W02912-QES

C052411

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Raw QC Data 397
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Data
Log In

Quanterra Incorporated
5815 Middlebrook Pike
Knoxville, Tennessee 37921

423 588-6401 Telephone
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CERTIFICATE OF ANALYSIS

NOV 1999
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Data
Log In

Bechtel Hanford, Inc.
3350 George Washington Way
Richland, WA 99352

October 28, 1999

Attention: Joan Kessner

SAF Number	:	B99-086
Date Samples Received	:	September 29, 1999
Number of Samples	:	Twenty (20)
Sample Type	:	Air
SDG Number	:	W02912
Data Deliverable	:	45 Day Data Package

I. Introduction

Twenty (20) air samples were received on September 29, 1999 by the Quanterra Environmental Services Knoxville Laboratory (QESKL) for analysis. Upon receipt, the samples were assigned the following laboratory ID number to correspond with the Bechtel Hanford, Inc. (BHI) specific ID:

QESRL ID#	BHI ID#	MATRIX	DATE OF RECEIPT
D31T3	BOWDF2	Air	09/29/99
D31T6	BOWDF3	Air	09/29/99
D31T7	BOWDF4	Air	09/29/99
D31T9	BOWDF5	Air	09/29/99
D31TA	BOWDF6	Air	09/29/99
D31TC	BOWDF7	Air	09/29/99
D31TD	BOWDF8	Air	09/29/99
D31TE	BOWDF9	Air	09/29/99
D31TG	BOWFD4	Air	09/29/99
D31TH	BOWFD5	Air	09/29/99
D320Q	BOWDH0	Air	09/29/99
D320V	BOWDH1	Air	09/29/99
D320W	BOWDH2	Air	09/29/99
D3210	BOWDH3	Air	09/29/99

QESRL ID#	BHI ID#	MATRIX	DATE OF RECEIPT
D3211	BOWDH4	Air	09/29/99
D3212	BOWDH5	Air	09/29/99
D3213	BOWDH6	Air	09/29/99
D3214	BOWDF7	Air	09/29/99
D3215	BOWFD6	Air	09/29/99
D3216	BOWFD7	Air	09/29/99

II. Analytical Results/Methodology

The analytical results for this report are presented by laboratory sample ID. Each set of data includes sample identification information and analytical results.

The requested analysis was:

Volatile Organics by TO-14
Fixed Gases by D 1946/E 260

III. Quality Control

The analytical results for the analysis performed includes a minimum of one Laboratory Control Sample (LCS).

Quality control sample results are reported in the same units as sample results.

IV. Comments

The original chain of custody's are included with this report.

I certify that this Certificate of Analysis 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:

Jamie McKinney
Project Manager

Sample Data Summary

BECHTEL HANFORD, INC.

Lab Name:QUANTERRA SDG Number: W02912

Matrix: (soil/water) AIR Lab Sample ID:H9I290131 001
Method: EPA-19 TO-14
Volatile Organics, (GCMS-TO14 Low Level)-Air

Sample WT/Vol: / mL Date Received: 09/29/99
Work Order: D31T3101 Date Extracted:10/07/99
Dilution factor: 2.04 Date Analyzed: 10/09/99

QC Batch: 9281337

Client Sample Id: BOWDF2

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ppb(v	Q
75-71-8	**Dichlorodifluoromethane**	**0.62**	
75-45-6	Chlorodifluoromethane	0.41	U
76-14-2	1,2-Dichloro-1,1,2,2-tetrafl	0.41	U
74-87-3	Chloromethane	1.0	U
75-01-4	Vinyl chloride	0.41	U
106-97-8	**n-Butane**	**1.8**	
106-99-0	1,3-Butadiene	0.41	U
74-83-9	Bromomethane	0.41	U
75-00-3	Chloroethane	0.41	U
75-69-4	Trichlorofluoromethane	0.41	U
109-66-0	**Pentane**	**1.1**	
75-35-4	1,1-Dichloroethene	0.41	U
76-13-1	1,1,2-Trichloro-1,2,2-triflu	0.41	U
75-15-0	Carbon disulfide	0.41	U
107-05-1	3-Chloropropene	0.41	U
75-09-2	**Methylene chloride**	**3.9**	
156-60-5	trans-1,2-Dichloroethene	0.41	U
110-54-3	n-Hexane	0.41	U
75-34-3	1,1-Dichloroethane	0.41	U
156-59-2	cis-1,2-Dichloroethene	0.41	U
67-66-3	Chloroform	0.41	U
71-55-6	1,1,1-Trichloroethane	0.41	U
110-82-7	Cyclohexane	1.0	U
56-23-5	Carbon tetrachloride	0.41	U
71-43-2	Benzene	0.41	U
107-06-2	1,2-Dichloroethane	0.41	U
142-82-5	n-Heptane	0.41	U
79-01-6	Trichloroethene	0.41	U

BECHTEL HANFORD, INC.

Lab Name:QUANTERRA SDG Number: W02912

Matrix: (soil/water) AIR Lab Sample ID:H9I290131 001
Method: EPA-19 TO-14
Volatile Organics, (GCMS-TO14 Low Level)-Air

Sample WT/Vol: / mL Date Received: 09/29/99
Work Order: D31T3101 Date Extracted:10/07/99
Dilution factor: 2.04 Date Analyzed: 10/09/99

QC Batch: 9281337

Client Sample Id: BOWDF2

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ppb(v	Q
78-87-5	1,2-Dichloropropane	0.41	U
74-95-3	Dibromomethane	0.41	U
75-27-4	Bromodichloromethane	0.41	U
10061-01-5	cis-1,3-Dichloropropene	0.41	U
108-88-3	**Toluene**	**0.63**	
111-65-9	n-Octane	0.41	U
10061-02-6	trans-1,3-Dichloropropene	0.41	U
79-00-5	1,1,2-Trichloroethane	0.41	U
127-18-4	Tetrachloroethene	0.41	U
124-48-1	Dibromochloromethane	0.41	U
106-93-4	1,2-Dibromoethane (EDB)	0.41	U
108-90-7	Chlorobenzene	0.41	U
100-41-4	Ethylbenzene	0.41	U
136777-61-2	m-Xylene & p-Xylene	0.41	U
111-84-2	Nonane	0.41	U
95-47-6	o-Xylene	0.41	U
100-42-5	Styrene	0.41	U
75-25-2	Bromoform	0.41	U
98-82-8	Cumene	0.41	U
79-34-5	1,1,2,2-Tetrachloroethane	0.41	U
103-65-1	n-Propylbenzene	0.41	U
108-67-8	1,3,5-Trimethylbenzene	0.41	U
124-18-5	n-Decane	0.41	U
98-83-9	alpha-Methylstyrene	0.41	U
95-63-6	1,2,4-Trimethylbenzene	0.41	U
541-73-1	1,3-Dichlorobenzene	0.41	U
106-46-7	1,4-Dichlorobenzene	0.41	U
100-44-7	Benzyl chloride	0.41	U

BECHTEL HANFORD, INC.

Lab Name:QUANTERRA SDG Number: W02912

Matrix: (soil/water) AIR Lab Sample ID:H9I290131 001
Method: EPA-19 TO-14
Volatile Organics, (GCMS-TO14 Low Level)-Air

Sample WT/Vol: / mL Date Received: 09/29/99
Work Order: D31T3101 Date Extracted:10/07/99
Dilution factor: 2.04 Date Analyzed: 10/09/99

QC Batch: 9281337

Client Sample Id: BOWDF2

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ppb(v	Q
95-50-1	1,2-Dichlorobenzene	0.41	U
1120-21-4	n-Undecane	0.41	U
112-40-3	n-Dodecane	0.41	U
120-82-1	1,2,4-Trichlorobenzene	0.41	U
87-68-3	Hexachlorobutadiene	0.41	U
91-20-3	Naphthalene	0.41	U
67-56-1	Methanol	20	U
60-29-7	Ethyl ether	1.0	U
67-64-1	Acetone	10	U
107-13-1	Acrylonitrile	1.0	U
108-05-4	Vinyl acetate	1.0	U
78-93-3	2-Butanone (MEK)	1.0	U
71-36-3	1-Butanol	1.0	U
108-10-1	4-Methyl-2-pentanone (MIBK)	1.0	U
591-78-6	2-Hexanone	1.0	U
1634-04-4	Methyl tert-butyl ether	1.0	U
107-02-8	Acrolein	1.0	U
75-05-8	Acetonitrile	2.0	U

BECHTEL HANFORD, INC.

Lab Name:QUANTERRA

SDG Number: W02912

Matrix: (soil/water) AIR

Lab Sample ID:H9I290131 001

Method: EPA-19 TO-14
Volatile Organics, (GCMS-TO14 Low Level)-Air

Sample WT/Vol: / mL
Work Order: D31T3102
Dilution factor: 2.04

Date Received: 09/29/99
Date Extracted:10/07/99
Date Analyzed: 10/09/99

QC Batch: 9281337

Client Sample Id: BOWDF2 DUP

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ppb(v	Q
75-71-8	Dichlorodifluoromethane	0.61	
75-45-6	Chlorodifluoromethane	0.41	U
76-14-2	1,2-Dichloro-1,1,2,2-tetrafl	0.41	U
74-87-3	Chloromethane	1.0	U
75-01-4	Vinyl chloride	0.41	U
106-97-8	n-Butane	1.9	
106-99-0	1,3-Butadiene	0.41	U
74-83-9	Bromomethane	0.41	U
75-00-3	Chloroethane	0.41	U
75-69-4	Trichlorofluoromethane	0.41	U
109-66-0	Pentane	1.0	U
75-35-4	1,1-Dichloroethene	0.41	U
76-13-1	1,1,2-Trichloro-1,2,2-triflu	0.41	U
75-15-0	Carbon disulfide	0.41	U
107-05-1	3-Chloropropene	0.41	U
75-09-2	Methylene chloride	3.8	
156-60-5	trans-1,2-Dichloroethene	0.41	U
110-54-3	n-Hexane	0.41	U
75-34-3	1,1-Dichloroethane	0.41	U
156-59-2	cis-1,2-Dichloroethene	0.41	U
67-66-3	Chloroform	0.41	U
71-55-6	1,1,1-Trichloroethane	0.41	U
110-82-7	Cyclohexane	1.0	U
56-23-5	Carbon tetrachloride	0.41	U
71-43-2	Benzene	0.41	U
107-06-2	1,2-Dichloroethane	0.41	U
142-82-5	n-Heptane	0.41	U
79-01-6	Trichloroethene	0.41	U

BECHTEL HANFORD, INC.

Lab Name:QUANTERRA SDG Number: W02912

Matrix: (soil/water) AIR Lab Sample ID:H9I290131 001
Method: EPA-19 TO-14
Volatile Organics, (GCMS-TO14 Low Level)-Air

Sample WT/Vol: / mL Date Received: 09/29/99
Work Order: D31T3102 Date Extracted:10/07/99
Dilution factor: 2.04 Date Analyzed: 10/09/99

QC Batch: 9281337

Client Sample Id: BOWDF2 DUP

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ppb(v	Q
78-87-5	1,2-Dichloropropane	0.41	U
74-95-3	Dibromomethane	0.41	U
75-27-4	Bromodichloromethane	0.41	U
10061-01-5	cis-1,3-Dichloropropene	0.41	U
108-88-3	Toluene	0.66	
111-65-9	n-Octane	0.41	U
10061-02-6	trans-1,3-Dichloropropene	0.41	U
79-00-5	1,1,2-Trichloroethane	0.41	U
127-18-4	Tetrachloroethene	0.41	U
124-48-1	Dibromochloromethane	0.41	U
106-93-4	1,2-Dibromoethane (EDB)	0.41	U
108-90-7	Chlorobenzene	0.41	U
100-41-4	Ethylbenzene	0.41	U
136777-61-2	m-Xylene & p-Xylene	0.41	U
111-84-2	Nonane	0.41	U
95-47-6	o-Xylene	0.41	U
100-42-5	Styrene	0.41	U
75-25-2	Bromoform	0.41	U
98-82-8	Cumene	0.41	U
79-34-5	1,1,2,2-Tetrachloroethane	0.41	U
103-65-1	n-Propylbenzene	0.41	U
108-67-8	1,3,5-Trimethylbenzene	0.41	U
124-18-5	n-Decane	0.41	U
98-83-9	alpha-Methylstyrene	0.41	U
95-63-6	1,2,4-Trimethylbenzene	0.41	U
541-73-1	1,3-Dichlorobenzene	0.41	U
106-46-7	1,4-Dichlorobenzene	0.41	U
100-44-7	Benzyl chloride	0.41	U

BECHTEL HANFORD, INC.

Lab Name:QUANTERRA SDG Number: W02912

Matrix: (soil/water) AIR Lab Sample ID:H9I290131 001
Method: EPA-19 TO-14
Volatile Organics, (GCMS-TO14 Low Level)-Air

Sample WT/Vol: / mL Date Received: 09/29/99
Work Order: D31T3102 Date Extracted:10/07/99
Dilution factor: 2.04 Date Analyzed: 10/09/99

QC Batch: 9281337

Client Sample Id: BOWDF2 DUP

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ppb(v	Q
95-50-1	1,2-Dichlorobenzene	0.41	U
1120-21-4	n-Undecane	0.41	U
112-40-3	n-Dodecane	0.41	U
120-82-1	1,2,4-Trichlorobenzene	0.41	U
87-68-3	Hexachlorobutadiene	0.41	U
91-20-3	Naphthalene	0.41	U
67-56-1	Methanol	20	U
60-29-7	Ethyl ether	1.0	U
67-64-1	Acetone	10	
107-13-1	Acrylonitrile	1.0	U
108-05-4	Vinyl acetate	1.0	U
78-93-3	2-Butanone (MEK)	1.0	U
71-36-3	1-Butanol	1.0	U
108-10-1	4-Methyl-2-pentanone (MIBK)	1.0	U
591-78-6	2-Hexanone	1.0	U
1634-04-4	Methyl tert-butyl ether	1.0	U
107-02-8	Acrolein	1.0	U
75-05-8	Acetonitrile	2.0	U

BECHTEL HANFORD, INC.

Lab Name:QUANTERRA SDG Number: W02912

Matrix: (soil/water) AIR Lab Sample ID:H9I290131 002
Method: EPA-19 TO-14
Volatile Organics, (GCMS-TO14 Low Level)-Air

Sample WT/Vol: / mL Date Received: 09/29/99
Work Order: D31T6101 Date Extracted:10/07/99
Dilution factor: 399297.4 Date Analyzed: 10/08/99

QC Batch: 9281337

Client Sample Id: BOWDF3

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ppb(v	Q
75-71-8	Dichlorodifluoromethane	80000	U
75-45-6	Chlorodifluoromethane	80000	U
76-14-2	1,2-Dichloro-1,1,2,2-tetrafl	80000	U
74-87-3	Chloromethane	200000	U
75-01-4	Vinyl chloride	80000	U
106-97-8	n-Butane	80000	U
106-99-0	1,3-Butadiene	80000	U
74-83-9	Bromomethane	80000	U
75-00-3	Chloroethane	80000	U
75-69-4	Trichlorofluoromethane	80000	U
109-66-0	Pentane	200000	U
75-35-4	1,1-Dichloroethene	80000	U
76-13-1	1,1,2-Trichloro-1,2,2-triflu	80000	U
75-15-0	Carbon disulfide	80000	U
107-05-1	3-Chloropropene	80000	U
75-09-2	Methylene chloride	80000	U
156-60-5	trans-1,2-Dichloroethene	80000	U
110-54-3	n-Hexane	80000	U
75-34-3	1,1-Dichloroethane	80000	U
156-59-2	cis-1,2-Dichloroethene	80000	U
67-66-3	Chloroform	80000	U
71-55-6	1,1,1-Trichloroethane	80000	U
110-82-7	Cyclohexane	200000	U
56-23-5	Carbon tetrachloride	80000	U
71-43-2	Benzene	80000	U
107-06-2	1,2-Dichloroethane	80000	U
142-82-5	n-Heptane	80000	U
79-01-6	Trichloroethene	80000	U

BECHTEL HANFORD, INC.

Lab Name: QUANTERRA SDG Number: W02912

Matrix: (soil/water) AIR Lab Sample ID: H9I290131 002
Method: EPA-19 TO-14
Volatile Organics, (GCMS-TO14 Low Level)-Air

Sample WT/Vol: / mL Date Received: 09/29/99
Work Order: D31T6101 Date Extracted: 10/07/99
Dilution factor: 399297.4 Date Analyzed: 10/08/99

QC Batch: 9281337

Client Sample Id: BOWDF3

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ppb(v	Q
78-87-5	1,2-Dichloropropane	80000	U
74-95-3	Dibromomethane	80000	U
75-27-4	Bromodichloromethane	80000	U
10061-01-5	cis-1,3-Dichloropropene	80000	U
108-88-3	Toluene	80000	U
111-65-9	n-Octane	80000	U
10061-02-6	trans-1,3-Dichloropropene	80000	U
79-00-5	1,1,2-Trichloroethane	80000	U
127-18-4	Tetrachloroethene	80000	U
124-48-1	Dibromochloromethane	80000	U
106-93-4	1,2-Dibromoethane (EDB)	80000	U
108-90-7	Chlorobenzene	80000	U
100-41-4	Ethylbenzene	80000	U
136777-61-2	m-Xylene & p-Xylene	80000	U
111-84-2	Nonane	80000	U
95-47-6	o-Xylene	80000	U
100-42-5	Styrene	80000	U
75-25-2	Bromoform	80000	U
98-82-8	Cumene	80000	U
79-34-5	1,1,2,2-Tetrachloroethane	80000	U
103-65-1	n-Propylbenzene	80000	U
108-67-8	1,3,5-Trimethylbenzene	80000	U
124-18-5	n-Decane	80000	U
98-83-9	alpha-Methylstyrene	80000	U
95-63-6	1,2,4-Trimethylbenzene	80000	U
541-73-1	1,3-Dichlorobenzene	80000	U
106-46-7	1,4-Dichlorobenzene	80000	U
100-44-7	Benzyl chloride	80000	U

BECHTEL HANFORD, INC.

