

Quanterra Incorporated
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CASE NARRATIVE

0052751

Bechtel Hanford Incorporated
3350 George Washington Way
Richland, Washington 99352

February 2, 2000

Attention: Joan Kessner

Quote Number	:	33833
SDG	:	W02999
Number of Samples	:	two (2)
Sample Matrix	:	Water
Data Deliverable	:	Summary
Date SDG Closed	:	January 17, 2000

RECEIVED
MAR 20 2000
EDMC

II. Introduction

On January 3, 2000, and January 6, 2000, two (2) "water" samples were received by Quanterra, Richland and transferred to Quanterra, St. Louis for chemical analysis. The samples were received at the St. Louis lab on 1/4/00 and 1/7/00 at a temperature of 2 degrees C. See the attached Sample Summary for a listing of Client Ids and their associated Lab numbers.

III. Analytical Results/ Methodology

The analytical results for this report are presented by analytical test. Each set of data includes sample identification information, analytical results and the appropriate detection limits.

Analyses requested: ICP Metals - (SuperTrace Lead)
 Mercury - 7470 (CV)
 PCB - 8082

Deviation from Request: None

A circular stamp with the text "FEB 2000" in the center. The outer ring of the stamp contains numbers from 1 to 21, likely representing days of the month. The stamp is slightly faded and tilted.

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Bechtel Hanford Incorporated

February 2, 2000

Quote Number: 33833

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IV. Definitions

The following codes are used to denote laboratory quality control samples and can be found in the data summary section of this report:

QCBLK- Quality Control Blank, Method Blank

QCLCS- Quality Control Laboratory Control Sample, Blank Spike

MS- Matrix Spike.

MSD- Matrix Spike Duplicate.

V. Comments

General:

The term "Detection Limit" used in the analytical data reports refers to either the lab's standard reporting limits or contractually required reporting limits, whichever is applicable.

Please refer to the attached cross-reference table for the standard preparation methods used at Quanterra, St. Louis.

The EDD for this SDG will be sent at a later date. The switch to our new LIMs system required a re-programming of the EDD software. That is currently in process.

Metals:

A Laboratory Control Sample, Method Blank, Matrix Spike and Matrix Spike Duplicate were analyzed with each preparation batch per the protocol for this analysis.

There were no comments or non-conformances associated with this data.

PCB:

A Laboratory Control Sample and Method Blank were analyzed with each preparation batch per the protocol for this analysis.

An MS/MSD for PCBs was not done for this SDG. There was insufficient volume to extract and MS/MSD.

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Bechtel Hanford Incorporated

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I certify that this Summary is in compliance with the SOW, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package has been authorized by the Laboratory Manager or a designee, as verified by the following signature.

Reviewed and approved:



Marti Ward

St. Louis Project Manager

000004

SAMPLE SUMMARY

FOA040172

<u>WO #</u>	<u>SAMPLE#</u>	<u>CLIENT</u>	<u>SAMPLE ID</u>	<u>DATE</u>	<u>TIME</u>
D730C	001	BOXBJ1		01/03/00	10:25

NOTE (S) :

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

000005

SAMPLE SUMMARY

FOA070142

<u>WO #</u>	<u>SAMPLE#</u>	<u>CLIENT</u>	<u>SAMPLE ID</u>	<u>DATE</u>	<u>TIME</u>
D76HV	001	BOXBJ2		01/06/00	11:05

NOTE (S) :

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

000006

METHODS SUMMARY

FOA040172

<u>PARAMETER</u>	<u>ANALYTICAL METHOD</u>	<u>PREPARATION METHOD</u>
Mercury in Liquid Waste (Manual Cold-Vapor)	SW846 7470A	SW846 7470A
PCBs by SW-846 8082	SW846 8082	SW846 8082
Trace Inductively Coupled Plasma (ICP) Metals	SW846 6010B	SW846 3010A

References:

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

000007

METHODS SUMMARY

FOA070142

<u>PARAMETER</u>	<u>ANALYTICAL METHOD</u>	<u>PREPARATION METHOD</u>
Mercury in Liquid Waste (Manual Cold-Vapor)	SW846 7470A	SW846 7470A
Trace Inductively Coupled Plasma (ICP) Metals	SW846 6010B	SW846 3010A

References:

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

000008

CLIENT: 127642 BECHTEL HANFORD, INC.
PROJECT MANAGER: MARTI WARD
PROJECT #: 105-F/DR PHASE3
REPORT TO: Accounts Payable
P.O. NUMBER:
SITE: B00-014
AMOUNT REC'D: 500P, 1LG
STORAGE LOC: T5F
LOT COMMENTS: Sample has limited volume.
MATRIX: WATER
SAMPLE ID: BOXBJ1
QC PACKAGE: Special Report - see checklist
SAMPLE COMMENTS:

QUOTE/SAR #: 33833
LAB ID: F-0A040172-001
WORK ORDER: D730C
RECEIVING DATE: 1/03/00
SAMPLING DATE: 1/03/00
ANALYTICAL DUE DATE: 1/18/00N
REPORT DUE DATE: 1/24/00
PRIORITY: 15
SAMPLING TIME: 10:25
RECEIVING TIME: 11:40
SDG# : W02999

Beginning Depth: .00 Ending Depth: .00

	WRK	REQUEST	EXTRACTION	ANALYSIS
	LOC	DATE	EXP DATE	EXP DATE
***** ANALYSIS *****				
Inductively Coupled Plasma (6010B Trace) METALS, TOTAL - Waters MT6010_L PB (I-05-QM-01) D730C Protocol: A QC Program: STANDARD TEST SET	06	1/04/00	0/00/00	7/01/00
Mercury (7470A, Cold Vapor) - Liquid METALS, TOTAL (Method exclusive) - Waters M7470_L HG (I-19-08-01) D730C Protocol: A QC Program: STANDARD TEST SET	06	1/04/00	0/00/00	1/31/00
PCBs (8082) 3510C LIQ/LIQ, SEP FUNNEL w/ACID STRIP (PCB) - Nominal STL: HANFORD PCB GC:LIST-1(7) (I-60-QH-01) D730C-1-04 Protocol: A QC Program: STANDARD TEST SET	06	1/04/00	1/10/00	2/19/00

000009

CLIENT: 127642 BECHTEL HANFORD, INC.
PROJECT MANAGER: MARTI WARD
PROJECT #: 105-F/DR PHASE3
REPORT TO: Accounts Payable
P.O. NUMBER:
SITE: B00-014
AMOUNT REC'D: 500P, 1LG
STORAGE LOC: T5F
LOT COMMENTS: Sample has limited volume.
MATRIX: WATER
SAMPLE ID: BOXBJ1
QC PACKAGE: Special Report - see checklist
SAMPLE COMMENTS:

QUOTE/SAR #: 33833
LAB ID: F-0A040172-001-D
WORK ORDER: D730C MSD
RECEIVING DATE: 1/03/00
SAMPLING DATE: 1/03/00
ANALYTICAL DUE DATE: 1/18/00N
REPORT DUE DATE: 1/24/00
PRIORITY: 15
SAMPLING TIME: 10:25
RECEIVING TIME: 11:40
SDG# : W02999

