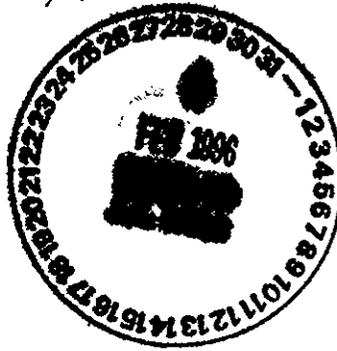


Environmental
Restoration
Contractor

ERC Team

Interoffice Memorandum



024664

0052002

Job No. 22192
Written Response Required? NO
Closes CCN: N/A
OU: 200-UP-1
TSD: N/A
ERA: N/A
Subject Code: 8630

TO: C. D. Wittreich, H9-12

DATE: February 20, 1996

COPIES: See Below

FROM: Duane Jacques
Analytical Services/Field Services
H9-10/372-9400

45096

SUBJECT: **200-UP-1 IRM IMPLEMENTATION SAMPLING, MONTHLY GROUNDWATER RESULTS, JANUARY 1996, REV 0**

REFERENCES:

1. BHI, 1995a, *Field Screening (On-Site Measurements) Quality Assurance Plan*, BHI-EE-08, Bechtel Hanford, Inc., Richland, Washington.
2. BHI, 1995b, *Field Screening Procedures*, BHI-EE-05, Bechtel Hanford, Inc., Richland, Washington.
3. BHI, 1995, *200-UP-1 Field Screening Support Logbook*, EL-1277, Bechtel Hanford, Inc., Richland, Washington.
4. ChemChek, 1994, *Operation and Service Manual, Kinetic Phosphorescence Analyzer KPA-11*, ChemChek Instruments, Inc., Richland, Washington.

This data package contains field screening results for groundwater samples analyzed to support the 200-UP-1 IRM Implementation Sampling program. The Quality Assurance level for this work corresponds to QA-2 as specified in the reference 1 (BHI 1995a). The samples were managed under SAF B96-059.

Attachment 1 contains Volatile Organic Compound (VOC), total uranium, and technetium-99 results for groundwater samples collected to support the referenced project. The VOC results were generated using a Photovac 10S Plus portable gas chromatograph in accordance with Field Screening Procedure (FSP) 1.1, *Aqueous Headspace Analysis of Volatile Organic Compounds in Water* (BHI 1995b). Information concerning operation of the gas chromatograph is contained in the instrument logbook EL-1269.

The total uranium results were generated using a ChemChek KPA-11a Kinetic Phosphorescence Analyzer. The KPA-11a was calibrated and operated in accordance with the instrument operating manual (ChemChek 1994). Information concerning use of the ChemChek KPA-11a as well as preparation of VOC calibration standards and samples is contained in the referenced field logbook EL-1277, pages 63 through 67.

C. D. Wittreich, H9-12
Page 2

The technetium-99 analyses were conducted at the 222-S Laboratory. The results are included in this data package for information only. Questions concerning the analyses and results should be directed to the laboratory.

Please contact me if you have any questions on this information.



Duane Jacques, Scientist

QA Review by: 

IDJ:idj

Attachments: Attachment 1. 200-UP-1 IRM Implementation Sampling, Monthly Groundwater Results, January 1996
Attachment 2. Sample Chain of Custody Sheets

Copies:

Analytical Services Project Files, X2-10, w/a

C. W. Denslow, H9-02, w/attachment 1 only

A. Hopkins, H9-11, w/attachment 1 only

~~A. Latch, B1-35, w/a~~

D. A. Myers, H9-11, w/attachment 1 only

R. O. Mahood, H9-11, w/attachment 1 only

W. S. Thompson, N1-28, w/attachment 1 only

IDJ - File, w/attachment 1 only

BHI Document Control, H4-79, w/a

200-UP-1 IRM Implementation Sampling
Monthly Groundwater Results, January 1996
SAF B96-059

