IL-0213-09

ecology and environment, inc.
223 WEST JACKSON BLVD., CHICAGO, ILLINOIS 60606, TEL. 312-663 9415
International Specialists in the Environmental Sciences

EPA Region 5 Records Ctr.
309398

Date Received for Review: 5/22/85 Date Review Completed: 5/23/85

To: Steve Nelson

From: Cynthia Bachunas / ARLENE PRATT

Subject: MALLARD LAKE L.F. R05-8303-01D (All)

Sample Description: CASE # 4130 low water organics

Project Data Status: Complete

FIT Data Review Findings:

See attached review from CEC

Additional Comments:

recycled paper

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

DATE:

SUBJECT: Review of Region V CLP Data
Received for Review on 5/6/85

FROM: Curtis Ross, Director (5SCRL)
Central Regional Laboratory

TO: Data User: FIT

We have reviewed the data for the following case(s).

SITE NAME: Mallard Lake Landfill SMO Case No. 4130

EPA Data Set No. SF 2265 No. of Samples: 9 D.U./Activity Numbers 19051 C48500

CRL No. 85FN04S14 to 85FN04R02

SMO Traffic No. ED105 to ED113

CLP Laboratory: S-3 Hrs. Required for Review: 12

Following are our findings.

1. NO Spectra for Chloroform - Samples ED105, ED107, ED112
2. " " " BENZENE - Sample ED108

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(X) Data are acceptable for use. R.H. 5-13-85
( ) Data are acceptable for use with qualifications noted above.
( ) Data are preliminary - pending verification by Contractor Laboratory.
( ) Data are unacceptable.

cc: Dr. Alfred Haeberer/Joan Fisk/Gary Ward, EPA Support Services
Ross K. Robeson, EMSL-Las Vegas
Don Trees, CLP/Sample Management Office

EPA FORM 1320-6 (REV. 3-78)

DATA QUALIFIERS

Contractor: S-Cubed

Case 4130

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

Reviewed by: Robert Hall

Phone: (312) 886-1970

Date: 5-13-85

S-CUBED
A Division of Maxwell Laboratories, Inc.

SF 2265

NARRATIVE: CASE 4130

S-CUBED Contract No. 68-01-7021

Samples ED105 and ED106 were for VOA analysis only. All VOA samples contained trichloroethylene but only sample ED105V yielded a spectrum meeting contract criteria. Benzene was rejected for the same reason in most samples. Only in ED108 and ED109, benzene met criteria and was reported. Chloroform was rejected in ED105, ED107 and ED112. Spectral comparisons for 2-butanone are obscured by a coeluting surrogate. The analyst has identified it as being present.

Extractable analyses were straightforward and presented no problems.

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US E... ...ONAL LAB.
536 S. CLARK STREET
CHICAGO, ILLINOIS 60605

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(5/1/85, 12069, 1632V)

P.O. Box 1620, La Jolla, California 92038-1620 3398 Carmel Mountain Road, San Diego, California 92121-1095
Tel: (619) 453-0060 TWX: 910-337-1253 Telecopier: (619) 755-0474

REAGENT BLANK SUMMARY

Case No. 4130 Contractor S-CUBED Contract No. 68-01-7021

	FILE ID	DATE OF ANALYSIS	FRACTION	MATRIX	CONC. LEVEL	INST. ID	CAS NUMBER	COMPOUND (HSL, TIC OR UNKNOWN)	CONC.	UNITS	CRDL
(1)	LAB BLANK	4-9-85	VOA	WATER	LOW	321	75-09-2	METHYLENE CHLORIDE	1.0	UG/L	5.0
	LAB BLANK	4-9-85	VOA	WATER	LOW	321	67-64-1	ACETONE	4.1	UG/L	10.0
	LAB BLANK	4-9-85	VOA	WATER	LOW	321	75-15-0	CARBON DISULFIDE	0.04	UG/L	5.0
	LAB BLANK	4-9-85	VOA	WATER	LOW	321	NA	UNKNOWN	5.3	UG/L	NA
	LAB BLANK	4-17-85	ABN	WATER	LOW	4500	84-74-2	DI-N-BUTYLPHTHALATE	1.0	UG/L	10.0
	LAB BLANK	4-17-85	ABN	WATER	LOW	4500	NA	UNKNOWN	38	UG/L	NA
	LAB BLANK	4-17-85	ABN	WATER	LOW	4500	NA	UNKNOWN	22	UG/L	NA
	LAB BLANK	4-17-85	ABN	WATER	LOW	4500	127-18-4	TETRACHLOROETHENE	13	UG/L	NA
	LAB BLANK	4-17-85	ABN	WATER	LOW	4500	NA	UNKNOWN	7.5	UG/L	NA
	LAB BLANK	4-17-85	ABN	WATER	LOW	4500	NA	UNKNOWN	7.5	UG/L	NA
	10VBLK	4-10-85	VOA	WATER	LOW	321	75-09-2	METHYLENE CHLORIDE	0.49	UG/L	5.0
	10VBLK	4-10-85	VOA	WATER	LOW	321	67-64-1	ACETONE	3.5	UG/L	10.0
	10VBLK	4-10-85	VOA	WATER	LOW	321	75-15-0	CARBON DISULFIDE	0.03	UG/L	5.0

Comments: (1) LAB BLANK ≡ 9VBLK + 4130LBLK

FORM IV

WATER SURROGATE PERCENT RECOVERY SUMMARY

Case No. 4130 Contract Laboratory S-CUBED Contract No. 68-01-7021

	VOLATILE			SEMI-VOLATILE								PESTICIDE
SMO TRAFFIC NO.	TOLUENE-D8 (88-110)	BFB (85-121)	1,2 DICHLORO-ETHANE-D4 (77-120)	NITRO-BENZENE-D5 (41-120)	2-FLUORO-BIPHENYL (44-110)	TERPHENYL-D14 (33-128)			PHENOL-D5 (16-103)	2-FLUORO-PHENOL (23-121)	2,4,6 TRIBROMO-PHENOL (10-130)	DIBUTYL-CHLORENDATE ** (48-136)
ED105	96	102	100	NA	NA	NA			NA	NA	NA	NA
ED106	113	111	104	NA	NA	NA			NA	NA	NA	NA
ED107	112	100	101	79	75	88			77	70	70	85
ED108	105	102	112	66	59	69			76	71	73	80
ED109	95	98	97	64	59	75			71	63	68	80
ED110	101	97	104	70	68	85			78	70	67	98*
ED110MS	116	104	106	71	69	83			83	74	74	79
ED110MSD	115	101	100	72	71	91			73	61	66	69
ED111	100	103	92	66	67	83			57	49	59	118
ED112	104	102	97	73	70	85			76	65	70	125
ED113	105	96	92	74	69	88			80	73	67	60
(1) LAB BLANK	100	93	108	74	67	81			75	64	62	79
100BLK	93	100	90	NA	NA	NA			NA	NA	NA	NA

MAY 2 1985

* VALUES ARE OUTSIDE OF CONTRACT REQUIRED QC LIMITS

**ADVISORY LIMITS ONLY

(1) 9100BLK (100A) 4130LBLK (ABN)

Volatiles: 0 out of 39 ; outside of QC limits

Semi-Volatiles: 0 out of 60 ; outside of QC limits

Pesticides: 0 out of 10 ; outside of QC limits

Comments:

WATER MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Case No. 4130 Contractor S-CUBED Contract No. 68-01-7021

FRACTION	COMPOUND	CONC. SPIKE ADDED (ug)	SAMPLE RESULT	CONC. MS	% REC	CONC. MSD	% REC	RPD	QC LIMITS* RPD	QC LIMITS* RECOVERY
VOA SMO SAMPLE NO.	1,1-Dichloroethene	0.42	0	0.41	98	0.41	98	0	14	61-145
	Trichloroethene	0.24	0	0.25	104	0.24	100	4	14	71-120
	Chlorobenzene	0.27	0	0.27	100	0.26	96	4	13	75-130
	Toluene	0.26	0	0.26	100	0.26	100	0	13	76-125
ED 110	Benzene	0.24	0	0.24	100	0.24	100	0	11	76-127
B/N SMO SAMPLE NO.	1,2,4-Trichlorobenzene	50	0	28	56	28	56	0	28	39-98
	Acenaphthene	50	0	30	60	33	66	10	31	46-118
	2,4 Dinitrotoluene	50	0	28	56	30	60	7	38	24-96
	Di-n-Butylphthalate	50	1.5	14	25	18	33	25	40	11-117
	Pyrene	50	0	28	56	31	62	10	31	26-127
	N-Nitroso-Di-n-Propylamine	50	0	27	54	27	54	0	38	41-116
ED110	1,4-Dichlorobenzene	50	0	27	54	28	56	4	28	36-97
ACID SMO SAMPLE NO.	Pentachlorophenol	100	0	55	55	45	45	20	50	9-103
	Phenol	100	0	62	62	54	54	14	42	12-89
	2-Chlorophenol	100	0	63	63	54	54	15	40	27-123
	4-Chloro-3-Methylphenol	100	0	56	56	54	54	4	42	23-97
ED110	4-Nitrophenol	100	0	48	48	39	39	21	50	10-80
PEST SMO SAMPLE NO.	Lindane	0.02	0	0.0196	98	0.0196	98	0	15	56-123
	Heptachlor	0.02	0	0.0190	95	0.0194	97	2	20	40-131
	Aldrin	0.02	0	0.0186	93	0.0172	86	8	22	40-120
	Dieldrin	0.05	0	0.0465	93	0.0465	93	0	18	52-126
	Endrin	0.05	0	0.0555	111	0.056	112	1	21	56-121
ED 110	4,4'-DDT	0.05	0	0.0380	76	0.031	61	22	27	38-127

*ASTERISKED VALUES ARE OUTSIDE QC LIMITS.

RPD: VOAs 0 out of 5; outside QC limits
B/N 0 out of 7; outside QC limits
ACID 0 out of 5; outside QC limits
PEST 0 out of 6; outside QC limits

RECOVERY: VOAs 0 out of 10; outside QC limits
B/N 0 out of 14; outside QC limits
ACID 0 out of 10; outside QC limits
PEST 0 out of 12; outside QC limits

Comments:

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GC/MS TUNING AND MASS CALIBRATION

Bromofluorobenzene (BFB)

Case No. 4064 4130 Contractor S-CUBED Contract No. 68-01-~~6868~~ 7021

Instrument ID 321 Date 4-9-85 Time 8:32

Lab ID 9BFB Data Release Authorized By: [illegible]

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
50	15.0 - 40.0% of the base peak	23.2
75	30.0 - 60.0% of the base peak	46.8
95	Base peak, 100% relative abundance	100
96	5.0 - 9.0% of the base peak	6.70
173	Less than 1.0% of the base peak	0.99
174	Greater than 50.0% of the base peak	~~64.67~~ 64.7
175	5.0 - 9.0% of mass 174	4.84 (7.48)[1]
176	Greater than 95.0%, but less than 101.0% of mass 174	63.4 (98.0)[1]
177	5.0 - 9.0% of mass 176	4.43 (6.99)[2]

[1]Value in parenthesis is % mass 174.
[2]Value in parenthesis is % mass 176.

4.43 / 63.4 = .6987 RLH

THIS PERFORMANCE TUNE APPLIES TO THE FOLLOWING SAMPLES, BLANKS AND STANDARDS.

RECEIVED MAY 2 2 1985

SAMPLE ID	LAB ID	DATE OF ANALYSIS	TIME OF ANALYSIS
NA	9V50	4-9-85	9:24
NA	9VBLK	4-9-85	10:19
ED113	ED113V	4-9-85	11:19
ED107	ED107V	4-9-85	11:56
ED110	ED110V	4-9-85	13:26
NA	9VMTX	4-9-85	14:13
ED110	ED110VMS	4-9-85	15:02
ED110	ED110VMSD	4-9-85	15:49
ED106	ED106V	4-9-85	16:38
ED108	ED108V	4-9-85	17:27
YA150	YA150V	4-9-85	18:15
YA150	YA150VMS	4-9-85	19:03
YA150	YA150VMSD	4-9-85	19:52

4/84

FORM V

Form V. BFB Tuning and Mass Calibration.

GC/MS TUNING AND MASS CALIBRATION

Bromofluorobenzene (BFB)

Case No. 4130 Contractor S-Cubed Contract No. 68-01-6868

Instrument ID 321 Date 4/10/85 Time 8:26

Lab ID 10BFB Data Release Authorized By: [illegible]

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
50	15.0 - 40.0% of the base peak	35.0
75	30.0 - 60.0% of the base peak	47.8
95	Base peak, 100% relative abundance	100
96	5.0 - 9.0% of the base peak	5.73
173	Less than 1.0% of the base peak	0.28
174	Greater than 50.0% of the base peak	66.4
175	5.0 - 9.0% of mass 174	4.70 (7.08)[1]
176	Greater than 95.0%, but less than 101.0% of mass 174	64.2 (96.7)[1]
177	5.0 - 9.0% of mass 176	4.83 (7.52)[2]

[1]Value in parenthesis is % mass 174.
[2]Value in parenthesis is % mass 176.

4.83 / 64.2 = .0752 RLH

THIS PERFORMANCE TUNE APPLIES TO THE FOLLOWING SAMPLES, BLANKS AND STANDARDS.

RECEIVED MAY 2 2 1985

SAMPLE ID	LAB ID	DATE OF ANALYSIS	TIME OF ANALYSIS
—	10U50	4/10/85	9:09
—	10U81K	"	9:56
ED105	ED105V	"	10:50
ED109	ED109V	"	11:48
ED111	ED111V	"	12:36
ED112	ED112V	"	13:25
YA155	YA155V	"	14:12
YA156	YA156V	"	15:00
YA154	YA154V	"	15:50
YA158	YA158V	"	16:39
YA157	YA157V	"	17:29
YA160	YA160V	"	18:16
YA164	YA164V	"	19:04
YA151	YA151V	"	19:52

4/84

FORM V

Form V. BFB Tuning and Mass Calibration.

GC/MS TUNING AND MASS CALIBRATION

Bromofluorobenzene (BFB)

Case No. 4130 ~~4146~~ ~~4086~~ Contractor S-Cubed Contract No. 68-01-6865

Instrument ID 321 Date 3/28/85 Time 8:29

Lab ID 28BFB Data Release Authorized By: [illegible]

m/e	ION ABUNDANCE CRITERIA	RELATIVE ABUNDANCE
50	15.0 - 40.0% of the base peak	28.0
75	30.0 - 60.0% of the base peak	52.3
95	Base peak, 100% relative abundance	100
96	5.0 - 9.0% of the base peak	7.10
173	Less than 1.0% of the base peak	0.85
174	Greater than 50.0% of the base peak	62.8
175	5.0 - 9.0% of mass 174	5.56 (8.85)[1]
176	Greater than 95.0%, but less than 101.0% of mass 174	62.7 (99.8)[1]
177	5.0 - 9.0% of mass 176	3.80 (6.06)[2]

[1] Value in parenthesis is % mass 174.
[2] Value in parenthesis is % mass 176.

THIS PERFORMANCE TUNE APPLIES TO THE FOLLOWING SAMPLES, BLANKS AND STANDARDS.

SAMPLE ID	LAB ID	DATE OF ANALYSIS	TIME OF ANALYSIS
—	28V50	3/28/85	9:12
—	28VBLK	"	10:00
—	28V100	"	10:48
—	28V20	"	11:35
—	28V150	"	12:22
—	28V200	"	13:10
—	28V1	"	14:00
—	28AXV50	"	14:50
—	28AXV20	"	15:36
—	28AXV100	"	16:21
—	28AXV150	"	17:05
—	28AXV200	"	17:50

4/84

FORM V

Form V. BFB Tuning and Mass Calibration.

GC/MS TUNING AND MASS CALIBRATION
Decafluorotriphenylphosphine (DFTPP)

Case No. 4130 Contractor S-CUBED Contract No. 68-01-~~6868~~ 7021

Instrument ID 4500 Date 4-17-85 Time 10:29

Lab ID DFTPP17 Data Release Authorized By: jW

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	58.10
68	less than 2.0% of mass 69	no peak (0.)[1]
69	mass 69 relative abundance	54.15
70	less than 2.0% of mass 69	no peak (0)[1]
127	40.0 - 60.0% of mass 198	50.38
197	less than 1.0% of mass 198	no peak
198	base peak, 100% relative abundance	100.00
199	5.0 - 9.0% of mass 198	6.41
275	10.0 - 30.0% of mass 198	22.61
365	greater than 1.00% of mass 198	2.48
441	present, but less than mass 443	6.58
442	greater than 40.0% of mass 198	55.21
443	17.0 - 23.0% of mass 442	10.60 (19.2)[2]

[1]Value in parenthesis is % mass 69.
[2]Value in parenthesis is % mass 442.

$\frac{10.60}{55.21} = .1919$ R.H.

THIS PERFORMANCE TUNE APPLIES TO THE FOLLOWING SAMPLES, BLANKS AND STANDARDS.

RECEIVED MAY 22 1985

SAMPLE ID	LAB ID	DATE OF ANALYSIS	TIME OF ANALYSIS
NA	50HSL17	4-17-85	11:04
NA	4130LBLK	4-17-85	11:50
ED110	ED110	4-17-85	12:40
NA	ED110MS	4-17-85	13:24
NA	ED110MSD	4-17-85	14:10
ED107	ED107	4-17-85	14:54
ED108	ED108	4-17-85	15:39
ED109	ED109	4-17-85	16:25
ED111	ED111	4-17-85	17:25
ED112	ED112	4-17-85	18:09
ED113	ED113	4-17-85	19:20

GC/MS TUNING AND MASS CALIBRATION
Decafluorotriphenylphosphine (DFTPP)

Case No. 4130 Contractor S-CUBED Contract No. 68-01-6868

Instrument ID 4500 Date 4/15/85 Time 11:46

Lab ID 15DFTPP Data Release Authorized By: [illegible]

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	34.9
68	less than 2.0% of mass 69	no peak (—)[1]
69	mass 69 relative abundance	53.3
70	less than 2.0% of mass 69	no peak (—)[1]
127	40.0 - 60.0% of mass 198	51.9
197	less than 1.0% of mass 198	no peak
198	base peak, 100% relative abundance	100
199	5.0 - 9.0% of mass 198	6.10
275	10.0 - 30.0% of mass 198	21.8
365	greater than 1.00% of mass 198	2.54
441	present, but less than mass 443	6.88
442	greater than 40.0% of mass 198	55.8
443	17.0 - 23.0% of mass 442	10.4 (18.7)[2]

[1] Value in parenthesis is % mass 69.
[2] Value in parenthesis is % mass 442.

RECEIVED MAY 22 1985

THIS PERFORMANCE TUNE APPLIES TO THE FOLLOWING SAMPLES, BLANKS AND STANDARDS.

SAMPLE ID	LAB ID	DATE OF ANALYSIS	TIME OF ANALYSIS
NA	BENPCP15	4/15/85	12:18
NA	160 HSL15	"	14:13
NA	120 HSL15	"	15:14
NA	80 HSL15	"	16:01
NA	50 HSL15	"	16:52
NA	20 HSL15	"	18:04
NA	160 MIX 15	"	18:52
NA	120 MIX 15	"	19:38
NA	80 MIX 15	"	20:26
NA	50 MIX 15	"	21:01
NA	20 MIX 15	4/15/85	22:37

85FN04514

Environmental Protection Agency, CLP Sample Management Office,
P.O Box 818, Alexandria, Virginia 22313 703/557/2490

Sample Number
ED105

ORGANICS ANALYSIS DATA SHEET
(Page 1)

Laboratory Name: S-CUBED
Lab Sample ID No: ED105V (VOA)
Sample Matrix: WATER
Data Release Authorized By: ___

Case No: 4130
QC Report No: N.A.
Contract No: 68-01-7021
Date Sample Received: 04-05-85

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VOLATILE COMPOUNDS
Concentration: Low Medium (Circle one)
Date Extracted/Prepared: 4-10-85
Date Analyzed: 4-10-85
Conc/Dil Factor: 1.00 pH: N.A.
Percent Moisture: N.A.
Percent Moisture (Decanted): N.A.

CAS Number		ug/l or ug/kg (Circle One)	CAS Number		ug/l or ug/kg (circle one)
74-87-3	CHLOROMETHANE	10 u	79-34-5	1,1,2,2-TETRACHLOROETHANE	5 u
74-83-9	BROMOMETHANE	10 u	78-87-5	1,2-DICHLOROPROPANE	5 u
75-01-4	VINYL CHLORIDE	10 u	10061-02-6	TRANS-1,3-DICHLOROPROPENE	5 u
75-00-3	CHLOROETHANE	10 u	79-01-6	TRICHLOROETHENE	5 J
75-09-2	METHYLENE CHLORIDE	18 B	124-48-1	DIBROMOCHLOROMETHANE	5 u
67-64-1	ACETONE	11 B	79-00-5	1,1,2-TRICHLOROETHANE	5 u
75-15-0	CARBON DISULFIDE	5 JB	71-43-2	BENZENE	5 u
75-35-4	1,1-DICHLOROETHENE	5 u	10061-01-5	CIS-1,3-DICHLOROPROPENE	5 u
75-34-3	1,1-DICHLOROETHANE	5 u	110-75-8	2-CHLOROETHYLVINYLETHER	10 u
156-60-5	TRANS-1,2-DICHLOROETHENE	5 u	75-25-2	BROMOFORM	5 u
67-66-3	CHLOROFORM	5 u	591-78-6	2-HEXANONE	10 u
107-06-2	1,2-DICHLOROETHANE	5 u	108-10-1	4-METHYL-2-PENTANONE	10 u
78-93-3	2-BUTANONE	10 J	127-18-4	TETRACHLOROETHENE	5 u
71-55-6	1,1,1-TRICHLOROETHANE	5 u	108-88-3	TOLUENE	5 u
56-23-5	CARBON TETRACHLORIDE	5 u	108-90-7	CHLOROBENZENE	5 u
108-05-4	VINYL ACETATE	10 u	100-41-4	ETHYLBENZENE	5 u
75-27-4	BROMODICHLOROMETHANE	5 u	100-42-5	STYRENE	5 u
				TOTAL XYLENES	5 u

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifier are used. Additional flags or footnotes explaning results are encouraged.However,the definition of each flag must be explicit.

Value: If the result is a value greater than or equal to the detection limit,report the value.

U Indicates compound was analyzed for but not detected.Report the minimum detection limit for the sample with the U (eg.10U) based on necessay concentration/dilution actions.(this is not necessarily the instrument detection limit.)The footnotes should read:U-Compound was analyzed for but not detected.The number is the minimum attainable detection limit for the sample.

J Indicates an estimated value:This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero. (eg.10J)

C this flag applies to pesticide parameters where the identification has been confirmed by GC/MS.Single component pesticides > or = 10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when analyte is found in the blank as well as sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

S Matrix spiked compound.