Lab Name:QUANTERRA SDG Number: W02912

Matrix: (soil/water) AIR Lab Sample ID:H9I290131 002
Method: EPA-19 TO-14
Volatile Organics, (GCMS-TO14 Low Level)-Air

Sample WT/Vol: / mL Date Received: 09/29/99
Work Order: D31T6101 Date Extracted:10/07/99
Dilution factor: 399297.4 Date Analyzed: 10/08/99

QC Batch: 9281337

Client Sample Id: BOWDF3

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ppb(v	Q
95-50-1	1,2-Dichlorobenzene	80000	U
1120-21-4	n-Undecane	80000	U
112-40-3	n-Dodecane	80000	U
120-82-1	1,2,4-Trichlorobenzene	80000	U
87-68-3	Hexachlorobutadiene	80000	U
91-20-3	Naphthalene	80000	U
67-56-1	Methanol	4000000	U
60-29-7	Ethyl ether	200000	U
67-64-1	Acetone	2000000	U
107-13-1	Acrylonitrile	200000	U
108-05-4	Vinyl acetate	200000	U
78-93-3	2-Butanone (MEK)	200000	U
71-36-3	1-Butanol	200000	U
108-10-1	**4-Methyl-2-pentanone (MIBK)**	**22000000**	
591-78-6	2-Hexanone	200000	U
1634-04-4	Methyl tert-butyl ether	200000	U
107-02-8	Acrolein	200000	U
75-05-8	Acetonitrile	400000	U

BECHTEL HANFORD, INC.

Lab Name:QUANTERRA SDG Number: W02912

Matrix: (soil/water) AIR Lab Sample ID:H9I290131 003
Method: EPA-19 TO-14
Volatile Organics, (GCMS-TO14 Low Level)-Air

Sample WT/Vol: / mL Date Received: 09/29/99
Work Order: D31T7101 Date Extracted:10/07/99
Dilution factor: 412850.53 Date Analyzed: 10/08/99

QC Batch: 9281337

Client Sample Id: BOWDF4

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ppb(v	Q
75-71-8	Dichlorodifluoromethane	83000	U
75-45-6	Chlorodifluoromethane	83000	U
76-14-2	1,2-Dichloro-1,1,2,2-tetrafl	83000	U
74-87-3	Chloromethane	210000	U
75-01-4	Vinyl chloride	83000	U
106-97-8	n-Butane	83000	U
106-99-0	1,3-Butadiene	83000	U
74-83-9	Bromomethane	83000	U
75-00-3	Chloroethane	83000	U
75-69-4	Trichlorofluoromethane	83000	U
109-66-0	Pentane	210000	U
75-35-4	1,1-Dichloroethene	83000	U
76-13-1	1,1,2-Trichloro-1,2,2-triflu	83000	U
75-15-0	Carbon disulfide	83000	U
107-05-1	3-Chloropropene	83000	U
75-09-2	Methylene chloride	83000	U
156-60-5	trans-1,2-Dichloroethene	83000	U
110-54-3	n-Hexane	83000	U
75-34-3	1,1-Dichloroethane	83000	U
156-59-2	cis-1,2-Dichloroethene	83000	U
67-66-3	Chloroform	83000	U
71-55-6	1,1,1-Trichloroethane	83000	U
110-82-7	Cyclohexane	210000	U
56-23-5	Carbon tetrachloride	83000	U
71-43-2	Benzene	83000	U
107-06-2	1,2-Dichloroethane	83000	U
142-82-5	n-Heptane	83000	U
79-01-6	Trichloroethene	83000	U

BECHTEL HANFORD, INC.

Lab Name:QUANTERRA SDG Number: W02912

Matrix: (soil/water) AIR Lab Sample ID:H9I290131 003
Method: EPA-19 TO-14
Volatile Organics, (GCMS-TO14 Low Level)-Air

Sample WT/Vol: / mL Date Received: 09/29/99
Work Order: D31T7101 Date Extracted:10/07/99
Dilution factor: 412850.53 Date Analyzed: 10/08/99

QC Batch: 9281337

Client Sample Id: BOWDF4

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ppb(v	Q
78-87-5	1,2-Dichloropropane	83000	U
74-95-3	Dibromomethane	83000	U
75-27-4	Bromodichloromethane	83000	U
10061-01-5	cis-1,3-Dichloropropene	83000	U
108-88-3	Toluene	83000	U
111-65-9	n-Octane	83000	U
10061-02-6	trans-1,3-Dichloropropene	83000	U
79-00-5	1,1,2-Trichloroethane	83000	U
127-18-4	Tetrachloroethene	83000	U
124-48-1	Dibromochloromethane	83000	U
106-93-4	1,2-Dibromoethane (EDB)	83000	U
108-90-7	Chlorobenzene	83000	U
100-41-4	Ethylbenzene	83000	U
136777-61-2	m-Xylene & p-Xylene	83000	U
111-84-2	Nonane	83000	U
95-47-6	o-Xylene	83000	U
100-42-5	Styrene	83000	U
75-25-2	Bromoform	83000	U
98-82-8	Cumene	83000	U
79-34-5	1,1,2,2-Tetrachloroethane	83000	U
103-65-1	n-Propylbenzene	83000	U
108-67-8	1,3,5-Trimethylbenzene	83000	U
124-18-5	n-Decane	83000	U
98-83-9	alpha-Methylstyrene	83000	U
95-63-6	1,2,4-Trimethylbenzene	83000	U
541-73-1	1,3-Dichlorobenzene	83000	U
106-46-7	1,4-Dichlorobenzene	83000	U
100-44-7	Benzyl chloride	83000	U

BECHTEL HANFORD, INC.

Lab Name:QUANTERRA SDG Number: W02912

Matrix: (soil/water) AIR Lab Sample ID:H9I290131 003
Method: EPA-19 TO-14
Volatile Organics, (GCMS-TO14 Low Level)-Air

Sample WT/Vol: / mL Date Received: 09/29/99
Work Order: D31T7101 Date Extracted:10/07/99
Dilution factor: 412850.53 Date Analyzed: 10/08/99

QC Batch: 9281337

Client Sample Id: BOWDF4

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ppb(v	Q
95-50-1	1,2-Dichlorobenzene	83000	U
1120-21-4	n-Undecane	83000	U
112-40-3	n-Dodecane	83000	U
120-82-1	1,2,4-Trichlorobenzene	83000	U
87-68-3	Hexachlorobutadiene	83000	U
91-20-3	Naphthalene	83000	U
67-56-1	Methanol	4100000	U
60-29-7	Ethyl ether	210000	U
67-64-1	Acetone	2100000	U
107-13-1	Acrylonitrile	210000	U
108-05-4	Vinyl acetate	210000	U
78-93-3	2-Butanone (MEK)	210000	U
71-36-3	1-Butanol	210000	U
108-10-1	**4-Methyl-2-pentanone (MIBK)**	**23000000**	
591-78-6	2-Hexanone	210000	U
1634-04-4	Methyl tert-butyl ether	210000	U
107-02-8	Acrolein	210000	U
75-05-8	Acetonitrile	410000	U

BECHTEL HANFORD, INC.

Lab Name:QUANTERRA SDG Number: W02912

Matrix: (soil/water) AIR Lab Sample ID:H9I290131 004
Method: EPA-19 TO-14
Volatile Organics, (GCMS-TO14 Low Level)-Air

Sample WT/Vol: / mL Date Received: 09/29/99
Work Order: D31T9101 Date Extracted:10/07/99
Dilution factor: 383763.8 Date Analyzed: 10/08/99

QC Batch: 9281337

Client Sample Id: BOWDF5

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ppb(v	Q
75-71-8	Dichlorodifluoromethane	77000	U
75-45-6	Chlorodifluoromethane	77000	U
76-14-2	1,2-Dichloro-1,1,2,2-tetrafl	77000	U
74-87-3	Chloromethane	190000	U
75-01-4	Vinyl chloride	77000	U
106-97-8	n-Butane	77000	U
106-99-0	1,3-Butadiene	77000	U
74-83-9	Bromomethane	77000	U
75-00-3	Chloroethane	77000	U
75-69-4	Trichlorofluoromethane	77000	U
109-66-0	Pentane	190000	U
75-35-4	1,1-Dichloroethene	77000	U
76-13-1	1,1,2-Trichloro-1,2,2-triflu	77000	U
75-15-0	Carbon disulfide	77000	U
107-05-1	3-Chloropropene	77000	U
75-09-2	Methylene chloride	77000	U
156-60-5	trans-1,2-Dichloroethene	77000	U
110-54-3	n-Hexane	77000	U
75-34-3	1,1-Dichloroethane	77000	U
156-59-2	cis-1,2-Dichloroethene	77000	U
67-66-3	Chloroform	77000	U
71-55-6	1,1,1-Trichloroethane	77000	U
110-82-7	Cyclohexane	190000	U
56-23-5	Carbon tetrachloride	77000	U
71-43-2	Benzene	77000	U
107-06-2	1,2-Dichloroethane	77000	U
142-82-5	n-Heptane	77000	U
79-01-6	Trichloroethene	77000	U

BECHTEL HANFORD, INC.

Lab Name:QUANTERRA SDG Number: W02912

Matrix: (soil/water) AIR Lab Sample ID:H9I290131 004
Method: EPA-19 TO-14
Volatile Organics, (GCMS-TO14 Low Level)-Air

Sample WT/Vol: / mL Date Received: 09/29/99
Work Order: D31T9101 Date Extracted:10/07/99
Dilution factor: 383763.8 Date Analyzed: 10/08/99

QC Batch: 9281337

Client Sample Id: BOWDF5

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ppb(v	Q
78-87-5	1,2-Dichloropropane	77000	U
74-95-3	Dibromomethane	77000	U
75-27-4	Bromodichloromethane	77000	U
10061-01-5	cis-1,3-Dichloropropene	77000	U
108-88-3	Toluene	77000	U
111-65-9	n-Octane	77000	U
10061-02-6	trans-1,3-Dichloropropene	77000	U
79-00-5	1,1,2-Trichloroethane	77000	U
127-18-4	Tetrachloroethene	77000	U
124-48-1	Dibromochloromethane	77000	U
106-93-4	1,2-Dibromoethane (EDB)	77000	U
108-90-7	Chlorobenzene	77000	U
100-41-4	Ethylbenzene	77000	U
136777-61-2	m-Xylene & p-Xylene	77000	U
111-84-2	Nonane	77000	U
95-47-6	o-Xylene	77000	U
100-42-5	Styrene	77000	U
75-25-2	Bromoform	77000	U
98-82-8	Cumene	77000	U
79-34-5	1,1,2,2-Tetrachloroethane	77000	U
103-65-1	n-Propylbenzene	77000	U
108-67-8	1,3,5-Trimethylbenzene	77000	U
124-18-5	n-Decane	77000	U
98-83-9	alpha-Methylstyrene	77000	U
95-63-6	1,2,4-Trimethylbenzene	77000	U
541-73-1	1,3-Dichlorobenzene	77000	U
106-46-7	1,4-Dichlorobenzene	77000	U
100-44-7	Benzyl chloride	77000	U

BECHTEL HANFORD, INC.

Lab Name:QUANTERRA SDG Number: W02912

Matrix: (soil/water) AIR Lab Sample ID:H9I290131 004
Method: EPA-19 TO-14
Volatile Organics, (GCMS-TO14 Low Level)-Air

Sample WT/Vol: / mL Date Received: 09/29/99
Work Order: D31T9101 Date Extracted:10/07/99
Dilution factor: 383763.8 Date Analyzed: 10/08/99

QC Batch: 9281337

Client Sample Id: BOWDF5

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ppb(v	Q
95-50-1	1,2-Dichlorobenzene	77000	U
1120-21-4	n-Undecane	77000	U
112-40-3	n-Dodecane	77000	U
120-82-1	1,2,4-Trichlorobenzene	77000	U
87-68-3	Hexachlorobutadiene	77000	U
91-20-3	Naphthalene	77000	U
67-56-1	Methanol	3800000	U
60-29-7	Ethyl ether	190000	U
67-64-1	Acetone	1900000	U
107-13-1	Acrylonitrile	190000	U
108-05-4	Vinyl acetate	190000	U
78-93-3	2-Butanone (MEK)	190000	U
71-36-3	1-Butanol	190000	U
108-10-1	**4-Methyl-2-pentanone (MIBK)**	**20000000**	
591-78-6	2-Hexanone	190000	U
1634-04-4	Methyl tert-butyl ether	190000	U
107-02-8	Acrolein	190000	U
75-05-8	Acetonitrile	380000	U

BECHTEL HANFORD, INC.

Lab Name:QUANTERRA SDG Number: W02912

Matrix: (soil/water) AIR Lab Sample ID:H9I290131 005
Method: EPA-19 TO-14
Volatile Organics, (GCMS-TO14 Low Level)-Air

Sample WT/Vol: / mL Date Received: 09/29/99
Work Order: D31TA101 Date Extracted:10/07/99
Dilution factor: 381799.8 Date Analyzed: 10/08/99

QC Batch: 9281337

Client Sample Id: BOWDF6

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ppb(v	Q
75-71-8	Dichlorodifluoromethane	76000	U
75-45-6	Chlorodifluoromethane	76000	U
76-14-2	1,2-Dichloro-1,1,2,2-tetrafl	76000	U
74-87-3	Chloromethane	190000	U
75-01-4	Vinyl chloride	76000	U
106-97-8	n-Butane	76000	U
106-99-0	1,3-Butadiene	76000	U
74-83-9	Bromomethane	76000	U
75-00-3	Chloroethane	76000	U
75-69-4	Trichlorofluoromethane	76000	U
109-66-0	Pentane	190000	U
75-35-4	1,1-Dichloroethene	76000	U
76-13-1	1,1,2-Trichloro-1,2,2-triflu	76000	U
75-15-0	Carbon disulfide	76000	U
107-05-1	3-Chloropropene	76000	U
75-09-2	Methylene chloride	76000	U
156-60-5	trans-1,2-Dichloroethene	76000	U
110-54-3	n-Hexane	76000	U
75-34-3	1,1-Dichloroethane	76000	U
156-59-2	cis-1,2-Dichloroethene	76000	U
67-66-3	Chloroform	76000	U
71-55-6	1,1,1-Trichloroethane	76000	U
110-82-7	Cyclohexane	190000	U
56-23-5	Carbon tetrachloride	76000	U
71-43-2	Benzene	76000	U
107-06-2	1,2-Dichloroethane	76000	U
142-82-5	n-Heptane	76000	U
79-01-6	Trichloroethene	76000	U

BECHTEL HANFORD, INC.

Lab Name:QUANTERRA SDG Number: W02912

Matrix: (soil/water) AIR Lab Sample ID:H9I290131 005
Method: EPA-19 TO-14
Volatile Organics, (GCMS-TO14 Low Level)-Air

Sample WT/Vol: / mL Date Received: 09/29/99
Work Order: D31TA101 Date Extracted:10/07/99
Dilution factor: 381799.8 Date Analyzed: 10/08/99

QC Batch: 9281337

Client Sample Id: BOWDF6

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ppb(v	Q
78-87-5	1,2-Dichloropropane	76000	U
74-95-3	Dibromomethane	76000	U
75-27-4	Bromodichloromethane	76000	U
10061-01-5	cis-1,3-Dichloropropene	76000	U
108-88-3	Toluene	76000	U
111-65-9	n-Octane	76000	U
10061-02-6	trans-1,3-Dichloropropene	76000	U
79-00-5	1,1,2-Trichloroethane	76000	U
127-18-4	Tetrachloroethene	76000	U
124-48-1	Dibromochloromethane	76000	U
106-93-4	1,2-Dibromoethane (EDB)	76000	U
108-90-7	Chlorobenzene	76000	U
100-41-4	Ethylbenzene	76000	U
136777-61-2	m-Xylene & p-Xylene	76000	U
111-84-2	Nonane	76000	U
95-47-6	o-Xylene	76000	U
100-42-5	Styrene	76000	U
75-25-2	Bromoform	76000	U
98-82-8	Cumene	76000	U
79-34-5	1,1,2,2-Tetrachloroethane	76000	U
103-65-1	n-Propylbenzene	76000	U
108-67-8	1,3,5-Trimethylbenzene	76000	U
124-18-5	n-Decane	76000	U
98-83-9	alpha-Methylstyrene	76000	U
95-63-6	1,2,4-Trimethylbenzene	76000	U
541-73-1	1,3-Dichlorobenzene	76000	U
106-46-7	1,4-Dichlorobenzene	76000	U
100-44-7	Benzyl chloride	76000	U

BECHTEL HANFORD, INC.

Lab Name:QUANTERRA SDG Number: W02912

Matrix: (soil/water) AIR Lab Sample ID:H9I290131 005
Method: EPA-19 TO-14
Volatile Organics, (GCMS-TO14 Low Level)-Air

Sample WT/Vol: / mL Date Received: 09/29/99
Work Order: D31TA101 Date Extracted:10/07/99
Dilution factor: 381799.8 Date Analyzed: 10/08/99

QC Batch: 9281337

Client Sample Id: BOWDF6

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ppb(v	Q
95-50-1	1,2-Dichlorobenzene	76000	U
1120-21-4	n-Undecane	76000	U
112-40-3	n-Dodecane	76000	U
120-82-1	1,2,4-Trichlorobenzene	76000	U
87-68-3	Hexachlorobutadiene	76000	U
91-20-3	Naphthalene	76000	U
67-56-1	Methanol	3800000	U
60-29-7	Ethyl ether	190000	U
67-64-1	Acetone	1900000	U
107-13-1	Acrylonitrile	190000	U
108-05-4	Vinyl acetate	190000	U
78-93-3	2-Butanone (MEK)	190000	U
71-36-3	1-Butanol	190000	U
108-10-1	**4-Methyl-2-pentanone (MIBK)**	**20000000**	
591-78-6	2-Hexanone	190000	U
1634-04-4	Methyl tert-butyl ether	190000	U
107-02-8	Acrolein	190000	U
75-05-8	Acetonitrile	380000	U

BECHTEL HANFORD, INC.

