

START

9613447.0362

0044395

W0718-QES



Quanterra Incorporated
2800 George Washington Way
Richland, Washington 99352

509 375-3131 Telephone
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CERTIFICATE OF ANALYSIS

Bechtel Hanford, Inc.
345 Hills
Richland, WA 99352

October 2, 1995

Attention: Joan Kessner



SAF Number	:	B95-097
Date SDG Closed	:	September 14, 1995
Number of Samples	:	One (1)
Sample Type	:	Water
SDG Number	:	W0718
Data Deliverable	:	Summary

I. Introduction

On September 14, 1995, one water sample was received by the Quanterra Environmental Services Richland Laboratory (QTESRL) for radiochemical analysis. Upon receipt, the sample was assigned the following laboratory ID number to correspond with the Bechtel Hanford, Inc. (BHI) specific ID:

<u>QTESRL ID</u>	<u>BHI ID</u>	<u>Matrix</u>	<u>Date of Receipt</u>
50920901	B0GKJ3	Water	9/14/95

II. Analytical Results/Methodology

The analytical results for this report are presented by laboratory sample ID. Each set of data includes sample identification information, analytical results and the appropriate associated statistical errors.

The requested analysis was: **Gas Proportional Counting**
Strontium-90 by method ITAS-RD-3204

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III. Quality Control

The analytical results for each analysis performed under SDG W0718 include a minimum of one Laboratory Control Sample (LCS), one method (reagent) blank, and one duplicate. Any exceptions have been noted in the "Comments" section.

Quality control sample results are reported in the same units as sample results.

IV. Comments

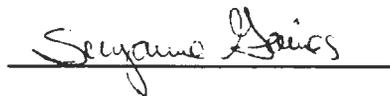
Gas Proportional Counting

Strontium-90 by method ITAS-RD-3204

The LCS was recounted due to a low recovery (33.5%). The recount is within limits and the low original count is suspected to have been caused by a transcription error in the counting room. The LCS, batch blank, sample and sample duplicate (B0GKJ3) results are within contractual requirements.

I certify that this Certificate of Analysis 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 Manager or a designee, as verified by the following signature.

Reviewed and approved:



Suzanne Gaines
Project Manager

0003
~~0000~~
10/4/95 D.B.

SAMPLE RESULTS

LAB NAME: ITAS-RICHLAND **SDG:** W0718
LAB SAMPLE ID: 50920901 **MATRIX:** WATER
CLIENT ID: B0GKJ3 **DATE RECEIVED:** 9/14/95 12:00:00 PM

ISOTOPE	RESULT	COUNTING ERROR (2 s)	TOTAL ERROR (2 s)	MDA	REPORT UNIT	YIELD	METHOD NUMBER
STRONTIUM	3.68E-01	2.6E-01	2.8E-01	7.67E-01	pCi/L	96.00%	RD3204

Number of Results:

DUPLICATE RESULTS

LAB NAME: ITAS-RICHLAND SDG: W0718
LAB SAMPLE ID: G0920901 MATRIX: WATER
CLIENT ID: B0GKJ3 DATE RECEIVED: 9/14/95 12:00:00 P
ORIG LAB SAMPLE ID: 50920901

ISOTOPE	DUP RESULT	COUNTING ERROR ‡	TOTAL ERROR (2s)	MDA	REPORT UNIT	YIELD	METHOD NUMBER	ORIG RESULT	RPD
STRONTIUM	3.14E-01	2.6E-01	2.7E-01	7.81E-01	pCi/L	94.10%	RD3204	3.68E-01	15.84%

Number of Results:

Bechtel Hanford, Inc.		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST						Page <u>1</u> of <u>1</u>		
Collector D. A. St. John		Company Contact Jane Borghese			Telephone 509-373-4790			Data Turnaround X Priority Normal		
Project Designation 100-NR-2 Pump and Treat Acceptance Test, Injection Water		Sampling Location N Springs ERA Pump and Treat			SAF No. B95-097					
Ice Chest No. <i>ER-15</i>		Field Logbook No. <i>EFL-1154</i>			Method of Shipment Hand Delivery - Government Vehicle					
Shipped To Quanterra		Offsite Property No.			Bill of Lading/Air Bill No.					
Possible Sample Hazards/Remarks		Preservation	HNO3	None						
None <i>HPI survey & D field instruments.</i>		Type of Container	P	P						
		No. of Container(s)	3	1						
Special Handling and/or Storage None		Volume	1 Liter	20 ml.						
SAMPLE ANALYSIS <i>50920901</i>										
					Sr-90	Activity Scan				
Sample No.	Matrix*	Date Sampled	Time Sampled							
<i>BO6KJ3</i>	W	<i>09-13-95</i>	<i>1020</i>	X	X					
CHAIN OF POSSESSION		Sign/Print Names				SPECIAL INSTRUCTIONS				Matrix*
Relinquished By <i>ERC</i> Date/Time <i>1300</i>		Received By <i>ERC</i> Date/Time <i>1300</i>								S = Soil SE = Sediment SO = Solid SL = Sludge W = Water O = Oil A = Air DS = Drum Solids DL = Drum Liquids T = Tissue WI = Wipe L = Liquid V = Vegetation X = Other
<i>D. St. John</i> <i>09-13-95</i>		<i>Jane Borghese</i> <i>9-13-95</i>								
Relinquished By <i>ERC</i> Date/Time <i>10:00</i>		Received By <i>Jane Borghese</i> Date/Time <i>9/14/95 10:00</i>								
<i>Jane Borghese</i> <i>9-14-95</i>										
Relinquished By _____ Date/Time _____		Received By _____ Date/Time _____								
Relinquished By _____ Date/Time _____		Received By _____ Date/Time _____								
LABORATORY SECTION	Received By _____		Title _____			Date/Time _____				
FINAL SAMPLE DISPOSITION	Disposal Method _____		Disposed By _____			Date/Time _____				

5613497-0366

0012

9613447.0367

09/14/95

07:48

373 3176

222S 3B

003

SAMPLE STATUS REPORT FOR N 5915. RAD SCREEN BOGKJ3 TIME: 9/14/95 7:32
DISPATCHED: 9/12/95 14:40 SAMPLE HAS NOT BEEN SLURPED
RECEIVED: 9/13/95 15:34

EXT.	DETER.	RESULTS OR STATUS	OUT OF RANGE?	GOOD ANS?	CHARGE CODE
****	*****	*****	***	***	*****
4271	TOT-ACT	< 5.00000E 01 pCi/G	N	Y	XR5807

END OF REPORT

Figure 1

SAMPLE CHECK-IN LIST

(1 Per Shipping Container)

Date/Time Received 9/14/95 1000 Client Name BHI
 Project/Client # B95-097 Batch or Case # _____
 Cooler ID (if noted on outside of cooler) ER-15

1. Condition of shipping container? OK
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: 12
8. Samples have: X tape _____ hazard labels
X custody seals _____ appropriate sample labels
9. Samples are: X in good condition _____ leaking
 _____ broken _____ have air bubbles
 _____ other
10. Coolant Present? Yes [] No [] Sample Temperature 4°C
11. The following paperwork should be accounted for (N/A if not applicable):
 Chain of Custody #(s) N/A
 Request for Analysis #(s) 1
 Airbill # _____ Carrier _____
12. Have any anomalies been identified above? Yes [] No []
13. Memos have been initiated for all anomalies identified above? Yes []

Printed Name/Signature Tom Gilmore Date/Time 9/14/95 1000

File
9-29-95

9613447.0369 TOTAL-SR ***

CHAIN-OF-CUSTODY BATCH ANALYSIS RECORD

14-Sep-1995
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CUSTOMER: BHI SAPF SAMPLE DELIVERY GROUP W0718
MATRIX : WATER B95-0917 BATCH NUMBER 09-209

ITAS ID	DUP	ACCOUNT	CUSTOMER ID	COMMENTS
*)		M092091B	BHI	
*)		M092091S	BHI	
3)		50920901 60920901	BHI BOGKJ3	EQL1320 30.001 ± 0.43916 DPM

ACTIONS (Initial & Date)

- 1) INITIATED JH 9/14/95
- 2) PREP LAB RECEIVED RTM 9/15/95
- 3) SAMPLE REMAINDER STORED N/A
- 4) SEPARATION LAB RECEIVED RTM 9/15/95
- 5) COUNTING/MEASUREMENT LAB ER 9/19/95
- 6) DATA REVIEWED AND ANALYTICAL PREP STORED PK 9-23-95

PRIORITY