Beginning Depth: .00 Ending Depth: .00

***** ANALYSIS *****

	WRK LOC	REQUEST DATE	EXTRACTION EXP DATE	ANALYSIS EXP DATE
Inductively Coupled Plasma (6010B Trace) METALS, TOTAL - Waters MT6010_L PB (I-05-QM-01) D730C Protocol: A QC Program: STANDARD TEST SET	06	1/04/00	0/00/00	7/01/00
Mercury (7470A, Cold Vapor) - Liquid METALS, TOTAL (Method exclusive) - Waters M7470_L HG (I-19-08-01) D730C Protocol: A QC Program: STANDARD TEST SET	06	1/04/00	0/00/00	1/31/00
PCBs (8082) 3510C LIQ/LIQ, SEP FUNNEL w/ACID STRIP (PCB) - Nominal STL: HANFORD PCB GC:LIST-1(7) (I-60-QH-01) D730C-1-06 Protocol: A QC Program: STANDARD TEST SET	06	1/04/00	1/10/00	2/19/00

CLIENT: 127642 BECHTEL HANFORD, INC.
PROJECT MANAGER: MARTI WARD
PROJECT #: 105-F/DR PHASE3
REPORT TO: Accounts Payable
P.O. NUMBER:
SITE: B00-014
AMOUNT REC'D: 500P, 1LG
STORAGE LOC: T5F
LOT COMMENTS: Sample has limited volume.
MATRIX: WATER
SAMPLE ID: BOXBJ1
QC PACKAGE: Special Report - see checklist
SAMPLE COMMENTS:

QUOTE/SAR #: 33833
LAB ID: F-0A040172-001-S
WORK ORDER: D730C MS
RECEIVING DATE: 1/03/00
SAMPLING DATE: 1/03/00
ANALYTICAL DUE DATE: 1/18/00N
REPORT DUE DATE: 1/24/00
PRIORITY: 15
SAMPLING TIME: 10:25
RECEIVING TIME: 11:40
SDG# : W02999

Beginning Depth: .00 Ending Depth: .00

<u>***** ANALYSIS *****</u>				
	<u>WRK</u>	<u>REQUEST</u>	<u>EXTRACTION</u>	<u>ANALYSIS</u>
	<u>LOC</u>	<u>DATE</u>	<u>EXP DATE</u>	<u>EXP DATE</u>
Inductively Coupled Plasma (6010B Trace) METALS, TOTAL - Waters MT6010_L PB (I-05-QM-01) D730C Protocol: A QC Program: STANDARD TEST SET	06	1/04/00	0/00/00	7/01/00
Mercury (7470A, Cold Vapor) - Liquid METALS, TOTAL (Method exclusive) - Waters M7470_L HG (I-19-08-01) D730C Protocol: A QC Program: STANDARD TEST SET	06	1/04/00	0/00/00	1/31/00
PCBs (8082) 3510C LIQ/LIQ, SEP FUNNEL w/ACID STRIP (PCB) - Nominal STL: HANFORD PCB GC:LIST-1(7) (I-60-QH-01) D730C-1-05 Protocol: A QC Program: STANDARD TEST SET	06	1/04/00	1/10/00	2/19/00

000011

CUR#020561 2°

W-21020

Bechtel Hanford Inc.		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				B00-014-03		Page 1 of 1	
Collector Falberg		Company Contact J Adler		Telephone No. 373-4316		Project Coordinator TRENT, SJ		Price Code 7L Data Turnaround 21 Days	
Project Designation 105-F/DR Phase III Below-grade Areas Sampling and Analy		Sampling Location 105 F		SAF No. B00-014		Air Quality <input type="checkbox"/>			
Ice Chest No. SML 452		Field Logbook No. EL 1424		COA R105F2280C		Method of Shipment Gov. vehicle			
Shipped To Quanterra Incorporated		Offsite Property No. N/A		Bill of Lading/Air Bill No. N/A Airborne 004012582					

POSSIBLE SAMPLE HAZARDS/REMARKS	Preservation	None	Cool 4C	HNO3 to pH <2	Cooled to 4C	HCl to pH <2	HNO3 to pH <2	HNO3 to pH <2		
	Type of Container	P	P	P	aG	P	P	P		
	No. of Container(s)	1	1	1	1	1	1	1		
	Special Handling and/or Storage	Volume	20mL	500mL	500mL	1000mL	1000mL	1000mL	1000mL	

SAMPLE ANALYSIS				Activity Scan	7196_CR6: Hexavalent Chromium (I)	ICP Metals - 6010A (Supertrace) (Lead); Mercury - 7470 - (CV)	PCBs - 8082	Technetium-99	See item (1) in Special Instructions.	Isotopic Uranium
Time 1-24-99 00 \$H 1-3-00										
W02999										
J0A030125										

Sample No.	Matrix *	Sample Date	Sample Time									
BOXBJ1 D'PIPE	Water	1-3-00	10:25	X	X	X	X	X	X	X		
						100% Full	100% Full					
						pH=1						

CHAIN OF POSSESSION				Sign/Print Names				SPECIAL INSTRUCTIONS				Matrix *
Relinquished By	Date/Time	Received By	Date/Time					(1) Gamma Spectroscopy (Water) (Cobalt-60); Gamma Spec - Add-on (Barium-133); Isotopic Plutonium; Strontium-89,90; Total Sr; Americium-241; Carbon-14; Nickel-63				S=Soil
RELIN. R. Thoren	1-3-00	R. Thoren	1-3-00/1030					NO ACTIVITY REPORT REQ. FROM NON-RAD SOURCE.				SE=Sediment
Relinquished By	Date/Time	Received By	Date/Time									S=Sludge
R. Thoren	1-3-00/1140	K. Ackert	1-3-00 1140									W=Water
Relinquished By	Date/Time	Received By	Date/Time									O=Oil
K. Ackert	1-3-00/1600	J. Schumann	1-3-00 0900									A=Air
Relinquished By	Date/Time	Received By	Date/Time									DS=Drum Solids
												DL=Drum Liquids
Relinquished By	Date/Time	Received By	Date/Time									T=Tissue
												W=Wipe
Relinquished By	Date/Time	Received By	Date/Time									L=Liquid
												V=Vegetation
Relinquished By	Date/Time	Received By	Date/Time									X=Other

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

03001

Figure 1

SAMPLE CHECK-IN LIST

Date/Time Received: 1300 1140 SG#: W02999
 Work Order Number: JOA030125 SAF #: B00-014 / B00-013
 Shipping Container ID: SM452 Chain of Custody #: B00-014-03

1. Custody Seals on shipping container intact? Yes [] No []
2. Custody Seals dated and signed? Yes [] No []
3. Chain-of-Custody record present? Yes [] No []
4. Cooler temperature 4^oC
5. Vermiculite/packing materials is Wet [] Dry []
6. Number of samples in shipping container: 28
7. Sample holding times exceeded? Yes [] No []

8. Samples have:
 tape hazard labels
 custody seals appropriate sample labels

9. Samples are:
 in good condition leaking
 broken have air bubbles

10. Where any anomalies identified in sample receipt? Yes [] No []
11. Description of anomalies (include sample numbers): _____

Sample Custodian/Laboratory: L. A. Denney Date: 11-03-00
 Telephoned To: _____ On _____ By _____

039013

020561

Login No.: FOA040172

W02999

**Condition Upon Receipt Variance Report
St. Louis Laboratory**

Client: Richland

Date: 01-04-00 Time: 0900

Project No: 33833

Initiated by: Jason Tiemann

Shipper/No: Airborne / 4019121 593

RFA/COC Numbers: B00-014-03

Condition/Variance (Check all that apply):

1. <input type="checkbox"/> Sample received broken/leaking.	8. <input type="checkbox"/> Sample ID on container does not match sample ID on paperwork. Explain: _____
2. <input type="checkbox"/> Sample received without proper preservative. <input type="checkbox"/> Cooler temperature not within $4\text{C} \pm 2\text{C}$ Record temperature: _____	9. <input type="checkbox"/> All coolers on airbill not received with shipment.
<input type="checkbox"/> pH _____	10. <input type="checkbox"/> Other (explain below): _____
<input type="checkbox"/> other: _____	
3. <input type="checkbox"/> Sample received in improper container.	
4. <input type="checkbox"/> Sample received without proper paperwork. Explain: _____	
5. <input type="checkbox"/> Paperwork received without sample.	
6. <input type="checkbox"/> No sample ID on sample container.	
7. <input type="checkbox"/> Custody tape disturbed/broken/missing.	