Lab Name:QUANTERRA SDG Number: W02912

Matrix: (soil/water) AIR Lab Sample ID:H9I290131 006
Method: EPA-19 TO-14
Volatile Organics, (GCMS-TO14 Low Level)-Air

Sample WT/Vol: / mL Date Received: 09/29/99
Work Order: D31TC101 Date Extracted:10/07/99
Dilution factor: 410861.7 Date Analyzed: 10/08/99

QC Batch: 9281337

Client Sample Id: BOWDF7

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ppb(v	Q
75-71-8	Dichlorodifluoromethane	82000	U
75-45-6	Chlorodifluoromethane	82000	U
76-14-2	1,2-Dichloro-1,1,2,2-tetrafl	82000	U
74-87-3	Chloromethane	210000	U
75-01-4	Vinyl chloride	82000	U
106-97-8	n-Butane	82000	U
106-99-0	1,3-Butadiene	82000	U
74-83-9	Bromomethane	82000	U
75-00-3	Chloroethane	82000	U
75-69-4	Trichlorofluoromethane	82000	U
109-66-0	Pentane	210000	U
75-35-4	1,1-Dichloroethene	82000	U
76-13-1	1,1,2-Trichloro-1,2,2-triflu	82000	U
75-15-0	Carbon disulfide	82000	U
107-05-1	3-Chloropropene	82000	U
75-09-2	Methylene chloride	82000	U
156-60-5	trans-1,2-Dichloroethene	82000	U
110-54-3	n-Hexane	82000	U
75-34-3	1,1-Dichloroethane	82000	U
156-59-2	cis-1,2-Dichloroethene	82000	U
67-66-3	Chloroform	82000	U
71-55-6	1,1,1-Trichloroethane	82000	U
110-82-7	Cyclohexane	210000	U
56-23-5	Carbon tetrachloride	82000	U
71-43-2	Benzene	82000	U
107-06-2	1,2-Dichloroethane	82000	U
142-82-5	n-Heptane	82000	U
79-01-6	Trichloroethene	82000	U

BECHTEL HANFORD, INC.

Lab Name:QUANTERRA SDG Number: W02912

Matrix: (soil/water) AIR Lab Sample ID:H9I290131 006
Method: EPA-19 TO-14
Volatile Organics, (GCMS-TO14 Low Level)-Air

Sample WT/Vol: / mL Date Received: 09/29/99
Work Order: D31TC101 Date Extracted:10/07/99
Dilution factor: 410861.7 Date Analyzed: 10/08/99

QC Batch: 9281337

Client Sample Id: BOWDF7

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ppb(v	Q
78-87-5	1,2-Dichloropropane	82000	U
74-95-3	Dibromomethane	82000	U
75-27-4	Bromodichloromethane	82000	U
10061-01-5	cis-1,3-Dichloropropene	82000	U
108-88-3	Toluene	82000	U
111-65-9	n-Octane	82000	U
10061-02-6	trans-1,3-Dichloropropene	82000	U
79-00-5	1,1,2-Trichloroethane	82000	U
127-18-4	Tetrachloroethene	82000	U
124-48-1	Dibromochloromethane	82000	U
106-93-4	1,2-Dibromoethane (EDB)	82000	U
108-90-7	Chlorobenzene	82000	U
100-41-4	Ethylbenzene	82000	U
136777-61-2	m-Xylene & p-Xylene	82000	U
111-84-2	Nonane	82000	U
95-47-6	o-Xylene	82000	U
100-42-5	Styrene	82000	U
75-25-2	Bromoform	82000	U
98-82-8	Cumene	82000	U
79-34-5	1,1,2,2-Tetrachloroethane	82000	U
103-65-1	n-Propylbenzene	82000	U
108-67-8	1,3,5-Trimethylbenzene	82000	U
124-18-5	n-Decane	82000	U
98-83-9	alpha-Methylstyrene	82000	U
95-63-6	1,2,4-Trimethylbenzene	82000	U
541-73-1	1,3-Dichlorobenzene	82000	U
106-46-7	1,4-Dichlorobenzene	82000	U
100-44-7	Benzyl chloride	82000	U

BECHTEL HANFORD, INC.

Lab Name:QUANTERRA SDG Number: W02912

Matrix: (soil/water) AIR Lab Sample ID:H9I290131 006
Method: EPA-19 TO-14
Volatile Organics, (GCMS-TO14 Low Level)-Air

Sample WT/Vol: / mL Date Received: 09/29/99
Work Order: D31TC101 Date Extracted:10/07/99
Dilution factor: 410861.7 Date Analyzed: 10/08/99

QC Batch: 9281337

Client Sample Id: BOWDF7

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ppb(v	Q
95-50-1	1,2-Dichlorobenzene	82000	U
1120-21-4	n-Undecane	82000	U
112-40-3	n-Dodecane	82000	U
120-82-1	1,2,4-Trichlorobenzene	82000	U
87-68-3	Hexachlorobutadiene	82000	U
91-20-3	Naphthalene	82000	U
67-56-1	Methanol	4100000	U
60-29-7	Ethyl ether	210000	U
67-64-1	Acetone	2100000	U
107-13-1	Acrylonitrile	210000	U
108-05-4	Vinyl acetate	210000	U
78-93-3	2-Butanone (MEK)	210000	U
71-36-3	1-Butanol	210000	U
108-10-1	**4-Methyl-2-pentanone (MIBK)**	**20000000**	
591-78-6	2-Hexanone	210000	U
1634-04-4	Methyl tert-butyl ether	210000	U
107-02-8	Acrolein	210000	U
75-05-8	Acetonitrile	410000	U

BECHTEL HANFORD, INC.

Lab Name:QUANTERRA SDG Number: W02912

Matrix: (soil/water) AIR Lab Sample ID:H9I290131 007
Method: EPA-19 TO-14
Volatile Organics, (GCMS-TO14 Low Level)-Air

Sample WT/Vol: / mL Date Received: 09/29/99
Work Order: D31TD101 Date Extracted:10/07/99
Dilution factor: 408883.6 Date Analyzed: 10/08/99

QC Batch: 9281337

Client Sample Id: BOWDF8

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ppb(v	Q
75-71-8	Dichlorodifluoromethane	82000	U
75-45-6	Chlorodifluoromethane	82000	U
76-14-2	1,2-Dichloro-1,1,2,2-tetrafl	82000	U
74-87-3	Chloromethane	200000	U
75-01-4	Vinyl chloride	82000	U
106-97-8	n-Butane	82000	U
106-99-0	1,3-Butadiene	82000	U
74-83-9	Bromomethane	82000	U
75-00-3	Chloroethane	82000	U
75-69-4	Trichlorofluoromethane	82000	U
109-66-0	Pentane	200000	U
75-35-4	1,1-Dichloroethene	82000	U
76-13-1	1,1,2-Trichloro-1,2,2-triflu	82000	U
75-15-0	Carbon disulfide	82000	U
107-05-1	3-Chloropropene	82000	U
75-09-2	Methylene chloride	82000	U
156-60-5	trans-1,2-Dichloroethene	82000	U
110-54-3	n-Hexane	82000	U
75-34-3	1,1-Dichloroethane	82000	U
156-59-2	cis-1,2-Dichloroethene	82000	U
67-66-3	Chloroform	82000	U
71-55-6	1,1,1-Trichloroethane	82000	U
110-82-7	Cyclohexane	200000	U
56-23-5	Carbon tetrachloride	82000	U
71-43-2	Benzene	82000	U
107-06-2	1,2-Dichloroethane	82000	U
142-82-5	n-Heptane	82000	U
79-01-6	Trichloroethene	82000	U

BECHTEL HANFORD, INC.

Lab Name:QUANTERRA SDG Number: W02912

Matrix: (soil/water) AIR Lab Sample ID:H9I290131 007
Method: EPA-19 TO-14
Volatile Organics, (GCMS-TO14 Low Level)-Air

Sample WT/Vol: / mL Date Received: 09/29/99
Work Order: D31TD101 Date Extracted:10/07/99
Dilution factor: 408883.6 Date Analyzed: 10/08/99

QC Batch: 9281337

Client Sample Id: BOWDF8

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ppb(v	Q
78-87-5	1,2-Dichloropropane	82000	U
74-95-3	Dibromomethane	82000	U
75-27-4	Bromodichloromethane	82000	U
10061-01-5	cis-1,3-Dichloropropene	82000	U
108-88-3	Toluene	82000	U
111-65-9	n-Octane	82000	U
10061-02-6	trans-1,3-Dichloropropene	82000	U
79-00-5	1,1,2-Trichloroethane	82000	U
127-18-4	Tetrachloroethene	82000	U
124-48-1	Dibromochloromethane	82000	U
106-93-4	1,2-Dibromoethane (EDB)	82000	U
108-90-7	Chlorobenzene	82000	U
100-41-4	Ethylbenzene	82000	U
136777-61-2	m-Xylene & p-Xylene	82000	U
111-84-2	Nonane	82000	U
95-47-6	o-Xylene	82000	U
100-42-5	Styrene	82000	U
75-25-2	Bromoform	82000	U
98-82-8	Cumene	82000	U
79-34-5	1,1,2,2-Tetrachloroethane	82000	U
103-65-1	n-Propylbenzene	82000	U
108-67-8	1,3,5-Trimethylbenzene	82000	U
124-18-5	n-Decane	82000	U
98-83-9	alpha-Methylstyrene	82000	U
95-63-6	1,2,4-Trimethylbenzene	82000	U
541-73-1	1,3-Dichlorobenzene	82000	U
106-46-7	1,4-Dichlorobenzene	82000	U
100-44-7	Benzyl chloride	82000	U

BECHTEL HANFORD, INC.

Lab Name:QUANTERRA SDG Number: W02912

Matrix: (soil/water) AIR Lab Sample ID:H9I290131 007
Method: EPA-19 TO-14
Volatile Organics, (GCMS-TO14 Low Level)-Air

Sample WT/Vol: / mL Date Received: 09/29/99
Work Order: D31TD101 Date Extracted:10/07/99
Dilution factor: 408883.6 Date Analyzed: 10/08/99

QC Batch: 9281337

Client Sample Id: BOWDF8

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ppb(v	Q
95-50-1	1,2-Dichlorobenzene	82000	U
1120-21-4	n-Undecane	82000	U
112-40-3	n-Dodecane	82000	U
120-82-1	1,2,4-Trichlorobenzene	82000	U
87-68-3	Hexachlorobutadiene	82000	U
91-20-3	Naphthalene	82000	U
67-56-1	Methanol	4100000	U
60-29-7	Ethyl ether	200000	U
67-64-1	Acetone	2000000	U
107-13-1	Acrylonitrile	200000	U
108-05-4	Vinyl acetate	200000	U
78-93-3	2-Butanone (MEK)	200000	U
71-36-3	1-Butanol	200000	U
108-10-1	**4-Methyl-2-pentanone (MIBK)**	**17000000**	
591-78-6	2-Hexanone	200000	U
1634-04-4	Methyl tert-butyl ether	200000	U
107-02-8	Acrolein	200000	U
75-05-8	Acetonitrile	410000	U

BECHTEL HANFORD, INC.

Lab Name:QUANTERRA SDG Number: W02912

Matrix: (soil/water) AIR Lab Sample ID:H9I290131 008
Method: EPA-19 TO-14
Volatile Organics, (GCMS-TO14 Low Level)-Air

Sample WT/Vol: / mL Date Received: 09/29/99
Work Order: D31TE101 Date Extracted:10/07/99
Dilution factor: 396261.6 Date Analyzed: 10/08/99

QC Batch: 9281337

Client Sample Id: BOWDF9

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ppb(v	Q
75-71-8	Dichlorodifluoromethane	79000	U
75-45-6	Chlorodifluoromethane	79000	U
76-14-2	1,2-Dichloro-1,1,2,2-tetrafl	79000	U
74-87-3	Chloromethane	200000	U
75-01-4	Vinyl chloride	79000	U
106-97-8	n-Butane	79000	U
106-99-0	1,3-Butadiene	79000	U
74-83-9	Bromomethane	79000	U
75-00-3	Chloroethane	79000	U
75-69-4	Trichlorofluoromethane	79000	U
109-66-0	Pentane	200000	U
75-35-4	1,1-Dichloroethene	79000	U
76-13-1	1,1,2-Trichloro-1,2,2-triflu	79000	U
75-15-0	Carbon disulfide	79000	U
107-05-1	3-Chloropropene	79000	U
75-09-2	Methylene chloride	79000	U
156-60-5	trans-1,2-Dichloroethene	79000	U
110-54-3	n-Hexane	79000	U
75-34-3	1,1-Dichloroethane	79000	U
156-59-2	cis-1,2-Dichloroethene	79000	U
67-66-3	Chloroform	79000	U
71-55-6	1,1,1-Trichloroethane	79000	U
110-82-7	Cyclohexane	200000	U
56-23-5	Carbon tetrachloride	79000	U
71-43-2	Benzene	79000	U
107-06-2	1,2-Dichloroethane	79000	U
142-82-5	n-Heptane	79000	U
79-01-6	Trichloroethene	79000	U

BECHTEL HANFORD, INC.

Lab Name:QUANTERRA SDG Number: W02912

Matrix: (soil/water) AIR Lab Sample ID:H9I290131 008
Method: EPA-19 TO-14
Volatile Organics, (GCMS-TO14 Low Level)-Air

Sample WT/Vol: / mL Date Received: 09/29/99
Work Order: D31TE101 Date Extracted:10/07/99
Dilution factor: 396261.6 Date Analyzed: 10/08/99

QC Batch: 9281337

Client Sample Id: BOWDF9

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ppb(v	Q
78-87-5	1,2-Dichloropropane	79000	U
74-95-3	Dibromomethane	79000	U
75-27-4	Bromodichloromethane	79000	U
10061-01-5	cis-1,3-Dichloropropene	79000	U
108-88-3	Toluene	79000	U
111-65-9	n-Octane	79000	U
10061-02-6	trans-1,3-Dichloropropene	79000	U
79-00-5	1,1,2-Trichloroethane	79000	U
127-18-4	Tetrachloroethene	79000	U
124-48-1	Dibromochloromethane	79000	U
106-93-4	1,2-Dibromoethane (EDB)	79000	U
108-90-7	Chlorobenzene	79000	U
100-41-4	Ethylbenzene	79000	U
136777-61-2	m-Xylene & p-Xylene	79000	U
111-84-2	Nonane	79000	U
95-47-6	o-Xylene	79000	U
100-42-5	Styrene	79000	U
75-25-2	Bromoform	79000	U
98-82-8	Cumene	79000	U
79-34-5	1,1,2,2-Tetrachloroethane	79000	U
103-65-1	n-Propylbenzene	79000	U
108-67-8	1,3,5-Trimethylbenzene	79000	U
124-18-5	n-Decane	79000	U
98-83-9	alpha-Methylstyrene	79000	U
95-63-6	1,2,4-Trimethylbenzene	79000	U
541-73-1	1,3-Dichlorobenzene	79000	U
106-46-7	1,4-Dichlorobenzene	79000	U
100-44-7	Benzyl chloride	79000	U

BECHTEL HANFORD, INC.

Lab Name: QUANTERRA

SDG Number: W02912

Matrix: (soil/water) AIR

Lab Sample ID: H9I290131 008

Method: EPA-19 TO-14
Volatile Organics, (GCMS-TO14 Low Level)-Air

Sample WT/Vol: / mL

Date Received: 09/29/99

Work Order: D31TE101

Date Extracted: 10/07/99

Dilution factor: 396261.6

Date Analyzed: 10/08/99

QC Batch: 9281337

Client Sample Id: BOWDF9

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ppb(v	Q
95-50-1	1,2-Dichlorobenzene	79000	U
1120-21-4	n-Undecane	79000	U
112-40-3	n-Dodecane	79000	U
120-82-1	1,2,4-Trichlorobenzene	79000	U
87-68-3	Hexachlorobutadiene	79000	U
91-20-3	Naphthalene	79000	U
67-56-1	Methanol	4000000	U
60-29-7	Ethyl ether	200000	U
67-64-1	Acetone	2000000	U
107-13-1	Acrylonitrile	200000	U
108-05-4	Vinyl acetate	200000	U
78-93-3	2-Butanone (MEK)	200000	U
71-36-3	1-Butanol	200000	U
108-10-1	**4-Methyl-2-pentanone (MIBK)**	**18000000**	
591-78-6	2-Hexanone	200000	U
1634-04-4	Methyl tert-butyl ether	200000	U
107-02-8	Acrolein	200000	U
75-05-8	Acetonitrile	400000	U

BECHTEL HANFORD, INC.

Lab Name:QUANTERRA SDG Number: W02912

Matrix: (soil/water) AIR Lab Sample ID:H9I290131 009
Method: EPA-19 TO-14
Volatile Organics, (GCMS-TO14 Low Level)-Air

Sample WT/Vol: / mL Date Received: 09/29/99
Work Order: D31TG101 Date Extracted:10/07/99
Dilution factor: 391327.7 Date Analyzed: 10/09/99

QC Batch: 9281337

Client Sample Id: BOWFD4

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ppb(v	Q
75-71-8	Dichlorodifluoromethane	78000	U
75-45-6	Chlorodifluoromethane	78000	U
76-14-2	1,2-Dichloro-1,1,2,2-tetrafl	78000	U
74-87-3	Chloromethane	200000	U
75-01-4	Vinyl chloride	78000	U
106-97-8	n-Butane	78000	U
106-99-0	1,3-Butadiene	78000	U
74-83-9	Bromomethane	78000	U
75-00-3	Chloroethane	78000	U
75-69-4	Trichlorofluoromethane	78000	U
109-66-0	Pentane	200000	U
75-35-4	1,1-Dichloroethene	78000	U
76-13-1	1,1,2-Trichloro-1,2,2-triflu	78000	U
75-15-0	Carbon disulfide	78000	U
107-05-1	3-Chloropropene	78000	U
75-09-2	Methylene chloride	78000	U
156-60-5	trans-1,2-Dichloroethene	78000	U
110-54-3	n-Hexane	78000	U
75-34-3	1,1-Dichloroethane	78000	U
156-59-2	cis-1,2-Dichloroethene	78000	U
67-66-3	Chloroform	78000	U
71-55-6	1,1,1-Trichloroethane	78000	U
110-82-7	Cyclohexane	200000	U
56-23-5	Carbon tetrachloride	78000	U
71-43-2	Benzene	78000	U
107-06-2	1,2-Dichloroethane	78000	U
142-82-5	n-Heptane	78000	U
79-01-6	Trichloroethene	78000	U

BECHTEL HANFORD, INC.

