UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
REGION 5
CHICAGO, ILLINOIS

13 OCT 1987

DATE:

SUBJECT: **Review of Region 5 data for** US SCRAP

FROM: **Curtis Ross, Director**
Region 5 Central Regional Laboratory

To: **Data User:**

Attached are the results for:

CRL Data Set Numbers: SF 4333
Sample Numbers: 87FC17R06 - S70
Parameter(s): METALS by ICP, As, Pb, Sb, Cd, Tl, Se
Laboratory: CRL

Results Status:

(X) **DATA ACCEPTABLE FOR USE***
( ) **DATA QUALIFIED AS TO USE**
( ) **DATA UNACCEPTABLE FOR USE**

* For data acceptability requirements, refer to the method capability statement for the methods referenced.

Comments by the Quality Control Coordinator:

RECEIVED
OCT 13 1987
US EPA CENTRAL REGIONAL LAB.
536 S. CLARK STREET
CHICAGO, ILLINOIS 60605

If there are any questions regarding the data, refer them to Steve Parker, the Quality Control Coordinator, at 353-3805.

Please sign and date this form below and return it with any comments to:

Sylvia Griffin
Data Management Coordinator
Region 5 Central Regional Laboratory
(5SCRL)

RECEIVED BY/DATE:
Comments:

cc: Contractor's Reprentative

Filed by/date:

DATA SET	SITE	DU/ACT.
SF4333	US Scrap	Y905/C76/ZZ

SAMPLES	PARAMETER(S)
87FC17567-70	ICP, As, Pb, Sb, Cd, Tl Se

SAMPLED	RECEIVED	DUE	LAB
9/9/87	9/10/87	10/25/87	CRL

SHIPPED	DATA RECEIVED	CONTRACT

TEAM LEADER	SECTION CHIEF	QC COORD.	DATA COORD.
MS	JVM 8 Oct 87	10/13/87	10-13-87

Comments By Reviewer: Cu in Field blank. Samples are all less than detection limit.

Ni in field blank found to be contamination from digestion. Detection limit raised to 30ppb with permission of requestor.

DATA MANAGEMENT COORDINATOR

RECEIVED	TRANSMITTED		CLERICAL SUPPORT RECEIVED	COMPLETED
(X) REVIEWED	( ) UNREVIEWED	TEAM LEADER/DATE	M Shannon	9/30/87
(X) REVIEWED	( ) UNREVIEWED	SECTION CHIEF/DATE	John V. Moon 8 Oct 87	
(X) REVIEWED 10/13/87	( ) UNREVIEWED	QC COORDINATOR/DATE		

REVIEWED BY CONTRACT COORDINATOR/DATE

RECEIVED	TRANSMITTED	DATA MANAGEMENT COORDINATOR
10/13/87	10/13/87	Sylvia Ruffin

CC: QUALITY CONTROL COORDINATOR

Jun 80 ±82

MS 9/30/87

DATA SET : SF4333

ELEMENT		FC17R06		FC17D67		FC17S67		FC17S68
AG ug/l	<	6.00	<	6.00	<	6.00	<	6.00
AL	<	80.	<	80.		357.		520.
B	<	80.		744.		809.		741.
BA	<	6.0		32.7		34.4		36.6
BE	<	1.00	<	1.00	<	1.00	<	1.00
CD	<	10.0	<	10.0	<	10.0	<	10.0
CO	<	6.00	<	6.00	<	6.00	<	6.00
CR	<	8.00	<	8.00	<	8.00	<	8.00
CU		6.09	<	6.00	<	6.00	<	6.00
FE	<	80.		422.		799.		1310.
LI	<	10.0		52.9		53.3		53.8
MN	<	5.0		9.8		13.1		22.2
MO	<	15.0		20.3		45.7		27.9
NI	<	30.0 ms	<	30.0 ms	<	30.0 ms	<	30.0 ms
SN	<	40.0	<	40.0	<	40.0	<	40.0
SR	<	10.		1890.		1910.		1880.
V	<	5.00	<	5.00	<	5.00	<	5.00
Y	<	5.00	<	5.00	<	5.00	<	5.00
ZN	<	40.0	<	40.0		152.0	<	40.0
mg/l								
CA	<	0.		276.		279.		276.
K	<	5.0		8.2		7.6		11.9
MG	<	0.1						
NA	<	1.0		36.0		36.5		36.0

8/10/10/8

Jun 10/87

MS 9/30/87

DATA SET : SF4333

ELEMENT		FC17S69		FC17S70
AG ug/l	<	6.00	<	6.00
AL	<	80.		373.
B		785.		779.
BA		33.5		35.2
BE	<	1.00	<	1.00
CD	<	10.0	<	10.0
CO	<	6.00	<	6.00
CR	<	8.0		24.5
CU	<	6.00	<	6.00
FE		399.		1040.
LI		56.6		53.6
MN		9.8		17.6
MO		23.1	<	15.0
NI	<	30.0 ms	<	30.0 ms
SN	<	40.0	<	40.0
SR		1960.		1890.
V	<	5.00	<	5.00
Y	<	5.00	<	5.00
ZN	<	40.0	<	40.0
mg/l				
CA		287.		275.
K	<	5.0		11.7
NA		37.4		36.1

Run No. 592

Prep. by RP Date 9/18/87 Analyzed by RVP Date ~~6~~ 9/23/87

Beaker No.	Data Set	Sample	Notes	Beaker No	Data Set	Sample	Notes
1	SF 4333	87FC17S67	WATERS 50ml → 50ml final	26			
2		S68		27			
3		D67		28			
4		BLANK	BLANK	29			
5		S69		30			
6		S68	SPK	31			
7		S70		32			
8		S69	DUPL	33			
9		R06		34			
10				35			
11				36			
12				37			
13				38			
14				39			
15				40			
16				41			
17				42			
18				43			
19				44			
20				45			
21				46			
22				47			
23				48			
24				49			
25				50			

Spikes: 5 ml ea. of spiking sol'ns A, B, C ; 0.500 ml of Ag spike ($\frac{500 \mu g}{100 ml}$)
final Ag spk.: 50 µg/l

DATA SET : METALS

ELEMENT	DET LIM	BLANK00 Instrument Blank	BLANK04 Digestion Blank
AG ug/l	6.00	-3.91	-3.84
AL	80.00	-9.87	8.26
B	80.0	31.2	19.4
BA	6.000	-1.190	-0.724
BE	1.000	1.160 *	-0.241
CD	10.000	5.720	0.374
CO	6.000	-0.898	-0.499
CR	8.00	-3.43	5.09
CU	6.00	1.06	-1.10
FE	80.0	0.2	26.8
LI	10.00	2.24	-4.40
MN	5.000	1.020	0.279
MO	15.000	14.800	0.338
NI	15.00	13.60	7.28
SN	40.00	-10.30	-2.85
SR	10.000	0.113	0.867
V	5.00	-3.12	-5.31
Y	5.000	-1.410	-0.585
ZN	40.000	0.376	0.115
CA mg/l	0.500	0.006	0.323
CA	0.500	0.010	0.313
K	5.000	5.260 *	-0.881
MG	0.100	-0.000	0.074
NA	1.000	-0.005	0.241
~~AL~~	~~20.000~~	~~0.017~~	~~-0.057~~
~~FE~~	~~20.000~~	~~0.011~~	~~-0.153~~
~~ZN~~	~~20.000~~	~~-0.043~~	~~-0.423~~

MS 9/30/87

All values < detection limit on digested blank

Be and K are over limit on Instrument blank

[redacted]

DATA SET : METALS SAMPLE ID : WP11832

ELEMENT	TRUE	MEASURED	% DEV
AG ug/l	49.70	52.60	5.83
AG	49.70	53.00	6.63
AG	49.700	49.900	0.401

MS 9/30/87

all values ±10%

[redacted]

PLACE PAPER AT TOP OF FORM
AND PRESS "RETURN" TO CONTINUE!

All values ± ~~10%~~ 5 ms except Al + Fe

MS 9/30/87

DL1:[001,054]RN593A.BRN 30-SEP-87 08:44:13 PAGE 1

DATA SET : METALS SAMPLE ID : AQC.086

ELEMENT	TRUE	MEASURED	% DEV
~~AG~~	~~50.~~	~~185.~~	~~273.~~
AL ug/l	4710.00	4970.00	5.53*
B	1060.00	1090.00	2.19
BA	1510.00	1550.00	2.68
BE	728.00	751.00	3.19
CD	423.00	434.00	2.60
CO	972.00	985.00	1.30
CR	1560.00	1590.00	2.19
CU	1160.00	1220.00	5.01
FE	3800.00	4070.00	6.98*
LI	807.00	819.00	1.43
MN	1340.00	1370.00	2.68
MO	794.00	828.00	4.28
NI	1170.00	1210.00	2.95
SN	2380.00	2410.00	1.45
SR	889.00	902.00	1.49
V	734.00	756.00	3.08
Y	772.00	794.00	2.88
ZN	2820.00	2940.00	4.26
CA mg/l	13.80	13.60	-1.23
CA	13.80	14.00	1.42
K	96.70	102.00	4.99
MG	5.170	5.220	0.930
NA	18.40	18.70	1.27
~~AL~~	~~4.81~~	~~4.70~~	~~-2.31~~
~~FE~~	~~5.2~~	~~3.9~~	~~-24.7~~
~~ZN~~	~~2.68~~	~~2.53~~	~~-5.59~~

