W02751-QCS

Quanterra

Quanterra Incorporated
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0051507

CASE NARRATIVE

Bechtel Hanford Incorporated
3350 George Washington Way
Richland, Washington 99352

May 27, 1999

Attention: Joan Kessner

Project Number	:	550.230
SDG	:	W02751
Number of Samples	:	One (1)
Sample Matrix	:	Water
Data Deliverable	:	Summary
Date SDG Closed	:	April 22, 1999

II. Introduction

On April 22, 1999, one (1) "water" sample was received by Quanterra, Richland and transferred to Quanterra, St. Louis for chemical analysis. The sample was received at a temperature of 2° C. Upon receipt, the sample was given the following laboratory ID number to correspond with the specific client ID:

St. Louis ID	BHI ID	SAF ID	Matrix	Date of Receipt
21164-001	B0VC26	B99-018	WATER	22-APR-99

AUG 1999 RECEIVED

II. 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:

pH - 150.1
Sulfate - 375.4
TDS - 160.1
TSS - 160.2
Arsenic - 7060 (GFAA)

ICP Metals - 6010
Chlorine (Total residual) - 330.3
Acrylamide - 8316
VOA - 8240 (appendix IX)
VOA - 8260 (TCL)

Deviation from Request: No Deviation from requested methods.

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
DUP- Laboratory Duplicate
MS- Matrix Spike
MSD- Matrix Spike Duplicate.

V. Comments

General: There are no general comments.

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

"No comments" were noted for this analysis.

Wet Chemistry: A Laboratory Control Sample, Method Blank, Matrix Spike and Laboratory Duplicate were analyzed with each preparation batch per the protocol for this analysis. pH, and Total Residual Chlorine require a duplicate as matrix QC.

The sample duplicate for TSS was initially analyzed within HT. Upon review of the data the RPD criteria was abnormally high. The sample duplicate was reanalyzed one day past HT and reported.

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

"No comments" were noted for this analysis.

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.

"No comments" were noted for this analysis.

I certify that this Summary Package 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:

Shiela Louvier

Shiela M. Louvier
St. Louis Project Manager

W02751

Quanterra April 26, 1999 08:15 am
Account: 10722 Project: 550.230 Quanterra-Richland QAS No. 550.23 Rev. 2
Master Sample Login: 21164

Project Manager: S. Louvier

Reviewed by and Date: JSmith 4-26-99

Sample Header Template:

Sample No. / Comments	Client ID	C-Matrix	Date: Collected	Received	Due	Shipper	Rad Category	Rad Sample No.
21164-001 SAF B99-018	B0VC26	Water	21-APR-99 07:45	22-APR-99 07:55	21-MAY-99	FEDX	3*	R8505-001

#	Container Type	Analysis	Class	Preservative	Anal. Due Date	Hold Date	Site	(Container Numbers:% Filled)
3	VI - Vial-40ml	HPLC/8316/Q4	S	COLD	19-MAY-99	23-APR-99	R1C	(439724:100 439725:100 439726:100)
3		VOA/8240APPIX/Q4	S	HCL	19-MAY-99	05-MAY-99	109H13	(439727:100 439728:100 439729:100)
3		VOA/8260/Q4	S	HCL	19-MAY-99	05-MAY-99	109H13	(439730:100 439731:100 439732:100)
1	PN - Plastic-1L	RCL/330.3/Q4	S	NONE	19-MAY-99	22-APR-99	R1C	(439723:100)
1	PN - Plastic-500ml	AS/7060/Q4	S	HNO3	19-MAY-99	18-OCT-99	R1C	(439722:100)
1		ICAP/6010/Q4	S	HNO3	19-MAY-99	18-OCT-99	R1C	(439721:100)
1		TDS/160.1/Q4	S	COLD	19-MAY-99	28-APR-99	R1C	(439718:100)
1		TSS/160.2/Q4	S	COLD	19-MAY-99	28-APR-99	R1C	(439717:100)
1	PN - Plastic-250ml	SO4/375.4/Q4	S	NONE	19-MAY-99	19-MAY-99	R1C	(439734:100)
1	PN - Plastic-120ml	PH/150.1/Q4	S	NONE	19-MAY-99	22-APR-99	R1C	(439719:100)
1	PW - Plastic-2oz	RAD/SCREEN/Q4	S	NONE	19-MAY-99	19-OCT-99	R1C	(439716:100)

Sample No. / Comments	Client ID	C-Matrix	Date: Collected	Received	Due	Shipper	Rad Category	Rad Sample No.
21164-001DUP SAF B99-018	B0VC26	Water	21-APR-99 07:45	22-APR-99 07:55	21-MAY-99	FEDX	3*	R8505-001

#	Container Type	Analysis	Class	Preservative	Anal. Due Date	Hold Date	Site	(Container Numbers:% Filled)
1	PN - Plastic-1L	RCL/330.3/Q4	S	NONE	19-MAY-99	22-APR-99	R1C	(439669:100)
1	PN - Plastic-500ml	TDS/160.1/Q4	S	COLD	19-MAY-99	28-APR-99	R1C	(439666:100)
1		TSS/160.2/Q4	S	COLD	19-MAY-99	28-APR-99	R1C	(439667:100)
1	PN - Plastic-250ml	SO4/375.4/Q4	S	COLD	19-MAY-99	19-MAY-99	R1C	(439664:100)
1	PN - Plastic-120ml	PH/150.1/Q4	S	NONE	19-MAY-99	22-APR-99	R1C	(439531:100)

Sample No. / Comments	Client ID	C-Matrix	Date: Collected	Received	Due	Shipper	Rad Category	Rad Sample No.
21164-001MS SAF B99-018	B0VC26	Water	21-APR-99 07:45	22-APR-99 07:55	21-MAY-99	FEDX	3*	R8505-001

#	Container Type	Analysis	Class	Preservative	Anal. Due Date	Hold Date	Site	(Container Numbers:% Filled)
3	VI - Vial-40ml	HPLC/8316/Q4	S	COLD	19-MAY-99	23-APR-99	R1C	(439684:100 439685:100 439686:100)
3		VOA/8240APPIX/Q4	S	HCL	19-MAY-99	05-MAY-99	109H13	(439687:100 439688:100 439689:100)
3		VOA/8260/Q4	S	HCL	19-MAY-99	05-MAY-99	109H13	(439690:100 439691:100 439692:100)
1	PN - Plastic-500ml	AS/7060/Q4	S	HNO3	19-MAY-99	18-OCT-99	R1C	(439682:100)
1		ICAP/6010/Q4	S	HNO3	19-MAY-99	18-OCT-99	R1C	(439683:100)
1	PN - Plastic-250ml	SO4/375.4/Q4	S	COLD	19-MAY-99	19-MAY-99	R1C	(439681:100)

Sample No. / Comments	Client ID	C-Matrix	Date: Collected	Received	Due	Shipper	Rad Category	Rad Sample No.
21164-001MSD SAF B99-018	B0VC26	Water	21-APR-99 07:45	22-APR-99 07:55	21-MAY-99	FEDX	3*	R8505-001

#	Container Type	Analysis	Class	Preservative	Anal. Due Date	Hold Date	Site	(Container Numbers:% Filled)
3	VI - Vial-40ml	HPLC/8316/Q4	S	COLD	19-MAY-99	23-APR-99	R1C	(439704:100 439705:100 439706:100)
3		VOA/8240APPIX/Q4	S	HCL	19-MAY-99	05-MAY-99	109H13	(439707:100 439708:100 439709:100)
3		VOA/8260/Q4	S	HCL	19-MAY-99	05-MAY-99	109H13	(439710:100 439711:100 439712:100)
1	PN - Plastic-500ml	AS/7060/Q4	S	HNO3	19-MAY-99	18-OCT-99	R1C	(439703:100)

3* Sample has not been rad screened.

000005

W02751 CW01850 temp 2°

Bechtel Hanford Inc.	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	B99-018-12	Page 1 of 2

Collector Doug Bowers	**Company Contact** Dorman Blankenship	**Telephone No.** 373-5456	**Project Coordinator** TRENT, SJ	**Price Code**	**Data Turnaround** 45 Days
Project Designation 183N Backwash Discharge Pond -- Permit Monitoring 1999	**Sampling Location** 100N		**SAF No.** B99-018		
Ice Chest No. ERC 99-018	**Field Logbook No.** 1309-3		**Method of Shipment** Hand deliver - Govt vehicle		
Shipped To Quanterra Incorporated	**Offsite Property No.** N/A		**Bill of Lading/Air Bill No.** N/A		
			COA 770K27Y443		

POSSIBLE SAMPLE HAZARDS/REMARKS

Special Handling and/or Storage Cool 4C

SDC W02751

SAMPLE ANALYSIS

Preservation	None	None	Cool 4C	Cool 4C	Cool 4C	HNO3 to pH <2	HNO3 to pH <2	None	Cool 4C	HCl to pH <2 Cool 4C
Type of Container	P	P	P	P	P	P	P	P	aGs*	aGs*
No. of Container(s)	1	1	1	1	1	1	1	1	3	3
Volume	20mL	125mL	250mL	500mL	500mL	500mL	500mL	1000mL	40mL	40mL
	Activity Scan	pH - 150.1	Sulfate -- 375.4	TDS - 160.1	TSS - 160.2	Arsenic - 7060 - (GFAA)	ICP Metals - 6010A (TAL)	Chloride - Total residual - 330.1	Acrylamide - 8316	VOA - 8240A (Append IX)
	100% full	100% full	100% full	100% full	100% full	100% full	100% full	100% full	100% full	100% full

Sample No.	Matrix *	Sample Date	Sample Time	Activity Scan	pH - 150.1	Sulfate -- 375.4	TDS - 160.1	TSS - 160.2	Arsenic - 7060 - (GFAA)	ICP Metals - 6010A (TAL)	Chloride - Total residual - 330.1	Acrylamide - 8316	VOA - 8240A (Append IX)
B0VC26	Water	4-21-99	0745	X	X	X	X	X	X	X	X	X	X

CHAIN OF POSSESSION — **Sign/Print Names**

Relinquished By	Date/Time	Received By	Date/Time
Doug Bowers	4-21-99/1230	K. Beckenberg	4-21-99 1230
		[illegible]	4/22/99 0755

SPECIAL INSTRUCTIONS
** Close SDG upon receipt of samples.

Matrix *
Soil
Water
Vapor
Other Solid
Other Liquid

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

900000

W027751 CW18810 TOMP20

Bechtel Hanford Inc.

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

B99-018-12

Collector Doug Bowers	**Company Contact** Dorman Blankenship	**Telephone No.** 373-5456	**Project Coordinator** TRENT, SJ
Price Code	**Data Turnaround** 45 Days		
Project Designation 183N Backwash Discharge Pond -- Permit Monitoring 1999	**Sampling Location** 100N		**SAF No.** B99-018
Ice Chest No. EAC 99-018	**Field Logbook No.** 1309-3		**Method of Shipment** Hand deliver - Govt vehicle
Shipped To Quanterra Incorporated	**Offsite Property No.** N/A		**Bill of Lading/Air Bill No.** N/A
			COA 77BK 27 YA43

POSSIBLE SAMPLE HAZARDS/REMARKS

Special Handling and/or Storage
Cool 4C

Preservation	HCL to pH <2 Cool 4C										
Type of Container	aCB*										
No. of Container(s)	3										
Volume	40ml										
SAMPLE ANALYSIS	VOA - 8260A (TCL)										

Sample No.	Matrix *	Sample Date	Sample Time									
B0VC26	Water	4-21-99	0745	X								

CHAIN OF POSSESSION	Sign/Print Names		
Relinquished By Doug Bowers	Date/Time 4-21-99 1230	Received By	Date/Time 4-21-99 1230
Relinquished By	Date/Time	Received By	Date/Time 04/22/99 0755
Relinquished By	Date/Time	Received By	Date/Time
Relinquished By	Date/Time	Received By	Date/Time

SPECIAL INSTRUCTIONS
** Close SDG upon receipt of samples.

Matrix *
Soil
Water
Vapor
Other Solid
Other Liquid

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

000007

Quanterra Environmental Services

018570

Login No.: 21164 JRS 4-22-99

W02751

Condition Upon Receipt Variance Report
St. Louis Laboratory

Client: Richland / BHI

Date: 4/22/99 Time: 0755

Project No: 550.230

Initiated by: A Seithel

Shipper/No: FEDEX 005157800-071

RFA/COC Numbers: B99-08-12 JRS 4-22-99

Condition/Variance (Check all that apply):

1. ☐ Sample received broken/leaking.
2. ☐ Sample received without proper preservative.
   - ☐ Cooler temperature not within 4-C ± 2-C
     Record temperature: _____
   - ☐ pH _____
   - ☐ other: _____
3. ☐ Sample received in improper container.
4. ☐ Sample received without proper paperwork. Explain: _____
5. ☐ Paperwork received without sample.
6. ☐ No sample ID on sample container.
7. ☐ Custody tape disturbed/broken/missing/not tamper evident (circle all that apply).
8. ☐ Sample ID on container does not match sample ID on paperwork. Explain: _____
9. ☐ All coolers on airbill not received with shipment.
10. ☐ Other (explain below): _____

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

Temperature Variance Does Not Affect the Following Analyses: _____

Notes: COC not relinquished. JRS 4-22-99

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: (or designee) A Seithel Date: 04/22/99

Project Management Review: Jennifer Smith Date: 4-22-99

SIGNED ORIGINAL MUST BE RETAINED IN THE PROJECT FILE

SL-ADMIN-0004, Revised 3/17/99

Bechtel Hanford Incoporated
3350 George Washington Way
Richland, WA 99352

Project: 550.230

Category: Volatiles 8240-Appendix IX
Method: EPA 8240
Matrix: LIQUID

Sample Date : 04/21/99
Receipt Date : 04/22/99
Report Date : 05/19/99

Client ID: B0VC26

Quanterra ID : 21164-001

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Chloromethane	74-87-3	QCBLK198387-1	04/28/99	04/28/99	10	UG/L	U	10	1
Bromomethane	74-83-9	QCBLK198387-1	04/28/99	04/28/99	10	UG/L	U	10	1
Vinyl Chloride	75-01-4	QCBLK198387-1	04/28/99	04/28/99	10	UG/L	U	10	1
Chloroethane	75-00-3	QCBLK198387-1	04/28/99	04/28/99	10	UG/L	U	10	1
Methylene Chloride	75-09-2	QCBLK198387-1	04/28/99	04/28/99	5	UG/L	U	5	1
Acetone	67-64-1	QCBLK198387-1	04/28/99	04/28/99	9	UG/L	J	20	1
Carbon Disulfide	75-15-0	QCBLK198387-1	04/28/99	04/28/99	5	UG/L	U	5	1
1,1-Dichloroethene	75-35-4	QCBLK198387-1	04/28/99	04/28/99	5	UG/L	U	5	1
1,1-Dichloroethane	75-34-3	QCBLK198387-1	04/28/99	04/28/99	5	UG/L	U	5	1
1,2-Dichloroethene (total)	540-59-0	QCBLK198387-1	04/28/99	04/28/99	5	UG/L	U	5	1
Chloroform	67-66-3	QCBLK198387-1	04/28/99	04/28/99	9	UG/L		5	1
1,2-Dichloroethane	107-06-2	QCBLK198387-1	04/28/99	04/28/99	5	UG/L	U	5	1
2-Butanone (MEK)	78-93-3	QCBLK198387-1	04/28/99	04/28/99	20	UG/L	U	20	1
1,1,1-Trichloroethane	71-55-6	QCBLK198387-1	04/28/99	04/28/99	5	UG/L	U	5	1
Carbon Tetrachloride	56-23-5	QCBLK198387-1	04/28/99	04/28/99	5	UG/L	U	5	1
Vinyl Acetate	108-05-4	QCBLK198387-1	04/28/99	04/28/99	10	UG/L	U	10	1
Bromodichloromethane	75-27-4	QCBLK198387-1	04/28/99	04/28/99	5	UG/L	U	5	1
1,2-Dichloropropane	78-87-5	QCBLK198387-1	04/28/99	04/28/99	5	UG/L	U	5	1
cis-1,3-Dichloropropene	10061-01-5	QCBLK198387-1	04/28/99	04/28/99	5	UG/L	U	5	1
Trichloroethene	79-01-6	QCBLK198387-1	04/28/99	04/28/99	5	UG/L	U	5	1
Dibromochloromethane	124-48-1	QCBLK198387-1	04/28/99	04/28/99	5	UG/L	U	5	1
1,1,2-Trichloroethane	79-00-5	QCBLK198387-1	04/28/99	04/28/99	5	UG/L	U	5	1
Benzene	71-43-2	QCBLK198387-1	04/28/99	04/28/99	5	UG/L	U	5	1
trans-1,3-Dichloropropene	10061-02-6	QCBLK198387-1	04/28/99	04/28/99	5	UG/L	U	5	1
Bromoform	75-25-2	QCBLK198387-1	04/28/99	04/28/99	5	UG/L	U	5	1
4-Methyl-2-Pentanone (MIBK)	108-10-1	QCBLK198387-1	04/28/99	04/28/99	20	UG/L	U	20	1
2-Hexanone	591-78-6	QCBLK198387-1	04/28/99	04/28/99	20	UG/L	U	20	1
Tetrachloroethene	127-18-4	QCBLK198387-1	04/28/99	04/28/99	5	UG/L	U	5	1
Toluene	108-88-3	QCBLK198387-1	04/28/99	04/28/99	5	UG/L	U	5	1
1,1,2,2-Tetrachloroethane	79-34-5	QCBLK198387-1	04/28/99	04/28/99	5	UG/L	U	5	1
Chlorobenzene	108-90-7	QCBLK198387-1	04/28/99	04/28/99	5	UG/L	U	5	1
EthylBenzene	100-41-4	QCBLK198387-1	04/28/99	04/28/99	5	UG/L	U	5	1
Styrene	100-42-5	QCBLK198387-1	04/28/99	04/28/99	5	UG/L	U	5	1
Xylene (total)	1330-20-7	QCBLK198387-1	04/28/99	04/28/99	5	UG/L	U	5	1
Acrolein	107-02-8	QCBLK198387-1	04/28/99	04/28/99	100	UG/L	U	100	1
Acetonitrile	75-05-8	QCBLK198387-1	04/28/99	04/28/99	100	UG/L	U	100	1
Iodomethane	74-88-4	QCBLK198387-1	04/28/99	04/28/99	5	UG/L	U	5	1
Allyl chloride	107-05-1	QCBLK198387-1	04/28/99	04/28/99	5	UG/L	U	5	1
2-Chloro-1,3-butadiene	126-99-8	QCBLK198387-1	04/28/99	04/28/99	5	UG/L	U	5	1
Propionitrile	107-12-0	QCBLK198387-1	04/28/99	04/28/99	100	UG/L	U	100	1
Methacrylonitrile	126-98-7	QCBLK198387-1	04/28/99	04/28/99	100	UG/L	U	100	1
1,4-Dioxane	123-91-1	QCBLK198387-1	04/28/99	04/28/99	500	UG/L	U	500	1
Methyl methacrylate	80-62-6	QCBLK198387-1	04/28/99	04/28/99	5	UG/L	U	5	1
Dibromomethane	74-95-3	QCBLK198387-1	04/28/99	04/28/99	5	UG/L	U	5	1
Ethyl methacrylate	97-63-2	QCBLK198387-1	04/28/99	04/28/99	5	UG/L	U	5	1
1,2-Dibromoethane	106-93-4	QCBLK198387-1	04/28/99	04/28/99	5	UG/L	U	5	1
1,1,1,2-Tetrachloroethane	630-20-6	QCBLK198387-1	04/28/99	04/28/99	5	UG/L	U	5	1
trans,1,4-Dichloro-2-butene	110-57-6	QCBLK198387-1	04/28/99	04/28/99	5	UG/L	U	5	1
1,2,3-Trichloropropane	96-18-4	QCBLK198387-1	04/28/99	04/28/99	5	UG/L	U	5	1
1,2-Dibromo-3-chloropropane	96-12-8	QCBLK198387-1	04/28/99	04/28/99	10	UG/L	U	10	1
Dichlorodifluoromethane	75-71-8	QCBLK198387-1	04/28/99	04/28/99	10	UG/L	U	10	1
Trichlorofluoromethane	75-69-4	QCBLK198387-1	04/28/99	04/28/99	10	UG/L	U	10	1
Unknown Hydrocarbon-1	TIC-5001	QCBLK198387-1	04/28/99	04/28/99	10	UG/L	J		1
Bromofluorobenzene	460-00-4	QCBLK198387-1	04/28/99	04/28/99	85	%REC			1
1,2-Dichloroethane-d4	17070-07-0	QCBLK198387-1	04/28/99	04/28/99	106	%REC			1
Toluene-d8	2037-26-5	QCBLK198387-1	04/28/99	04/28/99	102	%REC			1

