6A

9104L326-WES-050A
0043720

WESTON

ROY F. WESTON, INC.
Lionville Laboratory

CLIENT: WESTINGHOUSE HANFORD **SAMPLES RECEIVED:** 04-18-91
RFW #: 9104L326, GC/MS VOLATILE
W.O. #: 6168-02-01

NARRATIVE

The set of samples consisted of two (2) drum samples collected on 04-16-91.

The samples were analyzed according to criteria set forth in CLP SOW 2/88 (rev 5/89) for TCL Volatile target compounds on 04-22-91.

The following is a summary of the QC results accompanying these sample results and a description of any problems encountered during their analysis:

1. Non-target compounds were detected in these samples.

2. All obtainable surrogate recoveries were within EPA QC limits. Several surrogate recoveries could not be obtained due to the dilutions required for analysis.

3. The following sample required medium level analyses and dilutions because they contained high level of target compounds:

Sample ID	Dilution Factor
B00J46	MEDIUM & 40000
B00J47	MEDIUM & 50000

4. Matrix spike and spike duplicate samples are associated with RFW lot 9104L227.

5. The laboratory blank contained the common contaminants methylene chloride and acetone at levels less than 3x the CRQL.

Jack R. Tuschall, Ph.D.
Laboratory Manager
Lionville Analytical Laboratory

5.30.91
Date

Custody Transfer Record/Lab Work Request

WESTON

WESTON Analytics Use Only
9104L326

GS-IMMEDIATE

Client: Westinghouse Hanford/B.E. Innis
Work Order: PN52e 61168-02-01 5/22/91
Date Rec'd.: 4/18/91 Date Due: As specified
RFW Contact: Peg Beaty per SOW
Client Contact/Phone: B.E. Innis (509) 376-7690

Refrigerator#									
#/Type Container	40ml. amber		amber glass 1000ml.				clear glass 500ml.		
Volume (Total)	80ml.								
Preservative	ice			ice			ice		
ANALYSES REQUESTED	VOA 1	BNA 2	GCSC PCB 3	Metals 4	Anions FP 5	RAD 6	RAD 7	RAD 8	RAD 9

WA Use Only Lab ID	Client ID/Description	Matrix	Date Collected								
001	1)B00J46	DL	4-16-91	x	x	x	x	x	x	x	x	x
002	2)B00J47	DL	4-16-91	X	X	X	X	X+	X	X	X	X

GCSC = Kerosene
GCSC = Dodecane 135-5

QC/Dol = CLP
TAT = 30 days

624 H + Hexane Heptane
1625 H + TBP
Anions = ICCL, ICFL, ICSO4, ICPO4, ICNO3, ICNO2
Metals = Whatever ICP

ANALYSES REQUESTED
1: VOA/Hexane (CLP) 2:Semi-VOA/TBP(CLP)
3: Kerosene, PCB's(CLP) 4:ICP Metals(CLP)
5: Anions(300.0), Flashpoint (1010) 6:Alpha/Beta (PRO-032-18)
7: Gamma Scan(PRO-042-5) 8:Total Uranium (PRO-032-89) 9:Isotopic Uranium (PRO-052-32)

Matrix: S - Soil, SE - Sediment, SO - Solid, W - Water, O - Oil, A - Air, Wi - Wipe, DS - Drum Solids, DL - Drum Liquids, F - Fish, L - EP/TCLP Leachate, X - Other

Special Instructions: Please call to confirm receipt and condition of sampleshipment

Item/Reason	Relinquished by	Received by	Date	Time	Item/Reason	Relinquished by	Received by	Date	Time
	[illegible]	[illegible]	4/18/91	9:30 am					
RADSCREN	[illegible]	Clark Pair	4-18-91	10:00AM					
SAMPLE	Clark Pair	[illegible]	4-18-91	11:00AM					
				SEE THE C OF C					

WESTON Analytics Use Only

Samples Were:
1 Shipped or Hand-Delivered
NOTES:

2 Ambient or Chilled
NOTES:

3 Received Broken/Leaking (Improperly Sealed) Y N
NOTES:

4 Properly Preserved Y N
NOTES:

5 Received Within Holding Times Y N
NOTES:

COC Tape Was:
1 Present on Outer Package Y N
2 Unbroken on Outer Package Y N
3 Present on Sample Y N
4 Unbroken on Sample Y N
NOTES:

COC Record Was:
1 Present Upon Receipt of Samples Y N

Discrepancies Between Sample Labels and COC Record? Y N
NOTES:

RFW 21-21-001/A-12/88

7-115

Roy F. Weston, Inc. - Lionville Laboratory
Volatiles by GC/MS, HSL List

RFW Batch Number: 9104L326 | Client: WESTINGHOUSE HANFORD | Work Order: 6168-02-01-0000 | Report Date: 04/23/91 08:55 | Page: 1a

	Cust ID:	BOOJ46		BOOJ47		VBLK	
Sample Information	RFW#:	001		002		91LVX062-MB1	
	Matrix:	DRUM		DRUM		SOIL	
	D.F.:	50000		62500		1.25	
	Units:	ug/Kg		ug/Kg		ug/Kg	
	Level:	MED		MED		MED	
Surrogate Recovery	Toluene-d8	D	%	D	%	105	%
	Bromofluorobenzene	D	%	D	%	103	%
	1,2-Dichloroethane-d4	D	%	D	%	103	%
Chloromethane		0.50E+08	U	0.62E+08	U	1200	U
Bromomethane		0.50E+08	U	0.62E+08	U	1200	U
Vinyl Chloride		0.50E+08	U	0.62E+08	U	1200	U
Chloroethane		0.50E+08	U	0.62E+08	U	1200	U
Methylene Chloride		0.11E+09	B	0.14E+09	B	1700	
Acetone		0.11E+09	B	0.30E+09	B	2400	
Carbon Disulfide		0.25E+08	U	0.31E+08	U	620	U
1,1-Dichloroethene		0.25E+08	U	0.31E+08	U	620	U
1,1-Dichloroethane		0.25E+08	U	0.31E+08	U	620	U
1,2-Dichloroethene (total)		0.25E+08	U	0.31E+08	U	620	U
Chloroform		0.25E+08	U	0.31E+08	U	620	U
1,2-Dichloroethane		0.25E+08	U	0.31E+08	U	620	U
2-Butanone		0.50E+08	U	0.62E+08	U	1200	U
1,1,1-Trichloroethane		0.25E+08	U	0.31E+08	U	620	U
Carbon Tetrachloride		0.25E+08	U	0.31E+08	U	620	U
Vinyl Acetate		0.50E+08	U	0.62E+08	U	1200	U
Bromodichloromethane		0.25E+08	U	0.31E+08	U	620	U
1,2-Dichloropropane		0.25E+08	U	0.31E+08	U	620	U
cis-1,3-Dichloropropene		0.25E+08	U	0.31E+08	U	620	U
Trichloroethene		0.25E+08	U	0.31E+08	U	620	U
Dibromochloromethane		0.25E+08	U	0.31E+08	U	620	U
1,1,2-Trichloroethane		0.25E+08	U	0.31E+08	U	620	U
Benzene		0.25E+08	U	0.31E+08	U	620	U
Trans-1,3-Dichloropropene		0.25E+08	U	0.31E+08	U	620	U
Bromoform		0.25E+08	U	0.31E+08	U	620	U
4-Methyl-2-pentanone		0.64E+09		0.94E+09		1200	U
2-Hexanone		0.50E+08	U	0.62E+08	U	1200	U
Tetrachloroethene		0.25E+08	U	0.31E+08	U	620	U
1,1,2,2-Tetrachloroethane		0.25E+08	U	0.31E+08	U	620	U

**= Outside of EPA CLP QC limits.

Cust ID:	B00J46	B00J47	VBLK
RFW#:	001	002	91LVX062-MB1
Level:	MED	MED	MED
Toluene	0.25E+08 U	0.31E+08 U	620 U
Chlorobenzene	0.25E+08 U	0.31E+08 U	620 U
Ethylbenzene	0.25E+08 U	0.31E+08 U	620 U
Styrene	0.25E+08 U	0.31E+08 U	620 U
Xylene (total)	0.25E+08 U	0.31E+08 U	620 U

*= Outside of EPA CLP QC limits.

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VOLATILE ORGANICS ANALYSIS SHEET 0000014

CLIENT SAMPLE NO.

BOOJ46

Lab Name: Roy F. Weston, Inc. Work Order: 6168-02-01-0000

Client: WESTINGHOUSE HANFORD

Matrix: DRUM

Lab Sample ID: 9104L326-001

Sample wt/vol: 4.00 (g/mL) G

Lab File ID: AX4M09

Level: (low/med) MED

Date Received: 04/18/91

% Moisture: not dec. 0

Date Analyzed: 04/22/91

Column: (pack/cap) PACK

Dilution Factor: 50000

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
74-87-3	Chloromethane	0.50E+08	U
74-83-9	Bromomethane	0.50E+08	U
75-01-4	Vinyl Chloride	0.50E+08	U
75-00-3	Chloroethane	0.50E+08	U
75-09-2	Methylene Chloride	0.11E+09	B
67-64-1	Acetone	0.11E+09	B
75-15-0	Carbon Disulfide	0.25E+08	U
75-35-4	1,1-Dichloroethene	0.25E+08	U
75-34-3	1,1-Dichloroethane	0.25E+08	U
540-59-0	1,2-Dichloroethene (total)	0.25E+08	U
67-66-3	Chloroform	0.25E+08	U
107-06-2	1,2-Dichloroethane	0.25E+08	U
78-93-3	2-Butanone	0.50E+08	U
71-55-6	1,1,1-Trichloroethane	0.25E+08	U
56-23-5	Carbon Tetrachloride	0.25E+08	U
108-05-4	Vinyl Acetate	0.50E+08	U
75-27-4	Bromodichloromethane	0.25E+08	U
78-87-5	1,2-Dichloropropane	0.25E+08	U
10061-01-5	cis-1,3-Dichloropropene	0.25E+08	U
79-01-6	Trichloroethene	0.25E+08	U
124-48-1	Dibromochloromethane	0.25E+08	U
79-00-5	1,1,2-Trichloroethane	0.25E+08	U
71-43-2	Benzene	0.25E+08	U
10061-02-6	Trans-1,3-Dichloropropene	0.25E+08	U
75-25-2	Bromoform	0.25E+08	U
108-10-1	4-Methyl-2-pentanone	0.64E+09	
591-78-6	2-Hexanone	0.50E+08	U
127-18-4	Tetrachloroethene	0.25E+08	U
79-34-5	1,1,2,2-Tetrachloroethane	0.25E+08	U
108-88-3	Toluene	0.25E+08	U
108-90-7	Chlorobenzene	0.25E+08	U
100-41-4	Ethylbenzene	0.25E+08	U
100-42-5	Styrene	0.25E+08	U
1330-20-7	Xylene (total)	0.25E+08	U

1E

VOLATILE ORGANICS ANALYSIS SHEET

TENTATIVELY IDENTIFIED COMPOUNDS 0000015

CLIENT SAMPLE NO.

BOOJ46

Lab Name: Roy F. Weston, Inc. Work Order: 6168-02-01-0000

Client: WESTINGHOUSE HANFORD

Matrix: DRUM

Lab Sample ID: 9104L326-001

Sample wt/vol: 4.00 (g/mL) G

Lab File ID: AX4M09

Level: (low/med) MED

Date Received: 04/18/91

% Moisture: not dec. 0

Date Analyzed: 04/22/91

Column: (pack/cap) PACK

Dilution Factor: 50000

Number TICs found: 6

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	ALKANE	20.48	50000000	J
2.	ALKANE	22.63	40000000	J
3.	ALKANE	23.04	60000000	J
4.	ALKANE	23.69	60000000	J
5.	ALKANE	23.96	30000000	J
6.	HYDROCARBON	24.37	20000000	J

1A

VOLATILE ORGANICS ANALYSIS SHEET 0000029

CLIENT SAMPLE NO.

BOOJ47

Lab Name: Roy F. Weston, Inc. Work Order: 6168-02-01-0000

Client: WESTINGHOUSE HANFORD

Matrix: DRUM

Lab Sample ID: 9104L326-002

Sample wt/vol: 4.00 (g/mL) G

Lab File ID: AX4M08

Level: (low/med) MED

Date Received: 04/18/91

% Moisture: not dec. 0

Date Analyzed: 04/22/91

Column: (pack/cap) CAP

Dilution Factor: 62500

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
74-87-3	Chloromethane	0.62E+08	U
74-83-9	Bromomethane	0.62E+08	U
75-01-4	Vinyl Chloride	0.62E+08	U
75-00-3	Chloroethane	0.62E+08	U
75-09-2	Methylene Chloride	0.14E+09	B
67-64-1	Acetone	0.30E+09	B
75-15-0	Carbon Disulfide	0.31E+08	U
75-35-4	1,1-Dichloroethene	0.31E+08	U
75-34-3	1,1-Dichloroethane	0.31E+08	U
540-59-0	1,2-Dichloroethene (total)	0.31E+08	U
67-66-3	Chloroform	0.31E+08	U
107-06-2	1,2-Dichloroethane	0.31E+08	U
78-93-3	2-Butanone	0.62E+08	U
71-55-6	1,1,1-Trichloroethane	0.31E+08	U
56-23-5	Carbon Tetrachloride	0.31E+08	U
108-05-4	Vinyl Acetate	0.62E+08	U
75-27-4	Bromodichloromethane	0.31E+08	U
78-87-5	1,2-Dichloropropane	0.31E+08	U
10061-01-5	cis-1,3-Dichloropropene	0.31E+08	U
79-01-6	Trichloroethene	0.31E+08	U
124-48-1	Dibromochloromethane	0.31E+08	U
79-00-5	1,1,2-Trichloroethane	0.31E+08	U
71-43-2	Benzene	0.31E+08	U
10061-02-6	Trans-1,3-Dichloropropene	0.31E+08	U
75-25-2	Bromoform	0.31E+08	U
108-10-1	4-Methyl-2-pentanone	0.94E+09	
591-78-6	2-Hexanone	0.62E+08	U
127-18-4	Tetrachloroethene	0.31E+08	U
79-34-5	1,1,2,2-Tetrachloroethane	0.31E+08	U
108-88-3	Toluene	0.31E+08	U
108-90-7	Chlorobenzene	0.31E+08	U
100-41-4	Ethylbenzene	0.31E+08	U
100-42-5	Styrene	0.31E+08	U
1330-20-7	Xylene (total)	0.31E+08	U

1E

VOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS 0000030

CLIENT SAMPLE NO.

BOOJ47

Lab Name: Roy F. Weston, Inc. Work Order: 6168-02-01-0000

Client: WESTINGHOUSE HANFORD

Matrix: DRUM

Lab Sample ID: 9104L326-002

Sample wt/vol: 4.00 (g/mL) G

Lab File ID: AX4M08

Level: (low/med) MED

Date Received: 04/18/91

% Moisture: not dec. 0

Date Analyzed: 04/22/91

Column: (pack/cap) CAP

Dilution Factor: 62500

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				

Semivolatiles by GC/MS, HSL List — Report Date: 05/31/91 15:52

RFW Batch Number: 9104L326 — Client: WESTINGHOUSE HANFORD — Work Order: 6168-02-01-0000 — Page: 1a

	Cust ID:	BOOJ46	BOOJ46	BOOJ46	BOOJ46	BOOJ47	SBLK
Sample Information	RFW#:	001	001 DL	001 MS	001 MSD	002	91LE0518-MB1
	Matrix:	DRUM	DRUM	DRUM	DRUM	DRUM	DRUM
	D.F.:	100	2000	100	100	100	100
	Units:	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg
Surrogate Recovery	Nitrobenzene-d5	124 * %	94 %	122 * %	110 %	111 %	110 %
	2-Fluorobiphenyl	103 %	112 %	108 %	112 %	120 * %	111 %
	p-Terphenyl-d14	150 * %	122 %	154 * %	145 * %	152 * %	150 * %
	Phenol-d5	136 * %	110 %	147 * %	124 * %	102 %	115 * %
	2-Fluorophenol	99 %	104 %	99 %	92 %	94 %	107 %
	2,4,6-Tribromophenol	87 %	64 %	96 %	86 %	108 %	102 %
Phenol		830000 U	NA	106 * %	103 * %	830000 U	1000000 U
Bis(2-Chloroethyl)ether		830000 U	NA	830000 U	830000 U	830000 U	1000000 U
2-Chlorophenol		830000 U	NA	94 %	91 %	830000 U	1000000 U
1,3-Dichlorobenzene		830000 U	NA	830000 U	830000 U	830000 U	1000000 U
1,4-Dichlorobenzene		830000 U	NA	106 * %	101 %	830000 U	1000000 U
Benzyl alcohol		830000 U	NA	830000 U	830000 U	830000 U	1000000 U
1,2-Dichlorobenzene		830000 U	NA	830000 U	830000 U	830000 U	1000000 U
2-Methylphenol		830000 U	NA	830000 U	830000 U	830000 U	1000000 U
bis(2-Chloroisopropyl)ether		830000 U	NA	830000 U	830000 U	830000 U	1000000 U
4-Methylphenol		830000 U	NA	830000 U	830000 U	830000 U	1000000 U
N-Nitroso-Di-n-propylamine		830000 U	NA	94 %	93 %	830000 U	1000000 U
Hexachloroethane		830000 U	NA	830000 U	830000 U	830000 U	1000000 U
Nitrobenzene		830000 U	NA	830000 U	830000 U	830000 U	1000000 U
Isophorone		830000 U	NA	830000 U	830000 U	830000 U	1000000 U
2-Nitrophenol		830000 U	NA	830000 U	830000 U	830000 U	1000000 U
2,4-Dimethylphenol		830000 U	NA	830000 U	830000 U	830000 U	1000000 U
Benzoic acid		4200000 U	NA	4200000 U	4200000 U	4200000 U	5000000 U
bis(2-Chloroethoxy)methane		830000 U	NA	830000 U	830000 U	830000 U	1000000 U
2,4-Dichlorophenol		830000 U	NA	830000 U	830000 U	830000 U	1000000 U
1,2,4-Trichlorobenzene		830000 U	NA	98 %	90 %	830000 U	1000000 U
Naphthalene		830000 U	NA	830000 U	830000 U	830000 U	1000000 U
4-Chloroaniline		830000 U	NA	830000 U	830000 U	830000 U	1000000 U
Hexachlorobutadiene		830000 U	NA	830000 U	830000 U	830000 U	1000000 U
4-Chloro-3-methylphenol		830000 U	NA	101 %	91 %	830000 U	1000000 U
2-Methylnaphthalene		830000 U	NA	830000 U	830000 U	830000 U	1000000 U
Hexachlorocyclopentadiene		830000 U	NA	830000 U	830000 U	830000 U	1000000 U

*= Outside of EPA CLP QC limits.

RFW Batch Number: 9104L326 Client: WESTINGHOUSE HANFORD

Cust ID:	BOOJ46		BOOJ46		BOOJ46		BOOJ46		BOOJ47		SBLK	
RFW#:	001		001 DL		001 MS		001 MSD		002		91LE0518-MB1	
2,4,6-Trichlorophenol	830000	U	NA		830000	U	830000	U	830000	U	1000000	U
2,4,5-Trichlorophenol	4200000	U	NA		4200000	U	4200000	U	4200000	U	5000000	U
2-Chloronaphthalene	830000	U	NA		830000	U	830000	U	830000	U	1000000	U
2-Nitroaniline	4200000	U	NA		4200000	U	4200000	U	4200000	U	5000000	U
Dimethylphthalate	830000	U	NA		830000	U	830000	U	830000	U	1000000	U
Acenaphthylene	830000	U	NA		830000	U	830000	U	830000	U	1000000	U
2,6-Dinitrotoluene	830000	U	NA		830000	U	830000	U	830000	U	1000000	U
3-Nitroaniline	4200000	U	NA		4200000	U	4200000	U	4200000	U	5000000	U
Acenaphthene	830000	U	NA		109	%	102	%	830000	U	1000000	U
2,4-Dinitrophenol	4200000	U	NA		4200000	U	4200000	U	4200000	U	5000000	U
4-Nitrophenol	4200000	U	NA		38	%	40	%	4200000	U	5000000	U
Dibenzofuran	830000	U	NA		830000	U	830000	U	830000	U	1000000	U
2,4-Dinitrotoluene	830000	U	NA		91 *	%	86	%	830000	U	1000000	U
Diethylphthalate	830000	U	NA		830000	U	830000	U	830000	U	1000000	U
4-Chlorophenyl-phenylether	830000	U	NA		830000	U	830000	U	830000	U	1000000	U
Fluorene	830000	U	NA		830000	U	830000	U	830000	U	1000000	U
4-Nitroaniline	4200000	U	NA		4200000	U	4200000	U	4200000	U	5000000	U
4,6-Dinitro-2-methylphenol	4200000	U	NA		4200000	U	4200000	U	4200000	U	5000000	U
N-Nitrosodiphenylamine (1)	830000	U	NA		830000	U	830000	U	830000	U	1000000	U
4-Bromophenyl-phenylether	830000	U	NA		830000	U	830000	U	830000	U	1000000	U
Hexachlorobenzene	830000	U	NA		830000	U	830000	U	830000	U	1000000	U
Pentachlorophenol	4200000	U	NA		101	%	96	%	4200000	U	5000000	U
Phenanthrene	830000	U	NA		830000	U	830000	U	830000	U	1000000	U
Anthracene	830000	U	NA		830000	U	830000	U	830000	U	1000000	U
Di-n-Butylphthalate	830000	U	NA		830000	U	830000	U	830000	U	1000000	U
Fluoranthene	830000	U	NA		830000	U	830000	U	830000	U	1000000	U
Pyrene	830000	U	NA		133	%	122	%	830000	U	1000000	U
Butylbenzylphthalate	830000	U	NA		830000	U	830000	U	830000	U	1000000	U
3,3'-Dichlorobenzidine	1700000	U	NA		1700000	U	1700000	U	1700000	U	2000000	U
Benzo(a)anthracene	830000	U	NA		830000	U	830000	U	830000	U	1000000	U
Chrysene	830000	U	NA		830000	U	830000	U	830000	U	1000000	U
bis(2-Ethylhexyl)phthalate	830000	U	NA		830000	U	830000	U	830000	U	1000000	U
Di-n-Octyl phthalate	830000	U	NA		830000	U	830000	U	830000	U	1000000	U
Benzo(b)fluoranthene	830000	U	NA		830000	U	830000	U	830000	U	1000000	U
Benzo(k)fluoranthene	830000	U	NA		830000	U	830000	U	830000	U	1000000	U
Benzo(a)pyrene	830000	U	NA		830000	U	830000	U	830000	U	1000000	U
Indeno(1,2,3-cd)pyrene	830000	U	NA		830000	U	830000	U	830000	U	1000000	U
Dibenzo(a,h)anthracene	830000	U	NA		830000	U	830000	U	830000	U	1000000	U
Benzo(g,h,i)perylene	830000	U	NA		830000	U	830000	U	830000	U	1000000	U
Tributylphosphate		E	0.63E+08		0.98E+08		0.93E+08		830000	U	1000000	U

(1) - Cannot be separated from Diphenylamine. *= Outside of EPA CLP QC limits.