All values ± 10% except K
MS 9/30/87

DATA SET : METALS SAMPLE ID : AQC.086

ELEMENT	TRUE	MEASURED	% DEV
~~AG~~	~~50.~~	~~188.~~	~~278.~~
AL mg/l	4710.00	5130.00	8.98
B	1060.00	1120.00	5.23
BA	1510.00	1590.00	5.32
BE	728.00	777.00	6.76
CD	423.00	452.00	6.80
CO	972.00	1020.00	5.26
CR	1560.00	1640.00	5.28
CU	1160.00	1260.00	8.39
FE	3800.00	4160.00	9.34
LI	807.00	847.00	4.98
MN	1340.00	1420.00	6.09
MO	794.00	832.00	4.79
NI	1170.00	1260.00	7.33
SN	2380.00	2610.00	9.73
SR	889.00	927.00	4.29
V	734.00	782.00	6.56
Y	772.00	816.00	5.65
ZN	2820.00	3020.00	7.36
CA mg/l	13.80	14.10	2.18
CA	13.80	14.50	4.96
K	96.7	109.0	12.9 *
MG	5.17	5.39	4.24
NA	18.40	19.10	3.60
~~AL~~	4.81	4.90	~~1.87~~
~~FE~~	5.2	4.1	~~20.1~~
~~ZN~~	2.68	2.86	~~6.66~~

all values ± 10% K is marginal
MS 9/30/87

DATA SET : METALS SAMPLE ID : AQC.086

ELEMENT		TRUE	MEASURED	% DEV
~~AG~~		~~50.~~	~~187.~~	~~277.~~
AL	ug/l	4710.00	5060.00	7.60
B		1060.00	1120.00	5.05
BA		1510.00	1580.00	4.82
BE		728.00	767.00	5.34
CD		423.00	445.00	5.02
CO		972.00	1010.00	3.57
CR		1560.00	1630.00	4.65
CU		1160.00	1250.00	7.09
FE		3800.00	4120.00	8.32
LI		807.00	838.00	3.86
MN		1340.00	1400.00	4.62
MO		794.00	819.00	3.15
NI		1170.00	1230.00	5.23
SN		2380.00	2510.00	5.50
SR		889.00	921.00	3.64
V		734.00	769.00	4.81
Y		772.00	809.00	4.86
ZN		2820.00	2970.00	5.48
CA	mg/l	13.80	14.00	1.30
CA		13.80	14.30	3.08
K		96.7	107.0	10.3
MG		5.17	5.26	1.87
NA		18.40	18.90	2.86
~~AL~~		4.810	4.770	~~-0.773~~
~~FE~~		5.2	3.9	~~-24.4~~
~~ZN~~		2.68	2.54	~~-5.09~~

NUMBER OF BLANK(s) TO BE REPORTED : 6

DL1:[001,054]RN593A.BRN 30-SEP-87 08:41:10 PAGE 1

DATA SET : CHECK

ELEMENT	DET LIM	HIGHAQC	HIGHAQC	ICS.STD
AG ug/l	6.00	-2.30	-3.17	-4.66
AL	80.	104000.	106000.	486000.
B	80.0	27.0	37.2	42.5
BA	6.00	1.58	6.13	2.24
BE	1.000	0.764	3.850	0.336
CD	10.00	1.54	4.08	1.36
CO	6.000	2.260	4.060	0.831
CR	8.	80.	88.	359.
CU	6.00	1.82	4.22	2.55
FE	80.	102000.	103000.	441000.
LI	10.0	12.2	19.3	39.4
MN	5.0	11.4	17.1	52.6
MO	15.0	21.0	-6.5	27.5
NI	15.0	36.2	44.5	11.4
SN	40.0	2.5	20.8	72.1
SR	10.00	18.60	22.30	7.64
V	5.0	-3.1	0.4	32.6
Y	5.00	1.12	2.29	1.51
ZN	40.	101000.	102000.	403000.
CA	0.	130.	130.	130.
CA mg/l	0.	106.	107.	469.
K	5.00	13.00	1.41	5.03
MG	0.	107.	107.	183.
NA	1.000	0.036	0.123	0.052
AL	20.	100.	101.	476.
FE	20.	98.	100.	441.
ZN	20.	104.	106.	466.

All high channels ± 10%

MS 9/30/87

SET PAPER TO TOP OF FORM AND
PRESS "RETURN TO CONTINUE!

DL1:[001,054]RN593A.BRN 30-SEP-87 08:51:42 PAGE 1

DATA SET : SF4333 SAMPLE ID : FC17S69

ELEMENT	Det Lim	SAMPLE	DUPLICATE	AVERAGE	R P D
AG ug/l	6.0	-3.7	-4.8	-4.3	-24.4
AL	80.0	-45.10	-43.50	-44.30	-3.64
B		785.000	788.000	787.000	0.376
BA		33.50	33.00	33.30	1.58
BE	1.0	-0.3	-0.6	-0.4	-60.2
CD	10	2.	0.	1.	155.
CO	6	-1.	0.	-0.	-459.
CR	8	4.	-3.	1.	1250.
CU	6	3.9	1.4	2.6	96.5
FE		399.00	385.00	392.00	3.55
LI		56.600	56.800	56.700	0.354
MN		9.83	9.32	9.58	5.34
MO		23.10	24.50	23.80	5.91
NI	15	21.7	16.7	19.2	25.6
SN	15	2.	-15.	-6.	-269.
SR		1960.00	1990.00	1980.00	1.43
V	5	-2.5	-1.8	-2.1	-34.1
Y	5	-0.2	-0.4	-0.3	-76.9
ZN	40	2.9	1.0	2.0	98.9
CA mg/l		130.000	130.000	130.000	0.000
CA		287.00	290.00	289.00	1.14
K	5.0	4.1	12.1	8.1	99.0 *
MG		102.000	102.000	102.000	0.901
NA		37.40	38.00	37.70	1.52
~~AL~~		0.3	0.2	0.2	~~20.3~~
~~FE~~		1.13	1.20	1.16	~~6.13~~
~~ZN~~		-0.4	-0.5	-0.4	~~-20.7~~

All values ± 10% or ± detection limit
except K

MS 9/30/87

DATA SET : CHECK SAMPLE ID : SPKSOLN Spiking solutions pipetted into a 50 ml volumetric flask

ELEMENT	SAMPLE	SPIKE	SPIKE ADDED	% RECOVERY
AG	-2.13	-4.04	50.00	-3.81
AL	7.7	762.0	800.0	94.3
B	5.	824.	800.	102.
BA	-0.	207.	200.	103.
BE	0.	11.	10.	107.
CD	1.	28.	25.	106.
CO	-1.	103.	100.	104.
CR	-4.	102.	100.	106.
CU	-1.	50.	50.	102.
FE	24.	979.	800.	119.
LI	2.	60.	54.	107.
MN	0.	110.	100.	110.
MO	-0.6	86.4	100.0	87.0*
NI	3.	160.	150.	105.
SN	9.5	326.0	400.0	79.1*
SR	0.	1050.	1000.	105.
V	-3.5	42.6	50.0	92.2
Y	-0.	52.	50.	105.
ZN	14.	425.	400.	103.
CA	0.	56.	50.	113.
CA	0.	51.	50.	102.
K	9.	30.	20.	107.
MG	0.	27.	25.	106.
NA	0.	52.	50.	104.
AL	0.02	0.81	22.60	3.49
FE	-0.	1.	1.	123.
ZN	0.090	0.514	100.000	0.424

mg/l

mg/l

```
TTO  --  EXITING DUE TO ERROR 67
RECORD TOO SMALL FOR I/O LIST
  IN   "DSPRPT" AT 39
  FROM "QCPRC1" AT 146
  FROM ".MAIN." AT 32

>RUN BRNEDT

INPUT FILE NAME ? RUN \ \59\95NUR\RN593A

     TYPES OF VIEW

     FULL  VIEW  --  [FU]
     BRIEF VIEW  --  [BR]
     NONE        --  [NO]
```

Solution needs to be remade
MS
9/30/87

DL1:[001,054]RN593A.BRN 30-SEP-87 09:10:07 PAGE 1

DATA SET : SF4333 SAMPLE ID : FC17S68

ELEMENT	SAMPLE	SPIKE	SPIKE ADDED	% RECOVERY
AG ug/l	-0.	53.	50.	107.
AL	520.	1460.	800.	117.*
B	741.	1560.	800.	103.
BA	37.	249.	200.	106.
BE	-0.	10.	10.	103.
CD	-0.5	23.2	25.0	94.8
CO	2.3	97.2	100.0	94.9
CR	4.7	97.1	100.0	92.4
CU	5.	58.	50.	105.
FE	1310.	2290.	800.	122.*
LI	54.	113.	54.	110.
MN	22.	123.	100.	101.
MO	27.9	123.0	100.0	94.9
NI	7.	157.	150.	100.
SN	14.4	309.0	400.0	73.7 Q
SR	1880.	2990.	1000.	110.
V	-1.4	47.6	50.0	98.1
Y	1.	51.	50.	101.
ZN	8.	408.	400.	100.
~~CA~~	~~130.000~~	~~130.000~~	~~50.000~~	~~0.000~~
CA mg/l	276. MS	335. MS	50. MS	MS 118. Δ
K	12.	33.	20.	107.
~~MG~~	~~97.6~~	~~111.0~~	~~25.0~~	~~53.9~~
NA	36.	90.	50.	108.
~~AL~~	~~0.77~~	~~1.69~~	~~22.60~~	~~4.05~~
~~FE~~	~~2.~~	~~3.~~	~~1.~~	~~117.~~
~~ZN~~	~~-0.528~~	~~-0.157~~	~~100.000~~	~~0.371~~

Q Spike soln not correct

Δ spike less than sample value

1/2

* Values over 115%

All values ± 15% except Al & Fe

Mg reported elsewhere on diluted samples

MS 9/30/87

7TFA05WUZZ
C761ZZ

DATA SET : SF4333 U.S. Scrap, Chicago

ELEMENT		FC17S67	FC17D67	FC17S68	FC17S69
MG	mg/l	93.4	92.7	93.5	93.8

R. Piccione
9/28/87

7TFA05WUZZ
C76IZZ

DATA SET : SF4333 U.S. Scrap, Chicago

ELEMENT FC17S70

MG mg/ℓ 90.8

R. Piccione
9/28/87

7TFA05WUZZ
C761ZZ

DATA SET : SF4333 U.S. Scrap, Chicago

ELEMENT		FC17S67	FC17D67	FC17S68	FC17S69
MG	mg/l	93.4	92.7	93.5	93.8

P. Piccione
9/28/87

7TFA05WUZZ
C76IZZ

DL1:[001,054]RUN593.BRN 25-SEP-87 11:19:00 PAGE 3

DATA SET : SF4333 U.S. Scrap, Chicago

ELEMENT FC17S70

MG mg/l 90.8

R. Piccione
9/28/87

7TFA05WUZZ
C761ZZ

DATA SET : SF4333 U.S. Scrap, Chicago

ELEMENT		FC17S67	FC17D67	FC17S68	FC17S69
MG	mg/l	93.4	92.7	93.5	93.8

R. Piccione
9/28/87

7TFA05WUZZ
C76IZZ

DL1:[001,054]RUN593.BRN 25-SEP-87 11:19:00 PAGE 3

DATA SET : SF4333 U.S. Scrap, Chicago

ELEMENT	FC17S70	
MG	mg/ℓ	90.8

R. Piccione
9/28/87

DATA SET : METALS

Instrument blank.

