9613451.1444

START

9104L357-WES-052

0044560

**DON'T SAY IT** --- *Write It!*

DATE: December 7, 1993

TO: File 9104L357-WES-052

FROM: Doris Ayres SDLA

Telephone: 372-2507

SUBJECT: Changing Client Sample Numbers to HEIS sample numbers

The following sample numbers were changed within the referenced package:

| Old Client Sample Number | New HEIS Sample Number |
|---|---|
| D2-4181-13 | B09N63 |
| D2-4181-14 | B09N64 |

JUN 1996
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EDMC

9613451.1445 6A 9104L357-WES-052

**ROY F. WESTON, INC.**
**Lionville Laboratory**

**CLIENT:** WESTINGHOUSE HANFORD **SAMPLES RECEIVED:** 04-22-91
**RFW #:** 9104L357, GC/MS VOLATILE
**W.O. #:** 6168-02-01

**NARRATIVE**

The set of samples consisted of two (2) soil samples collected on 04-18-91.

The samples were analyzed according to criteria set forth in SW 846 Method 8240 for TCL Volatile target compounds on 04-24-91.

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 not detected in these samples.

2. All surrogate recoveries were within EPA QC limits.

3. Matrix spike and spike duplicate samples are associated with RFW lot 9104L328.

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

5. All internal standard area and retention time criteria were met.

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

6 25 91
Date

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

RFW Batch Number: 9104L357 Client: WESTINGHOUSE HANFORD Work Order: 6168-02-01-0000 Report Date: 06/23/91 12:03 Page: 1a

| | Cust ID: | D2-4181-13 | | D2-4181-14 | | VBLK | |
|---|---|---|---|---|---|---|---|
| Sample Information | RFW#: | 001 | | 002 | | 91LVB285-MB1 | |
| | Matrix: | SOIL | | SOIL | | SOIL | |
| | D.F.: | 1.00 | | 1.02 | | 1.00 | |
| | Units: | ug/Kg | | ug/Kg | | ug/Kg | |
| Surrogate Recovery | Toluene-d8 | 93 | % | 90 | % | 95 | % |
| | Bromofluorobenzene | 93 | % | 91 | % | 92 | % |
| | 1,2-Dichloroethane-d4 | 115 | % | 111 | % | 100 | % |
| Chloromethane | | 10 | U | 10 | U | 10 | U |
| Bromomethane | | 10 | U | 10 | U | 10 | U |
| Vinyl Chloride | | 10 | U | 10 | U | 10 | U |
| Chloroethane | | 10 | U | 10 | U | 10 | U |
| Methylene Chloride | | 43 | B | 38 | B | 13 | |
| Acetone | | 53 | B | 71 | B | 8 | J |
| Carbon Disulfide | | 5 | U | 5 | U | 5 | U |
| 1,1-Dichloroethene | | 5 | U | 5 | U | 5 | U |
| 1,1-Dichloroethane | | 5 | U | 5 | U | 5 | U |
| 1,2-Dichloroethene (total) | | 5 | U | 5 | U | 5 | U |
| Chloroform | | 5 | U | 5 | U | 5 | U |
| 1,2-Dichloroethane | | 5 | U | 5 | U | 5 | U |
| 2-Butanone | | 10 | U | 10 | U | 10 | U |
| 1,1,1-Trichloroethane | | 5 | U | 5 | U | 5 | U |
| Carbon Tetrachloride | | 5 | U | 5 | U | 5 | U |
| Vinyl Acetate | | 10 | U | 10 | U | 10 | U |
| Bromodichloromethane | | 5 | U | 5 | U | 5 | U |
| 1,2-Dichloropropane | | 5 | U | 5 | U | 5 | U |
| cis-1,3-Dichloropropene | | 5 | U | 5 | U | 5 | U |
| Trichloroethene | | 5 | U | 5 | U | 5 | U |
| Dibromochloromethane | | 5 | U | 5 | U | 5 | U |
| 1,1,2-Trichloroethane | | 5 | U | 5 | U | 5 | U |
| Benzene | | 5 | U | 5 | U | 5 | U |
| Trans-1,3-Dichloropropene | | 5 | U | 5 | U | 5 | U |
| Bromoform | | 5 | U | 5 | U | 5 | U |
| 4-Methyl-2-pentanone | | 10 | U | 10 | U | 10 | U |
| 2-Hexanone | | 10 | U | 10 | U | 10 | U |
| Tetrachloroethene | | 5 | U | 5 | U | 5 | U |
| 1,1,2,2-Tetrachloroethane | | 5 | U | 5 | U | 5 | U |

*= Outside of EPA CLP QC limits.

Cust ID: D2-4181-13 D2-4181-14 VBLK

| RFW#: | 001 | 002 | 91LVB285-MB1 |
|---|---|---|---|
| Toluene | 5 U | 5 U | 5 U |
| Chlorobenzene | 5 U | 5 U | 5 U |
| Ethylbenzene | 5 U | 5 U | 5 U |
| Styrene | 5 U | 5 U | 5 U |
| Xylene (total) | 5 U | 5 U | 5 U |

*= Outside of EPA CLP QC limits.

