START
B07B11-TMA-308
000002
0045421
OCT 1996 RECEIVED LDMC

CASE NARRATIVE

LABORATORY : TMA/ARLI

CASE : 09-060

CONTRACT ID : WESTINGHOUSE HANFORD COMPANY

SDG RECEIPT DATE : September 22, 1992

1.0 DESCRIPTION OF CASE :

Four water samples were analyzed for TCL Organics-Volatiles, Semivolatiles, Pesticides/PCBs according to the USEPA Contract Laboratory Program (CLP) Statement of Work for Organic Analysis, Revision OLM01.8.

2.0 SAMPLE LIST :

WESTINGHOUSE ID	LAB ID	ANALYSIS REQUESTED	MATRIX	pH
B07B11	A2-09-060-01A	V	WATER	7
B07B11 MS	A2-09-060-01B	V	WATER	7
B07B11 MSD	A2-09-060-01C	V	WATER	7
B07B11	A2-09-060-01D	SV & P	WATER	
B07B11	A2-09-060-01E	SV	WATER	
B07B11	A2-09-060-01F	SV	WATER	
B07B21	A2-09-060-02A	V	WATER	7
B07B21	A2-09-060-02B	SV & P	WATER	
B07B21 MS	A2-09-060-02C	P	WATER	
B07B21 MSD	A2-09-060-02D	P	WATER	
B07B15	A2-09-060-03A	V	WATER	7
B07B25	A2-09-060-04A	V	WATER	7

3.0 COMMENTS :

3.1 SHIPPING AND DOCUMENTATION :

The samples were received unbroken and properly documented.

3.2 ANALYSIS

3.2.1 VOLATILE ANALYSIS COMMENTS :

LOW LEVEL WATER :

The samples were analyzed within the CLP SOW holding times.

All of the QC results were within the limits specified by the EPA CLP SOW.

TUNES :

All of the BFB tunes are injected directly into the GC/MS instrument.

3.2.2 SEMIVOLATILE ANALYSIS COMMENTS :

LOW LEVEL WATER :

The samples were extracted and analyzed within the CLP SOW holding times.

All of the other QC results were within the limits specified by the EPA CLP SOW.

PESTICIDE/PCB ANALYSIS :

SEQUENCE NOTES :

The sequence was started on 10/8/92 and analyzed in accordance with the EPA CLP SOW. The sequence was analyzed by single injection into a dual column system. The sequence met all the QC criteria specified in the CLP SOW.

The Chromatograms are presented in the manner consistent with the capabilities of the Nelson 2600 Data System which normalizes the largest peak to scale.

SAMPLE NOTES :

LOW LEVEL WATER :

The samples were extracted and analyzed within the CLP SOW holding times.

All of the QC results were within the limits specified by the EPA CLP SOW.

We certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data in this hardcopy data package and in the computer-readable data submitted on diskette is authorized by the Laboratory Manager or his designee, as verified by the following signatures.

Nicole Roth
Nicole Roth
CLP Program Manager

Widayat
Wida Ang
Organics Supervisor

9613494.1000

000004

EPA SAMPLE NO.

B07B11

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09060 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209060-01A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20925R08

Level: (low/med) LOW Date Received: 09/22/92

% Moisture: not dec. ____ Date Analyzed: 09/25/92

GC Column: PACK ID: 2.00 (mm) Dilution Factor: 1.0

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

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

CAS NO.	COMPOUND		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

9613494.1001

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

000005
EPA SAMPLE NO.

B07B11

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09060 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209060-01A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20925R08

Level: (low/med) LOW Date Received: 09/22/92

% Moisture: not dec. ____ Date Analyzed: 09/25/92

GC Column: PACK ID: 2.00 (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

9613494.1002

000006
EPA SAMPLE NO.

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

B07B15

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09060 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209060-03A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20925R12

Level: (low/med) LOW Date Received: 09/22/92

% Moisture: not dec. ____ Date Analyzed: 09/25/92

GC Column: PACK ID: 2.00 (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

9613494.1003

000007

EPA SAMPLE NO.

B07B15

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09060 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209060-03A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20925R12

Level: (low/med) LOW Date Received: 09/22/92

% Moisture: not dec. ____ Date Analyzed: 09/25/92

GC Column: PACK ID: 2.00 (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

9613494.1004

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

000008
EPA SAMPLE NO.

B07B21

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09060 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209060-02A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20925R11

Level: (low/med) LOW Date Received: 09/22/92

% Moisture: not dec. ____ Date Analyzed: 09/25/92

GC Column: PACK ID: 2.00 (mm) Dilution Factor: 1.0

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

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

CAS NO.	COMPOUND		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

9613494.1005

000009
EPA SAMPLE NO.

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B07B21

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09060 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209060-02A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20925R11

Level: (low/med) LOW Date Received: 09/22/92

% Moisture: not dec. ____ Date Analyzed: 09/25/92

GC Column: PACK ID: 2.00 (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

9613494.1006

000010

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07B25

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09060 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209060-04A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20925R13

Level: (low/med) LOW Date Received: 09/22/92

% Moisture: not dec. ____ Date Analyzed: 09/25/92

GC Column: PACK ID: 2.00 (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

9613494.1007

000011

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

B07B25

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09060 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209060-04A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20925R13

Level: (low/med) LOW Date Received: 09/22/92

% Moisture: not dec. ____ Date Analyzed: 09/25/92

GC Column: PACK ID: 2.00 (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

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07B11

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09060 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209060-01D

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 20928S08

Level: (low/med) LOW Date Received: 09/22/92

% Moisture: _____ decanted: (Y/N) ___ Date Extracted: 09/24/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/28/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-Di-n-Propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)Methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-Methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U
51-28-5	2,4-Dinitrophenol	25	U

9613494.1009

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

000013

EPA SAMPLE NO.

B07B11

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09060 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209060-01D

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 20928S08

Level: (low/med) LOW Date Received: 09/22/92

% Moisture: ____ decanted: (Y/N) ___ Date Extracted: 09/24/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/28/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-Butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)Anthracene	10	U
117-81-7	bis(2-Ethylhexyl)Phthalate	10	U
218-01-9	Chrysene	10	U
117-84-0	Di-n-Octyl Phthalate	10	U
205-99-2	Benzo(b)Fluoranthene	10	U
207-08-9	Benzo(k)Fluoranthene	10	U
50-32-8	Benzo(a)Pyrene	10	U
193-39-5	Indeno(1,2,3-cd)Pyrene	10	U
53-70-3	Dibenz(a,h)Anthracene	10	U
191-24-2	Benzo(g,h,i)Perylene	10	U

(1) - Cannot be separated from Diphenylamine

9613494.1010

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

000014
EPA SAMPLE NO.

B07B11

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09060 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209060-01D

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 20928S08

Level: (low/med) LOW Date Received: 09/22/92

% Moisture: ____ decanted: (Y/N) ___ Date Extracted: 09/24/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/28/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

9613494.1011

000015

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07B21

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09060 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209060-02B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 20928S07

Level: (low/med) LOW Date Received: 09/22/92

% Moisture: _____ decanted: (Y/N) ___ Date Extracted: 09/24/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/28/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-Di-n-Propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)Methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-Methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U
51-28-5	2,4-Dinitrophenol	25	U

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000016

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07B21

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09060 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209060-02B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 20928S07

Level: (low/med) LOW Date Received: 09/22/92

% Moisture: ____ decanted: (Y/N) ___ Date Extracted: 09/24/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/28/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-Butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)Anthracene	10	U
117-81-7	bis(2-Ethylhexyl)Phthalate	10	U
218-01-9	Chrysene	10	U
117-84-0	Di-n-Octyl Phthalate	10	U
205-99-2	Benzo(b)Fluoranthene	10	U
207-08-9	Benzo(k)Fluoranthene	10	U
50-32-8	Benzo(a)Pyrene	10	U
193-39-5	Indeno(1,2,3-cd)Pyrene	10	U
53-70-3	Dibenz(a,h)Anthracene	10	U
191-24-2	Benzo(g,h,i)Perylene	10	U

(1) - Cannot be separated from Diphenylamine

9613494.1013

000017

EPA SAMPLE NO.

B07B21

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09060 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209060-02B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 20928S07

Level: (low/med) LOW Date Received: 09/22/92

% Moisture: ____ decanted: (Y/N) ___ Date Extracted: 09/24/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/28/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

9613494.1014

000018

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07B11

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09060 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209060-01D

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N) ___ Date Received: 09/22/92

Extraction: (SepF/Cont/Sonc) CONT Date Extracted: 09/24/92

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 10/09/92

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-36-3	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

9613494.1015

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

000019
EPA SAMPLE NO.

B07B21

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09060 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209060-02B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N) ___ Date Received: 09/22/92

Extraction: (SepF/Cont/Sonc) CONT Date Extracted: 09/24/92

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 10/09/92

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

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

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

CAS NO.	COMPOUND		Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-36-3	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

 9613494.1016 TMA/Norcal CHAIN OF CUSTODY ORD # N2-09-155

RCVD: 09/22/92 DUE: 10/22/92 09/22/92 15:19:54 KEEP: 01/20/93 DISP: S

000002

DASH	SAMPLE IDENTIFICATION			STORED	TESTS for FRACTIONS with work in DEPT: SU and CATEGORY						
01A-W	B07B11		UNFILTERED	ARLI (10)	WH018	WH019	WH020	WH043	WH114	WH121	WH122
					WH128	WH131	WH132	WH140			
02A-W	B07B21		UNFILTERED	ARLI (10)	WH018	WH019	WH020	WH043	WH114	WH121	WH122
					WH128	WH131	WH132	WH140			
02C-W	B07B21	MS	UNFILTERED	ARLI	WH018	WH019	WH020	WH043	WH114	WH140	
02D-W	B07B21	MSD	UNFILTERED	ARLI	WH018	WH019	WH020				
02E-W	B07B21	DUP	UNFILTERED	ARLI	WH043	WH114	WH121	WH122	WH128	WH131	WH132
					WH140						
03A-W	B07B15			AR_1 (3)	WH018						
04A-W	B07B25			AR_1 (3)	WH018						

RELEASED BY	DATE	TRANSFERRED TO	DATE	RECEIVED BY	DATE
Yamamoto	9-22-92	ARLI	9-22-92	Judy [illegible]	9/23/92

9613494.1017

SAMPLE LOG-IN SHEET

000003

LAB NAME : TMA/ARLI

PAGE : OF

RECEIVED BY (PRINT NAME): CAROLE HARRIS

LOG-IN-DATE : 9-23-92

RECEIVED BY (SIGNATURE): Carole Harris

CASE NUMBER:

SAMPLE DELIVERY GROUP NO.:

SAS NUMBER:

REMARKS:

1. Custody Seal(s) Present/Absent* Intact/Broken
2. Custody Seal Nos:
3. Chain of Custody Records Present/Absent*
4. Traffic Reports or Packing List Present/Absent*
5. Airbill Airbill/Sticker Present/Absent*
6. Airbill No.: 5188039393
7. Sample Tags Present/Absent*
8. Sample Tags Numbers Listed/Not Listed on Chain of Custody
9. Sample Condition: Intact/Broken*/ Leaking
10. Does information on custody records, traffic reports, and sample tags agree Yes/No*
11. Date Recieved at Lab: 9-23-92
12. Temp of ice chest 4.0 °C
13. Time Recieved: 9:30 am

SAMPLE TRANSFER

Fraction:

Area #:

By:

On:

EPA SAMPLE #	CORRESPONDING SAMPLE TAG #	CORRESPONDING ASSIGNED LAB #	REMARKS: CONDITION OF SAMPLE SHIPMENT, ETC
	B07B11	A2-09-060-01	
	B07B21	A2-09-060-02	
	B07B15	A2-09-060-03	
	B07B25	A2-09-060-04	

* Contact SMO and attach record of resolution

Reviewed By:

Date:

Logbook No.:

Logbook Page No.:

FORM DC-1

DOC2/LOGIN.TBL

9613494.1018

000004

TMA/ARLI
Thermo Analytical Inc.

RADIATION DOSE RATE SURVEY FORM

Date 9/23/92 COMPANY NORCAL (WHC) OTHER ORD # 5188039393

Surveyor's Name MARK S. MCCRAY

Model No. HP-210 / ESP-1 Model No. AC-3-7 / ESP-1

Serial Nos. 710289 / 02619 Serial Nos. 407726 / 02628

Calibration Date 3/25/92 Calibration Date 8/01/92

Instrument Calibration Factor 0.280 Instrument Calibration Factor 0.188

Sample	Location	HP-210 CPM	HP-210 Factor	HP-210 DPM	AC-3-7 CPM	AC-3-7 Factor	AC-3-7 DPM	Spillage or Breakage?	Activity, nCi/mL or nCi/g
Background		37.0			0				
Consistency		7,390	0.2853		5,060	0.1860			
Smears: RED		55.0			8.0				
BLUE BUD		74.0			8.0				
Reported (WHC)		4 samples		each	<50	pCi/gm			

Comments:

All OK ✓ Approved [signature]

Not OK Date 9/23/92

Form: ARLI RA-01
Rev: 06

01/15/92

9613494.1019

000005

FEDERAL EXPRESS

[redacted]

QUESTIONS? CALL 800-238-5355 TOLL FREE.

AIRBILL PACKAGE TRACKING NUMBER 518803939:

2237M 5188039393

1 [redacted] Date 9.22.92

RECIPIENT'S COPY

From (Your Name) Please Print: SAMPLE control

Your Phone Number (Very Important): (510)235-2633

Company: T M A /NORCAL

Department/Floor No.:

Street Address: 2030 WRIGHT AVE

City: RICHMOND State: CA ZIP Required: 94804

2 To (Recipient's Name) Please Print: SAMPLE control

Recipient's Phone Number (Very Important): ( )

Company: TMA/ ARL

Department/Floor No.:

Exact Street Address (We Cannot Deliver to P.O. Boxes or P.O. Zip Codes.): 160 Taylor street

City: MONROVIA State: CA ZIP Required: 91016

YOUR INTERNAL BILLING REFERENCE INFORMATION (optional) (First 24 characters will appear on invoice.): 2320 6406

H IF HOLD FOR PICK-UP, Print FEDEX Address Here
Street Address
City State ZIP Required

3 PAYMENT 1 [✓] Bill Sender 2 [ ] Bill Recipient's FedEx Acct. No. 3 [ ] Bill 3rd Party FedEx Acct. No. 4 [ ] Bill Credit Card 5 [ ] Cash/Check [redacted]

4 SERVICES (Check only one box)

Priority Overnight (Delivery by next business morning†)
11 [✓] YOUR PACKAGING
16 [ ] FEDEX LETTER*
12 [ ] FEDEX PAK*
13 [ ] FEDEX BOX
14 [ ] FEDEX TUBE

Standard Overnight (Delivery by next business afternoon No Saturday delivery†)
51 [ ] YOUR PACKAGING
56 [ ] FEDEX LETTER*
52 [ ] FEDEX PAK*
53 [ ] FEDEX BOX
54 [ ] FEDEX TUBE

Economy Two-Day (Delivery by second business day †)
30 [ ] ECONOMY

Government Overnight (Restricted for authorized users only)
46 [ ] GOVT LETTER
41 [ ] GOVT PACKAGE

Freight Service (for packages over 150 lbs.)
70 [ ] OVERNIGHT FREIGHT** (Confirmed reservation required)
80 [ ] TWO-DAY FREIGHT**

† Delivery commitment may be later in some areas
*Declared Value Limit $500
**Call for delivery schedule

5 DELIVERY AND SPECIAL HANDLING (Check services required)
1 [ ] HOLD FOR PICK-UP (Fill in Box H)
2 [✓] DELIVER WEEKDAY
3 DELIVER SATURDAY (Extra charge) (Not available to all locations) [ ]
4 DANGEROUS GOODS (Extra charge)
5 [ ]
6 [ ] DRY ICE Lbs
7 [ ] OTHER SPECIAL SERVICE
8 [ ]
9 [ ] SATURDAY PICK-UP (Extra charge)
10 [ ]
[ ]
12 [ ] HOLIDAY DELIVERY (If offered) (Extra charge)

6 PACKAGES / WEIGHT In Pounds Only / YOUR DECLARED VALUE
Total Total Total
2 118

DIM SHIPMENT (Chargeable Weight) [ ] ____ lbs.
L x W x H

Received At
1 [✓] Regular Stop 3 [ ] Drop Box
2 [ ] On-Call Stop 4 [ ] B.S.C. 5 [ ] Station

Emp. No. Date
[ ] Cash Received
[ ] Return Shipment
[ ] Third Party [ ] Chg. To Del. [ ] Chg. To Hold
Street Address
City State Zip
Received By: X
Date/Time Received FedEx Employee Number

7 Release Signature:

Federal Express
Base Charges
Declared Value
Other 1
Other 2
Total Charges

REVISION DATE 2/
PART #137204 F
FORMAT #126
126

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GENERAL CHEMISTRY RESULTS

CASE NO. 09-060

Water Sample #:

B07B11 B07B21

CASE NARRATIVE

The % RPD for the Fluoride analysis reported for soil sample B07B21 (A2-09-060-02) was 28.6%. The results for the sample and duplicate were near the instrument detection limit. These results are acceptable based on the level of the fluoride concentration.

No other problems were encountered during sample analysis. All QC results were acceptable.

Ernesto Vazquez

Ernesto Vazquez

9613494.1021

000008

TMA Inc. REPORT Work Order # A2-09-060

Received: 09/22/92 11/06/92 14:30:35

REPORT TO: Westinghouse Hanford Company
2355 Stevens Dr.
Richland,WA.99352
MO-346/200 West/T6-08
ATTEN Jeanette Duncan

PREPARED BY: Thermo Analytical, Inc.
160 Taylor Street
Monrovia, CA 91016
ATTEN Ms. Carole Harris
PHONE 818-357-3247

CERTIFIED BY Ernesto Vaquez
CONTACT EVV CIH

CLIENT WHC SAMPLES 5
COMPANY Westinghouse Hanford Company
FACILITY

This report is for the sole and exclusive use of the client to whom it is addressed and represents only those samples herein described. Samples not destroyed in testing are retained a maximum of 30 days unless otherwise requested.

WORK ID 100-KR-4
TAKEN By Westinghouse Staff
TRANS By Federal Express
TYPE Liquid
P.O. # N2-09-155-SU-AR
INVOICE under separate cover

SAMPLE IDENTIFICATION

01	B07B11
01	B07B11 MS
01	B07B11 MSD
01	B07B11
01	B07B11 MS
01	B07B11 MSD
01	B07B11
01	B07B11 MS
01	B07B11
01	B07B11 MS
01	B07B11
01	B07B11 MS
01	B07B11
01	B07B11 Duplicate
02	B07B21
02	B07B21 MS
02	B07B21 MSD
02	B07B21
02	B07B21 Duplicate
02	B07B21
02	B07B21 Duplicate
02	B07B21
02	B07B21 Duplicate
02	B07B21
03	B07B15
04	B07B25

TEST CODES and NAMES used on this workorder

BNCLPW	CLP Semivol. Water
PECLPL	CLP Pesticides Liq.-WH019
VOCLPL	CLP Volatile Org.Liq.
WCCLPL	Anions & Wet Chem. - WH043
WCL L	Chloride - WH120
WCQCD	Quality Control Summary
WCQCS	Quality Control Summary
WF L	Fluoride in Water
WNH3 L	Ammonia in Water - WH140
WPH L	pH of Liquid - WH121
WPO4 L	Phosphate in Liquids
WSO4 L	Sulfate (in Waters)
WSULFI	Sulfide - WH114
W ALK	Alkalinity - WH131
W COD	COD Water - WH132
W COND	Conductivity-Water WH135
W TDS	Dissolved Solids WH128

9613494.1022

000010

TMA Inc. REPORT Work Order # A2-09-060

Received: 09/22/92

Results by Sample

SAMPLE ID B07B11 FRACTION 01G TEST CODE WCCLPL NAME Anions & Wet Chem. - WH043

Date & Time Collected 09/18/92 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Chloride	300.0	6.1	mg/L	0.2
Fluoride	300.0	0.3	mg/L	0.1
Phosphate	300.0	<0.4	mg/L	0.4
pH	150.1	8.0	pH	0.1
Sulfate	300.0	42	mg/L	1
Elect. Conductivity	120.1	322	umho/cm	6

FORM I

9613494.1023

000011

TMA Inc. REPORT Work Order # A2-09-060

Received: 09/22/92

Results by Sample

SAMPLE ID B07B11 FRACTION 01I TEST CODE WCCLPL NAME Anions & Wet Chem. - WH043

Date & Time Collected 09/18/92 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Sulfide	376.1	<1	mg/L	1

FORM I

TMA Inc. REPORT Work Order # A2-09-060

Received: 09/22/92

Results by Sample

SAMPLE ID B07B11 FRACTION 01K TEST CODE WCCLPL NAME Anions & Wet Chem. - WH043

Date & Time Collected 09/18/92 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Ammonia Nitrogen	350.3	<0.05	mg/L	0.05
COD	410.0	<30	mg/L	30

FORM I

TMA Inc. REPORT Work Order # A2-09-060

Received: 09/22/92

Results by Sample

SAMPLE ID B07B11 FRACTION 01M TEST CODE WCCLPL NAME Anions & Wet Chem. - WH043

Date & Time Collected 09/18/92 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Alkalinity	310.1	112	mg/L	2
Tot. Dissolved Solids	160.1	199	mg/L	5

FORM I

TMA Inc. REPORT Work Order # A2-09-060

Received: 09/22/92

Results by Sample

SAMPLE ID B07B21 FRACTION 02E TEST CODE WCCLPL NAME Anions & Wet Chem. - WH043

Date & Time Collected 09/18/92 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Chloride	300.0	6.0	mg/L	0.2
Fluoride	300.0	0.3	mg/L	0.1
Phosphate	300.0	<0.4	mg/L	0.4
pH	150.1	8.0	pH	0.1
Sulfate	300.0	42	mg/L	1
Elect. Conductivity	120.1	322	umho/cm	6

FORM I

TMA Inc. REPORT Work Order # A2-09-060

Received: 09/22/92

Results by Sample

SAMPLE ID B07B21 FRACTION 02G TEST CODE WCCLPL NAME Anions & Wet Chem. - WH043

Date & Time Collected 09/18/92 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Sulfide	376.1	<1.	mg/L	1

FORM I

TMA Inc. REPORT Work Order # A2-09-060

Received: 09/22/92

Results by Sample

SAMPLE ID B07B21 FRACTION 02I TEST CODE WCCLPL NAME Anions & Wet Chem. - WH043

Date & Time Collected 09/18/92 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Ammonia Nitrogen	350.3	<0.05	mg/L	0.05
COD	410.0	<30	mg/L	30

FORM I

TMA Inc. REPORT Work Order # A2-09-060

Received: 09/22/92

Results by Sample

SAMPLE ID B07B21 FRACTION 02K TEST CODE WCCLPL NAME Anions & Wet Chem. - WH043

Date & Time Collected 09/18/92 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Alkalinity	310.1	112	mg/L	2
Tot. Dissolved Solids	160.1	210	mg/L	5

FORM I

9613494.1030

2/10/9

000001

Page 1 Skinner&Sherman REPORT Work Order # S2-09-389

Received: 09/23/92 11/02/92 16:16:36

REPORT TMA/NORCAL
TO 2030 Wright Avenue
Richmond, CA 94804

ATTEN Dan Steurmer

PREPARED TMA / Skinner & Sherman Labs.
BY 300 Second Avenue
P.O. Box 521
Waltham, MA 02254

ATTEN Client Services
PHONE (617) 890-7200

CERTIFIED BY

CONTACT DP

CLIENT HANFORD NOR SAMPLES 3
COMPANY TMA/NORCAL
FACILITY Richmond, CA

WORK ID N2-09-155
TAKEN BY CLIENT
TRANS FED EX
TYPE WATER
P.O. # N2-09-155
INVOICE under separate cover

SAMPLE IDENTIFICATION

01 B07B11
02 B07B21
02 B07B21 DUPL
02 B07B21 SPIKE
03 LCSW

TEST CODES and NAMES used on this workorder

NO3NO2 Nitrate Plus Nitrite

This report is rendered upon all of the following conditions: Skinner & Sherman Laboratories, Inc. retains ownership of this report until associated submitted invoice is satisfi
Expert witness services shall be available in conjunction with this report only if prior notification of this potential requirement was made and accepted, before the analysis. Cli
will be responsible for Skinner & Sherman costs and consulting fees if our services are required by subpoena or otherwise in legal proceedings. Total liability is limited to the invo
amount. The results listed refer only to tested samples and applicable parameters. Product endorsement is neither inferred nor implied. Skinner & Sherman Laboratories, Inc. w
exercise due diligence but will not be responsible for lost or destroyed samples or evidence unless client makes appropriate insurance coverage arrangements. Samples are held
thirty days following issuance of report. Samples will be stored at client's expense, if authorized in writing.

TMA
Thermo Analytical Inc.
Skinner & Sherman Laboratories Inc.
300 Second Avenue, P.O. Box 521, Waltham, Massachusetts 02254-0521 (617) 890-7200
1-800-4 LAB TEST FAX (617) 890-3883

9613494.1031

000002

 Skinner&Sherman REPORT Work Order # S2-09-389

Received: 09/23/92 Results by Sample

SAMPLE ID B07B11 SAMPLE # 01 FRACTIONS: A
Date & Time Collected 09/18/92 Category WATER

NO3NO2 1.99
mg N/L

SAMPLE ID B07B21 SAMPLE # 02 FRACTIONS: A
Date & Time Collected 09/18/92 Category WATER

NO3NO2 2.32
mg N/L

SAMPLE ID B07B21 DUPL SAMPLE # 02 FRACTIONS: B
Date & Time Collected 09/18/92 Category WATER

NO3NO2 2.21
mg N/L

SAMPLE ID B07B21 SPIKE SAMPLE # 02 FRACTIONS: C
Date & Time Collected 09/18/92 Category WATER

NO3NO2 4.06
mg N/L

SAMPLE ID LCSW SAMPLE # 03 FRACTIONS: A
Date & Time Collected not specified Category WATER

NO3NO2 1.89
mg N/L

TMA
Thermo Analytical Inc.
Skinner & Sherman Laboratories Inc.

This report is rendered upon all of the following conditions: Skinner & Sherman Laboratories, Inc. retains ownership of this report until associated submitted invoice is satisfi. Expert witness services shall be available in conjunction with this report only if prior notification of this potential requirement was made and accepted, before the analysis. Cli will be responsible for Skinner & Sherman costs and consulting fees if our services are required by subpoena or otherwise in legal proceedings. Total liability is limited to the invo amount. The results listed refer only to tested samples and applicable parameters. Product endorsement is neither inferred nor implied. Skinner & Sherman Laboratories, Inc. w exercise due diligence but will not be responsible for lost or destroyed samples or evidence unless client makes appropriate insurance coverage arrangements. Samples are held thirty days following issuance of report. Samples will be stored at client's expense, if authorized in writing.

300 Second Avenue, P.O. Box 521, Waltham, Massachusetts 02254-0521 (617) 890-7200
1-800-4 LAB TEST FAX (617) 890-3883

Page 4 Skinner&Sherman REPORT Work Order # S2-09-389

Received: 09/23/92 Test Methodology

TEST CODE NO3NO2 NAME Nitrate Plus Nitrite

Methods for Chemical Analysis of Water and Wastes
EPA - 600/4-79-020 March 1979 Method 353.2 (modified)

TMA
Thermo Analytical Inc.

This report is rendered upon all of the following conditions: Skinner & Sherman Laboratories, Inc. retains ownership of this report until associated submitted invoice is satisfi Expert witness services shall be available in conjunction with this report only if prior notification of this potential requirement was made and accepted, before the analysis. Cli will be responsible for Skinner & Sherman costs and consulting fees if our services are required by subpoena or otherwise in legal proceedings. Total liability is limited to the invo amount. The results listed refer only to tested samples and applicable parameters. Product endorsement is neither inferred nor implied. Skinner & Sherman Laboratories, Inc. w exercise due diligence but will not be responsible for lost or destroyed samples or evidence unless client makes appropriate insurance coverage arrangements. Samples are held thirty days following issuance of report. Samples will be stored at client's expense, if authorized in writing.

Skinner & Sherman Laboratories Inc. 300 Second Avenue, P.O. Box 521, Waltham, Massachusetts 02254-0521 (617) 890-7200
1-800-4 LAB TEST FAX (617) 890-3883

9613494.1033

000047

TMA/Skinner & Sherman Labs SAMPLE LOG-IN

WORKORDER S208359 CLIENT Hanford Nor No. SAMPLES:

PROTCL CLP TURNARND 33 Days 2

COOLER TEMP: 5 oC, or NA (Soil) (Water) (Specify Other

CUSTODIAN B. Prowl SDG/BATCH N/A

CUSTODY SEAL: PRESENT/ABSENT/INTACT/NOT CLIENT CASE N209155

SHIPER & # Fed Ex PO/CONTRACT# ↓

TAGS: PRESENT/ABSENT/NA/SEE COC CONTACT D. Sanchez

CHAIN OF CUSTODY: PRESENT/ABSENT/NA, # N/A COMMENTS: none

SAMPLE CONTAINERS-INTACT/BROKEN COMMENTS

CLIENT COMMENT? YES/NO

SAMPLE LABELS AGREE WITH CHAIN OF CUSTODY INFO? YES/NO (COMMENT)

CLIENT PAPERWORK AGREES WITH SAMPLES & COC? YES /NO (COMMENT)

SHIPMENT DATES 9.23.92

LIST ANY DATE WITH PAPERWORK/SHIPMENT PROBLEMS & SPECIFY THE PROBLEM:

N/A

	CLIENT ID	MATRIX	RECEIVED	PH*	TEST(S) & QC	HOLD TIME UP
1	B07B11	water	9.23.92	1.98	NO3NO2	
2	B07B21	↓	↓	1.95	D.S ↓	
3						
4						
5						
6						
7						
8						
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10						
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17						
18						
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21						
22						
23						
24						
25						
26						
27						

Samples are from site known to have Rad-Contamination: YES ✓ NO

Samples have detectable amounts of Radioactive Material: YES NO ✓

SUBCONTRACT: YES/NO, TO: DATE: Complete 9/24/92

REVIEWED

* EPA/CLP required Rev 1.6 PAGE: BP

9613494.1034

PAGE 1 TMA/Norcal CHAIN OF CUSTODY ORD # N2-09-155

RCVD: 09/22/92 DUE: 10/22/92 09/22/92 15:18:56 KEEP: 01/20/93 DISP: S

DASH	SAMPLE IDENTIFICATION			STORED	TESTS for FRACTIONS with work in DEPT: SU and CATEGORY				
01B-W	B07B11		UNFILTERED	SS_1 (3)	WH007	WH008	WH010	WH011	WH137
02B-W	B07B21		UNFILTERED	SS_1 (3)	WH007	WH008	WH010	WH011	WH137
02F-W	B07B21	MS	UNFILTERED	SS_1	WH007	WH008	WH010	WH011	WH137
02G-W	B07B21	DUP	UNFILTERED	SS_1	WH007	WH008	WH010	WH011	WH137
02H-W	L C B			SS_1	WH007	WH008	WH010	WH011	WH137
05A-W	B07E14		FILTERED	SS_1 1	WH007	WH008	WH010		
06A-W	B07B24		FILTERED	SS_1 1	WH007	WH008	WH010		
06B-W	B07B24	MS	FILTERED	SS_1	WH007	WH008	WH010		
06C-W	B07B24	DUP	FILTERED	SS_1	WH007	WH008	WH010		
06D-W	L C B			SS_1	WH007	WH008	WH010		

RELEASED BY	DATE	RECEIVED BY	DATE	RECEIVED BY	DATE
ryamamoto	9-22-92	SKINNER	9-22-92	[illegible]	9/23/92

9613494.1035

TMA
Thermo Analytical Inc.

Skinner & Sherman Labs., Inc.
300 Second Avenue
Post Office Box 521
Waltham, MA 02254-0521
(617) 890-7200
FAX (617) 890-3883

RECORD COPY

December 15, 1992

TMA/NORCAL
2030 Wright Avenue
Richmond, CA 94804
Attention: Dan Stuermer

Quality Control Narrative

Scope
Two (2) water samples were submitted to TMA/Skinner & Sherman Laboratories, Inc. on September 23, 1992 from TMA/Norcal. The samples were analyzed for the USEPA CLP metals and cyanide as indicated on the chain of custody. The analysis was performed under TMA/Skinner and Sherman work order S209386.

Methodology
The samples were prepared, analyzed and reported in accordance with the USEPA Contract Laboratory Program Statement of Work ILM02.

Discussion
All quality control requirements were met for the samples with no exceptions.

Please feel free to call if there are any questions concerning the data package.

Respectfully submitted,

TMA/SKINNER & SHERMAN LABORATORIES, INC.

David N. Peterson
Assistant Laboratory Manager

DEC 1992
RECEIVED
OSM DMO

i 4/2/96 M.H.

WESTINGHOUSE/HANFORD
1

INORGANIC ANALYSIS DATA SHEET

SAMPLE NUMBER: B07B11

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D0-0108

Lab Code: SKINER Case No.: N2-09-155SAS No.: SDG No.: B07B11

Matrix (soil/water): WATER Lab Sample ID: 09386-01S

Level (low/med): LOW Date Received: 09/23/92

% 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	35.0	B		P
7440-36-0	Antimony	14.8	U		P
7440-38-2	Arsenic	4.6	B		F
7440-39-3	Barium	27.1	B		P
7440-41-7	Beryllium	0.32	B		P
7440-43-9	Cadmium	1.5	U		P
7440-70-2	Calcium	36600			P
7440-47-3	Chromium	9.9	B		P
7440-48-4	Cobalt	1.3	U		P
7440-50-8	Copper	3.8	B		P
7439-89-6	Iron	83.3	B		P
7439-92-1	Lead	4.7			F
7439-95-4	Magnesium	9550			P
7439-96-5	Manganese	14.0	B		P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	2.6	U		P
7440-09-7	Potassium	4690	B		P
7782-49-2	Selenium	3.9	U		F
7440-22-4	Silver	3.6	U		P
7440-23-5	Sodium	19600			P
7440-28-0	Thallium	1.3	U	W	F
7440-62-2	Vanadium	10.1	B		P
7440-66-6	Zinc	130			P
	Cyanide	10.0	U		CA

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

02

9613494.1037

WESTINGHOUSE/HANFORD
1

SAMPLE NUMBER:

INORGANIC ANALYSIS DATA SHEET

B07B21

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D0-0108

Lab Code: SKINER Case No.: N2-09-155SAS No.: SDG No.: B07B11

Matrix (soil/water): WATER Lab Sample ID: 09386-02S

Level (low/med): LOW Date Received: 09/23/92

% 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	43.1	B		P
7440-36-0	Antimony	14.8	U		P
7440-38-2	Arsenic	3.2	U		F
7440-39-3	Barium	26.5	B		P
7440-41-7	Beryllium	0.30	U		P
7440-43-9	Cadmium	1.5	U		P
7440-70-2	Calcium	35600			P
7440-47-3	Chromium	8.8	B		P
7440-48-4	Cobalt	1.3	U		P
7440-50-8	Copper	1.9	U		P
7439-89-6	Iron	84.0	B		P
7439-92-1	Lead	3.4			F
7439-95-4	Magnesium	9220			P
7439-96-5	Manganese	16.8			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	2.6	U		P
7440-09-7	Potassium	4550	B		P
7782-49-2	Selenium	3.9	U		F
7440-22-4	Silver	3.6	U		P
7440-23-5	Sodium	19200			P
7440-28-0	Thallium	1.3	U	W	F
7440-62-2	Vanadium	8.6	B		P
7440-66-6	Zinc	138			P
	Cyanide	10.0	U		CA

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

03

9613494.1038

TMA/Skinner & Sherman Labs SAMPLE LOG-IN
WORKORDER 5209386 CLIENT Hanford Nor No. SAMPLES:
PROTCL CLP TURNARND 33 Days 2
COOLER TEMP: 5 oC, or NA (Soil) (Water) (Specify Other
CUSTODIAN B. Prouix SDG/BATCH N/A
CUSTODY SEAL: PRESENT/ABSENT/INTACT/NOT CLIENT CASE N209155
SHIPER & # Fed Ex PO/CONTRACT#
TAGS: PRESENT/ABSENT/NA/SEE COC CONTACT D. Sanchez
CHAIN OF CUSTODY: PRESENT/ABSENT/NA, # N/A COMMENTS: none

SAMPLE CONTAINERS-INTACT/BROKEN COMMENTS

CLIENT COMMENT? YES/NO
SAMPLE LABELS AGREE WITH CHAIN OF CUSTODY INFO? YES/NO (COMMENT)
CLIENT PAPERWORK AGREES WITH SAMPLES & COC? YES/NO (COMMENT)

SHIPMENT DATES 9.23.92
LIST ANY DATE WITH PAPERWORK/SHIPMENT PROBLEMS & SPECIFY THE PROBLEM:

UNFILTERED
N/A

	CLIENT ID	MATRIX	RECEIVED	PH*	TEST(S) & QC	HOLD TIME U
1	B07B11	water	9.23.92	1.80	TM/CN	CN Due
2	B07B21	↓	↓	1.79	D.S ↓	10/2/92
3						HG Due
4						10/10/92
5						
6						
7						
8						
9						
10						
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16						
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18						
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20						
21						
22						
23						
24						
25						
26						
27						

Samples are from site known to have Rad-Contamination: YES ✓ NO
Samples have detectable amounts of Radioactive Material: YES NO ✓

SUBCONTRACT: YES/NO, TO: DATE:

REVIEWED

complete 9.24.92 BP

* EPA/CLP required Rev 1.6 PAGE: 136

9613494.1039

PAGE 1 TMA/Norcal CHAIN OF CUSTODY ORD # N2-09-155

RCVD: 09/22/92 DUE: 10/22/92 09/22/92 15:18:56 KEEP: 01/20/93 DISP: S

100-KR-4

DASH	SAMPLE IDENTIFICATION		STORED	TESTS for FRACTIONS with work in DEPT: SU and CATEGORY				
01B-W	B07B11	UNFILTERED	SS_1 (3)	WH007	WH008	WH010	WH011	WH137
02B-W	B07B21	UNFILTERED	SS_1 (3)	WH007	WH008	WH010	WH011	WH137
02F-W	B07B21 MS	UNFILTERED	SS_1	WH007	WH008	WH010	WH011	WH137
02G-W	B07B21 DUP	UNFILTERED	SS_1	WH007	WH008	WH010	WH011	WH137
02H-W	L C S		SS_1	WH007	WH008	WH010	WH011	WH137
05A-W	B07B14	FILTERED	SS_1 (1)	WH007	WH008	WH010		
06A-W	B07B24	FILTERED	SS_1 (1)	WH007	WH008	WH010		
06B-W	B07B24 MS	FILTERED	SS_1	WH007	WH008	WH010		
06C-W	B07B24 DUP	FILTERED	SS_1	WH007	WH008	WH010		
06D-W	L C S		SS_1	WH007	WH008	WH010		

RELEASED BY	DATE	TRANSFERRED TO	DATE	RECEIVED BY	DATE
yamamoto	9-22-92	SKINNER	9-22-92	[illegible]	9/23/92

9613494.1040

TMA
Thermo Analytical Inc.

Skinner & Sherman Labs., Inc.
300 Second Avenue
Post Office Box 521
Waltham, MA 02254-0521
(617) 890-7200
FAX (617) 890-3883

RECORD COPY

December 14, 1992

TMA/NORCAL
2030 Wright Avenue
Richmond, CA 94804
Attention: Dan Stuermer

Quality Control Narrative

Scope
Two (2) water samples were submitted to TMA/Skinner & Sherman Laboratories, Inc. on September 23, 1992 from TMA/Norcal. The samples were analyzed for the USEPA CLP Target Analyte List metals. The analysis was performed under TMA/Skinner and Sherman work order S209387.

Methodology
The samples were prepared, analyzed and reported in accordance with the USEPA Contract Laboratory Program Statement of Work ILM02.

Discussion
All quality control requirements were met for the samples with no exceptions.

Please feel free to call if there are any questions concerning the data package.

Respectfully submitted,

TMA/SKINNER & SHERMAN LABORATORIES, INC.
Steven R. Provencal (for)
David N. Peterson
Assistant Laboratory Manager

DEC 1992
RECEIVED
OSM DMO

i 4/2/96 M.H.

9613494.1041

WESTINGHOUSE/HANFORD
1

INORGANIC ANALYSIS DATA SHEET

SAMPLE NUMBER: 807814

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D0-0108

Lab Code: SKINER Case No.: N2-09-1555AS No.: SDG No.: 807814

Matrix (soil/water): WATER Lab Sample ID: 09387-01S

Level (low/med): LOW Date Received: 09/23/92

% 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	29.2	B		P
7440-36-0	Antimony	14.8	U		P
7440-38-2	Arsenic	3.6	B		F
7440-39-3	Barium	26.8	B		P
7440-41-7	Beryllium	0.30	U		P
7440-43-9	Cadmium	1.5	U		P
7440-70-2	Calcium	36200			P
7440-47-3	Chromium	10.5			P
7440-48-4	Cobalt	3.2	B		P
7440-50-8	Copper	2.3	B		P
7439-89-6	Iron	8.0	B		P
7439-92-1	Lead	4.9		W	F
7439-95-4	Magnesium	9440			P
7439-96-5	Manganese	11.8	B		P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	2.6	U		P
7440-09-7	Potassium	4610	B		P
7782-49-2	Selenium	3.6	U	MW	F
7440-22-4	Silver	3.6	U		P
7440-23-5	Sodium	19500			P
7440-28-0	Thallium	3.8	U		F
7440-62-2	Vanadium	11.1	B		P
7440-66-6	Zinc	28.9			P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

002

9613494.1042

WESTINGHOUSE/HANFORD

1

SAMPLE NUMBER:

INORGANIC ANALYSIS DATA SHEET

B07B24

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D0-0108

Lab Code: SKINER Case No.: N2-09-1555AS No.: SDG No.: B07B14

Matrix (soil/water): WATER Lab Sample ID: 09387-02S

Level (low/med): LOW Date Received: 09/23/92

% 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	22.9	B		P
7440-36-0	Antimony	14.8	U		P
7440-38-2	Arsenic	3.0	B		F
7440-39-3	Barium	24.7	B		P
7440-41-7	Beryllium	0.30	U		P
7440-43-9	Cadmium	1.5	U		P
7440-70-2	Calcium	35800			P
7440-47-3	Chromium	7.1	B		P
7440-48-4	Cobalt	1.3	U		P
7440-50-8	Copper	1.9	U		P
7439-89-6	Iron	27.2	B		P
7439-92-1	Lead	2.8	B		F
7439-95-4	Magnesium	9320			P
7439-96-5	Manganese	10.6	B		P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	2.6	U		P
7440-09-7	Potassium	4590	B		P
7782-49-2	Selenium	3.6	U	W	F
7440-22-4	Silver	3.6	U		P
7440-23-5	Sodium	19500			P
7440-28-0	Thallium	3.8	U	W	F
7440-62-2	Vanadium	9.2	B		P
7440-66-6	Zinc	11.7	B		P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

003

9613494.1043

TMA/Skinner & Sherman Labs SAMPLE LOG-IN

WORKORDER S209387 CLIENT Hanford Dept No. SAMPLES:

PROTCL CLP TURNARND 3 3 Days 2

COOLER TEMP: 5 oC, or NA (Soil) (Water) (Specify Other)

CUSTODIAN B Prouix SDG/BATCH N/A

CUSTODY SEAL: PRESENT/ABSENT/INTACT/NOT CLIENT CASE N209155

SHIPER & # Fed ex PO/CONTRACT# ↓

TAGS: PRESENT/ABSENT/NA/SEE COC CONTACT D. Sanchez

CHAIN OF CUSTODY: PRESENT/ABSENT/NA, # N/A COMMENTS: none

SAMPLE CONTAINERS-INTACT/BROKEN COMMENTS

CLIENT COMMENT? YES/NO

SAMPLE LABELS AGREE WITH CHAIN OF CUSTODY INFO? YES/NO (COMMENT)

CLIENT PAPERWORK AGREES WITH SAMPLES & COC? YES /NO (COMMENT)

SHIPMENT DATES 9.23.92

LIST ANY DATE WITH PAPERWORK/SHIPMENT PROBLEMS & SPECIFY THE PROBLEM:

Filtered

	CLIENT ID	MATRIX	RECEIVED	PH*	TEST(S) & QC	HOLD TIME UP
1	B07B14	water	9.23.92	1.89	TM	HG Due
2	B07B24	↓	↓	1.76	D.S ↓	10/10/92
3						
4						
5						
6						
7						
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26						
27						

Samples are from site known to have Rad-Contamination: YES ✓ NO

Samples have detectable amounts of Radioactive Material: YES NO ✓

SUBCONTRACT: YES/NO TO: DATE: complete 9.24.92

REVIEWED

* EPA/CLP required Rev 1.6 PAGE: BP

9613494.1044

PAGE 1 TMA/Norcal CHAIN OF CUSTODY ORD # N2-09-155

RCVD: 09/22/92 DUE: 10/22/92 09/22/92 15:18:56 KEEP: 01/20/93 DISP: S

100-KR-4

DASH	SAMPLE IDENTIFICATION		STORED	TESTS for FRACTIONS with work in DEPT: SU and CATEGORY				
01B-W	B07B11	UNFILTERED	SS_1 (3)	WH007	WH008	WH010	WH011	WH137
02B-W	B07B21	UNFILTERED	SS_1 (3)	WH007	WH008	WH010	WH011	WH137
02F-W	B07B21 MS	UNFILTERED	SS_1	WH007	WH008	WH010	WH011	WH137
02G-W	B07B21 DUP	UNFILTERED	SS_1	WH007	WH008	WH010	WH011	WH137
02H-W	L C S		SS_1	WH007	WH008	WH010	WH011	WH137
05A-W	B07B14	FILTERED	SS_1 (1)	WH007	WH008	WH010		
06A-W	B07B24	FILTERED	SS_1 (1)	WH007	WH008	WH010		
06B-W	B07B24 MS	FILTERED	SS_1	WH007	WH008	WH010		
06C-W	B07B24 DUP	FILTERED	SS_1	WH007	WH008	WH010		
06D-W	L C S		SS_1	WH007	WH008	WH010		

RELEASED BY	DATE	TRANSFERRED TO	DATE	RECEIVED BY	DATE
Yamamoto	9-22-92	SKINNER	9-22-92	[illegible]	9/23/92

SDG	7102	Client	Westinghouse Hanford
Contact	Dinkar P. Kharkar	Contract	MBH-SVV-069262

CASE NARRATIVE

1.0 GENERAL

Water sample results from 100-KR-4 location (TMA/Norcal Group 7102) are reported herein. TMA/Norcal Group 7102 is comprised of twenty samples listed on the Chain-of-Custody documents and is identified as sample 1 through 20.

1.1 CHAINS-OF-CUSTODY

This report includes data from samples delivered under Chain-of-Custody documents Field Logbook No. EFL-1048 and EFL-1049.

1.2 SAMPLE VOLUME

4 L and 1 L plastic bottles, and 500 mL glass bottles containing the samples were received for the analysis

1.3 MISSING SAMPLES

All samples were accounted for in an undamaged condition.

1.4 HOLDING TIMES

Samples were collected between 9/18/92 and 9/28/92 and sample processing was initiated within 180 days of collection.

2.0 QUALITY CONTROL

The internal quality control consisted of one sample each of a laboratory control, a blank, and a replicate. All original analyses were performed with QC samples 7102-21 through 27.

The QC samples were prepared and labelled by the quality control officer. Copies of The QC notebook pages are included in the data package.

2.1 LABORATORY CONTROL SAMPLES

The LCS recoveries for all the nuclides were good except for gross alpha, ^{241}Am, and ^{14}C with recoveries of 57%, 81%, and 81% respectively and they did not pass the 3σ protocol limits. The gross alpha planchet looked good, the deposition on the planchet was uniform and we did not find anything abnormal.

001B
2/15/93

SDG	7102	Client	Westinghouse Hanford
Contact	Dinkar P. Kharkar	Contract	MBH-SVV-069262

CASE NARRATIVE

21. LABORATORY CONTROL SAMPLES cont.

The low found/added ratio is being investigated. The LCs recovery for ^{241}Am with errors of $\pm 11\%$ was within 3σ total limits of 85-115%. The LCS recovery of ^{14}C with errors was within 3σ total limits. The ^{238}Pu MDA was slightly higher than the RDL due to higher background. The ^{99}Tc MDA was higher than the RDL due to low chemical recovery. The ^{59}Fe MDA was high due to the short half-life of ^{59}Fe and the MDA was wrongly calculated at the T-zero instead of at the time of count.

2.2 BLANKS

MDA's for all the analyses meet the RDL requirements except for ^{238}Pu and ^{99}Tc. The higher MDA for ^{238}Pu was due to high background. The higher MDA for ^{99}Tc was due to a low chemical recovery.

2.3 REPLICATES

Results were satisfactory for all replicate analyses except for ^{14}C. The replicate results were both at low level and therefore less precise and have an uncertainty beyond counting statistics. The replicates were run with different processing batches. We will continue the investigation by realiquoting several times to test the reproducibility. The high MDA of ^{238}Pu was due to a high backgroud. High MDA's for ^{90}Sr and ^{99}Tc were due to low chemical yields. The high MDA of ^{14}C was due to low spike effeciency and the high ^{59}Fe MDA was due to the short half-life of ^{59}Fe.

3.0 ANALYTICAL NOTES

3.1 Gross Alpha Analyses: The average MDA for gross alpha was (3 ± 1) pCi/L. Positive gross alpha concentration above RDL was found in samples 7102-3, 4, 5, 6, 7, and 11. The results of the remaining samples were less than MDA. The residue on planchets 7102-7 and 11 were higher than the nominal residue weight limit of 5-150 mg.

3.2 Gross Beta Analyses: The average MDA for gross beta was (2 ± 0) pCi/L. Positive gross beta concentration above RDL was found in all the samples except samples 7102-13, 14, 17. Again the residue on the planchets 7102-7 and 11 were higher than the nominal residue weight limit of 5-150 mg.

001C
2/15/93

SDG	7102	Client	Westinghouse Hanford
Contact	Dinkar P. Kharkar	Contract	MBH-SVV-069262

CASE NARRATIVE

3.0 ANALYTICAL NOTES cont.

3.4 Tritium Analyses: The average MDA for twenty-three analyses was (200 ± 0) pCi/L. Positive ^{3}H concentrations above RDL was found in all the samples except in samples 7102-1, 2, 3, 8, 15, and 16.

3.5 Carbon-14 Analyses: The average MDA was (50 ± 70) pCi/L. Positive ^{14}C concentration was found in all the samples except in 7102-6, 13, 14, 15, and 19. Several sample MDA's were above RDL due to low counting efficiency.

3.6 Strontium-90 Analyses: The average yield for twenty-three analyses was (68 ± 27)%. The lowest yield was 26% and the highest was 80%. The average MDA was (1 ± 1) pCi/L. Positive ^{90}Sr concentration above the RDL was found only in samples 7102-15, 16, 18, 19, and 20. The results of the remaining samples were less than MDA.

3.7 Technicium-99 Analyses: The average yield for twenty-three analyses was (48 ± 28)%. The lowest yield was 15% and the highest was 69%. The average MDA was (7 ± 9) pCi/L. Positive concentration above RDL was found only in samples 7102-5, 6, 7, 8. The MDA's for 7102-2, 8, 12, 15, 16, 17, 18, and 19were higher than the RDL due to low chemical recoveries.

3.8 Uranium-233, 234, 238 Analyses: The average yield for twenty-three analyses was (71 ± 12)%. The lowest yield was 54% and the highest was 79%. The average MDA was (0.1 ± 0.1) pCi/L. Positive concentration of ^{234}U and ^{238}U were found in all the samples except in samples 7102-13, 14, 17, and 22.

3.9 Plutonium-238, 239/240 Analyses: The average yield for twenty-three analyses was (67 ± 22)%. The lowest yield was 50% and the highest was 88%. The average MDA was (0.04 ± 0.03) pCi/L. Positive plutonium concentrations above the RDL was not found in any of the samples. All samples were below MDA. Sample 7102-8 had higher MDA due to a low chemical recovery.

3.10 Americium-241 Analyses: The average yield for twenty-three analyses was (72 ± 44)%. The lowest yield was 7% and the highest yield was 95%. The average MDA was (0.04 ± 0.1) pCi/L. Positive americium concentration above the RDL was not found in any of the samples. All sample results were below MDA. Samples 7102-2 and 8 had a high MDA due to low chemical recovery.

3.11 Gamma Scan Analyses: Gamma scan analysis did not find positive concentration of gamma nuclides.

OOID
2/15/93

9613494.1048

TMA NORCAL

REPORTING GROUP 7102

DATA SHEET

N209170-04

B07906

SDG 7102
Contact Dinkar Kharkar
Client Westinghouse Hanford
Contract MBH-SVV-069262

Lab sample id N209170-04
Dept sample id 7102-004
Received 09/24/92
Client sample id B07906
Matrix WATER
Collected 09/22/92
Chain of custody id EFL-1048

PARAMETER	CAS NO	RESULT pCi/L	2σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALI-FIERS	TEST
Gross Alpha	Alpha	4.3	2.5	3	3		80A
Gross Beta	Beta	6.3	1.5	2	4		80B
Uranium 233/234		2.1	0.39	0.1	0.2		U
Uranium 235	15117-96-1	0.098	0.084	0.1	0.2	U	U
Uranium 238	7440-61-1	1.8	0.33	0.09	0.2		U
Plutonium 238	13981-16-3	0.022	0.020	0.03	0.05	U	PU
Plutonium 239/240		-0.002	0.005	0.02	0.05	U	PU
Americium 241	14596-10-2	-0.002	0.011	0.02	0.05	U	AM
Strontium 90	10098-97-2	0.007	0.51	0.8	2	U	Y
Technetium 99	14133-76-7	-0.13	1.4	5	5	U	TC
Tritium	10028-17-8	460	170	200	400		H
Carbon 14	14762-75-5	340	37	50	50		C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2	U		100		U	GAM
Iron 59		U		50	30	U	GAM
Chromium 51	14392-02-0	U		500		U	GAM
Cobalt 60	10198-40-0	U		20	30	U	GAM
Zinc 65	17982-39-3	U		30		U	GAM
Ruthenium 106	13967-48-1	U		100		U	GAM
Cesium 134	17967-70-9	U		10		U	GAM
Cesium 137	10045-97-3	U		10	20	U	GAM
Europium 152	14683-23-9	U		20	40	U	GAM
Europium 154	15585-10-1	U		20	40	U	GAM
Radium 226	13982-67-7	U		20		U	GAM
Thorium 228	14274-82-9	U		20		U	GAM
Thorium 232	7440-29-1	U		50		U	GAM

Lab id TMAN
Protocol WHC-HEIS
Version Ver 1.0
Form DVD-DS
Version 2.22
Report date 01/29/93

9613494.1049

TMA NORCAL

REPORTING GROUP 7102

DATA SHEET

N209170-17

B079R1

SDG 7102
Contact Dinkar Kharkar

Client Westinghouse Hanford
Contract MBH-SVV-069262

Lab sample id N209170-17
Dept sample id 7102-017
Received 09/23/92

Client sample id B079R1
Matrix WATER
Collected 09/21/92
Chain of custody id EFL-1048

PARAMETER	CAS NO	RESULT pCi/L	2σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALI-FIERS	TEST
Gross Alpha	Alpha	-0.38	1.6	3	3	U	80A
Gross Beta	Beta	3.2	1.4	2	4	J	80B
Uranium 233/234		0.16	0.11	0.2	0.2	U	U
Uranium 235	15117-96-1	0.016	0.066	0.1	0.2	U	U
Uranium 238	7440-61-1	0.15	0.083	0.1	0.2	J	U
Plutonium 238	13981-16-3	0	0.014	0.03	0.05	U	PU
Plutonium 239/240		0.007	0.009	0.02	0.05	U	PU
Americium 241	14596-10-2	0	0.008	0.02	0.05	U	AM
Strontium 90	10098-97-2	-0.091	0.53	0.8	2	U	Y
Technetium 99	14133-76-7	-1.1	4.7	8	5	U	TC
Tritium	10028-17-8	9600	410	200	400		H
Carbon 14	14762-75-5	120	24	30	50	B	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2	U		200		U	GAM
Iron 59		U		90	30	U	GAM
Chromium 51	14392-02-0	U		700		U	GAM
Cobalt 60	10198-40-0	U		20	30	U	GAM
Zinc 65	17982-39-3	U		30		U	GAM
Ruthenium 106	13967-48-1	U		100		U	GAM
Cesium 134	17967-70-9	U		10		U	GAM
Cesium 137	10045-97-3	U		10	20	U	GAM
Europium 152	14683-23-9	U		20	40	U	GAM
Europium 154	15585-10-1	U		10	40	U	GAM
Radium 226	13982-67-7	U		20		U	GAM
Thorium 228	14274-82-9	U		20		U	GAM
Thorium 232	7440-29-1	U		50		U	GAM

Lab id TMAN
Protocol WHC-HEIS
Version Ver 1.0
Form DVD-DS
Version 2.22
Report date 01/29/93

9613494.1050

TMA NORCAL

REPORTING GROUP 7102

N209170-18

DATA SHEET

B079R6

SDG 7102
Contact Dinkar Kharkar

Client Westinghouse Hanford
Contract MBH-SVV-069262

Lab sample id N209170-18
Dept sample id 7102-018
Received 09/23/92

Client sample id B079R6
Matrix WATER
Collected 09/21/92
Chain of custody id EFL-1049

PARAMETER	CAS NO	RESULT pCi/L	2σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALI-FIERS	TEST
Gross Alpha	Alpha	2.6	1.9	2	3	J	80A
Gross Beta	Beta	27	2.3	2	4		80B
Uranium 233/234		0.73	0.24	0.1	0.2		U
Uranium 235	15117-96-1	0.039	0.039	0.1	0.2	U	U
Uranium 238	7440-61-1	0.49	0.20	0.1	0.2		U
Plutonium 238	13981-16-3	-0.002	0.009	0.03	0.05	U	PU
Plutonium 239/240		0.007	0.009	0.02	0.05	U	PU
Americium 241	14596-10-2	0.002	0.008	0.02	0.05	U	AM
Strontium 90	10098-97-2	9.0	0.97	0.8	2		Y
Technetium 99	14133-76-7	1.8	2.3	7	5	U	TC
Tritium	10028-17-8	710	180	200	400		H
Carbon 14	14762-75-5	630	140	200	50		C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2	U		300		U	GAM
Iron 59		U		100	30	U	GAM
Chromium 51	14392-02-0	U		800		U	GAM
Cobalt 60	10198-40-0	U		20	30	U	GAM
Zinc 65	17982-39-3	U		40		U	GAM
Ruthenium 106	13967-48-1	U		200		U	GAM
Cesium 134	17967-70-9	U		20		U	GAM
Cesium 137	10045-97-3	U		20	20	U	GAM
Europium 152	14683-23-9	U		30	40	U	GAM
Europium 154	15585-10-1	U		20	40	U	GAM
Radium 226	13982-67-7	U		30		U	GAM
Thorium 228	14274-82-9	U		20		U	GAM
Thorium 232	7440-29-1	U		60		U	GAM

Lab id TMAN
Protocol WHC-HEIS
Version Ver 1.0
Form DVD-DS
Version 2.22
Report date 01/29/93

9613494.1051

TMA NORCAL

REPORTING GROUP 7102

N209170-19

DATA SHEET

B079S1

SDG 7102
Contact Dinkar Kharkar

Client Westinghouse Hanford
Contract MBH-SVV-069262

Lab sample id N209170-19
Dept sample id 7102-019
Received 09/23/92

Client sample id B079S1
Matrix WATER
Collected 09/21/92
Chain of custody id EFL-1048

PARAMETER	CAS NO	RESULT pCi/L	2σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALI-FIERS	TEST
Gross Alpha	Alpha	0.62	1.8	2	3	U	80A
Gross Beta	Beta	71	3.4	2	4		80B
Uranium 233/234		0.44	0.15	0.1	0.2		U
Uranium 235	15117-96-1	0.074	0.060	0.1	0.2	U	U
Uranium 238	7440-61-1	0.38	0.15	0.09	0.2		U
Plutonium 238	13981-16-3	0.021	0.018	0.03	0.05	U	PU
Plutonium 239/240		0	0.018	0.04	0.05	U	PU
Americium 241	14596-10-2	0	0.012	0.02	0.05	U	AM
Strontium 90	10098-97-2	30	1.6	1	2		Y
Technetium 99	14133-76-7	0.49	1.9	6	5	U	TC
Tritium	10028-17-8	930	190	200	400		H
Carbon 14	14762-75-5	24	28	50	50	U	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2	U		200		U	GAM
Iron 59		U		80	30	U	GAM
Chromium 51	14392-02-0	U		600		U	GAM
Cobalt 60	10198-40-0	U		10	30	U	GAM
Zinc 65	17982-39-3	U		40		U	GAM
Ruthenium 106	13967-48-1	U		100		U	GAM
Cesium 134	17967-70-9	U		10		U	GAM
Cesium 137	10045-97-3	U		10	20	U	GAM
Europium 152	14683-23-9	U		20	40	U	GAM
Europium 154	15585-10-1	U		10	40	U	GAM
Radium 226	13982-67-7	U		20		U	GAM
Thorium 228	14274-82-9	U		20		U	GAM
Thorium 232	7440-29-1	U		40		U	GAM

Lab id TMAN
Protocol WHC-HEIS
Version Ver 1.0
Form DVD-DS
Version 2.22
Report date 01/29/93

9613494.1052

TMA NORCAL

REPORTING GROUP 7102

N209170-20

DATA SHEET

B079S6

SDG 7102
Contact Dinkar Kharkar

Client Westinghouse Hanford
Contract MBH-SVV-069262

Lab sample id N209170-20
Dept sample id 7102-020
Received 09/23/92

Client sample id B079S6
Matrix WATER
Collected 09/21/92
Chain of custody id EFL-1049

PARAMETER	CAS NO	RESULT pCi/L	2σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALI-FIERS	TEST
Gross Alpha	Alpha	2.0	2.1	3	3	U	80A
Gross Beta	Beta	17	1.9	2	4		80B
Uranium 233/234		0.63	0.19	0.1	0.2		U
Uranium 235	15117-96-1	0.024	0.049	0.09	0.2	U	U
Uranium 238	7440-61-1	0.71	0.18	0.08	0.2		U
Plutonium 238	13981-16-3	-0.006	0.024	0.05	0.05	U	PU
Plutonium 239/240		0	0.018	0.04	0.05	U	PU
Americium 241	14596-10-2	0	0.011	0.02	0.05	U	AM
Strontium 90	10098-97-2	5.6	1.2	0.9	2		Y
Technetium 99	14133-76-7	2.3	2.0	6	5	U	TC
Tritium	10028-17-8	790	180	200	400		H
Carbon 14	14762-75-5	120	41	60	50	B	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2	U		100		U	GAM
Iron 59		U		100	30	U	GAM
Chromium 51	14392-02-0	U		800		U	GAM
Cobalt 60	10198-40-0	U		20	30	U	GAM
Zinc 65	17982-39-3	U		30		U	GAM
Ruthenium 106	13967-48-1	U		100		U	GAM
Cesium 134	17967-70-9	U		10		U	GAM
Cesium 137	10045-97-3	U		10	20	U	GAM
Europium 152	14683-23-9	U		20	40	U	GAM
Europium 154	15585-10-1	U		10	40	U	GAM
Radium 226	13982-67-7	U		20		U	GAM
Thorium 228	14274-82-9	U		20		U	GAM
Thorium 232	7440-29-1	U		50		U	GAM

Lab id TMAN
Protocol WHC-HEIS
Version Ver 1.0
Form DVD-DS
Version 2.22
Report date 01/29/93

9613494.1053

TMA NORCAL

REPORTING GROUP 7102

DATA SHEET

N209170-05

B079T6

SDG 7102
Contact Dinkar Kharkar
Client Westinghouse Hanford
Contract MBH-SVV-069262

Lab sample id N209170-05
Dept sample id 7102-005
Received 09/24/92
Client sample id B079T6
Matrix WATER
Collected 09/22/92
Chain of custody id EFL-1048

PARAMETER	CAS NO	RESULT pCi/L	2σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALI-FIERS	TEST
Gross Alpha	Alpha	6.1	3.1	3	3		80A
Gross Beta	Beta	20	2.1	2	4		80B
Uranium 233/234		2.1	0.43	0.2	0.2		U
Uranium 235	15117-96-1	0.29	0.14	0.1	0.2		U
Uranium 238	7440-61-1	1.6	0.36	0.1	0.2		U
Plutonium 238	13981-16-3	-0.003	0.016	0.04	0.05	U	PU
Plutonium 239/240		0	0.005	0.02	0.05	U	PU
Americium 241	14596-10-2	-0.008	0.015	0.03	0.05	U	AM
Strontium 90	10098-97-2	0.14	0.30	0.8	2	U	Y
Technetium 99	14133-76-7	8.3	2.1	4	5		TC
Tritium	10028-17-8	24000	620	200	400		H
Carbon 14	14762-75-5	320	44	60	50	B	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2	U		200		U	GAM
Iron 59		U		90	30	U	GAM
Chromium 51	14392-02-0	U		600		U	GAM
Cobalt 60	10198-40-0	U		10	30	U	GAM
Zinc 65	17982-39-3	U		30		U	GAM
Ruthenium 106	13967-48-1	U		100		U	GAM
Cesium 134	17967-70-9	U		20		U	GAM
Cesium 137	10045-97-3	U		20	20	U	GAM
Europium 152	14683-23-9	U		30	40	U	GAM
Europium 154	15585-10-1	U		20	40	U	GAM
Radium 226	13982-67-7	U		30		U	GAM
Thorium 228	14274-82-9	U		20		U	GAM
Thorium 232	7440-29-1	U		60		U	GAM
Gamma SB125		42	26				GAM

Lab id TMAN
Protocol WHC-HEIS
Version Ver 1.0
Form DVD-DS
Version 2.22
Report date 01/29/93

9613494.1054

TMA NORCAL

REPORTING GROUP 7102

N209170-09

DATA SHEET

B079V6

SDG 7102
Contact Dinkar Kharkar

Client Westinghouse Hanford
Contract MBH-SVV-069262

Lab sample id N209170-09
Dept sample id 7102-009
Received 09/25/92

Client sample id B079V6
Matrix WATER
Collected 09/23/92
Chain of custody id EFL-1048

PARAMETER	CAS NO	RESULT pCi/L	2σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALI-FIERS	TEST
Gross Alpha	Alpha	0.085	1.6	3	3	U	80A
Gross Beta	Beta	5.3	1.4	2	4		80B
Uranium 233/234		0.73	0.27	0.1	0.2		U
Uranium 235	15117-96-1	0.043	0.044	0.2	0.2	U	U
Uranium 238	7440-61-1	0.59	0.23	0.1	0.2		U
Plutonium 238	13981-16-3	-0.012	0.025	0.05	0.05	U	PU
Plutonium 239/240		0	0.005	0.02	0.05	U	PU
Americium 241	14596-10-2	-0.002	0.020	0.04	0.05	U	AM
Strontium 90	10098-97-2	-0.14	0.88	1	2	U	Y
Technetium 99	14133-76-7	2.6	1.8	5	5	U	TC
Tritium	10028-17-8	1500	210	200	400		H
Carbon 14	14762-75-5	200	56	90	50	B	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2	U		100		U	GAM
Iron 59		U		70	30	U	GAM
Chromium 51	14392-02-0	U		500		U	GAM
Cobalt 60	10198-40-0	U		10	30	U	GAM
Zinc 65	17982-39-3	U		30		U	GAM
Ruthenium 106	13967-48-1	U		100		U	GAM
Cesium 134	17967-70-9	U		10		U	GAM
Cesium 137	10045-97-3	U		10	20	U	GAM
Europium 152	14683-23-9	U		20	40	U	GAM
Europium 154	15585-10-1	U		10	40	U	GAM
Radium 226	13982-67-7	U		20		U	GAM
Thorium 228	14274-82-9	U		20		U	GAM
Thorium 232	7440-29-1	U		50		U	GAM

Lab id TMAN
Protocol WHC-HEIS
Version Ver 1.0
Form DVD-DS
Version 2.22
Report date 01/29/93

9613494.1055

TMA NORCAL

REPORTING GROUP 7102

N209170-07

B079W1

DATA SHEET

SDG 7102
Contact Dinkar Kharkar

Client Westinghouse Hanford
Contract MBH-SVV-069262

Lab sample id N209170-07
Dept sample id 7102-007
Received 09/25/92

Client sample id B079W1
Matrix WATER
Collected 09/23/92
Chain of custody id EFL-1049

PARAMETER	CAS NO	RESULT pCi/L	2σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALI-FIERS	TEST
Gross Alpha	Alpha	3.9	2.4	2	3		80A
Gross Beta	Beta	15	1.9	2	4		80B
Uranium 233/234		0.63	0.21	0.1	0.2		U
Uranium 235	15117-96-1	0.074	0.060	0.1	0.2	U	U
Uranium 238	7440-61-1	0.44	0.15	0.09	0.2		U
Plutonium 238	13981-16-3	0	0.009	0.03	0.05	U	PU
Plutonium 239/240		0	0.005	0.02	0.05	U	PU
Americium 241	14596-10-2	-0.009	0.023	0.05	0.05	U	AM
Strontium 90	10098-97-2	0.78	0.47	1	2	U	Y
Technetium 99	14133-76-7	7.8	2.4	5	5		TC
Tritium	10028-17-8	3100	260	200	400		H
Carbon 14	14762-75-5	270	39	50	50	B	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2	U		100		U	GAM
Iron 59		U		70	30	U	GAM
Chromium 51	14392-02-0	U		500		U	GAM
Cobalt 60	10198-40-0	U		20	30	U	GAM
Zinc 65	17982-39-3	U		30		U	GAM
Ruthenium 106	13967-48-1	U		100		U	GAM
Cesium 134	17967-70-9	U		10		U	GAM
Cesium 137	10045-97-3	U		10	20	U	GAM
Europium 152	14683-23-9	U		20	40	U	GAM
Europium 154	15585-10-1	U		10	40	U	GAM
Radium 226	13982-67-7	U		20		U	GAM
Thorium 228	14274-82-9	U		20		U	GAM
Thorium 232	7440-29-1	U		50		U	GAM

Lab id TMAN
Protocol WHC-HEIS
Version Ver 1.0
Form DVD-DS
Version 2.22
Report date 01/29/93

9613494.1056

TMA NORCAL

REPORTING GROUP 7102

N209170-08

DATA SHEET

B079W6

SDG 7102
Contact Dinkar Kharkar

Client Westinghouse Hanford
Contract MBH-SVV-069262

Lab sample id N209170-08
Dept sample id 7102-008
Received 09/25/92

Client sample id B079W6
Matrix WATER
Collected 09/23/92
Chain of custody id EFL-1049

PARAMETER	CAS NO	RESULT pCi/L	2σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALI-FIERS	TEST
Gross Alpha	Alpha	2.3	2.5	3	3	U	80A
Gross Beta	Beta	5.1	1.4	2	4		80B
Uranium 233/234		2.1	0.40	0.1	0.2		U
Uranium 235	15117-96-1	-0.015	0.031	0.1	0.2	U	U
Uranium 238	7440-61-1	1.2	0.28	0.1	0.2		U
Plutonium 238	13981-16-3	-0.003	0.027	0.06	0.05	U	PU
Plutonium 239/240		0	0.007	0.03	0.05	U	PU
Americium 241	14596-10-2	-0.018	0.024	0.06	0.05	U	AM
Strontium 90	10098-97-2	0.048	0.64	0.9	2	U	Y
Technetium 99	14133-76-7	6.2	11	20	5	U	TC
Tritium	10028-17-8	-67	140	200	400	U	H
Carbon 14	14762-75-5	140	42	70	50	B	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2	U		200		U	GAM
Iron 59		U		80	30	U	GAM
Chromium 51	14392-02-0	U		600		U	GAM
Cobalt 60	10198-40-0	U		10	30	U	GAM
Zinc 65	17982-39-3	U		30		U	GAM
Ruthenium 106	13967-48-1	U		100		U	GAM
Cesium 134	17967-70-9	U		10		U	GAM
Cesium 137	10045-97-3	U		10	20	U	GAM
Europium 152	14683-23-9	U		30	40	U	GAM
Europium 154	15585-10-1	U		20	40	U	GAM
Radium 226	13982-67-7	U		20		U	GAM
Thorium 228	14274-82-9	U		20		U	GAM
Thorium 232	7440-29-1	U		60		U	GAM

Lab id TMAN
Protocol WHC-HEIS
Version Ver 1.0
Form DVD-DS
Version 2.22
Report date 01/29/93

9613494.1057

TMA NORCAL

REPORTING GROUP 7102

N209170-10

B079Y1

DATA SHEET

SDG 7102
Contact Dinkar Kharkar

Client Westinghouse Hanford
Contract MBH-SVV-069262

Lab sample id N209170-10
Dept sample id 7102-010
Received 09/29/92

Client sample id B079Y1
Matrix WATER
Collected 09/25/92
Chain of custody id EFL-1048

PARAMETER	CAS NO	RESULT pCi/L	2σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALI-FIERS	TEST
Gross Alpha	Alpha	1.5	2.1	3	3	U	80A
Gross Beta	Beta	6.3	1.5	2	4		80B
Uranium 233/234		0.85	0.25	0.1	0.2		U
Uranium 235	15117-96-1	0.017	0.035	0.1	0.2	U	U
Uranium 238	7440-61-1	0.68	0.22	0.1	0.2		U
Plutonium 238	13981-16-3	0.003	0.016	0.04	0.05	U	PU
Plutonium 239/240		-0.003	0.005	0.02	0.05	U	PU
Americium 241	14596-10-2	-0.006	0.019	0.04	0.05	U	AM
Strontium 90	10098-97-2	0.038	0.85	1	2	U	Y
Technetium 99	14133-76-7	1.4	2.5	5	5	U	TC
Tritium	10028-17-8	2600	250	200	400		H
Carbon 14	14762-75-5	320	45	60	50	B	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2	U		300		U	GAM
Iron 59		U		90	30	U	GAM
Chromium 51	14392-02-0	U		500		U	GAM
Cobalt 60	10198-40-0	U		10	30	U	GAM
Zinc 65	17982-39-3	U		40		U	GAM
Ruthenium 106	13967-48-1	U		100		U	GAM
Cesium 134	17967-70-9	U		20		U	GAM
Cesium 137	10045-97-3	U		20	20	U	GAM
Europium 152	14683-23-9	U		30	40	U	GAM
Europium 154	15585-10-1	U		20	40	U	GAM
Radium 226	13982-67-7	U		30		U	GAM
Thorium 228	14274-82-9	U		20		U	GAM
Thorium 232	7440-29-1	U		90		U	GAM

Lab id TMAN
Protocol WHC-HEIS
Version Ver 1.0
Form DVD-DS
Version 2.22
Report date 01/29/93

9613494.1058

TMA NORCAL

REPORTING GROUP 7102

N209170-11

DATA SHEET

B079Y6

SDG 7102
Contact Dinkar Kharkar

Client Westinghouse Hanford
Contract MBH-SVV-069262

Lab sample id N209170-11
Dept sample id 7102-011
Received 09/29/92

Client sample id B079Y6
Matrix WATER
Collected 09/25/92
Chain of custody id EFL-1048

PARAMETER	CAS NO	RESULT pCi/L	2σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALI-FIERS	TEST
Gross Alpha	Alpha	3.2	2.4	3	3		80A
Gross Beta	Beta	7.7	1.5	2	4		80B
Uranium 233/234		1.5	0.32	0.1	0.2		U
Uranium 235	15117-96-1	0.12	0.092	0.1	0.2	J	U
Uranium 238	7440-61-1	1.3	0.29	0.1	0.2		U
Plutonium 238	13981-16-3	0	0.011	0.03	0.05	U	PU
Plutonium 239/240		-0.003	0.006	0.02	0.05	U	PU
Americium 241	14596-10-2	0.007	0.020	0.04	0.05	U	AM
Strontium 90	10098-97-2	-0.10	0.56	0.7	2	U	Y
Technetium 99	14133-76-7	0.54	1.6	5	5	U	TC
Tritium	10028-17-8	2400	240	200	400		H
Carbon 14	14762-75-5	160	23	30	50	B	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2	U		100		U	GAM
Iron 59		U		60	30	U	GAM
Chromium 51	14392-02-0	U		500		U	GAM
Cobalt 60	10198-40-0	U		20	30	U	GAM
Zinc 65	17982-39-3	U		20		U	GAM
Ruthenium 106	13967-48-1	U		100		U	GAM
Cesium 134	17967-70-9	U		10		U	GAM
Cesium 137	10045-97-3	U		10	20	U	GAM
Europium 152	14683-23-9	U		20	40	U	GAM
Europium 154	15585-10-1	U		20	40	U	GAM
Radium 226	13982-67-7	U		20		U	GAM
Thorium 228	14274-82-9	U		20		U	GAM
Thorium 232	7440-29-1	U		40		U	GAM

Lab id TMAN
Protocol WHC-HEIS
Version Ver 1.0
Form DVD-DS
Version 2.22
Report date 01/29/93

9613494.1059

TMA NORCAL

REPORTING GROUP 7102

N209170-15

B079Z1

DATA SHEET

SDG 7102
Contact Dinkar Kharkar

Client Westinghouse Hanford
Contract MBH-SVV-069262

Lab sample id N209170-15
Dept sample id 7102-015
Received 09/28/92

Client sample id B079Z1
Matrix WATER
Collected 09/24/92
Chain of custody id EFL-1048

PARAMETER	CAS NO	RESULT pCi/L	2σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALI-FIERS	TEST
Gross Alpha	Alpha	1.7	1.7	2	3	U	80A
Gross Beta	Beta	19	2.0	2	4		80B
Uranium 233/234		0.79	0.25	0.1	0.2		U
Uranium 235	15117-96-1	0.079	0.080	0.2	0.2	U	U
Uranium 238	7440-61-1	0.57	0.21	0.1	0.2		U
Plutonium 238	13981-16-3	0.007	0.015	0.02	0.05	U	PU
Plutonium 239/240		0.002	0.010	0.02	0.05	U	PU
Americium 241	14596-10-2	0.011	0.011	0.01	0.05	BJ	AM
Strontium 90	10098-97-2	5.4	1.2	0.8	2		Y
Technetium 99	14133-76-7	0.25	1.8	6	5	U	TC
Tritium	10028-17-8	220	160	200	400	J	H
Carbon 14	14762-75-5	36	29	50	50	U	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2	U		100		U	GAM
Iron 59		U		60	30	U	GAM
Chromium 51	14392-02-0	U		500		U	GAM
Cobalt 60	10198-40-0	U		10	30	U	GAM
Zinc 65	17982-39-3	U		20		U	GAM
Ruthenium 106	13967-48-1	U		100		U	GAM
Cesium 134	17967-70-9	U		10		U	GAM
Cesium 137	10045-97-3	U		10	20	U	GAM
Europium 152	14683-23-9	U		20	40	U	GAM
Europium 154	15585-10-1	U		10	40	U	GAM
Radium 226	13982-67-7	U		20		U	GAM
Thorium 228	14274-82-9	U		20		U	GAM
Thorium 232	7440-29-1	U		50		U	GAM

Lab id TMAN
Protocol WHC-HEIS
Version Ver 1.0
Form DVD-DS
Version 2.22
Report date 01/29/93

9613494.1060

TMA NORCAL

REPORTING GROUP 7102

N209170-06

B079Z6

DATA SHEET

SDG 7102
Contact Dinkar Kharkar

Client Westinghouse Hanford
Contract MBH-SVV-069262

Lab sample id N209170-06
Dept sample id 7102-006
Received 09/24/92

Client sample id B079Z6
Matrix WATER
Collected 09/22/92
Chain of custody id EFL-1049

PARAMETER	CAS NO	RESULT pCi/L	2σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALI-FIERS	TEST
Gross Alpha	Alpha	3.7	2.5	3	3		80A
Gross Beta	Beta	49	2.9	2	4		80B
Uranium 233/234		0.61	0.21	0.1	0.2		U
Uranium 235	15117-96-1	0.039	0.039	0.1	0.2	U	U
Uranium 238	7440-61-1	0.50	0.20	0.1	0.2		U
Plutonium 238	13981-16-3	0	0.012	0.03	0.05	U	PU
Plutonium 239/240		-0.003	0.006	0.02	0.05	U	PU
Americium 241	14596-10-2	0.004	0.020	0.03	0.05	U	AM
Strontium 90	10098-97-2	0.043	0.28	0.8	2	U	Y
Technetium 99	14133-76-7	88	5.5	4	5		TC
Tritium	10028-17-8	2400	230	200	400		H
Carbon 14	14762-75-5	21	28	50	50	U	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2	U		100		U	GAM
Iron 59		U		60	30	U	GAM
Chromium 51	14392-02-0	U		600		U	GAM
Cobalt 60	10198-40-0	U		10	30	U	GAM
Zinc 65	17982-39-3	U		30		U	GAM
Ruthenium 106	13967-48-1	U		100		U	GAM
Cesium 134	17967-70-9	U		10		U	GAM
Cesium 137	10045-97-3	U		10	20	U	GAM
Europium 152	14683-23-9	U		20	40	U	GAM
Europium 154	15585-10-1	U		20	40	U	GAM
Radium 226	13982-67-7	U		20		U	GAM
Thorium 228	14274-82-9	U		20		U	GAM
Thorium 232	7440-29-1	U		50		U	GAM

Lab id TMAN
Protocol WHC-HEIS
Version Ver 1.0
Form DVD-DS
Version 2.22
Report date 01/29/93

9613494.1061

TMA NORCAL

REPORTING GROUP 7102

N209170-12

DATA SHEET

B07B01

SDG 7102
Contact Dinkar Kharkar

Client Westinghouse Hanford
Contract MBH-SVV-069262

Lab sample id N209170-12
Dept sample id 7102-012
Received 09/30/92

Client sample id B07B01
Matrix WATER
Collected 09/28/92
Chain of custody id EFL-1048

PARAMETER	CAS NO	RESULT pCi/L	2σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALI-FIERS	TEST
Gross Alpha	Alpha	0.009	1.5	2	3	U	80A
Gross Beta	Beta	5.2	1.6	2	4		80B
Uranium 233/234		0.92	0.23	0.1	0.2		U
Uranium 235	15117-96-1	0.042	0.056	0.1	0.2	U	U
Uranium 238	7440-61-1	0.70	0.20	0.09	0.2		U
Plutonium 238	13981-16-3	0	0.011	0.03	0.05	U	PU
Plutonium 239/240		0	0.006	0.02	0.05	U	PU
Americium 241	14596-10-2	0.009	0.019	0.03	0.05	U	AM
Strontium 90	10098-97-2	0.10	0.36	1	2	U	Y
Technetium 99	14133-76-7	-1.0	1.5	6	5	U	TC
Tritium	10028-17-8	3000	260	200	400		H
Carbon 14	14762-75-5	370	32	40	50	B	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2	U		200		U	GAM
Iron 59		U		60	30	U	GAM
Chromium 51	14392-02-0	U		500		U	GAM
Cobalt 60	10198-40-0	U		10	30	U	GAM
Zinc 65	17982-39-3	U		30		U	GAM
Ruthenium 106	13967-48-1	U		100		U	GAM
Cesium 134	17967-70-9	U		10		U	GAM
Cesium 137	10045-97-3	U		10	20	U	GAM
Europium 152	14683-23-9	U		20	40	U	GAM
Europium 154	15585-10-1	U		10	40	U	GAM
Radium 226	13982-67-7	U		20		U	GAM
Thorium 228	14274-82-9	U		20		U	GAM
Thorium 232	7440-29-1	U		50		U	GAM

Lab id TMAN
Protocol WHC-HEIS
Version Ver 1.0
Form DVD-DS
Version 2.22
Report date 01/29/93

9613494.1062

TMA NORCAL

REPORTING GROUP 7102

N209170-03

DATA SHEET

B07B06

SDG 7102
Contact Dinkar Kharkar

Client Westinghouse Hanford
Contract MBH-SVV-069262

Lab sample id N209170-03
Dept sample id 7102-003
Received 09/24/92

Client sample id B07B06
Matrix WATER
Collected 09/22/92
Chain of custody id EFL-1049

PARAMETER	CAS NO	RESULT pCi/L	2σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALI-FIERS	TEST
Gross Alpha	Alpha	4.1	2.3	3	3		80A
Gross Beta	Beta	5.9	1.5	2	4		80B
Uranium 233/234		1.6	0.33	0.09	0.2		U
Uranium 235	15117-96-1	0.058	0.058	0.1	0.2	U	U
Uranium 238	7440-61-1	0.90	0.23	0.09	0.2		U
Plutonium 238	13981-16-3	-0.016	0.016	0.04	0.05	U	PU
Plutonium 239/240		0	0.004	0.02	0.05	U	PU
Americium 241	14596-10-2	-0.014	0.010	0.05	0.05	U	AM
Strontium 90	10098-97-2	0.11	0.88	2	2	U	Y
Technetium 99	14133-76-7	-1.3	1.4	4	5	U	TC
Tritium	10028-17-8	-81	140	200	400	U	H
Carbon 14	14762-75-5	52	27	40	50		C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2	U		200		U	GAM
Iron 59		U		70	30	U	GAM
Chromium 51	14392-02-0	U		600		U	GAM
Cobalt 60	10198-40-0	U		10	30	U	GAM
Zinc 65	17982-39-3	U		30		U	GAM
Ruthenium 106	13967-48-1	U		100		U	GAM
Cesium 134	17967-70-9	U		10		U	GAM
Cesium 137	10045-97-3	U		10	20	U	GAM
Europium 152	14683-23-9	U		20	40	U	GAM
Europium 154	15585-10-1	U		20	40	U	GAM
Radium 226	13982-67-7	U		20		U	GAM
Thorium 228	14274-82-9	U		20		U	GAM
Thorium 232	7440-29-1	U		50		U	GAM

Lab id TMAN
Protocol WHC-HEIS
Version Ver 1.0
Form DVD-DS
Version 2.22
Report date 01/29/93

9613494.1063

TMA NORCAL

REPORTING GROUP 7102

N209170-01

B07B11

DATA SHEET

SDG 7102
Contact Dinkar Kharkar

Client Westinghouse Hanford
Contract MBH-SVV-069262

Lab sample id N209170-01
Dept sample id 7102-001
Received 09/22/92

Client sample id B07B11
Matrix WATER
Collected 09/18/92
Chain of custody id EFL-1048

PARAMETER	CAS NO	RESULT pCi/L	2σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALI-FIERS	TEST
Gross Alpha	Alpha	1.6	2.1	3	3	U	80A
Gross Beta	Beta	6.2	1.5	2	4		80B
Uranium 233/234		0.88	0.26	0.1	0.2		U
Uranium 235	15117-96-1	0.060	0.081	0.2	0.2	U	U
Uranium 238	7440-61-1	0.53	0.21	0.1	0.2		U
Plutonium 238	13981-16-3	0.012	0.025	0.04	0.05	U	PU
Plutonium 239/240		0.005	0.020	0.04	0.05	U	PU
Americium 241	14596-10-2	0.006	0.011	0.02	0.05	U	AM
Strontium 90	10098-97-2	-0.40	0.82	1	2	U	Y
Technetium 99	14133-76-7	-1.2	1.4	5	5	U	TC
Tritium	10028-17-8	250	150	200	400	J	H
Carbon 14	14762-75-5	-7.4	24	40	50	U	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2	U		100		U	GAM
Iron 59		U		80	30	U	GAM
Chromium 51	14392-02-0	U		600		U	GAM
Cobalt 60	10198-40-0	U		20	30	U	GAM
Zinc 65	17982-39-3	U		30		U	GAM
Ruthenium 106	13967-48-1	U		100		U	GAM
Cesium 134	17967-70-9	U		10		U	GAM
Cesium 137	10045-97-3	U		10	20	U	GAM
Europium 152	14683-23-9	U		20	40	U	GAM
Europium 154	15585-10-1	U		20	40	U	GAM
Radium 226	13982-67-7	U		20		U	GAM
Thorium 228	14274-82-9	U		20		U	GAM
Thorium 232	7440-29-1	U		50		U	GAM

Lab id TMAN
Protocol WHC-HEIS
Version Ver 1.0
Form DVD-DS
Version 2.22
Report date 01/29/93

9613494.1064

TMA NORCAL

REPORTING GROUP 7102

N209170-02

B07B21

DATA SHEET

SDG 7102
Contact Dinkar Kharkar

Client Westinghouse Hanford
Contract MBH-SVV-069262

Lab sample id N209170-02
Dept sample id 7102-002
Received 09/22/92

Client sample id B07B21
Matrix WATER
Collected 09/18/92
Chain of custody id EFL-1048

PARAMETER	CAS NO	RESULT pCi/L	2σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALI-FIERS	TEST
Gross Alpha	Alpha	0.60	1.7	3	3	U	80A
Gross Beta	Beta	4.9	1.5	2	4		80B
Uranium 233/234		1.0	0.27	0.1	0.2		U
Uranium 235	15117-96-1	0.038	0.038	0.1	0.2	U	U
Uranium 238	7440-61-1	0.47	0.16	0.1	0.2		U
Plutonium 238	13981-16-3	-0.008	0.016	0.03	0.05	U	PU
Plutonium 239/240		0.002	0.008	0.01	0.05	U	PU
Americium 241	14596-10-2	-0.098	0.16	0.3	0.05	U	AM
Strontium 90	10098-97-2	-0.24	0.65	0.9	2	U	Y
Technetium 99	14133-76-7	4.1	5.7	20	5	U	TC
Tritium	10028-17-8	250	150	200	400	J	H
Carbon 14	14762-75-5	1.2	24	40	50	U	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2	U		200		U	GAM
Iron 59		U		80	30	U	GAM
Chromium 51	14392-02-0	U		700		U	GAM
Cobalt 60	10198-40-0	U		20	30	U	GAM
Zinc 65	17982-39-3	U		40		U	GAM
Ruthenium 106	13967-48-1	U		100		U	GAM
Cesium 134	17967-70-9	U		20		U	GAM
Cesium 137	10045-97-3	U		10	20	U	GAM
Europium 152	14683-23-9	U		30	40	U	GAM
Europium 154	15585-10-1	U		20	40	U	GAM
Radium 226	13982-67-7	U		30		U	GAM
Thorium 228	14274-82-9	U		20		U	GAM
Thorium 232	7440-29-1	U		60		U	GAM

Lab id TMAN
Protocol WHC-HEIS
Version Ver 1.0
Form DVD-DS
Version 2.22
Report date 01/29/93

9613494.1065

TMA NORCAL

REPORTING GROUP 7102

N209170-16

DATA SHEET

B07B26

SDG 7102
Contact Dinkar Kharkar
Client Westinghouse Hanford
Contract MBH-SVV-069262

Lab sample id N209170-16
Dept sample id 7102-016
Received 09/28/92
Client sample id B07B26
Matrix WATER
Collected 09/24/92
Chain of custody id EFL-1048

PARAMETER	CAS NO	RESULT pCi/L	2σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALI-FIERS	TEST
Gross Alpha	Alpha	1.1	1.6	2	3	U	80A
Gross Beta	Beta	20	2.0	2	4		80B
Uranium 233/234		0.80	0.25	0.1	0.2		U
Uranium 235	15117-96-1	0	0.040	0.2	0.2	U	U
Uranium 238	7440-61-1	0.81	0.25	0.1	0.2		U
Plutonium 238	13981-16-3	0.008	0.012	0.02	0.05	U	PU
Plutonium 239/240		-0.002	0.004	0.02	0.05	U	PU
Americium 241	14596-10-2	0.006	0.017	0.03	0.05	U	AM
Strontium 90	10098-97-2	4.9	0.88	1	2		Y
Technetium 99	14133-76-7	0.71	2.9	9	5	U	TC
Tritium	10028-17-8	260	160	200	400	J	H
Carbon 14	14762-75-5	100	48	80	50	B	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2	U		100		U	GAM
Iron 59		U		70	30	U	GAM
Chromium 51	14392-02-0	U		600		U	GAM
Cobalt 60	10198-40-0	U		10	30	U	GAM
Zinc 65	17982-39-3	U		30		U	GAM
Ruthenium 106	13967-48-1	U		100		U	GAM
Cesium 134	17967-70-9	U		10		U	GAM
Cesium 137	10045-97-3	U		10	20	U	GAM
Europium 152	14683-23-9	U		20	40	U	GAM
Europium 154	15585-10-1	U		10	40	U	GAM
Radium 226	13982-67-7	U		20		U	GAM
Thorium 228	14274-82-9	U		20		U	GAM
Thorium 232	7440-29-1	U		40		U	GAM

Lab id TMAN
Protocol WHC-HEIS
Version Ver 1.0
Form DVD-DS
Version 2.22
Report date 01/29/93

9613494.1066

TMA NORCAL

REPORTING GROUP 7102

N209170-13

DATA SHEET

B07B31

SDG 7102
Contact Dinkar Kharkar

Client Westinghouse Hanford
Contract MBH-SVV-069262

Lab sample id N209170-13
Dept sample id 7102-013
Received 09/30/92

Client sample id B07B31
Matrix WATER
Collected 09/28/92
Chain of custody id EFL-1048

PARAMETER	CAS NO	RESULT pCi/L	2σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALI-FIERS	TEST
Gross Alpha	Alpha	-0.59	1.3	2	3	U	80A
Gross Beta	Beta	-0.84	1.3	2	4	U	80B
Uranium 233/234		0.030	0.059	0.1	0.2	U	U
Uranium 235	15117-96-1	0.054	0.072	0.1	0.2	U	U
Uranium 238	7440-61-1	0.015	0.030	0.1	0.2	U	U
Plutonium 238	13981-16-3	0.002	0.009	0.02	0.05	U	PU
Plutonium 239/240		0.002	0.004	0.02	0.05	U	PU
Americium 241	14596-10-2	-0.002	0.007	0.02	0.05	U	AM
Strontium 90	10098-97-2	-0.24	0.74	0.9	2	U	Y
Technetium 99	14133-76-7	-1.1	1.4	5	5	U	TC
Tritium	10028-17-8	110	150	200	400	U	H
Carbon 14	14762-75-5	19	20	30	50	U	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2	U		300		U	GAM
Iron 59		U		100	30	U	GAM
Chromium 51	14392-02-0	U		600		U	GAM
Cobalt 60	10198-40-0	U		10	30	U	GAM
Zinc 65	17982-39-3	U		30		U	GAM
Ruthenium 106	13967-48-1	U		100		U	GAM
Cesium 134	17967-70-9	U		10		U	GAM
Cesium 137	10045-97-3	U		20	20	U	GAM
Europium 152	14683-23-9	U		30	40	U	GAM
Europium 154	15585-10-1	U		20	40	U	GAM
Radium 226	13982-67-7	U		30		U	GAM
Thorium 228	14274-82-9	U		20		U	GAM
Thorium 232	7440-29-1	U		60		U	GAM

Lab id TMAN
Protocol WHC-HEIS
Version Ver 1.0
Form DVD-DS
Version 2.22
Report date 01/29/93

9613494.1067

TMA NORCAL

REPORTING GROUP 7102

N209170-14

B07B44

DATA SHEET

SDG 7102
Contact Dinkar Kharkar
Client Westinghouse Hanford
Contract MBH-SVV-069262

Lab sample id N209170-14
Dept sample id 7102-014
Received 09/30/92
Client sample id B07B44
Matrix WATER
Collected 09/28/92
Chain of custody id EFL-1048

PARAMETER	CAS NO	RESULT pCi/L	2σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALI-FIERS	TEST
Gross Alpha	Alpha	0.029	1.3	2	3	U	80A
Gross Beta	Beta	-0.36	1.1	2	4	U	80B
Uranium 233/234		0	0.068	0.2	0.2	U	U
Uranium 235	15117-96-1	0.041	0.041	0.2	0.2	U	U
Uranium 238	7440-61-1	0	0.034	0.1	0.2	U	U
Plutonium 238	13981-16-3	-0.002	0.013	0.03	0.05	U	PU
Plutonium 239/240		0	0.004	0.02	0.05	U	PU
Americium 241	14596-10-2	-0.005	0.010	0.03	0.05	U	AM
Strontium 90	10098-97-2	-0.24	0.45	0.8	2	U	Y
Technetium 99	14133-76-7	-0.40	1.3	5	5	U	TC
Tritium	10028-17-8	61	140	200	400	U	H
Carbon 14	14762-75-5	40	21	30	50	BJ	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2	U		200		U	GAM
Iron 59		U		70	30	U	GAM
Chromium 51	14392-02-0	U		500		U	GAM
Cobalt 60	10198-40-0	U		10	30	U	GAM
Zinc 65	17982-39-3	U		30		U	GAM
Ruthenium 106	13967-48-1	U		100		U	GAM
Cesium 134	17967-70-9	U		10		U	GAM
Cesium 137	10045-97-3	U		10	20	U	GAM
Europium 152	14683-23-9	U		20	40	U	GAM
Europium 154	15585-10-1	U		20	40	U	GAM
Radium 226	13982-67-7	U		20		U	GAM
Thorium 228	14274-82-9	U		20		U	GAM
Thorium 232	7440-29-1	U		50		U	GAM

Lab id TMAN
Protocol WHC-HEIS
Version Ver 1.0
Form DVD-DS
Version 2.22
Report date 01/29/93

9613494.1068

Westinghouse Hanford Company	CHAIN OF CUSTODY

Custody Form Initiator PH BUTCHER

Company Contact PH BUTCHER

Telephone (509)376-5045

Project Designation/Sampling Locations 100-KR-4

Collection Date 9/18/92

Ice Chest No. SML-7

Field Logbook No. EFL-1094

Bill of Lading/Airbill No. 9521567376

Offsite Property No. W92-0-0643-1

Method of Shipment EMERY

Shipped to TMA

Possible Sample Hazards/Remarks N/A

Sample Identification

B07B11

1, 1L, P, WATER, CLP-ICP/AA METALS & Hg (HNO3) UNFILTERED
1, 1L, P, WATER, CLP-CYANIDE (NaOH)
3, 40ml, Gs, WATER, CLP-VOA
3, 2L, aG, WATER, CLP-SEMI-VOA & PCB/PEST
1, 1L, P, WATER, ANIONS(IC) (SO4,F,PO4,Cl), COND., pH
2, 4L, P, WATER, GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC (U-235/238,Pu-239/240, Am-241), Sr-90 (HNO3)
1, 500ml, Gs, WATER, TRITIUM, C-14
1, 500ml, P, WATER, ANIONS(NO2,NO3) (H2SO4)
1, 1L, G, WATER, ALKALINITY, TOTAL DISSOLVED SOLIDS
1, 500ml, G, WATER, SULFIDE (ZINC ACETATE+NaOH pH>9)
1, 500ml, G, WATER, AMMONIA, CHEMICAL OXYGEN DEMAND (H2SO4 pH<2)
1, 1L, P, WATER, Tc-99 (HNO3)

B07B14

1, 1L, P, WATER, CLP-ICP/AA METALS & Hg (HNO3) FILTERED

B07B15

3, 40ml, Gs, WATER, CLP-VOA

[] Field Transfer of Custody — Chain of Possession — (Sign and Print Names)

Relinquished by:	Received by:	Date/Time:
K.D. Lee K.D. Lee	Kel Whitten B. WHITTEN	9-21-92 0800
Relinquished by: Kel Whitten B. WHITTEN	Received by: Hermit Bleum	Date/Time: 9-22-92 1130
Relinquished by:	Received by:	Date/Time:
Relinquished by:	Received by:	Date/Time:

Final Sample Disposition

Disposal Method:	Disposed by:	Date/Time:

Comments:

077

A-6000-407 (12/90) (EF) WEF061
Chain of Custody

9613494.1069

Westinghouse Hanford Company

SAMPLE ANALYSIS REQUEST

PART I: FIELD SECTION

Collector Les Walker/Kirby Lee Date Sampled 9-18-92 Time N/A hours

Company Contact P. H. Butcher Telephone (509) 376-5045

Sample Number	Number and Type of Sample Containers	Type of Sample*	Analysis Requested
B07B11	1; 1L, P; WATER; CLP-ICP/AA METALS & MERCURY (HNO_3) UNFILTERED		
	1; 1L; P; WATER; CLP-CYANIDE (NaOH)		
	3; 40ml; Gs; WATER; CLP-VOA		
	3; 2L; aG; WATER; CLP-SEMI-VOA & PCB/PEST		
	1; 1L; P; WATER; ANIONS (IC) (SO4, F, PO4, Cl), CONDUCTIVITY, pH		
	2; 4L; P; WATER; GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC (U-235/238, Pu-239/240, Am-241), Sr-90 (HNO_3)		
	1; 500 ml; G; WATER; TRITIUM, C-14		
	1; 500 ml; P; WATER; ANIONS (NO3, NO2) (H2SO4)		
	1; 1L; G; WATER; ALKALINITY, TOTAL DISSOLVED SOLIDS		
	1; 500 ml; G; WATER; SULFIDE (ZINC ACETATE PLUS NaOH pH>9)		
	1; 500 ml; G; WATER; AMMONIA, CHEMICAL OXYGEN DEMAND (H2SO4 pH<2)		
	1; 1L; P; WATER; Tc-99 (HNO3)		
B07B15	3, 40ml, Gs, WATER, CLP-VOA		
B07B14	1, 1L, P, WATER, CLP-ICP/AA METAL & MERCURY (HNO3) FILTERED		
			BOL # 2521567378
			OPC # W92-0-0643-1
			TASK # 92-206

Field Information** _____

Special Handling and/or Storage _____

Possible Sample Hazards _____

PART II: LABORATORY SECTION

Received by Kermit Blum Title Sample Control Supervisor Date 9-22-92

Analysis Required _____

078

*Indicate whether sample is soil, sludge, water, etc.