ROY F. WESTON, INC.
Lionville Laboratory

CLIENT: WESTINGHOUSE HANFORD **SAMPLES RECEIVED:** 04-18-91
RFW #: 9104L326, SEMIVOLATILE
W.O. #: 6168-02-01

NARRATIVE

The set of samples consisted of two (2) drum samples collected on 04-16-91.

The samples were extracted on 04-19-91 by Waste Dilution Protocol and analyzed according to criteria set forth in CLP SOW 02/88 (Rev. 05/89) for TCL Semivolatile and Tributylphosphate target compounds on 05-06,31-91.

The following is a summary of the QC results accompanying these sample results and a description of any problems encountered during their analysis:

1. Non-target compounds were detected in these samples.

2. Samples were prepared by Waste Dilution Protocol resulting in a 100-fold dilution relative to low level analyses. Sample B00J46 required an additional 20-fold dilution for tributylphosphate.

3. Tributylphosphate was out of calibration range in B00J46 MS and B00J46 MSD. Only the unspiked sample was diluted.

4. Thirteen (13) of forty-two (42) surrogate recoveries were outside EPA QC limits. High recoveries are due to the Waste Dilution method of extraction.

5. Two (2) of eleven (11) blank spike recoveries were outside EPA QC limits.

6. Four (4) of twenty-two (22) matrix spike recoveries were outside EPA QC limits.

7. Internal standard area and retention time criteria were met for all samples and blanks.

Lynda A. Hayhurst 6-6-91

Jack R. Tuschall, Ph.D. Date
Laboratory Manager
Lionville Analytical Laboratory

1B

SEMIVOLATILE ORGANICS ANALYSIS SHEET 0000022

CLIENT SAMPLE NO.

BOOJ46

Lab Name: Roy F. Weston, Inc. Work Order: 6168-02-01-0000

Client: WESTINGHOUSE HANFORD

Matrix: DRUM

Lab Sample ID: 9104L326-001

Sample wt/vol: 1.20 (g/mL) G

Lab File ID: M050610

Level: (low/med) LOW

Date Received: 04/18/91

% Moisture: not dec. 0 dec.

Date Extracted: 04/19/91

Extraction: (SepF/Cont/Sonc) N/A

Date Analyzed: 05/06/91

GPC Cleanup: (Y/N) N pH: 7.0

Dilution Factor: 100

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
108-95-2	Phenol	830000	U
111-44-4	bis(2-Chloroethyl)ether	830000	U
95-57-8	2-Chlorophenol	830000	U
541-73-1	1,3-Dichlorobenzene	830000	U
106-46-7	1,4-Dichlorobenzene	830000	U
100-51-6	Benzyl alcohol	830000	U
95-50-1	1,2-Dichlorobenzene	830000	U
95-48-7	2-Methylphenol	830000	U
108-60-1	bis(2-Chloroisopropyl)ether	830000	U
106-44-5	4-Methylphenol	830000	U
621-64-7	N-Nitroso-Di-n-propylamine	830000	U
67-72-1	Hexachloroethane	830000	U
98-95-3	Nitrobenzene	830000	U
78-59-1	Isophorone	830000	U
88-75-5	2-Nitrophenol	830000	U
105-67-9	2,4-Dimethylphenol	830000	U
65-85-0	Benzoic acid	4200000	U
111-91-1	bis(2-Chloroethoxy)methane	830000	U
120-83-2	2,4-Dichlorophenol	830000	U
120-82-1	1,2,4-Trichlorobenzene	830000	U
91-20-3	Naphthalene	830000	U
106-47-8	4-Chloroaniline	830000	U
87-68-3	Hexachlorobutadiene	830000	U
59-50-7	4-Chloro-3-methylphenol	830000	U
91-57-6	2-Methylnaphthalene	830000	U
77-47-4	Hexachlorocyclopentadiene	830000	U
88-06-2	2,4,6-Trichlorophenol	830000	U
95-95-4	2,4,5-Trichlorophenol	4200000	U
91-58-7	2-Chloronaphthalene	830000	U
88-74-4	2-Nitroaniline	4200000	U
131-11-3	Dimethylphthalate	830000	U
208-96-8	Acenaphthylene	830000	U
606-20-2	2,6-Dinitrotoluene	830000	U

1C

SEMIVOLATILE ORGANICS ANALYSIS SHEET 0000023

CLIENT SAMPLE NO.

BOOJ46

Lab Name: Roy F. Weston, Inc. Work Order: 6168-02-01-0000

Client: WESTINGHOUSE HANFORD

Matrix: DRUM Lab Sample ID: 9104L326-001

Sample wt/vol: 1.20 (g/mL) G Lab File ID: M050610

Level: (low/med) LOW Date Received: 04/18/91

% Moisture: not dec. 0 dec. Date Extracted: 04/19/91

Extraction: (SepF/Cont/Sonc) N/A Date Analyzed: 05/06/91

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 100

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
99-09-2	3-Nitroaniline	4200000	U
83-32-9	Acenaphthene	830000	U
51-28-5	2,4-Dinitrophenol	4200000	U
100-02-7	4-Nitrophenol	4200000	U
132-64-9	Dibenzofuran	830000	U
121-14-2	2,4-Dinitrotoluene	830000	U
84-66-2	Diethylphthalate	830000	U
7005-72-3	4-Chlorophenyl-phenylether	830000	U
86-73-7	Fluorene	830000	U
100-01-6	4-Nitroaniline	4200000	U
534-52-1	4,6-Dinitro-2-methylphenol	4200000	U
86-30-6	N-Nitrosodiphenylamine (1)	830000	U
101-55-3	4-Bromophenyl-phenylether	830000	U
118-74-1	Hexachlorobenzene	830000	U
87-86-5	Pentachlorophenol	4200000	U
85-01-8	Phenanthrene	830000	U
120-12-7	Anthracene	830000	U
84-74-2	Di-n-Butylphthalate	830000	U
206-44-0	Fluoranthene	830000	U
129-00-0	Pyrene	830000	U
85-68-7	Butylbenzylphthalate	830000	U
91-94-1	3,3'-Dichlorobenzidine	1700000	U
56-55-3	Benzo(a)anthracene	830000	U
218-01-9	Chrysene	830000	U
117-81-7	bis(2-Ethylhexyl)phthalate	830000	U
117-84-0	Di-n-Octyl phthalate	830000	U
205-99-2	Benzo(b)fluoranthene	830000	U
207-08-9	Benzo(k)fluoranthene	830000	U
50-32-8	Benzo(a)pyrene	830000	U
193-39-5	Indeno(1,2,3-cd)pyrene	830000	U
53-70-3	Dibenzo(a,h)anthracene	830000	U
191-24-2	Benzo(g,h,i)perylene	830000	U

(1) - Cannot be separated from Diphenylamine

1D
SEMIVOLATILE ORGANICS ANALYSIS SHEET

0000024

CLIENT SAMPLE NO.

BOOJ46

Lab Name: Roy F. Weston, Inc. Work Order: 6168-02-01-0000

Client: WESTINGHOUSE HANFORD

Matrix: DRUM

Lab Sample ID: 9104L326-001

Sample wt/vol: 1.20 (g/mL) G

Lab File ID: M050610

Level: (low/med) LOW

Date Received: 04/18/91

% Moisture: not dec. 0 dec.

Date Extracted: 04/19/91

Extraction: (SepF/Cont/Sonc) N/A

Date Analyzed: 05/06/91

GPC Cleanup: (Y/N) N pH: 7.0

Dilution Factor: 100

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	
126-73-8	Tributylphosphate		E

FORM 1 SV-3

12/88 Rev.

1F

SEMIVOLATILE ORGANICS ANALYSIS SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

0000025

CLIENT SAMPLE NO.

BOOJ46

Lab Name: Roy F. Weston, Inc. Work Order: 6168-02-01-0000

Client: WESTINGHOUSE HANFORD

Matrix: DRUM

Lab Sample ID: 9104L326-001

Sample wt/vol: 1.20 (g/mL) G

Lab File ID: M050610

Level: (low/med) LOW

Date Received: 04/18/91

% Moisture: not dec. 0 dec.

Date Extracted: 04/19/91

Extraction: (SepF/Cont/Sonc) N/A

Date Analyzed: 05/06/91

GPC Cleanup: (Y/N) N pH: 7.0

Dilution Factor: 100

Number TICs found: 20

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	ALKANE	6.25	20000000	J
2.	ALKANE	6.48	10000000	J
3.	ALKANE	6.80	10000000	J
4.	ALKANE	7.12	4000000	J
5.	ALKANE	7.42	9000000	J
6.	ALKANE	7.52	20000000	J
7.	ALKANE	7.63	1000000	J
8.	ALKANE	7.85	40000000	J
9.	ALKANE	7.93	20000000	J
10.	UNKNOWN	8.07	2000000	J
11.	ALKANE	8.17	20000000	J
12.	ALKANE	8.38	8000000	J
13.	ALKANE	8.48	7000000	J
14.	ALKANE	8.85	4000000	J
15.	UNKNOWN	9.40	2000000	J
16.	ALKANE	9.52	4000000	J
17.	ALKANE	9.55	2000000	J
18.	ALKANE	9.98	2000000	J
19.	ALKANE	10.20	1000000	J
20.	ALKANE	11.05	2000000	J

1B

SEMIVOLATILE ORGANICS ANALYSIS SHEET 000056

CLIENT SAMPLE NO.

BOOJ46DL

Lab Name: Roy F. Weston, Inc. Work Order: 6168-02-01-0000

Client: WESTINGHOUSE HANFORD

Matrix: DRUM

Lab Sample ID: 9104L326-001 DL

Sample wt/vol: 1.20 (g/mL) G

Lab File ID: V053020

Level: (low/med) LOW

Date Received: 04/18/91

% Moisture: not dec. 0 dec.

Date Extracted: 04/19/91

Extraction: (SepF/Cont/Sonc) N/A

Date Analyzed: 05/31/91

GPC Cleanup: (Y/N) N pH: 7.0

Dilution Factor: 2000

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
108-95-2	Phenol	NA	
111-44-4	bis(2-Chloroethyl)ether	NA	
95-57-8	2-Chlorophenol	NA	
541-73-1	1,3-Dichlorobenzene	NA	
106-46-7	1,4-Dichlorobenzene	NA	
100-51-6	Benzyl alcohol	NA	
95-50-1	1,2-Dichlorobenzene	NA	
95-48-7	2-Methylphenol	NA	
108-60-1	bis(2-Chloroisopropyl)ether	NA	
106-44-5	4-Methylphenol	NA	
621-64-7	N-Nitroso-Di-n-propylamine	NA	
67-72-1	Hexachloroethane	NA	
98-95-3	Nitrobenzene	NA	
78-59-1	Isophorone	NA	
88-75-5	2-Nitrophenol	NA	
105-67-9	2,4-Dimethylphenol	NA	
65-85-0	Benzoic acid	NA	
111-91-1	bis(2-Chloroethoxy)methane	NA	
120-83-2	2,4-Dichlorophenol	NA	
120-82-1	1,2,4-Trichlorobenzene	NA	
91-20-3	Naphthalene	NA	
106-47-8	4-Chloroaniline	NA	
87-68-3	Hexachlorobutadiene	NA	
59-50-7	4-Chloro-3-methylphenol	NA	
91-57-6	2-Methylnaphthalene	NA	
77-47-4	Hexachlorocyclopentadiene	NA	
88-06-2	2,4,6-Trichlorophenol	NA	
95-95-4	2,4,5-Trichlorophenol	NA	
91-58-7	2-Chloronaphthalene	NA	
88-74-4	2-Nitroaniline	NA	
131-11-3	Dimethylphthalate	NA	
208-96-8	Acenaphthylene	NA	
606-20-2	2,6-Dinitrotoluene	NA	

1C

SEMIVOLATILE ORGANICS ANALYSIS SHEET 000057

CLIENT SAMPLE NO.

BOOJ46DL

Lab Name: Roy F. Weston, Inc. Work Order: 6168-02-01-0000

Client: WESTINGHOUSE HANFORD

Matrix: DRUM Lab Sample ID: 9104L326-001 DL

Sample wt/vol: 1.20 (g/mL) G Lab File ID: V053020

Level: (low/med) LOW Date Received: 04/18/91

% Moisture: not dec. 0 dec. Date Extracted: 04/19/91

Extraction: (SepF/Cont/Sonc) N/A Date Analyzed: 05/31/91

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 2000

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
99-09-2	3-Nitroaniline	NA	
83-32-9	Acenaphthene	NA	
51-28-5	2,4-Dinitrophenol	NA	
100-02-7	4-Nitrophenol	NA	
132-64-9	Dibenzofuran	NA	
121-14-2	2,4-Dinitrotoluene	NA	
84-66-2	Diethylphthalate	NA	
7005-72-3	4-Chlorophenyl-phenylether	NA	
86-73-7	Fluorene	NA	
100-01-6	4-Nitroaniline	NA	
534-52-1	4,6-Dinitro-2-methylphenol	NA	
86-30-6	N-Nitrosodiphenylamine (1)	NA	
101-55-3	4-Bromophenyl-phenylether	NA	
118-74-1	Hexachlorobenzene	NA	
87-86-5	Pentachlorophenol	NA	
85-01-8	Phenanthrene	NA	
120-12-7	Anthracene	NA	
84-74-2	Di-n-Butylphthalate	NA	
206-44-0	Fluoranthene	NA	
129-00-0	Pyrene	NA	
85-68-7	Butylbenzylphthalate	NA	
91-94-1	3,3'-Dichlorobenzidine	NA	
56-55-3	Benzo(a)anthracene	NA	
218-01-9	Chrysene	NA	
117-81-7	bis(2-Ethylhexyl)phthalate	NA	
117-84-0	Di-n-Octyl phthalate	NA	
205-99-2	Benzo(b)fluoranthene	NA	
207-08-9	Benzo(k)fluoranthene	NA	
50-32-8	Benzo(a)pyrene	NA	
193-39-5	Indeno(1,2,3-cd)pyrene	NA	
53-70-3	Dibenzo(a,h)anthracene	NA	
191-24-2	Benzo(g,h,i)perylene	NA	

(1) - Cannot be separated from Diphenylamine

1D

SEMIVOLATILE ORGANICS ANALYSIS SHEET 0000058

CLIENT SAMPLE NO.

BOOJ46DL

Lab Name: Roy F. Weston, Inc. Work Order: 6168-02-01-0000

Client: WESTINGHOUSE HANFORD

Matrix: DRUM

Lab Sample ID: 9104L326-001 DL

Sample wt/vol: 1.20 (g/mL) G

Lab File ID: V053020

Level: (low/med) LOW

Date Received: 04/18/91

% Moisture: not dec. 0 dec.

Date Extracted: 04/19/91

Extraction: (SepF/Cont/Sonc) N/A

Date Analyzed: 05/31/91

GPC Cleanup: (Y/N) N pH: 7.0

Dilution Factor: 2000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	
126-73-8	Tributylphosphate	0.63E+08	

FORM 1 SV-3

12/88 Rev.

1B

SEMIVOLATILE ORGANICS ANALYSIS SHEET 000067

CLIENT SAMPLE NO.

B00J47

Lab Name: Roy F. Weston, Inc. Work Order: 6168-02-01-0000

Client: WESTINGHOUSE HANFORD

Matrix: DRUM

Lab Sample ID: 9104L326-002

Sample wt/vol: 1.20 (g/mL) G

Lab File ID: M050613

Level: (low/med) LOW

Date Received: 04/18/91

% Moisture: not dec. 0 dec.

Date Extracted: 04/19/91

Extraction: (SepF/Cont/Sonc) N/A

Date Analyzed: 05/06/91

GPC Cleanup: (Y/N) N pH: 7.0

Dilution Factor: 100

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
108-95-2	Phenol	830000	U
111-44-4	bis(2-Chloroethyl)ether	830000	U
95-57-8	2-Chlorophenol	830000	U
541-73-1	1,3-Dichlorobenzene	830000	U
106-46-7	1,4-Dichlorobenzene	830000	U
100-51-6	Benzyl alcohol	830000	U
95-50-1	1,2-Dichlorobenzene	830000	U
95-48-7	2-Methylphenol	830000	U
108-60-1	bis(2-Chloroisopropyl)ether	830000	U
106-44-5	4-Methylphenol	830000	U
621-64-7	N-Nitroso-Di-n-propylamine	830000	U
67-72-1	Hexachloroethane	830000	U
98-95-3	Nitrobenzene	830000	U
78-59-1	Isophorone	830000	U
88-75-5	2-Nitrophenol	830000	U
105-67-9	2,4-Dimethylphenol	830000	U
65-85-0	Benzoic acid	4200000	U
111-91-1	bis(2-Chloroethoxy)methane	830000	U
120-83-2	2,4-Dichlorophenol	830000	U
120-82-1	1,2,4-Trichlorobenzene	830000	U
91-20-3	Naphthalene	830000	U
106-47-8	4-Chloroaniline	830000	U
87-68-3	Hexachlorobutadiene	830000	U
59-50-7	4-Chloro-3-methylphenol	830000	U
91-57-6	2-Methylnaphthalene	830000	U
77-47-4	Hexachlorocyclopentadiene	830000	U
88-06-2	2,4,6-Trichlorophenol	830000	U
95-95-4	2,4,5-Trichlorophenol	4200000	U
91-58-7	2-Chloronaphthalene	830000	U
88-74-4	2-Nitroaniline	4200000	U
131-11-3	Dimethylphthalate	830000	U
208-96-8	Acenaphthylene	830000	U
606-20-2	2,6-Dinitrotoluene	830000	U

1C

SEMIVOLATILE ORGANICS ANALYSIS SHEET 000068

CLIENT SAMPLE NO.