Bechtel Hanford Incoporated
3350 George Washington Way
Richland, WA 99352

Project: 550.230

Category: Volatiles 8240-Appendix IX
Method: EPA 8240
Matrix: LIQUID

Client ID: B0VC26

Sample Date : 04/21/99
Receipt Date : 04/22/99
Report Date : 05/19/99

Quanterra ID : 21164-001MS

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
1,1-Dichloroethene	75-35-4	QCBLK198387-1	04/28/99	04/28/99	134	%REC			1
Trichloroethene	79-01-6	QCBLK198387-1	04/28/99	04/28/99	96	%REC			1
Benzene	71-43-2	QCBLK198387-1	04/28/99	04/28/99	106	%REC			1
Toluene	108-88-3	QCBLK198387-1	04/28/99	04/28/99	108	%REC			1
Chlorobenzene	108-90-7	QCBLK198387-1	04/28/99	04/28/99	107	%REC			1
Bromofluorobenzene	460-00-4	QCBLK198387-1	04/28/99	04/28/99	82	%REC			1
1,2-Dichloroethane-d4	17070-07-0	QCBLK198387-1	04/28/99	04/28/99	100	%REC			1
Toluene-d8	2037-26-5	QCBLK198387-1	04/28/99	04/28/99	99	%REC			1

Bechtel Hanford Incoporated
3350 George Washington Way
Richland, WA 99352

Project: 550.230

Category: Volatiles 8240-Appendix IX
Method: EPA 8240
Matrix: LIQUID

Sample Date : 04/21/99
Receipt Date : 04/22/99
Report Date : 05/19/99

Client ID: B0VC26

Quanterra ID : 21164-001MSD

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
1,1-Dichloroethene	75-35-4	QCBLK198387-1	04/28/99	04/28/99	138	%REC			1
Trichloroethene	79-01-6	QCBLK198387-1	04/28/99	04/28/99	96	%REC			1
Benzene	71-43-2	QCBLK198387-1	04/28/99	04/28/99	105	%REC			1
Toluene	108-88-3	QCBLK198387-1	04/28/99	04/28/99	105	%REC			1
Chlorobenzene	108-90-7	QCBLK198387-1	04/28/99	04/28/99	107	%REC			1
Bromofluorobenzene	460-00-4	QCBLK198387-1	04/28/99	04/28/99	80	%REC			1
Dibromofluoromethane	1868-53-7	QCBLK198387-1	04/28/99	04/28/99	108	%REC			1
Toluene-d8	2037-26-5	QCBLK198387-1	04/28/99	04/28/99	93	%REC			1

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B0VC26

Lab Name: QUANTERRA MO Contract: 550.230

Lab Code: ITMO Case No.: SAS No.: SDG No.: W02751

Matrix: (soil/water) WATER Lab Sample ID: 21164-001

Sample wt/vol: 5.000 (g/ml) ML Lab File ID: ESMP7497

Level: (low/med) LOW Date Received: 04/22/99

% Moisture: not dec. _____ Date Analyzed: 04/28/99

GC Column: RTX-502.2 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	5	U
67-64-1	Acetone	9	J
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	9	
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	20	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-pentanone	20	U
591-78-6	2-Hexanone	20	U
127-18-4	Tetrachloroethene	5	U
108-88-3	Toluene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B0VC26

Lab Name: QUANTERRA MO Contract: 550.230

Lab Code: ITMO Case No.: SAS No.: SDG No.: W02751

Matrix: (soil/water) WATER Lab Sample ID: 21164-001

Sample wt/vol: 5.000 (g/ml) ML Lab File ID: ESMP7497

Level: (low/med) LOW Date Received: 04/22/99

% Moisture: not dec. _____ Date Analyzed: 04/28/99

GC Column: RTX-502.2 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
1330-20-7	Xylenes (total)	5	U
107-02-8	Acrolein	100	U
75-05-8	Acetonitrile	100	U
74-88-4	Iodomethane	5	U
107-05-1	Allyl chloride	5	U
126-99-8	2-Chloro-1,3-butadiene	5	U
107-12-0	Propionitrile	100	U
126-98-7	Methacrylonitrile	100	U
123-91-1	1,4-Dioxane	500	U
80-62-6	Methyl methacrylate	5	U
75-95-3	Dibromomethane	5	U
97-63-2	Ethyl methacrylate	5	U
106-93-4	1,2-Dibromoethane	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
110-57-6	trans-1,4-dichloro-2-butene	5	U
96-18-4	1,2,3-Trichloropropane	5	U
96-12-8	1,2-Dibromo-3-chloropropane	10	U
75-71-8	Dichlorodifluoromethane	10	U
75-69-4	Trichlorofluoromethane	10	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