No variances were noted during sample receipt. Cooler Temperature Upon Receipt: 2°

Temperature Variance Does Not Affect the Following Analyses: _____

Notes: _____

Corrective Action:

Client's Name: _____ Informed verbally on: _____ By: _____

Client's Name: _____ Informed in writing on: _____ By: _____

Sample(s) processed "as is".

Comments: _____ If released, notify: _____
Sample(s) on hold until: _____

Sample Control Supervisor Review: Jason Tiemann Date: 01-04-00

Project Management Review: M Ward Date: 1-4-00

SIGNED ORIGINAL MUST BE RETAINED IN THE PROJECT FILE

CLIENT: 127642 BECHTEL HANFORD, INC.
PROJECT MANAGER: MARTI WARD
PROJECT #: 105-F/DR PHASE3
REPORT TO: Accounts Payable
P.O. NUMBER:
SITE: B00-014
AMOUNT REC'D: 500MLP
STORAGE LOC: T7F
LOT COMMENTS: Sample has limited volume.
MATRIX: WATER
SAMPLE ID: B0XBJ2
QC PACKAGE: Special Report - see checklist
SAMPLE COMMENTS:

QUOTE/SAR #: 33833
LAB ID: F-0A070142-001
WORK ORDER: D76HV
RECEIVING DATE: 1/06/00
SAMPLING DATE: 1/06/00
ANALYTICAL DUE DATE: 1/21/00N
REPORT DUE DATE: 1/27/00
PRIORITY: 15
SAMPLING TIME: 11:05
RECEIVING TIME: 12:00
SDG# : W02999

Beginning Depth: .00 Ending Depth: .00

***** ANALYSIS *****				
	WRK	REQUEST	EXTRACTION	ANALYSIS
	<u>LOC</u>	<u>DATE</u>	<u>EXP DATE</u>	<u>EXP DATE</u>
Inductively Coupled Plasma (6010B Trace) METALS, TOTAL - Waters MT6010_L PB (I-05-QM-01) D76HV Protocol: A QC Program: STANDARD TEST SET	06	1/07/00	0/00/00	7/04/00
Mercury (7470A, Cold Vapor) - Liquid METALS, TOTAL (Method exclusive) - Waters M7470_L HG (I-19-08-01) D76HV Protocol: A QC Program: STANDARD TEST SET	06	1/07/00	0/00/00	2/03/00

U-27023

CU020586 Temp 2°

Bechtel Hanford Inc.		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				B00-014-04	Page 1 of 1
Collector Fahlberg	W02999	Company Contact J Adler	Telephone No. 373-4316	Project Coordinator TRENT, SJ		Price Code 7L	Data Turnaround 21 Days
Project Designation 105-F/DR Phase III Below-grade Areas Sampling and Analy		Sampling Location 105F		SAF No. B00-014	Air Quality <input type="checkbox"/>		
Ice Chest No. EPL-06065	Field Logbook No. EL 1424	COA R105F2280C	Method of Shipment Hand Delivered				
Shipped To Quanterra Incorporated		Offsite Property No.		Bill of Lading/Air Bill No.			

