9110L206-WES-220

0043101

ROY F. WESTON, INC.
Lionville Laboratory

CLIENT: WESTINGHOUSE HANFORD **SAMPLES RECEIVED:** 10-30-91
RFW #: 9110L206
W.O. #: 6168-02-01-0000

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. All sample holding times as required by 40CFR136 were met for water samples.

2. All preparation blank results were below the required detection limit.

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

4. Matrix spike recoveries are summarized on the Inorganic Accuracy Report contained within this document. All recoveries were within the 75-125% guidance limits. All %RPD were within the 20% guidance limit.

5. Replicate results are summarized on the Inorganic Precision Report contained within this document. All results were within the 20% RPD guidance limit.

6. 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).

12.04.91.
Date

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

FEB 1996 LIONVILLE

DEC 1991 RECEIVED OSM DMO

ncc.21\i10-206

ROY F. WESTON INC.

INORGANICS DATA SUMMARY REPORT 11/29/91

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

WESTON BATCH #: 9110L206

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	REPORTING LIMIT
-001	B015F4	Total Organic Carbon	0.59	MG/L	0.50

3

WESTON Analytics Use Only

9110L206

Custody Transfer Record/Lab Work Request

WESTON MANAGERS DESIGNERS/CONSULTANTS

Page 1 of 1

Client: Westinghouse Hanford
Est. Final Proj. Sampling Date:
Work Order #: 6168-02-01-0000
Project Contact/Phone #: Steve Weiss
AD Project Manager: Josie King
QC: CLP Del: CLP TAT: 35 day
Date Rec'd: 10-30-91 Date Due: 12-4-91
Account #: WS-HANFORD

Refrigerator #						1									
#/Type Container	Liquid					1G									
	Solid														
Volume	Liquid					250ml									
	Solid														
Preservatives						—									
ANALYSES REQUESTED →		ORGANIC: VOA	BNA	Pest/PCB	Herb	TOC			INORG: Metal	CN					

WESTON Analytics Use Only

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	TOC
001	B015F4			W	10-28-91		✓

FIELD PERSONNEL: COMPLETE ONLY SHADED AREAS

Special Instructions:
RAD Sheets to follow:

MS/MSD Required on Each Batch & Each MATRIX

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

Relinquished by	Received by	Date	Time
Emery	[signature]	10-30-91	13:10
	[signature] 10-30-91		

Relinquished by	Received by	Date	Time
	[signature] 10-30-91		

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

WESTON Analytics Use Only

Samples were:
1) Shipped ✓ or Hand Delivered
Airbill # 247-425-382-6
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

(Westinghouse only)

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

Westinghouse Hanford Company	CHAIN OF CUSTODY

Custody Form Initiator Richard Mahood

Company Contact Steve Weiss — Telephone 509 376 1683

Project Designation/Sampling Locations OSM Project No. 91-058, White Bluffs Trailer — Collection Date 10/28/91

Ice Chest No. IT-51 — Field Logbook No. 199806.121.02

Bill of Lading/Airbill No. 247 425 382 6 — Offsite Property No. W92-0-0038*4

Method of Shipment

Shipped to Weston Analytical

Possible Sample Hazards/Remarks None expected

RFW 9110L206-001

Sample Identification	
1x 250 mL GS H_2O	B015F4

☐ Field Transfer of Custody	CHAIN OF POSSESSION	(Sign and Print Names)
Relinquished by: Richard Mahood Richard Mahood	Received by: John Olson	Date/Time: 1122 hrs / 10-29-91
Relinquished by:	Received by:	Date/Time:
Relinquished by: Emery	Received by: Brian E. Shaffer	Date/Time: 10/30/91 BES 10/30/91 ~~09~~ 1310
Relinquished by:	Received by:	Date/Time:

Final Sample Disposition

Disposal Method:	Disposed by:	Date/Time:

Comments:

A-6000-407 (12/90)

Westinghouse Hanford Company

NONCONFORMANCE REPORT

1. Page 1 of 1

2. Preprinted No. 051939

QA Log No.