B0VC26

Lab Name: QUANTERRA MO Contract: 550.230

Lab Code: ITMO Case No.: SAS No.: SDG No.: W02751

Matrix: (soil/water) WATER Lab Sample ID: 21164-001

Sample wt/vol: 5.000 (g/ml) ML Lab File ID: ESMP7497

Level: (low/med) LOW Date Received: 04/22/99

% Moisture: not dec. _____ Date Analyzed: 04/28/99

GC Column: RTX-502.2 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 1

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN HYDROCARBON	4.51	9.848	J
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3350 George Washington Way
Richland, WA 99352

Project: 550.230

Category: Volatiles 8260 (TCL)
Method: EPA 8260
Matrix: LIQUID

Client ID: B0VC26

Sample Date : 04/21/99
Receipt Date : 04/22/99
Report Date : 05/19/99

Quanterra ID : 21164-001

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Chloromethane	74-87-3	QCBLK198155-1	04/23/99	04/23/99	10	UG/L	U	10	1
Bromomethane	74-83-9	QCBLK198155-1	04/23/99	04/23/99	10	UG/L	U	10	1
Vinyl Chloride	75-01-4	QCBLK198155-1	04/23/99	04/23/99	10	UG/L	U	10	1
Chloroethane	75-00-3	QCBLK198155-1	04/23/99	04/23/99	10	UG/L	U	10	1
Methylene Chloride	75-09-2	QCBLK198155-1	04/23/99	04/23/99	5	UG/L	U	5	1
Acetone	67-64-1	QCBLK198155-1	04/23/99	04/23/99	2	UG/L	BJ	20	1
Carbon Disulfide	75-15-0	QCBLK198155-1	04/23/99	04/23/99	5	UG/L	U	5	1
1,1-Dichloroethene	75-35-4	QCBLK198155-1	04/23/99	04/23/99	5	UG/L	U	5	1
1,1-Dichloroethane	75-34-3	QCBLK198155-1	04/23/99	04/23/99	5	UG/L	U	5	1
1,2-Dichloroethene (total)	540-59-0	QCBLK198155-1	04/23/99	04/23/99	5	UG/L	U	5	1
Chloroform	67-66-3	QCBLK198155-1	04/23/99	04/23/99	8	UG/L		5	1
1,2-Dichloroethane	107-06-2	QCBLK198155-1	04/23/99	04/23/99	5	UG/L	U	5	1
2-Butanone (MEK)	78-93-3	QCBLK198155-1	04/23/99	04/23/99	20	UG/L	U	20	1
1,1,1-Trichloroethane	71-55-6	QCBLK198155-1	04/23/99	04/23/99	5	UG/L	U	5	1
Carbon Tetrachloride	56-23-5	QCBLK198155-1	04/23/99	04/23/99	5	UG/L	U	5	1
Bromodichloromethane	75-27-4	QCBLK198155-1	04/23/99	04/23/99	5	UG/L	U	5	1
1,2-Dichloropropane	78-87-5	QCBLK198155-1	04/23/99	04/23/99	5	UG/L	U	5	1
cis-1,3-Dichloropropene	10061-01-5	QCBLK198155-1	04/23/99	04/23/99	5	UG/L	U	5	1
Trichloroethene	79-01-6	QCBLK198155-1	04/23/99	04/23/99	5	UG/L	U	5	1
Dibromochloromethane	124-48-1	QCBLK198155-1	04/23/99	04/23/99	5	UG/L	U	5	1
1,1,2-Trichloroethane	79-00-5	QCBLK198155-1	04/23/99	04/23/99	5	UG/L	U	5	1
Benzene	71-43-2	QCBLK198155-1	04/23/99	04/23/99	5	UG/L	U	5	1
trans-1,3-Dichloropropene	10061-02-6	QCBLK198155-1	04/23/99	04/23/99	5	UG/L	U	5	1
Bromoform	75-25-2	QCBLK198155-1	04/23/99	04/23/99	5	UG/L	U	5	1
4-Methyl-2-Pentanone (MIBK)	108-10-1	QCBLK198155-1	04/23/99	04/23/99	20	UG/L	U	20	1
2-Hexanone	591-78-6	QCBLK198155-1	04/23/99	04/23/99	20	UG/L	U	20	1
Tetrachloroethene	127-18-4	QCBLK198155-1	04/23/99	04/23/99	5	UG/L	U	5	1
Toluene	108-88-3	QCBLK198155-1	04/23/99	04/23/99	5	UG/L	U	5	1
1,1,2,2-Tetrachloroethane	79-34-5	QCBLK198155-1	04/23/99	04/23/99	5	UG/L	U	5	1
Chlorobenzene	108-90-7	QCBLK198155-1	04/23/99	04/23/99	5	UG/L	U	5	1
EthylBenzene	100-41-4	QCBLK198155-1	04/23/99	04/23/99	5	UG/L	U	5	1
Styrene	100-42-5	QCBLK198155-1	04/23/99	04/23/99	5	UG/L	U	5	1
Xylene (total)	1330-20-7	QCBLK198155-1	04/23/99	04/23/99	5	UG/L	U	5	1
Bromofluorobenzene	460-00-4	QCBLK198155-1	04/23/99	04/23/99	97	%REC			1
Dibromofluoromethane	1868-53-7	QCBLK198155-1	04/23/99	04/23/99	113	%REC			1
Toluene-d8	2037-26-5	QCBLK198155-1	04/23/99	04/23/99	105	%REC			1

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3350 George Washington Way
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Project: 550.230

Category: Volatiles 8260 (TCL)
Method: EPA 8260
Matrix: LIQUID

Client ID: B0VC26

Sample Date : 04/21/99
Receipt Date : 04/22/99
Report Date : 05/19/99

Quanterra ID : 21164-001MS

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
1,1-Dichloroethene	75-35-4	QCBLK198155-1	04/23/99	04/23/99	89	%REC			1
Trichloroethene	79-01-6	QCBLK198155-1	04/23/99	04/23/99	89	%REC			1
Benzene	71-43-2	QCBLK198155-1	04/23/99	04/23/99	96	%REC			1
Toluene	108-88-3	QCBLK198155-1	04/23/99	04/23/99	86	%REC			1
Chlorobenzene	108-90-7	QCBLK198155-1	04/23/99	04/23/99	86	%REC			1
Bromofluorobenzene	460-00-4	QCBLK198155-1	04/23/99	04/23/99	94	%REC			1
Dibromofluoromethane	1868-53-7	QCBLK198155-1	04/23/99	04/23/99	110	%REC			1
Toluene-d8	2037-26-5	QCBLK198155-1	04/23/99	04/23/99	103	%REC			1

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Project: 550.230

Category: Volatiles 8260 (TCL)
Method: EPA 8260
Matrix: LIQUID

Sample Date : 04/21/99
Receipt Date : 04/22/99
Report Date : 05/19/99

Client ID: B0VC26

Quanterra ID : 21164-001MSD

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
1,1-Dichloroethene	75-35-4	QCBLK198155-1	04/23/99	04/23/99	96	%REC			1
Trichloroethene	79-01-6	QCBLK198155-1	04/23/99	04/23/99	96	%REC			1
Benzene	71-43-2	QCBLK198155-1	04/23/99	04/23/99	100	%REC			1
Toluene	108-88-3	QCBLK198155-1	04/23/99	04/23/99	90	%REC			1
Chlorobenzene	108-90-7	QCBLK198155-1	04/23/99	04/23/99	90	%REC			1
Bromofluorobenzene	460-00-4	QCBLK198155-1	04/23/99	04/23/99	92	%REC			1
Dibromofluoromethane	1868-53-7	QCBLK198155-1	04/23/99	04/23/99	114	%REC			1
Toluene-d8	2037-26-5	QCBLK198155-1	04/23/99	04/23/99	103	%REC			1

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B0VC26

Lab Name: QUANTERRA MO Contract: 550.230

Lab Code: ITMO Case No.: SAS No.: SDG No.: W02751

Matrix: (soil/water) WATER Lab Sample ID: 21164-001

Sample wt/vol: 5.000 (g/ml) ML Lab File ID: BSMP7649

Level: (low/med) LOW Date Received: 04/22/99

% Moisture: not dec. _____ Date Analyzed: 04/23/99

GC Column: RTX-502.2 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(ml) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	5	U
67-64-1	Acetone	2	JB
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	8	
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	20	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Chlorodibromomethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-pentanone	20	U
591-78-6	2-Hexanone	20	U
127-18-4	Tetrachloroethene	5	U
108-88-3	Toluene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Xylenes (total)	5	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

B0VC26

Lab Name: QUANTERRA MO Contract: 550.230

Lab Code: ITMO Case No.: SAS No.: SDG No.: W02751

Matrix: (soil/water) WATER Lab Sample ID: 21164-001

Sample wt/vol: 5.000 (g/ml) ML Lab File ID: BSMP7649

Level: (low/med) LOW Date Received: 04/22/99

% Moisture: not dec. _____ Date Analyzed: 04/23/99

GC Column: RTX-502.2 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(ml) Soil Aliquot Volume: _____(uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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3350 George Washington Way
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Project: 550.230

Category: Acrylamide
Method: SW-846 8316
Matrix: LIQUID

Client ID: B0VC26

Sample Date : 04/21/99
Receipt Date : 04/22/99
Report Date : 05/20/99

Quanterra ID : 21164-001

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Acrylamide	79-06-1	QCBLK198528-1	05/03/99	05/03/99	100	UG/L	U	100	1

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Richland, WA 99352

Project: 550.230

Category: Acrylamide
Method: SW-846 8316
Matrix: LIQUID

Client ID: B0VC26

Sample Date : 04/21/99
Receipt Date : 04/22/99
Report Date : 05/20/99

Quanterra ID : 21164-001MS

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Acrylamide	79-06-1	QCBLK198528-1	05/03/99	05/03/99	110	%REC			1

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Project: 550.230

Category: Acrylamide
Method: SW-846 8316
Matrix: LIQUID

Client ID: B0VC26

Sample Date : 04/21/99
Receipt Date : 04/22/99
Report Date : 05/20/99

Quanterra ID : 21164-001MSD

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Acrylamide	79-06-1	QCBLK198528-1	05/03/99	05/03/99	116	%REC			1

FORM 1
OTHER ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

B0VC26

Lab Name: QUANTERRA Contract: 340.22

Lab Code: QUANTERRA-STL Case No.: SAS No.: SDG No.: W02751

Matrix: (soil/water) WATER Lab Sample ID: 21164-001

Sample wt/vol: _____ (g/mL) ML Lab File ID: K___537

% Moisture: _____ decanted: (Y/N)___ Date Received: 04/22/99

Extraction: (SepF/Cont/Sonc) CONT Date Extracted:

Concentrated Extract Volume:_____(uL) Date Analyzed: 05/03/99

Injection Volume: _____(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
	----------Acrylamide	100	U

FORM I OTHER

Bechtel Hanford Incoporated
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Richland, WA 99352

Project: 550.230

Category: ICP Metals-6010A (TAL)
Method: EPA 6010
Matrix: LIQUID

Sample Date : 04/21/99
Receipt Date : 04/22/99
Report Date : 05/24/99

Client ID: B0VC26

Quanterra ID : 21164-001

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Aluminum	7429-90-5	QCBLK199589-1	05/19/99	05/20/99	120	UG/L	B	200	1
Antimony	7440-36-0	QCBLK199589-1	05/19/99	05/20/99	36.4	UG/L	U	60.0	1
Barium	7440-39-3	QCBLK199589-1	05/19/99	05/20/99	29.2	UG/L	B	200	1
Beryllium	7440-41-7	QCBLK199589-1	05/19/99	05/20/99	0.60	UG/L	B	5.0	1
Cadmium	7440-43-9	QCBLK199589-1	05/19/99	05/20/99	3.9	UG/L	U	5.0	1
Calcium	7440-70-2	QCBLK199589-1	05/19/99	05/20/99	23300	UG/L		5000	1
Chromium	7440-47-3	QCBLK199589-1	05/19/99	05/20/99	4.8	UG/L	U	10.0	1
Cobalt	7440-48-4	QCBLK199589-1	05/19/99	05/20/99	5.1	UG/L	U	50.0	1
Copper	7440-50-8	QCBLK199589-1	05/19/99	05/20/99	3.9	UG/L	U	25.0	1
Iron	7439-89-6	QCBLK199589-1	05/19/99	05/20/99	234	UG/L		100	1
Magnesium	7439-95-4	QCBLK199589-1	05/19/99	05/20/99	5010	UG/L		5000	1
Manganese	7439-96-5	QCBLK199589-1	05/19/99	05/20/99	12.8	UG/L	B	15.0	1
Nickel	7440-02-0	QCBLK199589-1	05/19/99	05/20/99	8.6	UG/L	U	40.0	1
Potassium	7440-09-7	QCBLK199589-1	05/19/99	05/20/99	2550	UG/L	B	5000	1
Silver	7440-22-4	QCBLK199589-1	05/19/99	05/20/99	5.9	UG/L	U	10.0	1
Sodium	7440-23-5	QCBLK199589-1	05/19/99	05/20/99	3340	UG/L	B	5000	1
Vanadium	7440-62-2	QCBLK199589-1	05/19/99	05/20/99	8.4	UG/L	B	50.0	1
Zinc	7440-66-6	QCBLK199589-1	05/19/99	05/20/99	14.7	UG/L	B	20.0	1