POSSIBLE SAMPLE HAZARDS/REMARKS	Preservation	None	Cool 4C	HNO3 to pH <2	HCl to pH <2	HNO3 to pH <2				
	Type of Container	P	P	P	P	P				
	No. of Container(s)	1	1	1	1	1				
	Special Handling and/or Storage	Volume	20mL	500mL	500mL	1000mL	1000mL			

SDA W02999				SAMPLE ANALYSIS Due 1-27 JOA060214		Activity Scan	7196 CR6: Hexavalent Chromium (1)	ICP Metals - 6010A (Supertrace) (Lead); Mercury - 7470 - (CV)	Technetium-99	See item (1) in Special Instructions.							
Sample No.	Matrix *	Sample Date	Sample Time														
BOXBJ2 D75KQ	Water	1-6-00	11:05	X	X	X	X	X	X								

CHAIN OF POSSESSION				SPECIAL INSTRUCTIONS				Matrix *
Relinquished By		Date/Time		Sign/Print Names		Date/Time		(1) Gamma Spectroscopy (Water) (Cobalt-60); Gamma Spec - Add-on (Barium-133); Isotopic Plutonium; Strontium-89,90 - Total Sr; Americium-241; Carbon-14; Nickel-63 SAMPLE ORIGINATED FROM NON RAD AREA. NO ACTIVITY REPORT REQ.
R. Fahlberg		1-6-00		K. DeWent		1-6-00		
Relinquished By		Date/Time		Received By		Date/Time		
K. DeWent		1-6-00		K. DeWent		1-6-00		
Relinquished By		Date/Time		Received By		Date/Time		
Relinquished By		Date/Time		Received By		Date/Time		S=Soil SE=Sediment SO=Solid S=Sludge W=Water O=Oil A=Air DS=Drum Solids DL=Drum Liquids T=Tissue W1=Wipe L=Liquid V=Vegetation X=Other
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

Figure 1

SAMPLE CHECK-IN LIST

Date/Time Received: 16-00 1200 SG#: W02999
Work Order Number: JOAD060214 SAF #: B00014 / B00013
Shipping Container ID: ERC96-005 Chain of Custody #: B00-014-04

- 1. Custody Seals on shipping container intact? Yes [] No []
- 2. Custody Seals dated and signed? Yes [] No []
- 3. Chain-of-Custody record present? 40c Yes [] No []
- 4. Cooler temperature _____
- 5. Vermiculite/packing materials is Wet [] Dry []
- 6. Number of samples in shipping container: 26
- 7. Sample holding times exceeded? Yes [] No []

8.	Samples have:	<input checked="" type="checkbox"/> tape	<input type="checkbox"/> hazard labels
		<input checked="" type="checkbox"/> custody seals	<input type="checkbox"/> appropriate sample labels

9.	Samples are:	<input checked="" type="checkbox"/> in good condition	<input type="checkbox"/> leaking
		<input type="checkbox"/> broken	<input type="checkbox"/> have air bubbles

- 10. Where any anomalies identified in sample receipt? Yes [] No []
- 11. Description of anomalies (include sample numbers): _____

Sample Custodian/Laboratory: K. Sattar Date: 01-06-00
Telephoned To: _____ On _____ By _____

000017

Login No.: FOA070142
W02999

Condition Upon Receipt Variance Report
St. Louis Laboratory

Client: Bechtel Harber
Project No: _____
Shipper/No: Airborne

Date: 1-7-00 Time: 1000
Initiated by: [Signature]
RFA/COC Numbers: BDD-014-04

Condition/Variance (Check all that apply):

1. <input type="checkbox"/> Sample received broken/leaking.	8. <input type="checkbox"/> Sample ID on container does not match sample ID on paperwork. Explain: _____
2. <input type="checkbox"/> Sample received without proper preservative. <input type="checkbox"/> Cooler temperature not within 4C ± 2C Record temperature: _____	9. <input type="checkbox"/> All coolers on airbill not received with shipment.
<input type="checkbox"/> pH _____	10. <input type="checkbox"/> Other (explain below): _____
<input type="checkbox"/> other: _____	_____
3. <input type="checkbox"/> Sample received in improper container.	_____
4. <input type="checkbox"/> Sample received without proper paperwork. Explain: _____	_____
_____	_____
5. <input type="checkbox"/> Paperwork received without sample.	_____
6. <input type="checkbox"/> No sample ID on sample container.	_____
7. <input type="checkbox"/> Custody tape disturbed/broken/missing.	_____

