UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

EPA Region 5 Records Ctr.
364213

DATE: April 19, 2001

SUBJECT: Review of Data
Received for Review on April 18, 2001

FROM: Stephen L. Ostrodka, Chief (SMF-4J)
Superfund Field Services Section

TO: Data User: IEPA

The data in this case has not been validated.
We have compiled the CADRE files into a narrative format for the following case:

SITE NAME: Wisconsin Steel

CASE NUMBER: 29118 SDG NUMBER: ME0001

Number and Type of Samples: 20 soils

Sample Numbers: ME0001-20

Laboratory: Compuchem Hrs. for Review:

Following are our findings:

RECEIVED
APR 2 3 2001
IEPA-BOL-FSRS

CC: Cecilia Moore
Region 5 TPO
Mail Code: SM-5J

Case Number : 29118
Site Name: Wisconsin Steel

SDG Number: ME0001
Laboratory: Compuchem

Below is a summary of the out-of-control audits and the possible effects on the data for this case:

NUMBER (##) MATRIX samples numbered ##, were collected on DATE. The lab received the samples on DATE in good condition. All samples were analyzed for metals and cyanide. All samples were analyzed using CLP SOW ILM04.1 analysis procedures.

Mercury analysis was performed using a Cold Vapor AA Technique. Cyanide analysis was performed using the MIDI Distillation procedure. The remaining inorganic analyses were performed using an Inductively Coupled Plasma-Atomic Emission Spectrometric procedure.

Assembled By: ESAT
Date: April 19, 2001

Case Number : 29118
Site Name: Wisconsin Steel

SDG Number: ME0001
Laboratory: Compuchem

1. HOLDING TIME:

Holding Time Report

SDG NO: ME0001

HOLDING TIME CRITERIA

Inorganic

	-- Holding Time --		------- pH -------	
	Primary	Expanded	Primary	Expanded
Metals	180	0	2.0	0.0
Mercury	28	0	2.0	0.0
Cyanide	14	0	12.0	0.0

SOW-280: The following inorganic soil samples were reviewed for holding time violations using criteria developed for water samples.

ME0001, ME0001D, ME0001S, ME0002, ME0003, ME0004
ME0005, ME0006, ME0007, ME0008, ME0009, ME0010
ME0011, ME0012, ME0013, ME0014, ME0015, ME0016
ME0017, ME0018, ME0019, ME0020

2. CALIBRATIONS:

Calibration Report

SDG NO: ME0001

CALIBRATION CRITERIA

Inorganic

Percent Recovery Limits

	--- Primary ---		-- Expanded ---	
	Low	High	Low	High
Cyanide	85.00	115.00	70.00	130.00
AA	90.00	110.00	75.00	125.00
ICP	90.00	110.00	75.00	125.00
Mercury	80.00	120.00	65.00	135.00

No problems found for this qualification.

3 BLANKS:

Assembled By: ESAT
Date: April 19, 2001

Case Number : 29118
Site Name: Wisconsin Steel

SDG Number: ME0001
Laboratory: Compuchem

Laboratory Blanks Report

SDG NO: ME0001

LABORATORY BLANKS CRITERIA

DC-283: The following inorganic samples are associated with a blank analyte with negative concentration whose absolute value is greater than the instrument detection limit (IDL). Professional judgement should be used to qualify the data.

ME0001
Beryllium, Calcium, Zinc, Cyanide

ME0001A
Beryllium

ME0001D
Beryllium, Calcium, Zinc, Cyanide

ME0001S
Beryllium, Zinc, Cyanide

ME0002
Aluminum, Beryllium, Calcium, Zinc
Cyanide

ME0003
Aluminum, Beryllium, Calcium, Zinc
Cyanide

ME0004
Aluminum, Beryllium, Calcium, Zinc
Cyanide

ME0005
Beryllium, Calcium, Zinc, Cyanide

ME0006
Beryllium, Calcium, Zinc, Cyanide

ME0007
Beryllium, Calcium, Zinc, Cyanide

ME0008
Beryllium, Calcium, Zinc, Cyanide

ME0009
Beryllium, Calcium, Zinc, Cyanide

ME0010
Beryllium, Calcium, Zinc, Cyanide

ME0011
Beryllium, Calcium, Zinc, Cyanide

ME0012
Beryllium, Calcium, Zinc, Cyanide

Assembled By: ESAT
Date: April 19, 2001

ME0013
Beryllium, Calcium, Zinc, Cyanide

ME0014
Beryllium, Calcium, Zinc, Cyanide

ME0015
Beryllium, Calcium, Zinc, Cyanide

ME0016
Beryllium, Calcium, Zinc, Cyanide

MEC017
Beryllium, Calcium, Zinc, Cyanide

MEC018
Beryllium, Calcium, Zinc, Cyanide

MEC019
Beryllium, Calcium, Zinc, Cyanide

MEC020
Beryllium, Calcium, Zinc, Cyanide

DC-284: The following inorganic samples are associated with a blank concentration which is greater than the instrument detection limit (IDL). The sample concentration is also greater than the IDL and less than five times the blank concentration. Hits are qualified "J"; non-detects are not flagged.

Barium
ME0001A

Beryllium
ME0001A, ME0005, ME0007

Silver
ME0001A, ME0004, ME0006

Sodium
ME0004, ME0006, ME0008, ME0009, ME0010, ME0012
ME0013, ME0014, ME0015, ME0016, ME0017, ME0018

Vanadium
ME0001A

DC-338: During review of the following inorganic samples, the reported IDL/default CRDL value was used for cyanide.

ME0001, ME0001D, ME0001S, ME0002, ME0003, ME0004
ME0005, ME0006, ME0007, ME0008, ME0009, ME0010
ME0011, ME0012, ME0013, ME0014, ME0015, ME0016
ME0017, ME0018, ME0019, ME0020

4. MATRIX SPIKE/MATRIX SPIKE DUPLICATE AND LAB CONTROL SAMPLE:

Matrix Spike Report

Assembled By: ESAT
Date: April 19, 2001

Case Number : 29118
Site Name: Wisconsin Steel

SDG Number: ME0001
Laboratory: Compuchem

SDG NO: ME0001

MATRIX SPIKE CRITERIA

Inorganic

Percent Recovery Limits

Upper	125.0
Lower	75.0
Extreme lower	30.0

DC-268: The following inorganic samples are associated with a matrix spike recovery which is low (30-74 %) indicating that sample results may be biased low.
Hits are qualified "J" and non-detects are qualified "UJ".

Antimony
ME0001, ME0001A, ME0001D, ME0002, ME0003, ME0004
ME0005, ME0006, ME0007, ME0008, ME0009, ME0010
ME0011, ME0012, ME0013, ME0014, ME0015, ME0016
ME0017, ME0018, ME0019, ME0020

Arsenic
ME0001, ME0001A, ME0001D, ME0002, ME0003, ME0004
ME0005, ME0006, ME0007, ME0008, ME0009, ME0010
ME0011, ME0012, ME0013, ME0014, ME0015, ME0016
ME0017, ME0018, ME0019, ME0020

Barium
ME0001, ME0001A, ME0001D, ME0002, ME0003, ME0004
ME0005, ME0006, ME0007, ME0008, ME0009, ME0010
ME0011, ME0012, ME0013, ME0014, ME0015, ME0016
ME0017, ME0018, ME0019, ME0020

Beryllium
ME0001, ME0001A, ME0001D, ME0002, ME0003, ME0004
ME0005, ME0006, ME0007, ME0008, ME0009, ME0010
ME0011, ME0012, ME0013, ME0014, ME0015, ME0016
ME0017, ME0018, ME0019, ME0020

Cadmium
ME0001, ME0001A, ME0001D, ME0002, ME0003, ME0004
ME0005, ME0006, ME0007, ME0008, ME0009, ME0010
ME0011, ME0012, ME0013, ME0014, ME0015, ME0016
ME0017, ME0018, ME0019, ME0020

Cobalt
ME0001, ME0001A, ME0001D, ME0002, ME0003, ME0004
ME0005, ME0006, ME0007, ME0008, ME0009, ME0010
ME0011, ME0012, ME0013, ME0014, ME0015, ME0016
ME0017, ME0018, ME0019, ME0020

Nickel
ME0001, ME0001A, ME0001D, ME0002, ME0003, ME0004
ME0005, ME0006, ME0007, ME0008, ME0009, ME0010
ME0011, ME0012, ME0013, ME0014, ME0015, ME0016
ME0017, ME0018, ME0019, ME0020

Selenium
ME0001, ME0001A, ME0001D, ME0002, ME0003, ME0004
ME0005, ME0006, ME0007, ME0008, ME0009, ME0010

Assembled By: ESAT
Date: April 19, 2001

ME0011, ME0012, ME0013, ME0014, ME0015, ME0016
ME0017, ME0018, ME0019, ME0020

Thallium
ME0001, ME0001A, ME0001D, ME0002, ME0003, ME0004
ME0005, ME0006, ME0007, ME0008, ME0009, ME0010
ME0011, ME0012, ME0013, ME0014, ME0015, ME0016
ME0017, ME0018, ME0019, ME0020

Vanadium
ME0001, ME0001A, ME0001D, ME0002, ME0003, ME0004
ME0005, ME0006, ME0007, ME0008, ME0009, ME0010
ME0011, ME0012, ME0013, ME0014, ME0015, ME0016
ME0017, ME0018, ME0019, ME0020

DC-269: The following inorganic samples are associated with a matrix spike recovery which is extremely low (<30 %) indicating that sample results may be biased low.
Hits are qualified "J" and non-detects are qualified "R".

Silver
ME0001, ME0001A, ME0001D, ME0002, ME0003, ME0004
ME0005, ME0006, ME0007, ME0008, ME0009, ME0010
ME0011, ME0012, ME0013, ME0014, ME0015, ME0016
ME0017, ME0018, ME0019, ME0020

LCS Report

SDG NO: ME0001

No problems found for this qualification.

5. LABORATORY AND FIELD DUPLICATE

Duplicates Report

SDG NO: ME0001

DC-330: The following inorganic samples are associated with duplicate results which did not meet absolute difference criteria.
Hits are qualified "J" and non-detects are qualified "UJ".

Silver
ME0001, ME0001S, ME0002, ME0003, ME0004, ME0005
ME0006, ME0007, ME0008, ME0009, ME0010, ME0011
ME0012, ME0013, ME0014, ME0015, ME0016, ME0017
ME0018, ME0019, ME0020

6. ICP ANALYSIS

Assembled By: ESAT
Date: April 19, 2001

Case Number : 29118
Site Name: Wisconsin Steel

SDG Number: ME0001
Laboratory: Compuchem

ICS Report

SDG NO: ME0001

DC-307: The following inorganic samples have no associated ICS analyses.
Manual review of the data is required.