3. P. O., W. O., or Job Control No.	4. System/End Use	5. Item/Material	6. Dwg./Spec./Other No.	7. Rev.
N/A	RI/FS	SAMPLES	B015F4	N/A

8. Program/Project/Other: 100A SPRINGS/

9. Safety Class: N/A

10. ASME Code Items: ☐ Yes ☒ No (If yes, notify authorized inspector)

11. Supplier Name/Address: ENVIRONMENTAL FIELD SAMPLING SERVICES

12. Notification of Potential Occurence Required: ☐ Yes ☒ No

13. Code: Lot/Heat/Serial	14. Lot Size	15. Sample	16. Qty. Acc.
N/A	1	1	Ø

17. Inspection Criteria: ☐ Dwg. ☐ Spec. ☐ Insp. Plan ☒ Other WHC-CM-7-7, EII 5.1 REV. 0 SEC 6.1

18. Item	19. Description of Nonconformance (list serial no. where applicable)	22. Disposition, Justification, and Instructions
1	AS STATED IN WHC-CM-7-7, EII 5.1, SEC 6.1, THERE WILL BE ONLY ONE UNIQUE HEIS NUMBER PER SAMPLE TO ASSURE NO MUTIPLE USE OF A SAMPLE NUMBER(S). CONTRARY TO THE ABOVE, HEIS SAMPLE NUMBER - B015F4 - WAS ASSIGNED TO TWO DISTINCT SAMPLES. EACH SAMPLE MUST BE ASSIGNED A UNIQUE HEIS NUMBER.	SDLA WILL ISSUE A NEW HEIS NUMBER TO ANY SAMPLE WHICH HAS BEEN GIVEN A PREVIOUSLY USED HEIS IDENTIFIER. THESE SAMPLES NUMBER CHANGES WILL BE ENTERED INTO THE SDLA DATABASE. A MEMO WILL BE TRANSMITTED TO HEIS AND THE ANALYTICAL LABORATOR DATA PACKAGE, OUTLINING CORRECTIONS. SAMPLE NUMBERS WILL BE USED "AS IS" AND REFERENCED IN THE SDLA DATABASE TO MAINTAIN TRACEABILITY.

CHANGE HAS BEEN MADE

1/13/94 RCS 1/13/94 RCS 1/13/94

20. Originator's Signature: [signature] Date: 1/13/94

21. Cognizant QA Manager's Signature: Date

23. Design Document Change Required? ☐ Yes, Doc. No. _____ ☐ No

24. Corrective Action Required? ☐ Yes, No. _____ ☐ No

Disp. App.

25. Cognizant Engineer	Date	26. Technical Rep.	Date	Signature/Org.	Date
S. Weiss					
QA Engineer	Date	Signature/Org.	Date	Signature/Org.	Date
C. S. Cornman					

Close

27. Accept _____ Reject _____ Follow on NCR _____

QA/C Personnel _____ Date

A-7310-104 (10/91)

1/10/94

DUPLICATE HEIS NUMBERS

for Project 100A SPRINGS

HEIS Samp Number	Client Sample Number	Master DP File Number	DP Sequence Number	Laboratory	Y N VOA	Y N SEMI VOA	Y N PEST/PCB	Y N WETCHEM	Y N METALS	COMMENTS	Y N RADCHEM	Date OSM Rcvd DP
B015F4		9110L206	220	WESTON	N	N	N	Y 12/12/91	N	10/91	N	12/12/91
B015F4A		B015F4	051	TMA/NORCAL	N	N	N	Y 12/23/91	Y 12/23/91	10/91	Y 4/09/92	4/09/92

RECORD OF DISPOSITION

RoD-91-00005

DATE: 11/4/91

LABORATORY: TMA

Ref 91-058 Project #

SAMPLE IDENTIFICATION NUMBERS

B015F4

DISPOSITION OF SAMPLES

☐ CANCELLED (REASON)

☐ DAMAGED SAMPLE CONTAINER. ANALYSIS CANCELLED

☐ BROKEN GLASS CONTAMINATING SAMPLE. ANALYSIS CANCELLED

☒ OTHER THE SAMPLES B015F4 THAT WERE LISTED AS SOIL, SHOULD HAVE BEEN LISTED AS H_2O (WATER), PER STEVE WEISS AND RICHARD MAHOOD. ANALYZE THESE TWO BOTTLES FOR ANALYTES LISTED ON SAR.

APPROVED Nancy O Sequeira 11/4/91
(PROJECT COORDINATOR) DATE

Stephen S Wein 11/5/91
TECHNICAL REPRESENTATIVE DATE

Thermo Analytical Inc.

TMA/ARLI
140 Taylor Street
Monrovia, CA 91016
(818) 357-3247

FAX COVER PAGE

DATE: 11-1-91

NO. PAGES: 3
(Including cover page)

TO: DAN EDWARDS
WESTINGHOUSE HANFORD

FROM: GEORGIA CARROLL
TMA/ARLI

FAX: 509 - 373 - 3992

FAX: 818 - 359 - 5036

Phone: 509 - 373 - 3467

Phone: 818 - 357 - 3247

RE: P.O. MBH - SVV - 069262 / 100 Area Spring B015 F4 Were there suppose to be Soil aliquots for ICP analysis?
Samples received for filtered & unfiltered water for ICP metals analysis

Soil aliquot for ICP Metals not received. "Soil" not marked off SAR.

