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ERC FIELD SCREENING/EAL
DATA PACKAGE TRANSMITTAL FORM

Transmittal Date: 4/16/96

To: Sample Management
(organization)

From: EAL
(organization)

Delivery Group Number:

Data Package Contents:

Analytical results for EAL sample batches
960326A, 960402A, 960404A, and 960405B



Transmitted by:
PAUL E DVERKSEN
Paul E Dverksen 4/16/96
Sign/Print Name Date

Received by:
Sign/Print Name Date

cc:

April 10, 1996

TO: Jane Borghese, X0-37

COPY: Rita Powell, X0-37



INTRODUCTION:

We received the following samples between March 26 and April 5, 1996. Your sample numbers were assigned the following EAL numbers.

<u>Customer Sample Number</u>	<u>EAL Number</u>	<u>Matrix Type</u>
B0H8M2	EAL02281	well water
B0H8M4	EAL02282	wellwater
B0H8M6	EAL02283	well water
· B0H8N2	EAL02318	well water
· B0H8P0	EAL02319	well water
· B0H8P2	EAL02320	well water
· B0H8P6	EAL02321	well water
· B0HCH1	EAL02322	well water
· B0H778	EAL02323	well water
· B0H782	EAL02324	well water
· B0H8P4	EAL02339	well water
· B0H8N4	EAL02340	well water
· B0H8M8	EAL02341	well water
· B0H8N7	EAL02350	well water

The samples were also assigned batch numbers of 960326A, 960402A, 960404A, and 960405B. The corresponding Sampling Analysis Form (SAF) number was B96-036. EAL analyzed the samples in support of the 100-NR-2 Monthly Performance Monitoring for April.

NOTABLE EVENTS:

Total petroleum hydrocarbons were analyzed in the field. Results are included here for completeness.

RESULTS:

A summary of results and associated quality control parameters is shown on spreadsheets included in this data package. All samples were analyzed in accordance with approved analytical methods and good laboratory practice. Please contact Stacey Bolling at 373-5433, if you have any questions.

