893 Operator: KS
Run Time: 01/02/91 11:20:02
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag ✓	Al ✓	Ba ✓	Be ✓	Ca ✓	Cd ✓	Co ✓
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	2.2322	84.204	281.54	-.17538	51417.	-.39051	6.7379
SDev	.6205	14.261	1.32	.03644	139.	1.56740	1.5062
%RSD	27.797	16.936	.46786	-20.779	.26955	-401.38	22.354
#1	2.3548	82.932	280.22	-.15580	51551.	1.0927	6.1651
#2	3.0581	103.79	282.43	-.15472	51514.	-1.9076	8.7425
#3	1.6945	80.388	280.62	-.16112	51260.	-1.5711	6.8691
#4	1.8214	69.704	282.88	-.22988	51342.	.82402	5.1751
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	55000.	600000.	55000.	5500.0	500000.	5000.0	55000.
Low	-10.000	-200.00	-200.00	-5.0000	-5000.0	-5.0000	-50.000

Elem	Cr ✓	Cu ✓	Fe ✓	K ✓	Mg ✓	Mn ✓	Na ✓
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	1.7671	-1.8002	305.90	17885.	46744.	94.425	330700.
SDev	.8351	.9374	2.00	449.	113.	.317	2225.
%RSD	47.260	-52.074	.65420	2.5131	.24207	.33583	.67289
#1	2.9051	-2.4928	308.00	17950.	46694.	94.425	329810.
#2	.99942	-.93273	306.95	17699.	46820.	94.814	331030.
#3	1.8459	-1.0543	305.20	18474.	46609.	94.425	328340.
#4	1.3180	-2.7209	303.45	17416.	46854.	94.037	333600.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	55000.	45000.	450000.	600000.	600000.	55000.	600000.
Low	-10.000	-25.000	-100.00	-5000.0	-5000.0	-15.000	-5000.0

Elem	Ni ✓	Pb	Sb ✓	Ti	V ✓	Zn ✓
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	4.1806	7.2304	2.6666	-3.0107	1.6025	10.700
SDev	5.4214	18.790	6.1793	.3701	1.3743	2.106
%RSD	129.68	259.88	231.73	-12.294	85.756	19.683
#1	10.198	-4.9046	9.8596	-2.8676	1.3839	9.0422
#2	6.0766	34.162	-4.5436	-2.5805	.93858	11.235
#3	-2.6965	-6.3784	.34847	-3.4407	3.5910	13.456
#4	3.1440	6.0423	5.0018	-3.1539	.49663	9.0645
Errors	LC Pass	LC Pass	LC Pass	NOCHECK	LC Pass	LC Pass
High	55000.	50000.	50000.		55000.	55000.
Low	-40.000	-56.000	-60.000		-50.000	-20.000

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Method: CLP Sample Name: CCV Operator: KS
Run Time: 01/02/91 11:24:44
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	Ba	Be	Ca	Cd	Co
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	1204.2	10207.	10113.	250.76	24717.	247.14	2578.1
SDev	5.3	69.	53.	1.21	95.	1.07	13.0
%RSD	.44061	.67465	.52254	.48136	.38631	.43275	.50521
#1	1203.6	10213.	10153.	251.27	24691.	246.48	2582.8
#2	1210.4	10266.	10136.	251.65	24851.	246.42	2594.4
#3	1205.4	10238.	10129.	251.14	24703.	246.97	2569.1
#4	1197.5	10109.	10035.	248.98	24624.	248.70	2566.2
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	1250.0	10000.	10000.	250.00	25000.	250.00	2500.0
Range	10.000	10.000	10.000	10.000	10.000	10.000	10.000

Elem	Cr	Cu	Fe	K	Mg	Mn	Na
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	508.62	1269.3	5124.3	25276.	24540.	760.75	24322.
SDev	3.93	6.5	20.9	317.	133.	3.24	138.
%RSD	.77204	.51317	.40742	1.2552	.54232	.42586	.56743
#1	507.82	1272.1	5125.1	25536.	24568.	761.33	24485.
#2	514.38	1273.8	5149.9	25546.	24684.	764.82	24377.
#3	506.35	1271.7	5123.3	25117.	24544.	759.77	24256.
#4	505.93	1259.6	5098.8	24907.	24362.	757.06	24170.
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	500.00	1250.0	5000.0	25000.	25000.	750.00	25000.
Range	10.000	10.000	10.000	10.000	10.000	10.000	10.000

Elem	Ni	Pb	Sb	Ti	V	Zn
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	1994.6	952.16	2544.6	-1.2804	2603.5	1015.0
SDev	4.1	7.01	39.8	.8827	14.1	4.6
%RSD	.20484	.73659	1.5642	-68.938	.54181	.45272
#1	1997.5	943.43	2509.9	-1.8535	2611.7	1013.4
#2	1998.7	958.09	2600.6	.00822	2615.5	1021.7
#3	1991.0	957.58	2524.2	-1.4231	2602.9	1013.5
#4	1991.1	949.53	2543.5	-1.8530	2583.9	1011.3
Errors	QC Pass	QC Pass	QC Pass	NOCHECK	QC Pass	QC Pass
Value	2000.0	1000.0	2500.0		2500.0	1000.0
Range	10.000	10.000	10.000		10.000	10.000

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Method: CLP Sample Name: CCB Operator: KS
Run Time: 01/02/91 11:29:28
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag ✓	Al ✓	Ba ✓	Be ✓	Ca ✓	Cd ✓	Co ✓
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	3.5579	-31.417	1.0322	-.13580	-41.494	1.0970	.64987
SDev	1.9795	16.288	.3596	.06899	4.126	.8027	2.9623
%RSD	55.635	-51.845	34.834	-50.805	-9.9440	73.169	455.83
#1	5.7669	-23.404	1.3095	-.08156	-37.008	2.1557	4.1496
#2	.96683	-41.212	1.3095	-.22548	-46.448	.81044	-3.0975
#3	3.5387	-48.335	.95557	-.08156	-39.485	1.1757	.81843
#4	3.9594	-12.720	.55446	-.15459	-43.034	.24626	.72895
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.00000	.00000	.00000	.00000	.00000	.00000	.00000
Range	10.000	200.00	200.00	5.0000	5000.0	5.0000	50.000

Elem	Cr ✓	Cu ✓	Fe ✓	K ✓	Mg ✓	Mn ✓	Na ✓
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	-.50238	-.84076	-15.409	-52.386	-17.926	-.43589	30.893
SDev	1.30558	.95484	1.322	645.768	9.092	.37161	74.498
%RSD	-259.88	-113.57	-8.5794	-1232.7	-50.717	-85.254	241.15
#1	-.26486	.13260	-15.146	348.37	-14.580	-.72744	.63035
#2	-2.1684	-2.1370	-16.897	-1013.7	-28.649	-.72685	13.240
#3	1.0060	-.84553	-15.846	295.98	-21.115	-.33824	139.33
#4	-.58228	-.51308	-13.745	159.78	-7.3606	.04897	-29.632
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.00000	.00000	.00000	.00000	.00000	.00000	.00000
Range	10.000	25.000	100.00	5000.0	5000.0	15.000	5000.0

Elem	Ni ✓	Pb	Sb ✓	Ti	V ✓	Zn ✓
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	-.10106	-1.1233	28.069	.21515	.99072	-6.2263
SDev	2.21892	2.3978	20.933	.71661	1.6702	.0057
%RSD	-2195.6	-213.46	74.575	333.08	168.59	-.09103
#1	-1.0203	-3.0980	51.343	.28676	2.2064	-6.2236
#2	-1.7035	2.2677	5.9926	-.57281	-1.3323	-6.2220
#3	3.1820	-2.4826	15.539	-.00026	2.2084	-6.2346
#4	-.86253	-1.1803	39.403	1.1469	.88040	-6.2250
Errors	QC Pass	QC Pass	QC Pass	NOCHECK	QC Pass	QC Pass
Value	.00000	.00000	.00000		.00000	.00000
Range	40.000	33.000	60.000		50.000	20.000

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Method: CLP Sample Name: MFK895 Operator: KS
Run Time: 01/02/91 11:34:11
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag ✓	Al ✓	Ba ✓	Be ✓	Ca ✓	Cd ✓	Co ✓
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	-1.6893	444.68	407.78	.03891	134070.	-.15605	8.8755
SDev	2.0647	16.12	2.75	.04404	616.	1.29597	2.5476
%RSD	-122.22	3.6254	.67345	113.18	.45981	-830.48	28.703
#1	-2.4265	445.19	411.19	.07702	134940.	-.21638	5.0854
#2	-4.2747	421.78	406.66	.00294	133540.	.48756	10.545
#3	.11620	454.35	404.75	-.00134	134020.	1.0441	9.7491
#4	-.17222	457.40	408.52	.07702	133760.	-1.9394	10.122
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	55000.	600000.	55000.	5500.0	500000.	5000.0	55000.
Low	-10.000	-200.00	-200.00	-5.0000	-5000.0	-5.0000	-50.000

Elem	Cr ✓	Cu ✓	Fe ✓	K ✓	Mg ✓	Mn ✓	Na ✓
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	45.977	7.1459	2749.5	50838.	38467.	2810.1	370780.
SDev	1.167	1.7758	12.0	106.	215.	14.0	3108.
%RSD	2.5373	24.851	.43584	.20882	.55862	.49671	.83819
#1	46.268	6.2617	2767.4	50807.	38751.	2830.6	374570.
#2	44.258	5.0717	2744.3	50932.	38262.	2801.8	369160.
#3	46.585	8.6204	2741.8	50702.	38347.	2800.7	367510.
#4	46.797	8.6299	2744.5	50912.	38509.	2807.3	371900.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	55000.	45000.	450000.	600000.	600000.	55000.	600000.
Low	-10.000	-25.000	-100.00	-5000.0	-5000.0	-15.000	-5000.0

Elem	Ni ✓	Pb	Sb ✓	Ti	V ✓	Zn ✓
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	11.144	-3.0737	1.3074	-9.7953	-.32976	507.38
SDev	6.254	10.4578	19.514	.5534	.72305	3.87
%RSD	56.121	-340.23	1492.5	-5.6498	-219.26	.76189
#1	5.7629	-3.2061	-3.6088	-10.046	-.32617	507.44
#2	12.019	5.6411	-12.905	-10.332	-1.2174	501.92
#3	19.621	3.0105	30.019	-9.0429	.55372	509.54
#4	7.1735	-17.740	-8.2750	-9.7597	-.32924	510.60
Errors	LC Pass	LC Pass	LC Pass	NOCHECK	LC Pass	LC Pass
High	55000.	50000.	50000.		55000.	55000.
Low	-40.000	-56.000	-60.000		-50.000	-20.000

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Method: CLP Sample Name: MFK904 Operator: KS
Run Time: 01/02/91 11:38:52
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag ✓	Al ✓	Ba ✓	Be ✓	Ca ✓	Cd ✓	Co ✓
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	.19374	87.002	275.23	-.11581	61310.	-1.1292	4.3248
SDev	1.1600	17.002	.35	.04372	260.	.4580	1.4698
%RSD	598.70	19.542	.12780	-37.751	.42397	-40.561	33.986
#1	1.4092	91.581	274.98	-.08068	61356.	-.51144	5.8947
#2	.81206	103.28	274.93	-.15476	61633.	-1.0801	4.5460
#3	-1.2208	90.055	275.69	-.15246	61242.	-1.3554	2.3421
#4	-.22552	63.089	275.33	-.07532	61008.	-1.5698	4.5164
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	55000.	600000.	55000.	5500.0	500000.	5000.0	55000.
Low	-10.000	-200.00	-200.00	-5.0000	-5000.0	-5.0000	-50.000

Elem	Cr ✓	Cu ✓	Fe ✓	K ✓	Mg ✓	Mn ✓	Na ✓
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	-.66867	-4.5989	420.60	3368.4	39139.	275.80	215930.
SDev	1.38319	.6149	5.41	585.3	87.	.95	409.
%RSD	-206.86	-13.371	1.2860	17.376	.22115	.34494	.18958
#1	.99795	-4.2633	425.85	4025.9	39132.	275.80	216440.
#2	-.58988	-4.0995	424.45	3407.7	39262.	276.97	215970.
#3	-.69502	-4.5561	417.45	2601.0	39096.	275.80	215440.
#4	-2.3877	-5.4767	414.65	3439.2	39065.	274.63	215870.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	55000.	45000.	450000.	600000.	600000.	55000.	600000.
Low	-10.000	-25.000	-100.00	-5000.0	-5000.0	-15.000	-5000.0

Elem	Ni ✓	Pb	Sb ✓	Ti	V ✓	Zn ✓
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	-2.4166	-4.9702	3.8130	-3.9776	.62398	17.830
SDev	3.1476	12.6341	7.9178	.7434	.98291	1.774
%RSD	-130.25	-254.20	207.66	-18.689	157.52	9.9467
#1	-2.2485	-16.128	13.965	-4.0136	1.8429	17.831
#2	.69580	.08316	-5.2123	-3.4403	.95620	20.004
#3	-1.3526	-14.372	2.0425	-3.4403	.07103	17.825
#4	-6.7612	10.536	4.4562	-5.0164	-.37422	15.660
Errors	LC Pass	LC Pass	LC Pass	NOCHECK	LC Pass	LC Pass
High	55000.	50000.	50000.		55000.	55000.
Low	-40.000	-56.000	-60.000		-50.000	-20.000

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Method: CLP Sample Name: MFK905 Operator: KS
Run Time: 01/02/91 11:43:32
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag ✓	Al ✓	Ba ✓	Be ✓	Ca ✓	Cd ✓	Co ✓
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	-.43348	197.66	214.08	-.08581	47839.	-.51980	3.3255
SDev	.42390	10.42	1.11	.01839	186.	1.28029	2.0861
%RSD	-97.788	5.2730	.51803	-21.434	.38984	-246.30	62.731
#1	-1.0532	184.69	213.07	-.07740	47763.	-1.0628	1.6755
#2	-.19052	209.11	213.78	-.07623	47611.	-.17690	1.4788
#3	-.35693	201.99	215.66	-.11339	47982.	1.0778	4.4375
#4	-.13328	194.86	213.82	-.07623	48000.	-1.9172	5.7101
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	55000.	600000.	55000.	5500.0	500000.	5000.0	55000.
Low	-10.000	-200.00	-200.00	-5.0000	-5000.0	-5.0000	-50.000

Elem	Cr ✓	Cu ✓	Fe ✓	K ✓	Mg ✓	Mn ✓	Na ✓
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	1.2632	-.97819	242.75	5568.7	38219.	79.764	226820.
SDev	1.7060	.74277	1.40	146.8	152.	.372	1380.
%RSD	135.05	-75.934	.57512	2.6357	.39880	.46618	.60853
#1	1.2105	-1.8701	240.95	5587.0	38197.	79.667	226910.
#2	-1.1189	-.39635	242.53	5681.3	38016.	79.279	227620.
#3	2.6924	-1.3094	244.28	5356.5	38367.	80.055	227900.
#4	2.2690	-.33685	243.23	5649.9	38297.	80.055	224850.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	55000.	45000.	450000.	600000.	600000.	55000.	600000.
Low	-10.000	-25.000	-100.00	-5000.0	-5000.0	-15.000	-5000.0

Elem	Ni ✓	Pb	Sb ✓	Ti	V ✓	Zn ✓
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	2.6532	3.7932	1.1671	-2.0788	.04415	11.791
SDev	2.8050	15.761	18.001	.4899	.35954	2.090
%RSD	105.72	415.50	1542.3	-23.566	814.41	17.722
#1	.67587	12.118	-23.892	-2.5805	.48563	13.441
#2	-.06633	19.491	4.8532	-1.4331	.04005	9.0670
#3	5.7981	.17751	18.999	-2.0075	-.39504	13.420
#4	4.2050	-16.613	4.7091	-2.2941	.04594	11.238
Errors	LC Pass	LC Pass	LC Pass	NOCHECK	LC Pass	LC Pass
High	55000.	50000.	50000.		55000.	55000.
Low	-40.000	-56.000	-60.000		-50.000	-20.000

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Method: CLP Sample Name: MFK906 Operator: KS
Run Time: 01/02/91 11:48:13
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag ✓	Al ✓	Ba ✓	Be ✓	Ca ✓	Cd ✓	Co ✓
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	.86537	79.116	281.08	-.15330	62083.	.17095	3.6112
SDev	2.6875	20.943	1.36	.10330	312.	1.5390	1.9117
%RSD	310.56	26.471	.48445	-67.382	.50177	900.24	52.938
#1	1.0535	90.055	280.22	-.22939	61798.	-1.3269	3.3706
#2	1.6880	83.950	279.86	-.15904	61891.	-.67573	4.5143
#3	3.5572	94.125	281.37	-.00552	62493.	2.1789	5.5016
#4	-2.8372	48.335	282.88	-.21924	62151.	.50757	1.0584
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	55000.	600000.	55000.	5500.0	500000.	5000.0	55000.
Low	-10.000	-200.00	-200.00	-5.0000	-5000.0	-5.0000	-50.000

Elem	Cr ✓	Cu ✓	Fe ✓	K ✓	Mg ✓	Mn ✓	Na ✓
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	1.1048	-5.2003	409.46	3674.9	38887.	294.35	213900.
SDev	3.0260	2.0683	2.07	1017.1	260.	1.32	619.
%RSD	273.90	-39.773	.50499	27.676	.66880	.44907	.28927
#1	.04597	-5.2466	409.73	3344.9	38703.	293.28	214110.
#2	3.5385	-4.5207	408.67	4790.7	38630.	293.28	212990.
#3	3.5384	-3.0502	412.17	4130.7	39163.	296.00	214160.
#4	-2.7036	-7.9836	407.27	2433.3	39050.	294.83	214350.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	55000.	45000.	450000.	600000.	600000.	55000.	600000.
Low	-10.000	-25.000	-100.00	-5000.0	-5000.0	-15.000	-5000.0

Elem	Ni ✓	Pb	Sb ✓	Ti	V ✓	Zn ✓
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	1.4935	12.904	3.3471	-3.6556	.34890	-1.3026
SDev	9.4604	9.637	18.509	.4294	3.0313	2.0990
%RSD	633.44	74.684	552.98	-11.746	868.83	-161.15
#1	-11.668	16.476	14.188	-3.4403	.29190	.38041
#2	8.8514	10.300	14.224	-3.4412	2.7280	-1.8704
#3	7.8799	23.790	9.1626	-3.4412	2.2868	.31257
#4	.91109	1.0483	-24.186	-4.2996	-3.9111	-4.0328
Errors	LC Pass	LC Pass	LC Pass	NOCHECK	LC Pass	LC Pass
High	55000.	50000.	50000.		55000.	55000.
Low	-40.000	-56.000	-60.000		-50.000	-20.000

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Method: CLP Sample Name: MFK889A Operator: KS
Run Time: 01/02/91 11:52:54
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	Ba	Be	Ca	Cd	Co
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	1.0219	35.869	2.3653	-.09556	328.92	21.315	.25376
SDev	1.9821	6.293	.2006	.11147	5.91	.685	1.8087
%RSD	193.97	17.545	8.4788	-116.65	1.7981	3.2117	712.74
#1	-.88850	37.141	2.0645	-.22548	325.74	21.567	-1.6150
#2	3.5836	35.106	2.4656	-.00642	334.85	21.070	1.8398
#3	1.5217	43.247	2.4656	.00106	332.84	22.113	1.7674
#4	-.12919	27.983	2.4656	-.15139	322.26	20.511	-.97719
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	55000.	600000.	55000.	5500.0	500000.	5000.0	55000.
Low	-10.000	-200.00	-200.00	-5.0000	-5000.0	-5.0000	-50.000

Elem	Cr	Cu	Fe	K	Mg	Mn	Na
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	1.5072	17.734	14.397	1220.6	58.039	4.5138	1141.1
SDev	2.1505	1.311	1.082	684.1	17.703	.2241	44.1
%RSD	142.68	7.3910	7.5176	56.048	30.502	4.9650	3.8674
#1	-1.2181	16.488	14.441	736.03	41.931	4.3195	1206.1
#2	3.9675	18.604	15.315	2192.4	75.919	4.7080	1122.9
#3	1.2161	19.100	14.966	1207.5	70.560	4.7077	1127.9
#4	2.0635	16.745	12.865	746.50	43.747	4.3198	1107.7
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	55000.	45000.	450000.	600000.	600000.	55000.	600000.
Low	-10.000	-25.000	-100.00	-5000.0	-5000.0	-15.000	-5000.0

Elem	Ni	Pb	Sb	Ti	V	Zn
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	290.22	16.256	17.278	1.5764	.11553	391.66
SDev	5.97	20.443	14.511	.3704	1.7477	3.87
%RSD	2.0573	125.75	83.986	23.495	1512.8	.98701
#1	293.38	1.1266	34.601	1.7204	-1.3252	393.80
#2	282.08	31.439	10.698	1.4324	2.6607	391.65
#3	295.73	36.158	22.643	2.0065	-.43722	394.95
#4	289.66	-3.6987	1.1688	1.1462	-.43614	386.23
Errors	LC Pass	LC Pass	LC Pass	NOCHECK	LC Pass	LC Pass
High	55000.	50000.	50000.		55000.	55000.
Low	-40.000	-56.000	-60.000		-50.000	-20.000

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Method: CLP Sample Name: ICSAF Operator: KS
Run Time: 01/02/91 11:57:35
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag ✓	Al ✓	Ba ✓	Be ✓	Ca	Cd ✓	Co ✓
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	5.8285	520320.	6.7951	-.05986	545884.	2.2882	63.895
SDev	1.1131	3600.	.2316	.10792	74.	1.9635	1.272
%RSD	19.097	.69185	3.4080	-180.29	.16106	85.811	1.9907
#1	5.3308	517580.	6.9957	-.06161	545964.	.30901	62.252
#2	7.4650	517030.	6.5946	.01861	545855.	1.5115	64.406
#3	4.9920	524440.	6.5946	-.21187	545919.	4.9405	63.670
#4	5.5263	522230.	6.9957	.01544	545795.	2.3916	65.252
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	55000.	600000.	55000.	5500.0	500000.	5000.0	55000.
Low	-10.000	-200.00	-200.00	-5.0000	-5000.0	-5.0000	-50.000

Elem	Cr ✓	Cu ✓	Fe ✓	K ✓	Mg ✓	Mn ✓	Na ✓
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	13.971	L-30.602	188630.	-385.04	514220.	54.389	352.74
SDev	1.236	1.761	1452.	503.42	4083.	.766	19.52
%RSD	8.8459	-5.7561	.76988	-130.74	.79392	1.4076	5.5330
#1	12.725	L-29.002	187090.	-259.31	509820.	53.654	356.21
#2	13.152	L-29.166	187750.	-81.199	511740.	54.060	378.91
#3	14.669	L-32.317	189480.	-1128.9	517060.	54.399	339.82
#4	15.340	L-31.923	190200.	-70.721	518270.	55.443	336.04
Errors	LC Pass	LC Low	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	55000.	45000.	450000.	600000.	600000.	55000.	600000.
Low	-10.000	-25.000	-100.00	-5000.0	-5000.0	-15.000	-5000.0

Elem	Ni ✓	Pb	Sb ✓	Ti	V ✓	Zn ✓
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	92.462	L-419.35	75.991	-53.037	-6.7810	12.166
SDev	3.424	47.53	38.628	1.073	.7230	1.957
%RSD	3.7029	-11.333	50.833	-2.0225	-10.662	16.086
#1	91.162	L-431.51	52.748	-52.751	-6.0550	9.3845
#2	96.417	L-395.57	121.60	-51.891	-7.7081	12.642
#3	93.810	L-370.40	93.143	-53.037	-6.9646	12.662
#4	88.460	L-479.91	36.472	-54.471	-6.3965	13.977
Errors	LC Pass	LC Low	LC Pass	NOCHECK	LC Pass	LC Pass
High	55000.	50000.	50000.		55000.	55000.
Low	-40.000	-56.000	-60.000		-50.000	-20.000

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Method: CLP Sample Name: ICSAF 1:1 Operator: KS
Run Time: 01/02/91 12:02:15
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	Ba	Be	Ca ✓	Cd	Co
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	3.9917	261580.	3.9137	-.03357	249140.	2.3639	32.112
SDev	1.1731	1772.	.5585	.09468	1879.	2.4745	2.135
%RSD	29.389	.67745	14.269	-281.99	.75427	104.68	6.6478
#1	2.8397	260260.	3.1734	-.14240	247850.	5.0788	31.715
#2	3.1855	260840.	4.5301	.00475	247560.	.59691	35.228
#3	5.3130	261020.	3.9756	-.07280	249510.	3.8171	30.517
#4	4.6286	264190.	3.9756	.07616	251650.	-.03718	30.990
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	55000.	600000.	55000.	5500.0	500000.	5000.0	55000.
Low	-10.000	-200.00	-200.00	-5.0000	-5000.0	-5.0000	-50.000

Elem	Cr	Cu	Fe	K	Mg	Mn	Na
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	7.1060	-14.802	98893.	154.54	257540.	31.711	468.12
SDev	1.4334	.423	600.	658.46	2220.	.612	23.19
%RSD	20.172	-2.8599	.60627	426.08	.86210	1.9306	4.9540
#1	5.4991	-14.376	98467.	-657.45	256070.	31.463	452.04
#2	6.3340	-14.581	98408.	-102.15	255900.	31.056	457.08
#3	8.0158	-14.903	98997.	736.03	257490.	31.827	460.87
#4	8.5751	-15.347	99700.	641.73	260690.	32.499	502.48
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	55000.	45000.	450000.	600000.	600000.	55000.	600000.
Low	-10.000	-25.000	-100.00	-5000.0	-5000.0	-15.000	-5000.0

Elem	Ni	Pb	Sb	Ti	V	Zn
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	48.668	L-238.35	58.283	-26.554	-1.8805	5.6499
SDev	8.320	13.61	20.137	.488	1.7409	1.6834
%RSD	17.095	-5.7099	34.551	-1.8372	-92.575	29.794
#1	51.879	L-227.24	84.975	-26.089	-4.1663	5.3768
#2	36.832	L-228.75	41.823	-26.519	-1.9658	4.3399
#3	56.148	L-240.76	43.659	-26.375	-1.4190	4.7897
#4	49.813	L-256.64	62.674	-27.235	.02912	8.0934
Errors	LC Pass	LC Low	LC Pass	NOCHECK	LC Pass	LC Pass
High	55000.	50000.	50000.		55000.	55000.
Low	-40.000	-56.000	-60.000		-50.000	-20.000

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Method: CLP Sample Name: ICSABF Operator: KS
Run Time: 01/02/91 12:06:56
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag ✓	Al ✓	Ba ✓	Be ✓	Ca	Cd ✓	Co ✓
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	935.39	515240.	485.57	505.51	545877.	930.59	522.25
SDev	7.31	2227.	1.37	1.22	41.	9.76	5.72
%RSD	.78197	.43224	.28287	.24154	.08898	1.0486	1.0946
#1	926.77	513420.	484.38	504.93	545923.	919.58	515.00
#2	934.57	514580.	485.71	505.33	545872.	934.86	527.24
#3	935.57	514480.	484.73	504.51	545825.	926.11	520.37
#4	944.64	518490.	487.45	507.27	545887.	941.82	526.38
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	55000.	600000.	55000.	5500.0	500000.	5000.0	55000.
Low	-10.000	-200.00	-200.00	-5.0000	-5000.0	-5.0000	-50.000

Elem	Cr ✓	Cu ✓	Fe ✓	K ✓	Mg ✓	Mn ✓	Na ✓
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	542.71	480.84	187720.	-31.432	511400.	523.48	349.28
SDev	4.66	3.30	850.	540.594	3531.	2.41	13.44
%RSD	.85885	.68530	.45290	-1719.9	.69051	.45957	3.8489
#1	538.45	478.57	186650.	-405.99	507010.	520.24	347.38
#2	547.29	482.37	187990.	568.39	512210.	524.47	330.99
#3	538.94	477.68	187560.	-563.15	510830.	523.31	358.73
#4	546.15	484.73	188680.	275.03	515540.	525.90	359.99
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	55000.	45000.	450000.	600000.	600000.	55000.	600000.
Low	-10.000	-25.000	-100.00	-5000.0	-5000.0	-15.000	-5000.0

Elem	Ni ✓	Pb	Sb ✓	Ti	V ✓	Zn ✓
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	972.81	4092.1	117.55	-51.818	448.55	1055.4
SDev	15.63	41.1	33.56	.824	5.16	10.9
%RSD	1.6070	1.0038	28.549	-1.5896	1.1515	1.0346
#1	954.71	4054.3	81.119	-52.032	445.05	1042.5
#2	983.62	4149.9	124.10	-51.174	453.25	1055.5
#3	965.02	4075.3	160.44	-51.172	443.22	1054.3
#4	987.91	4088.9	104.55	-52.894	452.70	1069.2
Errors	LC Pass	LC Pass	LC Pass	NOCHECK	LC Pass	LC Pass
High	55000.	50000.	50000.		55000.	55000.
Low	-40.000	-56.000	-60.000		-50.000	-20.000

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Method: CLP Sample Name: ICSABF 1:1 Operator: KS
Run Time: 01/02/91 12:11:39
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	Ba	Be	Ca	Cd	Co
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	475.65	260050.	248.14	260.28	246230.	448.30	271.67
SDev	6.30	2427.	2.06	2.23	3092.	6.08	5.62
%RSD	1.3251	.93328	.82865	.85862	1.2557	1.3556	2.0694
#1	472.49	258680.	247.40	259.07	244490.	448.53	270.25
#2	470.96	257960.	245.89	258.24	243860.	445.91	269.57
#3	474.26	260150.	248.51	260.45	245880.	442.21	267.02
#4	484.89	263430.	250.77	263.34	250690.	456.54	279.84
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC.Pass	LC Pass
High	55000.	600000.	55000.	5500.0	500000.	5000.0	55000.
Low	-10.000	-200.00	-200.00	-5.0000	-5000.0	-5.0000	-50.000

Elem	Cr	Cu	Fe	K	Mg	Mn	Na
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	285.31	247.51	98247.	73.341	256860.	275.62	220.98
SDev	3.69	3.56	1036.	270.03	3156.	3.13	23.14
%RSD	1.2924	1.4384	1.0544	368.19	1.2288	1.1352	10.474
#1	285.34	248.29	97693.	13.097	254990.	273.48	227.60
#2	282.61	243.43	97372.	327.41	254490.	273.50	189.77
#3	282.77	246.39	98212.	-280.27	256540.	275.37	221.29
#4	290.51	251.92	99712.	233.12	261410.	280.12	245.25
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	55000.	45000.	450000.	600000.	600000.	55000.	600000.
Low	-10.000	-25.000	-100.00	-5000.0	-5000.0	-15.000	-5000.0

Elem	Ni	Pb	Sb	Ti	V	Zn
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	516.24	2129.3	87.123	-26.235	230.64	542.29
SDev	8.00	49.1	18.511	.789	2.30	10.91
%RSD	1.5502	2.3055	21.247	-3.0058	.99571	2.0120
#1	510.63	2110.9	75.750	-25.877	231.26	536.81
#2	516.68	2102.8	78.482	-26.736	228.55	535.78
#3	510.25	2100.8	79.471	-27.023	229.14	537.98
#4	527.40	2202.6	114.79	-25.305	233.61	558.60
Errors	LC Pass	LC Pass	LC Pass	NOCHECK	LC Pass	LC Pass
High	55000.	50000.	50000.		55000.	55000.
Low	-40.000	-56.000	-60.000		-50.000	-20.000

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Method: CLP Sample Name: CRIF Operator: KS
Run Time: 01/02/91 12:16:23
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag ✓	Al	Ba	Be ✓	Ca	Cd ✓	Co ✓
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	12.531	509.17	403.08	10.302	58.751	11.084	103.89
SDev	1.665	19.97	.66	.036	9.650	.606	2.61
%RSD	13.288	3.9217	.16337	.35232	16.425	5.4688	2.5087
#1	15.029	527.61	402.88	10.283	70.785	10.799	102.86
#2	11.655	497.08	402.53	10.283	57.663	10.666	100.85
#3	11.725	524.56	402.88	10.287	59.336	11.983	106.88
#4	11.717	487.42	404.04	10.357	47.218	10.888	104.96
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	55000.	600000.	55000.	5500.0	500000.	5000.0	55000.
Low	-10.000	-200.00	-200.00	-5.0000	-5000.0	-5.0000	-50.000

Elem	Cr ✓	Cu ✓	Fe	K	Mg	Mn ✓	Na
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	21.437	51.884	219.73	28.812	25.968	30.617	136.81
SDev	.655	1.406	2.90	440.00	20.005	.372	7.64
%RSD	3.0571	2.7100	1.3214	1527.1	77.038	1.2156	5.5809
#1	21.490	53.728	221.87	-238.36	46.755	30.325	140.59
#2	21.067	50.699	217.49	348.37	13.085	30.326	135.55
#3	20.855	52.228	222.57	-447.90	38.918	30.713	144.38
#4	22.337	50.880	216.97	453.14	5.1146	31.103	126.72
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	55000.	45000.	450000.	600000.	600000.	55000.	600000.
Low	-10.000	-25.000	-100.00	-5000.0	-5000.0	-15.000	-5000.0

Elem	Ni ✓	Pb	Sb ✓	Ti	V ✓	Zn ✓
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	85.122	50.013	113.81	-.14898	97.897	36.661
SDev	4.451	21.942	22.00	.68254	1.103	.675
%RSD	5.2288	43.873	19.327	-458.16	1.1271	1.8401
#1	85.154	66.229	115.58	.56773	97.953	37.236
#2	82.500	62.441	96.503	-.57891	98.172	37.255
#3	81.457	53.252	144.25	.28121	96.405	36.088
#4	91.377	18.130	98.898	-.86593	99.058	36.065
Errors	LC Pass	LC Pass	LC Pass	NOCHECK	LC Pass	LC Pass
High	55000.	50000.	50000.		55000.	55000.
Low	-40.000	-56.000	-60.000		-50.000	-20.000

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Analysis Report QC Standard Wed 01-02-91 12:25:39 PM page 1

Method: CLP Sample Name: CCV2 Operator: KS
Run Time: 01/02/91 12:21:07
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	Ba	Be	Ca	Cd	Co
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	1228.8	10413.	10154.	254.71	25070.	257.31	2646.1
SDev	14.1	88.	36.	1.80	226.	4.76	25.0
%RSD	1.1515	.84495	.35211	.70716	.90295	1.8483	.94427
#1	1209.6	10303.	10110.	253.09	24787.	250.82	2611.6
#2	1234.4	10462.	10154.	255.33	25210.	258.99	2657.9
#3	1243.0	10502.	10198.	256.97	25289.	262.09	2669.4
#4	1228.3	10385.	10153.	253.43	24994.	257.34	2645.4
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	1250.0	10000.	10000.	250.00	25000.	250.00	2500.0
Range	10.000	10.000	10.000	10.000	10.000	10.000	10.000

Elem	Cr	Cu	Fe	K	Mg	Mn	Na
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	518.73	1289.7	5241.5	25489.	25079.	778.36	24501.
SDev	5.02	10.1	36.1	436.	231.	5.02	202.
%RSD	.96737	.78184	.68894	1.7119	.92071	.64521	.82349
#1	513.21	1276.4	5197.0	25179.	24762.	772.01	24238.
#2	521.35	1292.9	5259.3	25703.	25198.	780.35	24725.
#3	524.30	1300.5	5280.0	25997.	25291.	783.85	24488.
#4	516.06	1289.0	5229.9	25075.	25067.	777.25	24553.
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	500.00	1250.0	5000.0	25000.	25000.	750.00	25000.
Range	10.000	10.000	10.000	10.000	10.000	10.000	10.000

Elem	Ni	Pb	Sb	Ti	V	Zn
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	2045.9	969.31	2588.9	-1.7131	2666.2	1057.6
SDev	27.8	35.59	65.0	1.2037	15.1	13.8
%RSD	1.3569	3.6718	2.5118	-70.265	.56482	1.3005
#1	2015.8	926.96	2493.0	-3.0017	2647.3	1037.0
#2	2058.7	971.55	2633.6	-.99702	2668.4	1063.6
#3	2077.9	1013.8	2624.0	-.42442	2684.1	1065.1
#4	2031.3	964.90	2605.1	-2.4291	2665.0	1064.7
Errors	QC Pass	QC Pass	QC Pass	NOCHECK	QC Pass	QC Pass
Value	2000.0	1000.0	2500.0		2500.0	1000.0
Range	10.000	10.000	10.000		10.000	10.000

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Analysis Report QC Standard Wed 01-02-91 12:30:23 PM page 1

Method: CLP Sample Name: CCB/ICSAB Operator: KS
Run Time: 01/02/91 12:25:51
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag ✓	Al ✓	Ba ✓	Be ✓	Ca ✓	Cd ✓	Co ✓
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	3.3642	-33.580	1.3331	-.13447	-39.719	-1.0417	-.43633
SDev	1.6334	7.637	.5452	.09198	4.357	1.3304	2.80835
%RSD	48.552	-22.744	40.900	-68.406	-10.970	-127.72	-643.63
#1	2.5592	-37.141	1.3095	-.15032	-40.489	-2.7738	-2.7753
#2	1.9313	-42.229	.95557	-.22548	-41.828	-.94784	-2.6876
#3	5.6661	-24.930	2.1117	-.00641	-33.392	.46980	2.9960
#4	3.3001	-30.018	.95557	-.15566	-43.167	-.91483	.72154
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.00000	.00000	.00000	.00000	.00000	.00000	.00000
Range	10.000	200.00	200.00	5.0000	5000.0	5.0000	50.000

Elem	Cr ✓	Cu ✓	Fe ✓	K ✓	Mg ✓	Mn ✓	Na ✓
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	.79464	-1.3106	-14.533	130.97	-24.062	-.63001	-83.536
SDev	1.9240	1.2271	1.351	784.76	10.713	.48848	17.574
%RSD	242.12	-93.626	-9.2980	599.21	-44.523	-77.535	-21.037
#1	-.89844	-1.8895	-14.095	-615.54	-35.672	-.72699	-62.416
#2	-.47461	-2.1373	-16.545	285.50	-29.672	-1.1152	-105.29
#3	3.3341	.51263	-13.747	1165.6	-11.592	.04937	-81.330
#4	1.2175	-1.7283	-13.745	-311.70	-19.313	-.72722	-85.112
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.00000	.00000	.00000	.00000	.00000	.00000	.00000
Range	10.000	25.000	100.00	5000.0	5000.0	15.000	5000.0

Elem	Ni ✓	Pb	Sb ✓	Ti	V ✓	Zn ✓
Units	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Avge	-.44882	2.8386	25.090	.07146	.44073	-5.9346
SDev	4.07109	12.468	25.350	.78910	1.8781	1.3520
%RSD	-907.06	439.21	101.04	1104.2	426.14	-22.782
#1	1.6810	7.8210	15.548	-.28645	-.88774	-6.2331
#2	2.0774	-8.2774	32.262	-.85994	-1.3293	-7.2589
#3	.96240	18.135	-3.5791	.57250	2.6546	-4.0452
#4	-6.5161	-6.3238	56.130	.85974	1.3254	-6.2014
Errors	QC Pass	QC Pass	QC Pass	NOCHECK	QC Pass	QC Pass
Value	.00000	.00000	.00000		.00000	.00000
Range	40.000	33.000	60.000		50.000	20.000

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SOUTHWEST LABORATORIES OF OKLAHOMA, INC.

ANALYST CJL/MS DATE 12-27-90

INSTR = PE5100A BKGRD = BZ IDL = 1.0 UG/L

WAVELENGTH = 193.7 INTEGRATION TIME = 5.0 SEC

Report Name: A122720

MFK888

JAN - 2 1991

report	lab#	sampleid	analdate	analtime	TEST ID	average	dil	result	units	cv	comment
A12272 0		Blank	12/27/90	19:40	As	0.006		0.01	ug/L	70.67	AZ
		S10	12/27/90	19:45	As	0.072		0.07	ug/L	1.96	ABS=0.072
		S50	12/27/90	19:51	As	47.635		47.64	ug/L	1.47	ABS=0.343
		S100	12/27/90	19:56	As	104.500		104.50	ug/L	1.85	ABS=0.717
		ICV	12/27/90	20:04	As	43.440		43.44	ug/L	0.72	47.4/43.44/91.6%R
		ICB	12/27/90	20:09	As	0.230		0.23	ug/L	24.60	
		CRA	12/27/90	20:14	As	10.190		10.19	ug/L	0.42	
		CCV	12/27/90	20:20	As	48.430		48.43	ug/L	0.47	50/96.86%R
		CCB	12/27/90	20:25	As	0.065		0.07	ug/L	489.54	
		PBS(4574.01)	12/27/90	20:30	As	-0.605		-0.61	ug/L		
		PBSA	12/27/90	20:35	As	20.930		20.93	ug/L	2.84	20/104.6%R
		LCSS	12/27/90	20:41	As	40.915	100.00	4091.50	ug/L	0.74	89.2%R
		LCSSA	12/27/90	20:46	As	60.950	100.00	6095.00	ug/L	1.35	20.04/20/100.2%R

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report	lab#	sampleid	analdate	analtime	TEST ID	average	dil	result	units	cv	comment
12720	DW 4/02/91	~~MEK888~~ MFK888 4572.01	12/27/90	20:52	As	11.465		11.47	ug/L	4.01	
	4572.01A	~~MEK888A~~ MFK888A	12/27/90	20:57	As	31.565		31.57	ug/L	2.22	20.09/20/100.4%R
	4572.02	~~MEK890~~ MFK890	12/27/90	21:02	As	20.855		20.86	ug/L	3.02	
	4572.02A	~~MEK890A~~ MFK890A	12/27/90	21:08	As	39.355		39.36	ug/L	0.02	18.5/20/92.5%R
	4572.03	~~MEK894~~ MFK894	12/27/90	21:13	As	3.895		3.90	ug/L	8.90	
	4572.03A	~~MEK894A~~ MFK894A	12/27/90	21:19	As	23.500		23.50	ug/L	0.12	19.61/20/98.0%R
		CCV	12/27/90	21:24	As	47.425		47.43	ug/L	2.19	50/94.86%R
		CCB	12/27/90	21:30	As	-0.160		-0.16	ug/L		
	4572.04	~~MEK896~~ MFK896	12/27/90	21:35	As	24.095		24.10	ug/L	6.37	
	4572.04A	~~MEK896A~~ MFK896A	12/27/90	21:40	As	42.325		42.33	ug/L	2.69	18.22/20/91.1%R
	4572.05	~~MEK897~~ MFK897	12/27/90	21:46	As	10.400		10.40	ug/L	0.82	
	4572.05A	~~MEK897A~~ MFK897A	12/27/90	21:51	As	29.595		29.60	ug/L	0.74	19.19/20/96.0%R
	4572.06	~~MEK898~~ MFK898	12/27/90	21:57	As	60.370		60.37	ug/L	1.45	
	4572.06A	~~MEK898A~~ MFK898A	12/27/90	22:02	As	79.895		79.90	ug/L	1.05	19.52/20/97.6%R
	4572.07	~~MEK899~~ MFK899	12/27/90	22:08	As	9.365		9.37	ug/L	7.78	
	4572.07A	~~MEK899A~~ MFK899A	12/27/90	22:13	As	28.055		28.06	ug/L	6.18	18.7/20.0/93.5%R
	4572.08 ~~4572.08~~	~~MEK900~~ MFK900	12/27/90	22:19	As	37.090		37.09	ug/L	0.23	
	4572.08A ~~4572.08A~~	~~MEK900A~~ MFK900A	12/27/90	22:24	As	58.120		58.12	ug/L	5.99	21.03/20/105.2%R

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report	lab#	sampleid	analdate	analtime	TEST ID	average	dil	result	units	cv	comment
2272 0		CCV	12/27/90	22:30	As	47.640		47.64	ug/L	0.62	50/95.28%R
		CCB	12/27/90	22:35	As	0.195		0.20	ug/L	300.97	
	4572.09	~~MEK901~~ MFK901	12/27/90	22:40	As	25.155		25.16	ug/L	1.88	
	4572.09A	~~MEK901A~~ MFK901A	12/27/90	22:46	As	43.290		43.29	ug/L	1.01	18.13/20/90.6%R
	4572.10	~~MEK902~~ MFK902	12/27/90	22:51	As	5.590		5.59	ug/L	4.30	
	4572.10A	~~MEK902A~~ MFK902A	12/27/90	22:56	As	21.745		21.75	ug/L	0.55	16.16/20/80.8%R
	4572.10D	~~MEK902D~~ MFK902D	12/27/90	23:02	As	3.860		3.86	ug/L	11.36	
	4572.10DA	~~MEK902DA~~ MFK902DA	12/27/90	23:07	As	21.610		21.61	ug/L	1.31	17.75/20/88.8%R
	4572.10S	~~MEK902S~~ MFK902S	12/27/90	23:12	As	31.515		31.52	ug/L	0.43	40/78.8%R
		PBS(4572.01)	12/27/90	23:18	As	0.320		0.32	ug/L	75.13	
		PBSA	12/27/90	23:23	As	20.715		20.72	ug/L	3.79	20/103.6%R
		CCV	12/27/90	23:28	As	47.515		47.52	ug/L	0.67	50/95.02%R
		CCB	12/27/90	23:33	As	-0.150		-0.15	ug/L		

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C/L 12-27-90
PE 5100 A
As

Element File: AS_EPA.GEL Element: As Wavelength: 193.7
Date: 12/27/90 Time: 19:40 Slit: 0.7
Data File: A122720.DAT ID/Wt File: UNTITLED Lamp Current: 0
Technique: HGA Calib. Type: Linear Energy: 46
Remark 1: IDL=1.0 UG/L
Remark 2: INTEGRATION TIME =5.0 SEC.
Remark 3: P.E. 5100 A
Remark 4: ICV= 47.4 UG/L

As ID: Blank Seq. No.: 00001 A/S Pos.: 0 Date: 12/27/90

S0

Replicate 1 Time: 19:43
Peak Area (A-s): 0.009 Peak Height (A): 0.016
Background Pk Area (A-s): 0.045 Background Pk Height (A): 0.048
Blank Corrected Pk Area (A-s): 0.009

Replicate 2 Time: 19:45
Peak Area (A-s): 0.003 Peak Height (A): 0.018
Background Pk Area (A-s): 0.042 Background Pk Height (A): 0.050
Blank Corrected Pk Area (A-s): 0.003

Mean Pk Area (A-s): 0.006 SD: 0.0046 RSD(%): 74.71

Auto-zero performed.

As ID: Standard 1 Seq. No.: 00002 A/S Pos.: 38 Date: 12/27/90

S10

Replicate 1 Time: 19:48
Peak Area (A-s): 0.077 Peak Height (A): 0.122
Background Pk Area (A-s): 0.049 Background Pk Height (A): 0.042
Blank Corrected Pk Area (A-s): 0.071

Replicate 2 Time: 19:51
Peak Area (A-s): 0.079 Peak Height (A): 0.129
Background Pk Area (A-s): 0.046 Background Pk Height (A): 0.043
Blank Corrected Pk Area (A-s): 0.073

Mean Pk Area (A-s): 0.072 SD: 0.0016 RSD(%): 2.16

Standard number 1 applied. [10.00]
Correlation coefficient: 1.00000 Slope: 0.0072

As ID: Standard 2 Seq. No.: 00003 A/S Pos.: 39 Date: 12/27/90

S50

Replicate 1 Time: 19:53
Peak Area (A-s): 0.352 Peak Height (A): 0.506
Background Pk Area (A-s): 0.073 Background Pk Height (A): 0.051
Blank Corrected Pk Area (A-s): 0.346
Concentration (ug/L): 48.13

Replicate 2 Time: 19:56
Peak Area (A-s): 0.345 Peak Height (A): 0.506
Background Pk Area (A-s): 0.080 Background Pk Height (A): 0.049
Blank Corrected Pk Area (A-s): 0.339
Concentration (ug/L): 47.14

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200

Mean Conc (ug/L): 47.63 SD: 0.703 RSD(%): 1.48

Standard number 2 applied. [50.00]
Correlation coefficient: 0.99985 Slope: 0.0069

As ID: Standard 3 Seq. No.: 00004 A/S Pos.: 40 Date: 12/27/90

5100

Replicate 1 Time: 19:59
Peak Area (A-s): 0.732 Peak Height (A): 1.047
Background Pk Area (A-s): 0.098 Background Pk Height (A): 0.082
Blank Corrected Pk Area (A-s): 0.726
Concentration (ug/L): 105.87

Replicate 2 Time: 20:02
Peak Area (A-s): 0.714 Peak Height (A): 1.031
Background Pk Area (A-s): 0.098 Background Pk Height (A): 0.077
Blank Corrected Pk Area (A-s): 0.708
Concentration (ug/L): 103.13

Mean Conc (ug/L): 104.50 SD: 1.933 RSD(%): 1.85

Standard number 3 applied. [100.00]
Correlation coefficient: 0.99949 Slope: 0.0071

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As ID: ICV Seq. No.: 00005 A/S Pos.: 1 Date: 12/27/90

Replicate 1 Time: 20:06
Peak Area (A-s): 0.316 Peak Height (A): 0.489
Background Pk Area (A-s): 0.073 Background Pk Height (A): 0.053
Blank Corrected Pk Area (A-s): 0.310
Concentration (ug/L): 43.66

Replicate 2 Time: 20:09
Peak Area (A-s): 0.313 Peak Height (A): 0.431
Background Pk Area (A-s): 0.071 Background Pk Height (A): 0.047
Blank Corrected Pk Area (A-s): 0.307
Concentration (ug/L): 43.22

Mean Conc (ug/L): 43.44 SD: 0.309 RSD(%): 0.71

147.4 = 91.6% R

As ID: ICB Seq. No.: 00006 A/S Pos.: 2 Date: 12/27/90

Replicate 1 Time: 20:12
Peak Area (A-s): 0.007 Peak Height (A): 0.016
Background Pk Area (A-s): 0.047 Background Pk Height (A): 0.050
Blank Corrected Pk Area (A-s): 0.001
Concentration (ug/L): 0.19

Replicate 2 Time: 20:14
Peak Area (A-s): 0.008 Peak Height (A): 0.012
Background Pk Area (A-s): 0.047 Background Pk Height (A): 0.047
Blank Corrected Pk Area (A-s): 0.002
Concentration (ug/L): 0.27

Mean Conc (ug/L): 0.23 SD: 0.052 RSD(%): 22.46

As ID: CRA Seq. No.: 00007 A/S Pos.: 3 Date: 12/27/90

Replicate 1 Time: 20:17
Peak Area (A-s): 0.079 Peak Height (A): 0.113
Background Pk Area (A-s): 0.051 Background Pk Height (A): 0.051
Blank Corrected Pk Area (A-s): 0.073
Concentration (ug/L): 10.22

Replicate 2 Time: 20:19
Peak Area (A-s): 0.078 Peak Height (A): 0.114
Background Pk Area (A-s): 0.057 Background Pk Height (A): 0.050
Blank Corrected Pk Area (A-s): 0.072
Concentration (ug/L): 10.16

Mean Conc (ug/L): 10.19 SD: 0.043 RSD(%): 0.42

As ID: CCV Seq. No.: 00008 A/S Pos.: 4 Date: 12/27/90

Replicate 1 Time: 20:22
Peak Area (A-s): 0.352 Peak Height (A): 0.510
Background Pk Area (A-s): 0.070 Background Pk Height (A): 0.050
Blank Corrected Pk Area (A-s): 0.345
Concentration (ug/L): 48.59

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Replicate 2 Time: 20:25
Peak Area (A-s): 0.349 Peak Height (A): 0.483
Background Pk Area (A-s): 0.075 Background Pk Height (A): 0.052
Blank Corrected Pk Area (A-s): 0.343
Concentration (ug/L): 48.27

Mean Conc (ug/L): 48.43 SD: 0.225 RSD(%): 0.46

48.43/50.00 = 96.86%R

As ID: CCB Seq. No.: 00009 A/S Pos.: 5 Date: 12/27/90

Replicate 1 Time: 20:27
Peak Area (A-s): 0.008 Peak Height (A): 0.014
Background Pk Area (A-s): 0.047 Background Pk Height (A): 0.043
Blank Corrected Pk Area (A-s): 0.002
Concentration (ug/L): 0.29

Replicate 2 Time: 20:30
Peak Area (A-s): 0.005 Peak Height (A): 0.017
Background Pk Area (A-s): 0.049 Background Pk Height (A): 0.048
Blank Corrected Pk Area (A-s): -0.001
Concentration (ug/L): -0.16

Mean Conc (ug/L): 0.07 SD: 0.323 RSD(%): 484.73

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As ID: PBS(4574.01) Seq. No.: 00010 A/S Pos.: 6 Date: 12/27/90

Replicate 1 Time: 20:33
Peak Area (A-s): -0.002 Peak Height (A): 0.016
Background Pk Area (A-s): 0.051 Background Pk Height (A): 0.046
Blank Corrected Pk Area (A-s): -0.008
Concentration (ug/L): -1.10

Replicate 2 Time: 20:35
Peak Area (A-s): 0.005 Peak Height (A): 0.014
Background Pk Area (A-s): 0.048 Background Pk Height (A): 0.048
Blank Corrected Pk Area (A-s): -0.001
Concentration (ug/L): -0.11

Mean Conc (ug/L): -0.61 SD: 0.701 RSD(%): 115.04

As ID: PBS(4574.01) A Seq. No.: 00011 A/S Pos.: 6 Date: 12/27/90

Replicate 1 Time: 20:38
Peak Area (A-s): 0.158 Peak Height (A): 0.241
Background Pk Area (A-s): 0.051 Background Pk Height (A): 0.048
Blank Corrected Pk Area (A-s): 0.152
Concentration (ug/L): 21.35

Replicate 2 Time: 20:41
Peak Area (A-s): 0.152 Peak Height (A): 0.235
Background Pk Area (A-s): 0.056 Background Pk Height (A): 0.047
Blank Corrected Pk Area (A-s): 0.146
Concentration (ug/L): 20.51

Mean Conc (ug/L): 20.93 SD: 0.597 RSD(%): 2.85

Recovery is 107.7% 20.00 = 104.6%, R

As ID: LCSS 1:99 dil Seq. No.: 00012 A/S Pos.: 7 Date: 12/27/90

Replicate 1 4572-01 Time: 20:43
Peak Area (A-s): 0.298 Peak Height (A): 0.424
Background Pk Area (A-s): 0.067 Background Pk Height (A): 0.043
Blank Corrected Pk Area (A-s): 0.292
Concentration (ug/L): 41.13

Replicate 2 Time: 20:46
Peak Area (A-s): 0.295 Peak Height (A): 0.429
Background Pk Area (A-s): 0.070 Background Pk Height (A): 0.048
Blank Corrected Pk Area (A-s): 0.289
Concentration (ug/L): 40.70

Mean Conc (ug/L): 40.91 SD: 0.303 RSD(%): 0.74

100 4091 89.2%, R

As ID: LCSS A Seq. No.: 00013 A/S Pos.: 7 Date: 12/27/90

Replicate 1 4572-01 Time: 20:49
Peak Area (A-s): 0.435 Peak Height (A): 0.646
Background Pk Area (A-s): 0.075 Background Pk Height (A): 0.053

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Blank Corrected Pk Area (A-s): 0.429
Concentration (ug/L): 60.37

Replicate 2 Time: 20:51
Peak Area (A-s): 0.444 Peak Height (A): 0.671
Background Pk Area (A-s): 0.076 Background Pk Height (A): 0.057
Blank Corrected Pk Area (A-s): 0.437
Concentration (ug/L): 61.53

Mean Conc (ug/L): 60.95 SD: 0.824 RSD(%): 1.35

Recovery is 100.2% 20.04/20.00 = 100.2%R

****

As ID: ~~MEK888~~MFK888 Seq. No.: 00014 A/S Pos.: 8 Date: 12/27/90
4572-01

Replicate 1 Time: 20:54
Peak Area (A-s): 0.090 Peak Height (A): 0.096
Background Pk Area (A-s): 0.462 Background Pk Height (A): 0.183
Blank Corrected Pk Area (A-s): 0.084
Concentration (ug/L): 11.79

Replicate 2 Time: 20:57
Peak Area (A-s): 0.085 Peak Height (A): 0.092
Background Pk Area (A-s): 0.529 Background Pk Height (A): 0.221
Blank Corrected Pk Area (A-s): 0.079
Concentration (ug/L): 11.14

Mean Conc (ug/L): 11.47 SD: 0.458 RSD(%): 3.99

****

As ID: ~~MEK888~~ MFK888A Seq. No.: 00015 A/S Pos.: 8 Date: 12/27/90
4572-01

Replicate 1 Time: 21:00
Peak Area (A-s): 0.227 Peak Height (A): 0.266
Background Pk Area (A-s): 0.606 Background Pk Height (A): 0.229
Blank Corrected Pk Area (A-s): 0.221
Concentration (ug/L): 31.07

Replicate 2 Time: 21:02
Peak Area (A-s): 0.234 Peak Height (A): 0.273
Background Pk Area (A-s): 0.609 Background Pk Height (A): 0.235
Blank Corrected Pk Area (A-s): 0.228
Concentration (ug/L): 32.06

Mean Conc (ug/L): 31.56 SD: 0.700 RSD(%): 2.22

Recovery is 100.5% 20.09/20.00 = 100.4%R

****

As ID: ~~MEK890~~MFK890 Seq. No.: 00016 A/S Pos.: 9 Date: 12/27/90
4572.02

Replicate 1 Time: 21:05
Peak Area (A-s): 0.158 Peak Height (A): 0.159
Background Pk Area (A-s): 0.555 Background Pk Height (A): 0.240
Blank Corrected Pk Area (A-s): 0.151
Concentration (ug/L): 21.30

Replicate 2 Time: 21:08

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Peak Area (A-s): 0.151 Peak Height (A): 0.148
Background Pk Area (A-s): 0.556 Background Pk Height (A): 0.205
Blank Corrected Pk Area (A-s): 0.145
Concentration (ug/L): 20.41

Mean Conc (ug/L): 20.85 SD: 0.627 RSD(%): 3.01

****

As ID: ~~MEK890~~ A Seq. No.: 00017 A/S Pos.: 9 Date: 12/27/90
MFK890A 4572.02

Replicate 1 Time: 21:10
Peak Area (A-s): 0.286 Peak Height (A): 0.309
Background Pk Area (A-s): 0.601 Background Pk Height (A): 0.212
Blank Corrected Pk Area (A-s): 0.280
Concentration (ug/L): 39.36

Replicate 2 Time: 21:13
Peak Area (A-s): 0.286 Peak Height (A): 0.325
Background Pk Area (A-s): 0.605 Background Pk Height (A): 0.220
Blank Corrected Pk Area (A-s): 0.280
Concentration (ug/L): 39.35

Mean Conc (ug/L): 39.35 SD: 0.010 RSD(%): 0.03

Recovery is 92.5% 18.50/20.00 = 92.5% R

****

As ID: MFK894 ~~MEK894~~ Seq. No.: 00018 A/S Pos.: 10 Date: 12/27/90
4572.03

Replicate 1 Time: 21:16
Peak Area (A-s): 0.032 Peak Height (A): 0.041
Background Pk Area (A-s): 0.421 Background Pk Height (A): 0.163
Blank Corrected Pk Area (A-s): 0.026
Concentration (ug/L): 3.65

Replicate 2 Time: 21:19
Peak Area (A-s): 0.036 Peak Height (A): 0.040
Background Pk Area (A-s): 0.386 Background Pk Height (A): 0.154
Blank Corrected Pk Area (A-s): 0.029
Concentration (ug/L): 4.14

Mean Conc (ug/L): 3.89 SD: 0.344 RSD(%): 8.84

****

As ID: MFK894A ~~MEK894~~ A Seq. No.: 00019 A/S Pos.: 10 Date: 12/27/90

Replicate 1 4572.03 Time: 21:21
Peak Area (A-s): 0.173 Peak Height (A): 0.179
Background Pk Area (A-s): 0.406 Background Pk Height (A): 0.166
Blank Corrected Pk Area (A-s): 0.167
Concentration (ug/L): 23.48

Replicate 2 Time: 21:24
Peak Area (A-s): 0.173 Peak Height (A): 0.182
Background Pk Area (A-s): 0.410 Background Pk Height (A): 0.168
Blank Corrected Pk Area (A-s): 0.167
Concentration (ug/L): 23.52

Mean Conc (ug/L): 23.50 SD: 0.026 RSD(%): 0.11

19.61/20.00 = 98.0% R

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Recovery is 98.0%

****

As ID: CCV Seq. No.: 00020 A/S Pos.: 4 Date: 12/27/90

Replicate 1 Time: 21:27
Peak Area (A-s): 0.338 Peak Height (A): 0.400
Background Pk Area (A-s): 0.158 Background Pk Height (A): 0.170
Blank Corrected Pk Area (A-s): 0.332
Concentration (ug/L): 46.69

Replicate 2 Time: 21:29
Peak Area (A-s): 0.348 Peak Height (A): 0.451
Background Pk Area (A-s): 0.091 Background Pk Height (A): 0.059
Blank Corrected Pk Area (A-s): 0.342
Concentration (ug/L): 48.16

Mean Conc (ug/L): 47.43 SD: 1.041 RSD(%): 2.19

50.00 = 94.86%R

Check sample is within range 45.00 - 55.00

****

As ID: CCB Seq. No.: 00021 A/S Pos.: 5 Date: 12/27/90

Replicate 1 Time: 21:32
Peak Area (A-s): 0.006 Peak Height (A): 0.018
Background Pk Area (A-s): 0.055 Background Pk Height (A): 0.050
Blank Corrected Pk Area (A-s): -0.000
Concentration (ug/L): -0.06

Replicate 2 Time: 21:35
Peak Area (A-s): 0.004 Peak Height (A): 0.018
Background Pk Area (A-s): 0.052 Background Pk Height (A): 0.051
Blank Corrected Pk Area (A-s): -0.002
Concentration (ug/L): -0.26

Mean Conc (ug/L): -0.16 SD: 0.139 RSD(%): 86.98

Check sample is within range -10.00 - 10.00

15522-F-1104

As ID: ~~MEK896~~ MFK896 Seq. No.: 00022 A/S Pos.: 11 Date: 12/27/90

4572.04

Replicate 1 Time: 21:38
Peak Area (A-s): 0.170 Peak Height (A): 0.132
Background Pk Area (A-s): 0.405 Background Pk Height (A): 0.162
Blank Corrected Pk Area (A-s): 0.164
Concentration (ug/L): 23.01

Replicate 2 Time: 21:40
Peak Area (A-s): 0.185 Peak Height (A): 0.151
Background Pk Area (A-s): 0.463 Background Pk Height (A): 0.170
Blank Corrected Pk Area (A-s): 0.179
Concentration (ug/L): 25.18

Mean Conc (ug/L): 24.10 SD: 1.540 RSD(%): 6.39

As ID: ~~MEK896~~ MFK896DA Seq. No.: 00023 A/S Pos.: 11 Date: 12/27/90

4572.04

Replicate 1 Time: 21:43
Peak Area (A-s): 0.313 Peak Height (A): 0.283
Background Pk Area (A-s): 0.509 Background Pk Height (A): 0.182
Blank Corrected Pk Area (A-s): 0.307
Concentration (ug/L): 43.13

Replicate 2 Time: 21:46
Peak Area (A-s): 0.301 Peak Height (A): 0.215
Background Pk Area (A-s): 0.502 Background Pk Height (A): 0.197
Blank Corrected Pk Area (A-s): 0.295
Concentration (ug/L): 41.52

Mean Conc (ug/L): 42.32 SD: 1.142 RSD(%): 2.70

Recovery is 91.1% 18.22/20.00 = 91.1%R

As ID: ~~MEK897~~ MFK897 Seq. No.: 00024 A/S Pos.: 12 Date: 12/27/90

4572.05

Replicate 1 Time: 21:49
Peak Area (A-s): 0.080 Peak Height (A): 0.081
Background Pk Area (A-s): 0.384 Background Pk Height (A): 0.166
Blank Corrected Pk Area (A-s): 0.074
Concentration (ug/L): 10.46

Replicate 2 Time: 21:51
Peak Area (A-s): 0.080 Peak Height (A): 0.078
Background Pk Area (A-s): 0.384 Background Pk Height (A): 0.174
Blank Corrected Pk Area (A-s): 0.074
Concentration (ug/L): 10.34

Mean Conc (ug/L): 10.40 SD: 0.084 RSD(%): 0.81

As ID: ~~MEK897~~ MFK897A Seq. No.: 00025 A/S Pos.: 12 Date: 12/27/90

4572.05

Replicate 1 Time: 21:54
Peak Area (A-s): 0.215 Peak Height (A): 0.224
Background Pk Area (A-s): 0.398 Background Pk Height (A): 0.178

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Blank Corrected Pk Area (A-s): 0.209
Concentration (ug/L): 29.44

Replicate 2 Time: 21:57
Peak Area (A-s): 0.218 Peak Height (A): 0.221
Background Pk Area (A-s): 0.395 Background Pk Height (A): 0.175
Blank Corrected Pk Area (A-s): 0.211
Concentration (ug/L): 29.75

Mean Conc (ug/L): 29.59 SD: 0.218 RSD(%): 0.74

Recovery is 96.0% 19.19/20.00 = 96.0%R

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As ID: ~~MEK898~~ MFK898 Seq. No.: 00026 A/S Pos.: 13 Date: 12/27/90
4572.06

Replicate 1 Time: 22:00
Peak Area (A-s): 0.431 Peak Height (A): 0.396
Background Pk Area (A-s): 0.452 Background Pk Height (A): 0.169
Blank Corrected Pk Area (A-s): 0.425
Concentration (ug/L): 59.75

Replicate 2 Time: 22:02
Peak Area (A-s): 0.440 Peak Height (A): 0.340
Background Pk Area (A-s): 0.465 Background Pk Height (A): 0.167
Blank Corrected Pk Area (A-s): 0.434
Concentration (ug/L): 60.99

Mean Conc (ug/L): 60.37 SD: 0.877 RSD(%): 1.45

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As ID: ~~MEK898~~ MFK898A Seq. No.: 00027 A/S Pos.: 13 Date: 12/27/90
4572.04

Replicate 1 Time: 22:05
Peak Area (A-s): 0.570 Peak Height (A): 0.538
Background Pk Area (A-s): 0.500 Background Pk Height (A): 0.180
Blank Corrected Pk Area (A-s): 0.564
Concentration (ug/L): 79.30