Small aliquot of water marked on the BLANK - ICP Metals was received "H_2O" added to SAR but not initialed.

WHCFAX.FOR

Hanford Company

PART I: FIELD SECTION

Collector Richard Mahoor | Date Sampled 10/28/91 Time 1100 hours

Company Contact Steve Weiss | Telephone (509) 376-1683

Sample Number	Number and Type of Sample Containers	Type of Sample*	Analysis Requested
B015F4	4x1000xPlastic	H2O	Alpha/Beta/Gamma Spec / ^{90}Sr / ^{99}Tc
↓	1x125xGlass	H2O	Total Uranium
↓	1x250xGS	H2O	Tritium
	~~1x250xGS~~	~~H2O~~	~~TOC~~
B015F4	1x250xPlastic	H2O	Ammonium/COD
↓	1x1000xPlastic	H2O	Anions, Cond., Alk., TDS, Turb, pH
↓	2x1000xPlastic	H2O	ICP Metals (Filtered & Unfiltered)
B015F4	1x125xGlass	Soil	ICP Metals - H_2O
↓	1x2000xGlass	Soil	Alpha/Beta/Gamma Spec - H_2O

Field Information** OSM Project No. 91-058, Bottle Blanks ICP Metals collected at 1300 hours from same source of H_2O as other bottle blanks except for 2000ml glass bottle.

Special Handling and/or Storage 4°C if possible

Possible Sample Hazards None

PART II: LABORATORY SECTION

Received by Kermit Blum | Title Sample Control Supervisor | Date 10-30-91

Analysis Required

*Indicate whether sample is soil, sludge, water, etc.

**Use back of page for additional information relative to sample location.

A-6000-406.10

VALIDATION SUMMARY

9110L206-WES-220

OSM RCRA DATA ASSESSMENT

DATE 1/24/92 MGM

REVIEWED BY Mark A. Beck

LABORATORY Weston

CASE # 100 Area Springs

SDG # 9110L206

RFW#

SAMPLES/MATRIX B015F4 (water matrix)

DATA ASSESSMENT SUMMARY

QUALITY CONTROL CHECK	ANALYSIS: TOTAL ORGANIC CARBON		
1. Holding times	O		
2. Matrix Spikes	O		
3. Duplicates	O		
4. Blanks	O		
5. Calibrations	O		
6. Other	O		
7.			
8.			
9.			
10.			

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

OVERALL ASSESSSMENT: The data are acceptable without qualifiers.

NOTES:

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

RCRA QC

Name Mark A. Beck Date 1/29/92 MAB.

QC Check: Holding times

COMMENTS: The holding time requirement was met for this sample.

ACTION: none - none required.

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

___ of ___

RCRA QC

Name Mark A. Beck Date 1/29/92 Mark A. Beck

QC Check: Matrix Spikes

COMMENTS: The appropriate spikes were performed on this sample. The spikes all showed acceptable recoveries.

ACTION: None - none required

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

___ of ___

RCRA QC

Name Mark G. Beck Date 1/29/92 MGB.

QC Check: Duplicate

COMMENTS: An appropriate duplicate sample was run. The % difference was within acceptable limits

ACTION: none none required

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

____ of ____

RCRA QC

Name Mark A. Beck Date 1/29/92 MAB

QC Check: Blanks

COMMENTS: Appropriate blanks were run and met acceptance ~~criteria~~ criteria.

ACTION: none - none needed.

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

___ of ___

RCRA QC

Name Mark A. Beck Date 1/29/92 MAB

QC Check: Calibrations

COMMENTS: Appropriate calibrations (both initial, ICV, and CCV) were performed. All ICV (initial calibration verification) and CCV (continuing calibration verification) met % recovery acceptance criteria

ACTION: none - none needed

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

___ of ___

RCRA QC

Name Mark A. Beck Date 1/29/92 M.A.B.

QC Check: Other

COMMENTS: none

ACTION: none

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

___ of ___

ROY F. WESTON, INC.
Lionville Laboratory

CLIENT: WESTINGHOUSE HANFORD SAMPLES RECEIVED: 10-30-91
RFW #: 9110L206
W.O. #: 6168-02-01-0000

INORGANIC NARRATIVE

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

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12.04.91
Date

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

DEC 1991
RECEIVED
OSM DMO

nrc.21\i10-206

ROY F. WESTON INC.

INORGANICS DATA SUMMARY REPORT 11/29/91

WESTINGHOUSE HANFORD
ORDER: 6168-02-01-0000

WESTON BATCH #: 9110L206

SITE ID	ANALYTE	RESULT	UNITS	REPORTING LIMIT
B015F4	Total Organic Carbon	0.59	MG/L	0.50

1/29/92
M.G.B.