**Use back of page for additional information relative to sample location.

A-6000-406

9613494.1070

Westinghouse Hanford Company

CHAIN OF CUSTODY

Custody Form Initiator PH BUTCHER

Company Contact PH BUTCHER

Telephone (509)376-5045

Project Designation/Sampling Locations 100-KR-4

Collection Date 9/18/92

Ice Chest No. SAL-44

Field Logbook No. EFL 1048

Bill of Lading/Airbill No. 2521567376

Offsite Property No. W92-0-0643-1

Method of Shipment EMERY

Shipped to TMA

Possible Sample Hazards/Remarks N/A

Sample Identification

BO 7821

1, 1L, P, WATER, CLP-ICP/AA METALS & Hg (HNO3) UNFILTERED
1, 1L, P, WATER, CLP-CYANIDE (NaOH)
3, 40ml, Gs, WATER, CLP-VOA
3, 2L, aG, WATER, CLP-SEMI-VOA & PCB/PEST
1, 1L, P, WATER, ANIONS(IC) (SO4,F,PO4,Cl), COND., pH
2, 4L, P, WATER, GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC (U-235/238,Pu-239/240, Am-241), Sr-90 (HNO3)
1, 500ml, Gs, WATER, TRITIUM, C-14
1, 500ml, P, WATER, ANIONS(NO2,NO3) (H2SO4)
1, 1L, G, WATER, ALKALINITY, TOTAL DISSOLVED SOLIDS
1, 500ml, G, WATER, SULFIDE (ZINC ACETATE+NaOH pH>9)
1, 500ml, G, WATER, AMMONIA, CHEMICAL OXYGEN DEMAND (H2SO4 pH<2)
1, 1L, P, WATER, Tc-99 (HNO3)

BO 7824

1, 1L, P, WATER, CLP-ICP/AA METALS & Hg (HNO3) FILTERED

BO 7825

3, 40ml, Gs, WATER, CLP-VOA

[] Field Transfer of Custody — Chain of Possession — (Sign and Print Names)

Relinquished by:	Received by:	Date/Time:
Kirby P. Lee K.D. Lee	B. WHITTEN	9-21-92 0800
Relinquished by: B. WHITTEN	Received by: Kermit Blum	Date/Time: 9-22-92 1130
Relinquished by:	Received by:	Date/Time:
Relinquished by:	Received by:	Date/Time:

Final Sample Disposition

Disposal Method:	Disposed by:	Date/Time:

Comments:

079

A-6000-407 (12/90) (EF) WEF061
Chain of Custody

9613494.1071

Westinghouse Hanford Company

SAMPLE ANALYSIS REQUEST

PART I: FIELD SECTION

Collector Les Walker/Kirby Lee Date Sampled 9-18-92 Time N/A hours

Company Contact P. H. Butcher Telephone (509) 376-5045

Sample Number	Number and Type of Sample Containers	Type of Sample*	Analysis Requested
B07B21	1; 1L, P; WATER; CLP-ICP/AA METALS & MERCURY (HNO_3) UNFILTERED		
	1; 1L; P; WATER; CLP-CYANIDE (NaOH)		
	3; 40ml; Gs; WATER; CLP-VOA		
	3; 2L; aG; WATER; CLP-SEMI-VOA & PCB/PEST		
	1; 1L; P; WATER; ANIONS (IC) (SO4, F, PO4, Cl), CONDUCTIVITY, pH		
	2; 4L; P; WATER; GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC		
	(U-235/238, Pu-239/240, Am-241), Sr-90 (HNO_3)		
	1; 500 ml; G; WATER; TRITIUM, C-14		
	1; 500 ml; P; WATER; ANIONS (NO3, NO2) (H2SO4)		
	1; 1L; G; WATER; ALKALINITY, TOTAL DISSOLVED SOLIDS		
	1; 500 ml; G; WATER; SULFIDE (ZINC ACETATE PLUS NaOH pH>9)		
	1; 500 ml; G; WATER; AMMONIA, CHEMICAL OXYGEN DEMAND (H2SO4 pH<2)		
	1; 1L; P; WATER; Tc-99	(HNO3)	
B07B25	3, 40ml, Gs, WATER, CLP-VOA		
B07B24	1, 1L, P, WATER, CLP-ICP/AA METAL & MERCURY (HNO3) FILTERED		
			BOL # 2521567378
			OPC # W92-0-0693-1
			TASK # 92-266

Field Information**

Special Handling and/or Storage

Possible Sample Hazards

PART II: LABORATORY SECTION

Received by Kermit Blum Title Sample Control Supervisor Date 9-22-92

Analysis Required 080

*Indicate whether sample is soil, sludge, water, etc.

**Use back of page for additional information relative to sample location.

A-6000-406

9613494.1072

Westinghouse Hanford Company	CHAIN OF CUSTODY

Custody Form Initiator PH BUTCHER

Company Contact PH BUTCHER

Telephone (509)376-5045

Project Designation/Sampling Locations 100-KR-4

Collection Date 9/22/92

Ice Chest No. ~~25~~ AJS 9/22/92 SML-252

Field Logbook No. EFL-1049

Bill of Lading/Airbill No. 252156783T

Offsite Property No. W92-0-0643-7

Method of Shipment EMERY

Shipped to TMA

Possible Sample Hazards/Remarks N/A

Sample Identification

B0 7B06

1, 1L, P, WATER, CLP-ICP/AA METALS & Hg (HNO3) UNFILTERED
1, 1L, P, WATER, CLP-CYANIDE (NaOH)
3, 40ml, Gs, WATER, CLP-VOA
3, 2L, aG, WATER, CLP-SEMI-VOA & PCB/PEST
1, 1L, P, WATER, ANIONS(IC) (SO4,F,PO4,Cl), COND., pH
2, 4L, P, WATER, GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC (U-235/238,Pu-239/240, Am-241), Sr-90 (HNO3)
* 1, 500ml, Gs, WATER, TRITIUM, C-14
1, 500ml, P, WATER, ANIONS(NO2,NO3) (H2SO4)
1, 1L, G, WATER, ALKALINITY, TOTAL DISSOLVED SOLIDS
1, 500ml, G, WATER, SULFIDE (ZINC ACETATE+NaOH pH>9)
1, 500ml, G, WATER, AMMONIA, CHEMICAL OXYGEN DEMAND (H2SO4 pH<2)
1, 1L, P, WATER, Tc-99 ~~(HNO3)~~ (HCl) 9/22/92

B0 7B09

1, 1L, P, WATER, CLP-ICP/AA METALS & Hg (HNO3) FILTERED

B0 7B10

3, 40ml, Gs, WATER, CLP-VOA

[] Field Transfer of Custody	Chain of Possession	(Sign and Print Names)
Relinquished by: C C HAMILTON	Received by: AJ SIMPSON	Date/Time: 9/23/92 1019
Relinquished by: AJ SIMPSON	Received by: Kermit Blum	Date/Time: 9-24-92 1130
Relinquished by:	Received by:	Date/Time:
Relinquished by:	Received by:	Date/Time:

Final Sample Disposition

Disposal Method:	Disposed by:	Date/Time:

Comments:

* Did not receive tritium aliquot B07B06 @ TMA/NORCAL. We did receive the TOX aliquot B07B07. KB

081

A-6000-407 (12/90) (EF) WEF061
Chain of Custody

9613494.1073

Westinghouse Hanford Company

SAMPLE ANALYSIS REQUEST

PART I: FIELD SECTION

Collector K. Lee, L. Walker, G. Hamilton, C. Celiberti Date Sampled 9/22/93 Time 1025 hours

Company Contact P. H. Butcher Telephone (509) 376-5045

Sample Number	Number and Type of Sample Containers	Type of Sample*	Analysis Requested
B07B06	1; 1L; P;	WATER	CLP ICP/AA METALS & Hg (HNO3) UNFILTERED
	1; 1L; P	WATER	CLP-CYANIDE (NaOH)
	3; 40ml; Gs	WATER	CLP-VOA
	3; 2L; aG	WATER	CLP-SEMI-VOA & PCB/PEST
	1; 1L; P	WATER	ANIONS (IC) (SO4,F,PO4,Cl); CONDUCTIVITY; pH
	2; 4L; P	WATER	GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC
			(U-235/238, Pu-239/240, Am-241), Sr-90; (HNO3)
	1; 500mL; Gs	WATER	TRITIUM, C-14 Not Received
	1; 500mL; P	WATER	ANIONS (NO2/NO3) (H2SO4)
	1; 1L; G	WATER	ALKALINITY, TOTAL DISSOLVED SOLIDS
	1; 500mL; G	WATER	SULFIDE (ZINC ACETATE PLUS NaOH pH>9)
	1; 500mL; G	WATER	AMMONIA, CHEMICAL OXYGEN DEMAND (H2SO4
	1; 1L; P	WATER	Tc-99 (HNO3)
B07B09	1; 1L; P	WATER	CLP-ICP/AA METAL & MERCURY (HNO3) FILTERED
B07B10	3; 40mL; Gs	WATER	CLP-VOA
B07B07	1; 500ML Gs	WATER	[illegible] RECEIVED

Field Information** OPC: W92-0-0643-7

BOL: 252156783T

TASK: 92-266

Special Handling and/or Storage

Possible Sample Hazards

PART II: LABORATORY SECTION

Received by Kermit Blum Title Sample Control Supervisor Date 9-24-92

Analysis Required 082

*Indicate whether sample is soil, sludge, water, etc.

**Use back of page for additional information relative to sample location.

A-6000-406(05/90)

9613494.1074

Westinghouse Hanford Company	CHAIN OF CUSTODY

Custody Form Initiator PH BUTCHER

Company Contact PH BUTCHER

Telephone (509)376-5045

Project Designation/Sampling Locations 100-KR-4

Collection Date 9/22/92

Ice Chest No. SMASH

Field Logbook No. EFL-1048

Bill of Lading/Airbill No. 2521567837

Offsite Property No. W92-0-0643-6

Method of Shipment EMERY

Shipped to TMA

Possible Sample Hazards/Remarks N/A

Sample Identification

B0 79Q6

1, 1L, P, WATER, CLP-ICP/AA METALS & Hg (HNO3) UNFILTERED
1, 1L, P, WATER, CLP-CYANIDE (NaOH)
3, 40ml, Gs, WATER, CLP-VOA
3, 2L, aG, WATER, CLP-SEMI-VOA & PCB/PEST
1, 1L, P, WATER, ANIONS(IC) (SO4,F,PO4,Cl), COND., pH
2, 4L, P, WATER, GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC (U-235/238,Pu-239/240, Am-241), Sr-90 (HNO3)
1, 500ml, Gs, WATER, TRITIUM, C-14
1, 500ml, P, WATER, ANIONS(NO2,NO3) (H2SO4)
1, 1L, G, WATER, ALKALINITY, TOTAL DISSOLVED SOLIDS
1, 500ml, G, WATER, SULFIDE (ZINC ACETATE+NaOH pH>9)
1, 500ml, G, WATER, AMMONIA, CHEMICAL OXYGEN DEMAND (H2SO4 pH<2)
1, 1L, P, WATER, Tc-99 ~~(HNO3)~~ HCL
KOC 9/22/92

B0 79Q9

1, 1L, P, WATER, CLP-ICP/AA METALS & Hg (HNO3) FILTERED

B0 79R0

3, 40ml, Gs, WATER, CLP-VOA

[] Field Transfer of Custody	Chain of Possession	(Sign and Print Names)
Relinquished by: K.D. Lee	Received by: AJ SIMPSON AJ Simpson	Date/Time: 9/23/92 1010
Relinquished by: AJ SIMPSON AJ Simpson	Received by: Kermit Blum	Date/Time: 9-24-92 1130
Relinquished by:	Received by:	Date/Time:
Relinquished by:	Received by:	Date/Time:

Final Sample Disposition

Disposal Method:	Disposed by:	Date/Time:

Comments:

083

A-6000-407 (12/90) (EF) WEF061
Chain of Custody

9613494.1075

Westinghouse Hanford Company

SAMPLE ANALYSIS REQUEST

PART I: FIELD SECTION

Collector K. Lee, L. Walker, G. Hamilton, C. Celiberti Date Sampled 9/22/92 Time 0900 hours

Company Contact P. H. Butcher Telephone (509) 376-5045

Sample Number	Number and Type of Sample Containers	Type of Sample*	Analysis Requested
B079Q6	1; 1L; P;	WATER	CLP ICP/AA METALS & Hg (HNO3) UNFILTERED
	1; 1L; P	WATER	CLP-CYANIDE (NaOH)
	3; 40ml; Gs	WATER	CLP-VOA
	3; 2L; aG	WATER	CLP-SEMI-VOA & PCB/PEST one bottle broken
	1; 1L; P	WATER	ANIONS (IC) (SO4,F,PO4,Cl); CONDUCTIVITY; pH
	2; 4L; P	WATER	GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC
			(U-235/238, Pu-239/240, Am-241), Sr-90; (HNO3)
	1; 500mL; Gs	WATER	TRITIUM, C-14
	1; 500mL; P	WATER	ANIONS (NO2/NO3) (H2SO4)
	1; 1L; G	WATER	ALKALINITY, TOTAL DISSOLVED SOLIDS
	1; 500mL; G	WATER	SULFIDE (ZINC ACETATE PLUS NaOH pH>9)
	1; 500mL; G	WATER	AMMONIA, CHEMICAL OXYGEN DEMAND (H2SO4
	1; 1L; P	WATER	Tc-99 (HNO3)
B079Q9	1; 1L; P	WATER	CLP-ICP/AA METAL & MERCURY (HNO3) FILTERED
B079R0	3; 40mL; Gs	WATER	CLP-VOA

Field Information** OPC: W92-0-0643-6

BOL: 252156783T

TASK: 92-266

Special Handling and/or Storage

Possible Sample Hazards

PART II: LABORATORY SECTION

Received by Kermit Blum Title Sample Control Supervisor Date 9-24-92

Analysis Required

084

*Indicate whether sample is soil, sludge, water, etc.

**Use back of page for additional information relative to sample location.

A-6000-406(05/90)

9613494.1076

Westinghouse Hanford Company	CHAIN OF CUSTODY

Custody Form Initiator PH BUTCHER

Company Contact PH BUTCHER

Telephone (509)376-5045

Project Designation/Sampling Locations 100-KR-4

Collection Date CC-9/22/92 EF 9-22-92

Ice Chest No. SML-264

Field Logbook No. EFL-1048

Bill of Lading/Airbill No. 2521567837

Offsite Property No. W92-0-0643-6

Method of Shipment EMERY

Shipped to TMA

Possible Sample Hazards/Remarks N/A

Sample Identification

BO 79T6

1, 1L, P, WATER, CLP-ICP/AA METALS & Hg (HNO3) UNFILTERED
1, 1L, P, WATER, CLP-CYANIDE (NaOH)
3, 40ml, Gs, WATER, CLP-VOA
3, 2L, aG, WATER, CLP-SEMI-VOA & PCB/PEST
1, 1L, P, WATER, ANIONS(IC) (SO4,F,PO4,Cl), COND., pH
2, 4L, P, WATER, GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC (U-235/238,Pu-239/240, Am-241), Sr-90 (HNO3)
1, 500ml, Gs, WATER, TRITIUM, C-14
1, 500ml, P, WATER, ANIONS(NO2,NO3) (H2SO4)
1, 1L, G, WATER, ALKALINITY, TOTAL DISSOLVED SOLIDS
1, 500ml, G, WATER, SULFIDE (ZINC ACETATE+NaOH pH>9)
1, 500ml, G, WATER, AMMONIA, CHEMICAL OXYGEN DEMAND (H2SO4 pH<2)
1, 1L, P, WATER, Tc-99 ~~(HNO3)~~ (HCL) HJS 9/23/92

BO 79T9

1, 1L, P, WATER, CLP-ICP/AA METALS & Hg (HNO3) FILTERED

BO 79V0

3, 40ml, Gs, WATER, CLP-VOA

[] Field Transfer of Custody	Chain of Possession	(Sign and Print Names)
Relinquished by: C Celiberti C. CELIBERTI	Received by: AJ SIMPSON AJ Simpson	Date/Time: 9/23/92 1005
Relinquished by: AJ SIMPSON AJ Simpson	Received by: Kermit Blum	Date/Time: 9-24-92 1130
Relinquished by:	Received by:	Date/Time:
Relinquished by:	Received by:	Date/Time:

Final Sample Disposition

Disposal Method:	Disposed by:	Date/Time:

Comments:

085

A-6000-407 (12/90) (EF) WEF061
Chain of Custody

9613494.1077

Westinghouse Hanford Company

SAMPLE ANALYSIS REQUEST

PART I: FIELD SECTION

Collector K. Lee, L. Walker, G. Hamilton, C. Celiberti Date Sampled 9/22/92 Time 1030 hours

Company Contact P. H. Butcher Telephone (509) 376-5045

Sample Number	Number and Type of Sample Containers	Type of Sample*	Analysis Requested	
B079T6	1; 1L; P;	WATER	CLP ICP/AA METALS & Hg (HNO3) UNFILTERED	S
	1; 1L; P	WATER	CLP-CYANIDE (NaOH)	S
	3; 40ml; Gs	WATER	CLP-VOA	A
	3; 2L; aG	WATER	CLP-SEMI-VOA & PCB/PEST	A
	1; 1L; P	WATER	ANIONS (IC) (SO4,F,PO4,Cl); CONDUCTIVITY; pH	A
	2; 4L; P	WATER	GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC	
			(U-235/238, Pu-239/240, Am-241), Sr-90; (HNO3)	
	1; 500mL; Gs	WATER	TRITIUM, C-14	
	1; 500mL; P	WATER	ANIONS (NO2/NO3) (H2SO4)	S
	1; 1L; G	WATER	ALKALINITY, TOTAL DISSOLVED SOLIDS	A
	1; 500mL; G	WATER	SULFIDE (ZINC ACETATE PLUS NaOH pH>9)	A
	1; 500mL; G	WATER	AMMONIA, CHEMICAL OXYGEN DEMAND (H2SO4	A
	1; 1L; P	WATER	Tc-99 (HNO3)	
B079T9	1; 1L; P	WATER	CLP-ICP/AA METAL & MERCURY (HNO3) FILTERED	S
B079V0	3; 40mL; Gs	WATER	CLP-VOA	A

Field Information** OPC: W92-0-0643-6

BOL: 2521567837

TASK: 92-266

Special Handling and/or Storage

Possible Sample Hazards

PART II: LABORATORY SECTION

Received by Kermit Blum Title Sample Control Supervisor Date 9-24-92

Analysis Required

086

*Indicate whether sample is soil, sludge, water, etc.

**Use back of page for additional information relative to sample location.

A-6000-406(05/90)

9613494.1078

Westinghouse Hanford Company	CHAIN OF CUSTODY

Custody Form Initiator PH BUTCHER

Company Contact PH BUTCHER

Telephone (509)376-5045

Project Designation/Sampling Locations 100-KR-4

Collection Date 9/22/92

Ice Chest No. SML-268

Field Logbook No. EFL 1049

Bill of Lading/Airbill No. 252156783T

Offsite Property No. W92-0-0043-7

Method of Shipment EMERY

Shipped to TMA

Possible Sample Hazards/Remarks N/A

Sample Identification

B0 79Z6

1, 1L, P, WATER, CLP-ICP/AA METALS & Hg (HNO3) UNFILTERED
1, 1L, P, WATER, CLP-CYANIDE (NaOH)
3, 40ml, Gs, WATER, CLP-VOA
3, 2L, aG, WATER, CLP-SEMI-VOA & PCB/PEST
1, 1L, P, WATER, ANIONS(IC) (SO4,F,PO4,Cl), COND., pH
2, 4L, P, WATER, GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC (U-235/238,Pu-239/240, Am-241), Sr-90 (HNO3)
1, 500ml, Gs, WATER, TRITIUM, C-14
1, 500ml, P, WATER, ANIONS(NO2,NO3) (H2SO4)
1, 1L, G, WATER, ALKALINITY, TOTAL DISSOLVED SOLIDS
1, 500ml, G, WATER, SULFIDE (ZINC ACETATE+NaOH pH>9)
1, 500ml, G, WATER, AMMONIA, CHEMICAL OXYGEN DEMAND (H2SO4 pH<2)
1, 1L, P, WATER, Tc-99 ~~(HNO3)~~ (HCl) [illegible] 9/22/92

B0 79Z9

1, 1L, P, WATER, CLP-ICP/AA METALS & Hg (HNO3) FILTERED

B0 7800

3, 40ml, Gs, WATER, CLP-VOA

[] Field Transfer of Custody	Chain of Possession	(Sign and Print Names)
Relinquished by: [illegible] GG Hamilton	Received by: AJ SIMPSON AJ Simpson	Date/Time: 9/23/92 1015
Relinquished by: AJ SIMPSON AJ Simpson	Received by: Kermit Blum	Date/Time: 9-24-92 1130
Relinquished by:	Received by:	Date/Time:
Relinquished by:	Received by:	Date/Time:

Final Sample Disposition

Disposal Method:	Disposed by:	Date/Time:

Comments:

A-6000-407 (12/90) (EF) WEF061
Chain of Custody

087

9613494.1079

Westinghouse Hanford Company

SAMPLE ANALYSIS REQUEST

PART I: FIELD SECTION

Collector K. Lee, L. Walker, G. Hamilton, C. Celiberti Date Sampled 9/22/92 Time 1220 hours

Company Contact P. H. Butcher Telephone (509) 376-5045

Sample Number	Number and Type of Sample Containers	Type of Sample*	Analysis Requested	
B079Z6	1; 1L; P;	WATER	CLP ICP/AA METALS & Hg (HNO3) UNFILTERED	S
	1; 1L; P	WATER	CLP-CYANIDE (NaOH)	S
	3; 40ml; Gs	WATER	CLP-VOA	A
	3; 2L; aG	WATER	CLP-SEMI-VOA & PCB/PEST	A
	1; 1L; P	WATER	ANIONS (IC) (SO4,F,PO4,Cl); CONDUCTIVITY; pH	A
	2; 4L; P	WATER	GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC	
			(U-235/238, Pu-239/240, Am-241), Sr-90; (HNO3)	
	1; 500mL; Gs	WATER	TRITIUM, C-14	
	1; 500mL; P	WATER	ANIONS (NO2/NO3) (H2SO4)	S
	1; 1L; G	WATER	ALKALINITY, TOTAL DISSOLVED SOLIDS	A
	1; 500mL; G	WATER	SULFIDE (ZINC ACETATE PLUS NaOH pH>9)	A
	1; 500mL; G	WATER	AMMONIA, CHEMICAL OXYGEN DEMAND (H2SO4	A
	1; 1L; P	WATER	Tc-99 (HNO3)	
B079Z9	1; 1L; P	WATER	CLP-ICP/AA METAL & MERCURY (HNO3) FILTERED	S
B07B00	3; 40mL; Gs	WATER	CLP-VOA	A

Field Information** OPC: W92-0-0643-7

BOL: 2521567831

TASK: 92-266

Special Handling and/or Storage

Possible Sample Hazards

PART II: LABORATORY SECTION

Received by Kermit Blum Title Sample Control Supervisor Date 9-24-92

Analysis Required

088

*Indicate whether sample is soil, sludge, water, etc.

**Use back of page for additional information relative to sample location.

A-6000-406(05/90)

9613494.1080

Westinghouse Hanford Company	CHAIN OF CUSTODY

Custody Form Initiator PH BUTCHER

Company Contact PH BUTCHER

Telephone (509)376-5045

Project Designation/Sampling Locations 100-KR-4

Collection Date 9-23-92

Ice Chest No. SML-259

Field Logbook No. EFL-1049

Bill of Lading/Airbill No. 2521567796

Offsite Property No. W92-0-0643-9

Method of Shipment EMERY

Shipped to TMA

Possible Sample Hazards/Remarks N/A

Sample Identification

BO79W1

1, 1L, P, WATER, CLP-ICP/AA METALS & Hg (HNO3) UNFILTERED
1, 1L, P, WATER, CLP-CYANIDE (NaOH)
3, 40ml, Gs, WATER, CLP-VOA
3, 2L, aG, WATER, CLP-SEMI-VOA & PCB/PEST
1, 1L, P, WATER, ANIONS(IC) (SO4,F,PO4,Cl), COND., pH
2, 4L, P, WATER, GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC (U-235/238,Pu-239/240, Am-241), Sr-90 (HNO3)
2, 250 ml MS/MSD ~~1, 500ml~~, Gs, WATER, TRITIUM, C-14
1, 500ml, P, WATER, ANIONS(NO2,NO3) (H2SO4)
1, 1L, G, WATER, ALKALINITY, TOTAL DISSOLVED SOLIDS
1, 500ml, G, WATER, SULFIDE (ZINC ACETATE+NaOH pH>9)
1, 500ml, G, WATER, AMMONIA, CHEMICAL OXYGEN DEMAND (H2SO4 pH<2)
1, 1L, P, WATER, Tc-99 ~~(HNO3)~~ (HCl)

LW 9-23-92

BO79W4

1, 1L, P, WATER, CLP-ICP/AA METALS & Hg (HNO3) FILTERED

BO79W5

3, 40ml, Gs, WATER, CLP-VOA

[] Field Transfer of Custody	Chain of Possession	(Sign and Print Names)
Relinquished by: L.D. Walker	Received by: AJ SIMPSON	Date/Time: 9/24/92
Relinquished by: AJ SIMPSON	Received by: Kermit Blum	Date/Time: 9-25-92 1200
Relinquished by:	Received by:	Date/Time:
Relinquished by:	Received by:	Date/Time:

Final Sample Disposition

Disposal Method:	Disposed by:	Date/Time:

Comments:

089

A-6000-407 (12/90) (EF) WEF061
Chain of Custody

9613494.1081

Westinghouse Hanford Company

SAMPLE ANALYSIS REQUEST

PART I: FIELD SECTION

Collector K. Lee, L. Walker, G. Hamilton, C. Celiberti Date Sampled 9/23/92 Time 1242 hours

Company Contact P. H. Butcher Telephone (509) 376-5045

Sample Number	Number and Type of Sample Containers	Type of Sample*	Analysis Requested
B079W1	1; 1L; P;	WATER	CLP ICP/AA METALS & Hg (HNO3) UNFILTERED
	1; 1L; P	WATER	CLP-CYANIDE (NaOH)
	3; 40ml; Gs	WATER	CLP-VOA
	3; 2L; aG	WATER	CLP-SEMI-VOA & PCB/PEST
	1; 1L; P	WATER	ANIONS (IC) (SO4,F,PO4,Cl); CONDUCTIVITY; pH
	2; 4L; P	WATER	GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC
			(U-235/238, Pu-239/240, Am-241), Sr-90; (HNO3)
	2 AJS 9/24/92 ~~1~~; 500mL; Gs	WATER	TRITIUM, C-14
	1; 500mL; P	WATER	ANIONS (NO2/NO3) (H2SO4)
	1; 1L; G	WATER	ALKALINITY, TOTAL DISSOLVED SOLIDS
	1; 500mL; G	WATER	SULFIDE (ZINC ACETATE PLUS NaOH pH>9)
	1; 500mL; G	WATER	AMMONIA, CHEMICAL OXYGEN DEMAND (H2SO4
	1; 1L; P	WATER	Tc-99 (HNO3)
B079W4	1; 1L; P	WATER	CLP-ICP/AA METAL & MERCURY (HNO3) FILTERED
B079W5	3; 40mL; Gs	WATER	CLP-VOA

Field Information** OPC: W92-0-0643-9

BOL: 2521567796

TASK: 92-266

Special Handling and/or Storage

Possible Sample Hazards

PART II: LABORATORY SECTION

Received by Kermit Blum Title Sample Control Supervisor Date 9-25-92

Analysis Required

0:90

*Indicate whether sample is soil, sludge, water, etc.

**Use back of page for additional information relative to sample location.

A-6000-406(05/90)

9613494.1082

Westinghouse Hanford Company	CHAIN OF CUSTODY

Custody Form Initiator PH BUTCHER

Company Contact PH BUTCHER

Telephone (509)376-5045

Project Designation/Sampling Locations 100-KR-4

Collection Date 9-23-92

Ice Chest No. SML-263

Field Logbook No. EFL-1049

Bill of Lading/Airbill No. 2521567796

Offsite Property No. W92- 0-0643-9

Method of Shipment EMERY

Shipped to TMA

Possible Sample Hazards/Remarks N/A

Sample Identification

BO 79W6

1, 1L, P, WATER, CLP-ICP/AA METALS & Hg (HNO3) UNFILTERED
1, 1L, P, WATER, CLP-CYANIDE (NaOH)
3, 40ml, Gs, WATER, CLP-VOA
3, 2L, aG, WATER, CLP-SEMI-VOA & PCB/PEST
1, 1L, P, WATER, ANIONS(IC) (SO4,F,PO4,Cl), COND., pH
2, 4L, P, WATER, GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC (U-235/238,Pu-239/240, Am-241), Sr-90 (HNO3)
LW 9/24/92 2, 250 ml ~~1, 500ml~~, Gs, WATER, TRITIUM, C-14
1, 500ml, P, WATER, ANIONS(NO2,NO3) (H2SO4)
1, 1L, G, WATER, ALKALINITY, TOTAL DISSOLVED SOLIDS
1, 500ml, G, WATER, SULFIDE (ZINC ACETATE+NaOH pH>9)
1, 500ml, G, WATER, AMMONIA, CHEMICAL OXYGEN DEMAND (H2SO4 pH<2)
1, 1L, P, WATER, Tc-99 ~~(HNO3)~~ (HCl)
LW 9-23-92

BO 79W9

1, 1L, P, WATER, CLP-ICP/AA METALS & Hg (HNO3) FILTERED

BO 79X0

3, 40ml, Gs, WATER, CLP-VOA
~~BO7B49 3, 40ml, Gs, WATER, CLP-VOA~~ LW 9-23-92

[] Field Transfer of Custody

Chain of Possession		(Sign and Print Names)
Relinquished by: L.D. Walker LD Walker	Received by: AJ SIMPSON AJ Simpson	Date/Time: 9/24/92 1046
Relinquished by: AJ SIMPSON AJ Simpson	Received by: Kermit Blum	Date/Time: 9-25-92 1200
Relinquished by:	Received by:	Date/Time:
Relinquished by:	Received by:	Date/Time:

Final Sample Disposition

Disposal Method:	Disposed by:	Date/Time:

Comments:

091

A-6000-407 (12/90) (EF) WEF061
Chain of Custody

9613494.1083

Westinghouse Hanford Company

SAMPLE ANALYSIS REQUEST

PART I: FIELD SECTION

Collector K. Lee, L. Walker, G. Hamilton, C. Celiberti Date Sampled 9/23/92 Time 0935 hours

Company Contact P. H. Butcher Telephone (509) 376-5045

Sample Number	Number and Type of Sample Containers	Type of Sample*	Analysis Requested
B079W6	1; 1L; P;	WATER	CLP ICP/AA METALS & Hg (HNO3) UNFILTERED
	1; 1L; P	WATER	CLP-CYANIDE (NaOH)
	3; 40ml; Gs	WATER	CLP-VOA
	3; 2L; aG	WATER	CLP-SEMI-VOA & PCB/PEST
	1; 1L; P	WATER	ANIONS (IC) (SO4,F,PO4,Cl); CONDUCTIVITY; pH
	2; 4L; P	WATER	GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC
	ASS 9/24/92		(U-235/238, Pu-239/240, Am-241), Sr-90; (HNO3)
	3 ~~1~~; 500mL; Gs	WATER	TRITIUM, C-14
	1; 500mL; P	WATER	ANIONS (NO2/NO3) (H2SO4)
	1; 1L; G	WATER	ALKALINITY, TOTAL DISSOLVED SOLIDS
	1; 500mL; G	WATER	SULFIDE (ZINC ACETATE PLUS NaOH pH>9)
	1; 500mL; G	WATER	AMMONIA, CHEMICAL OXYGEN DEMAND (H2SO4
	1; 1L; P	WATER	Tc-99 (HNO3)
B079W9	1; 1L; P	WATER	CLP-ICP/AA METAL & MERCURY (HNO3) FILTERED
~~B079W9~~	MJG 9/24/92		
B079X0	3; 40mL; Gs	WATER	CLP-VOA

Field Information** OPC: W92- 0-0643-9

BOL: 2521567796

TASK: 92-266

Special Handling and/or Storage

Possible Sample Hazards

PART II: LABORATORY SECTION

Received by Kermit Blum Title Sample Control Supervisor Date 9-25-92

Analysis Required

092

*Indicate whether sample is soil, sludge, water, etc.

**Use back of page for additional information relative to sample location.

A-6000-406(05/90)

9613494.1084

Westinghouse Hanford Company	CHAIN OF CUSTODY

Custody Form Initiator PH BUTCHER

Company Contact PH BUTCHER

Telephone (509)376-5045

Project Designation/Sampling Locations 100-KR-4

Collection Date 9/23/92

Ice Chest No. 80 BTF

Field Logbook No. EFL-1048

Bill of Lading/Airbill No. 2521567796

Offsite Property No. W92-0-0643-10

Method of Shipment EMERY

Shipped to TMA

Possible Sample Hazards/Remarks N/A

Sample Identification

BO 79V6

1, 1L, P, WATER, CLP-ICP/AA METALS & Hg (HNO3) UNFILTERED
1, 1L, P, WATER, CLP-CYANIDE (NaOH)
3, 40ml, Gs, WATER, CLP-VOA
3, 2L, aG, WATER, CLP-SEMI-VOA & PCB/PEST
1, 1L, P, WATER, ANIONS(IC) (SO4,F,PO4,Cl), COND., pH
2, 4L, P, WATER, GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC (U-235/238,Pu-239/240, Am-241), Sr-90 (HNO3)
1, 500ml, Gs, WATER, TRITIUM, C-14
1, 500ml, P, WATER, ANIONS(NO2,NO3) (H2SO4)
1, 1L, G, WATER, ALKALINITY, TOTAL DISSOLVED SOLIDS
1, 500ml, G, WATER, SULFIDE (ZINC ACETATE+NaOH pH>9)
1, 500ml, G, WATER, AMMONIA, CHEMICAL OXYGEN DEMAND (H2SO4 pH<2)
1, 1L, P, WATER, Tc-99 ~~(HNO3)~~ (HCL) EOL 9/23/92

BO 79V9

1, 1L, P, WATER, CLP-ICP/AA METALS & Hg (HNO3) FILTERED

BO 79W0

3, 40ml, Gs, WATER, CLP-VOA

[] Field Transfer of Custody	Chain of Possession	(Sign and Print Names)
Relinquished by: C. Celiberti C. CELIBERTI	Received by: AJ SIMPSON AJ Simpson	Date/Time: 9/24/92 1021
Relinquished by: AJ SIMPSON AJ Simpson	Received by: Kermit Blum	Date/Time: 9-25-92 1200
Relinquished by:	Received by:	Date/Time:
Relinquished by:	Received by:	Date/Time:

Final Sample Disposition

Disposal Method:	Disposed by:	Date/Time:

Comments:

093

A-6000-407 (12/90) (EF) WEF061
Chain of Custody

9613494.1085

Westinghouse Hanford Company

SAMPLE ANALYSIS REQUEST

PART I: FIELD SECTION

Collector K. Lee, L. Walker, G. Hamilton, C. Celiberti Date Sampled 9/23/92 Time 0950 hours

Company Contact P. H. Butcher Telephone (509) 376-5045

Sample Number	Number and Type of Sample Containers	Type of Sample*	Analysis Requested	
B079U6	1; 1L; P;	WATER	CLP ICP/AA METALS & Hg (HNO3) UNFILTERED	S
	1; 1L; P	WATER	CLP-CYANIDE (NaOH)	S
	3; 40ml; Gs	WATER	CLP-VOA	A
	3; 2L; aG	WATER	CLP-SEMI-VOA & PCB/PEST	A
	1; 1L; P	WATER	ANIONS (IC) (SO4,F,PO4,Cl); CONDUCTIVITY; pH	A
	2; 4L; P	WATER	GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC	
			(U-235/238, Pu-239/240, Am-241), Sr-90; (HNO3)	
	1; 500mL; Gs	WATER	TRITIUM, C-14	
	1; 500mL; P	WATER	ANIONS (NO2/NO3) (H2SO4)	S
	1; 1L; G	WATER	ALKALINITY, TOTAL DISSOLVED SOLIDS	A
	1; 500mL; G	WATER	SULFIDE (ZINC ACETATE PLUS NaOH pH>9)	A
	1; 500mL; G	WATER	AMMONIA, CHEMICAL OXYGEN DEMAND (H2SO4	A
	1; 1L; P	WATER	Tc-99 (HNO3)	
B079V8	1; 1L; P	WATER	CLP-ICP/AA METAL & MERCURY (HNO3) FILTERED	S
DAB079V9				
079WD	3; 40mL; Gs	WATER	CLP-VOA	A

Field Information** OPC: W92-0-0643-10

BOL: 2521567796

TASK: 92-266

Special Handling and/or Storage

Possible Sample Hazards

PART II: LABORATORY SECTION

Received by Kermit Blum Title Sample Control Supervisor Date 9-25-92

Analysis Required

*Indicate whether sample is soil, sludge, water, etc.

**See back of page for additional information relative to sample location

9613494.1086

N2-09-215

Westinghouse Hanford Company	CHAIN OF CUSTODY

Custody Form Initiator PH BUTCHER

Company Contact PH BUTCHER

Telephone (509)376-5045

Project Designation/Sampling Locations 100-KR-4

Collection Date 9/25/92

Ice Chest No. SML-113

Field Logbook No. EFL-1048

Bill of Lading/Airbill No. 2521567994

Offsite Property No. W92-0-0643-14

Method of Shipment EMERY

Shipped to TMA

Possible Sample Hazards/Remarks N/A

Sample Identification

BO 79Y1

1, 1L, P, WATER, CLP-ICP/AA METALS & Hg (HNO3) UNFILTERED
1, 1L, P, WATER, CLP-CYANIDE (NaOH)
3, 40ml, Gs, WATER, CLP-VOA
3, 2L, aG, WATER, CLP-SEMI-VOA & PCB/PEST
1, 1L, P, WATER, ANIONS(IC) (SO4,F,PO4,Cl), COND., pH
2, 4L, P, WATER, GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC (U-235/238,Pu-239/240, Am-241), Sr-90 (HNO3)
*2 ~~1~~, 500ml, Gs, WATER, TRITIUM, C-14
1, 500ml, P, WATER, ANIONS(NO2,NO3) (H2SO4)
1, 1L, G, WATER, ALKALINITY, TOTAL DISSOLVED SOLIDS
1, 500ml, G, WATER, SULFIDE (ZINC ACETATE+NaOH pH>9)
1, 500ml, G, WATER, AMMONIA, CHEMICAL OXYGEN DEMAND (H2SO4 pH<2)
1, 1L, P, WATER, Tc-99 (HNO3)

BO 79Y4

1, 1L, P, WATER, CLP-ICP/AA METALS & Hg (HNO3) FILTERED

BO 79Y5

3, 40ml, Gs, WATER, CLP-VOA

[] Field Transfer of Custody	Chain of Possession	(Sign and Print Names)
Relinquished by: Kathy D. Lee K.D. Lee	Received by: AJ SIMPSON AJ Simpson	Date/Time: 9/28/92 1057
Relinquished by: AJ SIMPSON AJ Simpson	Received by: Elly G. Yamamoto	Date/Time: 9-29-92 11:00
Relinquished by:	Received by:	Date/Time:
Relinquished by:	Received by:	Date/Time:

Final Sample Disposition

Disposal Method:	Disposed by:	Date/Time:

Comments:
* RECEIVED 2 BOTTLES OF WATER on ID → BO79Y1

095

A-6000-407 (12/90) (EF) WEF061
Chain of Custody

9613494.1087

Westinghouse Hanford Company

SAMPLE ANALYSIS REQUEST

PART I: FIELD SECTION

Collector K. Lee, L. Walker, G. Hamilton, C. Celiberti Date Sampled 9/25/92 Time 0940 hours

Company Contact P. H. Butcher Telephone (509) 376-5045

Sample Number	Number and Type of Sample Containers	Type of Sample*	Analysis Requested
B079Y1	1; 1L; P;	WATER	CLP ICP/AA METALS & Hg (HNO3) UNFILTERED
	1; 1L; P	WATER	CLP-CYANIDE (NaOH)
	3; 40ml; Gs	WATER	CLP-VOA
	3; 2L; aG	WATER	CLP-SEMI-VOA & PCB/PEST
	1; 1L; P	WATER	ANIONS (IC) (SO4,F,PO4,Cl); CONDUCTIVITY; pH
	2; 4L; P	WATER	GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC
			(U-235/238, Pu-239/240, Am-241), Sr-90; (HNO3)
	1; 500mL; Gs	WATER	TRITIUM, C-14 Rcvd Two bottles.
	1; 500mL; P	WATER	ANIONS (NO2/NO3) (H2SO4)
	1; 1L; G	WATER	ALKALINITY, TOTAL DISSOLVED SOLIDS
	1; 500mL; G	WATER	SULFIDE (ZINC ACETATE PLUS NaOH pH>9)
	1; 500mL; G	WATER	AMMONIA, CHEMICAL OXYGEN DEMAND (H2SO4
	1; 1L; P	WATER	Tc-99 (HNO3)
B079Y4	1; 1L; P	WATER	CLP-ICP/AA METAL & MERCURY (HNO3) FILTERED
B079Y5	3; 40mL; Gs	WATER	CLP-VOA

Field Information** OPC: W92-0-0643-14

BOL: 2521567994

TASK: 92-266

Special Handling and/or Storage

Possible Sample Hazards

PART II: LABORATORY SECTION

Received by Ellen G. Yamamoto Title Sample Control Tech. Date 9-29-92

Analysis Required

096

*Indicate whether sample is soil, sludge, water, etc.

**Use back of page for additional information relative to sample location.

A-6000-406(05/90

9613494.1088

Westinghouse Hanford Company	CHAIN OF CUSTODY

Custody Form Initiator PH BUTCHER

Company Contact PH BUTCHER

Telephone (509)376-5045

Project Designation/Sampling Locations 100-KR-4

Collection Date 9/25/92

Ice Chest No. SML-107

Field Logbook No. EFL-1048

Bill of Lading/Airbill No. 2521567994

Offsite Property No. W92-0-0643-14

Method of Shipment EMERY

Shipped to TMA

Possible Sample Hazards/Remarks N/A

Sample Identification

B0 79Y6

1, 1L, P, WATER, CLP-ICP/AA METALS & Hg (HNO3) UNFILTERED
1, 1L, P, WATER, CLP-CYANIDE (NaOH)
3, 40ml, Gs, WATER, CLP-VOA
3, 2L, aG, WATER, CLP-SEMI-VOA & PCB/PEST
1, 1L, P, WATER, ANIONS(IC) (SO4,F,PO4,Cl), COND., pH
2, 4L, P, WATER, GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC (U-235/238,Pu-239/240, Am-241), Sr-90 (HNO3)
*2 ~~1~~, 500ml, Gs, WATER, TRITIUM, C-14
1, 500ml, P, WATER, ANIONS(NO2,NO3) (H2SO4)
1, 1L, G, WATER, ALKALINITY, TOTAL DISSOLVED SOLIDS
1, 500ml, G, WATER, SULFIDE (ZINC ACETATE+NaOH pH>9)
1, 500ml, G, WATER, AMMONIA, CHEMICAL OXYGEN DEMAND (H2SO4 pH<2)
1, 1L, P, WATER, Tc-99 (HNO3)

B0 79Y9

1, 1L, P, WATER, CLP-ICP/AA METALS & Hg (HNO3) FILTERED

B0 79Z0

3, 40ml, Gs, WATER, CLP-VOA

[] Field Transfer of Custody	Chain of Possession	(Sign and Print Names)
Relinquished by: K.D. Lee	Received by: AJ SIMPSON AJ Simpson	Date/Time: 9/28/92 1057
Relinquished by: AJ SIMPSON AJ Simpson	Received by: Elby K. Yamamoto	Date/Time: 9-29-92 11:00 AM
Relinquished by:	Received by:	Date/Time:
Relinquished by:	Received by:	Date/Time:

Final Sample Disposition

Disposal Method:	Disposed by:	Date/Time:

Comments: *RECEIVED 2 BOTTLES OF water on ID => B079Y6

097

A-6000-407 (12/90) (EF) WEF061
Chain of Custody

9613494.1089

Westinghouse Hanford Company

SAMPLE ANALYSIS REQUEST

PART I: FIELD SECTION

Collector K. Lee, L. Walker, G. Hamilton, C. Celiberti Date Sampled 9/25/92 Time ~~0940~~ hours ASK 9/25/92 1240 hours

Company Contact P. H. Butcher Telephone (509) 376-5045

Sample Number	Number and Type of Sample Containers	Type of Sample*	Analysis Requested
B079Y6	1; 1L; P;	WATER	CLP ICP/AA METALS & Hg (HNO3) UNFILTERED
	1; 1L; P	WATER	CLP-CYANIDE (NaOH)
	3; 40ml; Gs	WATER	CLP-VOA
	3; 2L; aG	WATER	CLP-SEMI-VOA & PCB/PEST
	1; 1L; P	WATER	ANIONS (IC) (SO4,F,PO4,Cl); CONDUCTIVITY; pH
	2; 4L; P	WATER	GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC
			(U-235/238, Pu-239/240, Am-241), Sr-90; (HNO3)
	1; 500mL; Gs	WATER	TRITIUM, C-14 Send 2 bottles
	1; 500mL; P	WATER	ANIONS (NO2/NO3) (H2SO4)
	1; 1L; G	WATER	ALKALINITY, TOTAL DISSOLVED SOLIDS
	1; 500mL; G	WATER	SULFIDE (ZINC ACETATE PLUS NaOH pH>9)
	1; 500mL; G	WATER	AMMONIA, CHEMICAL OXYGEN DEMAND (H2SO4
	1; 1L; P	WATER	Tc-99 (HNO3)
B079Y9	1; 1L; P	WATER	CLP-ICP/AA METAL & MERCURY (HNO3) FILTERED
B079Z0	3; 40mL; Gs	WATER	CLP-VOA

Field Information** OPC: W92-0-0643-14

BOL: 2521567994

TASK: 92-266

Special Handling and/or Storage

Possible Sample Hazards

PART II: LABORATORY SECTION

Received by Elky H. Yamamoto Title Sample Control Tech. Date 9-29-92

Analysis Required A98

*Indicate whether sample is soil, sludge, water, etc.

**Use back of page for additional information relative to sample location.

A-6000-406(05/90)

9613494.1090 copy 92-09-224

Westinghouse Hanford Company	CHAIN OF CUSTODY

Custody Form Initiator PH BUTCHER

Company Contact PH BUTCHER

Telephone (509)376-5045

Project Designation/Sampling Locations 100-KR-4

Collection Date 9-28-92

Ice Chest No. SML-249

Field Logbook No. EFL-1048

Bill of Lading/Airbill No. 1521568027

Offsite Property No. W92-0-0643-17

Method of Shipment EMERY

Shipped to TMA

Possible Sample Hazards/Remarks N/A

Sample Identification

B07B01

1, 1L, P, WATER, CLP-ICP/AA METALS & Hg (HNO3) UNFILTERED
1, 1L, P, WATER, CLP-CYANIDE (NaOH)
3, 40ml, Gs, WATER, CLP-VOA
3, 2L, aG, WATER, CLP-SEMI-VOA & PCB/PEST
1, 1L, P, WATER, ANIONS(IC) (SO4,F,PO4,Cl), COND., pH
2, 4L, P, WATER, GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC (U-235/238,Pu-239/240, Am-241), Sr-90 (HNO3)
2, 250ml ~~1*, 500ml~~, Gs, WATER, TRITIUM, C-14 2x - bottles
LW 9-28-92
1, 500ml, P, WATER, ANIONS(NO2,NO3) (H2SO4)
1, 1L, G, WATER, ALKALINITY, TOTAL DISSOLVED SOLIDS
1, 500ml, G, WATER, SULFIDE (ZINC ACETATE+NaOH pH>9)
1, 500ml, G, WATER, AMMONIA, CHEMICAL OXYGEN DEMAND (H2SO4 pH<2)
1, 1L, P, WATER, Tc-99 (HNO3)

B07B04

1, 1L, P, WATER, CLP-ICP/AA METALS & Hg (HNO3) FILTERED

B07B05

3, 40ml, Gs, WATER, CLP-VOA

[] Field Transfer of Custody	Chain of Possession	(Sign and Print Names)
Relinquished by: L.D. Walker LD Walker	Received by: AJ SIMPSON AJ Simpson	Date/Time: 1/24/92 0424
Relinquished by: AJ SIMPSON AJ Simpson	Received by: Elby H. Yamamoto	Date/Time: 9-30-92 11:30
Relinquished by:	Received by:	Date/Time:
Relinquished by:	Received by:	Date/Time:

Final Sample Disposition

Disposal Method:	Disposed by:	Date/Time:

Comments:
* RECEIVED 2 BOTTLES OF → B07B01 FOR TRITIUM & C14

099

A-6000-407 (12/90) (EF) WEF061
Chain of Custody

9613494.1091

Westinghouse Hanford Company

SAMPLE ANALYSIS REQUEST

PART I: FIELD SECTION

Collector K. Lee, L. Walker, G. Hamilton, C. Celiberti Date Sampled 9/28/92 Time 0915 hours

Company Contact P. H. Butcher Telephone (509) 376-5045

Sample Number	Number and Type of Sample Containers	Type of Sample*	Analysis Requested	
B07B01	1; 1L; P;	WATER	CLP ICP/AA METALS & Hg (HNO3) UNFILTERED	S
	1; 1L; P	WATER	CLP-CYANIDE (NaOH)	S
	3; 40ml; Gs	WATER	CLP-VOA	A
	3; 2L; aG	WATER	CLP-SEMI-VOA & PCB/PEST	A
	1; 1L; P	WATER	ANIONS (IC) (SO4,F,PO4,Cl); CONDUCTIVITY; pH	A
	2; 4L; P	WATER	GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC	
			(U-235/238, Pu-239/240, Am-241), Sr-90; (HNO3)	
	2~~1~~; 500mL; Gs	WATER	TRITIUM, C-14 Rcvd T-0	
	1; 500mL; P	WATER	ANIONS (NO2/NO3) (H2SO4)	S
	1; 1L; G	WATER	ALKALINITY, TOTAL DISSOLVED SOLIDS	A
	1; 500mL; G	WATER	SULFIDE (ZINC ACETATE PLUS NaOH pH>9)	A
	1; 500mL; G	WATER	AMMONIA, CHEMICAL OXYGEN DEMAND (H2SO4	A
	1; 1L; P	WATER	Tc-99 (HNO3)	
B07B04	1; 1L; P	WATER	CLP-ICP/AA METAL & MERCURY (HNO3) FILTERED	S
B07B05	3; 40mL; Gs	WATER	CLP-VOA	A

Field Information** OPC: W92-0-0643-17

BOL: 2521569027

TASK: 92-266

Special Handling and/or Storage

Possible Sample Hazards

PART II: LABORATORY SECTION

Received by Elby G. Yamamoto Title Sample Control Technician Date 9-30-92

Analysis Required

100

*Indicate whether sample is soil, sludge, water, etc.

**Use back of page for additional information relative to sample location.

A-6000-406(05/90)

9613494.1092

Westinghouse Hanford Company	CHAIN OF CUSTODY

Custody Form Initiator PH BUTCHER

Company Contact PH BUTCHER

Telephone (509)376-5045

Project Designation/Sampling Locations 100-KR-4

Collection Date 9/28/92

Ice Chest No. SML-261

Field Logbook No. EFC-1048

Bill of Lading/Airbill No. 2521568027

Offsite Property No. W92-0-0643-16

Method of Shipment EMERY

Shipped to TMA

Possible Sample Hazards/Remarks N/A

Sample Identification

BO 7831

1, 1L, P, WATER, CLP-ICP/AA METALS & Hg (HNO3) UNFILTERED
1, 1L, P, WATER, CLP-CYANIDE (NaOH)
3, 40ml, Gs, WATER, CLP-VOA
3, 2L, aG, WATER, CLP-SEMI-VOA & PCB/PEST
1, 1L, P, WATER, ANIONS(IC) (SO4,F,PO4,Cl), COND., pH
2, 4L, P, WATER, GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC (U-235/238,Pu-239/240, Am-241), Sr-90 (HNO3)
1, 500ml, Gs, WATER, TRITIUM, C-14
1, 500ml, P, WATER, ANIONS(NO2,NO3) (H2SO4)
1, 1L, G, WATER, ALKALINITY, TOTAL DISSOLVED SOLIDS
1, 500ml, G, WATER, SULFIDE (ZINC ACETATE+NaOH pH>9)
1, 500ml, G, WATER, AMMONIA, CHEMICAL OXYGEN DEMAND (H2SO4 pH<2)
1, 1L, P, WATER, Tc-99 (HNO3)

BO 7834

1, 1L, P, WATER, CLP-ICP/AA METALS & Hg (HNO3) FILTERED

BO 7835

3, 40ml, Gs, WATER, CLP-VOA

[] Field Transfer of Custody	Chain of Possession	(Sign and Print Names)
Relinquished by: Kirby D. Lee K.D. Lee	Received by: AJ SIMPSON AJ Simpson	Date/Time: 9/29/92 0922
Relinquished by: AJ SIMPSON AJ Simpson	Received by:	Date/Time:
Relinquished by:	Received by:	Date/Time:
Relinquished by:	Received by:	Date/Time:

Final Sample Disposition

Disposal Method:	Disposed by:	Date/Time:

Comments:

A-6000-407 (12/90) (EF) WEF061
Chain of Custody

9613494.1093

Westinghouse Hanford Company

SAMPLE ANALYSIS REQUEST

PART I: FIELD SECTION

Collector K. Lee, L. Walker, G. Hamilton, C. Celiberti Date Sampled 9/28/92 Time 0915 hours

Company Contact P. H. Butcher Telephone (509) 376-5045

Sample Number	Number and Type of Sample Containers	Type of Sample*	Analysis Requested
B07B31	1; 1L; P;	WATER	CLP ICP/AA METALS & Hg (HNO3) UNFILTERED
	1; 1L; P	WATER	CLP-CYANIDE (NaOH)
	3; 40ml; Gs	WATER	CLP-VOA
	3; 2L; aG	WATER	CLP-SEMI-VOA & PCB/PEST
	1; 1L; P	WATER	ANIONS (IC) (SO4,F,PO4,Cl); CONDUCTIVITY; pH
	2; 4L; P	WATER	GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC
			(U-235/238, Pu-239/240, Am-241), Sr-90; (HNO3)
	1; 500mL; Gs	WATER	TRITIUM, C-14
	1; 500mL; P	WATER	ANIONS (NO2/NO3) (H2SO4)
	1; 1L; G	WATER	ALKALINITY, TOTAL DISSOLVED SOLIDS
	1; 500mL; G	WATER	SULFIDE (ZINC ACETATE PLUS NaOH pH>9)
	1; 500mL; G	WATER	AMMONIA, CHEMICAL OXYGEN DEMAND (H2SO4
	1; 1L; P	WATER	Tc-99 (HNO3)
B07B34	1; 1L; P	WATER	CLP-ICP/AA METAL & MERCURY (HNO3) FILTERED
B07B35	3; 40mL; Gs	WATER	CLP-VOA

Field Information** OPC: W92-0-0643-16

BOL: 2521568027

TASK: 92-266

Special Handling and/or Storage

Possible Sample Hazards

PART II: LABORATORY SECTION

Received by Title Date

Analysis Required

102

*Indicate whether sample is soil, sludge, water, etc.

**Use back of page for additional information relative to sample location.

A-6000-406(05/90

9613494.1094

Westinghouse Hanford Company

CHAIN OF CUSTODY

Custody Form Initiator PH BUTCHER

Company Contact PH BUTCHER

Telephone (509)376-5045

Project Designation/Sampling Locations 100-KR-4

Collection Date 9/28/92

Ice Chest No. SML-182

Field Logbook No. EFL-1048

Bill of Lading/Airbill No. 2521568027

Offsite Property No. W92-0-0643-16

Method of Shipment EMERY

Shipped to TMA

Possible Sample Hazards/Remarks N/A

Sample Identification

BO7844

1, 1L, P, WATER, CLP-ICP/AA METALS & Hg (HNO3) UNFILTERED
1, 1L, P, WATER, CLP-CYANIDE (NaOH)
3, 40ml, Gs, WATER, CLP-VOA
3, 2L, aG, WATER, CLP-SEMI-VOA & PCB/PEST
1, 1L, P, WATER, ANIONS(IC) (SO4,F,PO4,Cl), COND., pH
2, 4L, P, WATER, GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC (U-235/238,Pu-239/240, Am-241), Sr-90 (HNO3)
\# 2~~1~~, 500ml, Gs, WATER, TRITIUM, C-14
1, 500ml, P, WATER, ANIONS(NO2,NO3) (H2SO4)
1, 1L, G, WATER, ALKALINITY, TOTAL DISSOLVED SOLIDS
1, 500ml, G, WATER, SULFIDE (ZINC ACETATE+NaOH pH>9)
1, 500ml, G, WATER, AMMONIA, CHEMICAL OXYGEN DEMAND (H2SO4 pH<2)
1, 1L, P, WATER, Tc-99 (HNO3)

BO7847

1, 1L, P, WATER, CLP-ICP/AA METALS & Hg (HNO3) FILTERED

BO7848

3, 40ml, Gs, WATER, CLP-VOA

[] Field Transfer of Custody	Chain of Possession	(Sign and Print Names)
Relinquished by: K.O. Lee	Received by: AJ SIMPSON AJ Simpson	Date/Time: 9/29/92 0920
Relinquished by: AJ SIMPSON AJ Simpson	Received by: Eby J. Yamamoto	Date/Time: 9-30-92 11:30
Relinquished by:	Received by:	Date/Time:
Relinquished by:	Received by:	Date/Time:

Final Sample Disposition

Disposal Method:	Disposed by:	Date/Time:

Comments:
\# RECEIVED 2 BOTTLES OF BO7844 FOR TRITIUM & C14

A-6000-407 (12/90) (EF) WEF061
Chain of Custody

9613494.1095

Westinghouse Hanford Company

SAMPLE ANALYSIS REQUEST

PART I: FIELD SECTION

Collector K. Lee, L. Walker, G. Hamilton, C. Celiberti Date Sampled 9/28/92 Time 0915 hours

Company Contact P. H. Butcher Telephone (509) 376-5045

Sample Number	Number and Type of Sample Containers	Type of Sample*	Analysis Requested
B07B44	1; 1L; P;	WATER	CLP ICP/AA METALS & Hg (HNO3) UNFILTERED
	1; 1L; P	WATER	CLP-CYANIDE (NaOH)
	3; 40ml; Gs	WATER	CLP-VOA
	3; 2L; aG	WATER	CLP-SEMI-VOA & PCB/PEST
	1; 1L; P	WATER	ANIONS (IC) (SO4,F,PO4,Cl); CONDUCTIVITY; pH
	2; 4L; P	WATER	GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC
			(U-235/238, Pu-239/240, Am-241), Sr-90; (HNO3)
	2x 1; 500mL; Gs	WATER	TRITIUM, C-14 rcvd two
	1; 500mL; P	WATER	ANIONS (NO2/NO3) (H2SO4)
	1; 1L; G	WATER	ALKALINITY, TOTAL DISSOLVED SOLIDS
	1; 500mL; G	WATER	SULFIDE (ZINC ACETATE PLUS NaOH pH>9)
	1; 500mL; G	WATER	AMMONIA, CHEMICAL OXYGEN DEMAND (H2SO4
	1; 1L; P	WATER	Tc-99 (HNO3)
B07B47	1; 1L; P	WATER	CLP-ICP/AA METAL & MERCURY (HNO3) FILTERED
B07B48	3; 40mL; Gs	WATER	CLP-VOA

Field Information** OPC: W92-0-0643-16

BOL: 2521568027

TASK: 92-266

Special Handling and/or Storage

Possible Sample Hazards

PART II: LABORATORY SECTION

Received by Elby G. Yamamoto Title Sample Control Technician Date 9-30-92

Analysis Required

101

*Indicate whether sample is soil, sludge, water, etc.

**Use back of page for additional information relative to sample location.

A-6000-406(05/9

9613494.1096

Westinghouse Hanford Company	CHAIN OF CUSTODY

Custody Form Initiator PH BUTCHER

Company Contact PH BUTCHER

Telephone (509)376-5045

Project Designation/Sampling Locations 100-KR-4

Collection Date 9/24/92

Ice Chest No. SML-272

Field Logbook No. EFL-1048

Bill of Lading/Airbill No. 2521567851

Offsite Property No. W92-0-0643-13

Method of Shipment EMERY

Shipped to TMA

Possible Sample Hazards/Remarks N/A

Sample Identification

BO79Z1

1, 1L, P, WATER, CLP-ICP/AA METALS & Hg (HNO3) UNFILTERED
1, 1L, P, WATER, CLP-CYANIDE (NaOH)
3, 40ml, Gs, WATER, CLP-VOA
3, 2L, aG, WATER, CLP-SEMI-VOA & PCB/PEST
1, 1L, P, WATER, ANIONS(IC) (SO4,F,PO4,Cl), COND., pH
2, 4L, P, WATER, GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC (U-235/238,Pu-239/240, Am-241), Sr-90 (HNO3)
KB 2x250ml ~~1, 500ml~~, Gs, WATER, TRITIUM, C-14
1, 500ml, P, WATER, ANIONS(NO2,NO3) (H2SO4)
1, 1L, G, WATER, ALKALINITY, TOTAL DISSOLVED SOLIDS
1, 500ml, G, WATER, SULFIDE (ZINC ACETATE+NaOH pH>9)
1, 500ml, G, WATER, AMMONIA, CHEMICAL OXYGEN DEMAND (H2SO4 pH<2)
1, 1L, P, WATER, Tc-99 (HNO3)

BO79Z4

1, 1L, P, WATER, CLP-ICP/AA METALS & Hg (HNO3) FILTERED

BO79Z5

3, 40ml, Gs, WATER, CLP-VOA

[] Field Transfer of Custody	Chain of Possession	(Sign and Print Names)
Relinquished by: Kathy A Lee K.D. Lee	Received by: AJ SIMPSON AJ Simpson	Date/Time: 9/25/92 0946
Relinquished by: AJ SIMPSON AJ Simpson	Received by: Kermit Blum	Date/Time: 9-28-92 0800 *
Relinquished by:	Received by:	Date/Time:
Relinquished by:	Received by:	Date/Time:

Final Sample Disposition

Disposal Method:	Disposed by:	Date/Time:

Comments: *Received @ TMA/NORCAL 9-26-92 ; opened 9-28-92 KB

A-6000-407 (12/90) (EF) WEF061
Chain of Custody

9613494.1097

Westinghouse Hanford Company

SAMPLE ANALYSIS REQUEST

PART I: FIELD SECTION

Collector K. Lee, L. Walker, G. Hamilton, C. Celiberti Date Sampled 9/24/92 Time 0910 hours

Company Contact P. H. Butcher Telephone (509) 376-5045

Sample Number	Number and Type of Sample Containers	Type of Sample*	Analysis Requested
B079Z1	1; 1L; P;	WATER	CLP ICP/AA METALS & Hg (HNO3) UNFILTERED
	1; 1L; P	WATER	CLP-CYANIDE (NaOH)
	3; 40ml; Gs	WATER	CLP-VOA
	3; 2L; aG	WATER	CLP-SEMI-VOA & PCB/PEST
	1; 1L; P	WATER	ANIONS (IC) (SO4,F,PO4,Cl); CONDUCTIVITY; pH
	2; 4L; P	WATER	GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC
			(U-235/238, Pu-239/240, Am-241), Sr-90; (HNO3)
	1; 500mL; Gs	WATER	TRITIUM, C-14 Received Two bottles.
	1; 500mL; P	WATER	ANIONS (NO2/NO3) (H2SO4)
	1; 1L; G	WATER	ALKALINITY, TOTAL DISSOLVED SOLIDS
	1; 500mL; G	WATER	SULFIDE (ZINC ACETATE PLUS NaOH pH>9)
	1; 500mL; G	WATER	AMMONIA, CHEMICAL OXYGEN DEMAND (H2SO4
	1; 1L; P	WATER	Tc-99 (HNO3)
B079Z4	1; 1L; P	WATER	CLP-ICP/AA METAL & MERCURY (HNO3) FILTERED
B079Z5	3; 40mL; Gs	WATER	CLP-VOA

Field Information** OPC: W92-0-0643-13

BOL: 2521567851

TASK: 92-266

Special Handling and/or Storage

Possible Sample Hazards

PART II: LABORATORY SECTION

Received by Kermit Blum Title Sample Control Supervisor Date 9-28-92

Analysis Required

106

*Indicate whether sample is soil, sludge, water, etc.

**Use back of page for additional information relative to sample location.

A-6000-406(05/90)

9613494.1098

Westinghouse Hanford Company	CHAIN OF CUSTODY

Custody Form Initiator PH BUTCHER

Company Contact PH BUTCHER

Telephone (509)376-5045

Project Designation/Sampling Locations 100-KR-4

Collection Date 9/24/92

Ice Chest No. SML-154

Field Logbook No. EFL-1048

Bill of Lading/Airbill No. 2521567851

Offsite Property No. W92-0-0643-13

Method of Shipment EMERY

Shipped to TMA

Possible Sample Hazards/Remarks N/A

Sample Identification

BO 7826

1, 1L, P, WATER, CLP-ICP/AA METALS & Hg (HNO3) UNFILTERED
1, 1L, P, WATER, CLP-CYANIDE (NaOH)
3, 40ml, Gs, WATER, CLP-VOA
3, 2L, aG, WATER, CLP-SEMI-VOA & PCB/PEST
1, 1L, P, WATER, ANIONS(IC) (SO4,F,PO4,Cl), COND., pH
2, 4L, P, WATER, GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC (U-235/238,Pu-239/240, Am-241), Sr-90 (HNO3)
2x250ml ~~1, 500ml~~, Gs, WATER, TRITIUM, C-14
1, 500ml, P, WATER, ANIONS(NO2,NO3) (H2SO4)
1, 1L, G, WATER, ALKALINITY, TOTAL DISSOLVED SOLIDS
1, 500ml, G, WATER, SULFIDE (ZINC ACETATE+NaOH pH>9)
1, 500ml, G, WATER, AMMONIA, CHEMICAL OXYGEN DEMAND (H2SO4 pH<2)
1, 1L, P, WATER, Tc-99 (HNO3)

BO 7829

1, 1L, P, WATER, CLP-ICP/AA METALS & Hg (HNO3) FILTERED

BO 7830

3, 40ml, Gs, WATER, CLP-VOA

[] Field Transfer of Custody	Chain of Possession	(Sign and Print Names)
Relinquished by: Kirby D Lee K.D. Lee	Received by: AJ SIMPSON AJ Simpson	Date/Time: 9/25/92 0949
Relinquished by: AJ SIMPSON AJ Simpson	Received by: Kermit Bluem	Date/Time: 9-28-92 0800 *
Relinquished by:	Received by:	Date/Time:
Relinquished by:	Received by:	Date/Time:

Final Sample Disposition

Disposal Method:	Disposed by:	Date/Time:

Comments: * Received @ TMA/NORCAL 9-26-92; opened 9-28-92 - KB

A-6000-407 (12/90) (EF) WEF061
Chain of Custody

9613494.1099

FROM THE DESK OF: **DORIS E. AYRES**
SAMPLE & DATA MANAGEMENT
372-9022/B1-35

TO: **File B07B11-TMA-308** **DATE:** June 27, 1996

SUBJECT: **Missing ROD**

While processing package B07B11 for transmittal to the Records Holding Area it was discovered that ROD-92-00167 was missing from the packaged. Upon further research it was also established that there is not a copy of that ROD in the files maintained by the Sample & Data Management Group.

9613494.1100

Westinghouse Hanford Company

SAMPLE ANALYSIS REQUEST

PART I: FIELD SECTION

Collector K. Lee, L. Walker, G. Hamilton, C. Celiberti Date Sampled 9/25/92 Time 0910 hours

Company Contact P. H. Butcher Telephone (509) 376-5045

Sample Number	Number and Type of Sample Containers	Type of Sample*	Analysis Requested
B07B2C	1; 1L; P;	WATER	CLP ICP/AA METALS & Hg (HNO3) UNFILTERED
	1; 1L; P	WATER	CLP-CYANIDE (NaOH)
	3; 40ml; Gs	WATER	CLP-VOA
	3; 2L; aG	WATER	CLP-SEMI-VOA & PCB/PEST
	1; 1L; P	WATER	ANIONS (IC) (SO4,F,PO4,Cl); CONDUCTIVITY; pH
	2; 4L; P	WATER	GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC
			(U-235/238, Pu-239/240, Am-241), Sr-90; (HNO3)
	1; 500mL; Gs	WATER	TRITIUM, C-14 Received Two
	1; 500mL; P	WATER	ANIONS (NO2/NO3) (H2SO4)
	1; 1L; G	WATER	ALKALINITY, TOTAL DISSOLVED SOLIDS
	1; 500mL; G	WATER	SULFIDE (ZINC ACETATE PLUS NaOH pH>9)
	1; 500mL; G	WATER	AMMONIA, CHEMICAL OXYGEN DEMAND (H2SO4
	1; 1L; P	WATER	Tc-99 (HNO3)
B07B29	1; 1L; P	WATER	CLP-ICP/AA METAL & MERCURY (HNO3) FILTERED
B07B30	3; 40mL; Gs	WATER	CLP-VOA

Field Information** OPC: W92-6-0643-13

BOL: 2521567851

TASK: 92-266

Special Handling and/or Storage

Possible Sample Hazards

PART II: LABORATORY SECTION

Received by Kermit Blum Title Sample Control Supervisor Date 9-28-92

Analysis Required 108

*Indicate whether sample is soil, sludge, water, etc.

**Use back of page for additional information relative to sample location.

A-6000-406(05/90)

9613494.1101

Westinghouse Hanford Company	CHAIN OF CUSTODY

Custody Form Initiator PH BUTCHER

Company Contact PH BUTCHER

Telephone (509)376-5045

Project Designation/Sampling Locations 100-KR-4

Collection Date 9-21-92

Ice Chest No. 207

Field Logbook No. EFL-1048

Bill of Lading/Airbill No. 2521567334

Offsite Property No. W92-00643-4

Method of Shipment EMERY

Shipped to TMA

Possible Sample Hazards/Remarks N/A

Sample Identification

BO79R1

1, 1L, P, WATER, CLP-ICP/AA METALS & Hg (HNO3) UNFILTERED
1, 1L, P, WATER, CLP-CYANIDE (NaOH)
3, 40ml, Gs, WATER, CLP-VOA
3, 2L, aG, WATER, CLP-SEMI-VOA & PCB/PEST
1, 1L, P, WATER, ANIONS(IC) (SO4,F,PO4,Cl), COND., pH
2, 4L, P, WATER, GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC (U-235/238,Pu-239/240, Am-241), Sr-90 (HNO3)
1, 500ml, Gs, WATER, TRITIUM, C-14
1, 500ml, P, WATER, ANIONS(NO2,NO3) (H2SO4)
1, 1L, G, WATER, ALKALINITY, TOTAL DISSOLVED SOLIDS
1, 500ml, G, WATER, SULFIDE (ZINC ACETATE+NaOH pH>9)
1, 500ml, G, WATER, AMMONIA, CHEMICAL OXYGEN DEMAND (H2SO4 pH<2)
1, 1L, P, WATER, Tc-99 ~~(HNO3)~~ AJS 9/22/92 (HCL)

BO79R4

1, 1L, P, WATER, CLP-ICP/AA METALS & Hg (HNO3) FILTERED

BO79R5

3, 40ml, Gs, WATER, CLP-VOA

[] Field Transfer of Custody	Chain of Possession	(Sign and Print Names)
Relinquished by: Christopher Celiberti C. Celiberti	Received by: AJ SIMPSON AJ Simpson	Date/Time: 9/22/92 1002
Relinquished by: AJ SIMPSON AJ Simpson	Received by: Kermit Blum	Date/Time: 9-23-92 1145
Relinquished by:	Received by:	Date/Time:
Relinquished by:	Received by:	Date/Time:

Final Sample Disposition

Disposal Method:	Disposed by:	Date/Time:

Comments:

A-6000-407 (12/90) (EF) WEF061
Chain of Custody

9613494.1102

Westinghouse Hanford Company

SAMPLE ANALYSIS REQUEST

PART I: FIELD SECTION

Collector K. Lee, L. Walker, G. Hamilton, C. Celiberti Date Sampled 9/21/92 Time 1040 hours

Company Contact P. H. Butcher Telephone (509) 376-5045

Sample Number	Number and Type of Sample Containers	Type of Sample*	Analysis Requested	
B079R1 ✓	1; 1L; P;	WATER	CLP ICP/AA METALS & Hg (HNO3) UNFILTERED	S
✓	1; 1L; P	WATER	CLP-CYANIDE (NaOH)	S
✓	3; 40ml; Gs	WATER	CLP-VOA	A
✓	3; 2L; aG	WATER	CLP-SEMI-VOA & PCB/PEST	A
✓	1; 1L; P	WATER	ANIONS (IC) (SO4,F,PO4,Cl); CONDUCTIVITY; pH	A
✓	2; 4L; P	WATER	GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC	
			(U-235/238, Pu-239/240, Am-241), Sr-90; (HNO3)	
✓	1; 500mL; Gs	WATER	TRITIUM, C-14	
✓	1; 500mL; P	WATER	ANIONS (NO2/NO3) (H2SO4)	S
✓	1; 1L; G	WATER	ALKALINITY, TOTAL DISSOLVED SOLIDS	A
✓	1; 500mL; G	WATER	SULFIDE (ZINC ACETATE PLUS NaOH pH>9)	A
✓	1; 500mL; G	WATER	AMMONIA, CHEMICAL OXYGEN DEMAND (H2SO4	A
✓	1; 1L; P	WATER	Tc-99 (HNO3)	
B079R4 ✓	1; 1L; P	WATER	CLP-ICP/AA METAL & MERCURY (HNO3) FILTERED	S
B079R5 ✓	3; 40mL; Gs	WATER	CLP-VOA	A

Field Information** OPC: W92- 0-0643-4

BOL: 2521567334

TASK: 92-266

Special Handling and/or Storage

Possible Sample Hazards

PART II: LABORATORY SECTION

Received by Kermit Blum Title Sample Control Supervisor Date 9-23-92

Analysis Required

*Indicate whether sample is soil, sludge, water, etc.

**Use back of page for additional information relative to sample location.

A-6000-406(05/90)

9613494.1103

Westinghouse Hanford Company	CHAIN OF CUSTODY

Custody Form Initiator PH BUTCHER

Company Contact PH BUTCHER

Telephone (509)376-5045

Project Designation/Sampling Locations 100-KR-4

Collection Date 9/21/92

Ice Chest No. ~~25~~ AJS 9/22/92 SML 257

Field Logbook No. EFL-1049

Bill of Lading/Airbill No. 2521567334

Offsite Property No. W92-0-0643-3

Method of Shipment EMERY

Shipped to TMA

Possible Sample Hazards/Remarks N/A

Sample Identification

BO 79R6

1, 1L, P, WATER, CLP-ICP/AA METALS & Hg (HNO3) UNFILTERED
1, 1L, P, WATER, CLP-CYANIDE (NaOH)
3, 40ml, Gs, WATER, CLP-VOA
3, 2L, aG, WATER, CLP-SEMI-VOA & PCB/PEST
1, 1L, P, WATER, ANIONS(IC) (SO4,F,PO4,Cl), COND., pH
2, 4L, P, WATER, GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC (U-235/238,Pu-239/240, Am-241), Sr-90 (HNO3)
1, 500ml, Gs, WATER, TRITIUM, C-14
1, 500ml, P, WATER, ANIONS(NO2,NO3) (H2SO4)
1, 1L, G, WATER, ALKALINITY, TOTAL DISSOLVED SOLIDS
1, 500ml, G, WATER, SULFIDE (ZINC ACETATE+NaOH pH>9)
1, 500ml, G, WATER, AMMONIA, CHEMICAL OXYGEN DEMAND (H2SO4 pH<2)
1, 1L, P, WATER, Tc-99 ~~(HNO3)~~ AJS 9/22/92 (H2L)

BO 79R9

1, 1L, P, WATER, CLP-ICP/AA METALS & Hg (HNO3) FILTERED

BO 79S0

3, 40ml, Gs, WATER, CLP-VOA

[] Field Transfer of Custody	Chain of Possession	(Sign and Print Names)
Relinquished by: LD Walker L.D. Walker	Received by: AJ SIMPSON AJ Simpson	Date/Time: 9/22/92 0957
Relinquished by: AJ SIMPSON AJ Simpson	Received by: Kermit Blum	Date/Time: 9-23-92 1145
Relinquished by:	Received by:	Date/Time:
Relinquished by:	Received by:	Date/Time:

Final Sample Disposition

Disposal Method:	Disposed by:	Date/Time:

Comments:

A-6000-407 (12/90) (EF) WEF061
Chain of Custody

9613494.1104

Westinghouse Hanford Company

SAMPLE ANALYSIS REQUEST

PART I: FIELD SECTION

Collector K. Lee, L. Walker, G. Hamilton, C. Celiberti Date Sampled 9/21/92 Time 0940 hours

Company Contact P. H. Butcher Telephone (509) 376-5045

Sample Number	Number and Type of Sample Containers	Type of Sample*	Analysis Requested	
B079R6	1; 1L; P;	WATER	CLP ICP/AA METALS & Hg (HNO3) UNFILTERED	S
	1; 1L; P	WATER	CLP-CYANIDE (NaOH)	S
	3; 40ml; Gs	WATER	CLP-VOA	
	3; 2L; aG	WATER	CLP-SEMI-VOA & PCB/PEST	
	1; 1L; P	WATER	ANIONS (IC) (SO4,F,PO4,Cl); CONDUCTIVITY; pH	
	2; 4L; P	WATER	GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC	
			(U-235/238, Pu-239/240, Am-241), Sr-90; (HNO3)	
	1; 500mL; Gs	WATER	TRITIUM, C-14	
	1; 500mL; P	WATER	ANIONS (NO2/NO3) (H2SO4)	
	1; 1L; G	WATER	ALKALINITY, TOTAL DISSOLVED SOLIDS	
	1; 500mL; G	WATER	SULFIDE (ZINC ACETATE PLUS NaOH pH>9)	
	1; 500mL; G	WATER	AMMONIA, CHEMICAL OXYGEN DEMAND (H2SO4	
	1; 1L; P	WATER	Tc-99 (HNO3)	
B079R9	1; 1L; P	WATER	CLP-ICP/AA METAL & MERCURY (HNO3) FILTERED	S
B079S0	3; 40mL; Gs	WATER	CLP-VOA	

Field Information** OPC: W92-0-0643-3

BOL: 2521567334

TASK: 92-266

Special Handling and/or Storage

Possible Sample Hazards

PART II: LABORATORY SECTION

Received by Kermit Bleum Title Sample Control Supervisor Date 9-23-92

Analysis Required 112

*Indicate whether sample is soil, sludge, water, etc.

**Use back of page for additional information relative to sample location.

A-6000-406(05/90)

9613494.1105

Westinghouse Hanford Company	CHAIN OF CUSTODY

Custody Form Initiator PH BUTCHER

Company Contact PH BUTCHER

Telephone (509)376-5045

Project Designation/Sampling Locations 100-KR-4

Collection Date 9/21/92

Ice Chest No. SML 269

Field Logbook No. EFL-1048

Bill of Lading/Airbill No. 2521567334

Offsite Property No. W92-0-0643-3

Method of Shipment EMERY

Shipped to TMA

Possible Sample Hazards/Remarks N/A

Sample Identification

B079S1

1, 1L, P, WATER, CLP-ICP/AA METALS & Hg (HNO3) UNFILTERED
1, 1L, P, WATER, CLP-CYANIDE (NaOH)
3, 40ml, Gs, WATER, CLP-VOA
3, 2L, aG, WATER, CLP-SEMI-VOA & PCB/PEST
1, 1L, P, WATER, ANIONS(IC) (SO4,F,PO4,Cl), COND., pH
2, 4L, P, WATER, GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC (U-235/238,Pu-239/240, Am-241), Sr-90 (HNO3)
1, 500ml, Gs, WATER, TRITIUM, C-14
1, 500ml, P, WATER, ANIONS(NO2,NO3) (H2SO4)
1, 1L, G, WATER, ALKALINITY, TOTAL DISSOLVED SOLIDS
1, 500ml, G, WATER, SULFIDE (ZINC ACETATE+NaOH pH>9)
1, 500ml, G, WATER, AMMONIA, CHEMICAL OXYGEN DEMAND (H2SO4 pH<2)
1, 1L, P, WATER, Tc-99 ~~(HNO3)~~ (HCL)
EDC 9/21/92

B079S4

1, 1L, P, WATER, CLP-ICP/AA METALS & Hg (HNO3) FILTERED

B079S5

3, 40ml, Gs, WATER, CLP-VOA

[] Field Transfer of Custody	Chain of Possession	(Sign and Print Names)
Relinquished by: K.D. Lee	Received by: AJ SIMPSON AJ Simpson	Date/Time: 9/22/92 0959
Relinquished by: AJ SIMPSON AJ Simpson	Received by: Kermit Blum	Date/Time: 9-23-92 1145
Relinquished by:	Received by:	Date/Time:
Relinquished by:	Received by:	Date/Time:

Final Sample Disposition

Disposal Method:	Disposed by:	Date/Time:

Comments:

A-6000-407 (12/90) (EF) WEF061
Chain of Custody

9613494.1106

Westinghouse Hanford Company

SAMPLE ANALYSIS REQUEST

PART I: FIELD SECTION

Collector K. Lee, L. Walker, G. Hamilton, C. Celiberti Date Sampled 9/21/92 Time 1236 hours

Company Contact P. H. Butcher Telephone (509) 376-5045

Sample Number	Number and Type of Sample Containers	Type of Sample*	Analysis Requested	
B07951	1; 1L; P;	WATER	CLP ICP/AA METALS & Hg (HNO3) UNFILTERED	S
	1; 1L; P	WATER	CLP-CYANIDE (NaOH)	S
	3; 40ml; Gs	WATER	CLP-VOA	
	3; 2L; aG	WATER	CLP-SEMI-VOA & PCB/PEST	
	1; 1L; P	WATER	ANIONS (IC) (SO4,F,PO4,Cl); CONDUCTIVITY; pH	
	2; 4L; P	WATER	GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC	
			(U-235/238, Pu-239/240, Am-241), Sr-90; (HNO3)	
	1; 500mL; Gs	WATER	TRITIUM, C-14	
	1; 500mL; P	WATER	ANIONS (NO2/NO3) (H2SO4)	S
	1; 1L; G	WATER	ALKALINITY, TOTAL DISSOLVED SOLIDS	
	1; 500mL; G	WATER	SULFIDE (ZINC ACETATE PLUS NaOH pH>9)	
	1; 500mL; G	WATER	AMMONIA, CHEMICAL OXYGEN DEMAND (H2SO4	
	1; 1L; P	WATER	Tc-99 (HNO3)	
B07954	1; 1L; P	WATER	CLP-ICP/AA METAL & MERCURY (HNO3) FILTERED	S
B07955	3; 40mL; Gs	WATER	CLP-VOA	

Field Information** OPC: W92- 0-0643-3

BOL: 2521567334

TASK: 92-266

Special Handling and/or Storage

Possible Sample Hazards

PART II: LABORATORY SECTION

Received by Kermit Blum Title Sample Control Supervisor Date 9-23-92

Analysis Required

*Indicate whether sample is soil, sludge, water, etc.

**Use back of page for additional information relative to sample location.

A-6000-406(05/90)

9613494.1107

Westinghouse Hanford Company	CHAIN OF CUSTODY

Custody Form Initiator PH BUTCHER

Company Contact PH BUTCHER

Telephone (509)376-5045

Project Designation/Sampling Locations 100-KR-4

Collection Date 9/21/92

Ice Chest No. ~~2~~ AJS 9/22/92 SML-262

Field Logbook No. EFL-1049

Bill of Lading/Airbill No. 2521567334

Offsite Property No. W92-0-0643-4

Method of Shipment EMERY

Shipped to TMA

Possible Sample Hazards/Remarks N/A

Sample Identification

B079S6

1, 1L, P, WATER, CLP-ICP/AA METALS & Hg (HNO3) UNFILTERED
1, 1L, P, WATER, CLP-CYANIDE (NaOH)
3, 40ml, Gs, WATER, CLP-VOA
3, 2L, aG, WATER, CLP-SEMI-VOA & PCB/PEST
1, 1L, P, WATER, ANIONS(IC) (SO4,F,PO4,Cl), COND., pH
2, 4L, P, WATER, GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC (U-235/238,Pu-239/240, Am-241), Sr-90 (HNO3)
1, 500ml, Gs, WATER, TRITIUM, C-14
1, 500ml, P, WATER, ANIONS(NO2,NO3) (H2SO4)
1, 1L, G, WATER, ALKALINITY, TOTAL DISSOLVED SOLIDS
1, 500ml, G, WATER, SULFIDE (ZINC ACETATE+NaOH pH>9)
1, 500ml, G, WATER, AMMONIA, CHEMICAL OXYGEN DEMAND (H2SO4 pH<2)
1, 1L, P, WATER, Tc-99 ~~(HNO3)~~ AJS 9/22/92 (HCL)

B079S9

1, 1L, P, WATER, CLP-ICP/AA METALS & Hg (HNO3) FILTERED

B079T0

3, 40ml, Gs, WATER, CLP-VOA

[] Field Transfer of Custody	Chain of Possession	(Sign and Print Names)
Relinquished by: L.D. Walker LD Walker	Received by: AJ SIMPSON AJ Simpson	Date/Time: 9/22/92 0955
Relinquished by: AJ SIMPSON AJ Simpson	Received by: Kermit Blum	Date/Time: 9-23-92 1145
Relinquished by:	Received by:	Date/Time:
Relinquished by:	Received by:	Date/Time:

Final Sample Disposition

Disposal Method:	Disposed by:	Date/Time:

Comments:

115

A-6000-407 (12/90) (EF) WEF061
Chain of Custody

9613494.1108

Westinghouse Hanford Company

SAMPLE ANALYSIS REQUEST

PART I: FIELD SECTION

Collector K. Lee, L. Walker, G. Hamilton, C. Celiberti Date Sampled 9/21/92 Time 1215 hours

Company Contact P. H. Butcher Telephone (509) 376-5045

Sample Number	Number and Type of Sample Containers	Type of Sample*	Analysis Requested
B07956	1; 1L; P;	WATER	CLP ICP/AA METALS & Hg (HNO3) UNFILTERED
	1; 1L; P	WATER	CLP-CYANIDE (NaOH)
	3; 40ml; Gs	WATER	CLP-VOA
	3; 2L; aG	WATER	CLP-SEMI-VOA & PCB/PEST
	1; 1L; P	WATER	ANIONS (IC) (SO4,F,PO4,Cl); CONDUCTIVITY; pH
	2; 4L; P	WATER	GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC
			(U-235/238, Pu-239/240, Am-241), Sr-90; (HNO3)
	1; 500mL; Gs	WATER	TRITIUM, C-14
	1; 500mL; P	WATER	ANIONS (NO2/NO3) (H2SO4)
	1; 1L; G	WATER	ALKALINITY, TOTAL DISSOLVED SOLIDS
	1; 500mL; G	WATER	SULFIDE (ZINC ACETATE PLUS NaOH pH>9)
	1; 500mL; G	WATER	AMMONIA, CHEMICAL OXYGEN DEMAND (H2SO4
	1; 1L; P	WATER	Tc-99 (HNO3)
B07959	1; 1L; P	WATER	CLP-ICP/AA METAL & MERCURY (HNO3) FILTERED
B07970	3; 40mL; Gs	WATER	CLP-VOA

Field Information** OPC: W92-0-0643-4

BOL: 2521567334

TASK: 92-266

Special Handling and/or Storage

Possible Sample Hazards

PART II: LABORATORY SECTION

Received by Kermit Blum Title Sample Control Supervisor Date 9-23-92

Analysis Required

116

*Indicate whether sample is soil, sludge, water, etc.

**Use back of page for additional information relative to sample location.

A-6000-406(05/90)

CASE NARRATIVE

LABORATORY : TMA/ARLI

CASE : 09-063

CONTRACT ID : WESTINGHOUSE HANFORD COMPANY

SDG RECEIPT DATE : September 23, 1992

1.0 DESCRIPTION OF CASE :

Eight water samples were analyzed for TCL Organics-Volatiles, Semivolatiles, Pesticides/PCBs according to the USEPA Contract Laboratory Program (CLP) Statement of Work for Organic Analysis, Revision OLM01.8.

2.0 SAMPLE LIST :

WESTINGHOUSE ID	LAB ID	ANALYSIS REQUESTED	MATRIX	pH
B079R1	A2-09-063-01A	V	WATER	7
B079R1 MS	A2-09-063-01B	V	WATER	7
B079R1 MSD	A2-09-063-01C	V	WATER	7
B079R1	A2-09-063-01D	SV & P	WATER	
B079R1 MS	A2-09-063-01E	SV	WATER	
B079R1 MSD	A2-09-063-01F	SV	WATER	
B079R5	A2-09-063-02A	V	WATER	7
B079R6	A2-09-063-03A	V	WATER	7
B079R6	A2-09-063-03B	SV & P	WATER	
B079R6 MS	A2-09-063-03C	P	WATER	
B079R6 MSD	A2-09-063-03D	P	WATER	
B079S0	A2-09-063-04A	V	WATER	7
B079S1	A2-09-063-05A	V	WATER	7
B079S1	A2-09-063-05B	SV & P	WATER	
B079S5	A2-09-063-06A	V	WATER	7
B079S6	A2-09-063-07A	V	WATER	7
B079S6	A2-09-063-07B	SV & P	WATER	
B079S6 RE	A2-09-063-07B	P	WATER	
B079T0	A2-09-063-08A	V	WATER	7

3.0 COMMENTS :

3.1 SHIPPING AND DOCUMENTATION :

The samples were received unbroken and properly documented.

3.2 ANALYSIS

3.2.1 VOLATILE ANALYSIS COMMENTS :

LOW LEVEL WATER :

The samples were analyzed within the CLP SOW holding times.

All of the QC results were within the limits specified by the EPA CLP SOW.

TUNES :

All of the BFB tunes are injected directly into the GC/MS instrument.

3.2.2 SEMIVOLATILE ANALYSIS COMMENTS :

LOW LEVEL WATER :

The samples were extracted and analyzed within the CLP SOW holding times.

All of the other QC results were within the limits specified by the EPA CLP SOW.

PESTICIDE/PCB ANALYSIS :

SEQUENCE NOTES :

The sequence was started on 10/26/92 and analyzed in accordance with the EPA CLP SOW. The sequence was analyzed by single injection into a dual column system. The sequence met all the QC criteria specified in the CLP SOW.

The Chromatograms are presented in the manner consistent with the capabilities of the Nelson 2600 Data System which normalizes the largest peak to scale.

SAMPLE NOTES :

LOW LEVEL WATER :

The samples were extracted and analyzed within the CLP SOW holding times. Sample B079S6 had surrogate recoveries for TCX and DCB below the advisory QC limits. The sample was re-extracted out of the holding time and analyzed. The re-extracted sample met all of the QC limits and has been included in this report.

All of the QC results were within the limits specified by the EPA CLP SOW.

We certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data in this hardcopy data package and in the computer-readable data submitted on diskette is authorized by the Laboratory Manager or his designee, as verified by the following signatures.