Sample Location	HEIS Number	Sample Date	Analysis Date	Chloroform (µg/L)	Carbon TetraCl (µg/L)	TCE (µg/L)	Uranium (µg/L)	Technecium-99 (pCi/L)
299-W19-3	BOH6B3	2/6/96	2/13/96	NA	NA	NA	NA	182
299-W19-3	BOH6B4	2/6/96	2/14/96	NA	NA	NA	1150	NA
299-W19-3	BOH6B5	2/6/96	2/9/96	<4.0	270	<2.0	NA	NA
299-W19-20	BOH6B6	2/7/96	2/21/96	NA	NA	NA	NA	6780
299-W19-20	BOH6B7	2/7/96	2/14/96	NA	NA	NA	1140	NA
299-W19-20	BOH6B8	2/7/96	2/9/96	<4.0	100	5.0	NA	NA
299-W19-23	BOH6B9	2/7/96	2/21/96	NA	NA	NA	NA	24500
299-W19-23	BOH6C0	2/7/96	2/14/96	NA	NA	NA	683	NA
299-W19-23	BOH6C1	2/7/96	2/9/96	<4.0	150	1.7u	NA	NA
299-W19-24	BOH6C2	2/7/96	2/21/96	NA	NA	NA	NA	12000
299-W19-24	BOH6C3	2/7/96	2/14/96	NA	NA	NA	2570	NA
299-W19-24	BOH6C4	2/7/96	2/9/96	<4.0	110	3.4	NA	NA
299-W19-28	BOH6C5	1/30/96	2/13/96	NA	NA	NA	NA	6710
299-W19-28	BOH6C6	1/30/96	2/14/96	NA	NA	NA	1400	NA
299-W19-28	BOH6C7	1/30/96	2/1/96	<4.0	13	<2.0	NA	NA
299-W19-29	BOH6C8	2/5/96	2/13/96	NA	NA	NA	NA	834
299-W19-29	BOH6C9	2/5/96	2/14/96	NA	NA	NA	335	NA
299-W19-29	BOH6D0	2/5/96	2/9/96	<4.0	0.98u	<2.0	NA	NA
299-W19-30	BOH6D1	1/29/96	2/13/96	NA	NA	NA	NA	36200
299-W19-30	BOH6D2	1/29/96	2/14/96	NA	NA	NA	618	NA
299-W19-30	BOH6D3	1/29/96	2/1/96	<4.0	130	1.0u	NA	NA
299-W19-34A	BOH6D4	2/5/96	2/13/96	NA	NA	NA	NA	254
299-W19-34A	BOH6D5	2/5/96	2/14/96	NA	NA	NA	1.9	NA
299-W19-34A	BOH6D6	2/5/96	2/9/96	4.5	41	2.1	NA	NA
Field Blank @ 299-W19-34A	BOH6F9	2/5/96	2/13/96	NA	NA	NA	NA	219
Field Blank @ 299-W19-34A	BOH6G0	2/5/96	2/14/96	NA	NA	NA	<0.50	NA
Field Blank @ 299-W19-34A	BOH6G1	2/5/96	2/9/96	<4.0	<2.0	<2.0	NA	NA
299-W19-35	BOH6D7	2/6/96	2/13/96	NA	NA	NA	NA	496
299-W19-35	BOH6D8	2/6/96	2/14/96	NA	NA	NA	79	NA
299-W19-35	BOH6D9	2/6/96	2/9/96	<4.0	130	8.6	NA	NA
299-W19-37	BOH6F0	2/5/96	2/13/96	NA	NA	NA	NA	13500
299-W19-37	BOH6F1	2/5/96	2/14/96	NA	NA	NA	3790	NA
299-W19-37	BOH6F2	2/5/96	2/9/96	<4.0	140	2.7	NA	NA
Duplicate @ 299-W19-37	BOH6G2	2/5/96	2/13/96	NA	NA	NA	NA	14500
Duplicate @ 299-W19-37	BOH6G3	2/5/96	2/14/96	NA	NA	NA	3740	NA
Duplicate @ 299-W19-37	BOH6G4	2/5/96	2/9/96	<4.0	140	1.6u	NA	NA
299-W19-38	BOH6F3	2/6/96	2/13/96	NA	NA	NA	NA	575
299-W19-38	BOH6F4	2/6/96	2/14/96	NA	NA	NA	219	NA
299-W19-38	BOH6F5	2/6/96	2/9/96	4.3	46	<2.0	NA	NA
299-W19-40	BOH6F6	2/6/96	2/13/96	NA	NA	NA	NA	1330
299-W19-40	BOH6F7	2/6/96	2/14/96	NA	NA	NA	221	NA
299-W19-40	BOH6F8	2/6/96	2/9/96	4.8	19	<2.0	NA	NA
Trip Blank	BOH6G5	1/29/96	2/1/96	<4.0	<2.0	<2.0	NA	NA
Trip Blank	BOH6G6	1/30/96	2/1/96	<4.0	<2.0	<2.0	NA	NA
Trip Blank	BOH6G7	2/5/96	2/9/96	<4.0	<2.0	<2.0	NA	NA
Trip Blank	BOH6G8	2/6/96	2/9/96	<4.0	<2.0	<2.0	NA	NA
Trip Blank	BOH6G9	2/7/96	2/9/96	<4.0	<2.0	<2.0	NA	NA

NA - Not Analyzed

u - Value less than practical quantitation limit

Analyst:

J. D. Jacques 2/26/96
 D. Jacques

VOA Instrument: Photovac 10S Plus GC, Serial # BJDG203
 Method: 5 mL/min HP Air, 11.7 eV lamp, 250 µL injection
 Logbook: Photovac Instrument Log, EL-1269, pgs 18 - 19

Uranium Instrument: ChemChek KPA-11a, Serial # 9445050065
 Method: Kinetic Phosphorescence
 Logbook: 200-UP-1 Project Log, EL-1277, pgs 66 - 67

U24664

Bechtel Hanford, Inc.

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

Data Turnaround
 Priority
 Normal

Collector <i>A. Rizzo / B. Fahlberg / M. Mehlszen</i>	Company Contact C. D. Wittreich	Telephone (509) 372-9315
Project Designation 200-UP-1 IRM Implementation Sampling - 2nd Quarter, January	Sampling Location 200 West	SAF No. B96-059
Ice Chest No.	Field Logbook No. <i>ER-1135</i>	Method of Shipment Hand Delivered
Shipped To Duane Jacques	Offsite Property No. NA	Bill of Lading/Air Bill No. NA

Possible Sample Hazards/Remarks	Preservation	HCI												
	Type of Container	Gs												
	No. of Container(s)	1												
Special Handling and/or Storage Maintain samples between 2°C and 6°C.	Volume	40mL												
SAMPLE ANALYSIS		VOA - TCL												

Sample No.	Matrix*	Date Sampled	Time Sampled											
B0H6G1	W	<i>2-5-96</i>	<i>1100</i>	<i>2</i>										

