9613442.2454

0044131

W0312

Quanterra
Environmental Services

Quanterra Incorporated
13715 Rider Trail North
Earth City, Missouri 63045

314 298-8566 Telephone
314 298-8757 Fax

CERTIFICATE OF ANALYSIS

Bechtel Hanford Incorporated
P.O. Box 1970
Richland, Washington 99352

January 17, 1995

Attention: Joan Kessner

JAN 1995 RECEIVED Data Log In

MAY 1996 RECEIVED EDMC

roject number	:	550.32
Date Received by Lab	:	November 14 and 15, 1994
Number of Samples	:	Twenty-seven (27)
Sample Type	:	Water
SDG Number	:	W0312
Data Deliverable	:	Standalone

RECORD COPY

I. Introduction

On November 14 and 15, 1994, twenty-seven (27) water samples were received by Quanterra, Richland and transferred to Quanterra, St. Louis for chemical analysis. Upon receipt, the samples were given the following laboratory ID numbers to correspond with the specific client ID's:

St Louis ID	WHC ID	Richland ID	Matrix	Date of Receipt
6886-001	B0D810	41130701	Water	11/14/94
6886-002	B0D831	41130704	Water	11/14/94
6886-003	B0D840	41130707	Water	11/14/94
6886-004	B0D843	41130710	Water	11/14/94
6886-005	B0D858	41130713	Water	11/14/94
6886-006	B0D811	41130702	Water	11/14/94
6886-007	B0D832	41130705	Water	11/14/94
6886-008	B0D841	41130708	Water	11/14/94
6886-009	B0D844	41130711	Water	11/14/94
6886-010	B0D859	41130714	Water	11/14/94
6886-011	B0D812	41130703	Water	11/14/94
6886-012	B0D833	41130706	Water	11/14/94
6886-013	B0D842	41130709	Water	11/14/94

Quanterra Environmental Services

Bechtel Hanford Incorporated
January 17, 1995
Project Number: 550.32
SDG: W0312

St Louis ID	WHC ID	Richland ID	Matrix	Date of Receipt
6886-014	B0D845	41130712	Water	11/14/94
6886-015	B0D860	41130715	Water	11/14/94
6907-001	B0D807	41132201	Water	11/15/94
6907-002	B0D825	41132204	Water	11/15/94
6907-003	B0D852	41132207	Water	11/15/94
6907-004	B0D861	41132210	Water	11/15/94
6907-005	B0D808	41132202	Water	11/15/94
6907-006	B0D826	41132205	Water	11/15/94
6907-007	B0D853	41132208	Water	11/15/94
6907-008	B0D862	41132211	Water	11/15/94
6907-009	B0D809	41132203	Water	11/15/94
6907-010	B0D827	41132206	Water	11/15/94
6907-011	B0D854	41132209	Water	11/15/94
6907-012	B0D863	41132212	Water	11/15/94

II. Analytical Results/ Methodology

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

Analyses requested: VOA, Total ICAP Metals, Dissolved ICAP Metals, Lead and Arsenic using CLP methodology. Chloride, Fluoride, Nitrite, Nitrate, Phosphate, and Sulfate by EPA method 300.0.

III. Quality Control

A Laboratory Control Sample and Method Blank were analyzed with each preparation batch. Matrix Spike and Matrix Spike Duplicate or Sample Duplicate analyses were performed per the protocol for each analyte in this SDG.

Quanterra Environmental Services

IV. Definitions

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

QCBLK- Quality Control Blank, Method Blank
QCLCS- Quality Control Laboratory Control Sample, Blank Spike

V. Comments

Samples arrived in St. Louis at 1°C, which is not within the recommended 4°C ± 2°C.

Due to insufficient sample volumes, 50ml initial and final volumes were used for ICP and GFAA digestions instead of 100ml as required by CLP protocol. See NCM # SL-94-1055.

The matrix spike recovery for Iron was outside the control limits of 75 to 125 percent. A post-digestion spike was analyzed in accordance with CLP protocol.

The Nitrite, Nitrate, and Phosphate hold times were expired upon receipt at laboratory.

On samples 6886-003 and 6907-001DUP, the Fluoride integration shows a hit, but the sample peak area is less than that of the low calibration standard. Therefore, it was reported as less than the detection limits.

The relative percent difference could not be calculated because both values were less than the detection limit on sample 6907-001 for the Fluoride, Phosphate and Nitrite analysis.

Quanterra
Environmental Services

Bechtel Hanford Incorporated
January 17, 1995
Project Number: 550.32
SDG: W0312
Page 4

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

Reviewed and approved:

Wade H. Price
Project Manager
e:\priceS\abbydave\hanw0312.nar

9613442.2458

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B0D807

Lab Name: ITAS-ST.LOUIS Contract: 550-32

Lab Code: ITSL Case No.: V88601 SAS No.: SDG No.: W0312

Matrix: (soil/water) WATER Lab Sample ID: 6907-001

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: E1809

Level: (low/med) LOW Date Received: 11/15/94

% Moisture: not dec. Date Analyzed: 11/22/94

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

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

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

0006

9613442.2459

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

B0D807

Lab Name: ITAS-ST.LOUIS Contract: 550-32

Lab Code: ITSL Case No.: V88601 SAS No.: SDG No.: W0312

Matrix: (soil/water) WATER Lab Sample ID: 6907-001

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: E1809

Level: (low/med) LOW Date Received: 11/15/94

% Moisture: not dec. Date Analyzed: 11/22/94

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

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

Number TICs found: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	22.49	16	J

9613442.2460

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B0D809

Lab Name: ITAS-ST.LOUIS Contract: 550-32

Lab Code: ITSL Case No.: V88601 SAS No.: SDG No.: W0312

Matrix: (soil/water) WATER Lab Sample ID: 6907-009

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: E1790

Level: (low/med) LOW Date Received: 11/15/94

% Moisture: not dec. Date Analyzed: 11/21/94

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

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

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

9613442.2461

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

B0D809

Lab Name: ITAS-ST.LOUIS Contract: 550-32

Lab Code: ITSL Case No.: V88601 SAS No.: SDG No.: W0312

Matrix: (soil/water) WATER Lab Sample ID: 6907-009

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: E1790

Level: (low/med) LOW Date Received: 11/15/94

% Moisture: not dec. Date Analyzed: 11/21/94

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

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

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

0009

9613442.2462

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B0D810

Lab Name: ITAS-ST.LOUIS Contract: 550-32

Lab Code: ITSL Case No.: V88601 SAS No.: SDG No.: W0312

Matrix: (soil/water) WATER Lab Sample ID: 6886-001

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: E1747

Level: (low/med) LOW Date Received: 11/14/94

% Moisture: not dec. Date Analyzed: 11/20/94

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

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

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

9613442.2463

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

B0D810

Lab Name: ITAS-ST.LOUIS Contract: 550-32

Lab Code: ITSL Case No.: V88601 SAS No.: SDG No.: W0312

Matrix: (soil/water) WATER Lab Sample ID: 6886-001

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: E1747

Level: (low/med) LOW Date Received: 11/14/94

% Moisture: not dec. Date Analyzed: 11/20/94

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

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

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

9613442.2464

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B0D812

Lab Name: ITAS-ST.LOUIS Contract: 550-32

Lab Code: ITSL Case No.: V88601 SAS No.: SDG No.: W0312

Matrix: (soil/water) WATER Lab Sample ID: 6886-011

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: E1752

Level: (low/med) LOW Date Received: 11/14/94

% Moisture: not dec. Date Analyzed: 11/20/94

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

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

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

9613442.2465

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

B0D812

Lab Name: ITAS-ST.LOUIS Contract: 550-32

Lab Code: ITSL Case No.: V88601 SAS No.: SDG No.: W0312

Matrix: (soil/water) WATER Lab Sample ID: 6886-011

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: E1752

Level: (low/med) LOW Date Received: 11/14/94

% Moisture: not dec. Date Analyzed: 11/20/94

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

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

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

9613442.2466

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B0D825

Lab Name: ITAS-ST.LOUIS Contract: 550-32

Lab Code: ITSL Case No.: V88601 SAS No.: SDG No.: W0312

Matrix: (soil/water) WATER Lab Sample ID: 6907-002

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: E1858

Level: (low/med) LOW Date Received: 11/15/94

% Moisture: not dec. Date Analyzed: 11/28/94

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

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

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

9613442.2467

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

B0D825

Lab Name: ITAS-ST.LOUIS Contract: 550-32

Lab Code: ITSL Case No.: V88601 SAS No.: SDG No.: W0312

Matrix: (soil/water) WATER Lab Sample ID: 6907-002

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: E1858

Level: (low/med) LOW Date Received: 11/15/94

% Moisture: not dec. Date Analyzed: 11/28/94

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

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

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

9613442.2468

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B0D827

Lab Name: ITAS-ST.LOUIS Contract: 550-32

Lab Code: ITSL Case No.: V88601 SAS No.: SDG No.: W0312

Matrix: (soil/water) WATER Lab Sample ID: 6907-010

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: E1791

Level: (low/med) LOW Date Received: 11/15/94

% Moisture: not dec. Date Analyzed: 11/21/94

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

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

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

9613442.2469

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

B0D827

Lab Name: ITAS-ST.LOUIS Contract: 550-32

Lab Code: ITSL Case No.: V88601 SAS No.: SDG No.: W0312

Matrix: (soil/water) WATER Lab Sample ID: 6907-010

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: E1791

Level: (low/med) LOW Date Received: 11/15/94

% Moisture: not dec. Date Analyzed: 11/21/94

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

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

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

9613442.2470

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B0D831

Lab Name: ITAS-ST.LOUIS Contract: 550-32

Lab Code: ITSL Case No.: V88601 SAS No.: SDG No.: W0312

Matrix: (soil/water) WATER Lab Sample ID: 6886-002

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: E1748

Level: (low/med) LOW Date Received: 11/14/94

% Moisture: not dec. Date Analyzed: 11/20/94

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

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

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

9613442.2471

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

B0D831

Lab Name: ITAS-ST.LOUIS Contract: 550-32

Lab Code: ITSL Case No.: V88601 SAS No.: SDG No.: W0312

Matrix: (soil/water) WATER Lab Sample ID: 6886-002

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: E1748

Level: (low/med) LOW Date Received: 11/14/94

% Moisture: not dec. Date Analyzed: 11/20/94

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

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

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

9613442.2472

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B0D833

Lab Name: ITAS-ST.LOUIS Contract: 550-32

Lab Code: ITSL Case No.: V88601 SAS No.: SDG No.: W0312

Matrix: (soil/water) WATER Lab Sample ID: 6886-012

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: E1763

Level: (low/med) LOW Date Received: 11/14/94

% Moisture: not dec. Date Analyzed: 11/20/94

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

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

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

9613442.2473

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

B0D833

Lab Name: ITAS-ST.LOUIS Contract: 550-32

Lab Code: ITSL Case No.: V88601 SAS No.: SDG No.: W0312

Matrix: (soil/water) WATER Lab Sample ID: 6886-012

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: E1763

Level: (low/med) LOW Date Received: 11/14/94

% Moisture: not dec. Date Analyzed: 11/20/94

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

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

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

9613442.2474

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B0D840

Lab Name: ITAS-ST.LOUIS Contract: 550-32

Lab Code: ITSL Case No.: V88601 SAS No.: SDG No.: W0312

Matrix: (soil/water) WATER Lab Sample ID: 6886-003

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: E1749

Level: (low/med) LOW Date Received: 11/14/94

% Moisture: not dec. Date Analyzed: 11/20/94

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

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

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

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

B0D840

Lab Name: ITAS-ST.LOUIS Contract: 550-32

Lab Code: ITSL Case No.: V88601 SAS No.: SDG No.: W0312

Matrix: (soil/water) WATER Lab Sample ID: 6886-003

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: E1749

Level: (low/med) LOW Date Received: 11/14/94

% Moisture: not dec. Date Analyzed: 11/20/94

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

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

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

9613442.2476

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B0D842

Lab Name: ITAS-ST.LOUIS Contract: 550-32

Lab Code: ITSL Case No.: V88601 SAS No.: SDG No.: W0312

Matrix: (soil/water) WATER Lab Sample ID: 6886-013

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: E1764

Level: (low/med) LOW Date Received: 11/14/94

% Moisture: not dec. Date Analyzed: 11/20/94

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

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

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

9613442.2477

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

B0D842

Lab Name: ITAS-ST.LOUIS Contract: 550-32

Lab Code: ITSL Case No.: V88601 SAS No.: SDG No.: W0312

Matrix: (soil/water) WATER Lab Sample ID: 6886-013

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: E1764

Level: (low/med) LOW Date Received: 11/14/94

% Moisture: not dec. Date Analyzed: 11/20/94

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

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

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

9613442.2478

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B0D843

Lab Name: ITAS-ST.LOUIS Contract: 550-32

Lab Code: ITSL Case No.: V88601 SAS No.: SDG No.: W0312

Matrix: (soil/water) WATER Lab Sample ID: 6886-004

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: E1750

Level: (low/med) LOW Date Received: 11/14/94

% Moisture: not dec. Date Analyzed: 11/20/94

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

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

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

9613442.2479

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

B0D843

Lab Name: ITAS-ST.LOUIS Contract: 550-32

Lab Code: ITSL Case No.: V88601 SAS No.: SDG No.: W0312

Matrix: (soil/water) WATER Lab Sample ID: 6886-004

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: E1750

Level: (low/med) LOW Date Received: 11/14/94

% Moisture: not dec. Date Analyzed: 11/20/94

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

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

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

9613442.2480

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B0D845

Lab Name: ITAS-ST.LOUIS Contract: 550-32

Lab Code: ITSL Case No.: V88601 SAS No.: SDG No.: W0312

Matrix: (soil/water) WATER Lab Sample ID: 6886-014

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: E1765

Level: (low/med) LOW Date Received: 11/14/94

% Moisture: not dec. Date Analyzed: 11/20/94

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

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

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

9613442.2481

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

B0D845

Lab Name: ITAS-ST.LOUIS Contract: 550-32

Lab Code: ITSL Case No.: V88601 SAS No.: SDG No.: W0312

Matrix: (soil/water) WATER Lab Sample ID: 6886-014

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: E1765

Level: (low/med) LOW Date Received: 11/14/94

% Moisture: not dec. Date Analyzed: 11/20/94

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

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

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

9613442.2482

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B0D852

Lab Name: ITAS-ST.LOUIS Contract: 550-32

Lab Code: ITSL Case No.: V88601 SAS No.: SDG No.: W0312

Matrix: (soil/water) WATER Lab Sample ID: 6907-003

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: E1788

Level: (low/med) LOW Date Received: 11/15/94

% Moisture: not dec. Date Analyzed: 11/21/94

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

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

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

9613442.2483

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

B0D852

Lab Name: ITAS-ST.LOUIS Contract: 550-32

Lab Code: ITSL Case No.: V88601 SAS No.: SDG No.: W0312

Matrix: (soil/water) WATER Lab Sample ID: 6907-003

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: E1788

Level: (low/med) LOW Date Received: 11/15/94

% Moisture: not dec. Date Analyzed: 11/21/94

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

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

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

9613442.2484

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B0D854

Lab Name: ITAS-ST.LOUIS Contract: 550-32

Lab Code: ITSL Case No.: V88601 SAS No.: SDG No.: W0312

Matrix: (soil/water) WATER Lab Sample ID: 6907-011

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: E1810

Level: (low/med) LOW Date Received: 11/15/94

% Moisture: not dec. Date Analyzed: 11/22/94

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

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

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

9613442.2485

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

B0D854

Lab Name: ITAS-ST.LOUIS Contract: 550-32

Lab Code: ITSL Case No.: V88601 SAS No.: SDG No.: W0312

Matrix: (soil/water) WATER Lab Sample ID: 6907-011

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: E1810

Level: (low/med) LOW Date Received: 11/15/94

% Moisture: not dec. Date Analyzed: 11/22/94

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

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

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

9613442.2486

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B0D858

Lab Name: ITAS-ST.LOUIS Contract: 550-32

Lab Code: ITSL Case No.: V88601 SAS No.: SDG No.: W0312

Matrix: (soil/water) WATER Lab Sample ID: 6886-005

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: E1751

Level: (low/med) LOW Date Received: 11/14/94

% Moisture: not dec. Date Analyzed: 11/20/94

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

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

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

9613442.2487

1E

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B0D858

Lab Name: ITAS-ST.LOUIS Contract: 550-32

Lab Code: ITSL Case No.: V88601 SAS No.: SDG No.: W0312

Matrix: (soil/water) WATER Lab Sample ID: 6886-005

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: E1751

Level: (low/med) LOW Date Received: 11/14/94

% Moisture: not dec. Date Analyzed: 11/20/94

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

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

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

9613442.2488

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B0D860

Lab Name: ITAS-ST.LOUIS Contract: 550-32

Lab Code: ITSL Case No.: V88601 SAS No.: SDG No.: W0312

Matrix: (soil/water) WATER Lab Sample ID: 6886-015

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: E1766

Level: (low/med) LOW Date Received: 11/14/94

% Moisture: not dec. Date Analyzed: 11/20/94

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

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

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

9613442.2489

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

B0D860

Lab Name: ITAS-ST.LOUIS Contract: 550-32

Lab Code: ITSL Case No.: V88601 SAS No.: SDG No.: W0312

Matrix: (soil/water) WATER Lab Sample ID: 6886-015

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: E1766

Level: (low/med) LOW Date Received: 11/14/94

% Moisture: not dec. Date Analyzed: 11/20/94

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

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

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

0037

9613442.2490

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B0D861

Lab Name: ITAS-ST.LOUIS Contract: 550-32

Lab Code: ITSL Case No.: V88601 SAS No.: SDG No.: W0312

Matrix: (soil/water) WATER Lab Sample ID: 6907-004

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: E1789

Level: (low/med) LOW Date Received: 11/15/94

% Moisture: not dec. Date Analyzed: 11/21/94

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

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

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

9613442.2491

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

B0D861

Lab Name: ITAS-ST.LOUIS Contract: 550-32

Lab Code: ITSL Case No.: V88601 SAS No.: SDG No.: W0312

Matrix: (soil/water) WATER Lab Sample ID: 6907-004

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: E1789

Level: (low/med) LOW Date Received: 11/15/94

% Moisture: not dec. Date Analyzed: 11/21/94

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

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

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

9613442.2492

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B0D863

Lab Name: ITAS-ST.LOUIS Contract: 550-32

Lab Code: ITSL Case No.: V88601 SAS No.: SDG No.: W0312

Matrix: (soil/water) WATER Lab Sample ID: 6907-012

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: E1811

Level: (low/med) LOW Date Received: 11/15/94

% Moisture: not dec. Date Analyzed: 11/22/94

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

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

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

9613442.2493

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

B0D863

Lab Name: ITAS-ST.LOUIS Contract: 550-32

Lab Code: ITSL Case No.: V88601 SAS No.: SDG No.: W0312

Matrix: (soil/water) WATER Lab Sample ID: 6907-012

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: E1811

Level: (low/med) LOW Date Received: 11/15/94

% Moisture: not dec. Date Analyzed: 11/22/94

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

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

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

0041

9613442.2494

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1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

B0D807

Lab Name: ITAS_ST._LOUIS_____ Contract: 550.32____

Lab Code: ITMO__ Case No.:_____ SAS No.:_____ SDG No.: W0312_____

Matrix (soil/water): WATER Lab Sample ID: 6907-001

Level (low/med): LOW__ Date Received: 11/15/94

% Solids: __0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	30.3	U		P_
7440-36-0	Antimony_	28.1	U		P_
7440-38-2	Arsenic__	1.8	U		F_
7440-39-3	Barium___	19.4	B		P_
7440-41-7	Beryllium	0.52	B		P_
7440-43-9	Cadmium__	1.8	U		P_
7440-70-2	Calcium__	28500			P_
7440-47-3	Chromium_	7.1	B		P_
7440-48-4	Cobalt___	3.7	U		P_
7440-50-8	Copper___	8.6	B	*	P_
7439-89-6	Iron____	141		N	P_
7439-92-1	Lead____	1.0	U		F_
7439-95-4	Magnesium	4820	B		P_
7439-96-5	Manganese	3.5	B		P_
7440-02-0	Nickel___	6.6	U		P_
7440-09-7	Potassium	1700	B		P_
7440-22-4	Silver___	5.3	U		P_
7440-23-5	Sodium___	2980	B		P_
7440-62-2	Vanadium_	15.1	B		P_
7440-66-6	Zinc____	16.5	B		P_

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

FORM I - IN

ILM03.0

9613442.2495

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

B0D808

Lab Name: ITAS_ST._LOUIS_____ Contract: 550.32____

Lab Code: ITMO__ Case No.:_____ SAS No.:_____ SDG No.: W0312_____

Matrix (soil/water): WATER Lab Sample ID: 6907-005

Level (low/med): LOW__ Date Received: 11/15/94

% Solids: __0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	30.3	U		P_
7440-36-0	Antimony_	28.1	U		P_
7440-38-2	Arsenic__	1.8	U		F_
7440-39-3	Barium___	17.2	B		P_
7440-41-7	Beryllium	0.52	B		P_
7440-43-9	Cadmium__	1.8	U		P_
7440-70-2	Calcium__	27100			P_
7440-47-3	Chromium_	5.3	U		P_
7440-48-4	Cobalt___	3.7	U		P_
7440-50-8	Copper___	7.6	U	*	P_
7439-89-6	Iron_____	61.2	B	N	P_
7439-92-1	Lead_____	1.0	U		F_
7439-95-4	Magnesium	4560	B		P_
7439-96-5	Manganese	3.2	B		P_
7440-02-0	Nickel___	6.6	U		P_
7440-09-7	Potassium	1820	B		P_
7440-22-4	Silver___	5.3	U		P_
7440-23-5	Sodium___	2860	B		P_
7440-62-2	Vanadium_	11.3	U		P_
7440-66-6	Zinc_____	11.1	U		P_

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

FORM I - IN

ILM03.0

9613442.2496

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

B0D810

Lab Name: ITAS_ST._LOUIS_____ Contract: 550.32____

Lab Code: ITMO__ Case No.:_____ SAS No.:_____ SDG No.: W0312_____

Matrix (soil/water): WATER Lab Sample ID: 6886-001

Level (low/med): LOW__ Date Received: 11/14/94

% Solids: __0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	75.5	B		P_
7440-36-0	Antimony_	28.1	U		P_
7440-38-2	Arsenic__	1.8	U		F_
7440-39-3	Barium___	26.9	B		P_
7440-41-7	Beryllium	0.52	B		P_
7440-43-9	Cadmium__	1.8	U		P_
7440-70-2	Calcium__	39200			P_
7440-47-3	Chromium_	29.8			P_
7440-48-4	Cobalt___	3.7	U		P_
7440-50-8	Copper___	9.6	B	*	P_
7439-89-6	Iron_____	131		N	P_
7439-92-1	Lead____	1.0	U		F_
7439-95-4	Magnesium	6690			P_
7439-96-5	Manganese	6.2	B		P_
7440-02-0	Nickel___	8.8	B		P_
7440-09-7	Potassium	2260	B		P_
7440-22-4	Silver___	5.3	U		P_
7440-23-5	Sodium___	5370			P_
7440-62-2	Vanadium_	21.6	B		P_
7440-66-6	Zinc_____	15.3	B		P_

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

FORM I - IN

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9613442.2497

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

B0D811

Lab Name: ITAS_ST._LOUIS_____ Contract: 550.32____

Lab Code: ITMO__ Case No.:_____ SAS No.:_____ SDG No.: W0312_____

Matrix (soil/water): WATER Lab Sample ID: 6886-006

Level (low/med): LOW__ Date Received: 11/14/94

% Solids: __0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	30.3	U		P_
7440-36-0	Antimony_	28.1	U		P_
7440-38-2	Arsenic__	1.8	U		F_
7440-39-3	Barium___	22.8	B		P_
7440-41-7	Beryllium	0.31	B		P_
7440-43-9	Cadmium__	1.8	U		P_
7440-70-2	Calcium__	35300			P_
7440-47-3	Chromium_	22.1			P_
7440-48-4	Cobalt___	3.7	U		P_
7440-50-8	Copper___	7.6	U	*	P_
7439-89-6	Iron_____	64.6	B	N	P_
7439-92-1	Lead_____	1.0	U		F_
7439-95-4	Magnesium	5970			P_
7439-96-5	Manganese	3.2	B		P_
7440-02-0	Nickel___	6.6	U		P_
7440-09-7	Potassium	2080	B		P_
7440-22-4	Silver___	5.3	U		P_
7440-23-5	Sodium___	4790	B		P_
7440-62-2	Vanadium_	16.1	B		P_
7440-66-6	Zinc_____	14.7	B		P_

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

FORM I - IN

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9613442.2498

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

B0D825

Lab Name: ITAS_ST._LOUIS_____ Contract: 550.32____

Lab Code: ITMO___ Case No.:_____ SAS No.:_____ SDG No.: W0312_____

Matrix (soil/water): WATER Lab Sample ID: 6907-002

Level (low/med): LOW__ Date Received: 11/15/94

% Solids: __0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	40.2	B		P_
7440-36-0	Antimony_	28.1	U		P_
7440-38-2	Arsenic__	1.8	U	W	F_
7440-39-3	Barium___	26.1	B		P_
7440-41-7	Beryllium	0.41	B		P_
7440-43-9	Cadmium__	1.8	U		P_
7440-70-2	Calcium__	35500			P_
7440-47-3	Chromium_	16.2			P_
7440-48-4	Cobalt___	3.7	U		P_
7440-50-8	Copper___	8.3	B	*	P_
7439-89-6	Iron_____	78.2	B	N	P_
7439-92-1	Lead_____	1.0	U		F_
7439-95-4	Magnesium	4720	B		P_
7439-96-5	Manganese	3.6	B		P_
7440-02-0	Nickel___	6.6	U		P_
7440-09-7	Potassium	3380	B		P_
7440-22-4	Silver___	5.3	U		P_
7440-23-5	Sodium___	4360	B		P_
7440-62-2	Vanadium_	20.9	B		P_
7440-66-6	Zinc_____	28.4			P_

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

FORM I - IN

ILM03.0

9613442.2499

U.S. EPA - CLP

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

B0D826

Lab Name: ITAS_ST._LOUIS_____ Contract: 550.32____

Lab Code: ITMO__ Case No.:_____ SAS No.:_____ SDG No.: W0312_____

Matrix (soil/water): WATER Lab Sample ID: 6907-006

Level (low/med): LOW__ Date Received: 11/15/94

% Solids: __0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	30.3	U		P_
7440-36-0	Antimony_	28.1	U		P_
7440-38-2	Arsenic__	1.8	U	W	F_
7440-39-3	Barium___	25.6	B		P_
7440-41-7	Beryllium	0.52	B		P_
7440-43-9	Cadmium__	1.8	U		P_
7440-70-2	Calcium__	34000			P_
7440-47-3	Chromium_	8.6	B		P_
7440-48-4	Cobalt___	3.7	B		P_
7440-50-8	Copper___	7.6	U	*	P_
7439-89-6	Iron_____	43.8	B	N	P_
7439-92-1	Lead_____	1.0	U		F_
7439-95-4	Magnesium	4520	B		P_
7439-96-5	Manganese	2.4	B		P_
7440-02-0	Nickel___	6.6	U		P_
7440-09-7	Potassium	3250	B		P_
7440-22-4	Silver___	5.3	U		P_
7440-23-5	Sodium___	4150	B		P_
7440-62-2	Vanadium_	12.2	B		P_
7440-66-6	Zinc_____	11.1	U		P_

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

FORM I - IN

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

B0D831

Lab Name: ITAS_ST._LOUIS Contract: 550.32

Lab Code: ITMO Case No.: SAS No.: SDG No.: W0312

Matrix (soil/water): WATER Lab Sample ID: 6886-002

Level (low/med): LOW Date Received: 11/14/94

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	82.3	B		P
7440-36-0	Antimony	28.1	U		P
7440-38-2	Arsenic	6.9	B		F
7440-39-3	Barium	28.5	B		P
7440-41-7	Beryllium	0.52	B		P
7440-43-9	Cadmium	1.8	U		P
7440-70-2	Calcium	64200			P
7440-47-3	Chromium	22.3			P
7440-48-4	Cobalt	3.7	U		P
7440-50-8	Copper	9.6	B	*	P
7439-89-6	Iron	288		N	P
7439-92-1	Lead	1.0	U		F
7439-95-4	Magnesium	18700			P
7439-96-5	Manganese	7.3	B		P
7440-02-0	Nickel	7.6	B		P
7440-09-7	Potassium	7150			P
7440-22-4	Silver	5.3	U		P
7440-23-5	Sodium	56500			P
7440-62-2	Vanadium	36.0	B		P
7440-66-6	Zinc	19.6	B		P

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

FORM I - IN

ILM03.0

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

B0D832

Lab Name: ITAS_ST._LOUIS_____ Contract: 550.32____

Lab Code: ITMO__ Case No.:_____ SAS No.:_____ SDG No.: W0312_____

Matrix (soil/water): WATER Lab Sample ID: 6886-007

Level (low/med): LOW__ Date Received: 11/14/94

% Solids: __0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	30.3	U		P_
7440-36-0	Antimony_	28.1	U		P_
7440-38-2	Arsenic__	6.6	B		F_
7440-39-3	Barium___	24.2	B		P_
7440-41-7	Beryllium	0.52	B		P_
7440-43-9	Cadmium__	1.8	U		P_
7440-70-2	Calcium__	61000			P_
7440-47-3	Chromium_	11.3			P_
7440-48-4	Cobalt___	3.7	U		P_
7440-50-8	Copper___	20.7	B	*	P_
7439-89-6	Iron_____	87.1	B	N	P_
7439-92-1	Lead_____	1.0	U		F_
7439-95-4	Magnesium	17800			P_
7439-96-5	Manganese	3.7	B		P_
7440-02-0	Nickel___	18.1	B		P_
7440-09-7	Potassium	6870			P_
7440-22-4	Silver___	5.3	U		P_
7440-23-5	Sodium___	52300			P_
7440-62-2	Vanadium_	34.1	B		P_
7440-66-6	Zinc_____	12.6	B		P_

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

FORM I - IN

ILM03.0

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

B0D840

Lab Name: ITAS_ST._LOUIS_____ Contract: 550.32____

Lab Code: ITMO__ Case No.:_____ SAS No.:_____ SDG No.: W0312_____

Matrix (soil/water): WATER Lab Sample ID: 6886-003

Level (low/med): LOW__ Date Received: 11/14/94

% Solids: __0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	30.3	U		P
7440-36-0	Antimony_	28.1	U		P
7440-38-2	Arsenic__	2.0	B		F
7440-39-3	Barium___	156	B		P
7440-41-7	Beryllium	0.52	B		P
7440-43-9	Cadmium__	1.8	U		P
7440-70-2	Calcium__	182000			P
7440-47-3	Chromium_	17.7			P
7440-48-4	Cobalt___	3.7	U		P
7440-50-8	Copper___	21.0	B	*	P
7439-89-6	Iron_____	68.3	B	N	P
7439-92-1	Lead_____	1.0	U		F
7439-95-4	Magnesium	45400			P
7439-96-5	Manganese	9.9	B		P
7440-02-0	Nickel___	26.5	B		P
7440-09-7	Potassium	9360			P
7440-22-4	Silver___	5.3	U		P
7440-23-5	Sodium___	68500			P
7440-62-2	Vanadium_	55.6			P
7440-66-6	Zinc_____	42.3			P

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

B0D841

Lab Name: ITAS_ST._LOUIS_____ Contract: 550.32____

Lab Code: ITMO__ Case No.:_____ SAS No.:_____ SDG No.: W0312_____

Matrix (soil/water): WATER Lab Sample ID: 6886-008

Level (low/med): LOW__ Date Received: 11/14/94

% Solids: __0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	30.3	U		P
7440-36-0	Antimony_	28.1	U		P
7440-38-2	Arsenic__	2.2	B		F
7440-39-3	Barium___	159	B		P
7440-41-7	Beryllium	0.52	B		P
7440-43-9	Cadmium__	1.8	U		P
7440-70-2	Calcium__	182000			P
7440-47-3	Chromium_	12.5			P
7440-48-4	Cobalt___	3.7	U		P
7440-50-8	Copper___	121		*	P
7439-89-6	Iron_____	395		N	P
7439-92-1	Lead_____	1.0	U		F
7439-95-4	Magnesium	45300			P
7439-96-5	Manganese	5.5	B		P
7440-02-0	Nickel___	156			P
7440-09-7	Potassium	9260			P
7440-22-4	Silver___	5.3	U		P
7440-23-5	Sodium___	68300			P
7440-62-2	Vanadium_	59.9			P
7440-66-6	Zinc_____	16.9	B		P

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

B0D843

Lab Name: ITAS_ST._LOUIS_____ Contract: 550.32____

Lab Code: ITMO__ Case No.:_____ SAS No.:_____ SDG No.: W0312_____

Matrix (soil/water): WATER Lab Sample ID: 6886-004

Level (low/med): LOW__ Date Received: 11/14/94

% Solids: __0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	97.2	B		P_
7440-36-0	Antimony_	28.1	U		P_
7440-38-2	Arsenic__	4.3	B		F_
7440-39-3	Barium___	38.6	B		P_
7440-41-7	Beryllium	0.52	B		P_
7440-43-9	Cadmium__	1.8	U		P_
7440-70-2	Calcium__	83100			P_
7440-47-3	Chromium_	19.7			P_
7440-48-4	Cobalt___	3.8	B		P_
7440-50-8	Copper___	17.0	B	*	P_
7439-89-6	Iron_____	165		N	P_
7439-92-1	Lead_____	1.0	U		F_
7439-95-4	Magnesium	20200			P_
7439-96-5	Manganese	4.8	B		P_
7440-02-0	Nickel___	6.6	U		P_
7440-09-7	Potassium	6830			P_
7440-22-4	Silver___	5.3	U		P_
7440-23-5	Sodium___	52900			P_
7440-62-2	Vanadium_	45.9	B		P_
7440-66-6	Zinc_____	14.2	B		P_

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

B0D844

Lab Name: ITAS_ST._LOUIS_____ Contract: 550.32____

Lab Code: ITMO__ Case No.:_____ SAS No.:_____ SDG No.: W0312_____

Matrix (soil/water): WATER Lab Sample ID: 6886-009

Level (low/med): LOW__ Date Received: 11/14/94

% Solids: __0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	61.4	B		P_
7440-36-0	Antimony_	28.1	U		P_
7440-38-2	Arsenic__	4.1	B		F_
7440-39-3	Barium___	40.1	B		P_
7440-41-7	Beryllium	0.52	B		P_
7440-43-9	Cadmium__	1.8	U		P_
7440-70-2	Calcium__	79800			P_
7440-47-3	Chromium_	17.6			P_
7440-48-4	Cobalt___	3.7	U		P_
7440-50-8	Copper___	38.9		*	P_
7439-89-6	Iron____	2990		N	P_
7439-92-1	Lead____	1.0	U		F_
7439-95-4	Magnesium	19600			P_
7439-96-5	Manganese	11.8	B		P_
7440-02-0	Nickel___	53.3			P_
7440-09-7	Potassium	6580			P_
7440-22-4	Silver___	5.3	U		P_
7440-23-5	Sodium___	52600			P_
7440-62-2	Vanadium_	32.7	B		P_
7440-66-6	Zinc____	35.3			P_

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

B0D852

Lab Name: ITAS_ST._LOUIS_____ Contract: 550.32____

Lab Code: ITMO__ Case No.:_____ SAS No.:_____ SDG No.: W0312_____

Matrix (soil/water): WATER Lab Sample ID: 6907-003

Level (low/med): LOW__ Date Received: 11/15/94

% Solids: __0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	30.3	U		P_
7440-36-0	Antimony_	28.1	U		P_
7440-38-2	Arsenic__	1.8	U		F_
7440-39-3	Barium___	1.7	B		P_
7440-41-7	Beryllium	0.41	B		P_
7440-43-9	Cadmium__	1.8	U		P_
7440-70-2	Calcium__	1650	B		P_
7440-47-3	Chromium_	5.3	U		P_
7440-48-4	Cobalt___	3.7	U		P_
7440-50-8	Copper___	7.6	U	*	P_
7439-89-6	Iron_____	90.4	B	N	P_
7439-92-1	Lead____	1.0	U		F_
7439-95-4	Magnesium	305	B		P_
7439-96-5	Manganese	4.4	B		P_
7440-02-0	Nickel___	6.6	U		P_
7440-09-7	Potassium	529	U		P_
7440-22-4	Silver___	5.3	U		P_
7440-23-5	Sodium___	505	B		P_
7440-62-2	Vanadium_	11.3	U		P_
7440-66-6	Zinc_____	13.0	B		P_

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

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U.S. EPA - CLP

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

B0D853

Lab Name: ITAS_ST._LOUIS_____ Contract: 550.32____

Lab Code: ITMO__ Case No.:_____ SAS No.:_____ SDG No.: W0312_____

Matrix (soil/water): WATER Lab Sample ID: 6907-007

Level (low/med): LOW__ Date Received: 11/15/94

% Solids: __0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	30.3	U		P_
7440-36-0	Antimony_	28.1	U		P_
7440-38-2	Arsenic__	1.8	U		F_
7440-39-3	Barium___	1.1	U		P_
7440-41-7	Beryllium	0.30	U		P_
7440-43-9	Cadmium__	1.8	U		P_
7440-70-2	Calcium__	98.8	U		P_
7440-47-3	Chromium_	5.3	U		P_
7440-48-4	Cobalt___	3.7	U		P_
7440-50-8	Copper___	7.6	U	*	P_
7439-89-6	Iron_____	472		N	P_
7439-92-1	Lead_____	1.0	U		F_
7439-95-4	Magnesium	36.0	U		P_
7439-96-5	Manganese	1.4	B		P_
7440-02-0	Nickel___	6.6	U		P_
7440-09-7	Potassium	529	U		P_
7440-22-4	Silver___	5.3	U		P_
7440-23-5	Sodium___	181	B		P_
7440-62-2	Vanadium_	11.3	U		P_
7440-66-6	Zinc_____	12.3	B		P_

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

B0D858

Lab Name: ITAS_ST._LOUIS Contract: 550.32

Lab Code: ITMO Case No.: SAS No.: SDG No.: W0312

Matrix (soil/water): WATER Lab Sample ID: 6886-005

Level (low/med): LOW Date Received: 11/14/94

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	32.7	B		P
7440-36-0	Antimony	28.1	U		P
7440-38-2	Arsenic	1.8	U		F
7440-39-3	Barium	1.1	U		P
7440-41-7	Beryllium	0.31	B		P
7440-43-9	Cadmium	1.8	U		P
7440-70-2	Calcium	337	B		P
7440-47-3	Chromium	5.3	U		P
7440-48-4	Cobalt	3.7	U		P
7440-50-8	Copper	29.0		*	P
7439-89-6	Iron	41.7	B	N	P
7439-92-1	Lead	1.0	U		F
7439-95-4	Magnesium	36.7	B		P
7439-96-5	Manganese	5.9	B		P
7440-02-0	Nickel	36.6	B		P
7440-09-7	Potassium	529	U		P
7440-22-4	Silver	5.3	U		P
7440-23-5	Sodium	343	B		P
7440-62-2	Vanadium	11.3	U		P
7440-66-6	Zinc	49.2			P

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

FORM I - IN

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U.S. EPA - CLP

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

B0D859

Lab Name: ITAS_ST._LOUIS Contract: 550.32

Lab Code: ITMO Case No.: SAS No.: SDG No.: W0312

Matrix (soil/water): WATER Lab Sample ID: 6886-010

Level (low/med): LOW Date Received: 11/14/94

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	30.3	U		P
7440-36-0	Antimony	28.1	U		P
7440-38-2	Arsenic	1.8	U		F
7440-39-3	Barium	1.1	U		P
7440-41-7	Beryllium	0.30	U		P
7440-43-9	Cadmium	1.8	U		P
7440-70-2	Calcium	237	B		P
7440-47-3	Chromium	5.3	U		P
7440-48-4	Cobalt	3.7	U		P
7440-50-8	Copper	7.6	U	*	P
7439-89-6	Iron	189		N	P
7439-92-1	Lead	1.0	U		F
7439-95-4	Magnesium	36.0	U		P
7439-96-5	Manganese	1.9	B		P
7440-02-0	Nickel	6.6	U		P
7440-09-7	Potassium	529	U		P
7440-22-4	Silver	5.3	U		P
7440-23-5	Sodium	308	B		P
7440-62-2	Vanadium	11.3	U		P
7440-66-6	Zinc	11.6	B		P

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

B0D861

Lab Name: ITAS_ST._LOUIS Contract: 550.32

Lab Code: ITMO Case No.: SAS No.: SDG No.: W0312

Matrix (soil/water): WATER Lab Sample ID: 6907-004

Level (low/med): LOW Date Received: 11/15/94

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	30.3	U		P
7440-36-0	Antimony	28.1	U		P
7440-38-2	Arsenic	1.8	U		F
7440-39-3	Barium	1.3	B		P
7440-41-7	Beryllium	0.52	B		P
7440-43-9	Cadmium	1.8	U		P
7440-70-2	Calcium	126	B		P
7440-47-3	Chromium	5.3	U		P
7440-48-4	Cobalt	3.7	U		P
7440-50-8	Copper	7.6	U	*	P
7439-89-6	Iron	100		N	P
7439-92-1	Lead	1.0	U		F
7439-95-4	Magnesium	36.0	U		P
7439-96-5	Manganese	3.2	B		P
7440-02-0	Nickel	6.6	U		P
7440-09-7	Potassium	633	B		P
7440-22-4	Silver	5.3	U		P
7440-23-5	Sodium	224	B		P
7440-62-2	Vanadium	11.3	U		P
7440-66-6	Zinc	11.1	U		P

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

FORM I - IN

ILM03.0

9613442.2511

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

B0D862

Lab Name: ITAS_ST._LOUIS_____ Contract: 550.32____

Lab Code: ITMO__ Case No.:_____ SAS No.:_____ SDG No.: W0312_____

Matrix (soil/water): WATER Lab Sample ID: 6907-008

Level (low/med): LOW__ Date Received: 11/15/94

% Solids: __0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	30.3	U		P_
7440-36-0	Antimony_	28.1	U		P_
7440-38-2	Arsenic__	1.8	U		F_
7440-39-3	Barium___	1.1	U		P_
7440-41-7	Beryllium	0.31	B		P_
7440-43-9	Cadmium__	1.8	U		P_
7440-70-2	Calcium__	217	B		P_
7440-47-3	Chromium_	5.3	U		P_
7440-48-4	Cobalt___	3.7	U		P_
7440-50-8	Copper___	47.8		*	P_
7439-89-6	Iron____	80.6	B	N	P_
7439-92-1	Lead____	1.0	U		F_
7439-95-4	Magnesium	36.0	U		P_
7439-96-5	Manganese	1.7	B		P_
7440-02-0	Nickel___	39.9	B		P_
7440-09-7	Potassium	529	U		P_
7440-22-4	Silver___	5.3	U		P_
7440-23-5	Sodium___	248	B		P_
7440-62-2	Vanadium_	11.3	U		P_
7440-66-6	Zinc____	11.9	B		P_

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

FORM I - IN

ILM03.0

9613442.2512

Quanterra-Richland
P.O. Box 1970
Richland, WA 99352

Project: 550.32

Category: Chloride
Method: EPA 300.0
Matrix: LIQUID

Sample Date : 11/11/94
Receipt Date : 11/14/94
Report Date : 12/27/94

Client ID	Quanterra ID	Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dil.
B0D810	6886-001	Chloride	16887-00-6	QCBLK52926-1	11/30/94	11/30/94	3.19	MG/L		0.25	1
B0D831	6886-002	Chloride	16887-00-6	QCBLK52926-1	11/30/94	11/30/94	11.7	MG/L		2.50	10
B0D840	6886-003	Chloride	16887-00-6	QCBLK52926-1	11/30/94	11/30/94	6.71	MG/L		2.50	10
B0D843	6886-004	Chloride	16887-00-6	QCBLK52926-1	11/30/94	11/30/94	9.30	MG/L		2.50	10
B0D858	6886-005	Chloride	16887-00-6	QCBLK52926-1	11/30/94	11/30/94	0.25	MG/L	U	0.25	1
B0D807	6907-001	Chloride	16887-00-6	QCBLK53241-1	12/01/94	12/01/94	0.94	MG/L		0.25	1
B0D807	6907-001DUP	Chloride	16887-00-6	QCBLK53241-1	12/01/94	12/01/94	0.93	MG/L		0.25	1
B0D807	6907-001MS	Chloride	16887-00-6	QCBLK53241-1	12/01/94	12/01/94	103	%REC			5
B0D825	6907-002	Chloride	16887-00-6	QCBLK53241-1	12/01/94	12/01/94	1.13	MG/L		0.25	1
B0D852	6907-003	Chloride	16887-00-6	QCBLK53241-1	12/01/94	12/01/94	0.25	MG/L	U	0.25	1
B0D861	6907-004	Chloride	16887-00-6	QCBLK53241-1	12/01/94	12/01/94	0.25	MG/L	U	0.25	1
NA	QCBLK52926-1	Chloride	16887-00-6	QCBLK52926-1	11/30/94	11/30/94	0.25	MG/L	U	0.25	1
NA	QCBLK53241-1	Chloride	16887-00-6	QCBLK53241-1	12/01/94	12/01/94	0.25	MG/L	U	0.25	1
NA	QCLCS52926-1	Chloride	16887-00-6	QCBLK52926-1	11/30/94	11/30/94	90	%REC			1
NA	QCLCS53241-1	Chloride	16887-00-6	QCBLK53241-1	12/01/94	12/01/94	95	%REC			1

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Quanterra-Richland
P.O. Box 1970
Richland, WA 99352

Project: 550.32

Category: Fluoride
Method: EPA 300.0
Matrix: LIQUID

Sample Date : 11/11/94
Receipt Date : 11/14/94
Report Date : 12/27/94

Client ID	Quanterra ID	Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dil.
B0D810	6886-001	Fluoride	16984-48-8	QCBLK52926-1	11/30/94	11/30/94	0.16	MG/L		0.10	1
B0D831	6886-002	Fluoride	16984-48-8	QCBLK52926-1	11/30/94	11/30/94	0.32	MG/L		0.10	1
B0D840	6886-003	Fluoride	16984-48-8	QCBLK52926-1	11/30/94	11/30/94	0.10	MG/L	U	0.10	1
B0D843	6886-004	Fluoride	16984-48-8	QCBLK52926-1	11/30/94	11/30/94	0.31	MG/L		0.10	1
B0D858	6886-005	Fluoride	16984-48-8	QCBLK52926-1	11/30/94	11/30/94	0.10	MG/L	U	0.10	1
B0D807	6907-001	Fluoride	16984-48-8	QCBLK53241-1	12/01/94	12/01/94	0.10	MG/L	U	0.10	1
B0D807	6907-001DUP	Fluoride	16984-48-8	QCBLK53241-1	12/01/94	12/01/94	0.10	MG/L	U	0.10	1
B0D807	6907-001MS	Fluoride	16984-48-8	QCBLK53241-1	12/01/94	12/01/94	102	%REC			1
B0D825	6907-002	Fluoride	16984-48-8	QCBLK53241-1	12/01/94	12/01/94	0.16	MG/L		0.10	1
B0D852	6907-003	Fluoride	16984-48-8	QCBLK53241-1	12/01/94	12/01/94	0.10	MG/L	U	0.10	1
B0D861	6907-004	Fluoride	16984-48-8	QCBLK53241-1	12/01/94	12/01/94	0.10	MG/L	U	0.10	1
NA	QCBLK52926-1	Fluoride	16984-48-8	QCBLK52926-1	11/30/94	11/30/94	0.10	MG/L	U	0.10	1
NA	QCBLK53241-1	Fluoride	16984-48-8	QCBLK53241-1	12/01/94	12/01/94	0.10	MG/L	U	0.10	1
NA	QCLCS52926-1	Fluoride	16984-48-8	QCBLK52926-1	11/30/94	11/30/94	94	%REC			1
NA	QCLCS53241-1	Fluoride	16984-48-8	QCBLK53241-1	12/01/94	12/01/94	90	%REC			1

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Quanterra-Richland
P.O. Box 1970
Richland, WA 99352

Project: 550.32

Category: Nitrate
Method: EPA 300.0
Matrix: LIQUID

Sample Date : 11/11/94
Receipt Date : 11/14/94
Report Date : 12/27/94

Client ID	Quanterra ID	Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dil.
B0D810	6886-001	Nitrate	14797-55-8	QCBLK52926-1	11/30/94	11/30/94	2.16	MG/L		0.20	10
B0D831	6886-002	Nitrate	14797-55-8	QCBLK52926-1	11/30/94	11/30/94	13.9	MG/L		0.40	20
B0D840	6886-003	Nitrate	14797-55-8	QCBLK53288-1	12/05/94	12/05/94	24.1	MG/L		1.00	50
B0D843	6886-004	Nitrate	14797-55-8	QCBLK53288-1	12/05/94	12/05/94	21.4	MG/L		1.00	50
B0D858	6886-005	Nitrate	14797-55-8	QCBLK52926-1	11/30/94	11/30/94	0.020	MG/L	U	0.020	1
B0D807	6907-001	Nitrate	14797-55-8	QCBLK53241-1	12/01/94	12/01/94	0.52	MG/L		0.020	1
B0D807	6907-001DUP	Nitrate	14797-55-8	QCBLK53241-1	12/01/94	12/01/94	0.52	MG/L		0.020	1
B0D807	6907-001MS	Nitrate	14797-55-8	QCBLK53241-1	12/01/94	12/01/94	100	%REC			1
B0D825	6907-002	Nitrate	14797-55-8	QCBLK53241-1	12/01/94	12/01/94	0.73	MG/L		0.020	1
B0D852	6907-003	Nitrate	14797-55-8	QCBLK53241-1	12/01/94	12/01/94	0.083	MG/L		0.020	1
B0D861	6907-004	Nitrate	14797-55-8	QCBLK53241-1	12/01/94	12/01/94	0.020	MG/L	U	0.020	1
NA	QCBLK52926-1	Nitrate	14797-55-8	QCBLK52926-1	11/30/94	11/30/94	0.020	MG/L	U	0.020	1
NA	QCBLK53241-1	Nitrate	14797-55-8	QCBLK53241-1	12/01/94	12/01/94	0.020	MG/L	U	0.020	1
NA	QCBLK53288-1	Nitrate	14797-55-8	QCBLK53288-1	12/05/94	12/05/94	0.020	MG/L	U	0.020	1
NA	QCLCS52926-1	Nitrate	14797-55-8	QCBLK52926-1	11/30/94	11/30/94	96	%REC			1
NA	QCLCS53241-1	Nitrate	14797-55-8	QCBLK53241-1	12/01/94	12/01/94	100	%REC			1
NA	QCLCS53288-1	Nitrate	14797-55-8	QCBLK53288-1	12/05/94	12/05/94	95	%REC			1

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Quanterra-Richland
P.O. Box 1970
Richland, WA 99352

Project: 550.32

Category: Nitrite
Method: EPA 300.0
Matrix: LIQUID

Sample Date : 11/11/94
Receipt Date : 11/14/94
Report Date : 12/27/94

Client ID	Quanterra ID	Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dil.
B0D810	6886-001	Nitrite	7632-00-0	QCBLK52926-1	11/30/94	11/30/94	0.020	MG/L	U	0.020	1
B0D831	6886-002	Nitrite	7632-00-0	QCBLK52926-1	11/30/94	11/30/94	0.020	MG/L	U	0.020	1
B0D840	6886-003	Nitrite	7632-00-0	QCBLK52926-1	11/30/94	11/30/94	0.020	MG/L	U	0.020	1
B0D843	6886-004	Nitrite	7632-00-0	QCBLK52926-1	11/30/94	11/30/94	0.020	MG/L	U	0.020	1
B0D858	6886-005	Nitrite	7632-00-0	QCBLK52926-1	11/30/94	11/30/94	0.020	MG/L	U	0.020	1
B0D807	6907-001	Nitrite	7632-00-0	QCBLK53241-1	12/01/94	12/01/94	0.020	MG/L	U	0.020	1
B0D807	6907-001DUP	Nitrite	7632-00-0	QCBLK53241-1	12/01/94	12/01/94	0.020	MG/L	U	0.020	1
B0D807	6907-001MS	Nitrite	7632-00-0	QCBLK53241-1	12/01/94	12/01/94	107	%REC			5
B0D825	6907-002	Nitrite	7632-00-0	QCBLK53241-1	12/01/94	12/01/94	0.020	MG/L	U	0.020	1
B0D852	6907-003	Nitrite	7632-00-0	QCBLK53241-1	12/01/94	12/01/94	0.020	MG/L	U	0.020	1
B0D861	6907-004	Nitrite	7632-00-0	QCBLK53241-1	12/01/94	12/01/94	0.020	MG/L	U	0.020	1
NA	QCBLK52926-1	Nitrite	7632-00-0	QCBLK52926-1	11/30/94	11/30/94	0.020	MG/L	U	0.020	1
NA	QCBLK53241-1	Nitrite	7632-00-0	QCBLK53241-1	12/01/94	12/01/94	0.020	MG/L	U	0.020	1
NA	QCLCS52926-1	Nitrite	7632-00-0	QCBLK52926-1	11/30/94	11/30/94	98	%REC			1
NA	QCLCS53241-1	Nitrite	7632-00-0	QCBLK53241-1	12/01/94	12/01/94	98	%REC			1

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Quanterra-Richland
P.O. Box 1970
Richland, WA 99352

Project: 550.32

Category: Orthophosphate
Method: EPA 300.0
Matrix: LIQUID

Sample Date : 11/11/94
Receipt Date : 11/14/94
Report Date : 12/27/94

Client ID	Quanterra ID	Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dil.
B0D810	6886-001	Ortho-Phosphate	7778-77-0	QCBLK52926-1	11/30/94	11/30/94	1.00	MG/L	U	1.00	1
B0D831	6886-002	Ortho-Phosphate	7778-77-0	QCBLK52926-1	11/30/94	11/30/94	1.00	MG/L	U	1.00	1
B0D840	6886-003	Ortho-Phosphate	7778-77-0	QCBLK52926-1	11/30/94	11/30/94	1.00	MG/L	U	1.00	1
B0D843	6886-004	Ortho-Phosphate	7778-77-0	QCBLK52926-1	11/30/94	11/30/94	1.00	MG/L	U	1.00	1
B0D858	6886-005	Ortho-Phosphate	7778-77-0	QCBLK52926-1	11/30/94	11/30/94	1.00	MG/L	U	1.00	1
B0D807	6907-001	Ortho-Phosphate	7778-77-0	QCBLK53241-1	12/01/94	12/01/94	1.00	MG/L	U	1.00	1
B0D807	6907-001DUP	Ortho-Phosphate	7778-77-0	QCBLK53241-1	12/01/94	12/01/94	1.00	MG/L	U	1.00	1
B0D807	6907-001MS	Ortho-Phosphate	7778-77-0	QCBLK53241-1	12/01/94	12/01/94	96	%REC			1
B0D825	6907-002	Ortho-Phosphate	7778-77-0	QCBLK53241-1	12/01/94	12/01/94	1.00	MG/L	U	1.00	1
B0D852	6907-003	Ortho-Phosphate	7778-77-0	QCBLK53241-1	12/01/94	12/01/94	1.00	MG/L	U	1.00	1
B0D861	6907-004	Ortho-Phosphate	7778-77-0	QCBLK53241-1	12/01/94	12/01/94	1.00	MG/L	U	1.00	1
NA	QCBLK52926-1	Ortho-Phosphate	7778-77-0	QCBLK52926-1	11/30/94	11/30/94	1.00	MG/L	U	1.00	1
NA	QCBLK53241-1	Ortho-Phosphate	7778-77-0	QCBLK53241-1	12/01/94	12/01/94	1.00	MG/L	U	1.00	1
NA	QCLCS52926-1	Ortho-Phosphate	7778-77-0	QCBLK52926-1	11/30/94	11/30/94	96	%REC			1
NA	QCLCS53241-1	Ortho-Phosphate	7778-77-0	QCBLK53241-1	12/01/94	12/01/94	96	%REC			1

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Quanterra-Richland
P.O. Box 1970
Richland, WA 99352

Project: 550.32

Category: Sulfate
Method: EPA 300.0
Matrix: LIQUID

Sample Date : 11/11/94
Receipt Date : 11/14/94
Report Date : 12/27/94

Client ID	Quanterra ID	Analyte	CAS Number	Blank Sample Name	Prep. Date	Analyses Date	Result	Unit	Qual.	Detection Limit	Dil.
B0D810	6886-001	Sulfate	14808-79-8	QCBLK52926-1	11/30/94	11/30/94	22.8	MG/L		10.0	10
B0D831	6886-002	Sulfate	14808-79-8	QCBLK52926-1	11/30/94	11/30/94	58.8	MG/L		10.0	10
B0D840	6886-003	Sulfate	14808-79-8	QCBLK52926-1	11/30/94	11/30/94	110	MG/L		10.0	10
B0D843	6886-004	Sulfate	14808-79-8	QCBLK52926-1	11/30/94	11/30/94	55.2	MG/L		10.0	10
B0D858	6886-005	Sulfate	14808-79-8	QCBLK52926-1	11/30/94	11/30/94	1.00	MG/L	U	1.00	1
B0D807	6907-001	Sulfate	14808-79-8	QCBLK53241-1	12/01/94	12/01/94	10.5	MG/L		1.00	1
B0D807	6907-001DUP	Sulfate	14808-79-8	QCBLK53241-1	12/01/94	12/01/94	10.5	MG/L		1.00	1
B0D807	6907-001MS	Sulfate	14808-79-8	QCBLK53241-1	12/01/94	12/01/94	96	MG/L	U		5
B0D825	6907-002	Sulfate	14808-79-8	QCBLK53241-1	12/01/94	12/01/94	17.0	MG/L		1.00	1
B0D852	6907-003	Sulfate	14808-79-8	QCBLK53241-1	12/01/94	12/01/94	1.00	MG/L	U	1.00	1
B0D861	6907-004	Sulfate	14808-79-8	QCBLK53241-1	12/01/94	12/01/94	1.00	MG/L	U	1.00	1
NA	QCBLK52926-1	Sulfate	14808-79-8	QCBLK52926-1	11/30/94	11/30/94	1.00	MG/L	U	1.00	1
NA	QCBLK53241-1	Sulfate	14808-79-8	QCBLK53241-1	12/01/94	12/01/94	1.00	MG/L	U	1.00	1
NA	QCLCS52926-1	Sulfate	14808-79-8	QCBLK52926-1	11/30/94	11/30/94	94	%REC			1
NA	QCLCS53241-1	Sulfate	14808-79-8	QCBLK53241-1	12/01/94	12/01/94	94	%REC			1

9613442.2518

SAMPLE RECEIPT DOCUMENTATION

Quanterra November 15, 1994 03:43 pm
Account: 10722 Project: 550.32 Quanterra-Richland QAS No. 802 Rev. 0
Master Sample Login: 6886

Project Manager: W. Price

Draft: Final: Entered and Reviewed by: M Jackson PM Review: Daniel Gunn

Sample Header Template:

Sample No. / Comments	Client ID	C-Matrix	Date: Collected	Received	Due	Shipper	Rad Category	Rad Sample No.
6886-001	B00810	Water	11-NOV-94 09:32	14-NOV-94 10:17	19-DEC-94	FED-EX	1	Screening not Required
QES, RICHLAND ID=41130701								

#	Container Type	Analysis	Class	Preservative	Anal. Due Date	Hold Date	Site	(Container Numbers:% Filled)
3	VI - Vial-40ml	VOA/CLP90/Q4	S	HCL	12-DEC-94	25-NOV-94	109U	(116530:100 116531:99 116532:98)
1	AN - Amber Glass-500ml	ANIONS/300.0/Q4	P	COLD	N/A	N/A	R10A	(116529:100)
1		AS/CLP90/Q4	S	HNO3	12-DEC-94	13-MAY-95	R10A	(116528:100)
1		CL/300.0/Q4	C	COLD	12-DEC-94	09-DEC-94	R10A	(116529:100)
1		FL/300.0/Q4	C	COLD	12-DEC-94	09-DEC-94	R10A	(116529:100)
1		ICAP/CLP90/Q4	S	HNO3	12-DEC-94	13-MAY-95	R10A	(116528:100)
1		NO2/300.0/Q4	C	COLD	12-DEC-94	13-NOV-94	R10A	(116529:100)
1		NO3/300.0/Q4	C	COLD	12-DEC-94	13-NOV-94	R10A	(116529:100)
1		OPHOS/300.0/Q4	C	COLD	12-DEC-94	13-NOV-94	R10A	(116529:100)
1		PB/CLP90/Q4	S	HNO3	12-DEC-94	13-MAY-95	R10A	(116528:100)
1		SO4/300.0/Q4	C	COLD	12-DEC-94	09-DEC-94	R10A	(116529:100)

Sample No. / Comments	Client ID	C-Matrix	Date: Collected	Received	Due	Shipper	Rad Category	Rad Sample No.
6886-002	B00831	Water	11-NOV-94 10:25	14-NOV-94 10:17	19-DEC-94	FED-EX	1	Screening not Required
QES, RICHLAND ID=41130704								

#	Container Type	Analysis	Class	Preservative	Anal. Due Date	Hold Date	Site	(Container Numbers:% Filled)
3	VI - Vial-40ml	VOA/CLP90/Q4	S	HCL	12-DEC-94	25-NOV-94	109U	(116537:100 116538:99 116539:98)
1	AN - Amber Glass-500ml	ANIONS/300.0/Q4	P	COLD	N/A	N/A	R10A	(116536:100)
1		AS/CLP90/Q4	S	HNO3	12-DEC-94	13-MAY-95	R10A	(116535:100)
1		CL/300.0/Q4	C	COLD	12-DEC-94	09-DEC-94	R10A	(116536:100)
1		FL/300.0/Q4	C	COLD	12-DEC-94	09-DEC-94	R10A	(116536:100)
1		ICAP/CLP90/Q4	S	HNO3	12-DEC-94	13-MAY-95	R10A	(116535:100)
1		NO2/300.0/Q4	C	COLD	12-DEC-94	13-NOV-94	R10A	(116536:100)
1		NO3/300.0/Q4	C	COLD	12-DEC-94	13-NOV-94	R10A	(116536:100)
1		OPHOS/300.0/Q4	C	COLD	12-DEC-94	13-NOV-94	R10A	(116536:100)
1		PB/CLP90/Q4	S	HNO3	12-DEC-94	13-MAY-95	R10A	(116535:100)
1		SO4/300.0/Q4	C	COLD	12-DEC-94	09-DEC-94	R10A	(116536:100)

Sample No. / Comments	Client ID	C-Matrix	Date: Collected	Received	Due	Shipper	Rad Category	Rad Sample No.
6886-003	B00840	Water	11-NOV-94 10:50	14-NOV-94 10:17	19-DEC-94	FED-EX	1	Screening not Required
QES, RICHLAND ID=41130707								

#	Container Type	Analysis	Class	Preservative	Anal. Due Date	Hold Date	Site	(Container Numbers:% Filled)
3	VI - Vial-40ml	VOA/CLP90/Q4	S	HCL	12-DEC-94	25-NOV-94	109U	(116542:100 116543:99 116544:98)
1	AN - Amber Glass-500ml	ANIONS/300.0/Q4	P	COLD	N/A	N/A	R10A	(116541:100)
1		AS/CLP90/Q4	S	HNO3	12-DEC-94	13-MAY-95	R10A	(116540:100)
1		CL/300.0/Q4	C	COLD	12-DEC-94	09-DEC-94	R10A	(116541:100)
1		FL/300.0/Q4	C	COLD	12-DEC-94	09-DEC-94	R10A	(116541:100)
1		ICAP/CLP90/Q4	S	HNO3	12-DEC-94	13-MAY-95	R10A	(116540:100)
1		NO2/300.0/Q4	C	COLD	12-DEC-94	13-NOV-94	R10A	(116541:100)
1		NO3/300.0/Q4	C	COLD	12-DEC-94	13-NOV-94	R10A	(116541:100)
1		OPHOS/300.0/Q4	C	COLD	12-DEC-94	13-NOV-94	R10A	(116541:100)
1		PB/CLP90/Q4	S	HNO3	12-DEC-94	13-MAY-95	R10A	(116540:100)

3*=Sample has not been rad screened.

