START 9713517.0593

B07227-TMA-304

TMA

0046225

1692

JAN 1997 RECEIVED LDMC

DEC 1992 RECEIVED OSM DMO

WESTINGHOUSE HANFORD COMPANY

Results of Analyses For:

ORGANICS & GENERAL CHEMISTRY
Case No. 09-037
(TMA/ARLI Work Order # A2-09-037)

METALS
Case No. N2-09-103
(TMA/Skinner & Sherman W.O. # S2-09-233 & S2-09-234)

December 15, 1992

TMA Master Work Order N2-09-103

RECORD COPY

TMA/ARLI
Thermo Analytical Inc.

RADIATION DOSE RATE SURVEY FORM

Date 9/16/92 COMPANY None (WHC) OTHER ORD # 578038575

Surveyor's Name [illegible]

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 8/1/92

Instrument Calibration Factor 0.280 Instrument Calibration Factor 0.1188

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		31.0			0.0				
Consistency		7260	0.2803		4970	0.1827			
Smears: NO ID.		28.0			0.0				
SML 211		37.0			1.0				
Rptd:	WHC.	32	See		<50	pCi/g.			

Comments:

All OK ✓ Approved [illegible]

Not OK Date 9/16/92.

9713517.0595

000004

FEDERAL EXPRESS

QUESTIONS? CALL 800-238-5355 TOLL FREE.

AIRBILL PACKAGE TRACKING NUMBER 5188038575

2237 5188038575

1 Date 9.15.92

RECIPIENT'S COPY

From (Your Name) Please Print: SAMPLE CONTROL

Your Phone Number (Very Important): (510) 235-2033

Company: T S 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: THAI 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; 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 (Available for authorized users only)
46 [ ] GOV'T LETTER
41 [ ] GOV'T PACKAGE

Freight Service (for packages over 150 lbs.)
70 [ ] OVERNIGHT FREIGHT** (Signature requirement required; Fly commitment may not be available in some areas)
80 [ ] TWO-DAY FREIGHT**

*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 (If Known) | YOUR DECLARED VALUE
Total | Total | Total
2 111

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

Received At
4 [X] Regular Stop 3 [ ] Drop Box
2 [ ] On-Call Stop 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 3.92
PART #137284 FXEM 6/9
FORMAT #135
126
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SAMPLE LOG-IN SHEET

LAB NAME : TMA/ARLI

PAGE : OF

RECEIVED BY (PRINT NAME): CAROLE HARRIS

LOG-IN-DATE : 9-16-92

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.: 5188038575
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: 9-16-92
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
	B07227	A2-09-037-01	
	B07228	A2-09-037-02	
	B07229	A2-09-037-03	
	B07249	A2-09-037-04	
	B07230	A2-09-037-05	
	B07238	A2-09-037-06	
	B07239	A2-09-037-07	
	B07248	A2-09-037-08	

* Contact SMO and attach record of resolution

Reviewed By: _____ Logbook No.: _____

Date: _____ Logbook Page No.: _____

FORM DC-1

GENERAL CHEMISTRY RESULTS

CASE NO. 09-037

Soil Sample #:

B07227	B07228	B07229
B07249	B07230	B07238
B07239	B07248	

CASE NARRATIVE

The %RPD for the Fluoride analysis reported for soil sample B07228 (A2-09-037-02) was 40%. 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

SAMPLE RESULTS

9715517.0599

TMA Inc. REPORT Work Order # A2-09-037

Received: 09/15/92 Results by Sample

SAMPLE ID B07227 FRACTION 01E TEST CODE WCCLPS NAME Anions in Solids - WM232

Date & Time Collected 09/11/92 Category

ANIONS AND WET CHEMISTRY - SOLIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Chloride	300.0	<2.	mg/Kg	2.
Fluoride	300.0	2	mg/Kg	1.
Phosphate	300.0	<4.	mg/Kg	4.
pH	150.1	9.4	pH	.1
Sulfate	300.0	23	mg/Kg	10.

FORM I

TMA Inc. REPORT Work Order # A2-09-037

Received: 09/15/92 Results by Sample

SAMPLE ID B07228 FRACTION 02E TEST CODE WCCLPS NAME Anions in Solids - WM232

Date & Time Collected 09/11/92 Category

ANIONS AND WET CHEMISTRY - SOLIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Chloride	300.0	6	mg/Kg	2.
Fluoride	300.0	2	mg/Kg	1.
Phosphate	300.0	<4.	mg/Kg	4.
pH	9045	9.4	pH	.1
Sulfate	300.0	25	mg/Kg	10.

FORM I

TMA Inc. REPORT Work Order # A2-09-037

Received: 09/15/92 Results by Sample

SAMPLE ID B07229 FRACTION 03E TEST CODE WCCLPS NAME Anions in Solids - WH232

Date & Time Collected 09/11/92 Category

ANIONS AND WET CHEMISTRY - SOLIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Chloride	300.0	6	mg/Kg	2.
Fluoride	300.0	2	mg/Kg	1.
Phosphate	300.0	<4.	mg/Kg	4.
pH	150.1	9.3	pH	.1
Sulfate	300.0	<10.	mg/Kg	10.

FORM I

TMA Inc. REPORT Work Order # A2-09-037

Received: 09/15/92

Results by Sample

SAMPLE ID B07230 FRACTION 05C TEST CODE WCCLPS NAME Anions in Solids - WN232

Date & Time Collected 09/11/92 Category

ANIONS AND WET CHEMISTRY - SOLIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Chloride	300.0	5	mg/Kg	2.
Fluoride	300.0	3	mg/Kg	1.
Phosphate	300.0	<4.	mg/Kg	4.
pH	150.1	9.7	pH	.1
Sulfate	300.0	<10.	mg/Kg	10.

FORM I

TMA Inc. REPORT Work Order # A2-09-037

Received: 09/15/92 Results by Sample

SAMPLE ID B07238 FRACTION 06C TEST CODE WCCLPS NAME Anions in Solids - WM232

Date & Time Collected 09/11/92 Category

ANIONS AND WET CHEMISTRY - SOLIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Chloride	300.0	6	mg/Kg	2.
Fluoride	300.0	<1.	mg/Kg	1.
Phosphate	300.0	<4.	mg/Kg	4.
pH	150.1	9.0	pH	.1
Sulfate	300.0	<10.	mg/Kg	10.

FORM I

TMA Inc. REPORT Work Order # A2-09-037

Received: 09/15/92

Results by Sample

SAMPLE ID B07239 FRACTION 07C TEST CODE WCCLPS NAME Anions in Solids - WH232

Date & Time Collected 09/11/92 Category

ANIONS AND WET CHEMISTRY - SOLIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Chloride	300.0	5	mg/Kg	2.
Fluoride	300.0	2	mg/Kg	1.
Phosphate	300.0	<4.	mg/Kg	4.
pH	150.1	9.2	pH	.1
Sulfate	300.0	<10.	mg/Kg	10.

FORM I

TMA Inc. REPORT Work Order # A2-09-037

Received: 09/15/92

Results by Sample

SAMPLE ID B07228 Duplicate FRACTION 02F TEST CODE WCQCD NAME Quality Control Summary

Date & Time Collected 09/11/92 Category

DUPLICATE QC SUMMARY

ANALYSIS	SAMPLE ID	SAMPLE RESULT	DUPL. RESULT	RPD
Chloride	B07228	6	6	0.0
Fluoride	B07228	2	3	40.0
Phosphate	B07228	<4.	<4.	
pH	B07228	9.4	9.4	0.0
Sulfate	B07228	25	25	0.0

FORM VI

9713517.0606

DEC 1992
RECEIVED
OSM DMO

CASE NO. 09-037

DATA SUMMARY REPORT
ORGANICS

PREPARED BY:

TMA ARLI
160 TAYLOR ST.
MONROVIA CA 91016

CASE NARRATIVE

LABORATORY : TMA/ARLI

CASE : 09-037

CONTRACT ID : WESTINGHOUSE HANFORD COMPANY

SDG RECEIPT DATE : September 15, 1992

1.0 DESCRIPTION OF CASE :

Eight soil 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
B07227	A2-09-037-01A	V	SOIL
B07227	A2-09-037-01B	SV & P	SOIL
B07227 MS	A2-09-037-01C	SV	SOIL
B07227 MSD	A2-09-037-01D	SV	SOIL
B07228	A2-09-037-02A	V	SOIL
B07228	A2-09-037-02B	SV & P	SOIL
B07228 MS	A2-09-037-02C	P	SOIL
B07228 MSD	A2-09-037-02D	P	SOIL
B07229	A2-09-037-03A	V	SOIL
B07229 MS	A2-09-037-03B	V	SOIL
B07229 MSD	A2-09-037-03C	V	SOIL
B07229	A2-09-037-03D	SV & P	SOIL
B07249	A2-09-037-04A	V	SOIL
B07230	A2-09-037-05A	V	SOIL
B07230	A2-09-037-05B	SV & P	SOIL
B07238	A2-09-037-06A	V	SOIL
B07238	A2-09-037-06B	SV & P	SOIL
B07239	A2-09-037-07A	V	SOIL
B07239	A2-09-037-07B	SV & P	SOIL
B07248	A2-09-037-08A	V	SOIL

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 SOIL :

The samples were analyzed by heated purge 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 SOIL :

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.

PESTICIDE/PCB ANALYSIS :

SEQUENCE NOTES :

The sequence was started on 10/5/92 and analyzed in accordance with the EPA CLP SOW. The sequence met all the QC criteria specified in the CLP SOW.

The sequence was analyzed by single injection into a dual column system.

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 SOIL :

The samples were extracted and analyzed within the CLP SOW holding times. Samples B07227, B07228, B07238 and method blank PBLK0918S2 had TCX surrogate recoveries that were slightly below the advisory limit on the DB-608 column. The TCX percent difference (%D) between both GC columns was high (28%) for sample B07238.

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

Wida Ang
Organics Supervisor

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07227

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09037 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209037-01A

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 20918R16

Level: (low/med) LOW Date Received: 09/15/92

% Moisture: not dec. 2 Date Analyzed: 09/18/92

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/KG	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	9	BJ
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	4	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

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

B07227

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09037 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209037-01A

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 20918R16

Level: (low/med) LOW Date Received: 09/15/92

% Moisture: not dec. 2 Date Analyzed: 09/18/92

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/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07228

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09037 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209037-02A

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 20918R17

Level: (low/med) LOW Date Received: 09/15/92

% Moisture: not dec. 3 Date Analyzed: 09/18/92

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/KG	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

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

B07228

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09037 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209037-02A

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 20918R17

Level: (low/med) LOW Date Received: 09/15/92

% Moisture: not dec. 3 Date Analyzed: 09/18/92

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/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07229

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09037 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209037-03A

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 20918R18

Level: (low/med) LOW Date Received: 09/15/92

% Moisture: not dec. 4 Date Analyzed: 09/18/92

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/KG	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	9	BJ
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

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

B07229

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09037 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209037-03A

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 20918R18

Level: (low/med) LOW Date Received: 09/15/92

% Moisture: not dec. 4 Date Analyzed: 09/18/92

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/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07230

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09037 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209037-05A

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 20921R06

Level: (low/med) LOW Date Received: 09/15/92

% Moisture: not dec. 2 Date Analyzed: 09/21/92

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/KG	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	8	BJ
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

9213517.0617

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

000109
EPA SAMPLE NO.

B07230

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09037 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209037-05A

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 20921R06

Level: (low/med) LOW Date Received: 09/15/92

% Moisture: not dec. 2 Date Analyzed: 09/21/92

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/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

9213517.0618

000117

EPA SAMPLE NO.

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

B07238

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09037 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209037-06A

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 20921R07

Level: (low/med) LOW Date Received: 09/15/92

% Moisture: not dec. 0 Date Analyzed: 09/21/92

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/KG	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

9213517.0619

000118

EPA SAMPLE NO.

B07238

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09037 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209037-06A

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 20921R07

Level: (low/med) LOW Date Received: 09/15/92

% Moisture: not dec. 0 Date Analyzed: 09/21/92

GC Column: PACK ID: 2.00 (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/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN HYDROCARBON	29.58	18	J

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07239

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09037 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209037-07A

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 20921R08

Level: (low/med) LOW Date Received: 09/15/92

% Moisture: not dec. 3 Date Analyzed: 09/21/92

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/KG	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	9	BJ
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

9715517.0621

000127

EPA SAMPLE NO.

B07239

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09037 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209037-07A

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 20921R08

Level: (low/med) LOW Date Received: 09/15/92

% Moisture: not dec. 3 Date Analyzed: 09/21/92

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/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

9713517.0622

000135

EPA SAMPLE NO.

B07248

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09037 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209037-08A

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 20921R09

Level: (low/med) LOW Date Received: 09/15/92

% Moisture: not dec. 4 Date Analyzed: 09/21/92

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/KG	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	BJ
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

9715517.0623

000136
EPA SAMPLE NO.

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B07248

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09037 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209037-08A

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 20921R09

Level: (low/med) LOW Date Received: 09/15/92

% Moisture: not dec. 4 Date Analyzed: 09/21/92

GC Column: PACK ID: 2.00 (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/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN ALCOHOL	29.53	25	J

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07249

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09037 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209037-04A

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 20918R19

Level: (low/med) LOW Date Received: 09/15/92

% Moisture: not dec. 4 Date Analyzed: 09/18/92

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/KG	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	12	B
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

9213517.0625

000147

EPA SAMPLE NO.

B07249

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09037 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209037-04A

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 20918R19

Level: (low/med) LOW Date Received: 09/15/92

% Moisture: not dec. 4 Date Analyzed: 09/18/92

GC Column: PACK ID: 2.00 (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/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN HYDROCARBON	8.17	5	J
2.	UNKNOWN HYDROCARBON	29.53	34	J

9213517.0626

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

000238
EPA SAMPLE NO.

B07227

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09037 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209037-01B

Sample wt/vol: 30.4 (g/mL) G Lab File ID: 20922S05

Level: (low/med) LOW Date Received: 09/15/92

% Moisture: 2 decanted: (Y/N) N Date Extracted: 09/17/92

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/22/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 9.4

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	330	U
111-44-4	bis(2-Chloroethyl)Ether	330	U
95-57-8	2-Chlorophenol	330	U
541-73-1	1,3-Dichlorobenzene	330	U
106-46-7	1,4-Dichlorobenzene	330	U
95-50-1	1,2-Dichlorobenzene	330	U
95-48-7	2-Methylphenol	330	U
108-60-1	2,2'-oxybis(1-Chloropropane)	330	U
106-44-5	4-Methylphenol	330	U
621-64-7	N-Nitroso-Di-n-Propylamine	330	U
67-72-1	Hexachloroethane	330	U
98-95-3	Nitrobenzene	330	U
78-59-1	Isophorone	330	U
88-75-5	2-Nitrophenol	330	U
105-67-9	2,4-Dimethylphenol	330	U
111-91-1	bis(2-Chloroethoxy)Methane	330	U
120-83-2	2,4-Dichlorophenol	330	U
120-82-1	1,2,4-Trichlorobenzene	330	U
91-20-3	Naphthalene	330	U
106-47-8	4-Chloroaniline	330	U
87-68-3	Hexachlorobutadiene	330	U
59-50-7	4-Chloro-3-Methylphenol	330	U
91-57-6	2-Methylnaphthalene	330	U
77-47-4	Hexachlorocyclopentadiene	330	U
88-06-2	2,4,6-Trichlorophenol	330	U
95-95-4	2,4,5-Trichlorophenol	810	U
91-58-7	2-Chloronaphthalene	330	U
88-74-4	2-Nitroaniline	810	U
131-11-3	Dimethylphthalate	330	U
208-96-8	Acenaphthylene	330	U
99-09-2	3-Nitroaniline	810	U
83-32-9	Acenaphthene	330	U
51-28-5	2,4-Dinitrophenol	810	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07227

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09037 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209037-01B

Sample wt/vol: 30.4 (g/mL) G Lab File ID: 20922S05

Level: (low/med) LOW Date Received: 09/15/92

% Moisture: 2 decanted: (Y/N) N Date Extracted: 09/17/92

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/22/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 9.4

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
100-02-7	4-Nitrophenol	810	U
132-64-9	Dibenzofuran	330	U
121-14-2	2,4-Dinitrotoluene	330	U
606-20-2	2,6-Dinitrotoluene	330	U
84-66-2	Diethylphthalate	330	U
7005-72-3	4-Chlorophenyl-phenylether	330	U
86-73-7	Fluorene	330	U
100-01-6	4-Nitroaniline	810	U
534-52-1	4,6-Dinitro-2-methylphenol	810	U
86-30-6	N-Nitrosodiphenylamine (1)	330	U
101-55-3	4-Bromophenyl-phenylether	330	U
118-74-1	Hexachlorobenzene	330	U
87-86-5	Pentachlorophenol	810	U
85-01-8	Phenanthrene	330	U
120-12-7	Anthracene	330	U
86-74-8	Carbazole	330	U
84-74-2	Di-n-Butylphthalate	330	U
206-44-0	Fluoranthene	330	U
129-00-0	Pyrene	330	U
85-68-7	Butylbenzylphthalate	330	U
91-94-1	3,3'-Dichlorobenzidine	330	U
56-55-3	Benzo(a)Anthracene	330	U
117-81-7	bis(2-Ethylhexyl)Phthalate	330	U
218-01-9	Chrysene	330	U
117-84-0	Di-n-Octyl Phthalate	330	U
205-99-2	Benzo(b)Fluoranthene	330	U
207-08-9	Benzo(k)Fluoranthene	330	U
50-32-8	Benzo(a)Pyrene	330	U
193-39-5	Indeno(1,2,3-cd)Pyrene	330	U
53-70-3	Dibenz(a,h)Anthracene	330	U
191-24-2	Benzo(g,h,i)Perylene	330	U

(1) - Cannot be separated from Diphenylamine

EPA SAMPLE NO.

B07227

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09037 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209037-01B

Sample wt/vol: 30.4 (g/mL) G Lab File ID: 20922S05

Level: (low/med) LOW Date Received: 09/15/92

% Moisture: 2 decanted: (Y/N) N Date Extracted: 09/17/92

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/22/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 9.4

Number TICs found: 9

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN HYDROCARBON	5.20	2600	BJ
2.	UNKNOWN HYDROCARBON	5.63	79000	BJ
3.	UNKNOWN HYDROCARBON	6.13	130	BJ
4.	UNKNOWN HYDROCARBON	6.55	230	BJ
5.	UNKNOWN HYDROCARBON	6.68	1300	BJ
6.	UNKNOWN HYDROCARBON	7.10	700	BJ
7.	UNKNOWN ALCOHOL	8.32	1500	BJ
8.	PROPANOIC ACID ISOMER	17.00	100	J
9.	UNKNOWN HYDROCARBON	27.60	100	J

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07228

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09037 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209037-02B

Sample wt/vol: 30.4 (g/mL) G Lab File ID: 20922S08

Level: (low/med) LOW Date Received: 09/15/92

% Moisture: 3 decanted: (Y/N) N Date Extracted: 09/17/92

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/22/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 9.4

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	340	U
111-44-4	bis(2-Chloroethyl)Ether	340	U
95-57-8	2-Chlorophenol	340	U
541-73-1	1,3-Dichlorobenzene	340	U
106-46-7	1,4-Dichlorobenzene	340	U
95-50-1	1,2-Dichlorobenzene	340	U
95-48-7	2-Methylphenol	340	U
108-60-1	2,2'-oxybis(1-Chloropropane)	340	U
106-44-5	4-Methylphenol	340	U
621-64-7	N-Nitroso-Di-n-Propylamine	340	U
67-72-1	Hexachloroethane	340	U
98-95-3	Nitrobenzene	340	U
78-59-1	Isophorone	340	U
88-75-5	2-Nitrophenol	340	U
105-67-9	2,4-Dimethylphenol	340	U
111-91-1	bis(2-Chloroethoxy)Methane	340	U
120-83-2	2,4-Dichlorophenol	340	U
120-82-1	1,2,4-Trichlorobenzene	340	U
91-20-3	Naphthalene	340	U
106-47-8	4-Chloroaniline	340	U
87-68-3	Hexachlorobutadiene	340	U
59-50-7	4-Chloro-3-Methylphenol	340	U
91-57-6	2-Methylnaphthalene	340	U
77-47-4	Hexachlorocyclopentadiene	340	U
88-06-2	2,4,6-Trichlorophenol	340	U
95-95-4	2,4,5-Trichlorophenol	810	U
91-58-7	2-Chloronaphthalene	340	U
88-74-4	2-Nitroaniline	810	U
131-11-3	Dimethylphthalate	340	U
208-96-8	Acenaphthylene	340	U
99-09-2	3-Nitroaniline	810	U
83-32-9	Acenaphthene	340	U
51-28-5	2,4-Dinitrophenol	810	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07228

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09037 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209037-02B

Sample wt/vol: 30.4 (g/mL) G Lab File ID: 20922S08

Level: (low/med) LOW Date Received: 09/15/92

% Moisture: 3 decanted: (Y/N) N Date Extracted: 09/17/92

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/22/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 9.4

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
100-02-7	4-Nitrophenol	810	U
132-64-9	Dibenzofuran	340	U
121-14-2	2,4-Dinitrotoluene	340	U
606-20-2	2,6-Dinitrotoluene	340	U
84-66-2	Diethylphthalate	340	U
7005-72-3	4-Chlorophenyl-phenylether	340	U
86-73-7	Fluorene	340	U
100-01-6	4-Nitroaniline	810	U
534-52-1	4,6-Dinitro-2-methylphenol	810	U
86-30-6	N-Nitrosodiphenylamine (1)	340	U
101-55-3	4-Bromophenyl-phenylether	340	U
118-74-1	Hexachlorobenzene	340	U
87-86-5	Pentachlorophenol	810	U
85-01-8	Phenanthrene	340	U
120-12-7	Anthracene	340	U
86-74-8	Carbazole	340	U
84-74-2	Di-n-Butylphthalate	340	U
206-44-0	Fluoranthene	340	U
129-00-0	Pyrene	340	U
85-68-7	Butylbenzylphthalate	340	U
91-94-1	3,3'-Dichlorobenzidine	340	U
56-55-3	Benzo(a)Anthracene	340	U
117-81-7	bis(2-Ethylhexyl)Phthalate	340	U
218-01-9	Chrysene	340	U
117-84-0	Di-n-Octyl Phthalate	340	U
205-99-2	Benzo(b)Fluoranthene	340	U
207-08-9	Benzo(k)Fluoranthene	340	U
50-32-8	Benzo(a)Pyrene	340	U
193-39-5	Indeno(1,2,3-cd)Pyrene	340	U
53-70-3	Dibenz(a,h)Anthracene	340	U
191-24-2	Benzo(g,h,i)Perylene	340	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

B07228

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09037 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209037-02B

Sample wt/vol: 30.4 (g/mL) G Lab File ID: 20922S08

Level: (low/med) LOW Date Received: 09/15/92

% Moisture: 3 decanted: (Y/N) N Date Extracted: 09/17/92

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/22/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 9.4

Number TICs found: 8

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN HYDROCARBON	5.22	2700	BJ
2.	UNKNOWN HYDROCARBON	5.63	70000	BJ
3.	UNKNOWN HYDROCARBON	6.15	140	BJ
4.	UNKNOWN HYDROCARBON	6.57	200	BJ
5.	UNKNOWN HYDROCARBON	6.68	1100	BJ
6.	UNKNOWN HYDROCARBON	7.12	610	BJ
7.	UNKNOWN ALCOHOL	8.33	1200	BJ
8.	PROPANOIC ACID ISOMER	17.00	100	J

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07229

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09037 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209037-03D

Sample wt/vol: 30.2 (g/mL) G Lab File ID: 20922S09

Level: (low/med) LOW Date Received: 09/15/92

% Moisture: 4 decanted: (Y/N) N Date Extracted: 09/17/92

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/22/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 9.3

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	340	U
111-44-4	bis(2-Chloroethyl)Ether	340	U
95-57-8	2-Chlorophenol	340	U
541-73-1	1,3-Dichlorobenzene	340	U
106-46-7	1,4-Dichlorobenzene	340	U
95-50-1	1,2-Dichlorobenzene	340	U
95-48-7	2-Methylphenol	340	U
108-60-1	2,2'-oxybis(1-Chloropropane)	340	U
106-44-5	4-Methylphenol	340	U
621-64-7	N-Nitroso-Di-n-Propylamine	340	U
67-72-1	Hexachloroethane	340	U
98-95-3	Nitrobenzene	340	U
78-59-1	Isophorone	340	U
88-75-5	2-Nitrophenol	340	U
105-67-9	2,4-Dimethylphenol	340	U
111-91-1	bis(2-Chloroethoxy)Methane	340	U
120-83-2	2,4-Dichlorophenol	340	U
120-82-1	1,2,4-Trichlorobenzene	340	U
91-20-3	Naphthalene	340	U
106-47-8	4-Chloroaniline	340	U
87-68-3	Hexachlorobutadiene	340	U
59-50-7	4-Chloro-3-Methylphenol	340	U
91-57-6	2-Methylnaphthalene	340	U
77-47-4	Hexachlorocyclopentadiene	340	U
88-06-2	2,4,6-Trichlorophenol	340	U
95-95-4	2,4,5-Trichlorophenol	830	U
91-58-7	2-Chloronaphthalene	340	U
88-74-4	2-Nitroaniline	830	U
131-11-3	Dimethylphthalate	340	U
208-96-8	Acenaphthylene	340	U
99-09-2	3-Nitroaniline	830	U
83-32-9	Acenaphthene	340	U
51-28-5	2,4-Dinitrophenol	830	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07229

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09037 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209037-03D

Sample wt/vol: 30.2 (g/mL) G Lab File ID: 20922S09

Level: (low/med) LOW Date Received: 09/15/92

% Moisture: 4 decanted: (Y/N) N Date Extracted: 09/17/92

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/22/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 9.3

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
100-02-7	4-Nitrophenol	830	U
132-64-9	Dibenzofuran	340	U
121-14-2	2,4-Dinitrotoluene	340	U
606-20-2	2,6-Dinitrotoluene	340	U
84-66-2	Diethylphthalate	340	U
7005-72-3	4-Chlorophenyl-phenylether	340	U
86-73-7	Fluorene	340	U
100-01-6	4-Nitroaniline	830	U
534-52-1	4,6-Dinitro-2-methylphenol	830	U
86-30-6	N-Nitrosodiphenylamine (1)	340	U
101-55-3	4-Bromophenyl-phenylether	340	U
118-74-1	Hexachlorobenzene	340	U
87-86-5	Pentachlorophenol	830	U
85-01-8	Phenanthrene	340	U
120-12-7	Anthracene	340	U
86-74-8	Carbazole	340	U
84-74-2	Di-n-Butylphthalate	340	U
206-44-0	Fluoranthene	340	U
129-00-0	Pyrene	340	U
85-68-7	Butylbenzylphthalate	340	U
91-94-1	3,3'-Dichlorobenzidine	340	U
56-55-3	Benzo(a)Anthracene	340	U
117-81-7	bis(2-Ethylhexyl)Phthalate	340	U
218-01-9	Chrysene	340	U
117-84-0	Di-n-Octyl Phthalate	340	U
205-99-2	Benzo(b)Fluoranthene	340	U
207-08-9	Benzo(k)Fluoranthene	340	U
50-32-8	Benzo(a)Pyrene	340	U
193-39-5	Indeno(1,2,3-cd)Pyrene	340	U
53-70-3	Dibenz(a,h)Anthracene	340	U
191-24-2	Benzo(g,h,i)Perylene	340	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

B07229

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09037 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209037-03D

Sample wt/vol: 30.2 (g/mL) G Lab File ID: 20922S09

Level: (low/med) LOW Date Received: 09/15/92

% Moisture: 4 decanted: (Y/N) N Date Extracted: 09/17/92

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/22/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 9.3

Number TICs found: 10

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN HYDROCARBON	5.18	2700	BJ
2.	UNKNOWN HYDROCARBON	5.62	78000	BJ
3.	UNKNOWN HYDROCARBON	6.55	210	BJ
4.	UNKNOWN HYDROCARBON	6.67	1200	BJ
5.	UNKNOWN HYDROCARBON	7.10	660	BJ
6.	UNKNOWN ALCOHOL	8.32	1400	BJ
7.	PROPANOIC ACID ISOMER	17.00	100	J
8.	UNKNOWN HYDROCARBON	18.27	69	J
9.	UNKNOWN ALKANE	28.43	140	J
10.	UNKNOWN ALKANE	30.40	210	J

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07230

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09037 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209037-05B

Sample wt/vol: 30.4 (g/mL) G Lab File ID: 20922S10

Level: (low/med) LOW Date Received: 09/15/92

% Moisture: 2 decanted: (Y/N) N Date Extracted: 09/17/92

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/22/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 9.7

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	330	U
111-44-4	bis(2-Chloroethyl)Ether	330	U
95-57-8	2-Chlorophenol	330	U
541-73-1	1,3-Dichlorobenzene	330	U
106-46-7	1,4-Dichlorobenzene	330	U
95-50-1	1,2-Dichlorobenzene	330	U
95-48-7	2-Methylphenol	330	U
108-60-1	2,2'-oxybis(1-Chloropropane)	330	U
106-44-5	4-Methylphenol	330	U
621-64-7	N-Nitroso-Di-n-Propylamine	330	U
67-72-1	Hexachloroethane	330	U
98-95-3	Nitrobenzene	330	U
78-59-1	Isophorone	330	U
88-75-5	2-Nitrophenol	330	U
105-67-9	2,4-Dimethylphenol	330	U
111-91-1	bis(2-Chloroethoxy)Methane	330	U
120-83-2	2,4-Dichlorophenol	330	U
120-82-1	1,2,4-Trichlorobenzene	330	U
91-20-3	Naphthalene	330	U
106-47-8	4-Chloroaniline	330	U
87-68-3	Hexachlorobutadiene	330	U
59-50-7	4-Chloro-3-Methylphenol	330	U
91-57-6	2-Methylnaphthalene	330	U
77-47-4	Hexachlorocyclopentadiene	330	U
88-06-2	2,4,6-Trichlorophenol	330	U
95-95-4	2,4,5-Trichlorophenol	810	U
91-58-7	2-Chloronaphthalene	330	U
88-74-4	2-Nitroaniline	810	U
131-11-3	Dimethylphthalate	330	U
208-96-8	Acenaphthylene	330	U
99-09-2	3-Nitroaniline	810	U
83-32-9	Acenaphthene	330	U
51-28-5	2,4-Dinitrophenol	810	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07230

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09037 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209037-05B

Sample wt/vol: 30.4 (g/mL) G Lab File ID: 20922S10

Level: (low/med) LOW Date Received: 09/15/92

% Moisture: 2 decanted: (Y/N) N Date Extracted: 09/17/92

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/22/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 9.7

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
100-02-7	4-Nitrophenol	810	U
132-64-9	Dibenzofuran	330	U
121-14-2	2,4-Dinitrotoluene	330	U
606-20-2	2,6-Dinitrotoluene	330	U
84-66-2	Diethylphthalate	330	U
7005-72-3	4-Chlorophenyl-phenylether	330	U
86-73-7	Fluorene	330	U
100-01-6	4-Nitroaniline	810	U
534-52-1	4,6-Dinitro-2-methylphenol	810	U
86-30-6	N-Nitrosodiphenylamine (1)	330	U
101-55-3	4-Bromophenyl-phenylether	330	U
118-74-1	Hexachlorobenzene	330	U
87-86-5	Pentachlorophenol	810	U
85-01-8	Phenanthrene	330	U
120-12-7	Anthracene	330	U
86-74-8	Carbazole	330	U
84-74-2	Di-n-Butylphthalate	330	U
206-44-0	Fluoranthene	330	U
129-00-0	Pyrene	330	U
85-68-7	Butylbenzylphthalate	330	U
91-94-1	3,3'-Dichlorobenzidine	330	U
56-55-3	Benzo(a)Anthracene	330	U
117-81-7	bis(2-Ethylhexyl)Phthalate	330	U
218-01-9	Chrysene	330	U
117-84-0	Di-n-Octyl Phthalate	330	U
205-99-2	Benzo(b)Fluoranthene	330	U
207-08-9	Benzo(k)Fluoranthene	330	U
50-32-8	Benzo(a)Pyrene	330	U
193-39-5	Indeno(1,2,3-cd)Pyrene	330	U
53-70-3	Dibenz(a,h)Anthracene	330	U
191-24-2	Benzo(g,h,i)Perylene	330	U

(1) - Cannot be separated from Diphenylamine

EPA SAMPLE NO.

B07230

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09037 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209037-05B

Sample wt/vol: 30.4 (g/mL) G Lab File ID: 20922S10

Level: (low/med) LOW Date Received: 09/15/92

% Moisture: 2 decanted: (Y/N) N Date Extracted: 09/17/92

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/22/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 9.7

Number TICs found: 6

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN HYDROCARBON	5.22	2600	BJ
2.	UNKNOWN HYDROCARBON	5.63	77000	BJ
3.	UNKNOWN HYDROCARBON	6.57	230	BJ
4.	UNKNOWN HYDROCARBON	6.68	1200	BJ
5.	UNKNOWN HYDROCARBON	7.10	670	BJ
6.	UNKNOWN ALCOHOL	8.33	1400	BJ

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07238

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09037 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209037-06B

Sample wt/vol: 30.5 (g/mL) G Lab File ID: 20922S11

Level: (low/med) LOW Date Received: 09/15/92

% Moisture: 0 decanted: (Y/N) N Date Extracted: 09/17/92

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/22/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 9.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	320	U
111-44-4	bis(2-Chloroethyl)Ether	320	U
95-57-8	2-Chlorophenol	320	U
541-73-1	1,3-Dichlorobenzene	320	U
106-46-7	1,4-Dichlorobenzene	320	U
95-50-1	1,2-Dichlorobenzene	320	U
95-48-7	2-Methylphenol	320	U
108-60-1	2,2'-oxybis(1-Chloropropane)	320	U
106-44-5	4-Methylphenol	320	U
621-64-7	N-Nitroso-Di-n-Propylamine	320	U
67-72-1	Hexachloroethane	320	U
98-95-3	Nitrobenzene	320	U
78-59-1	Isophorone	320	U
88-75-5	2-Nitrophenol	320	U
105-67-9	2,4-Dimethylphenol	320	U
111-91-1	bis(2-Chloroethoxy)Methane	320	U
120-83-2	2,4-Dichlorophenol	320	U
120-82-1	1,2,4-Trichlorobenzene	320	U
91-20-3	Naphthalene	320	U
106-47-8	4-Chloroaniline	320	U
87-68-3	Hexachlorobutadiene	320	U
59-50-7	4-Chloro-3-Methylphenol	320	U
91-57-6	2-Methylnaphthalene	320	U
77-47-4	Hexachlorocyclopentadiene	320	U
88-06-2	2,4,6-Trichlorophenol	320	U
95-95-4	2,4,5-Trichlorophenol	790	U
91-58-7	2-Chloronaphthalene	320	U
88-74-4	2-Nitroaniline	790	U
131-11-3	Dimethylphthalate	320	U
208-96-8	Acenaphthylene	320	U
99-09-2	3-Nitroaniline	790	U
83-32-9	Acenaphthene	320	U
51-28-5	2,4-Dinitrophenol	790	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07238

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09037 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209037-06B

Sample wt/vol: 30.5 (g/mL) G Lab File ID: 20922S11

Level: (low/med) LOW Date Received: 09/15/92

% Moisture: 0 decanted: (Y/N) N Date Extracted: 09/17/92

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/22/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 9.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
100-02-7	4-Nitrophenol	790	U
132-64-9	Dibenzofuran	320	U
121-14-2	2,4-Dinitrotoluene	320	U
606-20-2	2,6-Dinitrotoluene	320	U
84-66-2	Diethylphthalate	320	U
7005-72-3	4-Chlorophenyl-phenylether	320	U
86-73-7	Fluorene	320	U
100-01-6	4-Nitroaniline	790	U
534-52-1	4,6-Dinitro-2-methylphenol	790	U
86-30-6	N-Nitrosodiphenylamine (1)	320	U
101-55-3	4-Bromophenyl-phenylether	320	U
118-74-1	Hexachlorobenzene	320	U
87-86-5	Pentachlorophenol	790	U
85-01-8	Phenanthrene	320	U
120-12-7	Anthracene	320	U
86-74-8	Carbazole	320	U
84-74-2	Di-n-Butylphthalate	320	U
206-44-0	Fluoranthene	320	U
129-00-0	Pyrene	320	U
85-68-7	Butylbenzylphthalate	320	U
91-94-1	3,3'-Dichlorobenzidine	320	U
56-55-3	Benzo(a)Anthracene	320	U
117-81-7	bis(2-Ethylhexyl)Phthalate	320	U
218-01-9	Chrysene	320	U
117-84-0	Di-n-Octyl Phthalate	320	U
205-99-2	Benzo(b)Fluoranthene	320	U
207-08-9	Benzo(k)Fluoranthene	320	U
50-32-8	Benzo(a)Pyrene	320	U
193-39-5	Indeno(1,2,3-cd)Pyrene	320	U
53-70-3	Dibenz(a,h)Anthracene	320	U
191-24-2	Benzo(g,h,i)Perylene	320	U

(1) - Cannot be separated from Diphenylamine

9213517.0640

000329

EPA SAMPLE NO.

B07238

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09037 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209037-06B

Sample wt/vol: 30.5 (g/mL) G Lab File ID: 20922S11

Level: (low/med) LOW Date Received: 09/15/92

% Moisture: 0 decanted: (Y/N) N Date Extracted: 09/17/92

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/22/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 9.0

Number TICs found: 8

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN HYDROCARBON	5.13	1900	BJ
2.	UNKNOWN HYDROCARBON	5.58	68000	BJ
3.	UNKNOWN HYDROCARBON	6.57	200	BJ
4.	UNKNOWN HYDROCARBON	6.67	950	BJ
5.	UNKNOWN HYDROCARBON	7.10	520	BJ
6.	UNKNOWN ALCOHOL	8.33	1500	BJ
7.	PROPANOIC ACID ISOMER	17.02	98	J
8.	UNKNOWN HYDROCARBON	22.68	98	J

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

000349
EPA SAMPLE NO.

B07239

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09037 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209037-07B

Sample wt/vol: 30.6 (g/mL) G Lab File ID: 20922S12

Level: (low/med) LOW Date Received: 09/15/92

% Moisture: 3 decanted: (Y/N) N Date Extracted: 09/17/92

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/22/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 9.2

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	330	U
111-44-4	bis(2-Chloroethyl)Ether	330	U
95-57-8	2-Chlorophenol	330	U
541-73-1	1,3-Dichlorobenzene	330	U
106-46-7	1,4-Dichlorobenzene	330	U
95-50-1	1,2-Dichlorobenzene	330	U
95-48-7	2-Methylphenol	330	U
108-60-1	2,2'-oxybis(1-Chloropropane)	330	U
106-44-5	4-Methylphenol	330	U
621-64-7	N-Nitroso-Di-n-Propylamine	330	U
67-72-1	Hexachloroethane	330	U
98-95-3	Nitrobenzene	330	U
78-59-1	Isophorone	330	U
88-75-5	2-Nitrophenol	330	U
105-67-9	2,4-Dimethylphenol	330	U
111-91-1	bis(2-Chloroethoxy)Methane	330	U
120-83-2	2,4-Dichlorophenol	330	U
120-82-1	1,2,4-Trichlorobenzene	330	U
91-20-3	Naphthalene	330	U
106-47-8	4-Chloroaniline	330	U
87-68-3	Hexachlorobutadiene	330	U
59-50-7	4-Chloro-3-Methylphenol	330	U
91-57-6	2-Methylnaphthalene	330	U
77-47-4	Hexachlorocyclopentadiene	330	U
88-06-2	2,4,6-Trichlorophenol	330	U
95-95-4	2,4,5-Trichlorophenol	810	U
91-58-7	2-Chloronaphthalene	330	U
88-74-4	2-Nitroaniline	810	U
131-11-3	Dimethylphthalate	330	U
208-96-8	Acenaphthylene	330	U
99-09-2	3-Nitroaniline	810	U
83-32-9	Acenaphthene	330	U
51-28-5	2,4-Dinitrophenol	810	U

1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

B07239

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09037 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209037-07B

Sample wt/vol: 30.6 (g/mL) G Lab File ID: 20922S12

Level: (low/med) LOW Date Received: 09/15/92

% Moisture: 3 decanted: (Y/N) N Date Extracted: 09/17/92

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/22/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 9.2

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
100-02-7	4-Nitrophenol	810	U
132-64-9	Dibenzofuran	330	U
121-14-2	2,4-Dinitrotoluene	330	U
606-20-2	2,6-Dinitrotoluene	330	U
84-66-2	Diethylphthalate	330	U
7005-72-3	4-Chlorophenyl-phenylether	330	U
86-73-7	Fluorene	330	U
100-01-6	4-Nitroaniline	810	U
534-52-1	4,6-Dinitro-2-methylphenol	810	U
86-30-6	N-Nitrosodiphenylamine (1)	330	U
101-55-3	4-Bromophenyl-phenylether	330	U
118-74-1	Hexachlorobenzene	330	U
87-86-5	Pentachlorophenol	810	U
85-01-8	Phenanthrene	330	U
120-12-7	Anthracene	330	U
86-74-8	Carbazole	330	U
84-74-2	Di-n-Butylphthalate	330	U
206-44-0	Fluoranthene	330	U
129-00-0	Pyrene	330	U
85-68-7	Butylbenzylphthalate	330	U
91-94-1	3,3'-Dichlorobenzidine	330	U
56-55-3	Benzo(a)Anthracene	330	U
117-81-7	bis(2-Ethylhexyl)Phthalate	330	U
218-01-9	Chrysene	330	U
117-84-0	Di-n-Octyl Phthalate	330	U
205-99-2	Benzo(b)Fluoranthene	330	U
207-08-9	Benzo(k)Fluoranthene	330	U
50-32-8	Benzo(a)Pyrene	330	U
193-39-5	Indeno(1,2,3-cd)Pyrene	330	U
53-70-3	Dibenz(a,h)Anthracene	330	U
191-24-2	Benzo(g,h,i)Perylene	330	U

(1) - Cannot be separated from Diphenylamine

EPA SAMPLE NO.

B07239

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09037 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209037-07B

Sample wt/vol: 30.6 (g/mL) G Lab File ID: 20922S12

Level: (low/med) LOW Date Received: 09/15/92

% Moisture: 3 decanted: (Y/N) N Date Extracted: 09/17/92

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/22/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 9.2

Number TICs found: 8

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN HYDROCARBON	5.18	2200	BJ
2.	UNKNOWN HYDROCARBON	5.62	72000	BJ
3.	UNKNOWN HYDROCARBON	6.13	130	BJ
4.	UNKNOWN HYDROCARBON	6.57	200	BJ
5.	UNKNOWN HYDROCARBON	6.68	1100	BJ
6.	UNKNOWN HYDROCARBON	7.12	610	BJ
7.	UNKNOWN ALCOHOL	8.33	1200	BJ
8.	PROPANOIC ACID ISOMER	17.00	100	J

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07227

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09037 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209037-01B

Sample wt/vol: 30.3 (g/mL) G Lab File ID: _____

% Moisture: 2 decanted: (Y/N) N Date Received: 09/15/92

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 09/18/92

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 10/07/92

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 9.4 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	1.7	U
319-85-7	beta-BHC	1.7	U
319-86-8	delta-BHC	1.7	U
58-89-9	gamma-BHC (Lindane)	1.7	U
76-44-8	Heptachlor	1.7	U
309-00-2	Aldrin	1.7	U
1024-57-3	Heptachlor epoxide	1.7	U
959-98-8	Endosulfan I	1.7	U
60-57-1	Dieldrin	3.3	U
72-55-9	4,4'-DDE	3.3	U
72-20-8	Endrin	3.3	U
33213-65-9	Endosulfan II	3.3	U
72-54-8	4,4'-DDD	3.3	U
1031-07-8	Endosulfan sulfate	3.3	U
50-29-3	4,4'-DDT	3.3	U
72-43-5	Methoxychlor	17	U
53494-70-5	Endrin ketone	3.3	U
7421-36-3	Endrin aldehyde	3.3	U
5103-71-9	alpha-Chlordane	1.7	U
5103-74-2	gamma-Chlordane	1.7	U
8001-35-2	Toxaphene	170	U
12674-11-2	Aroclor-1016	33	U
11104-28-2	Aroclor-1221	68	U
11141-16-5	Aroclor-1232	33	U
53469-21-9	Aroclor-1242	33	U
12672-29-6	Aroclor-1248	33	U
11097-69-1	Aroclor-1254	33	U
11096-82-5	Aroclor-1260	33	U

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1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07228

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09037 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209037-02B

Sample wt/vol: 30.2 (g/mL) G Lab File ID: _____

% Moisture: 3 decanted: (Y/N) N Date Received: 09/15/92

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 09/18/92

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 10/07/92

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 9.4 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	1.7	U
319-85-7	beta-BHC	1.7	U
319-86-8	delta-BHC	1.7	U
58-89-9	gamma-BHC (Lindane)	1.7	U
76-44-8	Heptachlor	1.7	U
309-00-2	Aldrin	1.7	U
1024-57-3	Heptachlor epoxide	1.7	U
959-98-8	Endosulfan I	1.7	U
60-57-1	Dieldrin	3.4	U
72-55-9	4,4'-DDE	3.4	U
72-20-8	Endrin	3.4	U
33213-65-9	Endosulfan II	3.4	U
72-54-8	4,4'-DDD	3.4	U
1031-07-8	Endosulfan sulfate	3.4	U
50-29-3	4,4'-DDT	3.4	U
72-43-5	Methoxychlor	17	U
53494-70-5	Endrin ketone	3.4	U
7421-36-3	Endrin aldehyde	3.4	U
5103-71-9	alpha-Chlordane	1.7	U
5103-74-2	gamma-Chlordane	1.7	U
8001-35-2	Toxaphene	170	U
12674-11-2	Aroclor-1016	34	U
11104-28-2	Aroclor-1221	69	U
11141-16-5	Aroclor-1232	34	U
53469-21-9	Aroclor-1242	34	U
12672-29-6	Aroclor-1248	34	U
11097-69-1	Aroclor-1254	34	U
11096-82-5	Aroclor-1260	34	U

9713517.0646

000487

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07229

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09037 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209037-03D

Sample wt/vol: 30.2 (g/mL) G Lab File ID: _____

% Moisture: 4 decanted: (Y/N) N Date Received: 09/15/92

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 09/18/92

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 10/07/92

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 9.3 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	1.8	U
319-85-7	beta-BHC	1.8	U
319-86-8	delta-BHC	1.8	U
58-89-9	gamma-BHC (Lindane)	1.8	U
76-44-8	Heptachlor	1.8	U
309-00-2	Aldrin	1.8	U
1024-57-3	Heptachlor epoxide	1.8	U
959-98-8	Endosulfan I	1.8	U
60-57-1	Dieldrin	3.4	U
72-55-9	4,4'-DDE	3.4	U
72-20-8	Endrin	3.4	U
33213-65-9	Endosulfan II	3.4	U
72-54-8	4,4'-DDD	3.4	U
1031-07-8	Endosulfan sulfate	3.4	U
50-29-3	4,4'-DDT	3.4	U
72-43-5	Methoxychlor	18	U
53494-70-5	Endrin ketone	3.4	U
7421-36-3	Endrin aldehyde	3.4	U
5103-71-9	alpha-Chlordane	1.8	U
5103-74-2	gamma-Chlordane	1.8	U
8001-35-2	Toxaphene	180	U
12674-11-2	Aroclor-1016	34	U
11104-28-2	Aroclor-1221	69	U
11141-16-5	Aroclor-1232	34	U
53469-21-9	Aroclor-1242	34	U
12672-29-6	Aroclor-1248	34	U
11097-69-1	Aroclor-1254	34	U
11096-82-5	Aroclor-1260	34	U

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07230

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09037 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209037-05B

Sample wt/vol: 30.4 (g/mL) G Lab File ID: _____

% Moisture: 4 decanted: (Y/N) N Date Received: 09/15/92

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 09/18/92

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 10/07/92

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 9.7 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	1.7	U
319-85-7	beta-BHC	1.7	U
319-86-8	delta-BHC	1.7	U
58-89-9	gamma-BHC (Lindane)	1.7	U
76-44-8	Heptachlor	1.7	U
309-00-2	Aldrin	1.7	U
1024-57-3	Heptachlor epoxide	1.7	U
959-98-8	Endosulfan I	1.7	U
60-57-1	Dieldrin	3.4	U
72-55-9	4,4'-DDE	3.4	U
72-20-8	Endrin	3.4	U
33213-65-9	Endosulfan II	3.4	U
72-54-8	4,4'-DDD	3.4	U
1031-07-8	Endosulfan sulfate	3.4	U
50-29-3	4,4'-DDT	3.4	U
72-43-5	Methoxychlor	17	U
53494-70-5	Endrin ketone	3.4	U
7421-36-3	Endrin aldehyde	3.4	U
5103-71-9	alpha-Chlordane	1.7	U
5103-74-2	gamma-Chlordane	1.7	U
8001-35-2	Toxaphene	170	U
12674-11-2	Aroclor-1016	34	U
11104-28-2	Aroclor-1221	69	U
11141-16-5	Aroclor-1232	34	U
53469-21-9	Aroclor-1242	34	U
12672-29-6	Aroclor-1248	34	U
11097-69-1	Aroclor-1254	34	U
11096-82-5	Aroclor-1260	34	U

9213517.0648

000499

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07238

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09037 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209037-06B

Sample wt/vol: 30.3 (g/mL) G Lab File ID: _____

% Moisture: 0 decanted: (Y/N) N Date Received: 09/15/92

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 09/18/92

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 10/07/92

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 9.0 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	1.7	U
319-85-7	beta-BHC	1.7	U
319-86-8	delta-BHC	1.7	U
58-89-9	gamma-BHC (Lindane)	1.7	U
76-44-8	Heptachlor	1.7	U
309-00-2	Aldrin	1.7	U
1024-57-3	Heptachlor epoxide	1.7	U
959-98-8	Endosulfan I	1.7	U
60-57-1	Dieldrin	3.3	U
72-55-9	4,4'-DDE	3.3	U
72-20-8	Endrin	3.3	U
33213-65-9	Endosulfan II	3.3	U
72-54-8	4,4'-DDD	3.3	U
1031-07-8	Endosulfan sulfate	3.3	U
50-29-3	4,4'-DDT	3.3	U
72-43-5	Methoxychlor	17	U
53494-70-5	Endrin ketone	3.3	U
7421-36-3	Endrin aldehyde	3.3	U
5103-71-9	alpha-Chlordane	1.7	U
5103-74-2	gamma-Chlordane	1.7	U
8001-35-2	Toxaphene	170	U
12674-11-2	Aroclor-1016	33	U
11104-28-2	Aroclor-1221	66	U
11141-16-5	Aroclor-1232	33	U
53469-21-9	Aroclor-1242	33	U
12672-29-6	Aroclor-1248	33	U
11097-69-1	Aroclor-1254	33	U
11096-82-5	Aroclor-1260	33	U

9713517.0649

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

000504
EPA SAMPLE NO.

B07239

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09037 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209037-07B

Sample wt/vol: 30.3 (g/mL) G Lab File ID: _____

% Moisture: 3 decanted: (Y/N) N Date Received: 09/15/92

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 09/18/92

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 10/07/92

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 9.2 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	1.7	U
319-85-7	beta-BHC	1.7	U
319-86-8	delta-BHC	1.7	U
58-89-9	gamma-BHC (Lindane)	1.7	U
76-44-8	Heptachlor	1.7	U
309-00-2	Aldrin	1.7	U
1024-57-3	Heptachlor epoxide	1.7	U
959-98-8	Endosulfan I	1.7	U
60-57-1	Dieldrin	3.4	U
72-55-9	4,4'-DDE	3.4	U
72-20-8	Endrin	3.4	U
33213-65-9	Endosulfan II	3.4	U
72-54-8	4,4'-DDD	3.4	U
1031-07-8	Endosulfan sulfate	3.4	U
50-29-3	4,4'-DDT	3.4	U
72-43-5	Methoxychlor	17	U
53494-70-5	Endrin ketone	3.4	U
7421-36-3	Endrin aldehyde	3.4	U
5103-71-9	alpha-Chlordane	1.7	U
5103-74-2	gamma-Chlordane	1.7	U
8001-35-2	Toxaphene	170	U
12674-11-2	Aroclor-1016	34	U
11104-28-2	Aroclor-1221	68	U
11141-16-5	Aroclor-1232	34	U
53469-21-9	Aroclor-1242	34	U
12672-29-6	Aroclor-1248	34	U
11097-69-1	Aroclor-1254	34	U
11096-82-5	Aroclor-1260	34	U

9713517.0650

TMA

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WORK ORDER #S209234

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9713517.0651

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Page 1 Skinner&Sherman REPORT Work Order # S2-09-234

Received: 09/16/92 11/23/92 09:30:00

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

ATTEN Dan Steurmer

CLIENT HANFORD NOR SAMPLES 7
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 N2-09-103
TAKEN BY CLIENT
TRANS FED EX# 5188038693
TYPE SOIL
P.O. # N2-09-103
INVOICE under separate cover

SAMPLE IDENTIFICATION	
01	B07227
02	B07228
03	B07229
04	B07230
05	B07238
06	B07239
06	B07239 DUPL
06	B07239 SPIKE
07	LCSS

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 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.

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 # S2-09-234

Received: 09/16/92 Results by Sample

SAMPLE ID B07227 SAMPLE # 01 FRACTIONS: A
Date & Time Collected 09/14/92 Category SOIL

NO3NO2 <2.50
mg N/Kg

SAMPLE ID B07228 SAMPLE # 02 FRACTIONS: A
Date & Time Collected 09/14/92 Category SOIL

NO3NO2 <2.41
mg N/Kg

SAMPLE ID B07229 SAMPLE # 03 FRACTIONS: A
Date & Time Collected 09/14/92 Category SOIL

NO3NO2 <2.54
mg N/Kg

SAMPLE ID B07230 SAMPLE # 04 FRACTIONS: A
Date & Time Collected 09/14/92 Category SOIL

NO3NO2 <2.48
mg N/Kg

SAMPLE ID B07238 SAMPLE # 05 FRACTIONS: A
Date & Time Collected 09/14/92 Category SOIL

NO3NO2 <2.43
mg N/Kg

SAMPLE ID B07239 SAMPLE # 06 FRACTIONS: A
Date & Time Collected 09/14/92 Category SOIL

NO3NO2 <2.43
mg N/Kg

SAMPLE ID B07239 DUPL SAMPLE # 06 FRACTIONS: B
Date & Time Collected 09/14/92 Category SOIL

NO3NO2 <2.50
mg N/Kg

TMA
Thermo Analytical Inc.

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1-800-4 LAB TEST FAX (617) 890-3883

Page 3 Skinner&Sherman REPORT Work Order # S2-09-234

Received: 09/16/92

Results by Sample

SAMPLE ID B07239 SPIKE SAMPLE # 06 FRACTIONS: C

Date & Time Collected 09/14/92 Category SOIL

NO3NO2 16.8

mg N/Kg

SAMPLE ID LCSS SAMPLE # 07 FRACTIONS: A

Date & Time Collected not specified Category SOIL

NO3NO2 1.87

mg N/L

TMA

Thermo Analytical Inc.

Skinner & Sherman Laboratories Inc.

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TMA/NORCAL

QUALITY CONTROL

NITRATE/NITRITE

MATRIX SPIKE

Sample ID	Sample Result	Spike Added	Spike Result	% Recovery
S209234-06	<2.43 mg/kg	19.7 mg/kg	16.8 mg/kg	85.4%

DUPLICATE

Sample ID	Sample Result	Duplicate Result	Relative % Difference
S209234-06	<2.43 mg/kg	<2.50 mg/kg	not calculable

QUALITY CONTROL SAMPLES

Sample ID	True Value	Found Value	% Recovery
LCS	2.00 mg/L	1.87 mg/L	93.5%
Blank	--	<0.25 mg/L	--

TMA
Thermo Analytical Inc.

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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

9213517.0055

RECORD COPY

DEC 1992
RECEIVED
OSM DMO

December 14, 1992

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

Quality Control Narrative

Scope

Six (6) soil samples were submitted to TMA/Skinner & Sherman Laboratories, Inc. on September 16, 1992 from TMA/Norcal. The samples were analyzed for the USEPA CLP Target Analyte List metals and cyanide. The analysis were performed under TMA/Skinner and Sherman work order S209233.

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 antimony, arsenic and selenium digestion spike recoveries exceeded the control limit requirements.

The calcium laboratory duplicate exceeded the control limit requirements.

The barium ICP serial dilution exceeded the control limit requirements.

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

Respectfully submitted,

TMA/SKINNER & SHERMAN LABORATORIES, INC.

Steven R Provencal (For)

David N. Peterson
Assistant Laboratory Manager

9213517.0056

WESTINGHOUSE/HANFORD

COVER PAGE - INORGANIC ANALYSES DATA PACKAGE

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

Lab Code: SKINER Case No.: N2-09-103 SAS No.: SDG No.: B07227

SOW No.: ILM02.1

SAMPLE NUMBER:	Lab Sample ID.
B07227	09233-01S
B07228	09233-02S
B07229	09233-03S
B07230	09233-04S
B07238	09233-05S
B07239	09233-06S
B07239D	09233-06S2
B07239S	09233-06DS

Were ICP interelement corrections applied? Yes/No YES
Were ICP background corrections applied? Yes/No YES
If yes-were raw data generated before application of background corrections? Yes/No NO

Comments:

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

Signature: Steven R Provencal Name: Steven R. Provencal

Date: 12/14/92 Title: Lead Chemist

WESTINGHOUSE/HANFORD
1

SAMPLE NUMBER:

INORGANIC ANALYSIS DATA SHEET

B07227

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

Lab Code: SKINER Case No.: N2-09-103SAS No.: SDG No.: B07227

Matrix (soil/water): SOIL Lab Sample ID: 09233-01S

Level (low/med): LOW Date Received: 09/16/92

% Solids: 94.1

Concentration Units (ug/L or mg/Kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	5440			P
7440-36-0	Antimony	3.5	U	N	P
7440-38-2	Arsenic	0.93	B	+N	F
7440-39-3	Barium	70.7		E	P
7440-41-7	Beryllium	0.50	B		P
7440-43-9	Cadmium	0.20	U		P
7440-70-2	Calcium	6390		*	P
7440-47-3	Chromium	7.4			P
7440-48-4	Cobalt	10.6			P
7440-50-8	Copper	19.8			P
7439-89-6	Iron	19600			P
7439-92-1	Lead	14.8		S	F
7439-95-4	Magnesium	4330			P
7439-96-5	Manganese	356			P
7439-97-6	Mercury	0.05	U		CV
7440-02-0	Nickel	10.0			P
7440-09-7	Potassium	1090			P
7782-49-2	Selenium	0.75	U	N	F
7440-22-4	Silver	1.4	B		P
7440-23-5	Sodium	197	B		P
7440-28-0	Thallium	0.34	U		F
7440-62-2	Vanadium	41.4			P
7440-66-6	Zinc	46.7			P
	Cyanide	0.53	U		CA

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: BROWN Clarity After: Artifacts: YES

Comments:
STONES, ROOTS

02

WESTINGHOUSE/HANFORD
1

SAMPLE NUMBER:

INORGANIC ANALYSIS DATA SHEET

B07228

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

Lab Code: SKINER Case No.: N2-09-103SAS No.: SDG No.: B07227

Matrix (soil/water): SOIL Lab Sample ID: 09233-02S

Level (low/med): LOW Date Received: 09/16/92

% Solids: 93.7

Concentration Units (ug/L or mg/Kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	7060			P
7440-36-0	Antimony	3.5	U	N	P
7440-38-2	Arsenic	1.9	B	SN	F
7440-39-3	Barium	62.7		E	P
7440-41-7	Beryllium	0.47	B		P
7440-43-9	Cadmium	0.21	U		P
7440-70-2	Calcium	8280		*	P
7440-47-3	Chromium	13.1			P
7440-48-4	Cobalt	7.3	B		P
7440-50-8	Copper	15.3			P
7439-89-6	Iron	14300			P
7439-92-1	Lead	5.4		S	F
7439-95-4	Magnesium	5210			P
7439-96-5	Manganese	259			P
7439-97-6	Mercury	0.04	U		CV
7440-02-0	Nickel	14.3			P
7440-09-7	Potassium	1420			P
7782-49-2	Selenium	0.77	U	WN	F
7440-22-4	Silver	0.94	B		P
7440-23-5	Sodium	172	B		P
7440-28-0	Thallium	0.34	U	W	F
7440-62-2	Vanadium	29.5			P
7440-66-6	Zinc	36.9			P
	Cyanide	0.53	U		CA

Color Before: BROWN Clarity Before: Texture: FINE

Color After: BROWN Clarity After: Artifacts: YES

Comments:
STONES

03

9214517.0659

WESTINGHOUSE/HANFORD

1

INORGANIC ANALYSIS DATA SHEET

SAMPLE NUMBER:

B07229

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

Lab Code: SKINER Case No.: N2-09-103SAS No.: SDG No.: B07227

Matrix (soil/water): SOIL Lab Sample ID: 09233-03S

Level (low/med): LOW Date Received: 09/16/92

% Solids: 95.0

Concentration Units (ug/L or mg/Kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	7550			P
7440-36-0	Antimony	3.2	U	N	P
7440-38-2	Arsenic	1.9	B	WN	F
7440-39-3	Barium	62.9		E	P
7440-41-7	Beryllium	0.71	B		P
7440-43-9	Cadmium	0.19	U		P
7440-70-2	Calcium	12200		*	P
7440-47-3	Chromium	14.3			P
7440-48-4	Cobalt	8.0	B		P
7440-50-8	Copper	19.9			P
7439-89-6	Iron	15800			P
7439-92-1	Lead	5.2			F
7439-95-4	Magnesium	5290			P
7439-96-5	Manganese	283			P
7439-97-6	Mercury	0.05	U		CV
7440-02-0	Nickel	14.8			P
7440-09-7	Potassium	1320			P
7782-49-2	Selenium	0.79	U	N	F
7440-22-4	Silver	1.0	B		P
7440-23-5	Sodium	173	B		P
7440-28-0	Thallium	0.35	U	W	F
7440-62-2	Vanadium	30.4			P
7440-66-6	Zinc	38.0			P
	Cyanide	0.51	U		CA

Color Before: BROWN Clarity Before: Texture: FINE

Color After: BROWN Clarity After: Artifacts: YES

Comments:
STONES

04

0215917.0660

WESTINGHOUSE/HANFORD
1

SAMPLE NUMBER:

INORGANIC ANALYSIS DATA SHEET

B07230

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

Lab Code: SKINER Case No.: N2-09-103SAS No.: SDG No.: B07227

Matrix (soil/water): SOIL Lab Sample ID: 09233-04S

Level (low/med): LOW Date Received: 09/16/92

% Solids: 95.6

Concentration Units (ug/L or mg/Kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	5650			P
7440-36-0	Antimony	3.1	U	N	P
7440-38-2	Arsenic	0.99	B	N	F
7440-39-3	Barium	58.3		E	P
7440-41-7	Beryllium	0.23	B		P
7440-43-9	Cadmium	0.19	U		P
7440-70-2	Calcium	3480		*	P
7440-47-3	Chromium	10.5			P
7440-48-4	Cobalt	5.8	B		P
7440-50-8	Copper	16.6			P
7439-89-6	Iron	10500			P
7439-92-1	Lead	7.6		+	F
7439-95-4	Magnesium	3670			P
7439-96-5	Manganese	217			P
7439-97-6	Mercury	0.05	U		CV
7440-02-0	Nickel	12.0			P
7440-09-7	Potassium	1160			P
7782-49-2	Selenium	0.76	U	WN	F
7440-22-4	Silver	0.46	U		P
7440-23-5	Sodium	111	B		P
7440-28-0	Thallium	0.34	U		F
7440-62-2	Vanadium	19.5			P
7440-66-6	Zinc	26.9			P
	Cyanide	0.49	U		CA

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: BROWN Clarity After: Artifacts: YES

Comments:
STONES

05

WESTINGHOUSE/HANFORD
1

INORGANIC ANALYSIS DATA SHEET

SAMPLE NUMBER:

B07238

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

Lab Code: SKINER Case No.: N2-09-103SAS No.: SDG No.: B07227

Matrix (soil/water): SOIL Lab Sample ID: 09233-05S

Level (low/med): LOW Date Received: 09/16/92

% Solids: 99.8

Concentration Units (ug/L or mg/Kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	45.3			P
7440-36-0	Antimony	3.3	U	N	P
7440-38-2	Arsenic	0.54	U	WN	F
7440-39-3	Barium	0.57	U	E	P
7440-41-7	Beryllium	0.09	B		P
7440-43-9	Cadmium	0.20	U		P
7440-70-2	Calcium	20.5	B	*	P
7440-47-3	Chromium	1.2	B		P
7440-48-4	Cobalt	0.53	U		P
7440-50-8	Copper	1.0	B		P
7439-89-6	Iron	159			P
7439-92-1	Lead	0.38	B		F
7439-95-4	Magnesium	8.2	B		P
7439-96-5	Manganese	0.92	U		P
7439-97-6	Mercury	0.05	U		CV
7440-02-0	Nickel	1.1	U		P
7440-09-7	Potassium	47.5	U		P
7782-49-2	Selenium	0.71	U	WN	F
7440-22-4	Silver	0.49	U		P
7440-23-5	Sodium	10.8	B		P
7440-28-0	Thallium	0.32	U		F
7440-62-2	Vanadium	0.55	U		P
7440-66-6	Zinc	0.43	U		P
	Cyanide	0.47	U		CA

Color Before: WHITE Clarity Before: Texture: FINE

Color After: WHITE Clarity After: Artifacts:

Comments:

06

9213517.0662

WESTINGHOUSE/HANFORD
1

SAMPLE NUMBER:

INORGANIC ANALYSIS DATA SHEET

B07239

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

Lab Code: SKINER Case No.: N2-09-103SAS No.: SDG No.: B07227

Matrix (soil/water): SOIL Lab Sample ID: 09233-06S

Level (low/med): LOW Date Received: 09/16/92

% Solids: 92.6

Concentration Units (ug/L or mg/Kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	7560			P
7440-36-0	Antimony	3.4	U	N	P
7440-38-2	Arsenic	3.5		SN	F
7440-39-3	Barium	59.9		E	P
7440-41-7	Beryllium	0.48	B		P
7440-43-9	Cadmium	0.20	U		P
7440-70-2	Calcium	10300		*	P
7440-47-3	Chromium	13.8			P
7440-48-4	Cobalt	8.1	B		P
7440-50-8	Copper	21.8			P
7439-89-6	Iron	16700			P
7439-92-1	Lead	4.9			F
7439-95-4	Magnesium	5970			P
7439-96-5	Manganese	274			P
7439-97-6	Mercury	0.05	U		CV
7440-02-0	Nickel	15.9			P
7440-09-7	Potassium	1500			P
7782-49-2	Selenium	1.0	B	EN	F
7440-22-4	Silver	1.1	B		P
7440-23-5	Sodium	197	B		P
7440-28-0	Thallium	0.35	U		F
7440-62-2	Vanadium	35.1			P
7440-66-6	Zinc	38.0			P
	Cyanide	0.50	U		CA

Color Before: BROWN Clarity Before: Texture: FINE

Color After: BROWN Clarity After: Artifacts: YES

Comments:
STONES

07

9213517.0663

TMA
Thermo Analytical Inc.

TMA/Norcal
2030 Wright Avenue
P. O. Box 4040
Richmond, CA 94804-0040
(510) 235-2633 Fax No. (510) 235-0438

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January 11, 1993

SENT BY FEDERAL EXPRESS

Ref. TMA/Norcal N2-09-106-7091

Mr. John Bourgeault
Westinghouse Hanford Company
2355 Stevens Drive
Richland, WA 99352

Dear Mr. Bourgeault:

Enclosed on the Summary Data Section, are the gross alpha, gross beta, ^{14}C, ^{90}Sr, isotopic uranium, isotopic plutonium, ^{241}Am, and gamma scan results for the soil samples from SAF #92-289, 100-KR-1 Vadose Test Pits, we received 15 September 1992. The QA/QC results are also given in the Summary Data Section. The Summary Data Section is numbered pages 1 to 47, and the appendices are numbered pages 48 to 354.

Please call if you have any questions concerning this data.

Sincerely,

D. P. Kharkar

Dinkar P. Kharkar, Ph.D.
Manager, Nuclear Programs

DPK/ss

Enclosures: Section 1 through 2
Appendices

SDG 7091 Contact Dinkar P. Kharkar	Client Westinghouse Hanford Contract MBH-SVV-069262

CASE NARRATIVE

1.0 GENERAL

Soil sample results from SAF #92-289, 100-KR-1 Vadose Test Pits, (TMA/Norcal Group 7091) are reported herein. TMA/Norcal Group 7091 is comprised of the six samples listed on the Chain-of-Custody documents and is identified as Samples 1 through 6.

1.1 CHAINS-OF-CUSTODY

This report includes data from samples delivered under Chain-of-Custody documents Field Logbook No. WHC-N-205-15.

1.2 SAMPLE VOLUME

1000 mL bottles of samples were received for the analyses.

1.3 MISSING SAMPLES

All samples were accounted for in an undamaged condition.

1.4 HOLDING TIMES

Samples were collected on 9/14/92 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 7091-7, 8, and 9.

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 nuclides were good. The ^{90}Sr MDA was higher than RDL due to low chemical yield. The ^{59}Fe MDA was higher than RDL due to slightly higher background. The MDA's for all other nuclides were good and met the RDL requirements.

001B
2/9/93

SDG 7091	Client Westinghouse Hanford
Contact Dinkar P. Kharkar	Contract MBH-SVV-069262

CASE NARRATIVE

2.2 BLANKS

MDA's for all the analyses meet the RDL requirements. The ^{90}Sr error was underlined because the counting error was bigger than both the MDA and the result implying that the MDA may not be a good estimate of the "real" minimum detectable activity.

2.3 REPLICATES

Results were satisfactory for all replicate analyses. The ^{14}C result of sample number 7091-1 was underlined because the negative result plus the associated error were still less than zero. The ^{90}Sr MDA was underlined because it exceeded RDL due to low chemical yield. The relative percent difference (RPD) for gamma nuclides were underlined because they did not pass the 3 σ total limits due to small aliquots available for the replicate analysis. The MDA of ^{59}Fe for sample number 7091-1 and its replicate sample were higher than RDL 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 7 ± 2 pCi/g. Positive gross alpha concentration above RDL was found only in sample number 7091-2.

3.2 Gross Beta Analyses: The average MDA for gross beta was 6 ± 1 pCi/g. Positive gross beta concentration was found in all the samples except in sample number 7091-5.

3.3 Carbon-14 Analyses: The average MDA was 8 ± 1 pCi/g. All sample results were less than MDA. No positive ^{14}C was found in any of the samples.

3.4 Strontium-90 Analyses: The average yield for nine analyses was (44 ± 24%). The lowest yield was 30% and the highest was 59%. The average MDA was 1 ± 1 pCi/g. Positive ^{90}Sr concentration was not found in any of the samples. The MDA's for sample numbers 7091-1, 4, and 6 were higher than RDL due to low chemical yield.

3.5 Uranium-233, 234, 234, and 238 Analyses: The average yield for nine analyses was (73 ± 25%). The lowest yield was 53% and the highest was 91%. The average MDA was 0.07 ± 0.04 pCi/g. Concentrations of ^{234}U and ^{238}U above the RDL were found in all of the samples.

001C
2/9/93

SDG 7091	Client Westinghouse Hanford
Contact Dinkar P. Kharkar	Contract MBH-SVV-069262

CASE NARRATIVE

3.6 Plutonium-238, 239/240 Analyses: The average yield for nine analyses was (71 ± 30%). The lowest yield was 34% and the highest was 82%. The average MDA was 0.03 ± 0.03 pCi/g. Positive plutonium concentration above the RDL were not found in any of the samples. All sample results were below MDA.

3.7 Americium-241 Analyses: The average yield for nine analyses was (56 ± 30%). The lowest yield was 25% and the highest was 71%. The average MDA was 0.04 ± 0.04 pCi/g. Positive americium concentration above the RDL was not found in any of the samples. All sample results were below the RDL. The MDA of sample number 7091-5 was higher than RDL due to lower chemical yield.

3.8 Gamma Scan Analyses: Gamma scan analysis did not find positive concentrations of gamma nuclides, except ^{137}Cs in sample numbers 7091-1 and 2. The underlined MDA's of the samples were for ^{59}Fe, higher than RDL due to short half-life of ^{59}Fe. The aliquots of sample number 7091-1 and its replicate 7091-9 were smaller than the nominal value.

001D
2/9/93

9713517.0667

N209106-09

TMA NORCAL

REPORTING GROUP 7091

REPLICATE

B07227

SDG	7091		Client Westinghouse Hanford
Contact	Dinkar Kharkar		Contract MBH-SVV-069262
REPLICATE		ORIGINAL	
Lab sample id	N209106-09	Lab sample id	N209106-01
Dept sample id	7091-009	Dept sample id	7091-001
		Received	09/15/92
% moisture		% moisture	
			Client sample id B07227
			Matrix SOIL
			Collected 09/14/92
			Chain of custody id 002903

PARAMETER	REPLICATE pCi/G	2σ ERR (COUNT)	MDA pCi/G	RDL pCi/G	QUALI-FIERS	TEST	ORIGINAL pCi/G	2σ ERR (COUNT)	MDA pCi/G	QUALI-FIERS	RPD %	3σ TOT	PROT LIMIT
Gross Alpha	4.5	6.0	8	10	U	80A	4.1	6.1	9	U	-		
Gross Beta	13	4.3	6	10		80B	14	4.8	7		7	79	
Uranium 233/234	0.60	0.094	0.04	0.3		U	0.51	0.16	0.1		16	51	
Uranium 235	0.034	0.023	0.03	0.3	J	U	0.078	0.053	0.1	U	79	155	
Uranium 238	0.52	0.087	0.02	0.3		U	0.42	0.14	0.08		21	54	
Plutonium 238	0	0.010	0.02	0.05	U	PU	0.014	0.017	0.02	U	-		
Plutonium 239/240	0.009	0.005	0.006	0.05	J	PU	0	0.008	0.02	U	200	316	
Americium 241	0.022	0.028	0.04	0.05	U	AM	0.004	0.017	0.03	U	-		
Strontium 90	0.10	0.39	1	1	U	Y	0.099	0.60	2	U	-		
Carbon 14	-3.0	4.8	8	50	U	C	-6.5	5.0	8	U	-		
GAMMA SCAN ANALYTES													
Potassium 40	7.4	0.76				GAM	12	0.83			47	38	
Iron 59	U		0.4	0.05	U	GAM	U		0.3	U	-		
Chromium 51	U		3		U	GAM	U		2	U	-		
Cobalt 60	U		0.05	0.05	U	GAM	U		0.04	U	-		
Zinc 65	U		0.1		U	GAM	U		0.1	U	-		
Ruthenium 106	U		0.4		U	GAM	U		0.3	U	-		
Cesium 134	U		0.06		U	GAM	U		0.05	U	-		
Cesium 137	U		0.05	0.05	U	GAM	0.19	0.050			117	96	
Europium 152	U		0.09	0.1	U	GAM	U		0.08	U	-		
Europium 154	U		0.06	0.1	U	GAM	U		0.05	U	-		
Radium 226	0.32	0.094				GAM	0.51	0.081			46	56	
Thorium 228	0.54	0.086				GAM	0.97	0.091			57	41	
Thorium 232	0.54	0.18				GAM	0.71	0.20			27	72	

Lab id TMAN
Protocol WHC-HEIS
Version Ver 1.0
Form DVD-REP
Version 2.20
Report date 01/07/93

9713517.0668

TMA NORCAL

REPORTING GROUP 7091

DATA SHEET

N209106-01

B07227

SDG 7091
Contact Dinkar Kharkar

Client Westinghouse Hanford
Contract MBH-SVV-069262

Lab sample id N209106-01
Dept sample id 7091-001
Received 09/15/92
% moisture

Client sample id B07227
Matrix SOIL
Collected 09/14/92
Chain of custody id 002903

PARAMETER	CAS NO	RESULT pCi/G	2σ ERR (COUNT)	MDA pCi/G	RDL pCi/G	QUALI-FIERS	TEST
Gross Alpha	Alpha	4.1	6.1	9	10	U	80A
Gross Beta	Beta	14	4.8	7	10		80B
Uranium 233/234		0.51	0.16	0.1	0.3		U
Uranium 235	15117-96-1	0.078	0.053	0.1	0.3	U	U
Uranium 238	7440-61-1	0.42	0.14	0.08	0.3		U
Plutonium 238	13981-16-3	0.014	0.017	0.02	0.05	U	PU
Plutonium 239/240		0	0.008	0.02	0.05	U	PU
Americium 241	14596-10-2	0.004	0.017	0.03	0.05	U	AM
Strontium 90	10098-97-2	0.099	0.60	2	1	U	Y
Carbon 14	14762-75-5	-6.5	5.0	8	50	U	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2	12	0.83				GAM
Iron 59		U		0.3	0.05	U	GAM
Chromium 51	14392-02-0	U		2		U	GAM
Cobalt 60	10198-40-0	U		0.04	0.05	U	GAM
Zinc 65	17982-39-3	U		0.1		U	GAM
Ruthenium 106	13967-48-1	U		0.3		U	GAM
Cesium 134	17967-70-9	U		0.05		U	GAM
Cesium 137	10045-97-3	0.19	0.050		0.05		GAM
Europium 152	14683-23-9	U		0.08	0.1	U	GAM
Europium 154	15585-10-1	U		0.05	0.1	U	GAM
Radium 226	13982-67-7	0.51	0.081				GAM
Thorium 228	14274-82-9	0.97	0.091				GAM
Thorium 232	7440-29-1	0.71	0.20				GAM

Lab id TMAN
Protocol WHC-HEIS
Version Ver 1.0
Form DVD-DS
Version 2.20
Report date 01/07/93

9713517.0669

N209106-02

TMA NORCAL
REPORTING GROUP 7091

DATA SHEET

B07228

SDG 7091
Contact Dinkar Kharkar
Client Westinghouse Hanford
Contract MBH-SVV-069262

Lab sample id N209106-02
Dept sample id 7091-002
Received 09/15/92
% moisture
Client sample id B07228
Matrix SOIL
Collected 09/14/92
Chain of custody id 002903

PARAMETER	CAS NO	RESULT pCi/G	2σ ERR (COUNT)	MDA pCi/G	RDL pCi/G	QUALI-FIERS	TEST
Gross Alpha	Alpha	13	6.4	7	10		80A
Gross Beta	Beta	17	4.4	6	10		80B
Uranium 233/234		0.65	0.14	0.07	0.3		U
Uranium 235	15117-96-1	-0.006	0.026	0.07	0.3	U	U
Uranium 238	7440-61-1	0.61	0.12	0.05	0.3		U
Plutonium 238	13981-16-3	0.002	0.009	0.02	0.05	U	PU
Plutonium 239/240		0.007	0.009	0.02	0.05	U	PU
Americium 241	14596-10-2	0.002	0.018	0.03	0.05	U	AM
Strontium 90	10098-97-2	0.59	0.37	0.9	1	U	Y
Carbon 14	14762-75-5	-3.0	5.1	8	50	U	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2	14	0.93				GAM
Iron 59		U		0.3	0.05	U	GAM
Chromium 51	14392-02-0	U		3		U	GAM
Cobalt 60	10198-40-0	U		0.06	0.05	U	GAM
Zinc 65	17982-39-3	U		0.2		U	GAM
Ruthenium 106	13967-48-1	U		0.5		U	GAM
Cesium 134	17967-70-9	U		0.07		U	GAM
Cesium 137	10045-97-3	0.22	0.058		0.05		GAM
Europium 152	14683-23-9	0.42	0.099		0.1		GAM
Europium 154	15585-10-1	U		0.2	0.1	U	GAM
Radium 226	13982-67-7	0.68	0.093				GAM
Thorium 228	14274-82-9	1.3	0.084				GAM
Thorium 232	7440-29-1	0.96	0.21				GAM

Lab id TMAN
Protocol WHC-HEIS
Version Ver 1.0
Form DVD-DS
Version 2.20
Report date 01/07/93

9713517.0670

N209106-03

TMA NORCAL
REPORTING GROUP 7091

DATA SHEET

B07229

SDG	7091	Client	Westinghouse Hanford
Contact	Dinkar Kharkar	Contract	MBH-SVV-069262
Lab sample id	N209106-03	Client sample id	B07229
Dept sample id	7091-003	Matrix	SOIL
Received	09/15/92	Collected	09/14/92
% moisture		Chain of custody id	002903

PARAMETER	CAS NO	RESULT pCi/G	2σ ERR (COUNT)	MDA pCi/G	RDL pCi/G	QUALI-FIERS	TEST
Gross Alpha	Alpha	8.7	6.2	8	10	J	80A
Gross Beta	Beta	15	4.5	6	10		80B
Uranium 233/234		0.59	0.10	0.06	0.3		U
Uranium 235	15117-96-1	0.037	0.028	0.04	0.3	U	U
Uranium 238	7440-61-1	0.50	0.096	0.04	0.3		U
Plutonium 238	13981-16-3	-0.004	0.012	0.03	0.05	U	PU
Plutonium 239/240		0	0.004	0.02	0.05	U	PU
Americium 241	14596-10-2	0	0.013	0.03	0.05	U	AM
Strontium 90	10098-97-2	0.14	0.31	0.9	1	U	Y
Carbon 14	14762-75-5	-0.31	5.3	9	50	U	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2	12	0.84				GAM
Iron 59		U		0.3	0.05	U	GAM
Chromium 51	14392-02-0	U		2		U	GAM
Cobalt 60	10198-40-0	U		0.04	0.05	U	GAM
Zinc 65	17982-39-3	U		0.1		U	GAM
Ruthenium 106	13967-48-1	U		0.4		U	GAM
Cesium 134	17967-70-9	U		0.05		U	GAM
Cesium 137	10045-97-3	U		0.04	0.05	U	GAM
Europium 152	14683-23-9	U		0.09	0.1	U	GAM
Europium 154	15585-10-1	U		0.06	0.1	U	GAM
Radium 226	13982-67-7	0.54	0.076				GAM
Thorium 228	14274-82-9	0.97	0.073				GAM
Thorium 232	7440-29-1	0.95	0.18				GAM

Lab id	TMAN
Protocol	WHC-HEIS
Version	Ver 1.0
Form	DVD-DS
Version	2.20
Report date	01/07/93

9713517.0671

TMA NORCAL

REPORTING GROUP 7091

N209106-04

DATA SHEET

B07230

SDG 7091
Contact Dinkar Kharkar

Client Westinghouse Hanford
Contract MBH-SVV-069262

Lab sample id N209106-04
Dept sample id 7091-004
Received 09/15/92
% moisture

Client sample id B07230
Matrix SOIL
Collected 09/14/92
Chain of custody id 002902

PARAMETER	CAS NO	RESULT pCi/G	2σ ERR (COUNT)	MDA pCi/G	RDL pCi/G	QUALI-FIERS	TEST
Gross Alpha	Alpha	7.5	5.3	6	10	J	80A
Gross Beta	Beta	19	4.8	6	10		80B
Uranium 233/234		0.63	0.22	0.1	0.3		U
Uranium 235	15117-96-1	0.073	0.073	0.1	0.3	U	U
Uranium 238	7440-61-1	0.62	0.19	0.1	0.3		U
Plutonium 238	13981-16-3	0.002	0.009	0.02	0.05	U	PU
Plutonium 239/240		0.006	0.009	0.02	0.05	U	PU
Americium 241	14596-10-2	-0.003	0.010	0.02	0.05	U	AM
Strontium 90	10098-97-2	-0.14	1.4	2	1	U	Y
Carbon 14	14762-75-5	-2.6	4.8	8	50	U	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2	12	0.93				GAM
Iron 59		U		0.3	0.05	U	GAM
Chromium 51	14392-02-0	U		2		U	GAM
Cobalt 60	10198-40-0	U		0.05	0.05	U	GAM
Zinc 65	17982-39-3	U		0.1		U	GAM
Ruthenium 106	13967-48-1	U		0.4		U	GAM
Cesium 134	17967-70-9	U		0.06		U	GAM
Cesium 137	10045-97-3	U		0.05	0.05	U	GAM
Europium 152	14683-23-9	U		0.09	0.1	U	GAM
Europium 154	15585-10-1	U		0.06	0.1	U	GAM
Radium 226	13982-67-7	0.53	0.089				GAM
Thorium 228	14274-82-9	1.0	0.061				GAM
Thorium 232	7440-29-1	0.92	0.22				GAM

Lab id TMAN
Protocol WHC-HEIS
Version Ver 1.0
Form DVD-DS
Version 2.20
Report date 01/07/93

9713517.0672

TMA NORCAL

REPORTING GROUP 7091

DATA SHEET

N209106-05

B07238

SDG 7091
Contact Dinkar Kharkar
Client Westinghouse Hanford
Contract MBH-SVV-069262

Lab sample id N209106-05
Dept sample id 7091-005
Received 09/15/92
% moisture
Client sample id B07238
Matrix SOIL
Collected 09/14/92
Chain of custody id 002902

PARAMETER	CAS NO	RESULT pCi/G	2σ ERR (COUNT)	MDA pCi/G	RDL pCi/G	QUALI-FIERS	TEST
Gross Alpha	Alpha	2.6	4.8	7	10	U	80A
Gross Beta	Beta	0.37	3.2	5	10	U	80B
Uranium 233/234		1.1	0.16	0.05	0.3		U
Uranium 235	15117-96-1	0.069	0.046	0.04	0.3	J	U
Uranium 238	7440-61-1	1.2	0.17	0.05	0.3		U
Plutonium 238	13981-16-3	0.010	0.024	0.05	0.05	U	PU
Plutonium 239/240		0.007	0.020	0.04	0.05	U	PU
Americium 241	14596-10-2	0.007	0.041	0.09	0.05	U	AM
Strontium 90	10098-97-2	0.25	0.33	0.8	1	U	Y
Carbon 14	14762-75-5	-2.2	4.1	7	50	U	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2	0.62	0.21				GAM
Iron 59		U		0.1	0.05	U	GAM
Chromium 51	14392-02-0	U		0.9		U	GAM
Cobalt 60	10198-40-0	U		0.02	0.05	U	GAM
Zinc 65	17982-39-3	U		0.04		U	GAM
Ruthenium 106	13967-48-1	U		0.2		U	GAM
Cesium 134	17967-70-9	U		0.02		U	GAM
Cesium 137	10045-97-3	U		0.02	0.05	U	GAM
Europium 152	14683-23-9	U		0.04	0.1	U	GAM
Europium 154	15585-10-1	U		0.03	0.1	U	GAM
Radium 226	13982-67-7	0.084	0.026				GAM
Thorium 228	14274-82-9	0.12	0.021				GAM
Thorium 232	7440-29-1	0.090	0.075				GAM

Lab id TMAN
Protocol WHC-HEIS
Version Ver 1.0
Form DVD-DS
Version 2.20
Report date 01/07/93

9713517.0673

TMA NORCAL

REPORTING GROUP 7091

N209106-06

DATA SHEET

B07239

SDG	7091	Client	Westinghouse Hanford
Contact	Dinkar Kharkar	Contract	MBH-SVV-069262
Lab sample id	N209106-06	Client sample id	B07239
Dept sample id	7091-006	Matrix	SOIL
Received	09/15/92	Collected	09/14/92
% moisture		Chain of custody id	002902

PARAMETER	CAS NO	RESULT pCi/G	2σ ERR (COUNT)	MDA pCi/G	RDL pCi/G	QUALI-FIERS	TEST
Gross Alpha	Alpha	7.2	5.8	7	10	J	80A
Gross Beta	Beta	19	4.4	5	10		80B
Uranium 233/234		0.60	0.11	0.07	0.3		U
Uranium 235	15117-96-1	0.044	0.040	0.05	0.3	U	U
Uranium 238	7440-61-1	0.59	0.10	0.05	0.3		U
Plutonium 238	13981-16-3	-0.004	0.017	0.03	0.05	U	PU
Plutonium 239/240		0	0.004	0.02	0.05	U	PU
Americium 241	14596-10-2	0.008	0.016	0.03	0.05	U	AM
Strontium 90	10098-97-2	-0.002	1.6	2	1	U	Y
Carbon 14	14762-75-5	-2.4	5.2	8	50	U	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2	13	0.92				GAM
Iron 59		U		0.3	0.05	U	GAM
Chromium 51	14392-02-0	U		2		U	GAM
Cobalt 60	10198-40-0	U		0.05	0.05	U	GAM
Zinc 65	17982-39-3	U		0.1		U	GAM
Ruthenium 106	13967-48-1	U		0.4		U	GAM
Cesium 134	17967-70-9	U		0.06		U	GAM
Cesium 137	10045-97-3	U		0.05	0.05	U	GAM
Europium 152	14683-23-9	U		0.1	0.1	U	GAM
Europium 154	15585-10-1	U		0.08	0.1	U	GAM
Radium 226	13982-67-7	0.65	0.090				GAM
Thorium 228	14274-82-9	1.1	0.094				GAM
Thorium 232	7440-29-1	0.88	0.17				GAM

Lab id	TMAN
Protocol	WHC-HEIS
Version	Ver 1.0
Form	DVD-DS
Version	2.20
Report date	01/07/93

Westinghouse Hanford Company

CHAIN OF CUSTODY

002903

Custody Form Initiator KB Hulse

Company Contact MT Stankovich / KN Pool

Telephone 376-2493/373-3137

Project Designation/Sampling Locations SAF #92-289 100-KR-1 Vadose Test Pits

Collection Date 9-~~14~~-92 14 KBH 9-14-92

Ice Chest No.

Field Logbook No. WHC-N-205 #15 pg 61

Bill of Lading/Airbill No.

Offsite Property No. W92-0-0622 #

Method of Shipment Emery Air Express AIR OVERNIGHT

Shipped to TMA/NORCAL 2030 Write Av. Richmond CA 94804

Possible Sample Hazards/Remarks None Known

Sample Identification

B07227 5 Bottles
B07228 5 Bottles
B07229 5 Bottles
B07249 1 Bottle
Total 16 Bottles

KB Hulse 9-14-92

KB Hulse 9-14-92

☐ Field Transfer of Custody

CHAIN OF POSSESSION (Sign and Print Names)

Relinquished by:	Received by:	Date/Time:
KB Hulse KB Hulse	Kermit Blum	9-15-92 1130
Relinquished by:	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:

1.48

A-6000-407 (12/90)

9213517.0675

Westinghouse Hanford Company

SAMPLE ANALYSIS REQUEST COC 2903

Collector KB Hulse Date 9-14-92

Company Contact K. N. Pool Telephone (509) 373-3137

Sample Number	*	Date Collected	Time Collected	Number and Type of Sample Containers/Analysis Requested
B07227	S	9-11-92	0925	1-120ml aG VOA (CLP)
				1-500ml aG SEMI-VOA PCB's/Pest. (CLP)
				1-500ml aG Anions/IC pH (300.0, 353.2 9040)
				1-250ml aG ICP/AA Metals, Hg, CN (CLP)
				1-1000ml G Radionuclides (Lab SOP)
B07228			0945	1-120ml aG VOA (CLP)
				1-500ml aG SEMI-VOA PCB's/Pest. (CLP)
				1-500ml aG Anions/IC pH (300.0, 353.2 9040)
				1-125ml aG ICP/AA Metals, Hg, CN (CLP)
				1-1000ml G Radionuclides (Lab SOP)
B07229			1005	1-120ml aG VOA (CLP)
				1-500ml aG SEMI-VOA PCB's/Pest. (CLP)
				1-500ml aG Anions/IC pH (300.0, 353.2, 9040)
				1-125ml aG ICP/AA Metals, Hg, CN (CLP)
				1-1000ml G Radionuclides (Lab SOP)
B07249		9-11-92	0730	1-120ml aG VOA (CLP)
				16 TOTAL Bottles

KB Hulse 9-14-92

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

Field Information

Special Handling and/or Storage Stored at 4°C and shipped on WET ICE. WATCH HOLD TIMES.