ME0001
Aluminum, Antimony, Arsenic, Barium
Beryllium, Cadmium, Calcium, Chromium
Cobalt, Copper, Iron, Lead
Magnesium, Manganese, Nickel, Selenium
Silver, Thallium, Vanadium, Zinc

ME0002
Aluminum, Antimony, Arsenic, Barium
Beryllium, Cadmium, Calcium, Chromium
Cobalt, Copper, Iron, Lead
Magnesium, Manganese, Nickel, Selenium
Silver, Thallium, Vanadium, Zinc

ME0003
Aluminum, Antimony, Arsenic, Barium
Beryllium, Cadmium, Calcium, Chromium
Cobalt, Copper, Iron, Lead
Magnesium, Manganese, Nickel, Selenium
Silver, Thallium, Vanadium, Zinc

ME0004
Aluminum, Antimony, Arsenic, Barium
Beryllium, Cadmium, Calcium, Chromium
Cobalt, Copper, Iron, Lead
Magnesium, Manganese, Nickel, Selenium
Silver, Thallium, Vanadium, Zinc

ME0005
Aluminum, Antimony, Arsenic, Barium
Beryllium, Cadmium, Calcium, Chromium
Cobalt, Copper, Iron, Lead
Magnesium, Manganese, Nickel, Selenium
Silver, Thallium, Vanadium, Zinc

ME0006
Aluminum, Antimony, Arsenic, Barium
Beryllium, Cadmium, Calcium, Chromium
Cobalt, Copper, Iron, Lead
Magnesium, Manganese, Nickel, Selenium
Silver, Thallium, Vanadium, Zinc

ME0007
Aluminum, Antimony, Arsenic, Barium
Beryllium, Cadmium, Calcium, Chromium
Cobalt, Copper, Iron, Lead
Magnesium, Manganese, Nickel, Selenium
Silver, Thallium, Vanadium, Zinc

ME0008
Aluminum, Antimony, Arsenic, Barium
Beryllium, Cadmium, Calcium, Chromium
Cobalt, Copper, Iron, Lead
Magnesium, Manganese, Nickel, Selenium
Silver, Thallium, Vanadium, Zinc

Assembled By: ESAT
Date: April 19, 2001

Case Number : 29118
Site Name: Wisconsin Steel

SDG Number: ME0001
Laboratory: Compuchem

ME0009
Aluminum, Antimony, Arsenic, Barium
Beryllium, Cadmium, Calcium, Chromium
Cobalt, Copper, Iron, Lead
Magnesium, Manganese, Nickel, Selenium
Silver, Thallium, Vanadium, Zinc

ME0010
Aluminum, Antimony, Arsenic, Barium
Beryllium, Cadmium, Calcium, Chromium
Cobalt, Copper, Iron, Lead
Magnesium, Manganese, Nickel, Selenium
Silver, Thallium, Vanadium, Zinc

ME0011
Aluminum, Antimony, Arsenic, Barium
Beryllium, Cadmium, Calcium, Chromium
Cobalt, Copper, Iron, Lead
Magnesium, Manganese, Nickel, Selenium
Silver, Thallium, Vanadium, Zinc

ME0012
Aluminum, Antimony, Arsenic, Barium
Beryllium, Cadmium, Calcium, Chromium
Cobalt, Copper, Iron, Lead
Magnesium, Manganese, Nickel, Selenium
Silver, Thallium, Vanadium, Zinc

ME0013
Aluminum, Antimony, Arsenic, Barium
Beryllium, Cadmium, Calcium, Chromium
Cobalt, Copper, Iron, Lead
Magnesium, Manganese, Nickel, Selenium
Silver, Thallium, Vanadium, Zinc

ME0014
Aluminum, Antimony, Arsenic, Barium
Beryllium, Cadmium, Calcium, Chromium
Cobalt, Copper, Iron, Lead
Magnesium, Manganese, Nickel, Selenium
Silver, Thallium, Vanadium, Zinc

ME0015
Aluminum, Antimony, Arsenic, Barium
Beryllium, Cadmium, Calcium, Chromium
Cobalt, Copper, Iron, Lead
Magnesium, Manganese, Nickel, Selenium
Silver, Thallium, Vanadium, Zinc

ME0016
Aluminum, Antimony, Arsenic, Barium
Beryllium, Cadmium, Calcium, Chromium
Cobalt, Copper, Iron, Lead
Magnesium, Manganese, Nickel, Selenium
Silver, Thallium, Vanadium, Zinc

ME0017
Aluminum, Antimony, Arsenic, Barium
Beryllium, Cadmium, Calcium, Chromium
Cobalt, Copper, Iron, Lead
Magnesium, Manganese, Nickel, Selenium
Silver, Thallium, Vanadium, Zinc

ME0018
Aluminum, Antimony, Arsenic, Barium
Beryllium, Cadmium, Calcium, Chromium

Assembled By: ESAT
Date: April 19, 2001

Case Number : 29118
Site Name: Wisconsin Steel

SDG Number: ME0001
Laboratory: Compuchem

Cobalt, Copper, Iron, Lead
Magnesium, Manganese, Nickel, Selenium
Silver, Thallium, Vanadium, Zinc

ME0019
Aluminum, Antimony, Arsenic, Barium
Beryllium, Cadmium, Calcium, Chromium
Cobalt, Copper, Iron, Lead
Magnesium, Manganese, Nickel, Selenium
Silver, Thallium, Vanadium, Zinc

ME0020
Aluminum, Antimony, Arsenic, Barium
Beryllium, Cadmium, Calcium, Chromium
Cobalt, Copper, Iron, Lead
Magnesium, Manganese, Nickel, Selenium
Silver, Thallium, Vanadium, Zinc

Serial Dilution Report

SDG NO: ME0001

DC-294: The analyte concentration is high (>50 X the IDL) and serial dilution percent difference is not in criteria (>10%). Hits are qualified "J" and non-detects are qualified "UJ".

Beryllium
ME0001, ME0001D, ME0001S, ME0002, ME0003, ME0004
ME0005, ME0006, ME0007, ME0008, ME0009, ME0010
ME0011, ME0012, ME0013, ME0014, ME0015, ME0016
ME0017, ME0018, ME0019, ME0020

Potassium
ME0001, ME0001D, ME0002, ME0003, ME0004, ME0005
ME0006, ME0007, ME0008, ME0009, ME0010, ME0011
ME0012, ME0013, ME0014, ME0015, ME0016, ME0017
ME0018, ME0019, ME0020

DC-295: The following inorganic samples are associated with an ICP serial dilution percent difference which is not in criteria. The serial dilution result is greater than the sample result, indicating a potential negative interference. The data must be qualified using professional judgement. Hits are qualified "J", non-detects "UJ".

Cadmium
ME0001, ME0001D, ME0001S, ME0002, ME0003, ME0004
ME0005, ME0006, ME0007, ME0008, ME0009, ME0010
ME0011, ME0012, ME0013, ME0014, ME0015, ME0016
ME0017, ME0018, ME0019, ME0020

Iron
ME0001, ME0001D, ME0002, ME0003, ME0004, ME0005
ME0006, ME0007, ME0008, ME0009, ME0010, ME0011
ME0012, ME0013, ME0014, ME0015, ME0016, ME0017
ME0018, ME0019, ME0020

Manganese
ME0001, ME0001D, ME0001S, ME0002, ME0003, ME0004
ME0005, ME0006, ME0007, ME0008, ME0009, ME0010
ME0011, ME0012, ME0013, ME0014, ME0015, ME0016

Assembled By: ESAT
Date: April 19, 2001

Case Number : 29118
Site Name: Wisconsin Steel

SDG Number: ME0001
Laboratory: Compuchem

ME0017, ME0018, ME0019, ME0020

Zinc
ME0001, ME0001D, ME0001S, ME0002, ME0003, ME0004
ME0005, ME0006, ME0007, ME0008, ME0009, ME0010
ME0011, ME0012, ME0013, ME0014, ME0015, ME0016
ME0017, ME0018, ME0019, ME0020

7. GFAA ANALYSIS

Furnace AA QC Report

SDG NO: ME0001

No problems found for this qualification.

8. SAMPLE RESULTS

All data, except those qualified above, are acceptable.

Sample Result Verification Report

SDG NO: ME0001

No problems found for this qualification.

Assembled By: ESAT
Date: April 19, 2001

CADRE Data Qualifier Sheet

Qualifiers	Data Qualifier Definitions
U	The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
J	The analyte was positively identified; the associated numerical value is an approximate concentration of the analyte in the sample.
UJ	The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the action limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
R	The data are unusable. (The compound may or may not be present)

Analytical Results (Qualified Data)

Case # 29118 SDG : ME0001
Site WISCONSIN STEEL
Lab. LIBRTY
Reviewer :
Date :

Number of Soil Samples : 20
Number of Water Samples : 0

Sample Number :	ME0001		ME0002		ME0003		ME0004		ME0005	
Sampling Location :	X101		X102		X103		X235		X217	
Matrix :	Soil		Soil		Soil		Soil		Soil	
Units	mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg	
Date Sampled :	04/03/2001		04/03/2001		04/03/2001		04/03/2001		04/03/2001	
Time Sampled :	11:35		11:55		12:10		14:10		08:25	
%Solids :	86.2		88.2		85.7		75.5		41.4	
Dilution Factor :	1.0		1.0		1.0		1.0		1.0	
ANALYTE	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
ALUMINUM	7300		6090		7320		5630		6290	
ANTIMONY	9.0	J	4.7	J	3.8	J	1.9	J	16.9	J
ARSENIC	15.6	J	10.8	J	13.1	J	2.9	J	14.2	J
BARIUM	274	J	140	J	187	J	64.0	J	45.0	J
BERYLLIUM	1.3	J	1.1	J	1.3	J	0.76	J	0.24	J
CADMIUM	12.3	J	7.8	J	10.2	J	0.16	UJ	11.8	J
CALCIUM	51600		38300		51600		49700		96100	
CHROMIUM	280		231		275		876		873	
COBALT	6.3	J	6.4	J	7.8	J	6.4	J	6.5	J
COPPER	940		1230		462		29.7		364	
IRON	115000	J	95000	J	102000	J	39800	J	223000	J
LEAD	794		400		1860		16.2		1140	
MAGNESIUM	11100		10600		12600		8250		11800	
MANGANESE	5800	J	5160	J	5760	J	4150	J	12100	J
MERCURY	0.44		0.56		0.38		0.060	U	0.35	
NICKEL	69.2	J	79.2	J	60.7	J	383	J	113	J
POTASSIUM	595	J	449	J	648	J	716	J	490	J
SELENIUM	3.5	J	2.8	J	3.8	J	1.3	UJ	3.6	J
SILVER	46.4	J	9.6	J	2.9	J	0.37	J	4.6	J
SODIUM	35.3	U	32.8	U	34.1	U	469	J	68.0	U
THALLIUM	9.6	J	11.0	J	14.1	J	4.7	J	30.7	J
VANADIUM	106	J	72.5	J	89.0	J	33.8	J	84.7	J
ZINC	18700	J	15200	J	10800	J	48.1	J	5240	J
CYANIDE	6.4		3.7		5.3		1.2		26.2	

DISCLAIMER: This package has been electronically assessed as an added service to our customer. It has not been either validated or approved by Region 5 and any subsequent use by the data user is strictly at the risk of the data user. Region 5 assumes no responsibility for use of unvalidated data.

Analytical Results (Qualified Data)

Case #: 29118 SDG : ME0001
Site : WISCONSIN STEEL
Lab : LIBRTY
Reviewer :
Date

Sample Number :	ME0006		ME0007		ME0008		ME0009		ME0010	
Sampling Location :	X218		X219		X220		X221		X222	
Matrix :	Soil		Soil		Soil		Soil		Soil	
Units :	mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg	
Date Sampled :	04/03/2001		04/03/2001		04/03/2001		04/03/2001		04/03/2001	
Time Sampled :	08:40		08:50		09:10		09:25		10:15	
%Solids :	40.8		39.9		40.1		37.8		42.5	
Dilution Factor :	1.0		1.0		1.0		1.0		1.0	
ANALYTE	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
ALUMINUM	7650		7140		7110		10100		6130	
ANTIMONY	1.8	J	14.6	J	1.9	J	2.1	J	2.0	J
ARSENIC	9.3	J	14.9	J	8.5	J	12.6	J	8.2	J
BARIUM	49.4	J	43.3	J	47.7	J	68.1	J	42.6	J
BERYLLIUM	0.46	J	0.090	J	0.40	J	0.35	J	0.30	J
CADMIUM	0.29	J	8.0	J	0.30	UJ	0.88	J	0.42	J
CALCIUM	45900		87800		42600		57500		38500	
CHROMIUM	40.6		1030		34.0		52.7		30.7	
COBALT	8.7	J	8.3	J	8.4	J	12.3	J	7.9	J
COPPER	52.6		386		49.1		66.5		45.1	
IRON	42300	J	203000	J	38900	J	58000	J	40400	J
LEAD	105		827		92.4		119		85.7	
MAGNESIUM	20300		15600		19500		26400		17500	
MANGANESE	1010	J	13100	J	955	J	1350	J	848	J
MERCURY	0.080	U	0.21		0.15		0.17		0.10	U
NICKEL	25.5	J	95.2	J	24.3	J	35.1	J	22.0	J
POTASSIUM	1720	J	903	J	1590	J	2080	J	1300	J
SELENIUM	3.7	J	3.9	J	2.4	UJ	2.4	UJ	2.4	J
SILVER	0.41	J	4.0	J	0.35	J	0.50	J	0.41	J
SODIUM	327	J	74.0	U	326	J	185	J	241	J
THALLIUM	5.2	J	30.3	J	4.2	J	10.8	J	4.8	J
VANADIUM	28.9	J	89.4	J	26.9	J	37.0	J	24.5	J
ZINC	305	J	4000	J	259	J	372	J	245	J
CYANIDE	1.2		30.8		0.88		0.62		1.2	