Lab Name:QUANTERRA

SDG Number: W02912

Matrix: (soil/water) AIR

Lab Sample ID:H9I290131 009

Method: EPA-19 TO-14
Volatile Organics, (GCMS-TO14 Low Level)-Air

Sample WT/Vol: / mL
Work Order: D31TG101
Dilution factor: 391327.7

Date Received: 09/29/99
Date Extracted:10/07/99
Date Analyzed: 10/09/99

QC Batch: 9281337

Client Sample Id: BOWFD4

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ppb(v	Q
78-87-5	1,2-Dichloropropane	78000	U
74-95-3	Dibromomethane	78000	U
75-27-4	Bromodichloromethane	78000	U
10061-01-5	cis-1,3-Dichloropropene	78000	U
108-88-3	Toluene	78000	U
111-65-9	n-Octane	78000	U
10061-02-6	trans-1,3-Dichloropropene	78000	U
79-00-5	1,1,2-Trichloroethane	78000	U
127-18-4	Tetrachloroethene	78000	U
124-48-1	Dibromochloromethane	78000	U
106-93-4	1,2-Dibromoethane (EDB)	78000	U
108-90-7	Chlorobenzene	78000	U
100-41-4	Ethylbenzene	78000	U
136777-61-2	m-Xylene & p-Xylene	78000	U
111-84-2	Nonane	78000	U
95-47-6	o-Xylene	78000	U
100-42-5	Styrene	78000	U
75-25-2	Bromoform	78000	U
98-82-8	Cumene	78000	U
79-34-5	1,1,2,2-Tetrachloroethane	78000	U
103-65-1	n-Propylbenzene	78000	U
108-67-8	1,3,5-Trimethylbenzene	78000	U
124-18-5	n-Decane	78000	U
98-83-9	alpha-Methylstyrene	78000	U
95-63-6	1,2,4-Trimethylbenzene	78000	U
541-73-1	1,3-Dichlorobenzene	78000	U
106-46-7	1,4-Dichlorobenzene	78000	U
100-44-7	Benzyl chloride	78000	U

BECHTEL HANFORD, INC.

Lab Name:QUANTERRA SDG Number: W02912

Matrix: (soil/water) AIR Lab Sample ID:H9I290131 009
Method: EPA-19 TO-14
Volatile Organics, (GCMS-TO14 Low Level)-Air

Sample WT/Vol: / mL Date Received: 09/29/99
Work Order: D31TG101 Date Extracted:10/07/99
Dilution factor: 391327.7 Date Analyzed: 10/09/99

QC Batch: 9281337

Client Sample Id: BOWFD4

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ppb(v	Q
95-50-1	1,2-Dichlorobenzene	78000	U
1120-21-4	n-Undecane	78000	U
112-40-3	n-Dodecane	78000	U
120-82-1	1,2,4-Trichlorobenzene	78000	U
87-68-3	Hexachlorobutadiene	78000	U
91-20-3	Naphthalene	78000	U
67-56-1	Methanol	3900000	U
60-29-7	Ethyl ether	200000	U
67-64-1	Acetone	2000000	U
107-13-1	Acrylonitrile	200000	U
108-05-4	Vinyl acetate	200000	U
78-93-3	2-Butanone (MEK)	200000	U
71-36-3	1-Butanol	200000	U
108-10-1	**4-Methyl-2-pentanone (MIBK)**	**15000000**	
591-78-6	2-Hexanone	200000	U
1634-04-4	Methyl tert-butyl ether	200000	U
107-02-8	Acrolein	200000	U
75-05-8	Acetonitrile	390000	U

BECHTEL HANFORD, INC.
METHOD BLANK COMPOUNDS

Lab Name:QUANTERRA SDG Number: W02912

Matrix: (soil/water) AIR Lab Sample ID:H9J080000 337
Method: EPA-19 TO-14
Volatile Organics, (GCMS-TO14 Low Level)-Air

Sample WT/Vol: / mL Date Received: 09/29/99
Work Order: D3FD6101 Date Extracted:10/07/99
Dilution factor: 1 Date Analyzed: 10/08/99

QC Batch: 9281337

Client Sample Id: INTRA-LAB BLANK

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ppb(v	Q
75-71-8	Dichlorodifluoromethane	0.20	U
75-45-6	Chlorodifluoromethane	0.20	U
76-14-2	1,2-Dichloro-1,1,2,2-tetrafl	0.20	U
74-87-3	Chloromethane	0.50	U
75-01-4	Vinyl chloride	0.20	U
106-97-8	n-Butane	0.20	U
106-99-0	1,3-Butadiene	0.20	U
74-83-9	Bromomethane	0.20	U
75-00-3	Chloroethane	0.20	U
75-69-4	Trichlorofluoromethane	0.20	U
109-66-0	Pentane	0.50	U
75-35-4	1,1-Dichloroethene	0.20	U
76-13-1	1,1,2-Trichloro-1,2,2-triflu	0.20	U
75-15-0	Carbon disulfide	0.20	U
107-05-1	3-Chloropropene	0.20	U
75-09-2	Methylene chloride	0.20	U
156-60-5	trans-1,2-Dichloroethene	0.20	U
110-54-3	n-Hexane	0.20	U
75-34-3	1,1-Dichloroethane	0.20	U
156-59-2	cis-1,2-Dichloroethene	0.20	U
67-66-3	Chloroform	0.20	U
71-55-6	1,1,1-Trichloroethane	0.20	U
110-82-7	Cyclohexane	0.50	U
56-23-5	Carbon tetrachloride	0.20	U
71-43-2	Benzene	0.20	U
107-06-2	1,2-Dichloroethane	0.20	U
142-82-5	n-Heptane	0.20	U
79-01-6	Trichloroethene	0.20	U

BECHTEL HANFORD, INC.
METHOD BLANK COMPOUNDS

Lab Name:QUANTERRA SDG Number: W02912

Matrix: (soil/water) AIR Lab Sample ID:H9J080000 337
Method: EPA-19 TO-14
Volatile Organics, (GCMS-TO14 Low Level)-Air

Sample WT/Vol: / mL Date Received: 09/29/99
Work Order: D3FD6101 Date Extracted:10/07/99
Dilution factor: 1 Date Analyzed: 10/08/99

QC Batch: 9281337

Client Sample Id: INTRA-LAB BLANK

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ppb(v	Q
78-87-5	1,2-Dichloropropane	0.20	U
74-95-3	Dibromomethane	0.20	U
75-27-4	Bromodichloromethane	0.20	U
10061-01-5	cis-1,3-Dichloropropene	0.20	U
108-88-3	Toluene	0.20	U
111-65-9	n-Octane	0.20	U
10061-02-6	trans-1,3-Dichloropropene	0.20	U
79-00-5	1,1,2-Trichloroethane	0.20	U
127-18-4	Tetrachloroethene	0.20	U
124-48-1	Dibromochloromethane	0.20	U
106-93-4	1,2-Dibromoethane (EDB)	0.20	U
108-90-7	Chlorobenzene	0.20	U
100-41-4	Ethylbenzene	0.20	U
136777-61-2	m-Xylene & p-Xylene	0.20	U
111-84-2	Nonane	0.20	U
95-47-6	o-Xylene	0.20	U
100-42-5	Styrene	0.20	U
75-25-2	Bromoform	0.20	U
98-82-8	Cumene	0.20	U
79-34-5	1,1,2,2-Tetrachloroethane	0.20	U
103-65-1	n-Propylbenzene	0.20	U
108-67-8	1,3,5-Trimethylbenzene	0.20	U
124-18-5	n-Decane	0.20	U
98-83-9	alpha-Methylstyrene	0.20	U
95-63-6	1,2,4-Trimethylbenzene	0.20	U
541-73-1	1,3-Dichlorobenzene	0.20	U
106-46-7	1,4-Dichlorobenzene	0.20	U
100-44-7	Benzyl chloride	0.20	U

BECHTEL HANFORD, INC.
METHOD BLANK COMPOUNDS

Lab Name:QUANTERRA SDG Number: W02912

Matrix: (soil/water) AIR Lab Sample ID:H9J080000 337
Method: EPA-19 TO-14
Volatile Organics, (GCMS-TO14 Low Level)-Air

Sample WT/Vol: / mL Date Received: 09/29/99
Work Order: D3FD6101 Date Extracted:10/07/99
Dilution factor: 1 Date Analyzed: 10/08/99

QC Batch: 9281337

Client Sample Id: INTRA-LAB BLANK

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ppb(v	Q
95-50-1	1,2-Dichlorobenzene	0.20	U
1120-21-4	n-Undecane	0.20	U
112-40-3	n-Dodecane	0.20	U
120-82-1	1,2,4-Trichlorobenzene	0.20	U
87-68-3	Hexachlorobutadiene	0.20	U
91-20-3	Naphthalene	0.20	U
67-56-1	Methanol	10	U
60-29-7	Ethyl ether	0.50	U
67-64-1	Acetone	5.0	U
107-13-1	Acrylonitrile	0.50	U
108-05-4	Vinyl acetate	0.50	U
78-93-3	2-Butanone (MEK)	0.50	U
71-36-3	1-Butanol	0.50	U
108-10-1	4-Methyl-2-pentanone (MIBK)	0.50	U
591-78-6	2-Hexanone	0.50	U
1634-04-4	Methyl tert-butyl ether	0.50	U
107-02-8	Acrolein	0.50	U
75-05-8	Acetonitrile	1.0	U

BECHTEL HANFORD, INC.
CHECK SAMPLE COMPOUNDS

Lab Name:QUANTERRA SDG Number: W02912

Matrix: (soil/water) AIR Lab Sample ID:H9J080000 337
Method: EPA-19 TO-14
Volatile Organics, (GCMS-TO14 Low Level)-Air

Sample WT/Vol: 100 / mL Date Received: 09/29/99
Work Order: D3FD6102 Date Extracted:10/07/99
Dilution factor: 1 Date Analyzed: 10/08/99

QC Batch: 9281337

Client Sample Id: CHECK SAMPLE

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ppb(v	Q
71-43-2	Benzene	10	
108-90-7	Chlorobenzene	9.8	
75-35-4	1,1-Dichloroethene	9.1	
108-88-3	Toluene	9.9	
79-01-6	Trichloroethene	9.8	

EPA-19 TO-14 SURROGATE RECOVERY

Lab Name: QUANTERRA Client: BECHTEL HANFORD, INC.

Lab Code: QESKNX QESSDG: W02912

Lot #: H9I290131

	CLIENT ID.	SRG01	SRG02	SRG03	TOT OUT
01	BOWDF6	101	100	97	00
02	BOWDF7	101	99	96	00
03	BOWDF8	101	100	98	00
04	BOWDF9	101	101	97	00
05	BOWFD4	101	101	97	00
06	BOWDF2	103	100	96	00
07	BOWDF3	101	98	95	00
08	BOWDF4	100	100	96	00
09	BOWDF5	101	100	95	00
10	METHOD BLK. D3FD6101	99	98	97	00
11	LCS D3FD6102	98	101	99	00
12	BOWDF2 DUP	101	100	98	00

SURROGATES		QC LIMITS
SRG01	= 1,2-Dichloroethane-d4	(70-130)
SRG02	= Toluene-d8	(70-130)
SRG03	= 4-Bromofluorobenzene	(70-130)

\# Column to be used to flag recovery values
* Values outside of required QC Limits
D System monitoring Compound diluted out

FORM II

EPA-19 TO-14 CHECK SAMPLE RECOVERY

Lab Name: QUANTERRA Client: BECHTEL HANFORD, INC.

Lab Code: QESKNX SDG No: W02912

Lot #: H9J080000 WO #: D3FD6102
BATCH: 9281337

COMPOUND	SPIKE ADDED (ppb(v)	SAMPLE CONCENT. (ppb(v)	% REC	QC LIMITS REC	QUAL
Benzene	10	10	101	70- 130	
Chlorobenzene	10	9.8	98	70- 130	
1,1-Dichloroethene	10	9.1	91	70- 130	
Toluene	10	9.9	99	70- 130	
Trichloroethene	10	9.8	98	70- 130	

NOTES(S):

* Values outside of QC limits

Spike Recovery: 0 out of 5 outside limits

COMMENTS:

FORM III

BLANK WORKORDER NO.

D3FD6101

EPA-19 TO-14 METHOD BLANK SUMMARY

Lab Name: QUANTERRA

Lab Code: QESKNX

SDG Number:W02912

Lab File ID: bk1008t3.

Lot Number: H9I290131

Date Analyzed: 10/08/99

Time Analyzed: 20:11

Matrix: AIR

Date Extracted:10/07/99

GC Column: DB-5 ID: .32

Extraction Method: TO-14

Instrument ID: MT

Level:(low/med) LOW

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, LCS, LCSD, MS , MSD:

	CLIENT ID.	SAMPLE WORK ORDER #	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	CHECK SAMPLE	D3FD6102 C	rf1008t.d	10/08/99	18:23
02	BOWDF6	D31TA101	d31tar.d	10/08/99	22:10
03	BOWDF7	D31TC101	d31tcr.d	10/08/99	22:40
04	BOWDF8	D31TD101	d31tdr.d	10/08/99	23:09
05	BOWDF9	D31TE101	d31ter.d	10/08/99	23:39
06	BOWFD4	D31TG101	d31tgr.d	10/09/99	00:09
07	BOWDF2	D31T3101	d31t3r.d	10/09/99	02:53
08	BOWDF2 DUP	D31T3102 X	d31t3rdp.	10/09/99	03:26
09	BOWDF3	D31T6101	d31t6r.d	10/08/99	20:41
10	BOWDF4	D31T7101	d31t7r.d	10/08/99	21:10
11	BOWDF5	D31T9101	d31t9r.d	10/08/99	21:40
12					
13					
14					
15					
16					
17					
18					
19					
20					
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28					
29					
30					

COMMENTS:

FORM IV

Sample Data Summary

BECHTEL HANFORD, INC.

Client Sample ID: BOWFD5

GC Volatiles

Lot-Sample #...: H9I290131-010 Work Order #...: D31TH101 Matrix.....: AIR
Date Sampled...: 09/23/99 Date Received..: 09/29/99
Prep Date.....: 10/15/99 Analysis Date..: 10/15/99
Prep Batch #...: 9291110
Dilution Factor: 9.9 Method.....: ASTM D 1946/E 260

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Carbon dioxide	ND	0.99	%
Carbon monoxide	ND	0.99	%
Methane	ND	0.99	%
Oxygen	**2.1**	**0.99**	**%**
Nitrogen	**100**	**0.99**	**%**
Ethane	ND	0.99	%
Ethene	ND	0.99	%

BECHTEL HANFORD, INC.

Client Sample ID: BOWDH0

GC Volatiles

Lot-Sample #...: H9I290131-011 **Work Order #...:** D320Q101 **Matrix.....:** AIR
Date Sampled...: 09/21/99 **Date Received..:** 09/29/99
Prep Date.....: 10/15/99 **Analysis Date..:** 10/15/99
Prep Batch #...: 9291110
Dilution Factor: 10.05 **Method.....:** ASTM D 1946/E 260

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Carbon dioxide	ND	1.0	%
Carbon monoxide	ND	1.0	%
Methane	ND	1.0	%
Oxygen	**23**	**1.0**	**%**
Nitrogen	**84**	**1.0**	**%**
Ethane	ND	1.0	%
Ethene	ND	1.0	%

BECHTEL HANFORD, INC.

Client Sample ID: BOWDH1

GC Volatiles

Lot-Sample #...: H9I290131-012 Work Order #...: D320V101 Matrix.....: AIR
Date Sampled...: 09/22/99 Date Received..: 09/29/99
Prep Date.....: 10/15/99 Analysis Date..: 10/15/99
Prep Batch #...: 9291110
Dilution Factor: 9.8 Method.....: ASTM D 1946/E 260

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Carbon dioxide	ND	0.98	%
Carbon monoxide	ND	0.98	%
Methane	ND	0.98	%
Oxygen	**6.6**	**0.98**	**%**
Nitrogen	**94**	**0.98**	**%**
Ethane	ND	0.98	%
Ethene	ND	0.98	%

BECHTEL HANFORD, INC.

Client Sample ID: BOWDH2

GC Volatiles

Lot-Sample #...: H9I290131-013 **Work Order #...:** D320W101 **Matrix.....:** AIR
Date Sampled...: 09/22/99 **Date Received..:** 09/29/99
Prep Date.....: 10/15/99 **Analysis Date..:** 10/15/99
Prep Batch #...: 9291110
Dilution Factor: 9.9 **Method.....:** ASTM D 1946/E 260

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Carbon dioxide	ND	0.99	%
Carbon monoxide	ND	0.99	%
Methane	ND	0.99	%
Oxygen	**4.6**	**0.99**	**%**
Nitrogen	**95**	**0.99**	**%**
Ethane	ND	0.99	%
Ethene	ND	0.99	%

BECHTEL HANFORD, INC.

Client Sample ID: BOWDH3

GC Volatiles

Lot-Sample #...: H9I290131-014 **Work Order #...:** D3210101 **Matrix.....:** AIR
Date Sampled...: 09/23/99 **Date Received..:** 09/29/99
Prep Date.....: 10/15/99 **Analysis Date..:** 10/15/99
Prep Batch #...: 9291110
Dilution Factor: 10.05 **Method.....:** ASTM D 1946/E 260

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Carbon dioxide	ND	1.0	%
Carbon monoxide	ND	1.0	%
Methane	ND	1.0	%
Oxygen	**3.7**	**1.0**	**%**
Nitrogen	**94**	**1.0**	**%**
Ethane	ND	1.0	%
Ethene	ND	1.0	%

BECHTEL HANFORD, INC.

Client Sample ID: BOWDH4

GC Volatiles

Lot-Sample #...: H9I290131-015 Work Order #...: D3211101 Matrix.....: AIR
Date Sampled...: 09/23/99 Date Received..: 09/29/99
Prep Date.....: 10/15/99 Analysis Date..: 10/15/99
Prep Batch #...: 9291110
Dilution Factor: 10.05 Method.....: ASTM D 1946/E 260

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Carbon dioxide	ND	1.0	%
Carbon monoxide	ND	1.0	%
Methane	ND	1.0	%
Oxygen	**3.9**	**1.0**	**%**
Nitrogen	**97**	**1.0**	**%**
Ethane	ND	1.0	%
Ethene	ND	1.0	%

BECHTEL HANFORD, INC.

Client Sample ID: BOWDH5

GC Volatiles

Lot-Sample #...: H9I290131-016 Work Order #...: D3212101 Matrix.....: AIR
Date Sampled...: 09/23/99 Date Received..: 09/29/99
Prep Date.....: 10/17/99 Analysis Date..: 10/17/99
Prep Batch #...: 9291115
Dilution Factor: 10.25 Method.....: ASTM D 1946/E 260

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Carbon dioxide	ND	1.0	%
Carbon monoxide	ND	1.0	%
Methane	ND	1.0	%
Oxygen	**4.1**	**1.0**	**%**
Nitrogen	**98**	**1.0**	**%**
Ethane	ND	1.0	%
Ethene	ND	1.0	%

BECHTEL HANFORD, INC.

Client Sample ID: BOWDH6

GC Volatiles

Lot-Sample #...: H9I290131-017 Work Order #...: D3213101 Matrix.....: AIR
Date Sampled...: 09/23/99 Date Received..: 09/29/99
Prep Date.....: 10/17/99 Analysis Date..: 10/17/99
Prep Batch #...: 9291115
Dilution Factor: 10.2 Method.....: ASTM D 1946/E 260

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Carbon dioxide	ND	1.0	%
Carbon monoxide	ND	1.0	%
Methane	ND	1.0	%
Oxygen	**3.7**	**1.0**	**%**
Nitrogen	**96**	**1.0**	**%**
Ethane	ND	1.0	%
Ethene	ND	1.0	%

BECHTEL HANFORD, INC.

Client Sample ID: BOWDH7

GC Volatiles

Lot-Sample #...: H9I290131-018 **Work Order #...:** D3214101 **Matrix.....:** AIR
Date Sampled...: 09/23/99 **Date Received..:** 09/29/99
Prep Date.....: 10/17/99 **Analysis Date..:** 10/17/99
Prep Batch #...: 9291115
Dilution Factor: 9.75 **Method.....:** ASTM D 1946/E 260

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Carbon dioxide	ND	0.98	%
Carbon monoxide	ND	0.98	%
Methane	ND	0.98	%
Oxygen	**2.7**	**0.98**	**%**
Nitrogen	**100**	**0.98**	**%**
Ethane	ND	0.98	%
Ethene	ND	0.98	%

BECHTEL HANFORD, INC.

Client Sample ID: BOWFD6

GC Volatiles

Lot-Sample #...: H9I290131-019 **Work Order #...:** D3215101 **Matrix.....:** AIR
Date Sampled...: 09/23/99 **Date Received..:** 09/29/99
Prep Date.....: 10/17/99 **Analysis Date..:** 10/17/99
Prep Batch #...: 9291115
Dilution Factor: 10.3 **Method.....:** ASTM D 1946/E 260

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Carbon dioxide	ND	1.0	%
Carbon monoxide	ND	1.0	%
Methane	ND	1.0	%
Oxygen	**2.0**	**1.0**	**%**
Nitrogen	**98**	**1.0**	**%**
Ethane	ND	1.0	%
Ethene	ND	1.0	%

BECHTEL HANFORD, INC.

Client Sample ID: BOWFD7

GC Volatiles

Lot-Sample #...: H9I290131-020 **Work Order #...:** D3216101 **Matrix.....:** AIR
Date Sampled...: 09/23/99 **Date Received..:** 09/29/99
Prep Date.....: 10/17/99 **Analysis Date..:** 10/18/99
Prep Batch #...: 9291115
Dilution Factor: 10.05 **Method.....:** ASTM D 1946/E 260

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Carbon dioxide	ND	1.0	%
Carbon monoxide	ND	1.0	%
Methane	ND	1.0	%
Oxygen	**2.0**	**1.0**	**%**
Nitrogen	**99**	**1.0**	**%**
Ethane	ND	1.0	%
Ethene	ND	1.0	%

METHOD BLANK REPORT

GC Volatiles

Client Lot #...: H9I290131 **Work Order #...:** D3REM101 **Matrix.....:** AIR
MB Lot-Sample #: H9J180000-110

Prep Date.....: 10/15/99
Analysis Date..: 10/15/99 **Prep Batch #...:** 9291110
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Carbon dioxide	ND	0.10	%	ASTM D 1946/E 260
Carbon monoxide	ND	0.10	%	ASTM D 1946/E 260
Methane	ND	0.10	%	ASTM D 1946/E 260
Oxygen	ND	0.10	%	ASTM D 1946/E 260
Nitrogen	ND	0.10	%	ASTM D 1946/E 260
Ethane	ND	0.10	%	ASTM D 1946/E 260
Ethene	ND	0.10	%	ASTM D 1946/E 260

NOTE(S):

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

SAMPLE DUPLICATE EVALUATION REPORT

GC Volatiles

Client Lot #...: H9I290131 **Work Order #...:** D31TH101 -SMP **Matrix.....:** AIR
SD Lot-Sample #: H9I290131-010 D31TH102 -DUP
Date Sampled...: 09/23/99 **Date Received..:** 09/29/99
Prep Date.....: 10/15/99 **Analysis Date..:** 10/15/99
Prep Batch #...: 9291110
Dilution Factor: 3.96

PARAMETER	SAMPLE RESULT	DUPLICATE RESULT	UNITS	RPD	RPD LIMIT	METHOD
Carbon dioxide	ND	ND	%	0	(0-30)	ASTM D 1946/E 260
Carbon monoxide	ND	ND	%	0	(0-0.0)	ASTM D 1946/E 260
Methane	ND	ND	%	0	(0-30)	ASTM D 1946/E 260
Oxygen	2.1	2.2	%	4.7	(0-0.0)	ASTM D 1946/E 260
Nitrogen	100	100	%	0.97	(0-30)	ASTM D 1946/E 260
Ethane	ND	ND	%	0	(0-30)	ASTM D 1946/E 260
Ethene	ND	ND	%	0	(0-30)	ASTM D 1946/E 260

LABORATORY CONTROL SAMPLE DATA REPORT

GC Volatiles

Client Lot #...: H9I290131 **Work Order #...:** D3REM102 **Matrix.....:** AIR
LCS Lot-Sample#: H9J180000-110
Prep Date.....: 10/15/99 **Analysis Date..:** 10/15/99
Prep Batch #...: 9291110
Dilution Factor: 1

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	METHOD
Methane	**4.0**	**3.9**	**%**	**98**	**ASTM D 1946/E**
Carbon dioxide	**5.0**	**4.8**	**%**	**96**	**ASTM D 1946/E**
Nitrogen	**5.0**	**5.2**	**%**	**104**	**ASTM D 1946/E**

NOTE(S):

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

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC Volatiles

Client Lot #...: H9I290131 **Work Order #...:** D3REM102 **Matrix.....:** AIR
LCS Lot-Sample#: H9J180000-110
Prep Date.....: 10/15/99 **Analysis Date..:** 10/15/99
Prep Batch #...: 9291110
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD
Methane	**98**	**(70 - 130)**	**ASTM D 1946/E 260**
Carbon dioxide	**96**	**(75 - 125)**	**ASTM D 1946/E 260**
Nitrogen	**104**	**(70 - 130)**	**ASTM D 1946/E 260**

NOTE(S):

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

Bold print denotes control parameters

METHOD BLANK REPORT

GC Volatiles

Client Lot #...: H9I290131 **Work Order #...:** D3REW101 **Matrix.....:** AIR
MB Lot-Sample #: H9J180000-115

Prep Date.....: 10/17/99
Analysis Date..: 10/17/99 **Prep Batch #...:** 9291115
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Carbon dioxide	ND	0.10	%	ASTM D 1946/E 260
Carbon monoxide	ND	0.10	%	ASTM D 1946/E 260
Methane	ND	0.10	%	ASTM D 1946/E 260
Oxygen	ND	0.10	%	ASTM D 1946/E 260
Nitrogen	ND	0.10	%	ASTM D 1946/E 260
Ethane	ND	0.10	%	ASTM D 1946/E 260
Ethene	ND	0.10	%	ASTM D 1946/E 260

NOTE(S):

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

SAMPLE DUPLICATE EVALUATION REPORT

GC Volatiles

Client Lot #...: H9I290131 **Work Order #...:** D3216101 -SMP **Matrix.....:** AIR
SD Lot-Sample #: H9I290131-020 D3216102 -DUP
Date Sampled...: 09/23/99 **Date Received..:** 09/29/99
Prep Date.....: 10/17/99 **Analysis Date..:** 10/18/99
Prep Batch #...: 9291115
Dilution Factor: 10.05

PARAMETER	SAMPLE RESULT	DUPLICATE RESULT	UNITS	RPD	RPD LIMIT	METHOD
Carbon dioxide	ND	ND	%	0	(0-30)	ASTM D 1946/E 260
Carbon monoxide	ND	ND	%	0	(0-0.0)	ASTM D 1946/E 260
Methane	ND	ND	%	0	(0-30)	ASTM D 1946/E 260
Oxygen	2.0	1.9	%	5.2	(0-0.0)	ASTM D 1946/E 260
Nitrogen	99	97	%	2.1	(0-30)	ASTM D 1946/E 260
Ethane	ND	ND	%	0	(0-30)	ASTM D 1946/E 260
Ethene	ND	ND	%	0	(0-30)	ASTM D 1946/E 260

LABORATORY CONTROL SAMPLE DATA REPORT

GC Volatiles

Client Lot #...: H9I290131 Work Order #...: D3REW102 Matrix.....: AIR
LCS Lot-Sample#: H9J180000-115
Prep Date.....: 10/17/99 Analysis Date..: 10/17/99
Prep Batch #...: 9291115
Dilution Factor: 1

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	METHOD
Methane	**4.0**	**3.8**	**%**	**96**	**ASTM D 1946/E**
Carbon dioxide	**5.0**	**4.8**	**%**	**95**	**ASTM D 1946/E**
Nitrogen	**5.0**	**5.4**	**%**	**108**	**ASTM D 1946/E**

NOTE(S):

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

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC Volatiles

Client Lot #...: H9I290131 **Work Order #...:** D3REW102 **Matrix.....:** AIR
LCS Lot-Sample#: H9J180000-115
Prep Date.....: 10/17/99 **Analysis Date..:** 10/17/99
Prep Batch #...: 9291115
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD
Methane	**96**	**(70 - 130)**	**ASTM D 1946/E 260**
Carbon dioxide	**95**	**(75 - 125)**	**ASTM D 1946/E 260**
Nitrogen	**108**	**(70 - 130)**	**ASTM D 1946/E 260**

NOTE(S):

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

Bold print denotes control parameters

Sample Receipt Documentation

H9I290131

Bechtel Hanford Inc.	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	B99-053-10	Page 1 of ~~2~~ 3 DWS

Collector: Dave Shea	Company Contact: Steve Trent — Telephone No.: 372-9651	Project Coordinator: TRENT, SJ	Price Code:	Data Turnaround: 15 Days
Project Designation: 276-S Hexone Storage Tank	Sampling Location: 200 Area	SAF No.: B99-053		
Ice Chest No.: BOX	Field Logbook No.: EL 1133-7	Method of Shipment: Govt Vehicle		
Shipped To: Quanterra Incorporated	Offsite Property No.: A 990277	Bill of Lading/Air Bill No.: 4235 7952 9859 / 9860 (DF8, DF9, FD4, FD5)		
		COA 3AERRP9600		

POSSIBLE SAMPLE HAZARDS/REMARKS

Special Handling and/or Storage

Preservation	None										
Type of Container	Summa Canister										
No. of Container(s)	1										
Volume	6L										
SAMPLE ANALYSIS	VOA - TO-14 (Add-on) (4-Methyl-2-Pentanone)										
						Recd at AMBIENT TEMP					
Sample No.	Matrix *	Sample Date	Sample Time								
B0WDF2 equipment blank 0045	Vapor	9/21/99	1428	✓				JW 9-29-99			BOW DF1
B0WDF3 141/11413	Vapor	9/23/99	1031	✓							BOW DF1
B0WDF4 141/93121	Vapor	9/23/99	1035	✓							BOW DF1
B0WDF5 141/12824	Vapor	9/23/99	1041	✓							BOW DF1
B0WDF6 141/11286	Vapor	9/23/99	1046	✓							BOW DF1

CHAIN OF POSSESSION	Sign/Print Names		
Relinquished By: DWShea	Date/Time: 9/21/99 3:35	Received By: Fridge 2B DWS IA, 3278	Date/Time: 9/21/99 3:35
Relinquished By: Friday 2B	Date/Time: 9/28/99 0915	Received By: C Mice	Date/Time: 9/28/99 0915
Relinquished By: C Mice	Date/Time: 9/28/99 1400	Received By: FEDEX	Date/Time: 9/28/99 1400
Relinquished By:	Date/Time:	Received By: [signature]	Date/Time: 9-29-99 / 10:00

SPECIAL INSTRUCTIONS

COLLECTOR UNAVAILABLE TO SIGN COC

Matrix *: Soil, Water, Vapor, Other Solid, Other Liquid

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

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149I290131

Bechtel Hanford Inc.	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	B99-053-10	Page 2 of 3 DWS

Collector: Dave Shea	Company Contact: Steve Trent — Telephone No.: 372-9651	Project Coordinator: TRENT, SJ	Price Code / Data Turnaround: 15 Days
Project Designation: 276-S Hexone Storage Tank	Sampling Location: 200 Area	SAF No.: B99-053	
Ice Chest No.: BOX	Field Logbook No.: EL 1133-7	Method of Shipment: Govt Vehicle	
Shipped To: Quanterra Incorporated	Offsite Property No.: A990277	Bill of Lading/Air Bill No.: 4235 7952 9859/9860 (DFB, DFC, FD4, FD5)	
		COA BAER RP.9600	

POSSIBLE SAMPLE HAZARDS/REMARKS											
	Preservation	None									
	Type of Container	Summa Canister									
Special Handling and/or Storage	No. of Container(s)	1									
	Volume	6L									
SAMPLE ANALYSIS		VOA - TO-14 (Add-on) (4-Methyl-2-Pentanone)									

Sample No.	Matrix *	Sample Date	Sample Time										
B0WDF7 142/93055	Vapor	9/23/99	1100	✓				Rec'd of Custody	Ambient Seals	Temp Intact		BOW	DF1
B0WDF8 142/0155	Vapor	9/23/99	~~1100~~ 1103	✓								BOW	DF1
B0WDF9 142/12167	Vapor	9/23/99	1106	✓					9-29-99			BOW	DF1

CHAIN OF POSSESSION	Sign/Print Names		
Relinquished By: DW Shea 9/23/99 3:30	Received By: Fridge 2B 9/23/99 3:30		
Relinquished By: Fridge 2B 9/28/99 0915	Received By: Chile 2B 9/28/99 0915		
Relinquished By: C Julie 9/28/99 1400	Received By: FEDEX 9/28/99 1400		
Relinquished By:	Received By: [signature] 9-29-99 10:00		

SPECIAL INSTRUCTIONS: COLLECTOR UNAVAILABLE TO SIGN COC.

Matrix *: Soil; Water; Vapor; Other Solid; Other Liquid

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

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H9I290131

Bechtel Hanford Inc.		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	B99-053-12	Page 1 of 3

Collector: Dave Shea	Company Contact: Steve Trent	Telephone No.: 372-9651	Project Coordinator: TRENT, SJ	Price Code	Data Turnaround: 15 Days
Project Designation: 276-S Hexone Storage Tank	Sampling Location: 200 Area		SAF No.: B99-053		
Ice Chest No.: BOX	Field Logbook No.: EC-1133-7		Method of Shipment: Govt Vehicle		
Shipped To: Quanterra Incorporated	Offsite Property No.: A990277		Bill of Lading/Air Bill No.: 4235 7952 9859/9860 (DF8, DF FD4, FD		
			COA BAER RP9600		

POSSIBLE SAMPLE HAZARDS/REMARKS

Special Handling and/or Storage

Preservation	None	none									
Type of Container	Summa Canister	Summa									
No. of Container(s)	1	1									
Volume	6L	6L									
SAMPLE ANALYSIS	VOA - TO-14 (Add-on) (4-Methyl-2-Pentanone)	see item (1)									

Rec'd at Ambient Temp, Custody Seals Intact 9-29-99

Sample No.	Matrix *	Sample Date	Sample Time										
B0WFD4 142/1100	Vapor	9/23/99	1110	✓	✗								
B0WFD5 142/12308	Vapor	9/23/99	1105	✗	✓								

CHAIN OF POSSESSION	Sign/Print Names		
Relinquished By: Dave Shea	Date/Time: 9/23/99 330	Received By: Fridge 2B	Date/Time: 9/23/99 330
Relinquished By: Fridge 2B	Date/Time: 9/28/99 0915	Received By: Cabrie	Date/Time: 9/28/99 0915
Relinquished By: Cabrie	Date/Time: 9/28/99 1400	Received By: FEDEX	Date/Time: 9/28/99 1400
Relinquished By:	Date/Time:	Received By: [signature]	Date/Time: 9-29-99 10:00

SPECIAL INSTRUCTIONS

1) Atmospheric light gas (CO_2, CO, ethane, ethylene, methane, nitrogen oxygen) NWS 9/24/99

COLLECTOR UNAVAILABLE TO SIGN COC

Matrix *: Soil, Water, Vapor, Other Solid, Other Liquid

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

H9T29013/

Bechtel Hanford Inc.	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	B99-053-11	Page 1 of 2/3 DW05

Collector: Dave Shea	Company Contact: Steve Trent — Telephone No.: 372-9651	Project Coordinator: TRENT, SJ	Price Code / Data Turnaround: 15 Days
Project Designation: 276-S Hexone Storage Tank	Sampling Location: 200 Area	SAF No.: B99-053	
Ice Chest No.: BOX	Field Logbook No.: EL 1133-7	Method of Shipment: ~~Govt Vehicle~~ FED EX	
Shipped To: Quanterra Incorporated	Offsite Property No.: A990279	Bill of Lading/Air Bill No.: 4235 7952 9870/9881 (DH6, DH7) (FD6, FD7)	
		COA: BAER RP 9600	

POSSIBLE SAMPLE HAZARDS/REMARKS											
	Preservation	None									
	Type of Container	Summa Canister									
	No. of Container(s)	1									
Special Handling and/or Storage	Volume	6L									
SAMPLE ANALYSIS		See item (1) in Special Instructions.				Rec'd at Ambient Temp Custody Seals Intact JW 9-24-99					

Sample No.	Matrix *	Sample Date	Sample Time										
B0WDH0 equipment blank/12842	Vapor	9/21/99	1425	✓								BOW	DF1
B0WDH1 142/93112	Vapor	9/22/99	942	✓									
B0WDH2 141/93164	Vapor	9/22/99	954	✓									
B0WDH3 141/04733	Vapor	9/23/99	1029	✓									
B0WDH4 141/12644	Vapor	9/23/99	1037	✓									

CHAIN OF POSSESSION	Sign/Print Names		
Relinquished By: DWShea	Date/Time: 9/21/99 3:35	Received By: Fridge 1A, 3278	Date/Time: 9/21/99 3:35
Relinquished By: Fridge 1A	Date/Time: 9/22/99 5:35	Received By: Dave Shea	Date/Time: 9/22/99 5:35
Relinquished By: Dave Shea	Date/Time: 9/22/99 12:30	Received By: Brent Porter	Date/Time: 9/22/99 12:30
Relinquished By: SJ GALE H. Deb 72899	Date/Time: 12:00	Received By: FED EX	Date/Time:

SPECIAL INSTRUCTIONS

(1) Atmospheric/Light Gas (Carbon Dioxide, Carbon Monoxide, Ethane, Ethylene, Methane, Nitrogen, Oxygen)

COLLECTOR UNAVAILABLE TO SIGN COC

Matrix *: Soil, Water, Vapor, Other Solid, Other Liquid

LABORATORY SECTION	Received By: [signature] 10:00 9-29-99	Title	Date/Time
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By	Date/Time

65

H9I290131

Bechtel Hanford Inc.	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	B99-053-11	Page 2 of ~~2~~ 3 DWS

Collector: Dave Shea	Company Contact: Steve Trent — Telephone No.: 372-9651	Project Coordinator: TRENT, SJ	Price Code:	Data Turnaround: 15 Days
Project Designation: 276-S Hexone Storage Tank	Sampling Location: 200 Area	SAF No.: B99-053		
Ice Chest No.: BOX	Field Logbook No.: EL 1133-7	Method of Shipment: ~~Govt Vehicle~~ FEDEX CT 9/28/99		
Shipped To: Quanterra Incorporated	Offsite Property No.: A990279	Bill of Lading/Air Bill No.: 4235 7952 9870/9881 (DH6, DH7, FD6, FD		
		COA: BAER RP 9600		

POSSIBLE SAMPLE HAZARDS/REMARKS											
	Preservation	None									
	Type of Container	Summa Canister									
	No. of Container(s)	1									
Special Handling and/or Storage	Volume	6L									
SAMPLE ANALYSIS		See item (1) in Special Instructions.				Rec'd at Ambient Temp Custody Seals Intact 9/29/99 9/30/99					
Sample No.	Matrix *	Sample Date	Sample Time								
B0WDH5 141/12175	Vapor	9/23/99	1034	✓						B0W	DF1
B0WDH6 141/93010	Vapor	9/23/99	1043	✓						↓	
B0WDH7 142/12612	Vapor	9/23/99	1100	✓						↓	

CHAIN OF POSSESSION	Sign/Print Names		
Relinquished By: Dwshen	Date/Time: 9/23/99 3:30	Received By: Fridge 2C	Date/Time: 9/23/99 330
Relinquished By: Fridge 2C	Date/Time: 9/28/99 1015	Received By: C Price	Date/Time: 10:15 9/28/99
Relinquished By: C Price	Date/Time: 9/28/99 1400	Received By: FEDEX	Date/Time: 9/28/99 1400
Relinquished By:	Date/Time:	Received By: [signature]	Date/Time: 9-29-99 10:00

SPECIAL INSTRUCTIONS

(1) Atmospheric/Light Gas (Carbon Dioxide, Carbon Monoxide, Ethane, Ethylene, Methane, Nitrogen, Oxygen)

COLLECTOR UNAVAILABLE TO SIGN COC

Matrix *: Soil, Water, Vapor, Other Solid, Other Liquid

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

HGI 290131

Bechtel Hanford Inc.	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	B99-053-13	Page 1 of 1 3 of 3

Collector	Company Contact / Telephone No.	Project Coordinator TRENT, SJ	Price Code / Data Turnaround 15 Days
Project Designation 276-S Hexone Storage Tank	Sampling Location 200 AREA	SAF No. B99-053	
Ice Chest No. BOA	Field Logbook No. EL 1133-7	Method of Shipment FEDEX	
Shipped To Quanterra Incorporated	Offsite Property No. A9902 79	Bill of Lading/Air Bill No. 4235 7952-9870/9881 DH6 DH7 FD6 FD7	
		COA BAER RP 9600	

POSSIBLE SAMPLE HAZARDS/REMARKS												
	Preservation	None										
	Type of Container	Summa Canister										
	No. of Container(s)	1										
Special Handling and/or Storage	Volume	6L										
SAMPLE ANALYSIS		See item (1) in Special Instructions.				Rec'd at Ambient Temp Custody Seals Intact JS 9-24-99						
Sample No.	Matrix *	Sample Date	Sample Time									
B0WFD6 142/11343	Vapor	9/23/99	1108	✓							B0W	DF1
B0WFD7 142/93115	Vapor	9/23/99	1112	✓							↓	

CHAIN OF POSSESSION	Sign/Print Names		
Relinquished By	Date/Time	Received By	Date/Time
DWSheu	9/23/99 330	Fridge 2C	9/23/99 330
Fridge 2C	9/28/99 1015	Chris	9/28/99 1015
Chris	9/28/99 1400	FEDEX	9/28/99 1400
		[illegible]	9-29-99 10:00

SPECIAL INSTRUCTIONS

(1) Atmospheric/Light Gas {Carbon Dioxide, Carbon Monoxide, Ethane, Ethylene, Methane, Nitrogen, Oxygen}

COLLECTOR UNAVAILABLE TO SIGN COC

Matrix *
Soil
Water
Vapor
Other Solid
Other Liquid

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

67

Invoice

Quanterra Environmental Services

Quanterra Inc - Knoxville Lab
5815 Middlebrook Pike
Knoxville,TN 37921-5947
Tel: 423 5886401
Fax: 423 5844315

Number: 14001173
Date: 03 NOV 99
Quanterra Project Number: H9I290131
Customer Number: 00127642
Terms: NET 30 DAYS
Customer Contact: JOAN KESSNER

SAMPLE RECEIVING DATE : 9/29/99
REPORT DATE : 11/03/99

REMIT TO:
Quanterra Incorporated
P.O. Box 2473
Carol Stream, IL 60132-2473

Bill To:
Accounts Payable
Bechtel Hanford, Inc.
3350 George Washington Way
Richland,WA 99352

Bechtel Hanford, Inc.
3350 George Washington Way
Richland,WA 99352

Line No.	Qty.	Matrix Code	Analysis Description	Unit Price	Extended Price
9		AIR	AIR, TO-14, Volatile Organics - Expanded (9K)	223.00	2,007.00
11		AIR	AIR, D 1946/E 260, Fixed Gases (9L)	181.00	1,991.00
1		AIR	AIR, TO-14, Volatile Organics - Expanded (9K LCS)	223.00	223.00
1		AIR	AIR, TO-14, Volatile Organics - Expanded (9K DUP)	223.00	223.00
2		AIR	AIR, D1946/E260, Fixed Gases (9L LCS)	181.00	362.00
2		AIR	AIR, D 1946/E 260, Fixed Gases (9L DUP)	181.00	362.00

Please reference Invoice number when remitting.

Customer P.O. Number / Contract Number / Reference
MW6-SBB-A19981 (0000X-SC-G0063)/B99-053/B99-053

Quanterra Project Manager: Jamie A. McKinney
Salesperson: MCK

Sub Total
Tax
Total: 5,168.00

QUA-4027-C

ORIGINAL

Federal Tax I.D. # 84-1271

Volatiles

QC Summary

METHOD BLANK REPORT

GC Volatiles

Client Lot #...: H9I290131 **Work Order #...:** D3REM101 **Matrix.....:** AIR
MB Lot-Sample #: H9J180000-110

Prep Date.....: 10/15/99
Analysis Date..: 10/15/99 **Prep Batch #...:** 9291110
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Carbon dioxide	ND	0.10	%	ASTM D 1946/E 260
Carbon monoxide	ND	0.10	%	ASTM D 1946/E 260
Methane	ND	0.10	%	ASTM D 1946/E 260
Oxygen	ND	0.10	%	ASTM D 1946/E 260
Nitrogen	ND	0.10	%	ASTM D 1946/E 260
Ethane	ND	0.10	%	ASTM D 1946/E 260
Ethene	ND	0.10	%	ASTM D 1946/E 260

NOTE(S):

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

LABORATORY CONTROL SAMPLE DATA REPORT

GC Volatiles

Client Lot #...: H9I290131 **Work Order #...:** D3REM102 **Matrix.....:** AIR
LCS Lot-Sample#: H9J180000-110
Prep Date.....: 10/15/99 **Analysis Date..:** 10/15/99
Prep Batch #...: 9291110
Dilution Factor: 1

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	METHOD
Methane	**4.0**	**3.9**	**%**	**98**	**ASTM D 1946/E**
Carbon dioxide	**5.0**	**4.8**	**%**	**96**	**ASTM D 1946/E**
Nitrogen	**5.0**	**5.2**	**%**	**104**	**ASTM D 1946/E**

NOTE(S):

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

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC Volatiles

Client Lot #...: H9I290131 **Work Order #...:** D3REM102 **Matrix.....:** AIR
LCS Lot-Sample#: H9J180000-110
Prep Date.....: 10/15/99 **Analysis Date..:** 10/15/99
Prep Batch #...: 9291110
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD
Methane	**98**	**(70 - 130)**	**ASTM D 1946/E 260**
Carbon dioxide	**96**	**(75 - 125)**	**ASTM D 1946/E 260**
Nitrogen	**104**	**(70 - 130)**	**ASTM D 1946/E 260**

NOTE(S):

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

Bold print denotes control parameters

METHOD BLANK REPORT

GC Volatiles

Client Lot #...: H9I290131 **Work Order #...:** D3REW101 **Matrix.....:** AIR
MB Lot-Sample #: H9J180000-115

Prep Date.....: 10/17/99
Analysis Date..: 10/17/99 **Prep Batch #...:** 9291115
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Carbon dioxide	ND	0.10	%	ASTM D 1946/E 260
Carbon monoxide	ND	0.10	%	ASTM D 1946/E 260
Methane	ND	0.10	%	ASTM D 1946/E 260
Oxygen	ND	0.10	%	ASTM D 1946/E 260
Nitrogen	ND	0.10	%	ASTM D 1946/E 260
Ethane	ND	0.10	%	ASTM D 1946/E 260
Ethene	ND	0.10	%	ASTM D 1946/E 260

NOTE(S):

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

LABORATORY CONTROL SAMPLE DATA REPORT

GC Volatiles

Client Lot #...: H9I290131 **Work Order #...:** D3REW102 **Matrix.....:** AIR
LCS Lot-Sample#: H9J180000-115
Prep Date.....: 10/17/99 **Analysis Date..:** 10/17/99
Prep Batch #...: 9291115
Dilution Factor: 1

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	METHOD
Methane	**4.0**	**3.8**	**%**	**96**	**ASTM D 1946/E**
Carbon dioxide	**5.0**	**4.8**	**%**	**95**	**ASTM D 1946/E**
Nitrogen	**5.0**	**5.4**	**%**	**108**	**ASTM D 1946/E**

NOTE(S):

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

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC Volatiles

Client Lot #...: H9I290131 **Work Order #...:** D3REW102 **Matrix.....:** AIR
LCS Lot-Sample#: H9J180000-115
Prep Date.....: 10/17/99 **Analysis Date..:** 10/17/99
Prep Batch #...: 9291115
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD
Methane	**96**	**(70 - 130)**	**ASTM D 1946/E 260**
Carbon dioxide	**95**	**(75 - 125)**	**ASTM D 1946/E 260**
Nitrogen	**108**	**(70 - 130)**	**ASTM D 1946/E 260**

NOTE(S):

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

Bold print denotes control parameters

Miscellaneous Data

Quanterra GC/MS Air Data Review / Narrative Checklist **LOT/Project #** H4I240131

Method: TO-14 - KNOX-MS-0001 Rev 1 **Page 1 of 1**

Analysis Date:	10/8/99		
Instrument:	MT		
ICAL Batch:	T083049		
~~MH~~ CCAL:	T100849		

Review Items	N/A	Yes	No	Why is data reportable?	Ind. ✓
A. Tune / Continuing Calibration					
1. Were all samples injected within 12 hr of BFB?		✓			✓
2. Has a Continuing Calibration Checklist been completed for each analytical batch?		✓			✓
3. Was the correct CCAL used for quantitation? (Manually calculate 1-2 compounds for batch.)		✓			✓
B. CLIENT SAMPLE AND QC SAMPLE Results					
1. Were all special project requirements met?		✓			✓
2. Were dilution factors/header information verified?		✓			✓
3. Are surrogates and internal standards within QC limits? (70-130% R for surr.; 50-150%R from CCAL for IS) *If no, list samples/reason (e.g., sur1):* Sample / Reason / Sample / Reason		✓		☐[sur1] DUP surr. %R demonstrated same effect. ☐[sur2] Reanalysis demonstrated same effect. ☐[sur5] At the client's request, data was flagged as estimated and released without further investigation. * ☐[is1] Per client, reanalysis was not performed * ☐[is2] Reanalysis confirmed a matrix effect. ☐ See Comment no.	✓
4. Were positive hits evaluated using qualitative identification criteria and technical judgement?		✓			✓
5. Are positive results within calibration range?		✓			✓
6. For dilutions, is highest concentration hit ≥ 5 ppb?		✓			✓
7. If manual integrations were performed, are they clearly identified, initialed, dated and reason given?		✓		Reasons: 1)Corrected split peak; 2)Unresolved peak; 3)tailing; 4)RT shift; 5)wrong peak selected; 6)other	✓
8. Have alternate hits/manual integrations been verified as correct?		✓			✓
9. Final report acceptable? (Results correct, RLs calculated correctly, units correct, surrogate %R correct, appropriate flags used, dilution factor correct, analysis dates correct.)		✓		CLP	✓
10. Was a narrative prepared and all deviations noted?		✓			✓
C. Preparation/Matrix QC					
1. System blank run every 12 hours prior to samples?		✓			✓
2. System blank surrogate recoveries within QC limits (70-130% R)?		✓		☐[mb1] All sample surrogates OK and there is no analyte >RL in samples associated with blank.*	✓
3. Are all analytes present in the system blank ≤ RL? *If no, list blank ID:*		✓		☐[mb3] There is no analyte > RL in the samples associated with method blank.* ☐[mb4] Sample results are > 20x higher than blank. ☐[mb6] Common lab contaminant (methylene chloride/Freon) ≤2x RL.*	✓
4. DUP done per 20 samples and are all RPDs within limits? (≤30 RPD for nonpolars; ≤40 RPD for polars; no criteria for methanol and n-butanol) *If no, list DUP ID:*		✓			✓
5. Were MS run #'s assigned correctly?	✓				
D. Other					
1. Are all nonconformances documented appropriately and copy included with deliverable?	✓				✓

Analyst:	Date: 10/11/99	Analyst:	Date: 10/13/99
Comments:		Comments:	

* Such action must be taken in consultation with client.

RQC058

Quanterra Incorporated
EXTRACTION BENCH WORKSHEET

Run Date: 10/11/99
Time: 15:27:43

LEV 1	LEV 2		LEV 1	LEV 2	
_	_	Blank	_	_	Weights/Volumes
_	_	Check	_	_	Spike & Surrogate Worksheet
_	_	MS/MSD	_	_	Vial contains correct volume
			_	_	Labels, greenbars, worksheets
					computer batch: correct & all match
			_	_	Anomalies to Extraction Method

_ Expanded Deliverable
_ COC Completed
_ Bench Sheet Copied
_ Package Submitted to AnalyticalGroup
_ Bench Sheet Copied per COC

Extractionist: _____
_____

Concentrationist: _____
_____

Reviewer/Date: _____ / 0/00/00

****
* QC BATCH: 9281337 *
****

PREP DATE: 10/07/99
COMP DATE: 10/07/99

Volatile Organics, (GCMS-TO14 Low Level)-Air
NO SAMPLE PREPARATION PERFORMED / DIRECT INJECTION

EXTR EXPR	ANL DUE	LOT#,MSRUN#/ WORK ORDER	TEST FLGS	EXT	MTH	MATRIX	INIT/FIN WT/VOL	PH"S INIT	PH"S ADJT	PH"S ADJ2	SOLVENTS EXTRACTION	SOLVENTS VOL	SOLVENTS EXCHANGE	SOLVENTS VOL	SPIKE STANDARD/ SURROGATE ID
0/00/00	0/00/00	H9J080000-337 D3FD6-1-01B		88	JY	AIR	mL	NA	NA	NA		.0		.0	CX-664
COMMENTS:															
0/00/00	0/00/00	H9J080000-337 D3FD6-1-02C		88	JY	AIR	mL	NA	NA	NA		.0		.0	CX-664
COMMENTS:															
0/00/00	10/14/99	H9I290131-005 D31TA-1-01		88	JY	AIR	mL	NA	NA	NA		.0		.0	CX-664
COMMENTS:															
0/00/00	10/14/99	H9I290131-006 D31TC-1-01		88	JY	AIR	mL	NA	NA	NA		.0		.0	CX-664
COMMENTS:															
0/00/00	10/14/99	H9I290131-007 D31TD-1-01		88	JY	AIR	mL	NA	NA	NA		.0		.0	CX-664
COMMENTS:															
0/00/00	10/14/99	H9I290131-008 D31TE-1-01		88	JY	AIR	mL	NA	NA	NA		.0		.0	CX-664
COMMENTS:															
0/00/00	10/14/99	H9I290131-009 D31TG-1-01		88	JY	AIR	mL	NA	NA	NA		.0		.0	CX-664
COMMENTS:															

RQC058

Quanterra Incorporated
EXTRACTION BENCH WORKSHEET

Run Date: 10/11/99
Time: 15:27:43

QC BATCH: 9281337

PREP DATE: 10/07/99
COMP DATE: 10/07/99

EXTR EXPR	ANL DUE	LOT#,MSRUN#/ WORK ORDER	TEST FLGS	EXT	MTH	MATRIX	INIT/FIN WT/VOL	PH"S INIT	PH"S ADJ1	PH"S ADJ2	SOLVENTS EXTRACTION	SOLVENTS VOL	SOLVENTS EXCHANGE	SOLVENTS VOL	SPIKE STANDARD/ SURROGATE ID
0/00/00	10/14/99	H9I290131-001 D31T3-1-01	9284191	88	JY	AIR	mL	NA	NA	NA		.0		.0	CX-664
COMMENTS:															
0/00/00	10/14/99	H9I290131-001 D31T3-1-02X	9284191	88	JY	AIR	mL	NA	NA	NA		.0		.0	CX-664
COMMENTS:															
0/00/00	10/14/99	H9I290131-002 D31T6-1-01		88	JY	AIR	mL	NA	NA	NA		.0		.0	CX-664
COMMENTS:															
0/00/00	10/14/99	H9I290131-003 D31T7-1-01		88	JY	AIR	mL	NA	NA	NA		.0		.0	CX-664
COMMENTS:															
0/00/00	10/14/99	H9I290131-004 D31T9-1-01		88	JY	AIR	mL	NA	NA	NA		.0		.0	CX-664
COMMENTS:															

R = RUSH C = CLP
E = EPA 600 D = EXP.DEL)
M = CLIENT REQ MS/MSD
‡

NUMBER OF WORK ORDERS IN BATCH: 12

Canister Dilution
Initial & In can

analyst : dwc

client: ??

notebook: 1583

page: 87

barometer: 736.4

date: 10/1/99

wo #	sample	can	P init inches	P init Abs,mm	P final psig	P final Abs,mm	dilution factor
h9i290131	d31t3	0045	-1.6	695.8	13.2	1419.0	2.04
	d31t6	11413	-2.3	678.0	12.6	1388.0	2.05
	d31t7	93121	-2.2	680.5	13.0	1408.7	2.07
	d31t9	12824	-2.5	672.9	12.6	1388.0	2.06
	d31ta	11286	-2.6	670.4	12.4	1377.7	2.06
	d31tc	93055	-2.8	665.3	13.0	1408.7	2.12
	d31td	0155	-2.6	670.4	13.2	1419.0	2.12
	d31te	12167	-2.5	672.9	12.6	1388.0	2.06
	d31tg	1100	-2.5	672.9	12.8	1398.3	2.08

1 psig = 2.036 inch Hg
Pinit(Abs,mm)=(Pinit(inch)*25.4mm/inch)+Pbar(mm)
Pfinal(Abs,mm)=(Pfinal(psig)*2.036 (inch Hg/psig)*25.4 (mm/inch))+Pbar(mm)
dilution factor = Pfinal(Abs,mm)/Pinit(Abs,mm)

candil.xls
rev.01

Serial Canister Dilution

analyst : dwc

client: ??

notebook: 1583

page: 87

barometer: 739.1

date: 10/7/99

wo#	sample	from can	to can	init vol (ml)	final in psig	P final abs,mm	dilution factor
h9i290131	d31t6	11413	0177	6.0	13.0	1411.4	1909.6
	d31t7	93121	1102	6.0	14.0	1463.1	1979.6
	d31t9	12824	12326	6.0	12.4	1380.4	1867.6
	d31ta	11286	0003	6.0	12.0	1359.7	1839.6
	d31tc	93055	12522	6.0	13.2	1421.7	1923.6
	d31td	0155	12188	6.0	13.0	1411.4	1909.6
	d31te	12167	12882	6.0	13.2	1421.7	1923.6
	d31tg	1100	04190	6.0	12.8	1401.0	1895.6

1 psig = 2.036 inch Hg
Pfinal(Abs,mm)=(Pfinal(psig)*2.036 (inch Hg/psig)*25.4 (mm/inch))+Pbar(mm)
dilution factor = Pfinal(Abs,mm)/((init vol(ml)*Pbar(mm))/6000ml))

candil.xls
rev.01

Canister Dilution
Initial & In can

analyst : dwc

client: ??

notebook: 1583

page: 88

barometer: 738

date: 10/8/99

wo #	sample	can	P init inches	P init Abs,mm	P final psig	P final Abs,mm	dilution factor
h9i290131	d31t6	0177	0.0	738.0	44.0	3013.4	4.08
	d31t7	1102	0.0	738.0	43.2	2972.1	4.03
	d31t9	12326	0.0	738.0	42.6	2941.0	3.99
	d31ta	0003	0.0	738.0	43.2	2972.1	4.03
	d31tc	12522	0.0	738.0	43.2	2972.1	4.03
	d31td	12188	0.0	738.0	43.4	2982.4	4.04
	d31te	12882	0.0	738.0	42.8	2951.4	4.00
	d31tg	04190	0.0	738.0	42.4	2930.7	3.97

1 psig = 2.036 inch Hg
Pinit(Abs,mm)=(Pinit(inch)*25.4mm/inch)+Pbar(mm)
Pfinal(Abs,mm)=(Pfinal(psig)*2.036 (inch Hg/psig)*25.4 (mm/inch))+Pbar(mm)
dilution factor = Pfinal(Abs,mm)/Pinit(Abs,mm)

candil.xls
rev.01

Lot # H9I300 118. 9/30/99 PBAR = 736.9

W/O #	Can #	Pi (in)	Pf psig	To can	vol (ml)	pf psig
D337C	12818	-0.4	13.8			
D337F	12446	-0.4	13.0			
D337G	12842	-0.4	13.0			
D337H	12573	0.0	14.0			
D337J	04173	0.0	13.2			
D337K	12641	0.0	13.0			

PBAR = 739.1 10/7/99
PBAR = 736.4 10/1/99 see page 88

Lot # H9I290131

W/O #	Can #	Pi (in)	Pf psig	To can	vol (ml)	pf psig
D31T3	0045	-1.6	13.2			
D31T6	11413	-2.3	12.6	0177	6 ml	13.0
D31T7	93121	-2.2	13.0	12/1/99 102	6 ml	14.0
D31T9	12824	-2.5	12.6	12526	6 ml	12.4
D31TA	112816	-2.6	12.4	0003	6 ml	12.0
D31TC	93055	-2.8	13.0	12522	6 ml	13.2
D31TD	0155	-2.6	13.2	12188	6 ml	13.0
D31TE	121167	-2.5	12.6	12882	6 ml	13.2
D31TG	1100	-2.5	12.8	04190	6 ml	12.8

Lot # H9J010139 PBAR = 736.4 10/1/99

W/O #	Can #	Pi (in)	Pf psig	To can	vol (ml)	pf psig
D35A1	12169	-7.6	12.2			
D35A8	12329	-8.9	12.6			

Lot # H9J020113 PBAR = 737.6 10/5/99

W/O #	Can #	Pi (in)	Pf psig	To can	vol (ml)	pf psig
D370G	0076	0.0	15.8			
D370R	04329	0.0	15.0			

10/8/99

Continued on Page

Read and Understood By

Signed _____ Date 10/8/99 Signed _____ Date _____

PROJECT

Notebook No.

Continued From Page

10/11/99 PBAR = 737.3 10/11/99

~~10/8/99~~ ~~10/11/99~~ ~~PBAR = 738.0~~

Lot#	H9I300119	P_i (cc)	date	P_f psig	date to dm	vol (ml)	date P_f psig
W/O#	Can#						
D337P	12162	-6.6		12.0			
D337Q	42026	-6.3		12.5			
D337R	11424	-6.5		12.6			
D337T	93150	-6.8		12.5			
D337V	04422	-6.3		11.3			
D337W	93097	0.0		13.5			
D337X	11146	-6.2		12.6			
D3380	04399	-6.4		12.0			
D3382	11153	-6.8		12.5			
D3383	93105	-6.0		12.3			
D3384	03541	-6.4		11.5			

Lot# H9I290131 date 10/8/99 PBAR = 738.0

W/O#	Can#	P_i (cc)		P_f psig
D31T6	0122	0	→	44.0
D31T7	1102	0	→	43.2
D31T9	12326	0	→	42.6
D31TA	0003	0	→	43.2
D31TC	12522	0	→	43.2
D31TD	~~0155~~ 12188 10/8/99	0	→	43.4
D31TE	12882	0	→	42.8
D31TG	04190	0	→	42.4

Continued on Page

Read and Understood By

Signed Date Signed Date

Sample Receipt Documentation

HA29013)

Bechtel Hanford Inc.	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	B99-053-10	Page 1 of ~~2~~ 3 DWS

Collector: Dave Shea	Company Contact: Steve Trent — Telephone No.: 372-9651	Project Coordinator: TRENT, SJ	Price Code / Data Turnaround: 15 Days
Project Designation: 276-S Hexone Storage Tank	Sampling Location: 200 Area	SAF No.: B99-053	
Ice Chest No.: BOX	Field Logbook No.: EL 1133-7	Method of Shipment: Govt Vehicle	
Shipped To: Quanterra Incorporated	Offsite Property No.: A990277	Bill of Lading/Air Bill No.: 4235 7952 9859 / 9860 (DF8, DF9, FD4, FD5)	
		COA 3AERRP9600	

POSSIBLE SAMPLE HAZARDS/REMARKS											
	Preservation	None									
	Type of Container	Summa Canister									
Special Handling and/or Storage	No. of Container(s)	1									
	Volume	6L									
SAMPLE ANALYSIS		VOA - T0-14 (Add-on) (4-Methyl-2-Pentanone)									

Recd at AMBIENT TEMP

Sample No.	Matrix *	Sample Date	Sample Time									
B0WDF2 equipment blank 1045	Vapor	9/21/99	1428	✓				JW 9-24-99			BOW	DF1
B0WDF3 141/11413	Vapor	9/23/99	1031	✓							BOW	DF1
B0WDF4 141/93121	Vapor	9/23/99	1035	✓							BOW	DF1
B0WDF5 141/12824	Vapor	9/23/99	1041	✓							BOW	DF1
B0WDF6 141/11286	Vapor	9/23/99	1046	✓							BOW	DF1

CHAIN OF POSSESSION	Sign/Print Names		
Relinquished By: DWShea	Date/Time: 9/21/99 3:35	Received By: 2B DWS Fridge 1A, 3278	Date/Time: 9/21/99 3:35
Relinquished By: Friday 2B	Date/Time: 9/28/99 0915	Received By: Clarice	Date/Time: 9/28/99 0915
Relinquished By: Clarice	Date/Time: 9/28/99 1400	Received By: FEDEX	Date/Time: 9/29/99 1400
Relinquished By:	Date/Time:	Received By:	Date/Time: 9/29/99 / 10:00

SPECIAL INSTRUCTIONS: COLLECTOR UNAVAILABLE TO SIGN COC

Matrix *: Soil, Water, Vapor, Other Solid, Other Liquid

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

429

H9I290131

Bechtel Hanford Inc.	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	B99-053-10	Page 2 of ~~1~~ 3 DWS

Collector: Dave Shea	Company Contact: Steve Trent — Telephone No.: 372-9651	Project Coordinator: TRENT, SJ	Price Code / Data Turnaround: 15 Days
Project Designation: 276-S Hexone Storage Tank	Sampling Location: 200 Area	SAF No.: B99-053	
Ice Chest No.: BOX	Field Logbook No.: EL 1133-7	Method of Shipment: Govt Vehicle	
Shipped To: Quanterra Incorporated	Offsite Property No.: A990277	Bill of Lading/Air Bill No.: 4235 7952 9859/9860 (DF8, DF4, FD4, FD8)	
		COA: BAER RP.9600	

POSSIBLE SAMPLE HAZARDS/REMARKS												
	Preservation	None										
	Type of Container	Summa Canister										
Special Handling and/or Storage	No. of Container(s)	1										
	Volume	6L										
SAMPLE ANALYSIS		VOA - T0-14 (Add-on) (4-Methyl-2-Pentanone)										

Sample No.	Matrix *	Sample Date	Sample Time										
B0WDF7 142/93055	Vapor	9/23/99	1100	✓				Rec'd at Custody	Ambient Seals	Temp Intact		BOW	DF1
B0WDF8 142/0155	Vapor	9/23/99	~~1100~~ 1103 INWS	✓								BOW	DF1
B0WDF9 142/12167	Vapor	9/23/99	1106	✓					9-29-99			BOW	DF1

CHAIN OF POSSESSION	Sign/Print Names		
Relinquished By: DW Shea 9/23/99 330	Received By: Fridge 2B 9/23/99 330		
Relinquished By: Fridge 2B 9/28/99 0915	Received By: Chris 2B 9/28/99 0915		
Relinquished By: C Chris 9/28/99 1400	Received By: FEDEX 9/28/99 1400		
Relinquished By:	Received By: [signature] 9-29-99 10:00		

SPECIAL INSTRUCTIONS: COLLECTOR UNAVAILABLE TO SIGN COC.

Matrix *: Soil, Water, Vapor, Other Solid, Other Liquid

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

430

H91290(3)

Bechtel Hanford Inc.		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	B99-053-12	Page 1 of 3

Collector: Dave Shea	Company Contact: Steve Trent	Telephone No.: 372-9651	Project Coordinator: TRENT, SJ
Price Code	Data Turnaround: 15 Days		
Project Designation: 276-S Hexone Storage Tank	Sampling Location: 200 Area		SAF No.: B99-053
Ice Chest No.: BOX	Field Logbook No.: EC-1133-7		Method of Shipment: Govt Vehicle
Shipped To: Quanterra Incorporated	Offsite Property No.: A990277		Bill of Lading/Air Bill No.: 4235 7952 9859/9860 (DF8, DF FD4, FD
			COA: BAER RP 9600

POSSIBLE SAMPLE HAZARDS/REMARKS												
	Preservation	None	none									
	Type of Container	Summa Canister	Summa									
	No. of Container(s)	1	1									
Special Handling and/or Storage	Volume	6L	6L									
SAMPLE ANALYSIS		VOA - T0-14 (Add-on) (4-Methyl-2-Pentanone)	see item (1)									

Recd at Ambient Temp, Custody Seals Intact 9-29-99

Sample No.	Matrix *	Sample Date	Sample Time										
B0WFD4 142/1100	Vapor	9/23/99	1110	✓	X								
B0WFD5 142/2308	Vapor	9/23/99	1105	X	✓								

CHAIN OF POSSESSION	Sign/Print Names		
Relinquished By: DuShea 9/23/99 330	Received By: Fridge 2B 9/23/99 330		
Relinquished By: Fridge 2B 9/28/99 0915	Received By: C. Mile 9/28/99 0915		
Relinquished By: C. Mile 9/28/99 1400	Received By: FEDEX 9/28/99 1400		
Relinquished By:	Received By: [signature] 9-29-99 10:00		

SPECIAL INSTRUCTIONS

1) Atmospheric light gas (CO_2, CO, ethane, ethylene, methane, nitrogen oxygen) MWS 9/24/99

COLLECTOR UNAVAILABLE TO SIGN COC

Matrix *: Soil, Water, Vapor, Other Solid, Other Liquid

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

431

49T29013/

Bechtel Hanford Inc.	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	B99-053-11	Page 1 of ~~2~~ 3 DWS

Collector: Dave Shea	Company Contact: Steve Trent — Telephone No.: 372-9651	Project Coordinator: TRENT, SJ	Price Code / Data Turnaround: 15 Days
Project Designation: 276-S Hexone Storage Tank	Sampling Location: 200 Area	SAF No.: B99-053	
Ice Chest No.: BOX	Field Logbook No.: EL 1133-7	Method of Shipment: ~~Govt Vehicle~~ FED EX	
Shipped To: Quanterra Incorporated	Offsite Property No.: A990279	Bill of Lading/Air Bill No.: 4235 7952 9870/9881 (DH6, DH7, FD6, FD7)	
		COA: BAER RP 9600	

POSSIBLE SAMPLE HAZARDS/REMARKS											
	Preservation	None									
	Type of Container	Summa Canister									
	No. of Container(s)	1									
Special Handling and/or Storage	Volume	6L									
SAMPLE ANALYSIS		See item (1) in Special Instructions.				Rec'd at Ambient Temp Custody Seals Intact 9-24-99					

Sample No.	Matrix *	Sample Date	Sample Time	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
B0WDH0 equipment blank/12842	Vapor	9/21/99	1425	✓								BOW	DF1
B0WDH1 142/93112	Vapor	9/22/99	942	✓									
B0WDH2 141/93164	Vapor	9/22/99	954	✓									
B0WDH3 141/04733	Vapor	9/23/99	1029	✓									
B0WDH4 141/12644	Vapor	9/23/99	1037	✓									

CHAIN OF POSSESSION	Sign/Print Names		
Relinquished By: DWShea	Date/Time: 9/21/99 3:35	Received By: Fridge 1A, 3278	Date/Time: 9/21/99 3:35
Relinquished By: Fridge 1A	Date/Time: 9/22/99 5:35	Received By: Dave Shea	Date/Time: 9/22/99 5:35
Relinquished By: Dave Shea	Date/Time: 9/22/99 12:30	Received By: Brent Porter	Date/Time: 9/22/99 12:30
Relinquished By: SJGRACE	Date/Time: 9/28/99 12:00	Received By: FED EX	Date/Time:
LABORATORY SECTION — Received By: [signature]	Title:	Date/Time: 10:00 9-29-99	
FINAL SAMPLE DISPOSITION — Disposal Method:	Disposed By:	Date/Time:	

SPECIAL INSTRUCTIONS

(1) Atmospheric/Light Gas {Carbon Dioxide, Carbon Monoxide, Ethane, Ethylene, Methane, Nitrogen, Oxygen}

COLLECTOR UNAVAILABLE TO SIGN COC

Matrix *
Soil
Water
Vapor
Other Solid
Other Liquid

432

H9T290131

Bechtel Hanford Inc.	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	B99-053-11	Page 2 of ~~2~~ 3 DWS

Collector: Dave Shea	Company Contact: Steve Trent	Telephone No.: 372-9651	Project Coordinator: TRENT, SJ
Price Code	Data Turnaround: 15 Days		
Project Designation: 276-S Hexone Storage Tank	Sampling Location: 200 Area	SAF No.: B99-053	
Ice Chest No.: BOX	Field Logbook No.: EL 1133-7	Method of Shipment: ~~Govt Vehicle~~ FEDEX	
Shipped To: Quanterra Incorporated	Offsite Property No.: A9902 79	Bill of Lading/Air Bill No.: 4235 7952 9870/9881	DH6, DH7, FDL, F
		COA: BAER RP 9600	

POSSIBLE SAMPLE HAZARDS/REMARKS											
	Preservation	None									
	Type of Container	Summa Canister									
	No. of Container(s)	1									
Special Handling and/or Storage	Volume	6L									
SAMPLE ANALYSIS		See item (1) in Special Instructions.				Read at Ambient Temp Custody Seals Intact 9-29-99 9-30-99					

Sample No.	Matrix *	Sample Date	Sample Time										
B0WDH5 141/12175	Vapor	9/23/99	1034	✓								BOW	DF1
B0WDH6 141/93010	Vapor	9/23/99	1043	✓								↓	
B0WDH7 142/12612	Vapor	9/23/99	1100	✓								↓	

CHAIN OF POSSESSION	Sign/Print Names		
Relinquished By: DWSha	Date/Time: 9/23/99 3:30	Received By: Fridge 2C	Date/Time: 9/23/99 330
Relinquished By: Fridge 2C	Date/Time: 9/28/99 1015	Received By: C Price	Date/Time: 10:15 9/28/99
Relinquished By: C Price	Date/Time: 9/28/99 1400	Received By: FEDEX	Date/Time: 9/28/99 1400
Relinquished By:	Date/Time:	Received By: Justin Wells	Date/Time: 9-28-99 10:00

SPECIAL INSTRUCTIONS

(1) Atmospheric/Light Gas (Carbon Dioxide, Carbon Monoxide, Ethane, Ethylene, Methane, Nitrogen, Oxygen)

COLLECTOR UNAVAILABLE TO SIGN COC

Matrix *: Soil, Water, Vapor, Other Solid, Other Liquid

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

HQ2 29613

Bechtel Hanford Inc.		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	B99-053-13	Page ~~1~~ of ~~1~~ 3 of 3

Collector	Company Contact / Telephone No.	Project Coordinator TRENT, SJ	Price Code / Data Turnaround 15 Days
Project Designation 276-S Hexone Storage Tank	Sampling Location 200 AREA	SAF No. B99-053	
Ice Chest No. BOA	Field Logbook No. EL 1133-7	Method of Shipment FEDEX	
Shipped To Quanterra Incorporated	Offsite Property No. A9902 79	Bill of Lading/Air Bill No. 4235 7952 9870/9881 (DH6 DH7 FD6, FD7)	
		COA BAER RP 9600	

POSSIBLE SAMPLE HAZARDS/REMARKS

Special Handling and/or Storage

Preservation	None										
Type of Container	Summa Canister										
No. of Container(s)	1										
Volume	6L										
SAMPLE ANALYSIS	See item (1) in Special Instructions.										

Rec'd at Ambient Temp
Custody Seals Intact
JW 9-24-99

Sample No.	Matrix *	Sample Date	Sample Time										
B0WFD6 142/11343	Vapor	9/23/99	1108	✓								20W	DF1
B0WFD7 142/93115	Vapor	9/23/99	1112	✓								✓	

CHAIN OF POSSESSION	Sign/Print Names		
Relinquished By: DWSheen	Date/Time: 9/23/99 330	Received By: Fridge 2C	Date/Time: 9/23/99 330
Relinquished By: Fridge 2C	Date/Time: 9/28/99 1015	Received By: Chris	Date/Time: 9/28/99 1015
Relinquished By: Chris	Date/Time: 9/28/99 1400	Received By: FEDEX	Date/Time: 9/28/99 1400
Relinquished By:	Date/Time:	Received By: [signature]	Date/Time: 9-29-99 10:00

SPECIAL INSTRUCTIONS

(1) Atmospheric/Light Gas {Carbon Dioxide, Carbon Monoxide, Ethane, Ethylene, Methane, Nitrogen, Oxygen}

COLLECTOR UNAVAILABLE TO SIGN COC

Matrix *
Soil
Water
Vapor
Other Solid
Other Liquid

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

434

Original Chain of Custody's

A42240131

Bechtel Hanford Inc.	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	B99-053-10	Page 1 of ~~2~~ 3 DWS

Collector: Dave Shea	Company Contact: Steve Trent — Telephone No.: 372-9651	Project Coordinator: TRENT, SJ	Price Code / Data Turnaround: 15 Days
Project Designation: 276-S Hexone Storage Tank	Sampling Location: 200 Area	SAF No.: B99-053	
Ice Chest No.: BOX	Field Logbook No.: EL 1133-7	Method of Shipment: Govt Vehicle	
Shipped To: Quanterra Incorporated	Offsite Property No.: A990277	Bill of Lading/Air Bill No.: 4235 7952 9859 / 9860 (DF8, DF9, FD4, FD5)	
		COA 3AERRP9600	

POSSIBLE SAMPLE HAZARDS/REMARKS											
	Preservation	None									
	Type of Container	Summa Canister									
Special Handling and/or Storage	No. of Container(s)	1									
	Volume	6L									
SAMPLE ANALYSIS		VOA - T0-14 (Add-on) (4-Methyl-2-Pentanone)									

Recd at AMBIENT TEMP

Sample No.	Matrix *	Sample Date	Sample Time									
B0WDF2 equipment blank 0045	Vapor	9/21/99	1428	✓				JW 9-29-99			BOW	DF1
B0WDF3 141/11413	Vapor	9/23/99	1031	✓							BOW	DF1
B0WDF4 141/93121	Vapor	9/23/99	1035	✓							BOW	DF1
B0WDF5 141/12824	Vapor	9/23/99	1041	✓							BOW	DF1
B0WDF6 141/11286	Vapor	9/23/99	1046	✓							BOW	DF1

CHAIN OF POSSESSION	Sign/Print Names		
Relinquished By: DWShea	Date/Time: 9/21/99 3:35	Received By: 2B DWS Fridge IA, 3278	Date/Time: 9/21/99 3:35
Relinquished By: Friday 2B	Date/Time: 9/28/99 0915	Received By: C Juice	Date/Time: 9/28/99 0915
Relinquished By: C Juice	Date/Time: 9/28/99 1400	Received By: FEDEX	Date/Time: 9/28/99 1400
Relinquished By:	Date/Time:	Received By: [signature]	Date/Time: 9-29-99 / 10:00

SPECIAL INSTRUCTIONS

COLLECTOR UNAVAILABLE TO SIGN COC

Matrix *
Soil
Water
Vapor
Other Solid
Other Liquid

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

HA229013

Bechtel Hanford Inc.	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	B99-053-10	Page 2 of ~~2~~ 3 DWS

Collector: Dave Shea	Company Contact: Steve Trent	Telephone No.: 372-9651	Project Coordinator: TRENT, SJ
Price Code	Data Turnaround: 15 Days		
Project Designation: 276-S Hexone Storage Tank	Sampling Location: 200 Area	SAF No.: B99-053	
Ice Chest No.: BOX	Field Logbook No.: EL 1133-7	Method of Shipment: Govt Vehicle	
Shipped To: Quanterra Incorporated	Offsite Property No.: A990277	Bill of Lading/Air Bill No.: 4235 7952 9859/9860 (DF8, DF9, FD4, FD5)	
		COA: BAER RP 9600	

POSSIBLE SAMPLE HAZARDS/REMARKS											
	Preservation	None									
	Type of Container	Summa Canister									
Special Handling and/or Storage	No. of Container(s)	1									
	Volume	6L									
SAMPLE ANALYSIS		VOA - T0-14 (Add-on) (4-Methyl-2-Pentanone)									

Sample No.	Matrix *	Sample Date	Sample Time										
B0WDF7 142/93055	Vapor	9/23/99	1100	✓				Rec'd of Custody	Ambient Seals	Temp Intact		BOW	DF1
B0WDF8 142/0155	Vapor	9/23/99	~~1100~~ 1103 TIMES	✓								BOW	DF1
B0WDF9 142/12167	Vapor	9/23/99	1106	✓					9-29-99			BOW	DF1

CHAIN OF POSSESSION	Sign/Print Names		
Relinquished By: DW Shea	Date/Time: 9/23/99 330	Received By: Fridge 2B	Date/Time: 9/23/99 330
Relinquished By: Fridge 2B	Date/Time: 9/28/99 0915	Received By: Chile 2B	Date/Time: 9/28/99 0915
Relinquished By: C Julie	Date/Time: 9/28/99 1400	Received By: FEDEX	Date/Time: 9/28/99 1400
Relinquished By:	Date/Time:	Received By: [signature]	Date/Time: 9-29-99 10:00

SPECIAL INSTRUCTIONS

COLLECTOR UNAVAILABLE TO SIGN COC

Matrix *
- Soil
- Water
- Vapor
- Other Solid
- Other Liquid

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

HA2 24013)

Bechtel Hanford Inc.	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	B99-053-12	Page 1/3 of 1/3 DWS

Collector: Dave Shea	Company Contact: Steve Trent — Telephone No.: 372-9651	Project Coordinator: TRENT, SJ	Price Code / Data Turnaround: 15 Days
Project Designation: 276-S Hexone Storage Tank	Sampling Location: 200 Area	SAF No.: B99-053	
Ice Chest No.: BOX	Field Logbook No.: EL-1133-7	Method of Shipment: Govt Vehicle	
Shipped To: Quanterra Incorporated	Offsite Property No.: A990277	Bill of Lading/Air Bill No.: 4235 7952 9859/9860 (DF8, DF9, FD4, FD5)	
		COA: BAERRP9600	

POSSIBLE SAMPLE HAZARDS/REMARKS												
	Preservation	None	none									
	Type of Container	Summa Canister	Summa									
	No. of Container(s)	1	1									
Special Handling and/or Storage	Volume	6L	6L									
SAMPLE ANALYSIS		VOA - T0-14 (Add-on) (4-Methyl-2-Pentanone)	see item (1)									

Recd at Ambient Temp, Custody Seals Intact 9-29-99

Sample No.	Matrix *	Sample Date	Sample Time										
B0WFD4 142/1100	Vapor	9/23/99	1110	✓	✗								
B0WFD5 142/12308	Vapor	9/23/99	1105	✗	✓								

CHAIN OF POSSESSION	Sign/Print Names		
Relinquished By: [signature]	Date/Time: 9/23/99 330	Received By: Fridge 2B	Date/Time: 9/23/99 330
Relinquished By: Fridge 2B	Date/Time: 9/28/99 0915	Received By: Carrie	Date/Time: 9/28/99 0915
Relinquished By: Carrie	Date/Time: 9/28/99 1400	Received By: FEDEX	Date/Time: 9/28/99 1400
Relinquished By:	Date/Time:	Received By: [signature]	Date/Time: 9-29-99 10:00

SPECIAL INSTRUCTIONS

1) Atmospheric light gas (CO_2, CO, ethane, ethylene, methane, nitrogen oxygen) DWS 9/24/99

COLLECTOR UNAVAILABLE TO SIGN COC

Matrix *: Soil, Water, Vapor, Other Solid, Other Liquid

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	B99-053-11	Page 1 of 3

Collector: Dave Shea	Company Contact: Steve Trent — Telephone No.: 372-9651	Project Coordinator: TRENT, SJ	Price Code / Data Turnaround: 15 Days
Project Designation: 276-S Hexone Storage Tank	Sampling Location: 200 Area	SAF No.: B99-053	
Ice Chest No.: BOX	Field Logbook No.: EL 1133-7	Method of Shipment: ~~Govt Vehicle~~ FED EX	
Shipped To: Quanterra Incorporated	Offsite Property No.: A990279	Bill of Lading/Air Bill No.: 4235 7952 9870/9881 (DH6, DH7, FD6, FD7)	
		COA: BAER RP 9600	

POSSIBLE SAMPLE HAZARDS/REMARKS											
	Preservation	None									
	Type of Container	Summa Canister									
	No. of Container(s)	1									
Special Handling and/or Storage	Volume	6L									
SAMPLE ANALYSIS		See item (1) in Special Instructions.				Rec'd at Ambient Temp Custody Seals Intact JW 9-24-99					

Sample No.	Matrix *	Sample Date	Sample Time										
B0WDH0 equipment blank 12842	Vapor	9/21/99	1425	✓								BOW	DF1
B0WDH1 142 / 93112	Vapor	9/22/99	942	✓									
B0WDH2 141 / 93169	Vapor	9/22/99	954	✓									
B0WDH3 141 / 04733	Vapor	9/23/99	1029	✓									
B0WDH4 141 / 12644	Vapor	9/23/99	1037	✓									

CHAIN OF POSSESSION	Sign/Print Names		
Relinquished By: DWShea	Date/Time: 9/21/99 3:35	Received By: Fridge 1A, 3278	Date/Time: 9/21/99 3:35
Relinquished By: Fridge 1A	Date/Time: 9/22/99 5:35	Received By: Dave Shea	Date/Time: 9/22/99 5:35
Relinquished By: Dave Shea	Date/Time: 9/22/99 12:30	Received By: Brent Porter	Date/Time: 9/22/99 12:30
Relinquished By: SJ GALE [illegible]	Date/Time: 72899 12:00	Received By: FED EX	Date/Time:

SPECIAL INSTRUCTIONS

(1) Atmospheric/Light Gas {Carbon Dioxide, Carbon Monoxide, Ethane, Ethylene, Methane, Nitrogen, Oxygen}

COLLECTOR UNAVAILABLE TO SIGN COC

Matrix *: Soil, Water, Vapor, Other Solid, Other Liquid

LABORATORY SECTION	Received By: [illegible]	Title:	Date/Time: 10:00 9-29-99
FINAL SAMPLE DISPOSITION	Disposal Method:	Disposed By:	Date/Time:

9429013

Bechtel Hanford Inc.	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	B99-053-11	Page 2 of ~~2~~ 3 DWS

Collector: Dave Shea	Company Contact: Steve Trent — Telephone No.: 372-9651	Project Coordinator: TRENT, SJ	Price Code / Data Turnaround: 15 Days
Project Designation: 276-S Hexone Storage Tank	Sampling Location: 200 Area	SAF No.: B99-053	
Ice Chest No.: BOX	Field Logbook No.: EL 1133-7	Method of Shipment: ~~Govt Vehicle~~ CF 9/28/99 FEDEX	
Shipped To: Quanterra Incorporated	Offsite Property No.: A9902 79	Bill of Lading/Air Bill No.: 4235 7952 9870/9881 (DH6, DH7, FD6, FD	
		COA: BAER RP 9600	

POSSIBLE SAMPLE HAZARDS/REMARKS											
	Preservation	None									
	Type of Container	Summa Canister									
Special Handling and/or Storage	No. of Container(s)	1									
	Volume	6L									
SAMPLE ANALYSIS		See item (1) in Special Instructions.				Rec'd at Ambient Temp Custody Seals Intact 9-29-99 9-30-99					

Sample No.	Matrix *	Sample Date	Sample Time										
B0WDH5 141/12175	Vapor	9/23/99	1034	✓								BOW	DF1
B0WDH6 141/93010	Vapor	9/23/99	1043	✓								↓	
B0WDH7 142/12612	Vapor	9/23/99	1100	✓								↓	

CHAIN OF POSSESSION	Sign/Print Names		
Relinquished By: DWSher	Date/Time: 9/23/99 3:30	Received By: Fridge 2C	Date/Time: 9/23/99 330
Relinquished By: Fridge 2C	Date/Time: 9/28/99 1015	Received By: C Price	Date/Time: 10:15 9/28/99
Relinquished By: C Price	Date/Time: 9/28/99 1400	Received By: FEDEX	Date/Time: 9/28/99 1400
Relinquished By:	Date/Time:	Received By: [signature]	Date/Time: 9-28-99 10:00

SPECIAL INSTRUCTIONS

(1) Atmospheric/Light Gas {Carbon Dioxide, Carbon Monoxide, Ethane, Ethylene, Methane, Nitrogen, Oxygen}

COLLECTOR UNAVAILABLE TO SIGN COC

Matrix *: Soil, Water, Vapor, Other Solid, Other Liquid

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

HW 248013

Bechtel Hanford Inc.		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	B99-053-13	Page 1 of 1 3 of 3 BMS

Collector	Company Contact	Telephone No.	Project Coordinator TRENT, SJ	Price Code / Data Turnaround: 15 Days
Project Designation: 276-S Hexone Storage Tank	Sampling Location: 200 AREA		SAF No. B99-053	
Ice Chest No. BOX	Field Logbook No. EL 1133-7		Method of Shipment: FEDEX	
Shipped To: Quanterra Incorporated	Offsite Property No. A9902 79		Bill of Lading/Air Bill No. 4235 7952 9870/9881 (DH6 DH7 FD6, FD7)	
			COA BAER RP 9600	

POSSIBLE SAMPLE HAZARDS/REMARKS												
	Preservation	None										
	Type of Container	Summa Canister										
	No. of Container(s)	1										
Special Handling and/or Storage	Volume	6L										
SAMPLE ANALYSIS		See item (1) in Special Instructions.				Rec'd at Ambient Temp Custody Seals Intact JW 9-24-99						

Sample No.	Matrix *	Sample Date	Sample Time										
B0WFD6 142/11343	Vapor	9/23/99	1108	✓								B0W	DF1
B0WFD7 142/93115	Vapor	9/23/99	1112	✓								✓	

CHAIN OF POSSESSION	Sign/Print Names		
Relinquished By: DWSheu	Date/Time: 9/23/99 330	Received By: Fridge 2C	Date/Time: 9/23/99 330
Relinquished By: Fridge 2C	Date/Time: 9/28/99 1015	Received By: Chris	Date/Time: 9/28/99 1015
Relinquished By: Chris	Date/Time: 9/28/99 1400	Received By: FEDEX	Date/Time: 9/28/99 1400
Relinquished By	Date/Time	Received By: [signature]	Date/Time: 9-29-99 10:00

SPECIAL INSTRUCTIONS

(1) Atmospheric/Light Gas {Carbon Dioxide, Carbon Monoxide, Ethane, Ethylene, Methane, Nitrogen, Oxygen}

COLLECTOR UNAVAILABLE TO SIGN COC

Matrix *
Soil
Water
Vapor
Other Solid
Other Liquid

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