

Environmental
Restoration
Contractor

ERC Team

Interoffice Memorandum



033785

0052011

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: July 8, 1996

COPIES: See Below

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

46119

SUBJECT: **200-UP-1 IRM IMPLEMENTATION SAMPLING, MONTHLY GROUNDWATER RESULTS, JUNE 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.

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 B96-105.

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 operated 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-1315.

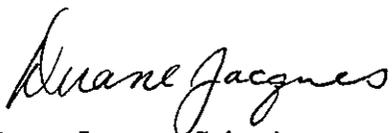
The total uranium results were generated using a ChemChek KPA-11a Kinetic Phosphorescence Analyzer operated in accordance with FSP 1.22, *Kinetic Phosphorescence Analysis of Total Uranium in Water* (BHI 1995b). Information concerning use of the ChemChek KPA-11a as well as preparation of VOC calibration standards and samples is contained in the referenced field logbook EL-1277, pages 117 through 120.

C. D. Wittreich, H9-12

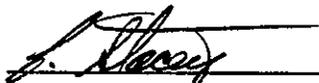
Page 2

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, June 1996
- Attachment 2. Sample Chain of Custody Sheets
- Attachment 3. Headspace Gas Chromatography Checklist

Copies:

- ~~R. T. Coffman, H9-11, w/attachment 1 only~~
- C. W. Denslow, H9-02, w/attachment 1 only
- A. Hopkins, H9-11, w/attachment 1 only
- T. D. LeFrancois, H9-03, w/attachment 1 only
- J. A. Lerch, B1-35, w/a
- D. A. Myers, H9-11, w/attachment 1 only
- R. O. Mahood, H9-11, w/attachment 1 only
- BHI Document Control, H4-79, w/a

200-UP-1 IRM Implementation Sampling
Monthly Groundwater Results, June 1996
SAF B96-105

Sample Location	HEIS Number	Sample Date	Analysis Date (VOA)	Chloroform (µg/L)	Carbon TetraCl (µg/L)	TCE (µg/L)	Uranium (µg/L)	Technetium-99 (pCi/L)
299-W19-18	BOHGD9	6/26/96	NA	NA	NA	NA	NA	<124
299-W19-18	BOHGF0	6/26/96	6/28/96	<4.0	330	<2.0	730	NA
299-W19-20	BOHGF1	6/26/96	NA	NA	NA	NA	NA	6590
299-W19-20	BOHGF2	6/26/96	6/28/96	<4.0	190	7.9	1620	NA
299-W19-23	BOHGF3	6/26/96	NA	NA	NA	NA	NA	25100
299-W19-23	BOHGF4	6/26/96	6/28/96	<4.0	170	<2.0	762	NA
299-W19-24	BOHGF5	6/26/96	NA	NA	NA	NA	NA	13500
299-W19-24	BOHGF6	6/26/96	6/28/96	<4.0	140	<2.0	2850	NA
299-W19-28	BOHGF7	6/25/96	NA	NA	NA	NA	NA	4260
299-W19-28	BOHGF8	6/25/96	6/26/96	<4.0	8.2	<2.0	556	NA
299-W19-29	BOHGF9	6/25/96	NA	NA	NA	NA	NA	<85
299-W19-29	BOHGG0	6/25/96	6/26/96	<4.0	2.3	<2.0	49.4	NA
299-W19-30	BOHGG1	6/25/96	NA	NA	NA	NA	NA	7630
299-W19-30	BOHGG2	6/25/96	6/26/96	<4.0	37	<2.0	869	NA
299-W19-34A	BOHGG3	6/25/96	NA	NA	NA	NA	NA	192
299-W19-34A	BOHGG4	6/25/96	6/26/96	<4.0	71	3.7	1.96	NA
299-W19-35	BOHGG5	6/25/96	NA	NA	NA	NA	NA	423
299-W19-35	BOHGG6	6/25/96	6/26/96	<4.0	220	13	46.1	NA
299-W19-37	BOHGG7	6/27/96	NA	NA	NA	NA	NA	7670
299-W19-37	BOHGG8	6/27/96	6/28/96	<4.0	57	<2.0	2390	NA
Duplicate @ 299-W19-37	BOHGH3	6/27/96	NA	NA	NA	NA	NA	7830
Duplicate @ 299-W19-37	BOHGH4	6/27/96	6/28/96	<4.0	52	<2.0	2470	NA
Field Blank @ 299-W19-37	BOHGH5	6/27/96	NA	NA	NA	NA	NA	1670
Field Blank @ 299-W19-37	BOHGH6	6/27/96	6/28/96	<4.0	<2.0	<2.0	<0.50	NA
299-W19-38	BOHGG9	6/27/96	NA	NA	NA	NA	NA	1490
299-W19-38	BOHGH0	6/27/96	6/28/96	<4.0	130	2.3	170	NA
299-W19-40	BOHGH1	6/27/96	NA	NA	NA	NA	NA	3480
299-W19-40	BOHGH2	6/27/96	6/28/96	<4.0	31	<2.0	154	NA
Trip Blank	BOHGH7	6/25/96	6/26/96	<4.0	<2.0	<2.0	NA	NA
Trip Blank	BOHGJ0	6/26/96	6/28/96	<4.0	<2.0	<2.0	NA	NA
Trip Blank	BOHGH9	6/27/96	6/28/96	<4.0	<2.0	<2.0	NA	NA

NA - Not Analyzed

j - Value less than practical quantitation limit

Analyst:

Duane Jacques, 7/12/96
 D. Jacques

VOA Instrument: Photovac 10S Plus GC, Serial # BJDG203
 Method: 5 mL/min HP Air, 11.7 eV lamp, 250 uL injection
 Logbook: Photovac Instrument Log, EL-1315, pgs 9 to 12

Uranium Instrument: ChemChek KPA-11a, Serial # 9445050065
 Method: Kinetic Phosphorescence
 Logbook: 200-UP-1 Project Log, EL-1277, pgs 118 to 120

Bechtel Hanford, Inc.

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

Data Turnaround
 Priority
 Normal

Collector <i>A. Rizzo G Hamilton</i>	Company Contact C. D. Wittreich	Telephone (509) 372-9315
Project Designation 200-UP-1 IRM Implementation Sampling - 3rd Qtr., 1996, June	Sampling Location 200 West	SAF No. B96-105
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	Cool 4°C	HCl																
	Type of Container	P	Gs																
	No. of Container(s)	1	1																
	Special Handling and/or Storage Maintain samples between 2°C and 6°C.	Volume	20mL	40mL															

SAMPLE ANALYSIS				Total Uranium	VOA - TCL														
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Sample No.	Matrix*	Date Sampled	Time Sampled																
BOHGG2	W	6-25-96	0957	X	X														
BOHGG7	W	6-25-96	0730		X														
BOHGG8	W	6-25-96	0948	X	X														
BOHGG0	W	6-25-96	1027	X	X														
BOHGG4	W	6-25-96	1112	X	X														
BOHGG6 BOHGG6	W	6-25-96	1230	X	X														

CHAIN OF POSSESSION		Sign/Print Names	
Relinquished By <i>[Signature]</i>	Date/Time 6-24-96 0911	Received By <i>D. Jacques</i>	Date/Time 0912
Relinquished By <i>[Signature]</i>	Date/Time	Received By <i>[Signature]</i>	Date/Time 6/26/96
Relinquished By	Date/Time	Received By	Date/Time
Relinquished By	Date/Time	Received By	Date/Time

SPECIAL INSTRUCTIONS	Matrix*
Hold all samples at 4701-C until project is completed. Then deliver to Duane Jacques.	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

Bechtel Hanford, Inc.

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

Data Turnaround
 Priority
 Normal

Collector <i>A. Rizzo, G. Hamlin</i>	Company Contact C. D. Wittreich	Telephone (509) 372-9315
Project Designation 200-UP-1 IRM Implementation Sampling - 3rd Qtr., 1996, June	Sampling Location 200 West	SAF No. B96-105
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	Cool 4°C	HCl											
	Type of Container	P	Gs											
	No. of Container(s)	1	1											
	Special Handling and/or Storage Maintain samples between 2°C and 6°C.	Volume	20mL	40mL										
SAMPLE ANALYSIS				Total Uranium	VOA - TCL									

Sample No.	Matrix*	Date Sampled	Time Sampled											
BOHGFO	W	06-26-96	0900	X	X									
BOHGJ0	W	6-26-96	0730		X									
BOHGFA	W	6-26-96	0943	X	X									
BOHGFA4	W	6-26-96	1137	X	X									
BOHGFA6	W	6-26-96	1222	X	X									

CHAIN OF POSSESSION	Sign/Print Names	SPECIAL INSTRUCTIONS Hold all 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>[Signature]</i>	Date/Time 6/26/96 1338	Received By <i>[Signature]</i>	Date/Time 6/26/96
Relinquished By <i>[Signature]</i>	Date/Time 6-28-96	Received By <i>[Signature]</i>	Date/Time 6-28-96
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

Bechtel Hanford, Inc.

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

Data Turnaround
 Priority
 Normal

Collector <i>A. Rizzo G. Hamilton</i>	Company Contact C. D. Wittreich	Telephone (509) 372-9315
Project Designation 200-UP-1 IRM Implementation Sampling - 3rd Qtr., 1996, June	Sampling Location 200 West	SAF No. B96-105
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	Cool 4°C	HCl																
	Type of Container	P	Gs																
	No. of Container(s)	1	1																
	Special Handling and/or Storage Maintain samples between 2°C and 6°C.	Volume	20mL	40mL															
SAMPLE ANALYSIS				Total Uranium	VOA - TCL														

Sample No.	Matrix*	Date Sampled	Time Sampled																
B0HGHO	W	6-27-96	0845	X	X														
B0HGHA	W	6-27-96	0730		X														
B0HGHA	W	6-27-96	0955	X	X														
B0HGG8	W	6-27-96	1055	X	X														
B0HGHA	W	6-27-96	1055	X	X														
B0HGH6	W	6-27-96	1012	X	X														

CHAIN OF POSSESSION	Sign/Print Names	SPECIAL INSTRUCTIONS Hold all 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 Liquide T - Tissue WI - Wipe L - Liquid V - Vegetation X - Other
Relinquished By <i>M. G. Hamilton</i>	Date/Time 6/27/96 1414	Received By <i>Eric</i>	Date/Time 1414
Relinquished By <i>Eric</i>	Date/Time 0835	Received By <i>BT Coffman</i>	Date/Time 0835
Relinquished By <i>Eric</i>	Date/Time 6-27-96	Received By <i>BT Coffman</i>	Date/Time 6-27-96
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

HEADSPACE GAS CHROMATOGRAPHY CHECKLIST

1.	Date: <i>12 July '96</i>	
2.	a. Minimum 3 point calibration curve:	<i>3pt curve checked by single pt.</i>
	b. Date 3 point minimum calibration curve was prepared:	<i>10/25/95</i>
3.	<u>Calibration Check Standard</u>	
	a. Check standard for each analyte:	<i>OK</i>
	b. Date of analysis:	<i>28 June '96</i>
	c. Date of check standard:	<i>28 June '96</i>
	<u>Calculation Check (One Standard)</u>	
	d. Show calculation:	$\frac{3.2 - 2000}{.03 \times 1000} = \frac{6.4}{.03} = 213$
	e. Agrees with analyst: <i>0/3</i>	<i>OK</i>
3.	a. Is a sample dilution required?	<i>No</i>
	b. If yes, check calculation.	<i>N/A</i>
4.	If data has been converted from ppm to ppb or vice versa, check conversion.	<i>N/A</i>
5.	<u>Analyte Identification</u>	
	a. Confirmed by MS:	<i>No</i>
	b. Confirmed by second column:	<i>No</i>
6.	Average temperature of laboratory during analysis:	<i>—</i>
7.	a. Reviewer's name:	<i>C. Steacy</i>
	b. Reviewer's signature:	<i>Claude Steacy</i>