CHAIN OF POSSESSION		Sign/Print Names		SPECIAL INSTRUCTIONS				Matrix*
Relinquished By <i>R. Fahlberg / R. Fahlberg</i>		Date/Time <i>2/5/96</i>		Received By <i>K. White / B. White</i>		Date/Time <i>2-5-96</i>		<ul style="list-style-type: none"> 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
Relinquished By <i>K. White / B. White</i>		Date/Time <i>2-9-96</i>		Received By <i>D. Jacques</i>		Date/Time <i>0850</i>		
Relinquished By <i>Duane Jacques</i>		Date/Time <i>2-9-96</i>		Received By <i>ERC</i>		Date/Time <i>2-9-96</i>		
Relinquished By		Date/Time		Received By		Date/Time		

LABORATORY SECTION	Received By	Title	Date/Time
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By	Date/Time

Bechtel Hanford, Inc.

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

Data Turnaround
 Priority
 Normal

Collector <i>A. Rizzo / B. Fehlbach / M. Mehler</i>	Company Contact C. D. Wittreich	Telephone (509) 372-9315
Project Designation 200-UP-1 IRM Implementation Sampling - 2nd Quarter, January	Sampling Location 200 West	SAF No. B96-059
Ice Chest No.	Field Logbook No. <i>ER2-1135</i>	Method of Shipment Hand Delivered
Shipped To Duane Jacques	Offsite Property No. NA	Bill of Lading/Air Bill No. NA

Possible Sample Hazards/Remarks	Preservation	HCl																		
	Type of Container	Gs																		
	No. of Container(s)	1																		
	Special Handling and/or Storage Maintain samples between 2°C and 6°C.	Volume	40mL																	
SAMPLE ANALYSIS		VOA - TCL																		

Sample No.	Matrix*	Date Sampled	Time Sampled																		
B0H6D6	W	2-5-96	1155	Y																	

CHAIN OF POSSESSION	Sign/Print Names	SPECIAL INSTRUCTIONS Hold all VOA samples at 4701-C until project is completed. Then deliver to Duane Jacques.	Matrix* 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
Relinquished By <i>R. Fehlbach</i>	Date/Time 14:20	Received By <i>C. D. Wittreich</i>	Date/Time 1420
Relinquished By <i>Eric</i>	Date/Time 0840	Received By <i>D. Jacques</i>	Date/Time 0850
Relinquished By <i>B. Fehlbach</i>	Date/Time 2-9-96	Received By <i>Duane Jacques</i>	Date/Time 2-9-96
Relinquished By	Date/Time	Received By	Date/Time

LABORATORY SECTION	Received By	Title	Date/Time
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By	Date/Time

Bechtel Hanford, Inc.

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

Data Turnaround
 Priority
 Normal

Collector <i>A. Rizzo / B. Fahlberg / M. Matheson</i>	Company Contact C. D. Wittreich	Telephone (509) 372-9315
Project Designation 200-UP-1 IRM Implementation Sampling - 2nd Quarter, January	Sampling Location 200 West	SAF No. B96-059
Ice Chest No.	Field Logbook No. <i>EFL-1135</i>	Method of Shipment Hand Delivered
Shipped To Duane Jacques	Offsite Property No. NA	Bill of Lading/Air Bill No. NA

Possible Sample Hazards/Remarks	Preservation	HCl																		
	Type of Container	Gs																		
	No. of Container(s)	1																		
	Volume	40mL																		
Special Handling and/or Storage Maintain samples between 2°C and 6°C.	VOA - TCL																			

Sample No.	Matrix *	Date Sampled	Time Sampled																		
BOH6G4	W	2-5-96	1315	4																	

CHAIN OF POSSESSION		Sign/Print Names				SPECIAL INSTRUCTIONS Hold all VOA samples at 4701-C until project is completed. Then deliver to Duane Jacques.										Matrix *	
Relinquished By	Date/Time	14:20	Received By	ER	Date/Time	1920											<ul style="list-style-type: none"> 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>R. Fahlberg</i>	Date/Time	2-5-96	Received By	<i>B. Fahlberg</i>	Date/Time	2-5-96											
Relinquished By	Date/Time	0840	Received By	D. Jacques	Date/Time	0850											
<i>M. Matheson</i>	Date/Time	2-9-96	Received By	<i>Duane Jacques</i>	Date/Time	2-9-96											
Relinquished By	Date/Time		Received By		Date/Time												

LABORATORY SECTION	Received By	Title	Date/Time
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By	Date/Time

Bechtel Hanford, Inc.

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

Data Turnaround
 Priority
 Normal

Collector <i>A. Rizzo / B. Fahlberg / M. Mehlberg</i>	Company Contact C. D. Wittreich	Telephone (509) 372-9315
Project Designation 200-UP-1 IRM Implementation Sampling - 2nd Quarter, January	Sampling Location 200 West	SAF No. B96-059
Ice Chest No.	Field Logbook No. <i>ERC-1135</i>	Method of Shipment Hand Delivered
Shipped To Duane Jacques	Offsite Property No. NA	Bill of Lading/Air Bill No. NA

Possible Sample Hazards/Remarks	Preservation	HCl																		
	Type of Container	Gs																		
	No. of Container(s)	1																		
Special Handling and/or Storage Maintain samples between 2°C and 6°C.	Volume	40mL																		

SAMPLE ANALYSIS				VOA - TCL																
Sample No.	Matrix *	Date Sampled	Time Sampled																	
BOH6F2	W	<i>2-5-96</i>	<i>1315</i>	<i>Y</i>																