Replicate 2 Time: 22:08
Peak Area (A-s): 0.578 Peak Height (A): 0.576
Background Pk Area (A-s): 0.508 Background Pk Height (A): 0.178
Blank Corrected Pk Area (A-s): 0.572
Concentration (ug/L): 80.49

Mean Conc (ug/L): 79.89 SD: 0.843 RSD(%): 1.06

Recovery is 97.6% 19.52/20.00 = 97.6%R

~~~~~~~~~~

As ID: ~~MEK899~~ MFK899 Seq. No.: 00028 A/S Pos.: 14 Date: 12/27/90
4572.07

Replicate 1 Time: 22:10
Peak Area (A-s): 0.076 Peak Height (A): 0.064
Background Pk Area (A-s): 0.355 Background Pk Height (A): 0.159
Blank Corrected Pk Area (A-s): 0.070
Concentration (ug/L): 9.88

Replicate 2 Time: 22:13
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15522-F-1104

Peak Area (A-s): 0.069 Peak Height (A): 0.057
Background Pk Area (A-s): 0.331 Background Pk Height (A): 0.138
Blank Corrected Pk Area (A-s): 0.063
Concentration (ug/L): 8.85

Mean Conc (ug/L): 9.36 SD: 0.733 RSD(%): 7.83

****

As ID: ~~MEK899~~ MFK899A A Seq. No.: 00029 A/S Pos.: 14 Date: 12/27/90

4572.07

Replicate 1 Time: 22:16
Peak Area (A-s): 0.214 Peak Height (A): 0.194
Background Pk Area (A-s): 0.355 Background Pk Height (A): 0.152
Blank Corrected Pk Area (A-s): 0.208
Concentration (ug/L): 29.28

Replicate 2 Time: 22:19
Peak Area (A-s): 0.197 Peak Height (A): 0.201
Background Pk Area (A-s): 0.354 Background Pk Height (A): 0.150
Blank Corrected Pk Area (A-s): 0.191
Concentration (ug/L): 26.83

Mean Conc (ug/L): 28.06 SD: 1.732 RSD(%): 6.17

Recovery is 93.5% 18.70/20.00 = 93.5%R

****

As ID: ~~MEK900~~ MFK900 Seq. No.: 00030 A/S Pos.: 15 Date: 12/27/90

4572 08

Replicate 1 Time: 22:21
Peak Area (A-s): 0.269 Peak Height (A): 0.255
Background Pk Area (A-s): 0.540 Background Pk Height (A): 0.200
Blank Corrected Pk Area (A-s): 0.263
Concentration (ug/L): 37.03

Replicate 2 Time: 22:24
Peak Area (A-s): 0.270 Peak Height (A): 0.256
Background Pk Area (A-s): 0.554 Background Pk Height (A): 0.201
Blank Corrected Pk Area (A-s): 0.264
Concentration (ug/L): 37.15

Mean Conc (ug/L): 37.09 SD: 0.084 RSD(%): 0.23

****

As ID: ~~MEK900~~ MFK900A A Seq. No.: 00031 A/S Pos.: 15 Date: 12/27/90

4572.08

Replicate 1 Time: 22:27
Peak Area (A-s): 0.402 Peak Height (A): 0.419
Background Pk Area (A-s): 0.600 Background Pk Height (A): 0.208
Blank Corrected Pk Area (A-s): 0.396
Concentration (ug/L): 55.66

Replicate 2 Time: 22:30
Peak Area (A-s): 0.437 Peak Height (A): 0.400
Background Pk Area (A-s): 0.610 Background Pk Height (A): 0.217
Blank Corrected Pk Area (A-s): 0.431
Concentration (ug/L): 60.58

Mean Conc (ug/L): 58.12 SD: 3.479 RSD(%): 5.99

21.03/20.00 = 105.2%R

15522-F-1104

Recovery is 105.1%

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As ID: CCV Seq. No.: 00032 A/S Pos.: 4 Date: 12/27/90

Replicate 1 Time: 22:32
Peak Area (A-s): 0.346 Peak Height (A): 0.407
Background Pk Area (A-s): 0.181 Background Pk Height (A): 0.100
Blank Corrected Pk Area (A-s): 0.340
Concentration (ug/L): 47.85

Replicate 2 Time: 22:35
Peak Area (A-s): 0.343 Peak Height (A): 0.458
Background Pk Area (A-s): 0.103 Background Pk Height (A): 0.062
Blank Corrected Pk Area (A-s): 0.337
Concentration (ug/L): 47.43

Mean Conc (ug/L): 47.64 SD: 0.295 RSD(%): 0.62

150.00 = 95.28 %R

Check sample is within range 45.00 - 55.00

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As ID: CCB Seq. No.: 00033 A/S Pos.: 5 Date: 12/27/90

Replicate 1 Time: 22:38
Peak Area (A-s): 0.010 Peak Height (A): 0.018
Background Pk Area (A-s): 0.065 Background Pk Height (A): 0.058
Blank Corrected Pk Area (A-s): 0.004
Concentration (ug/L): 0.61

Replicate 2 Time: 22:40
Peak Area (A-s): 0.005 Peak Height (A): 0.011
Background Pk Area (A-s): 0.060 Background Pk Height (A): 0.052
Blank Corrected Pk Area (A-s): -0.002
Concentration (ug/L): -0.22

Mean Conc (ug/L): 0.19 SD: 0.586 RSD(%): 301.31

Check sample is within range -10.00 - 10.00

15522-F-1104

As ID: ~~MEK901~~ MFK901 Seq. No.: 00034 A/S Pos.: 16 Date: 12/27/90

4572.09

Replicate 1 Time: 22:43
Peak Area (A-s): 0.187 Peak Height (A): 0.142
Background Pk Area (A-s): 0.347 Background Pk Height (A): 0.141
Blank Corrected Pk Area (A-s): 0.181
Concentration (ug/L): 25.49

Replicate 2 Time: 22:46
Peak Area (A-s): 0.183 Peak Height (A): 0.156
Background Pk Area (A-s): 0.391 Background Pk Height (A): 0.151
Blank Corrected Pk Area (A-s): 0.176
Concentration (ug/L): 24.82

Mean Conc (ug/L): 25.16 SD: 0.479 RSD(%): 1.90

As ID: ~~MEK901~~ A Seq. No.: 00035 A/S Pos.: 16 Date: 12/27/90

MFK901A 4572-09

Replicate 1 Time: 22:48
Peak Area (A-s): 0.316 Peak Height (A): 0.300
Background Pk Area (A-s): 0.430 Background Pk Height (A): 0.164
Blank Corrected Pk Area (A-s): 0.310
Concentration (ug/L): 43.60

Replicate 2 Time: 22:51
Peak Area (A-s): 0.312 Peak Height (A): 0.277
Background Pk Area (A-s): 0.422 Background Pk Height (A): 0.158
Blank Corrected Pk Area (A-s): 0.306
Concentration (ug/L): 42.98

Mean Conc (ug/L): 43.29 SD: 0.438 RSD(%): 1.01

Recovery is 90.7% 18.13/20.00 = 90.6% R

As ID: ~~MEK902~~ MFK902 Seq. No.: 00036 A/S Pos.: 17 Date: 12/27/90

4572.10

Replicate 1 Time: 22:54
Peak Area (A-s): 0.047 Peak Height (A): 0.056
Background Pk Area (A-s): 0.577 Background Pk Height (A): 0.204
Blank Corrected Pk Area (A-s): 0.041
Concentration (ug/L): 5.76

Replicate 2 Time: 22:56
Peak Area (A-s): 0.045 Peak Height (A): 0.064
Background Pk Area (A-s): 0.595 Background Pk Height (A): 0.208
Blank Corrected Pk Area (A-s): 0.039
Concentration (ug/L): 5.42

Mean Conc (ug/L): 5.59 SD: 0.237 RSD(%): 4.23

As ID: ~~MEK902 A~~ Seq. No.: 00037 A/S Pos.: 17 Date: 12/27/90

MFK902A 4572.10

Replicate 1 Time: 22:59
Peak Area (A-s): 0.161 Peak Height (A): 0.196
Background Pk Area (A-s): 0.656 Background Pk Height (A): 0.225

15522-F-104

Blank Corrected Pk Area (A-s): 0.155
Concentration (ug/L): 21.83

Replicate 2 Time: 23:02
Peak Area (A-s): 0.160 Peak Height (A): 0.171
Background Pk Area (A-s): 0.632 Background Pk Height (A): 0.211
Blank Corrected Pk Area (A-s): 0.154
Concentration (ug/L): 21.66

Mean Conc (ug/L): 21.75 SD: 0.113 RSD(%): 0.52

Recovery is 80.8% 16.16/20.00 = 80.8%R

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As ID: ~~MEK902D~~ MEX902D Seq. No.: 00038 A/S Pos.: 18 Date: 12/27/90

4572.100

Replicate 1 Time: 23:04
Peak Area (A-s): 0.036 Peak Height (A): 0.035
Background Pk Area (A-s): 0.432 Background Pk Height (A): 0.158
Blank Corrected Pk Area (A-s): 0.030
Concentration (ug/L): 4.17

Replicate 2 Time: 23:07
Peak Area (A-s): 0.031 Peak Height (A): 0.040
Background Pk Area (A-s): 0.405 Background Pk Height (A): 0.153
Blank Corrected Pk Area (A-s): 0.025
Concentration (ug/L): 3.55

Mean Conc (ug/L): 3.86 SD: 0.439 RSD(%): 11.36

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As ID: ~~MEK902D~~ MEX902DA Seq. No.: 00039 A/S Pos.: 18 Date: 12/27/90

A
4572.100

Replicate 1 Time: 23:10
Peak Area (A-s): 0.158 Peak Height (A): 0.180
Background Pk Area (A-s): 0.441 Background Pk Height (A): 0.167
Blank Corrected Pk Area (A-s): 0.152
Concentration (ug/L): 21.41

Replicate 2 Time: 23:12
Peak Area (A-s): 0.161 Peak Height (A): 0.172
Background Pk Area (A-s): 0.435 Background Pk Height (A): 0.165
Blank Corrected Pk Area (A-s): 0.155
Concentration (ug/L): 21.81

Mean Conc (ug/L): 21.61 SD: 0.283 RSD(%): 1.31

Recovery is 88.7% 17.75/20.00 = 88.8%R

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As ID: ~~MEK902S~~ MEX902S Seq. No.: 00040 A/S Pos.: 19 Date: 12/27/90

4572.10S

Replicate 1 Time: 23:15
Peak Area (A-s): 0.229 Peak Height (A): 0.229
Background Pk Area (A-s): 0.529 Background Pk Height (A): 0.184
Blank Corrected Pk Area (A-s): 0.223
Concentration (ug/L): 31.42

Replicate 2 Time: 23:17
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15522-F-1104

Peak Area (A-s): 0.231 Peak Height (A): 0.240
Background Pk Area (A-s): 0.551 Background Pk Height (A): 0.192
Blank Corrected Pk Area (A-s): 0.225
Concentration (ug/L): 31.61

Mean Conc (ug/L): 31.51 SD: 0.136 RSD(%): 0.43

31.51/40.00 = 78.8% R

****

As ID: PBS(4572.01) Seq. No.: 00041 A/S Pos.: 20 Date: 12/27/90

Replicate 1 Time: 23:20
Peak Area (A-s): 0.010 Peak Height (A): 0.018
Background Pk Area (A-s): 0.150 Background Pk Height (A): 0.098
Blank Corrected Pk Area (A-s): 0.003
Concentration (ug/L): 0.49

Replicate 2 Time: 23:23
Peak Area (A-s): 0.007 Peak Height (A): 0.014
Background Pk Area (A-s): 0.075 Background Pk Height (A): 0.050
Blank Corrected Pk Area (A-s): 0.001
Concentration (ug/L): 0.15

Mean Conc (ug/L): 0.32 SD: 0.242 RSD(%): 75.98

****

As ID: PBS(4572.01) A Seq. No.: 00042 A/S Pos.: 20 Date: 12/27/90

Replicate 1 Time: 23:25
Peak Area (A-s): 0.149 Peak Height (A): 0.204
Background Pk Area (A-s): 0.065 Background Pk Height (A): 0.050
Blank Corrected Pk Area (A-s): 0.143
Concentration (ug/L): 20.16

Replicate 2 Time: 23:28
Peak Area (A-s): 0.157 Peak Height (A): 0.214
Background Pk Area (A-s): 0.065 Background Pk Height (A): 0.054
Blank Corrected Pk Area (A-s): 0.151
Concentration (ug/L): 21.27

Mean Conc (ug/L): 20.71 SD: 0.785 RSD(%): 3.79

20.71/20.00 = 103.6% R

Recovery is 102.0%

****

As ID: CCV Seq. No.: 00043 A/S Pos.: 4 Date: 12/27/90

Replicate 1 Time: 23:30
Peak Area (A-s): 0.342 Peak Height (A): 0.436
Background Pk Area (A-s): 0.082 Background Pk Height (A): 0.052
Blank Corrected Pk Area (A-s): 0.336
Concentration (ug/L): 47.29

Replicate 2 Time: 23:33
Peak Area (A-s): 0.345 Peak Height (A): 0.444
Background Pk Area (A-s): 0.080 Background Pk Height (A): 0.054
Blank Corrected Pk Area (A-s): 0.339
Concentration (ug/L): 47.74

Mean Conc (ug/L): 47.51 SD: 0.320 RSD(%): 0.67

47.51/50.00 = 95.02% R

15522-F-1104

Check sample is within range 45.00 - 55.00

As ID: CCB Seq. No.: 00044 A/S Pos.: 5 Date: 12/27/90

Replicate 1 Time: 23:36
Peak Area (A-s): 0.008 Peak Height (A): 0.017
Background Pk Area (A-s): 0.058 Background Pk Height (A): 0.054
Blank Corrected Pk Area (A-s): 0.001
Concentration (ug/L): 0.20

Replicate 2 Time: 23:38
Peak Area (A-s): 0.003 Peak Height (A): 0.016
Background Pk Area (A-s): 0.056 Background Pk Height (A): 0.056
Blank Corrected Pk Area (A-s): -0.004
Concentration (ug/L): -0.50

Mean Conc (ug/L): -0.15 SD: 0.500 RSD(%): 334.96

Check sample is within range -10.00 - 10.00

15522-F-1104

FURNACE AA RUN LOG

Calibration			
Std.#	Conc.	Abs.	r
Std.0	S0	0.095	11650
Std.1	S10	0.031	11655
Std.2	S50	0.143	11700
Std.3	S100	0.289	11705
Std.4			0.99992

Analyst CH Date 12-31-90

Instrument PE5000 Bkgrd BZ

Element As Wavelength 193.7

Calibration Standard: Source Plasma Chem Stock I-A Prep Date 12-31-90

MFK888

Client I.D.	SWLO I.D.	~~Time~~ 1st Burn-ABS /Conc.	2nd Burn-ABS /Conc.	Average ABS/ Conc.	Dilution Factor	Final Concentration ug/l mg/kg	JAN - 2 1991 Comments
ICV		1710		47.79		47.79	47.4/100.82%R
ICB		1715		-1.51		2.04	
CRA		1720		8.97		8.97	
CCV		1725		50.58		50.58	50/101.16%R
CCB		1730		-0.81		2.04	
PBLO		1735		-1.16		2.04	
PBLOA		1740		19.81		19.81	20/99.05%R
LCSLO		1745		43.94		43.94	47.4/92.7%R
LCSLOA		1750		62.82		18.88	20/94.4%R
MFK903	4572.11	1755		-0.45		2.04	
MFK903A	4572.11A	1800		21.21		21.21	20/106.0%R
MFK880	4572.11D ~~4585.01~~	1805		-0.11		2.04	
MFK903DA	4572.11DA ~~4585.01A~~	RIO		21.56		21.56	20/107.8%R
~~MFK891~~ MFK889	4585.01	1815		-0.11		2.04	
~~MFK891A~~ MFK889A	4585.01A	1820		19.46		19.46	20/97.3%R
CCV		1825		48.83		48.83	50
CCB		1830		-0.81		2.04	

FURNACE AA RUN LOG

Calibration			
Std.#	Conc.	Abs.	r
Std.0			
Std.1			
Std.2			
Std.3			
Std.4			

Analyst QL Date 12-31-90

Instrument P5000 Bkgrd BZ

Element As (cont'd) Wavelength 193.7

Calibration Standard: Source Plasma Chem STD #1-A Prep Date 12-31-90

Client I.D.	SWLO I.D.	1st Burn-ABS /Conc. (Time)	2nd Burn-ABS /Conc.	Average ABS/ Conc.	Dilution Factor	Final Concentration ug/l mg/kg	Comments
MFK8895 ~~MFK895~~	4585.01S	1835		3590		35.90	40/89.8%R
MFK891	4585.02	1840		0.23		0.23	
MFK891A	4585.02A	1845		10.02		Bead deposit	
MFK892	4585.03	1850		0.93		2.04	
MFK892A	4585.03A	1855		22.61		22.61	20/113%R
MFK893	4585.04	1900		0.93		2.04	
MFK893A	4585.04A	1905		22.26		22.26	20/111.3%R
MFK895	4585.05	1910		1.63		2.04	
MFK895A	4585.05A	1915		20.86		20.86	20/104.3%R
CCV		1920		49.18		49.18	50/98.36%R
CCB		1925		-1.16		2.04	
MFK904	4585.06	1930		-0.81		2.04	
MFK904A	4585.06A	1935		19.11		19.11	20/95.6%R
MFK905	4585.07	1940		0.23		2.04	
MFK905A	4585.07A	1945		18.41		18.41	20/92.0%R
MFK906	4585.08	1950		0.23		2.04	
MFK906A	4585.08A	1955		21.56		21.56	20/107.8%R

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FURNACE AA RUN LOG

Calibration			
Std.#	Conc.	Abs.	r
Std.0			
Std.1			
Std.2			
Std.3			
Std.4			

Analyst CLY Date 12-31-96

Instrument PE5100 Bkgrd BG

Element As (cont'd) Wavelength 193.7

Calibration Standard: Source Plasma Chem Std #1A Prep Date 12-31-96

Client I.D.	SWLO I.D.	1st Burn-ABS /Conc.	2nd Burn-ABS /Conc.	Average ABS/ Conc.	Dilution Factor	Final Concentration ug/l mg/kg	Comments
MFK841	4158502	2000		1.51		2.04	
MFK841A	4158504	2005		21.56		21.56	20/107.8 i.R
CCV		2010		51.28		51.28	50/102.56 i.R
CCB		2015		0.23		2.04	

15522-F-1104

INSTRUMENT - P.E. 5000 ---- ANALYSIS RUNTIME REPORT ---- IDL : 2.00000

Cindy Landey

ELECTRONICS PLUS, INC. ANALYST: ~~MARCEL SCHATZMANN~~ ANALYSIS UNITS : UG/L

INSTRUMENT DATA COLLECTION FOR - AS109 RUN DATE: 12/31/90 RUN START TIME: 16:48:17

CLR 12-31-90

PE5000 As

CUP #	SAMPLE ID	SAMPLE TYPE	ALTERNATE SAMPLE ID	DILUT. FACTOR	MEASURED SIGNAL	CONCENTRATION	QC STATUS
CUP# 0	AZ	AZ			0.004 0.006 0.005 AV SD= 0.00100, CV= 20.00000 0.000 AZ		
CUP# 1	10.0 PPB	ST1			0.031 0.031 0.031 AV SD= 0.00000, CV= 0.00000		
					CALC CONC 10.00 RPD = 0.000% m = 0.00309 b = 0.00000 R = 1.00000		
CUP# 2	50.0 PPB	ST2			0.145 0.141 0.143 AV SD= 0.00200, CV= 1.39860		
					CALC CONC 50.00 RPD = 0.000% m = 0.00280 b = 0.00299 R = 1.00000		
CUP# 3	100.0 PPB	ST3			0.291 0.288 0.289 AV SD= 0.00150, CV= 0.51814		
					CALC CONC 100.27 RPD = 0.274% m = 0.00286 b = 0.00132 R = 0.99992		

1650

1655

1700

1705

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CUP# 4	ICV	UNK	0.140	
			0.135	
			0.138 AV	SD= 0.00250, CV= 1.81818
			47.79 UG/L	/47.4 = 100.82% R
CUP# 5	ICB	UNK	-0.004	
			-0.002	
			-0.003 AV	SD= 0.00100, CV= -33.33334
			-1.51 UG/L	BELOW DL < 2.00
CUP# 6	CRA	UNK	0.027	
			0.028	
			0.027 AV	SD= 0.00050, CV= 1.81818
			8.97 UG/L	
CUP# 7	CCV	UNK	0.143	
			0.148	
			0.146 AV	SD= 0.00250, CV= 1.71821
			50.58 UG/L	/50.0 = 101.16% R
CUP# 8	CCB	UNK	0.000	
			-0.002	
			-0.001 AV	SD= 0.00100, CV=-100.00000
			-.81 UG/L	BELOW DL < 2.00

1710

1715

1720

1725

1730

15522F-1104

CUP# 9 PBW UNK -0.005 1735

4572.11

0.001
-0.002 AV SD= 0.00300, CV=-150.00002
-1.16 UG/L BELOW DL < 2.00

CUP# 10 PBWA UNK 0.060 1740
0.056
4572.11 0.058 AV SD= 0.00200, CV= 3.44827
19.81 UG/L /20.00 = 99.05%R

CUP# 11 LCSW UNK 0.122 1745
0.133
4572.11 0.127 AV SD= 0.00550, CV= 4.31373
43.94 UG/L /47.4 = 92.7%R

CUP# 12 LCSWA UNK 0.181
0.180
4572.11 0.181 AV SD= 0.00050, CV= 0.27700 1750
62.82 UG/L
18.88/20.00 = 94.4%R

CUP# 13 MFK903 UNK 0.001
-0.001
4572.11 0.000 AV SD= 0.00000, CV= 0.00000 1755
-.45 UG/L BELOW DL < 2.00

CUP# 14 MFK903A UNK 0.059
0.064
4572.11 0.062 AV SD= 0.00250, CV= 4.06504 1800
21.21 UG/L /20.00 = 106.0%R

CUP# 15 MFK903D UNK 0.004
-0.002
45721110 0.001 AV SD= 0.00300, CV= 300.00000 1805
-.11 UG/L BELOW DL < 2.00

CUP# 16 MFK903DA UNK 0.062
4572.110 0.064
0.063 AV SD= 0.00100, CV= 1.58730 1810
21.56 UG/L /20.00 = 107.8%R

MFK889
CUP# 17 ~~MFK899~~ UNK -0.001
~~4572.~~ 4585.01 0.002
0.001 AV SD= 0.00150, CV= 300.00000 1815
-.11 UG/L BELOW DL < 2.00

MFK889A
CUP# 18 ~~MFK899A~~ UNK 0.057
4585.01 0.058
0.057 AV SD= 0.00050, CV= 0.86956 1820
19.46 UG/L /20.00 = 97.3%R

CUP# 19 CCV UNK 0.142
0.140
0.141 AV SD= 0.00100, CV= 0.70922 1825
48.83 UG/L 150.00 = 97.66%R

CUP# 20 CCB UNK

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0.001
-0.002
-0.001 AV SD= 0.00150, CV=-300.00000
-.81 UG/L BELOW DL < 2.00

1830

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MFK8895

CUP# 21 ~~MFK8895~~ UNK 5X — 1835

4585.015

0.103
0.106
0.104 AV SD= 0.00150, CV= 1.43541
179.51 UG/L * OFF SCALE

/5 35.90
/40.00 = 89.76% R

CUP# 22 MFK891 UNK — 1840

4585.02

0.003
0.000
0.002 AV SD= 0.00150, CV= 100.00000
.23 UG/L BELOW DL < 2.00

CUP# 23 MFK891A UNK — 1845

4585.02

-0.002 no deposit
0.061
0.030 AV SD= 0.03150, CV= 106.77966 (High RSD)
10.02 UG/L

CUP# 24 MFK892 UNK — 1850

4585.03

0.006
0.003
0.004 AV SD= 0.00150, CV= 33.33334
.93 UG/L BELOW DL < 2.00

CUP# 25 MFK892A UNK — 1855

4585.03

0.067
0.064
0.066 AV SD= 0.00150, CV= 2.29008
22.61 UG/L /20.00 = 113.05% R

CUP# 26 MFK893 UNK — 1900

4585.04

0.003
0.004
0.004 AV SD= 0.00050, CV= 14.28572
.93 UG/L BELOW DL < 2.00

CUP# 27 MFK893A UNK — 1905

4585.04

0.065
0.064
0.065 AV SD= 0.00050, CV= 0.77519
22.26 UG/L /20.00 = 111.3% R

CUP# 28 MFK895 UNK — 1910

4585.05

0.007
0.005
0.006 AV SD= 0.00100, CV= 16.66667
1.63 UG/L BELOW DL < 2.00

CUP# 29 MFK895A UNK — 1915

4585.05

0.067
0.054
0.061 AV SD= 0.00650, CV= 10.74380
20.86 UG/L /20.00 = 104.3% R

CUP# 30 CCV UNK — 1920

0.139
0.146
0.142 AV SD= 0.00350, CV= 2.45614
49.18 UG/L /50.00 = 98.36% R

CUP# 31 CCB UNK — 1925

0.002
-0.007
-0.002 AV SD= 0.00450, CV=-180.00002
-1.16 UG/L BELOW DL < 2.00

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CUP# 32 MFK904 UNK — 1930
4585.06
0.003
-0.004
-0.001 AV SD= 0.00350, CV=-699.99988
-.81 UG/L BELOW DL < 2.00

CUP# 33 MFK904A UNK — 1935
4585.06
0.061
0.050
0.056 AV SD= 0.00550, CV= 9.90991
19.11 UG/L / 20.00 = 95.6%R

CUP# 34 MFK905 UNK — 1940
4585.07
0.002
0.002
0.002 AV SD= 0.00000, CV= 0.00000
.23 UG/L BELOW DL < 2.00

CUP# 35 MFK905A UNK — 1945
4585.07
0.048
0.061
0.054 AV SD= 0.00650, CV= 11.92661
18.41 UG/L / 20.00 = 92.0%R

CUP# 36 MFK906 UNK — 1950
4585.08
0.006
-0.001
0.002 AV SD= 0.00350, CV= 140.00000
.23 UG/L BELOW DL < 2.00

CUP# 37 MFK906A UNK — 1955
4585.08
0.062
0.063
0.063 AV SD= 0.00050, CV= 0.80000
21.56 UG/L / 20.00 = 107.8%R

CUP# 22 MFK891 UNK — 2000
4585.02
-0.004
-0.001
-0.003 AV SD= 0.00150, CV= -60.00000
-1.51 UG/L BELOW DL < 2.00

CUP# 23 MFK891A UNK — 2005
4585.02
0.064
0.062
0.063 AV SD= 0.00100, CV= 1.58730
21.56 UG/L / 20.00 = 107.8%R

CUP# 30 CCV UNK — 2010
0.148
0.149
0.148 AV SD= 0.00050, CV= 0.33670
51.28 UG/L / 50.00 = 102.56%R

CUP# 31 CCB UNK — 2015
0.003
0.001
0.002 AV SD= 0.00100, CV= 50.00000
.23 UG/L BELOW DL < 2.00

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00 22

FURNACE AA RUN LOG

Calibration			
Std.#	Conc.	Abs.	r
Std.0	50	Az	8:34
Std.1	525	0.242	8:38
Std.2	53.0	0.295	8:42
Std.3	520	0.207	8:46
Std.4	550	0.416	8:50
	53.0	0.831	8:54

Analyst BWD Date 1/2/91

Instrument TJA-22 Bkgrd B.S

Element Pb Wavelength 283.3

Calibration Standard: Source Plasma Chm Std A-1 Prep Date 1/2/91

MFK888

Client I.D.	SWLO I.D.	1st Burn-ABS /Conc.	2nd Burn-ABS /Conc.	Average ABS/ Conc.	Dilution Factor	Final Concentration ug/l mg/kg	JAN - 3 1991 Comments	
ICV		11:00		19.50	1:4	97.5	97.5 / 100.00%	
ICB		11:04		-1.36		<1.0		
CRA		11:08		1.91		1.9		
CCV		11:12		25.46	1:1	50.92 ~~25.46~~	25/101.64%	
CCB		11:16		-1.43		<1.0		
	7BW	11:20		-0.79		<1.0		
	PBWA	11:24		21.04		21.0	20/105.00%	
	LCSW	11:28		21.00	1:4	105	97.5/107.69%	
	LCSWA	11:32		43.64	1:4	22.9	20/114.35%	
MFK903	4572-11	11:36		4.20			RSD	*
MFK903A	4572-11A	11:40		25.87				*
MFK903D	4572-11D	11:44		2.37		2.4		
MFK903DA	4572-11DA	11:48		24.09		21.7	24/108.45%	
CCV		11:52		23.15	1:1	46.30 ~~23.15~~	25/92.60%	
CCB		11:56		-1.76		<1.0		
MFK889	4585-01	12:00		-0.51		<1.0		
MFK889A	4585-01A	12:04		23.32		23.3	20/116.50%	
MFK889S	4585-01S	12:08		20.13		20.1	20/100.50%	

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FURNACE AA RUN LOG

Calibration			
Std.#	Conc.	Abs.	r
Std.0			
Std.1			
Std.2			
Std.3			
Std.4			

Analyst BWD Date 1/2/91

Instrument TJA-22 Bkgrd R.S.

Element Pb Wavelength 283.3

Calibration Standard: Source _____ Prep Date _____

Client I.D.	SWLO I.D.	1st Burn-ABS /Conc.	2nd Burn-ABS /Conc.	Average ABS/ Conc.	Dilution Factor	Final Concentration ug/l mg/kg	Comments
MFK891	4585-02	12:12		0.60		<1.0	
MFK891A	4585-02A	12:16		23.37		23.4	20/117.00%
MFK892	4585-03	12:20		3.80		3.8	
MFK892A	4585-03A	12:24		26.20		22.4	20/112.00%
MFK893	4585-04	12:28		1.46		1.5	
MFK893A	4585-04A	12:32		22.70		21.2	20/106.00%
CCV		12:36		24.45	1:1	~~24.45~~ 48.90	25/97.80%
CCB		12:40		-0.83		<1.0	
MFK895	4585-05	12:44		11.74		11.7	
MFK895A	4585-05A	12:48		30.48		18.9	20/93.40%
MFK904	4585-06	12:52		1.46		1.5	
MFK904A	4585-06A	12:56		19.54		18.0	20/90.00%
MFK905	4585-07	13:00		2.20		2.2	
MFK905A	4585-07A	13:04		19.27		17.1	20/85.35%
MFK906	4585-08	13:08		0.75		<1.0	
MFK906A	4585-08A	13:12		20.29		20.3	
MFK903	4572-11	13:16		1.81		1.8	
MFK903A	4572-11A	13:20		24.19		22.4	20/112.00%
CCV		13:24		24.46	1:1	~~24.46~~ 48.92	
CCB		13:28		-1.06		<1.0	

15522-E-1104

```
Abs    1   0.019
Mean       0.019
P/H        0.011
Abs    2   0.016
Mean       0.017
P/H        0.007
AUTO ZERO
08:34:14
Wed  2 JAN 1991
          Pb-S
Standard C
Abs    1   0.241
Mean       0.241
P/H        0.430
Abs    2   0.243
Mean       0.242
P/H        0.444
          Pb-S
Mean       0.242
SD         0.001
RSD        00.57
          Pb-S
Standard 1
Abs    1   0.290
Mean       0.290
P/H        0.480
Abs    2   0.300
Mean       0.295
P/H        0.483
          Pb-S
Mean       0.295
SD         0.007
RSD        02.37
          Pb-S
Standard 2
Abs    1   0.200
Mean       0.200
P/H        0.337
Abs    2   0.206
Mean       0.203
P/H        0.365
          Pb-S
Mean       0.203
SD         0.004
RSD        02.06
          Pb-S
Standard 3
Abs    1   0.406
Mean       0.406
P/H        0.653
Abs    2   0.427
Mean       0.416
P/H        0.623
          Pb-S
Mean       0.416
SD         0.015
RSD        03.55

MAX CURVE A
          Pb-S
```

50

525

53.0

520

550

Wrong Standard

BWD

TJA-22

Pb

283.3

1/2/91

Standard 1		
Abs	1	0.034
Mean		0.034
P/H		0.055
Abs	2	0.028
Mean		0.031
P/H		0.052
	Pb-S	
Mean		0.031
SD		0.004
RSD		13.54

S 3.0

CALIBRATE A

STD	CONC	MEAN
Z	00.00	0.000
C	25.00	0.242
1	03.00	0.031
2	20.00	0.203
3	50.00	0.416

APP CONC	
STD Z	00.00
STD C	24.88
STD 1	02.92
STD 2	20.44
STD 3	50.06

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	Pb-S
SN=	000001
Conc 1	19.45
Mean	19.45
P/H	0.280
Conc 2	19.56
Mean	19.50
P/H	0.303
	Pb-S
Mean	19.50
SD	00.08
RSD	00.40
	Pb-S
SN=	000002
Conc 1	-01.64
Mean	-01.64
P/H	-0.004
Conc 2	-01.08
Mean	-01.36
P/H	-0.001
	Pb-S
Mean	-01.36
SD	00.40
RSD	-29.04
	Pb-S
SN=	000003
Conc 1	01.67
Mean	01.67
P/H	0.055
Conc 2	02.16
Mean	01.91
P/H	0.055
	Pb-S
Mean	01.91
SD	00.35
RSD	18.11
	Pb-S
SN=	000004
Conc 1	26.38
Mean	26.38
P/H	0.384
Conc 2	24.54
Mean	25.46
P/H	0.394
	Pb-S
Mean	25.46
SD	01.30
RSD	05.10
	Pb-S
SN=	000005
Conc 1	-02.08
Mean	-02.08
P/H	-0.004
Conc 2	-00.77
Mean	-01.43
P/H	-0.001
	Pb-S
Mean	-01.43
SD	00.93
RSD	-64.75

ICV 1:4

ICB

CRA

CCV 1:1

CCB

15522-F-1104


```
          Pb-S
SN= 000006
Conc   1 -01.06
Mean      -01.06
P/H        0.003
Conc   2 -00.52
Mean      -00.79
P/H        0.002
          Pb-S
Mean      -00.79
SD         00.38
RSD       -48.22
          Pb-S
SN= 000007
Conc   1  20.56
Mean       20.56
P/H        0.313
Conc   2  21.52
Mean       21.04
P/H        0.341
          Pb-S
Mean       21.04
SD         00.68
RSD        03.22
          Pb-S
SN= 000008
Conc   1  21.15
Mean       21.15
P/H        0.310
Conc   2  20.86
Mean       21.00
P/H        0.317
          Pb-S
Mean       21.00
SD         00.21
RSD        00.97
          Pb-S
SN= 000009
Conc   1  44.46
Mean       44.46
P/H        0.504
Conc   2  43.28
Mean       43.87
P/H        0.523
          Pb-S
Mean       43.87
SD         00.83
RSD        01.90
          Pb-S
SN= 000010
Conc   1  05.05
Mean       05.05
P/H        0.041
Conc   2  03.35
Mean       04.20
P/H        0.040
          Pb-S
Mean       04.20
SD         01.20
RSD        28.61
```

PBW (4572-11)

PBW A

LCS W 1:4

LCSW A 1:4

RSD

4572-11/MFK903

```
          Pb-S
SN= 000011
Conc   1   26.25
Mean       26.25
P/H        0.310
Conc   2   25.50
Mean       25.87
P/H        0.308
          Pb-S
Mean       25.87
SD         00.53
RSD        02.04
          Pb-S
SN= 000012
Conc   1   02.19
Mean       02.19
P/H        0.040
Conc   2   02.56
Mean       02.37
P/H        0.042
          Pb-S
Mean       02.37
SD         00.26
RSD        11.01
          Pb-S
SN= 000013
Conc   1   25.09
Mean       25.09
P/H        0.301
Conc   2   23.10
Mean       24.09
P/H        0.298
          Pb-S
Mean       24.09
SD         01.41
RSD        05.84
          Pb-S
SN= 000014
Conc   1   21.00
Mean       21.00
P/H        0.406


 Conc   2   25.30
 Mean       23.15
 P/H        0.309
           Pb-S
 Mean       23.15
 SD         03.04
 RSD        13.13
```

4572-11 A / MFK903 A

4572-11 D / MFK903 D

4572-11 D A / MFK903 D A

CCV 1.1

15522-F-1104

```
          Pb-S
SN= 000015
Conc   1 -01.78
Mean     -01.78
P/H      -0.004
Conc   2 -01.73
Mean     -01.76
P/H      -0.005
          Pb-S
Mean     -01.76
SD        00.04
RSD      -02.04
          Pb-S
SN= 000016
Conc   1  00.00
Mean      00.00
P/H       0.016
Conc   2 -01.01
Mean     -00.51
P/H       0.017
          Pb-S
Mean     -00.51
SD        00.71
RSD      DIG HI
          Pb-S
SN= 000017
Conc   1  23.24
Mean      23.24
P/H       0.370
Conc   2  23.40
Mean      23.32
P/H       0.364
          Pb-S
Mean      23.32
SD        00.11
RSD       00.48
          Pb-S
SN= 000018
Conc   1  20.39
Mean      20.39
P/H       0.337
Conc   2  19.88
Mean      20.13
P/H       0.354
          Pb-S
Mean      20.13
SD        00.36
RSD       01.78
          Pb-S
SN= 000019
Conc   1  00.68
Mean      00.68
P/H       0.010
Conc   2  00.53
Mean      00.60
P/H       0.015
          Pb-S
Mean      00.60
SD        00.11
RSD       17.66
```

CCB

4585-01 / MFK889

4585-01A / MFK889A

4585-01S / MFK889S

4585-02 / MFK89,

```
          Pb-S
SN= 000020
Conc   1   22.57
Mean       22.57
P/H        0.283
Conc   2   24.17
Mean       23.37
P/H        0.274
          Pb-S
Mean       23.37
SD         01.13
RSD        04.83
          Pb-S
SN= 000021
Conc   1   04.01
Mean       04.01
P/H        0.054
Conc   2   03.59
Mean       03.80
P/H        0.054
          Pb-S
Mean       03.80
SD         00.30
RSD        07.78
          Pb-S
SN= 000022
Conc   1   25.99
Mean       25.99
P/H        0.299
Conc   2   26.42
Mean       26.20
P/H        0.297
          Pb-S
Mean       26.20
SD         00.30
RSD        01.16
          Pb-S
SN= 000023
Conc   1   01.03
Mean       01.03
P/H        0.014
Conc   2   01.90
Mean       01.46
P/H        0.021
          Pb-S
Mean       01.46
SD         00.62
RSD        42.12
          Pb-S
SN= 000024
Conc   1   22.29
Mean       22.29
P/H        0.251
Conc   2   23.11
Mean       22.70
P/H        0.255
          Pb-S
Mean       22.70
SD         00.58
RSD        02.55
```

4585-02 A / MFK891 A

4585-03 / MFK892

4585-03 A / MFK892 A

4585-04 / MFK893

4585-04 A / MFK893 A

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```
          Pb-S
SN= 000025
Conc   1   23.33
Mean       23.33
P/H         0.403
Conc   2   25.57
Mean       24.45
P/H         0.394
          Pb-S
Mean       24.45
SD         01.58
RSD        06.47
          Pb-S
SN= 000026
Conc   1  -00.61
Mean      -00.61
P/H       -0.002
Conc   2  -01.04
Mean      -00.83
P/H        0.000
          Pb-S
Mean      -00.83
SD         00.30
RSD       -36.62
          Pb-S
SN= 000027
Conc   1   12.06
Mean       12.06
P/H         0.158

Conc   2   11.42
Mean       11.74
P/H         0.160
          Pb-S
Mean       11.74
SD         00.45
RSD        03.85
          Pb-S
SN= 000028
Conc   1   30.36
Mean       30.36
P/H         0.322
Conc   2   30.61
Mean       30.48
P/H         0.359
          Pb-S
Mean       30.48
SD         00.18
RSD        00.57
```

CCV 1:1

CCB

4585-05 / MFK895

4585-05A / MFK895A

```
          Pb-S
SN= 000029
Conc   1   01.41
Mean       01.41
P/H        0.021
Conc   2   01.51
Mean       01.46
P/H        0.025
          Pb-S
Mean       01.46
SD         00.07
RSD        04.79
          Pb-S
SN= 000030
Conc   1   17.53
Mean       17.53
P/H        0.213
Conc   2   21.56
Mean       19.54
P/H        0.252
          Pb-S
Mean       19.54
SD         02.85
RSD        14.58
          Pb-S
SN= 000031
Conc   1   02.29
Mean       02.29
P/H        0.027
Conc   2   02.12
Mean       02.20
P/H        0.027
          Pb-S
Mean       02.20
SD         00.12
RSD        05.45
          Pb-S
SN= 000032
Conc   1   17.24
Mean       17.24
P/H        0.201
Conc   2   21.30
Mean       19.27
P/H        0.247
          Pb-S
Mean       19.27
SD         02.87
RSD        14.89
          Pb-S
SN= 000033
Conc   1   00.90
Mean       00.90
P/H        0.019
Conc   2   00.61
Mean       00.75
P/H        0.015
          Pb-S
Mean       00.75
SD         00.21
RSD        27.33
```

4585-06 / MFK904

4585-06A / MFK904A

4585-07 / MFK905

4585-07A / MFK905A

4585-08 / MFK906

~~14~~ 15522-F-1104


```
          Pb-S
SN= 000034
Conc   1   19.33
Mean       19.33
P/H        0.232
Conc   2   21.26
Mean       20.29
P/H        0.251
          Pb-S
Mean       20.29
SD         01.36
RSD        06.72
          Pb-S
SN= 000035
Conc   1   01.86
Mean       01.86
P/H        0.033
Conc   2   01.76
Mean       01.81
P/H        0.038
          Pb-S
Mean       01.81
SD         00.07
RSD        03.86
          Pb-S
SN= 000036
Conc   1   24.27
Mean       24.27
P/H        0.282

Conc   2   24.11
Mean       24.19
P/H        0.297
          Pb-S
Mean       24.19
SD         00.11
RSD        00.46
```

4585-08 A / MFK906 A

4572-11 / MFK903

4572-11 A / MFK903 A

15522-F-1104

	Pb-S
SN=	000037
Conc 1	21.86
Mean	21.86
P/H	0.353
Conc 2	27.07
Mean	24.46
P/H	0.403
	Pb-S
Mean	24.46
SD	03.68
RSD	15.06

CCV 1:1

	Pb-S
SN=	000038
Conc 1	-01.31
Mean	-01.31
P/H	-0.002
Conc 2	-00.80
Mean	-01.06
P/H	-0.001
	Pb-S
Mean	-01.06
SD	00.36
RSD	-33.96

CCB

	Pb-S
SN=	000039
Conc 1	-01.47
Mean	-01.47
P/H	-0.003
Conc 2	-01.53
Mean	-01.50
P/H	0.000
	Pb-S
Mean	-01.50
SD	00.04
RSD	-02.80

4581-01D 1:1

	Pb-S
SN=	000040
Conc 1	-01.90
Mean	-01.90
P/H	-0.003
Conc 2	-00.76
Mean	-01.33
P/H	-0.004
	Pb-S
Mean	-01.33
SD	00.81
RSD	-60.60

4581-02D 1:1

Data not used DoB 1/3/91

15522-F-1104

SOUTHWEST LABORATORIES OF OKLAHOMA, INC.

ANALYST CSL/BW DATE 01/02/91

INSTR = PE5100A BKGRD = BZ IDL = 2.0 UG/L

WAVELENGTH = 283.3 INTEGRATION TIME = 5.0 SEC

Report Name: A010217

MFK888

JAN - 4 1991

report	lab#	sampleid	analdate	analtime	TEST ID	average	dil	result	units	cv	comment
A01021 7	S0	Blank	01/02/91	18:37							AZ
					Pb	0.025		0.025	ug/L	******	
	S3	Standard 1	01/02/91	18:42							0.024
					Pb	3.275		3.275	ug/L	8.85	
	S50	Standard 2	01/02/91	18:48							0.400
					Pb	49.190		49.190	ug/L	0.40	
	S100	Standard 3	01/02/91	18:54							0.742
					Pb	92.890		92.890	ug/L	0.52	
	S100	Standard 3	01/02/91	19:00							0.741
					Pb	98.240		98.240	ug/L	0.07	
		ICV	01/02/91	19:06							97.5/102.00%R
					Pb	49.730	2.00	99.460	ug/L	0.14	
		ICB	01/02/91	19:11							
					Pb	0.035		0.035	ug/L	60.60	
		CRA	01/02/91	19:17							
					Pb	3.580		3.580	ug/L	6.72	
		CCV	01/02/91	19:22							50/106.68%R
					Pb	53.340		53.340	ug/L	0.42	
		CCB	01/02/91	19:28							
					Pb	0.060		0.060	ug/L	47.13	
	S0	Blank	01/02/91	19:34							
					Pb	-0.220		-0.220	ug/L		
	S50	Reslope	01/02/91	19:39							
					Pb	51.445		51.445	ug/L	0.76	
		CCV	01/02/91	19:46							50/101.68%R
					Pb	50.540		50.540	ug/L	0.36	

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report	lab#	sampleid	analdate	analtime	TEST ID	average	dil	result	units	cv	comment	
A01021 7		CCB	01/02/91	19:51								
					Pb	0.140		0.140	ug/L	20.20		
		PBS(4572.01)	01/02/91	19:57								X
					Pb	0.250		0.250	ug/L	62.22		
		PBSA	01/02/91	20:03							20/117.6%R	X
					Pb	23.520		23.520	ug/L	0.78		
		LCSS	01/02/91	20:08								
					Pb	48.420	25.00	1210.500	ug/L	1.11		
		LCSSA	01/02/91	20:14							20/102.6%R	
					Pb	68.955	25.00	1723.875	ug/L	0.50		
	4572.01	MFK888	01/02/91	20:20								X
					Pb	130.350		130.350	ug/L	0.22		
	4572.01A	MFK888A	01/02/91	20:26							HIGH	X
					Pb	142.360		142.360	ug/L	0.34		
	4572.02	MFK890	01/02/91	20:31								X
					Pb	209.825		209.825	ug/L	0.95		
	4572.02A	MFK890A	01/02/91	20:37							HIGH	X
					Pb	211.400		211.400	ug/L	0.66		
		BLANK CUP	01/02/91	20:44								
					Pb	0.570		0.570	ug/L	9.92		
		CCV	01/02/91	20:49							50/102.08%R	
					Pb	51.040		51.040	ug/L	0.91		
		CCB	01/02/91	20:55								
					Pb	0.455		0.455	ug/L	41.96		
	4572.03	MFK894	01/02/91	21:01								X
					Pb	83.880		83.880	ug/L	0.74		
	4572.03A	MFK894A	01/02/91	21:07							20/70.2%R MSA	X
					Pb	97.910		97.910	ug/L	0.26		
	4572.04	MFK896	01/02/91	21:12								X
					Pb	215.155		215.155	ug/L	0.89		
	4572.04A	MFK896A	01/02/91	21:18							HIGH	X
					Pb	219.265		219.265	ug/L	0.26		
	4572.05	MFK897	01/02/91	21:24								X
					Pb	84.750		84.750	ug/L	0.07		
	4572.05A	MFK897A	01/02/91	21:30							HIGH	X
					Pb	101.290		101.290	ug/L	0.14		

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Report	lab#	sampleid	analdate	analtime	TEST ID	average	dil	result	units	cv	comment	
A010217	4572.06	MFK898	01/02/91	21:36								X
					Pb	263.505		263.505	ug/L	0.81		
	4572.06A	MFK898A	01/02/91	21:42							HIGH	X
					Pb	267.230		267.230	ug/L	0.61		
		BLANK CUP	01/02/91	21:47								
					Pb	1.705		1.705	ug/L	85.02		
		CCV	01/02/91	21:53							50/108.94%R	
					Pb	54.470		54.470	ug/L	0.52		
		CCB	01/02/91	21:59								
					Pb	0.615		0.615	ug/L	93.13		
	S0	Blank	01/02/91	22:05								
					Pb	0.470		0.470	ug/L	21.06		
	S50	Reslope	01/02/91	22:10								
					Pb	52.910		52.910	ug/L	0.45		
		CCV	01/02/91	22:17							50/102.02%R	
					Pb	51.010		51.010	ug/L	1.05		
		CCB	01/02/91	22:23								
					Pb	-0.295		-0.295	ug/L			
	4572.07	MFK899	01/02/91	22:28								X
					Pb	136.170		136.170	ug/L	0.15		
	4572.07A	MFK899A	01/02/91	22:34							HIGH	X
					Pb	145.420		145.420	ug/L	0.45		
	4572.08	MFK900	01/02/91	22:40								X
					Pb	242.290		242.290	ug/L	2.78		
	4572.08A	MFK900A	01/02/91	22:45							HIGH	X
					Pb	244.565		244.565	ug/L	0.85		
	4572.09	MFK901	01/02/91	22:51								X
					Pb	230.310		230.310	ug/L	0.23		
	4572.09A	MFK901A	01/02/91	22:57							HIGH	X
					Pb	227.505		227.505	ug/L	1.08		
	4572.10	MFK902	01/02/91	23:02								X
					Pb	200.835		200.835	ug/L	0.80		
	4572.10A	MFK902A	01/02/91	23:08							HIGH	X
					Pb	202.395		202.395	ug/L	0.25		
		BLANK CUP	01/02/91	23:14								
					Pb	0.515		0.515	ug/L	50.80		

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report	lab#	sampleid	analdate	analtime	TEST ID	average	dil	result	units	cv	comment	
A01021 7		CCV	01/02/91	23:19							50/103.08%R	
					Pb	51.540		51.540	ug/L	0.11		
		CCB	01/02/91	23:25								
					Pb	-0.160		-0.160	ug/L			
	4572.10D	MFK902D	01/02/91	23:30								X
					Pb	149.020		149.020	ug/L	0.26		
	4572.10DA	MFK902DA	01/02/91	23:36							HIGH	X
					Pb	154.960		154.960	ug/L	0.16		
	4572.10S	MFK902S	01/02/91	23:42							HIGH	X
					Pb	189.145		189.145	ug/L	0.56		
		BLANK CUP	01/02/91	23:47								
					Pb	0.020		0.020	ug/L	******		
		CCV	01/02/91	23:53							50/104.32%R	
					Pb	52.155		52.155	ug/L	0.18		
		CCB	01/02/91	23:58								
					Pb	-0.155		-0.155	ug/L			

15522-F-1104

c/d
1/2/91 PE5100A
Pb

Element File: PB_EPA.GEL Element: Pb Wavelength: 283.3
Date: 01/02/91 Time: 18:37 Slit: 0.7
Data File: A010217.DAT ID/Wt File: UNTITLED Lamp Current: 0
Technique: HGA Calib. Type: Linear Energy: 59
Remark 1: IDL=2.0 UG/L
Remark 2: INTEGRATION TIME = 5.0 SEC.
Remark 3: ICV = 97.5 UG/L
Remark 4: BACKGROUND CORRECTION = BZ
Remark 5: PE5100A

Pb ID: Blank Seq. No.: 00026 A/S Pos.: 0 Date: 01/02/91

S0

Replicate 1 Time: 18:39
Peak Area (A-s): -0.000 Peak Height (A): 0.007
Background Pk Area (A-s): 0.016 Background Pk Height (A): 0.015
Blank Corrected Pk Area (A-s): -0.001
Concentration (ug/L): -0.19

Replicate 2 Time: 18:42
Peak Area (A-s): 0.003 Peak Height (A): 0.007
Background Pk Area (A-s): 0.016 Background Pk Height (A): 0.016
Blank Corrected Pk Area (A-s): 0.002
Concentration (ug/L): 0.24

Mean Conc (ug/L): 0.03 SD: 0.308 RSD(%): 1182.58

Auto-zero performed.

Pb ID: Standard 1 Seq. No.: 00027 A/S Pos.: 38 Date: 01/02/91

S3

Replicate 1 Time: 18:45
Peak Area (A-s): 0.024 Peak Height (A): 0.042
Background Pk Area (A-s): 0.031 Background Pk Height (A): 0.021
Blank Corrected Pk Area (A-s): 0.023
Concentration (ug/L): 3.07

Replicate 2 Time: 18:48
Peak Area (A-s): 0.027 Peak Height (A): 0.041
Background Pk Area (A-s): 0.026 Background Pk Height (A): 0.018
Blank Corrected Pk Area (A-s): 0.026
Concentration (ug/L): 3.48

Mean Conc (ug/L): 3.28 SD: 0.287 RSD(%): 8.77

Standard number 1 applied. [3.00]
Correlation coefficient: 1.00000 Slope: 0.0081

Pb ID: Standard 2 Seq. No.: 00028 A/S Pos.: 39 Date: 01/02/91

S 50

Replicate 1 Time: 18:51
Peak Area (A-s): 0.400 Peak Height (A): 0.544
Background Pk Area (A-s): 0.103 Background Pk Height (A): 0.113
Blank Corrected Pk Area (A-s): 0.398
Concentration (ug/L): 49.05

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Replicate 2 Time: 18:54
Peak Area (A-s): 0.402 Peak Height (A): 0.549
Background Pk Area (A-s): 0.105 Background Pk Height (A): 0.112
Blank Corrected Pk Area (A-s): 0.401
Concentration (ug/L): 49.33

Mean Conc (ug/L): 49.19 SD: 0.195 RSD(%): 0.40

Standard number 2 applied. [50.00]
Correlation coefficient: 1.00000 Slope: 0.0080

****

Pb ID: Standard 3 Seq. No.: 00029 A/S Pos.: 40 Date: 01/02/91

S100

Replicate 1 Time: 18:57
Peak Area (A-s): 0.746 Peak Height (A): 0.947
Background Pk Area (A-s): 0.188 Background Pk Height (A): 0.230
Blank Corrected Pk Area (A-s): 0.745
Concentration (ug/L): 93.23

Replicate 2 Time: 18:59
Peak Area (A-s): 0.741 Peak Height (A): 0.942
Background Pk Area (A-s): 0.185 Background Pk Height (A): 0.228
Blank Corrected Pk Area (A-s): 0.740
Concentration (ug/L): 92.55

Mean Conc (ug/L): 92.89 SD: 0.481 RSD(%): 0.52

Standard number 3 applied. [100.00]
Correlation coefficient: 0.99879 Slope: 0.0075

****

Pb ID: Standard 3 Seq. No.: 00030 A/S Pos.: 40 Date: 01/02/91

S100

Replicate 1 Time: 19:03
Peak Area (A-s): 0.742 Peak Height (A): 0.951
Background Pk Area (A-s): 0.186 Background Pk Height (A): 0.227
Blank Corrected Pk Area (A-s): 0.741
Concentration (ug/L): 98.19

Replicate 2 Time: 19:06
Peak Area (A-s): 0.743 Peak Height (A): 0.932
Background Pk Area (A-s): 0.186 Background Pk Height (A): 0.227
Blank Corrected Pk Area (A-s): 0.741
Concentration (ug/L): 98.29

Mean Conc (ug/L): 98.24 SD: 0.070 RSD(%): 0.07

Standard number 3 applied. [100.00]
Correlation coefficient: 0.99874 Slope: 0.0075

15522-F-1104

Pb ID: AS ~~Position 1~~ ICV 1:1 dil Seq. No.: 00031 A/S Pos.: 1 Date: 01/02/91

Replicate 1 Time: 19:08
Peak Area (A-s): 0.376 Peak Height (A): 0.512
Background Pk Area (A-s): 0.090 Background Pk Height (A): 0.104
Blank Corrected Pk Area (A-s): 0.375
Concentration (ug/L): 49.78

Replicate 2 Time: 19:11
Peak Area (A-s): 0.376 Peak Height (A): 0.523
Background Pk Area (A-s): 0.095 Background Pk Height (A): 0.106
Blank Corrected Pk Area (A-s): 0.374
Concentration (ug/L): 49.68

Mean Conc (ug/L): 49.73 SD: 0.073 RSD(%): 0.15

X 2 99.46/97.5 = 102.0 %R

Pb ID: AS ~~Position~~ 2 FCB Seq. No.: 00032 A/S Pos.: 2 Date: 01/02/91

Replicate 1 Time: 19:14
Peak Area (A-s): 0.002 Peak Height (A): 0.009
Background Pk Area (A-s): 0.030 Background Pk Height (A): 0.020
Blank Corrected Pk Area (A-s): 0.000
Concentration (ug/L): 0.05

Replicate 2 Time: 19:17
Peak Area (A-s): 0.001 Peak Height (A): 0.009
Background Pk Area (A-s): 0.025 Background Pk Height (A): 0.017
Blank Corrected Pk Area (A-s): 0.000
Concentration (ug/L): 0.02

Mean Conc (ug/L): 0.03 SD: 0.019 RSD(%): 57.54

Pb ID: AS Position 3 CRA Seq. No.: 00033 A/S Pos.: 3 Date: 01/02/91

Replicate 1 Time: 19:19
Peak Area (A-s): 0.027 Peak Height (A): 0.045
Background Pk Area (A-s): 0.017 Background Pk Height (A): 0.014
Blank Corrected Pk Area (A-s): 0.026
Concentration (ug/L): 3.41

Replicate 2 Time: 19:22
Peak Area (A-s): 0.029 Peak Height (A): 0.042
Background Pk Area (A-s): 0.019 Background Pk Height (A): 0.019
Blank Corrected Pk Area (A-s): 0.028
Concentration (ug/L): 3.75

Mean Conc (ug/L): 3.58 SD: 0.240 RSD(%): 6.71

Pb ID: ~~AS Position 4~~ CCV Seq. No.: 00034 A/S Pos.: 4 Date: 01/02/91

Replicate 1 Time: 19:25
Peak Area (A-s): 0.402 Peak Height (A): 0.547
Background Pk Area (A-s): 0.115 Background Pk Height (A): 0.113
Blank Corrected Pk Area (A-s): 0.401
Concentration (ug/L): 53.18

15522-F-1104

Replicate 2 Time: 19:28
Peak Area (A-s): 0.404 Peak Height (A): 0.546
Background Pk Area (A-s): 0.112 Background Pk Height (A): 0.114
Blank Corrected Pk Area (A-s): 0.403
Concentration (ug/L): 53.50

Mean Conc (ug/L): 53.34 SD: 0.228 RSD(%): 0.43

150.00 = 106.68 i.R

~~~~~~

Pb ID: AS ~~Position 5~~ CCB Seq. No.: 00035 A/S Pos.: 5 Date: 01/02/91

Replicate 1 Time: 19:31
Peak Area (A-s): 0.002 Peak Height (A): 0.010
Background Pk Area (A-s): 0.024 Background Pk Height (A): 0.018
Blank Corrected Pk Area (A-s): 0.001
Concentration (ug/L): 0.08

Replicate 2 Time: 19:33
Peak Area (A-s): 0.002 Peak Height (A): 0.008
Background Pk Area (A-s): 0.021 Background Pk Height (A): 0.017
Blank Corrected Pk Area (A-s): 0.000
Concentration (ug/L): 0.04

Mean Conc (ug/L): 0.06 SD: 0.023 RSD(%): 38.76

~~~~~~

Pb ID: Blank SD Seq. No.: 00036 A/S Pos.: 0 Date: 01/02/91

Replicate 1 Time: 19:36
Peak Area (A-s): -0.001 Peak Height (A): 0.008
Background Pk Area (A-s): 0.028 Background Pk Height (A): 0.020
Blank Corrected Pk Area (A-s): -0.002
Concentration (ug/L): -0.32

Replicate 2 Time: 19:39
Peak Area (A-s): 0.000 Peak Height (A): 0.009
Background Pk Area (A-s): 0.032 Background Pk Height (A): 0.021
Blank Corrected Pk Area (A-s): -0.001
Concentration (ug/L): -0.12

Mean Conc (ug/L): -0.22 SD: 0.136 RSD(%): 61.67

Auto-zero performed.

~~~~~~

Pb ID: Reslope S SD Seq. No.: 00037 A/S Pos.: 39 Date: 01/02/91

Replicate 1 Time: 19:42
Peak Area (A-s): 0.389 Peak Height (A): 0.528
Background Pk Area (A-s): 0.113 Background Pk Height (A): 0.109
Blank Corrected Pk Area (A-s): 0.390
Concentration (ug/L): 51.72

Replicate 2 Time: 19:45
Peak Area (A-s): 0.385 Peak Height (A): 0.536
Background Pk Area (A-s): 0.119 Background Pk Height (A): 0.113
Blank Corrected Pk Area (A-s): 0.386
Concentration (ug/L): 51.17
~~~~~~

15522-F-1104

Mean Conc (ug/L): 51.45 SD: 0.390 RSD(%): 0.76

Reslope standard applied. [50.00]
Correlation coefficient: 0.99874 Slope: 0.0075

~~~~~~

Pb ID: ~~AS Position 4~~ CCV Seq. No.: 00038 A/S Pos.: 4 Date: 01/02/91

Replicate 1 Time: 19:48
Peak Area (A-s): 0.390 Peak Height (A): 0.538
Background Pk Area (A-s): 0.113 Background Pk Height (A): 0.111
Blank Corrected Pk Area (A-s): 0.391
Concentration (ug/L): 50.41

Replicate 2 Time: 19:51
Peak Area (A-s): 0.392 Peak Height (A): 0.538
Background Pk Area (A-s): 0.114 Background Pk Height (A): 0.107
Blank Corrected Pk Area (A-s): 0.393
Concentration (ug/L): 50.67

Mean Conc (ug/L): 50.54 SD: 0.179 RSD(%): 0.35

50.00 = 101.08 %R

~~~~~~

Pb ID: AS ~~Position 5~~ CCB Seq. No.: 00039 A/S Pos.: 5 Date: 01/02/91

Replicate 1 Time: 19:54
Peak Area (A-s): 0.000 Peak Height (A): 0.007
Background Pk Area (A-s): 0.029 Background Pk Height (A): 0.021
Blank Corrected Pk Area (A-s): 0.001
Concentration (ug/L): 0.12

Replicate 2 Time: 19:57
Peak Area (A-s): 0.001 Peak Height (A): 0.006
Background Pk Area (A-s): 0.023 Background Pk Height (A): 0.017
Blank Corrected Pk Area (A-s): 0.001
Concentration (ug/L): 0.16

Mean Conc (ug/L): 0.14 SD: 0.032 RSD(%): 22.50

15522-F-1104

Pb ID: PBS 4572.01 Seq. No.: 00040 A/S Pos.: 6 Date: 01/02/91

Replicate 1 Time: 20:00
Peak Area (A-s): 0.002 Peak Height (A): 0.009
Background Pk Area (A-s): 0.012 Background Pk Height (A): 0.015
Blank Corrected Pk Area (A-s): 0.003
Concentration (ug/L): 0.36

Replicate 2 Time: 20:03
Peak Area (A-s): 0.001 Peak Height (A): 0.008
Background Pk Area (A-s): 0.013 Background Pk Height (A): 0.012
Blank Corrected Pk Area (A-s): 0.001
Concentration (ug/L): 0.14

Mean Conc (ug/L): 0.25 SD: 0.157 RSD(%): 62.21

Pb ID: PBS A 4572.01 Seq. No.: 00041 A/S Pos.: 6 Date: 01/02/91

Replicate 1 Time: 20:05
Peak Area (A-s): 0.181 Peak Height (A): 0.256
Background Pk Area (A-s): 0.045 Background Pk Height (A): 0.050
Blank Corrected Pk Area (A-s): 0.181
Concentration (ug/L): 23.39

Replicate 2 Time: 20:08
Peak Area (A-s): 0.183 Peak Height (A): 0.255
Background Pk Area (A-s): 0.039 Background Pk Height (A): 0.049
Blank Corrected Pk Area (A-s): 0.183
Concentration (ug/L): 23.65

Mean Conc (ug/L): 23.52 SD: 0.182 RSD(%): 0.77

Recovery is 116.3% 20.00 = 117.6 %R

Pb ID: LCSS Seq. No.: 00042 A/S Pos.: 7 Date: 01/02/91

4572.01 1:24 dil

Replicate 1 Time: 20:11
Peak Area (A-s): 0.372 Peak Height (A): 0.530
Background Pk Area (A-s): 0.118 Background Pk Height (A): 0.108
Blank Corrected Pk Area (A-s): 0.372
Concentration (ug/L): 48.04

Replicate 2 Time: 20:14
Peak Area (A-s): 0.378 Peak Height (A): 0.535
Background Pk Area (A-s): 0.122 Background Pk Height (A): 0.110
Blank Corrected Pk Area (A-s): 0.378
Concentration (ug/L): 48.80

Mean Conc (ug/L): 48.42 SD: 0.544 RSD(%): 1.12

Y25 1.210.5 102.58 %R

ID: LCSS A Seq. No.: 00043 A/S Pos.: 7 Date: 01/02/91

4572.01

Replicate 1 Time: 20:17
Peak Area (A-s): 0.532 Peak Height (A): 0.744
Background Pk Area (A-s): 0.150 Background Pk Height (A): 0.161

Blank Corrected Pk Area (A-s): 0.533
Concentration (ug/L): 68.71

Replicate 2 Time: 20:20
Peak Area (A-s): 0.536 Peak Height (A): 0.732
Background Pk Area (A-s): 0.162 Background Pk Height (A): 0.168
Blank Corrected Pk Area (A-s): 0.536
Concentration (ug/L): 69.20

Mean Conc (ug/L): 68.95 SD: 0.349 RSD(%): 0.51

Recovery is 102.7% 20.53/90.00 = 102.6%.2

****

Pb ID: MFK888 Seq. No.: 00044 A/S Pos.: 8 Date: 01/02/91

4572.01

Sample abs. is greater than that of the largest standard.
Replicate 1 Time: 20:22
Peak Area (A-s): 1.012 Peak Height (A): 1.407
Background Pk Area (A-s): 0.364 Background Pk Height (A): 0.488
Blank Corrected Pk Area (A-s): 1.012
Concentration (ug/L): 130.55

dil + rerun

Sample abs. is greater than that of the largest standard.
Replicate 2 Time: 20:25
Peak Area (A-s): 1.009 Peak Height (A): 1.393
Background Pk Area (A-s): 0.367 Background Pk Height (A): 0.473
Blank Corrected Pk Area (A-s): 1.009
Concentration (ug/L): 130.15

Sample abs. is greater than that of the largest standard.
Mean Conc (ug/L): 130.35 SD: 0.285 RSD(%): 0.22

****

Pb ID: MFK888 A Seq. No.: 00045 A/S Pos.: 8 Date: 01/02/91

4572.01

Sample abs. is greater than that of the largest standard.
Replicate 1 Time: 20:28
Peak Area (A-s): 1.106 Peak Height (A): 1.488
Background Pk Area (A-s): 0.393 Background Pk Height (A): 0.537
Blank Corrected Pk Area (A-s): 1.106
Concentration (ug/L): 142.70

Sample abs. is greater than that of the largest standard.
Replicate 2 Time: 20:31
Peak Area (A-s): 1.101 Peak Height (A): 1.503
Background Pk Area (A-s): 0.396 Background Pk Height (A): 0.540
Blank Corrected Pk Area (A-s): 1.101
Concentration (ug/L): 142.02

Sample abs. is greater than that of the largest standard.
Mean Conc (ug/L): 142.36 SD: 0.479 RSD(%): 0.34

Recovery is 60.1%

****

Pb ID: MFK890 Seq. No.: 00046 A/S Pos.: 9 Date: 01/02/91

4572.02

Sample abs. is greater than that of the largest standard.