Possible Sample Hazards None Known

049

A-6000-406 (06/91)

Westinghouse Hanford Company

CHAIN OF CUSTODY

002902

Custody Form Initiator KB Hulse

Company Contact MT Stankovich / KN Pool

Telephone 376-2493/373-3137

Project Designation/Sampling Locations SAF #92-289 100-KR-1 Vadose Test Pits

Collection Date 9-14-92 KB 9-14-92

Ice Chest No.

Field Logbook No. WHC-N-205 #15 pg 61

Bill of Lading/Airbill No.

Offsite Property No. W92-0-0622 #

Method of Shipment Emery Air Express AIR OVERNIGHT

Shipped to TMA/NORCAL 2030 Write Av. Richmond CA 94804

Possible Sample Hazards/Remarks None Known

Sample Identification

B07230 5 Bottles
B07238 5 Bottles
B07239 5 Bottles
B07248 1 Bottle

Total 16 Bottles

KB Hulse 9-14-92

KB Hulse 9-14-92

☐ Field Transfer of Custody

CHAIN OF POSSESSION (Sign and Print Names)

Relinquished by:	Received by:	Date/Time:
KB Hulse KB Hulse	Kermit Blum	9-15-92 1130
Relinquished by:	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: 050

Comments:

A-6000-407 (12/90)

9163172.0077

Westinghouse Hanford Company

SAMPLE ANALYSIS REQUEST COC 2902

Collector KB Hulse Date 9-14-92

Company Contact K. N. Pool Telephone (509) 373-3137

Sample Number	*	Date Collected	Time Collected	Number and Type of Sample Containers/Analysis Requested
B07230	S	9-11-92	1025	1-120ml aG VOA (CLP)
				1-500ml aG SEMI-VOA PCB's/Pest. (CLP)
				1-500ml aG Anions/IC pH (300.0, 353.2 9040)
				1-250ml aG ICP/AA Metals, Hg, CN (CLP)
				1-1000ml G Radionuclides (Lab SOP)
B07238			0920	1-120ml aG VOA (CLP)
				1-500ml aG SEMI-VOA PCB's/Pest. (CLP)
				1-500ml aG Anions/IC pH (300.0, 353.2 9040)
				1-125ml aG ICP/AA Metals, Hg, CN (CLP)
				1-1000ml G Radionuclides (Lab SOP)
B07239			0945	1-120ml aG VOA (CLP)
				1-500ml aG SEMI-VOA PCB's/Pest. (CLP)
				1-500ml aG Anions/IC pH (300.0, 353.2, 9040)
				1-125ml aG ICP/AA Metals, Hg, CN (CLP)
				1-1000ml G Radionuclides (Lab SOP)
B07248		9-11-92	0730	1-120ml aG VOA (CLP)
				16 TOTAL Bottles

9-14-92

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

Field Information

Special Handling and/or Storage Stored at 4°C and shipped on WET ICE. WATCH HOLD TIMES.

Possible Sample Hazards None Known

051

A-6000-406 (06/91)

9215517.0678

WESTINGHOUSE/HANFORD
1

INORGANIC ANALYSIS DATA SHEET

SAMPLE NUMBER: B07227

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

Lab Code: SKINER Case No.: N2-09-103SAS No.: SDG No.: B07227

Matrix (soil/water): SOIL Lab Sample ID: 09233-01S

Level (low/med): LOW Date Received: 09/16/92

% Solids: 94.1

Concentration Units (ug/L or mg/Kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	5440			P
7440-36-0	Antimony	3.5	UJ	N	P
7440-38-2	Arsenic	0.93	~~B~~	~~+N~~ UJ	F
7440-39-3	Barium	70.7	UJ	K	P
7440-41-7	Beryllium	0.50	~~B~~		P
7440-43-9	Cadmium	0.20	U		P
7440-70-2	Calcium	6390	J	*	P
7440-47-3	Chromium	7.4			P
7440-48-4	Cobalt	10.6			P
7440-50-8	Copper	19.8			P
7439-89-6	Iron	19600			P
7439-92-1	Lead	14.8		S	F
7439-95-4	Magnesium	4330			P
7439-96-5	Manganese	356			P
7439-97-6	Mercury	0.05	U		CV
7440-02-0	Nickel	10.0			P
7440-09-7	Potassium	1090			P
7782-49-2	Selenium	0.75	~~U~~	R N	F
7440-22-4	Silver	1.4	~~B~~	U	P
7440-23-5	Sodium	197	~~B~~		P
7440-28-0	Thallium	0.34	U		F
7440-62-2	Vanadium	41.4			P
7440-66-6	Zinc	46.7			P
	Cyanide	0.53	U		CA

RB
5/18/93

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: BROWN Clarity After: Artifacts: YES

Comments:
STONES, ROOTS

02

9713517.0679

WESTINGHOUSE/HANFORD
1

INORGANIC ANALYSIS DATA SHEET

SAMPLE NUMBER: B07228

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

Lab Code: SKINER Case No.: N2-09-103SAS No.: SDG No.: B07227

Matrix (soil/water): SOIL Lab Sample ID: 09233-02S

Level (low/med): LOW Date Received: 09/16/92

% Solids: 93.7

Concentration Units (ug/L or mg/Kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	7060			P
7440-36-0	Antimony	3.5	U	N	P
7440-38-2	Arsenic	1.9	~~B~~	~~SN~~ W	F
7440-39-3	Barium	62.7	J	E	P
7440-41-7	Beryllium	0.47	~~B~~ U		P
7440-43-9	Cadmium	0.21	U		P
7440-70-2	Calcium	8280	J	*	P
7440-47-3	Chromium	13.1			P
7440-48-4	Cobalt	7.3	~~B~~		P
7440-50-8	Copper	15.3			P
7439-89-6	Iron	14300			P
7439-92-1	Lead	5.4		S	F
7439-95-4	Magnesium	5210			P
7439-96-5	Manganese	259			P
7439-97-6	Mercury	0.04	U		CV
7440-02-0	Nickel	14.3			P
7440-09-7	Potassium	1420			P
7782-49-2	Selenium	0.77	~~U~~ R ~~WN~~		F
7440-22-4	Silver	0.94	~~B~~ U		P
7440-23-5	Sodium	172	~~B~~		P
7440-28-0	Thallium	0.34	UJ W		F
7440-62-2	Vanadium	29.5			P
7440-66-6	Zinc	36.9			P
	Cyanide	0.53	U		CA

RB
5/18/93

Color Before: BROWN Clarity Before: Texture: FINE

Color After: BROWN Clarity After: Artifacts: YES

Comments:
STONES

03

9213517.0680

WESTINGHOUSE/HANFORD
1

SAMPLE NUMBER:

INORGANIC ANALYSIS DATA SHEET

B07229

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

Lab Code: SKINER Case No.: N2-09-103SAS No.: SDG No.: B07227

Matrix (soil/water): SOIL Lab Sample ID: 09233-03S

Level (low/med): LOW Date Received: 09/16/92

% Solids: 95.0

Concentration Units (ug/L or mg/Kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	7550			P
7440-36-0	Antimony	3.2	UJ	N	P
7440-38-2	Arsenic	1.9	~~B~~	~~WN~~ UJ	F
7440-39-3	Barium	62.9	J	~~E~~	P
7440-41-7	Beryllium	0.71	~~B~~		P
7440-43-9	Cadmium	0.19	U		P
7440-70-2	Calcium	12200	J	*	P
7440-47-3	Chromium	14.3			P
7440-48-4	Cobalt	8.0	~~B~~		P
7440-50-8	Copper	19.9			P
7439-89-6	Iron	15800			P
7439-92-1	Lead	5.2			F
7439-95-4	Magnesium	5290			P
7439-96-5	Manganese	283			P
7439-97-6	Mercury	0.05	U		CV
7440-02-0	Nickel	14.8			P
7440-09-7	Potassium	1320			P
7782-49-2	Selenium	0.79	U	N	F
7440-22-4	Silver	1.0	~~B~~ U		P
7440-23-5	Sodium	173	~~B~~		P
7440-28-0	Thallium	0.35	UJ	W	F
7440-62-2	Vanadium	30.4			P
7440-66-6	Zinc	38.0			P
	Cyanide	0.51	U		CA

RB
5/18/93

Color Before: BROWN Clarity Before: Texture: FINE

Color After: BROWN Clarity After: Artifacts: YES

Comments:
STONES

04

FORM I - IN ILM02.1

9214517.0691

WESTINGHOUSE/HANFORD
1

INORGANIC ANALYSIS DATA SHEET

SAMPLE NUMBER: B07230

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

Lab Code: SKINER Case No.: N2-09-103SAS No.: SDG No.: B07227

Matrix (soil/water): SOIL Lab Sample ID: 09233-04S

Level (low/med): LOW Date Received: 09/16/92

% Solids: 95.6

Concentration Units (ug/L or mg/Kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	5650			P
7440-36-0	Antimony	3.1	UJ	N	P
7440-38-2	Arsenic	0.99	~~B~~	UJN	F
7440-39-3	Barium	58.3	J	E	P
7440-41-7	Beryllium	0.23	~~B~~	U	P
7440-43-9	Cadmium	0.19	U		P
7440-70-2	Calcium	3480	J	*	P
7440-47-3	Chromium	10.5			P
7440-48-4	Cobalt	5.8	B		P
7440-50-8	Copper	16.6			P
7439-89-6	Iron	10500			P
7439-92-1	Lead	7.6	J	+	F
7439-95-4	Magnesium	3670			P
7439-96-5	Manganese	217			P
7439-97-6	Mercury	0.05	U		CV
7440-02-0	Nickel	12.0			P
7440-09-7	Potassium	1160			P
7782-49-2	Selenium	0.76	~~U~~	RWN	F
7440-22-4	Silver	0.46	U		P
7440-23-5	Sodium	111	~~B~~		P
7440-28-0	Thallium	0.34	U		F
7440-62-2	Vanadium	19.5			P
7440-66-6	Zinc	26.9			P
	Cyanide	0.49	U		CA

RB
5/18/93

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: BROWN Clarity After: Artifacts: YES

Comments:
STONES

05

FORM I - IN ILM02.1

9213512.0682

WESTINGHOUSE/HANFORD

1

INORGANIC ANALYSIS DATA SHEET

SAMPLE NUMBER: B07238

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

Lab Code: SKINER Case No.: N2-09-103SAS No.: SDG No.: B07227

Matrix (soil/water): SOIL Lab Sample ID: 09233-05S

Level (low/med): LOW Date Received: 09/16/92

% Solids: 99.8

Concentration Units (ug/L or mg/Kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	45.3			P
7440-36-0	Antimony	3.3	UJ	~~N~~	P
7440-38-2	Arsenic	0.54	UJ	~~WN~~	F
7440-39-3	Barium	0.57	UJ	~~E~~	P
7440-41-7	Beryllium	0.09	~~B~~	U	P
7440-43-9	Cadmium	0.20	U		P
7440-70-2	Calcium	20.5	~~B~~	UJ	P
7440-47-3	Chromium	1.2	~~B~~	U	P
7440-48-4	Cobalt	0.53	U		P
7440-50-8	Copper	1.0	~~B~~	U	P
7439-89-6	Iron	159			P
7439-92-1	Lead	0.38	~~B~~	U	F
7439-95-4	Magnesium	8.2	~~B~~	U	P
7439-96-5	Manganese	0.92	U		P
7439-97-6	Mercury	0.05	U		CV
7440-02-0	Nickel	1.1	U		P
7440-09-7	Potassium	47.5	U		P
7782-49-2	Selenium	0.71	~~U~~	~~R~~ ~~WN~~	F
7440-22-4	Silver	0.49	U		P
7440-23-5	Sodium	10.8	~~B~~		P
7440-28-0	Thallium	0.32	U		F
7440-62-2	Vanadium	0.55	U		P
7440-66-6	Zinc	0.43	U		P
	Cyanide	0.47	U		CA

RB 5/18/93

Color Before: WHITE Clarity Before: Texture: FINE

Color After: WHITE Clarity After: Artifacts:

Comments:

06

9213517.0693

WESTINGHOUSE/HANFORD
1

SAMPLE NUMBER:

INORGANIC ANALYSIS DATA SHEET

B07239

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

Lab Code: SKINER Case No.: N2-09-103SAS No.: SDG No.: B07227

Matrix (soil/water): SOIL Lab Sample ID: 09233-06S

Level (low/med): LOW Date Received: 09/16/92

% Solids: 92.6

Concentration Units (ug/L or mg/Kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	7560			P
7440-36-0	Antimony	3.4	UJ	~~N~~	P
7440-38-2	Arsenic	3.5	J	~~SN~~	F
7440-39-3	Barium	59.9	J	~~E~~	P
7440-41-7	Beryllium	0.48	~~B~~	U	P
7440-43-9	Cadmium	0.20	U		P
7440-70-2	Calcium	10300	J	*	P
7440-47-3	Chromium	13.8			P
7440-48-4	Cobalt	8.1	~~B~~		P
7440-50-8	Copper	21.8			P
7439-89-6	Iron	16700			P
7439-92-1	Lead	4.9			F
7439-95-4	Magnesium	5970			P
7439-96-5	Manganese	274			P
7439-97-6	Mercury	0.05	U		CV
7440-02-0	Nickel	15.9			P
7440-09-7	Potassium	1500			P
7782-49-2	Selenium	1.0	~~B~~	~~R~~ EN	F
7440-22-4	Silver	1.1	~~B~~	U	P
7440-23-5	Sodium	197	~~B~~		P
7440-28-0	Thallium	0.35	U		F
7440-62-2	Vanadium	35.1			P
7440-66-6	Zinc	38.0			P
	Cyanide	0.50	U		CA

RB
5/18/93

Color Before: BROWN Clarity Before: Texture: FINE

Color After: BROWN Clarity After: Artifacts: YES

Comments:
STONES

07

FORM I - IN ILM02.1

Page 2 Skinner&Sherman REPORT Work Order # S2-09-234

Received: 09/16/92 Results by Sample

SAMPLE ID B07227 SAMPLE # 01 FRACTIONS: A
Date & Time Collected 09/14/92 Category SOIL

NO3NO2 <2.50 ✓
mg N/Kg

SAMPLE ID B07228 SAMPLE # 02 FRACTIONS: A
Date & Time Collected 09/14/92 Category SOIL

NO3NO2 <2.41 ✓
mg N/Kg

SAMPLE ID B07229 SAMPLE # 03 FRACTIONS: A
Date & Time Collected 09/14/92 Category SOIL

NO3NO2 <2.54 ✓
mg N/Kg

SAMPLE ID B07230 SAMPLE # 04 FRACTIONS: A
Date & Time Collected 09/14/92 Category SOIL

NO3NO2 <2.48 ✓
mg N/Kg

SAMPLE ID B07238 SAMPLE # 05 FRACTIONS: A
Date & Time Collected 09/14/92 Category SOIL

NO3NO2 <2.43 ✓
mg N/Kg

SAMPLE ID B07239 SAMPLE # 06 FRACTIONS: A
Date & Time Collected 09/14/92 Category SOIL

NO3NO2 <2.43 ✓
mg N/Kg

SAMPLE ID B07239 DUPL SAMPLE # 06 FRACTIONS: B
Date & Time Collected 09/14/92 Category SOIL

NO3NO2 <2.50 ✓
mg N/Kg

4-1-93 SC

TMA Thermo Analytical Inc.

This report is tendered 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 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
1-800-41 AB TEST FAX (617) 890-3883

Page 3 Skinner&Sherman REPORT Work Order # S2-09-234

Received: 09/16/92 Results by Sample

SAMPLE ID B07239 SPIKE SAMPLE # 06 FRACTIONS: C

Date & Time Collected 09/14/92 Category SOIL

NO3NO2 16.8 mg N/Kg

SAMPLE ID LCSS SAMPLE # 07 FRACTIONS: A

Date & Time Collected not specified Category SOIL

NO3NO2 1.87 mg N/L

4-1-93 SC

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 to retain.

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

9715513.0086

TMA Inc. REPORT Work Order # A2-09-037

Received: 09/15/92

Results by Sample

SAMPLE ID B07227 FRACTION 01E TEST CODE UCCLPS NAME Anions in Solids - UN232

Date & Time Collected 09/11/92 Category

ANIONS AND WET CHEMISTRY - SOLIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Chloride	300.0	<2.	mg/Kg	2.
Fluoride	300.0	2 (J)	mg/Kg	1.
Phosphate	300.0	<4. (R)	mg/Kg	4.
pH	150.1	9.4 (R)	pH	.1
Sulfate	300.0	23	mg/Kg	10.

Lab Dup

Holding Time

FORM I

4-1-93 SC

9214517.0687

TMA Inc. REPORT Work Order # A2-09-037

Received: 09/15/92

Results by Sample

SAMPLE ID B07228 FRACTION 02E TEST CODE WCCLPS NAME Anions in Solids - WM232

Date & Time Collected 09/11/92 Category

ANIONS AND WET CHEMISTRY - SOLIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT	
Chloride	300.0	6	mg/Kg	2.	
Fluoride	300.0	2 (J)	mg/Kg	1.	Lab Dup
Phosphate	300.0	<4 (R)	mg/Kg	4.	Holding Time
pH	9045	9.4	pH	.1	
Sulfate	300.0	25	mg/Kg	10.	

FORM I

4-1-93SC

TMA Inc. REPORT Work Order # A2-09-037

Received: 09/15/92 Results by Sample

SAMPLE ID 807229 FRACTION 03E TEST CODE VCCLPS NAME Anions in Solids - VM232

Date & Time Collected 09/11/92 Category

ANIONS AND WET CHEMISTRY - SOLIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Chloride	300.0	6	mg/Kg	2.
Fluoride	300.0	2 (J)	mg/Kg	1.
Phosphate	300.0	<4 (R)	mg/Kg	4.
pH	150.1	9.3 (R)	pH	.1
Sulfate	300.0	<10.	mg/Kg	10.

Lab Dup
Holding Time

FORM I

4-1-93SC

TNA Inc. REPORT Work Order # A2-09-037

Received: 09/15/92

Results by Sample

SAMPLE ID B07230 FRACTION 05C TEST CODE WCCLPS NAME Anions in Solids - WM232

Date & Time Collected 09/11/92 Category

ANIONS AND WET CHEMISTRY - SOLIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Chloride	300.0	5	mg/Kg	2.
Fluoride	300.0	3 (J)	mg/Kg	1.
Phosphate	300.0	<4 (R)	mg/Kg	4.
pH	150.1	9.7 (R)	pH	.1
Sulfate	300.0	<10.	mg/Kg	10.

Lab Dup

Holding Time

FORM I

4-1-93 SC

TMA Inc. REPORT Work Order # A2-09-037

Received: 09/15/92

Results by Sample

SAMPLE ID B07238 FRACTION 06C TEST CODE VCCLPS NAME Anions in Solids - WM232

Date & Time Collected 09/11/92 Category

ANIONS AND WET CHEMISTRY - SOLIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Chloride	300.0	6	mg/Kg	2.
Fluoride	300.0	<1.	mg/Kg	1.
Phosphate	300.0	<4.	mg/Kg	4.
pH	150.1	9.0	pH	.1
Sulfate	300.0	<10.	mg/Kg	10.

Lab Dup

Holding Time

FORM I

4-1-93 SC

TMA Inc. REPORT Work Order # A2-09-037

Received: 09/15/92

Results by Sample

SAMPLE ID B07239 FRACTION 07C TEST CODE WCCLPS NAME Anions in Solids - WN232

Date & Time Collected 09/11/92 Category

ANIONS AND WET CHEMISTRY - SOLIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Chloride	300.0	5	mg/Kg	2.
Fluoride	300.0	2	mg/Kg	1.
Phosphate	300.0	<4.	mg/Kg	4.
pH	150.1	9.2	pH	.1
Sulfate	300.0	<10.	mg/Kg	10.

Lab Day Holding Time

FORM 1

4-14-93 SC

RB 5/18/93

9213517.0692 WC 2056 000005

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07227

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09037 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209037-01A

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 20918R16

Level: (low/med) LOW Date Received: 09/15/92 SD: 9/14

% Moisture: not dec. 2 Date Analyzed: 09/18/92

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/KG

CAS NO.	COMPOUND		Q
74-87-3	Chloromethane	10	UJ-cc 20D
74-83-9	Bromomethane	10	UJ 20D
75-01-4	Vinyl Chloride	10	UJ-cc 20D
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	10	U
67-64-1	Acetone	10	~~BJ~~ 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	4	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

RB 3/29/93

9213517.0693

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

000006
EPA SAMPLE NO.

B07227

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09037 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209037-01A

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 20918R16

Level: (low/med) LOW Date Received: 09/15/92

% Moisture: not dec. 2 Date Analyzed: 09/18/92

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/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

MB
3/29/93

9213517.0694

000007

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07228

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09037 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209037-02A

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 20918R17

Level: (low/med) LOW Date Received: 09/15/92

% Moisture: not dec. 3 Date Analyzed: 09/18/92

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/KG	Q
74-87-3	Chloromethane	10	UJ CC 9.D
74-83-9	Bromomethane	10	UJ
75-01-4	Vinyl Chloride	10	UJ - CC 9.D
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

KB 3/29/93

9213517.0695

000008

EPA SAMPLE NO.

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B07228

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09037 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209037-02A

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 20918R17

Level: (low/med) LOW Date Received: 09/15/92

% Moisture: not dec. 3 Date Analyzed: 09/18/92

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/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

BB
3/29/93

9213517.0696

000009

EPA SAMPLE NO.

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

B07229

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09037 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209037-03A

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 20918R18

Level: (low/med) LOW Date Received: 09/15/92

% Moisture: not dec. 4 Date Analyzed: 09/18/92

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/KG

CAS NO.	COMPOUND		Q
74-87-3	Chloromethane	10	UJ CC 90D
74-83-9	Bromomethane	10	UJ
75-01-4	Vinyl Chloride	10	UJ CC 90D
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	10	U
67-64-1	Acetone	10 ~~5~~	~~BJ~~ U RB 3/29/93
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

9213517.0697

000010
EPA SAMPLE NO.

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B07229

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09037 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209037-03A

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 20918R18

Level: (low/med) LOW Date Received: 09/15/92

% Moisture: not dec. 4 Date Analyzed: 09/18/92

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/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

MB
3/29/93

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07230

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09037 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209037-05A

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 20921R06

Level: (low/med) LOW Date Received: 09/15/92

% Moisture: not dec. 2 Date Analyzed: 09/21/92

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/KG	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 ~~8~~	~~B~~ 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

KB 3/29

MB 3/29/93

9213517.0699

1E

000012

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B07230

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09037 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209037-05A

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 20921R06

Level: (low/med) LOW Date Received: 09/15/92

% Moisture: not dec. 2 Date Analyzed: 09/21/92

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/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

RB
3/29/93

9213517.0200

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

000013
EPA SAMPLE NO.

B07238

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09037 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209037-06A

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 20921R07

Level: (low/med) LOW Date Received: 09/15/92

% Moisture: not dec. 0 Date Analyzed: 09/21/92

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/KG	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 3/29/93

9213517.0701

000014

EPA SAMPLE NO.

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B07238

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09037 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209037-06A

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 20921R07

Level: (low/med) LOW Date Received: 09/15/92

% Moisture: not dec. 0 Date Analyzed: 09/21/92

GC Column: PACK ID: 2.00 (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/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN HYDROCARBON	29.58	18	J

RB
3/29/93

9213517_0702

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

000015
EPA SAMPLE NO.

B07239

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09037 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209037-07A

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 20921R08

Level: (low/med) LOW Date Received: 09/15/92

% Moisture: not dec. 3 Date Analyzed: 09/21/92

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/KG	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	~~B~~ 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 3/29/93

9213517.0703

000016

EPA SAMPLE NO.

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B07239

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09037 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209037-07A

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 20921R08

Level: (low/med) LOW Date Received: 09/15/92

% Moisture: not dec. 3 Date Analyzed: 09/21/92

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/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

RB
3/29/93

9713517.0704

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

WC

000017
EPA SAMPLE NO.

B07248

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09037 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209037-08A

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 20921R09

Level: (low/med) LOW Date Received: 09/15/92 SD=9/14

% Moisture: not dec. 4 Date Analyzed: 09/21/92

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/KG

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 J	~~B~~ 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

MB 3/29/93

9213517.0705

000618

EPA SAMPLE NO.

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B07248

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09037 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209037-08A

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 20921R09

Level: (low/med) LOW Date Received: 09/15/92

% Moisture: not dec. 4 Date Analyzed: 09/21/92

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/KG

TB

Number TICs found: 1

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN ALCOHOL	29.53	25	J

RB
3/29/93

9213517.0706

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

000019
EPA SAMPLE NO.

B07249

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09037 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209037-04A

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 20918R19

Level: (low/med) LOW Date Received: 09/15/92

% Moisture: not dec. 4 Date Analyzed: 09/18/92

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/KG ~~FB~~

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	12	~~B~~ 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 3/29/93

9713517.0207

000020

EPA SAMPLE NO.

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B07249

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09037 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209037-04A

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 20918R19

Level: (low/med) LOW Date Received: 09/15/92

% Moisture: not dec. 4 Date Analyzed: 09/18/92

GC Column: PACK ID: 2.00 (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/KG

TB

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN HYDROCARBON	8.17	5	J
2.	UNKNOWN HYDROCARBON	29.53	34	J

RB
3/29/93

9213517.0708

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

000021

EPA SAMPLE NO.

B07227

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09037 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209037-01B

Sample wt/vol: 30.4 (g/mL) G Lab File ID: 20922S05

Level: (low/med) LOW Date Received: 09/15/92 SD= 9/14

% Moisture: 2 decanted: (Y/N) N Date Extracted: 09/17/92

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/22/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 9.4

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	330	U
111-44-4	bis(2-Chloroethyl)Ether	330	U
95-57-8	2-Chlorophenol	330	U
541-73-1	1,3-Dichlorobenzene	330	U
106-46-7	1,4-Dichlorobenzene	330	U
95-50-1	1,2-Dichlorobenzene	330	U
95-48-7	2-Methylphenol	330	U
108-60-1	2,2'-oxybis(1-Chloropropane)	330	U
106-44-5	4-Methylphenol	330	U
621-64-7	N-Nitroso-Di-n-Propylamine	330	U
67-72-1	Hexachloroethane	330	U
98-95-3	Nitrobenzene	330	U
78-59-1	Isophorone	330	U
88-75-5	2-Nitrophenol	330	U
105-67-9	2,4-Dimethylphenol	330	U
111-91-1	bis(2-Chloroethoxy)Methane	330	U
120-83-2	2,4-Dichlorophenol	330	U
120-82-1	1,2,4-Trichlorobenzene	330	U
91-20-3	Naphthalene	330	U
106-47-8	4-Chloroaniline	330	U
87-68-3	Hexachlorobutadiene	330	U
59-50-7	4-Chloro-3-Methylphenol	330	U
91-57-6	2-Methylnaphthalene	330	U
77-47-4	Hexachlorocyclopentadiene	330	U
88-06-2	2,4,6-Trichlorophenol	330	U
95-95-4	2,4,5-Trichlorophenol	810	U
91-58-7	2-Chloronaphthalene	330	U
88-74-4	2-Nitroaniline	810	U
131-11-3	Dimethylphthalate	330	U
208-96-8	Acenaphthylene	330	U
99-09-2	3-Nitroaniline	810	U
83-32-9	Acenaphthene	330	U
51-28-5	2,4-Dinitrophenol	810	U

RB 3/29/93

9213517.0709

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

000022
EPA SAMPLE NO.

B07227

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09037 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209037-01B

Sample wt/vol: 30.4 (g/mL) G Lab File ID: 20922S05

Level: (low/med) LOW Date Received: 09/15/92

% Moisture: 2 decanted: (Y/N) N Date Extracted: 09/17/92

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/22/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 9.4

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
100-02-7	4-Nitrophenol	810	U
132-64-9	Dibenzofuran	330	U
121-14-2	2,4-Dinitrotoluene	330	U
606-20-2	2,6-Dinitrotoluene	330	U
84-66-2	Diethylphthalate	330	U
7005-72-3	4-Chlorophenyl-phenylether	330	U
86-73-7	Fluorene	330	U
100-01-6	4-Nitroaniline	810	U
534-52-1	4,6-Dinitro-2-methylphenol	810	U
86-30-6	N-Nitrosodiphenylamine (1)	330	U
101-55-3	4-Bromophenyl-phenylether	330	U
118-74-1	Hexachlorobenzene	330	U
87-86-5	Pentachlorophenol	810	U
85-01-8	Phenanthrene	330	U
120-12-7	Anthracene	330	U
86-74-8	Carbazole	330	U
84-74-2	Di-n-Butylphthalate	330	U
206-44-0	Fluoranthene	330	U
129-00-0	Pyrene	330	U
85-68-7	Butylbenzylphthalate	330	U
91-94-1	3,3'-Dichlorobenzidine	330	U
56-55-3	Benzo(a)Anthracene	330	U
117-81-7	bis(2-Ethylhexyl)Phthalate	330	U
218-01-9	Chrysene	330	U
117-84-0	Di-n-Octyl Phthalate	330	U
205-99-2	Benzo(b)Fluoranthene	330	U
207-08-9	Benzo(k)Fluoranthene	330	U
50-32-8	Benzo(a)Pyrene	330	U
193-39-5	Indeno(1,2,3-cd)Pyrene	330	U
53-70-3	Dibenz(a,h)Anthracene	330	U
191-24-2	Benzo(g,h,i)Perylene	330	U

(1) - Cannot be separated from Diphenylamine

RB 3/29/93

9213517.0710

1F

000023
EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B07227

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09037 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209037-01B

Sample wt/vol: 30.4 (g/mL) G Lab File ID: 20922S05

Level: (low/med) LOW Date Received: 09/15/92

% Moisture: 2 decanted: (Y/N) N Date Extracted: 09/17/92

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/22/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 9.4

Number TICs found: 9

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN HYDROCARBON	5.20	2600	~~BJ~~ U
2.	UNKNOWN HYDROCARBON	5.63	79000	~~BJ~~
3.	UNKNOWN HYDROCARBON	6.13	130	~~BJ~~
4.	UNKNOWN HYDROCARBON	6.55	230	~~BJ~~
5.	UNKNOWN HYDROCARBON	6.68	1300	~~BJ~~
6.	UNKNOWN HYDROCARBON	7.10	700	~~BJ~~
7.	UNKNOWN ALCOHOL	8.32	1500	~~BJ~~
8.	PROPANOIC ACID ISOMER	17.00	100	J
9.	UNKNOWN HYDROCARBON	27.60	100	J

RB
3/29/93

9213517.0211

000024

EPA SAMPLE NO.

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

B07228

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09037 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209037-02B

Sample wt/vol: 30.4 (g/mL) G Lab File ID: 20922S08

Level: (low/med) LOW Date Received: 09/15/92

% Moisture: 3 decanted: (Y/N) N Date Extracted: 09/17/92

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/22/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 9.4

SD=9/14

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

CAS NO.	COMPOUND		Q
108-95-2	Phenol	340	U
111-44-4	bis(2-Chloroethyl)Ether	340	U
95-57-8	2-Chlorophenol	340	U
541-73-1	1,3-Dichlorobenzene	340	U
106-46-7	1,4-Dichlorobenzene	340	U
95-50-1	1,2-Dichlorobenzene	340	U
95-48-7	2-Methylphenol	340	U
108-60-1	2,2'-oxybis(1-Chloropropane)	340	U
106-44-5	4-Methylphenol	340	U
621-64-7	N-Nitroso-Di-n-Propylamine	340	U
67-72-1	Hexachloroethane	340	U
98-95-3	Nitrobenzene	340	U
78-59-1	Isophorone	340	U
88-75-5	2-Nitrophenol	340	U
105-67-9	2,4-Dimethylphenol	340	U
111-91-1	bis(2-Chloroethoxy)Methane	340	U
120-83-2	2,4-Dichlorophenol	340	U
120-82-1	1,2,4-Trichlorobenzene	340	U
91-20-3	Naphthalene	340	U
106-47-8	4-Chloroaniline	340	U
87-68-3	Hexachlorobutadiene	340	U
59-50-7	4-Chloro-3-Methylphenol	340	U
91-57-6	2-Methylnaphthalene	340	U
77-47-4	Hexachlorocyclopentadiene	340	U
88-06-2	2,4,6-Trichlorophenol	340	U
95-95-4	2,4,5-Trichlorophenol	810	U
91-58-7	2-Chloronaphthalene	340	U
88-74-4	2-Nitroaniline	810	U
131-11-3	Dimethylphthalate	340	U
208-96-8	Acenaphthylene	340	U
99-09-2	3-Nitroaniline	810	U
83-32-9	Acenaphthene	340	U
51-28-5	2,4-Dinitrophenol	810	U

RB 3/29/93

9213517.0712

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

000025

EPA SAMPLE NO.

B07228

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09037 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209037-02B

Sample wt/vol: 30.4 (g/mL) G Lab File ID: 20922S08

Level: (low/med) LOW Date Received: 09/15/92

% Moisture: 3 decanted: (Y/N) N Date Extracted: 09/17/92

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/22/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 9.4

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
100-02-7	4-Nitrophenol	810	U
132-64-9	Dibenzofuran	340	U
121-14-2	2,4-Dinitrotoluene	340	U
606-20-2	2,6-Dinitrotoluene	340	U
84-66-2	Diethylphthalate	340	U
7005-72-3	4-Chlorophenyl-phenylether	340	U
86-73-7	Fluorene	340	U
100-01-6	4-Nitroaniline	810	U
534-52-1	4,6-Dinitro-2-methylphenol	810	U
86-30-6	N-Nitrosodiphenylamine (1)	340	U
101-55-3	4-Bromophenyl-phenylether	340	U
118-74-1	Hexachlorobenzene	340	U
87-86-5	Pentachlorophenol	810	U
85-01-8	Phenanthrene	340	U
120-12-7	Anthracene	340	U
86-74-8	Carbazole	340	U
84-74-2	Di-n-Butylphthalate	340	U
206-44-0	Fluoranthene	340	U
129-00-0	Pyrene	340	U
85-68-7	Butylbenzylphthalate	340	U
91-94-1	3,3'-Dichlorobenzidine	340	U
56-55-3	Benzo(a)Anthracene	340	U
117-81-7	bis(2-Ethylhexyl)Phthalate	340	U
218-01-9	Chrysene	340	U
117-84-0	Di-n-Octyl Phthalate	340	U
205-99-2	Benzo(b)Fluoranthene	340	U
207-08-9	Benzo(k)Fluoranthene	340	U
50-32-8	Benzo(a)Pyrene	340	U
193-39-5	Indeno(1,2,3-cd)Pyrene	340	U
53-70-3	Dibenz(a,h)Anthracene	340	U
191-24-2	Benzo(g,h,i)Perylene	340	U

RB 3/29/93

(1) - Cannot be separated from Diphenylamine

9715517.0713

000026

EPA SAMPLE NO.

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B07228

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09037 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209037-02B

Sample wt/vol: 30.4 (g/mL) G Lab File ID: 20922S08

Level: (low/med) LOW Date Received: 09/15/92

% Moisture: 3 decanted: (Y/N) N Date Extracted: 09/17/92

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/22/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 9.4

Number TICs found: 8

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN HYDROCARBON	5.22	2700	~~BJ~~ U
2.	UNKNOWN HYDROCARBON	5.63	70000	~~BJ~~
3.	UNKNOWN HYDROCARBON	6.15	140	~~BJ~~
4.	UNKNOWN HYDROCARBON	6.57	200	~~BJ~~
5.	UNKNOWN HYDROCARBON	6.68	1100	~~BJ~~
6.	UNKNOWN HYDROCARBON	7.12	610	~~BJ~~
7.	UNKNOWN ALCOHOL	8.33	1200	~~BJ~~
8.	PROPANOIC ACID ISOMER	17.00	100	J

RB
3/29/93

9213517.0714

000027

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07229

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09037 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209037-03D

Sample wt/vol: 30.2 (g/mL) G Lab File ID: 20922S09

Level: (low/med) LOW Date Received: 09/15/92

% Moisture: 4 decanted: (Y/N) N Date Extracted: 09/17/92

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/22/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 9.3

SD = 9/14

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	340	U
111-44-4	bis(2-Chloroethyl)Ether	340	U
95-57-8	2-Chlorophenol	340	U
541-73-1	1,3-Dichlorobenzene	340	U
106-46-7	1,4-Dichlorobenzene	340	U
95-50-1	1,2-Dichlorobenzene	340	U
95-48-7	2-Methylphenol	340	U
108-60-1	2,2'-oxybis(1-Chloropropane)	340	U
106-44-5	4-Methylphenol	340	U
621-64-7	N-Nitroso-Di-n-Propylamine	340	U
67-72-1	Hexachloroethane	340	U
98-95-3	Nitrobenzene	340	U
78-59-1	Isophorone	340	U
88-75-5	2-Nitrophenol	340	U
105-67-9	2,4-Dimethylphenol	340	U
111-91-1	bis(2-Chloroethoxy)Methane	340	U
120-83-2	2,4-Dichlorophenol	340	U
120-82-1	1,2,4-Trichlorobenzene	340	U
91-20-3	Naphthalene	340	U
106-47-8	4-Chloroaniline	340	U
87-68-3	Hexachlorobutadiene	340	U
59-50-7	4-Chloro-3-Methylphenol	340	U
91-57-6	2-Methylnaphthalene	340	U
77-47-4	Hexachlorocyclopentadiene	340	U
88-06-2	2,4,6-Trichlorophenol	340	U
95-95-4	2,4,5-Trichlorophenol	830	U
91-58-7	2-Chloronaphthalene	340	U
88-74-4	2-Nitroaniline	830	U
131-11-3	Dimethylphthalate	340	U
208-96-8	Acenaphthylene	340	U
99-09-2	3-Nitroaniline	830	U
83-32-9	Acenaphthene	340	U
51-28-5	2,4-Dinitrophenol	830	U

RB 3/29/93

9213517.0215

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

000028

EPA SAMPLE NO.

B07229

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09037 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209037-03D

Sample wt/vol: 30.2 (g/mL) G Lab File ID: 20922S09

Level: (low/med) LOW Date Received: 09/15/92

% Moisture: 4 decanted: (Y/N) N Date Extracted: 09/17/92

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/22/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 9.3

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
100-02-7	4-Nitrophenol	830	U
132-64-9	Dibenzofuran	340	U
121-14-2	2,4-Dinitrotoluene	340	U
606-20-2	2,6-Dinitrotoluene	340	U
84-66-2	Diethylphthalate	340	U
7005-72-3	4-Chlorophenyl-phenylether	340	U
86-73-7	Fluorene	340	U
100-01-6	4-Nitroaniline	830	U
534-52-1	4,6-Dinitro-2-methylphenol	830	U
86-30-6	N-Nitrosodiphenylamine (1)	340	U
101-55-3	4-Bromophenyl-phenylether	340	U
118-74-1	Hexachlorobenzene	340	U
87-86-5	Pentachlorophenol	830	U
85-01-8	Phenanthrene	340	U
120-12-7	Anthracene	340	U
86-74-8	Carbazole	340	U
84-74-2	Di-n-Butylphthalate	340	U
206-44-0	Fluoranthene	340	U
129-00-0	Pyrene	340	U
85-68-7	Butylbenzylphthalate	340	U
91-94-1	3,3'-Dichlorobenzidine	340	U
56-55-3	Benzo(a)Anthracene	340	U
117-81-7	bis(2-Ethylhexyl)Phthalate	340	U
218-01-9	Chrysene	340	U
117-84-0	Di-n-Octyl Phthalate	340	U
205-99-2	Benzo(b)Fluoranthene	340	U
207-08-9	Benzo(k)Fluoranthene	340	U
50-32-8	Benzo(a)Pyrene	340	U
193-39-5	Indeno(1,2,3-cd)Pyrene	340	U
53-70-3	Dibenz(a,h)Anthracene	340	U
191-24-2	Benzo(g,h,i)Perylene	340	U

(1) - Cannot be separated from Diphenylamine

MB 3/29/93

9213517.0716

000029

EPA SAMPLE NO.

B07229

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09037 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209037-03D

Sample wt/vol: 30.2 (g/mL) G Lab File ID: 20922S09

Level: (low/med) LOW Date Received: 09/15/92

% Moisture: 4 decanted: (Y/N) N Date Extracted: 09/17/92

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/22/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 9.3

Number TICs found: 10

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN HYDROCARBON	5.18	2700	~~BJ~~ U
2.	UNKNOWN HYDROCARBON	5.62	78000	~~BJ~~
3.	UNKNOWN HYDROCARBON	6.55	210	~~BJ~~
4.	UNKNOWN HYDROCARBON	6.67	1200	~~BJ~~
5.	UNKNOWN HYDROCARBON	7.10	660	~~BJ~~
6.	UNKNOWN ALCOHOL	8.32	1400	~~BJ~~
7.	PROPANOIC ACID ISOMER	17.00	100	J
8.	UNKNOWN HYDROCARBON	18.27	69	J
9.	UNKNOWN ALKANE	28.43	140	J
10.	UNKNOWN ALKANE	30.40	210	J

MB 3/29/93

9213517.0717

000030

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07230

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09037 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209037-05B

Sample wt/vol: 30.4 (g/mL) G Lab File ID: 20922S10

Level: (low/med) LOW Date Received: 09/15/92

% Moisture: 2 decanted: (Y/N) N Date Extracted: 09/17/92 SD = 9/14

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/22/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 9.7

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	330	U
111-44-4	bis(2-Chloroethyl)Ether	330	U
95-57-8	2-Chlorophenol	330	U
541-73-1	1,3-Dichlorobenzene	330	U
106-46-7	1,4-Dichlorobenzene	330	U
95-50-1	1,2-Dichlorobenzene	330	U
95-48-7	2-Methylphenol	330	U
108-60-1	2,2'-oxybis(1-Chloropropane)	330	U
106-44-5	4-Methylphenol	330	U
621-64-7	N-Nitroso-Di-n-Propylamine	330	U
67-72-1	Hexachloroethane	330	U
98-95-3	Nitrobenzene	330	U
78-59-1	Isophorone	330	U
88-75-5	2-Nitrophenol	330	U
105-67-9	2,4-Dimethylphenol	330	U
111-91-1	bis(2-Chloroethoxy)Methane	330	U
120-83-2	2,4-Dichlorophenol	330	U
120-82-1	1,2,4-Trichlorobenzene	330	U
91-20-3	Naphthalene	330	U
106-47-8	4-Chloroaniline	330	U
87-68-3	Hexachlorobutadiene	330	U
59-50-7	4-Chloro-3-Methylphenol	330	U
91-57-6	2-Methylnaphthalene	330	U
77-47-4	Hexachlorocyclopentadiene	330	U
88-06-2	2,4,6-Trichlorophenol	330	U
95-95-4	2,4,5-Trichlorophenol	810	U
91-58-7	2-Chloronaphthalene	330	U
88-74-4	2-Nitroaniline	810	U
131-11-3	Dimethylphthalate	330	U
208-96-8	Acenaphthylene	330	U
99-09-2	3-Nitroaniline	810	U
83-32-9	Acenaphthene	330	U
51-28-5	2,4-Dinitrophenol	810	U

BB 3/29/93

9213517.0718

000031

EPA SAMPLE NO.

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

B07230

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09037 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209037-05B

Sample wt/vol: 30.4 (g/mL) G Lab File ID: 20922S10

Level: (low/med) LOW Date Received: 09/15/92

% Moisture: 2 decanted: (Y/N) N Date Extracted: 09/17/92

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/22/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 9.7

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
100-02-7	4-Nitrophenol	810	U
132-64-9	Dibenzofuran	330	U
121-14-2	2,4-Dinitrotoluene	330	U
606-20-2	2,6-Dinitrotoluene	330	U
84-66-2	Diethylphthalate	330	U
7005-72-3	4-Chlorophenyl-phenylether	330	U
86-73-7	Fluorene	330	U
100-01-6	4-Nitroaniline	810	U
534-52-1	4,6-Dinitro-2-methylphenol	810	U
86-30-6	N-Nitrosodiphenylamine (1)	330	U
101-55-3	4-Bromophenyl-phenylether	330	U
118-74-1	Hexachlorobenzene	330	U
87-86-5	Pentachlorophenol	810	U
85-01-8	Phenanthrene	330	U
120-12-7	Anthracene	330	U
86-74-8	Carbazole	330	U
84-74-2	Di-n-Butylphthalate	330	U
206-44-0	Fluoranthene	330	U
129-00-0	Pyrene	330	U
85-68-7	Butylbenzylphthalate	330	U
91-94-1	3,3'-Dichlorobenzidine	330	U
56-55-3	Benzo(a)Anthracene	330	U
117-81-7	bis(2-Ethylhexyl)Phthalate	330	U
218-01-9	Chrysene	330	U
117-84-0	Di-n-Octyl Phthalate	330	U
205-99-2	Benzo(b)Fluoranthene	330	U
207-08-9	Benzo(k)Fluoranthene	330	U
50-32-8	Benzo(a)Pyrene	330	U
193-39-5	Indeno(1,2,3-cd)Pyrene	330	U
53-70-3	Dibenz(a,h)Anthracene	330	U
191-24-2	Benzo(g,h,i)Perylene	330	U

RB 3/29/93

(1) - Cannot be separated from Diphenylamine

9213517.0719

000032

EPA SAMPLE NO.