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Project: 550.230

Category: ICP Metals-6010A (TAL)
Method: EPA 6010
Matrix: LIQUID

Client ID: B0VC26

Sample Date : 04/21/99
Receipt Date : 04/22/99
Report Date : 05/24/99

Quanterra ID : 21164-001MS

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Aluminum	7429-90-5	QCBLK199589-1	05/19/99	05/20/99	95	%REC			1
Antimony	7440-36-0	QCBLK199589-1	05/19/99	05/20/99	102	%REC			1
Barium	7440-39-3	QCBLK199589-1	05/19/99	05/20/99	93	%REC			1
Beryllium	7440-41-7	QCBLK199589-1	05/19/99	05/20/99	99	%REC			1
Cadmium	7440-43-9	QCBLK199589-1	05/19/99	05/20/99	99	%REC			1
Calcium	7440-70-2	QCBLK199589-1	05/19/99	05/20/99	97	%REC			1
Chromium	7440-47-3	QCBLK199589-1	05/19/99	05/20/99	91	%REC			1
Cobalt	7440-48-4	QCBLK199589-1	05/19/99	05/20/99	96	%REC			1
Copper	7440-50-8	QCBLK199589-1	05/19/99	05/20/99	96	%REC			1
Iron	7439-89-6	QCBLK199589-1	05/19/99	05/20/99	98	%REC			1
Magnesium	7439-95-4	QCBLK199589-1	05/19/99	05/20/99	98	%REC			1
Manganese	7439-96-5	QCBLK199589-1	05/19/99	05/20/99	92	%REC			1
Nickel	7440-02-0	QCBLK199589-1	05/19/99	05/20/99	96	%REC			1
Potassium	7440-09-7	QCBLK199589-1	05/19/99	05/20/99	93	%REC			1
Silver	7440-22-4	QCBLK199589-1	05/19/99	05/20/99	95	%REC			1
Sodium	7440-23-5	QCBLK199589-1	05/19/99	05/20/99	96	%REC			1
Vanadium	7440-62-2	QCBLK199589-1	05/19/99	05/20/99	95	%REC			1
Zinc	7440-66-6	QCBLK199589-1	05/19/99	05/20/99	96	%REC			1

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Project: 550.230

Category: ICP Metals-6010A (TAL)
Method: EPA 6010
Matrix: LIQUID

Client ID: B0VC26

Sample Date : 04/21/99
Receipt Date : 04/22/99
Report Date : 05/24/99

Quanterra ID : 21164-001MSD

Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dilution
Aluminum	7429-90-5	QCBLK199589-1	05/19/99	05/20/99	95	%REC			1
Antimony	7440-36-0	QCBLK199589-1	05/19/99	05/20/99	98	%REC			1
Barium	7440-39-3	QCBLK199589-1	05/19/99	05/20/99	94	%REC			1
Beryllium	7440-41-7	QCBLK199589-1	05/19/99	05/20/99	99	%REC			1
Cadmium	7440-43-9	QCBLK199589-1	05/19/99	05/20/99	102	%REC			1
Calcium	7440-70-2	QCBLK199589-1	05/19/99	05/20/99	98	%REC			1
Chromium	7440-47-3	QCBLK199589-1	05/19/99	05/20/99	91	%REC			1
Cobalt	7440-48-4	QCBLK199589-1	05/19/99	05/20/99	96	%REC			1
Copper	7440-50-8	QCBLK199589-1	05/19/99	05/20/99	106	%REC			1
Iron	7439-89-6	QCBLK199589-1	05/19/99	05/20/99	98	%REC			1
Magnesium	7439-95-4	QCBLK199589-1	05/19/99	05/20/99	98	%REC			1
Manganese	7439-96-5	QCBLK199589-1	05/19/99	05/20/99	93	%REC			1
Nickel	7440-02-0	QCBLK199589-1	05/19/99	05/20/99	96	%REC			1
Potassium	7440-09-7	QCBLK199589-1	05/19/99	05/20/99	98	%REC			1
Silver	7440-22-4	QCBLK199589-1	05/19/99	05/20/99	87	%REC			1
Sodium	7440-23-5	QCBLK199589-1	05/19/99	05/20/99	96	%REC			1
Vanadium	7440-62-2	QCBLK199589-1	05/19/99	05/20/99	96	%REC			1
Zinc	7440-66-6	QCBLK199589-1	05/19/99	05/20/99	97	%REC			1

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Project: 550.230

Category: Arsenic-7060-(GFAA)
Method: EPA 7000 Series
Matrix: LIQUID

Sample Date : 04/21/99
Receipt Date : 04/22/99
Report Date : 05/24/99

Client ID	Quanterra ID	Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dil.
B0VC26	21164-001	Arsenic	7440-38-2	QCBLK199751-1	05/21/99	05/21/99	1.8	UG/L	U	10.0	1
B0VC26	21164-001MS	Arsenic	7440-38-2	QCBLK199751-1	05/21/99	05/21/99	100	%REC			1
B0VC26	21164-001MSD	Arsenic	7440-38-2	QCBLK199751-1	05/21/99	05/21/99	100	%REC			1
NA	QCBLK199751-1	Arsenic	7440-38-2	QCBLK199751-1	05/21/99	05/21/99	1.8	UG/L	U	10.0	1
NA	QCLCS199751-1	Arsenic	7440-38-2	QCBLK199751-1	05/21/99	05/21/99	102	%REC			1