Environmental Protection Agency, CLP Sample Management Office,
P. O. Box 818, Alexandria, Virginia 22313 703/557-2490

Sample Number
ED105

Organics Analysis Data Sheet
(Page 2)

SEMIVOLATILE ANALYSIS NOT REQUIRED

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: N/A

Date Analyzed: N/A

Conc/Dil Factor:

RECEIVED MAY 2 2 1985

CAS Number		ug/l or ug/Kg (Circle One)
62-75-9	N-Nitrosodimethylamine	
108-95-2	Phenol	
62-53-3	Aniline	N/A
111-44-4	bis(-2-Chloroethyl)Ether	
95-57-8	2-Chlorophenol	
541-73-1	1, 3-Dichlorobenzene	
106-46-7	1, 4-Dichlorobenzene	
100-51-6	Benzyl Alcohol	
95-50-1	1, 2-Dichlorobenzene	
95-48-7	2-Methylphenol	
39638-32-9	bis(2-chloroisopropyl)Ether	
106-44-5	4-Methylphenol	
621-64-7	N-Nitroso-Di-n-Propylamine	
67-72-1	Hexachloroethane	
98-95-3	Nitrobenzene	
78-59-1	Isophorone	
88-75-5	2-Nitrophenol	
105-67-9	2, 4-Dimethylphenol	
65-85-0	Benzoic Acid	
111-91-1	bis(-2-Chloroethoxy)Methane	
120-83-2	2, 4-Dichlorophenol	
120-82-1	1, 2, 4-Trichlorobenzene	
91-20-3	Naphthalene	
106-47-8	4-Chloroaniline	
87-68-3	Hexachlorobutadiene	
59-50-7	4-Chloro-3-Methylphenol	
91-57-6	2-Methylnaphthalene	
77-47-4	Hexachlorocyclopentadiene	
88-06-2	2, 4, 6-Trichlorophenol	
95-95-4	2, 4, 5-Trichlorophenol	
91-58-7	2-Chloronaphthalene	
88-74-4	2-Nitroaniline	
131-11-3	Dimethyl Phthalate	
208-96-8	Acenaphthylene	
99-09-2	3-Nitroaniline	

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	
51-28-5	2, 4-Dinitrophenol	
100-02-7	4-Nitrophenol	
132-64-9	Dibenzofuran	
121-14-2	2, 4-Dinitrotoluene	
606-20-2	2, 6-Dinitrotoluene	
84-66-2	Diethylphthalate	
7005-72-3	4-Chlorophenyl-phenylether	
86-73-7	Fluorene	
100-01-6	4-Nitroaniline	
534-52-1	4, 6-Dinitro-2-Methylphenol	
86-30-6	N-Nitrosodiphenylamine (1)	
101-55-3	4-Bromophenyl-phenylether	
118-74-1	Hexachlorobenzene	
87-86-5	Pentachlorophenol	
85-01-8	Phenanthrene	
120-12-7	Anthracene	
84-74-2	Di-n-Butylphthalate	
206-44-0	Fluoranthene	
92-87-5	Benzidine	
129-00-0	Pyrene	
85-68-7	Butylbenzylphthalate	
91-94-1	3, 3'-Dichlorobenzidine	
56-55-3	Benzo(a)Anthracene	
117-81-7	bis(2-Ethylhexyl)Phthalate	
218-01-9	Chrysene	
117-84-0	Di-n-Octyl Phthalate	
205-99-2	Benzo(b)Fluoranthene	
207-08-9	Benzo(k)Fluoranthene	N/A
50-32-8	Benzo(a)Pyrene	
193-39-5	Indeno(1, 2, 3-cd)Pyrene	
53-70-3	Dibenz(a, h)Anthracene	
191-24-2	Benzo(g, h, i)Perylene	

(1)-Cannot be separated from diphenylamine

Environmental Protection Agency. CLP Sample Management Office.
P. O. Box 818. Alexandria, Virginia 22313 703/557-2490

Sample Number
ED105

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration: Low Medium (Circle One)

RECEIVED MAY 2

Date Extracted/Prepared: _____

Date Analyzed: NA

Conc/Dil Factor: _____

CAS Number		ug/l or ug/Kg (Circle One)
319-84-6	Alpha-BHC	
319-85-7	Beta-BHC	
319-86-8	Delta-BHC	
58-89-9	Gamma-BHC (Lindane)	
76-44-8	Heptachlor	
309-00-2	Aldrin	
1024-57-3	Heptachlor Epoxide	
959-98-8	Endosulfan I	
60-57-1	Dieldrin	
72-55-9	4, 4'-DDE	
72-20-8	Endrin	
33213-65-9	Endosulfan II	
72-54-8	4, 4'-DDD	
7421-93-4	Endrin Aldehyde	
1031-07-8	Endosulfan Sulfate	
50-29-3	4, 4'-DDT	
72-43-5	Methoxychlor	
53494-70-5	Endrin Ketone	
57-74-9	Chlordane	
8001-35-2	Toxaphene	
12674-11-2	Aroclor-1016	
11104-28-2	Aroclor-1221	
11141-16-5	Aroclor-1232	
53469-21-9	Aroclor-1242	
12672-29-6	Aroclor-1248	
11097-69-1	Aroclor-1254	
11096-82-5	Aroclor-1260	

NA

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s _____ V_t _____ V_i _____

Environmental Protection Agency, CLP Sample Management Office,
P.O Box 818, Alexandria, Virginia 22313 703/557/2490

Sample Number
ED106

ORGANICS ANALYSIS DATA SHEET
(Page 1)

Laboratory Name: S-CUBED
Lab Sample ID No: ED106V (VOA)
Sample Matrix: WATER
Data Release Authorized By:

Case No: 4130
QC Report No: N.A.
Contract No: 68-01-7021
Date Sample Received: 04-05-85

VOLATILE COMPOUNDS

Concentration: Low Medium (Circle one)
Date Extracted/Prepared: 4-09-85
Date Analyzed: 4-09-85
Conc/Dil Factor: 1.00 pH: N.A.
Percent Moisture: N.A.
Percent Moisture (Decanted): N.A.

RECEIVED MAY 2 2 1985

CAS Number		ug/l or ug/kg (Circle One)	CAS Number		ug/l or ug/kg (Circle one)
74-87-3	CHLOROMETHANE	10 u	79-34-5	1,1,2,2-TETRACHLOROETHANE	5 u
74-83-9	BROMOMETHANE	10 u	78-87-5	1,2-DICHLOROPROPANE	5 u
75-01-4	VINYL CHLORIDE	10 u	10061-02-6	TRANS-1,3-DICHLOROPROPENE	5 u
75-00-3	CHLOROETHANE	10 u	79-01-6	TRICHLOROETHENE	5 u
75-09-2	METHYLENE CHLORIDE	9.7 B	124-48-1	DIBROMOCHLOROMETHANE	5 u
67-64-1	ACETONE	16 B	79-00-5	1,1,2-TRICHLOROETHANE	5 u
75-15-0	CARBON DISULFIDE	5 JB	71-43-2	BENZENE	5 u
75-35-4	1,1-DICHLOROETHENE	5 u	10061-01-5	CIS-1,3-DICHLOROPROPENE	5 u
75-34-3	1,1-DICHLOROETHANE	5 u	110-75-8	2-CHLOROETHYLVINYLETHER	10 u
156-60-5	TRANS-1,2-DICHLOROETHENE	5 u	75-25-2	BROMOFORM	5 u
67-66-3	CHLOROFORM	5 u	591-78-6	2-HEXANONE	10 u
107-06-2	1,2-DICHLOROETHANE	5 u	108-10-1	4-METHYL-2-PENTANONE	10 u
78-93-3	2-BUTANONE	21	127-18-4	TETRACHLOROETHENE	5 u
71-55-6	1,1,1-TRICHLOROETHANE	5 u	108-88-3	TOLUENE	5 u
56-23-5	CARBON TETRACHLORIDE	5 u	108-90-7	CHLOROBENZENE	5 u
108-05-4	VINYL ACETATE	10 u	100-41-4	ETHYLBENZENE	5 u
75-27-4	BROMODICHLOROMETHANE	5 u	100-42-5	STYRENE	5 u
				TOTAL XYLENES	5 u

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifier are used. Additional flags or footnotes explaning results are encouraged.However,the definition of each flag must be explicit.

Value: If the result is a value greater than or equal to the detection limit,report the value.

U Indicates compound was analyzed for but not detected.Report the minimum detection limit for the sample with the U (eg.10U) based on necessay concentration/dilution actions.(this is not necessarily the instrument detection limit.)The footnotes should read:U-Compound was analyzed for but not detected.The number is the minimum attainable detection limit for the sample.

J Indicates an estimated value:This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero. (eg.10J)

C this flag applies to pesticide parameters where the identification has been confirmed by GC/MS.Single component pesticides > or = 10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when analyte is found in the blank as well as sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

S Matrix spiked compound.

85FN04S15

Environmental Protection Agency, CLP Sample Management Office,
P. O. Box 818, Alexandria, Virginia 22313 703/557-2490

Sample Number
ED10 6

Organics Analysis Data Sheet
(Page 2)

SEMIVOLATILE ANALYSIS NOT REQUIRED

Semivolatile Compounds

Concentration: Low Medium (Circle One)

RECEIVED MAY 2 2 1985

Date Extracted/Prepared: NA

Date Analyzed: NA

Conc/Dil Factor:

CAS Number		ug/l or ug/Kg (Circle One)
62-75-9	N-Nitrosodimethylamine	
108-95-2	Phenol	
62-53-3	Aniline	NA
111-44-4	bis(-2-Chloroethyl)Ether	
95-57-8	2-Chlorophenol	
541-73-1	1, 3-Dichlorobenzene	
106-46-7	1, 4-Dichlorobenzene	
100-51-6	Benzyl Alcohol	
95-50-1	1, 2-Dichlorobenzene	
95-48-7	2-Methylphenol	
39638-32-9	bis(2-chloroisopropyl)Ether	
106-44-5	4-Methylphenol	
621-64-7	N-Nitroso-Di-n-Propylamine	
67-72-1	Hexachloroethane	
98-95-3	Nitrobenzene	
78-59-1	Isophorone	
88-75-5	2-Nitrophenol	
105-67-9	2, 4-Dimethylphenol	
65-85-0	Benzoic Acid	
111-91-1	bis(-2-Chloroethoxy)Methane	
120-83-2	2, 4-Dichlorophenol	
120-82-1	1, 2, 4-Trichlorobenzene	
91-20-3	Naphthalene	
106-47-8	4-Chloroaniline	
87-68-3	Hexachlorobutadiene	
59-50-7	4-Chloro-3-Methylphenol	
91-57-6	2-Methylnaphthalene	
77-47-4	Hexachlorocyclopentadiene	
88-06-2	2, 4, 6-Trichlorophenol	
95-95-4	2, 4, 5-Trichlorophenol	
91-58-7	2-Chloronaphthalene	
88-74-4	2-Nitroaniline	
131-11-3	Dimethyl Phthalate	
208-96-8	Acenaphthylene	
99-09-2	3-Nitroaniline	

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	
51-28-5	2, 4-Dinitrophenol	
100-02-7	4-Nitrophenol	
132-64-9	Dibenzofuran	
121-14-2	2, 4-Dinitrotoluene	
606-20-2	2, 6-Dinitrotoluene	
84-66-2	Diethylphthalate	
7005-72-3	4-Chlorophenyl-phenylether	
86-73-7	Fluorene	
100-01-6	4-Nitroaniline	
534-52-1	4, 6-Dinitro-2-Methylphenol	
86-30-6	N-Nitrosodiphenylamine (1)	
101-55-3	4-Bromophenyl-phenylether	
118-74-1	Hexachlorobenzene	
87-86-5	Pentachlorophenol	
85-01-8	Phenanthrene	
120-12-7	Anthracene	
84-74-2	Di-n-Butylphthalate	
206-44-0	Fluoranthene	
92-87-5	Benzidine	
129-00-0	Pyrene	
85-68-7	Butylbenzylphthalate	
91-94-1	3, 3'-Dichlorobenzidine	
56-55-3	Benzo(a)Anthracene	
117-81-7	bis(2-Ethylhexyl)Phthalate	
218-01-9	Chrysene	
117-84-0	Di-n-Octyl Phthalate	
205-99-2	Benzo(b)Fluoranthene	
207-08-9	Benzo(k)Fluoranthene	
50-32-8	Benzo(a)Pyrene	NA
193-39-5	Indeno(1, 2, 3-cd)Pyrene	
53-70-3	Dibenz(a, h)Anthracene	
191-24-2	Benzo(g, h, i)Perylene	

(1)-Cannot be separated from diphenylamine

Environmental Protection Agency, CLP Sample Management Office,
P. O. Box 818, Alexandria, Virginia 22313 703/557-2490

Sample Number
ED 106

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration: Low Medium (Circle One)

RECEIVED MAY 2 2 1985

Date Extracted/Prepared: _____

Date Analyzed: NA

Conc/Dil Factor: _____

CAS Number		ug/l or ug/Kg (Circle One)
319-84-6	Alpha-BHC	
319-85-7	Beta-BHC	
319-86-8	Delta-BHC	
58-89-9	Gamma-BHC (Lindane)	
76-44-8	Heptachlor	
309-00-2	Aldrin	
1024-57-3	Heptachlor Epoxide	
959-98-8	Endosulfan I	
60-57-1	Dieldrin	
72-55-9	4, 4'-DDE	
72-20-8	Endrin	
33213-65-9	Endosulfan II	
72-54-8	4, 4'-DDD	
7421-93-4	Endrin Aldehyde	
1031-07-8	Endosulfan Sulfate	
50-29-3	4, 4'-DDT	
72-43-5	Methoxychlor	
53494-70-5	Endrin Ketone	
57-74-9	Chlordane	
8001-35-2	Toxaphene	
12674-11-2	Aroclor-1016	
11104-28-2	Aroclor-1221	
11141-16-5	Aroclor-1232	
53469-21-9	Aroclor-1242	
12672-29-6	Aroclor-1248	
11097-69-1	Aroclor-1254	
11096-82-5	Aroclor-1260	

NA

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s _____ V_t _____ V_i _____

85FN04S16

Environmental Protection Agency, CLP Sample Management Office,
P.O Box 818, Alexandria, Virginia 22313 703/557/2490

Sample Number
ED107

ORGANICS ANALYSIS DATA SHEET
(Page 1)

Laboratory Name: S-CUBED
Lab Sample ID No: ED107V (Ver)
Sample Matrix: WATER
Data Release Authorized By: _____

Case No: 4130
QC Report No: N.A.
Contract No: 68-01-7021
Date Sample Received: 04-05-85

RECEIVED MAY 2 2 1985

VOLATILE COMPOUNDS
Concentration: Low Medium (Circle one)
Date Extracted/Prepared: 4-09-85
Date Analyzed: 4-09-85
Conc/Dil Factor: 1.00 pH: N.A.
Percent Moisture: N.A.
Percent Moisture (Decanted): N.A.

CAS Number		ug/l or ug/kg (Circle One)	CAS Number		ug/l or ug/kg (circle one)
74-87-3	CHLOROMETHANE	10 u	79-34-5	1,1,2,2-TETRACHLOROETHANE	5 u
74-83-9	BROMOMETHANE	10 u	78-87-5	1,2-DICHLOROPROPANE	5 u
75-01-4	VINYL CHLORIDE	10 u	10061-02-6	TRANS-1,3-DICHLOROPROPENE	5 u
75-00-3	CHLOROETHANE	10 u	79-01-6	TRICHLOROETHENE	5 u
75-09-2	METHYLENE CHLORIDE	5.9 B	124-48-1	DIBROMOCHLOROMETHANE	5 u
67-64-1	ACETONE	10 JB	79-00-5	1,1,2-TRICHLOROETHANE	5 u
75-15-0	CARBON DISULFIDE	5 JB	71-43-2	BENZENE	5 J
75-35-4	1,1-DICHLOROETHENE	5 u	10061-01-5	CIS-1,3-DICHLOROPROPENE	5 u
75-34-3	1,1-DICHLOROETHANE	5 u	110-75-8	2-CHLOROETHYLVINYLETHER	10 u
156-60-5	TRANS-1,2-DICHLOROETHENE	5 u	75-25-2	BROMOFORM	5 u
67-66-3	CHLOROFORM	5 u	591-78-6	2-HEXANONE	10 u
107-06-2	1,2-DICHLOROETHANE	5 u	108-10-1	4-METHYL-2-PENTANONE	10 u
78-93-3	2-BUTANONE	10 u	127-18-4	TETRACHLOROETHENE	5 u
71-55-6	1,1,1-TRICHLOROETHANE	5 u	108-88-3	TOLUENE	5 u
56-23-5	CARBON TETRACHLORIDE	5 u	108-90-7	CHLOROBENZENE	5 u
108-05-4	VINYL ACETATE	10 u	100-41-4	ETHYLBENZENE	5 u
75-27-4	BROMODICHLOROMETHANE	5 u	100-42-5	STYRENE	5 u
				TOTAL XYLENES	5 u

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifier are used. Additional flags or footnotes explaning results are encouraged.However,the definition of each flag must be explicit.

Value: If the result is a value greater than or equal to the detection limit,report the value.

U Indicates compound was analyzed for but not detected.Report the minimum detection limit for the sample with the U (eg.10U) based on necessay concentration/dilution actions.(this is not necessarily the instrument detection limit.)The footnotes should read:U-Compound was analyzed for but not detected.The number is the minimum attainable detection limit for the sample.

J Indicates an estimated value:This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero. (eg.10J)

C this flag applies to pesticide parameters where the identification has been confirmed by GC/MS.Single component pesticides > or = 10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when analyte is found in the blank as well as sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

S Matrix spiked compound.

Environmental Protection Agency, CLP Sample Management Office,
P.O Box 818 , Alexandria,Virginia 22313 703/557-2490

: Sample Number :
ED107 :

RECEIVED MAY 2 2 1985

ORGANIC ANALYSIS DATA SHEET
(Page 2)

SEMIVOLATILE COMPOUNDS

Concentration: Low Medium (Circle One)
Date Extracted/Prepared: 04-05-85
Date Analyzed: 04-17-85
Conc/Dil Factor: 1.000

CAS Number		ug/l or ug/kg (Circle one)	CAS Number		ug/l or ug/Kg (circle one)
62-75-9	N-NITROSODIMETHYLAMINE	10 u	83-32-9	ACENAPHTHENE	10 u
108-95-2	PHENOL	10 J	51-28-5	2,4-DINITROPHENOL	50 u
62-53-3	ANILINE	10 u	100-02-7	4-NITROPHENOL	50 u
111-44-4	BIS(2-CHLOROETHYL)ETHER	10 u	132-64-9	DIBENZOFURAN	10 u
95-57-8	2-CHLOROPHENOL	10 u	121-14-2	2,4-DINITROTOLUENE	10 u
541-73-1	1-3,DICHLOROBENZENE	10 u	606-20-2	2,6-DINITROTOLUENE	10 u
106-46-7	1,4-DICHLOROBENZENE	10 u	84-66-2	DIETHYLPHTHALATE	10 u
100-51-6	BENZYL ALCOHOL	10 u	7005-72-3	4-CHLOROPHENYL-PHENYLETHER	10 u
95-50-1	1,2-DICHLOROBENZENE	10 u	86-73-7	FLUORENE	10 u
95-48-7	2-METHYLPHENOL	10 u	100-01-6	4-NITROANILINE	50 u
39638-32-9	BIS(2-CHLOROISOPROPYL)ETHER	10 u	534-52-1	4,6-DINITRO-2-METHYLPHENOL	50 u
106-44-5	4-METHYLPHENOL	10 u	86-30-6	N-NITROSODIPHENYLAMINE (1)	10 u
621-64-7	N-NITROSO-DI-N-PROPYLAMINE	10 u	101-55-3	4-BROMOPHENYL-PHENYLETHER	10 u
67-72-1	HEXACHLOROETHANE	10 u	118-74-1	HEXACHLOROBENZENE	10 u
98-95-3	NITROBENZENE	10 u	87-86-5	PENTACHLOROPHENOL	50 u
78-59-1	ISOPHRONE	10 u	85-01-8	PHENANTHRENE	10 u
88-75-5	2-NITROPHENOL	10 u	120-12-7	ANTHRACENE	10 u
105-67-9	2,4-DIMETHYLPHENOL	10 u	84-74-2	DI-N-BUTYLPHTHALATE	10 JB
65-85-0	BENZOIC ACID	50 u	206-44-0	FLUORANTHENE	10 u
111-91-1	BIS(2-CHLOROETHOXY)METHANE	10 u	92-87-5	BENZIDINE	100 u
120-83-2	2,4-DICHLOROPHENOL	10 u	129-00-0	PYRENE	10 u
120-82-1	1,2,4-TRICHLOROBENZENE	10 u	85-68-7	BUTYLBENZYLPHTHALATE	10 u
91-20-3	NAPHTHALENE	10 u	91-94-1	3,3'-DICHLOROBENZIDINE	20 u
106-47-8	4-CHLOROANILINE	10 u	56-55-3	BENZO(a)ANTHRACENE	10 u
87-68-3	HEXACHLOROBUTADIENE	10 u	117-81-7	BIS(2-ETHYLHEXYL)PHTHALATE	10 J
59-50-7	4-CHLORO-3-METHYLPHENOL	10 u	218-01-9	CHRYSENE	10 u
91-57-6	2-METHYLNAPHTHALENE	10 u	117-84-0	DI-N-OCTYL PHTHALATE	10 u
77-47-4	HEXACHLOROCYCLOPENTADIENE	10 u	205-99-2	BENZO(b)FLUORANTHENE	10 u
88-06-2	2,4,6-TRICHLOROPHENOL	10 u	207-08-9	BENZO(k)FLUORANTHENE	10 u
95-95-4	2,4,5-TRICHLOROPHENOL	50 u	50-32-8	BENZO(a)PYRENE	10 u
91-58-7	2-CHLORONAPHTHALENE	10 u	193-39-5	INDENO(1,2,3-CD)PYRENE	10 u
88-74-4	2-NITROANILINE	50 u	53-70-3	DIBENZ(a,h)ANTHRACENE	10 u
131-11-3	DIMETHYL PHTHALATE	10 u	191-24-2	BENZO(ghi)PERYLENE	10 u
208-96-8	ACENAPHTHYLENE	10 u			
99-09-2	3-NITROANILINE	50 u			

(1)-Cannot be separated from diphenylamine

Environmental Protection Agency, CLP Sample Management Office
P.O. Box 818, Alexandria, Virgina 22313-703/557-2490

Sample Number
ED-107

ORGANICS ANALYSIS DATA SHEET
(Page 3)

RECEIVED MAY 2 2 1985

Pesticide/PCBs

Concentration: LOW
Date Extracted/Prepared: 4-8-85
Date Analyzed: 4-18-85
Conc/Dil Factor: 1.00

CAS # Number		ug/l or ug/Kg (Circle One)
319-84-6	ALPHA-BHC	0.050 u
319-85-7	BETA-BHC	0.050 u
319-86-8	DELTA-BHC	0.050 u
58-89-9	GAMMA-BHC (LINDANE)	0.050 u
76-44-8	HEPTACHLOR	0.050 u
309-00-2	ALDRIN	0.050 u
1024-57-3	HEPTACHLOR EPOXIDE	0.050 u
959-98-8	ENDOSULFAN I	0.050 u
60-57-1	DIELDRIN	0.10 u
72-55-9	4,4'-DDE	0.10 u
72-20-8	ENDRIN	0.10 u
33213-65-9	ENDOSULFAN II	0.10 u
72-54-8	4,4'-DDD	0.10 u
7421-93-4	ENDRIN ALDEHYDE	0.10 u
1031-07-8	ENDOSULFAN SULFATE	0.10 u
50-29-3	4,4'-DDT	0.10 u
72-43-5	METHOXYCHLOR	0.50 u
53494-70-5	ENDRIN KETONE	0.10 u
57-74-9	CHLORDANE	0.50 u
8001-35-2	TOXAPHENE	1.0 u
12674-11-2	AROCLOR-1016	0.50 u
11104-28-2	AROCLOR-1221	0.50 u
11141-16-5	AROCLOR-1232	0.50 u
53469-21-9	AROCLOR-1242	0.50 u
12672-29-6	AROCLOR-1248	0.50 u
11097-69-1	AROCLOR-1254	1.0 u
11096-82-5	AROCLOR-1260	1.0 u

Volume of water extracted (ml): 1000
Weight of sample extracted (g): N.A.
Volume of total extract (ml): 10.00
Volume of extract injected (ul): 1.00

** CONFIRMED BY GC DUAL COLUMN

85FN04517

Environmental Protection Agency, CLP Sample Management Office,
P.O Box 818, Alexandria, Virginia 22313 703/557/2490

Sample Number
ED108

ORGANICS ANALYSIS DATA SHEET
(Page 1)

Laboratory Name: S-CUBED
Lab Sample ID No: ED108V (USA)
Sample Matrix: WATER
Data Release Authorized By: JN

Case No: 4130
QC Report No: N.A.
Contract No: 68-01-7021
Date Sample Received: 04-05-85

RECEIVED MAY 2 2 1985

VOLATILE COMPOUNDS
Concentration: Low Medium (Circle one)
Date Extracted/Prepared: 4-09-85
Date Analyzed: 4-09-85
Conc/Dil Factor: 1.00 pH: N.A.
Percent Moisture: N.A.
Percent Moisture (Decanted): N.A.