B07230

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09037 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209037-05B

Sample wt/vol: 30.4 (g/mL) G Lab File ID: 20922S10

Level: (low/med) LOW Date Received: 09/15/92

% Moisture: 2 decanted: (Y/N) N Date Extracted: 09/17/92

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/22/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 9.7

Number TICs found: 6

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN HYDROCARBON	5.22	2600	~~BJ~~ U
2.	UNKNOWN HYDROCARBON	5.63	77000	~~BJ~~
3.	UNKNOWN HYDROCARBON	6.57	230	~~BJ~~
4.	UNKNOWN HYDROCARBON	6.68	1200	~~BJ~~
5.	UNKNOWN HYDROCARBON	7.10	670	~~BJ~~
6.	UNKNOWN ALCOHOL	8.33	1400	~~BJ~~

QB
3/29/93

9213517.0720

000033

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07238

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09037 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209037-06B

Sample wt/vol: 30.5 (g/mL) G Lab File ID: 20922S11

Level: (low/med) LOW Date Received: 09/15/92 SD=9/14

% Moisture: 0 decanted: (Y/N) N Date Extracted: 09/17/92

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/22/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 9.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	320	U
111-44-4	bis(2-Chloroethyl)Ether	320	U
95-57-8	2-Chlorophenol	320	U
541-73-1	1,3-Dichlorobenzene	320	U
106-46-7	1,4-Dichlorobenzene	320	U
95-50-1	1,2-Dichlorobenzene	320	U
95-48-7	2-Methylphenol	320	U
108-60-1	2,2'-oxybis(1-Chloropropane)	320	U
106-44-5	4-Methylphenol	320	U
621-64-7	N-Nitroso-Di-n-Propylamine	320	U
67-72-1	Hexachloroethane	320	U
98-95-3	Nitrobenzene	320	U
78-59-1	Isophorone	320	U
88-75-5	2-Nitrophenol	320	U
105-67-9	2,4-Dimethylphenol	320	U
111-91-1	bis(2-Chloroethoxy)Methane	320	U
120-83-2	2,4-Dichlorophenol	320	U
120-82-1	1,2,4-Trichlorobenzene	320	U
91-20-3	Naphthalene	320	U
106-47-8	4-Chloroaniline	320	U
87-68-3	Hexachlorobutadiene	320	U
59-50-7	4-Chloro-3-Methylphenol	320	U
91-57-6	2-Methylnaphthalene	320	U
77-47-4	Hexachlorocyclopentadiene	320	U
88-06-2	2,4,6-Trichlorophenol	320	U
95-95-4	2,4,5-Trichlorophenol	790	U
91-58-7	2-Chloronaphthalene	320	U
88-74-4	2-Nitroaniline	790	U
131-11-3	Dimethylphthalate	320	U
208-96-8	Acenaphthylene	320	U
99-09-2	3-Nitroaniline	790	U
83-32-9	Acenaphthene	320	U
51-28-5	2,4-Dinitrophenol	790	U

RB 3/29/93

9213517.0721

000034

EPA SAMPLE NO.

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

B07238

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09037 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209037-06B

Sample wt/vol: 30.5 (g/mL) G Lab File ID: 20922S11

Level: (low/med) LOW Date Received: 09/15/92

% Moisture: 0 decanted: (Y/N) N Date Extracted: 09/17/92

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/22/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 9.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
100-02-7	4-Nitrophenol	790	U
132-64-9	Dibenzofuran	320	U
121-14-2	2,4-Dinitrotoluene	320	U
606-20-2	2,6-Dinitrotoluene	320	U
84-66-2	Diethylphthalate	320	U
7005-72-3	4-Chlorophenyl-phenylether	320	U
86-73-7	Fluorene	320	U
100-01-6	4-Nitroaniline	790	U
534-52-1	4,6-Dinitro-2-methylphenol	790	U
86-30-6	N-Nitrosodiphenylamine (1)	320	U
101-55-3	4-Bromophenyl-phenylether	320	U
118-74-1	Hexachlorobenzene	320	U
87-86-5	Pentachlorophenol	790	U
85-01-8	Phenanthrene	320	U
120-12-7	Anthracene	320	U
86-74-8	Carbazole	320	U
84-74-2	Di-n-Butylphthalate	320	U
206-44-0	Fluoranthene	320	U
129-00-0	Pyrene	320	U
85-68-7	Butylbenzylphthalate	320	U
91-94-1	3,3'-Dichlorobenzidine	320	U
56-55-3	Benzo(a)Anthracene	320	U
117-81-7	bis(2-Ethylhexyl)Phthalate	320	U
218-01-9	Chrysene	320	U
117-84-0	Di-n-Octyl Phthalate	320	U
205-99-2	Benzo(b)Fluoranthene	320	U
207-08-9	Benzo(k)Fluoranthene	320	U
50-32-8	Benzo(a)Pyrene	320	U
193-39-5	Indeno(1,2,3-cd)Pyrene	320	U
53-70-3	Dibenz(a,h)Anthracene	320	U
191-24-2	Benzo(g,h,i)Perylene	320	U

(1) - Cannot be separated from Diphenylamine

9213517.0722

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

000035
EPA SAMPLE NO.

B07238

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09037 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209037-06B

Sample wt/vol: 30.5 (g/mL) G Lab File ID: 20922S11

Level: (low/med) LOW Date Received: 09/15/92

% Moisture: 0 decanted: (Y/N) N Date Extracted: 09/17/92

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/22/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 9.0

Number TICs found: 8

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN HYDROCARBON	5.13	1900	~~BJ~~ U
2.	UNKNOWN HYDROCARBON	5.58	68000	~~BJ~~
3.	UNKNOWN HYDROCARBON	6.57	200	~~BJ~~
4.	UNKNOWN HYDROCARBON	6.67	950	~~BJ~~
5.	UNKNOWN HYDROCARBON	7.10	520	~~BJ~~
6.	UNKNOWN ALCOHOL	8.33	1500	~~BJ~~
7.	PROPANOIC ACID ISOMER	17.02	98	J
8.	UNKNOWN HYDROCARBON	22.68	98	J

RB
3/29/93

9213517.0723

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

000036
EPA SAMPLE NO.

B07239

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09037 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209037-07B

Sample wt/vol: 30.6 (g/mL) G Lab File ID: 20922S12

Level: (low/med) LOW Date Received: 09/15/92

% Moisture: 3 decanted: (Y/N) N Date Extracted: 09/17/92

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/22/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 9.2

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	330	U
111-44-4	bis(2-Chloroethyl)Ether	330	U
95-57-8	2-Chlorophenol	330	U
541-73-1	1,3-Dichlorobenzene	330	U
106-46-7	1,4-Dichlorobenzene	330	U
95-50-1	1,2-Dichlorobenzene	330	U
95-48-7	2-Methylphenol	330	U
108-60-1	2,2'-oxybis(1-Chloropropane)	330	U
106-44-5	4-Methylphenol	330	U
621-64-7	N-Nitroso-Di-n-Propylamine	330	U
67-72-1	Hexachloroethane	330	U
98-95-3	Nitrobenzene	330	U
78-59-1	Isophorone	330	U
88-75-5	2-Nitrophenol	330	U
105-67-9	2,4-Dimethylphenol	330	U
111-91-1	bis(2-Chloroethoxy)Methane	330	U
120-83-2	2,4-Dichlorophenol	330	U
120-82-1	1,2,4-Trichlorobenzene	330	U
91-20-3	Naphthalene	330	U
106-47-8	4-Chloroaniline	330	U
87-68-3	Hexachlorobutadiene	330	U
59-50-7	4-Chloro-3-Methylphenol	330	U
91-57-6	2-Methylnaphthalene	330	U
77-47-4	Hexachlorocyclopentadiene	330	U
88-06-2	2,4,6-Trichlorophenol	330	U
95-95-4	2,4,5-Trichlorophenol	810	U
91-58-7	2-Chloronaphthalene	330	U
88-74-4	2-Nitroaniline	810	U
131-11-3	Dimethylphthalate	330	U
208-96-8	Acenaphthylene	330	U
99-09-2	3-Nitroaniline	810	U
83-32-9	Acenaphthene	330	U
51-28-5	2,4-Dinitrophenol	810	U

RS 3/29/93

9713517.0724

000037

1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

B07239

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09037 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209037-07B

Sample wt/vol: 30.6 (g/mL) G Lab File ID: 20922S12

Level: (low/med) LOW Date Received: 09/15/92

% Moisture: 3 decanted: (Y/N) N Date Extracted: 09/17/92

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/22/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 9.2

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
100-02-7	4-Nitrophenol	810	U
132-64-9	Dibenzofuran	330	U
121-14-2	2,4-Dinitrotoluene	330	U
606-20-2	2,6-Dinitrotoluene	330	U
84-66-2	Diethylphthalate	330	U
7005-72-3	4-Chlorophenyl-phenylether	330	U
86-73-7	Fluorene	330	U
100-01-6	4-Nitroaniline	810	U
534-52-1	4,6-Dinitro-2-methylphenol	810	U
86-30-6	N-Nitrosodiphenylamine (1)	330	U
101-55-3	4-Bromophenyl-phenylether	330	U
118-74-1	Hexachlorobenzene	330	U
87-86-5	Pentachlorophenol	810	U
85-01-8	Phenanthrene	330	U
120-12-7	Anthracene	330	U
86-74-8	Carbazole	330	U
84-74-2	Di-n-Butylphthalate	330	U
206-44-0	Fluoranthene	330	U
129-00-0	Pyrene	330	U
85-68-7	Butylbenzylphthalate	330	U
91-94-1	3,3'-Dichlorobenzidine	330	U
56-55-3	Benzo(a)Anthracene	330	U
117-81-7	bis(2-Ethylhexyl)Phthalate	330	U
218-01-9	Chrysene	330	U
117-84-0	Di-n-Octyl Phthalate	330	U
205-99-2	Benzo(b)Fluoranthene	330	U
207-08-9	Benzo(k)Fluoranthene	330	U
50-32-8	Benzo(a)Pyrene	330	U
193-39-5	Indeno(1,2,3-cd)Pyrene	330	U
53-70-3	Dibenz(a,h)Anthracene	330	U
191-24-2	Benzo(g,h,i)Perylene	330	U

BB 9/29/92

(1) - Cannot be separated from Diphenylamine

9213517.0725

000038

1F

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B07239

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09037 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209037-07B

Sample wt/vol: 30.6 (g/mL) G Lab File ID: 20922S12

Level: (low/med) LOW Date Received: 09/15/92

% Moisture: 3 decanted: (Y/N) N Date Extracted: 09/17/92

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/22/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 9.2

Number TICs found: 8

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN HYDROCARBON	5.18	2200	~~BJ~~ U
2.	UNKNOWN HYDROCARBON	5.62	72000	~~BJ~~
3.	UNKNOWN HYDROCARBON	6.13	130	~~BJ~~
4.	UNKNOWN HYDROCARBON	6.57	200	~~BJ~~
5.	UNKNOWN HYDROCARBON	6.68	1100	~~BJ~~
6.	UNKNOWN HYDROCARBON	7.12	610	~~BJ~~
7.	UNKNOWN ALCOHOL	8.33	1200	~~BJ~~
8.	PROPANOIC ACID ISOMER	17.00	100	J

RB 3/22/93

9713517.0726

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

000039
EPA SAMPLE NO.

B07227

ab Name: TMA/ARLI Contract: WHC

ab Code: TMALA Case No.: 09037 SAS No.: NA SDG No.: NA

atrix: (soil/water) SOIL Lab Sample ID: A209037-01B

ample wt/vol: 30.3 (g/mL) G Lab File ID: _____

Moisture: 2 decanted: (Y/N) N Date Received: 09/15/92

xtraction: (SepF/Cont/Sonc) SONC Date Extracted: 09/18/92

oncentrated Extract Volume: 5000 (uL) Date Analyzed: 10/07/92

njection Volume: 1.00 (uL) Dilution Factor: 1.00

PC Cleanup: (Y/N) Y pH: 9.4 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	1.7	U J
319-85-7	beta-BHC	1.7	U
319-86-8	delta-BHC	1.7	U
58-89-9	gamma-BHC (Lindane)	1.7	U
76-44-8	Heptachlor	1.7	U
309-00-2	Aldrin	1.7	U
1024-57-3	Heptachlor epoxide	1.7	U
959-98-8	Endosulfan I	1.7	U
60-57-1	Dieldrin	3.3	U
72-55-9	4,4'-DDE	3.3	U
72-20-8	Endrin	3.3	U
33213-65-9	Endosulfan II	3.3	U
72-54-8	4,4'-DDD	3.3	U
1031-07-8	Endosulfan sulfate	3.3	U
50-29-3	4,4'-DDT	3.3	U
72-43-5	Methoxychlor	17	U
53494-70-5	Endrin ketone	3.3	U
7421-36-3	Endrin aldehyde	3.3	U
5103-71-9	alpha-Chlordane	1.7	U
5103-74-2	gamma-Chlordane	1.7	U
8001-35-2	Toxaphene	170	U
12674-11-2	Aroclor-1016	33	U
11104-28-2	Aroclor-1221	68	U
11141-16-5	Aroclor-1232	33	U
53469-21-9	Aroclor-1242	33	U
12672-29-6	Aroclor-1248	33	U
11097-69-1	Aroclor-1254	33	U
11096-82-5	Aroclor-1260	33	U

RB 3/24/93

9213517.0727

000040

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07228

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09037 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209037-02B

Sample wt/vol: 30.2 (g/mL) G Lab File ID:

% Moisture: 3 decanted: (Y/N) N Date Received: 09/15/92

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 09/18/92

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 10/07/92

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 9.4 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	1.7	UJ
319-85-7	beta-BHC	1.7	U
319-86-8	delta-BHC	1.7	U
58-89-9	gamma-BHC (Lindane)	1.7	U
76-44-8	Heptachlor	1.7	U
309-00-2	Aldrin	1.7	U
1024-57-3	Heptachlor epoxide	1.7	U
959-98-8	Endosulfan I	1.7	U
60-57-1	Dieldrin	3.4	U
72-55-9	4,4'-DDE	3.4	U
72-20-8	Endrin	3.4	U
33213-65-9	Endosulfan II	3.4	U
72-54-8	4,4'-DDD	3.4	U
1031-07-8	Endosulfan sulfate	3.4	U
50-29-3	4,4'-DDT	3.4	U
72-43-5	Methoxychlor	17	U
53494-70-5	Endrin ketone	3.4	U
7421-36-3	Endrin aldehyde	3.4	U
5103-71-9	alpha-Chlordane	1.7	U
5103-74-2	gamma-Chlordane	1.7	U
8001-35-2	Toxaphene	170	U
12674-11-2	Aroclor-1016	34	U
11104-28-2	Aroclor-1221	69	U
11141-16-5	Aroclor-1232	34	U
53469-21-9	Aroclor-1242	34	U
12672-29-6	Aroclor-1248	34	U
11097-69-1	Aroclor-1254	34	U
11096-82-5	Aroclor-1260	34	U

RB 3/29/93

9213517.0728

000041

EPA SAMPLE NO.

B07229

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09037 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209037-03D

Sample wt/vol: 30.2 (g/mL) G Lab File ID: _____

% Moisture: 4 decanted: (Y/N) N Date Received: 09/15/92

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 09/18/92

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 10/07/92

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 9.3 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	1.8	UJ
319-85-7	beta-BHC	1.8	U
319-86-8	delta-BHC	1.8	U
58-89-9	gamma-BHC (Lindane)	1.8	U
76-44-8	Heptachlor	1.8	U
309-00-2	Aldrin	1.8	U
1024-57-3	Heptachlor epoxide	1.8	U
959-98-8	Endosulfan I	1.8	U
60-57-1	Dieldrin	3.4	U
72-55-9	4,4'-DDE	3.4	U
72-20-8	Endrin	3.4	U
33213-65-9	Endosulfan II	3.4	U
72-54-8	4,4'-DDD	3.4	U
1031-07-8	Endosulfan sulfate	3.4	U
50-29-3	4,4'-DDT	3.4	U
72-43-5	Methoxychlor	18	U
53494-70-5	Endrin ketone	3.4	U
7421-36-3	Endrin aldehyde	3.4	U
5103-71-9	alpha-Chlordane	1.8	U
5103-74-2	gamma-Chlordane	1.8	U
8001-35-2	Toxaphene	180	U
12674-11-2	Aroclor-1016	34	U
11104-28-2	Aroclor-1221	69	U
11141-16-5	Aroclor-1232	34	U
53469-21-9	Aroclor-1242	34	U
12672-29-6	Aroclor-1248	34	U
11097-69-1	Aroclor-1254	34	U
11096-82-5	Aroclor-1260	34	U

RB 3/24/93

9213517.0729

000042

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07230

ab Name: TMA/ARLI Contract: WHC

ab Code: TMALA Case No.: 09037 SAS No.: NA SDG No.: NA

atrix: (soil/water) SOIL Lab Sample ID: A209037-05B

ample wt/vol: 30.4 (g/mL) G Lab File ID:

Moisture: 4 decanted: (Y/N) N Date Received: 09/15/92

xtraction: (SepF/Cont/Sonc) SONC Date Extracted: 09/18/92

oncentrated Extract Volume: 5000 (uL) Date Analyzed: 10/07/92

njection Volume: 1.00 (uL) Dilution Factor: 1.00

PC Cleanup: (Y/N) Y pH: 9.7 Sulfur Cleanup: (Y/N) N

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

CAS NO.	COMPOUND		Q
319-84-6	alpha-BHC	1.7	UJ
319-85-7	beta-BHC	1.7	U
319-86-8	delta-BHC	1.7	U
58-89-9	gamma-BHC (Lindane)	1.7	U
76-44-8	Heptachlor	1.7	U
309-00-2	Aldrin	1.7	U
1024-57-3	Heptachlor epoxide	1.7	U
959-98-8	Endosulfan I	1.7	U
60-57-1	Dieldrin	3.4	U
72-55-9	4,4'-DDE	3.4	U
72-20-8	Endrin	3.4	U
33213-65-9	Endosulfan II	3.4	U
72-54-8	4,4'-DDD	3.4	U
1031-07-8	Endosulfan sulfate	3.4	U
50-29-3	4,4'-DDT	3.4	U
72-43-5	Methoxychlor	17	U
53494-70-5	Endrin ketone	3.4	U
7421-36-3	Endrin aldehyde	3.4	U
5103-71-9	alpha-Chlordane	1.7	U
5103-74-2	gamma-Chlordane	1.7	U
8001-35-2	Toxaphene	170	U
12674-11-2	Aroclor-1016	34	U
11104-28-2	Aroclor-1221	69	U
11141-16-5	Aroclor-1232	34	U
53469-21-9	Aroclor-1242	34	U
12672-29-6	Aroclor-1248	34	U
11097-69-1	Aroclor-1254	34	U
11096-82-5	Aroclor-1260	34	U

RB 3/29/93

9213517.0730

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

000043

EPA SAMPLE NO.

B07238

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09037 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209037-06B

Sample wt/vol: 30.3 (g/mL) G Lab File ID:

Moisture: 0 decanted: (Y/N) N Date Received: 09/15/92

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 09/18/92

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 10/07/92

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 9.0 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	1.7	U J
319-85-7	beta-BHC	1.7	U
319-86-8	delta-BHC	1.7	U
58-89-9	gamma-BHC (Lindane)	1.7	U
76-44-8	Heptachlor	1.7	U
309-00-2	Aldrin	1.7	U
1024-57-3	Heptachlor epoxide	1.7	U
959-98-8	Endosulfan I	1.7	U
60-57-1	Dieldrin	3.3	U
72-55-9	4,4'-DDE	3.3	U
72-20-8	Endrin	3.3	U
33213-65-9	Endosulfan II	3.3	U
72-54-8	4,4'-DDD	3.3	U
1031-07-8	Endosulfan sulfate	3.3	U
50-29-3	4,4'-DDT	3.3	U
72-43-5	Methoxychlor	17	U
53494-70-5	Endrin ketone	3.3	U
7421-36-3	Endrin aldehyde	3.3	U
5103-71-9	alpha-Chlordane	1.7	U
5103-74-2	gamma-Chlordane	1.7	U
8001-35-2	Toxaphene	170	U
12674-11-2	Aroclor-1016	33	U
11104-28-2	Aroclor-1221	66	U
11141-16-5	Aroclor-1232	33	U
53469-21-9	Aroclor-1242	33	U
12672-29-6	Aroclor-1248	33	U
11097-69-1	Aroclor-1254	33	U
11096-82-5	Aroclor-1260	33	U

RB 3/24/93

9213517.0731

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

000044
EPA SAMPLE NO.

B07239

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09037 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209037-07B

Sample wt/vol: 30.3 (g/mL) G Lab File ID: _____

% Moisture: 3 decanted: (Y/N) N Date Received: 09/15/92

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 09/18/92

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 10/07/92

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 9.2 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	1.7	UJ
319-85-7	beta-BHC	1.7	U
319-86-8	delta-BHC	1.7	U
58-89-9	gamma-BHC (Lindane)	1.7	U
76-44-8	Heptachlor	1.7	U
309-00-2	Aldrin	1.7	U
1024-57-3	Heptachlor epoxide	1.7	U
959-98-8	Endosulfan I	1.7	U
60-57-1	Dieldrin	3.4	U
72-55-9	4,4'-DDE	3.4	U
72-20-8	Endrin	3.4	U
33213-65-9	Endosulfan II	3.4	U
72-54-8	4,4'-DDD	3.4	U
1031-07-8	Endosulfan sulfate	3.4	U
50-29-3	4,4'-DDT	3.4	U
72-43-5	Methoxychlor	17	U
53494-70-5	Endrin ketone	3.4	U
7421-36-3	Endrin aldehyde	3.4	U
5103-71-9	alpha-Chlordane	1.7	U
5103-74-2	gamma-Chlordane	1.7	U
8001-35-2	Toxaphene	170	U
12674-11-2	Aroclor-1016	34	U
11104-28-2	Aroclor-1221	68	U
11141-16-5	Aroclor-1232	34	U
53469-21-9	Aroclor-1242	34	U
12672-29-6	Aroclor-1248	34	U
11097-69-1	Aroclor-1254	34	U
11096-82-5	Aroclor-1260	34	U

RB 3/29/93

9713517.0752

N209106-01

TMA NORCAL
REPORTING GROUP 7091

DATA SHEET

B07227

SDG	7091	Client	Westinghouse Hanford
Contact	Dinkar Kharkar	Contract	MBH-SVV-069262
Lab sample id	N209106-01	Client sample id	B07227
Dept sample id	7091-001	Matrix	SOIL
Received	09/15/92	Collected	09/14/92
% moisture		Chain of custody id	002903