15522-F-1104

Replicate 1 Time: 20:34
Peak Area (A-s): 1.615 Peak Height (A): 1.682
Background Pk Area (A-s): 0.885 Background Pk Height (A): 1.179
Blank Corrected Pk Area (A-s): 1.616
Concentration (ug/L): 208.41

dil + recm

Sample abs. is greater than that of the largest standard.
Replicate 2 Time: 20:37
Peak Area (A-s): 1.637 Peak Height (A): 1.678
Background Pk Area (A-s): 0.898 Background Pk Height (A): 1.165
Blank Corrected Pk Area (A-s): 1.638
Concentration (ug/L): 211.24

Sample abs. is greater than that of the largest standard.
Mean Conc (ug/L): 209.83 SD: 2.007 RSD(%): 0.96

****

Pb ID: MFK890 A 457202 Seq. No.: 00047 A/S Pos.: 9 Date: 01/02/91

Sample abs. is greater than that of the largest standard.
Replicate 1 Time: 20:40
Peak Area (A-s): 1.646 Peak Height (A): 1.729
Background Pk Area (A-s): 0.921 Background Pk Height (A): 1.235
Blank Corrected Pk Area (A-s): 1.647
Concentration (ug/L): 212.39

Sample abs. is greater than that of the largest standard.
Replicate 2 Time: 20:43
Peak Area (A-s): 1.631 Peak Height (A): 1.828
Background Pk Area (A-s): 0.911 Background Pk Height (A): 1.231
Blank Corrected Pk Area (A-s): 1.631
Concentration (ug/L): 210.41

Sample abs. is greater than that of the largest standard.
Mean Conc (ug/L): 211.40 SD: 1.403 RSD(%): 0.66

Recovery is 7.9%

15522-F-1104

Pb ID: BLANK CUP Seq. No.: 00048 A/S Pos.: 10 Date: 01/02/91

Replicate 1 Time: 20:46
Peak Area (A-s): 0.004 Peak Height (A): 0.012
Background Pk Area (A-s): 0.041 Background Pk Height (A): 0.024
Blank Corrected Pk Area (A-s): 0.005
Concentration (ug/L): 0.61

Replicate 2 Time: 20:49
Peak Area (A-s): 0.004 Peak Height (A): 0.007
Background Pk Area (A-s): 0.027 Background Pk Height (A): 0.020
Blank Corrected Pk Area (A-s): 0.004
Concentration (ug/L): 0.53

Mean Conc (ug/L): 0.57 SD: 0.051 RSD(%): 8.94

Pb ID: AS ~~Position 4~~ CCV Seq. No.: 00049 A/S Pos.: 4 Date: 01/02/91

Replicate 1 Time: 20:52

15522-F-1104

Peak Area (A-s): 0.398 Peak Height (A): 0.578
Background Pk Area (A-s): 0.142 Background Pk Height (A): 0.120
Blank Corrected Pk Area (A-s): 0.398
Concentration (ug/L): 51.37

Replicate 2 Time: 20:55
Peak Area (A-s): 0.393 Peak Height (A): 0.571
Background Pk Area (A-s): 0.141 Background Pk Height (A): 0.120
Blank Corrected Pk Area (A-s): 0.393
Concentration (ug/L): 50.71

Mean Conc (ug/L): 51.04 SD: 0.464 RSD(%): 0.91

$51.04/50.00 = 102.08\%R$

Check sample is within range 44.76 - 55.25

****

Pb ID: AS ~~Position~~ 5 Seq. No.: 00050 A/S Pos.: 5 Date: 01/02/91

CCB

Replicate 1 Time: 20:58
Peak Area (A-s): 0.004 Peak Height (A): 0.009
Background Pk Area (A-s): 0.050 Background Pk Height (A): 0.027
Blank Corrected Pk Area (A-s): 0.005
Concentration (ug/L): 0.59

Replicate 2 Time: 21:01
Peak Area (A-s): 0.002 Peak Height (A): 0.008
Background Pk Area (A-s): 0.051 Background Pk Height (A): 0.031
Blank Corrected Pk Area (A-s): 0.002
Concentration (ug/L): 0.32

Mean Conc (ug/L): 0.45 SD: 0.189 RSD(%): 41.74

Check sample is within range -3.01 - 3.01

15522-F-1104

Pb ID: MFK894 Seq. No.: 00051 A/S Pos.: 11 Date: 01/02/91

4572.03

Replicate 1 Time: 21:04
Peak Area (A-s): 0.653 Peak Height (A): 1.062
Background Pk Area (A-s): 0.234 Background Pk Height (A): 0.262
Blank Corrected Pk Area (A-s): 0.654
Concentration (ug/L): 84.32

Replicate 2 Time: 21:06
Peak Area (A-s): 0.646 Peak Height (A): 1.081
Background Pk Area (A-s): 0.235 Background Pk Height (A): 0.258
Blank Corrected Pk Area (A-s): 0.647
Concentration (ug/L): 83.44

MSA

Mean Conc (ug/L): 83.88 SD: 0.622 RSD(%): 0.74

Pb ID: MFK894 A Seq. No.: 00052 A/S Pos.: 11 Date: 01/02/91

4572.03

Replicate 1 Time: 21:09
Peak Area (A-s): 0.757 Peak Height (A): 1.213
Background Pk Area (A-s): 0.273 Background Pk Height (A): 0.336
Blank Corrected Pk Area (A-s): 0.758
Concentration (ug/L): 97.73

Replicate 2 Time: 21:12
Peak Area (A-s): 0.760 Peak Height (A): 1.211
Background Pk Area (A-s): 0.274 Background Pk Height (A): 0.340
Blank Corrected Pk Area (A-s): 0.760
Concentration (ug/L): 98.09

Mean Conc (ug/L): 97.91 SD: 0.256 RSD(%): 0.26

Recovery is 70.2%

14.03/20.00 = 70.2% R

Pb ID: MFK896 Seq. No.: 00053 A/S Pos.: 12 Date: 01/02/91

4572.04

Sample abs. is greater than that of the largest standard.
Replicate 1 Time: 21:15
Peak Area (A-s): 1.657 Peak Height (A): 1.702
Background Pk Area (A-s): 0.788 Background Pk Height (A): 1.094
Blank Corrected Pk Area (A-s): 1.658
Concentration (ug/L): 213.80

Sample abs. is greater than that of the largest standard.
Replicate 2 Time: 21:18
Peak Area (A-s): 1.678 Peak Height (A): 1.917
Background Pk Area (A-s): 0.807 Background Pk Height (A): 1.113
Blank Corrected Pk Area (A-s): 1.679
Concentration (ug/L): 216.51

dil
+
Rerun

Sample abs. is greater than that of the largest standard.
Mean Conc (ug/L): 215.16 SD: 1.916 RSD(%): 0.89

Pb ID: MFK896 A Seq. No.: 00054 A/S Pos.: 12 Date: 01/02/91

4572.04

15522-F-1164

Sample abs. is greater than that of the largest standard.
Replicate 1 Time: 21:21
Peak Area (A-s): 1.703 Peak Height (A): 1.908
Background Pk Area (A-s): 0.833 Background Pk Height (A): 1.156
Blank Corrected Pk Area (A-s): 1.703
Concentration (ug/L): 219.67

Sample abs. is greater than that of the largest standard.
Replicate 2 Time: 21:24
Peak Area (A-s): 1.696 Peak Height (A): 1.851
Background Pk Area (A-s): 0.830 Background Pk Height (A): 1.160
Blank Corrected Pk Area (A-s): 1.697
Concentration (ug/L): 218.86

Sample abs. is greater than that of the largest standard.
Mean Conc (ug/L): 219.26 SD: 0.575 RSD(%): 0.26

Recovery is 20.5%

****

Pb ID: MFK897 Seq. No.: 00055 A/S Pos.: 13 Date: 01/02/91
4572-05
Replicate 1 Time: 21:27
Peak Area (A-s): 0.656 Peak Height (A): 1.068
Background Pk Area (A-s): 0.240 Background Pk Height (A): 0.248
Blank Corrected Pk Area (A-s): 0.657
Concentration (ug/L): 84.71

Replicate 2 Time: 21:30
Peak Area (A-s): 0.657 Peak Height (A): 1.033
Background Pk Area (A-s): 0.236 Background Pk Height (A): 0.253
Blank Corrected Pk Area (A-s): 0.657
Concentration (ug/L): 84.79

dil + Rerun

Mean Conc (ug/L): 84.75 SD: 0.056 RSD(%): 0.07

****

Pb ID: MFK897A Seq. No.: 00056 A/S Pos.: 13 Date: 01/02/91
4572.05
Replicate 1 Time: 21:33
Peak Area (A-s): 0.784 Peak Height (A): 1.163
Background Pk Area (A-s): 0.267 Background Pk Height (A): 0.319
Blank Corrected Pk Area (A-s): 0.784
Concentration (ug/L): 101.19

Replicate 2 Time: 21:36
Peak Area (A-s): 0.786 Peak Height (A): 1.200
Background Pk Area (A-s): 0.264 Background Pk Height (A): 0.317
Blank Corrected Pk Area (A-s): 0.786
Concentration (ug/L): 101.39

Mean Conc (ug/L): 101.29 SD: 0.144 RSD(%): 0.14
OneCal

Recovery is 82.7%

****

ID: MFK898 Seq. No.: 00057 A/S Pos.: 14 Date: 01/02/91
4572.06
Sample abs. is greater than that of the largest standard.

15522-F-1104

Replicate 1 Time: 21:39
Peak Area (A-s): 2.054 Peak Height (A): 1.615
Background Pk Area (A-s): 2.690 Background Pk Height (A): 2.958
Blank Corrected Pk Area (A-s): 2.055
Concentration (ug/L): 265.02

dil + Rerun

Sample abs. is greater than that of the largest standard.
Replicate 2 Time: 21:41
Peak Area (A-s): 2.031 Peak Height (A): 1.593
Background Pk Area (A-s): 2.761 Background Pk Height (A): 2.982
Blank Corrected Pk Area (A-s): 2.031
Concentration (ug/L): 261.99

Sample abs. is greater than that of the largest standard.
Mean Conc (ug/L): 263.51 SD: 2.142 RSD(%): 0.81

****

Pb ID: MFK898 A 4572.06 Seq. No.: 00058 A/S Pos.: 14 Date: 01/02/91

Sample abs. is greater than that of the largest standard.
Replicate 1 Time: 21:44
Peak Area (A-s): 2.080 Peak Height (A): 1.852
Background Pk Area (A-s): 2.710 Background Pk Height (A): 3.010
Blank Corrected Pk Area (A-s): 2.081
Concentration (ug/L): 268.38

Sample abs. is greater than that of the largest standard.
Replicate 2 Time: 21:47
Peak Area (A-s): 2.062 Peak Height (A): 1.747
Background Pk Area (A-s): 2.732 Background Pk Height (A): 2.950
Blank Corrected Pk Area (A-s): 2.063
Concentration (ug/L): 266.08

Sample abs. is greater than that of the largest standard.
Mean Conc (ug/L): 267.23 SD: 1.625 RSD(%): 0.61

Recovery is 18.6%

****

Pb ID: BLANK CUP Seq. No.: 00059 A/S Pos.: 15 Date: 01/02/91

Replicate 1 Time: 21:50
Peak Area (A-s): 0.021 Peak Height (A): 0.027
Background Pk Area (A-s): 0.049 Background Pk Height (A): 0.028
Blank Corrected Pk Area (A-s): 0.021
Concentration (ug/L): 2.73

Replicate 2 Time: 21:53
Peak Area (A-s): 0.005 Peak Height (A): 0.009
Background Pk Area (A-s): 0.036 Background Pk Height (A): 0.024
Blank Corrected Pk Area (A-s): 0.005
Concentration (ug/L): 0.68

Mean Conc (ug/L): 1.70 SD: 1.446 RSD(%): 84.90

****

Pb ID: AS ~~Position 4~~ CCV Seq. No.: 00060 A/S Pos.: 4 Date: 01/02/91

Replicate 1 Time: 21:56

15522-F-1104

Peak Area (A-s): 0.423 Peak Height (A): 0.570
Background Pk Area (A-s): 0.150 Background Pk Height (A): 0.118
Blank Corrected Pk Area (A-s): 0.424
Concentration (ug/L): 54.67

Replicate 2 Time: 21:59
Peak Area (A-s): 0.420 Peak Height (A): 0.576
Background Pk Area (A-s): 0.150 Background Pk Height (A): 0.117
Blank Corrected Pk Area (A-s): 0.421
Concentration (ug/L): 54.27

Mean Conc (ug/L): 54.47 SD: 0.283 RSD(%): 0.52

150.00 = 108.94% R

Check sample is within range 44.76 - 55.25

****

Pb ID: AS ~~Position 5~~ CCB Seq. No.: 00061 A/S Pos.: 5 Date: 01/02/91

Replicate 1 Time: 22:01
Peak Area (A-s): 0.007 Peak Height (A): 0.013
Background Pk Area (A-s): 0.059 Background Pk Height (A): 0.033
Blank Corrected Pk Area (A-s): 0.008
Concentration (ug/L): 1.02

Replicate 2 Time: 22:04
Peak Area (A-s): 0.001 Peak Height (A): 0.009
Background Pk Area (A-s): 0.061 Background Pk Height (A): 0.032
Blank Corrected Pk Area (A-s): 0.002
Concentration (ug/L): 0.21

Mean Conc (ug/L): 0.61 SD: 0.570 RSD(%): 92.82

Check sample is within range -3.01 - 3.01

15522-F-1104

Pb ID: Blank Seq. No.: 00062 A/S Pos.: 0 Date: 01/02/91

SO

Replicate 1 Time: 22:07
Peak Area (A-s): 0.004 Peak Height (A): 0.008
Background Pk Area (A-s): 0.051 Background Pk Height (A): 0.029
Blank Corrected Pk Area (A-s): 0.004
Concentration (ug/L): 0.54

Replicate 2 Time: 22:10
Peak Area (A-s): 0.003 Peak Height (A): 0.011
Background Pk Area (A-s): 0.058 Background Pk Height (A): 0.032
Blank Corrected Pk Area (A-s): 0.003
Concentration (ug/L): 0.40

Mean Conc (ug/L): 0.47 SD: 0.101 RSD(%): 21.43

Auto-zero performed.

Pb ID: Reslope Seq. No.: 00063 A/S Pos.: 39 Date: 01/02/91

SSO

Replicate 1 Time: 22:13
Peak Area (A-s): 0.415 Peak Height (A): 0.551
Background Pk Area (A-s): 0.141 Background Pk Height (A): 0.108
Blank Corrected Pk Area (A-s): 0.412
Concentration (ug/L): 53.08

Replicate 2 Time: 22:16
Peak Area (A-s): 0.412 Peak Height (A): 0.567
Background Pk Area (A-s): 0.139 Background Pk Height (A): 0.113
Blank Corrected Pk Area (A-s): 0.409
Concentration (ug/L): 52.74

Mean Conc (ug/L): 52.91 SD: 0.242 RSD(%): 0.46

Reslope standard applied. [50.00]
Correlation coefficient: 0.99874 Slope: 0.0075

Pb ID: ~~AS Position 4~~ Seq. No.: 00064 A/S Pos.: 4 Date: 01/02/91

CCV

Replicate 1 Time: 22:20
Peak Area (A-s): 0.419 Peak Height (A): 0.566
Background Pk Area (A-s): 0.137 Background Pk Height (A): 0.113
Blank Corrected Pk Area (A-s): 0.415
Concentration (ug/L): 50.63

Replicate 2 Time: 22:22
Peak Area (A-s): 0.425 Peak Height (A): 0.562
Background Pk Area (A-s): 0.145 Background Pk Height (A): 0.115
Blank Corrected Pk Area (A-s): 0.422
Concentration (ug/L): 51.39

Mean Conc (ug/L): 51.01 SD: 0.544 RSD(%): 1.07

Check sample is within range 44.76 - 55.25

51.01/50.00 = 102.02%R

15522-F-1104

Pb ID: AS ~~Position 5~~ CCB Seq. No.: 00065 A/S Pos.: 5 Date: 01/02/91

Replicate 1 Time: 22:25
Peak Area (A-s): 0.002 Peak Height (A): 0.006
Background Pk Area (A-s): 0.048 Background Pk Height (A): 0.029
Blank Corrected Pk Area (A-s): -0.002
Concentration (ug/L): -0.20

Replicate 2 Time: 22:28
Peak Area (A-s): -0.000 Peak Height (A): 0.009
Background Pk Area (A-s): 0.053 Background Pk Height (A): 0.030
Blank Corrected Pk Area (A-s): -0.003
Concentration (ug/L): -0.39

Mean Conc (ug/L): -0.30 SD: 0.137 RSD(%): 46.27

Check sample is within range -3.01 - 3.01

15522-F-1104

Pb ID: MFK899 Seq. No.: 00066 A/S Pos.: 16 Date: 01/02/91

4572.07

Sample abs. is greater than that of the largest standard.
Replicate 1 Time: 22:31
Peak Area (A-s): 1.119 Peak Height (A): 1.452
Background Pk Area (A-s): 0.392 Background Pk Height (A): 0.498
Blank Corrected Pk Area (A-s): 1.116
Concentration (ug/L): 136.03

dil + Rerun

Sample abs. is greater than that of the largest standard.
Replicate 2 Time: 22:34
Peak Area (A-s): 1.122 Peak Height (A): 1.468
Background Pk Area (A-s): 0.404 Background Pk Height (A): 0.495
Blank Corrected Pk Area (A-s): 1.118
Concentration (ug/L): 136.31

Sample abs. is greater than that of the largest standard.
Mean Conc (ug/L): 136.17 SD: 0.198 RSD(%): 0.15

Pb ID: MFK899A Seq. No.: 00067 A/S Pos.: 16 Date: 01/02/91

4572.07

Sample abs. is greater than that of the largest standard.
Replicate 1 Time: 22:37
Peak Area (A-s): 1.200 Peak Height (A): 1.610
Background Pk Area (A-s): 0.424 Background Pk Height (A): 0.570
Blank Corrected Pk Area (A-s): 1.197
Concentration (ug/L): 145.88

Sample abs. is greater than that of the largest standard.
Replicate 2 Time: 22:40
Peak Area (A-s): 1.192 Peak Height (A): 1.514
Background Pk Area (A-s): 0.425 Background Pk Height (A): 0.571
Blank Corrected Pk Area (A-s): 1.189
Concentration (ug/L): 144.96

Sample abs. is greater than that of the largest standard.
Mean Conc (ug/L): 145.42 SD: 0.649 RSD(%): 0.45

Recovery is 46.2%

Pb ID: MFK900 Seq. No.: 00068 A/S Pos.: 17 Date: 01/02/91

4572.08

Sample abs. is greater than that of the largest standard.
Replicate 1 Time: 22:42
Peak Area (A-s): 1.952 Peak Height (A): 1.824
Background Pk Area (A-s): 1.898 Background Pk Height (A): 2.433
Blank Corrected Pk Area (A-s): 1.949
Concentration (ug/L): 237.53

dil + Rerun

Sample abs. is greater than that of the largest standard.
Replicate 2 Time: 22:45
Peak Area (A-s): 2.030 Peak Height (A): 2.036
Background Pk Area (A-s): 1.909 Background Pk Height (A): 2.407
Blank Corrected Pk Area (A-s): 2.027
Concentration (ug/L): 247.05

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Sample abs. is greater than that of the largest standard.
Mean Conc (ug/L): 242.29 SD: 6.734 RSD(%): 2.78

~~~~~~

ID: MFK900 A Seq. No.: 00069 A/S Pos.: 17 Date: 01/02/91

4572.08

Sample abs. is greater than that of the largest standard.
Replicate 1 Time: 22:48
Peak Area (A-s): 1.998 Peak Height (A): 1.753
Background Pk Area (A-s): 1.909 Background Pk Height (A): 2.440
Blank Corrected Pk Area (A-s): 1.994
Concentration (ug/L): 243.09

Sample abs. is greater than that of the largest standard.
Replicate 2 Time: 22:51
Peak Area (A-s): 2.022 Peak Height (A): 1.896
Background Pk Area (A-s): 1.891 Background Pk Height (A): 2.349
Blank Corrected Pk Area (A-s): 2.018
Concentration (ug/L): 246.04

Sample abs. is greater than that of the largest standard.
Mean Conc (ug/L): 244.56 SD: 2.081 RSD(%): 0.85

Recovery is 11.4%

~~~~~~

Pb ID: MFK901 Seq. No.: 00070 A/S Pos.: 18 Date: 01/02/91

4572.09

Sample abs. is greater than that of the largest standard.
Replicate 1 Time: 22:54
Peak Area (A-s): 1.890 Peak Height (A): 1.722
Background Pk Area (A-s): 1.306 Background Pk Height (A): 1.922
Blank Corrected Pk Area (A-s): 1.886
Concentration (ug/L): 229.94

Sample abs. is greater than that of the largest standard.
Replicate 2 Time: 22:57
Peak Area (A-s): 1.896 Peak Height (A): 1.772
Background Pk Area (A-s): 1.293 Background Pk Height (A): 1.940
Blank Corrected Pk Area (A-s): 1.892
Concentration (ug/L): 230.68

dil + Rerun

Sample abs. is greater than that of the largest standard.
Mean Conc (ug/L): 230.31 SD: 0.523 RSD(%): 0.23

~~~~~~

Pb ID: MFK901 A Seq. No.: 00071 A/S Pos.: 18 Date: 01/02/91

4572.09

Sample abs. is greater than that of the largest standard.
Replicate 1 Time: 22:59
Peak Area (A-s): 1.855 Peak Height (A): 1.601
Background Pk Area (A-s): 1.300 Background Pk Height (A): 1.931
Blank Corrected Pk Area (A-s): 1.852
Concentration (ug/L): 225.77

Sample abs. is greater than that of the largest standard.
Replicate 2 Time: 23:02
Peak Area (A-s): 1.884 Peak Height (A): 1.713
Background Pk Area (A-s): 1.303 Background Pk Height (A): 1.941
~~~~~~

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Blank Corrected Pk Area (A-s): 1.881
Concentration (ug/L): 229.24

Sample abs. is greater than that of the largest standard.
Mean Conc (ug/L): 227.51 SD: 2.451 RSD(%): 1.08

Recovery is -14.0%

~~~~~~

Pb ID: MFK902 Seq. No.: 00072 A/S Pos.: 19 Date: 01/02/91

4572.10

Sample abs. is greater than that of the largest standard.
Replicate 1 Time: 23:05
Peak Area (A-s): 1.642 Peak Height (A): 1.768
Background Pk Area (A-s): 0.817 Background Pk Height (A): 0.951
Blank Corrected Pk Area (A-s): 1.638
Concentration (ug/L): 199.70

Sample abs. is greater than that of the largest standard.
Replicate 2 Time: 23:08
Peak Area (A-s): 1.660 Peak Height (A): 1.943
Background Pk Area (A-s): 0.820 Background Pk Height (A): 0.944
Blank Corrected Pk Area (A-s): 1.657
Concentration (ug/L): 201.97

dil → Rerun

Sample abs. is greater than that of the largest standard.
Mean Conc (ug/L): 200.83 SD: 1.607 RSD(%): 0.80

~~~~~~

ID: MFK902 A Seq. No.: 00073 A/S Pos.: 19 Date: 01/02/91

4572.10

Sample abs. is greater than that of the largest standard.
Replicate 1 Time: 23:11
Peak Area (A-s): 1.667 Peak Height (A): 1.975
Background Pk Area (A-s): 0.826 Background Pk Height (A): 1.006
Blank Corrected Pk Area (A-s): 1.663
Concentration (ug/L): 202.75

Sample abs. is greater than that of the largest standard.
Replicate 2 Time: 23:14
Peak Area (A-s): 1.661 Peak Height (A): 2.053
Background Pk Area (A-s): 0.824 Background Pk Height (A): 0.967
Blank Corrected Pk Area (A-s): 1.657
Concentration (ug/L): 202.04

Sample abs. is greater than that of the largest standard.
Mean Conc (ug/L): 202.39 SD: 0.508 RSD(%): 0.25

Recovery is 7.8%

~~~~~~

Pb ID: BLANK CUP Seq. No.: 00074 A/S Pos.: 20 Date: 01/02/91

Replicate 1 Time: 23:16
Peak Area (A-s): 0.009 Peak Height (A): 0.013
Background Pk Area (A-s): 0.060 Background Pk Height (A): 0.031
Blank Corrected Pk Area (A-s): 0.006
Concentration (ug/L): 0.70
~~~~~~

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Replicate 2 Time: 23:19
Peak Area (A-s): 0.006 Peak Height (A): 0.010
Background Pk Area (A-s): 0.049 Background Pk Height (A): 0.028
Blank Corrected Pk Area (A-s): 0.003
Concentration (ug/L): 0.33

Mean Conc (ug/L): 0.51 SD: 0.257 RSD(%): 50.08

****

Pb ID: ~~AS Position 4~~ CCV Seq. No.: 00075 A/S Pos.: 4 Date: 01/02/91

Replicate 1 Time: 23:22
Peak Area (A-s): 0.426 Peak Height (A): 0.562
Background Pk Area (A-s): 0.161 Background Pk Height (A): 0.110
Blank Corrected Pk Area (A-s): 0.423
Concentration (ug/L): 51.58

Replicate 2 Time: 23:25
Peak Area (A-s): 0.426 Peak Height (A): 0.556
Background Pk Area (A-s): 0.157 Background Pk Height (A): 0.111
Blank Corrected Pk Area (A-s): 0.423
Concentration (ug/L): 51.50

Mean Conc (ug/L): 51.54 SD: 0.059 RSD(%): 0.11

Check sample is within range 44.76 - 55.25 $51.54/50.00 = 103.08\%R$

****

Pb ID: AS ~~Position 5~~ CCB Seq. No.: 00076 A/S Pos.: 5 Date: 01/02/91

Replicate 1 Time: 23:27
Peak Area (A-s): 0.003 Peak Height (A): 0.008
Background Pk Area (A-s): 0.073 Background Pk Height (A): 0.037
Blank Corrected Pk Area (A-s): -0.001
Concentration (ug/L): -0.07

Replicate 2 Time: 23:30
Peak Area (A-s): 0.001 Peak Height (A): 0.009
Background Pk Area (A-s): 0.071 Background Pk Height (A): 0.035
Blank Corrected Pk Area (A-s): -0.002
Concentration (ug/L): -0.25

Mean Conc (ug/L): -0.16 SD: 0.126 RSD(%): 78.95

Check sample is within range -3.01 - 3.01

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Pb ID: MFK902D Seq. No.: 00077 A/S Pos.: 21 Date: 01/02/91

4572.10D

Sample abs. is greater than that of the largest standard.
Replicate 1 Time: 23:33
Peak Area (A-s): 1.223 Peak Height (A): 1.491
Background Pk Area (A-s): 0.463 Background Pk Height (A): 0.490
Blank Corrected Pk Area (A-s): 1.220
Concentration (ug/L): 148.75

Sample abs. is greater than that of the largest standard.
Replicate 2 Time: 23:36
Peak Area (A-s): 1.228 Peak Height (A): 1.485
Background Pk Area (A-s): 0.468 Background Pk Height (A): 0.500
Blank Corrected Pk Area (A-s): 1.225
Concentration (ug/L): 149.29

dil
↓
Recm

Sample abs. is greater than that of the largest standard.
Mean Conc (ug/L): 149.02 SD: 0.386 RSD(%): 0.26

Pb ID: MFK902D A Seq. No.: 00078 A/S Pos.: 21 Date: 01/02/91

4572.10D

Sample abs. is greater than that of the largest standard.
Replicate 1 Time: 23:39
Peak Area (A-s): 1.276 Peak Height (A): 1.565
Background Pk Area (A-s): 0.483 Background Pk Height (A): 0.554
Blank Corrected Pk Area (A-s): 1.273
Concentration (ug/L): 155.14

Sample abs. is greater than that of the largest standard.
Replicate 2 Time: 23:41
Peak Area (A-s): 1.273 Peak Height (A): 1.543
Background Pk Area (A-s): 0.490 Background Pk Height (A): 0.560
Blank Corrected Pk Area (A-s): 1.270
Concentration (ug/L): 154.78

Sample abs. is greater than that of the largest standard.
Mean Conc (ug/L): 154.96 SD: 0.255 RSD(%): 0.16

Recovery is 29.7%

Pb ID: MFK902S Seq. No.: 00079 A/S Pos.: 22 Date: 01/02/91

4572.10S

Sample abs. is greater than that of the largest standard.
Replicate 1 Time: 23:44
Peak Area (A-s): 1.561 Peak Height (A): 1.843
Background Pk Area (A-s): 0.683 Background Pk Height (A): 0.811
Blank Corrected Pk Area (A-s): 1.558
Concentration (ug/L): 189.89

dil
↓
Recm

Sample abs. is greater than that of the largest standard.
Replicate 2 Time: 23:47
Peak Area (A-s): 1.549 Peak Height (A): 1.907
Background Pk Area (A-s): 0.692 Background Pk Height (A): 0.820
Blank Corrected Pk Area (A-s): 1.546
Concentration (ug/L): 188.40

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Sample abs. is greater than that of the largest standard.
Mean Conc (ug/L): 189.14 SD: 1.050 RSD(%): 0.56

****

ID: BLANK CUP Seq. No.: 00080 A/S Pos.: 23 Date: 01/02/91

Replicate 1 Time: 23:50
Peak Area (A-s): 0.007 Peak Height (A): 0.015
Background Pk Area (A-s): 0.055 Background Pk Height (A): 0.030
Blank Corrected Pk Area (A-s): 0.003
Concentration (ug/L): 0.41

Replicate 2 Time: 23:53
Peak Area (A-s): 0.000 Peak Height (A): 0.007
Background Pk Area (A-s): 0.045 Background Pk Height (A): 0.026
Blank Corrected Pk Area (A-s): -0.003
Concentration (ug/L): -0.37

Mean Conc (ug/L): 0.02 SD: 0.552 RSD(%): 2295.10

****

Pb ID: ~~AS Position 4~~ CCV Seq. No.: 00081 A/S Pos.: 4 Date: 01/02/91

Replicate 1 Time: 23:55
Peak Area (A-s): 0.431 Peak Height (A): 0.550
Background Pk Area (A-s): 0.156 Background Pk Height (A): 0.107
Blank Corrected Pk Area (A-s): 0.427
Concentration (ug/L): 52.09

Replicate 2 Time: 23:58
Peak Area (A-s): 0.432 Peak Height (A): 0.556
Background Pk Area (A-s): 0.152 Background Pk Height (A): 0.106
Blank Corrected Pk Area (A-s): 0.428
Concentration (ug/L): 52.22

Mean Conc (ug/L): 52.16 SD: 0.092 RSD(%): 0.18

50.00 104.32% R

Check sample is within range 44.76 - 55.25

****

Pb ID: ~~AS Position 5~~ CCB Seq. No.: 00082 A/S Pos.: 5 Date: 01/02/91 01/03/91

Replicate 1 Time: 00:01
Peak Area (A-s): 0.001 Peak Height (A): 0.010
Background Pk Area (A-s): 0.075 Background Pk Height (A): 0.036
Blank Corrected Pk Area (A-s): -0.002
Concentration (ug/L): -0.22

Replicate 2 Time: 00:04
Peak Area (A-s): 0.002 Peak Height (A): 0.009
Background Pk Area (A-s): 0.067 Background Pk Height (A): 0.036
Blank Corrected Pk Area (A-s): -0.001
Concentration (ug/L): -0.09

Mean Conc (ug/L): -0.15 SD: 0.088 RSD(%): 57.58

Check sample is within range -3.01 - 3.01

15522-F-1104

SOUTHWEST LABORATORIES OF OKLAHOMA, INC.

ANALYST CJL/BWA DATE 1/3/91

INSTR = PE5100A BKGRD = BZ IDL = 2.0 UG/L

WAVELENGTH = 283.3 INTEGRATION TIME = 5.0 SEC

Report Name: A010316

MFK888

JAN - 7 1991

report	lab#	sampleid	analdate	analtime	comment	TEST ID	average	dil	result	units	cv	
A01031 6		S0	01/03/91	16:11								AZ
						Pb	0.002		0.002	ug/L	47.33	
		S3.0	01/03/91	16:16								ABS=0.026
						Pb	0.024		0.024	ug/L	5.88	
		S50.0	01/03/91	16:22								ABS=0.343
						Pb	42.455		42.455	ug/L	0.92	
		S100	01/03/91	16:28								ABS=0.658
						Pb	95.730		95.730	ug/L	0.83	
		ICV	01/03/91	16:34								97.5/106.54%R
						Pb	51.935	2.00	103.870	ug/L	0.69	
		ICB	01/03/91	16:39								
						Pb	0.100		0.100	ug/L	226.27	
		CRA	01/03/91	16:45								
						Pb	4.035		4.035	ug/L	6.48	
		CCV	01/03/91	16:50								50.0/104.84%R
						Pb	52.420		52.420	ug/L	0.65	
		CCB	01/03/91	16:56								
						Pb	0.460		0.460	ug/L	43.04	
4572.01	MFK888 1:24		01/03/91	17:02								
						Pb	7.780	25.00	194.500	ug/L	0.36	
A	MFK888 A 1:24		01/03/91	17:07								20.0/113.20%R
						Pb	30.425	25.00	760.625	ug/L	1.74	
4572.02	MFK890 1:99		01/03/91	17:13								
						Pb	5.200	100.00	520.000	ug/L	1.36	
A	MFK890 A 1:99		01/03/91	17:19								20.0/114.00%R
						Pb	28.005	100.00	2800.500	ug/L	2.40	

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report	lab#	sampleid	analdate	analtime	TEST ID	average	dil	result	units	cv	comment	
A01031 6	4572.04	MFK896 1:99	01/03/91	17:24	Pb	4.940	100.00	494.000	ug/L	6.30		
	A	MFK896 A 1:99	01/03/91	17:30	Pb	27.805	100.00	2780.500	ug/L	2.16	20.0/114.40%R	
	4572.05	MFK897 1:1	01/03/91	17:36	Pb	43.690	2.00	87.380	ug/L	0.42		
	A	MFK897 A 1:1	01/03/91	17:42	Pb	60.895	2.00	121.790	ug/L	9.39	20.0/86.00%R	
	4572.06	MFK898 1:99	01/03/91	17:48	Pb	28.475	100.00	2847.500	ug/L	1.81		
	A	MFK898 A 1:99	01/03/91	17:53	Pb	50.325	100.00	5032.500	ug/L	0.01	20.0/109.20%R	
		CCV	01/03/91	17:59	Pb	51.650		51.650	ug/L	0.11	50.0/103.30%R	
		CCB	01/03/91	18:05	Pb	0.305		0.305	ug/L	6.95		
	4572.07	MFK899 1:99	01/03/91	18:11	Pb	2.080		2.080	ug/L	3.40	RE-DIL UNDER CRDL	X
	A	MFK899 1:99	01/03/91	18:16	Pb	24.635		24.635	ug/L	0.09	RE-DIL UNDER CRDL	X
	4572.08	MFK900 1:99	01/03/91	18:22	Pb	11.945	100.00	1194.500	ug/L	2.43		
	A	MFK900 A 1:99	01/03/91	18:28	Pb	34.195	100.00	3419.500	ug/L	1.96	20.0/111.20%R	
	4572.09	MFK901 1:99	01/03/91	18:34	Pb	7.565	100.00	756.500	ug/L	1.96		
	A	MFK901 A 1:99	01/03/91	18:40	Pb	29.400	100.00	2940.000	ug/L	1.59	20.0/109.20%R	
	4572.10	MFK902 1:99	01/03/91	18:45	Pb	4.615	100.00	461.500	ug/L	5.67		
	A	MFK902 A 1:99	01/03/91	18:51	Pb	26.720	100.00	2672.000	ug/L	2.43	20.0/110.50%R	
	4572.10D	MFK902D 1:99	01/03/91	18:57	Pb	3.010	100.00	301.000	ug/L	12.69		
	A	MFK902D A 1:99	01/03/91	19:03	Pb	25.095	100.00	2509.500	ug/L	1.21	20.0/110.40%R	

15522-F-1104

report	lab#	sampleid	analdate	analtime	TEST ID	average	dil	result	units	cv	comment
A01031 6		CCV	01/03/91	19:09							50.0/100.98%R
					Pb	50.490		50.490	ug/L	0.62	
		CCB	01/03/91	19:14							
					Pb	0.530		0.530	ug/L	5.34	
	4572.10S	MFK902S 1:99	01/03/91	19:20							
					Pb	3.450	100.00	345.000	ug/L	2.46	
		CCV	01/03/91	19:26							50.0/100.14%R
					Pb	50.065		50.065	ug/L	0.38	
		CCB	01/03/91	19:31							
					Pb	0.460		0.460	ug/L	30.74	
	4572.07	MFK899	01/03/91	19:44							
					Pb	7.250	25.00	181.250	ug/L	6.83	
	A	MFK899 A	01/03/91	19:50							20.0/114.00%R
					Pb	30.065	25.00	751.625	ug/L	0.73	
	4572.01	PBS	01/03/91	19:55							
					Pb	-0.315		-0.315	ug/L		
		PBS A	01/03/91	20:01							20.0/101.80%R
					Pb	20.360		20.360	ug/L	0.35	
	4574.02S	5907E-09D	01/03/91	20:07							
					Pb	5.185	25.00	129.625	ug/L	7.50	
	A	5907E-09D A	01/03/91	20:13							20.0/114.20%R
					Pb	28.035	25.00	700.875	ug/L	2.14	
		CCV	01/03/91	20:19							50.0/100.90%R
					Pb	50.450		50.450	ug/L	0.17	
		CCB	01/03/91	20:24							
					Pb	0.745		0.745	ug/L	31.32	

15522F-1104

C/L 1/3/91
PE5100A
Pb

Element File: PB_EPA.GEL Element: Pb Wavelength: 283.3
Date: 01/03/91 Time: 16:11 Slit: 0.7
Data File: A010316.DAT ID/Wt File: UNTITLED Lamp Current: 0
Technique: HGA Calib. Type: Linear Energy: 57
Remark 1: IDL=2.0 UG/L
Remark 2: INTEGRATION TIME = 5.0 SEC.
Remark 3: ICV = 97.5 UG/L
Remark 4: BACKGROUND CORRECTION = BZ
Remark 5: PE5100A

****

Pb ID: Blank Seq. No.: 00001 A/S Pos.: 0 Date: 01/03/91

S0

Replicate 1 Time: 16:13
Peak Area (A-s): 0.002 Peak Height (A): 0.011
Background Pk Area (A-s): 0.030 Background Pk Height (A): 0.019
Blank Corrected Pk Area (A-s): 0.002

Replicate 2 Time: 16:16
Peak Area (A-s): 0.001 Peak Height (A): 0.008
Background Pk Area (A-s): 0.029 Background Pk Height (A): 0.018
Blank Corrected Pk Area (A-s): 0.001

Mean Pk Area (A-s): 0.001 SD: 0.0005 RSD(%): 31.44

Auto-zero performed.

****

Pb ID: Standard 1 Seq. No.: 00002 A/S Pos.: 38 Date: 01/03/91

S3

Replicate 1 Time: 16:19
Peak Area (A-s): 0.025 Peak Height (A): 0.039
Background Pk Area (A-s): 0.028 Background Pk Height (A): 0.016
Blank Corrected Pk Area (A-s): 0.023

Replicate 2 Time: 16:22
Peak Area (A-s): 0.027 Peak Height (A): 0.038
Background Pk Area (A-s): 0.028 Background Pk Height (A): 0.017
Blank Corrected Pk Area (A-s): 0.025

Mean Pk Area (A-s): 0.024 SD: 0.0017 RSD(%): 7.01

Standard number 1 applied. [3.00]
Correlation coefficient: 1.00000 Slope: 0.0081

****

Pb ID: Standard 2 Seq. No.: 00003 A/S Pos.: 39 Date: 01/03/91

S 50

Replicate 1 Time: 16:25
Peak Area (A-s): 0.347 Peak Height (A): 0.447
Background Pk Area (A-s): 0.098 Background Pk Height (A): 0.092
Blank Corrected Pk Area (A-s): 0.346
Concentration (ug/L): 42.73

Replicate 2 Time: 16:28
Peak Area (A-s): 0.343 Peak Height (A): 0.442
Background Pk Area (A-s): 0.096 Background Pk Height (A): 0.092
Blank Corrected Pk Area (A-s): 0.341

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Concentration (ug/L): 42.18

Mean Conc (ug/L): 42.45 SD: 0.393 RSD(%): 0.93

Standard number 2 applied. [50.00]
Correlation coefficient: 0.99987 Slope: 0.0069

****

Pb ID: Standard 3 Seq. No.: 00004 A/S Pos.: 40 Date: 01/03/91

S100

Replicate 1 Time: 16:31
Peak Area (A-s): 0.656 Peak Height (A): 0.807
Background Pk Area (A-s): 0.168 Background Pk Height (A): 0.186
Blank Corrected Pk Area (A-s): 0.655
Concentration (ug/L): 95.17

Replicate 2 Time: 16:34
Peak Area (A-s): 0.664 Peak Height (A): 0.808
Background Pk Area (A-s): 0.161 Background Pk Height (A): 0.178
Blank Corrected Pk Area (A-s): 0.662
Concentration (ug/L): 96.29

Mean Conc (ug/L): 95.73 SD: 0.790 RSD(%): 0.83

Standard number 3 applied. [100.00]
Correlation coefficient: 0.99955 Slope: 0.0066

15522-F-1104

Pb ID: AS ~~Position 1~~ ICV 1.1211 Seq. No.: 00005 A/S Pos.: 1 Date: 01/03/91

Replicate 1 Time: 16:36
Peak Area (A-s): 0.348 Peak Height (A): 0.443
Background Pk Area (A-s): 0.090 Background Pk Height (A): 0.090
Blank Corrected Pk Area (A-s): 0.347
Concentration (ug/L): 52.19

Replicate 2 Time: 16:39
Peak Area (A-s): 0.345 Peak Height (A): 0.434
Background Pk Area (A-s): 0.088 Background Pk Height (A): 0.090
Blank Corrected Pk Area (A-s): 0.343
Concentration (ug/L): 51.68

Mean Conc (ug/L): 51.94 SD: 0.362 RSD(%): 0.70

X 2 103.88 1975 = 106.54 AR

Pb ID: AS ~~Position 2~~ ICB Seq. No.: 00006 A/S Pos.: 2 Date: 01/03/91

Replicate 1 Time: 16:42
Peak Area (A-s): 0.003 Peak Height (A): 0.013
Background Pk Area (A-s): 0.029 Background Pk Height (A): 0.017
Blank Corrected Pk Area (A-s): 0.002
Concentration (ug/L): 0.26

Replicate 2 Time: 16:45
Peak Area (A-s): 0.001 Peak Height (A): 0.008
Background Pk Area (A-s): 0.031 Background Pk Height (A): 0.020
Blank Corrected Pk Area (A-s): -0.000
Concentration (ug/L): -0.06

Mean Conc (ug/L): 0.10 SD: 0.223 RSD(%): 227.58

Pb ID: AS ~~Position 3~~ CRA Seq. No.: 00007 A/S Pos.: 3 Date: 01/03/91

Replicate 1 Time: 16:48
Peak Area (A-s): 0.027 Peak Height (A): 0.041
Background Pk Area (A-s): 0.025 Background Pk Height (A): 0.014
Blank Corrected Pk Area (A-s): 0.026
Concentration (ug/L): 3.85

Replicate 2 Time: 16:50
Peak Area (A-s): 0.030 Peak Height (A): 0.042
Background Pk Area (A-s): 0.023 Background Pk Height (A): 0.017
Blank Corrected Pk Area (A-s): 0.028
Concentration (ug/L): 4.22

Mean Conc (ug/L): 4.04 SD: 0.266 RSD(%): 6.58

Pb ID: AS ~~Position 4~~ CCV Seq. No.: 00008 A/S Pos.: 4 Date: 01/03/91

Replicate 1 Time: 16:53
Peak Area (A-s): 0.351 Peak Height (A): 0.447
Background Pk Area (A-s): 0.091 Background Pk Height (A): 0.087
Blank Corrected Pk Area (A-s): 0.350
Concentration (ug/L): 52.66

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Replicate 2 Time: 16:56
Peak Area (A-s): 0.348 Peak Height (A): 0.437
Background Pk Area (A-s): 0.091 Background Pk Height (A): 0.085
Blank Corrected Pk Area (A-s): 0.347
Concentration (ug/L): 52.18

Mean Conc (ug/L): 52.42 SD: 0.337 RSD(%): 0.64

/50.00 = 104.84% R

****

Pb ID: AS ~~Position 5~~ CCB Seq. No.: 00009 A/S Pos.: 5 Date: 01/03/91

Replicate 1 Time: 16:59
Peak Area (A-s): 0.004 Peak Height (A): 0.011
Background Pk Area (A-s): 0.031 Background Pk Height (A): 0.020
Blank Corrected Pk Area (A-s): 0.002
Concentration (ug/L): 0.32

Replicate 2 Time: 17:02
Peak Area (A-s): 0.005 Peak Height (A): 0.014
Background Pk Area (A-s): 0.031 Background Pk Height (A): 0.017
Blank Corrected Pk Area (A-s): 0.004
Concentration (ug/L): 0.60

Mean Conc (ug/L): 0.46 SD: 0.199 RSD(%): 43.40

15522-F-1104

****

b ID: MFK888 1:24 Seq. No.: 00010 A/S Pos.: 6 Date: 01/03/91

4572.01

Replicate 1 Time: 17:04
Peak Area (A-s): 0.053 Peak Height (A): 0.078
Background Pk Area (A-s): 0.035 Background Pk Height (A): 0.019
Blank Corrected Pk Area (A-s): 0.052
Concentration (ug/L): 7.80

Replicate 2 Time: 17:07
Peak Area (A-s): 0.053 Peak Height (A): 0.078
Background Pk Area (A-s): 0.037 Background Pk Height (A): 0.018
Blank Corrected Pk Area (A-s): 0.052
Concentration (ug/L): 7.76

Mean Conc (ug/L): 7.78 SD: 0.032 RSD(%): 0.42

X 25 194.50

****

Pb ID: MFK888 1:24 A Seq. No.: 00011 A/S Pos.: 6 Date: 01/03/91

4572.01

Replicate 1 Time: 17:10
Peak Area (A-s): 0.206 Peak Height (A): 0.290
Background Pk Area (A-s): 0.060 Background Pk Height (A): 0.055
Blank Corrected Pk Area (A-s): 0.205
Concentration (ug/L): 30.80

Replicate 2 Time: 17:13
Peak Area (A-s): 0.201 Peak Height (A): 0.289
Background Pk Area (A-s): 0.058 Background Pk Height (A): 0.052
Blank Corrected Pk Area (A-s): 0.200
Concentration (ug/L): 30.05

Mean Conc (ug/L): 30.42 SD: 0.532 RSD(%): 1.75

Recovery is 113.2% 22.604/20.00 = 113.2%

****

Pb ID: MFK890 1:99 Seq. No.: 00012 A/S Pos.: 7 Date: 01/03/91

4572.02

Replicate 1 Time: 17:16
Peak Area (A-s): 0.036 Peak Height (A): 0.051
Background Pk Area (A-s): 0.026 Background Pk Height (A): 0.014
Blank Corrected Pk Area (A-s): 0.035
Concentration (ug/L): 5.25

Replicate 2 Time: 17:19
Peak Area (A-s): 0.036 Peak Height (A): 0.050
Background Pk Area (A-s): 0.030 Background Pk Height (A): 0.016
Blank Corrected Pk Area (A-s): 0.034
Concentration (ug/L): 5.15

Mean Conc (ug/L): 5.20 SD: 0.070 RSD(%): 1.36

X 100 = ± 520.0

****

Pb ID: MFK890 1:99 A Seq. No.: 00013 A/S Pos.: 7 Date: 01/03/91

4572.02

Replicate 1 Time: 17:21
Peak Area (A-s): 0.191 Peak Height (A): 0.250
Background Pk Area (A-s): 0.053 Background Pk Height (A): 0.049

15522-F-1104

Blank Corrected Pk Area (A-s): 0.189
Concentration (ug/L): 28.48

Replicate 2 Time: 17:24
Peak Area (A-s): 0.184 Peak Height (A): 0.245
Background Pk Area (A-s): 0.054 Background Pk Height (A): 0.046
Blank Corrected Pk Area (A-s): 0.183
Concentration (ug/L): 27.53

Mean Conc (ug/L): 28.01 SD: 0.675 RSD(%): 2.41

Recovery is 114.1% 22.81/20.00 = 114.0 :.R

****

Pb ID: MFK896 1:99 Seq. No.: 00014 A/S Pos.: 8 Date: 01/03/91

4572.04

Replicate 1 Time: 17:27
Peak Area (A-s): 0.033 Peak Height (A): 0.050
Background Pk Area (A-s): 0.028 Background Pk Height (A): 0.018
Blank Corrected Pk Area (A-s): 0.031
Concentration (ug/L): 4.72

Replicate 2 Time: 17:30
Peak Area (A-s): 0.036 Peak Height (A): 0.049
Background Pk Area (A-s): 0.024 Background Pk Height (A): 0.014
Blank Corrected Pk Area (A-s): 0.034
Concentration (ug/L): 5.16

Mean Conc (ug/L): 4.94 SD: 0.315 RSD(%): 6.37

X 100 494.0

****

Pb ID: MFK896 1:99 A Seq. No.: 00015 A/S Pos.: 8 Date: 01/03/91

4572.04

Replicate 1 Time: 17:33
Peak Area (A-s): 0.183 Peak Height (A): 0.238
Background Pk Area (A-s): 0.050 Background Pk Height (A): 0.045
Blank Corrected Pk Area (A-s): 0.182
Concentration (ug/L): 27.38

Replicate 2 Time: 17:36
Peak Area (A-s): 0.189 Peak Height (A): 0.252
Background Pk Area (A-s): 0.053 Background Pk Height (A): 0.048
Blank Corrected Pk Area (A-s): 0.188
Concentration (ug/L): 28.23

Mean Conc (ug/L): 27.81 SD: 0.600 RSD(%): 2.16

Recovery is 114.3% 22.87/20.00 = 114.4% R

****

Pb ID: MFK897 1:1 Seq. No.: 00016 A/S Pos.: 9 Date: 01/03/91

4572.05

Replicate 1 Time: 17:39
Peak Area (A-s): 0.293 Peak Height (A): 0.458
Background Pk Area (A-s): 0.102 Background Pk Height (A): 0.091
Blank Corrected Pk Area (A-s): 0.291
Concentration (ug/L): 43.82

Replicate 2 Time: 17:42

15522-F-1104

Peak Area (A-s): 0.291 Peak Height (A): 0.468
Background Pk Area (A-s): 0.101 Background Pk Height (A): 0.094
Blank Corrected Pk Area (A-s): 0.290
Concentration (ug/L): 43.56

Mean Conc (ug/L): 43.69 SD: 0.180 RSD(%): 0.41

X 2 87.38

****

Pb ID: MFK897 1:1 A Seq. No.: 00017 A/S Pos.: 9 Date: 01/03/91

4572.05

Replicate 1 Time: 17:44
Peak Area (A-s): 0.433 Peak Height (A): 0.678
Background Pk Area (A-s): 0.130 Background Pk Height (A): 0.144
Blank Corrected Pk Area (A-s): 0.432
Concentration (ug/L): 64.94

Replicate 2 Time: 17:47
Peak Area (A-s): 0.379 Peak Height (A): 0.541
Background Pk Area (A-s): 0.105 Background Pk Height (A): 0.118
Blank Corrected Pk Area (A-s): 0.378
Concentration (ug/L): 56.85

Mean Conc (ug/L): 60.90 SD: 5.720 RSD(%): 9.39

Recovery is 86.0% 17.21/20.00 = 86.0 %R

****

Pb ID: MFK898 1:99 Seq. No.: 00018 A/S Pos.: 10 Date: 01/03/91

4572.06

Replicate 1 Time: 17:50
Peak Area (A-s): 0.193 Peak Height (A): 0.261
Background Pk Area (A-s): 0.064 Background Pk Height (A): 0.051
Blank Corrected Pk Area (A-s): 0.192
Concentration (ug/L): 28.84

Replicate 2 Time: 17:53
Peak Area (A-s): 0.188 Peak Height (A): 0.258
Background Pk Area (A-s): 0.058 Background Pk Height (A): 0.047
Blank Corrected Pk Area (A-s): 0.187
Concentration (ug/L): 28.11

Mean Conc (ug/L): 28.48 SD: 0.516 RSD(%): 1.81

X 100 = 2848

****

Pb ID: MFK898 1:99 A Seq. No.: 00019 A/S Pos.: 10 Date: 01/03/91

4572.09

Replicate 1 Time: 17:56
Peak Area (A-s): 0.336 Peak Height (A): 0.435
Background Pk Area (A-s): 0.086 Background Pk Height (A): 0.088
Blank Corrected Pk Area (A-s): 0.335
Concentration (ug/L): 50.33

Replicate 2 Time: 17:59
Peak Area (A-s): 0.336 Peak Height (A): 0.433
Background Pk Area (A-s): 0.088 Background Pk Height (A): 0.090
Blank Corrected Pk Area (A-s): 0.334
Concentration (ug/L): 50.32

Mean Conc (ug/L): 50.32 SD: 0.012 RSD(%): 0.02

21.00 / [illegible] %R

15522-F-1104

Recovery is 109.2%

****

Pb ID: AS ~~Position 4~~ CCV Seq. No.: 00020 A/S Pos.: 4 Date: 01/03/91

Replicate 1 Time: 18:02
Peak Area (A-s): 0.345 Peak Height (A): 0.421
Background Pk Area (A-s): 0.090 Background Pk Height (A): 0.089
Blank Corrected Pk Area (A-s): 0.344
Concentration (ug/L): 51.69

Replicate 2 Time: 18:05
Peak Area (A-s): 0.344 Peak Height (A): 0.437
Background Pk Area (A-s): 0.092 Background Pk Height (A): 0.087
Blank Corrected Pk Area (A-s): 0.343
Concentration (ug/L): 51.61

Mean Conc (ug/L): 51.65 SD: 0.054 RSD(%): 0.10

51.65 / 50.00 = 103.30%R

Check sample is within range 44.76 - 55.25

****

Pb ID: AS ~~Position 5~~ CCB Seq. No.: 00021 A/S Pos.: 5 Date: 01/03/91

Replicate 1 Time: 18:08
Peak Area (A-s): 0.003 Peak Height (A): 0.012
Background Pk Area (A-s): 0.037 Background Pk Height (A): 0.021
Blank Corrected Pk Area (A-s): 0.002
Concentration (ug/L): 0.29

Replicate 2 Time: 18:10
Peak Area (A-s): 0.004 Peak Height (A): 0.015
Background Pk Area (A-s): 0.036 Background Pk Height (A): 0.020
Blank Corrected Pk Area (A-s): 0.002
Concentration (ug/L): 0.32

Mean Conc (ug/L): 0.31 SD: 0.022 RSD(%): 7.33

Check sample is within range -3.01 - 3.01

15522-F-1104

****

b ID: MFK899 1:99 Seq. No.: 00022 A/S Pos.: 11 Date: 01/03/91

4572.00 4572.07

Replicate 1 Time: 18:13
Peak Area (A-s): 0.016 Peak Height (A): 0.024
Background Pk Area (A-s): 0.023 Background Pk Height (A): 0.017
Blank Corrected Pk Area (A-s): 0.014
Concentration (ug/L): 2.13

Replicate 2 Time: 18:16
Peak Area (A-s): 0.015 Peak Height (A): 0.024
Background Pk Area (A-s): 0.027 Background Pk Height (A): 0.017
Blank Corrected Pk Area (A-s): 0.014
Concentration (ug/L): 2.03

redil under CRDL

Mean Conc (ug/L): 2.08 SD: 0.067 RSD(%): 3.20

****

Pb ID: MFK899 1:99 A Seq. No.: 00023 A/S Pos.: 11 Date: 01/03/91

4572.00 4572.07

Replicate 1 Time: 18:19
Peak Area (A-s): 0.165 Peak Height (A): 0.221
Background Pk Area (A-s): 0.049 Background Pk Height (A): 0.040
Blank Corrected Pk Area (A-s): 0.164
Concentration (ug/L): 24.62

eplicate 2 Time: 18:22
eak Area (A-s): 0.165 Peak Height (A): 0.217
Background Pk Area (A-s): 0.047 Background Pk Height (A): 0.041
Blank Corrected Pk Area (A-s): 0.164
Concentration (ug/L): 24.65

Mean Conc (ug/L): 24.63 SD: 0.022 RSD(%): 0.09

Recovery is 112.8%

****

Pb ID: MFK900 1:99 Seq. No.: 00024 A/S Pos.: 12 Date: 01/03/91

4572.08

Replicate 1 Time: 18:25
Peak Area (A-s): 0.082 Peak Height (A): 0.116
Background Pk Area (A-s): 0.044 Background Pk Height (A): 0.026
Blank Corrected Pk Area (A-s): 0.081
Concentration (ug/L): 12.15

Replicate 2 Time: 18:28
Peak Area (A-s): 0.080 Peak Height (A): 0.116
Background Pk Area (A-s): 0.044 Background Pk Height (A): 0.023
Blank Corrected Pk Area (A-s): 0.078
Concentration (ug/L): 11.74

Mean Conc (ug/L): 11.95 SD: 0.287 RSD(%): 2.40

X100 1195

****

Pb ID: MFK900 1:99 A Seq. No.: 00025 A/S Pos.: 12 Date: 01/03/91

4572.08

Replicate 1 Time: 18:31
Peak Area (A-s): 0.232 Peak Height (A): 0.296
Background Pk Area (A-s): 0.062 Background Pk Height (A): 0.059

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Blank Corrected Pk Area (A-s): 0.230
Concentration (ug/L): 34.67

Replicate 2 Time: 18:34
Peak Area (A-s): 0.226 Peak Height (A): 0.294
Background Pk Area (A-s): 0.063 Background Pk Height (A): 0.057
Blank Corrected Pk Area (A-s): 0.224
Concentration (ug/L): 33.72

Mean Conc (ug/L): 34.19 SD: 0.672 RSD(%): 1.96

Recovery is 111.2% 22.24/20.00 = 111.2%R

****

Pb ID: MFK901 1:99 Seq. No.: 00026 A/S Pos.: 13 Date: 01/03/91
4572.09

Replicate 1 Time: 18:37
Peak Area (A-s): 0.051 Peak Height (A): 0.074
Background Pk Area (A-s): 0.033 Background Pk Height (A): 0.018
Blank Corrected Pk Area (A-s): 0.050
Concentration (ug/L): 7.46

Replicate 2 Time: 18:39
Peak Area (A-s): 0.052 Peak Height (A): 0.073
Background Pk Area (A-s): 0.034 Background Pk Height (A): 0.020
Blank Corrected Pk Area (A-s): 0.051
Concentration (ug/L): 7.67

Mean Conc (ug/L): 7.57 SD: 0.148 RSD(%): 1.96

X100 757.0

****

Pb ID: MFK901 1:99 A Seq. No.: 00027 A/S Pos.: 13 Date: 01/03/91

Replicate 1 4572.09 Time: 18:42
Peak Area (A-s): 0.195 Peak Height (A): 0.259
Background Pk Area (A-s): 0.057 Background Pk Height (A): 0.049
Blank Corrected Pk Area (A-s): 0.193
Concentration (ug/L): 29.07

Replicate 2 Time: 18:45
Peak Area (A-s): 0.199 Peak Height (A): 0.262
Background Pk Area (A-s): 0.056 Background Pk Height (A): 0.049
Blank Corrected Pk Area (A-s): 0.198
Concentration (ug/L): 29.73

Mean Conc (ug/L): 29.40 SD: 0.472 RSD(%): 1.60

Recovery is 109.2% 21.83/80.00 = 109.2%R

****

Pb ID: MFK902 1:99 Seq. No.: 00028 A/S Pos.: 14 Date: 01/03/91
4572.10

Replicate 1 Time: 18:48
Peak Area (A-s): 0.033 Peak Height (A): 0.048
Background Pk Area (A-s): 0.026 Background Pk Height (A): 0.016
Blank Corrected Pk Area (A-s): 0.032
Concentration (ug/L): 4.80

Replicate 2 Time: 18:51

15522-F-1104

Peak Area (A-s): 0.031 Peak Height (A): 0.048
Background Pk Area (A-s): 0.025 Background Pk Height (A): 0.017
Blank Corrected Pk Area (A-s): 0.029
Concentration (ug/L): 4.43

Mean Conc (ug/L): 4.62 SD: 0.259 RSD(%): 5.62

Y 100 4462

****

Pb ID: MFK902 1:99 A Seq. No.: 00029 A/S Pos.: 14 Date: 01/03/91

4572.10

Replicate 1 Time: 18:54
Peak Area (A-s): 0.176 Peak Height (A): 0.238
Background Pk Area (A-s): 0.057 Background Pk Height (A): 0.047
Blank Corrected Pk Area (A-s): 0.175
Concentration (ug/L): 26.26

Replicate 2 Time: 18:57
Peak Area (A-s): 0.182 Peak Height (A): 0.236
Background Pk Area (A-s): 0.052 Background Pk Height (A): 0.048
Blank Corrected Pk Area (A-s): 0.181
Concentration (ug/L): 27.18

Mean Conc (ug/L): 26.72 SD: 0.649 RSD(%): 2.43

Recovery is 110.5% 22.10/20.00 = 110.5%R

****

b ID: MFK902D 1:99 Seq. No.: 00030 A/S Pos.: 15 Date: 01/03/91

4572.100

Replicate 1 Time: 19:00
Peak Area (A-s): 0.023 Peak Height (A): 0.034
Background Pk Area (A-s): 0.026 Background Pk Height (A): 0.017
Blank Corrected Pk Area (A-s): 0.022
Concentration (ug/L): 3.28

Replicate 2 Time: 19:03
Peak Area (A-s): 0.020 Peak Height (A): 0.033
Background Pk Area (A-s): 0.025 Background Pk Height (A): 0.017
Blank Corrected Pk Area (A-s): 0.018
Concentration (ug/L): 2.74

Mean Conc (ug/L): 3.01 SD: 0.380 RSD(%): 12.64

Y 100 301.0

****

Pb ID: MFK902D 1:99 A Seq. No.: 00031 A/S Pos.: 15 Date: 01/03/91

4572.100

Replicate 1 Time: 19:05
Peak Area (A-s): 0.167 Peak Height (A): 0.228
Background Pk Area (A-s): 0.054 Background Pk Height (A): 0.043
Blank Corrected Pk Area (A-s): 0.165
Concentration (ug/L): 24.88

eplicate 2 Time: 19:08
eak Area (A-s): 0.170 Peak Height (A): 0.225
Background Pk Area (A-s): 0.050 Background Pk Height (A): 0.043
Blank Corrected Pk Area (A-s): 0.168
Concentration (ug/L): 25.31

Mean Conc (ug/L): 25.10 SD: 0.303 RSD(%): 1.21

22.09 / 20.002 110.4%R

15522-F-1104

Recovery is 110.5%

****

Pb ID: AS ~~Position 4~~ CCV Seq. No.: 00032 A/S Pos.: 4 Date: 01/03/91

Replicate 1 Time: 19:11
Peak Area (A-s): 0.338 Peak Height (A): 0.415
Background Pk Area (A-s): 0.091 Background Pk Height (A): 0.083
Blank Corrected Pk Area (A-s): 0.337
Concentration (ug/L): 50.71

Replicate 2 Time: 19:14
Peak Area (A-s): 0.336 Peak Height (A): 0.410
Background Pk Area (A-s): 0.094 Background Pk Height (A): 0.082
Blank Corrected Pk Area (A-s): 0.334
Concentration (ug/L): 50.27

Mean Conc (ug/L): 50.49 SD: 0.310 RSD(%): 0.61

50.49 / 50.00 = 100.98%R

Check sample is within range 44.76 - 55.25

****

Pb ID: AS ~~Position 5~~ CCR Seq. No.: 00033 A/S Pos.: 5 Date: 01/03/91

Replicate 1 Time: 19:17
Peak Area (A-s): 0.005 Peak Height (A): 0.009
Background Pk Area (A-s): 0.040 Background Pk Height (A): 0.024
Blank Corrected Pk Area (A-s): 0.003
Concentration (ug/L): 0.51

Replicate 2 Time: 19:20
Peak Area (A-s): 0.005 Peak Height (A): 0.010
Background Pk Area (A-s): 0.040 Background Pk Height (A): 0.023
Blank Corrected Pk Area (A-s): 0.004
Concentration (ug/L): 0.55

Mean Conc (ug/L): 0.53 SD: 0.030 RSD(%): 5.73

Check sample is within range -3.01 - 3.01

15522-F-1104

****

Pb ID: MFK902S 1:99 Seq. No.: 00034 A/S Pos.: 16 Date: 01/03/91

4572-105

Replicate 1 Time: 19:23
Peak Area (A-s): 0.024 Peak Height (A): 0.036
Background Pk Area (A-s): 0.027 Background Pk Height (A): 0.017
Blank Corrected Pk Area (A-s): 0.023
Concentration (ug/L): 3.39

Replicate 2 Time: 19:25
Peak Area (A-s): 0.025 Peak Height (A): 0.037
Background Pk Area (A-s): 0.028 Background Pk Height (A): 0.017
Blank Corrected Pk Area (A-s): 0.023
Concentration (ug/L): 3.51

Mean Conc (ug/L): 3.45 SD: 0.079 RSD(%): 2.29

X100 345.0

****

Pb ID: ~~AS Position 4~~ CCV Seq. No.: 00035 A/S Pos.: 4 Date: 01/03/91

Replicate 1 Time: 19:28
Peak Area (A-s): 0.333 Peak Height (A): 0.415
Background Pk Area (A-s): 0.094 Background Pk Height (A): 0.084
Blank Corrected Pk Area (A-s): 0.332
Concentration (ug/L): 49.93

Replicate 2 Time: 19:31
Peak Area (A-s): 0.335 Peak Height (A): 0.403
Background Pk Area (A-s): 0.092 Background Pk Height (A): 0.082
Blank Corrected Pk Area (A-s): 0.334
Concentration (ug/L): 50.20

Mean Conc (ug/L): 50.07 SD: 0.191 RSD(%): 0.38

150.00 = 100.14% R

Check sample is within range 44.76 - 55.25

****

Pb ID: AS ~~Position 5~~ CCB Seq. No.: 00036 A/S Pos.: 5 Date: 01/03/91

Replicate 1 Time: 19:34
Peak Area (A-s): 0.005 Peak Height (A): 0.011
Background Pk Area (A-s): 0.037 Background Pk Height (A): 0.023
Blank Corrected Pk Area (A-s): 0.004
Concentration (ug/L): 0.56

Replicate 2 Time: 19:37
Peak Area (A-s): 0.004 Peak Height (A): 0.012
Background Pk Area (A-s): 0.033 Background Pk Height (A): 0.021
Blank Corrected Pk Area (A-s): 0.002
Concentration (ug/L): 0.36

Mean Conc (ug/L): 0.46 SD: 0.143 RSD(%): 30.96

Check sample is within range -3.01 - 3.01

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ID: AS ~~Position 11~~ MFK899 1:24 dil 4572.07 Seq. No.: 00037 A/S Pos.: 11 Date: 01/03/91

Replicate 1 Time: 19:47
Peak Area (A-s): 0.047 Peak Height (A): 0.072
Background Pk Area (A-s): 0.027 Background Pk Height (A): 0.016
Blank Corrected Pk Area (A-s): 0.046
Concentration (ug/L): 6.90

Replicate 2 Time: 19:49
Peak Area (A-s): 0.052 Peak Height (A): 0.069
Background Pk Area (A-s): 0.031 Background Pk Height (A): 0.019
Blank Corrected Pk Area (A-s): 0.051
Concentration (ug/L): 7.60

Mean Conc (ug/L): 7.25 SD: 0.499 RSD(%): 6.88

7.25 181.2

Pb ID: AS ~~Position 11~~ MFK899A 4572.07 Seq. No.: 00038 A/S Pos.: 11 Date: 01/03/91

Replicate 1 Time: 19:52
Peak Area (A-s): 0.202 Peak Height (A): 0.269
Background Pk Area (A-s): 0.059 Background Pk Height (A): 0.053
Blank Corrected Pk Area (A-s): 0.201
Concentration (ug/L): 30.22

Replicate 2 Time: 19:55
Peak Area (A-s): 0.200 Peak Height (A): 0.273
Background Pk Area (A-s): 0.057 Background Pk Height (A): 0.051
Blank Corrected Pk Area (A-s): 0.199
Concentration (ug/L): 29.91

Mean Conc (ug/L): 30.06 SD: 0.224 RSD(%): 0.75

Recovery is 114.1% 22.81/20.00 = 114.0% R

Pb ID: ~~AS Position 12~~ PBS 4572 dl Seq. No.: 00039 A/S Pos.: 12 Date: 01/03/91

Replicate 1 Time: 19:58
Peak Area (A-s): 0.000 Peak Height (A): 0.008
Background Pk Area (A-s): 0.040 Background Pk Height (A): 0.023
Blank Corrected Pk Area (A-s): -0.001
Concentration (ug/L): -0.18

Replicate 2 Time: 20:01
Peak Area (A-s): -0.001 Peak Height (A): 0.010
Background Pk Area (A-s): 0.037 Background Pk Height (A): 0.021
Blank Corrected Pk Area (A-s): -0.003
Concentration (ug/L): -0.45

Mean Conc (ug/L): -0.31 SD: 0.191 RSD(%): 60.59

Pb ID: AS ~~Position 13~~ 4572 dl PBS A Seq. No.: 00040 A/S Pos.: 13 Date: 01/03/91

Replicate 1 Time: 20:04
Peak Area (A-s): 0.136 Peak Height (A): 0.178
Background Pk Area (A-s): 0.047 Background Pk Height (A): 0.035

Blank Corrected Pk Area (A-s): 0.135
Concentration (ug/L): 20.31

Replicate 2 Time: 20:07
Peak Area (A-s): 0.137 Peak Height (A): 0.185
Background Pk Area (A-s): 0.049 Background Pk Height (A): 0.034
Blank Corrected Pk Area (A-s): 0.136
Concentration (ug/L): 20.41

Mean Conc (ug/L): 20.36 SD: 0.070 RSD(%): 0.34

20.00 = 101.80 %R

Pb ID: AS ~~Position 14~~ Seq. No.: 00041 A/S Pos.: 14 Date: 01/03/91

4577.020 5907E-090 1:24 dil

Replicate 1 Time: 20:10
Peak Area (A-s): 0.038 Peak Height (A): 0.057
Background Pk Area (A-s): 0.037 Background Pk Height (A): 0.019
Blank Corrected Pk Area (A-s): 0.036
Concentration (ug/L): 5.46

Replicate 2 Time: 20:13
Peak Area (A-s): 0.034 Peak Height (A): 0.055
Background Pk Area (A-s): 0.035 Background Pk Height (A): 0.022
Blank Corrected Pk Area (A-s): 0.033
Concentration (ug/L): 4.91

Mean Conc (ug/L): 5.19 SD: 0.391 RSD(%): 7.53

Y as 129.8

Pb ID: AS ~~Position 14~~ Seq. No.: 00042 A/S Pos.: 14 Date: 01/03/91

4577.020A 5907E-090

Replicate 1 Time: 20:16
Peak Area (A-s): 0.185 Peak Height (A): 0.264
Background Pk Area (A-s): 0.058 Background Pk Height (A): 0.051
Blank Corrected Pk Area (A-s): 0.183
Concentration (ug/L): 27.61

Replicate 2 Time: 20:18
Peak Area (A-s): 0.191 Peak Height (A): 0.265
Background Pk Area (A-s): 0.057 Background Pk Height (A): 0.052
Blank Corrected Pk Area (A-s): 0.189
Concentration (ug/L): 28.46

Mean Conc (ug/L): 28.03 SD: 0.604 RSD(%): 2.15

Recovery is 114.2% 22.84/20.00 = 114.2 %R

Pb ID: AS ~~Position 4~~ Seq. No.: 00043 A/S Pos.: 4 Date: 01/03/91

~~CCB~~ CCV

Replicate 1 Time: 20:21
Peak Area (A-s): 0.336 Peak Height (A): 0.416
Background Pk Area (A-s): 0.097 Background Pk Height (A): 0.081
Blank Corrected Pk Area (A-s): 0.335
Concentration (ug/L): 50.39

Replicate 2 Time: 20:24
Peak Area (A-s): 0.337 Peak Height (A): 0.413
Background Pk Area (A-s): 0.092 Background Pk Height (A): 0.078

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Blank Corrected Pk Area (A-s): 0.336
Concentration (ug/L): 50.51

Mean Conc (ug/L): 50.45 SD: 0.086 RSD(%): 0.17

150.00 = 100.90%R

Check sample is within range 44.76 - 55.25

****

Pb ID: ~~AS Position 5~~ CCB Seq. No.: 00044 A/S Pos.: 5 Date: 01/03/91

Replicate 1 Time: 20:27
Peak Area (A-s): 0.008 Peak Height (A): 0.012
Background Pk Area (A-s): 0.041 Background Pk Height (A): 0.026
Blank Corrected Pk Area (A-s): 0.006
Concentration (ug/L): 0.91

Replicate 2 Time: 20:30
Peak Area (A-s): 0.005 Peak Height (A): 0.010
Background Pk Area (A-s): 0.037 Background Pk Height (A): 0.023
Blank Corrected Pk Area (A-s): 0.004
Concentration (ug/L): 0.58

Mean Conc (ug/L): 0.75 SD: 0.229 RSD(%): 30.64

Check sample is within range -3.01 - 3.01

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281A

SOUTHWEST LABORATORIES OF OKLAHOMA, INC.