BOOJ47

Lab Name: Roy F. Weston, Inc. Work Order: 6168-02-01-0000

Client: WESTINGHOUSE HANFORD

Matrix: DRUM Lab Sample ID: 9104L326-002

Sample wt/vol: 1.20 (g/mL) G Lab File ID: M050613

Level: (low/med) LOW Date Received: 04/18/91

% Moisture: not dec. 0 dec. Date Extracted: 04/19/91

Extraction: (SepF/Cont/Sonc) N/A Date Analyzed: 05/06/91

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 100

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
99-09-2	3-Nitroaniline	4200000	U
83-32-9	Acenaphthene	830000	U
51-28-5	2,4-Dinitrophenol	4200000	U
100-02-7	4-Nitrophenol	4200000	U
132-64-9	Dibenzofuran	830000	U
121-14-2	2,4-Dinitrotoluene	830000	U
84-66-2	Diethylphthalate	830000	U
7005-72-3	4-Chlorophenyl-phenylether	830000	U
86-73-7	Fluorene	830000	U
100-01-6	4-Nitroaniline	4200000	U
534-52-1	4,6-Dinitro-2-methylphenol	4200000	U
86-30-6	N-Nitrosodiphenylamine (1)	830000	U
101-55-3	4-Bromophenyl-phenylether	830000	U
118-74-1	Hexachlorobenzene	830000	U
87-86-5	Pentachlorophenol	4200000	U
85-01-8	Phenanthrene	830000	U
120-12-7	Anthracene	830000	U
84-74-2	Di-n-Butylphthalate	830000	U
206-44-0	Fluoranthene	830000	U
129-00-0	Pyrene	830000	U
85-68-7	Butylbenzylphthalate	830000	U
91-94-1	3,3'-Dichlorobenzidine	1700000	U
56-55-3	Benzo(a)anthracene	830000	U
218-01-9	Chrysene	830000	U
117-81-7	bis(2-Ethylhexyl)phthalate	830000	U
117-84-0	Di-n-Octyl phthalate	830000	U
205-99-2	Benzo(b)fluoranthene	830000	U
207-08-9	Benzo(k)fluoranthene	830000	U
50-32-8	Benzo(a)pyrene	830000	U
193-39-5	Indeno(1,2,3-cd)pyrene	830000	U
53-70-3	Dibenzo(a,h)anthracene	830000	U
191-24-2	Benzo(g,h,i)perylene	830000	U

(1) - Cannot be separated from Diphenylamine

1D

SEMIVOLATILE ORGANICS ANALYSIS SHEET 000069

CLIENT SAMPLE NO.

BOOJ47

Lab Name: Roy F. Weston, Inc. Work Order: 6168-02-01-0000

Client: WESTINGHOUSE HANFORD

Matrix: DRUM

Lab Sample ID: 9104L326-002

Sample wt/vol: 1.20 (g/mL) G

Lab File ID: M050613

Level: (low/med) LOW

Date Received: 04/18/91

% Moisture: not dec. 0 dec.

Date Extracted: 04/19/91

Extraction: (SepF/Cont/Sonc) N/A

Date Analyzed: 05/06/91

GPC Cleanup: (Y/N) N pH: 7.0

Dilution Factor: 100

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
126-73-8	Tributylphosphate	830000	U

FORM 1 SV-3

12/88 Rev.

1F

SEMIVOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

D000070

CLIENT SAMPLE NO.

BOOJ47

Lab Name: Roy F. Weston, Inc. Work Order: 6168-02-01-0000

Client: WESTINGHOUSE HANFORD

Matrix: DRUM

Lab Sample ID: 9104L326-002

Sample wt/vol: 1.20 (g/mL) G

Lab File ID: M050613

Level: (low/med) LOW

Date Received: 04/18/91

% Moisture: not dec. 0 dec.

Date Extracted: 04/19/91

Extraction: (SepF/Cont/Sonc) N/A

Date Analyzed: 05/06/91

GPC Cleanup: (Y/N) N pH: 7.0

Dilution Factor: 100

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				

Roy F. Weston, Inc. - Lionville Laboratory

PCBs by GC

Report Date: 06/03/91 17:17

RFW Batch Number: 9104L326 Client: WESTINGHOUSE HANFORD Work Order: 6168-02-01-0000 Page: 1

	Cust ID:	BOOJ46		BOOJ46		BOOJ46		BOOJ47		PBLK		PBLK BS	
Sample Information	RFW#:	001		001 MS		001 MSD		002		91LE0516-MB1		91LE0516-MB1	
	Matrix:	DRUM		DRUM		DRUM		DRUM		DRUM		DRUM	
	D.F.:	0.500		0.500		0.500		0.500		0.500		0.500	
	Units:	ug/Kg		ug/Kg		ug/Kg		ug/Kg		ug/Kg		ug/Kg	
Surrogate: Di-n-butylchlorendate		76	%	28	%	123	%	56	%	78	%	79	%
==========fl				==========fl		==========fl		==========fl		==========fl		==========fl	
Aroclor-1016		12000	U	12000	U	12000	U	12000	U	12000	U	12000	U
Aroclor-1221		12000	U	12000	U	12000	U	12000	U	12000	U	12000	U
Aroclor-1232		12000	U	12000	U	12000	U	12000	U	12000	U	12000	U
Aroclor-1242		12000	U	12000	U	12000	U	12000	U	12000	U	12000	U
Aroclor-1248		12000	U	12000	U	12000	U	12000	U	12000	U	12000	U
Aroclor-1254		24000	U	58	%	79	%	24000	U	24000	U	94	%
Aroclor-1260		24000	U	24000	U	24000	U	24000	U	24000	U	24000	U

U= Analyzed, not detected. J= Present below detection limit. B= Present in blank. NR= Not requested. NS= Not spiked.
%= Percent recovery. D= Diluted out. I= Interference. NA= Not Applicable. *= Outside of EPA CLP QC

5A

ROY F. WESTON, INC.
Lionville Laboratory

CLIENT: WESTINGHOUSE HANDFORD **SAMPLES RECEIVED:** 04-18-91
RFW #: 9104L326, PEST/PCB
W.O. #: 6168-02-01

NARRATIVE

The set of samples consisted of two (2) drum samples collected on 04-16-91.

The samples were extracted on 04-19-91 and analyzed according to criteria set forth in the Contract Laboratory Program for Pesticide and PCB target compounds on 05-29-91.

The following is a summary of the QC results accompanying these sample results and a description of any problems encountered during their analysis:

1. Linearity and breakdown criteria were met for all compounds except aldrin on the primary column (RSD of calibration factors exceeds 10%.) Quantitation of target compounds was not required.

2. Continuing calibration criteria were met for all compounds in standards analyzed prior to the sample extracts.

3. Retention time criteria were met for all compounds on both the primary and confirmation columns.

4. All surrogate recoveries were within EPA QC limits.

5. All matrix spike recoveries were within laboratory control warning limits.

6. The blank spike recovery was within laboratory control warning limits.

Jack R. Tuschall, Ph.D.
Laboratory Manager
Lionville Analytical Laboratory

Date

1D

PESTICIDE ORGANICS ANALYSIS SHEET 0000013

CLIENT SAMPLE NO.

BOOJ46

Lab Name: Roy F. Weston, Inc. Work Order: 6168-02-01-0000

Client: WESTINGHOUSE HANFORD

Matrix: DRUM

Lab Sample ID: 9104L326-001

Sample wt/vol: 0.100 (g/mL) G

Lab File ID: 05289113.31

Level: (low/med) LOW

Date Received: 04/18/91

% Moisture: not dec. 100 dec.

Date Extracted: 04/19/91

Extraction: (SepF/Cont/Sonc) SONC

Date Analyzed: 05/29/91

GPC Cleanup: (Y/N) N pH: 7.0

Dilution Factor: 0.500

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
12674-11-2	Aroclor-1016	12000	U
11104-28-2	Aroclor-1221	12000	U
11141-16-5	Aroclor-1232	12000	U
53469-21-9	Aroclor-1242	12000	U
12672-29-6	Aroclor-1248	12000	U
11097-69-1	Aroclor-1254	24000	U
11096-82-5	Aroclor-1260	24000	U

6/4/91

FORM 1 PEST 12/88 Rev.

1D

PESTICIDE ORGANICS ANALYSIS SHEET 0000018

CLIENT SAMPLE NO.

BOOJ47

Lab Name: Roy F. Weston, Inc. Work Order: 6168-02-01-0000

Client: WESTINGHOUSE HANFORD

Matrix: DRUM

Lab Sample ID: 9104L326-002

Sample wt/vol: 0.100 (g/mL) G

Lab File ID: 05289113.36

Level: (low/med) LOW

Date Received: 04/18/91

% Moisture: not dec. 100 dec.

Date Extracted: 04/19/91

Extraction: (SepF/Cont/Sonc) SONC

Date Analyzed: 05/29/91

GPC Cleanup: (Y/N) N pH: 7.0

Dilution Factor: 0.500

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
12674-11-2	Aroclor-1016	12000	U
11104-28-2	Aroclor-1221	12000	U
11141-16-5	Aroclor-1232	12000	U
53469-21-9	Aroclor-1242	12000	U
12672-29-6	Aroclor-1248	12000	U
11097-69-1	Aroclor-1254	24000	U
11096-82-5	Aroclor-1260	24000	U

6/11/91

FORM 1 PEST 12/88 Rev.

ROY F. WESTON, INC.
Lionville Laboratory

CLIENT: WESTINGHOUSE HANFORD **SAMPLES RECEIVED:** 04-18-91
RFW #: 9104L326
W.O. #: 6168-02-01

INORGANIC NARRATIVE

The following is a summary of the quality control results and a description of any problems encountered during the analysis of this batch of samples:

1. Sample holding times as required by 40CFR136 were met for water samples.

2. All preparation blanks were analyzed below the required detection limit.

3. High recoveries were observed for four of six anions. However, positive results were not observed for anions which showed high recovery and the sample results are most likely not affected.

4. All calibration verification checks were within the required control limits of 90-110%. Calibration verification is performed using independent standards.

5. The analytical methods applied by the laboratory, unless otherwise requested, for all inorganic analyses are derived from the USEPA Method for Chemical Analysis of Water and Wastes (USEPA 600/4-79-020), and Standard Methods for the Examination of Water and Wastewater 16 ed. Methods for the analysis of solid samples are derived from Test Methods for Evaluating Solid Waste (USEPA SW846).

Jack R. Tuschall, Ph.D. 5.30.91
Date
Laboratory Manager
Lionville Analytical Laboratory

pas.21\i4-326

ROY F. WESTON
INORGANICS DATA SUMMARY REPORT
PHYSICAL TESTING OBSERVATIONS

CLIENT: WESTINGHOUSE HANFORD
RFW #: 9104L326-001,-002
W.O. #: 6168-02-01

SAMPLES RECEIVED: 04-18-91

Analyte:	Observation:
Flashpoint (IFLSH)	Vapors began to burn at: 53.4° for sample -001 and 47.4° for sample -002. Xylene was used to determine the accuracy of the flashpoint apparatus. The xylene will flash at 77°F. For this test, the xylene flashed at 75.4°F.

pas.21\pto326.pg2

ROY F. WESTON INC.

INORGANICS DATA SUMMARY REPORT 05/24/91

CLIENT: WESTINGHOUSE HANFORD
WORK ORDER: 6168-02-01-0000

WESTON BATCH #: 9104L326

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	REPORTING LIMIT
-001	BOOJ46	Chloride by IC	0.50 u	mg/L	0.50
		Fluoride by IC	46.5	mg/L	20.0
		Nitrite by IC	0.50 u	mg/L	0.50
		Nitrate by IC	1.5	mg/L	0.50
		Phosphate by IC	0.50 u	mg/L	0.50
		Sulfate by IC	0.50 u	mg/L	0.50
		Flash Point	53.4	DEG/F	20.0
-002	BOOJ47	Chloride by IC	0.50 u	mg/L	0.50
		Fluoride by IC	78.9	mg/L	20.0
		Nitrite by IC	0.50 u	mg/L	0.50
		Nitrate by IC	0.50 u	mg/L	0.50
		Phosphate by IC	0.50 u	mg/L	0.50
		Sulfate by IC	0.50 u	mg/L	0.50
		Flash Point	47.4	DEG/F	20.0

ROY F. WESTON, INC.
Lionville Laboratory

CLIENT: WESTINGHOUSE SAMPLES RECEIVED: 04/18/91
RFW #: 9104L326 GC SCAN (HYDROCARBON FINGERPRINT)
W.O. #: 6168-02-01-0000

NARRATIVE

This set of samples consisted of two drum liquid samples collected on April 16, 1991.

The liquids were diluted to the proper analytical range and then analyzed by Direct Injection - GC/FID for Hydrocarbons, and MIBK (Methyl iso-Butyl Ketone) on April 29, 30, 1991. Dilutions of the liquids were made by adding 100 ul sample to 9.9 ml CS2 (carbon disulfide) to yield a 1:100 dilution. Then 100 ul of the 1:100 dilution was added to 4.9 ml CS2 to yield a 1:5000 dilution which was used in the analysis.

The following is a summary of the QC results accompanying these sample results and a description of any problems encountered during their analysis:

1. An SP5-30M .53mm ID GC capillary column was utilized in these analyses. The initial temperature was 33 C, which was held for 5 minutes. The temperature was then ramped at a rate of 8 C/minute to a final temperature of 300 C, where it was held. The injection volume was 1 ul for MIBK, and 5 ul for hydrocarbons.

2. Results for MIBK and hydrocarbons were obtained by External Standard Quantification Method using the average calibration factor from the initial calibration.

3. Samples 9104L326-001 was reanalyzed and quantified in batch 91DGC342 due to the presence of hydrocarbons.

4. The method blank was free of contamination.

5. All continuing calibration recoveries were within laboratory control limits. Due to the almost pure organic nature of the samples, two continuing calibrations were analyzed in place of blank spikes or matrix spikes.

J. Michael Taylor Date
Project Director
Lionville Analytical Laboratory
WEST326.CN

Roy F. Weston, Inc.- Lionville Laboratory

Hydrocarbon Fingerprinting

Client :Westinghouse
RFW# :9104L326-001
Client ID :B00J46
Matrix :Drum Liquid
Run Batch :91DGC342 & 91DGC340
Init. Cal.:04/02-03/91 (kerosene)
& 04/18-19/91 (MIBK)

Sample Collected:04/16/91
Sample Received :04/18/91
Sample Prepared :04/29/91
Sample Analyzed :04/30/91

Qualitative Identification

The fingerprint is tentatively identified as mineral spirits. There was an peak identified as Methyl-isobutyl Ketone (MIBK).

Degree of Matching = Good

Quantitative Report

Total Hydrocarbons = .35 G/ML

Total MIBK = .45 G/ML

Approximate measured density (sample) = .78 G/ML

Measured density of Mineral Spirits = .81 G/ML

Measured density of MIBK = .80 G/ML

Sample quantified versus = Kerosene & MIBK

Roy F. Weston, Inc.- Lionville Laboratory

Hydrocarbon Fingerprinting

Client :Westinghouse
RFW# :9104L326-002
Client ID :BOOJ47
Matrix :Drum Liquid
Run Batch :91DGC340
Init. Cal.:04/18-19/91 (MIBK)

Sample Collected:04/16/91
Sample Received :04/18/91
Sample Prepared :04/29/91
Sample Analyzed :04/29/91

Qualitative Identification

The sample had a sweet odor like MIBK. There was one major peak seen and it was identified as Methyl-isobutyl Ketone (MIBK).

Degree of Matching = Excellent

Quantitative Report

Total MIBK = .84 G/ML

Approximate measured density (sample) = .80 G/ML

Measured density of MIBK = .80 G/ML

Sample quantified versus = MIBK

VALIDATION SUMMARY

9104L326-WES-050A

LEVEL C DOCUMENTATION

Westinghouse
Hanford Company

OSM RCRA LEVEL C DATA ASSESSMENT

DATE 7/26/91 SAMPLES/MATRIX B00J46

REVIEWED BY D.Y. Bisenius DYB B00J47

LABORATORY Weston

CASE #

SDG #

RFW# 9104L326 all liquid from drum

DATA ASSESSMENT SUMMARY

QUALITY CONTROL CHECK	ANALYSIS	Anions	Flashpoint	
1. Holding Times		O	O	
2. Surrogate		X		
3. MS/MSD		X		
4. Duplicates		X		
5. Analytical Blanks		O		
6. Initial & Cont. Calibration		O		
7. ~~Internal Standards~~ DYB 7/29/91		N/A		
8. Laboratory Control Sample		O		
9. Other		N/A		
10. Requested / Reported		O	O	

O = data had no problems
X = data qualified due to minor problems
M = data qualified due to major problems/some data may be unusable

OVERALL ASSESSSMENT: Spike recoveries biased HIGH.
Poor - no matrix spike, duplicate analysis or calibration information was provided with package.

NOTES:

o Refer to the corresponding attachments for explanation of any problems.

ROY F. WESTON INC.

INORGANICS DATA SUMMARY REPORT 05/24/91

DeJB 7/26/91

CLIENT: WESTINGHOUSE HANFORD
WORK ORDER: 6168-02-01-0000

WESTON BATCH #: 9104L326

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	REPORTING LIMIT
-001	BOOJ46	Chloride by IC	0.50 u	mg/L	0.50
		Fluoride by IC	46.5 J	mg/L	20.0
		Nitrite by IC	0.50 u	mg/L	0.50
		Nitrate by IC	1.5 J	mg/L	0.50
		Phosphate by IC	0.50 u	mg/L	0.50
		Sulfate by IC	0.50 u	mg/L	0.50
		Flash Point	53.4	DEG/F	20.0
-002	BOOJ47	Chloride by IC	0.50 u	mg/L	0.50
		Fluoride by IC	78.9 J	mg/L	20.0
		Nitrite by IC	0.50 u	mg/L	0.50
		Nitrate by IC	0.50 u	mg/L	0.50
		Phosphate by IC	0.50 u	mg/L	0.50
		Sulfate by IC	0.50 u	mg/L	0.50
		Flash Point	47.4	DEG/F	20.0

RCRA LEVEL C QC

Name D.Y. Bisenius DYB Date 7/29/91

QC Check: Requested / Reported

COMMENTS: The analysis for anions were requested and the Weston Lab. reported results. The analysis for flashpoint was requested and Weston Lab reported results.

ACTION: None

sample #	constituent	value/qual	sample #	constituent	value/qual

RCRA LEVEL C QC

Name D.Y. Bisenius DYB Date 7/29/91

QC Check: Holding Times

COMMENTS: All holding time requirements met for anions and flashpoint.

ACTION: None

sample #	constituent	value/qual	sample #	constituent	value/qual

of

RCRA LEVEL C QC

Name D.Y. Bisenius DYB Date 7/29/91

QC Check: Surrogate Recoveries

COMMENTS: Spike recoveries biased HIGH.

ACTION: Positive results qualified as estimated "J"

sample #	constituent	value/qual	sample #	constituent	value/qual
B00J46	Fluoride	46.5 mg/L/J			
B00J46	Nitrate	1.5 mg/L/J			
B00J47	Fluoride	78.9 mg/L/J			

RCRA LEVEL C QC

Name Cd Simiely Date 7-28-91

QC Check: Matrix spike

COMMENTS: No matrix spike data provided with data package.

ACTION: None- user should be aware that no matrix spike analysis was provided with package

sample #	constituent	value/qual	sample #	constituent	value/qual

___ of ___

RCRA LEVEL C QC

Name CJ Simuel Date 7-28-91

QC Check: Duplicate Analysis

COMMENTS: No duplicate results were provided with data package

ACTION: None - user should be aware that no duplicate results were provided with package

sample #	constituent	value/qual	sample #	constituent	value/qual

___ of ___

RCRA LEVEL C QC

Name D.Y. Bisenius DYB Date 7/29/91

QC Check: Analytical Blanks

COMMENTS: All blank requirements met- no Contaminants detected in analytical blank.

ACTION: None

sample #	constituent	value/qual	sample #	constituent	value/qual

RCRA LEVEL C QC

Name D. Y. Bisenius DYB Date 7/29/91

QC Check: Initial & Continuing Calibrations

COMMENTS: Initial and Continuing calibration requirements met. All results are within the method specified control limits

ACTION: None

sample #	constituent	value/qual	sample #	constituent	value/qual

RCRA LEVEL C QC

Name D.Y. Bisenius DYB Date 7/29/91

QC Check: Laboratory Control Sample

COMMENTS: Laboratory Control Sample recoveries are within specified control limits

ACTION: None

sample #	constituent	value/qual	sample #	constituent	value/qual

RCRA LEVEL C QC

Name D.Y. Bisenius DYB Date 7/29/91

QC Check: Other

COMMENTS: Report of results summary copy was smeared and illegible and some columns missing.

ACTION: Notify Weston lab.

sample #	constituent	value/qual	sample #	constituent	value/qual

OSM ORGANIC DATA ASSESSMENT

DATE 7/26/91

SAMPLES/MATRIX B00J46

REVIEWED BY D. Y. Bisenius DYB

B00J47

LABORATORY WESTON

CASE #

SDG #

RFW # 9104L326

-all liquid from drum

DATA ASSESSMENT SUMMARY

	VOA	ABN	PEST
1. Holding Times (Form I)	O	X	O
2. Surrogate Recovery (II)	X DYB 7/27/91	M	O
3. Matrix Spike/ MSD (III)	X	X	O
4. Blanks (IV)	O	O	O
5. GC/MS Tune (V)	O	O	
6. Calibration (VI-VII; VIII pest)	O	O	X
7. Internal Standards (VIII)	O	O	
8. Instr. Perform. (IX pest)			O
9. Other ( )			X

O = data had no problems
X = data qualified due to minor problems
M = data qualified due to major problems, some data may be unusable

OVERALL ASSESSMENT: Most problems with surrogate recovery VOA/ABN. A/B/N needs to be re-analyzed. Pest. data package missing pp. 5 of forms IX. All results qualified estimated (J or UJ).

NOTES :

Refer to the corresponding attachments for explanation of any problems.

1A
VOLATILE ORGANICS ANALYSIS SHEET 0000014

CLIENT SAMPLE NO.