ELEMENT		DET LIM	BLANK04
AG	µg/l	6.000	2.640
AL		80.00	2.92
B		80.0	-0.7
BA		6.000	0.663
BE		1.000	-0.313
CD		10.00	2.24
CO		6.00	2.60
CR		8.00	5.51
CU		6.00	1.15
FE		80.0	-29.1
LI		10.0	-14.9 *
MN		5.00	-3.45
MO		15.00	-0.14
NI		15.00	-0.30
SN		40.0	-13.3
SR		10.00	-2.03
TI		25.00	-10.60
V		5.000	1.290
Y		5.000	0.711
ZN		40.00	19.80
CA	mg/l	0.500	0.028
K		5.000	0.483
MG		0.100	-0.003
NA		1.000	-0.236

* Absolute value greater than negative of detection limit.

Ray Pierce
9/28/87

DATA SET : SF4392

Digest blank

ELEMENT		DET LIM	BLANKDG	
AG	µg/l	6.000	0.701	
AL		80.0	19.8	
B		80.0	43.2	
BA		6.00	2.07	
BE		1.000	-0.680	
CD		10.00	1.55	
CO		6.00	2.99	
CR		8.0	12.1	*
CU		6.00	2.54	
FE		80.00	1.56	
LI		10.0	-17.3	*
MN		5.00	-3.77	
MO		15.000	-0.004	
NI		15.0	10.4	
SN		40.0	-11.3	
SR		10.00	-1.98	
TI		25.0	61.7	*
V		5.00	-1.14	
Y		5.000	0.065	
ZN		40.00	-5.55	
CA	mg/l	0.500	0.187	
K		5.00	1.90	
MG		0.100	0.066	
NA		1.000	0.013	

* Cr and Ti greater than det. lim.; Li absolute value greater than negative of det. lim.

R Piccone
9/28/87

DATA SET : METALS SAMPLE ID : AQC.086 1st AQC

ELEMENT		TRUE	MEASURED	% DEV	
AL	µg/l	4710.00	4930.00	4.66	
B		1060.00	1080.00	1.70	
BA		1510.00	1540.00	2.21	
BE		728.00	715.00	-1.78	
CD		423.00	415.00	-2.01	
CO		972.00	985.00	1.31	
CR		1560.00	1520.00	-2.55	
CU		1160.00	1200.00	2.64	
FE		3800.000	3830.000	0.749	
LI		807.00	818.00	1.34	
MN		1340.00	1290.00	-3.34	
MO		794.00	772.00	-2.76	
NI		1170.00	1220.00	4.03	
SN		2380.00	2280.00	-3.97	
SR		889.000	893.000	0.503	
TI		1190.000	1200.000	0.174	
V		734.00	746.00	1.61	
Y		772.00	807.00	4.58	
ZN		2820.00	2760.00	-2.12	
CA	mg/l	13.80	13.00	-5.77	*
K		96.70	99.10	2.45	
MG		5.170	5.190	0.369	
NA		18.400	18.300	-0.490	

* Ca low ; Remainder elements within ±5%.

R. Ricoal
9/28/87

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DATA SET : METALS SAMPLE ID : AQC.086 2nd AQC

ELEMENT		TRUE	MEASURED	% DEV
AL	µg/l	4710.00	4940.00	4.96
B		1060.00	1080.00	1.68
BA		1510.00	1540.00	2.20
BE		728.000	723.000	-0.636
CD		423.00	419.00	-1.08
CO		972.00	995.00	2.40
CR		1560.00	1520.00	-2.37
CU		1160.00	1200.00	2.90
FE		3800.00	3910.00	2.86
LI		807.000	812.000	0.613
MN		1340.00	1310.00	-1.99
MO		794.000	788.000	-0.838
NI		1170.00	1230.00	4.64
SN		2380.00	2300.00	-3.34
SR		889.000	895.000	0.647
TI		1190.000	1200.000	0.962
V		734.00	753.00	2.64
Y		772.00	812.00	5.18
ZN		2820.00	2780.00	-1.47
CA	mg/l	13.80	13.00	-5.36
K		96.700	96.500	-0.269
MG		5.17	5.26	1.72
NA		18.400	18.300	-0.589

All elements within ±10% deviation.

R. Rice
9/28/87

DATA SET : METALS SAMPLE ID : AQC.086 3rd Mc

ELEMENT		TRUE	MEASURED	% DEV
AL	µg/l	4710.00	4900.00	4.11
B		1060.00	1070.00	1.13
BA		1510.00	1540.00	1.66
BE		728.00	720.00	-1.05
CD		423.00	416.00	-1.83
CO		972.00	996.00	2.46
CR		1560.00	1510.00	-3.20
CU		1160.00	1190.00	2.16
FE		3800.00	3910.00	2.95
LI		807.000	811.000	0.459
MN		1340.00	1310.00	-2.16
MO		794.00	783.00	-1.41
NI		1170.00	1230.00	4.77
SN		2380.00	2290.00	-3.47
SR		889.000	891.000	0.193
TI		1190.000	1200.000	0.374
V		734.00	749.00	2.10
Y		772.00	807.00	4.53
ZN		2820.00	2770.00	-1.82
CA	mg/l	13.80	13.00	-5.75
K		96.70	94.90	-1.88
MG		5.170	5.210	0.924
NA		18.40	18.20	-1.21

All elements within ±10% deviation.

Ray Ricome
9/28/87

DATA SET : METALS SAMPLE ID : AQC.086 final

ELEMENT		TRUE	MEASURED	% DEV
AL	µg/l	4710.000	4740.000	0.765
B		1060.000	1060.000	-0.524
BA		1510.00	1480.00	-1.87
BE		728.00	704.00	-3.29
CD		423.00	408.00	-3.72
CO		972.000	974.000	0.251
CR		1560.00	1490.00	-4.82
CU		1160.00	1150.00	-1.40
FE		3800.000	3820.000	0.569
LI		807.00	781.00	-3.21
MN		1340.00	1280.00	-4.37
MO		794.00	766.00	-3.58
NI		1170.00	1190.00	1.80
SN		2380.00	2260.00	-4.75
SR		889.00	861.00	-3.16
TI		1190.00	1160.00	-2.50
V		734.000	728.000	-0.797
Y		772.00	783.00	1.42
ZN		2820.00	2720.00	-3.47
CA	mg/l	13.80	12.50	-8.98
K		96.700	97.700	0.992
MG		5.17	5.10	-1.34
NA		18.40	17.50	-4.78

All elements within ±10% deviation.

I. Pi[illegible]
7/20/87

DATA SET : METALS SAMPLE ID : SILVER5

ELEMENT		TRUE	MEASURED	% DEV
AG	ug/l	49.70	54.10	8.76
AG		49.70	53.50	7.66
AG		49.70	53.10	6.85
AG		49.70	51.20	3.03

R.T. Brown
4/28/87

DATA SET : CHECK

ELEMENT		DET LIM	HIGHAQC	HIGHAQC
AG	ug/l	6.00	-0.96	-1.83
B		80.0	8.0	12.8
BA		6.00	1.41	1.41
BE		1.000	-0.879	-0.982
CD		10.00	1.89	1.24
CO		6.00	-0.29	-1.02
CR		8.	-428.	-421.
CU		6.00	0.36	1.85
LI		10.00	-6.44	2.04
MN		5.00	7.71	9.10
MO		15.0	13.4	12.0
NI		15.0	34.3	39.2
SN		40.00	5.07	9.90
SR		10.0	15.8	16.3
TI		25.00	-6.69	-2.91
V		5.000	-1.710	-0.099
Y		5.000	0.775	0.711
CA	mg/l	0.	103.	104.
K		5.00	-0.20	-1.06
MG		0.1	94.3	95.2
NA		1.000	-0.221	-0.141
AL		20.0	97.2	95.1
FE		20.0	90.7	90.9
ZN		20.0	97.6	96.9

T. Pirnie
9/28/87

DATA SET : METALS SAMPLE ID : INTCHKS mikal

ELEMENT		TRUE	MEASURED	% DEV
AG	ug/l	50.	-7.	-115.
B		1060.0	50.6	-95.2
BA		1510.0	3.5	-99.8
BE		728.	-6.	-101.
CD		423.0	4.3	-99.0
CO		972.	-4.	-100.
CR		1560.	-1000.	-164.
CU		1160.	-2.	-100.
LI		807.0	14.4	-98.2
MN		1340.0	51.5	-96.1
MO		794.0	29.3	-96.3
NI		1170.0	5.9	-99.5
SN		2380.0	21.3	-99.1
SR		889.0	5.4	-99.4
TI		1190.0	29.3	-97.5
V		734.0	19.0	-97.4
Y		772.0	1.7	-99.8
CA	mg/l	14.	469.	3290.
K		97.	-3.	-103.
MG		5.	115.	2120.
NA		18.	-0.	-101.
AL		5.	484.	9950.
FE		5.	419.	8030.
ZN		3.	461.	17100.

Ray Pacione
9/28/87

DATA SET : METALS SAMPLE ID : INTCHKS final

ELEMENT		TRUE	MEASURED	% DEV
AG	ug/l	50.	-6.	-113.
B		1060.0	51.6	-95.1
BA		1510.0	4.0	-99.7
BE		728.	-9.	-101.
CD		423.0	6.5	-98.5
CO		972.	-2.	-100.
CR		1560.	-1000.	-164.
CU		1160.0	11.6	-99.0
LI		807.0	20.2	-97.5
MN		1340.0	51.6	-96.1
MO		794.0	36.8	-95.4
NI		1170.0	6.7	-99.4
SN		2380.0	22.3	-99.1
SR		889.0	6.1	-99.3
TI		1190.0	32.1	-97.3
V		734.0	21.9	-97.0
Y		772.0	2.5	-99.7
CA	mg/l	14.	466.	3260.
K		97.	-3.	-103.
MG		5.	116.	2150.
NA		18.	-0.	-100.
AL		5.	467.	9610.
FE		5.	415.	7950.
ZN		3.	450.	16700.

R. Piccione
9/28/87

DATA SET : SF4392 SAMPLE ID : FB18S47

ELEMENT	control limit mg/l	SAMPLE	DUPLICATE	AVERAGE	R P D	
AG µg/l	6	1.	-0.	0.	211.	
AL	80	-23.	-111.	-67.	-132.	
B	80	85.9	97.9	91.9	13.0	
BA		90.100	90.000	90.000	0.113	
BE		-1.11	-1.05	-1.08	-5.42	
CD	10	5.	1.	3.	120.	
CO	6	1.3	1.4	1.4	11.6	
CR	8	12.8	10.5	11.7	19.7	
CU	6	1.9	2.6	2.3	29.6	
FE	80	252.0	184.0	218.0	31.4	
LI	10	5.4	8.1	6.8	39.2	
MN		92.10	94.20	93.20	2.31	
MO		6.37	6.18	6.28	3.10	
NI		11.70	12.20	12.00	3.74	
SN	40	-8.8	-16.9	-12.8	-62.5	
SR		312.000	314.000	313.000	0.489	
TI		59.90	63.00	61.40	4.96	
V	5	1.	-0.	1.	314.	
Y	5	0.8	0.5	0.6	52.7	
ZN		91.	3.	47.	186.	*
CA mg/l	limit mg/l	123.00	126.00	124.00	2.33	
K	5	1.	-3.	-1.	-304.	
NA		12.600	12.700	12.700	0.541	

* Zn duplicate out of limits.
Remainder of elements fall within 10% or ± det. lim. control.

R. Ricciuti
9/28/87

DATA SET : SF4392 SAMPLE ID : FB18S47

ELEMENT		SAMPLE	DUPLICATE	AVERAGE	R P D
MG	mg/l	68.000	68.300	68.100	0.369

Sample & duplicate diluted 3/10. Results incorporate dilution factor.
Result within ±10% criterion.

R. Ricure
9/25/87

DATA SET : SF4392 SAMPLE ID : FB18S47

ELEMENT		SAMPLE	SPIKE	SPIKE ADDED	% RECOVERY	
AG	µg/l	1.0	48.1	50.0	94.1	
AL		-22.8	588.0	800.0	76.4	*
B		86.	941.	800.	107.	
BA		90.1	278.0	200.0	94.2	
BE		-1.1	8.4	10.0	94.9	
CD		5.2	24.3	25.0	76.2	*
CO		1.3	93.5	100.0	92.3	
CR		12.8	105.0	100.0	91.9	
CU		1.9	50.0	50.0	96.0	
FE		252.0	1000.0	800.0	93.4	
LI		5.	61.	54.	102.	
MN		92.1	182.0	100.0	90.2	
MO		6.4	82.5	100.0	76.1	*
NI		11.7	146.0	150.0	89.8	
SN		-8.8	278.0	400.0	71.7	*
SR		312.0	1260.0	1000.0	94.7	
TI		59.9	152.0	100.0	92.2	
V		1.5	44.0	50.0	85.1	
Y		0.8	49.2	50.0	96.9	
ZN		90.7	359.0	400.0	67.2	*
CA	mg/l	123.0	168.0	50.0	90.0	
K		0.7	20.2	20.0	97.8	
NA		12.6	60.7	50.0	96.1	

* Outside ±15% limit. Cadmium sample is below det. lim.
Remainder fall within ±15% criterion.

R. Ricciuti
9/28/87

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DATA SET : SF4392 SAMPLE ID : FB18S47

ELEMENT		Diluted SAMPLE	Diluted SPIKE	SPIKE ADDED	% RECOVERY
MG	mg/l	68.0	92.6	25.0	98.3

*Sample and spike diluted 3/10. Results incorporate dilution factor.
Spike recovery within ±15% criterion.

R Riccio
9/28/87

DL1:[001,054]RUN593.BRN 25-SEP-87 14:48:20 PAGE 1

DATA SET : SF4333 SAMPLE ID : FC17S69

ELEMENT		SAMPLE	DUPLICATE	AVERAGE	R P D
MG	mg/l	93.80	88.80	91.30	5.41

Sample and duplicate diluted 3/10. Results incorporate dilution factor.
Result within 10% difference.

R. Ricciuti
9/28/87

DATA SET : SF4333 SAMPLE ID : FC17S68

ELEMENT		diluted SAMPLE	diluted SPIKE	SPIKE ADDED	% RECOVERY
MG	mg/l	93.5	115.0	25.0	86.4

Sample and spike diluted 3/10. Results incorporate dilution factor. Spike recovery within ±15% criterion.

R. Riccoli
9/28/87

MS 10/6/87 10/15/87 7TFA05WU7[redacted]Z

C761 7[redacted]Z

ENVIRONMENTAL PROTECTION AGENCY
FOR THE TEAM: METALS

DIVISION/BRANCH SUPERFUND FIT SAMPLE DATE 9/9/87 LAB ARRIVAL DATE 9/10/87 DUE DATE 10/23/87

DU NUMBER 9905 ~~C76100~~ DATA SET NUMBER 4333 STUDY U.S. Scrap Chicago PRIORITY N CONTRACTOR CRL

CRL LOG NUMBER	SAMPLE DESCRIPTION Sample # TAG #	TOTAL METALS WATER TOTAL ICAP UG/L MET111	TOTAL METALS WATER AS UG/L MET161	TOTAL METALS WATER PB UG/L MET1191	TOTAL METALS WATER SB UG/L MET1201	TOTAL METALS WATER CD UG/L MET1211	TOTAL METALS WATER TL UG/L MET1221
87FC17B06	Blank 5-016884	✓	✓ <2	✓ <2	✓ <2	✓ <0.2	✓ <2
87FC17S67	SW-1 " 85	✓	✓ <2	✓ <2	✓ <2	✓ <0.2	✓ <2
87FC17S68	SW-2 " 86	✓	✓ <2	✓ <2	✓ <2	✓ <0.2	✓ <2
87FC17S69	SW-3 " 87	✓	✓ <2	✓ <2	✓ <2	✓ <0.2	✓ <2
87FC17S70	SW-4 " 88	✓	✓ <2	✓ <2	✓ <2	✓ <0.2	✓ <2
87FC17D67	duplicate SW-1 " 89	✓	✓ <2	✓ <2	✓ <2	✓ <0.2	✓ <2
			9/15/87	9/17/87	9.11.87	9-16-87	9/22/87
			PM/MP.	MP	I.L	PM	H Phan

7TFA05WUZ2

Jvm 8 Oct 87 8/10/13/87 7612Z2

ENVIRONMENTAL PROTECTION AGENCY
FOR THE TEAM: METALS

DIVISION/BRANCH Superfund FIT SAMPLING DATE 9/9/87 LAB ARRIVAL DATE 9/10/87 DUE DATE 10/23/87

DU NUMBER Y905 DATASET NUMBER 4333 STUDY ~~#1 Rag Fe~~ U.S. Scrap PRIORITY N CONTRACTOR CRL

CRL LIMS NUMBER	SAMPLE DESCRIPTION		MATRIX Water TEST Se UNITS ~~ug/l~~ ~~RE1235826~~ 1211
	Sample#	Tag#	
87FC17R06	Blank	5-016884	✓ <2
87FC17S67	SW-1	" 85	✓ <2
87FC17S68	SW-2	" 86	✓ <2
87FC17S69	SW-3	" 87	✓ <2
87FC17S70	SW-4	" 88	✓ <2
87FC17D67	Duplicate SW-1	" 89	✓ <2
			H. Pham 9/18/87

MS 10/6/87

CRL V.2: 3/85

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* FLAMELESS * CSC VERSION 1.00 *

NAME OF ANALYST ---: I.L
DATE OF ANALYSIS --: 09-11-1987
PARAMETER NAME ----: SB
DATA SET # --------: SF4332 4333

SAMPLE NO.	CONC.	R VALUE	SLOPE	
R.BLNK	-.3527589	.9991942	.01304	
AQC 20.3	19.04061	.9986876	1.354999E-02	Rec - 94%
SF4332 R04	-.4900478	.9988693	.01306	
~~SF4332 S62~~	~~9.498069~~	~~.3384295~~	~~1.02528~~	entered wrong
SF4332 S62	-.8017852	.9993816	.01347	
SF4332 S63	-7.081709E-02	.9996491	.01271	
SF4332 S64	-.3244856	.9999501	.01356	
SF4332 D63	-1.414215	.9996174	.01393	
AQC 20.3	19.97023	.9997618	.01344	Rec - 98%
SF4333 R06	-.2633637	.9992408	.01291	
SF4333 S67	.1210939	.9991859	.01569	
SF4333 S68	-.1409344	.9998582	.01632	
SF4333 S69	.1088922	.9998744	.01653	
SF4333 S70	.3788327	.999782	.01663	
SF4333 D67	4.199233E-02	.9987131	.01667	
AQC 20.3	19.72523	.9986524	.01383	Rec 97%

R.BLNK

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.001	-4.599976E-03	-5.599976E-03	121.7393 %
10	.116	.1258	9.800017E-03	7.790156 %
20	.259	.2562	-2.800018E-03	-1.092903 %
30	.388	.3866	-1.400054E-03	-.3621453 %

AQC 20.3

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.256	.2580001	2.000123E-03	.7752411 %
10	.39	.3935001	3.500074E-03	.8894723 %
20	.542	.529	-1.300001E-02	-2.457469 %
30	.657	.6644999	7.499874E-03	1.128649 %

SF4332 R04

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	-.001	-6.400025E-03	-5.400025E-03	84.37506 %
10	.113	.1242	1.119998E-02	9.017699 %
20	.261	.2548	-6.200016E-03	-2.433287 %
30	.385	.3854	3.99977E-04	.1037823 %

MS

SF4332 S62

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	-.005	9.738182	9.743182	100.0513 %
10.116	20	20.10992	.1099167	.5465796 %
.257	30	10.00168	-19.99832	-199.9496 %
.397	0	10.14522	10.14522	100 %

SF4332 S62

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	-.005	-1.080005E-02	-5.800049E-03	53.70391 %
10	.116	.1239	7.899985E-03	6.376098 %
20	.257	.2586	1.599997E-03	.6187151 %
30	.397	.3933001	-3.699958E-03	-.9407469 %

SF4332 S63

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	0	-9.000854E-04	-9.000854E-04	100 %
10	.122	.1262	4.199945E-03	3.328008 %
20	.259	.2533	-5.700022E-03	-2.250305 %
30	.378	.3804	2.400011E-03	.6309177 %

SF4332 S63

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	-.003	-4.400024E-03	-1.400024E-03	31.81856 %
10	.13	.1312	1.199976E-03	.9146158 %
20	.265	.2668	1.800001E-03	.674663 %
30	.404	.4024	-1.599997E-03	-.3976136 %

SF4332 S64

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	-.015	-1.970001E-02	-4.700014E-03	23.85792 %
10	.113	.1196	6.599993E-03	5.518389 %
20	.258	.2589	9.000003E-04	.3476247 %
30	.401	.3982	-2.799988E-03	-.7031612 %

AOC 20.3

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.272	.2684	-3.600001E-03	-1.341282 %
10	.398	.4028	4.800022E-03	1.191664 %
20	.536	.5372001	1.20008E-03	.2233953 %
30	.674	.6716001	-2.399922E-03	-.3573438 %

SF4333 R06

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	0	-3.400025E-03	-3.400025E-03	100 %
10	.125	.1257	6.999523E-04	.5568437 %
20	.246	.2547999	8.799926E-03	3.453661 %
30	.39	.3838999	-6.100095E-03	-1.589871 %

M5

SF4333 S67

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	-.002	1.899963E-03	3.899964E-03	205.2652 %
10	.159	.1588	-2.000332E-04	-.1259655 %
20	.327	.3157	-1.130003E-02	-3.579357 %
30	.465	.4726	7.59998E-03	1.608121 %

SF4333 S68

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	-.002	-2.300049E-03	-3.000486E-04	13.04532 %
10	.163	.1609	-2.100036E-03	-1.305181 %
20	.319	.3241	5.099982E-03	1.573583 %
30	.49	.4873	-2.700031E-03	-.5540798 %

SF4333 S69

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	-.001	1.799988E-03	2.799988E-03	155.5559 %
10	.172	.1671	-4.900024E-03	-2.93239 %
20	.331	.3324	1.399994E-03	.4211775 %
30	.497	.4977	6.999672E-04	.1406404 %

SF4333 S70

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.003	6.299988E-03	3.299988E-03	52.38086 %
10	.175	.1726	-2.400011E-03	-1.390505 %
20	.344	.3363	-5.100012E-03	-1.504872 %
30	.501	.5052	4.199982E-03	.8313503 %

SF4333 D67

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.002	7.000122E-04	-1.299988E-03	-185.7093 %
10	.158	.1674	9.400025E-03	5.615307 %
20	.349	.3341001	-1.489994E-02	-4.459724 %
30	.494	.5008	6.800026E-03	1.357833 %

AQC 20.3

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.274	.2727999	-1.20008E-03	-.4399122 %
10	.403	.4110999	8.099884E-03	1.970296 %
20	.562	.5493999	-1.260012E-02	-2.293434 %
30	.682	.6876999	5.699873E-03	.8288315 %

Sb - SF 4332
4333

		0.003	
		0.000	AZ
R.BL	1	0.001	
	2	0.116	
	3	0.259	
	4	0.388	
AQC	5	0.256	
	6	0.390	
	7	0.542	
	8	0.657	
R04	9	-0.001	
	10	0.113	
	11	0.261	
	12	0.385	
S62	13	-0.005	
	14	0.116	
	15	0.257	
	16	0.397	
S63	17	-0.000	
	18	0.122	
	19	0.259	
	20	0.378	
S64	21	-0.003	
	22	0.130	
	23	0.265	
	24	0.404	
D63	25	-0.015	
	26	0.113	
	27	0.258	
	28	0.401	
AQC	29	0.272	
	30	0.398	
	31	0.536	
	32	0.674	
R06	33	0.000	
	34	0.125	
	35	0.246	
	36	0.390	
S67	37	-0.002	
	38	0.159	
	39	0.327	
	40	0.465	
S68	41	-0.002	
	42	0.163	
	43	0.319	
	44	0.490	
S69	45	-0.001	
	46	0.172	
	47	0.331	
	48	0.497	
S70	49	0.003	
	50	0.175	
	51	0.344	
	52	0.501	
D67	53	0.002	
	54	0.158	
	55	0.349	
	56	0.494	
AQC	57	0.274	
	58	0.403	
	59	0.562	
	60	0.682	

HP

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* FLAMELESS * CSC VERSION 1.00 *

NAME OF ANALYST ---: HP/PM

DATE OF ANALYSIS --: 09-15-1987

PARAMETER NAME ----: AS

DATA SET # --------: SF4333

SAMPLE NO.	CONC.	R VALUE	SLOPE
AQC	23.19132	.9993619	.02676 $\frac{23.5-23.19}{23.5}=-1.3\%$
87FC17R06	-.4403181	.9999074	.02907
87FC17S67	.6104293	.9997796	.02359
87FC17D67	.2444259	.9997761	.02332
87FC17S68	.1797181	.999743	.02337
87FC17S69	.5905696	.998723	.02269
87FC17S70	.2075249	.9997791	.02313
AQC	22.11612	.9999432	2.669999E-02 $\frac{23.5-22.11}{23.5}=-5.9\%$

AQC

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.632	.6205999	-1.140016E-02	-1.836959 %
10	.875	.8881999	1.319993E-02	1.486144 %
20	1.148	1.1558	7.799864E-03	.6748455 %
30	1.433	1.4234	-9.600043E-03	-.6744446 %

87FC17R06

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	-.014	-1.280005E-02	1.199951E-03	-9.374584 %
10	.283	.2779	-5.100012E-03	-1.835197 %
20	.562	.5686	6.600023E-03	1.16075 %
30	.862	.8593001	-2.699912E-03	-.3141989 %

MS

87FC17S67

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.015	1.440002E-02	-5.999757E-04	-4.166491 %
10	.254	.2503	-3.700018E-03	-1.478233 %
20	.477	.4862	9.199977E-03	1.892221 %
30	.727	.7220999	-4.900098E-03	-.67859 %

87FC17D67

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.001	5.700012E-03	4.700012E-03	82.45617 %
10	.248	.2389	-9.099975E-03	-3.809115 %
20	.468	.4721001	4.100055E-03	.8684715 %
30	.705	.7053001	3.000498E-04	4.254215E-02 %

87FC17S68

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.01	4.200013E-03	-5.799988E-03	-138.0945 %
10	.228	.2379001	9.900048E-03	4.161432 %
20	.474	.4716001	-2.399922E-03	-.5088891 %
30	.707	.7053001	-1.699865E-03	-.241013 %

87FC17S69

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.01	1.340003E-02	3.400025E-03	25.37328 %
10	.255	.2403	-1.469997E-02	-6.117338 %
20	.448	.4672001	1.920003E-02	4.109594 %
30	.702	.6941001	-7.89994E-03	-1.138156 %

87FC17S70

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.01	4.800049E-03	-5.199951E-03	-108.3312 %

0	.01	4.800049E-03	-5.199951E-03	-108.3312 %
10	.227	.2361	9.09999E-03	3.854295 %
20	.47	.4673999	-2.600074E-03	-.5562846 %
30	.7	.6986998	-1.300156E-03	-.1860822 %

AGC

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.594	.5905003	-3.499746E-03	-.5926749 %
10	.853	.8575001	4.500151E-03	.5247988 %
20	1.123	1.1245	1.500011E-03	.1333935 %
30	1.394	1.3915	-2.500057E-03	-.1796663 %

EDO 4295 , SF 4332/4333

Analyst : PM/HP.

9/15/87.

BEGIN DATA FILE: AS1.DF

Begin Element - AE

R_BIK	0.001
	0.285
	0.570
	0.861
AQC	0.562
	1.014
	1.297
	1.604
EW03SOI	0.046
	0.272
	0.553
	0.786
DOI	0.044
	0.315
	0.436
	0.840
EXT. BIK	0.019
	0.258
	0.603
	0.929
SOI SPK.	0.704
	1.027
	1.198
	1.626
Dig. SOI Dup	0.044
	0.282
	0.437
	0.716

EDO 4295

Dig. BIK	0.000	
	0.264	
	0.524	
	0.789	
AQC	0.588	
	0.881	
	1.126	
	1.407	
D01	0.046	
	0.286	
	0.567	
	0.830	
Sol SpK	0.957	
	1.216	
	1.373	
	1.680	
Dig. Sol Dup.	0.045	
	0.280	
	0.521	
	0.817	
Sol SpK	0.625	
	0.886	
	1.171	
	1.462	
AQC	0.952	
	1.214	
	1.499	
	1.718	
87FK17 S62	0.032	
	0.337	
	0.635	
	0.927	
S63	0.026	
	0.314	
	0.586	SF 4332
	0.890	
S64	0.032	
	0.298	
	0.579	
	0.854	
R04	0.011	
	0.259	
	0.534	
	0.792	
D63	0.034	
	0.306	
	0.568	
	0.848	
AQC	0.632	
	0.875	
	1.148	
	1.433	
87FC17 R06	-0.014	
	0.283	
	0.562	
	0.862	
S67	0.015	
	0.254	
	0.477	
	0.727	
D67	0.001	
	0.248	SF 4332

S01	0.886	
SPK	1.171	
	1.462	
AQC	0.952	
	1.214	
	1.489	
	1.719	
87FK17	0.032	
	0.337	
S62	0.635	SF 4332
	0.927	
S63	0.026	
	0.314	
	0.586	
	0.890	
S64	0.032	
	0.298	
	0.579	
	0.854	
R04	0.011	
	0.259	
	0.534	
	0.792	
D63	0.034	
	0.306	
	0.568	
	0.848	
AQC	0.632	
	0.875	
	1.148	
	1.433	
87FC17	0.014	
R06	0.282	SF 4333
	0.562	
	0.862	
S67	0.015	
	0.254	
	0.477	
	0.727	
D67	0.001	
	0.248	
	0.468	
	0.705	
S68	0.010	
	0.228	
	0.474	
	0.707	
S69	0.010	
	0.255	
	0.448	
	0.702	
S70	0.010	
	0.227	
	0.470	
	0.700	
AQC	0.594	
	0.853	
	1.123	
	1.394	