Stacey D Bolling
Signature of Analyst

4/11/96
Date

Paul E W. Wiersma
Signature of QA Coordinator

4/16/96
Date

100-NR-2 Monthly Performance Monitoring

April 1996

Sample #	Analyte	CAS #	Method ID	Result	Units	MDL	Dilution Factor	Analysis Date	Lab ID	SDG #
B0H8M2	Calcium	7440-70-2	EPA300.7	36.9	ug/mL	0.170	6	4/2/96	EAL02281	960326A
B0H8M2	Magnesium	7439-95-4	EPA300.7	6.14	ug/mL	0.022	6	4/2/96	EAL02281	960326A
B0H8M2	Sulfate	14808-79-8	EPA300.0	16.5	ug/mL	0.013	6	4/2/96	EAL02281	960326A
B0H8M4	Calcium	7440-70-2	EPA300.7	149	ug/mL	0.170	51	4/2/96	EAL02282	960326A
B0H8M4	Magnesium	7439-95-4	EPA300.7	26.0	ug/mL	0.022	51	4/2/96	EAL02282	960326A
B0H8M4	Sulfate	14808-79-8	EPA300.0	188	ug/mL	0.013	51	4/2/96	EAL02282	960326A
B0H8M6	Calcium	7440-70-2	EPA300.7	50.9	ug/mL	0.170	6	4/2/96	EAL02283	960326A
B0H8M6	Magnesium	7439-95-4	EPA300.7	8.19	ug/mL	0.022	6	4/2/96	EAL02283	960326A
B0H8M6	Sulfate	14808-79-8	EPA300.0	22.2	ug/mL	0.013	6	4/2/96	EAL02283	960326A
B0H8N2	Calcium	7440-70-2	EPA300.7	28.7	ug/mL	0.170	6	4/9/96	EAL02318	960402A
B0H8N2	Magnesium	7439-95-4	EPA300.7	4.92	ug/mL	0.022	6	4/9/96	EAL02318	960402A
B0H8N2	Sulfate	14808-79-8	EPA300.0	15.6	ug/mL	0.013	6	4/9/96	EAL02318	960402A
B0H8P0	Calcium	7440-70-2	EPA300.7	31.8	ug/mL	0.170	6	4/9/96	EAL02319	960402A
B0H8P0	Magnesium	7439-95-4	EPA300.7	5.28	ug/mL	0.022	6	4/9/96	EAL02319	960402A
B0H8P0	Sulfate	14808-79-8	EPA300.0	20.7	ug/mL	0.013	6	4/9/96	EAL02319	960402A
B0H8P2	Calcium	7440-70-2	EPA300.7	27.8	ug/mL	0.170	6	4/9/96	EAL02320	960402A
B0H8P2	Magnesium	7439-95-4	EPA300.7	5.03	ug/mL	0.022	6	4/9/96	EAL02320	960402A
B0H8P2	Sulfate	14808-79-8	EPA300.0	12.0	ug/mL	0.013	6	4/9/96	EAL02320	960402A
B0H8P6	Calcium	7440-70-2	EPA300.7	30.1	ug/mL	0.170	6	4/9/96	EAL02321	960402A
B0H8P6	Magnesium	7439-95-4	EPA300.7	5.14	ug/mL	0.022	6	4/9/96	EAL02321	960402A
B0H8P6	Sulfate	14808-79-8	EPA300.0	17.2	ug/mL	0.013	6	4/9/96	EAL02321	960402A
B0HCH1	Calcium	7440-70-2	EPA300.7	27.8	ug/mL	0.170	6	4/9/96	EAL02322	960402A
B0HCH1	Magnesium	7439-95-4	EPA300.7	5.02	ug/mL	0.022	6	4/9/96	EAL02322	960402A
B0HCH1	Sulfate	14808-79-8	EPA300.0	17.6	ug/mL	0.013	6	4/9/96	EAL02322	960402A
B0H778	Calcium	7440-70-2	EPA300.7	28.7	ug/mL	0.170	6	4/9/96	EAL02323	960402A
B0H778	Magnesium	7439-95-4	EPA300.7	5.03	ug/mL	0.022	6	4/9/96	EAL02323	960402A
B0H778	Sulfate	14808-79-8	EPA300.0	12.0	ug/mL	0.013	6	4/9/96	EAL02323	960402A
B0H782	Calcium	7440-70-2	EPA300.7	29.7	ug/mL	0.170	6	4/9/96	EAL02324	960402A
B0H782	Magnesium	7439-95-4	EPA300.7	5.14	ug/mL	0.022	6	4/9/96	EAL02324	960402A
B0H782	Sulfate	14808-79-8	EPA300.0	20.3	ug/mL	0.013	6	4/9/96	EAL02324	960402A
B0H8P4	Calcium	7440-70-2	EPA300.7	U	ug/mL	0.170	1	4/9/96	EAL02339	960404A
B0H8P4	Magnesium	7439-95-4	EPA300.7	U	ug/mL	0.022	1	4/9/96	EAL02339	960404A
B0H8P4	Sulfate	14808-79-8	EPA300.0	U	ug/mL	0.013	1	4/9/96	EAL02339	960404A
B0H8N4	Calcium	7440-70-2	EPA300.7	35.4	ug/mL	0.170	6	4/9/96	EAL02340	960404A
B0H8N4	Magnesium	7439-95-4	EPA300.7	5.76	ug/mL	0.022	6	4/9/96	EAL02340	960404A
B0H8N4	Sulfate	14808-79-8	EPA300.0	30.0	ug/mL	0.013	6	4/9/96	EAL02340	960404A

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Shay Drell
4/9/96

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100-NR-2 Monthly Performance Monitoring
April 1996

Sample #	Analyte	CAS #	Method ID	Result	Units	MDL	Dilution Factor	Analysis Date	Lab ID	SDG #
B0H8M8	Calcium	7440-70-2	EPA300.7	38.6	ug/mL	0.170	6	4/9/96	EAL02341	960404A
B0H8M8	Magnesium	7439-95-4	EPA300.7	6.44	ug/mL	0.022	6	4/9/96	EAL02341	960404A
B0H8M8	Sulfate	14808-79-8	EPA300.0	46.2	ug/mL	0.013	21	4/9/96	EAL02341	960404A

Stacey D. Bellamy
4/9/96

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100-NR-2
TPH Analysis

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Date: April 08, 1996									
Sample Number	Collected (Date)	Time Analyzed	Volume (mL) of Sample	Volume (mL) of F-113	D(tph) Reading	D(tah) Reading	TPH (ppm) in Sample	TAH (ppm) in Sample	NOTES Comments
Zero	4/08/96	13:35	100	10	0	0	0	0	
Blank	4/08/96	13:48	100	10	0	0	0	0	
BOH8M4	3/25/96	14:06	100	10	0	0	0	0	EAL 02282
BOH8P2	4/02/96	14:22	100	10	2	2	0.2	0.2	EAL 02320
BOH8P6	4/02/96	14:38	100	10	0	0	0	0	EAL 02321
BOH778	4/02/96	14:55	100	10	1	5	0.1	0.5	EAL 02323
BOH8N7	4/05/96	15:14	100	10	3	4	0.3	0.4	EAL 02350
STD 100	4/08/96	15:28	100	10	853	47	85.3	4.7	
STD 200	4/08/96	15:43	100	10	1063	91	106.3	9.1	
Blank	4/08/96	15:59	100	10	1	0	0.1	0	

EAL
 BATCH # 960326A, 960402A &
 960404A
 QUALITY CONTROL

ANALYST SIGNATURE: *Stacy P. Bellamy*

ANALYTE	SAMPLE USED FOR QC	LCS OR SPIKE RECOVERY	RELATIVE PERCENT DIFFERENCE BETWEEN DUPLICATES	METHOD BLANK CONCENTRATION
sulfate	EAL02281	94%	4%	.039U
magnesium	EAL02281	95%	1%	.066U
calcium	EAL02281	94%	2%	.510U
sulfate	EAL02318	92%	1%	.039U
magnesium	EAL02318	96%	0%	.066U
calcium	EAL02318	98%	1%	.510U

U = analyte was not detected above the associated quantitation limit

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GENERAL VALIDATION CHECKLIST

BATCH NUMBER (from Sample Logbook): 960326A, 960402A, 960404A, 960405B

SAMPLE NUMBERS: EAL02281-2283
EAL02318-2324 ANALYTES REQUESTED: Ca, Mg, SO₄, TPIT
EAL02339-2341; 2350

VALIDATOR: PAUL E Duerksen SIGNATURE: Paul E Duerksen DATE: 4/15/96 4/16/96
PSW

Requested analytes were performed	<u>Yes</u>	No
Chain-of-custody forms are complete	<u>Yes</u>	Not Available
Anomaly reports are complete and signed	Yes	<u>None</u>
Organic peer review checklist is complete	Yes	<u>Not Required</u>
Inorganic peer review checklist is complete	<u>Yes</u>	Not Required
Radiochemical peer review checklist is complete	Yes	<u>Not Required</u>
Spreadsheets (for Results and QC) are in proper format and have been signed	<u>Yes</u>	No
HEIS numbers have been included	<u>Yes</u>	Not Required
Client sample identification has been included	<u>Yes</u>	Not Required
EAL sample numbers have been included	<u>Yes</u>	No
SAF has been included	Yes	No
Narrative has been included and signed	Yes	No

INORGANIC PEER REVIEW CHECKLIST

SAMPLE #: EAL 2281-2283 DATE SAMPLED: 3/26/96 DATE ANALYZED: 7/2/96PEER REVIEWER: John McCluskey SIGNATURE: John McCluskey DATE: 04/11/96

IC Anions and/or Cations

Water samples for sulfate and/or nitrate were refrigerated to 4°C	<u>Yes</u>	NA
Holding time requirement was met: 48 hours from date sampled for nitrate; 28 days for other ions	<u>Yes</u>	No
Date of multi-point calibration	<u>04/02/96</u> <u>04/09/96</u>	-
The calibration check standard met acceptance criteria for each ion reported	<u>Yes</u>	No
The response for each ion reported in each sample was less than the response for that ion in the highest calibration standard	<u>Yes</u>	No
Spike recovery and RPD calculations are correct, and the values were reported on the QC spreadsheet	<u>Yes</u>	No
Spike recovery met acceptance criteria for each ion reported	<u>Yes</u>	No
The reagent blank was analyzed and reported on the QC spreadsheet	<u>Yes</u>	No
Conversion to soil concentration was correct	Yes	<u>NA</u>

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INORGANIC PEER REVIEW CHECKLIST

SAMPLE #: EAL2318-2324 EAL2339-2341 DATE SAMPLED: 4/2/96 4/4/96 DATE ANALYZED: 4/9/96

PEER REVIEWER: John McCluskey SIGNATURE: John McCluskey DATE: 04/11/96

IC Anions and/or Cations

Water samples for sulfate and/or nitrate were refrigerated to 4°C	<u>Yes</u>	NA
Holding time requirement was met: 48 hours from date sampled for nitrate; 28 days for other ions	<u>Yes</u>	No
Date of multi-point calibration	<u>04/02/96</u>	-
The calibration check standard met acceptance criteria for each ion reported	<u>Yes</u>	No
The response for each ion reported in each sample was less than the response for that ion in the highest calibration standard	<u>Yes</u>	No
Spike recovery and RPD calculations are correct, and the values were reported on the QC spreadsheet	<u>Yes</u>	No
Spike recovery met acceptance criteria for each ion reported	<u>Yes</u>	No
The reagent blank was analyzed and reported on the QC spreadsheet	<u>Yes</u>	No
Conversion to soil concentration was correct	Yes	<u>NA</u>

Laboratory Analysis

ERC Laboratory Management Field Sampling Requirements --LABORATORY COPY-- Laboratory Analysis

Laboratory **EAL**

Matrix **WATER**

Parameter/Analysis	Reference Method	Container ¹ / Volume	Preservation	Holding Times
1. Anions -- IC (<i>Include Only</i>) -- SO ₄ Cations -- IC (<i>Include Only</i>) -- Calcium -- Magnesium	EPA 300.0 EPA 300.7	G 50 ml	Cool 4°C	28 Days
2. TPH -- Total	EPA 418.1	G 500 ml	Cool 4°C	14 Days

Field Instrument Readings Required? (Yes/No) Yes



Key

¹ Container Types:

- | | |
|---|------------------------------------|
| P = Plastic (Polyethylene) | aG = Amber Glass |
| G = Glass | aGs = Amber Glass w/septum cap |
| Gs = Glass w/septum cap | aGs* = Amber Glass w/septum cap -- |
| Gs* = Glass w/septum cap --
No head space in container | No head space in container |

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--LABORATORY COPY--

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ERC LABORATORY MANAGEMENT SAMPLING AUTHORIZATION FORM

SAF Number B96-036

Revision 2

PROGRAM TYPE	<u>CERCLA</u>	PROJECT ID	<u>100-NR-2 TS</u>
PROJECT TYPE	<u>Expedited Response Action</u>	OPERABLE UNIT	<u>100-NR-2</u>
TASK ID	<u>1</u>	ROUND NUMBER	<u>0</u>
SAMPLING EVENT TITLE <u>100-NR-2 MONTHLY PERFORMANCE MONITORING</u>			

TASK MANAGER	ORG. CODE	MSIN	TELEPHONE	FAX
<u>J. V. Borghese</u>	<u>CN222</u>	<u>X0-37</u>	<u>373-4790</u>	<u>373-1574</u>

CHARGE CODES --	ANALYTICAL SERVICES	<u>PG22R</u>	SAMPLE MANAGEMENT	<u>PG22R</u>
	SAMPLING SERVICES	<u>PG22R</u>	VALIDATION SERVICES	<u>PG22R</u>
	RAD. SCREEN (222-S)	<u> </u>		

SAMPLE MANAGEMENT FUNCTION PROJECT COORDINATOR R. C. Smith
 TELEPHONE 375-4655

ESTIMATED START DATE	<u>11/01/95</u>	ESTIMATED COMPLETION DATE	<u>01/31/96</u>
SAMPLING LOCATION	<u>100 Area</u>	ESTIMATED NUMBER OF SAMPLES	<u>60</u>

DATA TURNAROUND REQUIREMENTS	<input checked="" type="checkbox"/> PRIORITY	<input type="checkbox"/> REGULAR	
DATA DELIVERABLE REQUIREMENTS	<input type="checkbox"/> STANDALONE	<input checked="" type="checkbox"/> SUMMARY	
SAMPLE MATRIX	<input type="checkbox"/> SOIL	<input checked="" type="checkbox"/> WATER	<input type="checkbox"/> OTHER (See Comments)

ANALYTICAL PROTOCOL(S) SW-846, RadioChemistry, and Field Screening

LABORATORY	<u>QUANTERRA</u>	<u>LOCKHEED (Split)</u>	<u>FIELD SCREENING</u>	<u>EAL</u>
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COMMENTS:

- ▶▶ Revision 1 – Change to analysis list for the EAL Laboratory.
- ▶▶ Revision 2 – Correction to TPH analysis requirements for the EAL Laboratory.
- ▶▶ General description of sampling event. Sampling of extraction monitoring wells prior to start up of the pump and treatment system. Extraction and treatment system samples need to be coordinated with those taken by the facility operator.
- ▶▶ Well List – N-75, N-103A, N-105A, N-106A, N-2, N-3, N-14, N-31, N-46, N-67, N-76, N-92A, N-96A, N-99A, influent, and effluent. For December sampling event include; seep wells NS-1 through 13, including NS-8B

Date 01/08/96

Bechtel Hanford, Inc.

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

Batch 960326A

Data Turnaround
 Priority
 Normal

Collector <i>M. Mehlhorn</i>	Company Contact J.V. Borghese	Telephone (509) 373-4790
Project Designation 100-NR-2 Monthly Performance Monitoring - April	Sampling Location 100 N	SAF No. B96-036
Ice Chest No.	Field Logbook No. <i>EL-1288</i>	Method of Shipment Hand Delivered
Shipped To EAL	Offsite Property No. NA	Bill of Lading/Air Bill No. NA

Possible Sample Hazards/Remarks	Preservation	Cool 4°C												
	Type of Container	G												
	No. of Container(s)	1												
Special Handling and/or Storage Maintain samples between 2°C and 6°C.	Volume	60mL												

SAMPLE ANALYSIS

Anions (IC)
 - SO₄
 (Only).
 Cations (IC)
 - Ca, Mg
 (Only)

Sample No.	Matrix*	Date Sampled	Time Sampled											
BOH8M2	W	<i>3-25-96</i>	<i>1400</i>	<i>X</i>										<i>EAL02281</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>M. Mehlhorn</i>	Date/Time <i>3-26-96</i>	Received By <i>DG C</i>	Date/Time		
	<i>M. Mehlhorn</i>	<i>0830</i>	<i>Diane A. Call</i>	<i>3-26-96 08:30</i>		
	Relinquished By	Date/Time	Received By	Date/Time		
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

97001-002

97001-002

Bechtel Hanford, Inc.

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

960326A

Data Turnaround

- Priority
- Normal

Collector <i>M. Mehlhorn</i>	Company Contact J.V. Borghese	Telephone (509) 373-4790
Project Designation 100-NR-2 Monthly Performance Monitoring - April	Sampling Location 100 N	SAF No. B96-036
Ice Chest No.	Field Logbook No. <i>EL-1288</i>	Method of Shipment Hand Delivered
Shipped To EAL	Offsite Property No. NA	Bill of Lading/Air Bill No. NA

Possible Sample Hazards/Remarks	Preservation	Cool 4°C	Cool 4°C								
	Type of Container	G	G								
	No. of Container(s)	1	1								
Special Handling and/or Storage Maintain samples between 2°C and 6°C.	Volume	60mL	500mL								
SAMPLE ANALYSIS		Anions (IC) - SO ₄ (Only), Cations (IC) - Ca, Mg (Only)	TPH - Total								

Sample No.	Matrix*	Date Sampled	Time Sampled								
BOH8M4	W	<i>3-25-96</i>	<i>1225</i>	<i>X</i>	<i>X</i>		<i>EAL02282</i>				

CHAIN OF POSSESSION	Sign/Print Names	SPECIAL INSTRUCTIONS
Relinquished By <i>M. Mehlhorn</i>	Date/Time <i>3-26-96 0830</i>	Received By <i>SG Call</i>
Relinquished By <i>M. Mehlhorn</i>	Date/Time <i>0830</i>	Received By <i>Diane St. Call</i>
Relinquished By	Date/Time	Received By
Relinquished By	Date/Time	Received By
Relinquished By	Date/Time	Received By

- Matrix*
- S = Soil
 - SE = Sediment
 - SO = Solid
 - SL = Sludge
 - W = Water
 - O = Oil
 - A = Air
 - DS = Dredged Solids
 - DL = Dredged Liquids
 - T = Tissue
 - WI = Waste
 - L = Leachate
 - V = Vegetation
 - X = Other

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

0207010276

Bechtel Hanford, Inc.

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

9603264

Data Turnaround

- Priority
- Normal

Collector <i>M. Mehlhorn</i>	Company Contact J.V. Borghese	Telephone (509) 373-4790
Project Designation 100-NR-2 Monthly Performance Monitoring - April	Sampling Location 100 N	SAF No. 896-036
Ice Chest No.	Field Logbook No. <i>EL-1288</i>	Method of Shipment Hand Delivered
Shipped To EAL	Offsite Property No. NA	Bill of Lading/Air Bill No. NA

Possible Sample Hazards/Remarks	Preservation	Cool 4°C											
	Type of Container	G											
	No. of Container(s)	1											
Special Handling and/or Storage Maintain samples between 2°C and 6°C.	Volume	60mL											
SAMPLE ANALYSIS		Anions (IC) - SO ₄ (Only). Cations (IC) - Ca, Mg (Only)											

Sample No.	Matrix*	Date Sampled	Time Sampled										
BOH8M6	W	3-25-96	1550	X				EAL02283					

CHAIN OF POSSESSION	Sign/Print Names			SPECIAL INSTRUCTIONS						Matrix* S - Soil SE - Sediment SO - Solid SL - Sludge W - Water O - Oil A - Ash DS - Dried Solids DL - Dried Liquids T - Tissue WI - Waste L - Liquid V - Vegetation X - Other	
	Relinquished By <i>M. Mehlhorn</i>	Date/Time 3-26-96	Received By <i>DG Call</i>								Date/Time 3-26-96/08:30
	Relinquished By <i>M. Mehlhorn</i>	Date/Time 0830	Received By <i>DG Call</i>								Date/Time
	Relinquished By	Date/Time	Received By								Date/Time
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

BH 260402A

Data Turnaround

- Priority
- Normal

Collector <i>A. Rizzo M. Mehlhorn</i>	Company Contact J.V. Borghese	Telephone (509) 373-4790
Project Designation 100-NR-2 Monthly Performance Monitoring - April	Sampling Location 100 N	SAF No. B96-036
Ice Chest No.	Field Logbook No. <i>EL-1288</i>	Method of Shipment Hand Delivered
Shipped To EAL	Offsite Property No. NA	Bill of Lading/Air Bill No. NA

Possible Sample Hazards/Remarks	Preservation	Cool 4°C																		
	Type of Container	G																		
	No. of Container(s)	1																		
Special Handling and/or Storage Maintain samples between 2°C and 6°C.	Volume	60mL																		
SAMPLE ANALYSIS		Anions (IC) - SO ₄ (Only). Cations (IC) - Ca, Mg (Only)																		

Sample No.	Matrix*	Date Sampled	Time Sampled																		
BOH8N2	W	4-2-96	1200	X																	

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 W Wipe L Liquid V Vegetation X Other		
	Relinquished By <i>A.G. Rizzo (623)</i>	Date/Time 4-3-96 1230	Received By <i>[Signature]</i>	Date/Time 4-29-96/12:30											
	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

960402A

Data Turnaround

- Priority
- Normal

Collector <i>A. Rizzo, M. Mehlhorn</i>	Company Contact J.V. Borghese	Telephone (509) 373-4790
Project Designation 100-NR-2 Monthly Performance Monitoring - April	Sampling Location 100 N	SAF No. B96-036
Ice Chest No.	Field Logbook No. <i>EL-1288</i>	Method of Shipment Hand Delivered
Shipped To EAL	Offsite Property No. NA	Bill of Lading/Air Bill No. NA

Possible Sample Hazards/Remarks	Preservation	Cool 4°C																		
	Type of Container	G																		
	No. of Container(s)	1																		
Special Handling and/or Storage Maintain samples between 2°C and 6°C.	Volume	60mL																		

SAMPLE ANALYSIS

Anions (IC)
- SO₄
(Only),
Cations (IC)
- Ca, Mg
(Only)

Sample No.	Matrix *	Date Sampled	Time Sampled																		
BOH8PO	W	4-2-96	1100	X																	

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 W = Wipe L = Liquid V = Vegetation X = Other	
	Relinquished By <i>A. Rizzo</i>	Date/Time <i>4-2-96 12:30</i>	Received By <i>Dee Call</i>												Date/Time <i>4-2-96/12:30</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

960402A

000016

Bechtel Hanford, Inc.

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

960402A

Data Turnaround

- Priority
- Normal

Collector <i>A. Rizzo, M. Mehlhorn</i>	Company Contact J.V. Borghese	Telephone (509) 373-4790
Project Designation 100-NR-2 Monthly Performance Monitoring - April	Sampling Location 100 N	SAF No. B96-036
Ice Chest No.	Field Logbook No. <i>EL-1288</i>	Method of Shipment Hand Delivered
Shipped To EAL	Offsite Property No. NA	Bill of Lading/Air Bill No. NA

Possible Sample Hazards/Remarks	Preservation	Cool 4°C	Cool 4°C										
	Type of Container	G	G										
	No. of Container(s)	1	1										
Special Handling and/or Storage Maintain samples between 2°C and 6°C.	Volume	60mL	500mL										

SAMPLE ANALYSIS	Anions (IC) - SO ₄ (Only), Cations (IC) - Ca, Mg (Only)	TPH - Total											

Sample No.	Matrix*	Date Sampled	Time Sampled										
BOH8P2	W	4-2-96	1025	X	X								EAL02320

CHAIN OF POSSESSION	Sign/Print Names				SPECIAL INSTRUCTIONS								Matrix*			
Relinquished By <i>A.G. Rizzo</i>	Date/Time 4-2-96 1230	Received By <i>Deane M. Call</i>	Date/Time 4-2-96/12:30													
Relinquished By	Date/Time	Received By	Date/Time													
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

960402A

1000017

- S - Soil
- SE - Sediment
- SO - Solid
- SL - Sludge
- W - Water
- O - Oil
- A - Air
- DS - Drum Solids
- DL - Drum Liquids
- Tissue
- Wipe
- Liquid
- Vegetation
- Other

Bechtel Hanford, Inc.

