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Environmental
Restoration
Contractor

ERC Team

Interoffice Memorandum

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

TO: M. A. Buckmaster, H4-80
J. A. Lerch, B1-35

DATE: January 10, 1997

COPIES: See Below

FROM: R. T. Coffman
Onsite Measurement Services
H9-11/372-9373

SUBJECT: 200-ZP-1 PHASE II PERFORMANCE MONITORING, GROUNDWATER
RESULTS, DECEMBER 1996, REV 0

REFERENCES:

1. BHI, 1996, *On-Site Measurements Quality Assurance Plan*, BHI-00852, REV 0, Bechtel Hanford, Inc., Richland, Washington.
2. BHI, 1995, *Field Screening Procedures*, BHI-EE-05, Bechtel Hanford, Inc., Richland, Washington.
3. BHI, 1995, *200-ZP-1 Field Screening Support Logbook*, EL-1273, Bechtel Hanford, Inc., Richland, Washington.

This data package contains field screening results for groundwater samples analyzed to support 200-ZP-1 IRM Phase II performance monitoring. The Quality Assurance level for this work corresponds to QA-1 as specified in the reference 1 (BHI 1996). Samples collected and analyzed during December 1996 were managed under SAF B97-001.

Attachment 1 contains Volatile Organic Compound (VOC) results for groundwater samples collected to support the referenced project. The VOC results were generated using a Hewlett Packard 5890 gas chromatograph with a headspace autosampler operated in accordance with Field Screening Procedure (FSP) 1.1, *Aqueous Headspace Analysis of Volatile Organic Compounds in Water* (BHI 1995). Information concerning operation and calibration of the gas chromatograph is contained in the instrument logbook EL-1329. Please contact me if you have any questions on this information.



R. T. Coffman, Engineer/Analyst

RTC:rtc



M. A. Buckmaster, H4-80

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Attachments:

Attachment 1. 200-ZP-1 IRM Phase II Performance Monitoring, Groundwater Results,
November 1996

Attachment 2. Sample Chain of Custody Sheets

Copies:

J. R. Freeman-Pollard, H9-12, w/attachment 1 only

B. H. Ford, H0-02, w/attachment 1 only

I. D. Jacques, H9-10, w/attachment 1 only

R.B. Kerkow, H9-10, w/attachment 1 only

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

T. D. LeFrancois, H9-03, w/attachment 1 only

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

L. C. Swanson, H9-11, w/attachment 1 only

BHI Document Control, H4-79, w/original attachments

200-ZP-1 Phase II Performance Monitoring
Groundwater Results, December 1996
SAF B97-001

Sample Location	HEIS Number	Sample Date	Analysis Date	Chloroform (µg/L)	Carbon Tetrachloride (µg/L)	Trichloroethylene (µg/L)
299-W15-7	BOJKG4	12/10/96	12/18/96	75	2200	14
299-W15-10	BOJKG5	12/11/96	12/18/96	42	3100	10
299-W15-11	BOJKG6	12/11/96	12/18/96	27	2700	6.2
299-W15-30	BOJKH0	12/9/96	12/18/96	72	5700	7.3
299-W15-31A	BOJKH1	12/9/96	12/18/96	77	4900	7.7
299-W15-38	BOJKG8	12/16/96	12/23/96	31	2300	<2.0
Duplicate @ 299-W15-38	BOJKZ7	12/16/96	12/23/96	30	2200	<2.0
299-W18-23	BOJKH2	12/12/96	12/23/96	2.3	260	<2.0
299-W18-26	BOJKH3	12/12/96	12/23/96	30	53	<2.0
699-39-79	BOJKH4	12/12/96	12/23/96	14	800	<2.0
Trip Blank	BOJLO0	12/9/96	12/18/96	<2.0	<2.0	<2.0
Trip Blank	BOJLO1	12/10/96	12/18/96	<2.0	<2.0	<2.0
Trip Blank	BOJLO2	12/11/96	12/18/96	<2.0	<2.0	<2.0
Trip Blank	BOJLO3	12/12/96	12/23/96	<2.0	<2.0	<2.0
Trip Blank	BOJLO4	12/16/96	12/23/96	<2.0	<2.0	<2.0

j - Value less than practical quantitation limit

VOA Instrument: Hewlett Packard 5890 GC, Serial # 3235A47685
 Method: Dual DB-VRX columns, ECD/FID, 1 mL headspace injection
 Logbook: 200-ZP-1 Field Logbook, EL-1273, pgs 116 to 121

Analyst:

R.T. Coffman 1/10/97
 R.T. Coffman

Analyst:

R.B. Kerkow 1/21/97
 R.B. Kerkow

Collector <i>A. Rizzo / M. Menkhon</i>	Company Contact JR Freeman-Pollard	Telephone No. 509-372-9347	Project Coordinator Koerner, CC	Data Turnaround 0 Field
Project Designation 200-ZP-1 Phase II Performance Monitoring -- 1997	Sampling Location 200 West	SAF No. B97-001		
Ice Chest No.	Field Logbook No. <i>EL-1330</i>	Method of Shipment hand deliver		
Shipped To Mobile Laboratory	Offsite Property No. N/A	Bill of Lading/Air Bill No. N/A		

POSSIBLE SAMPLE HAZARDS/REMARKS None	Preservation	HCl to pH <2 Cool 4C																		
	Type of Container	aGs*																		
	No. of Container(s)	1																		
Special Handling and/or Storage maintain samples between 2 and 6 degrees C	Volume	40ml																		

SAMPLE ANALYSIS

See item (1) in Special Instructions.																				
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Sample No.	Matrix *	Sample Date	Sample Time																	
BOJKH1 ✓	Water	12-9-96	1045	X																
BOJKL00 ✓	W	12-9-96	0750	X																
BOJKH0 ✓	W	12-9-96	1215	X																

CHAIN OF POSSESSION	Sign/Print Names			SPECIAL INSTRUCTIONS (1) VOA BY FIELD GC -- Chlorinated Hydrocarbon {Carbon tetrachloride, Chloroform, Trichloroethene}	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. G. Rizzo</i>	Date/Time 12-9-96 1415	Received By <i>J. E. ...</i>			Date/Time 12-9-96 1415
	Relinquished By <i>Bill White</i>	Date/Time 12-12-96 1005	Received By <i>R. T. Coffman</i>			Date/Time 12/12/96 10:05
	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

B97-001-54 Page 1 of 1

Collector <i>A. Rizza / M. Mchugh</i>	Company Contact JR Freeman-Pollard	Telephone No. 509-372-9347	Project Coordinator Koerner, CC	Data Turnaround 0 Field
Project Designation 200-ZP-1 Phase II Performance Monitoring -- 1997	Sampling Location 200 West	SAF No. B97-001		
Ice Chest No.	Field Logbook No. <i>EL-1330</i>	Method of Shipment hand deliver		
Shipped To Mobile Laboratory	Offsite Property No. N/A	Bill of Lading/Air Bill No. N/A		

POSSIBLE SAMPLE HAZARDS/REMARKS None	Preservation	HCl to pH <2 Cool 4C																		
	Type of Container	aGs*																		
	No. of Container(s)	1																		
Special Handling and/or Storage maintain samples between 2 and 6 degrees C	Volume	40ml																		

SAMPLE ANALYSIS

Sample No.	Matrix *	Sample Date	Sample Time																		
BOJKG4	Water	12-10-96	1245	X																	
BOJ L01	<i>W</i>	12-10-96	0750	X																	

CHAIN OF POSSESSION	Sign/Print Names				SPECIAL INSTRUCTIONS (1) VOA BY FIELD GC -- Chlorinated Hydrocarbon {Carbon tetrachloride, Chloroform, Trichloroethene}	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.G. Rizza</i>	Date/Time 1420 12-10-96	Received By <i>[Signature]</i>	Date/Time 1420 12-10-96		
	Relinquished By <i>[Signature]</i>	Date/Time 1005 12-12-96	Received By <i>RT Coffman</i>	Date/Time 1005 12-12-96		
	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

B97-001-55

Collector <i>K. Tropp / A. Rizzo</i>	Company Contact JR Freeman-Pollard	Telephone No. 509-372-9347	Project Coordinator Koerner, CC	Data Turnaround 0 Field
Project Designation 200-ZP-1 Phase II Performance Monitoring -- 1997	Sampling Location 200 West	SAF No. B97-001		
Ice Chest No.	Field Logbook No. <i>EL-1330</i>	Method of Shipment hand deliver		
Shipped To Mobile Laboratory	Offsite Property No. N/A	Bill of Lading/Air Bill No. N/A		

POSSIBLE SAMPLE HAZARDS/REMARKS None	Preservation	HCl to pH <2 Cool 4C																		
	Type of Container	aGs*																		
	No. of Container(s)	1																		

Special Handling and/or Storage maintain samples between 2 and 6 degrees C	Volume	40ml																		
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SAMPLE ANALYSIS		See item (1) in Special Instructions.																		
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Sample No.	Matrix *	Sample Date	Sample Time																	
B0JKG5	Water	12/11/96	1138	X																
<i>B0JLOZ</i>	<i>W</i>	<i>12/11/96</i>	<i>0755</i>	<i>X</i>																
<i>B0JKGG</i>	<i>W</i>	<i>12-11-96</i>	<i>1415</i>	<i>X</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>K. Tropp / K. Tropp</i>	Date/Time <i>1920 12/11/96</i>	Received By <i>R. J. Coffman</i>	Date/Time <i>1515 12-11-96</i>	(1) VOA BY FIELD GC - Chlorinated Hydrocarbon (Carbon tetrachloride, Chloroform, Trichloroethene)												
	Relinquished By <i>R. J. Coffman</i>	Date/Time <i>1005 12-12-96</i>	Received By <i>R. J. Coffman</i>	Date/Time <i>10:05 12/12/96</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

B97-001-64 Page 1 of 1

Collector <i>A. Rizzo / M. Mehlhorn</i>	Company Contact JR Freeman-Pollard	Telephone No. 509-372-9347	Project Coordinator Koerner, CC	Data Turnaround 0 Field
Project Designation 200-ZP-1 Phase II Performance Monitoring -- 1997	Sampling Location 200 West	SAF No. B97-001		
Ice Chest No.	Field Logbook No. <i>EL-1330</i>	Method of Shipment hand deliver		
Shipped To Mobile Laboratory	Offsite Property No. N/A	Bill of Lading/Air Bill No. N/A		

POSSIBLE SAMPLE HAZARDS/REMARKS None	Preservation	HCl to pH <2 Cool 4C																		
	Type of Container	aGs*																		
	No. of Container(s)	1																		
Special Handling and/or Storage maintain samples between 2 and 6 degrees C	Volume	40ml																		

SAMPLE ANALYSIS

Sample No.	Matrix *	Sample Date	Sample Time	See Item (1) in Special Instructions.																
BOJKH4	Water	12-12-96	1005	X																
BOJK03	W	12-12-96	0750	X																
BOJKH2	W	12-12-96	1045	X																
BOJKH3	W	12-12-96	1128	X																

CHAIN OF POSSESSION

Sign/Print Names

SPECIAL INSTRUCTIONS

(1) VOA BY FIELD GC -- Chlorinated Hydrocarbon (Carbon tetrachloride, Chloroform, Trichloroethene)

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>Marty Mehlhorn</i>	Date/Time <i>12-12-96</i>	Received By <i>Paul Ehl</i>	Date/Time <i>1315</i>
Relinquished By <i>D.L. Bryant</i>	Date/Time <i>12-20-96</i>	Received By <i>R.B. Keenan</i>	Date/Time <i>12-20-96</i>
Relinquished By	Date/Time	Received By	Date/Time
Relinquished By	Date/Time	Received By	Date/Time

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

Bechtel Hanford Inc.

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

B97-001-58

Page 1 of 1

Collector *A. Rizzo / B. F. Hildner* Company Contact JR Freeman-Pollard Telephone No. 509-372-9347 Project Coordinator Koerner, CC Data Turnaround 0 Field

Project Designation 200-ZP-1 Phase II Performance Monitoring - 1997 Sampling Location 200 West SAF No. B97-001

Ice Chest No. Field Logbook No. *EL-1330* Method of Shipment hand deliver

Shipped To Mobile Laboratory Offsite Property No. N/A Bill of Lading/Air Bill No. N/A

POSSIBLE SAMPLE HAZARDS/REMARKS None	Preservation	HCl to pH < 2 Cool 4C												
	Type of Container	aGs*												
	No. of Container(s)	1												

Special Handling and/or Storage maintain samples between 2 and 6 degrees C Volume 40ml

SAMPLE ANALYSIS		See item (1) in Special Instructions.												
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Sample No.	Matrix *	Sample Date	Sample Time											
BOJKGB	Water	12-16-96	0957	X										
Bo 5 L04	W	12-16-96	0730	X										
Bo 5 L 27	W	12-16-96	0957	X										

CHAIN OF POSSESSION	Sign/Print Names				SPECIAL INSTRUCTIONS (1) VOA BY FIELD GC - Chlorinated Hydrocarbon {Carbon tetrachloride, Chloroform, Trichloroethene}								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 12-16-96	Received By <i>D.C. Br...</i>	Date/Time 12-16-96										
	Relinquished By <i>D.L. Br...</i>	Date/Time 12-20-96	Received By <i>R.B. Ke...</i>	Date/Time 12-20-96										
	Relinquished By	Date/Time	Received By	Date/Time										

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