* FLAMELESS * CSC VERSION 1.00 *

NAME OF ANALYST ---: PM
DATE OF ANALYSIS --: 09-16-1987
PARAMETER NAME ----: CD
DATA SET # --------: SF4333

SAMPLE NO.	CONC.	R VALUE	SLOPE
STD	2.173898E-02	.9983031	9.200002E-02
QC .78	.7624116	.9993273	.141 -2.6%
FC17R06	-1.022421E-03	.9981359	9.779999E-02
FC17S67	5.464068E-02	.9985282	.1336
FC17D67	5.970143E-02	.9994659	.134
FC17S68	.1444611	.9988861	.1336
FC17S69	7.358353E-02	.9952558	.3248001
FC17S70	.1232876	.9987444	.1314
QC	.8383461	.9918799 review	.133
QC R	.7546629	.9970836	.1394 -3.8%

STD

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.001	1.999986E-03	9.999861E-04	49.99965 %
.5	.047	.048	9.999983E-04	2.08333 %
1	.099	9.400001E-02	-4.999988E-03	-5.319135 %
1.5	.137	.14	3.000036E-03	2.142882 %

QC .78

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.108	.1075	-4.999712E-04	-.4650894 %
.5	.175	.178	3.000036E-03	1.685413 %
1	.253	.2485	-4.499972E-03	-1.810854 %
1.5	.317	.319	2.000004E-03	.6269605 %

FC17R06

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	-.002	-9.999275E-05	1.900007E-03	-1900.145 %
.5	.049	4.880001E-02	-1.999959E-04	-.4098277 %
1	.103	.0977	-5.300001E-03	-5.42477 %
1.5	.143	.1466	3.600001E-03	2.455663 %

FC17S67 M.S

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.005	7.299996E-03	2.299996E-03	31.50681 %
.5	.08	7.410001E-02	-5.899988E-03	-7.962197 %

1.5	.209	.2077	-1.299977E-03	-.6258918 %

FC17D67

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	8.000001E-03	7.999992E-03	-8.381903E-09	-1.047739E-04 %
.5	.077	.075	-1.999997E-03	-2.666662 %
1	.138	.142	4.000008E-03	2.816907 %
1.5	.211	.209	-1.999974E-03	-.9569254 %

FC17S68

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.016	1.930001E-02	3.300008E-03	17.09848 %
.5	.092	8.610001E-02	-5.899996E-03	-6.852492 %
1	.151	.1529	1.900017E-03	1.242654 %
1.5	.219	.2197	7.000119E-04	.3186217 %

FC17S69

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.007	2.389994E-02	1.689994E-02	70.71121 %
.5	.216	.1863	-2.970001E-02	-15.94204 %
1	.34	.3487001	8.700043E-03	2.494993 %
1.5	.5070001	.5111001	4.100025E-03	.8021961 %

FC17S70

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.013	.0162	3.199995E-03	19.75306 %
.5	.088	8.189999E-02	-6.100014E-03	-7.448126 %
1	.145	.1476	2.599985E-03	1.761507 %
1.5	.213	.2133	2.999753E-04	.1406354 %

QC

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.115	.1115	-3.499977E-03	-3.138992 %
.5	.166	.178	1.200002E-02	6.741586 %
1	.258	.2445	-1.349998E-02	-5.521462 %
1.5	.306	.311	4.999995E-03	1.607716 %

QC R

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.106	.1052	-7.999912E-04	-.7604479 %
.5	.169	.1749	5.900011E-03	3.373362 %
1	.254	.2446	-9.399995E-03	-3.843007 %
1.5	.31	.3143	4.299999E-03	1.368119 %

Begin Element - CD

-0.001
0.000 AZ
0.002
0.048
0.116 Std.
0.171
0.114
0.187 Q.C.
0.276
0.340
-0.001 FK17
1.457
0.134 R04
0.194
-0.000 R04
0.048 ~~S62~~ repeat
0.117
0.170
0.008
0.082
0.148 S62
0.221
0.001
0.069
0.129 S63
0.191
-0.000
0.066
0.120 S63
0.188
0.002
0.056
0.107 S64
0.168
0.097
0.163 Q.C.
0.262
0.318
0.110
0.178
0.263 Q.C.
0.317
-0.005
0.047 FC17R06
0.104
0.151
0.004
0.078
0.131 S67
0.198
0.006
0.071 D67
0.131
0.197
0.015
0.083
0.136 S68
0.191
0.006
0.476

S69

0.317
0.200

0.011
0.083
0.139 S70
0.203

0.107
0.164
0.251 QC.
0.298

0.099
0.181
0.261 QC. out
0.324

-0.001
0.000 AZ
0.001
0.047 Std
0.099
0.137

0.108
0.175 QC.
0.253
0.317

-0.002 FC17
0.049
0.103 R06
0.143

0.005
0.080 FC17
0.136 S67
0.209

0.008 FC17
0.077
0.138 D67
0.211

0.016 FC17
0.092
0.151 S68
0.219

0.007 FC17
0.216
0.340 S69
0.507

0.013 FC17
0.088
0.145 S70
0.213

0.115
0.166 Q.C.
0.258
0.306

0.106
0.169 Q.C
0.254
0.310 R.

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* FLAMELESS * CSC VERSION 1.00 *

NAME OF ANALYST ---: HP

DATE OF ANALYSIS --: 09-17-1987

PARAMETER NAME ----: PB

DATA SET # --------: SF 4333

SAMPLE NO.	CONC.	R VALUE	SLOPE	
R-BLK	-.7142883	.9982189	2.800001E-03	
AQC	22.79861	.9992668	2.930001E-03	$\frac{22.79-22.4}{22.4} = 1.7\%$
87FC17R06	.5694001	.9989001	2.809999E-03	
87FC17S67	-4.189191	.9996349	7.400001E-04	
87FC17D67	-3.698631	.9994375	7.300001E-04	
87FC17S68	-3.124998	.9984412	7.999999E-04	
87FC17S69	-4.197529	.9989346	.00081	
87FC17S70	-4.189191	.9996349	7.400001E-04	
AQC	23.76304	.9953819	2.870002E-03	$\frac{23.76-22.4}{22.4} = 6.0\%$.

R-BLK

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	-.004	-2.000008E-03	1.999993E-03	-99.99925 %
10	.029	.026	-3.000001E-03	-11.53846 %
20	.054	5.400001E-02	3.72529E-09	6.898685E-06 %
30	.081	8.200002E-02	1.000017E-03	1.219533 %

AQC

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	6.800001E-02	6.679996E-02	-1.20005E-03	-1.796484 %
10	9.399999E-02	9.609996E-02	2.099969E-03	2.185192 %
20	.126	.1254	-6.000251E-04	-.478489 %

* FLAMELESS * CSC VERSION 1.00 *

NAME OF ANALYST ---: HP
DATE OF ANALYSIS --: 09-18-1987
PARAMETER NAME ----: SE
DATA SET # --------: SF4332/4333

SAMPLE NO.	CONC.	R VALUE	SLOPE	
R-BLK	-.8555292	.9993577	.01239	
AGC	9.212918	.9992848	.01207	$\frac{9.8-9.2}{9.8}=-6.1\%$
87FK17R04	-.6113537	.9992268	.01145	SF 4332
87FC17R06	-.8258913	.9989156	.01344	
~~D67~~	~~1~~	~~1.701412E+38~~	~~1.701412E+38~~	error data entry. HP
D67	.1658724	.9978841	4.220001E-03	
S67	.572791	.9991634	.00419	SF 4333
S68	-.3411495	.9996046	.00469	
S69	.8783806	.9983706	.00444	
S70	.7676408	.9995784	4.819999E-03	
AGC	9.105214	.9996702	1.397001E-02	$\frac{9.8-9.1}{9.8}=-7.1\%$.

R-BLK

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	-.006	-1.060001E-02	-4.600006E-03	43.39626 %
10	.105	.1133	8.299984E-03	7.325671 %
20	.24	.2372	-2.800018E-03	-1.180446 %
30	.362	.3611	-9.000301E-04	-.2492468 %

AGC

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.109	.1112	2.199955E-03	1.978378 %
10	.231	.2319	8.999854E-04	.3880921 %
20	.361	.3526001	-8.399963E-03	-2.382292 %
30	.468	.4733001	5.300075E-03	1.119813 %

87FK17R04

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	-.003	-.007	-.004	57.14286 %
10	.105	.1075	2.500013E-03	2.325593 %
20	.215	.222	7.000014E-03	3.15316 %
30	.342	.3365	-5.499989E-03	-1.634469 %

87FC17R06

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	-.004	-1.109998E-02	-7.099976E-03	63.96388 %
10	.116	.1233	7.29999E-03	[illegible]

20	.251	.2577	6.69998E-03	2.599915 %
30	.399	.3920999	-6.900072E-03	-1.759774 %

~~D67~~ error data entry up

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.006	1.701412E+38	1.701412E+38	1 %
0	0	1.701412E+38	1.701412E+38	1 %
0	0	1.701412E+38	1.701412E+38	1 %
0	0	1.701412E+38	1.701412E+38	1 %

D67

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.004	6.999817E-04	-3.300019E-03	-471.4436 %
10	.038	4.289999E-02	4.89999E-03	11.42189 %
20	.085	8.509999E-02	9.999424E-05	.1175021 %
30	.129	.1273	-1.699999E-03	-1.335427 %

D67

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.003	2.399994E-03	-6.000062E-04	-25.00032 %
10	.045	4.429999E-02	-7.000119E-04	-1.580163 %
20	.083	8.619999E-02	3.199995E-03	3.712291 %
30	.13	.1281	-1.900002E-03	-1.483218 %

D68

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	0	-1.599991E-03	-1.599991E-03	100 %
10	.043	.0453	2.299998E-03	5.077258 %
20	.092	9.219999E-02	1.999959E-04	.2169154 %
30	.14	.1391	-9.000152E-04	-.6470276 %

D69

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.007	3.900009E-03	-3.099991E-03	-79.48676 %
10	.044	.0483	4.300002E-03	8.902695 %
20	.092	9.269999E-02	6.999895E-04	.7551128 %
30	.139	.1371	-1.900017E-03	-1.385863 %

S70

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.002	3.700028E-03	1.700027E-03	45.94635 %
10	.054	5.190002E-02	-2.099987E-03	-4.046217 %
20	.101	.1001	-9.000078E-04	-.8991087 %
30	.147	.1483	1.299992E-03	.8765962 %

SQC

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.125	.1271999	2.199888E-03	1.729473 %
10	.267	.2669	-1.000464E-04	-3.748461E-02 %
20	.413	.4066	-6.399989E-03	-1.574026 %
30	.542	.5463001	4.300058E-03	.7871238 %