CHAIN OF POSSESSION	Sign/Print Names	SPECIAL INSTRUCTIONS Hold all VOA samples at 4701-C until project is completed. Then deliver to Duane Jacques.	Matrix* 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
Relinquished By <i>R. Fahlberg / R. Fahlberg</i>	Date/Time <i>2/5/96 14:20</i>	Received By <i>ERC</i>	Date/Time <i>1420</i>
Relinquished By <i>ERC</i>	Date/Time <i>0840</i>	Received By <i>D. Jacques</i>	Date/Time <i>0850</i>
Relinquished By <i>B. Fahlberg</i>	Date/Time <i>2-9-96</i>	Received By <i>Duane Jacques ERC</i>	Date/Time <i>2-9-96</i>
Relinquished By	Date/Time	Received By	Date/Time

LABORATORY SECTION	Received By	Title	Date/Time
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By	Date/Time

Bechtel Hanford, Inc.

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

Data Turnaround

- Priority
 Normal

Collector <i>A. Rizzo / B. Fahlberg / M. Mathison</i>	Company Contact C. D. Wittreich	Telephone (509) 372-9315
Project Designation 200-UP-1 IRM Implementation Sampling - 2nd Quarter, January	Sampling Location 200 West	SAF No. B96-059
Ice Chest No.	Field Logbook No. <i>EFL 1135</i>	Method of Shipment Hand Delivered
Shipped To Duane Jacques	Offsite Property No. NA	Bill of Lading/Air Bill No. NA

Possible Sample Hazards/Remarks	Preservation	HCl																		
	Type of Container	Gs																		
	No. of Container(s)	1																		
Special Handling and/or Storage Maintain samples between 2°C and 6°C.	Volume	40mL																		

SAMPLE ANALYSIS		VOA - TCL																		
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Sample No.	Matrix*	Date Sampled	Time Sampled																	
B0H6D0	W	<i>2-5-96</i>	<i>1038</i>	<i>Y</i>																
<i>B0H668</i>	<i>W</i>	<i>2-5-96</i>	<i>0730</i>	<i>X</i>																

CHAIN OF POSSESSION	Sign/Print Names				SPECIAL INSTRUCTIONS Hold all VOA samples at 4701-C until project is completed. Then deliver to Duane Jacques.										Matrix*
Relinquished By <i>R. Fahlberg</i>	Date/Time <i>2/5/96</i>	Received By <i>C. D. Wittreich</i>	Date/Time <i>2-5-96</i>												<ul style="list-style-type: none"> 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
Relinquished By <i>Eric</i>	Date/Time <i>0846</i>	Received By <i>Eric</i>	Date/Time <i>2-9-96</i>												
Relinquished By	Date/Time	Received By	Date/Time												
Relinquished By	Date/Time	Received By	Date/Time												

LABORATORY SECTION	Received By	Title	Date/Time
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FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By	Date/Time
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Bechtel Hanford, Inc.

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

Data Turnaround
 Priority
 Normal

Collector <i>A. Rizzo / B. Fehring</i>	Company Contact C. D. Wittreich	Telephone (509) 372-9315
Project Designation 200-UP-1 IRM Implementation Sampling - 2nd Quarter, January	Sampling Location 200 West	SAF No. B96-059
Ice Chest No.	Field Logbook No.	Method of Shipment Hand Delivered

Shipped To Duane Jacques	Offsite Property No. NA	Bill of Lading/Air Bill No. NA
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Possible Sample Hazards/Remarks	Preservation	HCl																		
	Type of Container	Gs																		
	No. of Container(s)	1																		
	Special Handling and/or Storage Maintain samples between 2°C and 6°C.	Volume	40mL																	
SAMPLE ANALYSIS		VOA - TCL																		

Sample No.	Matrix*	Date Sampled	Time Sampled																	
BOH6B8 / <i>Well 299-4926</i>	W	<i>2-7-96</i>	<i>1100</i>	<i>X</i>																
<i>BOH669</i>	W	<i>2-7-96</i>	<i>0730</i>	<i>Y</i>																
<i>BOH669</i>	W	<i>2-7-96</i>	<i>1155</i>	<i>Y</i>																
<i>BOH6C1</i>	W	<i>2-7-96</i>	<i>1345</i>	<i>Y</i>																

CHAIN OF POSSESSION	Sign/Print Names	SPECIAL INSTRUCTIONS Hold all VOA samples at 4701-C until project is completed. Then deliver to Duane Jacques.	Matrix* 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
Relinquished By <i>A. Rizzo</i>	Date/Time <i>14:30</i>	Received By <i>R.F. 2/7/96</i>	Date/Time <i>0900</i>
Relinquished By <i>A. Rizzo (ERL)</i>	Date/Time <i>2-8-96</i>	Received By <i>ERL</i>	Date/Time <i>0100</i>
Relinquished By <i>D. Jacques</i>	Date/Time <i>2-9-96</i>	Received By <i>D. Jacques</i>	Date/Time <i>0840</i>
Relinquished By <i>B. Fehring</i>	Date/Time <i>2-9-96</i>	Received By <i>ERL</i>	Date/Time <i>2-9-96</i>

LABORATORY SECTION	Received By	Title	Date/Time
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By	Date/Time