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# VOLATILE ORGANICS ANALYSIS SHEET

00000 CLIENT SAMPLE NO.

D2-4181-13

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

Client: WESTINGHOUSE HANFORD

Matrix: SOIL Lab Sample ID: 9104L357-001

Sample wt/vol: 5.00 (g/mL) G Lab File ID: B042411

Level: (low/med) LOW Date Received: 04/22/91

% Moisture: not dec. 4 Date Analyzed: 04/24/91

Column: (pack/cap) CAP Dilution Factor: 1.00

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

| CAS NO. | COMPOUND | | |
|---|---|---|---|
| 74-87-3 | Chloromethane | 10 | U |
| 74-83-9 | Bromomethane | 10 | U |
| 75-01-4 | Vinyl Chloride | 10 | U |
| 75-00-3 | Chloroethane | 10 | U |
| 75-09-2 | Methylene Chloride | 43 | B |
| 67-64-1 | Acetone | 53 | B |
| 75-15-0 | Carbon Disulfide | 5 | U |
| 75-35-4 | 1,1-Dichloroethene | 5 | U |
| 75-34-3 | 1,1-Dichloroethane | 5 | U |
| 540-59-0 | 1,2-Dichloroethene (total) | 5 | U |
| 67-66-3 | Chloroform | 5 | U |
| 107-06-2 | 1,2-Dichloroethane | 5 | U |
| 78-93-3 | 2-Butanone | 10 | U |
| 71-55-6 | 1,1,1-Trichloroethane | 5 | U |
| 56-23-5 | Carbon Tetrachloride | 5 | U |
| 108-05-4 | Vinyl Acetate | 10 | U |
| 75-27-4 | Bromodichloromethane | 5 | U |
| 78-87-5 | 1,2-Dichloropropane | 5 | U |
| 10061-01-5 | cis-1,3-Dichloropropene | 5 | U |
| 79-01-6 | Trichloroethene | 5 | U |
| 124-48-1 | Dibromochloromethane | 5 | U |
| 79-00-5 | 1,1,2-Trichloroethane | 5 | U |
| 71-43-2 | Benzene | 5 | U |
| 10061-02-6 | Trans-1,3-Dichloropropene | 5 | U |
| 75-25-2 | Bromoform | 5 | U |
| 108-10-1 | 4-Methyl-2-pentanone | 10 | U |
| 591-78-6 | 2-Hexanone | 10 | U |
| 127-18-4 | Tetrachloroethene | 5 | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 5 | U |
| 108-88-3 | Toluene | 5 | U |
| 108-90-7 | Chlorobenzene | 5 | U |
| 100-41-4 | Ethylbenzene | 5 | U |
| 100-42-5 | Styrene | 5 | U |
| 1330-20-7 | Xylene (total) | 5 | U |

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VOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

00000 CLIENT SAMPLE NO.

D2-4181-13

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

Client: WESTINGHOUSE HANFORD

Matrix: SOIL

Lab Sample ID: 9104L357-001

Sample wt/vol: 5.00 (g/mL) G

Lab File ID: B042411

Level: (low/med) LOW

Date Received: 04/22/91

% Moisture: not dec. 4

Date Analyzed: 04/24/91

Column: (pack/cap) CAP

Dilution Factor: 1.00

Number TICs found: 0

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

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

# VOLATILE ORGANICS ANALYSIS SHEET

000002 CLIENT SAMPLE NO.

D2-4181-14

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

Client: WESTINGHOUSE HANFORD

Matrix: SOIL Lab Sample ID: 9104L357-002

Sample wt/vol: 4.90 (g/mL) G Lab File ID: B042412

Level: (low/med) LOW Date Received: 04/22/91

% Moisture: not dec. 3 Date Analyzed: 04/24/91

Column: (pack/cap) CAP Dilution Factor: 1.02

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

| CAS NO. | COMPOUND | | |
|---|---|---|---|
| 74-87-3 | Chloromethane | 10 | U |
| 74-83-9 | Bromomethane | 10 | U |
| 75-01-4 | Vinyl Chloride | 10 | U |
| 75-00-3 | Chloroethane | 10 | U |
| 75-09-2 | Methylene Chloride | 38 | B |
| 67-64-1 | Acetone | 71 | B |
| 75-15-0 | Carbon Disulfide | 5 | U |
| 75-35-4 | 1,1-Dichloroethene | 5 | U |
| 75-34-3 | 1,1-Dichloroethane | 5 | U |
| 540-59-0 | 1,2-Dichloroethene (total) | 5 | U |
| 67-66-3 | Chloroform | 5 | U |
| 107-06-2 | 1,2-Dichloroethane | 5 | U |
| 78-93-3 | 2-Butanone | 10 | U |
| 71-55-6 | 1,1,1-Trichloroethane | 5 | U |
| 56-23-5 | Carbon Tetrachloride | 5 | U |
| 108-05-4 | Vinyl Acetate | 10 | U |
| 75-27-4 | Bromodichloromethane | 5 | U |
| 78-87-5 | 1,2-Dichloropropane | 5 | U |
| 10061-01-5 | cis-1,3-Dichloropropene | 5 | U |
| 79-01-6 | Trichloroethene | 5 | U |
| 124-48-1 | Dibromochloromethane | 5 | U |
| 79-00-5 | 1,1,2-Trichloroethane | 5 | U |
| 71-43-2 | Benzene | 5 | U |
| 10061-02-6 | Trans-1,3-Dichloropropene | 5 | U |
| 75-25-2 | Bromoform | 5 | U |
| 108-10-1 | 4-Methyl-2-pentanone | 10 | U |
| 591-78-6 | 2-Hexanone | 10 | U |
| 127-18-4 | Tetrachloroethene | 5 | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 5 | U |
| 108-88-3 | Toluene | 5 | U |
| 108-90-7 | Chlorobenzene | 5 | U |
| 100-41-4 | Ethylbenzene | 5 | U |
| 100-42-5 | Styrene | 5 | U |
| 1330-20-7 | Xylene (total) | 5 | U |

CLIENT SAMPLE NO.

D2-4181-14

# VOLATILE ORGANICS ANALYSIS SHEET
## TENTATIVELY IDENTIFIED COMPOUNDS

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

Client: WESTINGHOUSE HANFORD

Matrix: SOIL

Lab Sample ID: 9104L357-002

Sample wt/vol: 4.90 (g/mL) G

Lab File ID: B042412

Level: (low/med) LOW

Date Received: 04/22/91

% Moisture: not dec. 3

Date Analyzed: 04/24/91

Column: (pack/cap) CAP

Dilution Factor: 1.02

Number TICs found: 0

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

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

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WESTON

**ROY F. WESTON, INC.**
**Lionville Laboratory**

**CLIENT:** WESTINGHOUSE HANFORD **SAMPLES RECEIVED:** 04-22-91
**RFW #:** 9104L357
**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. 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).

JUL 1991
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DATA RECEIPT

Linda A. Hayhurst 5.14.91

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

4mm 8-24-94

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ROY F. WESTON INC.

INORGANICS DATA SUMMARY REPORT 05/08/91

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

WESTON BATCH #: 9104L357

| SAMPLE | SITE ID | ANALYTE | RESULT | UNITS | REPORTING LIMIT |
|---|---|---|---|---|---|
| -001 | D2-4181-13 | % Solids | 96.2 | % | 0.10 |
| -002 | D2-4181-14 | % Solids | 97.2 | % | 0.10 |

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

DATE RECEIVED: 04/22/91 RFW LOT # :9104L357

| CLIENT ID /ANALYSIS | RFW # | MTX | PREP # | COLLECTION | EXTR/PREP | ANALYSIS |
|---|---|---|---|---|---|---|
| D2-4181-13 | | | | | | |
| % SOLIDS | 001 | S | 91L%S072 | 04/18/91 | 05/03/91 | 05/04/91 |
| D2-4181-14 | | | | | | |
| % SOLIDS | 002 | S | 91L%S072 | 04/18/91 | 05/03/91 | 05/04/91 |

5

# Custody Transfer Record/Lab Work Request

WESTON

| WESTON Analytics Use Only |
|---|
| 9104L357 |

WS-HANFORD

Client: WESTINGHOUSE HANFORD- V. ROHAY
Work Order: 6668-03-01
Date Rec'd.: 4/22/91 Date Due: 5/27/91
RFW Contact: Q King
Client Contact/Phone: V. ROHAY (509) 376 5507

| | |
|---|---|
| Refrigerator# | N/A |
| #/Type Container | glass |
| Volume | 125ml |
| Preservative | N/A |
| ANALYSES REQUESTED | VOA |

| WA Use Only Lab ID | Client ID/Description | Matrix | Date Collected | 06304A 4-18-91 |
|---|---|---|---|---|
| 001 | D2-4181-13 | S | 4-18-91 | ✓ |
| 2 | D2-4181-14 | S | 4-18-91 | ✓ |

JSH

QC/Del=CLP
TAT=35 days

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:

| Item/Reason | Relinquished by | Received by | Date | Time | Item/Reason | Relinquished by | Received by | Date | Time |
|---|---|---|---|---|---|---|---|---|---|
| | JD Hogan | | | 11:00 pm | | | | | |
| Emery | [illegible] | [illegible] | 4/22/91 | 9 am | | | | | |
| RAD Sign | [illegible] | Charles Pyle | 4/22/91 | 9:45 am | | | | | |
| Storage | Charles Pyle | [illegible] | 4-22-91 | 1:42 pm | | | | | |

**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:

9613451.1455

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

7-115