ANALYST CJL / BWA DATE 1/3/91

INSTR = PE5100A BKGRD = BZ IDL = 2.0 UG/L

WAVELENGTH = 283.3 INTEGRATION TIME = 5.0 SEC

Report Name: A010316A

MFK888

JAN - 7 1991

report	lab#	sampleid	analdate	analtime	TEST ID	average	dil	result	units	cv	comment
A01031 6A		S0	01/03/91	16:11							AZ
					Pb	0.002		0.002	ug/L	47.33	
		S3.0	01/03/91	16:16							ABS=0.026
					Pb	0.024		0.024	ug/L	5.88	
		S50.0	01/03/91	16:22							ABS=0.343
					Pb	42.455		42.455	ug/L	0.92	
		S100	01/03/91	16:28							ABS=0.658
					Pb	95.730		95.730	ug/L	0.83	
		ICV	01/03/91	20:36							97.5/96.00%R
					Pb	23.390	4.00	93.560	ug/L	141.42	
		ICB	01/03/91	20:39							
					Pb	0.225		0.225	ug/L	141.42	
		CRA	01/03/91	20:42				3.52			
					Pb	1.760		~~1.760~~	ug/L	141.42	
		CCV	01/03/91	20:44				49.14			50.0/98.28%R
					Pb	24.570		~~24.570~~	ug/L	141.42	
		CCB	01/03/91	20:47							
					Pb	-0.115		-0.115	ug/L		
4574.04		5907E-130 1:24	01/03/91	20:52				0.125			ABS=0.125
					Pb	~~9.440~~ 0.	25.00	~~236.000~~	ug/L	141.42	
+10		5907E-13 1 1:24	01/03/91	20:54							ABS=0.188
					Pb	14.175	25.00	0.188 ~~354.375~~	ug/L	141.42	
+20		5907E-13 2 1:24	01/03/91	20:57							ABS=0.249
					Pb	18.700	25.00	0.249 ~~467.500~~	ug/L	141.42	
+30		5907E-13 3	01/03/91	21:00							ABS=0.309 R=0.9999 Y=0.1258 B=0.00613

X = 20.5220

x 25

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report	lab#	sampleid	analdate	analtime	TEST ID	average	dil	result	units	cv	comment
		1:24									
					Pb	23.265	25.00	0.309 ~~581.625~~	ug/L	141.42	
A01031 6A	4574.05	5907E-15 0	01/03/91	21:03							ABS=0.117
		1:24									
					Pb	8.780	25.00	0.117 ~~219.500~~	ug/L	141.42	
	+10	5907E-15 1	01/03/91	21:06							ABS=0.191
		1:24									
					Pb	14.380	25.00	0.191 ~~359.500~~	ug/L	141.42	
	+20	5907E-15 2	01/03/91	21:09							ABS=0.248
		1:24									
					Pb	18.650	25.00	0.248 ~~466.250~~	ug/L	141.42	
	+30	5907E-15 3	01/03/91	21:12							ABS=0.304 R=0.9976 Y=0.1223 B=0.00618
		1:24									X = 19,7896 x 25 = 494.7411
					Pb	22.880	25.00	0.304 ~~572.000~~	ug/L	141.42	
	4572.03	MFK894 0 1:4	01/03/91	21:15							ABS=0.117
					Pb	8.785	5.00	0.117 ~~43.925~~	ug/L	141.42	
	+10	MFK894 1 1:4	01/03/91	21:18							ABS=0.180
					Pb	13.570	5.00	0.180 ~~67.850~~	ug/L	141.42	
	+20	MFK894 2 1:4	01/03/91	21:21							ABS=0.246
					Pb	18.530	5.00	0.246 ~~92.650~~	ug/L	141.42	
	+30	MFK894 3 1:4	01/03/91	21:24							ABS=0.306 R=0.9998 Y=0.1173 B=0.00633
					Pb	23.055	5.00	0.306 ~~115.275~~	ug/L	141.42	X 18.5308 x 5 = 92.6540
		CCV	01/03/91	21:26							50.0/97.64%R
					Pb	24.410		48.82 ~~24.410~~	ug/L	141.42	
		CCB	01/03/91	21:29							
					Pb	-0.015		-0.015	ug/L		

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sampleid	testid	average	std			
MFK8940	Pb	8.7850	0.0000	STD ADDNS RESULT =		18.4624
MFK8941	Pb	13.5700	10.0000	slope(m)	y-int(b)	correl(r)
MFK8942	Pb	18.5300	20.0000	0.4777	8.8195	0.9998
MFK8943	Pb	23.0550	30.0000			

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C/K 1/3/91
PE5100A
Pb

Element File: PB_EPA.GEL Element: Pb Wavelength: 283.3
Date: 01/03/91 Time: 16:11 Slit: 0.7
Data File: A010316.DAT ID/Wt File: UNTITLED Lamp Current: 0
Technique: HGA Calib. Type: Linear Energy: 57
Remark 1: IDL=2.0 UG/L
Remark 2: INTEGRATION TIME = 5.0 SEC.
Remark 3: ICV = 97.5 UG/L
Remark 4: BACKGROUND CORRECTION = BZ
Remark 5: PE5100A

****

Pb ID: Blank Seq. No.: 00001 A/S Pos.: 0 Date: 01/03/91

S0

Replicate 1 Time: 16:13
Peak Area (A-s): 0.002 Peak Height (A): 0.011
Background Pk Area (A-s): 0.030 Background Pk Height (A): 0.019
Blank Corrected Pk Area (A-s): 0.002

Replicate 2 Time: 16:16
Peak Area (A-s): 0.001 Peak Height (A): 0.008
Background Pk Area (A-s): 0.029 Background Pk Height (A): 0.018
Blank Corrected Pk Area (A-s): 0.001

Mean Pk Area (A-s): 0.001 SD: 0.0005 RSD(%): 31.44

Auto-zero performed.

****

Pb ID: Standard 1 Seq. No.: 00002 A/S Pos.: 38 Date: 01/03/91

S3

Replicate 1 Time: 16:19
Peak Area (A-s): 0.025 Peak Height (A): 0.039
Background Pk Area (A-s): 0.028 Background Pk Height (A): 0.016
Blank Corrected Pk Area (A-s): 0.023

Replicate 2 Time: 16:22
Peak Area (A-s): 0.027 Peak Height (A): 0.038
Background Pk Area (A-s): 0.028 Background Pk Height (A): 0.017
Blank Corrected Pk Area (A-s): 0.025

Mean Pk Area (A-s): 0.024 SD: 0.0017 RSD(%): 7.01

Standard number 1 applied. [3.00]
Correlation coefficient: 1.00000 Slope: 0.0081

****

Pb ID: Standard 2 Seq. No.: 00003 A/S Pos.: 39 Date: 01/03/91

S 50

Replicate 1 Time: 16:25
Peak Area (A-s): 0.347 Peak Height (A): 0.447
Background Pk Area (A-s): 0.098 Background Pk Height (A): 0.092
Blank Corrected Pk Area (A-s): 0.346
Concentration (ug/L): 42.73

Replicate 2 Time: 16:28
Peak Area (A-s): 0.343 Peak Height (A): 0.442
Background Pk Area (A-s): 0.096 Background Pk Height (A): 0.092
Blank Corrected Pk Area (A-s): 0.341

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Concentration (ug/L): 42.18

Mean Conc (ug/L): 42.45 SD: 0.393 RSD(%): 0.93

Standard number 2 applied. [50.00]
Correlation coefficient: 0.99987 Slope: 0.0069

****

Pb ID: Standard 3 Seq. No.: 00004 A/S Pos.: 40 Date: 01/03/91

5/00

Replicate 1 Time: 16:31
Peak Area (A-s): 0.656 Peak Height (A): 0.807
Background Pk Area (A-s): 0.168 Background Pk Height (A): 0.186
Blank Corrected Pk Area (A-s): 0.655
Concentration (ug/L): 95.17

Replicate 2 Time: 16:34
Peak Area (A-s): 0.664 Peak Height (A): 0.808
Background Pk Area (A-s): 0.161 Background Pk Height (A): 0.178
Blank Corrected Pk Area (A-s): 0.662
Concentration (ug/L): 96.29

Mean Conc (ug/L): 95.73 SD: 0.790 RSD(%): 0.83

Standard number 3 applied. [100.00]
Correlation coefficient: 0.99955 Slope: 0.0066

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ID: AS ~~Position 1~~ ICV 1:1dil Seq. No.: 00045 A/S Pos.: 1 Date: 01/03/91

Replicate 1 Time: 20:39
Peak Area (A-s): 0.312 Peak Height (A): 0.398
Background Pk Area (A-s): 0.084 Background Pk Height (A): 0.076
Blank Corrected Pk Area (A-s): 0.311
Concentration (ug/L): 46.78

Y2 93.56\97.5 = 96.0% R

Pb ID: ~~AS Position 2~~ ICB Seq. No.: 00046 A/S Pos.: 2 Date: 01/03/91

Replicate 1 Time: 20:41
Peak Area (A-s): 0.004 Peak Height (A): 0.010
Background Pk Area (A-s): 0.036 Background Pk Height (A): 0.021
Blank Corrected Pk Area (A-s): 0.003
Concentration (ug/L): 0.45

Pb ID: ~~AS Position 3~~ CRA Seq. No.: 00047 A/S Pos.: 3 Date: 01/03/91

Replicate 1 Time: 20:44
Peak Area (A-s): 0.025 Peak Height (A): 0.035
Background Pk Area (A-s): 0.028 Background Pk Height (A): 0.019
Blank Corrected Pk Area (A-s): 0.023
Concentration (ug/L): 3.52

Pb ID: ~~AS Position 4~~ CCV Seq. No.: 00048 A/S Pos.: 4 Date: 01/03/91

Replicate 1 Time: 20:47
Peak Area (A-s): 0.328 Peak Height (A): 0.396
Background Pk Area (A-s): 0.093 Background Pk Height (A): 0.076
Blank Corrected Pk Area (A-s): 0.327
Concentration (ug/L): 49.14

/50.00 = 98.28% R

Pb ID: ~~AS Position 5~~ CCB Seq. No.: 00049 A/S Pos.: 5 Date: 01/03/91

Replicate 1 Time: 20:50
Peak Area (A-s): -0.000 Peak Height (A): 0.008
Background Pk Area (A-s): 0.039 Background Pk Height (A): 0.022
Blank Corrected Pk Area (A-s): -0.002
Concentration (ug/L): -0.23

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****

Pb ID: 5907E-13 1:24 Seq. No.: 00050 A/S Pos.: 6 Date: 01/03/91

4574-04 0

Replicate 1 Time: 20:54
Peak Area (A-s): 0.127 Peak Height (A): 0.175
Background Pk Area (A-s): 0.050 Background Pk Height (A): 0.035
Blank Corrected Pk Area (A-s): 0.125
Concentration (ug/L): 18.88

$r^2 = 0.9999$

$y = 0.1258$

$b = 0.00613$

Conc = 20.52

$Y\ 25 = 513.04$ ug/l

****

Pb ID: 10 wlspk Seq. No.: 00051 A/S Pos.: 7 Date: 01/03/91

5907E-13 1

Replicate 1 Time: 20:57 4574.04 1
Peak Area (A-s): 0.190 Peak Height (A): 0.260
Background Pk Area (A-s): 0.064 Background Pk Height (A): 0.048
Blank Corrected Pk Area (A-s): 0.188
Concentration (ug/L): 28.35

****

Pb ID: 20 wlspk Seq. No.: 00052 A/S Pos.: 8 Date: 01/03/91

5907E-13 2

Replicate 1 Time: 21:00 4574.04 2
Peak Area (A-s): 0.250 Peak Height (A): 0.336
Background Pk Area (A-s): 0.075 Background Pk Height (A): 0.065
Blank Corrected Pk Area (A-s): 0.249
Concentration (ug/L): 37.40

****

Pb ID: 30 wlspk Seq. No.: 00053 A/S Pos.: 9 Date: 01/03/91

5907E-13 3

Replicate 1 Time: 21:03 4574.04 3
Peak Area (A-s): 0.311 Peak Height (A): 0.421
Background Pk Area (A-s): 0.090 Background Pk Height (A): 0.081
Blank Corrected Pk Area (A-s): 0.309
Concentration (ug/L): 46.53

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Pb ID: 5907E-15 1:24 Seq. No.: 00054 A/S Pos.: 10 Date: 01/03/91

Replicate 1 4574.05₀ Time: 21:06
Peak Area (A-s): 0.118 Peak Height (A): 0.169
Background Pk Area (A-s): 0.052 Background Pk Height (A): 0.033
Blank Corrected Pk Area (A-s): 0.117
Concentration (ug/L): 17.56

$r^2 = 0.9976$
$u = 0.1223$
$b = 0.0062$
Conc = 19.79
x 25
494.7 ug/l

Pb ID: 10 wlspk Seq. No.: 00055 A/S Pos.: 11 Date: 01/03/91
5907E-15₁ 4574.05₁

Replicate 1 Time: 21:09
Peak Area (A-s): 0.193 Peak Height (A): 0.262
Background Pk Area (A-s): 0.062 Background Pk Height (A): 0.049
Blank Corrected Pk Area (A-s): 0.191
Concentration (ug/L): 28.76

Pb ID: 20 wlspk Seq. No.: 00056 A/S Pos.: 12 Date: 01/03/91
5907E-15₂ 4574.05₂

Replicate 1 Time: 21:12
Peak Area (A-s): 0.249 Peak Height (A): 0.349

Background Pk Area (A-s): 0.076 Background Pk Height (A): 0.065
Blank Corrected Pk Area (A-s): 0.248
Concentration (ug/L): 37.30

Pb ID: 30 wlspk Seq. No.: 00057 A/S Pos.: 13 Date: 01/03/91
5907E-15₃ 4574.05₃

Replicate 1 Time: 21:15
Peak Area (A-s): 0.306 Peak Height (A): 0.433
Background Pk Area (A-s): 0.092 Background Pk Height (A): 0.083
Blank Corrected Pk Area (A-s): 0.304
Concentration (ug/L): 45.76

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****

Pb ID: MFK894$_0$1:4 Seq. No.: 00058 A/S Pos.: 14 Date: 01/03/91

Replicate 1 4572.03$_0$ Time: 21:18
Peak Area (A-s): 0.118 Peak Height (A): 0.178
Background Pk Area (A-s): 0.055 Background Pk Height (A): 0.033
Blank Corrected Pk Area (A-s): 0.117
Concentration (ug/L): 17.57

$r^2 = 0.9998$
$y = 0.1173$
$m = 0.00633$

****

Pb ID: 10 ulspk MFK894$_1$ Seq. No.: 00059 A/S Pos.: 15 Date: 01/03/91

Replicate 1 4572-03$_1$ Time: 21:21
Peak Area (A-s): 0.182 Peak Height (A): 0.273
Background Pk Area (A-s): 0.075 Background Pk Height (A): 0.052
Blank Corrected Pk Area (A-s): 0.180
Concentration (ug/L): 27.14

Conc = 18.53 x 5 = 92.65 ug/l

****

Pb ID: 20 ulspk MFK894$_2$ Seq. No.: 00060 A/S Pos.: 16 Date: 01/03/91

Replicate 1 Time: 21:23 4572.03$_2$
Peak Area (A-s): 0.248 Peak Height (A): 0.354
Background Pk Area (A-s): 0.079 Background Pk Height (A): 0.067
Blank Corrected Pk Area (A-s): 0.246
Concentration (ug/L): 37.06

****

Pb ID: 30 ulspk MFK894$_3$ Seq. No.: 00061 A/S Pos.: 17 Date: 01/03/91

Replicate 1 Time: 21:26 4573.03$_3$
Peak Area (A-s): 0.308 Peak Height (A): 0.434
Background Pk Area (A-s): 0.094 Background Pk Height (A): 0.084
Blank Corrected Pk Area (A-s): 0.306
Concentration (ug/L): 46.11

****

Pb ID: CCV Seq. No.: 00062 A/S Pos.: 18 Date: 01/03/91

Replicate 1 Time: 21:29
Peak Area (A-s): 0.326 Peak Height (A): 0.416
Background Pk Area (A-s): 0.099 Background Pk Height (A): 0.076
Blank Corrected Pk Area (A-s): 0.324
Concentration (ug/L): 48.82 / 50.00 = 97.64 % R

****

Pb ID: CCB Seq. No.: 00063 A/S Pos.: 19 Date: 01/03/91

Replicate 1 Time: 21:32
Peak Area (A-s): 0.001 Peak Height (A): 0.008
Background Pk Area (A-s): 0.041 Background Pk Height (A): 0.023
Blank Corrected Pk Area (A-s): -0.000
Concentration (ug/L): -0.03

15522-F-1104

FURNACE AA RUN LOG

Calibration			time
Std.#	Conc.	Abs.	~~t~~
Std.0	50	Az	810
Std.1	55	0.005	815
Std.2	525	0.030	820
Std.3	550	0.057	825
Std.4			

Analyst MS Date 12-28-90

Instrument PE5000 Bkgrd B2

Element Se Wavelength 196.0

Calibration Standard: Source Plasma Chem Std 1A Prep Date 12-28-90

time MFK888

Client I.D.	SWLO I.D.	~~1st Burn-ABS /Conc.~~	2nd Burn-ABS /Conc.	Average ABS/ Conc.	Dilution Factor	Final Concentration ug/l mg/kg	Comments	
	ICV	830		25.26	1:1	50.52	52.6/96.05	
	ICB	835		-2.55		3.00		
	CRA	840		6.13		6.13		
	CCV	845		27.00		27.0	25/108.00	
	CCB	850		0.92		3.00		
PBS (4572.01)		855		-.81		3.00		X
PBSA		900		7.87		7.87	L/R RERUN	X
LCSS (4572.01)		905		12.22	1:9	122.2	62.35%R	
LCSSA		910		21.79	1:9	9.57	10/95.7	
MBK888	4572.01	915		-2.55		3.00		
MBK888A	4572.01A	920		9.61		9.61	10/96.1	
MBK890	4572.02	925		0.06		3.00		X
MBK890A	4572.02A	930		7.00		7.00	LO/70.0 73.3 RSD(A)	X
MBK894	4572.03	935		-6.03		-6.03		X
MBK894A	4572.03A	940		10.48		10.48	LO/104.8 RERUN ~~dilute~~	X
	CCV	945		26.13		26.13	25/104.52	
	CCB	950		-.81		3.00		

15522-F-1104

FURNACE AA RUN LOG

291

Calibration			
Std.#	Conc.	Abs.	r
Std.0			
Std.1			
Std.2			
Std.3			
Std.4			

Analyst MS Date 12-28-90

Instrument PE5000 Bkgrd B2

Element Se Wavelength 196.0

Calibration Standard: Source _____ Prep Date _____

time

Client I.D.	SWLO I.D.	~~1st Burn-ABS /Conc.~~	2nd Burn-ABS /Conc.	Average ABS/ Conc.	Dilution Factor	Final Concentration ug/l mg/kg	Comments
MEK896	4572.04	955		1.79		3.0U	
MEK896A	4572.04A	1000		8.74		8.74	10/87.4
MEK897	4572.05	1005		-2.55		3.0U	
MEK897A	4572.05A	1010		14.83		14.83	10/148.3
MEK898	4572.06	1015		2.66		3.0U	
MEK898A	4572.06A	1020		13.96		13.96	10/139.6
MEK899	4572.07	1025		-2.55		3.0U	
MEK899A	4572.07A	1030		15.70		15.70	10/157.0
MEK900	4572.08	1035		-.81		3.0U	
MEK900A	4572.08A	1040		13.96		13.96	10/139.6
	CCV	1045		27.00		27.0	25/108.0
	CCB	1050		-3.42		3.0U	
MEK890	4572.02	1055		-.81		3.0U	
MEK890A	4572.02A	1100		11.35		11.35	10/113.5
MEK894	4572.03	1105		-3.42	~~1:1~~ MO	3.0U	
MEK894A	4572.03A	1110		10.48	~~1:1~~ 12/29	10.48	10/104.8
PBS (4572.01)		1115		-3.42		3.0U	
PBSA		1120		9.61		9.61	10/96.1

ok ok

15522-H-1104

FURNACE AA RUN LOG

Calibration			
Std.#	Conc.	Abs.	r
Std.0			
Std.1			
Std.2			
Std.3			
Std.4			

Analyst NS Date 12-28-90

Instrument P250-00 Bkgrd B2

Element Se Wavelength 196.0

Calibration Standard: Source _____ Prep Date _____

time

Client I.D.	SWLO I.D.	~~1st~~ Burn-ABS ~~/Conc.~~	2nd Burn-ABS /Conc.	Average ABS/ Conc.	Dilution Factor	Final Concentration ug/l mg/kg	Comments
	CCV	1125	NS	26.13		26.13	25/104.52
	CCB	1130		-.81		3.0U	
MBLK901	4592.09	1135		0.06		3.0U	
MBLK901A	4592.09A	1140		10.48		10.48	10/104.8
MBLK902	4592.10	1145		-1.68		3.0U	
MBLK902A	4592.10A	1150		8.74		8.74	10/87.4
MBLK902D	4592.10D	1155		-2.55		3.00	X
MBLK902DA	4592.10DA	1200		7.87		7.87	10/78.7 22.2% RSD(A) X
MBLK902S	4592.10S	1205		8.74		8.74	10/87.4
MBLK902D	4592.10D	1210		-2.55		3.0U	
MBLK902DA	4592.10DA	1215		7.87		7.87	10/78.7
	CCV	1220		26.13		26.13	25/104.52
	CCB	1225		-3.42		3.0U	

MS PE5000 12/28/90 Se

3 INSTRUMENT - P.E. 5000 ---- ANALYSIS RUNTIME REPORT ---- IDL : 4.00000

15522-F-1104

ELECTRONICS PLUS, INC. ANALYST: MARCEL SCHATZMANN ANALYSIS UNITS : UG/L

INSTRUMENT DATA COLLECTION FOR - SE112 RUN DATE: 12/28/90 RUN START TIME: 08:08:15

CUP #	SAMPLE ID	SAMPLE TYPE	ALTERNATE SAMPLE ID	DILUT. FACTOR	MEASURED SIGNAL	CONCENTRATION	QC STATUS
CUP# 0	AUTOZERO	AZ			0.002		
					0.005		
					0.004 AV SD= 0.00150, CV= 42.85714		
					0.000 AZ		
CUP# 1	5.0 PPB	ST1			0.009		
					0.002		
					0.005 AV SD= 0.00350, CV= 63.63636		
				CALC CONC	5.00 RPD = 0.000%	m = 0.00099 b = 0.00000 R = 1.00000	
CUP# 2	25.0 PPB	ST2			0.029		
					0.031		
					0.030 AV SD= 0.00100, CV= 3.33333		
				CALC CONC	25.00 RPD = 0.000%	m = 0.00124 b = -.00124 R = 1.00000	
CUP# 3	50.0 PPB	ST3			0.058		
					0.056		
					0.057 AV SD= 0.00100, CV= 1.75438		
				CALC CONC	49.52 RPD = 0.972%	m = 0.00115 b = -.00006 R = 0.99912	

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CUP# 4	ICV	UNK	0.026	
			0.031	
			0.029 AV	SD= 0.00250, CV= 8.77193
			25.26 UG/L	x2 = 50.52/52.6/96.05
CUP# 5	ICB	UNK	-0.004	
			-0.002	
			-0.003 AV	SD= 0.00100, CV= -33.33334
			-2.55 UG/L	BELOW DL < 4.00
CUP# 6	CRA	UNK	0.005	
			0.010	
			0.007 AV	SD= 0.00250, CV= 33.33333
			6.13 UG/L	
CUP# 7	CCV	UNK	0.030	
			0.032	
			0.031 AV	SD= 0.00100, CV= 3.22581
			27.00 UG/L	25/108.00
CUP# 8	CCB	UNK	-0.002	
			0.004	
			0.001 AV	SD= 0.00300, CV= 300.00000
			.92 UG/L	BELOW DL < 4.00

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CUP# 9 PBS (4572.01) UNK
0.001
-0.002
-0.001 AV SD= 0.00150, CV=-300.00000
-.81 UG/L BELOW DL < 4.00

CUP# 10 PBSA UNK
0.010
0.007
0.009 AV SD= 0.00150, CV= 17.64705
7.87 UG/L 10/78.7

RERUN L.I.R

CUP# 11 LCSS 1:9 UNK
0.014
0.014
0.014 AV SD= 0.00000, CV= 0.00000
12.22 UG/L x10=122.2 /62.35

CUP# 12 LCSSA UNK
0.025
0.025
0.025 AV SD= 0.00000, CV= 0.00000
21.79 UG/L
9.57/10/95.7

CUP# 13 MEK888 / 4572.01 UNK
-0.004
-0.002
-0.003 AV SD= 0.00100, CV= -33.33334
-2.55 UG/L BELOW DL < 4.00

CUP# 14 MEK888A / 4572.01A UNK
0.013
0.009
0.011 AV SD= 0.00200, CV= 18.18182
9.61 UG/L 10/96.1

CUP# 15 MEK890 / 4572.02 UNK
-0.001
0.001
0.000 AV SD= 0.00000, CV= 0.00000
.06 UG/L BELOW DL < 4.00

CUP# 16 MEK890A / 4572.02A UNK
0.002
0.013
0.008 AV SD= 0.00550, CV= 73.33333
7.00 UG/L 10/70.0

RSD A

CUP# 17 MEK894 / 4572.03 UNK
-0.011
-0.002
-0.007 AV SD= 0.00450, CV= -69.23077
-6.03 UG/L BELOW DL < 4.00

← RERUN BELOW - IDL

CUP# 18 MEK894A / 4572.03A UNK
0.011
0.013
0.012 AV SD= 0.00100, CV= 8.33333
10.48 UG/L 10/104.8

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CUP# 19 CCV UNK
0.032
0.027
0.030 AV SD= 0.00250, CV= 8.47458
26.13 UG/L
25/104.52

CUP# 20 CCB UNK
0.002
-0.004
-0.001 AV SD= 0.00300, CV=-300.00000
-.81 UG/L BELOW DL < 4.00

CUP# 21 MEK896 / UNK
/4572.04
-0.001
0.004
0.002 AV SD= 0.00250, CV= 166.66666
1.79 UG/L BELOW DL < 4.00

CUP# 22 MEK896A / UNK
/4572.04A
0.010
0.011
0.010 AV SD= 0.00050, CV= 4.76191
8.74 UG/L
10/87.4

CUP# 23 MEK897 / UNK
/4572.05
-0.002
-0.004
-0.003 AV SD= 0.00100, CV= -33.33334
-2.55 UG/L BELOW DL < 4.00

CUP# 24 MEK897A / UNK
/4572.05A
0.016
0.018
0.017 AV SD= 0.00100, CV= 5.88235
14.83 UG/L
10/148.3

CUP# 25 MEK898 / UNK
/4572.06
0.004
0.001
0.003 AV SD= 0.00150, CV= 60.00000
2.66 UG/L BELOW DL < 4.00

CUP# 26 MEK898A / UNK
/4572.06A
0.016
0.016
0.016 AV SD= 0.00000, CV= 0.00000
13.96 UG/L
10/139.6

CUP# 27 MEK899 / UNK
/4572.07
-0.004
-0.002
-0.003 AV SD= 0.00100, CV= -33.33334
-2.55 UG/L BELOW DL < 4.00

CUP# 28 MEK899A / UNK
/4572.07A
0.019
0.016
0.018 AV SD= 0.00150, CV= 8.57142
15.70 UG/L
10/157.0

CUP# 29 MEK900 / UNK
/4572.08
-0.001
-0.001
-0.001 AV SD= 0.00000, CV= 0.00000
-.81 UG/L BELOW DL < 4.00

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CUP# 30 MEK900A / UNK
/4572.08A
0.016
0.016
0.016 AV SD= 0.00000, CV= 0.00000
13.96 UG/L
10/139.6

CUP# 31 CCV UNK
0.030
0.032
0.031 AV SD= 0.00100, CV= 3.22581
27.00 UG/L 25/108.0

CUP# 32 CCB UNK
-0.002
-0.005
-0.004 AV SD= 0.00150, CV= -42.85714
-3.42 UG/L BELOW DL < 4.00

CUP# 15 MEK890 / UNK
/4572.02
-0.004
0.002
-0.001 AV SD= 0.00300, CV=-300.00000
-.81 UG/L BELOW DL < 4.00

CUP# 16 MEK890A / UNK
/4572.02A
0.011
0.014
0.013 AV SD= 0.00150, CV= 12.00000
11.35 UG/L
10/113.5

CUP# 17 MEK894 / UNK
/4572.03
-0.005
-0.004
-0.004 AV SD= 0.00050, CV= -11.11111
-3.42 UG/L BELOW DL < 4.00

CUP# 18 MEK894A / UNK
/4572.03A
0.013
0.010
0.012 AV SD= 0.00150, CV= 13.04348
10.48 UG/L 10/104.8

CUP# 9 PBS UNK ~~1.1~~
(4572.01) MO 12/29
-0.001
-0.007
-0.004 AV SD= 0.00300, CV= -75.00000
-3.42 UG/L BELOW DL < 4.00

CUP# 10 PBSA UNK ~~1.1~~
0.011
0.011
0.011 AV SD= 0.00000, CV= 0.00000
9.61 UG/L
10/96.1

CUP# 28 CCV UNK 0.029

0.030
0.030 AV SD= 0.00050, CV= 1.69492
26.13 UG/L 25/104.52

CUP# 29 CCB UNK 0.001
-0.002
-0.001 AV SD= 0.00150, CV=-300.00000
-.81 UG/L BELOW DL < 4.00

CUP# 21 MEK901 / 4592.09 UNK 0.001
-0.001
0.000 AV SD= 0.00000, CV= 0.00000
.06 UG/L BELOW DL < 4.00

CUP# 22 MEK901A / 4592.09A UNK 0.013
0.011
0.012 AV SD= 0.00100, CV= 8.33333
10.48 UG/L 10/104.8

CUP# 23 MEK902 / 4592.10 UNK -0.002
-0.002
-0.002 AV SD= 0.00000, CV= 0.00000
-1.68 UG/L BELOW DL < 4.00

CUP# 24 MEK902A / 4592.10A UNK 0.010
0.011
0.010 AV SD= 0.00050, CV= 4.76191
8.74 UG/L 10/87.4

CUP# 25 MEK902D / 4592.10D UNK -0.001
-0.004
-0.003 AV SD= 0.00150, CV= -60.00000
-2.55 UG/L BELOW DL < 4.00

CUP# 26 MEK902DA / 4592.10DA UNK 0.007
0.011
0.009 AV SD= 0.00200, CV= 22.22222
7.87 UG/L 10/78.7

RSD A RERUN

CUP# 27 MEK902S / 4592.10S UNK 0.010
0.011
0.010 AV SD= 0.00050, CV= 4.76191
8.74 UG/L 10/87.4

CUP# 25 MEK902D / 4592.10D UNK -0.004
-0.002
-0.003 AV SD= 0.00100, CV= -33.33334
-2.55 UG/L BELOW DL < 4.00

CUP# 26 MEK902DA / 4592.10DA UNK 0.007
0.011
0.009 AV SD= 0.00200, CV= 22.22222
7.87 UG/L 10/78.7

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CUP# 28 CCV	UNK	0.030	
		0.029	
		0.030 AV	SD= 0.00050, CV= 1.69492
			26.13 UG/L 25/104.52
CUP# 29 CCB	UNK	-0.005	
		-0.002	
		-0.004 AV	SD= 0.00150, CV= -42.85714
			-3.42 UG/L BELOW DL < 4.00

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FURNACE AA RUN LOG

300

Calibration			time
Std.#	Conc.	Abs.	~~T~~
Std.0	50	Az	1050
Std.1	55	0.005	1055
Std.2	525	0.027	1100
Std.3	550	0.063	1105
Std.4			

Analyst MS Date 12-31-90

Instrument PE5000 Bkgrd Bz

Element Se Wavelength 196.0

Calibration Standard: Source Plasma Chem Std 1A Prep Date 12-31-90

time MFK888

Client I.D.	SWLO I.D.	~~1st Burn-ABS /Conc.~~	2nd Burn-ABS /Conc.	Average ABS/ Conc.	Dilution Factor	Final Concentration ug/l mg/kg	Comments
	ICV	1110		25.47	1:1	50.94	52.6/96.84
	ICB	1115		0.66		3.0U	
	CRA	1120		6.09		6.09	
	CCV	1125		23.14		23.14	25/92.56
	CCB	1130		2.99		3.0U	
PBW(4572.11)		1145		2.99		3.0U	
PBWA		1150		12.29		12.29	10/122.9 RERUN *
LCSW(4572.11)		1155		27.02	1:1	54.04	52.6/102.7
LCSWA		1200		33.22	1:1	6.20	10/62.0
MFK903	4572.11	1205		6.09		6.09	BEST ONE RSD RERUN * use data
MFK903A	4572.11A	1210		13.06		6.97	10/69.7 *
MFK903D	4572.11D	1215		4.54		4.54	
MFK903DA	4572.11DA	1220		13.84		9.3 ~~13.84~~	~~9.3~~/10/93.0
MFK889 ~~MFK899~~	4585.01	1225		2.22		3.0U	
MFK889A ~~MFK899A~~	4585.01A	1230		12.29		12.29	10/122.9
	CCV	1235		26.24		26.24	25/104.94
	CCB	1240		2.22		3.0U	
MFK889S ~~MFK899S~~	4585.01S	1245		12.29		12.29	10/122.9

15522-F-1104

FURNACE AA RUN LOG

Calibration			
Std.#	Conc.	Abs.	r
Std.0			
Std.1			
Std.2			
Std.3			
Std.4			

Analyst MS Date 12/31/90

Instrument PE5000 Bkgrd B2

Element Se Wavelength 196.0

Calibration Standard: Source time Prep Date

Client I.D.	SWLO I.D.	~~1st Burn-ABS /Conc.~~	2nd Burn-ABS /Conc.	Average ABS/ Conc.	Dilution Factor	Final Concentration ug/l mg/kg	Comments	
MFK891	4585.00	1250		4.54		4.54		
MFK891A	4585.00A	1255		14.62		10.08	10/100.8	
MFK892	4585.03	1300		3.76		3.76		
MFK892A	4585.03A	1305		18.49		14.73	10/147.3	
MFK893	4585.04	1310		4.54		4.54		
MFK893A	4585.04A	1315		16.94		12.40	10/124.0	
MFK895	4585.05	1320		7.64		7.64	RSD TAKE PREV. RUN	**
MFK895A	4585.05A	1325		16.94		+6 9.30	10/93.0	**
	CCV	1330		24.69		24.69	25/98.76	
	CCB	1335		4.54		4.54		
MFK903	~~4585.~~ 4572.11	1340		2.22		3.0U	rsd = 500.00	X
MFK903A	4572.11A	1345		13.84		13.84	10/138.4	X
MFK895	4585.05	1350		6.09		6.09	High RSD	*
MFK895A	4585.05A	1355		16.17		10.08	10/100.8	*
PBW (4572.11)		1400		0.66		3.0U		
PBWA		1405		9.96		9.96	10/99.6	
MFK904	4585.06	1410		4.54		4.54		
MFK904A	4585.06A	1415		14.62		10.08	10/100.8	

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FURNACE AA RUN LOG

Calibration			
Std.#	Conc.	Abs.	r
Std.0			
Std.1			
Std.2			
Std.3			
Std.4			

Analyst MS Date 12-31-90

Instrument PE5000 Bkgrd Bz

Element Se Wavelength 196.0

Calibration Standard: Source _____ Prep Date _____

time

Client I.D.	SWLO I.D.	~~1st Burn-ABS /Conc.~~	2nd Burn-ABS /Conc.	Average ABS/ Conc.	Dilution Factor	Final Concentration ug/l mg/kg	Comments
MFK905	4585.07	1420		3.76		3.76	
MFK905A	4585.07A	1425		13.84		10.08	10/100.8
	CCV	1430 ~~26.24~~		26.24		26.24	25/104.96
	CCB	1435 ~~2.99~~		2.99		3.0U	
MFK906	4587.08	1440		3.76		3.76	
MFK906A	4587.08A	1445		16.17		12.5	10/125.0
BLKSPK (4569.01)		1450		10.74		10.74	10/107.4
	CCV	1455		27.02		27.02	25/108.08
	CCB	1500		4.54		4.54	

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MS 12/31/90 Se

INSTRUMENT - P.E. 5000 ---- ANALYSIS RUNTIME REPORT ---- IDL : 4.00000

ELECTRONICS PLUS, INC. ANALYST: MARCEL SCHATZMANN ANALYSIS UNITS : UG/L

INSTRUMENT DATA COLLECTION FOR - SE112 RUN DATE: 12/31/90 RUN START TIME: 10:46:18

CUP #	SAMPLE ID	SAMPLE TYPE	ALTERNATE SAMPLE ID	DILUT. FACTOR	MEASURED SIGNAL	CONCENTRATION	QC STATUS
CUP# 0	AUTOZERO	AZ			-0.002 0.001 -0.001 AV SD= 0.00150, CV=-300.00000 0.000 AZ		
CUP# 1	5.0 PPB	ST1			0.005 0.005 0.005 AV SD= 0.00000, CV= 0.00000 CALC CONC 5.00 RPD = 0.000% m = 0.00099 b = 0.00000 R = 1.00000		
CUP# 2	25.0 PPB	ST2			0.029 0.025 0.027 AV SD= 0.00200, CV= 7.40741 CALC CONC 25.00 RPD = 0.000% m = 0.00109 b = -.00049 R = 0.99999		
CUP# 3	50.0 PPB	ST3			0.062 0.064 0.063 AV SD= 0.00100, CV= 1.58730 CALC CONC 50.86 RPD = 1.707% m = 0.00129 b = -.00286 R = 0.99723		
CUP# 4	ICV	UNK			0.030 0.030 0.030 AV SD= 0.00000, CV= 0.00000	25.47 UG/L X2= 50.94/52.6 /96.84	
CUP# 5	ICB	UNK			-0.002 -0.001 -0.002 AV SD= 0.00050, CV= -33.33334	.66 UG/L BELOW DL < 4.00	
CUP# 6	CRA	UNK			0.005 0.005 0.005 AV SD= 0.00000, CV= 0.00000	6.09 UG/L	
CUP# 7	CCV	UNK			0.026 0.029 0.027 AV SD= 0.00150, CV= 5.45454	23.14 UG/L 25/92.56	
CUP# 8	CCB	UNK			0.001 0.001 0.001 AV SD= 0.00000, CV= 0.00000	2.99 UG/L BELOW DL < 4.00	

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CUP# 9 PBW UNK (4572.11)
-0.001
0.003
0.001 AV SD= 0.00200, CV= 200.00003
2.99 UG/L BELOW DL < 4.00

CUP# 10 PBWA UNK
0.014
0.012
0.013 AV SD= 0.00100, CV= 7.69231
12.29 UG/L 10/122.9 RERUN

CUP# 11 LCSW 1:1 UNK
0.033
0.032
0.032 AV SD= 0.00050, CV= 1.53846
27.02 UG/L x2 = 5404/526/102.7

CUP# 12 LCSWA 1:1 UNK
0.038
0.042
0.040 AV SD= 0.00200, CV= 5.00000
33.22 UG/L 6.20/10/62.0

CUP# 13 MFK903 / UNK
4572.11
0.007
0.003
0.005 AV SD= 0.00200, CV= 40.00000
6.09 UG/L RSD RERUN

CUP# 14 MFK903A / UNK
4572.11A
0.013
0.015
0.014 AV SD= 0.00100, CV= 7.14285
13.06 UG/L 6.97/10/69.7

CUP# 15 MFK903D / UNK
4572.11D
0.002
0.004
0.003 AV SD= 0.00100, CV= 33.33334
4.54 UG/L

CUP# 16 MFK903DA / UNK
4572.11DA
0.015
0.015
0.015 AV SD= 0.00000, CV= 0.00000
13.84 UG/L 9.3/10/93.0

CUP# 17 ~~MFK899~~ MFK889 / UNK
4585.01
0.001
-0.001
0.000 AV SD= 0.00000, CV= 0.00000
2.22 UG/L BELOW DL < 4.00

CUP# 18 ~~MFK899A~~ MFK889A / UNK
4585.01A
0.013
0.013
0.013 AV SD= 0.00000, CV= 0.00000
12.29 UG/L 10/122.9

CUP# 19 CCV UNK
0.033
0.029
0.031 AV SD= 0.00200, CV= 6.45161
26.24 UG/L 25/104.96

CUP# 20 CCB UNK
-0.001
0.001
0.000 AV SD= 0.00000, CV= 0.00000
2.22 UG/L BELOW DL < 4.00

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MFK8895
CUP# 21 ~~MFK8895~~ / UNK / 4585.015
0.012
0.013
0.013 AV SD= 0.00050, CV= 4.00000
12.29 UG/L 10/122.9
RERUN A/O/R

CUP# 22 MFK891 / UNK / 4585.02
0.007
-0.001
0.003 AV SD= 0.00400, CV= 133.33334
4.54 UG/L

CUP# 23 MFK891A / UNK / 4582.02A
0.015
0.018
0.016 AV SD= 0.00150, CV= 9.09091
14.62 UG/L 10.08/10/100.8

CUP# 24 MFK892 / UNK / 4582.03
0.002
0.003
0.002 AV SD= 0.00050, CV= 20.00000
3.76 UG/L BELOW DL < 4.00

CUP# 25 MFK892A / UNK / 4582.03A
0.023
0.018
0.021 AV SD= 0.00250, CV= 12.19512
18.49 UG/L 14.73/10/147.3

CUP# 26 MFK893 / UNK / 4582.04
0.001
0.004
0.003 AV SD= 0.00150, CV= 60.00000
4.54 UG/L

CUP# 27 MFK893A / UNK / 4582.04A
0.018
0.019
0.019 AV SD= 0.00050, CV= 2.70270
16.94 UG/L 12.40/10/124.0

MFK895
CUP# 28 ~~MFK894~~ / UNK / 4582.05
0.005
0.009
0.007 AV SD= 0.00200, CV= 28.57143
7.64 UG/L
RERUN RSD ← BEST RSD USE THIS ONE

MFK895A
CUP# 29 ~~MFK894A~~ / UNK / 4582.05A
0.018
0.020
0.019 AV SD= 0.00100, CV= 5.26316
16.94 UG/L 9.30/10/93.0

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CUP# 30 CCV UNK
0.029
0.029
0.029 AV SD= 0.00000, CV= 0.00000
24.69 UG/L 25/98.76

CUP# 31 CCB UNK
0.004
0.002
0.003 AV SD= 0.00100, CV= 33.33334
4.54 UG/L

CUP# 13 MFK903 / UNK / 4572.11
-0.002
0.003
0.000 AV SD= 0.00250, CV= 500.00003
2.22 UG/L BELOW DL < 4.00

CUP# 14 MFK903A / UNK / 4572.11A
0.015
0.015
0.015 AV SD= 0.00000, CV= 0.00000
13.84 UG/L 10/138.4

MFK895
CUP# 28 ~~MFK894~~ / UNK / 4585.05
0.002
0.007
0.005 AV SD= 0.00250, CV= 55.55555
6.09 UG/L
RSD USE PREVIOUSLY RUN RSD

MFK895A
CUP# 29 ~~MFK894A~~ / UNK / 4585.05A
0.020
0.016
0.018 AV SD= 0.00200, CV= 11.11111
16.17 UG/L 10.08/10/100.8

CUP# 9 PBW / UNK / (4572.11)
-0.002
-0.002
-0.002 AV SD= 0.00000, CV= 0.00000
.66 UG/L BELOW DL < 4.00

CUP# 10 PBWA / UNK / (4572.11)
0.010
0.010
0.010 AV SD= 0.00000, CV= 0.00000
9.96 UG/L 10/99.6

CUP# 21 MFK904 / UNK / 4585.06
0.004
0.002
0.003 AV SD= 0.00100, CV= 33.33334
4.54 UG/L

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CUP# 22 MFK904A / 4585.06A UNK
0.015
0.018
0.016 AV SD= 0.00150, CV= 9.09091
14.62 UG/L 10.08/10/100.8

CUP# 23 MFK905 / 4585.07 UNK
0.001
0.003
0.002 AV SD= 0.00100, CV= 50.00000
3.76 UG/L BELOW DL < 4.00

CUP# 24 MFK905A / 4585.07A UNK
0.015
0.015
0.015 AV SD= 0.00000, CV= 0.00000
13.84 UG/L 10.08/10/100.8

CUP# 27 CCV UNK
0.029
0.033
0.031 AV SD= 0.00200, CV= 6.45161
26.24 UG/L 25/104.96

CUP# 28 CCB UNK
0.001
0.001
0.001 AV SD= 0.00000, CV= 0.00000
2.99 UG/L BELOW DL < 4.00

CUP# 25 MFK906 / 4585.08 UNK
0.002
0.001
0.002 AV SD= 0.00050, CV= 33.33334
3.76 UG/L BELOW DL < 4.00

CUP# 26 MFK906A / 4585.08A UNK
0.018
0.018
0.018 AV SD= 0.00000, CV= 0.00000
16.17 UG/L 12.5/10/125.0

CUP# 31 BLK SPK UNK
0.009
0.013
0.011 AV SD= 0.00200, CV= 18.18182
10.74 UG/L 10/107.4

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CUP# 27 CCV	UNK	0.030	
		0.034	
		0.032 AV	SD= 0.00200, CV= 6.25000
			27.02 UG/L 25/ 108.08
CUP# 28 CCB	UNK	0.002	
		0.004	
		0.003 AV	SD= 0.00100, CV= 33.33334
			4.54 UG/L

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SOUTHWEST LABORATORIES OF OKLAHOMA, INC.

ANALYST BW/MS DATE 12/28

INSTR = PE5100A BKGRD = BZ IDL = 2.0 UG/L

WAVELENGTH = 276.8 INTEGRATION TIME = 5.0 SEC

Report Name: A122808 ~~A122802~~

report	lab#	sampleid	analdate	analtime	TEST ID	average	dil	result	units	cv	comment
A12280 2		S0	12/28/90	07:47							AZ
					T1	-0.003		0.00	ug/L		
		S10	12/28/90	07:52							ABS=0.059
					T1	0.059		0.06	ug/L	0.00	
		S25	12/28/90	07:58							ABS=0.130
					T1	22.280		22.28	ug/L	3.11	
		S50	12/28/90	08:03							ABS=0.242
					T1	45.595		45.60	ug/L	1.78	
		ICV	12/28/90	08:09							93.4/97/96.29%R
					T1	23.345	4.00	93.38	ug/L	5.18	
		ICB	12/28/90	08:14							
					T1	-0.195		-0.20	ug/L		
		CRA	12/28/90	08:20							
					T1	11.620		11.62	ug/L	2.43	
		CCV	12/28/90	08:25							25/109.80%R
					T1	27.450		27.45	ug/L	0.77	
		CCB	12/28/90	08:30							
					T1	0.595		0.60	ug/L	62.99	
		S0	12/28/90	08:36							
					T1	0.230		0.23	ug/L	270.54	
		S25	12/28/90	08:41							
					T1	25.295		25.30	ug/L	4.67	
		CCV	12/28/90	08:52							25/102.16%R
					T1	25.535		25.54	ug/L	4.35	
		CCB	12/28/90	08:57							
					T1	-0.280		-0.28	ug/L		

MFK888

JAN - 2 1991

15522-F-1104

report	lab#	sampleid	analdate	analtime	TEST ID	average	dil	result	units	cv	comment
12280 2		PBS(4574.01)	12/28/90	09:03							
					TI	-0.020		-0.02	ug/L		
		PBSA	12/28/90	09:08							20/100.4%R
					TI	20.080		20.08	ug/L	0.35	
		LCSS	12/28/90	09:13							236.8
					TI	11.840	20.00	236.80	ug/L	4.78	
		LCSSA	12/28/90	09:19							20/49.8%R
					TI	21.800	20.00	436.00	ug/L	4.22	
		5907E-07	12/28/90	09:24							
					TI	1.040		1.04	ug/L	78.87	
		5907E-07A	12/28/90	09:30							20/88.2%R
					TI	17.640		17.64	ug/L	18.84	
		5907E-09	12/28/90	09:35							
					TI	1.425		1.43	ug/L	2.48	
		5907E-09A	12/28/90	09:40							20/100.3%R
					TI	20.060		20.06	ug/L	6.98	
		5907E-09D	12/28/90	09:46							
					TI	1.280		1.28	ug/L	22.10	
		5907E-09DA	12/28/90	09:51							20/94.4%R
					TI	18.880		18.88	ug/L	4.94	
		CCV	12/28/90	09:57							25/103.92%R
					TI	25.975		25.98	ug/L	9.45	
		CCB	12/28/90	10:02							
					TI	-0.195		-0.20	ug/L		
		S0	12/28/90	10:08							
					TI	-0.280		-0.28	ug/L		
		S25	12/28/90	10:13							
					TI	27.800		27.80	ug/L	0.76	
		CCV	12/28/90	10:20							25/94.64%R
					TI	23.660		23.66	ug/L	2.33	
		CCB	12/28/90	10:25							
					TI	0.355		0.36	ug/L	81.66	
		5907E-09S	12/28/90	10:31							
					TI	45.365		45.37	ug/L	0.64	
		5907E-11	12/28/90	10:36							
					TI	2.935		2.94	ug/L	3.13	

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report	lab#	sampleid	analdate	analtime	TEST ID	average	dil	result	units	cv	comment
12280 2		5907E-11A	12/28/90	10:42							20/73.8%R
					T1	17.700		17.70	ug/L	0.64	
		5907E-13	12/28/90	10:47							
					T1	2.240		2.24	ug/L	0.63	
		5907E-13A	12/28/90	10:52							20/74.6%R
					T1	17.155		17.16	ug/L	2.84	
		5907E-15	12/28/90	10:58							
					T1	2.120		2.12	ug/L	8.67	
		5907E-15A	12/28/90	11:03							20/80.5%R
					T1	18.220		18.22	ug/L	4.35	
		PBS(4572.01)	12/28/90	11:09							
					T1	0.695		0.70	ug/L	55.96	
		PBSA	12/28/90	11:15							20/94.0%R
					T1	18.795		18.80	ug/L	7.41	
		CCV	12/28/90	11:20							25/95.36%R
					T1	23.835		23.84	ug/L	5.25	
		CCB	12/28/90	11:26							
					T1	0.110		0.11	ug/L	102.85	
		LCSS	12/28/90	11:31							
					T1	11.435	20.00	228.70	ug/L	15.64	
		LCSSA	12/28/90	11:36							20/51.2%R
					T1	21.660	20.00	433.20	ug/L	1.04	
4572.01		~~MEK888~~ MFK888	12/28/90	11:42							
					T1	1.320		1.32	ug/L	39.64	
4572.01A		~~MEK888A~~ MFK888A	12/28/90	11:47							20/62.1%R
					T1	12.420		12.42	ug/L	6.72	
4572.02		~~MEK890~~ MFK890	12/28/90	11:53							
					T1	1.880		1.88	ug/L	18.81	
4572.02A		~~MEK890A~~ MFK890A	12/28/90	11:58							20/63.8%R
					T1	12.770		12.77	ug/L	0.11	
4572.03		~~MEK894~~ MFK894	12/28/90	12:04							
					T1	1.485		1.49	ug/L	19.52	
4572.03A		~~MEK894A~~ MFK894A	12/28/90	12:09							20/77.4%R
					T1	15.465		15.47	ug/L	3.25	
4572.04		~~MEK896~~ MFK896	12/28/90	12:15							
					T1	1.600		1.60	ug/L	28.28	

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report	lab#	sampleid	analdate	analtime	TEST ID	average	dil	result	units	cv	comment
12280 2	4572.04A	~~MEK896A~~ MFK896A	12/28/90	12:20							20/90.0%R
					Tl	17.995		18.00	ug/L	0.67	
		CCV	12/28/90	12:26							25/100.72%R
					Tl	25.180		25.18	ug/L	1.24	
		CCB	12/28/90	12:31							
					Tl	1.015		1.02	ug/L	0.70	

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Element File: TL_EPA.GEL Element: Tl Wavelength: 276.8
Date: 12/28/90 Time: 07:47 Slit: 0.7
Data File: A122808.DAT ID/Wt File: UNTITLED Lamp Current: 0
Technique: HGA Calib. Type: Linear Energy: 58
Remark 1: IDL = 2.0 ug/l
Remark 2: INTEGRATION TIME = 5.0 SEC.
Remark 3: ICV= 97.0 UG/L
Remark 4: BACKGROUND CORRECTION = BZ
Remark 5: PE5100A

Tl ID: Blank Seq. No.: 00003 A/S Pos.: 0 Date: 12/28/90

Replicate 1 S0 Time: 07:49
Peak Area (A-s): -0.003 Peak Height (A): 0.013
Background Pk Area (A-s): 0.001 Background Pk Height (A): 0.011
Blank Corrected Pk Area (A-s): -0.003

Replicate 2 Time: 07:52
Peak Area (A-s): -0.002 Peak Height (A): 0.012
Background Pk Area (A-s): 0.008 Background Pk Height (A): 0.015
Blank Corrected Pk Area (A-s): -0.002

Mean Pk Area (A-s): -0.002 SD: 0.0009 RSD(%): 39.00

Auto-zero performed.

BW 5100A Tl 12/28/90

Tl ID: Standard 1 Seq. No.: 00004 A/S Pos.: 38 Date: 12/28/90

Replicate 1 S10 Time: 07:55
Peak Area (A-s): 0.056 Peak Height (A): 0.120
Background Pk Area (A-s): 0.045 Background Pk Height (A): 0.076
Blank Corrected Pk Area (A-s): 0.059

Replicate 2 Time: 07:58
Peak Area (A-s): 0.056 Peak Height (A): 0.117
Background Pk Area (A-s): 0.043 Background Pk Height (A): 0.076
Blank Corrected Pk Area (A-s): 0.059

Mean Pk Area (A-s): 0.059 SD: 0.0000 RSD(%): 0.01

Standard number 1 applied. [10.00]
Correlation coefficient: 1.00000 Slope: 0.0059

Tl ID: Standard 2 Seq. No.: 00005 A/S Pos.: 39 Date: 12/28/90

Replicate 1 S25 Time: 08:00

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Peak Area (A-s): 0.125 Peak Height (A): 0.242
Background Pk Area (A-s): 0.081 Background Pk Height (A): 0.152
Blank Corrected Pk Area (A-s): 0.128
Concentration (ug/L): 21.79

Replicate 2 Time: 08:03
Peak Area (A-s): 0.131 Peak Height (A): 0.251
Background Pk Area (A-s): 0.083 Background Pk Height (A): 0.155
Blank Corrected Pk Area (A-s): 0.133
Concentration (ug/L): 22.77

Mean Conc (ug/L): 22.28 SD: 0.696 RSD(%): 3.12

Standard number 2 applied. [25.00]
Correlation coefficient: 0.99448 Slope: 0.0053

T1 ID: Standard 3 Seq. No.: 00006 A/S Pos.: 40 Date: 12/28/90

550

Replicate 1 Time: 08:06
Peak Area (A-s): 0.237 Peak Height (A): 0.434
Background Pk Area (A-s): 0.161 Background Pk Height (A): 0.312
Blank Corrected Pk Area (A-s): 0.239
Concentration (ug/L): 45.02

Replicate 2 Time: 08:08
Peak Area (A-s): 0.243 Peak Height (A): 0.439
Background Pk Area (A-s): 0.163 Background Pk Height (A): 0.314
Blank Corrected Pk Area (A-s): 0.245
Concentration (ug/L): 46.17

Mean Conc (ug/L): 45.59 SD: 0.816 RSD(%): 1.79

Standard number 3 applied. [50.00]
Correlation coefficient: 0.99617 Slope: 0.0050

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314A

T1 ID: ICV 1:3 Seq. No.: 00007 A/S Pos.: 1 Date: 12/28/90

Replicate 1 Time: 08:12
Peak Area (A-s): 0.118 Peak Height (A): 0.221
Background Pk Area (A-s): 0.074 Background Pk Height (A): 0.137
Blank Corrected Pk Area (A-s): 0.120
Concentration (ug/L): 24.20

Replicate 2 Time: 08:14
Peak Area (A-s): 0.109 Peak Height (A): 0.222
Background Pk Area (A-s): 0.076 Background Pk Height (A): 0.133
Blank Corrected Pk Area (A-s): 0.112
Concentration (ug/L): 22.49

Mean Conc (ug/L): 23.35 SD: 1.210 RSD(%): 5.18

x4 = 93.4 97.0/96.29%

T1 ID: ICB Seq. No.: 00008 A/S Pos.: 2 Date: 12/28/90

Replicate 1 Time: 08:17
Peak Area (A-s): -0.003 Peak Height (A): 0.011
Background Pk Area (A-s): 0.004 Background Pk Height (A): 0.012

Blank Corrected Pk Area (A-s): -0.001
Concentration (ug/L): -0.14

Replicate 2 Time: 08:20
Peak Area (A-s): -0.004 Peak Height (A): 0.009
Background Pk Area (A-s): 0.011 Background Pk Height (A): 0.012
Blank Corrected Pk Area (A-s): -0.001
Concentration (ug/L): -0.25

Mean Conc (ug/L): -0.19 SD: 0.075 RSD(%): 38.68

****

Tl ID: CRA Seq. No.: 00009 A/S Pos.: 3 Date: 12/28/90

Replicate 1 Time: 08:22
Peak Area (A-s): 0.054 Peak Height (A): 0.118
Background Pk Area (A-s): 0.045 Background Pk Height (A): 0.077
Blank Corrected Pk Area (A-s): 0.057
Concentration (ug/L): 11.42

Replicate 2 Time: 08:25
Peak Area (A-s): 0.056 Peak Height (A): 0.123
Background Pk Area (A-s): 0.039 Background Pk Height (A): 0.070
Blank Corrected Pk Area (A-s): 0.059
Concentration (ug/L): 11.82

Mean Conc (ug/L): 11.62 SD: 0.281 RSD(%): 2.42

****

Tl ID: CCV Seq. No.: 00010 A/S Pos.: 4 Date: 12/28/90

Replicate 1 Time: 08:28
Peak Area (A-s): 0.134 Peak Height (A): 0.265
Background Pk Area (A-s): 0.089 Background Pk Height (A): 0.170
Blank Corrected Pk Area (A-s): 0.137
Concentration (ug/L): 27.60

Replicate 2 Time: 08:30
Peak Area (A-s): 0.133 Peak Height (A): 0.270
Background Pk Area (A-s): 0.090 Background Pk Height (A): 0.176
Blank Corrected Pk Area (A-s): 0.135
Concentration (ug/L): 27.30

Mean Conc (ug/L): 27.45 SD: 0.209 RSD(%): 0.76 25/109.80 %

****

Tl ID: CCB Seq. No.: 00011 A/S Pos.: 5 Date: 12/28/90

Replicate 1 Time: 08:33
Peak Area (A-s): 0.002 Peak Height (A): 0.013
Background Pk Area (A-s): 0.005 Background Pk Height (A): 0.010
Blank Corrected Pk Area (A-s): 0.004
Concentration (ug/L): 0.86

Replicate 2 Time: 08:36
Peak Area (A-s): -0.001 Peak Height (A): 0.012
Background Pk Area (A-s): 0.017 Background Pk Height (A): 0.014
Blank Corrected Pk Area (A-s): 0.002
Concentration (ug/L): 0.33

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Mean Conc (ug/L): 0.60 SD: 0.371 RSD(%): 62.34

****

T1 ID: Blank Seq. No.: 00012 A/S Pos.: 0 Date: 12/28/90

Replicate 1 SO Time: 08:38
Peak Area (A-s): -0.003 Peak Height (A): 0.013
Background Pk Area (A-s): 0.011 Background Pk Height (A): 0.013
Blank Corrected Pk Area (A-s): -0.001
Concentration (ug/L): -0.21

Replicate 2 Time: 08:41
Peak Area (A-s): 0.001 Peak Height (A): 0.013
Background Pk Area (A-s): 0.006 Background Pk Height (A): 0.011
Blank Corrected Pk Area (A-s): 0.003
Concentration (ug/L): 0.67

Mean Conc (ug/L): 0.23 SD: 0.619 RSD(%): 266.60

Auto-zero performed.

****

T1 ID: Reslope Seq. No.: 00013 A/S Pos.: 39 Date: 12/28/90

Replicate 1 ~~S50~~ S25 Time: 08:44
Peak Area (A-s): 0.128 Peak Height (A): 0.247
Background Pk Area (A-s): 0.084 Background Pk Height (A): 0.155
Blank Corrected Pk Area (A-s): 0.130
Concentration (ug/L): 26.13

Replicate 2 Time: 08:46
Peak Area (A-s): 0.120 Peak Height (A): 0.250
Background Pk Area (A-s): 0.087 Background Pk Height (A): 0.167
Blank Corrected Pk Area (A-s): 0.121
Concentration (ug/L): 24.46

Mean Conc (ug/L): 25.30 SD: 1.182 RSD(%): 4.67

Reslope standard applied. [25.00]
Correlation coefficient: 0.99617 Slope: 0.0050

****

T1 ID: CCV Seq. No.: 00014 A/S Pos.: 4 Date: 12/28/90

Replicate 1 Time: 08:55
Peak Area (A-s): 0.123 Peak Height (A): 0.238
Background Pk Area (A-s): 0.088 Background Pk Height (A): 0.160
Blank Corrected Pk Area (A-s): 0.124
Concentration (ug/L): 24.75

Replicate 2 Time: 08:57
Peak Area (A-s): 0.131 Peak Height (A): 0.256
Background Pk Area (A-s): 0.086 Background Pk Height (A): 0.162
Blank Corrected Pk Area (A-s): 0.132
Concentration (ug/L): 26.32

Mean Conc (ug/L): 25.54 SD: 1.109 RSD(%): 4.34

25/102.16 %

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TI ID: CCB Seq. No.: 00015 A/S Pos.: 5 Date: 12/28/90

Replicate 1 Time: 09:00
Peak Area (A-s): -0.001 Peak Height (A): 0.010
Background Pk Area (A-s): 0.008 Background Pk Height (A): 0.012
Blank Corrected Pk Area (A-s): 0.000
Concentration (ug/L): 0.08

Replicate 2 Time: 09:03
Peak Area (A-s): -0.004 Peak Height (A): 0.010
Background Pk Area (A-s): 0.006 Background Pk Height (A): 0.014
Blank Corrected Pk Area (A-s): -0.003
Concentration (ug/L): -0.64

Mean Conc (ug/L): -0.28 SD: 0.506 RSD(%): 180.60

TI ID: PBS(4574.01) Seq. No.: 00016 A/S Pos.: 6 Date: 12/28/90

Replicate 1 Time: 09:05
Peak Area (A-s): -0.003 Peak Height (A): 0.011
Background Pk Area (A-s): 0.006 Background Pk Height (A): 0.013
Blank Corrected Pk Area (A-s): -0.002
Concentration (ug/L): -0.30

Replicate 2 Time: 09:08
Peak Area (A-s): 0.000 Peak Height (A): 0.011
Background Pk Area (A-s): 0.009 Background Pk Height (A): 0.013
Blank Corrected Pk Area (A-s): 0.001
Concentration (ug/L): 0.26

Mean Conc (ug/L): -0.02 SD: 0.400 RSD(%): 2262.74

TI ID: PBS(4574.01)A Seq. No.: 00017 A/S Pos.: 6 Date: 12/28/90

Replicate 1 Time: 09:11
Peak Area (A-s): 0.099 Peak Height (A): 0.191
Background Pk Area (A-s): 0.064 Background Pk Height (A): 0.119
Blank Corrected Pk Area (A-s): 0.101
Concentration (ug/L): 20.03

Replicate 2 Time: 09:13
Peak Area (A-s): 0.100 Peak Height (A): 0.197
Background Pk Area (A-s): 0.067 Background Pk Height (A): 0.118
Blank Corrected Pk Area (A-s): 0.101
Concentration (ug/L): 20.13

Mean Conc (ug/L): 20.08 SD: 0.064 RSD(%): 0.32

Recovery is 100.5% 20/100.4 S_0

TI ID: LCSS 1:19 Seq. No.: 00018 A/S Pos.: 7 Date: 12/28/90

Replicate 1 Time: 09:16
Peak Area (A-s): 0.060 Peak Height (A): 0.114
Background Pk Area (A-s): 0.036 Background Pk Height (A): 0.063

Blank Corrected Pk Area (A-s): 0.061
Concentration (ug/L): 12.24

Replicate 2 Time: 09:19
Peak Area (A-s): 0.056 Peak Height (A): 0.114
Background Pk Area (A-s): 0.041 Background Pk Height (A): 0.075
Blank Corrected Pk Area (A-s): 0.057
Concentration (ug/L): 11.44

Mean Conc (ug/L): 11.84 SD: 0.566 RSD(%): 4.78

X20 = 236.8

****

T1 ID: LCSS A Seq. No.: 00019 A/S Pos.: 7 Date: 12/28/90

Replicate 1 Time: 09:21
Peak Area (A-s): 0.111 Peak Height (A): 0.203
Background Pk Area (A-s): 0.066 Background Pk Height (A): 0.122
Blank Corrected Pk Area (A-s): 0.113
Concentration (ug/L): 22.45

Replicate 2 Time: 09:24
Peak Area (A-s): 0.105 Peak Height (A): 0.201
Background Pk Area (A-s): 0.074 Background Pk Height (A): 0.124
Blank Corrected Pk Area (A-s): 0.106
Concentration (ug/L): 21.15

Mean Conc (ug/L): 21.80 SD: 0.923 RSD(%): 4.24

covery is 49.8%

20/49.8%

****

T1 ID: 5907E-07/4574.01 Seq. No.: 00020 A/S Pos.: 8 Date: 12/28/90

Replicate 1 Time: 09:27
Peak Area (A-s): 0.007 Peak Height (A): 0.018
Background Pk Area (A-s): 0.015 Background Pk Height (A): 0.015
Blank Corrected Pk Area (A-s): 0.008
Concentration (ug/L): 1.62

Replicate 2 Time: 09:29
Peak Area (A-s): 0.001 Peak Height (A): 0.017
Background Pk Area (A-s): 0.016 Background Pk Height (A): 0.017
Blank Corrected Pk Area (A-s): 0.002
Concentration (ug/L): 0.46

Mean Conc (ug/L): 1.04 SD: 0.821 RSD(%): 78.76

****

T1 ID: 5907E-07A/4574.01A Seq. No.: 00021 A/S Pos.: 8 Date: 12/28/90

Replicate 1 Time: 09:32
Peak Area (A-s): 0.075 Peak Height (A): 0.140
Background Pk Area (A-s): 0.048 Background Pk Height (A): 0.085
ank Corrected Pk Area (A-s): 0.077
oncentration (ug/L): 15.29

Replicate 2 Time: 09:35
Peak Area (A-s): 0.099 Peak Height (A): 0.197
Background Pk Area (A-s): 0.067 Background Pk Height (A): 0.119

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Blank Corrected Pk Area (A-s): 0.100
Concentration (ug/L): 19.99

Mean Conc (ug/L): 17.64 SD: 3.322 RSD(%): 18.83

Recovery is 83.0% 20/88.2%

****

T1 ID: 5907E-09/4574.02 Seq. No.: 00022 A/S Pos.: 9 Date: 12/28/90

Replicate 1 Time: 09:38
Peak Area (A-s): 0.006 Peak Height (A): 0.020
Background Pk Area (A-s): 0.025 Background Pk Height (A): 0.018
Blank Corrected Pk Area (A-s): 0.007
Concentration (ug/L): 1.40

Replicate 2 Time: 09:40
Peak Area (A-s): 0.006 Peak Height (A): 0.020
Background Pk Area (A-s): 0.024 Background Pk Height (A): 0.020
Blank Corrected Pk Area (A-s): 0.007
Concentration (ug/L): 1.45

Mean Conc (ug/L): 1.42 SD: 0.035 RSD(%): 2.48

****

T1 ID: 5907E-09A/4574.02A Seq. No.: 00023 A/S Pos.: 9 Date: 12/28/90

Replicate 1 Time: 09:43
Peak Area (A-s): 0.094 Peak Height (A): 0.188
Background Pk Area (A-s): 0.075 Background Pk Height (A): 0.122
Blank Corrected Pk Area (A-s): 0.096
Concentration (ug/L): 19.07

Replicate 2 Time: 09:46
Peak Area (A-s): 0.104 Peak Height (A): 0.205
Background Pk Area (A-s): 0.070 Background Pk Height (A): 0.120
Blank Corrected Pk Area (A-s): 0.106
Concentration (ug/L): 21.05

Mean Conc (ug/L): 20.06 SD: 1.400 RSD(%): 6.98

Recovery is 93.2% 20/100.3%

****

T1 ID: 5907E-09D/4574.02D Seq. No.: 00024 A/S Pos.: 10 Date: 12/28/90

Replicate 1 Time: 09:48
Peak Area (A-s): 0.004 Peak Height (A): 0.023
Background Pk Area (A-s): 0.032 Background Pk Height (A): 0.030
Blank Corrected Pk Area (A-s): 0.005
Concentration (ug/L): 1.08

Replicate 2 Time: 09:51
Peak Area (A-s): 0.006 Peak Height (A): 0.019
Background Pk Area (A-s): 0.025 Background Pk Height (A): 0.023
Blank Corrected Pk Area (A-s): 0.007
Concentration (ug/L): 1.48

Mean Conc (ug/L): 1.28 SD: 0.282 RSD(%): 21.97

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Tl ID: 5907E-09D A/4574.020A Seq. No.: 00025 A/S Pos.: 10 Date: 12/28/90

Replicate 1 Time: 09:54
Peak Area (A-s): 0.097 Peak Height (A): 0.181
Background Pk Area (A-s): 0.078 Background Pk Height (A): 0.118
Blank Corrected Pk Area (A-s): 0.098
Concentration (ug/L): 19.54

Replicate 2 Time: 09:57
Peak Area (A-s): 0.090 Peak Height (A): 0.184
Background Pk Area (A-s): 0.080 Background Pk Height (A): 0.111
Blank Corrected Pk Area (A-s): 0.091
Concentration (ug/L): 18.22

Mean Conc (ug/L): 18.88 SD: 0.939 RSD(%): 4.97

Recovery is 88.0% 20/94.4%

Tl ID: CCV Seq. No.: 00026 A/S Pos.: 4 Date: 12/28/90

Replicate 1 Time: 09:59
Peak Area (A-s): 0.138 Peak Height (A): 0.262
Background Pk Area (A-s): 0.094 Background Pk Height (A): 0.170
Blank Corrected Pk Area (A-s): 0.139
Concentration (ug/L): 27.71

Replicate 2 Time: 10:02
Peak Area (A-s): 0.120 Peak Height (A): 0.223
Background Pk Area (A-s): 0.087 Background Pk Height (A): 0.164
Blank Corrected Pk Area (A-s): 0.122
Concentration (ug/L): 24.24

Mean Conc (ug/L): 25.98 SD: 2.455 RSD(%): 9.45

Check sample is within range 22.00 - 28.00 25/103.92%

Tl ID: CCB Seq. No.: 00027 A/S Pos.: 5 Date: 12/28/90

Replicate 1 Time: 10:05
Peak Area (A-s): -0.002 Peak Height (A): 0.012
Background Pk Area (A-s): 0.015 Background Pk Height (A): 0.012
Blank Corrected Pk Area (A-s): -0.001
Concentration (ug/L): -0.20

Replicate 2 Time: 10:07
Peak Area (A-s): -0.002 Peak Height (A): 0.011
Background Pk Area (A-s): 0.004 Background Pk Height (A): 0.012
Blank Corrected Pk Area (A-s): -0.001
Concentration (ug/L): -0.19

Mean Conc (ug/L): -0.20 SD: 0.004 RSD(%): 1.91

Check sample is within range -10.00 - 10.00

Tl ID: Blank SO Seq. No.: 00028 A/S Pos.: 0 Date: 12/28/90

Replicate 1 Time: 10:11
Peak Area (A-s): -0.004 Peak Height (A): 0.012
Background Pk Area (A-s): 0.012 Background Pk Height (A): 0.012
Blank Corrected Pk Area (A-s): -0.002
Concentration (ug/L): -0.46

Replicate 2 Time: 10:13
Peak Area (A-s): -0.002 Peak Height (A): 0.012
Background Pk Area (A-s): 0.025 Background Pk Height (A): 0.028
Blank Corrected Pk Area (A-s): -0.000
Concentration (ug/L): -0.10

Mean Conc (ug/L): -0.28 SD: 0.255 RSD(%): 91.14

Auto-zero performed.

~~~~~~

T1 ID: Reslope Seq. No.: 00029 A/S Pos.: 39 Date: 12/28/90

525

Replicate 1 Time: 10:16
Peak Area (A-s): 0.136 Peak Height (A): 0.263
Background Pk Area (A-s): 0.101 Background Pk Height (A): 0.175
Blank Corrected Pk Area (A-s): 0.139
Concentration (ug/L): 27.65

Replicate 2 Time: 10:19
Peak Area (A-s): 0.138 Peak Height (A): 0.266
Background Pk Area (A-s): 0.097 Background Pk Height (A): 0.172
Blank Corrected Pk Area (A-s): 0.140
Concentration (ug/L): 27.95

Mean Conc (ug/L): 27.80 SD: 0.213 RSD(%): 0.77

Reslope standard applied. [25.00]
Correlation coefficient: 0.99617 Slope: 0.0050

~~~~~~

T1 ID: CCV Seq. No.: 00030 A/S Pos.: 4 Date: 12/28/90

Replicate 1 Time: 10:23
Peak Area (A-s): 0.132 Peak Height (A): 0.244
Background Pk Area (A-s): 0.087 Background Pk Height (A): 0.163
Blank Corrected Pk Area (A-s): 0.134
Concentration (ug/L): 24.05

Replicate 2 Time: 10:25
Peak Area (A-s): 0.127 Peak Height (A): 0.237
Background Pk Area (A-s): 0.089 Background Pk Height (A): 0.164
Blank Corrected Pk Area (A-s): 0.130
Concentration (ug/L): 23.27

Mean Conc (ug/L): 23.66 SD: 0.552 RSD(%): 2.33

Check sample is within range 22.00 - 28.00

25/94.64%

~~~~~~

T1 ID: CCB Seq. No.: 00031 A/S Pos.: 5 Date: 12/28/90

Replicate 1 Time: 10:28
~~~~~~

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Peak Area (A-s): -0.002 Peak Height (A): 0.012
Background Pk Area (A-s): 0.010 Background Pk Height (A): 0.012
Blank Corrected Pk Area (A-s): 0.001
Concentration (ug/L): 0.15

Replicate 2 Time: 10:31
Peak Area (A-s): 0.000 Peak Height (A): 0.010
Background Pk Area (A-s): 0.005 Background Pk Height (A): 0.010
Blank Corrected Pk Area (A-s): 0.003
Concentration (ug/L): 0.56

Mean Conc (ug/L): 0.35 SD: 0.293 RSD(%): 83.22

Check sample is within range -10.00 - 10.00

~~~~~~

Tl ID: 5907E-09S/4574.02S Seq. No.: 00032 A/S Pos.: 11 Date: 12/28/90

Replicate 1 Time: 10:33
Peak Area (A-s): 0.249 Peak Height (A): 0.443
Background Pk Area (A-s): 0.188 Background Pk Height (A): 0.364
Blank Corrected Pk Area (A-s): 0.252
Concentration (ug/L): 45.16

Replicate 2 Time: 10:36
Peak Area (A-s): 0.252 Peak Height (A): 0.449
Background Pk Area (A-s): 0.188 Background Pk Height (A): 0.367
Blank Corrected Pk Area (A-s): 0.254
Concentration (ug/L): 45.57

Mean Conc (ug/L): 45.37 SD: 0.292 RSD(%): 0.64

~~~~~~

Tl ID: 5907E-11/4574.03 Seq. No.: 00033 A/S Pos.: 12 Date: 12/28/90

Replicate 1 Time: 10:39
Peak Area (A-s): 0.013 Peak Height (A): 0.033
Background Pk Area (A-s): 0.012 Background Pk Height (A): 0.021
Blank Corrected Pk Area (A-s): 0.016
Concentration (ug/L): 2.87

Replicate 2 Time: 10:41
Peak Area (A-s): 0.014 Peak Height (A): 0.030
Background Pk Area (A-s): 0.018 Background Pk Height (A): 0.023
Blank Corrected Pk Area (A-s): 0.017
Concentration (ug/L): 3.00

Mean Conc (ug/L): 2.94 SD: 0.096 RSD(%): 3.26

~~~~~~

Tl ID: 5907E-11A/4574.03A Seq. No.: 00034 A/S Pos.: 12 Date: 12/28/90

Replicate 1 Time: 10:44
Peak Area (A-s): 0.096 Peak Height (A): 0.194
Background Pk Area (A-s): 0.064 Background Pk Height (A): 0.118
Blank Corrected Pk Area (A-s): 0.098
Concentration (ug/L): 17.62

Replicate 2 Time: 10:47
~~~~~~

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Peak Area (A-s): 0.096 Peak Height (A): 0.192
Background Pk Area (A-s): 0.065 Background Pk Height (A): 0.123
Blank Corrected Pk Area (A-s): 0.099
Concentration (ug/L): 17.78

Mean Conc (ug/L): 17.70 SD: 0.109 RSD(%): 0.62

Recovery is 73.8%

20/++73.8%

****

T1 ID: 5907E-13/4574.04 Seq. No.: 00035 A/S Pos.: 13 Date: 12/28/90

Replicate 1 Time: 10:50
Peak Area (A-s): 0.010 Peak Height (A): 0.026
Background Pk Area (A-s): 0.026 Background Pk Height (A): 0.018
Blank Corrected Pk Area (A-s): 0.013
Concentration (ug/L): 2.25

Replicate 2 Time: 10:52
Peak Area (A-s): 0.010 Peak Height (A): 0.029
Background Pk Area (A-s): 0.022 Background Pk Height (A): 0.019
Blank Corrected Pk Area (A-s): 0.012
Concentration (ug/L): 2.23

Mean Conc (ug/L): 2.24 SD: 0.014 RSD(%): 0.64

****

T1 ID: 5907E-13A/4574.04A Seq. No.: 00036 A/S Pos.: 13 Date: 12/28/90

Replicate 1 Time: 10:55
Peak Area (A-s): 0.095 Peak Height (A): 0.179
Background Pk Area (A-s): 0.065 Background Pk Height (A): 0.111
Blank Corrected Pk Area (A-s): 0.098
Concentration (ug/L): 17.50

Replicate 2 Time: 10:58
Peak Area (A-s): 0.091 Peak Height (A): 0.183
Background Pk Area (A-s): 0.081 Background Pk Height (A): 0.115
Blank Corrected Pk Area (A-s): 0.094
Concentration (ug/L): 16.81

Mean Conc (ug/L): 17.16 SD: 0.487 RSD(%): 2.84

Recovery is 74.6%

20/74.6%

****

T1 ID: 5907E-15/4574.05 Seq. No.: 00037 A/S Pos.: 14 Date: 12/28/90

Replicate 1 Time: 11:01
Peak Area (A-s): 0.010 Peak Height (A): 0.025
Background Pk Area (A-s): 0.038 Background Pk Height (A): 0.025
Blank Corrected Pk Area (A-s): 0.013
Concentration (ug/L): 2.25

Replicate 2 Time: 11:03
Peak Area (A-s): 0.008 Peak Height (A): 0.026
Background Pk Area (A-s): 0.051 Background Pk Height (A): 0.042
Blank Corrected Pk Area (A-s): 0.011
Concentration (ug/L): 1.99

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Mean Conc (ug/L): 2.12 SD: 0.181 RSD(%): 8.55

****

T1 ID: 5907E-15 A/4574.05A Seq. No.: 00038 A/S Pos.: 14 Date: 12/28/90

Replicate 1 Time: 11:06
Peak Area (A-s): 0.096 Peak Height (A): 0.181
Background Pk Area (A-s): 0.098 Background Pk Height (A): 0.114
Blank Corrected Pk Area (A-s): 0.099
Concentration (ug/L): 17.66

Replicate 2 Time: 11:09
Peak Area (A-s): 0.102 Peak Height (A): 0.196
Background Pk Area (A-s): 0.095 Background Pk Height (A): 0.117
Blank Corrected Pk Area (A-s): 0.105
Concentration (ug/L): 18.78

Mean Conc (ug/L): 18.22 SD: 0.794 RSD(%): 4.36

Recovery is 80.5% 20/80.5%

****

T1 ID: PBS(4572.01) Seq. No.: 00039 A/S Pos.: 15 Date: 12/28/90

Replicate 1 Time: 11:12
Peak Area (A-s): 0.003 Peak Height (A): 0.012
Background Pk Area (A-s): 0.005 Background Pk Height (A): 0.011
Blank Corrected Pk Area (A-s): 0.005
Concentration (ug/L): 0.97

Replicate 2 Time: 11:14
Peak Area (A-s): -0.000 Peak Height (A): 0.011
Background Pk Area (A-s): 0.006 Background Pk Height (A): 0.011
Blank Corrected Pk Area (A-s): 0.002
Concentration (ug/L): 0.42

Mean Conc (ug/L): 0.69 SD: 0.390 RSD(%): 56.38

****

T1 ID: PBS(4572.01)A Seq. No.: 00040 A/S Pos.: 15 Date: 12/28/90

Replicate 1 Time: 11:17
Peak Area (A-s): 0.097 Peak Height (A): 0.206
Background Pk Area (A-s): 0.070 Background Pk Height (A): 0.127
Blank Corrected Pk Area (A-s): 0.099
Concentration (ug/L): 17.81

Replicate 2 Time: 11:20
Peak Area (A-s): 0.108 Peak Height (A): 0.203
Background Pk Area (A-s): 0.067 Background Pk Height (A): 0.128
Blank Corrected Pk Area (A-s): 0.110
Concentration (ug/L): 19.78

Mean Conc (ug/L): 18.80 SD: 1.390 RSD(%): 7.39

Recovery is 90.5% 20/94.0%

****

T1 ID: CCV Seq. No.: 00041 A/S Pos.: 4 Date: 12/28/90

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Replicate 1 Time: 11:23
Peak Area (A-s): 0.135 Peak Height (A): 0.255
Background Pk Area (A-s): 0.090 Background Pk Height (A): 0.164
Blank Corrected Pk Area (A-s): 0.138
Concentration (ug/L): 24.72

Replicate 2 Time: 11:25
Peak Area (A-s): 0.125 Peak Height (A): 0.238
Background Pk Area (A-s): 0.082 Background Pk Height (A): 0.143
Blank Corrected Pk Area (A-s): 0.128
Concentration (ug/L): 22.95

Mean Conc (ug/L): 23.84 SD: 1.252 RSD(%): 5.25

Check sample is within range 22.00 - 28.00

25/95.36%

****

Tl ID: CCB Seq. No.: 00042 A/S Pos.: 5 Date: 12/28/90

Replicate 1 Time: 11:28
Peak Area (A-s): -0.003 Peak Height (A): 0.010
Background Pk Area (A-s): 0.008 Background Pk Height (A): 0.013
Blank Corrected Pk Area (A-s): 0.000
Concentration (ug/L): 0.03

Replicate 2 Time: 11:31
Peak Area (A-s): -0.002 Peak Height (A): 0.012
Background Pk Area (A-s): 0.004 Background Pk Height (A): 0.012
Blank Corrected Pk Area (A-s): 0.001
Concentration (ug/L): 0.19

Mean Conc (ug/L): 0.11 SD: 0.117 RSD(%): 105.02

Check sample is within range -10.00 - 10.00

****

Tl ID: LCSS 1:19 Seq. No.: 00043 A/S Pos.: 16 Date: 12/28/90

Replicate 1 Time: 11:34
Peak Area (A-s): 0.068 Peak Height (A): 0.127
Background Pk Area (A-s): 0.047 Background Pk Height (A): 0.080
Blank Corrected Pk Area (A-s): 0.071
Concentration (ug/L): 12.70

Replicate 2 Time: 11:36
Peak Area (A-s): 0.054 Peak Height (A): 0.118
Background Pk Area (A-s): 0.051 Background Pk Height (A): 0.068
Blank Corrected Pk Area (A-s): 0.057
Concentration (ug/L): 10.17

Mean Conc (ug/L): 11.43 SD: 1.792 RSD(%): 15.67

X20 = 229

****

ID: LCSS A 1:19 Seq. No.: 00044 A/S Pos.: 16 Date: 12/28/90

Replicate 1 Time: 11:39
Peak Area (A-s): 0.117 Peak Height (A): 0.215
Background Pk Area (A-s): 0.076 Background Pk Height (A): 0.134
Blank Corrected Pk Area (A-s): 0.120

Concentration (ug/L): 21.50

Replicate 2 Time: 11:42
Peak Area (A-s): 0.119 Peak Height (A): 0.208
Background Pk Area (A-s): 0.071 Background Pk Height (A): 0.142
Blank Corrected Pk Area (A-s): 0.122
Concentration (ug/L): 21.82

Mean Conc (ug/L): 21.66 SD: 0.223 RSD(%): 1.03

Recovery is 51.1%

20/ ~~50.3~~ 51.2 %

Tl ID: ~~MEK888~~ MFK888/4572.01 Seq. No.: 00045 A/S Pos.: 17 Date: 12/28/90

Replicate 1 Time: 11:45
Peak Area (A-s): 0.003 Peak Height (A): 0.014
Background Pk Area (A-s): 0.058 Background Pk Height (A): 0.035
Blank Corrected Pk Area (A-s): 0.005
Concentration (ug/L): 0.95

Replicate 2 Time: 11:47
Peak Area (A-s): 0.007 Peak Height (A): 0.014
Background Pk Area (A-s): 0.046 Background Pk Height (A): 0.037
Blank Corrected Pk Area (A-s): 0.009
Concentration (ug/L): 1.69

Mean Conc (ug/L): 1.32 SD: 0.518 RSD(%): 39.25

Tl ID: ~~MEK888~~ MFK888A/4572.01A Seq. No.: 00046 A/S Pos.: 17 Date: 12/28/90

Replicate 1 Time: 11:50
Peak Area (A-s): 0.070 Peak Height (A): 0.138
Background Pk Area (A-s): 0.093 Background Pk Height (A): 0.084
Blank Corrected Pk Area (A-s): 0.073
Concentration (ug/L): 13.01

Replicate 2 Time: 11:53
Peak Area (A-s): 0.063 Peak Height (A): 0.116
Background Pk Area (A-s): 0.074 Background Pk Height (A): 0.072
Blank Corrected Pk Area (A-s): 0.066
Concentration (ug/L): 11.83

Mean Conc (ug/L): 12.42 SD: 0.830 RSD(%): 6.68

Recovery is 55.5%

20/ 62.1 %

Tl ID: ~~MEK890~~ MFK890/4572.02 Seq. No.: 00047 A/S Pos.: 18 Date: 12/28/90

Replicate 1 Time: 11:56
Peak Area (A-s): 0.006 Peak Height (A): 0.018
Background Pk Area (A-s): 0.044 Background Pk Height (A): 0.025
Blank Corrected Pk Area (A-s): 0.009
Concentration (ug/L): 1.63

Replicate 2 Time: 11:58
Peak Area (A-s): 0.009 Peak Height (A): 0.014

Background Pk Area (A-s): 0.043 Background Pk Height (A): 0.026
Blank Corrected Pk Area (A-s): 0.012
Concentration (ug/L): 2.13

Mean Conc (ug/L): 1.88 SD: 0.358 RSD(%): 19.04

****

Tl ID: ~~MEK890~~ MFK890A/4572.02A Seq. No.: 00048 A/S Pos.: 18 Date: 12/28/90

Replicate 1 Time: 12:01
Peak Area (A-s): 0.068 Peak Height (A): 0.143
Background Pk Area (A-s): 0.087 Background Pk Height (A): 0.085
Blank Corrected Pk Area (A-s): 0.071
Concentration (ug/L): 12.76

Replicate 2 Time: 12:04
Peak Area (A-s): 0.069 Peak Height (A): 0.143
Background Pk Area (A-s): 0.091 Background Pk Height (A): 0.083
Blank Corrected Pk Area (A-s): 0.071
Concentration (ug/L): 12.78

Mean Conc (ug/L): 12.77 SD: 0.016 RSD(%): 0.13

Recovery is 54.4% 20/63.8%

****

Tl ID: ~~MEK894~~ MFK894/4572.03 Seq. No.: 00049 A/S Pos.: 19 Date: 12/28/90

Replicate 1 Time: 12:07
Peak Area (A-s): 0.004 Peak Height (A): 0.013
Background Pk Area (A-s): 0.016 Background Pk Height (A): 0.017
Blank Corrected Pk Area (A-s): 0.007
Concentration (ug/L): 1.28

Replicate 2 Time: 12:09
Peak Area (A-s): 0.007 Peak Height (A): 0.013
Background Pk Area (A-s): 0.014 Background Pk Height (A): 0.012
Blank Corrected Pk Area (A-s): 0.009
Concentration (ug/L): 1.69

Mean Conc (ug/L): 1.48 SD: 0.287 RSD(%): 19.34

****

Tl ID: ~~MEK894~~ MFK894A/4572.03A Seq. No.: 00050 A/S Pos.: 19 Date: 12/28/90

Replicate 1 Time: 12:12
Peak Area (A-s): 0.086 Peak Height (A): 0.148
Background Pk Area (A-s): 0.060 Background Pk Height (A): 0.095
Blank Corrected Pk Area (A-s): 0.088
Concentration (ug/L): 15.82

Replicate 2 Time: 12:15
Peak Area (A-s): 0.082 Peak Height (A): 0.146
Background Pk Area (A-s): 0.065 Background Pk Height (A): 0.098
Blank Corrected Pk Area (A-s): 0.084
Concentration (ug/L): 15.11

Mean Conc (ug/L): 15.47 SD: 0.501 RSD(%): 3.24

Recovery is 69.9%

20/77.4%

~~MEK896~~ MFK896/4572.04

Tl ID: Seq. No.: 00051 A/S Pos.: 20 Date: 12/28/90

Replicate 1 Time: 12:17
Peak Area (A-s): 0.008 Peak Height (A): 0.015
Background Pk Area (A-s): 0.034 Background Pk Height (A): 0.030
Blank Corrected Pk Area (A-s): 0.011
Concentration (ug/L): 1.92

Replicate 2 Time: 12:20
Peak Area (A-s): 0.004 Peak Height (A): 0.011
Background Pk Area (A-s): 0.026 Background Pk Height (A): 0.029
Blank Corrected Pk Area (A-s): 0.007
Concentration (ug/L): 1.28

Mean Conc (ug/L): 1.60 SD: 0.451 RSD(%): 28.17

~~MEK896~~ MFK896A/4572.04A

Tl ID: Seq. No.: 00052 A/S Pos.: 20 Date: 12/28/90

Replicate 1 Time: 12:23
Peak Area (A-s): 0.098 Peak Height (A): 0.179
Background Pk Area (A-s): 0.085 Background Pk Height (A): 0.114
Blank Corrected Pk Area (A-s): 0.101
Concentration (ug/L): 18.08

Replicate 2 Time: 12:26
Peak Area (A-s): 0.097 Peak Height (A): 0.176
Background Pk Area (A-s): 0.082 Background Pk Height (A): 0.112
Blank Corrected Pk Area (A-s): 0.100
Concentration (ug/L): 17.91

Mean Conc (ug/L): 18.00 SD: 0.119 RSD(%): 0.66

Recovery is 82.0%

20/90.0%

Tl ID: CCV Seq. No.: 00053 A/S Pos.: 4 Date: 12/28/90

Replicate 1 Time: 12:28
Peak Area (A-s): 0.139 Peak Height (A): 0.260
Background Pk Area (A-s): 0.099 Background Pk Height (A): 0.183
Blank Corrected Pk Area (A-s): 0.142
Concentration (ug/L): 25.40

Replicate 2 Time: 12:31
Peak Area (A-s): 0.137 Peak Height (A): 0.256
Background Pk Area (A-s): 0.097 Background Pk Height (A): 0.183
Blank Corrected Pk Area (A-s): 0.139
Concentration (ug/L): 24.96

Mean Conc (ug/L): 25.18 SD: 0.310 RSD(%): 1.23

Check sample is within range 22.00 - 28.00

25/100.72%

Tl ID: CCB Seq. No.: 00054 A/S Pos.: 5 Date: 12/28/90

Replicate 1 Time: 12:34
Peak Area (A-s): 0.003 Peak Height (A): 0.012
Background Pk Area (A-s): 0.010 Background Pk Height (A): 0.011
Blank Corrected Pk Area (A-s): 0.006
Concentration (ug/L): 1.02

Replicate 2 Time: 12:36
Peak Area (A-s): 0.003 Peak Height (A): 0.010
Background Pk Area (A-s): 0.005 Background Pk Height (A): 0.013
Blank Corrected Pk Area (A-s): 0.006
Concentration (ug/L): 1.01

Mean Conc (ug/L): 1.02 SD: 0.004 RSD(%): 0.37

Check sample is within range -10.00 - 10.00

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Tl ID: MEK897 Seq. No.: 00055 A/S Pos.: 21 Date: 12/28/90

Replicate 1 Time: 12:39
Peak Area (A-s): 0.008 Peak Height (A): 0.018
Background Pk Area (A-s): 0.015 Background Pk Height (A): 0.011
Blank Corrected Pk Area (A-s): 0.011
Concentration (ug/L): 1.88

Data Not Used

Replicate 2 Time: 12:42
Peak Area (A-s): 0.004 Peak Height (A): 0.013
Background Pk Area (A-s): 0.012 Background Pk Height (A): 0.014
Blank Corrected Pk Area (A-s): 0.006
Concentration (ug/L): 1.15

Mean Conc (ug/L): 1.51 SD: 0.520 RSD(%): 34.33

~~~~~~

Tl ID: MEK897 Seq. No.: 00056 A/S Pos.: 21 Date: 12/28/90

Replicate 1 Time: 12:45
Peak Area (A-s): 0.088 Peak Height (A): 0.171
Background Pk Area (A-s): 0.069 Background Pk Height (A): 0.107
Blank Corrected Pk Area (A-s): 0.090
Concentration (ug/L): 16.20

Replicate 2 Time: 12:47
Peak Area (A-s): 0.089 Peak Height (A): 0.169
Background Pk Area (A-s): 0.069 Background Pk Height (A): 0.109
Blank Corrected Pk Area (A-s): 0.092
Concentration (ug/L): 16.45

Mean Conc (ug/L): 16.32 SD: 0.179 RSD(%): 1.10

Recovery is 74.0%