Data Turnaround
 Priority
 Normal

Collector <i>A. Rizzo / B. Fahlberg / M. Mithelner</i>	Company Contact C. D. Wittreich	Telephone (509) 372-9315
Project Designation 200-UP-1 IRM Implementation Sampling - 2nd Quarter, January	Sampling Location 200 West	SAF No. B96-059
Ice Chest No.	Field Logbook No. <i>ERL-1135</i>	Method of Shipment Hand Delivered
Shipped To Duane Jacques	Offsite Property No. NA	Bill of Lading/Air Bill No. NA

Possible Sample Hazards/Remarks	Preservation	HCl																		
	Type of Container	Gs																		
	No. of Container(s)	1																		
	Special Handling and/or Storage Maintain samples between 2°C and 6°C.	Volume	40mL																	
SAMPLE ANALYSIS		VOA - TCL																		

Sample No.	Matrix*	Date Sampled	Time Sampled																		
BOH6F5 <i>Well 299-419-38</i>	W	2.6.96	0948	X																	
BOH6G7 <i>Downed at 470-C</i>	W	2.6.96	0730	X																	
BOH6F8 <i>Well 299-419-46</i>	W	2.6.96	1100	X																	
BOH6D9 <i>Well 299-419-35</i>	W	2.6.96	1200	X																	
BOH6B5 <i>Well 299-419-3</i>	W	2.6.96	1315	X																	

CHAIN OF POSSESSION	Sign/Print Names	SPECIAL INSTRUCTIONS Hold all VOA samples at 4701-C until project is completed. Then deliver to Duane Jacques.	Matrix* 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
Relinquished By <i>R. Fahlberg</i>	Date/Time 2/6/96 14:15	Received By <i>R. Fahlberg</i>	Date/Time 2/6/96 14:15
Relinquished By <i>R. Fahlberg</i>	Date/Time 2-9-96 0840	Received By <i>D. Jacques</i>	Date/Time 2-9-96 0840
Relinquished By <i>R. Fahlberg</i>	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

Bechtel Hanford, Inc.

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

Data Turnaround
 Priority
 Normal

Collector <i>A. P. Raza / M. Mehlhorn</i>	Company Contact C. D. Wittreich	Telephone (509) 372-9315
Project Designation 200-UP-1 IRM Implementation Sampling - 2nd Quarter, January	Sampling Location 200 West	SAF No. B96-059
Ice Chest No.	Field Logbook No. <i>FL-1B5</i>	Method of Shipment Hand Delivered
Shipped To Duane Jacques	Offsite Property No. NA	Bill of Lading/Air Bill No. NA

Possible Sample Hazards/Remarks	Preservation	HCl																
	Type of Container	Gs																
	No. of Container(s)	1																
	Special Handling and/or Storage Maintain samples between 2°C and 6°C.	Volume	40mL															
SAMPLE ANALYSIS		VOA - TCL																

Sample No.	Matrix*	Date Sampled	Time Sampled															
BOH6C7	W	1/30/96	0715	Y														
BOH6G6	W	1-30-96	0500	X														

CHAIN OF POSSESSION		Sign/Print Names		SPECIAL INSTRUCTIONS Hold all VOA samples at 4701-C until project is completed. Then deliver to Duane Jacques.										Matrix*	
Relinquished By <i>[Signature]</i>	Date/Time 2-1-96	Received By <i>Duane Jacques</i>	Date/Time 2-1-96											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	
Relinquished By <i>R. 430 NOT available</i>	Date/Time 1015	Received By <i>Duane Jacques ERC</i>	Date/Time 1015												
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	

4824864

Bchtel Hanford, Inc.

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

Data Turnaround
 Priority
 Normal

Collector <i>A. Rizzo / M. Mehlhorn</i>	Company Contact C. D. Wittreich	Telephone (509) 372-9315
Project Designation 200-UP-1 IRM Implementation Sampling - 2nd Quarter, January	Sampling Location 200 West	SAF No. B96-059
Ice Chest No.	Field Logbook No. <i>ER 1135</i>	Method of Shipment Hand Delivered
Shipped To Duane Jacques	Offsite Property No. NA	Bill of Lading/Air Bill No. NA

Possible Sample Hazards/Remarks	Preservation	HCl																	
	Type of Container	Gs																	
	No. of Container(s)	1																	
	Special Handling and/or Storage Maintain samples between 2°C and 6°C.	Volume	40mL																
SAMPLE ANALYSIS		VOA - TCL																	

Sample No.	Matrix*	Date Sampled	Time Sampled																
B0H6D3	W	1/29/96	1255	X															
B0H6G5	W	1/29/96	0730	X															

CHAIN OF POSSESSION	Sign/Print Names	SPECIAL INSTRUCTIONS Hold all VOA samples at 4701-C until project is completed. Then deliver to Duane Jacques.	Matrix* 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
Relinquished By <i>M. Mehlhorn</i>	Date/Time <i>1-29-96</i>	Received By <i>K. Trapp</i>	Date/Time <i>1/29/96</i>
Relinquished By <i>Ken Trapp</i>	Date/Time <i>2/1/96</i>	Received By <i>Duane Jacques</i>	Date/Time <i>2-1-96</i>
Relinquished By <i>Ken Trapp</i>	Date/Time <i>1/15</i>	Received By <i>ERC</i>	Date/Time <i>1/15</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

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Bechtel Hanford, Inc.