Nicole Roth
Nicole Roth
CLP Program Manager

Widayat
Wida Ang
Organics Supervisor

9613494.1112

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

000005
EPA SAMPLE NO.

B079R1

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09063 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209063-01A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20925B05

Level: (low/med) LOW Date Received: 09/23/92

% Moisture: not dec. ____ Date Analyzed: 09/25/92

GC Column: CAP 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	5	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	8	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	1	J
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

EPA SAMPLE NO.

B079R1

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09063 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209063-01A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20925B05

Level: (low/med) LOW Date Received: 09/23/92

% Moisture: not dec. ____ Date Analyzed: 09/25/92

GC Column: CAP 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

9613494.1114

000007

EPA SAMPLE NO.

B079R5

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09063 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209063-02A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20925B08

Level: (low/med) LOW Date Received: 09/23/92

% Moisture: not dec. ____ Date Analyzed: 09/25/92

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 1.0

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

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

CAS NO.	COMPOUND		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	9	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	1	J
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	1	J
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

EPA SAMPLE NO.

B079R5

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09063 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209063-02A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20925B08

Level: (low/med) LOW Date Received: 09/23/92

% Moisture: not dec. ____ Date Analyzed: 09/25/92

GC Column: CAP 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

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

000009

EPA SAMPLE NO.

B079R6

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09063 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209063-03A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20925B09

Level: (low/med) LOW Date Received: 09/23/92

% Moisture: not dec. ____ Date Analyzed: 09/25/92

GC Column: CAP 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	5	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

9613494.1117

1E

000010
EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B079R6

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09063 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209063-03A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20925B09

Level: (low/med) LOW Date Received: 09/23/92

% Moisture: not dec. ____ Date Analyzed: 09/25/92

GC Column: CAP 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

9613494.1118

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

000011
EPA SAMPLE NO.

B07980

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09063 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209063-04A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20925B10

Level: (low/med) LOW Date Received: 09/23/92

% Moisture: not dec. ____ Date Analyzed: 09/25/92

GC Column: CAP 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	8	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	1	J
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	1	J
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

9613494.1119

1E

000012

EPA SAMPLE NO.

B079S0

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09063 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209063-04A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20925B10

Level: (low/med) LOW Date Received: 09/23/92

% Moisture: not dec. ____ Date Analyzed: 09/25/92

GC Column: CAP 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

9613494.1120

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO. 000013

B079S1

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09063 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209063-05A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20925B11

Level: (low/med) LOW Date Received: 09/23/92

% Moisture: not dec. ____ Date Analyzed: 09/25/92

GC Column: CAP 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	1	J
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

9613494.1121

1E

000014

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B079S1

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09063 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209063-05A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20925B11

Level: (low/med) LOW Date Received: 09/23/92

% Moisture: not dec. ____ Date Analyzed: 09/25/92

GC Column: CAP 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

9613494.1122

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B079S5

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09063 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209063-06A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20925B12

Level: (low/med) LOW Date Received: 09/23/92

% Moisture: not dec. ____ Date Analyzed: 09/25/92

GC Column: CAP 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	7	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	1	J
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

9613494 1123

1E

EPA SAMPLE NO.

B079S5

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09063 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209063-06A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20925B12

Level: (low/med) LOW Date Received: 09/23/92

% Moisture: not dec. ____ Date Analyzed: 09/25/92

GC Column: CAP 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

9613494.1124

000017

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B079S6

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09063 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209063-07A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20925B13

Level: (low/med) LOW Date Received: 09/23/92

% Moisture: not dec. ____ Date Analyzed: 09/25/92

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 1.0

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

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

CAS NO.	COMPOUND		Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	5	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	1	J
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

9613494.1125

1E

000018

EPA SAMPLE NO.

B079S6

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09063 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209063-07A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20925B13

Level: (low/med) LOW Date Received: 09/23/92

% Moisture: not dec. ____ Date Analyzed: 09/25/92

GC Column: CAP 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

9613494.1126

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

000019

B079T0

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09063 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209063-08A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20925B14

Level: (low/med) LOW Date Received: 09/23/92

% Moisture: not dec. ____ Date Analyzed: 09/25/92

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 1.0

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

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

CAS NO.	COMPOUND		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	6	BJ
67-64-1	Acetone	16	
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	1	J
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

9613494.1127

000020
EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B079T0

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09063 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209063-08A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20925B14

Level: (low/med) LOW Date Received: 09/23/92

% Moisture: not dec. ____ Date Analyzed: 09/25/92

GC Column: CAP 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

9613494.1128

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

000021
EPA SAMPLE NO.

B079R1

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09063 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209063-01D

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 20930S03

Level: (low/med) LOW Date Received: 09/23/92

% Moisture: ____ decanted: (Y/N) ___ Date Extracted: 09/25/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/30/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-Di-n-Propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)Methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-Methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U
51-28-5	2,4-Dinitrophenol	25	U

9613494.1129

1C

000022
EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

B079R1

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09063 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209063-01D

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 20930S03

Level: (low/med) LOW Date Received: 09/23/92

% Moisture: ____ decanted: (Y/N) ___ Date Extracted: 09/25/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/30/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-Butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)Anthracene	10	U
117-81-7	bis(2-Ethylhexyl)Phthalate	2	J
218-01-9	Chrysene	10	U
117-84-0	Di-n-Octyl Phthalate	10	U
205-99-2	Benzo(b)Fluoranthene	10	U
207-08-9	Benzo(k)Fluoranthene	10	U
50-32-8	Benzo(a)Pyrene	10	U
193-39-5	Indeno(1,2,3-cd)Pyrene	10	U
53-70-3	Dibenz(a,h)Anthracene	10	U
191-24-2	Benzo(g,h,i)Perylene	10	U

(1) - Cannot be separated from Diphenylamine

1F

EPA SAMPLE NO.

B079R1

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09063 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209063-01D

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 20930S03

Level: (low/med) LOW Date Received: 09/23/92

% Moisture: _____ decanted: (Y/N) ___ Date Extracted: 09/25/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/30/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

9613494.1131

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

000024
EPA SAMPLE NO.

B079R6

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09063 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209063-03B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 20930S06

Level: (low/med) LOW Date Received: 09/23/92

% Moisture: _____ decanted: (Y/N) ___ Date Extracted: 09/25/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/30/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-Di-n-Propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)Methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-Methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U
51-28-5	2,4-Dinitrophenol	25	U

9613494.1132

1C

000025

EPA SAMPLE NO.

B079R6

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09063 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209063-03B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 20930S06

Level: (low/med) LOW Date Received: 09/23/92

% Moisture: _____ decanted: (Y/N) ___ Date Extracted: 09/25/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/30/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-Butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)Anthracene	10	U
117-81-7	bis(2-Ethylhexyl)Phthalate	10	U
218-01-9	Chrysene	10	U
117-84-0	Di-n-Octyl Phthalate	10	U
205-99-2	Benzo(b)Fluoranthene	10	U
207-08-9	Benzo(k)Fluoranthene	10	U
50-32-8	Benzo(a)Pyrene	10	U
193-39-5	Indeno(1,2,3-cd)Pyrene	10	U
53-70-3	Dibenz(a,h)Anthracene	10	U
191-24-2	Benzo(g,h,i)Perylene	10	U

(1) - Cannot be separated from Diphenylamine

9613494.1133
1F

EPA SAMPLE NO.

B079R6

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09063 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209063-03B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 20930S06

Level: (low/med) LOW Date Received: 09/23/92

% Moisture: _____ decanted: (Y/N) ___ Date Extracted: 09/25/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/30/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

Number TICs found: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN HYDROCARBON	5.60	2	BJ

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B079S1

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09063 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209063-05B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 20930S07

Level: (low/med) LOW Date Received: 09/23/92

% Moisture: ____ decanted: (Y/N) ___ Date Extracted: 09/25/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/30/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-Di-n-Propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)Methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-Methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U
51-28-5	2,4-Dinitrophenol	25	U

9613494.1135

1C

000028

EPA SAMPLE NO.

B079S1

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09063 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209063-05B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 20930S07

Level: (low/med) LOW Date Received: 09/23/92

% Moisture: ____ decanted: (Y/N) ___ Date Extracted: 09/25/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/30/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-Butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)Anthracene	10	U
117-81-7	bis(2-Ethylhexyl)Phthalate	10	U
218-01-9	Chrysene	10	U
117-84-0	Di-n-Octyl Phthalate	10	U
205-99-2	Benzo(b)Fluoranthene	10	U
207-08-9	Benzo(k)Fluoranthene	10	U
50-32-8	Benzo(a)Pyrene	10	U
193-39-5	Indeno(1,2,3-cd)Pyrene	10	U
53-70-3	Dibenz(a,h)Anthracene	10	U
191-24-2	Benzo(g,h,i)Perylene	10	U

(1) - Cannot be separated from Diphenylamine

EPA SAMPLE NO.

B079S1

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09063 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209063-05B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 20930S07

Level: (low/med) LOW Date Received: 09/23/92

% Moisture: ____ decanted: (Y/N) ___ Date Extracted: 09/25/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/30/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

Number TICs found: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN HYDROCARBON	5.60	3	BJ

9613494.1137

000030

EPA SAMPLE NO.

B079S6

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09063 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209063-07B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 20930S08

Level: (low/med) LOW Date Received: 09/23/92

% Moisture: _____ decanted: (Y/N) ___ Date Extracted: 09/25/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/30/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-Di-n-Propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)Methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-Methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U
51-28-5	2,4-Dinitrophenol	25	U

EPA SAMPLE NO.

B079S6

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09063 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209063-07B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 20930S08

Level: (low/med) LOW Date Received: 09/23/92

% Moisture: ____ decanted: (Y/N) ___ Date Extracted: 09/25/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/30/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-Butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)Anthracene	10	U
117-81-7	bis(2-Ethylhexyl)Phthalate	10	U
218-01-9	Chrysene	10	U
117-84-0	Di-n-Octyl Phthalate	10	U
205-99-2	Benzo(b)Fluoranthene	10	U
207-08-9	Benzo(k)Fluoranthene	10	U
50-32-8	Benzo(a)Pyrene	10	U
193-39-5	Indeno(1,2,3-cd)Pyrene	10	U
53-70-3	Dibenz(a,h)Anthracene	10	U
191-24-2	Benzo(g,h,i)Perylene	10	U

(1) - Cannot be separated from Diphenylamine

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1F

000032

EPA SAMPLE NO.

B079S6

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09063 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209063-07B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 20930S08

Level: (low/med) LOW Date Received: 09/23/92

% Moisture: ____ decanted: (Y/N) ___ Date Extracted: 09/25/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/30/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

Number TICs found: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN HYDROCARBON	5.60	2	BJ

EPA SAMPLE NO.

B079R1

PESTICIDE ORGANICS ANALYSIS DATA SHEET

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09063 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209063-01D

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N) ___ Date Received: 09/23/92

Extraction: (SepF/Cont/Sonc) CONT Date Extracted: 09/25/92

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 10/27/92

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-36-3	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

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PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B079R6

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09063 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209063-03B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N) ___ Date Received: 09/23/92

Extraction: (SepF/Cont/Sonc) CONT Date Extracted: 09/25/92

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 10/27/92

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-36-3	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

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000035

EPA SAMPLE NO.

B07981

PESTICIDE ORGANICS ANALYSIS DATA SHEET

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09063 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209063-05B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N) ___ Date Received: 09/23/92

Extraction: (SepF/Cont/Sonc) CONT Date Extracted: 09/25/92

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 10/27/92

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-36-3	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

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EPA SAMPLE NO.

B079S6

PESTICIDE ORGANICS ANALYSIS DATA SHEET

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09063 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209063-07B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N) ___ Date Received: 09/23/92

Extraction: (SepF/Cont/Sonc) CONT Date Extracted: 09/25/92

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 10/27/92

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

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

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

CAS NO.	COMPOUND		Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-36-3	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

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PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B079S6RE

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09063 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209063-07BR

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N) ___ Date Received: 09/23/92

Extraction: (SepF/Cont/Sonc) CONT Date Extracted: 10/22/92

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 10/27/92

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-36-3	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

PAGE 1 TMH/Norcal CHAIN OF CUSTODY ORD # N2-09-162
RCVD: 09/23/92 DUE 10/23/92 09/23/92 15:38:02 KEEP: 01/21/93 DISP: S

DASH	SAMPLE IDENTIFICATION		STORED	TESTS for FRACTIONS with work in DEPT: SU and CATEGORY
01A-W	B079R1	UNFILTERED	ARLI (10)	WH018 WH019 WH020 WH043 WH114 WH121 WH122 WH128 WH131 WH132 WH140
02A-W	B079R6	UNFILTERED	ARLI (10)	WH018 WH019 WH020 WH043 WH114 WH121 WH122 WH128 WH131 WH132 WH140
03A-W	B079S1	UNFILTERED	ARLI (10)	WH018 WH019 WH020 WH043 WH114 WH121 WH122 WH128 WH131 WH132 WH140
04A-W	B079S6	UNFILTERED	ARLI (10)	WH018 WH019 WH020 WH043 WH114 WH121 WH122 WH128 WH131 WH132 WH140
04C-W	B079S6 MS	UNFILTERED	ARLI	WH018 WH019 WH020 WH043 WH114 WH140
04D-W	B079S6 MSD	UNFILTERED	ARLI	WH018 WH019 WH020
04E-W	B079S6 DUP	UNFILTERED	ARLI	WH043 WH114 WH121 WH122 WH128 WH131 WH132 WH140
05A-W	B079R5		ARLI (3)	WH018
06A-W	B079S0		ARLI (3)	WH018
07A-W	B079S5		ARLI (3)	WH016
08A-W	B079T0		ARLI (3)	WH018

RELEASED BY	DATE	TRANSFERRED TO	DATE	RECEIVED BY	DATE
Yamamoto	9-23-92	ARLI	9-23-92	C. Harris	9/24/92

5188039382

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FEDERAL EXPRESS

QUESTIONS? CALL 800-238-5355 TOLL FREE.

AIRBILL PACKAGE TRACKING NUMBER 5188039382

2237M 5188039382

1 Date 9.23.92

RECIPIENT'S COPY

From (Your Name) Please Print: SAMPLE CONTROL

Your Phone Number (Very Important): 510-235-2633

Company: I M A INDUSTRIAL

Department/Floor No.:

Street Address: 2030 WRIGHT AVE

City: RICHMOND State: CA ZIP Required: 94804

2 To (Recipient's Name) Please Print: SAMPLE CONTROL

Recipient's Phone Number (Very Important): ( )

Company: THA/ARL.

Department/Floor No.:

Exact Street Address (We Cannot Deliver to P.O. Boxes or P.O. Zip Codes.): 160 TAYLOR STREET

City: MONROVIA State: CA ZIP Required: 91016

YOUR INTERNAL BILLING REFERENCE INFORMATION (optional-First 24 characters will appear on invoice.): 2320 6406

H IF HOLD FOR PICK-UP, Print FEDEX Address Here

Street Address:

City: State: ZIP Required:

3 PAYMENT 1 [X] Bill Sender 2 [ ] Bill Recipient's FedEx Acct. No. 3 [ ] Bill 3rd Party FedEx Acct. No. 4 [ ] Bill Credit Card 5 [ ] Cash/Check

4 SERVICES (Check only one box)

Priority Overnight (Delivery by next business morning): 11 [X] YOUR PACKAGING; 16 [ ] FEDEX LETTER; 12 [ ] FEDEX PAK*; 13 [ ] FEDEX BOX; 14 [ ] FEDEX TUBE

Standard Overnight (Delivery by next business afternoon): 54 [ ] YOUR PACKAGING; 56 [ ] FEDEX LETTER; 52 [ ] FEDEX PAK*; 53 [ ] FEDEX BOX; 54 [ ] FEDEX TUBE

Economy Two-Day (Delivery by second business day): 30 [ ] ECONOMY

Government Overnight (Available for authorized users only): 46 [ ] GOVT LETTER; 41 [ ] GOVT PACKAGE

Freight Service (For packages over 150 lbs.): 70 [ ] OVERNIGHT FREIGHT** (Continuous supervision required); 80 [ ] TWO-DAY FREIGHT**

†Delivery commitment may be later in some areas. *Declared Value Limit $500. **Call for delivery schedule.

5 DELIVERY AND SPECIAL HANDLING (Check services required)

1 [ ] HOLD FOR PICK-UP (Fill in Box H)
2 [X] DELIVER WEEKDAY
3 DELIVER SATURDAY (Extra charge) [ ] (Not available to all locations)
4 DANGEROUS GOODS (Extra charge)
5 [ ]
6 DRY ICE Lbs.
7 [ ] OTHER SPECIAL SERVICE
8 [ ]
9 [ ] SATURDAY PICK-UP (Extra charge)
10 [ ]
[ ]
12 [ ] HOLIDAY DELIVERY (If available) (Extra charge)

6 PACKAGES | WEIGHT (In Pounds Only) | YOUR DECLARED VALUE

Total 3 Total 203 Total

DIM SHIPMENT (Chargeable Weight) [ ] _____ lbs.

L x W x H

Received At: 1 [X] Regular Stop 2 [ ] On-Call Stop 3 [ ] Drop Box 4 [ ] B.S.C. 5 [ ] Station

7 Release Signature

Emp. No. Date

[ ] Pkgs Returned
[ ] Return Shipment
[ ] Transitority [ ] Chg. To Del. [ ] Chg. To Hold

Street Address

City State Zip

Received By: X

Date/Time Received FedEx Employee Number

Federal Express Base Charges Declared Value C Other 1 Other 2 Total Charges

REVISION DATE 2/92 PART #137204 FXI FORMAT #126

126

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SAMPLE LOG-IN SHEET

LAB NAME: TRA/ARLI

PAGE: 1 OF 1

RECEIVED BY (PRINT NAME): Carole Harris

LOG-IN-DATE: 9-24-92

RECEIVED BY (SIGNATURE): Carole Harris

CASE NUMBER:
SAMPLE DELIVERY GROUP NO.:
SAS NUMBER:

REMARKS:

1. Custody Seal(s) — Present/Absent* Intact/Broken
2. Custody Seal Nos: _____
3. Chain of Custody Records — Present/Absent*
4. Traffic Reports or Packing List — Present/Absent*
5. Airbill — Airbill/Sticker Present/Absent*
6. Airbill No.: 5188039382
7. Sample Tags — Present/Absent*
8. Sample Tags Numbers — Listed/Not Listed on Chain of Custody
9. Sample Condition: — Intact/Broken*/Leaking
10. Does information on custody records, traffic reports, and sample tags agree — Yes/No*
11. Date Recieved at Lab: 9-24-92
12. Temp of ice chest: 4.0 °C
13. Time Recieved: 9:00 AM

SAMPLE TRANSFER

Fraction: _____
Area #: _____
By: _____
On: _____

EPA SAMPLE #	CORRESPONDING SAMPLE TAG #	CORRESPONDING ASSIGNED LAB #	REMARKS: CONDITION OF SAMPLE SHIPMENT, ETC
	B079R1	A2-09-063-01	
	B079R5	A2-09-063-02	
	B079R6	A2-09-063-03	
	B079S0	A2-09-063-04	
	B079S1	A2-09-063-05	
	B079S5	A2-09-063-06	
	B079S6	A2-09-063-07	
	B079T0	A2-09-063-08	

* Contact SMO and attach record of resolution

Reviewed By: _____ Logbook No.: _____

Date: _____ Logbook Page No.: _____

FORM OC-1

9613494.1148

000005

TMA/ARLI
Thermo Analytical Inc.

RADIATION DOSE RATE SURVEY FORM

Date 9/24/92 COMPANY DOPCAL OTHER ORD # 5188039382

Surveyor's Name MARK S. McCRAY

Model No. HP-210 / ESP-1 Model No. AC-3-7 / ESP-1

Serial Nos. 710289 / 02619 Serial Nos. 407726 / 02628

Calibration Date 3/25/92 Calibration Date 8/01/92

Instrument Calibration Factor 0.280 Instrument Calibration Factor 0.188

Sample	Location	HP-210 CPM	HP-210 Factor	HP-210 DPM	AC-3-7 CPM	AC-3-7 Factor	AC-3-7 DPM	Spillage or Breakage?	Activity, nCi/mL or nCi/g
Background		25.0			0				
Consistency		7,400	0.2857		5,000	0.1838			
Smears: SML-90		32.0			1.0				
SML-219		40.0			3.0				
SML-236		54.0			2.0				
Reported (in) 21 samples each 50 pCi/gram									

Comments:

All OK ✓ Approved MSM

Not OK Date 9/24/92

Form: ARLI RA-01
Rev: 06

01/15/92

GENERAL CHEMISTRY RESULTS

CASE NO. 09-063

Water Sample #:

B079R1	B079R6
B079S1	B079S6

CASE NARRATIVE

No problems were encountered during sample analysis. All QC results were acceptable.

Ernesto Vazquez

Ernesto Vazquez

9613494.1150

000008

TMA Inc. REPORT Work Order # A2-09-063

Received: 09/23/92 11/06/92 15:46:05

REPORT TO: Westinghouse Hanford Company
2355 Stevens Dr.
Richland,WA.99352
MO-346/200 West/T6-08

ATTEN: Jeanette Duncan

PREPARED BY: Thermo Analytical, Inc.
160 Taylor Street
Monrovia, CA 91016

ATTEN: Ms. Carole Harris
PHONE: 818-357-3247

CERTIFIED BY: Ernest Higgins

CONTACT: EVV CIM

CLIENT: WHC SAMPLES: 9
COMPANY: Westinghouse Hanford Company
FACILITY:

This report is for the sole and exclusive use of the client to whom it is addressed and represents only those samples herein described. Samples not destroyed in testing are retained a maximum of 30 days unless otherwise requested.

WORK ID: 100-KR-4
TAKEN: By Westinghouse Staff
TRANS: By Federal Express
TYPE: Liquid
P.O. #: N2-09-162-SU-AR
INVOICE: under separate cover

SAMPLE IDENTIFICATION

01	B079R1
01	B079R1 MS
01	B079R1 MSD
01	B079R1
01	B079R1 MS
01	B079R1 MSD
01	B079R1
01	B079R1 MS
01	B079R1
01	B079R1 Duplicate
01	B079R1
01	B079R1 MS
01	B079R1
01	B079R1 MS
02	B079R5
03	B079R6
03	B079R6 MS
03	B079R6 MSD
03	B079R6
03	B079R6 Duplicate
03	B079R6
03	B079R6 Duplicate
03	B079R6
03	B079R6 Duplicate
04	B079S0
05	B079S1

TEST CODES and NAMES used on this workorder

BNCLPW	CLP Semivol. Water
PECLPL	CLP Pesticides Liq.-WH019
VOCLPL	CLP Volatile Org.Liq.
WCCLPL	Anions & Wet Chem. - WH043
WCL L	Chloride - WH120
WCQCD	Quality Control Summary
WCQCS	Quality Control Summary
WF L	Fluoride in Water
WNH3 L	Ammonia in Water - WH140
WPH L	pH of Liquid - WH121
WPO4 L	Phosphate in Liquids
WSO4 L	Sulfate (in Waters)
WSULFI	Sulfide - WH114
W ALK	Alkalinity - WH131
W COD	COD Water - WH132
W COND	Conductivity-Water WH135
W TDS	Dissolved Solids WH128

TMA Inc. REPORT

Received: 09/23/92

11/06/92 15:46:05

Work Order # A2-09-063

SAMPLE IDENTIFICATION

05 B079S1
06 B079S5
07 B079S6
08 B079T0
09 Wet Chemistry Blank

TMA Inc. REPORT Work Order # A2-09-063

Received: 09/23/92

Results by Sample

SAMPLE ID B079R1 FRACTION 01G TEST CODE VCCLPL NAME Anions & Wet Chem. - VB043

Date & Time Collected 09/21/92 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Chloride	300.0	20.2	mg/L	0.2
Fluoride	300.0	<0.1	mg/L	0.1
Phosphate	300.0	<0.4	mg/L	0.4
pH	150.1	8.0	pH	0.1
Sulfate	300.0	51	mg/L	1
Elect. Conductivity	120.1	331	umho/cm	6

FORM I

TMA Inc. REPORT Work Order # A2-09-063

Received: 09/23/92

Results by Sample

SAMPLE ID B079R1 FRACTION 01I TEST CODE WCCLPL NAME Anions & Wet Chem. - WH043

Date & Time Collected 09/21/92 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Alkalinity	310.1	53	mg/L	2
Tot. Dissolved Solids	160.1	258	mg/L	5

FORM I

TMA Inc. REPORT Work Order # A2-09-063

Received: 09/23/92

Results by Sample

SAMPLE ID B079R1 FRACTION 01K TEST CODE WCCLPL NAME Anions & Wet Chem. - WN043

Date & Time Collected 09/21/92 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Sulfide	376.1	<1	mg/L	1

FORM I

TMA Inc. REPORT Work Order # A2-09-063

Received: 09/23/92

Results by Sample

SAMPLE ID B079R1 FRACTION 01M TEST CODE WCCLPL NAME Anions & Wet Chem. - WH043

Date & Time Collected 09/21/92 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Ammonia Nitrogen	350.3	0.22	mg/L	0.05
COD	410.0	<30	mg/L	30

FORM I

TMA Inc. REPORT Work Order # A2-09-063

Received2 09/23/92

Results by Sample

SAMPLE ID B079R6 FRACTION 03E TEST CODE WCCLPL NAME Anions & Wet Chem. - WH043

Date & Time Collected 09/21/92 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Chloride	300.0	4.4	mg/L	0.2
Fluoride	300.0	<0.1	mg/L	0.1
Phosphate	300.0	<0.4	mg/L	0.4
pH	150.1	8.1	pH	0.1
Sulfate	300.0	53	mg/L	1
Elect. Conductivity	120.1	262	umho/cm	6

FORM I

TMA Inc. REPORT Work Order # A2-09-063

Received: 09/23/92

Results by Sample

SAMPLE ID B079R6 FRACTION 03G TEST CODE WCCLPL NAME Anions & Wet Chem. - WH043

Date & Time Collected 09/21/92 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Alkalinity	310.1	84	mg/L	2
Tot. Dissolved Solids	160.1	190	mg/L	5

FORM I

9613494.1158

TMA Inc. REPORT Work Order # A2-09-063

Received: 09/23/92

Results by Sample

SAMPLE ID B079R6 FRACTION 03H TEST CODE WCCLPL NAME Anions & Wet Chem. - WN043

Date & Time Collected 09/21/92 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Sulfide	376.1	<1	mg/L	1

FORM I

TMA Inc. REPORT Work Order # A2-09-063

Received: 09/23/92

Results by Sample

SAMPLE ID B079R6 FRACTION 03J TEST CODE WCCLPL NAME Anions & Wet Chem. - VN043

Date & Time Collected 09/21/92 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Ammonia Nitrogen	350.3	<0.05	mg/L	0.05
COD	410.0	<30	mg/L	30

FORM I

TMA Inc. REPORT Work Order # A2-09-063

Received: 09/23/92

Results by Sample

SAMPLE ID B079S1 FRACTION 05C TEST CODE WCCLPL NAME Anions & Wet Chem. - WM043

Date & Time Collected 09/21/92 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Chloride	300.0	5.3	mg/L	0.2
Fluoride	300.0	0.2	mg/L	0.1
Phosphate	300.0	<0.4	mg/L	0.4
pH	150.1	8.2	pH	0.1
Sulfate	300.0	53	mg/L	1
Elect. Conductivity	120.1	270	umho/cm	6

FORM I

9613494.1161

TMA Inc. REPORT Work Order # A2-09-063

Received: 09/23/92 Results by Sample

SAMPLE ID B079S1 FRACTION 05D TEST CODE WCCLPL NAME Anions & Wet Chem. - WN043

Date & Time Collected 09/21/92 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Alkalinity	310.1	73	mg/L	2
Tot. Dissolved Solids	160.1	171	mg/L	5

FORM I

9613494.1162

000020

TMA Inc. REPORT Work Order # A2-09-063

Received: 09/23/92

Results by Sample

SAMPLE ID B079S1 FRACTION 05E TEST CODE WCCLPL NAME Anions & Wet Chem. - WN043

Date & Time Collected 09/21/92 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Sulfide	376.1	<1	mg/L	1

FORM I

TMA Inc. REPORT Work Order # A2-09-063

Received: 09/23/92

Results by Sample

SAMPLE ID B079S1 FRACTION 05F TEST CODE VCCLPL NAME Anions & Wet Chem. - WH043

Date & Time Collected 09/21/92 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Ammonia Nitrogen	350.3	0.05	mg/L	0.05
COD	410.0	<30	mg/L	30

FORM I

TNA Inc. REPORT Work Order # A2-09-063

Received: 09/23/92

Results by Sample

SAMPLE ID B079S6 FRACTION 07C TEST CODE VCCLPL NAME Anions & Wet Chem. - VH043

Date & Time Collected 09/21/92 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Chloride	300.0	6.4	mg/L	0.2
Fluoride	300.0	<0.1	mg/L	0.1
Phosphate	300.0	<0.4	mg/L	0.4
pH	150.1	8.0	pH	0.1
Sulfate	300.0	58	mg/L	1
Elect. Conductivity	120.1	285	umho/cm	6

FORM I

TMA Inc. REPORT Work Order # A2-09-063

Received: 09/23/92

Results by Sample

SAMPLE ID B079S6 FRACTION 07D TEST CODE VCCLPL NAME Anions & Wet Chem. - VH043

Date & Time Collected 09/21/92 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Alkalinity	310.1	86	mg/L	2
Tot. Dissolved Solids	160.1	200	mg/L	5

FORM I

TMA Inc. REPORT Work Order # A2-09-063

Received: 09/23/92 Results by Sample

SAMPLE ID B079S6 FRACTION 07E TEST CODE VCCLPL NAME Anions & Wet Chem. - VM043

Date & Time Collected 09/21/92 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Sulfide	376.1	<1	mg/L	1

FORM I

TNA Inc. REPORT Work Order # A2-09-063

Resampled: 09/23/92 Results b

SAMPLE ID B079S6 FRACTION 07F TEST CODE WCCLPL NAME Anions & Wet Chem. - WN043

Date & Time Collected 09/21/92 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Ammonia Nitrogen	350.3	<0.05	mg/L	0.05
COD	410.0	<30	mg/L	30

FORM I

9613494.1168

000001 2/10/93

 Skinner&Sherman REPORT Work Order # S2-09-405

Received: 09/24/92 11/02/92 16:28:50

REPORT TMA/NORCAL
TO 2030 Wright Avenue
Richmond, CA 94804

ATTEN Dan Steurmer

CLIENT HANFORD NOR SAMPLES 5
COMPANY TMA/NORCAL
FACILITY Richmond, CA

PREPARED TMA / Skinner & Sherman Labs.
BY 300 Second Avenue
P.O. Box 521
Waltham, MA 02254

ATTEN Client Services
PHONE (617) 890-7200

CERTIFIED BY

CONTACT DP

WORK ID N2-09-162
TAKEN By Client
TRANS Fedex #5188039356
TYPE 4 Water NO3NO2
P.O. # N2-09-162
INVOICE under separate cover

SAMPLE IDENTIFICATION	
01	B079R1
02	B079R6
03	B079S1
04	B079S6
04	B079S6D
04	B079S6S
05	LCSW

TEST CODES and NAMES used on this workorder

NO3NO2 Nitrate Plus Nitrite

TMA
Thermo Analytical Inc.
Skinner & Sherman Laboratories Inc.

This report is rendered upon all of the following conditions: Skinner & Sherman Laboratories, Inc. retains ownership of this report until associated submitted invoice is satisfi
Expert witness services shall be available in conjunction with this report only if prior notification of this potential requirement was made and accepted, before the analysis. Cli
will be responsible for Skinner & Sherman costs and consulting fees if our services are required by subpoena or otherwise in legal proceedings. Total liability is limited to the invo
amount. The results listed refer only to tested samples and applicable parameters. Product endorsement is neither inferred nor implied. Skinner & Sherman Laboratories, Inc. v
exercise due diligence but will not be responsible for lost or destroyed samples or evidence unless client makes appropriate insurance coverage arrangements. Samples are held
thirty days following issuance of report. Samples will be stored at client's expense, if authorized in writing.

300 Second Avenue, P.O. Box 521, Waltham, Massachusetts 02254-0521 (617) 890-7200
1-800-4 LAB TEST FAX (617) 890-3883

Page 2 Skinner&Sherman REPORT Work Order # S2-09-405
Received: 09/24/92 Results by Sample

SAMPLE ID B079R1 SAMPLE # 01 FRACTIONS: A
Date & Time Collected 09/21/92 Category WATER

NO3NO2 15.9
mg N/L

SAMPLE ID B079R6 SAMPLE # 02 FRACTIONS: A
Date & Time Collected 09/21/92 Category WATER

NO3NO2 4.16
mg N/L

SAMPLE ID B079S1 SAMPLE # 03 FRACTIONS: A
Date & Time Collected 09/21/92 Category WATER

NO3NO2 3.89
mg N/L

SAMPLE ID B079S6 SAMPLE # 04 FRACTIONS: A
Date & Time Collected 09/21/92 Category WATER

NO3NO2 2.55
mg N/L

SAMPLE ID B079S6D SAMPLE # 04 FRACTIONS: B
Date & Time Collected 09/21/92 Category WATER

NO3NO2 2.62
mg N/L

SAMPLE ID B079S6S SAMPLE # 04 FRACTIONS: C
Date & Time Collected 09/21/92 Category WATER

NO3NO2 4.84
mg N/L

SAMPLE ID LCSW SAMPLE # 05 FRACTIONS: A
Date & Time Collected not specified Category WATER

NO3NO2 1.89
mg N/L

TMA
Thermo Analytical Inc.
Skinner & Sherman Laboratories Inc.

This report is rendered upon all of the following conditions: Skinner & Sherman Laboratories, Inc. retains ownership of this report until associated submitted invoice is satisfi Expert witness services shall be available in conjunction with this report only if prior notification of this potential requirement was made and accepted, before the analysis. Cli will be responsible for Skinner & Sherman costs and consulting fees if our services are required by subpoena or otherwise in legal proceedings. Total liability is limited to the invo amount. The results listed refer only to tested samples and applicable parameters. Product endorsement is neither inferred nor implied. Skinner & Sherman Laboratories, Inc. w exercise due diligence but will not be responsible for lost or destroyed samples or evidence unless client makes appropriate insurance coverage arrangements. Samples are held thirty days following issuance of report. Samples will be stored at client's expense, if authorized in writing.

300 Second Avenue, P.O. Box 521, Waltham, Massachusetts 02254-0521 (617) 890-7200
1-800-4 LAB TEST FAX (617) 890-3883

Received: 09/24/92

Test Methodology

TEST CODE NO3NO2 NAME Nitrate Plus Nitrite

Methods for Chemical Analysis of Water and Wastes
EPA - 600/4-79-020 March 1979 Method 353.2 (modified)

TMA
Thermo Analytical Inc.
Skinner & Sherman Laboratories Inc.

This report is rendered upon all of the following conditions: Skinner & Sherman Laboratories, Inc. retains ownership of this report until associated submitted invoice is satisf Expert witness services shall be available in conjunction with this report only if prior notification of this potential requirement was made and accepted, before the analysis. Cl will be responsible for Skinner & Sherman costs and consulting fees if our services are required by subpoena or otherwise in legal proceedings. Total liability is limited to the inv amount. The results listed refer only to tested samples and applicable parameters. Product endorsement is neither inferred nor implied. Skinner & Sherman Laboratories, Inc. exercise due diligence but will not be responsible for lost or destroyed samples or evidence unless client makes appropriate insurance coverage arrangements. Samples are helc thirty days following issuance of report. Samples will be stored at client's expense, if authorized in writing.

300 Second Avenue, P.O. Box 521, Waltham, Massachusetts 02254-0521 (617) 890-7200
1-800-4 LAB TEST FAX (617) 890-3883

9613494.1171

000059

TMA/Skinner & Sherman Labs SAMPLE LOG-IN

WORKORDER S209405 CLIENT HANFORD-NOR No. SAMPLES:

PROTCL CLP TURNARND 33 days 9

COOLER TEMP: 4 oC, or NA (Soil) (Water) (Specify Other

CUSTODIAN Benney, A. SDG/BATCH N/A

CUSTODY SEAL: PRESENT/ABSENT/INTACT/NOT CLIENT CASE N209162

SHIPER & # Fedex #5188039356 PO/CONTRACT# ↓

TAGS: PRESENT/ABSENT/NA/SEE COC CONTACT Dolores Sanchez

CHAIN OF CUSTODY: PRESENT/ABSENT/NA, # N/A COMMENTS: NONE

SAMPLE CONTAINERS INTACT/BROKEN COMMENTS

CLIENT COMMENT? YES/NO

SAMPLE LABELS AGREE WITH CHAIN OF CUSTODY INFO? YES/NO (COMMENT)

CLIENT PAPERWORK AGREES WITH SAMPLES & COC? YES/NO (COMMENT)

SHIPMENT DATES 9/24/92

LIST ANY DATE WITH PAPERWORK/SHIPMENT PROBLEMS & SPECIFY THE PROBLEM:

N/A

	CLIENT ID	MATRIX	RECEIVED	PH*	TEST(S) & QC	HOLD TIME
1	B079R1	WATER	9/24/92		N03N02	21 due 10/16/9
2	R6	↓	↓		↓	
3	S1					
4	S6	↓	↓		D,S ↓	↓
5						
6						
7						
8						
9						
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11						
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13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						

Complete 9/25 92 AB

Samples are from site known to have Rad-Contamination: YES ✓ NO ___

Samples have detectable amounts of Radioactive Material: YES ___ NO ✓

SUBCONTRACT: YES/NO, TO: _____ DATE: _____

REVIEWED _____

* EPA/CLP required Rev 1.6 PAGE: 000002

08/N6494.1172 CHAIN OF CUSTODY ORD # N2-09-162

000060

RCVD: 09/23/92 DUE: 10/23/92 09/23/92 15:38:04 KEEP: 01/21/93 DISP: S

DASH	SAMPLE IDENTIFICATION			STORED	TESTS for FRACTIONS with work in DEPT: SU and CATEGORY				
01B-W	B079R1		UNFILTERED	SS_1 (3)	WH007	WH008	WH010	WH011	WH137
02B-W	B079R6		UNFILTERED	SS_1 (3)	WH007	WH008	WH010	WH011	WH137
03B-W	B079S1		UNFILTERED	SS_1 (3)	WH007	WH008	WH010	WH011	WH137
04B-W	B079S6		UNFILTERED	SS_1 (3)	WH007	WH008	WH010	WH011	WH137
04F-W	B079S6	MS	UNFILTERED	SS_1	WH007	WH008	WH010	WH011	WH137
04G-W	B079S6	DUP	UNFILTERED	SS_1	WH007	WH008	WH010	WH011	WH137
04H-W	L C S			SS_1	WH007	WH008	WH010	WH011	WH137
09A-W	B079R4		FILTERED	SS_1 (1)	WH007	WH008	WH010		
10A-W	B079R9		FILTERED	SS_1 (1)	WH007	WH008	WH010		
11A-W	B079S4		FILTERED	SS_1 (1)	WH007	WH008	WH010		
12A-W	B079S9		FILTERED	SS_1 (1)	WH007	WH008	WH010		
12B-W	B079S9	MS	FILTERED	SS_1 (1)	WH007	WH008	WH010		
12C-W	B079S9	DUP	FILTERED	SS_1 (1)	WH007	WH008	WH010		
12D-W	L C S			SS_1 (1)	WH007	WH008	WH010		

RELEASED BY	DATE	TRANSFERRED TO	DATE	RECEIVED BY	DATE
Yyamamoto	9-23-92	Skinner	9-23-92	[illegible]	9/24/92

TMA
Thermo Analytical Inc.

Skinner & Sherman Labs., Inc.
300 Second Avenue
Post Office Box 521
Waltham, MA 02254-0521
(617) 890-7200
FAX (617) 890-3883

9613494.1173

DEC 1992
RECEIVED
OSM DMO

December 17, 1992

TMA/NORCAL
2030 Wright Avenue
Richmond, CA 94804
Attention: Dan Stuermer

Quality Control Narrative

Scope
Four (4) water samples were submitted to TMA/Skinner & Sherman Laboratories, Inc. on September 24, 1992 from TMA/Norcal. The samples were analyzed for the USEPA CLP metals and cyanide as indicated on the chain of custody. The analysis was performed under TMA/Skinner and Sherman work order S209404.

Methodology
The samples were prepared, analyzed and reported in accordance with the USEPA Contract Laboratory Program Statement of Work ILM02.

Discussion
All quality control requirements were met for the samples with no exceptions.

Please feel free to call if there are any questions concerning the data package.

Respectfully submitted,

TMA/SKINNER & SHERMAN LABORATORIES, INC.

David N. Peterson
Assistant Laboratory Manager

RECORD COPY

i 4/3/96 M.H.

WESTINGHOUSE/HANFORD
1

SAMPLE NUMBER:

INORGANIC ANALYSIS DATA SHEET

B079R1

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D0-0108

Lab Code: SKINER Case No.: N2-09-162SAS No.: SDG No.: B079R1

Matrix (soil/water): WATER Lab Sample ID: 09404-01S

Level (low/med): LOW Date Received: 09/24/92

% 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	41.3	B		P
7440-36-0	Antimony	14.8	U		P
7440-38-2	Arsenic	3.1	B		F
7440-39-3	Barium	30.2	B		P
7440-41-7	Beryllium	0.30	U		P
7440-43-9	Cadmium	1.5	U		P
7440-70-2	Calcium	57100			P
7440-47-3	Chromium	39.0			P
7440-48-4	Cobalt	2.0	B		P
7440-50-8	Copper	1.9	U		P
7439-89-6	Iron	1190			P
7439-92-1	Lead	2.0	B	W	F
7439-95-4	Magnesium	9300			P
7439-96-5	Manganese	14.6	B		P
7439-97-6	Mercury	0.14	B		CV
7440-02-0	Nickel	9.9	B		P
7440-09-7	Potassium	3640	B		P
7782-49-2	Selenium	3.6	U		F
7440-22-4	Silver	3.6	U		P
7440-23-5	Sodium	4340	B		P
7440-28-0	Thallium	3.8	U		F
7440-62-2	Vanadium	10.1	B		P
7440-66-6	Zinc	5.7	U		P
	Cyanide	10.0	U		CA

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

002

SAMPLE NUMBER:

INORGANIC ANALYSIS DATA SHEET

B079R6

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D0-0108

Lab Code: SKINER Case No.: N2-09-162SAS No.: SDG No.: B079R1

Matrix (soil/water): WATER Lab Sample ID: 09404-02S

Level (low/med): LOW Date Received: 09/24/92

% 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	14.7	U		P
7440-36-0	Antimony	14.8	U		P
7440-38-2	Arsenic	2.7	B		F
7440-39-3	Barium	17.0	B		P
7440-41-7	Beryllium	0.30	U		P
7440-43-9	Cadmium	1.5	U		P
7440-70-2	Calcium	44000			P
7440-47-3	Chromium	150			P
7440-48-4	Cobalt	1.3	U		P
7440-50-8	Copper	1.9	U		P
7439-89-6	Iron	30.5	B		P
7439-92-1	Lead	2.4	B	W	F
7439-95-4	Magnesium	7400			P
7439-96-5	Manganese	0.90	U		P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	2.6	U		P
7440-09-7	Potassium	2920	B		P
7782-49-2	Selenium	3.6	U		F
7440-22-4	Silver	3.6	U		P
7440-23-5	Sodium	4090	B		P
7440-28-0	Thallium	3.8	U		F
7440-62-2	Vanadium	5.0	B		P
7440-66-6	Zinc	7.7	B		P
	Cyanide	10.0	U		CA

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

003

WESTINGHOUSE/HANFORD

1

SAMPLE NUMBER:

B079S1

INORGANIC ANALYSIS DATA SHEET

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D0-0108

Lab Code: SKINER Case No.: N2-09-162SAS No.: SDG No.: B079R1

Matrix (soil/water): WATER Lab Sample ID: 09404-03S

Level (low/med): LOW Date Received: 09/24/92

% 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	1000			P
7440-36-0	Antimony	14.8	U		P
7440-38-2	Arsenic	2.2	U		F
7440-39-3	Barium	24.9	B		P
7440-41-7	Beryllium	0.30	U		P
7440-43-9	Cadmium	1.5	U		P
7440-70-2	Calcium	46000			P
7440-47-3	Chromium	125			P
7440-48-4	Cobalt	2.0	B		P
7440-50-8	Copper	1.9	B		P
7439-89-6	Iron	2050			P
7439-92-1	Lead	3.8			F
7439-95-4	Magnesium	8930			P
7439-96-5	Manganese	69.6			P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	28.7	B		P
7440-09-7	Potassium	2010	B		P
7782-49-2	Selenium	3.6	U		F
7440-22-4	Silver	3.6	U		P
7440-23-5	Sodium	3720	B		P
7440-28-0	Thallium	3.8	U		F
7440-62-2	Vanadium	5.0	B		P
7440-66-6	Zinc	13.4	B		P
	Cyanide	10.0	U		CA

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

004

WESTINGHOUSE/HANFORD

SAMPLE NUMBER:

INORGANIC ANALYSIS DATA SHEET

B079S6

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D0-0108

Lab Code: SKINER Case No.: N2-09-162SAS No.: SDG No.: B079R1

Matrix (soil/water): WATER Lab Sample ID: 09404-04S

Level (low/med): LOW Date Received: 09/24/92

% 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	15.1	B		P
7440-36-0	Antimony	14.8	U		P
7440-38-2	Arsenic	2.2	U		F
7440-39-3	Barium	19.1	B		P
7440-41-7	Beryllium	0.30	U		P
7440-43-9	Cadmium	1.5	U		P
7440-70-2	Calcium	47200			P
7440-47-3	Chromium	175			P
7440-48-4	Cobalt	1.3	U		P
7440-50-8	Copper	1.9	U		P
7439-89-6	Iron	33.2	B		P
7439-92-1	Lead	1.9	B	W	F
7439-95-4	Magnesium	8050			P
7439-96-5	Manganese	1.1	B		P
7439-97-6	Mercury	0.14	B		CV
7440-02-0	Nickel	3.4	B		P
7440-09-7	Potassium	2390	B		P
7782-49-2	Selenium	3.6	U	W	F
7440-22-4	Silver	3.6	U		P
7440-23-5	Sodium	6240			P
7440-28-0	Thallium	3.8	U		F
7440-62-2	Vanadium	4.0	B		P
7440-66-6	Zinc	203			P
	Cyanide	10.0	U		CA

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

005

9613494.1178

FEDERAL EXPRESS

QUESTIONS? CALL 800-238-5355 TOLL FREE.

AIRBILL PACKAGE TRACKING NUMBER 5188039356

2237 5188039356

RECIPIENT'S COPY

1 Date 9.23.92

From (Your Name) Please Print: Sample control

Your Phone Number (Very Important): (510)235-2633

Company: T M A /NORCAL

Department/Floor No.

Street Address: 2030 WRIGHT AVE

City: RICHMOND State: CA ZIP Required: 94804

2 To (Recipient's Name) Please Print: SAMPLE control ( )

Recipient's Phone Number (Very Important)

Company: SKINNER & SHERMAN

Department/Floor No.

Exact Street Address (We Cannot Deliver to P.O. Boxes or P.O. Zip Codes.): 300 Second Avenue

City: WALTHAM State: MA ZIP Required: 02254

YOUR INTERNAL BILLING REFERENCE INFORMATION (optional) (First 24 characters will appear on invoice.): 2320 6406

H IF HOLD FOR PICK-UP, Print FEDEX Address Here: Street Address

City State ZIP Required

3 PAYMENT 1 [✓] Bill Sender 2 [ ] Bill Recipient's FedEx Acct. No. 3 [ ] Bill 3rd Party FedEx Acct. No. 4 [ ] Bill Credit Card 5 [ ] Cash/Check

4 SERVICES (Check only one box)

Priority Overnight (Delivery by next business morning†)
- 11 [✓] YOUR PACKAGING
- 16 [ ] FEDEX LETTER*
- 12 [ ] FEDEX PAK*
- 13 [ ] FEDEX BOX
- 14 [ ] FEDEX TUBE

Standard Overnight (Delivery by next business afternoon. No Saturday delivery†)
- 51 [ ] YOUR PACKAGING
- 56 [ ] FEDEX LETTER*
- 52 [ ] FEDEX PAK*
- 53 [ ] FEDEX BOX
- 54 [ ] FEDEX TUBE

Economy Two-Day (Delivery by second business day †)
- 30 [ ] ECONOMY

Government Overnight (Restricted for authorized users only)
- 46 [ ] GOV'T LETTER
- 41 [ ] GOV'T PACKAGE

Freight Service (for packages over 150 lbs.)
- 70 [ ] OVERNIGHT FREIGHT** (Confirmed reservation required)
- 80 [ ] TWO-DAY FREIGHT**

† Delivery Commitment may be later in some areas. *Declared Value Limit $500. **Call for delivery schedule.

5 DELIVERY AND SPECIAL HANDLING (Check services required)
- 1 [ ] HOLD FOR PICK-UP (Fill in Box H)
- 2 [✓] DELIVER WEEKDAY
- 3 DELIVER SATURDAY (Extra charge) (Not available to all locations) [ ]
- 4 [ ] DANGEROUS GOODS (Extra charge)
- 5 [ ]
- 6 [ ] DRY ICE ____ Lbs.
- 7 [ ] OTHER SPECIAL SERVICE
- 8 [ ]
- 9 [ ] SATURDAY PICK-UP (Extra charge)
- 10 [ ]
- [ ]
- 12 [ ] HOLIDAY DELIVERY (If offered) (Extra charge)

6 PACKAGES | WEIGHT in Pounds Only | YOUR DECLARED VALUE

Total 1 | Total 64 | Total

DIM SHIPMENT (Chargeable Weight) [ ] lbs.

L x W x H

Received At: [✓] 1 Regular Stop [ ] 2 On-Call Stop [ ] 3 Drop Box [ ] 4 B.S.C. [ ] 5 Station

Emp. No. Date

[ ] Cash Received
[ ] Return Shipment
[ ] Third Party [ ] Chg. To Del. [ ] Chg. To Hold

Street Address

City State Zip

Received By: [signature]

Date/Time Received 9/24/92 10:00 FedEx Employee Number

7 Release Signature:

Federal Express Use: Base Charges; Declared Value Charge; Other 1; Other 2; Total Charges

REVISION DATE 2/92 PART #137204 FXEM 8/ FORMAT #126

126

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9613494.1179

TMA/Skinner & Sherman Labs SAMPLE LOG-IN
WORKORDER 5209404 CLIENT HANFORD-NOR No. SAMPLES:
PROTCL CW TURNARND 33 days 4
COOLER TEMP: 4 oC, or NA (Soil) (Water) (Specify Othe
CUSTODIAN Benney Antonio SDG/BATCH N/A
CUSTODY SEAL: PRESENT/ABSENT/INTACT/NOT CLIENT CASE N209162
SHIPER & # Fedex # 5188039356 PO/CONTRACT# ↓
TAGS: PRESENT/ABSENT/NA/SEE COC CONTACT Dolores Sanchez
CHAIN OF CUSTODY: PRESENT/ABSENT/NA, # N/A COMMENTS: NONE

SAMPLE CONTAINERS-INTACT/BROKEN COMMENTS

CLIENT COMMENT? YES/NO
SAMPLE LABELS AGREE WITH CHAIN OF CUSTODY INFO? YES/NO (COMMENT)
CLIENT PAPERWORK AGREES WITH SAMPLES & COC? YES/NO (COMMENT)

SHIPMENT DATES 9/24/92
LIST ANY DATE WITH PAPERWORK/SHIPMENT PROBLEMS & SPECIFY THE PROBLEM:

N/A

(unfiltered)

	CLIENT ID	MATRIX	RECEIVED	PH*	TEST(S) & QC	HOLD TIME
1	B079R1	WATER	9/24/92		TM/CN	HG due 10/16/
2	R6	↓	↓		↓	
3	S1					
4	S6				D,S	CN due 10/05/
5						
6						
7						
8						
9						
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22						
23						
24						
25						
26						
27						

Complete 9/25/92 KB

Samples are from site known to have Rad-Contamination: YES ✓ NO
Samples have detectable amounts of Radioactive Material: YES NO ✓

SUBCONTRACT: YES/NO TO: DATE:

REVIEWED

144

* EPA/CLP required Rev 1.6 PAGE: 000001

9613494.1180

PAGE 1 TRANSMITTAL CHAIN OF CUSTODY GRD # N2-09-162

RCVD: 09/23/92 DUE: 10/23/92 09/23/92 15:38:04 KEEP: 01/21/93 DISP: S

100-KR-4

DASH	SAMPLE IDENTIFICATION			FTERED	TESTS for FRACTIONS with work in DEPT: SV and CATEGORY				
01B-W	B07991		UNFILTERED	SS_1 (3)	WH007	WH008	WH010	WH011	WH137
02B-W	B07996		UNFILTERED	SS_1 (3)	WH007	WH008	WH010	WH011	WH137
03B-W	B07991		UNFILTERED	SS_1 (3)	WH007	WH008	WH010	WH011	WH137
04B-W	B07996		UNFILTERED	SS_1 (3)	WH007	WH008	WH010	WH011	WH137
04F-W	B07996	MS	UNFILTERED	SS_1	WH007	WH008	WH010	WH011	WH137
04G-W	B07996	DUP	UNFILTERED	SS_1	WH007	WH008	WH010	WH011	WH137
04H-W	L C S			SS_1	WH007	WH008	WH010	WH011	WH137
09A-W	B07994		FILTERED	SS_1 (1)	WH007	WH008	WH010		
10A-W	B07995		FILTERED	SS_1 (1)	WH007	WH008	WH010		
11A-W	B07994		FILTERED	SS_1 (1)	WH007	WH008	WH010		
12A-W	B07999		FILTERED	SS_1 (1)	WH007	WH008	WH010		
12B-W	B07999	MS	FILTERED	SS_1 (1)	WH007	WH008	WH010		
12C-W	B07999	DUP	FILTERED	SS_1 (1)	WH007	WH008	WH010		
12D-W	L C S			SS_1 (1)	WH007	WH008	WH010		

RELEASED BY	DATE	TRANSFERRED TO	DATE	RECEIVED BY	DATE
Yyamamoto	9-23-92	Skinner	9-23-92	[illegible]	9/24/92

TMA
Thermo Analytical Inc.

Skinner & Sherman Labs., Inc.
300 Second Avenue
Post Office Box 521
Waltham, MA 02254-0521
(617) 890-7200
FAX (617) 890-3883

9613494.1181

DEC 1992
RECEIVED
OSM DMO

RECORD COPY

December 16, 1992

TMA/NORCAL
2030 Wright Avenue
Richmond, CA 94804
Attention: Dan Stuermer

Quality Control Narrative

Scope
Four (4) water samples were submitted to TMA/Skinner & Sherman Laboratories, Inc. on September 24, 1992 from TMA/Norcal. The samples were analyzed for the USEPA CLP Target Analyte List metals. The analysis was performed under TMA/Skinner and Sherman work order S209406.

Methodology
The samples were prepared, analyzed and reported in accordance with the USEPA Contract Laboratory Program Statement of Work ILM02.

Discussion
All quality control requirements were met for the samples with no exceptions.

Please feel free to call if there are any questions concerning the data package.

Respectfully submitted,

TMA/SKINNER & SHERMAN LABORATORIES, INC.

David N. Peterson
Assistant Laboratory Manager

i 4/3/96 M.H.

9613194.1182

WESTINGHOUSE/HANFORD
1

SAMPLE NUMBER:

INORGANIC ANALYSIS DATA SHEET

B079R4

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D0-0108

Lab Code: SKINER Case No.: N2-09-162SAS No.: SDG No.: B079R4

Matrix (soil/water): WATER Lab Sample ID: 09406-01S

Level (low/med): LOW Date Received: 09/24/92

% 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	27.1	B		P
7440-36-0	Antimony	14.8	U		P
7440-38-2	Arsenic	2.2	U		F
7440-39-3	Barium	29.4	B		P
7440-41-7	Beryllium	0.48	B		P
7440-43-9	Cadmium	1.5	U		P
7440-70-2	Calcium	55200			P
7440-47-3	Chromium	20.7			P
7440-48-4	Cobalt	1.8	B		P
7440-50-8	Copper	1.9	U		P
7439-89-6	Iron	22.7	B		P
7439-92-1	Lead	3.3			F
7439-95-4	Magnesium	9110			P
7439-96-5	Manganese	8.9	B		P
7439-97-6	Mercury	0.14	B		CV
7440-02-0	Nickel	4.2	B		P
7440-09-7	Potassium	3670	B		P
7782-49-2	Selenium	3.6	U	W	F
7440-22-4	Silver	3.6	U		P
7440-23-5	Sodium	4290	B		P
7440-28-0	Thallium	1.3	U		F
7440-62-2	Vanadium	9.8	B		P
7440-66-6	Zinc	5.7	U		P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

FORM I - IN ILM02.1

C 02

SAMPLE NUMBER:

B079R9

INORGANIC ANALYSIS DATA SHEET

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D0-0108

Lab Code: SKINER Case No.: N2-09-162SAS No.: SDG No.: B079R4

Matrix (soil/water): WATER Lab Sample ID: 09406-02S

Level (low/med): LOW Date Received: 09/24/92

% 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	14.7	U		P
7440-36-0	Antimony	14.8	U		P
7440-38-2	Arsenic	2.2	U		F
7440-39-3	Barium	19.0	B		P
7440-41-7	Beryllium	0.30	U		P
7440-43-9	Cadmium	1.5	U		P
7440-70-2	Calcium	45700			P
7440-47-3	Chromium	159			P
7440-48-4	Cobalt	1.3	U		P
7440-50-8	Copper	1.9	U		P
7439-89-6	Iron	4.0	U		P
7439-92-1	Lead	4.9			F
7439-95-4	Magnesium	7670			P
7439-96-5	Manganese	0.99	B		P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	2.6	U		P
7440-09-7	Potassium	3130	B		P
7782-49-2	Selenium	3.6	U	W	F
7440-22-4	Silver	3.6	U		P
7440-23-5	Sodium	4310	B		P
7440-28-0	Thallium	1.3	U		F
7440-62-2	Vanadium	4.7	B		P
7440-66-6	Zinc	5.7	U		P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

SAMPLE NUMBER:

B079S4

INORGANIC ANALYSIS DATA SHEET

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D0-0108

Lab Code: SKINER Case No.: N2-09-162SAS No.: SDG No.: B079R4

Matrix (soil/water): WATER Lab Sample ID: 09406-03S

Level (low/med): LOW Date Received: 09/24/92

% 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	14.7	U		P
7440-36-0	Antimony	14.8	U		P
7440-38-2	Arsenic	2.2	U		F
7440-39-3	Barium	14.7	B		P
7440-41-7	Beryllium	0.47	B		P
7440-43-9	Cadmium	1.5	U		P
7440-70-2	Calcium	42900			P
7440-47-3	Chromium	89.9			P
7440-48-4	Cobalt	1.3	B		P
7440-50-8	Copper	1.9	U		P
7439-89-6	Iron	11.1	B		P
7439-92-1	Lead	3.9			F
7439-95-4	Magnesium	7980			P
7439-96-5	Manganese	4.0	B		P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	2.6	U		P
7440-09-7	Potassium	1710	B		P
7782-49-2	Selenium	3.6	U		F
7440-22-4	Silver	3.6	U		P
7440-23-5	Sodium	3540	B		P
7440-28-0	Thallium	1.3	U		F
7440-62-2	Vanadium	2.8	B		P
7440-66-6	Zinc	5.7	U		P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

SAMPLE NUMBER:

B079S9

INORGANIC ANALYSIS DATA SHEET

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D0-0108

Lab Code: SKINER Case No.: N2-09-162SAS No.: SDG No.: B079R4

Matrix (soil/water): WATER Lab Sample ID: 09406-04S

Level (low/med): LOW Date Received: 09/24/92

% 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	14.7	U		P
7440-36-0	Antimony	14.8	U		P
7440-38-2	Arsenic	2.2	U		F
7440-39-3	Barium	21.7	B		P
7440-41-7	Beryllium	0.30	U		P
7440-43-9	Cadmium	1.5	U		P
7440-70-2	Calcium	46900			P
7440-47-3	Chromium	172			P
7440-48-4	Cobalt	1.3	U		P
7440-50-8	Copper	1.9	U		P
7439-89-6	Iron	4.0	U		P
7439-92-1	Lead	2.1	B		F
7439-95-4	Magnesium	7990			P
7439-96-5	Manganese	1.2	B		P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	2.6	U		P
7440-09-7	Potassium	2420	B		P
7782-49-2	Selenium	3.6	U	W	F
7440-22-4	Silver	3.6	U		P
7440-23-5	Sodium	6090			P
7440-28-0	Thallium	1.3	U		F
7440-62-2	Vanadium	4.3	B		P
7440-66-6	Zinc	5.7	U		P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

9613494.1186

TMA/Skinner & Sherman Labs SAMPLE LOG-IN

WORKORDER S209406 CLIENT HANFORD-NOR No. SAMPLES:

PROTCL CLP TURNARND 33 days 4 (Soil) (Water) (Specify Other

COOLER TEMP: 4 oC, or NA

CUSTODIAN Antonia Benney SDG/BATCH N/A

CUSTODY SEAL: PRESENT/ABSENT/INTACT/NOT CLIENT CASE N209162

SHIPER & # Fedex #5188039356 PO/CONTRACT# ↓

TAGS: PRESENT/ABSENT/NA/SEE COC CONTACT Dolores Sanchez

CHAIN OF CUSTODY: PRESENT/ABSENT/NA,# N/A COMMENTS: NONE

SAMPLE CONTAINERS INTACT/BROKEN COMMENTS

CLIENT COMMENT? YES/NO

SAMPLE LABELS AGREE WITH CHAIN OF CUSTODY INFO? YES/NO (COMMENT)

CLIENT PAPERWORK AGREES WITH SAMPLES & COC? YES/NO (COMMENT)

SHIPMENT DATES 9/24/92

LIST ANY DATE WITH PAPERWORK/SHIPMENT PROBLEMS & SPECIFY THE PROBLEM:

Field Filtered

	CLIENT ID	MATRIX	RECEIVED	PH*	TEST(S) & QC	HOLD TIME
1	B07924	WATER	9/24/92		TM	21 HG d 10/16
2	R9	↓	↓		↓	↓
3	S4					
4	S9	↓	↓		D,S ↓	↓
5						
6						
7						
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26						
27						

COMPLETE 9/24/92

Samples are from site known to have Rad-Contamination: YES ✓ NO

Samples have detectable amounts of Radioactive Material: YES NO ✓

SUBCONTRACT: YES/NO, TO: DATE: 14

REVIEWED

* EPA/CLP required Rev 1.6 PAGE: 000003

PAGE 1 9813194 1187 CHAIN OF CUSTODY ORD # N2-09-162
RCVD: 09/23/92 DUE: 10/23/92 09/23/92 15:38:04 KEEP: 01/21/93 DISP: S

DASH	SAMPLE IDENTIFICATION		STORED	TESTS for FRACTIONS with work in DEPT: SU and CATEGORY				
01B-W	B079R1	UNFILTERED	SS_1 (3)	WH007	WH008	WH010	WH011	WH137
02B-W	B079R6	UNFILTERED	SS_1 (3)	WH007	WH008	WH010	WH011	WH137
03B-W	B079S1	UNFILTERED	SS_1 (3)	WH007	WH008	WH010	WH011	WH137
04B-W	B079S6	UNFILTERED	SS_1 (3)	WH007	WH008	WH010	WH011	WH137
04F-W	B079S6 MS	UNFILTERED	SS_1	WH007	WH008	WH010	WH011	WH137
04G-W	B079S6 DUP	UNFILTERED	SS_1	WH007	WH008	WH010	WH011	WH137
04H-W	L C S		SS_1	WH007	WH008	WH010	WH011	WH137
09A-W	B079R4	FILTERED	SS_1 (1)	WH007	WH008	WH010		
10A-W	B079R9	FILTERED	SS_1 (1)	WH007	WH008	WH010		
11A-W	B079S4	FILTERED	SS_1 (1)	WH007	WH008	WH010		
12A-W	B079S9	FILTERED	SS_1 (1)	WH007	WH008	WH010		
12B-W	B079S9 MS	FILTERED	SS_1 (1)	WH007	WH008	WH010		
12C-W	B079S9 DUP	FILTERED	SS_1 (1)	WH007	WH008	WH010		
12D-W	L C S		SS_1 (1)	WH007	WH008	WH010		

RELEASED BY	DATE	TRANSFERRED TO	DATE	RECEIVED BY	DATE
Yamamoto	9-23-92	Skinner	9-23-92	[illegible]	9/24/92

CASE NARRATIVE

LABORATORY : TMA/ARLI

CASE : 10-005

CONTRACT ID : WESTINGHOUSE HANFORD COMPANY

SDG RECEIPT DATE : September 30, 1992

1.0 DESCRIPTION OF CASE :

Six water samples were analyzed for TCL Organics-Volatiles, Semivolatiles, Pesticides/PCBs according to the USEPA Contract Laboratory Program (CLP) Statement of Work for Organic Analysis, Revision OLM01.8.

2.0 SAMPLE LIST :

WESTINGHOUSE ID	LAB ID	ANALYSIS REQUESTED	MATRIX	pH
B07B01	A2-10-005-01A	V	WATER	7
B07B01 MS	A2-10-005-01B	V	WATER	7
B07B01 MSD	A2-10-005-01C	V	WATER	7
B07B01	A2-10-005-01D	SV & P	WATER	
B07B01 MS	A2-10-005-01E	SV	WATER	
B07B01 MSD	A2-10-005-01F	SV	WATER	
B07B05	A2-10-005-02A	V	WATER	7
B07B31	A2-10-005-03A	V	WATER	7
B07B31	A2-10-005-03B	SV & P	WATER	
B07B31 MS	A2-10-005-03C	P	WATER	
B07B31 MSD	A2-10-005-03D	P	WATER	
B07B35	A2-10-005-04A	V	WATER	7
B07B44	A2-10-005-05A	V	WATER	7
B07B44	A2-10-005-05B	SV & P	WATER	
B07B48	A2-10-005-06A	V	WATER	7

3.0 COMMENTS :

3.1 SHIPPING AND DOCUMENTATION :

The samples were received unbroken and properly documented.

3.2 ANALYSIS

3.2.1 VOLATILE ANALYSIS COMMENTS :

LOW LEVEL WATER :

The samples were analyzed within the CLP SOW holding times.

All of the QC results were within the limits specified by the EPA CLP SOW.

TUNES :

All of the BFB tunes are injected directly into the GC/MS instrument.

3.2.2 SEMIVOLATILE ANALYSIS COMMENTS :

LOW LEVEL WATER :

The samples were extracted and analyzed within the CLP SOW holding times. Sample B07B01MSD had spike recoveries for 4-Chloro-3-methylphenol slightly above the QC limit. Sample B07B01 also had spike recoveries for 4-Nitrophenol for both MS and MSD samples which were slightly above the QC limits. In accordance with protocol, no further action was required.

All of the other QC results were within the limits specified by the EPA CLP SOW.

PESTICIDE/PCB ANALYSIS :

SEQUENCE NOTES :

The sequence was started on 10/14/92 and analyzed in accordance with the EPA CLP SOW. The sequence was analyzed by single injection into a dual column system. The sequence met all the QC criteria specified in the CLP SOW.

The Chromatograms are presented in the manner consistent with the capabilities of the Nelson 2600 Data System which normalizes the largest peak to scale.

SAMPLE NOTES :

LOW LEVEL WATER :

The samples were extracted and analyzed within the CLP SOW holding times. Sample PBLK1002C had TCX surrogate recoveries on the DB-608 column slightly below the advisory QC limit.

All of the other QC results were within the limits specified by the EPA CLP SOW.

We certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data in this hardcopy data package and in the computer-readable data submitted on diskette is authorized by the Laboratory Manager or his designee, as verified by the following signatures.

Nicole Roth
CLP Program Manager

Widayati
Wida Ang
Organics Supervisor

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07B01

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 10005 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A210005-01A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21002R10

Level: (low/med) LOW Date Received: 09/30/92

% Moisture: not dec. ____ Date Analyzed: 10/02/92

GC Column: PACK ID: 2.00 (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	11	
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

EPA SAMPLE NO.

B07B01

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 10005 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A210005-01A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21002R10

Level: (low/med) LOW Date Received: 09/30/92

% Moisture: not dec. ____ Date Analyzed: 10/02/92

GC Column: PACK ID: 2.00 (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

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

000007
EPA SAMPLE NO.

B07B05

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 10005 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A210005-02A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21002R13

Level: (low/med) LOW Date Received: 09/30/92

% Moisture: not dec. ____ Date Analyzed: 10/02/92

GC Column: PACK ID: 2.00 (mm) Dilution Factor: 1.0

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

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

CAS NO.	COMPOUND		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	3	J
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

9613494 1E 1194

EPA SAMPLE NO. 000008

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B07B05

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 10005 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A210005-02A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21002R13

Level: (low/med) LOW Date Received: 09/30/92

% Moisture: not dec. ____ Date Analyzed: 10/02/92

GC Column: PACK ID: 2.00 (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

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

000009
EPA SAMPLE NO.

B07B31

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 10005 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A210005-03A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21002R14

Level: (low/med) LOW Date Received: 09/30/92

% Moisture: not dec. ____ Date Analyzed: 10/02/92

GC Column: PACK ID: 2.00 (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

EPA SAMPLE NO.

B07B31

9613494 1E 196

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 10005 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A210005-03A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21002R14

Level: (low/med) LOW Date Received: 09/30/92

% Moisture: not dec. ____ Date Analyzed: 10/02/92

GC Column: PACK ID: 2.00 (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

9613494.1197

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

000011
EPA SAMPLE NO.

B07B35

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 10005 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A210005-04A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21002R15

Level: (low/med) LOW Date Received: 09/30/92

% Moisture: not dec. ____ Date Analyzed: 10/02/92

GC Column: PACK ID: 2.00 (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	3	J
67-64-1	Acetone	10	
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

9613494 1198

1E

EPA SAMPLE NO.

B07B35

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 10005 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A210005-04A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21002R15

Level: (low/med) LOW Date Received: 09/30/92

% Moisture: not dec. ____ Date Analyzed: 10/02/92

GC Column: PACK ID: 2.00 (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

9613494.1199

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

000013
EPA SAMPLE NO.

B07B44

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 10005 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A210005-05A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21002R18

Level: (low/med) LOW Date Received: 09/30/92

% Moisture: not dec. ____ Date Analyzed: 10/02/92

GC Column: PACK ID: 2.00 (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	26	
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

9613494 1E 1200

000014
EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B07B44

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 10005 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A210005-05A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21002R18

Level: (low/med) LOW Date Received: 09/30/92

% Moisture: not dec. ____ Date Analyzed: 10/02/92

GC Column: PACK ID: 2.00 (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

EPA SAMPLE NO.

B07B48

961349 1A 1201

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 10005 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A210005-06A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21002R19

Level: (low/med) LOW Date Received: 09/30/92

% Moisture: not dec. ____ Date Analyzed: 10/02/92

GC Column: PACK ID: 2.00 (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	3	J
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

1E

EPA SAMPLE NO.

B07B48

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 10005 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A210005-06A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21002R19

Level: (low/med) LOW Date Received: 09/30/92

% Moisture: not dec. ____ Date Analyzed: 10/02/92

GC Column: PACK ID: 2.00 (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

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07B01

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 10005 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A210005-01D

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 21013S03

Level: (low/med) LOW Date Received: 09/30/92

% Moisture: ____ decanted: (Y/N) ___ Date Extracted: 10/02/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 10/14/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-Di-n-Propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)Methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-Methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U
51-28-5	2,4-Dinitrophenol	25	U

9613494.1204

000018

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07B01

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 10005 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A210005-01D

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 21013S03

Level: (low/med) LOW Date Received: 09/30/92

% Moisture: _____ decanted: (Y/N) ___ Date Extracted: 10/02/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 10/14/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-Butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)Anthracene	10	U
117-81-7	bis(2-Ethylhexyl)Phthalate	10	U
218-01-9	Chrysene	10	U
117-84-0	Di-n-Octyl Phthalate	10	U
205-99-2	Benzo(b)Fluoranthene	10	U
207-08-9	Benzo(k)Fluoranthene	10	U
50-32-8	Benzo(a)Pyrene	10	U
193-39-5	Indeno(1,2,3-cd)Pyrene	10	U
53-70-3	Dibenz(a,h)Anthracene	10	U
191-24-2	Benzo(g,h,i)Perylene	10	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

B07B01

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 10005 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A210005-01D

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 21013S03

Level: (low/med) LOW Date Received: 09/30/92

% Moisture: _____ decanted: (Y/N) ___ Date Extracted: 10/02/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 10/14/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07B31

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 10005 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A210005-03B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 21013S06

Level: (low/med) LOW Date Received: 09/30/92

% Moisture: ____ decanted: (Y/N) ___ Date Extracted: 10/02/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 10/14/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-Di-n-Propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)Methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-Methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U
51-28-5	2,4-Dinitrophenol	25	U

9613494.1207

000021

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07B31

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 10005 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A210005-03B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 21013S06

Level: (low/med) LOW Date Received: 09/30/92

% Moisture: _____ decanted: (Y/N) ___ Date Extracted: 10/02/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 10/14/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-Butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)Anthracene	10	U
117-81-7	bis(2-Ethylhexyl)Phthalate	10	U
218-01-9	Chrysene	10	U
117-84-0	Di-n-Octyl Phthalate	10	U
205-99-2	Benzo(b)Fluoranthene	10	U
207-08-9	Benzo(k)Fluoranthene	10	U
50-32-8	Benzo(a)Pyrene	10	U
193-39-5	Indeno(1,2,3-cd)Pyrene	10	U
53-70-3	Dibenz(a,h)Anthracene	10	U
191-24-2	Benzo(g,h,i)Perylene	10	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

B07B31

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 10005 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A210005-03B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 21013S06

Level: (low/med) LOW Date Received: 09/30/92

% Moisture: ____ decanted: (Y/N) ___ Date Extracted: 10/02/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 10/14/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07B44

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 10005 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A210005-05B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 21013S07

Level: (low/med) LOW Date Received: 09/30/92

% Moisture: ____ decanted: (Y/N) ___ Date Extracted: 10/02/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 10/14/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-Di-n-Propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)Methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-Methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U
51-28-5	2,4-Dinitrophenol	25	U

9613494.1210

000024

EPA SAMPLE NO.

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

B07B44

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 10005 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A210005-05B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 21013S07

Level: (low/med) LOW Date Received: 09/30/92

% Moisture: ____ decanted: (Y/N) ___ Date Extracted: 10/02/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 10/14/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-Butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)Anthracene	10	U
117-81-7	bis(2-Ethylhexyl)Phthalate	3	BJ
218-01-9	Chrysene	10	U
117-84-0	Di-n-Octyl Phthalate	10	U
205-99-2	Benzo(b)Fluoranthene	10	U
207-08-9	Benzo(k)Fluoranthene	10	U
50-32-8	Benzo(a)Pyrene	10	U
193-39-5	Indeno(1,2,3-cd)Pyrene	10	U
53-70-3	Dibenz(a,h)Anthracene	10	U
191-24-2	Benzo(g,h,i)Perylene	10	U

(1) - Cannot be separated from Diphenylamine

9613494.1211

000025

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

B07B44

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 10005 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A210005-05B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 21013S07

Level: (low/med) LOW Date Received: 09/30/92

% Moisture: ____ decanted: (Y/N) ___ Date Extracted: 10/02/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 10/14/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

Number TICs found: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN HYDROCARBON	5.52	4	BJ

9613494.1212

000026

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07B01

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 10005 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A210005-01D

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N) ___ Date Received: 09/30/92

Extraction: (SepF/Cont/Sonc) CONT Date Extracted: 10/02/92

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 10/15/92

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-36-3	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

9613494.1213

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

000027
EPA SAMPLE NO.

B07B31

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 10005 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A210005-03B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N) ___ Date Received: 09/30/92

Extraction: (SepF/Cont/Sonc) CONT Date Extracted: 10/02/92

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 10/15/92

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-36-3	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

9613494.1214

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

000028

EPA SAMPLE NO.

B07B44

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 10005 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A210005-05B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N) ___ Date Received: 09/30/92

Extraction: (SepF/Cont/Sonc) CONT Date Extracted: 10/02/92

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 10/15/92

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-36-3	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

000002

PAGE 1 [illegible] CHAIN OF CUSTODY ORDER # NC-09-223

[illegible] [illegible] 01/28/93 DISP: S

[illegible]	[illegible]	[illegible]	TESTS for FRACTIONS with weight in DEPT: SU and CATEGORY						
02A-W B07B41	UNFILTERED	ARLI (1C)	WH018	WH019	WH020	WH04043	WH114	WH121	WH122
			WH125	WH131	WH132	WH14140			
02A-W B07B41	UNFILTERED	ARLI (1C)	WH018	WH019	WH020	WH04043	WH114	WH121	WH122
			[illegible]	[illegible]	[illegible]	[illegible]			
03A-W B07B44	UNFILTERED	ARLI (1C)	WH018	WH019	WH020	WH04043	WH114	WH121	WH122
			WH125	WH131	WH132	WH14140			
03C-W B07B44	ME UNFILTERED	ARLI	WH018	WH019	WH020	WH04043	WH114	WH140	
03D-W B07B44	MED UNFILTERED	ARLI	WH018	WH019	WH020				
03E-W B07B44	[illegible] UNFILTERED	ARLI	[illegible]	WH114	WH121	WH14122	WH128	WH131	WH132
			WH140						
07A-W B07B[illegible]		ARLI (3)	WH018						
08A-W B07B[illegible]		ARLI (3)	WH018						
09A-W B07B[illegible]		ARLI (3)	WH018						

RELEASED BY	DATE	TRANSFERRED TO	DATE	RECEIVED BY	DATE
ayamamoto	9-30-92	ARLI	9-30-92	[signature]	10/1/92 0950

SML - 106 Temp: 4.5°C
SML - 262 Temp: 4.5°C

9613494.1216

A2-IC-0004
A2-IC-0005
0000003

TMA/ARLI
Thermo Analytical Inc.

RADIATION DOSE RATE SURVEY FFORM

Date 10/01/92 COMPANY [illegible] OTHER ORD # 518839-[illegible]

Surveyor's Name MARK S. McCRAY

Model No. HP-210 / ESP-1 Model No. AC-3-7 / ESP-1

Serial Nos. 710289 / 02619 Serial Nos. 407726 / 02628

Calibration Date 3/25/92 Calibration Date 8/01/92

Instrument Calibration Factor 0.280 Instrument Calibrationn Factor 0.188

Sample	Location	HP-210 CPM	HP-210 Factor	HP-210 DPM	AC-3-7 CPM	AC-3-7 Factor	AC-3-7 DPM	Spillage or Breakage?	Activity, mCi/cu. or mCi/g
Background		47.0			1.0				
Consistency		7,330	0.2830		5,019	0.1845			
Smears: SML 106		35.0			2.0			None	
SML 262		38.0			2.0			None	
Reported (WHC)		1/2 samples each				<150 pCi/gram			

Comments:

All OK ✓ Approved [illegible]

Not OK Date 10/01/92

Form: ARLI RA-01
Rev. 06

92/[illegible]/15/92

9613494.1217

000004

FEDERAL EXPRESS

QUESTIONS? CALL 800-238-5355 TOLL FREE

AIRBILL PACKAGE TRACKING NUMBER 5188039496

5188039496

RECIPIENT'S COPY

1 Date: 30 9L

From (Your Name) Please Print: SAMPLE

Your Phone Number (Very important): (626)23-

Company: MORICAL

Department/Floor No

Street Address: 2030 WALNUT AVE

City: HIGHLAND State: CA ZIP Required: 92346

2 To (Recipient's Name) Please Print: SAMPLE

Recipient's Phone Number (Very important)

Company: TMI/ARL

Department/Floor

Exact Street Address (No Carrier Service to PMB, Boxes or PO Zip Codes): 160 Taylor street

City: MONROVIA State: CA ZIP Required: 91016

YOUR INTERNAL BILLING REFERENCE INFORMATION (optional) (First 24 alphanumeric characters will appear on invoice): 2-2-2 Gayle

H IF HOLD FOR PICK-UP Printed FEDEX Address Here

Street Address

City State ZIP Required

3 PAYMENT 1 [x] Bill Sender 2 [ ] Bill Recipient's FedEx Acct. No. 3 [ ] Bill 3rd Party FedEx Acct. No. 4 [ ] Bill Credit Card 5 [ ] Cash/Check

4 SERVICES (Check only one box)

Priority Overnight (Delivery by next business morning)
11 [x] YOUR PACKAGING
16 [ ] FEDEX LETTER
12 [ ] FEDEX PAK*
13 [ ] FEDEX BOX
14 [ ] FEDEX TUBE

Standard Overnight (Delivery by next business afternoon; by Saturday delivery)
51 [ ] YOUR PACKAGING
56 [ ] FEDEX LETTER
52 [ ] FEDEX PAK*
53 [ ] FEDEX BOX
54 [ ] FEDEX TUBE

Economy Two-Day (Delivery by second business day)
30 [ ] ECONOMY

Government Overnight (Reserved for authorized customers)
46 [ ] GOVT LETTER
41 [ ] GOVT PACKAGE

Freight Service (No packages over 150 lbs.)
70 [ ] OVERNIGHT FREIGHT** (Confirmed reservation required)
80 [ ] TWO-DAY FREIGHT**
† Delivery commitments may be later in some areas
Declared value over $500 — Call for delivery schedule

5 DELIVERY AND SPECIAL HANDLING (Check services required)

1 [ ] HOLD FOR PICK-UP (Fill in Box H)
2 [x] DELIVER WEEKDAY
3 [ ] DELIVER SATURDAY (Extra charge) [ ]
4 [ ] DANGEROUS GOODS (Extra charge)
5 [ ]
6 [ ] DRY ICE lbs.
7 [ ] OTHER SPECIAL SERVICE
8 [ ]
9 [ ] SATURDAY PICK-UP (Extra charge)
10 [ ]
[ ]
12 [ ] HOLIDAY DELIVERY (Extra charge)

6 PACKAGES | WEIGHT in Pounds Only | YOUR DECLARED VALUE

Total | Total | Total

2.155

DIM SHIPMENT (Chargeable Weight) [ ] lbs.

L x W x H

Receiving At: 1 [x] Regular Stop 2 [ ] On-Call Stop 3 [ ] Drop Box 4 [ ] B.S.C. 5 [ ] Station

Emp. No | Date

[ ] Cash Received
[ ] Return Shipment
[ ] Third Party [ ] Chg. To Del. [ ] Chg. To Hold

Street Address

City State Zip

Received By: X

Date/Time Received | FedEx Employee Number

7 Release Signature

Federal Express Use

Base Charges

Declared Value Charge

Other 1

Other 2

Total Charges

REVISION DATE 2/92 PART #137204 FXEM & FORMAT #126

126

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9613494.1210 SAMPLE LOG-IN SHEET 0000005

LAB NAME : TMA/ARLI PAGE : 1 OF 1

RECEIVED BY (PRINT NAME): Trudy Golub LOG-IN-DATE : 10/1/92

RECEIVED BY (SIGNATURE): Trudy Golub

CASE NUMBER:
SAMPLE DELIVERY GROUP NO.:
SAS NUMBER:

REMARKS:

1. Custody Seal(s) Present/Absent** Intact/Broken
2. Custody Seal Nos:
3. Chain of Custody Records Present/Absent**
4. Traffic Reports or Packing List Present/Absent**
5. Airbill Airbill/Shipper Present/Absent**
6. Airbill No.: 5188039-7
7. Sample Tags Present/Absent*
8. Sample Tags Numbers Listed/Not Listed on Chain of Custody
9. Sample Condition: Intact/Broken*/ Leaking
10. Does information on custody records, traffic reports, and sample tags agree Yes/No*
11. Date Recieved at Lab: 10/1/92
12. Temp of ice chest 4.5 °C
13. Time Recieved: 0930

SAMPLE TRANSFER

Fraction:
Area #:
By:
On:

EPA SAMPLE #	CORRESPONDING SAMPLE TAG #	CORRESPONDING ASSIGNED LAB #	REMARKS: CONDITION OF SAMPLE SHIPMENT, ETC
	B07B01	A2-10-005-1A	5 aliquots
	B07B05	A2-10-005-2A	2 aliquots
	B07B31	A2-10-005-3A	2 aliquots
	B07B35	A2-10-005-4A	3 aliquots
	B07B44	A2-10-005-5A	10 aliquots
	B07B48	A2-10-005-6A	3 aliquots

* Contact SMO and attach record of resolution

Reviewed By: Logbook No.:

Date: Logbook Page No.:

FORM DC-1

DOC2/LOGIN.TBL

GENERAL CHEMISTRY RESULTS

CASE NO. 10-005

Water Sample #:

B07B01 B07B31 B07B44

CASE NARRATIVE

Sample B07B01 (A2-10-005-01) yielded a 56% recovery for the Phosphate analysis. The low Phosphate recovery compared to our laboratory control sample indicated the presence of a matrix interference.

No other problems were encountered during sample analysis. All QC results were acceptable.

Ernesto Vazquez

Ernesto Vazquez

9613494.1220

000008

TMA Inc. REPORT Work Order # A2-10-005

Received: 09/30/92 11/25/92 15:37:27

REPORT TO Westinghouse Hanford Company
2355 Stevens Dr.
Richland,WA.99352
MO-346/200 West/T6-08
ATTEN Jeanette Duncan

PREPARED BY Thermo Analytical, Inc.
160 Taylor Street
Monrovia, CA 91016

ATTEN Mrs. Carole Harris
PHONE 818-357-3247

CERTIFIED BY Ernesto Vigney

CONTACT EVV CIH

CLIENT WHC SAMPLES 7
COMPANY Westinghouse Hanford Company
CITY

This report is for the sole and exclusive use of the client to whom it is addressed and represents only those samples herein described. Samples not destroyed in testing are retained a maximum of 30 days unless otherwise requested.

SITE ID 100-KR-4
TAKEN By Westinghouse Staff
TRANS By Federal Express
TYPE Liquid
C.O.C. # M2-09-223-SU-AR
VOLUME under separate cover

SAMPLE IDENTIFICATION	TEST CODES and NAMES used on this workorder	
107E'B01	BNCLPW	CLP Semivol. Water - WH020
107E'B01 MS	PECLPL	CLP Pesticides Liq.-WH019
107E'B01 MSD	SULFID	Sulfide-Dissolved (water)
107E'B01	VOCLPL	CLP Volatile Org.Liq.
107E'B01 MS	WCCLPL	Anions & Wet Chem. - WH043
107E'B01 MSD	WCL L	Chloride - WH120
107E'B01	WCQCD	Quality Control Summary
107E'B01 MS	WCQCS	Quality Control Summary
107E'B01	WF L	Fluoride in Water
107E'B01 Duplicate	WNH3 L	Ammonia in Water - WH140
107E'B01	WPH L	pH of Liquid - WH121
107E'B01 MS	WPO4 L	Phosphate in Liquids
107E'B01	WSO4 L	Sulfate (in Waters)
107E'B01 MS	W ALK	Alkalinity - WH131
107E'B05	W COD	COD Water - WH132
107E'B31	W COND	Conductivity-Water WH135
107E'B31 MS	W TDS	Dissolved Solids WH128
107E'B31 MSD		
107E'B31		
107E'B31 Duplicate		
107E'B31		
107E'B31 Duplicate		
107E'B31		
107E'B31 Duplicate		
107E'B35		
107E'B44		

TNA Inc. REPORT Work Order # A2-2-10-005

ived: 09/30/92 11/25/92 15:37:27

SAMPLE IDENTIFICATION

307B44

307B48

Met Chemistry Blank

TMA Inc. REPORT Work Order # A2-10-005

eceived: 09/30/92

Results by Sample

AMPLE ID B07B01 FRACTION 01G TEST CODE VCCLPL NAME Anions & Wet Chem. - WH043

Date & Time Collected 09/28/92 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Chloride	300.0	9.6	mg/L	0.2
Fluoride	300.0	0.3	mg/L	0.1
Phosphate	300.0	<0.4	mg/L	0.4
pH	150.1	8.0	pH	0.1
Sulfate	300.0	39	mg/L	1
Elect. Conductivity	120.1	338	umho/cm	6

FORM I

9613494.1223

000011

TMA Inc. REPORT Work Order # A2-10-005

eceived: 09/30/92

Results by Sample

MPLE ID B07B01 FRACTION 01I TEST CODE WCCLPL NAME Anions & Wet Chem. - WN043

Date & Time Collected 09/28/92 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Alkalinity	310.1	110	mg/L	2
Tot. Dissolved Solids	160.1	199	mg/L	5

FORM I

TMA Inc. REPORT Work Order # A2-10-005

ived: 09/30/92 Results by Sample

LE ID B07B01 FRACTION 01K TEST CODE WCCLPL NAME Anions & Wet Chem. - WK043

Date & Time Collected : 09/28/92 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Sulfide	376.1	<1	mg/L	1

FORM I

9613494.1225

000013

TMA Inc. REPORT Work Order # A2-10-065

cceived: 09/30/92

Results by Sample

AMPLE ID B07B01 FRACTION 01M TEST CODE WCCLPL NAME Anions & Wet Chem. - [redacted]3

Date & Time Collected 09/28/92 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Ammonia Nitrogen	350.3	<0.05	mg/L	0.05
COD	410.0	<30	mg/L	30

FORM I

TMA Inc. REPORT Work Order # A2-10-005

eceived: 09/30/92

Results by Sample

MPLE ID B07831 FRACTION 03E TEST CODE WCCLPL NAME Anions & Wet Chem. - WH043

Date & Time Collected 09/28/92 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Chloride	300.0	<0.2	mg/L	0.2
Fluoride	300.0	<0.1	mg/L	0.1
Phosphate	300.0	<0.4	mg/L	0.4
pH	150.1	6.2	pH	0.1
Sulfate	300.0	<1	mg/L	1
Elect. Conductivity	120.1	<6	umho/cm	6

FORM I

TRA Inc. REPORT Work Order # A2-10-005

ed: 09/30/92 Results by Sample

ID B07831 FRACTION 03G TEST CODE WCCLPL SAMPLE Anions & Wet Chem. - WH043

Date & Time Collected 09/28/92 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Alkalinity	310.1	<2	mg/L	2.0
Tot. Dissolved Solids	160.1	<5	mg/L	5.0

FORM I

TMA Inc. REPORT Work Order # A2-10-005

cived: 09/30/92

Results by Sample

PLE ID B07B31 FRACTION 03H TEST CODE [redacted] NAME Anions & Wet Chem. - WH043

Date & Time Collected 09/28/92 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Sulfide	376.1	<1	mg/L	1

FORM I

TMA Inc. REPORT Work Order # A2-10-005

eceived: 09/30/92 Results by Sample

AMPLE ID B07B31 FRACTION 03J TEST CODE VCCLPL NAME Anions & Wet Chem. - VB043

Date & Time Collected 09/28/92 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Ammonia Nitrogen	350.3	<0.05	mg/L	0.05
COD	410.0	<30	mg/L	30

FORM I

TMA Inc. REPORT Work Order # A2-10-005

ived: 09/30/92 Results by Sample

LE ID B07B44 FRACTION 05C TEST CODE VCCLPL NAME Anions & Wet Chem. - VN043

Date & Time Collected 09/28/92 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Chloride	300.0	<0.2	mg/L	0.2
Fluoride	300.0	<0.1	mg/L	0.1
Phosphate	300.0	<0.4	mg/L	0.4
pH	150.1	5.8	pH	0.1
Sulfate	300.0	<1	mg/L	1
Elect. Conductivity	120.1	<6	umho/cm	6

FORM I

9613494.1231

TRA Inc. REPORT Work Order # A2-10-085

ived: 09/30/92 Results by Sample

LE ID B07B44 FRACTION 05D TEST CODE WCCLPL NAME Anions & Wet Chem. - [redacted]

Date & Time Collected 09/28/92 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Alkalinity	310.1	<2	mg/L	2
Tot. Dissolved Solids	160.1	<5	mg/L	5

FORM I

TMA Inc. REPORT Work Order # A2-10-005

eived: 09/30/92 Results by Sample

PLE ID B07B44 FRACTION OSE TEST CODE WCCLPL NAME Anions & Wet Chem. - WH043

Date & Time Collected 09/28/92 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Sulfide	376.1	<1	mg/L	1

FORM I

TNA Inc. REPORT Work Order # A2-10-005

ived: 09/30/92 Results by Sample

LE ID B07B44 FRACTION 05F TEST CODE WCCLPL NAME Anions & Wet Chem. - WH043

Date & Time Collected 09/28/92 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Ammonia Nitrogen	350.3	<0.05	mg/L	0.05
COD	410.0	<30	mg/L	30

FORM I

Westinghouse Hanford Company

9613494.1234

CHAIN OF CUSTODY

B07B01

Custody Form Initiator PH BUTCHER

Company Contact PH BUTCHER

Telephone (509)376-5045

Project Designation/Sampling Locations 100-KR-4

Collection Date 9-28-92

Ice Chest No. SMC-249

Field Logbook No. EFL-1048

Bill of Lading/Airbill No. 2521568027

Offsite Property No. W92-0-0643-17

Method of Shipment EMERY

Shipped to TMA

Possible Sample Hazards/Remarks N/A

Sample Identification

B07B01

1, 1L, P, WATER, CLP-ICP/AA METALS & Hg (HNO3) UNFILTERED
1, 1L, P, WATER, CLP-CYANIDE (NaOH)
3, 40ml, Gs, WATER, CLP-VOA
3, 2L, aG, WATER, CLP-SEMI-VOA & PCB/PEST
1, 1L, P, WATER, ANIONS(IC) (SO4,F,PO4,Cl), COND., pH
2, 4L, P, WATER, GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC (U-235/238,Pu-239/240, Am-241), Sr-90 (HNO3)
2, 250ml ~~1*, 500ml~~, Gs, WATER, TRITIUM, C-14 2x - bottles
LW 9-28-92
1, 500ml, P, WATER, ANIONS(NO2,NO3) (H2SO4)
1, 1L, G, WATER, ALKALINITY, TOTAL DISSOLVED SOLIDS
1, 500ml, G, WATER, SULFIDE (ZINC ACETATE+NaOH pH>9)
1, 500ml, G, WATER, AMMONIA, CHEMICAL OXYGEN DEMAND (H2SO4 pH<2)
1, 1L, P, WATER, Tc-99 (HNO3)

B07B04

1, 1L, P, WATER, CLP-ICP/AA METALS & Hg (HNO3) FILTERED

B07B05

3, 40ml, Gs, WATER, CLP-VOA

[] Field Transfer of Custody	Chain of Possession	(Sign and Print Names)
Relinquished by: L.D. Walker	Received by: AJ SIMPSON	Date/Time: 9/24/92 0924
Relinquished by: AJ SIMPSON	Received by: Elby G. Yamamoto	Date/Time: 9-30-92 11:30
Relinquished by:	Received by:	Date/Time:
Relinquished by:	Received by:	Date/Time:

Final Sample Disposition

Disposal Method:	Disposed by:	Date/Time:

Comments:
* RECEIVED 2 BOTTLES OF → B07B01 FOR TRITIUM & C14

LABORATORY COPY

A-6000-407 (12/90) (EF) WEF061
Chain of Custody

9613194.1235

Westinghouse Hanford Company

SAMPLE ANALYSIS REQUEST

PART I: FIELD SECTION

Collector K. Lee, L. Walker, G. Hamilton, C. Celiberti Date Sampled 9/28/92 Time 0915 hours

Company Contact P. H. Butcher Telephone (509) 376-6045

Sample Number	Number and Type of Sample Containers	Type of Sample*	Analysis Requested	
B07B01	1; 1L; P;	WATER	CLP ICP/AA METALS & Hg (HNO3) UNFILTERED	S
	1; 1L; P	WATER	CLP-CYANIDE (NaOH)	S
	3; 40ml; Gs	WATER	CLP-VOA	X
	3; 2L; aG	WATER	CLP-SEMI-VOA & PCB/PEST	X
	1; 1L; P	WATER	ANIONS (IC) (SO4,F,PO4,Cl); CONDUCTIVITY; pH	X
	2; 4L; P	WATER	GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC	
			(U-235/238, Pu-239/240, Am-241), Sr-90; (HNO3)	
	24 1; 500mL; Gs	WATER	TRITIUM, C-14 Rev T-0	
	1; 500mL; P	WATER	ANIONS (NO2/NO3) (H2SO4)	S
	1; 1L; G	WATER	ALKALINITY, TOTAL DISSOLVED SOLIDS	X
	1; 500mL; G	WATER	SULFIDE (ZINC ACETATE PLUS NaOH pH>9)	
	1; 500mL; G	WATER	AMMONIA, CHEMICAL OXYGEN DEMAND (H2SO4	
	1; 1L; P	WATER	Tc-99 (HNO3)	
B07B04	1; 1L; P	WATER	CLP-ICP/AA METAL & MERCURY (HNO3) FILTERED	
B07B05	3; 40mL; Gs	WATER	CLP-VOA	

Field Information** OPC: W92-0-0643-17

BOL: 2521569027

TASK: 92-266

Special Handling and/or Storage

Possible Sample Hazards

PART II: LABORATORY SECTION

Received by Elby G. Yamamoto Title Sample Control Technician Date 9-30-92

Analysis Required

9613494.1236

GROUND WATER SAMPLE REPORT

Well Number 199-K-13

Total Purge Volume (gal) 1080

Purge Flow Rate (gal/min) 4.2

Hydrostar (Time On) NA

Submersible (Time On) 0915

Date 9-28-92

Page 1 of 1

Calculations $\frac{5\,gal}{73\,sec} = \frac{5}{1.2} = 4.2\ gpm$ $\frac{1080}{4.2} = 257\ min$

SAMPLES COLLECTED

BO 7B01
- 1; 1L; P; WATER; CLP-ICP/AA METALS & MERCURY (HNO3) UNFILTERED
- 1; 1L; P; WATER; CLP-CYANIDE (NaOH)
- 3; 40ml; Gs; WATER; CLP-VOA
- 3; 2L; aG; WATER; CLP-SEMI-VOA & PCB/PEST
- 1; 1L; P; WATER; ANIONS (IC) (SO4, F, PO4, Cl), CONDUCTIVITY, pH
- 2; 4L; P; WATER; GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC (U-235/238, Pu-239/240, Am-241), Sr-90, (HNO3)
- 2,250ml ~~4; 500ml~~; G; WATER; TRITIUM, C-14
- 1; 500ml; P; WATER; ANIONS(NO2/NO3) (H2SO4)
- 1; 1L; G; WATER; ALKALINITY, TOTAL DISSOLVED SOLIDS
- 1; 500mL; G; WATER; SULFIDE (ZINC ACETATE PLUS NaOH pH>9)
- 1; 500ml; G; WATER; AMMONIA, CHEMICAL OXYGEN DEMAND (H2SO4 pH<2)
- 1; 1L; P; WATER; Tc-99 (HNO3)

BO 7B02
- 1; 125ml; aG; WATER; TOC (H2SO4)
- 1; 250ml; aG; WATER; TOX (H2SO4)

BO 7B03
- 1; 40ml; G; WATER; HYDRAZINE (Hrl)

BO 7B04
- 1; 1L; P; WATER; CLP-ICP/AA METAL & MERCURY (HNO3) FILTERED

BO 7B05
- 3; 40ml; Gs; WATER; CLP-VOA

Total No. of Bottles: 24

FIELD MEASUREMENTS

E-Tape = 74.45' below TOC pH Serial No.: 910814485 Cond./Therm. Serial No.: 910706749

Time	1220	1230	1240	1320									
pH	7.86	7.78	7.77	7.78		NA					NA		
Temp (°C)	17.1	17.1	17.0	17.0									
Cond (µs/cm)	360	363	363	362									

FIELD OBSERVATIONS

Weather Clear, calm, 75°F

General Problems/Unusual Events NA

Equipment Irregularities Generator out at 0925 - 0935

Container Irregularities NA

Comments Turbidity is 5.0 NTU at 1300

Well capped and locked [✓] Yes [ ] No

Samples preserved with ice [✓] Yes [ ] No

Samples Surveyed for Gamma Radiation by RPTs NO

Data Recorded by L.D. Walker 9-28-92 (Sign and print name / Date)

Data Checked by _____ (Sign and print name / Date)

MPLE STATUS REPORT FOR E 4968. E-BLANK 199-K-13 TIME: 9/29/92 8:39
DISPATCHED: 9/ 4/92 14:11 SAMPLE HAS NOT BEEN SLURPED
RECEIVED: 9/29/92 8:29

EXT.	DETER.	RESULTS OR STATUS	OUT OF RANGE?	GOOD ANS?	CHARGE CODE
****	********	**********	***	***	******
4271	TOT-ACT	< 5.00000E 01 pCi/G	N	Y	PBBA2

END OF REPORT

B07B01
B07B02
B07B03
B07B04
B07B05

AJS 9/29/92

•OVERNIGHT DELIVERY 613494.1238

Signature Security Service

Contractor	OFF-SITE PROPERTY CONTROL	CONTROL NUMBER (To be obtained from PROPERTY MANAGEMENT)
WHC		W92-0-0643-17

PART I – TO BE COMPLETED BY ORIGINATOR

Department	Section	Unit
Env. Eng. & Tech.	Geosciences	Geochem. & Hydrochem.

