

Lockheed Analytical Services  
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Las Vegas, Nevada 89119-3705

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April 28, 1995

Ms. Joan Kessner  
Bechtel Hanford, Inc.  
345 Hills  
P.O. Box 969  
Richland, WA 99352



RE: Log-in No.:	L4255
Quotation No.:	Q400000-B
SAF:	B95-053
Document File No.:	0413596
WHC Document File No.:	209
SDG No.:	LK4255



The attached data report contains the analytical results of samples that were submitted to Lockheed Analytical Services on 13 April 1995.

The temperature of the cooler upon receipt was 2°C. Sample containers received agree with the chain-of-custody documentation. Sample containers were received intact. Samples were not received in time to meet the analytical holding time requirements. All discrepancies identified upon receipt of the samples have been forwarded to the client and are documented in the enclosed chain-of-custody records.

The case narratives included in the following attachments provide a detailed description of all events that occurred during sample preparation, analysis, and data review specific to the samples and analytical methods requested.

A list of data qualifiers, chain-of-custody forms, sample receiving checklist, and log-in report are also enclosed representing the samples received within this group.

If you have any questions concerning the analysis or the data please call Kathleen Hall at (509) 943-4423.

9613445.2867

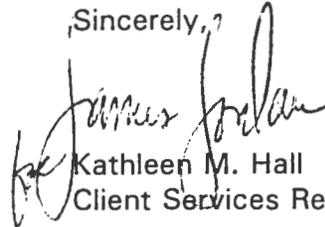
**Lockheed Analytical Services**

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Release of this data report has been authorized by the Laboratory Director or the Director's designee as evidenced by the following signature.

" I certify that this data package is in compliance with the SOW, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package has been authorized by the Laboratory Manger or a designee, as verified by the following signature."

Sincerely,



Kathleen M. Hall  
Client Services Representative

cc: Client Services  
Document Control

Lockheed Analytical Services

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## CASE NARRATIVE INORGANIC NON METALS ANALYSES

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).

### Preparation and Analysis Requirements

- One water sample was received on April 13, 1995 for L4255, prepared as Batch 413bh and analyzed for selected analytes as requested on the chain of custody. Quality control analysis was performed on the following sample:

Client ID	LAL #		Method
BOD931	L4255-3	MS, DUP	7196 Hexavalent Chromium

### Holding Time Requirements

- The sample for 7196 Hexavalent Chromium analyses was received out of holding time and the applicable sample is flagged with an "H".

### 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.

Kay McCann

April 18, 1995

Prepared By

Date

*Lockheed Analytical Services*

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**CASE NARRATIVE  
INORGANIC METALS ANALYSES**

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 with the following exception: The matrix spike recovery for chromium (74%) was slightly outside of the  $\pm 25\%$  acceptance limits. The recovery based on the LCS (100%) supports that the analytical system was operating within control limits.

Shellee McGrath  
Prepared By

April 27, 1995  
Date

Westinghouse Hanford Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

L4255

Collector Doug Bowers	Company Contact Dave Blumenkranz	Telephone No. 372-9658
Project Designation 100 HR-3 Treatability Study	Sampling Location 100 D	SAF No. 895-053
Ice Chest No. ER-1A	Field Logbook No. FEL 1144-1	Method of Shipment Air Freight
Shipped To Lockheed	Offsite Property No. W95-0-0204-25	Bill of Lading/Air Bill No. 2904635166

Data Turnaround  
 Priority  
 Normal

Possible Sample Hazards/Remarks unknown	Preservative HNO3	none	none	none																
	Type of Container G/P	G/P	P/G	P/G																
	No. of Container(s) 1	1	1	1																
Special Handling and/or Storage cool to 4 C	Volume 500 ml	500 ml	20 ml	20 ml																
SAMPLE ANALYSIS				Chrom-ium - Total	Chrom-ium VI	Activ-ity Scan	Rad Screen													

Sample No.	Matrix*	Date Sampled	Time Sampled																		
B00931	W	4-11-95	0958	X	X	X															

CHAIN OF POSSESSION		Sign/Print Names		SPECIAL INSTRUCTIONS		Matrix*	
Relinquished By Doug Bowers	Date/Time 4-11-95/0836	Received By Eric [Signature]	Date/Time 4-11-95	Analysis for Chromium (VI) by SW -846 7196 is being requested for information only. The ERC Contractor acknowledges the 24-hour holding time will not be met.		<ul style="list-style-type: none"> <li>S = Soil</li> <li>SE = Sediment</li> <li>SO = Solid</li> <li>SL = Sludge</li> <li>W = Water</li> <li>O = Oil</li> <li>A = Air</li> <li>DS = Drum Solids</li> <li>DL = Drum Liquids</li> <li>T = Tissue</li> <li>WI = Wipe</li> <li>L = Liquid</li> <li>V = Vegetation</li> <li>X = Other</li> </ul>	
Relinquished By Eric [Signature]	Date/Time 0845	Received By Kirk [Signature]	Date/Time				
Relinquished By Kirk [Signature]	Date/Time 4-12-95	Received By	Date/Time				
Relinquished By [Signature]	Date/Time	Received By	Date/Time				
LABORATORY SECTION	Received By MM [Signature]	Title Sample Custodian	Date/Time 4-13-95/0845				
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By	Date/Time				

9613445.2871

SAMPLE STATUS REPORT FOR N 3894. RAD SCREEN BOD929 TIME: 4/12/95 8:49  
DISPATCHED: 11/16/94 15: 0 SAMPLE HAS NOT BEEN SLURPED  
RECEIVED: 4/11/95 15:25

EXT.	DETER.	RESULTS OR STATUS	OUT OF RANGE?	GOOD ANS?	CHARGE CODE
4271	TOT-ACT	< 5.00000E 01 pCi/G	N	Y	PE35A

END OF REPORT

BOD931  
BW  
4-12-95



9613445.2873

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

Client Sample Number	LAL Sample Number	SDG Number	Matrix	Method
BOD931 -	L4255-1		Water	SCREENING -
	L4255-2		Water	218.2 CHROMIUM -
	L4255-3		Water	7196 CHROMIUM (V
REPORT TYPE _	L4255-4		Water	EDD - DISK DEL-
	L4255-4		Water	INORG TYPE 2 RPT

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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
BOD931 -	L4255-1 L4255-2 L4255-3		Water Water Water	SCREENING - 218.2 CHROMIUM - 7196 CHROMIUM (VI)
REPORT TYPE -	L4255-4 L4255-4		Water Water	EDD - DISK DEL - INORG TYPE 2 RPT

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## LOCKHEED ANALYTICAL SERVICES

## Sample Results

Client Sample ID: BOD931	Date Collected: 11-APR-95
Matrix: Water	Date Received: 13-APR-95
Percent Solids: N/A	

Constituent	Units	Method	Result	Project Reporting Limit	Data Qualifier(s)	Date Analyzed	LAS Batch ID	LAS Sample ID
Chromium, hexavalent	mg/L	7196	0.0063	0.020	HB	14-APR-95	21699	L4255-3

## TOTAL METALS RESULTS

Client Sample ID: BOD931	Date Collected: 04-11-95	Matrix: water
LAL Batch ID(s): 413 bh	Date Received: 04-13-95	

Constituents	Method	Concentration (mg/L)	IDL (mg/L)	RDL (mg/L)	Data Qualifier(s)	Date Analyzed	LAL ID
Chromium	218.2	0.010	0.002	0.010	S N	04-24-95	L4255-2

Comments: