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9308L509-WES-1220
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WESTON

ROY F. WESTON, INC.
LIONVILLE ANALYTICAL LABORATORY
ANALYTICAL CASE NARRATIVE

Client: WESTINGHOUSE HANFORD
RFW #: 9311L704

W.O. #: 06168-002-001-9999-00
Date Received: 11-18-93

PESTICIDE/PCB

One (1) soil sample was collected on 08-04-93.

The sample and its associated QC samples were extracted on 11-18-93 and analyzed according to criteria set forth in the Contract Laboratory Program 03/90 SOW for Pesticide and PCB target compounds on 11-22,23-93.

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

1. Linearity and breakdown criteria were met for each of the analytical columns.

2. Retention time criteria were met for all compounds on both analytical columns.

3. Resolution of all pesticides in the Resolution Check Standard were within EPA QC limits.

4. The RPDs of the pesticides in the Performance Evaluation Mixes analyzed for calibration verification were within 25% for both analytical columns.

5. All surrogate recoveries were within the advisory EPA QC limits.

6. All blank spike recoveries were within EPA QC limits

7. All matrix spike recoveries were within EPA QC limits.

8. Recoveries of pesticides for the Florisil Cartridge Check were within EPA QC limits.

9. Continuing calibration criteria were exceeded for the target compound 4,4'-DDD on the DB608 column on 11-24-93 at 2336. 4,4'-DDD was not present on the RTX1701 column, so the data was not impacted.

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WESTON

Low levels of Alpha-Chlordane and Gamma-Chlordane were found in the laboratory blank and sample B08NQ8 and its associated matrix spike samples. All sample extracts and the laboratory blank and blank spike were reanalyzed prior to the GPC cleanup and Alpha-Chlordane and Gamma-Chlordane were not identified. Both sets of data were reported.

J. Peter Hershey, Ph.D.
Laboratory Manager
Lionville Analytical Laboratory

01-03-94
Date

sma/pcb/11-704pp.cn

9713530.1191

WESTON

ADDENDUM

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

Signature: Soumyath Basuthakur Name: SOM N. BASUTHAKUR

Date: 01-03-94 Title: UNIT-LEADER

pas\4-92\addendum

WESTON Analytics Use Only
9311L704

Custody Transfer Record/Lab Work Request

WESTON

Page 1 of 1

Client: Westinghouse Hanford
Est. Final Proj. Sampling Date:
Work Order #: 06168-002-001-9999-00
Project Contact/Phone #:
AD Project Manager: Josie Edwards
QC: CLP Del: CLP TAT: 10 Days
Date Rec'd: 11/18/93 Date Due: 11/28/93
Account #: WS-HANFORD

Refrigerator #				5														
#/Type Container	Liquid																	
	Solid			1AG														
Volume	Liquid																	
	Solid			500ml														
Preservatives																		
ANALYSES REQUESTED →		ORGANIC								INORG								
		VOA	BNA	Pest/PCB	Herb					Metal	CN							
		WESTON Analytics Use Only																
				06084														

MATRIX CODES:
S - Soil
SE - Sediment
SO - Solid
SL - Sludge
W - Water
O - Oil
A - Air
DS - Drum Solids
DL - Drum Liquids
L - EP/TCLP Leachate
WI - Wipe
X - Other
F - Fish

Lab ID	Client ID/Description	Matrix QC Chosen (✓) MS	MSD	Matrix	Date Collected	Time Collected	VOA	BNA	Pest/PCB	Herb	Metal	CN	Relog of
001	B08NQ8			S	8/4/93	943			X				9308L509-001

FIELD PERSONNEL: COMPLETE ONLY SHADED AREAS

Special Instructions:

DATE/REVISIONS:
1.
2.
3.
4.
5.
6.

Original Rewritten

Relinquished by	Received by	Date	Time	Relinquished by	Received by	Date	Time
RELOG				RELOG			

Discrepancies Between Samples Labels and COC Record? Y or N
NOTES:

WESTON Analytics Use Only

Samples were:
1) Shipped ___ or Hand Delivered ___ Airbill # ___
2) Ambient or Chilled
3) Received in Good Condition Y or N
4) Labels Indicate Properly Preserved Y or N
5) Received Within Holding Times Y or N

COC Tape was:
1) Present on Outer Package Y or N
2) Unbroken on Outer Package Y or N
3) Present on Sample Y or N
4) Unbroken on Sample Y or N
COC Record Present Upon Sample Rec't Y or N

RFW 21-21-001/A-7/91 ___ L372 ___ L373 ___ L375 ___ L377 ___ L378 Ref# ___ Cooler# ___ 381-596a

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93IL704

Item/Reason	Relinquished by	Received by	Date	Time
Pest 001	B. Burnett	Dina O.	11-18-93	7:15pm
Pest 001	Dina O.	B. Burnett	11/22/93	2pm
% solids	B. Burnett	[illegible]	11/22/93	1430
Pest 005 (w) (c)	[illegible]	B. Burnett	11/23/93	1600
% T.C	[illegible]	B. Burnett	11/24	900

11A

93GC259

9713530 1194

SAMPLE DISCREPANCY REPORT (SDR)

SDR IN-PROGRESS ROUTING: (see other side)

Initiator: G. SADDIC
Date: 11/24/93
Client: Westinghouse
RFW Lot #: 9311L704
Samples: ALL

Parameter: 0608H
Matrix: SOIL
Prep Batch: 93LE2061
Urgency: ✓ Immediate ___ Other

Category for Discrepancy:
___ Log-In
___ LIMS
✓ Analysis/Sample
___ Project Revision
___ Other:

A. Reason for SDR:

A1a. Requires Verification By (circle): Log-In or Prep Group

A2. Verified By (circle): Log-In or Prep Group (signature) (date)

___ Missing Sample/Extract
___ Wrong Sample Pulled
___ Improper Bottle Type
___ Container Broken
___ Preservation Wrong
___ Received Past Hold
___ Insufficient Sample
___ Label ID's Illegible

A1b.

___ Re-Log: Tech Profile Error..Client Changed Request.. Sampler Error on C-O-C..Transcription Error.. Wrong Test Code, Re-Log As _____
___ Re-Leach: Metals/Inorg/VOA/BNA/Pest/Herb/___
___ Re-Digest: AA/ICP/HG/_____
___ Re-Extract: BNA/PEST/_____
___ QC Out: SURR/MS...High/Low/<10%/Missing/2X
___ QC Out: B/BS/BSD/LCS/LCS-D...High/Low
___ Hold Time Exceeded: Prep/Analysis/Report
___ Not Amenable to Analysis
✓ Other (describe)

CCV SLIGHTLY EXCEEDED CRITERIA FOR DDD ON ONE COLUMN. DDD IS NOT PRESENT SO THE DATA IS NOT IMPACTED

B. PM Instructions For Disposition (signature/date): Josie Edwards 11/29/93

___ Cancel ___ Add ___ Subout Analysis
___ Place On Hold ___ Take Off Hold
___ Change W.O. # to: _____
___ MS/MSD on Sample ____, if enough sample: ORG/INORG
___ MS/DUP on Sample ____, if enough sample: ORG/INORG
___ Change Client name to: _____
___ Wrong Test Code, Re-Log As _____
✓ Include in Narrative

___ Other, explain:

C. FINAL ACTION: a clear description of what was done for resolution, when it was done, and by whom it was done

Action Taken:
___ Revision To Chain-of-Custody Completed
___ LIMS Corrections Completed
___ Other, explain

INCLUDED IN NARRATIVE

Action By (name/date): G. Saddic
Forward to Pat Feldman, QA for distribution ---

D. Distribution of Completed SDR (include name):

X Initiator: G. SADDIC
X Lab Manager: J.Peter Hershey
X Project Mgr: J. EDWARDS
X Unit Leader: D. SKRZAT
X QA (original): D.S. Therry
___ Log-In: _____
___ Data Reporting: _____
___ Billing: Karen Olsen
X K. CROMER
___ _____

Distributed By: (signature/date)

RFW 21-21-006/E-10/90 (SDR Revision 5.0)

JD 1-3-94
~~HA~~
11B

Roy F. Weston, Inc. - Lionville Laboratory
Pesticide/PCBs by GC, CLP List

Report Date: 12/01/93 10:15

RFW Batch Number: 9311L704 Client: WESTINGHOUSE HANFORD Work Order: 06168-002-001-9999-00

	Cust ID:	B08NQ8	B08NQ8	B08NQ8	B08NQ8	B08NQ8	B08NQ8
Sample Information	RFW#:	001	001	001 RE	001 RE	001 MS	001 MS
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	D.F.:	1.00	1.00	1.00	1.00	1.00	1.00
	Units:	ug/Kg	ug/Kg CONFIRM	ug/Kg	ug/Kg REANCONF	ug/Kg	ug/Kg CONFIRM
Surrogate:	Tetrachloro-m-xylene	90 %	72 %	95 %	88 %	92 %	75 %
Surrogate:	Decachlorobiphenyl	95 %	95 %	92 %	100 %	100 %	100 %
Alpha-BHC		1.7 U	NA	1.7 U	NA	1.7 U	NA
Beta-BHC		1.7 U	NA	1.7 U	NA	1.7 U	NA
Delta-BHC		1.7 U	NA	1.7 U	NA	1.7 U	NA
gamma-BHC (Lindane)		1.7 U	NA	1.7 U	NA	94 %	70 %
Heptachlor		1.7 U	NA	1.7 U	NA	82 %	70 %
Aldrin		1.7 U	NA	1.7 U	NA	96 %	78 %
Heptachlor epoxide		1.7 U	NA	1.7 U	NA	1.7 U	NA
Endosulfan I		1.7 U	NA	1.7 U	NA	1.7 U	NA
Dieldrin		2.7 J	2.3 J	2.7 J	3.0 J	109 %	85 %
4,4'-DDE		3.3 U	NA	3.3 U	NA	3.3 U	NA
Endrin		3.3 U	NA	3.3 U	NA	112 %	91 %
Endosulfan II		3.3 U	NA	3.3 U	NA	3.3 U	NA
4,4'-DDD		3.3 U	NA	3.3 U	NA	3.3 U	NA
Endosulfan sulfate		3.3 U	NA	3.3 U	NA	3.3 U	NA
4,4'-DDT		3.3 U	NA	3.3 U	NA	97 %	86 %
Methoxychlor		17 U	NA	17 U	NA	17 U	NA
Endrin ketone		3.3 U	NA	3.3 U	NA	3.3 U	NA
Endrin aldehyde		3.3 U	NA	3.3 U	NA	3.3 U	NA
alpha-Chlordane		1.3 JB	1.3 JB	1.7 U	NA	1.0 JBP	1.3 JBP
gamma-Chlordane		2.0 B	1.7 B	1.7 U	NA	1.7 BP	1.3 JBP
Toxaphene		170 U	NA	170 U	NA	170 U	NA
Aroclor-1016		33 U	NA	33 U	NA	33 U	NA
Aroclor-1221		67 U	NA	67 U	NA	67 U	NA
Aroclor-1232		33 U	NA	33 U	NA	33 U	NA
Aroclor-1242		33 U	NA	33 U	NA	33 U	NA
Aroclor-1248		33 U	NA	33 U	NA	33 U	NA
Aroclor-1254		33 U	NA	33 U	NA	33 U	NA
Aroclor-1260		33 U	NA	33 U	NA	33 U	NA

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

DR 12-1-93

0013

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Roy F. Weston, Inc. - Lionville Laboratory
Pesticide/PCBs by GC, CLP List

RFW Batch Number: 9311L704 Client: WESTINGHOUSE HANFORD Work Order: 06168-002-001-9999-00 Report Date: 12/01/93 10:15 Page: 2

	Cust ID:	B08NQ8	B08NQ8	B08NQ8	B08NQ8	B08NQ8	B08NQ8
Sample Information	RFW#:	001 MS	001 MS	001 MSD	001 MSD	001 MSD	001 MSD
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	D.F.:	1.00	1.00	1.00	1.00	1.00	1.00
	Units:	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg
			REANCONF		CONFIRM		REANCONF
Surrogate: Tetrachloro-m-xylene		102 %	92 %	102 %	82 %	102 %	92 %
Surrogate: Decachlorobiphenyl		100 %	108 %	108 %	108 %	98 %	108 %
==========		fl	fl	fl	fl	fl	fl
Alpha-BHC		1.7 U	NA	1.7 U	NA	1.7 U	NA
Beta-BHC		1.7 U	NA	1.7 U	NA	1.7 U	NA
Delta-BHC		1.7 U	NA	1.7 U	NA	1.7 U	NA
gamma-BHC (Lindane)		106 %	88 %	104 %	78 %	102 %	86 %
Heptachlor		102 %	90 %	92 %	76 %	100 %	86 %
Aldrin		110 %	96 %	110 %	86 %	108 %	96 %
Heptachlor epoxide		1.7 U	NA	1.7 U	NA	1.7 U	NA
Endosulfan I		1.7 U	NA	1.7 U	NA	1.7 U	NA
Dieldrin		116 %	100 %	122 %	92 %	112 %	98 %
4,4'-DDE		3.3 U	NA	3.3 U	NA	3.3 U	NA
Endrin		124 %	108 %	123 %	97 %	121 %	105 %
Endosulfan II		3.3 U	NA	3.3 U	NA	3.3 U	NA
4,4'-DDD		3.3 U	NA	3.3 U	NA	3.3 U	NA
Endosulfan sulfate		3.3 U	NA	3.3 U	NA	3.3 U	NA
4,4'-DDT		103 %	96 %	108 %	92 %	96 %	94 %
Methoxychlor		17 U	NA	17 U	NA	17 U	NA
Endrin ketone		3.3 U	NA	3.3 U	NA	3.3 U	NA
Endrin aldehyde		3.3 U	NA	3.3 U	NA	3.3 U	NA
alpha-Chlordane		1.7 U	NA	1.3 JB	1.3 JB	1.7 U	NA
gamma-Chlordane		1.7 U	NA	1.7 BP	1.3 JBP	1.7 U	NA
Toxaphene		170 U	NA	170 U	NA	170 U	NA
Aroclor-1016		33 U	NA	33 U	NA	33 U	NA
Aroclor-1221		67 U	NA	67 U	NA	67 U	NA
Aroclor-1232		33 U	NA	33 U	NA	33 U	NA
Aroclor-1242		33 U	NA	33 U	NA	33 U	NA
Aroclor-1248		33 U	NA	33 U	NA	33 U	NA
Aroclor-1254		33 U	NA	33 U	NA	33 U	NA
Aroclor-1260		33 U	NA	33 U	NA	33 U	NA

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

DR 12-1-93

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1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

B08NQ8

Lab Name: Roy F. Weston, Inc. Work Order: 06168-002-001-9999-00

Client: WESTINGHOUSE HANFORD

Matrix: (soil/water) SOIL

Lab Sample ID: 9311L704-001

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: 11199335.81

% Moisture: .43 decanted: (Y/N)

Date Received: 11/18/93

Extraction: (SepF/Cont/Sonc) SONC

Date Extracted: 11/18/93

Concentrated Extract Volume: 5000 (uL)

Date Analyzed: 11/22/93

Injection Volume: .5ul (uL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 8.2

Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
319-84-6	Alpha-BHC	1.7	U
319-85-7	Beta-BHC	1.7	U
319-86-8	Delta-BHC	1.7	U
58-89-9	gamma-BHC (Lindane)	1.7	U
76-44-8	Heptachlor	1.7	U
309-00-2	Aldrin	1.7	U
1024-57-3	Heptachlor epoxide	1.7	U
959-98-8	Endosulfan I	1.7	U
60-57-1	Dieldrin	2.3	J
72-55-9	4,4'-DDE	3.3	U
72-20-8	Endrin	3.3	U
33213-65-9	Endosulfan II	3.3	U
72-54-8	4,4'-DDD	3.3	U
1031-07-8	Endosulfan sulfate	3.3	U
50-29-3	4,4'-DDT	3.3	U
72-43-5	Methoxychlor	17	U
53494-70-5	Endrin ketone	3.3	U
7421-93-4	Endrin aldehyde	3.3	U
5103-71-9	alpha-Chlordane	1.3	JB
5103-74-2	gamma-Chlordane	1.7	B
8001-35-2	Toxaphene	170	U
12674-11-2	Aroclor-1016	33	U
11104-28-2	Aroclor-1221	67	U
11141-16-5	Aroclor-1232	33	U
53469-21-9	Aroclor-1242	33	U
12672-29-6	Aroclor-1248	33	U
11097-69-1	Aroclor-1254	33	U
11096-82-5	Aroclor-1260	33	U

DR 12-1-93

FORM 1 PEST 03/90