~~~~~~

ID: MEJ898 Seq. No.: 00057 A/S Pos.: 22 Date: 12/28/90

Replicate 1 Time: 12:50
Peak Area (A-s): 0.030 Peak Height (A): 0.054
Background Pk Area (A-s): 0.019 Background Pk Height (A): 0.035
Blank Corrected Pk Area (A-s): 0.032
~~~~~~

15522-F-1104

SOUTHWEST LABORATORIES OF OKLAHOMA, INC.

ANALYST CTL/MS DATE 12/28/90

INSTR = PE5100A BKGRD = BZ IDL = 2.0 UG/L

WAVELENGTH = 276.8 INTEGRATION TIME = 5.0 SEC

Report Name: A122812

MFK888

JAN - 2 1991

report	lab#	sampleid	analdate	analtime	TEST ID	average	dil	result	units	cv	comment
A12281 2		S0	12/28/90	14:27							AZ
					T1	0.395		0.40	ug/L	69.82	
		S10	12/28/90	14:32							ABS=0.044
					T1	11.675		11.68	ug/L	1.51	
		S25	12/28/90	14:38							ABS=0.102
					T1	22.980		22.98	ug/L	1.05	
		S50	12/28/90	14:43							ABS=0.182
					T1	43.670		43.67	ug/L	1.00	
		ICV	12/28/90	14:54							97/100.7%R
					T1	24.420	4.00	97.68	ug/L	1.45	
		ICB	12/28/90	14:59							
					T1	-0.395		-0.40	ug/L		
		CRA	12/28/90	15:05							
					T1	11.795		11.80	ug/L	4.26	
		CCV	12/28/90	15:10							25/100.56%R
					T1	25.145		25.15	ug/L	1.27	
		CCB	12/28/90	15:15							
					T1	-0.310		-0.31	ug/L		
457205		MFK897	12/28/90	15:32							
					T1	0.485		0.49	ug/L	1.46	
4572.05A		MFK897A	12/28/90	15:37							20/91.8%R
					T1	18.350		18.35	ug/L	0.85	
4572.06		MFK898	12/28/90	15:42							
					T1	5.005		5.01	ug/L	1.55	
4572.06A		MFK898A	12/28/90	15:48							17.41/20/87.0%R
					T1	22.415		22.42	ug/L	0.79	

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report	lab#	sampleid	analdate	analtime	TEST ID	average	dil	result	units	cv	comment
12281 2	4572.07	MFK899 X	12/28/90	15:53							
					Tl	-0.340		-0.34	ug/L		
	4572.07A	MFK899A X	12/28/90	15:58							20/37.8%R RERUN DIL 1:4
					Tl	7.550		7.55	ug/L	2.44	
	4572.08	MFK900	12/28/90	16:04							
					Tl	0.480		0.48	ug/L	38.30	
	4572.08A	MFK900A	12/28/90	16:09							20/49.0%R
					Tl	9.795		9.80	ug/L	6.14	
		CCV	12/28/90	16:14							25/108.76%R
					Tl	27.190		27.19	ug/L	1.25	
		CCB	12/28/90	16:20							
					Tl	-0.290		-0.29	ug/L		
		S0	12/28/90	16:25							
					Tl	-0.480		-0.48	ug/L		
		S25	12/28/90	16:30							
					Tl	29.090		29.09	ug/L	0.53	
		CCV	12/28/90	16:37							25/89.72%R
					Tl	22.425		22.43	ug/L	0.35	
		CCB	12/28/90	16:42							
					Tl	0.030		0.03	ug/L	659.97	
		S0	12/28/90	16:48							
					Tl	0.315		0.32	ug/L	2.24	
		S25	12/28/90	16:53							
					Tl	24.090		24.09	ug/L	0.94	
		CCV	12/28/90	16:59							25/91.96%R
					Tl	22.995		23.00	ug/L	1.88	
		CCB	12/28/90	17:04							
					Tl	-0.280		-0.28	ug/L		
	4572.09	MFK901	12/28/90	17:09							
					Tl	0.405		0.41	ug/L	26.19	
	4572.09A	MFK901A	12/28/90	17:14							20/62.8%R
					Tl	12.570		12.57	ug/L	6.08	
	4572.10	MFK902 X	12/28/90	17:20							
					Tl	0.135		0.14	ug/L	329.99	
	4572.10A	MFK902A X	12/28/90	17:25							20/19.2%R RERUN + DIL 1:4
					Tl	3.845		3.85	ug/L	18.94	

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report	lab#	sampleid	analdate	analtime	TEST ID	average	dil	result	units	cv	comment
12281 2	4572.10D	MFK902D X	12/28/90	17:30							X
					T1	-0.225		-0.23	ug/L		
	4572.10DA	MFK902DA X	12/28/90	17:36							20/24.5%R RERUN + DIL 1:4 X
					T1	4.895		4.90	ug/L	3.32	
	4572.10S	MFK902S	12/28/90	17:41							20/28.7%R ~~DIL 1:4~~ X see
					T1	14.345		14.35	ug/L	3.30	
		CCV	12/28/90	17:47							25/105.24%R
					T1	26.315		26.32	ug/L	1.10	
		CCB	12/28/90	17:52							
					T1	0.130		0.13	ug/L	293.72	
	4572.07	MFK899	12/28/90	18:02							
					T1	-0.245	5.00	-1.23	ug/L		
	4572.07A	MFK899A	12/28/90	18:07							20/44.8%R
					T1	8.955	5.00	44.78	ug/L	0.39	
	4572.10	MFK902	12/28/90	18:13							
					T1	-0.495	5.00	-2.48	ug/L		
	4572.10A	MFK902A	12/28/90	18:18							20/37.8%R
					T1	7.575	5.00	37.88	ug/L	5.69	
	4572.10D	MFK902D	12/28/90	18:23							
					T1	0.085	5.00	0.43	ug/L	690.47	
	4572.10DA	MFK902DA	12/28/90	18:29							20/39.9%R
					T1	7.970	5.00	39.85	ug/L	4.26	
	4572.10S	MFK902S X	12/28/90	18:34							50/43.3%R SAMPLE NOT NEEDED PREV X
					T1	4.335	5.00	21.68	ug/L	12.89	
		CCV	12/28/90	18:40							25/103.92%R
					T1	25.975		25.98	ug/L	3.13	
		CCB	12/28/90	18:45							
					T1	-0.340		-0.34	ug/L		

15522-F-1104

BW 12-28-90
PE 5100 A
Tl

Element File: TL_EPA.6EL Element: Tl Wavelength: 276.8
Date: 12/28/90 Time: 14:27 Slit: 0.7
Data File: A122812.DAT ID/Wt File: UNTITLED Lamp Current: 0
Technique: HGA Calib. Type: Linear Energy: 55
Remark 1: IDL = 2.0 ug/l
Remark 2: INTEGRATION TIME = 5.0 SEC.
Remark 3: ICV= 97.0 UG/L
Remark 4: BACKGROUND CORRECTION = BZ
Remark 5: PE5100A

****

Tl ID: Blank Seq. No.: 00010 A/S Pos.: 0 Date: 12/28/90

50

Replicate 1 Time: 14:30
Peak Area (A-s): 0.001 Peak Height (A): 0.011
Background Pk Area (A-s): 0.005 Background Pk Height (A): 0.008
Blank Corrected Pk Area (A-s): 0.001
Concentration (ug/L): 0.20

Replicate 2 Time: 14:32
Peak Area (A-s): 0.002 Peak Height (A): 0.008
Background Pk Area (A-s): 0.006 Background Pk Height (A): 0.007

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Blank Corrected Pk Area (A-s): 0.002
Concentration (ug/L): 0.59

Mean Conc (ug/L): 0.40 SD: 0.274 RSD(%): 69.07

Auto-zero performed.

****

TI ID: Standard 1 Seq. No.: 00011 A/S Pos.: 38 Date: 12/28/90

S10

Replicate 1 Time: 14:35
Peak Area (A-s): 0.046 Peak Height (A): 0.097
Background Pk Area (A-s): 0.054 Background Pk Height (A): 0.095
Blank Corrected Pk Area (A-s): 0.045
Concentration (ug/L): 11.80

Replicate 2 Time: 14:38
Peak Area (A-s): 0.045 Peak Height (A): 0.094
Background Pk Area (A-s): 0.054 Background Pk Height (A): 0.096
Blank Corrected Pk Area (A-s): 0.044
Concentration (ug/L): 11.55

Mean Conc (ug/L): 11.68 SD: 0.175 RSD(%): 1.50

Standard number 1 applied. [10.00]
Correlation coefficient: 1.00000 Slope: 0.0045

****

ID: Standard 2 Seq. No.: 00012 A/S Pos.: 39 Date: 12/28/90

S25

Replicate 1 Time: 14:40
Peak Area (A-s): 0.103 Peak Height (A): 0.205
Background Pk Area (A-s): 0.121 Background Pk Height (A): 0.225
Blank Corrected Pk Area (A-s): 0.102
Concentration (ug/L): 22.81

Replicate 2 Time: 14:43
Peak Area (A-s): 0.104 Peak Height (A): 0.193
Background Pk Area (A-s): 0.116 Background Pk Height (A): 0.226
Blank Corrected Pk Area (A-s): 0.103
Concentration (ug/L): 23.15

Mean Conc (ug/L): 22.98 SD: 0.239 RSD(%): 1.04

Standard number 2 applied. [25.00]
Correlation coefficient: 0.99710 Slope: 0.0042

****

TI ID: Standard 3 Seq. No.: 00013 A/S Pos.: 40 Date: 12/28/90

S50

Replicate 1 Time: 14:46
Peak Area (A-s): 0.181 Peak Height (A): 0.308
Background Pk Area (A-s): 0.227 Background Pk Height (A): 0.421
Blank Corrected Pk Area (A-s): 0.180
Concentration (ug/L): 43.36

Replicate 2 Time: 14:48
Peak Area (A-s): 0.184 Peak Height (A): 0.308
Background Pk Area (A-s): 0.232 Background Pk Height (A): 0.418

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Blank Corrected Pk Area (A-s): 0.183
Concentration (ug/L): 43.98

Mean Conc (ug/L): 43.67 SD: 0.441 RSD(%): 1.01

Standard number 3 applied. [50.00]
Correlation coefficient: 0.99283 Slope: 0.0038

****

Tl ID: ICV Seq. No.: 00014 A/S Pos.: 1 Date: 12/28/90

1:3 dil

Replicate 1 Time: 14:57
Peak Area (A-s): 0.092 Peak Height (A): 0.164
Background Pk Area (A-s): 0.106 Background Pk Height (A): 0.188
Blank Corrected Pk Area (A-s): 0.091
Concentration (ug/L): 24.17

Replicate 2 Time: 14:59
Peak Area (A-s): 0.094 Peak Height (A): 0.167
Background Pk Area (A-s): 0.105 Background Pk Height (A): 0.188
Blank Corrected Pk Area (A-s): 0.093
Concentration (ug/L): 24.67

Mean Conc (ug/L): 24.42 SD: 0.358 RSD(%): 1.47

4 97.68/97.0 = 100.7% R

****

Tl ID: ICB Seq. No.: 00015 A/S Pos.: 2 Date: 12/28/90

Replicate 1 Time: 15:02
Peak Area (A-s): 0.002 Peak Height (A): 0.009
Background Pk Area (A-s): 0.006 Background Pk Height (A): 0.007
Blank Corrected Pk Area (A-s): 0.001
Concentration (ug/L): 0.22

Replicate 2 Time: 15:05
Peak Area (A-s): -0.003 Peak Height (A): 0.008
Background Pk Area (A-s): 0.008 Background Pk Height (A): 0.008
Blank Corrected Pk Area (A-s): -0.004
Concentration (ug/L): -1.01

Mean Conc (ug/L): -0.40 SD: 0.875 RSD(%): 221.53

****

Tl ID: CRA Seq. No.: 00016 A/S Pos.: 3 Date: 12/28/90

Replicate 1 Time: 15:07
Peak Area (A-s): 0.044 Peak Height (A): 0.088
Background Pk Area (A-s): 0.053 Background Pk Height (A): 0.093
Blank Corrected Pk Area (A-s): 0.043
Concentration (ug/L): 11.44

Replicate 2 Time: 15:10
Peak Area (A-s): 0.047 Peak Height (A): 0.091
Background Pk Area (A-s): 0.059 Background Pk Height (A): 0.094
Blank Corrected Pk Area (A-s): 0.046
Concentration (ug/L): 12.15

Mean Conc (ug/L): 11.80 SD: 0.503 RSD(%): 4.27

15522F-1104

335A

Tl ID: CCV Seq. No.: 00017 A/S Pos.: 4 Date: 12/28/90

Replicate 1 Time: 15:12
Peak Area (A-s): 0.097 Peak Height (A): 0.181
Background Pk Area (A-s): 0.112 Background Pk Height (A): 0.209
Blank Corrected Pk Area (A-s): 0.095
Concentration (ug/L): 25.37

Replicate 2 Time: 15:15
Peak Area (A-s): 0.095 Peak Height (A): 0.190
Background Pk Area (A-s): 0.114 Background Pk Height (A): 0.206
Blank Corrected Pk Area (A-s): 0.094
Concentration (ug/L): 24.92

Mean Conc (ug/L): 25.14 SD: 0.317 RSD(%): 1.26

25.14/25.00 = 100.56% R

Tl ID: CCB Seq. No.: 00018 A/S Pos.: 5 Date: 12/28/90

Replicate 1 Time: 15:18
Peak Area (A-s): -0.001 Peak Height (A): 0.008
Background Pk Area (A-s): 0.006 Background Pk Height (A): 0.008
Blank Corrected Pk Area (A-s): -0.002
Concentration (ug/L): -0.54

Replicate 2 Time: 15:20
Peak Area (A-s): 0.001 Peak Height (A): 0.010
Background Pk Area (A-s): 0.006 Background Pk Height (A): 0.006
Blank Corrected Pk Area (A-s): -0.000
Concentration (ug/L): -0.08

Mean Conc (ug/L): -0.31 SD: 0.319 RSD(%): 102.72

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Tl ID: MFK897 Seq. No.: 00019 A/S Pos.: 21 Date: 12/28/90

4572.05

Replicate 1 Time: 15:34
Peak Area (A-s): 0.003 Peak Height (A): 0.011
Background Pk Area (A-s): 0.009 Background Pk Height (A): 0.011
Blank Corrected Pk Area (A-s): 0.002
Concentration (ug/L): 0.48

Replicate 2 Time: 15:37
Peak Area (A-s): 0.003 Peak Height (A): 0.011
Background Pk Area (A-s): 0.010 Background Pk Height (A): 0.011
Blank Corrected Pk Area (A-s): 0.002
Concentration (ug/L): 0.49

Mean Conc (ug/L): 0.48 SD: 0.006 RSD(%): 1.30

Tl ID: MFK897 A Seq. No.: 00020 A/S Pos.: 21 Date: 12/28/90

4572.05

Replicate 1 Time: 15:39
Peak Area (A-s): 0.071 Peak Height (A): 0.129
Background Pk Area (A-s): 0.081 Background Pk Height (A): 0.136
Blank Corrected Pk Area (A-s): 0.069
Concentration (ug/L): 18.46

155223F-1104

Replicate 2 Time: 15:42
Peak Area (A-s): 0.070 Peak Height (A): 0.130
Background Pk Area (A-s): 0.084 Background Pk Height (A): 0.141
Blank Corrected Pk Area (A-s): 0.069
Concentration (ug/L): 18.24

Mean Conc (ug/L): 18.35 SD: 0.160 RSD(%): 0.87

Recovery is 89.3% 18.35/20.00 = 91.8% R

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T1 ID: MFK898 Seq. No.: 00021 A/S Pos.: 22 Date: 12/28/90

4572.06

Replicate 1 Time: 15:45
Peak Area (A-s): 0.020 Peak Height (A): 0.042
Background Pk Area (A-s): 0.030 Background Pk Height (A): 0.041
Blank Corrected Pk Area (A-s): 0.019
Concentration (ug/L): 5.06

Replicate 2 Time: 15:47
Peak Area (A-s): 0.020 Peak Height (A): 0.038
Background Pk Area (A-s): 0.033 Background Pk Height (A): 0.042
Blank Corrected Pk Area (A-s): 0.019
Concentration (ug/L): 4.95

Mean Conc (ug/L): 5.00 SD: 0.075 RSD(%): 1.50

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T1 ID: MFK898 A Seq. No.: 00022 A/S Pos.: 22 Date: 12/28/90

Replicate 1 4572.06 Time: 15:50
Peak Area (A-s): 0.085 Peak Height (A): 0.145
Background Pk Area (A-s): 0.100 Background Pk Height (A): 0.162
Blank Corrected Pk Area (A-s): 0.084
Concentration (ug/L): 22.29

Replicate 2 Time: 15:53
Peak Area (A-s): 0.086 Peak Height (A): 0.150
Background Pk Area (A-s): 0.099 Background Pk Height (A): 0.166
Blank Corrected Pk Area (A-s): 0.085
Concentration (ug/L): 22.54

Mean Conc (ug/L): 22.41 SD: 0.179 RSD(%): 0.80

Recovery is 87.0% 17.41/20.00 = 87.0% R

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T1 ID: MFK899 Seq. No.: 00023 A/S Pos.: 23 Date: 12/28/90

4572.07

Replicate 1 Time: 15:55
Peak Area (A-s): 0.000 Peak Height (A): 0.010
Background Pk Area (A-s): 0.014 Background Pk Height (A): 0.012
Blank Corrected Pk Area (A-s): -0.001
Concentration (ug/L): -0.32

Replicate 2 Time: 15:58
Peak Area (A-s): -0.000 Peak Height (A): 0.007
Background Pk Area (A-s): 0.013 Background Pk Height (A): 0.013
Blank Corrected Pk Area (A-s): -0.001
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Concentration (ug/L): -0.36

Mean Conc (ug/L): -0.34 SD: 0.027 RSD(%): 8.00 dil 1:4 & Reun

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ID: MFK899 A Seq. No.: 00024 A/S Pos.: 23 Date: 12/28/90

4572.07

Replicate 1 Time: 16:01
Peak Area (A-s): 0.030 Peak Height (A): 0.060
Background Pk Area (A-s): 0.038 Background Pk Height (A): 0.061
Blank Corrected Pk Area (A-s): 0.029
Concentration (ug/L): 7.68

Replicate 2 Time: 16:03
Peak Area (A-s): 0.029 Peak Height (A): 0.055
Background Pk Area (A-s): 0.040 Background Pk Height (A): 0.060
Blank Corrected Pk Area (A-s): 0.028
Concentration (ug/L): 7.42

Mean Conc (ug/L): 7.55 SD: 0.191 RSD(%): 2.53

Recovery is 39.4% 20.00 = 37.8% R

TI ID: MFK900 Seq. No.: 00025 A/S Pos.: 24 Date: 12/28/90

4572.08

Replicate 1 Time: 16:06
Peak Area (A-s): 0.004 Peak Height (A): 0.011
Background Pk Area (A-s): 0.039 Background Pk Height (A): 0.025
Blank Corrected Pk Area (A-s): 0.002
Concentration (ug/L): 0.61

Replicate 2 Time: 16:09
Peak Area (A-s): 0.003 Peak Height (A): 0.012
Background Pk Area (A-s): 0.045 Background Pk Height (A): 0.025
Blank Corrected Pk Area (A-s): 0.001
Concentration (ug/L): 0.35

Mean Conc (ug/L): 0.48 SD: 0.188 RSD(%): 39.23

TI ID: MFK900 A Seq. No.: 00026 A/S Pos.: 24 Date: 12/28/90

4572.08

Replicate 1 Time: 16:11
Peak Area (A-s): 0.036 Peak Height (A): 0.064
Background Pk Area (A-s): 0.076 Background Pk Height (A): 0.064
Blank Corrected Pk Area (A-s): 0.035
Concentration (ug/L): 9.37

Replicate 2 Time: 16:14
Peak Area (A-s): 0.040 Peak Height (A): 0.067
Background Pk Area (A-s): 0.077 Background Pk Height (A): 0.070
Blank Corrected Pk Area (A-s): 0.038
Concentration (ug/L): 10.22

Mean Conc (ug/L): 9.80 SD: 0.598 RSD(%): 6.10

Recovery is 46.6% 2000 = 49.0% R

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Tl ID: CCV Seq. No.: 00027 A/S Pos.: 4 Date: 12/28/90

Replicate 1 Time: 16:17
Peak Area (A-s): 0.102 Peak Height (A): 0.200
Background Pk Area (A-s): 0.114 Background Pk Height (A): 0.220
Blank Corrected Pk Area (A-s): 0.101
Concentration (ug/L): 26.95

Replicate 2 Time: 16:19
Peak Area (A-s): 0.104 Peak Height (A): 0.193
Background Pk Area (A-s): 0.115 Background Pk Height (A): 0.228
Blank Corrected Pk Area (A-s): 0.103
Concentration (ug/L): 27.43

Mean Conc (ug/L): 27.19 SD: 0.344 RSD(%): 1.27

27.19/25.00 = 108.76% R

Check sample is within range 22.00 - 28.00

Tl ID: CCB Seq. No.: 00028 A/S Pos.: 5 Date: 12/28/90

Replicate 1 Time: 16:22
Peak Area (A-s): 0.002 Peak Height (A): 0.009
Background Pk Area (A-s): -0.008 Background Pk Height (A): 0.008
Blank Corrected Pk Area (A-s): 0.000
Concentration (ug/L): 0.10

Replicate 2 Time: 16:25
Peak Area (A-s): -0.001 Peak Height (A): 0.008
Background Pk Area (A-s): 0.009 Background Pk Height (A): 0.010
Blank Corrected Pk Area (A-s): -0.003
Concentration (ug/L): -0.68

Mean Conc (ug/L): -0.29 SD: 0.546 RSD(%): 187.98

Check sample is within range -10.00 - 10.00

Tl ID: Blank SD Seq. No.: 00029 A/S Pos.: 0 Date: 12/28/90

Replicate 1 Time: 16:28
Peak Area (A-s): -0.001 Peak Height (A): 0.009
Background Pk Area (A-s): 0.005 Background Pk Height (A): 0.009
Blank Corrected Pk Area (A-s): -0.002
Concentration (ug/L): -0.56

Replicate 2 Time: 16:30
Peak Area (A-s): -0.000 Peak Height (A): 0.009
Background Pk Area (A-s): 0.007 Background Pk Height (A): 0.009
Blank Corrected Pk Area (A-s): -0.002
Concentration (ug/L): -0.40

Mean Conc (ug/L): -0.48 SD: 0.111 RSD(%): 22.94

Auto-zero performed.

Tl ID: Reslope Seq. No.: 00030 A/S Pos.: 39 Date: 12/28/90

105227-1104

34C

Replicate 1 Time: 16:33
Peak Area (A-s): 0.109 Peak Height (A): 0.206
Background Pk Area (A-s): 0.126 Background Pk Height (A): 0.239
Blank Corrected Pk Area (A-s): 0.110
Concentration (ug/L): 29.20

Replicate 2 Time: 16:36
Peak Area (A-s): 0.108 Peak Height (A): 0.209
Background Pk Area (A-s): 0.127 Background Pk Height (A): 0.245
Blank Corrected Pk Area (A-s): 0.109
Concentration (ug/L): 28.98

Mean Conc (ug/L): 29.09 SD: 0.156 RSD(%): 0.54

Reslope standard applied. [25.00]
Correlation coefficient: 0.99283 Slope: 0.0038

****

T1 ID: CCV Seq. No.: 00031 A/S Pos.: 4 Date: 12/28/90

Replicate 1 Time: 16:39
Peak Area (A-s): 0.098 Peak Height (A): 0.188
Background Pk Area (A-s): 0.113 Background Pk Height (A): 0.212
Blank Corrected Pk Area (A-s): 0.098
Concentration (ug/L): 22.48

Replicate 2 Time: 16:42
Peak Area (A-s): 0.097 Peak Height (A): 0.182
Background Pk Area (A-s): 0.110 Background Pk Height (A): 0.211
Blank Corrected Pk Area (A-s): 0.098
Concentration (ug/L): 22.37

Mean Conc (ug/L): 22.43 SD: 0.079 RSD(%): 0.35

22.43/25.00 = 89.72% R

****

T1 ID: CCB Seq. No.: 00032 A/S Pos.: 5 Date: 12/28/90

Replicate 1 Time: 16:45
Peak Area (A-s): 0.000 Peak Height (A): 0.009
Background Pk Area (A-s): 0.005 Background Pk Height (A): 0.008
Blank Corrected Pk Area (A-s): 0.001
Concentration (ug/L): 0.17

Replicate 2 Time: 16:47
Peak Area (A-s): -0.001 Peak Height (A): 0.009
Background Pk Area (A-s): 0.016 Background Pk Height (A): 0.009
Blank Corrected Pk Area (A-s): -0.000
Concentration (ug/L): -0.11

Mean Conc (ug/L): 0.03 SD: 0.203 RSD(%): 688.74

****

T1 ID: Blank 30 Seq. No.: 00033 A/S Pos.: 0 Date: 12/28/90

Replicate 1 Time: 16:50
Peak Area (A-s): 0.001 Peak Height (A): 0.008
Background Pk Area (A-s): 0.007 Background Pk Height (A): 0.009
Blank Corrected Pk Area (A-s): 0.001
Concentration (ug/L): 0.32

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Replicate 2 Time: 16:53
Peak Area (A-s): 0.001 Peak Height (A): 0.008
Background Pk Area (A-s): 0.005 Background Pk Height (A): 0.007
Blank Corrected Pk Area (A-s): 0.001
Concentration (ug/L): 0.31

Mean Conc (ug/L): 0.32 SD: 0.007 RSD(%): 2.23

Auto-zero performed.

Tl ID: Reslope Seq. No.: 00034 A/S Pos.: 39 Date: 12/28/90

525

Replicate 1 Time: 16:55
Peak Area (A-s): 0.107 Peak Height (A): 0.208
Background Pk Area (A-s): 0.125 Background Pk Height (A): 0.231
Blank Corrected Pk Area (A-s): 0.106
Concentration (ug/L): 24.25

Replicate 2 Time: 16:58
Peak Area (A-s): 0.105 Peak Height (A): 0.194
Background Pk Area (A-s): 0.120 Background Pk Height (A): 0.226
Blank Corrected Pk Area (A-s): 0.105
Concentration (ug/L): 23.93

Mean Conc (ug/L): 24.09 SD: 0.228 RSD(%): 0.94

Reslope standard applied. [25.00]
Correlation coefficient: 0.99283 Slope: 0.0038

ID: CCV Seq. No.: 00035 A/S Pos.: 4 Date: 12/28/90

Replicate 1 Time: 17:01
Peak Area (A-s): 0.096 Peak Height (A): 0.183
Background Pk Area (A-s): 0.112 Background Pk Height (A): 0.210
Blank Corrected Pk Area (A-s): 0.096
Concentration (ug/L): 22.69

Replicate 2 Time: 17:04
Peak Area (A-s): 0.099 Peak Height (A): 0.187
Background Pk Area (A-s): 0.109 Background Pk Height (A): 0.213
Blank Corrected Pk Area (A-s): 0.098
Concentration (ug/L): 23.30

Mean Conc (ug/L): 22.99 SD: 0.436 RSD(%): 1.90

25.00 = 91.96% R

Tl ID: CCB Seq. No.: 00036 A/S Pos.: 5 Date: 12/28/90

Replicate 1 Time: 17:06
Peak Area (A-s): -0.001 Peak Height (A): 0.011
Background Pk Area (A-s): 0.005 Background Pk Height (A): 0.008
Blank Corrected Pk Area (A-s): -0.002
Concentration (ug/L): -0.39

plicate 2 Time: 17:09
Peak Area (A-s): 0.000 Peak Height (A): 0.011
Background Pk Area (A-s): 0.002 Background Pk Height (A): 0.008

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Blank Corrected Pk Area (A-s): -0.001
Concentration (ug/L): -0.17

Mean Conc (ug/L): -0.28 SD: 0.150 RSD(%): 53.76

15522-F-1104

Tl ID: MFK901 Seq. No.: 00037 A/S Pos.: 25 Date: 12/28/90

4572.09

Replicate 1 Time: 17:12
Peak Area (A-s): 0.002 Peak Height (A): 0.011
Background Pk Area (A-s): 0.013 Background Pk Height (A): 0.012
Blank Corrected Pk Area (A-s): 0.001
Concentration (ug/L): 0.33

Replicate 2 Time: 17:14
Peak Area (A-s): 0.003 Peak Height (A): 0.010
Background Pk Area (A-s): 0.013 Background Pk Height (A): 0.011
Blank Corrected Pk Area (A-s): 0.002
Concentration (ug/L): 0.48

Mean Conc (ug/L): 0.41 SD: 0.107 RSD(%): 26.27

Tl ID: MFK901 A Seq. No.: 00038 A/S Pos.: 25 Date: 12/28/90

4572-09

Replicate 1 Time: 17:17
Peak Area (A-s): 0.051 Peak Height (A): 0.093
Background Pk Area (A-s): 0.067 Background Pk Height (A): 0.100
Blank Corrected Pk Area (A-s): 0.051
Concentration (ug/L): 12.03

Replicate 2 Time: 17:20
Peak Area (A-s): 0.056 Peak Height (A): 0.095
Background Pk Area (A-s): 0.066 Background Pk Height (A): 0.101
Blank Corrected Pk Area (A-s): 0.055
Concentration (ug/L): 13.11

Mean Conc (ug/L): 12.57 SD: 0.767 RSD(%): 6.10

Recovery is 60.8% 20 ω = 62.8 i,R

Tl ID: MFK902 Seq. No.: 00039 A/S Pos.: 26 Date: 12/28/90

4572.10

Replicate 1 Time: 17:22
Peak Area (A-s): 0.000 Peak Height (A): 0.008
Background Pk Area (A-s): 0.025 Background Pk Height (A): 0.017
Blank Corrected Pk Area (A-s): -0.001
Concentration (ug/L): -0.18

Replicate 2 Time: 17:25
Peak Area (A-s): 0.003 Peak Height (A): 0.011
Background Pk Area (A-s): 0.023 Background Pk Height (A): 0.015
Blank Corrected Pk Area (A-s): 0.002
Concentration (ug/L): 0.45

Mean Conc (ug/L): 0.14 SD: 0.444 RSD(%): 326.55

dil 1:4 → Rerun

Tl ID: MFK902 A Seq. No.: 00040 A/S Pos.: 26 Date: 12/28/90

4572.10

Replicate 1 Time: 17:28
Peak Area (A-s): 0.015 Peak Height (A): 0.037
Background Pk Area (A-s): 0.044 Background Pk Height (A): 0.041

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Blank Corrected Pk Area (A-s): 0.014
Concentration (ug/L): 3.33

Replicate 2 Time: 17:30
Peak Area (A-s): 0.019 Peak Height (A): 0.041
Background Pk Area (A-s): 0.041 Background Pk Height (A): 0.039
Blank Corrected Pk Area (A-s): 0.018
Concentration (ug/L): 4.36

Mean Conc (ug/L): 3.85 SD: 0.723 RSD(%): 18.80

Recovery is 18.5% 20.00 = 19.2% R

****

T1 ID: MFK902D Seq. No.: 00041 A/S Pos.: 27 Date: 12/28/90

4572.10A

Replicate 1 Time: 17:33
Peak Area (A-s): 0.002 Peak Height (A): 0.010
Background Pk Area (A-s): 0.017 Background Pk Height (A): 0.011
Blank Corrected Pk Area (A-s): 0.001
Concentration (ug/L): 0.32

dil 1:4 + Recm

Replicate 2 Time: 17:36
Peak Area (A-s): -0.002 Peak Height (A): 0.009
Background Pk Area (A-s): 0.019 Background Pk Height (A): 0.012
Blank Corrected Pk Area (A-s): -0.003
Concentration (ug/L): -0.77

Mean Conc (ug/L): -0.23 SD: 0.772 RSD(%): 341.15

****

T1 ID: MFK902D A Seq. No.: 00042 A/S Pos.: 27 Date: 12/28/90

4572.10D

Replicate 1 Time: 17:38
Peak Area (A-s): 0.021 Peak Height (A): 0.043
Background Pk Area (A-s): 0.034 Background Pk Height (A): 0.043
Blank Corrected Pk Area (A-s): 0.020
Concentration (ug/L): 4.78

Replicate 2 Time: 17:41
Peak Area (A-s): 0.022 Peak Height (A): 0.046
Background Pk Area (A-s): 0.037 Background Pk Height (A): 0.042
Blank Corrected Pk Area (A-s): 0.021
Concentration (ug/L): 5.01

Mean Conc (ug/L): 4.90 SD: 0.157 RSD(%): 3.21

Recovery is 25.6% 20.00 = 24.5% R

****

T1 ID: MFK902S Seq. No.: 00043 A/S Pos.: 28 Date: 12/28/90

4572.10S

Replicate 1 Time: 17:44
Peak Area (A-s): 0.063 Peak Height (A): 0.118
Background Pk Area (A-s): 0.088 Background Pk Height (A): 0.123
Blank Corrected Pk Area (A-s): 0.062
Concentration (ug/L): 14.68

dil 1:4 & Recm

Replicate 2 Time: 17:46

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Peak Area (A-s): 0.060 Peak Height (A): 0.118
Background Pk Area (A-s): 0.090 Background Pk Height (A): 0.133
Blank Corrected Pk Area (A-s): 0.059
Concentration (ug/L): 14.01

Mean Conc (ug/L): 14.35 SD: 0.475 RSD(%): 3.31

~~40.00~~ = 35.9%R/50 = 28.7%R

T1 ID: CCV Seq. No.: 00044 A/S Pos.: 29 Date: 12/28/90

Replicate 1 Time: 17:49
Peak Area (A-s): 0.111 Peak Height (A): 0.207
Background Pk Area (A-s): 0.127 Background Pk Height (A): 0.244
Blank Corrected Pk Area (A-s): 0.110
Concentration (ug/L): 26.11

Replicate 2 Time: 17:52
Peak Area (A-s): 0.113 Peak Height (A): 0.209
Background Pk Area (A-s): 0.129 Background Pk Height (A): 0.249
Blank Corrected Pk Area (A-s): 0.112
Concentration (ug/L): 26.52

Mean Conc (ug/L): 26.31 SD: 0.292 RSD(%): 1.11

25.00 = 105.24%R

T1 ID: CCB Seq. No.: 00045 A/S Pos.: 30 Date: 12/28/90

Replicate 1 Time: 17:54
Peak Area (A-s): 0.002 Peak Height (A): 0.009
Background Pk Area (A-s): 0.003 Background Pk Height (A): 0.006
Blank Corrected Pk Area (A-s): 0.002
Concentration (ug/L): 0.40

Replicate 2 Time: 17:57
Peak Area (A-s): 0.000 Peak Height (A): 0.009
Background Pk Area (A-s): 0.007 Background Pk Height (A): 0.007
Blank Corrected Pk Area (A-s): -0.001
Concentration (ug/L): -0.14

Mean Conc (ug/L): 0.13 SD: 0.382 RSD(%): 291.84

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T1 ID: MFK899 1:4 Seq. No.: 00046 A/S Pos.: 23 Date: 12/28/90

4572.07

Replicate 1 Time: 18:05 1:4dil
Peak Area (A-s): -0.000 Peak Height (A): 0.011
Background Pk Area (A-s): 0.008 Background Pk Height (A): 0.009
Blank Corrected Pk Area (A-s): -0.001
Concentration (ug/L): -0.22

Replicate 2 Time: 18:07
Peak Area (A-s): -0.000 Peak Height (A): 0.010
Background Pk Area (A-s): 0.006 Background Pk Height (A): 0.009
Blank Corrected Pk Area (A-s): -0.001
Concentration (ug/L): -0.27

Mean Conc (ug/L): -0.25 SD: 0.037 RSD(%): 14.89

5x2=10

T1 ID: MFK899A 1:4 Seq. No.: 00047 A/S Pos.: 23 Date: 12/28/90

4572.07

Replicate 1 Time: 18:10
Peak Area (A-s): 0.038 Peak Height (A): 0.082
Background Pk Area (A-s): 0.051 Background Pk Height (A): 0.089
Blank Corrected Pk Area (A-s): 0.038
Concentration (ug/L): 8.93

Replicate 2 Time: 18:13
Peak Area (A-s): 0.039 Peak Height (A): 0.078
Background Pk Area (A-s): 0.048 Background Pk Height (A): 0.082
Blank Corrected Pk Area (A-s): 0.038
Concentration (ug/L): 8.98

Mean Conc (ug/L): 8.96 SD: 0.038 RSD(%): 0.42

Recovery is 46.0% 20.00 = 44.8%R

T1 ID: MFK902 Seq. No.: 00048 A/S Pos.: 26 Date: 12/28/90

4572.10

Replicate 1 Time: 18:15 1:4dil
Peak Area (A-s): -0.002 Peak Height (A): 0.008
Background Pk Area (A-s): 0.010 Background Pk Height (A): 0.008
Blank Corrected Pk Area (A-s): -0.003
Concentration (ug/L): -0.71

Replicate 2 Time: 18:18
Peak Area (A-s): -0.000 Peak Height (A): 0.009
Background Pk Area (A-s): 0.007 Background Pk Height (A): 0.007
Blank Corrected Pk Area (A-s): -0.001
Concentration (ug/L): -0.28

Mean Conc (ug/L): -0.49 SD: 0.300 RSD(%): 60.72

2 x 5 = 10

T1 ID: MFK902A 1:4 Seq. No.: 00049 A/S Pos.: 26 Date: 12/28/90

4572.10

Replicate 1 Time: 18:21
Peak Area (A-s): 0.031 Peak Height (A): 0.060
Background Pk Area (A-s): 0.040 Background Pk Height (A): 0.062

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Blank Corrected Pk Area (A-s): 0.031
Concentration (ug/L): 7.27

Replicate 2 Time: 18:23
Peak Area (A-s): 0.034 Peak Height (A): 0.062
Background Pk Area (A-s): 0.039 Background Pk Height (A): 0.065
Blank Corrected Pk Area (A-s): 0.033
Concentration (ug/L): 7.88

Mean Conc (ug/L): 7.57 SD: 0.429 RSD(%): 5.67

/20.00 = 37.8 %R

Recovery is 40.3%

****

T1 ID: MFK902D Seq. No.: 00050 A/S Pos.: 27 Date: 12/28/90

4572.100 1:4dil

Replicate 1 Time: 18:26
Peak Area (A-s): -0.001 Peak Height (A): 0.011
Background Pk Area (A-s): 0.009 Background Pk Height (A): 0.009
Blank Corrected Pk Area (A-s): -0.001
Concentration (ug/L): -0.33

Replicate 2 Time: 18:29
Peak Area (A-s): 0.003 Peak Height (A): 0.010
Background Pk Area (A-s): 0.005 Background Pk Height (A): 0.009
Blank Corrected Pk Area (A-s): 0.002
Concentration (ug/L): 0.50

Mean Conc (ug/L): 0.09 SD: 0.589 RSD(%): 668.25

2 x 5 = 0

****

T1 ID: MFK902D A Seq. No.: 00051 A/S Pos.: 27 Date: 12/28/90

4572.100

Replicate 1 Time: 18:31
Peak Area (A-s): 0.035 Peak Height (A): 0.066
Background Pk Area (A-s): 0.038 Background Pk Height (A): 0.068
Blank Corrected Pk Area (A-s): 0.035
Concentration (ug/L): 8.21

Replicate 2 Time: 18:34
Peak Area (A-s): 0.033 Peak Height (A): 0.061
Background Pk Area (A-s): 0.043 Background Pk Height (A): 0.073
Blank Corrected Pk Area (A-s): 0.033
Concentration (ug/L): 7.73

Mean Conc (ug/L): 7.97 SD: 0.342 RSD(%): 4.30

/20.00 = 39.9 %R

Recovery is 39.4%

****

T1 ID: MFK902S (1:4) Seq. No.: 00052 A/S Pos.: 28 Date: 12/28/90

4572.10S

Replicate 1 Time: 18:37
Peak Area (A-s): 0.017 Peak Height (A): 0.038
Background Pk Area (A-s): 0.025 Background Pk Height (A): 0.038
Blank Corrected Pk Area (A-s): 0.017
Concentration (ug/L): 3.94

~~1:4dil~~ SAMPLE Not needed Ran previously mo 12/29/90

Replicate 2 Time: 18:39

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Peak Area (A-s): 0.021 Peak Height (A): 0.036
Background Pk Area (A-s): 0.024 Background Pk Height (A): 0.039
Blank Corrected Pk Area (A-s): 0.020
Concentration (ug/L): 4.73

an Conc (ug/L): 4.33 SD: 0.557 RSD(%): 12.86

AS = 21.65/50.00 = 43.3% R

Tl ID: CCV Seq. No.: 00053 A/S Pos.: 29 Date: 12/28/90

Replicate 1 Time: 18:42
Peak Area (A-s): 0.108 Peak Height (A): 0.210
Background Pk Area (A-s): 0.129 Background Pk Height (A): 0.241
Blank Corrected Pk Area (A-s): 0.107
Concentration (ug/L): 25.40

Replicate 2 Time: 18:45
Peak Area (A-s): 0.113 Peak Height (A): 0.209
Background Pk Area (A-s): 0.119 Background Pk Height (A): 0.243
Blank Corrected Pk Area (A-s): 0.112
Concentration (ug/L): 26.55

Mean Conc (ug/L): 25.98 SD: 0.813 RSD(%): 3.13

25.98/25.00 = 103.92% R

Tl ID: CCB Seq. No.: 00054 A/S Pos.: 30 Date: 12/28/90

Replicate 1 Time: 18:47
Peak Area (A-s): -0.001 Peak Height (A): 0.009
Background Pk Area (A-s): 0.007 Background Pk Height (A): 0.009
lank Corrected Pk Area (A-s): -0.001
oncentration (ug/L): -0.31

Replicate 2 Time: 18:50
Peak Area (A-s): -0.001 Peak Height (A): 0.008
Background Pk Area (A-s): 0.007 Background Pk Height (A): 0.008
Blank Corrected Pk Area (A-s): -0.002
Concentration (ug/L): -0.37

Mean Conc (ug/L): -0.34 SD: 0.042 RSD(%): 12.28

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SOUTHWEST LABORATORIES OF OKLAHOMA, INC.

ANALYST CSL/DNJ DATE 12/28/90

INSTR = PE5100A BKGRD = BZ IDL = 2.0 UG/L

WAVELENGTH = 276.8 INTEGRATION TIME = 5.0 SEC

Report Name: MEK888

report	lab#	sampleid	analdate	analtime	comment	TEST ID	average	dil	result	units	cv
MEK888	S0	S0	12/28/90	20:00							
			T1	0.010		0.01				ug/L	424.30
	S10	S10	12/28/90	20:05							
			T1	11.275		11.28				ug/L	4.83
	S25	S25	12/28/90	20:11							
			T1	24.340		24.34				ug/L	0.12
	S50	S50	12/28/90	20:16							
			T1	44.340		44.34				ug/L	0.73
	ICV	ICV1 DNJ 1-2-90	12/28/90	20:21					97/100.95%R		
			T1	24.485	4.00	97.94				ug/L	2.17
	ICB	ICB1 DNJ	12/28/90	20:27							
			T1	-0.135		-0.14				ug/L	
	CRA	CRA1 DNJ	12/28/90	20:32							
			T1	11.630		11.63				ug/L	3.89
	CCV	CCV1 DNJ	12/28/90	20:37					25/109.64%R		
			T1	27.410		27.41				ug/L	0.83
	CCB	CCB1 DNJ	12/28/90	20:43							
			T1	-0.245		-0.25				ug/L	
	ZZZZZ	ZZZZZ	12/28/90	20:48							
			T1	0.015		0.02				ug/L	707.13
	ZZZZZ	ZZZZZ	12/28/90	20:53							
			T1	27.635		27.64				ug/L	0.64
	CCV	CCV2 DNJ	12/28/90	20:59					25/99.08%R		
			T1	24.770		24.77				ug/L	1.88
	CCB	CCB2 DNJ	12/28/90	21:05							
			T1	-0.170		-0.17				ug/L	
	PBW	PBW	12/28/90	21:10							

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report	lab#	sampleid	analdate	analtime	TEST ID	average	dil	result	units	cv	comment
					T1	0.175		0.18	ug/L	52.53	
MEK888	PBWA	PBWA	12/28/90	21:15							20/88.7%R
					T1	17.740		17.74	ug/L	1.36	
	LCSW	LCSW	12/28/90	21:20							93.2%R
					T1	22.610	5.00	113.05	ug/L	0.81	
	LCSWA	LCSWA	12/28/90	21:26							20/67.9%R
					T1	36.190	5.00	180.95	ug/L	1.25	
	457211	MFK903	12/28/90	21:31							
					T1	-0.135		-0.14	ug/L		
	457211A	MFK903A	12/28/90	21:36							20/12.9%R DIL 1:4
					T1	2.575		2.58	ug/L	6.32	
	457211D	MFK903D	12/28/90	21:42							
					T1	-0.115		-0.12	ug/L		
	457211DA	MFK903DA	12/28/90	21:47							20/9.0%R DIL 1:4
					T1	1.805		1.81	ug/L	1.96	
	458501	MFK889	12/28/90	21:52							
					T1	-0.005		-0.01	ug/L		
	458501A	MFK889A	12/28/90	21:58							20/89.8%R
					T1	17.955		17.96	ug/L	1.69	
	CCV	CCV33 DNJ	12/28/90	22:03							25/101.44%R
					T1	25.365		25.37	ug/L	0.53	
	CCB	CCB33 DNJ	12/28/90	22:09							
					T1	-0.185		-0.19	ug/L		
	458501S	MFK889S	12/28/90	22:14							50/94.1%R
					T1	47.045		47.05	ug/L	0.29	
	458502	MFK891	12/28/90	22:19							
					T1	0.090		0.09	ug/L	628.54	
	458502A	MFK891A	12/28/90	22:24							20/9.14%R DIL 1:4
					T1	1.825		1.83	ug/L	12.79	
	458503	MFK892	12/28/90	22:30							
					T1	-0.255		-0.26	ug/L		
	458503A	MFK892A	12/28/90	22:35							20/9.1%R DIL 1:4
					T1	1.820		1.82	ug/L	24.09	
	458504	MFK893	12/28/90	22:41							
					T1	-0.180		-0.18	ug/L		
	458504A	MFK893A	12/28/90	22:46							20/10.6%R DIL 1:4

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report	lab#	sampleid	analdate	analtime	TEST ID	average	dil	result	units	cv	comment
					T1	2.135		2.14	ug/L	5.63	
MEK888	458505	MFK895	12/28/90	22:52							
					T1	0.125		0.13	ug/L	96.17	
	458505A	MFK895A	12/28/90	22:57							20/NC DUK 1:4
					T1	0.700		0.70	ug/L	50.51	
	CCV	CCV34 QAJ	12/28/90	23:03							25/104.5%R
					T1	26.130		26.13	ug/L	0.92	
	CCB	CCB34 QAJ	12/28/90	23:08							
					T1	0.315		0.32	ug/L	154.89	
	457211	MFK903	12/28/90	23:20							
					T1	0.040	5.00	0.20	ug/L	212.13	
	457211A	MFK903A	12/28/90	23:25							20/18.1%R
					T1	3.620	5.00	18.10	ug/L	5.47	
	457211D	MFK903D	12/28/90	23:31							
					T1	0.200	5.00	1.00	ug/L	183.85	
	457211DA	MFK903DA	12/28/90	23:36							20/15.15%R
					T1	3.030	5.00	15.15	ug/L	1.40	
	458502	MFK891	12/28/90	23:41							
					T1	-0.070	5.00	-0.35	ug/L		
	458502A	MFK891A	12/28/90	23:47							20/14.6%R
					T1	2.925	5.00	14.63	ug/L	1.69	
	458503	MFK892	12/28/90	23:52							
					T1	0.045	5.00	0.23	ug/L	47.13	
	458503A	MFK892A	12/28/90	23:58							20/11.35%R
					T1	2.270	5.00	11.35	ug/L	9.34	
	458504	MFK893	12/29/90	00:03							
					T1	0.025	5.00	0.13	ug/L	198.00	
	458504A	MFK893A	12/29/90	00:08							20/9.95%R
					T1	1.985	5.00	9.93	ug/L	0.36	
	CCV	CCV35 QAJ	12/29/90	00:14							25/102.76%R
					T1	25.690		25.69	ug/L	0.28	
	CCB	CCB35 QAJ	12/29/90	00:20							
					T1	0.280		0.28	ug/L	50.51	

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CLH 12-28-90 PE5100A Tl

Element File: TL_EPA.GEL Element: Tl Wavelength: 276.8
Date: 12/28/90 Time: 20:00 Slit: 0.7
Data File: A122819.DAT ID/Wt File: UNTITLED Lamp Current: 0
Technique: HGA Calib. Type: Linear Energy: 59
Remark 1: IDL = 2.0 ug/l
Remark 2: INTEGRATION TIME = 5.0 SEC.
Remark 3: ICV= 97.0 UG/L
Remark 4: BACKGROUND CORRECTION = BZ
Remark 5: PE5100A

Tl ID: Blank S0 Seq. No.: 00011 A/S Pos.: 0 Date: 12/28/90

Replicate 1 Time: 20:03
Peak Area (A-s): -0.000 Peak Height (A): 0.005
Background Pk Area (A-s): 0.005 Background Pk Height (A): 0.005
Blank Corrected Pk Area (A-s): -0.000
Concentration (ug/L): -0.02

Replicate 2 Time: 20:05
Peak Area (A-s): -0.000 Peak Height (A): 0.006
Background Pk Area (A-s): 0.006 Background Pk Height (A): 0.005
Blank Corrected Pk Area (A-s): 0.000
Concentration (ug/L): 0.04

Mean Conc (ug/L): 0.01 SD: 0.045 RSD(%): 526.40

Auto-zero performed.

Tl ID: Standard 1 S 10 Seq. No.: 00012 A/S Pos.: 38 Date: 12/28/90

Replicate 1 Time: 20:08
Peak Area (A-s): 0.038 Peak Height (A): 0.078
Background Pk Area (A-s): 0.050 Background Pk Height (A): 0.080
Blank Corrected Pk Area (A-s): 0.039
Concentration (ug/L): 10.89

Replicate 2 Time: 20:11
Peak Area (A-s): 0.041 Peak Height (A): 0.076
Background Pk Area (A-s): 0.046 Background Pk Height (A): 0.079
Blank Corrected Pk Area (A-s): 0.041
Concentration (ug/L): 11.66

Mean Conc (ug/L): 11.28 SD: 0.542 RSD(%): 4.81

Standard number 1 applied. [10.00]
Correlation coefficient: 1.00000 Slope: 0.0040

Tl ID: Standard 2 S 25 Seq. No.: 00013 A/S Pos.: 39 Date: 12/28/90

Replicate 1 Time: 20:13
Peak Area (A-s): 0.097 Peak Height (A): 0.175
Background Pk Area (A-s): 0.114 Background Pk Height (A): 0.202
Blank Corrected Pk Area (A-s): 0.098
Concentration (ug/L): 24.36

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Replicate 2 Time: 20:16
Peak Area (A-s): 0.097 Peak Height (A): 0.178
Background Pk Area (A-s): 0.113 Background Pk Height (A): 0.203
Blank Corrected Pk Area (A-s): 0.097
Concentration (ug/L): 24.32

Mean Conc (ug/L): 24.34 SD: 0.027 RSD(%): 0.11

Standard number 2 applied. [25.00]
Correlation coefficient: 0.99972 Slope: 0.0039

****

Tl ID: Standard 3 Seq. No.: 00014 A/S Pos.: 40 Date: 12/28/90

550

Replicate 1 Time: 20:19
Peak Area (A-s): 0.172 Peak Height (A): 0.286
Background Pk Area (A-s): 0.210 Background Pk Height (A): 0.380
Blank Corrected Pk Area (A-s): 0.173
Concentration (ug/L): 44.11

Replicate 2 Time: 20:21
Peak Area (A-s): 0.174 Peak Height (A): 0.289
Background Pk Area (A-s): 0.211 Background Pk Height (A): 0.375
Blank Corrected Pk Area (A-s): 0.174
Concentration (ug/L): 44.57

Mean Conc (ug/L): 44.34 SD: 0.327 RSD(%): 0.74

Standard number 3 applied. [50.00]
Correlation coefficient: 0.99466 Slope: 0.0036

****

Tl ID: ICV Seq. No.: 00015 A/S Pos.: 1 Date: 12/28/90

1:3

Replicate 1 Time: 20:24
Peak Area (A-s): 0.086 Peak Height (A): 0.160
Background Pk Area (A-s): 0.102 Background Pk Height (A): 0.175
Blank Corrected Pk Area (A-s): 0.086
Concentration (ug/L): 24.11

Replicate 2 Time: 20:27
Peak Area (A-s): 0.089 Peak Height (A): 0.161
Background Pk Area (A-s): 0.105 Background Pk Height (A): 0.181
Blank Corrected Pk Area (A-s): 0.089
Concentration (ug/L): 24.86

Mean Conc (ug/L): 24.48 SD: 0.528 RSD(%): 2.16

****

X 4 97.92 / 97.0 = 100.95% R

Tl ID: ICB Seq. No.: 00016 A/S Pos.: 2 Date: 12/28/90

Replicate 1 Time: 20:29
Peak Area (A-s): -0.001 Peak Height (A): 0.004
Background Pk Area (A-s): 0.007 Background Pk Height (A): 0.005
Blank Corrected Pk Area (A-s): -0.000
Concentration (ug/L): -0.07

Replicate 2 Time: 20:32
Peak Area (A-s): -0.001 Peak Height (A): 0.007

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Background Pk Area (A-s): 0.008 Background Pk Height (A): 0.006
Blank Corrected Pk Area (A-s): -0.001
Concentration (ug/L): -0.20

Mean Conc (ug/L): -0.13 SD: 0.094 RSD(%): 70.71

****

Tl ID: CRA Seq. No.: 00017 A/S Pos.: 3 Date: 12/28/90

Replicate 1 Time: 20:35
Peak Area (A-s): 0.040 Peak Height (A): 0.077
Background Pk Area (A-s): 0.050 Background Pk Height (A): 0.077
Blank Corrected Pk Area (A-s): 0.041
Concentration (ug/L): 11.31

Replicate 2 Time: 20:37
Peak Area (A-s): 0.043 Peak Height (A): 0.073
Background Pk Area (A-s): 0.049 Background Pk Height (A): 0.076
Blank Corrected Pk Area (A-s): 0.043
Concentration (ug/L): 11.95

Mean Conc (ug/L): 11.63 SD: 0.453 RSD(%): 3.89

****

Tl ID: CCV Seq. No.: 00018 A/S Pos.: 4 Date: 12/28/90

Replicate 1 Time: 20:40
Peak Area (A-s): 0.097 Peak Height (A): 0.190
Background Pk Area (A-s): 0.114 Background Pk Height (A): 0.210
Blank Corrected Pk Area (A-s): 0.098
Concentration (ug/L): 27.25

Replicate 2 Time: 20:42
Peak Area (A-s): 0.098 Peak Height (A): 0.184
Background Pk Area (A-s): 0.114 Background Pk Height (A): 0.207
Blank Corrected Pk Area (A-s): 0.099
Concentration (ug/L): 27.57

Mean Conc (ug/L): 27.41 SD: 0.230 RSD(%): 0.84

125.00 = 10.9604.6B

****

Tl ID: CCB Seq. No.: 00019 A/S Pos.: 5 Date: 12/28/90

Replicate 1 Time: 20:45
Peak Area (A-s): -0.001 Peak Height (A): 0.005
Background Pk Area (A-s): 0.007 Background Pk Height (A): 0.005
Blank Corrected Pk Area (A-s): -0.000
Concentration (ug/L): -0.08

Replicate 2 Time: 20:48
Peak Area (A-s): -0.002 Peak Height (A): 0.005
Background Pk Area (A-s): 0.007 Background Pk Height (A): 0.005
Blank Corrected Pk Area (A-s): -0.001
Concentration (ug/L): -0.41

Mean Conc (ug/L): -0.24 SD: 0.232 RSD(%): 96.29

****

Tl ID: Blank Seq. No.: 00020 A/S Pos.: 0 Date: 12/28/90

SU

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Replicate 1 Time: 20:51
Peak Area (A-s): -0.001 Peak Height (A): 0.004
Background Pk Area (A-s): 0.007 Background Pk Height (A): 0.005
Blank Corrected Pk Area (A-s): -0.000
Concentration (ug/L): -0.06

Replicate 2 Time: 20:53
Peak Area (A-s): 0.000 Peak Height (A): 0.005
Background Pk Area (A-s): 0.007 Background Pk Height (A): 0.005
Blank Corrected Pk Area (A-s): 0.000
Concentration (ug/L): 0.09

Mean Conc (ug/L): 0.01 SD: 0.111 RSD(%): 819.27

Auto-zero performed.

****

Tl ID: Reslope Seq. No.: 00021 A/S Pos.: 39 Date: 12/28/90

325

Replicate 1 Time: 20:56
Peak Area (A-s): 0.098 Peak Height (A): 0.186
Background Pk Area (A-s): 0.112 Background Pk Height (A): 0.202
Blank Corrected Pk Area (A-s): 0.099
Concentration (ug/L): 27.51

Replicate 2 Time: 20:59
Peak Area (A-s): 0.099 Peak Height (A): 0.178
Background Pk Area (A-s): 0.111 Background Pk Height (A): 0.204
Blank Corrected Pk Area (A-s): 0.099
Concentration (ug/L): 27.76

Mean Conc (ug/L): 27.64 SD: 0.175 RSD(%): 0.63

Reslope standard applied. [25.00]
Correlation coefficient: 0.99466 Slope: 0.0036

****

Tl ID: CCV Seq. No.: 00022 A/S Pos.: 4 Date: 12/28/90

Replicate 1 Time: 21:02
Peak Area (A-s): 0.099 Peak Height (A): 0.187
Background Pk Area (A-s): 0.112 Background Pk Height (A): 0.206
Blank Corrected Pk Area (A-s): 0.099
Concentration (ug/L): 25.10

Replicate 2 Time: 21:04
Peak Area (A-s): 0.096 Peak Height (A): 0.181
Background Pk Area (A-s): 0.116 Background Pk Height (A): 0.209
Blank Corrected Pk Area (A-s): 0.097
Concentration (ug/L): 24.44

Mean Conc (ug/L): 24.77 SD: 0.468 RSD(%): 1.89

125.00 = 99.08 %R

****

Tl ID: CCB Seq. No.: 00023 A/S Pos.: 5 Date: 12/28/90

Replicate 1 Time: 21:07
Peak Area (A-s): -0.002 Peak Height (A): 0.004
Background Pk Area (A-s): 0.007 Background Pk Height (A): 0.006

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Blank Corrected Pk Area (A-s): -0.002
Concentration (ug/L): -0.46

Replicate 2 Time: 21:10
Peak Area (A-s): 0.000 Peak Height (A): 0.006
Background Pk Area (A-s): 0.006 Background Pk Height (A): 0.007
Blank Corrected Pk Area (A-s): 0.000
Concentration (ug/L): 0.12

Mean Conc (ug/L): -0.17 SD: 0.414 RSD(%): 241.99

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T1 ID: PBW Seq. No.: 00024 A/S Pos.: 6 Date: 12/28/90

4572.11

Replicate 1 Time: 21:12
Peak Area (A-s): 0.001 Peak Height (A): 0.008
Background Pk Area (A-s): 0.005 Background Pk Height (A): 0.005
Blank Corrected Pk Area (A-s): 0.001
Concentration (ug/L): 0.24

Replicate 2 Time: 21:15
Peak Area (A-s): 0.000 Peak Height (A): 0.005
Background Pk Area (A-s): 0.006 Background Pk Height (A): 0.005
Blank Corrected Pk Area (A-s): 0.000
Concentration (ug/L): 0.11

Mean Conc (ug/L): 0.17 SD: 0.089 RSD(%): 51.27

T1 ID: PBW A Seq. No.: 00025 A/S Pos.: 6 Date: 12/28/90

4572.11

Replicate 1 Time: 21:18
Peak Area (A-s): 0.069 Peak Height (A): 0.125
Background Pk Area (A-s): 0.076 Background Pk Height (A): 0.139
Blank Corrected Pk Area (A-s): 0.070
Concentration (ug/L): 17.57

Replicate 2 Time: 21:20
Peak Area (A-s): 0.071 Peak Height (A): 0.136
Background Pk Area (A-s): 0.080 Background Pk Height (A): 0.145
Blank Corrected Pk Area (A-s): 0.071
Concentration (ug/L): 17.91

Mean Conc (ug/L): 17.74 SD: 0.241 RSD(%): 1.36

Recovery is 87.8% 20.00 = 88.7%R

T1 ID: LCSW 1:3 Seq. No.: 00026 A/S Pos.: 7 Date: 12/28/90

4572.11

Replicate 1 Time: 21:23
Peak Area (A-s): 0.090 Peak Height (A): 0.172
Background Pk Area (A-s): 0.106 Background Pk Height (A): 0.188
Blank Corrected Pk Area (A-s): 0.090
Concentration (ug/L): 22.74

Replicate 2 Time: 21:26
Peak Area (A-s): 0.089 Peak Height (A): 0.166
Background Pk Area (A-s): 0.103 Background Pk Height (A): 0.183
Blank Corrected Pk Area (A-s): 0.089
Concentration (ug/L): 22.48

Mean Conc (ug/L): 22.61 SD: 0.186 RSD(%): 0.82

X4 90.44 97. = 93.2%R

T1 ID: LCSW A Seq. No.: 00027 A/S Pos.: 7 Date: 12/28/90

4572.11

Replicate 1 Time: 21:28
Peak Area (A-s): 0.144 Peak Height (A): 0.246
Background Pk Area (A-s): 0.167 Background Pk Height (A): 0.302

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Blank Corrected Pk Area (A-s): 0.145
Concentration (ug/L): 36.51

Replicate 2 Time: 21:31
Peak Area (A-s): 0.142 Peak Height (A): 0.248
Background Pk Area (A-s): 0.170 Background Pk Height (A): 0.303
Blank Corrected Pk Area (A-s): 0.142
Concentration (ug/L): 35.87

Mean Conc (ug/L): 36.19 SD: 0.455 RSD(%): 1.26

Recovery is 67.9% 13.58/20.00 = 67.9%R

Tl ID: MFK903 Seq. No.: 00028 A/S Pos.: 8 Date: 12/28/90

4572.11

Replicate 1 Time: 21:34
Peak Area (A-s): -0.001 Peak Height (A): 0.005
Background Pk Area (A-s): 0.052 Background Pk Height (A): 0.027
Blank Corrected Pk Area (A-s): -0.000
Concentration (ug/L): -0.11

Replicate 2 Time: 21:36
Peak Area (A-s): -0.001 Peak Height (A): 0.005
Background Pk Area (A-s): 0.052 Background Pk Height (A): 0.027
Blank Corrected Pk Area (A-s): -0.001
Concentration (ug/L): -0.16

Mean Conc (ug/L): -0.13 SD: 0.038 RSD(%): 27.93 dil 1:4

Tl ID: MFK903A Seq. No.: 00029 A/S Pos.: 8 Date: 12/28/90 +

4572.11 Rerun

Replicate 1 Time: 21:39
Peak Area (A-s): 0.010 Peak Height (A): 0.019
Background Pk Area (A-s): 0.056 Background Pk Height (A): 0.030
Blank Corrected Pk Area (A-s): 0.011
Concentration (ug/L): 2.69

Replicate 2 Time: 21:42
Peak Area (A-s): 0.010 Peak Height (A): 0.018
Background Pk Area (A-s): 0.060 Background Pk Height (A): 0.031
Blank Corrected Pk Area (A-s): 0.010
Concentration (ug/L): 2.46

Mean Conc (ug/L): 2.58 SD: 0.162 RSD(%): 6.30

Recovery is 13.6% 20.00 = 12.9%R

Tl ID: MFK903D Seq. No.: 00030 A/S Pos.: 9 Date: 12/28/90

4572.110

Replicate 1 Time: 21:44
Peak Area (A-s): -0.001 Peak Height (A): 0.005
Background Pk Area (A-s): 0.052 Background Pk Height (A): 0.028
Blank Corrected Pk Area (A-s): -0.001
Concentration (ug/L): -0.27

Replicate 2 Time: 21:47

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Peak Area (A-s): -0.000 Peak Height (A): 0.006
Background Pk Area (A-s): 0.049 Background Pk Height (A): 0.025
Blank Corrected Pk Area (A-s): 0.000
Concentration (ug/L): 0.04

Mean Conc (ug/L): -0.12 SD: 0.222 RSD(%): 192.00

****

Tl ID: MFK903D Seq. No.: 00031 A/S Pos.: 9 Date: 12/28/90

4572-110

Replicate 1 Time: 21:50
Peak Area (A-s): 0.007 Peak Height (A): 0.017
Background Pk Area (A-s): 0.054 Background Pk Height (A): 0.029
Blank Corrected Pk Area (A-s): 0.007
Concentration (ug/L): 1.78

Replicate 2 Time: 21:52
Peak Area (A-s): 0.007 Peak Height (A): 0.020
Background Pk Area (A-s): 0.062 Background Pk Height (A): 0.032
Blank Corrected Pk Area (A-s): 0.007
Concentration (ug/L): 1.83

Mean Conc (ug/L): 1.81 SD: 0.040 RSD(%): 2.22

Recovery is 9.6% 18.00 / 20.00 = 90% R

****

Tl ID: ~~MFK899~~ MFK889 Seq. No.: 00032 A/S Pos.: 10 Date: 12/28/90

4585.01 1/31/91

Replicate 1 Time: 21:55
Peak Area (A-s): 0.001 Peak Height (A): 0.005
Background Pk Area (A-s): 0.004 Background Pk Height (A): 0.008
Blank Corrected Pk Area (A-s): 0.001
Concentration (ug/L): 0.38

Replicate 2 Time: 21:58
Peak Area (A-s): -0.002 Peak Height (A): 0.006
Background Pk Area (A-s): 0.007 Background Pk Height (A): 0.005
Blank Corrected Pk Area (A-s): -0.002
Concentration (ug/L): -0.39

Mean Conc (ug/L): -0.01 SD: 0.541 RSD(%): 8532.42

****

Tl ID: ~~MFK899~~ MFK889A Seq. No.: 00033 A/S Pos.: 10 Date: 12/28/90

4585.01 1/31/91

Replicate 1 Time: 22:00
Peak Area (A-s): 0.070 Peak Height (A): 0.138
Background Pk Area (A-s): 0.081 Background Pk Height (A): 0.145
Blank Corrected Pk Area (A-s): 0.070
Concentration (ug/L): 17.74

Replicate 2 Time: 22:03
Peak Area (A-s): 0.072 Peak Height (A): 0.136
Background Pk Area (A-s): 0.083 Background Pk Height (A): 0.152
Blank Corrected Pk Area (A-s): 0.072
Concentration (ug/L): 18.17

Mean Conc (ug/L): 17.96 SD: 0.303 RSD(%): 1.69

17.96 / 20.00 = 89.8% R

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Recovery is 89.8%

****

TI ID: CCV Seq. No.: 00034 A/S Pos.: 4 Date: 12/28/90

Replicate 1 Time: 22:06
Peak Area (A-s): 0.101 Peak Height (A): 0.186
Background Pk Area (A-s): 0.116 Background Pk Height (A): 0.212
Blank Corrected Pk Area (A-s): 0.101
Concentration (ug/L): 25.46

Replicate 2 Time: 22:08
Peak Area (A-s): 0.100 Peak Height (A): 0.191
Background Pk Area (A-s): 0.115 Background Pk Height (A): 0.212
Blank Corrected Pk Area (A-s): 0.100
Concentration (ug/L): 25.27

Mean Conc (ug/L): 25.36 SD: 0.132 RSD(%): 0.52

25.00 = 101.44% R

Check sample is within range 22.00 - 28.00

****

TI ID: CCB Seq. No.: 00035 A/S Pos.: 5 Date: 12/28/90

Replicate 1 Time: 22:11
Peak Area (A-s): -0.000 Peak Height (A): 0.007
Background Pk Area (A-s): 0.007 Background Pk Height (A): 0.005
Blank Corrected Pk Area (A-s): 0.000
Concentration (ug/L): 0.03

Replicate 2 Time: 22:14
Peak Area (A-s): -0.002 Peak Height (A): 0.005
Background Pk Area (A-s): 0.007 Background Pk Height (A): 0.006
Blank Corrected Pk Area (A-s): -0.002
Concentration (ug/L): -0.40

Mean Conc (ug/L): -0.18 SD: 0.305 RSD(%): 166.90

Check sample is within range -10.00 - 10.00

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Tl ID: ~~MFK8995~~ Seq. No.: 00036 A/S Pos.: 11 Date: 12/28/90

MFK8895 4585-015 bob 1/31/91

Replicate 1 Time: 22:16
Peak Area (A-s): 0.186 Peak Height (A): 0.310
Background Pk Area (A-s): 0.226 Background Pk Height (A): 0.418
Blank Corrected Pk Area (A-s): 0.186
Concentration (ug/L): 46.95

Replicate 2 Time: 22:19
Peak Area (A-s): 0.186 Peak Height (A): 0.309
Background Pk Area (A-s): 0.224 Background Pk Height (A): 0.417
Blank Corrected Pk Area (A-s): 0.187
Concentration (ug/L): 47.14

Mean Conc (ug/L): 47.05 SD: 0.131 RSD(%): 0.28

~~40.00~~ / 50.00 = 94.1%R

Tl ID: MFK891 Seq. No.: 00037 A/S Pos.: 12 Date: 12/28/90

4585.02

Replicate 1 Time: 22:22
Peak Area (A-s): 0.002 Peak Height (A): 0.005
Background Pk Area (A-s): 0.044 Background Pk Height (A): 0.023
Blank Corrected Pk Area (A-s): 0.002
Concentration (ug/L): 0.49

Replicate 2 Time: 22:24
Peak Area (A-s): -0.001 Peak Height (A): 0.006
Background Pk Area (A-s): 0.042 Background Pk Height (A): 0.021
Blank Corrected Pk Area (A-s): -0.001
Concentration (ug/L): -0.31

dil 1:4

Mean Conc (ug/L): 0.09 SD: 0.570 RSD(%): 628.17

Tl ID: MFK891 A Seq. No.: 00038 A/S Pos.: 12 Date: 12/28/90

Rerun

4585.02

Replicate 1 Time: 22:27
Peak Area (A-s): 0.006 Peak Height (A): 0.016
Background Pk Area (A-s): 0.054 Background Pk Height (A): 0.029
Blank Corrected Pk Area (A-s): 0.007
Concentration (ug/L): 1.66

Replicate 2 Time: 22:30
Peak Area (A-s): 0.008 Peak Height (A): 0.014
Background Pk Area (A-s): 0.052 Background Pk Height (A): 0.024
Blank Corrected Pk Area (A-s): 0.008
Concentration (ug/L): 1.99

Mean Conc (ug/L): 1.82 SD: 0.230 RSD(%): 12.61

Recovery is 8.7%

/ 20.00 = 9.1%R

Tl ID: MFK892 Seq. No.: 00039 A/S Pos.: 13 Date: 12/28/90

4585.03

Replicate 1 Time: 22:33
Peak Area (A-s): -0.001 Peak Height (A): 0.005
Background Pk Area (A-s): 0.071 Background Pk Height (A): 0.036

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Blank Corrected Pk Area (A-s): -0.001
Concentration (ug/L): -0.29

Replicate 2 Time: 22:35
Peak Area (A-s): -0.001 Peak Height (A): 0.005
Background Pk Area (A-s): 0.070 Background Pk Height (A): 0.036
Blank Corrected Pk Area (A-s): -0.001
Concentration (ug/L): -0.22

dil 1:4 & Rerun

Mean Conc (ug/L): -0.26 SD: 0.053 RSD(%): 20.60

****

T1 ID: MFK892 A 4585.03 Seq. No.: 00040 A/S Pos.: 13 Date: 12/28/90

Replicate 1 Time: 22:38
Peak Area (A-s): 0.006 Peak Height (A): 0.017
Background Pk Area (A-s): 0.075 Background Pk Height (A): 0.035
Blank Corrected Pk Area (A-s): 0.006
Concentration (ug/L): 1.51

Replicate 2 Time: 22:41
Peak Area (A-s): 0.008 Peak Height (A): 0.017
Background Pk Area (A-s): 0.075 Background Pk Height (A): 0.035
Blank Corrected Pk Area (A-s): 0.008
Concentration (ug/L): 2.13

Mean Conc (ug/L): 1.82 SD: 0.439 RSD(%): 24.12

Recovery is 10.4% 1.82/20.00 = 9.1%R

****

T1 ID: MFK893 ~~4582.~~ 4585.04 Seq. No.: 00041 A/S Pos.: 14 Date: 12/28/90

Replicate 1 Time: 22:43
Peak Area (A-s): -0.000 Peak Height (A): 0.004
Background Pk Area (A-s): 0.081 Background Pk Height (A): 0.042
Blank Corrected Pk Area (A-s): -0.000
Concentration (ug/L): -0.05

Replicate 2 Time: 22:46
Peak Area (A-s): -0.001 Peak Height (A): 0.004
Background Pk Area (A-s): 0.087 Background Pk Height (A): 0.043
Blank Corrected Pk Area (A-s): -0.001
Concentration (ug/L): -0.31

dil 1:4 & Rerun

Mean Conc (ug/L): -0.18 SD: 0.187 RSD(%): 103.66

****

T1 ID: MFK893 A 4585.04 Seq. No.: 00042 A/S Pos.: 14 Date: 12/28/90

Replicate 1 Time: 22:49
Peak Area (A-s): 0.009 Peak Height (A): 0.017
Background Pk Area (A-s): 0.088 Background Pk Height (A): 0.040
Blank Corrected Pk Area (A-s): 0.009
Concentration (ug/L): 2.22

Replicate 2 Time: 22:52
Peak Area (A-s): 0.008 Peak Height (A): 0.017
Background Pk Area (A-s): 0.089 Background Pk Height (A): 0.043

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Blank Corrected Pk Area (A-s): 0.008
Concentration (ug/L): 2.05

Mean Conc (ug/L): 2.13 SD: 0.118 RSD(%): 5.55

/20.00 = 10.6% R

Recovery is 11.6%

****

T1 ID: MFK895 Seq. No.: 00043 A/S Pos.: 15 Date: 12/28/90

4585.05

Replicate 1 Time: 22:54
Peak Area (A-s): 0.001 Peak Height (A): 0.007
Background Pk Area (A-s): 0.124 Background Pk Height (A): 0.070
Blank Corrected Pk Area (A-s): 0.001
Concentration (ug/L): 0.21

Replicate 2 Time: 22:57
Peak Area (A-s): -0.000 Peak Height (A): 0.007
Background Pk Area (A-s): 0.122 Background Pk Height (A): 0.071
Blank Corrected Pk Area (A-s): 0.000
Concentration (ug/L): 0.04

Mean Conc (ug/L): 0.13 SD: 0.120 RSD(%): 93.81

dil 1:4 + Rerun

****

T1 ID: MFK895A Seq. No.: 00044 A/S Pos.: 15 Date: 12/28/90

4585.05

Replicate 1 Time: 23:00
Peak Area (A-s): 0.004 Peak Height (A): 0.014
Background Pk Area (A-s): 0.125 Background Pk Height (A): 0.067
Blank Corrected Pk Area (A-s): 0.004
Concentration (ug/L): 0.95

Replicate 2 Time: 23:03
Peak Area (A-s): 0.002 Peak Height (A): 0.012
Background Pk Area (A-s): 0.127 Background Pk Height (A): 0.072
Blank Corrected Pk Area (A-s): 0.002
Concentration (ug/L): 0.45

Mean Conc (ug/L): 0.70 SD: 0.351 RSD(%): 50.15

/20.00 = under IDL

Recovery is 2.9%

****

T1 ID: CCV Seq. No.: 00045 A/S Pos.: 4 Date: 12/28/90

Replicate 1 Time: 23:05
Peak Area (A-s): 0.104 Peak Height (A): 0.184
Background Pk Area (A-s): 0.116 Background Pk Height (A): 0.203
Blank Corrected Pk Area (A-s): 0.104
Concentration (ug/L): 26.30

Replicate 2 Time: 23:08
Peak Area (A-s): 0.103 Peak Height (A): 0.185
Background Pk Area (A-s): 0.114 Background Pk Height (A): 0.205
Blank Corrected Pk Area (A-s): 0.103
Concentration (ug/L): 25.96

Mean Conc (ug/L): 26.13 SD: 0.243 RSD(%): 0.93

/25.00 = 104.52% R

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Check sample is within range 22.00 - 28.00

~~~~~~

T1 ID: CCB Seq. No.: 00046 A/S Pos.: 5 Date: 12/28/90

Replicate 1 Time: 23:11
Peak Area (A-s): -0.000 Peak Height (A): 0.004
Background Pk Area (A-s): 0.006 Background Pk Height (A): 0.005
Blank Corrected Pk Area (A-s): -0.000
Concentration (ug/L): -0.03

Replicate 2 Time: 23:13
Peak Area (A-s): 0.002 Peak Height (A): 0.006
Background Pk Area (A-s): 0.004 Background Pk Height (A): 0.005
Blank Corrected Pk Area (A-s): 0.003
Concentration (ug/L): 0.66

Mean Conc (ug/L): 0.32 SD: 0.483 RSD(%): 152.77

Check sample is within range -10.00 - 10.00
~~~~~~

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Tl ID: MFK903 1:4 / 4572.11 Seq. No.: 00047 A/S Pos.: 8 Date: 12/28/90 1:4

Replicate 1 Time: 23:23
Peak Area (A-s): -0.000 Peak Height (A): 0.004
Background Pk Area (A-s): 0.010 Background Pk Height (A): 0.007
Blank Corrected Pk Area (A-s): -0.000
Concentration (ug/L): -0.02

Replicate 2 Time: 23:25
Peak Area (A-s): 0.000 Peak Height (A): 0.005
Background Pk Area (A-s): 0.009 Background Pk Height (A): 0.006
Blank Corrected Pk Area (A-s): 0.000
Concentration (ug/L): 0.10

Mean Conc (ug/L): 0.04 SD: 0.084 RSD(%): 215.21

XS = <10.0

Tl ID: MFK903 1:4A / 4572.11A Seq. No.: 00048 A/S Pos.: 8 Date: 12/28/90 1:4

Replicate 1 Time: 23:28
Peak Area (A-s): 0.014 Peak Height (A): 0.028
Background Pk Area (A-s): 0.024 Background Pk Height (A): 0.030
Blank Corrected Pk Area (A-s): 0.014
Concentration (ug/L): 3.48

Replicate 2 Time: 23:31
Peak Area (A-s): 0.015 Peak Height (A): 0.027
Background Pk Area (A-s): 0.022 Background Pk Height (A): 0.027
Blank Corrected Pk Area (A-s): 0.015
Concentration (ug/L): 3.76

Mean Conc (ug/L): 3.62 SD: 0.197 RSD(%): 5.44

Recovery is 17.9% ~~30~~ 20 / 18.1

Tl ID: MFK903D 1:4 / 4572.11D Seq. No.: 00049 A/S Pos.: 9 Date: 12/28/90 1:4

Replicate 1 Time: 23:33
Peak Area (A-s): -0.000 Peak Height (A): 0.005
Background Pk Area (A-s): 0.008 Background Pk Height (A): 0.006
Blank Corrected Pk Area (A-s): -0.000
Concentration (ug/L): -0.06

Replicate 2 Time: 23:36
Peak Area (A-s): 0.002 Peak Height (A): 0.005
Background Pk Area (A-s): 0.009 Background Pk Height (A): 0.007
Blank Corrected Pk Area (A-s): 0.002
Concentration (ug/L): 0.46

Mean Conc (ug/L): 0.20 SD: 0.370 RSD(%): 184.20

XS = <10.0

Tl ID: MFK903D 1:4A / 4572.11DA Seq. No.: 00050 A/S Pos.: 9 Date: 12/28/90 1:4

Replicate 1 Time: 23:39
Peak Area (A-s): 0.012 Peak Height (A): 0.023
Background Pk Area (A-s): 0.020 Background Pk Height (A): 0.026

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Blank Corrected Pk Area (A-s): 0.012
Concentration (ug/L): 3.00

Replicate 2 Time: 23:41
Peak Area (A-s): 0.012 Peak Height (A): 0.024
Background Pk Area (A-s): 0.020 Background Pk Height (A): 0.026
Blank Corrected Pk Area (A-s): 0.012
Concentration (ug/L): 3.06

Mean Conc (ug/L): 3.03 SD: 0.042 RSD(%): 1.40

Recovery is 14.1% 20/15.15

~~~~~~

T1 ID: MFK891 1:4 / 4585.02 Seq. No.: 00051 A/S Pos.: 12 Date: 12/28/90 1:4

Replicate 1 Time: 23:44
Peak Area (A-s): 0.000 Peak Height (A): 0.005
Background Pk Area (A-s): 0.010 Background Pk Height (A): 0.007
Blank Corrected Pk Area (A-s): 0.000
Concentration (ug/L): 0.09

Replicate 2 Time: 23:47
Peak Area (A-s): -0.001 Peak Height (A): 0.005
Background Pk Area (A-s): 0.009 Background Pk Height (A): 0.007
Blank Corrected Pk Area (A-s): -0.001
Concentration (ug/L): -0.23

Mean Conc (ug/L): -0.07 SD: 0.223 RSD(%): 323.62

XS = 210.00

~~~~~~

T1 ID: MFK891 1:4A / 4585.02A Seq. No.: 00052 A/S Pos.: 12 Date: 12/28/90 1:4

Replicate 1 Time: 23:49
Peak Area (A-s): 0.011 Peak Height (A): 0.023
Background Pk Area (A-s): 0.019 Background Pk Height (A): 0.021
Blank Corrected Pk Area (A-s): 0.011
Concentration (ug/L): 2.89

Replicate 2 Time: 23:52
Peak Area (A-s): 0.011 Peak Height (A): 0.022
Background Pk Area (A-s): 0.020 Background Pk Height (A): 0.022
Blank Corrected Pk Area (A-s): 0.012
Concentration (ug/L): 2.96

Mean Conc (ug/L): 2.92 SD: 0.048 RSD(%): 1.66

Recovery is 15.0% 20/0= 14.60

~~~~~~

T1 ID: MFK892 1:4 / 4585.03 Seq. No.: 00053 A/S Pos.: 13 Date: 12/28/90 1:4

Replicate 1 Time: 23:55
Peak Area (A-s): -0.000 Peak Height (A): 0.005
Background Pk Area (A-s): 0.012 Background Pk Height (A): 0.009
Blank Corrected Pk Area (A-s): 0.000
Concentration (ug/L): 0.03

Replicate 2 Time: 23:57
~~~~~~

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Peak Area (A-s): -0.000 Peak Height (A): 0.006
Background Pk Area (A-s): 0.011 Background Pk Height (A): 0.009
Blank Corrected Pk Area (A-s): 0.000
Concentration (ug/L): 0.06

Mean Conc (ug/L): 0.05 SD: 0.020 RSD(%): 42.04

XS = < 10.0

****

T1 ID: MFK892 1:4 A / 4585.03A Seq. No.: 00054 A/S Pos.: 13 Date: 12/28/90 1:4

Replicate 1 Time: 00:00
Peak Area (A-s): 0.008 Peak Height (A): 0.018
Background Pk Area (A-s): 0.020 Background Pk Height (A): 0.019
Blank Corrected Pk Area (A-s): 0.008
Concentration (ug/L): 2.12

Replicate 2 Time: 00:03
Peak Area (A-s): 0.009 Peak Height (A): 0.019
Background Pk Area (A-s): 0.021 Background Pk Height (A): 0.019
Blank Corrected Pk Area (A-s): 0.010
Concentration (ug/L): 2.42

Mean Conc (ug/L): 2.27 SD: 0.211 RSD(%): 9.31

Recovery is 11.1% 20 / 11.35

****

T1 ID: MFK893 1:4 / 4585.04 Seq. No.: 00055 A/S Pos.: 14 Date: 12/29/90 1:4

Replicate 1 Time: 00:06
Peak Area (A-s): -0.000 Peak Height (A): 0.005
Background Pk Area (A-s): 0.012 Background Pk Height (A): 0.008
Blank Corrected Pk Area (A-s): 0.000
Concentration (ug/L): 0.06

Replicate 2 Time: 00:08
Peak Area (A-s): -0.000 Peak Height (A): 0.007
Background Pk Area (A-s): 0.012 Background Pk Height (A): 0.008
Blank Corrected Pk Area (A-s): -0.000
Concentration (ug/L): -0.01

Mean Conc (ug/L): 0.02 SD: 0.047 RSD(%): 196.98

XS = < 10.0

****

T1 ID: MFK893 1:4A / 4585.04A Seq. No.: 00056 A/S Pos.: 14 Date: 12/29/90 1:4

Replicate 1 Time: 00:11
Peak Area (A-s): 0.008 Peak Height (A): 0.017
Background Pk Area (A-s): 0.021 Background Pk Height (A): 0.018
Blank Corrected Pk Area (A-s): 0.008
Concentration (ug/L): 1.99

Replicate 2 Time: 00:14
Peak Area (A-s): 0.008 Peak Height (A): 0.017
Background Pk Area (A-s): 0.022 Background Pk Height (A): 0.020
Blank Corrected Pk Area (A-s): 0.008
Concentration (ug/L): 1.98

Mean Conc (ug/L): 1.99 SD: 0.009 RSD(%): 0.45

20 / 9.95

Recovery is 9.8%

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TI ID: CCV Seq. No.: 00057 A/S Pos.: 4 Date: 12/29/90

Replicate 1 Time: 00:17
Peak Area (A-s): 0.101 Peak Height (A): 0.182
Background Pk Area (A-s): 0.112 Background Pk Height (A): 0.204
Blank Corrected Pk Area (A-s): 0.101
Concentration (ug/L): 25.64

Replicate 2 Time: 00:19
Peak Area (A-s): 0.102 Peak Height (A): 0.182
Background Pk Area (A-s): 0.112 Background Pk Height (A): 0.203
Blank Corrected Pk Area (A-s): 0.102
Concentration (ug/L): 25.74

Mean Conc (ug/L): 25.69 SD: 0.068 RSD(%): 0.27

Check sample is within range 22.00 - 28.00 25/102.76

TI ID: CCB Seq. No.: 00058 A/S Pos.: 5 Date: 12/29/90

Replicate 1 Time: 00:22
Peak Area (A-s): 0.000 Peak Height (A): 0.004
Background Pk Area (A-s): 0.005 Background Pk Height (A): 0.005
Blank Corrected Pk Area (A-s): 0.001
Concentration (ug/L): 0.18

Replicate 2 Time: 00:25
Peak Area (A-s): 0.001 Peak Height (A): 0.005
Background Pk Area (A-s): 0.005 Background Pk Height (A): 0.006
Blank Corrected Pk Area (A-s): 0.001
Concentration (ug/L): 0.38

Mean Conc (ug/L): 0.28 SD: 0.141 RSD(%): 50.57

Check sample is within range -10.00 - 10.00

TI ID: MFK895 1:4 Seq. No.: 00059 A/S Pos.: 15 Date: 12/29/90

Replicate 1 Time: 00:27
Peak Area (A-s): 0.000 Peak Height (A): 0.005
Background Pk Area (A-s): 0.018 Background Pk Height (A): 0.012
Blank Corrected Pk Area (A-s): 0.000
Concentration (ug/L): 0.11

Replicate 2 Time: 00:30
Peak Area (A-s): -0.002 Peak Height (A): 0.005
Background Pk Area (A-s): 0.016 Background Pk Height (A): 0.013
Blank Corrected Pk Area (A-s): -0.001
Concentration (ug/L): -0.35

Mean Conc (ug/L): -0.12 SD: 0.327 RSD(%): 274.82

DATA NOT NEEDED

TI ID: MFK895 1:4 Seq. No.: 00060 A/S Pos.: 15 Date: 12/29/90

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FURNACE AA RUN LOG

Calibration			
Std.#	Conc.	Abs.	r
Std.0	50	AZ	1527
Std.1	~~525~~	0.133	1531
Std.2	~~535~~ 510	0.455	1535
Std.3	~~5100~~ 510	0.050	1539
Std.4	~~520~~ 520	0.103	1543
	550	0.260	1547

Analyst R Date 12/31/90

X Instrument TJA 22 Bkgrd BS

Element Tl Wavelength ~~283.2~~ 276.8

Calibration Standard: Source Plasma Chem Std 1A Prep Date 12/31/90

Time MFK888

Client I.D.	SWLO I.D.	~~1st~~ Burn-ABS /Conc.	2nd Burn-ABS /Conc.	Average ABS/ Conc.	Dilution Factor	Final Concentration ug/l mg/kg	JAN - 2 1991 Comments	
ICV		1550		20.66	1:4	103.3	97/106.5%	
ICB		1554		-0.56		2.0U		
CRA		1558		10.07		10.07		
CCV		1602		26.41		26.41	25/105.6%	
CCB		1606		-0.19		2.0U		
S0		1615		—		—		
S25		1622		—		—		
CCV		1630		25.64		25.64	25/102.6%	
CCB		1634		0.29		2.0U		
~~ZZZZZ MFK895~~	~~458505~~	1638		0.62		2.0U	sample previously run	X
~~ZZZZZ MFK895A~~	~~A~~	1642		4.14		4.14		X
MF12895	458505	1646		-0.08	1:4	2.0U		
MFK895A	A	1650		4.60	1:4	4.60	20/23.0%	
MFK904	458506	1654		0.22		2.0U	dil 1:4	X
MFK904A	A	1658		6.35		6.35	20/31.8%	X
MFK905	458507	1702		0.27		2.0U	dil 1:4	X
MFK905A	A	1706		6.45		6.45	20/32.2%	X
CCV		1710		25.10		25.10	25/100.4%	
CCB		1714		-0.23		2.0U		

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FURNACE AA RUN LOG

Calibration			
Std.#	Conc.	Abs.	r
Std.0			
Std.1			
Std.2			
Std.3			
Std.4			

Analyst JR Date 12/31/90

Instrument TJA22 Bkgrd BS

Element Ti (cont.) Wavelength 276.8

Calibration Standard: Source _____ Prep Date _____

Time

Client I.D.	SWLO I.D.	1st Burn-ABS /Conc.	2nd Burn-ABS /Conc.	Average ABS/ Conc.	Dilution Factor	Final Concentration ug/l mg/kg	Comments
SO		1718		—		—	
S25		1722		—		—	
CCV		1726		25.87		25.87	25/103.5%
CCB		1730		1.00		2.00	
MFK906	4585.08	1734		0.46		2.00	dil 1:4 x
MFK906A	A	1738		7.17		7.17	20/35.8% x
BLK		1742 1744		0.76		2.00	
BLK SPK		1748		48.68		48.68	50/97.4%
4623.01		1750		1.09		2.00	
4633.01		1754		.74		2.00	
4633.02		~~1802~~ 1758		0.31		2.00	
4633.04		1802		0.73		2.00	
CCV		1806		24.58		24.58	25/98.3%
CCB		1810		0.97		2.00	
SO		1815		—		—	
S25		1820		—		—	
CCV		1824		23.92		23.92	25/95.7%
CCB		1828		-0.63		2.00	

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```
Abs    1   0.006
Mean       0.006
P/H        0.003
Abs    2   0.001
Mean       0.003
P/H        0.000
AUTO ZERO
15:27:07
Mon   31 DEC 1990
          T1-S
Standard  C
Abs    1   0.132
Mean       0.132
P/H        0.172
Abs    2   0.134
Mean       0.133
P/H        0.167
          T1-S
Mean       0.133
SD         0.001
RSD        01.05
          T1-S
Standard  1
Abs    1   0.460
Mean       0.460
P/H        0.513
Abs    2   0.450
Mean       0.455
P/H        0.503
          T1-S
Mean       0.455
SD         0.007
RSD        01.53
          T1-S
Standard  1
Abs    1   0.052
Mean       0.052
P/H        0.064
Abs    2   0.049
Mean       0.050
P/H        0.066
          T1-S
Mean       0.050
SD         0.002
RSD        04.40
          T1-S
Standard  2
Abs    1   0.106
Mean       0.106
P/H        0.139
Abs    2   0.101
Mean       0.103
P/H        0.138
          T1-S
Mean       0.103
SD         0.004
RSD        03.49
          T1-S
Standard  3
Abs    1   0.261
```

S0

S25

S3510

S3510

S20

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```
Mean        0.261
P/H         0.336
Abs    2    0.259
Mean        0.260
P/H         0.341
           T1-S
Mean        0.260
SD          0.001
RSD         00.53

CALIBRATE A
  STD   CONC       MEAN
   Z    00.00      0.000
   C    25.00      0.133
   1    10.00      0.050
   2    20.00      0.103
   3    50.00      0.260
APP CONC
STD Z     00.00
STD C     25.20
STD 1     10.06
STD 2     19.81
STD 3     50.00
           T1-S
SN= 000111
Conc   1   20.36
Mean       20.36
P/H         0.155
Conc   2   20.97
Mean       20.66
P/H         0.153
           T1-S
Mean       20.66
SD          00.43
RSD         02.08
           T1-S
SN= 000112
Conc   1  -00.19
Mean      -00.19
P/H       -0.001
Conc   2  -00.92
Mean      -00.56
P/H       -0.002
           T1-S
Mean      -00.56
SD          00.52
RSD       -92.14
           T1-S
SN= 000113
Conc   1   09.97
Mean       09.97
P/H         0.070
Conc   2   10.18
Mean       10.07
P/H         0.069
           T1-S
Mean       10.07
SD          00.15
RSD         01.46
           T1-S
```

SSO

ICV 1:4

x5= 103.3 / 97.0 / 106.5 %.

ICB

CRA

15522F-1104


```
SN= 000114
Conc  1  26.27
Mean     26.27
P/H      0.191
Conc  2  26.55
Mean     26.41
P/H      0.190
         T1-S
Mean     26.41   CCV
SD       00.20        25/105.67o
RSD      00.74
         T1-S
SN= 000115
Conc  1 -00.02
Mean    -00.02
P/H      0.000
Conc  2 -00.35
Mean    -00.19
P/H      0.000
         T1-S
Mean    -00.19   CCB
SD       00.23
RSD     DIG HI
         T1-S
Conc  1  00.37
Mean     00.37
P/H      0.000
Conc  2  00.27
Mean     00.32
P/H      0.001   SO
AUTO ZERO
15:15:06
Mon  31 DEC 1990
         T1-S
Conc  1  23.83
Mean     23.83
P/H      0.172
Conc  2  24.08
Mean     23.95
P/H      0.175
A AUTO CAL STD C  S25
MEAN CONC 23.95
RECAL TO  25.00
Dilution factor:  01.00
Normal Operation
AZ after 12
AC after 12

SN of Sample #1 000116
Starting location  1
Number of Samples 43


RINSE

Dilution factor:  01.00
Normal Operation
AZ after 12
AC after 12
INITIAL AZ&AC
```

Number of Samples 43 15522-F-1104

RINSE

Dilution factor: 01.00
Normal Operation
AZ after 12
AC after 12

SN of Sample #1 000116
Starting location 1
Number of Samples 43

RINSE
ADA

		T1-S
SN= 000116		
Conc	1	25.58
Mean		25.58
P/H		0.179
Conc	2	25.71
Mean		25.64
P/H		0.176
		T1-S
Mean		25.64
SD		00.09
RSD		00.35
		T1-S
SN= 000117		
Conc	1	00.61
Mean		00.61
P/H		0.002
Conc	2	-00.02
Mean		00.29
P/H		0.001
		T1-S
Mean		00.29
SD		00.45
RSD		DIG HI
		T1-S
SN= 000118		
Conc	1	00.47
Mean		00.47
P/H		-0.001
Conc	2	00.78
Mean		00.62
P/H		0.000
		T1-S
Mean		00.62
SD		00.22
RSD		35.32
		T1-S
SN= 000119		
Conc	1	04.01
Mean		04.01
P/H		0.012
Conc	2	04.27
Mean		04.14

CCV 25/102.6%

CCB

MFK895 4-5-85.05 not needed previously ran

15522-F-1104