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

Routing Emery ☒ Contractor ☐ Vendor

Shipped to TMA/NORCAL
2030 Wright Ave.
Richmond, CA 94804

Off-site Custodian Delores Sanchez

Full Title

Quantity	Description (Include Serial and any Government Tag Numbers)	Original Cost
1 86 lbs.	Sample #: B07B01 ~~B07B02~~ B07B04 B07B05 RJS 9/29/92 Cooler ID: SML-249 Polycooler with groundwater samples packed in wet ice and vermiculite	N/A
1 lbs.	Sample #: Cooler ID: KT 9/29/92 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

Sampling supports RI/FS work in the 100 Areas.

Bill of lading # 2521564027

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
Bert Gu	361	9-29-92

Location of Property (Area & Bldg.)	Contact	Phone
100-KR-4	PH Butcher	(509) 376-5045

Date Ready for Shipment	Cost Code to be Charged	Approximate Date This Property will be Returned
9/29/92	W81232 PB7D1	

Originated By	Date	Authorized By	Date
P.H. BUTCHER		AJ SIMPSON A.J. Simpson	9/29/

Signature and Name of Property Control	Custodian Date	Property Management Approval	Date
			9/29/92

PART II – TO BE COMPLETED BY SHIPPING

Signature of Recipient	Return Order No.	Date Issued	Purchase Order No.	Date Issued
J. Demaust Date 9-29-92 1340				

DISTRIBUTION

By Originator	Shipping Operation – Sign all Copies and Forward to:	
White, Green, Yellow, Pink – Property Management Goldenrod – Retain	White – Property Management Yellow – Retain	Green – Property Control Custodian (Issuing Office) Pink – Originator

54-3000-479 (09/

CASE NARRATIVE

LABORATORY : TMA/ARLI

CASE : 09-070

CONTRACT ID : WESTINGHOUSE HANFORD COMPANY

SDG RECEIPT DATE : September 24, 1992

1.0 DESCRIPTION OF CASE :

Eight water samples were analyzed for TCL Organics-Volatiles, Semivolatiles, Pesticides/PCBs according to the USEPA Contract Laboratory Program (CLP) Statement of Work for Organic Analysis, Revision OLM01.8.

2.0 SAMPLE LIST :

WESTINGHOUSE ID	LAB ID	ANALYSIS REQUESTED	MATRIX	pH
B07B06	A2-09-070-01A	V	WATER	7
B07B06 MS	A2-09-070-01B	V	WATER	7
B07B06 MSD	A2-09-070-01C	V	WATER	7
B07B06	A2-09-070-01D	SV & P	WATER	
B07B06 MS	A2-09-070-01E	SV	WATER	
B07B06 MSD	A2-09-070-01F	SV	WATER	
B07B10	A2-09-070-02A	V	WATER	7
B079Q6	A2-09-070-03A	V	WATER	7
B079Q6	A2-09-070-03B	SV & P	WATER	
B079Q6 MS	A2-09-070-03C	P	WATER	
B079Q6 MSD	A2-09-070-03D	P	WATER	
B079R0	A2-09-070-04A	V	WATER	7
B079T6	A2-09-070-05A	V	WATER	7
B079T6	A2-09-070-05B	SV & P	WATER	
B079V0	A2-09-070-06A	V	WATER	7
B079Z6	A2-09-070-07A	V	WATER	7
B079Z6	A2-09-070-07B	SV & P	WATER	
B07B00	A2-09-070-08A	V	WATER	7

3.0 COMMENTS :

3.1 SHIPPING AND DOCUMENTATION :

The samples were received unbroken and properly documented with the exception of 1 of the 3 two-liter bottles for Semivolatile and Pesticide/PCB analyses for sample B079Q6 which was received broken at TMA/NORCAL.

3.2 ANALYSIS

3.2.1 VOLATILE ANALYSIS COMMENTS :

LOW LEVEL WATER :

The samples were analyzed within the CLP SOW holding times.

All of the QC results were within the limits specified by the EPA CLP SOW.

TUNES :

All of the BFB tunes are injected directly into the GC/MS instrument.

3.2.2 SEMIVOLATILE ANALYSIS COMMENTS :

LOW LEVEL WATER :

The samples were extracted and analyzed within the CLP SOW holding times. Samples B079Z6, B07B06, and SBLK0926C had Terphenyl-d14 surrogate recoveries above the QC limit. In accordance with protocol, no further action was required.

All of the other QC results were within the limits specified by the EPA CLP SOW.

PESTICIDE/PCB ANALYSIS :

SEQUENCE NOTES :

The sequence was started on 10/8/92 and analyzed in accordance with the EPA CLP SOW. The sequence was analyzed by single injection into a dual column system. The sequence met all the QC criteria specified in the CLP SOW.

The Chromatograms are presented in the manner consistent with the capabilities of the Nelson 2600 Data System which normalizes the largest peak to scale.

SAMPLE NOTES :

LOW LEVEL WATER :

The samples were extracted and analyzed within the CLP SOW holding times. On the DB-1701 column, the MS and MSD samples both had Dieldrin recoveries above the advisory QC limit. The percent difference (%D) between the two GC columns for Dieldrin was above the 25% limit. Hence, the Dieldrin results have been "P" qualified. The higher percent recoveries for Dieldrin on the DB-1701 column can be attributed to the co-elution of an interference peak with Dieldrin.

All of the other QC results were within the limits specified by the EPA CLP SOW.

We certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data in this hardcopy data package and in the computer-readable data submitted on diskette is authorized by the Laboratory Manager or his designee, as verified by the following signatures.

Nicole Roth
Nicole Roth
CLP Program Manager

Widayati
Wida Ang
Organics Supervisor

9613494.1242

000005

EPA SAMPLE NO.

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

B079Q6

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09070 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209070-03A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20929R07

Level: (low/med) LOW Date Received: 09/24/92

% Moisture: not dec. ____ Date Analyzed: 09/29/92

GC Column: PACK ID: 2.00 (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	6	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

9613494.1243

000006

EPA SAMPLE NO.

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B079Q6

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09070 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209070-03A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20929R07

Level: (low/med) LOW Date Received: 09/24/92

% Moisture: not dec. ____ Date Analyzed: 09/29/92

GC Column: PACK ID: 2.00 (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

9613494.1244

000007

EPA SAMPLE NO.

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

B079R0

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09070 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209070-04A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20929R08

Level: (low/med) LOW Date Received: 09/24/92

% Moisture: not dec. ____ Date Analyzed: 09/29/92

GC Column: PACK ID: 2.00 (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

9613494.1245

000008

EPA SAMPLE NO.

B079R0

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09070 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209070-04A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20929R08

Level: (low/med) LOW Date Received: 09/24/92

% Moisture: not dec. ____ Date Analyzed: 09/29/92

GC Column: PACK ID: 2.00 (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

9613494.1246

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

000009
EPA SAMPLE NO.

B079T6

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09070 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209070-05A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20929R09

Level: (low/med) LOW Date Received: 09/24/92

% Moisture: not dec. ____ Date Analyzed: 09/29/92

GC Column: PACK ID: 2.00 (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	13	
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

9613494.1247

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

000010
EPA SAMPLE NO.

B079T6

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09070 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209070-05A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20929R09

Level: (low/med) LOW Date Received: 09/24/92

% Moisture: not dec. ____ Date Analyzed: 09/29/92

GC Column: PACK ID: 2.00 (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

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B079V0

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09070 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209070-06A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20929R10

Level: (low/med) LOW Date Received: 09/24/92

% Moisture: not dec. ____ Date Analyzed: 09/29/92

GC Column: PACK ID: 2.00 (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

9613494.1249

000012

1E

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B079V0

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09070 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209070-06A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20929R10

Level: (low/med) LOW Date Received: 09/24/92

% Moisture: not dec. ____ Date Analyzed: 09/29/92

GC Column: PACK ID: 2.00 (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

9613494.1250

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

000013
EPA SAMPLE NO.

B079Z6

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09070 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209070-07A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20929R11

Level: (low/med) LOW Date Received: 09/24/92

% Moisture: not dec. ____ Date Analyzed: 09/29/92

GC Column: PACK ID: 2.00 (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

9613494.1251

000014

EPA SAMPLE NO.

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B079Z6

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09070 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209070-07A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20929R11

Level: (low/med) LOW Date Received: 09/24/92

% Moisture: not dec. ____ Date Analyzed: 09/29/92

GC Column: PACK ID: 2.00 (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

9613494.1252

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

000015

EPA SAMPLE NO.

B07B00

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09070 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209070-08A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20929R12

Level: (low/med) LOW Date Received: 09/24/92

% Moisture: not dec. ____ Date Analyzed: 09/29/92

GC Column: PACK ID: 2.00 (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

9613494.1253

000016

EPA SAMPLE NO.

B07B00

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09070 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209070-08A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20929R12

Level: (low/med) LOW Date Received: 09/24/92

% Moisture: not dec. ____ Date Analyzed: 09/29/92

GC Column: PACK ID: 2.00 (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

9613494.1254

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07B06

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09070 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209070-01A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20929R03

Level: (low/med) LOW Date Received: 09/24/92

% Moisture: not dec. ____ Date Analyzed: 09/29/92

GC Column: PACK ID: 2.00 (mm) Dilution Factor: 1.0

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

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

CAS NO.	COMPOUND		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

9613494.1255

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

000018
EPA SAMPLE NO.

B07B06

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09070 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209070-01A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20929R03

Level: (low/med) LOW Date Received: 09/24/92

% Moisture: not dec. ____ Date Analyzed: 09/29/92

GC Column: PACK ID: 2.00 (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

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07B10

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09070 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209070-02A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20929R06

Level: (low/med) LOW Date Received: 09/24/92

% Moisture: not dec. ____ Date Analyzed: 09/29/92

GC Column: PACK ID: 2.00 (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

9613494.1257

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

000020
EPA SAMPLE NO.

B07B10

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09070 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209070-02A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20929R06

Level: (low/med) LOW Date Received: 09/24/92

% Moisture: not dec. ____ Date Analyzed: 09/29/92

GC Column: PACK ID: 2.00 (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

9613494.1258

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

000021

EPA SAMPLE NO.

B079Q6

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09070 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209070-03B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 20930S13

Level: (low/med) LOW Date Received: 09/24/92

% Moisture: ____ decanted: (Y/N) ___ Date Extracted: 09/26/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/30/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-Di-n-Propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)Methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-Methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U
51-28-5	2,4-Dinitrophenol	25	U

9613494.1259

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

000022

EPA SAMPLE NO.

B079Q6

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09070 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209070-03B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 20930S13

Level: (low/med) LOW Date Received: 09/24/92

% Moisture: _____ decanted: (Y/N) ___ Date Extracted: 09/26/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/30/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-Butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)Anthracene	10	U
117-81-7	bis(2-Ethylhexyl)Phthalate	2	BJ
218-01-9	Chrysene	10	U
117-84-0	Di-n-Octyl Phthalate	10	U
205-99-2	Benzo(b)Fluoranthene	10	U
207-08-9	Benzo(k)Fluoranthene	10	U
50-32-8	Benzo(a)Pyrene	10	U
193-39-5	Indeno(1,2,3-cd)Pyrene	10	U
53-70-3	Dibenz(a,h)Anthracene	10	U
191-24-2	Benzo(g,h,i)Perylene	10	U

(1) - Cannot be separated from Diphenylamine

9613494.1260

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

000023
EPA SAMPLE NO.

B079Q6

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09070 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209070-03B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 20930S13

Level: (low/med) LOW Date Received: 09/24/92

% Moisture: _____ decanted: (Y/N) ___ Date Extracted: 09/26/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/30/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B079T6

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09070 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209070-05B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 20930S14

Level: (low/med) LOW Date Received: 09/24/92

% Moisture: _____ decanted: (Y/N) ___ Date Extracted: 09/26/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/30/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-Di-n-Propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)Methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-Methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U
51-28-5	2,4-Dinitrophenol	25	U

9613494.1262

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

000025
EPA SAMPLE NO.

B079T6

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09070 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209070-05B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 20930S14

Level: (low/med) LOW Date Received: 09/24/92

% Moisture: _____ decanted: (Y/N) ___ Date Extracted: 09/26/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/30/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-Butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)Anthracene	10	U
117-81-7	bis(2-Ethylhexyl)Phthalate	2	BJ
218-01-9	Chrysene	10	U
117-84-0	Di-n-Octyl Phthalate	10	U
205-99-2	Benzo(b)Fluoranthene	10	U
207-08-9	Benzo(k)Fluoranthene	10	U
50-32-8	Benzo(a)Pyrene	10	U
193-39-5	Indeno(1,2,3-cd)Pyrene	10	U
53-70-3	Dibenz(a,h)Anthracene	10	U
191-24-2	Benzo(g,h,i)Perylene	10	U

(1) - Cannot be separated from Diphenylamine

9613494.1263

000026

1F

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B079T6

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09070 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209070-05B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 20930S14

Level: (low/med) LOW Date Received: 09/24/92

% Moisture: _____ decanted: (Y/N) ___ Date Extracted: 09/26/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/30/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B079Z6

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09070 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209070-07B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 20930S15

Level: (low/med) LOW Date Received: 09/24/92

% Moisture: _____ decanted: (Y/N) ___ Date Extracted: 09/26/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/30/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-Di-n-Propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)Methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-Methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U
51-28-5	2,4-Dinitrophenol	25	U

9613494.1265

000028

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B079Z6

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09070 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209070-07B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 20930S15

Level: (low/med) LOW Date Received: 09/24/92

% Moisture: _____ decanted: (Y/N) ___ Date Extracted: 09/26/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/30/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-Butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)Anthracene	10	U
117-81-7	bis(2-Ethylhexyl)Phthalate	10	U
218-01-9	Chrysene	10	U
117-84-0	Di-n-Octyl Phthalate	10	U
205-99-2	Benzo(b)Fluoranthene	10	U
207-08-9	Benzo(k)Fluoranthene	10	U
50-32-8	Benzo(a)Pyrene	10	U
193-39-5	Indeno(1,2,3-cd)Pyrene	10	U
53-70-3	Dibenz(a,h)Anthracene	10	U
191-24-2	Benzo(g,h,i)Perylene	10	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

B079Z6

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09070 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209070-07B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 20930S15

Level: (low/med) LOW Date Received: 09/24/92

% Moisture: _____ decanted: (Y/N) ___ Date Extracted: 09/26/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/30/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

9613494.1267

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

000030
EPA SAMPLE NO.

B07B06

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09070 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209070-01D

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 20930S10

Level: (low/med) LOW Date Received: 09/24/92

% Moisture: _____ decanted: (Y/N) ___ Date Extracted: 09/26/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/30/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-Di-n-Propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)Methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-Methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U
51-28-5	2,4-Dinitrophenol	25	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07B06

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09070 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209070-01D

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 20930S10

Level: (low/med) LOW Date Received: 09/24/92

% Moisture: _____ decanted: (Y/N) ___ Date Extracted: 09/26/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/30/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-Butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)Anthracene	10	U
117-81-7	bis(2-Ethylhexyl)Phthalate	10	U
218-01-9	Chrysene	10	U
117-84-0	Di-n-Octyl Phthalate	10	U
205-99-2	Benzo(b)Fluoranthene	10	U
207-08-9	Benzo(k)Fluoranthene	10	U
50-32-8	Benzo(a)Pyrene	10	U
193-39-5	Indeno(1,2,3-cd)Pyrene	10	U
53-70-3	Dibenz(a,h)Anthracene	10	U
191-24-2	Benzo(g,h,i)Perylene	10	U

(1) - Cannot be separated from Diphenylamine

9613494.1269

000032

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

B07B06

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09070 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209070-01D

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 20930S10

Level: (low/med) LOW Date Received: 09/24/92

% Moisture: ____ decanted: (Y/N) ___ Date Extracted: 09/26/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/30/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

9613494.1270

1D

000033

EPA SAMPLE NO.

B079Q6

PESTICIDE ORGANICS ANALYSIS DATA SHEET

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09070 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209070-03B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N) ___ Date Received: 09/24/92

Extraction: (SepF/Cont/Sonc) CONT Date Extracted: 09/26/92

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 10/10/92

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-36-3	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

9613494.1271

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

000034

EPA SAMPLE NO.

B079T6

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09070 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209070-05B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N) ___ Date Received: 09/24/92

Extraction: (SepF/Cont/Sonc) CONT Date Extracted: 09/26/92

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 10/10/92

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-36-3	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

9613494.1272

000035

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B079Z6

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09070 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209070-07B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N) ___ Date Received: 09/24/92

Extraction: (SepF/Cont/Sonc) CONT Date Extracted: 09/26/92

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 10/10/92

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-36-3	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

9613494.1273

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

000036

EPA SAMPLE NO.

B07B06

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09070 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209070-01D

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N) ___ Date Received: 09/24/92

Extraction: (SepF/Cont/Sonc) CONT Date Extracted: 09/26/92

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 10/10/92

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-36-3	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

PAGE 1 TMA/Norcal CHAIN OF CUSTODY ORD # N2-09-180
RCVD: 09/24/92 DUE: 10/24/92 09/24/92 15:16:40 KEEP: 01/22/93 DISP: S

DASH	SAMPLE IDENTIFICATION	STORED	TESTS for FRACTIONS with work in DEPT: SU and CATEGORY
01A-W	B07BC6	ARLI (10)	WH018 WH019 WH020 WH043 WH114 WH121 WH122 WH128 WH131 WH132 WH140
02A-W	B079Q6 UNFILTERED	ARLI (10)	WH018 WH019 WH020 WH043 WH114 WH121 WH122 WH128 WH131 WH132 WH140
03A-W	B079T6 UNFILTERED	ARLI (10)	WH018 WH019 WH020 WH043 WH114 WH121 WH122 WH128 WH131 WH132 WH140
04A-W	B079Z6 UNFILTERED	ARLI (10)	WH018 WH019 WH020 WH043 WH114 WH121 WH122 WH128 WH131 WH132 WH140
04C-W	B079Z6 MS UNFILTERED	ARLI	WH018 WH019 WH020 WH043 WH114 WH140
04D-W	B079Z6 MSD UNFILTERED	ARLI	WH018 WH019 WH020
04E-W	B079Z6 DUP UNFILTERED	ARLI	WH043 WH114 WH121 WH122 WH128 WH131 WH132 WH140
05A-W	B07B10	ARLI (3)	WH018
06A-W	B079R0	ARLI (3)	WH018
07A-W	B079V0	ARLI (3)	WH018
08A-W	B07B00	ARLI (3)	WH018

RELEASED BY	DATE	TRANSFERRED TO	DATE	RECEIVED BY	DATE
Yamamoto	9-24-92	ARLI	9-24-92	C. Harris	9/25/92

9613494.1275

SAMPLE LOG-IN SHEET

LAB NAME: TRA/ARLI

PAGE 000003 OF

RECEIVED BY (PRINT NAME): CAROLE HARRIS

LOG-IN-DATE: 9-25-92

RECEIVED BY (SIGNATURE): Carole Harris

CASE NUMBER:

SAMPLE DELIVERY GROUP NO.:

SAS NUMBER:

REMARKS:

1. Custody Seal(s) Present/Absent* Intact/Broken
2. Custody Seal Nos:
3. Chain of Custody Records Present/Absent*
4. Traffic Reports or Packing List Present/Absent*
5. Airbill Airbill/Sticker Present/Absent*
6. Airbill No.: 5188039404
7. Sample Tags Present/Absent*
8. Sample Tags Numbers Listed/Not Listed on Chain of Custody
9. Sample Condition: Intact/Broken*/Leaking
10. Does information on custody records, traffic reports, and sample tags agree Yes/No*
11. Date Recieved at Lab: 9-25-92
12. Temp of ice chest 4.0 °C
13. Time Recieved: 9:30 a.m

SAMPLE TRANSFER

Fraction:

Area #:

By:

On:

EPA SAMPLE #	CORRESPONDING SAMPLE TAG #	CORRESPONDING ASSIGNED LAB #	REMARKS: CONDITION OF SAMPLE SHIPMENT, ETC
	B07B06	A2-09-070-01	
	B07B10	A2-09-070-02	
	B079Q6	A2-09-070-03	
	B079R0	A2-09-070-04	
	B079T6	A2-09-070-05	
	B079V0	A2-09-070-06	
	B079Z6	A2-09-070-07	
	B07B00	A2-09-070-08	

* Contact SMO and attach record of resolution

Reviewed By: Logbook No.:

Date: Logbook Page No.:

FORM DC-1

9613494.1276

TMA/ARLI
Thermo Analytical Inc.

000004

RADIATION DOSE RATE SURVEY FORM

Date 9/25/92 COMPANY ARLI (WHC) OTHER ORD # 5188039404

Surveyor's Name MARK S. McGRAY

Model No. HP-210 / ESP-1 Model No. AC-3-7 / ESP-1

Serial Nos. 710289 / 02619 Serial Nos. 407726 / 02628

Calibration Date 3/25/92 Calibration Date 8/01/92

Instrument Calibration Factor 0.280 Instrument Calibration Factor 0.188

Sample	Location	HP-210 CPM	HP-210 Factor	HP-210 DPM	AC-3-7 CPM	AC-3-7 Factor	AC-3-7 DPM	Spillage or Breakage?	Activity, dC/mL or dC/g
Background		45.0			0				
Consistency		7,360	0.2841		5,012	0.1842			
Smears GS29		48.0			5.0				
504		41.0			0				
SML 262		52.0			3.0				
SML 106		37.0			0				
—	—								
Reported (WHC)		20 samples each < 50 pCi/gram							

Comments:

All OK ✓ Approved [signature]

Not OK Date 9/25/92

Form: ARLI RA-01
Rev: 06

01/15/92

000005

9613494.1277

5188039404

2237M 5188039404

0941-5760-9 9.24.92

SAMPLE CONTROL 510-235-2633 SAMPLE CONTROL

T M A /NORCAL

2030 WRIGHT AVE

RICHMOND CA 94804

TMA/ARCI

160 TAYLOR STREET

MONROVIA CA 91016

2320 6406

4315

X

REVISION DATE 2/92

126

GENERAL CHEMISTRY RESULTS

CASE NO. 09-070

Water Sample #:

B07B06	B079Q6
B079T6	B079Z6

CASE NARRATIVE

No problems were encountered during sample analysis. All QC results were acceptable.

Ernesto Vazquez

Ernesto Vazquez

9613494.1279

000008

TMA Inc. REPORT Work Order # A2-09-070

Received: 09/24/92 11/11/92 08:08:52

REPORT TO: Westinghouse Hanford Company
2355 Stevens Dr.
Richland,WA,99352
MO-346/200 West/T6-08
ATTEN: Jeanette Duncan

PREPARED BY: Thermo Analytical, Inc.
160 Taylor Street
Monrovia, CA 91016
ATTEN: Ms. Carole Harris
PHONE: 818-357-3247

CERTIFIED BY: Ernesto Vásquez

CONTACT: EVV CIH

CLIENT: WHC SAMPLES: 9
COMPANY: Westinghouse Hanford Company
FACILITY:

This report is for the sole and exclusive use of the client to whom it is addressed and represents only those samples herein described. Samples not destroyed in testing are retained a maximum of 30 days unless otherwise requested.

WORK ID: 100-KR-4
TAKEN: By Westinghouse Staff
TRANS: By Federal Express
TYPE: Liquid
P.O. #: N2-09-180-SU-AR
INVOICE: under separate cover

SAMPLE IDENTIFICATION

01 B07B06
01 B07B06 MS
01 B07B06 MSD
01 B07B06
01 B07B06 MS
01 B07B06 MSD
01 B07B06
01 B07B06 MS
01 B07B06
01 B07B06 Duplicate
01 B07B06
01 B07B06 MS
01 B07B06
01 B07B06 MS
02 B07B10
03 B07906
03 B07906 MS
03 B07906 MSD
03 B07906
03 B07906 Duplicate
03 B07906
03 B07906 Duplicate
03 B07906
03 B07906 Duplicate
04 B079R0
05 B079T6

TEST CODES and NAMES used on this workorder

BNCLPW	CLP Semivol. Water
PECLPL	CLP Pesticides Liq.-WH019
VOCLPL	CLP Volatile Org.Liq.
WCCLPL	Anions & Wet Chem. - WH043
WCL L	Chloride - WH120
WCQCD	Quality Control Summary
WCQCS	Quality Control Summary
WF L	Fluoride in Water
WNH3 L	Ammonia in Water - WH140
WPH L	pH of Liquid - WH121
WPO4 L	Phosphate in Liquids
WSO4 L	Sulfate (in Waters)
WSULFI	Sulfide - WH114
W ALK	Alkalinity - WH131
W COD	COD Water - WH132
W COND	Conductivity-Water WH135
W TDS	Dissolved Solids WH128

TNA Inc. REPORT Work Order # A2-09-070

Received: 09/24/92 11/11/92 08:09:43

	SAMPLE IDENTIFICATION
05	B079T6
06	B079V0
07	B079Z6
08	B07B00
09	Wet Chemistry Blank

9613494.1281

TMA Inc. REPORT Work Order # A2-09-070 000010

Received: 09/24/92

Results by Sample

SAMPLE ID B07B06 FRACTION 01G TEST CODE WCCLPL NAME Anions & Wet Chem. - WB043

Date & Time Collected 09/22/92 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Chloride	300.0	6.3	mg/L	0.2
Fluoride	300.0	0.3	mg/L	0.1
Phosphate	300.0	<0.4	mg/L	0.4
pH	150.1	8.0	pH	0.1
Sulfate	300.0	48	mg/L	1
Elect. Conductivity	120.1	289	umho/cm	6

FORM I

9613494.1282

TMA Inc. REPORT Work Order # A2-000011

Received: 09/24/92 Results by Sample

SAMPLE ID B07B06 FRACTION 01I TEST CODE WCCLPL NAME Anions & Wet Chem. - WH043

Date & Time Collected 09/22/92 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Alkalinity	310.1	111	mg/L	2
Tot. Dissolved Solids	160.1	240	mg/L	5

FORM I

TMA Inc. REPORT Work Order # A2-09-070

Received: 09/24/92

Results by Sample

SAMPLE ID B07B06 FRACTION 01K TEST CODE VCCLPL NAME Anions & Wet Chem. - VN043

Date & Time Collected 09/22/92 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Sulfide	376.1	<1	mg/L	1

FORM I

9613494.1284

000013

TMA Inc. REPORT Work Order # A2-09-070

Received: 09/24/92

Results by Sample

SAMPLE ID B07B06 FRACTION 01M TEST CODE WCCLPL NAME Anions & Wet Chem. - WN043

Date & Time Collected 09/22/92 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Ammonia Nitrogen	350.3	<0.05	mg/L	0.05
COD	410.0	<30	mg/L	30

FORM I

TMA Inc. REPORT Work Order # A2-09-070

Received: 09/24/92 Results by Sample

SAMPLE ID B07906 FRACTION 03E TEST CODE WCCLPL NAME Anions & Wet Chem. - WH043

Date & Time Collected 09/22/92 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Chloride	300.0	8.8	mg/L	0.2
Fluoride	300.0	4.0	mg/L	0.1
Phosphate	300.0	<0.4	mg/L	0.4
pH	150.1	7.9	pH	0.1
Sulfate	300.0	29	mg/L	1
Elect. Conductivity	120.1	316	umho/cm	6

FORM I

TMA Inc. REPORT Work Order # A2-09-070

Received: 09/24/92

Results by Sample

SAMPLE ID B07906 FRACTION 036 TEST CODE WCCLPL NAME Anions & Wet Chem. - VM043

Date & Time Collected 09/22/92 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Alkalinity	310.1	134	mg/L	2
Tot. Dissolved Solids	160.1	244	mg/L	5

FORM I

TNA Inc. REPORT Work Order # A2-09-070

Received: 09/24/92

Results by Sample

SAMPLE ID B07996 FRACTION 03N TEST CODE WCCLPL NAME Anions & Wet Chem. - WN043

Date & Time Collected 09/22/92 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Sulfide	376.1	<1	mg/L	1

FORM I

TMA Inc. REPORT Work Order # A2-09-070

Received: 09/24/92

Results by Sample

SAMPLE ID B07996 FRACTION 03J TEST CODE WCCLPL NAME Anions & Wet Chem. - WN043

Date & Time Collected 09/22/92 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Ammonia Nitrogen	350.3	<0.05	mg/L	0.05
COD	410.0	<30	mg/L	30

FORM I

TMA Inc. REPORT Work Order # A2-09-070

Received: 09/24/92

Results by Sample

SAMPLE ID B079T6 FRACTION 05C TEST CODE VCCLPL NAME Anions & Wet Chem. - VN043

Date & Time Collected 09/22/92 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Chloride	300.0	5.8	mg/L	0.2
Fluoride	300.0	<0.1	mg/L	0.1
Phosphate	300.0	<0.4	mg/L	0.4
pH	150.1	7.8	pH	0.1
Sulfate	300.0	17	mg/L	1
Elect. Conductivity	120.1	253	umho/cm	6

FORM I

TMA Inc. REPORT Work Order # A2-09-070

Received: 09/24/92

Results by Sample

SAMPLE ID B079T6 FRACTION 05D TEST CODE VCCLPL NAME Anions & Wet Chem. - VH043

Date & Time Collected 09/22/92 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Alkalinity	310.1	129	mg/L	2
Tot. Dissolved Solids	160.1	198	mg/L	5

FORM I

9613494.1291

000020

TMA Inc. REPORT Work Order # A2-09-070

Received: 09/24/92

Results by Sample

SAMPLE ID B079T6 FRACTION 05E TEST CODE WCCLPL NAME Anions & Wet Chem. - WN043

Date & Time Collected 09/22/92 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Sulfide	376.1	<1	mg/L	1

FORM I

TMA Inc. REPORT Work Order # A2-09-070

Received: 09/24/92

Results by Sample

SAMPLE ID B079T6 FRACTION 05F TEST CODE WCCLPL NAME Anions & Wet Chem. - WN043

Date & Time Collected 09/22/92 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Ammonia Nitrogen	350.3	<0.05	mg/L	0.05
COD	410.0	<30	mg/L	30

FORM I

TMA Inc. REPORT Work Order # A2-09-070

Received: 09/24/92

Results by Sample

SAMPLE ID B079Z6 FRACTION 07C TEST CODE WCCLPL NAME Anions & Wet Chem. - WH043

Date & Time Collected 09/22/92 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Chloride	300.0	5.3	mg/L	0.2
Fluoride	300.0	0.4	mg/L	0.1
Phosphate	300.0	<0.4	mg/L	0.4
pH	150.1	8.0	pH	0.1
Sulfate	300.0	22	mg/L	1
Elect. Conductivity	120.1	251	umho/cm	6

FORM I

9613494.1294

TMA Inc. REPORT Work Order # A2-09-070

Received: 09/24/92

Results by Sample

SAMPLE ID B07926 FRACTION 07D TEST CODE WCCLPL NAME Anions & Wet Chem. - WN043

Date & Time Collected 09/22/92 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Alkalinity	310.1	110	mg/L	2
Tot. Dissolved Solids	160.1	198	mg/L	5

FORM I

TMA Inc. REPORT Work Order # A2-09-070

Received: 09/24/92

Results by Sample

SAMPLE ID B07926 FRACTION 07E TEST CODE VCCLPL NAME Anions & Wet Chem. - VN043

Date & Time Collected 09/22/92 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Sulfide	376.1	<1	mg/L	1

FORM I

9613494.1296

000025

TMA Inc. REPORT Work Order # A2-09-070

Received: 09/24/92

Results by Sample

SAMPLE ID B07926 FRACTION 07F TEST CODE WCCLPL NAME Anions & Wet Chem. - WM043

Date & Time Collected 09/22/92 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Ammonia Nitrogen	350.3	<0.05	mg/L	0.05
COD	410.0	<30	mg/L	30

FORM I

9613494.1297

000002

 Skinner&Sherman REPORT Work Order # S2-09-451

Received: 09/25/92 11/02/92 16:32:46

REPORT TMA/NORCAL
TO 2030 Wright Avenue
Richmond, CA 94804

ATTEN Dan Steurmer

CLIENT HANFORD NOR SAMPLES 5
COMPANY TMA/NORCAL
FACILITY Richmond, CA

PREPARED TMA / Skinner & Sherman Labs.
BY 300 Second Avenue
P.O. Box 521
Waltham, MA 02254

ATTEN Client Services
PHONE (617) 890-7200

CERTIFIED BY

CONTACT DP

WORK ID N2-09-180
TAKEN BY CLIENT
TRANS FED EX
TYPE WATER
P.O. # N2-09-180
INVOICE under separate cover

SAMPLE IDENTIFICATION		TEST CODES and NAMES used on this workorder	
01	B07B06	NO3NO2	Nitrate Plus Nitrite
02	B07906		
03	B079T6		
04	B079Z6		
04	B079Z6 DUPL		
04	B079Z6 SPIKE		
05	LCSW		

TMA
Thermo Analytical Inc.
Skinner & Sherman Laboratories Inc.

This report is rendered upon all of the following conditions: Skinner & Sherman Laboratories, Inc. retains ownership of this report until associated submitted invoice is satisf Expert witness services shall be available in conjunction with this report only if prior notification of this potential requirement was made and accepted, before the analysis. Cl will be responsible for Skinner & Sherman costs and consulting fees if our services are required by subpoena or otherwise in legal proceedings. Total liability is limited to the inv amount. The results listed refer only to tested samples and applicable parameters. Product endorsement is neither inferred nor implied. Skinner & Sherman Laboratories, Inc. exercise due diligence but will not be responsible for lost or destroyed samples or evidence unless client makes appropriate insurance coverage arrangements. Samples are hel thirty days following issuance of report. Samples will be stored at client's expense, if authorized in writing.

300 Second Avenue, P.O. Box 521, Waltham, Massachusetts 02254-0521 (617) 890-7200
1-800-4 LAB TEST FAX (617) 890-3883

Received: 09/25/92 Results by Sample

SAMPLE ID B07B06 SAMPLE # 01 FRACTIONS: A
Date & Time Collected 09/22/92 Category WATER

NO3NO2 1.67
mg N/L

SAMPLE ID B07906 SAMPLE # 02 FRACTIONS: A
Date & Time Collected 09/22/92 Category WATER

NO3NO2 5.57
mg N/L

SAMPLE ID B079T6 SAMPLE # 03 FRACTIONS: A
Date & Time Collected 09/22/92 Category WATER

NO3NO2 1.06
mg N/L

SAMPLE ID B07926 SAMPLE # 04 FRACTIONS: A
Date & Time Collected 09/22/92 Category WATER

NO3NO2 2.44
mg N/L

SAMPLE ID B07926 DUPL SAMPLE # 04 FRACTIONS: B
Date & Time Collected 09/22/92 Category WATER

NO3NO2 2.40
mg N/L

SAMPLE ID B07926 SPIKE SAMPLE # 04 FRACTIONS: C
Date & Time Collected 09/22/92 Category WATER

NO3NO2 5.20
mg N/L

SAMPLE ID LCSW SAMPLE # 05 FRACTIONS: A
Date & Time Collected not specified Category WATER

NO3NO2 1.79
mg N/L

TMA
Thermo Analytical Inc.
Skinner & Sherman Laboratories Inc.

This report is rendered upon all of the following conditions: Skinner & Sherman Laboratories, Inc. retains ownership of this report until associated submitted invoice is satisf Expert witness services shall be available in conjunction with this report only if prior notification of this potential requirement was made and accepted, before the analysis. Cl will be responsible for Skinner & Sherman costs and consulting fees if our services are required by subpoena or otherwise in legal proceedings. Total liability is limited to the inv amount. The results listed refer only to tested samples and applicable parameters. Product endorsement is neither inferred nor implied. Skinner & Sherman Laboratories, Inc. exercise due diligence but will not be responsible for lost or destroyed samples or evidence unless client makes appropriate insurance coverage arrangements. Samples are hel thirty days following issuance of report. Samples will be stored at client's expense, if authorized in writing.

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1-800-4 LAB TEST FAX (617) 890-3883

Page 4 Skinner&Sherman REPORT Work Order # S2-09-451

Received: 09/25/92 Test Methodology

TEST CODE NO3NO2 NAME Nitrate Plus Nitrite

Methods for Chemical Analysis of Water and Wastes
EPA - 600/4-79-020 March 1979 Method 353.2 (modified)

TMA
Thermo Analytical Inc.

This report is rendered upon all of the following conditions: Skinner & Sherman Laboratories, Inc. retains ownership of this report until associated submitted invoice is satisfi Expert witness services shall be available in conjunction with this report only if prior notification of this potential requirement was made and accepted, before the analysis. Cl will be responsible for Skinner & Sherman costs and consulting fees if our services are required by subpoena or otherwise in legal proceedings. Total liability is limited to the invo amount. The results listed refer only to tested samples and applicable parameters. Product endorsement is neither inferred nor implied. Skinner & Sherman Laboratories, Inc. exercise due diligence but will not be responsible for lost or destroyed samples or evidence unless client makes appropriate insurance coverage arrangements. Samples are held thirty days following issuance of report. Samples will be stored at client's expense, if authorized in writing.

Skinner & Sherman Laboratories Inc. 300 Second Avenue, P.O. Box 521, Waltham, Massachusetts 02254-0521 (617) 890-7200
1-800-4 LAB TEST FAX (617) 890-3883

9613494.1300

000062

TMA/Skinner & Sherman Labs SAMPLE LOG-IN

WORKORDER S209451 CLIENT Hanford Nor No. SAMPLES:

PROTCL CLP TURNARND 33 Days 4

COOLER TEMP: ≤ oC, or NA (Soil) (Water) (Specify Other)

CUSTODIAN B. Prusik SDG/BATCH N/A

CUSTODY SEAL: PRESENT/ABSENT/INTACT/NOT CLIENT CASE N209180

SHIPER & # Fed Ex PO/CONTRACT# ↓

TAGS: PRESENT/ABSENT/NA/SEE COC CONTACT D. Sanchez

CHAIN OF CUSTODY: PRESENT/ABSENT/NA, # N/A COMMENTS: none

SAMPLE CONTAINERS-INTACT/BROKEN COMMENTS

CLIENT COMMENT? YES/NO

SAMPLE LABELS AGREE WITH CHAIN OF CUSTODY INFO? YES/NO (COMMENT)

CLIENT PAPERWORK AGREES WITH SAMPLES & COC? YES /NO (COMMENT)

SHIPMENT DATES 9.25.92

LIST ANY DATE WITH PAPERWORK/SHIPMENT PROBLEMS & SPECIFY THE PROBLEM:

N/A

	CLIENT ID	MATRIX	RECEIVED	PH*	TEST(S) & QC	HOLD TIME UP
1	B07B06	Water	9.25.92	1.68	NO3 NO2	
2	B079Q6	↓	↓	1.66	↓	
3	B079T6			1.65		
4	B079Z6			1.64	DS	
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						

Samples are from site known to have Rad-Contamination: YES ✓ NO

Samples have detectable amounts of Radioactive Material: YES NO ✓

SUBCONTRACT: YES/NO, TO: DATE:

REVIEWED

Complete 9-26-92

000014 BP

* EPA/CLP required Rev 1.6 PAGE:

9613494.1301

000063 P.

PAGE 1 Skinner&Sherman CHAIN OF CUSTODY ORD # S2-09-451

RCVD: 09/25/92 DUE: 10/28/92 09/26/92 13:26:12 KEEP: 12/27/92 DISP: R

DASH	SAMPLE IDENTIFICATION		STORED	TESTS for FRACTIONS with work in DEPT: WC
01A	B07B06		RAD REFRIG	! NO3NO2 SOW788
02A	B079G6		RAD REFRIG	! NO3NO2 SOW788
03A	B079T6		RAD REFRIG	! NO3NO2 SOW788
04A	B079Z6		RAD REFRIG	! NO3NO2 SOW788
04B-D	B079Z6	DUPL	RAD REFRIG	! NO3NO2 SOW788
04C-S	B079Z6	SPIKE	RAD REFRIG	! NO3NO2 SOW788
05A-L	LCSW		RAD REFRIG	! NO3NO2 SOW788

RELEASED BY	DATE	TRANSFERRED TO	DATE	RECEIVED BY	DATE

TMA 9613494.1302
Thermo Analytical Inc.

Skinner & Sherman Labs., Inc.
300 Second Avenue
Post Office Box 521
Waltham, MA 02254-0521
(617) 890-7200
FAX (617) 890-3883

DEC 1992
RECEIVED
OSM DMO

RECORD COPY

December 18, 1992

TMA/NORCAL
2030 Wright Avenue
Richmond, CA 94804
Attention: Dan Stuermer

Quality Control Narrative

Scope
Four (4) water samples were submitted to TMA/Skinner & Sherman Laboratories, Inc. on September 25, 1992 from TMA/Norcal. The samples were analyzed for the USEPA CLP metals and cyanide as indicated on the chain of custody. The analysis was performed under TMA/Skinner and Sherman work order S209449.

Methodology
The samples were prepared, analyzed and reported in accordance with the USEPA Contract Laboratory Program Statement of Work ILM02.

Discussion
All quality control requirements were met for the samples with the following exceptions;

The thallium digestion spike recovery exceeded the control limit requirements.

Please feel free to call if there are any questions concerning the data package.

Respectfully submitted,

TMA/SKINNER & SHERMAN LABORATORIES, INC.

David N. Peterson
Assistant Laboratory Manager

i 4/3/96 M.H.

WESTINGHOUSE/HANFORD

SAMPLE NUMBER:

INORGANIC ANALYSIS DATA SHEET

B079T6

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D0-0108

Lab Code: SKINER Case No.: N2-09-180SAS No.: SDG No.: B079Q6

Matrix (soil/water): WATER Lab Sample ID: 09449-03S

Level (low/med): LOW Date Received: 09/25/92

% 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	15.4	B		P
7440-36-0	Antimony	14.8	U		P
7440-38-2	Arsenic	2.9	B		F
7440-39-3	Barium	21.0	B		P
7440-41-7	Beryllium	0.30	U		P
7440-43-9	Cadmium	1.5	U		P
7440-70-2	Calcium	42000			P
7440-47-3	Chromium	3.0	B		P
7440-48-4	Cobalt	1.3	U		P
7440-50-8	Copper	1.9	U		P
7439-89-6	Iron	120			P
7439-92-1	Lead	3.8			F
7439-95-4	Magnesium	8950			P
7439-96-5	Manganese	3.0	B		P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	2.6	U		P
7440-09-7	Potassium	4430	B		P
7782-49-2	Selenium	2.9	U	W	F
7440-22-4	Silver	3.6	U		P
7440-23-5	Sodium	6010			P
7440-28-0	Thallium	1.7	U	N	F
7440-62-2	Vanadium	5.3	B		P
7440-66-6	Zinc	5.7	U		P
	Cyanide	10.0	U		CA

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

9613494.1304

WESTINGHOUSE/HANFORD

1

SAMPLE NUMBER:

INORGANIC ANALYSIS DATA SHEET

B079Z6

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D0-0108

Lab Code: SKINER Case No.: N2-09-180SAS No.: SDG No.: B079Q6

Matrix (soil/water): WATER Lab Sample ID: 09449-04S

Level (low/med): LOW Date Received: 09/25/92

% 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	16.4	B		P
7440-36-0	Antimony	14.3	U		P
7440-38-2	Arsenic	2.6	B	W	F
7440-39-3	Barium	13.5	B		P
7440-41-7	Beryllium	0.30	U		P
7440-43-9	Cadmium	1.5	U		P
7440-70-2	Calcium	33000			P
7440-47-3	Chromium	2.6	U		P
7440-48-4	Cobalt	1.3	U		P
7440-50-8	Copper	1.9	U		P
7439-89-6	Iron	177			P
7439-92-1	Lead	7.7			F
7439-95-4	Magnesium	9170			P
7439-96-5	Manganese	2.8	B		P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	3.2	B		P
7440-09-7	Potassium	4970	B		P
7782-49-2	Selenium	2.9	U	W	F
7440-22-4	Silver	3.6	U		P
7440-23-5	Sodium	13700			P
7440-28-0	Thallium	1.7	U	N	F
7440-62-2	Vanadium	13.8	B		P
7440-66-6	Zinc	9.9	B		P
	Cyanide	10.0	U		CA

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

WESTINGHOUSE/HANFORD

SAMPLE NUMBER:

B07B06

INORGANIC ANALYSIS DATA SHEET

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D0-0108

Lab Code: SKINER Case No.: N2-09-180SAS No.: SDG No.: B079Q6

Matrix (soil/water): WATER Lab Sample ID: 09449-01S

Level (low/med): LOW Date Received: 09/25/92

% 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	48.5	B		P
7440-36-0	Antimony	14.8	U		P
7440-38-2	Arsenic	4.8	B	W	F
7440-39-3	Barium	27.9	B		P
7440-41-7	Beryllium	0.30	U		P
7440-43-9	Cadmium	1.5	U		P
7440-70-2	Calcium	37200			P
7440-47-3	Chromium	47.3			P
7440-48-4	Cobalt	2.7	B		P
7440-50-8	Copper	1.9	U		P
7439-89-6	Iron	19.2	B		P
7439-92-1	Lead	8.1			F
7439-95-4	Magnesium	10500			P
7439-96-5	Manganese	2.2	B		P
7439-97-6	Mercury	0.11	B		CV
7440-02-0	Nickel	4.2	B		P
7440-09-7	Potassium	4640	B		P
7782-49-2	Selenium	5.8		+	F
7440-22-4	Silver	3.6	U		P
7440-23-5	Sodium	16000			P
7440-28-0	Thallium	1.7	U	WN	F
7440-62-2	Vanadium	15.2	B		P
7440-66-6	Zinc	62.4			P
	Cyanide	10.0	U		CA

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

9613494.1306

WESTINGHOUSE/HANFORD

1

INORGANIC ANALYSIS DATA SHEET

SAMPLE NUMBER: B079Q6

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D0-0108

Lab Code: SKINER Case No.: N2-09-180SAS No.: SDG No.: B079Q6

Matrix (soil/water): WATER Lab Sample ID: 09449-02S

Level (low/med): LOW Date Received: 09/25/92

% 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	27.5	B		P
7440-36-0	Antimony	14.8	U		P
7440-38-2	Arsenic	10.4			F
7440-39-3	Barium	23.1	B		P
7440-41-7	Beryllium	0.30	U		P
7440-43-9	Cadmium	1.5	U		P
7440-70-2	Calcium	32400			P
7440-47-3	Chromium	2.6	U		P
7440-48-4	Cobalt	3.2	B		P
7440-50-8	Copper	1.9	U		P
7439-89-6	Iron	91.5	B		P
7439-92-1	Lead	3.2			F
7439-95-4	Magnesium	8910			P
7439-96-5	Manganese	2.6	B		P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	6.7	B		P
7440-09-7	Potassium	5150			P
7782-49-2	Selenium	2.9	U	W	F
7440-22-4	Silver	3.6	U		P
7440-23-5	Sodium	31100			P
7440-28-0	Thallium	1.7	U	WN	F
7440-62-2	Vanadium	21.9	B		P
7440-66-6	Zinc	5.7	U		P
	Cyanide	10.0	U		CA

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

UC-

9613494.1307

Sampled 9/22/92

TMA/Skinner & Sherman Labs SAMPLE LOG-IN
WORKORDER 520949 CLIENT (TMA) HANford NOR No. SAMPLES:
PROTCL CLP TURNARND 33 Days (Soil) 4 (Water) (Specify Other
COOLER TEMP: 5 oC, or NA
CUSTODIAN B Prouix SDG/BATCH N/A
CUSTODY SEAL: PRESENT/ABSENT/INTACT/NOT CLIENT CASE N209180
SHIPER & # Fed Ex PO/CONTRACT# ↓
TAGS: PRESENT/ABSENT/NA/SEE COC CONTACT D Sanchez
CHAIN OF CUSTODY: PRESENT/ABSENT/NA, # N/A COMMENTS: none

SAMPLE CONTAINERS-INTACT/BROKEN COMMENTS

CLIENT COMMENT? YES/NO
SAMPLE LABELS AGREE WITH CHAIN OF CUSTODY INFO? YES/NO (COMMENT)
CLIENT PAPERWORK AGREES WITH SAMPLES & COC? YES/NO (COMMENT)

SHIPMENT DATES 9.25.92
LIST ANY DATE WITH PAPERWORK/SHIPMENT PROBLEMS & SPECIFY THE PROBLEM:

N/A UNFILTERED

	CLIENT ID	MATRIX	RECEIVED	PH*	TEST(S) & QC	HOLD TIME U
1	B07B06	Water	9.25.92	1.69	TM/CN	
2	B079Q6	↓	↓	1.63	↓	
3	B079T6	↓	↓	1.65	↓	
4	B079Z6	↓	↓	1.60	D.S ↓	
5						
6						
7						
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16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						

Samples are from site known to have Rad-Contamination: YES ✓ NO
Samples have detectable amounts of Radioactive Material: YES NO ✓

SUBCONTRACT: YES/NO, TO: DATE:

REVIEWED Cumolette 9.24.92 B

* EPA/CLP required Rev 1.6 PAGE: 000012

9613494.1308

PAGE 1 TMA/Norcal CHAIN OF CUSTODY ORD # N2-09-180

RCVD: 09/24/92 DUE: 10/24/92 09/24/92 15:16:42 KEEP: 01/22/93 DISP: S

DASH	SAMPLE IDENTIFICATION	STORED	TESTS for FRACTIONS with work in DEPT: SU and CATEGORY				
01B-W	B07B06	SS_1 (3)	WH007	WH008	WH010	WH011	WH137
02B-W	B079Q6 UNFILTERED	SS_1 (3)	WH007	WH008	WH010	WH011	WH137
03B-W	B079T6 UNFILTERED	SS_1 (3)	WH007	WH008	WH010	WH011	WH137
04B-W	B079Z6 UNFILTERED	SS_1 (3)	WH007	WH008	WH010	WH011	WH137
04F-W	B079Z6 MS UNFILTERED	SS_1 (3)	WH007	WH008	WH010	WH011	WH137
04G-W	B079Z6 DUP UNFILTERED	SS_1 (3)	WH007	WH008	WH010	WH011	WH137
04H-W	L C S	SS_1 (3)	WH007	WH008	WH010	WH011	WH137
09A-W	B07B09 FILTERED	SS_1 (1)	WH007	WH008	WH010		
10A-W	B079G9 FILTERED	SS_1 (1)	WH007	WH008	WH010		
11A-W	B079T9 FILTERED	SS_1 (1)	WH007	WH008	WH010		
12A-W	B079Z9 FILTERED	SS_1 (1)	WH007	WH008	WH010		
12B-W	B079Z9 MS FILTERED	SS_1 (1)	WH007	WH008	WH010		
12C-W	B079Z9 DUP FILTERED	SS_1 (1)	WH007	WH008	WH010		
12D-W	L C S	SS_1 (1)	WH007	WH008	WH010		

RELEASED BY	DATE	TRANSFERRED TO	DATE	RECEIVED BY	DATE
Yamamoto	9-24-92	SKINNER	9-24-92	[illegible]	9/25/92

TMA
Thermo Analytical Inc.

Skinner & Sherman Labs., Inc.
300 Second Avenue
Post Office Box 521
Waltham, MA 02254-0521
(617) 890-7200
FAX (617) 890-3883

9613494.1309

RECORD COPY

DEC 1992
RECEIVED
OSM DMO

December 16, 1992

TMA/NORCAL
2030 Wright Avenue
Richmond, CA 94804
Attention: Dan Stuermer

Quality Control Narrative

Scope
Four (4) water samples were submitted to TMA/Skinner & Sherman Laboratories, Inc. on September 25, 1992 from TMA/Norcal. The samples were analyzed for the USEPA CLP Target Analyte List metals. The analysis was performed under TMA/Skinner and Sherman work order S209450.

Methodology
The samples were prepared, analyzed and reported in accordance with the USEPA Contract Laboratory Program Statement of Work ILM02.

Discussion
All quality control requirements were met for the samples with the following exceptions;

The selenium and thallium digestion spike recovery exceeded the control limit requirements.

Please feel free to call if there are any questions concerning the data package.

Respectfully submitted,

TMA/SKINNER & SHERMAN LABORATORIES, INC.

David N. Peterson
Assistant Laboratory Manager

4/2/96 M.H.

9613494.1310

WESTINGHOUSE/HANFORD

1

SAMPLE NUMBER:

INORGANIC ANALYSIS DATA SHEET

B079Q9

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D0-0108

Lab Code: SKINER Case No.: N2-09-180SAS No.: SDG No.: B079Q9

Matrix (soil/water): WATER Lab Sample ID: 09450-02S

Level (low/med): LOW Date Received: 09/25/92

% 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	14.7	U		P
7440-36-0	Antimony	14.8	U		P
7440-38-2	Arsenic	9.4	B		F
7440-39-3	Barium	22.6	B		P
7440-41-7	Beryllium	0.30	U		P
7440-43-9	Cadmium	1.5	U		P
7440-70-2	Calcium	33300			P
7440-47-3	Chromium	2.6	U		P
7440-48-4	Cobalt	1.3	U		P
7440-50-8	Copper	1.9	U		P
7439-89-6	Iron	11.8	B		P
7439-92-1	Lead	5.1			F
7439-95-4	Magnesium	9280			P
7439-96-5	Manganese	0.90	U		P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	2.6	U		P
7440-09-7	Potassium	5090			P
7782-49-2	Selenium	3.9	U	WN	F
7440-22-4	Silver	3.6	U		P
7440-23-5	Sodium	30500			P
7440-28-0	Thallium	1.7	U	WN	F
7440-62-2	Vanadium	18.6	B		P
7440-66-6	Zinc	5.7	U		P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

02

9613494.1311

WESTINGHOUSE/HANFORD

1

SAMPLE NUMBER:

B079T9

INORGANIC ANALYSIS DATA SHEET

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D0-0108

Lab Code: SKINER Case No.: N2-09-180SAS No.: SDG No.: B079Q9

Matrix (soil/water): WATER Lab Sample ID: 09450-03S

Level (low/med): LOW Date Received: 09/25/92

% 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	14.7	U		P
7440-36-0	Antimony	14.8	U		P
7440-38-2	Arsenic	3.2	U		F
7440-39-3	Barium	20.4	B		P
7440-41-7	Beryllium	0.30	U		P
7440-43-9	Cadmium	1.5	U		P
7440-70-2	Calcium	41600			P
7440-47-3	Chromium	2.6	U		P
7440-48-4	Cobalt	1.3	U		P
7440-50-8	Copper	1.9	U		P
7439-89-6	Iron	18.5	B		P
7439-92-1	Lead	6.7			F
7439-95-4	Magnesium	8950			P
7439-96-5	Manganese	1.2	B		P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	2.6	U		P
7440-09-7	Potassium	4480	B		P
7782-49-2	Selenium	3.9	U	WN	F
7440-22-4	Silver	3.6	U		P
7440-23-5	Sodium	6050			P
7440-28-0	Thallium	1.7	U	WN	F
7440-62-2	Vanadium	6.5	B		P
7440-66-6	Zinc	5.7	U		P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

03

9613494.1312

WESTINGHOUSE/HANFORD

1

SAMPLE NUMBER:

B079Z9

INORGANIC ANALYSIS DATA SHEET

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D0-0108

Lab Code: SKINER Case No.: N2-09-180SAS No.: SDG No.: B079Q9

Matrix (soil/water): WATER Lab Sample ID: 09450-04S

Level (low/med): LOW Date Received: 09/25/92

% 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	14.7	U		P
7440-36-0	Antimony	14.8	U		P
7440-38-2	Arsenic	3.8	B	W	F
7440-39-3	Barium	13.0	B		P
7440-41-7	Beryllium	0.30	U		P
7440-43-9	Cadmium	1.5	U		P
7440-70-2	Calcium	32900			P
7440-47-3	Chromium	2.6	U		P
7440-48-4	Cobalt	1.3	U		P
7440-50-8	Copper	1.9	U		P
7439-89-6	Iron	14.1	B		P
7439-92-1	Lead	2.3	B		F
7439-95-4	Magnesium	9170			P
7439-96-5	Manganese	0.90	U		P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	2.6	U		P
7440-09-7	Potassium	5040			P
7782-49-2	Selenium	3.9	U	WN	F
7440-22-4	Silver	3.6	U		P
7440-23-5	Sodium	13800			P
7440-28-0	Thallium	1.7	U	WN	F
7440-62-2	Vanadium	11.8	B		P
7440-66-6	Zinc	5.7	U		P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

04

9613494.1313

WESTINGHOUSE/HANFORD

1

SAMPLE NUMBER:

INORGANIC ANALYSIS DATA SHEET

B07B09

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D0-0108

Lab Code: SKINER Case No.: N2-09-180SAS No.: SDG No.: B079Q9

Matrix (soil/water): WATER Lab Sample ID: 09450-01S

Level (low/med): LOW Date Received: 09/25/92

% 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	35.4	B		P
7440-36-0	Antimony	14.8	U		P
7440-38-2	Arsenic	5.3	B		F
7440-39-3	Barium	26.9	B		P
7440-41-7	Beryllium	0.30	U		P
7440-43-9	Cadmium	1.5	U		P
7440-70-2	Calcium	36600			P
7440-47-3	Chromium	44.9			P
7440-48-4	Cobalt	1.6	B		P
7440-50-8	Copper	1.9	U		P
7439-89-6	Iron	16.3	B		P
7439-92-1	Lead	6.6		W	F
7439-95-4	Magnesium	10400			P
7439-96-5	Manganese	2.0	B		P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	2.6	U		P
7440-09-7	Potassium	4540	B		P
7782-49-2	Selenium	3.9	U	N	F
7440-22-4	Silver	3.6	U		P
7440-23-5	Sodium	15800			P
7440-28-0	Thallium	1.7	U	WN	F
7440-62-2	Vanadium	12.4	B		P
7440-66-6	Zinc	7.0	B		P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

05

9613494.1314

TMS/Skinner & Sherman Labs SAMPLE LOG-IN

WORKORDER S209150 CLIENT Hanford Nox No. SAMPLES:

PROTCL CLP TURNARND 33 Days 4 (Soil) (Water) (Specify Other)

COOLER TEMP: 5 oC, or NA SDG/BATCH N/A

CUSTODIAN B Prenx CLIENT CASE N209150

CUSTODY SEAL: PRESENT/ABSENT/INTACT/NOT PO/CONTRACT# ↓

SHIPPER & # FedEx CONTACT D Sanchez

TAGS: PRESENT/ABSENT/NA/SEE COC

CHAIN OF CUSTODY: PRESENT/ABSENT/NA, # N/A COMMENTS: none

SAMPLE CONTAINERS-INTACT/BROKEN COMMENTS

CLIENT COMMENT? YES/NO

SAMPLE LABELS AGREE WITH CHAIN OF CUSTODY INFO? YES/NO (COMMENT) 9.26.92 B.P

CLIENT PAPERWORK AGREES WITH SAMPLES & COC? YES/NO (COMMENT)

SHIPMENT DATES 9.25.92

LIST ANY DATE WITH PAPERWORK/SHIPMENT PROBLEMS & SPECIFY THE PROBLEM:

FILTERED

	CLIENT ID	MATRIX	RECEIVED	PH*	TEST(S) & QC	HOLD TIME UP
1	B07309	water	9.25.92	1.66	TM	
2	B07909	↓	↓	1.65	↓	
3	B07909			1.62		
4	B07909			1.63	D.S	
5						
6						
7						
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24						
25						
26						
27						

Samples are from site known to have Rad-Contamination: YES ✓ NO ___

Samples have detectable amounts of Radioactive Material: YES ___ NO ✓

SUBCONTRACT: YES/NO TO: ___ DATE: ___

REVIEWED ___

complete 9.26.92

* EPA/CLP required

Rev 1.6

PAGE: 000010

9613494.1315

PAGE 1 TRANSMITTAL CHAIN OF CUSTODY ORD # N2-09-180

RCVD: 09/24/92 DUE: 10/24/92 09/24/92 15:16:42 KEEP: 01/22/93 DISP: S

100-KR-4

DASH	SAMPLE IDENTIFICATION	STORED	TESTS for FRACTIONS with work in DEPT: SU and CATEGORY				
01B-W	B07SC6	SS_1 (3)	WH007	WH008	WH010	WH011	WH137
02B-W	B07T06 UNFILTERED	SS_1 (3)	WH007	WH008	WH010	WH011	WH137
03B-W	B07T6 UNFILTERED	SS_1 (3)	WH007	WH008	WH010	WH011	WH137
04B-W	B07T26 UNFILTERED	SS_1 (3)	WH007	WH008	WH010	WH011	WH137
04F-W	B07T26 MS UNFILTERED	SS_1 (3)	WH007	WH008	WH010	WH011	WH137
04G-W	B07T26 DUP UNFILTERED	SS_1 (3)	WH007	WH008	WH010	WH011	WH137
04H-W	L C S	SS_1 (3)	WH007	WH008	WH010	WH011	WH137
09A-W	B07B09 FILTERED	SS_1 (1)	WH007	WH008	WH010		
10A-W	B07S9 FILTERED	SS_1 (1)	WH007	WH008	WH010		
11A-W	B07T9 FILTERED	SS_1 (1)	WH007	WH008	WH010		
12A-W	B07T29 FILTERED	SS_1 (1)	WH007	WH008	WH010		
12B-W	B07T29 MS FILTERED	SS_1 (1)	WH007	WH008	WH010		
12C-W	B07T29 DUP FILTERED	SS_1 (1)	WH007	WH008	WH010		
12D-W	L C S	SS_1 (1)	WH007	WH008	WH010		

RELEASED BY	DATE	TRANSFERRED TO	DATE	RECEIVED BY	DATE
Yamamoto	9-24-92	SKINNER	9-24-92	[illegible]	9/25/92

9613494.1316

OFFICE OF SAMPLE MANAGEMENT
RECORD OF DISPOSITION

ROD-92-00156
Record of Disposition No.

DATE: September 29, 1992

LABORATORY: TMA

PROJECT TITLE/NO.: 100-KR-4/92-266

NCR NO.: N/A

SAMPLE IDENTIFICATION NUMBERS:

- B079Q6

DESCRIPTION OF EVENT: RCS 2/9/93

- Sample ~~Bottle~~ B079Q6 was broken in transit to the TMA Laboratory. There was ONE OF THREE CONTAINERS FOR ~~in~~sufficient sample remaining to perform semi-VOA, and pesticide/PCB analysis.

DISPOSITION OF SAMPLES:

- With concurrence from Jim Roberts, the semi-VOA and PCB/pesticide analysis will ~~be canceled.~~ continue on remaing two containers. RCS 2/9/93

APPROVAL SIGNATURES:

K. N. Pool — Paul N. Pool — RCSchlichtmann 2/9/93 — 9/29/92
OSM Project Coordinator (Print/Sign Name) — Date

J. Roberts — J. W. Roberts — 2/9/93
Technical Representative (Print/Sign Name) — Date

N/A
Quality Assurance (Print/Sign Name) — Date

9613494.1317

Westinghouse Hanford Company

NONCONFORMANCE REPORT

1. Page 1 of 1

2. Preprinted No. 050521

QA Log No. EQA-93-123

3. P. O., W. O., or Job Control No.	4. System/End Use	5. Item/Material	6. Dwg./Spec./Other No.	7. Rev.
N/A	RI/FS	Water Samples	N/A	N/A

8. Program/Project/Other	9. Safety Class	10. ASME Code Items
100-KR-4/92-266	N/A	☐ Yes ☒ No (If yes, notify authorized inspector)

11. Supplier Name/Address	12. Notification of Potential Occurence Required
Environmental Field Services	☐ Yes ☒ No

13. Code: Lot/Heat/Serial	14. Lot Size	15. Sample	16. Qty. Acc.	17. Inspection Criteria
N/A	1	1	N/A	☐ Dwg. ☐ Spec. ☐ Insp. Plan ☒ Other WHC-CM-7.7 EII 5.1 Section 6.3

18. Item	19. Description of Nonconformance (list serial no. where applicable)	22. Disposition, Justification, and Instructions
1	the tritium and carbon 14 aliquot was sent to Weston when Chain of custody specified TMA. the Chain of Custody was broken Sa[illegible] X02061 [illegible]m and car[illegible] B07B06 (x2072 (2nd)) B07B06 AT Kearney	~~The analysis shall be performed as per the sample and analysis plan. The data for the Tritium and Carbon-14 aliquot shall be flagged.~~ RPL 12/17 Use as is. These samples were not validated in a WHC Validation Report. Therefore, this NCR shall act as the flag to identify possible problems with the data. R L Biggerstaff 12/17/93

20. Originator's Signature	Date	23. Design Document Change Required?
Karl D. Pool	12/16/92	☐ Yes, Doc. No. ☒ No

21. Cognizant QA Manager's Signature	Date	24. Corrective Action Required?
[illegible]	1-19-93	☐ Yes, No. ☒ No

Disp. App.	25. Cognizant Engineer	Date	26. Technical Rep.	Date	Signature/Org.	Date
	JW Roberts [illegible]	1/26/93	NA		NA	
	QA Engineer	Date	Signature/Org.	Date	Signature/Org.	Date
	GS Corrigan [illegible]	1-26-93	NA		NA	

Close	27.
	Accept 1 Reject 0 Follow on NCR NC [illegible] QA/C Personnel 12-17-93 Date

A-7310-104 (1C)

9613494.1318

Westinghouse Hanford Company

NONCONFORMANCE REPORT

1. Page 1 of 1

2. Preprinted No. 050521

QA Log No. EQA-93-123

3. P. O., W. O., or Job Control No.	4. System/End Use	5. Item/Material	6. Dwg./Spec./Other No.	7. Rev.
N/A	RI/FS	Water Samples	N/A	N/A

8. Program/Project/Other	9. Safety Class	10. ASME Code Items
100-KR-4/92-266	N/A	☐ Yes ☒ No (If yes, notify authorized inspector)

11. Supplier Name/Address	12. Notification of Potential Occurence Required
Environmental Field Services	☐ Yes ☒ No

13. Code: Lot/Heat/Serial	14. Lot Size	15. Sample	16. Qty. Acc.	17. Inspection Criteria
N/A	1	1	N/A	☐ Dwg. ☐ Spec. ☐ Insp. Plan ☒ Other WHC-CM-7.7 EQ 5.1 Section 6.3

18. Item	19. Description of Nonconformance (list serial no. where applicable)	22. Disposition, Justification, and Instructions
1	The tritium and carbon 14 aliquot was sent to Weston when Chain of custody specified TMA. the Chain of Custody was broken. Sample # for Tritium and carbon 14 aliquot - B0TB06	The analysis shall be performed as per the sample and analysis plan. The data for the Tritium and Carbon-14 aliquot shall be flagged.

20. Originator's Signature	Date	23. Design Document Change Required?
Karl N. Pool	12/16/92	☐ Yes, Doc. No. _____ ☐ No

21. Cognizant QA Manager's Signature	Date	24. Corrective Action Required?
[illegible]	1-19-93	☐ Yes, No. _____ ☐ No

Disp. App.					
25. Cognizant Engineer: JW Roberts	Date 1/26/93	26. Technical Rep.	Date	Signature/Org.	Date
QA Engineer: GS Corrigan	Date 1-26-93	Signature/Org.	Date	Signature/Org.	Date

Close

27. Accept _____ Reject _____ Follow on NCR _____

QA/C Personnel _____ Date

A-7310-104 (10/91)

9613494.1319

ROD'S and NCR NEEDED FOR 100-KR-4 SAMPLES

The attached Chain of Custody information should be included wiht the ROD's that need to be issued.

The problem that occured is this: (The TOX aliquot (Sample number B07B07) is listed on the Weston COC but was sent in the wrong cooler and went to TMA. The aliqout for Tritium and Carbon-14 was sent in the wrong cooler and was received at Weston but should have gone to TMA. At this time, the TOX aliqout has been sent from TMA to Weston and Tritium/ Cabon-14 aliqout has been sent from Weston to TMA. The major problem is that the COC has been broken for these two aliqouts.)(The customer (J. W. Roberts) has been notified of this problem and has concurred that each lab will analyze the aliqouts (when they are received from the respective lab) that have the broken COC)
(ROD's will need to issued to each lab that document the loss of COC and that WHC is directing the lab to analyze these aliqouts anyway.)(The NCR needed will be directed at the responsible sampler who put the wrong aliquots in the coolers.)

Any questions??

Thanx, Karl (10/6/92)

9613494.1320

OFFICE OF SAMPLE MANAGEMENT

RECORD OF DISPOSITION

ROD-92-00175
Record of Disposition No.

DATE: October 20, 1992

LABORATORY: TMA

PROJECT TITLE/NO.: 100-KR-4/92-266

NCR NO.: ~~050509~~ 050521 KNP 11/16/92

SAMPLE IDENTIFICATION NUMBERS:

▸▸ B07B06

DESCRIPTION OF EVENT:

▸▸ The tritium and Carbon^{14} aliquot (sample number B07B06) is listed on the *TMA Laboratory* Chain of Custody, but was sent in the wrong cooler to the *Weston Laboratory*. At this time, the tritium and Carbon^{14} aliquot has been sent from *Weston* to *TMA*. The chain of custody for the above mentioned sample has been broken.

DISPOSITION OF SAMPLES:

▸▸ With concurrence from the customer (J. W. Roberts) *TMA* will analyze the aliquot upon receipt from *Weston*.

APPROVAL SIGNATURES:

K. N. Pool — Kurt N. Pool — 10/21/92
OSM Project Coordinator (Print/Sign Name) — Date

J. W. Roberts — J. W. Roberts — 10/22/92
Technical Representative (Print/Sign Name) — Date

N/A
Quality Assurance (Print/Sign Name) — Date

9613494.1321

SAMPLE STATUS REPORT FOR E 4954. E-BLANK 69978-62 TIME: 9/23/92 9:10
DISPATCHED: 9/ 4/92 14: 4 SAMPLE HAS NOT BEEN SLURPED
RECEIVED: 9/23/92 7:49

EXT.	DETER.	RESULTS OR STATUS	OUT OF RANGE?	GOOD ANS?	CHARGE CODE
****	********	**********	***	***	******
4271	TOT-ACT	< 5.00000E 01 pCi/G	N	Y	PHBA2

END OF REPORT

BO 7B06
BO 7B07
BO 7B08
BO 7B09
BO 7B10

AJ SIMPSON
9/23/92

9613494.1322

OVERNIGHT DELIVERY

Signature Security Service

Contractor	OFF-SITE PROPERTY CONTROL	CONTROL NUMBER (To be obtained from PROPERTY MANAGEMENT)
Westinghouse Hanford		W92-0-0643-8

PART I – TO BE COMPLETED BY ORIGINATOR

Department	Section	Unit
Env. Eng. & Tech.	Hydrology	Geosciences

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

Routing Emery ☐ Contractor ☐ Vendor

Shipped to	Off-site Custodian
Weston 208 Welch Pool Rd. Linoville, PA 19341	Josie King Full Title

Quantity	Description (Include Serial and any Government Tag Numbers)	Original Cost
1 36 lbs.	Sample #: B07977 B07987 B07927 B07807 Cooler ID: SML-140 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~~ AJ Simpson 9/22/92	N/A

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

Necessity for the Off-Site Use of this Property

Sampling supports ~~100-BC-5~~ 100 KR4 wells.

RECEIVED
SEP 23 1992
PROPERTY MANAGEMENT

Bill of Lading # 2521567829

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
BC H. Mu	910690	9-23-92

Location of Property (Area & Bldg.)	Contact	Phone
~~100-BC-5~~ 100-KR-4	PH Butcher	(509) 376-5045

Date Ready for Shipment	Cost Code to be Charged	Approximate Date This Property will be Returned
9/23/92	W81232/~~00201~~ B37D1	N/A

Originated By	Date	Authorized By	Date
PH Butcher		~~PH Butcher~~ AJ Simpson AJ Simpson	9/23/92

Signature and Name of Property Control	Custodian Date	Property Management Approval	Date
		[illegible]	9/23/92

PART II – TO BE COMPLETED BY SHIPPING

Signature of Recipient	Return Order No.	Date Issued	Purchase Order No.	Date Issued
J Demaret				
Date 9-23-92 1318				

DISTRIBUTION

By Originator	Shipping Operation – Sign all Copies and Forward to:	
White, Green, Yellow, Pink – Property Management Goldenrod – Retain	White – Property Management Yellow – Retain	Green – Property Control Custodian (Issuing Office) Pink – Originator

WESTON Analytics Use Only: CFCFLCCII

OP# W92-0-0043-5 BOL 2521567529 TASK # 92-200

Custody Transfer Record/Lab Work Request

WESTON

Page 1 of ___

Client: Westinghouse Hanford Company
Est. Final Proj. Sampling Date:
Work Order #: 6168-02-01-0799
Project Contact/Phone #: P.H. Butcher (509) 376-5045
AD Project Manager:
QC: CLP Del: CLP TAT:
Date Rec'd: Date Due:
Account #:

Refrigerator #																	
#-Type Container	Liquid											1AG		1AG		NT	
	Solid																
Volume	Liquid											125ML		250ML		25ml	
	Solid																
Preservatives												H2SO4					
ANALYSES REQUESTED →		ORGANIC								INORG							
		VOA	BNA	Pest/PCB	Herb					Metal	CN	TOC		TOX		Phenols	
WESTON Analytics Use Only																	
												1		2			

MATRIX CODES:
S - Soil
SE - Sediment
SO - Solid
SL - Sludge
W - Water
O - Oil
A - Air
DS - Drum Solids
DL - Drum Liquids
L - EP/TCLP Leachate
WI - Wipe
X - Other
F - Fish

Lab ID	Client ID Description	Matrix QC Chosen (✓) MS	MSD	Matrix	Date Collected	Time Collected															
1	B079T7			W	9/22/92	1030											X		X		
2	B079Q7			W	9/22/92	0900											X		X		
3	B079Z7			W	9/22/92	1220											X		X		
4	B07B07			W	9/22/92	1025											X		X	TOX	Not Rec'd
5	B07BC0			(2)	9/22/92		← Not on Original C.O.C.													✓	

FIELD PERSONNEL: COMPLETE ONLY SHADED AREAS

Special Instructions:

(1) 1; 125ml; aG; WATER; TOC TOX (H2SO4) MS 9/23/92
(2) 1; 250ml; aG, WATER; TOX (H2SO4)

100 KL-5 Project

DATE REVISIONS:
1.
2.
3.
4.
5.
6.

WESTON Analytics Use Only

Samples were: Shipped ___ or Hand Delivered ___ Airbill # ___
2) Ambient or Chilled
3) Received in Good Condition Y or N
4) Labels Indicate Properly Preserved Y or N
5) Received Within Holding Times Y or N

COC Tape was: 1) Present on Outer Package Y or N
2) Unbroken on Outer Package Y or N
3) Present on Sample Y or N
4) Unbroken on Sample Y or N
COC Record Present Upon Sample Rec't Y or N

Discrepancies Between Samples Labels and COC Record? Y or N
NOTES: Not enough TOX for analysis

Relinquished by	Received by	Date	Time	Relinquished by	Received by	Date	Time
Fed Ex	[illegible]	9/24/92	1:30 PM				

RFW 21-21-001:A 7/91 ___ L372 ___ L373 ___ L375 ___ L377 ___ L378 Rel# ___ Cooler# ___ 381-566a

2 Hrs for Transport to TOX Laboratory

9613494.1323

9613494.1324

Westinghouse Hanford Company

CHAIN OF CUSTODY

Custody Form Initiator PH BUTCHER

Company Contact PH BUTCHER

Telephone (509)376-5045

Project Designation/Sampling Locations 100-KR-4

Collection Date [illegible]

Ice Chest No. SML-140

Field Logbook No. [illegible]

Bill of Lading/Airbill No. 2521967929

Offsite Property No. W92-0-0643-9

Method of Shipment EMERY

Shipped to WESTON

Possible Sample Hazards/Remarks N/A

Sample Identification

BO 7977

1, 125ml, aGs, WATER, TOC (H2SO4)
1, 250ml, aGs, WATER, TOX (H2SO4)

[] Field Transfer of Custody	Chain of Possession	(Sign and Print Names)
Relinquished by: [illegible]	Received by: HJ Simpson [illegible]	Date/Time: 9/23/92 1022
Relinquished by: HJ Simpson [illegible]	Received by:	Date/Time:
Relinquished by: [illegible]	Received by: [illegible]	Date/Time: 9/23/93 1:30 PM
Relinquished by:	Received by:	Date/Time:

Final Sample Disposition

Disposal Method:	Disposed by:	Date/Time:

Comments:

A-6000-407 (12/90) (EF) WEF061
Chain of Custody

Westinghouse Hanford Company

9613494.1325

CHAIN OF CUSTODY

Custody Form Initiator PH BUTCHER

Company Contact PH BUTCHER

Telephone (509)376-5045

Project Designation/Sampling Locations 100-KR-4

Collection Date 7/22/92

Ice Chest No. SAL - 140

Field Logbook No. EFL - 1048

Bill of Lading/Airbill No. 2521567829

Offsite Property No. W92-O-CW13-8

Method of Shipment EMERY

Shipped to WESTON

Possible Sample Hazards/Remarks N/A

Sample Identification

B07907

1, 125ml, aGs, WATER, TOC (H2SO4)
1, 250ml, aGs, WATER, TOX (H2SO4)

[] Field Transfer of Custody	Chain of Possession	(Sign and Print Names
Relinquished by: [illegible]	Received by: AJ SIMPSON CA Simpson	Date/Time: 7/23/92 1023
Relinquished by: AJ SIMPSON CA Simpson	Received by:	Date/Time:
Relinquished by: [illegible]	Received by: [illegible]	Date/Time: [illegible]
Relinquished by:	Received by:	Date/Time:

Final Sample Disposition

Disposal Method:	Disposed by:	Date/Time:

Comments:

A-6000-407 (12/90) (EF) UEF061
Chain of Custody

9613494.1326

Westinghouse Hanford Company

CHAIN OF CUSTODY

Custody Form Initiator PH BUTCHER

Company Contact PH BUTCHER

Project Designation/Sampling Locations 100-KR-4

Ice Chest No. SML - 140

Bill of Lading/Airbill No. 6921507329

Method of Shipment EMERY

Shipped to WESTON

Possible Sample Hazards/Remarks N/A

Telephone (509)376-5045

Collection Date 9/22/92

Field Logbook No. EFL 1049

Offsite Property No. W92-0-0643-8

Sample Identification

B0 79 Z7

1, 125ml, aGs, WATER, TOC (H2SO4)
1, 250ml, aGs, WATER, TOX (H2SO4)

[] Field Transfer of Custody	Chain of Possession	(Sign and Print Names)
Relinquished by: [illegible]	Received by: A J SIMPSON A J Simpson	Date/Time: 9/23/92 1024
Relinquished by: A J SIMPSON A J Simpson	Received by:	Date/Time:
Relinquished by: [illegible]	Received by: [illegible]	Date/Time: 9/24/92 1:30 PM
Relinquished by:	Received by:	Date/Time:

Final Sample Disposition

Disposal Method:	Disposed by:	Date/Time:

Comments:

A-6000-407 (12/90) (EF) WEF061
Chain of Custody

9613494.1327

...ord Company | CHAIN OF CUSTODY

Custody Form Initiator PH BUTCHER

Company Contact PH BUTCHER

Project Designation/Sampling Locations 100-KR-4

Ice Chest No. SMC-146

Bill of Lading/Airbill No. 252 156 1929

Method of Shipment EMERY

Shipped to WESTON

Possible Sample Hazards/Remarks N/A

Telephone (509)376-5045

Collection Date 9/22/96

Field Logbook No. FFL-1647

Offsite Property No. W92-0-0643-8

Sample Identification

BO 7807

1, 125ml, aGs, WATER, TOC (H2SO4)
1, 250ml, aGs, WATER, TOX (H2SO4)

[ ] Field Transfer of Custody	Chain of Possession	(Sign and Print Name)
Relinquished by: [signature]	Received by: [signature]	Date/Time: 9/23/96 1026
Relinquished by: [signature]	Received by:	Date/Time:
Relinquished by: [signature]	Received by: [signature]	Date/Time: [illegible]
Relinquished by:	Received by:	Date/Time:

Final Sample Disposition

Disposal Method:	Disposed by:	Date/Time:
Comments:		

A-6000-407 (12/90) (EF) WEF061
Chain of Custody

9613494.1328

Westinghouse Hanford Company

NONCONFORMANCE REPORT

1. Page 1 of 1

2. Preprinted No. 050521

QA Log No. EQA-93-123

3. P. O., W. O., or Job Control No.	4. System/End Use	5. Item/Material	6. Dwg./Spec./Other No.	7. Rev.
N/A	RI/FS	Water Samples	N/A	N/A

8. Program/Project/Other	9. Safety Class	10. ASME Code Items
100-KR-4/92-266	N/A	☐ Yes ☒ No (If yes, notify authorized inspector)

11. Supplier Name/Address	12. Notification of Potential Occurence Required
Environmental Field Services	☐ Yes ☒ No

13. Code: Lot/Heat/Serial	14. Lot Size	15. Sample	16. Qty. Acc.	17. Inspection Criteria
N/A	1	1	N/A	☐ Dwg. ☐ Spec. ☐ Insp. Plan ☒ Other WHC-CM-7-7 EII 5.1 Section 6.3

18. Item	19. Description of Nonconformance (list serial no. where applicable)	22. Disposition, Justification, and Instructions
1	the tritium and carbon 14 aliquot was sent to Weston when Chain of custody specified TMA. the Chain of Custody was broken. Sample # for Tritium and carbon 14 aliquot - B0TB06	The analysis shall be performed as per the sample and analysis plan. The data for the Tritium and Carbon-14 aliquot shall be flagged.

20. Originator's Signature	Date	23. Design Document Change Required?
Karl D. Pool	12/16/92	☐ Yes, Doc. No. _____ ☐ No

21. Cognizant QA Manager's Signature	Date	24. Corrective Action Required?
[signature]	1-19-93	☐ Yes, No. _____ ☐ No

Disp. App.				
25. Cognizant Engineer: JW Roberts [signature]	Date 1/26/93	26. Technical Rep.	Date	Signature/Org. Date
QA Engineer: GS Corrigan [signature]	Date 1-26-93	Signature/Org.	Date	Signature/Org. Date

Close

27. Accept _____ Reject _____ Follow on NCR _____

QA/C Personnel _____ Date

A-7310-104 (10/91)

9613494.1329

ROD'S and NCR NEEDED FOR 100-KR-4 SAMPLES

The attached Chain of Custody information should be included wiht the ROD's that need to be issued.

The problem that occured is this: (The TOX aliquot (Sample number B07B07) is listed on the Weston COC but was sent in the wrong cooler and went to TMA. The aliqout for Tritium and Carbon-14 was sent in the wrong cooler and was received at Weston but should have gone to TMA. At this time, the TOX aliqout has been sent from TMA to Weston and Tritium/ Cabon-14 aliqout has been sent from Weston to TMA. The major problem is that the COC has been broken for these two aliqouts.)(The customer (J. W. Roberts) has been notified of this problem and has concurred that each lab will analyze the aliqouts (when they are received from the respective lab) that have the broken COC)
(ROD's will need to issued to each lab that document the loss of COC and that WHC is directing the lab to analyze these aliqouts anyway.)(The NCR needed will be directed at the responsible sampler who put the wrong aliquots in the coolers.)

Any questions??

Thanx, Karl (10/6/92)

9613494.1330

OFFICE OF SAMPLE MANAGEMENT

RECORD OF DISPOSITION

ROD-92-00175
Record of Disposition No.

DATE: October 20, 1992

LABORATORY: TMA

PROJECT TITLE/NO.: 100-KR-4/92-266

NCR NO.: ~~050509~~ 050521 XNP 11/16/92

SAMPLE IDENTIFICATION NUMBERS:

►► B07B06

DESCRIPTION OF EVENT:

►► The tritium and Carbon^{14} aliquot (sample number B07B06) is listed on the *TMA Laboratory* Chain of Custody, but was sent in the wrong cooler to the *Weston Laboratory*. At this time, the tritium and Carbon^{14} aliquot has been sent from *Weston* to *TMA*. The chain of custody for the above mentioned sample has been broken.

DISPOSITION OF SAMPLES:

►► With concurrence from the customer (J. W. Roberts) *TMA* will analyze the aliquot upon receipt from *Weston*.

APPROVAL SIGNATURES:

K. N. Pool — Kurt N. Pool — 10/21/92
OSM Project Coordinator (Print/Sign Name) — Date

J. W. Roberts — J. W. Roberts — 10/22/92
Technical Representative (Print/Sign Name) — Date

N/A
Quality Assurance (Print/Sign Name) — Date

WESTON Analytics Use Only: CFACSILC11

OP# W92-0-0043-S BUL 2521561529 TASK # 92-200

Custody Transfer Record/Lab Work Request

WESTON

Page 1 of 1

Client: Westinghouse Hanford Company
Est. Final Proj. Sampling Date:
Work Order #: 6168-02-01-0799
Project Contact/Phone #: P.H. Butcher (509) 376-5045
AD Project Manager:
QC: CLP Del: CLP TAT:
Date Rec'd: Date Due:
Account #:

Refrigerator #:

# Type Container	Liquid								1AG	1AG	1AG		
	Solid												
Volume	Liquid								125ML	250ML	125ml		
	Solid												
Preservatives									H2SO4				

ANALYSES REQUESTED →

ORGANIC				INORG				
VOA	BNA	Pest/PCB	Herb	Metal	CN	TOC	TOX	C-14 Biodegr

WESTON Analytics Use Only

MATRIX CODES:	Lab ID	Client ID Description	Matrix QC Chosen (✓) MS	MSD	Matrix	Date Collected	Time Collected															
																		1		2		
S - Soil, SE - Sediment, SO - Solid, SL - Sludge, W - Water, O - Oil, A - Air, DS - Drum Solids, DL - Drum Liquids, L - EP/TCLP Leachate, WI - Wipe, X - Other, F - Fish	1	B079T7			W	9/22/92	1030											X		X		
	2	B079Q7			W	9/22/92	0900											X		X		
	3	B079Z7			W	9/22/92	1220											X		X		
	4	B07B07			W	9/22/92	1025											X		X	TOX	Not Rec'd
	5	B07BC10			(2)	9/22/92		← Not on Original C.O.C.														✓

FIELD PERSONNEL: COMPLETE ONLY SHADED AREAS

Special Instructions:

(1) 1; 125ml; aG; WATER; TOC TOX (H2SO4) MS 9/23/92
(2) 1; 250ml; aG, WATER; TOX (H2SO4)

100% Inject

DATE/REVISIONS:
1.
2.
3.
4.
5.
6.

WESTON Analytics Use Only

Samples were: 1) Shipped ___ or Hand Delivered ___ Airbill # ___
2) Ambient or Chilled
3) Received in Good Condition Y or N
4) Labels Indicate Properly Preserved Y or N
5) Received Within Holding Times Y or N

COC Tape was: 1) Present on Outer Package Y or N
2) Unbroken on Outer Package Y or N
3) Present on Sample Y or N
4) Unbroken on Sample Y or N
COC Record Present Upon Sample Rec't Y or N

Discrepancies Between Samples Labels and COC Record? Y or N
NOTES: Client: TOX Data to be initialed.

Relinquished by	Received by	Date	Time	Relinquished by	Received by	Date	Time
Emily Fedex	[illegible]	9/24/92	1:30 PM				

RFW 21-21-001:A 7/91 ___ L372 ___ L373 ___ L375 ___ L377 ___ L378 Rel# ___ Cooler# ___ 381-506a

2 Unit for Triplicate with Data Package

9613494.1331

Westinghouse
Hanford Company

9613494.1332

CHAIN OF CUSTODY

Custody Form Initiator PH BUTCHER

Company Contact PH BUTCHER

Telephone (509)376-5045

Project Designation/Sampling Locations 100-KR-4

Collection Date [illegible]

Ice Chest No. SMIL-140

Field Logbook No. [illegible]

Bill of Lading/Airbill No. 2921967929

Offsite Property No. W92-0-0643-9

Method of Shipment EMERY

Shipped to WESTON

Possible Sample Hazards/Remarks N/A

Sample Identification

BO 7977

1, 125ml, aGs, WATER, TOC (H2SO4)
1, 250ml, aGs, WATER, TOX (H2SO4)

[] Field Transfer of Custody	Chain of Possession	(Sign and Print Names)
Relinquished by: [illegible]	Received by: HJ Simpson [illegible]	Date/Time: 9/23/92 1022
Relinquished by: HJ Simpson [illegible]	Received by:	Date/Time:
Relinquished by: [illegible]	Received by: [illegible]	Date/Time: 9/23/92 1:30 PM
Relinquished by:	Received by:	Date/Time:

Final Sample Disposition

Disposal Method:	Disposed by:	Date/Time:

Comments:

A-6000-407 (12/90) (EF) WEF061
Chain of Custody

Westinghouse Hanford Company | 9613494.1333

CHAIN OF CUSTODY

Custody Form Initiator PH BUTCHER

Company Contact PH BUTCHER

Telephone (509)376-5045

Project Designation/Sampling Locations 100-KR-4

Collection Date 9/22/92

Ice Chest No. SWL - 140

Field Logbook No. ECC - 1048

Bill of Lading/Airbill No. 252150 1929

Offsite Property No. W92-0-0613-8

Method of Shipment EMERY

Shipped to WESTON

Possible Sample Hazards/Remarks N/A

Sample Identification

BO 7907

1, 125ml, aGs, WATER, TOC (H2SO4)
1, 250ml, aGs, WATER, TOX (H2SO4)

[] Field Transfer of Custody	Chain of Possession	(Sign and Print Names
Relinquished by: [illegible] K D CRO	Received by: AJ SIMPSON CA Simpson	Date/Time: 9/23/92 1023
Relinquished by: AJ SIMPSON CA Simpson	Received by:	Date/Time:
Relinquished by: [illegible]	Received by: [illegible]	Date/Time: 9/24/92 [illegible]
Relinquished by:	Received by:	Date/Time:

Final Sample Disposition

Disposal Method:	Disposed by:	Date/Time:

Comments:

A-6000-407 (12/90) (EF) WEF061
Chain of Custody

Westinghouse Hanford Company | 9613494.1334

CHAIN OF CUSTODY

Custody Form Initiator PH BUTCHER

Company Contact PH BUTCHER

Telephone (509)376-5045

Project Designation/Sampling Locations 100-KR-4

Collection Date 9/22/92

Ice Chest No. SAIL - 140

Field Logbook No. EFL 1049

Bill of Lading/Airbill No. 6321507329

Offsite Property No. W92-0-0643-8

Method of Shipment EMERY

Shipped to WESTON

Possible Sample Hazards/Remarks N/A

Sample Identification

BO7927

1, 125ml, aGs, WATER, TOC (H2SO4)
1, 250ml, aGs, WATER, TOX (H2SO4)

[] Field Transfer of Custody	Chain of Possession	(Sign and Print Names)
Relinquished by: [illegible]	Received by: AJ SIMPSON [illegible]	Date/Time: 9/23/92 1024
Relinquished by: AJ SIMPSON [illegible]	Received by:	Date/Time:
Relinquished by: [illegible]	Received by: [illegible]	Date/Time: 9/24/92 1:30 PM
Relinquished by:	Received by:	Date/Time:

Final Sample Disposition

Disposal Method:	Disposed by:	Date/Time:

Comments:

A-6000-407 (12/90) (EF) WEF061
Chain of Custody

...ord Company | 9613494.1335 CHAIN OF CUSTODY

Custody Form Initiator PH BUTCHER

Company Contact PH BUTCHER

Telephone (509)376-5045

Project Designation/Sampling Locations 100-KR-4

Collection Date 9/22/92

Ice Chest No. [illegible]

Field Logbook No. [illegible]

Bill of Lading/Airbill No. 2022156 1929

Offsite Property No. W92-[illegible]

Method of Shipment EMERY

Shipped to WESTON

Possible Sample Hazards/Remarks N/A

Sample Identification

B07807

1, 125ml, aGs, WATER, TOC (H2SO4)
1, 250ml, aGs, WATER, TOX (H2SO4)

[ ] Field Transfer of Custody	Chain of Possession	(Sign and Print Names
Relinquished by: [illegible]	Received by: [illegible]	Date/Time: 9/23/92 1026
Relinquished by: [illegible]	Received by:	Date/Time:
Relinquished by: [illegible]	Received by: [illegible]	Date/Time: [illegible]
Relinquished by:	Received by:	Date/Time:

Final Sample Disposition

Disposal Method:	Disposed by:	Date/Time:

Comments:

A-6000-407 (12/90) (EF) WEF061
Chain of Custody

9615494.1336

SAMPLE STATUS REPORT FOR E 4954. E-BLANK 69978-62 TIME: 9/23/92 9:10
DISPATCHED: 9/ 4/92 14: 4 SAMPLE HAS NOT BEEN SLURPED
RECEIVED: 9/23/92 7:49

EXT.	DETER.	RESULTS OR STATUS	OUT OF RANGE?	GOOD ANS?	CHARGE CODE
****	********	**********	***	***	******
4271	TOT-ACT	< 5.00000E 01 pCi/G	N	Y	PHBA2

END OF REPORT

BO 7B06
BO 7B07
BO 7B08
BO 7B09
BO 7B10

AJ Simpson
9/23/92

9613494.1337

OVERNIGHT DELIVERY

Signature Security Service

Contractor	OFF-SITE PROPERTY CONTROL	CONTROL NUMBER (To be obtained from PROPERTY MANAGEMENT)
Westinghouse Hanford		W92-0-0643-8

PART I – TO BE COMPLETED BY ORIGINATOR

Department	Section	Unit
Env. Eng. & Tech.	Hydrology	Geosciences

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

Routing Emery ☐ Contractor ☐ Vendor

Shipped to	Off-site Custodian
Weston 208 Welch Pool Rd. Linoville, PA 19341	Josie King
	Full Title

Quantity	Description (Include Serial and any Government Tag Numbers)	Original Cost
1 36 lbs.	Sample #: B07T77 B07Q27 B07Z27 B07B07 Cooler ID: SML-140 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~~ AJ 9/22/92	N/A

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

Necessity for the Off-Site Use of this Property

Sampling supports ~~100-BC-5~~ 100 KR4 wells.

RECEIVED
SEP 23 1992
PROPERTY MANAGEMENT

Bill of Lading # 2521567829

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
BC M. Hu	910690	9-23-92

Location of Property (Area & Bldg.)	Contact	Phone
~~100-BC-5~~ 100-KR-4	PH Butcher	(509) 376-5045

Date Ready for Shipment	Cost Code to be Charged	Approximate Date This Property will be Returned
9/23/92	W81232/~~[illegible]~~ B37D1	N/A

Originated By	Date	Authorized By	Date
PH Butcher		AJ Sieg PS&M ~~PH Butcher~~ AA Simon	9/23/92

Signature and Name of Property Control	Custodian Date	Property Management Approval	Date
			9/23/92

PART II – TO BE COMPLETED BY SHIPPING

Signature of Recipient	Return Order No.	Date Issued	Purchase Order No.	Date Issued
Date 9-23-92 1318				

DISTRIBUTION

By Originator	Shipping Operation – Sign all Copies and Forward to:	
White, Green, Yellow, Pink – Property Management Goldenrod – Retain	White – Property Management Yellow – Retain	Green – Property Control Custodian (Issuing Office) Pink – Originator

54-3000-4/9 (09/89)

9613494.1338

C

RECEIVED

JAN 19 1992

WASHINGTON

QUALITY ASSURANCE

NONCONFORMANCE REPORT DISTRIBUTION

1. FROM:	2. MSIN:
Environmental QA	H4-16

4. NCR No.:	5. Initiation or Closure
050521 / EQA-92-123	

6. TO:		MSIN				C
Cognizant Engineer	J. W. Roberts	H6-02				
Cognizant Quality Engineer	G. S. Corrigan	H4-16				
Originator	K. N. Pool	H4-23				
Q. A. Manager	NA	NA				
Cognizant QE Manager	T. L. Bennington	H4-16				
Facility Manager	NA	NA				
Engineering Records	L. M. McDaniel	H6-08				
Safety	NA	NA				
QSDM		L4-86				
Other: JCS Package	NA	NA				
Q. C.	NA	NA				
Buyer (Procurement)	NA	NA				
P.O. File (Procurement)	NA	NA				
Vendor File (Procurement)	NA	NA				
EQA File		H4-16				
	H Kessner	H4-23				

Brian Clay

JAN 1993

7. QST Codes

Subject:	Cause:	Contr. Factor:	PPG:
AD-08	PN-002		

8. Responsible Action Party:	Org Code:
J. W. Roberts	81310

A-6000-816 (09/91)

CASE NARRATIVE

LABORATORY : TMA/ARLI

CASE : 09-083

CONTRACT ID : WESTINGHOUSE HANFORD COMPANY

SDG RECEIPT DATE : September 28, 1992

1.0 DESCRIPTION OF CASE :

Four water samples were analyzed for TCL Organics-Volatiles, Semivolatiles, Pesticides/PCBs according to the USEPA Contract Laboratory Program (CLP) Statement of Work for Organic Analysis, Revision OLM01.8.

2.0 SAMPLE LIST :

WESTINGHOUSE ID	LAB ID	ANALYSIS REQUESTED	MATRIX	pH
B07B26	A2-09-083-01A	V	WATER	7
B07B26 MS	A2-09-083-01B	V	WATER	7
B07B26 MSD	A2-09-083-01C	V	WATER	7
B07B26	A2-09-083-01D	SV & P	WATER	
B07B26 MS	A2-09-083-01E	SV	WATER	
B07B26 MSD	A2-09-083-01F	SV	WATER	
B07B30	A2-09-083-02A	V	WATER	7
B079Z1	A2-09-083-03A	V	WATER	7
B079Z1	A2-09-083-03B	SV & P	WATER	
B079Z1 MS	A2-09-083-03C	P	WATER	
B079Z1 MSD	A2-09-083-03D	P	WATER	
B079Z5	A2-09-083-04A	V	WATER	7

3.0 COMMENTS :

3.1 SHIPPING AND DOCUMENTATION :

The samples were received unbroken and properly documented.

3.2 ANALYSIS

3.2.1 VOLATILE ANALYSIS COMMENTS :

LOW LEVEL WATER :

The samples were analyzed within the CLP SOW holding times.

All of the QC results were within the limits specified by the EPA CLP SOW.

TUNES :

All of the BFB tunes are injected directly into the GC/MS instrument.

3.2.2 SEMIVOLATILE ANALYSIS COMMENTS :

LOW LEVEL WATER :

The samples were extracted and analyzed within the CLP SOW holding times.

All of the other QC results were within the limits specified by the EPA CLP SOW.

PESTICIDE/PCB ANALYSIS :

SEQUENCE NOTES :

The sequence was started on 10/21/92 and analyzed in accordance with the EPA CLP SOW. The sequence was analyzed by single injection into a dual column system. The sequence met all the QC criteria specified in the CLP SOW.

The Chromatograms are presented in the manner consistent with the capabilities of the Nelson 2600 Data System which normalizes the largest peak to scale.

SAMPLE NOTES :

LOW LEVEL WATER :

The samples were extracted and analyzed within the CLP SOW holding times. Sample B079Z1MSD had very low surrogate recoveries and matrix spike recoveries. The MSD sample was re-extracted out of holding time and yielded recoveries within the QC limits. The MS and MSDRE was used to compare the matrix spike recoveries. The %RPD for gamma-BHC was slightly above the advisory limit. In accordance with protocol, no further action was required. Both the original and re-extracted MSD results have been included in this package.

All of the other results were within the limits specified by the EPA CLP SOW.

We certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data in this hardcopy data package and in the computer-readable data submitted on diskette is authorized by the Laboratory Manager or his designee, as verified by the following signatures.

Nicole Roth
CLP Program Manager

Wida Ang
Organics Supervisor

9613494.1342

000005

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B079Z1

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09083 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209083-03A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21002B08

Level: (low/med) LOW Date Received: 09/28/92

% Moisture: not dec. ____ Date Analyzed: 10/02/92

GC Column: CAP 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	2	J
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

9613494.1343

000006

EPA SAMPLE NO.

B079Z1

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09083 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209083-03A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21002B08

Level: (low/med) LOW Date Received: 09/28/92

% Moisture: not dec. ____ Date Analyzed: 10/02/92

GC Column: CAP 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

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000007
EPA SAMPLE NO.

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

B079Z5

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09083 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209083-04A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21002B09

Level: (low/med) LOW Date Received: 09/28/92

% Moisture: not dec. ____ Date Analyzed: 10/02/92

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 1.0

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

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

CAS NO.	COMPOUND		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	4	J
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

9613494.1345

000008
EPA SAMPLE NO.

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B079Z5

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09083 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209083-04A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21002B09

Level: (low/med) LOW Date Received: 09/28/92

% Moisture: not dec. ____ Date Analyzed: 10/02/92

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 1.0

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

Number TICs found: 2

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN HYDROCARBON	10.85	5	J
2.	DIMETHYL CYCLOHEXANE ISOMER	11.80	5	J

9613494.1346

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

000009
EPA SAMPLE NO.

B07B26

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09083 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209083-01A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21002B04

Level: (low/med) LOW Date Received: 09/28/92

% Moisture: not dec. ____ Date Analyzed: 10/02/92

GC Column: CAP 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	4	J
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

9613494.1347

000010

EPA SAMPLE NO.

B07B26

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09083 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209083-01A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21002B04

Level: (low/med) LOW Date Received: 09/28/92

% Moisture: not dec. ____ Date Analyzed: 10/02/92

GC Column: CAP 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 HYDROCARBON	3.03	6	J

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07B30

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09083 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209083-02A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21002B07

Level: (low/med) LOW Date Received: 09/28/92

% Moisture: not dec. ____ Date Analyzed: 10/02/92

GC Column: CAP 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	3	J
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	1	J
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	
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	2	J
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

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000012

EPA SAMPLE NO.

B07B30

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09083 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209083-02A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21002B07

Level: (low/med) LOW Date Received: 09/28/92

% Moisture: not dec. ____ Date Analyzed: 10/02/92

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 1.0

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

Number TICs found: 2

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN POLYNUCLEAR AROMATIC	20.88	18	J
2.	UNKNOWN BIPHENYL	22.27	8	J

9613494.1350

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

000013

EPA SAMPLE NO.

B079Z1

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09083 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209083-03B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 21005S24

Level: (low/med) LOW Date Received: 09/28/92

% Moisture: _____ decanted: (Y/N) ___ Date Extracted: 09/30/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 10/06/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-Di-n-Propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)Methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-Methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U
51-28-5	2,4-Dinitrophenol	25	U

9613494.1351

000014

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B079Z1

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09083 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209083-03B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 21005S24

Level: (low/med) LOW Date Received: 09/28/92

% Moisture: ____ decanted: (Y/N) ___ Date Extracted: 09/30/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 10/06/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-Butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)Anthracene	10	U
117-81-7	bis(2-Ethylhexyl)Phthalate	10	U
218-01-9	Chrysene	10	U
117-84-0	Di-n-Octyl Phthalate	10	U
205-99-2	Benzo(b)Fluoranthene	10	U
207-08-9	Benzo(k)Fluoranthene	10	U
50-32-8	Benzo(a)Pyrene	10	U
193-39-5	Indeno(1,2,3-cd)Pyrene	10	U
53-70-3	Dibenz(a,h)Anthracene	10	U
191-24-2	Benzo(g,h,i)Perylene	10	U

(1) - Cannot be separated from Diphenylamine

9613494.1352

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

000015

EPA SAMPLE NO.

B079Z1

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09083 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209083-03B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 21005S24

Level: (low/med) LOW Date Received: 09/28/92

% Moisture: _____ decanted: (Y/N) ___ Date Extracted: 09/30/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 10/06/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

9613494.1353

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

000016
EPA SAMPLE NO.

B07B26

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09083 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209083-01D

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 21005S21

Level: (low/med) LOW Date Received: 09/28/92

% Moisture: ____ decanted: (Y/N) ___ Date Extracted: 09/30/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 10/05/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-Di-n-Propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)Methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-Methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U
51-28-5	2,4-Dinitrophenol	25	U

9613494.1354

1C

000017

EPA SAMPLE NO.

B07B26

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09083 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209083-01D

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 21005S21

Level: (low/med) LOW Date Received: 09/28/92

% Moisture: ____ decanted: (Y/N) ___ Date Extracted: 09/30/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 10/05/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-Butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)Anthracene	10	U
117-81-7	bis(2-Ethylhexyl)Phthalate	10	U
218-01-9	Chrysene	10	U
117-84-0	Di-n-Octyl Phthalate	10	U
205-99-2	Benzo(b)Fluoranthene	10	U
207-08-9	Benzo(k)Fluoranthene	10	U
50-32-8	Benzo(a)Pyrene	10	U
193-39-5	Indeno(1,2,3-cd)Pyrene	10	U
53-70-3	Dibenz(a,h)Anthracene	10	U
191-24-2	Benzo(g,h,i)Perylene	10	U

(1) - Cannot be separated from Diphenylamine

9613494.1355

000018

EPA SAMPLE NO.

B07B26

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09083 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209083-01D

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 21005S21

Level: (low/med) LOW Date Received: 09/28/92

% Moisture: _____ decanted: (Y/N) ___ Date Extracted: 09/30/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 10/05/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

9613494.1356

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

000019

EPA SAMPLE NO.

B079Z1

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09083 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209083-03B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N) ___ Date Received: 09/28/92

Extraction: (SepF/Cont/Sonc) CONT Date Extracted: 09/30/92

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 10/22/92

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-36-3	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

9613494.1357

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

000020
EPA SAMPLE NO.

B07B26

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09083 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209083-01D

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N) ___ Date Received: 09/28/92

Extraction: (SepF/Cont/Sonc) CONT Date Extracted: 09/30/92

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 10/22/92

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-36-3	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

PAGE 1 MANUAL CHAIN OF CUSTODY ORD # N2-09-197

RCVD: 09/28/92 10/28/92 09/28/92 13:50:45 KEEP: 01/26/93 DISP: S

DASH	SAMPLE IDENTIFICATION	STORED	TESTS for FRACTIONS with work in DEPT: SU and CATEGORY
01A-W	B07B2[illegible] UNFILTERED	ARLI (10)	WH018 WH019 WH020 WH043 WH114 WH121 WH122 WH128 WH131 WH132 WH140
02A-W	B079Z1 UNFILTERED	ARLI (10)	WH018 WH019 WH020 WH043 WH114 WH121 WH122 WH128 WH131 WH132 WH140
02C-W	B079Z1 MS UNFILTERED	ARLI	WH018 WH019 WH020 WH043 WH114 WH140
02D-W	B079Z1 MSD UNFILTERED	ARLI	WH018 WH019 WH020
02E-W	B079Z1 DUP UNFILTERED	ARLI (10)	WH043 WH114 WH121 WH122 WH128 WH131 WH132 WH140
05A-W	B07B30	ARLI (3)	WH018
06A-W	B07B25	ARLI (3)	WH018

RELEASED BY	DATE	TRANSFERRED TO	DATE	RECEIVED BY	DATE
Yamamoto	9-28-92	ARLI	9-28-92	[illegible]	9/29/92

9613494.1359

SAMPLE LOG-IN SHEET

LAB NAME: TRA/ARLI

PAGE 1 OF 1

000003

RECEIVED BY (PRINT NAME): CAROLE HARRIS

LOG-IN-DATE: 9-29-92

RECEIVED BY (SIGNATURE): Carole Harris

CASE NUMBER:

SAMPLE DELIVERY GROUP NO.:

SAS NUMBER:

REMARKS:

1. Custody Seal(s) — Present/Absent* Intact/Broken
2. Custody Seal Nos:
3. Chain of Custody Records — Present/Absent*
4. Traffic Reports or Packing List — Present/Absent*
5. Airbill — Airbill/Sticker Present/Absent*
6. Airbill No.: 518803944
7. Sample Tags — Present/Absent*
8. Sample Tags Numbers — Listed/Not Listed on Chain of Custody
9. Sample Condition: — Intact/Broken*/Leaking
10. Does information on custody records, traffic reports, and sample tags agree — Yes/No*
11. Date Recieved at Lab: 9-29-92
12. Temp of ice chest 4.0 °C
13. Time Recieved: 9:30 AM

SAMPLE TRANSFER

Fraction:

Area #:

By:

On:

EPA SAMPLE #	CORRESPONDING SAMPLE TAG #	CORRESPONDING ASSIGNED LAB #	REMARKS: CONDITION OF SAMPLE SHIPMENT, ETC
	B07B26	A2-09-083-01	
	B07B30	A2-09-083-02	
	B07921	A2-09-083-03	
	B07925	A2-09-083-04	

* Contact SMO and attach record of resolution

Reviewed By:

Logbook No.:

Date:

Logbook Page No.:

FORM DC-1

FEDERAL EXPRESS

[redacted]

QUESTIONS? CALL 800-238-5355 TOLL FREE.

AIRBILL PACKAGE TRACKING NUMBER 5188039441

2237M 5188039441

[redacted] Date 9-28-92

RECIPIENT'S COPY

1

From (Your Name) Please Print: SAMPle control

Your Phone Number (Very Important): (510)235-2633

Company: T M A /NORCAL

Department/Floor No.:

Street Address: 2030 WRIGHT AVE

City: RICHMOND State: CA ZIP Required: 94804

2

To (Recipient's Name) Please Print: SAMPle control ( )

Recipient's Phone Number (Very Important):

Company: TMA / ARLI

Department/Floor No.:

Exact Street Address (We Cannot Deliver to P.O. Boxes or P.O. Zip Codes.): 160 Taylor street

City: MONROVIA State: CA. ZIP Required: 91016

YOUR INTERNAL BILLING REFERENCE INFORMATION (optional) (First 24 characters will appear on invoice.): 2320.6406

H IF HOLD FOR PICK-UP, Print FEDEX Address Here: Street Address

City: State: ZIP Required:

3 PAYMENT 1 ☑ Bill Sender 2 ☐ Bill Recipient's FedEx Acct. No. 3 ☐ Bill 3rd Party FedEx Acct. No. 4 ☐ Bill Credit Card

☐ Cash/Check [redacted]

4 SERVICES (Check only one box)

Priority Overnight (Delivery by next business morning†)
- 11 ☑ YOUR PACKAGING
- 16 ☐ FEDEX LETTER*
- 12 ☐ FEDEX PAK*
- 13 ☐ FEDEX BOX
- 14 ☐ FEDEX TUBE

Standard Overnight (Delivery by next business afternoon. No Saturday delivery†)
- 51 ☐ YOUR PACKAGING
- 56 ☐ FEDEX LETTER*
- 52 ☐ FEDEX PAK*
- 53 ☐ FEDEX BOX
- 54 ☐ FEDEX TUBE

Economy Two-Day (Delivery by second business day †)
- 30 ☐ ECONOMY

Government Overnight (Restricted for authorized users only)
- 46 ☐ GOVT LETTER
- 41 ☐ GOVT PACKAGE

Freight Service (for packages over 150 lbs.)
- 70 ☐ OVERNIGHT FREIGHT** (Confirmed reservation required)
- 80 ☐ TWO-DAY FREIGHT**

†Delivery commitment may be later in some areas. *Declared Value Limit $500. **Call for delivery schedule.

5 DELIVERY AND SPECIAL HANDLING (Check services required)
- 1 ☐ HOLD FOR PICK-UP (Fill in Box H)
- 2 ☑ DELIVER WEEKDAY
- 3 DELIVER SATURDAY (Extra charge) (Not available to all locations) ☐
- 4 ☐ DANGEROUS GOODS (Extra charge)
- 5 ☐
- 6 ☐ DRY ICE ___ Lbs.
- 7 ☐ OTHER SPECIAL SERVICE
- 8 ☐
- 9 ☐ SATURDAY PICK-UP (Extra charge)
- 10 ☐
- ☐
- 12 ☐ HOLIDAY DELIVERY (If offered) (Extra charge)

6 PACKAGES (Check) | WEIGHT In Pounds Only | YOUR DECLARED VALUE

Total 2 | Total 148 | Total

DIM SHIPMENT (Chargeable Weight) ☐ ___ lbs.

L x W x H

Received At: ☑ 1 Regular Stop ☐ 2 On-Call Stop ☐ 3 Drop Box ☐ 4 B.S.C. ☐ 5 Station

7 Release Signature:

Emp. No. | Date

☐ Cash Received
☐ Return Shipment
☐ Third Party ☐ Chg To Del. ☐ Chg To Hold.

Street Address

City | State | Zip

Received By: X

Date/Time Received | FedEx Employee Number

Federal Express Use
- Base Charges
- Declared Value Charge
- Other 1
- Other 2
- Total Charges

REVISION DATE 2/92 PART #137204 FXEM 8/92 FORMAT #126

126

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"000004 96134994 1360

9613494.1361

000005

TMA/ARLI
Thermo Analytical Inc.

RADIATION DOSE RATE SURVEY FORM

Date 9/29/92 COMPANY NORCAL (WHC) OTHER ORD # 5188039441

Surveyor's Name MARK S. McCray

Model No. HP-210 / ESP-1 Model No. AC-3-7 / ESP-1

Serial Nos. 710289 / 02619 Serial Nos. 407726 / 02628

Calibration Date 3/25/92 Calibration Date 8/01/92

Instrument Calibration Factor 0.280 Instrument Calibration Factor 0.188

Sample	Location	HP-210 CPM	HP-210 Factor	HP-210 DPM	AC-3-7 CPM	AC-3-7 Factor	AC-3-7 DPM	Spillage or Breakage?	Activity, pCi/mL or pCi/g
Background		39.0			1.0				
Consistency		7,510	0.2899		5,017	0.1844			
Smears: BUD 20 POC		59.0			9.0				
Rm # 43		39.0			1.0				
Reported (WHC)		2/6 samples	each		< 50	pCi/gram			

Comments:

All OK ✓ Approved M.S. McCray

Not OK Date 9/29/92

Form: ARLI RA-01
Rev: 06

01/15/92

GENERAL CHEMISTRY RESULTS

CASE NO. 09-083

Water Sample #:

B07B26 B079Z1

CASE NARRATIVE

Sample B07B26 (A2-09-083-01) yielded a 62.0% recovery for the Phosphate analysis. The low Phosphate recovery compared to our laboratory control sample indicated the presence of a matrix interference.

No other problems were encountered during sample analysis. All QC results were acceptable.

Ernesto Vazquez

Ernesto Vazquez

9613494.1363

TMA Inc. REPORT Work Order # A2-09-083

Received: 09/28/92 11/18/92 15:02:05

REPORT TO: Westinghouse Hanford Company
2355 Stevens Dr.
Richland,WA.99352
MO-346/200 West/T6-08
ATTEN: Jeanette Duncan

PREPARED BY: Thermo Analytical, Inc.
160 Taylor Street
Monrovia, CA 91016
ATTEN: Ms. Carole Harris
PHONE: 818-357-3247

CERTIFIED BY: Ernest Tyguy
CONTACT: EVV CIH

CLIENT: WHC SAMPLES: 5
COMPANY: Westinghouse Hanford Company
FACILITY:

This report is for the sole and exclusive use of the client to whom it is addressed and represents only those samples herein described. Samples not destroyed in testing are retained a maximum of 30 days unless otherwise requested.

WORK ID: 100-KR-4
TAKEN: By Westinghouse Staff
TRANS: By Federal Express
TYPE: Liquid
P.O. #: N2-09-197-SU-AR
INVOICE: under separate cover

SAMPLE IDENTIFICATION

01	B07B26
01	B07B26 MS
01	B07B26 MSD
01	B07B26
01	B07B26 MS
01	B07B26 MSD
01	B07B26
01	B07B26 MS
01	B07B26
01	B07B26 Duplicate
01	B07B26
01	B07B26 MS
01	B07B26
01	B07B26 MS
02	B07B30
03	B079Z1
03	B079Z1 MS
03	B079Z1 MSD
03	B079Z1
03	B079Z1 Duplicate
03	B079Z1
03	B079Z1 Duplicate
03	B079Z1
03	B079Z1 Duplicate
04	B079Z5
05	Wet Chemistry Blank

TEST CODES and NAMES used on this workorder

BNCLPW	CLP Semivol. Water
PECLPL	CLP Pesticides Liq.-WH019
VOCLPL	CLP Volatile Org.Liq.
WCCLPL	Anions & Wet Chem. - WH043
WCL L	Chloride - WH120
WCQCD	Quality Control Summary
WCQCS	Quality Control Summary
WF L	Fluoride in Water
WNH3 L	Ammonia in Water - WH140
WPH L	pH of Liquid - WH121
WPO4 L	Phosphate in Liquids
WSO4 L	Sulfate (in Waters)
WSULFI	Sulfide - WH114
W ALK	Alkalinity - WH131
W COD	COD Water - WH132
W COND	Conductivity-Water WH135
W TDS	Dissolved Solids WH128

9613494.1364

TMA Inc. REPORT Work Order # A2-09-083

Received: 09/28/92

Results by Sample

SAMPLE ID B07B26 FRACTION 01G TEST CODE WCCLPL NAME Anions & Wet Chem. - WH043

Date & Time Collected 09/24/92 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Chloride	300.0	3.6	mg/L	0.2
Fluoride	300.0	0.3	mg/L	0.1
Phosphate	300.0	<0.4	mg/L	0.4
pH	150.1	8.2	pH	0.1
Sulfate	300.0	32	mg/L	1
Elect. Conductivity	120.1	218	umho/cm	6

FORM I

9613194.1365

TMA Inc. REPORT Work Order # A2-09-083

Received: 09/28/92 Results by Sample

SAMPLE ID B07B26 FRACTION 01I TEST CODE WCCLPL NAME Anions & Wet Chem. - WH043

Date & Time Collected 09/24/92 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Alkalinity	310.1	93	mg/L	2
Tot. Dissolved Solids	160.1	175	mg/L	5

FORM I

9613494.1366

TMA Inc. REPORT Work Order # A2-09-083

Received: 09/28/92 Results by Sample

SAMPLE ID B07B26 FRACTION 01K TEST CODE VCCLPL NAME Anions & Wet Chem. - WH043

Date & Time Collected 09/24/92 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Sulfide	376.1	<1	mg/L	1

FORM I

TMA Inc. REPORT Work*p+1Xk Order # A2-09-083

Received: 09/28/92

Results by Sample

SAMPLE ID B07B26 FRACTION 01M TEST CODE WCCLPL NAME Anions & Wet Chem. - WH043

Date & Time Collected 09/24/92 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Ammonia Nitrogen	350.3	<0.05	mg/L	0.05
COD	410.0	<30	mg/L	30

FORM I

TMA Inc. REPORT Work Order # A2-09-083

Received: 09/28/92

Results by Sample

SAMPLE ID B079Z1 FRACTION 03E TEST CODE WCCLPL NAME Anions & Wet Chem. - WH043

Date & Time Collected 09/24/92 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Chloride	300.0	3.8	mg/L	0.2
Fluoride	300.0	0.3	mg/L	0.1
Phosphate	300.0	<0.4	mg/L	0.4
pH	150.1	8.2	pH	0.1
Sulfate	300.0	33	mg/L	1
Elect. Conductivity	120.1	224	umho/cm	6

FORM I

9613494.1369

TMA Inc. REPORT WWork Order # A2-09-083

Received: 09/28/92

Results by Sample

SAMPLE ID B079Z1 FRACTION 03G TEST CODE WCCLPL NAME Anions & Wet Chem. - WH043

Date & Time Collected 09/24/92 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Alkalinity	310.1	93	mg/L	2
Tot. Dissolved Solids	160.1	181	mg/L	5

FORM I

TMA Inc. REPORT Work Order # A2-09-083

Received: 09/28/92

Results by Sample

SAMPLE ID B079Z1 FRACTION 03M TEST CODE WCCLPL NAME Anions & Wet Chem. - WH043

Date & Time Collected 09/24/92 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Sulfide	376.1	<1	mg/L	1

FORM I

9613494.1571

TMA Inc. REPORT Work Order # A2-09-083

Received: 09/28/92

Results by Sample

SAMPLE ID B079Z1 FRACTION 03J TEST CODE WCCLPL NAME Anions & Wet Chem. - WH043

Date & Time Collected 09/24/92 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Ammonia Nitrogen	350.3	<0.05	mg/L	0.05
COD	410.0	<30	mg/L	30

FORM I

9613494.1372

000001

2/10/93

 Skinner&Sherman REPORT Work Order # S2-09-515

Received: 09/29/92 12/11/92 13:27:11

REPORT TMA/NORCAL
TO 2030 Wright Avenue
Richmond, CA 94804

ATTEN Dan Steurmer

CLIENT HANFORD NOR SAMPLES 8
COMPANY TMA/NORCAL
FACILITY Richmond, CA

PREPARED TMA / Skinner & Sherman Labs.
BY 300 Second Avenue
P.O. Box 521
Waltham, MA 02254
ATTEN Client Services
PHONE (617) 890-7200

CERTIFIED BY

CONTACT DP

WORK ID N2-09-197,214,223
TAKEN By Client
TRANS Fedex
TYPE Water NO3NO2
P.O. # N2-09-197,214,223
INVOICE under separate cover

SAMPLE IDENTIFICATION	
01	B07B26
02	B079Z1
03	B079Y1
04	B079Y6
04	B079Y6D
04	B079Y6S
05	B07B01
06	B07B31
07	B07B44
08	LCSW

TEST CODES and NAMES used on this workorder

NO3NO2 Nitrate Plus Nitrite

This report is rendered upon all of the following conditions: Skinner & Sherman Laboratories, Inc. retains ownership of this report until associated submitted invoice is satisfied. Expert witness services shall be available in conjunction with this report only if prior notification of this potential requirement was made and accepted, before the analysis. Client will be responsible for Skinner & Sherman costs and consulting fees if our services are required by subpoena or otherwise in legal proceedings. Total liability is limited to the invoice amount. The results listed refer only to tested samples and applicable parameters. Product endorsement is neither inferred nor implied. Skinner & Sherman Laboratories, Inc. will exercise due diligence but will not be responsible for lost or destroyed samples or evidence unless client makes appropriate insurance coverage arrangements. Samples are held for thirty days following issuance of report. Samples will be stored at client's expense, if authorized in writing.

TMA
Thermo Analytical Inc.
Skinner & Sherman Laboratories Inc.
300 Second Avenue, P.O. Box 521, Waltham, Massachusetts 02254-0521 (617) 890-7200
1-800-4LAB TEST FAX (617) 890-3883

Received: 09/29/92 Results by Sample

SAMPLE ID B07B26 SAMPLE # 01 FRACTIONS: A
Date & Time Collected 09/24/92 Category WATER

NO3NO2 0.77
mg N/L

SAMPLE ID B079Z1 SAMPLE # 02 FRACTIONS: A
Date & Time Collected 09/24/92 Category WATER

NO3NO2 0.71
mg N/L

SAMPLE ID B079Y1 SAMPLE # 03 FRACTIONS: A
Date & Time Collected 09/25/92 Category WATER

NO3NO2 0.91
mg N/L

SAMPLE ID B079Y6 SAMPLE # 04 FRACTIONS: A
Date & Time Collected 09/25/92 Category WATER

NO3NO2 2.47
mg N/L

SAMPLE ID B079Y6D SAMPLE # 04 FRACTIONS: B
Date & Time Collected 09/25/92 Category WATER

NO3NO2 2.23
mg N/L

SAMPLE ID B079Y6S SAMPLE # 04 FRACTIONS: C
Date & Time Collected 09/25/92 Category WATER

NO3NO2 3.37
mg N/L

SAMPLE ID B07B01 SAMPLE # 05 FRACTIONS: A
Date & Time Collected 09/28/92 Category WATER

NO3NO2 1.33
mg N/L

TMA
Thermo Analytical Inc.

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Skinner & Sherman Laboratories Inc.
300 Second Avenue, P.O. Box 521, Waltham, Massachusetts 02254-0521 (617) 890-7200
1-800-4 LAB TEST FAX (617) 890-3883

9613494.1374

000003

 Skinner&Sherman REPORT Work Order # S2-09-515

Received: 09/29/92 Results by Sample

SAMPLE ID B07B31 SAMPLE # 06 FRACTIONS: A

Date & Time Collected 09/28/92 Category WATER

NO3NO2 <0.25
mg N/L

SAMPLE ID B07B44 SAMPLE # 07 FRACTIONS: A

Date & Time Collected 09/28/92 Category WATER

NO3NO2 <0.25
mg N/L

SAMPLE ID LCSW SAMPLE # 08 FRACTIONS: A

Date & Time Collected not specified Category WATER

NO3NO2 1.96
mg N/L

TMA
Thermo Analytical Inc.

This report is rendered upon all of the following conditions: Skinner & Sherman Laboratories, Inc. retains ownership of this report until associated submitted invoice is satisfied. Expert witness services shall be available in conjunction with this report only if prior notification of this potential requirement was made and accepted, before the analysis. Client will be responsible for Skinner & Sherman costs and consulting fees if our services are required by subpoena or otherwise in legal proceedings. Total liability is limited to the invoice amount. The results listed refer only to tested samples and applicable parameters. Product endorsement is neither inferred nor implied. Skinner & Sherman Laboratories, Inc. will exercise due diligence but will not be responsible for lost or destroyed samples or evidence unless client makes appropriate insurance coverage arrangements. Samples are held for thirty days following issuance of report. Samples will be stored at client's expense, if authorized in writing.

Skinner & Sherman Laboratories Inc.
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1-800-4 LAB TEST FAX (617) 890-3883

Page 5 Skinner&Sherman REPORT Work Order # S2-09-515

Received: 09/29/92 Test Methodology

TEST CODE NO3NO2 NAME Nitrate Plus Nitrite

Methods for Chemical Analysis of Water and Wastes
EPA - 600/4-79-020 March 1979 Method 353.2 (modified)

This report is rendered upon all of the following conditions: Skinner & Sherman Laboratories, Inc. retains ownership of this report until associated submitted invoice is satisfied. Expert witness services shall be available in conjunction with this report only if prior notification of this potential requirement was made and accepted, before the analysis. Client will be responsible for Skinner & Sherman costs and consulting fees if our services are required by subpoena or otherwise in legal proceedings. Total liability is limited to the invoice amount. The results listed refer only to tested samples and applicable parameters. Product endorsement is neither inferred nor implied. Skinner & Sherman Laboratories, Inc. will exercise due diligence but will not be responsible for lost or destroyed samples or evidence unless client makes appropriate insurance coverage arrangements. Samples are held for thirty days following issuance of report. Samples will be stored at client's expense, if authorized in writing.

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1-800-4 LAB TEST FAX (617) 890-3883

TMA/Skinner & Sherman Labs **SAMPLE LOG-IN**

WORKORDER 5209515 CLIENT Hanford-NOS No. SAMPLES:

PROTCL CLP TURNARND 33 days (Soil) 7 (Water) (Specify Other)

COOLER TEMP: 4 oC, or NA

CUSTODIAN Benney, A. SDG/BATCH NA

CUSTODY SEAL: PRESENT/ABSENT/INTACT/NOT CLIENT CASE N209197, 214, 223

SHIPER & # Fedex # 5188039343 PO/CONTRACT# NA

TAGS: PRESENT/ABSENT/NA/SEE COC CONTACT Dolores Sanchez

CHAIN OF CUSTODY: PRESENT/ABSENT/NA, # NA COMMENTS: NONE

SAMPLE CONTAINERS-INTACT/BROKEN COMMENTS

CLIENT COMMENT? YES/NO

SAMPLE LABELS AGREE WITH CHAIN OF CUSTODY INFO? YES/NO (COMMENT)

CLIENT PAPERWORK AGREES WITH SAMPLES & COC? YES/NO (COMMENT)

SHIPMENT DATES 9/29/92 9/30/92 10/01/92

LIST ANY DATE WITH PAPERWORK/SHIPMENT PROBLEMS & SPECIFY THE PROBLEM:

N/A

	CLIENT ID	MATRIX	RECEIVED	PH*	TEST(S) & QC	HOLD TIME UP
1	B07B26	WATER	9/29/92	1.99	NO3NO2	due 10/22/92
2	B07971			1.88		
3	Y1		9/30/92	1.91		
4	Y6			1.85		
5	B07B01		10/01/92	1.83		
6	31			1.89		
7	44			1.84		
8						
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20					10/01/92	
21						
22						
23						
24						
25						
26						
27						

complete

Samples are from site known to have Rad-Contamination: YES ✓ NO ___

Samples have detectable amounts of Radioactive Material: YES ___ NO ✓

SUBCONTRACT: YES/NO, TO: ___ DATE: ___

REVIEWED ___

* EPA/CLP required Rev 1.6 PAGE: 000069

 9613494.1377 TMA/Norcal CHAIN OF CUSTODY ORD # N2-09-197 000020

RCVD: 09/28/92 DUE: 10/28/92 09/28/92 13:50:47 KEEP: 01/26/93 DISP: S

DASH	SAMPLE IDENTIFICATION	STORED	TESTS for FRACTIONS with work in DEPT: SV and CATEGORY				
01B-W	B07B26 UNFILTERED	S&S (3)	WH007	WH008	WH010	WH011	WH137
02B-W	B079Z1 UNFILTERED	S&S (3)	WH007	WH008	WH010	WH011	WH137
02F-W	B079Z1 MS UNFILTERED	S&S	WH007	WH008	WH010	WH011	WH137
02G-W	B079Z1 DUP UNFILTERED	S&S	WH007	WH008	WH010	WH011	WH137
02H-W	L C S	S&S	WH007	WH008	WH010	WH011	WH137
03A-W	B07B29 FILTERED	S&S (1)	WH007	WH008	WH010		
04A-W	B079Z4 FILTERED	S&S (1)	WH007	WH008	WH010		
04B-W	B079Z4 MS FILTERED	S&S (1)	WH007	WH008	WH010		
04C-W	B079Z4 DUP FILTERED	S&S (1)	WH007	WH008	WH010		
04D-W	L C S	S&S (1)	WH007	WH008	WH010		

RELEASED BY	DATE	TRANSFERRED TO	DATE	RECEIVED BY	DATE
Yamamoto	9-28-92	SS-1	9-28-92	[illegible]	9/29/92

PAGE 1 TMA/Norcal 9613494.1378 CHAIN OF CUSTODY ORD # N2-09-214
RCVD: 09/29/92 DUE: 10/29/92 09/29/92 14:16:47 KEEP: 01/27/93 DISP: S

DASH	SAMPLE IDENTIFICATION	STORED	TESTS for FRACTIONS with work in DEPT: SU and CATEGORY				
01B-W	B079Y1 UNFILTERED	S&S (3)	WH007	WH008	WH010	WH011	WH137
02B	B079Y6 UNFILTERED	S&S (3)	WH007	WH008	WH010	WH011	WH137
02F-W	B079Y6 MS UNFILTERED	S&S	WH007	WH008	WH010	WH011	WH137
02G-W	B079Y6 DUP UNFILTERED	S&S	WH007	WH008	WH010	WH011	WH137
02H-W	L C S	S&S	WH007	WH008	WH010	WH011	WH137
03A-W	B079Y4 FILTERED	S&S (1)	WH007	WH008	WH010		
04A-W	B079Y9 FILTERED	S&S (1)	WH007	WH008	WH010		
04B-W	B079Y9 MS FILTERED	S&S	WH007	WH008	WH010		
04C-W	B079Y9 DUP FILTERED	S&S	WH007	WH008	WH010		
04D-W	L C S	S&S	WH007	WH008	WH010		

RELEASED BY	DATE	TRANSFERRED TO	DATE	RECEIVED BY	DATE
Eyamamoto	9-29-92	S&S-1	9-29-92	MiB	9/30/92

9613494.1379

000022

PAGE 1 TMA/Norcal CHAIN OF CUSTODY ORD # N2-09-223

RCVD: 09/30/92 DUE: 10/30/92 09/30/92 15:20:53 KEEP: 01/28/93 DISP: S

DASH	SAMPLE IDENTIFICATION	STORED	TESTS for FRACTIONS with work in DEPT: SV and CATEGORY				
01B-W	B07B01 UNFILTERED	S&S (3)	WH007	WH008	WH010	WH011	WH137
02B-W	B07B31 UNFILTERED	S&S (3)	WH007	WH008	WH010	WH011	WH137
03B-W	B07B44 UNFILTERED	S&S (3)	WH007	WH008	WH010	WH011	WH137
03F-W	B07B44 MS UNFILTERED	S&S	WH007	WH008	WH010	WH011	WH137
03G-W	B07B44 DUP UNFILTERED	S&S	WH007	WH008	WH010	WH011	WH137
03H-W	L C S	S&S	WH007	WH008	WH010	WH011	WH137
04A-W	B07B04 FILTERED	S&S (1)	WH007	WH008	WH010		
05A-W	B07B24 FILTERED	S&S (1)	WH007	WH008	WH010		
06A-W	B07B47 FILTERED	S&S (1)	WH007	WH008	WH010		
06B-W	B07B47 MS FILTERED	S&S	WH007	WH008	WH010		
06C-W	B07B47 DUP FILTERED	S&S	WH007	WH008	WH010		
06D-W	L C S	S&S	WH007	WH008	WH010		

RELEASED BY	DATE	TRANSFERRED TO	DATE	RECEIVED BY	DATE
Yamamoto	9-30-92	SS-1	9-30-92	[illegible]	10/01/92

TMA
Thermo Analytical Inc.

Skinner & Sherman Labs., Inc.
300 Second Avenue
Post Office Box 521
Waltham, MA 02254-0521
(617) 890-7200
FAX (617) 890-3883

9613494.1380

DEC 1992
RECEIVED
OSM DMO

RECORD COPY

December 18, 1992

TMA/NORCAL
2030 Wright Avenue
Richmond, CA 94804
Attention: Dan Stuermer

Quality Control Narrative

Scope
Seven (7) water samples were submitted to TMA/Skinner & Sherman Laboratories, Inc. on September 29, 1992 through October 1, 1992 from TMA/Norcal. The samples were analyzed for the USEPA CLP metals and cyanide as indicated on the chain of custody. The analysis was performed under TMA/Skinner and Sherman work order S209513.

Methodology
The samples were prepared, analyzed and reported in accordance with the USEPA Contract Laboratory Program Statement of Work ILM02.

Discussion
All quality control requirements were met for the samples with the following exceptions;

The ICP serial dilution for manganese exceeded the control limit requirements.

Please feel free to call if there are any questions concerning the data package.

Respectfully submitted,

TMA/SKINNER & SHERMAN LABORATORIES, INC.

David N. Peterson
Assistant Laboratory Manager

i 4/4/96 M.H.

9613494.1381

WESTINGHOUSE/HANFORD

1

SAMPLE NUMBER:

B079Y1

INORGANIC ANALYSIS DATA SHEET

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D0-0108

Lab Code: SKINER Case No.: N2-09-1975AS No.: SDG No.: B079Z1

Matrix (soil/water): WATER Lab Sample ID: 09513-03S

Level (low/med): LOW Date Received: 09/30/92

% 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	71.0	B		P
7440-36-0	Antimony	14.8	U		P
7440-38-2	Arsenic	3.7	B		F
7440-39-3	Barium	36.0	B		P
7440-41-7	Beryllium	0.30	U		P
7440-43-9	Cadmium	1.5	U		P
7440-70-2	Calcium	34300			P
7440-47-3	Chromium	22.2			P
7440-48-4	Cobalt	1.3	U		P
7440-50-8	Copper	1.9	U		P
7439-89-6	Iron	150			P
7439-92-1	Lead	2.7	B		F
7439-95-4	Magnesium	9460			P
7439-96-5	Manganese	58.5		E	P
7439-97-6	Mercury	0.19	B		CV
7440-02-0	Nickel	7.0	B		P
7440-09-7	Potassium	5000	B		P
7782-49-2	Selenium	3.9	U	W	F
7440-22-4	Silver	3.6	U		P
7440-23-5	Sodium	13200			P
7440-28-0	Thallium	1.3	U		F
7440-62-2	Vanadium	9.2	B		P
7440-66-6	Zinc	8.3	B		P
	Cyanide	10.0	U		CA

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

002

INORGANIC ANALYSIS DATA SHEET

SAMPLE NUMBER: B079Y6

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D0-0108

Lab Code: SKINER Case No.: N2-09-197SAS No.: SDG No.: B079Z1

Matrix (soil/water): WATER Lab Sample ID: 09513-04S

Level (low/med): LOW Date Received: 09/30/92

% 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	41.8	B		P
7440-36-0	Antimony	14.8	U		P
7440-38-2	Arsenic	3.7	B		F
7440-39-3	Barium	55.6	B		P
7440-41-7	Beryllium	0.30	U		P
7440-43-9	Cadmium	1.5	U		P
7440-70-2	Calcium	55000			P
7440-47-3	Chromium	1400			P
7440-48-4	Cobalt	1.3	U		P
7440-50-8	Copper	1.9	U		P
7439-89-6	Iron	161			P
7439-92-1	Lead	2.0	U		F
7439-95-4	Magnesium	13900			P
7439-96-5	Manganese	27.2		E	P
7439-97-6	Mercury	0.13	B		CV
7440-02-0	Nickel	12.3	B		P
7440-09-7	Potassium	5750			P
7782-49-2	Selenium	3.9	U	W	F
7440-22-4	Silver	3.6	U		P
7440-23-5	Sodium	13600			P
7440-28-0	Thallium	1.3	U		F
7440-62-2	Vanadium	4.9	B		P
7440-66-6	Zinc	32.4			P
	Cyanide	10.0	U		CA

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

003

SAMPLE NUMBER:

INORGANIC ANALYSIS DATA SHEET

B079Z1

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D0-0108

Lab Code: SKINER Case No.: N2-09-197SAS No.: SDG No.: B079Z1

Matrix (soil/water): WATER Lab Sample ID: 09513-02S

Level (low/med): LOW Date Received: 09/29/92

% 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	34.0	B		P
7440-36-0	Antimony	22.0	B		P
7440-38-2	Arsenic	4.5	B		F
7440-39-3	Barium	25.1	B		P
7440-41-7	Beryllium	0.30	U		P
7440-43-9	Cadmium	1.5	U		P
7440-70-2	Calcium	33300			P
7440-47-3	Chromium	109			P
7440-48-4	Cobalt	1.3	U		P
7440-50-8	Copper	1.9	U		P
7439-89-6	Iron	34.3	B		P
7439-92-1	Lead	2.0	U		F
7439-95-4	Magnesium	7000			P
7439-96-5	Manganese	2.9	B	E	P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	8.3	B		P
7440-09-7	Potassium	3500	B		P
7782-49-2	Selenium	3.9	U	W	F
7440-22-4	Silver	3.6	U		P
7440-23-5	Sodium	7970			P
7440-28-0	Thallium	1.3	U		F
7440-62-2	Vanadium	10.3	B		P
7440-66-6	Zinc	15.1	B		P
	Cyanide	10.0	U		CA

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

9613494.1384

WESTINGHOUSE/HANFORD

SAMPLE NUMBER:

B07B01

INORGANIC ANALYSIS DATA SHEET

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D0-0108

Lab Code: SKINER Case No.: N2-09-197SAS No.: SDG No.: B079Z1

Matrix (soil/water): WATER Lab Sample ID: 09513-05S

Level (low/med): LOW Date Received: 10/01/92

% 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	14.7	U		P
7440-36-0	Antimony	14.8	U		P
7440-38-2	Arsenic	5.3	B		F
7440-39-3	Barium	22.8	B		P
7440-41-7	Beryllium	0.30	U		P
7440-43-9	Cadmium	1.5	U		P
7440-70-2	Calcium	40400			P
7440-47-3	Chromium	42.8			P
7440-48-4	Cobalt	1.3	U		P
7440-50-8	Copper	1.9	U		P
7439-89-6	Iron	16.2	B		P
7439-92-1	Lead	2.0	U		F
7439-95-4	Magnesium	10400			P
7439-96-5	Manganese	0.90	U	E	P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	2.6	U		P
7440-09-7	Potassium	5310			P
7782-49-2	Selenium	3.9	U	W	F
7440-22-4	Silver	3.6	U		P
7440-23-5	Sodium	15700			P
7440-28-0	Thallium	1.3	U		F
7440-62-2	Vanadium	14.9	B		P
7440-66-6	Zinc	5.7	U		P
	Cyanide	10.0	U		CA

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

~~015~~

FORM I - IN ILM02.1

9613424.1385

WESTINGHOUSE/HANFORD

1

SAMPLE NUMBER:

INORGANIC ANALYSIS DATA SHEET

B07B26

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D0-0108

Lab Code: SKINER Case No.: N2-09-1975AS No.: SDG No.: B079Z1

Matrix (soil/water): WATER Lab Sample ID: 09513-01S

Level (low/med): LOW Date Received: 09/29/92

% 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	21.6	B		P
7440-36-0	Antimony	14.8	U		P
7440-38-2	Arsenic	5.1	B		F
7440-39-3	Barium	26.4	B		P
7440-41-7	Beryllium	0.30	U		P
7440-43-9	Cadmium	1.5	U		P
7440-70-2	Calcium	35100			P
7440-47-3	Chromium	117			P
7440-48-4	Cobalt	1.3	U		P
7440-50-8	Copper	1.9	U		P
7439-89-6	Iron	19.9	B		P
7439-92-1	Lead	2.0	U		F
7439-95-4	Magnesium	7360			P
7439-96-5	Manganese	3.6	B	E	P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	3.6	B		P
7440-09-7	Potassium	3630	B		P
7782-49-2	Selenium	3.9	U	W	F
7440-22-4	Silver	3.6	U		P
7440-23-5	Sodium	8400			P
7440-28-0	Thallium	1.3	U		F
7440-62-2	Vanadium	9.9	B		P
7440-66-6	Zinc	17.7	B		P
	Cyanide	10.6			CA

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

FORM I - IN ILM02.1

SAMPLE NUMBER:

INORGANIC ANALYSIS DATA SHEET

B07B31

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D0-0108

Lab Code: SKINER Case No.: N2-09-197SAS No.: SDG No.: B07921

Matrix (soil/water): WATER Lab Sample ID: 09513-06S

Level (low/med): LOW Date Received: 10/01/92

% 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	14.7	U		P
7440-36-0	Antimony	14.8	U		P
7440-38-2	Arsenic	3.2	U		F
7440-39-3	Barium	0.70	U		P
7440-41-7	Beryllium	0.30	U		P
7440-43-9	Cadmium	1.5	U		P
7440-70-2	Calcium	27.4	B		P
7440-47-3	Chromium	2.6	U		P
7440-48-4	Cobalt	1.3	U		P
7440-50-8	Copper	1.9	U		P
7439-89-6	Iron	4.2	B		P
7439-92-1	Lead	2.0	U		F
7439-95-4	Magnesium	13.0	U		P
7439-96-5	Manganese	0.90	U	E	P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	2.6	U		P
7440-09-7	Potassium	79.4	U		P
7782-49-2	Selenium	3.9	U	W	F
7440-22-4	Silver	3.6	U		P
7440-23-5	Sodium	51.0	B		P
7440-28-0	Thallium	1.3	U		F
7440-62-2	Vanadium	2.5	U		P
7440-66-6	Zinc	5.7	U		P
	Cyanide	10.0	U		CA

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

01
7/14

9613494.1387

WESTINGHOUSE/HANFORD

1

SAMPLE NUMBER:

B07B44

INORGANIC ANALYSIS DATA SHEET

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D0-0108

Lab Code: SKINER Case No.: N2-09-197SAS No.: SDG No.: B079Z1

Matrix (soil/water): WATER Lab Sample ID: 09513-07S

Level (low/med): LOW Date Received: 10/01/92

% 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	14.7	U		P
7440-36-0	Antimony	14.8	U		P
7440-38-2	Arsenic	3.2	U		F
7440-39-3	Barium	0.70	U		P
7440-41-7	Beryllium	0.30	U		P
7440-43-9	Cadmium	1.5	U		P
7440-70-2	Calcium	18.8	B		P
7440-47-3	Chromium	2.9	B		F
7440-48-4	Cobalt	1.3	U		P
7440-50-8	Copper	1.9	U		P
7439-89-6	Iron	10.5	B		P
7439-92-1	Lead	2.0	U		F
7439-95-4	Magnesium	18.2	B		P
7439-96-5	Manganese	0.90	U	E	P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	2.6	B		P
7440-09-7	Potassium	79.4	U		P
7782-49-2	Selenium	3.9	U	W	F
7440-22-4	Silver	3.6	U		P
7440-23-5	Sodium	32.7	U		P
7440-28-0	Thallium	1.3	U		F
7440-62-2	Vanadium	2.5	U		P
7440-66-6	Zinc	5.7	U		P
	Cyanide	10.0	U		CA

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

9613494.1388

TMA/Skinner & Sherman Labs SAMPLE LOG-IN
WORKORDER S209513 CLIENT HANFORD-NOR NO. SAMPLES:
PROTCL CLP TURNARND 33 days 7
COOLER TEMP: 4 oC, or NA (Soil) (Water) (Specify Other)
CUSTODIAN Antonia Benney SDG/BATCH N/A
CUSTODY SEAL: PRESENT/ABSENT/INTACT/NOT CLIENT CASE N209197, 214, 223
SHIPER & # Fedex # 5188039345 PO/CONTRACT# ↓ ↓ ↓
TAGS: PRESENT/ABSENT/NA/SEE COC CONTACT Dolores Sanchez
CHAIN OF CUSTODY: PRESENT/ABSENT/NA, # N/A COMMENTS: NONE

SAMPLE CONTAINERS INTACT/BROKEN COMMENTS

CLIENT COMMENT? YES/NO
SAMPLE LABELS AGREE WITH CHAIN OF CUSTODY INFO? YES/NO (COMMENT)
CLIENT PAPERWORK AGREES WITH SAMPLES & COC? YES/NO (COMMENT)

SHIPMENT DATES 9/29/92 9/30/92 10/1/92
LIST ANY DATE WITH PAPERWORK/SHIPMENT PROBLEMS & SPECIFY THE PROBLEM:

unfiltered

	CLIENT ID	MATRIX	RECEIVED	PH*	TEST(S) & QC	HOLD TIME UP
1	B07B26	WATER	9/29/92	1.95/11.44	TM/CN	CN due 10/8/92
2	B07921	↓	↓	1.90/11.52	↓	
3	↓ 41		9/30/92	1.85/11.56		Hg due 10/22/92
4	↓ 46		↓	1.88/11.60		
5	B07B01		10/01/92	1.79/11.58		
6	↓ 31		↓	1.81/11.62		
7	↓ 44	↓	↓	2.01/11.65	↓	
8						
9						
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22						
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24						
25						
26						
27						

Complete 10/0/92 AB

Samples are from site known to have Rad-Contamination: YES ✓ NO
Samples have detectable amounts of Radioactive Material: YES NO ✓

0166 SUBCONTRACT: YES/NO TO: DATE:

REVIEWED

* EPA/CLP required Rev 1.6 PAGE: 000019

9615994.1589

PAGE.1 TMA/Norcal CHAIN OF CUSTODY ORD # N2-09-214

RCVD: 09/29/92 DUE: 10/29/92 09/29/92 14:16:47 KEEP: 01/27/93 DISP: S

100-KR-4

DASH	SAMPLE IDENTIFICATION	FILTERED	TESTS FOR FRACTIONS with work in DEPT: SU and CATEGORY				
01B-W	B07[illegible]	UNFILTERED	S&S	WH007	WH008	WH010	WH011	WH137
02B	B07[illegible]6 8	UNFILTERED	S&S	WH007	WH008	WH010	WH011	WH137
02F-W	B07[illegible]6 MS Y	UNFILTERED	S&S	WH007	WH008	WH010	WH011	WH137
02G-W	B07[illegible]6 DUP Y	UNFILTERED	S&S	WH007	WH008	WH010	WH011	WH137
02H-W	L C E		S&S	WH007	WH008	WH010	WH011	WH137
03A-W	B07[illegible]	FILTERED	S&S	WH007	WH008	WH010		
04A-W	B079[illegible]	FILTERED	S&S	WH007	WH008	WH010		
04B-W	B079[illegible] MS	FILTERED	S&S	WH007	WH008	WH010		
04C-W	B079[illegible] DUP	FILTERED	S&S	WH007	WH008	WH010		
04D-W	L C E		S&S	WH007	WH008	WH010		

RELEASED BY	DATE	TRANSFERRED TO	DATE	RECEIVED BY	DATE
Eyamamoto	9-29-92	S&S-1	9-29-92	[illegible]	9/30/92

167

9613494.1390

PAGE 1 TKA/Not:S: CHAIN OF CUSTODY ORD # N2-09-197

RCVD: 09/28/92 DUE: 10/28/92 10/09/92 11:50:47 KEEP: 01/26/93 DISP: S

100-KR-4

DASH	SAMPLE IDENTIFICATION				TESTS for FRACTIONS with work in DEPT: SU and CATEGORY				
01B-W	B07921		UNFILTERED	8YS 2	WH007	WH008	WH010	WH011	WH137
02B-W	B07921		UNFILTERED	8YS 1	WH007	WH008	WH010	WH011	WH137
02F-W	B07921	MS	UNFILTERED	8YS	WH007	WH008	WH010	WH011	WH137
02G-W	B07921	DUP	UNFILTERED	8YS	WH007	WH008	WH010	WH011	WH137
02H-W	L C S			8YS	WH007	WH008	WH010	WH011	WH137
03A-W	B07923		FILTERED	8YS 1	WH007	WH008	WH010		
04A-W	B07924		FILTERED	8YS (1)	WH007	WH008	WH010		
04B-W	B07924	MS	FILTERED	8YS (1)	WH007	WH008	WH010		
04C-W	B07924	DUP	FILTERED	8YS (1)	WH007	WH008	WH010		
04D-W	L C S			8YS (1)	WH007	WH008	WH010		

RELEASED BY	DATE	TRANSFERRED TO	DATE	RECEIVED BY	DATE
Yamamoto	9-28-92	SS-1	9-28-92	[illegible]	9/29/92

168

9613194.1391

Page 1 TMS/Norcal CHAIN OF CUSTODY ORD # N2-09-223

SAMPLE DATE: 10/02/92 09/30/92 15:00:00 KEEP: 01/28/93 DISP: S

100-KR-4

LAB#	SAMPLE DESCRIPTION	FILTERED	SIZE	TESTS for FRACTIONS with work in DEPT: SU and CATEGORY				
01B-W	[illegible]	UNFILTERED	8X8	WH007	WH008	WH010	WH011	WH137
02B-W	[illegible]	UNFILTERED	8X8	WH007	WH008	WH010	WH011	WH137
03B-W	[illegible]	UNFILTERED	8X8	WH007	WH008	WH010	WH011	WH137
03C-W	[illegible]	UNFILTERED	8X8	WH007	WH008	WH010	WH011	WH137
03D-W	[illegible]	UNFILTERED	8X8	WH007	WH008	WH010	WH011	WH137
03E-W	[illegible]		8X8	WH007	WH008	WH010	WH011	WH137
04A-W	[illegible]	FILTERED	8X8 (1)	WH007	WH008	WH010		
05A-W	[illegible]	FILTERED	8X8 (1)	WH007	WH008	WH010		
06A-W	[illegible]	FILTERED	8X8 (1)	WH007	WH008	WH010		
06B-W	[illegible]	FILTERED	8X8	WH007	WH008	WH010		
06C-W	[illegible]	FILTERED	8X8	WH007	WH008	WH010		
06D-W	[illegible]		8X8	WH007	WH008	WH010		

RELINQUISHED BY	DATE	RECEIVED BY	DATE	RECEIVED BY	DATE
Yamamoto	9-30-92	SS-1	9-30-92	[illegible]	10/01/92

0169

TMA 9613494.1392
Thermo Analytical Inc.

Skinner & Sherman Labs., Inc.
300 Second Avenue
Post Office Box 521
Waltham, MA 02254-0521
(617) 890-7200
FAX (617) 890-3883

DEC 1992
RECEIVED
OSM DMO

RECORD COPY

December 21, 1992

TMA/NORCAL
2030 Wright Avenue
Richmond, CA 94804
Attention: Dan Stuermer

Quality Control Narrative

Scope
Seven (7) water samples were submitted to TMA/Skinner & Sherman Laboratories, Inc. on September 29, 1992 through October 1, 1992 from TMA/Norcal. The samples were analyzed for the USEPA CLP Target Analyte List metals. The analysis was performed under TMA/Skinner and Sherman work order S209516.

Methodology
The samples were prepared, analyzed and reported in accordance with the USEPA Contract Laboratory Program Statement of Work ILM02.

Discussion
All quality control requirements were met for the samples with the following exceptions;

The selenium digestion spike recovery exceeded the control limit requirements.

Please feel free to call if there are any questions concerning the data package.

Respectfully submitted,

TMA/SKINNER & SHERMAN LABORATORIES, INC.

David N. Peterson
Assistant Laboratory Manager

i 4/4/96 M.H.

INORGANIC ANALYSIS DATA SHEET

SAMPLE NUMBER: B079Y4

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D0-0108

Lab Code: SKINER Case No.: N2-09-197SAS No.: SDG No.: B079Z4

Matrix (soil/water): WATER Lab Sample ID: 09516-03S

Level (low/med): LOW Date Received: 09/30/92

% 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	16.6	B		P
7440-36-0	Antimony	14.8	U		P
7440-38-2	Arsenic	2.9	U	W	F
7440-39-3	Barium	35.7	B		P
7440-41-7	Beryllium	0.30	U		P
7440-43-9	Cadmium	1.5	U		P
7440-70-2	Calcium	34600			P
7440-47-3	Chromium	11.9			P
7440-48-4	Cobalt	1.3	U		P
7440-50-8	Copper	1.9	U		P
7439-89-6	Iron	7.1	B		P
7439-92-1	Lead	1.2	B		F
7439-95-4	Magnesium	9370			P
7439-96-5	Manganese	48.8			P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	2.6	U		P
7440-09-7	Potassium	4980	B		P
7782-49-2	Selenium	3.8	U	MWN	F
7440-22-4	Silver	3.6	U		P
7440-23-5	Sodium	13100			P
7440-28-0	Thallium	3.8	U	W	F
7440-62-2	Vanadium	9.1	B		P
7440-66-6	Zinc	5.7	U		P
_____	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

WESTINGHOUSE/HANFORD

1

INORGANIC ANALYSIS DATA SHEET

SAMPLE NUMBER: B079Y9

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D0-0108

Lab Code: SKINER Case No.: N2-09-197$AS No.: SDG No.: B079Z4

Matrix (soil/water): WATER Lab Sample ID: 09516-04S

Level (low/med): LOW Date Received: 09/30/92

% 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	14.7	U		P
7440-36-0	Antimony	14.8	U		P
7440-38-2	Arsenic	2.9	U	W	F
7440-39-3	Barium	52.2	B		P
7440-41-7	Beryllium	0.30	U		P
7440-43-9	Cadmium	1.5	U		P
7440-70-2	Calcium	54500			P
7440-47-3	Chromium	1330			P
7440-48-4	Cobalt	1.3	U		P
7440-50-8	Copper	1.9	U		P
7439-89-6	Iron	4.0	U		P
7439-92-1	Lead	1.0	U		F
7439-95-4	Magnesium	13600			P
7439-96-5	Manganese	76.7			P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	2.6	U		P
7440-09-7	Potassium	5510			P
7782-49-2	Selenium	3.8	U	WN	F
7440-22-4	Silver	3.6	U		P
7440-23-5	Sodium	13400			P
7440-28-0	Thallium	3.8	U		F
7440-62-2	Vanadium	4.3	B		P
7440-66-6	Zinc	5.7	U		P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

SAMPLE NUMBER:

B079Z4

INORGANIC ANALYSIS DATA SHEET

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D0-0108

Lab Code: SKINER Case No.: N2-09-197SAS No.: SDG No.: B079Z4

Matrix (soil/water): WATER Lab Sample ID: 09516-02S

Level (low/med): LOW Date Received: 09/29/92

% 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	14.7	U		P
7440-36-0	Antimony	14.8	U		P
7440-38-2	Arsenic	2.9	U	W	F
7440-39-3	Barium	25.8	B		P
7440-41-7	Beryllium	0.30	U		P
7440-43-9	Cadmium	1.5	U		P
7440-70-2	Calcium	34500			P
7440-47-3	Chromium	114			P
7440-48-4	Cobalt	1.3	U		P
7440-50-8	Copper	1.9	U		P
7439-89-6	Iron	4.0	U		P
7439-92-1	Lead	1.0	U		F
7439-95-4	Magnesium	7160			P
7439-96-5	Manganese	4.0	B		P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	2.6	U		P
7440-09-7	Potassium	3570	B		P
7782-49-2	Selenium	3.8	U	WN	F
7440-22-4	Silver	3.6	U		P
7440-23-5	Sodium	8210			P
7440-28-0	Thallium	3.8	U		F
7440-62-2	Vanadium	7.6	B		P
7440-66-6	Zinc	5.7	U		P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

9613494.1396

WESTINGHOUSE/HANFORD

1

SAMPLE NUMBER:

INORGANIC ANALYSIS DATA SHEET

B07B04

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D0-0108

Lab Code: SKINER Case No.: N2-09-197SAS No.: SDG No.: B079Z4

Matrix (soil/water): WATER Lab Sample ID: 09516-05S

Level (low/med): LOW Date Received: 10/01/92

% 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	14.7	U		P
7440-36-0	Antimony	15.8	B		P
7440-38-2	Arsenic	4.6	B		F
7440-39-3	Barium	22.6	B		P
7440-41-7	Beryllium	0.30	U		P
7440-43-9	Cadmium	1.5	U		P
7440-70-2	Calcium	40500			P
7440-47-3	Chromium	41.6			P
7440-48-4	Cobalt	1.3	U		P
7440-50-8	Copper	1.9	U		P
7439-89-6	Iron	4.0	U		P
7439-92-1	Lead	1.2	B		F
7439-95-4	Magnesium	10400			P
7439-96-5	Manganese	0.90	U		P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	2.6	U		P
7440-09-7	Potassium	5250			P
7782-49-2	Selenium	3.8	U	WN	F
7440-22-4	Silver	3.6	U		P
7440-23-5	Sodium	15600			P
7440-28-0	Thallium	3.8	U	W	F
7440-62-2	Vanadium	14.6	B		P
7440-66-6	Zinc	5.7	U		P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

9615494.1397

WESTINGHOUSE/HANFORD

1

INORGANIC ANALYSIS DATA SHEET

SAMPLE NUMBER: B07B29

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D0-0108

Lab Code: SKINER Case No.: N2-09-197SAS No.: SDG No.: B079Z4

Matrix (soil/water): WATER Lab Sample ID: 09516-01S

Level (low/med): LOW Date Received: 09/29/92

% 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	14.7	U		P
7440-36-0	Antimony	14.8	U		P
7440-38-2	Arsenic	2.9	U	W	F
7440-39-3	Barium	25.8	B		P
7440-41-7	Beryllium	0.30	U		P
7440-43-9	Cadmium	1.5	U		P
7440-70-2	Calcium	34600			P
7440-47-3	Chromium	116			P
7440-48-4	Cobalt	1.3	U		P
7440-50-8	Copper	1.9	U		P
7439-89-6	Iron	4.0	U		P
7439-92-1	Lead	1.0	U		F
7439-95-4	Magnesium	7200			P
7439-96-5	Manganese	3.8	B		P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	2.6	U		P
7440-09-7	Potassium	3540	B		P
7782-49-2	Selenium	3.8	U	WN	F
7440-22-4	Silver	3.6	U		P
7440-23-5	Sodium	8220			P
7440-28-0	Thallium	3.8	U		F
7440-62-2	Vanadium	11.4	B		P
7440-66-6	Zinc	5.7	U		P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

WESTINGHOUSE/HANFORD

INORGANIC ANALYSIS DATA SHEET

SAMPLE NUMBER: B07B34

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D0-0108

Lab Code: SKINER Case No.: N2-09-197$AS No.: SDG No.: B079Z4

Matrix (soil/water): WATER Lab Sample ID: 09516-06S

Level (low/med): LOW Date Received: 10/01/92

% 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	15.6	B		P
7440-36-0	Antimony	14.8	U		P
7440-38-2	Arsenic	2.9	U		F
7440-39-3	Barium	38.7	B		P
7440-41-7	Beryllium	0.30	U		P
7440-43-9	Cadmium	1.5	U		P
7440-70-2	Calcium	27800			P
7440-47-3	Chromium	2.6	U		P
7440-48-4	Cobalt	1.3	U		P
7440-50-8	Copper	1.9	U		P
7439-89-6	Iron	4.0	U		P
7439-92-1	Lead	2.0	B		F
7439-95-4	Magnesium	6310			P
7439-96-5	Manganese	0.90	U		P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	2.6	B		P
7440-09-7	Potassium	1100	B		P
7782-49-2	Selenium	3.8	U	N	F
7440-22-4	Silver	3.6	U		P
7440-23-5	Sodium	5400			P
7440-28-0	Thallium	3.8	U		F
7440-62-2	Vanadium	2.5	U		P
7440-66-6	Zinc	68.3			P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

WESTINGHOUSE/HANFORD

INORGANIC ANALYSIS DATA SHEET

SAMPLE NUMBER: B07B47

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D0-0108

Lab Code: SKINER Case No.: N2-09-197SAS No.: SDG No.: B079Z4

Matrix (soil/water): WATER Lab Sample ID: 09516-07S

Level (low/med): LOW Date Received: 10/01/92

% 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	14.7	U		P
7440-36-0	Antimony	19.1	B		P
7440-38-2	Arsenic	2.9	U		F
7440-39-3	Barium	0.70	U		P
7440-41-7	Beryllium	0.30	U		P
7440-43-9	Cadmium	1.5	U		P
7440-70-2	Calcium	47.6	B		P
7440-47-3	Chromium	2.6	U		P
7440-48-4	Cobalt	1.3	U		P
7440-50-8	Copper	1.9	U		P
7439-89-6	Iron	4.0	U		P
7439-92-1	Lead	1.9	B		F
7439-95-4	Magnesium	18.0	U		P
7439-96-5	Manganese	0.90	U		P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	6.3	B		P
7440-09-7	Potassium	79.4	U		P
7782-49-2	Selenium	3.8	U	N	F
7440-22-4	Silver	3.6	U		P
7440-23-5	Sodium	51.0	B		P
7440-28-0	Thallium	3.8	U		F
7440-62-2	Vanadium	2.5	U		P
7440-66-6	Zinc	7.9	B		P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

961349 1400

FEDERAL EXPRESS

QUESTIONS? CALL 800-238-5355 TOLL FREE.

AIRBILL PACKAGE TRACKING NUMBER 5188039474

2237M 5188039474

RECIPIENT'S COPY

1 Date 9.29.92

From (Your Name) Please Print: SAMPLE CONTROL
Your Phone Number (Very Important): (510)235-2633
Company: T M A /NORCAL
Department/Floor No.:
Street Address: 2030 WRIGHT AVE
City: RICHMOND State: CA ZIP Required: 94804

2 To (Recipient's Name) Please Print: SAMPLE CONTROL
Recipient's Phone Number (Very Important): ( )
Company: SKINNER & SHERMAN
Department/Floor No.:
Exact Street Address (We Cannot Deliver to P.O. Boxes or P.O. Zip Codes.): 300 SECOND AVE.
City: WALTHAM State: MA ZIP Required: 02254

YOUR INTERNAL BILLING REFERENCE INFORMATION (optional) (First 24 characters will appear on invoice.): 2320 6406

H IF HOLD FOR PICK-UP, Print FEDEX Address Here
Street Address
City State ZIP Required

3 PAYMENT 1 [X] Bill Sender 2 [ ] Bill Recipient's FedEx Acct. No. 3 [ ] Bill 3rd Party FedEx Acct. No. 4 [ ] Bill Credit Card 5 [ ] Cash/Check

4 SERVICES (Check only one box)

Priority Overnight (Delivery by next business morning†)
11 [X] YOUR PACKAGING
16 [ ] FEDEX LETTER*
12 [ ] FEDEX PAK*
13 [ ] FEDEX BOX
14 [ ] FEDEX TUBE

Standard Overnight (Delivery by next business afternoon. No Saturday delivery†)
51 [ ] YOUR PACKAGING
56 [ ] FEDEX LETTER*
52 [ ] FEDEX PAK*
53 [ ] FEDEX BOX
54 [ ] FEDEX TUBE

Economy Two-Day (Delivery by second business day †)
30 [ ] ECONOMY

Government Overnight (Restricted for authorized users only)
46 [ ] GOVT LETTER
41 [ ] GOVT PACKAGE

Freight Service (for packages over 150 lbs.)
70 [ ] OVERNIGHT FREIGHT** (Continued reservation required)
80 [ ] TWO-DAY FREIGHT**

†Delivery commitment may be later in some areas.
*Declared Value Limit $500.
**Call for delivery schedule.

5 DELIVERY AND SPECIAL HANDLING (Check services required)
1 [ ] HOLD FOR PICK-UP (Fill in Box H)
2 [X] DELIVER WEEKDAY
3 DELIVER SATURDAY (Extra charge) (Not available to all locations) [ ]
4 [ ] DANGEROUS GOODS (Extra charge)
5 [ ]
6 [ ] DRY ICE lbs.
7 [ ] OTHER SPECIAL SERVICE
8 [ ]
9 [ ] SATURDAY PICK-UP (Extra charge)
10 [ ]
[ ]
12 [ ] HOLIDAY DELIVERY (If offered) (Extra charge)

6 PACKAGES | WEIGHT In Pounds Only | YOUR DECLARED VALUE
Total | Total 1.50 | Total

DIM SHIPMENT (Chargeable Weight) [ ] lbs.
L W H

[X] Regular Stop [ ] Drop Box 4 [ ] B.S.C.
2 [ ] On-Call Stop 5 [ ] Station

Emp. No. | Date
[ ] Cash Received
[ ] Return Shipment
[ ] Third Party [ ] Chg. To Del. [ ] Chg. To Hold
Street Address
City State Zip
Received By: X
Date/Time Received 7/30/92 FedEx Employee Number 10:00

7 Release Signature:

Federal Express Use
Base Charges
Declared Value Charge
Other 1
Other 2
Total Charges

REVISION DATE 2/92 PART #137204 FXEM 8/92 FORMAT #126
126
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FEDERAL EXPRESS

QUESTIONS? CALL 800-238-5355 TOLL FREE.

AIRBILL PACKAGE TRACKING NUMBER 5188039345

2237M 5188039345

RECIPIENT'S COPY

1 Date 9.28.92

From (Your Name) Please Print: SAMPLE CONTROL
Your Phone Number (Very Important): (510)235-2633
Company: T M A /NORCAL
Department/Floor No.:
Street Address: 2030 WRIGHT AVE
City: RICHMOND State: CA ZIP Required: 94804

2 To (Recipient's Name) Please Print: SAMPLE CONTROL
Recipient's Phone Number (Very Important): ( )
Company: SKINNER & SHERMAN
Department/Floor No.:
Exact Street Address (We Cannot Deliver to P.O. Boxes or P.O. Zip Codes.): 300 SECOND AVENUE
City: WALTHAM State: MA ZIP Required: 02254

YOUR INTERNAL BILLING REFERENCE INFORMATION (optional) (First 24 characters will appear on invoice.): 2320 6406

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Street Address
City State ZIP Required

3 PAYMENT 1 [X] Bill Sender 2 [ ] Bill Recipient's FedEx Acct. No. 3 [ ] Bill 3rd Party FedEx Acct. No. 4 [ ] Bill Credit Card 5 [ ] Cash/Check

4 SERVICES (Check only one box)

Priority Overnight (Delivery by next business morning†)
11 [X] YOUR PACKAGING
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2 [X] DELIVER WEEKDAY
3 DELIVER SATURDAY (Extra charge) (Not available to all locations) [ ]
4 [ ] DANGEROUS GOODS (Extra charge)
5 [ ]
6 [ ] DRY ICE lbs.
7 [ ] OTHER SPECIAL SERVICE
8 [ ]
9 [ ] SATURDAY PICK-UP (Extra charge)

6 PACKAGES | WEIGHT In Pounds Only | YOUR DECLARED VALUE
Total | Total 1.63 | Total

DIM SHIPMENT (Chargeable Weight) [ ] lbs.

Emp. No. | Date
[ ] Cash Received
[ ] Return Shipment
[ ] Third Party [ ] Chg. To Del. [ ] Chg. To Hold
Street Address
City State Zip
Received By: X
Date/Time Received 9/29/92 FedEx Employee Number 10:00

Federal Express Use
Base Charges
Declared Value Charge
Other 1
Other 2
Total Charges

137

REVISION DATE 2/92 PART #137204 FXEM 8/9 FORMAT #126
126

9613494.1401

TMA/Skinner & Sherman Labs SAMPLE LOG-IN
WORKORDER 5209516 CLIENT Hanford - Nor No. SAMPLES:
PROTCL CLP TURNARND 33 days 7
COOLER TEMP: 4 oC, or NA (Soil) (Water) (Specify Other)
CUSTODIAN Renney, A. SDG/BATCH N/A
CUSTODY SEAL PRESENT/ABSENT/INTACT/NOT CLIENT CASE N209193, 214, 223
SHIPER & # Fedex # 518803934 5 PO/CONTRACT# ↓ ↓ ↓
TAGS: PRESENT/ABSENT/NA/SEE COC CONTACT Dolores Sanchez
CHAIN OF CUSTODY: PRESENT/ABSENT/NA, # N/A COMMENTS: NONE

SAMPLE CONTAINERS INTACT/BROKEN COMMENTS

CLIENT COMMENT? YES/NO
SAMPLE LABELS AGREE WITH CHAIN OF CUSTODY INFO? YES/NO (COMMENT)
CLIENT PAPERWORK AGREES WITH SAMPLES & COC? YES /NO (COMMENT)

SHIPMENT DATES 9/29/92 9/30/92 10/01/92
LIST ANY DATE WITH PAPERWORK/SHIPMENT PROBLEMS & SPECIFY THE PROBLEM:

Field Filtered

	CLIENT ID	MATRIX	RECEIVED	PH*	TEST(S) & QC	HOLD TIME UP
1	B07B29	WATER	9/29/92	2.19	TM	Hg due 10/22/92
2	B07924	↓	↓	2.09	↓	
3	44	↓	9/30/92	2.00	↓	
4	49	↓	↓	1.90	↓	
5	B07B04	↓	10/01/92	1.89	↓	
6	34	↓	↓	1.99	↓	
7	47	↓	↓	1.84	↓	
8						
9						
10						
11						
12						
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15						
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17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						

Complete 10/01/92

Samples are from site known to have Rad-Contamination: YES ✓ NO
Samples have detectable amounts of Radioactive Material: YES NO ✓

SUBCONTRACT: YES/NO, TO: DATE:

REVIEWED

* EPA/CLP required Rev 1.6 PAGE: 000010

 9613494.1402 TMA/Norcal CHAIN OF CUSTODY ORD # N2-09-197

RCVD: 09/28/92 DUE: 10/28/92 09/28/92 13:50:47 KEEP: 01/26/93 DISP: S

DASH	SAMPLE IDENTIFICATION	STORED	TESTS for FRACTIONS with work in DEPT: SU and CATEGORY				
01B-W	B07B26 UNFILTERED	S&S (3)	WH007	WH008	WH010	WH011	WH137
02B-W	B079Z1 UNFILTERED	S&S (3)	WH007	WH008	WH010	WH011	WH137
02F-W	B079Z1 MS UNFILTERED	S&S	WH007	WH008	WH010	WH011	WH137
02G-W	B079Z1 DUP UNFILTERED	S&S	WH007	WH008	WH010	WH011	WH137
02H-W	L C S	S&S	WH007	WH008	WH010	WH011	WH137
03A-W	B07B29 FILTERED	S&S (1)	WH007	WH008	WH010		
04A-W	B079Z4 FILTERED	S&S (1)	WH007	WH008	WH010		
04B-W	B079Z4 MS FILTERED	S&S (1)	WH007	WH008	WH010		
04C-W	B079Z4 DUP FILTERED	S&S (1)	WH007	WH008	WH010		
04D-W	L C S	S&S (1)	WH007	WH008	WH010		

RELEASED BY	DATE	TRANSFERRED TO	DATE	RECEIVED BY	DATE
Yamamoto	9-28-92	SS-1	9-28-92	[illegible]	9/29/92

PAGE 1 TMA/Norcal CHAIN OF CUSTODY ORD # N2-09-214
RCVD: 09/29/92 DUE: 10/29/92 09/29/92 14:16:47 KEEP: 01/27/93 DISP: S

DASH	SAMPLE IDENTIFICATION		STORED	TESTS for FRACTIONS with work in DEPT: SU and CATEGORY				
01B-W	B079Y1	UNFILTERED	S&S (3)	WH007	WH008	WH010	WH011	WH137
02B	B079Y6	UNFILTERED	S&S (3)	WH007	WH008	WH010	WH011	WH137
02F-W	B079Y6 MS	UNFILTERED	S&S	WH007	WH008	WH010	WH011	WH137
02G-W	B079Y6 DUP	UNFILTERED	S&S	WH007	WH008	WH010	WH011	WH137
02H-W	L C S		S&S	WH007	WH008	WH010	WH011	WH137
03A-W	B079Y4	FILTERED	S&S (1)	WH007	WH008	WH010		
04A-W	B079Y9	FILTERED	S&S (1)	WH007	WH008	WH010		
04B-W	B079Y9 MS	FILTERED	S&S	WH007	WH008	WH010		
04C-W	B079Y9 DUP	FILTERED	S&S	WH007	WH008	WH010		
04D-W	L C S		S&S	WH007	WH008	WH010		

RELEASED BY	DATE	TRANSFERRED TO	DATE	RECEIVED BY	DATE
Eyamamoto	9-29-92	S&S-1	9-29-92	[illegible]	9/30/92

9613494.1404

PAGE 1 TMA/Norcal CHAIN OF CUSTODY ORD # N2-09-223

RCVD: 09/30/92 DUE: 10/30/92 09/30/92 15:30:53 KEEP: 01/28/93 DISP: S

DASH	SAMPLE IDENTIFICATION	STORED	TESTS for FRACTIONS with work in DEPT: SU and CATEGORY				
01B-W	B07B01 UNFILTERED	S&S (3)	WH007	WH008	WH010	WH011	WH137
02B-W	B07B31 UNFILTERED	S&S (3)	WH007	WH008	WH010	WH011	WH137
03B-W	B07B44 UNFILTERED	S&S (3)	WH007	WH008	WH010	WH011	WH137
03F-W	B07B44 MS UNFILTERED	S&S	WH007	WH008	WH010	WH011	WH137
03G-W	B07B44 DUP UNFILTERED	S&S	WH007	WH008	WH010	WH011	WH137
03H-W	L C S	S&S	WH007	WH008	WH010	WH011	WH137
04A-W	B07B04 FILTERED	S&S (1)	WH007	WH008	WH010		
05A-W	B07B24 FILTERED	S&S (1)	WH007	WH008	WH010		
06A-W	B07B47 FILTERED	S&S (1)	WH007	WH008	WH010		
06B-W	B07B47 MS FILTERED	S&S	WH007	WH008	WH010		
06C-W	B07B47 DUP FILTERED	S&S	WH007	WH008	WH010		
06D-W	L C S	S&S	WH007	WH008	WH010		

RELEASED BY	DATE	TRANSFERRED TO	DATE	RECEIVED BY	DATE
Eyamamoto	9-30-92	SS-1	9-30-92	[illegible]	10/01/92

CASE NARRATIVE

LABORATORY : TMA/ARLI

CASE : 09-081

CONTRACT ID : WESTINGHOUSE HANFORD COMPANY

SDG RECEIPT DATE : September 25, 1992

1.0 DESCRIPTION OF CASE :

Six water samples were analyzed for TCL Organics-Volatiles, Semivolatiles, Pesticides/PCBs according to the USEPA Contract Laboratory Program (CLP) Statement of Work for Organic Analysis, Revision OLM01.8.

2.0 SAMPLE LIST :

WESTINGHOUSE ID	LAB ID	ANALYSIS REQUESTED	MATRIX	pH
B079W1	A2-09-081-01A	V	WATER	7
B079W1 MS	A2-09-081-01B	V	WATER	7
B079W1 MSD	A2-09-081-01C	V	WATER	7
B079W1	A2-09-081-01D	SV & P	WATER	
B079W1 MS	A2-09-081-01E	SV	WATER	
B079W1 MSD	A2-09-081-01F	SV	WATER	
B079W5	A2-09-081-02A	V	WATER	7
B079V6	A2-09-081-03A	V	WATER	7
B079V6	A2-09-081-03B	SV & P	WATER	
B079V6 MS	A2-09-081-03C	P	WATER	
B079V6 MSD	A2-09-081-03D	P	WATER	
B079W0	A2-09-081-04A	V	WATER	7
B079W6	A2-09-081-05A	V	WATER	7
B079W6	A2-09-081-05B	SV & P	WATER	
B079X0	A2-09-081-06A	V	WATER	7

3.0 COMMENTS :

3.1 SHIPPING AND DOCUMENTATION :

The samples were received unbroken and properly documented.

3.2 ANALYSIS

3.2.1 VOLATILE ANALYSIS COMMENTS :

LOW LEVEL WATER :

The samples were analyzed within the CLP SOW holding times.

All of the QC results were within the limits specified by the EPA CLP SOW.

TUNES :

All of the BFB tunes are injected directly into the GC/MS instrument.

3.2.2 SEMIVOLATILE ANALYSIS COMMENTS :

LOW LEVEL WATER :

The samples were extracted and analyzed within the CLP SOW holding times.

All of the other QC results were within the limits specified by the EPA CLP SOW.

PESTICIDE/PCB ANALYSIS :

SEQUENCE NOTES :

The sequence was started on 10/14/92 and analyzed in accordance with the EPA CLP SOW. The sequence was analyzed by single injection into a dual column system. The sequence met all the QC criteria specified in the CLP SOW.

The Chromatograms are presented in the manner consistent with the capabilities of the Nelson 2600 Data System which normalizes the largest peak to scale.

SAMPLE NOTES :

LOW LEVEL WATER :

The samples were extracted and analyzed within the CLP SOW holding times.

All of the QC results were within the limits specified by the EPA CLP SOW.

We certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data in this hardcopy data package and in the computer-readable data submitted on diskette is authorized by the Laboratory Manager or his designee, as verified by the following signatures.

Nicole Roth
CLP Program Manager

Widayat
Wida Ang
Organics Supervisor

9613494.1408

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

000005

EPA SAMPLE NO.

B079V6

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09081 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209081-03A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20929B16

Level: (low/med) LOW Date Received: 09/25/92

% Moisture: not dec. ____ Date Analyzed: 09/29/92

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 1.0

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

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

CAS NO.	COMPOUND		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	3	J
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	5	J
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	1	BJ
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

9613494.1409

000006

1E

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B079V6

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09081 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209081-03A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20929B16

Level: (low/med) LOW Date Received: 09/25/92

% Moisture: not dec. ____ Date Analyzed: 09/29/92

GC Column: CAP 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

9613494.1410

000007

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B079W0

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09081 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209081-04A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20929B17

Level: (low/med) LOW Date Received: 09/25/92

% Moisture: not dec. ____ Date Analyzed: 09/29/92

GC Column: CAP 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	4	J
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	1	BJ
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

9613494.1411

000008
EPA SAMPLE NO.

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B079W0

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09081 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209081-04A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20929B17

Level: (low/med) LOW Date Received: 09/25/92

% Moisture: not dec. ____ Date Analyzed: 09/29/92

GC Column: CAP 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

9613494.1412

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B079W1

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09081 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209081-01A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20929B12

Level: (low/med) LOW Date Received: 09/25/92

% Moisture: not dec. ____ Date Analyzed: 09/29/92

GC Column: CAP 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	17	
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	2	BJ
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

9613494.1413

1E

000010

EPA SAMPLE NO.

B079W1

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09081 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209081-01A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20929B12

Level: (low/med) LOW Date Received: 09/25/92

% Moisture: not dec. ____ Date Analyzed: 09/29/92

GC Column: CAP 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

9613494.1414

000011

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B079W5

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09081 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209081-02A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20929B15

Level: (low/med) LOW Date Received: 09/25/92

% Moisture: not dec. ____ Date Analyzed: 09/29/92

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 1.0

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

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

CAS NO.	COMPOUND		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	1	BJ
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

9613494.1415

000012
EPA SAMPLE NO.

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B079W5

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09081 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209081-02A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20929B15

Level: (low/med) LOW Date Received: 09/25/92

% Moisture: not dec. ____ Date Analyzed: 09/29/92

GC Column: CAP 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

9613494.1416

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

000013

B079W6

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09081 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209081-05A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20929B18

Level: (low/med) LOW Date Received: 09/25/92

% Moisture: not dec. ____ Date Analyzed: 09/29/92

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 1.0

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

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

CAS NO.	COMPOUND		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	1	BJ
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

9613494.1417

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

000014
EPA SAMPLE NO.

B079W6

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09081 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209081-05A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20929B18

Level: (low/med) LOW Date Received: 09/25/92

% Moisture: not dec. ____ Date Analyzed: 09/29/92

GC Column: CAP 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

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B079X0

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09081 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209081-06A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20929B19

Level: (low/med) LOW Date Received: 09/25/92

% Moisture: not dec. ____ Date Analyzed: 09/29/92

GC Column: CAP 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	3	J
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

9613494.1419

IE

000016

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B079X0

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09081 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209081-06A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20929B19

Level: (low/med) LOW Date Received: 09/25/92

% Moisture: not dec. ____ Date Analyzed: 09/29/92

GC Column: CAP 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 HYDROCARBON	3.00	8	J

9613494.1420

000017

EPA SAMPLE NO.

B079V6

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09081 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209081-03B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 21001S06

Level: (low/med) LOW Date Received: 09/25/92

% Moisture: _____ decanted: (Y/N) ___ Date Extracted: 09/29/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 10/01/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-Di-n-Propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)Methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-Methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U
51-28-5	2,4-Dinitrophenol	25	U

9613494.1421

1C

000018

EPA SAMPLE NO.

B079V6

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09081 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209081-03B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 21001S06

Level: (low/med) LOW Date Received: 09/25/92

% Moisture: ____ decanted: (Y/N) ___ Date Extracted: 09/29/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 10/01/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-Butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)Anthracene	10	U
117-81-7	bis(2-Ethylhexyl)Phthalate	10	U
218-01-9	Chrysene	10	U
117-84-0	Di-n-Octyl Phthalate	10	U
205-99-2	Benzo(b)Fluoranthene	10	U
207-08-9	Benzo(k)Fluoranthene	10	U
50-32-8	Benzo(a)Pyrene	10	U
193-39-5	Indeno(1,2,3-cd)Pyrene	10	U
53-70-3	Dibenz(a,h)Anthracene	10	U
191-24-2	Benzo(g,h,i)Perylene	10	U

(1) - Cannot be separated from Diphenylamine

9613494.1422

000019
EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B079V6

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09081 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209081-03B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 21001S06

Level: (low/med) LOW Date Received: 09/25/92

% Moisture: _____ decanted: (Y/N) ___ Date Extracted: 09/29/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 10/01/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

9613494.1423

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B079W1

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09081 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209081-01D

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 21001S03

Level: (low/med) LOW Date Received: 09/25/92

% Moisture: ____ decanted: (Y/N) ___ Date Extracted: 09/29/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 10/01/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-Di-n-Propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)Methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-Methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U
51-28-5	2,4-Dinitrophenol	25	U

9613494.1424

EPA SAMPLE NO.

B079W1

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09081 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209081-01D

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 21001S03

Level: (low/med) LOW Date Received: 09/25/92

% Moisture: ____ decanted: (Y/N) ___ Date Extracted: 09/29/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 10/01/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-Butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)Anthracene	10	U
117-81-7	bis(2-Ethylhexyl)Phthalate	3	J
218-01-9	Chrysene	10	U
117-84-0	Di-n-Octyl Phthalate	10	U
205-99-2	Benzo(b)Fluoranthene	10	U
207-08-9	Benzo(k)Fluoranthene	10	U
50-32-8	Benzo(a)Pyrene	10	U
193-39-5	Indeno(1,2,3-cd)Pyrene	10	U
53-70-3	Dibenz(a,h)Anthracene	10	U
191-24-2	Benzo(g,h,i)Perylene	10	U

(1) - Cannot be separated from Diphenylamine

EPA SAMPLE NO.

B079W1

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09081 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209081-01D

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 21001S03

Level: (low/med) LOW Date Received: 09/25/92

% Moisture: _____ decanted: (Y/N) ___ Date Extracted: 09/29/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 10/01/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

Number TICs found: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN COMPOUND	21.07	2	J

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

000023
EPA SAMPLE NO.

B079W6

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09081 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209081-05B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 21001S07

Level: (low/med) LOW Date Received: 09/25/92

% Moisture: _____ decanted: (Y/N) ___ Date Extracted: 09/29/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 10/01/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-Di-n-Propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)Methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-Methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U
51-28-5	2,4-Dinitrophenol	25	U

9613494.1427

000024

EPA SAMPLE NO.

B079W6

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09081 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209081-05B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 21001S07

Level: (low/med) LOW Date Received: 09/25/92

% Moisture: ____ decanted: (Y/N) ___ Date Extracted: 09/29/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 10/01/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-Butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)Anthracene	10	U
117-81-7	bis(2-Ethylhexyl)Phthalate	10	U
218-01-9	Chrysene	10	U
117-84-0	Di-n-Octyl Phthalate	10	U
205-99-2	Benzo(b)Fluoranthene	10	U
207-08-9	Benzo(k)Fluoranthene	10	U
50-32-8	Benzo(a)Pyrene	10	U
193-39-5	Indeno(1,2,3-cd)Pyrene	10	U
53-70-3	Dibenz(a,h)Anthracene	10	U
191-24-2	Benzo(g,h,i)Perylene	10	U

(1) - Cannot be separated from Diphenylamine

9613494.1428

000025
EPA SAMPLE NO.

B079W6

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09081 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209081-05B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 21001S07

Level: (low/med) LOW Date Received: 09/25/92

% Moisture: _____ decanted: (Y/N) ___ Date Extracted: 09/29/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 10/01/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

Number TICs found: 4

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN HYDROCARBON	11.90	3	J
2.	UNKNOWN ACID	13.85	2	J
3.	UNKNOWN ALCOHOL	19.23	580	J
4.	UNKNOWN HYDROCARBON	21.98	3	J

9613494 1429

000026

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B079V6

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09081 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209081-03B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N) ___ Date Received: 09/25/92

Extraction: (SepF/Cont/Sonc) CONT Date Extracted: 09/29/92

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 10/14/92

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-36-3	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

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000027

EPA SAMPLE NO.

B079W1

PESTICIDE ORGANICS ANALYSIS DATA SHEET

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09081 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209081-01D

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N) ___ Date Received: 09/25/92

Extraction: (SepF/Cont/Sonc) CONT Date Extracted: 09/29/92

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 10/14/92

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

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

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

CAS NO.	COMPOUND		Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-36-3	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

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1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

000028
EPA SAMPLE NO.

B079W6

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09081 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209081-05B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N) ___ Date Received: 09/25/92

Extraction: (SepF/Cont/Sonc) CONT Date Extracted: 09/29/92

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 10/15/92

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-36-3	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

PAGE 1 TMA/Norcal CHAIN OF CUSTODY ORD # M2-09-191

RCVD: 09/25/92 DUE: 10/25/92 09/25/92 15:58:56 KEEP: 01/23/93 DISP: S

DASH	SAMPLE IDENTIFICATION	STORED	TESTS for FRACTIONS with work in DEPT: SU and CATEGORY
01A	B079W1 unfiltered	ARLI(10)	WH018 WH019 WH020 WH043 WH114 WH121 WH122 WH128 WH131 WH132 WH140
01F	B079W1 unfiltered MS	ARLI(0)	WH018 WH019 WH020 WH043 WH114 WH140
01G	B079W1 unfiltered MSD	ARLI(0)	WH018 WH019 WH020
01H	B079W1 unfiltered DUP	ARLI(0)	WH043 WH114 WH121 WH122 WH128 WH131 WH132 WH140
02A	B079V6 unfiltered	ARLI(10)	WH018 WH019 WH020 WH043 WH114 WH121 WH122 WH128 WH131 WH132 WH140
03A	B079W6 unfiltered	ARLI(10)	WH018 WH019 WH020 WH043 WH114 WH121 WH122 WH128 WH131 WH132 WH140
07A	B079W5 unfiltered	ARLI(3)	WH018
08A	B079W0 unfiltered	ARLI(3)	WH018
09A	B079X0 unfiltered	ARLI(3)	WH018

RELEASED BY	DATE	TRANSFERRED TO	DATE	RECEIVED BY	DATE
Kermit Blum	9-25-92	ARLI		C. Navros	9/28/92

9613494.1455

SAMPLE LOG-IN SHEET

000003

LAB NAME TRA/ARLI

PAGE ___ OF ___

RECEIVED BY (PRINT NAME): CAROLE HARRIS

LOG-IN-DATE: 9-28-92

RECEIVED BY (SIGNATURE): Carole Harris

CASE NUMBER:

SAMPLE DELIVERY GROUP NO.:

SAS NUMBER:

REMARKS:

1. Custody Seal(s) — Present/Absent* Intact/Broken
2. Custody Seal Nos: ___
3. Chain of Custody Records — Present/Absent*
4. Traffic Reports or Packing List — Present/Absent*
5. Airbill — Airbill/Sticker Present/Absent*
6. Airbill No.: 5188038520
7. Sample Tags — Present/Absent*
8. Sample Tags Numbers — Listed/Not Listed on Chain of Custody
9. Sample Condition: — Intact/Broken*/Leaking
10. Does information on custody records, traffic reports, and sample tags agree — Yes/No*
11. Date Recieved at Lab: 9-28-92
12. Temp of ice chest 4.0 °C
13. Time Recieved: 9:30AM

SAMPLE TRANSFER

Fraction: ___

Area #: ___

By: ___

On: ___

EPA SAMPLE #	CORRESPONDING SAMPLE TAG #	CORRESPONDING ASSIGNED LAB #	REMARKS: CONDITION OF SAMPLE SHIPMENT, ETC
	B079W1	A2-09-081-01	
	B079W5	A2-09-081-02	
	B079V6	A2-09-081-03	
	B079W0	A2-09-081-04	
	B079W6	A2-09-081-05	
	B079X0	A2-09-081-06	

* Contact SMO and attach record of resolution

Reviewed By: ___ Logbook No.: ___

Date: ___ Logbook Page No.: ___

FORM SC-1

9613494.1434

000004

FEDERAL EXPRESS

QUESTIONS? CALL 800-238-5355 TOLL FREE.

AIRBILL PACKAGE TRACKING NUMBER 5188038520

2-37.M 5188038520

RECIPIENT'S COPY

1 Date 9-23-92

From (Your Name) Please Print: SAMPle control

Your Phone Number (Very Important): (5104235-2033

Company: I [illegible] INORCAL

Department/Floor No.

Street Address: 2030 RIGHT AVE

City: RICHMOND State: CA ZIP Required: 94804

2 To (Recipient's Name) Please Print: SAMPle control

Recipient's Phone Number (Very Important): ( )

Company: TMA / ARCI

Department/Floor

Exact Street Address (We Cannot Deliver to P.O. Boxes or P.O. Zip Codes.): 160 TAYLOR Street

City: MONROVIA State: CA ZIP Required: 91016

YOUR INTERNAL BILLING REFERENCE INFORMATION (optional) (First 24 characters will appear on invoice.): 2370 6406

H IF HOLD FOR PICK-UP, Print FEDEX Address Here: Street Address / City / State / ZIP Required

3 PAYMENT: 1 [✓] Bill Sender 2 [ ] Bill Recipient's FedEx Acct. No. 3 [ ] Bill 3rd Party FedEx Acct. No. 4 [ ] Bill Credit Card 5 [ ] Cash/Check

4 SERVICES (Check only one box)

Priority Overnight (Delivery by next business morning)
- 11 [✓] YOUR PACKAGING
- 16 [ ] FEDEX LETTER*
- 12 [ ] FEDEX PAK*
- 13 [ ] FEDEX BOX
- 14 [ ] FEDEX TUBE

Standard Overnight (Delivery by next business day to Saturday delivery)
- 51 [ ] YOUR PACKAGING
- 56 [ ] FEDEX LETTER*
- 52 [ ] FEDEX PAK*
- 53 [ ] FEDEX BOX
- 54 [ ] FEDEX TUBE

Economy Two-Day (Delivery by second business day †)
- 30 [ ] ECONOMY

Government Overnight (Available to authorized users only)
- 46 [ ] GOVT. LETTER
- 41 [ ] GOVT. PACKAGE

Freight Service (for packages over 150 lbs.)
- 70 [ ] OVERNIGHT FREIGHT** (Confirmed reservation required)
- 80 [ ] TWO-DAY FREIGHT**

†Delivery commitment may be later in some areas. **Declared Value Limit $500. Call for delivery schedule.

5 DELIVERY AND SPECIAL HANDLING (Check services required)
- 1 [ ] HOLD FOR PICK-UP (Fill in Box H)
- 2 [ ] DELIVER WEEKDAY
- 3 DELIVER SATURDAY (Extra charge) [✓]
- 4 [ ] DANGEROUS GOODS (Extra charge)
- 5 [ ]
- 6 [ ] DRY ICE Lbs.
- 7 [ ] OTHER SPECIAL SERVICE
- 8 [ ]
- 9 [ ] SATURDAY PICK-UP (Extra charge)
- 10 [ ]
- 11 [ ]
- 12 [ ] HOLIDAY DELIVERY (Extra charge)

6 PACKAGES / WEIGHT in Pounds Only / YOUR DECLARED VALUE

Total 3 Total 142 Total

DIM SHIPMENT (Chargeable Weight) [ ] lbs.

L x W x H

Received At: 1 [ ] Regular Stop 2 [ ] On-Call Stop 3 [ ] Drop Box 4 [ ] B.S.C. 5 [ ] Station

7 Release Signature:

Emp. No. Date

[ ] Cash Received
[ ] Returns Shipment
[ ] Third Party [ ] Chg. To Del. [ ] Chg. To Hold

Street Address

City State Zip

Received By: X

Date/Time Received FedEx Employee Number

Federal Express Charges

Base Charge

Declared Value Charge

Other 1

Other 2

Total Charges

REVISION DATE 2/92 PART #137204 FXEM FORMAT #126

126

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9613494.1435

000005

TMA/ARLI
Thermo Analytical Inc.

RADIATION DOSE RATE SURVEY FORM

Date 9/28/92 COMPANY NORCAL (WHC) OTHER ORD # 5188038520

Surveyor's Name MARK S. McCray

Model No. HP-210 / ESP-1 Model No. AC-3-7 / ESP-1

Serial Nos. 710289 / 02619 Serial Nos. 407726 / 02628

Calibration Date 3/25/92 Calibration Date 8/01/92

Instrument Calibration Factor 0.280 Instrument Calibration Factor 0.188

Sample	Location	HP-210 CPM	HP-210 Factor	HP-210 DPM	AC-3-7 CPM	AC-3-7 Factor	AC-3-7 DPM	Spillage or Breakage?	Activity, uCi/mL or uCi/g
Background		45.0			0				
Consistency		7,470	0.2884		5,012	0.1842			
Smears: Blue + white		45.0			0				
SMR 2/64		38.0			2.0				
SMR 252		45.0			1.0				
REPORTED (WHC)		15	samples	each	< 50	pCi/gram			

Comments:

All OK ✓ Approved [signature]

Not OK Date 9/28/92

Form: ARLI RA-01
Rev: 06

01/15/92

GENERAL CHEMISTRY RESULTS

CASE NO. 09-081

Water Sample #:

B076W1 B079V6 B079W6

CASE NARRATIVE

Sample B079W1 (A2-09-081-01) yielded a 55% recovery for the Phosphate analysis. The low Phosphate compared to our laboratory control sample indicated the presence of a matrix interference.

No other problems were encountered during sample analysis. All QC results were acceptable.

Ernesto Vazquez

Ernesto Vazquez

9613494.1437

TMA Inc. REPORT Work Order # A2-09-091 000008

Received: 09/25/92 11/16/92 12:39:50

REPORT TO: Westinghouse Hanford Company
2355 Stevens Dr.
Richland,WA.99352
MO-346/200 West/T6-08
ATTEN: Jeanette Duncan

PREPARED BY: Thermo Analytical, Inc.
160 Taylor Street
Monrovia, CA 91016
ATTEN: Ms. Carole Harris
PHONE: 818-357-3247

CERTIFIED BY: Ernesto Vásquez

CONTACT: EVV CIH

CLIENT: WHC SAMPLES: 7
COMPANY: Westinghouse Hanford Company
FACILITY:

This report is for the sole and exclusive use of the client to whom it is addressed and represents only those samples herein described. Samples not destroyed in testing are retained a maximum of 30 days unless otherwise requested.

WORK ID: 100-KR-4
TAKEN: By Westinghouse Staff
TRANS: By Federal Express
TYPE: Liquid
P.O. #: M2-09-191-SU-AR
INVOICE: under separate cover

SAMPLE IDENTIFICATION

01	B079W1
01	B079W1 MS
01	B079W1 MSD
01	B079W1
01	B079W1 MS
01	B079W1 MSD
01	B079W1
01	B079W1 MS
01	B079W1
01	B079W1 Duplicate
01	B079W1
01	B079W1 MS
01	B079W1
01	B079W1 MS
02	B079W5
03	B079V6
03	B079V6 MS
03	B079V6 MSD
03	B079V6
03	B079V6 Duplicate
03	B079V6
03	B079V6 Duplicate
03	B079V6
03	B079V6 Duplicate
04	B079W0
05	B079W6

TEST CODES and NAMES used on this workorder

BNCLPW	CLP Semivol. Water
PECLPL	CLP Pesticides Liq.-WH019
VOCLPL	CLP Volatile Org.Liq.
WCCLPL	Anions & Wet Chem. - WH043
WCL L	Chloride - WH120
WCQCD	Quality Control Summary
WCQCS	Quality Control Summary
WF L	Fluoride in Water
WNH3 L	Ammonia in Water - WH140
WPH L	pH of Liquid - WH121
WPO4 L	Phosphate in Liquids
WSO4 L	Sulfate (in Waters)
WSULFI	Sulfide - WH114
W ALK	Alkalinity - WH131
W COD	COD Water - WH132
W COND	Conductivity-Water WH135
W TDS	Dissolved Solids WH128

Received: 09/25/92

TRA Inc.

REPORT

11/16/92 12:39:50

Work Order # A2-09-081

SAMPLE IDENTIFICATION

05 B079W6

06 B079X0

07 Wet Chemistry Blank

TMA Inc. REPORT

Received: 09/25/92

Work Order # A2-09-081

Results by Sample

SAMPLE ID B079W1 FRACTION 01G TEST CODE WCCLPL NAME Anions & Wet Chem. - WN043

Date & Time Collected 09/23/92 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Chloride	300.0	3.1	mg/L	0.2
Fluoride	300.0	0.3	mg/L	0.1
Phosphate	300.0	<0.4	mg/L	0.4
pH	150.1	8.0	pH	0.1
Sulfate	300.0	27	mg/L	1
Elect. Conductivity	120.1	204	umho/cm	6

FORM I

9613494.1440

TMA Inc. REPORT Work Order # A2-09-081

Received: 09/25/92

Results by Sample

SAMPLE ID B079W1 FRACTION 011 TEST CODE WCCLPL NAME Anions & Wet Chem. - WH043

Date & Time Collected 09/23/92 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Alkalinity	310.1	85	mg/L	2
Tot. Dissolved Solids	160.1	183	mg/L	5

FORM I

9613494.1441

TMA Inc. REPORT Work Order # A2-09-081

Received: 09/25/92

Results by Sample

SAMPLE ID B079W1 FRACTION 01K TEST CODE WCCLPL NAME Anions & Wet Chem. - WR043

Date & Time Collected 09/23/92 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Sulfide	376.1	<1	mg/L	1

FORM I

TRA Inc. REPORT

Received: 09/25/92

Work Order # A2-09-081

Results by Sample

SAMPLE ID B079V1 FRACTION 01M TEST CODE WCCLPL NAME Anions & Wet Chem. - WN043

Date & Time Collected 09/23/92 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Ammonia Nitrogen	350.3	0.08	mg/L	0.05
COD	410.0	<30	mg/L	30

FORM I

9613494.1443

TMA Inc. REPORT Work Order # A2-09-081

Received: 09/25/92

Results by Sample

SAMPLE ID B079V6 FRACTION 03E TEST CODE WCCLPL NAME Anions & Wet Chem. - WH043

Date & Time Collected 09/23/92 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Chloride	300.0	5.8	mg/L	0.2
Fluoride	300.0	0.4	mg/L	0.1
Phosphate	300.0	<0.4	mg/L	0.4
pH	150.1	8.0	pH	0.1
Sulfate	300.0	20	mg/L	1
Elect. Conductivity	120.1	230	umho/cm	6

FORM I

9613494.1444

TMA Inc. REPORT Work Order # A2-09-081

Received: 09/25/92

Results by Sample

SAMPLE ID B079V6 FRACTION 03G TEST CODE WCCLPL NAME Anions & Wet Chem. - WH043

Date & Time Collected 09/23/92 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Alkalinity	310.1	143	mg/L	2
Tot. Dissolved Solids	160.1	203	mg/L	5

FORM I

9613494.1445

TMA Inc. REPORT

Work Order # A2-09-081

Received: 09/25/92

Results by Sample

SAMPLE ID B079V6 FRACTION 03H TEST CODE WCCLPL NAME Anions & Wet Chem. - WH043

Date & Time Collected 09/23/92 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Sulfide	376.1	<1	mg/L	1

FORM I

9613494.1446

TMA Inc. REPORT Work Order # A2-09-081

Received: 09/25/92

Results by Sample

SAMPLE ID B079V6 FRACTION 03J TEST CODE WCCLPL NAME Anions & Wet Chem. - WN043

Date & Time Collected 09/23/92 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Ammonia Nitrogen	350.3	<0.05	mg/L	0.05
COD	410.0	<30	mg/L	30

FORM I

TMA Inc. REPORT Work Order # A2-09-081

Received: 09/25/92

Results by Sample

SAMPLE ID B079V6 FRACTION 05C TEST CODE VCCLPL NAME Anions & Wet Chem. - VN043

Date & Time Collected 09/23/92 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Chloride	300.0	4.5	mg/L	0.2
Fluoride	300.0	0.5	mg/L	0.1
Phosphate	300.0	<0.4	mg/L	0.4
pH	150.1	8.0	pH	0.1
Sulfate	300.0	34	mg/L	1
Elect. Conductivity	120.1	282	umho/cm	6

FORM I

TMA Inc. REPORT Work Order # A2-09-081

Received: 09/25/92

Results by Sample

SAMPLE ID B079W6 FRACTION 05D TEST CODE WCCLPL NAME Anions & Wet Chem. - WN043

Date & Time Collected 09/23/92 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Alkalinity	310.1	147	mg/L	2
Tot. Dissolved Solids	160.1	245	mg/L	5

FORM I

9613494.1449

000020

TMA Inc. REPORT Work Order # A2-09-081

Received: 09/25/92

Results by Sample

SAMPLE-IWN0039V6 FRACTION 05E TEST CODE WCCLPL NAME Anions & Wet

Date & Time Collected 09/23/92 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Sulfide	376.1	<1	mg/L	1

FORM I

TMA Inc. REPORT Work Order # A2-09-081

Received: 09/25/92

Results by Sample

SAMPLE ID B079W6 FRACTION 05F TEST CODE WCCLPL NAME Anions & Wet Chem. - WH043

Date & Time Collected 09/23/92 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Ammonia Nitrogen	350.3	0.07	mg/L	0.05
COD	410.0	<30	mg/L	30

FORM I

9613494.1451

000001

Page 1 Skinner&Sherman REPORT Work Order # S2-09-481

Received: 09/26/92 11/02/92 16:36:20

REPORT TMA/NORCAL
TO 2030 Wright Avenue
Richmond, CA 94804

ATTEN Dan Steurmer

CLIENT HANFORD NOR SAMPLES 4
COMPANY TMA/NORCAL
FACILITY Richmond, CA

PREPARED TMA / Skinner & Sherman Labs.
BY 300 Second Avenue
P.O. Box 521
Waltham, MA 02254

ATTEN Client Services
PHONE (617) 890-7200

CERTIFIED BY

CONTACT DP

WORK ID N2-09-191
TAKEN By Client
TRANS Fedex #5188039371
TYPE Waters NO3NO2
P.O. # N2-09-191
INVOICE under separate cover

SAMPLE IDENTIFICATION	TEST CODES and NAMES used on this workorder
01 B079W1	NO3NO2 Nitrate Plus Nitrite
02 B079V6	
03 B079W6	
03 B079W6D	
03 B079W6S	
04 LCSW	

This report is rendered upon all of the following conditions: Skinner & Sherman Laboratories, Inc. retains ownership of this report until associated submitted invoice is satisfied. Expert witness services shall be available in conjunction with this report only if prior notification of this potential requirement was made and accepted, before the analysis. Client will be responsible for Skinner & Sherman costs and consulting fees if our services are required by subpoena or otherwise in legal proceedings. Total liability is limited to the invoice amount. The results listed refer only to tested samples and applicable parameters. Product endorsement is neither inferred nor implied. Skinner & Sherman Laboratories, Inc. will exercise due diligence but will not be responsible for lost or destroyed samples or evidence unless client makes appropriate insurance coverage arrangements. Samples are held for thirty days following issuance of report. Samples will be stored at client's expense, if authorized in writing.

TMA
Thermo Analytical Inc.
Skinner & Sherman Laboratories Inc.
300 Second Avenue, P.O. Box 521, Waltham, Massachusetts 02254-0521 (617) 890-7200
1-800-4 LAB TEST FAX (617) 890-3883

Skinner&Sherman REPORT Work Order # S2-09-481

Received: 09/26/92

Results by Sample

SAMPLE ID B079W1 SAMPLE # 01 FRACTIONS: A
Date & Time Collected 09/23/92 Category WATER

NO3NO2 2.34
mg N/L

SAMPLE ID B079W6 SAMPLE # 02 FRACTIONS: A
Date & Time Collected 09/23/92 Category WATER

NO3NO2 1.43
mg N/L

SAMPLE ID B079W6 SAMPLE # 03 FRACTIONS: A
Date & Time Collected 09/23/92 Category WATER

NO3NO2 1.56
mg N/L

SAMPLE ID B079W6D SAMPLE # 03 FRACTIONS: B
Date & Time Collected 09/23/92 Category WATER

NO3NO2 1.48
mg N/L

SAMPLE ID B079W6S SAMPLE # 03 FRACTIONS: C
Date & Time Collected 09/23/92 Category WATER

NO3NO2 3.53
mg N/L

SAMPLE ID LCSW SAMPLE # 04 FRACTIONS: A
Date & Time Collected not specified Category WATER

NO3NO2 1.79
mg N/L

TMA
Thermo Analytical Inc.

This report is rendered upon all of the following conditions: Skinner & Sherman Laboratories, Inc. retains ownership of this report until associated submitted invoice is satisfied. Expert witness services shall be available in conjunction with this report only if prior notification of this potential requirement was made and accepted, before the analysis. Client will be responsible for Skinner & Sherman costs and consulting fees if our services are required by subpoena or otherwise in legal proceedings. Total liability is limited to the invoice amount. The results listed refer only to tested samples and applicable parameters. Product endorsement is neither inferred nor implied. Skinner & Sherman Laboratories, Inc. will exercise due diligence but will not be responsible for lost or destroyed samples or evidence unless client makes appropriate insurance coverage arrangements. Samples are held for thirty days following issuance of report. Samples will be stored at client's expense, if authorized in writing.

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1-800-4 LAB TEST FAX (617) 890-3883

Page 4 Skinner&Sherman REPORT Work Order # S2-09-481

Received: 09/26/92 Test Methodology

TEST CODE NO3NO2 NAME Nitrate Plus Nitrite

Methods for Chemical Analysis of Water and Wastes
EPA - 600/4-79-020 March 1979 Method 353.2 (modified)

TMA
Thermo Analytical Inc.

This report is rendered upon all of the following conditions: Skinner & Sherman Laboratories, Inc. retains ownership of this report until associated submitted invoice is satisfied. Expert witness services shall be available in conjunction with this report only if prior notification of this potential requirement was made and accepted, before the analysis. Client will be responsible for Skinner & Sherman costs and consulting fees if our services are required by subpoena or otherwise in legal proceedings. Total liability is limited to the invoice amount. The results listed refer only to tested samples and applicable parameters. Product endorsement is neither inferred nor implied. Skinner & Sherman Laboratories, Inc. will exercise due diligence but will not be responsible for lost or destroyed samples or evidence unless client makes appropriate insurance coverage arrangements. Samples are held for thirty days following issuance of report. Samples will be stored at client's expense, if authorized in writing.

Skinner & Sherman Laboratories Inc. 300 Second Avenue, P.O. Box 521, Waltham, Massachusetts 02254-0521 (617) 890-7200
1-800-4 LAB TEST FAX (617) 890-3883

9613494.1454 CHAIN OF CUSTODY GRD # N2-09-191 OCC050

RCVD: 09/22/92 L.S. 12:23:92 09/23/92 13:38:30 KEEP: 01/23/93 DISP: S

DASH	SAMPLE IDENTIFICATION	STORED	TESTS for FRACTIONS with work in DEPT: SU and CATEGORY				
01B	B07FW1 unfiltered	S&S(3)	WH007	WH008	WH010	WH011	WH137
01C	B07FW1 unfiltered MS	S&S(0)	WH007	WH008	WH010	WH011	WH137
01D	B07FW1 unfiltered DUP	S&S(0)	WH007	WH008	WH010	WH011	WH137
01E	LCS	S&S(0)	WH007	WH008	WH010	WH011	WH137
03B	B07FW6 unfiltered	S&S(3)	WH007	WH008	WH010	WH011	WH137
04A	B07FW4 filtered	S&S(3)	WH007	WH008	WH010		
05A	B07FW5 filtered	S&S(3)	WH007	WH008	WH010		
06A	B07FW7 filtered	S&S(3)	WH007	WH008	WH010		
06B	B07FW7 filtered MS	S&S(0)	WH007	WH008	WH010		
06C	B07FW7 filtered DUP	S&S(0)	WH007	WH008	WH010		
06D	LCS	S&S(0)	WH007	WH008	WH010		

RELEASED BY	DATE	TRANSFERRED TO	DATE	RECEIVED BY	DATE
Kermit Blum	9-25-92	S&S		[illegible]	9/26/92

9613494.1455 000051

MA/Skinner & Sherman Labs SAMPLE LOG-IN

ORKORDER 5209481 CLIENT HANFORD-NOR No. SAMPLES:

ROTCL CLP TURNARND 33 days 3

OOLER TEMP: 4 oC, or NA (Soil) (Water) (Specify Other)

USTODIAN A. Benoem SDG/BATCH N/A

USTODY SEAL: ~~PRESENT~~/ABSENT/INTACT/NOT CLIENT CASE N209191

HIPER & # Fedex 5188039371 PO/CONTRACT# ↓

AGS: PRESENT/ABSENT/NA/SEE COC CONTACT Dolores Sanchez

HAIN OF CUSTODY: ~~PRESENT~~/ABSENT/NA, # N/A COMMENTS: NONE

AMPLE CONTAINERS ~~INTACT~~/BROKEN COMMENTS

LIENT COMMENT? YES/~~NO~~

AMPLE LABELS AGREE WITH CHAIN OF CUSTODY INFO? ~~YES~~/NO (COMMENT)

LIENT PAPERWORK AGREES WITH SAMPLES & COC? ~~YES~~ /NO (COMMENT)

HIPMENT DATES 9/26/92

IST ANY DATE WITH PAPERWORK/SHIPMENT PROBLEMS & SPECIFY THE PROBLEM:

OK

	CLIENT ID	MATRIX	RECEIVED	PH*	TEST(S) & QC	HOLD TIME UP
1	B079W1	WATER	9/26/92	1.56	NO3NO2	DUE 10/21
2	↓ W6	↓	↓	1.47	↓	
3	↓ W6	↓	↓	1.49	D,S ↓	
4						
5						
6						
7						
8						

Comp Due 9/29/92

site known to have Rad-Contamination: YES ✓ NO

ectable amounts of Radioactive Material: YES NO ✓

NO, TO: DATE:

ired Rev 1.6 PAGE: 000040

TMA 9613494.1456
Thermo Analytical Inc.

Skinner & Sherman Labs., Inc.
300 Second Avenue
Post Office Box 521
Waltham, MA 02254-0521
(617) 890-7200
FAX (617) 890-3883

DEC 1992
RECEIVED
OSM DMO

RECORD COPY

December 18, 1992

TMA/NORCAL
2030 Wright Avenue
Richmond, CA 94804
Attention: Dan Stuermer

Quality Control Narrative

Scope
Three (3) water samples were submitted to TMA/Skinner & Sherman Laboratories, Inc. on September 26, 1992 from TMA/Norcal. The samples were analyzed for the USEPA CLP metals and cyanide as indicated on the chain of custody. The analysis was performed under TMA/Skinner and Sherman work order S209480.

Methodology
The samples were prepared, analyzed and reported in accordance with the USEPA Contract Laboratory Program Statement of Work ILM02.

Discussion
All quality control requirements were met for the samples with the following exceptions;

The mercury and thallium digestion spike recovery exceeded the control limit requirements.

Please feel free to call if there are any questions concerning the data package.

Respectfully submitted,

TMA/SKINNER & SHERMAN LABORATORIES, INC.

David N. Peterson
Assistant Laboratory Manager

4/4/96 M.H.

9613194.1457

WESTINGHOUSE/HANFORD
1

SAMPLE NUMBER:

INORGANIC ANALYSIS DATA SHEET

B079V6

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D0-0108

Lab Code: SKINER Case No.: N2-09-191SAS No.: SDG No.: B079V6

Matrix (soil/water): WATER Lab Sample ID: 09480-02S

Level (low/med): LOW Date Received: 09/26/92

% 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	35.5	B		P
7440-36-0	Antimony	14.8	U		P
7440-38-2	Arsenic	2.2	B		F
7440-39-3	Barium	22.8	B		P
7440-41-7	Beryllium	0.30	U		P
7440-43-9	Cadmium	1.5	U		P
7440-70-2	Calcium	35200			P
7440-47-3	Chromium	14.6			P
7440-48-4	Cobalt	1.3	U		P
7440-50-8	Copper	1.9	U		P
7439-89-6	Iron	128			P
7439-92-1	Lead	4.7			F
7439-95-4	Magnesium	7990			P
7439-96-5	Manganese	0.90	U		P
7439-97-6	Mercury	0.10	U	N	CV
7440-02-0	Nickel	2.6	U		P
7440-09-7	Potassium	4370	B		P
7782-49-2	Selenium	3.6	U	W	F
7440-22-4	Silver	3.6	U		P
7440-23-5	Sodium	12700			P
7440-28-0	Thallium	1.3	U	WN	F
7440-62-2	Vanadium	10.4	B		P
7440-66-6	Zinc	7.0	B		P
	Cyanide	10.0	U		CA

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

002

WESTINGHOUSE/HANFORD
1

SAMPLE NUMBER:

INORGANIC ANALYSIS DATA SHEET

B079W1

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D0-0108

Lab Code: SKINER Case No.: N2-09-191SAS No.: SDG No.: B079V6

Matrix (soil/water): WATER Lab Sample ID: 09480-01S

Level (low/med): LOW Date Received: 09/26/92

% 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	1590			P
7440-36-0	Antimony	14.8	U		P
7440-38-2	Arsenic	2.2	U		F
7440-39-3	Barium	57.2	B		P
7440-41-7	Beryllium	0.30	U		P
7440-43-9	Cadmium	1.5	U		P
7440-70-2	Calcium	34500			P
7440-47-3	Chromium	140			P
7440-48-4	Cobalt	3.2	B		P
7440-50-8	Copper	7.9	B		P
7439-89-6	Iron	2920			P
7439-92-1	Lead	5.8		W	F
7439-95-4	Magnesium	5090			P
7439-96-5	Manganese	54.9			P
7439-97-6	Mercury	0.10	U	N	CV
7440-02-0	Nickel	69.4			P
7440-09-7	Potassium	4320	B		P
7782-49-2	Selenium	3.6	U		F
7440-22-4	Silver	3.6	U		P
7440-23-5	Sodium	6140			P
7440-28-0	Thallium	1.3	U	WN	F
7440-62-2	Vanadium	4.7	B		P
7440-66-6	Zinc	278			P
	Cyanide	10.0	U		CA

Color Before: COLORLESS Clarity Before: CLOUDY Texture:

Color After: COLORLESS Clarity After: CLOUDY Artifacts:

Comments:

003

WESTINGHOUSE/HANFORD
1

INORGANIC ANALYSIS DATA SHEET

SAMPLE NUMBER: B079W6

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D0-0108

Lab Code: SKINER Case No.: N2-09-191SAS No.: SDG No.: B079V6

Matrix (soil/water): WATER Lab Sample ID: 09480-03S

Level (low/med): LOW Date Received: 09/26/92

% 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	414			P
7440-36-0	Antimony	14.8	U		P
7440-38-2	Arsenic	2.2	U		F
7440-39-3	Barium	67.9	B		P
7440-41-7	Beryllium	0.30	U		P
7440-43-9	Cadmium	1.5	U		P
7440-70-2	Calcium	26600			P
7440-47-3	Chromium	51.0			P
7440-48-4	Cobalt	1.3	U		P
7440-50-8	Copper	1.9	U		P
7439-89-6	Iron	855			P
7439-92-1	Lead	5.3		W	F
7439-95-4	Magnesium	14500			P
7439-96-5	Manganese	67.8			P
7439-97-6	Mercury	0.10	U	N	CV
7440-02-0	Nickel	24.4	B		P
7440-09-7	Potassium	4380	B		P
7782-49-2	Selenium	3.6	U	W	F
7440-22-4	Silver	3.6	U		P
7440-23-5	Sodium	27400			P
7440-28-0	Thallium	1.3	U	WN	F
7440-62-2	Vanadium	4.3	B		P
7440-66-6	Zinc	24.9			P
	Cyanide	10.0	U		CA

Color Before: COLORLESS Clarity Before: CLOUDY Texture:

Color After: COLORLESS Clarity After: CLOUDY Artifacts:

Comments:

004

9613494.1460

TMA/Skinner & Sherman Labs SAMPLE LOG-IN
WORKORDER 5209480 CLIENT HANFORD-NOR No. SAMPLES:
PROTCL CLP TURNARND 33 day 3
COOLER TEMP: 4 oC, or NA (Soil) (Water) (Specify Other)
CUSTODIAN A. Benney SDG/BATCH N/A
CUSTODY SEAL: PRESENT/ABSENT/INTACT/NOT CLIENT CASE N2C9191
SHIPER & # Fedex 5138039371 PO/CONTRACT# ↓
TAGS: PRESENT/ABSENT/NA/SEE COC CONTACT Dolores Sanchez
CHAIN OF CUSTODY: PRESENT/ABSENT/NA, # N/A COMMENTS: NONE

SAMPLE CONTAINERS INTACT/BROKEN COMMENTS

CLIENT COMMENT? YES/NO
SAMPLE LABELS AGREE WITH CHAIN OF CUSTODY INFO? YES/NO (COMMENT)
CLIENT PAPERWORK AGREES WITH SAMPLES & COC? YES /NO (COMMENT)

SHIPMENT DATES 9/26/92
LIST ANY DATE WITH PAPERWORK/SHIPMENT PROBLEMS & SPECIFY THE PROBLEM:

N/A

UNFILTERED

	CLIENT ID	MATRIX	RECEIVED	PH*	TEST(S) & QC	HOLD TIME UP
1	B079W1	WATER	9/26/92	2.08/11.64	TM/CN	CN due 10/7
2	V6	↓	↓	1.97/11.58	↓	
3	W6	↓	↓	2.02/11.67 D.5	↓	Hg due 10/21
4						
5						
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24						
25						
26						
27						

COMP 9/29/92

Samples are from site known to have Rad-Contamination: YES ✓ NO ___
Samples have detectable amounts of Radioactive Material: YES ___ NO ✓

SUBCONTRACT: YES/NO, TO: _____ DATE: _____

REVIEWED _____

155

* EPA/CLP required Rev 1.6 PAGE: 000012

PAGE : 9613494.1461 CHAIN OF CUSTODY ORD # N2-09-191

RCVD: 09/25/92 DUE: 10/23/92 09/25/92 15:38:30 KEEP: 01/23/93 DISP: S

DASH	SAMPLE IDENTIFICATION	STORED	TESTS for FRACTIONS with work in DEPT: SU and CATEGORY				
01B	B07FW1 unfiltered	S&S(3)	WH007	WH008	WH010	WH011	WH137
01C	B07FW1 unfiltered MS	S&S(0)	WH007	WH008	WH010	WH011	WH137
01D	B07FW1 unfiltered DUP	S&S(0)	WH007	WH008	WH010	WH011	WH137
01E	LCS	S&S(0)	WH007	WH008	WH010	WH011	WH137
03B	B07FW6 unfiltered	S&S(3)	WH007	WH008	WH010	WH011	WH137
04A	B07FW4 filtered	S&S(3)	WH007	WH008	WH010		
05A	B07FV9 filtered	S&S(3)	WH007	WH008	WH010		
06A	B07FW9 filtered	S&S(3)	WH007	WH008	WH010		
06B	B07FW9 filtered MS	S&S(0)	WH007	WH008	WH010		
06C	B07FW9 filtered DUP	S&S(0)	WH007	WH008	WH010		
06D	LCS	S&S(0)	WH007	WH008	WH010		

RELEASED BY	DATE	TRANSFERRED TO	DATE	RECEIVED BY	DATE
Kermit Blum	9-25-92	S&S		[illegible]	9/26/92

TMA 9613494.1462
Thermo Analytical Inc.

Skinner & Sherman Labs., Inc.
300 Second Avenue
Post Office Box 521
Waltham, MA 02254-0521
(617) 890-7200
FAX (617) 890-3883

RECORD COPY

DEC 1992
RECEIVED
OSM DMO

December 17, 1992

TMA/NORCAL
2030 Wright Avenue
Richmond, CA 94804
Attention: Dan Stuermer

Quality Control Narrative

Scope
Three (3) water samples were submitted to TMA/Skinner & Sherman Laboratories, Inc. on September 26, 1992 from TMA/Norcal. The samples were analyzed for the USEPA CLP Target Analyte List metals. The analysis was performed under TMA/Skinner and Sherman work order S209482.

Methodology
The samples were prepared, analyzed and reported in accordance with the USEPA Contract Laboratory Program Statement of Work ILM02.

Discussion
All quality control requirements were met for the samples with the following exceptions;

The selenium and thallium digestion spike recovery exceeded the control limit requirements.

Please feel free to call if there are any questions concerning the data package.

Respectfully submitted,

TMA/SKINNER & SHERMAN LABORATORIES, INC.

David N. Peterson
Assistant Laboratory Manager

i 4/4/96 M.H.

9613494.1463

WESTINGHOUSE/HANFORD

1

SAMPLE NUMBER:

B079V9

INORGANIC ANALYSIS DATA SHEET

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D0-0108

Lab Code: SKINER Case No.: N2-09-191SAS No.: SDG No.: B079V9

Matrix (soil/water): WATER Lab Sample ID: 09482-02S

Level (low/med): LOW Date Received: 09/26/92

% 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	23.4	B		P
7440-36-0	Antimony	14.8	U		P
7440-38-2	Arsenic	2.9	B	W	F
7440-39-3	Barium	24.2	B		P
7440-41-7	Beryllium	0.30	U		P
7440-43-9	Cadmium	1.5	U		P
7440-70-2	Calcium	36600			P
7440-47-3	Chromium	14.6			P
7440-48-4	Cobalt	1.3	U		P
7440-50-8	Copper	1.9	U		P
7439-89-6	Iron	4.6	B		P
7439-92-1	Lead	1.4	B		F
7439-95-4	Magnesium	8250			P
7439-96-5	Manganese	0.90	U		P
7439-97-6	Mercury	0.29			CV
7440-02-0	Nickel	2.6	U		P
7440-09-7	Potassium	4550	B		P
7782-49-2	Selenium	4.2	B	SN	F
7440-22-4	Silver	3.6	U		P
7440-23-5	Sodium	13400			P
7440-28-0	Thallium	3.8	U	N	F
7440-62-2	Vanadium	11.1	B		P
7440-66-6	Zinc	5.7	U		P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

002

9613494.1464

WESTINGHOUSE/HANFORD

1

SAMPLE NUMBER:

B079W4

INORGANIC ANALYSIS DATA SHEET

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D0-0108

Lab Code: SKINER Case No.: N2-09-191SAS No.: SDG No.: B079V9

Matrix (soil/water): WATER Lab Sample ID: 09482-01S

Level (low/med): LOW Date Received: 09/26/92

% 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	37.9	B		P
7440-36-0	Antimony	14.8	U		P
7440-38-2	Arsenic	1.9	U		F
7440-39-3	Barium	45.8	B		P
7440-41-7	Beryllium	0.30	U		P
7440-43-9	Cadmium	1.5	U		P
7440-70-2	Calcium	36900			P
7440-47-3	Chromium	11.2			P
7440-48-4	Cobalt	3.6	B		P
7440-50-8	Copper	1.9	U		P
7439-89-6	Iron	12.2	B		P
7439-92-1	Lead	2.1	B		F
7439-95-4	Magnesium	5160			P
7439-96-5	Manganese	7.6	B		P
7439-97-6	Mercury	0.29			CV
7440-02-0	Nickel	7.4	B		P
7440-09-7	Potassium	3750	B		P
7782-49-2	Selenium	2.9	B	WN	F
7440-22-4	Silver	3.6	U		P
7440-23-5	Sodium	6380			P
7440-28-0	Thallium	3.8	U	N	F
7440-62-2	Vanadium	2.5	U		P
7440-66-6	Zinc	11.7	B		P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

003

9613494.1465

WESTINGHOUSE/HANFORD

1

SAMPLE NUMBER:

B079W9

INORGANIC ANALYSIS DATA SHEET

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D0-0108

Lab Code: SKINER Case No.: N2-09-191SAS No.: SDG No.: B079V9

Matrix (soil/water): WATER Lab Sample ID: 09482-03S

Level (low/med): LOW Date Received: 09/26/92

% 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	33.3	B		P
7440-36-0	Antimony	14.9	B		P
7440-38-2	Arsenic	1.9	U		F
7440-39-3	Barium	69.8	B		P
7440-41-7	Beryllium	0.30	U		P
7440-43-9	Cadmium	1.5	U		P
7440-70-2	Calcium	26600			P
7440-47-3	Chromium	2.6	B		P
7440-48-4	Cobalt	1.3	U		P
7440-50-8	Copper	1.9	U		P
7439-89-6	Iron	8.5	B		P
7439-92-1	Lead	1.5	B		F
7439-95-4	Magnesium	14800			P
7439-96-5	Manganese	53.2			P
7439-97-6	Mercury	0.22			CV
7440-02-0	Nickel	6.8	B		P
7440-09-7	Potassium	4590	B		P
7782-49-2	Selenium	3.2	B	WN	F
7440-22-4	Silver	3.6	U		P
7440-23-5	Sodium	28800			P
7440-28-0	Thallium	3.8	U	WN	F
7440-62-2	Vanadium	6.3	B		P
7440-66-6	Zinc	5.7	U		P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

004

9613494.1466

TMA/Skinner & Sherman Labs SAMPLE LOG-IN

WORKORDER 5209482 CLIENT Hanford-NOR No. SAMPLES:

PROTCL CLP TURNARND 33 days 3

COOLER TEMP: 4 oC, or NA (Soil) (Water) (Specify Other)

CUSTODIAN Antonia Benney SDG/BATCH N/A

CUSTODY SEAL: ~~PRESENT~~/ABSENT/~~INTACT~~/NOT CLIENT CASE N209191

SHIPER & # Fedex #913803937 PO/CONTRACT# N/A

TAGS: PRESENT/ABSENT/~~NA~~/SEE COC CONTACT Dolores Sanchez

CHAIN OF CUSTODY: ~~PRESENT~~/ABSENT/NA, # N/A COMMENTS: NONE

SAMPLE CONTAINERS ~~INTACT~~/BROKEN COMMENTS

CLIENT COMMENT? YES/~~NO~~

SAMPLE LABELS AGREE WITH CHAIN OF CUSTODY INFO? ~~YES~~/NO (COMMENT)

CLIENT PAPERWORK AGREES WITH SAMPLES & COC? ~~YES~~/NO (COMMENT)

SHIPMENT DATES 7/26/92

LIST ANY DATE WITH PAPERWORK/SHIPMENT PROBLEMS & SPECIFY THE PROBLEM:

N/A

FIELD FILTERED

	CLIENT ID	MATRIX	RECEIVED	PH*	TEST(S) & QC	HOLD TIME UP
1	B079W4	WATER	9/26/92	1.48	TM	Hg due 10/21
2	V9	↓	↓	1.53	↓	
3	W9	↓	↓	1.50	DS ↓	
4						
5						
6						
7						
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19						
20						
21						
22						
23						
24						
25						
26						
27						

COMP 9/29/92

Samples are from site known to have Rad-Contamination: YES ✓ NO ___

Samples have detectable amounts of Radioactive Material: YES ___ NO ✓

SUBCONTRACT: YES/NO, TO: DATE:

REVIEWED

146

* EPA/CLP required Rev 1.6 PAGE: 000044

9613494.1467

PAGE 1 TMA/Norcal CHAIN OF CUSTODY ORD # N2-09-191

RCVD: 09/25/92 DUE: 10/25/92 09/25/92 15:58:50 KEEP: 01/23/93 DISP: S

DASH	SAMPLE IDENTIFICATION	STORED	TESTS for FRACTIONS with work in DEPT: SU and CATEGORY				
01B	B079W1 unfiltered	S&S(3)	WH007	WH008	WH010	WH011	WH137
01C	B079W1 unfiltered MS	S&S(0)	WH007	WH008	WH010	WH011	WH137
01D	B079W1 unfiltered DUP	S&S(0)	WH007	WH008	WH010	WH011	WH137
01E	LCS	S&S(0)	WH007	WH008	WH010	WH011	WH137
03B	B079W6 unfiltered	S&S(3)	WH007	WH008	WH010	WH011	WH137
04A	B079W4 filtered	S&S(3)	WH007	WH008	WH010		
05A	B079W9 filtered	S&S(3)	WH007	WH008	WH010		
06A	B079W9 filtered	S&S(3)	WH007	WH008	WH010		
06B	B079W9 filtered MS	S&S(0)	WH007	WH008	WH010		
06C	B079W9 filtered DUP	S&S(0)	WH007	WH008	WH010		
06D	LCS	S&S(0)	WH007	WH008	WH010		

RELEASED BY	DATE	TRANSFERRED TO	DATE	RECEIVED BY	DATE
Kermit Blum	9-25-92	S&S		[illegible]	9/26/92

CASE NARRATIVE

LABORATORY : TMA/ARLI

CASE : 09-089

CONTRACT ID : WESTINGHOUSE HANFORD COMPANY

SDG RECEIPT DATE : September 29, 1992

1.0 DESCRIPTION OF CASE :

Four water samples were analyzed for TCL Organics-Volatiles, Semivolatiles, Pesticides/PCBs according to the USEPA Contract Laboratory Program (CLP) Statement of Work for Organic Analysis, Revision OLM01.8.

2.0 SAMPLE LIST :

WESTINGHOUSE ID	LAB ID	ANALYSIS REQUESTED	MATRIX	pH
B079Y1	A2-09-081-01A	V	WATER	7
B079Y1 MS	A2-09-081-01B	V	WATER	7
B079Y1 MSD	A2-09-081-01C	V	WATER	7
B079Y1	A2-09-081-01D	SV & P	WATER	
B079Y1 MS	A2-09-081-01E	SV	WATER	
B079Y1 MSD	A2-09-081-01F	SV	WATER	
B079Y5	A2-09-081-02A	V	WATER	7
B079Y6	A2-09-081-03A	V	WATER	7
B079Y6	A2-09-081-03B	SV & P	WATER	
B079Y6 MS	A2-09-081-03C	P	WATER	
B079Y6 MSD	A2-09-081-03D	P	WATER	
B079Z0	A2-09-081-04A	V	WATER	7

3.0 COMMENTS :

3.1 SHIPPING AND DOCUMENTATION :

The samples were received unbroken and properly documented.

3.2 ANALYSIS

3.2.1 VOLATILE ANALYSIS COMMENTS :

LOW LEVEL WATER :

The samples were analyzed within the CLP SOW holding times.

All of the QC results were within the limits specified by the EPA CLP SOW.

TUNES :

All of the BFB tunes are injected directly into the GC/MS instrument.

3.2.2 SEMIVOLATILE ANALYSIS COMMENTS :

LOW LEVEL WATER :

The samples were extracted and analyzed within the CLP SOW holding times.

All of the other QC results were within the limits specified by the EPA CLP SOW.

PESTICIDE/PCB ANALYSIS :

SEQUENCE NOTES :

The sequence was started on 10/14/92 and analyzed in accordance with the EPA CLP SOW. The sequence was analyzed by single injection into a dual column system. The sequence met all the QC criteria specified in the CLP SOW.

The Chromatograms are presented in the manner consistent with the capabilities of the Nelson 2600 Data System which normalizes the largest peak to scale.

SAMPLE NOTES :

LOW LEVEL WATER :

The samples were extracted and analyzed within the CLP SOW holding times. Method blank, PBLK1001C had a TCX surrogate recovery on the DB-608 column slightly below the advisory limit. Sample B079Y6MSD had a spike recovery for Dieldrin above the QC limit on the DB-1701 column. The high recovery was due to an interference peak that co-eluted with Dieldrin. Because of the percent difference (%D) between the two GC columns exceeded the 25% limit, the Dieldrin has been "P" qualified. The %RPD for gamma-BHC and Dieldrin were slightly above the advisory QC limit.

All of the other QC results were within the limits specified by the EPA CLP SOW.

We certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data in this hardcopy data package and in the computer-readable data submitted on diskette is authorized by the Laboratory Manager or his designee, as verified by the following signatures.

Nicole Roth

Nicole Roth
CLP Program Manager

Widayati

Wida Ang
Organics Supervisor

9613494.1471

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

000005
EPA SAMPLE NO.

B079Y1

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09089 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209089-01A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21002R03

Level: (low/med) LOW Date Received: 09/29/92

% Moisture: not dec. ____ Date Analyzed: 10/02/92

GC Column: PACK ID: 2.00 (mm) Dilution Factor: 1.0

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

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

CAS NO.	COMPOUND		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	11	
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	11	
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

9613494.1472

1E

EPA SAMPLE NO.

B079Y1

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09089 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209089-01A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21002R03

Level: (low/med) LOW Date Received: 09/29/92

% Moisture: not dec. ____ Date Analyzed: 10/02/92

GC Column: PACK ID: 2.00 (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

9613494.1473

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B079Y5

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09089 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209089-02A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21002R06

Level: (low/med) LOW Date Received: 09/29/92

% Moisture: not dec. ____ Date Analyzed: 10/02/92

GC Column: PACK ID: 2.00 (mm) Dilution Factor: 1.0

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

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

CAS NO.	COMPOUND		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	7	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	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

1E

EPA SAMPLE NO.

B079Y5

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09089 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209089-02A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21002R06

Level: (low/med) LOW Date Received: 09/29/92

% Moisture: not dec. ____ Date Analyzed: 10/02/92

GC Column: PACK ID: 2.00 (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

9613494.1475

000009

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B079Y6

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09089 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209089-03A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21002R07

Level: (low/med) LOW Date Received: 09/29/92

% Moisture: not dec. ____ Date Analyzed: 10/02/92

GC Column: PACK ID: 2.00 (mm) Dilution Factor: 1.0

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

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

CAS NO.	COMPOUND		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	5	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

9613494.1476

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

000010
EPA SAMPLE NO.

B079Y6

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09089 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209089-03A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21002R07

Level: (low/med) LOW Date Received: 09/29/92

% Moisture: not dec. ____ Date Analyzed: 10/02/92

GC Column: PACK ID: 2.00 (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

9613494.1477

000011

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B079Z0

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09089 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209089-04A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21002R08

Level: (low/med) LOW Date Received: 09/29/92

% Moisture: not dec. ____ Date Analyzed: 10/02/92

GC Column: PACK ID: 2.00 (mm) Dilution Factor: 1.0

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

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

CAS NO.	COMPOUND		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	15	
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	2	J
108-10-1	4-Methyl-2-Pentanone	6	J
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	3	J
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

9613494.1478

000012

1E

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B079Z0

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09089 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209089-04A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21002R08

Level: (low/med) LOW Date Received: 09/29/92

% Moisture: not dec. ____ Date Analyzed: 10/02/92

GC Column: PACK ID: 2.00 (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

9613494.1479

000013

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B079Y1

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09089 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209089-01D

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 21007S02

Level: (low/med) LOW Date Received: 09/29/92

% Moisture: ____ decanted: (Y/N) ___ Date Extracted: 10/01/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 10/07/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-Di-n-Propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)Methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-Methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U
51-28-5	2,4-Dinitrophenol	25	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

000014
EPA SAMPLE NO.

B079Y1

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09089 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209089-01D

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 21007S02

Level: (low/med) LOW Date Received: 09/29/92

% Moisture: ____ decanted: (Y/N) ___ Date Extracted: 10/01/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 10/07/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-Butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)Anthracene	10	U
117-81-7	bis(2-Ethylhexyl)Phthalate	8	J
218-01-9	Chrysene	10	U
117-84-0	Di-n-Octyl Phthalate	10	U
205-99-2	Benzo(b)Fluoranthene	10	U
207-08-9	Benzo(k)Fluoranthene	10	U
50-32-8	Benzo(a)Pyrene	10	U
193-39-5	Indeno(1,2,3-cd)Pyrene	10	U
53-70-3	Dibenz(a,h)Anthracene	10	U
191-24-2	Benzo(g,h,i)Perylene	10	U

(1) - Cannot be separated from Diphenylamine

EPA SAMPLE NO.

B079Y1

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09089 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209089-01D

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 21007S02

Level: (low/med) LOW Date Received: 09/29/92

% Moisture: _____ decanted: (Y/N) ___ Date Extracted: 10/01/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 10/07/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

9613494.1482

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B079Y6

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09089 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209089-03B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 21006S18

Level: (low/med) LOW Date Received: 09/29/92

% Moisture: ____ decanted: (Y/N) ___ Date Extracted: 10/01/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 10/07/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-Di-n-Propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)Methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-Methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U
51-28-5	2,4-Dinitrophenol	25	U

9613494.1483

1C

EPA SAMPLE NO.

B079Y6

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09089 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209089-03B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 21006S18

Level: (low/med) LOW Date Received: 09/29/92

% Moisture: ____ decanted: (Y/N) ___ Date Extracted: 10/01/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 10/07/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

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

CAS NO.	COMPOUND		Q
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-Butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)Anthracene	10	U
117-81-7	bis(2-Ethylhexyl)Phthalate	10	U
218-01-9	Chrysene	10	U
117-84-0	Di-n-Octyl Phthalate	10	U
205-99-2	Benzo(b)Fluoranthene	10	U
207-08-9	Benzo(k)Fluoranthene	10	U
50-32-8	Benzo(a)Pyrene	10	U
193-39-5	Indeno(1,2,3-cd)Pyrene	10	U
53-70-3	Dibenz(a,h)Anthracene	10	U
191-24-2	Benzo(g,h,i)Perylene	10	U

(1) - Cannot be separated from Diphenylamine

1F

000018

EPA SAMPLE NO.

B079Y6

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09089 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209089-03B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 21006S18

Level: (low/med) LOW Date Received: 09/29/92

% Moisture: _____ decanted: (Y/N) ___ Date Extracted: 10/01/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 10/07/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

Number TICs found: 2

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN COMPOUND	21.08	2	J
2.	HEXANEDIOIC ACID ISOMER	24.65	8	J

9613494.1485

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B079Y1

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09089 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209089-01D

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N) ___ Date Received: 09/29/92

Extraction: (SepF/Cont/Sonc) CONT Date Extracted: 10/01/92

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 10/15/92

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

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

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

CAS NO.	COMPOUND		Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-36-3	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B079Y6

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09089 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209089-03B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N) ___ Date Received: 09/29/92

Extraction: (SepF/Cont/Sonc) CONT Date Extracted: 10/01/92

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 10/15/92

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

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

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

CAS NO.	COMPOUND		Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-36-3	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

PAGE 1 TMA Norfolk CHAIN OF CUSTODY ORD # N2-09-214
RCVD: 09-29-92 DUE 10-29-92 09-29-92 14 16:45 KEEP: 01/27/93 DISP: S

DASH	SAMPLE IDENTIFICATION		STORED	TESTS for FRACTIONS with work in DEPT: SU and CATEGORY						
01A-W	B079Y1	UNFILTERED	ARLI (10)	WH018	WH019	WH020	WH043	WH114	WH121	WH122
				WH128	WH131	WH132	WH140			
02A-W	B079Y6	UNFILTERED	ARLI (10)	WH018	WH019	WH020	WH043	WH114	WH121	WH122
				WH128	WH131	WH132	WH140			
02C-W	B079Y6 MS	UNFILTERED	ARLI	WH018	WH019	WH020	WH043	WH114	WH140	
02D-W	B079Y6 MSD	UNFILTERED	ARLI	WH018	WH019	WH020				
02E-W	B079Y6 DUP	UNFILTERED	ARLI	WH043	WH114	WH121	WH122	WH128	WH131	WH132
				WH140						
05A-W	B079Y5		ARLI (3)	WH018						
06A-W	B079Z0		ARLI (3)	WH018						

RELEASED BY	DATE	TRANSFERRED TO	DATE	RECEIVED BY	DATE
Lyamamoto	9-29-92	ARLI	9-29-92	Judy Foluc	9/30/92

9613494.1488

000003

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2-37P 5188039485

[redacted]

Date 9 29 96

RECIPIENT'S COPY

1 From (Your Name) Please Print: sample control

Your Phone Number (Very Important): (510)235-2033

Company: I M A /NORCAL

Department/Floor No.

Street Address: 2030 WRIGHT AVE

City: RICHMOND State: CA ZIP Required: 94804

2 To (Recipient's Name) Please Print: sample control

Recipient's Phone Number (Very Important): ( )

Company: TMA/ARC

Department/Floor

Exact Street Address (We Cannot Deliver to P.O. Boxes or P.O. Zip Codes.): 160 Taylor street

City: Monrovia State: CA ZIP Required: 91016

YOUR INTERNAL BILLING REFERENCE INFORMATION (optional) (First 24 characters will appear on invoice.): 2320 6406

H IF HOLD FOR PICK-UP, Print FEDEX Address Here: Street Address

City State ZIP Required

3 PAYMENT: 1 [x] Bill Sender 2 [ ] Bill Recipient's FedEx Acct. No. 3 [ ] Bill 3rd Party FedEx Acct. No. 4 [ ] Bill Credit Card

[ ] Cash/Check [redacted]

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Priority Overnight (Delivery by next business day)
11 [x] YOUR PACKAGING
16 [ ] FEDEX LETTER*
12 [ ] FEDEX PAK*
13 [ ] FEDEX BOX
14 [ ] FEDEX TUBE

Standard Overnight (Delivery by next business afternoon, by Saturday delivery)
51 [ ] YOUR PACKAGING
56 [ ] FEDEX LETTER*
52 [ ] FEDEX PAK*
53 [ ] FEDEX BOX
54 [ ] FEDEX TUBE

Economy Two-Day (Delivery by second business day †)
30 [ ] ECONOMY

Government Overnight (Reserved for authorized users only)
46 [ ] GOV'T LETTER
41 [ ] GOV'T PACKAGE

Freight Service (for packages over 150 lbs.)
70 [ ] OVERNIGHT FREIGHT** (Confirmed reservation required)
80 [ ] TWO-DAY FREIGHT**

† Delivery commitment may be later in some areas

*Declared Value Limit $500
**Call for delivery schedule

5 DELIVERY AND SPECIAL HANDLING (Check services required)

1 [ ] HOLD FOR PICK-UP (Fill in Box H)
2 [x] DELIVER WEEKDAY
3 DELIVER SATURDAY (Extra charge) [ ] (Not available to all locations)
4 DANGEROUS GOODS (Extra charge)
5 [ ]
6 [ ] DRY ICE Lbs.
7 [ ] OTHER SPECIAL SERVICE
8 [ ]
9 [ ] SATURDAY PICK-UP (Extra charge)
10 [ ]
[ ]
12 [ ] HOLIDAY DELIVERY (If offered) (Extra charge)

6 PACKAGES | WEIGHT in Pounds Only | YOUR DECLARED VALUE

Total 2 Total 109 Total

DIM SHIPMENT (Chargeable Weight) [ ] _____ lbs.

L x W x H

Received At: 1 [x] Regular Stop 3 [ ] Drop Box 4 [ ] B.S.C. 2 [ ] On-Call Stop 5 [ ] Station

Emp. No. Date

[ ] Cash Received
[ ] Return Shipment
[ ] Third Party [ ] Chg. To Del. [ ] Chg. To Hold

Street Address

City State Zip

Received By: X

Date/Time Received FedEx Employee Number

7 Release Signature:

Federal Express Charges
Base Charges
Declared Value Charge
Other 1
Other 2
Total Charges

REVISION DATE 2/92 PART #132038 FXEM FORMAT #126

126

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9613494.1489 000004

SAMPLE LOG-IN SHEET

LAB NAME : TMA/ARLI

PAGE : 1 OF 1

RECEIVED BY (PRINT NAME): Judy L Gdub Judy L Gdub LOG-IN-DATE : 9/30/92

RECEIVED BY (SIGNATURE): Judy L Gdub

CASE NUMBER:
SAMPLE DELIVERY GROUP NO.:
SAS NUMBER:

REMARKS:

1. Custody Seal(s) Present/Absent* Intact/Broken
2. Custody Seal Nos:
3. Chain of Custody Records Present/Absent*
4. Traffic Reports or Packing List Present/Absent*
5. Airbill Airbill/Sticker Present/Absent*
6. Airbill No.: 5188039485
7. Sample Tags Present/Absent*
8. Sample Tags Numbers Listed/Not Listed on Chain of Custody
9. Sample Condition: Intact/Broken*/Leaking
10. Does information on custody records, traffic reports, and sample tags agree Yes/No*
11. Date Recieved at Lab: 9/30/92
12. Temp of ice chest 4.0 °C
13. Time Recieved: 9:15 am

SAMPLE TRANSFER

Fraction:
Area #:
By:
On:

EPA SAMPLE #	CORRESPONDING SAMPLE TAG #	CORRESPONDING ASSIGNED LAB #	REMARKS: CONDITION OF SAMPLE SHIPMENT, ETC
	B079Y1	A2-09-089-01	10 aliquots
	B079Y6	A2-09-089-03	10 aliquots
	B079Y5	A2-09-089-02	3 Voa vials
	B079Z0	A2-09-089-04	3 Voa vials 3 containers

* Contact SMO and attach record of resolution

Reviewed By: _____ Logbook No.: _____

Date: _____ Logbook Page No.: _____

FORM DC-1

DOC2/LOGIN.TBL

TMA/ARLI
Thermo Analytical Inc.

RADIATION DOSE RATE SURVEY FORM

Date 9/30/92 COMPANY NPCAL (WHC) OTHER ORD # 5188039485

Surveyor's Name MARK S. McCray

Model No. HP-210 / ESP-1 Model No. AC-3-7 / ESP-1

Serial Nos. 710289 / 02619 Serial Nos. 407726 / 02628

Calibration Date 3/25/92 Calibration Date 8/01/92

Instrument Calibration Factor 0.280 Instrument Calibration Factor 0.188

Sample	Location	HP-210 CPM	HP-210 Factor	HP-210 DPM	AC-3-7 CPM	AC-3-7 Factor	AC-3-7 DPM	Spillage or Breakage?	Activity, uCi/mL or uCi/g
Background		35.0			0				
Consistency		7,470	0.2884		5,010	0.1841			
Smears: GS 24		58.0			6.0				
WILBER		49.0			8.0				
Reported (WHC) 15 samples each <50 pCi/gram									

Comments:

All OK ✓ Approved [signature]

Not OK Date 9/30/92

GENERAL CHEMISTRY RESULTS

CASE NO. 09-089

Water Sample #:

B079Y1 B079Y6

CASE NARRATIVE

Sample B079Y1 (A2-09-089-01) yielded a 62% recovery for the Phosphate analysis. The low Phosphate compared to our laboratory control sample indicated the presence of a matrix interference. The % RPD for the Fluoride analysis reported for water sample B079Y6 (A2-09-089-03) was 22.2%. The results for the sample and duplicate were near the instrument detection limit. These results are acceptable based on the level of Fluoride concentration.

No other problems were encountered during sample analysis. All QC results were acceptable.

Ernesto Vázquez

Ernesto Vazquez

9613494.1492

000008

TMA Inc. REPORT Work Order # A2-09-089

Received: 09/29/92 11/16/92 14:19:33

REPORT TO: Westinghouse Hanford Company
2355 Stevens Dr.
Richland,WA,99352
MO-346/200 West/T6-08

ATTEN: Jeanette Duncan

PREPARED BY: Thermo Analytical, Inc.
160 Taylor Street
Monrovia, CA 91016

ATTEN: Ms. Carole Harris
PHONE: 818-357-3247

CERTIFIED BY: Ernest Hagney

CONTACT: EVV CIH

CLIENT: WHC SAMPLES: 5
COMPANY: Westinghouse Hanford Company
FACILITY:

This report is for the sole and exclusive use of the client to whom it is addressed and represents only those samples herein described. Samples not destroyed in testing are retained a maximum of 30 days unless otherwise requested.

WORK ID: 100-KR-4
TAKEN: By Westinghouse Staff
TRANS: By Federal Express
TYPE: Liquid
P.O. #: N2-09-214-SU-AR
INVOICE: under separate cover

SAMPLE IDENTIFICATION

01	B079Y1
01	B079Y1 MS
01	B079Y1 MSD
01	B079Y1
01	B079Y1 MS
01	B079Y1 MSD
01	B079Y1
01	B079Y1 MS
01	B079Y1
01	B079Y1 Duplicate
01	B079Y1
01	B079Y1 MS
01	B079Y1
01	B079Y1 MS
02	B079Y5
03	B079Y6
03	B079Y6 MS
03	B079Y6 MSD
03	B079Y6
03	B079Y6 Duplicate
03	B079Y6
03	B079Y6 Duplicate
03	B079Y6
03	B079Y6 Duplicate
04	B079Z0
05	Wet Chemistry Blank

TEST CODES and NAMES used on this workorder

BNCLPW	CLP Semivol. Water
PECLPL	CLP Pesticides Liq.-WH019
VOCLPL	CLP Volatile Org.Liq.
WCCLPL	Anions & Wet Chem. - WH043
WCL L	Chloride - WH120
WCQCD	Quality Control Summary
WCQCS	Quality Control Summary
WF L	Fluoride in Water
WNH3 L	Ammonia in Water - WH140
WPH L	pH of Liquid - WH121
WPO4 L	Phosphate in Liquids
WSO4 L	Sulfate (in Waters)
WSULFI	Sulfide - WH114
W ALK	Alkalinity - WH131
W COD	COD Water - WH132
W COND	Conductivity-Water WH135
W TDS	Dissolved Solids WH128

9613494.1493

TMA Inc. REPORT Work Order # A2-09-089

Received: 09/29/92

Results by Sample

SAMPLE ID B079Y1 FRACTION 01G TEST CODE VCCLPL NAME Anions & Wet Chem. - VH043

Date & Time Collected 09/25/92 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Chloride	300.0	6.4	mg/L	0.2
Fluoride	300.0	0.4	mg/L	0.1
Phosphate	300.0	<0.4	mg/L	0.4
pH	150.1	8.0	pH	0.1
Sulfate	300.0	22	mg/L	1
Elect. Conductivity	120.1	288	umho/cm	6

FORM I

TRA Inc. REPORT Work Order # A2-09-089

Received: 09/29/92

Results by Sample

SAMPLE ID B079Y1 FRACTION 01I TEST CODE WCCLPL NAME Anions & Wet Chem. - WH043

Date & Time Collected 09/25/92 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Alkalinity	310.1	119	mg/L	2
Tot. Dissolved Solids	160.1	197	mg/L	5

FORM I

9613494.1495

000011

TMA Inc. REPORT Work Order # A2-09-089

Received: 09/29/92

Results by Sample

SAMPLE ID B079Y1 FRACTION 01K TEST CODE WCCLPL NAME Anions & Wet Chem. - WH043

Date & Time Collected 09/25/92 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Sulfide	376.1	<1	mg/L	1

FORM I

TMA Inc. REPORT Work Order # A2-09-089

Received: 09/29/92

Results by Sample

SAMPLE ID B079Y1 FRACTION 01M TEST CODE WCCLPL NAME Anions & Wet Chem. - VH043

Date & Time Collected 09/25/92 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Ammonia Nitrogen	350.3	<0.05	mg/L	0.05
COD	410.0	<30	mg/L	30

FORM I

9613494.1497

TNA Inc. REPORT Work Order # A2-09-089

Received: 09/29/92

Results by Sample

SAMPLE ID B079Y6 FRACTION 03E TEST CODE VCCLPL NAME Anions & Wet Chem. - VH043

Date & Time Collected 09/25/92 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Chloride	300.0	6.1	mg/L	0.2
Fluoride	300.0	0.5	mg/L	0.1
Phosphate	300.0	<0.4	mg/L	0.4
pH	150.1	8.1	pH	0.1
Sulfate	300.0	84	mg/L	1
Elect. Conductivity	120.1	421	umho/cm	6

FORM I

9613494.1498

TRA Inc. REPORT Work Order # A2-09-089

Received: 09/29/92 Results by Sample

SAMPLE ID B079Y6 FRACTION 03G TEST CODE VCCLPL NAME Anions & Wet Chem. - VN043

Date & Time Collected 09/25/92 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Alkalinity	310.1	125	mg/L	2
Tot. Dissolved Solids	160.1	308	mg/L	5

FORM I

9613494.1499

TMA Inc. REPORT Work Order # A2-09-089

Received: 09/29/92 Results by Sample

SAMPLE ID B079Y6 FRACTION 03N TEST CODE WCCLPL NAME Anions & Wet Chem. - VW043

Date & Time Collected 09/25/92 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Sulfide	376.1	<1	mg/L	1

FORM I

9613494.1500

TMA Inc. REPORT Work Order # A2-09-089

Received: 09/29/92

Results by Sample

SAMPLE ID B079Y6 FRACTION 03J TEST CODE WCCLPL NAME Anions & Wet Chem. - WH043

Date & Time Collected 09/25/92 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Ammonia Nitrogen	350.3	0.10	mg/L	0.05
COD	410.0	<30	mg/L	30

FORM I

9613494.1501

000004

EPA SAMPLE NO.

B07B11

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09060 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209060-01A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20925R08

Level: (low/med) LOW Date Received: 09/22/92

% Moisture: not dec. ____ Date Analyzed: 09/25/92

GC Column: PACK ID: 2.00 (mm) Dilution Factor: 1.0

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

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

CAS NO.	COMPOUND		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

RB 2/8/

BB 6/14/

9613494.1502

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

000008
EPA SAMPLE NO.

B07B11

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09060 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209060-01A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20925R08

Level: (low/med) LOW Date Received: 09/22/92

% Moisture: not dec. ____ Date Analyzed: 09/25/92

GC Column: PACK ID: 2.00 (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

RB
21-8/93

9613494.1503

000006
EPA SAMPLE NO.

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

B07B15

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09060 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209060-03A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20925R12

Level: (low/med) LOW Date Received: 09/22/92

% Moisture: not dec. ____ Date Analyzed: 09/25/92

GC Column: PACK ID: 2.00 (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

RB 2/18/

6/19

9613494.1504

000007

EPA SAMPLE NO.

B07B15

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09060 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209060-03A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20925R12

Level: (low/med) LOW Date Received: 09/22/92

% Moisture: not dec. ____ Date Analyzed: 09/25/92

GC Column: PACK ID: 2.00 (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

RR
2/16/93

9613494.1505

000008

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07B21

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09060 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209060-02A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20925R11

Level: (low/med) LOW Date Received: 09/22/92

% Moisture: not dec. ____ Date Analyzed: 09/25/92

GC Column: PACK ID: 2.00 (mm) Dilution Factor: 1.0

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

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

CAS NO.	COMPOUND		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

RB 2/15/

6/14/9

9613494.1506

000009

EPA SAMPLE NO.

B07B21

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TMA/ARLI Contract: MHC

Lab Code: TMALA Case No.: 09060 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209060-02A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20925R11

Level: (low/med) LOW Date Received: 09/22/92

% Moisture: not dec. ____ Date Analyzed: 09/25/92

GC Column: PACK ID: 2.00 (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

AB
2/18/93

9613494.1507

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO. 000010

B07B25

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09060 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209060-04A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20925R13

Level: (low/med) LOW Date Received: 09/22/92

% Moisture: not dec. ____ Date Analyzed: 09/25/92

GC Column: PACK ID: 2.00 (mm) Dilution Factor: 1.0

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

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

CAS NO.	COMPOUND		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

RB 2/12/9

6/14/

9613494.1508

000011

1E

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B07B25

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09060 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209060-04A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20925R13

Level: (low/med) LOW Date Received: 09/22/92

% Moisture: not dec. ____ Date Analyzed: 09/25/92

GC Column: PACK ID: 2.00 (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

RB
2/18/93

9613494.1509

000012

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07B11

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09060 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209060-01D

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 20928S08

Level: (low/med) LOW Date Received: 09/22/92

% Moisture: ____ decanted: (Y/N) ___ Date Extracted: 09/24/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/28/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-Di-n-Propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)Methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-Methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U
51-28-5	2,4-Dinitrophenol	25	U

RB 2/22/4

RB 6/14

9613494.1510

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

000013
EPA SAMPLE NO.

B07B11

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09060 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209060-01D

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 20928S08

Level: (low/med) LOW Date Received: 09/22/92

% Moisture: ____ decanted: (Y/N) ___ Date Extracted: 09/24/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/28/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-Butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)Anthracene	10	U
117-81-7	bis(2-Ethylhexyl)Phthalate	10	U
218-01-9	Chrysene	10	U
117-84-0	Di-n-Octyl Phthalate	10	U
205-99-2	Benzo(b)Fluoranthene	10	U
207-08-9	Benzo(k)Fluoranthene	10	U
50-32-8	Benzo(a)Pyrene	10	U
193-39-5	Indeno(1,2,3-cd)Pyrene	10	U
53-70-3	Dibenz(a,h)Anthracene	10	U
191-24-2	Benzo(g,h,i)Perylene	10	U

(1) - Cannot be separated from Diphenylamine

YB 2/22/

BD 6/14/

9613494.1511

1F

000014
EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B07B11

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09060 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209060-01D

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 20928S08

Level: (low/med) LOW Date Received: 09/22/92

% Moisture: ____ decanted: (Y/N) ___ Date Extracted: 09/24/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/28/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

RD
2/22/93

9613494.1512

1B

000015

EPA SAMPLE NO.

B07B21

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09060 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209060-02B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 20928S07

Level: (low/med) LOW Date Received: 09/22/92

% Moisture: _____ decanted: (Y/N) ___ Date Extracted: 09/24/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/28/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-Di-n-Propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)Methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-Methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U
51-28-5	2,4-Dinitrophenol	25	U

RB 6/21

RB 6/14/9

9613494.1513

000016

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07E21

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09060 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209060-02B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 20928S07

Level: (low/med) LOW Date Received: 09/22/92

% Moisture: ____ decanted: (Y/N) ___ Date Extracted: 09/24/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/28/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

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

CAS NO.	COMPOUND		Q
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-Butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)Anthracene	10	U
117-81-7	bis(2-Ethylhexyl)Phthalate	10	U
218-01-9	Chrysene	10	U
117-84-0	Di-n-Octyl Phthalate	10	U
205-99-2	Benzo(b)Fluoranthene	10	U
207-08-9	Benzo(k)Fluoranthene	10	U
50-32-8	Benzo(a)Pyrene	10	U
193-39-5	Indeno(1,2,3-cd)Pyrene	10	U
53-70-3	Dibenz(a,h)Anthracene	10	U
191-24-2	Benzo(g,h,i)Perylene	10	U

(1) - Cannot be separated from Diphenylamine

RB 2/22/

RB 6/14/

9613494.1514

1F

000017

EPA SAMPLE NO.

B07B21

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09060 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209060-02B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 20928S07

Level: (low/med) LOW Date Received: 09/22/92

% Moisture: ____ decanted: (Y/N) ___ Date Extracted: 09/24/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/28/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

AR
2/22/93

9613494.1515

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

000018

EPA SAMPLE NO.

B07B11

ab Name: TMA/ARLI Contract: NHC

ab Code: TMALA Case No.: 09060 SAS No.: NA SDG No.: NA

atrix: (soil/water) WATER Lab Sample ID: A209060-01D

ample wt/vol: 1000 (g/mL) ML Lab File ID: _____

Moisture: _____ decanted: (Y/N) ___ Date Received: 09/22/92

xtraction: (SepF/Cont/Sonc) CONT Date Extracted: 09/24/92

oncentrated Extract Volume: 10000 (uL) Date Analyzed: 10/09/92

njection Volume: 1.00 (uL) Dilution Factor: 1.00

PC Cleanup: (Y/N) N pH: ____ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	UJ
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	UJ
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-36-3	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

RB 2/18/93

RB 6/14/93

9613494.1516

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

000019
EPA SAMPLE NO.

B07B21

.b Name: TMA/ARLI Contract: WHC

.b Code: TMALA Case No.: 09060 SAS No.: NA SDG No.: NA

.trix: (soil/water) WATER Lab Sample ID: A209060-02B

.mple wt/vol: 1000 (g/mL) ML Lab File ID: _____

Moisture: _____ decanted: (Y/N) ___ Date Received: 09/22/92

.ctraction: (SepF/Cont/Sonc) CONT Date Extracted: 09/24/92

.oncentrated Extract Volume: 10000 (uL) Date Analyzed: 10/09/92

.jection Volume: 1.00 (uL) Dilution Factor: 1.00

.PC Cleanup: (Y/N) N pH: ____ Sulfur Cleanup: (Y/N) N

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

CAS NO.	COMPOUND		Q
319-84-6	alpha-BHC	0.050	UJ
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	UJ
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-36-3	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

RB 2/18/93

RB 6/14/

9613494.1517

WESTINGHOUSE/HANFORD
1

INORGANIC ANALYSIS DATA SHEET

SAMPLE NUMBER: B07B11

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D0-0108

Lab Code: SKINER Case No.: N2-09-155SAS No.: SDG No.: B07B11

Matrix (soil/water): WATER Lab Sample ID: 09386-01S

Level (low/med): LOW Date Received: 09/23/92

% Solids: 0.0

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

2/19/93 fn

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	35.0	~~B~~	U	P
7440-36-0	Antimony	14.8	U		P
7440-38-2	Arsenic	4.6	B		F
7440-39-3	Barium	27.1	B		P
7440-41-7	Beryllium	0.32	~~B~~	U	P
7440-43-9	Cadmium	1.5	U		P
7440-70-2	Calcium	36600			P
7440-47-3	Chromium	9.9	B		P
7440-48-4	Cobalt	1.3	U		P
7440-50-8	Copper	3.8	~~B~~	U	P
7439-89-6	Iron	83.3	~~B~~	U	P
7439-92-1	Lead	4.7			F
7439-95-4	Magnesium	9550			P
7439-96-5	Manganese	14.0	B		P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	2.6	U	U	P
7440-09-7	Potassium	4690	B		P
7782-49-2	Selenium	3.9	U		F
7440-22-4	Silver	3.6	U		P
7440-23-5	Sodium	19600			P
7440-28-0	Thallium	1.3	U	~~W~~ J	F
7440-62-2	Vanadium	10.1	B		P
7440-66-6	Zinc	130			P
	Cyanide	10.0	U		CA

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

6/14/

02

9613494.1518

WESTINGHOUSE/HANFORD
1

INORGANIC ANALYSIS DATA SHEET

SAMPLE NUMBER: B07B21

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D0-0108

Lab Code: SKINER Case No.: N2-09-155SAS No.: SDG No.: B07B11

Matrix (soil/water): WATER Lab Sample ID: 09386-02S

Level (low/med): LOW Date Received: 09/23/92

% Solids: 0.0

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

2/19/93

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	43.1	~~B~~	U	P
7440-36-0	Antimony	14.8	U		P
7440-38-2	Arsenic	3.2	U		F
7440-39-3	Barium	26.5	B		P
7440-41-7	Beryllium	0.30	U	U	P
7440-43-9	Cadmium	1.5	U		P
7440-70-2	Calcium	35600			P
7440-47-3	Chromium	8.8	B		P
7440-48-4	Cobalt	1.3	U		P
7440-50-8	Copper	1.9	U	U	P
7439-89-6	Iron	84.0	~~B~~	U	P
7439-92-1	Lead	3.4			F
7439-95-4	Magnesium	9220			P
7439-96-5	Manganese	16.8			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	2.6	U	U	P
7440-09-7	Potassium	4550	B		P
7782-49-2	Selenium	3.9	U		F
7440-22-4	Silver	3.6	U		P
7440-23-5	Sodium	19200			P
7440-28-0	Thallium	1.3	U	~~U~~ J	F
7440-62-2	Vanadium	8.6	B		P
7440-66-6	Zinc	138			P
	Cyanide	10.0	U		CA

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

6/14/93

9613494.1519

WESTINGHOUSE/HANFORD
1

Filtered
SAMPLE NUMBER:

INORGANIC ANALYSIS DATA SHEET

B07B14

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D0-0108

Lab Code: SKINER Case No.: N2-09-155SAS No.: SDG No.: B07B14

Matrix (soil/water): WATER Lab Sample ID: 09387-01S

Level (low/med): LOW Date Received: 09/~~23~~/92

% Solids: 0.0

2/19/93 JN

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	29.2	~~B~~	U	P
7440-36-0	Antimony	14.8	U		P
7440-38-2	Arsenic	3.6	B		F
7440-39-3	Barium	26.8	B		P
7440-41-7	Beryllium	0.30	U	U	P
7440-43-9	Cadmium	1.5	U	U	P
7440-70-2	Calcium	36200			P
7440-47-3	Chromium	10.5			P
7440-48-4	Cobalt	3.2	~~B~~	U	P
7440-50-8	Copper	2.3	~~B~~	U	P
7439-89-6	Iron	8.0	~~B~~	U	P
7439-92-1	Lead	4.9		UJ	F
7439-95-4	Magnesium	9440			P
7439-96-5	Manganese	11.8	B		P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	2.6	U		P
7440-09-7	Potassium	4610	B		P
7782-49-2	Selenium	3.6	U	UJ	F
7440-22-4	Silver	3.6	U		P
7440-23-5	Sodium	19500			P
7440-28-0	Thallium	3.8	U		F
7440-62-2	Vanadium	11.1	~~B~~	U	P
7440-66-6	Zinc	28.5		U	P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

BJ 6/14/93

002

9613494.1520

WESTINGHOUSE/HANFORD
1

Filtered

SAMPLE NUMBER:

INORGANIC ANALYSIS DATA SHEET

B07B24

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D0-0108

Lab Code: SKINER Case No.: N2-09-155SAS No.: SDG No.: B07B14

Matrix (soil/water): WATER Lab Sample ID: 09387-02S

Level (low/med): LOW Date Received: 09/23/92

% Solids: 0.0

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

2/19/93 JW

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	22.9	~~B~~	U	P
7440-36-0	Antimony	14.8	U		P
7440-38-2	Arsenic	3.0	B		F
7440-39-3	Barium	24.7	B		P
7440-41-7	Beryllium	0.30	U	U	P
7440-43-9	Cadmium	1.5	U	U	P
7440-70-2	Calcium	35800			P
7440-47-3	Chromium	7.1	B		P
7440-48-4	Cobalt	1.3	U	U	P
7440-50-8	Copper	1.9	U	U	P
7439-89-6	Iron	27.2	~~B~~	U	P
7439-92-1	Lead	2.8	B		F
7439-95-4	Magnesium	9320			P
7439-96-5	Manganese	10.6	B		P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	2.6	U		P
7440-09-7	Potassium	4590	B		P
7782-49-2	Selenium	3.6	U	UJ	F
7440-22-4	Silver	3.6	U		P
7440-23-5	Sodium	19500			P
7440-28-0	Thallium	3.8	U	UJ	F
7440-62-2	Vanadium	9.2	~~B~~	U	P
7440-66-6	Zinc	11.7	~~B~~	U	P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

BJ 6/14/93

003

9613494.1521

000010

TMA Inc. REPORT Work Order # A2-09-060

Received: 09/22/92

Results by Sample

SAMPLE ID B07B11 FRACTION 01G TEST CODE WCCLPL NAME Anions & Wet Chem. - WH043

Date & Time Collected 09/18/92 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Chloride	300.0	6.1	mg/L	0.2
Fluoride	300.0	0.3	mg/L	0.1
Phosphate	300.0	~~<~~0.4	mg/L	0.4
pH	150.1	8.0	pH	0.1
Sulfate	300.0	42	mg/L	1
Elect. Conductivity	120.1	322	umho/cm	6

U

FORM I

RSD
6/14/93

9613494.1522

000011

TMA Inc. REPORT Work Order # A2-09-060

Received: 09/22/92

Results by Sample

SAMPLE ID B07B11 FRACTION 01I TEST CODE WCCLPL NAME Anions & Wet Chem. - WH043

Date & Time Collected 09/18/92 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT	
Sulfide	376.1	<1	mg/L	1	UJ Holding Time

FORM I

2/22/93 fw

ABJ 6/14/93

9613494.1523

000012

TMA Inc. REPORT Work Order # A2-09-060

Received: 09/22/92

Results by Sample

SAMPLE ID B07B11 FRACTION 01K TEST CODE WCCLPL NAME Anions & Wet Chem. - WH043

Date & Time Collected 09/18/92 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT	
Ammonia Nitrogen	350.3	<0.05	mg/L	0.05	U
COD	410.0	<30	mg/L	30	U

FORM I

6/14/93

TMA Inc. REPORT Work Order # A2-09-060

Received: 09/22/92

Results by Sample

SAMPLE ID B07B11 FRACTION 01M TEST CODE WCCLPL NAME Anions & Wet Chem. - WH043

Date & Time Collected 09/18/92 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Alkalinity	310.1	112	mg/L	2
Tot. Dissolved Solids	160.1	199	mg/L	5

FORM I

AD
6/14/93

9613494.1525

TMA Inc. REPORT Work Order # A2-09-060

Received: 09/22/92 Results by Sample

SAMPLE ID B07B21 FRACTION 02E TEST CODE WCCLPL NAME Anions & Wet Chem. - WH043

Date & Time Collected 09/18/92 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Chloride	300.0	6.0	mg/L	0.2
Fluoride	300.0	0.3	mg/L	0.1
Phosphate	300.0	<0.4	mg/L	0.4
pH	150.1	8.0	pH	0.1
Sulfate	300.0	42	mg/L	1
Elect. Conductivity	120.1	322	umho/cm	6

U

FORM I

PBJ
6/14/93

9613494.1526

TNA Inc. REPORT Work Order # A2-09-060

Received: 09/22/92

Results by Sample

SAMPLE ID B07B21 FRACTION 02G TEST CODE WCCLPL NAME Anions & Wet Chem. - WH043

Date & Time Collected 09/18/92 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Sulfide	376.1	<1.	mg/L	1 UJ

Holding Time

FORM I

2/22/93

RBD
6/14/93

TMA Inc. REPORT Work Order # A2-09-060

Received: 09/22/92

Results by Sample

SAMPLE ID B07B21 FRACTION 021 TEST CODE WCCLPL NAME Anions & Wet Chem. - WH043

Date & Time Collected 09/18/92 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT	
Ammonia Nitrogen	350.3	<0.05	mg/L	0.05	U
COD	410.0	<30	mg/L	30	U

FORM I

RJ 6/14/93

9613494.1528

TMA Inc. REPORT Work Order # A2-09-060

eceived: 09/22/92

Results by Sample

AMPLE ID B07821 FRACTION 02K TEST CODE WCCLPL NAME Anions & Wet Chem. - WH043

Date & Time Collected 09/18/92 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Alkalinity	310.1	112	mg/L	2
Tot. Dissolved Solids	160.1	210	mg/L	5

FORM I

RBJ
6/14/93

9613494.1529

000002

 Skinner&Sherman REPORT Work Order # S2-09-389

Received: 09/23/92 Results by Sample

SAMPLE ID B07B11 SAMPLE # 01 FRACTIONS: A
Date & Time Collected 09/18/92 Category WATER

NO3NO2 1.99 mg N/L

SAMPLE ID B07B21 SAMPLE # 02 FRACTIONS: A
Date & Time Collected 09/18/92 Category WATER

NO3NO2 2.32 mg N/L

SAMPLE ID B07B21 DUPL SAMPLE # 02 FRACTIONS: B
Date & Time Collected 09/18/92 Category WATER

NO3NO2 2.21 mg N/L

SAMPLE ID B07B21 SPIKE SAMPLE # 02 FRACTIONS: C
Date & Time Collected 09/18/92 Category WATER

NO3NO2 4.06 mg N/L

SAMPLE ID LCSW SAMPLE # 03 FRACTIONS: A
Date & Time Collected not specified Category WATER

NO3NO2 1.89 mg N/L

2/22/93

6/14/93

TMA
Thermo Analytical Inc.
Skinner & Sherman Laboratories Inc. 500 Second Avenue, P.O. Box 521, Waltham, Massachusetts 02254-0521 (617) 890-720
1-800-4 LAB TEST FAX (617) 890-3883

9613494.1530

TMA NORCAL

REPORTING GROUP 7102

N209170-04

DATA SHEET

B07906

SDG	7102	Client	Westinghouse Hanford
Contact	Dinkar Kharkar	Contract	MBH-SVV-069262
Lab sample id	N209170-04	Client sample id	B07906
Dept sample id	7102-004	Matrix	WATER
Received	09/24/92	Collected	09/22/92
		Chain of custody id	EFL-1048

PARAMETER	CAS NO	RESULT pCi/L	2σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALI-FIERS	TEST
Gross Alpha	Alpha	4.3	2.5	3	3	R	80A
Gross Beta	Beta	6.3	1.5	2	4		80B
Uranium 233/234		2.1	0.39	0.1	0.2		U
Uranium 235	15117-96-1	0.098	0.084	0.1	0.2	U	U
Uranium 238	7440-61-1	1.8	0.33	0.09	0.2		U
Plutonium 238	13981-16-3	0.022	0.020	0.03	0.05	U	PU
Plutonium 239/240		-0.002	0.005	0.02	0.05	U	PU
Americium 241	14596-10-2	-0.002	0.011	0.02	0.05	U	AM
Strontium 90	10098-97-2	0.007	0.51	0.8	2	U	Y
Technetium 99	14133-76-7	-0.13	1.4	5	5	U	TC
Tritium	10028-17-8	460	170	200	400		H
Carbon 14	14762-75-5	340	37	50	50	J	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2	U		100		U	GAM
Iron 59		U		50	30	U	GAM
Chromium 51	14392-02-0	U		500		U	GAM
Cobalt 60	10198-40-0	U		20	30	U	GAM
Zinc 65	17982-39-3	U		30		U	GAM
Ruthenium 106	13967-48-1	U		100		U	GAM
Cesium 134	17967-70-9	U		10		U	GAM
Cesium 137	10045-97-3	U		10	20	U	GAM
Europium 152	14683-23-9	U		20	40	U	GAM
Europium 154	15585-10-1	U		20	40	U	GAM
Radium 226	13982-67-7	U		20		U	GAM
Thorium 228	14274-82-9	U		20		U	GAM
Thorium 232	7440-29-1	U		50		U	GAM

RB 2/17/93

6/14/93

Lab id	TMAN
Protocol	WHC-HEIS
Version	Ver 1.0
Form	DVD-DS
Version	2.22
Report date	01/29/93

9613494.1531

TMA NORCAL

REPORTING GROUP 7102

N209170-17

B079R1

DATA SHEET

SDG 7102
Contact Dinkar Kharkar

Client Westinghouse Hanford
Contract MBH-SVV-069262

Lab sample id N209170-17
Dept sample id 7102-017
Received 09/23/92

Client sample id B079R1
Matrix WATER
Collected 09/21/92
Chain of custody id EFL-1048

PARAMETER	CAS NO	RESULT pCi/L	2σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALI-FIERS	TEST
Gross Alpha	Alpha	-0.38	1.6	3	3	~~U~~R	80A
Gross Beta	Beta	3.2	1.4	2	4	J	80B
Uranium 233/234		0.16	0.11	0.2	0.2	U	U
Uranium 235	15117-96-1	0.016	0.066	0.1	0.2	U	U
Uranium 238	7440-61-1	0.15	0.083	0.1	0.2	J	U
Plutonium 238	13981-16-3	0	0.014	0.03	0.05	U	PU
Plutonium 239/240		0.007	0.009	0.02	0.05	U	PU
Americium 241	14596-10-2	0	0.008	0.02	0.05	U	AM
Strontium 90	10098-97-2	-0.091	0.53	0.8	2	U	Y
Technetium 99	14133-76-7	-1.1	4.7	8	5	U	TC
Tritium	10028-17-8	9600	410	200	400		H
Carbon 14	14762-75-5	120	24	30	50	~~B~~J	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2	U		200		U	GAM
Iron 59		U		90	30	U	GAM
Chromium 51	14392-02-0	U		700		U	GAM
Cobalt 60	10198-40-0	U		20	30	U	GAM
Zinc 65	17982-39-3	U		30		U	GAM
Ruthenium 106	13967-48-1	U		100		U	GAM
Cesium 134	17967-70-9	U		10		U	GAM
Cesium 137	10045-97-3	U		10	20	U	GAM
Europium 152	14683-23-9	U		20	40	U	GAM
Europium 154	15585-10-1	U		10	40	U	GAM
Radium 226	13982-67-7	U		20		U	GAM
Thorium 228	14274-82-9	U		20		U	GAM
Thorium 232	7440-29-1	U		50		U	GAM

RB
2/17/93

Lab id TMAN
Protocol WHC-HEIS
Version Ver 1.0
Form DVD-DS
Version 2.22
Report date 01/29/93

BB
6/14/92

9613494.1532

TMA NORCAL

REPORTING GROUP 7102

N209170-18

B079R6

DATA SHEET

SDG 7102
Contact Dinkar Kharkar
Client Westinghouse Hanford
Contract MBH-SVV-069262

Lab sample id N209170-18
Dept sample id 7102-018
Received 09/23/92
Client sample id B079R6
Matrix WATER
Collected 09/21/92
Chain of custody id EFL-1049

PARAMETER	CAS NO	RESULT pCi/L	2σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALI-FIERS	TEST
Gross Alpha	Alpha	2.6	1.9	2	3	LR	80A
Gross Beta	Beta	27	2.3	2	4		80B
Uranium 233/234		0.73	0.24	0.1	0.2		U
Uranium 235	15117-96-1	0.039	0.039	0.1	0.2	U	U
Uranium 238	7440-61-1	0.49	0.20	0.1	0.2		U
Plutonium 238	13981-16-3	-0.002	0.009	0.03	0.05	U	PU
Plutonium 239/240		0.007	0.009	0.02	0.05	U	PU
Americium 241	14596-10-2	0.002	0.008	0.02	0.05	U	AM
Strontium 90	10098-97-2	9.0	0.97	0.8	2		Y
Technetium 99	14133-76-7	1.8	2.3	7	5	U	TC
Tritium	10028-17-8	710	180	200	400		H
Carbon 14	14762-75-5	630	140	200	50	J	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2	U		300		U	GAM
Iron 59		U		100	30	U	GAM
Chromium 51	14392-02-0	U		800		U	GAM
Cobalt 60	10198-40-0	U		20	30	U	GAM
Zinc 65	17982-39-3	U		40		U	GAM
Ruthenium 106	13967-48-1	U		200		U	GAM
Cesium 134	17967-70-9	U		20		U	GAM
Cesium 137	10045-97-3	U		20	20	U	GAM
Europium 152	14683-23-9	U		30	40	U	GAM
Europium 154	15585-10-1	U		20	40	U	GAM
Radium 226	13982-67-7	U		30		U	GAM
Thorium 228	14274-82-9	U		20		U	GAM
Thorium 232	7440-29-1	U		60		U	GAM

RB 2/17/93

Lab id TMAN
Protocol WHC-HEIS
Version Ver 1.0
Form DVD-DS
Version 2.22
Report date 01/29/93

6/14/93

9613494.1533

TMA NORCAL

REPORTING GROUP 7102

N209170-19

DATA SHEET

B079S1

SDG 7102
Contact Dinkar Kharkar

Client Westinghouse Hanford
Contract MBH-SVV-069262

Lab sample id N209170-19
Dept sample id 7102-019
Received 09/23/92

Client sample id B079S1
Matrix WATER
Collected 09/21/92
Chain of custody id EFL-1048

PARAMETER	CAS NO	RESULT pCi/L	2σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALI-FIERS	TEST
Gross Alpha	Alpha	0.62	1.8	2	3	UR	80A
Gross Beta	Beta	71	3.4	2	4		80B
Uranium 233/234		0.44	0.15	0.1	0.2		U
Uranium 235	15117-96-1	0.074	0.060	0.1	0.2	U	U
Uranium 238	7440-61-1	0.38	0.15	0.09	0.2		U
Plutonium 238	13981-16-3	0.021	0.018	0.03	0.05	U	PU
Plutonium 239/240		0	0.018	0.04	0.05	U	PU
Americium 241	14596-10-2	0	0.012	0.02	0.05	U	AM
Strontium 90	10098-97-2	30	1.6	1	2		Y
Technetium 99	14133-76-7	0.49	1.9	6	5	U	TC
Tritium	10028-17-8	930	190	200	400		H
Carbon 14	14762-75-5	24	28	50	50	UJ	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2	U		200		U	GAM
Iron 59		U		80	30	U	GAM
Chromium 51	14392-02-0	U		600		U	GAM
Cobalt 60	10198-40-0	U		10	30	U	GAM
Zinc 65	17982-39-3	U		40		U	GAM
Ruthenium 106	13967-48-1	U		100		U	GAM
Cesium 134	17967-70-9	U		10		U	GAM
Cesium 137	10045-97-3	U		10	20	U	GAM
Europium 152	14683-23-9	U		20	40	U	GAM
Europium 154	15585-10-1	U		10	40	U	GAM
Radium 226	13982-67-7	U		20		U	GAM
Thorium 228	14274-82-9	U		20		U	GAM
Thorium 232	7440-29-1	U		40		U	GAM

RB 2/17/93

Lab id TMAN
Protocol WNC-HEIS
Version Ver 1.0
Form DVD-DS
Version 2.22
Report date 01/29/93

6/14/93

9613494.1534

TMA NORCAL

REPORTING GROUP 7102

N209170-20

B079S6

DATA SHEET

SDG 7102
Contact Dinkar Kharkar
Client Westinghouse Hanford
Contract MBH-SVV-069262

Lab sample id N209170-20
Dept sample id 7102-020
Received 09/23/92
Client sample id B079S6
Matrix WATER
Collected 09/21/92
Chain of custody id EFL-1049

PARAMETER	CAS NO	RESULT pCi/L	2σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALIFIERS	TEST
Gross Alpha	Alpha	2.0	2.1	3	3	UR	80A
Gross Beta	Beta	17	1.9	2	4		80B
Uranium 233/234		0.63	0.19	0.1	0.2		U
Uranium 235	15117-96-1	0.024	0.049	0.09	0.2	U	U
Uranium 238	7440-61-1	0.71	0.18	0.08	0.2		U
Plutonium 238	13981-16-3	-0.006	0.024	0.05	0.05	U	PU
Plutonium 239/240		0	0.018	0.04	0.05	U	PU
Americium 241	14596-10-2	0	0.011	0.02	0.05	U	AM
Strontium 90	10098-97-2	5.6	1.2	0.9	2		Y
Technetium 99	14133-76-7	2.3	2.0	6	5	U	TC
Tritium	10028-17-8	790	180	200	400		H
Carbon 14	14762-75-5	120	41	60	50	UJ	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2	U		100		U	GAM
Iron 59		U		100	30	U	GAM
Chromium 51	14392-02-0	U		800		U	GAM
Cobalt 60	10198-40-0	U		20	30	U	GAM
Zinc 65	17982-39-3	U		30		U	GAM
Ruthenium 106	13967-48-1	U		100		U	GAM
Cesium 134	17967-70-9	U		10		U	GAM
Cesium 137	10045-97-3	U		10	20	U	GAM
Europium 152	14683-23-9	U		20	40	U	GAM
Europium 154	15585-10-1	U		10	40	U	GAM
Radium 226	13982-67-7	U		20		U	GAM
Thorium 228	14274-82-9	U		20		U	GAM
Thorium 232	7440-29-1	U		50		U	GAM

RB 2/17/93

Lab id TMAN
Protocol WHC-HEIS
Version Ver 1.0
Form DVD-DS
Version 2.22
Report date 01/29/93

RBJ 6/14/93

9613494.1535

TMA NORCAL

REPORTING GROUP 7102

DATA SHEET

N209170-05

B079T6

SDG 7102
Contact Dinkar Kharkar
Client Westinghouse Hanford
Contract MBH-SVV-069262

Lab sample id N209170-05
Dept sample id 7102-005
Received 09/24/92
Client sample id B079T6
Matrix WATER
Collected 09/22/92
Chain of custody id EFL-1048

PARAMETER	CAS NO	RESULT pCi/L	2σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALI-FIERS	TEST
Gross Alpha	Alpha	6.1	3.1	3	3	R	80A
Gross Beta	Beta	20	2.1	2	4		80B
Uranium 233/234		2.1	0.43	0.2	0.2		U
Uranium 235	15117-96-1	0.29	0.14	0.1	0.2		U
Uranium 238	7440-61-1	1.6	0.36	0.1	0.2		U
Plutonium 238	13981-16-3	-0.003	0.016	0.04	0.05	U	PU
Plutonium 239/240		0	0.005	0.02	0.05	U	PU
Americium 241	14596-10-2	-0.008	0.015	0.03	0.05	U	AM
Strontium 90	10098-97-2	0.14	0.30	0.8	2	U	Y
Technetium 99	14133-76-7	8.3	2.1	4	5		TC
Tritium	10028-17-8	24000	620	200	400		H
Carbon 14	14762-75-5	320	44	60	50	BJ	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2	U		200		U	GAM
Iron 59		U		90	30	U	GAM
Chromium 51	14392-02-0	U		600		U	GAM
Cobalt 60	10198-40-0	U		10	30	U	GAM
Zinc 65	17982-39-3	U		30		U	GAM
Ruthenium 106	13967-48-1	U		100		U	GAM
Cesium 134	17967-70-9	U		20		U	GAM
Cesium 137	10045-97-3	U		20	20	U	GAM
Europium 152	14683-23-9	U		30	40	U	GAM
Europium 154	15585-10-1	U		20	40	U	GAM
Radium 226	13982-67-7	U		30		U	GAM
Thorium 228	14274-82-9	U		20		U	GAM
Thorium 232	7440-29-1	U		60		U	GAM
Gamma SB125		42	26				GAM

RB 2/17/93

RB 6/14/93

Lab id TMAN
Protocol WHC-HEIS
Version Ver 1.0
Form DVD-DS
Version 2.22
Report date 01/29/93

9613494.1536

TMA NORCAL

REPORTING GROUP 7102

N209170-09

B079V6

DATA SHEET

SDG 7102
Contact Dinker Kharkar
Client Westinghouse Hanford
Contract MBH-SVV-069262

Lab sample id N209170-09
Dept sample id 7102-009
Received 09/25/92
Client sample id B079V6
Matrix WATER
Collected 09/23/92
Chain of custody id EFL-1048

PARAMETER	CAS NO	RESULT pCi/L	2σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALIFIERS	TEST
Gross Alpha	Alpha	0.085	1.6	3	3	~~U~~R	80A
Gross Beta	Beta	5.3	1.4	2	4		80B
Uranium 233/234		0.73	0.27	0.1	0.2		U
Uranium 235	15117-96-1	0.043	0.044	0.2	0.2	U	U
Uranium 238	7440-61-1	0.59	0.23	0.1	0.2		U
Plutonium 238	13981-16-3	-0.012	0.025	0.05	0.05	U	PU
Plutonium 239/240		0	0.005	0.02	0.05	U	PU
Americium 241	14596-10-2	-0.002	0.020	0.04	0.05	U	AM
Strontium 90	10098-97-2	-0.14	0.88	1	2	U	Y
Technetium 99	14133-76-7	2.6	1.8	5	5	U	TC
Tritium	10028-17-8	1500	210	200	400		H
Carbon 14	14762-75-5	200	56	90	50	~~R~~UJ	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2	U		100		U	GAM
Iron 59		U		70	30	U	GAM
Chromium 51	14392-02-0	U		500		U	GAM
Cobalt 60	10198-40-0	U		10	30	U	GAM
Zinc 65	17982-39-3	U		30		U	GAM
Ruthenium 106	13967-48-1	U		100		U	GAM
Cesium 134	17967-70-9	U		10		U	GAM
Cesium 137	10045-97-3	U		10	20	U	GAM
Europium 152	14683-23-9	U		20	40	U	GAM
Europium 154	15585-10-1	U		10	40	U	GAM
Radium 226	13982-67-7	U		20		U	GAM
Thorium 228	14274-82-9	U		20		U	GAM
Thorium 232	7440-29-1	U		50		U	GAM

RB 2/17/93

Lab id TMAN
Protocol WHC-HEIS
Version Ver 1.0
Form DVD-DS
Version 2.22
Report date 01/29/93

PBD 6/14/93

9613494.1537

TMA NORCAL

REPORTING GROUP 7102

N209170-07

B079W1

DATA SHEET

SDG 7102
Contact Dinkar Kharkar

Client Westinghouse Hanford
Contract MBH-SVV-069262

Lab sample id N209170-07
Dept sample id 7102-007
Received 09/25/92

Client sample id B079W1
Matrix WATER
Collected 09/23/92
Chain of custody id EFL-1049

PARAMETER	CAS NO	RESULT pCi/L	2σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALI-FIERS	TEST
Gross Alpha	Alpha	3.9	2.4	2	3	R	80A
Gross Beta	Beta	15	1.9	2	4		80B
Uranium 233/234		0.63	0.21	0.1	0.2		U
Uranium 235	15117-96-1	0.074	0.060	0.1	0.2	U	U
Uranium 238	7440-61-1	0.44	0.15	0.09	0.2		U
Plutonium 238	13981-16-3	0	0.009	0.03	0.05	U	PU
Plutonium 239/240		0	0.005	0.02	0.05	U	PU
Americium 241	14596-10-2	-0.009	0.023	0.05	0.05	U	AM
Strontium 90	10098-97-2	0.78	0.47	1	2	U	Y
Technetium 99	14133-76-7	7.8	2.4	5	5		TC
Tritium	10028-17-8	3100	260	200	400		H
Carbon 14	14762-75-5	270	39	50	50	BKJ	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2	U		100		U	GAM
Iron 59		U		70	30	U	GAM
Chromium 51	14392-02-0	U		500		U	GAM
Cobalt 60	10198-40-0	U		20	30	U	GAM
Zinc 65	17982-39-3	U		30		U	GAM
Ruthenium 106	13967-48-1	U		100		U	GAM
Cesium 134	17967-70-9	U		10		U	GAM
Cesium 137	10045-97-3	U		10	20	U	GAM
Europium 152	14683-23-9	U		20	40	U	GAM
Europium 154	15585-10-1	U		10	40	U	GAM
Radium 226	13982-67-7	U		20		U	GAM
Thorium 228	14274-82-9	U		20		U	GAM
Thorium 232	7440-29-1	U		50		U	GAM

RB 2/17/93

Lab id TMAN
Protocol WHC-HEIS
Version Ver 1.0
Form DVD-DS
Version 2.22
Report date 01/29/93

RB 6/14/93

9613494.1538

TMA NORCAL

REPORTING GROUP 7102

DATA SHEET

N209170-08

B079W6

SDG 7102
Contact Dinkar Kharker
Client Westinghouse Hanford
Contract MBN-SVV-069262

Lab sample id N209170-08
Dept sample id 7102-008
Received 09/25/92
Client sample id B079W6
Matrix WATER
Collected 09/23/92
Chain of custody id EFL-1049

PARAMETER	CAS NO	RESULT pCi/L	2σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALIFIERS	TEST
Gross Alpha	Alpha	2.3	2.5	3	3	~~UR~~	80A
Gross Beta	Beta	5.1	1.4	2	4		80B
Uranium 233/234		2.1	0.40	0.1	0.2		U
Uranium 235	15117-96-1	-0.015	0.031	0.1	0.2	U	U
Uranium 238	7440-61-1	1.2	0.28	0.1	0.2		U
Plutonium 238	13981-16-3	-0.003	0.027	0.06	0.05	U	PU
Plutonium 239/240		0	0.007	0.03	0.05	U	PU
Americium 241	14596-10-2	-0.018	0.024	0.06	0.05	U	AM
Strontium 90	10098-97-2	0.048	0.64	0.9	2	U	Y
Technetium 99	14133-76-7	6.2	11	20	5	~~UR~~	TC
Tritium	10028-17-8	-67	140	200	400	U	H
Carbon 14	14762-75-5	140	42	70	50	~~BMJ~~	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2	U		200		U	GAM
Iron 59		U		80	30	U	GAM
Chromium 51	14392-02-0	U		600		U	GAM
Cobalt 60	10198-40-0	U		10	30	U	GAM
Zinc 65	17982-39-3	U		30		U	GAM
Ruthenium 106	13967-48-1	U		100		U	GAM
Cesium 134	17967-70-9	U		10		U	GAM
Cesium 137	10045-97-3	U		10	20	U	GAM
Europium 152	14683-23-9	U		30	40	U	GAM
Europium 154	15585-10-1	U		20	40	U	GAM
Radium 226	13982-67-7	U		20		U	GAM
Thorium 228	14274-82-9	U		20		U	GAM
Thorium 232	7440-29-1	U		60		U	GAM

RB
2/17/93

Lab id TMAN
Protocol WHC-HEIS
Version Ver 1.0
Form DVD-DS
Version 2.22
Report date 01/29/93

PBD
6/15/93

9613494.1539

TMA NORCAL

REPORTING GROUP 7102

N209170-10

B079Y1

DATA SHEET

SDG 7102
Contact Dinkar Kharkar

Client Westinghouse Hanford
Contract MBH-SVV-069262

Lab sample id N209170-10
Dept sample id 7102-010
Received 09/29/92

Client sample id B079Y1
Matrix WATER
Collected 09/25/92
Chain of custody id EFL-1048

PARAMETER	CAS NO	RESULT pCi/L	2σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALI-FIERS	TEST
Gross Alpha	Alpha	1.5	2.1	3	3	~~U~~ R	80A
Gross Beta	Beta	6.3	1.5	2	4		80B
Uranium 233/234		0.85	0.25	0.1	0.2		U
Uranium 235	15117-96-1	0.017	0.035	0.1	0.2	U	U
Uranium 238	7440-61-1	0.68	0.22	0.1	0.2		U
Plutonium 238	13981-16-3	0.003	0.016	0.04	0.05	U	PU
Plutonium 239/240		-0.003	0.005	0.02	0.05	U	PU
Americium 241	14596-10-2	-0.006	0.019	0.04	0.05	U	AM
Strontium 90	10098-97-2	0.038	0.85	1	2	U	Y
Technetium 99	14133-76-7	1.4	2.5	5	5	U	TC
Tritium	10028-17-8	2600	250	200	400		H
Carbon 14	14762-75-5	320	45	60	50	~~BWJ~~	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2	U		300		U	GAM
Iron 59		U		90	30	U	GAM
Chromium 51	14392-02-0	U		500		U	GAM
Cobalt 60	10198-40-0	U		10	30	U	GAM
Zinc 65	17982-39-3	U		40		U	GAM
Ruthenium 106	13967-48-1	U		100		U	GAM
Cesium 134	17967-70-9	U		20		U	GAM
Cesium 137	10045-97-3	U		20	20	U	GAM
Europium 152	14683-23-9	U		30	40	U	GAM
Europium 154	15585-10-1	U		20	40	U	GAM
Radium 226	13982-67-7	U		30		U	GAM
Thorium 228	14274-82-9	U		20		U	GAM
Thorium 232	7440-29-1	U		90		U	GAM

RB
2/17/93

Lab id TMAN
Protocol WHC-HEIS
Version Ver 1.0
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Version 2.22
Report date 01/29/93

9613494.1540

TMA NORCAL

REPORTING GROUP 7102

N209170-11

DATA SHEET

B079Y6

SDG 7102
Contact Dinkar Kharkar

Client Westinghouse Hanford
Contract MBH-SVV-069262

Lab sample id N209170-11
Dept sample id 7102-011
Received 09/29/92

Client sample id B079Y6
Matrix WATER
Collected 09/25/92
Chain of custody id EFL-1048

PARAMETER	CAS NO	RESULT pCi/L	2σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALIFIERS	TEST
Gross Alpha	Alpha	3.2	2.4	3	3	R	80A
Gross Beta	Beta	7.7	1.5	2	4		80B
Uranium 233/234		1.5	0.32	0.1	0.2		U
Uranium 235	15117-96-1	0.12	0.092	0.1	0.2	J	U
Uranium 238	7440-61-1	1.3	0.29	0.1	0.2		U
Plutonium 238	13981-16-3	0	0.011	0.03	0.05	U	PU
Plutonium 239/240		-0.003	0.006	0.02	0.05	U	PU
Americium 241	14596-10-2	0.007	0.020	0.04	0.05	U	AM
Strontium 90	10098-97-2	-0.10	0.56	0.7	2	U	Y
Technetium 99	14133-76-7	0.54	1.6	5	5	U	TC
Tritium	10028-17-8	2400	240	200	400		H
Carbon 14	14762-75-5	160	23	30	50	~~U~~ J	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2	U		100		U	GAM
Iron 59		U		60	30	U	GAM
Chromium 51	14392-02-0	U		500		U	GAM
Cobalt 60	10198-40-0	U		20	30	U	GAM
Zinc 65	17982-39-3	U		20		U	GAM
Ruthenium 106	13967-48-1	U		100		U	GAM
Cesium 134	17967-70-9	U		10		U	GAM
Cesium 137	10045-97-3	U		10	20	U	GAM
Europium 152	14683-23-9	U		20	40	U	GAM
Europium 154	15585-10-1	U		20	40	U	GAM
Radium 226	13982-67-7	U		20		U	GAM
Thorium 228	14274-82-9	U		20		U	GAM
Thorium 232	7440-29-1	U		40		U	GAM

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DATA SHEETS
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Lab id TMAN
Protocol WHC-HEIS
Version Ver 1.0
Form DVD-DS
Version 2.22
Report date 01/29/93

9613494.1541

TMA NORCAL

REPORTING GROUP 7102

DATA SHEET

N209170-15

B079Z1

SDG 7102
Contact Dinkar Kharkar
Client Westinghouse Hanford
Contract MBH-SVV-069262

Lab sample id N209170-15
Dept sample id 7102-015
Received 09/28/92
Client sample id B079Z1
Matrix WATER
Collected 09/24/92
Chain of custody id EFL-1048

PARAMETER	CAS NO	RESULT pCi/L	2σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALI-FIERS	TEST
Gross Alpha	Alpha	1.7	1.7	2	3	~~J~~R	80A
Gross Beta	Beta	19	2.0	2	4		80B
Uranium 233/234		0.79	0.25	0.1	0.2		U
Uranium 235	15117-96-1	0.079	0.080	0.2	0.2	U	U
Uranium 238	7440-61-1	0.57	0.21	0.1	0.2		U
Plutonium 238	13981-16-3	0.007	0.015	0.02	0.05	U	PU
Plutonium 239/240		0.002	0.010	0.02	0.05	U	PU
Americium 241	14596-10-2	0.011	0.011	0.01	0.05	~~B~~U	AM
Strontium 90	10098-97-2	5.4	1.2	0.8	2		Y
Technetium 99	14133-76-7	0.25	1.8	6	5	U	TC
Tritium	10028-17-8	220	160	200	400	J	H
Carbon 14	14762-75-5	36	29	50	50	~~U~~J	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2	U		100		U	GAM
Iron 59		U		60	30	U	GAM
Chromium 51	14392-02-0	U		500		U	GAM
Cobalt 60	10198-40-0	U		10	30	U	GAM
Zinc 65	17982-39-3	U		20		U	GAM
Ruthenium 106	13967-48-1	U		100		U	GAM
Cesium 134	17967-70-9	U		10		U	GAM
Cesium 137	10045-97-3	U		10	20	U	GAM
Europium 152	14683-23-9	U		20	40	U	GAM
Europium 154	15585-10-1	U		10	40	U	GAM
Radium 226	13982-67-7	U		20		U	GAM
Thorium 228	14274-82-9	U		20		U	GAM
Thorium 232	7440-29-1	U		50		U	GAM

RB 2/17/93

Lab id TMAN
Protocol WHC-HEIS
Version Ver 1.0
Form DVD-DS
Version 2.22
Report date 01/29/93

6/15/93

9613494.1542

TMA NORCAL

REPORTING GROUP 7102

N209170-06

DATA SHEET

B079Z6

SDG 7102
Contact Dinkar Kharkar

Client Westinghouse Hanford
Contract MBH-SVV-069262

Lab sample id N209170-06
Dept sample id 7102-006
Received 09/24/92

Client sample id B079Z6
Matrix WATER
Collected 09/22/92
Chain of custody id EFL-1049

PARAMETER	CAS NO	RESULT pCi/L	2σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALI-FIERS	TEST
Gross Alpha	Alpha	3.7	2.5	3	3	R	80A
Gross Beta	Beta	49	2.9	2	4		80B
Uranium 233/234		0.61	0.21	0.1	0.2		U
Uranium 235	15117-96-1	0.039	0.039	0.1	0.2	U	U
Uranium 238	7440-61-1	0.50	0.20	0.1	0.2		U
Plutonium 238	13981-16-3	0	0.012	0.03	0.05	U	PU
Plutonium 239/240		-0.003	0.006	0.02	0.05	U	PU
Americium 241	14596-10-2	0.004	0.020	0.03	0.05	U	AM
Strontium 90	10098-97-2	0.043	0.28	0.8	2	U	Y
Technetium 99	14133-76-7	88	5.5	4	5		TC
Tritium	10028-17-8	2400	230	200	400		H
Carbon 14	14762-75-5	21	28	50	50	UJ	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2	U		100		U	GAM
Iron 59		U		60	30	U	GAM
Chromium 51	14392-02-0	U		600		U	GAM
Cobalt 60	10198-40-0	U		10	30	U	GAM
Zinc 65	17982-39-3	U		30		U	GAM
Ruthenium 106	13967-48-1	U		100		U	GAM
Cesium 134	17967-70-9	U		10		U	GAM
Cesium 137	10045-97-3	U		10	20	U	GAM
Europium 152	14683-23-9	U		20	40	U	GAM
Europium 154	15585-10-1	U		20	40	U	GAM
Radium 226	13982-67-7	U		20		U	GAM
Thorium 228	14274-82-9	U		20		U	GAM
Thorium 232	7440-29-1	U		50		U	GAM

RB 2/17/93

Lab id TMAN
Protocol WHC-HEIS
Version Ver 1.0
Form DVD-DS
Version 2.22
Report date 01/29/93

6/15/93

9613494.1543

TMA NORCAL

REPORTING GROUP 7102

N209170-12

B07B01

DATA SHEET

SDG 7102
Contact Dinkar Kharkar

Client Westinghouse Hanford
Contract MBH-SVV-069262

Lab sample id N209170-12
Dept sample id 7102-012
Received 09/30/92

Client sample id B07B01
Matrix WATER
Collected 09/28/92
Chain of custody id EFL-1048

PARAMETER	CAS NO	RESULT pCi/L	2σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALI-FIERS	TEST
Gross Alpha	Alpha	0.009	1.5	2	3	R	80A
Gross Beta	Beta	5.2	1.6	2	4		80B
Uranium 233/234		0.92	0.23	0.1	0.2		U
Uranium 235	15117-96-1	0.042	0.056	0.1	0.2	U	U
Uranium 238	7440-61-1	0.70	0.20	0.09	0.2		U
Plutonium 238	13981-16-3	0	0.011	0.03	0.05	U	PU
Plutonium 239/240		0	0.006	0.02	0.05	U	PU
Americium 241	14596-10-2	0.009	0.019	0.03	0.05	U	AM
Strontium 90	10098-97-2	0.10	0.36	1	2	U	Y
Technetium 99	14133-76-7	-1.0	1.5	6	5	U	TC
Tritium	10028-17-8	3000	260	200	400		H
Carbon 14	14762-75-5	370	32	40	50	UJ	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2	U		200		U	GAM
Iron 59		U		60	30	U	GAM
Chromium 51	14392-02-0	U		500		U	GAM
Cobalt 60	10198-40-0	U		10	30	U	GAM
Zinc 65	17982-39-3	U		30		U	GAM
Ruthenium 106	13967-48-1	U		100		U	GAM
Cesium 134	17967-70-9	U		10		U	GAM
Cesium 137	10045-97-3	U		10	20	U	GAM
Europium 152	14683-23-9	U		20	40	U	GAM
Europium 154	15585-10-1	U		10	40	U	GAM
Radium 226	13982-67-7	U		20		U	GAM
Thorium 228	14274-82-9	U		20		U	GAM
Thorium 232	7440-29-1	U		50		U	GAM

RB 2/17/93

Lab id TMAN
Protocol WHC-HEIS
Version Ver 1.0
Form DVD-DS
Version 2.22
Report date 01/29/93

RB 6/15/93

9613494.1544

TMA NORCAL

REPORTING GROUP 7102

N209170-03

DATA SHEET

B07B06

SDG 7102
Contact Dinkar Kharkar

Client Westinghouse Hanford
Contract MBH-SVV-069262

Lab sample id N209170-03
Dept sample id 7102-003
Received 09/24/92

Client sample id B07B06
Matrix WATER
Collected 09/22/92
Chain of custody id EFL-1049

PARAMETER	CAS NO	RESULT pCi/L	2σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALI-FIERS	TEST
Gross Alpha	Alpha	4.1	2.3	3	3	R	80A
Gross Beta	Beta	5.9	1.5	2	4		80B
Uranium 233/234		1.6	0.33	0.09	0.2		U
Uranium 235	15117-96-1	0.058	0.058	0.1	0.2	U	U
Uranium 238	7440-61-1	0.90	0.23	0.09	0.2		U
Plutonium 238	13981-16-3	-0.016	0.016	0.04	0.05	U	PU
Plutonium 239/240		0	0.004	0.02	0.05	U	PU
Americium 241	14596-10-2	-0.014	0.010	0.05	0.05	U	AM
Strontium 90	10098-97-2	0.11	0.88	2	2	U	Y
Technetium 99	14133-76-7	-1.3	1.4	4	5	U	TC
Tritium	10028-17-8	-81	140	200	400	U	H
Carbon 14	14762-75-5	52	27	40	50	J	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2	U		200		U	GAM
Iron 59		U		70	30	U	GAM
Chromium 51	14392-02-0	U		600		U	GAM
Cobalt 60	10198-40-0	U		10	30	U	GAM
Zinc 65	17982-39-3	U		30		U	GAM
Ruthenium 106	13967-48-1	U		100		U	GAM
Cesium 134	17967-70-9	U		10		U	GAM
Cesium 137	10045-97-3	U		10	20	U	GAM
Europium 152	14683-23-9	U		20	40	U	GAM
Europium 154	15585-10-1	U		20	40	U	GAM
Radium 226	13982-67-7	U		20		U	GAM
Thorium 228	14274-82-9	U		20		U	GAM
Thorium 232	7440-29-1	U		50		U	GAM

RB
2/17/93

Lab id TMAN
Protocol WHC-HEIS
Version Ver 1.0
Form DVD-DS
Version 2.22
Report date 01/29/93

RB
6/15/93

9613494.1545

TMA NORCAL

REPORTING GROUP 7102

N209170-01

B07B11

DATA SHEET

SDG 7102
Contact Dinkar Kherkar
Client Westinghouse Hanford
Contract MBH-SVV-069262

Lab sample id N209170-01
Dept sample id 7102-001
Received 09/22/92
Client sample id B07B11
Matrix WATER
Collected 09/18/92
Chain of custody id EFL-1048

PARAMETER	CAS NO	RESULT pCi/L	2σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALI-FIERS	TEST
Gross Alpha	Alpha	1.6	2.1	3	3	VR	80A
Gross Beta	Beta	6.2	1.5	2	4		80B
Uranium 233/234		0.88	0.26	0.1	0.2		U
Uranium 235	15117-96-1	0.060	0.081	0.2	0.2	U	U
Uranium 238	7440-61-1	0.53	0.21	0.1	0.2		U
Plutonium 238	13981-16-3	0.012	0.025	0.04	0.05	U	PU
Plutonium 239/240		0.005	0.020	0.04	0.05	U	PU
Americium 241	14596-10-2	0.006	0.011	0.02	0.05	U	AM
Strontium 90	10098-97-2	-0.40	0.82	1	2	U	Y
Technetium 99	14133-76-7	-1.2	1.4	5	5	U	TC
Tritium	10028-17-8	250	150	200	400	J	H
Carbon 14	14762-75-5	-7.4	24	40	50	UJ	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2	U		100		U	GAM
Iron 59		U		80	30	U	GAM
Chromium 51	14392-02-0	U		600		U	GAM
Cobalt 60	10198-40-0	U		20	30	U	GAM
Zinc 65	17982-39-3	U		30		U	GAM
Ruthenium 106	13967-48-1	U		100		U	GAM
Cesium 134	17967-70-9	U		10		U	GAM
Cesium 137	10045-97-3	U		10	20	U	GAM
Europium 152	14683-23-9	U		20	40	U	GAM
Europium 154	15585-10-1	U		20	40	U	GAM
Radium 226	13982-67-7	U		20		U	GAM
Thorium 228	14274-82-9	U		20		U	GAM
Thorium 232	7440-29-1	U		50		U	GAM

RB 2/17/93

RB 6/15/93

Lab id TMAN
Protocol WHC-HEIS
Version Ver 1.0
Form DVD-DS
Version 2.22
Report date 01/29/93

9613494.1546

TMA NORCAL

REPORTING GROUP 7102

N209170-02

B07B21

DATA SHEET

SDG 7102
Contact Dinkar Kharkar

Client Westinghouse Hanford
Contract MBH-SVV-069262

Lab sample id N209170-02
Dept sample id 7102-002
Received 09/22/92

Client sample id B07B21
Matrix WATER
Collected 09/18/92
Chain of custody id EFL-1048

PARAMETER	CAS NO	RESULT pCi/L	2σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALI-FIERS	TEST
Gross Alpha	Alpha	0.60	1.7	3	3	~~U~~R	80A
Gross Beta	Beta	4.9	1.5	2	4		80B
Uranium 233/234		1.0	0.27	0.1	0.2		U
Uranium 235	15117-96-1	0.038	0.038	0.1	0.2	U	U
Uranium 238	7440-61-1	0.47	0.16	0.1	0.2		U
Plutonium 238	13981-16-3	-0.008	0.016	0.03	0.05	U	PU
Plutonium 239/240		0.002	0.008	0.01	0.05	U	PU
Americium 241	14596-10-2	-0.098	0.16	0.3	0.05	~~U~~R	AM
Strontium 90	10098-97-2	-0.24	0.65	0.9	2	U	Y
Technetium 99	14133-76-7	4.1	5.7	20	5	~~U~~R	TC
Tritium	10028-17-8	250	150	200	400	J	H
Carbon 14	14762-75-5	1.2	24	40	50	~~U~~J	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2	U		200		U	GAM
Iron 59		U		80	30	U	GAM
Chromium 51	14392-02-0	U		700		U	GAM
Cobalt 60	10198-40-0	U		20	30	U	GAM
Zinc 65	17982-39-3	U		40		U	GAM
Ruthenium 106	13967-48-1	U		100		U	GAM
Cesium 134	17967-70-9	U		20		U	GAM
Cesium 137	10045-97-3	U		10	20	U	GAM
Europium 152	14683-23-9	U		30	40	U	GAM
Europium 154	15585-10-1	U		20	40	U	GAM
Radium 226	13982-67-7	U		30		U	GAM
Thorium 228	14274-82-9	U		20		U	GAM
Thorium 232	7440-29-1	U		60		U	GAM

RB 2/17/93

RB 6/15/93

Lab id TMAN
Protocol WHC-HEIS
Version Ver 1.0
Form DVD-DS
Version 2.22
Report date 01/29/93

9613494.1547

TMA NORCAL

REPORTING GROUP 7102

N209170-16

B07B26

DATA SHEET

SDG 7102
Contact Dinkar Kharkar

Client Westinghouse Hanford
Contract MBH-SVV-069262

Lab sample id N209170-16
Dept sample id 7102-016
Received 09/28/92

Client sample id B07B26
Matrix WATER
Collected 09/24/92
Chain of custody id EFL-1048

PARAMETER	CAS NO	RESULT pCi/L	2σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALI-FIERS	TEST
Gross Alpha	Alpha	1.1	1.6	2	3	~~U~~ R	80A
Gross Beta	Beta	20	2.0	2	4		80B
Uranium 233/234		0.80	0.25	0.1	0.2		U
Uranium 235	15117-96-1	0	0.040	0.2	0.2	U	U
Uranium 238	7440-61-1	0.81	0.25	0.1	0.2		U
Plutonium 238	13981-16-3	0.008	0.012	0.02	0.05	U	PU
Plutonium 239/240		-0.002	0.004	0.02	0.05	U	PU
Americium 241	14596-10-2	0.006	0.017	0.03	0.05	U	AM
Strontium 90	10098-97-2	4.9	0.88	1	2		Y
Technetium 99	14133-76-7	0.71	2.9	9	5	U	TC
Tritium	10028-17-8	260	160	200	400	J	H
Carbon 14	14762-75-5	100	48	80	50	~~B~~ UJ	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2	U		100		U	GAM
Iron 59		U		70	30	U	GAM
Chromium 51	14392-02-0	U		600		U	GAM
Cobalt 60	10198-40-0	U		10	30	U	GAM
Zinc 65	17982-39-3	U		30		U	GAM
Ruthenium 106	13967-48-1	U		100		U	GAM
Cesium 134	17967-70-9	U		10		U	GAM
Cesium 137	10045-97-3	U		10	20	U	GAM
Europium 152	14683-23-9	U		20	40	U	GAM
Europium 154	15585-10-1	U		10	40	U	GAM
Radium 226	13982-67-7	U		20		U	GAM
Thorium 228	14274-82-9	U		20		U	GAM
Thorium 232	7440-29-1	U		40		U	GAM

NB 2/17/93

Lab id TMAN
Protocol WHC-HEIS
Version Ver 1.0
Form DVD-DS
Version 2.22
Report date 01/29/93

BD 6/15/93

9613494.1548

TMA NORCAL

REPORTING GROUP 7102

N209170-13

DATA SHEET

B07B31

SDG 7102
Contact Dinkar Kharkar

Client Westinghouse Hanford
Contract MBH-SVV-069262

Lab sample id N209170-13
Dept sample id 7102-013
Received 09/30/92

Client sample id B07B31
Matrix WATER
Collected 09/28/92
Chain of custody id EFL-1048

PARAMETER	CAS NO	RESULT pCi/L	2σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALI-FIERS	TEST
Gross Alpha	Alpha	-0.59	1.3	2	3	VR	80A
Gross Beta	Beta	-0.84	1.3	2	4	U	80B
Uranium 233/234		0.030	0.059	0.1	0.2	U	U
Uranium 235	15117-96-1	0.054	0.072	0.1	0.2	U	U
Uranium 238	7440-61-1	0.015	0.030	0.1	0.2	U	U
Plutonium 238	13981-16-3	0.002	0.009	0.02	0.05	U	PU
Plutonium 239/240		0.002	0.004	0.02	0.05	U	PU
Americium 241	14596-10-2	-0.002	0.007	0.02	0.05	U	AM
Strontium 90	10098-97-2	-0.24	0.74	0.9	2	U	Y
Technetium 99	14133-76-7	-1.1	1.4	5	5	U	TC
Tritium	10028-17-8	110	150	200	400	U	H
Carbon 14	14762-75-5	19	20	30	50	UJ	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2	U		300		U	GAM
Iron 59		U		100	30	U	GAM
Chromium 51	14392-02-0	U		600		U	GAM
Cobalt 60	10198-40-0	U		10	30	U	GAM
Zinc 65	17982-39-3	U		30		U	GAM
Ruthenium 106	13967-48-1	U		100		U	GAM
Cesium 134	17967-70-9	U		10		U	GAM
Cesium 137	10045-97-3	U		20	20	U	GAM
Europium 152	14683-23-9	U		30	40	U	GAM
Europium 154	15585-10-1	U		20	40	U	GAM
Radium 226	13982-67-7	U		30		U	GAM
Thorium 228	14274-82-9	U		20		U	GAM
Thorium 232	7440-29-1	U		60		U	GAM

RB 2/17/93

Lab id TMAN
Protocol WHC-HEIS
Version Ver 1.0
Form DVD-DS
Version 2.22
Report date 01/29/93

6/15/93

9613494.1549

TMA NORCAL

REPORTING GROUP 7102

N209170-14

DATA SHEET

B07B44

SDG 7102
Contact Dinkar Kharker

Client Westinghouse Hanford
Contract MBH-SVV-069262

Lab sample id N209170-14
Dept sample id 7102-014
Received 09/30/92

Client sample id B07B44
Matrix WATER
Collected 09/28/92
Chain of custody id EFL-1048

PARAMETER	CAS NO	RESULT pCi/L	2σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALI-FIERS	TEST
Gross Alpha	Alpha	0.029	1.3	2	3	~~U~~ R	80A
Gross Beta	Beta	-0.36	1.1	2	4	U	80B
Uranium 233/234		0	0.068	0.2	0.2	U	U
Uranium 235	15117-96-1	0.041	0.041	0.2	0.2	U	U
Uranium 238	7440-61-1	0	0.034	0.1	0.2	U	U
Plutonium 238	13981-16-3	-0.002	0.013	0.03	0.05	U	PU
Plutonium 239/240		0	0.004	0.02	0.05	U	PU
Americium 241	14596-10-2	-0.005	0.010	0.03	0.05	U	AM
Strontium 90	10098-97-2	-0.24	0.45	0.8	2	U	Y
Technetium 99	14133-76-7	-0.40	1.3	5	5	U	TC
Tritium	10028-17-8	61	140	200	400	U	H
Carbon 14	14762-75-5	40	21	30	50	~~U~~ UJ	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2	U		200		U	GAM
Iron 59		U		70	30	U	GAM
Chromium 51	14392-02-0	U		500		U	GAM
Cobalt 60	10198-40-0	U		10	30	U	GAM
Zinc 65	17982-39-3	U		30		U	GAM
Ruthenium 106	13967-48-1	U		100		U	GAM
Cesium 134	17967-70-9	U		10		U	GAM
Cesium 137	10045-97-3	U		10	20	U	GAM
Europium 152	14683-23-9	U		20	40	U	GAM
Europium 154	15585-10-1	U		20	40	U	GAM
Radium 226	13982-67-7	U		20		U	GAM
Thorium 228	14274-82-9	U		20		U	GAM
Thorium 232	7440-29-1	U		50		U	GAM

RB 2/17/93

Lab id TMAN
Protocol WHC-HEIS
Version Ver 1.0
Form DVD-DS
Version 2.22
Report date 01/29/93

BJ 6/15/93

EPA SAMPLE NO.

9613494 1A 550

VOLATILE ORGANICS ANALYSIS DATA SHEET

B079R1 2/23/93

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09063 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209063-01A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20925B05

Level: (low/med) LOW Date Received: 09/23/92

% Moisture: not dec. ____ Date Analyzed: 09/25/92

GC Column: CAP 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	5	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	8	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	1	J
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

NI
RB 5/6/92

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

B079R1

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09063 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209063-01A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20925B05

Level: (low/med) LOW Date Received: 09/23/92

% Moisture: not dec. ____ Date Analyzed: 09/25/92

GC Column: CAP 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

NV

RB
5/6/93

9613494.1552

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

B079R5 C8Y/M 2/23/93

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09063 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209063-02A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20925B08

Level: (low/med) LOW Date Received: 09/23/92

% Moisture: not dec. ____ Date Analyzed: 09/25/92

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 1.0

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

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

CAS NO.	COMPOUND		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	9	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	1	J
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

NV RB 5/6/93

9613494.1553

1E

EPA SAMPLE NO.

B079R5

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09063 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209063-02A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20925B08

Level: (low/med) LOW Date Received: 09/23/92

% Moisture: not dec. ____ Date Analyzed: 09/25/92

GC Column: CAP 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

RB NM
5/6/93

9613494.1554

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B079R6 Copy 2/23/93

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09063 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209063-03A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20925B09

Level: (low/med) LOW Date Received: 09/23/92

% Moisture: not dec. ____ Date Analyzed: 09/25/92

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 1.0

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

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

CAS NO.	COMPOUND		Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	~~5~~	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

NV
KB 5/6/93

9613494.1E555

EPA SAMPLE NO.

B079R6

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09063 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209063-03A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20925B09

Level: (low/med) LOW Date Received: 09/23/92

% Moisture: not dec. ____ Date Analyzed: 09/25/92

GC Column: CAP 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

NV
RB
5/6/93

000104

9613494 1A 1556

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B079S0 CBV-1 2/23/93

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09063 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209063-04A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20925B10

Level: (low/med) LOW Date Received: 09/23/92

% Moisture: not dec. ____ Date Analyzed: 09/25/92

GC Column: CAP 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	8	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	1	J
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	1	J
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

NV RB 5/6/93

9613494.4557

1E

EPA SAMPLE NO.

B079S0

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09063 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209063-04A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20925B10

Level: (low/med) LOW Date Received: 09/23/92

% Moisture: not dec. ____ Date Analyzed: 09/25/92

GC Column: CAP 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

NV

RB
5/6/93

9613494.1558

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B079S1

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09063 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209063-05A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20925B11

Level: (low/med) LOW Date Received: 09/23/92

% Moisture: not dec. ____ Date Analyzed: 09/25/92

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 1.0

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

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

CAS NO.	COMPOUND		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	1	J
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

NV
RB
5/6/

EPA SAMPLE NO.

B079S1

9613494 1559

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09063 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209063-05A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20925B11

Level: (low/med) LOW Date Received: 09/23/92

% Moisture: not dec. ____ Date Analyzed: 09/25/92

GC Column: CAP 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

NV
RB
5/6/93

9613494.4560

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

000128
EPA SAMPLE NO.

B079S5 CEM 2/23/93

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09063 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209063-06A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20925B12

Level: (low/med) LOW Date Received: 09/23/92

% Moisture: not dec. ____ Date Analyzed: 09/25/92

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 1.0

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

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

CAS NO.	COMPOUND		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	7	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	1	J
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

NV
RB
5/6/93

9613494 1E 561

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

B079S5

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09063 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209063-06A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20925B12

Level: (low/med) LOW Date Received: 09/23/92

% Moisture: not dec. ____ Date Analyzed: 09/25/92

GC Column: CAP 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

NN
RB
5/6/93

9613494.1562

VOLATILE ORGANICS ANALYSIS DATA SHEET

000139
EPA SAMPLE NO.

B079S6

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09063 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209063-07A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20925B13

Level: (low/med) LOW Date Received: 09/23/92

% Moisture: not dec. ____ Date Analyzed: 09/25/92

GC Column: CAP 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	5	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	1	J
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

NV
5/6/93

1E

EPA SAMPLE NO.

B07986

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09063 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209063-07A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20925013

Level: (low/med) LOW Date Received: 09/23/92

% Moisture: not dec. ____ Date Analyzed: 09/25/92

GC Column: CAP 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

NV
RB
5/6/93

9613494 1564

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B079T0

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09063 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209063-08A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20925B14

Level: (low/med) LOW Date Received: 09/23/92

% Moisture: not dec. ____ Date Analyzed: 09/25/92

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 1.0

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

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

CAS NO.	COMPOUND		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	6	BJ
67-64-1	Acetone	16	
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	1	J
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

NV
RB
5/6/93

1E

EPA SAMPLE NO.

B079T0

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09063 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209063-08A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20925B14

Level: (low/med) LOW Date Received: 09/23/92

% Moisture: not dec. ____ Date Analyzed: 09/25/92

GC Column: CAP 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

NV
RB
5/6/93

9613494.1566

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

000021
EPA SAMPLE NO.

B079R1

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09063 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209063-01D

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 20930S03

Level: (low/med) LOW Date Received: 09/23/92

% Moisture: ____ decanted: (Y/N) ___ Date Extracted: 09/25/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/30/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-Di-n-Propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)Methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-Methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U
51-28-5	2,4-Dinitrophenol	25	U

NV
PB
6/14/

9613494.1567

000022
EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

B079R1

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09063 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209063-01D

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 20930S03

Level: (low/med) LOW Date Received: 09/23/92

% Moisture: ____ decanted: (Y/N) ___ Date Extracted: 09/25/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/30/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

NV

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

CAS NO.	COMPOUND		Q
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-Butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)Anthracene	10	U
117-81-7	bis(2-Ethylhexyl)Phthalate	2	J
218-01-9	Chrysene	10	U
117-84-0	Di-n-Octyl Phthalate	10	U
205-99-2	Benzo(b)Fluoranthene	10	U
207-08-9	Benzo(k)Fluoranthene	10	U
50-32-8	Benzo(a)Pyrene	10	U
193-39-5	Indeno(1,2,3-cd)Pyrene	10	U
53-70-3	Dibenz(a,h)Anthracene	10	U
191-24-2	Benzo(g,h,i)Perylene	10	U

(1) - Cannot be separated from Diphenylamine

EPA SAMPLE NO.

B079R1

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09063 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209063-01D

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 20930S03

Level: (low/med) LOW Date Received: 09/23/92

% Moisture: _____ decanted: (Y/N) ___ Date Extracted: 09/25/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/30/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

NV
6/14/

9613494.1569

1B

000024

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

B079R6

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09063 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209063-03B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 20930S06

Level: (low/med) LOW Date Received: 09/23/92

% Moisture: _____ decanted: (Y/N) ___ Date Extracted: 09/25/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/30/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-Di-n-Propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)Methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-Methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U
51-28-5	2,4-Dinitrophenol	25	U

NV
PM
6/14/

9613494.1570

EPA SAMPLE NO.

B079R6

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09063 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209063-03B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 20930S06

Level: (low/med) LOW Date Received: 09/23/92

% Moisture: ____ decanted: (Y/N) ___ Date Extracted: 09/25/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/30/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

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

CAS NO.	COMPOUND		Q
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-Butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)Anthracene	10	U
117-81-7	bis(2-Ethylhexyl)Phthalate	10	U
218-01-9	Chrysene	10	U
117-84-0	Di-n-Octyl Phthalate	10	U
205-99-2	Benzo(b)Fluoranthene	10	U
207-08-9	Benzo(k)Fluoranthene	10	U
50-32-8	Benzo(a)Pyrene	10	U
193-39-5	Indeno(1,2,3-cd)Pyrene	10	U
53-70-3	Dibenz(a,h)Anthracene	10	U
191-24-2	Benzo(g,h,i)Perylene	10	U

(1) - Cannot be separated from Diphenylamine

NM PKD 5/14/

9613494.1571

1F

EPA SAMPLE NO.

B079R6

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09063 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209063-03B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 20930S06

Level: (low/med) LOW Date Received: 09/23/92

% Moisture: ____ decanted: (Y/N) ___ Date Extracted: 09/25/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/30/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

Number TICs found: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN HYDROCARBON	5.60	2	BJ

NM
6/1-P

EPA SAMPLE NO.

B079S1

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09063 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209063-05B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 20930S07

Level: (low/med) LOW Date Received: 09/23/92

% Moisture: ____ decanted: (Y/N) ___ Date Extracted: 09/25/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/30/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-Di-n-Propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)Methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-Methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U
51-28-5	2,4-Dinitrophenol	25	U

NV
RJ
6/14/

EPA SAMPLE NO.

B079S1

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09063 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209063-05B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 20930S07

Level: (low/med) LOW Date Received: 09/23/92

% Moisture: ____ decanted: (Y/N) ___ Date Extracted: 09/25/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/30/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-Butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)Anthracene	10	U
117-81-7	bis(2-Ethylhexyl)Phthalate	10	U
218-01-9	Chrysene	10	U
117-84-0	Di-n-Octyl Phthalate	10	U
205-99-2	Benzo(b)Fluoranthene	10	U
207-08-9	Benzo(k)Fluoranthene	10	U
50-32-8	Benzo(a)Pyrene	10	U
193-39-5	Indeno(1,2,3-cd)Pyrene	10	U
53-70-3	Dibenz(a,h)Anthracene	10	U
191-24-2	Benzo(g,h,i)Perylene	10	U

(1) - Cannot be separated from Diphenylamine

NV 6/14/7

EPA SAMPLE NO.

B079S1

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09063 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209063-05B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 20930S07

Level: (low/med) LOW Date Received: 09/23/92

% Moisture: ____ decanted: (Y/N) ___ Date Extracted: 09/25/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/30/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

Number TICs found: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN HYDROCARBON	5.60	3	BJ

MJ
FBA
6/14/

9613494.1575

000030
EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

B079S6

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09063 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209063-07B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 20930S08

Level: (low/med) LOW Date Received: 09/23/92

% Moisture: ____ decanted: (Y/N) ___ Date Extracted: 09/25/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/30/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

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

CAS NO.	COMPOUND		Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-Di-n-Propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)Methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-Methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U
51-28-5	2,4-Dinitrophenol	25	U

NV
PBJ
6/14/9

1c

000031

EPA SAMPLE NO.

B079S6

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09063 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209063-07B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 20930S08

Level: (low/med) LOW Date Received: 09/23/92

% Moisture: ____ decanted: (Y/N) ___ Date Extracted: 09/25/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/30/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-Butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)Anthracene	10	U
117-81-7	bis(2-Ethylhexyl)Phthalate	10	U
218-01-9	Chrysene	10	U
117-84-0	Di-n-Octyl Phthalate	10	U
205-99-2	Benzo(b)Fluoranthene	10	U
207-08-9	Benzo(k)Fluoranthene	10	U
50-32-8	Benzo(a)Pyrene	10	U
193-39-5	Indeno(1,2,3-cd)Pyrene	10	U
53-70-3	Dibenz(a,h)Anthracene	10	U
191-24-2	Benzo(g,h,i)Perylene	10	U

(1) - Cannot be separated from Diphenylamine

NM PB 6/14/9

EPA SAMPLE NO.

B079S6

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09063 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209063-07B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 20930S08

Level: (low/med) LOW Date Received: 09/23/92

% Moisture: _____ decanted: (Y/N) ___ Date Extracted: 09/25/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/30/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

Number TICs found: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN HYDROCARBON	5.60	2	BJ

NY
PBA
6/14/

EPA SAMPLE NO.

B079R1

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09063 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209063-01D

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N) ___ Date Received: 09/23/92

Extraction: (SepF/Cont/Sonc) CONT Date Extracted: 09/25/92

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 10/27/92

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-36-3	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

NV
PBD
6/14/93

9613494 1579

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B079R6

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09063 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209063-03B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N) ___ Date Received: 09/23/92

Extraction: (SepF/Cont/Sonc) CONT Date Extracted: 09/25/92

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 10/27/92

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-36-3	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

NV
PBD
6/14/

9613494.1580

1D

EPA SAMPLE NO.

B079S1

PESTICIDE ORGANICS ANALYSIS DATA SHEET

ab Name: TMA/ARLI Contract: WHC

ab Code: TMALA Case No.: 09063 SAS No.: NA SDG No.: NA

atrix: (soil/water) WATER Lab Sample ID: A209063-05B

ample wt/vol: 1000 (g/mL) ML Lab File ID: _____

Moisture: _____ decanted: (Y/N) ___ Date Received: 09/23/92

xtraction: (SepF/Cont/Sonc) CONT Date Extracted: 09/25/92

oncentrated Extract Volume: 10000 (uL) Date Analyzed: 10/27/92

njection Volume: 1.00 (uL) Dilution Factor: 1.00

PC Cleanup: (Y/N) N pH: ____ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-36-3	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

NV
PBD
6/14/

9613494.1581

1D

EPA SAMPLE NO.

B079S6

PESTICIDE ORGANICS ANALYSIS DATA SHEET

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09063 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209063-07B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N) ___ Date Received: 09/23/92

Extraction: (SepF/Cont/Sonc) CONT Date Extracted: 09/25/92

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 10/27/92

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

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

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

CAS NO.	COMPOUND		Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-36-3	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

MM PBJ 6/14/

9613484.1582

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B079S6RE

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09063 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209063-07BR

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N) ___ Date Received: 09/23/92

Extraction: (SepF/Cont/Sonc) CONT Date Extracted: 10/22/92

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 10/27/92

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

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

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

CAS NO.	COMPOUND		Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-36-3	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

NV PBD 6/14/93

SAMPLE NUMBER:

B079R1

INORGANIC ANALYSIS DATA SHEET

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D0-0108

Lab Code: SKINER Case No.: N2-09-162SAS No.: SDG No.: B079R1

Matrix (soil/water): WATER Lab Sample ID: 09404-01S

Level (low/med): LOW Date Received: 09/24/92

% 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	41.3	B		P
7440-36-0	Antimony	14.8	U		P
7440-38-2	Arsenic	3.1	B		F
7440-39-3	Barium	30.2	B		P
7440-41-7	Beryllium	0.30	U		P
7440-43-9	Cadmium	1.5	U		P
7440-70-2	Calcium	57100			P
7440-47-3	Chromium	39.0			P
7440-48-4	Cobalt	2.0	B		P
7440-50-8	Copper	1.9	U		P
7439-89-6	Iron	1190			P
7439-92-1	Lead	2.0	B	W	F
7439-95-4	Magnesium	9300			P
7439-96-5	Manganese	14.6	B		P
7439-97-6	Mercury	0.14	B		CV
7440-02-0	Nickel	9.9	B		P
7440-09-7	Potassium	3640	B		P
7782-49-2	Selenium	3.6	U		F
7440-22-4	Silver	3.6	U		P
7440-23-5	Sodium	4340	B		P
7440-28-0	Thallium	3.8	U		F
7440-62-2	Vanadium	10.1	B		P
7440-66-6	Zinc	5.7	U		P
	Cyanide	10.0	U		CA

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

6/14/9

Comments:

002

SAMPLE NUMBER:

B079R6

INORGANIC ANALYSIS DATA SHEET

ab Name: SKINNER & SHERMAN LABS. Contract: 68-D0-0108

ab Code: SKINER Case No.: N2-09-162SAS No.: SDG No.: B079R1

latrix (soil/water): WATER Lab Sample ID: 09404-02S

.evel (low/med): LOW Date Received: 09/24/92

; 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	14.7	U		P
7440-36-0	Antimony	14.8	U		P
7440-38-2	Arsenic	2.7	B		F
7440-39-3	Barium	17.0	B		P
7440-41-7	Beryllium	0.30	U		P
7440-43-9	Cadmium	1.5	U		P
7440-70-2	Calcium	44000			P
7440-47-3	Chromium	150			P
7440-48-4	Cobalt	1.3	U		P
7440-50-8	Copper	1.9	U		P
7439-89-6	Iron	30.5	B		P
7439-92-1	Lead	2.4	B	W	F
7439-95-4	Magnesium	7400			P
7439-96-5	Manganese	0.90	U		P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	2.6	U		P
7440-09-7	Potassium	2920	B		P
7782-49-2	Selenium	3.6	U		F
7440-22-4	Silver	3.6	U		P
7440-23-5	Sodium	4090	B		P
7440-28-0	Thallium	3.8	U		F
7440-62-2	Vanadium	5.0	B		P
7440-66-6	Zinc	7.7	B		P
	Cyanide	10.0	U		CA

MM
PBD
6/14/93

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

003

9613494.1585

WESTINGHOUSE/HANFORD

1

SAMPLE NUMBER:

B079S1

INORGANIC ANALYSIS DATA SHEET

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D0-0108

Lab Code: SKINER Case No.: N2-09-162SAS No.: SDG No.: B079R1

Matrix (soil/water): WATER Lab Sample ID: 09404-03S

Level (low/med): LOW Date Received: 09/24/92

% 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	1000			P
7440-36-0	Antimony	14.8	U		P
7440-38-2	Arsenic	2.2	U		F
7440-39-3	Barium	24.9	B		P
7440-41-7	Beryllium	0.30	U		P
7440-43-9	Cadmium	1.5	U		P
7440-70-2	Calcium	46000			P
7440-47-3	Chromium	125			P
7440-48-4	Cobalt	2.0	B		P
7440-50-8	Copper	1.9	B		P
7439-89-6	Iron	2050			P
7439-92-1	Lead	3.8			F
7439-95-4	Magnesium	8930			P
7439-96-5	Manganese	69.6			P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	28.7	B		P
7440-09-7	Potassium	2010	B		P
7782-49-2	Selenium	3.6	U		F
7440-22-4	Silver	3.6	U		P
7440-23-5	Sodium	3720	B		P
7440-28-0	Thallium	3.8	U		F
7440-62-2	Vanadium	5.0	B		P
7440-66-6	Zinc	13.4	B		P
	Cyanide	10.0	U		CA

NM PB 6/14/9

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

004

SAMPLE NUMBER:

B079S6

INORGANIC ANALYSIS DATA SHEET

.ab Name: SKINNER & SHERMAN LABS. Contract: 68-D0-0108

.ab Code: SKINER Case No.: N2-09-162SAS No.: SDG No.: B079R1

latrix (soil/water): WATER Lab Sample ID: 09404-04S

.evel (low/med): LOW Date Received: 09/24/92

; 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	15.1	B		P
7440-36-0	Antimony	14.8	U		P
7440-38-2	Arsenic	2.2	U		F
7440-39-3	Barium	19.1	B		P
7440-41-7	Beryllium	0.30	U		P
7440-43-9	Cadmium	1.5	U		P
7440-70-2	Calcium	47200			P
7440-47-3	Chromium	175			P
7440-48-4	Cobalt	1.3	U		P
7440-50-8	Copper	1.9	U		P
7439-89-6	Iron	33.2	B		P
7439-92-1	Lead	1.9	B	W	F
7439-95-4	Magnesium	8050			P
7439-96-5	Manganese	1.1	B		P
7439-97-6	Mercury	0.14	B		CV
7440-02-0	Nickel	3.4	B		P
7440-09-7	Potassium	2390	B		P
7782-49-2	Selenium	3.6	U	W	F
7440-22-4	Silver	3.6	U		P
7440-23-5	Sodium	6240			P
7440-28-0	Thallium	3.8	U		F
7440-62-2	Vanadium	4.0	B		P
7440-66-6	Zinc	203			P
	Cyanide	10.0	U		CA

M
PBJ
6/15/17

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

005

9613494.1587

WESTINGHOUSE/HANFORD

1

SAMPLE NUMBER:

B079R4

INORGANIC ANALYSIS DATA SHEET

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D0-0108

Lab Code: SKINER Case No.: N2-09-162SAS No.: SDG No.: B079R4

Matrix (soil/water): WATER Lab Sample ID: 09406-01S

Level (low/med): LOW Date Received: 09/24/92

% 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	27.1	B		P
7440-36-0	Antimony	14.8	U		P
7440-38-2	Arsenic	2.2	U		F
7440-39-3	Barium	29.4	B		P
7440-41-7	Beryllium	0.48	B		P
7440-43-9	Cadmium	1.5	U		P
7440-70-2	Calcium	55200			P
7440-47-3	Chromium	20.7			P
7440-48-4	Cobalt	1.8	B		P
7440-50-8	Copper	1.9	U		P
7439-89-6	Iron	22.7	B		P
7439-92-1	Lead	3.3			F
7439-95-4	Magnesium	9110			P
7439-96-5	Manganese	8.9	B		P
7439-97-6	Mercury	0.14	B		CV
7440-02-0	Nickel	4.2	B		P
7440-09-7	Potassium	3670	B		P
7782-49-2	Selenium	3.6	U	W	F
7440-22-4	Silver	3.6	U		P
7440-23-5	Sodium	4290	B		P
7440-28-0	Thallium	1.3	U		F
7440-62-2	Vanadium	9.8	B		P
7440-66-6	Zinc	5.7	U		P
	Cyanide				NR

NV PBJ 6/14/9

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

FORM I - IN ILM02.1

C 02

SAMPLE NUMBER:

B079R9

INORGANIC ANALYSIS DATA SHEET

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D0-0108

Lab Code: SKINER Case No.: N2-09-162SAS No.: SDG No.: B079R4

Matrix (soil/water): WATER Lab Sample ID: 09406-02S

Level (low/med): LOW Date Received: 09/24/92

% 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	14.7	U		P
7440-36-0	Antimony	14.8	U		P
7440-38-2	Arsenic	2.2	U		F
7440-39-3	Barium	19.0	B		P
7440-41-7	Beryllium	0.30	U		P
7440-43-9	Cadmium	1.5	U		P
7440-70-2	Calcium	45700			P
7440-47-3	Chromium	159			P
7440-48-4	Cobalt	1.3	U		P
7440-50-8	Copper	1.9	U		P
7439-89-6	Iron	4.0	U		P
7439-92-1	Lead	4.9			F
7439-95-4	Magnesium	7670			P
7439-96-5	Manganese	0.99	B		P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	2.6	U		P
7440-09-7	Potassium	3130	B		P
7782-49-2	Selenium	3.6	U	W	F
7440-22-4	Silver	3.6	U		P
7440-23-5	Sodium	4310	B		P
7440-28-0	Thallium	1.3	U		F
7440-62-2	Vanadium	4.7	B		P
7440-66-6	Zinc	5.7	U		P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

NM PBJ 6/14/93

SAMPLE NUMBER:

B079S4

INORGANIC ANALYSIS DATA SHEET

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D0-0108

Lab Code: SKINER Case No.: N2-09-162SAS No.: SDG No.: B079R4

Matrix (soil/water): WATER Lab Sample ID: 09406-03S

Level (low/med): LOW Date Received: 09/24/92

% 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	14.7	U		P
7440-36-0	Antimony	14.8	U		P
7440-38-2	Arsenic	2.2	U		F
7440-39-3	Barium	14.7	B		P
7440-41-7	Beryllium	0.47	B		P
7440-43-9	Cadmium	1.5	U		P
7440-70-2	Calcium	42900			P
7440-47-3	Chromium	89.9			P
7440-48-4	Cobalt	1.3	B		P
7440-50-8	Copper	1.9	U		P
7439-89-6	Iron	11.1	B		P
7439-92-1	Lead	3.9			F
7439-95-4	Magnesium	7980			P
7439-96-5	Manganese	4.0	B		P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	2.6	U		P
7440-09-7	Potassium	1710	B		P
7782-49-2	Selenium	3.6	U		F
7440-22-4	Silver	3.6	U		P
7440-23-5	Sodium	3540	B		P
7440-28-0	Thallium	1.3	U		F
7440-62-2	Vanadium	2.8	B		P
7440-66-6	Zinc	5.7	U		P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

MM PBS 6/14/95

Comments:

SAMPLE NUMBER: B079S9

INORGANIC ANALYSIS DATA SHEET

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D0-0108

Lab Code: SKINER Case No.: N2-09-162SAS No.: SDG No.: B079R4

Matrix (soil/water): WATER Lab Sample ID: 09406-04S

Level (low/med): LOW Date Received: 09/24/92

% 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	14.7	U		P
7440-36-0	Antimony	14.8	U		P
7440-38-2	Arsenic	2.2	U		F
7440-39-3	Barium	21.7	B		P
7440-41-7	Beryllium	0.30	U		P
7440-43-9	Cadmium	1.5	U		P
7440-70-2	Calcium	46900			P
7440-47-3	Chromium	172			P
7440-48-4	Cobalt	1.3	U		P
7440-50-8	Copper	1.9	U		P
7439-89-6	Iron	4.0	U		P
7439-92-1	Lead	2.1	B		F
7439-95-4	Magnesium	7990			P
7439-96-5	Manganese	1.2	B		P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	2.6	U		P
7440-09-7	Potassium	2420	B		P
7782-49-2	Selenium	3.6	U	W	F
7440-22-4	Silver	3.6	U		P
7440-23-5	Sodium	6090			P
7440-28-0	Thallium	1.3	U		F
7440-62-2	Vanadium	4.3	B		P
7440-66-6	Zinc	5.7	U		P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

M
PG 6/19/9

9613494.1591

000010

TMA Inc. REPORT Work Order # A2-09-063

Received: 09/23/92

Results by Sample

SAMPLE ID B079R1 FRACTION 01G TEST CODE WCCLPL NAME Anions & Wet Chem. - WN043

Date & Time Collected 09/21/92 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Chloride	300.0	20.2	mg/L	0.2
Fluoride	300.0	<0.1 U	mg/L	0.1
Phosphate	300.0	<0.4 U	mg/L	0.4
pH	150.1	8.0	pH	0.1
Sulfate	300.0	51	mg/L	1
Elect. Conductivity	120.1	331	umho/cm	6

FORM I

MM
PBD
6/14/9

9613494.1592

TMA Inc. REPORT

Work Order # A2-09-063

Received: 09/23/92

Results by Sample

SAMPLE ID B079R1 FRACTION 011 TEST CODE WCCLPL NAME Anions & Wet Chem. - WR043

Date & Time Collected 09/21/92 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Alkalinity	310.1	53	mg/L	2
Tot. Dissolved Solids	160.1	258	mg/L	5

FORM I

NW PBA 6/14/96

TMA Inc. REPORT Work Order # A2-09-063

Received: 09/23/92

Results by Sample

SAMPLE ID B079R1 FRACTION 01K TEST CODE WCCLPL NAME Anions & Wet Chem. - WN043

Date & Time Collected 09/21/92 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Sulfide	376.1	~~<1~~ U	mg/L	1

FORM I

MM
PBD
6/14/93

9613494.1594

TMA Inc. REPORT Work Order # A2-09-063

Received: 09/23/92 Results by Sample

SAMPLE ID B079R1 FRACTION 01M TEST CODE WCCLPL NAME Anions & Wet Chem. - WM063

Date & Time Collected 09/21/92 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Ammonia Nitrogen	350.3	0.22	mg/L	0.05
COD	410.0	~~<30~~ U	mg/L	30

FORM I

MB PBD 6/14/92

TMA Inc. REPORT

Work Order # A2-09-063

Received: 09/23/92

Results by Sample

SAMPLE ID B079R6 FRACTION 03E TEST CODE WCCLPL NAME Anions & Wet Chem. - WH043

Date & Time Collected 09/21/92 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Chloride	300.0	4.4	mg/L	0.2
Fluoride	300.0	<0.1 U	mg/L	0.1
Phosphate	300.0	<0.4 U	mg/L	0.4
pH	150.1	8.1	pH	0.1
Sulfate	300.0	53	mg/L	1
Elect. Conductivity	120.1	262	umho/cm	6

FORM I

NM PSD 6/14/93

9613494.1596

TMA Inc. REPORT Work Order # A2-09-063

Received: 09/23/92 Results by Sample

SAMPLE ID B079R6 FRACTION 03G TEST CODE WCCLPL NAME Anions & Wet Chem. - WH043

Date & Time Collected 09/21/92 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Alkalinity	310.1	84	mg/L	2
Tot. Dissolved Solids	160.1	190	mg/L	5

FORM I

NM

6/14/93

9613494.1597

TMA Inc. REPORT Work Order # A2-09-063

Received: 09/23/92 Results by Sample

SAMPLE ID B079R6 FRACTION 03W TEST CODE WCCLPL NAME Anions & Wet Chem. - WN043

Date & Time Collected 09/21/92 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Sulfide	376.1	~~<1~~ U	mg/L	1

FORM I

NW
RB
01/14/93

TMA Inc. REPORT Work Order # A2-09-063

Received: 09/23/92

Results by Sample

SAMPLE ID B079R6 FRACTION 03J TEST CODE WCCLPL NAME Anions & Wet Chem. - VH043

Date & Time Collected 09/21/92 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Ammonia Nitrogen	350.3	<0.05 U	mg/L	0.05
COD	410.0	<30 U	mg/L	30

FORM I

MW
RD
6/14/93

9613494.1599

TRA Inc. REPORT Work Order # A2-09-063

Received: 09/23/92 Results by Sample

SAMPLE ID B079S1 FRACTION 05C TEST CODE WCCLPL NAME Anions & Wet Chem. - WN043

Date & Time Collected 09/21/92 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Chloride	300.0	5.3	mg/L	0.2
Fluoride	300.0	0.2	mg/L	0.1
Phosphate	300.0	~~<~~0.4U	mg/L	0.4
pH	150.1	8.2	pH	0.1
Sulfate	300.0	53	mg/L	1
Elect. Conductivity	120.1	270	umho/cm	6

FORM I

MM
PBD
5/14/93

961349 4 1600

TMA Inc. REPORT Work Order # A2-09-063

Received: 09/23/92

Results by Sample

SAMPLE ID B079S1 FRACTION 05D TEST CODE WCCLPL NAME Anions & Wet Chem. - WN043

Date & Time Collected 09/21/92 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Alkalinity	310.1	73	mg/L	2
Tot. Dissolved Solids	160.1	171	mg/L	5

FORM I

MM
PBD
6/14/93

9613494.1601

TNA Inc. REPORT Work Order # A2-09-063

eceived: 09/23/92 Results by Sample

AMPLE ID B079S1 FRACTION 05E TEST CODE VCCLPL NAME Anions & Wet Chem. - VN043

Date & Time Collected 09/21/92 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Sulfide	376.1	~~<1~~ U	mg/L	1

FORM I

W
PS
6/14/92

TMA Inc. REPORT Work Order # A2-09-063

eceived: 09/23/92

Results by Sample

AMPLE ID B079S1 FRACTION 05F TEST CODE VCCLPL NAME Anions & Wet Chem. - WN043

Date & Time Collected 09/21/92 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Ammonia Nitrogen	350.3	0.05	mg/L	0.05
COD	410.0	~~<~~30 U	mg/L	30

FORM I

NM
FBD
6/14/93

9613494.1603

TMA Inc. REPORT Work Order # A2-09-063

Received: 09/23/92 Results by Sample

SAMPLE ID B07956 FRACTION 07C TEST CODE WCCLPL NAME Anions & Wet Chem. - WH043

Date & Time Collected 09/21/92 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Chloride	300.0	6.4	mg/L	0.2
Fluoride	300.0	<0.1 U	mg/L	0.1
Phosphate	300.0	<0.4 U	mg/L	0.4
pH	150.1	8.0	pH	0.1
Sulfate	300.0	58	mg/L	1
Elect. Conductivity	120.1	285	umho/cm	6

FORM I

MM
PBD
6/14/93

TMA Inc. REPORT Work Order # A2-09-063

Received: 09/23/92

Results by Sample

SAMPLE ID B07956 FRACTION 07D TEST CODE WCCLPL NAME Anions & Wet Chem. - VR043

Date & Time Collected 09/21/92 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Alkalinity	310.1	86	mg/L	2
Tot. Dissolved Solids	160.1	200	mg/L	5

FORM I

NW
TD
6/14/93

9613494.1605

TMA Inc. REPORT Work Order # A2-09-063

Received: 09/23/92 Results by Sample

SAMPLE ID B079S6 FRACTION 07E TEST CODE WCCLPL NAME Anions & Wet Chem. - WN043

Date & Time Collected 09/21/92 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Sulfide	376.1	<1 U	mg/L	1

FORM I

NM
PB
6/14/93

9610391.1696

TMA Inc. REPORT Work Order # A2-09-063

Resampled: 09/23/92 Results b

SAMPLE ID B079S6 FRACTION 07F TEST CODE VCCLPL NAME Anions & Wet Chem. - VN043

Date & Time Collected 09/21/92 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Ammonia Nitrogen	350.3	<0.05 U	mg/L	0.05
COD	410.0	<30 U	mg/L	30

FORM I

MW
RB
3/14/93

9613494.1607

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07B01

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 10005 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A210005-01A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21002R10

Level: (low/med) LOW Date Received: 09/30/92

% Moisture: not dec. ____ Date Analyzed: 10/02/92

GC Column: PACK ID: 2.00 (mm) Dilution Factor: 1.0

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

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

CAS NO.	COMPOUND		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	11	
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

N1

RB 5/71

9613494 1E 1608

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

B07B01

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 10005 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A210005-01A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21002R10

Level: (low/med) LOW Date Received: 09/30/92

% Moisture: not dec. ____ Date Analyzed: 10/02/92

GC Column: PACK ID: 2.00 (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

NV
RB
5/7/93

9613494.1609

VOLATILE ORGANICS ANALYSIS DATA SHEET

000081
EPA SAMPLE NO.

B07B05

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 10005 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A210005-02A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21002R13

Level: (low/med) LOW Date Received: 09/30/92

% Moisture: not dec. ____ Date Analyzed: 10/02/92

GC Column: PACK ID: 2.00 (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	3	J
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

NL
RB
5/7/93

9613494.1610

000082
EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B07B05

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 10005 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A210005-02A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21002R13

Level: (low/med) LOW Date Received: 09/30/92

% Moisture: not dec. ____ Date Analyzed: 10/02/92

GC Column: PACK ID: 2.00 (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

NV
RB
5/7/93

9613494.1611

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07B31

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 10005 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A210005-03A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21002R14

Level: (low/med) LOW Date Received: 09/30/92

% Moisture: not dec. ____ Date Analyzed: 10/02/92

GC Column: PACK ID: 2.00 (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

N, RB 5/7/

9613494.1612

1E

000091

EPA SAMPLE NO.

B07B31

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 10005 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A210005-03A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21002R14

Level: (low/med) LOW Date Received: 09/30/92

% Moisture: not dec. ____ Date Analyzed: 10/02/92

GC Column: PACK ID: 2.00 (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

NV

RL
5/7/93

9613494 1613

000097
EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

B07B35 CRM 2/22/93

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 10005 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A210005-04A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21002R15

Level: (low/med) LOW Date Received: 09/30/92

% Moisture: not dec. ____ Date Analyzed: 10/02/92

GC Column: PACK ID: 2.00 (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	3	J
67-64-1	Acetone	10	
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

NI
KB 5/7/9

9613494.1614

EPA SAMPLE NO.

B07B35

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 10005 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A210005-04A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21002R15

Level: (low/med) LOW Date Received: 09/30/92

% Moisture: not dec. ____ Date Analyzed: 10/02/92

GC Column: PACK ID: 2.00 (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

RB (N
5/7/93

9613494.1615

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07B44

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 10005 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A210005-05A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21002R18

Level: (low/med) LOW Date Received: 09/30/92

% Moisture: not dec. ____ Date Analyzed: 10/02/92

GC Column: PACK ID: 2.00 (mm) Dilution Factor: 1.0

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

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

CAS NO.	COMPOUND		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	26	
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

NV

RB 5/7/9

9613494.1616

1E

00010C

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B07B44

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 10005 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A210005-05A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21002R18

Level: (low/med) LOW Date Received: 09/30/92

% Moisture: not dec. ____ Date Analyzed: 10/02/92

GC Column: PACK ID: 2.00 (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

RB (N)
5/7/93

9613494.1617

000117
EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

B07B48

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 10005 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A210005-06A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21002R19

Level: (low/med) LOW Date Received: 09/30/92

% Moisture: not dec. ____ Date Analyzed: 10/02/92

GC Column: PACK ID: 2.00 (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	3	J
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

NI

RB 5/7/94

9613494.1618

1E

EPA SAMPLE NO.

B07B48

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 10005 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A210005-06A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21002R19

Level: (low/med) LOW Date Received: 09/30/92

% Moisture: not dec. ____ Date Analyzed: 10/02/92

GC Column: PACK ID: 2.00 (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

NV

KO
5/7/93

9613494.1619

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07B01

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 10005 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A210005-01D

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 21013S03

Level: (low/med) LOW Date Received: 09/30/92

% Moisture: _____ decanted: (Y/N) ___ Date Extracted: 10/02/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 10/14/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-Di-n-Propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)Methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-Methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U
51-28-5	2,4-Dinitrophenol	25	U

NV

RB 5/7/93

9613494.1620

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07B01

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 10005 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A210005-01D

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 21013S03

Level: (low/med) LOW Date Received: 09/30/92

% Moisture: ____ decanted: (Y/N) ___ Date Extracted: 10/02/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 10/14/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-Butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)Anthracene	10	U
117-81-7	bis(2-Ethylhexyl)Phthalate	10	U
218-01-9	Chrysene	10	U
117-84-0	Di-n-Octyl Phthalate	10	U
205-99-2	Benzo(b)Fluoranthene	10	U
207-08-9	Benzo(k)Fluoranthene	10	U
50-32-8	Benzo(a)Pyrene	10	U
193-39-5	Indeno(1,2,3-cd)Pyrene	10	U
53-70-3	Dibenz(a,h)Anthracene	10	U
191-24-2	Benzo(g,h,i)Perylene	10	U

(1) - Cannot be separated from Diphenylamine

NV

RB 5/7/94

EPA SAMPLE NO.

B07B01

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 10005 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A210005-01D

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 21013S03

Level: (low/med) LOW Date Received: 09/30/92

% Moisture: _____ decanted: (Y/N) ___ Date Extracted: 10/02/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 10/14/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

RB NV
5/7/93

EPA SAMPLE NO.

B07B31

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 10005 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A210005-03B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 21013S06

Level: (low/med) LOW Date Received: 09/30/92

% Moisture: ____ decanted: (Y/N) ___ Date Extracted: 10/02/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 10/14/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-Di-n-Propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)Methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-Methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U
51-28-5	2,4-Dinitrophenol	25	U

NI
RB
5/7/9

9613494.1623

000228

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

B07B31

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 10005 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A210005-03B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 21013S06

Level: (low/med) LOW Date Received: 09/30/92

% Moisture: ____ decanted: (Y/N) ___ Date Extracted: 10/02/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 10/14/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

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

CAS NO.	COMPOUND		Q
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-Butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)Anthracene	10	U
117-81-7	bis(2-Ethylhexyl)Phthalate	10	U
218-01-9	Chrysene	10	U
117-84-0	Di-n-Octyl Phthalate	10	U
205-99-2	Benzo(b)Fluoranthene	10	U
207-08-9	Benzo(k)Fluoranthene	10	U
50-32-8	Benzo(a)Pyrene	10	U
193-39-5	Indeno(1,2,3-cd)Pyrene	10	U
53-70-3	Dibenz(a,h)Anthracene	10	U
191-24-2	Benzo(g,h,i)Perylene	10	U

(1) - Cannot be separated from Diphenylamine

NV
RB
5/7/9

9613494.1624

1F

000229

EPA SAMPLE NO.

B07B31

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 10005 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A210005-03B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 21013S06

Level: (low/med) LOW Date Received: 09/30/92

% Moisture: ____ decanted: (Y/N) ___ Date Extracted: 10/02/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 10/14/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

NB NV
5/7/93

9613494.1625

000239

EPA SAMPLE NO.

B07B44

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 10005 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A210005-05B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 21013S07

Level: (low/med) LOW Date Received: 09/30/92

% Moisture: ____ decanted: (Y/N) ___ Date Extracted: 10/02/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 10/14/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-Di-n-Propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)Methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-Methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U
51-28-5	2,4-Dinitrophenol	25	U

N

RB 5/7/9

9613494.1626

000240

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

B07B44 Cent 2/22/93

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 10005 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A210005-05B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 21013S07

Level: (low/med) LOW Date Received: 09/30/92

% Moisture: ____ decanted: (Y/N) ___ Date Extracted: 10/02/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 10/14/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-Butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)Anthracene	10	U
117-81-7	bis(2-Ethylhexyl)Phthalate	3	BJ
218-01-9	Chrysene	10	U
117-84-0	Di-n-Octyl Phthalate	10	U
205-99-2	Benzo(b)Fluoranthene	10	U
207-08-9	Benzo(k)Fluoranthene	10	U
50-32-8	Benzo(a)Pyrene	10	U
193-39-5	Indeno(1,2,3-cd)Pyrene	10	U
53-70-3	Dibenz(a,h)Anthracene	10	U
191-24-2	Benzo(g,h,i)Perylene	10	U

(1) - Cannot be separated from Diphenylamine

N RB 5/7/9

9613494.1627

000241
EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B07B44 CEM 2/22/93

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 10005 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A210005-05B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 21013S07

Level: (low/med) LOW Date Received: 09/30/92

% Moisture: ____ decanted: (Y/N) ___ Date Extracted: 10/02/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 10/14/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

Number TICs found: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN HYDROCARBON	5.52	4	BJ

RB (NV)
5/7/93

9613494.1628

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

000359
EPA SAMPLE NO.

B07B31

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 10005 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A210005-03B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N) ___ Date Received: 09/30/92

Extraction: (SepF/Cont/Sonc) CONT Date Extracted: 10/02/92

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 10/15/92

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-36-3	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

RB 2/26/93

NV

KE 5/7/93

9613494.1629

000365

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07B44

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 10005 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A210005-05B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N) ___ Date Received: 09/30/92

Extraction: (SepF/Cont/Sonc) CONT Date Extracted: 10/02/92

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 10/15/92

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-36-3	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

RB 2/26/93

N

KB 5/7/93

9613494.1630

TMA Inc. REPORT Work Order # A2-10-005

eceived: 09/30/92 Results by Sample

AMPLE ID B07B01 FRACTION 01G TEST CODE WCCLPL NAME Anions & Wet Chem. - WN043

Date & Time Collected 09/28/92 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Chloride	300.0	9.6	mg/L	0.2
Fluoride	300.0	0.3	mg/L	0.1
Phosphate	300.0	<0.4	mg/L	0.4
pH	150.1	8.0	pH	0.1
Sulfate	300.0	39	mg/L	1
Elect. Conductivity	120.1	338	umho/cm	6

FORM I

NV

PBD 6/14/93

9613494.1631

TMA Inc. REPORT Work Order # A2-10-005

ceived: 09/30/92

Results by Sample

MPLE ID B07B01 FRACTION 01I TEST CODE WCCLPL NAME Anions & Wet Chem. - WN043

Date & Time Collected 09/28/92 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Alkalinity	310.1	110	mg/L	2
Tot. Dissolved Solids	160.1	199	mg/L	5

FORM I

NV
TBD
6/14/93

9613494.1632

TMA Inc. REPORT Work Order # A2-10-005

ived: 09/30/92 Results by Sample

.E ID 807801 FRACTION 01K TEST CODE VCCLPL NAME Anions & Wet Chem. - VN043

Date & Time Collected : 09/28/92 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Sulfide	376.1	<1	mg/L	1

FORM I

NW
PBA
6/14/93

9613494.1633

TMA Inc. REPORT Work Order # A2-10-005

:eived: 09/30/92 Results by Sample

IPLE ID 807B01 FRACTION 01M TEST CODE WCCLPL NAME Aniens & Wet Chem. - [illegible]

Date & Time Collected 09/28/92 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Ammonia Nitrogen	350.3	<0.05	mg/L	0.05
COD	410.0	<30	mg/L	30

FORM I

NV
PSD
6/14/93

9613494.1634

000014

TMA Inc. REPORT Work Order # A2-10-005

:ceived: 09/30/92 Results by Sample

:MPLE ID B07831 FRACTION 03E TEST CODE VCCLPL NAME Anions & Wet Chem. - VN043

Date & Time Collected 09/28/92 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Chloride	300.0	<0.2	mg/L	0.2
Fluoride	300.0	<0.1	mg/L	0.1
Phosphate	300.0	<0.4	mg/L	0.4
pH	150.1	6.2	pH	0.1
Sulfate	300.0	<1	mg/L	1
Elect. Conductivity	120.1	<6	umho/cm	6

FORM I

NV
PBA
6/14/93

9613494.1635

TRA Inc. REPORT Work Order # A2-10-005

ed: 09/30/92

Results by Sample

ID 807831 FRACTION 03G TEST CODE VCCLPL NAME Anions & Wet Chem. - VH043

Date & Time Collected 09/28/92 Category

- ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMMIT
Alkalinity	310.1	<2	mg/L	2 2
Tot. Dissolved Solids	160.1	<5	mg/L	5 5

FORM I

NV
PBD
6/14/93

9613494.1656

TMA Inc. REPORT - Work Order # A2-10-005

eived: 09/30/92 Results by Sample

PLE ID B07831 FRACTION 03H TEST CODE [redacted] NAME Anions & Wet Chem. - WH043

Date & Time Collected 09/28/92 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Sulfide	376.1	<1	mg/L	1

FORM I

NV
PD
6/14/93

9613494.1637

TNA Inc. REPORT Work Order # A2-10-005

ceived: 09/30/92

Results by Sample

MPLE ID B07831 FRACTION 03J TEST CODE VCCLPL NAME Anions & Wet Chem. - VB863

Date & Time Collected 09/28/92 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Ammonia Nitrogen	350.3	<0.05	mg/L	0.05
COD	410.0	<30	mg/L	30

FORM I

NY
PBS
6/14/93

9613494.1638

TRA Inc. REPORT Work Order # A2-10-005

ived: 09/30/92 Results by Sample

LE ID B07844 FRACTION 05C TEST CODE VCCLPL NAME Anions & Wet Chem. - VR043

Date & Time Collected 09/28/92 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Chloride	300.0	<0.2	mg/L	0.2
Fluoride	300.0	<0.1	mg/L	0.1
Phosphate	300.0	<0.4	mg/L	0.4
pH	150.1	5.8	pH	0.1
Sulfate	300.0	<1	mg/L	1
Elect. Conductivity	120.1	<6	umho/cm	6

FORM I

NV
PBD
6/14/93

96(494.1659

TRA Inc. REPORT Work Order # A2-10-005

ived: 09/30/92 Results by Sample

LE ID B07B44 FRACTION 05D TEST CODE WCCLPL NAME Anions & Wet Chem. - [redacted]3

Date & Time Collected 09/28/92 Category

ANIONS AND WET CHEMISTRY - LIQUIDS				
ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Alkalinity	310.1	<2	mg/L	2
Tot. Dissolved Sulfide	160.1	<5	mg/L	5

FORM I

NV
PBS
6/11/13

9613494.1640

TNA Inc. REPORT Work Order # A2-10-005

:ived: 09/30/92 Resulttts by Sample

'LE ID B07844 FRACTION DOSE TEST CODE WCCLPL NAME Anions & Wet Chem. - WK043

Date & Timme Collected 09/28/92 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Sulfide	376.1	<1	mg/L	1

FORM I

NN
PSA
6/14/93

TRA Inc. REPORT Work Order # A2-10-005

ived: 09/30/92 Results by Sample

LE ID B07844 FRACTION 05F-- TEST CODE WCCLPL NAME Anions & Wet Chem. - WH043

Date & Time Collected 09/28/92 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Ammonia Nitrogen	350.3	<0.05	mg/L	0.05
COD	410.0	<30	mg/L	30

FORM I

NV.
PSD
6/14/93

9613494.1642

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

000005
EPA SAMPLE NO.

B079Q6

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09070 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209070-03A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20929R07

Level: (low/med) LOW Date Received: 09/24/92

% Moisture: not dec. ____ Date Analyzed: 09/29/92

GC Column: PACK ID: 2.00 (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	6	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

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PE
6/4

9613494.1643

000006

1E

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B079Q6

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09070 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209070-03A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20929R07

Level: (low/med) LOW Date Received: 09/24/92

% Moisture: not dec. ____ Date Analyzed: 09/29/92

GC Column: PACK ID: 2.00 (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

N
PB
6/14/

9613494.1644

000007

EPA SAMPLE NO.

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

B079R0

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09070 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209070-04A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20929R08

Level: (low/med) LOW Date Received: 09/24/92

% Moisture: not dec. ____ Date Analyzed: 09/29/92

GC Column: PACK ID: 2.00 (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

NV 6/14

9613494.1645

000008

EPA SAMPLE NO.

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B079R0

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09070 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209070-04A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20929R08

Level: (low/med) LOW Date Received: 09/24/92

% Moisture: not dec. ____ Date Analyzed: 09/29/92

GC Column: PACK ID: 2.00 (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

6/14/

9613494.1646

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

000009
EPA SAMPLE NO.

B079T6

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09070 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209070-05A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20929R09

Level: (low/med) LOW Date Received: 09/24/92

% Moisture: not dec. ____ Date Analyzed: 09/29/92

GC Column: PACK ID: 2.00 (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	13	
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

N PBT 6/14

9613494.1647

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

000010
EPA SAMPLE NO.

B079T6

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09070 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209070-05A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20929R09

Level: (low/med) LOW Date Received: 09/24/92

% Moisture: not dec. ____ Date Analyzed: 09/29/92

GC Column: PACK ID: 2.00 (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

NV
6/14/9

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B079V0

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09070 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209070-06A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20929R10

Level: (low/med) LOW Date Received: 09/24/92

% Moisture: not dec. ____ Date Analyzed: 09/29/92

GC Column: PACK ID: 2.00 (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

NL
PB
6/14/

9613494.1649

000012

EPA SAMPLE NO.

B079V0

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09070 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209070-06A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20929R10

Level: (low/med) LOW Date Received: 09/24/92

% Moisture: not dec. ____ Date Analyzed: 09/29/92

GC Column: PACK ID: 2.00 (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

NV PB 6/14/

9613494.1650

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

000013
EPA SAMPLE NO.

B079Z6

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09070 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209070-07A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20929R11

Level: (low/med) LOW Date Received: 09/24/92

% Moisture: not dec. ____ Date Analyzed: 09/29/92

GC Column: PACK ID: 2.00 (mm) Dilution Factor: 1.0

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

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

CAS NO.	COMPOUND		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

NA 6/14/

9613494.1651

000014

EPA SAMPLE NO.

B079Z6

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09070 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209070-07A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20929R11

Level: (low/med) LOW Date Received: 09/24/92

% Moisture: not dec. ____ Date Analyzed: 09/29/92

GC Column: PACK ID: 2.00 (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

NV
AC
6/14/

9613494.1652

000015

EPA SAMPLE NO.

B07B00

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09070 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209070-08A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20929R12

Level: (low/med) LOW Date Received: 09/24/92

% Moisture: not dec. ____ Date Analyzed: 09/29/92

GC Column: PACK ID: 2.00 (mm) Dilution Factor: 1.0

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

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

CAS NO.	COMPOUND		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

NV 6/14/

9613494.1653

1E

000016

EPA SAMPLE NO.

B07B00

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09070 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209070-08A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20929R12

Level: (low/med) LOW Date Received: 09/24/92

% Moisture: not dec. ____ Date Analyzed: 09/29/92

GC Column: PACK ID: 2.00 (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

6/14/

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07B06

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09070 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209070-01A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20929R03

Level: (low/med) LOW Date Received: 09/24/92

% Moisture: not dec. ____ Date Analyzed: 09/29/92

GC Column: PACK ID: 2.00 (mm) Dilution Factor: 1.0

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

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

CAS NO.	COMPOUND		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

W PB 6/14/

9613494.1655

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

000018
EPA SAMPLE NO.

B07B06

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09070 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209070-01A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20929R03

Level: (low/med) LOW Date Received: 09/24/92

% Moisture: not dec. ____ Date Analyzed: 09/29/92

GC Column: PACK ID: 2.00 (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

NN
PB
6/14/

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07B10

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09070 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209070-02A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20929R06

Level: (low/med) LOW Date Received: 09/24/92

% Moisture: not dec. ____ Date Analyzed: 09/29/92

GC Column: PACK ID: 2.00 (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

NW 9/29 6/1/11

9613494.1657

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

000020
EPA SAMPLE NO.

B07B10

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09070 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209070-02A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20929R06

Level: (low/med) LOW Date Received: 09/24/92

% Moisture: not dec. ____ Date Analyzed: 09/29/92

GC Column: PACK ID: 2.00 (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

NV
6/14

9613494.1658

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

000021
EPA SAMPLE NO.

B079Q6

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09070 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209070-03B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 20930S13

Level: (low/med) LOW Date Received: 09/24/92

% Moisture: ____ decanted: (Y/N) ___ Date Extracted: 09/26/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/30/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-Di-n-Propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)Methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-Methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U
51-28-5	2,4-Dinitrophenol	25	U

M BA 6/14/

9613494.1659

1C

000022

EPA SAMPLE NO.

B079Q6

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09070 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209070-03B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 20930S13

Level: (low/med) LOW Date Received: 09/24/92

% Moisture: ____ decanted: (Y/N) ___ Date Extracted: 09/26/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/30/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-Butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)Anthracene	10	U
117-81-7	bis(2-Ethylhexyl)Phthalate	2	BJ
218-01-9	Chrysene	10	U
117-84-0	Di-n-Octyl Phthalate	10	U
205-99-2	Benzo(b)Fluoranthene	10	U
207-08-9	Benzo(k)Fluoranthene	10	U
50-32-8	Benzo(a)Pyrene	10	U
193-39-5	Indeno(1,2,3-cd)Pyrene	10	U
53-70-3	Dibenz(a,h)Anthracene	10	U
191-24-2	Benzo(g,h,i)Perylene	10	U

(1) - Cannot be separated from Diphenylamine

6/14/

9613494.1660

000023

EPA SAMPLE NO.

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B079Q6

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09070 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209070-03B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 20930S13

Level: (low/med) LOW Date Received: 09/24/92

% Moisture: ____ decanted: (Y/N) ___ Date Extracted: 09/26/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/30/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

NV 6/14/

9613494.1661

000024

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B079T6

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09070 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209070-05B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 20930S14

Level: (low/med) LOW Date Received: 09/24/92

% Moisture: _____ decanted: (Y/N) ___ Date Extracted: 09/26/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/30/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-Di-n-Propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)Methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-Methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U
51-28-5	2,4-Dinitrophenol	25	U

NW 6/14/

9613494.1662

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

000025
EPA SAMPLE NO.

B079T6

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09070 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209070-05B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 20930S14

Level: (low/med) LOW Date Received: 09/24/92

% Moisture: ____ decanted: (Y/N) ___ Date Extracted: 09/26/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/30/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-Butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)Anthracene	10	U
117-81-7	bis(2-Ethylhexyl)Phthalate	2	BJ
218-01-9	Chrysene	10	U
117-84-0	Di-n-Octyl Phthalate	10	U
205-99-2	Benzo(b)Fluoranthene	10	U
207-08-9	Benzo(k)Fluoranthene	10	U
50-32-8	Benzo(a)Pyrene	10	U
193-39-5	Indeno(1,2,3-cd)Pyrene	10	U
53-70-3	Dibenz(a,h)Anthracene	10	U
191-24-2	Benzo(g,h,i)Perylene	10	U

(1) - Cannot be separated from Diphenylamine

9613494.1663

000026

EPA SAMPLE NO.

B079T6

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09070 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209070-05B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 20930S14

Level: (low/med) LOW Date Received: 09/24/92

% Moisture: ____ decanted: (Y/N) ___ Date Extracted: 09/26/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/30/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

NW
PBJ
6/14/

9613494.1664

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

000027
EPA SAMPLE NO.

B079Z6

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09070 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209070-07B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 20930S15

Level: (low/med) LOW Date Received: 09/24/92

% Moisture: _____ decanted: (Y/N) ___ Date Extracted: 09/26/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/30/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-Di-n-Propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)Methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-Methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U
51-28-5	2,4-Dinitrophenol	25	U

NV 6/14/

9613494.1665

000028

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B079Z6

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09070 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209070-07B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 20930S15

Level: (low/med) LOW Date Received: 09/24/92

% Moisture: ____ decanted: (Y/N) ___ Date Extracted: 09/26/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/30/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-Butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)Anthracene	10	U
117-81-7	bis(2-Ethylhexyl)Phthalate	10	U
218-01-9	Chrysene	10	U
117-84-0	Di-n-Octyl Phthalate	10	U
205-99-2	Benzo(b)Fluoranthene	10	U
207-08-9	Benzo(k)Fluoranthene	10	U
50-32-8	Benzo(a)Pyrene	10	U
193-39-5	Indeno(1,2,3-cd)Pyrene	10	U
53-70-3	Dibenz(a,h)Anthracene	10	U
191-24-2	Benzo(g,h,i)Perylene	10	U

(1) - Cannot be separated from Diphenylamine

NV BD 6/14/

9613494.1666

000029

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

B079Z6

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09070 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209070-07B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 20930S15

Level: (low/med) LOW Date Received: 09/24/92

% Moisture: _____ decanted: (Y/N) ___ Date Extracted: 09/26/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/30/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

N
PB
6/14/

9613494.1667

1B

000030
EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

B07B06

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09070 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209070-01D

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 20930S10

Level: (low/med) LOW Date Received: 09/24/92

% Moisture: _____ decanted: (Y/N) ___ Date Extracted: 09/26/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/30/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

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

CAS NO.	COMPOUND		Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-Di-n-Propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)Methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-Methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U
51-28-5	2,4-Dinitrophenol	25	U

M PB 6/14

9613494.1668

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07B06

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09070 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209070-01D

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 20930S10

Level: (low/med) LOW Date Received: 09/24/92

% Moisture: ____ decanted: (Y/N) ___ Date Extracted: 09/26/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/30/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-Butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)Anthracene	10	U
117-81-7	bis(2-Ethylhexyl)Phthalate	10	U
218-01-9	Chrysene	10	U
117-84-0	Di-n-Octyl Phthalate	10	U
205-99-2	Benzo(b)Fluoranthene	10	U
207-08-9	Benzo(k)Fluoranthene	10	U
50-32-8	Benzo(a)Pyrene	10	U
193-39-5	Indeno(1,2,3-cd)Pyrene	10	U
53-70-3	Dibenz(a,h)Anthracene	10	U
191-24-2	Benzo(g,h,i)Perylene	10	U

(1) - Cannot be separated from Diphenylamine

NM 6/14/

9613494.1669

000032

EPA SAMPLE NO.

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B07B06

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09070 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209070-01D

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 20930S10

Level: (low/med) LOW Date Received: 09/24/92

% Moisture: ____ decanted: (Y/N) ___ Date Extracted: 09/26/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/30/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

6/14/2

9613494.1670

1D

000033

EPA SAMPLE NO.

B079Q6

PESTICIDE ORGANICS ANALYSIS DATA SHEET

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09070 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209070-03B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N) ___ Date Received: 09/24/92

Extraction: (SepF/Cont/Sonc) CONT Date Extracted: 09/26/92

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 10/10/92

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-36-3	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

NV PBD 6/14/95

9613494.1671

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

000034
EPA SAMPLE NO.

B079T6

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09070 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209070-05B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N) ___ Date Received: 09/24/92

Extraction: (SepF/Cont/Sonc) CONT Date Extracted: 09/26/92

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 10/10/92

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-36-3	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

NV
PBD
6/14/93

9613494.1672

000035

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B079Z6

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09070 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209070-07B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N) ___ Date Received: 09/24/92

Extraction: (SepF/Cont/Sonc) CONT Date Extracted: 09/26/92

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 10/10/92

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-36-3	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

NV PBS 6/14/9

9613494.1673

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

000036

EPA SAMPLE NO.

B07B06

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09070 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209070-01D

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N) ___ Date Received: 09/24/92

Extraction: (SepF/Cont/Sonc) CONT Date Extracted: 09/26/92

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 10/10/92

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-36-3	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

NV PM 6/14/

SAMPLE NUMBER:

B079Q6

INORGANIC ANALYSIS DATA SHEET

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D0-0108

Lab Code: SKINER Case No.: N2-09-180SAS No.: SDG No.: B079Q6

Matrix (soil/water): WATER Lab Sample ID: 09449-02S

Level (low/med): LOW Date Received: 09/25/92

% 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	27.5	B		P
7440-36-0	Antimony	14.8	U		P
7440-38-2	Arsenic	10.4			F
7440-39-3	Barium	23.1	B		P
7440-41-7	Beryllium	0.30	U		P
7440-43-9	Cadmium	1.5	U		P
7440-70-2	Calcium	32400			P
7440-47-3	Chromium	2.6	U		P
7440-48-4	Cobalt	3.2	B		P
7440-50-8	Copper	1.9	U		P
7439-89-6	Iron	91.5	B		P
7439-92-1	Lead	3.2			F
7439-95-4	Magnesium	8910			P
7439-96-5	Manganese	2.6	B		P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	6.7	B		P
7440-09-7	Potassium	5150			P
7782-49-2	Selenium	2.9	U	W	F
7440-22-4	Silver	3.6	U		P
7440-23-5	Sodium	31100			P
7440-28-0	Thallium	1.7	U	WN	F
7440-62-2	Vanadium	21.9	B		P
7440-66-6	Zinc	5.7	U		P
	Cyanide	10.0	U		CA

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

NV
PBS 6/14/93

Comments:

UC~

9613494.1675

WESTINGHOUSE/HANFORD

1

INORGANIC ANALYSIS DATA SHEET

SAMPLE NUMBER: B079T6

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D0-0108

Lab Code: SKINER Case No.: N2-09-180SAS No.: SDG No.: B079Q6

Matrix (soil/water): WATER Lab Sample ID: 09449-03S

Level (low/med): LOW Date Received: 09/25/92

% 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	15.4	B		P
7440-36-0	Antimony	14.8	U		P
7440-38-2	Arsenic	2.9	B		F
7440-39-3	Barium	21.0	B		P
7440-41-7	Beryllium	0.30	U		P
7440-43-9	Cadmium	1.5	U		P
7440-70-2	Calcium	42000			P
7440-47-3	Chromium	3.0	B		P
7440-48-4	Cobalt	1.3	U		P
7440-50-8	Copper	1.9	U		P
7439-89-6	Iron	120			P
7439-92-1	Lead	3.8			F
7439-95-4	Magnesium	8950			P
7439-96-5	Manganese	3.0	B		P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	2.6	U		P
7440-09-7	Potassium	4430	B		P
7782-49-2	Selenium	2.9	U	W	F
7440-22-4	Silver	3.6	U		P
7440-23-5	Sodium	6010			P
7440-28-0	Thallium	1.7	U	N	F
7440-62-2	Vanadium	5.3	B		P
7440-66-6	Zinc	5.7	U		P
	Cyanide	10.0	U		CA

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

W 6/14/9

WESTINGHOUSE/HANFORD

1

INORGANIC ANALYSIS DATA SHEET

SAMPLE NUMBER: B079Z6

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D0-0108

Lab Code: SKINER Case No.: N2-09-180SAS No.: SDG No.: B079Q6

Matrix (soil/water): WATER Lab Sample ID: 09449-04S

Level (low/med): LOW Date Received: 09/25/92

% 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	16.4	B		P
7440-36-0	Antimony	14.3	U		P
7440-38-2	Arsenic	2.6	B	W	F
7440-39-3	Barium	13.5	B		P
7440-41-7	Beryllium	0.30	U		P
7440-43-9	Cadmium	1.5	U		P
7440-70-2	Calcium	33000			P
7440-47-3	Chromium	2.6	U		P
7440-48-4	Cobalt	1.3	U		P
7440-50-8	Copper	1.9	U		P
7439-89-6	Iron	177			P
7439-92-1	Lead	7.7			F
7439-95-4	Magnesium	9170			P
7439-96-5	Manganese	2.8	B		P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	3.2	B		P
7440-09-7	Potassium	4970	B		P
7782-49-2	Selenium	2.9	U	W	F
7440-22-4	Silver	3.6	U		P
7440-23-5	Sodium	13700			P
7440-28-0	Thallium	1.7	U	N	F
7440-62-2	Vanadium	13.8	B		P
7440-66-6	Zinc	9.9	B		P
	Cyanide	10.0	U		CA

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

NW 6/14/93

9613494.1677

WESTINGHOUSE/HANFORD

1

INORGANIC ANALYSIS DATA SHEET

SAMPLE NUMBER: B07B06

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D0-0108

Lab Code: SKINER Case No.: N2-09-180SAS No.: SDG No.: B079Q6

Matrix (soil/water): WATER Lab Sample ID: 09449-01S

Level (low/med): LOW Date Received: 09/25/92

% 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	48.5	B		P
7440-36-0	Antimony	14.8	U		P
7440-38-2	Arsenic	4.8	B	W	F
7440-39-3	Barium	27.9	B		P
7440-41-7	Beryllium	0.30	U		P
7440-43-9	Cadmium	1.5	U		P
7440-70-2	Calcium	37200			P
7440-47-3	Chromium	47.3			P
7440-48-4	Cobalt	2.7	B		P
7440-50-8	Copper	1.9	U		P
7439-89-6	Iron	19.2	B		P
7439-92-1	Lead	8.1			F
7439-95-4	Magnesium	10500			P
7439-96-5	Manganese	2.2	B		P
7439-97-6	Mercury	0.11	B		CV
7440-02-0	Nickel	4.2	B		P
7440-09-7	Potassium	4640	B		P
7782-49-2	Selenium	5.8		+	F
7440-22-4	Silver	3.6	U		P
7440-23-5	Sodium	16000			P
7440-28-0	Thallium	1.7	U	WN	F
7440-62-2	Vanadium	15.2	B		P
7440-66-6	Zinc	62.4			P
	Cyanide	10.0	U		CA

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

NV

6/14/93

Comments:

9613494.1678

WESTINGHOUSE/HANFORD

1

SAMPLE NUMBER:

INORGANIC ANALYSIS DATA SHEET

B079Q9

ab Name: SKINNER & SHERMAN LABS. Contract: 68-D0-0108

ab Code: SKINER Case No.: N2-09-180SAS No.: SDG No.: B079Q9

atrix (soil/water): WATER Lab Sample ID: 09450-02S

evel (low/med): LOW Date Received: 09/25/92

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	14.7	U		P
7440-36-0	Antimony	14.8	U		P
7440-38-2	Arsenic	9.4	B		F
7440-39-3	Barium	22.6	B		P
7440-41-7	Beryllium	0.30	U		P
7440-43-9	Cadmium	1.5	U		P
7440-70-2	Calcium	33300			P
7440-47-3	Chromium	2.6	U		P
7440-48-4	Cobalt	1.3	U		P
7440-50-8	Copper	1.9	U		P
7439-89-6	Iron	11.8	B		P
7439-92-1	Lead	5.1			F
7439-95-4	Magnesium	9280			P
7439-96-5	Manganese	0.90	U		P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	2.6	U		P
7440-09-7	Potassium	5090			P
7782-49-2	Selenium	3.9	U	WN	F
7440-22-4	Silver	3.6	U		P
7440-23-5	Sodium	30500			P
7440-28-0	Thallium	1.7	U	WN	F
7440-62-2	Vanadium	18.6	B		P
7440-66-6	Zinc	5.7	U		P
	Cyanide				NR

olor Before: COLORLESS Clarity Before: CLEAR Texture:

olor After: COLORLESS Clarity After: CLEAR Artifacts:

omments:

NW PBJ 9/14/92

02

FORM I - IN ILM02.1

9613494.1679

WESTINGHOUSE/HANFORD

SAMPLE NUMBER:

B079T9

INORGANIC ANALYSIS DATA SHEET

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D0-0108

Lab Code: SKINER Case No.: N2-09-180SAS No.: SDG No.: B079Q9

Matrix (soil/water): WATER Lab Sample ID: 09450-03S

Level (low/med): LOW Date Received: 09/25/92

% 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	14.7	U		P
7440-36-0	Antimony	14.8	U		P
7440-38-2	Arsenic	3.2	U		F
7440-39-3	Barium	20.4	B		P
7440-41-7	Beryllium	0.30	U		P
7440-43-9	Cadmium	1.5	U		P
7440-70-2	Calcium	41600			P
7440-47-3	Chromium	2.6	U		P
7440-48-4	Cobalt	1.3	U		P
7440-50-8	Copper	1.9	U		P
7439-89-6	Iron	18.5	B		P
7439-92-1	Lead	6.7			F
7439-95-4	Magnesium	8950			P
7439-96-5	Manganese	1.2	B		P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	2.6	U		P
7440-09-7	Potassium	4480	B		P
7782-49-2	Selenium	3.9	U	WN	F
7440-22-4	Silver	3.6	U		P
7440-23-5	Sodium	6050			P
7440-28-0	Thallium	1.7	U	WN	F
7440-62-2	Vanadium	6.5	B		P
7440-66-6	Zinc	5.7	U		P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture: NV

Color After: COLORLESS Clarity After: CLEAR Artifacts: PBA 6/14/93

Comments:

03

9613194.1680

WESTINGHOUSE/HANFORD

1

SAMPLE NUMBER:

B079Z9

INORGANIC ANALYSIS DATA SHEET

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D0-0108

Lab Code: SKINER Case No.: N2-09-180SAS No.: SDG No.: B079Q9

Matrix (soil/water): WATER Lab Sample ID: 09450-04S

Level (low/med): LOW Date Received: 09/25/92

% 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	14.7	U		P
7440-36-0	Antimony	14.8	U		P
7440-38-2	Arsenic	3.8	B	W	F
7440-39-3	Barium	13.0	B		P
7440-41-7	Beryllium	0.30	U		P
7440-43-9	Cadmium	1.5	U		P
7440-70-2	Calcium	32900			P
7440-47-3	Chromium	2.6	U		P
7440-48-4	Cobalt	1.3	U		P
7440-50-8	Copper	1.9	U		P
7439-89-6	Iron	14.1	B		P
7439-92-1	Lead	2.3	B		F
7439-95-4	Magnesium	9170			P
7439-96-5	Manganese	0.90	U		P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	2.6	U		P
7440-09-7	Potassium	5040			P
7782-49-2	Selenium	3.9	U	WN	F
7440-22-4	Silver	3.6	U		P
7440-23-5	Sodium	13800			P
7440-28-0	Thallium	1.7	U	WN	F
7440-62-2	Vanadium	11.8	B		P
7440-66-6	Zinc	5.7	U		P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

MW
BD
6/14/93

04

9615454.1631

WESTINGHOUSE/HANFORD

1

SAMPLE NUMBER:

B07B09

INORGANIC ANALYSIS DATA SHEET

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D0-0108

Lab Code: SKINER Case No.: N2-09-180SAS No.: SDG No.: B079Q9

Matrix (soil/water): WATER Lab Sample ID: 09450-01S

Level (low/med): LOW Date Received: 09/25/92

% 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	35.4	B		P
7440-36-0	Antimony	14.8	U		P
7440-38-2	Arsenic	5.3	B		F
7440-39-3	Barium	26.9	B		P
7440-41-7	Beryllium	0.30	U		P
7440-43-9	Cadmium	1.5	U		P
7440-70-2	Calcium	36600			P
7440-47-3	Chromium	44.9			P
7440-48-4	Cobalt	1.6	B		P
7440-50-8	Copper	1.9	U		P
7439-89-6	Iron	16.3	B		P
7439-92-1	Lead	6.6		W	F
7439-95-4	Magnesium	10400			P
7439-96-5	Manganese	2.0	B		P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	2.6	U		P
7440-09-7	Potassium	4540	B		P
7782-49-2	Selenium	3.9	U	N	F
7440-22-4	Silver	3.6	U		P
7440-23-5	Sodium	15800			P
7440-28-0	Thallium	1.7	U	WN	F
7440-62-2	Vanadium	12.4	B		P
7440-66-6	Zinc	7.0	B		P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

MM PBJ 6/14/9

C 03

9613494.1682

TNA Inc. REPORT Work Order # A2-89-070 000010

Received: 09/24/92

Results by Sample

SAMPLE ID B07B06 FRACTION 01G TEST CODE WCCLPL NAME Anions & Wet Chem. - WW043

Date & Time Collected 09/22/92 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Chloride	300.0	6.3	mg/L	0.2
Fluoride	300.0	0.3	mg/L	0.1
Phosphate	300.0	<0.4	mg/L	0.4
pH	150.1	8.0	pH	0.1
Sulfate	300.0	48	mg/L	1
Elect. Conductivity	120.1	289	umho/cm	6

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FORM I

NV
ABA
6/14/93

9613494.1693

TMA Inc. REPORT Work Order # A2-000011

Received: 09/24/92

Results by Sample

SAMPLE ID B07606 FRACTION 01I TEST CODE WCCLPL NAME Anions & Wet Chem. - VH043

Date & Time Collected 09/22/92 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Alkalinity	310.1	111	mg/L	2
Tot. Dissolved Solids	160.1	240	mg/L	5

FORM I

NM
9/14/93

TMA Inc. REPORT Work Order # A2-09-070

Received: 09/24/92

Results by Sample

SAMPLE ID B07B06 FRACTION 01K TEST CODE WCCLPL NAME Anions & Wet Chem. - WN043

Date & Time Collected 09/22/92 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Sulfide	376.1	<1 U	mg/L	1

FORM I

WM
PBD
6/14/

TMA Inc. REPORT Work Order # A2-09-070

Received: 09/24/92

Results by Sample

SAMPLE ID B07B06 FRACTION 01M TEST CODE WCCLPL NAME Anions & Wet Chem. - WM043

Date & Time Collected 09/22/92 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Ammonia Nitrogen	350.3	<0.05 U	mg/L	0.05
COD	410.0	<30 U	mg/L	30

FORM I

NM
RB
6/14/93

9613494.1606

000014

TMA Inc. REPORT Work Order # A2-09-070

Received: 09/24/92

Results by Sample

SAMPLE ID B07906 FRACTION 03E TEST CODE WCCLPL NAME Anions & Wet Chem. - WH043

Date & Time Collected 09/22/92 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Chloride	300.0	8.8	mg/L	0.2
Fluoride	300.0	4.0	mg/L	0.1
Phosphate	300.0	<0.4 U	mg/L	0.4
pH	150.1	7.9	pH	0.1
Sulfate	300.0	29	mg/L	1
Elect. Conductivity	120.1	316	umho/cm	6

FORM I

PD 6/14/93

9613494L1687

TMA Inc. REPORT Work Order # A2-09-070

Received: 09/24/92

Results by Sample

SAMPLE ID B07906 FRACTION 03G TEST CODE WCCLPL NAME Anions & Wet Chem. - WK043

Date & Time Collected 09/22/92 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Alkalinity	310.1	134	mg/L	2
Tot. Dissolved Solids	160.1	244	mg/L	5

FORM I

NM
6/14/93

9613494.1698

TMA Inc. REPORT Work Order # A2-09-070

Received: 09/24/92

Results by Sample

SAMPLE ID B07996 FRACTION 03N TEST CODE WCCLPL NAME Anions & Wet Chem. - WN043

Date & Time Collected 09/22/92 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Sulfide	376.1	~~<1~~ U	mg/L	1

FORM I

NV
RBD
6/14/9

9613494.1609

TMA Inc. REPORT

Work Order # A2-09-070

Received: 09/24/92

Results by Sample

SAMPLE ID B07996 FRACTION 03J TEST CODE VCCLPL NAME Anions & Wet Chem. - VN043

Date & Time Collected 09/22/92 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Ammonia Nitrogen	350.3	<0.05 U	mg/L	0.05
COD	410.0	<30 U	mg/L	30

FORM I

MM
PBJ
6/14/93

9613494.1690

TMA Inc. REPORT

Work Order # A2-09-070

Received: 09/24/92

Results by Sample

SAMPLE ID B079T6 FRACTION 05C TEST CODE WCCLPL NAME Anions & Wet Chem. - WN043

Date & Time Collected 09/22/92 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Chloride	300.0	5.8	mg/L	0.2
Fluoride	300.0	~~<0.1~~ U	mg/L	0.1
Phosphate	300.0	~~<0.4~~ U	mg/L	0.4
pH	150.1	7.8	pH	0.1
Sulfate	300.0	17	mg/L	1
Elect. Conductivity	120.1	253	umho/cm	6

FORM I

NV
PBD
6/14/93

9613494.1691

000019

TMA Inc. REPORT Work Order # A2-09-070

Received: 09/24/92

Results by Sample

SAMPLE ID B079T6 FRACTION 05D TEST CODE WCCLPL NAME Anions & Wet Chem. - WN043

Date & Time Collected 09/22/92 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Alkalinity	310.1	129	mg/L	2
Tot. Dissolved Solids	160.1	198	mg/L	5

FORM I

NV
PD
6/14/93

TMA Inc. REPORT Work Order # A2-09-070

Received: 09/24/92

Results by Sample

SAMPLE ID B079T6 FRACTION 05E TEST CODE WCCLPL NAME Anions & Wet Chem. - WN043

Date & Time Collected 09/22/92 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Sulfide	376.1	<1 U	mg/L	1

FORM I

NW
PBD
6/14/93

9613494.1695

TMA Inc. REPORT Work Order # A2-09-070

Received: 09/24/92

Results by Sample

SAMPLE ID B079T6 FRACTION 05F TEST CODE VCCLPL NAME Anions & Wet Chem. - VH043

Date & Time Collected 09/22/92 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Ammonia Nitrogen	350.3	<0.05 U	mg/L	0.05
COD	410.0	<30 U	mg/L	30

FORM I

NV
6/14/93

9613494.1694

TMA Inc. REPORT

Work Order # A2-09-070

Received: 09/24/92

Results by Sample

SAMPLE ID B07926 FRACTION 07C TEST CODE VCCLPL NAME Anions & Wet Chem. - VH043

Date & Time Collected 09/22/92 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Chloride	300.0	5.3	mg/L	0.2
Fluoride	300.0	0.4	mg/L	0.1
Phosphate	300.0	~~<~~0.4 U	mg/L	0.4
pH	150.1	8.0	pH	0.1
Sulfate	300.0	22	mg/L	1
Elect. Conductivity	120.1	251	umho/cm	6

FORM I

NM
PBD
6/14/93

9613494.1695

TMA Inc. REPORT Work Order # A2-09-070

Received: 09/24/92

Results by Sample

SAMPLE ID B07926 FRACTION 07D TEST CODE WCCLPL NAME Anions & Wet Chem. - WM043

Date & Time Collected 09/22/92 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Alkalinity	310.1	110	mg/L	2
Tot. Dissolved Solids	160.1	198	mg/L	5

FORM I

NV PBJ 6/14/93

9613494.1696

000024

TMA Inc. REPORT Work Order # A2-09-070

Received: 09/24/92

Results by Sample

SAMPLE ID B07926 FRACTION 07E TEST CODE WCCLPL NAME Anions & Wet Chem. - WN043

Date & Time Collected 09/22/92 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Sulfide	376.1	~~1~~ U	mg/L	1

FORM I

NM
RD
6/14/93

9613494.1697

000025

TNA Inc. REPORT Work Order # A2-09-070

Received: 09/24/92

Results by Sample

SAMPLE ID B07976 FRACTION 07F TEST CODE WCCLPL NAME Anions & Wet Chem. - WM043

Date & Time Collected 09/22/92 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Ammonia Nitrogen	350.3	<0.05 U	mg/L	0.05
COD	410.0	<30 U	mg/L	30

FORM I

MM
PBD
6/14/93

9613494.1698

Skinner&Sherman REPORT Work Order # S2-09-451

Received: 09/25/92

Results by Sample

SAMPLE ID B07B06 SAMPLE # 01 FRACTIONS: A
Date & Time Collected 09/22/92 Category WATER

NO3NO2 1.67
mg N/L

SAMPLE ID B07906 SAMPLE # 02 FRACTIONS: A
Date & Time Collected 09/22/92 Category WATER

NO3NO2 5.57
mg N/L

SAMPLE ID B079T6 SAMPLE # 03 FRACTIONS: A
Date & Time Collected 09/22/92 Category WATER

NO3NO2 1.06
mg N/L

SAMPLE ID B07926 SAMPLE # 04 FRACTIONS: A
Date & Time Collected 09/22/92 Category WATER

NO3NO2 2.44
mg N/L

SAMPLE ID B07926 DUPL SAMPLE # 04 FRACTIONS: B
Date & Time Collected 09/22/92 Category WATER

NO3NO2 2.40
mg N/L

SAMPLE ID B07926 SPIKE SAMPLE # 04 FRACTIONS: C
Date & Time Collected 09/22/92 Category WATER

NO3NO2 5.20
mg N/L

SAMPLE ID LCSW SAMPLE # 05 FRACTIONS: A
Date & Time Collected not specified Category WATER

NO3NO2 1.79
mg N/L

NV
ABD
6/14/93

TMA
Thermo Analytical Inc.
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1-800-4LAB TEST FAX (617) 890-3883

9613494.1699

000005

EPA SAMPLE NO.

B079Z1

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

ab Name: TMA/ARLI Contract: WHC

ab Code: TMALA Case No.: 09083 SAS No.: NA SDG No.: NA

atrix: (soil/water) WATER Lab Sample ID: A209083-03A

ample wt/vol: 5.0 (g/mL) ML Lab File ID: 21002B08

evel: (low/med) LOW Date Received: 09/28/92

Moisture: not dec. ____ Date Analyzed: 10/02/92

C Column: CAP ID: 0.530 (mm) Dilution Factor: 1.0

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

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

CAS NO.	COMPOUND		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 ~~2~~	~~U~~ 4
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

RB 2/02/93

PB 6/14/9

9613494.1700

000006

EPA SAMPLE NO.

B079Z1

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

ab Name: TMA/ARLI Contract: WHC

ab Code: TMALA Case No.: 09083 SAS No.: NA SDG No.: NA

atrix: (soil/water) WATER Lab Sample ID: A209083-03A

ample wt/vol: 5.0 (g/mL) ML Lab File ID: 21002B08

evel: (low/med) LOW Date Received: 09/28/92

Moisture: not dec. ____ Date Analyzed: 10/02/92

C Column: CAP ID: 0.530 (mm) Dilution Factor: 1.0

oil 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

RB
2/22/93

9613494.1701

000007
EPA SAMPLE NO.

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

B079Z5

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09083 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209083-04A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21002B09

Level: (low/med) LOW Date Received: 09/28/92

% Moisture: not dec. ____ Date Analyzed: 10/02/92

GC Column: CAP 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	4	J
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

RB 2/22/93

RB 6/14/9

9613494.1702

000008
EPA SAMPLE NO.

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B079Z5

ab Name: TMA/ARLI Contract: WHC

ab Code: TMALA Case No.: 09083 SAS No.: NA SDG No.: NA

atrix: (soil/water) WATER Lab Sample ID: A209083-04A

ample wt/vol: 5.0 (g/mL) ML Lab File ID: 21002B09

evel: (low/med) LOW Date Received: 09/28/92

Moisture: not dec. ____ Date Analyzed: 10/02/92

C Column: CAP ID: 0.530 (mm) Dilution Factor: 1.0

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

Number TICs found: 2

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN HYDROCARBON	10.85	5	J
2.	DIMETHYL CYCLOHEXANE ISOMER	11.80	5	J

RB
2/22/93

9613494.1703

000009
EPA SAMPLE NO.

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

B07B26

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09083 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209083-01A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21002B04

Level: (low/med) LOW Date Received: 09/28/92

% Moisture: not dec. ____ Date Analyzed: 10/02/92

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 1.0

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

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

CAS NO.	COMPOUND		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 ~~5~~	~~U~~ B
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

RB 2/22/93

RB 6/14/9

9613494.1704

000010

EPA SAMPLE NO.

B07B26

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09083 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209083-01A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21002B04

Level: (low/med) LOW Date Received: 09/28/92

% Moisture: not dec. ____ Date Analyzed: 10/02/92

GC Column: CAP 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 HYDROCARBON	3.03	6	J

RB
2/22/93

9613494.1705

000011

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07B30

ab Name: TMA/ARLI Contract: WHC

ab Code: TMALA Case No.: 09083 SAS No.: NA SDG No.: NA

atrix: (soil/water) WATER Lab Sample ID: A209083-02A

ample wt/vol: 5.0 (g/mL) ML Lab File ID: 21002B07

evel: (low/med) LOW Date Received: 09/28/92

Moisture: not dec. ____ Date Analyzed: 10/02/92

C Column: CAP ID: 0.530 (mm) Dilution Factor: 1.0

oil 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	3	J
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	1	J
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	
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	2	J
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

AB 4/22/93

PBD 6/14/

9613494.1706

000012
EPA SAMPLE NO.

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B07B30

ab Name: TMA/ARLI Contract: WHC

ab Code: TMALA Case No.: 09083 SAS No.: NA SDG No.: NA

atrix: (soil/water) WATER Lab Sample ID: A209083-02A

ample wt/vol: 5.0 (g/mL) ML Lab File ID: 21002B07

evel: (low/med) LOW Date Received: 09/28/92

Moisture: not dec. ____ Date Analyzed: 10/02/92

C Column: CAP ID: 0.530 (mm) Dilution Factor: 1.0

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

Number TICs found: 2

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN POLYNUCLEAR AROMATIC	20.88	18	J
2.	UNKNOWN BIPHENYL	22.27	8	J

9613494.1707

000013

EPA SAMPLE NO.

B079Z1

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09083 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209083-03B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 21005S24

Level: (low/med) LOW Date Received: 09/28/92

% Moisture: ____ decanted: (Y/N) ___ Date Extracted: 09/30/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 10/06/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-Di-n-Propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)Methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-Methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U
51-28-5	2,4-Dinitrophenol	25	U

PB 2/22/93

PBD 6/14/92

9613494.1708

000014

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B079Z1

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09083 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209083-03B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 21005S24

Level: (low/med) LOW Date Received: 09/28/92

% Moisture: ____ decanted: (Y/N) ___ Date Extracted: 09/30/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 10/06/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

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

CAS NO.	COMPOUND		Q
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-Butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)Anthracene	10	U
117-81-7	bis(2-Ethylhexyl)Phthalate	10	U
218-01-9	Chrysene	10	U
117-84-0	Di-n-Octyl Phthalate	10	U
205-99-2	Benzo(b)Fluoranthene	10	U
207-08-9	Benzo(k)Fluoranthene	10	U
50-32-8	Benzo(a)Pyrene	10	U
193-39-5	Indeno(1,2,3-cd)Pyrene	10	U
53-70-3	Dibenz(a,h)Anthracene	10	U
191-24-2	Benzo(g,h,i)Perylene	10	U

(1) - Cannot be separated from Diphenylamine

9613494.1709

000015

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

B079Z1

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09083 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209083-03B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 21005S24

Level: (low/med) LOW Date Received: 09/28/92

% Moisture: ____ decanted: (Y/N) ___ Date Extracted: 09/30/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 10/06/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

BB
2/22/93

9613494.1710

000016
EPA SAMPLE NO.

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

B07B26

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09083 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209083-01D

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 21005S21

Level: (low/med) LOW Date Received: 09/28/92

% Moisture: ____ decanted: (Y/N) ___ Date Extracted: 09/30/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 10/05/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

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

CAS NO.	COMPOUND		Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-Di-n-Propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)Methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-Methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U
51-28-5	2,4-Dinitrophenol	25	U

RB 2/22/93

PBD 6/14/93

9613494.1711

000017

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07B26

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09083 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209083-01D

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 21005S21

Level: (low/med) LOW Date Received: 09/28/92

% Moisture: ____ decanted: (Y/N) ___ Date Extracted: 09/30/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 10/05/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-Butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)Anthracene	10	U
117-81-7	bis(2-Ethylhexyl)Phthalate	10	U
218-01-9	Chrysene	10	U
117-84-0	Di-n-Octyl Phthalate	10	U
205-99-2	Benzo(b)Fluoranthene	10	U
207-08-9	Benzo(k)Fluoranthene	10	U
50-32-8	Benzo(a)Pyrene	10	U
193-39-5	Indeno(1,2,3-cd)Pyrene	10	U
53-70-3	Dibenz(a,h)Anthracene	10	U
191-24-2	Benzo(g,h,i)Perylene	10	U

(1) - Cannot be separated from Diphenylamine

MO 2/22/93

9613494.1712

000018

EPA SAMPLE NO.

B07B26

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09083 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209083-01D

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 21005S21

Level: (low/med) LOW Date Received: 09/28/92

% Moisture: ____ decanted: (Y/N) ___ Date Extracted: 09/30/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 10/05/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

1303
2/22/95

9613494.1713

000019

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B079Z1

ıb Name: TMA/ARLI Contract: WHC

ıb Code: TMALA Case No.: 09083 SAS No.: NA SDG No.: NA

ıtrix: (soil/water) WATER Lab Sample ID: A209083-03B

ımple wt/vol: 1000 (g/mL) ML Lab File ID: _____

Moisture: _____ decanted: (Y/N) ___ Date Received: 09/28/92

ctraction: (SepF/Cont/Sonc) CONT Date Extracted: 09/30/92

ɔncentrated Extract Volume: 10000 (uL) Date Analyzed: 10/22/92

ıjection Volume: 1.00 (uL) Dilution Factor: 1.00

PC Cleanup: (Y/N) N pH: ____ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	UJ
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	UJ
58-89-9	gamma-BHC (Lindane)	0.050	UJ
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-36-3	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

RB 2/22/93

PBD 6/14/93

9613494.1714

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

000020
EPA SAMPLE NO.

B07B26

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09083 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209083-01D

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N) ___ Date Received: 09/28/92

Extraction: (SepF/Cont/Sonc) CONT Date Extracted: 09/30/92

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 10/22/92

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

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

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

CAS NO.	COMPOUND		Q
319-84-6	alpha-BHC	0.050	UJ
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	UJ
58-89-9	gamma-BHC (Lindane)	0.050	UJ
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-36-3	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

AB 2/22/93

BJ 6/14/93

9613494.1715

Copies

000019

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B079Z1

ıb Name: TMA/ARLI Contract: WHC

ıb Code: TMALA Case No.: 09083 SAS No.: NA SDG No.: NA

ıtrix: (soil/water) WATER Lab Sample ID: A209083-03B

ımple wt/vol: 1000 (g/mL) ML Lab File ID: _____

Moisture: _____ decanted: (Y/N) ___ Date Received: 09/28/92

ctraction: (SepF/Cont/Sonc) CONT Date Extracted: 09/30/92

ɔncentrated Extract Volume: 10000 (uL) Date Analyzed: 10/22/92

ıjection Volume: 1.00 (uL) Dilution Factor: 1.00

PC Cleanup: (Y/N) N pH: ____ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	UJ
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	UJ
58-89-9	gamma-BHC (Lindane)	0.050	UJ
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-36-3	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

RSD out
RB
2/22/93

9613494.1716

000020

EPA SAMPLE NO.

B07B26

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

ab Name: TMA/ARLI Contract: WHC

ab Code: TMALA Case No.: 09083 SAS No.: NA SDG No.: NA

atrix: (soil/water) WATER Lab Sample ID: A209083-01D

ample wt/vol: 1000 (g/mL) ML Lab File ID: _____

Moisture: _____ decanted: (Y/N) ___ Date Received: 09/28/92

xtraction: (SepF/Cont/Sonc) CONT Date Extracted: 09/30/92

oncentrated Extract Volume: 10000 (uL) Date Analyzed: 10/22/92

njection Volume: 1.00 (uL) Dilution Factor: 1.00

PC Cleanup: (Y/N) N pH: ____ Sulfur Cleanup: (Y/N) N

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

CAS NO.	COMPOUND		Q
319-84-6	alpha-BHC	0.050	UJ
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	UJ
58-89-9	gamma-BHC (Lindane)	0.050	UJ
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-36-3	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

RSD's out

RA 2/22/93

9613494.1717

WESTINGHOUSE/HANFORD

1

INORGANIC ANALYSIS DATA SHEET

SAMPLE NUMBER: B079Y1

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D0-0108

Lab Code: SKINER Case No.: N2-09-197SAS No.: SDG No.: B079Z1

Matrix (soil/water): WATER Lab Sample ID: 09513-03S

Level (low/med): LOW Date Received: 09/30/92

% 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	71.0	~~B~~	U	P
7440-36-0	Antimony	14.8	U		P
7440-38-2	Arsenic	3.7	B		F
7440-39-3	Barium	36.0	B		P
7440-41-7	Beryllium	0.30	U		P
7440-43-9	Cadmium	1.5	U		P
7440-70-2	Calcium	34300			P
7440-47-3	Chromium	22.2			P
7440-48-4	Cobalt	1.3	U		P
7440-50-8	Copper	1.9	U		P
7439-89-6	Iron	150		U	P
7439-92-1	Lead	2.7	B		F
7439-95-4	Magnesium	9460			P
7439-96-5	Manganese	58.5		~~B~~ J	P
7439-97-6	Mercury	0.19	B		CV
7440-02-0	Nickel	7.0	~~B~~	U	P
7440-09-7	Potassium	5000	B		P
7782-49-2	Selenium	3.9	U	~~W~~ UJ	F
7440-22-4	Silver	3.6	U		P
7440-23-5	Sodium	13200			P
7440-28-0	Thallium	1.3	U		F
7440-62-2	Vanadium	9.2	~~B~~	U	P
7440-66-6	Zinc	8.3	~~B~~	U	P
	Cyanide	10.0	U		CA

2/26/93 fw

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

002

FORM I - IN ILM02.1

6/14/93

9613494.1718

WESTINGHOUSE/HANFORD

1

INORGANIC ANALYSIS DATA SHEET

SAMPLE NUMBER: B079Y6

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D0-0108

Lab Code: SKINER Case No.: N2-09-197SAS No.: SDG No.: B079Z1

Matrix (soil/water): WATER Lab Sample ID: 09513-04S

Level (low/med): LOW Date Received: 09/30/92

% 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	41.8	~~B~~	U	P
7440-36-0	Antimony	14.8	U		P
7440-38-2	Arsenic	3.7	B		F
7440-39-3	Barium	55.6	B		P
7440-41-7	Beryllium	0.30	U		P
7440-43-9	Cadmium	1.5	U		P
7440-70-2	Calcium	55000			P
7440-47-3	Chromium	1400			P
7440-48-4	Cobalt	1.3	U		P
7440-50-8	Copper	1.9	U		P
7439-89-6	Iron	161		U	P
7439-92-1	Lead	2.0	U		F
7439-95-4	Magnesium	13900			P
7439-96-5	Manganese	87.2		~~E~~ J	P
7439-97-6	Mercury	0.13	B		CV
7440-02-0	Nickel	12.3	~~B~~	U	P
7440-09-7	Potassium	5780			P
7782-49-2	Selenium	3.9	U	~~U~~ UJ	F
7440-22-4	Silver	3.6	U		P
7440-23-5	Sodium	13600			P
7440-28-0	Thallium	1.3	U		F
7440-62-2	Vanadium	4.9	~~B~~	U	P
7440-66-6	Zinc	32.4		U	P
	Cyanide	10.0	U		CA

2/26/93 JM

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

PJ 6/14/93

003

9613494.1719

WESTINGHOUSE/HANFORD

1

INORGANIC ANALYSIS DATA SHEET

SAMPLE NUMBER: B079Z1

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D0-0108

Lab Code: SKINER Case No.: N2-09-197SAS No.: SDG No.: B079Z1

Matrix (soil/water): WATER Lab Sample ID: 09513-02S

Level (low/med): LOW Date Received: 09/29/92

% 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	34.0	~~B~~ U		P
7440-36-0	Antimony	22.0	~~B~~ U		P
7440-38-2	Arsenic	4.5	B		F
7440-39-3	Barium	25.1	B		P
7440-41-7	Beryllium	0.30	U		P
7440-43-9	Cadmium	1.5	U		P
7440-70-2	Calcium	33300			P
7440-47-3	Chromium	109			P
7440-48-4	Cobalt	1.3	U		P
7440-50-8	Copper	1.9	U		P
7439-89-6	Iron	34.3	~~B~~ U		P
7439-92-1	Lead	2.0	U		F
7439-95-4	Magnesium	7000			P
7439-96-5	Manganese	2.9	B	~~E~~ J	P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	8.3	~~B~~ U		P
7440-09-7	Potassium	3500	B		P
7782-49-2	Selenium	3.9	U	~~N~~ UJ	F
7440-22-4	Silver	3.6	U		P
7440-23-5	Sodium	7970			P
7440-28-0	Thallium	1.3	U		F
7440-62-2	Vanadium	10.3	~~B~~ U		P
7440-66-6	Zinc	15.1	~~B~~ U		P
	Cyanide	10.0	U		CA

2/26/93 fm

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

6/14/93

9613494.1720

WESTINGHOUSE/HANFORD

1

SAMPLE NUMBER:

B07B01

INORGANIC ANALYSIS DATA SHEET

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D0-0108

Lab Code: SKINER Case No.: N2-09-197$AS No.: SDG No.: B079Z1

Matrix (soil/water): WATER Lab Sample ID: 09513-05S

Level (low/med): LOW Date Received: 10/01/92

% 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	14.7	U		P
7440-36-0	Antimony	14.8	U		P
7440-38-2	Arsenic	5.3	B		F
7440-39-3	Barium	22.8	B		P
7440-41-7	Beryllium	0.30	U		P
7440-43-9	Cadmium	1.5	U		P
7440-70-2	Calcium	40400			P
7440-47-3	Chromium	42.8			P
7440-48-4	Cobalt	1.3	U		P
7440-50-8	Copper	1.9	U		P
7439-89-6	Iron	16.2	~~B~~ U		P
7439-92-1	Lead	2.0	U		F
7439-95-4	Magnesium	10400			P
7439-96-5	Manganese	0.90	U	~~E~~ J	P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	2.6	U		P
7440-09-7	Potassium	5310			P
7782-49-2	Selenium	3.9	U	~~W~~ UJ	F
7440-22-4	Silver	3.6	U		P
7440-23-5	Sodium	15700			P
7440-28-0	Thallium	1.3	U		F
7440-62-2	Vanadium	14.9	~~B~~ U		P
7440-66-6	Zinc	5.7	U		P
	Cyanide	10.0	U		CA

2/26/93 fm

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

6/14/93

~~015~~ 6/14/93

FORM I - IN ILM02.1

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WESTINGHOUSE/HANFORD

1

SAMPLE NUMBER:

B07B26

INORGANIC ANALYSIS DATA SHEET

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D0-0108

Lab Code: SKINER Case No.: N2-09-197SAS No.: SDG No.: B079Z1

Matrix (soil/water): WATER Lab Sample ID: 09513-01S

Level (low/med): LOW Date Received: 09/29/92

% Solids: 0.0

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

2/26/93 Lnu

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	21.6	~~B~~	U	P
7440-36-0	Antimony	14.8	U		P
7440-38-2	Arsenic	5.1	B		F
7440-39-3	Barium	26.4	B		P
7440-41-7	Beryllium	0.30	U		P
7440-43-9	Cadmium	1.5	U		P
7440-70-2	Calcium	35100			P
7440-47-3	Chromium	117			P
7440-48-4	Cobalt	1.3	U		P
7440-50-8	Copper	1.9	U		P
7439-89-6	Iron	19.9	~~B~~	U	P
7439-92-1	Lead	2.0	U		F
7439-95-4	Magnesium	7360			P
7439-96-5	Manganese	3.6	B	~~E~~J	P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	3.6	~~B~~	U	P
7440-09-7	Potassium	3630	B		P
7782-49-2	Selenium	3.9	U	~~W~~UJ	F
7440-22-4	Silver	3.6	U		P
7440-23-5	Sodium	8400			P
7440-28-0	Thallium	1.3	U		F
7440-62-2	Vanadium	9.9	~~B~~	U	P
7440-66-6	Zinc	17.7	~~B~~	U	P
	Cyanide	10.6			CA

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

6/14/93

~~016~~ Metals

FORM I - IN ILM02.1

INORGANIC ANALYSIS DATA SHEET

SAMPLE NUMBER: B07B31

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D0-0108

Lab Code: SKINER Case No.: N2-09-197SAS No.: SDG No.: B079Z1

Matrix (soil/water): WATER Lab Sample ID: 09513-06S

Level (low/med): LOW Date Received: 10/01/92

% 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	14.7	U		P
7440-36-0	Antimony	14.8	U		P
7440-38-2	Arsenic	3.2	U		F
7440-39-3	Barium	0.70	U		P
7440-41-7	Beryllium	0.30	U		P
7440-43-9	Cadmium	1.5	U		P
7440-70-2	Calcium	27.4	~~B~~ U		P
7440-47-3	Chromium	2.6	U		P
7440-48-4	Cobalt	1.3	U		P
7440-50-8	Copper	1.9	U		P
7439-89-6	Iron	4.2	~~B~~ U		P
7439-92-1	Lead	2.0	U		F
7439-95-4	Magnesium	18.0	U		P
7439-96-5	Manganese	0.90	U	~~E~~ J	P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	2.6	U		P
7440-09-7	Potassium	79.4	U		P
7782-49-2	Selenium	3.9	U	~~W~~ UJ	F
7440-22-4	Silver	3.6	U		P
7440-23-5	Sodium	51.0	~~B~~ U		P
7440-28-0	Thallium	1.3	U		F
7440-62-2	Vanadium	2.5	U		P
7440-66-6	Zinc	5.7	U		P
	Cyanide	10.0	U		CA

2/26/93 fw

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

9613494.1723

WESTINGHOUSE/HANFORD

1

INORGANIC ANALYSIS DATA SHEET

SAMPLE NUMBER: B07B44

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D0-0108

Lab Code: SKINER Case No.: N2-09-197SAS No.: SDG No.: B079Z1

Matrix (soil/water): WATER Lab Sample ID: 09513-07S

Level (low/med): LOW Date Received: 10/01/92

% Solids: 0.0

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

2/26/93 fm

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	14.7	U		P
7440-36-0	Antimony	14.8	U		P
7440-38-2	Arsenic	3.2	U		F
7440-39-3	Barium	0.70	U		P
7440-41-7	Beryllium	0.30	U		P
7440-43-9	Cadmium	1.5	U		P
7440-70-2	Calcium	18.8	~~B~~ U		P
7440-47-3	Chromium	2.3	~~B~~ U		P
7440-48-4	Cobalt	1.3	U		P
7440-50-8	Copper	1.9	U		P
7439-89-6	Iron	10.5	~~B~~ U		P
7439-92-1	Lead	2.0	U		F
7439-95-4	Magnesium	18.2	~~B~~ U		P
7439-96-5	Manganese	0.90	U	~~E~~ J	P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	2.6	~~B~~ U		P
7440-09-7	Potassium	79.4	U		P
7782-49-2	Selenium	3.9	U	~~J~~ UJ	F
7440-22-4	Silver	3.6	U		P
7440-23-5	Sodium	32.7	U		P
7440-28-0	Thallium	1.3	U		F
7440-62-2	Vanadium	2.5	U		P
7440-66-6	Zinc	5.7	U		P
	Cyanide	10.0	U		CA

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

5 RJ 5/5/93

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FORM I - IN ILM02.1

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WESTINGHOUSE/HANFORD

1

INORGANIC ANALYSIS DATA SHEET

SAMPLE NUMBER: B079Y4

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D0-0108

Lab Code: SKINER Case No.: N2-09-197SAS No.: SDG No.: B079Z4

Matrix (soil/water): WATER Lab Sample ID: 09516-03S

Level (low/med): LOW Date Received: 09/30/92

% Solids: 0.0

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

2/26/93 fm

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	16.6	~~B~~	U	P
7440-36-0	Antimony	14.8	U		P
7440-38-2	Arsenic	2.9	U	~~U~~ UJ	F
7440-39-3	Barium	35.7	B		P
7440-41-7	Beryllium	0.30	U		P
7440-43-9	Cadmium	1.5	U		P
7440-70-2	Calcium	34600			P
7440-47-3	Chromium	11.9		U	P
7440-48-4	Cobalt	1.3	U		P
7440-50-8	Copper	1.9	U		P
7439-89-6	Iron	7.1	~~B~~	U	P
7439-92-1	Lead	1.2	B		F
7439-95-4	Magnesium	9370			P
7439-96-5	Manganese	48.8			P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	2.6	U		P
7440-09-7	Potassium	4980	B		P
7782-49-2	Selenium	3.8	U	~~UN~~ UJ	F
7440-22-4	Silver	3.6	U		P
7440-23-5	Sodium	13100			P
7440-28-0	Thallium	3.8	U	~~U~~ UJ	F
7440-62-2	Vanadium	9.1	~~B~~	U	P
7440-66-6	Zinc	5.7	U		P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

FORM I - IN ILM02.1

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WESTINGHOUSE/HANFORD

1

INORGANIC ANALYSIS DATA SHEET

SAMPLE NUMBER: B079Y9

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D0-0108

Lab Code: SKINER Case No.: N2-09-197$AS No.: SDG No.: B079Z4

Matrix (soil/water): WATER Lab Sample ID: 09516-04S

Level (low/med): LOW Date Received: 09/30/92

% Solids: 0.0

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

2/26/93 JN

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	14.7	U		P
7440-36-0	Antimony	14.8	U		P
7440-38-2	Arsenic	2.9	U	~~W~~ UJ	F
7440-39-3	Barium	52.2	B		P
7440-41-7	Beryllium	0.30	U		P
7440-43-9	Cadmium	1.5	U		P
7440-70-2	Calcium	54500			P
7440-47-3	Chromium	1330			P
7440-48-4	Cobalt	1.3	U		P
7440-50-8	Copper	1.9	U		P
7439-89-6	Iron	4.0	U		P
7439-92-1	Lead	1.0	U		F
7439-95-4	Magnesium	13600			P
7439-96-5	Manganese	76.7			P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	2.6	U		P
7440-09-7	Potassium	5510			P
7782-49-2	Selenium	3.8	U	~~W~~ UJ	F
7440-22-4	Silver	3.6	U		P
7440-23-5	Sodium	13400			P
7440-28-0	Thallium	3.8	U		F
7440-62-2	Vanadium	4.3	~~B~~ U		P
7440-66-6	Zinc	5.7	U		P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

FORM I - IN ILM02 003

6/14/92

9613494 1726

WESTINGHOUSE/HANFORD

1

INORGANIC ANALYSIS DATA SHEET

SAMPLE NUMBER: B079Z4

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D0-0108

Lab Code: SKINER Case No.: N2-09-197SAS No.: SDG No.: B079Z4

Matrix (soil/water): WATER Lab Sample ID: 09516-02S

Level (low/med): LOW Date Received: 09/29/92

% Solids: 0.0

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

2/26/93

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	14.7	U		P
7440-36-0	Antimony	14.8	U		P
7440-38-2	Arsenic	2.9	U	~~W~~UJ	F
7440-39-3	Barium	25.8	B		P
7440-41-7	Beryllium	0.30	U		P
7440-43-9	Cadmium	1.5	U		P
7440-70-2	Calcium	34500			P
7440-47-3	Chromium	114			P
7440-48-4	Cobalt	1.3	U		P
7440-50-8	Copper	1.9	U		P
7439-89-6	Iron	4.0	U		P
7439-92-1	Lead	1.0	U		F
7439-95-4	Magnesium	7160			P
7439-96-5	Manganese	4.0	B		P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	2.6	U		P
7440-09-7	Potassium	3570	B		P
7782-49-2	Selenium	3.8	U	~~W~~UJ	F
7440-22-4	Silver	3.6	U		P
7440-23-5	Sodium	8210			P
7440-28-0	Thallium	3.8	U		F
7440-62-2	Vanadium	7.6	~~B~~U		P
7440-66-6	Zinc	5.7	U		P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

6/1/93

FORM I - IN ILM02.004

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WESTINGHOUSE/HANFORD

1

INORGANIC ANALYSIS DATA SHEET

SAMPLE NUMBER: B07B04

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D0-0108

Lab Code: SKINER Case No.: N2-09-197$AS No.: SDG No.: B079Z4

Matrix (soil/water): WATER Lab Sample ID: 09516-05S

Level (low/med): LOW Date Received: 10/01/92

% 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	14.7	U		P
7440-36-0	Antimony	15.8	~~B~~ U		P
7440-38-2	Arsenic	4.6	B		F
7440-39-3	Barium	22.6	B		P
7440-41-7	Beryllium	0.30	U		P
7440-43-9	Cadmium	1.5	U		P
7440-70-2	Calcium	40500			P
7440-47-3	Chromium	41.6			P
7440-48-4	Cobalt	1.3	U		P
7440-50-8	Copper	1.9	U		P
7439-89-6	Iron	4.0	U		P
7439-92-1	Lead	1.2	B		F
7439-95-4	Magnesium	10400			P
7439-96-5	Manganese	0.90	U		P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	2.6	U		P
7440-09-7	Potassium	5250			P
7782-49-2	Selenium	3.8	U	~~UN~~ UJ	F
7440-22-4	Silver	3.6	U		P
7440-23-5	Sodium	15600			P
7440-28-0	Thallium	3.8	U	~~U~~ UJ	F
7440-62-2	Vanadium	14.6	~~B~~ U		P
7440-66-6	Zinc	5.7	U		P
	Cyanide				NR

2/26/93 fR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

FORM I - IN

6/14/93

ILM02.0 005

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WESTINGHOUSE/HANFORD

1

INORGANIC ANALYSIS DATA SHEET

SAMPLE NUMBER: B07B29

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D0-0108

Lab Code: SKINER Case No.: N2-09-197SAS No.: SDG No.: B079Z4

Matrix (soil/water): WATER Lab Sample ID: 09516-01S

Level (low/med): LOW Date Received: 09/29/92

% Solids: 0.0

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

2/26/93 (fm)

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	14.7	U		P
7440-36-0	Antimony	14.8	U		P
7440-38-2	Arsenic	2.9	U	~~W~~ UJ	F
7440-39-3	Barium	25.8	B		P
7440-41-7	Beryllium	0.30	U		P
7440-43-9	Cadmium	1.5	U		P
7440-70-2	Calcium	34600			P
7440-47-3	Chromium	116			P
7440-48-4	Cobalt	1.3	U		P
7440-50-8	Copper	1.9	U		P
7439-89-6	Iron	4.0	U		P
7439-92-1	Lead	1.0	U		F
7439-95-4	Magnesium	7200			P
7439-96-5	Manganese	3.8	B		P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	2.6	U		P
7440-09-7	Potassium	3540	B		P
7782-49-2	Selenium	3.8	U	~~W~~ UJ	F
7440-22-4	Silver	3.6	U		P
7440-23-5	Sodium	8220			P
7440-28-0	Thallium	3.8	U		F
7440-62-2	Vanadium	11.4	~~B~~ U		P
7440-66-6	Zinc	5.7	U		P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

FORM I - IN ILM02 006

6/14/93

9613494.1729

WESTINGHOUSE/HANFORD

1

INORGANIC ANALYSIS DATA SHEET

SAMPLE NUMBER: B07B34

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D0-0108

Lab Code: SKINER Case No.: N2-09-197SAS No.: SDG No.: B079Z4

Matrix (soil/water): WATER Lab Sample ID: 09516-06S

Level (low/med): LOW Date Received: 10/01/92

% Solids: 0.0

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

2/26/93 fm

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	15.6	~~B~~ U		P
7440-36-0	Antimony	14.8	U		P
7440-38-2	Arsenic	2.9	U		F
7440-39-3	Barium	38.7	B		P
7440-41-7	Beryllium	0.30	U		P
7440-43-9	Cadmium	1.5	U		P
7440-70-2	Calcium	27800			P
7440-47-3	Chromium	2.6	U		P
7440-48-4	Cobalt	1.3	U		P
7440-50-8	Copper	1.9	U		P
7439-89-6	Iron	4.0	U		P
7439-92-1	Lead	2.0	B		F
7439-95-4	Magnesium	6310			P
7439-96-5	Manganese	0.90	U		P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	2.6	~~B~~ U		P
7440-09-7	Potassium	1100	B		P
7782-49-2	Selenium	3.8	U	NUJ	F
7440-22-4	Silver	3.6	U		P
7440-23-5	Sodium	5400			P
7440-28-0	Thallium	3.8	U		F
7440-62-2	Vanadium	2.5	U		P
7440-66-6	Zinc	68.3			P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

FORM I - IN

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6/14/93

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WESTINGHOUSE/HANFORD

1

INORGANIC ANALYSIS DATA SHEET

SAMPLE NUMBER: B07B47

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D0-0108

Lab Code: SKINER Case No.: N2-09-197SAS No.: SDG No.: B079Z4

Matrix (soil/water): WATER Lab Sample ID: 09516-07S

Level (low/med): LOW Date Received: 10/01/92

% Solids: 0.0

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

2/26/93

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	14.7	U		P
7440-36-0	Antimony	19.1	~~B~~	U	P
7440-38-2	Arsenic	2.9	U		F
7440-39-3	Barium	0.70	U		P
7440-41-7	Beryllium	0.30	U		P
7440-43-9	Cadmium	1.5	U		P
7440-70-2	Calcium	47.6	~~B~~	U	P
7440-47-3	Chromium	2.6	U		P
7440-48-4	Cobalt	1.3	U		P
7440-50-8	Copper	1.9	U		P
7439-89-6	Iron	4.0	U		P
7439-92-1	Lead	1.9	B		F
7439-95-4	Magnesium	18.0	U		P
7439-96-5	Manganese	0.90	U		P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	6.3	~~B~~	U	P
7440-09-7	Potassium	79.4	U		P
7782-49-2	Selenium	3.8	U	~~N~~UJ	F
7440-22-4	Silver	3.6	U		P
7440-23-5	Sodium	51.0	B		P
7440-28-0	Thallium	3.8	U		F
7440-62-2	Vanadium	2.5	U		P
7440-66-6	Zinc	7.9	~~B~~	U	P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

6/14/93

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TMA Inc. REPORT Work Order # A2-09-083

Received: 09/28/92

Results by Sample

SAMPLE ID B079Z1 FRACTION 03E TEST CODE WCCLPL NAME Anions & Wet Chem. - WH043

Date & Time Collected 09/24/92 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT	
Chloride	300.0	3.8	mg/L	0.2	J
Fluoride	300.0	0.3	mg/L	0.1	J
Phosphate	300.0	<0.4	mg/L	0.4	R
pH	150.1	8.2	pH	0.1	R
Sulfate	300.0	33	mg/L	1	J
Elect. Conductivity	120.1	224	umho/cm	6	

Holding Time

J - Matrix Spike

3/1/93 JD

FORM I

PBD 6/14/93

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TMA Inc. REPORT WWork Order # A2-09-083

Received: 09/28/92

Results by Sample

SAMPLE ID B079Z1 FRACTION 03G TEST CODE WCCLPL NAME Anions & Wet Chem. - WN043

Date & Time Collected 09/24/92 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT	
Alkalinity	310.1	93	mg/L	2	J
Tot. Dissolved Solids	160.1	181	mg/L	5	R

Holding Time

3/2/93 JTD

FORM I

PBJ 6/14/93

9613494.1733

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TMA Inc. REPORT Work Order # A2-09-083

Received: 09/28/92

Results by Sample

SAMPLE ID B07921 FRACTION 03W TEST CODE WCCLPL NAME Anions & Wet Chem. - WN043

Date & Time Collected 09/24/92 Category

3/2/93 JN

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT	
Sulfide	376.1	<1	mg/L	1	R

Holding Time

FORM I

BJ 6/14/93

9613494.1734

TMA Inc. REPORT Work Order # A2-09-083

Received: 09/28/92

Results by Sample

SAMPLE ID B079Z1 FRACTION 03J TEST CODE WCCLPL NAME Anions & Wet Chem. - WN043

Date & Time Collected 09/24/92 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT	
Ammonia Nitrogen	350.3	<0.05	mg/L	0.05	U
COD	410.0	<30	mg/L	30	U

FORM I

PBD
6/14/93

9613494.1735

TMA Inc. REPORT Work Order # A2-09-083

Received: 09/28/92

Results by Sample

SAMPLE ID B07B26 FRACTION 01G TEST CODE WCCLPL NAME Anions & Wet Chem. - WN043

Date & Time Collected 09/24/92 Category

3/2/93

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT	
Chloride	300.0	3.6	mg/L	0.2	J
Fluoride	300.0	0.3	mg/L	0.1	J
Phosphate	300.0	<0.4	mg/L	0.4	R
pH	150.1	8.2	pH	0.1	R
Sulfate	300.0	32	mg/L	1	J
Elect. Conductivity	120.1	218	umho/cm	6	

Holding Time

grossly Exceeds

J-matrix Spike

Y

FORM I

6/14/93

9613494.1736

000010

TMA Inc. REPORT Work Order # A2-09-083

Received: 09/28/92

Results by Sample

SAMPLE ID B07B26 FRACTION 01I TEST CODE WCCLPL NAME Anions & Wet Chem. - WH043

Date & Time Collected 09/24/92 Category

3/2/93 JW

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT	
Alkalinity	310.1	93	mg/L	2	J
Tot. Dissolved Solids	160.1	175	mg/L	5	R

Holding Time ↓

FORM I

PBJ 6/14/93

9613494.1737

TMA Inc. REPORT Work Order # A2-09-083

Received: 09/28/92

Results by Sample

SAMPLE ID B07B26 FRACTION 01K TEST CODE WCCLPL NAME Anions & Wet Chem. - WH043

Date & Time Collected 09/24/92 Category

3/2/93 JP

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Sulfide	376.1	<1	mg/L	1

R Holding Time

FORM I

PJD 6/14/93

TMA Inc. REPORT Work*p+1Xk Order # A2-09-083

Received: 09/28/92

Results by Sample

SAMPLE ID B07B26 FRACTION 01M TEST CODE WCCLPL NAME Anions & Wet Chem. - WH043

Date & Time Collected 09/24/92 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT	
Ammonia Nitrogen	350.3	<0.05	mg/L	0.05	U
COD	410.0	<30	mg/L	30	U

FORM I

PBJ
6/14/93

Page 2 Skinner&Sherman REPORT Work Order # S2-09-515
Received: 09/29/92 Results by Sample

SAMPLE ID B07B26 SAMPLE # 01 FRACTIONS: A
Date & Time Collected 09/24/92 Category WATER
NO3NO2 0.77 mg N/L J Holding Time / Matrix Spike

SAMPLE ID B079Z1 SAMPLE # 02 FRACTIONS: A
Date & Time Collected 09/24/92 Category WATER
NO3NO2 0.71 mg N/L J Holding Time / Matrix Spike

SAMPLE ID B079Y1 SAMPLE # 03 FRACTIONS: A
Date & Time Collected 09/25/92 Category WATER
NO3NO2 0.91 mg N/L J Holding Time / Matrix Spike

SAMPLE ID B079Y6 SAMPLE # 04 FRACTIONS: A
Date & Time Collected 09/25/92 Category WATER
NO3NO2 2.47 mg N/L J Holding Time / Matrix Spike

SAMPLE ID B079Y6D SAMPLE # 04 FRACTIONS: B
Date & Time Collected 09/25/92 Category WATER
NO3NO2 2.23 mg N/L

SAMPLE ID B079Y6S SAMPLE # 04 FRACTIONS: C
Date & Time Collected 09/25/92 Category WATER
NO3NO2 3.37 mg N/L

SAMPLE ID B07B01 SAMPLE # 05 FRACTIONS: A
Date & Time Collected 09/28/92 Category WATER
NO3NO2 1.33 mg N/L J Holding Time / Matrix Spike

12/93 fm

12/5/93

9613494.1740

000003

 Skinner&Sherman REPORT Work Order # S2-09-515

Received: 09/29/92 Results by Sample

SAMPLE ID B07831 SAMPLE # 06 FRACTIONS: A

Date & Time Collected 09/28/92 Category WATER

NO3NO2 <0.25 UJ mg N/L Holding Time / Matrix Spike

3/2/93

SAMPLE ID B07844 SAMPLE # 07 FRACTIONS: A

Date & Time Collected 09/28/92 Category WATER

NO3NO2 <0.25 UJ mg N/L Holding Time / Matrix Spike

SAMPLE ID LCSW SAMPLE # 08 FRACTIONS: A

Date & Time Collected not specified Category WATER

NO3NO2 1.96 mg N/L

PSA 6/14/93

9613494.1741

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

000005

EPA SAMPLE NO.

B079V6

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09081 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209081-03A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20929B16

Level: (low/med) LOW Date Received: 09/25/92

% Moisture: not dec. ____ Date Analyzed: 09/29/92

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 1.0

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

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

CAS NO.	COMPOUND		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 ~~3~~	~~B~~ 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	5	J
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10 ~~2~~	~~B~~ 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

RU 2/20/

6/14

9613494.1742

000006

EPA SAMPLE NO.

B079V6

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09081 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209081-03A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20929B16

Level: (low/med) LOW Date Received: 09/25/92

% Moisture: not dec. ____ Date Analyzed: 09/29/92

GC Column: CAP 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

RB
2/23/93

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B079W0

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09081 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209081-04A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20929B17

Level: (low/med) LOW Date Received: 09/25/92

% Moisture: not dec. ____ Date Analyzed: 09/29/92

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 1.0

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

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

CAS NO.	COMPOUND		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	4	J
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	1	~~B~~ J
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

RB 2/23/

BJ 6/4/5

9613494.1744

000008
EPA SAMPLE NO.

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B079W0

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09081 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209081-04A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20929B17

Level: (low/med) LOW Date Received: 09/25/92

% Moisture: not dec. ____ Date Analyzed: 09/29/92

GC Column: CAP 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

RB
2/23/93

9613494.1745

000009

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B079W1

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09081 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209081-01A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20929B12

Level: (low/med) LOW Date Received: 09/25/92

% Moisture: not dec. ____ Date Analyzed: 09/29/92

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 1.0

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

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

CAS NO.	COMPOUND		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	17	
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 ~~2~~	~~B~~ 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

NB 2/23

6/

9613494.1746

000010

EPA SAMPLE NO.

B079W1

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09081 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209081-01A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20929B12

Level: (low/med) LOW Date Received: 09/25/92

% Moisture: not dec. ____ Date Analyzed: 09/29/92

GC Column: CAP 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

BB
2/23/93

9613494.1747

000011

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B079W5

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09081 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209081-02A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20929B15

Level: (low/med) LOW Date Received: 09/25/92

% Moisture: not dec. ____ Date Analyzed: 09/29/92

GC Column: CAP 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	1	~~B~~ J
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

RR 2/23/

BD 6/14/95

9613494.1748

000012
EPA SAMPLE NO.

B079W5

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09081 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209081-02A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20929B15

Level: (low/med) LOW Date Received: 09/25/92

% Moisture: not dec. ____ Date Analyzed: 09/29/92

GC Column: CAP 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

RB
2/23/93

9613494.1749

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

000013
EPA SAMPLE NO.

B079W6

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09081 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209081-05A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20929B18

Level: (low/med) LOW Date Received: 09/25/92

% Moisture: not dec. ____ Date Analyzed: 09/29/92

GC Column: CAP 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 ~~10~~	~~U~~ 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

R B 2/23

9613494.1750

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

000014
EPA SAMPLE NO.

B079W6

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09081 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209081-05A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20929B18

Level: (low/med) LOW Date Received: 09/25/92

% Moisture: not dec. ____ Date Analyzed: 09/29/92

GC Column: CAP 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

RB
2/23/93

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B079X0

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09081 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209081-06A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20929B19

Level: (low/med) LOW Date Received: 09/25/92

% Moisture: not dec. ____ Date Analyzed: 09/29/92

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 1.0

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

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

CAS NO.	COMPOUND		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	3	J
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

RB 2/23/

RB 6/14/

9613494.1752

000016

1E

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B079X0

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09081 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209081-06A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20929B19

Level: (low/med) LOW Date Received: 09/25/92

% Moisture: not dec. ____ Date Analyzed: 09/29/92

GC Column: CAP 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 HYDROCARBON	3.00	8	J

RC
2/23/93

9613494.1753

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

000017
EPA SAMPLE NO.

B079V6

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09081 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209081-03B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 21001S06

Level: (low/med) LOW Date Received: 09/25/92

% Moisture: ____ decanted: (Y/N) ___ Date Extracted: 09/29/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 10/01/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-Di-n-Propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)Methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-Methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U
51-28-5	2,4-Dinitrophenol	25	U

RB 2/23

6/14

9613494.1754

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

000018
EPA SAMPLE NO.

B079V6

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09081 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209081-03B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 21001S06

Level: (low/med) LOW Date Received: 09/25/92

% Moisture: ____ decanted: (Y/N) ___ Date Extracted: 09/29/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 10/01/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-Butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)Anthracene	10	U
117-81-7	bis(2-Ethylhexyl)Phthalate	10	U
218-01-9	Chrysene	10	U
117-84-0	Di-n-Octyl Phthalate	10	U
205-99-2	Benzo(b)Fluoranthene	10	U
207-08-9	Benzo(k)Fluoranthene	10	U
50-32-8	Benzo(a)Pyrene	10	U
193-39-5	Indeno(1,2,3-cd)Pyrene	10	U
53-70-3	Dibenz(a,h)Anthracene	10	U
191-24-2	Benzo(g,h,i)Perylene	10	U

BB 2/23/

(1) - Cannot be separated from Diphenylamine

9613494 1755

1F

000019
EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B079V6

Lab Name: TMA/ARLI Contract: NHC

Lab Code: TMALA Case No.: 09081 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209081-03B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 21001S06

Level: (low/med) LOW Date Received: 09/25/92

% Moisture: ____ decanted: (Y/N) ___ Date Extracted: 09/29/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 10/01/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

RB
2/23/93

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B079W1

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09081 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209081-01D

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 21001S03

Level: (low/med) LOW Date Received: 09/25/92

% Moisture: ____ decanted: (Y/N) ___ Date Extracted: 09/29/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 10/01/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

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

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-Di-n-Propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)Methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-Methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U
51-28-5	2,4-Dinitrophenol	25	U

NB 2/23/5

BD 6/14/

9613494.1757

1C

000021

EPA SAMPLE NO.

B079W1

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09081 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209081-01D

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 21001S03

Level: (low/med) LOW Date Received: 09/25/92

% Moisture: ____ decanted: (Y/N) ___ Date Extracted: 09/29/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 10/01/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

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

CAS NO.	COMPOUND		Q
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-Butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)Anthracene	10	U
117-81-7	bis(2-Ethylhexyl)Phthalate	3	J
218-01-9	Chrysene	10	U
117-84-0	Di-n-Octyl Phthalate	10	U
205-99-2	Benzo(b)Fluoranthene	10	U
207-08-9	Benzo(k)Fluoranthene	10	U
50-32-8	Benzo(a)Pyrene	10	U
193-39-5	Indeno(1,2,3-cd)Pyrene	10	U
53-70-3	Dibenz(a,h)Anthracene	10	U
191-24-2	Benzo(g,h,i)Perylene	10	U

RB 2/12/93

(1) - Cannot be separated from Diphenylamine

9613494.1758

000022

1F

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B079W1

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09081 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209081-01D

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 21001S03

Level: (low/med) LOW Date Received: 09/25/92

% Moisture: ____ decanted: (Y/N) ___ Date Extracted: 09/29/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 10/01/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

Number TICs found: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN COMPOUND	21.07	2	J

RB
2/23/93

9613494.1759

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

000023
EPA SAMPLE NO.

B079W6

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09081 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209081-05B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 21001S07

Level: (low/med) LOW Date Received: 09/25/92

% Moisture: _____ decanted: (Y/N) ___ Date Extracted: 09/29/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 10/01/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-Di-n-Propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)Methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-Methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U
51-28-5	2,4-Dinitrophenol	25	U

RB 2/23/

PB 6/14/2

9613494.1760

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

000024

EPA SAMPLE NO.

B079W6

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09081 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209081-05B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 21001S07

Level: (low/med) LOW Date Received: 09/25/92

% Moisture: ____ decanted: (Y/N) ___ Date Extracted: 09/29/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 10/01/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-Butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)Anthracene	10	U
117-81-7	bis(2-Ethylhexyl)Phthalate	10	U
218-01-9	Chrysene	10	U
117-84-0	Di-n-Octyl Phthalate	10	U
205-99-2	Benzo(b)Fluoranthene	10	U
207-08-9	Benzo(k)Fluoranthene	10	U
50-32-8	Benzo(a)Pyrene	10	U
193-39-5	Indeno(1,2,3-cd)Pyrene	10	U
53-70-3	Dibenz(a,h)Anthracene	10	U
191-24-2	Benzo(g,h,i)Perylene	10	U

BB 2/23

(1) - Cannot be separated from Diphenylamine

9613494.1761

1F

000025
EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B079W6

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09081 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209081-05B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 21001S07

Level: (low/med) LOW Date Received: 09/25/92

% Moisture: ____ decanted: (Y/N) ___ Date Extracted: 09/29/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 10/01/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

Number TICs found: 4

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN HYDROCARBON	11.90	3	J
2.	UNKNOWN ACID	13.85	2	J
3.	UNKNOWN ALCOHOL	19.23	580	J
4.	UNKNOWN HYDROCARBON	21.98	3	J

BB
2/23/4

9613494.1762

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

000026

EPA SAMPLE NO.

B079V6

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09081 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209081-03B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N) ___ Date Received: 09/25/92

Extraction: (SepF/Cont/Sonc) CONT Date Extracted: 09/29/92

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 10/14/92

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-36-3	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

RB 2/23/93

6/14/93

9613494.1763

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

000027
EPA SAMPLE NO.

B079W1

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09081 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209081-01D

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N) ___ Date Received: 09/25/92

Extraction: (SepF/Cont/Sonc) CONT Date Extracted: 09/29/92

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 10/14/92

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

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

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

CAS NO.	COMPOUND		Q
319-84-6	alpha-BHC	0.050	UJ
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	UJ
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-36-3	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

RB 2/23/13

PBB 6/14/93

9613494.1764

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

000028
EPA SAMPLE NO.

B079W6

ab Name: TMA/ARLI Contract: WHC

ab Code: TMALA Case No.: 09081 SAS No.: NA SDG No.: NA

atrix: (soil/water) WATER Lab Sample ID: A209081-05B

ample wt/vol: 1000 (g/mL) ML Lab File ID: _____

Moisture: _____ decanted: (Y/N) ___ Date Received: 09/25/92

xtraction: (SepF/Cont/Sonc) CONT Date Extracted: 09/29/92

oncentrated Extract Volume: 10000 (uL) Date Analyzed: 10/15/92

njection Volume: 1.00 (uL) Dilution Factor: 1.00

PC Cleanup: (Y/N) N pH: ____ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	UJ
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	UJ
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-36-3	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

RB 2/3/93

RB 6/14/93

9613494.1765

WESTINGHOUSE/HANFORD
1

SAMPLE NUMBER:

INORGANIC ANALYSIS DATA SHEET

B079V6

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D0-0108

Lab Code: SKINER Case No.: N2-09-191SAS No.: SDG No.: B079V6

Matrix (soil/water): WATER Lab Sample ID: 09480-02S

Level (low/med): LOW Date Received: 09/26/92

% Solids: 0.0

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

2/24/93 fm

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	35.5	~~B~~ U		P
7440-36-0	Antimony	14.8	U		P
7440-38-2	Arsenic	2.2	B		F
7440-39-3	Barium	22.8	B		P
7440-41-7	Beryllium	0.30	U		P
7440-43-9	Cadmium	1.5	U		P
7440-70-2	Calcium	35200			P
7440-47-3	Chromium	14.6			P
7440-48-4	Cobalt	1.3	U		P
7440-50-8	Copper	1.9	U		P
7439-89-6	Iron	128			P
7439-92-1	Lead	4.7			F
7439-95-4	Magnesium	7990			P
7439-96-5	Manganese	0.90	U		P
7439-97-6	Mercury	0.10	U	~~X~~ UJ	CV
7440-02-0	Nickel	2.6	U		P
7440-09-7	Potassium	4370	B		P
7782-49-2	Selenium	3.6	U	~~X~~ UJ	F
7440-22-4	Silver	3.6	U		P
7440-23-5	Sodium	12700			P
7440-28-0	Thallium	1.3	U	~~X~~ UJ	F
7440-62-2	Vanadium	10.4	B		P
7440-66-6	Zinc	7.0	~~B~~ U		P
	Cyanide	10.0	U		CA

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

6/14/93

002

FORM I - IN ILM02.1

9613494.1766

WESTINGHOUSE/HANFORD
1

SAMPLE NUMBER:

INORGANIC ANALYSIS DATA SHEET

B079W1

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D0-0108

Lab Code: SKINER Case No.: N2-09-191SAS No.: SDG No.: B079V6

Matrix (soil/water): WATER Lab Sample ID: 09480-01S

Level (low/med): LOW Date Received: 09/26/92

% Solids: 0.0

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

2/24/93 gm

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	1590			P
7440-36-0	Antimony	14.8	U		P
7440-38-2	Arsenic	2.2	U		F
7440-39-3	Barium	57.2	B		P
7440-41-7	Beryllium	0.30	U		P
7440-43-9	Cadmium	1.5	U		P
7440-70-2	Calcium	34500			P
7440-47-3	Chromium	140			P
7440-48-4	Cobalt	3.2	~~B~~ U		P
7440-50-8	Copper	7.9	~~B~~ U		P
7439-89-6	Iron	2920			P
7439-92-1	Lead	5.8		~~N~~ J	F
7439-95-4	Magnesium	5090			P
7439-96-5	Manganese	54.9			P
7439-97-6	Mercury	0.10	U	~~N~~ UJ	CV
7440-02-0	Nickel	69.4			P
7440-09-7	Potassium	4320	B		P
7782-49-2	Selenium	3.6	U		F
7440-22-4	Silver	3.6	U		P
7440-23-5	Sodium	6140			P
7440-28-0	Thallium	1.3	U	~~N~~ UJ	F
7440-62-2	Vanadium	4.7	B		P
7440-66-6	Zinc	278			P
	Cyanide	10.0	U		CA

Color Before: COLORLESS Clarity Before: CLOUDY Texture:

Color After: COLORLESS Clarity After: CLOUDY Artifacts:

Comments:

PBJ 6/14/93

003

FORM I - IN ILM02.1

9613494.1767

WESTINGHOUSE/HANFORD
1

INORGANIC ANALYSIS DATA SHEET

SAMPLE NUMBER: B079W6

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D0-0108

Lab Code: SKINER Case No.: N2-09-191SAS No.: SDG No.: B079V6

Matrix (soil/water): WATER Lab Sample ID: 09480-03S

Level (low/med): LOW Date Received: 09/26/92

% Solids: 0.0

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

2/24/93 fw

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	414			P
7440-36-0	Antimony	14.8	U		P
7440-38-2	Arsenic	2.2	U		F
7440-39-3	Barium	67.9	B		P
7440-41-7	Beryllium	0.30	U		P
7440-43-9	Cadmium	1.5	U		P
7440-70-2	Calcium	26600			P
7440-47-3	Chromium	51.0			P
7440-48-4	Cobalt	1.3	U		P
7440-50-8	Copper	1.9	U		P
7439-89-6	Iron	855			P
7439-92-1	Lead	5.3		~~U~~J	F
7439-95-4	Magnesium	14500			P
7439-96-5	Manganese	67.8			P
7439-97-6	Mercury	0.10	U	~~U~~UJ	CV
7440-02-0	Nickel	24.4	B		P
7440-09-7	Potassium	4380	B		P
7782-49-2	Selenium	3.6	U	~~U~~UJ	F
7440-22-4	Silver	3.6	U		P
7440-23-5	Sodium	27400			P
7440-28-0	Thallium	1.3	U	~~U~~UJ	F
7440-62-2	Vanadium	4.3	B		P
7440-66-6	Zinc	24.9		U	P
	Cyanide	10.0	U		CA

Color Before: COLORLESS Clarity Before: CLOUDY Texture:

Color After: COLORLESS Clarity After: CLOUDY Artifacts:

Comments:

BJ 6/14/93

004

FORM I - IN ILM02.1

9613494.1768

WESTINGHOUSE/HANFORD

1

SAMPLE NUMBER:

B079V9

INORGANIC ANALYSIS DATA SHEET

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D0-0108

Lab Code: SKINER Case No.: N2-09-191SAS No.: SDG No.: B079V9

Matrix (soil/water): WATER Lab Sample ID: 09482-02S

Level (low/med): LOW Date Received: 09/26/92

% 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	23.4	~~B~~	U	P
7440-36-0	Antimony	14.8	U		P
7440-38-2	Arsenic	2.9	B	~~W~~J	F
7440-39-3	Barium	24.2	B		P
7440-41-7	Beryllium	0.30	U		P
7440-43-9	Cadmium	1.5	U		P
7440-70-2	Calcium	36600			P
7440-47-3	Chromium	14.6			P
7440-48-4	Cobalt	1.3	U		P
7440-50-8	Copper	1.9	U		P
7439-89-6	Iron	4.6	~~B~~	U	P
7439-92-1	Lead	1.4	B		F
7439-95-4	Magnesium	8250			P
7439-96-5	Manganese	0.90	U		P
7439-97-6	Mercury	0.29		U	CV
7440-02-0	Nickel	2.6	U		P
7440-09-7	Potassium	4550	B		P
7782-49-2	Selenium	4.2	B	~~W~~J	F
7440-22-4	Silver	3.6	U		P
7440-23-5	Sodium	13400			P
7440-28-0	Thallium	3.8	U	~~W~~UJ	F
7440-62-2	Vanadium	11.1	~~B~~	U	P
7440-66-6	Zinc	5.7	U		P
	Cyanide				NR

2/24/93 fw

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

002

FORM I - IN ILM02.1

6/14/92

9613494.1769

WESTINGHOUSE/HANFORD

1

INORGANIC ANALYSIS DATA SHEET

SAMPLE NUMBER: B079W4

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D0-0108

Lab Code: SKINER Case No.: N2-09-191SAS No.: SDG No.: B079V9

Matrix (soil/water): WATER Lab Sample ID: 09482-01S

Level (low/med): LOW Date Received: 09/26/92

% 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	37.9	~~B~~	U	P
7440-36-0	Antimony	14.8	U		P
7440-38-2	Arsenic	1.9	U		F
7440-39-3	Barium	45.8	B		P
7440-41-7	Beryllium	0.30	U		P
7440-43-9	Cadmium	1.5	U		P
7440-70-2	Calcium	36900			P
7440-47-3	Chromium	11.2			P
7440-48-4	Cobalt	3.6	~~B~~	U	P
7440-50-8	Copper	1.9	U		P
7439-89-6	Iron	12.2	~~B~~	U	P
7439-92-1	Lead	2.1	B		F
7439-95-4	Magnesium	5160			P
7439-96-5	Manganese	7.6	B		P
7439-97-6	Mercury	0.29		U	CV
7440-02-0	Nickel	7.4	~~B~~	U	P
7440-09-7	Potassium	3750	B		P
7782-49-2	Selenium	2.9	B	~~N~~ J	F
7440-22-4	Silver	3.6	U		P
7440-23-5	Sodium	6380			P
7440-28-0	Thallium	3.8	U	~~N~~ UJ	F
7440-62-2	Vanadium	2.5	U		P
7440-66-6	Zinc	11.7	~~B~~	U	P
	Cyanide				NR

2/24/93 JN

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

003

FORM I - IN

6/14/93

ILM02.1

9613494.1770

WESTINGHOUSE/HANFORD

1

INORGANIC ANALYSIS DATA SHEET

SAMPLE NUMBER: B079W9

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D0-0108

Lab Code: SKINER Case No.: N2-09-191SAS No.: SDG No.: B079V9

Matrix (soil/water): WATER Lab Sample ID: 09482-03S

Level (low/med): LOW Date Received: 09/26/92

% 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	33.3	~~B~~	U	P
7440-36-0	Antimony	14.9	B		P
7440-38-2	Arsenic	1.9	U		F
7440-39-3	Barium	69.8	B		P
7440-41-7	Beryllium	0.30	U		P
7440-43-9	Cadmium	1.5	U		P
7440-70-2	Calcium	26600			P
7440-47-3	Chromium	2.6	B		P
7440-48-4	Cobalt	1.3	U		P
7440-50-8	Copper	1.9	U		P
7439-89-6	Iron	8.5	~~B~~	U	P
7439-92-1	Lead	1.5	B		F
7439-95-4	Magnesium	14800			P
7439-96-5	Manganese	53.2			P
7439-97-6	Mercury	0.22		U	CV
7440-02-0	Nickel	6.8	~~B~~	U	P
7440-09-7	Potassium	4590	B		P
7782-49-2	Selenium	3.2	B	~~UN~~ J	F
7440-22-4	Silver	3.6	U		P
7440-23-5	Sodium	28800			P
7440-28-0	Thallium	3.8	U	~~UN~~ UJ	F
7440-62-2	Vanadium	6.3	~~B~~	U	P
7440-66-6	Zinc	5.7	U		P
	Cyanide				NR

2/24/93

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

004

FORM I - IN ILM02.1

6/14/93

9613494.1771

TMA Inc. REPORT Work Order # A2-09-081

Received: 09/25/92 Results by Sample

SAMPLE ID B079V6 FRACTION 03E TEST CODE VCCLPL NAME Anions & Wet Chem. - VH043

Date & Time Collected 09/23/92 Category

2/25/93 fn

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT	
Chloride	300.0	5.8	mg/L	0.2	J
Fluoride	300.0	0.4	mg/L	0.1	J
Phosphate	300.0	<0.4	mg/L	0.4	R
pH	150.1	8.0	pH	0.1	R
Sulfate	300.0	20	mg/L	1	J
Elect. Conductivity	120.1	230	umho/cm	6	

Holding Time

FORM I

6/14/93

9613494.1772

TRA Inc. REPORT Work Order # A2-09-081

Received: 09/25/92

Results by Sample

SAMPLE ID B079V6 FRACTION 03G TEST CODE WCCLPL NAME Anions & Wet Chem. - VH043

Date & Time Collected 09/23/92 Category

2/25/93 fw

Holding Time

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT	
Alkalinity	310.1	143	mg/L	2	J
Tot. Dissolved Solids	160.1	203	mg/L	5	R

FORM I

6/14/93

9613494.1773

TRA Inc. REPORT Work Order # A2-09-081

Received: 09/25/92 Results by Sample

SAMPLE ID B079V6 FRACTION 03H TEST CODE VCCLPL NAME Anions & Wet Chem. - VH043

Date & Time Collected 09/23/92 Category

2/25/93 fw

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT	
Sulfide	376.1	<1	mg/L	1	R

Holding Time

FORM I

PBJ 6/14/93

9613494.1774

TMA Inc. REPORT Work Order # A2-09-081

Received: 09/25/92

Results by Sample

SAMPLE ID B079V6 FRACTION 03J TEST CODE VCCLPL NAME Anions & Wet Chem. - VH043

Date & Time Collected 09/23/92 Category

2/25/93 fm

Holding Time

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT	
Ammonia Nitrogen	350.3	~~<~~0.05	mg/L	0.05	UJ
COD	410.0	~~<~~30	mg/L	30	UJ

FORM I

BJ 6/14/93

9613494.1775

TMA Inc. REPORT Work Order # A2-09-081

Received: 09/25/92

Results by Sample

SAMPLE ID B079V1 FRACTION 01G TEST CODE WCCLPL NAME Anions & Wet Chem. - VH043

Date & Time Collected 09/23/92 Category

2/25/93 Jm

Holding Tim

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT	
Chloride	300.0	3.1	mg/L	0.2	J
Fluoride	300.0	0.3	mg/L	0.1	J
Phosphate	300.0	<0.4	mg/L	0.4	R
pH	150.1	8.0	pH	0.1	R
Sulfate	300.0	27	mg/L	1	J
Elect. Conductivity	120.1	204	umho/cm	6	

FORM I

PBD 6/14/93

9613494.1776

TMA Inc. REPORT Work Order # A2-09-081

:eceived: 09/25/92

Results by Sample

:AMPLE ID B079V1 FRACTION 01I TEST CODE VCCLPL NAME Anions & Wet Chem. - VN043

Date & Time Collected 09/23/92 Category

8/25/93 fm

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT	
Alkalinity	310.1	85	mg/L	2	J
Tot. Dissolved Solids	160.1	183	mg/L	5	R

Holding Time

FORM I

BJ 6/14/93

9613494.1777

TNA Inc. REPORT Work Order # A2-09-081

Received: 09/25/92

Results by Sample

SAMPLE ID B079V1 FRACTION 01K TEST CODE VCCLPL NAME Anions & Wet Chem. - VN043

Date & Time Collected 09/23/92 Category

2/25/93 JN

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Sulfide	376.1	<1	mg/L	1

R Holding Time

FORM I

PBJ 6/14/93

9613494.1778

TRA Inc. REPORT Work Order # A2-09-081

Received: 09/25/92 Results by Sample

SAMPLE ID B079V1 FRACTION 01M TEST CODE WCCLPL NAME Anions & Wet Chem. - VN043

Date & Time Collected 09/23/92 Category

2/25/93 fm

Holding Tin

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT	
Ammonia Nitrogen	350.3	0.08	mg/L	0.05	J
COD	410.0	<30	mg/L	30	UJ

FORM I

TRA Inc. REPORT Work Order # A2-09-081

Received: 09/25/92

Results by Sample

SAMPLE ID B079V6 FRACTION 05C TEST CODE WCCLPL NAME Anions & Wet Chem. - WW063

Date & Time Collected 09/23/92 Category

2/25/93 fm

Holding Time

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT	
Chloride	300.0	4.5	mg/L	0.2	J
Fluoride	300.0	0.5	mg/L	0.1	J
Phosphate	300.0	<0.4	mg/L	0.4	R
pH	150.1	8.0	pH	0.1	R
Sulfate	300.0	34	mg/L	1	J
Elect. Conductivity	120.1	282	umho/cm	6	

FORM I

PBJ 6/14/93

9613494.1780

TRA Inc. REPORT

Work Order # A2-09-081

Received: 09/25/92

Results by Sample

SAMPLE ID B079W6 FRACTION 05D TEST CODE WCCLPL NAME Anions & Wet Chem. - VN043

Date & Time Collected 09/23/92 Category

2/25/93 fm

Holding Time

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT	
Alkalinity	310.1	147	mg/L	2	J
Tot. Dissolved Solids	160.1	245	mg/L	5	R

FORM I

6/14/93

9613494_1781

TNA Inc. REPORT Work Order # A2-09-881

Received: 09/25/92

Results by Sample

SAMPLE-IWN0039V6 FRACTION 05E TEST CODE WCCLPL NAME Anions & Wet

Date & Time Collected 09/23/92 Category

2/25/93

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT	
Sulfide	376.1	<1	mg/L	1	R

Holding Time

FORM I

6/14/93

9613494.1782

TMA Inc. REPORT Work Order # A2-09-081

Received: 09/25/92 Results by Sample

SAMPLE ID B079W6 FRACTION 05F TEST CODE WCCLPL NAME Anions & Wet Chem. - WH043

Date & Time Collected 09/23/92 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT	
Ammonia Nitrogen	350.3	0.07	mg/L	0.05	J
COD	410.0	<30	mg/L	30	UJ

2/25/93 Holding Time

FORM I

PBD 6/14/93

2/25/93 JW

Page 2 Skinner&Sherman REPORT Work Order # S2-09-481

Received: 09/26/92 Results by Sample

SAMPLE ID B079W1 SAMPLE # 01 FRACTIONS: A
Date & Time Collected 09/23/92 Category WATER

NO3NO2 ~~2.36~~ mg N/L 2.24 (raw data)

SAMPLE ID B079W6 SAMPLE # 02 FRACTIONS: A
Date & Time Collected 09/23/92 Category WATER

NO3NO2 1.43 mg N/L ✓

SAMPLE ID B079W6 SAMPLE # 03 FRACTIONS: A
Date & Time Collected 09/23/92 Category WATER

NO3NO2 1.56 mg N/L ✓

SAMPLE ID B079W6D SAMPLE # 03 FRACTIONS: B
Date & Time Collected 09/23/92 Category WATER

NO3NO2 1.48 mg N/L ✓

SAMPLE ID B079W6S SAMPLE # 03 FRACTIONS: C
Date & Time Collected 09/23/92 Category WATER

NO3NO2 3.53 mg N/L ✓

SAMPLE ID LCSW SAMPLE # 04 FRACTIONS: A
Date & Time Collected not specified Category WATER

NO3NO2 1.79 mg N/L

6/14/92

TMA
Thermo Analytical Inc
Skinner & Sherman Laboratories Inc. 300 Second Avenue, P.O. Box 521, Waltham, Massachusetts 02254-0521 (617) 890-7200
1-800-4 LAB TEST FAX (617) 890-3883

9613494.1784

000005

EPA SAMPLE NO.

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

B079Y1

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09089 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209089-01A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21002R03

Level: (low/med) LOW Date Received: 09/29/92

% Moisture: not dec. ____ Date Analyzed: 10/02/92

GC Column: PACK ID: 2.00 (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	11	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	11	
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

NB 6/22/93

BS 6/14/

1E

EPA SAMPLE NO.

B079Y1

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09089 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209089-01A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21002R03

Level: (low/med) LOW Date Received: 09/29/92

% Moisture: not dec. ____ Date Analyzed: 10/02/92

GC Column: PACK ID: 2.00 (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

RA
2/22/93

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B079Y5

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09089 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209089-02A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21002R06

Level: (low/med) LOW Date Received: 09/29/92

% Moisture: not dec. ____ Date Analyzed: 10/02/92

GC Column: PACK ID: 2.00 (mm) Dilution Factor: 1.0

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

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

CAS NO.	COMPOUND		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	7	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	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

CAB 2/22/93

PC 6/14/

9613494.1787

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1E

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B079Y5

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09089 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209089-02A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21002R06

Level: (low/med) LOW Date Received: 09/29/92

% Moisture: not dec. ____ Date Analyzed: 10/02/92

GC Column: PACK ID: 2.00 (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

RB
2/22/93

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000009

EPA SAMPLE NO.

B079Y6

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09089 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209089-03A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21002R07

Level: (low/med) LOW Date Received: 09/29/92

% Moisture: not dec. ____ Date Analyzed: 10/02/92

GC Column: PACK ID: 2.00 (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	5	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

RB 2/22/2

9613494.1789

000010
EPA SAMPLE NO.

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B079Y6

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09089 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209089-03A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21002R07

Level: (low/med) LOW Date Received: 09/29/92

% Moisture: not dec. ____ Date Analyzed: 10/02/92

GC Column: PACK ID: 2.00 (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

BB
2/22/93

9613494.1790

000011

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B079Z0

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09089 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209089-04A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21002R08

Level: (low/med) LOW Date Received: 09/29/92

% Moisture: not dec. ____ Date Analyzed: 10/02/92

GC Column: PACK ID: 2.00 (mm) Dilution Factor: 1.0

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

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

CAS NO.	COMPOUND		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	15	
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	2	J
108-10-1	4-Methyl-2-Pentanone	6	J
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	3	J
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

RB 2/22/1

6

9613494.1791

000012
EPA SAMPLE NO.

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B079Z0

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09089 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209089-04A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21002R08

Level: (low/med) LOW Date Received: 09/29/92

% Moisture: not dec. ____ Date Analyzed: 10/02/92

GC Column: PACK ID: 2.00 (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

AB
2/22/93

9613494.1792

000013

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B079Y1

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09089 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209089-01D

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 21007S02

Level: (low/med) LOW Date Received: 09/29/92

% Moisture: ____ decanted: (Y/N) ___ Date Extracted: 10/01/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 10/07/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-Di-n-Propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)Methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-Methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U
51-28-5	2,4-Dinitrophenol	25	U

RB 2/22/

6/14/

9613494.1793

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

000014
EPA SAMPLE NO.

B079Y1

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09089 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209089-01D

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 21007S02

Level: (low/med) LOW Date Received: 09/29/92

% Moisture: ____ decanted: (Y/N) ___ Date Extracted: 10/01/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 10/07/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

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

CAS NO.	COMPOUND		Q
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-Butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)Anthracene	10	U
117-81-7	bis(2-Ethylhexyl)Phthalate	8	J
218-01-9	Chrysene	10	U
117-84-0	Di-n-Octyl Phthalate	10	U
205-99-2	Benzo(b)Fluoranthene	10	U
207-08-9	Benzo(k)Fluoranthene	10	U
50-32-8	Benzo(a)Pyrene	10	U
193-39-5	Indeno(1,2,3-cd)Pyrene	10	U
53-70-3	Dibenz(a,h)Anthracene	10	U
191-24-2	Benzo(g,h,i)Perylene	10	U

RB 2/22/93

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

B079Y1

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09089 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209089-01D

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 21007S02

Level: (low/med) LOW Date Received: 09/29/92

% Moisture: ____ decanted: (Y/N) ___ Date Extracted: 10/01/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 10/07/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

RB
2/22/93

9613494.1795

000016

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B079Y6

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09089 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209089-03B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 21006S18

Level: (low/med) LOW Date Received: 09/29/92

% Moisture: ____ decanted: (Y/N) ___ Date Extracted: 10/01/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 10/07/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-Di-n-Propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)Methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-Methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U
51-28-5	2,4-Dinitrophenol	25	U

RB 2/22

RB 6/14/

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B079Y6

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09089 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209089-03B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 21006S18

Level: (low/med) LOW Date Received: 09/29/92

% Moisture: ____ decanted: (Y/N) ___ Date Extracted: 10/01/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 10/07/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-Butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)Anthracene	10	U
117-81-7	bis(2-Ethylhexyl)Phthalate	10	U
218-01-9	Chrysene	10	U
117-84-0	Di-n-Octyl Phthalate	10	U
205-99-2	Benzo(b)Fluoranthene	10	U
207-08-9	Benzo(k)Fluoranthene	10	U
50-32-8	Benzo(a)Pyrene	10	U
193-39-5	Indeno(1,2,3-cd)Pyrene	10	U
53-70-3	Dibenz(a,h)Anthracene	10	U
191-24-2	Benzo(g,h,i)Perylene	10	U

RB 2/22

(1) - Cannot be separated from Diphenylamine

9613494.1797

000018
EPA SAMPLE NO.

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B079Y6

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09089 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209089-03B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 21006S18

Level: (low/med) LOW Date Received: 09/29/92

% Moisture: ____ decanted: (Y/N) ___ Date Extracted: 10/01/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 10/07/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

Number TICs found: 2

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN COMPOUND	21.08	2	J
2.	HEXANEDIOIC ACID ISOMER	24.65	8	J

BB
2/22/93

9613494.1798

000019

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B079Y1

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09089 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A209089-01D

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N) ___ Date Received: 09/29/92

Extraction: (SepF/Cont/Sonc) CONT Date Extracted: 10/01/92

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 10/15/92

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	UJ
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	UJ
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-36-3	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

RB 2/22/93

PBD 6/14/

9613494.1799

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

000020

EPA SAMPLE NO.

B079Y6

ab Name: TMA/ARLI Contract: WHC

ab Code: TMALA Case No.: 09089 SAS No.: NA SDG No.: NA

atrix: (soil/water) WATER Lab Sample ID: A209089-03B

ample wt/vol: 1000 (g/mL) ML Lab File ID: _____

Moisture: _____ decanted: (Y/N) ___ Date Received: 09/29/92

xtraction: (SepF/Cont/Sonc) CONT Date Extracted: 10/01/92

oncentrated Extract Volume: 10000 (uL) Date Analyzed: 10/15/92

njection Volume: 1.00 (uL) Dilution Factor: 1.00

PC Cleanup: (Y/N) N pH: ____ Sulfur Cleanup: (Y/N) N

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

CAS NO.	COMPOUND		Q
319-84-6	alpha-BHC	0.050	UJ
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	UJ
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-36-3	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

RB 6/14/93

RB 6/14/93

9613494.1800

000009

TMA Inc. REPORT Work Order # A2-89-889

Received: 09/29/92

Results by Sample

SAMPLE ID B079Y1 FRACTION 016 TEST CODE WCCLPL NAME Anions & Wet Chem. - VN843

Date & Time Collected 09/25/92 Category

3/2/93 gm

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT	
Chloride	300.0	6.4	mg/L	0.2	J
Fluoride	300.0	0.4	mg/L	0.1	J
Phosphate	300.0	0.4	mg/L	0.4	R
pH	150.1	8.0	pH	0.1	R
Sulfate	300.0	22	mg/L	1	J
Elect. Conductivity	120.1	288	umho/cm	6	

Holding Time

FORM I

6/14/93

9613494.1801

000010

TRA Inc. REPORT Work Order # A2-09-089

Received: 09/29/92

Results by Sample

SAMPLE ID B079Y1 FRACTION 01I TEST CODE WCCLPL NAME Anions & Wet Chem. - VH043

Date & Time Collected 09/25/92 Category

3/2/93 JN

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT	
Alkalinity	310.1	119	mg/L	2	J
Tot. Dissolved Solids	160.1	197	mg/L	5	R

Holding Time

FORM I

PBD 6/14/93

9613494.1802

000011

TRA Inc. REPORT Work Order # A2-89-089

eceived: 09/29/92 Results by Sample

AMPLE ID B079Y1 FRACTION 01K TEST CODE WCCLPL NAME Anions & Wet Chem. - WH043

Date & Time Collected 09/25/92 Category

3/2/93 PW

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Sulfide	376.1	<1	mg/L	1

R Holding Time

FORM I

PW 6/14/93

9613494.1803

000012

TMA Inc. REPORT Work Order # A2-09-889

Received: 09/29/92

Results by Sample

SAMPLE ID B079Y1 FRACTION 01M TEST CODE WCCLPL NAME Anions & Wet Chem. - WH043

Date & Time Collected 09/25/92 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT	
Ammonia Nitrogen	350.3	<0.05	mg/L	0.05	U
COD	410.0	<30	mg/L	30	U

FORM I

PBD 6/14/93

9613494.1804

TRA Inc. REPORT Work Order # A2-09-089

Received: 09/29/92

Results by Sample

SAMPLE ID B079Y6 FRACTION 03E TEST CODE VCCLPL NAME Anions & Wet Chem. - VN043

Date & Time Collected 09/25/92 Category

3/2/93 JD

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT	
Chloride	300.0	6.1	mg/L	0.2	J
Fluoride	300.0	0.5	mg/L	0.1	J
Phosphate	300.0	<0.4	mg/L	0.4	R
pH	150.1	8.1	pH	0.1	R
Sulfate	300.0	84	mg/L	1	J
Elect. Conductivity	120.1	421	umho/cm	6	

Holding Time

FORM I

PBD 6/14/93

9613494.1805

TRA Inc. REPORT Work Order # A2-09-089

Received: 09/29/92

Results by Sample

SAMPLE ID B079Y6 FRACTION 03G TEST CODE WCCLPL NAME Anions & Wet Chem. - WH043

Date & Time Collected 09/25/92 Category

3/2/93 fn

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT	
Alkalinity	310.1	125	mg/L	2	J
Tot. Dissolved Solids	160.1	308	mg/L	5	R

Holding Time

FORM I

PD 6/14/93

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THA Inc. REPORT Work Order # A2-09-089

Received: 09/29/92

Results by Sample

SAMPLE ID B079Y6 FRACTION 03H TEST CODE WCCLPL NAME Anions & Wet Chem. - VH063

Date & Time Collected 09/25/92 Category

3/2/93 JD

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Sulfide	376.1	<1	mg/L	1

R Holding Time

FORM I

RBD 6/14/93

9613494.1807

000016

TMA Inc. REPORT Work Order # A2-09-089

Received: 09/29/92

Results by Sample

SAMPLE ID B079Y6 FRACTION 03J TEST CODE WCCLPL NAME Anions & Wet Chem. - VH043

Date & Time Collected 09/25/92 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Ammonia Nitrogen	350.3	0.10	mg/L	0.05
COD	410.0	<30	mg/L	30

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FORM I

BS
6/14/93