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

Data Turnaround
 Priority
 Normal

Collector <i>A. Rizzo / M. Mehlborn</i>	Company Contact C. D. Wittreich	Telephone (509) 372-9315
Project Designation 200-UP-1 IRM Implementation Sampling - 2nd Quarter, January	Sampling Location 200 West	SAF No. B96-059
Ice Chest No.	Field Logbook No. <i>ERC 1135</i>	Method of Shipment Hand Delivered
Shipped To Frank Gustafson	Offsite Property No. NA	Bill of Lading/Air Bill No. NA

Possible Sample Hazards/Remarks	Preservation	None									
	Type of Container	P/G									
	No. of Container(s)	1									
	Special Handling and/or Storage Maintain samples between 2°C and 6°C.	Volume	20mL								

SAMPLE ANALYSIS

Sample No.	Matrix*	Date Sampled	Time Sampled	Total Uranium							
BOH6D2	W	<i>1/29/96</i>	<i>1245</i>	<i>X</i>							

CHAIN OF POSSESSION	Sign/Print Names	SPECIAL INSTRUCTIONS	Matrix*
Relinquished By <i>M. Mehlborn</i>	Date/Time <i>1-29-96</i>	Received By <i>K. Trapp</i>	Date/Time <i>1/29/96</i>
Relinquished By <i>FOR Kew</i>	Date/Time <i>2-1-96</i>	Received By <i>Duane Jacques</i>	Date/Time <i>2-1-96</i>
Relinquished By <i>TRAPP NOT AVAILABLE</i>	Date/Time <i>1015</i>	Received By <i>ERC</i>	Date/Time <i>1015</i>
Relinquished By	Date/Time	Received By	Date/Time
Relinquished By	Date/Time	Received By	Date/Time

- 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

LABORATORY SECTION	Received By	Title	Date/Time
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By	Date/Time

Data Turnaround

- Priority
- Normal

Collector <i>A. Rizzo, m. mehlhorn</i>	Company Contact C. D. Wittreich	Telephone (509) 372-9315
Project Designation 200-UP-1 IRM Implementation Sampling - 2nd Quarter, January	Sampling Location 200 West	SAF No. B96-059
Ice Chest No.	Field Logbook No. <i>ERC-1135</i>	Method of Shipment Hand Delivered
Shipped To Frank Gustafson	Offsite Property No. NA	Bill of Lading/Air Bill No. NA

Possible Sample Hazards/Remarks	Preservation	None																		
	Type of Container	P/G																		
Special Handling and/or Storage Maintain samples between 2°C and 6°C.	No. of Container(s)	1																		
	Volume	20mL																		
SAMPLE ANALYSIS		Total Uranium																		

Sample No.	Matrix *	Date Sampled	Time Sampled																		
BOH6C6	W	1/30/96	0715	V																	

CHAIN OF POSSESSION	Sign/Print Names	SPECIAL INSTRUCTIONS	Matrix *
Relinquished By <i>FOR RL</i> Date/Time <i>2-1-96</i>	Received By <i>Duane Jacobs</i> Date/Time <i>2-1-96</i>	Hold all Total Uranium samples at 4701-C until project is complete. Then deliver samples to Frank Gustafson.	<ul style="list-style-type: none"> 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>Rizzo NOT AVAILABLE</i> Date/Time <i>1015</i>	Received By <i>ERC</i> Date/Time <i>1015</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 _____

Data Turnaround
 Priority
 Normal

Collector <i>A. Rizzo / B. Fahlberg / M. Mehlhorn</i>	Company Contact C. D. Wittreich	Telephone (509) 372-9315
Project Designation 200-UP-1 IRM Implementation Sampling - 2nd Quarter, January	Sampling Location 200 West	SAF No. B96-059
Ice Chest No.	Field Logbook No. <i>EFL-1135</i>	Method of Shipment Hand Delivered
Shipped To Frank Gustafson	Offsite Property No. NA	Bill of Lading/Air Bill No. NA

Possible Sample Hazards/Remarks	Preservation	None																		
	Type of Container	P/G																		
	No. of Container(s)	1																		
Special Handling and/or Storage Maintain samples between 2°C and 6°C.	Volume	20mL																		

SAMPLE ANALYSIS

Sample No.	Matrix *	Date Sampled	Time Sampled	Total Uranium																
BOH6GO	W	2-5-96	1100	X																

CHAIN OF POSSESSION	Sign/Print Names		SPECIAL INSTRUCTIONS Hold all Total Uranium samples at 4701-C until project is complete. Then deliver samples to Frank Gustafson.												Matrix * 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		
	Relinquished By <i>R. Fahlberg</i>	Date/Time 14:20	Received By <i>ERC</i>	Date/Time 1420													
	Relinquished By <i>D. Erc</i>	Date/Time 0840	Received By <i>D. Seegner</i>	Date/Time 0840													
	Relinquished By <i>B. Whitton</i>	Date/Time 2-9-96	Received By <i>Quane Jacquot</i>	Date/Time 2-9-96													
Relinquished By	Date/Time	Received By	Date/Time														

LABORATORY SECTION	Received By	Title	Date/Time
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By	Date/Time

Data Turnaround
 Priority
 Normal

Collector <i>A. Rizzo / B. Fehlers / M. Mehlman</i>	Company Contact C. D. Wittreich	Telephone (509) 372-9315
Project Designation 200-UP-1 IRM Implementation Sampling - 2nd Quarter, January	Sampling Location 200 West	SAF No. B96-059
Ice Chest No.	Field Logbook No. <i>ERC-135</i>	Method of Shipment Hand Delivered
Shipped To Frank Gustafson	Offsite Property No. NA	Bill of Lading/Air Bill No. NA

Possible Sample Hazards/Remarks	Preservation	None																		
	Type of Container	P/G																		
	No. of Container(s)	1																		
	Special Handling and/or Storage Maintain samples between 2°C and 6°C.	Volume	20mL																	
SAMPLE ANALYSIS		Total Uranium																		

Sample No.	Matrix*	Date Sampled	Time Sampled																		
BOH6D5	W	2-5-96	1155	X																	

CHAIN OF POSSESSION	Sign/Print Names	SPECIAL INSTRUCTIONS Hold all Total Uranium samples at 4701-C until project is complete. Then deliver samples to Frank Gustafson.	Matrix* 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
Relinquished By <i>[Signature]</i>	Date/Time 14:20	Received By <i>[Signature]</i>	Date/Time 1920
Relinquished By <i>[Signature]</i>	Date/Time 0840	Received By <i>[Signature]</i>	Date/Time 0850
Relinquished By <i>[Signature]</i>	Date/Time 2-9-96	Received By <i>[Signature]</i>	Date/Time 2-9-96
Relinquished By	Date/Time	Received By	Date/Time

LABORATORY SECTION	Received By	Title	Date/Time
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By	Date/Time

Data Turnaround
 Priority
 Normal

Collector <i>A. Rizzo / B. Fahlberg / M. Matheson</i>	Company Contact C. D. Wittreich	Telephone (509) 372-9315
Project Designation 200-UP-1 IRM Implementation Sampling - 2nd Quarter, January	Sampling Location 200 West	SAF No. B96-059
Ice Chest No.	Field Logbook No. <i>EFL-1135</i>	Method of Shipment Hand Delivered
Shipped To Frank Gustafson	Offsite Property No. NA	Bill of Lading/Air Bill No. NA

Possible Sample Hazards/Remarks	Preservation	None																		
	Type of Container	P/G																		
	No. of Container(s)	1																		
	Special Handling and/or Storage Maintain samples between 2°C and 6°C.	Volume	20mL																	

SAMPLE ANALYSIS

Sample No.	Matrix*	Date Sampled	Time Sampled	Total Uranium																
BOH6G3	W	2-5-96	1315	X																

CHAIN OF POSSESSION	Sign/Print Names		SPECIAL INSTRUCTIONS Hold all Total Uranium samples at 4701-C until project is complete. Then deliver samples to Frank Gustafson.	Matrix* 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		
	Relinquished By <i>R. Fahlberg / R. Fahlberg</i>	Date/Time 14:20 / 2-15-96			Received By <i>Ken White</i>	Date/Time 1920 / 2-5-96
	Relinquished By <i>Ken White</i>	Date/Time 0940 / 2-9-96			Received By <i>D. Jacquez</i>	Date/Time 0850 / 2-9-96
	Relinquished By	Date/Time			Received By	Date/Time

LABORATORY SECTION	Received By	Title	Date/Time
FINAL SAMPLE -DISPOSITION	Disposal Method	Disposed By	Date/Time

Data Turnaround

- Priority
- Normal

Collector <i>A. Rizzo / B. Fehlberg / M. Matheson</i>	Company Contact C. D. Wittreich	Telephone (509) 372-9315
Project Designation 200-UP-1 IRM Implementation Sampling - 2nd Quarter, January	Sampling Location 200 West	SAF No. B96-059
Ice Chest No.	Field Logbook No. <i>EFL-1135</i>	Method of Shipment Hand Delivered
Shipped To Frank Gustafson	Offsite Property No. NA	Bill of Lading/Air Bill No. NA
Possible Sample Hazards/Remarks	Preservation None	
	Type of Container P/G	
	No. of Container(s) 1	
Special Handling and/or Storage Maintain samples between 2°C and 6°C.	Volume 20mL	

SAMPLE ANALYSIS

Sample No.	Matrix*	Date Sampled	Time Sampled	Total Uranium					
BOH6F1	W	2-5-96	1315	Y					

CHAIN OF POSSESSION	Sign/Print Names	SPECIAL INSTRUCTIONS	Matrix*
Relinquished By <i>Frank Gustafson / R. Fehlberg</i>	Date/Time 14:20	Received By <i>ERC</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
Relinquished By <i>ERC</i>	Date/Time 0840	Received By <i>D. Jacques</i>	
Relinquished By <i>B. Fehlberg</i>	Date/Time 2-9-96	Received By <i>ERC</i>	
Relinquished By	Date/Time	Received By	

LABORATORY SECTION	Received By	Title	Date/Time
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By	Date/Time

Data Turnaround

- Priority
- Normal

Collector <i>A. Rizzo / B. Fehlberg / M. Mehlhorn</i>	Company Contact C. D. Wittreich	Telephone (509) 372-9315
Project Designation 200-UP-1 IRM Implementation Sampling - 2nd Quarter, January	Sampling Location 200 West	SAF No. B96-059
Chest No.	Field Logbook No. <i>EFL-1135</i>	Method of Shipment Hand Delivered
Shipped To Frank Gustafson	Offsite Property No. NA	Bill of Lading/Air Bill No. NA

Possible Sample Hazards/Remarks	Preservation	None																		
	Type of Container	P/G																		
Special Handling and/or Storage Maintain samples between 2°C and 6°C.	No. of Container(s)	1																		
	Volume	20mL																		
SAMPLE ANALYSIS		Total Uranium																		

Sample No.	Matrix*	Date Sampled	Time Sampled																		
BOH6C9	W	2-5-96	1038	X																	
BOH668	W	2-5-96	0730	BAW																	

CHAIN OF POSSESSION	Sign/Print Names	SPECIAL INSTRUCTIONS	Matrix*
Relinquished By <i>R. Fehlberg</i>	Date/Time 14:20	Received By <i>EC</i>	Date/Time 1420
Relinquished By <i>B. Fehlberg</i>	Date/Time 2/5/96	Received By <i>B. Fehlberg</i>	Date/Time 2-5-96
Relinquished By <i>P. Sacques</i>	Date/Time 0840	Received By <i>P. Sacques</i>	Date/Time 0840
Relinquished By <i>B. Bahitta</i>	Date/Time 2-9-96	Received By <i>EC</i>	Date/Time 2-9-96
Relinquished By	Date/Time	Received By	Date/Time

Hold all Total Uranium samples at 4701-C until project is complete. Then deliver samples to Frank Gustafson.

- 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

LABORATORY SECTION	Received By	Title	Date/Time
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By	Date/Time

Data Turnaround

- Priority
 Normal

Collector <i>A. Rizzo / B. Kenibergs</i>	Company Contact C. D. Wittreich	Telephone (509) 372-9315
Project Designation 200-UP-1 IRM Implementation Sampling - 2nd Quarter, January	Sampling Location 200 West	SAF No. B96-059
Ice Chest No.	Field Logbook No. <i>ERC 185</i>	Method of Shipment Hand Delivered
Shipped To <i>Frank Gustafson - Dine Jacques 2/7/96</i>	Offsite Property No. NA	Bill of Lading/Air Bill No. NA
Possible Sample Hazards/Remarks	Preservation None	
	Type of Container P/G	
	No. of Container(s) 1	
Special Handling and/or Storage Maintain samples between 2°C and 6°C.	Volume 20mL	

SAMPLE ANALYSIS

Sample No.	Matrix*	Date Sampled	Time Sampled														
BOH6B7 <i>Well 299-4420</i>	W	<i>2-7-96</i>	<i>1100</i>	<i>Y</i>													
<i>2463</i> <i>Well 299-4424</i>	W	<i>2-7-96</i>	<i>1155</i>	<i>Y</i>													
<i>2466</i> <i>Well 299-4423</i>	W	<i>2-7-96</i>	<i>1345</i>	<i>Y</i>													

CHAIN OF POSSESSION	Sign/Print Names		SPECIAL INSTRUCTIONS		Matrix* 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	
	Relinquished By <i>R. F. Kenibergs</i>	Date/Time <i>14:30</i>	Received By <i>ERC</i>	Date/Time <i>2-7-96</i>		Hold all Total Uranium samples at 4701-C until project is complete. Then deliver samples to Frank Gustafson.
	Relinquished By <i>A.G. Rizzo (ERC)</i>	Date/Time <i>0900</i>	Received By <i>Eric Wittreich</i>	Date/Time <i>0800</i>		
	Relinquished By <i>Frank Gustafson</i>	Date/Time <i>2-8-96</i>	Received By <i>Eric Wittreich</i>	Date/Time <i>2-9-96</i>		
Relinquished By	Date/Time	Received By	Date/Time			

LABORATORY SECTION	Received By	Title	Date/Time
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By	Date/Time

4664
9972

Bechtel Hanford, Inc.

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

Data Turnaround
 Priority
 Normal

Collector <i>A. Rizza / B. Fenkers / M. Melihonan</i>	Company Contact C. D. Wittreich	Telephone (509) 372-9315
Project Designation 200-UP-1 IRM Implementation Sampling - 2nd Quarter, January	Sampling Location 200 West	SAF No. B96-059
Ice Chest No.	Field Logbook No. <i>EL-1135</i>	Method of Shipment Hand Delivered
Shipped To Frank Gustafson Dupont JACOBS 2-6-96 <i>NR</i>	Offsite Property No. NA	Bill of Lading/Air Bill No. NA

Possible Sample Hazards/Remarks	Preservation	None																		
	Type of Container	P/G																		
	No. of Container(s)	1																		
	Special Handling and/or Storage Maintain samples between 2°C and 6°C.	Volume	20mL																	

SAMPLE ANALYSIS

Sample No.	Matrix*	Date Sampled	Time Sampled																	
BOH6F4 <i>W</i> 299-4938	W	2-6-96	0948	X																
BOH6F7 <i>W</i> 299-4940	W	2-6-96	1100	Y																
BOH6D8 <i>W</i> 299-4935	W	2-6-96	1200	Y																
BOH6B4 <i>W</i> 299-4933	W	2-6-96	1315	Y																

CHAIN OF POSSESSION	Sign/Print Names	SPECIAL INSTRUCTIONS	Matrix*
Relinquished By	Date/Time	Received By	Date/Time
<i>R. Fellberg / R. Fenkers</i>	14:15	<i>W. Melihonan</i>	1415
Relinquished By	Date/Time	Received By	Date/Time
<i>W. Melihonan</i>	0840	<i>D. Jacques</i>	0840
Relinquished By	Date/Time	Received By	Date/Time
<i>W. Melihonan</i>	2-9-96	<i>D. Jacques</i>	2-9-96
Relinquished By	Date/Time	Received By	Date/Time

- Matrix*
- 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

LABORATORY SECTION	Received By	Title	Date/Time
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By	Date/Time