SF 4332 / 4333
Analyst : HP.
9/18/87.

```
&&BEGIN DATA FILE:  SE1.DF

Begin Element - SE
    0.004
    0.000 AZ
R.BIK  -0.003
        0.110
        0.259
        0.377
AQC     0.107
        0.246
        0.376
        0.494
R.BIK   0.006
        0.105
        0.240
        0.362
AQC     0.109
        0.231
        0.361
        0.468
87FK    0.003
17R04   0.105
        0.215
        0.342
87FC   -0.004
17      0.116
R06     0.251
        0.399
DG7     0.004
        0.038
        0.085
        0.129
S67     0.003
        0.045
        0.083
        0.130
S68     0.000
        0.043
        0.092
        0.140
S69     0.007
        0.044
        0.092
        0.139
S70     0.002
        0.054
        0.101
        0.147


AQC     0.125
        0.267
        0.413
        0.542
```

* FLAMELESS * CSC VERSION 1.00 *

NAME OF ANALYST ---: HP
DATE OF ANALYSIS --: 09-22-1987
PARAMETER NAME ----: TL
DATA SET # ---------: SF4333

SAMPLE NO.	CONC.	R VALUE	SLOPE	
R-BLK	-.1666692	.9967932	.003	
AQC	12.54545	.9995378	.00275	$\frac{12.52-12.54}{12.52} = 0.1\%$.
87FC17S68	.5063311	.9980828	.00158	
S69	1.447361	.9953579	.00152	
S70	1.118424	.9974993	.00152	
D67	5.847864E-02	.999078	.00171	
~~R05~~	~~-1.956088~~	~~.8750069~~	~~1.366364~~	error data entry HP.
R06	-.1286154	.9999277	.00311	
D67	1.776319	.9974991	.00152	
S67	.1898705	.9976847	.00158	
AQC	12.50967	.9995983	2.589998E-03	$\frac{12.52-12.50}{12.52} = 0.2\%$.

R-BLK

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	0	-5.000077E-04	-5.000077E-04	100 %
10	.031	2.949999E-02	-1.500007E-03	-5.08477 %
20	.055	.0595	4.499994E-03	7.563017 %
30	.092	8.949999E-02	-2.500005E-03	-2.793302 %

AQC

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.034	.0345	4.999973E-04	1.449268 %
10	.062	.062	0	0 %
20	.091	8.949999E-02	-1.500003E-03	-1.675981 %
30	.116	.117	1.000002E-03	.8547026 %

87FC17S68

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.002	8.000031E-04	-1.199997E-03	-149.9991 %
10	.015	.0166	1.600002E-03	9.638565 %
20	.032	.0324	3.999993E-04	1.234566 %
30	.049	.0482	-7.999987E-04	-1.659748 %

S69

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.004	2.199989E-03	-1.800011E-03	-81.81908 %
10	.015	1.739999E-02	2.399991E-03	13.79306 %
20	.032	3.259999E-02	5.999916E-04	1.840465 %
30	.049	.0478	-1.200005E-03	-2.510472 %

S70

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.003	1.700005E-03	-1.299996E-03	-76.47012 %
10	.015	.0169	1.900003E-03	11.24262 %
20	.032	.0321	1.000017E-04	.3115317 %
30	.048	4.730001E-02	-6.99997E-04	-1.479909 %

D67

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.001	9.999848E-05	-9.000016E-04	-900.0152 %
10	.016	.0172	.0012	6.976743 %
20	.034	.0343	3.000014E-04	.8746394 %
30	.052	5.140001E-02	-5.999953E-04	-1.167306 %

~~R06~~ error data entry MP.

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	0	-2.672727	-2.672727	100 %
10	.3	10.99091	10.69091	97.27047 %
20	30	24.65455	-5.345455	-21.68142 %
0	0	-2.672727	-2.672727	100 %

R06

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	0	-3.999939E-04	-3.999939E-04	100 %
10	.03	.0307	7.000044E-04	2.280144 %
20	.062	.0618	-1.999997E-04	-.3236241 %
30	.093	9.289999E-02	-1.000091E-04	-.1076525 %

D67

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.004	2.700005E-03	-1.299996E-03	-48.14791 %
10	.016	.0179	1.900002E-03	10.61454 %
20	.033	.0331	1.000017E-04	.3021199 %
30	.049	.0483	-6.99997E-04	-1.449269 %

S67

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.001	2.999954E-04	-7.000047E-04	-233.3385 %
10	.016	.0161	9.999424E-05	.6210825 %
20	.03	3.189999E-02	1.899993E-03	5.956093 %
30	.049	4.769999E-02	-1.300007E-03	-2.725382 %

A0C

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.033	3.240002E-02	-5.999767E-04	-1.851778 %
10	.057	5.870001E-02	1.300007E-03	2.229858 %

0	0	-2.672727	-2.672727	100 %
10	.3	10.99091	10.69091	97.27047 %
20	30	24.65455	-5.345455	-21.68142 %
0	0	-2.672727	-2.672727	100 %

R06

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	0	-3.999939E-04	-3.999939E-04	100 %
10	.03	.0307	7.000044E-04	2.280144 %
20	.062	.0618	-1.999997E-04	-.3236241 %
30	.093	9.289999E-02	-1.000091E-04	-.1076525 %

D67

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.004	2.700005E-03	-1.299996E-03	-48.14791 %
10	.016	.0179	1.900002E-03	10.61454 %
20	.033	.0331	1.000017E-04	.3021199 %
30	.049	.0483	-6.99997E-04	-1.449269 %

S67

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.001	2.999954E-04	-7.000047E-04	-233.3385 %
10	.016	.0161	9.999424E-05	.6210825 %
20	.03	3.189999E-02	1.899993E-03	5.956093 %
30	.049	4.769999E-02	-1.300007E-03	-2.725382 %

ADC

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.033	3.240002E-02	-5.999767E-04	-1.851778 %
10	.057	5.830001E-02	1.300007E-03	2.229858 %
20	.085	8.419999E-02	-8.000061E-04	-.9501261 %
30	.11	.1101	9.997189E-05	9.080101E-02 %

BEGIN DATA FILE: TL2.DF

SF 4333 / 4392
Analyst: HP
9/22/87

Begin Element - TL

-0.001
0.000 AZ

R-01K
0.000
0.031
0.055
0.092

A&C
0.034
0.062
0.091
0.116

87FC187
R06
0.000
0.030
0.062
0.093

D67
0.004
0.016
0.033
0.049

S67
0.001
0.016
0.030
0.049

S68
0.002
0.015
0.032
0.049

S69
0.004
0.015
0.032
0.049

S70
0.003
0.015
0.032
0.048

D67
0.001
0.016
0.034
0.052

A&C
0.033
0.057
0.085
0.110

87FD18
R07
0.000
0.032
0.064
0.091

D49
0.001
0.013
0.025
0.038

S47
0.003
0.012
0.026
0.038

S48
0.001
0.014
0.031
0.042

S69	0.015 0.032 0.049
S70	0.003 0.015 0.032 0.048
D67	0.001 0.016 0.034 0.052
A&C	0.033 0.057 0.085 0.110
87F018 R07	0.000 0.032 0.064 0.091
D49	0.001 0.013 0.025 0.038
S47	0.003 0.012 0.026 0.038
S48	0.001 0.014 0.031 0.042
S49	0.001 0.013 0.025 0.033
S50	0.001 0.016 0.032 0.050
S51	0.001 0.013 0.023 0.036
A&C	0.035 0.064 0.091 0.118

UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
REGION 5
CHICAGO, ILLINOIS

01 OCT 1987

DATE:

SUBJECT: **Review of Region 5 data for** US SCRAP

FROM: **Curtis Ross, Director**
Region 5 Central Regional Laboratory

To: **Data User:**

Attached are the results for:

CRL Data Set Numbers: 8F 4333
Sample Numbers: 87FC17R06-D67
Parameter(s): CN
Laboratory: CRL

Results Status:

(X) **DATA ACCEPTABLE FOR USE***
( ) **DATA QUALIFIED AS TO USE**
( ) **DATA UNACCEPTABLE FOR USE**

* For data acceptability requirements, refer to the method capability statement for the methods referenced.

Comments by the Quality Control Coordinator:

If there are any questions regarding the data, refer them to Steve Parker, the Quality Control Coordinator, at 353-3805.

Please sign and date this form below and return it with any comments to:

Sylvia Griffin
Data Management Coordinator
Region 5 Central Regional Laboratory
(5SCRL)

RECEIVED BY/DATE: .....
Comments:

cc: Contractor's Reprentative

Filed by/date:

DATA SET	SITE	DU/ACT.
SF 4333	US Scrap, Chicago	4905/C76122

SAMPLES	PARAMETER(S)
87FC17 S67-S70/R06	CN

SAMPLED	RECEIVED	DUE	LAB
9/9/87	9/10/87	10/01/87	CRL

SHIPPED	DATA RECEIVED	CONTRACT
	N/A	

TEAM LEADER	SECTION CHIEF	QC COORD.	DATA COORD.
PP 9/23/87	JVM 24 Sept 87	10/1/87	Ag 10-1-87

Comments By Reviewer:

DATA MANAGEMENT COORDINATOR

RECEIVED	TRANSMITTED		CLERICAL SUPPORT RECEIVED	COMPLETED
(✓) REVIEWED	( ) UNREVIEWED	PP 9/23/87 TEAM LEADER/DATE		
(✓) REVIEWED	( ) UNREVIEWED	SECTION CHIEF/DATE Johnson 24 Sept 87		
(✓) REVIEWED 10/1/87	( ) UNREVIEWED	QC COORDINATOR/DATE		