CAS Number		ug/l or ug/kg (Circle One)	CAS Number		ug/l or ug/kg (circle one)
74-87-3	CHLOROMETHANE	10 u	79-34-5	1,1,2,2-TETRACHLOROETHANE	5 u
74-83-9	BROMOMETHANE	10 u	78-87-5	1,2-DICHLOROPROPANE	5 u
75-01-4	VINYL CHLORIDE	10 u	10061-02-6	TRANS-1,3-DICHLOROPROPENE	5 u
75-00-3	CHLOROETHANE	10 u	79-01-6	TRICHLOROETHENE	5 u
75-09-2	METHYLENE CHLORIDE	20 B	124-48-1	DIBROMOCHLOROMETHANE	5 u
67-64-1	ACETONE	12 B	79-00-5	1,1,2-TRICHLOROETHANE	5 u
75-15-0	CARBON DISULFIDE	5 JB	71-43-2	BENZENE	5 u
75-35-4	1,1-DICHLOROETHENE	5 u	10061-01-5	CIS-1,3-DICHLOROPROPENE	5 u
75-34-3	1,1-DICHLOROETHANE	5 u	110-75-8	2-CHLOROETHYLVINYLETHER	10 u
156-60-5	TRANS-1,2-DICHLOROETHENE	5 u	75-25-2	BROMOFORM	5 u
67-66-3	CHLOROFORM	5 u	591-78-6	2-HEXANONE	10 u
107-06-2	1,2-DICHLOROETHANE	5 u	108-10-1	4-METHYL-2-PENTANONE	10 u
78-93-3	2-BUTANONE	10 u	127-18-4	TETRACHLOROETHENE	5 u
71-55-6	1,1,1-TRICHLOROETHANE	5 u	108-88-3	TOLUENE	5 u
56-23-5	CARBON TETRACHLORIDE	5 u	108-90-7	CHLOROBENZENE	5 u
108-05-4	VINYL ACETATE	10 u	100-41-4	ETHYLBENZENE	5 u
75-27-4	BROMODICHLOROMETHANE	5 u	100-42-5	STYRENE	5 u
				TOTAL XYLENES	5 u

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifier are used. Additional flags or footnotes explaning results are encouraged.However,the definition of each flag must be explicit.

Value: If the result is a value greater than or equal to the detection limit,report the value.

U Indicates compound was analyzed for but not detected.Report the minimum detection limit for the sample with the U (eg.10U) based on necessay concentration/dilution actions.(this is not necessarily the instrument detection limit.)The footnotes should read:U-Compound was analyzed for but not detected.The number is the minimum attainable detection limit for the sample.

J Indicates an estimated value:This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero. (eg.10J)

C this flag applies to pesticide parameters where the identification has been confirmed by GC/MS.Single component pesticides > or = 10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when analyte is found in the blank as well as sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

S Matrix spiked compound.

Environmental Protection Agency, CLP Sample Management Office,
P.O Box 818 , Alexandria,Virginia 22313 703/557-2490

: Sample Number :
ED108 :

ORGANIC ANALYSIS DATA SHEET
(Page 2)

RECEIVED MAY 2 2 1985

SEMIVOLATILE COMPOUNDS

Concentration: Low Medium (Circle One)
Date Extracted/Prepared: 04-05-85
Date Analyzed: 04-17-85
Conc/Dil Factor: 1.000

CAS Number		ug/l or ug/kg (Circle one)	CAS Number		ug/l or ug/Kg (circle one)
62-75-9	N-NITROSODIMETHYLAMINE	10 u	83-32-9	ACENAPHTHENE	10 u
108-95-2	PHENOL	10 u	51-28-5	2,4-DINITROPHENOL	50 u
62-53-3	ANILINE	10 u	100-02-7	4-NITROPHENOL	50 u
111-44-4	BIS(2-CHLOROETHYL)ETHER	10 u	132-64-9	DIBENZOFURAN	10 u
95-57-8	2-CHLOROPHENOL	10 u	121-14-2	2,4-DINITROTOLUENE	10 u
541-73-1	1-3,DICHLOROBENZENE	10 u	606-20-2	2,6-DINITROTOLUENE	10 u
106-46-7	1,4-DICHLOROBENZENE	10 u	84-66-2	DIETHYLPHTHALATE	10 u
100-51-6	BENZYL ALCOHOL	10 u	7005-72-3	4-CHLOROPHENYL-PHENYLETHER	10 u
95-50-1	1,2-DICHLOROBENZENE	10 u	86-73-7	FLUORENE	10 u
95-48-7	2-METHYLPHENOL	10 u	100-01-6	4-NITROANILINE	50 u
39638-32-9	BIS(2-CHLOROISOPROPYL)ETHER	10 u	534-52-1	4,6-DINITRO-2-METHYLPHENOL	50 u
106-44-5	4-METHYLPHENOL	10 u	86-30-6	N-NITROSODIPHENYLAMINE (1)	10 u
621-64-7	N-NITROSO-DI-N-PROPYLAMINE	10 u	101-55-3	4-BROMOPHENYL-PHENYLETHER	10 u
67-72-1	HEXACHLOROETHANE	10 u	118-74-1	HEXACHLOROBENZENE	10 u
98-95-3	NITROBENZENE	10 u	87-86-5	PENTACHLOROPHENOL	50 u
78-59-1	ISOPHRONE	10 u	85-01-8	PHENANTHRENE	10 u
88-75-5	2-NITROPHENOL	10 u	120-12-7	ANTHRACENE	10 u
105-67-9	2,4-DIMETHYLPHENOL	10 u	84-74-2	DI-N-BUTYLPHTHALATE	10 JB
65-85-0	BENZOIC ACID	50 u	206-44-0	FLUORANTHENE	10 u
111-91-1	BIS(2-CHLOROETHOXY)METHANE	10 u	92-87-5	BENZIDINE	100 u
120-83-2	2,4-DICHLOROPHENOL	10 u	129-00-0	PYRENE	10 u
120-82-1	1,2,4-TRICHLOROBENZENE	10 u	85-68-7	BUTYLBENZYLPHTHALATE	10 u
91-20-3	NAPHTHALENE	10 u	91-94-1	3,3'-DICHLOROBENZIDINE	20 u
106-47-8	4-CHLOROANILINE	10 u	56-55-3	BENZO(a)ANTHRACENE	10 u
87-68-3	HEXACHLOROBUTADIENE	10 u	117-81-7	BIS(2-ETHYLHEXYL)PHTHALATE	10 u
59-50-7	4-CHLORO-3-METHYLPHENOL	10 u	218-01-9	CHRYSENE	10 u
91-57-6	2-METHYLNAPHTHALENE	10 u	117-84-0	DI-N-OCTYL PHTHALATE	10 u
77-47-4	HEXACHLOROCYCLOPENTADIENE	10 u	205-99-2	BENZO(b)FLUORANTHENE	10 u
88-06-2	2,4,6-TRICHLOROPHENOL	10 u	207-08-9	BENZO(k)FLUORANTHENE	10 u
95-95-4	2,4,5-TRICHLOROPHENOL	50 u	50-32-8	BENZO(a)PYRENE	10 u
91-58-7	2-CHLORONAPHTHALENE	10 u	193-39-5	INDENO(1,2,3-CD)PYRENE	10 u
88-74-4	2-NITROANILINE	50 u	53-70-3	DIBENZ(a,h)ANTHRACENE	10 u
131-11-3	DIMETHYL PHTHALATE	10 u	191-24-2	BENZO(ghi)PERYLENE	10 u
208-96-8	ACENAPHTHYLENE	10 u			
99-09-2	3-NITROANILINE	50 u			

(1)-Cannot be separated from diphenylamine

Environmental Protection Agency, CLP Sample Management Office
P.O. Box 818, Alexandria, Virgina 22313-703/557-2490

Sample Number
ED-108

ORGANICS ANALYSIS DATA SHEET
(Page 3)

Pesticide/PCBs

RECEIVED MAY 2 2 1985

Concentration: LOW
Date Extracted/Prepared: 4-8-85
Date Analyzed: 4-18-85
Conc/Dil Factor: 1.00

CAS # Number		ug/l or ug/Kg (Circle One)
319-84-6	ALPHA-BHC	0.050 u
319-85-7	BETA-BHC	0.050 u
319-86-8	DELTA-BHC	0.050 u
58-89-9	GAMMA-BHC (LINDANE)	0.050 u
76-44-8	HEPTACHLOR	0.050 u
309-00-2	ALDRIN	0.050 u
1024-57-3	HEPTACHLOR EPOXIDE	0.050 u
959-98-8	ENDOSULFAN I	0.050 u
60-57-1	DIELDRIN	0.10 u
72-55-9	4,4'-DDE	0.10 u
72-20-8	ENDRIN	0.10 u
33213-65-9	ENDOSULFAN II	0.10 u
72-54-8	4,4'-DDD	0.10 u
7421-93-4	ENDRIN ALDEHYDE	0.10 u
1031-07-8	ENDOSULFAN SULFATE	0.10 u
50-29-3	4,4'-DDT	0.10 u
72-43-5	METHOXYCHLOR	0.50 u
53494-70-5	ENDRIN KETONE	0.10 u
57-74-9	CHLORDANE	0.50 u
8001-35-2	TOXAPHENE	1.0 u
12674-11-2	AROCLOR-1016	0.50 u
11104-28-2	AROCLOR-1221	0.50 u
11141-16-5	AROCLOR-1232	0.50 u
53469-21-9	AROCLOR-1242	0.50 u
12672-29-6	AROCLOR-1248	0.50 u
11097-69-1	AROCLOR-1254	1.0 u
11096-82-5	AROCLOR-1260	1.0 u

Volume of water extracted (ml): 1000
Weight of sample extracted (g): N.A.
Volume of total extract (ml): 10.00
Volume of extract injected (ul): 1.00

** CONFIRMED BY GC DUAL COLUMN

85FN04S18

Environmental Protection Agency, CLP Sample Management Office,
P.O Box 818, Alexandria, Virginia 22313 703/557/2490

Sample Number
ED109

ORGANICS ANALYSIS DATA SHEET
(Page 1)

Laboratory Name: S-CUBED
Lab Sample ID No: ED109V (V04)
Sample Matrix: WATER
Data Release Authorized By: ___

Case No: 4130
QC Report No: N.A.
Contract No: 68-01-7021
Date Sample Received: 04-05-85

RECEIVED MAY 22 1985

VOLATILE COMPOUNDS
Concentration: Low Medium (Circle one)
Date Extracted/Prepared: 4-10-85
Date Analyzed: 4-10-85
Conc/Dil Factor: 1.00 pH: N.A.
Percent Moisture: N.A.
Percent Moisture (Decanted): N.A.

CAS Number		ug/l or ug/kg (Circle One)	CAS Number		ug/l or ug/kg (Circle one)
74-87-3	CHLOROMETHANE	10 u	79-34-5	1,1,2,2-TETRACHLOROETHANE	5 u
74-83-9	BROMOMETHANE	10 u	78-87-5	1,2-DICHLOROPROPANE	5 u
75-01-4	VINYL CHLORIDE	10 u	10061-02-6	TRANS-1,3-DICHLOROPROPENE	5 u
75-00-3	CHLOROETHANE	10 u	79-01-6	TRICHLOROETHENE	5 u
75-09-2	METHYLENE CHLORIDE	11 B	124-48-1	DIBROMOCHLOROMETHANE	5 u
67-64-1	ACETONE	14 B	79-00-5	1,1,2-TRICHLOROETHANE	5 u
75-15-0	CARBON DISULFIDE	5 JB	71-43-2	BENZENE	5 J
75-35-4	1,1-DICHLOROETHENE	5 u	10061-01-5	CIS-1,3-DICHLOROPROPENE	5 u
75-34-3	1,1-DICHLOROETHANE	5 u	110-75-8	2-CHLOROETHYLVINYLETHER	10 u
156-60-5	TRANS-1,2-DICHLOROETHENE	5 u	75-25-2	BROMOFORM	5 u
67-66-3	CHLOROFORM	5 J	591-78-6	2-HEXANONE	10 u
107-06-2	1,2-DICHLOROETHANE	5 u	108-10-1	4-METHYL-2-PENTANONE	10 u
78-93-3	2-BUTANONE	10 u	127-18-4	TETRACHLOROETHENE	5 u
71-55-6	1,1,1-TRICHLOROETHANE	5 u	108-88-3	TOLUENE	5 u
56-23-5	CARBON TETRACHLORIDE	5 u	108-90-7	CHLOROBENZENE	5 u
108-05-4	VINYL ACETATE	10 u	100-41-4	ETHYLBENZENE	5 u
75-27-4	BROMODICHLOROMETHANE	5 u	100-42-5	STYRENE	5 u
				TOTAL XYLENES	5 u

Data Reporting Qualifiers

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C this flag applies to pesticide parameters where the identification has been confirmed by GC/MS.Single component pesticides > or = 10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when analyte is found in the blank as well as sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

S Matrix spiked compound.

Environmental Protection Agency, CLP Sample Management Office,
P.O Box 818 , Alexandria,Virginia 22313 703/557-2490

: Sample Number :
ED109 :

ORGANIC ANALYSIS DATA SHEET
(Page 2)

RECEIVED MAY 2 2 1985

SEMIVOLATILE COMPOUNDS

Concentration: Low Medium (Circle One)
Date Extracted/Prepared: 04-05-85
Date Analyzed: 04-17-85
Conc/Dil Factor: 1.000

CAS Number		ug/l or ug/kg (Circle one)	CAS Number		ug/l or ug/Kg (circle one)
62-75-9	N-NITROSODIMETHYLAMINE	10 u	83-32-9	ACENAPHTHENE	10 u
108-95-2	PHENOL	10 J	51-28-5	2,4-DINITROPHENOL	50 u
62-53-3	ANILINE	10 u	100-02-7	4-NITROPHENOL	50 u
111-44-4	BIS(2-CHLOROETHYL)ETHER	10 u	132-64-9	DIBENZOFURAN	10 u
95-57-8	2-CHLOROPHENOL	10 u	121-14-2	2,4-DINITROTOLUENE	10 u
541-73-1	1-3,DICHLOROBENZENE	10 u	606-20-2	2,6-DINITROTOLUENE	10 u
106-46-7	1,4-DICHLOROBENZENE	10 u	84-66-2	DIETHYLPHTHALATE	10 u
100-51-6	BENZYL ALCOHOL	10 u	7005-72-3	4-CHLOROPHENYL-PHENYLETHER	10 u
95-50-1	1,2-DICHLOROBENZENE	10 u	86-73-7	FLUORENE	10 u
95-48-7	2-METHYLPHENOL	10 u	100-01-6	4-NITROANILINE	50 u
39638-32-9	BIS(2-CHLOROISOPROPYL)ETHER	10 u	534-52-1	4,6-DINITRO-2-METHYLPHENOL	50 u
106-44-5	4-METHYLPHENOL	10 u	86-30-6	N-NITROSODIPHENYLAMINE (1)	10 u
621-64-7	N-NITROSO-DI-N-PROPYLAMINE	10 u	101-55-3	4-BROMOPHENYL-PHENYLETHER	10 u
67-72-1	HEXACHLOROETHANE	10 u	118-74-1	HEXACHLOROBENZENE	10 u
98-95-3	NITROBENZENE	10 u	87-86-5	PENTACHLOROPHENOL	50 u
78-59-1	ISOPHRONE	10 u	85-01-8	PHENANTHRENE	10 u
88-75-5	2-NITROPHENOL	10 u	120-12-7	ANTHRACENE	10 u
105-67-9	2,4-DIMETHYLPHENOL	10 u	84-74-2	DI-N-BUTYLPHTHALATE	10 JB
65-85-0	BENZOIC ACID	50 u	206-44-0	FLUORANTHENE	10 u
111-91-1	BIS(2-CHLOROETHOXY)METHANE	10 u	92-87-5	BENZIDINE	100 u
120-83-2	2,4-DICHLOROPHENOL	10 u	129-00-0	PYRENE	10 u
120-82-1	1,2,4-TRICHLOROBENZENE	10 u	85-68-7	BUTYLBENZYLPHTHALATE	10 u
91-20-3	NAPHTHALENE	10 u	91-94-1	3,3'-DICHLOROBENZIDINE	20 u
106-47-8	4-CHLOROANILINE	10 u	56-55-3	BENZO(a)ANTHRACENE	10 u
87-68-3	HEXACHLOROBUTADIENE	10 u	117-81-7	BIS(2-ETHYLHEXYL)PHTHALATE	10 J
59-50-7	4-CHLORO-3-METHYLPHENOL	10 u	218-01-9	CHRYSENE	10 u
91-57-6	2-METHYLNAPHTHALENE	10 u	117-84-0	DI-N-OCTYL PHTHALATE	10 u
77-47-4	HEXACHLOROCYCLOPENTADIENE	10 u	205-99-2	BENZO(b)FLUORANTHENE	10 u
88-06-2	2,4,6-TRICHLOROPHENOL	10 u	207-08-9	BENZO(k)FLUORANTHENE	10 u
95-95-4	2,4,5-TRICHLOROPHENOL	50 u	50-32-8	BENZO(a)PYRENE	10 u
91-58-7	2-CHLORONAPHTHALENE	10 u	193-39-5	INDENO(1,2,3-CD)PYRENE	10 u
88-74-4	2-NITROANILINE	50 u	53-70-3	DIBENZ(a,h)ANTHRACENE	10 u
131-11-3	DIMETHYL PHTHALATE	10 u	191-24-2	BENZO(ghi)PERYLENE	10 u
208-96-8	ACENAPHTHYLENE	10 u			
99-09-2	3-NITROANILINE	50 u			

(1)-Cannot be separated from diphenylamine

Enviromental Protection Agency, CLP Sample Management Office
P.O. Box 818, Alexandria, Virgina 22313-703/557-2490

Sample Number
ED-109

ORGANICS ANALYSIS DATA SHEET
(Page 3)

Pesticide/PCBs

RECEIVED MAY 2 2 1985

Concentration: LOW
Date Extracted/Prepared: 4-8-85
Date Analyzed: 4-18-85
Conc/Dil Factor: 1.00

CAS # Number		ug/l or ug/Kg (Circle One)
319-84-6	ALPHA-BHC	0.050 u
319-85-7	BETA-BHC	0.050 u
319-86-8	DELTA-BHC	0.050 u
58-89-9	GAMMA-BHC (LINDANE)	0.050 u
76-44-8	HEPTACHLOR	0.050 u
309-00-2	ALDRIN	0.050 u
1024-57-3	HEPTACHLOR EPOXIDE	0.050 u
959-98-8	ENDOSULFAN I	0.050 u
60-57-1	DIELDRIN	0.10 u
72-55-9	4,4'-DDE	0.10 u
72-20-8	ENDRIN	0.10 u
33213-65-9	ENDOSULFAN II	0.10 u
72-54-8	4,4'-DDD	0.10 u
7421-93-4	ENDRIN ALDEHYDE	0.10 u
1031-07-8	ENDOSULFAN SULFATE	0.10 u
50-29-3	4,4'-DDT	0.10 u
72-43-5	METHOXYCHLOR	0.50 u
53494-70-5	ENDRIN KETONE	0.10 u
57-74-9	CHLORDANE	0.50 u
8001-35-2	TOXAPHENE	1.0 u
12674-11-2	AROCLOR-1016	0.50 u
11104-28-2	AROCLOR-1221	0.50 u
11141-16-5	AROCLOR-1232	0.50 u
53469-21-9	AROCLOR-1242	0.50 u
12672-29-6	AROCLOR-1248	0.50 u
11097-69-1	AROCLOR-1254	1.0 u
11096-82-5	AROCLOR-1260	1.0 u

Volume of water extracted (ml): 1000
Weight of sample extracted (g): N.A.
Volume of total extract (ml): 10.00
Volume of extract injected (ul): 1.00

** CONFIRMED BY GC DUAL COLUMN

85FN04519

Environmental Protection Agency, CLP Sample Management Office,
P.O Box 818, Alexandria, Virginia 22313 703/557/2490

Sample Number
ED110

ORGANICS ANALYSIS DATA SHEET
(Page 1)

Laboratory Name: S-CUBED
Lab Sample ID No: ED110V (CWA)
Sample Matrix: WATER
Data Release Authorized By: _____

Case No: 4130
QC Report No: N.A.
Contract No: 68-01-7021
Date Sample Received: 04-05-85

RECEIVED MAY 2 2 1985

VOLATILE COMPOUNDS

Concentration: Low Medium (Circle one)
Date Extracted/Prepared: 4-09-85
Date Analyzed: 4-09-85
Conc/Dil Factor: 1.00 pH: N.A.
Percent Moisture: N.A.
Percent Moisture (Decanted): N.A.

CAS Number		ug/l or ug/kg (circle One)	CAS Number		ug/l or ug/kg (circle one)
74-87-3	CHLOROMETHANE	10 u	79-34-5	1,1,2,2-TETRACHLOROETHANE	5 u
74-83-9	BROMOMETHANE	10 u	78-87-5	1,2-DICHLOROPROPANE	5 u
75-01-4	VINYL CHLORIDE	10 u	10061-02-6	TRANS-1,3-DICHLOROPROPENE	5 u
75-00-3	CHLOROETHANE	10 u	79-01-6	TRICHLOROETHENE	5 u
75-09-2	METHYLENE CHLORIDE	5 JB	124-48-1	DIBROMOCHLOROMETHANE	5 u
67-64-1	ACETONE	10 B	79-00-5	1,1,2-TRICHLOROETHANE	5 u
75-15-0	CARBON DISULFIDE	5 JB	71-43-2	BENZENE	5 u
75-35-4	1,1-DICHLOROETHENE	5 u	10061-01-5	CIS-1,3-DICHLOROPROPENE	5 u
75-34-3	1,1-DICHLOROETHANE	5 u	110-75-8	2-CHLOROETHYLVINYLETHER	10 u
156-60-5	TRANS-1,2-DICHLOROETHENE	5 u	75-25-2	BROMOFORM	5 u
67-66-3	CHLOROFORM	5 u	591-78-6	2-HEXANONE	10 u
107-06-2	1,2-DICHLOROETHANE	5 u	108-10-1	4-METHYL-2-PENTANONE	10 u
78-93-3	2-BUTANONE	32	127-18-4	TETRACHLOROETHENE	5 u
71-55-6	1,1,1-TRICHLOROETHANE	5 u	108-88-3	TOLUENE	5 u
56-23-5	CARBON TETRACHLORIDE	5 u	108-90-7	CHLOROBENZENE	5 u
108-05-4	VINYL ACETATE	10 u	100-41-4	ETHYLBENZENE	5 u
75-27-4	BROMODICHLOROMETHANE	5 u	100-42-5	STYRENE	5 u
				TOTAL XYLENES	5 u

Data Reporting Qualifiers

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Value: If the result is a value greater than or equal to the detection limit,report the value.

U Indicates compound was analyzed for but not detected.Report the minimum detection limit for the sample with the U (eg.10U) based on necessay concentration/dilution actions.(this is not necessarily the instrument detection limit.)The footnotes should read:U-Compound was analyzed for but not detected.The number is the minimum attainable detection limit for the sample.

J Indicates an estimated value:This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero. (eg.10J)

C this flag applies to pesticide parameters where the identification has been confirmed by GC/MS.Single component pesticides > or = 10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when analyte is found in the blank as well as sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

S Matrix spiked compound.

Environmental Protection Agency, CLP Sample Management Office,
P.O Box 818 , Alexandria,Virginia 22313 703/557-2490

: Sample Number :
ED110 :

ORGANIC ANALYSIS DATA SHEET
(Page 2)

RECEIVED MAY 2 2 1985

SEMIVOLATILE COMPOUNDS

Concentration: Low Medium (Circle One)
Date Extracted/Prepared: 04-05-85
Date Analyzed: 04-17-85
Conc/Dil Factor: 0.500

CAS Number		ug/l or ug/kg (Circle one)	CAS Number		ug/l or ug/Kg (circle one)
62-75-9	N-NITROSODIMETHYLAMINE	20 u	83-32-9	ACENAPHTHENE	20 u
108-95-2	PHENOL	20 u	51-28-5	2,4-DINITROPHENOL	100 u
62-53-3	ANILINE	20 u	100-02-7	4-NITROPHENOL	100 u
111-44-4	BIS(2-CHLOROETHYL)ETHER	20 u	132-64-9	DIBENZOFURAN	20 u
95-57-8	2-CHLOROPHENOL	20 u	121-14-2	2,4-DINITROTOLUENE	20 u
541-73-1	1-3,DICHLOROBENZENE	20 u	606-20-2	2,6-DINITROTOLUENE	20 u
106-46-7	1,4-DICHLOROBENZENE	20 u	84-66-2	DIETHYLPHTHALATE	20 u
100-51-6	BENZYL ALCOHOL	20 u	7005-72-3	4-CHLOROPHENYL-PHENYLETHER	20 u
95-50-1	1,2-DICHLOROBENZENE	20 u	86-73-7	FLUORENE	20 u
95-48-7	2-METHYLPHENOL	20 u	100-01-6	4-NITROANILINE	100 u
39638-32-9	BIS(2-CHLOROISOPROPYL)ETHER	20 u	534-52-1	4,6-DINITRO-2-METHYLPHENOL	100 u
106-44-5	4-METHYLPHENOL	20 u	86-30-6	N-NITROSODIPHENYLAMINE (1)	20 u
621-64-7	N-NITROSO-DI-N-PROPYLAMINE	20 u	101-55-3	4-BROMOPHENYL-PHENYLETHER	20 u
67-72-1	HEXACHLOROETHANE	20 u	118-74-1	HEXACHLOROBENZENE	20 u
98-95-3	NITROBENZENE	20 u	87-86-5	PENTACHLOROPHENOL	100 u
78-59-1	ISOPHRONE	20 u	85-01-8	PHENANTHRENE	20 u
88-75-5	2-NITROPHENOL	20 u	120-12-7	ANTHRACENE	20 u
105-67-9	2,4-DIMETHYLPHENOL	20 u	84-74-2	DI-N-BUTYLPHTHALATE	20 JB
65-85-0	BENZOIC ACID	100 u	206-44-0	FLUORANTHENE	20 u
111-91-1	BIS(2-CHLOROETHOXY)METHANE	20 u	92-87-5	BENZIDINE	200 u
120-83-2	2,4-DICHLOROPHENOL	20 u	129-00-0	PYRENE	20 u
120-82-1	1,2,4-TRICHLOROBENZENE	20 u	85-68-7	BUTYLBENZYLPHTHALATE	20 u
91-20-3	NAPHTHALENE	20 u	91-94-1	3,3'-DICHLOROBENZIDINE	40 u
106-47-8	4-CHLOROANILINE	20 u	56-55-3	BENZO(a)ANTHRACENE	20 u
87-68-3	HEXACHLOROBUTADIENE	20 u	117-81-7	BIS(2-ETHYLHEXYL)PHTHALATE	20 u
59-50-7	4-CHLORO-3-METHYLPHENOL	20 u	218-01-9	CHRYSENE	20 u
91-57-6	2-METHYLNAPHTHALENE	20 u	117-84-0	DI-N-OCTYL PHTHALATE	20 u
77-47-4	HEXACHLOROCYCLOPENTADIENE	20 u	205-99-2	BENZO(b)FLUORANTHENE	20 u
88-06-2	2,4,6-TRICHLOROPHENOL	20 u	207-08-9	BENZO(k)FLUORANTHENE	20 u
95-95-4	2,4,5-TRICHLOROPHENOL	100 u	50-32-8	BENZO(a)PYRENE	20 u
91-58-7	2-CHLORONAPHTHALENE	20 u	193-39-5	INDENO(1,2,3-CD)PYRENE	20 u
88-74-4	2-NITROANILINE	100 u	53-70-3	DIBENZ(a,h)ANTHRACENE	20 u
131-11-3	DIMETHYL PHTHALATE	20 u	191-24-2	BENZO(ghi)PERYLENE	20 u
208-96-8	ACENAPHTHYLENE	20 u			
99-09-2	3-NITROANILINE	100 u			

(1)-Cannot be separated from diphenylamine

Enviromental Protection Agency, CLP Sample Management Office
P.O. Box 818, Alexandria, Virgina 22313-703/557-2490

Sample Number
ED-110

ORGANICS ANALYSIS DATA SHEET
(Page 3)

Pesticide/PCBs

RECEIVED MAY 2 2 1985

Concentration: LOW
Date Extracted/Prepared: 4-8-85
Date Analyzed: 4-17-85
Conc/Dil Factor: 2.00

CAS # Number		ug/l or ug/Kg (Circle One)
319-84-6	ALPHA-BHC	0.10 u
319-85-7	BETA-BHC	0.10 u
319-86-8	DELTA-BHC	0.10 u
58-89-9	GAMMA-BHC (LINDANE)	0.10 u
76-44-8	HEPTACHLOR	0.10 u
309-00-2	ALDRIN	0.10 u
1024-57-3	HEPTACHLOR EPOXIDE	0.10 u
959-98-8	ENDOSULFAN I	0.10 u
60-57-1	DIELDRIN	0.20 u
72-55-9	4,4'-DDE	0.20 u
72-20-8	ENDRIN	0.20 u
33213-65-9	ENDOSULFAN II	0.20 u
72-54-8	4,4'-DDD	0.20 u
7421-93-4	ENDRIN ALDEHYDE	0.20 u
1031-07-8	ENDOSULFAN SULFATE	0.20 u
50-29-3	4,4'-DDT	0.20 u
72-43-5	METHOXYCHLOR	1.0 u
53494-70-5	ENDRIN KETONE	0.20 u
57-74-9	CHLORDANE	1.0 u
8001-35-2	TOXAPHENE	2.0 u
12674-11-2	AROCLOR-1016	1.0 u
11104-28-2	AROCLOR-1221	1.0 u
11141-16-5	AROCLOR-1232	1.0 u
53469-21-9	AROCLOR-1242	1.0 u
12672-29-6	AROCLOR-1248	1.0 u
11097-69-1	AROCLOR-1254	2.0 u
11096-82-5	AROCLOR-1260	2.0 u

Volume of water extracted (ml): 500
Weight of sample extracted (g): N.A.
Volume of total extract (ml): 10.00
Volume of extract injected (ul): 1.00

** CONFIRMED BY GC DUAL COLUMN

85FN04S26

Environmental Protection Agency, CLP Sample Management Office,
P.O Box 818, Alexandria, Virginia 22313 703/557/2490

Sample Number
ED111

ORGANICS ANALYSIS DATA SHEET
(Page 1)

Laboratory Name: S-CUBED
Lab Sample ID No: ED111V
Sample Matrix: WATER
Data Release Authorized By:

Case No: 4130
QC Report No: N.A.
Contract No: 68-01-7021
Date Sample Received: 04-05-85

RECEIVED MAY 22 1985

VOLATILE COMPOUNDS
Concentration: Low Medium (Circle one)
Date Extracted/Prepared: 4-10-85
Date Analyzed: 4-10-85
Conc/Dil Factor: 1.00 pH: N.A.
Percent Moisture: N.A.
Percent Moisture (Decanted): N.A.

CAS Number		ug/l or ug/kg (Circle One)	CAS Number		ug/l or ug/kg (Circle one)
74-87-3	CHLOROMETHANE	10 u	79-34-5	1,1,2,2-TETRACHLOROETHANE	5 u
74-83-9	BROMOMETHANE	10 u	78-87-5	1,2-DICHLOROPROPANE	5 u
75-01-4	VINYL CHLORIDE	10 u	10061-02-6	TRANS-1,3-DICHLOROPROPENE	5 u
75-00-3	CHLOROETHANE	10 u	79-01-6	TRICHLOROETHENE	5 u
75-09-2	METHYLENE CHLORIDE	8.6 B	124-48-1	DIBROMOCHLOROMETHANE	5 u
67-64-1	ACETONE	10 JB	79-00-5	1,1,2-TRICHLOROETHANE	5 u
75-15-0	CARBON DISULFIDE	5 JB	71-43-2	BENZENE	5 u
75-35-4	1,1-DICHLOROETHENE	5 u	10061-01-5	CIS-1,3-DICHLOROPROPENE	5 u
75-34-3	1,1-DICHLOROETHANE	5 u	110-75-8	2-CHLOROETHYLVINYLETHER	10 u
156-60-5	TRANS-1,2-DICHLOROETHENE	5 u	75-25-2	BROMOFORM	5 u
67-66-3	CHLOROFORM	5 J	591-78-6	2-HEXANONE	10 u
107-06-2	1,2-DICHLOROETHANE	5 u	108-10-1	4-METHYL-2-PENTANONE	10 u
78-93-3	2-BUTANONE	10 u	127-18-4	TETRACHLOROETHENE	5 u
71-55-6	1,1,1-TRICHLOROETHANE	5 u	108-88-3	TOLUENE	5 u
56-23-5	CARBON TETRACHLORIDE	5 u	108-90-7	CHLOROBENZENE	5 u
108-05-4	VINYL ACETATE	10 u	100-41-4	ETHYLBENZENE	5 u
75-27-4	BROMODICHLOROMETHANE	5 u	100-42-5	STYRENE	5 u
				TOTAL XYLENES	5 u

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifier are used. Additional flags or footnotes explaning results are encouraged.However,the definition of each flag must be explicit.

Value: If the result is a value greater than or equal to the detection limit,report the value.

U Indicates compound was analyzed for but not detected.Report the minimum detection limit for the sample with the U (eg.10U) based on necessay concentration/dilution actions.(this is not necessarily the instrument detection limit.)The footnotes should read:U-Compound was analyzed for but not detected.The number is the minimum attainable detection limit for the sample.

J Indicates an estimated value:This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero. (eg.10J)

C this flag applies to pesticide parameters where the identification has been confirmed by GC/MS.Single component pesticides > or = 10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when analyte is found in the blank as well as sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

S Matrix spiked compound.

Environmental Protection Agency, CLP Sample Management Office,
P.O Box 818 , Alexandria,Virginia 22313 703/557-2490

: Sample Number :
ED111 :

ORGANIC ANALYSIS DATA SHEET
(Page 2)

RECEIVED MAY 22 1985

SEMIVOLATILE COMPOUNDS

Concentration: Low Medium (Circle One)
Date Extracted/Prepared: 04-05-85
Date Analyzed: 04-17-85
Conc/Dil Factor: 1.000

CAS Number		ug/l or ug/kg (Circle one)	CAS Number		ug/l or ug/Kg (circle one)
62-75-9	N-NITROSODIMETHYLAMINE	10 u	83-32-9	ACENAPHTHENE	10 u
108-95-2	PHENOL	10 u	51-28-5	2,4-DINITROPHENOL	50 u
62-53-3	ANILINE	10 u	100-02-7	4-NITROPHENOL	50 u
111-44-4	BIS(2-CHLOROETHYL)ETHER	10 u	132-64-9	DIBENZOFURAN	10 u
95-57-8	2-CHLOROPHENOL	10 u	121-14-2	2,4-DINITROTOLUENE	10 u
541-73-1	1-3,DICHLOROBENZENE	10 u	606-20-2	2,6-DINITROTOLUENE	10 u
106-46-7	1,4-DICHLOROBENZENE	10 u	84-66-2	DIETHYLPHTHALATE	10 u
100-51-6	BENZYL ALCOHOL	10 u	7005-72-3	4-CHLOROPHENYL-PHENYLETHER	10 u
95-50-1	1,2-DICHLOROBENZENE	10 u	86-73-7	FLUORENE	10 u
95-48-7	2-METHYLPHENOL	10 u	100-01-6	4-NITROANILINE	50 u
39638-32-9	BIS(2-CHLOROISOPROPYL)ETHER	10 u	534-52-1	4,6-DINITRO-2-METHYLPHENOL	50 u
106-44-5	4-METHYLPHENOL	10 u	86-30-6	N-NITROSODIPHENYLAMINE (1)	10 u
621-64-7	N-NITROSO-DI-N-PROPYLAMINE	10 u	101-55-3	4-BROMOPHENYL-PHENYLETHER	10 u
67-72-1	HEXACHLOROETHANE	10 u	118-74-1	HEXACHLOROBENZENE	10 u
98-95-3	NITROBENZENE	10 u	87-86-5	PENTACHLOROPHENOL	50 u
78-59-1	ISOPHRONE	10 u	85-01-8	PHENANTHRENE	10 u
88-75-5	2-NITROPHENOL	10 u	120-12-7	ANTHRACENE	10 u
105-67-9	2,4-DIMETHYLPHENOL	10 u	84-74-2	DI-N-BUTYLPHTHALATE	10 JB
65-85-0	BENZOIC ACID	50 u	206-44-0	FLUORANTHENE	10 u
111-91-1	BIS(2-CHLOROETHOXY)METHANE	10 u	92-87-5	BENZIDINE	100 u
120-83-2	2,4-DICHLOROPHENOL	10 u	129-00-0	PYRENE	10 u
120-82-1	1,2,4-TRICHLOROBENZENE	10 u	85-68-7	BUTYLBENZYLPHTHALATE	10 u
91-20-3	NAPHTHALENE	10 u	91-94-1	3,3'-DICHLOROBENZIDINE	20 u
106-47-8	4-CHLOROANILINE	10 u	56-55-3	BENZO(a)ANTHRACENE	10 u
87-68-3	HEXACHLOROBUTADIENE	10 u	117-81-7	BIS(2-ETHYLHEXYL)PHTHALATE	10 J
59-50-7	4-CHLORO-3-METHYLPHENOL	10 u	218-01-9	CHRYSENE	10 u
91-57-6	2-METHYLNAPHTHALENE	10 u	117-84-0	DI-N-OCTYL PHTHALATE	10 u
77-47-4	HEXACHLOROCYCLOPENTADIENE	10 u	205-99-2	BENZO(b)FLUORANTHENE	10 u
88-06-2	2,4,6-TRICHLOROPHENOL	10 u	207-08-9	BENZO(k)FLUORANTHENE	10 u
95-95-4	2,4,5-TRICHLOROPHENOL	50 u	50-32-8	BENZO(a)PYRENE	10 u
91-58-7	2-CHLORONAPHTHALENE	10 u	193-39-5	INDENO(1,2,3-CD)PYRENE	10 u
88-74-4	2-NITROANILINE	50 u	53-70-3	DIBENZ(a,h)ANTHRACENE	10 u
131-11-3	DIMETHYL PHTHALATE	10 u	191-24-2	BENZO(ghi)PERYLENE	10 u
208-96-8	ACENAPHTHYLENE	10 u			
99-09-2	3-NITROANILINE	50 u			

(1)-Cannot be separated from diphenylamine

Environmental Protection Agency, CLP Sample Management Office
P.O. Box 818, Alexandria, Virgina 22313-703/557-2490

Sample Number
ED-111

ORGANICS ANALYSIS DATA SHEET
(Page 3)

RECEIVED MAY 2 2 1985

Pesticide/PCBs

Concentration: LOW
Date Extracted/Prepared: 4-8-85
Date Analyzed: 4-18-85
Conc/Dil Factor: 1.00

CAS # Number		ug/l or ug/Kg (Circle One)
319-84-6	ALPHA-BHC	0.050 u
319-85-7	BETA-BHC	0.050 u
319-86-8	DELTA-BHC	0.050 u
58-89-9	GAMMA-BHC (LINDANE)	0.050 u
76-44-8	HEPTACHLOR	0.050 u
309-00-2	ALDRIN	0.050 u
1024-57-3	HEPTACHLOR EPOXIDE	0.050 u
959-98-8	ENDOSULFAN I	0.050 u
60-57-1	DIELDRIN	0.10 u
72-55-9	4,4'-DDE	0.10 u
72-20-8	ENDRIN	0.10 u
33213-65-9	ENDOSULFAN II	0.10 u
72-54-8	4,4'-DDD	0.10 u
7421-93-4	ENDRIN ALDEHYDE	0.10 u
1031-07-8	ENDOSULFAN SULFATE	0.10 u
50-29-3	4,4'-DDT	0.10 u
72-43-5	METHOXYCHLOR	0.50 u
53494-70-5	ENDRIN KETONE	0.10 u
57-74-9	CHLORDANE	0.50 u
8001-35-2	TOXAPHENE	1.0 u
12674-11-2	AROCLOR-1016	0.50 u
11104-28-2	AROCLOR-1221	0.50 u
11141-16-5	AROCLOR-1232	0.50 u
53469-21-9	AROCLOR-1242	0.50 u
12672-29-6	AROCLOR-1248	0.50 u
11097-69-1	AROCLOR-1254	1.0 u
11096-82-5	AROCLOR-1260	1.0 u

Volume of water extracted (ml): 1000
Weight of sample extracted (g): N.A.
Volume of total extract (ml): 10.00
Volume of extract injected (ul): 1.00

** CONFIRMED BY GC DUAL COLUMN

85FNC4D20

Environmental Protection Agency, CLP Sample Management Office,
P.O Box 818, Alexandria, Virginia 22313 703/557/2490

Sample Number
ED112

ORGANICS ANALYSIS DATA SHEET
(Page 1)

Laboratory Name: S-CUBED
Lab Sample ID No: ED112V (VOA)
Sample Matrix: WATER
Data Release Authorized By: JW

Case No: 4130
QC Report No: N.A.
Contract No: 68-01-7021
Date Sample Received: 04-05-85

VOLATILE COMPOUNDS
Concentration: Low Medium (Circle one)
Date Extracted/Prepared: 4-10-85
Date Analyzed: 4-10-85
Conc/Dil Factor: 1.00 pH: N.A.
Percent Moisture: N.A.
Percent Moisture (Decanted): N.A.

RECEIVED MAY 22 1985

CAS Number		ug/l or ug/kg (Circle One)	CAS Number		ug/l or ug/kg (Circle one)
74-87-3	CHLOROMETHANE	10 u	79-34-5	1,1,2,2-TETRACHLOROETHANE	5 u
74-83-9	BROMOMETHANE	10 u	78-87-5	1,2-DICHLOROPROPANE	5 u
75-01-4	VINYL CHLORIDE	10 u	10061-02-6	TRANS-1,3-DICHLOROPROPENE	5 u
75-00-3	CHLOROETHANE	10 u	79-01-6	TRICHLOROETHENE	5 u
75-09-2	METHYLENE CHLORIDE	8.6 B	124-48-1	DIBROMOCHLOROMETHANE	5 u
67-64-1	ACETONE	10 JB	79-00-5	1,1,2-TRICHLOROETHANE	5 u
75-15-0	CARBON DISULFIDE	5 JB	71-43-2	BENZENE	5 u
75-35-4	1,1-DICHLOROETHENE	5 u	10061-01-5	CIS-1,3-DICHLOROPROPENE	5 u
75-34-3	1,1-DICHLOROETHANE	5 u	110-75-8	2-CHLOROETHYLVINYLETHER	10 u
156-60-5	TRANS-1,2-DICHLOROETHENE	5 u	75-25-2	BROMOFORM	5 u
67-66-3	CHLOROFORM	5 u	591-78-6	2-HEXANONE	10 u
107-06-2	1,2-DICHLOROETHANE	5 u	108-10-1	4-METHYL-2-PENTANONE	10 u
78-93-3	2-BUTANONE	10 u	127-18-4	TETRACHLOROETHENE	5 u
71-55-6	1,1,1-TRICHLOROETHANE	5 u	108-88-3	TOLUENE	5 u
56-23-5	CARBON TETRACHLORIDE	5 u	108-90-7	CHLOROBENZENE	5 u
108-05-4	VINYL ACETATE	10 u	100-41-4	ETHYLBENZENE	5 u
75-27-4	BROMODICHLOROMETHANE	5 u	100-42-5	STYRENE	5 u
				TOTAL XYLENES	5 u

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifier are used. Additional flags or footnotes explaning results are encouraged.However,the definition of each flag must be explicit.

Value: If the result is a value greater than or equal to the detection limit,report the value.

U Indicates compound was analyzed for but not detected.Report the miniaum detection limit for the sample with the U (eg.10U) based on necessay concentration/dilution actions.(this is not necessarily the instrument detection limit.)The footnotes should read:U-Compound was analyzed for but not detected.The number is the minimum attainable detection limit for the sample.

J Indicates an estimated value:This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero. (eg.10J)

C this flag applies to pesticide parameters where the identification has been confirmed by GC/MS.Single component pesticides > or = 10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when analyte is found in the blank as well as sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

S Matrix spiked compound.

Sample Number
ED112

Environmental Protection Agency, CLP Sample Management Office,
P.O Box 818 , Alexandria,Virginia 22313 703/557-2490

ORGANIC ANALYSIS DATA SHEET
(Page 2)

SEMIVOLATILE COMPOUNDS

RECEIVED MAY 22 1985

Concentration: Low Medium (Circle One)
Date Extracted/Prepared: 04-05-85
Date Analyzed: 04-17-85
Conc/Dil Factor: 1.000

CAS Number		ug/l or ug/kg (Circle one)	CAS Number		ug/l or ug/Kg (Circle one)
62-75-9	N-NITROSODIMETHYLAMINE	10 u	83-32-9	ACENAPHTHENE	10 u
108-95-2	PHENOL	10 u	51-28-5	2,4-DINITROPHENOL	50 u
62-53-3	ANILINE	10 u	100-02-7	4-NITROPHENOL	50 u
111-44-4	BIS(2-CHLOROETHYL)ETHER	10 u	132-64-9	DIBENZOFURAN	10 u
95-57-8	2-CHLOROPHENOL	10 u	121-14-2	2,4-DINITROTOLUENE	10 u
541-73-1	1-3,DICHLOROBENZENE	10 u	606-20-2	2,6-DINITROTOLUENE	10 u
106-46-7	1,4-DICHLOROBENZENE	10 u	84-66-2	DIETHYLPHTHALATE	10 u
100-51-6	BENZYL ALCOHOL	10 u	7005-72-3	4-CHLOROPHENYL-PHENYLETHER	10 u
95-50-1	1,2-DICHLOROBENZENE	10 u	86-73-7	FLUORENE	10 u
95-48-7	2-METHYLPHENOL	10 u	100-01-6	4-NITROANILINE	50 u
39638-32-9	BIS(2-CHLOROISOPROPYL)ETHER	10 u	534-52-1	4,6-DINITRO-2-METHYLPHENOL	50 u
106-44-5	4-METHYLPHENOL	10 u	86-30-6	N-NITROSODIPHENYLAMINE (1)	10 u
621-64-7	N-NITROSO-DI-N-PROPYLAMINE	10 u	101-55-3	4-BROMOPHENYL-PHENYLETHER	10 u
67-72-1	HEXACHLOROETHANE	10 u	118-74-1	HEXACHLOROBENZENE	10 u
98-95-3	NITROBENZENE	10 u	87-86-5	PENTACHLOROPHENOL	50 u
78-59-1	ISOPHRONE	10 u	85-01-8	PHENANTHRENE	10 u
88-75-5	2-NITROPHENOL	10 u	120-12-7	ANTHRACENE	10 u
105-67-9	2,4-DIMETHYLPHENOL	10 u	84-74-2	DI-N-BUTYLPHTHALATE	10 JB
65-85-0	BENZOIC ACID	50 u	206-44-0	FLUORANTHENE	10 u
111-91-1	BIS(2-CHLOROETHOXY)METHANE	10 u	92-87-5	BENZIDINE	100 u
120-83-2	2,4-DICHLOROPHENOL	10 u	129-00-0	PYRENE	10 u
120-82-1	1,2,4-TRICHLOROBENZENE	10 u	85-68-7	BUTYLBENZYLPHTHALATE	10 u
91-20-3	NAPHTHALENE	10 u	91-94-1	3,3'-DICHLOROBENZIDINE	20 u
106-47-8	4-CHLOROANILINE	10 u	56-55-3	BENZO(a)ANTHRACENE	10 u
87-68-3	HEXACHLOROBUTADIENE	10 u	117-81-7	BIS(2-ETHYLHEXYL)PHTHALATE	10 J
59-50-7	4-CHLORO-3-METHYLPHENOL	10 u	218-01-9	CHRYSENE	10 u
91-57-6	2-METHYLNAPHTHALENE	10 u	117-84-0	DI-N-OCTYL PHTHALATE	10 u
77-47-4	HEXACHLOROCYCLOPENTADIENE	10 u	205-99-2	BENZO(b)FLUORANTHENE	10 u
88-06-2	2,4,6-TRICHLOROPHENOL	10 u	207-08-9	BENZO(k)FLUORANTHENE	10 u
95-95-4	2,4,5-TRICHLOROPHENOL	50 u	50-32-8	BENZO(a)PYRENE	10 u
91-58-7	2-CHLORONAPHTHALENE	10 u	193-39-5	INDENO(1,2,3-CD)PYRENE	10 u
88-74-4	2-NITROANILINE	50 u	53-70-3	DIBENZ(a,h)ANTHRACENE	10 u
131-11-3	DIMETHYL PHTHALATE	10 u	191-24-2	BENZO(ghi)PERYLENE	10 u
208-96-8	ACENAPHTHYLENE	10 u			
99-09-2	3-NITROANILINE	50 u			

(1)-Cannot be separated from diphenylamine

Environmental Protection Agency, CLP Sample Management Office
P.O. Box 818, Alexandria, Virgina 22313-703/557-2490

Sample Number
ED-112

ORGANICS ANALYSIS DATA SHEET
(Page 3)

Pesticide/PCBs

Concentration: LOW
Date Extracted/Prepared: 4-8-85
Date Analyzed: 4-18-85
Conc/Dil Factor: 1.00

CAS # Number		ug/l or ug/Kg (Circle One)
319-84-6	ALPHA-BHC	0.050 u
319-85-7	BETA-BHC	0.050 u
319-86-8	DELTA-BHC	0.050 u
58-89-9	GAMMA-BHC (LINDANE)	0.050 u
76-44-8	HEPTACHLOR	0.050 u
309-00-2	ALDRIN	0.050 u
1024-57-3	HEPTACHLOR EPOXIDE	0.050 u
959-98-8	ENDOSULFAN I	0.050 u
60-57-1	DIELDRIN	0.10 u
72-55-9	4,4'-DDE	0.10 u
72-20-8	ENDRIN	0.10 u
33213-65-9	ENDOSULFAN II	0.10 u
72-54-8	4,4'-DDD	0.10 u
7421-93-4	ENDRIN ALDEHYDE	0.10 u
1031-07-8	ENDOSULFAN SULFATE	0.10 u
50-29-3	4,4'-DDT	0.10 u
72-43-5	METHOXYCHLOR	0.50 u
53494-70-5	ENDRIN KETONE	0.10 u
57-74-9	CHLORDANE	0.50 u
8001-35-2	TOXAPHENE	1.0 u
12674-11-2	AROCLOR-1016	0.50 u
11104-28-2	AROCLOR-1221	0.50 u
11141-16-5	AROCLOR-1232	0.50 u
53469-21-9	AROCLOR-1242	0.50 u
12672-29-6	AROCLOR-1248	0.50 u
11097-69-1	AROCLOR-1254	1.0 u
11096-82-5	AROCLOR-1260	1.0 u

Volume of water extracted (ml): 1000
Weight of sample extracted (g): N.A.
Volume of total extract (ml): 10.00
Volume of extract injected (ul): 1.00

** CONFIRMED BY GC DUAL COLUMN

Environmental Protection Agency, CLP Sample Management Office,
P.O Box 818, Alexandria, Virginia 22313 703/557/2490

Sample Number
ED113

ORGANICS ANALYSIS DATA SHEET
(Page 1)

Laboratory Name: S-CUBED
Lab Sample ID No: ED113V (Vol)
Sample Matrix: WATER
Data Release Authorized By: ___

Case No: 4130
QC Report No: N.A.
Contract No: 68-01-7021
Date Sample Received: 04-05-85

VOLATILE COMPOUNDS
Concentration: Low Medium (Circle one)
Date Extracted/Prepared: 4-09-85
Date Analyzed: 4-09-85
Conc/Dil Factor: 1.00 pH: N.A.
Percent Moisture: N.A.
Percent Moisture (Decanted): N.A.

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CAS Number		ug/l or ug/kg (Circle One)	CAS Number		ug/l or ug/kg (circle one)
74-87-3	CHLOROMETHANE	10 u	79-34-5	1,1,2,2-TETRACHLOROETHANE	5 u
74-83-9	BROMOMETHANE	10 u	78-87-5	1,2-DICHLOROPROPANE	5 u
75-01-4	VINYL CHLORIDE	10 u	10061-02-6	TRANS-1,3-DICHLOROPROPENE	5 u
75-00-3	CHLOROETHANE	10 u	79-01-6	TRICHLOROETHENE	5 u
75-09-2	METHYLENE CHLORIDE	32 B	124-48-1	DIBROMOCHLOROMETHANE	5 u
67-64-1	ACETONE	10 JB	79-00-5	1,1,2-TRICHLOROETHANE	5 u
75-15-0	CARBON DISULFIDE	5 JB	71-43-2	BENZENE	5 u
75-35-4	1,1-DICHLOROETHENE	5 u	10061-01-5	CIS-1,3-DICHLOROPROPENE	5 u
75-34-3	1,1-DICHLOROETHANE	5 u	110-75-8	2-CHLOROETHYLVINYLETHER	10 u
156-60-5	TRANS-1,2-DICHLOROETHENE	5 u	75-25-2	BROMOFORM	5 u
67-66-3	CHLOROFORM	5 u	591-78-6	2-HEXANONE	10 u
107-06-2	1,2-DICHLOROETHANE	5 u	108-10-1	4-METHYL-2-PENTANONE	10 u
78-93-3	2-BUTANONE	10 u	127-18-4	TETRACHLOROETHENE	5 u
71-55-6	1,1,1-TRICHLOROETHANE	5 u	108-88-3	TOLUENE	5 J
56-23-5	CARBON TETRACHLORIDE	5 u	108-90-7	CHLOROBENZENE	5 u
108-05-4	VINYL ACETATE	10 u	100-41-4	ETHYLBENZENE	5 u
75-27-4	BROMODICHLOROMETHANE	5 u	100-42-5	STYRENE	5 u
				TOTAL XYLENES	5 u

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifier are used. Additional flags or footnotes explaning results are encouraged.However,the definition of each flag must be explicit.

Value: If the result is a value greater than or equal to the detection limit,report the value.

U Indicates compound was analyzed for but not detected.Report the minimum detection limit for the sample with the U (eg.10U) based on necessay concentration/dilution actions.(this is not necessarily the instrument detection limit.)The footnotes should read:U-Compound was analyzed for but not detected.The number is the minimum attainable detection limit for the sample.

J Indicates an estimated value:This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero. (eg.10J)

C this flag applies to pesticide parameters where the identification has been confirmed by GC/MS.Single component pesticides > or = 10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when analyte is found in the blank as well as sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

S Matrix spiked compound.

85FN04 R02

: Sample Number :
ED113 :

Environmental Protection Agency, CLP Sample Management Office,
P.O Box 818 , Alexandria,Virginia 22313 703/557-2490

ORGANIC ANALYSIS DATA SHEET
(Page 2)

SEMIVOLATILE COMPOUNDS

RECEIVED MAY 22 1985

Concentration: LOW Medium (Circle One)
Date Extracted/Prepared: 04-05-85
Date Analyzed: 04-17-85
Conc/Dil Factor: 1.000

CAS Number		ug/l or ug/kg (Circle one)	CAS Number		ug/l or ug/Kg (circle one)
62-75-9	N-NITROSODIMETHYLAMINE	10 u	83-32-9	ACENAPHTHENE	10 u
108-95-2	PHENOL	10 J	51-28-5	2,4-DINITROPHENOL	50 u
62-53-3	ANILINE	10 u	100-02-7	4-NITROPHENOL	50 u
111-44-4	BIS(2-CHLOROETHYL)ETHER	10 u	132-64-9	DIBENZOFURAN	10 u
95-57-8	2-CHLOROPHENOL	10 u	121-14-2	2,4-DINITROTOLUENE	10 u
541-73-1	1-3,DICHLOROBENZENE	10 u	606-20-2	2,6-DINITROTOLUENE	10 u
106-46-7	1,4-DICHLOROBENZENE	10 u	84-66-2	DIETHYLPHTHALATE	10 u
100-51-6	BENZYL ALCOHOL	10 u	7005-72-3	4-CHLOROPHENYL-PHENYLETHER	10 u
95-50-1	1,2-DICHLOROBENZENE	10 u	86-73-7	FLUORENE	10 u
95-48-7	2-METHYLPHENOL	10 u	100-01-6	4-NITROANILINE	50 u
39638-32-9	BIS(2-CHLOROISOPROPYL)ETHER	10 u	534-52-1	4,6-DINITRO-2-METHYLPHENOL	50 u
106-44-5	4-METHYLPHENOL	10 u	86-30-6	N-NITROSODIPHENYLAMINE (1)	10 u
621-64-7	N-NITROSO-DI-N-PROPYLAMINE	10 u	101-55-3	4-BROMOPHENYL-PHENYLETHER	10 u
67-72-1	HEXACHLOROETHANE	10 u	118-74-1	HEXACHLOROBENZENE	10 u
98-95-3	NITROBENZENE	10 u	87-86-5	PENTACHLOROPHENOL	50 u
78-59-1	ISOPHRONE	10 u	85-01-8	PHENANTHRENE	10 u
88-75-5	2-NITROPHENOL	10 u	120-12-7	ANTHRACENE	10 u
105-67-9	2,4-DIMETHYLPHENOL	10 u	84-74-2	DI-N-BUTYLPHTHALATE	10 J B
65-85-0	BENZOIC ACID	50 u	206-44-0	FLUORANTHENE	10 u
111-91-1	BIS(2-CHLOROETHOXY)METHANE	10 u	92-87-5	BENZIDINE	100 u
120-83-2	2,4-DICHLOROPHENOL	10 u	129-00-0	PYRENE	10 u
120-82-1	1,2,4-TRICHLOROBENZENE	10 u	85-68-7	BUTYLBENZYLPHTHALATE	10 u
91-20-3	NAPHTHALENE	10 u	91-94-1	3,3'-DICHLOROBENZIDINE	20 u
106-47-8	4-CHLOROANILINE	10 u	56-55-3	BENZO(a)ANTHRACENE	10 u
87-68-3	HEXACHLOROBUTADIENE	10 u	117-81-7	BIS(2-ETHYLHEXYL)PHTHALATE	10 u
59-50-7	4-CHLORO-3-METHYLPHENOL	10 u	218-01-9	CHRYSENE	10 u
91-57-6	2-METHYLNAPHTHALENE	10 u	117-84-0	DI-N-OCTYL PHTHALATE	10 u
77-47-4	HEXACHLOROCYCLOPENTADIENE	10 u	205-99-2	BENZO(b)FLUORANTHENE	10 u
88-06-2	2,4,6-TRICHLOROPHENOL	10 u	207-08-9	BENZO(k)FLUORANTHENE	10 u
95-95-4	2,4,5-TRICHLOROPHENOL	50 u	50-32-8	BENZO(a)PYRENE	10 u
91-58-7	2-CHLORONAPHTHALENE	10 u	193-39-5	INDENO(1,2,3-CD)PYRENE	10 u
88-74-4	2-NITROANILINE	50 u	53-70-3	DIBENZ(a,h)ANTHRACENE	10 u
131-11-3	DIMETHYL PHTHALATE	10 u	191-24-2	BENZO(ghi)PERYLENE	10 u
208-96-8	ACENAPHTHYLENE	10 u			
99-09-2	3-NITROANILINE	50 u			

(1)-Cannot be separated from diphenylamine

Environmental Protection Agency, CLP Sample Management Office
P.O. Box 818, Alexandria, Virgina 22313-703/557-2490

Sample Number
ED-113

ORGANICS ANALYSIS DATA SHEET
(Page 3)

Pesticide/PCBs

Concentration: LOW
Date Extracted/Prepared: 4-8-85
Date Analyzed: 4-18-85
Conc/Dil Factor: 1.00

CAS # Number		ug/l or ug/Kg (Circle One)
319-84-6	ALPHA-BHC	0.050 u
319-85-7	BETA-BHC	0.050 u
319-86-8	DELTA-BHC	0.050 u
58-89-9	GAMMA-BHC (LINDANE)	0.050 u
76-44-8	HEPTACHLOR	0.050 u
309-00-2	ALDRIN	0.050 u
1024-57-3	HEPTACHLOR EPOXIDE	0.050 u
959-98-8	ENDOSULFAN I	0.050 u
60-57-1	DIELDRIN	0.10 u
72-55-9	4,4'-DDE	0.10 u
72-20-8	ENDRIN	0.10 u
33213-65-9	ENDOSULFAN II	0.10 u
72-54-8	4,4'-DDD	0.10 u
7421-93-4	ENDRIN ALDEHYDE	0.10 u
1031-07-8	ENDOSULFAN SULFATE	0.10 u
50-29-3	4,4'-DDT	0.10 u
72-43-5	METHOXYCHLOR	0.50 u
53494-70-5	ENDRIN KETONE	0.10 u
57-74-9	CHLORDANE	0.50 u
8001-35-2	TOXAPHENE	1.0 u
12674-11-2	AROCLOR-1016	0.50 u
11104-28-2	AROCLOR-1221	0.50 u
11141-16-5	AROCLOR-1232	0.50 u
53469-21-9	AROCLOR-1242	0.50 u
12672-29-6	AROCLOR-1248	0.50 u
11097-69-1	AROCLOR-1254	1.0 u
11096-82-5	AROCLOR-1260	1.0 u

Volume of water extracted (ml): 1000
Weight of sample extracted (g): N.A.
Volume of total extract (ml): 10.00
Volume of extract injected (ul): 1.00

RECEIVED MAY 2 2 1985

** CONFIRMED BY GC DUAL COLUMN

Case: 4130

Contractor: S-CUBED

TENTATIVELY IDENTIFIED COMPOUNDS
MATCH ASSESSMENT

NOTE: Reviewer should note directly on Organic Analysis Data Sheet (OADS) those matches that in his opinion (based on contract criteria) are unreasonable.

CRITERIA

(1) Relative intensities of major ions (>10%) reference spectrum should be present in the sample spectrum.

(2) Relative intensities of major ions in sample spectrum should agree to within ± 20% of reference spectrum intensities.

(3) Molecular ions present in reference spectrum should be present in sample spectrum.

(4) Ions present in sample spectrum, but not in reference spectrum should be reviewed for possible background contamination or presence of coeluting interferences.

(5) Ions present in reference spectrum, but not in the sample spectrum should be reviewed for possible subtraction from the sample spectrum because of background contamination or coeluting interferences.

(6) If, in the reviewer's opinion, no valid identification can be made the compound should be labelled as "unknown" and the initials and date of the reviewer placed on the OADS.

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P. O. Box 818, Alexandria, Virginia 22313 703/557-2490

Sample Number
ED 105

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
1. NA	NONE	VOA	NA	NA
2.				
3.				
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Environmental Protection Agency. CLP Sample Management Office.
P O Box 818. Alexandria, Virginia 22313 703/557-2490

Sample Number
SD 106

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
1. NA	UNKNOWN	VOA	225	57J
2.				
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RECEIVED MAY 2 2 1985

SAMPLE NUMBER: ED107

ORGANICS ANALYSIS DATA SHEET
(PAGE 4)

TENTATIVELY IDENTIFIED COMPOUNDS

	CAS #	COMPOUND NAME	FRACTION	SCAN	ESTIMATED CONCENTRATION uG/L	uG/KG
1		UNKNOWN	ABN	459	17.0 JB	
2		UNKNOWN	ABN	349	16.0 JB	
3	127-18-4	ETHENE, TETRACHLORO-	ABN	379	12.0 JB	
4		NONE	VOA	NA	NA	

RECEIVED MAY 2 2 1985

SAMPLE NUMBER: ED108

ORGANICS ANALYSIS DATA SHEET
(PAGE 4)

TENTATIVELY IDENTIFIED COMPOUNDS

	CAS #	COMPOUND NAME	FRACTION	SCAN	ESTIMATED CONCENTRATION uG/L or uG/KG
1	127-18-4	ETHENE, TETRACHLORO-	ABN	383	11.0 JB
2		UNKNOWN	VOA	42	5.6 JB

RECEIVED MAY 22 1985

SAMPLE NUMBER: ED109

ORGANICS ANALYSIS DATA SHEET
(PAGE 4)

TENTATIVELY IDENTIFIED COMPOUNDS

	CAS #	COMPOUND NAME	FRACTION	SCAN	ESTIMATED CONCENTRATION uG/L	uG/KG
1	928-94-9	2-HEXEN-1-OL, (Z)-	ABN	499		35.0 J
2		UNKNOWN	ABN	511		24.0 J
3	127-18-4	ETHENE, TETRACHLORO-	ABN	371		9.3 JB
4		UNKNOWN	VOA	220		43 J
5		UNKNOWN	VOA	42		5.8 JB

RECEIVED MAY 2 2 1985.

SAMPLE NUMBER: ED110

ORGANICS ANALYSIS DATA SHEET
(PAGE 4)

TENTATIVELY IDENTIFIED COMPOUNDS

	CAS #	COMPOUND NAME	FRACTION	SCAN	ESTIMATED CONCENTRATION uG/L	uG/KG
1		UNKNOWN	ABN	1606	265.0 J	
2		UNKNOWN	ABN	353	45.0 JB	
3	127-18-4	ETHENE, TETRACHLORO-	ABN	384	20.0 JB	
4		UNKNOWN	VOA	44	6.8 JB	

RECEIVED MAY 22 1985

SAMPLE NUMBER: ED111

ORGANICS ANALYSIS DATA SHEET
(PAGE 4)

TENTATIVELY IDENTIFIED COMPOUNDS

	CAS #	COMPOUND NAME	FRACTION	SCAN	ESTIMATED CONCENTRATION uG/L	uG/KG
1		UNKNOWN	ABN	1598	23.0 J	
2		UNKNOWN	ABN	1791	12.0 J	
3		NONE	VOA	NA	NA	

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Environmental Protection Agency. CLP Sample Management Office.
P O Box 818. Alexandria, Virginia 22313 703/557-2490

Sample Number
ED 112

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
1. 127-18-4	TETRACHLOROETHENE	ABN	368	12 J B
2. NA	UNKNOWN	ABN	1598	30 J
3. NA	UNKNOWN	VOA	40	5.1 J B
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RECEIVED MAY 2 2 1985

SAMPLE NUMBER: ED113

ORGANICS ANALYSIS DATA SHEET
(PAGE 4)

TENTATIVELY IDENTIFIED COMPOUNDS

	CAS #	COMPOUND NAME	FRACTION	SCAN	ESTIMATED CONCENTRATION uG/L	uG/KG
1	127-18-4	ETHENE, TETRACHLORO-	ABN	390	14.0 JB	
2		UNKNOWN	ABN	467	14.0 JB	
3		UNKNOWN	VOA	95	13 J	

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Pesticide Evaluation Standards Summary

Case No. 4130 Laboratory S-CUBED

Contract No. 68-01-6868 Column SP2250/2401

Date of Analysis 4-17-85 Instrument ID HP5880 II

EVALUATION CHECK FOR LINEARITY

LABORATORY ID	EVAL. A	EVAL. B	EVAL C	
PESTICIDE	CALIBRATION FACTOR EVAL. MIX A	CALIBRATION FACTOR EVAL. MIX B	CALIBRATION FACTOR EVAL. MIX C	% RSD (≤10%)
ALDRIN	89644	87856	90545	1.5
ENDRIN	131072	123199	126535	3.1
4,4'-DDT	70209	70223	78995	6.9
DIBUTYL CHLORENDATE	284589	247299	190786	19.6

EVALUATION CHECK FOR 4,4'-DDT/ENDRIN BREAKDOWN

	PERCENT BREAKDOWN EXPRESSED AS TOTAL DEGRADATION			
	EVAL. MIX B	EVAL. MIX B	EVAL. MIX B	EVAL. MIX B
ENDRIN	3.83	4.68		
4,4'-DDT	5.33	0		
LABORATORY ID	EVAL B	EVAL B		
TIME OF ANALYSIS	14:21 4-17-85	00:55 4-18-85		

RECEIVED MAY 22 1985

EVALUATION OF RETENTION TIME SHIFT FOR DIBUTYLCHLORENDATE

SMO SAMPLE NO.	LAB ID	TIME OF ANALYSIS	PERCENT DIFF. *	SMO SAMPLE NO.	LAB ID	TIME OF ANALYSIS	PERCENT DIFF. *
STANDARD	EVAL A	13:48	0	NONE	LAB BLANK	22:11	0.01
"	EVAL B	14:21	0.08	ED-110	ED-110	22:44	0.05
"	EVAL C	14:54	0.07	ED-110	ED-110MS	23:16	0.07
"	IND A	15:26	0.16	ED-110	ED-110MSD	23:49	0.15
"	IND B	16:03	0.01	ED-107	ED-107	00:22	0.14
"	TOXAPHENE	16:40	0.17	STANDARD	EVAL B	00:55	0.25
"	CHLORDANE	17:14	0.16	ED-108	ED-108	01:28	0.25
"	PCB 1016/1260	17:47	0.05	ED-109	ED-109	02:01	0.11
"	PCB 1221	18:20	0.07	ED-111	ED-111	02:34	0.13
"	PCB 1232	18:53	0.10	ED-112	ED-112	03:07	0.14
"	PCB 1242	19:27	0.08	ED-113	ED-113	03:40	0.35
"	PCB 1248	20:00	0.13	STANDARD	IND A	04:13	0.37
"	PCB 1254	20:33	0.09				
"	SURR. STD	21:06	0.04				
"	MATRIX	21:38	0.04				

* ≤2% PACKED, ≤0.3% CAPILLARY

4/84

FORM VIII

PESTICIDE/PCB STANDARDS SUMMARY

Case No. 4130 Laboratory S-CUBED
Contract No. 68-01-6868 GC Column SP2250/2401 GC Instrument ID HP5880 II

	DATE OF ANALYSIS 4-17-85 TIME OF ANALYSIS 15:26 LABORATORY ID IND. A				DATE OF ANALYSIS 4-18-85 TIME OF ANALYSIS 4:13 LABORATORY ID IND A			
COMPOUND	RT	RETENTION TIME WINDOW	CALIBRATION FACTOR	CONF. OR QUANT.	RT	CALIBRATION FACTOR	CONF. OR QUANT.	PERCENT DIFF.**
alpha-BHC	1.63	±0.03	95050		1.63	94466	Q	0.6
beta-BHC								
delta-BHC								
gamma-BHC	2.01	±0.03	91872		2.01	92014	Q	0.2
Heptachlor	2.43	±0.03	84845		2.43	86766	Q	2.3
Aldrin	2.91	±0.03	88211		2.91	88099	Q	0.1
Heptachlor Epoxide								
Endosulfan I	5.3	±0.06	73822		5.3	74982	Q	1.6
Dieldrin	6.4	±0.06	79629		6.4	81748	Q	2.7
4,4'-DDE								
Endrin	7.73	±0.06	56402		7.72	60196	Q	6.73
Endosulfan II								
4,4'-DDD	8.95	±0.09	59573		8.94	60521	Q	1.6
Endrin Aldehyde								
Endosulfan Sulfate								
4,4'-DDT	10.71	±0.09	54430		10.69	56980	Q	4.7
Methoxychlor	19.85	±0.18	35604		19.81	39544	Q	11.0
Endrin Ketone								
Tech. Chlordane								
alpha-Chlordane*								
gamma-Chlordane*								
Toxaphene								
Aroclor - 1016								
Aroclor - 1221								
Aroclor - 1232								
Aroclor - 1242								
Aroclor - 1248								
Aroclor - 1254								
Aroclor - 1260								

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* SEE EXHIBIT B, PART 7

** CONF. = CONFIRMATION (<20% DIFFERENCE)
QUANT. = QUANTITATION (<~~10%~~ 15% DIFFERENCE)

FORM IX

4/84

Pesticide Evaluation Standards Summary

Case No. 4130 Laboratory S-CUBED

Contract No. 68-01-6868 Column SP2100

Date of Analysis 4-17-85 Instrument ID HP5880 II

EVALUATION CHECK FOR LINEARITY

LABORATORY ID	EVAL. A	EVAL B	EVAL C		
PESTICIDE	CALIBRATION FACTOR EVAL. MIX A	CALIBRATION FACTOR EVAL. MIX B	CALIBRATION FACTOR EVAL. MIX C	% RSD (≤10%)	Linear Regressions
ALDRIN	44,362	44799	53395	10.7	0.9581
ENDRIN	58380	58463	75171	15.1	0.9461
4,4'-DDT	27848	28140	44445	28.4	0.9498
DIBUTYL CHLORENDATE	189815	147983	140749	16.6	0.8382

EVALUATION CHECK FOR 4,4'-DDT/ENDRIN BREAKDOWN

	PERCENT BREAKDOWN EXPRESSED AS TOTAL DEGRADATION			
	EVAL. MIX B	EVAL. MIX B	EVAL. MIX B	EVAL. MIX B
ENDRIN	10.37	7.71		
4,4'-DDT	30.82	23.30		
LABORATORY ID	EVAL B	EVAL B		
TIME OF ANALYSIS	14:25 4-17-85	00:58 4-18-85		

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EVALUATION OF RETENTION TIME SHIFT FOR DIBUTYLCHLORENDATE

SMO SAMPLE NO.	LAB ID	TIME OF ANALYSIS	PERCENT DIFF. *	SMO SAMPLE NO.	LAB ID	TIME OF ANALYSIS	PERCENT DIFF. *
STANDARD	EVAL A	13:53	0	~~LAB BLANK~~ None	LAB BLANK	22:14	0.07
"	EVAL B	14:25	0.05	ED-110	ED-110	22:47	0.14
"	EVAL C	14:58	0.17	ED-110	ED-110MS	23:19	0.16
"	IND A	15:30	0.11	ED-110	ED-110MSD	23:52	0.20
"	IND B	16:07	0.10	ED-107	ED-107	00:25	0.16
"	TOXAPHENE	16:44	0.14	STANDARD	EVAL B	00:58	0.32
"	CHLORDANE	17:17	0.12	ED-108	ED-108	01:31	0.26
"	PCB 1016/1260	17:50	0.36	ED-109	ED-109	02:04	0.14
"	PCB 1221	18:23	0.01	ED-111	ED-111	02:37	0.17
"	PCB 1232	18:56	0.12	ED-112	ED-112	03:10	0.12
"	PCB 1242	19:29	0.02	ED-113	ED-113	03:43	0.31
"	PCB 1248	20:03	0	STANDARD	IND A	04:16	0.37
"	PCB 1254	20:36	0.05				
"	SURR	21:09	0.04				
"	MATRIX	21:41	0				

* ≤2% PACKED, ≤0.3% CAPILLARY

4/84

FORM VIII

PESTICIDE/PCB STANDARDS SUMMARY

Case No. 4130 Laboratory S-CUBED
Contract No. 68-01-6868 GC Column SP2100 GC Instrument ID HP5880 II

	DATE OF ANALYSIS 4-17-85 TIME OF ANALYSIS 15:30 LABORATORY ID IND. A				DATE OF ANALYSIS 4-18-85 TIME OF ANALYSIS 4:16 LABORATORY ID IND A			
COMPOUND	RT	RETENTION TIME WINDOW	CALIBRATION FACTOR	CONF. OR QUANT.	RT	CALIBRATION FACTOR	CONF. OR QUANT.	PERCENT DIFF.**
alpha-BHC	2.16	±0.03	61743		2.18	63099	Q	2.2
beta-BHC	~~2.57~~		~~62136~~					
delta-BHC								
gamma-BHC	2.51	±0.03	62136		2.51	63845	Q	2.8
Heptachlor	3.87	±0.03	62262		3.86	64650	Q	3.8
Aldrin	4.72	±0.03	51508		4.71	~~51221~~	Q	3.5
Heptachlor Epoxide						53314		
Endosulfan I	6.94	±0.03	45350		6.93	48011	Q	5.9
Dieldrin	8.02	±0.06	50378		8.00	54350	Q	
4,4'-DDE								
Endrin	8.91	±0.06	28289		8.89	31178	Q	10.22
Endosulfan II								
4,4'-DDD	9.77	±0.06	37789		9.75	40562	Q	7.3
Endrin Aldehyde								
Endosulfan Sulfate								
4,4'-DDT	12.59	±0.06	26008		12.57	28476	Q	9.5
Methoxychlor	18.09	±0.12	23496		18.06	27414	C	16.7
Endrin Ketone								
Tech. Chlordane								
alpha-Chlordane*								
gamma-Chlordane*								
Toxaphene								
Aroclor - 1016								
Aroclor - 1221								
Aroclor - 1232								
Aroclor - 1242								
Aroclor - 1248								
Aroclor - 1254								
Aroclor - 1260								

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* SEE EXHIBIT B, PART 7

** CONF. = CONFIRMATION (<20% DIFFERENCE)
QUANT. = QUANTITATION (~~<10%~~ 15% DIFFERENCE)

4/84

FORM IX

IL-0215-10

ecology and environment, inc.
223 WEST JACKSON BLVD., CHICAGO, ILLINOIS 60606, TEL. 312-663 9415
International Specialists in the Environmental Sciences

Date Received for Review: 5-9-85 Date Review Completed: 5-10-85

To: Steve Nelson

From: Cynthia Bachunas / Cindy Pugh

Subject: Mallard Lake Landfill (Illinois)

Sample Description: RS-8303-1D CASE 4130 Low Water Metals + Cyanide: MED097- MED305; only CN required for MED098 + metals for MED301

Project Data Status: Still awaiting Low Water Organics

FIT Data Review Findings:

Data acceptable with the following qualifications:

Blank (MED035) is contaminated with iron (157 ug/l), copper (35 ug/l), calcium (893 ug/l), aluminum (156 ug/l), magnesium (383 ug/l), manganese (5.6 ug/l), nickel (10 ug/l), sodium (1010 ug/l), and zinc (3.9 ug/l). Use this data with caution.

Additional Comments:

recycled paper

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

DATE: 5-2-85

SUBJECT: Review of Region V CLP Data
Received for Review on 5/2/85 RECEIVED MAY 9 1985

FROM: Curtis Ross, Director (5SCRL)
Central Regional Laboratory Jay Thakkar

TO: Data User: Fit

We have reviewed the data for the following case(s).

SITE NAME: Mallard Lake Landfill SMO Case No. 4130

EPA Data Set No. SF 2265 No. of Samples: 9 D.U./Activity Numbers 1A051C48500

CRL No. 85FN0454 - 85FN0453 20

SMO Traffic No. MED097-100 ; MED301-305

CLP Laboratory: RMAL Hrs. Required for Review: 1

Following are our findings.

This review covers 9 low concentration water samples. The spike recovery for Tl (60%) is biased low, and the Tl data is unusable.

Jan F. Pels
5/2/85

( ) Data are acceptable for use.
(x) Data are acceptable for use with qualifications noted above.
( ) Data are preliminary - pending verification by Contractor Laboratory.
( ) Data are unacceptable.

cc: Dr. Alfred Haeberer/Joan Fisk/Gary Ward, EPA Support Services
Ross K. Robeson, EMSL-Las Vegas
Don Trees, CLP/Sample Management Office

EPA FORM 1320-6 (REV 3-76)

REGION V, U.S. ENVIRONMENTAL PROTECTION AGENCY
ESD/Central Regional Laboratory

DATA TRACKING - FORM I

RECEIVED MAY 9 1985

CRL Data Set No. SF 2265 ERRIS No. _____

SMO Case No. 4130 Site Name: Mallard Lake Landfill

Name of Laboratory: RMAL Data User: Fit

No. of Samples: 9 Date Samples Received: 5/1/85

1. Have chain-of-custody records been received? YES ✓ NO ___
2. Have Traffic reports been received? YES ✓ NO ___
3. If no, are Traffic report numbers written on the chain-of-custody record? YES ___ NO ___
4. If no, which Traffic report numbers are missing?

5. Are basic data forms in? YES ✓ NO ___
6. Number of samples claimed: 9 Number of samples received: 9
7. Checked by: [illegible] Date: 5/2/85
8. Received by Contract Project Management Section: JFP Date: 5/2/85
9. Review Started: 5-2-85 Reviewer Signature: Jan F. Pelz
10. Total time spent on review: 1 hr Date review completed: 5-2-85
11. Copied (xeroxed) by: Willie E. Green Date: 5-8-85
12. Mailed to Data User by: _____ Date: _____

TO DATA USERS:

Please fill in the blanks and return this form to:

Charles Elly, DPO, Region V, 5SCRL

13. Data received by: Cynthia Pugh Date: 5-9-85
14. Q.A. review received by: Cynthia Pugh Date: 5-9-85
15. Received by CRL - CPM Section for file by: _____

Date: _____

Data rec'd for
MED097-1004
MED 301-305 Complete

U.S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

SF2265

RECEIVED MAY 9 1985

Date 4-29-85

COVER PAGE
INORGANIC ANALYSIS DATA PACKAGE

Lab Name ROCKY MOUNTAIN ANALYTICAL
Case No. 4130
SOW No. 784
QC Report No. 5744

Sample Numbers

EPA No.	Lab ID No.	EPA No.	Lab ID No.
MED097			
MED099			
MED100			
MED301			
MED302			
MED303			
MED304			
MED305			
MED098			

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MAY 1 1985
U.S. EPA, CENTRAL REGIONAL LAB.
536 S. CLARK STREET
CHICAGO, ILLINOIS 60605

Comments: 9 LOW WATERS FOR TASK 1&2+CN
ICP 10X SERIAL DILUTION FOR ~~SAM~~ EXO
SAMPLE MED304 IS IDENTIFIED AS
MED999

ICP Interelement and background corrections applied? Yes X No ___.
If yes, corrections applied before X or after ___ generation of raw data.

Footnotes:
NR - not required by contract at this time
Form I:
Value - If the result is a value greater than or equal to the instrument detection limit but less than the contract required detection limit, report the value in brackets (i.e., [10]). Indicate the method used with P (for ICP/Flame AA) or F (for furnace).
U - Indicates element was analyzed for but not detected. Report with the detection limit value (e.g., 10U).
E - Indicates a value estimated or not reported due to the presence of Interference. Explanatory note included on cover page.
s - Indicates value determined by Method of Standard Addition.
R - Indicates spike sample recovery is not within control limits.
* - Indicates duplicate analysis is not within control limits.
+ - Indicates the correlation coefficient for method of standard addition is Less than 0.995
CV - Indicates Cold Vapor
MS - Indicates Manual Spectrophotometric

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85FN04314

U.S. EPA Contract Laboratory Program
Sample Management Office
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703/557-2490 FTS: 8-557-2490

EPA Sample No.
MED097

Date 4-29-85

INORGANIC ANALYSIS DATA SHEET

LAB NAME ROCKY MOUNTAIN ANALYTICAL
SOW NO. 784
LAB SAMPLE ID. NO. -

CASE NO. 4130
QC REPORT NO. 5744

Elements Identified and Measured

Concentration: Low X Medium ____
Matrix: Water X Soil ____ Sludge ____ Other ____

ug/L

1.	ALUMINUM	[169]	P	13.	MAGNESIUM	14500	P
2.	ANTIMONY	46U	P	14.	MANGANESE	101	P
3.	ARSENIC	4u	F	15.	MERCURY	0.1u	CV
4.	BARIUM	[44]	P	16.	NICKEL	5U	P
5.	BERYLLIUM	0.5U	P	17.	POTASSIUM	[2150]	P
6.	CADMIUM	5U	P	18.	SELENIUM	5u	F
7.	CALCIUM	35800	P	19.	SILVER	4U	P
8.	CHROMIUM	4U	P	20.	SODIUM	53600	P
9.	COBALT	7U	P	21.	THALLIUM	10u	F R
10.	COPPER	4U	P	22.	TIN	36U	P R
11.	IRON	222	P	23.	VANADIUM	4U	P
12.	LEAD	12	F	24.	ZINC	[14]	P

Cyanide 10u MS Percent Solids (%) ____

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments:

Lab Manager [illegible]

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85EN04515

U.S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No. ME0098

Date 4-29-85

INORGANIC ANALYSIS DATA SHEET

LAB NAME ROCKY MOUNTAIN ANALYTICAL
SOW NO. 784
LAB SAMPLE ID. NO. -

CASE NO. 4130
SC REPORT NO. 5744

Elements Identified and Measured

Concentration: Low X Medium ____
Matrix: Water X Soil ____ Sludge ____ Other ____

ug/L

1.	ALUMINUM	NA	P	13.	MAGNESIUM	NA	P
2.	ANTIMONY	NA	P	14.	MANGANESE	NA	P
3.	ARSENIC	NA	F	15.	MERCURY	NA	CV
4.	BARIUM	NA	P	16.	NICKEL	NA	P
5.	BERYLLIUM	NA	P	17.	POTASSIUM	NA	P
6.	CADMIUM	NA	P	18.	SELENIUM	NA	F
7.	CALCIUM	NA	P	19.	SILVER	NA	P
8.	CHROMIUM	NA	P	20.	SODIUM	NA	P
9.	COBALT	NA	P	21.	THALLIUM	NA	F
10.	COPPER	NA	P	22.	TIN	NA	P
11.	IRON	NA	P	23.	VANADIUM	NA	P
12.	LEAD	NA		24.	ZINC	NA	P

Cyanide 10u

Percent Solids (%)

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes [illegible] are encouraged. Definition of result flags and [illegible] are defined on Cover Page, however.

Region 5 requested that sample ME0098 be analyzed for CN- only.

Lab Manager JM

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85EN04516

U.S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No.
MED099

Date 4-29-85

INORGANIC ANALYSIS DATA SHEET

LAB NAME ROCKY MOUNTAIN ANALYTICAL
SOW NO. 784
LAB SAMPLE ID. NO. -

CASE NO. 4130
QC REPORT NO. 5744

Elements Identified and Measured

Concentration: Low X Medium ____
Matrix: Water X Soil ____ Sludge ____ Other ____

ug/L

1.	ALUMINUM	[90]	P	13.	MAGNESIUM	106000	P
2.	ANTIMONY	46U	P	14.	MANGANESE	1020	P
3.	ARSENIC	4u	F	15.	MERCURY	0.1u	CV
4.	BARIUM	[44]	P	16.	NICKEL	[10]	P
5.	BERYLLIUM	0.5U	P	17.	POTASSIUM	14600	P
6.	CADMIUM	5U	P	18.	SELENIUM	50u	F
7.	CALCIUM	223000	P	19.	SILVER	4U	P
8.	CHROMIUM	[4.7]	P	20.	SODIUM	62900	P
9.	COBALT	7U	P	21.	THALLIUM	10u	F R
10.	COPPER	4U	P	22.	TIN	36U	P R
11.	IRON	2210	P	23.	VANADIUM	4U	P
12.	LEAD	50u	F	24.	ZINC	[13]	P

Cyanide 10u MS Percent Solids (%) ____

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments:

Lab Manager JM

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85EN04517

U.S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No. MED100

Date 4-29-85

INORGANIC ANALYSIS DATA SHEET

LAB NAME ROCKY MOUNTAIN ANALYTICAL
SOW NO. 784
LAB SAMPLE ID. NO. -

CASE NO. 4130
QC REPORT NO. 5744

Elements Identified and Measured

Concentration: Low X Medium ____
Matrix: Water X Soil ____ Sludge ____ Other ____

ug/L

1.	ALUMINUM	315	P	13.	MAGNESIUM	136000	P
2.	ANTIMONY	46U	P	14.	MANGANESE	185	P
3.	ARSENIC	4u	F	15.	MERCURY	0.1u	CV
4.	BARIUM	[23]	P	16.	NICKEL	[7.4]	P
5.	BERYLLIUM	0.5U	P	17.	POTASSIUM	5390	P
6.	CADMIUM	5U	P	18.	SELENIUM	50u	F
7.	CALCIUM	302000	P	19.	SILVER	4U	P
8.	CHROMIUM	4U	P	20.	SODIUM	25600	P
9.	COBALT	7U	P	21.	THALLIUM	10u	F R
10.	COPPER	[4.2]	P	22.	TIN	36U	P R
11.	IRON	591	P	23.	VANADIUM	4U	P
12.	LEAD	50u	F	24.	ZINC	26	P

Cyanide 10u MS Percent Solids (%) ____

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments: ____

Lab Manager JM

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85FN04/5/8

U.S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No.
MED301

Date 4-29-85

INORGANIC ANALYSIS DATA SHEET

LAB NAME ROCKY MOUNTAIN ANALYTICAL
SOW NO. 784
LAB SAMPLE ID. NO. -

CASE NO. 4130
QC REPORT NO. 5744

Elements Identified and Measured

Concentration: Low X Medium ____
Matrix: Water X Soil ____ Sludge ____ Other ____

ug/L

1.	ALUMINUM	[66]	P	13.	MAGNESIUM	330U	P
2.	ANTIMONY	46U	P	14.	MANGANESE	3U	P
3.	ARSENIC	4u	F	15.	MERCURY	0.1u	CV
4.	BARIUM	[22]	P	16.	NICKEL	5U	P
5.	BERYLLIUM	0.5U	P	17.	POTASSIUM	13500	P
6.	CADMIUM	5U	P	18.	SELENIUM	5u	F
7.	CALCIUM	23300	P	19.	SILVER	4U	P
8.	CHROMIUM	4U	P	20.	SODIUM	48600	P
9.	COBALT	7U	P	21.	THALLIUM	10u	F R
10.	COPPER	4U	P	22.	TIN	36U	P R
11.	IRON	[73]	P	23.	VANADIUM	4U	P
12.	LEAD	5u	F	24.	ZINC	[5.4]	P

Cyanide NA MS Percent Solids (%) ____

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments: Region 5 requested that Sample MED301 be analyzed for Tasks 1 and 2 only.

Lab Manager JW

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85FN04519

U.S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No.
MED302

Date 4-29-85

INORGANIC ANALYSIS DATA SHEET

LAB NAME ROCKY MOUNTAIN ANALYTICAL
SOW NO. 784
LAB SAMPLE ID. NO. -

CASE NO. 4130
QC REPORT NO. 5744

Elements Identified and Measured

Concentration: Low X Medium ____
Matrix: Water X Soil ____ Sludge ____ Other ____

ug/L

1.	ALUMINUM	206	P	13.	MAGNESIUM	41000	P
2.	ANTIMONY	46U	P	14.	MANGANESE	168	P
3.	ARSENIC	4u	F	15.	MERCURY	0.1u	CV
4.	BARIUM	[65]	P	16.	NICKEL	5U	P
5.	BERYLLIUM	0.5U	P	17.	POTASSIUM	[3680]	P
6.	CADMIUM	5U	P	18.	SELENIUM	5u	F
7.	CALCIUM	93600	P	19.	SILVER	4U	P
8.	CHROMIUM	4U	P	20.	SODIUM	28900	P
9.	COBALT	7U	P	21.	THALLIUM	10u	F R
10.	COPPER	4U	P	22.	TIN	36U	P R
11.	IRON	275	P	23.	VANADIUM	4U	P
12.	LEAD	5u	F	24.	ZINC	[6]	P

Cyanide 10u MS Percent Solids (%) ____

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments: ____

Lab Manager JM

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85FN04520

U.S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No.
MED303

Date 4-29-85

INORGANIC ANALYSIS DATA SHEET

LAB NAME ROCKY MOUNTAIN ANALYTICAL
SOW NO. 784
LAB SAMPLE ID. NO. -

CASE NO. 4130
QC REPORT NO. 5744

Elements Identified and Measured

Concentration: Low X Medium ____
Matrix: Water X Soil ____ Sludge ____ Other ____

ug/L

1.	ALUMINUM	23U	P	13.	MAGNESIUM	101000	P
2.	ANTIMONY	46U	P	14.	MANGANESE	41	P
3.	ARSENIC	4u	F	15.	MERCURY	0.1u	CV
4.	BARIUM	[57]	P	16.	NICKEL	[9.4]	P
5.	BERYLLIUM	0.5U	P	17.	POTASSIUM	18600	P
6.	CADMIUM	5U	P	18.	SELENIUM	50u	F
7.	CALCIUM	216000	P	19.	SILVER	4U	P
8.	CHROMIUM	4U	P	20.	SODIUM	19400	P
9.	COBALT	7U	P	21.	THALLIUM	10u	F R
10.	COPPER	[6]	P	22.	TIN	36U	P R
11.	IRON	[52]	P	23.	VANADIUM	4U	P
12.	LEAD	50u	F	24.	ZINC	43	P

Cyanide 10u MS Percent Solids (%) ____

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments:

Lab Manager JM

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85F1N04D20

U.S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No.
MED304

Date 4-29-85

INORGANIC ANALYSIS DATA SHEET

LAB NAME ROCKY MOUNTAIN ANALYTICAL
SOW NO. 784
LAB SAMPLE ID. NO. -

CASE NO. 4130
QC REPORT NO. 5744

Elements Identified and Measured

Concentration: Low X Medium ____
Matrix: Water X Soil ____ Sludge ____ Other ____

ug/L

1.	ALUMINUM	23U	P	13.	MAGNESIUM	100000	P
2.	ANTIMONY	46U	P	14.	MANGANESE	40	P
3.	ARSENIC	4u	F	15.	MERCURY	0.1u	CV
4.	BARIUM	[58]	P	16.	NICKEL	[9.9]	P
5.	BERYLLIUM	0.5U	P	17.	POTASSIUM	18500	P
6.	CADMIUM	5U	P	18.	SELENIUM	50u	F
7.	CALCIUM	214000	P	19.	SILVER	4U	P
8.	CHROMIUM	4U	P	20.	SODIUM	19000	P
9.	COBALT	7U	P	21.	THALLIUM	10u	F R
10.	COPPER	[6.3]	P	22.	TIN	36U	P R
11.	IRON	[55]	P	23.	VANADIUM	4U	P
12.	LEAD	50u	F	24.	ZINC	40	P

Cyanide 10u MS Percent Solids (%) ____

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments: ____

Lab Manager JM

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85FN04R02

U.S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No. MED305

Date 4-29-85

INORGANIC ANALYSIS DATA SHEET

LAB NAME ROCKY MOUNTAIN ANALYTICAL
SOW NO. 784
LAB SAMPLE ID. NO. -

CASE NO. 4130
QC REPORT NO. 5744

Elements Identified and Measured

Concentration: Low X Medium ____
Matrix: Water X Soil ____ Sludge ____ Other ____

ug/L

1.	ALUMINUM	[156]	P	13.	MAGNESIUM	[383]	P
2.	ANTIMONY	46U	P	14.	MANGANESE	[5.6]	P
3.	ARSENIC	4u	F	15.	MERCURY	0.1u	CV
4.	BARIUM	12U	P	16.	NICKEL	[10]	P
5.	BERYLLIUM	0.5U	P	17.	POTASSIUM	470U	P
6.	CADMIUM	5U	P	18.	SELENIUM	5u	F
7.	CALCIUM	[893]	P	19.	SILVER	4U	P
8.	CHROMIUM	4U	P	20.	SODIUM	[1610]	P
9.	COBALT	7U	P	21.	THALLIUM	4u	F R
10.	COPPER	35	P	22.	TIN	36U	P R
11.	IRON	157	P	23.	VANADIUM	4U	P
12.	LEAD	2u	F	24.	ZINC	[3.9]	P

Cyanide 10u MS Percent Solids (%) ____

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments: BLANK

Lab Manager JM

SF2265

Case: 4130

Contractor: RMAL

DATA PACKAGE COMPLETENESS AUDIT

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I. Cover Page

✓ The cover page must include general comments, Statement of Work Number, QC Report #, EPA cross reference numbers, footnotes used in the data package, and the statement on ICP corrections.

II. Inorganic Data Report Sheet - Form I

A completed Form I must be submitted for every sample in that case.

✓ Proper matrix and concentration level indicated.

✓ % solids reported for solid samples.

✓ Analytical method code for each parameter. "P" for ICP/flame AA or "F" for furnace.

✓ Any dilutions affecting the IDL explained in the comment section.

___ For positive values less than the contract required detection limit, the value is put in brackets. [ ].

✓ For not detected, the detection limit is reported, followed by a "U".

✓ Lab manager's signature.

III. QA/QC Data

The following forms must be submitted. A check for completeness and and compliance follows in this audit.

✓ Initial and Continuing Calibration Verification - Form II.

✓ Blank data - Form III

✓ ICP Interference Check Sample - Form IV

✓ Spike Sample Recovery - Form V

✓ Duplicate Data - Form VI

✓ Instrument Detection Limit and Laboratory Control Sample - Form VII.

___ Standard Addition Results - Form VIII

IV. Raw Data

A legible photocopy of raw data consisting of the sequential measurement readout record, such as an instrument tape or printout, clearly labeled with sufficient information to identify both the sample identity and the final result must be submitted for each of the following.

✓ calibration standards, with prep date.

✓ calibration and preparation blanks

✓ initial and continuing calibration

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✓ interference check samples, initial and continuing.

✓ duplicates

✓ spikes - indicating standard solutions used, final spike concentrations and volumes involved.

✓ samples - including all weights, dilutions and volumes used to obtain the reported value.

✓ instrument adjustments or corrections, if any.

✓ raw furnace data for:

- initial single spike data
- single spike % recovery, if used
- full method of standard addition, if performed.
- method of standard addition correlation coefficient, slope and intercept of linear fit.

V. Sample Traffic Report

✓ Copy of SMO Sample Traffic Report with lab receipt information and original contractor signature.

CASE NO [illegible] DATASET # [illegible] DATA REVIEW SHEET

LAB: RMAL LAB QC # 5744

SITE Mallard Lake L.F. CONC: L 9 M — H — MATRIX: W 9 S — EPA SAMPLE FOR SPIKE MED 303 FOR DUP MED 302

DATE: 5-2-85 REVIEWED BY Jan F. Pels

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Metals:	CALIBRATION INITIAL	CALIBRATION CONT	CALIBRATION CONT	CALIBRATION CONT	BLANKS CONT.	BLANKS PREP. 1	BLANKS PREP. 2	ICP INTERFERENCE INIT	ICP INTERFERENCE FINAL	SPIKE 1	SPIKE 2	DUPLICATE 1	DUPLICATE 2	LCS SOLID	LCS LIQ		
1. Aluminum																	
2. Antimony																	
3. Arsenic																	
4. Barium																	
5. Beryllium																	
6. Cadmium																	
7. Calcium																	
8. Chromium																	
9. Cobalt																	
10. Copper																	
11. Iron																	
12. Lead																	
13. Magnesium																	
14. Manganese																	
15. Mercury																	
16. Nickel																	
17. Potassium																	
18. Selenium																	
19. Silver																	
20. Sodium																	
21. Thallium										60%							
22. Vanadium																	
23. Zinc																	
24. Cyanide																	
Other:																	

Q.C. Report No. 5744

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BLANKS

LAB NAME ROCKY MOUNTAIN ANALYTICAL CASE NO. 4130

DATE 4-29-85 UNITS ug/L

Matrix WATER

Preparation Compound	Initial Calibration Blank Value	Continuing Calibration Blank Value 1	2	3	4	Preparation Blank 1	2
Metals:							
1. ALUMINUM	23U	23U				23U	
2. ANTIMONY	46U	46U				46U	
3. ARSENIC	4u	4u	4u			4u	
4. BARIUM	12U	12U				12U	
5. BERYLLIUM	0.5U	0.5U				0.5U	
6. CADMIUM	5U	5U				5U	
7. CALCIUM	290U	290U				[339]	
8. CHROMIUM	4U	4U				4U	
9. COBALT	7U	7U				7U	
10. COPPER	4U	4U				4U	
11. IRON	11U	11U				[27]	
F 12. LEAD	2u	2u	2u			2u	
13. MAGNESIUM	330U	330U				330U	
14. MANGANESE	3U	3U				3U	
15. MERCURY	0.1u	0.1u	0.1u			0.1u	
16. NICKEL	5U	5U				5U	
17. POTASSIUM	470U	470U				470U	
18. SELENIUM	2u	2u	2u			2u	
19. SILVER	4U	4U				4U	
20. SODIUM	880U	880U				880U	
21. THALLIUM	4u	4u	4u			4u	
22. TIN	36U	36U				36U	
23. VANADIUM	4U	4U				4U	
24. ZINC	2U	2U				[4.2]	
Other:							
Cyanide	10u	10u	10u			10u	

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Q.C. Report No. 5744

SPIKE SAMPLE RECOVERY

LAB NAME ROCKY MOUNTAIN ANALYTICAL

DATE 4-29-85

CASE NO. 4130

EPA Sample No. MED303

Lab Sample ID No. -

Units ug/L

MATRIX WATER

Compound	Control Limit %R	Spiked Sample Result (SSR)	Sample Result (SR)	Spiked Added (SA)	%R	
Metals:						
1. ALUMINUM	75-125	1960	23U	2000	98	
2. ANTIMONY	75-125	462	46U	500	92	
3. ARSENIC	75-125	20	4u	20	100	
4. BARIUM	75-125	1980	[57]	2000	96	
5. BERYLLIUM	75-125	50	0.5U	50	100	
6. CADMIUM	75-125	57	5U	50	114	
7. CALCIUM	75-125	306000	216000	100000	90	
8. CHROMIUM	75-125	203	4U	200	102	
9. COBALT	75-125	497	7U	500	99	
10. COPPER	75-125	246	[6]	250	96	
11. IRON	75-125	1010	[52]	1000	96	
12. LEAD	75-125	50u	50u	20	NC	
13. MAGNESIUM	75-125	149000	101000	50000	96	
14. MANGANESE	75-125	233	41	200	96	
15. MERCURY	75-125	1.05	0.1u	1	105	
16. NICKEL	75-125	400	[9.4]	400	98	
17. POTASSIUM	75-125	71000	18600	50000	105	
18. SELENIUM	75-125	5u	5u	10	NC	
19. SILVER	75-125	40	4U	50	80	
20. SODIUM	75-125	119000	19400	100000	100	
21. THALLIUM	75-125	30	10u	50	60	R
22. TIN	75-125	245	36U	400	61	R
23. VANADIUM	75-125	493	4U	500	99	
24. ZINC	75-125	229	43	200	93	
Other:						
Cyanide	75-125	118	10u	100	118	

[1] %R = [(SSR - SR)/SA] x 100

"R"- out of control

Comments:

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Q.C. Report No. 5744
DUPLICATES

LAB NAME ROCKY MOUNTAIN ANALYTICAL

CASE NO. 4130
EPA Sample No. MED302
Lab Sample ID No. -
Units ug/L

DATE 4-29-85

Matrix WATER

Compound	Control Limit[1]	Sample(S)	Duplicate(D)	RPD[2]
Metals:				
1. ALUMINUM		206	207	0.48
2. ANTIMONY		46U	46U	NC
3. ARSENIC		4u	4u	NC
4. BARIUM		[65]	[64]	NC
5. BERYLLIUM		0.5U	0.5U	NC
6. CADMIUM		5U	5U	NC
7. CALCIUM		93600	92500	1.2
8. CHROMIUM		4U	[4.3]	NC
9. COBALT		7U	7U	NC
10. COPPER		4U	4U	NC
11. IRON		275	267	3
12. LEAD		5u	5u	NC
13. MAGNESIUM		41000	40500	1.2
14. MANGANESE		168	167	0.6
15. MERCURY		0.1u	0.1u	NC
16. NICKEL		5U	5U	NC
17. POTASSIUM		[3680]	[3620]	NC
18. SELENIUM		5u	5u	NC
19. SILVER		4U	4U	NC
20. SODIUM		28900	29000	0.35
21. THALLIUM		10u	10u	NC
22. TIN		36U	36U	NC
23. VANADIUM		4U	4U	NC
24. ZINC		[6]	[6.7]	NC
Other:				
Cyanide		10u	10u	NC

* Out of Control

[1] To be added at a later date.

[2] RPD = [|S-D|/((S+D)/2)] x 100

NC - Non calculable RPD due to value(s) less than CRDL

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Q.C. Report No. 5744
INSTRUMENT DETECTION LIMITS AND
LABORATORY CONTROL SAMPLE

LAB NAME ROCKY MOUNTAIN ANALYTICAL
DATE 4-29-85

CASE NO 4130
UNITS ug/L

Compound	Required Detection Limits (CRDL)-ug/l	Instrument Detection Limits (IDL)-ug/l ICP/AA	Furnace	Lab Control Sample True	Found	%R
Metals:						
1. ALUMINUM	200	23		500	542	108
2. ANTIMONY	60	46		500	486	97
3. ARSENIC	10		4	53	52	98
4. BARIUM	200	12		500	476	95
5. BERYLLIUM	5	0.5		100	100	100
6. CADMIUM	5	5		100	99	99
7. CALCIUM	5000	290		100000	102000	102
8. CHROMIUM	10	4		100	99	99
9. COBALT	50	7		100	99	99
10. COPPER	25	4		100	106	106
11. IRON	100	11		500	539	108
F 12. LEAD	5	23	2	216	205	95
13. MAGNESIUM	5000	330		100000	98700	99
14. MANGANESE	15	3		100	95	95
15. MERCURY	0.2		.10CV	1.00	1.02	102
16. NICKEL	40	5		100	107	107
17. POTASSIUM	5000	470		100000	103000	103
18. SELENIUM	5		2	38	36	95
19. SILVER	10	4		100	104	104
20. SODIUM	5000	880		100000	99200	99
21. THALLIUM	10		4	50	53	106
22. TIN	40	36		500	510	102
23. VANADIUM	50	4		100	95	95
24. ZINC	20	2		100	106	106
Other:						
Cyanide	10		10MS	76	68	89

CV - Cold Vapor
MS - Manual Spectrophotometer

ecology and environment, inc.
223 WEST JACKSON BLVD., CHICAGO, ILLINOIS 60606, TEL. 312-663 9415
International Specialists in the Environmental Sciences

Date Received for Review: 5-9-85 Date Review Completed: 5-10-85

To: Steve Nelson

From: Cynthia Bachunas / Cindy Pugh

Subject: Mallard Lake Landfill (Illinois)

RS-8303-1D

Sample Description: CASE 4130 Low Water Metals + Cyanide: MED097- MED305; only CN required for MED098 + metals for MED301

Project Data Status: Still awaiting Low Water Organics

FIT Data Review Findings:

Data acceptable with the following qualifications:

Blank (MED035) is contaminated with iron (157 ug/l), copper (35 ug/l), calcium (893 ug/l), aluminum (156 ug/l), magnesium (383 ug/l), manganese (5.6 ug/l), nickel (10 ug/l), sodium (1610 ug/l), and zinc (3.9 ug/l). Use this data with caution.

Additional Comments:

recycled paper

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

DATE: 5-2-85

SUBJECT: Review of Region V CLP Data
Received for Review on 5/2/85 RECEIVED MAY 9 1985

FROM: Curtis Ross, Director (5SCRL)
Central Regional Laboratory Jay Thakker

TO: Data User: Fit

We have reviewed the data for the following case(s).

SITE NAME: Mallard Lake Landfill SMO Case No. 4130

EPA Data Set No. SF 2265 No. of Samples: 9 D.U./Activity Numbers 4051C47500

CRL No. 85FN0454 - 85FN0452O

SMO Traffic No. MED097-100 ; MED301-305

CLP Laboratory: RMAL Hrs. Required for Review: 1

Following are our findings.

This review covers 9 low concentration water samples. The spike recovery for Tl (60%) is biased low, and the Tl data is unusable.

Jan F. Pels
5/2/85

( ) Data are acceptable for use.
(x) Data are acceptable for use with qualifications noted above.
( ) Data are preliminary - pending verification by Contractor Laboratory.
( ) Data are unacceptable.

cc: Dr. Alfred Haeberer/Joan Fisk/Gary Ward, EPA Support Services
Ross K. Robeson, EMSL-Las Vegas
Don Trees, CLP/Sample Management Office

EPA FORM 1320-6 (REV 3-76)

REGION V, U.S. ENVIRONMENTAL PROTECTION AGENCY
ESD/Central Regional Laboratory

DATA TRACKING - FORM I

RECEIVED MAY 9 1985

CRL Data Set No. SF 2265 ERRIS No. _____

SMO Case No. 4130 Site Name: Mallard Lake Landfill

Name of Laboratory: RMAL Data User: Fit

No. of Samples: 9 Date Samples Received: 5/1/85

1. Have chain-of-custody records been received? YES ✓ NO ___
2. Have Traffic reports been received? YES ✓ NO ___
3. If no, are Traffic report numbers written on the chain-of-custody record? YES ___ NO ___
4. If no, which Traffic report numbers are missing?

5. Are basic data forms in? YES ✓ NO ___
6. Number of samples claimed: 9 Number of samples received: 9
7. Checked by: [illegible] Date: 5/2/85
8. Reteived by Contract Project Management Section: JFP Date: 5/2/85
9. Review Started: 5-2-85 Reviewer Signature: Jan F. Pels
10. Total time spent on review: 1 hr Date review completed: 5-2-85
11. Copied (xeroxed) by: Willie E. Green Date: 5-8-85
12. Mailed to Data User by: _____ Date: _____

TO DATA USERS:

Please fill in the blanks and return this form to:

Charles Elly, DPO, Region V, SSCRL

13. Data received by: Cynthia Pugh Date: 5-9-85
14. Q.A. review received by: Cynthia Pugh Date: 5-9-85
15. Received by CRL - CPM Section for file by: _____

Date: _____

Data rec'd for
MED097-1004
MED 301-305 Complete

U.S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

SF2265

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Date 4-29-85

COVER PAGE
INORGANIC ANALYSIS DATA PACKAGE

Lab Name ROCKY MOUNTAIN ANALYTICAL
Case No. 4130
SOW No. 784
QC Report No. 5744

Sample Numbers

EPA No.	Lab ID No.	EPA No.	Lab ID No.
MED097			
MED099			
MED100			
MED301			
MED302			
MED303			
MED304			
MED305			
MED098			

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MAY 1 1985
U.S. EPA, CENTRAL REGIONAL LAB.
536 S. CLARK STREET
CHICAGO, ILLINOIS 60605

Comments: 9 LOW WATERS FOR TASK 1&2+CN
ICP 10X SERIAL DILUTION FOR ~~SAM~~ MED
SAMPLE MED304 IS IDENTIFIED AS
MED999

ICP Interelement and background corrections applied? Yes X No ___.
If yes, corrections applied before X or after ___ generation of raw data.