```
P/H          0.015
             T1-S
Mean         04.14
SD           00.18
RSD          04.42
             T1-S
SN= 000120
Conc   1    -00.24
Mean         -00.24
P/H          -0.001
Conc   2     00.08
Mean         -00.08
P/H          -0.002
             T1-S
Mean         -00.08
SD           00.23
RSD          DIG HI
             T1-S
SN= 000121
Conc   1     04.52
Mean         04.52
P/H          0.020
Conc   2     04.68
Mean         04.60
P/H          0.024
             T1-S
Mean         04.60
SD           00.11
RSD          02.45
             T1-S
SN= 000122
Conc   1     00.44
Mean         00.44
P/H          0.001
Conc   2     00.00
Mean         00.22
P/H          0.000
             T1-S
Mean         00.22
SD           00.31
RSD          DIG HI
             T1-S
SN= 000123
Conc   1     07.38
Mean         07.38
P/H          0.034
Conc   2     05.33
Mean         06.35
P/H          0.033
             T1-S
Mean         06.35
SD           01.45
RSD          22.81
             T1-S
SN= 000124
Conc   1     00.31
Mean         00.31
P/H          0.000
Conc   2     00.24
Mean         00.27
```

mFK 895A
4585.05A

mFK895 1:4
4585.05

mFK 895A 1:4 20/23.0%
4585.05A

mFK 904
4585.06 dil 1:4

mFK 904A 20/31.8%
4585.06A

15522 F-1104


```
P/H          0.001
           T1-S
Mean         00.27
SD           00.05
RSD          18.51
           T1-S
SN= 000125
Conc   1     06.46
Mean         06.46
P/H          0.030
Conc   2     06.44
Mean         06.45
P/H          0.031
           T1-S
Mean         06.45
SD           00.01
RSD          00.21
           T1-S
SN= 000126
Conc   1     24.59
Mean         24.59
P/H          0.166
Conc   2     25.62
Mean         25.10
P/H          0.172
           T1-S
Mean         25.10
SD           00.73
RSD          02.90
           T1-S
SN= 000127
Conc   1     00.18
Mean         00.18
P/H          0.000
Conc   2    -00.64
Mean        -00.23
P/H         -0.001
           T1-S
Mean        -00.23
SD           00.58
RSD         DIG HI
           T1-S
Conc   1    -00.50
Mean        -00.50
P/H          0.000
Conc   2    -00.53
Mean        -00.52
P/H         -0.002
AUTO ZERO
17:18:18
Mon  31 DEC 1990
           T1-S
Conc   1     24.92
Mean         24.92
P/H          0.174
Conc   2     25.55
Mean         25.23
P/H          0.174
A AUTO CAL STD C
MEAN CONC 25.23
```

mFK905
#4585.07

mFK905A
4585.07A

20/32.2%

CCV 25/100.4%

CCB

SO

S25

15522F-1104

377

```
RECAL TO  25.00
          T1-S
SN= 000128
Conc   1  25.79
Mean      25.79
P/H       0.170
Conc   2  25.95
Mean      25.87
P/H       0.175
          T1-S
Mean      25.87   CCV
SD        00.11        25/103.5
RSD       00.43
          T1-S
SN= 000129
Conc   1  01.55
Mean      01.55
P/H       0.001
Conc   2  00.45
Mean      01.00
P/H       0.001
          T1-S
Mean      01.00   CCB
SD        00.78
RSD       77.70
          T1-S
SN= 000130
Conc   1  00.92
Mean      00.92
P/H       0.001
Conc   2 -00.12
Mean      00.40
P/H       0.000
          T1-S
Mean      00.40   MFK906
SD        00.74   4585.08
RSD       DIG HI
          T1-S
SN= 000131
Conc   1  07.01
Mean      07.01
P/H       0.038
Conc   2  07.34
Mean      07.17
P/H       0.036
          T1-S
Mean      07.17   MFK906A      20/35.8%
SD        00.23   4585.08A
RSD       03.24
          T1-S
SN= 000132
Conc   1  00.65
Mean      00.65
P/H       0.001
Conc   2  00.88
Mean      00.76
P/H       0.000
          T1-S
Mean      00.76   BIK
SD        00.16
```

15522-F 1104


```
RSD          21.31
           T1-S
SN= 000133
Conc   1     48.30
Mean         48.30
P/H           0.300
Conc   2     49.06
Mean         48.68
P/H           0.311
           T1-S
Mean         48.68
SD           00.54
RSD          01.10
           T1-S
SN= 000134
Conc   1     01.29
Mean         01.29
P/H           0.001
Conc   2     00.90
Mean         01.09
P/H           0.002
           T1-S
Mean         01.09
SD           00.28
RSD          25.22
           T1-S
SN= 000135
Conc   1     01.37
Mean         01.37
P/H           0.002
Conc   2     00.12
Mean         00.74
P/H           0.000
           T1-S
Mean         00.74
SD           00.88
RSD        DIG HI
           T1-S
SN= 000136
Conc   1     00.16
Mean         00.16
P/H           0.002
Conc   2     00.47
Mean         00.31
P/H           0.002
           T1-S
Mean         00.31
SD           00.22
RSD          70.64
           T1-S
SN= 000137
Conc   1     00.59
Mean         00.59
P/H           0.001
Conc   2     00.87
Mean         00.73
P/H           0.001
           T1-S
Mean         00.73
SD           00.20
```

BIK SPK 50/97.4%

4623.01

4633.01

4633.02

4633.04

15522F-1104

```
RSD          26.98
             T1-S
SN= 000138
Conc   1     24.28
Mean         24.28
P/H           0.148
Conc   2     24.88
Mean         24.58
P/H           0.164
             T1-S
Mean         24.58   CCV
SD           00.42
RSD          01.72
             T1-S
SN= 000139
Conc   1     00.78
Mean         00.78
P/H           0.002
Conc   2     01.16
Mean         00.97
P/H           0.002
             T1-S
Mean         00.97   CCB
SD           00.27
RSD          27.62
             T1-S
Conc   1     00.88
Mean         00.88
P/H           0.001
Conc   2     00.94
Mean         00.91
P/H           0.002   SD
AUTO ZERO
18:15:20
Mon   31 DEC 1990
             T1-S
Conc   1     24.32
Mean         24.32
P/H           0.167
Conc   2     25.51
Mean         24.91
P/H           0.178
A AUTO CAL STD C   S25
MEAN CONC 24.91
RECAL TO  25.00
             T1-S
SN= 000140
Conc   1     24.14
Mean         24.14
P/H           0.166
Conc   2     23.70
Mean         23.92
P/H           0.164
             T1-S
Mean         23.92   CCV
SD           00.31
RSD          01.30
             T1-S
SN= 000141
Conc   1    -00.92
```

25/98.3%

25/95.7%

Data not used
JAB 1/2/90

15522-F-1104

SOUTHWEST LABORATORIES OF OKLAHOMA, INC.

ANALYST BMS/BW DATE 01/02/91

INSTR = PE5100B BKGRD = BZ IDL = 2.0 UG/L

WAVELENGTH = 276.8 INTEGRATION TIME = 5.0 SEC

Report Name: B010212

report	lab#	sampleid	analdate	analtime	TEST ID	average	dil	result	units	cv	comment
											MFK888
											JAN - 4 1991
B01021 2	S0	Blank	01/02/91	12:40							AZ
					Tl	-0.065		-0.07	ug/L		
	S10	Standard 1	01/02/91	12:46							0.042
					Tl	10.840		10.84	ug/L	1.17	
	S25	Standard 2	01/02/91	12:52							0.102
					Tl	24.325		24.33	ug/L	0.84	
	S50	Standard 3	01/02/91	12:58							0.189
					Tl	46.355		46.36	ug/L	4.47	
		ICV	01/02/91	13:31							97/105.65%R
					Tl	25.620	4.00	102.48	ug/L	6.84	
		ICB	01/02/91	13:37							
					Tl	1.255		1.26	ug/L	25.35	
		CRA	01/02/91	13:42							
					Tl	11.050		11.05	ug/L	0.13	
		CCV	01/02/91	13:48							25/101.24%R
					Tl	25.305		25.31	ug/L	2.43	
		CCB	01/02/91	13:54							
					Tl	-0.085		-0.09	ug/L		
	4585.06	MFK904	01/02/91	14:03							
					Tl	-0.595	5.00	-2.98	ug/L		
	4585.06A	MFK904A	01/02/91	14:09							20/51.4%R
					Tl	10.285	5.00	51.43	ug/L	3.78	
	4585.07	MFK905	01/02/91	14:15							
					Tl	-0.485	5.00	-2.43	ug/L		
	4585.07A	MFK905A	01/02/91	14:20							20/48.0%R
					Tl	9.600	5.00	48.00	ug/L	0.59	

15522F-1104

report	lab#	sampleid	analdate	analtime	TEST ID	average	dil	result	units	cv	comment
B01021 2	4585.08	~~MFK905~~ MFK906	01/02/91	14:26	T1	-0.175	5.00	-0.88	ug/L		
	4585.08A	~~MFK905A~~ MFK906A	01/02/91	14:32	T1	8.250	5.00	41.25	ug/L	1.37	20/41.2%R
		50 STANDARD	01/02/91	14:38	T1	51.055		51.06	ug/L	0.76	
		BLANK CUP	01/02/91	14:45	T1	-2.465		-2.47	ug/L		
		CCV	01/02/91	14:50	T1	26.955		26.96	ug/L	0.81	25/107.80%R
		CCB	01/02/91	14:56	T1	-0.140		-0.14	ug/L		
	S0	Blank	01/02/91	15:06	T1	-2.570		-2.57	ug/L		
	S50	Reslope	01/02/91	15:11	T1	29.820		29.82	ug/L	2.13	
		CCV	01/02/91	15:18	T1	25.335		25.34	ug/L	7.62	25/101.32%R
		CCB	01/02/91	15:23	T1	2.090		2.09	ug/L	6.77	
		PBS(4621.02)	01/02/91	15:29	T1	1.185		1.19	ug/L	69.82	
		PBSA	01/02/91	15:34	T1	17.880		17.88	ug/L	6.72	20/89.4%R
		LCSS	01/02/91	15:40	T1	2.815	100.00	281.50	ug/L	31.40	X
		LCSSA	01/02/91	15:46	T1	18.480	100.00	1848.00	ug/L	1.84	WRONG DIL. X
	4621.02	SW-9S	01/02/91	15:52	T1	2.050		2.05	ug/L	73.82	
	4621.02A	SW-9SA	01/02/91	15:57	T1	20.075		20.08	ug/L	0.32	20/90.1%R
	4621.02D	SW-9SD	01/02/91	16:03	T1	1.920		1.92	ug/L	19.15	
	4621.02DA	SW-9SDA	01/02/91	16:09	T1	19.925		19.93	ug/L	8.13	20/99.6%R

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TI ID: Blank Seq. No.: 00001 A/S Pos.: 0 Date: 01/02/91 SO

MS

382

1-2-91

PES100B

T1

File # B010212

Replicate 1 Time: 12:43
Peak Area (A-s): 0.006 Peak Height (A): 0.020
Background Pk Area (A-s): -0.001 Background Pk Height (A): 0.019
Blank Corrected Pk Area (A-s): 0.002
Concentration (ug/L): 0.43

Replicate 2 Time: 12:46
Peak Area (A-s): 0.002 Peak Height (A): 0.025
Background Pk Area (A-s): -0.002 Background Pk Height (A): 0.021
Blank Corrected Pk Area (A-s): -0.002
Concentration (ug/L): -0.56

Mean Conc (ug/L): -0.06 SD: 0.699 RSD(%): 1110.89

Auto-zero performed.

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~~~~~~

Tl ID: Standard 1 Seq. No.: 00002 A/S Pos.: 38 Date: 01/02/91 S10

Replicate 1 Time: 12:49
Peak Area (A-s): 0.046 Peak Height (A): 0.078
Background Pk Area (A-s): 0.034 Background Pk Height (A): 0.060
Blank Corrected Pk Area (A-s): 0.042
Concentration (ug/L): 10.93

Replicate 2 Time: 12:51
Peak Area (A-s): 0.045 Peak Height (A): 0.081
Background Pk Area (A-s): 0.034 Background Pk Height (A): 0.058
Blank Corrected Pk Area (A-s): 0.041
Concentration (ug/L): 10.75

Mean Conc (ug/L): 10.84 SD: 0.125 RSD(%): 1.15

Standard number 1 applied. [10.00]
Correlation coefficient: 1.00000 Slope: 0.0042

~~~~~~

Tl ID: Standard 2 Seq. No.: 00003 A/S Pos.: 39 Date: 01/02/91 S25

Replicate 1 Time: 12:54
Peak Area (A-s): 0.106 Peak Height (A): 0.174
Background Pk Area (A-s): 0.078 Background Pk Height (A): 0.142
Blank Corrected Pk Area (A-s): 0.102
Concentration (ug/L): 24.47

Replicate 2 Time: 12:57
Peak Area (A-s): 0.105 Peak Height (A): 0.167
Background Pk Area (A-s): 0.084 Background Pk Height (A): 0.141
Blank Corrected Pk Area (A-s): 0.101
Concentration (ug/L): 24.18

Mean Conc (ug/L): 24.33 SD: 0.204 RSD(%): 0.84

Standard number 2 applied. [25.00]
Correlation coefficient: 0.99971 Slope: 0.0041

~~~~~~

Tl ID: Standard 3 Seq. No.: 00004 A/S Pos.: 40 Date: 01/02/91 S50

Replicate 1 Time: 13:00
Peak Area (A-s): 0.199 Peak Height (A): 0.275
Background Pk Area (A-s): 0.155 Background Pk Height (A): 0.254
Blank Corrected Pk Area (A-s): 0.195
Concentration (ug/L): 47.82

Replicate 2 Time: 13:03
Peak Area (A-s): 0.187 Peak Height (A): 0.280
Background Pk Area (A-s): 0.155 Background Pk Height (A): 0.244
Blank Corrected Pk Area (A-s): 0.183
Concentration (ug/L): 44.89

Mean Conc (ug/L): 46.35 SD: 2.070 RSD(%): 4.46
~~~~~~

Standard number 3 applied. [50.00]
Correlation coefficient: 0.99791 Slope: 0.0039

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Tl ID: ICV Seq. No.: 00005 A/S Pos.: 1 Date: 01/02/91 1:3

Replicate 1 Time: 13:34
Peak Area (A-s): 0.098 Peak Height (A): 0.154
Background Pk Area (A-s): 0.074 Background Pk Height (A): 0.120
Blank Corrected Pk Area (A-s): 0.094
Concentration (ug/L): 24.38

Replicate 2 Time: 13:37
Peak Area (A-s): 0.107 Peak Height (A): 0.159
Background Pk Area (A-s): 0.076 Background Pk Height (A): 0.116
Blank Corrected Pk Area (A-s): 0.103
Concentration (ug/L): 26.86

Mean Conc (ug/L): 25.62 SD: 1.750 RSD(%): 6.83

X4 = 102.48/97/105.65

Tl ID: ICB Seq. No.: 00006 A/S Pos.: 2 Date: 01/02/91

Replicate 1 Time: 13:39
Peak Area (A-s): 0.010 Peak Height (A): 0.029
Background Pk Area (A-s): -0.006 Background Pk Height (A): 0.021
Blank Corrected Pk Area (A-s): 0.006
Concentration (ug/L): 1.48

Replicate 2 Time: 13:42
Peak Area (A-s): 0.008 Peak Height (A): 0.028
Background Pk Area (A-s): -0.003 Background Pk Height (A): 0.017
Blank Corrected Pk Area (A-s): 0.004
Concentration (ug/L): 1.03

Mean Conc (ug/L): 1.25 SD: 0.325 RSD(%): 25.89

Tl ID: CRA Seq. No.: 00007 A/S Pos.: 3 Date: 01/02/91

Replicate 1 Time: 13:45
Peak Area (A-s): 0.047 Peak Height (A): 0.087
Background Pk Area (A-s): 0.030 Background Pk Height (A): 0.060
Blank Corrected Pk Area (A-s): 0.043
Concentration (ug/L): 11.04

Replicate 2 Time: 13:48
Peak Area (A-s): 0.047 Peak Height (A): 0.083
Background Pk Area (A-s): 0.028 Background Pk Height (A): 0.067
Blank Corrected Pk Area (A-s): 0.043
Concentration (ug/L): 11.06

Mean Conc (ug/L): 11.05 SD: 0.007 RSD(%): 0.07

Tl ID: CCV Seq. No.: 00008 A/S Pos.: 4 Date: 01/02/91

Replicate 1 Time: 13:51
Peak Area (A-s): 0.103 Peak Height (A): 0.177

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Background Pk Area (A-s): 0.081 Background Pk Height (A): 0.136
Blank Corrected Pk Area (A-s): 0.099
Concentration (ug/L): 25.74

Replicate 2 Time: 13:53
Peak Area (A-s): 0.100 Peak Height (A): 0.182
Background Pk Area (A-s): 0.081 Background Pk Height (A): 0.137
Blank Corrected Pk Area (A-s): 0.096
Concentration (ug/L): 24.87

Mean Conc (ug/L): 25.31 SD: 0.611 RSD(%): 2.41

25/101.24

T1 ID: CCB Seq. No.: 00009 A/S Pos.: 5 Date: 01/02/91

Replicate 1 Time: 13:56
Peak Area (A-s): -0.002 Peak Height (A): 0.018
Background Pk Area (A-s): -0.001 Background Pk Height (A): 0.015
Blank Corrected Pk Area (A-s): -0.006
Concentration (ug/L): -1.61

Replicate 2 Time: 13:59
Peak Area (A-s): 0.010 Peak Height (A): 0.021
Background Pk Area (A-s): -0.002 Background Pk Height (A): 0.014
Blank Corrected Pk Area (A-s): 0.006
Concentration (ug/L): 1.44

Mean Conc (ug/L): -0.09 SD: 2.156 RSD(%): 2533.32

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TI ID: MFK904 / 4585.06 Seq. No.: 00010 A/S Pos.: 6 Date: 01/02/91

Replicate 1 Time: 14:06
Peak Area (A-s): -0.002 Peak Height (A): 0.023
Background Pk Area (A-s): 0.003 Background Pk Height (A): 0.024
Blank Corrected Pk Area (A-s): -0.006
Concentration (ug/L): -1.67

Replicate 2 Time: 14:09 1:4
Peak Area (A-s): 0.006 Peak Height (A): 0.019
Background Pk Area (A-s): -0.001 Background Pk Height (A): 0.021
Blank Corrected Pk Area (A-s): 0.002
Concentration (ug/L): 0.48

Mean Conc (ug/L): -0.60 SD: 1.524 RSD(%): 256.02

TI ID: MFK904A / 4585.06A Seq. No.: 00011 A/S Pos.: 6 Date: 01/02/91

Replicate 1 Time: 14:12
Peak Area (A-s): 0.043 Peak Height (A): 0.054 1:4
Background Pk Area (A-s): 0.021 Background Pk Height (A): 0.043
Blank Corrected Pk Area (A-s): 0.039
Concentration (ug/L): 10.01

Replicate 2 Time: 14:14
Peak Area (A-s): 0.045 Peak Height (A): 0.069
Background Pk Area (A-s): 0.033 Background Pk Height (A): 0.047
Blank Corrected Pk Area (A-s): 0.041

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Concentration (ug/L): 10.56

Mean Conc (ug/L): 10.28 SD: 0.393 RSD(%): 3.82

Recovery is 54.4% 20/51.4

****

TI ID: MFK905 / 4585.07 Seq. No.: 00012 A/S Pos.: 7 Date: 01/02/91

Replicate 1 Time: 14:17
Peak Area (A-s): 0.002 Peak Height (A): 0.024
Background Pk Area (A-s): -0.005 Background Pk Height (A): 0.017
Blank Corrected Pk Area (A-s): -0.002
Concentration (ug/L): -0.49

Replicate 2 Time: 14:20 1:4
Peak Area (A-s): 0.002 Peak Height (A): 0.025
Background Pk Area (A-s): -0.000 Background Pk Height (A): 0.018
Blank Corrected Pk Area (A-s): -0.002
Concentration (ug/L): -0.48

Mean Conc (ug/L): -0.48 SD: 0.011 RSD(%): 2.28

****

TI ID: MFK905A / 4585.07A Seq. No.: 00013 A/S Pos.: 7 Date: 01/02/91

Replicate 1 Time: 14:23
Peak Area (A-s): 0.041 Peak Height (A): 0.055
Background Pk Area (A-s): 0.025 Background Pk Height (A): 0.039
Blank Corrected Pk Area (A-s): 0.037
Concentration (ug/L): 9.56

Replicate 2 Time: 14:26 1:4
Peak Area (A-s): 0.041 Peak Height (A): 0.053
Background Pk Area (A-s): 0.028 Background Pk Height (A): 0.044
Blank Corrected Pk Area (A-s): 0.037
Concentration (ug/L): 9.64

Mean Conc (ug/L): 9.60 SD: 0.058 RSD(%): 0.60

Recovery is 50.4% 20/48.0

****

TI ID: ~~MFK905~~ MFK906 / 4585.08 Seq. No.: 00014 A/S Pos.: 8 Date: 01/02/91

Replicate 1 Time: 14:29
Peak Area (A-s): 0.000 Peak Height (A): 0.020
Background Pk Area (A-s): 0.001 Background Pk Height (A): 0.026
Blank Corrected Pk Area (A-s): -0.004
Concentration (ug/L): -1.05

Replicate 2 Time: 14:32 1:4
Peak Area (A-s): 0.007 Peak Height (A): 0.028
Background Pk Area (A-s): -0.001 Background Pk Height (A): 0.019
Blank Corrected Pk Area (A-s): 0.003
Concentration (ug/L): 0.70

Mean Conc (ug/L): -0.17 SD: 1.240 RSD(%): 708.86

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TI ID: ~~MFK905~~ A / MFK906A / 4585.08 A Seq. No.: 00015 A/S Pos.: 8 Date: 01/02/91

Replicate 1 Time: 14:34
Peak Area (A-s): 0.036 Peak Height (A): 0.062
Background Pk Area (A-s): 0.029 Background Pk Height (A): 0.048
Blank Corrected Pk Area (A-s): 0.032
Concentration (ug/L): 8.33

1:4

Replicate 2 Time: 14:37
Peak Area (A-s): 0.036 Peak Height (A): 0.070
Background Pk Area (A-s): 0.048 Background Pk Height (A): 0.049
Blank Corrected Pk Area (A-s): 0.031
Concentration (ug/L): 8.17

Mean Conc (ug/L): 8.25 SD: 0.115 RSD(%): 1.39

Recovery is 42.1% 20/41.25

TI ID: ~~CCV~~ 50 standard Seq. No.: 00016 A/S Pos.: 9 Date: 01/02/91

Replicate 1 Time: 14:40
Peak Area (A-s): 0.202 Peak Height (A): 0.296
Background Pk Area (A-s): 0.167 Background Pk Height (A): 0.266
Blank Corrected Pk Area (A-s): 0.198
Concentration (ug/L): 51.33

WRONG CCV IN CUP

Replicate 2 Time: 14:43
Peak Area (A-s): 0.200 Peak Height (A): 0.292
Background Pk Area (A-s): 0.165 Background Pk Height (A): 0.274
Blank Corrected Pk Area (A-s): 0.196
Concentration (ug/L): 50.78

Mean Conc (ug/L): 51.06 SD: 0.390 RSD(%): 0.76

TI ID: AS Position 9 Seq. No.: 00018 A/S Pos.: 9 Date: 01/02/91

BLANK CUP

Replicate 1 Time: 14:47
Peak Area (A-s): -0.006 Peak Height (A): 0.028
Background Pk Area (A-s): 0.002 Background Pk Height (A): 0.016
Blank Corrected Pk Area (A-s): -0.011
Concentration (ug/L): -2.74

Replicate 2 Time: 14:50
Peak Area (A-s): -0.004 Peak Height (A): 0.024
Background Pk Area (A-s): 0.006 Background Pk Height (A): 0.022
Blank Corrected Pk Area (A-s): -0.008
Concentration (ug/L): -2.19

Mean Conc (ug/L): -2.46 SD: 0.390 RSD(%): 15.85

TI ID: CCV Seq. No.: 00019 A/S Pos.: 10 Date: 01/02/91

Replicate 1 Time: 14:53
Peak Area (A-s): 0.108 Peak Height (A): 0.181
Background Pk Area (A-s): 0.080 Background Pk Height (A): 0.138

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Blank Corrected Pk Area (A-s): 0.104
Concentration (ug/L): 27.11

Replicate 2 Time: 14:56
Peak Area (A-s): 0.107 Peak Height (A): 0.160
Background Pk Area (A-s): 0.075 Background Pk Height (A): 0.125
Blank Corrected Pk Area (A-s): 0.103
Concentration (ug/L): 26.80

Mean Conc (ug/L): 26.95 SD: 0.218 RSD(%): 0.81

25/ 107.80

T1 ID: CCB Seq. No.: 00020 A/S Pos.: 11 Date: 01/02/91

Replicate 1 Time: 14:59
Peak Area (A-s): 0.007 Peak Height (A): 0.022
Background Pk Area (A-s): -0.002 Background Pk Height (A): 0.016
Blank Corrected Pk Area (A-s): 0.003
Concentration (ug/L): 0.78

Replicate 2 Time: 15:01
Peak Area (A-s): -0.000 Peak Height (A): 0.026
Background Pk Area (A-s): -0.000 Background Pk Height (A): 0.020
Blank Corrected Pk Area (A-s): -0.004
Concentration (ug/L): -1.06

Mean Conc (ug/L): -0.14 SD: 1.298 RSD(%): 943.11

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MERCURY RUN LOG

Calibration			
Std.#	Conc.	Abs.	r
Std.0	0	1.0	
Std.1	1.5	2.5	
Std.2	1.0	4.0	
Std.3	3.0	8.0	
Std.4	6.0	14.75	0.9988

14:15 Analyst AK Date 12-23-90

14:19 14:25 Instrument Buck 402 Bkgrd —

14:27 Element Hg Wavelength —

14:31

Calibration Standard: Source PLASMA CHEM. 5080F999 Prep Date 12-23-90

Client I.D.	SWLO I.D.	Time of Analysis	wt/vol	Percent ABS	Dilution Factor	Final Concentration ug/l mg/kg	Comments
ICV		14:35	100	11.0		4.31	5.0/86.2%R
ICB		14:39		1.5		0.07	
CCV		14:43		7.5		2.75	3.0/91.6%R
CCB		14:47		1.25		-0.04	
PBS		14:51	100	1.25		-0.04	
LCSS		14:55	.20	6.0	1:9	2.08/20.8	82.4%R
5907E-07	4574.01	14:59	.21	5.0		1.63	
5907E-09	4574.02	15:03	.20	1.25		-0.04	
5907E-09-D	4574.02-D	15:07	.21	1.25		-0.04	
5907E-09-S	4574.02-S	15:11	.21	3.25		0.850	1.0/85.0%R
5907E-11	4574.03	15:15	.21	1.25		-0.04	
5907E-13	4574.04	15:19	.20	1.25		4.42	
5907E-15	4574.05	15:23	.21	2.0		0.29	
CCV		15:27	100	7.0		2.52	3.0/84.1%R
CCB		15:31	100	1.25		-0.04	
PBS		15:35	100	1.25		-0.04	
LCSS		15:39	.20	6.50	1:9	2.30/23.0	91.3%R
MFK 888	4572.01	15:43	.21	1.5		0.07	

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MERCURY RUN LOG

Calibration			
Std.#	Conc.	Abs.	r
Std.0			
Std.1			
Std.2			
Std.3			
Std.4			

Analyst AK Date 12-23-90

Instrument _____ Bkgrd _____

Element Hg CONT'D Wavelength _____

Calibration Standard: Source _____ Prep Date _____

Client I.D.	SWLO I.D.	Time of Analysis	wt/vol	Percent ABS	Dilution Factor	Final Concentration (ug/l) mg/kg	Comments
MFK 890	4572.02	15:47	.20	5.25		1.74	
MFK 894	4572.03	15:51	.20	3.5		0.96	
MFK 896	4572.04	15:55	.21	2.25		0.40	
MFK 897	4572.05	15:59	.22	2.0		0.29	
MFK 898	4572.06	16:03	.23	6.5		2.30	
CCV		16:07	100	7.0		2.52	3.0 / 84.1 %R
CCB		16:11	100	1.5		0.07	
MFK 899	4572.07	16:15	.23	6.0		2.08	
MFK 900	4572.08	16:19	.20	7.75		2.86	
MFK 901	4572.09	16:23	.21	7.0		2.52	
MFK 902	4572.10	16:27	.20	5.0		1.63	
MFK 902D	4572.10D	16:31	.20	HIGH		RERUN	~~X~~
MFK 902S	4572.10S	16:35	.20	7.5		2.75	1.0 / 111.7 %R
MFK 877	4569.11	16:39	.21	3.5		0.96	
CCV		16:43	100	7.25		2.64	3.0 / 87.9 %R
CCB		16:47	100	1.25		-0.04	
~~KERREP~~	~~4451.01~~	~~16:51~~	~~.20~~	~~2.25~~		~~0.40~~	~~0.20 mg/kg~~
~~BLANC~~	~~4570.09~~	~~16:55~~	~~.22~~	~~2.0~~		~~0.29~~	~~0.13 mg/kg~~

0 15522-F-1105

9K
12-27-90
Buck 400

START .08 .21

STOP

RUN # 1

AREA%

RT	AREA	TYPE	AR/HT	AREA%
0.08	23323	PB	0.031	11.150
0.21	185860	BB	0.179	88.850

TOTAL AREA= 209180
MUL FACTOR= 1.0000E+00

0.5

START .19

STOP

RUN # 2

AREA%

RT	AREA	TYPE	AR/HT	AREA%
0.19	1784000	PP	0.277	100.000

TOTAL AREA= 1784000
MUL FACTOR= 1.0000E+00

1.0

START .16 .24

STOP

RUN # 3

AREA%

RT	AREA	TYPE	AR/HT	AREA%
0.16	1230800	BV	0.121	32.317
0.24	2577800	VV	0.257	67.683

TOTAL AREA= 3808600
MUL FACTOR= 1.0000E+00

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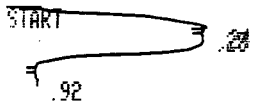
3.0



STOP

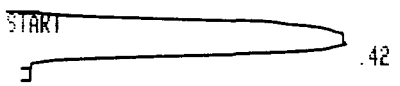
RUN # 4

AREA%

RT	AREA	TYPE	AR/HT	AREA%
0.24	3201200	PV	0.167	82.396
0.28	682400	VV	0.036	17.564
0.92	1521	I PP	0.084	0.039

TOTAL AREA= 3885100
MUL FACTOR= 1.0000E+00

6.0



STOP

RUN # 5

AREA%

RT	AREA	TYPE	AR/HT	AREA%
0.42	1.6376E+07	PP	0.458	100.000

TOTAL AREA= 1.6376E+07
MUL FACTOR= 1.0000E+00

ICV

STOP

RUN # 6

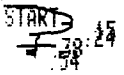
AREA%

RT	AREA	TYPE	AR/HT	AREA%
0.26	2168900	PB	0.327	99.837
0.61	3542	PB	0.028	0.163

TOTAL AREA= 2172400
MUL FACTOR= 1.0000E+00

15522F-1105

ICB



STOP

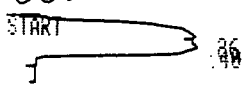
RUN # 7

AREA%

RT	AREA	TYPE	AR/HT	AREA%
0.15	647200	BV	0.156	57.250
0.24	465330	D VV	0.113	41.162
0.38	17701	D VB	0.051	1.566
0.54	252	BP	0.024	0.022

TOTAL AREA= 1130500
MUL FACTOR= 1.0000E+00

CCV



STOP

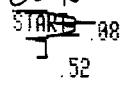
RUN # 8

AREA%

RT	AREA	TYPE	AR/HT	AREA%
0.26	3893200	BV	0.216	49.998
0.40	3893600	VP	0.212	50.002

TOTAL AREA= 7786800
MUL FACTOR= 1.0000E+00

CCB



STOP

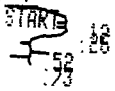
RUN # 9

AREA%

RT	AREA	TYPE	AR/HT	AREA%
0.08	74785	PB	0.072	97.446
0.52	1960	VP	0.147	2.554

TOTAL AREA= 76745
MUL FACTOR= 1.0000E+00

P85 15522 F-1105



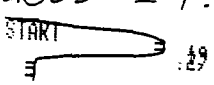
RUN # 10

AREA%

RT	AREA	TYPE	AR/HT	AREA%
0.12	368810	BV	0.100	42.141
0.26	504920	VP	0.129	57.693
0.52	711	PB	0.050	0.081
0.73	745 I	BH	0.054	0.085

TOTAL AREA= 875190
MUL FACTOR= 1.0000E+00

LC55 - 1:9



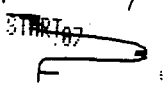
RUN # 11

AREA%

RT	AREA	TYPE	AR/HT	AREA%
0.19	2039600	BV	0.140	63.300
0.27	1182500	VV	0.081	36.700

TOTAL AREA= 3222100
MUL FACTOR= 1.0000E+00

4574.61/5907E-07



RUN # 12

AREA%

RT	AREA	TYPE	AR/HT	AREA%
0.07	253	D PV	0.026	0.007
0.35	1901400	PV	0.154	52.555
0.40	557790	D VV	0.045	15.417
0.45	1158500	D VB	0.094	32.021

TOTAL AREA= 3617900
MUL FACTOR= 1.0000E+00

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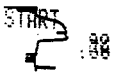
4574.02/5907E-09



STOP

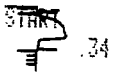
RUN # 13

AREA%

RT	AREA	TYPE	AR/HT	AREA%
0.28	557680	PV	0.160	58.604
0.36	393930	VV	0.111	41.396

TOTAL AREA= 951600
MUL FACTOR= 1.0000E+00

4574.02-2/5907E-09-D



STOP

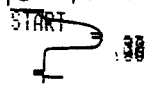
RUN # 14

AREA%

RT	AREA	TYPE	AR/HT	AREA%
0.34	855910	PB	0.261	100.000

TOTAL AREA= 855910
MUL FACTOR= 1.0000E+00

4574.02-5/5907E-09-5



STOP

RUN # 15

AREA%

RT	AREA	TYPE	AR/HT	AREA%
0.27	899850	PV	0.136	39.532
0.30	357020	VV	0.054	15.685
0.36	1019400 D	VV	0.153	44.783

TOTAL AREA= 2276300
MUL FACTOR= 1.0000E+00

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4574.03/5907E-11

STOP

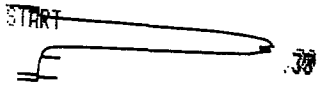
RUN # 16

AREA%

RT	AREA	TYPE	AR/HT	AREA%
0.31	455830	PV	0.162	100.000

TOTAL AREA= 455830
MUL FACTOR= 1.0000E+00

4574.04/5907E-13



STOP

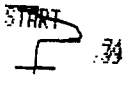
RUN # 17

AREA%

RT	AREA	TYPE	AR/HT	AREA%
0.30	5065900	PV	0.190	61.315
0.35	670250	VV	0.026	8.112
0.38	2526000	D VB	0.096	30.573

TOTAL AREA= 8262200
MUL FACTOR= 1.0000E+00

4574.05/5907E-15



STOP

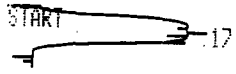
RUN # 18

AREA%

RT	AREA	TYPE	AR/HT	AREA%
0.31	1132300	PV	0.218	86.270
0.39	180210	D VB	0.037	13.730

TOTAL AREA= 1312500
MUL FACTOR= 1.0000E+00

CCV 15522-F-1105



STOP

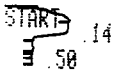
RUN # 19

AREA%

RT	AREA	TYPE	AR/HT	AREA%
0.17	898940	PV	0.142	100.000

TOTAL AREA= 898940
MUL FACTOR= 1.0000E+00

CCB



STOP

RUN # 20

AREA%

RT	AREA	TYPE	AR/HT	AREA%
0.14	437400	BV	0.115	99.548
0.50	1985	PV	0.099	0.452

TOTAL AREA= 439380
MUL FACTOR= 1.0000E+00

P85

STOP

RUN # 21

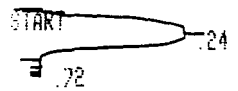
AREA%

RT	AREA	TYPE	AR/HT	AREA%
0.09	74021	PB	0.057	59.177
0.26	47812	D BB	0.062	38.224
0.38	646	PV	0.037	0.517
0.53	2606	VV	0.145	2.083

TOTAL AREA= 125090
MUL FACTOR= 1.0000E+00

15522-F-1105

LC55 - 1.9



STOP

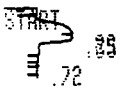
RUN # 22

AREA%

RT	AREA	TYPE	AR/HT	AREA%
0.24	833750	PB	0.237	99.776
0.72	1873	PV	0.080	0.224

TOTAL AREA= 835630
MUL FACTOR= 1.0000E+00

4572.01/MFK 888



STOP

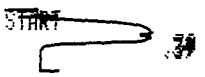
RUN # 23

AREA%

RT	AREA	TYPE	AR/HT	AREA%
0.29	578620	BV	0.144	58.422
0.35	410520	VV	0.103	41.450
0.72	1269	VV	0.050	0.128

TOTAL AREA= 990420
MUL FACTOR= 1.0000E+00

4572.02/MFK 890



STOP

RUN # 24

AREA%

RT	AREA	TYPE	AR/HT	AREA%
0.30	2265200	BV	0.174	61.011
0.34	305330	D VV	0.024	8.224
0.37	1142200	D VB	0.089	30.765

TOTAL AREA= 3712800
MUL FACTOR= 1.0000E+00

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4572.03/MFK 894

START .30

STOP

RUN # 25

AREA%

RT	AREA	TYPE	AR/HT	AREA%
0.20	657360	PV	0.082	25.065
0.26	510780	VV	0.060	19.476
0.30	598640	VV	0.070	22.826
0.38	855830	VB	0.102	32.633

TOTAL AREA= 2622600
MUL FACTOR= 1.0000E+00

4572.04/MFK 896

START .30

STOP

RUN # 26

AREA%

RT	AREA	TYPE	AR/HT	AREA%
0.32	1061700	PV	0.186	56.396
0.35	229290	D VV	0.040	12.180
0.39	591590	D VV	0.106	31.424

TOTAL AREA= 1882600
MUL FACTOR= 1.0000E+00

4572.05/MFK 897

START .30

STOP

RUN # 27

AREA%

RT	AREA	TYPE	AR/HT	AREA%
0.30	1277200	PB	0.250	100.000

TOTAL AREA= 1277200
MUL FACTOR= 1.0000E+00

15522-F-1105

4572.06/MFK 898

START .00
F .30

STOP

RUN # 28

AREA%

RT	AREA	TYPE	AR/HT	AREA%
0.25	2136400	PV	0.136	47.174
0.30	770560	VV	0.049	17.014
0.35	1621900	D VB	0.103	35.812

TOTAL AREA= 4528900
MUL FACTOR= 1.0000E+00

CCV

START .23
F .60

STOP

RUN # 29

AREA%

RT	AREA	TYPE	AR/HT	AREA%
0.23	3282400	BV	0.190	99.962
0.60	1232	PV	0.040	0.038

TOTAL AREA= 3283700
MUL FACTOR= 1.0000E+00

CCB

START .12
F .41

STOP

RUN # 30

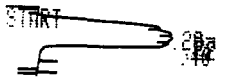
AREA%

RT	AREA	TYPE	AR/HT	AREA%
0.12	386070	BV	0.095	44.824
0.17	468360	D VV	0.115	54.378
0.41	6871	VV	0.071	0.798

TOTAL AREA= 861300
MUL FACTOR= 1.0000E+00

15522F-1105

4572.07/MFK 899



STOP

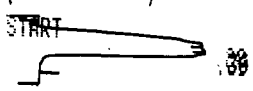
RUN # 31

AREA%

RT	AREA	TYPE	AR/HT	AREA%
0.20	1172700	PV	0.084	23.440
0.27	1190600	VV	0.078	23.798
0.32	1437100	VV	0.094	28.725
0.40	1202500 D	VB	0.081	24.036

TOTAL AREA= 5003000
MUL FACTOR= 1.0000E+00

4572.08/MFK 900



STOP

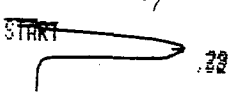
RUN # 32

AREA%

RT	AREA	TYPE	AR/HT	AREA%
0.28	2521300	PV	0.134	46.832
0.36	1235800	VV	0.065	22.955
0.39	1626600 D	VB	0.086	30.213

TOTAL AREA= 5383700
MUL FACTOR= 1.0000E+00

4572.09/MFK 901



STOP

RUN # 33

AREA%

RT	AREA	TYPE	AR/HT	AREA%
0.29	2701500	BV	0.159	52.484
0.32	2445800 I	VH	0.145	47.516

TOTAL AREA= 5147300
MUL FACTOR= 1.0000E+00

15522F-1105

4572.10/MFK 902

START .30

STOP

RUN # 34

AREA%

RT	AREA	TYPE	AR/HT	AREA%
0.30	2099300	PV	0.165	63.642
0.34	1199300	D VB	0.095	36.358

TOTAL AREA= 3298500
MUL FACTOR= 1.0000E+00

4572.10-1/MFK 902-1 RERUN

START .27

STOP

RUN # 35

AREA%

RT	AREA	TYPE	AR/HT	AREA%
0.27	1.1742E+07	PB	0.206	100.000

TOTAL AREA= 1.1742E+07
MUL FACTOR= 1.0000E+00

4572.10-5/MFK 902-5

START .21

.54

STOP

RUN # 36

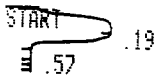
AREA%

RT	AREA	TYPE	AR/HT	AREA%
0.21	2929800	PV	0.160	99.704
0.54	8713	VV	0.066	0.297

TOTAL AREA= 2938500
MUL FACTOR= 1.0000E+00

15522-F-1105

4569.11/MFK 8??



STOP

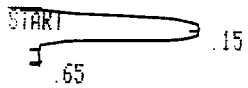
RUN # 37

AREA%

RT	AREA	TYPE	AR/HT	AREA%
0.19	1782600	BV	0.206	99.862
0.57	2471	PV	0.091	0.138

TOTAL AREA= 1785100
MUL FACTOR= 1.0000E+00

CCV



STOP

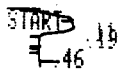
RUN # 38

AREA%

RT	AREA	TYPE	AR/HT	AREA%
0.15	2790000	BV	0.154	99.828
0.65	4812	PV	0.117	0.172

TOTAL AREA= 2794800
MUL FACTOR= 1.0000E+00

CCB



STOP

RUN # 39

AREA%

RT	AREA	TYPE	AR/HT	AREA%
0.11	221830	BV	0.061	25.381
0.19	650150	VP	0.169	74.389
0.46	2016	PV	0.102	0.231

TOTAL AREA= 873990
MUL FACTOR= 1.0000E+00

15522-F-1105

MERCURY RUN LOG

Calibration			
Std.#	Conc.	Abs.	r
Std.0	0	1.0	
Std.1	.5	2.5	1309
Std.2	1.0	3.75	1313
Std.3	3.0	8.25	1317
Std.4	6.0	15.25	0.9996 1321

13:05

Analyst JK Date 12-26-90

Instrument Buck 400 Bkgrd —

Element Hg Wavelength —

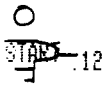
Calibration Standard: Source PLASMA CHEM 5080F 999 Prep Date 12-26-90

Client I.D.	SWLO I.D.	Time of Analysis	wt/vol	Percent ABS	Dilution Factor	Final Concentration ug/l mg/kg	Comments
ICV		1325 ~~1321~~	100	11.75		4.49	5.0/89.8 %R
ICB		1329 ~~1325~~		1.25		0.01	
CCV		1333 ~~1329~~		7.0		2.46	3.0/82.1 %R
CCB		1337 ~~1333~~		1.25		0.01	
PB52		1341 ~~1337~~	100	1.25		0.01	
LCS52		1345 ~~1341~~		8.0	1:9	2.89/28.9	114.7%R
MFK 902-D	4572.10-D	1349 ~~1345~~	.20	HIGH		RERUN	
MFK 902-D	4572.10-D	1353 ~~1349~~	.21	4.75 ~~1.55~~ JK		1.50 ~~0.11~~ JK	
CCV		1357 ~~1353~~	100	8.25		2.99	3.0/99.9%R
CCB		1401 ~~1357~~	100	1.5		0.11	
PORTCOE	4579.01	~~1401~~ ~~1361~~ 1405	.20	1.25		0.01	<0.1 mg/Kg
	4579.01-D	~~1405~~ ~~1365~~ 1409	.21	1.25		0.01	"
	4579.02	~~1409~~ ~~1369~~ 1413	.20	HIGH		RERUN	Data not used
PORTCOE	4579.03-S	~~1413~~ ~~13~~ 1417	.22	HIGH		RERUN	
KERREP	4575.01	1421 ~~1417~~	.20	2.25		0.43	0.22 mg/Kg
	4575.02	1425 ~~1421~~	.21	3.5		0.97	0.46 "
KERREP	4575.03	1429 ~~1425~~	.20	1.75		0.22	0.11 "
B+MC	4589.01	1433 ~~1429~~	.20	1.25		0.01	

SWLO FORM 1027W (12/89)

15522-F-H04
1105

AK
12-26-98
Buck 400



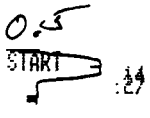
STOP

RUN # 1

AREA%

RT	AREA	TYPE	AR/HT	AREA%
0.12	116100	PB	0.115	100.000

TOTAL AREA= 116100
MUL FACTOR= 1.0000E+00



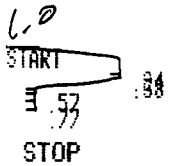
STOP

RUN # 2

AREA%

RT	AREA	TYPE	AR/HT	AREA%
0.14	882410	BV	0.124	43.115
0.27	1164200	VP	0.163	56.885

TOTAL AREA= 2046600
MUL FACTOR= 1.0000E+00



STOP

15522-F-1105

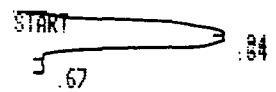
RUN # 3

AREA%

RT	AREA	TYPE	AR/HT	AREA%
0.24	2454400	BV	0.259	63.958
0.38	1381600	VP	0.144	36.004
0.57	384	PV	0.033	0.010
0.77	1051	PV	0.041	0.027

TOTAL AREA= 3837400
MUL FACTOR= 1.0000E+00

3.0



STOP

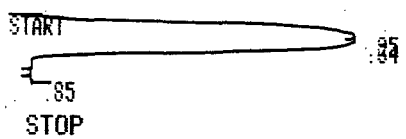
RUN # 4

AREA%

RT	AREA	TYPE	AR/HT	AREA%
0.24	3483100	PV	0.170	47.337
0.34	3873800	VP	0.188	52.647
0.67	1218	PP	0.108	0.017

TOTAL AREA= 7358200
MUL FACTOR= 1.0000E+00

6.0



STOP

15522-F-1105

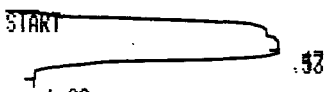
RUN # 5

AREA%

RT	AREA	TYPE	AR/HT	AREA%
0.25	7030100	BV	0.194	50.223
0.34	6967700	D VP	0.191	49.777
0.85	0	PB	0.000	0.000

TOTAL AREA= 1.3998E+07
MUL FACTOR= 1.0000E+00

ICV



STOP

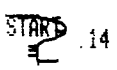
RUN # 6

AREA%

RT	AREA	TYPE	AR/HT	AREA%
0.47	1.0535E+07	BV	0.380	70.758
0.53	4353400	VP	0.157	29.240
1.00	294	I PP	0.073	0.002

TOTAL AREA= 1.4888E+07
MUL FACTOR= 1.0000E+00

ICB



STOP

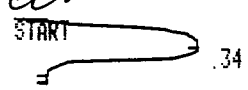
RUN # 7

AREA%

RT	AREA	TYPE	AR/HT	AREA%
0.14	446290	BV	0.146	100.000

TOTAL AREA= 446290
MUL FACTOR= 1.0000E+00

CCV



STOP

RUN # 8

AREA%

RT	AREA	TYPE	AR/HT	AREA%
0.34	4594900	BV	0.266	100.000

TOTAL AREA= 4594900
MUL FACTOR= 1.0000E+00

CCB

START
.42 24

STOP

RUN # 9

AREA%

RT	AREA	TYPE	AR/HT	AREA%
0.24	809430	BV	0.257	99.922
0.42	635	VV	0.037	0.078

TOTAL AREA= 810060
MUL FACTOR= 1.0000E+00

PBS 2

START
.26

STOP

RUN # 10

AREA%

RT	AREA	TYPE	AR/HT	AREA%
0.16	377970	BV	0.134	49.320
0.26	388390	VV	0.138	50.680

TOTAL AREA= 766360
MUL FACTOR= 1.0000E+00

La552- 1:9

START
.30
.33
.37

STOP

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RUN # 11

AREA%

RT	AREA	TYPE	AR/HT	AREA%
0.30	4719300	BV	0.245	60.012
0.39	3138600 D	VP	0.163	39.911
0.73	3473	PV	0.073	0.044
0.81	2585 I	VP	0.056	0.033

TOTAL AREA= 7864000
MUL FACTOR= 1.0000E+00

4572.10-D/MEK 902-D RERUN

START .25

STOP

RUN # 12

AREA%

RT	AREA	TYPE	AR/HT	AREA%
0.25	5536900	BV	0.112	49.002
0.27	5762500 I	VH	0.118	50.998

TOTAL AREA= 1.1299E+07
MUL FACTOR= 1.0000E+00

4572,10-D/MEK 902-D

START .23 .63

STOP

RUN # 13

AREA%

RT	AREA	TYPE	AR/HT	AREA%
0.19	418530	PV	0.108	74.375
0.23	143690	VB	0.059	25.535
0.63	510	BB	0.039	0.091

TOTAL AREA= 562730
MUL FACTOR= 1.0000E+00

CCV

START .25 .69

STOP

15522-F-1105

RUN # 14

AREA%

RT	AREA	TYPE	AR/HT	AREA%
0.25	1144300	PB	0.225	99.888
0.69	1280	BV	0.035	0.112

TOTAL AREA= 1145600
MUL FACTOR= 1.0000E+00

CCB

START .18
.47

STOP

RUN # 15

AREA%

RT	AREA	TYPE	AR/HT	AREA%
0.18	1176300	PV	0.267	99.969
0.47	359	D VP	0.029	0.031

TOTAL AREA= 1176700
MUL FACTOR= 1.0000E+00

4529.01 — PORTCOE

START .31

STOP

Data not used

RUN # 16

AREA%

RT	AREA	TYPE	AR/HT	AREA%
0.31	730500	PB	0.214	100.000

TOTAL AREA= 730500
MUL FACTOR= 1.0000E+00

4529.01-D — PORTCOE

START .32

STOP

15522-F-1105

412A

MERCURY RUN LOG

Calibration			
Std.#	Conc.	Abs.	r
Std.0	0	1.0	
Std.1	.5	2.0	
Std.2	1.0	3.25	
Std.3	3.0	8.0	
Std.4	6.0	14.75	0.9999

12:05
12:09
12:13
12:17
12:21

Analyst JK Date 12-28-90

Instrument Buck 400 Bkgrd —

Element Hg Wavelength —

Calibration Standard: Source PLASMA CHEM 5080F 999 Prep Date 12-28-90

MFK888

Client I.D.	SWLO I.D.	Time of Analysis	wt/vol	Percent ABS	Dilution Factor	Final Concentration ug/l mg/kg	Comments
ICV		12:25	100	12.75		5.10	5.0/102.0%R
ICB		12:29		1.0		0.02	
CCV		12:33		8.0		3.05	3.0/101.8%R
CCB		12:37 ~~12:34~~ JK		1.0		0.02	
PBW		12:41		1.0		0.02	
~~MFK888~~ MFK903	4572.11	12:45		1.0		0.02	
~~MFK888-D~~ MFK903D	4572.11-D	12:49		1.0		0.02	
MFK889	4585.01	12:53		1.0		0.02	
MFK889-5	4585.01-5	12:57		3.0		0.887	1.0/88.7%R
MFK891	4585.02	13:01		1.5		0.24	
MFK892	4585.03	13:05		2.0		0.45	
MFK893	4585.04	13:09		1.5		0.24	
CCV		13:13		7.0		1.62	3.0/87.3%R
CCB		13:17		1.0		0.02	
MFK895	4585.05	13:21		1.0		0.02	
MFK904	4585.06	13:25		2.25		0.56	
MFK905	~~MFK~~ 4585.07	13:29		1.0		0.02	
MFK906	4585.08	13:33	100	1.0		0.02	

15522F-1105

MERCURY RUN LOG

Calibration			
Std.#	Conc.	Abs.	r
Std.0			
Std.1			
Std.2			
Std.3			
Std.4			

Analyst JK Date 12-28-90

Instrument _____ Bkgrd _____

Element Hg CONT'D Wavelength _____

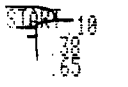
Calibration Standard: Source _____ Prep Date _____

Client I.D.	SWLO I.D.	Time of Analysis	wt/vol	Percent ABS	Dilution Factor	Final Concentration (ug/l) mg/kg	Comments
KERR	4576.01	13:37	100	1.25		0.13	
	4576.01-D	13:41		1.0		0.02	
	4576.02	13:45		1.0		0.02	
KERR	4576.03	13:49		1.5		0.24	
CCV		13:53		7.0		2.62	3.0 / 87.3%R
CCB		13:57		1.0		0.02	
KERR	4576.04			1.0		0.02	
	4576.05			1.0		0.02	
	4576.06			1.0		0.02	
	4576.07			1.0		0.02	
	4576.08			1.0		0.02	
	4576.09			1.0		0.02	
	4576.10			1.0		0.02	
KERR	4576.11			1.0		0.02	
CCV				7.25		2.73	3.0 / 90.9%R
CCB				1.0		0.02	
KERR	4576.12			1.0		0.02	
KERR	4576.13		100	1.0		0.02	

Distilled Water Blank

0 15522-F-1105

VK 12-28-90 Buick 400



STOP

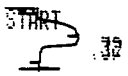
RUN # 1

AREA%

RT	AREA	TYPE	AR/HT	AREA%
0.10	83565	PB	0.104	64.052
0.38	8512	PV	0.071	6.524
0.65	38388	I VH	0.215	29.424

TOTAL AREA= 130470
MUL FACTOR= 1.0000E+00

0.5



STOP

RUN # 2

AREA%

RT	AREA	TYPE	AR/HT	AREA%
0.32	749480	PV	0.165	53.590
0.37	649060	VV	0.141	46.410

TOTAL AREA= 1398500
MUL FACTOR= 1.0000E+00

1.0

STOP

RUN # 3

AREA%

RT	AREA	TYPE	AR/HT	AREA%
0.07	1237	PP	0.060	0.053
0.28	1198400	PV	0.159	51.151
0.35	1143200	VV	0.151	48.796

TOTAL AREA= 2342900
MUL FACTOR= 1.0000E+00

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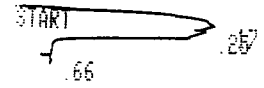
3.0



STOP

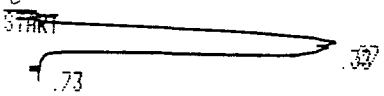
RUN # 4

AREA%

RT	AREA	TYPE	AR/HT	AREA%
0.17	3319300	BV	0.189	60.173
0.25	2195100	D VP	0.131	39.793
0.66	1847	I PP	0.059	0.034

TOTAL AREA= 5516300
MUL FACTOR= 1.0000E+00

6.0



STOP

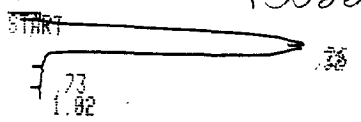
RUN # 5

AREA%

RT	AREA	TYPE	AR/HT	AREA%
0.27	5586600	BV	0.162	51.163
0.33	5317500	D VV	0.159	48.698
0.73	15133	D VV	0.029	0.139

TOTAL AREA= 1.0919E+07
MUL FACTOR= 1.0000E+00

ICV 15522-F-1105



STOP

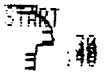
RUN # 6

AREA%

RT	AREA	TYPE	AR/HT	AREA%
0.26	4499400	BV	0.148	46.575
0.32	5054600	VV	0.168	52.323
0.73	74197	VV	0.190	0.768
1.02	32267	I VH	0.133	0.334

TOTAL AREA= 9660500
MUL FACTOR= 1.0000E+00

ICB



STOP

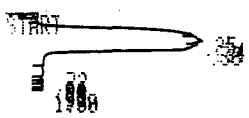
RUN # 7

AREA%

RT	AREA	TYPE	AR/HT	AREA%
0.30	296180	PV	0.155	46.344
0.40	272040	VV	0.134	42.567
0.46	70870	D VP	0.036	11.089

TOTAL AREA= 639090
MUL FACTOR= 1.0000E+00

ccv 15522-F-1105



STOP

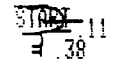
RUN # 8

AREA%

RT	AREA	TYPE	AR/HT	AREA%
0.25	1701000	PV	0.096	29.628
0.34	1882500	VV	0.101	32.790
0.38	2005300 D	VV	0.110	34.928
0.72	65485	VV	0.119	1.141
0.84	19897	VV	0.048	0.347
0.88	21156 D	VV	0.048	0.369
0.92	20326 D	VV	0.046	0.354
0.97	11712 D	VV	0.029	0.204
1.00	13796 I	VH	0.033	0.240

TOTAL AREA= 5741100
MUL FACTOR= 1.0000E+00

ccb



STOP

RUN # 9

AREA%

RT	AREA	TYPE	AR/HT	AREA%
0.11	98018	PB	0.147	98.494
0.38	1499	PP	0.054	1.506

TOTAL AREA= 99517
MUL FACTOR= 1.0000E+00

P BW

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START .16
.40
STOP

RUN # 10

AREA%

RT	AREA	TYPE	AR/HT	AREA%
0.11	198430	PV	0.071	51.021
0.16	127540	VV	0.049	32.794
0.40	10127	VV	0.051	2.604
0.47	52818	I VH	0.220	13.581

TOTAL AREA= 388920
MUL FACTOR= 1.0000E+00

4572.11 / MFK903 ~~MFK 888~~

START .34
.63
STOP

DN
12/31/90

RUN # 11

AREA%

RT	AREA	TYPE	AR/HT	AREA%
0.34	452670	PB	0.222	98.805
0.63	5477	PV	0.090	1.196

TOTAL AREA= 458140
MUL FACTOR= 1.0000E+00

4572.11-1) / MFK903 D ~~MFK 888-1)~~

START .32
.77
STOP

RUN # 12

AREA%

RT	AREA	TYPE	AR/HT	AREA%
0.32	449200	PB	0.237	99.188
0.77	3677	I PH	0.070	0.812

TOTAL AREA= 452870
MUL FACTOR= 1.0000E+00

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4585.01/MFK 889

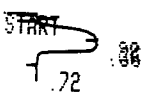
RUN # 13

AREA%

RT	AREA	TYPE	AR/HT	AREA%
0.26	266460	BV	0.133	57.574
0.30	190090	VV	0.094	41.073
0.52	3161	VB	0.064	0.683
0.78	3099	I PH	0.054	0.670

TOTAL AREA= 462820
MUL FACTOR= 1.0000E+00

4585.01-5/MFK 889



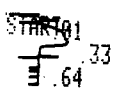
RUN # 14

AREA%

RT	AREA	TYPE	AR/HT	AREA%
0.28	1075300	BV	0.155	46.989
0.36	1173300	VV	0.164	51.271
0.72	39817	I VH	0.182	1.740

TOTAL AREA= 2288400
MUL FACTOR= 1.0000E+00

4585.02/MFK 891



RUN # 15

AREA%

RT	AREA	TYPE	AR/HT	AREA%
0.01	661	BB	0.025	0.084
0.33	779570	BB	0.236	99.321
0.64	4672	PP	0.083	0.595

TOTAL AREA= 784910
MUL FACTOR= 1.0000E+00

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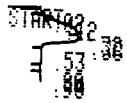
4585.03/MFK 892



STOP

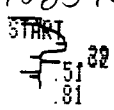
RUN # 16

AREA%

RT	AREA	TYPE	AR/HT	AREA%
0.02	2108	BP	0.052	0.157
0.12	49303	PV	0.032	3.671
0.32	683130	VV	0.154	50.859
0.38	534000	VV	0.118	39.756
0.53	36047 D	VV	0.155	2.684
0.80	15061	VV	0.107	1.121
0.90	23548 I	VH	0.123	1.753

TOTAL AREA= 1343200
MUL FACTOR= 1.0000E+00

4585.04/MFK 893



STOP

RUN # 17

AREA%

RT	AREA	TYPE	AR/HT	AREA%
0.29	439300	PV	0.151	58.308
0.32	308920 D	VP	0.106	41.003
0.51	394	PB	0.024	0.052
0.81	4800 I	VH	0.079	0.637

TOTAL AREA= 753410
MUL FACTOR= 1.0000E+00

CCV 15522-F-1105

START .21
.63
.72
STOP

RUN # 18

AREA%

RT	AREA	TYPE	AR/HT	AREA%
0.21	5637500	PP	0.331	99.906
0.63	636	PV	0.047	0.011
0.72	4686 I	VP	0.074	0.083

TOTAL AREA= 5642800
MUL FACTOR= 1.0000E+00

CCB
START .06
.42
.58
STOP

RUN # 19

AREA%

RT	AREA	TYPE	AR/HT	AREA%
0.06	107410	BV	0.044	27.145
0.13	279320	VP	0.117	70.592
0.42	3376	VV	0.060	0.853
0.58	971	PV	0.045	0.245
0.68	4606 I	VP	0.075	1.164

TOTAL AREA= 395680
MUL FACTOR= 1.0000E+00

4585.05/MFK 895
START .31
.74
STOP

RUN # 20

AREA%

RT	AREA	TYPE	AR/HT	AREA%
0.31	286220	BV	0.130	47.908
0.37	291210	VV	0.127	48.742
0.74	20016 I	VH	0.133	3.350

TOTAL AREA= 597450
MUL FACTOR= 1.0000E+00

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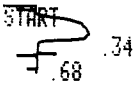
4585.06/MFK 904



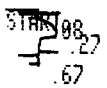
RUN # 21

AREA%

RT	AREA	TYPE	AR/HT	AREA%
0.34	1666900	PB	0.276	99.733
0.68	4461	BP	0.069	0.267

TOTAL AREA= 1671300
MUL FACTOR= 1.0000E+00

4585.07/MFK 905



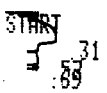
RUN # 22

AREA%

RT	AREA	TYPE	AR/HT	AREA%
0.08	1143	PV	0.023	0.273
0.27	414750	VB	0.203	98.859
0.67	3643	BV	0.059	0.868

TOTAL AREA= 419530
MUL FACTOR= 1.0000E+00

4585.08/MFK 906



RUN # 23

AREA%

RT	AREA	TYPE	AR/HT	AREA%
0.31	523880	PV	0.239	96.443
0.57	15364	VV	0.131	2.828
0.69	3957	VV	0.051	0.729

TOTAL AREA= 543200
MUL FACTOR= 1.0000E+00

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4576.01 - KERR

START
.32
.65
STOP

RUN # 24

AREA%

RT	AREA	TYPE	AR/HT	AREA%
0.32	710750	PB	0.222	99.163
0.65	5998	I PH	0.100	0.837

TOTAL AREA= 716750
MUL FACTOR= 1.0000E+00

4576.01-D - KERR

START
.33
.84
STOP

RUN # 25

AREA%

RT	AREA	TYPE	AR/HT	AREA%
0.33	361680	PV	0.179	62.764
0.36	206450	D VV	0.102	35.826
0.54	409	VB	0.023	0.071
0.69	5532	BP	0.089	0.960
0.84	2182	I PP	0.053	0.379

TOTAL AREA= 576250
MUL FACTOR= 1.0000E+00

4576.02 - KERR

START
.37
.80
STOP

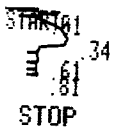
RUN # 26

AREA%

RT	AREA	TYPE	AR/HT	AREA%
0.37	710450	PB	0.285	99.019
0.80	7038	I PH	0.086	0.981

TOTAL AREA= 717490
MUL FACTOR= 1.0000E+00

4576.03 – KERR 15522-F-1105



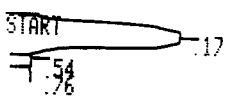
RUN # 27

AREA%

RT	AREA	TYPE	AR/HT	AREA%
0.01	205	BB	0.021	0.022
0.34	920890	BV	0.274	99.258
0.61	6386	VV	0.090	0.688
0.81	292	VP	0.044	0.032

TOTAL AREA= 927770
MUL FACTOR= 1.0000E+00

CCV



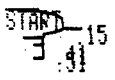
RUN # 28

AREA%

RT	AREA	TYPE	AR/HT	AREA%
0.17	811580	PB	0.156	98.763
0.54	1884	D BB	0.017	0.229
0.76	8280	I BH	0.105	1.008

TOTAL AREA= 821740
MUL FACTOR= 1.0000E+00

CCB 15522-F-1105



RUN # 29

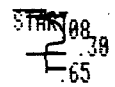
AREA%

RT	AREA	TYPE	AR/HT	AREA%
0.15	208150	PB	0.197	97.727
0.41	2672	BV	0.058	1.255
0.51	2170	VP	0.111	1.019

TOTAL AREA= 212990
MUL FACTOR= 1.0000E+00

data not used

4576.04 - KERR



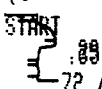
RUN # 30

AREA%

RT	AREA	TYPE	AR/HT	AREA%
0.08	198	PV	0.014	0.033
0.30	593910	VB	0.270	99.188
0.65	4665	PB	0.084	0.779

TOTAL AREA= 598780
MUL FACTOR= 1.0000E+00

4576.05 - KERR



RUN # 31

AREA%

RT	AREA	TYPE	AR/HT	AREA%
0.29	349900	PV	0.171	65.637
0.35	177940	D VV	0.088	33.378
0.72	5247	VV	0.081	0.984

TOTAL AREA= 533090
MUL FACTOR= 1.0000E+00

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SOUTHWEST LABORATORY OF OKLAHOMA, INC.

CN^- ANALYSIS LOGSHEET

Analyst: SLM

EPA Case No.:

Distillation Date: 12/19/90

SDG No.:

Run Date: 12/20/90

Lab Batch No.:

Time	EPA Sample #	Lab Sample #	Abs	(ug)	Dilut. Fac.	Initial Weight (g) Volume (ml)	Final Concentration (ug/l) mg/kg
1033	ton	S0	0.000				
1034		S5	0.029			r=0.99999	
1035		S25	0.148			source: Fisher KCN	
1036		S50	0.298				
1037		S100	0.600				
1112		ICV	0.311	51.99	-	500	103.98
1113		ICB	-0.000	0.19	-	-	<10.0
1114		CCV	0.282	47.16	-	-	94.32
1115		CCB	-0.001	0.02	-	-	<10.0
1116		PBS	-0.001	0.02	-	500	<10.0
1117		LCSS	0.190	31.84	-	5.00	6367
1118	5907E-07	4574.01	0.007	1.35	-	2.57	<10.0

Distillate Transfer

Removed from Storage	Returned to Storage
Area #:	Area #:
By:	By:
On:	On:

Received by Date DEC 20 1990

Logbook No.:

Page No.:

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SOUTHWEST LABORATORY OF OKLAHOMA, INC.

CN^- ANALYSIS LOGSHEET

Analyst: SCM

EPA Case No.:

Distillation Date: 12/19/90

SDG No.:

Run Date: 12/20/90

Lab Batch No.:

Time	EPA Sample #	Lab Sample #	Abs	(ug)	Dilut. Fac.	Initial Weight (g) Volume (ml)	Final Concentration (ug/l) mg/kg
1119	5907E-09	4574.02	0.032	5.52	–	2.63	11.04
1120	5907E-09D	4574.02D	0.032	5.52	–	2.69	11.04
1121	5907E-09S	4574.02S	0.343	57.32	–	2.69	114.64
1122	5907E-11	4574.03	0.008	1.52	–	2.66	<10.0
1225	5907E-13	4574.04	0.164	27.51	–	2.77	55.01
1226	5907E-15	4574.05	0.272	45.49	–	2.62	90.99
1227		PBW	-0.001	0.02	–	500	<10.0
1228		CCV	0.281	46.99	–	–	93.99
1229		CCB	-0.003	-0.31	–	–	<10.0
1230	MFK903	4572.11	-0.002	-0.14	–	500	<10.0
1231	MFK903D	4572.11D	-0.001	0.02	–	500	<10.0
1232	MFK889 ~~MFK899~~	4585.01	-0.003	-0.31	–	400	<10.0
1233	MFK889S ~~MFK899S~~	4585.01S	0.288	48.16	–	400	96.32

Distillate Transfer

Removed from Storage

Area #:

By:

On:

Returned to Storage

Area #:

By:

On:

Received by Date

Logbook No.:

Page No.:

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SOUTHWEST LABORATORY OF OKLAHOMA, INC.

CN^- ANALYSIS LOGSHEET

Analyst: SCM

EPA Case No.:

Distillation Date: 12/19/90

SDG No.:

Run Date: 12/20/90

Lab Batch No.:

Time	EPA Sample #	Lab Sample #	Abs	(ug)	Dilut. Fac.	Initial Weight (g) Volume (ml)	Final Concentration (ug/l) mg/kg
1234	MFK891	4585.02	-0.001	0.02	-	500	<10.0
1323	MFK892	4585.03	0.003	0.69	-	500	<10.0
1324	MFK893	4585.04	0.002	0.52	-	500	<10.0
1325	MFK895	4585.05	0.005	1.02	-	500	<10.0
1326	MFK904	4585.06	0.001	0.36	-	500	<10.0
1327	MFK905	4585.07	0.002	0.52	-	500	<10.0
1328		CCV	0.288	48.16	-	-	96.32
1329		CCB	-0.002	-0.14	-	-	<10.0
1330	MFK906	4585.08	0.000	0.19	-	500	<10.0
1331		4528.01	-0.001	0.02	-	10.09	<10.0
1332		4642.01	-0.001	0.02		10.01	<10.0
1357		4640.01	-0.001	0.02		10.02	<10.0
1358		4640.02	0.002	0.52		10.13	<10.0

Distillate Transfer

Removed from Storage

Area #:

By:

On:

Returned to Storage

Area #:

By:

On:

Received by Date

Logbook No.:

Page No.:

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SOUTHWEST LABORATORY OF OKLAHOMA, INC.

CN^- ANALYSIS LOGSHEET

Analyst: SCM

EPA Case No.:

Distillation Date: 12/19/90

SDG No.:

Run Date: 12/20/90

Lab Batch No.:

Time	EPA Sample #	Lab Sample #	Abs	(ug)	Dilut. Fac.	Initial Weight (g) Volume (ml)	Final Concentration (ug/l) mg/kg
1359		CCV	0.286	47.83	—	—	95.65
1400		CCB	0.000	0.19	—	—	<10.00
		ICV					

Distillate Transfer

Removed from Storage

Area #:

By:

On:

Returned to Storage

Area #:

By:

On:

Received by Date

Logbook No.:

Page No.:

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SOUTHWEST LABORATORY OF OKLAHOMA, INC.

CN^- ANALYSIS LOGSHEET

Analyst: SLM

EPA Case No.:

Distillation Date: 12/18/90

SDG No.: MFK888

Run Date: 12/19/90

Lab Batch No.:

Time	EPA Sample #	Lab Sample # ug/250ml	Abs	(ug)	Dilut. Fac.	Initial Weight (g) Volume (ml)	Final Concentration (ug/l) mg/kg
1350	~~1350~~	S0	0.000				
1351	"	S5	0.028			r = 0.9997	
1352		S25	0.140			source: Fisher KCN	
1353		S50	0.297			Instrument: Bausch	
1354		S100	0.570			Lomb Spectronic 21	
1426		ICV	0.302	52.57	—	500	105.15
1427		ICB	-0.001	-0.29	—	—	<10.0
1428		CCV	0.270	46.99	—	—	93.98
1429		CCB	-0.001	-0.29	—	—	<10.0
1430		PBS	-0.001	-0.29	—	500	<10.0
1431		LCSS	0.180	31.29	—	5.00	62.58
1432	MFK888	4572.01	0.000	-0.12	—	2.39	<10.0

Distillate Transfer

Removed from Storage

Area #:

By:

On:

Returned to Storage

Area #:

By:

On:

Received by_____ Date_____

Logbook No.:

Page No.:

15522-F-1106

SOUTHWEST LABORATORY OF OKLAHOMA, INC.

CN^- ANALYSIS LOGSHEET

Analyst: SCM

EPA Case No.:

Distillation Date: 12/18/90

SDG No.:

Run Date: 12/19/90

Lab Batch No.:

Time	EPA Sample #	Lab Sample #	Abs	(ug)	Dilut. Fac.	Initial Weight (g) Volume (ml)	Final Concentration (ug/l) mg/kg
1433	MFK890	4572.02	0.000	-0.12	-	2.37	<10.0
1434	MFK894	4572.03	-0.001	-0.29	-	2.47	<10.0
1435	MFK896	4572.04	0.000	-0.12	-	2.17	<10.0
1436	MFK897	4572.05	0.001	0.06	-	2.95	<10.0
1453	MFK898	4572.06	0.000	-0.12	-	2.22	<10.0
1454	MFK899	4572.07	0.001	0.06	-	3.23	<10.0
1455	MFK900	4572.08	0.002	0.23	-	3.04	<10.0
1456		CCV	0.269	46.82	-	-	93.63
1457		CCB	-0.001	-0.29	-	-	<10.0
1458	MFK901	4572.09	0.000	-0.12	-	2.45	<10.0
1459	MFK902	4572.10	0.001	0.06 ~~0.006~~	-	2.53	<10.0
1500	MFK902D	4572.10D	0.001	0.06	-	2.65	<10.0
1501	MFK902S	4572.10S	0.318	55.37	-	2.64	110.73

Distillate Transfer

Removed from Storage	Returned to Storage
Area #:	Area #:
By:	By:
On:	On:

Received by Date

Logbook No.:

Page No.:

15522-F-1106

SOUTHWEST LABORATORY OF OKLAHOMA, INC.

CN^- ANALYSIS LOGSHEET

Analyst: SCM

EPA Case No.:

Distillation Date: 12/18/90

SDG No.:

Run Date: 12/19/90

Lab Batch No.:

Time	EPA Sample #	Lab Sample #	Abs	(ug)	Dilut. Fac.	Initial Weight (g) Volume (ml)	Final Concentration (ug/l) mg/kg
1502		4589.06	0.003	0.41	-	2.58	<10.0
1517		4589.07	0.001	0.06	-	2.71	<10.0
1518		4589.08	-0.002	-0.46	-	2.67	<10.0
1519		4589.095	0.299	52.05	-	2.66	104.1
1520		4589.10D	-0.002	-0.46	-	2.58	<10.0
1521		4589.11	0.001	0.06	-	2.53	<10.0
1522		CCV	0.272	47.34	-	-	94.68
1523		CCB	-0.002	-0.46	-	-	<10.0

Distillate Transfer

Removed from Storage

Area #:

By:

On:

Returned to Storage

Area #:

By:

On:

Received by Date

Logbook No.:

Page No.:

15522-F-1132

SOUTHWEST LABORATORY OF OKLAHOMA, INC.

PERCENT SOLIDS DETERMINATION

Analyst: BW

EPA Case No.: 15522

Date: 12/26/90

SDG No.:

Lab Batch No.:

EPA Sample #	Lab Sample #	Crucible (g)	Crucible + Sample (g)	Crucible + Dry Sample (g)	Dry Weight	% Solids	
MEK888	4572.01	2.18	15.24	11.84	9.66	~~74.0%~~	74.0%
MEK890	4572.02	2.23	13.31	10.75	8.52	~~79.2%~~	76.9%
MEK894	4572.03	2.18	13.90	11.33	9.15	~~82.8%~~	78.1%
MEK896	4572.04	2.13	12.70	10.57	8.44	~~79.8%~~	79.8%
MEK897	4572.05	2.13	13.03	11.06	8.93	~~80.7%~~	81.9%
MEK898	4572.06	2.19	12.80	9.73	7.54	~~77.5%~~	71.1%
MEK899	4572.07	2.18	14.27	11.41	9.23	~~86.9%~~	76.3%
MEK900	4572.08	2.14	12.80	11.23	9.09	85.3%	
MEK901	4572.09	2.11	~~14.79~~	11.83	9.72	76.6%	
MEK902	4572.10	2.12	12.82	10.93	8.81	82.3%	

Sample Transfer

Removed from Storage

Area #: Walk-in

By: BW

On: 12/26/90

Returned to Storage

Area #: Walk-in

By: BW

On: 12/26/90

Received by_____ Date_____

Logbook No.:

Page No.:

SOUTHWEST LABORATORY OF OKLAHOMA, INC.

SAMPLE DIGESTION RECORD

Digestion Date 12/26/90
Type of Analysis TCL

Digestion Batch No. _____
Client _____

Analyst BW
Matrix Soil

15522 F-1107

Sample ID	Client ID	Beaker No.	Initial wt/vol g/ml	Final vol (ml)	Description Water-Color,Clarity Soil-Color,Texture Artifacts	pH <2>	Comments (Spiking Sol)	Soil Preparation Pan wt(g)	Wet wt(g)	Dry wt(g)	Solid %
PBS			1.00	200ml							
LCSS			1.00								
4572.01	MFEK886		1.05		brown medium coarse	2 2					
4572.02	MFEK890		1.01								
4572.03	MFEK894		1.04								
4572.04	MFEK896		1.05								
4572.05	MFEK897		1.02								
4572.06	MFEK898		0.98								
4572.07	MFEK899	MD 12/27	1.03								
4572.08	MFEK900		1.16								
4572.09	MFEK901		1.08								
4572.10	MFEK902		1.00								
4572.10D	MFEK902D		1.01								
4572105	MFEK905		1.00				+2ml of #1,2,3				

15522-F-1107

SOUTHWEST LABORATORY OF OKLAHOMA, INC.

SAMPLE DIGESTION RECORD

Digestion Date 12/27/90
Type of Analysis ICP

Digestion Batch No. _____
Client EPA

Analyst MO
Matrix H_2O

Sample ID	Client ID	Beaker No.	Initial wt/vol g/ml	Final vol (ml)	Description Water-Color, Clarity Soil-Color, Texture Artifacts	pH <2>	Comments (Spiking Sol)	Soil Preparation Pan wt(g)	Wet wt(g)	Dry wt(g)	Solid %
PBW			100	100							
ICSW						<2	10 ml ICV-1 + ICV-3				
4572.11	MFK903				Clear; No Color						
4572.11D	MFK903D										
4585.01	MFK889										
4585.01S	MFK889S						1.0 ml MS #1, 2, +3				
4585.02	MFK891										
4585.03	MFK892				white ~~opaque~~; No color						
4585.04	MFK893			MO 12/27	Clear; No Color						
4585.05 ~~4585.06~~	MFK895 ~~MFK894~~ MO 12/27				white ~~opaque~~; No Color						
MO 12/27 4585.06 ~~4585.07~~	MFK904				Clear; No Color						
4585.07	MFK905										
4585.08	MFK906		100	100		<2					

15522-F-1106 1107

435

SOUTHWEST LABORATORY OF OKLAHOMA, INC.

SAMPLE DIGESTION RECORD

Digestion Date 12/26/90
Type of Analysis Furnace

Digestion Batch No. _____
Client _____

Analyst BW
Matrix Soil

01 0

Sample ID	Client ID	Beaker No.	Initial wt/vol (g)/ml	Final vol (ml)	Description Water-Color,Clarity Soil-Color,Texture Artifacts	pH <2>	Comments (Spiking Sol)	Soil Preparation Pan wt(g)	Wet wt(g)	Dry wt(g)	Solid %
PBS			1.00	100ml							
LCSS	pkd		1.00								
4572.01	MFK888		1.03		brown Medium	<2					
4572.02	MFK890		1.01								
4572.03	MFK894		1.04								
4572.04	MFK896		1.05								
4572.05	MFK897		1.02								
4572.06	MFK898		0.98								
4572.07	MFK899		1.03								
4572.08	MFK900		1.16								
4572.09	MFK901		1.08								
4572.10	MFK902		1.00								
4572.10D	MFK902D		1.01								
4572.10S	MFK902S		1.05	↓	↓	↓	+2mls of #4				436

4572-F-1088

SOUTHWEST LABORATORY OF OKLAHOMA, INC.

SAMPLE DIGESTION RECORD

Digestion Date 12-27-90
Type of Analysis Furn.

Digestion Batch No. _____
Client EPA

Analyst MO
Matrix H_2O's

Box 9

	Sample ID	Client ID	Beaker No.	Initial wt/vol g/ml	Final vol (ml)	Description Water-Color, Clarity Soil-Color, Texture Artifacts	pH <2>	Comments (Spiking Sol)	Soil Preparation Pan wt(g)	Wet wt(g)	Dry wt(g)	Solid %
		PBW		100	100							
		LCSW						10 m/s ICV-4 5 m/s ICV-2				
ALL VIII	4572.11	MFK903				Clear; No color	<2					
	4572.11 D	MFK903 D										
ALL VII	4585.01	MFK889										
	4585.01S	MFK889S						1.0 ml MS # 4				
	4585.02	MFK891										
	4585.03	MFK892				Opaque; No color						
	4585.04	MFK893				Clear; No color						
	4585.05	MFK895				Opaque; No color						
	4585.06	MFK904				Clear; No color						
	4585.07	MFK905										
	4585.08	MFK906		100	100		<2					

15522-F-1108

437

SOUTHWEST LABORATORY OF OKLAHOMA, INC.

SAMPLE DIGESTION RECORD

Digestion Date 12-23-90
Type of Analysis Hg

Digestion Batch No. _____
Client _____

Analyst AK
Matrix SOIL/TCLP

Sample ID	Client ID	Beaker No.	Initial wt/vol g/ml	Final vol (ml)	Description Water-Color, Clarity Soil-Color, Texture Artifacts	pH <2>	Comments (Spiking Sol)	Soil Preparation Pan wt(g)	Wet wt(g)	Dry wt(g)	Solid %
0			100	100							
.5							0.5ML 100 PPB Hg				
1.0							1.0ML 100 PPB Hg				
3.0							3.0ML 100 PPB Hg				
6.0							6.0ML 100 PPB Hg				
ICV							1.0ML ICV-5				
ICB											
CCV							3.0ML 100 PPB Hg				
CCV							3.0ML 100 PPB Hg				
CCB			100	100							

15522-F-1108 1109

438

SOUTHWEST LABORATORY OF OKLAHOMA, INC.

SAMPLE DIGESTION RECORD

Digestion Date 12-23-90
Type of Analysis Hg

Digestion Batch No. _____
Client _____

Analyst JK
Matrix Soil/TCLP

Sample ID	Client ID	Beaker No.	Initial wt/vol g/ml	Final vol (ml)	Description Water-Color,Clarity Soil-Color,Texture Artifacts	pH <2>	Comments (Spiking Sol)	Soil Preparation Pan wt(g)	Wet wt(g)	Dry wt(g)	Solid %
CCB			100	100							
CCB											
BLK											
BLK											
PBS											
PBS											
TCLP BLK											
EP TOX BLK			100								
LCSS			.20	100							

15522-F-1100

439

SOUTHWEST LABORATORY OF OKLAHOMA, INC.

SAMPLE DIGESTION RECORD

Digestion Date 12-23-90
Type of Analysis Hg

Digestion Batch No. _____
Client _____

Analyst JK
Matrix Soil / TCLP

Sample ID	Client ID	Beaker No.	Initial wt/vol g/ml	Final vol (ml)	Description Water-Color,Clarity Soil-Color,Texture Artifacts	pH <2>	Comments (Spiking Sol)	Soil Preparation Pan wt(g)	Wet wt(g)	Dry wt(g)	Solid %
LCSS			.20	100							
4574.01	5907E-07		.21								
4574.02	5907E-09		.20								
4574.02-1	5907E-09-1		.22								
4574.02-5	5907E-09-5		.21				1.0mL 100 PPB Hg				
4574.03	5907E-11		.21								
4574.04	5907E-13		.20								
4574.05	5907E-15		.22								
4572.01	MFK 888		.22								
4572.02	MFK 890		.20								
4572.03	MFK 894		.20								
4572.04	MFK 896		.21								
4572.05	MFK 897		.22								
4572.06	MFK 898		.23								
4572.07	MFK 899		.23	100							

1552-T-1109

SOUTHWEST LABORATORY OF OKLAHOMA, INC.

SAMPLE DIGESTION RECORD

Digestion Date 12-23-90
Type of Analysis Hg

Digestion Batch No. _____
Client _____

Analyst JK
Matrix SOIL/TCLP

Sample ID	Client ID	Beaker No.	Initial wt/vol g/ml	Final vol (ml)	Description Water-Color,Clarity Soil-Color,Texture Artifacts	pH <2>	Comments (Spiking Sol)	Soil Preparation Pan wt(g)	Wet wt(g)	Dry wt(g)	Solid %
4572.08	MFK 900		.20	100							
4572.09	MFK 901		.21								
4572.10	MFK 902		.20								
4572.10-D	MFK 902-D		.20								
4572.10-S	MFK 902-S		.20				1.0 mL 100 PPB Hg				
4569.11	MFK 877		.21								
4571.01	KEARP		.20								
4570.01	B+MC		.22								
4570.02	"		.20								
4570.03	"		.23								
4570.04	B+MC		.20								
4592.02	ATAS		10								
4593.01	"		"								
4593.02	ATAS		"								
4575.09	KERRM		10	100							

1552F-1100

411

SOUTHWEST LABORATORY OF OKLAHOMA, INC.

SAMPLE DIGESTION RECORD

Digestion Date 12-23-90
Type of Analysis Hg

Digestion Batch No. _____
Client _____

Analyst YK
Matrix SOIL/TCLP

Sample ID	Client ID	Beaker No.	Initial wt/vol g/ml	Final vol (ml)	Description Water-Color,Clarity Soil-Color,Texture Artifacts	pH <2>	Comments (Spiking Sol)	Soil Preparation			
								Pan wt(g)	Wet wt(g)	Dry wt(g)	Solid %
4613.10	KERR		10	100							
4613.01	"										
4598.01	PEM										
4598.02	"										
4625.01	ATAS										
4637.02	P50										
4640.01	SINCLA										
4640.02	"		10	100							
											442

1552-E-1109

SOUTHWEST LABORATORY OF OKLAHOMA, INC.

SAMPLE DIGESTION RECORD

Digestion Date 12-26-90
Type of Analysis Hg

Digestion Batch No. _____
Client _____

Analyst JK
Matrix ~~SOIL~~/WATER

Sample ID	Client ID	Beaker No.	Initial wt/vol g/ml	Final vol (ml)	Description Water-Color,Clarity Soil-Color,Texture Artifacts	pH <2>	Comments (Spiking Sol)	Soil Preparation Pan wt(g)	Wet wt(g)	Dry wt(g)	Solid %
0			100	100							
.5							0.5ML 100 PPB Hg				
1.0							1.0ML 100 PPB Hg				
3.0							3.0ML 100 PPB Hg				
6.0							6.0ML 100 PPB Hg				
ICV							1.0ML ICV-5				
ICB											
CCV							3.0ML 100 PPB Hg				
CCV							3.0ML 100 PPB Hg				
CCB			100	100							

155224-1109

413

SOUTHWEST LABORATORY OF OKLAHOMA, INC.

SAMPLE DIGESTION RECORD

Digestion Date 12-26-90
Type of Analysis Hg

Digestion Batch No. _____
Client _____

Analyst JK
Matrix SOIL / WATER

Sample ID	Client ID	Beaker No.	Initial wt/vol g/ml	Final vol (ml)	Description Water-Color,Clarity Soil-Color,Texture Artifacts	pH <2>	Comments (Spiking Sol)	Soil Preparation Pan wt(g)	Wet wt(g)	Dry wt(g)	Solid %
CCB			100	100							
CCB											
PB52											
BLK											
BLK			100								
LCSJ2			.20								
4572.10-D	MFK 902-D		.20								
4575.01	KERREP		.20								
4575.02	"		.21								
4575.03	KERREP		.20								
4579.01	PORTOE		.20								
4579.01-D	PORTOE		.21	100							

15522-T-1004

444

SOUTHWEST LABORATORY OF OKLAHOMA, INC.

SAMPLE DIGESTION RECORD

Digestion Date 12-26-90
Type of Analysis Hg

Digestion Batch No. _____
Client _____

Analyst JK
Matrix SOIL/WATER

Sample ID	Client ID	Beaker No.	Initial wt/vol g/ml	Final vol (ml)	Description Water-Color,Clarity Soil-Color,Texture Artifacts	pH <2>	Comments (Spiking Sol)	Soil Preparation Pan wt(g)	Wet wt(g)	Dry wt(g)	Solid %
4579.03	PORTCOE		.20	100							
4579.03-S	"		.22				1.0ML 100 PPB Hg				
4589.01	B+MC		.20								
4589.02			.22								
4589.03			.20								
4589.04			.21								
4589.05			.21								
4589.06			.21								
4589.07			.20								
4589.08			.21								
4589.09-S			.20				1.0ML 100 PPB Hg				
4589.10-D			.21								
4589.11			.21								
4620.03			.20								
4620.04	B+MC		.20	100							

15522-F-1100

445

SOUTHWEST LABORATORY OF OKLAHOMA, INC.

SAMPLE DIGESTION RECORD

Digestion Date 12-26-90
Type of Analysis Hg

Digestion Batch No. _____
Client _____

Analyst JK
Matrix SOIL/WATER

Sample ID	Client ID	Beaker No.	Initial wt/vol g/ml	Final vol (ml)	Description Water-Color,Clarity Soil-Color,Texture Artifacts	pH <2>	Comments (Spiking Sol)	Soil Preparation Pan wt(g)	Wet wt(g)	Dry wt(g)	Solid %
4620.05	B+MC		100	100							
4557.01											
4557.02											
4557.03											
4557.04											
4557.05											
4557.06											
4557.07											
4557.08											
4558.04											
4559.05	B+MC		100	100							

15522-F-1100

446

SOUTHWEST LABORATORY OF OKLAHOMA, INC.

SAMPLE DIGESTION RECORD

Digestion Date 12-28-90
Type of Analysis Hg

Digestion Batch No. _____
Client _____

Analyst JK
Matrix SOIL/WATER TCLP

Sample ID	Client ID	Beaker No.	Initial wt/vol g/ml	Final vol (ml)	Description Water-Color,Clarity Soil-Color,Texture Artifacts	pH <2>	Comments (Spiking Sol)	Soil Preparation Pan wt(g)	Wet wt(g)	Dry wt(g)	Solid %
0			100	100							
.5							0.5ML 100 PPB Hg				
1.0							1.0ML 100 PPB Hg				
3.0							3.0ML 100 PPB Hg				
6.0							6.0ML 100 PPB Hg				
ICV							1.0ML ICV-5				
ICB											
CCV							3.0ML 100 PPB Hg				
CCV											
CCV							3.0ML 100 PPB Hg				
CCB											
CCB			100	100							

15522 F-109

447

SOUTHWEST LABORATORY OF OKLAHOMA, INC.

SAMPLE DIGESTION RECORD

Digestion Date 12-28-90
Type of Analysis Hg

Digestion Batch No. _____
Client _____

Analyst JK
Matrix SOIL/WATER TCLP

Sample ID	Client ID	Beaker No.	Initial wt/vol g/ml	Final vol (ml)	Description Water-Color,Clarity Soil-Color,Texture Artifacts	pH <2>	Comments (Spiking Sol)	Soil Preparation Pan wt(g)	Wet wt(g)	Dry wt(g)	Solid %
CCB			100	100							
CCB											
PBW											
LDL							1.0 mL 100 PPB Hg				
FDL							1.0mL 100 PPB Hg				
4572.11	MFK 888										
4572.11-D	MFK 888-D										
4585.01	MFK 889		100	100							

55224-1101

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SOUTHWEST LABORATORY OF OKLAHOMA, INC.

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SAMPLE DIGESTION RECORD

Digestion Date 12-28-90
Type of Analysis Hg

Digestion Batch No. _____
Client _____

Analyst JK
Matrix SOIL / WATER TCLP

Sample ID	Client ID	Beaker No.	Initial wt/vol g/ml	Final vol (ml)	Description Water-Color, Clarity Soil-Color, Texture Artifacts	pH <2>	Comments (Spiking Sol)	Soil Preparation Pan wt(g)	Wet wt(g)	Dry wt(g)	Solid %
4585.01-5	MFK 889-5		100	100			1.0ML 100 PPB Hg				
4585.02	MFK 891										
4585.03	MFK 892										
4585.04	MFK 893										
4585.05	MFK 895										
4585.06	MFK ~~895~~ 904 JK										
4585.07	MFK 905										
4585.08	MFK 906										
4576.01	KERR										
4576.01-D											
4576.02											
4576.03											
4576.04											
4576.05											
4576.06	KERR		100	100							

LOT-REG91

449

SOUTHWEST LABORATORY OF OKLAHOMA, INC.

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SAMPLE DISTILLATION RECORD

Distillation Date 12/19/90
Type of Analysis CN-

Distillation Batch No. _____
Client VIAR/EPA 15522

Analyst LM
Matrix SOIL/H2O

Sample ID	Client ID	Beaker No.	Initial wt/vol g/ml	Final vol (ml)	Description Water-Color, Clarity Soil-Color, Texture Artifacts	pH <2>	Comments (Spiking Sol)	Soil Preparation			
								Pan wt(g)	Wet wt(g)	Dry wt(g)	Solid %
ICV	ICV	1	500ml	250ml							
PBS	PBS	2	500ml								
LCSS	LCSS	3	5.00g								
4574.01	5907E-07	4	2.57g								
4574.02	5907E-09	5	2.63g								
4574.02D	5907E09D	6	2.69g								
4574.02S	5907E-09S	7	2.69g				5.0ml 10.4g/ml KCN				
4574.03	5907E-11	8	2.66g								
4574.04	5907E-13	9	2.77g								
4574.05	5907E-15	10	2.62g								
PBW	PBW	11	500ml								
4572.11	MFK903	12	500ml			>12					
4572.11D	MFK903D	13	500ml			>12					
4585.01	MFK889	14	400ml			>12					
4585.01S	MFK889S	15	400ml	250ml		>12	5.0ml 10.4g/ml KCN				

15522-F-1110

450

SWLO FORM - 1024W

SOUTHWEST LABORATORY OF OKLAHOMA, INC.

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SAMPLE DISTILLATION RECORD

Distillation Date 12/19/90
Type of Analysis CN-

Distillation Batch No. _____
Client EPA 15522

Analyst LM
Matrix H_2O

Sample ID	Client ID	Beaker No.	Initial wt/vol g/ml	Final vol (ml)	Description Water-Color, Clarity Soil-Color, Texture Artifacts	pH <2>	Comments (Spiking Sol)	Soil Preparation Pan wt(g)	Wet wt(g)	Dry wt(g)	Solid %
4585.02	MFK891	16	500ml	250ml		>12					
4585.03	MFK892	17	"			"					
4585.04	MFK893	18	"			"					
4585.05	MFK895	19	"			"					
4585.06	MFK904	20	"			"					
4585.07	MFK905	21	"			"					
4585.08	MFK906	22	500ml			>12					
REACT. CN- 4528.01	KERREP	23	10.09g	250ml							

15522-1110

451

SWLO FORM - 1024W

SOUTHWEST LABORATORY OF OKLAHOMA, INC.

Page ___ of Book ___

SAMPLE DISTILLATION RECORD

Distillation Date 12/18/90
Type of Analysis CYANIDE

Distillation Batch No. ___
Client EPA/B&MC

Analyst M.S.P.
Matrix Soil

Sample ID	Client ID	Beaker No.	Initial wt/vol g/ml	Final vol (ml)	Description Water-Color, Clarity Soil-Color, Texture Artifacts	pH <2>	Comments (Spiking Sol)	Soil Preparation			
								Pan wt(g)	Wet wt(g)	Dry wt(g)	Solid %
ICV	ICV	1	500ml	250ml							
PBS	PBSX	2	"	"							
LCS	LCSX	3	5.00g	"							
4572.01	~~4572.0~~ MFK888	4	2.39g	"							
4572.02	MFK890	5	2.37g	"							
4572.03	MFK894	6	2.47g	"							
4572.04	MFK896	7	2.17g	"							
4572.05	MFK897	8	2.95g	"							
4572.06	MFK898	9	2.22g	"							
4572.07	MFK899	10	3.23g	"							
4572.08	MFK900	11	3.04g	"							
4572.09	MFK901	12	2.45g	"							
4572.10	MFK902	13	2.53g								
4572.10D	MFK902-D	14	2.65g								
4572.10S	MFK902-S	15	2.64g				5.0ml 10µg/ml KCN				

All frozen

SWLO FORM - 1024W

SOUTHWEST LABORATORY OF OKLAHOMA, INC.

PREPARATION OF STOCK MIXTURE SOLUTION (MULTI-COMPONENT)

Mixture I.D.# STD #2
Date/Analyst 12/21/90/mo

Approved _____

Component Compound	Parent I.D.#	Conc. of Parent Soln.	Vol.of Parent	Total Vol. of Mixture	Matrix	Component Concentration	Unit
Ca	IV-10 F06WG18	5000	2.0 ml	200 ml	2% HNO_3	50.0	mg/l
K							
Mg							
Na							
Cr	IV-20 F01WG18	100				1.0	
Mn		150				1.5	
Ni		400				4.0	
Zn		200				2.0	
Al	IV-30 F08WG18	2000				20.0	
Ba							
Be		50				0.5	
Co		500				5.0	
Cu		250				2.5	
Fe		1000				10.0	
V		500				5.0	

15522-F-1112 1111

453

SOUTHWEST LABORATORY OF OKLAHOMA, INC.

PREPARATION OF STOCK MIXTURE SOLUTION (MULTI-COMPONENT)

Mixture I.D.# STD 3/
Date/Analyst 12-31-90/MO

Approved _____

Component Compound	Parent I.D.#	Conc. of Parent Soln.	Vol.of Parent	Total Vol. of Mixture	Matrix	Component Concentration	Unit
Cd	IV-60 E12W61S	50	2.0 ml	200 ml	2% HNO_3	0.5	mg/l
Pb	↓	200	↓	↓	↓	2.0	↓
As	↓	400	↓	↓	↓	4.0	↓
Se	↓	100	↓	↓	↓	1.0	↓
Tl	↓	500	↓	↓	↓	5.0	↓

15522-F-111DA

454

SOUTHWEST LABORATORY OF OKLAHOMA, INC.

PREPARATION OF STOCK MIXTURE SOLUTION (MULTI-COMPONENT)

Mixture I.D.# STD4
Date/Analyst 1/2/91 mo

Approved _____

Component Compound	Parent I.D.#	Conc. of Parent Soln.	Vol. of Parent	Total Vol. of Mixture	Matrix	Component Concentration	Unit
~~Sr~~ Ag mo 1/2/91	Plasma chem N9M47E1E	1000	0.5	100 ml	2% HNO_3	5.0	mg/l

15522-F-1110A

455

SOUTHWEST LABORATORY OF OKLAHOMA, INC.

PREPARATION OF STOCK MIXTURE SOLUTION (MULTI-COMPONENT)

Mixture I.D.# STD 6
Date/Analyst 12-31-90 /mo

Approved _____

Component Compound	Parent I.D.#	Conc. of Parent Soln.	Vol.of Parent	Total Vol. of Mixture	Matrix	Component Concentration	Unit
Sb	IV-50 F06WG/8	1000	100 ml	100 ml	2% HNO_3	10.0	mg/l

15522-F-1110A

456

SOUTHWEST LABORATORY OF OKLAHOMA, INC.

PREPARATION OF STOCK MIXTURE SOLUTION (MULTI-COMPONENT)

Mixture I.D.# STD7
Date/Analyst 12-31-90 /mo

Approved _____

Component Compound	Parent I.D.#	Conc. of Parent Soln.	Vol.of Parent	Total Vol. of Mixture	Matrix	Component Concentration	Unit
Ti	Spex 4-266-EP	1,000	1.0 ml	100 ml	2% HNO3	10.0	mg/l
Mo	PRSmaChem SOMY2WIE	↓	↓	↓	↓	↓	↓
B	spex 4-266-EP	↓	↓	↓	↓	↓	↓

1552-F-1110A

154

15522-F-111DA

SOUTHWEST LABORATORY OF OKLAHOMA, INC.

PREPARATION OF STOCK SOLUTIONS (MULTI-COMPONENT) AND MATRIX MODIFIERS

04/23/90

Pd-Mg(NO) Matrix Modifier: 1% HNO — Prepared Monthy (or when needed)

1.33 g Pd(NO) (Lot #_____) ——> 200ml volumetric = 0.3% Pd

0.69 g Mg(NO) -6H O (Lot #_____) = 0.2% Mg(NO)

NH H PO -Mg(NO) Matrix Modifier: 1% HNO — Prepared Monthly (or when needed)

20.0 g NH H PO (Lot #_____) ——> 500ml volumetric = 4.0% NH H PO

25.0 g Mg(NO) -6H O (Lot #_____) = 5.0% Mg(NO)

Stock #1: 1% HNO — Prepared Monthy (or when needed)

2.0 ml 1000 ppm As (Lot #_____) ——> 100ml volumetric = 20.0 ppm As,Pb,Tl

2.0 ml 1000 ppm Pb (Lot #_____) = 10.0 ppm Se

2.0 ml 1000 ppm Tl (Lot #_____)

1.0 ml 1000 ppm Se (Lot #_____)

Stock #1A: 1% HNO — Prepared Weekly (or when needed)

25.0 ml Stock #1 (ID#_____) ——> 250ml volumetric = 2000.0 ppb As,Pb,Tl
= 1000.0 ppb Se

Stock #2: 1% HNO — Prepared Monthly (or when needed)

3.0 ml 1000 ppm Pb (Lot #_____) ——> 100ml volumetric = 30.0 ppm Pb

10.0 ml 1000 ppm Tl (Lot #_____) = 100.0 ppm Tl

Stock #2A: 1% HNO — Prepared Weekly (or when needed)

1.0 ml Stock #2 (ID#_____) ——> 100ml volumetric = 300.0 ppb Pb
= 1000.0 ppb Tl

Sources:

Plasma Chem ---> 1000 ppm As; 1000 ppm Pb; 1000 ppm Se; 1000 ppm Tl
Alfa Products ---> Pd(NO) EM Science ---> Mg(NO) 6H O & NH H PO

Signed: _____ Date: 01/14/91

15522 F- 1110A

SOUTHWEST LABORATORY OF OKLAHOMA, INC.

PREPARATION OF
CALIBRATION STANDARDS AND
ICV'S - CCV'S
04/23/90

ICV (As/Se): 1% HNO Prepared Weekly (or when necessary)

5.0 ml ICV2 (EPA-LV) (Lot #_____) ——→ 100ml volumetric = 52.6 ppb As, Se

ICV (Pb/Tl): 1% HNO Prepared Weekly (or when necessary)

10.0 ml ICV4 (EPA-LV) (Lot #_____) ——→ 100ml volumetric = 97.5 ppb Pb
= 97.0 ppb Tl

STD #1: 1% HNO Prepared Daily

10.0 ml Stock #1A (ID# S_____) ——→ 200ml volumetric = 100.0 ppb As,Pb,Tl
= 50.0 ppb Se

STD #2: 1% HNO Prepared Daily

5.0 ml Stock #1A (ID# S_____) ——→ 200ml volumetric = 50.0 ppb As,Pb,Tl
= 25.0 ppb Se

STD #3: 1% HNO Prepared Daily

50.0 ml STD #1 (ID# C_____) ——→ 200ml volumetric = 25.0 ppb As,Pb,Tl
= 12.5 ppb Se

STD #4: 1% HNO Prepared Daily

20.0 ml STD #1 (ID# C_____) ——→ 100ml volumetric = 20.0 ppb As,Pb,Tl
= 10.0 ppb Se

STD #5: 1% HNO Prepared Daily

1.0 ml Stock #2A (ID# S_____) ——→ 100ml volumetric = 3.0 ppb Pb
= 10.0 ppb Tl

STD #6: 1% HNO Prepard Daily

10.0 ml STD #1 (ID# C_____) ——→ 100ml volumetric = 10.0 ppb As,Pb Tl
= 5.0 ppb Se

Signed: Jason Chandler Date 04/01/91

15522-F-1111

SAMPLE DELIVERY GROUP (SDG)
TRAFFIC REPORT (TR) COVER SHEET

LAB NAME: SOUTHWEST LABORATORY OF OKLAHOMA CONTRACT NO: 68-D9-0089

LAB CODE: SWOK CASE NO.: 15522 SAS NO.: _____-_____

FULL SAMPLE ANALYSIS PRICE IN CONTRACT: $_____

SDG No./First Sample in SDG: MFK ~~890~~ 888 MS Sample Receipt Date: 12/12/90 (MM/DD/YY)
(Lowest EPA Sample Number in first shipment of samples received under SDG).

Last Sample in SDG: MFK 906 Sample Receipt Date: 12/13/90 (MM/DD/YY)
(Highest EPA Sample Number in last shipment of samples received under SDG).

EPA Sample Numbers in the SDG (listed in alphanumeric order):

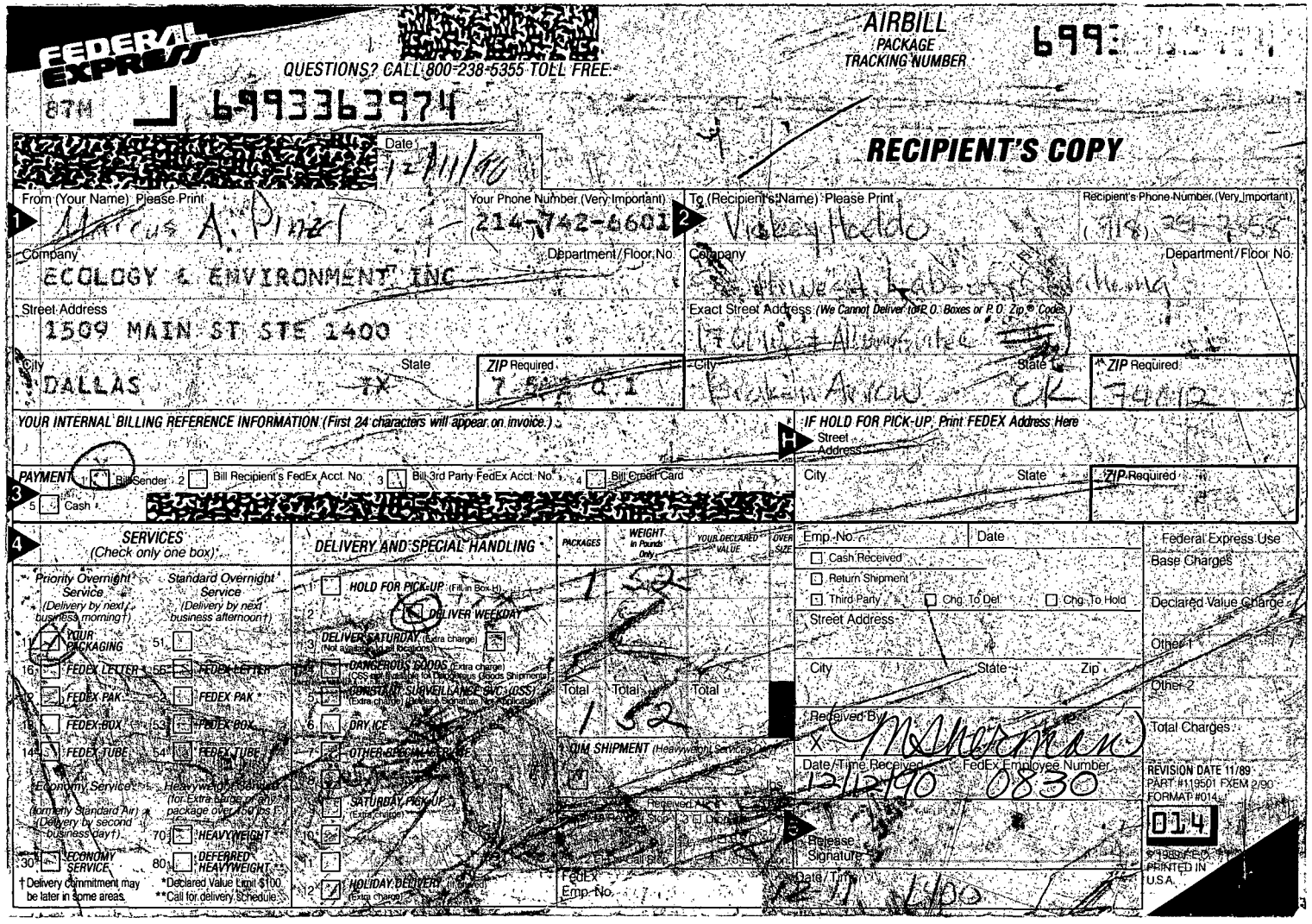
1	MFK 888	11	MFK 903
2	MFK 890	12	MFK 889
3	MFK 894	13	MFK 891
4	MFK 896	14	MFK 892
5	MFK 897	15	MFK 893
6	MFK 898	16	MFK 895
7	MFK 899	17	MFK 904
8	MFK 900	18	MFK 905
9	MFK 901	19	MFK 906
10	MFK 902	20	

Note: There are a maximum of 20 field samples in a SDG.

Attach Traffic Reports to this form in alphanumeric order (i.e., the order listed on this form).

M Sherman
Sample Custodian

12/12/90
Date



FEDERAL EXPRESS

QUESTIONS? CALL 800-238-5355 TOLL FREE

AIRBILL
PACKAGE TRACKING NUMBER 699[illegible]

87M 6993639714

RECIPIENT'S COPY

Date 12/11/90

1 From (Your Name) Please Print: Marcus A. Pinal
Your Phone Number (Very Important): 214-742-8601
Company: ECOLOGY & ENVIRONMENT INC
Department/Floor No.:
Street Address: 1509 MAIN ST STE 1400
City: DALLAS State: TX ZIP Required: 7[illegible]01

2 To (Recipient's Name) Please Print: Vickey Hoelo
Recipient's Phone Number (Very Important): (918) 39[illegible]
Company: Northwest Radiator Welding
Department/Floor No.:
Exact Street Address (We Cannot Deliver to P.O. Boxes or P.O. Zip® Codes): 17 Cline + Alternate
City: Broken Arrow State: OK ZIP Required: 7401[illegible]

YOUR INTERNAL BILLING REFERENCE INFORMATION (First 24 characters will appear on invoice.)

H IF HOLD FOR PICK-UP, Print FEDEX Address Here
Street Address:
City: State: ZIP Required:

3 PAYMENT 1 [X] Bill Sender 2 [ ] Bill Recipient's FedEx Acct. No. 3 [ ] Bill 3rd Party FedEx Acct. No. 4 [ ] Bill Credit Card
5 [ ] Cash

4 SERVICES (Check only one box)

	Priority Overnight Service (Delivery by next business morning†)	Standard Overnight Service (Delivery by next business afternoon†)
1	[X] YOUR PACKAGING	51 [ ]
16	[ ] FEDEX LETTER	56 [ ] FEDEX LETTER
17	[ ] FEDEX PAK	52 [ ] FEDEX PAK
18	[ ] FEDEX BOX	53 [ ] FEDEX BOX
14	[ ] FEDEX TUBE	54 [ ] FEDEX TUBE
	Economy Service (formerly Standard Air) (Delivery by second business day†)	Heavyweight (for Extra Large or Extra Heavy package over 150 lbs.)
70	[ ] HEAVYWEIGHT **	
30	[ ] ECONOMY SERVICE	80 [ ] DEFERRED HEAVYWEIGHT **

†Delivery commitment may be later in some areas.
*Declared Value Limit $100
**Call for delivery schedule

DELIVERY AND SPECIAL HANDLING

1 [ ] HOLD FOR PICK-UP (Fill in Box H)
2 [X] DELIVER WEEKDAY
3 [ ] DELIVER SATURDAY (Extra charge) (Not available to all locations)
4 [ ] DANGEROUS GOODS (Extra charge) (Cannot be shipped in FedEx Envelope, FedEx Pak or FedEx Box. Not available for Dangerous Goods Shipments)
5 [ ] CONSTANT SURVEILLANCE SVC. (CSS) (Extra charge) (Available for selected locations. Not available for FedEx Letter Rate. Requires Signature in Section 5 to indicate release.)
6 [ ] DRY ICE
7 [ ] OTHER SPECIAL SERVICE
8 [ ] SATURDAY PICK-UP (Extra charge)
9 [ ]
10 [ ]
11 [ ]
12 [ ] HOLIDAY DELIVERY (Extra charge)

	PACKAGES	WEIGHT In Pounds Only	YOUR DECLARED VALUE	OVER SIZE
	1	52		
Total	1	52		

DIM SHIPMENT (Heavyweight Service Only)
[ ]
Received At: [ ] FedEx Station [ ] FedEx Drop Box [ ] Other
FedEx Emp. No.:

Emp. No.: Date:
[ ] Cash Received
[ ] Return Shipment
[ ] Third Party [ ] Chg. To Del [ ] Chg. To Hold
Street Address:
City: State: Zip:
Received By: X [signature]
Date/Time Received: 12/12/90 0830
FedEx Employee Number:

5 Release Signature:
Date/Time: 12/11 1405

Federal Express Use
Base Charges
Declared Value Charge
Other 1
Other 2
Total Charges

REVISION DATE 11/89
PART #119501 FXEM 2/90
FORMAT #014

014

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1552-T-1112

461

FEDERAL EXPRESS

QUESTIONS? CALL 800-238-5355 TOLL FREE.

AIRBILL
PACKAGE TRACKING NUMBER 699

87M 6993363941

RECIPIENT'S COPY

Date 12/12/90

1 From (Your Name) Please Print: Marcus Pinzel
Your Phone Number (Very Important): 214-742-6601
Company: ECOLOGY & ENVIRONMENT INC
Department/Floor No.:
Street Address: 1509 MAIN ST STE 1400
City: DALLAS State: TX ZIP Required: 75201

2 To (Recipient's Name) Please Print: Vicky Hoddle
Recipient's Phone Number (Very Important): (918) 251-2859
Company: Southwest Labs of Oklahoma
Department/Floor No.:
Exact Street Address (We Cannot Deliver to P.O. Boxes or P.O. Zip® Codes.): 1700 West Albany Suite C
City: Broken Arrow State: OK ZIP Required: 74012

YOUR INTERNAL BILLING REFERENCE INFORMATION (First 24 characters will appear on invoice.)

3 PAYMENT 1 [X] Bill Sender 2 [ ] Bill Recipient's FedEx Acct. No. 3 [ ] Bill 3rd Party FedEx Acct. No. 4 [ ] Bill Credit Card 5 [ ] Cash

H IF HOLD FOR PICK-UP, Print FEDEX Address Here
Street Address
City State ZIP Required

4 SERVICES (Check only one box)

Priority Overnight Service (Delivery by next business morning†)
11 [X] YOUR PACKAGING
16 [ ] FEDEX LETTER *
12 [ ] FEDEX PAK *
13 [ ] FEDEX BOX
14 [ ] FEDEX TUBE

Standard Overnight Service (Delivery by next business afternoon†)
51 [ ]
56 [X] FEDEX LETTER *
52 [ ] FEDEX PAK *
53 [ ] FEDEX BOX
54 [ ] FEDEX TUBE

Economy Service (formerly Standard Air) (Delivery by second business day†)
30 [ ] ECONOMY SERVICE

Heavyweight Service (for Extra Large or any package over 150 lbs.)
70 [ ] HEAVYWEIGHT **
80 [ ] DEFERRED HEAVYWEIGHT **

† Delivery commitment may be later in some areas.
*Declared Value Limit $100.
**Call for delivery schedule.

DELIVERY AND SPECIAL HANDLING
1 [ ] HOLD FOR PICK-UP (Fill in Box H)
2 [X] DELIVER WEEKDAY
3 DELIVER SATURDAY (Extra charge) (Not available to all locations) [ ]
4 [X] DANGEROUS GOODS (Extra charge) (CSS not available for Dangerous Goods Shipments)
5 [ ] CONSTANT SURVEILLANCE SVC. (CSS) (Extra charge) (Release Signature Not Applicable)
6 [ ] DRY ICE Lbs.
7 [ ] OTHER SPECIAL SERVICE
8 [ ]
9 [ ] SATURDAY PICK-UP (Extra charge)
10 [ ]
11 [ ] DESCRIPTION
12 [ ] HOLIDAY DELIVERY (If offered) (Extra charge)

PACKAGES	WEIGHT In Pounds Only	YOUR DECLARED VALUE	OVER SIZE
1	64		
Total 1	Total 64	Total	

DIM SHIPMENT (Heavyweight Services Only) [ ] lbs.

Received At: 1 [ ] Regular Stop 2 [ ] On-Call Stop 3 [ ] Drop Box 4 [ ] B.S.C. 5 [ ] Station

FedEx Emp. No.

Emp. No. Date
[ ] Cash Received
[ ] Return Shipment
[ ] Third Party [ ] Chg. To Del. [ ] Chg. To Hold
Street Address
City State Zip
Received By: X M Sherman
Date/Time Received: 12/13/90 FedEx Employee Number: 0830

5 Release Signature
Date/Time: 12/13/90

Federal Express Use
Base Charges
Declared Value Charge
Other 1
Other 2
Total Charges

REVISION DATE 11/89
PART #119501 FXEM 2/90
FORMAT #014
014

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15522 F-1112

USEPA CONTRACT LABORATORY PROGRAM
SAMPLE MANAGEMENT OFFICE
P.O. BOX 818 ALEXANDRIA, VA 22313
703/557-2490 FTS-557-2490

CASE NO: 15522 | SAS NO: (IF APPLICABLE) 463

INORGANIC TRAFFIC REPORT
(FOR CLP USE ONLY)

TYPE OF ACTIVITY (CIRCLE ONE) ①
SUPERFUND—PA SI ESI RIFS RD RA ER NPLD O&M OTHER _____
NON-SUPERFUND—_____ PROGRAM

SAMPLE DESCRIPTION (ENTER IN BOX A)
1. SURFACE WATER 4. SOIL
2. GROUND WATER 5. SEDIMENT
3. LEACHATE 6. OIL (SAS)
7. WASTE (SAS)

REGION NO: 10 SAMPLING COMPANY ② Ecology & Environment
SAMPLER: (NAME) Marcus Pinzel

SHIP TO: ③ Southwest Labs of Oklahoma
1700 West Albany, Suite C
Broken Arrow, OK 74012
ATTN: Vickey Hobbs

SAMPLING DATE: ④
BEGIN: 12/11/90 END: 12/11/90

DATE SHIPPED: _____ CARRIER: FedEx ⑤
AIRBILL NO: 699363974

DATE REC'D: 12/12/90 SDG NO: ⑥ MFK888
REC'D BY: MSherman
LABORATORY CONTRACT NO. UNIT PRICE
68-D9-0089 SOW $124.49

TRANSFER TO: DATE REC'D: ⑦
REC'D BY: CONTRACT NO./PRICE:

CLP SAMPLE NUMBER (FROM LABELS)	Ⓐ SAMPLE DESCRIPTION (FROM BOX 1) 1 2 3 4 5 6 7	Ⓑ CONCENTRATION L = LOW M = MED H = HIGH (SAS)	Ⓒ RAS ANALYSIS: TOTAL METALS	CYANIDE	DISSOLVED METALS	HIGH ONLY (SAS): SULFIDE	pH	CONDUCTIVITY	OXIDANTS	Ⓓ SPECIAL HANDLING	Ⓔ STATION LOCATION	Ⓕ SAMPLE CONDITION ON RECEIPT	Ⓖ HIGH CONC. PHASES (CHECK): SOLID	WATER—MIS LIQUID	NON WATER—MIS LIQUID
GSS-1	4	L	✓	✓							North Gall Stain	No Discrepancies			
GSS-2	4	L	✓	✓							South Gall Stain				
GSS-3	4	L	✓	✓							East Salt Stain				
GSS-4	4	L	✓	✓							West Salt Stain				
SS-5	4	L	✓	✓							South Pile				
SS-6	4	L	✓	✓							Far Out				
SS-7	4	L	✓	✓							North Pile				
SS-8	4	L	✓	✓							Front Pile				
SS-9	4	L	✓	✓							Far West				
GSS-10	4	L	✓	✓							North Canal				
GW-1	2	L	✓	✓							Well				
	GBS														

EPA Form 2075-6 (8-87)

WHITE — SMO COPY PINK — CLIENT COPY WHITE — LAB COPY FOR RETURN TO SMO YELLOW — LAB COPY

USEPA CONTRACT LABORATORY PROGRAM
SAMPLE MANAGEMENT OFFICE
P.O. BOX 818 ALEXANDRIA, VA 22313
703/557-2490 FTS-557-2490

CASE NO: 15527 | SAS NO: (IF APPLICABLE) 464

INORGANIC TRAFFIC REPORT
(FOR CLP USE ONLY)

TYPE OF ACTIVITY (CIRCLE ONE) ①
SUPERFUND—PA (SI) ESI RIFS RD RA ER NPLD O&M OTHER _____
NON-SUPERFUND—_____ PROGRAM

SAMPLE DESCRIPTION (ENTER IN BOX A)
1. SURFACE WATER 4. SOIL
2. GROUND WATER 5. SEDIMENT
3. LEACHATE 6. OIL (SAS)
7. WASTE (SAS)

REGION NO: 1 SAMPLING COMPANY ② Ecology & Environment
SAMPLER: (NAME) Marcus Pinzel

SHIP TO: ③
Southwest Labs of Oklahoma
1700 West Albany Suite C
Broken Arrow, OK 74012
ATTN: Vickey Hoolda

SAMPLING DATE: ④
BEGIN: 12/12/90 END: 12/12/90

DATE SHIPPED: 12/12/90 CARRIER: FedEx ⑤
AIRBILL NO: 6993363941

DATE REC'D: 12/13/90 SDG NO: 888 ⑥ MFK ~~889~~ MS
REC'D BY: MSherman
LABORATORY CONTRACT NO. UNIT PRICE
68-D9-0089 Job $12449

TRANSFER TO: DATE REC'D: ⑦
REC'D BY: CONTRACT NO./PRICE:

CLP SAMPLE NUMBER (FROM LABELS)	Ⓐ SAMPLE DESCRIPTION (FROM BOX 1) 1 2 3 4 5 6 7	Ⓑ CONCENTRATION L = LOW M = MED H = HIGH (SAS)	Ⓒ RAS ANALYSIS: TOTAL METALS	CYANIDE	DISSOLVED METALS	HIGH ONLY (SAS): SULFIDE	pH	CONDUCTIVITY	OXIDANTS	Ⓓ SPECIAL HANDLING	Ⓔ STATION LOCATION	Ⓕ SAMPLE CONDITION ON RECEIPT	Ⓖ HIGH CONC. PHASES (CHECK): SOLID	WATER—MIS LIQUID	NON WATER—MIS LIQUID
GGW-2	1	L	✓	✓							Geo South				
GGW-3	1	L	✓	✓							Geo North				
GGW-4	1	L	✓	✓							Geo far West				
GGW-5	1	L	✓	✓							West Geo				
SW-1	1	L	✓	✓							Drain Canal				
SW-2	1	L	✓	✓							Up Canal				
SW-3	1	L	✓	✓							Up the Creek	* final sample -			
TB-1	1	L	✓	✓							Trip Blank	rec'd in SDG. Job			

EPA Form 2075-6 (8-87)

WHITE — SMO COPY PINK — CLIENT COPY WHITE — LAB COPY FOR RETURN TO SMO YELLOW — LAB COPY

ENVIRONMENTAL PROTECTION AGENCY
Office of Enforcement

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

CHAIN OF CUSTODY RECORD

PROJ. NO. ~~1A0956104SOT~~ GKS 15522

PROJECT NAME

SAMPLERS: (Signature) Julia J. Rohr, Guy Thrasher, Carsten Lorentzen, Chris Carlson

STA. NO.	Time ~~DATE~~ GKS	Date ~~TIME~~ GKS	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	Metals/Cyanide	Metals	Cyanide			REMARKS
GSS-1	10:04 10:13	12/11/90		✓	North Salt Stain	1	✓					6-035093 MFK901
GSS-2	09:15 09:26	12/11/90		✓	South Salt Stain	1	✓					6-035094 MFK902
GSS-3	09:34 09:44	12/11/90		✓	East Salt Stain	1	✓					6-035101 MFK894
GSS-4	09:53 10:04	12/11/90		✓	West Salt Stain	1	✓					6-035105 MFK ~~896~~ 897 GKS
SS-5	08:17 08:20	12/11/90		✓	South Pile	1	✓					6-035109 MFK890
SS-6	08:01 08:03	12/11/90		✓	Far Out	1	✓					6-035113 MFK ~~896~~ 898 GKS
SS-7	08:21 08:23	12/11/90		✓	North Pile	1	✓					6-035117 MFK900
SS-8	08:25 08:27	12/11/90		✓	Fence Pile	1	✓					6-035121 MFK898
SS-9	08:08 08:11	12/11/90		✓	Far West	1	✓					6-035125 MFK899
GSS-10	09:30 09:38	12/11/90		✓	North Canal	1	✓					6-035129 MFK896
GW-1	10:15 10:33	12/11/90		✓	Well	~~5~~ ~~2~~ 4 GKS	✓		~~X~~ GKS			6-035142, 6-035141, ~~6-035140~~ GKS, ~~6-035139~~ MFK903
"	"	"		"	"	2			✓			6-035146, 6-035139 MFK903
~~TB-1~~		12/11/90		✓	Trip Blank	1		✓				6-035227 MFK889 GKS
"	"	"		"	"	1			▷			6-035228 MFK ~~888~~ 891 GKS

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Julia J. Rohr, Carsten Lorentzen	12/11/90 1220				
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks	
		M Sherman	12/12/90 0830	Airbill # 6493363974	

Distribution: Original Accompanies Shipment; Copy to Coordinator Field Files

issued 1-11-91

6-18018

ENVIRONMENTAL PROTECTION AGENCY
Office of Enforcement

REGION 6
First International Bldg. 1 Elm St.
Dallas, Texas 75270

CHAIN OF CUSTODY RECORD

PROJ. NO. 15522 | PROJECT NAME

SAMPLERS: (Signature) Kathleen Chris Carlson

STA. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	Metals	Cyanide	REMARKS
GGW-2	12/12/90	11:01 11:09		✓	Geo South	1	✓		6-035155 MFK893
"	"	"		✓	" "	1		✓	6-035156 MFK893
GGW-3	12/12/90	11:10 11:17		✓	Geo North	1	✓		6-035165 MFK892
"	"	"		✓	" "			✓	6-035166 MFK892
GGW-4	12/12/90	11:15 11:20		✓	Geo Far West		✓		6-035173 MFK895
"	"	"		✓	" " "			✓	6-035174 MFK895
GGW-5	12/12/90	11:25 11:37		✓	GKS ~~Geo~~ West Geo		✓		6-035181 MFK891
"	"	"		✓	" "			✓	6-035182 MFK891
SW-1	12/12/90	09:47 09:50		✓	Down Canal		✓		6-035193 MFK905
"	"	"		✓	" "			✓	6-035195 MFK905
SW-2	12/12/90	09:20 09:27		✓	Up Canal		✓		6-035211 MFK904
"	"	"		✓	" "			✓	6-035212 MFK904
SW-3	12/12/90	09:28 09:40		✓	Up the Creek		✓		6-035219 MFK906
"	"	"		✓	" " "			✓	6-035220 MFK906
							✓GKS		

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Kathleen Chris Carlson	12/12/90 15:30				
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks	
		MSherman	12/13/90 0830	Federal Express Air Bill# 6993363941	

Distribution: Original Accompanies Shipment; Copy to Coordinator Field Files

15522-111

469

6-18024

ENVIRONMENTAL PROTECTION AGENCY
Office of Enforcement

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

CHAIN OF CUSTODY RECORD

PROJ. NO.	PROJECT NAME
1522	

SAMPLERS: (Signature) Greg Straugh

STA. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	Metals	Cyanide					REMARKS
TB-1	12/12/90	09:15 09:25		✓	Trip Blank	1	✓						6-035227 X MFK889
"	"	"			" "	1		✓					6-035228 X MFK889

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Greg Straugh	12/12/90 15:30				
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks	
		Mohrman	12/13/90 0830	Federal Express Air Bill # 6993363941	

Distribution: Original Accompanies Shipment; Copy to Coordinator Field Files

1522 FILE

6-18026

SOUTHWEST LABORATORY OF OKLAHOMA CLP SAMPLE LOG-IN SHEET

DATE: Dec. 12, 1990

Custodian Signature M Sherman

CIRCLE THE APPROPRIATE RESPONSE	
Custody Seal	(present)/absent (intact)/not intact
Chain of Custody	(present)/absent
Sample Tags	(present)/absent
Sample Tag Numbers	(listed)/not listed on Chain-of-Custody
SMO Forms	present

Document Control # 15522-F-1117

Case Number 15522

Airbill Number 6993363974

DATE RECEIVED	TIME RECEIVED	CHAIN-OF CUSTODY RECORD NUMBER	SMO SAMPLE NUMBERS	CORRESPONDING		DOES INFORMATION ON CUSTODY RECORDS, TRAFFIC REPORTS, AND SAMPLE TAGS AGREE?	REMARKS CONDITION OF SAMPLE SHIPMENT, ETC
				SAMPLE TAG NUMBERS	ASSIGNED LAB NUMBERS		
12-12-90	0830		MFK 888	6-035113	4572.01	yes	No discrepancies
12-12-90	0830		MFK 890	6-035109	4572.02		
12-12-90	0830		MFK 894	6-035101	4572.03		
12-12-90	0830		MFK 896	6-035129	4572.04		
12-12-90	0830		MFK 897	6-035105	4572.05		
12-12-90	0830		MFK 898	6-035121	4572.06		
12-12-90	0830		MFK 899	6-035125	4572.07		
12-12-90	0830		MFK 900	6-035117	4572.08		
12-12-90	0830		MFK 901	6-035093	4572.09		
12-12-90	0830		MFK 902	6-035097	4572.10		

SOUTHWEST LABORATORY OF OKLAHOMA CLP SAMPLE LOG-IN SHEET

DATE: Dec. 12, 1990

Custodian Signature M Sherman

CIRCLE THE APPROPRIATE RESPONSE	
Custody Seal	(present)/absent (intact)/not intact
Chain of Custody	(present)/absent
Sample Tags	(present)/absent
Sample Tag Numbers	(listed)/not listed on Chain-of-Custody
SMO Forms	present

Document Control # 15522F-11FB

Case Number 15522

Airbill Number 6993363974

DATE RECEIVED	TIME RECEIVED	CHAIN-OF CUSTODY RECORD NUMBER	SMO SAMPLE NUMBERS	CORRESPONDING		DOES INFORMATION ON CUSTODY RECORDS, TRAFFIC REPORTS, AND SAMPLE TAGS AGREE?	REMARKS CONDITION OF SAMPLE SHIPMENT, ETC
				SAMPLE TAG NUMBERS	ASSIGNED LAB NUMBERS		
12-12-90	0830		MFK903	6-035139-42	4572.11	yes	No Discrepancies

4659

SOUTHWEST LABORATORY OF OKLAHOMA CL SAMPLE LOG-IN SHEET

DATE: Dec. 13, 1990

Custodian Signature MSherman

CIRCLE THE APPROPRIATE RESPONSE	
Custody Seal	(present)/absent (intact)/not intact
Chain of Custody	(present)/absent
Sample Tags	(present)/absent
Sample Tag Numbers	(listed)/not listed on Chain-of-Custody
SMO Forms	present

Document Control # 15522-F-1115

Case Number 15522

Airbill Number 6993363941

DATE RECEIVED	TIME RECEIVED	CHAIN-OF CUSTODY RECORD NUMBER	SMO SAMPLE NUMBERS	CORRESPONDING		DOES INFORMATION ON CUSTODY RECORDS, TRAFFIC REPORTS, AND SAMPLE TAGS AGREE?	REMARKS CONDITION OF SAMPLE SHIPMENT, ETC
				SAMPLE TAG NUMBERS	ASSIGNED LAB NUMBERS		
12-13-90	0830		MFK 889	6-035227,28	4585.01	Yes	No discrepancies
12-13-90	0830		MFK 891	6-035181,82	4585.02		
12-13-90	0830		MFK 892	6-035165,66	4585.03		
12-13-90	0830		MFK 893	6-035155,56	4585.04		
12-13-90	0830		MFK 895	6-035173,74	4585.05		
12-13-90	0830		MFK 904	6-035211,12	4585.06		
12-13-90	0830		MFK 905	6-035193,95	4585.07		
12-13-90	0830		MFK 906	6-035219,20	4585.08		