Analytical Results (Qualified Data)

Case #: 29118 SDG : ME0001
Site : WISCONSIN STEEL
Lab. : LIBRTY
Reviewer :
Date :

Sample Number :	ME0011		ME0012		ME0013		ME0014		ME0015	
Sampling Location :	X223		X224		X225		X226		X227	
Matrix :	Soil		Soil		Soil		Soil		Soil	
Units :	mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg	
Date Sampled :	04/03/2001		04/03/2001		04/03/2001		04/03/2001		04/03/2001	
Time Sampled :	10:20		10:50		10:55		11:10		11:25	
%Solids :	42.4		48.7		48.0		46.1		42.3	
Dilution Factor :	1.0		1.0		1.0		1.0		1.0	
ANALYTE	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
ALUMINUM	8590		7530		7710		7640		7540	
ANTIMONY	2.9	J	3.6	J	2.5	J	1.8	J	2.1	J
ARSENIC	12.3	J	11.5	J	12.3	J	10.6	J	10.0	J
BARIUM	55.7	J	55.4	J	54.1	J	57.6	J	55.7	J
BERYLLIUM	0.59	J	0.41	J	0.61	J	0.33	J	0.52	J
CADMIUM	0.84	J	0.48	J	0.23	UJ	0.77	J	0.28	UJ
CALCIUM	51500		57200		51500		52700		47700	
CHROMIUM	54.6		38.9		42.9		34.5		36.5	
COBALT	10.8	J	9.2	J	8.7	J	9.4	J	8.9	J
COPPER	70.2		52.4		55.3		55.6		56.3	
IRON	62900	J	57600	J	70400	J	55300	J	54200	J
LEAD	168		88.7		115		94.1		118	
MAGNESIUM	22500		25100		22500		23500		21000	
MANGANESE	1930	J	1120	J	1300	J	1110	J	1110	J
MERCURY	0.16		0.15		0.15		0.16		0.15	
NICKEL	30.5	J	25.8	J	25.9	J	25.9	J	25.7	J
POTASSIUM	1540	J	1520	J	1350	J	1540	J	1530	J
SELENIUM	2.5	J	3.0	J	2.7	J	2.2	J	2.9	J
SILVER	0.65	J	0.28	J	0.34	J	0.36	J	0.59	J
SODIUM	65.8	U	231	J	131	J	171	J	222	J
THALLIUM	9.0	J	8.3	J	8.2	J	8.7	J	5.4	J
VANADIUM	33.3	J	30.8	J	32.3	J	30.8	J	31.2	J
ZINC	422	J	260	J	308	J	288	J	334	J
CYANIDE	1.3		1.3		1.5		0.83		1.4	

Analytical Results (Qualified Data)

Case #: 29118 SDG : ME0001
Site : WISCONSIN STEEL
Lab : LIBRTY
Reviewer :
Date

Sample Number :	ME0016		ME0017		ME0018		ME0019		ME0020	
Sampling Location :	X228		X201		X202		X203		X204	
Matrix :	Soil		Soil		Soil		Soil		Soil	
Units :	mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg	
Date Sampled :	04/02/2001		04/03/2001		04/03/2001		04/03/2001		04/03/2001	
Time Sampled :			14:30		14:45		15:00		15:15	
%Solids :	48.9		50.8		42.3		35.9		46.4	
Dilution Factor :	1.0		1.0		1.0		1.0		1.0	
ANALYTE	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
ALUMINUM	7320		6580		7910		7320		9150	
ANTIMONY	2.5	J	15.9	J	6.5	J	2.6	J	4.3	J
ARSENIC	12.1	J	25.8	J	12.1	J	9.3	J	14.1	J
BARIUM	60.1	J	79.1	J	256	J	45.3	J	66.0	J
BERYLLIUM	0.38	J	0.63	J	0.45	J	0.050	UJ	0.64	J
CADMIUM	0.58	J	0.54	J	0.28	UJ	2.8	J	1.7	J
CALCIUM	56300		37200		55000		49700		57100	
CHROMIUM	41.2		131		98.7		97.8		136	
COBALT	9.3	J	10.1	J	12.3	J	9.8	J	11.2	J
COPPER	51.6		208		105		118		146	
IRON	66500	J	145000	J	102000	J	50900	J	80500	J
LEAD	101		367		400		297		536	
MAGNESIUM	23100		9440		20000		20300		24000	
MANGANESE	1260	J	2600	J	1600	J	1300	J	1950	J
MERCURY	0.12		0.63		0.41		0.43		0.89	
NICKEL	27.6	J	118	J	56.8	J	40.4	J	53.4	J
POTASSIUM	1340	J	984	J	1750	J	1570	J	1690	J
SELENIUM	2.2	J	5.6	J	4.2	J	3.1	J	3.4	J
SILVER	0.40	J	0.82	J	0.34	J	1.1	J	1.0	J
SODIUM	199	J	132	J	256	J	82.3	U	61.3	U
THALLIUM	11.1	J	18.2	J	11.9	J	7.7	J	9.8	J
VANADIUM	30.2	J	42.5	J	33.1	J	31.5	J	42.7	J
ZINC	293	J	628	J	245	J	751	J	785	J
CYANIDE	1.6		3.4		1.2		1.5		3.8	

Analytical Results (Qualified Data)

Case #: 29118 SDG : ME0001
Site : WISCONSIN STEEL
Lab. : LIBRTY
Reviewer :
Date :

Sample Number :	ME0001D		ME0001S							
Sampling Location :	X101		X101							
Matrix :	Soil		Soil							
Units :	mg/Kg		mg/Kg							
Date Sampled :	04/03/2001		04/03/2001							
Time Sampled :	11:35		11:35							
%Solids	86.2		86.2							
Dilution Factor :	1.0		1.0							
ANALYTE	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
ALUMINUM	7590									
ANTIMONY	8.0	J	49.6							
ARSENIC	15.4	J	20.9							
BARIUM	295	J	596							
BERYLLIUM	1.3	J	8.5	J						
CADMIUM	12.4	J	18.9	J						
CALCIUM	57800									
CHROMIUM	296		278							
COBALT	6.6	J	82.9							
COPPER	980		854							
IRON	116000	J								
LEAD	780		623							
MAGNESIUM	12200									
MANGANESE	6860	J	5310	J						
MERCURY	0.40		0.98							
NICKEL	66.7	J	130							
POTASSIUM	622	J								
SELENIUM	3.8	J	4.9							
SILVER	8.9	J	16.7	J						
SODIUM	35.3	U								
THALLIUM	9.7	J	18.1							
VANADIUM	113	J	177							
ZINC	18500	J	16100	J						
CYANIDE	5.3		11.5							

USEPA Contract Laboratory Program
Inorganic Traffic Report

Case No: 29118
DAS No:
SDG No: ME0001

Date Shipped: 4/4/01 Carrier Name: FedEx Airbill: 3497986973 Shipped to: Liberty Analytical 501 Madison Avenue Cary NC 27513 (919) 379-4080	Date Received/Received by: 4/5/01 8:50 [signature] Lab Contract No: 68W00082 Unit Price: 77.25 Transfer To: Date Received/Received By: Lab Contract No: Price:	Sampler (Signature): [signature] Relinquished By: [signature] Date / Time: 04/04/2001 1530 Received By: Relinquished By: Date / Time: Received By: Relinquished By: Date / Time: 4/5/01 8:50 Received By: Melissa Stein	

INORGANIC SAMPLE No.	MATRIX/ SAMPLER	CONC/ TYPE	ANALYSIS/ TURNAROUND	TAG No./ PRESERVATIVE	STATION LOCATION	SAMPLE COLLECT DATE/TIME	ORGANIC SAMPLE No.	FOR LAB USE ONLY Sample Condition On Receipt
ME0001	Soil/Sediment/ Ted Prescott	L/G	TM (21)	5-043700 (1)	X101	4/3/01 11:35	E0001	Good
ME0002	Soil/Sediment/ Ted Prescott	L/G	TM (21)	5-43702 (1)	X102	4/3/01 11:55	E0002	
ME0003	Soil/Sediment/ Ted Prescott	L/G	TM (21)	5-43704 (1)	X103	4/3/01 12:10	E0003	
ME0004	Sediment/ Ted Prescott	L/G	TM (21)	5-43706 (1)	X235	4/3/01 14:10	E0004	
ME0005	Sediment/ Ted Prescott	L/G	TM (21)	5-43708 (1)	X217	4/3/01 8:25	E0005	
ME0006	Sediment/ Ted Prescott	L/G	TM (21)	5-43710 (1)	X218	4/3/01 8:40	E0006	
ME0007	Sediment/ Ted Prescott	L/G	TM (21)	5-43712 (1)	X219	4/3/01 8:50	E0007	
ME0008	Sediment/ Ted Prescott	L/G	TM (21)	5-43714 (1)	X220	4/3/01 9:10	E0008	
ME0009	Sediment/ Ted Prescott	L/G	TM (21)	5-43716 (1)	X221	4/3/01 9:25	E0009	
ME0010	Sediment/ Ted Prescott	L/G	TM (21)	5-43718 (1)	X222	4/3/01 10:15	E0010	
ME0011	Sediment/ Ted Prescott	L/G	TM (21)	5-43720 (1)	X223	4/3/01 10:20	E0011	
ME0012	Sediment/ Ted Prescott	L/G	TM (21)	5-43722 (1)	X224	4/3/01 10:50	E0012	ORIGINAL
ME0013	Sediment/ Ted Prescott	L/G	TM (21)	5-43724 (1)	X225	4/3/01 10:55	E0013	
ME0014	Sediment/ Ted Prescott	L/G	TM (21)	5-43726 (1)	X226	4/3/01 11:10	E0014	
ME0015	Sediment/ Ted Prescott	L/G	TM (21)	5-43728 (1)	X227	4/3/01 11:25	E0015	

Shipment for Case Complete? Y	Sample(s) to be used for laboratory QC:	Additional Sampler Signature(s):	Cooler Temperature Upon Receipt: 5°C	Chain of Custody Seal Number: 20045-46
Analysis Key: TM = CLP TAL Total Metals	Concentration: L = Low, M = Low/Medium, H = High	Type/Designat Composite = C, Grab = G	Custody Seal Intact Y	Shipment Iced Y

PR provides preliminary results. Requests for preliminary resuls will increase analytical costs.
Send Copy to: Contract Laboratory Analytical Services Support, 2000 Edmund Halley Dr., Reston, VA. 20191-3436 Phone 703/264-9348 Fax 703/264-9222

TR Number: 5-285846426-040401-0003

USEPA Contract Laboratory Program
Inorganic Traffic Report

Case No: 29118
DAS No: ME0021
SDG No: ME0021

L

Date Shipped: 4/4/01 Carrier Name: FedEx Airbill: 3497986973 Shipped to: Liberty Analytical 501 Madison Avenue Cary NC 27513 (919) 379-4080	Date Received/Received by: 4/5/01 M. Stone 8:30 Lab Contract No: 68W00082 Unit Price: 77.25 Transfer To: Date Received/Received By: Lab Contract No: Price:	Sampler (Signature): [signature]	
		Relinquished By: [signature]	Date / Time: 04/04/2001 1530	Received By:
		Relinquished By:	Date / Time:	Received By:
		Relinquished By:	Date / Time: 4/5/01 8:50	Received By: Melissa Stone

INORGANIC SAMPLE No.	MATRIX/ SAMPLER	CONC/ TYPE	ANALYSIS/ TURNAROUND	TAG No./ PRESERVATIVE	STATION LOCATION	SAMPLE COLLECT DATE/TIME	ORGANIC SAMPLE No.	FOR LAB USE ONLY Sample Condition On Receipt
ME0016	Sediment/ Ted Prescott	L/G	TM (21)	5-43730 (1)	X228	4/2/01	E0016	Good
ME0017	Sediment/ Ted Prescott	L/G	TM (21)	5-43732 (1)	X201	4/3/01 14:30	E0017	
ME0018	Sediment/ Ted Prescott	L/G	TM (21)	5-43734 (1)	X202	4/3/01 14:45	E0018	
ME0019	Sediment/ Ted Prescott	L/G	TM (21)	5-43736 (1)	X203	4/3/01 15:00	E0019	
ME0020	Sediment/ Ted Prescott	L/G	TM (21)	5-43738 (1)	X204	4/3/01 15:15	E0020	SDG Final Sample
ME0021	Sediment/ Ted Prescott	L/G	TM (21)	5-43740 (1)	X205	4/3/01 15:30	E0021	
ME0022	Sediment/ Ted Prescott	L/G	TM (21)	5-43742 (1)	X206	4/3/01 15:40	E0022	
ME0023	Sediment/ Ted Prescott	L/G	TM (21)	5-43744 (1)	X207	4/4/01 17:05	E0023	
ME0024	Sediment/ Ted Prescott	L/G	TM (21)	5-43746 (1)	X208	4/3/01 17:15	E0024	
ME0025	Sediment/ Ted Prescott	L/G	TM (21)	5-43748 (1)	X209	4/4/01 17:35	E0025	ORIGINAL
ME0026	Sediment/ Ted Prescott	L/G	TM (21)	5-43750 (1)	X210	4/4/01 17:45	E0026	
ME0027	Sediment/ Ted Prescott	L/G	TM (21)	5-43752 (1)	X211	4/4/01 18:15	E0027	
ME0028	Sediment/ Ted Prescott	L/G	TM (21)	5-43754 (1)	X212	4/4/01 18:20	E0028	
ME0029	Sediment/ Ted Prescott	L/G	TM (21)	5-43756 (1)	X213	4/4/01 9:10	E0029	
ME0030	Sediment/ Ted Prescott	L/G	TM (21)	5-43758 (1)	X240	4/4/01 9:10	E0030	

Shipment for Case Complete? Y	Sample(s) to be used for laboratory QC:	Additional Sampler Signature(s):	Cooler Temperature Upon Receipt: 5°	Chain of Custody Seal Number: 20045-46
Analysis Key: TM = CLP TAL Total Metals	Concentration: L = Low, M = Low/Medium, H = High	Type/Designat Composite = C, Grab = G		Custody Seal Intact: Y / Shipment Iced: Y

PR provides preliminary results. Requests for preliminary resuls will increase analytical costs.
Send Copy to: Contract Laboratory Analytical Services Support, 2000 Edmund Halley Dr., Reston, VA. 20191-3436 Phone 703/264-9348 Fax 703/264-9222

TR Number: 5-285846426-040401-0003

APR 1 8 2001

CompuChem
a Division of Liberty Analytical Corp.
501 Madison Avenue Cary, NC 27513

SDG NARRATIVE
CASE # 29118 SDG # ME0001
CONTRACT # 68W00082

The indicated Sample Delivery Group (SDG) consisting of twenty (20) soil samples was received into the laboratory information management system (LIMS) on April 5, 2001 intact and in good condition with Chain of Custody (COC) Records in order, unless otherwise noted in any attachments or Quality Assurance Notices. The temperature of the samples upon receipt was 5°C, as determined from the cooler temperature indicator bottle. Sample ID's reported in this data package are noted by the receiving department on the COC if they differ from those listed by the samplers on the COC.

The samples were analyzed, in accordance with EPA CLP Statement of Work (SOW) document ILM04.1, for the complete Inorganic Target Analyte List (TAL). Cyanide analysis was not called for by the Traffic Report, however the samples were originally scheduled for cyanide. The laboratory was instructed to analyze the samples for cyanide. Please refer to the enclosed e-mail correspondence.

The correlation coefficients for the mercury and cyanide analytical runs are confirmed to be $\geq$ 0.9950.

EQUATIONS FOR SOLID SAMPLE CALCULATIONS:

Equation for obtaining metals sample results in mg/Kg as presented on FORM I data sheets from ICP instrument acquired results in µg/L (ppb).

$$\frac{C \times V}{W \times S}$$

Where

C = concentration (µg/L)

V = final volume in liters after sample preparation

W = weight in grams of wet sample

S = % solids/100

Example: aluminum result µg/L to mg/Kg.

$$\frac{31444.64\ \mu g/L\ (C) \times 0.2\ L\ (V)}{1.0\ g\ (W) \times 0.862\ (S)} = 7295.740\ mg/Kg \text{ reported as } 7300\ mg/Kg$$

Equation for obtaining cyanide sample results in mg/Kg as presented on FORM I data sheets from instrument acquired results in µg/L (ppb).

$$\frac{C \times D \times V}{W \times S}$$

Where

C = concentration of cyanide (µg/L)

W = wet weight of sample

D = dilution factor to bring sample into analysis range

S = % solids/100

V = final volume in liters

Example: cyanide result µg/L to mg/Kg

$$\frac{110.855446\mu g/L\ (C) \times 1\ (D) \times 0.05\ L\ (V)}{1.0g\ (W) \times 0.862\ (S)} = 6.4301\ mg/Kg \text{ reported as } 6.4\ mg/Kg$$

Equation for obtaining mercury sample results in mg/Kg as presented on FORM I data sheets from instrument acquired results in µg/L (ppb).

$$\frac{C \times D \times V}{W \times S}$$

Where

C = concentration (µg/L)

W = wet weight of sample

D = dilution factor to bring sample into analysis range

S = % solids/100

V = final volume in liters

Example: mercury result µg/L to mg/Kg

$$\frac{0.7643\ \mu g/L(C) \times 1\ (D) \times 0.1\ (V)}{0.2\ g\ (W) \times 0.862\ (S)} = 0.4433\ mg/Kg \text{ reported as } 0.44\ mg/Kg$$

SAMPLE IDs:
The following customer IDs are associated with this SDG:
ME0001 ME0002 ME0003 ME0004 ME0005 ME0006 ME0007 ME0008 ME0009 ME0010
ME0011 ME0012 ME0013 ME0014 ME0015 ME0016 ME0017 ME0018 ME0019 ME0020

INSTRUMENTAL QUALITY CONTROL:
All calibration verification solutions (ICV & CCV), blanks (ICB, & CCB), and interference check samples (ICSA & ICSAB) associated with this data were confirmed to be within EPA CLP allowable limits.

SAMPLE PREPARATION QUALITY CONTROL:
The sample preparation procedure verifications (LCSS & PBS) were found to be within acceptable ranges and all field samples were prepared and analyzed within the contract specified holding times.

MATRIX RELATED QUALITY CONTROL:
The sample matrix spike, CCN = WG9443-1 (ME0001S) was found to be outside CLP control limits for Antimony, Arsenic, Barium, Beryllium, Cadmium, Cobalt, Nickel, Selenium, Silver, Thallium and Vanadium.

CLP control limits for matrix spike recoveries are set at 75% to 125% of the analyte quantity added unless original sample concentrations exceed the true values of these "spikes" by a factor of four or more. In this case, affected analytes are not flagged even if recoveries are outside percentage recovery control limits.

The sample matrix duplicate, CCN = WG9443-2 (ME0001D) was outside CLP control limits for Silver.

CLP control limits for duplicate determinations are +/- 20% Relative Percent Difference (RPD) for concentrations greater than or equal to five times the CRDL in both the original and duplicate samples, and +/- the CRDL for concentrations less than five times the CRDL. The RPD is not calculated if both the original and duplicate values fall below the IDL.

A five-fold serial dilution of sample, CCN = SDIME0001-1 (ME0001L) was performed in accordance with CLP requirements for ICP analysis.

The adjusted sample concentrations were outside CLP control limit for Beryllium, Cadmium and Potassium, which are flagged with an "E" on all associated Form I and Form IX.

CLP control limits for serial dilution are defined as a deviation less than or equal to 10% in the dilution adjusted concentrations from the original values for all analyte concentrations greater than fifty (50) times their respective Instrument Detection Limit (IDL) in the original sample.

An "E" flag indicates that a chemical or physical interference effect was encountered during the analysis of that analyte. As a result of the interference, all values for that analyte in the same matrix must be considered estimated values.

The laboratory manager or his designee, as verified by the following signature has authorized release of the data contained in this hard copy data package.

James E. Medlin
Senior Chemist
April 16, 2001

U. S. EPA - CLP

APR 1 8 2001

COVER PAGE - INORGANIC ANALYSES DATA PACKAGE

Lab Name: COMPUCHEM Contract: 68W00082

Lab Code: LIBRTY Case No.: 29118 SAS No.: _____ SDG No.: ME0001

SOW No.: ILM04.1

EPA Sample No.	Lab Sample ID.
ME0001	ME0001-1
ME0001D	WG9443-2
ME0001S	WG9443-1
ME0002	ME0001-2
ME0003	ME0001-3
ME0004	ME0001-4
ME0005	ME0001-5
ME0006	ME0001-6
ME0007	ME0001-7
ME0008	ME0001-8
ME0009	ME0001-9
ME0010	ME0001-10
ME0011	ME0001-11
ME0012	ME0001-12
ME0013	ME0001-13
ME0014	ME0001-14
ME0015	ME0001-15
ME0016	ME0001-16
ME0017	ME0001-17
ME0018	ME0001-18
ME0019	ME0001-19

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: THE FOLLOWING ANALYTES HAVE BEEN FLAGGED WITH AN "E" TO INDICATE SERIAL DILUTION RESULTS WHICH ARE NOT WITHIN CONTROL LIMITS : BERYLLIUM, CADMIUM and POTASSIUM.

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

Signature: James Medlin Name: James Medlin

Date: 4/12/01 Title: Senior Chemist

U. S. EPA - CLP

COVER PAGE - INORGANIC ANALYSES DATA PACKAGE

Lab Name: COMPUCHEM Contract: 68W00082

Lab Code: LIBRTY Case No.: 29118 SAS No.: _____ SDG No.: ME0001

SOW No.: ILM04.1

EPA Sample No.	Lab Sample ID.
ME0020	ME0001-20

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: THE FOLLOWING ANALYTES HAVE BEEN FLAGGED WITH AN "E" TO INDICATE SERIAL DILUTION RESULTS WHICH ARE NOT WITHIN CONTROL LIMITS : BERYLLIUM, CADMIUM and POTASSIUM.

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

Signature: James Medlin Name: James Medlin

Date: 4/12/01 Title: Senior Chemist

U. S. EPA - CLP

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

ME0001

Lab Name: COMPUCHEM Contract: 68W00082

Lab Code: LIBRTY Case No.: 29118 SAS No.: SDG No.: ME0001

Matrix (soil/water): SOIL Lab Sample ID: ME0001-1

Level (low/med): LOW Date Received: 04/05/01

% Solids: 86.2

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	7300			P
7440-36-0	Antimony	9.0	B	N	P
7440-38-2	Arsenic	15.6		N	P
7440-39-3	Barium	274		N	P
7440-41-7	Beryllium	1.3		NE	P
7440-43-9	Cadmium	12.3		NE	P
7440-70-2	Calcium	51600			P
7440-47-3	Chromium	280			P
7440-48-4	Cobalt	6.3	B	N	P
7440-50-8	Copper	940			P
7439-89-6	Iron	115000			P
7439-92-1	Lead	794			P
7439-95-4	Magnesium	11100			P
7439-96-5	Manganese	5800			P
7439-97-6	Mercury	0.44			CV
7440-02-0	Nickel	69.2		N	P
7440-09-7	Potassium	595	B	E	P
7782-49-2	Selenium	3.5		N	P
7440-22-4	Silver	46.4		N*	P
7440-23-5	Sodium	35.3	U		P
7440-28-0	Thallium	9.6		N	P
7440-62-2	Vanadium	106		N	P
7440-66-6	Zinc	18700			P
	Cyanide	6.4			CA

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: Artifacts:

Comments:

U. S. EPA - CLP

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

ME0002

Lab Name: COMPUCHEM Contract: 68W00082

Lab Code: LIBRTY Case No.: 29118 SAS No.: SDG No.: ME0001

Matrix (soil/water): SOIL Lab Sample ID: ME0001-2

Level (low/med): LOW Date Received: 04/05/01

% Solids: 88.2

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	6080			P
7440-36-0	Antimony	4.7	B	N	P
7440-38-2	Arsenic	10.8		N	P
7440-39-3	Barium	140		N	P
7440-41-7	Beryllium	1.1	B	NE	P
7440-43-9	Cadmium	7.8		NE	P
7440-70-2	Calcium	38300			P
7440-47-3	Chromium	231			P
7440-48-4	Cobalt	6.4	B	N	P
7440-50-8	Copper	1230			P
7439-89-6	Iron	95000			P
7439-92-1	Lead	400			P
7439-95-4	Magnesium	10600			P
7439-96-5	Manganese	5160			P
7439-97-6	Mercury	0.56			CV
7440-02-0	Nickel	79.2		N	P
7440-09-7	Potassium	449	B	E	P
7782-49-2	Selenium	2.8		N	P
7440-22-4	Silver	9.6		N*	P
7440-23-5	Sodium	32.8	U		P
7440-28-0	Thallium	11.0		N	P
7440-62-2	Vanadium	72.5		N	P
7440-66-6	Zinc	15200			P
	Cyanide	3.7			CA

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: Artifacts:

Comments:

U. S. EPA - CLP

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

ME0003

Lab Name: COMPUCHEM Contract: 68W00082

Lab Code: LIBRTY Case No.: 29118 SAS No.: SDG No.: ME0001

Matrix (soil/water): SOIL Lab Sample ID: ME0001-3

Level (low/med): LOW Date Received: 04/05/01

% Solids: 85.7

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	7320			P
7440-36-0	Antimony	3.8	B	N	P
7440-38-2	Arsenic	13.1		N	P
7440-39-3	Barium	187		N	P
7440-41-7	Beryllium	1.3		NE	P
7440-43-9	Cadmium	10.2		NE	P
7440-70-2	Calcium	51600			P
7440-47-3	Chromium	275			P
7440-48-4	Cobalt	7.8	B	N	P
7440-50-8	Copper	462			P
7439-89-6	Iron	102000			P
7439-92-1	Lead	1860			P
7439-95-4	Magnesium	12600			P
7439-96-5	Manganese	5760			P
7439-97-6	Mercury	0.38			CV
7440-02-0	Nickel	60.6		N	P
7440-09-7	Potassium	648	B	E	P
7782-49-2	Selenium	3.8		N	P
7440-22-4	Silver	2.9		N*	P
7440-23-5	Sodium	34.1	U		P
7440-28-0	Thallium	14.1		N	P
7440-62-2	Vanadium	89.0		N	P
7440-66-6	Zinc	10800			P
	Cyanide	5.3			CA

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: Artifacts:

Comments:

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

ME0004

Lab Name: COMPUCHEM Contract: 68W00082

Lab Code: LIBRTY Case No.: 29118 SAS No.: SDG No.: ME0001

Matrix (soil/water): SOIL Lab Sample ID: ME0001-4

Level (low/med): LOW Date Received: 04/05/01

% Solids: 75.5

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	5630			P
7440-36-0	Antimony	1.9	B	N	P
7440-38-2	Arsenic	2.8		N	P
7440-39-3	Barium	64.0		N	P
7440-41-7	Beryllium	0.76	B	NE	P
7440-43-9	Cadmium	0.16	U	NE	P
7440-70-2	Calcium	49700			P
7440-47-3	Chromium	876			P
7440-48-4	Cobalt	6.4	B	N	P
7440-50-8	Copper	29.7			P
7439-89-6	Iron	39800			P
7439-92-1	Lead	16.2			P
7439-95-4	Magnesium	8250			P
7439-96-5	Manganese	4150			P
7439-97-6	Mercury	0.060	U		CV
7440-02-0	Nickel	383		N	P
7440-09-7	Potassium	716	B	E	P
7782-49-2	Selenium	1.2	U	N	P
7440-22-4	Silver	0.37	B	N*	P
7440-23-5	Sodium	469	B		P
7440-28-0	Thallium	4.7		N	P
7440-62-2	Vanadium	33.8		N	P
7440-66-6	Zinc	48.1			P
	Cyanide	1.2			CA

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: Artifacts:

Comments:

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

ME0005

Lab Name: COMPUCHEM Contract: 68W00082

Lab Code: LIBRTY Case No.: 29118 SAS No.: SDG No.: ME0001

Matrix (soil/water): SOIL Lab Sample ID: ME0001-5

Level (low/med): LOW Date Received: 04/05/01

% Solids: 41.4

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	6290			P
7440-36-0	Antimony	16.9	B	N	P
7440-38-2	Arsenic	14.2		N	P
7440-39-3	Barium	45.0	B	N	P
7440-41-7	Beryllium	0.24	B	NE	P
7440-43-9	Cadmium	11.8		NE	P
7440-70-2	Calcium	96100			P
7440-47-3	Chromium	872			P
7440-48-4	Cobalt	6.5	B	N	P
7440-50-8	Copper	364			P
7439-89-6	Iron	223000			P
7439-92-1	Lead	1140			P
7439-95-4	Magnesium	11800			P
7439-96-5	Manganese	12100			P
7439-97-6	Mercury	0.35			CV
7440-02-0	Nickel	113		N	P
7440-09-7	Potassium	490	B	E	P
7782-49-2	Selenium	3.6		N	P
7440-22-4	Silver	4.6		N*	P
7440-23-5	Sodium	68.0	U		P
7440-28-0	Thallium	30.7		N	P
7440-62-2	Vanadium	84.7		N	P
7440-66-6	Zinc	5240			P
	Cyanide	26.2			CA

Color Before: RED Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: Artifacts:

Comments:

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

ME0006

Lab Name: COMPUCHEM Contract: 68W00082

Lab Code: LIBRTY Case No.: 29118 SAS No.: SDG No.: ME0001

Matrix (soil/water): SOIL Lab Sample ID: ME0001-6

Level (low/med): LOW Date Received: 04/05/01

% Solids: 40.8

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	7650			P
7440-36-0	Antimony	1.8	B	N	P
7440-38-2	Arsenic	9.2		N	P
7440-39-3	Barium	49.4	B	N	P
7440-41-7	Beryllium	0.46	B	NE	P
7440-43-9	Cadmium	0.29	B	NE	P
7440-70-2	Calcium	45900			P
7440-47-3	Chromium	40.6			P
7440-48-4	Cobalt	8.7	B	N	P
7440-50-8	Copper	52.6			P
7439-89-6	Iron	42300			P
7439-92-1	Lead	105			P
7439-95-4	Magnesium	20300			P
7439-96-5	Manganese	1010			P
7439-97-6	Mercury	0.084	U		CV
7440-02-0	Nickel	25.5		N	P
7440-09-7	Potassium	1720	B	E	P
7782-49-2	Selenium	3.7		N	P
7440-22-4	Silver	0.41	B	N*	P
7440-23-5	Sodium	327	B		P
7440-28-0	Thallium	5.2		N	P
7440-62-2	Vanadium	28.9		N	P
7440-66-6	Zinc	305			P
	Cyanide	1.2	B		CA

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: Artifacts:

Comments:

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

ME0007

Lab Name: COMPUCHEM Contract: 68W00082

Lab Code: LIBRTY Case No.: 29118 SAS No.: SDG No.: ME0001

Matrix (soil/water): SOIL Lab Sample ID: ME0001-7

Level (low/med): LOW Date Received: 04/05/01

% Solids: 39.9

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	7140			P
7440-36-0	Antimony	14.6	B	N	P
7440-38-2	Arsenic	14.9		N	P
7440-39-3	Barium	43.3	B	N	P
7440-41-7	Beryllium	0.086	B	NE	P
7440-43-9	Cadmium	8.0		NE	P
7440-70-2	Calcium	87800			P
7440-47-3	Chromium	1020			P
7440-48-4	Cobalt	8.3	B	N	P
7440-50-8	Copper	386			P
7439-89-6	Iron	203000			P
7439-92-1	Lead	827			P
7439-95-4	Magnesium	15600			P
7439-96-5	Manganese	13100			P
7439-97-6	Mercury	0.21	B		CV
7440-02-0	Nickel	95.2		N	P
7440-09-7	Potassium	903	B	E	P
7782-49-2	Selenium	3.9		N	P
7440-22-4	Silver	4.0	B	N*	P
7440-23-5	Sodium	74.0	U		P
7440-28-0	Thallium	30.3		N	P
7440-62-2	Vanadium	89.4		N	P
7440-66-6	Zinc	4000			P
	Cyanide	30.8			CA

Color Before: RED Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: Artifacts:

Comments:

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

ME0008

Lab Name: COMPUCHEM Contract: 68W00082

Lab Code: LIBRTY Case No.: 29118 SAS No.: SDG No.: ME0001

Matrix (soil/water): SOIL Lab Sample ID: ME0001-8

Level (low/med): LOW Date Received: 04/05/01

% Solids: 40.1

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	7110			P
7440-36-0	Antimony	1.9	B	N	P
7440-38-2	Arsenic	8.5		N	P
7440-39-3	Barium	47.7	B	N	P
7440-41-7	Beryllium	0.40	B	NE	P
7440-43-9	Cadmium	0.30	U	NE	P
7440-70-2	Calcium	42600			P
7440-47-3	Chromium	34.0			P
7440-48-4	Cobalt	8.4	B	N	P
7440-50-8	Copper	49.1			P
7439-89-6	Iron	38900			P
7439-92-1	Lead	92.4			P
7439-95-4	Magnesium	19500			P
7439-96-5	Manganese	955			P
7439-97-6	Mercury	0.15	B		CV
7440-02-0	Nickel	24.3		N	P
7440-09-7	Potassium	1580	B	E	P
7782-49-2	Selenium	2.4	U	N	P
7440-22-4	Silver	0.35	B	N*	P
7440-23-5	Sodium	326	B		P
7440-28-0	Thallium	4.2	B	N	P
7440-62-2	Vanadium	26.9		N	P
7440-66-6	Zinc	259			P
	Cyanide	0.88	B		CA

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: Artifacts:

Comments:

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

ME0009

Lab Name: COMPUCHEM Contract: 68W00082

Lab Code: LIBRTY Case No.: 29118 SAS No.: SDG No.: ME0001

Matrix (soil/water): SOIL Lab Sample ID: ME0001-9

Level (low/med): LOW Date Received: 04/05/01

% Solids: 37.8

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	10100			P
7440-36-0	Antimony	2.1	B	N	P
7440-38-2	Arsenic	12.6		N	P
7440-39-3	Barium	68.1	B	N	P
7440-41-7	Beryllium	0.35	B	NE	P
7440-43-9	Cadmium	0.88	B	NE	P
7440-70-2	Calcium	57500			P
7440-47-3	Chromium	52.7			P
7440-48-4	Cobalt	12.3	B	N	P
7440-50-8	Copper	66.5			P
7439-89-6	Iron	58000			P
7439-92-1	Lead	119			P
7439-95-4	Magnesium	26400			P
7439-96-5	Manganese	1350			P
7439-97-6	Mercury	0.17	B		CV
7440-02-0	Nickel	35.1		N	P
7440-09-7	Potassium	2080	B	E	P
7782-49-2	Selenium	2.4	U	N	P
7440-22-4	Silver	0.50	B	N*	P
7440-23-5	Sodium	185	B		P
7440-28-0	Thallium	10.8		N	P
7440-62-2	Vanadium	37.0		N	P
7440-66-6	Zinc	372			P
	Cyanide	0.62	B		CA

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: Artifacts:

Comments:

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

ME0010

Lab Name: COMPUCHEM Contract: 68W00082

Lab Code: LIBRTY Case No.: 29118 SAS No.: SDG No.: ME0001

Matrix (soil/water): SOIL Lab Sample ID: ME0001-10

Level (low/med): LOW Date Received: 04/05/01

% Solids: 42.5

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	6130			P
7440-36-0	Antimony	2.0	B	N	P
7440-38-2	Arsenic	8.2		N	P
7440-39-3	Barium	42.6	B	N	P
7440-41-7	Beryllium	0.30	B	NE	P
7440-43-9	Cadmium	0.42	B	NE	P
7440-70-2	Calcium	38500			P
7440-47-3	Chromium	30.7			P
7440-48-4	Cobalt	7.8	B	N	P
7440-50-8	Copper	45.1			P
7439-89-6	Iron	40400			P
7439-92-1	Lead	85.7			P
7439-95-4	Magnesium	17500			P
7439-96-5	Manganese	848			P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	22.0		N	P
7440-09-7	Potassium	1300	B	E	P
7782-49-2	Selenium	2.4		N	P
7440-22-4	Silver	0.41	B	N*	P
7440-23-5	Sodium	240	B		P
7440-28-0	Thallium	4.8		N	P
7440-62-2	Vanadium	24.5		N	P
7440-66-6	Zinc	245			P
	Cyanide	1.2			CA

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: Artifacts:

Comments:

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

ME0011

Lab Name: COMPUCHEM Contract: 68W00082

Lab Code: LIBRTY Case No.: 29118 SAS No.: SDG No.: ME0001

Matrix (soil/water): SOIL Lab Sample ID: ME0001-11

Level (low/med): LOW Date Received: 04/05/01

% Solids: 42.4

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	8590			P
7440-36-0	Antimony	2.9	B	N	P
7440-38-2	Arsenic	12.3		N	P
7440-39-3	Barium	55.7	B	N	P
7440-41-7	Beryllium	0.58	B	NE	P
7440-43-9	Cadmium	0.84	B	NE	P
7440-70-2	Calcium	51500			P
7440-47-3	Chromium	54.6			P
7440-48-4	Cobalt	10.8	B	N	P
7440-50-8	Copper	70.2			P
7439-89-6	Iron	62900			P
7439-92-1	Lead	168			P
7439-95-4	Magnesium	22500			P
7439-96-5	Manganese	1930			P
7439-97-6	Mercury	0.16	B		CV
7440-02-0	Nickel	30.5		N	P
7440-09-7	Potassium	1540	B	E	P
7782-49-2	Selenium	2.5		N	P
7440-22-4	Silver	0.65	B	N*	P
7440-23-5	Sodium	65.8	U		P
7440-28-0	Thallium	9.0		N	P
7440-62-2	Vanadium	33.3		N	P
7440-66-6	Zinc	422			P
	Cyanide	1.3			CA

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: Artifacts:

Comments:

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

ME0012

Lab Name: COMPUCHEM Contract: 68W00082

Lab Code: LIBRTY Case No.: 29118 SAS No.: SDG No.: ME0001

Matrix (soil/water): SOIL Lab Sample ID: ME0001-12

Level (low/med): LOW Date Received: 04/05/01

% Solids: 48.7

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	7520			P
7440-36-0	Antimony	3.6	B	N	P
7440-38-2	Arsenic	11.4		N	P
7440-39-3	Barium	55.4	B	N	P
7440-41-7	Beryllium	0.41	B	NE	P
7440-43-9	Cadmium	0.48	B	NE	P
7440-70-2	Calcium	57200			P
7440-47-3	Chromium	38.9			P
7440-48-4	Cobalt	9.2	B	N	P
7440-50-8	Copper	52.4			P
7439-89-6	Iron	57600			P
7439-92-1	Lead	88.6			P
7439-95-4	Magnesium	25100			P
7439-96-5	Manganese	1120			P
7439-97-6	Mercury	0.15	B		CV
7440-02-0	Nickel	25.8		N	P
7440-09-7	Potassium	1520	B	E	P
7782-49-2	Selenium	3.0		N	P
7440-22-4	Silver	0.28	B	N*	P
7440-23-5	Sodium	231	B		P
7440-28-0	Thallium	8.3		N	P
7440-62-2	Vanadium	30.8		N	P
7440-66-6	Zinc	260			P
	Cyanide	1.3			CA

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: Artifacts:

Comments:

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

ME0013

Lab Name: COMPUCHEM Contract: 68W00082

Lab Code: LIBRTY Case No.: 29118 SAS No.: SDG No.: ME0001

Matrix (soil/water): SOIL Lab Sample ID: ME0001-13

Level (low/med): LOW Date Received: 04/05/01

% Solids: 48.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	7710			P
7440-36-0	Antimony	2.5	B	N	P
7440-38-2	Arsenic	12.3		N	P
7440-39-3	Barium	54.1	B	N	P
7440-41-7	Beryllium	0.61	B	NE	P
7440-43-9	Cadmium	0.23	U	NE	P
7440-70-2	Calcium	51500			P
7440-47-3	Chromium	42.9			P
7440-48-4	Cobalt	8.7	B	N	P
7440-50-8	Copper	55.3			P
7439-89-6	Iron	70400			P
7439-92-1	Lead	115			P
7439-95-4	Magnesium	22500			P
7439-96-5	Manganese	1300			P
7439-97-6	Mercury	0.15			CV
7440-02-0	Nickel	25.9		N	P
7440-09-7	Potassium	1350	B	E	P
7782-49-2	Selenium	2.7		N	P
7440-22-4	Silver	0.34	B	N*	P
7440-23-5	Sodium	131	B		P
7440-28-0	Thallium	8.2		N	P
7440-62-2	Vanadium	32.3		N	P
7440-66-6	Zinc	308			P
	Cyanide	1.5			CA

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: Artifacts:

Comments:

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

ME0014

Lab Name: COMPUCHEM Contract: 68W00082

Lab Code: LIBRTY Case No.: 29118 SAS No.: SDG No.: ME0001

Matrix (soil/water): SOIL Lab Sample ID: ME0001-14

Level (low/med): LOW Date Received: 04/05/01

% Solids: 46.1

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	7640			P
7440-36-0	Antimony	1.8	B	N	P
7440-38-2	Arsenic	10.6		N	P
7440-39-3	Barium	57.6	B	N	P
7440-41-7	Beryllium	0.33	B	NE	P
7440-43-9	Cadmium	0.77	B	NE	P
7440-70-2	Calcium	52700			P
7440-47-3	Chromium	34.5			P
7440-48-4	Cobalt	9.4	B	N	P
7440-50-8	Copper	55.6			P
7439-89-6	Iron	55300			P
7439-92-1	Lead	94.1			P
7439-95-4	Magnesium	23400			P
7439-96-5	Manganese	1110			P
7439-97-6	Mercury	0.16			CV
7440-02-0	Nickel	25.9		N	P
7440-09-7	Potassium	1540	B	E	P
7782-49-2	Selenium	2.2		N	P
7440-22-4	Silver	0.36	B	N*	P
7440-23-5	Sodium	171	B		P
7440-28-0	Thallium	8.7		N	P
7440-62-2	Vanadium	30.8		N	P
7440-66-6	Zinc	288			P
	Cyanide	0.83	B		CA

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: Artifacts:

Comments:

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

ME0015

Lab Name: COMPUCHEM Contract: 68W00082

Lab Code: LIBRTY Case No.: 29118 SAS No.: SDG No.: ME0001

Matrix (soil/water): SOIL Lab Sample ID: ME0001-15

Level (low/med): LOW Date Received: 04/05/01

% Solids: 42.3

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	7540			P
7440-36-0	Antimony	2.1	B	N	P
7440-38-2	Arsenic	10.0		N	P
7440-39-3	Barium	55.7	B	N	P
7440-41-7	Beryllium	0.52	B	NE	P
7440-43-9	Cadmium	0.28	U	NE	P
7440-70-2	Calcium	47700			P
7440-47-3	Chromium	36.5			P
7440-48-4	Cobalt	8.9	B	N	P
7440-50-8	Copper	56.3			P
7439-89-6	Iron	54200			P
7439-92-1	Lead	118			P
7439-95-4	Magnesium	21000			P
7439-96-5	Manganese	1110			P
7439-97-6	Mercury	0.15	B		CV
7440-02-0	Nickel	25.7		N	P
7440-09-7	Potassium	1530	B	E	P
7782-49-2	Selenium	2.9		N	P
7440-22-4	Silver	0.59	B	N*	P
7440-23-5	Sodium	222	B		P
7440-28-0	Thallium	5.4		N	P
7440-62-2	Vanadium	31.2		N	P
7440-66-6	Zinc	334			P
	Cyanide	1.4			CA

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: Artifacts:

Comments:

U. S. EPA - CLP

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

ME0016

Lab Name: COMPUCHEM Contract: 68W00082

Lab Code: LIBRTY Case No.: 29118 SAS No.: SDG No.: ME0001

Matrix (soil/water): SOIL Lab Sample ID: ME0001-16

Level (low/med): LOW Date Received: 04/05/01

% Solids: 48.9

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	7320			P
7440-36-0	Antimony	2.5	B	N	P
7440-38-2	Arsenic	12.1		N	P
7440-39-3	Barium	60.1	B	N	P
7440-41-7	Beryllium	0.38	B	NE	P
7440-43-9	Cadmium	0.58	B	NE	P
7440-70-2	Calcium	56300			P
7440-47-3	Chromium	41.2			P
7440-48-4	Cobalt	9.2	B	N	P
7440-50-8	Copper	51.6			P
7439-89-6	Iron	66500			P
7439-92-1	Lead	101			P
7439-95-4	Magnesium	23100			P
7439-96-5	Manganese	1260			P
7439-97-6	Mercury	0.12	B		CV
7440-02-0	Nickel	27.6		N	P
7440-09-7	Potassium	1340	B	E	P
7782-49-2	Selenium	2.2		N	P
7440-22-4	Silver	0.40	B	N*	P
7440-23-5	Sodium	199	B		P
7440-28-0	Thallium	11.1		N	P
7440-62-2	Vanadium	30.2		N	P
7440-66-6	Zinc	292			P
	Cyanide	1.6			CA

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: Artifacts:

Comments:

U. S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

ME0017

Lab Name: COMPUCHEM Contract: 68W00082

Lab Code: LIBRTY Case No.: 29118 SAS No.: SDG No.: ME0001

Matrix (soil/water): SOIL Lab Sample ID: ME0001-17

Level (low/med): LOW Date Received: 04/05/01

% Solids: 50.8

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	6580			P
7440-36-0	Antimony	15.9	B	N	P
7440-38-2	Arsenic	25.8		N	P
7440-39-3	Barium	79.1		N	P
7440-41-7	Beryllium	0.63	B	NE	P
7440-43-9	Cadmium	0.54	B	NE	P
7440-70-2	Calcium	37200			P
7440-47-3	Chromium	131			P
7440-48-4	Cobalt	10.1	B	N	P
7440-50-8	Copper	208			P
7439-89-6	Iron	145000			P
7439-92-1	Lead	367			P
7439-95-4	Magnesium	9440			P
7439-96-5	Manganese	2600			P
7439-97-6	Mercury	0.63			CV
7440-02-0	Nickel	118		N	P
7440-09-7	Potassium	984	B	E	P
7782-49-2	Selenium	5.6		N	P
7440-22-4	Silver	0.82	B	N*	P
7440-23-5	Sodium	132	B		P
7440-28-0	Thallium	18.2		N	P
7440-62-2	Vanadium	42.4		N	P
7440-66-6	Zinc	628			P
	Cyanide	3.4			CA

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: Artifacts:

Comments:

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1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

ME0018

Lab Name: COMPUCHEM Contract: 68W00082

Lab Code: LIBRTY Case No.: 29118 SAS No.: SDG No.: ME0001

Matrix (soil/water): SOIL Lab Sample ID: ME0001-18

Level (low/med): LOW Date Received: 04/05/01

% Solids: 42.3

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	7910			P
7440-36-0	Antimony	6.5	B	N	P
7440-38-2	Arsenic	12.1		N	P
7440-39-3	Barium	256		N	P
7440-41-7	Beryllium	0.45	B	NE	P
7440-43-9	Cadmium	0.28	U	NE	P
7440-70-2	Calcium	55000			P
7440-47-3	Chromium	98.7			P
7440-48-4	Cobalt	12.3	B	N	P
7440-50-8	Copper	105			P
7439-89-6	Iron	102000			P
7439-92-1	Lead	400			P
7439-95-4	Magnesium	20000			P
7439-96-5	Manganese	1600			P
7439-97-6	Mercury	0.41			CV
7440-02-0	Nickel	56.8		N	P
7440-09-7	Potassium	1750	B	E	P
7782-49-2	Selenium	4.2		N	P
7440-22-4	Silver	0.34	B	N*	P
7440-23-5	Sodium	256	B		P
7440-28-0	Thallium	11.9		N	P
7440-62-2	Vanadium	33.1		N	P
7440-66-6	Zinc	245			P
	Cyanide	1.1	B		CA

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: Artifacts:

Comments:

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

ME0019

Lab Name: COMPUCHEM Contract: 68W00082

Lab Code: LIBRTY Case No.: 29118 SAS No.: SDG No.: ME0001

Matrix (soil/water): SOIL Lab Sample ID: ME0001-19

Level (low/med): LOW Date Received: 04/05/01

% Solids: 35.9

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	7320			P
7440-36-0	Antimony	2.6	B	N	P
7440-38-2	Arsenic	9.3		N	P
7440-39-3	Barium	45.3	B	N	P
7440-41-7	Beryllium	0.054	U	NE	P
7440-43-9	Cadmium	2.8		NE	P
7440-70-2	Calcium	49700			P
7440-47-3	Chromium	97.8			P
7440-48-4	Cobalt	9.8	B	N	P
7440-50-8	Copper	118			P
7439-89-6	Iron	50900			P
7439-92-1	Lead	296			P
7439-95-4	Magnesium	20300			P
7439-96-5	Manganese	1300			P
7439-97-6	Mercury	0.43			CV
7440-02-0	Nickel	40.4		N	P
7440-09-7	Potassium	1570	B	E	P
7782-49-2	Selenium	3.1		N	P
7440-22-4	Silver	1.1	B	N*	P
7440-23-5	Sodium	82.3	U		P
7440-28-0	Thallium	7.7		N	P
7440-62-2	Vanadium	31.5		N	P
7440-66-6	Zinc	751			P
	Cyanide	1.5			CA

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: Artifacts:

Comments:

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

ME0020

Lab Name: COMPUCHEM Contract: 68W00082

Lab Code: LIBRTY Case No.: 29118 SAS No.: SDG No.: ME0001

Matrix (soil/water): SOIL Lab Sample ID: ME0001-20

Level (low/med): LOW Date Received: 04/05/01

% Solids: 46.4

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	9150			P
7440-36-0	Antimony	4.3	B	N	P
7440-38-2	Arsenic	14.1		N	P
7440-39-3	Barium	66.0	B	N	P
7440-41-7	Beryllium	0.64	B	NE	P
7440-43-9	Cadmium	1.7	B	NE	P
7440-70-2	Calcium	57100			P
7440-47-3	Chromium	136			P
7440-48-4	Cobalt	11.2	B	N	P
7440-50-8	Copper	146			P
7439-89-6	Iron	80500			P
7439-92-1	Lead	536			P
7439-95-4	Magnesium	24000			P
7439-96-5	Manganese	1950			P
7439-97-6	Mercury	0.89			CV
7440-02-0	Nickel	53.4		N	P
7440-09-7	Potassium	1690	B	E	P
7782-49-2	Selenium	3.4		N	P
7440-22-4	Silver	1.0	B	N*	P
7440-23-5	Sodium	61.3	U		P
7440-28-0	Thallium	9.8		N	P
7440-62-2	Vanadium	42.7		N	P
7440-66-6	Zinc	785			P
	Cyanide	3.8			CA

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: Artifacts:

Comments:

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3

BLANKS

Lab Name: COMPUCHEM Contract: 68W00082

Lab Code: LIBRTY Case No.: 29118 SAS No.: SDG NO.: ME0001

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	15.1	U	17.1	B	15.1	U	43.8	B	5.480	B	P
Antimony	2.5	U	2.5	U	2.5	U	2.5	U	0.500	U	P
Arsenic	4.2	U	4.2	U	4.2	U	4.2	U	0.840	U	P
Barium	0.2	U	0.2	U	0.2	B	0.2	U	0.484	B	P
Beryllium	0.1	U	0.1	U	0.2	B	0.1	U	0.020	U	P
Cadmium	0.6	U	0.6	U	0.6	U	0.6	U	0.120	U	P
Calcium	-58.9	B	17.6	U	-26.9	B	17.6	U	3.520	U	P
Chromium	0.5	U	0.5	U	0.5	U	0.5	U	0.100	U	P
Cobalt	0.7	U	0.7	U	0.7	U	0.7	U	0.140	U	P
Copper	0.7	U	0.7	U	0.7	U	1.1	B	0.140	U	P
Iron	14.2	U	14.2	U	14.2	U	20.1	B	2.840	U	P
Lead	1.7	U	1.7	U	1.7	U	1.7	U	0.468	B	P
Magnesium	8.9	U	34.5	B	22.3	B	53.8	B	4.496	B	P
Manganese	0.1	U	0.2	B	0.3	B	0.2	B	0.201	B	P
Mercury	0.1	U	0.1	U	0.1	U	0.1	U	0.050	U	CV
Nickel	1.3	U	1.3	U	1.3	U	1.3	U	0.260	U	P
Potassium	41.6	U	41.6	U	41.6	U	41.6	U	8.320	U	P
Selenium	4.8	U	4.8	U	4.8	U	4.8	U	0.960	U	P
Silver	0.5	B	0.5	U	0.5	U	0.5	U	0.100	U	P
Sodium	192.9	B	152.1	U	152.1	U	152.1	U	138.092	B	P
Thallium	6.2	U	6.2	U	6.2	U	6.2	U	1.240	U	P
Vanadium	0.7	U	0.7	U	0.7	U	0.7	U	0.164	B	P
Zinc	-4.7	B	-3.8	B	-3.6	B	-3.6	B	-.415	B	P
Cyanide	-.8	B	-.8	B	-.8	B	-.6	B	0.030	U	CA

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BLANKS

Lab Name: COMPUCHEM Contract: 68W00082

Lab Code: LIBRTY Case No.: 29118 SAS No.: _____ SDG NO.: ME0001

Preparation Blank Matrix (soil/water): _____

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

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C		Prepa-ration Blank	C		M
Aluminum			17.9	B	63.5	B	29.6	B					P
Antimony			2.5	U	2.5	U	2.5	U					P
Arsenic			4.2	U	4.2	U	4.2	U					P
Barium			0.2	U	0.2	B	0.2	U					P
Beryllium			0.1	U	0.1	B	0.1	U					P
Cadmium			0.6	U	0.6	U	0.6	U					P
Calcium			-26.9	B	17.6	U	-41.4	B					P
Chromium			0.5	U	0.5	U	0.5	U					P
Cobalt			0.7	U	0.7	U	0.7	U					P
Copper			0.7	U	0.7	U	0.7	U					P
Iron			14.2	U	21.3	B	14.2	U					P
Lead			1.7	U	1.7	U	1.7	U					P
Magnesium			14.8	B	55.1	B	23.4	B					P
Manganese			0.2	B	0.3	B	0.2	B					P
Mercury			0.1	U									CV
Nickel			1.3	U	1.3	U	1.3	U					P
Potassium			41.6	U	41.6	U	41.6	U					P
Selenium			4.8	U	4.8	U	4.8	U					P
Silver			0.5	U	0.5	B	0.5	U					P
Sodium			152.1	U	187.2	B	206.1	B					P
Thallium			6.2	U	6.2	U	6.2	U					P
Vanadium			0.7	U	0.7	U	0.7	U					P
Zinc			-3.6	B	-4.2	B	-4.3	B					P
Cyanide			-.8	B									CA

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BLANKS

Lab Name: COMPUCHEM Contract: 68W00082

Lab Code: LIBRTY Case No.: 29118 SAS No.: _____ SDG NO.: ME0001

Preparation Blank Matrix (soil/water): _____

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

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C		Prepa-ration Blank	C		M
Aluminum			32.7	B	15.1	U	70.6	B					P
Antimony			2.5	U	2.5	U	2.5	U					P
Arsenic			4.2	U	4.2	U	4.2	U					P
Barium			0.2	U	0.2	U	0.2	U					P
Beryllium			-.1	B	-.2	B	0.1	U					P
Cadmium			0.6	U	0.6	U	0.6	U					P
Calcium			-17.8	B	-50.7	B	17.6	U					P
Chromium			0.5	U	0.5	U	0.5	U					P
Cobalt			0.7	U	0.7	U	0.7	U					P
Copper			0.8	B	0.7	U	0.7	U					P
Iron			14.2	U	14.2	U	15.6	B					P
Lead			1.7	U	1.7	U	1.7	U					P
Magnesium			40.8	B	16.0	B	62.1	B					P
Manganese			0.2	B	0.2	B	0.2	B					P
Nickel			1.3	U	1.3	U	1.3	U					P
Potassium			41.6	U	41.6	U	41.6	U					P
Selenium			4.8	U	4.8	U	4.8	U					P
Silver			0.5	U	0.5	U	0.5	U					P
Sodium			184.9	B	152.1	U	152.1	U					P
Thallium			6.2	U	6.2	U	6.2	U					P
Vanadium			0.7	U	0.7	U	0.7	U					P
Zinc			-4.2	B	-4.4	B	-4.3	B					P

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BLANKS

Lab Name: COMPUCHEM Contract: 68W00082

Lab Code: LIBRTY Case No.: 29118 SAS No.: _____ SDG NO.: ME0001

Preparation Blank Matrix (soil/water): _____

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

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C		Prepa-ration Blank	C		M
Aluminum			22.0	B	55.3	B	-25.5	B					P
Antimony			2.5	U	2.5	U	2.5	U					P
Arsenic			4.2	U	4.2	U	4.2	U					P
Barium			0.2	U	0.2	U	0.2	U					P
Beryllium			-.3	B	0.1	B	-.6	B					P
Cadmium			0.6	U	0.6	U	0.6	U					P
Calcium			-48.7	B	-23.7	B	-37.9	B					P
Chromium			0.5	U	0.5	U	0.5	U					P
Cobalt			0.7	U	0.7	U	0.7	U					P
Copper			0.7	U	0.7	U	2.3	B					P
Iron			14.2	U	14.2	U	14.2	U					P
Lead			1.7	U	1.7	U	1.7	U					P
Magnesium			16.6	B	40.0	B	11.8	B					P
Manganese			0.2	B	0.3	B	1.0	B					P
Nickel			1.3	U	1.3	U	1.3	U					P
Potassium			41.6	U	41.6	U	41.6	U					P
Selenium			4.8	U	4.8	U	4.8	U					P
Silver			0.5	U	0.5	U	0.7	B					P
Sodium			152.1	U	152.1	U	152.1	U					P
Thallium			6.2	U	6.2	U	6.2	U					P
Vanadium			0.7	B	0.7	U	0.7	B					P
Zinc			-4.4	B	-3.9	B	-2.0	B					P

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BLANKS

Lab Name: COMPUCHEM Contract: 68W00082

Lab Code: LIBRTY Case No.: 29118 SAS No.: _____ SDG NO.: ME0001

Preparation Blank Matrix (soil/water): _____

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

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C		Prepa-ration Blank	C		M
Aluminum			-41.9	B	-48.3	B	26.7	B					P
Antimony			2.5	U	2.5	U	2.5	U					P
Arsenic			4.2	U	4.2	U	4.2	U					P
Barium			0.2	U	0.2	U	0.2	U					P
Beryllium			-.8	B	-.6	B	-.3	B					P
Cadmium			0.6	U	0.6	U	0.6	U					P
Calcium			-21.9	B	-37.2	B	-30.1	B					P
Chromium			-.5	B	0.5	U	0.5	U					P
Cobalt			0.7	U	0.7	U	0.7	U					P
Copper			2.7	B	2.3	B	0.7	U					P
Iron			14.2	U	14.2	U	14.2	U					P
Lead			1.7	U	1.7	U	1.7	U					P
Magnesium			23.8	B	11.7	B	26.8	B					P
Manganese			0.4	B	0.6	B	0.3	B					P
Nickel			1.3	U	1.3	U	1.3	U					P
Potassium			41.6	U	41.6	U	41.6	U					P
Selenium			4.8	U	4.8	U	4.8	U					P
Silver			0.5	U	0.5	U	0.5	B					P
Sodium			-473.2	B	152.1	U	-267.3	B					P
Thallium			6.2	U	6.2	U	6.2	U					P
Vanadium			0.7	U	0.7	B	0.7	U					P
Zinc			-4.0	B	-4.5	B	-4.4	B					P

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BLANKS

Lab Name: COMPUCHEM Contract: 68W00082

Lab Code: LIBRTY Case No.: 29118 SAS No.: _____ SDG NO.: ME0001

Preparation Blank Matrix (soil/water): _____

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

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C		Prepa-ration Blank	C		M
Arsenic	4.2	U	4.2	U	4.2	U							P
Barium	0.2	U	0.2	U	0.3	B	0.3	B					P
Beryllium	0.1	U	0.1	B	0.2	B	0.3	B					P
Cadmium	0.6	U	0.6	U	0.6	U	0.6	U					P
Iron	14.2	U	14.2	U	14.2	U	18.1	B					P
Manganese	0.1	U	0.2	B	0.9	B	0.3	B					P
Nickel	1.3	U	1.3	U	1.3	U	1.3	U					P
Selenium	4.8	U	4.8	U	4.8	U	4.8	U					P
Silver	0.5	U	0.5	U	0.5	U	0.5	U					P
Thallium	6.2	U	6.2	U	6.2	U	6.2	U					P
Vanadium	0.7	U	0.7	U	0.7	U	0.7	U					P
Zinc	-4.4	B	-4.3	B	-3.9	B	-4.1	B					P