PARAMETER	CAS NO	RESULT pCi/G	2σ ERR (COUNT)	MDA pCi/G	RDL pCi/G	QUALI-FIERS	TEST
Gross Alpha	Alpha	4.1	6.1	9	10	UR	80A
Gross Beta	Beta	14	4.8	7	10		80B
Uranium 233/234		0.51	0.16	0.1	0.3		U
Uranium 235	15117-96-1	0.078	0.053	0.1	0.3	U	U
Uranium 238	7440-61-1	0.42	0.14	0.08	0.3		U
Plutonium 238	13981-16-3	0.014	0.017	0.02	0.05	U	PU
Plutonium 239/240		0	0.008	0.02	0.05	U	PU
Americium 241	14596-10-2	0.004	0.017	0.03	0.05	U	AM
Strontium 90	10098-97-2	0.099	0.60	2	1	U	Y
Carbon 14	14762-75-5	-6.5	5.0	8	50	U	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2	12	0.83				GAM
Iron 59		U		0.3	0.05	U	GAM
Chromium 51	14392-02-0	U		2		U	GAM
Cobalt 60	10198-40-0	U		0.04	0.05	U	GAM
Zinc 65	17982-39-3	U		0.1		U	GAM
Ruthenium 106	13967-48-1	U		0.3		U	GAM
Cesium 134	17967-70-9	U		0.05		U	GAM
Cesium 137	10045-97-3	0.19	0.050		0.05	U	GAM
Europium 152	14683-23-9	U		0.08	0.1	U	GAM
Europium 154	15585-10-1	U		0.05	0.1	U	GAM
Radium 226	13982-67-7	0.51	0.081				GAM
Thorium 228	14274-82-9	0.97	0.091				GAM
Thorium 232	7440-29-1	0.71	0.20				GAM

RB
2/26/93

Lab id	TMAN
Protocol	WHC-HEIS
Version	Ver 1.0
Form	DVD-DS
Version	2.20
Report date	01/07/93

9213517.0755

TMA NORCAL
REPORTING GROUP 7091

DATA SHEET

N209106-02

B07228

SDG 7091
Contact Dinkar Kharkar
Client Westinghouse Hanford
Contract MBH-SVV-069262

Lab sample id N209106-02
Dept sample id 7091-002
Received 09/15/92
% moisture
Client sample id B07228
Matrix SOIL
Collected 09/14/92
Chain of custody id 002903

PARAMETER	CAS NO	RESULT pCi/G	2σ ERR (COUNT)	MDA pCi/G	RDL pCi/G	QUALI-FIERS	TEST
Gross Alpha	Alpha	13	6.4	7	10	R	80A
Gross Beta	Beta	17	4.4	6	10		80B
Uranium 233/234		0.65	0.14	0.07	0.3		U
Uranium 235	15117-96-1	-0.006	0.026	0.07	0.3	U	U
Uranium 238	7440-61-1	0.61	0.12	0.05	0.3		U
Plutonium 238	13981-16-3	0.002	0.009	0.02	0.05	U	PU
Plutonium 239/240		0.007	0.009	0.02	0.05	U	PU
Americium 241	14596-10-2	0.002	0.018	0.03	0.05	U	AM
Strontium 90	10098-97-2	0.59	0.37	0.9	1	U	Y
Carbon 14	14762-75-5	-3.0	5.1	8	50	U	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2	14	0.93				GAM
Iron 59		U		0.3	0.05	U	GAM
Chromium 51	14392-02-0	U		3		U	GAM
Cobalt 60	10198-40-0	U		0.06	0.05	U	GAM
Zinc 65	17982-39-3	U		0.2		U	GAM
Ruthenium 106	13967-48-1	U		0.5		U	GAM
Cesium 134	17967-70-9	U		0.07		U	GAM
Cesium 137	10045-97-3	0.22	0.058		0.05	U	GAM
Europium 152	14683-23-9	0.42	0.099		0.1		GAM
Europium 154	15585-10-1	U		0.2	0.1	U	GAM
Radium 226	13982-67-7	0.68	0.093				GAM
Thorium 228	14274-82-9	1.3	0.084				GAM
Thorium 232	7440-29-1	0.96	0.21				GAM

NB 2/26/93

Lab id TMAN
Protocol WHC-MEIS
Version Ver 1.0
Form DVD-DS
Version 2.20
Report date 01/07/93

9713517.0734

TMA NORCAL

REPORTING GROUP 7091

DATA SHEET

N209106-03

B07229

SDG 7091
Contact Dinkar Kharkar
Client Westinghouse Hanford
Contract MBH-SVV-069262

Lab sample id N209106-03
Dept sample id 7091-003
Received 09/15/92
% moisture
Client sample id B07229
Matrix SOIL
Collected 09/14/92
Chain of custody id 002903

PARAMETER	CAS NO	RESULT pCi/G	2σ ERR (COUNT)	MDA pCi/G	RDL pCi/G	QUALI-FIERS	TEST
Gross Alpha	Alpha	8.7	6.2	8	10	~~J~~R	80A
Gross Beta	Beta	15	4.5	6	10		80B
Uranium 233/234		0.59	0.10	0.06	0.3		U
Uranium 235	15117-96-1	0.037	0.028	0.04	0.3	U	U
Uranium 238	7440-61-1	0.50	0.096	0.04	0.3		U
Plutonium 238	13981-16-3	-0.004	0.012	0.03	0.05	U	PU
Plutonium 239/240		0	0.004	0.02	0.05	U	PU
Americium 241	14596-10-2	0	0.013	0.03	0.05	U	AM
Strontium 90	10098-97-2	0.14	0.31	0.9	1	U	Y
Carbon 14	14762-75-5	-0.31	5.3	9	50	U	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2	12	0.84				GAM
Iron 59		U		0.3	0.05	U	GAM
Chromium 51	14392-02-0	U		2		U	GAM
Cobalt 60	10198-40-0	U		0.04	0.05	U	GAM
Zinc 65	17982-39-3	U		0.1		U	GAM
Ruthenium 106	13967-48-1	U		0.4		U	GAM
Cesium 134	17967-70-9	U		0.05		U	GAM
Cesium 137	10045-97-3	U		0.04	0.05	~~UJ~~	GAM
Europium 152	14683-23-9	U		0.09	0.1	U	GAM
Europium 154	15585-10-1	U		0.06	0.1	U	GAM
Radium 226	13982-67-7	0.54	0.076			44	GAM
Thorium 228	14274-82-9	0.97	0.073				GAM
Thorium 232	7440-29-1	0.95	0.18				GAM

RB
2/26/93

Lab id TMAN
Protocol WHC-HEIS
Version Ver 1.0
Form DVD-DS
Version 2.20
Report date 01/07/93

9213517.0735

N209106-04

TMA NORCAL
REPORTING GROUP 7091

DATA SHEET

B07230

SDG 7091
Contact Dinkar Kharkar
Client Westinghouse Hanford
Contract MBH-SVV-069262

Lab sample id N209106-04
Dept sample id 7091-004
Received 09/15/92
% moisture
Client sample id B07230
Matrix SOIL
Collected 09/14/92
Chain of custody id 002902

PARAMETER	CAS NO	RESULT pCi/G	2σ ERR (COUNT)	MDA pCi/G	RDL pCi/G	QUALI-FIERS	TEST
Gross Alpha	Alpha	7.5	5.3	6	10	JR	80A
Gross Beta	Beta	19	4.8	6	10		80B
Uranium 233/234		0.63	0.22	0.1	0.3		U
Uranium 235	15117-96-1	0.073	0.073	0.1	0.3	U	U
Uranium 238	7440-61-1	0.62	0.19	0.1	0.3		U
Plutonium 238	13981-16-3	0.002	0.009	0.02	0.05	U	PU
Plutonium 239/240		0.006	0.009	0.02	0.05	U	PU
Americium 241	14596-10-2	-0.003	0.010	0.02	0.05	U	AM
Strontium 90	10098-97-2	-0.14	1.4	2	1	U	Y
Carbon 14	14762-75-5	-2.6	4.8	8	50	U	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2	12	0.93				GAM
Iron 59		U		0.3	0.05	U	GAM
Chromium 51	14392-02-0	U		2		U	GAM
Cobalt 60	10198-40-0	U		0.05	0.05	U	GAM
Zinc 65	17982-39-3	U		0.1		U	GAM
Ruthenium 106	13967-48-1	U		0.4		U	GAM
Cesium 134	17967-70-9	U		0.06		U	GAM
Cesium 137	10045-97-3	U		0.05	0.05	~~U~~	GAM
Europium 152	14683-23-9	U		0.09	0.1	U	GAM
Europium 154	15585-10-1	U		0.06	0.1	U	GAM
Radium 226	13982-67-7	0.53	0.089			J	GAM
Thorium 228	14274-82-9	1.0	0.061			J	GAM
Thorium 232	7440-29-1	0.92	0.22				GAM

RD
2/26/93

Lab id TMAN
Protocol WHC-HEIS
Version Ver 1.0
Form DVD-DS
Version 2.20
Report date 01/07/93

9715517.0756

TMA NORCAL

REPORTING GROUP 7091

DATA SHEET

N209106-05

B07238

SDG	7091	Client	Westinghouse Hanford
Contact	Dinkar Kharkar	Contract	MBH-SVV-069262
Lab sample id	N209106-05	Client sample id	B07238
Dept sample id	7091-005	Matrix	SOIL
Received	09/15/92	Collected	09/14/92
% moisture		Chain of custody id	002902

PARAMETER	CAS NO	RESULT pCi/G	2σ ERR (COUNT)	MDA pCi/G	RDL pCi/G	QUALI-FIERS	TEST
Gross Alpha	Alpha	2.6	4.8	7	10	U	80A
Gross Beta	Beta	0.37	3.2	5	10	U	80B
Uranium 233/234		1.1	0.16	0.05	0.3		U
Uranium 235	15117-96-1	0.069	0.046	0.04	0.3	J	U
Uranium 238	7440-61-1	1.2	0.17	0.05	0.3		U
Plutonium 238	13981-16-3	0.010	0.024	0.05	0.05	U	PU
Plutonium 239/240		0.007	0.020	0.04	0.05	U	PU
Americium 241	14596-10-2	0.007	0.041	0.09	0.05	U	AM
Strontium 90	10098-97-2	0.25	0.33	0.8	1	U	Y
Carbon 14	14762-75-5	-2.2	4.1	7	50	U	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2	0.62	0.21				GAM
Iron 59		U		0.1	0.05	U	GAM
Chromium 51	14392-02-0	U		0.9		U	GAM
Cobalt 60	10198-40-0	U		0.02	0.05	U	GAM
Zinc 65	17982-39-3	U		0.04		U	GAM
Ruthenium 106	13967-48-1	U		0.2		U	GAM
Cesium 134	17967-70-9	U		0.02		U	GAM
Cesium 137	10045-97-3	U		0.02	0.05	U	GAM
Europium 152	14683-23-9	U		0.04	0.1	U	GAM
Europium 154	15585-10-1	U		0.03	0.1	U	GAM
Radium 226	13982-67-7	0.084	0.026				GAM
Thorium 228	14274-82-9	0.12	0.021				GAM
Thorium 232	7440-29-1	0.090	0.075				GAM

MF 2/26/93

Lab id	TMAN
Protocol	WHC-HEIS
Version	Ver 1.0
Form	DVD-DS
Version	2.20
Report date	01/07/93

9713517.0737

TMA NORCAL

REPORTING GROUP 7091

N209106-06

DATA SHEET

B07239

SDG	7091	Client	Westinghouse Hanford
Contact	Dinkar Kharkar	Contract	MBH-SVV-069262
Lab sample id	N209106-06	Client sample id	B07239
Dept sample id	7091-006	Matrix	SOIL
Received	09/15/92	Collected	09/14/92
% moisture		Chain of custody id	002902

PARAMETER	CAS NO	RESULT pCi/G	2σ ERR (COUNT)	MDA pCi/G	RDL pCi/G	QUALI-FIERS	TEST
Gross Alpha	Alpha	7.2	5.8	7	10	J	80A
Gross Beta	Beta	19	4.4	5	10		80B
Uranium 233/234		0.60	0.11	0.07	0.3		U
Uranium 235	15117-96-1	0.044	0.040	0.05	0.3	U	U
Uranium 238	7440-61-1	0.59	0.10	0.05	0.3		U
Plutonium 238	13981-16-3	-0.004	0.017	0.03	0.05	U	PU
Plutonium 239/240		0	0.004	0.02	0.05	U	PU
Americium 241	14596-10-2	0.008	0.016	0.03	0.05	U	AM
Strontium 90	10098-97-2	-0.002	1.6	2	1	U	Y
Carbon 14	14762-75-5	-2.4	5.2	8	50	U	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2	13	0.92				GAM
Iron 59		U		0.3	0.05	U	GAM
Chromium 51	14392-02-0	U		2		U	GAM
Cobalt 60	10198-40-0	U		0.05	0.05	U	GAM
Zinc 65	17982-39-3	U		0.1		U	GAM
Ruthenium 106	13967-48-1	U		0.4		U	GAM
Cesium 134	17967-70-9	U		0.06		U	GAM
Cesium 137	10045-97-3	U		0.05	0.05	U	GAM
Europium 152	14683-23-9	U		0.1	0.1	U	GAM
Europium 154	15585-10-1	U		0.08	0.1	U	GAM
Radium 226	13982-67-7	0.65	0.090				GAM
Thorium 228	14274-82-9	1.1	0.094				GAM
Thorium 232	7440-29-1	0.88	0.17				GAM

RB 2/26/93

Lab id	TMAN
Protocol	WHC-HEIS
Version	Ver 1.0
Form	DVD-DS
Version	2.20
Report date	01/07/93

Project WESTINGHOUSE-HANFORD																				
Laboratory [illegible]																				
Case	SDG [illegible]																			
Sample Number	[illegible]		[illegible]		[illegible]		[illegible]		[illegible]		[illegible]									
Location	[illegible]		[illegible]		[illegible]		[illegible]		[illegible]		[illegible]									
Remarks																				
Sample Date	[illegible]		[illegible]		[illegible]		[illegible]		[illegible]		[illegible]									
Analysis Date	12/20/92		12/20/92		[illegible]		12/20/92		12/20/92		12/20/92									
Radiochemistry Analysis	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Gross Alpha	[illegible]	R	[illegible]	R	[illegible]	R	[illegible]	R	[illegible]	R	[illegible]	R								
Gross Beta	14		[illegible]		[illegible]		19		[illegible]		19									
Uranium-233/234	[illegible]		[illegible]		[illegible]		[illegible]		[illegible]		[illegible]									
Uranium-235	[illegible]	U	[illegible]	U	[illegible]	U	[illegible]	U	[illegible]	J	[illegible]	U								
Uranium-238	0.42		[illegible]		[illegible]		[illegible]		[illegible]		[illegible]									
Plutonium-238	[illegible]	U	[illegible]	U	[illegible]	U	[illegible]	U	[illegible]	U	[illegible]	U								
Plutonium-239/240	0	U	[illegible]	U	0	U	[illegible]	U	[illegible]	U	0	U								
Americium-241	[illegible]	U	[illegible]	U	0	U	[illegible]	U	[illegible]	U	[illegible]	U								
Technetium-99	[illegible]	U																		
Strontium-90	[illegible]	U	[illegible]	U	[illegible]	U	[illegible]	U	[illegible]	U	[illegible]	U								
Carbon-14	[illegible]	U	[illegible]	U	[illegible]	U	[illegible]	U	[illegible]	U	[illegible]	U								
Potassium-40	[illegible]		[illegible]		[illegible]		12		[illegible]		[illegible]									
Chromium-51	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U								
Cobalt-60	N/D	U																		
Zinc-65	N/D	U																		
Cesium-134	N/D	U																		
Cesium-137	[illegible]		[illegible]																	
Radium-226	[illegible]	J	[illegible]	J	[illegible]		[illegible]		[illegible]		[illegible]									
Thorium-228	[illegible]	J	[illegible]	J	[illegible]		[illegible]		[illegible]		[illegible]									
Thorium-232	[illegible]		[illegible]		[illegible]		[illegible]		[illegible]		[illegible]									
Europium-152	N/D	U	[illegible]		N/D	U	N/D	U	N/D	U	N/D	U								
Europium-154	N/D	U	[illegible]	U																
Europium-155																				
Beryllium-7																				
Barium-140																				
Manganese-54																				
Cobalt-58																				
Cerium-141																				
Cerium-144																				
Iron-59	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U								
Zirconium-95																				
Ruthenium-103																				
Ruthenium-106	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U	N/D	U								
Iodine-131																				

NJ = [illegible] - [illegible]

9213517.0739

Westinghouse Hanford Company	CHAIN OF CUSTODY	002903

Custody Form Initiator KB Hulse

Company Contact MT Stankovich / KN Pool

Telephone 376-2493/373-3137

Project Designation/Sampling Locations SAF #92-289 100-KR-1 Vadose Test Pits

Collection Date 9-~~14~~-92 14 KBH 9-14-92

Ice Chest No.

Field Logbook No. WHC-N-205 #15 pg 61

Bill of Lading/Airbill No.

Offsite Property No. W92-0-0622 #

Method of Shipment Emery Air Express AIR OVERNIGHT

Shipped to TMA/NORCAL 2030 Write Av. Richmond CA 94804

Possible Sample Hazards/Remarks None Known

Sample Identification

B07227 5 Bottles
B07228 5 Bottles
B07229 5 Bottles
B07249 1 Bottle
Total 16 Bottles

KB Hulse 9-14-92

KB Hulse 9-14-92

☐ Field Transfer of Custody

CHAIN OF POSSESSION (Sign and Print Names)

Relinquished by:	Received by:	Date/Time:
KB Hulse (KB Hulse)	Kermit Blum	9-15-92 1130
Relinquished by:	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)

9213517.0340

Westinghouse Hanford Company

SAMPLE ANALYSIS REQUEST COC 2903

Collector KB Hulse Date 9-14-92

Company Contact K. N. Pool Telephone (509) 373-3137

Sample Number	*	Date Collected	Time Collected	Number and Type of Sample Containers/Analysis Requested
B07227	S	9-11-92	0925	1-120ml aG VOA (CLP)
				1-500ml aG SEMI-VOA PCB's/Pest. (CLP)
				1-500ml aG Anions/IC pH (300.0, 353.2 9040)
				1-250ml aG ICP/AA Metals, Hg, CN (CLP)
				1-1000ml G Radionuclides (Lab SOP)
B07228			0945	1-120ml aG VOA (CLP)
				1-500ml aG SEMI-VOA PCB's/Pest. (CLP)
				1-500ml aG Anions/IC pH (300.0, 353.2 9040)
				1-125ml aG ICP/AA Metals, Hg, CN (CLP)
				1-1000ml G Radionuclides (Lab SOP)
B07229			1005	1-120ml aG VOA (CLP)
				1-500ml aG SEMI-VOA PCB's/Pest. (CLP)
				1-500ml aG Anions/IC pH (300.0, 353.2, 9040)
				1-125ml aG ICP/AA Metals, Hg, CN (CLP)
				1-1000ml G Radionuclides (Lab SOP)
B07249		9-11-92	0730	1-120ml aG VOA (CLP)
				16 TOTAL Bottles
				KB Hulse 9-14-92

*Type of Sample: A = Air; DL = Drum Liquids; DS = Drum Solids; L = Liquid; O = Oil; S = Soil; SE = Sediment; SL = Sludge; SO = Solid; T = Tissue; W = Water; WI = Wipe; X = Other

Field Information

Special Handling and/or Storage Stored at 4°C and shipped on WET ICE. WATCH HOLD TIMES.

Possible Sample Hazards None Known

049

A-6000-406 (06/91)

9216512.0941

Westinghouse Hanford Company	CHAIN OF CUSTODY	002902

Custody Form Initiator KB Hulse

Company Contact MT Stankovich / KN Pool

Telephone 376-2493/373-3137

Project Designation/Sampling Locations SAF #92-289 100-KR-1 Vadose Test Pits

Collection Date 9-~~14~~ 14-92 KBH 9-14-92

Ice Chest No.

Field Logbook No. WHC-N-205 #15 pg 61

Bill of Lading/Airbill No.

Offsite Property No. W92-0-0622 #

Method of Shipment Emery Air Express AIR OVERNIGHT

Shipped to TMA/NORCAL 2030 Write Av. Richmond CA 94804

Possible Sample Hazards/Remarks None Known

Sample Identification

B07230 5 Bottles
B07238 5 Bottles
B07239 5 Bottles
B07248 1 Bottle

Total 16 Bottles

KB Hulse 9-14-92

KB Hulse 9-14-92

☐ Field Transfer of Custody

CHAIN OF POSSESSION (Sign and Print Names)

Relinquished by:	Received by:	Date/Time:
KB Hulse KB Hulse	Kermit Blum	9-15-92 1130

Final Sample Disposition

Disposal Method:	Disposed by:	Date/Time: 050

Comments:

A-6000-407 (12/90)

9215512.0242

Westinghouse Hanford Company

SAMPLE ANALYSIS REQUEST COC 2902

Collector KB Hulse Date 9-14-92

Company Contact K. N. Pool Telephone (509) 373-3137

Sample Number	*	Date Collected	Time Collected	Number and Type of Sample Containers/Analysis Requested
B07230	S	9-11-92	1025	1-120ml aG VOA (CLP)
				1-500ml aG SEMI-VOA PCB's/Pest. (CLP)
				1-500ml aG Anions/IC pH (300.0, 353.2 9040)
				1-250ml aG ICP/AA Metals, Hg, CN (CLP)
				1-1000ml G Radionuclides (Lab SOP)
B07238			0920	1-120ml aG VOA (CLP)
				1-500ml aG SEMI-VOA PCB's/Pest. (CLP)
				1-500ml aG Anions/IC pH (300.0, 353.2 9040)
				1-125ml aG ICP/AA Metals, Hg, CN (CLP)
				1-1000ml G Radionuclides (Lab SOP)
B07239			0945	1-120ml aG VOA (CLP)
				1-500ml aG SEMI-VOA PCB's/Pest. (CLP)
				1-500ml aG Anions/IC pH (300.0, 353.2, 9040)
				1-125ml aG ICP/AA Metals, Hg, CN (CLP)
				1-1000ml G Radionuclides (Lab SOP)
B07248		9-11-92	0730	1-120ml aG VOA (CLP)
				16 TOTAL Bottles
				9-14-92

*Type of Sample A = Air, DL = Drum Liquids, DS = Drum Solids, L = Liquid, O = Oil, S = Soil, SE = Sediment, SL = Sludge, SO = Solid, T = Tissue, W = Water, Wl = Wipe, X = Other

Field Information

Special Handling and/or Storage Stored at 4°C and shipped on WET ICE. WATCH HOLD TIMES.

Possible Sample Hazards None Known

051

A-6000-406 (06/91)