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

960402A

Data Turnaround

- Priority
- Normal

Collector <i>M. Mehlhorn / A. Rizzo</i>	Company Contact J.V. Borghese	Telephone (509) 373-4790
Project Designation 100-NR-2 Monthly Performance Monitoring - April	Sampling Location 100 N	SAF No. B96-036
Ice Chest No.	Field Logbook No. <i>EL-1288</i>	Method of Shipment Hand Delivered
Shipped To EAL	Offsite Property No. NA	Bill of Lading/Air Bill No. NA

Possible Sample Hazards/Remarks	Preservation	Cool 4°C	Cool 4°C								
		Type of Container	G	G							
	No. of Container(s)	1	1								
Special Handling and/or Storage Maintain samples between 2°C and 6°C.	Volume	60mL	500mL								
SAMPLE ANALYSIS		Anions (IC) - SO ₄ (Only), Cations (IC) - Ca, Mg (Only)	TPH - Total								

Sample No.	Matrix*	Date Sampled	Time Sampled								
BOH8P6	W	<i>4-2-96</i>	<i>0855</i>	<i>X</i>	<i>X</i>					<i>AL02321</i>	

CHAIN OF POSSESSION	Sign/Print Names			SPECIAL INSTRUCTIONS						Matrix* S = Soil SE = Sediment SO = Solid SL = Sludge W = Water O = Oil A = Air S = Drum Solids L = Drum Liquids T = Tissue W = Wipe L = Liquid V = Vegetation O = Other	
	Relinquished By <i>A.G. Rizzo, LER</i>	Date/Time <i>4-2-96 1230</i>	Received By <i>DG Call</i>								Date/Time <i>4-2-96/1230</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	

STOPPED

Bechtel Hanford, Inc.

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

960402A

Data Turnaround

- Priority
- Normal

Collector <i>A. Rizzo / M. Mehlburn</i>	Company Contact J.V. Borghese	Telephone (509) 373-4790
Project Designation 100-NR-2 Monthly Performance Monitoring - April	Sampling Location 100 N	SAF No. B96-036
Ice Chest No.	Field Logbook No. <i>EL-1288</i>	Method of Shipment Hand Delivered
Shipped To EAL	Offsite Property No. NA	Bill of Lading/Air Bill No. NA

Possible Sample Hazards/Remarks	Preservation	Cool 4°C																		
	Type of Container	G																		
	No. of Container(s)	1																		
Special Handling and/or Storage Maintain samples between 2°C and 6°C.	Volume	125mL																		

SAMPLE ANALYSIS

Anions (IC)
- SO₄
(Only).
Cations (IC)
- Ca, Mg
(Only)

Sample No.	Matrix*	Date Sampled	Time Sampled																		
BOHCH1	W	4-2-96	0905	X																	

EAL 023 22

CHAIN OF POSSESSION	Sign/Print Names			SPECIAL INSTRUCTIONS										Matrix* S = Soil SE = Sediment SO = Solid SL = Sludge W = Water O = Oil A = Air D = Drum Solids L = Drum Liquids T = Tissue V = Wipe LI = Liquid VE = Vegetation Oth = Other	
	Relinquished By <i>A.G. Rizzo (EAL)</i>	Date/Time 4-2-96 1230	Received By <i>D. G. Call</i>												Date/Time 4-2-96/12:30
	Relinquished By	Date/Time	Received By												Date/Time
	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

960402A

960402A

Bechtel Hanford, Inc.

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

760402A

Data Turnaround

- Priority
- Normal

Collector <i>A. Rizzo, M. Mehlhorn</i>	Company Contact J.V. Borghese	Telephone (509) 373-4790
Project Designation 100-NR-2 Monthly Performance Monitoring - March April ^{March/April}	Sampling Location 100 N	SAF No. B96-036
Ice Chest No.	Field Logbook No. <i>EL-1288</i>	Method of Shipment Hand Delivered
Shipped To EAL	Offsite Property No. NA	Bill of Lading/Air Bill No. NA

Possible Sample Hazards/Remarks	Preservation	Cool 4°C	Cool 4°C							
	Type of Container	G	G							
	No. of Container(s)	1	1							
Special Handling and/or Storage Maintain samples between 2°C and 6°C.	Volume	60mL	500mL							