B00J46

Lab Name: Roy F. Weston, Inc. Work Order: 6168-02-01-0000

Client: WESTINGHOUSE HANFORD

Matrix: DRUM

Lab Sample ID: 9104L326-001

Sample wt/vol: 4.00 (g/mL) G

Lab File ID: AX4M09

Level: (low/med) MED

Date Received: 04/18/91

% Moisture: not dec. 0

Date Analyzed: 04/22/91

Column: (pack/cap) PACK

Dilution Factor: 50000

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
74-87-3	Chloromethane	0.50E+08	UJ
74-83-9	Bromomethane	0.50E+08	U
75-01-4	Vinyl Chloride	0.50E+08	U
75-00-3	Chloroethane	0.50E+08	U
75-09-2	Methylene Chloride	0.11E+09	~~B~~ J
67-64-1	Acetone	0.11E+09	~~B~~ J
75-15-0	Carbon Disulfide	0.25E+08	UJ
75-35-4	1,1-Dichloroethene	0.25E+08	U
75-34-3	1,1-Dichloroethane	0.25E+08	U
540-59-0	1,2-Dichloroethene (total)	0.25E+08	U
67-66-3	Chloroform	0.25E+08	U
107-06-2	1,2-Dichloroethane	0.25E+08	U
78-93-3	2-Butanone	0.50E+08	U
71-55-6	1,1,1-Trichloroethane	0.25E+08	U
56-23-5	Carbon Tetrachloride	0.25E+08	U
108-05-4	Vinyl Acetate	0.50E+08	U
75-27-4	Bromodichloromethane	0.25E+08	U
78-87-5	1,2-Dichloropropane	0.25E+08	U
10061-01-5	cis-1,3-Dichloropropene	0.25E+08	U
79-01-6	Trichloroethene	0.25E+08	U
124-48-1	Dibromochloromethane	0.25E+08	U
79-00-5	1,1,2-Trichloroethane	0.25E+08	U
71-43-2	Benzene	0.25E+08	U
10061-02-6	Trans-1,3-Dichloropropene	0.25E+08	U
75-25-2	Bromoform	0.25E+08	U
108-10-1	4-Methyl-2-pentanone	0.64E+09	J
591-78-6	2-Hexanone	0.50E+08	UJ
127-18-4	Tetrachloroethene	0.25E+08	U
79-34-5	1,1,2,2-Tetrachloroethane	0.25E+08	U
108-88-3	Toluene	0.25E+08	U
108-90-7	Chlorobenzene	0.25E+08	U
100-41-4	Ethylbenzene	0.25E+08	U
100-42-5	Styrene	0.25E+08	U
1330-20-7	Xylene (total)	0.25E+08	U

DJB
7/26/91

1E

VOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS 0 0 0 0 0 1 5

CLIENT SAMPLE NO.

BOOJ46

Lab Name: Roy F. Weston, Inc. Work Order: 6168-02-01-0000

Client: WESTINGHOUSE HANFORD

Matrix: DRUM

Lab Sample ID: 9104L326-001

Sample wt/vol: 4.00 (g/mL) G

Lab File ID: AX4M09

Level: (low/med) MED

Date Received: 04/18/91

% Moisture: not dec. 0

Date Analyzed: 04/22/91

Column: (pack/cap) PACK

Dilution Factor: 50000

Number TICs found: 6

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	ALKANE	20.48	50000000	J
2.	ALKANE	22.63	40000000	J
3.	ALKANE	23.04	60000000	J
4.	ALKANE	23.69	60000000	J
5.	ALKANE	23.96	30000000	J
6.	HYDROCARBON	24.37	20000000	J

1A
VOLATILE ORGANICS ANALYSIS SHEET 0000029

CLIENT SAMPLE NO.

BOOJ47

Lab Name: Roy F. Weston, Inc. Work Order: 6168-02-01-0000

Client: WESTINGHOUSE HANFORD

Matrix: DRUM

Lab Sample ID: 9104L326-002

Sample wt/vol: 4.00 (g/mL) G

Lab File ID: AX4M08

Level: (low/med) MED

Date Received: 04/18/91

% Moisture: not dec. 0

Date Analyzed: 04/22/91

Column: (pack/cap) CAP

Dilution Factor: 62500

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
74-87-3	Chloromethane	0.62E+08	UJ
74-83-9	Bromomethane	0.62E+08	U
75-01-4	Vinyl Chloride	0.62E+08	U
75-00-3	Chloroethane	0.62E+08	U
75-09-2	Methylene Chloride	0.14E+09	~~B~~ J
67-64-1	Acetone	0.30E+09	~~B~~ J
75-15-0	Carbon Disulfide	0.31E+08	UJ
75-35-4	1,1-Dichloroethene	0.31E+08	U
75-34-3	1,1-Dichloroethane	0.31E+08	U
540-59-0	1,2-Dichloroethene (total)	0.31E+08	U
67-66-3	Chloroform	0.31E+08	U
107-06-2	1,2-Dichloroethane	0.31E+08	U
78-93-3	2-Butanone	0.62E+08	U
71-55-6	1,1,1-Trichloroethane	0.31E+08	U
56-23-5	Carbon Tetrachloride	0.31E+08	U
108-05-4	Vinyl Acetate	0.62E+08	U
75-27-4	Bromodichloromethane	0.31E+08	U
78-87-5	1,2-Dichloropropane	0.31E+08	U
10061-01-5	cis-1,3-Dichloropropene	0.31E+08	U
79-01-6	Trichloroethene	0.31E+08	U
124-48-1	Dibromochloromethane	0.31E+08	U
79-00-5	1,1,2-Trichloroethane	0.31E+08	U
71-43-2	Benzene	0.31E+08	U
10061-02-6	Trans-1,3-Dichloropropene	0.31E+08	U
75-25-2	Bromoform	0.31E+08	U
108-10-1	4-Methyl-2-pentanone	0.94E+09	J
591-78-6	2-Hexanone	0.62E+08	UJ
127-18-4	Tetrachloroethene	0.31E+08	U
79-34-5	1,1,2,2-Tetrachloroethane	0.31E+08	U
108-88-3	Toluene	0.31E+08	U
108-90-7	Chlorobenzene	0.31E+08	U
100-41-4	Ethylbenzene	0.31E+08	U
100-42-5	Styrene	0.31E+08	U
1330-20-7	Xylene (total)	0.31E+08	U

DYB
7/26/91

1E

VOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

0000030

CLIENT SAMPLE NO.

BOOJ47

Lab Name: Roy F. Weston, Inc. Work Order: 6168-02-01-0000

Client: WESTINGHOUSE HANFORD

Matrix: DRUM

Lab Sample ID: 9104L326-002

Sample wt/vol: 4.00 (g/mL) G

Lab File ID: AX4M08

Level: (low/med) MED

Date Received: 04/18/91

% Moisture: not dec. 0

Date Analyzed: 04/22/91

Column: (pack/cap) CAP

Dilution Factor: 62500

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				

1A
VOLATILE ORGANICS ANALYSIS SHEET

0000070

CLIENT SAMPLE NO.

VBLK

Lab Name: Roy F. Weston, Inc. Work Order: 6168-02-01-0000

Client: WESTINGHOUSE HANFORD

Matrix: SOIL

Lab Sample ID: 91LVX062-MB1

Sample wt/vol: 4.00 (g/mL) G

Lab File ID: AX4M06

Level: (low/med) MED

Date Received: 04/22/91

% Moisture: not dec. 0

Date Analyzed: 04/22/91

Column: (pack/cap) CAP

Dilution Factor: 1.25

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
74-87-3	Chloromethane	1200	U
74-83-9	Bromomethane	1200	U
75-01-4	Vinyl Chloride	1200	U
75-00-3	Chloroethane	1200	U
75-09-2	Methylene Chloride	1700	
67-64-1	Acetone	2400	
75-15-0	Carbon Disulfide	620	U
75-35-4	1,1-Dichloroethene	620	U
75-34-3	1,1-Dichloroethane	620	U
540-59-0	1,2-Dichloroethene (total)	620	U
67-66-3	Chloroform	620	U
107-06-2	1,2-Dichloroethane	620	U
78-93-3	2-Butanone	1200	U
71-55-6	1,1,1-Trichloroethane	620	U
56-23-5	Carbon Tetrachloride	620	U
108-05-4	Vinyl Acetate	1200	U
75-27-4	Bromodichloromethane	620	U
78-87-5	1,2-Dichloropropane	620	U
10061-01-5	cis-1,3-Dichloropropene	620	U
79-01-6	Trichloroethene	620	U
124-48-1	Dibromochloromethane	620	U
79-00-5	1,1,2-Trichloroethane	620	U
71-43-2	Benzene	620	U
10061-02-6	Trans-1,3-Dichloropropene	620	U
75-25-2	Bromoform	620	U
108-10-1	4-Methyl-2-pentanone	1200	U
591-78-6	2-Hexanone	1200	U
127-18-4	Tetrachloroethene	620	U
79-34-5	1,1,2,2-Tetrachloroethane	620	U
108-88-3	Toluene	620	U
108-90-7	Chlorobenzene	620	U
100-41-4	Ethylbenzene	620	U
100-42-5	Styrene	620	U
1330-20-7	Xylene (total)	620	U

1E

VOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS 0000071

CLIENT SAMPLE NO.

VBLK

Lab Name: Roy F. Weston, Inc. Work Order: 6168-02-01-0000

Client: WESTINGHOUSE HANFORD

Matrix: SOIL

Lab Sample ID: 91LVX062-MB1

Sample wt/vol: 4.00 (g/mL) G

Lab File ID: AX4M06

Level: (low/med) MED

Date Received: 04/22/91

% Moisture: not dec. 0

Date Analyzed: 04/22/91

Column: (pack/cap) CAP

Dilution Factor: 1.25

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				

1B
SEMIVOLATILE ORGANICS ANALYSIS SHEET

000022

CLIENT SAMPLE NO.

BOOJ46

Lab Name: Roy F. Weston, Inc. Work Order: 6168-02-01-0000

Client: WESTINGHOUSE HANFORD

Matrix: DRUM Lab Sample ID: 9104L326-001

Sample wt/vol: 1.20 (g/mL) G Lab File ID: M050610

Level: (low/med) LOW Date Received: 04/18/91

% Moisture: not dec. 0 dec. Date Extracted: 04/19/91

Extraction: (SepF/Cont/Sonc) N/A Date Analyzed: 05/06/91

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 100

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
108-95-2	Phenol	830000	U J
111-44-4	bis(2-Chloroethyl)ether	830000	U
95-57-8	2-Chlorophenol	830000	U
541-73-1	1,3-Dichlorobenzene	830000	U
106-46-7	1,4-Dichlorobenzene	830000	U
100-51-6	Benzyl alcohol	830000	U
95-50-1	1,2-Dichlorobenzene	830000	U
95-48-7	2-Methylphenol	830000	U
108-60-1	bis(2-Chloroisopropyl)ether	830000	U
106-44-5	4-Methylphenol	830000	U
621-64-7	N-Nitroso-Di-n-propylamine	830000	U
67-72-1	Hexachloroethane	830000	U
98-95-3	Nitrobenzene	830000	U
78-59-1	Isophorone	830000	U
88-75-5	2-Nitrophenol	830000	U
105-67-9	2,4-Dimethylphenol	830000	U
65-85-0	Benzoic acid	4200000	U
111-91-1	bis(2-Chloroethoxy)methane	830000	U
120-83-2	2,4-Dichlorophenol	830000	U
120-82-1	1,2,4-Trichlorobenzene	830000	U
91-20-3	Naphthalene	830000	U
106-47-8	4-Chloroaniline	830000	U
87-68-3	Hexachlorobutadiene	830000	U
59-50-7	4-Chloro-3-methylphenol	830000	U
91-57-6	2-Methylnaphthalene	830000	U
77-47-4	Hexachlorocyclopentadiene	830000	U
88-06-2	2,4,6-Trichlorophenol	830000	U
95-95-4	2,4,5-Trichlorophenol	4200000	U
91-58-7	2-Chloronaphthalene	830000	U
88-74-4	2-Nitroaniline	4200000	U
131-11-3	Dimethylphthalate	830000	U
208-96-8	Acenaphthylene	830000	U
606-20-2	2,6-Dinitrotoluene	830000	U

DYB
7/27/91

1C

SEMIVOLATILE ORGANICS ANALYSIS SHEET 000023

CLIENT SAMPLE NO.

BOOJ46

Lab Name: Roy F. Weston, Inc. Work Order: 6168-02-01-0000

Client: WESTINGHOUSE HANFORD

Matrix: DRUM

Lab Sample ID: 9104L326-001

Sample wt/vol: 1.20 (g/mL) G

Lab File ID: M050610

Level: (low/med) LOW

Date Received: 04/18/91

% Moisture: not dec. 0 dec.

Date Extracted: 04/19/91

Extraction: (SepF/Cont/Sonc) N/A

Date Analyzed: 05/06/91

GPC Cleanup: (Y/N) N pH: 7.0

Dilution Factor: 100

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
99-09-2	3-Nitroaniline	4200000	U J
83-32-9	Acenaphthene	830000	U
51-28-5	2,4-Dinitrophenol	4200000	U
100-02-7	4-Nitrophenol	4200000	U
132-64-9	Dibenzofuran	830000	U
121-14-2	2,4-Dinitrotoluene	830000	U
84-66-2	Diethylphthalate	830000	U
7005-72-3	4-Chlorophenyl-phenylether	830000	U
86-73-7	Fluorene	830000	U
100-01-6	4-Nitroaniline	4200000	U
534-52-1	4,6-Dinitro-2-methylphenol	4200000	U
86-30-6	N-Nitrosodiphenylamine (1)	830000	U
101-55-3	4-Bromophenyl-phenylether	830000	U
118-74-1	Hexachlorobenzene	830000	U
87-86-5	Pentachlorophenol	4200000	U
85-01-8	Phenanthrene	830000	U
120-12-7	Anthracene	830000	U
84-74-2	Di-n-Butylphthalate	830000	U
206-44-0	Fluoranthene	830000	U
129-00-0	Pyrene	830000	U
85-68-7	Butylbenzylphthalate	830000	U
91-94-1	3,3'-Dichlorobenzidine	1700000	U
56-55-3	Benzo(a)anthracene	830000	U
218-01-9	Chrysene	830000	U
117-81-7	bis(2-Ethylhexyl)phthalate	830000	U
117-84-0	Di-n-Octyl phthalate	830000	U
205-99-2	Benzo(b)fluoranthene	830000	U
207-08-9	Benzo(k)fluoranthene	830000	U
50-32-8	Benzo(a)pyrene	830000	U
193-39-5	Indeno(1,2,3-cd)pyrene	830000	U
53-70-3	Dibenzo(a,h)anthracene	830000	U
191-24-2	Benzo(g,h,i)perylene	830000	U

DYB 7/27/91

(1) - Cannot be separated from Diphenylamine

1D

SEMIVOLATILE ORGANICS ANALYSIS SHEET 0000024

CLIENT SAMPLE NO.

BOOJ46

Lab Name: Roy F. Weston, Inc. Work Order: 6168-02-01-0000

Client: WESTINGHOUSE HANFORD

Matrix: DRUM

Lab Sample ID: 9104L326-001

Sample wt/vol: 1.20 (g/mL) G

Lab File ID: M050610

Level: (low/med) LOW

Date Received: 04/18/91

% Moisture: not dec. 0 dec.

Date Extracted: 04/19/91

Extraction: (SepF/Cont/Sonc) N/A

Date Analyzed: 05/06/91

GPC Cleanup: (Y/N) N pH: 7.0

Dilution Factor: 100

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
126-73-8	Tributylphosphate		E J

DYB 7/27/91

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1F
SEMIVOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

0000025

CLIENT SAMPLE NO.

BOOJ46

Lab Name: Roy F. Weston, Inc. Work Order: 6168-02-01-0000

Client: WESTINGHOUSE HANFORD

Matrix: DRUM

Lab Sample ID: 9104L326-001

Sample wt/vol: 1.20 (g/mL) G

Lab File ID: M050610

Level: (low/med) LOW

Date Received: 04/18/91

% Moisture: not dec. 0 dec.

Date Extracted: 04/19/91

Extraction: (SepF/Cont/Sonc) N/A

Date Analyzed: 05/06/91

GPC Cleanup: (Y/N) N pH: 7.0

Dilution Factor: 100

Number TICs found: 20

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	ALKANE	6.25	20000000	J
2.	ALKANE	6.48	10000000	J
3.	ALKANE	6.80	10000000	J
4.	ALKANE	7.12	4000000	J
5.	ALKANE	7.42	9000000	J
6.	ALKANE	7.52	20000000	J
7.	ALKANE	7.63	1000000	J
8.	ALKANE	7.85	40000000	J
9.	ALKANE	7.93	20000000	J
10.	UNKNOWN	8.07	2000000	J
11.	ALKANE	8.17	20000000	J
12.	ALKANE	8.38	8000000	J
13.	ALKANE	8.48	7000000	J
14.	ALKANE	8.85	4000000	J
15.	UNKNOWN	9.40	2000000	J
16.	ALKANE	9.52	4000000	J
17.	ALKANE	9.55	2000000	J
18.	ALKANE	9.98	2000000	J
19.	ALKANE	10.20	1000000	J
20.	ALKANE	11.05	2000000	J

1B
SEMIVOLATILE ORGANICS ANALYSIS SHEET 000056

CLIENT SAMPLE NO.

BOOJ46DL

Lab Name: Roy F. Weston, Inc. Work Order: 6168-02-01-0000

Client: WESTINGHOUSE HANFORD

Matrix: DRUM

Lab Sample ID: 9104L326-001 DL

Sample wt/vol: 1.20 (g/mL) G

Lab File ID: V053020

Level: (low/med) LOW

Date Received: 04/18/91

% Moisture: not dec. 0 dec.

Date Extracted: 04/19/91

Extraction: (SepF/Cont/Sonc) N/A

Date Analyzed: 05/31/91

GPC Cleanup: (Y/N) N pH: 7.0

Dilution Factor: 2000

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
108-95-2	Phenol	NA	
111-44-4	bis(2-Chloroethyl)ether	NA	
95-57-8	2-Chlorophenol	NA	
541-73-1	1,3-Dichlorobenzene	NA	
106-46-7	1,4-Dichlorobenzene	NA	
100-51-6	Benzyl alcohol	NA	
95-50-1	1,2-Dichlorobenzene	NA	
95-48-7	2-Methylphenol	NA	
108-60-1	bis(2-Chloroisopropyl)ether	NA	
106-44-5	4-Methylphenol	NA	
621-64-7	N-Nitroso-Di-n-propylamine	NA	
67-72-1	Hexachloroethane	NA	
98-95-3	Nitrobenzene	NA	
78-59-1	Isophorone	NA	
88-75-5	2-Nitrophenol	NA	
105-67-9	2,4-Dimethylphenol	NA	
65-85-0	Benzoic acid	NA	
111-91-1	bis(2-Chloroethoxy)methane	NA	
120-83-2	2,4-Dichlorophenol	NA	
120-82-1	1,2,4-Trichlorobenzene	NA	
91-20-3	Naphthalene	NA	
106-47-8	4-Chloroaniline	NA	
87-68-3	Hexachlorobutadiene	NA	
59-50-7	4-Chloro-3-methylphenol	NA	
91-57-6	2-Methylnaphthalene	NA	
77-47-4	Hexachlorocyclopentadiene	NA	
88-06-2	2,4,6-Trichlorophenol	NA	
95-95-4	2,4,5-Trichlorophenol	NA	
91-58-7	2-Chloronaphthalene	NA	
88-74-4	2-Nitroaniline	NA	
131-11-3	Dimethylphthalate	NA	
208-96-8	Acenaphthylene	NA	
606-20-2	2,6-Dinitrotoluene	NA	

1C

SEMIVOLATILE ORGANICS ANALYSIS SHEET 0000057

CLIENT SAMPLE NO.