Footnotes:
NR - not required by contract at this time
Form I:
Value - If the result is a value greater than or equal to the instrument detection limit but less than the contract required detection limit, report the value in brackets (i.e., [10]). Indicate the method used with P (for ICP/Flame AA) or F (for furnace).
U - Indicates element was analyzed for but not detected. Report with the detection limit value (e.g., 10U).
E - Indicates a value estimated or not reported due to the presence of Interference. Explanatory note included on cover page.
s - Indicates value determined by Method of Standard Addition.
R - Indicates spike sample recovery is not within control limits.
* - Indicates duplicate analysis is not within control limits.
+ - Indicates the correlation coefficient for method of standard addition is Less than 0.995
CV - Indicates Cold Vapor
MS - Indicates Manual Spectrophotometric

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85FN04314

U.S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No.
MED097

Date 4-29-85

INORGANIC ANALYSIS DATA SHEET

LAB NAME ROCKY MOUNTAIN ANALYTICAL
SOW NO. 784
LAB SAMPLE ID. NO. -

CASE NO. 4130
QC REPORT NO. 5744

Elements Identified and Measured

Concentration: Low X Medium ____
Matrix: Water X Soil ____ Sludge ____ Other ____

ug/L

1.	ALUMINUM	[169] J	P	13.	MAGNESIUM	14500	P
2.	ANTIMONY	46U	P	14.	MANGANESE	101	P
3.	ARSENIC	4u	F	15.	MERCURY	0.1u	CV
4.	BARIUM	[44] J	P	16.	NICKEL	5U	P
5.	BERYLLIUM	0.5U	P	17.	POTASSIUM	[2150]	P
6.	CADMIUM	5U	P	18.	SELENIUM	5u	F
7.	CALCIUM	35800	P	19.	SILVER	4U	P
8.	CHROMIUM	4U	P	20.	SODIUM	53600	P
9.	COBALT	7U	P	21.	THALLIUM	10u	F R
10.	COPPER	4U	P	22.	TIN	36U	P R
11.	IRON	222	P	23.	VANADIUM	4U	P
12.	LEAD	12	F	24.	ZINC	[14]	P

Cyanide 10u MS Percent Solids (%) ____

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments: ____

Lab Manager ____

RECEIVED MAY 9 1985

85FN04515

U.S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No. MED098

Date 4-29-85

INORGANIC ANALYSIS DATA SHEET

LAB NAME ROCKY MOUNTAIN ANALYTICAL
SOW NO. 7S4
LAB SAMPLE ID. NO. -

CASE NO. 4130
GC REPORT NO. 5744

Elements Identified and Measured

Concentration: Low X Medium ____
Matrix: Water X Soil ____ Sludge ____ Other ____

ug/L

1.	ALUMINUM	NA	P	13.	MAGNESIUM	NA	P
2.	ANTIMONY	NA	P	14.	MANGANESE	NA	P
3.	ARSENIC	NA	F	15.	MERCURY	NA	CV
4.	BARIUM	NA	P	16.	NICKEL	NA	P
5.	BERYLLIUM	NA	P	17.	POTASSIUM	NA	P
6.	CADMIUM	NA	P	18.	SELENIUM	NA	P
7.	CALCIUM	NA	P	19.	SILVER	NA	P
8.	CHROMIUM	NA	P	20.	SODIUM	NA	P
9.	COBALT	NA	P	21.	THALLIUM	NA	F
10.	COPPER	NA	P	22.	TIN	NA	P
11.	IRON	NA	P	23.	VANADIUM	NA	P
12.	LEAD	NA		24.	ZINC	NA	P

Cyanide 10u Percent Solids (%) ____

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments: Region 5 requested that sample MED098 be analyzed for CN- only.

Lab Manager JM

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85EN04516

U.S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No.
MED099

Date 4-29-85

INORGANIC ANALYSIS DATA SHEET

LAB NAME ROCKY MOUNTAIN ANALYTICAL
SOW NO. 784
LAB SAMPLE ID. NO. -

CASE NO. 4130
QC REPORT NO. 5744

Elements Identified and Measured

Concentration: Low X Medium ____
Matrix: Water X Soil ____ Sludge ____ Other ____

ug/L

1.	ALUMINUM	[90]	P	13.	MAGNESIUM	106000	P
2.	ANTIMONY	46U	P	14.	MANGANESE	1020	P
3.	ARSENIC	4u	F	15.	MERCURY	0.1u	CV
4.	BARIUM	[44]	P	16.	NICKEL	[10]	P
5.	BERYLLIUM	0.5U	P	17.	POTASSIUM	14600	P
6.	CADMIUM	5U	P	18.	SELENIUM	50u	F
7.	CALCIUM	223000	P	19.	SILVER	4U	P
8.	CHROMIUM	[4.7]	P	20.	SODIUM	62900	P
9.	COBALT	7U	P	21.	THALLIUM	10u	F R
10.	COPPER	4U	P	22.	TIN	36U	P R
11.	IRON	2210	P	23.	VANADIUM	4U	P
12.	LEAD	50u	F	24.	ZINC	[13]	P

Cyanide 10u MS Percent Solids (%) ____

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments: ____

Lab Manager JM

RECEIVED MAY 9 1985

85FN04517

U.S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No.
MED100

Date 4-29-85

INORGANIC ANALYSIS DATA SHEET

LAB NAME ROCKY MOUNTAIN ANALYTICAL
SOW NO. 784
LAB SAMPLE ID. NO. -

CASE NO. 4130
QC REPORT NO. 5744

Elements Identified and Measured

Concentration: Low X Medium ____
Matrix: Water X Soil ____ Sludge ____ Other ____

ug/L

1.	ALUMINUM	315	P	13.	MAGNESIUM	136000	P
2.	ANTIMONY	46U	P	14.	MANGANESE	185	P
3.	ARSENIC	4u	F	15.	MERCURY	0.1u	CV
4.	BARIUM	[23]	P	16.	NICKEL	[7.4]	P
5.	BERYLLIUM	0.5U	P	17.	POTASSIUM	5390	P
6.	CADMIUM	5U	P	18.	SELENIUM	50u	F
7.	CALCIUM	302000	P	19.	SILVER	4U	P
8.	CHROMIUM	4U	P	20.	SODIUM	25600	P
9.	COBALT	7U	P	21.	THALLIUM	10u	F R
10.	COPPER	[4.2]	P	22.	TIN	36U	P R
11.	IRON	591	P	23.	VANADIUM	4U	P
12.	LEAD	50u	F	24.	ZINC	26 ✓	P

Cyanide 10u MS Percent Solids (%) ____

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments: ____

Lab Manager JM

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85FN04518

U.S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No.
MED301

Date 4-29-85

INORGANIC ANALYSIS DATA SHEET

LAB NAME ROCKY MOUNTAIN ANALYTICAL
SOW NO. 784
LAB SAMPLE ID. NO. -

CASE NO. 4130
QC REPORT NO. 5744

Elements Identified and Measured

Concentration: Low X Medium ____
Matrix: Water X Soil ____ Sludge ____ Other ____

ug/L

1.	ALUMINUM	[66]	P	13.	MAGNESIUM	330U	P
2.	ANTIMONY	46U	P	14.	MANGANESE	3U	P
3.	ARSENIC	4u	F	15.	MERCURY	0.1u	CV
4.	BARIUM	[22]	P	16.	NICKEL	5U	P
5.	BERYLLIUM	0.5U	P	17.	POTASSIUM	13500	P
6.	CADMIUM	5U	P	18.	SELENIUM	5u	F
7.	CALCIUM	23300	P	19.	SILVER	4U	P
8.	CHROMIUM	4U	P	20.	SODIUM	48600	P
9.	COBALT	7U	P	21.	THALLIUM	10u	F R
10.	COPPER	4U	P	22.	TIN	36U	P R
11.	IRON	[73]	P	23.	VANADIUM	4U	P
12.	LEAD	5u	F	24.	ZINC	[5.4]	P

Cyanide NA MS Percent Solids (%) ____

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments: Region 5 requested that Sample MED301 be analyzed for Tasks 1 and 2 only.

Lab Manager JW

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85FN04519

U.S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No. MED302

Date 4-29-85

INORGANIC ANALYSIS DATA SHEET

LAB NAME ROCKY MOUNTAIN ANALYTICAL
SOW NO. 784
LAB SAMPLE ID. NO. -

CASE NO. 4130
QC REPORT NO. 5744

Elements Identified and Measured

Concentration: Low X Medium ____
Matrix: Water X Soil ____ Sludge ____ Other ____

ug/L

1.	ALUMINUM	206	P	13.	MAGNESIUM	41000	P
2.	ANTIMONY	46U	P	14.	MANGANESE	168	P
3.	ARSENIC	4u	F	15.	MERCURY	0.1u	CV
4.	BARIUM	[65]	P	16.	NICKEL	5U	P
5.	BERYLLIUM	0.5U	P	17.	POTASSIUM	[3680]	P
6.	CADMIUM	5U	P	18.	SELENIUM	5u	F
7.	CALCIUM	93600	P	19.	SILVER	4U	P
8.	CHROMIUM	4U	P	20.	SODIUM	28900	P
9.	COBALT	7U	P	21.	THALLIUM	10u	F R
10.	COPPER	4U	P	22.	TIN	36U	P R
11.	IRON	275	P	23.	VANADIUM	4U	P
12.	LEAD	5u	F	24.	ZINC	[6]	P

Cyanide 10u MS Percent Solids (%) ____

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments: ____

Lab Manager JM

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85FN04520

U.S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No. MED303

Date 4-29-85

INORGANIC ANALYSIS DATA SHEET

LAB NAME ROCKY MOUNTAIN ANALYTICAL
SOW NO. 784
LAB SAMPLE ID. NO. -

CASE NO. 4130
QC REPORT NO. 5744

Elements Identified and Measured

Concentration: Low X Medium ____
Matrix: Water X Soil ____ Sludge ____ Other ____

ug/L

1.	ALUMINUM	23U	P	13.	MAGNESIUM	101000	P
2.	ANTIMONY	46U	P	14.	MANGANESE	41	P
3.	ARSENIC	4u	F	15.	MERCURY	0.1u	CV
4.	BARIUM	[57]	P	16.	NICKEL	[9.4]	P
5.	BERYLLIUM	0.5U	P	17.	POTASSIUM	18600	P
6.	CADMIUM	5U	P	18.	SELENIUM	5Du	F
7.	CALCIUM	216000	P	19.	SILVER	4U	P
8.	CHROMIUM	4U	P	20.	SODIUM	19400	P
9.	COBALT	7U	P	21.	THALLIUM	10u	F R
10.	COPPER	[6]	P	22.	TIN	36U	P R
11.	IRON	[52]	P	23.	VANADIUM	4U	P
12.	LEAD	50u	F	24.	ZINC	43 ✓	P

Cyanide 10u MS Percent Solids (%) ____

Footnotes; For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments: ____

Lab Manager JM

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85FN04D20

U.S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No. MED304

Date 4-29-85

INORGANIC ANALYSIS DATA SHEET

LAB NAME ROCKY MOUNTAIN ANALYTICAL
SOW NO. 784
LAB SAMPLE ID. NO. -

CASE NO. 4130
QC REPORT NO. 5744

Elements Identified and Measured

Concentration: Low X Medium ____
Matrix: Water X Soil ____ Sludge ____ Other ____

ug/L

1.	ALUMINUM	23U	P	13.	MAGNESIUM	100000	P
2.	ANTIMONY	46U	P	14.	MANGANESE	40	P
3.	ARSENIC	4u	F	15.	MERCURY	0.1u	CV
4.	BARIUM	[58]	P	16.	NICKEL	[9.9]	P
5.	BERYLLIUM	0.5U	P	17.	POTASSIUM	18500	P
6.	CADMIUM	5U	P	18.	SELENIUM	50u	F
7.	CALCIUM	214000	P	19.	SILVER	4U	P
8.	CHROMIUM	4U	P	20.	SODIUM	19000	P
9.	COBALT	7U	P	21.	THALLIUM	10u	F R
10.	COPPER	[6.3]	P	22.	TIN	36U	P R
11.	IRON	[55]	P	23.	VANADIUM	4U	P
12.	LEAD	50u	F	24.	ZINC	40 ✓	P

Cyanide 10u MS Percent Solids (%) ____

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments: ____

Lab Manager JM

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85FN04R02

U.S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No. MED305

Date 4-29-85

INORGANIC ANALYSIS DATA SHEET

LAB NAME ROCKY MOUNTAIN ANALYTICAL
SOW NO. 784
LAB SAMPLE ID. NO. -

CASE NO. 4130
QC REPORT NO. 5744

Elements Identified and Measured

Concentration: Low X Medium ____
Matrix: Water X Soil ____ Sludge ____ Other ____

ug/L

1.	ALUMINUM	[156]	P	13.	MAGNESIUM	[383]	P
2.	ANTIMONY	46U	P	14.	MANGANESE	[5.6]	P
3.	ARSENIC	4u	F	15.	MERCURY	0.1u	CV
4.	BARIUM	12U	P	16.	NICKEL	[10]	P
5.	BERYLLIUM	0.5U	P	17.	POTASSIUM	470U	P
6.	CADMIUM	5U	P	18.	SELENIUM	5u	F
7.	CALCIUM	[893]	P	19.	SILVER	4U	P
8.	CHROMIUM	4U	P	20.	SODIUM	[1610]	P
9.	COBALT	7U	P	21.	THALLIUM	4u	F R
10.	COPPER	35	P	22.	TIN	36U	P R
11.	IRON	157	P	23.	VANADIUM	4U	P
12.	LEAD	2u	F	24.	ZINC	[3.9]	P

Cyanide 10u MS Percent Solids (%) ____

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments: BLANK

Lab Manager JM

SF2265

Case: 4130

Contractor: RMAL

DATA PACKAGE COMPLETENESS AUDIT

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I. Cover Page

✓ The cover page must include general comments, Statement of Work Number, QC Report #, EPA cross reference numbers, footnotes used in the data package, and the statement on ICP corrections.

II. Inorganic Data Report Sheet - Form I

A completed Form I must be submitted for every sample in that case.

✓ Proper matrix and concentration level indicated.

✓ % solids reported for solid samples.

✓ Analytical method code for each parameter. "P" for ICP/flame AA or "F" for furnace.

✓ Any dilutions affecting the IDL explained in the comment section.

___ For positive values less than the contract required detection limit, the value is put in brackets. [ ].

✓ For not detected, the detection limit is reported, followed by a "U".

✓ Lab manager's signature.

III. QA/QC Data

The following forms must be submitted. A check for completeness and and compliance follows in this audit.

✓ Initial and Continuing Calibration Verification - Form II.

✓ Blank data - Form III

✓ ICP Interference Check Sample - Form IV

✓ Spike Sample Recovery - Form V

✓ Duplicate Data - Form VI

✓ Instrument Detection Limit and Laboratory Control Sample - Form VII.

___ Standard Addition Results - Form VIII

IV. Raw Data

A legible photocopy of raw data consisting of the sequential measurement readout record, such as an instrument tape or printout, clearly labeled with sufficient information to identify both the sample identity and the final result must be submitted for each of the following.

✓ calibration standards, with prep date.

✓ calibration and preparation blanks

✓ initial and continuing calibration

✓ interference check samples, initial and continuing.

✓ duplicates

✓ spikes - indicating standard solutions used, final spike concentrations and volumes involved.

✓ samples - including all weights, dilutions and volumes used to obtain the reported value.

✓ instrument adjustments or corrections, if any.

✓ raw furnace data for:

- initial single spike data
- single spike % recovery, if used
- full method of standard addition, if performed.
- method of standard addition correlation coefficient, slope and intercept of linear fit.

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V. Sample Traffic Report

✓ Copy of SMO Sample Traffic Report with lab receipt information and original contractor signature.

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METHOD TYPE ____ DATASET # ____ DATA REVIEW SHEET

LAB: RMAL LAB QC # 5744

SITE Mallard Lake L.F. CONC: L 9 M ___ H ___ MATRIX: W 9 S ___ EPA SAMPLE FOR SPIKE MED 303 FOR DUP MED 302

DATE: 5-2-85 REVIEWED BY Jan F. Pels

Metals:	CALIBRATION INITIAL	CALIBRATION CONT	CALIBRATION CONT	CALIBRATION CONT	BLANKS CONT.	BLANKS PREP. 1	BLANKS PREP. 2	ICP INTERFERENCE INIT	ICP INTERFERENCE FINAL	SPIKE 1	SPIKE 2	DUPLICATE 1	DUPLICATE 2	LCS SOLID	LCS LIQ		
1. Aluminum																	
2. Antimony																	
3. Arsenic																	
4. Barium																	
5. Beryllium																	
6. Cadmium																	
7. Calcium																	
8. Chromium																	
9. Cobalt																	
10. Copper																	
11. Iron																	
12. Lead																	
13. Magnesium																	
14. Manganese																	
15. Mercury																	
16. Nickel																	
17. Potassium																	
18. Selenium																	
19. Silver																	
20. Sodium																	
21. Thallium										60%							
22. Vanadium																	
23. Zinc																	
24. Cyanide																	
Other:																	

Q.C. Report No. 5744

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BLANKS

LAB NAME ROCKY MOUNTAIN ANALYTICAL CASE NO. 4130

DATE 4-29-85 UNITS ug/L

Matrix WATER

Preparation Compound	Initial Calibration Blank Value	Continuing Calibration Blank Value 1	2	3	4	Preparation Blank 1	2
Metals:							
1. ALUMINUM	23U	23U				23U	
2. ANTIMONY	46U	46U				46U	
3. ARSENIC	4u	4u	4u			4u	
4. BARIUM	12U	12U				12U	
5. BERYLLIUM	0.5U	0.5U				0.5U	
6. CADMIUM	5U	5U				5U	
7. CALCIUM	290U	290U				[339]	
8. CHROMIUM	4U	4U				4U	
9. COBALT	7U	7U				7U	
10. COPPER	4U	4U				4U	
11. IRON	11U	11U				[27]	
F 12. LEAD	2u	2u	2u			2u	
13. MAGNESIUM	330U	330U				330U	
14. MANGANESE	3U	3U				3U	
15. MERCURY	0.1u	0.1u	0.1u			0.1u	
16. NICKEL	5U	5U				5U	
17. POTASSIUM	470U	470U				470U	
18. SELENIUM	2u	2u	2u			2u	
19. SILVER	4U	4U				4U	
20. SODIUM	880U	880U				880U	
21. THALLIUM	4u	4u	4u			4u	
22. TIN	36U	36U				36U	
23. VANADIUM	4U	4U				4U	
24. ZINC	2U	2U				[4.2]	
Other:							
Cyanide	10u	10u	10u			10u	

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Q.C. Report No. 5744

SPIKE SAMPLE RECOVERY

LAB NAME ROCKY MOUNTAIN ANALYTICAL

DATE 4-29-85

CASE NO. 4130

EPA Sample No. MED303

Lab Sample ID No. -

Units ug/L

MATRIX WATER

Compound	Control Limit %R	Spiked Sample Result (SSR)	Sample Result (SR)	Spiked Added (SA)	%R	
Metals:						
1. ALUMINUM	75-125	1960	23U	2000	98	
2. ANTIMONY	75-125	462	46U	500	92	
3. ARSENIC	75-125	20	4u	20	100	
4. BARIUM	75-125	1980	[57]	2000	96	
5. BERYLLIUM	75-125	50	0.5U	50	100	
6. CADMIUM	75-125	57	5U	50	114	
7. CALCIUM	75-125	306000	216000	100000	90	
8. CHROMIUM	75-125	203	4U	200	102	
9. COBALT	75-125	497	7U	500	99	
10. COPPER	75-125	246	[6]	250	96	
11. IRON	75-125	1010	[52]	1000	96	
12. LEAD	75-125	50u	50u	20	NC	
13. MAGNESIUM	75-125	149000	101000	50000	96	
14. MANGANESE	75-125	233	41	200	96	
15. MERCURY	75-125	1.05	0.1u	1	105	
16. NICKEL	75-125	400	[9.4]	400	98	
17. POTASSIUM	75-125	71000	18600	50000	105	
18. SELENIUM	75-125	50u	50u	10	NC	
19. SILVER	75-125	40	4U	50	80	
20. SODIUM	75-125	119000	19400	100000	100	
21. THALLIUM	75-125	30	10u	50	60	R
22. TIN	75-125	245	36U	400	61	R
23. VANADIUM	75-125	493	4U	500	99	
24. ZINC	75-125	229	43	200	93	
Other:						
Cyanide	75-125	118	10u	100	118	

* %R = [(SSR - SR)/SA] x 100

"R"- out of control

Comments:

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Q.C. Report No. 5744
DUPLICATES

LAB NAME ROCKY MOUNTAIN ANALYTICAL

DATE 4-29-85

CASE NO. 4130
EPA Sample No. MED302
Lab Sample ID No. -
Units ug/L

Matrix WATER

Compound	Control Limit[1]	Sample(S)	Duplicate(D)	RPD[2]
Metals:				
1. ALUMINUM		206	207	0.48
2. ANTIMONY		46U	46U	NC
3. ARSENIC		4u	4u	NC
4. BARIUM		[65]	[64]	NC
5. BERYLLIUM		0.5U	0.5U	NC
6. CADMIUM		5U	5U	NC
7. CALCIUM		93600	92500	1.2
8. CHROMIUM		4U	[4.3]	NC
9. COBALT		7U	7U	NC
10. COPPER		4U	4U	NC
11. IRON		275	267	3
12. LEAD		5u	5u	NC
13. MAGNESIUM		41000	40500	1.2
14. MANGANESE		168	167	0.6
15. MERCURY		0.1u	0.1u	NC
16. NICKEL		5U	5U	NC
17. POTASSIUM		[3680]	[3620]	NC
18. SELENIUM		5u	5u	NC
19. SILVER		4U	4U	NC
20. SODIUM		28900	29000	0.35
21. THALLIUM		10u	10u	NC
22. TIN		36U	36U	NC
23. VANADIUM		4U	4U	NC
24. ZINC		[6]	[6.7]	NC
Other:				
Cyanide		10u	10u	NC

* Out of Control

[1] To be added at a later date.

[2] RPD = [|S-D|/((S+D)/2)] x 100

NC - Non calculable RPD due to value(s) less than CRDL

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Q.C. Report No. 5744
INSTRUMENT DETECTION LIMITS AND
LABORATORY CONTROL SAMPLE

LAB NAME ROCKY MOUNTAIN ANALYTICAL CASE NO 4130
DATE 4-29-85 UNITS ug/L

Compound	Required Detection Limits (CRDL)-ug/l	Instrument Detection Limits (IDL)-ug/l ICP/AA	Furnace	Lab Control Sample True	Found	%R
Metals:						
1. ALUMINUM	200	23		500	542	108
2. ANTIMONY	60	46		500	486	97
3. ARSENIC	10		4	53	52	98
4. BARIUM	200	12		500	476	95
5. BERYLLIUM	5	0.5		100	100	100
6. CADMIUM	5	5		100	99	99
7. CALCIUM	5000	290		100000	102000	102
8. CHROMIUM	10	4		100	99	99
9. COBALT	50	7		100	99	99
10. COPPER	25	4		100	106	106
11. IRON	100	11		500	539	108
F 12. LEAD	5	23	2	216	205	95
13. MAGNESIUM	5000	330		100000	98700	99
14. MANGANESE	15	3		100	95	95
15. MERCURY	0.2		.10CV	1.00	1.02	102
16. NICKEL	40	5		100	107	107
17. POTASSIUM	5000	470		100000	103000	103
18. SELENIUM	5		2	38	36	95
19. SILVER	10	4		100	104	104
20. SODIUM	5000	880		100000	99200	99
21. THALLIUM	10		4	50	53	106
22. TIN	40	36		500	510	102
23. VANADIUM	50	4		100	95	95
24. ZINC	20	2		100	106	106
Other:						
Cyanide	10		10MS	76	68	89

CV - Cold Vapor
MS - Manual Spectrophotometer