

START

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LK30 15 2

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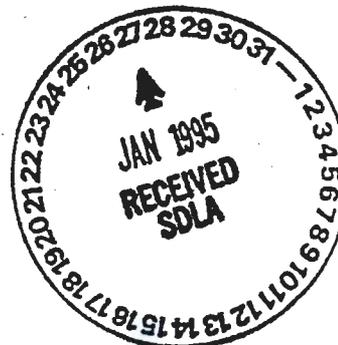
Lockheed Analytical Services

BECHTEL HANFORD, INC.

ANALYTICAL DATA REPORT

FOR

IGNITABILITY, METALS, AMMONIA-NITROGEN,
TX, AND pH



LOG-IN NUMBER:	<u>L3498</u>
QUOTATION NUMBER:	<u>Q400000-B</u>
SAF:	<u>B94-112</u>
DOCUMENT FILE NUMBER:	<u>1213596</u>
WHC DOCUMENT CONTROL NO.:	<u>125</u>
SDG NUMBER:	<u>LK30</u>

001A
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**CASE NARRATIVE
INORGANIC NON-METALS ANALYSES
WATER**

The routine calibration and quality control analyses performed for this batch include as applicable: initial and continuing calibration verification, initial and continuing calibration blanks, method blank(s), laboratory control sample(s), matrix spike sample(s), and duplicate sample(s).

Holding Time Requirements

- All samples were analyzed within the method-specific holding times.

Method Blanks

- The concentration levels of all the requested analytes in the method blank were below the reporting detection limits.

Internal Quality Control

- All Internal Quality Control were within acceptance limits.

Sample Results

- Due to the sample matrix, pH was determined using pH paper.

Shellee McGrath
Prepared By

December 28, 1994
Date

003
JTB

**CASE NARRATIVE
INORGANIC ANALYSES
METALS**

The routine calibration and quality control analyses performed for this batch include as applicable: instrument tune (ICP/MS only), initial and continuing calibration verification, initial and continuing calibration blanks, method blank(s), laboratory control sample(s), ICP interference check samples (ICP only), serial dilutions, analytical (post-digestion) spike samples, matrix spike (predigestion) sample(s), duplicate sample(s).

Holding Times-

All samples were analyzed within the method-specific holding times.

Method Blanks-

The method blanks were free of contamination.

Internal Quality Control-

All Internal Quality Control were within acceptance limits.

Shellee McGrath
Prepared By

December 28, 1994
Date

004
JTB

OFFICE OF SAMPLE MANAGEMENT
RECORD OF DISPOSITION

87
ROD- B94-086
Record of Disposition No.

DATE: 12/16/94

LABORATORY: ^{Lockheed} ~~Quanterra~~ 95 12/27/94

PROJECT TITLE/NO.: 100 M Waste Container

NCR NO.:

SAMPLE IDENTIFICATION NUMBERS: B000584 ^{Hand} ~~per Q. Scott~~ 1/4/95

DESCRIPTION OF EVENT:

Sample cannot be analyzed for total organic halides due to organic nature of sample.
pH of sample cannot be taken with pH probe due to organic nature of sample.

DISPOSITION OF SAMPLES:

Method will be modified to analyze for total halides and to take pH using pH paper rather than pH probe.

APPROVAL SIGNATURES:

Janice H Scott Janice H. Scott 12/16/94
OSM Project Coordinator (Print/Sign Name) Date

Ryan J Johnson [Signature] 12/27/94
Technical Representative (Print/Sign Name) Date

N/A
Quality Assurance (Print/Sign Name) Date

005A
[Signature]

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LOGIN CHAIN OF CUSTODY REPORT (ln01)
Dec 14 1994, 09:11 am

Login Number: L3498
Account: 596 Bechtel Hanford, Inc. * Richland, WA
Project: BECHTEL-HANFORD Bechtel Hanford Project