BOOJ46DL

Lab Name: Roy F. Weston, Inc. Work Order: 6168-02-01-0000

Client: WESTINGHOUSE HANFORD

Matrix: DRUM Lab Sample ID: 9104L326-001 DL

Sample wt/vol: 1.20 (g/mL) G Lab File ID: V053020

Level: (low/med) LOW Date Received: 04/18/91

% Moisture: not dec. 0 dec. Date Extracted: 04/19/91

Extraction: (SepF/Cont/Sonc) N/A Date Analyzed: 05/31/91

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 2000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	
99-09-2	3-Nitroaniline	NA	
83-32-9	Acenaphthene	NA	
51-28-5	2,4-Dinitrophenol	NA	
100-02-7	4-Nitrophenol	NA	
132-64-9	Dibenzofuran	NA	
121-14-2	2,4-Dinitrotoluene	NA	
84-66-2	Diethylphthalate	NA	
7005-72-3	4-Chlorophenyl-phenylether	NA	
86-73-7	Fluorene	NA	
100-01-6	4-Nitroaniline	NA	
534-52-1	4,6-Dinitro-2-methylphenol	NA	
86-30-6	N-Nitrosodiphenylamine (1)	NA	
101-55-3	4-Bromophenyl-phenylether	NA	
118-74-1	Hexachlorobenzene	NA	
87-86-5	Pentachlorophenol	NA	
85-01-8	Phenanthrene	NA	
120-12-7	Anthracene	NA	
84-74-2	Di-n-Butylphthalate	NA	
206-44-0	Fluoranthene	NA	
129-00-0	Pyrene	NA	
85-68-7	Butylbenzylphthalate	NA	
91-94-1	3,3'-Dichlorobenzidine	NA	
56-55-3	Benzo(a)anthracene	NA	
218-01-9	Chrysene	NA	
117-81-7	bis(2-Ethylhexyl)phthalate	NA	
117-84-0	Di-n-Octyl phthalate	NA	
205-99-2	Benzo(b)fluoranthene	NA	
207-08-9	Benzo(k)fluoranthene	NA	
50-32-8	Benzo(a)pyrene	NA	
193-39-5	Indeno(1,2,3-cd)pyrene	NA	
53-70-3	Dibenzo(a,h)anthracene	NA	
191-24-2	Benzo(g,h,i)perylene	NA	

(1) - Cannot be separated from Diphenylamine

1D
SEMIVOLATILE ORGANICS ANALYSIS SHEET

0000058

CLIENT SAMPLE NO.

BOOJ46DL

Lab Name: Roy F. Weston, Inc. Work Order: 6168-02-01-0000

Client: WESTINGHOUSE HANFORD

Matrix: DRUM

Lab Sample ID: 9104L326-001 DL

Sample wt/vol: 1.20 (g/mL) G

Lab File ID: V053020

Level: (low/med) LOW

Date Received: 04/18/91

% Moisture: not dec. 0 dec.

Date Extracted: 04/19/91

Extraction: (SepF/Cont/Sonc) N/A

Date Analyzed: 05/31/91

GPC Cleanup: (Y/N) N pH: 7.0

Dilution Factor: 2000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	
126-73-8	Tributylphosphate	0.63E+08	J

DYB 7/27/91

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1B
SEMIVOLATILE ORGANICS ANALYSIS SHEET 000067

CLIENT SAMPLE NO.

BOOJ47

Lab Name: Roy F. Weston, Inc. Work Order: 6168-02-01-0000

Client: WESTINGHOUSE HANFORD

Matrix: DRUM Lab Sample ID: 9104L326-002

Sample wt/vol: 1.20 (g/mL) G Lab File ID: M050613

Level: (low/med) LOW Date Received: 04/18/91

% Moisture: not dec. 0 dec. Date Extracted: 04/19/91

Extraction: (SepF/Cont/Sonc) N/A Date Analyzed: 05/06/91

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 100

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
108-95-2	Phenol	830000	U J
111-44-4	bis(2-Chloroethyl)ether	830000	U
95-57-8	2-Chlorophenol	830000	U
541-73-1	1,3-Dichlorobenzene	830000	U
106-46-7	1,4-Dichlorobenzene	830000	U
100-51-6	Benzyl alcohol	830000	U
95-50-1	1,2-Dichlorobenzene	830000	U
95-48-7	2-Methylphenol	830000	U
108-60-1	bis(2-Chloroisopropyl)ether	830000	U
106-44-5	4-Methylphenol	830000	U
621-64-7	N-Nitroso-Di-n-propylamine	830000	U
67-72-1	Hexachloroethane	830000	U
98-95-3	Nitrobenzene	830000	U
78-59-1	Isophorone	830000	U
88-75-5	2-Nitrophenol	830000	U
105-67-9	2,4-Dimethylphenol	830000	U
65-85-0	Benzoic acid	4200000	U
111-91-1	bis(2-Chloroethoxy)methane	830000	U
120-83-2	2,4-Dichlorophenol	830000	U
120-82-1	1,2,4-Trichlorobenzene	830000	U
91-20-3	Naphthalene	830000	U
106-47-8	4-Chloroaniline	830000	U
87-68-3	Hexachlorobutadiene	830000	U
59-50-7	4-Chloro-3-methylphenol	830000	U
91-57-6	2-Methylnaphthalene	830000	U
77-47-4	Hexachlorocyclopentadiene	830000	U
88-06-2	2,4,6-Trichlorophenol	830000	U
95-95-4	2,4,5-Trichlorophenol	4200000	U
91-58-7	2-Chloronaphthalene	830000	U
88-74-4	2-Nitroaniline	4200000	U
131-11-3	Dimethylphthalate	830000	U
208-96-8	Acenaphthylene	830000	U
606-20-2	2,6-Dinitrotoluene	830000	U

DYB
7/27/91

1C
SEMIVOLATILE ORGANICS ANALYSIS SHEET

0000068

CLIENT SAMPLE NO.

BOOJ47

Lab Name: Roy F. Weston, Inc. Work Order: 6168-02-01-0000

Client: WESTINGHOUSE HANFORD

Matrix: DRUM

Lab Sample ID: 9104L326-002

Sample wt/vol: 1.20 (g/mL) G

Lab File ID: M050613

Level: (low/med) LOW

Date Received: 04/18/91

% Moisture: not dec. 0 dec.

Date Extracted: 04/19/91

Extraction: (SepF/Cont/Sonc) N/A

Date Analyzed: 05/06/91

GPC Cleanup: (Y/N) N pH: 7.0

Dilution Factor: 100

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
99-09-2	3-Nitroaniline	4200000	U J
83-32-9	Acenaphthene	830000	U
51-28-5	2,4-Dinitrophenol	4200000	U
100-02-7	4-Nitrophenol	4200000	U
132-64-9	Dibenzofuran	830000	U
121-14-2	2,4-Dinitrotoluene	830000	U
84-66-2	Diethylphthalate	830000	U
7005-72-3	4-Chlorophenyl-phenylether	830000	U
86-73-7	Fluorene	830000	U
100-01-6	4-Nitroaniline	4200000	U
534-52-1	4,6-Dinitro-2-methylphenol	4200000	U
86-30-6	N-Nitrosodiphenylamine (1)	830000	U
101-55-3	4-Bromophenyl-phenylether	830000	U
118-74-1	Hexachlorobenzene	830000	U
87-86-5	Pentachlorophenol	4200000	U
85-01-8	Phenanthrene	830000	U
120-12-7	Anthracene	830000	U
84-74-2	Di-n-Butylphthalate	830000	U
206-44-0	Fluoranthene	830000	U
129-00-0	Pyrene	830000	U
85-68-7	Butylbenzylphthalate	830000	U
91-94-1	3,3'-Dichlorobenzidine	1700000	U
56-55-3	Benzo(a)anthracene	830000	U
218-01-9	Chrysene	830000	U
117-81-7	bis(2-Ethylhexyl)phthalate	830000	U
117-84-0	Di-n-Octyl phthalate	830000	U
205-99-2	Benzo(b)fluoranthene	830000	U
207-08-9	Benzo(k)fluoranthene	830000	U
50-32-8	Benzo(a)pyrene	830000	U
193-39-5	Indeno(1,2,3-cd)pyrene	830000	U
53-70-3	Dibenzo(a,h)anthracene	830000	U
191-24-2	Benzo(g,h,i)perylene	830000	U

DYB
7/27/91

(1) - Cannot be separated from Diphenylamine

1D
SEMIVOLATILE ORGANICS ANALYSIS SHEET 000069

CLIENT SAMPLE NO.

BOOJ47

Lab Name: Roy F. Weston, Inc. Work Order: 6168-02-01-0000

Client: WESTINGHOUSE HANFORD

Matrix: DRUM

Lab Sample ID: 9104L326-002

Sample wt/vol: 1.20 (g/mL) G

Lab File ID: M050613

Level: (low/med) LOW

Date Received: 04/18/91

% Moisture: not dec. 0 dec.

Date Extracted: 04/19/91

Extraction: (SepF/Cont/Sonc) N/A

Date Analyzed: 05/06/91

GPC Cleanup: (Y/N) N pH: 7.0

Dilution Factor: 100

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
126-73-8	Tributylphosphate	830000	UJ

DYB
7/27/91

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1F

SEMIVOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

0000070

CLIENT SAMPLE NO.

B00J47

Lab Name: Roy F. Weston, Inc. Work Order: 6168-02-01-0000

Client: WESTINGHOUSE HANFORD

Matrix: DRUM

Lab Sample ID: 9104L326-002

Sample wt/vol: 1.20 (g/mL) G

Lab File ID: M050613

Level: (low/med) LOW

Date Received: 04/18/91

% Moisture: not dec. 0 dec.

Date Extracted: 04/19/91

Extraction: (SepF/Cont/Sonc) N/A

Date Analyzed: 05/06/91

GPC Cleanup: (Y/N) N pH: 7.0

Dilution Factor: 100

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				

1B
SEMIVOLATILE ORGANICS ANALYSIS SHEET 000234

CLIENT SAMPLE NO.

SBLK

Lab Name: Roy F. Weston, Inc. Work Order: 6168-02-01-0000

Client: WESTINGHOUSE HANFORD

Matrix: DRUM Lab Sample ID: 91LE0518-MB1

Sample wt/vol: 1.00 (g/mL) G Lab File ID: M050608

Level: (low/med) LOW Date Received: 04/19/91

% Moisture: not dec. 0 dec. Date Extracted: 04/19/91

Extraction: (SepF/Cont/Sonc) N/A Date Analyzed: 05/06/91

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 100

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
108-95-2	Phenol	1000000	U J
111-44-4	bis(2-Chloroethyl)ether	1000000	U
95-57-8	2-Chlorophenol	1000000	U
541-73-1	1,3-Dichlorobenzene	1000000	U
106-46-7	1,4-Dichlorobenzene	1000000	U
100-51-6	Benzyl alcohol	1000000	U
95-50-1	1,2-Dichlorobenzene	1000000	U
95-48-7	2-Methylphenol	1000000	U
108-60-1	bis(2-Chloroisopropyl)ether	1000000	U
106-44-5	4-Methylphenol	1000000	U
621-64-7	N-Nitroso-Di-n-propylamine	1000000	U
67-72-1	Hexachloroethane	1000000	U
98-95-3	Nitrobenzene	1000000	U
78-59-1	Isophorone	1000000	U
88-75-5	2-Nitrophenol	1000000	U
105-67-9	2,4-Dimethylphenol	1000000	U
65-85-0	Benzoic acid	5000000	U
111-91-1	bis(2-Chloroethoxy)methane	1000000	U
120-83-2	2,4-Dichlorophenol	1000000	U
120-82-1	1,2,4-Trichlorobenzene	1000000	U
91-20-3	Naphthalene	1000000	U
106-47-8	4-Chloroaniline	1000000	U
87-68-3	Hexachlorobutadiene	1000000	U
59-50-7	4-Chloro-3-methylphenol	1000000	U
91-57-6	2-Methylnaphthalene	1000000	U
77-47-4	Hexachlorocyclopentadiene	1000000	U
88-06-2	2,4,6-Trichlorophenol	1000000	U
95-95-4	2,4,5-Trichlorophenol	5000000	U
91-58-7	2-Chloronaphthalene	1000000	U
88-74-4	2-Nitroaniline	5000000	U
131-11-3	Dimethylphthalate	1000000	U
208-96-8	Acenaphthylene	1000000	U
606-20-2	2,6-Dinitrotoluene	1000000	U

DMB
7/27/91

1C
SEMIVOLATILE ORGANICS ANALYSIS SHEET 000235

CLIENT SAMPLE NO.

SBLK

Lab Name: Roy F. Weston, Inc. Work Order: 6168-02-01-0000

Client: WESTINGHOUSE HANFORD

Matrix: DRUM Lab Sample ID: 91LE0518-MB1

Sample wt/vol: 1.00 (g/mL) G Lab File ID: M050608

Level: (low/med) LOW Date Received: 04/19/91

% Moisture: not dec. 0 dec. Date Extracted: 04/19/91

Extraction: (SepF/Cont/Sonc) N/A Date Analyzed: 05/06/91

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 100

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
99-09-2	3-Nitroaniline	5000000	U J
83-32-9	Acenaphthene	1000000	U
51-28-5	2,4-Dinitrophenol	5000000	U
100-02-7	4-Nitrophenol	5000000	U
132-64-9	Dibenzofuran	1000000	U
121-14-2	2,4-Dinitrotoluene	1000000	U
84-66-2	Diethylphthalate	1000000	U
7005-72-3	4-Chlorophenyl-phenylether	1000000	U
86-73-7	Fluorene	1000000	U
100-01-6	4-Nitroaniline	5000000	U
534-52-1	4,6-Dinitro-2-methylphenol	5000000	U
86-30-6	N-Nitrosodiphenylamine (1)	1000000	U
101-55-3	4-Bromophenyl-phenylether	1000000	U
118-74-1	Hexachlorobenzene	1000000	U
87-86-5	Pentachlorophenol	5000000	U
85-01-8	Phenanthrene	1000000	U
120-12-7	Anthracene	1000000	U
84-74-2	Di-n-Butylphthalate	1000000	U
206-44-0	Fluoranthene	1000000	U
129-00-0	Pyrene	1000000	U
85-68-7	Butylbenzylphthalate	1000000	U
91-94-1	3,3'-Dichlorobenzidine	2000000	U
56-55-3	Benzo(a)anthracene	1000000	U
218-01-9	Chrysene	1000000	U
117-81-7	bis(2-Ethylhexyl)phthalate	1000000	U
117-84-0	Di-n-Octyl phthalate	1000000	U
205-99-2	Benzo(b)fluoranthene	1000000	U
207-08-9	Benzo(k)fluoranthene	1000000	U
50-32-8	Benzo(a)pyrene	1000000	U
193-39-5	Indeno(1,2,3-cd)pyrene	1000000	U
53-70-3	Dibenzo(a,h)anthracene	1000000	U
191-24-2	Benzo(g,h,i)perylene	1000000	U

DYB
7/27/91

(1) - Cannot be separated from Diphenylamine

1D
SEMIVOLATILE ORGANICS ANALYSIS SHEET 0000236

CLIENT SAMPLE NO.

SBLK

Lab Name: Roy F. Weston, Inc. Work Order: 6168-02-01-0000

Client: WESTINGHOUSE HANFORD

Matrix: DRUM

Lab Sample ID: 91LE0518-MB1

Sample wt/vol: 1.00 (g/mL) G

Lab File ID: M050608

Level: (low/med) LOW

Date Received: 04/19/91

% Moisture: not dec. 0 dec.

Date Extracted: 04/19/91

Extraction: (SepF/Cont/Sonc) N/A

Date Analyzed: 05/06/91

GPC Cleanup: (Y/N) N pH: 7.0

Dilution Factor: 100

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	
126-73-8	Tributylphosphate	1000000	UJ

DYB
7/27/91

FORM 1 SV-3 12/88 Rev.

1F
SEMIVOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

0 0 0 2 3 7

CLIENT SAMPLE NO.

SBLK

Lab Name: Roy F. Weston, Inc. Work Order: 6168-02-01-0000

Client: WESTINGHOUSE HANFORD

Matrix: DRUM

Lab Sample ID: 91LE0518-MB1

Sample wt/vol: 1.00 (g/mL) G

Lab File ID: M050608

Level: (low/med) LOW

Date Received: 04/19/91

% Moisture: not dec. 0 dec.

Date Extracted: 04/19/91

Extraction: (SepF/Cont/Sonc) N/A

Date Analyzed: 05/06/91

GPC Cleanup: (Y/N) N pH: 7.0

Dilution Factor: 100

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				

1B
SEMIVOLATILE ORGANICS ANALYSIS SHEET 000244

CLIENT SAMPLE NO.

SBLKMS

Lab Name: Roy F. Weston, Inc. Work Order: 6168-02-01-0000

Client: WESTINGHOUSE HANFORD

Matrix: DRUM

Lab Sample ID: 91LE0518-MB1 BS

Sample wt/vol: 1.00 (g/mL) G

Lab File ID: M050609

Level: (low/med) LOW

Date Received: 04/19/91

% Moisture: not dec. 0 dec.

Date Extracted: 04/19/91

Extraction: (SepF/Cont/Sonc) N/A

Date Analyzed: 05/06/91

GPC Cleanup: (Y/N) N pH: 7.0

Dilution Factor: 100

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
108-95-2	Phenol		S
111-44-4	bis(2-Chloroethyl)ether	1000000	U
95-57-8	2-Chlorophenol		S
541-73-1	1,3-Dichlorobenzene	1000000	U
106-46-7	1,4-Dichlorobenzene		S
100-51-6	Benzyl alcohol	1000000	U
95-50-1	1,2-Dichlorobenzene	1000000	U
95-48-7	2-Methylphenol	1000000	U
108-60-1	bis(2-Chloroisopropyl)ether	1000000	U
106-44-5	4-Methylphenol	1000000	U
621-64-7	N-Nitroso-Di-n-propylamine		S
67-72-1	Hexachloroethane	1000000	U
98-95-3	Nitrobenzene	1000000	U
78-59-1	Isophorone	1000000	U
88-75-5	2-Nitrophenol	1000000	U
105-67-9	2,4-Dimethylphenol	1000000	U
65-85-0	Benzoic acid	5000000	U
111-91-1	bis(2-Chloroethoxy)methane	1000000	U
120-83-2	2,4-Dichlorophenol	1000000	U
120-82-1	1,2,4-Trichlorobenzene		S
91-20-3	Naphthalene	1000000	U
106-47-8	4-Chloroaniline	1000000	U
87-68-3	Hexachlorobutadiene	1000000	U
59-50-7	4-Chloro-3-methylphenol		S
91-57-6	2-Methylnaphthalene	1000000	U
77-47-4	Hexachlorocyclopentadiene	1000000	U
88-06-2	2,4,6-Trichlorophenol	1000000	U
95-95-4	2,4,5-Trichlorophenol	5000000	U
91-58-7	2-Chloronaphthalene	1000000	U
88-74-4	2-Nitroaniline	5000000	U
131-11-3	Dimethylphthalate	1000000	U
208-96-8	Acenaphthylene	1000000	U
606-20-2	2,6-Dinitrotoluene	1000000	U

S: SPIKE COMPOUND

1C
SEMIVOLATILE ORGANICS ANALYSIS SHEET 000245

CLIENT SAMPLE NO.

SBLKMS

Lab Name: Roy F. Weston, Inc. Work Order: 6168-02-01-0000

Client: WESTINGHOUSE HANFORD

Matrix: DRUM

Lab Sample ID: 91LE0518-MB1 BS

Sample wt/vol: 1.00 (g/mL) G

Lab File ID: M050609

Level: (low/med) LOW

Date Received: 04/19/91

% Moisture: not dec. 0 dec.

Date Extracted: 04/19/91

Extraction: (SepF/Cont/Sonc) N/A

Date Analyzed: 05/06/91

GPC Cleanup: (Y/N) N pH: 7.0

Dilution Factor: 100

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
99-09-2	3-Nitroaniline	5000000	U
83-32-9	Acenaphthene		S
51-28-5	2,4-Dinitrophenol	5000000	U
100-02-7	4-Nitrophenol		S
132-64-9	Dibenzofuran	1000000	U
121-14-2	2,4-Dinitrotoluene		S
84-66-2	Diethylphthalate	1000000	U
7005-72-3	4-Chlorophenyl-phenylether	1000000	U
86-73-7	Fluorene	1000000	U
100-01-6	4-Nitroaniline	5000000	U
534-52-1	4,6-Dinitro-2-methylphenol	5000000	U
86-30-6	N-Nitrosodiphenylamine (1)	1000000	U
101-55-3	4-Bromophenyl-phenylether	1000000	U
118-74-1	Hexachlorobenzene	1000000	U
87-86-5	Pentachlorophenol		S
85-01-8	Phenanthrene	1000000	U
120-12-7	Anthracene	1000000	U
84-74-2	Di-n-Butylphthalate	1000000	U
206-44-0	Fluoranthene	1000000	U
129-00-0	Pyrene		S
85-68-7	Butylbenzylphthalate	1000000	U
91-94-1	3,3'-Dichlorobenzidine	2000000	U
56-55-3	Benzo(a)anthracene	1000000	U
218-01-9	Chrysene	1000000	U
117-81-7	bis(2-Ethylhexyl)phthalate	1000000	U
117-84-0	Di-n-Octyl phthalate	1000000	U
205-99-2	Benzo(b)fluoranthene	1000000	U
207-08-9	Benzo(k)fluoranthene	1000000	U
50-32-8	Benzo(a)pyrene	1000000	U
193-39-5	Indeno(1,2,3-cd)pyrene	1000000	U
53-70-3	Dibenzo(a,h)anthracene	1000000	U
191-24-2	Benzo(g,h,i)perylene	1000000	U

(1) - Cannot be separated from Diphenylamine

S: SPIKE COMPOUND

1D
SEMIVOLATILE ORGANICS ANALYSIS SHEET 000246

CLIENT SAMPLE NO.