00010

Quanterra November 15, 1994 03:43 pm
Account: 10722 Project: 550.32 Quanterra-Richland QAS No. 802 Rev. 0
Master Sample Login: 6886

Project Manager: W. Price

Draft: Final: Entered and Reviewed by:_____ PM Review:_____

Sample Header Template: _____

Sample No. / #	Client ID / Container Type	C-Matrix / Analysis	Date: Collected / Class	Received / Preservative	Due / Anal. Due Date	Shipper / Hold Date	Rad Category / Site	Rad Sample No. / (Container Numbers:% Filled)
Comments								
Data:								
1		SO4/300.0/Q4	C	COLD	12-DEC-94	09-DEC-94	R10A	(116541:100)
6886-004	B00843	Water	11-NOV-94 08:30	14-NOV-94 10:17	19-DEC-94	FED-EX	1	Screening not Required
QES, RICHLAND ID=41130710								
3	VI - Vial-40ml	VOA/CLP90/Q4	S	HCL	12-DEC-94	25-NOV-94	109U	(116548:100 116549:99 116550:98)
1	AN - Amber Glass-500ml	ANIONS/300.0/Q4	P	COLD	N/A	N/A	R10A	(116547:100)
1		AS/CLP90/Q4	S	HNO3	12-DEC-94	13-MAY-95	R10A	(116546:100)
1		CL/300.0/Q4	C	COLD	12-DEC-94	09-DEC-94	R10A	(116547:100)
1		FL/300.0/Q4	C	COLD	12-DEC-94	09-DEC-94	R10A	(116547:100)
1		ICAP/CLP90/Q4	S	HNO3	12-DEC-94	13-MAY-95	R10A	(116546:100)
1		NO2/300.0/Q4	C	COLD	12-DEC-94	13-NOV-94	R10A	(116547:100)
1		NO3/300.0/Q4	C	COLD	12-DEC-94	13-NOV-94	R10A	(116547:100)
1		OPHOS/300.0/Q4	C	COLD	12-DEC-94	13-NOV-94	R10A	(116547:100)
1		PB/CLP90/Q4	S	HNO3	12-DEC-94	13-MAY-95	R10A	(116546:100)
1		SO4/300.0/Q4	C	COLD	12-DEC-94	09-DEC-94	R10A	(116547:100)
6886-005	B00858	Water	11-NOV-94 08:00	14-NOV-94 10:17	19-DEC-94	FED-EX	1	Screening not Required
QES, RICHLAND ID=41130713								
3	VI - Vial-40ml	VOA/CLP90/Q4	S	HCL	12-DEC-94	25-NOV-94	109U	(116556:100 116557:99 116558:98)
1	AN - Amber Glass-500ml	ANIONS/300.0/Q4	P	COLD	N/A	N/A	R10A	(116555:100)
		AS/CLP90/Q4	S	HNO3	12-DEC-94	13-MAY-95	R10A	(116554:100)
		CL/300.0/Q4	C	COLD	12-DEC-94	09-DEC-94	R10A	(116555:100)
		FL/300.0/Q4	C	COLD	12-DEC-94	09-DEC-94	R10A	(116555:100)
		ICAP/CLP90/Q4	S	HNO3	12-DEC-94	13-MAY-95	R10A	(116554:100)
		NO2/300.0/Q4	C	COLD	12-DEC-94	13-NOV-94	R10A	(116555:100)
		NO3/300.0/Q4	C	COLD	12-DEC-94	13-NOV-94	R10A	(116555:100)
		OPHOS/300.0/Q4	C	COLD	12-DEC-94	13-NOV-94	R10A	(116555:100)
		PB/CLP90/Q4	S	HNO3	12-DEC-94	13-MAY-95	R10A	(116554:100)
		SO4/300.0/Q4	C	COLD	12-DEC-94	09-DEC-94	R10A	(116555:100)
6886-006	B00811	Water	11-NOV-94 09:32	14-NOV-94 10:17	19-DEC-94	FED-EX	1	Screening not Required
QES, RICHLAND ID=41130702								
1	AN - Amber Glass-500ml	ASD/CLP90/Q4	S	HNO3	12-DEC-94	13-MAY-95	R10A	(116561:100)
1		ICAPD/CLP90/Q4	S	HNO3	12-DEC-94	13-MAY-95	R10A	(116561:100)
1		PBD/CLP90/Q4	S	HNO3	12-DEC-94	13-MAY-95	R10A	(116561:100)
6886-007	B00832	Water	11-NOV-94 10:25	14-NOV-94 10:17	19-DEC-94	FED-EX	1	Screening not Required
QES, RICHLAND ID=41130705								
1	AN - Amber Glass-500ml	ASD/CLP90/Q4	S	HNO3	12-DEC-94	13-MAY-95	R10A	(116564:100)
1		ICAPD/CLP90/Q4	S	HNO3	12-DEC-94	13-MAY-95	R10A	(116564:100)

5**Sample has not been rad screened.

00011

Quanterra November 15, 1994 03:43 pm
Account: 10722 Project: 550.32 Quanterra-Richland QAS No. 802 Rev. 0
Master Sample Login: 6886

Project Manager: W. Price

Draft: Final: Entered and Reviewed by:_____ PM Review:_____

Sample Header Template: _____

Sample No. / Comments	Client ID	C-Matrix	Date: Collected	Received	Due	Shipper	Rad Category	Rad Sample No.
6886-008	B00841	Water	11-NOV-94 10:50	14-NOV-94 10:17	19-DEC-94	FED-EX	1	Screening not Required
QES, RICHLAND ID=41130708								
6886-009	B00844	Water	11-NOV-94 08:30	14-NOV-94 10:17	19-DEC-94	FED-EX	1	Screening not Required
QES, RICHLAND ID=41130711								
6886-010	B00859	Water	11-NOV-94 08:00	14-NOV-94 10:17	19-DEC-94	FED-EX	1	Screening not Required
QES, RICHLAND ID=41130714								
6886-011	B00812	Water	11-NOV-94 09:32	14-NOV-94 10:17	19-DEC-94	FED-EX	1	Screening not Required
QES, RICHLAND ID=41130703								
6886-012	B00833	Water	11-NOV-94 07:35	14-NOV-94 10:17	19-DEC-94	FED-EX	1	Screening not Required
QES, RICHLAND ID=41130706								
6886-013	B00842	Water	11-NOV-94 07:35	14-NOV-94 10:17	19-DEC-94	FED-EX	1	Screening not Required
QES, RICHLAND ID=41130709								
6886-014	B00845	Water	11-NOV-94 08:30	14-NOV-94 10:17	19-DEC-94	FED-EX	1	Screening not Required
QES, RICHLAND ID=41130712								

#	Container Type	Analysis	Class	Preservative	Anal. Due Date	Hold Date	Site	(Container Numbers:% Filled)
1		PBD/CLP90/Q4	S	HNO3	12-DEC-94	13-MAY-95	R10A	(116564:100)
1	AN - Amber Glass-500ml	ASD/CLP90/Q4	S	HNO3	12-DEC-94	13-MAY-95	R10A	(116568:100)
1		ICAPD/CLP90/Q4	S	HNO3	12-DEC-94	13-MAY-95	R10A	(116568:100)
1		PBD/CLP90/Q4	S	HNO3	12-DEC-94	13-MAY-95	R10A	(116568:100)
1	AN - Amber Glass-500ml	ASD/CLP90/Q4	S	HNO3	12-DEC-94	13-MAY-95	R10A	(116569:100)
1		ICAPD/CLP90/Q4	S	HNO3	12-DEC-94	13-MAY-95	R10A	(116569:100)
1		PBD/CLP90/Q4	S	HNO3	12-DEC-94	13-MAY-95	R10A	(116569:100)
1	AN - Amber Glass-500ml	ASD/CLP90/Q4	S	HNO3	12-DEC-94	13-MAY-95	R10A	(116570:100)
1		ICAPD/CLP90/Q4	S	HNO3	12-DEC-94	13-MAY-95	R10A	(116570:100)
1		PBD/CLP90/Q4	S	HNO3	12-DEC-94	13-MAY-95	R10A	(116570:100)
3	VI - Vial-40ml	VOA/CLP90/Q4	S	HCL	12-DEC-94	25-NOV-94	109U	(116571:100 116572:99 116573:98)
3	VI - Vial-40ml	VOA/CLP90/Q4	S	HCL	12-DEC-94	25-NOV-94	109U	(116575:100 116576:99 116577:98)
3	VI - Vial-40ml	VOA/CLP90/Q4	S	HCL	12-DEC-94	25-NOV-94	109U	(116578:100 116579:99 116580:98)
3	VI - Vial-40ml	VOA/CLP90/Q4	S	HCL	12-DEC-94	25-NOV-94	109U	(116583:100 116584:99 116585:98)

3**Sample has not been rad screened.

Quanterra November 15, 1994 03:43 pm
Account: 10722 Project: 550.32 Quanterra-Richland QAS No. 802 Rev. 0
Master Sample Login: 6886

Project Manager: W. Price

Draft: Final: Entered and Reviewed by:_____ PM Review:_____

Sample Header Template: _____

Sample No. / Comments	Client ID	C-Matrix	Date: Collected	Received	Due	Shipper	Rad Category	Rad Sample No.
6886-015 / QES, RICHLAND ID=41130715	B00860	Water	11-NOV-94 08:00	14-NOV-94 10:17	19-DEC-94	FED-EX	1	Screening not Required

#	Container Type	Analysis	Class	Preservative	Anal. Due Date	Hold Date	Site	(Container Numbers:% Filled)
3	VI - Vial-40ml	VOA/CLP90/Q4	S	HCL	12-DEC-94	25-NOV-94	109U	(116588:100 116589:99 116590:98)

Sample No.	Client ID	C-Matrix	Date: Collected	Received	Due	Shipper	Rad Category	Rad Sample No.
6886-016	TRIP BLANKS	Water	11-NOV-94 00:00	14-NOV-94 10:17	19-DEC-94	FED-EX	1	Screening not Required

#	Container Type	Analysis	Class	Preservative	Anal. Due Date	Hold Date	Site	(Container Numbers:% Filled)
3	VI - Vial-40ml	HOLD//Q4	S	COLD	11-&&&-**	11-&&&-**	R10A	(116595:95 116596:96 116597:94)

Data:

3*=Sample has not been rad screened.

00013

9613442.2522

Temp 3°C CUR# 2481

INTERNATIONAL TECHNOLOGY CORPORATION

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD*

Reference Document No. 453973
Page 1 of 3

Project Name/No. 1: B94-083
Sample Team Members 2:
Profit Center No. 3: 4632
Project Manager 4: V Pettey
Purchase Order No. 6:
Required Report Date 11:

Samples Shipment Date 7: 11/14/94
Lab Destination 8: St Louis
Lab Contact 9:
Project Contact/Phone 12:
Carrier/Waybill No. 13:

Bill to: 5 Quanterra Richland
Report to: 10

ONE CONTAINER PER LINE

Sample Number 14	Sample Description/Type 15	Date/Time Collected 16	Container Type 17	Sample Volume 18	Preservative 19	Requested Testing Program 20	Condition on Receipt 21 %	Disposal Record No. 22
41130701A	BOD810 1420	11-11-94 09:52 See WHC	6 ls Amb 60cc SAR	500 ml	HNO3 4°C	Metals See WHC 60cc SAR	100	1
B					4°.	Anions	100	—
C				40 ml	HCl	VOA	100	—
D							100	—
E							100	—
2A	BOD811			500 ml	HNO3	Metals	100	1
3A	BOD812			40 ml	HCl	VOA	100	—
B					HCl	VOA	100	—

FOR LAB USE ONLY

FOR LAB USE ONLY

Special Instructions: 23

Possible Hazard Identification: 24
Non-hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☑

Sample Disposal: 25
Return to Client ☑ Disposal by Lab ☐ Archive _____ (mos.)

Turnaround Time Required: 26
Normal ☑ Rush ☐

QC Level: 27
I. ☐ II. ☐ III. ☐ Project Specific (specify): SDG W0312

1. Relinquished by 28 (Signature/Affiliation)	Date: 11/14/94 Time: 1600	1. Received by 28 (Signature/Affiliation)	Date: 11-15-94 Time: 09:00
2. Relinquished by (Signature/Affiliation)	Date: Time:	2. Received by (Signature/Affiliation)	Date: Time:
3. Relinquished by (Signature/Affiliation)	Date: Time:	3. Received by (Signature/Affiliation)	Date: Time:

Comments: 29

White: To accompany samples
Yellow: Field copy
*See back of form for special instructions.

00014

MCA 3/15/91

INTERNATIONAL TECHNOLOGY CORPORATION

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD (cont.)*

Reference Document No.[30] 453973

Page 2 of 3

Project Name W0312 Project No. 1394-083 Samples Shipment Date 11/14/94

ONE CONTAINER PER LINE

Sample[14] Number	Sample[15] Description/Type	Date/Time[16] Collected	Container[17] Type	Sample[18] Volume	Pre-[19] servative	Requested Testing[20] Program	% Condition on[21] Receipt	Disposal[22] Record No. PH
411307 a3c	BOD812 /H2O	11-11-94 0922 See WHC	0.5 Amb COC/SAR	40 ml	4°C HCl	VOA See WHC COC/SAR	100	-
4A	BOD831	11-11-94 10:25		500 ml	HNO3	metals	100	1
B					Cold	Anions	100	-
C				40 ml	HCL	VOA	100	-
D							100	-
E							100	-
5A	BOD832			500 ml	HNO3	metals	100	1
6A	BOD833	11-11-94 0735		40 ml	HCl	VOA	100	-
B							100	-
C							100	-
7A	BOD840	11-11-94 10:50		500 ml	HNO3	metals	100	3
B					Cold	Anions	100	-
C				40 ml	HCl	VOA	100	-
D							100	-
E							100	-
8A	BOD841			500 ml	HNO3	metals	100	3
9A	BOD842	11-11-94 0735		40 ml	HCl	VOA	100	-
B								-
C								-
10A	BOD843	11-11-94 0830		500 ml	HNO3	metals	100	1

White: To accompany samples
Yellow: Field copy
*See back of form for special instructions.

MCA 3/15/91

INTERNATIONAL TECHNOLOGY CORPORATION

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD (cont.)*

Reference Document No.[30] 453973

Page 3 of 3

Project Name W032 | Project No. B94-083 | Samples Shipment Date 11/14/94

ONE CONTAINER PER LINE

Sample[14] Number	Sample[15] Description/Type	Date/Time[16] Collected	Container[17] Type	Sample[18] Volume	Pre-[19] servative	Requested Testing[20] Program	% Condition on[21] Receipt	Disposal[22] Record No.
41130710B	BOD843 /H2O	11-11-94 0830 See back	GLS AMB 60C/SAR	500 ml	4°C	Anions See WHK 60C/SAR	100	–
C		11-11-94 0830		40 ml	HCl	VOA	100	–
D							100	–
E							100	–
11A	BOD844			500 ml	HNO3	metals		1
12A	BOD845			40 ml	HCl ~~Cold~~	~~Anions~~ VOA		–
B					HCl	VOA		–
C					HCL	VOA		–
13A	BOD858	11-11-94 0800		500 ml	HNO3	metals	100	1
B					COLD	Anions		–
C				40 ml	HCl	VOA		–
D								–
E								–
14A	BOD859			500 ml	HNO3	metals		1
15A	BOD860			40 ml	HCl	VOA		–
B								–
C								–
11/14/94								

FOR LAB USE ONLY

White: To accompany samples
Yellow: Field copy

*See back of form for special instructions.

MCA 3/15/91

00016

Westinghouse Hanford Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

Page 1 of 1

Data Turnaround: [ ] Priorty [X] Normal

Collector: A.J. Simpson	Company Contact: D. St. John	Telephone No.: (509) 376-5376
Project Designation: 100-FR-3 Groundwater-Round 6	Sampling Location: 100 F	SAF No.: B94-083
Ice Chest No.: ~~JMT~~ GWS-122 KT 11/14/94	Field Logbook No.: FTL-1054	Method of Shipment: Hand Delivered
Shipped To: Quanterra	Offsite Property No.	Bill of Lading/Air Bill No.
Possible Sample Hazards/Remarks		
Special Handling and/or Storage: Maintain between 2 C and 6 C.		

Preservative	HNO3	None	HCl	HNO3	None	None		HNO3		HCl					
Type of Container	G	G	Gs	G/P	Gs	P		G		Gs					
No. of Container(s)	1	1	3	4	3	1		1		3					
Volume	500mL	500mL	40mL	1L	1L	20mL		500mL		40mL					
SAMPLE ANALYSIS 411307	ICP Metals, AA Metals-As, Pb (Unfiltered) A	Anions-F, Cl, SO4, PO4, NO2, NO3 B	VOA CDE	Total Alpha, Total Beta, Sr-90 411	C-14, Tritium 3080	Activity Screen		ICP Metals, AA Metals-As, Pb (Filtered)		VOA					

Sample No.	Matrix*	Date Sampled	Time Sampled														
B0D810 01	W	11/11/94	0932	X	X	X	X	X	X								
B0D811 2	W	11/11/94	0932								X						
B0D812 3	W	11/11/94	0932										X				
				A	B	CDE					A		ABC				

CHAIN OF POSSESSION	Sign/Print Names	Date/Time	Received By	Date/Time
Relinquished By	K. Olee / Kathy D Lee 11/11/94	1120	Bill Whitten / BWhitten 11-11-94	1120
Relinquished By	For Bill Whitten / K. Trapp 11/14/94	1009	Received By: R Baird Quanterra	11-14-94 1009
Relinquished By		Date/Time	Received By	Date/Time
Relinquished By		Date/Time	Received By	Date/Time

SPECIAL INSTRUCTIONS

Data Deliverable-Standalone

Analysis for PO4, NO2, and NO3 by EPA 300.0 is being requested for information only. The BHI Contractor acknowledges the 48-hour holding will be exceeded.

The Activity Screen is for all three sample numbers.

SDG W0312

Matrix*

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

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

DISTRIBUTION: Original- Sample Yellow - Sampler

BC-6000-828 (12/92)

00017

Westinghouse Hanford Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

Page 1 of 1

Data Turnaround: [ ] Priorty [X] Normal

Collector: W Setzer	Company Contact: D. St. John	Telephone No.: (509) 376-5376
Project Designation: 100-FR-3 Groundwater-Round 6	Sampling Location: 100 F	SAF No.: B94-083
Ice Chest No.: SML-423	Field Logbook No.: EFL-1055	Method of Shipment: Hand Delivered
Shipped To: Quanterra	Offsite Property No.	Bill of Lading/Air Bill No.
Possible Sample Hazards/Remarks		
Special Handling and/or Storage: Maintain between 2 C and 6 C.		

	Preservative	HNO3	None	HCl	HNO3	None	None		HNO3		HCl					
	Type of Container	G	G	Gs	G/P	Gs	P		G		Gs					
	No. of Container(s)	1	1	3	4	3	1		1		3					
	Volume	500mL	500mL	40mL	1L	1L	20mL		500mL		40mL					
SAMPLE ANALYSIS 411307		ICP Metals, AA Metals-As, Pb (Unfiltered)	Anions-F, Cl, SO4, PO4, NO2, NO3	VOA	Total Alpha, Total Beta, Sr-90	C-14, Tritium 41130802	Activity Screen		ICP Metals, AA Metals-As, Pb (Filtered)		VOA					
Sample No.	Matrix*	Date Sampled	Time Sampled													
B0D831 04	W	11-11-94	1021 0835	11/11/94 X	X	X	X	X	X							
B0D832 5	W	11-11-94	1025 0835	11/11/94							X					
B0D833 6	W	11-11-94	0740								X					
				A	B	CDE					A		ABC			

CHAIN OF POSSESSION	Sign/Print Names		
Relinquished By	Date/Time	Received By	Date/Time
[signature] AGR220	1205 11-11-94	[signature] SCHM	1205 11-11-94
Relinquished By	Date/Time	Received By	Date/Time
For Bill Winter [signature] / K. Trapp	1017 11/14/94	[signature] Quanterra	11-14-94 1017
Relinquished By	Date/Time	Received By	Date/Time
Relinquished By	Date/Time	Received By	Date/Time

SPECIAL INSTRUCTIONS

Data Deliverable-Standalone

Analysis for PO4, NO2, and NO3 by EPA 300.0 is being requested for information only. The BHI Contractor acknowledges the 48-hour holding will be exceeded.

The Activity Screen is for all three sample numbers.

SDG-W0312

Matrix*

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

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

DISTRIBUTION: Original- Sample Yellow - Sampler

BC-6000-828 (12/92)

Westinghouse Hanford Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

Page 1 of 1

Data Turnaround: [ ] Priority [X] Normal

Collector: L Setzer	Company Contact: D. St. John	Telephone No.: (509) 376-5376
Project Designation: 100-FR-3 Groundwater-Round 6	Sampling Location: 100 F	SAF No.: B94-083
Ice Chest No.: GWS-141	Field Logbook No.: EFL 1055	Method of Shipment: Hand Delivered
Shipped To: Quanterra	Offsite Property No.	Bill of Lading/Air Bill No.
Possible Sample Hazards/Remarks		

Special Handling and/or Storage: Maintain between 2 C and 6 C.

SAMPLE ANALYSIS: 41307

Sample No.	Matrix*	Date Sampled	Time Sampled															
Preservative				HNO3	None	HCl	HNO3	None	None		HNO3		HCl					
Type of Container				G	G	Gs	G/P	Gs	P		G		Gs					
No. of Container(s)				1	1	3	4	3	1		1		3					
Volume				500mL	500mL	40mL	1L	1L	20mL		500mL		40mL					
				ICP Metals, AA Metals-As, Pb (Unfiltered)	Anions-F, Cl, SO4, PO4, NO2, NO3	VOA	Total Alpha, Total Beta, Sr-90 41130803	C-14, Tritium	Activity Screen		ICP Metals, AA Metals-As, Pb (Filtered)		VOA					
B0D840	07	L	11-11-94	1050	X	X	X	X	X	X								
B0D841	8	L	11-11-94	1050							X							
B0D842	9	L	11-11-94	0735									X					
				A	B	CDE					A		ABC					

CHAIN OF POSSESSION	Sign/Print Names		
Relinquished By: AGR1220 OG Rigg	Date/Time: 1205 11-11-94	Received By: Fred Whitney Bath Hav	Date/Time: 1205 11-11-94
Relinquished By: K. Trapp/K. Trapp	Date/Time: 11/14/94 1012	Received By: R. Boyd Buttrum	Date/Time: 11-14-94 1012
Relinquished By	Date/Time	Received By	Date/Time
Relinquished By	Date/Time	Received By	Date/Time

SPECIAL INSTRUCTIONS

Data Deliverable-Standalone

Analysis for PO4, NO2, and NO3 by EPA 300.0 is being requested for information only. The BHI Contractor acknowledges the 48-hour holding will be exceeded.

The Activity Screen is for all three sample numbers.

SDG W0312

Matrix*

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

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

DISTRIBUTION: Original- Sample Yellow - Sampler

BC-6000-828 (12/92)

Westinghouse Hanford Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

Page 1 of 1

Data Turnaround: [ ] Priorty [X] Normal

Collector: A J Simpson	Company Contact: D. St. John	Telephone No.: (509) 376-5376
Project Designation: 100-FR-3 Groundwater-Round 6	Sampling Location: 100 F	SAF No.: B94-083
Ice Chest No.: GWS-122	Field Logbook No.: EFL-1054	Method of Shipment: Hand Delivered
Shipped To: Quanterra	Offsite Property No.	Bill of Lading/Air Bill No.
Possible Sample Hazards/Remarks		
Special Handling and/or Storage: Maintain between 2 C and 6 C.		

Preservative	HNO3	None	HCl	HNO3	None	None		HNO3		HCl					
Type of Container	G	G	Gs	G/P	Gs	P		G		Gs					
No. of Container(s)	1	1	3	4	3	1		1		3					
Volume	500mL	500mL	40mL	1L	1L	20mL		500mL		40mL					
SAMPLE ANALYSIS 411307	ICP Metals, AA Metals-As, Pb (Unfiltered)	Anions-F, Cl, SO4, PO4, NO2, NO3	VOA	Total Alpha, Total Beta, Sr-90 411308	C-14, Tritium	Activity Screen		ICP Metals, AA Metals-As, Pb (Filtered)		VOA					
Sample No. / Matrix* / Date Sampled / Time Sampled															
B0D843 10 / W / 11/11/94 / 0830	X	X	X	X	X	X									
B0D844 11 / W / 11/11/94 / 0830								X							
B0D845 12 / W / 11/11/94 / 0830										X					
	A	B	CDE					A		ABC					

CHAIN OF POSSESSION	Sign/Print Names	Date/Time	Received By	Date/Time
Relinquished By	K. Lee	1120		1120
Relinquished By	Kathy D. Lee	11/11/94	Received By	11-20-94
Relinquished By	For Bill Whitney / K. Trapp	1009 / 11/14/94	Received By	11-14-94 1009
Relinquished By			Received By	
Relinquished By			Received By	

SPECIAL INSTRUCTIONS

Data Deliverable-Standalone

Analysis for PO4, NO2, and NO3 by EPA 300.0 is being requested for information only. The BHI Contractor acknowledges the 48-hour holding will be exceeded.

The Activity Screen is for all three sample numbers.

SDG W0312

Matrix*

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

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

DISTRIBUTION: Original- Sample Yellow - Sampler

BC-6000-828 (12/92)

00020

Westinghouse Hanford Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

Page 1 of 1

Data Turnaround: [ ] Priorty [X] Normal

Collector: A J Simpson	Company Contact: D. St. John	Telephone No.: (509) 376-5376
Project Designation: 100-FR-3 Groundwater-Round 6	Sampling Location: 100 F	SAF No.: B94-083
Ice Chest No.: GWS-141	Field Logbook No.: EFL-1054	Method of Shipment: Hand Delivered
Shipped To: Quanterra	Offsite Property No.	Bill of Lading/Air Bill No.
Possible Sample Hazards/Remarks		
Special Handling and/or Storage: Maintain between 2 C and 6 C.		

			Preservative	HNO3	None	HCl	HNO3	None	None		HNO3		HCl			
			Type of Container	G	G	Gs	G/P	Gs	P		G		Gs			
			No. of Container(s)	1	1	3	4	3	1		1		3			
			Volume	500mL	500mL	40mL	1L	1L	20mL		500mL		40mL			
SAMPLE ANALYSIS 41307				ICP Metals, AA Metals-As, Pb (Unfil-tered)	Anions-F, Cl, SO4, PO4, NO2, NO3	VOA	Total Alpha, Total Beta, Sr-90	C-14, Tritium 41130865	Activ-ity Screen		ICP Metals, AA Metals-As, Pb (Fil-tered)		VOA			
Sample No.	Matrix*	Date Sampled	Time Sampled													
B0D854 13	W	11/11/94	0800	X	X	X	X	X	X							
B0D859 14	W	11/11/94	0800								X					
B0D860 15	W	11/11/94	0800										X			
				A	B	CDE					A		ABC			

CHAIN OF POSSESSION	Sign/Print Names		
Relinquished By: K. Ulco / Kay Price	Date/Time: 1120 11/11/94	Received By: Bach Hrs	Date/Time: 1120 11-11-94
Relinquished By: For Bill Whitten / K. Trapp	Date/Time: 1012 11/14/94	Received By: R Boyd Quanterra	Date/Time: 11-14-94 1012
Relinquished By	Date/Time	Received By	Date/Time
Relinquished By	Date/Time	Received By	Date/Time

SPECIAL INSTRUCTIONS

Data Deliverable-Standalone

Analysis for PO4, NO2, and NO3 by EPA 300.0 is being requested for information only. The BHI Contractor acknowledges the 48-hour holding will be exceeded.

The Activity Screen is for all three sample numbers.

SDG W0312

Matrix*

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

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

DISTRIBUTION: Original- Sample Yellow - Sampler

BC-6000-828 (12/92)

00021

111494B, 002

TENNTEC #2

SCREENING CALCULATION SPREADSHEET

all Cat I (R3) 11-14-94

Customer Code	Recieved Date		Screening Prep Date		Count Date	Mnts Cntd	BACKGROUND Alpha	Beta	Mnts
WHC	11-14-94		11-14		11-1	10	12	251	240

Customer ID WHC	Sample Matrix Solid/Liquid	Residue Wght mg	Vol. Anal. mg ml	Sample Size Gm L	SMPLE CNT DATA Hldr Num.	Total Counts Alpha	Beta	Net Sample Counts/Minute Alpha	Beta	DPM / Aliquot Alpha	Beta	uCi per Sample Alpha	Beta	pCi / Gm or L Alpha	Beta	1-sigma error pCi/ Gm or L Alpha	Beta	Category 1 Yes/No	Aliquot to Cat 1 Gm or L Alpha	Beta
B0D810	LIQUID	0.7	10.0	1.0	40	4	21	0.35	1.05	1.32E+00	2.01E+00	5.9E-05	9.1E-05	5.9E+01	9.1E+01	53.37	43.21	Yes	1.7E+02	1.1E+03
B0D831	LIQUID	4.5	10.0	1.0	41	3	22	0.25	1.15	9.21E-01	2.29E+00	4.1E-05	1.0E-04	4.1E+01	1.0E+02	51.06	44.56	Yes	2.4E+02	9.7E+02
B0D840	LIQUID	9.1	10.0	1.0	42	9	392	0.85	36.15	1.46E+00	6.06E+01	6.6E-05	3.6E-03	6.6E+01	3.6E+03	54.19	187.63	Yes	1.5E+02	2.8E+01
B0D843	LIQUID	5.2	10.0	1.0	43	2	22	0.15	1.15	5.30E-01	2.36E+00	2.4E-05	1.1E-04	2.4E+01	1.1E+02	46.72	44.67	Yes	4.2E+02	9.4E+02
B0D858	LIQUID	0.8	10.0	1.0	44	1	14	0.05	0.35	1.76E-01	7.20E-01	8.0E-06	3.2E-05	8.0E+00	3.2E+01	46.46	36.32	Yes	1.2E+03	3.1E+03

9613442.2531

00022

9613442.2532

SAMPLE RECEIPT VARIANCE REPORT
ITAS-RICHLAND LABORATORY

WORK ORDER NUMBER: _____ DATE INITIATED: 11/14/94

INITIATED BY: R. Boyd

DATE/TIME OF SAMPLE (AND/OR RFA & COC) RECEIPT: 11/14/94 1017

CLIENT SAMPLE NUMBER	RFA/COC NUMBERS	ANALYSIS REQUESTED
BSD833		VOA

Samples were received with the following deficiencies:

- ☐ 1. Not enough sample received for proper analysis.
- ☐ 2. Sample received without proper preservative.
- ☐ 3. No sample received in container.
- ☐ 4. Sample received without a RFA/COC form.
- ☐ 5. No sample ID on container.
- ☐ 6. Sample received broken or leaking.
- ☐ 7. Holding time exceeded at receipt.
- ☐ 8. Custody tape broken.
- ☐ 9. COC not relinquished by client.
- ☒ 10. Sample information on container does not match sample information on the paper work (Explain below).
- ☐ 11. All shipping containers (coolers) on waybill not received with shipment.
  - ☐ RFA/COC received
  - ☐ RFA/COC not received
- ☐ 12. Other (Explain below).

NOTES: Sample time on container says 07:35 + 07:30, COC says 07:40

SUPERVISOR REVIEW: _____

PROJECT MANAGER REVIEW: _____

TELEPHONED TO: _____ ON _____ BY _____

TELEFAXED TO: _____ ON _____ BY _____

SIGNED ORIGINAL MUST BE RETAINED IN WORK ORDER FILE

FORM NO. LS-023, 3/92, Rev. 0

9613442.2533

SAMPLE STATUS REPORT FOR N 3764. RAD SCREEN 199-F544 TIME: 11/14/94 7:58
DISPATCHED: 11/ 7/94 16:36 SAMPLE HAS NOT BEEN SLURPED
RECEIVED: 11/12/94 4: 0

EXT.	DETER.	RESULTS OR STATUS	OUT OF RANGE?	GOOD ANS?	CHARGE CODE
****	********	**********	***	***	******
4271	TOT-ACT	< 5.00000E 01 pCi/G	N	Y	XR5301

END OF REPORT

BOD810
BOD811 KT 11/14/94
BOD812

9613442.2534

SAMPLE STATUS REPORT FOR N 3775. RAD SCREEN 199-F8-4 TIME: 11/14/94 7:58
DISPATCHED: 11/ 7/94 16:37 SAMPLE HAS NOT BEEN SLURPED
RECEIVED: 11/12/94 4: 0

EXT.	DETER.	RESULTS OR STATUS	OUT OF RANGE?	GOOD ANS?	CHARGE CODE
****	********	**********	***	***	******
4271	TOT-ACT	< 5.00000E 01 pCi/G	N	Y	XR5301

END OF REPORT

BOD843
BOD844 KT 11/14/94
BOD845

9613442.2535

SAMPLE STATUS REPORT FOR N 3771. RAD SCREEN 199-F7-2 TIME: 11/14/94 7:58
DISPATCHED: 11/ 7/94 16:37 SAMPLE HAS NOT BEEN SLURPED
RECEIVED: 11/11/94 14:56

EXT.	DETER.	RESULTS OR STATUS	OUT OF RANGE?	GOOD ANS?	CHARGE CODE
****	********	**********	***	***	******
4271	TOT-ACT	< 5.00000E 01 pCi/G	N	Y	XR5301

END OF REPORT

GOD 831
GOD 832
GOD 833

9613442.2536

SAMPLE STATUS REPORT FOR N 3774. RAD SCREEN 199-F8-3 TIME: 11/14/94 7:58
DISPATCHED: 11/ 7/94 16:37 SAMPLE HAS NOT BEEN SLURPED
RECEIVED: 11/11/94 14:56

EXT.	DETER.	RESULTS OR STATUS	OUT OF RANGE?	GOOD ANS?	CHARGE CODE
****	********	**********	***	***	******
4271	TOT-ACT	127.56 PCI/G, <1% POSSIBLE ALPHA			XR5301

END OF REPORT

BOD840
BOD841 KT 11/14/94
BOD842

9613442.2537

SAMPLE STATUS REPORT FOR N 3778. RAD SCREEN FULLTRP1 TIME: 11/14/94 7:58
DISPATCHED: 11/ 7/94 16:37 SAMPLE HAS NOT BEEN SLURPED
RECEIVED: 11/12/94 4: 0

EXT.	DETER.	RESULTS OR STATUS	OUT OF RANGE?	GOOD ANS?	CHARGE CODE
****	********	**********	***	***	******
4271	TOT-ACT	< 5.00000E 01 pCi/G	N	Y	XR5301

END OF REPORT

BOD858
BOD859 KT 11/14/94
BOD860

INTERNATIONAL TECHNOLOGY CORPORATION
9613442.2538
Regional Office
2300 George Washington Way
Richland, Washington 99352

SAMPLE CHECK-IN LIST

(1 Per Shipping Container)

Date/Time Received 11/14/94 1009 Client Name BHI

Project/Client # B94-083 Batch or Case # _____

Cooler ID (if noted on the outside of cooler) GWS 122

1. Condition of shipping container? OK
2. Custody Seals on cooler intact? Yes ☒ No ☐
3. Custody Seals dated and signed? Yes ☒ No ☐
4. Chain of Custody record is taped on inside of cooler lid? Yes ☒ No ☐
5. Vermiculite/packing material is: Wet ☐ Dry ☒
6. Each sample is in a plastic bag? Yes ☒ No ☐
7. Number of sample containers in cooler: 3~~2~~4 PB 11-14-94
8. Samples have: _____ tape _____ hazard labels
   ✓ custody seals ✓ appropriate sample labels
9. Samples are: ✓ in good condition _____ leaking
   _____ broken _____ have air bubbles
   _____ other
10. Coolant present? Yes ☒ No ☐

Sample temperature 3°C

11. The following paperwork should be accounted for (N/A if not applicable): N/A
    Chain of Custody #'(s) _____
    Request for analysis #(s) _____
    Airbill # _____ Carrier _____
12. Have any anomalies been identified above? Yes ☐ No ☒
13. Memos have been initiated for all anomalies identified above? Yes ☐

Printed Name/Signature R Boyd R Boyd Date/Time 11/14/94 1009

FORM NO. LS-042, Rev.0, 2/94

INTERNATIONAL TECHNOLOGY CORPORATION
9613442.2539
Regional Office
2800 George Washington Way
Richland Washington 99352

SAMPLE CHECK-IN LIST

(1 Per Shipping Container)

Date/Time Received 11/14/94 1012 Client Name BNI

Project/Client # B94-083 Batch or Case #

Cooler ID (if noted on the outside of cooler) GWS 141

1. Condition of shipping container? OK
2. Custody Seals on cooler intact? Yes ☒ No ☐
3. Custody Seals dated and signed? Yes ☒ No ☐
4. Chain of Custody record is taped on inside of cooler lid? Yes ☒ No ☐
5. Vermiculite/packing material is: Wet ☐ Dry ☒
6. Each sample is in a plastic bag? Yes ☒ No ☐
7. Number of sample containers in cooler: 34
8. Samples have: ____ tape ____ hazard labels
   ✓ custody seals ✓ appropriate sample labels
9. Samples are: ✓ in good condition ____ leaking
   ____ broken ____ have air bubbles
   ____ other
10. Coolant present? Yes ☒ No ☐

Sample temperature 2°C

11. The following paperwork should be accounted for (N/A if not applicable): N/A
    Chain of Custody #'(s)
    Request for analysis #(s)
    Airbill # Carrier
12. Have any anomalies been identified above? Yes ☐ No ☒
13. Memos have been initiated for all anomalies identified above? Yes ☐

Printed Name/Signature R Boyd R Boyd Date/Time 11/14/94 1012

FORM NO. LS-042, Rev.0, 2/94

INTERNATIONAL TECHNOLOGY CORPORATION
9613442.2540
Regional Office
2300 George Washington Way
Richland, Washington 99352

SAMPLE CHECK-IN LIST

(1 Per Shipping Container)

Date/Time Received 11/14/94 1017 Client Name BHI

Project/Client # B94-083 Batch or Case # _____

Cooler ID (if noted on the outside of cooler) SML 425

1. Condition of shipping container? _____
2. Custody Seals on cooler intact? Yes ☑ No ☐
3. Custody Seals dated and signed? Yes ☑ No ☐
4. Chain of Custody record is taped on inside of cooler lid? Yes ☑ No ☐
5. Vermiculite/packing material is: Wet ☐ Dry ☑
6. Each sample is in a plastic bag? Yes ☑ No ☐
7. Number of sample containers in cooler: 17
8. Samples have: ____ tape ____ hazard labels
   ✓ custody seals ✓ appropriate sample labels
9. Samples are: ✓ in good condition ____ leaking
   ____ broken ____ have air bubbles
   ____ other
10. Coolant present? Yes ☑ No ☐

Sample temperature 2°C

11. The following paperwork should be accounted for (N/A if not applicable): N/A
    Chain of Custody #'(s) _____
    Request for analysis #(s) _____
    Airbill # _____ Carrier _____
12. Have any anomalies been identified above? Yes ☐ No ☑
13. Memos have been initiated for all anomalies identified above? Yes ☐

Printed Name/Signature R. Boyd R. Boyd Date/Time 11/14/94 1017

FORM NO. LS-042, Rev.0, 2/94

9613442.2541

Contractor BHI	OFF-SITE PROPERTY CONTROL	CONTROL NO. (To be obtained from PROPERTY MANAGEMENT) W95-0-0025-24

PART I - TO BE COMPLETED BY ORIGINATOR

Department	Section	Unit
ER Eng Support	Field & Analytical Supp	ER Field Sampling

The following items are to be shipped from ☒ Contractor ☐ Vendor

Routing ☐ Prepaid ☐ Collect

Shipped to
Company: Quanterra (IT)
Address: 2800 George Washington Way
City: Richland, WA 99352
State / Zip Code
Country

Off-site Custodian

On-site Custodian — Payroll No.

Qty.	Property No.	Description (include Manufacture Name, Model, Serial No.)	Acquisition Cost
1 lbs		Sample #: BOD843, BOD844, BOD845, BOD810, BOD811, BOD812 Cooler ID: GW5-122 Polycooler with groundwater samples packed in wet ice and vermiculite	N/A
1 lbs		Sample #: BOD840, BOD841, BOD842, BOD858, BOD859, BOD860 Cooler ID: GW5-141 Polycooler with groundwater samples packed in wet ice and vermiculite	N/A

☐ Classified ☒ Unclassified ☐ Shipped Under DOE Contract ☐ Shipped Under Contractor's [illegible]

Necessity for the off-site use of this property

☐ Required for Project Work. List Project No. 100-FR-3

☐ Business Trip — Bill of lading # N/A

☐ Off-site Assignment

☐ Shipment to Subcontractor. List Subcontract No.

☐ Other (Please specify) Sampling supports RI/FS work in the 100 Areas

CERTIFICATION OF THE RADIATION MONITORING RELEASE MUST BE SECURED THE SAME DAY THAT MATERIAL IS DELIVERED TO SHIPPING.

RM Clearance for Public Release	RM Survey No.	Date

Location of and Contact for Property (Name/Phone No./Bldg./Area)
P. H. Butcher / (509) 376-4388

Date Ready for Shipment	Cost Code to be Charged	Approximate Date This Property will be Returned
11/14/94	ITE 2072	

Originated By	Date	Authorized By	Date
PHButcher	11/14/94	PHButcher	11/14/94

Property Representative Signature	Date	Property Management Approval	Date
		[illegible]	11/14/94

PART II - TO BE COMPLETED BY SHIPPING

Authorized Shipping Signature	Date

DISTRIBUTION (AFTER FINAL SIGNATURES)

White - Property Management Yellow - Shipping Green - Accounts Payable Pink - Originator Goldenrod - Property Management

*U.S. GPO: 1994-592-170/00029

54-3000-479 (01/94)

00032

9615442.2542

Contractor BHI	OFF-SITE PROPERTY CONTROL	CONTROL NO. (To be obtained from PROPERTY MANAGEMENT) W95-0-0073-25

PART I - TO BE COMPLETED BY ORIGINATOR

Department	Section	Unit
ER Eng Support	Field & Analytical Supp	ER Field Sampling

The following items are to be shipped from ☒ Contractor ☐ Vendor

Routing ☐ Prepaid ☐ Collect

Shipped to: Quanterra (IT) Company: 2800 George Washington Way Address: Richland, WA 99352 City / State / Zip Code Country	Off-site Custodian On-site Custodian / Payroll No.

Qty.	Property No.	Description (include Manufacture Name, Model, Serial No.)	Acquisition Cost
1 lbs		Sample #: BOD831, BOD832, BOD833 Cooler ID: SWL-423 Polycooler with groundwater samples packed in wet ice and vermiculite	N/A
~~1 lbs~~		~~Sample #: Cooler ID: Polycooler with groundwater samples packed in wet ice and vermiculite~~	~~N/A~~

☐ Classified ☒ Unclassified ☐ Shipped Under DOE Contract ☐ Shipped Under Contractor's Use Permit Contract

Necessity for the off-site use of this property

☐ Required for Project Work. List Project No. 100-FR-3

☐ Business Trip

Bill of lading # N/A

☐ Off-site Assignment

☐ Shipment to Subcontractor. List Subcontract No. _____

☐ Other (Please specify) Sampling supports RI/FS work in the 100 Areas

CERTIFICATION OF THE RADIATION MONITORING RELEASE MUST BE SECURED THE SAME DAY THAT MATERIAL IS DELIVERED TO SHIPPING.

Clearance for Public Release	RM Survey No.	Date

Location of and Contact for Property (Name/Phone No./Bldg./Area)
P. H. Butcher/ (509) 376-4388

Ready for Shipment	Cost Code to be Charged	Approximate Date This Property will be Returned
11/14/94	ITE 2072	

Initiated By	Date	Authorized By	Date
P H Butcher	11/14/94	P Butcher	11/14/94
Property Representative Signature	**Date**	**Property Management Approval**	**Date**
		Kathryn Cathey	11/14/94

PART II - TO BE COMPLETED BY SHIPPING

Authorized Shipping Signature	Date

DISTRIBUTION (AFTER FINAL SIGNATURES)

White - Property Management Yellow - Shipping Green - Accounts Payable Pink - Originator Goldenrod - Property Management

GPO: 1994-592-170/00029 54-3000-479 (01/94)

R Cole Sign Time 11/14/94 1:?

00033

Environmental Services

9613442.2543

C.U.R. and C.O.C.
COPIED TO: DKLWP
DATE: 11-16-94
TIME: 1200
BY: [illegible]

Work Order No.: 6886

Condition Upon Receipt Variance Report
St. Louis Laboratory

Client: QES, Richland
Date: 11-15-94
Project No: 550.37
Initiated by: [illegible]
Analysis Requested: Refer to RFA/COC
RFA/COC Numbers: 453973
Client Sample Numbers Affected: Entire Login

Condition/Variance (Check all that apply): Circle Number to Denote that Item was Evaluated. "NA" = "Not Applicable".

1. NA Not enough sample received for proper analysis.
   Received approximately: _____
2. ☐ Sample received broken/leaking.
3. ☑ Sample received without proper preservative.
   - ☐ Cooler temperature not within 4°C ± 2°C
     Record temperature: 3°C
   - ☑ pH Temp Vail 6°C
   - ☐ other: _____
4. ☐ Sample received in improper container.
5. ☐ Sample received without proper paperwork. Explain: _____
6. ☐ Paperwork received without sample.
7. ☐ No sample ID on sample container.
8. ☐ Custody tape disturbed/broken/missing.
9. NA Sample splits performed by lab.
10. NA Volatile sample received with approximately _____ mm headspace.
11. ☐ Sample ID on container does not match sample ID on paperwork. Explain: _____
12. ☐ All coolers on airbill not received with shipment.
13. ☑ Other (explain below):
    Shipping containers not rad surveyed.
    Recv 2X40ml TRIP Blanks

Notes: BOD840 + BOD841 500 ml Gls Amb Metals Testing PH Level #3

Corrective Action:

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

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

☐ Sample(s) processed "as is". Comments: _____

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

Sample Control Supervisor Review: (or designate) _____ Date: _____

Project Management Review: _____ Date: _____

SIGNED ORIGINAL MUST BE RETAINED IN THE PROJECT FILE

00034

Quanterra November 17, 1994 11:16 am
Account: 10722 Project: 550.32 Quanterra-Richland QAS No. 802 Rev. 0
Master Sample Login: 6907

Project Manager: W. Price

Draft: Final: Entered and Reviewed by: PM Review:

Sample Header Template:

Sample No. / Comments	Client ID	C-Matrix	Date: Collected	Received	Due	Shipper	Rad Category	Rad Sample No.
6907-001	800807	Water	14-NOV-94 11:29	15-NOV-94 10:05	16-DEC-94	FED-EX	1	Screening not Required
QUANTERRA RICHLAND I.D. 41132201								

#	Container Type	Analysis	Class	Preservative	Anal. Due Date	Hold Date	Site	(Container Numbers:% Filled)
3	VI - Vial-40ml	VOA/CLP90/Q4	S	HCL	09-DEC-94	28-NOV-94	109U	(116769:100 116770:99 116771:98)
1	AM - Amber Glass-500ml	ANIONS/300.0/Q4	P	COLD	N/A	N/A	R1A	(116768:99)
1		AS/CLP90/Q4	S	HNO3	09-DEC-94	14-MAY-95	R1A	(116767:100)
1		CL/300.0/Q4	C	COLD	09-DEC-94	12-DEC-94	R1A	(116768:99)
1		FL/300.0/Q4	C	COLD	09-DEC-94	12-DEC-94	R1A	(116768:99)
1		ICAP/CLP90/Q4	S	HNO3	09-DEC-94	14-MAY-95	R1A	(116767:100)
1		NO2/300.0/Q4	C	COLD	09-DEC-94	16-NOV-94	R1A	(116768:99)
1		NO3/300.0/Q4	C	COLD	09-DEC-94	16-NOV-94	R1A	(116768:99)
1		OPHOS/300.0/Q4	C	COLD	09-DEC-94	16-NOV-94	R1A	(116768:99)
1		PB/CLP90/Q4	S	HNO3	09-DEC-94	14-MAY-95	R1A	(116767:100)
1		SO4/300.0/Q4	C	COLD	09-DEC-94	12-DEC-94	R1A	(116768:99)

6907-001DUP	800807	Water	14-NOV-94 11:29	15-NOV-94 10:05	16-DEC-94	FED-EX	1	Screening not Required
QUANTERRA RICHLAND I.D. 41132201								

1	AM - Amber Glass-500ml	ANIONS/300.0/Q4	P	COLD	N/A	N/A	R1A	(116768:99)
1		AS/CLP90/Q4	S	HNO3	09-DEC-94	14-MAY-95	R1A	(116767:100)
1		CL/300.0/Q4	C	COLD	09-DEC-94	12-DEC-94	R1A	(116768:99)
1		FL/300.0/Q4	C	COLD	09-DEC-94	12-DEC-94	R1A	(116768:99)
1		ICAP/CLP90/Q4	S	HNO3	09-DEC-94	14-MAY-95	R1A	(116767:100)
1		NO2/300.0/Q4	C	COLD	09-DEC-94	16-NOV-94	R1A	(116768:99)
1		NO3/300.0/Q4	C	COLD	09-DEC-94	16-NOV-94	R1A	(116768:99)
1		OPHOS/300.0/Q4	C	COLD	09-DEC-94	16-NOV-94	R1A	(116768:99)
1		PB/CLP90/Q4	S	HNO3	09-DEC-94	14-MAY-95	R1A	(116767:100)
1		SO4/300.0/Q4	C	COLD	09-DEC-94	12-DEC-94	R1A	(116768:99)

6907-001MS	800807	Water	14-NOV-94 11:29	15-NOV-94 10:05	16-DEC-94	FED-EX	1	Screening not Required
QUANTERRA RICHLAND I.D. 41132201								

3	VI - Vial-40ml	VOA/CLP90/Q4	S	HCL	09-DEC-94	28-NOV-94	109U	(116769:100 116770:99 116771:98)
1	AM - Amber Glass-500ml	ANIONS/300.0/Q4	P	COLD	N/A	N/A	R1A	(116768:99)
1		AS/CLP90/Q4	S	HNO3	09-DEC-94	14-MAY-95	R1A	(116767:100)
1		CL/300.0/Q4	C	COLD	09-DEC-94	12-DEC-94	R1A	(116768:99)
1		FL/300.0/Q4	C	COLD	09-DEC-94	12-DEC-94	R1A	(116768:99)
1		ICAP/CLP90/Q4	S	HNO3	09-DEC-94	14-MAY-95	R1A	(116767:100)
1		NO2/300.0/Q4	C	COLD	09-DEC-94	16-NOV-94	R1A	(116768:99)
1		NO3/300.0/Q4	C	COLD	09-DEC-94	16-NOV-94	R1A	(116768:99)
1		OPHOS/300.0/Q4	C	COLD	09-DEC-94	16-NOV-94	R1A	(116768:99)
1		PB/CLP90/Q4	S	HNO3	09-DEC-94	14-MAY-95	R1A	(116767:100)
1		SO4/300.0/Q4	C	COLD	09-DEC-94	12-DEC-94	R1A	(116768:99)

3*=Sample has not been rad screened.

9413442.2544

Quanterra November 17, 1994 11:16 am
Account: 10722 Project: 550.32 Quanterra-Richland QAS No. 802 Rev. 0
Master Sample Login: 6907

Project Manager: W. Price

Draft: Final: Entered and Reviewed by: _____ PM Review: _____

Sample Header Template: _____

Sample No. / #	Client ID / Container Type	C-Matrix / Analysis	Date: Collected / Class	Received / Preservative	Due / Anal. Due Date	Shipper / Hold Date	Site	Rad Category / (Container Numbers:% Filled)	Rad Sample No.
6907-001MSD	B00807	Water	14-NOV-94 11:29	15-NOV-94 10:05	16-DEC-94	FED-EX		1	Screening not Required
QUANTERRA RICHLAND I.D. 41132201									
3	VI - Vial-40ml	VOA/CLP90/Q4	S	HCL	09-DEC-94	28-NOV-94	109U	(116769:100 116770:99 116771:98)	
6907-002	B00825	Water	14-NOV-94 10:45	15-NOV-94 10:05	16-DEC-94	FED-EX		1	Screening not Required
QUANTERRA RICHLAND I.D. 41132204									
3	VI - Vial-40ml	VOA/CLP90/Q4	S	HCL	09-DEC-94	28-NOV-94	109U	(116774:100 116775:99 116776:98)	
1	AM - Amber Glass-500ml	ANIONS/300.0/Q4	P	COLD	N/A	N/A	R1A	(116773:99)	
1		AS/CLP90/Q4	S	HNO3	09-DEC-94	14-MAY-95	R1A	(116772:100)	
1		CL/300.0/Q4	C	COLD	09-DEC-94	12-DEC-94	R1A	(116773:99)	
1		FL/300.0/Q4	C	COLD	09-DEC-94	12-DEC-94	R1A	(116773:99)	
1		ICAP/CLP90/Q4	S	HNO3	09-DEC-94	14-MAY-95	R1A	(116772:100)	
1		NO2/300.0/Q4	C	COLD	09-DEC-94	16-NOV-94	R1A	(116773:99)	
1		NO3/300.0/Q4	C	COLD	09-DEC-94	16-NOV-94	R1A	(116773:99)	
1		OPHOS/300.0/Q4	C	COLD	09-DEC-94	16-NOV-94	R1A	(116773:99)	
1		PB/CLP90/Q4	S	HNO3	09-DEC-94	14-MAY-95	R1A	(116772:100)	
1		SO4/300.0/Q4	C	COLD	09-DEC-94	12-DEC-94	R1A	(116773:99)	
6907-003	B00852	Water	14-NOV-94 09:30	15-NOV-94 10:05	16-DEC-94	FED-EX		1	Screening not Required
QUANTERRA RICHLAND I.D. 41132207									
3	VI - Vial-40ml	VOA/CLP90/Q4	S	HCL	09-DEC-94	28-NOV-94	109U	(116779:100 116780:99 116781:98)	
1	AM - Amber Glass-500ml	ANIONS/300.0/Q4	P	COLD	N/A	N/A	R1A	(116778:99)	
1		AS/CLP90/Q4	S	HNO3	09-DEC-94	14-MAY-95	R1A	(116777:100)	
1		CL/300.0/Q4	C	COLD	09-DEC-94	12-DEC-94	R1A	(116778:99)	
1		FL/300.0/Q4	C	COLD	09-DEC-94	12-DEC-94	R1A	(116778:99)	
1		ICAP/CLP90/Q4	S	HNO3	09-DEC-94	14-MAY-95	R1A	(116777:100)	
1		NO2/300.0/Q4	C	COLD	09-DEC-94	16-NOV-94	R1A	(116778:99)	
1		NO3/300.0/Q4	C	COLD	09-DEC-94	16-NOV-94	R1A	(116778:99)	
1		OPHOS/300.0/Q4	C	COLD	09-DEC-94	16-NOV-94	R1A	(116778:99)	
1		PB/CLP90/Q4	S	HNO3	09-DEC-94	14-MAY-95	R1A	(116777:100)	
1		SO4/300.0/Q4	C	COLD	09-DEC-94	12-DEC-94	R1A	(116778:99)	
6907-004	B00861	Water	14-NOV-94 10:00	15-NOV-94 10:05	16-DEC-94	FED-EX		1	Screening not Required
QUANTERRA RICHLAND I.D. 41132210									
3	VI - Vial-40ml	VOA/CLP90/Q4	S	HCL	09-DEC-94	28-NOV-94	109U	(116784:100 116785:99 116786:98)	
1	AM - Amber Glass-500ml	ANIONS/300.0/Q4	P	COLD	N/A	N/A	R1A	(116783:99)	
1		AS/CLP90/Q4	S	HNO3	09-DEC-94	14-MAY-95	R1A	(116782:100)	
1		CL/300.0/Q4	C	COLD	09-DEC-94	12-DEC-94	R1A	(116783:99)	
1		FL/300.0/Q4	C	COLD	09-DEC-94	12-DEC-94	R1A	(116783:99)	

3*=Sample has not been rad screened.

00036

Quanterra November 17, 1994 11:16 am
Account: 10722 Project: 550.32 Quanterra-Richland QAS No. 802 Rev. 0
Master Sample Login: 6907

Project Manager: W. Price

Draft: Final: Entered and Reviewed by:_____ PM Review:_____

Sample Header Template: _____

Sample No. / Comments	Client ID	C-Matrix	Date: Collected	Received	Due	Shipper	Rad Category	Rad Sample No.
6907-005	B00808	Water	14-NOV-94 11:29	15-NOV-94 10:05	16-DEC-94	FED-EX	1	Screening not Required
QUANTERRA RICHLAND I.D. 41132202								

#	Container Type	Analysis	Class	Preservative	Anal. Due Date	Hold Date	Site	(Container Numbers:% Filled)
Data:								
1		ICAP/CLP90/Q4	S	HNO3	09-DEC-94	14-MAY-95	R1A	(116782:100)
1		NO2/300.0/Q4	C	COLD	09-DEC-94	16-NOV-94	R1A	(116783:99)
1		NO3/300.0/Q4	C	COLD	09-DEC-94	16-NOV-94	R1A	(116783:99)
1		OPHOS/300.0/Q4	C	COLD	09-DEC-94	16-NOV-94	R1A	(116783:99)
1		PB/CLP90/Q4	S	HNO3	09-DEC-94	14-MAY-95	R1A	(116782:100)
1		SO4/300.0/Q4	C	COLD	09-DEC-94	12-DEC-94	R1A	(116783:99)
1	AN - Amber Glass-500ml	ASD/CLP90/Q4	S	HNO3	09-DEC-94	14-MAY-95	R1A	(116787:100)
1		ICAPD/CLP90/Q4	S	HNO3	09-DEC-94	14-MAY-95	R1A	(116787:100)
1		PBD/CLP90/Q4	S	HNO3	09-DEC-94	14-MAY-95	R1A	(116787:100)

6907-006	B00826	Water	14-NOV-94 10:45	15-NOV-94 10:05	16-DEC-94	FED-EX	1	Screening not Required
QUANTERRA RICHLAND I.D. 41132205								

1	AN - Amber Glass-500ml	ASD/CLP90/Q4	S	HNO3	09-DEC-94	14-MAY-95	R1A	(116788:100)
1		ICAPD/CLP90/Q4	S	HNO3	09-DEC-94	14-MAY-95	R1A	(116788:100)
1		PBD/CLP90/Q4	S	HNO3	09-DEC-94	14-MAY-95	R1A	(116788:100)

6907-007	B00853	Water	14-NOV-94 09:30	15-NOV-94 10:05	16-DEC-94	FED-EX	1	Screening not Required
QUANTERRA RICHLAND I.D. 41132208								

1	AN - Amber Glass-500ml	ASD/CLP90/Q4	S	HNO3	09-DEC-94	14-MAY-95	R1A	(116789:100)
1		ICAPD/CLP90/Q4	S	HNO3	09-DEC-94	14-MAY-95	R1A	(116789:100)
1		PBD/CLP90/Q4	S	HNO3	09-DEC-94	14-MAY-95	R1A	(116789:100)

6907-008	B00862	Water	14-NOV-94 10:00	15-NOV-94 10:05	16-DEC-94	FED-EX	1	Screening not Required
QUANTERRA RICHLAND I.D. 41132211								

1	AN - Amber Glass-500ml	ASD/CLP90/Q4	S	HNO3	09-DEC-94	14-MAY-95	R1A	(116790:100)
1		ICAPD/CLP90/Q4	S	HNO3	09-DEC-94	14-MAY-95	R1A	(116790:100)
1		PBD/CLP90/Q4	S	HNO3	09-DEC-94	14-MAY-95	R1A	(116790:100)

6907-009	B00809	Water	14-NOV-94 11:29	15-NOV-94 10:05	16-DEC-94	FED-EX	1	Screening not Required
QUANTERRA RICHLAND I.D. 41132203								

3	VI - Vial-40ml	VOA/CLP90/Q4	S	HCL	09-DEC-94	28-NOV-94	109U	(116791:100 116792:99 116793:98)

6907-010	B00827	Water	14-NOV-94 10:45	15-NOV-94 10:05	16-DEC-94	FED-EX	1	Screening not Required
QUANTERRA RICHLAND I.D. 41132206								

3	VI - Vial-40ml	VOA/CLP90/Q4	S	HCL	09-DEC-94	28-NOV-94	109U	(116794:100 116795:99 116796:98)

3*=Sample has not been rad screened.

00037

Quanterra November 17, 1994 11:16 am
Account: 10722 Project: 550.32 Quanterra-Richland QAS No. 802 Rev. 0
Master Sample Login: 6907

Project Manager: W. Price

Draft: Final: Entered and Reviewed by:_____ PM Review:_____

Sample Header Template: _____

Sample No. / Comments	Client ID	C-Matrix	Date: Collected	Received	Due	Shipper	Rad Category	Rad Sample No.
6907-011	B00854	Water	14-NOV-94 09:30	15-NOV-94 10:05	16-DEC-94	FED-EX	1	Screening not Required
QUANTERRA RICHLAND I.D. 41132209								

#	Container Type	Analysis	Class	Preservative	Anal. Due Date	Hold Date	Site	(Container Numbers:% Filled)
3	VI - Vial-40ml	VOA/CLP90/94	S	HCL	09-DEC-94	28-NOV-94	109U	(116797:100 116798:99 116799:98)

Sample No. / Comments	Client ID	C-Matrix	Date: Collected	Received	Due	Shipper	Rad Category	Rad Sample No.
6907-012	B00863	Water	14-NOV-94 10:00	15-NOV-94 10:05	16-DEC-94	FED-EX	1	Screening not Required
QUANTERRA RICHLAND I.D. 41132212								

#	Container Type	Analysis	Class	Preservative	Anal. Due Date	Hold Date	Site	(Container Numbers:% Filled)
3	VI - Vial-40ml	VOA/CLP90/94	S	HCL	09-DEC-94	28-NOV-94	109U	(116800:100 116801:99 116802:98)

Sample No. / Comments	Client ID	C-Matrix	Date: Collected	Received	Due	Shipper	Rad Category	Rad Sample No.
6907-013	TRIP BLANKS	Water	14-NOV-94 00:00	15-NOV-94 10:05	16-DEC-94	FED-EX	1	Screening not Required

#	Container Type	Analysis	Class	Preservative	Anal. Due Date	Hold Date	Site	(Container Numbers:% Filled)
2	VI - Vial-40ml	HOLD//94	S	COLD	11-&&&-**	11-&&&-**	R10A	(116817:100 116818:99)

9613442.2547

3*=Sample has not been rad screened.

00038

Temp IC Cont...

INTERNATIONAL TECHNOLOGY CORPORATION

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD*

Reference Document No. 453975
Page 1 of 3

Project Name/No. 1: B94-083
Sample Team Members 2:
Profit Center No. 3: 4632
Project Manager 4: V Pelley
Purchase Order No. 6:
Required Report Date 11: 12/20/94

Samples Shipment Date 7: 11/15/94
Lab Destination 8: St Louis
Lab Contact 9:
Project Contact/Phone 12:
Carrier/Waybill No. 13:

Bill to: 5 Quantessa Richland
Report to: 10

ONE CONTAINER PER LINE

Sample Number 14	Sample Description/Type 15	Date/Time Collected 16	Container Type 17	Sample Volume 18	Pre-servative 19	Requested Testing Program 20	Condition on Receipt 21	Disposal Record No. 22
41132201A	BOD807 1/20	11-14-94 See WHC 1139	G15 Amb COC/SAR	500 m	HNO3 4°C	metals See WHC COC/SAR	100	1
B					Cold	Anions		-
C				40 ml	HCL	VOA		-
D								-
E								-
2A	BOD808			500 ml	HNO3	metals		1
3A	BOD809			40ml	HCL	VOA		-
B								-

FOR LAB USE ONLY

FOR LAB USE ONLY

Special Instructions: 23

Possible Hazard Identification: 24
Non-hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☑

Sample Disposal 25
Return to Client ☑ Disposal by Lab ☐ Archive _____ (mos.)

Turnaround Time Required: 26
Normal ☑ Rush ☐

QC Level: 27
I. ☐ II. ☐ III. ☐ Project Specific (specify): SDG W0312 closed

1. Relinquished by 28 (Signature/Affiliation) [signature]	Date: 11/15/94 Time: 1600	1. Received by 28 (Signature/Affiliation) Fred Mitchell	Date: 11-16-94 Time: 0850
2. Relinquished by (Signature/Affiliation)	Date: Time:	2. Received by (Signature/Affiliation)	Date: Time:
3. Relinquished by (Signature/Affiliation)	Date: Time:	3. Received by (Signature/Affiliation)	Date: Time:

Comments: 29

MCA 3/15/91

White: To accompany samples
Yellow: Field copy
*See back of form for special instructions.

00039

INTERNATIONAL TECHNOLOGY CORPORATION

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD (cont.)*

Reference Document No.[30] 453975

Page 2 of 3

Project Name W0312 Project No. B94-083 Samples Shipment Date 11/15/94

ONE CONTAINER PER LINE

Sample[14] Number	Sample[15] Description/Type	Date/Time[16] Collected	Container[17] Type	Sample[18] Volume	Pre-[19] servative	Requested Testing[20] Program	Condition on[21] Receipt	Disposal[22] Record No.
411322030	BOD809 /H2O	11-14-94 10:29 See WAC	Gls Amb COC/SAR	40 ml	4°C HCl	See WAC VOA COC/SAR	100	
4A	BOD825	11-14-94 10:45		500 mL	HNO3	metals		
B					Cold	Anions		
C				40 ml	HCL	VOA		
D								
E								
5A	BOD826			500 ml	HNO3	Metals		
6A	BOD827			40 ml	Hcl	VOA		
B								
C								
7A	BOD852	11-14-94 09:30		500 ml	HNO3	Metals		
B					cold	Anions		
C				40 ml	HCL	VOA		
D								
E								
8A	BOD853			500 ml	HNO3	Metals		
9A	BOD854			40 ml	HCL	VOA		
B								
C								
10A	BOD861	11-14-94 10:00		500 ml	HNO3	metals		

FOR LAB USE ONLY

White: To accompany samples Yellow: Field copy

*See back of form for special instructions.

00040

MCA 3/15/91

INTERNATIONAL TECHNOLOGY CORPORATION

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD (cont.)*

Reference Document No.[30] 453975
Page 3 of 3

Project Name W0312 Project No. B94-083 Samples Shipment Date 11/15/94

ONE CONTAINER PER LINE

Sample[14] Number	Sample[15] Description/Type	Date/Time[16] Collected	Container[17] Type	Sample[18] Volume	Pre-[19] servative	Requested Testing[20] Program	% Condition on[21] Receipt	Disposal[22] Record No.
41132210B	BOD861	11-14-94 10:00 See WHC	6/s AMB COC/SAR	500 ml	Cold 4°C	Anions See WHC COC/SAR	100	—
C				40 ml	HCl	VOA		—
D								—
E								—
11A	BOD862			500 ml	HNO3	metals		—
12A	BOD863			40 ml	HCl	VOA		—
B								—
C								—
11/15/94								

FOR LAB USE ONLY

DEC 2 2 1994

White: To accompany samples
Yellow: Field copy
*See back of form for special instructions.

MCA 3/15/91

00041

111594E.WQ2

TENNELEC #2

SCREENING CALCULATION SPREADSHEET

all Cat I (R3) 11-15-94

Customer Code	Recieved Date		Screening Prep Date		Count Date	Mnts. Cntd	BACKGROUND Alpha	Beta	Mnts
WHC	1115			1115	1115	10	15	234	240

Customer ID WHC	Sample Matrix Solid/Liquid	Residue Wght mg.	Vol. Anal. mg ml	Sample Size Gm L	SMPLE CNT DATA Hldr Num.	Total Counts Alpha	Beta	Net Sample Counts/Minute Alpha	Beta	DPM / Aliquot Alpha	Beta	uCi per Sample Alpha	Beta	pCi / Gm or L Alpha	Beta	1-sigma error pCi/ Gm or L Alpha	Beta	Category 1 Yes/No	Aliquot to Cat 1 Gm or L Alpha	Beta
BOD807	LIQUID	1.0	10.0	1.0	3	6	33	0.54	2.33	1.99E+00	4.59E+00	8.9E-05	2.1E-04	8.9E+01	2.1E+02	56.07	53.93	Yes	1.1E+02	4.8E+02
BOD825	LIQUID	1.6	10.0	1.0	1	4	37	0.34	2.73	1.19E+00	5.57E+00	5.3E-05	2.5E-04	5.3E+01	2.5E+02	51.58	57.66	Yes	1.9E+02	4.0E+02
BOD852	LIQUID	0.2	10.0	1.0	4	0	18	-0.06	0.83	-2.8E-01	1.79E+00	0.0E+00	8.1E-05	-1.3E+01	8.1E+01	42.10	41.49	Yes	-7.8E+02	1.2E+03
BOD861	LIQUID	0.0	10.0	1.0	2	0	12	-0.06	0.23	-2.6E-01	5.19E-01	0.0E+00	2.3E-05	-1.1E+01	2.3E+01	42.31	34.35	Yes	-8.7E+02	4.3E+03

9613442.2351

Westinghouse Hanford Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

Page 1 of 1

Data Turnaround: [ ] Priority [X] Normal

Collector: A. J. Simpson	Company Contact: D. St. John	Telephone No.: (509) 376-5376
Project Designation: 100-FR-3 Groundwater-Round 6	Sampling Location: 100 F	SAF No.: B94-083
Ice Chest No.: GWS-141	Field Logbook No.: EFL-1054	Method of Shipment: Hand Delivered
Shipped To: Quanterra	Offsite Property No.: W95-0-0073-26	Bill of Lading/Air Bill No.: NA

Possible Sample Hazards/Remarks

Special Handling and/or Storage: Maintain between 2 C and 6 C.

SAMPLE ANALYSIS: 411322

Sample No.	Matrix*	Date Sampled	Time Sampled															
Preservative				HNO3	None	HCl	HNO3	None	None		HNO3		HCl					
Type of Container				G	G	Gs	G/P	Gs	P		G		Gs					
No. of Container(s)				1	1	3	4	3	1		1		3					
Volume				500mL	500mL	40mL	1L	1L	20mL		500mL		40mL					
				ICP Metals, AA Metals-As, Pb (Unfiltered)	Anions-F, Cl, SO4, PO4, NO2, NO3	VOA	Total Alpha, Total Beta, Sr-90	C-14, Tritium	Activity Screen		ICP Metals, AA Metals-As, Pb (Filtered)		VOA					
							41132301											
B0D807	01	W	11/14/94	1129	X	X	X	X	X	X								
B0D808	2	W	11/14/94	1129								X						
B0D809	3	W	11/14/94	1129									X					
					A	B	CDE					A	ABC					

CHAIN OF POSSESSION — Sign/Print Names

Relinquished By	Date/Time	Received By	Date/Time
K. Dee / K. Dee	11/14/94 1300	K. Trapp / K. Trapp	11/14/94 1300
K. Trapp / K. Trapp	11/15/94 1005	Quanterra	1100
		B B Armfield	11.15.94 10105

SPECIAL INSTRUCTIONS

Data Deliverable-Standalone

Analysis for PO4, NO2, and NO3 by EPA 300.0 is being requested for information only. The BHI Contractor acknowledges the 48-hour holding will be exceeded.

The Activity Screen is for all three sample numbers.

SDGW0312

Matrix*

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

LABORATORY SECTION: Received By | Title | Date/Time

FINAL SAMPLE DISPOSITION: Disposal Method | Disposed By | Date/Time

DISTRIBUTION: Original- Sample Yellow - Sampler

BC-6000-828 (12/92)

Westinghouse Hanford Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

Page 1 of 1

Data Turnaround: [ ] Priorty [X] Normal

Collector: A. J. Simpson	Company Contact: D. St. John	Telephone No.: (509) 376-5376
Project Designation: 100-FR-3 Groundwater-Round 6	Sampling Location: 100 F	SAF No.: B94-083
Ice Chest No.: GW5-122	Field Logbook No.: EFL-1054	Method of Shipment: Hand Delivered
Shipped To: Quanterra	Offsite Property No.: W95-0-0073-26	Bill of Lading/Air Bill No.: NA

Possible Sample Hazards/Remarks

Special Handling and/or Storage: Maintain between 2 C and 6 C.

SAMPLE ANALYSIS: 411322

Preservative	HNO3	None	HCl	HNO3	None	None		HNO3		HCl					
Type of Container	G	G	Gs	G/P	Gs	P		G		Gs					
No. of Container(s)	1	1	3	4	3	1		1		3					
Volume	500mL	500mL	40mL	1L	1L	20mL		500mL		40mL					
	ICP Metals, AA Metals-As, Pb (Unfiltered)	Anions-F, Cl, SO4, PO4, NO2, NO3	VOA	Total Alpha, Total Beta, Sr-90	C-14, Tritium	Activity Screen		ICP Metals, AA Metals-As, Pb (Filtered)		VOA					
				41132307											

Sample No.	Matrix*	Date Sampled	Time Sampled														
B0D825 04	W	11/14/94	1045	X	X	X	X	X	X								
B0D826 5	W	11/14/94	1045								X						
B0D827 6	W	11/14/94	1045										X				
				A	B	CDE					A		ABC				

CHAIN OF POSSESSION — Sign/Print Names

Relinquished By	Date/Time	Received By	Date/Time
K. Lee / [illegible]	11/14/94 1300	K. Trapp / K. Trapp	11/14/94 1300
K. Trapp / K. Trapp	11/15/94 1005	Quanterra	1100
		B. Brumfield	11-15-94 10:05

SPECIAL INSTRUCTIONS

Data Deliverable-Standalone

Analysis for PO4, NO2, and NO3 by EPA 300.0 is being requested for information only. The BHI Contractor acknowledges the 48-hour holding will be exceeded.

The Activity Screen is for all three sample numbers.

SDG W0312

Matrix*

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

LABORATORY SECTION: Received By | Title | Date/Time

FINAL SAMPLE DISPOSITION: Disposal Method | Disposed By | Date/Time

DISTRIBUTION: Original- Sample Yellow - Sampler

BC-6000-828 (12/92)

Westinghouse Hanford Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

Page 1 of 1

Data Turnaround: [ ] Priorty [X] Normal

Collector: A. J. Simpson	Company Contact: D. St. John	Telephone No.: (509) 376-5376
Project Designation: 100-FR-3 Groundwater-Round 6	Sampling Location: 100 F	SAF No.: B94-083
Ice Chest No.: GWS-141	Field Logbook No.: EFL-1054	Method of Shipment: Hand Delivered
Shipped To: Quanterra	Offsite Property No.: W95-0-0073-26	Bill of Lading/Air Bill No.: NA

Possible Sample Hazards/Remarks:

Special Handling and/or Storage: Maintain between 2 C and 6 C.

SAMPLE ANALYSIS: 41/322

Sample No.	Matrix*	Date Sampled	Time Sampled														
Preservative				HNO3	None	HCl	HNO3	None	None		HNO3		HCl				
Type of Container				G	G	Gs	G/P	Gs	P		G		Gs				
No. of Container(s)				1	1	3	4	3	1		1		3				
Volume				500mL	500mL	40mL	1L	1L	20mL		500mL		40mL				
				ICP Metals, AA Metals-As, Pb (Unfiltered)	Anions-F, Cl, SO4, PO4, NO2, NO3	VOA	Total Alpha, Total Beta, Sr-90 41/32303	C-14, Tritium	Activity Screen		ICP Metals, AA Metals-As, Pb (Filtered)		VOA				
B0D852	07	W	11/14/94	0930	X	X	X	X	X	X							
B0D853	8	W	11/14/94	0930							X						
B0D854	9	W	11/14/94	0930									X				
				A	B	CDE					A		ABC				

9503112.2551

CHAIN OF POSSESSION	Sign/Print Names		
Relinquished By: K. O'Leo / K. O'Leo	Date/Time: 11/14/94 1300	Received By: K. Trapp / K. Trapp	Date/Time: 11/14/94 1300
Relinquished By: K. Trapp / K. Trapp	Date/Time: 11/15/94 1005	Received By: Quanterra Lab / B. Brumfield	Date/Time: 11-15-94 10:05
Relinquished By	Date/Time	Received By	Date/Time
Relinquished By	Date/Time	Received By	Date/Time

SPECIAL INSTRUCTIONS

Data Deliverable-Standalone

Analysis for PO4, NO2, and NO3 by EPA 300.0 is being requested for information only. The BHI Contractor acknowledges the 48-hour holding will be exceeded.

The Activity Screen is for all three sample numbers.

SDG W0312

Matrix*

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

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

DISTRIBUTION: Original- Sample Yellow - Sampler

BC-6000-828 (12/92)

Westinghouse Hanford Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

Page 1 of 1

Data Turnaround: [ ] Priorty [X] Normal

Collector: A. J. Simpson	Company Contact: D. St. John	Telephone No.: (509) 376-5376
Project Designation: 100-FR-3 Groundwater-Round 6	Sampling Location: 100 F	SAF No.: B94-083
Ice Chest No.: GWS-122	Field Logbook No.: EFL-1054	Method of Shipment: Hand Delivered
Shipped To: Quanterra	Offsite Property No.: W97-0-0073-26	Bill of Lading/Air Bill No.: NA

Possible Sample Hazards/Remarks:

Special Handling and/or Storage: Maintain between 2 C and 6 C.

SAMPLE ANALYSIS: 411322

Sample No.	Matrix*	Date Sampled	Time Sampled														
Preservative				HNO3	None	HCl	HNO3	None	None		HNO3		HCl				
Type of Container				G	G	Gs	G/P	Gs	P		G		Gs				
No. of Container(s)				1	1	3	4	3	1		1		3				
Volume				500mL	500mL	40mL	1L	1L	20mL		500mL		40mL				
				ICP Metals, AA Metals-As, Pb (Unfiltered)	Anions-F, Cl, SO4, PO4, NO2, NO3	VOA	Total Alpha, Total Beta, Sr-90 4113	C-14, Tritium 2304	Activity Screen		ICP Metals, AA Metals-As, Pb (Filtered)		VOA				
B0D861	10	W	11/14/94	1000	X	X	X	X	X	X							
B0D862	11	W	11/14/94	1000							X						
B0D863	12	W	11/14/94	1000									X				
				A	B	CDE					A		ABC				

CHAIN OF POSSESSION — Sign/Print Names

Relinquished By	Date/Time	Received By	Date/Time
K. Trapp / K. Trapp	11/14/94 1300	K. J. Mapp / K. Trapp	11/14/94 1300
K. J. Mapp / K. Trapp	11/15/94 1005	Quanterra	1100
		B. Baumfield	11-15-94 10:05

SPECIAL INSTRUCTIONS

Data Deliverable-Standalone

Analysis for PO4, NO2, and NO3 by EPA 300.0 is being requested for information only. The BHI Contractor acknowledges the 48-hour holding will be exceeded.

The Activity Screen is for all three sample numbers.

SDG W0312

Matrix*

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

LABORATORY SECTION: Received By | Title | Date/Time

FINAL SAMPLE DISPOSITION: Disposal Method | Disposed By | Date/Time

DISTRIBUTION: Original- Sample Yellow - Sampler

BC-6000-828 (12/92)

INTERNATIONAL TECHNOLOGY CORPORATION
Regional Office
2800 George Washington Way
Richland, Washington 99352

SAMPLE CHECK-IN LIST

(1 Per Shipping Container)

Date/Time Received 11-15-94 10:05 Client Name BHI

Project/Client # B94-083 Batch or Case # _____

Cooler ID (if noted on the outside of cooler) GWS141

1. Condition of shipping container? OK
2. Custody Seals on cooler intact? Yes ☑ No ☐
3. Custody Seals dated and signed? Yes ☑ No ☐
4. Chain of Custody record is taped on inside of cooler lid? Yes ☑ No ☐
5. Vermiculite/packing material is: Wet ☐ Dry ☑
6. Each sample is in a plastic bag? Yes ☐ No ☑
7. Number of sample containers in cooler: 34
8. Samples have: ____ tape ____ hazard labels
   ✓ custody seals ✓ appropriate sample labels
9. Samples are: ✓ in good condition ____ leaking
   ____ broken ____ have air bubbles
   ____ other
10. Coolant present? Yes ☑ No ☐

Sample temperature 3 °C

11. The following paperwork should be accounted for (N/A if not applicable): N/A
    Chain of Custody #'(s) _____
    Request for analysis #(s) _____
    Airbill # _____ Carrier _____
12. Have any anomalies been identified above? Yes ☐ No ☑
13. Memos have been initiated for all anomalies identified above? Yes ☐

Printed Name/Signature BBRUMFIELD BBrumfield Date/Time 11-15-94 10:05

FORM NO. LS-042, Rev.0, 2/94

INTERNATIONAL TECHNOLOGY CORPORATION
Regional Office
2300 George Washington Way
Richland, Washington 99352

SAMPLE CHECK-IN LIST

(1 Per Shipping Container)

Date/Time Received 11-15-94 10:05 Client Name BHI

Project/Client # B94-083 Batch or Case # _____

Cooler ID (if noted on the outside of cooler) GWS 122

1. Condition of shipping container? OK
2. Custody Seals on cooler intact? Yes ☑ No ☐
3. Custody Seals dated and signed? Yes ☑ No ☐
4. Chain of Custody record is taped on inside of cooler lid? Yes ☑ No ☐
5. Vermiculite/packing material is: Wet ☐ Dry ☑
6. Each sample is in a plastic bag? Yes ☐ No ☑
7. Number of sample containers in cooler: 34
8. Samples have: ____ tape ____ hazard labels
   ✓ custody seals ✓ appropriate sample labels
9. Samples are: ✓ in good condition ____ leaking
   ____ broken ____ have air bubbles
   ____ other
10. Coolant present? Yes ☑ No ☐

Sample temperature 3 °C

11. The following paperwork should be accounted for (N/A if not applicable): N/A
    Chain of Custody #'(s) _____
    Request for analysis #(s) _____
    Airbill # _____ Carrier _____
12. Have any anomalies been identified above? Yes ☐ No ☑
13. Memos have been initiated for all anomalies identified above? Yes ☐

Printed Name/Signature BBRUMFIELD BBrumfield Date/Time 11-15-94 10:05

FORM NO. LS-042, Rev.0, 2/94

9613442.2558

SAMPLE STATUS REPORT FOR N 3769. RAD SCREEN 199-F6-1 TIME: 11/15/94 8:11
DISPATCHED: 11/ 7/94 16:37 SAMPLE HAS NOT BEEN SLURPED
RECEIVED: 11/14/94 16:30

EXT.	DETER.	RESULTS OR STATUS	OUT OF RANGE?	GOOD ANS?	CHARGE CODE
****	********	**********	***	***	******
4271	TOT-ACT	< 5.00000E 01 pCi/G	N	Y	XR5301

END OF REPORT

BOD825
BOD826 KT 11/15/94
BOD827

9613442.2559

SAMPLE STATUS REPORT FOR N 3763. RAD SCREEN 199F543A TIME: 11/15/94 8:11
DISPATCHED: 11/ 7/94 16:36 SAMPLE HAS NOT BEEN SLURPED
RECEIVED: 11/14/94 16:31

EXT.	DETER.	RESULTS OR STATUS	OUT OF RANGE?	GOOD ANS?	CHARGE CODE
****	********	**********	***	***	******
4271	TOT-ACT	< 5.00000E 01 pCi/G	N	Y	XR5301

END OF REPORT

B0D807
B0D808 KT 11/15/94
B0D809

9613442.2560

SAMPLE STATUS REPORT FOR N 3776. RAD SCREEN EQ BLK 1 TIME: 11/15/94 8:11
DISPATCHED: 11/ 7/94 16:37 SAMPLE HAS NOT BEEN SLURPED
RECEIVED: 11/14/94 16:30

EXT.	DETER.	RESULTS OR STATUS	OUT OF RANGE?	GOOD ANS?	CHARGE CODE
****	********	**********	***	***	******
4271	TOT-ACT	< 5.00000E 01 pCi/G	N	Y	XR5301

END OF REPORT

BOD852 KT 11/15/94
BOD853 ~~KT 11/14/94~~
BOD854

9613442.2561

SAMPLE STATUS REPORT FOR N 3779. RAD SCREEN FULLTRP2 TIME: 11/15/94 8:11
DISPATCHED: 11/ 7/94 16:37 SAMPLE HAS NOT BEEN SLURPED
RECEIVED: 11/14/94 16:30

EXT.	DETER.	RESULTS OR STATUS	OUT OF RANGE?	GOOD ANS?	CHARGE CODE
****	********	**********	***	***	******
4271	TOT-ACT	< 5.00000E 01 pCi/G	N	Y	XR5301

END OF REPORT

BOD861
BOD862 kr 11/15/94
BOD863

9613442.2562

Contractor BHI	OFF-SITE PROPERTY CONTROL	CONTROL NO. (To be obtained from PROPERTY MANAGEMENT) W95-0-0073-26

PART I - TO BE COMPLETED BY ORIGINATOR

Department ER Eng Support	Section Field & Analytical Supp	Unit ER Field Sampling

The following items are to be shipped from ☒ Contractor ☐ Vendor

Routing ☐ Prepaid ☐ Collect

Shipped to Quanterra (IT)
Company 2800 George Washington Way
Address Richland, WA 99352
City State Zip Code
Country

Off-site Custodian

On-site Custodian Payroll No.

Qty.	Property No.	Description (Include Manufacture Name, Model, Serial No.)	Acquisition Cost
1 lbs		Sample #: F0D9G1, F0D9G2, F0D9G6, F0D9G5, F0D9G8, F0D9G7 Cooler ID: GWS-122 Polycooler with groundwater samples packed in wet ice and vermiculite	N/A
1 lbs		Sample #: F0D9F6, F0D9F5, F0D9F4, F0D9G7, F0D9G9, F0D9G4 Cooler ID: GWS-141 Polycooler with groundwater samples packed in wet ice and vermiculite	N/A

☐ Classified ☒ Unclassified ☐ Shipped Under DOE Contract ☐ Shipped Under Contractor's Use Permit Contract

Necessity for the off-site use of this property

☒ Required for Project Work. List Project No. 100-FR-3

☐ Business Trip

Bill of lading # N/A

☐ Off-site Assignment

☐ Shipment to Subcontractor. List Subcontract No.

☐ Other (Please specify) Sampling supports RI/FS work in the 100 [illegible]

CERTIFICATION OF THE RADIATION MONITORING RELEASE MUST BE SECURED THE SAME DAY THAT MATERIAL IS DELIVERED TO SHIPPING.

RM Clearance for Public Release	RM Survey No.	Date
[illegible]	[illegible]	11-15-94

Location of and Contact for Property (Name/Phone No./Bldg./Area)
P. H. Butcher/ (509) 376-4388

Date Ready for Shipment	Cost Code to be Charged	Approximate Date This Property will be Returned
11/15/94	ITE 2072 / FD3A1	

Originated By	Date	Authorized By	Date
M. Rios / K. Trapp	11/15/94	M. Rios / K. Trapp	11/15/94
Property Representative Signature	**Date**	**Property Management Approval**	**Date**
		Rachel Lacey	11/15/94

PART II - TO BE COMPLETED BY SHIPPING

Authorized Shipping Signature	Date

DISTRIBUTION (AFTER FINAL SIGNATURES)

White - Property Management Yellow - Shipping Green - Accounts Payable Pink - Originator Goldenrod - Property Management

*U.S. GPO: 1994-592-170/00029 G Brumfield 11-15-94 10:05

54-3000-479 (01/94)

00053

Contractor	OFF-SITE PROPERTY CONTROL	CONTROL NO. (To be obtained from PROPERTY MANAGEMENT)
BHI		W95-0-0073-26

PART I - TO BE COMPLETED BY ORIGINATOR

Department	Section	Unit
ER Eng Support	Field & Analytical Supp	ER Field Sampling

The following items are to be shipped from ☒ Contractor ☐ Vendor

Routing ☐ Prepaid ☐ Collect

Shipped to
Company: Quanterra (IT)
Address: 2800 George Washington Way
City: Richland, WA 99352 State Zip Code
Country

Off-site Custodian

On-site Custodian Payroll No.

Qty.	Property No.	Description (include Manufacture Name, Model, Serial No.)	Acquisition Cost
1 lbs		Sample #: B0D861, B0D862, B0D863, B0D825, B0D826, B0D827 Cooler ID: GWS-122 Polycooler with groundwater samples packed in wet ice and vermiculite	N/A
1 lbs		Sample #: B0D852, B0D853, B0D854, B0D807, B0D808, B0D809 Cooler ID: GWS-141 Polycooler with groundwater samples packed in wet ice and vermiculite	N/A

☐ Classified ☒ Unclassified ☐ Shipped Under DOE Contract ☐ Shipped Under Contractor's Use Permit Contract

Necessity for the off-site use of this property

☒ Required for Project Work. List Project No. 100-FR-3

☐ Business Trip

☐ Off-site Assignment

Bill of lading # NA

☐ Shipment to Subcontractor. List Subcontract No.

☐ Other (Please specify) Sampling supports RI/FS work in the 100 areas

CERTIFICATION OF THE RADIATION MONITORING RELEASE MUST BE SECURED THE SAME DAY THAT MATERIAL IS DELIVERED TO SHIPPING.

RM Clearance for Public Release	RM Survey No.	Date
[signature]	PS-OFF-0289	11-15-94

Location of and Contact for Property (Name/Phone No./Bldg./Area)
P. H. Butcher/ (509) 376-4388

Date Ready for Shipment	Cost Code to be Charged	Approximate Date This Property will be Returned
11/15/94	ITE 2072 / PD3AA	

Originated By	Date	Authorized By	Date
K. Trapp / K. Trapp	11/15/94	K. Trapp / K. Trapp	11/15/94
Property Representative Signature	**Date**	**Property Management Approval**	**Date**
		[signature]	11/15/94

PART II - TO BE COMPLETED BY SHIPPING

Authorized Shipping Signature	Date

DISTRIBUTION (AFTER FINAL SIGNATURES)

White - Property Management Yellow - Shipping Green - Accounts Payable Pink - Originator Goldenrod - Property Management

Environmental Services

9613442.2564

C.U.R. and C.O.C.
COPIED TO: DM+WP
DATE: 11-16-94
TIME: 11:00
BY: 2m

Work Order No.: 6907

Condition Upon Receipt Variance Report
St. Louis Laboratory

Client: QES, Richland

Date: 11-16-94 0850

Project No: 550.37

Initiated by: [illegible]

Analysis Requested: Refer to RFA/COC

RFA/COC Numbers: 453975

Client Sample Numbers Affected: Entire Login

Condition/Variance (Check all that apply): Circle Number to Denote that Item was Evaluated. "NA" = "Not Applicable".

1. NA Not enough sample received for proper analysis.
   Received approximately: _____
2. ☐ Sample received broken/leaking.
3. ☐ Sample received without proper preservative.
   - ☐ Cooler temperature not within 4°C ± 2°C
     Record temperature: 1°C
   - ☐ pH Temp Vad 6°C
   - ☐ other: _____
4. ☐ Sample received in improper container.
5. ☑ Sample received without proper paperwork. Explain:
   Rcvd 2x40ml clear glass Trip Blanks
6. ☐ Paperwork received without sample.
7. ☐ No sample ID on sample container.
8. ☐ Custody tape disturbed/broken/missing.
9. NA Sample splits performed by lab.
10. NA Volatile sample received with approximately _____ mm headspace.
11. ☐ Sample ID on container does not match sample ID on paperwork. Explain:
12. ☐ All coolers on airbill not received with shipment.
13. ☐ Other (explain below):
    Shipping containers not rad surveyed.

Notes:

Corrective Action:

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

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

☐ Sample(s) processed "as is". Comments: _____

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

Sample Control Supervisor Review: (or designate) _____ Date: _____

Project Management Review: _____ Date: _____

SIGNED ORIGINAL MUST BE RETAINED IN THE PROJECT FILE

00055

9613442.2565

Quanterra Environmental Services

Quanterra Incorporated
2800 George Washington Way
Richland, Washington 99352

509 375-3131 Telephone
509 375-5590 Fax

CERTIFICATE OF ANALYSIS

DEC 1994 RECEIVED Data Log In

Bechtel Hanford, Inc.
345 Hills
Richland, WA 99352

December 30, 1994

Attention: Joan Kessner

SAF Number	:	B94-083
Date SDG Closed	:	November 15, 1994
Number of Samples	:	Nine (9)
Sample Type	:	Water
SDG Number	:	W0312
Data Deliverable	:	Stand Alone

RECORD COPY

I. Introduction

On November 14 and 15, 1994, a total of nine water samples were received by the Quanterra Environmental Services Richland Laboratory (QTESRL) for radiochemical analysis. Upon receipt, the samples were assigned the following laboratory ID numbers to correspond with the Bechtel Hanford, Inc. (BHI) specific IDs:

QTESRL ID	BHI ID	Matrix	Date of Receipt
41130801	B0D810	Water	11/14/94
41130802	B0D831	Water	11/14/94
41130803	B0D840	Water	11/14/94
41130804	B0D843	Water	11/14/94
41130805	B0D858	Water	11/14/94
41132301	B0D807	Water	11/15/94
41132302	B0D825	Water	11/15/94
41132303	B0D852	Water	11/15/94
41132304	B0D861	Water	11/15/94

Quanterra
Environmental Services

II. Analytical Results/Methodology

The analytical results for this report are presented by laboratory sample ID. Each set of data includes sample identification information, analytical results and the appropriate associated statistical errors.

The requested analyses were:

Gas Proportional Counting
Gross Alpha by method ITAS-RD-3214
Gross Beta by method ITAS-RD-3214
Strontium-90 by method ITAS-RD-3204
Liquid Scintillation Counting
Carbon-14 by method ITAS-RD-3247
Tritium by method ITAS-RD-3205

III. Quality Control

The analytical results for each analysis performed under SDG W0312 include a minimum of one Laboratory Control Sample (LCS), one method (reagent) blank, and one duplicate. Any exceptions have been noted in the "Comments" section.

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

IV. Comments

Results from the initial radioactivity screening of these samples classified them as Category I.

Gas Proportional Counting

Gross Alpha by method ITAS-RD-3214
The sample aliquot used for the analysis of B0D840 was reduced to 100 mL due to high precipitate weight. The activity exceeded the MDA and the result is accepted. The LCS, batch blank, sample and sample duplicate (B0D810) results are within contractual limits.

Gross Beta by method ITAS-RD-3214
The LCS was recounted due to a high bias on the initial count. The recount is within acceptable limits. The LCS, batch blank, sample and sample duplicate (B0D810) results are within contractual limits.

Quanterra
Environmental Services

Strontium-90 by method ITAS-RD-3204
The LCS, batch blank, sample and sample duplicate (B0D807) results are within contractual requirements.

Liquid Scintillation Counting

Carbon-14 by method ITAS-RD-3247
The LCS, batch blank, sample and sample duplicate (B0D831) results are within contractual requirements.

Tritium by method ITAS-RD-3205
The LCS, batch blank, sample and sample duplicate (B0D810 and B0D825) results are within contractual requirements.

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:

Suzanne Gaines

Suzanne Gaines
Project Manager

Quanterra
Environmental Services

SAMPLE RESULTS

LAB NAME:	ITAS-RICHLAND	SDG:	W0312
LAB SAMPLE ID:	41130801	MATRIX:	WATER
CLIENT ID:	B0D810	DATE RECEIVED:	11/14/94

ISOTOPE	RESULT	COUNTING ERROR (2s)	TOTAL ERROR (2s)	MDA	REPORT UNIT	YIELD	METHOD NUMBER
ALPHA	9.94E-01	8.7E-01	8.9E-01	1.29E+00	pCi/L	100.00%	RD3214
BETA	1.75E+01	2.4E+00	2.7E+00	2.87E+00	pCi/L	100.00%	RD3214
STRONTIUM	4.70E+00	5.7E-01	1.4E+00	7.61E-01	pCi/L	99.10%	RD3204
C-14	4.28E-01	1.4E+00	2.9E+00	3.36E+00	pCi/L	100.00%	RD3263
TRITIUM	1.87E+02	1.2E+02	2.3E+02	2.56E+02	pCi/L	97.70%	RD3205

Number of Results: 5

Quanterra
Environmental Services

SAMPLE RESULTS

LAB NAME:	ITAS-RICHLAND	SDG:	W0312
LAB SAMPLE ID:	41130802	MATRIX:	WATER
CLIENT ID:	B0D831	DATE RECEIVED:	11/14/94

ISOTOPE	RESULT	COUNTING ERROR (2s)	TOTAL ERROR (2s)	MDA	REPORT UNIT	YIELD	METHOD NUMBER
ALPHA	3.79E+00	2.0E+00	2.1E+00	1.93E+00	pCi/L	100.00%	RD3214
BETA	9.58E+00	2.0E+00	2.1E+00	3.03E+00	pCi/L	100.00%	RD3214
STRONTIUM	5.12E-02	2.8E-01	2.8E-01	9.38E-01	pCi/L	72.00%	RD3204
C-14	1.10E+00	1.5E+00	2.9E+00	3.36E+00	pCi/L	100.00%	RD3263
TRITIUM	4.22E+02	1.2E+02	2.4E+02	2.56E+02	pCi/L	97.70%	RD3205

Number of Results: 5

9613442.2570

Quanterra
Environmental Services

SAMPLE RESULTS

LAB NAME:	ITAS-RICHLAND	SDG:	W0312
LAB SAMPLE ID:	41130803	MATRIX:	WATER
CLIENT ID:	B0D840	DATE RECEIVED:	11/14/94

ISOTOPE	RESULT	COUNTING ERROR (2s)	TOTAL ERROR (2s)	MDA	REPORT UNIT	YIELD	METHOD NUMBER
ALPHA	1.69E+01	4.4E+00	4.8E+00	3.30E+00	pCi/L	100.00%	RD3214
BETA	8.42E+01	1.8E+01	1.9E+01	2.69E+01	pCi/L	100.00%	RD3214
STRONTIUM	3.50E-01	3.3E-01	3.4E-01	9.68E-01	pCi/L	68.30%	RD3204
C-14	3.61E+02	4.4E+00	1.8E+01	3.36E+00	pCi/L	100.00%	RD3263
TRITIUM	1.79E+05	1.1E+03	1.3E+04	2.56E+02	pCi/L	97.70%	RD3205

Number of Results: 5

Quanterra
Environmental Services

SAMPLE RESULTS

LAB NAME:	ITAS-RICHLAND	SDG:	-	W0312
LAB SAMPLE ID:	41130804	MATRIX:		WATER
CLIENT ID:	B0D843	DATE RECEIVED:		11/14/94

ISOTOPE	RESULT	COUNTING ERROR (2s)	TOTAL ERROR (2s)	MDA	REPORT UNIT	YIELD	METHOD NUMBER
ALPHA	3.30E+00	2.1E+00	2.1E+00	2.55E+00	pCi/L	100.00%	RD3214
BETA	1.09E+01	2.2E+00	2.3E+00	3.14E+00	pCi/L	100.00%	RD3214
STRONTIUM	-3.86E-01	2.7E-01	2.8E-01	1.10E+00	pCi/L	67.70%	RD3204
C-14	6.06E+00	1.5E+00	3.1E+00	3.36E+00	pCi/L	100.00%	RD3263
TRITIUM	-2.87E+01	1.1E+02	2.2E+02	2.56E+02	pCi/L	97.70%	RD3205

Number of Results: 5

Quanterra
Environmental Services

SAMPLE RESULTS

LAB NAME:	ITAS-RICHLAND	SDG:	W0312
LAB SAMPLE ID:	41130805	MATRIX:	WATER
CLIENT ID:	B0D858	DATE RECEIVED:	11/14/94

ISOTOPE	RESULT	COUNTING ERROR (2s)	TOTAL ERROR (2s)	MDA	REPORT UNIT	YIELD	METHOD NUMBER
ALPHA	1.01E-01	3.6E-01	3.6E-01	9.37E-01	pCi/L	100.00%	RD3214
BETA	1.85E+00	1.3E+00	1.3E+00	2.62E+00	pCi/L	100.00%	RD3214
STRONTIUM	5.44E-01	2.8E-01	3.1E-01	7.25E-01	pCi/L	96.00%	RD3204
C-14	1.19E+00	1.5E+00	2.9E+00	3.36E+00	pCi/L	100.00%	RD3263
TRITIUM	1.08E+04	3.0E+02	9.5E+02	2.56E+02	pCi/L	97.70%	RD3205

Number of Results: 5

Quanterra Environmental Services

SAMPLE RESULTS

LAB NAME:	ITAS-RICHLAND	SDG:	W0312
LAB SAMPLE ID:	41132301	MATRIX:	WATER
CLIENT ID:	B0D807	DATE RECEIVED:	11/15/94

ISOTOPE	RESULT	COUNTING ERROR (2s)	TOTAL ERROR (2s)	MDA	REPORT UNIT	YIELD	METHOD NUMBER
ALPHA	4.42E-01	6.3E-01	6.3E-01	1.24E+00	pCi/L	100.00%	RD3214
BETA	9.55E+00	1.9E+00	2.1E+00	2.84E+00	pCi/L	100.00%	RD3214
STRONTIUM	2.81E+00	4.6E-01	8.7E-01	7.63E-01	pCi/L	99.90%	RD3204
C-14	6.31E-01	1.4E+00	2.9E+00	3.36E+00	pCi/L	100.00%	RD3263
TRITIUM	-1.20E+02	1.1E+02	2.1E+02	2.56E+02	pCi/L	97.70%	RD3205

Number of Results: 5

Quanterra Environmental Services

SAMPLE RESULTS

LAB NAME:	ITAS-RICHLAND	SDG:	W0312
LAB SAMPLE ID:	41132302	MATRIX:	WATER
CLIENT ID:	B0D825	DATE RECEIVED:	11/15/94

ISOTOPE	RESULT	COUNTING ERROR (2s)	TOTAL ERROR (2s)	MDA	REPORT UNIT	YIELD	METHOD NUMBER
ALPHA	3.11E-02	4.6E-01	4.6E-01	1.39E+00	pCi/L	100.00%	RD3214
BETA	4.33E+00	1.6E+00	1.7E+00	2.89E+00	pCi/L	100.00%	RD3214
STRONTIUM	1.84E-01	2.4E-01	2.4E-01	7.51E-01	pCi/L	100.00%	RD3204
C-14	1.51E+00	1.5E+00	2.9E+00	3.36E+00	pCi/L	100.00%	RD3263
TRITIUM	-1.52E+02	1.0E+02	2.1E+02	2.56E+02	pCi/L	97.70%	RD3205

Number of Results: 5

Quanterra Environmental Services

SAMPLE RESULTS

LAB NAME:	ITAS-RICHLAND	SDG:	-	W0312
LAB SAMPLE ID:	41132303	MATRIX:		WATER
CLIENT ID:	B0D852	DATE RECEIVED:		11/15/94

ISOTOPE	RESULT	COUNTING ERROR (2s)	TOTAL ERROR (2s)	MDA	REPORT UNIT	YIELD	METHOD NUMBER
ALPHA	1.95E-01	3.6E-01	3.6E-01	7.80E-01	pCi/L	100.00%	RD3214
BETA	1.03E+00	1.3E+00	1.3E+00	2.75E+00	pCi/L	100.00%	RD3214
STRONTIUM	-1.21E-01	2.2E-01	2.2E-01	8.16E-01	pCi/L	93.60%	RD3204
C-14	1.73E+00	1.5E+00	3.0E+00	3.36E+00	pCi/L	100.00%	RD3263
TRITIUM	-1.88E+02	1.0E+02	2.1E+02	2.56E+02	pCi/L	97.70%	RD3205

Number of Results: 5

Quanterra
Environmental Services

SAMPLE RESULTS

LAB NAME:	ITAS-RICHLAND	SDG:	W0312
LAB SAMPLE ID:	41132304	MATRIX:	WATER
CLIENT ID:	B0D861	DATE RECEIVED:	11/15/94

ISOTOPE	RESULT	COUNTING ERROR (2s)	TOTAL ERROR (2s)	MDA	REPORT UNIT	YIELD	METHOD NUMBER
ALPHA	-1.12E-01	2.2E-01	2.3E-01	9.61E-01	pCi/L	100.00%	RD3214
BETA	6.80E+00	1.7E+00	1.8E+00	2.62E+00	pCi/L	100.00%	RD3214
STRONTIUM	3.17E-01	2.8E-01	2.9E-01	8.31E-01	pCi/L	100.00%	RD3204
C-14	7.66E-01	1.5E+00	2.9E+00	3.36E+00	pCi/L	100.00%	RD3263
TRITIUM	-7.69E+01	1.1E+02	2.2E+02	2.56E+02	pCi/L	97.70%	RD3205

Number of Results: 5

Westinghouse Hanford Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

Page 1 of 1

Data Turnaround: [ ] Priorty [X] Normal

Collector: A.J. Simpson	Company Contact: D. St. John	Telephone No.: (509) 376-5376
Project Designation: 100-FR-3 Groundwater-Round 6	Sampling Location: 100 F	SAF No.: B94-083
Ice Chest No.: ~~SMT~~ GWS-122 KT 11/14/94	Field Logbook No.: EFL-1054	Method of Shipment: Hand Delivered
Shipped To: Quanterra	Offsite Property No.	Bill of Lading/Air Bill No.
Possible Sample Hazards/Remarks		
Special Handling and/or Storage: Maintain between 2 C and 6 C.		

Preservative	HNO3	None	HCl	HNO3	None	None		HNO3		HCl					
Type of Container	G	G	Gs	G/P	Gs	P		G		Gs					
No. of Container(s)	1	1	3	4	3	1		1		3					
Volume	500mL	500mL	40mL	1L	1L	20mL		500mL		40mL					
SAMPLE ANALYSIS 411307	ICP Metals, AA Metals-As, Pb (Unfiltered) A	Anions-F, Cl, SO4, PO4, NO2, NO3 B	VOA CDE	Total Alpha, Total Beta, Sr-90 411	C-14, Tritium 3080	Activity Screen 1		ICP Metals, AA Metals-As, Pb (Filtered)		VOA					
Sample No.	Matrix*	Date Sampled	Time Sampled												
B0D810 01	W	11/11/94	0932	X	X	X	X	X	X						
B0D811 2	W	11/11/94	0932								X				
B0D812 3	W	11/11/94	0932									X			
				A	B	CDE					A	ABC			

CHAIN OF POSSESSION	Sign/Print Names	Date/Time	Received By	Date/Time
Relinquished By	K.Ole Tobyo Lee 11/11/94	1120	Received By: Bill Whitten B.Whitten 11-11-94	1120
Relinquished By	For Bill Whitten K.Trapp / K.Trapp 11/14/94	1009	Received By: R. Baird Quanterra	11-14-94 1009
Relinquished By			Received By	
Relinquished By			Received By	

SPECIAL INSTRUCTIONS

Data Deliverable-Standalone

Analysis for PO4, NO2, and NO3 by EPA 300.0 is being requested for information only. The BHI Contractor acknowledges the 48-hour holding will be exceeded.

The Activity Screen is for all three sample numbers.

SDG W0312

Matrix*

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

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

DISTRIBUTION: Original- Sample Yellow - Sampler

BC-6000-828 (12/92)

Westinghouse Hanford Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

Page 1 of 1

Data Turnaround: [ ] Priorty [X] Normal

Collector: W Setzer	Company Contact: D. St. John	Telephone No.: (509) 376-5376
Project Designation: 100-FR-3 Groundwater-Round 6	Sampling Location: 100 F	SAF No.: B94-083
Ice Chest No.: SML-423	Field Logbook No.: EFL-1055	Method of Shipment: Hand Delivered
Shipped To: Quanterra	Offsite Property No.	Bill of Lading/Air Bill No.
Possible Sample Hazards/Remarks		

Special Handling and/or Storage: Maintain between 2 C and 6 C.

SAMPLE ANALYSIS: 411307

Preservative	HNO3	None	HCl	HNO3	None	None		HNO3		HCl					
Type of Container	G	G	Gs	G/P	Gs	P		G		Gs					
No. of Container(s)	1	1	3	4	3	1		1		3					
Volume	500mL	500mL	40mL	1L	1L	20mL		500mL		40mL					
	ICP Metals, AA Metals-As, Pb (Unfiltered)	Anions-F, Cl, SO4, PO4, NO2, NO3	VOA	Total Alpha, Total Beta, Sr-90 411308Z	C-14, Tritium	Activity Screen		ICP Metals, AA Metals-As, Pb (Filtered)		VOA					

Sample No.	Matrix*	Date Sampled	Time Sampled														
B0D831 04	W	11-11-94	1025 0835	11/11/94	X	X	X	X	X								
B0D832 5	W	11-11-94	1025 0835	11/11/94							X						
B0D833 6	W	11-11-94	0740										X				
				A	B	CDE					A		ABC				

CHAIN OF POSSESSION	Sign/Print Names		
Relinquished By: AGRizzo	Date/Time: 1205 11-11-94	Received By: [signature]	Date/Time: 1205 11-11-94
Relinquished By: For Bill Whitten / K. Trapp / K. Trapp	Date/Time: 1017 11/14/94	Received By: R. Boyd Quanterra	Date/Time: 11-14-94 1017
Relinquished By	Date/Time	Received By	Date/Time
Relinquished By	Date/Time	Received By	Date/Time

SPECIAL INSTRUCTIONS

Data Deliverable-Standalone

Analysis for PO4, NO2, and NO3 by EPA 300.0 is being requested for information only. The BHI Contractor acknowledges the 48-hour holding will be exceeded.

The Activity Screen is for all three sample numbers.

SDG W0312

Matrix*

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

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

DISTRIBUTION: Original- Sample Yellow - Sampler

BC-6000-828 (12/92)

9413442.2570

Westinghouse Hanford Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

Page 1 of 1

Data Turnaround: [ ] Priorty [X] Normal

Collector: L. Setzer	Company Contact: D. St. John	Telephone No.: (509) 376-5376
Project Designation: 100-FR-3 Groundwater-Round 6	Sampling Location: 100 F	SAF No.: B94-083
Ice Chest No.: GWS-141	Field Logbook No.: EFL 1055	Method of Shipment: Hand Delivered
Shipped To: Quanterra	Offsite Property No.	Bill of Lading/Air Bill No.
Possible Sample Hazards/Remarks		
Special Handling and/or Storage: Maintain between 2 C and 6 C.		

Preservative	HNO3	None	HCl	HNO3	None	None		HNO3		HCl					
Type of Container	G	G	Gs	G/P	Gs	P		G		Gs					
No. of Container(s)	1	1	3	4	3	1		1		3					
Volume	500mL	500mL	40mL	1L	1L	20mL		500mL		40mL					
SAMPLE ANALYSIS 41307	ICP Metals, AA Metals-As, Pb (Unfiltered)	Anions-F, Cl, SO4, PO4, NO2, NO3	VOA	Total Alpha, Total Beta, Sr-90 41308	C-14, Tritium 03	Activity Screen		ICP Metals, AA Metals-As, Pb (Filtered)		VOA					

Sample No.	Matrix*	Date Sampled	Time Sampled														
B0D840 07	W	11.11.94	1050	X	X	X	X	X	X								
B0D841 8	W	11.11.94	1050								X						
B0D842 9	W	11.11.94	0735										X				
				A	B	CDE					A		ABC				

CHAIN OF POSSESSION	Sign/Print Names		
Relinquished By: AGRizzo	Date/Time: 1205 11-11-94	Received By: Rick Walker	Date/Time: 1205 11-11-94
Relinquished By: For Bill Whitney K. Trapp/K. Trapp	Date/Time: 11/14/94 1012	Received By: R. Boyd Quetine	Date/Time: 11-14-94 1012
Relinquished By	Date/Time	Received By	Date/Time
Relinquished By	Date/Time	Received By	Date/Time

SPECIAL INSTRUCTIONS

Data Deliverable-Standalone

Analysis for PO4, NO2, and NO3 by EPA 300.0 is being requested for information only. The BHI Contractor acknowledges the 48-hour holding will be exceeded.

The Activity Screen is for all three sample numbers.

SDG W0312

Matrix*

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

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

DISTRIBUTION: Original- Sample Yellow - Sampler

BC-6000-828 (12/92)

9413442.2270

Westinghouse Hanford Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

Page 1 of 1

Data Turnaround: [ ] Priorty [X] Normal

Collector: A. J. Simpson	Company Contact: D. St. John	Telephone No.: (509) 376-5376
Project Designation: 100-FR-3 Groundwater-Round 6	Sampling Location: 100 F	SAF No.: B94-083
Ice Chest No.: GW9-122	Field Logbook No.: EFL-1054	Method of Shipment: Hand Delivered
Shipped To: Quanterra	Offsite Property No.	Bill of Lading/Air Bill No.
Possible Sample Hazards/Remarks		
Special Handling and/or Storage: Maintain between 2 C and 6 C.		

Preservative	HNO3	None	HCl	HNO3	None	None		HNO3		HCl					
Type of Container	G	G	Gs	G/P	Gs	P		G		Gs					
No. of Container(s)	1	1	3	4	3	1		1		3					
Volume	500mL	500mL	40mL	1L	1L	20mL		500mL		40mL					
SAMPLE ANALYSIS 411307	ICP Metals, AA Metals-As, Pb (Unfil-tered)	Anions-F, Cl, SO4, PO4, NO2, NO3	VOA	Total Alpha, Total Beta, Sr-90 411308 04	C-14, Tritium	Activ-ity Screen		ICP Metals, AA Metals-As, Pb (Fil-tered)		VOA					

Sample No.	Matrix*	Date Sampled	Time Sampled														
B0D843 10	W	11/11/94	0830	X	X	X	X	X	X								
B0D844 11	W	11/11/94	0830								X						
B0D845 12	W	11/11/94	0830										X				
				A	B	CDE					A		ABC				

CHAIN OF POSSESSION	Sign/Print Names		
Relinquished By: K.O. Lee / Kathy O. Lee	Date/Time: 1120 11/11/94	Received By: [signature]	Date/Time: 1120 11-20-90
Relinquished By: For Bill Whinery / K. Trapp / K. Trapp	Date/Time: 1009 11/14/94	Received By: R. Boyd Quanterra	Date/Time: 11-14-94 1009
Relinquished By	Date/Time	Received By	Date/Time
Relinquished By	Date/Time	Received By	Date/Time

SPECIAL INSTRUCTIONS

Data Deliverable-Standalone

Analysis for PO4, NO2, and NO3 by EPA 300.0 is being requested for information only. The BHI Contractor acknowledges the 48-hour holding will be exceeded.

The Activity Screen is for all three sample numbers.

SDG W0312

Matrix*

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

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

DISTRIBUTION: Original- Sample Yellow - Sampler

BC-6000-828 (12/92)

9613442.2980

Westinghouse Hanford Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

Page 1 of 1

Data Turnaround: [ ] Priorty [X] Normal

Collector: A J. Simpson	Company Contact: D. St. John	Telephone No.: (509) 376-5376
Project Designation: 100-FR-3 Groundwater-Round 6	Sampling Location: 100 F	SAF No.: B94-083
Ice Chest No.: GWS-141	Field Logbook No.: EFL-1054	Method of Shipment: Hand Delivered
Shipped To: Quanterra	Offsite Property No.	Bill of Lading/Air Bill No.

Possible Sample Hazards/Remarks

Special Handling and/or Storage: Maintain between 2 C and 6 C.

SAMPLE ANALYSIS: 411307

Sample No.	Matrix*	Date Sampled	Time Sampled															
Preservative				HNO3	None	HCl	HNO3	None	None		HNO3		HCl					
Type of Container				G	G	Gs	G/P	Gs	P		G		Gs					
No. of Container(s)				1	1	3	4	3	1		1		3					
Volume				500mL	500mL	40mL	1L	1L	20mL		500mL		40mL					
				ICP Metals, AA Metals-As, Pb (Unfiltered)	Anions-F, Cl, SO4, PO4, NO2, NO3	VOA	Total Alpha, Total Beta, Sr-90	C-14, Tritium	Activity Screen		ICP Metals, AA Metals-As, Pb (Filtered)		VOA					
							41130865											
BOD8 58	13	W	11/11/94	0800	X	X	X	X	X	X								
BOD8 59	14	W	11/11/94	0800								X						
BOD8 60	15	W	11/11/94	0800									X					
				A	B	CDE					A		ABC					

CHAIN OF POSSESSION	Sign/Print Names		
Relinquished By: K. Ace / Kay Ace	Date/Time: 1120 11/11/94	Received By: Bob Hey	Date/Time: 1120 11-11-94
Relinquished By: For Bill Whitten / K. Trapp	Date/Time: 1012 11/14/94	Received By: R. Boyd Quanterra	Date/Time: 11-14-94 1012
Relinquished By	Date/Time	Received By	Date/Time
Relinquished By	Date/Time	Received By	Date/Time

SPECIAL INSTRUCTIONS

Data Deliverable-Standalone

Analysis for PO4, NO2, and NO3 by EPA 300.0 is being requested for information only. The BHI Contractor acknowledges the 48-hour holding will be exceeded.

The Activity Screen is for all three sample numbers.

SDG W0312

Matrix*

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

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

DISTRIBUTION: Original- Sample Yellow - Sampler

BC-6000-828 (12/92)

9613442.2582

INTERNATIONAL TECHNOLOGY CORPORATION

Regional Office
2800 George Washington Way
Richland, Washington 99352

SAMPLE CHECK-IN LIST

(1 Per Shipping Container)

Date/Time Received 11/14/94 1017 Client Name BHI

Project/Client # B94-083 Batch or Case #

Cooler ID (if noted on the outside of cooler) SML ~~425~~ 423 JH 11/15/94

1. Condition of shipping container? OK
2. Custody Seals on cooler intact? Yes ☑ No ☐
3. Custody Seals dated and signed? Yes ☑ No ☐
4. Chain of Custody record is taped on inside of cooler lid? Yes ☑ No ☐
5. Vermiculite/packing material is: Wet ☐ Dry ☑
6. Each sample is in a plastic bag? Yes ☑ No ☐
7. Number of sample containers in cooler: 17
8. Samples have: ____ tape ____ hazard labels
   ✓ custody seals ✓ appropriate sample labels
9. Samples are: ✓ in good condition ____ leaking
   ____ broken ____ have air bubbles
   ____ other
10. Coolant present? Yes ☑ No ☐

Sample temperature 2°C

11. The following paperwork should be accounted for (N/A if not applicable): N/A
    Chain of Custody #'(s)
    Request for analysis #(s)
    Airbill # Carrier
12. Have any anomalies been identified above? Yes ☐ No ☑
13. Memos have been initiated for all anomalies identified above? Yes ☐

Printed Name/Signature R. Boyd R. Boyd Date/Time 11/14/94 1017

FORM NO. LS-042, Rev.0, 2/94

9613442.2583

INTERNATIONAL TECHNOLOGY CORPORATION

Regional Office
2800 George Washington Way
Richland, Washington 99352

SAMPLE CHECK-IN LIST

(1 Per Shipping Container)

Date/Time Received 11/14/94 1009 Client Name BHI

Project/Client # B94-083 Batch or Case # _____

Cooler ID (if noted on the outside of cooler) GWS 122

1. Condition of shipping container? OK
2. Custody Seals on cooler intact? Yes ☒ No ☐
3. Custody Seals dated and signed? Yes ☒ No ☐
4. Chain of Custody record is taped on inside of cooler lid? Yes ☒ No ☐
5. Vermiculite/packing material is: Wet ☐ Dry ☒
6. Each sample is in a plastic bag? Yes ☒ No ☐
7. Number of sample containers in cooler: 3 ~~2~~ 4 PB 11-14-94
8. Samples have: ____ tape ____ hazard labels
   ✓ custody seals ✓ appropriate sample labels
9. Samples are: ✓ in good condition ____ leaking
   ____ broken ____ have air bubbles
   ____ other
10. Coolant present? Yes ☒ No ☐

Sample temperature 3°C

11. The following paperwork should be accounted for (N/A if not applicable): N/A
    Chain of Custody #'(s) _____
    Request for analysis #(s) _____
    Airbill # _____ Carrier _____
12. Have any anomalies been identified above? Yes ☐ No ☒
13. Memos have been initiated for all anomalies identified above? Yes ☐

Printed Name/Signature R Boyd R Boyd Date/Time 11/14/94 1009

FORM NO. LS-042, Rev.0, 2/94

9613442.2584

INTERNATIONAL TECHNOLOGY CORPORATION

Regional Office
2800 George Washington Way
Richland, Washington 99352

SAMPLE CHECK-IN LIST

(1 Per Shipping Container)

Date/Time Received 11/14/94 1012 Client Name BNI

Project/Client # B94-083 Batch or Case # 11-18-94

Cooler ID (if noted on the outside of cooler) GWS 141

1. Condition of shipping container? OK
2. Custody Seals on cooler intact? Yes ☒ No ☐
3. Custody Seals dated and signed? Yes ☒ No ☐
4. Chain of Custody record is taped on inside of cooler lid? Yes ☒ No ☐
5. Vermiculite/packing material is: Wet ☐ Dry ☒
6. Each sample is in a plastic bag? Yes ☒ No ☐
7. Number of sample containers in cooler: 34
8. Samples have: ____ tape ____ hazard labels
   ✓ custody seals ✓ appropriate sample labels
9. Samples are: ✓ in good condition ____ leaking
   ____ broken ____ have air bubbles
   ____ other
10. Coolant present? Yes ☒ No ☐

Sample temperature 2°C

11. The following paperwork should be accounted for (N/A if not applicable): N/A
    Chain of Custody #'(s) ____
    Request for analysis #(s) ____
    Airbill # ____ Carrier ____
12. Have any anomalies been identified above? Yes ☐ No ☒
13. Memos have been initiated for all anomalies identified above? Yes ☐

Printed Name/Signature R Boyd R Boyd Date/Time 11/14/94 1012

FORM NO. LS-042, Rev.0, 2/94

9613942.2985

SAMPLE STATUS REPORT FOR N 3764. RAD SCREEN 199-F544 TIME: 11/14/94 7:58
DISPATCHED: 11/ 7/94 16:36 SAMPLE HAS NOT BEEN SLURPED
RECEIVED: 11/12/94 4: 0

EXT.	DETER.	RESULTS OR STATUS	OUT OF RANGE?	GOOD ANS?	CHARGE CODE
****	********	**********	***	***	******
4271	TOT-ACT	< 5.00000E 01 pCi/G	N	Y	XR5301

END OF REPORT

BOD810
BOD811 KT 11/14/94
BOD812

9613442 2586

SAMPLE STATUS REPORT FOR N 3775. RAD SCREEN 199-F8-4 TIME: 11/14/94 7:58
DISPATCHED: 11/ 7/94 16:37 SAMPLE HAS NOT BEEN SLURPED
RECEIVED: 11/12/94 4: 0

EXT.	DETER.	RESULTS OR STATUS	OUT OF RANGE?	GOOD ANS?	CHARGE CODE
****	********	**********	***	***	******
4271	TOT-ACT	< 5.00000E 01 pCi/G	N	Y	XR5301

END OF REPORT

BOD843
BOD844 KT 11/14/94
BOD845

9613442.2587

SAMPLE STATUS REPORT FOR N 3771. RAD SCREEN 199-F7-2 TIME: 11/14/94 7:58
DISPATCHED: 11/ 7/94 16:37 SAMPLE HAS NOT BEEN SLURPED
RECEIVED: 11/11/94 14:56

EXT.	DETER.	RESULTS OR STATUS	OUT OF RANGE?	GOOD ANS?	CHARGE CODE
****	********	**********	***	***	******
4271	TOT-ACT	< 5.00000E 01 pCi/G	N	Y	XR5301

END OF REPORT

BOD 831
BOD 832
BOD 833

9613442.2588

SAMPLE STATUS REPORT FOR N 3774. RAD SCREEN 199-F8-3 TIME: 11/14/94 7:58
DISPATCHED: 11/ 7/94 16:37 SAMPLE HAS NOT BEEN SLURPED
RECEIVED: 11/11/94 14:56

EXT.	DETER.	RESULTS OR STATUS	OUT OF RANGE?	GOOD ANS?	CHARGE CODE
****	********	**********	***	***	******
4271	TOT-ACT	127.56 PCI/G, <1% POSSIBLE ALPHA			XR5301

END OF REPORT

B0D840
B0D841 KT 11/14/94
B0D842

9615442.2589

SAMPLE STATUS REPORT FOR N 3778. RAD SCREEN FULLTRP1 TIME: 11/14/94 7:58
DISPATCHED: 11/ 7/94 16:37 SAMPLE HAS NOT BEEN SLURPED
RECEIVED: 11/12/94 4: 0

EXT.	DETER.	RESULTS OR STATUS	OUT OF RANGE?	GOOD ANS?	CHARGE CODE
****	********	**********	***	***	******
4271	TOT-ACT	< 5.00000E 01 pCi/G	N	Y	XR5301

END OF REPORT

BOD858
BOD859 KT 11/14/94
BOD860

9613442.2590

SAMPLE RECEIPT VARIANCE REPORT
ITAS-RICHLAND LABORATORY

WORK ORDER NUMBER: 411307 + 308 DATE INITIATED: 11/14/94

INITIATED BY: R. Boyd

DATE/TIME OF SAMPLE (AND/OR RFA & COC) RECEIPT: 11/14/94 1017

CLIENT SAMPLE NUMBER	RFA/COC NUMBERS	ANALYSIS REQUESTED
BOD833		VOA

Samples were received with the following deficiencies:

- ☐ 1. Not enough sample received for proper analysis.
- ☐ 2. Sample received without proper preservative.
- ☐ 3. No sample received in container.
- ☐ 4. Sample received without a RFA/COC form.
- ☐ 5. No sample ID on container.
- ☐ 6. Sample received broken or leaking.
- ☐ 7. Holding time exceeded at receipt.
- ☐ 8. Custody tape broken.
- ☐ 9. COC not relinquished by client.
- ☒ 10. Sample information on container does not match sample information on the paper work (Explain below).
- ☐ 11. All shipping containers (coolers) on waybill not received with shipment.
  - ☐ RFA/COC received
  - ☐ RFA/COC not received
- ☐ 12. Other (Explain below).

NOTES: sample time on container says 07:35 + 07:30, COC says 07:40

SUPERVISOR REVIEW: Tami Heidelberg

PROJECT MANAGER REVIEW: _____

TELEPHONED TO: _____ ON _____ BY _____

TELEFAXED TO: _____ ON _____ BY _____

SIGNED ORIGINAL MUST BE RETAINED IN WORK ORDER FILE

FORM NO. LS-023, 3/92, Rev. 0

Contractor	OFF-SITE PROPERTY CONTROL	CONTROL NO. (To be obtained from PROPERTY MANAGEMENT)
RHI		6495-0100-23-24

PART I - TO BE COMPLETED BY ORIGINATOR

Department: ER Eng Support | Section: Stores Analytical Supp | Unit: ER Field Sampling

The following items are to be shipped from: [X] Contractor [ ] Vendor

Routing: [ ] Prepaid [X] Collect

Shipped to		Off-site Custodian
Company	Quanterra (IT)	
Address	2800 George Washington Way	
City	Richland, WA 99352 State Zip Code	On-site Custodian / Payroll No.
Country		

Qty.	Property No.	Description (Include Manufacture Name, Model, Serial No.)	Acquisition Cost
1 lbs		Sample #: BOD843, BOD844, BOD845, BOD810, BOD811, BOD812 Cooler ID: GW5-122 Polycooler with groundwater samples packed in wet ice and vermiculite	N/A
1 lbs		Sample #: BOD840, BOD841, BOD842, BOD858, BOD859, BOD860 Cooler ID: GW5-141 Polycooler with groundwater samples packed in wet ice and vermiculite	N/A

[ ] Classified [X] Unclassified [ ] Shipped Under DOE Contract [ ] Shipped Under Contractor's Use Permit Contract

Necessity for the off-site use of this property

- [ ] Required for Project Work. List Project No. 100-FR-3
- [ ] Business Trip
- [ ] Off-site Assignment
- [ ] Shipment to Subcontractor. List Subcontract No.
- [ ] Other (Please specify) Sampling supports RI/FS work in the 100 Areas

Bill of lading # N/A

BEST AVAILABLE COPY

CERTIFICATION OF THE RADIATION MONITORING RELEASE MUST BE SECURED THE SAME DAY THAT MATERIAL IS DELIVERED TO SHIPPING.

RM Clearance for Public Release	RM Survey No.	Date
[signature]	[illegible]	11-14-94

Location of and Contact for Property (Name/Phone No./Bldg./Area)
P. H. Butcher / (509) 376-4388

Date Ready for Shipment	Cost Code to be Charged	Approximate Date This Property will be Returned
11/14/94	ITE 2072	

Originated By	Date	Authorized By	Date
PHButcher	11/14/94	PHButcher	11/14/94

Property Representative Signature	Date	Property Management Approval	Date
		[signature]	11/14/94

PART II - TO BE COMPLETED BY SHIPPING

Authorized Shipping Signature	Date
[signature]	

DISTRIBUTION (AFTER FINAL SIGNATURES)

White - Property Management Yellow - Shipping Green - Accounts Payable Pink - Originator Goldenrod - Property Management

*U.S. GPO: 1994-592-170/00029

R. Boyd Quanterra 11/14/94 1012

54-3000-479 (01/94)

0010

Contractor: BHI	OFF-SITE PROPERTY CONTROL	CONTROL NO. (To be obtained from PROPERTY MANAGEMENT) 1196-0-00023-25

PART I - TO BE COMPLETED BY ORIGINATOR

Department: FER Field Support	Section: Field & Analytical Supp	Unit: FER Field Sampling Grp

The following items are to be shipped from: ☒ Contractor ☐ Vendor

Routing: ☐ Prepaid ☒ Collect

Shipped to Company: Quanterra (IT)
Address: 2800 George Washington Way
City: Richland, State: WA Zip Code: 99352
Country:

Off-site Custodian:

On-site Custodian: 423 JH 11/15/94 Payroll No.

Qty.	Property No.	Description (Include Manufacture Name, Model, Serial No.)	Acquisition Cost
1 lbs		Sample #: BOD831, BOD832, BOD833 Cooler ID: SWL-423 Polycooler with groundwater samples packed in wet ice and vermiculite	N/A
1 lbs		~~Sample #:~~ Cooler ID: ~~Polycooler with groundwater samples packed in wet ice and vermiculite~~	N/A

☐ Classified ☒ Unclassified ☐ Shipped Under DOE Contract ☐ Shipped Under Contractor's Use Permit Contract

Necessity for the off-site use of this property

☐ Required for Project Work. List Project No. 100-FR-3

☐ Business Trip

Bill of lading # N/A

☐ Off-site Assignment

☐ Shipment to Subcontractor. List Subcontract No.

☐ Other (Please specify) Sampling supports RI/FS work in the 100 Areas

BEST AVAILABLE COPY

CERTIFICATION OF THE RADIATION MONITORING RELEASE MUST BE SECURED THE SAME DAY THAT MATERIAL IS DELIVERED TO SHIPPING.

RM Clearance for Public Release	RM Survey No.	Date

Location of and Contact for Property (Name/Phone No./Bldg./Area)
P. H. Butcher/ (509) 376-4388

Date Ready for Shipment	Cost Code to be Charged	Approximate Date This Property will be Returned
11/14/94	ITE 2072	

Originated By	Date	Authorized By	Date
P H Butcher	11/14/94	P H Butcher	11/14/94
Property Representative Signature	**Date**	**Property Management Approval**	**Date**
		Kathy Cathey	11/14/94

PART II - TO BE COMPLETED BY SHIPPING

Authorized Shipping Signature	Date

DISTRIBUTION (AFTER FINAL SIGNATURES)

White - Property Management Yellow - Shipping Green - Accounts Payable Pink - Originator Goldenrod - Property Management

*U.S. GPO: 1994-592-170/00029

R. Bard Quanterra 11/14/94 1012

54-3000-479 (01/94)

Westinghouse Hanford Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

Page 1 of 1

Data Turnaround: [ ] Priorty [X] Normal

Collector: A. J. Simpson	Company Contact: D. St. John	Telephone No.: (509) 376-5376
Project Designation: 100-FR-3 Groundwater-Round 6	Sampling Location: 100 F	SAF No.: B94-083
Ice Chest No.: GWS-141	Field Logbook No.: EFL-1054	Method of Shipment: Hand Delivered
Shipped To: Quanterra	Offsite Property No.: W95-0-0073-26	Bill of Lading/Air Bill No.: NA

Possible Sample Hazards/Remarks

Special Handling and/or Storage: Maintain between 2 C and 6 C.

SAMPLE ANALYSIS: 411322

Sample No.	Matrix*	Date Sampled	Time Sampled														
Preservative				HNO3	None	HCl	HNO3	None	None		HNO3		HCl				
Type of Container				G	G	Gs	G/P	Gs	P		G		Gs				
No. of Container(s)				1	1	3	4	3	1		1		3				
Volume				500mL	500mL	40mL	1L	1L	20mL		500mL		40mL				
SAMPLE ANALYSIS				ICP Metals, AA Metals-As, Pb (Unfiltered)	Anions-F, Cl, SO4, PO4, NO2, NO3	VOA	Total Alpha, Total Beta, Sr-90 41132301	C-14, Tritium	Activity Screen		ICP Metals, AA Metals-As, Pb (Filtered)		VOA				
B0D807	01	W	11/14/94	1129	X	X	X	X	X								
B0D808	2	W	11/14/94	1129							X						
B0D809	3	W	11/14/94	1129									X				
				A	B	CDE					A		ABC				

CHAIN OF POSSESSION — Sign/Print Names

Relinquished By	Date/Time	Received By	Date/Time
K. Dee / K. Dee	11/14/94 1300	K. Trapp / K. Trapp	11/14/94 1300
K. Trapp / K. Trapp	11/15/94 1005	Quanterra / B. Brumfield	11/15/94 2100 / 11.15.94 10105

SPECIAL INSTRUCTIONS

Data Deliverable-Standalone

Analysis for PO4, NO2, and NO3 by EPA 300.0 is being requested for information only. The BHI Contractor acknowledges the 48-hour holding will be exceeded.

The Activity Screen is for all three sample numbers.

SDGW0312

Matrix*

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

LABORATORY SECTION: Received By | Title | Date/Time

FINAL SAMPLE DISPOSITION: Disposal Method | Disposed By | Date/Time

DISTRIBUTION: Original- Sample Yellow - Sampler

BC-6000-828 (12/92)

Westinghouse Hanford Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

Page 1 of 1

Data Turnaround: [ ] Priorty [X] Normal

Collector: A. J. Simpson	Company Contact: D. St. John	Telephone No.: (509) 376-5376
Project Designation: 100-FR-3 Groundwater-Round 6	Sampling Location: 100 F	SAF No.: B94-083
Ice Chest No.: GW5-122	Field Logbook No.: EFL-1054	Method of Shipment: Hand Delivered
Shipped To: Quanterra	Offsite Property No.: W95-0-0073-26	Bill of Lading/Air Bill No.: NA
Possible Sample Hazards/Remarks		
Special Handling and/or Storage: Maintain between 2 C and 6 C.		

Preservative	HNO3	None	HCl	HNO3	None	None		HNO3		HCl					
Type of Container	G	G	Gs	G/P	Gs	P		G		Gs					
No. of Container(s)	1	1	3	4	3	1		1		3					
Volume	500mL	500mL	40mL	1L	1L	20mL		500mL		40mL					
SAMPLE ANALYSIS 411322	ICP Metals, AA Metals-As, Pb (Unfiltered)	Anions-F, Cl, SO4, PO4, NO2, NO3	VOA	Total Alpha, Total Beta, Sr-90 4113230Z	C-14, Tritium	Activity Screen		ICP Metals, AA Metals-As, Pb (Filtered)		VOA					

Sample No.	Matrix*	Date Sampled	Time Sampled														
B0D825 04	W	11/14/94	1045	X	X	X	X	X	X								
B0D826 5	W	11/14/94	1045								X						
B0D827 6	W	11/14/94	1045										X				
				A	B	CDE					A		ABC				

CHAIN OF POSSESSION	Sign/Print Names		
Relinquished By: K. Trapp	Date/Time: 11/14/94 1300	Received By: K. Trapp / K. Trapp	Date/Time: 11/14/94 1300
Relinquished By: K. Trapp / K. Trapp	Date/Time: 11/15/94 1005	Received By: Quanterra B. Brumfield	Date/Time: 11-15-94 1005
Relinquished By	Date/Time	Received By	Date/Time
Relinquished By	Date/Time	Received By	Date/Time

SPECIAL INSTRUCTIONS

Data Deliverable-Standalone

Analysis for PO4, NO2, and NO3 by EPA 300.0 is being requested for information only. The BHI Contractor acknowledges the 48-hour holding will be exceeded.

The Activity Screen is for all three sample numbers.

SDG W0312

Matrix*

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

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

DISTRIBUTION: Original- Sample Yellow - Sampler

BC-6000-828 (12/92)

9513042.2594

Westinghouse Hanford Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

Page 1 of 1

Data Turnaround: [ ] Priorty [X] Normal

Collector: A. J. Simpson	Company Contact: D. St. John	Telephone No.: (509) 376-5376
Project Designation: 100-FR-3 Groundwater-Round 6	Sampling Location: 100 F	SAF No.: B94-083
Ice Chest No.: GWS-141	Field Logbook No.: EFL-1054	Method of Shipment: Hand Delivered
Shipped To: Quanterra	Offsite Property No.: W95-0-0073-26	Bill of Lading/Air Bill No.: NA

Possible Sample Hazards/Remarks:

Special Handling and/or Storage: Maintain between 2 C and 6 C.

SAMPLE ANALYSIS: 411322

Preservative	HNO3	None	HCl	HNO3	None	None		HNO3		HCl					
Type of Container	G	G	Gs	G/P	Gs	P		G		Gs					
No. of Container(s)	1	1	3	4	3	1		1		3					
Volume	500mL	500mL	40mL	1L	1L	20mL		500mL		40mL					
	ICP Metals, AA Metals-As, Pb (Unfiltered)	Anions-F, Cl, SO4, PO4, NO2, NO3	VOA	Total Alpha, Total Beta, Sr-90	C-14, Tritium	Activity Screen		ICP Metals, AA Metals-As, Pb (Filtered)		VOA					
				411323	03										

Sample No.	Matrix*	Date Sampled	Time Sampled														
B0D852 07	W	11/14/94	0930	X	X	X	X	X	X								
B0D853 8	W	11/14/94	0930								X						
B0D854 9	W	11/14/94	0930										X				
				A	B	~~C~~ DE					A		ABC				

CHAIN OF POSSESSION — Sign/Print Names

Relinquished By	Date/Time	Received By	Date/Time
K. Tapp	11/14/94 1300	K. Tapp/K. Tapp	11/14/94 1300
K. Tapp/K. Tapp	11/15/94 1005	Quanterra Lab B Brumfield	11-15-94 10:05

SPECIAL INSTRUCTIONS

Data Deliverable-Standalone

Analysis for PO4, NO2, and NO3 by EPA 300.0 is being requested for information only. The BHI Contractor acknowledges the 48-hour holding will be exceeded.

The Activity Screen is for all three sample numbers.

SDG W0312

Matrix*

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

LABORATORY SECTION: Received By | Title | Date/Time

FINAL SAMPLE DISPOSITION: Disposal Method | Disposed By | Date/Time

DISTRIBUTION: Original- Sample Yellow - Sampler

BC-6000-828 (12/92)

Westinghouse Hanford Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

Page 1 of 1

Data Turnaround: [ ] Priorty [X] Normal

Collector: A. J. Simpson	Company Contact: D. St. John	Telephone No.: (509) 376-5376
Project Designation: 100-FR-3 Groundwater-Round 6	Sampling Location: 100 F	SAF No.: B94-083
Ice Chest No.: GWS-122	Field Logbook No.: EFL-1054	Method of Shipment: Hand Delivered
Shipped To: Quanterra	Offsite Property No.: W95-0-0073-26	Bill of Lading/Air Bill No.: NA
Possible Sample Hazards/Remarks		
Special Handling and/or Storage: Maintain between 2 C and 6 C.		

Preservative			HNO3	None	HCl	HNO3	None	None		HNO3		HCl				
Type of Container			G	G	Gs	G/P	Gs	P		G		Gs				
No. of Container(s)			1	1	3	4	3	1		1		3				
Volume			500mL	500mL	40mL	1L	1L	20mL		500mL		40mL				
SAMPLE ANALYSIS 411322			ICP Metals, AA Metals-As, Pb (Unfiltered)	Anions-F, Cl, SO4, PO4, NO2, NO3	VOA	Total Alpha, Total Beta, Sr-90 411322304	C-14, Tritium	Activity Screen		ICP Metals, AA Metals-As, Pb (Filtered)		VOA				
Sample No.	Matrix*	Date Sampled	Time Sampled													
B0D861 10	W	11/14/94	1000	X	X	X	X	X	X							
B0D862 11	W	11/14/94	1000							X						
B0D863 12	W	11/14/94	1000									X				
				A	B	CDE				A		ABC				

CHAIN OF POSSESSION — Sign/Print Names

Relinquished By	Date/Time	Received By	Date/Time
K. Trapp K. Trapp	11/14/94 1300	K. Trapp / K. Trapp	11/14/94 1300
K. Trapp / K. Trapp	11/15/94 1005	Quanterra	1100
		B Baumfield	11-15-94 10:05

SPECIAL INSTRUCTIONS

Data Deliverable-Standalone

Analysis for PO4, NO2, and NO3 by EPA 300.0 is being requested for information only. The BHI Contractor acknowledges the 48-hour holding will be exceeded.

The Activity Screen is for all three sample numbers.

SDG W0312

Matrix*

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

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

DISTRIBUTION: Original- Sample Yellow - Sampler

BC-6000-828 (12/92)

9413112.2596

9613442.2597

INTERNATIONAL TECHNOLOGY CORPORATION

Regional Office
2800 George Washington Way
Richland, Washington 99352

SAMPLE CHECK-IN LIST

(1 Per Shipping Container)

Date/Time Received 11-15-94 10:05 Client Name BHI

Project/Client # B94-083 Batch or Case # _____

Cooler ID (if noted on the outside of cooler) GWS141

1. Condition of shipping container? OK
2. Custody Seals on cooler intact? Yes ☑ No ☐
3. Custody Seals dated and signed? Yes ☑ No ☐
4. Chain of Custody record is taped on inside of cooler lid? Yes ☑ No ☐
5. Vermiculite/packing material is: Wet ☐ Dry ☑
6. Each sample is in a plastic bag? Yes ☐ No ☑
7. Number of sample containers in cooler: 34
8. Samples have: ____ tape ____ hazard labels
   ✓ custody seals ✓ appropriate sample labels
9. Samples are: ✓ in good condition ____ leaking
   ____ broken ____ have air bubbles
   ____ other
10. Coolant present? Yes ☑ No ☐

Sample temperature 3 °C

11. The following paperwork should be accounted for (N/A if not applicable): N/A
    Chain of Custody #'(s) _____
    Request for analysis #(s) _____
    Airbill # _____ Carrier _____
12. Have any anomalies been identified above? Yes ☐ No ☑
13. Memos have been initiated for all anomalies identified above? Yes ☐

Printed Name/Signature BBRUMFIELD BBrumfield Date/Time 11-15-94 10:05

FORM NO. LS-042, Rev.0, 2/94

9613442.2598

INTERNATIONAL TECHNOLOGY CORPORATION

Regional Office
2800 George Washington Way
Richland, Washington 99352

SAMPLE CHECK-IN LIST

(1 Per Shipping Container)

Date/Time Received 11-15-94 10:05 Client Name BHI

Project/Client # B94-083 Batch or Case # _____

Cooler ID (if noted on the outside of cooler) GWS 122

1. Condition of shipping container? OK
2. Custody Seals on cooler intact? Yes ☑ No ☐
3. Custody Seals dated and signed? Yes ☑ No ☐
4. Chain of Custody record is taped on inside of cooler lid? Yes ☑ No ☐
5. Vermiculite/packing material is: Wet ☐ Dry ☑
6. Each sample is in a plastic bag? Yes ☐ No ☑
7. Number of sample containers in cooler: 34
8. Samples have: ____ tape ____ hazard labels
   ✓ custody seals ✓ appropriate sample labels
9. Samples are: ✓ in good condition ____ leaking
   ____ broken ____ have air bubbles
   ____ other
10. Coolant present? Yes ☑ No ☐

Sample temperature 3 °C

11. The following paperwork should be accounted for (N/A if not applicable): N/A
    Chain of Custody #'(s) _____
    Request for analysis #(s) _____
    Airbill # _____ Carrier _____
12. Have any anomalies been identified above? Yes ☐ No ☑
13. Memos have been initiated for all anomalies identified above? Yes ☐

Printed Name/Signature BBRUMFIELD B Brumfield Date/Time 11-15-94 10:05

FORM NO. LS-042, Rev.0, 2/94

9613442.2599

SAMPLE STATUS REPORT FOR N 3769. RAD SCREEN 199-F6-1 TIME: 11/15/94 8:11
DISPATCHED: 11/ 7/94 16:37 SAMPLE HAS NOT BEEN SLURPED
RECEIVED: 11/14/94 16:30

EXT.	DETER.	RESULTS OR STATUS	OUT OF RANGE?	GOOD ANS?	CHARGE CODE
****	********	**********	***	***	******
4271	TOT-ACT	< 5.00000E 01 pCi/G	N	Y	XR5301

END OF REPORT

BOD825
BOD826 KT 11/15/94
BOD827

SAMPLE STATUS REPORT FOR N 3763. RAD SCREEN 199F543A TIME: 11/15/94 8:11
DISPATCHED: 11/ 7/94 16:36 SAMPLE HAS NOT BEEN SLURPED
RECEIVED: 11/14/94 16:31

EXT.	DETER.	RESULTS OR STATUS	OUT OF RANGE?	GOOD ANS?	CHARGE CODE
****	********	**********	***	***	******
4271	TOT-ACT	< 5.00000E 01 pCi/G	N	Y	XR5301

END OF REPORT

B0D807
B0D808 KT 11/15/94
B0D809

9613442.2601

SAMPLE STATUS REPORT FOR N 3776. RAD SCREEN , EQ BLK 1 TIME: 11/15/94 8:11
DISPATCHED: 11/ 7/94 16:37 SAMPLE HAS NOT BEEN SLURPED
RECEIVED: 11/14/94 16:30

EXT.	DETER.	RESULTS OR STATUS	OUT OF RANGE?	GOOD ANS?	CHARGE CODE
****	********	**********	***	***	******
4271	TOT-ACT	< 5.00000E 01 pCi/G	N	Y	XR5301

END OF REPORT

BOD852 KT 11/19/94
BOD853 ~~KT 11/14/94~~
BOD854

9613442.2602

SAMPLE STATUS REPORT FOR N 3779. RAD SCREEN FULLTRP2 TIME: 11/15/94 8:11
DISPATCHED: 11/ 7/94 16:37 SAMPLE HAS NOT BEEN SLURPED
RECEIVED: 11/14/94 16:30

EXT.	DETER.	RESULTS OR STATUS	OUT OF RANGE?	GOOD ANS?	CHARGE CODE
****	********	**********	***	***	******
4271	TOT-ACT	< 5.00000E 01 pCi/G	N	Y	XR5301

END OF REPORT

BOD861

BOD862 kr 11/15/94

BOD863

Contractor BHI	OFF-SITE PROPERTY CONTROL	CONTROL NO. (To be obtained from PROPERTY MANAGEMENT) V95-0-0073-26

PART I - TO BE COMPLETED BY ORIGINATOR

Department	Section	Unit
ER Eng Support	Field & Analytical Supp	ER Field Sampling

The following items are to be shipped from [X] Contractor [ ] Vendor

Routing [ ] Prepaid [ ] Collect

Shipped to
Company: Quanterra (IT)
Address: 2800 George Washington Way
City: Richland, WA 99352 State Zip Code
Country

Off-site Custodian

On-site Custodian Payroll No.

Qty.	Property No.	Description (Include Manufacture Name, Model, Serial No.)	Acquisition Cost
1 lbs		Sample #: B0D861, B0D862, B0D863, B0D825, B0D826, B0D827 Cooler ID: GWS-122 Polycooler with groundwater samples packed in wet ice and vermiculite	N/A
1 lbs		Sample #: B0D852, B0D853, B0D854, B0D807, B0D808, B0D809 Cooler ID: GWS-141 Polycooler with groundwater samples packed in wet ice and vermiculite	N/A

[ ] Classified [X] Unclassified [ ] Shipped Under DOE Contract [ ] Shipped Under Contractor's Use Permit Contract

Necessity for the off-site use of this property

[X] Required for Project Work. List Project No. 100-FR-3

[ ] Business Trip

[ ] Off-site Assignment

Bill of lading # NA

[ ] Shipment to Subcontractor. List Subcontract No.

[ ] Other (Please specify) Sampling supports RI/FS work in the 100 areas

BEST AVAILABLE COPY

CERTIFICATION OF THE RADIATION MONITORING RELEASE MUST BE SECURED THE SAME DAY THAT MATERIAL IS DELIVERED TO SHIPPING.

RM Clearance for Public Release	RM Survey No.	Date
[signature]	PS-OFF-0289	11-15-94

Location of and Contact for Property (Name/Phone No./Bldg./Area)
P. H. Butcher/ (509) 376-4388

Date Ready for Shipment	Cost Code to be Charged	Approximate Date This Property will be Returned
11/15/94	ITE 2072/PD3AA	

Originated By	Date	Authorized By	Date
K. Trapp/K. Trapp	11/15/94	K. Trapp/K. Trapp	11/15/94
Property Representative Signature	**Date**	**Property Management Approval**	**Date**
		[signature]	11/15/94

PART II - TO BE COMPLETED BY SHIPPING

Authorized Shipping Signature	Date

DISTRIBUTION (AFTER FINAL SIGNATURES)

White - Property Management Yellow - Shipping Green - Accounts Payable Pink - Originator Goldenrod - Property Management

*U.S. GPO: 1994-592-170/00029

BBrumfield 11-15-94 10:05 0051

111494B/ 1Q2

TENNELEC #2

SCREENING CALCULATION SPREADSHEET

all Cat I (R3) 11-14-94

Customer Code	Recieved Date		Screening Prep Date		Count Date	Mnts. Cntd	BACKGROUND Alpha	Beta	Mnts
WHC	11-14-94		11-14		11-1	10	12	251	240

	Customer ID WHC	Sample Matrix Solid/Liquid	Residue Wght mg	Vol. Anal. mg ml	Sample Size Gm L	SMPLE CNT DATA Hldr Num.	Total Counts Alpha	Total Counts Beta	Net Sample Counts/Minute Alpha	Net Sample Counts/Minute Beta	DPM / Aliquot Alpha	DPM / Aliquot Beta	uCi per Sample Alpha	uCi per Sample Beta	pCi / Gm or L Alpha	pCi / Gm or L Beta	1-sigma error pCi/ Gm or L Alpha	1-sigma error pCi/ Gm or L Beta	Category 1 Yes/No	Aliquot to Cat 1 Gm or L Alpha	Aliquot to Cat 1 Gm or L Beta
1,2,3	B0D810 1	LIQUID	0.7	10.0	1.0	40	4	21	0.35	1.05	1.32E+00	2.01E+00	5.9E-05	9.1E-05	5.9E+01	9.1E+01	53.37	43.21	Yes	1.7E+02	1.1E+03
4,5,6	B0D831 2	LIQUID	4.5	10.0	1.0	41	3	22	0.25	1.15	9.21E-01	2.29E+00	4.1E-05	1.0E-04	4.1E+01	1.0E+02	51.08	44.56	Yes	2.4E+02	9.7E+02
7,8,9	B0D840 3	LIQUID	9.1	10.0	1.0	42	9	392	0.85	38.15	1.46E+00	8.06E+01	6.6E-05	3.6E-03	6.6E+01	3.6E+03	54.19	187.63	Yes	1.5E+02	2.8E+01
10,11,12	B0D843 4	LIQUID	5.2	10.0	1.0	43	2	22	0.15	1.15	5.30E-01	2.36E+00	2.4E-05	1.1E-04	2.4E+01	1.1E+02	48.72	44.87	Yes	4.2E+02	9.4E+02
13,14,15	B0D858 5	LIQUID	0.8	10.0	1.0	44	1	14	0.05	0.35	1.76E-01	7.20E-01	8.0E-06	3.2E-05	8.0E+00	3.2E+01	46.46	36.32	Yes	1.2E+03	3.1E+03

Chem

Rad

H11307 chem

H11308 Rad

SDG W0312

9613442.2604

0052

111594E.WQ2

TENNELEC #2

SCREENING CALCULATION SPREADSHEET

all Cat I (R3) 11-15-94

Customer Code	Recieved Date		Screening Prep Date		Count Date	Mnts. Cntd	BACKGROUND Alpha	Beta	Mnts
WHC	1115			1115	1115	10	15	234	240

	Customer ID WHC	Sample Matrix Solid/Liquid	Residue Wght mg	Vol. Anal. mg ml	Sample Size Gm L	SMPLE CNT DATA Hldr Num.	Total Alpha	Counts Beta	Net Sample Counts/Minute Alpha	Beta	DPM / Aliquot Alpha	Beta	uCi per Sample Alpha	Beta	pCi / Gm or L Alpha	Beta	1-sigma error pCi/ Gm or L Alpha	Beta	Category 1 Yes/No	Aliquot to Cat 1 Gm or L Alpha	Beta
1,2,3	BOD807 1	LIQUID	1.0	10.0	1.0	3	6	33	0.54	2.33	1.99E+00	4.59E+00	8.9E-05	2.1E-04	8.9E+01	2.1E+02	56.07	53.93	Yes	1.1E+02	4.8E+02
4,5,6	BOD825 2	LIQUID	1.6	10.0	1.0	1	4	37	0.34	2.73	1.19E+00	5.57E+00	5.3E-05	2.5E-04	5.3E+01	2.5E+02	51.58	57.66	Yes	1.9E+02	4.0E+02
7,8,9	BOD852 3	LIQUID	0.2	10.0	1.0	4	0	18	-0.06	0.83	-2.8E-01	1.79E+00	0.0E+00	8.1E-05	-1.3E+01	8.1E+01	42.10	41.49	Yes	-7.8E+02	1.2E+03
10,11,12	BOD861 4	LIQUID	0.0	10.0	1.0	2	0	12	-0.06	0.23	-2.6E-01	5.19E-01	0.0E+00	2.3E-05	-1.1E+01	2.3E+01	42.31	34.35	Yes	-8.7E+02	4.3E+03

Chem Rad

4 11322 Chem

4 11323 Rad

SPK W0312

9613442.2605

9613442.2606

INTERNATIONAL TECHNOLOGY CORPORATION

ITAS Data Review Checklist
RADIOCHEMISTRY

Due 12/20/94

Work Order No(s): 411308, 411323 BHI Water

Lab Sample Numbers or SDG: W Ø312

Method/Test/Parameter: Alpha

Review Item	Yes (✓)	No (✓)	N/A (✓)	2nd Level review (✓)
A. Calibration 1. Is the calibration documentation included where applicable?	✓			✓
B. Sample Analysis 1. Are the sample Yields within acceptance criteria?			✓	✓
2. Were all sample holding times met?	✓			✓
C. QC Samples 1. Is the Blank Yield within acceptance criteria?			✓	✓
2. Is the Minimum Detectable Activity for the Blank result ≤ the Contract Detection Limit?	✓			✓
3. Is the Blank result ≤ the Contract Detection Limit?	✓			✓
4. Is the Blank result greater than the Contract Detection Limit but the Sample result less than the Contract Detection Limit?			✓	✓
5. Is the LCS result within acceptance criteria?	✓			✓
6. Is the LCS yield within acceptance criteria?			✓	✓
7. Is the LCS Minimum Detectable Activity less than or equal to the Contract Detection Limit?	✓			✓
8. MS/MSD results and yield meet acceptance criteria?			✓	✓
9. Duplicate sample results and yield meet acceptance criteria?	✓			✓
D. Other 1. Are all nonconformances included and noted?			✓	✓
2. Are all required forms filled out?	✓			✓
3. Correct methodology used?	✓			✓
4. Transcription checked?	12/16/94 JT			12/18/94 WDF
5. Were all calculations checked at a minimum frequency?	✓			✓
6. Units checked?	✓			✓

Comments on any "No" response: Sample 11308-03 MDA > CL due to high part. wts. Accept all data. Vol reduced 11308-03 to 100mL Activity >> MDA.

Analyst: W. MacKillop Date: 12/18/94

Second Level Review: Suzy Haines Date: 12/20/94

Form No: LS-038, 3/94, Rev 2

0054

9613442.2607

BATCH SUMMARY/CHAIN OF CUSTODY

ANALYSIS ALPHA MATRIX WATER DUE DATE 12-20-94

WORK ORDER	SEQUENCE #	CLIENT	COMMENTS
L 11308	-1B	BHI	QC BATCH REAGENT BLANK
L N/A	-1X		QC BATCH MATRIX BLANK
L 11308	-1M or 1S (circle)		QC BATCH MATRIX/REAGENT SPIKE
L N/A	-2M or 2S (circle)		QC BATCH MATRIX/REAGENT SPIKE
F 11308	-01		Duplicate of Sample # N/A
411308	-01-05		
411323	-01-04		
-	-		
	-		
	-		
	-		
	-	12/18/94	
	- WFM		
	-		
	-		
	-		
	-		

Batched and QC updated by [illegible] on 12-7-94 Rec'd in C.R. by AB on 12-8-94

Rec'd in Prep Lab by [illegible] on 12-7-94 Data Reviewed and anal. Prep stored WFM on 12/18/94

Rec'd in Sep Lab by N/A on N/A

Rec'd in Sep lab by N/A on ↓ Samples Disposed by _____ on _____

Original batch sheet and complete calculation file to be filed with the FIRST listed work order number.

FORM NO.: RC-52, 1/94, Rev. 4

9613442.2608 *** ALPHA ***

B94-083

CHAIN-OF-CUSTODY BATCH ANALYSIS RECORD

14-Nov-1994
Page 1

CUSTOMER: BHI

SAMPLE DELIVERY GROUP W0312

MATRIX : WATER

BATCH NUMBER 11-308

	ITAS ID	DUP	ACCOUNT	CUSTOMER ID	COMMENTS
	L1130818 L1130815				
1)	41130801 F1130801		BHI	BOD810	
2)	41130802		BHI	BOD831	
3)	41130803		BHI	BOD840	
4)	41130804		BHI	BOD843	
5)	41130805		BHI	BOD858	

ACTIONS (Initial & Date)

1) INITIATED 11/14/94

2) PREP LAB RECEIVED _____

3) SAMPLE REMAINDER STORED _____

4) SEPARATION LAB RECEIVED _____

5) COUNTING/MEASUREMENT LAB _____

6) DATA REVIEWED AND ANALYTICAL PREP STORED _____

0050

9613442.2609 *** ALPHA ***

12/20/94
894-083

CHAIN-OF-CUSTODY BATCH ANALYSIS RECORD

15-Nov-1994
Page 1

CUSTOMER: BHI

SAMPLE DELIVERY GROUP W0312

MATRIX : WATER

BATCH NUMBER 11-323

	ITAS ID	DUP	ACCOUNT	CUSTOMER ID	COMMENTS
1)	41132301		BHI	BOD807	
2)	41132302		BHI	BOD825	
3)	41132303		BHI	BOD852	
4)	41132304		BHI	BOD861	

ACTIONS (Initial & Date)

1) INITIATED 11/15/94

2) PREP LAB RECEIVED _____

3) SAMPLE REMAINDER STORED _____

4) SEPARATION LAB RECEIVED _____

5) COUNTING/MEASUREMENT LAB _____

6) DATA REVIEWED AND ANALYTICAL PREP STORED _____

9613442.2610

INTERNATIONAL TECHNOLOGY CORPORATION

ITAS Data Review Checklist
RADIOCHEMISTRY

Work Order No(s): 411308, 411323 B/H1 Due 12/20

Lab Sample Numbers or SDG: WO 312 -

Method/Test/Parameter: BETA

	Review item	Yes (✓)	No (✓)	N/A (✓)	2nd Level review (✓)
A. 1.	**Calibration** Is the calibration documentation included where applicable?			✓	✓
B. 1.	**Sample Analysis** Are the sample yields within acceptance criteria?	TK 12-14-94		✓	✓
2.	Were all sample holding times met?	✓			✓
C. 1.	**QC Samples** Is the Blank Yield within acceptance criteria?			✓	✓
2.	Is the Minimum Detectable Activity for the Blank result ≤ the Contract Detection Limit?	✓			✓
3.	Is the Blank result ≤ the Contract Detection Limit?	✓			✓
4.	Is the Blank result greater than the Contract Detection Limit but the Sample result less than the Contract Detection Limit?			✓	✓
5.	Is the LCS result within acceptance criteria?	✓			✓
6.	Is the LCS yield within acceptance criteria?			✓	✓
7.	Is the LCS Minimum Detectable Activity less than or equal to the Contract Detection Limit?	✓			✓
8.	MS/MSD results and yield meet acceptance criteria?			✓	✓
9.	Duplicate sample results and yield meet acceptance criteria?	✓			✓
D. 1.	**Other** Are all nonconformances included and noted?	✓			✓
2.	Are all required forms filled out?	✓			✓
3.	Correct methodology used?	✓			✓
4.	Transcription checked?	SP ✓			TK
5.	Were all calculations checked at a minimum frequency?	✓			✓
6.	Units checked?	✓			✓

Comments on any "No" response:

Analyst: Jack T. Kimberman Date: 12-14-94

Second Level Review: Shay Davies Date: 12/15/94

Form No: LS-038, 3/94, Rev 2

Report Recount Result for spike.

9613442.2611

BATCH SUMMARY/CHAIN OF CUSTODY

ANALYSIS BETA MATRIX WATER DUE DATE 12-20-94

WORK ORDER	SEQUENCE #	CLIENT	COMMENTS
L 11308	-1B	BHI	QC BATCH REAGENT BLANK
L	-1X		QC BATCH MATRIX BLANK
L 11308	-1M or 1S (circle)		QC BATCH MATRIX/REAGENT SPIKE
L	-2M or 2S (circle)		QC BATCH MATRIX/REAGENT SPIKE
F 11308	-01		Duplicate of Sample # 41130801
411308	-01-05		EQA42407
411323	-01-04		4.5253 ± .063862
-	-		22.627 ± 0.31931 pCi/L
	-		
	-		
	-		
	-		
	-		
	-		
	-		
	-		
	-		

Batched and QC updated by [illegible] on 12-7-94 Rec'd in C.R. by AB on 12-8-94

Rec'd in Prep Lab by [illegible] on 12-7-94 Data Reviewed and anal. Prep stored [illegible] on 12-14-94

Rec'd in Sep Lab by N/A on

Rec'd in Sep lab by N/A on Samples Disposed by on

Original batch sheet and complete calculation file to be filed with the FIRST listed work order number.

FORM NO.: RC-52, 1/94, Rev. 4

0050

9613442.2612

INTERNATIONAL TECHNOLOGY CORPORATION

DUE DATE 12/20

REANALYSIS / RECOUNT

CHAIN-OF-CUSTODY BATCH ANALYSIS RECORD

ANALYSIS BETA

NAME/DATE JLP / 12/20

CUSTOMER Bitl

SAMPLE DELIVERY GROUP

MATRIX H20

BATCH NUMBER

ITAS ID	CUSTOMER ID	COMMENTS
1) L1130815		
2)		
3)		
4)		
5)		
6)		
7)		
8)		
9)		
10)		

REANALYSIS

JLP 12/13/94

REFERENCED QC

ITAS ID - BLANK

ITAS ID - SPIKE

CLIENT CODE

ACTIONS (Initial & Date)

PREP LAB RECEIVED

SAMPLE REMAINDER RETURNED TO SCG ☐ (CHECK ONE)

NO SAMPLE REMAINING ☐

SEPARATION LAB

COUNTING/MEASUREMENT

DATA REVIEWED

ANALYTICAL PREP STORED

RECOUNT

ACTIONS (Initial & Date)

COUNTING/MEASUREMENT AS 12-13-9

DATA REVIEWED JJK 12-14-94

ANALYTICAL PREP STORED

ADDITIONAL COMMENTS:

RC-048 12/92 REV 2

0060

B94-083

9613442.2613** BETA **

CHAIN-OF-CUSTODY BATCH ANALYSIS RECORD

14-Nov-1994
Page 1

CUSTOMER: BHI

SAMPLE DELIVERY GROUP W0312

MATRIX : WATER

BATCH NUMBER 11-308

	ITAS ID	DUP	ACCOUNT	CUSTOMER ID	COMMENTS
	L1130818 L1130815				
1)	41130801 F1130801		BHI	BOD810	
2)	41130802		BHI	BOD831	
3)	41130803		BHI	BOD840	
4)	41130804		BHI	BOD843	
5)	41130805		BHI	BOD858	

ACTIONS (Initial & Date)

1) INITIATED 11/14/94

2) PREP LAB RECEIVED _____

3) SAMPLE REMAINDER STORED _____

4) SEPARATION LAB RECEIVED _____

5) COUNTING/MEASUREMENT LAB _____

6) DATA REVIEWED AND ANALYTICAL PREP STORED _____

0061

12/20/94
B94-083

9613442.2614** BETA ***

CHAIN-OF-CUSTODY BATCH ANALYSIS RECORD

15-Nov-1994
Page 1

CUSTOMER: BHI

SAMPLE DELIVERY GROUP W0312

MATRIX : WATER

BATCH NUMBER 11-323

	ITAS ID	DUP	ACCOUNT	CUSTOMER ID	COMMENTS
1)	41132301		BHI	BOD807	
2)	41132302		BHI	BOD825	
3)	41132303		BHI	BOD852	
4)	41132304		BHI	BOD861	

ACTIONS (Initial & Date)

1) INITIATED 11/15/94

2) PREP LAB RECEIVED _____

3) SAMPLE REMAINDER STORED _____

4) SEPARATION LAB RECEIVED _____

5) COUNTING/MEASUREMENT LAB _____

6) DATA REVIEWED AND ANALYTICAL PREP STORED _____

9613442.2615

0591

INTERNATIONAL TECHNOLOGY CORPORATION

LOG #: RD-94-_____ page 1 of 2

ITAS-Richland
LABORATORY NONCONFORMANCE MEMO (NCM)

PROJECT ID (Name/Number): BHI W0312

NCM INITIATED BY (Name/Date): Joel T Kamgona 12-14-94

PARAMETER(S): Beta

SAMPLE NUMBER(S) AFFECTED: L113081S

MATRIX: Water

AREA: ☐ SHIP/REC ☒ RADIOCHEM ☐ COUNTING ☐ BIOASSAY ☐ DATA VERIF ☐ REPORTING ☐ OTHER:

NONCONFORMANCE [check appropriate item(s)]:

1. ☐ Not enough sample received for proper analysis.
2. ☐ Holding time exceeded by _____ days due to:
   - 2.1 ☐ CATEGORY I: Out of Laboratory Control
     - ☐ Holding time expired at receipt.
   - 2.2. ☐ CATEGORY II: Laboratory Dependent
     - ☐ work backlog ☐ instrument failure
     - ☐ communication ☐ other (see #10)
   - 2.3. ☐ CATEGORY III: Laboratory Reruns
     - 2.3.1 ☐ *QA/QC:*
       - ☐ surrogates ☐ internal standards
       - ☐ spike recovenes ☐ blank contamination
     - 2.3.2. ☐ *CONFIRMATION:*
       - ☐ second column ☐ contamination check
       - ☐ other (see #10)
     - 2.3.3 ☐ *DILUTION:*
       - ☐ over calibration ☐ under calibration
       - ☐ other (see #10)
     - 2.3.4. ☐ *OTHER: (see #10)*
3. ☐ Sample lost during extraction/analysis: no re-prep or re-analysis possible.
4. ☐ QC data reported to client outside of:
   - ☐ method limits ☐ internal limits
   - ☐ QAPP limits ☐ contract limits
   - ☐ regulatory limits ☐ blank criteria
5. ☐ Incorrect procedure(s) used. (See #10)
6. ☐ Invalid instrument calibration. (See #10)
7. ☐ Incorrect/incomplete data reported to client. (See #10)
8. ☐ Reported detection limit(s) higher than:
   - ☐ method limits ☐ QAPP limits
   - ☐ contract limits ☐ other (see #10)

   Due to:
   - ☐ sample matrix ☐ insufficient sample
   - ☐ instrumentation ☐ other (see #10)
9. ☒ Other (specify): SPIKE RECOVERED — 128% recovery
10. ☐ Comments/Explanation:

NOTIFICATION [check appropriate item(s)]:

1. ☐ Client notified by (name and date):_____
   - ☐ in writing ☐ by FAX
   - ☐ by phone ☐ Other (explain)
2. ☐ Client's name _____ and response:
   - ☐ process "as is" ☐ resample
   - ☐ on hold til ____ ☐ Other (explain)

PROJECT MANAGER (signature & date): Suz Jones 12/15/94

FURTHER ACTION REQUIRED, SEE PAGE 2 OF 2

0063

9613442.2616

0591

IT CORPORATION

LOG #: RD-94-_____ page 2 of 2

CORRECTIVE ACTION

☒ ROOT CAUSE: INITIALS/DATE JK 12-14-94

suspect counting statistics

☒ CORRECTIVE ACTION: INITIALS/DATE JK 12-14-94

Recount data accepted 105% recovery

☐ RESPONSIBILITY FOR PERFORMING CORRECTIVE ACTION ASSIGNED TO:

☐ ACTIONS TO PREVENT RECURRENCE: INITIALS/DATE

FIRST LEVEL SUPERVISOR: Jed Henson DATE: 12-14-94

RESPONSIBLE MANAGER: Lee Madkins DATE: 12/15/94

QC REVIEW

☐ NONCONFORMANCE ☐ DEFICIENCY ☒ RERUN

☐ FURTHER ACTION REQUIRED:

ASSIGNED TO

QC COORDINATOR: C Black DATE: 12-15-94

CORRECTIVE ACTION VERIFICATION

☒ VERIFIED ☐ CANNOT VERIFY (specify reason)

REASON:

NCM CLOSURE

QC COORDINATOR: C Black DATE: 12-15-94

0064

SIGNED ORIGINAL MUST BE RETAINED IN FILE: ☐ QUALITY/OPERATIONS FILE ☒ PROJECT FILE

9613442.2617

INTERNATIONAL TECHNOLOGY CORPORATION

ITAS Data Review Checklist
RADIOCHEMISTRY

Work Order No(s): 411308, 411323 BHI Water

Lab Sample Numbers or SDG: W0312

Method/Test/Parameter: Total Sr

	Review Item	Yes (✓)	No (✓)	N/A (✓)	2nd Level review (✓)
A. 1.	**Calibration** Is the calibration documentation included where applicable?			✓	✓
B. 1.	**Sample Analysis** Are the sample Yields within acceptance criteria?	X			✓
2.	Were all sample holding times met?			✓	✓
C. 1.	**QC Samples** Is the Blank Yield within acceptance criteria?	X			✓
2.	Is the Minimum Detectable Activity for the Blank result ≤ the Contract Detection Limit?	X			✓
3.	Is the Blank result ≤ the Contract Detection Limit?	X			✓
4.	Is the Blank result greater than the Contract Detection Limit but the Sample result less than the Contract Detection Limit?			X	✓
5.	Is the LCS result within acceptance criteria?	X			✓
6.	Is the LCS yield within acceptance criteria?	X			✓
7.	Is the LCS Minimum Detectable Activity less than or equal to the Contract Detection Limit?	X			✓
8.	MS/MSD results and yield meet acceptance criteria?			X	✓
9.	Duplicate sample results and yield meet acceptance criteria?	X			✓
D. 1.	Other Are all nonconformances included and noted?	X			✓
2.	Are all required forms filled out?	X			✓
3.	Correct methodology used?	X			✓
4.	Transcription checked?	11/21/94 JM			✓
5.	Were all calculations checked at a minimum frequency?	X			✓
6.	Units checked?	X			✓

Comments on any "No" response:

Analyst: [signature] Date: 11/21/94

Second Level Review: [signature] Date: 12/13/94

Form No: LS-038, 3/94, Rev 2

0065

9613442.2618

BATCH SUMMARY/CHAIN OF CUSTODY

ANALYSIS Total Strontium MATRIX Water DUE DATE 12/19/94

W0317

WORK ORDER	SEQUENCE #	CLIENT	COMMENTS
L 11308	-1B	BHI	QC BATCH REAGENT BLANK
L	-1X		QC BATCH MATRIX BLANK
L 11308	-1M or 1S (circle)		QC BATCH MATRIX/REAGENT SPIKE EQL-1170 30.023 ± .42348 DPM
L	-2M or 2S (circle)		QC BATCH MATRIX/REAGENT SPIKE
F 1132301	-		Duplicate of Sample #
41130801	-5		W0312
41132301	-4		
-	-		
	-		
	-		
	-		
	-		
	-		
	-		
	-		
	-		
	-		KG 11/16/94

Batched and QC updated by KG on 11/16/94 Rec'd in C.R. by OR on 18 nov 94

Rec'd in Prep Lab by KG on 11/16/94 Data Reviewed and anal. Prep stored SE on 11/21/94

Rec'd in Sep Lab by KG on 11/17/94

Rec'd in Sep lab by KG on 11/17/94 Samples Disposed by _____ on _____

Original batch sheet and complete calculation file to be filed with the FIRST listed work order number.

FORM NO.: RC-52, 1/94, Rev. 4

0066

B94-083

9613442.2619 *** TOTAL-SR ***

CHAIN-OF-CUSTODY BATCH ANALYSIS RECORD

14-Nov-1994
Page 1

CUSTOMER: BHI

SAMPLE DELIVERY GROUP W0312

MATRIX : WATER

BATCH NUMBER 11-308

	ITAS ID	DUP	ACCOUNT	CUSTOMER ID	COMMENTS
1)	41130801		BHI	BOD810	
2)	41130802		BHI	BOD831	
3)	41130803		BHI	BOD840	
4)	41130804		BHI	BOD843	
5)	41130805		BHI	BOD858	

ACTIONS (Initial & Date)

1) INITIATED 11/14/94

2) PREP LAB RECEIVED _____

3) SAMPLE REMAINDER STORED _____

4) SEPARATION LAB RECEIVED _____

5) COUNTING/MEASUREMENT LAB OD 18 Nov 94

6) DATA REVIEWED AND ANALYTICAL PREP STORED _____

0067

12/20/94
894-083

9613442.2620 *** TOTAL-SR ***

CHAIN-OF-CUSTODY BATCH ANALYSIS RECORD

15-Nov-1994
Page 1.

CUSTOMER: BHI

SAMPLE DELIVERY GROUP W0312

MATRIX : WATER

BATCH NUMBER 11-323

	ITAS ID	DUP	ACCOUNT	CUSTOMER ID	COMMENTS
1)	41132301		BHI	BOD807	
2)	41132302		BHI	BOD825	
3)	41132303		BHI	BOD852	
4)	41132304		BHI	BOD861	

ACTIONS (Initial & Date)

1) INITIATED 11/15/94

2) PREP LAB RECEIVED _____

3) SAMPLE REMAINDER STORED _____

4) SEPARATION LAB RECEIVED _____

5) COUNTING/MEASUREMENT LAB OP 18 Nov 94

6) DATA REVIEWED AND ANALYTICAL PREP STORED _____

0063

BATCH SUMMARY/CHAIN OF CUSTODY

ANALYSIS C-14 MATRIX WATER DUE DATE 12-20-94

W0312

WORK ORDER	SEQUENCE #	CLIENT	COMMENTS
L 11308	~~-1B~~ 1N-2N DM 11-18-94	BHI	QC BATCH REAGENT BLANK
L 11308	-1X		QC BATCH MATRIX BLANK
L 11308	-1M or 1S (circle)		QC BATCH MATRIX/REAGENT SPIKE IQFL056 - 20.248 ± .67851 DPM
L	-2M or 2S (circle)		QC BATCH MATRIX/REAGENT SPIKE
F 1130802	-		Duplicate of Sample #
11-308	- 1-5		W0312
11-323	- 1-4		
	-		
	-		
	-		
	-		
	-		
	-		
	-		DM 11-18-94
	-		
	-		
	-		

Batched and QC updated by DM on 11-18-94 Rec'd in C.R. by OP on 12/2/94

Rec'd in Prep Lab by DM on 11-15-94 Data Reviewed and anal. Prep stored SP on 12/8/94.

Rec'd in Sep Lab by DM on 11-15-94

Rec'd in Sep lab by _____ on _____ Samples Disposed by _____ on _____

Original batch sheet and complete calculation file to be filed with the FIRST listed work order number.

FORM NO.: RC-52, 1/94, Rev. 4

0063

B94-083

9613442.2622 *** C-14 ***

CHAIN-OF-CUSTODY BATCH ANALYSIS RECORD

14-Nov-1994
Page 1

CUSTOMER: BHI

SAMPLE DELIVERY GROUP W0312

MATRIX : WATER

BATCH NUMBER 11-308

	ITAS ID	DUP	ACCOUNT	CUSTOMER ID	COMMENTS
1)	41130801		BHI	BOD810	
2)	41130802 F1130802		BHI	BOD831	
3)	41130803		BHI	BOD840	
4)	41130804		BHI	BOD843	
5)	41130805		BHI	BOD858	

ACTIONS (Initial & Date)

1) INITIATED B 11/14/94

2) PREP LAB RECEIVED 11-15-94 DM

3) SAMPLE REMAINDER STORED _____

4) SEPARATION LAB RECEIVED _____

5) COUNTING/MEASUREMENT LAB OD 12/2/94

6) DATA REVIEWED AND ANALYTICAL PREP STORED _____

0070

12/20/94

B94-083

9613442.2623 *** C-14 ***

CHAIN-OF-CUSTODY BATCH ANALYSIS RECORD

15-Nov-1994
Page 1

CUSTOMER: BHI

SAMPLE DELIVERY GROUP W0312

MATRIX : WATER

BATCH NUMBER 11-323

	ITAS ID	DUP	ACCOUNT	CUSTOMER ID	COMMENTS
1)	41132301		BHI	BOD807	
2)	41132302		BHI	BOD825	
3)	41132303		BHI	BOD852	
4)	41132304		BHI	BOD861	

ACTIONS (Initial & Date)

1) INITIATED 11/15/94

2) PREP LAB RECEIVED 11-17-94 DM

3) SAMPLE REMAINDER STORED _____

4) SEPARATION LAB RECEIVED _____

5) COUNTING/MEASUREMENT LAB OD 12/2/94

6) DATA REVIEWED AND ANALYTICAL PREP STORED _____

0071

9613442.2624

INTERNATIONAL TECHNOLOGY CORPORATION

ITAS Data Review Checklist
RADIOCHEMISTRY

Work Order No(s): 411308, 411323 BHI Water

Lab Sample Numbers or SDG: W0312

Method/Test/Parameter: Carbon 14

	Review Item	Yes (✓)	No (✓)	N/A (✓)	2nd Level review (✓)
A. 1	**Calibration** Is the calibration documentation included where applicable?			X	✓
B. 1	**Sample Analysis** Are the sample Yields within acceptance criteria?			X	✓
2.	Were all sample holding times met?			X	✓
C. 1	**QC Samples** Is the Blank Yield within acceptance criteria?	X			✓
2.	Is the Minimum Detectable Activity for the Blank result ≤ the Contract Detection Limit?	X			✓
3.	Is the Blank result ≤ the Contract Detection Limit?	X			✓
4.	Is the Blank result greater than the Contract Detection Limit but the Sample result less than the Contract Detection Limit?			X	✓
5.	Is the LCS result within acceptance criteria?	X			✓
6.	Is the LCS yield within acceptance criteria?			X	✓
7.	Is the LCS Minimum Detectable Activity less than or equal to the Contract Detection Limit?	X			✓
8.	MS/MSD results and yield meet acceptance criteria?	~~X~~	~~N/A~~	X	✓
9.	Duplicate sample results and yield meet acceptance criteria?	X			✓
D. 1	**Other** Are all nonconformances included and noted?	X			✓
2.	Are all required forms filled out?	X			✓
3.	Correct methodology used?	X			✓
4.	Transcription checked?	12/6/94 SM			✓
5.	Were all calculations checked at a minimum frequency?	X			✓
6.	Units checked?	X			✓

Comments on any "No" response:

Analyst: [signature] Date: 12/8/94

Second Level Review: [signature] Date: 12/14/94

Form No: LS-038, 3/94, Rev 2

0073

9613442 2625

W0312

IT BATCH SUMMARY/CHAIN OF CUSTODY

ANALYSIS Tritium MATRIX Water DUE DATE 12/20/94

WORK ORDER	SEQUENCE #	CLIENT	COMMENTS
L 110381N-3N	~~-1B~~ 12/14/94	BHI	QC BATCH REAGENT BLANK
L 11038	-1X		QC BATCH MATRIX BLANK
L 11038 11038	-1M or 1S (circle)		QC BATCH MATRIX/REAGENT SPIKE 31.17 ± 0.293 # 3219
L	-2M or 2S (circle) 1S		QC BATCH MATRIX/REAGENT SPIKE EQMJ 233/29.987 ± .2973
F 1130801 1132302	-		Duplicate of Sample # 4 1130801 " " " 4 1132302
41130801-5	-		
41132301-4	-		
L 113081N	- 3N		Instrument blanks
L113081M - #3219	- 31.17 ± 0.293		
	-		
	-		
L113C815 EQMJ233	- 29.987 ± .2973		
	-		
	-		
	-		
	-		
	-		

Batched and QC updated by [illegible] on 12/14/94 Rec'd in C.R. by AS on 12-14-94

Rec'd in Prep Lab by [illegible] on 12/14/94 Data Reviewed and anal. Prep stored SZ on 12/21/94

Rec'd in Sep Lab by NA on

Rec'd in Sep lab by [illegible] on Samples Disposed by on

Original batch sheet and complete calculation file to be filed with the FIRST listed work order number.

FORM NO.: RC-52, 1/94, Rev. 4

0073

B94-083

9613442.2626

*** TRITIUM ***

CHAIN-OF-CUSTODY BATCH ANALYSIS RECORD

14-Nov-1994
Page 1

CUSTOMER: BHI

SAMPLE DELIVERY GROUP W0312

MATRIX : WATER

BATCH NUMBER 11808

	ITAS ID	DUP	ACCOUNT	CUSTOMER ID	COMMENTS
	L113081X				
	L113081m		31.17 ± 0.293#	3219	
1)	41130801		BHI	BOD810	
	F113080 1 dup				
2)	41130802		BHI	BOD831	
3)	41130803		BHI	BOD840	
4)	41130804		BHI	BOD843	
5)	41130805		BHI	BOD858	
	L113081N				
	L113082N				
	L113083N				

ACTIONS (Initial & Date)

1) INITIATED 11/14/94

2) PREP LAB RECEIVED 12/14/94

3) SAMPLE REMAINDER STORED _____

4) SEPARATION LAB RECEIVED _____

5) COUNTING/MEASUREMENT LAB _____

6) DATA REVIEWED AND ANALYTICAL PREP STORED _____

0074

12/20/94

394-083

9613442.2627 *** TRITIUM ***

CHAIN-OF-CUSTODY BATCH ANALYSIS RECORD

15-Nov-1994
Page 1

CUSTOMER: BHI

SAMPLE DELIVERY GROUP W0312

MATRIX : WATER

BATCH NUMBER 11-323

	ITAS ID	DUP	ACCOUNT	CUSTOMER ID	COMMENTS
1)	41132301		BHI	BOD807	
2)	41132302		BHI	BOD825	
	F 11 32 302 dup				
3)	41132303		BHI	BOD852	
4)	41132304		BHI	BOD861	

ACTIONS (Initial & Date)

1) INITIATED 11/15/94

2) PREP LAB RECEIVED 12/4/94 WJ

3) SAMPLE REMAINDER STORED _____

4) SEPARATION LAB RECEIVED _____

5) COUNTING/MEASUREMENT LAB _____

6) DATA REVIEWED AND ANALYTICAL PREP STORED _____

0075

9613442.2628

INTERNATIONAL TECHNOLOGY CORPORATION

ITAS Data Review Checklist
RADIOCHEMISTRY

Work Order No(s): 411308, 411323

Lab Sample Numbers or SDG: W0312 -

Method/Test/Parameter: Tritium

	Review Item	Yes (✓)	No (✓)	N/A (✓)	2nd Level review (✓)
A. 1	**Calibration** Is the calibration documentation included where applicable?			X	✓
B. 1	**Sample Analysis** Are the sample Yields within acceptance criteria?			X	✓
2.	Were all sample holding times met?			X	✓
C. 1	**QC Samples** Is the Blank Yield within acceptance criteria?			X	✓
2.	Is the Minimum Detectable Activity for the Blank result ≤ the Contract Detection Limit?	X			✓
3.	Is the Blank result ≤ the Contract Detection Limit?	X			✓
4.	Is the Blank result greater than the Contract Detection Limit but the Sample result less than the Contract Detection Limit?			X	✓
5.	Is the LCS result within acceptance criteria?	X			✓
6.	Is the LCS yield within acceptance criteria?			X	✓
7.	Is the LCS Minimum Detectable Activity less than or equal to the Contract Detection Limit?	X			✓
8.	MS/MSD results and yield meet acceptance criteria?			X	✓
9.	Duplicate sample results and yield meet acceptance criteria?	X			✓
D. 1	**Other** Are all nonconformances included and noted?	X			✓
2.	Are all required forms filled out?	X			✓
3.	Correct methodology used?	X			✓
4.	Transcription checked?	12/20/94 JM			✓
5.	Were all calculations checked at a minimum frequency?	X			✓
6.	Units checked?	X			✓

Comments on any "No" response:

Analyst: Steven E. Rutland Date: 12/21/94

Second Level Review: Suzy Davies Date: 12/29/94

Form No: LS-038, 3/94, Rev 2

9613442.2629

Quanterra
Environmental Services

Quanterra Incorporated
2800 George Washington Way
Richland, Washington 99352

509 375-3131 Telephone
509 375-5590 Fax

December 30, 1994

DEC 1994
RECEIVED
Data
Log In

Joan Kessner
Buyer's Technical Representative
Bechtel Hanford
P.O. Box 1970
2355 Stevens Drive
Richland, WA 99352

Reference: Contract MPV-SVV-239000.

Dear Ms. Kessner:

Accompanying this letter are the Data Package Deliverables and Diskette Deliverables for the Radiochemical analyses on the following BHI samples:

SDG NUMBER	SAF NUMBER
W0312	B94-083
W0313	B94-014

If you have any questions regarding this data package or require any additional information please contact me at 375-3131.

Sincerely,

Jodie Carnes
Document Control Officer

Receipt of this letter and the package are acknowledged by:

Doris T. Ayres — 12-30-94 — 3:15pm.
Name — Date — Time

XC: Vicki Parr
Van Pettey
File

9613442.2630

Quanterra Environmental Services

Quanterra Incorporated
2800 George Washington Way
Richland, Washington 99352

509 375-3131 Telephone
509 375-5590 Fax

Analytical Data Package Prepared For

Westinghouse/Bechtel Hanford

Radiochemical Analysis By

Quanterra Environmental Services
Richland Laboratory

DEC 1994
RECEIVED
Date
Log No

Sample Delivery Group Number: W0312

CLIENT ID NUMBER	QUANTERRA ID NUMBER
B0D810	41130801
B0D831	41130802
B0D840	41130803
B0D843	41130804
B0D858	41130805
B0D807	41132301
B0D825	41132302
B0D852	41132303
B0D861	41132304

RECORD COPY

TABLE OF CONTENTS

Lab ID : QTESRL
WO #: 411308,411323
SDG #: W0312

	PAGE #
PACKAGE SUMMARY	0001-0022
Table of Contents	
Certificate of Analysis	
CHAIN OF CUSTODY	0024-0076
SAMPLE RECEIPT DOCUMENTATION	
Chain of Custody	
Sample Check-In Form	
Screening Results	
GAS PROPORTIONAL COUNTING	0077-0187
GROSS ALPHA	
SAMPLE AND QC DATA	0073-0101
STANDARDS TRACEABILITY	0102-0110
GROSS BETA	
SAMPLE AND QC DATA	0111-0137
STANDARDS TRACEABILITY	0138-0146
TOTAL STRONTIUM	
SAMPLE AND QC DATA	0147-0169
STANDARDS TRACEABILITY	0170-0186
LIQUID SCINTILLATION	0187-0236
CARBON 14	
SAMPLE AND QC DATA	0188-0206
STANDARDS TRACEABILITY	0207-0213

TRITIUM

SAMPLE AND QC DATA 0214-0241
STANDARDS TRACEABILITY 0234-0241