No variances were noted during sample receipt. Cooler Temperature Upon Receipt: 2°

Temperature Variance Does Not Affect the Following Analyses: _____

Notes: _____

Corrective Action:

Client's Name: _____ Informed verbally on: _____ By: _____

Client's Name: _____ Informed in writing on: _____ By: _____

Sample(s) processed "as is". _____

Comments: _____
 Sample(s) on hold until: _____ If released, notify: _____

Sample Control Supervisor Review: [Signature] Date: 1-7-00
Project Management Review: Jennifer Smith Date: 1-7-00

SIGNED ORIGINAL MUST BE RETAINED IN THE PROJECT FILE

BECHTEL HANFORD, INC.

Client Sample ID: BOXBJ1

~~GC Semivolatiles~~ PCBs

JWP
02/10/00

Lot-Sample #...: FOA040172-001 Work Order #...: D730C104 Matrix.....: WATER
Date Sampled...: 01/03/00 Date Received...: 01/03/00
Prep Date.....: 01/10/00 Analysis Date...: 01/11/00
Prep Batch #...: 0010224
Dilution Factor: 1 Method.....: SW846 8082

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u>	
		<u>LIMIT</u>	<u>UNITS</u>
Aroclor 1016	ND	1.0	ug/L
Aroclor 1221	ND	1.0	ug/L
Aroclor 1232	ND	1.0	ug/L
Aroclor 1242	ND	1.0	ug/L
Aroclor 1248	ND	1.0	ug/L
Aroclor 1254	ND	1.0	ug/L
Aroclor 1260	ND	1.0	ug/L
	<u>PERCENT</u>	<u>RECOVERY</u>	
<u>SURROGATE</u>	<u>RECOVERY</u>	<u>LIMITS</u>	
Tetrachloro-m-xylene	94	(26 - 157)	
Decachlorobiphenyl	33	(13 - 147)	

000020

METHOD BLANK REPORT

~~GC Semivolatiles~~

JAP
02/10/00
TRBS

Client Lot #...: FOA040172
MB Lot-Sample #: FOA100000-224

Work Order #...: D782T101

Matrix.....: WATER

Analysis Date...: 01/11/00
Dilution Factor: 1

Prep Date.....: 01/10/00

Prep Batch #...: 0010224

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u>		
		<u>LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>
Aroclor 1016	ND	1.0	ug/L	SW846 8082
Aroclor 1221	ND	1.0	ug/L	SW846 8082
Aroclor 1232	ND	1.0	ug/L	SW846 8082
Aroclor 1242	ND	1.0	ug/L	SW846 8082
Aroclor 1248	ND	1.0	ug/L	SW846 8082
Aroclor 1254	ND	1.0	ug/L	SW846 8082
Aroclor 1260	ND	1.0	ug/L	SW846 8082

<u>SURROGATE</u>	<u>PERCENT</u>	<u>RECOVERY</u>
	<u>RECOVERY</u>	<u>LIMITS</u>
Tetrachloro-m-xylene	92	(26 - 157)
Decachlorobiphenyl	47	(13 - 147)

NOTE (S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

000021

LABORATORY CONTROL SAMPLE EVALUATION REPORT

~~GC Semivolatiles~~

PCBS

Jump
02/10/00

Client Lot #...: FOA040172 Work Order #...: D782T102 Matrix.....: WATER
 LCS Lot-Sample#: FOA100000-224
 Prep Date.....: 01/10/00 Analysis Date...: 01/11/00
 Prep Batch #...: 0010224
 Dilution Factor: 1

<u>PARAMETER</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>	<u>METHOD</u>
Aroclor 1016	97	(24 - 199)	SW846 8082
Aroclor 1260	96	(58 - 134)	SW846 8082

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
Tetrachloro-m-xylene	100	(26 - 157)
Decachlorobiphenyl	50	(13 - 147)

NOTE (S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.
 Bold print denotes control parameters

000022

BECHTEL HANFORD, INC.