U.S. EPA - CLP

COVER PAGE - INORGANIC ANALYSES DATA PACKAGE

Lab Name: QUANTERRA_MO_____ Contract: 550.230___

Lab Code: ITMO__ Case No.: _____ SAS No.: _____ SDG No.: W02751_____

SOW No.: SW846

EPA Sample No.	Lab Sample ID
_B0VC26_____	_21164-001____
_B0VC26SD_____	_21164-001SD__
_B0VC26S_____	_21164-001S___

Were ICP interelement corrections applied ? Yes/No YES

Were ICP background corrections applied ? Yes/No YES

If yes - were raw data generated before application of background corrections ? Yes/No NO_

Comments:

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on floppy diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: _____ Name: _____

Date: _____ Title: _____

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

B0VC26

Lab Name: QUANTERRA_MO Contract: 550.230

Lab Code: ITMO Case No.: SAS No.: SDG No.: W02751

Matrix (soil/water): WATER Lab Sample ID: 21164-001

Level (low/med): LOW Date Received: 04/22/99

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	120	B		P
7440-36-0	Antimony	36.4	U		P
7440-38-2	Arsenic	1.8	U		F
7440-39-3	Barium	29.2	B		P
7440-41-7	Beryllium	0.60	B		P
7440-43-9	Cadmium	3.9	U		P
7440-70-2	Calcium	23300			P
7440-47-3	Chromium	4.8	U		P
7440-48-4	Cobalt	5.1	U		P
7440-50-8	Copper	3.9	U		P
7439-89-6	Iron	234			P
7439-95-4	Magnesium	5010			P
7439-96-5	Manganese	12.8	B		P
7440-02-0	Nickel	8.6	U		P
7440-09-7	Potassium	2550	B		P
7440-22-4	Silver	5.9	U		P
7440-23-5	Sodium	3340	B		P
7440-62-2	Vanadium	8.4	B		P
7440-66-6	Zinc	14.7	B		P

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:

FORM I - IN

SW-846

Bechtel Hanford Incoporated
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Richland, WA 99352

Project: 550.230

Category: pH EPA 150.1
Method: EPA 150.1
Matrix: LIQUID

Sample Date : 04/21/99
Receipt Date : 04/22/99
Report Date : 05/19/99

Client ID	Quanterra ID	Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dil.
B0VC26	21164-001	pH	PH	QCBLK198193-1	04/26/99	04/26/99	7.50	PH			1
B0VC26	21164-001DUP	pH	PH	QCBLK198193-1	04/26/99	04/26/99	7.41	PH			1
NA	QCBLK198193-1	pH	PH	QCBLK198193-1	04/26/99	04/26/99	5.77	PH			1

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Project: 550.230

Category: Residual Chlorine
Method: EPA 330.3
Matrix: LIQUID

Sample Date : 04/21/99
Receipt Date : 04/22/99
Report Date : 05/19/99

Client ID	Quanterra ID	Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dil.
B0VC26	21164-001	Residual Chlori	7782-50-5a	QCBLK198188-1	04/23/99	04/23/99	1.50	MG/L		0.10	1
B0VC26	21164-001DUP	Residual Chlori	7782-50-5a	QCBLK198188-1	04/23/99	04/23/99	1.55	MG/L		0.10	1
NA	QCBLK198188-1	Residual Chlori	7782-50-5a	QCBLK198188-1	04/23/99	04/23/99	0.10	MG/L	U	0.10	1
NA	QCLCS198188-1	Residual Chlori	7782-50-5a	QCBLK198188-1	04/23/99	04/23/99	100	%REC			1

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Project: 550.230

Category: Sulfate
Method: EPA 375.4
Matrix: LIQUID

Sample Date : 04/21/99
Receipt Date : 04/22/99
Report Date : 05/19/99

Client ID	Quanterra ID	Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dil.
B0VC26	21164-001	Sulfate	14808-79-8	QCBLK198775-1	05/05/99	05/05/99	50.9	MG/L		5.00	1
B0VC26	21164-001DUP	Sulfate	14808-79-8	QCBLK198775-1	05/05/99	05/05/99	49.4	MG/L		5.00	1
B0VC26	21164-001MS	Sulfate	14808-79-8	QCBLK198775-1	05/05/99	05/05/99	116	%REC			1
NA	QCBLK198775-1	Sulfate	14808-79-8	QCBLK198775-1	05/05/99	05/05/99	5.00	MG/L	U	5.00	1
NA	QCLCS198775-1	Sulfate	14808-79-8	QCBLK198775-1	05/05/99	05/05/99	110	%REC			1

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Project: 550.230

Category: TDS-160.1
Method: EPA 160.1
Matrix: LIQUID

Sample Date : 04/21/99
Receipt Date : 04/22/99
Report Date : 05/19/99

Client ID	Quanterra ID	Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dil.
B0VC26	21164-001	Total Dissolved	TDS	QCBLK198292-1	04/27/99	04/27/99	109	MG/L		5.00	1
B0VC26	21164-001DUP	Total Dissolved	TDS	QCBLK198292-1	04/27/99	04/27/99	104	MG/L		5.00	1
NA	QCBLK198292-1	Total Dissolved	TDS	QCBLK198292-1	04/27/99	04/27/99	5.00	MG/L	U	5.00	1
NA	QCLCS198292-1	Total Dissolved	TDS	QCBLK198292-1	04/27/99	04/27/99	96	%REC			1

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Project: 550.230

Category: Total Suspended Solids (160.2)
Method: EPA 160.2
Matrix: LIQUID

Sample Date : 04/21/99
Receipt Date : 04/22/99
Report Date : 05/19/99

Client ID	Quanterra ID	Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dil.
B0VC26	21164-001	Total Suspended	TSS	QCBLK198293-1	04/27/99	04/27/99	6.0	MG/L		1.00	1
B0VC26	21164-001DUP	Total Suspended	TSS	QCBLK198293-2	04/29/99	04/29/99	7.0	MG/L		1.00	1
NA	QCBLK198293-1	Total Suspended	TSS	QCBLK198293-1	04/27/99	04/27/99	1.00	MG/L	U	1.00	1
NA	QCBLK198293-2	Total Suspended	TSS	QCBLK198293-2	04/29/99	04/29/99	1.00	MG/L	U	1.00	1
NA	QCLCS198293-1	Total Suspended	TSS	QCBLK198293-1	04/27/99	04/27/99	97	%REC			1
NA	QCLCS198293-2	Total Suspended	TSS	QCBLK198293-2	04/29/99	04/29/99	97	%REC			1