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5A
SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

ME0001S

Lab Name: COMPUCHEM Contract: 68W00082

Lab Code: LIBERTY Case No.: 29118 SAS No.: _____ SDG NO.: ME0001

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

% Solids for Sample: 86.2

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
Antimony	75 - 125	49.5655		9.0344	B	116.00	34.9	N	P
Arsenic	75 - 125	20.8778		15.5548		9.30	57.2	N	P
Barium	75 - 125	596.0425		273.8061		464.00	69.4	N	P
Beryllium	75 - 125	8.4828		1.3133		11.60	61.8	N	P
Cadmium	75 - 125	18.9380		12.3219		11.60	57.0	N	P
Chromium		278.1207		279.6664		46.40	-3.3		P
Cobalt	75 - 125	82.9413		6.3211	B	116.00	66.0	N	P
Copper		853.9783		939.6235		58.00	-147.7		P
Lead		622.6935		793.9824		4.60	-3723.6		P
Manganese		5308.0078		5796.9307		116.00	-421.5		P
Mercury	75 - 125	0.9768		0.4433		0.58	92.0		CV
Nickel	75 - 125	130.4654		69.1882		116.00	52.8	N	P
Selenium	75 - 125	4.9068		3.5364		2.30	59.6	N	P
Silver	75 - 125	16.6840		46.3784		11.60	-256.0	N	P
Thallium	75 - 125	18.1392		9.5612		11.60	73.9	N	P
Vanadium	75 - 125	177.0319		105.8296		116.00	61.4	N	P
Zinc		16118.9326		18698.6973		116.00	-2223.9		P
Cyanide	75 - 125	11.4518		6.4301		5.80	86.6		CA

Comments: _____

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POST DIGEST SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

ME0001A

Lab Name: COMPUCHEM Contract: 68W00082

Lab Code: LIBRTY Case No.: 29118 SAS No.: SDG NO.: ME0001

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

Concentration Units: ug/L

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added(SA)	%R	Q	M
Antimony		163.06		38.94	B	120.0	103.4		P
Arsenic		194.07		67.04		130.0	97.7		P
Barium		3535.08		1180.10		2400.0	98.1		P
Beryllium		16.13		5.66		11.0	95.2		P
Cadmium		153.26		53.11		110.0	91.0		P
Cobalt		125.93		27.24	B	100.0	98.7		P
Nickel		863.67		298.20		600.0	94.2		P
Selenium		43.44		15.24		30.0	94.0		P
Silver		601.66		199.89		400.0	100.4		P
Thallium		112.66		41.21		82.0	87.1		P
Vanadium		1335.20		456.12		900.0	97.7		P

Comments:

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DUPLICATES

EPA SAMPLE NO.

ME0001D

Lab Name: COMPUCHEM Contract: 68W00082

Lab Code: LIBRTY Case No.: 29118 SAS No.: SDG NO.: ME0001

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

% Solids for Sample: 86.2 % Solids for Duplicate: 87.4

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

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Aluminum		7295.7407		7594.9380		4.0		P
Antimony		9.0344	B	7.9608	B	12.6		P
Arsenic		15.5548		15.4060		1.0		P
Barium		273.8061		295.0731		7.5		P
Beryllium	1.2	1.3133		1.3325		1.4		P
Cadmium		12.3219		12.3916		0.6		P
Calcium		51554.4102		57788.3789		11.4		P
Chromium		279.6664		296.2411		5.8		P
Cobalt		6.3211	B	6.5535	B	3.6		P
Copper		939.6235		979.6708		4.2		P
Cyanide		6.4301		5.2668		19.9		CA
Iron		115401.0547		115682.6797		0.2		P
Lead		793.9824		780.4471		1.7		P
Magnesium		11101.3945		12229.1309		9.7		P
Manganese		5796.9307		6857.5088		16.8		P
Mercury	0.1	0.4433		0.4002		10.2		CV
Nickel		69.1882		66.6516		3.7		P
Potassium		595.0087	B	622.0035	B	4.4		P
Selenium	1.2	3.5364		3.7512		5.9		P
Silver	2.3	46.3784		8.8908		135.6	*	P
Sodium		35.2900	U	35.2900	U			P
Thallium	2.3	9.5612		9.6615		1.0		P
Vanadium		105.8296		113.1431		6.7		P
Zinc		18698.6973		18492.5352		1.1		P

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ICP SERIAL DILUTIONS

EPA SAMPLE NO.

ME0001L

Lab Name: COMFUCHEM Contract: 68W00082

Lab Code: LIBRTY Case No.: 29118 SAS No.: SDG NO.: ME0001

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	31444.64		30223.64		3.9		P
Antimony	38.94	B	42.48	B	9.1		P
Arsenic	67.04		66.31		1.1		P
Barium	1180.10		1206.37		2.2		P
Beryllium	5.66		1.88	B	66.8	E	P
Cadmium	53.11		60.22		13.4	E	P
Calcium	222199.50		230305.50		3.6		P
Chromium	1205.36		1264.85		4.9		P
Cobalt	27.24	B	28.97	B	6.4		P
Copper	4049.78		3982.62		1.7		P
Iron	49737.85		48864.64		1.8		P
Lead	3422.06		3452.82		0.9		P
Magnesium	47847.01		48798.94		2.0		P
Manganese	2498.48		2464.99		1.3		P
Nickel	298.20		303.46		1.8		P
Potassium	2564.49	B	1938.91	B	24.4	E	P
Selenium	15.24		24.00	U	100.0		P
Silver	199.89		202.63		1.4		P
Sodium	152.10	U	760.50	U			P
Thallium	41.21		100.40		143.6		P
Vanadium	456.13		477.70		4.7		P
Zinc	8059.14		7695.65		4.5		P

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INSTRUMENT DETECTION LIMITS (QUARTERLY)

Lab Name: COMPUCHEM Contract: 68W00082

Lab Code: LIBRTY Case No.: 29118 SAS No.: SDG NO.: ME0001

ICP ID Number: P3 Date: 01/15/01

Flame AA ID Number:

Furnace AA ID Number:

Analyte	Wave-length (nm)	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Aluminum	308.22		200	15.1	P
Antimony	206.84		60	2.5	P
Arsenic	189.04		10	4.2	P
Barium	493.41		200	0.2	P
Beryllium	313.04		5	0.1	P
Cadmium	226.50		5	0.6	P
Calcium	317.93		5000	17.6	P
Chromium	267.72		10	0.5	P
Cobalt	228.62		50	0.7	P
Copper	324.70		25	0.7	P
Iron	271.44		100	14.2	P
Lead	220.35		3	1.7	P
Magnesium	279.08		5000	8.9	P
Manganese	257.61		15	0.1	P
Nickel	231.60		40	1.3	P
Potassium	766.49		5000	41.6	P
Selenium	196.03		5	4.8	P
Silver	328.07		10	0.5	P
Sodium	330.23		5000	152.1	P
Thallium	190.86		10	6.2	P
Vanadium	292.40		50	0.7	P
Zinc	213.86		20	1.1	P

Comments:

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INSTRUMENT DETECTION LIMITS (QUARTERLY)

Lab Name: COMPUCHEM Contract: 68W00082

Lab Code: LIBRTY Case No.: 29118 SAS No.: _____ SDG NO.: ME0001

ICP ID Number: _____ Date: 01/15/01

Flame AA ID Number: V2

Furnace AA ID Number: _____

Analyte	Wave-length (nm)	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Mercury	253.70		0.2	0.1	CV

Comments: _____

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INSTRUMENT DETECTION LIMITS (QUARTERLY)

Lab Name: COMPUCHEM Contract: 68W00082

Lab Code: LIBRTY Case No.: 29118 SAS No.: SDG NO.: ME0001

ICP ID Number: Date: 01/17/01

Flame AA ID Number: C2

Furnace AA ID Number:

Analyte	Wave-length (nm)	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Cyanide			10	0.6	CA

Comments:

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PREPARATION LOG

Lab Name: COMPUCHEM Contract: 68W00082

Lab Code: LIBRTY Case No.: 29118 SAS No.: _____ SDG NO.: ME0001

Method: P

EPA Sample No.	Preparation Date	Weight (grams)	Volume (mL)
LCSS	04/06/01	1.00	200
ME0001	04/06/01	1.00	200
ME0001D	04/06/01	1.00	200
ME0001S	04/06/01	1.00	200
ME0002	04/06/01	1.05	200
ME0003	04/06/01	1.04	200
ME0004	04/06/01	1.01	200
ME0005	04/06/01	1.08	200
ME0006	04/06/01	1.01	200
ME0007	04/06/01	1.03	200
ME0008	04/06/01	1.00	200
ME0009	04/06/01	1.05	200
ME0010	04/06/01	1.07	200
ME0011	04/06/01	1.09	200
ME0012	04/06/01	1.05	200
ME0013	04/06/01	1.07	200
ME0014	04/06/01	1.09	200
ME0015	04/06/01	1.00	200
ME0016	04/06/01	1.02	200
ME0017	04/06/01	1.03	200
ME0018	04/06/01	1.02	200
ME0019	04/06/01	1.03	200
ME0020	04/06/01	1.07	200
PBS	04/06/01	1.00	200

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PREPARATION LOG

Lab Name: COMPUCHEM Contract: 68W00082

Lab Code: LIBRTY Case No.: 29118 SAS No.: SDG NO.: ME0001

Method: CV

EPA Sample No.	Preparation Date	Weight (grams)	Volume (mL)
LCSS	04/06/01	0.20	100
ME0001	04/06/01	0.20	100
ME0001D	04/06/01	0.20	100
ME0001S	04/06/01	0.20	100
ME0002	04/06/01	0.23	100
ME0003	04/06/01	0.20	100
ME0004	04/06/01	0.22	100
ME0005	04/06/01	0.21	100
ME0006	04/06/01	0.29	100
ME0007	04/06/01	0.21	100
ME0008	04/06/01	0.29	100
ME0009	04/06/01	0.21	100
ME0010	04/06/01	0.23	100
ME0011	04/06/01	0.23	100
ME0012	04/06/01	0.20	100
ME0013	04/06/01	0.29	100
ME0014	04/06/01	0.29	100
ME0015	04/06/01	0.24	100
ME0016	04/06/01	0.24	100
ME0017	04/06/01	0.22	100
ME0018	04/06/01	0.28	100
ME0019	04/06/01	0.20	100
ME0020	04/06/01	0.22	100
PBS	04/06/01	0.20	100

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PREPARATION LOG

Lab Name: COMPUCHEM Contract: 68W00082

Lab Code: LIBRTY Case No.: 29118 SAS No.: SDG NO.: ME0001

Method: CA

EPA Sample No.	Preparation Date	Weight (grams)	Volume (mL)
LCSS	04/09/01	1.00	50
ME0001	04/09/01	1.00	50
ME0001D	04/09/01	1.00	50
ME0001S	04/09/01	1.00	50
ME0002	04/09/01	1.02	50
ME0003	04/09/01	1.04	50
ME0004	04/09/01	1.03	50
ME0005	04/09/01	1.02	50
ME0006	04/09/01	1.01	50
ME0007	04/09/01	1.01	50
ME0008	04/09/01	1.02	50
ME0009	04/09/01	1.03	50
ME0010	04/09/01	1.04	50
ME0011	04/09/01	1.00	50
ME0012	04/09/01	1.04	50
ME0013	04/09/01	1.02	50
ME0014	04/09/01	1.00	50
ME0015	04/09/01	1.04	50
ME0016	04/09/01	1.03	50
ME0017	04/09/01	1.05	50
ME0018	04/09/01	1.00	50
ME0019	04/09/01	1.01	50
ME0020	04/09/01	1.04	50
PBS	04/09/01	1.00	50