Client Sample ID: B0XBJ1

TOTAL Metals

Lot-Sample #...: FOA040172-001

Matrix.....: WATER

Date Sampled...: 01/03/00

Date Received...: 01/03/00

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>WORK ORDER #</u>
Prep Batch #...: 0018414						
Mercury	ND	0.20	ug/L	SW846 7470A	01/18-01/20/00	D730C107
		Dilution Factor: 1				
Prep Batch #...: 0024337						
Lead	ND	3.0	ug/L	SW846 6010B	01/24/00	D730C101
		Dilution Factor: 1				

000024

BECHTEL HANFORD, INC.

Client Sample ID: BOXBJ2

TOTAL Metals

Lot-Sample #...: FOA070142-001
Date Sampled...: 01/06/00

Date Received...: 01/06/00

Matrix.....: WATER

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>WORK ORDER #</u>
Prep Batch #...: 0018414						
Mercury	ND	0.20	ug/L	SW846 7470A	01/18-01/20/00	D76HV102
		Dilution Factor: 1				
Prep Batch #...: 0024337						
Lead	ND	3.0	ug/L	SW846 6010B	01/24/00	D76HV101
		Dilution Factor: 1				

000025

METHOD BLANK REPORT

TOTAL Metals

Client Lot #...: FOA070142

Matrix.....: WATER

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>WORK ORDER #</u>
MB Lot-Sample #: FOA180000-414 Prep Batch #...: 0018414						
Mercury	ND	0.20	ug/L	SW846 7470A	01/18-01/20/00	D7JQ9101
Dilution Factor: 1						

MB Lot-Sample #: FOA240000-337 Prep Batch #...: 0024337						
Lead	0.690 B	3.0	ug/L	SW846 6010B	01/24/00	D7RC0101
Dilution Factor: 1						

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

B Estimated result. Result is less than RL.

000026

LABORATORY CONTROL SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: F0A070142

Matrix.....: WATER

<u>PARAMETER</u>	<u>PERCENT</u> <u>RECOVERY</u>	<u>RECOVERY</u> <u>LIMITS</u>	<u>METHOD</u>	<u>PREPARATION-</u> <u>ANALYSIS DATE</u>	<u>WORK ORDER #</u>
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LCS Lot-Sample#:	F0A180000-414	Prep Batch #...:	0018414		
Mercury	94	(80 - 120)	SW846 7470A	01/18-01/20/00	D7JQ9102
		Dilution Factor: 1			

LCS Lot-Sample#:	F0A240000-337	Prep Batch #...:	0024337		
Lead	99	(80 - 120)	SW846 6010B	01/24/00	D7RC0102
		Dilution Factor: 1			

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

000027

MATRIX SPIKE SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: F0A040172

Matrix.....: WATER

Date Sampled...: 01/03/00

Date Received...: 01/03/00

<u>PARAMETER</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>	<u>RPD</u>	<u>RPD LIMITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>WORK ORDER #</u>
MS Lot-Sample #: F0A040172-001 Prep Batch #... : 0018414							
Mercury	103	(75 - 125)			SW846 7470A	01/18-01/20/00	D730C108
	100	(75 - 125)	3.0	(0-20)	SW846 7470A	01/18-01/20/00	D730C109
Dilution Factor: 1							

MS Lot-Sample #: F0A040172-001 Prep Batch #... : 0024337							
Lead	108	(75 - 125)			SW846 6010B	01/24/00	D730C102
	98	(75 - 125)	9.7	(0-20)	SW846 6010B	01/24/00	D730C103
Dilution Factor: 1							

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

000028