SBLKMS

Lab Name: Roy F. Weston, Inc. Work Order: 6168-02-01-0000

Client: WESTINGHOUSE HANFORD

Matrix: DRUM

Lab Sample ID: 91LE0518-MB1 BS

Sample wt/vol: 1.00 (g/mL) G

Lab File ID: M050609

Level: (low/med) LOW

Date Received: 04/19/91

% Moisture: not dec. 0 dec.

Date Extracted: 04/19/91

Extraction: (SepF/Cont/Sonc) N/A

Date Analyzed: 05/06/91

GPC Cleanup: (Y/N) N pH: 7.0

Dilution Factor: 100

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	
126-73-8	Tributylphosphate	1000000	U

S: SPIKE COMPOUND

FORM 1 SV-3

12/88 Rev.

1B
SEMIVOLATILE ORGANICS ANALYSIS SHEET

0000253

CLIENT SAMPLE NO.

B00J46MS

Lab Name: Roy F. Weston, Inc. Work Order: 6168-02-01-0000

Client: WESTINGHOUSE HANFORD

Matrix: DRUM Lab Sample ID: 9104L326-001 MS

Sample wt/vol: 1.20 (g/mL) G Lab File ID: M050611

Level: (low/med) LOW Date Received: 04/18/91

% Moisture: not dec. 0 dec. Date Extracted: 04/19/91

Extraction: (SepF/Cont/Sonc) N/A Date Analyzed: 05/06/91

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 100

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
108-95-2	Phenol		S
111-44-4	bis(2-Chloroethyl)ether	830000	UJ
95-57-8	2-Chlorophenol		S
541-73-1	1,3-Dichlorobenzene	830000	UJ
106-46-7	1,4-Dichlorobenzene		S
100-51-6	Benzyl alcohol	830000	UJ
95-50-1	1,2-Dichlorobenzene	830000	U
95-48-7	2-Methylphenol	830000	U
108-60-1	bis(2-Chloroisopropyl)ether	830000	U
106-44-5	4-Methylphenol	830000	U
621-64-7	N-Nitroso-Di-n-propylamine		S
67-72-1	Hexachloroethane	830000	UJ
98-95-3	Nitrobenzene	830000	U
78-59-1	Isophorone	830000	U
88-75-5	2-Nitrophenol	830000	U
105-67-9	2,4-Dimethylphenol	830000	U
65-85-0	Benzoic acid	4200000	U
111-91-1	bis(2-Chloroethoxy)methane	830000	U
120-83-2	2,4-Dichlorophenol	830000	U
120-82-1	1,2,4-Trichlorobenzene		S
91-20-3	Naphthalene	830000	UJ
106-47-8	4-Chloroaniline	830000	U
87-68-3	Hexachlorobutadiene	830000	U
59-50-7	4-Chloro-3-methylphenol		S
91-57-6	2-Methylnaphthalene	830000	UJ
77-47-4	Hexachlorocyclopentadiene	830000	U
88-06-2	2,4,6-Trichlorophenol	830000	U
95-95-4	2,4,5-Trichlorophenol	4200000	U
91-58-7	2-Chloronaphthalene	830000	U
88-74-4	2-Nitroaniline	4200000	U
131-11-3	Dimethylphthalate	830000	U
208-96-8	Acenaphthylene	830000	U
606-20-2	2,6-Dinitrotoluene	830000	U

DYB 7/27/91

S: SPIKE COMPOUND

1C

SEMIVOLATILE ORGANICS ANALYSIS SHEET 0000254

CLIENT SAMPLE NO.

BOOJ46MS

Lab Name: Roy F. Weston, Inc. Work Order: 6168-02-01-0000

Client: WESTINGHOUSE HANFORD

Matrix: DRUM

Lab Sample ID: 9104L326-001 MS

Sample wt/vol: 1.20 (g/mL) G

Lab File ID: M050611

Level: (low/med) LOW

Date Received: 04/18/91

% Moisture: not dec. 0 dec.

Date Extracted: 04/19/91

Extraction: (SepF/Cont/Sonc) N/A

Date Analyzed: 05/06/91

GPC Cleanup: (Y/N) N pH: 7.0

Dilution Factor: 100

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
99-09-2	3-Nitroaniline	4200000	UJ
83-32-9	Acenaphthene		S
51-28-5	2,4-Dinitrophenol	4200000	UJ
100-02-7	4-Nitrophenol		S
132-64-9	Dibenzofuran	830000	UJ
121-14-2	2,4-Dinitrotoluene		S
84-66-2	Diethylphthalate	830000	UJ
7005-72-3	4-Chlorophenyl-phenylether	830000	U
86-73-7	Fluorene	830000	U
100-01-6	4-Nitroaniline	4200000	U
534-52-1	4,6-Dinitro-2-methylphenol	4200000	U
86-30-6	N-Nitrosodiphenylamine (1)	830000	U
101-55-3	4-Bromophenyl-phenylether	830000	U
118-74-1	Hexachlorobenzene	830000	U
87-86-5	Pentachlorophenol		S
85-01-8	Phenanthrene	830000	UJ
120-12-7	Anthracene	830000	U
84-74-2	Di-n-Butylphthalate	830000	U
206-44-0	Fluoranthene	830000	U
129-00-0	Pyrene		S
85-68-7	Butylbenzylphthalate	830000	UJ
91-94-1	3,3'-Dichlorobenzidine	1700000	U
56-55-3	Benzo(a)anthracene	830000	U
218-01-9	Chrysene	830000	U
117-81-7	bis(2-Ethylhexyl)phthalate	830000	U
117-84-0	Di-n-Octyl phthalate	830000	U
205-99-2	Benzo(b)fluoranthene	830000	U
207-08-9	Benzo(k)fluoranthene	830000	U
50-32-8	Benzo(a)pyrene	830000	U
193-39-5	Indeno(1,2,3-cd)pyrene	830000	U
53-70-3	Dibenzo(a,h)anthracene	830000	U
191-24-2	Benzo(g,h,i)perylene	830000	U

DYB 7/29/91

(1) - Cannot be separated from Diphenylamine

S: SPIKE COMPOUND

FORM 1 SV-2

12/88 Rev.

1D
SEMIVOLATILE ORGANICS ANALYSIS SHEET 0000255

CLIENT SAMPLE NO.

BOOJ46MS

Lab Name: Roy F. Weston, Inc. Work Order: 6168-02-01-0000

Client: WESTINGHOUSE HANFORD

Matrix: DRUM

Lab Sample ID: 9104L326-001 MS

Sample wt/vol: 1.20 (g/mL) G

Lab File ID: M050611

Level: (low/med) LOW

Date Received: 04/18/91

% Moisture: not dec. 0 dec.

Date Extracted: 04/19/91

Extraction: (SepF/Cont/Sonc) N/A

Date Analyzed: 05/06/91

GPC Cleanup: (Y/N) N pH: 7.0

Dilution Factor: 100

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	
126-73-8	Tributylphosphate	0.98E+08	J

DYB 7/27/91

S: SPIKE COMPOUND

FORM 1 SV-3

12/88 Rev.

1B
SEMIVOLATILE ORGANICS ANALYSIS SHEET 0000262

CLIENT SAMPLE NO.

BOOJ46MSD

Lab Name: Roy F. Weston, Inc. Work Order: 6168-02-01-0000

Client: WESTINGHOUSE HANFORD

Matrix: DRUM Lab Sample ID: 9104L326-001 MSD

Sample wt/vol: 1.20 (g/mL) G Lab File ID: M050612

Level: (low/med) LOW Date Received: 04/18/91

% Moisture: not dec. 0 dec. Date Extracted: 04/19/91

Extraction: (SepF/Cont/Sonc) N/A Date Analyzed: 05/06/91

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 100

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
108-95-2	Phenol		S
111-44-4	bis(2-Chloroethyl)ether	830000	U J
95-57-8	2-Chlorophenol		S
541-73-1	1,3-Dichlorobenzene	830000	U J
106-46-7	1,4-Dichlorobenzene		S
100-51-6	Benzyl alcohol	830000	U J
95-50-1	1,2-Dichlorobenzene	830000	U
95-48-7	2-Methylphenol	830000	U
108-60-1	bis(2-Chloroisopropyl)ether	830000	U
106-44-5	4-Methylphenol	830000	U
621-64-7	N-Nitroso-Di-n-propylamine		S
67-72-1	Hexachloroethane	830000	U J
98-95-3	Nitrobenzene	830000	U
78-59-1	Isophorone	830000	U
88-75-5	2-Nitrophenol	830000	U
105-67-9	2,4-Dimethylphenol	830000	U
65-85-0	Benzoic acid	4200000	U
111-91-1	bis(2-Chloroethoxy)methane	830000	U
120-83-2	2,4-Dichlorophenol	830000	U
120-82-1	1,2,4-Trichlorobenzene		S
91-20-3	Naphthalene	830000	U J
106-47-8	4-Chloroaniline	830000	U
87-68-3	Hexachlorobutadiene	830000	U
59-50-7	4-Chloro-3-methylphenol		S
91-57-6	2-Methylnaphthalene	830000	U J
77-47-4	Hexachlorocyclopentadiene	830000	U
88-06-2	2,4,6-Trichlorophenol	830000	U
95-95-4	2,4,5-Trichlorophenol	4200000	U
91-58-7	2-Chloronaphthalene	830000	U
88-74-4	2-Nitroaniline	4200000	U
131-11-3	Dimethylphthalate	830000	U
208-96-8	Acenaphthylene	830000	U
606-20-2	2,6-Dinitrotoluene	830000	U

DYB
7/27/91

S: SPIKE COMPOUND

FORM 1 SV-1

12/88 Rev.

1C

SEMIVOLATILE ORGANICS ANALYSIS SHEET 0000263

CLIENT SAMPLE NO.

BOOJ46MSD

Lab Name: Roy F. Weston, Inc. Work Order: 6168-02-01-0000

Client: WESTINGHOUSE HANFORD

Matrix: DRUM Lab Sample ID: 9104L326-001 MSD

Sample wt/vol: 1.20 (g/mL) G Lab File ID: M050612

Level: (low/med) LOW Date Received: 04/18/91

% Moisture: not dec. 0 dec. Date Extracted: 04/19/91

Extraction: (SepF/Cont/Sonc) N/A Date Analyzed: 05/06/91

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 100

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
99-09-2	3-Nitroaniline	4200000	UJ
83-32-9	Acenaphthene		S
51-28-5	2,4-Dinitrophenol	4200000	UJ
100-02-7	4-Nitrophenol		S
132-64-9	Dibenzofuran	830000	UJ
121-14-2	2,4-Dinitrotoluene		S
84-66-2	Diethylphthalate	830000	UJ
7005-72-3	4-Chlorophenyl-phenylether	830000	U
86-73-7	Fluorene	830000	U
100-01-6	4-Nitroaniline	4200000	U
534-52-1	4,6-Dinitro-2-methylphenol	4200000	U
86-30-6	N-Nitrosodiphenylamine (1)	830000	U
101-55-3	4-Bromophenyl-phenylether	830000	U
118-74-1	Hexachlorobenzene	830000	U
87-86-5	Pentachlorophenol		S
85-01-8	Phenanthrene	830000	UJ
120-12-7	Anthracene	830000	U
84-74-2	Di-n-Butylphthalate	830000	U
206-44-0	Fluoranthene	830000	U
129-00-0	Pyrene		S
85-68-7	Butylbenzylphthalate	830000	UJ
91-94-1	3,3'-Dichlorobenzidine	1700000	U
56-55-3	Benzo(a)anthracene	830000	U
218-01-9	Chrysene	830000	U
117-81-7	bis(2-Ethylhexyl)phthalate	830000	U
117-84-0	Di-n-Octyl phthalate	830000	U
205-99-2	Benzo(b)fluoranthene	830000	U
207-08-9	Benzo(k)fluoranthene	830000	U
50-32-8	Benzo(a)pyrene	830000	U
193-39-5	Indeno(1,2,3-cd)pyrene	830000	U
53-70-3	Dibenzo(a,h)anthracene	830000	U
191-24-2	Benzo(g,h,i)perylene	830000	U

DMB 7/27/91

(1) - Cannot be separated from Diphenylamine

S: SPIKE COMPOUND

1D

SEMIVOLATILE ORGANICS ANALYSIS SHEET 000264

CLIENT SAMPLE NO.

BOOJ46MSD

Lab Name: Roy F. Weston, Inc. Work Order: 6168-02-01-0000

Client: WESTINGHOUSE HANFORD

Matrix: DRUM

Lab Sample ID: 9104L326-001 MSD

Sample wt/vol: 1.20 (g/mL) G

Lab File ID: M050612

Level: (low/med) LOW

Date Received: 04/18/91

% Moisture: not dec. 0 dec.

Date Extracted: 04/19/91

Extraction: (SepF/Cont/Sonc) N/A

Date Analyzed: 05/06/91

GPC Cleanup: (Y/N) N pH: 7.0

Dilution Factor: 100

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	
126-73-8	Tributylphosphate	0.93E+08	J

DYB 7/27/91

S: SPIKE COMPOUND

FORM 1 SV-3

12/88 Rev.

1D

PESTICIDE ORGANICS ANALYSIS SHEET 0000013

CLIENT SAMPLE NO.

BOOJ46

Lab Name: Roy F. Weston, Inc. Work Order: 6168-02-01-0000

Client: WESTINGHOUSE HANFORD

Matrix: DRUM

Lab Sample ID: 9104L326-001

Sample wt/vol: 0.100 (g/mL) G

Lab File ID: 05289113.31

Level: (low/med) LOW

Date Received: 04/18/91

% Moisture: not dec. 100 dec.

Date Extracted: 04/19/91

Extraction: (SepF/Cont/Sonc) SONC

Date Analyzed: 05/29/91

GPC Cleanup: (Y/N) N pH: 7.0

Dilution Factor: 0.500

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg

DYB 7/27/91

CAS NO.	COMPOUND		
12674-11-2	Aroclor-1016	12000	U J
11104-28-2	Aroclor-1221	12000	U
11141-16-5	Aroclor-1232	12000	U
53469-21-9	Aroclor-1242	12000	U
12672-29-6	Aroclor-1248	12000	U
11097-69-1	Aroclor-1254	24000	U
11096-82-5	Aroclor-1260	24000	U

6/4/91

FORM 1 PEST 12/88 Rev.

1D

PESTICIDE ORGANICS ANALYSIS SHEET 0000018

CLIENT SAMPLE NO.

BOOJ47

Lab Name: Roy F. Weston, Inc. Work Order: 6168-02-01-0000

Client: WESTINGHOUSE HANFORD

Matrix: DRUM

Lab Sample ID: 9104L326-002

Sample wt/vol: 0.100 (g/mL) G

Lab File ID: 05289113.36

Level: (low/med) LOW

Date Received: 04/18/91

% Moisture: not dec. 100 dec.

Date Extracted: 04/19/91

Extraction: (SepF/Cont/Sonc) SONC

Date Analyzed: 05/29/91

GPC Cleanup: (Y/N) N pH: 7.0

Dilution Factor: 0.500

DyB 7/27/91

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	
12674-11-2	Aroclor-1016	12000	U J
11104-28-2	Aroclor-1221	12000	U
11141-16-5	Aroclor-1232	12000	U
53469-21-9	Aroclor-1242	12000	U
12672-29-6	Aroclor-1248	12000	U
11097-69-1	Aroclor-1254	24000	U
11096-82-5	Aroclor-1260	24000	U

6/11/94

FORM 1 PEST 12/88 Rev.

1D

PESTICIDE ORGANICS ANALYSIS SHEET 0000130

CLIENT SAMPLE NO.

PBLK

Lab Name: Roy F. Weston, Inc. Work Order: NONE

Client: LAB

Matrix: DRUM

Lab Sample ID: 91LE0516-MB1

Sample wt/vol: 0.100 (g/mL) G

Lab File ID: 05289113.35

Level: (low/med) LOW

Date Received: 04/19/91

% Moisture: not dec. 100 dec.

Date Extracted: 04/19/91

Extraction: (SepF/Cont/Sonc) SONC

Date Analyzed: 05/29/91

GPC Cleanup: (Y/N) N pH: 7.0

Dilution Factor: 0.500

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND			
12674-11-2	Aroclor-1016	12000	U J	
11104-28-2	Aroclor-1221	12000	U	
11141-16-5	Aroclor-1232	12000	U	
53469-21-9	Aroclor-1242	12000	U	
12672-29-6	Aroclor-1248	12000	U	
11097-69-1	Aroclor-1254	24000	U	
11096-82-5	Aroclor-1260	24000	U	

DYB 7/27/91

6/11/94

FORM 1 PEST 12/88 Rev.

1D

PESTICIDE ORGANICS ANALYSIS SHEET 0000135

CLIENT SAMPLE NO.

PBLKMS

Lab Name: Roy F. Weston, Inc. Work Order: NONE

Client: LAB

Matrix: DRUM

Lab Sample ID: 91LE0516-MB1 BS

Sample wt/vol: 0.100 (g/mL) G

Lab File ID: 05289113.38

Level: (low/med) LOW

Date Received: 04/19/91

% Moisture: not dec. 100 dec.

Date Extracted: 04/19/91

Extraction: (SepF/Cont/Sonc) SONC

Date Analyzed: 05/29/91

GPC Cleanup: (Y/N) N pH: 7.0

Dilution Factor: 0.500

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg

DYB 7/27/91

CAS NO.	COMPOUND			
12674-11-2	Aroclor-1016		12000	U J
11104-28-2	Aroclor-1221		12000	U
11141-16-5	Aroclor-1232		12000	U
53469-21-9	Aroclor-1242		12000	U
12672-29-6	Aroclor-1248		12000	U
11097-69-1	Aroclor-1254			S
11096-82-5	Aroclor-1260		24000	U J

6/11/94

S: SPIKE COMPOUND

FORM 1 PEST

12/88 Rev.

1D

PESTICIDE ORGANICS ANALYSIS SHEET 0000143

CLIENT SAMPLE NO.

BOOJ46MS

Lab Name: Roy F. Weston, Inc. Work Order: 6168-02-01-0000

Client: WESTINGHOUSE HANFORD

Matrix: DRUM

Lab Sample ID: 9104L326-001 MS

Sample wt/vol: 0.100 (g/mL) G

Lab File ID: 05289113.45

Level: (low/med) LOW

Date Received: 04/18/91

% Moisture: not dec. 100 dec.

Date Extracted: 04/19/91

Extraction: (SepF/Cont/Sonc) SONC

Date Analyzed: 05/29/91

GPC Cleanup: (Y/N) N pH: 7.0

Dilution Factor: 0.500

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
12674-11-2	Aroclor-1016	12000	UJ
11104-28-2	Aroclor-1221	12000	U
11141-16-5	Aroclor-1232	12000	U
53469-21-9	Aroclor-1242	12000	U
12672-29-6	Aroclor-1248	12000	U
11097-69-1	Aroclor-1254		S
11096-82-5	Aroclor-1260	24000	UJ

DMB 7/27/91

JLC 6/11/91

S: SPIKE COMPOUND

FORM 1 PEST

12/88 Rev.

1D

PESTICIDE ORGANICS ANALYSIS SHEET

0000150

CLIENT SAMPLE NO.

BOOJ46MSD

Lab Name: Roy F. Weston, Inc. Work Order: 6168-02-01-0000

Client: WESTINGHOUSE HANFORD

Matrix: DRUM

Lab Sample ID: 9104L326-001 MSD

Sample wt/vol: 0.100 (g/mL) G

Lab File ID: 05289113.48

Level: (low/med) LOW

Date Received: 04/18/91

% Moisture: not dec. 100 dec.

Date Extracted: 04/19/91

Extraction: (SepF/Cont/Sonc) SONC

Date Analyzed: 05/29/91

GPC Cleanup: (Y/N) N pH: 7.0

Dilution Factor: 0.500

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		
12674-11-2	Aroclor-1016	12000	UJ
11104-28-2	Aroclor-1221	12000	U
11141-16-5	Aroclor-1232	12000	U
53469-21-9	Aroclor-1242	12000	U
12672-29-6	Aroclor-1248	12000	U
11097-69-1	Aroclor-1254		S
11096-82-5	Aroclor-1260	24000	UJ

DYB 7/27/91

6/11/91

S: SPIKE COMPOUND

FORM 1 PEST

12/88 Rev.

ORGANIC QC - Holding Times

Name D.Y. Bisenius DYB Date 7/26/91

COMMENTS: VOA - Holding time criteria met.
A/B/N - Samples extracted within 7 days; Diluted B00J46 analyzed 45 days after extraction. All other samples - Holding time criteria met. Pest - Holding time criteria satisfied.

ACTION: A/B/N - B00J46DL analyzed on 5/31/91 qualified as estimated "J"

sample #	constituent	value/qual
B00J46DL	TBP	0.63E0B/J

sample #	constituent	value/qual

ORGANIC QC - Surrogate Recovery

Name P.Y. Bisenius DYB Date 7/27/91

COMMENTS: VOA - Surrogate compounds diluted out - unable to assess accuracy and matrix effects. All results for blank are within control limits. A/B/N - All analyses had at least one surrogate recovery outside control limits (except for diluted B00J46). Pest - All surrogate recoveries for samples and blanks are within control limits

ACTION: VOA - All positive results qualified "J" - estimated. All non-detect results qualified "UJ". A/B/N - All positive results qualified "J" - estimated. All non-detect results qualified "UJ."

sample #	constituent	value/qual	sample #	constituent	value/qual
B00J46	Methylene Chloride	0.11E09/J			
B00J46	Acetone	0.11E09/J			
B00J46	4-Methyl-2-Pentanone	0.64E09/J			
B00J46	All others	"UJ"			
B00J47	Methylene Chloride	0.14E09/J			
B00J47	Acetone	0.30E09/J			
B00J47	4-methyl-2-pentanone	0.94E09/J			
B00J47	All others	"UJ"			
B00J46	Tributylphosphate	E/J			
B00J46	All TIC	J			
B00J47	All compounds	UJ			
B00J46MS	Tributylphosphate	0.98E08/J			
B00J46MSD	Tributylphosphate	0.93E08/J			
SBLKLE0518-MB1	All	UJ			
B00J46 MS/MSD	All other compounds	UJ			

ORGANIC QC - MS/MSD

Name D.Y. Bisenius DYB Date 7/26/91

COMMENTS: VOA- See lot 9104L227. No Form III included in data pkg.

A/B/N - Bias High in ~~8~~ 6 spike recoveries outside control limits: DYB 7/27/91
Phenol, 2,4-Dinitrotoluene, 1,4-Dichlorobenzene. RPD's ok.
Pest- Spike recoveries are within control limits; MS/MSD
Relative Percent Differences within advisory control limits.

ACTION:

sample #	constituent	value/qual	sample #	constituent	value/qual

Originator: SL_HUGGINS
Spool file name: PQ018

Highline Electric
1700 x 5 = 8,500

Acetone
3400 x5 = 17,000

ORGANIC QC - Blanks

Name D.Y. Bisenius DYB Date 7/26/91

COMMENTS: VOA - methylene chloride and acetone detected in blank but sample result not affected (>5x blank value). Method blank criteria met. A/B/N - No contaminants detected in analytical blank. Method blank criteria met.
Pest - No contaminants detected in analytical blanks. Method blank criteria met.

ACTION: VOA - none; A/B/N - none; Pest - none

sample #	constituent	value/qual	sample #	constituent	value/qual

ORGANIC QC - GC/MS Tune

Name D.Y. Bisenius DYB Date 7/26/91

COMMENTS: VOA - All specified ion abundance criteria met. Form II present for 12-hour period samples are analyzed. A/B/N - All specified ion abundance criteria are met. Form II is present for each 12-hour period samples were analyzed.

ACTION: None

sample #	constituent	value/qual	sample #	constituent	value/qual

ORGANIC QC - Calibrations

Name D.Y. Bisenius DYB Date 7/26/91

COMMENTS: VOA- Initial calibration criteria satisfied; Continuing calibration criteria met. A/B/N- Initial calibration criteria met, Continuing Calibration criteria met.
Pest - % RSD for Aldrin Instrument 13 (quantitation) 11.6%.
Analytical sequence problems - Evaluation Mix B run every 12 samples.
No Individual Standard Mix B A DYB 7/27/91 at end of run. Continuing Calibration 15.3% - Endosulfan sulfate. (Quantitation) Delta-BHC 51.3% (Confirmation), Endosulfan * sulfate 26.3% (Confirmation)

ACTION: Pest- Qualify all non-detect as estimated- UJ.

sample #	constituent	value/qual
B00J46	All	DYB 7/27/91 ~~II~~/UJ
B00J47	All	UJ
PBLKLE0516-MB1	All	UJ
PBLKLE0516-MB1 BS	All	UJ
B00J46 MS	All	UJ
B00J46 MSD	All	UJ

sample #	constituent	value/qual

ORGANIC QC - Internal Standards

Name D. Y. Bisenius DYB Date 7/26/91

COMMENTS: VOA - All retention times and Internal Standard areas are within specified control limits.
A/B/N - All Internal Standard areas and retention times are within specified control limits.

ACTION: None

sample #	constituent	value/qual	sample #	constituent	value/qual

ORGANIC QC - Instrument Performance (pest)

Name D.Y. Bisenius DYB Date 7/26/91

COMMENTS: All listed standards within specified Retention time windows. DDT retention time criteria met. Endrin and DDT % Breakdown limits are not exceeded. Form VIII Pest-2 %D are within control limits.

ACTION: None

sample #	constituent	value/qual	sample #	constituent	value/qual

ORGANIC QC - Other

Name D.Y. Bisenius DYB Date 7/26/91

COMMENTS: Pest. - Form IX Pesticide/PCB Standard Summary pp. 5 from Instrument 13 and Instrument 14 missing

ACTION: Notify Weston Lab.

sample #	constituent	value/qual	sample #	constituent	value/qual

Roy F. Weston, Inc. - Lionville Laboratory
PCB ANALYTICAL DATA PACKAGE FOR
WESTINGHOUSE HANFORD

DATE RECEIVED: 04/18/91

RFW LOT # :9104L326

CLIENT ID	RFW #	MTX	PREP #	COLLECTION	EXTR/PREP	ANALYSIS
BOOJ46	001	DR	91LE0516	04/16/91	04/19/91	05/29/91
BOOJ46	001 MS	DR	91LE0516	04/16/91	04/19/91	05/29/91
BOOJ46	001 MSD	DR	91LE0516	04/16/91	04/19/91	05/29/91
BOOJ47	002	DR	91LE0516	04/16/91	04/19/91	05/29/91
LAB QC:						
PBLK	MB1	DR	91LE0516	N/A	04/19/91	05/29/91
PBLK	MB1 BS	DR	91LE0516	N/A	04/19/91	05/29/91

Roy F. Weston, Inc. - Lionville Laboratory
INORGANIC ANALYTICAL DATA PACKAGE FOR
WESTINGHOUSE HANFORD

DATE RECEIVED: 04/18/91 RFW LOT # :9104L326

CLIENT ID /ANALYSIS	RFW #	MTX	PREP #	COLLECTION	EXTR/PREP	ANALYSIS
BOOJ46						
CHLORIDE BY IC	001	DR	91LIC46	04/16/91	05/01/91	05/01/91
FLUORIDE BY IC	001	DR	91LIC46	04/16/91	05/01/91	05/01/91
NITRITE BY IC	001	DR	91LIC46	04/16/91	05/01/91	05/01/91
NITRATE BY IC	001	DR	91LIC46	04/16/91	05/01/91	05/01/91
PHOSPHATE BY IC	001	DR	91LIC46	04/16/91	05/01/91	05/01/91
SULFATE BY IC	001	DR	91LIC46	04/16/91	05/01/91	05/01/91
FLASH POINT	001	DR	91LFP019	04/16/91	04/25/91	04/25/91
SUB-OUT TEST FOR SUB	001	DR		04/16/91		
BOOJ47						
CHLORIDE BY IC	002	DR	91LIC46	04/16/91	05/01/91	05/01/91
FLUORIDE BY IC	002	DR	91LIC46	04/16/91	05/01/91	05/01/91
NITRITE BY IC	002	DR	91LIC46	04/16/91	05/01/91	05/01/91
NITRATE BY IC	002	DR	91LIC46	04/16/91	05/01/91	05/01/91
PHOSPHATE BY IC	002	DR	91LIC46	04/16/91	05/01/91	05/01/91
SULFATE BY IC	002	DR	91LIC46	04/16/91	05/01/91	05/01/91
FLASH POINT	002	DR	91LFP019	04/16/91	04/25/91	04/25/91
SUB-OUT TEST FOR SUB	002	DR		04/16/91		

LAB QC:

CHLORIDE BY IC	MB1	W	91LIC46	N/A	05/01/91	05/01/91
CHLORIDE BY IC	MB1 BS	W	91LIC46	N/A	05/01/91	05/01/91
FLUORIDE BY IC	MB1	W	91LIC46	N/A	05/01/91	05/01/91
FLUORIDE BY IC	MB1 BS	W	91LIC46	N/A	05/01/91	05/01/91
NITRITE BY IC	MB1	W	91LIC46	N/A	05/01/91	05/01/91
NITRITE BY IC	MB1 BS	W	91LIC46	N/A	05/01/91	05/01/91
NITRATE BY IC	MB1	W	91LIC46	N/A	05/01/91	05/01/91
NITRATE BY IC	MB1 BS	W	91LIC46	N/A	05/01/91	05/01/91
PHOSPHATE BY IC	MB1	W	91LIC46	N/A	05/01/91	05/01/91
PHOSPHATE BY IC	MB1 BS	W	91LIC46	N/A	05/01/91	05/01/91
SULFATE BY IC	MB1	W	91LIC46	N/A	05/01/91	05/01/91
SULFATE BY IC	MB1 BS	W	91LIC46	N/A	05/01/91	05/01/91
FLASH POINT	MB1 BS	W	91LFP019	N/A	04/25/91	04/25/91
FLASH POINT	MB2 BS	W	91LFP019	N/A	04/25/91	04/25/91

Roy F. Weston, Inc.- Lionville Laboratory

Hydrocarbon Fingerprinting

Client :Westinghouse
RFW# :91DGC342-MB1
Client ID :Method Blank
Matrix :Drum Liquid
Init. Cal.:04/02-03/91

Sample Collected: NA
Sample Received : NA
Sample Prepared :04/29/91
Sample Analyzed :04/30/91

Qualitative Identification

No hydrocarbons could be detected.

Degree of Matching = NA

Quantitative Report

Total Hydrocarbons < .001 G/ML

Sample quantified versus = Kerosene

NA= Not applicable
NR= Not required

Roy F. Weston, Inc.- Lionville Laboratory

Hydrocarbon Fingerprinting

Client :Westinghouse
RFW# :9104L326-001
Client ID :BOOJ46
Matrix :Drum Liquid
Run Batch :91DGC342 & 91DGC340
Init. Cal.:04/02-03/91 (kerosene)
& 04/18-19/91 (MIBK)

Sample Collected:04/16/91
Sample Received :04/18/91
Sample Prepared :04/29/91
Sample Analyzed :04/30/91

Qualitative Identification

The fingerprint is tentatively identified as mineral spirits. There was an peak identified as Methyl-isobutyl Ketone (MIBK).

Degree of Matching = Good

Quantitative Report

Total Hydrocarbons = .35 G/ML

Total MIBK = .45 G/ML

Approximate measured density (sample) = .78 G/ML

Measured density of Mineral Spirits = .81 G/ML

Measured density of MIBK = .80 G/ML

Sample quantified versus = Kerosene & MIBK

Westinghouse
Hanford Company

OSM INORGANIC DATA ASSESSMENT

DATE 7-25-91

REVIEWED BY M. A. Beck

LABORATORY Roy F. Weston

CASE # West

SDG # LLP 227

RFW # 9104L227 / 9104L382
9104L268 / 9104L326 / 9104L402

SAMPLES/MATRIX B00J10 B00J16 B00V46 B00V39 (water)
B00J13 B00J18 B00V47 B00V51
B00J14 B00J19 B00V48 B00J07 (drum organic liquids)
B00J12 B00V07 B00V49
B00J15 B00V45 B00V50

DATA ASSESSMENT SUMMARY

	ICP	AA	Hg	CN
1. Calibrations (Form II)	O			
2. Blanks (III)	X			
3. ICS (IV)	X			
4. Matrix Spike (V)	X			
5. Duplicate Analysis (VI)	O			
6. LCS (VII)	O			
7. Serial Dilution (IX)	X			
8. GFAA				
9. Holding Times (XIV)	O			
10. Other QC	N/A			

O = data had no problems
X = data qualified due to minor problems
M = data qualified due to major problems/some data may be unusable

OVERALL ASSESSSMENT: fair - minor QC problems with data provided

NOTES:

o Refer to the corresponding attachments for explanation of any problems.

0000015

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

BOOJ16

Lab Name:Roy F. Weston, Inc. Contract:6168-02-01

Lab Code:WESTON Case No:WEST SAS No.: SDG No.:CLP227

Matrix (soil/water):WATER Lab Sample ID:9104227003

Level (low/med): LOW Date Received:04/10/91

% Solids:

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	77.0	U	N	P
7440-36-0	Antimony	19.0	U	N	P
7440-38-2	Arsenic				
7440-39-3	Barium	5.00	U	N	P
7440-41-7	Beryllium	1.00	U	N	P
7440-43-9	Cadmium	4.00	U	N	P
7440-70-2	Calcium	353	~~B~~	U	P
7440-47-3	Chromium	4.20	B	N	P
7440-48-4	Cobalt	4.00	U	N	P
7440-50-8	Copper	11.6	B	N	P
7439-89-6	Iron	94.0	B	N	P
7439-92-1	Lead				
7439-95-4	Magnesium	84.0	U		P
7439-96-5	Manganese	2.00	U	N	P
7439-97-6	Mercury				
7440-02-0	Nickel	7.00	U	N	P
7440-09-7	Potassium	1010	U		P
7782-49-2	Selenium				
7440-22-4	Silver	4.00	U	N	P
7440-23-5	Sodium	243	~~B~~	U	P
7440-28-0	Thallium				
7440-62-2	Vanadium	8.00	U	N	P
7440-66-6	Zinc	45.4		~~*B~~ UJ	P
	Cyanide				

Color Before:COLORLESS Clarity Before:CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

MGB. 7/25/91

FORM I - IN

1D

PESTICIDE ORGANICS ANALYSIS SHEET 0000018

CLIENT SAMPLE NO.

B00J47

Lab Name: Roy F. Weston, Inc. Work Order: 6168-02-01-0000

Client: WESTINGHOUSE HANFORD

Matrix: DRUM

Lab Sample ID: 9104L326-002

Sample wt/vol: 0.100 (g/mL) G

Lab File ID: 05289113.36

Level: (low/med) LOW

Date Received: 04/18/91

% Moisture: not dec. 100 dec.

Date Extracted: 04/19/91

Extraction: (SepF/Cont/Sonc) SONC

Date Analyzed: 05/29/91

GPC Cleanup: (Y/N) N pH: 7.0

Dilution Factor: 0.500

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg

DYB 7/27/91

CAS NO.	COMPOUND			
12674-11-2	Aroclor-1016	12000	U J	
11104-28-2	Aroclor-1221	12000	U	
11141-16-5	Aroclor-1232	12000	U	
53469-21-9	Aroclor-1242	12000	U	
12672-29-6	Aroclor-1248	12000	U	
11097-69-1	Aroclor-1254	24000	U	
11096-82-5	Aroclor-1260	24000	U	

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

BOOJ16

Lab Name:Roy F. Weston, Inc. Contract:6168-02-01

Lab Code:WESTON Case No:WEST SAS No.: SDG No.:CLP227

Matrix (soil/water):WATER Lab Sample ID:9104227003

Level (low/med): LOW Date Received:04/10/91

% Solids:

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	77.0	U	N	P
7440-36-0	Antimony	19.0	U	N	P
7440-38-2	Arsenic				
7440-39-3	Barium	5.00	U	N	P
7440-41-7	Beryllium	1.00	U	N	P
7440-43-9	Cadmium	4.00	U	N	P
7440-70-2	Calcium	353	~~B~~	U	P
7440-47-3	Chromium	4.20	B	N	P
7440-48-4	Cobalt	4.00	U	N	P
7440-50-8	Copper	11.6	B	N	P
7439-89-6	Iron	94.0	B	N	P
7439-92-1	Lead				
7439-95-4	Magnesium	84.0	U		P
7439-96-5	Manganese	2.00	U	N	P
7439-97-6	Mercury				
7440-02-0	Nickel	7.00	U	N	P
7440-09-7	Potassium	1010	U		P
7782-49-2	Selenium				
7440-22-4	Silver	4.00	U	N	P
7440-23-5	Sodium	243	~~B~~	U	P
7440-28-0	Thallium				
7440-62-2	Vanadium	8.00	U	N	P
7440-66-6	Zinc	45.4		~~*B~~ UJ	P
	Cyanide				

Color Before:COLORLESS Clarity Before:CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

BOOJ18

Lab Name:Roy F. Weston, Inc. Contract:6168-02-01

Lab Code:WESTON Case No:WEST SAS No.: SDG No.:CLP227

Matrix (soil/water):WATER Lab Sample ID:9104227005

Level (low/med): LOW Date Received:04/10/91

% Solids:

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	125	B	N	P
7440-36-0	Antimony	20.1	B	N	P
7440-38-2	Arsenic				
7440-39-3	Barium	5.00	U	N	P
7440-41-7	Beryllium	1.00	U	N	P
7440-43-9	Cadmium	4.00	U	N	P
7440-70-2	Calcium	328	~~B~~	U	P
7440-47-3	Chromium	3.70	B	N	P
7440-48-4	Cobalt	4.00	U	N	P
7440-50-8	Copper	44.3		N	P
7439-89-6	Iron	166		N	P
7439-92-1	Lead				
7439-95-4	Magnesium	84.0	U		P
7439-96-5	Manganese	2.50	~~B~~	~~N~~ J	P
7439-97-6	Mercury				
7440-02-0	Nickel	7.00	U	N	P
7440-09-7	Potassium	1010	U		P
7782-49-2	Selenium				
7440-22-4	Silver	4.00	U	N	P
7440-23-5	Sodium	223	~~B~~	U	P
7440-28-0	Thallium				
7440-62-2	Vanadium	8.00	U	N	P
7440-66-6	Zinc	115		~~*E~~ J	P
	Cyanide				

Color Before:COLORLESS Clarity Before:CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

BOOJ12

Lab Name:Roy F. Weston, Inc. Contract:6168-02-01

Lab Code:WESTON Case No:WEST SAS No.: SDG No.:CLP227

Matrix (soil/water):WATER Lab Sample ID:9104268001

Level (low/med): LOW Date Received:04/12/91

% Solids:

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	199	B		P
7440-36-0	Antimony	19.0	U	N	P
7440-38-2	Arsenic				
7440-39-3	Barium	5.00	U	N	P
7440-41-7	Beryllium	1.00	U	N	P
7440-43-9	Cadmium	4.00	U	N	P
7440-70-2	Calcium	282	~~B~~	U	P
7440-47-3	Chromium	3.40	B	N	P
7440-48-4	Cobalt	4.00	U	N	P
7440-50-8	Copper	7.30	B	N	P
7439-89-6	Iron	156			P
7439-92-1	Lead				
7439-95-4	Magnesium	84.0	U		P
7439-96-5	Manganese	2.00	U	N	P
7439-97-6	Mercury				
7440-02-0	Nickel	7.00	U	N	P
7440-09-7	Potassium	1010	U		P
7782-49-2	Selenium				
7440-22-4	Silver	4.00	U	N	P
7440-23-5	Sodium	132	~~B~~	UJ	P
7440-28-0	Thallium				
7440-62-2	Vanadium	8.00	U	N	P
7440-66-6	Zinc	69.0		~~*B~~ UJ	P
	Cyanide				C

Color Before:COLORLESS Clarity Before:CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

BOOJ13

Lab Name:Roy F. Weston, Inc. Contract:6168-02-01

Lab Code:WESTON Case No:WEST SAS No.: SDG No.:CLP227

Matrix (soil/water):WATER Lab Sample ID:9104268002

Level (low/med): LOW Date Received:04/12/91

% Solids:

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	136	B		P
7440-36-0	Antimony	19.0	U	N	P
7440-38-2	Arsenic				
7440-39-3	Barium	5.00	U	N	P
7440-41-7	Beryllium	1.00	U	N	P
7440-43-9	Cadmium	4.00	U	N	P
7440-70-2	Calcium	322	~~B~~	U	P
7440-47-3	Chromium	3.00	U	N	P
7440-48-4	Cobalt	4.00	U	N	P
7440-50-8	Copper	12.1	B	N	P
7439-89-6	Iron	286			P
7439-92-1	Lead				
7439-95-4	Magnesium	84.0	U		P
7439-96-5	Manganese	3.10	~~B~~	N J	P
7439-97-6	Mercury				
7440-02-0	Nickel	7.00	U	N	P
7440-09-7	Potassium	1690	~~B~~	U	P
7782-49-2	Selenium				
7440-22-4	Silver	4.00	U	N	P
7440-23-5	Sodium	183	~~B~~	UJ	P
7440-28-0	Thallium				
7440-62-2	Vanadium	8.00	U	N	P
7440-66-6	Zinc	48.9		~~*B~~ UJ	P
	Cyanide				

Color Before:COLORLESS Clarity Before:CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

BOOJ14

Lab Name:Roy F. Weston, Inc. Contract:6168-02-01

Lab Code:WESTON Case No:WEST SAS No.: SDG No.:CLP227

Matrix (soil/water):WATER Lab Sample ID:9104268003

Level (low/med): LOW Date Received:04/12/91

% Solids:

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	127	B		P
7440-36-0	Antimony	19.0	U	N	P
7440-38-2	Arsenic				
7440-39-3	Barium	5.00	U	N	P
7440-41-7	Beryllium	1.00	U	N	P
7440-43-9	Cadmium	4.00	U	N	P
7440-70-2	Calcium	350	~~B~~	U	P
7440-47-3	Chromium	3.00	U	N	P
7440-48-4	Cobalt	4.00	U	N	P
7440-50-8	Copper	11.2	B	N	P
7439-89-6	Iron	216			P
7439-92-1	Lead				
7439-95-4	Magnesium	84.0	U		P
7439-96-5	Manganese	2.00	~~N~~	J	P
7439-97-6	Mercury				
7440-02-0	Nickel	13.2	B	N	P
7440-09-7	Potassium	1010	U		P
7782-49-2	Selenium				
7440-22-4	Silver	4.00	U	N	P
7440-23-5	Sodium	356	~~B~~	U	P
7440-28-0	Thallium				
7440-62-2	Vanadium	8.00	U	N	P
7440-66-6	Zinc	53.7	~~E~~	J	P
	Cyanide				

Color Before:COLORLESS Clarity Before:CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

BOOJ15

Lab Name:Roy F. Weston, Inc. Contract:6168-02-01

Lab Code:WESTON Case No:WEST SAS No.: SDG No.:CLP227

Matrix (soil/water):WATER Lab Sample ID:9104268004

Level (low/med): LOW Date Received:04/12/91

% Solids:

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	295			P
7440-36-0	Antimony	42.8	B	N	P
7440-38-2	Arsenic				
7440-39-3	Barium	5.00	U	N	P
7440-41-7	Beryllium	1.00	U	N	P
7440-43-9	Cadmium	4.00	U	N	P
7440-70-2	Calcium	297	~~B~~	U	P
7440-47-3	Chromium	3.00	U	N	P
7440-48-4	Cobalt	4.00	U	N	P
7440-50-8	Copper	11.6	B	N	P
7439-89-6	Iron	195			P
7439-92-1	Lead				
7439-95-4	Magnesium	84.0	U		P
7439-96-5	Manganese	2.00	U	N	P
7439-97-6	Mercury				
7440-02-0	Nickel	15.4	B	N	P
7440-09-7	Potassium	1010	U		P
7782-49-2	Selenium				
7440-22-4	Silver	4.00	U	N	P
7440-23-5	Sodium	231	~~B~~	U	P
7440-28-0	Thallium				
7440-62-2	Vanadium	8.00	U	N	P
7440-66-6	Zinc	52.0	~~E~~	J	P
	Cyanide				

Color Before:COLORLESS Clarity Before:CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

BOOJ19

Lab Name:Roy F. Weston, Inc. Contract:6168-02-01

Lab Code:WESTON Case No:WEST SAS No.: SDG No.:CLP227

Matrix (soil/water):WATER Lab Sample ID:9104268005

Level (low/med): LOW Date Received:04/12/91

% Solids:

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	77.0	U		P
7440-36-0	Antimony	19.0	U	N	P
7440-38-2	Arsenic				
7440-39-3	Barium	5.00	U	N	P
7440-41-7	Beryllium	1.00	U	N	P
7440-43-9	Cadmium	4.00	U	N	P
7440-70-2	Calcium	408	~~B~~	U	P
7440-47-3	Chromium	4.40	B	N	P
7440-48-4	Cobalt	4.00	U	N	P
7440-50-8	Copper	25.9		N	P
7439-89-6	Iron	834			P
7439-92-1	Lead				
7439-95-4	Magnesium	84.0	U		P
7439-96-5	Manganese	94.0	~~N~~	J	P
7439-97-6	Mercury				
7440-02-0	Nickel	7.00	U	N	P
7440-09-7	Potassium	1010	U		P
7782-49-2	Selenium				
7440-22-4	Silver	4.00	U	N	P
7440-23-5	Sodium	380	~~B~~	U	P
7440-28-0	Thallium				
7440-62-2	Vanadium	8.00	U	N	P
7440-66-6	Zinc	93.0	~~*B~~	U	P
	Cyanide				

Color Before:COLORLESS Clarity Before:CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

B00J46

Lab Name:Roy F. Weston, Inc. Contract:6168-02-01

Lab Code:WESTON Case No:WEST SAS No.: SDG No.:CLP227

Matrix (soil/water):WATER Lab Sample ID:9104326001

Level (low/med): LOW Date Received:04/18/91

% Solids:

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	95.8	B		P
7440-36-0	Antimony	19.0	U	N	P
7440-38-2	Arsenic				
7440-39-3	Barium	5.00	U	N	P
7440-41-7	Beryllium	1.00	U	N	P
7440-43-9	Cadmium	4.00	U	N	P
7440-70-2	Calcium	480	~~B~~	4	P
7440-47-3	Chromium	4.60	B	N	P
7440-48-4	Cobalt	4.00	U	N	P
7440-50-8	Copper	36.5		N	P
7439-89-6	Iron	204			P
7439-92-1	Lead				
7439-95-4	Magnesium	84.0	U		P
7439-96-5	Manganese	7.70	~~B~~	~~N~~ 7	P
7439-97-6	Mercury				
7440-02-0	Nickel	11.4	B	N	P
7440-09-7	Potassium	1010	U		P
7782-49-2	Selenium				
7440-22-4	Silver	4.00	U	N	P
7440-23-5	Sodium	898	~~B~~	4	P
7440-28-0	Thallium				
7440-62-2	Vanadium	8.00	U	N	P
7440-66-6	Zinc	867		~~*E~~ 4-7	P
	Cyanide				

Color Before:COLORLESS Clarity Before:CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

BOOJ47

Lab Name:Roy F. Weston, Inc. Contract:6168-02-01

Lab Code:WESTON Case No:WEST SAS No.: SDG No.:CLP227

Matrix (soil/water):WATER Lab Sample ID:9104326002

Level (low/med): LOW Date Received:04/18/91

% Solids:

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	128	B		P
7440-36-0	Antimony	19.0	U	N	P
7440-38-2	Arsenic				
7440-39-3	Barium	5.00	U	N	P
7440-41-7	Beryllium	1.00	U	N	P
7440-43-9	Cadmium	4.00	U	N	P
7440-70-2	Calcium	325	~~B~~	4	P
7440-47-3	Chromium	3.20	B	N	P
7440-48-4	Cobalt	4.00	U	N	P
7440-50-8	Copper	15.8	B	N	P
7439-89-6	Iron	3380			P
7439-92-1	Lead				
7439-95-4	Magnesium	84.0	U		P
7439-96-5	Manganese	3.70	~~B~~	~~N~~ J	P
7439-97-6	Mercury				
7440-02-0	Nickel	9.90	B		P
7440-09-7	Potassium	1010	U		P
7782-49-2	Selenium				
7440-22-4	Silver	4.00	U	N	P
7440-23-5	Sodium	98.5	~~B~~	UJ	P
7440-28-0	Thallium				
7440-62-2	Vanadium	8.00	U	N	P
7440-66-6	Zinc	782		*E J	P
	Cyanide				

Color Before:COLORLESS Clarity Before:CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

B00J07

Lab Name:Roy F. Weston, Inc. Contract:6168-02-01

Lab Code:WESTON Case No:WEST SAS No.: SDG No.:CLP227

Matrix (soil/water):WATER Lab Sample ID:9104382001

Level (low/med): LOW Date Received:04/24/91

% Solids:

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	124	B		P
7440-36-0	Antimony	19.0	U	N	P
7440-38-2	Arsenic				
7440-39-3	Barium	5.00	U	N	P
7440-41-7	Beryllium	1.00	U	N	P
7440-43-9	Cadmium	4.00	U	N	P
7440-70-2	Calcium	335	~~B~~	4	P
7440-47-3	Chromium	3.00	U	N	P
7440-48-4	Cobalt	4.00	U	N	P
7440-50-8	Copper	7.60	B	N	P
7439-89-6	Iron	2680			P
7439-92-1	Lead				
7439-95-4	Magnesium	84.0	U		P
7439-96-5	Manganese	20.0		~~N~~ J	P
7439-97-6	Mercury				
7440-02-0	Nickel	7.00	U	N	P
7440-09-7	Potassium	1010	U		P
7782-49-2	Selenium				
7440-22-4	Silver	4.00	U	N	P
7440-23-5	Sodium	335	~~B~~	4	P
7440-28-0	Thallium				
7440-62-2	Vanadium	8.00	U	N	P
7440-66-6	Zinc	30.6		*E UJ	P
	Cyanide				

Color Before:COLORLESS Clarity Before:CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

DB00J45

Lab Name:Roy F. Weston, Inc. Contract:6168-02-01

Lab Code:WESTON Case No:WEST SAS No.: SDG No.:CLP227

Matrix (soil/water):WATER Lab Sample ID:9104382002

Level (low/med): LOW Date Received:04/24/91

% Solids:

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	575			P
7440-36-0	Antimony	19.0	U	N	P
7440-38-2	Arsenic				
7440-39-3	Barium	5.00	U	N	P
7440-41-7	Beryllium	1.00	U	N	P
7440-43-9	Cadmium	4.00	U	N	P
7440-70-2	Calcium	368	~~B~~	G	P
7440-47-3	Chromium	18.0		N	P
7440-48-4	Cobalt	4.00	U	N	P
7440-50-8	Copper	7.80	B	N	P
7439-89-6	Iron	404			P
7439-92-1	Lead				
7439-95-4	Magnesium	1300	B		P
7439-96-5	Manganese	4.20	~~B~~	~~N~~	P
7439-97-6	Mercury				
7440-02-0	Nickel	8.30	B	N	P
7440-09-7	Potassium	1010	U		P
7782-49-2	Selenium				
7440-22-4	Silver	4.00	U	N	P
7440-23-5	Sodium	347	~~B~~	G	P
7440-28-0	Thallium				
7440-62-2	Vanadium	8.00	U	N	P
7440-66-6	Zinc	43.8		*E J	P
	Cyanide				

Color Before:COLORLESS Clarity Before:CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

BOOJ39

Lab Name:Roy F. Weston, Inc. Contract:6168-02-01

Lab Code:WESTON Case No:WEST SAS No.: SDG No.:CLP227

Matrix (soil/water):WATER Lab Sample ID:9104402001

Level (low/med): LOW Date Received:04/26/91

% Solids:

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	87.3	B		P
7440-36-0	Antimony	19.0	U	N	P
7440-38-2	Arsenic				
7440-39-3	Barium	5.00	U	N	P
7440-41-7	Beryllium	1.00	U	N	P
7440-43-9	Cadmium	4.00	U	N	P
7440-70-2	Calcium	242	~~B~~	4	P
7440-47-3	Chromium	3.00	U	N	P
7440-48-4	Cobalt	4.00	U	N	P
7440-50-8	Copper	7.00	U	N	P
7439-89-6	Iron	146			P
7439-92-1	Lead				
7439-95-4	Magnesium	84.0	U		P
7439-96-5	Manganese	2.00	U	N	P
7439-97-6	Mercury				
7440-02-0	Nickel	7.00	U	N	P
7440-09-7	Potassium	1010	U		P
7782-49-2	Selenium				
7440-22-4	Silver	4.00	U	N	P
7440-23-5	Sodium	78.5	~~B~~	4J	P
7440-28-0	Thallium				
7440-62-2	Vanadium	8.00	U	N	P
7440-66-6	Zinc	51.2		*E 7	P
	Cyanide				

Color Before:COLORLESS Clarity Before:CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

m.a.B.
7/25/91

FORM I - IN

0000027

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

BOOV48

Lab Name:Roy F. Weston, Inc. Contract:6168-02-01

Lab Code:WESTON Case No:WEST SAS No.: SDG No.:CLP227

Matrix (soil/water):WATER Lab Sample ID:9104402002

Level (low/med): LOW Date Received:04/26/91

% Solids:

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	83.5	B		P
7440-36-0	Antimony	19.0	U	N	P
7440-38-2	Arsenic				
7440-39-3	Barium	5.00	U	N	P
7440-41-7	Beryllium	1.00	U	N	P
7440-43-9	Cadmium	4.00	U	N	P
7440-70-2	Calcium	290	~~B~~	4	P
7440-47-3	Chromium	6.00	B	N	P
7440-48-4	Cobalt	4.00	U	N	P
7440-50-8	Copper	7.80	B	N	P
7439-89-6	Iron	169			P
7439-92-1	Lead				
7439-95-4	Magnesium	84.0	U		P
7439-96-5	Manganese	2.00	U	N	P
7439-97-6	Mercury				
7440-02-0	Nickel	7.00	U	N	P
7440-09-7	Potassium	1010	U		P
7782-49-2	Selenium				
7440-22-4	Silver	4.00	U	N	P
7440-23-5	Sodium	136	~~B~~	4 J	P
7440-28-0	Thallium				
7440-62-2	Vanadium	8.00	U	N	P
7440-66-6	Zinc	38.8		*E J	P
	Cyanide				

Color Before:COLORLESS Clarity Before:CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

mgb
7/25/91

FORM I - IN

0000028

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

BOOV49

Lab Name:Roy F. Weston, Inc. Contract:6168-02-01

Lab Code:WESTON Case No:WEST SAS No.: SDG No.:CLP227

Matrix (soil/water):WATER Lab Sample ID:9104402003

Level (low/med): LOW Date Received:04/26/91

% Solids:

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	118	B		P
7440-36-0	Antimony	19.0	U	N	P
7440-38-2	Arsenic				
7440-39-3	Barium	5.00	U	N	P
7440-41-7	Beryllium	1.00	U	N	P
7440-43-9	Cadmium	4.00	U	N	P
7440-70-2	Calcium	339	~~B~~	4	P
7440-47-3	Chromium	3.40	B	N	P
7440-48-4	Cobalt	4.00	U	N	P
7440-50-8	Copper	7.30	B	N	P
7439-89-6	Iron	197			P
7439-92-1	Lead				
7439-95-4	Magnesium	84.0	U		P
7439-96-5	Manganese	3.00	~~B~~	~~N~~ J	P
7439-97-6	Mercury				
7440-02-0	Nickel	7.00	U	N	P
7440-09-7	Potassium	1100	~~B~~	4	P
7782-49-2	Selenium				
7440-22-4	Silver	4.00	U	N	P
7440-23-5	Sodium	1130	~~B~~	4	P
7440-28-0	Thallium				
7440-62-2	Vanadium	8.00	U	N	P
7440-66-6	Zinc	49.1		*E J	P
	Cyanide				

Color Before:COLORLESS Clarity Before:CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

mah. 7/25/91

FORM I - IN

0000029

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

BOOV50

Lab Name:Roy F. Weston, Inc. Contract:6168-02-01

Lab Code:WESTON Case No:WEST SAS No.: SDG No.:CLP227

Matrix (soil/water):WATER Lab Sample ID:9104402004

Level (low/med): LOW Date Received:04/26/91

% Solids:

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	109	B		P
7440-36-0	Antimony	29.0	B	N	P
7440-38-2	Arsenic				
7440-39-3	Barium	5.00	U	N	P
7440-41-7	Beryllium	1.00	U	N	P
7440-43-9	Cadmium	4.00	U	N	P
7440-70-2	Calcium	293	~~B~~	11	P
7440-47-3	Chromium	3.60	B	N	P
7440-48-4	Cobalt	4.00	U	N	P
7440-50-8	Copper	7.30	B	N	P
7439-89-6	Iron	131			P
7439-92-1	Lead				
7439-95-4	Magnesium	84.0	U		P
7439-96-5	Manganese	2.00	U	N	P
7439-97-6	Mercury				
7440-02-0	Nickel	7.00	U	N	P
7440-09-7	Potassium	1010	U		P
7782-49-2	Selenium				
7440-22-4	Silver	4.00	U	N	P
7440-23-5	Sodium	73.5	~~B~~	4J	P
7440-28-0	Thallium				
7440-62-2	Vanadium	8.00	U	N	P
7440-66-6	Zinc	126		*E J	P
	Cyanide				

Color Before:COLORLESS Clarity Before:CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

FORM I - IN

m.g.b.
7/25/91

U.S. EPA - CLP

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

BOOV51

Lab Name:Roy F. Weston, Inc. Contract:6168-02-01

Lab Code:WESTON Case No:WEST SAS No.: SDG No.:CLP227

Matrix (soil/water):WATER Lab Sample ID:9104402005

Level (low/med): LOW Date Received:04/26/91

% Solids:

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	87.3	B		P
7440-36-0	Antimony	19.0	U	N	P
7440-38-2	Arsenic				
7440-39-3	Barium	5.00	U	N	P
7440-41-7	Beryllium	1.00	U	N	P
7440-43-9	Cadmium	4.00	U	N	P
7440-70-2	Calcium	308	~~B~~	G	P
7440-47-3	Chromium	5.90	B	N	P
7440-48-4	Cobalt	4.00	U	N	P
7440-50-8	Copper	10.8	B	N	P
7439-89-6	Iron	123			P
7439-92-1	Lead				
7439-95-4	Magnesium	84.0	U		P
7439-96-5	Manganese	2.20	~~B~~	~~N~~ J	P
7439-97-6	Mercury				
7440-02-0	Nickel	25.7	B	N	P
7440-09-7	Potassium	1050	~~B~~	U	P
7782-49-2	Selenium				
7440-22-4	Silver	4.00	U	N	P
7440-23-5	Sodium	442	~~B~~	G	P
7440-28-0	Thallium				
7440-62-2	Vanadium	8.00	U	N	P
7440-66-6	Zinc	41.3		*E J	P
	Cyanide				

Color Before:COLORLESS Clarity Before:CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

MAB 7/25/91

INORGANIC QC - Calibrations

Name Mark A. Beck MAB Date 7/25/91

COMMENTS: No Run log found, raw data indicates that all standards were run at appropriate times. Hg, CN not analyzed for, no standards needed. Initial, Continuing calibration recovery within limits.

ACTION: none

sample #	constituent	value/qual	sample #	constituent	value/qual

INORGANIC QC - Calibrations

Name MA Beck Date 7-25-91

COMMENTS: Contaminants detected in preparation blank for Ca, Mg, K, Na and Zn.

ACTION: Qualify all associated samples as per QSM guidelines

sample #	constituent	value/qual
300J07	Zn	u
300J13	K	u
B00V49	K	u
B00V51	K	u
u. 18 samples	Ca	u
	Zn	u

sample #	constituent	value/qual

INORGANIC QC - ICS

Name MARK A. BECK m.a.b. Date 7/25/91

COMMENTS: ICS done before and after analysis runs, as per CLP protocol, all recoveries within limits. Mn, K had positive amounts in ICS samples, despite the fact that they ~~sol solu~~ should not be present. Na showed negative.

ACTION: Qualified associated results J if values near ICS values. For Na qualified results <|ICS| results as UJ

sample #	constituent	value/qual
B00J10	Mn	J
B00J18	~~Mn~~ CLS 7-28-91	
B00J13		
B00J14		
B00J19		
B00J46		
B00J47		
B00J07		
B00J45		
B00V49		
B00V51		
none	K	

none detected, no possible false positives.

sample #	constituent	value/qual
~~A~~ CLS 7-28-91	Na	UJ
B00J12		
B00J13		
B00J47		
B00J39		
B00J48		
~~B00J5~~ CLS 7-28-91		
B00V50		

INORGANIC QC - Matrix Spike

Name MARK A. BECK MAB. Date 7/25/91

COMMENTS: All analytes except zinc out of control limits. All data (results) except zinc ≤ IDL ~~qualified~~ qualified as UJ all result > IDL qualified J

ACTION: As stated above. All results to be considered ~~exp~~ estimated. All results except Zn biased low on basis of low spike recovery.

sample #	constituent	value/qual	sample #	constituent	value/qual
all 18 samples	all except Zn	J (detects) or UJ (non-detects			

INORGANIC QC - Duplicate Analysis

Name Mark A. Beck MAB Date 7/25/91

COMMENTS: Field blank not present, therefore not used (inappropriately as Duplicate sample. All ~~samples~~ results <CRDL or <5x CRDL and either no control limit applies or the deviation is within ± CRDL for that analyte.

ACTION: none

sample #	constituent	value/qual	sample #	constituent	value/qual

INORGANIC QC - LCS

Name MARK A. BECK mgr. Date 7/25/91

COMMENTS: all ~~[illegible]~~ analyte within control limits

ACTION: none

sample #	constituent	value/qual	sample #	constituent	value/qual

INORGANIC QC - Serial Dilution

Name Mark A. Beck Date 7/25/91

COMMENTS: Zn % D > 10% Zn concentration for sample > 10x IDL. All other analytes had an original concentration < 10x IDL so no control limit ~~applied~~ applied. No significant interferences seen.

ACTION: qualified Zn as below

sample #	constituent	value/qual	sample #	constituent	value/qual
all 18 samples	Zn	J			

INORGANIC QC - Holding Times

Name Mark O. Beck mgr. Date 7/25/91

COMMENTS: All Holding times met. All samples preserved to ← pH < 2.

ACTION: none

sample #	constituent	value/qual	sample #	constituent	value/qual

INORGANIC QC - other

Name Mark A. Beck m.a.b. Date 7/25/91

COMMENTS: none

ACTION: none

sample #	constituent	value/qual	sample #	constituent	value/qual