REVIEWED BY CONTRACT COORDINATOR/DATE

RECEIVED	TRANSMITTED	DATA MANAGEMENT COORDINATOR
10/1/87	10/1/87	Sylvia Griffin

CC: QUALITY CONTROL COORDINATOR

9/10/87 sum 9/24/87 OK-RP 9/23/87
7TFA05UUZZ
C76ZZ

ENVIRONMENTAL PROTECTION AGENCY
FOR THE TEAM: MINERALS - NUTRIENTS

DIVISION/BRANCH SUPERFUND FIT SAMPLE DATE 9/9/87 LAB ARRIVAL DATE 9/10/87 DUE DATE 10/23/87

DU NUMBER US905 ~~C70100~~ DATA SET NUMBER 4333 STUDY U.S. Scrap (Chicago) PRIORITY N CONTRACTOR CRL

CRL LOG NUMBER	SAMPLE DESCRIPTION Sample# TAG#	WATER PHENOLICS UG PHENOL/L MIN 74818	WATER CYANIDE UG CN/L MIN 74919	WATER GROSS ALPHA P CI/L MIN 75020	WATER CR^{+6} UG CR^{+6}/L MIN 74616	WATER MERCURY UG HG/L MIN 74717
87FC17R06	Blank 5-016890		✓ K5			
87FC17567	SW-1 " 91		✓ K5			
87FC17568	SW-2 " 92		✓ K5			
87FC17569	SW-3 " 93		✓ K5			
87FC17570	SW-4 " 94		✓ K5			
87FC17D67	duplicate SW-1 " 95		✓ K5			
			RVP / QAB 9/21/87			
			Run by Auto - UV using Method 335.3			

TRANSFERRED BY Sylvia Griffin OCT 07 1987

U.S. EPA CENTRAL REGIONAL LAB

AUTO-UV
METHOD 335.3

* REGRESSION ANALYSIS * CSC VERSION 2.00 *

NAME OF ANALYST ---: RAP/RVP DATA SET NUMBER ---: SF4333 4332 4392
PARAMETER NAME ----: CYANIDE DU NUMBER ---------: Y905
DATE OF ANALYSIS --: 09-21-1987

DEGREE OF FIT : 1

EQUATION : CONCENTRATION = +2.82883E-01
+5.80889E-01 * SIGNAL

COEFFICIENT OF DETERMINATION : .9987375

T-A-B-L-E O-F S-T-A-N-D-A-R-D-S

STANDARD	SIGNAL	CONCENTRATION	CALCULATED
1	+0.000	+0.000	+0.282
2	+9.000	+5.000	+5.510
3	+16.500	+10.000	+9.867
4	+40.500	+25.000	+23.808
5	+86.500	+50.000	+50.529

T-A-B-L-E O-F S-A-M-P-L-E-S

SAMPLE I.D.	SIGNAL	CONCENTRATION	
BLANK	+0.400	+0.515	LIMIT 0 ± 5 ug/L
CS-20 +V=20	+36.000	+21.194	LIMIT 20 ± 5 ug/L
BLANK	-0.400	+0.050	
B7FC17R06	+1.000	+0.863	
S67	+1.500	+1.154	
D67	+1.500	+1.154	
S68	+1.500	+1.154	
S69	+1.500	+1.154	
S70	+0.000	+0.282	
B7FK17R04	+0.500	+0.573	
S62	+0.500	+0.573	
S63	+0.500	+0.573	
D63	+0.700	+0.689	
S64	+0.400	+0.515	
B7FB18R07	+0.000	+0.282	
S47	+0.000	+0.282	
S48	+0.000	+0.282	
S49	+0.000	+0.282	
D49	+0.000	+0.282	
S50	+0.600	+0.631	
S51	+0.200	+0.399	
DUPL S62	+0.600	+0.631	
SPIKE S63 +20	+39.300	+23.111	LIMIT 20 ± 5 ug/L (23.1 − .6 = 22.5)
BLANK	+0.600	+0.631	
CS-20	+36.500	+21.485	

UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
REGION 5
CHICAGO, ILLINOIS

5 pages

DATE: 13 OCT 1987

SUBJECT: **Review of Region 5 data for** US SCRAP

FROM: **Curtis Ross, Director**
Region 5 Central Regional Laboratory

To: **Data User:**

Attached are the results for:

CRL Data Set Numbers: SF 4333
Sample Numbers: 87FC17R06 - S70
Parameter(s): METALS by ICP, As, Pb, Sb, Cd, Tl, Se
Laboratory: CRL

Results Status:

(X) **DATA ACCEPTABLE FOR USE***
( ) **DATA QUALIFIED AS TO USE**
( ) **DATA UNACCEPTABLE FOR USE**

* For data acceptability requirements, refer to the method capability statement for the methods referenced.

Comments by the Quality Control Coordinator:

If there are any questions regarding the data, refer them to Steve Parker, the Quality Control Coordinator, at 353-3805.

Please sign and date this form below and return it with any comments to:

Sylvia Griffin
Data Management Coordinator
Region 5 Central Regional Laboratory
(5SCRL)

RECEIVED
DEC 07 1987
U.S. EPA, CENTRAL REGIONAL LAB
536 S. CLARK STREET
CHICAGO, ILLINOIS 60605

RECEIVED BY/DATE: Elma J. Tautman 11/13/87

Comments:

cc: **Contractor's Reprentative**

Filed by/date: Elmarrodo

UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
REGION 5
CHICAGO, ILLINOIS

RECEIVED OCT 0 2 1987

DATE: 0 1 OCT 1987

SUBJECT: **Review of Region 5 data for** US SCRAP

FROM: **Curtis Ross, Director**
Region 5 Central Regional Laboratory

To: **Data User:** FIT

Attached are the results for:

CRL Data Set Numbers: 8F 4333
Sample Numbers: 87FC17R06-D67
Parameter(s): CN
Laboratory: CRL

Results Status:

(X) **DATA ACCEPTABLE FOR USE***
( ) **DATA QUALIFIED AS TO USE**
( ) **DATA UNACCEPTABLE FOR USE**

* For data acceptability requirements, refer to the method capability statement for the methods referenced.

Comments by the Quality Control Coordinator:

If there are any questions regarding the data, refer them to Steve Parker, the Quality Control Coordinator, at 353-3805.

Please sign and date this form below and return it with any comments to:

Sylvia Griffin
Data Management Coordinator
Region 5 Central Regional Laboratory
(5SCRL)

RECEIVED
DEC 07 1987
U.S. EPA CENTRAL REGIONAL LABORATORY
CHICAGO, ILLINOIS 60605

RECEIVED BY/DATE: Elma G. Kaufman 11/13/87

Comments:

cc: **Contractor's Reprentative**

Filed by/date: elmarrosh

U.S. Environmental Protection Agency Region V

Superfund Document Management System (SDMS)

Lab Data Reference Sheet

Please contact the Superfund Records Manager for further information.

I. Unscannable item due to format

___ Graph

✓ Mail receipts

___ Sample tags

II. Image Quality (Pages follow / No. of pages ____)

___ Resolution / Contrast

Cooler # 188

ENVIRONMENTAL PROTECTION AGENCY
Office of Enforcement

REGION 5
230 South Dearborn Street
Chicago, Illinois 60604

CHAIN OF CUSTODY RECORD

PROJ. NO.: EOS-8611 193
PROJECT NAME: FLC102VA / 8027
SAMPLERS: (Signature) Kathleen Nesvick

Low conc. Superfund 4333

STA. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	plastic liter cyanide	plastic liter metal					REMARKS log # IFR KN	OTR	MATRIX
Blank	9/9/87	10:30		X	Surface H2O Blank	2	1	1					87FC17R06	EP483	H2O
SW-1	9/9/87	11:15		X	Surface H2O SW-1	2	1	1					87FC17S67	EP479	H2O
SW-2	9/9/87	12:00		X	Surface H2O SW-2	2	1	1					87FC17S68	EP480	H2O
SW-3	9/9/87	12:45		X	Surface H2O SW-3	2	1	1					87FC17S69	EP481	H2O
SW-4	9/9/87	13:00		X	Surface H2O SW-4	2	1	1					87FC17S70	EP482	H2O
SW1 Dup	9/9/87	11:15		X	Surface H2O SW1Dup	2	1	1					87FC17D67	EP484	H2O

~~[illegible]~~ KN

lot # C7229072

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Kathleen Nesvick	9/9/87 3:00	William Sungatte			
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) William Sungatte	Date / Time 9/10/87 11:56am	Remarks Shipped FEDEX to CRL Airbill # 3940245610 Custody seals 12237 & 12238	

Distribution: White — Accompanies Shipment; Pink — Coordinator Field Files; Yellow — Laboratory File

5- 19279

ENVIRONMENTAL PROTECTION AGENCY
FOR THE TEAM: MINERALS - NUTRIENTS

DIVISION/BRANCH SUPERFUND FIT SAMPLE DATE 9/9/87 LAB ARRIVAL DATE 9/10/87 DUE DATE 10/23/87

DU NUMBER U9905 C76100 DATA SET NUMBER 4333 STUDY U.S. Scrap PRIORITY N CONTRACTOR CRL

CRL LOG NUMBER	SAMPLE DESCRIPTION Sample# TAG#	WATER PHENOLICS UG PHENOL/L MIN 74818	WATER CYANIDE UG CN/L MIN 74919	WATER GROSS ALPHA P CI/L MIN 75020	WATER CR^{+6} UG CR^{+6}/L MIN 74616	WATER MERCURY UG HG/L MIN 74717
87FC17R06	Blank 5-016890		✓			
87FC17567	SW-1 " 91		✓			
87FC17568	SW-2 " 92		✓			
87FC17569	SW-3 " 93		✓			
87FC17570	SW-4 " 94		✓			
87FC17D67	duplicate SW-1 " 95		✓			

ENVIRONMENTAL PROTECTION AGENCY
FOR THE TEAM: METALS

DIVISION/BRANCH SUPERFUND FIT SAMPLE DATE 9/9/87 LAB ARRIVAL DATE 9/10/87 DUE DATE 10/23/87

DU NUMBER 4905 C76100 DATA SET NUMBER 4333 STUDY U.S. Scrap PRIORITY N CONTRACTOR CRL

CRL LOG NUMBER	SAMPLE DESCRIPTION Sample# TAG#	TOTAL METALS WATER TOTAL ICAP UG/L MET111	TOTAL METALS WATER AS UG/L MET161	TOTAL METALS WATER PB UG/L MET1191	TOTAL METALS WATER SB UG/L MET1201	TOTAL METALS WATER CD UG/L MET1211	TOTAL METALS WATER TL UG/L MET1221
87FC17B06	Blank 5-016884	✓	✓	✓	✓	✓	✓
87FC17S67	SW-1 " 85	✓	✓	✓	✓	✓	✓
87FC17S68	SW-2 " 86	✓	✓	✓	✓	✓	✓
87FC17S69	SW-3 " 87	✓	✓	✓	✓	✓	✓
87FC17S70	SW-4 " 88	✓	✓	✓	✓	✓	✓
87FC17D67	duplicate SW-1 " 89	✓	✓	✓	✓	✓	✓