SAMPLE ANALYSIS	Anions (IC) - SO ₄ (Only).	TPH - Total							
	Cations (IC) - Ca, Mg (Only)								

Sample No.	Matrix *	Date Sampled	Time Sampled							
BOH778	W	4-2-96	1025	X	X			EAL02323		

CHAIN OF POSSESSION	Sign/Print Names	SPECIAL INSTRUCTIONS
Relinquished By <i>A.G. Rizzo</i>	Date/Time <i>4-2-96 12:30</i>	Matrix* S = Soil SE = Sediment SO = Solid SL = Sludge W = Water O = Oil A = Air DS = Drum Solids DL = Drum Liquids T = Tissue VI = Wipe L = Liquid V = Vegetation = Other
Received By <i>Quinn H. Call</i>	Date/Time <i>4-2-96/12:30</i>	
Relinquished By	Date/Time	
Received By	Date/Time	
Relinquished By	Date/Time	
Received By	Date/Time	
Relinquished By	Date/Time	
Received By	Date/Time	
LABORATORY SECTION	Received By	Title
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By

7/15/96 10:00 AM

000020

Bechtel Hanford, Inc.

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

960404 A

Data Turnaround

- Priority
- Normal

Collector <i>M. Mehlhorn, K. Trapp</i>	Company Contact J.V. Borghese	Telephone (509) 373-4790
Project Designation 100-NR-2 Monthly Performance Monitoring - April	Sampling Location 100 N	SAF No. B96-036
Ice Chest No.	Field Logbook No. <i>EL-1288</i>	Method of Shipment Hand Delivered
Shipped To EAL	Offsite Property No. NA	Bill of Lading/Air Bill No. NA

Possible Sample Hazards/Remarks	Preservation	Cool 4°C																		
	Type of Container	G																		
	No. of Container(s)	1																		
Special Handling and/or Storage Maintain samples between 2°C and 6°C.	Volume	60mL																		

SAMPLE ANALYSIS

Sample No.	Matrix*	Date Sampled	Time Sampled	Anions (IC) - SO ₄ (Only), Cations (IC) - Ca, Mg (Only)	EAL02339	EAL02340	EAL02341													
BOH8P4	W	4-4-96	0936	X	EAL02339															
BOH8N4	W	4-4-96	1016	X	EAL02340															
BOH8M8	W	4-4-96	1235	X	EAL02341															

CHAIN OF POSSESSION	Sign/Print Names	SPECIAL INSTRUCTIONS
Relinquished By <i>K. Trapp</i>	Date/Time 4/4/96 1312	Received By <i>Edna McCluskey</i>
Relinquished By	Date/Time	Received By
Relinquished By	Date/Time	Received By
Relinquished By	Date/Time	Received By

- Matrix*
- S - Soil
 - SE - Sediment
 - SO - Solid
 - SL - Sludge
 - W - Water
 - O - Oil
 - A - Air
 - DS - Drum Solids
 - DL - Drum Liquids
 - T - Tissue
 - W - Wipe
 - L - Liquid
 - V - Vegetation
 - O - Other

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

22

Bechtel Hanford, Inc.

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

Batch 960405B

Data Turnaround
 Priority
 Normal

Collector <i>A. Rizzo, M. Mehlhorn</i>	Company Contact J.V. Borghese	Telephone (509) 373-4790
Project Designation 100-NR-2 Monthly Performance Monitoring - April	Sampling Location 100 N	SAF No. B96-036
Ice Chest No.	Field Logbook No. <i>EL-1288</i>	Method of Shipment Hand Delivered
Shipped To EAL	Offsite Property No. NA	Bill of Lading/Air Bill No. NA

Possible Sample Hazards/Remarks	Preservation	Cool 4°C																		
	Type of Container	G																		
	No. of Container(s)	1																		
	Special Handling and/or Storage Maintain samples between 2°C and 6°C.	Volume	500mL																	
SAMPLE ANALYSIS		TPH - Total																		

Sample No.	Matrix*	Date Sampled	Time Sampled																	
BOH8N7	W	4-5-96	1132		X															

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>M. Mehlhorn</i>	Date/Time <i>4-5-96</i>	Received By <i>A. Davis</i>	Date/Time <i>4/5/96</i>	<i>EAL 2357</i>										
	<i>M. Mehlhorn</i>	<i>1320</i>	<i>A. Davis</i>	<i>1320</i>											
	Relinquished By	Date/Time	Received By	Date/Time											
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