Laboratory Sample Number	Client Sample Number	Collect Date	Receive Date	Due PR Date
L3498-1 temp 6 Location: 157 Liq. Waste 7	BODD54 S SCREENING	06-DEC-94 Hold:04-JUN-95	13-DEC-94	28-DEC-94
L3498-2 temp 6; Metals=As,Pb,Se,Tl Location: 157 Liq. Waste 7 Liq. Waste 7 Liq. Waste 7 Liq. Waste 7 Liq. Waste 7	BODD54 S 1010 IGNITABILITY S 350.1 NH3/N S 6010 ICP METALS S 7000 FURNACE METALS S 9020 TOX S 9040 PH	06-DEC-94 Hold:27-DEC-94 Hold:04-JUN-95 Hold:13-DEC-94 Hold:13-DEC-94	13-DEC-94	28-DEC-94
L3498-3 Location: Water Water	REPORT TYPE 1 S EDD - DISK DEL. 1 S INORG TYPE 3 RPT	14-DEC-94	13-DEC-94	28-DEC-94

Signature: *mmille*
Date: 12-14-94 00E

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Westinghouse
Hanford Company

L3499

CHAIN OF CUSTODY #120694N-9

Custody Form Initiator Ryan Johnson

Company Contact Ryan Johnson / Janice Scott

Telephone (509)373-4206

Project Designation/Sampling Locations Container 2248-94-00800 Collection Date 12-06-94

Ice Chest No. NA

SAP # 874-112

Field Logbook No. NA

Bill of Lading/Airbill No. NA

Offsite Property No. NA

Method of Shipment Air

Shipped to Lockheed Analytical Services, 975 Kelly Dr., Las Vegas NV 89119

Possible Sample Hazards/Remarks Flammable

Sample Identification

BODD54 - One 250ml amber glass jar, one 40ml vial

[] Field Transfer of Custody

Chain of Possession

(Sign and Print Names)

Relinquished By	Date	Time	Received By	Date	Time
<i>[Signature]</i>	12/8/94	0800	Glenn E. Egan	12/8/94	800
			Ann Miller	12-13-94	1515

Final Sample Disposition

Disposal Method:

Disposed by:

Date/Time:

Comments:

Sample Matrix - Stripper (West baseboard and step stripper.) Treat as an organic. There is approximately 8 ounces available for sampling.

Priority Turnaround - 90-Day accumulation clock initiated on September 12, 1994.

Data Deliverable - Summary

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SAMPLE STATUS REPORT FOR N 3932. RAD SCREEN B940068 TIME: 11/28/94 8:28
DISPATCHED: 11/18/94 12:41 SAMPLE HAS NOT BEEN SLURPED
RECEIVED: 11/22/94 13:30

EXT. DETER. RESULTS OR STATUS
**** *****
4271 TOT-ACT < 5.00000E 01 pci/G

OUT OF GOOD CHARGE
RANGE? ANS? CODE
*** **

END OF REPORT

224B-94-006800
SAF# B94-112
HEIS# B00054



Sample Login

Login Review Checklist

Lot Number L3498

The login review should be conducted by that person logging in the samples as well as a peer. Please use this checklist to ensure that such reviews occur in a uniform basis. Please sign and date below to verify that a login review has occurred. This checklist should be affixed to each login package prior to distribution.

For an effective login review, at a minimum, five reports from the login process are required. These are the chain of custody (or equivalent), the login chain of custody report, the sample summary report, the sample receiving checklist, and the login quotation. Before beginning a review, ensure that these five components are available. For jobs with single component samples, the sample summary report may be omitted.

Sample Summary Report

N/A

Yes No

- | | | | | |
|----|---|----------|---|---|
| 1. | Are all sample IDs correct? | <u>X</u> | — | — |
| 2. | Are all samples present? | <u>X</u> | — | — |
| 3. | Are all matrices correct?
<small>(e.g., TCLP analyses should be on a TCLP leachate, field blanks should be water)</small> | <u>X</u> | — | — |
| 4. | Are all analyses on the chain of custody/login quotation included? | <u>X</u> | — | — |
| 5. | Are analyses logged in for the correct container?
<small>(e.g., analyses requiring preservation logged in for a preserved container and vice versa)</small> | <u>X</u> | — | — |
| 6. | Are samples logged in according to laboratory batching procedures?
<small>(e.g., TCLP regular leaching and associated metals/semivolatile organics should be logged in on the same bottle)</small> | <u>X</u> | — | — |

Login Chain of Custody Report

- | | | | | |
|----|--|----------|---|---|
| 1. | Are the Collect, Receive, and Due dates correct for every sample? | <u>X</u> | — | — |
| 2. | Have appropriate sample comments been included?
<small>(e.g., MS/MSD designation, comments from the client concerning method modifications)</small> | <u>X</u> | — | — |

Sample Receiving Checklist

- | | | | | |
|----|---|---|---|-----------|
| 1. | Are any discrepancies between the chain of custody and the login noted? <u>MA</u>
<small>(e.g., client IDs different on chains of custody and bottle labels, samples not seen, samples lost from breakage)</small> | — | — | <u>MA</u> |
|----|---|---|---|-----------|

M. Miller

12-14-94

Derek Henderson 12-14-94

Primary review signature

Date

Secondary review signature

Date

Figure 1

SAMPLE CHECK-IN LIST

(1 Per Shipping Container)

Date/Time Received 12-13-94/1515 Client Name Westinghouse/Hanford
 Project/Client # SAF B94-112 Batch or Case # NA
 Cooler ID (if noted on outside of cooler) NA

1. Condition of shipping container? good
2. Custody Seals on cooler intact? Yes No
3. Custody Seals dated and signed? Yes No
4. Chain of Custody record is taped on inside of cooler lid? Yes No
5. Vermiculite/packing material is: Wet Dry
6. Each sample is in a plastic bag? Yes No
7. Number of sample containers in cooler: 6
8. Samples have:

<input type="checkbox"/> tape	<input type="checkbox"/> hazard labels
<input checked="" type="checkbox"/> custody seals	<input checked="" type="checkbox"/> appropriate sample labels
9. Samples are:

<input checked="" type="checkbox"/> in good condition	<input type="checkbox"/> leaking
<input type="checkbox"/> broken	<input type="checkbox"/> have air bubbles
<input type="checkbox"/> other	
10. Coolant Present? Yes No Sample Temperature 6°C
11. The following paperwork should be accounted for (N/A if not applicable):

Chain of Custody #(s) 120694N-9

Request for Analysis #(s) NA

Airbill # 515 087229 Carrier Viking
12. Have any anomalies been identified above? Yes No
13. Memos have been initiated for all anomalies identified above? Yes

Printed Name/Signature M. M. [Signature] Date/Time 14-DEC-94/0830

Lockheed Analytical Services
Sample Receiving Checklist

Client Name: Westinghouse/Hanford

Job No. L3498

Cooler ID:

COOLER CONDITION UPON RECEIPT

Temperature of cooler upon receipt: 6°C

temperature of temp. blank upon receipt:

	Yes	No	* Comments/Discrepancies
custody seals intact	X		
chain of custody present	X		
blue ice (or equiv.) present/frozen	X		
rad survey completed	X		

SAMPLE CONDITION UPON RECEIPT

	Yes	No	* Comments/Discrepancies
all bottles labeled	X		
samples intact	X		
proper container used for sample type	X		
sample volume sufficient for analysis	X		
proper pres. indicated on the COC			<u>NA</u>
VOA's contain headspace			<u>NA</u>
are samples bi-phasic (if so, indicate sample ID'S):			<u>NA</u>

MISCELLANEOUS ITEMS

	Yes	No	* Comments/Discrepancies
samples with short holding times		X	
samples to subcontract		X	

ADDITIONAL COMMENTS/DISCREPANCIES

Completed by / date: MM/ll 12-14-94

Sent to the client (date/initials):

** Client's signature upon receipt:

Notes: * = contact the appropriate CSR of any discrepancies immediately upon receipt

** = please review this information and return via facsimile to the appropriate CSR (702) 361-8146

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Lockheed Analytical Laboratory
SAMPLE SUMMARY REPORT (su02)
Bechtel Hanford, Inc. * Richland, WA

Client Sample Number	LAL Sample Number	SDG Number	Matrix	Method
BODD54 -	L3498-1		Liq. Waste	SCREENING-
	L3498-2		Liq. Waste	1010 IGNITABILITY
	L3498-2		Liq. Waste	350.1 NH3/N
	L3498-2		Liq. Waste	6010 ICP METALS -
	L3498-2		Liq. Waste	7000 FURNACE META
	L3498-2		Liq. Waste	9020 TOX -
	L3498-2		Liq. Waste	9040 PH -
REPORT TYPE -	L3498-3		Water	EDD - DISK DEL. -
	L3498-3		Water	INORG TYPE 3 RPT -

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**RCRA CHARACTERISTICS TESTING (SW-846)
SAMPLE RESULTS**

Client Sample ID: BODD54	Date Collected: 12-06-94	Matrix: liquid waste
LAL Batch ID(s): 1213 wh	Date Received: 12-13-93	

Constituent	Method	Result	Reporting Detection Limit	Data Qualifier(s)	Date Analyzed	LAL Sample ID
pH, in pH units	9041	12	NA		12-28-94	L3498-2
Ignitability - Flash Point, in °F	1010	no flash	NA		12-28-94	L3498-2

Comments:

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LOCKHEED ANALYTICAL SERVICES

COMMON IONS AND ADDITIONAL ANALYTES

Sample Results

Client Sample ID: BODD54	Date Collected: 06-DEC-94
Matrix: Liq. Waste	Date Received: 13-DEC-94

Constituent	Units	Method	Result	Reporting Det Limit	Data Qualifier(s)	Date Analyzed	LAS Batch ID	LAS Sample ID
Ammonia Nitrogen	mg/L	350.1	290	5	D(1:100)	22-DEC-94	17006	L3498-2
Tx - Total Halides	mg/kg	TX	32.	30		28-DEC-94	17129	L3498-2

TOTAL METALS RESULTS

Client Sample ID: BODD54	Date Collected: 12-06-94	Matrix: liquid waste
LAL Batch ID(s): 1213 wh	Date Received: 12-13-94	

Constituents	Method	Concentration (mg/kg)	IDL (mg/kg)	RDL (mg/kg)	Data Qualifier(s)	Date Analyzed	LAL ID
Aluminum	6010	14	14	40	B	12-20-94	L3498-2
Antimony	6010	<10	10	12	U	12-20-94	L3498-2
Arsenic	7060	<0.6	0.6	2.0	U	12-19-94	L3498-2
Barium	6010	<2.2	2.2	40	U	12-20-94	L3498-2
Beryllium	6010	<0.2	0.2	1.0	U	12-20-94	L3498-2
Cadmium	6010	<0.8	0.8	1.0	U	12-20-94	L3498-2
Calcium	6010	130	6.0	1000	B	12-20-94	L3498-2
Chromium	6010	<0.8	0.8	2.0	U	12-20-94	L3498-2
Cobalt	6010	<1.8	1.8	10	U	12-20-94	L3498-2
Copper	6010	<1.6	1.6	5.0	U	12-20-94	L3498-2
Iron	6010	56	3.0	20		12-20-94	L3498-2
Lead	7421	<0.4	0.4	0.60	U	12-19-94	L3498-2
Magnesium	6010	11	7.2	1000	B	12-20-94	L3498-2
Manganese	6010	<0.4	0.4	3.0	U	12-20-94	L3498-2
Nickel	6010	<2.8	2.8	8.0	U	12-20-94	L3498-2
Potassium	6010	4400	124	1000		12-20-94	L3498-2
Selenium	7740	<0.6	0.6	1.0	U	12-19-94	L3498-2
Silver	6010	<1.4	1.4	2.0	U	12-20-94	L3498-2
Sodium	6010	6300	14	1000		12-20-94	L3498-2
Thallium	7841	<0.6	0.6	2.0	U W	12-19-94	L3498-2
Vanadium	6010	<1.6	1.6	10	U	12-20-94	L3498-2
Zinc	6010	1.7	1.6	4.0	B	12-20-94	L3498-2

Comments: