B07212-TMA-271

TMA 394

START 9715505.1346

0045802

WESTINGHOUSE HANFORD COMPANY

Results of Analyses For:

NOV 1992
RECEIVED
OSM DMG

ORGANICS & GENERAL CHEMISTRY
Case No. 09-012
(TMA/ARLI Work Order # A2-09-012)

METALS
Case No. N2-09-031
(TMA/Skinner & Sherman W.O. # S2-09-084 & S2-09-092)

November 11, 1992

TMA Master Work Order N2-09-031

NOV 1996
RECEIVED
EDMC

1/12/96 KSb

FEDERAL EXPRESS

QUESTIONS? CALL 800-238-5355 TOLL FREE.

AIRBILL
PACKAGE TRACKING NUMBER 6895982645

3063N 6895982645

RECIPIENT'S COPY

1 Date 4/6/93

From (Your Name) Please Print: RICHARD BREITKOPF
Your Phone Number (Very Important): (212)425-5470
Company: A T KEARNEY/NY PROJ OFC/DUS AC
Department/Floor No.
Street Address: ONE WALL STREET COURT 3RD FL.
City: NEW YORK State: NY ZIP Required: 10005

2 To (Recipient's Name) Please Print: SEIPRIYA CHARI
Recipient's Phone Number (Very Important): (415)595-4300
Company: A.T. KEARNEY, INC. SUITE 220
Department/Floor No.
Exact Street Address (We Cannot Deliver to P.O. Boxes or P.O. Zip Codes.): ONE LAGOON DRIVE
City: REDWOOD CITY State: CA ZIP Required: 94065

YOUR INTERNAL BILLING REFERENCE INFORMATION (optional) (First 24 characters will appear on invoice.): G954-03

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 [ ] OTHER PACKAGING
16 [ ] FEDEX LETTER*
12 [ ] FEDEX PAK*
13 [ ] FEDEX BOX
14 [ ] FEDEX TUBE

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

Economy Two-Day (Delivery by second business day †)
30 [ ] ECONOMY*
* Economy Letter rate not available. Minimum charge: One pound economy rate.

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

Freight Service (for packages over 150 lbs.)
70 [ ] OVERNIGHT FREIGHT** (Confirmed reservation required)
80 [ ] TWO-DAY FREIGHT**
† Delivery commitment may be later in some areas.
*Declared Value Limit $500.
**Call for delivery schedule.

5 DELIVERY AND SPECIAL HANDLING (Check services required)
1 [ ] HOLD FOR PICK-UP (Fill in Box H)
2 [X] DELIVER WEEKDAY
3 DELIVER SATURDAY (Extra charge) (Not available to all locations) [ ]
4 [ ] DANGEROUS GOODS (Extra charge)
5 [ ]
6 [ ] DRY ICE Dangerous Goods Shipper's Declaration not required
Dry Ice 9, UN 1845, ____ x ____ kg. 904 III
7 [ ] OTHER SPECIAL SERVICE
8 [ ]
9 [ ] SATURDAY PICK-UP (Extra charge)
10 [ ]
12 [ ] HOLIDAY DELIVERY (If offered) (Extra charge)

6 PACKAGES | WEIGHT In Pounds Only | YOUR DECLARED VALUE (See right)
Total | Total | Total

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

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

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

7 Release Signature:

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

REVISION DATE 11/92
PART #137204 FXEM 1/93
FORMAT #155
155
© 1992 FEDEX PRINTED IN U.S.A.

9713505.1347

7/12/96 KDD

9713505.1348

000002

Westinghouse Hanford Company	ARL1 CHAIN OF CUSTODY	003334

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 8-31-92

Ice Chest No. Bad Boy — Field Logbook No. WHC-N-205 #15

Bill of Lading/Airbill No. 250 987 032 T — Offsite Property No.

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

B07212 ~~six (6)~~ Bottles x 3

B07213 ~~six (6)~~ Bottles x 3

B07214 ~~six (6)~~ Bottles x 3

B07219 one (1) Bottle

Total ~~14~~ Bottles 10

KB H 8-31-92

KB H 8-31-92

☐ Field Transfer of Custody	CHAIN OF POSSESSION	(Sign and Print Names)
Relinquished by: KB Hulse KB Hulse	Received by: Kermit Blum	Date/Time: 9-3-92 1145
Relinquished by: 9-3-92 Kermit Blum	Received by: Terry Gang Judy [illegible]	Date/Time: 9/4/92 0945
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)

9713505.1349

000003

Westinghouse Hanford Company

SAMPLE ANALYSIS REQUEST

COC 2894

Collector KB Hulse

Date 9-1-92

Company Contact K.N. Pool

Telephone (509) 373-~~3117~~ 3137

Sample Number	*	Date Collected	Time Collected	Number and Type of Sample Containers/Analysis Requested
B07212	S	8-31-92	1000	~~1-250ml aG ICP/AA Metals, Hg (CLP)~~
				~~1-125ml G CN (CLP)~~
				1-500ml aG SEMI-VOA, PCB/Pests (CLP)
				1-500ml aG ANIONS/IC pH (300.0/~~353.2~~ 9040)
				1-120ml aG VOA (CLP)
				~~1-1000ml G Radionuclides (Lab SOP)~~
B07213			10:50	~~1-250ml aG ICP/AA Metals, Hg (CLP)~~
				~~1-125ml G CN (CLP)~~
				1-500ml aG SEMI-VOA, PCB/Pests (CLP)
				1-500ml aG Anions/IC, pH (300.0/~~353.2~~ 9040)
				1-120ml aG VOA (CLP)
				~~1-1000ml G RADIONUCLIDES (Lab SOP)~~
B07214			11:27	~~1-250ml aG ICP/AA Metals, Hg (CLP)~~
				1-500ml aG SEMI-VOA, PCB/Pests. (CLP)
				1-500ml aG Anions/IC, pH (300.0/~~353.2~~ 9040)
				1-120ml aG VOA (CLP)
				~~1-1000ml G Radionuclides (Lab SOP)~~
B07219			11:45	1-120ml aG VOA (CLP)
~~B07214~~			~~11:27~~	~~1-125ml G CN (CLP)~~
				Total ~~19~~ Bottles 10

*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 keep cool

Possible Sample Hazards None Known

A-6000-406 (06/91)

9213505.1350

000004

Westinghouse Hanford Company

ARL1

CHAIN OF CUSTODY 002896

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 8-31-92

Ice Chest No. SML-107

Field Logbook No. WHC-N-205 #15

Bill of Lading/Airbill No. 250 987 032 T

Offsite Property No.

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

B07215 ~~six (6)~~ Bottles x 3

B07217 ~~six (6)~~ Bottles x 3

B07218 ~~six (6)~~ Bottles x 3

B07240 one (1) Bottles

TOTAL ~~19~~ 10

KB Hulse 8-31-92

KB Hulse 8-31-92

☐ Field Transfer of Custody

CHAIN OF POSSESSION (Sign and Print Names)

Relinquished by:	Received by:	Date/Time:
KB Hulse KB Hulse	Kermit Blum	9-3-92 1145
Relinquished by: 9-3-92 Kermit Blum	Received by: Terry Gaus	Date/Time: 9/4/92 0945
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)

9713505.1351

000005

Westinghouse Hanford Company

SAMPLE ANALYSIS REQUEST

COC 2896

Collector KB Hulse Date 9-1-92

Company Contact K.N. Pool Telephone (509) 373-~~3117~~ 3137

Sample Number	*	Date Collected	Time Collected	Number and Type of Sample Containers/Analysis Requested
B07215	S	8-31-92	11:27	~~1-250ml aG ICP/AA Metals, Hg (CLP)~~
				~~1-125ml G CN (CLP)~~
				1-500ml aG SEMI-VOA, PCB/Pests (CLP)
				1-500ml aG ANIONS/IC pH (300.0/~~353.2~~ 9040)
				1-120ml aG VOA (CLP)
				~~1-1000ml G Radionuclides (Lab SOP)~~
B07217			12:16	~~1-250ml aG ICP/AA Metals, Hg (CLP)~~
				~~1-125ml G CN (CLP)~~
				1-500ml aG SEMI-VOA, PCB/Pests (CLP)
				1-500ml aG Anions/IC, pH (300.0/~~353.2~~ 9040)
				1-120ml aG VOA (CLP)
				~~1-1000ml G RADIONUCLIDES (Lab SOP)~~
B07218			12:45	~~1-250ml aG ICP/AA Metals, Hg (CLP)~~
				1-500ml aG SEMI-VOA, PCB/Pests. (CLP)
				1-500ml aG Anions/IC, pH (300.0/~~353.2~~ 9040)
				1-120ml aG VOA (CLP)
				~~1-1000ml G Radionuclides (Lab SOP)~~
B07240			11:45	1-120ml aG VOA (CLP)
~~B07218~~			~~12:45~~	~~1-125ml G CN (CLP)~~
				Total ~~19~~ Bottles 10

*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 keep cool

Possible Sample Hazards None Known

A-6000-406 (05/31)

9713505.1352

000006

Westinghouse Hanford Company

ARL | CHAIN OF CUSTODY 002897

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 9-1-92

Ice Chest No. SML-113

Field Logbook No. WHC-N-205 #15

Bill of Lading/Airbill No. 250 987 032 T

Offsite Property No.

Method of Shipment ENERY AIR EXPRESS AIR OVERNIGHT

Shipped to TMA/NORCAL 2030 Write Av Richmond CA 94804

Possible Sample Hazards/Remarks none Known

Sample Identification

B07220	~~six (6)~~	Bottles	x 3
B07221	~~six (6)~~	Bottles	x 3
B07222	~~six (6)~~	Bottles	x 3
B07242	one (1)	Bottle	
	TOTAL ~~19~~		10

KB 9-1-92

KB 9-1-92

☐ Field Transfer of Custody

CHAIN OF POSSESSION (Sign and Print Names)

Relinquished by:	Received by:	Date/Time:
KB Hulse (KB Hulse)	Kermit Blum	9 3-92 1145
Kermit Blum 9 3-92	Judy [illegible] Teresa Gaus	9/4/92 0945

Final Sample Disposition

Disposal Method:	Disposed by:	Date/Time:

Comments:

A-6000-407 (12/90)

Westinghouse Hanford Company

SAMPLE ANALYSIS REQUEST COC 2897

Collector KB Hulse Date 9-1-92

Company Contact K.N. Pool Telephone (509) 373-~~3117~~ 3137

Sample Number	*	Date Collected	Time Collected	Number and Type of Sample Containers/Analysis Requested
B07220	S	9-1-92	9:50	~~1-250ml aG ICP/AA Metals, Hg (CLP)~~
				~~1-125ml G CN (CLP)~~
				1-500ml aG SEMI-VOA, PCB/Pests (CLP)
				1-500ml aG ANIONS/IC pH (300.0/~~353.2~~ 9040) ARL
				1-120ml aG VOA (CLP)
				~~1-1000ml G Radionuclides (Lab SOP)~~
B07221			10:16	~~1-250ml aG ICP/AA Metals, Hg (CLP)~~
				~~1-125ml G CN (CLP)~~
				1-500ml aG SEMI-VOA, PCB/Pests (CLP)
				1-500ml aG Anions/IC, pH (300.0/~~353.2~~ 9040)
				1-120ml aG VOA (CLP)
				~~1-1000ml G RADIONUCLIDES (Lab SOP)~~
B07222			10:38	~~1-250ml aG ICP/AA Metals, Hg (CLP)~~
				1-500ml aG SEMI-VOA, PCB/Pests. (CLP)
				1-500ml aG Anions/IC, pH (300.0/~~353.2~~ 9040)
				1-120ml aG VOA (CLP)
				~~1-1000ml G Radionuclides (Lab SOP)~~
B07242		8-31-92	11:45	1-120ml aG VOA (CLP)
~~B07222~~		~~9-1-92~~	~~10:38~~	~~1-125ml G CN (CLP)~~
				Total ~~19~~ Bottles 10

*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 keep cool

Possible Sample Hazards None Known

9713505.1354 000008

Westinghouse Hanford Company

ARL | CHAIN OF CUSTODY 002898

Custody Form Initiator KB Hulse

Company Contact MT Stankvoich / KN Pool

Telephone 376-2493/373-3137

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

Collection Date 9-1-92

Ice Chest No. SML-122

Field Logbook No. WHC-N-205 #15

Bill of Lading/Airbill No. 250 987 032 T

Offsite Property No.

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

B07224 ~~six (6)~~ Bottles x 3

B07225 ~~six (6)~~ Bottles x 3

B07226 ~~six (6)~~ Bottles x 3

B07243 one (1) Bottle

TOTAL ~~19~~ 10

KBH 9-1-92

KBH 9-1-92

☐ Field Transfer of Custody

CHAIN OF POSSESSION (Sign and Print Names)

Relinquished by:	Received by:	Date/Time:
KB Hulse (KB Hulse)	Kermit Blum	9-3-92 1145
Kermit Blum 9-3-92	Terry Gang	9/4/92 0945

Final Sample Disposition

Disposal Method:	Disposed by:	Date/Time:

Comments:

A-6000-407 (12/90)

9713505.1355

000009

Westinghouse Hanford Company

SAMPLE ANALYSIS REQUEST COC 2898

Collector KB Hulse Date 9-1-92

Company Contact K.N. Pool Telephone (509) 373-~~3117~~ 3137

Sample Number	*	Date Collected	Time Collected	Number and Type of Sample Containers/Analysis Requested
B07224	S	9-1-92	10:38	~~1-250ml aG ICP/AA Metals, Hg (CLP)~~
				~~1-125ml G CN (CLP)~~
				1-500ml aG SEMI-VOA, PCB/Pests (CLP)
				1-500ml aG ANIONS/IC pH (300.0/~~353.2~~ 9040)
				1-120ml aG VOA (CLP)
				~~1-1000ml G Radionuclides (Lab SOP)~~
B07225			11:07	~~1-250ml aG ICP/AA Metals, Hg (CLP)~~
				~~1-125ml G CN (CLP)~~
				1-500ml aG SEMI-VOA, PCB/Pests (CLP)
				1-500ml aG Anions/IC, pH (300.0/~~353.2~~ 9040)
				1-120ml aG VOA (CLP)
				~~1-1000ml G RADIONUCLIDES (Lab SOP)~~
B07226			11:23	~~1-250ml aG ICP/AA Metals, Hg (CLP)~~
				1-500ml aG SEMI-VOA, PCB/Pests. (CLP)
				1-500ml aG Anions/IC, pH (300.0/~~353.2~~ 9040)
				1-120ml aG VOA (CLP)
				~~1-1000ml G Radionuclides (Lab SOP)~~
B07243		8-31-92	11:45	1-120ml aG VOA (CLP)
~~B07226~~		~~9-1-92~~	~~11:23~~	~~1-125ml G CN (CLP)~~
				Total ~~19~~ Bottles 10

*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 keep cool

Possible Sample Hazards None Known

A-6000-406 (06 91)

9713505.1356 SAMPLE LOG-IN SHEET 000010

LAB NAME : TMA/ARLI PAGE : OF

RECEIVED BY (PRINT NAME): CAROLE HARRIS LOG-IN-DATE : 9-4-92

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.: 5188043173
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: 9-4-92
12. Temp of ice chest 4.0 °C
13. Time Recieved: 9:45

SAMPLE TRANSFER

Fraction:
Area #:
By:
On:

EPA SAMPLE #	CORRESPONDING SAMPLE TAG #	CORRESPONDING ASSIGNED LAB #	REMARKS: CONDITION OF SAMPLE SHIPMENT, ETC
	B07212	A2-09-012-01	
	B07213	A2-09-012-02	
	B07214	A2-09-012-03	
	B07219	A2-09-012-04	
	B07215	A2-09-012-05	
	B07217	A2-09-012-06	
	B07218	A2-09-012-07	
	B07240	A2-09-012-08	
	B07220	A2-09-012-09	
	B07221	A2-09-012-10	
	B07222	A2-09-012-11	
	B07242	A2-09-012-12	
	B07224	A2-09-012-13	
	B07225	A2-09-012-14	
	B07226	A2-09-012-15	
	B07243	A2-09-012-16	

* Contact SMO and attach record of resolution

Reviewed By: Logbook No.:

Date: Logbook Page No.:

FORM DC-1

DOC2/LOGIN.TBL

9713505.1357

000011

FEDERAL EXPRESS

[redacted]

QUESTIONS? CALL 800-238-5355 TOLL FREE.

AIRBILL PACKAGE TRACKING NUMBER 5188043173

2.37. 5188043173

[redacted] Date 9.3.92

RECIPIENT'S COPY

From (Your Name) Please Print: SAMPLE control

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

Company: I.M.A INDRCAL

Department/Floor No.

Street Address: 2030 WRIGHT AVE

City: RICHMOND State: CA ZIP Required: 94804

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

Recipient's Phone Number (Very Important)

Company: TMA / ARL

Department/Floor No.

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

City: MONROVIA State: CA ZIP Required: 91016

YOUR INTERNAL BILLING REFERENCE INFORMATION (optional) (First 24 characters will appear on invoice.): 23206406

IF HOLD FOR PICK-UP, Print FEDEX Address Here: Street Address

City State ZIP Required

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

SERVICES (Check only one box)

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

Standard Overnight (Delivery by next business afternoon; Saturday delivery)
- 51 [ ] YOUR PACKAGING
- 56 [ ] FEDEX LETTER*
- 52 [ ] FEDEX PAK*
- 53 [ ] FEDEX BOX
- 54 [ ] FEDEX TUBE

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

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

Freight Service (for packages over 150 lbs.)
- OVERNIGHT FREIGHT** (priority service) (indicate main zone area)
- 80 [ ] TWO-DAY FREIGHT**

*Declared Value Limit $500
**Call for delivery schedule

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

PACKAGES	WEIGHT in Pounds Only	YOUR DECLARED VALUE
Total	Total 4	Total 220

DIM SHIPMENT (Chargeable Weight) [ ] lbs.

L x W x H

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

Emp. No. Date

[ ] Cash Received
[ ] Return Shipment
[ ] Third Party [ ] Chg. To Del. [ ] Chg. To Hold

Street Address

City State Zip

Received By: X

Date/Time Received FedEx Employee Number

Release Signature

Federal Express Use

Base Charges

Declared Value Charge

Other 1

Other 2

Total Charges

REVISION DATE 1/92 PART # 150206 FXEM 8/91 FORM # 126

126

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TMA/ARLI
Thermo Analytical Inc.

RADIATION DOSE RATE SURVEY FORM

Date 9/04/92 COMPANY NORCAL (WHC) OTHER ORD # 518804317 3

Surveyor's Name MARK S. McGray

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

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

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

Instrument Calibration Factor 0.280 Instrument Calibration Factor 0.188

Sample	Location	HP-210 CPM	HP-210 Factor	HP-210 DPM	AC-3-7 CPM	AC-3-7 Factor	AC-3-7 DPM	Spillage or Breakage?	Activity, nCi/mL or nCi/g
Background		26.0			0				
Consistency		7,300	0.2818		5,070	0.1563			
Smears: RFP 87		46.0			3.0				
#88		32.0			2.0				
RFP #89		26.0			1.0				
#90		41.0			3.0				
Reported (WHC)		10 samples			< 50	cpm	—	—	

Comments:

All OK ✓ Approved DWK

Not OK Date 9/04/92

GENERAL CHEMISTRY RESULTS

CASE NO. 09-012

Soil Sample #:

B07212	B07213	B07214
B07215	B07217	B07218
B07220	B07221	B07222
B07224	B07225	B07226

CASE NARRATIVE

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

Ernesto Vazquez

Ernesto Vazquez

TMA Inc. REPORT Work Order # A2-09-012

:ceived: 09/03/92

Results by Sample

MPLE ID B07212 FRACTION 01D TEST CODE WCCLPS NAME Anions in Solids - WM232

Date & Time Collected 08/31/92 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	9045	7.4	pH	.1
Sulfate	300.0	<10	mg/Kg	10.

FORM I

TMA Inc. REPORT Work Order # A2-09-012

Received: 09/03/92 Results by Sample

SAMPLE ID B07213 FRACTION 02D TEST CODE WCCLPS NAME Anions in Solids - WH232

Date & Time Collected 08/31/92 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	9045	9.2	pH	.1
Sulfate	300.0	<10	mg/Kg	10.

FORM I

TMA Inc. REPORT Work Order # A2-09-012

eceived: 09/03/92

Results by Sample

AMPLE ID B07214 FRACTION 03B TEST CODE WCCLPS NAME Anions in Solids - WM232

Date & Time Collected 08/31/92 Category

ANIONS AND WET CHEMISTRY - SOLIDS

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

FORM I

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000020

TMA Inc. REPORT Work Order # A2-09-012

Received: 09/03/92

Results by Sample

SAMPLE ID B07215 FRACTION 05B TEST CODE WCCLPS NAME Anions in Solids - WH232

Date & Time Collected 08/31/92 Category

ANIONS AND WET CHEMISTRY - SOLIDS

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

FORM I

TMA Inc. REPORT Work Order # A2-09-012

Received: 09/03/92

Results by Sample

SAMPLE ID B07217 FRACTION 06B TEST CODE WCCLPS NAME Anions in Solids - WW232

Date & Time Collected 08/31/92 Category

ANIONS AND WET CHEMISTRY - SOLIDS

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

FORM I

TMA Inc. REPORT Work Order # A2-09-012

eceived: 09/03/92

Results by Sample

AMPLE ID B07218 FRACTION 07B TEST CODE WCCLPS NAME Anions in Solids - WM232

Date & Time Collected 08/31/92 Category

ANIONS AND WET CHEMISTRY - SOLIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Chloride	300.0	<2	mg/Kg	2.
Fluoride	300.0	<1	mg/Kg	1.
Phosphate	300.0	<4	mg/Kg	4.
pH	9045	9.6	pH	.1
Sulfate	300.0	<10	mg/Kg	10.

FORM I

TMA Inc. REPORT Work Order # A2-09-012

eceived: 09/03/92

Results by Sample

AMPLE ID B07220 FRACTION 09B TEST CODE WCCLPS NAME Anions in Solids - WM232

Date & Time Collected 09/01/92 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	8.4	pH	.1
Sulfate	300.0	<10	mg/Kg	10.

FORM I

TMA Inc. REPORT Work Order # A2-09-012

eceived: 09/03/92 Results by Sample

AMPLE ID B07221 FRACTION 10B TEST CODE WCCLPS NAME Anions in Solids - WM232

Date & Time Collected 09/01/92 Category

ANIONS AND WET CHEMISTRY - SOLIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Chloride	300.0	<2	mg/Kg	2.
Fluoride	300.0	<1	mg/Kg	1.
Phosphate	300.0	<4	mg/Kg	4.
pH	9045	9.0	pH	.1
Sulfate	300.0	22	mg/Kg	10.

FORM I

TMA Inc. REPORT Work Order # A2-09-012

Received: 09/03/92 Results by Sample

SAMPLE ID B07222 FRACTION 11B TEST CODE WCCLPS NAME Anions in Solids - WW232

Date & Time Collected 09/01/92 Category

ANIONS AND WET CHEMISTRY - SOLIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Chloride	300.0	<2	mg/Kg	2.
Fluoride	300.0	<1	mg/Kg	1.
Phosphate	300.0	<4	mg/Kg	4.
pH	150.1	9.1	pH	.1
Sulfate	300.0	<10	mg/Kg	10.

FORM I

TMA Inc. REPORT Work Order # A2-09-012

eceived: 09/03/92

Results by Sample

AMPLE ID B07224 FRACTION 13B TEST CODE WCCLPS NAME Anions in Solids - WN232

Date & Time Collected 09/01/92 Category

ANIONS AND WET CHEMISTRY - SOLIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Chloride	300.0	<2	mg/Kg	2.
Fluoride	300.0	<1	mg/Kg	1.
Phosphate	300.0	<4	mg/Kg	4.
pH	150.1	9.1	pH	.1
Sulfate	300.0	<10	mg/Kg	10.

FORM I

TMA Inc. REPORT Work Order # A2-09-012

eceived: 09/03/92

Results by Sample

AMPLE ID B07225 FRACTION 14B TEST CODE WCCLPS NAME Anions in Solids - WH232

Date & Time Collected 09/01/92 Category

ANIONS AND WET CHEMISTRY - SOLIDS

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

FORM I

TMA Inc. REPORT Work Order # A2-09-012

eceived: 09/03/92 Results by Sample

MPLE ID B07226 FRACTION 15B TEST CODE WCCLPS NAME Anions in Solids - WM232

Date & Time Collected 09/01/92 Category

ANIONS AND WET CHEMISTRY - SOLIDS

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

FORM I

CASE NARRATIVE

LABORATORY : TMA/ARLI

CASE : 09-012

CONTRACT ID : WESTINGHOUSE HANFORD COMPANY

SDG RECEIPT DATE : September 3, 1992

1.0 DESCRIPTION OF CASE :

Sixteen soil samples were analyzed for TCL Organics-Volatiles, Semivolatiles and Pesticide/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
B07212	A2-09-012-01A	SV & P	SOIL
B07212 MS	A2-09-012-01B	SV	SOIL
B07212 MSD	A2-09-012-01C	SV	SOIL
B07212	A2-09-012-01E	V	SOIL
B07213	A2-09-012-02A	SV & P	SOIL
B07213 RE	A2-09-012-02A	SV	SOIL
B07213 MS	A2-09-012-02B	P	SOIL
B07213 MSD	A2-09-012-02C	P	SOIL
B07213	A2-09-012-02E	V	SOIL
B07214	A2-09-012-03A	SV & P	SOIL
B07214	A2-09-012-03D	V	SOIL
B07219	A2-09-012-04A	V	SOIL
B07219 MS	A2-09-012-04B	V	SOIL
B07219 MSD	A2-09-012-04C	V	SOIL
B07215	A2-09-012-05A	SV & P	SOIL
B07215	A2-09-012-05D	V	SOIL
B07217	A2-09-012-06A	SV & P	SOIL
B07217	A2-09-012-06C	V	SOIL
B07218	A2-09-012-07A	SV & P	SOIL
B07218	A2-09-012-07C	V	SOIL
B07240	A2-09-012-08A	V	SOIL
B07220	A2-09-012-09A	SV & P	SOIL
B07220	A2-09-012-09C	V	SOIL
B07221	A2-09-012-10A	SV & P	SOIL
B07221	A2-09-012-10C	V	SOIL
B07222	A2-09-012-11A	SV & P	SOIL
B07222	A2-09-012-11C	V	SOIL
B07242	A2-09-012-12A	V	SOIL
B07224	Z2-09-012-13A	SV & P	SOIL
B07224	A2-09-012-13C	V	SOIL
B07225	A2-09-012-14A	SV & P	SOIL
B07225	A2-09-012-14C	V	SOIL
B07226	A2-09-012-15A	SV & P	SOIL
B07226	A2-09-012-15C	V	SOIL
B07243	A2-09-012-16A	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. Sample B07213 experienced a retention time shift above the upper limit for Perylene-d12. Although the sample experienced a retention time shift, the TCL analytes reported met the RRT criteria. Before the sample extract could be re-analyzed, the vial was broken. Sample B07213 was re-extracted out of the holding time and analyzed. The results of both analyses have been included in this package.

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

3.2.3 PESTICIDE/PCB ANALYSIS COMMENTS :

SEQUENCE NOTES :

The sequence was started on 9/29/92 and was analyzed in accordance with the EPA CLP SOW. The sequence was analyzed by single injection into a dual column system. The sequence met all of the QC requirements specified in the CLP SOW.

At 14:07 on 9/30/92 INDAM02 was injected. However, the Nelson interface box was interrupted at the time the data was being collected. This prevented the complete data of INDAM02 to be collected. Therefore, another instrument blank analyzed, followed by INDAM03 and INDBM02. The sequence was maintained.

After the injection at 04:22 on 10/1/92 the autosampler malfunctioned. Maintenance was performed and the sequence was resumed with the next injection at 09:10 on 10/1/92 of an instrument blank and PEM04. The samples that were originally injected between 04:22 and 09:10 were re-injected and met all of the QC requirements.

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. The GPC malfunctioned and sample B07213MS was lost. The sample was re-extracted out of the CLP SOW holding time and reported as the original sample analysis. On the DB-1701 column the following samples had TCX surrogate recoveries slightly below the advisory QC limit: B07213, B07214, B07215, B07217, B07218, B07221 and B07213MSD. Samples B07213, B07215, B07218 and B07213MSD had a low TCX recovery on the DB-608 column. Samples B07214, B07217 and B07221 also had percent differences (%D) for TCX on both columns that exceeded 25%. The low recoveries for the above samples are due to matrix interferences raising the baseline on the DB-1701 column. The TCX peaks were re-integrated and reported so as not to include the background.

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

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

Nicole Roth

Nicole Roth
CLP Program Manager

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Wida Ang
Organics Supervisor

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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07212

ab Name: TMA/ARLI Contract: WHC

ab Code: TMALA Case No.: 09012 SAS No.: NA SDG No.: NA

atrix: (soil/water) SOIL Lab Sample ID: A209012-01E

ample wt/vol: 5.0 (g/mL) G Lab File ID: 20908R08

evel: (low/med) LOW Date Received: 09/03/92

Moisture: not dec. 0 Date Analyzed: 09/08/92

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

oil 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	5	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

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1E

000006

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B07212

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09012 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209012-01E

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 20908R08

Level: (low/med) LOW Date Received: 09/03/92

% Moisture: not dec. 0 Date Analyzed: 09/08/92

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 ALKENE	29.53	19	J

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07213

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09012 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209012-02E

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 20908R09

Level: (low/med) LOW Date Received: 09/03/92

% Moisture: not dec. 2 Date Analyzed: 09/08/92

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	17	
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO. 000008

B07213

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09012 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209012-02E

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 20908R09

Level: (low/med) LOW Date Received: 09/03/92

% Moisture: not dec. 2 Date Analyzed: 09/08/92

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. 110-54-3	HEXANE	15.37	6	J

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1A

000009

EPA SAMPLE NO.

B07214

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09012 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209012-03D

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 20908R10

Level: (low/med) LOW Date Received: 09/03/92

% Moisture: not dec. 2 Date Analyzed: 09/08/92

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	14	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

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000010

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

B07214

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09012 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209012-03D

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 20908R10

Level: (low/med) LOW Date Received: 09/03/92

% Moisture: not dec. 2 Date Analyzed: 09/08/92

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.

B07215

ab Name: TMA/ARLI Contract: WHC

ab Code: TMALA Case No.: 09012 SAS No.: NA SDG No.: NA

atrix: (soil/water) SOIL Lab Sample ID: A209012-05D

ample wt/vol: 5.0 (g/mL) G Lab File ID: 20908R12

evel: (low/med) LOW Date Received: 09/03/92

Moisture: not dec. 2 Date Analyzed: 09/08/92

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

oil 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

9713505.1383

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

000012

EPA SAMPLE NO.

B07215

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09012 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209012-05D

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 20908R12

Level: (low/med) LOW Date Received: 09/03/92

% Moisture: not dec. 2 Date Analyzed: 09/08/92

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

9713505.1384

000013

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07217

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09012 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209012-06C

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 20908R13

Level: (low/med) LOW Date Received: 09/03/92

Moisture: not dec. 5 Date Analyzed: 09/08/92

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	11	U
74-83-9	Bromomethane	11	U
75-01-4	Vinyl Chloride	11	U
75-00-3	Chloroethane	11	U
75-09-2	Methylene Chloride	11	U
67-64-1	Acetone	13	B
75-15-0	Carbon Disulfide	11	U
75-35-4	1,1-Dichloroethene	11	U
75-34-3	1,1-Dichloroethane	11	U
540-59-0	1,2-Dichloroethene (total)	11	U
67-66-3	Chloroform	11	U
107-06-2	1,2-Dichloroethane	11	U
78-93-3	2-Butanone	11	U
71-55-6	1,1,1-Trichloroethane	11	U
56-23-5	Carbon Tetrachloride	11	U
75-27-4	Bromodichloromethane	11	U
78-87-5	1,2-Dichloropropane	11	U
10061-01-5	cis-1,3-Dichloropropene	11	U
79-01-6	Trichloroethene	11	U
124-48-1	Dibromochloromethane	11	U
79-00-5	1,1,2-Trichloroethane	11	U
71-43-2	Benzene	11	U
10061-02-6	trans-1,3-Dichloropropene	11	U
75-25-2	Bromoform	11	U
108-10-1	4-Methyl-2-Pentanone	11	U
591-78-6	2-Hexanone	11	U
127-18-4	Tetrachloroethene	11	U
79-34-5	1,1,2,2-Tetrachloroethane	11	U
108-88-3	Toluene	11	U
108-90-7	Chlorobenzene	11	U
100-41-4	Ethylbenzene	11	U
100-42-5	Styrene	11	U
1330-20-7	Xylene (total)	11	U

9713505.1385

000014
EPA SAMPLE NO.

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B07217

ıb Name: TMA/ARLI Contract: WHC

ıb Code: TMALA Case No.: 09012 SAS No.: NA SDG No.: NA

ıtrix: (soil/water) SOIL Lab Sample ID: A209012-06C

ımple wt/vol: 5.0 (g/mL) G Lab File ID: 20908R13

ıvel: (low/med) LOW Date Received: 09/03/92

Moisture: not dec. 5 Date Analyzed: 09/08/92

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

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

umber 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

000015
EPA SAMPLE NO.

B07218

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09012 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209012-07C

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 20908R14

Level: (low/med) LOW Date Received: 09/03/92

% Moisture: not dec. 3 Date Analyzed: 09/08/92

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

9713505.1387

000016

1E

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B07218

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09012 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209012-07C

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 20908R14

Level: (low/med) LOW Date Received: 09/03/92

% Moisture: not dec. 3 Date Analyzed: 09/08/92

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

9713505.1388

000017

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07219

ab Name: TMA/ARLI Contract: WHC

ab Code: TMALA Case No.: 09012 SAS No.: NA SDG No.: NA

atrix: (soil/water) SOIL Lab Sample ID: A209012-04A

ample wt/vol: 5.0 (g/mL) G Lab File ID: 20908R11

evel: (low/med) LOW Date Received: 09/03/92

Moisture: not dec. 0 Date Analyzed: 09/08/92

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

oil 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	5	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

9713505.1389

000018

EPA SAMPLE NO.

B07219

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09012 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209012-04A

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 20908R11

Level: (low/med) LOW Date Received: 09/03/92

% Moisture: not dec. 0 Date Analyzed: 09/08/92

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 ALKANE	29.53	15	J

9713505.1390

000019

EPA SAMPLE NO.

B07220

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09012 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209012-09C

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 20908R16

Level: (low/med) LOW Date Received: 09/03/92

% Moisture: not dec. 0 Date Analyzed: 09/08/92

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

9713505.1391

000020
EPA SAMPLE NO.

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B07220

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09012 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209012-09C

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 20908R16

Level: (low/med) LOW Date Received: 09/03/92

% Moisture: not dec. 0 Date Analyzed: 09/08/92

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 ALKENE	29.53	22	J

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07221

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09012 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209012-10C

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 20908R17

Level: (low/med) LOW Date Received: 09/03/92

% Moisture: not dec. 5 Date Analyzed: 09/08/92

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	11	U
74-83-9	Bromomethane	11	U
75-01-4	Vinyl Chloride	11	U
75-00-3	Chloroethane	11	U
75-09-2	Methylene Chloride	11	U
67-64-1	Acetone	11	U
75-15-0	Carbon Disulfide	11	U
75-35-4	1,1-Dichloroethene	11	U
75-34-3	1,1-Dichloroethane	11	U
540-59-0	1,2-Dichloroethene (total)	11	U
67-66-3	Chloroform	11	U
107-06-2	1,2-Dichloroethane	11	U
78-93-3	2-Butanone	11	U
71-55-6	1,1,1-Trichloroethane	11	U
56-23-5	Carbon Tetrachloride	11	U
75-27-4	Bromodichloromethane	11	U
78-87-5	1,2-Dichloropropane	11	U
10061-01-5	cis-1,3-Dichloropropene	11	U
79-01-6	Trichloroethene	11	U
124-48-1	Dibromochloromethane	11	U
79-00-5	1,1,2-Trichloroethane	11	U
71-43-2	Benzene	11	U
10061-02-6	trans-1,3-Dichloropropene	11	U
75-25-2	Bromoform	11	U
108-10-1	4-Methyl-2-Pentanone	11	U
591-78-6	2-Hexanone	11	U
127-18-4	Tetrachloroethene	11	U
79-34-5	1,1,2,2-Tetrachloroethane	11	U
108-88-3	Toluene	11	U
108-90-7	Chlorobenzene	11	U
100-41-4	Ethylbenzene	11	U
100-42-5	Styrene	11	U
1330-20-7	Xylene (total)	11	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

B07221

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09012 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209012-10C

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 20908R17

Level: (low/med) LOW Date Received: 09/03/92

% Moisture: not dec. 5 Date Analyzed: 09/08/92

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

9713505.1394

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

000023

EPA SAMPLE NO.

B07222

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09012 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209012-11C

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 20909R14

Level: (low/med) LOW Date Received: 09/03/92

% Moisture: not dec. 1 Date Analyzed: 09/09/92

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.

B07222

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09012 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209012-11C

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 20909R14

Level: (low/med) LOW Date Received: 09/03/92

% Moisture: not dec. 1 Date Analyzed: 09/09/92

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

9713505.1396

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

000025
EPA SAMPLE NO.

B07224

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09012 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209012-13C

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 20909R16

Level: (low/med) LOW Date Received: 09/03/92

% Moisture: not dec. 1 Date Analyzed: 09/09/92

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

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B07224

ab Name: TMA/ARLI Contract: WHC

ab Code: TMALA Case No.: 09012 SAS No.: NA SDG No.: NA

atrix: (soil/water) SOIL Lab Sample ID: A209012-13C

ample wt/vol: 5.0 (g/mL) G Lab File ID: 20909R16

evel: (low/med) LOW Date Received: 09/03/92

Moisture: not dec. 1 Date Analyzed: 09/09/92

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

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

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

9713505.1398

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

000027

EPA SAMPLE NO.

B07225

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09012 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209012-14C

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 20909R20

Level: (low/med) LOW Date Received: 09/03/92

% Moisture: not dec. 2 Date Analyzed: 09/10/92

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	6	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.

B07225

ab Name: TMA/ARLI Contract: WHC

ab Code: TMALA Case No.: 09012 SAS No.: NA SDG No.: NA

atrix: (soil/water) SOIL Lab Sample ID: A209012-14C

ample wt/vol: 5.0 (g/mL) G Lab File ID: 20909R20

evel: (low/med) LOW Date Received: 09/03/92

Moisture: not dec. 2 Date Analyzed: 09/10/92

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

oil 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 ALKENE	29.47	9	J

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07226

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09012 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209012-15C

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 20909R21

Level: (low/med) LOW Date Received: 09/03/92

Moisture: not dec. 3 Date Analyzed: 09/10/92

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	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

9713505.1401

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

000030
EPA SAMPLE NO.

B07226

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09012 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209012-15C

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 20909R21

Level: (low/med) LOW Date Received: 09/03/92

% Moisture: not dec. 3 Date Analyzed: 09/10/92

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

9713505.1402

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

000031

EPA SAMPLE NO.

B07240

ab Name: TMA/ARLI Contract: WHC

ab Code: TMALA Case No.: 09012 SAS No.: NA SDG No.: NA

atrix: (soil/water) SOIL Lab Sample ID: A209012-08A

ample wt/vol: 5.0 (g/mL) G Lab File ID: 20908R15

evel: (low/med) LOW Date Received: 09/03/92

Moisture: not dec. 0 Date Analyzed: 09/08/92

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

oil 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

9713505.1403

000032

EPA SAMPLE NO.

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B07240

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09012 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209012-08A

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 20908R15

Level: (low/med) LOW Date Received: 09/03/92

% Moisture: not dec. 0 Date Analyzed: 09/08/92

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 ALKENE	29.50	44	J

9713505.1404

000033

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07242

ab Name: TMA/ARLI Contract: WHC

ab Code: TMALA Case No.: 09012 SAS No.: NA SDG No.: NA

atrix: (soil/water) SOIL Lab Sample ID: A209012-12A

ample wt/vol: 5.0 (g/mL) G Lab File ID: 20910R05

evel: (low/med) LOW Date Received: 09/03/92

Moisture: not dec. 0 Date Analyzed: 09/10/92

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

oil 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

9713505.1405

000034

EPA SAMPLE NO.

B07242

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09012 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209012-12A

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 20910R05

Level: (low/med) LOW Date Received: 09/03/92

% Moisture: not dec. 0 Date Analyzed: 09/10/92

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	29.50	25	J

9713505.1406

000035

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07243

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09012 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209012-16A

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 20909R22

Level: (low/med) LOW Date Received: 09/03/92

% Moisture: not dec. 0 Date Analyzed: 09/10/92

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

9713505.1407

000036

EPA SAMPLE NO.

B07243

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

ab Name: TMA/ARLI Contract: WHC

ab Code: TMALA Case No.: 09012 SAS No.: NA SDG No.: NA

atrix: (soil/water) SOIL Lab Sample ID: A209012-16A

ample wt/vol: 5.0 (g/mL) G Lab File ID: 20909R22

evel: (low/med) LOW Date Received: 09/03/92

Moisture: not dec. 0 Date Analyzed: 09/10/92

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

oil 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 ALKENE	29.42	31	J

9713505.1408

000037

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07212

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09012 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209012-01A

Sample wt/vol: 30.7 (g/mL) G Lab File ID: 20921N13

Level: (low/med) LOW Date Received: 09/03/92

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

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/21/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.4

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	780	U
91-58-7	2-Chloronaphthalene	320	U
88-74-4	2-Nitroaniline	780	U
131-11-3	Dimethylphthalate	320	U
208-96-8	Acenaphthylene	320	U
99-09-2	3-Nitroaniline	780	U
83-32-9	Acenaphthene	320	U
51-28-5	2,4-Dinitrophenol	780	U

9713505.1409

1C

000038

EPA SAMPLE NO.

B07212

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09012 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209012-01A

Sample wt/vol: 30.7 (g/mL) G Lab File ID: 20921N13

Level: (low/med) LOW Date Received: 09/03/92

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

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/21/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.4

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
100-02-7	4-Nitrophenol	780	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	780	U
534-52-1	4,6-Dinitro-2-methylphenol	780	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	780	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	33	BJ
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

9713505.1410

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

000039
EPA SAMPLE NO.

B07212

ab Name: TMA/ARLI Contract: WHC

ab Code: TMALA Case No.: 09012 SAS No.: NA SDG No.: NA

atrix: (soil/water) SOIL Lab Sample ID: A209012-01A

ample wt/vol: 30.7 (g/mL) G Lab File ID: 20921N13

evel: (low/med) LOW Date Received: 09/03/92

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

oncentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/21/92

njection Volume: 2.0(uL) Dilution Factor: 1.0

PC Cleanup: (Y/N) Y pH: 7.4

umber TICs found: 7

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN ALKENE	3.73	160	BJ
2.	UNKNOWN ACID	4.47	460	J
3.	UNKNOWN KETONE	4.55	260	J
4.	UNKNOWN HYDROCARBON	4.93	490	BJ
5.	UNKNOWN HYDROCARBON	5.50	14000	BJ
6.	UNKNOWN HYDROCARBON	6.72	130	BJ
7.	UNKNOWN HYDROCARBON	18.58	130	BJ

9713505.1411

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

000040
EPA SAMPLE NO.

B07213

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09012 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209012-02A

Sample wt/vol: 30.7 (g/mL) G Lab File ID: 20921N12

Level: (low/med) LOW Date Received: 09/03/92

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

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/21/92

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	800	U
91-58-7	2-Chloronaphthalene	330	U
88-74-4	2-Nitroaniline	800	U
131-11-3	Dimethylphthalate	330	U
208-96-8	Acenaphthylene	330	U
99-09-2	3-Nitroaniline	800	U
83-32-9	Acenaphthene	99	J
51-28-5	2,4-Dinitrophenol	800	U

9713505.1412

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

000041

EPA SAMPLE NO.

B07213

ab Name: TMA/ARLI Contract: WHC

ab Code: TMALA Case No.: 09012 SAS No.: NA SDG No.: NA

atrix: (soil/water) SOIL Lab Sample ID: A209012-02A

ample wt/vol: 30.7 (g/mL) G Lab File ID: 20921N12

evel: (low/med) LOW Date Received: 09/03/92

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

oncentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/21/92

njection Volume: 2.0(uL) Dilution Factor: 1.0

PC 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	800	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	800	U
534-52-1	4,6-Dinitro-2-methylphenol	800	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	800	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	41	BJ
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	510	
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

9713505.1413

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

000042
EPA SAMPLE NO.

B07213

ab Name: TMA/ARLI Contract: WHC

ab Code: TMALA Case No.: 09012 SAS No.: NA SDG No.: NA

atrix: (soil/water) SOIL Lab Sample ID: A209012-02A

ample wt/vol: 30.7 (g/mL) G Lab File ID: 20921N12

evel: (low/med) LOW Date Received: 09/03/92

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

oncentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/21/92

njection Volume: 2.0(uL) Dilution Factor: 1.0

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

umber TICs found: 20

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN ALKENE	3.78	300	BJ
2.	UNKNOWN HYDROCARBON	4.45	170	J
3.	UNKNOWN ACID	4.55	130	J
4.	UNKNOWN KETONE	4.63	330	J
5.	UNKNOWN HYDROCARBON	5.02	670	BJ
6.	UNKNOWN HYDROCARBON	5.60	18000	BJ
7.	UNKNOWN HYDROCARBON	6.82	170	BJ
8.	UNKNOWN HYDROCARBON	6.90	200	J
9.	UNKNOWN HYDROCARBON	7.28	330	J
10.	UNKNOWN ALCOHOL	8.65	930	BJ
11.	UNKNOWN HYDROCARBON	18.78	130	BJ
12.	UNKNOWN CARBOYXLIC ACID ESTE	20.33	470	J
13.	HEXANEDIOIC ACID ISOMER	23.73	6000	J
14.	HEXANEDIOIC ACID ISOMER	23.88	330	J
15.	HEXANEDIOIC ACID ISOMER	24.10	170	J
16.	HEXANEDIOIC ACID ISOMER	24.18	270	J
17.	UNKNOWN POLYAROMATIC HYDROCA	25.82	130	J
18.	UNKNOWN ACID	29.12	2100	J
19.	UNKNOWN ACID	29.23	1100	J
20.	UNKNOWN ACID	29.37	3800	J

9713505.1414

1B

000043

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

B07213RE

ab Name: TMA/ARLI Contract: WHC

ab Code: TMALA Case No.: 09012 SAS No.: NA SDG No.: NA

atrix: (soil/water) SOIL Lab Sample ID: A209012-02A

ample wt/vol: 30.7 (g/mL) G Lab File ID: 21008S05

evel: (low/med) LOW Date Received: 09/03/92

Moisture: 2 decanted: (Y/N) N Date Extracted: 10/06/92

oncentrated Extract Volume: 500.0 (uL) Date Analyzed: 10/08/92

njection Volume: 2.0(uL) Dilution Factor: 1.0

PC 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	800	U
91-58-7	2-Chloronaphthalene	330	U
88-74-4	2-Nitroaniline	800	U
131-11-3	Dimethylphthalate	330	U
208-96-8	Acenaphthylene	330	U
99-09-2	3-Nitroaniline	800	U
83-32-9	Acenaphthene	330	U
51-28-5	2,4-Dinitrophenol	800	U

9713505.1415

1c

000044

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

B07213RE

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09012 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209012-02A

Sample wt/vol: 30.7 (g/mL) G Lab File ID: 21008S05

Level: (low/med) LOW Date Received: 09/03/92

% Moisture: 2 decanted: (Y/N) N Date Extracted: 10/06/92

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 10/08/92

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	800	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	800	U
534-52-1	4,6-Dinitro-2-methylphenol	800	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	800	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

9713505.1416

000045
EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B07213RE

ab Name: TMA/ARLI Contract: WHC

ab Code: TMALA Case No.: 09012 SAS No.: NA SDG No.: NA

atrix: (soil/water) SOIL Lab Sample ID: A209012-02A

ample wt/vol: 30.7 (g/mL) G Lab File ID: 21008S05

evel: (low/med) LOW Date Received: 09/03/92

Moisture: 2 decanted: (Y/N) N Date Extracted: 10/06/92

oncentrated Extract Volume: 500.0 (uL) Date Analyzed: 10/08/92

njection Volume: 2.0(uL) Dilution Factor: 1.0

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

umber TICs found: 8

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN HYDROCARBON	5.12	770	J
2.	UNKNOWN HYDROCARBON	5.53	53000	BJ
3.	UNKNOWN HYDROCARBON	6.53	200	J
4.	UNKNOWN HYDROCARBON	7.18	230	J
5.	UNKNOWN ALCOHOL	8.32	470	J
6.	PROPANOIC ACID ISOMER	17.00	100	J
7.	UNKNOWN CARBOXYLIC ACID ESTE	20.10	900	BJ
8.	HEXANEDIOIC ACID ISOMER	24.65	130	BJ

9713505.1417

1B

000046

EPA SAMPLE NO.

B07214

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09012 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209012-03A

Sample wt/vol: 30.7 (g/mL) G Lab File ID: 20922N03

Level: (low/med) LOW Date Received: 09/03/92

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

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	800	U
91-58-7	2-Chloronaphthalene	330	U
88-74-4	2-Nitroaniline	800	U
131-11-3	Dimethylphthalate	330	U
208-96-8	Acenaphthylene	330	U
99-09-2	3-Nitroaniline	800	U
83-32-9	Acenaphthene	330	U
51-28-5	2,4-Dinitrophenol	800	U

EPA SAMPLE NO.

B07214

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09012 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209012-03A

Sample wt/vol: 30.7 (g/mL) G Lab File ID: 20922N03

Level: (low/med) LOW Date Received: 09/03/92

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

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	800	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	800	U
534-52-1	4,6-Dinitro-2-methylphenol	800	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	800	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

9713505.1419

1F

EPA SAMPLE NO.

B07214

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09012 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209012-03A

Sample wt/vol: 30.7 (g/mL) G Lab File ID: 20922N03

Level: (low/med) LOW Date Received: 09/03/92

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

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: 13

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN ALKENE	3.72	230	BJ
2.	UNKNOWN HYDROCARBON	4.38	130	BJ
3.	UNKNOWN KETONE	4.57	570	J
4.	UNKNOWN HYDROCARBON	4.97	730	BJ
5.	UNKNOWN HYDROCARBON	5.57	19000	BJ
6.	UNKNOWN HYDROCARBON	6.77	200	BJ
7.	UNKNOWN HYDROCARBON	17.57	67	J
8.	UNKNOWN HYDROCARBON	18.70	230	BJ
9.	UNKNOWN CARBOXYLIC ACID ESTE	20.23	470	J
10.	HEXANEDIOIC ACID ISOMER	23.47	200	J
11.	UNKNOWN ACID	27.42	700	J
12.	UNKNOWN ACID	27.57	1200	J
13.	UNKNOWN ACID	27.67	1600	J

9713505.1420

000049

EPA SAMPLE NO.

B07215

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09012 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209012-05A

Sample wt/vol: 30.6 (g/mL) G Lab File ID: 20921N17

Level: (low/med) LOW Date Received: 09/03/92

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

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/21/92

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	800	U
91-58-7	2-Chloronaphthalene	330	U
88-74-4	2-Nitroaniline	800	U
131-11-3	Dimethylphthalate	330	U
208-96-8	Acenaphthylene	330	U
99-09-2	3-Nitroaniline	800	U
83-32-9	Acenaphthene	330	U
51-28-5	2,4-Dinitrophenol	800	U

9713505.1421

000050
EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

B07215

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09012 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209012-05A

Sample wt/vol: 30.6 (g/mL) G Lab File ID: 20921N17

Level: (low/med) LOW Date Received: 09/03/92

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

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/21/92

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	800	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	800	U
534-52-1	4,6-Dinitro-2-methylphenol	800	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	800	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

9713F05.1422

EPA SAMPLE NO.

B07215

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

ab Name: TMA/ARLI Contract: WHC

ab Code: TMALA Case No.: 09012 SAS No.: NA SDG No.: NA

atrix: (soil/water) SOIL Lab Sample ID: A209012-05A

ample wt/vol: 30.6 (g/mL) G Lab File ID: 20921N17

evel: (low/med) LOW Date Received: 09/03/92

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

oncentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/21/92

njection Volume: 2.0(uL) Dilution Factor: 1.0

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

umber TICs found: 13

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN ALKENE	3.77	230	BJ
2.	UNKNOWN HYDROCARBON	4.38	330	BJ
3.	UNKNOWN KETONE	4.57	500	J
4.	UNKNOWN HYDROCARBON	4.93	670	BJ
5.	UNKNOWN HYDROCARBON	5.52	17000	BJ
6.	UNKNOWN HYDROCARBON	6.68	170	BJ
7.	UNKNOWN ACID	17.48	67	J
8.	UNKNOWN HYDROCARBON	18.62	270	BJ
9.	UNKNOWN ACID	28.43	500	J
10.	UNKNOWN ACID	28.78	1800	J
11.	UNKNOWN ACID	28.87	2400	J
12.	UNKNOWN ACID	29.08	7000	J
13.	UNKNOWN ACID	29.20	2100	J

EPA SAMPLE NO.

B07217

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09012 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209012-06A

Sample wt/vol: 30.7 (g/mL) G Lab File ID: 20921N18

Level: (low/med) LOW Date Received: 09/03/92

% Moisture: 5 decanted: (Y/N) N Date Extracted: 09/09/92

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/21/92

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	820	U
91-58-7	2-Chloronaphthalene	340	U
88-74-4	2-Nitroaniline	820	U
131-11-3	Dimethylphthalate	340	U
208-96-8	Acenaphthylene	340	U
99-09-2	3-Nitroaniline	820	U
83-32-9	Acenaphthene	340	U
51-28-5	2,4-Dinitrophenol	820	U

9713505.1424

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO. 000053

B07217

ab Name: TMA/ARLI Contract: WHC

ab Code: TMALA Case No.: 09012 SAS No.: NA SDG No.: NA

atrix: (soil/water) SOIL Lab Sample ID: A209012-06A

ample wt/vol: 30.7 (g/mL) G Lab File ID: 20921N18

evel: (low/med) LOW Date Received: 09/03/92

Moisture: 5 decanted: (Y/N) N Date Extracted: 09/09/92

oncentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/21/92

njection Volume: 2.0(uL) Dilution Factor: 1.0

PC 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	820	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	820	U
534-52-1	4,6-Dinitro-2-methylphenol	820	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	820	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

9713505.1425

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO. 000054

B07217

ab Name: TMA/ARLI Contract: WHC

ab Code: TMALA Case No.: 09012 SAS No.: NA SDG No.: NA

atrix: (soil/water) SOIL Lab Sample ID: A209012-06A

ample wt/vol: 30.7 (g/mL) G Lab File ID: 20921N18

evel: (low/med) LOW Date Received: 09/03/92

Moisture: 5 decanted: (Y/N) N Date Extracted: 09/09/92

oncentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/21/92

njection Volume: 2.0(uL) Dilution Factor: 1.0

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

umber TICs found: 12

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN KETONE	3.53	69	J
2.	UNKNOWN ALKENE	3.75	270	BJ
3.	UNKNOWN HYDROCARBON	4.37	69	J
4.	UNKNOWN KETONE	4.55	580	J
5.	UNKNOWN HYDROCARBON	4.93	820	BJ
6.	UNKNOWN HYDROCARBON	5.50	18000	BJ
7.	UNKNOWN HYDROCARBON	6.68	210	BJ
8.	UNKNOWN HYDROCARBON	18.62	140	BJ
9.	HEXANEDIOIC ACID ISOMER	23.43	140	J
10.	UNKNOWN ACID	27.33	270	J
11.	UNKNOWN ACID	27.95	5900	J
12.	UNKNOWN ACID	28.08	620	J

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07218

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09012 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209012-07A

Sample wt/vol: 30.3 (g/mL) G Lab File ID: 20921N19

Level: (low/med) LOW Date Received: 09/03/92

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

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/21/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 9.6

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	820	U
91-58-7	2-Chloronaphthalene	340	U
88-74-4	2-Nitroaniline	820	U
131-11-3	Dimethylphthalate	340	U
208-96-8	Acenaphthylene	340	U
99-09-2	3-Nitroaniline	820	U
83-32-9	Acenaphthene	340	U
51-28-5	2,4-Dinitrophenol	820	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07218

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09012 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209012-07A

Sample wt/vol: 30.3 (g/mL) G Lab File ID: 20921N19

Level: (low/med) LOW Date Received: 09/03/92

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

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/21/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 9.6

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
100-02-7	4-Nitrophenol	820	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	820	U
534-52-1	4,6-Dinitro-2-methylphenol	820	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	820	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	40	BJ
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

9713505.1428

1F

000057

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B07218

ab Name: TMA/ARLI Contract: WHC

ab Code: TMALA Case No.: 09012 SAS No.: NA SDG No.: NA

atrix: (soil/water) SOIL Lab Sample ID: A209012-07A

ample wt/vol: 30.3 (g/mL) G Lab File ID: 20921N19

evel: (low/med) LOW Date Received: 09/03/92

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

oncentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/21/92

njection Volume: 2.0(uL) Dilution Factor: 1.0

PC Cleanup: (Y/N) Y pH: 9.6

umber TICs found: 9

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN ALKENE	3.75	140	BJ
2.	UNKNOWN HYDROCARBON	4.38	170	J
3.	UNKNOWN KETONE	4.55	540	J
4.	UNKNOWN HYDROCARBON	4.95	1100	BJ
5.	UNKNOWN HYDROCARBON	5.52	21000	BJ
6.	UNKNOWN HYDROCARBON	6.68	170	J
7.	UNKNOWN HYDROCARBON	17.58	68	J
8.	UNKNOWN HYDROCARBON	18.73	170	J
9.	UNKNOWN ACID	28.02	68	J

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07220

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09012 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209012-09A

Sample wt/vol: 30.7 (g/mL) G Lab File ID: 20921N20

Level: (low/med) LOW Date Received: 09/03/92

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

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/21/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.4

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	780	U
91-58-7	2-Chloronaphthalene	320	U
88-74-4	2-Nitroaniline	780	U
131-11-3	Dimethylphthalate	320	U
208-96-8	Acenaphthylene	320	U
99-09-2	3-Nitroaniline	780	U
83-32-9	Acenaphthene	320	U
51-28-5	2,4-Dinitrophenol	780	U

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07220

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09012 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209012-09A

Sample wt/vol: 30.7 (g/mL) G Lab File ID: 20921N20

Level: (low/med) LOW Date Received: 09/03/92

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

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/21/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.4

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
100-02-7	4-Nitrophenol	780	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	780	U
534-52-1	4,6-Dinitro-2-methylphenol	780	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	780	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

9713505.1431

1F

EPA SAMPLE NO.

B07220

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09012 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209012-09A

Sample wt/vol: 30.7 (g/mL) G Lab File ID: 20921N20

Level: (low/med) LOW Date Received: 09/03/92

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

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/21/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.4

Number TICs found: 15

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN ALKENE	3.70	65	BJ
2.	UNKNOWN HYDROCARBON	4.40	98	BJ
3.	UNKNOWN KETONE	4.57	590	J
4.	UNKNOWN HYDROCARBON	4.97	1500	BJ
5.	UNKNOWN HYDROCARBON	5.57	22000	BJ
6.	UNKNOWN HYDROCARBON	6.70	130	BJ
7.	UNKNOWN HYDROCARBON	6.80	490	J
8.	UNKNOWN HYDROCARBON	7.15	290	J
9.	UNKNOWN ALCOHOL	8.52	980	BJ
10.	UNKNOWN HYDROCARBON	18.63	130	BJ
11.	UNKNOWN CARBOXYLIC ACID ESTE	20.17	420	J
12.	UNKNOWN HYDROCARBON	22.02	98	J
13.	HEXANEDIOIC ACID ISOMER	23.43	160	J
14.	UNKNOWN ACID	28.22	1900	J
15.	UNKNOWN ACID	28.40	6200	J

9713505.1432

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07221

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09012 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209012-10A

Sample wt/vol: 30.4 (g/mL) G Lab File ID: 20921N21

Level: (low/med) LOW Date Received: 09/03/92

% Moisture: 5 decanted: (Y/N) N Date Extracted: 09/09/92

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/21/92

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	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.

B07221

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09012 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209012-10A

Sample wt/vol: 30.4 (g/mL) G Lab File ID: 20921N21

Level: (low/med) LOW Date Received: 09/03/92

% Moisture: 5 decanted: (Y/N) N Date Extracted: 09/09/92

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/21/92

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	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	50	BJ
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

EPA SAMPLE NO.

B07221

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09012 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209012-10A

Sample wt/vol: 30.4 (g/mL) G Lab File ID: 20921N21

Level: (low/med) LOW Date Received: 09/03/92

% Moisture: 5 decanted: (Y/N) N Date Extracted: 09/09/92

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/21/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

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

Number TICs found: 15

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN KETONE	3.55	100	J
2.	UNKNOWN ALKENE	3.77	310	BJ
3.	UNKNOWN HYDROCARBON	4.38	140	BJ
4.	UNKNOWN KETONE	4.57	690	J
5.	UNKNOWN HYDROCARBON	4.95	1900	BJ
6.	UNKNOWN HYDROCARBON	5.57	28000	BJ
7.	UNKNOWN HYDROCARBON	5.73	69	J
8.	UNKNOWN HYDROCARBON	6.68	170	BJ
9.	UNKNOWN HYDROCARBON	6.78	660	J
10.	UNKNOWN HYDROCARBON	7.13	380	J
11.	UNKNOWN ALCOHOL	8.52	1200	BJ
12.	UNKNOWN HYDROCARBON	18.53	210	BJ
13.	UNKNOWN CARBOXYLIC ACID ESTE	20.08	690	J
14.	HEXANEDIOIC ACID ISOMER	23.33	420	J
15.	UNKNOWN ACID	27.72	8500	J

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07222

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09012 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209012-11A

Sample wt/vol: 30.5 (g/mL) G Lab File ID: 20921N22

Level: (low/med) LOW Date Received: 09/03/92

% Moisture: 1 decanted: (Y/N) N Date Extracted: 09/09/92

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/21/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 9.1

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	800	U
91-58-7	2-Chloronaphthalene	330	U
88-74-4	2-Nitroaniline	800	U
131-11-3	Dimethylphthalate	330	U
208-96-8	Acenaphthylene	330	U
99-09-2	3-Nitroaniline	800	U
83-32-9	Acenaphthene	330	U
51-28-5	2,4-Dinitrophenol	800	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07222

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09012 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209012-11A

Sample wt/vol: 30.5 (g/mL) G Lab File ID: 20921N22

Level: (low/med) LOW Date Received: 09/03/92

% Moisture: 1 decanted: (Y/N) N Date Extracted: 09/09/92

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/21/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 9.1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
100-02-7	4-Nitrophenol	800	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	800	U
534-52-1	4,6-Dinitro-2-methylphenol	800	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	800	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	38	BJ
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

9713505.1437

000066

EPA SAMPLE NO.

B07222

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09012 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209012-11A

Sample wt/vol: 30.5 (g/mL) G Lab File ID: 20921N22

Level: (low/med) LOW Date Received: 09/03/92

% Moisture: 1 decanted: (Y/N) N Date Extracted: 09/09/92

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/21/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 9.1

Number TICs found: 12

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN KETONE	3.52	99	J
2.	UNKNOWN ALKENE	3.73	230	BJ
3.	UNKNOWN KETONE	4.53	600	J
4.	UNKNOWN ACID	4.70	400	J
5.	UNKNOWN HYDROCARBON	4.95	2400	BJ
6.	UNKNOWN HYDROCARBON	5.57	30000	BJ
7.	UNKNOWN HYDROCARBON	6.68	170	BJ
8.	UNKNOWN HYDROCARBON	17.43	66	J
9.	UNKNOWN HYDROCARBON	18.57	130	BJ
10.	UNKNOWN CARBOXYLIC ACID ESTE	20.12	530	J
11.	UNKNOWN HYDROCARBON	26.87	130	J
12.	UNKNOWN ACID	27.60	3000	J

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07224

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09012 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209012-13A

Sample wt/vol: 30.6 (g/mL) G Lab File ID: 20922N05

Level: (low/med) LOW Date Received: 09/03/92

% Moisture: 1 decanted: (Y/N) N Date Extracted: 09/09/92

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: 9.1

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	790	U
91-58-7	2-Chloronaphthalene	330	U
88-74-4	2-Nitroaniline	790	U
131-11-3	Dimethylphthalate	330	U
208-96-8	Acenaphthylene	330	U
99-09-2	3-Nitroaniline	790	U
83-32-9	Acenaphthene	330	U
51-28-5	2,4-Dinitrophenol	790	U

EPA SAMPLE NO.

B07224

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09012 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209012-13A

Sample wt/vol: 30.6 (g/mL) G Lab File ID: 20922N05

Level: (low/med) LOW Date Received: 09/03/92

% Moisture: 1 decanted: (Y/N) N Date Extracted: 09/09/92

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: 9.1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
100-02-7	4-Nitrophenol	790	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	790	U
534-52-1	4,6-Dinitro-2-methylphenol	790	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	790	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	45	BJ
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

9713505.1440

000069

EPA SAMPLE NO.

B07224

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09012 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209012-13A

Sample wt/vol: 30.6 (g/mL) G Lab File ID: 20922N05

Level: (low/med) LOW Date Received: 09/03/92

% Moisture: 1 decanted: (Y/N) N Date Extracted: 09/09/92

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: 9.1

Number TICs found: 7

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN ALKENE	3.73	200	BJ
2.	UNKNOWN HYDROCARBON	4.35	99	BJ
3.	UNKNOWN KETONE	4.53	590	J
4.	UNKNOWN HYDROCARBON	4.95	1600	BJ
5.	UNKNOWN HYDROCARBON	5.55	27000	BJ
6.	UNKNOWN HYDROCARBON	6.68	170	BJ
7.	UNKNOWN ALCOHOL	8.50	990	BJ

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07225

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09012 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209012-14A

Sample wt/vol: 30.8 (g/mL) G Lab File ID: 20924N2

Level: (low/med) LOW Date Received: 09/03/92

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

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/24/92

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	800	U
91-58-7	2-Chloronaphthalene	330	U
88-74-4	2-Nitroaniline	800	U
131-11-3	Dimethylphthalate	330	U
208-96-8	Acenaphthylene	330	U
99-09-2	3-Nitroaniline	800	U
83-32-9	Acenaphthene	330	U
51-28-5	2,4-Dinitrophenol	800	U

EPA SAMPLE NO.

B07225

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09012 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209012-14A

Sample wt/vol: 30.8 (g/mL) G Lab File ID: 20924N2

Level: (low/med) LOW Date Received: 09/03/92

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

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/24/92

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	800	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	800	U
534-52-1	4,6-Dinitro-2-methylphenol	800	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	800	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

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B07225

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09012 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209012-14A

Sample wt/vol: 30.8 (g/mL) G Lab File ID: 20924N2

Level: (low/med) LOW Date Received: 09/03/92

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

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/24/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

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

Number TICs found: 11

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN KETONE	3.53	99	J
2.	UNKNOWN KETONE	4.60	430	J
3.	UNKNOWN HYDROCARBON	4.78	230	J
4.	UNKNOWN HYDROCARBON	5.02	1700	BJ
5.	UNKNOWN HYDROCARBON	5.68	25000	BJ
6.	UNKNOWN HYDROCARBON	6.83	170	BJ
7.	UNKNOWN HYDROCARBON	6.93	530	J
8.	UNKNOWN HYDROCARBON	7.32	300	J
9.	UNKNOWN ALCOHOL	8.67	900	BJ
10.	UNKNOWN CARBOXYLIC ACID ESTE	20.28	500	J
11.	HEXANEDIOIC ACID ISOMER	23.55	170	J

EPA SAMPLE NO.

B07226

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09012 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209012-15A

Sample wt/vol: 30.5 (g/mL) G Lab File ID: 20924N3

Level: (low/med) LOW Date Received: 09/03/92

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

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/24/92

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

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

B07226

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09012 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209012-15A

Sample wt/vol: 30.5 (g/mL) G Lab File ID: 20924N3

Level: (low/med) LOW Date Received: 09/03/92

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

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/24/92

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	36	BJ
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

9713505.1446

EPA SAMPLE NO.

B07226

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09012 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209012-15A

Sample wt/vol: 30.5 (g/mL) G Lab File ID: 20924N3

Level: (low/med) LOW Date Received: 09/03/92

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

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/24/92

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 KETONE	4.53	410	J
2.	UNKNOWN ACID	4.68	140	J
3.	UNKNOWN HYDROCARBON	4.93	1400	BJ
4.	UNKNOWN HYDROCARBON	5.57	23000	BJ
5.	UNKNOWN HYDROCARBON	6.70	140	BJ
6.	UNKNOWN HYDROCARBON	18.60	140	BJ
7.	UNKNOWN CARBOXYLIC ACID ESTE	20.15	510	J
8.	HEXANEDIOIC ACID ISOMER	23.40	140	J
9.	UNKNOWN ACID	27.35	100	J

9713505.1447

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

000076

EPA SAMPLE NO.

B07212

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09012 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209012-01A

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

% Moisture: 0 decanted: (Y/N) N Date Received: 09/03/92

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

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 09/30/92

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 7.4 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	3.2	U
72-55-9	4,4'-DDE	3.2	U
72-20-8	Endrin	3.2	U
33213-65-9	Endosulfan II	3.2	U
72-54-8	4,4'-DDD	3.2	U
1031-07-8	Endosulfan sulfate	3.2	U
50-29-3	4,4'-DDT	3.2	U
72-43-5	Methoxychlor	17	U
53494-70-5	Endrin ketone	3.2	U
7421-36-3	Endrin aldehyde	3.2	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	32	U
11104-28-2	Aroclor-1221	66	U
11141-16-5	Aroclor-1232	32	U
53469-21-9	Aroclor-1242	32	U
12672-29-6	Aroclor-1248	32	U
11097-69-1	Aroclor-1254	32	U
11096-82-5	Aroclor-1260	32	U

1D

EPA SAMPLE NO.

PESTICIDE ORGANICS ANALYSIS DATA SHEET

B07213

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09012 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209012-02A

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

% Moisture: 2 decanted: (Y/N) N Date Received: 09/03/92

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

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 09/30/92

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	3.3	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	67	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

9713505.1449

000078

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07214

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09012 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209012-03A

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

% Moisture: 2 decanted: (Y/N) N Date Received: 09/03/92

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

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 10/01/92

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	67	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

9713505.1450

000078

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07215

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09012 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209012-05A

Sample wt/vol: 30.8 (g/mL) G Lab File ID: _____

% Moisture: 2 decanted: (Y/N) N Date Received: 09/03/92

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

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 10/01/92

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	67	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

9713505.1451

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07217

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09012 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209012-06A

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

% Moisture: 5 decanted: (Y/N) N Date Received: 09/03/92

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

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 10/01/92

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	1.8	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

9713505.1452

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07218

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09012 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209012-07A

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

% Moisture: 3 decanted: (Y/N) N Date Received: 09/03/92

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

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 10/01/92

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 9.6 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

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07220

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09012 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209012-09A

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

% Moisture: 0 decanted: (Y/N) N Date Received: 09/03/92

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

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 10/01/92

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 8.4 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	3.2	U
72-55-9	4,4'-DDE	3.2	U
72-20-8	Endrin	3.2	U
33213-65-9	Endosulfan II	3.2	U
72-54-8	4,4'-DDD	3.2	U
1031-07-8	Endosulfan sulfate	3.2	U
50-29-3	4,4'-DDT	3.2	U
72-43-5	Methoxychlor	17	U
53494-70-5	Endrin ketone	3.2	U
7421-36-3	Endrin aldehyde	3.2	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	32	U
11104-28-2	Aroclor-1221	66	U
11141-16-5	Aroclor-1232	32	U
53469-21-9	Aroclor-1242	32	U
12672-29-6	Aroclor-1248	32	U
11097-69-1	Aroclor-1254	32	U
11096-82-5	Aroclor-1260	32	U

9713505.1454

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PESTICIDE ORGANICS ANALYSIS DATA SHEET

000083

EPA SAMPLE NO.

B07221

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09012 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209012-10A

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

% Moisture: 5 decanted: (Y/N) N Date Received: 09/03/92

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

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 10/01/92

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	1.8	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	70	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

9713505.1455

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PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07222

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09012 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209012-11A

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

% Moisture: 1 decanted: (Y/N) N Date Received: 09/03/92

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

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 10/01/92

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 9.1 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	67	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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PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07224

ab Name: TMA/ARLI Contract: WHC

ab Code: TMALA Case No.: 09012 SAS No.: NA SDG No.: NA

atrix: (soil/water) SOIL Lab Sample ID: A209012-13A

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

Moisture: 1 decanted: (Y/N) N Date Received: 09/03/92

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

oncentrated Extract Volume: 5000 (uL) Date Analyzed: 10/01/92

njection Volume: 1.00 (uL) Dilution Factor: 1.00

PC Cleanup: (Y/N) Y pH: 9.1 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	67	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

9713505.1457

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000086

EPA SAMPLE NO.

PESTICIDE ORGANICS ANALYSIS DATA SHEET

B07225

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09012 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209012-14A

Sample wt/vol: 30.7 (g/mL) G Lab File ID: _____

% Moisture: 2 decanted: (Y/N) N Date Received: 09/03/92

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

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 10/01/92

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	67	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

9713505.1458

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PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO. 000087

B07226

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09012 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209012-15A

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

% Moisture: 3 decanted: (Y/N) N Date Received: 09/03/92

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

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 10/01/92

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

9713505.1459

000001

Page 1 Skinner&Sherman REPORT Work Order # S2-09-092

Received: 09/05/92 10/19/92 13:29:26

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

ATTEN Dan Steurmer

CLIENT HANFORD NOR SAMPLES 13
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 N2-09-031
TAKEN BY CLIENT
TRANS FED EX# 5188043114
TYPE SOIL
P.O. # N2-09-031
INVOICE under separate cover

SAMPLE IDENTIFICATION		TEST CODES and NAMES used on this workorder	
01	B07212	NO3NO2	Nitrate Plus Nitrite
02	B07213		
03	B07214		
04	B07215		
05	B07217		
06	B07218		
07	B07220		
08	B07221		
09	B07222		
10	B07224		
11	B07225		
12	B07226		
12	B07226 DUPL		
12	B07226 SPIKE		
13	LCSS		

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

Received: 09/05/92 Results by Sample

SAMPLE ID B07212 SAMPLE # 01 FRACTIONS: A
Date & Time Collected 08/31/92 10:00:00 Category SOIL

NO3NO2 <2.47
mg N/Kg

SAMPLE ID B07213 SAMPLE # 02 FRACTIONS: A
Date & Time Collected 08/31/92 10:50:00 Category SOIL

NO3NO2 <2.43
mg N/Kg

SAMPLE ID B07214 SAMPLE # 03 FRACTIONS: A
Date & Time Collected 08/31/92 11:27:00 Category SOIL

NO3NO2 <2.46
mg N/Kg

SAMPLE ID B07215 SAMPLE # 04 FRACTIONS: A
Date & Time Collected 08/31/92 11:27:00 Category SOIL

NO3NO2 <2.54
mg N/Kg

SAMPLE ID B07217 SAMPLE # 05 FRACTIONS: A
Date & Time Collected 08/31/92 12:16:00 Category SOIL

NO3NO2 <2.49
mg N/Kg

SAMPLE ID B07218 SAMPLE # 06 FRACTIONS: A
Date & Time Collected 08/31/92 12:45:00 Category SOIL

NO3NO2 <2.56
mg N/Kg

SAMPLE ID B07220 SAMPLE # 07 FRACTIONS: A
Date & Time Collected 09/01/92 09:50:00 Category SOIL

NO3NO2 <2.48
mg N/Kg

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

Received: 09/05/92

Results by Sample

SAMPLE ID B07221 SAMPLE # 08 FRACTIONS: A
Date & Time Collected 09/01/92 10:16:00 Category SOIL

NO3NO2 7.24
mg N/Kg

SAMPLE ID B07222 SAMPLE # 09 FRACTIONS: A
Date & Time Collected 09/01/92 10:38:00 Category SOIL

NO3NO2 <2.55
mg N/Kg

SAMPLE ID B07224 SAMPLE # 10 FRACTIONS: A
Date & Time Collected 09/01/92 10:38:00 Category SOIL

NO3NO2 <2.45
mg N/Kg

SAMPLE ID B07225 SAMPLE # 11 FRACTIONS: A
Date & Time Collected 09/01/92 11:07:00 Category SOIL

NO3NO2 <2.45
mg N/Kg

SAMPLE ID B07226 SAMPLE # 12 FRACTIONS: A
Date & Time Collected 09/01/92 11:23:00 Category SOIL

NO3NO2 <2.43
mg N/Kg

SAMPLE ID B07226 DUPL SAMPLE # 12 FRACTIONS: B
Date & Time Collected 09/01/92 11:23:00 Category SOIL

NO3NO2 <2.41
mg N/Kg

SAMPLE ID B07226 SPIKE SAMPLE # 12 FRACTIONS: C
Date & Time Collected 09/01/92 11:23:00 Category SOIL

NO3NO2 20.0
mg N/Kg

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

Page 4 Skinner&Sherman REPORT Work Order # S2-09-092

Received: 09/05/92 Results by Sample

SAMPLE ID LCSS SAMPLE # 13 FRACTIONS: A

Date & Time Collected not specified Category SOIL

NO3NO2 1.97

mg N/L

TMA

Thermo Analytical Inc.

Skinner & Sherman Laboratories Inc.

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300 Second Avenue, P.O. Box 521, Waltham, Massachusetts 02254-0521 (617) 890-7200

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

TMA/NORCAL

QUALITY CONTROL

MATRIX SPIKE

Sample ID	Sample Result	Spike Added	Spike Result	% Recovery
S209092-12	<2.43 mg/kg	19.3 mg/kg	20.0 mg/kg	103.8

DUPLICATE

Sample ID	Sample Result	Duplicate Result	Relative % Difference
S209092-12	<2.43 mg/kg	<2.41 mg/kg	not calculable

QUALITY CONTROL SAMPLES

Sample ID	True Value	Found Value	% Recovery
LCS	2.00 mg/L	1.97 mg/L	98.5
Blank	--	<0.25 mg/L	--

TMA
Thermo Analytical Inc.
Skinner & Sherman Laboratories Inc.

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

Page 6 Skinner&Sherman REPORT Work Order # S2-09-092

Received: 09/05/92 Test Methodology

TEST CODE NO3NO2 NAME Nitrate Plus Nitrite

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

TMA
Thermo Analytical Inc.

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

TMA/Skinner & Sherman Labs SAMPLE LOG-IN
WORKORDER S209092 CLIENT HANFORD NOR No. SAMPLES:
PROTCL CLP TURNARND 33 Days 12 (Soil) (Water) (Specify Other)
COOLER TEMP: 5 oC, or NA
CUSTODIAN B. PRIDIX SDG/BATCH N/A
CUSTODY SEAL: PRESENT/ABSENT/INTACT/NOT CLIENT CASE N209031
SHIPER & # Fed Ex 5188043114 PO/CONTRACT# N209031
TAGS: PRESENT/ABSENT/NA/SEE COC CONTACT D. SANCHEZ
CHAIN OF CUSTODY: PRESENT/ABSENT/NA, # N/A COMMENTS: None

SAMPLE CONTAINERS-INTACT/BROKEN COMMENTS

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

SHIPMENT DATES 9-5-92
LIST ANY DATE WITH PAPERWORK/SHIPMENT PROBLEMS & SPECIFY THE PROBLEM:

N/A

	CLIENT ID	MATRIX	RECEIVED	PH*	TEST(S) & QC	HOLD TIME UP
1	B07212	Soil	9-5-92	N/A	N_3N_2	
2	B07213					
3	B07214					
4	B07215					
5	B07217					
6	B07218					
7	B07220					
8	B07221					
9	B07222					
10	B07224					
11	B07225					
12	B07226				D.S	
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						

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

SUBCONTRACT: YES/NO TO: DATE:

REVIEWED

Complete 9/8/92 B.P.

* EPA/CLP required Rev 1.6 PAGE:

9713505.1466

TMA
Thermo Analytical Inc.

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

RECORD COPY

NOV 1992
RECEIVED
OSM DMO

November 10, 1992

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

Quality Control Narrative

Scope
Twelve (12) soil samples were submitted to TMA/Skinner & Sherman Laboratories, Inc. on September 4, 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 S209084.

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, and mercury digestion spike recovery exceeded the control limit requirements.

The mercury laboratory duplicates exceeded the control limit requirements.

The ICP serial dilution for zinc 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.

David N. Peterson
Assistant Laboratory Manager

001
11/24/92

SAMPLE NUMBER:

B07212

INORGANIC ANALYSIS DATA SHEET

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

Lab Code: SKINER Case No.: N2-09-031SAS No.: SDG No.: B07212

Matrix (soil/water): SOIL Lab Sample ID: 09084-01S

Level (low/med): LOW Date Received: 09/04/92

% Solids: 99.9

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	51.9			P
7440-36-0	Antimony	3.1	U	N	P
7440-38-2	Arsenic	0.52	U	W	F
7440-39-3	Barium	0.53	U		P
7440-41-7	Beryllium	0.07	U		P
7440-43-9	Cadmium	0.18	U		P
7440-70-2	Calcium	12.6	B		P
7440-47-3	Chromium	0.83	U		P
7440-48-4	Cobalt	0.50	U		P
7440-50-8	Copper	0.71	B		P
7439-89-6	Iron	252			P
7439-92-1	Lead	0.36	U		F
7439-95-4	Magnesium	7.5	U		P
7439-96-5	Manganese	0.86	U		P
7439-97-6	Mercury	0.05	U	N*	CV
7440-02-0	Nickel	0.99	U		P
7440-09-7	Potassium	44.4	U		P
7782-49-2	Selenium	0.68	U	W	F
7440-22-4	Silver	0.46	U		P
7440-23-5	Sodium	17.7	B		P
7440-28-0	Thallium	0.23	U		F
7440-62-2	Vanadium	0.51	U		P
7440-66-6	Zinc	2.4	B	E	P
	Cyanide	0.50	U		CA

Color Before: WHITE Clarity Before: Texture: FINE

Color After: WHITE Clarity After: Artifacts:

Comments:

002

INORGANIC ANALYSIS DATA SHEET

SAMPLE NUMBER: B07213

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

Lab Code: SKINER Case No.: N2-09-031SAS No.: SDG No.: B07212

Matrix (soil/water): SOIL Lab Sample ID: 09084-02S

Level (low/med): LOW Date Received: 09/04/92

% Solids: 99.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	7660			P
7440-36-0	Antimony	3.2	U	N	P
7440-38-2	Arsenic	0.55	U	W	F
7440-39-3	Barium	55.7			P
7440-41-7	Beryllium	0.34	B		P
7440-43-9	Cadmium	0.19	U		P
7440-70-2	Calcium	4190			P
7440-47-3	Chromium	85.1			P
7440-48-4	Cobalt	8.9	B		P
7440-50-8	Copper	18.0			P
7439-89-6	Iron	17400			P
7439-92-1	Lead	7.2			F
7439-95-4	Magnesium	4650			P
7439-96-5	Manganese	240			P
7439-97-6	Mercury	0.05	U	N*	CV
7440-02-0	Nickel	11.7			P
7440-09-7	Potassium	1470			P
7782-49-2	Selenium	4.1	B		F
7440-22-4	Silver	0.75	B		P
7440-23-5	Sodium	204	B		P
7440-28-0	Thallium	0.25	U		F
7440-62-2	Vanadium	45.0			P
7440-66-6	Zinc	46.9		E	P
	Cyanide	0.46	U		CA

Color Before: BROWN Clarity Before: Texture: FINE

Color After: BROWN Clarity After: Artifacts: YES

Comments:
STONES

003

SAMPLE NUMBER:

INORGANIC ANALYSIS DATA SHEET

B07214

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

Lab Code: SKINER Case No.: N2-09-031SAS No.: SDG No.: B07212

Matrix (soil/water): SOIL Lab Sample ID: 09084-03S

Level (low/med): LOW Date Received: 09/04/92

% Solids: 97.1

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	4590			P
7440-36-0	Antimony	3.1	U	N	P
7440-38-2	Arsenic	0.59	U		F
7440-39-3	Barium	36.7	B		P
7440-41-7	Beryllium	0.07	U		P
7440-43-9	Cadmium	0.18	U		P
7440-70-2	Calcium	2100			P
7440-47-3	Chromium	8.8			P
7440-48-4	Cobalt	4.8	B		P
7440-50-8	Copper	16.6			P
7439-89-6	Iron	8260			P
7439-92-1	Lead	3.3			F
7439-95-4	Magnesium	3040			P
7439-96-5	Manganese	163			P
7439-97-6	Mercury	0.05	U	N*	CV
7440-02-0	Nickel	9.8			P
7440-09-7	Potassium	918	B		P
7782-49-2	Selenium	0.77	U	W	F
7440-22-4	Silver	0.46	U		P
7440-23-5	Sodium	84.8	B		P
7440-28-0	Thallium	0.27	U		F
7440-62-2	Vanadium	14.5			P
7440-66-6	Zinc	23.6		E	P
	Cyanide	0.51	U		CA

Color Before: BROWN Clarity Before: Texture: MEIDUM

Color After: BROWN Clarity After: Artifacts: YES

Comments:
STONES

004

SAMPLE NUMBER:

INORGANIC ANALYSIS DATA SHEET

B07215

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

Lab Code: SKINER Case No.: N2-09-031SAS No.: SDG No.: B07212

Matrix (soil/water): SOIL Lab Sample ID: 09084-04S

Level (low/med): LOW Date Received: 09/04/92

% Solids: 98.5

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	5270			P
7440-36-0	Antimony	3.3	U	N	P
7440-38-2	Arsenic	0.57	U	W	F
7440-39-3	Barium	38.4	B		P
7440-41-7	Beryllium	0.08	U		P
7440-43-9	Cadmium	0.20	U		P
7440-70-2	Calcium	2730			P
7440-47-3	Chromium	10.4			P
7440-48-4	Cobalt	4.6	B		P
7440-50-8	Copper	18.0			P
7439-89-6	Iron	9510			P
7439-92-1	Lead	5.4			F
7439-95-4	Magnesium	3430			P
7439-96-5	Manganese	167			P
7439-97-6	Mercury	0.05	U	N*	CV
7440-02-0	Nickel	10.8			P
7440-09-7	Potassium	901	B		P
7782-49-2	Selenium	0.75	U	W	F
7440-22-4	Silver	0.49	U		P
7440-23-5	Sodium	108	B		P
7440-28-0	Thallium	0.26	U		F
7440-62-2	Vanadium	17.8			P
7440-66-6	Zinc	26.4		E	P
	Cyanide	0.47	U		CA

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: BROWN Clarity After: Artifacts: YES

Comments:
STONES

005

INORGANIC ANALYSIS DATA SHEET

SAMPLE NUMBER: B07217

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

Lab Code: SKINER Case No.: N2-09-031SAS No.: SDG No.: B07212

Matrix (soil/water): SOIL Lab Sample ID: 09084-05S

Level (low/med): LOW Date Received: 09/04/92

% Solids: 96.8

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	4960			P
7440-36-0	Antimony	3.2	U	N	P
7440-38-2	Arsenic	0.58	U	W	F
7440-39-3	Barium	36.6	B		P
7440-41-7	Beryllium	0.08	U		P
7440-43-9	Cadmium	0.19	U		P
7440-70-2	Calcium	6780			P
7440-47-3	Chromium	9.3			P
7440-48-4	Cobalt	4.4	B		P
7440-50-8	Copper	14.7			P
7439-89-6	Iron	8620			P
7439-92-1	Lead	3.2			F
7439-95-4	Magnesium	3300			P
7439-96-5	Manganese	139			F
7439-97-6	Mercury	0.05	U	N*	CV
7440-02-0	Nickel	9.0			P
7440-09-7	Potassium	1140			P
7782-49-2	Selenium	3.8	U		F
7440-22-4	Silver	0.61	B		P
7440-23-5	Sodium	87.7	B		P
7440-28-0	Thallium	0.26	U		F
7440-62-2	Vanadium	15.9			P
7440-66-6	Zinc	26.0		E	P
	Cyanide	0.52	U		CA

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: BROWN Clarity After: Artifacts: YES

Comments:
STONES

INORGANIC ANALYSIS DATA SHEET

SAMPLE NUMBER: B07218

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

Lab Code: SKINER Case No.: N2-09-031SAS No.: SDG No.: B07212

Matrix (soil/water): SOIL Lab Sample ID: 09084-06S

Level (low/med): LOW Date Received: 09/04/92

% Solids: 97.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	5040			P
7440-36-0	Antimony	3.4	U	N	P
7440-38-2	Arsenic	0.59	U		F
7440-39-3	Barium	34.5	B		P
7440-41-7	Beryllium	0.08	U		P
7440-43-9	Cadmium	0.20	U		P
7440-70-2	Calcium	5150			P
7440-47-3	Chromium	9.3			P
7440-48-4	Cobalt	4.8	B		P
7440-50-8	Copper	19.2			P
7439-89-6	Iron	8730			P
7439-92-1	Lead	2.8			F
7439-95-4	Magnesium	3230			P
7439-96-5	Manganese	159			P
7439-97-6	Mercury	0.05	U	N*	CV
7440-02-0	Nickel	10.1			P
7440-09-7	Potassium	877	B		P
7782-49-2	Selenium	0.77	U	W	F
7440-22-4	Silver	0.50	U		P
7440-23-5	Sodium	102	B		P
7440-28-0	Thallium	0.26	U		F
7440-62-2	Vanadium	15.6			P
7440-66-6	Zinc	24.1		E	P
	Cyanide	0.51	U		CA

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: BROWN Clarity After: Artifacts: YES

Comments:
STONES

SAMPLE NUMBER:

B07220

INORGANIC ANALYSIS DATA SHEET

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

Lab Code: SKINER Case No.: N2-09-031SAS No.: SDG No.: B07212

Matrix (soil/water): SOIL Lab Sample ID: 09084-07S

Level (low/med): LOW Date Received: 09/04/92

% Solids: 99.9

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	33.8	B		P
7440-36-0	Antimony	3.0	U	N	P
7440-38-2	Arsenic	0.57	U		F
7440-39-3	Barium	0.52	U		P
7440-41-7	Beryllium	0.07	U		P
7440-43-9	Cadmium	0.18	U		P
7440-70-2	Calcium	14.6	B		P
7440-47-3	Chromium	0.81	U		P
7440-48-4	Cobalt	0.49	U		P
7440-50-8	Copper	0.63	U		P
7439-89-6	Iron	148			P
7439-92-1	Lead	0.40	U		F
7439-95-4	Magnesium	7.4	U		P
7439-96-5	Manganese	0.85	U		P
7439-97-6	Mercury	0.05	U	N*	CV
7440-02-0	Nickel	0.97	U		P
7440-09-7	Potassium	43.6	U		P
7782-49-2	Selenium	0.75	U	W	F
7440-22-4	Silver	0.45	U		P
7440-23-5	Sodium	8.6	B		P
7440-28-0	Thallium	0.26	U		F
7440-62-2	Vanadium	0.50	U		P
7440-66-6	Zinc	2.2	B	E	P
	Cyanide	0.49	U		CA

Color Before: WHITE Clarity Before: Texture: FINE

Color After: WHITE Clarity After: Artifacts:

Comments:

003

SAMPLE NUMBER:

INORGANIC ANALYSIS DATA SHEET

B07221

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

Lab Code: SKINER Case No.: N2-09-031SAS No.: SDG No.: B07212

Matrix (soil/water): SOIL Lab Sample ID: 09084-08S

Level (low/med): LOW Date Received: 09/04/92

% Solids: 94.9

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	8150			P
7440-36-0	Antimony	3.3	U	N	P
7440-38-2	Arsenic	2.2			F
7440-39-3	Barium	67.0			P
7440-41-7	Beryllium	0.43	B		P
7440-43-9	Cadmium	0.20	U		P
7440-70-2	Calcium	7090			P
7440-47-3	Chromium	21.7			P
7440-48-4	Cobalt	10.2			P
7440-50-8	Copper	16.0			P
7439-89-6	Iron	20700			P
7439-92-1	Lead	6.2			F
7439-95-4	Magnesium	6040			P
7439-96-5	Manganese	325			P
7439-97-6	Mercury	0.07	B	N*	CV
7440-02-0	Nickel	14.4			P
7440-09-7	Potassium	1340			P
7782-49-2	Selenium	0.78	U	MW	F
7440-22-4	Silver	0.88	B		P
7440-23-5	Sodium	238	B		P
7440-28-0	Thallium	0.27	U		F
7440-62-2	Vanadium	45.7			P
7440-66-6	Zinc	48.3		E	P
	Cyanide	0.51	U		CA

Color Before: BROWN Clarity Before: Texture: MEIDUM

Color After: BROWN Clarity After: Artifacts: YES

Comments:
STONES

003

SAMPLE NUMBER:

INORGANIC ANALYSIS DATA SHEET

B07222

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

Lab Code: SKINER Case No.: N2-09-031SAS No.: SDG No.: B07212

Matrix (soil/water): SOIL Lab Sample ID: 09084-09S

Level (low/med): LOW Date Received: 09/04/92

% Solids: 98.8

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	5430			P
7440-36-0	Antimony	3.1	U	N	P
7440-38-2	Arsenic	0.84	B		F
7440-39-3	Barium	38.1			P
7440-41-7	Beryllium	0.12	B		P
7440-43-9	Cadmium	0.19	U		P
7440-70-2	Calcium	2590			P
7440-47-3	Chromium	10.1			P
7440-48-4	Cobalt	4.9	B		P
7440-50-8	Copper	17.0			P
7439-89-6	Iron	10100			P
7439-92-1	Lead	2.7			F
7439-95-4	Magnesium	3480			P
7439-96-5	Manganese	168			P
7439-97-6	Mercury	0.05	U	N*	CV
7440-02-0	Nickel	9.4			P
7440-09-7	Potassium	907	B		P
7782-49-2	Selenium	0.74	U		F
7440-22-4	Silver	0.46	U		P
7440-23-5	Sodium	101	B		P
7440-28-0	Thallium	0.25	U		F
7440-62-2	Vanadium	20.3			P
7440-66-6	Zinc	27.4		E	P
	Cyanide	0.47	U		CA

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: BROWN Clarity After: Artifacts: YES

Comments:
STONES

010

SAMPLE NUMBER:

INORGANIC ANALYSIS DATA SHEET

B07224

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

Lab Code: SKINER Case No.: N2-09-031SAS No.: SDG No.: B07212

Matrix (soil/water): SOIL Lab Sample ID: 09084-10S

Level (low/med): LOW Date Received: 09/04/92

% Solids: 99.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	5970			P
7440-36-0	Antimony	3.3	U	N	P
7440-38-2	Arsenic	0.68	B		F
7440-39-3	Barium	56.0			P
7440-41-7	Beryllium	0.08	U		P
7440-43-9	Cadmium	0.20	U		P
7440-70-2	Calcium	2400			P
7440-47-3	Chromium	21.0			P
7440-48-4	Cobalt	5.8	B		P
7440-50-8	Copper	14.8			P
7439-89-6	Iron	11100			P
7439-92-1	Lead	2.0			F
7439-95-4	Magnesium	4350			P
7439-96-5	Manganese	129			P
7439-97-6	Mercury	0.05	U	N*	CV
7440-02-0	Nickel	11.4			P
7440-09-7	Potassium	1450			P
7782-49-2	Selenium	0.73	U	W	F
7440-22-4	Silver	0.60	B		P
7440-23-5	Sodium	122	B		P
7440-28-0	Thallium	0.25	U		F
7440-62-2	Vanadium	22.3			P
7440-66-6	Zinc	29.3		E	P
	Cyanide	0.48	U		CA

Color Before: BROWN Clarity Before: Texture: FINE

Color After: BROWN Clarity After: Artifacts: YES

Comments:
STONES

011

SAMPLE NUMBER:

B07225

INORGANIC ANALYSIS DATA SHEET

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

Lab Code: SKINER Case No.: N2-09-031SAS No.: SDG No.: B07212

Matrix (soil/water): SOIL Lab Sample ID: 09084-11S

Level (low/med): LOW Date Received: 09/04/92

% Solids: 98.3

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	4860			P
7440-36-0	Antimony	3.3	U	N	P
7440-38-2	Arsenic	0.56	U		F
7440-39-3	Barium	37.5	B		P
7440-41-7	Beryllium	0.08	U		P
7440-43-9	Cadmium	0.19	U		P
7440-70-2	Calcium	3630			P
7440-47-3	Chromium	8.5			P
7440-48-4	Cobalt	4.5	B		P
7440-50-8	Copper	14.4			P
7439-89-6	Iron	9160			P
7439-92-1	Lead	2.4			F
7439-95-4	Magnesium	3190			P
7439-96-5	Manganese	158			P
7439-97-6	Mercury	0.37		N*	CV
7440-02-0	Nickel	8.7			P
7440-09-7	Potassium	780	B		P
7782-49-2	Selenium	0.73	U		F
7440-22-4	Silver	0.48	U		P
7440-23-5	Sodium	107	B		P
7440-28-0	Thallium	0.25	U		F
7440-62-2	Vanadium	17.2			P
7440-66-6	Zinc	24.5		E	P
	Cyanide	0.50	U		CA

Color Before: BROWN Clarity Before: Texture: FINE

Color After: BROWN Clarity After: Artifacts: YES

Comments:
STONES

012

INORGANIC ANALYSIS DATA SHEET

SAMPLE NUMBER: B07226

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

Lab Code: SKINER Case No.: N2-09-031SAS No.: SDG No.: B07212

Matrix (soil/water): SOIL Lab Sample ID: 09084-12S

Level (low/med): LOW Date Received: 09/04/92

% Solids: 96.5

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	4950			P
7440-36-0	Antimony	3.3	U	N	P
7440-38-2	Arsenic	0.57	U		F
7440-39-3	Barium	31.1	B		P
7440-41-7	Beryllium	0.08	U		P
7440-43-9	Cadmium	0.20	U		P
7440-70-2	Calcium	4870			P
7440-47-3	Chromium	8.7			P
7440-48-4	Cobalt	4.3	B		P
7440-50-8	Copper	14.8			P
7439-89-6	Iron	8950			P
7439-92-1	Lead	3.0			F
7439-95-4	Magnesium	3280			P
7439-96-5	Manganese	163			P
7439-97-6	Mercury	0.42		N*	CV
7440-02-0	Nickel	8.8			P
7440-09-7	Potassium	834	B		P
7782-49-2	Selenium	0.74	U		F
7440-22-4	Silver	0.49	U		P
7440-23-5	Sodium	113	B		P
7440-28-0	Thallium	0.25	U		F
7440-62-2	Vanadium	17.2			P
7440-66-6	Zinc	25.0		E	P
	Cyanide	0.51	U		CA

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: BROWN Clarity After: Artifacts: YES

Comments:
STONES

9713505.1479

FEDERAL EXPRESS

QUESTIONS? CALL 800-238-5355 TOLL FREE.

AIRBILL
PACKAGE
TRACKING NUMBER

5188043114

2237N 5188043114

1 Date 9.3.92

RECIPIENT'S COPY

From (Your Name) Please Print: SAMPLE CONTROL

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

Company: T M A /NORCAL

Department/Floor No.:

Street Address: 2030 WRIGHT AVE

City: RICHMOND State: CA ZIP Required: 94804

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

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

Company: SKINNER + SHERMAN

Department/Floor No.:

Exact Street Address (We Cannot Deliver to P.O. Boxes or P.O. Zip Codes.): 300 SECOND AVE

City: WALTHAM State: MA ZIP Required: 02254

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

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

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

SERVICES (Check only one box)

Overnight (business morning†)
[illegible]NR [illegible]AGING
12 [illegible] LETTER*
13 [illegible]**
[illegible]

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 (Delivery by second [illegible])
30 [ ] ECONO[illegible]

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

Freight (for packa[illegible])
70 [ ] OVERNIGHT FREIGHT**
(Confirmed reservation required.)
† Delivery commitment may be later in some areas.
[illegible] TWO-DAY [illegible]EIGHT**
[illegible] Limit $500. Avery Schedule

5 DELIVERY AND SPECIAL HANDLING (Check services required)

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

6 PACKAGES | WEIGHT In Pounds Only | YOUR DECLARED VALUE

Total | Total | Total
1 | Lb

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

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

7 Release Signature:

Emp. No. Date
[ ] Cash Received
[ ] Return Shipment
[ ] Third Party [ ] Chg. To Del [ ] Chg. To Hold
Street Address
City State Zip
Received By: X
Date/Time Received 9/4/92 FedEx Employee Number 9:30

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

REVISION DATE 2/92
PART #137204 FXEM 8/92
FORMAT #126
126
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1202

9213505.1480

TMA/Skinner & Sherman Labs SAMPLE LOG-IN

WORKORDER 5209084 CLIENT Hanford NOR No. SAMPLES:

PROTCL CLP TURNARND 33 Days 12 (Soil) (Water) (Specify Other)

COOLER TEMP: 5 oC, or NA

CUSTODIAN B. Prowel SDG/BATCH N/A

CUSTODY SEAL: PRESENT/ABSENT/INTACT/NOT CLIENT CASE N209031

SHIPER & # Fed Ex 5188043114 PO/CONTRACT# ↓

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

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

SAMPLE CONTAINERS-INTACT/BROKEN COMMENTS

CLIENT COMMENT? YES/NO

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

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

SHIPMENT DATES 9-4-92

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

N/A

	CLIENT ID	MATRIX	RECEIVED	PH*	TEST(S) & QC	HOLD TIME UP
1	B07212	Soil	9/4/92	N/A	TM/CN	
2	B07213	↓	↓	↓	↓	
3	B07214	↓	↓	↓	↓	
4	B07215	↓	↓	↓	↓	
5	B07217	↓	↓	↓	↓	
6	B07218	↓	↓	↓	↓	
7	B07220	↓	↓	↓	↓	
8	B07221	↓	↓	↓	↓	
9	B07222	↓	↓	↓	↓	
10	B07224	↓	↓	↓	↓	
11	B07225	↓	↓	↓	↓	
12	B07226	↓	↓	↓	D.S ↓	
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						

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

Samples have detectable amounts of Radioactive Material: YES NO ✓

SUBCONTRACT: YES/NO, TO: DATE: 1203

REVIEWED Complete 9/4/92 BP

* EPA/CLP required Rev 1.6 PAGE:

9213505.1481

TMA

WESTINGHOUSE HANFORD COMPANY

Results of Analyses For:

DEC 1992
RECEIVED
OSM DMO

ORGANICS & GENERAL CHEMISTRY
Case No. 09-033
(TMA/ARLI Work Order # A2-09-033)

METALS
Case No. N2-09-082
(TMA/Skinner & Sherman W.O. # S2-09-220 & S2-09-221)

December 15, 1992

TMA Master Work Order N2-09-082

9213505.1482 TMA/NorCal CHAIN OF CUSTODY ORD # N2-09-082 000002

RCVD: 09/14/92 DUE: 10/14/92 09/14/92 16:10:40 KEEP: 01/12/93 DISP: S

DASH	SAMPLE IDENTIFICATION	STORED	TESTS				
01A-S	B07231	ARLI	WH014	WH015	WH016	WH217	WH232
01B-S	B07231	SS_1	WH001	WH002	WH004	WH005	WH233
02A-S	B07233	ARLI	WH014	WH015	WH016	WH217	WH232
02B-S	B07233	SS_1	WH001	WH002	WH004	WH005	WH233
03A-S	B07234	ARLI	WH014	WH015	WH016	WH217	WH232
03B-S	B07234	SS_1	WH001	WH002	WH004	WH005	WH233
04A-S	B07235	ARLI	WH014	WH015	WH016	WH217	WH232
04B-S	B07235	SS_1	WH001	WH002	WH004	WH005	WH233
05A-S	B07236	ARLI	WH014	WH015	WH016	WH217	WH232
05B-S	B07236	SS_1	WH001	WH002	WH004	WH005	WH233
06A-S	B07237	ARLI	WH014	WH015	WH016	WH217	WH232
06B-S	B07237	SS_1	WH001	WH002	WH004	WH005	WH233
06C-S	B07237 MS	ARLI	WH014	WH015	WH016	WH232	
06D	B07237 MSD	ARLI	WH014	WH015	WH016		
06E-S	B07237 DUP	ARLI	WH217	WH232			
06F-S	B07237 MS	SS_1	WH001	WH002	WH004	WH005	WH233
06G-S	B07237 DUP	SS_1	WH001	WH002	WH004	WH005	WH233
06H-S	L C S	SS_1	WH001	WH002	WH004	WH005	WH233
07A-S	B07245	ARLI	WH014				
08A-S	B07246	ARLI	WH014				

RELEASED BY	DATE	TRANSFERRED TO	DATE	RECEIVED BY	DATE
Yamamoto	9-14-92	ARLI	9-14-92	[illegible]	9/15/92

9713505.1483

SAMPLE LOG-IN SHEET

000003

LAB NAME : TMA/ARLI

PAGE : OF

RECEIVED BY (PRINT NAME): CARLLE HARRIS

LOG-IN-DATE : 9-15-92

RECEIVED BY (SIGNATURE): Carlle 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.: 5188038564
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: 9-15-92
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
	B07231	A2-09-033-01	
	B07233	A2-09-033-02	
	B07234	A2-09-033-03	
	B07245	A2-09-033-04	
	B07235	A2-09-033-05	
	B07236	A2-09-033-06	
	B07237	A2-09-033-07	
	B07246	A2-09-033-08	

* Contact SMO and attach record of resolution

Reviewed By:

Logbook No.:

Date:

Logbook Page No.:

FORM DC-1

DOC2/LOGIN.TBL

9713505.1484

000004

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QUESTIONS? CALL 800-238-5355 TOLL FREE.

AIRBILL PACKAGE TRACKING NUMBER 5188038564

2.31 5188038564

RECIPIENT'S COPY

1 Date 9.14.92

From (Your Name) Please Print: SAMPLE control

Your Phone Number (Very Important): (310)235-2033

Company: T M A INDUSTRIAL

Department/Floor No.

Street Address: 2030 WRIGHT AVE

City: RICHMOND State: LA ZIP Required: 94804

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

Recipient's Phone Number (Very impo

Company: TMA/ANI.

Department/Floor

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

City: MONROVIA State: CA ZIP Required: 91016

YOUR INTERNAL BILLING REFERENCE INFORMATION (optional) (First 24 characters will appear on invoice.): 23206406

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

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

4 SERVICES (Check only one box)

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

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

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

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

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

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

5 DELIVERY AND SPECIAL HANDLING (Check services required)

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

6 PACKAGES | WEIGHT In Pounds Only | YOUR DECLARED VALUE
Total 3 | Total 2155 | Total

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

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

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

7 Release Signature:

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

REVISION DATE 2/92
PART #137204 FXEM
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TMA/ARLI
Thermo Analytical Inc.

RADIATION DOSE RATE SURVEY FORM

Date 9/15/92 COMPANY NNC OTHER ORD # 5758035564

Surveyor's Name Bill Schlumberger

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 0.2870 Instrument Calibration Factor 0.177 BUK 0.188

Sample	Location	HP-210 CPM	HP-210 Factor	HP-210 DPM	AC-3-7 CPM	AC-3-7 Factor	AC-3-7 DPM	Spillage or Breakage?	Activity, uCi/mL or uCi/g
Background		31.0			0.0				
Consistency		7320	0.2826		5090	0.1871			
Smears: SMC 88		46.			4.0				
SMC 181		48.			3.0				
SMC 206		45			4.0				
Pipetid	NNC	45	Sa 2h	< 50	pCi/g				

Comments:

All OK ✓ Approved BWK

Not OK Date 9/15/92

Form: ARLI RA-01
Rev: 06

01/15/92

GENERAL CHEMISTRY RESULTS

CASE NO. 09-033

Soil Sample #:

B07231	B07233	B07234
B07235	B07236	B07237

CASE NARRATIVE

The %RPD for the Fluoride analysis reported for soil sample B07333 (A2-09-033-02) 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

TMA Inc. REPORT Work Order # A2-09-033

Received: 09/14/92

Results by Sample

SAMPLE ID B07231 FRACTION 01E TEST CODE WCCLPS NAME Anions in Solids - WH232

Date & Time Collected 09/10/92 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	8.6	pH	.1
Sulfate	300.0	<10.	mg/Kg	10.

FORM I

TMA Inc. REPORT Work Order # A2-09-033

Received: 09/14/92

Results by Sample

SAMPLE ID B07233 FRACTION 02E TEST CODE WCCLPS NAME Anions in Solids - WH232

Date & Time Collected 09/10/92 Category

ANIONS AND WET CHEMISTRY - SOLIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Chloride	300.0	6	mg/Kg	2.
Fluoride	300.0	3	mg/Kg	1.
Phosphate	300.0	15	mg/Kg	4.
pH	150.1	8.2	pH	.1
Sulfate	300.0	26	mg/Kg	10.

FORM I

9213505.1489

TMA Inc. REPORT Work Order # A2-09-033

Received: 09/14/92

Results by Sample

SAMPLE ID B07234 FRACTION 03E TEST CODE WCCLPS NAME Anions in Solids - WH232

Date & Time Collected 09/10/92 Category

ANIONS AND WET CHEMISTRY - SOLIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Chloride	300.0	7	mg/Kg	2.
Fluoride	300.0	<1.	mg/Kg	1.
Phosphate	300.0	14	mg/Kg	4.
pH	150.1	8.6	pH	.1
Sulfate	300.0	29	mg/Kg	10.

FORM I

TMA Inc. REPORT Work Order # A2-09-033

Received: 09/14/92

Results by Sample

SAMPLE ID B07235 FRACTION 05C TEST CODE WCCLPS NAME Anions in Solids - WH232

Date & Time Collected 09/10/92 Category

ANIONS AND WET CHEMISTRY - SOLIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Chloride	300.0	6	mg/Kg	2.
Fluoride	300.0	3	mg/Kg	1.
Phosphate	300.0	14	mg/Kg	4.
pH	150.1	8.5	pH	.1
Sulfate	300.0	23	mg/Kg	10.

FORM I

TMA Inc. REPORT Work Order # A2-09-033

Received: 09/14/92 Results by Sample

SAMPLE ID B07236 FRACTION 06C TEST CODE WCCLPS NAME Anions in Solids - WH232

Date & Time Collected 09/10/92 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	9045	8.7	pH	.1
Sulfate	300.0	26	mg/Kg	10.

FORM I

TMA Inc. REPORT Work Order # A2-09-033

Received: 09/14/92

Results by Sample

SAMPLE ID B07237 FRACTION 07C TEST CODE WCCLPS NAME Anions in Solids - WH232

Date & Time Collected 09/10/92 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	8.5	pH	.1
Sulfate	300.0	43	mg/Kg	10.

FORM I

CASE NARRATIVE

LABORATORY : TMA/ARLI

CASE : 09-033

CONTRACT ID : WESTINGHOUSE HANFORD COMPANY

SDG RECEIPT DATE : September 14, 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
B07231	A2-09-033-01A	V	SOIL
B07231	A2-09-033-01B	SV & P	SOIL
B07231 MS	A2-09-033-01C	SV	SOIL
B07231 MSD	A2-09-033-01D	SV	SOIL
B07233	A2-09-033-02A	V	SOIL
B07233	A2-09-033-02B	SV & P	SOIL
B07233 MS	A2-09-033-02C	P	SOIL
B07233 MSD	A2-09-033-02D	P	SOIL
B07234	A2-09-033-03A	V	SOIL
B07234 MS	A2-09-033-03B	V	SOIL
B07234 MSD	A2-09-033-03C	V	SOIL
B07234	A2-09-033-03D	SV & P	SOIL
B07245	A2-09-033-04A	V	SOIL
B07235	A2-09-033-05A	V	SOIL
B07235	A2-09-033-05B	SV & P	SOIL
B07236	A2-09-033-06A	V	SOIL
B07236	A2-09-033-06B	SV & P	SOIL
B07237	A2-09-033-07A	V	SOIL
B07237	A2-09-033-07B	SV & P	SOIL
B07246	A2-09-033-08A	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 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. Benzo(a)anthracene was detected in sample B07233. The library match for this analyte was low in purity due to background from internal standard, Chrysene-d12. All of the m/e ions have been included for this analyte as confirmation.

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. The method blank PBLK0918S1 had TCX surrogate recoveries on both of the GC columns that were below the advisory limit.

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

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

Nicole Roth
CLP Program Manager

Wida Ang
Organics Supervisor

9713505.1496

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

000005
EPA SAMPLE NO.

B07231

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09033 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209033-01A

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 20918R06

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

% Moisture: not dec. 0 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

9713505.1497
1E

000006
EPA SAMPLE NO.

B07231

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09033 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209033-01A

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 20918R06

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

% Moisture: not dec. 0 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: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN ALCOHOL	29.58	22	J

9713505.1498

000007

EPA SAMPLE NO.

B07233

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09033 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209033-02A

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 20918R07

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

% 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	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	5	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

EPA SAMPLE NO.

B07233

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09033 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209033-02A

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 20918R07

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

% 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

9713505.1500

1A

000009

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

B07234

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09033 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209033-03A

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 20918R08

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

% 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	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	11	
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

9713505.1501

000010

EPA SAMPLE NO.

B07234

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09033 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209033-03A

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 20918R08

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

% 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

9713505.1502

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07235

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09033 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209033-05A

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 20918R12

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

% 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	11	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

9713505.1503

1E

000012
EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B07235

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09033 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209033-05A

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 20918R12

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

% 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

EPA SAMPLE NO.

B07236

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09033 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209033-06A

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 20918R13

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

% 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	15	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

9713505.1505

1-E

EPA SAMPLE NO.

B07236

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09033 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209033-06A

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 20918R13

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

% 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

EPA SAMPLE NO.

B07237

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09033 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209033-07A

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 20918R14

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

% 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	13	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

EPA SAMPLE NO.

B07237

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09033 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209033-07A

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 20918R14

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

% 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: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN ALKENE	29.45	11	J

9713505.1508

1A

000017

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

B07245

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09033 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209033-04A

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 20918R11

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

% Moisture: not dec. 0 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

9713505.1509

000018
EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B07245

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09033 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209033-04A

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 20918R11

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

% Moisture: not dec. 0 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: 1

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

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

9713505.1510

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

000019
EPA SAMPLE NO.

B07246

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09033 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209033-08A

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 20918R15

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

% Moisture: not dec. 0 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

9713505.1511

EPA SAMPLE NO.

B07246

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09033 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209033-08A

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 20918R15

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

% Moisture: not dec. 0 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: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN HYDROCARBON	29.50	28	J

EPA SAMPLE NO.

B07231

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09033 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209033-01B

Sample wt/vol: 30.8 (g/mL) G Lab File ID: 20921S13

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

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

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/21/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.6

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	780	U
91-58-7	2-Chloronaphthalene	320	U
88-74-4	2-Nitroaniline	780	U
131-11-3	Dimethylphthalate	320	U
208-96-8	Acenaphthylene	320	U
99-09-2	3-Nitroaniline	780	U
83-32-9	Acenaphthene	320	U
51-28-5	2,4-Dinitrophenol	780	U

9713505.1513

000022
EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

B07231

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09033 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209033-01B

Sample wt/vol: 30.8 (g/mL) G Lab File ID: 20921S13

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

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

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/21/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.6

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
100-02-7	4-Nitrophenol	780	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	780	U
534-52-1	4,6-Dinitro-2-methylphenol	780	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	780	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	38	J
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

9713505.1514

1F

000023
EPA SAMPLE NO.

B07231

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09033 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209033-01B

Sample wt/vol: 30.8 (g/mL) G Lab File ID: 20921S13

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

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

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/21/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.6

Number TICs found: 11

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN ACID	5.10	2200	BJ
2.	UNKNOWN HYDROCARBON	5.20	1600	BJ
3.	UNKNOWN HYDROCARBON	5.62	73000	BJ
4.	UNKNOWN HYDROCARBON	6.33	65	J
5.	UNKNOWN HYDROCARBON	6.55	230	BJ
6.	UNKNOWN HYDROCARBON	6.67	1200	BJ
7.	UNKNOWN HYDROCARBON	7.10	680	BJ
8.	UNKNOWN ALCOHOL	8.32	1800	BJ
9.	PROPANOIC ACID ISOMER	13.92	160	J
10.	UNKNOWN HYDROCARBON	22.65	130	J
11.	HEXANEDIOIC ACID ISOMER	24.63	98	BJ

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

B07233

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09033 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209033-02B

Sample wt/vol: 30.6 (g/mL) G Lab File ID: 20921S16

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

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

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/21/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.2

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	800	U
91-58-7	2-Chloronaphthalene	330	U
88-74-4	2-Nitroaniline	800	U
131-11-3	Dimethylphthalate	330	U
208-96-8	Acenaphthylene	330	U
99-09-2	3-Nitroaniline	800	U
83-32-9	Acenaphthene	330	U
51-28-5	2,4-Dinitrophenol	800	U

9713505.1516

EPA SAMPLE NO.

B07233

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09033 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209033-02B

Sample wt/vol: 30.6 (g/mL) G Lab File ID: 20921S16

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

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

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/21/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.2

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
100-02-7	4-Nitrophenol	800	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	800	U
534-52-1	4,6-Dinitro-2-methylphenol	800	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	800	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	270	J
129-00-0	Pyrene	220	J
85-68-7	Butylbenzylphthalate	330	U
91-94-1	3,3'-Dichlorobenzidine	330	U
56-55-3	Benzo(a)Anthracene	170	J
117-81-7	bis(2-Ethylhexyl)Phthalate	330	U
218-01-9	Chrysene	170	J
117-84-0	Di-n-Octyl Phthalate	330	U
205-99-2	Benzo(b)Fluoranthene	160	J
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

9713505.1517

1F

000026

EPA SAMPLE NO.

B07233

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09033 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209033-02B

Sample wt/vol: 30.6 (g/mL) G Lab File ID: 20921S16

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

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

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/21/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.2

Number TICs found: 20

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN HYDROCARBON	5.18	2800	BJ
2.	UNKNOWN HYDROCARBON	5.62	80000	BJ
3.	UNKNOWN HYDROCARBON	6.57	230	BJ
4.	UNKNOWN HYDROCARBON	6.68	1200	BJ
5.	UNKNOWN HYDROCARBON	7.10	600	BJ
6.	UNKNOWN ALCOHOL	8.33	1500	BJ
7.	UNKNOWN HYDROCARBON	12.30	170	J
8.	PROPANOIC ACID ISOMER	17.00	130	J
9.	UNKNOWN POLYNUCLEAR AROMATIC	24.82	100	J
10.	UNKNOWN HYDROCARBON	25.10	100	J
11.	UNKNOWN ALKANE	26.90	200	J
12.	UNKNOWN ALKANE	28.13	200	J
13.	UNKNOWN ALKANE	28.45	2400	J
14.	UNKNOWN ALKANE	29.35	300	J
15.	UNKNOWN ALKANE	30.02	830	J
16.	UNKNOWN ALKANE	30.50	4700	J
17.	UNKNOWN HYDROCARBON	31.00	400	J
18.	UNKNOWN ALKANE	31.68	170	J
19.	UNKNOWN ALKANE	32.63	170	J
20.	UNKNOWN ALKANE	33.25	300	J

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07234

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09033 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209033-03D

Sample wt/vol: 30.6 (g/mL) G Lab File ID: 20921S17

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

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

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/21/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.6

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	800	U
91-58-7	2-Chloronaphthalene	330	U
88-74-4	2-Nitroaniline	800	U
131-11-3	Dimethylphthalate	330	U
208-96-8	Acenaphthylene	330	U
99-09-2	3-Nitroaniline	800	U
83-32-9	Acenaphthene	330	U
51-28-5	2,4-Dinitrophenol	800	U

EPA SAMPLE NO.

B07234

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09033 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209033-03D

Sample wt/vol: 30.6 (g/mL) G Lab File ID: 20921S17

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

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

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/21/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.6

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
100-02-7	4-Nitrophenol	800	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	800	U
534-52-1	4,6-Dinitro-2-methylphenol	800	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	800	U
85-01-8	Phenanthrene	390	
120-12-7	Anthracene	330	U
86-74-8	Carbazole	330	U
84-74-2	Di-n-Butylphthalate	330	U
206-44-0	Fluoranthene	980	
129-00-0	Pyrene	750	
85-68-7	Butylbenzylphthalate	330	U
91-94-1	3,3'-Dichlorobenzidine	330	U
56-55-3	Benzo(a)Anthracene	370	
117-81-7	bis(2-Ethylhexyl)Phthalate	330	U
218-01-9	Chrysene	310	J
117-84-0	Di-n-Octyl Phthalate	330	U
205-99-2	Benzo(b)Fluoranthene	340	
207-08-9	Benzo(k)Fluoranthene	330	U
50-32-8	Benzo(a)Pyrene	130	J
193-39-5	Indeno(1,2,3-cd)Pyrene	45	J
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

9713505.1520

000029
EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B07234

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09033 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209033-03D

Sample wt/vol: 30.6 (g/mL) G Lab File ID: 20921S17

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

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

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/21/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.6

Number TICs found: 20

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN HYDROCARBON	5.18	2400	BJ
2.	UNKNOWN HYDROCARBON	5.60	76000	BJ
3.	UNKNOWN HYDROCARBON	6.12	170	BJ
4.	UNKNOWN HYDROCARBON	6.55	230	BJ
5.	UNKNOWN HYDROCARBON	6.67	1300	BJ
6.	UNKNOWN HYDROCARBON	7.10	700	BJ
7.	UNKNOWN HYDROCARBON	8.32	1700	BJ
8.	PROPANOIC ACID ISOMER	17.00	130	J
9.	UNKNOWN POLYNUCLEAR AROMATIC	20.98	170	J
10.	UNKNOWN POLYNUCLEAR AROMATIC	23.67	130	J
11.	UNKNOWN POLYNUCLEAR AROMATIC	25.12	200	J
12.	UNKNOWN POLYNUCLEAR AROMATIC	25.27	130	J
13.	UNKNOWN ALKANE	26.88	130	J
14.	UNKNOWN HYDROCARBON	28.12	630	J
15.	UNKNOWN ALKANE	28.45	1200	J
16.	UNKNOWN POLYNUCLEAR AROMATIC	28.60	300	J
17.	UNKNOWN ALKANE	29.33	130	J
18.	UNKNOWN ALKANE	29.98	230	J
19.	UNKNOWN ALKANE	30.43	1800	J
20.	UNKNOWN COMPOUND	31.10	230	J

EPA SAMPLE NO.

B07235

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09033 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209033-05B

Sample wt/vol: 30.3 (g/mL) G Lab File ID: 20921S18

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

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

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/21/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.5

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	820	U
91-58-7	2-Chloronaphthalene	340	U
88-74-4	2-Nitroaniline	820	U
131-11-3	Dimethylphthalate	340	U
208-96-8	Acenaphthylene	340	U
99-09-2	3-Nitroaniline	820	U
83-32-9	Acenaphthene	340	U
51-28-5	2,4-Dinitrophenol	820	U

000031
EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

B07235

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09033 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209033-05B

Sample wt/vol: 30.3 (g/mL) G Lab File ID: 20921S18

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

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

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/21/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.5

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
100-02-7	4-Nitrophenol	820	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	820	U
534-52-1	4,6-Dinitro-2-methylphenol	820	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	820	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

EPA SAMPLE NO.

B07235

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09033 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209033-05B

Sample wt/vol: 30.3 (g/mL) G Lab File ID: 20921S18

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

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

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/21/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.5

Number TICs found: 13

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN HYDROCARBON	5.17	2700	BJ
2.	UNKNOWN HYDROCARBON	5.60	74000	BJ
3.	UNKNOWN HYDROCARBON	6.12	140	J
4.	UNKNOWN KETONE	6.32	100	J
5.	UNKNOWN ALKANE	6.53	240	J
6.	UNKNOWN HYDROCARBON	6.65	1200	BJ
7.	UNKNOWN HYDROCARBON	7.08	680	BJ
8.	UNKNOWN ALCOHOL	8.30	1400	BJ
9.	HEXANEDIOIC ACID ISOMER	24.63	68	BJ
10.	UNKNOWN ALKANE	26.87	68	J
11.	UNKNOWN ALKANE	28.05	68	J
12.	UNKNOWN ALKANE	28.40	170	J
13.	UNKNOWN ALKANE	30.37	68	J

9713505.1524

000033

EPA SAMPLE NO.

B07236

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09033 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209033-06B

Sample wt/vol: 30.6 (g/mL) G Lab File ID: 20922S03

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

% 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: 8.7

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

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07236

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09033 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209033-06B

Sample wt/vol: 30.6 (g/mL) G Lab File ID: 20922S03

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

% 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: 8.7

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

9713505.1526

000035
EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B07236

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09033 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209033-06B

Sample wt/vol: 30.6 (g/mL) G Lab File ID: 20922S03

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

% 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: 8.7

Number TICs found: 7

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN HYDROCARBON	5.18	2600	BJ
2.	UNKNOWN HYDROCARBON	5.60	86000	BJ
3.	UNKNOWN HYDROCARBON	6.55	240	BJ
4.	UNKNOWN HYDROCARBON	6.67	1300	BJ
5.	UNKNOWN HYDROCARBON	7.10	740	BJ
6.	UNKNOWN ALCOHOL	8.32	1700	BJ
7.	UNKNOWN ALKANE	28.42	100	J

9713505.1527

1B

000036
EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

B07237

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09033 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209033-07B

Sample wt/vol: 30.3 (g/mL) G Lab File ID: 20922S04

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

% 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: 8.5

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

EPA SAMPLE NO.

B07237

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09033 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209033-07B

Sample wt/vol: 30.3 (g/mL) G Lab File ID: 20922S04

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

% 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: 8.5

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

9713505.1529

1F

000038
EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B07237

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09033 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209033-07B

Sample wt/vol: 30.3 (g/mL) G Lab File ID: 20922S04

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

% 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: 8.5

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	2600	BJ
2.	UNKNOWN HYDROCARBON	5.62	85000	BJ
3.	UNKNOWN HYDROCARBON	6.57	270	BJ
4.	UNKNOWN HYDROCARBON	6.68	1300	BJ
5.	UNKNOWN HYDROCARBON	7.10	740	BJ
6.	UNKNOWN ALCOHOL	8.33	1800	BJ
7.	HEXANEDIOIC ACID ISOMER	24.65	67	BJ
8.	UNKNOWN ALKANE	28.42	100	J

9713505.1530

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

000039

EPA SAMPLE NO.

B07231

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09033 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209033-01B

Sample wt/vol: 30.9 (g/mL) G Lab File ID: _____

% Moisture: 0 decanted: (Y/N) N Date Received: 09/14/92

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

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 10/06/92

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 8.6 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	3.2	U
72-55-9	4,4'-DDE	3.2	U
72-20-8	Endrin	3.2	U
33213-65-9	Endosulfan II	3.2	U
72-54-8	4,4'-DDD	3.2	U
1031-07-8	Endosulfan sulfate	3.2	U
50-29-3	4,4'-DDT	3.2	U
72-43-5	Methoxychlor	17	U
53494-70-5	Endrin ketone	3.2	U
7421-36-3	Endrin aldehyde	3.2	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	32	U
11104-28-2	Aroclor-1221	65	U
11141-16-5	Aroclor-1232	32	U
53469-21-9	Aroclor-1242	32	U
12672-29-6	Aroclor-1248	32	U
11097-69-1	Aroclor-1254	32	U
11096-82-5	Aroclor-1260	32	U

9713505.1531

000040

EPA SAMPLE NO.

B07233

PESTICIDE ORGANICS ANALYSIS DATA SHEET

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09033 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209033-02B

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

% Moisture: 2 decanted: (Y/N) N Date Received: 09/14/92

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

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 10/06/92

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 8.2 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	3.3	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	67	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

9713505.1532

000041

EPA SAMPLE NO.

B07234

PESTICIDE ORGANICS ANALYSIS DATA SHEET

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09033 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209033-03D

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

% Moisture: 2 decanted: (Y/N) N Date Received: 09/14/92

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

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 10/06/92

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 8.6 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	67	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

EPA SAMPLE NO.

B07235

PESTICIDE ORGANICS ANALYSIS DATA SHEET

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09033 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209033-05B

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

% Moisture: 3 decanted: (Y/N) N Date Received: 09/14/92

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: 8.5 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

9713505 1534

000043

EPA SAMPLE NO.

B07236

PESTICIDE ORGANICS ANALYSIS DATA SHEET

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09033 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209033-06B

Sample wt/vol: 30.7 (g/mL) G Lab File ID:

% Moisture: 3 decanted: (Y/N) N Date Received: 09/14/92

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: 8.7 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	3.3	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	67	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

9713505.1535

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

000044
EPA SAMPLE NO.

B07237

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09033 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209033-07B

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

% Moisture: 3 decanted: (Y/N) N Date Received: 09/14/92

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: 8.5 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

9713505.1536

0000010 2/10/92

 Skinner&Sherman REPORT Work Order # S2-09-221

Received: 09/15/92 11/23/92 09:22:48

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

ATTEN: Dan Steurmer

CLIENT: HANFORD NOR SAMPLES 7
COMPANY: TMA/NORCAL
FACILITY: Richmond, CA

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

ATTEN: Client Services
PHONE: (617) 890-7200

CERTIFIED BY

CONTACT: DP

WORK ID: N2-09-082
TAKEN: BY CLIENT
TRANS: FED EX
TYPE: SOIL
P.O. #: N2-09-082
INVOICE: under separate cover

SAMPLE IDENTIFICATION

01 B07231
02 B07233
03 B07234
04 B07235
05 B07236
06 B07237
06 B07237 DUPL
06 B07237 SPIKE
07 LCSS

TEST CODES and NAMES used on this workorder

NO3NO2 Nitrate Plus Nitrite

TMA
Thermo Analytical Inc.

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

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

Received: 09/15/92 Results by Sample

SAMPLE ID B07231 SAMPLE # 01 FRACTIONS: A
Date & Time Collected 09/10/92 Category SOIL

NO3NO2 <2.53
mg N/Kg

SAMPLE ID B07233 SAMPLE # 02 FRACTIONS: A
Date & Time Collected 09/10/92 Category SOIL

NO3NO2 9.18
mg N/Kg

SAMPLE ID B07234 SAMPLE # 03 FRACTIONS: A
Date & Time Collected 09/10/92 Category SOIL

NO3NO2 18.8
mg N/Kg

SAMPLE ID B07235 SAMPLE # 04 FRACTIONS: A
Date & Time Collected 09/10/92 Category SOIL

NO3NO2 <2.42
mg N/Kg

SAMPLE ID B07236 SAMPLE # 05 FRACTIONS: A
Date & Time Collected 09/10/92 Category SOIL

NO3NO2 <2.44
mg N/Kg

SAMPLE ID B07237 SAMPLE # 06 FRACTIONS: A
Date & Time Collected 09/10/92 Category SOIL

NO3NO2 2.91
mg N/Kg

SAMPLE ID B07237 DUPL SAMPLE # 06 FRACTIONS: B
Date & Time Collected 09/10/92 Category SOIL

NO3NO2 2.80
mg N/Kg

TMA
Thermo Analytical Inc.

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

Page 3 Skinner&Sherman REPORT Work Order # S2-09-221

Received: 09/15/92 Results by Sample

SAMPLE ID B07237 SPIKE SAMPLE # 06 FRACTIONS: C

Date & Time Collected 09/10/92 Category SOIL

NO3NO2 19.7

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.

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

TMA/NORCAL

QUALITY CONTROL

NITRATE/NITRITE

MATRIX SPIKE

Sample ID	Sample Result	Spike Added	Spike Result	% Recovery
S209221-06	2.91 mg/kg	20.4 mg/kg	19.7 mg/kg	82.6%

DUPLICATE

Sample ID	Sample Result	Duplicate Result	Relative % Difference
S209221-06	2.91 mg/kg	2.80 mg/kg	3.9%

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.
Skinner & Sherman Laboratories Inc.

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

Received: 09/15/92

Test Methodology

TEST CODE NO3NO2 NAME Nitrate Plus Nitrite

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

TMA
Thermo Analytical Inc.

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

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

9713505.1541

TMA/Skinner & Sherman Labs SAMPLE LOG-IN
WORKORDER S209221 CLIENT Hanford Nor No. SAMPLES:
PROTCL CLP TURNARND 33 Days 6
COOLER TEMP: 5 oC, or NA (Soil) (Water) (Specify Other)
CUSTODIAN B Perdix SDG/BATCH N/A
CUSTODY SEAL: PRESENT/ABSENT/INTACT/NOT CLIENT CASE N209082
SHIPER & # Fed Ex PO/CONTRACT# ↓
TAGS: PRESENT/ABSENT/NA/SEE COC CONTACT D. SANCHEZ
CHAIN OF CUSTODY: PRESENT/ABSENT/NA, # N/A COMMENTS: none

SAMPLE CONTAINERS-INTACT/BROKEN COMMENTS

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

SHIPMENT DATES 9-15-92
LIST ANY DATE WITH PAPERWORK/SHIPMENT PROBLEMS & SPECIFY THE PROBLEM:

N/A

	CLIENT ID	MATRIX	RECEIVED	PH*	TEST(S) & QC	HOLD TIME UP
1	B07231	Soil	9-15-92	N/A	NO3 NO2	
2	B07233	↓	↓	↓	↓	
3	B07234					
4	B07235					
5	B07236					
6	B07237				D.S	
7	~~B~~				9-15-92 BP	
8						
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						

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

SUBCONTRACT: YES/NO TO: DATE:

REVIEWED

Complete 9-15-92 BP

* EPA/CLP required Rev 1.6 PAGE:

9713505.1542

TMA
Thermo Analytical Inc.

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

DEC 1992
RECEIVED
OSM DMO

December 11, 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 15, 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 S209220.

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, manganese, and selenium digestion spike recovery 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.

David N. Peterson
Assistant Laboratory Manager

RECORD COPY

i 7/12/96 Kdb

9214505.1543

WESTINGHOUSE/HANFORD
1

SAMPLE NUMBER:

INORGANIC ANALYSIS DATA SHEET

B07231

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

Lab Code: SKINER Case No.: N2-09-082SAS No.: SDG No.: B07231

Matrix (soil/water): SOIL Lab Sample ID: 09220-01S

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

% Solids: 99.1

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	67.0			P
7440-36-0	Antimony	3.2	U	N	P
7440-38-2	Arsenic	0.58	U		F
7440-39-3	Barium	1.6	B		P
7440-41-7	Beryllium	0.08	U		P
7440-43-9	Cadmium	0.19	U		P
7440-70-2	Calcium	33.0	B		P
7440-47-3	Chromium	1.5	B		P
7440-48-4	Cobalt	0.52	U		P
7440-50-8	Copper	2.0	B		P
7439-89-6	Iron	218			P
7439-92-1	Lead	0.68		W	F
7439-95-4	Magnesium	27.6	B		P
7439-96-5	Manganese	0.90	U	N	P
7439-97-6	Mercury	0.05	U		CV
7440-02-0	Nickel	1.0	U		P
7440-09-7	Potassium	46.5	U		P
7782-49-2	Selenium	0.71	U	N	F
7440-22-4	Silver	0.48	U		P
7440-23-5	Sodium	27.4	B		P
7440-28-0	Thallium	0.31	U		F
7440-62-2	Vanadium	0.54	U		P
7440-66-6	Zinc	2.3	B		P
	Cyanide	0.50	U		CA

Color Before: WHITE Clarity Before: Texture: FINE

Color After: WHITE Clarity After: Artifacts:

Comments:

002

9713505.1544

WESTINGHOUSE/HANFORD
1

INORGANIC ANALYSIS DATA SHEET

SAMPLE NUMBER: B07233

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

Lab Code: SKINER Case No.: N2-09-082SAS No.: SDG No.: B07231

Matrix (soil/water): SOIL Lab Sample ID: 09220-02S

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

% Solids: 94.3

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	7370			P
7440-36-0	Antimony	3.4	U	N	P
7440-38-2	Arsenic	1.9	B		F
7440-39-3	Barium	66.7			P
7440-41-7	Beryllium	0.58	B		P
7440-43-9	Cadmium	0.20	U		P
7440-70-2	Calcium	5920			P
7440-47-3	Chromium	16.3			P
7440-48-4	Cobalt	10.1			P
7440-50-8	Copper	18.3			P
7439-89-6	Iron	18800			P
7439-92-1	Lead	11.3		S	F
7439-95-4	Magnesium	4610			P
7439-96-5	Manganese	308		N	P
7439-97-6	Mercury	0.20			CV
7440-02-0	Nickel	10.7			P
7440-09-7	Potassium	1620			P
7782-49-2	Selenium	0.77	U	WN	F
7440-22-4	Silver	0.50	U		P
7440-23-5	Sodium	219	B		P
7440-28-0	Thallium	0.33	U		F
7440-62-2	Vanadium	43.2			P
7440-66-6	Zinc	59.4			P
	Cyanide	0.51	U		CA

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: BROWN Clarity After: Artifacts: YES

Comments:
STONES

003

WESTINGHOUSE/HANFORD
1

SAMPLE NUMBER:

INORGANIC ANALYSIS DATA SHEET

B07234

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

Lab Code: SKINER Case No.: N2-09-082SAS No.: SDG No.: B07231

Matrix (soil/water): SOIL Lab Sample ID: 09220-03S

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

% Solids: 97.4

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	6370			P
7440-36-0	Antimony	3.9	B	N	P
7440-38-2	Arsenic	1.9			F
7440-39-3	Barium	64.6			P
7440-41-7	Beryllium	0.39	B		P
7440-43-9	Cadmium	0.19	U		P
7440-70-2	Calcium	6260			P
7440-47-3	Chromium	17.8			P
7440-48-4	Cobalt	10.4			P
7440-50-8	Copper	16.7			P
7439-89-6	Iron	20100			P
7439-92-1	Lead	8.2			F
7439-95-4	Magnesium	4500			P
7439-96-5	Manganese	305		N	P
7439-97-6	Mercury	0.11			CV
7440-02-0	Nickel	10.4			P
7440-09-7	Potassium	1510			P
7782-49-2	Selenium	0.72	U	N	F
7440-22-4	Silver	1.1	B		P
7440-23-5	Sodium	213	B		P
7440-28-0	Thallium	0.31	U		F
7440-62-2	Vanadium	47.0			P
7440-66-6	Zinc	58.1			P
	Cyanide	0.49	U		CA

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: BROWN Clarity After: Artifacts: YES

Comments:
STONES

004

9713505.1546

WESTINGHOUSE/HANFORD
1

SAMPLE NUMBER:

INORGANIC ANALYSIS DATA SHEET

B07235

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

Lab Code: SKINEF Case No.: N2-09-082SAS No.: SDG No.: B07231

Matrix (soil/water): SOIL Lab Sample ID: 09220-04S

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

% Solids. 94.2

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	9860			P
7440-36-0	Antimony	3.5	U	N	P
7440-38-2	Arsenic	1.9	B	S	F
7440-39-3	Barium	90.4			P
7440-41-7	Beryllium	0.60	B		P
7440-43-9	Cadmium	0.21	U		P
7440-70-2	Calcium	3700			P
7440-47-3	Chromium	14.8			P
7440-48-4	Cobalt	9.4	B		P
7440-50-8	Copper	15.3			P
7439-89-6	Iron	20300			P
7439-92-1	Lead	6.5			F
7439-95-4	Magnesium	4300			P
7439-96-5	Manganese	368		N	P
7439-97-6	Mercury	0.06	B		CV
7440-02-0	Nickel	11.8			P
7440-09-7	Potassium	1990			P
7782-49-2	Selenium	0.76	U	WN	F
7440-22-4	Silver	0.95	B		P
7440-23-5	Sodium	185	B		P
7440-28-0	Thallium	0.33	U		F
7440-62-2	Vanadium	44.0			P
7440-66-6	Zinc	52.4			P
	Cyanide	0.53	U		CA

Color Before: BROWN Clarity Before: Texture: FINE

Color After: BROWN Clarity After: Artifacts: YES

Comments:
STONES

005

9213505.1547

WESTINGHOUSE/HANFORD
1

SAMPLE NUMBER:

INORGANIC ANALYSIS DATA SHEET

B07236

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D0-0109

Lab Code: SKINER Case No : N2-09-082SAS No.: SDG No.: B07231

Matrix (soil/water): SOIL Lab Sample ID: 09220-05S

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

% Solids: 95.3

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	7990			P
7440-36-0	Antimony	3.5	U	N	P
7440-38-2	Arsenic	4.0			F
7440-39-3	Barium	75.8			P
7440-41-7	Beryllium	0.47	B		P
7440-43-9	Cadmium	0.21	U		P
7440-70-2	Calcium	15500			P
7440-47-3	Chromium	16.8			P
7440-48-4	Cobalt	7.5	B		P
7440-50-8	Copper	13.2			P
7439-89-6	Iron	16300			P
7439-92-1	Lead	5.3			F
7439-95-4	Magnesium	6070			P
7439-96-5	Manganese	292		N	P
7439-97-6	Mercury	0.06	B		CV
7440-02-0	Nickel	15.2			P
7440-09-7	Potassium	1610			P
7782-49-2	Selenium	0.78	U	WN	F
7440-22-4	Silver	0.84	B		P
7440-23-5	Sodium	205	B		P
7440-28-0	Thallium	0.34	U		F
7440-62-2	Vanadium	33.0			P
7440-66-6	Zinc	42.4			P
	Cyanide	0.52	U		CA

Color Before: BROWN Clarity Before: Texture: FINE

Color After: BROWN Clarity After: Artifacts:

Comments:

006

9213505.1548

WESTINGHOUSE/HANFORD
1

INORGANIC ANALYSIS DATA SHEET

SAMPLE NUMBER:

B07237

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

Lab Code: SKINER Case No.: N2-09-0829AS No.: SDG No.: B07231

Matrix (soil/water): SOIL Lab Sample ID: 09220-06S

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

% Solids: 94.9

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	7960			P
7440-36-0	Antimony	3.3	B	N	P
7440-38-2	Arsenic	4.1			F
7440-39-3	Barium	65.4			P
7440-41-7	Beryllium	0.53	B		P
7440-43-9	Cadmium	0.19	U		P
7440-70-2	Calcium	14700			P
7440-47-3	Chromium	17.2			P
7440-48-4	Cobalt	7.3	B		P
7440-50-8	Copper	11.3			P
7439-89-6	Iron	16100			P
7439-92-1	Lead	5.0			F
7439-95-4	Magnesium	6360			P
7439-96-5	Manganese	262		N	P
7439-97-6	Mercury	0.05	U		CV
7440-02-0	Nickel	15.7			P
7440-09-7	Potassium	1080			P
7782-49-2	Selenium	0.78	U	WN	F
7440-22-4	Silver	0.98	B		P
7440-23-5	Sodium	206	B		P
7440-28-0	Thallium	0.34	U		F
7440-62-2	Vanadium	33.9			P
7440-66-6	Zinc	39.7			P
	Cyanide	0.53	U		CA

Color Before: BROWN Clarity Before: Texture: FINE

Color After: BROWN Clarity After: Artifacts:

Comments:

007

9713505.1549

TMA/Skinner & Sherman Labs SAMPLE LOG-IN

WORKORDER S09220 CLIENT Hanford Doe No. SAMPLES:

PROTCL CLP TURNARND 33 Day 6 (Soil) (Water) (Specify Other)

COOLER TEMP: 5 oC, or NA

CUSTODIAN B. Pawlk SDG/BATCH N/A 9/15/92 BP

CUSTODY SEAL: PRESENT/ABSENT/INTACT/NOT CLIENT CASE N2090842

SHIPER & # Fed Ex PO/CONTRACT# ↓

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

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

SAMPLE CONTAINERS-INTACT/BROKEN COMMENTS

CLIENT COMMENT? YES/NO

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

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

SHIPMENT DATES 9-15-92

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

N/A

	CLIENT ID	MATRIX	RECEIVED	PH*	TEST(S) & QC	HOLD TIME UP
1	B07231	Soil	9-15-92	N/A	Tm/CN	
2	B07233	↓	↓	↓	↓	
3	B07234					
4	B07235					
5	B07236					
6	B07237	↓	↓	↓	D.S ↓	
7			↓	↓ 9-15-92 BP		
8						
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						

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

Samples have detectable amounts of Radioactive Material: YES NO ✓

SUBCONTRACT: YES/NO TO: DATE:

REVIEWED

Complete 9-15-92 BP

* EPA/CLP required Rev I.6 PAGE: 175

9713505.1550

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

JAN 1993
RECEIVED
OSM DMO

December 30, 1992

SENT BY FEDERAL EXPRESS

Ref. TMA/Norcal N2-09-033-7080

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 100-KR-1 Vadose Test Pits Location, we received 3 September 1992. The QA/QC results are also given in the Summary Data Section. The Summary Data Section is numbered pages 1 to 65, and the appendices are numbered pages 66 to 624.

Please call if you have any questions concerning this data.

Sincerely,

FOR

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

DPK/jw

Enclosures: Section 1 through 12
Appendices

7/12/96 KDB

1/5/93 Forwarded TO Casey Emery TC-0

TMA

SDG 7080	Client Westinghouse Hanford
Contact Dinkar P. Kharkar	Contract MBH-SVV-069262

CASE NARRATIVE

1.0 GENERAL

Soil sample results from Location 100-KR-1 Vadose Test Pits (TMA/Norcal Group 7080) are reported herein. TMA/Norcal Group 7080 is comprised of the eighteen samples listed on the Chain-of-Custody documents and is identified as Samples 1 through 18.

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 between 8/31/92 and 9/10/92, 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 7080-19 through 23.

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 of gross alpha and gross beta were low because the planchet had an abnormally low deposition weight and was at the lower end of the calibration curve. The low deposition weight on the planchet was, we believe, due to incomplete transfer of the material from the beaker onto the planchet. Reproducibility of the counting data and the instrument QC were all very good and were not likely sources of errors.

The LCS recoveries of plutonium and americium were high. The addition of double tracers of plutonium and americium was suspected but the lab book record did not show double tracing. The instrument QC's were all very good and high recoveries should not affect the sample results.

065B
2/8/93

SDG 7080	Client Westinghouse Hanford
Contact Dinkar P. Kharkar	Contract MBH-SVV-069262

CASE NARRATIVE

The ^{59}Fe MDA was higher than the RDL due to a higher background of the counter. MDA's for all other nuclides meet the RDL requirements.

2.2 BLANKS

MDA's for all the analyses meet the RDL requirements, except for plutonium and americium isotopes. Higher MDA's for ^{238}Pu and ^{241}Am were due to low chemical yields.

2.3 REPLICATES

Results were satisfactory for all replicate analyses. The ^{241}Am MDA of the original sample was higher than the RDL due to a slightly higher background of the counter. 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. MDA's for gamma nuclides were higher than the RDL due to small aliquots available for gamma analysis. The ^{14}C result for the replicate was underlined because the negative result plus the associated error were still less than zero.

3.0 ANALYTICAL NOTES

3.1 Gross Alpha Analyses: The average MDA for gross alpha was 6.3 ± 2.5 pCi/g. Positive gross alpha concentrations above the RDL were found in samples 7080-2 and 8. The remaining sample results were less than the RDL.

3.2 Gross Beta Analyses: The average MDA for gross beta was 6.0 ± 1.4 pCi/g. Positive gross beta concentrations were found in samples 7080-2, 4, 5, 6, 8, 9, 14, 15, 17 and 18. The remaining sample results were less than the RDL.

3.3 Carbon-14 Analyses: The average MDA was 4.6 ± 1.0 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 twenty-one analyses was (74 ± 11%). The lowest yield was 61% and the highest was 83%. The average MDA was 0.85 ± 0.22 pCi/g. Positive ^{90}Sr concentrations above the RDL were found in samples 7080-2 and 14. All other sample results were less than the RDL. ^{90}Sr MDA's for samples 7080-14 and 16 were slightly higher than the RDL.

065C
2/8/93

SDG 7080	Client Westinghouse Hanford
Contact Dinkar P. Kharkar	Contract MBH-SVV-069262

CASE NARRATIVE

3.5 Uranium-233, 234, 234, and 238 Analyses: The average yield for twenty-one analyses was (70 ± 30%). The lowest yield was 32% and the highest was 88%. The average MDA was 0.14 ± 0.12 pCi/g. Concentrations of ^{234}U and ^{238}U slightly above the RDL were found in all samples except 7080-1, 4 and 13.

3.6 Plutonium-238, 239/240 Analyses: The average yield for twenty-one analyses was (54 ± 39%). The lowest yield was 16% and the highest was 77%. The average MDA was 0.039 ± 0.037 pCi/g. Positive plutonium concentrations above the RDL were not found in any of the samples. The $^{239,240}Pu$ MDA of sample 7080-8 was higher than the RDL due to a lower chemical yield.

3.7 Americium-241 Analyses: The average yield for twenty-three analyses was (42 ± 31%). The lowest yield was 3% and the highest was 63%. The average MDA was 0.086 ± 0.31 pCi/g. Positive americium concentrations above the RDL were found only in sample 7080-2. All other sample results were below the RDL. MDA's for a few samples were higher than the RDL due to low chemical recoveries.

3.8 Gamma Scan Analyses: ^{60}Co and ^{137}Cs were found in samples 7080-2, 8, 14 and 15. Positive concentrations of gamma nuclides were not found in the remaining samples. Gamma scan MDA's were underlined because they were above RDL due to short half-life of ^{59}Fe.

065 D
2/8/93

9713505.1554

TMA NORCAL

REPORTING GROUP 7080

N209033-01

DATA SHEET

B07212

SDG 7080
Contact Dinkar Kharkar
Client Westinghouse Hanford
Contract MBH-SVV-069262

Lab sample id N209033-01
Dept sample id 7080-001
Received 09/03/92
% moisture
Client sample id B07212
Matrix SOIL
Collected 08/31/92
Chain of custody id 002894

PARAMETER	CAS NO	RESULT pCi/G	2σ ERR (COUNT)	MDA pCi/G	RDL pCi/G	QUALI-FIERS	TEST
Gross Alpha	Alpha	3.6	4.3	5.7	10	U	80A
Gross Beta	Beta	-0.73	3.2	5.4	15	U	80B
Uranium 233/234		0.15	0.071	0.053	0.30	J	U
Uranium 235	15117-96-1	0	0.034	0.065	0.30	U	U
Uranium 238	7440-61-1	0.056	0.042	0.053	0.30	J	U
Plutonium 238	13981-16-3	-0.004	0.017	0.039	0.050	U	PU
Plutonium 239/240		-0.009	0.013	0.033	0.050	U	PU
Americium 241	14596-10-2	0	0.028	0.052	0.050	U	AM
Strontium 90	10098-97-2	0.57	0.90	0.73	1.0	U	Y
Carbon 14	14762-75-5	2.9	3.4	3.8	50	U	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2	U		1.3		U	GAM
Iron 59		U		0.48	0.050	U	GAM
Chromium 51	14392-02-0	U		1.6		U	GAM
Cobalt 60	10198-40-0	U		0.081	0.050	U	GAM
Zinc 65	17982-39-3	U		0.20		U	GAM
Ruthenium 106	13967-48-1	U		0.74		U	GAM
Cesium 134	17967-70-9	U		0.10		U	GAM
Cesium 137	10045-97-3	U		0.075	0.050	U	GAM
Europium 152	14683-23-9	U		0.12	0.10	U	GAM
Europium 154	15585-10-1	U		0.081	0.10	U	GAM
Radium 226	13982-67-7	U		0.17		U	GAM
Thorium 228	14274-82-9	0.22	0.12				GAM
Thorium 232	7440-29-1	U		0.35		U	GAM

Lab id TMAN
Protocol WHC-HEIS
Version Ver 1.0
Form DVD-DS
Version 2.20
Report date 12/30/92

9713505.1555

TMA NORCAL

REPORTING GROUP 7080

N209033-02

DATA SHEET

B07213

SDG 7080
Contact Dinkar Kharkar
Client Westinghouse Hanford
Contract MBH-SVV-069262

Lab sample id N209033-02
Dept sample id 7080-002
Received 09/03/92
% moisture
Client sample id B07213
Matrix SOIL
Collected 08/31/92
Chain of custody id 002894

PARAMETER	CAS NO	RESULT pCi/G	2σ ERR (COUNT)	MDA pCi/G	RDL pCi/G	QUALI-FIERS	TEST
Gross Alpha	Alpha	11	7.7	9.4	10		80A
Gross Beta	Beta	28	5.5	6.9	15		80B
Uranium 233/234		0.40	0.17	0.10	0.30		U
Uranium 235	15117-96-1	0.048	0.065	0.12	0.30	U	U
Uranium 238	7440-61-1	0.33	0.14	0.10	0.30		U
Plutonium 238	13981-16-3	0.054	0.033	0.044	0.050		PU
Plutonium 239/240		1.4	0.16	0.046	0.050		PU
Americium 241	14596-10-2	0.24	0.066	0.048	0.050		AM
Strontium 90	10098-97-2	1.7	0.57	0.90	1.0		Y
Carbon 14	14762-75-5	2.9	3.3	3.7	50	U	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2	13	0.95				GAM
Iron 59		U		0.39	0.050	U	GAM
Chromium 51	14392-02-0	U		2.4		U	GAM
Cobalt 60	10198-40-0	2.7	0.15		0.050		GAM
Zinc 65	17982-39-3	U		0.49		U	GAM
Ruthenium 106	13967-48-1	U		1.1		U	GAM
Cesium 134	17967-70-9	U		0.13		U	GAM
Cesium 137	10045-97-3	2.1	0.14		0.050		GAM
Europium 152	14683-23-9	21	0.39		0.10		GAM
Europium 154	15585-10-1	2.9	0.34		0.10		GAM
Radium 226	13982-67-7	0.47	0.17				GAM
Thorium 228	14274-82-9	0.67	0.097				GAM
Thorium 232	7440-29-1	0.69	0.40				GAM

Lab id TMAN
Protocol WHC-HEIS
Version Ver 1.0
Form DVD-DS
Version 2.20
Report date 12/30/92

9713505.1556

TMA NORCAL

REPORTING GROUP 7080

N209033-03

DATA SHEET

B07214

SDG 7080
Contact Dinkar Kharkar
Client Westinghouse Hanford
Contract MBH-SVV-069262

Lab sample id N209033-03
Dept sample id 7080-003
Received 09/03/92
% moisture
Client sample id B07214
Matrix SOIL
Collected 08/31/92
Chain of custody id 002894

PARAMETER	CAS NO	RESULT pCi/G	2σ ERR (COUNT)	MDA pCi/G	RDL pCi/G	QUALI-FIERS	TEST
Gross Alpha	Alpha	1.1	4.1	6.3	10	U	80A
Gross Beta	Beta	12	4.8	7.0	15	J	80B
Uranium 233/234		0.37	0.14	0.11	0.30		U
Uranium 235	15117-96-1	0	0.028	0.11	0.30	U	U
Uranium 238	7440-61-1	0.41	0.14	0.089	0.30		U
Plutonium 238	13981-16-3	-0.006	0.017	0.034	0.050	U	PU
Plutonium 239/240		0.008	0.006	0.016	0.050	U	PU
Americium 241	14596-10-2	-0.004	0.053	0.10	0.050	U	AM
Strontium 90	10098-97-2	0.50	0.44	0.74	1.0	U	Y
Carbon 14	14762-75-5	0.99	3.8	4.4	50	U	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2	12	0.91				GAM
Iron 59		U		0.27	0.050	U	GAM
Chromium 51	14392-02-0	U		0.75		U	GAM
Cobalt 60	10198-40-0	U		0.050	0.050	U	GAM
Zinc 65	17982-39-3	U		0.13		U	GAM
Ruthenium 106	13967-48-1	U		0.38		U	GAM
Cesium 134	17967-70-9	U		0.045		U	GAM
Cesium 137	10045-97-3	U		0.039	0.050	U	GAM
Europium 152	14683-23-9	0.071	0.063		0.10	J	GAM
Europium 154	15585-10-1	U		0.15	0.10	U	GAM
Radium 226	13982-67-7	0.41	0.077				GAM
Thorium 228	14274-82-9	0.75	0.080				GAM
Thorium 232	7440-29-1	0.54	0.20				GAM

Lab id TMAN
Protocol WHC-HEIS
Version Ver 1.0
Form DVD-DS
Version 2.20
Report date 12/30/92

9713505.1557

TMA NORCAL

REPORTING GROUP 7080

N209033-04

DATA SHEET

B07215

SDG	7080	Client	Westinghouse Hanford
Contact	Dinkar Kharkar	Contract	MBH-SVV-069262
Lab sample id	N209033-04	Client sample id	B07215
Dept sample id	7080-004	Matrix	SOIL
Received	09/03/92	Collected	08/31/92
% moisture		Chain of custody id	002896

PARAMETER	CAS NO	RESULT pCi/G	2σ ERR (COUNT)	MDA pCi/G	RDL pCi/G	QUALI-FIERS	TEST
Gross Alpha	Alpha	3.2	4.8	6.8	10	U	80A
Gross Beta	Beta	20	4.4	5.4	15		80B
Uranium 233/234		0.21	0.12	0.13	0.30	J	U
Uranium 235	15117-96-1	0.028	0.055	0.11	0.30	U	U
Uranium 238	7440-61-1	0.40	0.14	0.087	0.30		U
Plutonium 238	13981-16-3	0.017	0.016	0.025	0.050	U	PU
Plutonium 239/240		0.012	0.009	0.012	0.050	J	PU
Americium 241	14596-10-2	0.008	0.017	0.032	0.050	U	AM
Strontium 90	10098-97-2	0.96	0.44	0.98	1.0	U	Y
Carbon 14	14762-75-5	1.5	4.4	5.1	50	U	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2	12	0.83				GAM
Iron 59		U		0.23	0.050	U	GAM
Chromium 51	14392-02-0	U		0.83		U	GAM
Cobalt 60	10198-40-0	U		0.044	0.050	U	GAM
Zinc 65	17982-39-3	U		0.12		U	GAM
Ruthenium 106	13967-48-1	U		0.34		U	GAM
Cesium 134	17967-70-9	U		0.040		U	GAM
Cesium 137	10045-97-3	U		0.044	0.050	U	GAM
Europium 152	14683-23-9	U		0.079	0.10	U	GAM
Europium 154	15585-10-1	U		0.051	0.10	U	GAM
Radium 226	13982-67-7	0.40	0.073				GAM
Thorium 228	14274-82-9	0.85	0.058				GAM
Thorium 232	7440-29-1	0.70	0.21				GAM

Lab id	TMAN
Protocol	WHC-HEIS
Version	Ver 1.0
Form	DVD-DS
Version	2.20
Report date	12/30/92

9713505.1558

TMA NORCAL

REPORTING GROUP 7080

N209033-05

DATA SHEET

B07217

SDG 7080
Contact Dinkar Kharkar

Client Westinghouse Hanford
Contract MBH-SVV-069262

Lab sample id N209033-05
Dept sample id 7080-005
Received 09/03/92
% moisture

Client sample id B07217
Matrix SOIL
Collected 08/31/92
Chain of custody id 002896

PARAMETER	CAS NO	RESULT pCi/G	2σ ERR (COUNT)	MDA pCi/G	RDL pCi/G	QUALI-FIERS	TEST
Gross Alpha	Alpha	3.0	3.7	5.2	10	U	80A
Gross Beta	Beta	15	4.2	5.4	15		80B
Uranium 233/234		0.41	0.17	0.13	0.30		U
Uranium 235	15117-96-1	0.033	0.033	0.13	0.30	U	U
Uranium 238	7440-61-1	0.51	0.17	0.10	0.30		U
Plutonium 238	13981-16-3	-0.018	0.022	0.044	0.050	U	PU
Plutonium 239/240		0.013	0.015	0.020	0.050	U	PU
Americium 241	14596-10-2	-0.006	0.013	0.030	0.050	U	AM
Strontium 90	10098-97-2	0.81	0.57	0.77	1.0	J	Y
Carbon 14	14762-75-5	0.77	4.2	4.8	50	U	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2	13	1.1				GAM
Iron 59		U		0.28	0.050	U	GAM
Chromium 51	14392-02-0	U		1.0		U	GAM
Cobalt 60	10198-40-0	U		0.047	0.050	U	GAM
Zinc 65	17982-39-3	U		0.13		U	GAM
Ruthenium 106	13967-48-1	U		0.46		U	GAM
Cesium 134	17967-70-9	U		0.059		U	GAM
Cesium 137	10045-97-3	U		0.045	0.050	U	GAM
Europium 152	14683-23-9	U		0.11	0.10	U	GAM
Europium 154	15585-10-1	U		0.064	0.10	U	GAM
Radium 226	13982-67-7	0.42	0.11				GAM
Thorium 228	14274-82-9	0.80	0.067				GAM
Thorium 232	7440-29-1	0.69	0.24				GAM

Lab id TMAN
Protocol WHC-HEIS
Version Ver 1.0
Form DVD-DS
Version 2.20
Report date 12/30/92

9713505.1559

TMA NORCAL

REPORTING GROUP 7080

N209033-06

DATA SHEET

B07218

SDG	7080	Client	Westinghouse Hanford
Contact	Dinkar Kharkar	Contract	MBH-SVV-069262
Lab sample id	N209033-06	Client sample id	B07218
Dept sample id	7080-006	Matrix	SOIL
Received	09/03/92	Collected	08/31/92
% moisture		Chain of custody id	002896

PARAMETER	CAS NO	RESULT pCi/G	2σ ERR (COUNT)	MDA pCi/G	RDL pCi/G	QUALI-FIERS	TEST
Gross Alpha	Alpha	4.1	4.1	5.2	10	U	80A
Gross Beta	Beta	17	4.3	5.4	15		80B
Uranium 233/234		0.46	0.18	0.11	0.30		U
Uranium 235	15117-96-1	0.069	0.069	0.13	0.30	U	U
Uranium 238	7440-61-1	0.41	0.15	0.11	0.30		U
Plutonium 238	13981-16-3	0.009	0.014	0.026	0.050	U	PU
Plutonium 239/240		0.003	0.003	0.013	0.050	U	PU
Americium 241	14596-10-2	-0.004	0.015	0.041	0.050	U	AM
Strontium 90	10098-97-2	0.37	0.37	0.83	1.0	U	Y
Carbon 14	14762-75-5	-3.2	4.2	5.0	50	U	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2	13	1.0				GAM
Iron 59		U		0.28	0.050	U	GAM
Chromium 51	14392-02-0	U		0.85		U	GAM
Cobalt 60	10198-40-0	U		0.048	0.050	U	GAM
Zinc 65	17982-39-3	U		0.12		U	GAM
Ruthenium 106	13967-48-1	U		0.41		U	GAM
Cesium 134	17967-70-9	U		0.055		U	GAM
Cesium 137	10045-97-3	U		0.046	0.050	U	GAM
Europium 152	14683-23-9	U		0.088	0.10	U	GAM
Europium 154	15585-10-1	U		0.058	0.10	U	GAM
Radium 226	13982-67-7	0.38	0.076				GAM
Thorium 228	14274-82-9	0.66	0.057				GAM
Thorium 232	7440-29-1	0.77	0.19				GAM

Lab id	TMAN
Protocol	WHC-HEIS
Version	Ver 1.0
Form	DVD-DS
Version	2.20
Report date	12/30/92

9713505.1560

TMA NORCAL

REPORTING GROUP 7080

N209033-07

DATA SHEET

B07220

SDG	7080	Client	Westinghouse Hanford
Contact	Dinkar Kharkar	Contract	MBH-SVV-069262
Lab sample id	N209033-07	Client sample id	B07220
Dept sample id	7080-007	Matrix	SOIL
Received	09/03/92	Collected	09/01/92
% moisture		Chain of custody id	002897

PARAMETER	CAS NO	RESULT pCi/G	2σ ERR (COUNT)	MDA pCi/G	RDL pCi/G	QUALI-FIERS	TEST
Gross Alpha	Alpha	0.40	4.8	7.8	10	U	80A
Gross Beta	Beta	-0.12	4.0	6.6	15	U	80B
Uranium 233/234		0.073	0.088	0.11	0.30	U	U
Uranium 235	15117-96-1	0	0.035	0.13	0.30	U	U
Uranium 238	7440-61-1	0.13	0.089	0.11	0.30	J	U
Plutonium 238	13981-16-3	0	0.018	0.035	0.050	U	PU
Plutonium 239/240		0.007	0.009	0.017	0.050	U	PU
Americium 241	14596-10-2	-0.007	0.013	0.032	0.050	U	AM
Strontium 90	10098-97-2	0.42	0.33	0.74	1.0	U	Y
Carbon 14	14762-75-5	0.048	4.0	4.7	50	U	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2	0.39	0.23				GAM
Iron 59		U		0.097	0.050	U	GAM
Chromium 51	14392-02-0	U		0.51		U	GAM
Cobalt 60	10198-40-0	U		0.022	0.050	U	GAM
Zinc 65	17982-39-3	U		0.048		U	GAM
Ruthenium 106	13967-48-1	U		0.18		U	GAM
Cesium 134	17967-70-9	U		0.024		U	GAM
Cesium 137	10045-97-3	U		0.017	0.050	U	GAM
Europium 152	14683-23-9	U		0.047	0.10	U	GAM
Europium 154	15585-10-1	U		0.030	0.10	U	GAM
Radium 226	13982-67-7	0.14	0.047				GAM
Thorium 228	14274-82-9	0.19	0.048				GAM
Thorium 232	7440-29-1	0.12	0.079				GAM

Lab id	TMAN
Protocol	WHC-HEIS
Version	Ver 1.0
Form	DVD-DS
Version	2.20
Report date	12/30/92

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TMA NORCAL

REPORTING GROUP 7080

N209033-08

DATA SHEET

B07221

SDG	7080	Client	Westinghouse Hanford
Contact	Dinkar Kharkar	Contract	MBH-SVV-069262
Lab sample id	N209033-08	Client sample id	B07221
Dept sample id	7080-008	Matrix	SOIL
Received	09/03/92	Collected	09/01/92
% moisture		Chain of custody id	002897

PARAMETER	CAS NO	RESULT pCi/G	2σ ERR (COUNT)	MDA pCi/G	RDL pCi/G	QUALI-FIERS	TEST
Gross Alpha	Alpha	12	6.5	7.1	10		80A
Gross Beta	Beta	16	4.9	6.7	15		80B
Uranium 233/234		0.66	0.21	0.093	0.30		U
Uranium 235	15117-96-1	0.044	0.059	0.11	0.30	U	U
Uranium 238	7440-61-1	0.60	0.18	0.093	0.30		U
Plutonium 238	13981-16-3	0.054	0.068	0.10	0.050	U	PU
Plutonium 239/240		0.027	0.027	0.051	0.050	U	PU
Americium 241	14596-10-2	-0.003	0.015	0.028	0.050	U	AM
Strontium 90	10098-97-2	0.59	0.32	0.75	1.0	U	Y
Carbon 14	14762-75-5	3.4	4.3	4.8	50	U	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2	15	1.1				GAM
Iron 59		U		0.34	0.050	U	GAM
Chromium 51	14392-02-0	U		1.2		U	GAM
Cobalt 60	10198-40-0	0.47	0.078		0.050		GAM
Zinc 65	17982-39-3	U		0.19		U	GAM
Ruthenium 106	13967-48-1	U		0.57		U	GAM
Cesium 134	17967-70-9	U		0.075		U	GAM
Cesium 137	10045-97-3	1.3	0.088		0.050		GAM
Europium 152	14683-23-9	1.2	0.12		0.10		GAM
Europium 154	15585-10-1	U		0.32	0.10	U	GAM
Radium 226	13982-67-7	0.77	0.11				GAM
Thorium 228	14274-82-9	1.2	0.074				GAM
Thorium 232	7440-29-1	1.1	0.31				GAM

Lab id	TMAN
Protocol	WHC-HEIS
Version	Ver 1.0
Form	DVD-DS
Version	2.20
Report date	12/30/92

9713505.1562

TMA NORCAL

REPORTING GROUP 7080

N209033-09

DATA SHEET

B07222

SDG 7080
Contact Dinkar Kharkar

Client Westinghouse Hanford
Contract MBH-SVV-069262

Lab sample id N209033-09
Dept sample id 7080-009
Received 09/03/92
% moisture

Client sample id B07222
Matrix SOIL
Collected 09/01/92
Chain of custody id 002897

PARAMETER	CAS NO	RESULT pCi/G	2σ ERR (COUNT)	MDA pCi/G	RDL pCi/G	QUALI-FIERS	TEST
Gross Alpha	Alpha	5.2	4.4	5.7	10	U	80A
Gross Beta	Beta	18	4.4	5.6	15		80B
Uranium 233/234		0.45	0.18	0.13	0.30		U
Uranium 235	15117-96-1	0.084	0.085	0.16	0.30	U	U
Uranium 238	7440-61-1	0.42	0.18	0.13	0.30		U
Plutonium 238	13981-16-3	0.002	0.023	0.042	0.050	U	PU
Plutonium 239/240		-0.002	0.005	0.017	0.050	U	PU
Americium 241	14596-10-2	-0.002	0.023	0.042	0.050	U	AM
Strontium 90	10098-97-2	0.30	0.31	0.78	1.0	U	Y
Carbon 14	14762-75-5	1.5	4.0	4.6	50	U	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2	13	0.88				GAM
Iron 59		U		0.22	0.050	U	GAM
Chromium 51	14392-02-0	U		0.95		U	GAM
Cobalt 60	10198-40-0	U		0.042	0.050	U	GAM
Zinc 65	17982-39-3	U		0.12		U	GAM
Ruthenium 106	13967-48-1	U		0.35		U	GAM
Cesium 134	17967-70-9	U		0.047		U	GAM
Cesium 137	10045-97-3	U		0.098	0.050	U	GAM
Europium 152	14683-23-9	U		0.092	0.10	U	GAM
Europium 154	15585-10-1	U		0.060	0.10	U	GAM
Radium 226	13982-67-7	0.41	0.072				GAM
Thorium 228	14274-82-9	0.92	0.089				GAM
Thorium 232	7440-29-1	0.61	0.17				GAM

Lab id TMAN
Protocol WHC-HEIS
Version Ver 1.0
Form DVD-DS
Version 2.20
Report date 12/30/92

9713505.1563

TMA NORCAL

REPORTING GROUP 7080

N209033-10

DATA SHEET

B07224

SDG	7080	Client	Westinghouse Hanford
Contact	Dinkar Kharkar	Contract	MBH-SVV-069262
Lab sample id	N209033-10	Client sample id	B07224
Dept sample id	7080-010	Matrix	SOIL
Received	09/03/92	Collected	09/01/92
% moisture		Chain of custody id	002898

PARAMETER	CAS NO	RESULT pCi/G	2σ ERR (COUNT)	MDA pCi/G	RDL pCi/G	QUALI-FIERS	TEST
Gross Alpha	Alpha	3.2	4.2	5.7	10	U	80A
Gross Beta	Beta	14	4.5	6.2	15	J	80B
Uranium 233/234		0.32	0.15	0.14	0.30		U
Uranium 235	15117-96-1	0.065	0.087	0.16	0.30	U	U
Uranium 238	7440-61-1	0.39	0.18	0.14	0.30		U
Plutonium 238	13981-16-3	0.031	0.029	0.047	0.050	U	PU
Plutonium 239/240		0.024	0.024	0.036	0.050	U	PU
Americium 241	14596-10-2	0.004	0.017	0.033	0.050	U	AM
Strontium 90	10098-97-2	0.54	0.81	0.93	1.0	U	Y
Carbon 14	14762-75-5	1.0	3.9	4.4	50	U	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2	13	0.93				GAM
Iron 59		U		0.21	0.050	U	GAM
Chromium 51	14392-02-0	U		0.75		U	GAM
Cobalt 60	10198-40-0	U		0.045	0.050	U	GAM
Zinc 65	17982-39-3	U		0.12		U	GAM
Ruthenium 106	13967-48-1	U		0.37		U	GAM
Cesium 134	17967-70-9	U		0.049		U	GAM
Cesium 137	10045-97-3	U		0.061	0.050	U	GAM
Europium 152	14683-23-9	U		0.083	0.10	U	GAM
Europium 154	15585-10-1	U		0.055	0.10	U	GAM
Radium 226	13982-67-7	0.53	0.078				GAM
Thorium 228	14274-82-9	0.65	0.053				GAM
Thorium 232	7440-29-1	0.73	0.20				GAM

Lab id	TMAN
Protocol	WHC-HEIS
Version	Ver 1.0
Form	DVD-DS
Version	2.20
Report date	12/30/92

9713505.1564

TMA NORCAL

REPORTING GROUP 7080

N209033-11

DATA SHEET

B07225

SDG 7080
Contact Dinkar Kharkar
Client Westinghouse Hanford
Contract MBH-SVV-069262

Lab sample id N209033-11
Dept sample id 7080-011
Received 09/03/92
% moisture
Client sample id B07225
Matrix SOIL
Collected 09/01/92
Chain of custody id 002898

PARAMETER	CAS NO	RESULT pCi/G	2σ ERR (COUNT)	MDA pCi/G	RDL pCi/G	QUALI-FIERS	TEST
Gross Alpha	Alpha	0.11	3.9	6.3	10	U	80A
Gross Beta	Beta	12	4.2	5.8	15	J	80B
Uranium 233/234		0.47	0.15	0.094	0.30		U
Uranium 235	15117-96-1	0.059	0.060	0.11	0.30	U	U
Uranium 238	7440-61-1	0.42	0.15	0.094	0.30		U
Plutonium 238	13981-16-3	0	0.024	0.048	0.050	U	PU
Plutonium 239/240		0.003	0.018	0.033	0.050	U	PU
Americium 241	14596-10-2	0	0.018	0.034	0.050	U	AM
Strontium 90	10098-97-2	0.57	0.42	0.82	1.0	U	Y
Carbon 14	14762-75-5	-0.59	3.4	3.9	50	U	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2	13	0.92				GAM
Iron 59		U		0.26	0.050	U	GAM
Chromium 51	14392-02-0	U		0.94		U	GAM
Cobalt 60	10198-40-0	U		0.044	0.050	U	GAM
Zinc 65	17982-39-3	U		0.12		U	GAM
Ruthenium 106	13967-48-1	U		0.34		U	GAM
Cesium 134	17967-70-9	U		0.052		U	GAM
Cesium 137	10045-97-3	U		0.045	0.050	U	GAM
Europium 152	14683-23-9	U		0.091	0.10	U	GAM
Europium 154	15585-10-1	U		0.060	0.10	U	GAM
Radium 226	13982-67-7	0.43	0.090				GAM
Thorium 228	14274-82-9	0.83	0.092				GAM
Thorium 232	7440-29-1	0.68	0.20				GAM

Lab id TMAN
Protocol WHC-HEIS
Version Ver 1.0
Form DVD-DS
Version 2.20
Report date 12/30/92

9713505.1565

TMA NORCAL

REPORTING GROUP 7080

N209033-12

DATA SHEET

B07226

SDG	7080	Client	Westinghouse Hanford
Contact	Dinkar Kharkar	Contract	MBH-SVV-069262
Lab sample id	N209033-12	Client sample id	B07226
Dept sample id	7080-012	Matrix	SOIL
Received	09/03/92	Collected	09/01/92
% moisture		Chain of custody id	002898

PARAMETER	CAS NO	RESULT pCi/G	2σ ERR (COUNT)	MDA pCi/G	RDL pCi/G	QUALI-FIERS	TEST
Gross Alpha	Alpha	8.3	6.1	7.5	10	J	80A
Gross Beta	Beta	13	4.4	6.0	15	J	80B
Uranium 233/234		0.41	0.15	0.093	0.30		U
Uranium 235	15117-96-1	0.015	0.029	0.11	0.30	U	U
Uranium 238	7440-61-1	0.35	0.13	0.093	0.30		U
Plutonium 238	13981-16-3	-0.005	0.009	0.029	0.050	U	PU
Plutonium 239/240		0.005	0.005	0.018	0.050	U	PU
Americium 241	14596-10-2	0.018	0.028	0.044	0.050	U	AM
Strontium 90	10098-97-2	0.19	0.68	0.91	1.0	U	Y
Carbon 14	14762-75-5	1.1	4.1	4.7	50	U	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2	14	0.82				GAM
Iron 59		U		0.25	0.050	U	GAM
Chromium 51	14392-02-0	U		0.91		U	GAM
Cobalt 60	10198-40-0	U		0.038	0.050	U	GAM
Zinc 65	17982-39-3	U		0.11		U	GAM
Ruthenium 106	13967-48-1	U		0.33		U	GAM
Cesium 134	17967-70-9	U		0.044		U	GAM
Cesium 137	10045-97-3	U		0.038	0.050	U	GAM
Europium 152	14683-23-9	U		0.080	0.10	U	GAM
Europium 154	15585-10-1	U		0.053	0.10	U	GAM
Radium 226	13982-67-7	0.43	0.073				GAM
Thorium 228	14274-82-9	0.81	0.078				GAM
Thorium 232	7440-29-1	0.70	0.14				GAM

Lab id	TMAN
Protocol	WHC-HEIS
Version	Ver 1.0
Form	DVD-DS
Version	2.20
Report date	12/30/92

9713505.1566

TMA NORCAL

REPORTING GROUP 7080

N209033-13

DATA SHEET

B07231

SDG	7080	Client	Westinghouse Hanford
Contact	Dinkar Kharkar	Contract	MBH-SVV-069262
Lab sample id	N209033-13	Client sample id	B07231
Dept sample id	7080-013	Matrix	SOIL
Received	09/14/92	Collected	09/10/92
% moisture		Chain of custody id	002905

PARAMETER	CAS NO	RESULT pCi/G	2σ ERR (COUNT)	MDA pCi/G	RDL pCi/G	QUALI-FIERS	TEST
Gross Alpha	Alpha	1.6	5.3	8.2	10	U	80A
Gross Beta	Beta	-0.59	3.4	5.7	15	U	80B
Uranium 233/234		0.12	0.066	0.062	0.30	J	U
Uranium 235	15117-96-1	0.016	0.031	0.060	0.30	U	U
Uranium 238	7440-61-1	0.065	0.052	0.050	0.30	J	U
Plutonium 238	13981-16-3	0.006	0.015	0.030	0.050	U	PU
Plutonium 239/240		0.002	0.007	0.014	0.050	U	PU
Americium 241	14596-10-2	0.002	0.015	0.024	0.050	U	AM
Strontium 90	10098-97-2	0.46	0.35	0.81	1.0	U	Y
Carbon 14	14762-75-5	-0.32	3.8	4.5	50	U	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2	0.32	0.20				GAM
Iron 59		U		0.11	0.050	U	GAM
Chromium 51	14392-02-0	U		0.32		U	GAM
Cobalt 60	10198-40-0	U		0.024	0.050	U	GAM
Zinc 65	17982-39-3	U		0.047		U	GAM
Ruthenium 106	13967-48-1	U		0.18		U	GAM
Cesium 134	17967-70-9	U		0.025		U	GAM
Cesium 137	10045-97-3	U		0.020	0.050	U	GAM
Europium 152	14683-23-9	U		0.042	0.10	U	GAM
Europium 154	15585-10-1	U		0.030	0.10	U	GAM
Radium 226	13982-67-7	0.10	0.041				GAM
Thorium 228	14274-82-9	0.10	0.031				GAM
Thorium 232	7440-29-1	0.099	0.066				GAM

Lab id	TMAN
Protocol	WHC-HEIS
Version	Ver 1.0
Form	DVD-DS
Version	2.20
Report date	12/30/92

9713505.1567

TMA NORCAL

REPORTING GROUP 7080

N209033-14

DATA SHEET

B07233

SDG 7080
Contact Dinkar Kharkar
Client Westinghouse Hanford
Contract MBH-SVV-069262

Lab sample id N209033-14
Dept sample id 7080-014
Received 09/14/92
% moisture
Client sample id B07233
Matrix SOIL
Collected 09/10/92
Chain of custody id 002905

PARAMETER	CAS NO	RESULT pCi/G	2σ ERR (COUNT)	MDA pCi/G	RDL pCi/G	QUALI-FIERS	TEST
Gross Alpha	Alpha	5.3	5.1	6.1	10	U	80A
Gross Beta	Beta	28	5.1	6.1	15		80B
Uranium 233/234		0.60	0.18	0.093	0.30		U
Uranium 235	15117-96-1	0.015	0.030	0.11	0.30	U	U
Uranium 238	7440-61-1	0.48	0.15	0.093	0.30		U
Plutonium 238	13981-16-3	0.008	0.010	0.016	0.050	U	PU
Plutonium 239/240		0.060	0.020	0.013	0.050		PU
Americium 241	14596-10-2	0.026	0.028	0.039	0.050	U	AM
Strontium 90	10098-97-2	1.1	1.2	1.1	1.0		Y
Carbon 14	14762-75-5	2.7	4.7	5.3	50	U	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2	11	0.94				GAM
Iron 59		U		0.28	0.050	U	GAM
Chromium 51	14392-02-0	U		2.1		U	GAM
Cobalt 60	10198-40-0	1.1	0.090		0.050		GAM
Zinc 65	17982-39-3	U		0.35		U	GAM
Ruthenium 106	13967-48-1	U		0.91		U	GAM
Cesium 134	17967-70-9	U		0.095		U	GAM
Cesium 137	10045-97-3	11	0.22		0.050		GAM
Europium 152	14683-23-9	8.8	0.33		0.10		GAM
Europium 154	15585-10-1	1.2	0.26		0.10		GAM
Radium 226	13982-67-7	0.60	0.13				GAM
Thorium 228	14274-82-9	0.86	0.14				GAM
Thorium 232	7440-29-1	0.56	0.34				GAM

Lab id TMAN
Protocol WHC-HEIS
Version Ver 1.0
Form DVD-DS
Version 2.20
Report date 12/30/92

9713505.1568

TMA NORCAL

REPORTING GROUP 7080

N209033-15

DATA SHEET

B07234

SDG	7080	Client	Westinghouse Hanford
Contact	Dinkar Kharkar	Contract	MBH-SVV-069262
Lab sample id	N209033-15	Client sample id	B07234
Dept sample id	7080-015	Matrix	SOIL
Received	09/14/92	Collected	09/10/92
% moisture		Chain of custody id	002905

PARAMETER	CAS NO	RESULT pCi/G	2σ ERR (COUNT)	MDA pCi/G	RDL pCi/G	QUALI-FIERS	TEST
Gross Alpha	Alpha	2.2	4.1	5.8	10	U	80A
Gross Beta	Beta	22	4.8	6.1	15		80B
Uranium 233/234		17	2.2	0.27	0.30		U
Uranium 235	15117-96-1	1.7	0.39	0.13	0.30		U
Uranium 238	7440-61-1	17	2.1	0.25	0.30		U
Plutonium 238	13981-16-3	0.007	0.014	0.034	0.050	U	PU
Plutonium 239/240		0.057	0.029	0.027	0.050		PU
Americium 241	14596-10-2	0.034	0.039	0.065	0.050	U	AM
Strontium 90	10098-97-2	0.84	0.92	0.84	1.0	J	Y
Carbon 14	14762-75-5	-1.2	4.4	5.1	50	U	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2	12	0.88				GAM
Iron 59		U		0.25	0.050	U	GAM
Chromium 51	14392-02-0	U		1.8		U	GAM
Cobalt 60	10198-40-0	0.89	0.093		0.050		GAM
Zinc 65	17982-39-3	U		0.35		U	GAM
Ruthenium 106	13967-48-1	U		0.84		U	GAM
Cesium 134	17967-70-9	U		0.095		U	GAM
Cesium 137	10045-97-3	12	0.21		0.050		GAM
Europium 152	14683-23-9	7.8	0.27		0.10		GAM
Europium 154	15585-10-1	1.1	0.19		0.10		GAM
Radium 226	13982-67-7	0.50	0.16				GAM
Thorium 228	14274-82-9	0.81	0.090				GAM
Thorium 232	7440-29-1	0.56	0.30				GAM

Lab id	TMAN
Protocol	WHC-HEIS
Version	Ver 1.0
Form	DVD-DS
Version	2.20
Report date	12/30/92

9713505.1569

TMA NORCAL

REPORTING GROUP 7080

N209033-16

DATA SHEET

B07235

SDG 7080
Contact Dinkar Kharkar
Client Westinghouse Hanford
Contract MBH-SVV-069262

Lab sample id N209033-16
Dept sample id 7080-016
Received 09/14/92
% moisture
Client sample id B07235
Matrix SOIL
Collected 09/10/92
Chain of custody id 002904

PARAMETER	CAS NO	RESULT pCi/G	2σ ERR (COUNT)	MDA pCi/G	RDL pCi/G	QUALI-FIERS	TEST
Gross Alpha	Alpha	5.5	4.7	6.0	10	U	80A
Gross Beta	Beta	13	4.2	5.7	15	J	80B
Uranium 233/234		0.70	0.35	0.25	0.30		U
Uranium 235	15117-96-1	0.040	0.081	0.31	0.30	U	U
Uranium 238	7440-61-1	0.53	0.28	0.25	0.30		U
Plutonium 238	13981-16-3	-0.004	0.011	0.024	0.050	U	PU
Plutonium 239/240		-0.005	0.007	0.020	0.050	U	PU
Americium 241	14596-10-2	-0.004	0.017	0.046	0.050	U	AM
Strontium 90	10098-97-2	0.35	0.41	1.1	1.0	U	Y
Carbon 14	14762-75-5	0.97	3.7	4.3	50	U	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2	14	0.97				GAM
Iron 59		U		0.22	0.050	U	GAM
Chromium 51	14392-02-0	U		0.89		U	GAM
Cobalt 60	10198-40-0	U		0.047	0.050	U	GAM
Zinc 65	17982-39-3	U		0.14		U	GAM
Ruthenium 106	13967-48-1	U		0.40		U	GAM
Cesium 134	17967-70-9	U		0.055		U	GAM
Cesium 137	10045-97-3	U		0.048	0.050	U	GAM
Europium 152	14683-23-9	U		0.11	0.10	U	GAM
Europium 154	15585-10-1	U		0.070	0.10	U	GAM
Radium 226	13982-67-7	0.63	0.085				GAM
Thorium 228	14274-82-9	1.1	0.074				GAM
Thorium 232	7440-29-1	0.96	0.20				GAM

Lab id TMAN
Protocol WHC-HEIS
Version Ver 1.0
Form DVD-DS
Version 2.20
Report date 12/30/92

9713505.1570

TMA NORCAL

REPORTING GROUP 7080

N209033-17

DATA SHEET

B07236

SDG 7080
Contact Dinkar Kharkar
Client Westinghouse Hanford
Contract MBH-SVV-069262

Lab sample id N209033-17
Dept sample id 7080-017
Received 09/14/92
% moisture
Client sample id B07236
Matrix SOIL
Collected 09/10/92
Chain of custody id 002904

PARAMETER	CAS NO	RESULT pCi/G	2σ ERR (COUNT)	MDA pCi/G	RDL pCi/G	QUALI-FIERS	TEST
Gross Alpha	Alpha	9.2	5.8	6.9	10	J	80A
Gross Beta	Beta	18	5.1	6.9	15		80B
Uranium 233/234		0.74	0.24	0.14	0.30		U
Uranium 235	15117-96-1	0.068	0.091	0.17	0.30	U	U
Uranium 238	7440-61-1	0.91	0.29	0.14	0.30		U
Plutonium 238	13981-16-3	-0.003	0.007	0.019	0.050	U	PU
Plutonium 239/240		0	0.003	0.013	0.050	U	PU
Americium 241	14596-10-2	0.097	0.39	0.74	0.050	U	AM
Strontium 90	10098-97-2	0.11	0.69	0.88	1.0	U	Y
Carbon 14	14762-75-5	-3.1	4.1	4.8	50	U	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2	15	1.1				GAM
Iron 59		U		0.27	0.050	U	GAM
Chromium 51	14392-02-0	U		0.90		U	GAM
Cobalt 60	10198-40-0	U		0.052	0.050	U	GAM
Zinc 65	17982-39-3	U		0.14		U	GAM
Ruthenium 106	13967-48-1	U		0.44		U	GAM
Cesium 134	17967-70-9	U		0.063		U	GAM
Cesium 137	10045-97-3	U		0.048	0.050	U	GAM
Europium 152	14683-23-9	U		0.11	0.10	U	GAM
Europium 154	15585-10-1	U		0.070	0.10	U	GAM
Radium 226	13982-67-7	0.86	0.10				GAM
Thorium 228	14274-82-9	1.2	0.072				GAM
Thorium 232	7440-29-1	1.1	0.25				GAM

Lab id TMAN
Protocol WHC-HEIS
Version Ver 1.0
Form DVD-DS
Version 2.20
Report date 12/30/92

9713505.1571

TMA NORCAL

REPORTING GROUP 7080

DATA SHEET

N209033-18

B07237

SDG	7080	Client	Westinghouse Hanford
Contact	Dinkar Kharkar	Contract	MBH-SVV-069262
Lab sample id	N209033-18	Client sample id	B07237
Dept sample id	7080-018	Matrix	SOIL
Received	09/14/92	Collected	09/10/92
% moisture		Chain of custody id	002904

PARAMETER	CAS NO	RESULT pCi/G	2σ ERR (COUNT)	MDA pCi/G	RDL pCi/G	QUALI-FIERS	TEST
Gross Alpha	Alpha	7.7	4.7	5.1	10	J	80A
Gross Beta	Beta	21	4.5	5.5	15		80B
Uranium 233/234		1.0	0.27	0.13	0.30		U
Uranium 235	15117-96-1	0.049	0.065	0.12	0.30	U	U
Uranium 238	7440-61-1	0.73	0.21	0.10	0.30		U
Plutonium 238	13981-16-3	-0.003	0.017	0.035	0.050	U	PU
Plutonium 239/240		-0.003	0.006	0.022	0.050	U	PU
Americium 241	14596-10-2	0	0.040	0.073	0.050	U	AM
Strontium 90	10098-97-2	0.15	0.37	0.98	1.0	U	Y
Carbon 14	14762-75-5	0.81	4.4	5.1	50	U	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2	16	0.99				GAM
Iron 59		U		0.26	0.050	U	GAM
Chromium 51	14392-02-0	U		1.1		U	GAM
Cobalt 60	10198-40-0	U		0.051	0.050	U	GAM
Zinc 65	17982-39-3	U		0.14		U	GAM
Ruthenium 106	13967-48-1	U		0.43		U	GAM
Cesium 134	17967-70-9	U		0.063		U	GAM
Cesium 137	10045-97-3	U		0.051	0.050	U	GAM
Europium 152	14683-23-9	U		0.12	0.10	U	GAM
Europium 154	15585-10-1	U		0.076	0.10	U	GAM
Radium 226	13982-67-7	0.85	0.13				GAM
Thorium 228	14274-82-9	1.7	0.13				GAM
Thorium 232	7440-29-1	1.4	0.24				GAM

Lab id	TMAN
Protocol	WHC-HEIS
Version	Ver 1.0
Form	DVD-DS
Version	2.20
Report date	12/30/92

9713505.1572

Westinghouse Hanford Company	CHAIN OF CUSTODY	002904

Custody Form Initiator KB Hulse

Company Contact MT Stamkovich / 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~~ 10 KBH 9-10-92

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

B07235 5 Bottles
B07236 5 Bottles
B07237 5 Bottles
B07246 1 Bottle

Total 16 Bottles

KB Hulse 9-10-92

KB Hulse 9-10-92

☐ Field Transfer of Custody

CHAIN OF POSSESSION (Sign and Print Names)

Relinquished by:	Received by:	Date/Time:
KB Hulse KB Hulse	Kermit Blum	9-14-92 0800 *

Final Sample Disposition

Disposal Method:	Disposed by:	Date/Time:

Comments: * Received @ TMA/NORCAL 9-12-92 ; opened 9-14-92 · KB

D65H 2/8/93

A-6000-407 (12/90)

9713505.1573

Westinghouse Hanford Company

SAMPLE ANALYSIS REQUEST COC 2904

Collector KB Hulse Date 9-~~4~~-92 10 RBH 9-10-92

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

Sample Number	*	Date Collected	Time Collected	Number and Type of Sample Containers/Analysis Requested
B07235	S	9-~~4~~-92 10 RBH 9-10-92	1000	1-120ml aG VOA (CLP)
		9-10-92		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)
B07236			1015	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)
B07237			1140	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)
B07246			0800	1-120ml aG VOA (CLP)
				16 TOTAL Bottles

*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 WATCH HOLD TIMES SAMPLES WERE TAKEN ON 9-4-92

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

Possible Sample Hazards None Known

A-6000-406 (06/91)

065 I 2/8/93

9213505.1574

Westinghouse Hanford Company	CHAIN OF CUSTODY 002905

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-~~11~~-92 10 ~~9-11~~ 9-10-92

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

B07231 5 Bottles
B07233 5 Bottles
B07234 5 Bottles
B07245 1 Bottle
Total 16 Bottles

KB Hulse 9-10-92

KB Hulse 9-10-92

☐ Field Transfer of Custody — CHAIN OF POSSESSION — (Sign and Print Names)

Relinquished by:	Received by:	Date/Time:
KB Hulse (KB Hulse)	Kermit Blum	9-14-92 0800 *

Final Sample Disposition

Disposal Method:	Disposed by:	Date/Time:

Comments: * Received @ TMA/NORCAL 9-12-92; opened 9-14-92 · KB

A-6000-407 (12/90)

065F 2/8/93

9713505.1575

Westinghouse Hanford Company

SAMPLE ANALYSIS REQUEST COC 2905

Collector KB Hulse Date ~~9-4-92~~ 10 9-10-92

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

Sample Number	*	Date Collected	Time Collected	Number and Type of Sample Containers/Analysis Requested
B07231	S	~~9-4-92~~ 10 9-10-92	0908	1-120ml aG VOA (CLP)
		9-10-92		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)
B07233		9-10-92	0930	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)
B07234		9-10-92	0930	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)
B07245		9-10-92	0800	1-120ml aG VOA (CLP)
				16 TOTAL Bottles

9-10-92

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

Field Information WATCH HOLD TIMES SAMPLES WERE TAKEN ON 9-4-92

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

Possible Sample Hazards None Known

OSG 2/18/93

A-6000-406 (06/91)

9713505.1576

VALIDATION SUMMARY

9713505.1577

WC

000005

EPA SAMPLE NO.

B07212

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09012 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209012-01E

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 20908R08

Level: (low/med) LOW Date Received: 09/03/92 SDF

% Moisture: not dec. 0 Date Analyzed: 09/08/92

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 ~~5~~	~~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 4/2/9

9713505.1578

000006

1E

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B07212

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09012 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209012-01E

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 20908R08

Level: (low/med) LOW Date Received: 09/03/92

% Moisture: not dec. 0 Date Analyzed: 09/08/92

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 ALKENE	29.53	19	J

RB
4/2/93

9713505.1579

000007

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07213

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09012 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209012-02E

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 20908R09

Level: (low/med) LOW Date Received: 09/03/92

% Moisture: not dec. 2 Date Analyzed: 09/08/92

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~~ 10	~~B~~ U	RB 4/2/93
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	17		toluene CCRF 0.95
108-90-7	Chlorobenzene	10	U	
100-41-4	Ethylbenzene	10	U	
100-42-5	Styrene	10	U	Smpl i 0.95
1330-20-7	Xylene (total)	10	U	

9713505.1580

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

000008

B07213

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09012 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209012-02E

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 20908R09

Level: (low/med) LOW Date Received: 09/03/92

% Moisture: not dec. 2 Date Analyzed: 09/08/92

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. 110-54-3	HEXANE	15.37	6	J

BB
9/2/93

9713505.1581

000009

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07214

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09012 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209012-03D

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 20908R10

Level: (low/med) LOW Date Received: 09/03/92

% Moisture: not dec. 2 Date Analyzed: 09/08/92

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	14	~~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 4/2/92

9713505.1582

000010

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

B07214

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09012 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209012-03D

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 20908R10

Level: (low/med) LOW Date Received: 09/03/92

% Moisture: not dec. 2 Date Analyzed: 09/08/92

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
4/2/93

9713505.1583

000011

EPA SAMPLE NO.

B07215

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09012 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209012-05D

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 20908R12

Level: (low/med) LOW Date Received: 09/03/92

% Moisture: not dec. 2 Date Analyzed: 09/08/92

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

nB 4/2/93

9713505.1584

000012

EPA SAMPLE NO.

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B07215

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09012 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209012-05D

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 20908R12

Level: (low/med) LOW Date Received: 09/03/92

% Moisture: not dec. 2 Date Analyzed: 09/08/92

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
4/2/93

9713505.1585

000013

EPA SAMPLE NO.

B07217

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09012 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209012-06C

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 20908R13

Level: (low/med) LOW Date Received: 09/03/92

% Moisture: not dec. 5 Date Analyzed: 09/08/92

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	11	U
74-83-9	Bromomethane	11	U
75-01-4	Vinyl Chloride	11	U
75-00-3	Chloroethane	11	U
75-09-2	Methylene Chloride	11	U
67-64-1	Acetone	13	~~B~~ U.
75-15-0	Carbon Disulfide	11	U
75-35-4	1,1-Dichloroethene	11	U
75-34-3	1,1-Dichloroethane	11	U
540-59-0	1,2-Dichloroethene (total)	11	U
67-66-3	Chloroform	11	U
107-06-2	1,2-Dichloroethane	11	U
78-93-3	2-Butanone	11	U
71-55-6	1,1,1-Trichloroethane	11	U
56-23-5	Carbon Tetrachloride	11	U
75-27-4	Bromodichloromethane	11	U
78-87-5	1,2-Dichloropropane	11	U
10061-01-5	cis-1,3-Dichloropropene	11	U
79-01-6	Trichloroethene	11	U
124-48-1	Dibromochloromethane	11	U
79-00-5	1,1,2-Trichloroethane	11	U
71-43-2	Benzene	11	U
10061-02-6	trans-1,3-Dichloropropene	11	U
75-25-2	Bromoform	11	U
108-10-1	4-Methyl-2-Pentanone	11	U
591-78-6	2-Hexanone	11	U
127-18-4	Tetrachloroethene	11	U
79-34-5	1,1,2,2-Tetrachloroethane	11	U
108-88-3	Toluene	11	U
108-90-7	Chlorobenzene	11	U
100-41-4	Ethylbenzene	11	U
100-42-5	Styrene	11	U
1330-20-7	Xylene (total)	11	U

nb 4/2/93

9713505.1586

000014
EPA SAMPLE NO.

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B07217

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09012 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209012-06C

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 20908R13

Level: (low/med) LOW Date Received: 09/03/92

% Moisture: not dec. 5 Date Analyzed: 09/08/92

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
9/2/93

9713505.1587

000015
EPA SAMPLE NO.

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

B07218

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09012 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209012-07C

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 20908R14

Level: (low/med) LOW Date Received: 09/03/92

% Moisture: not dec. 3 Date Analyzed: 09/08/92

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	Chlorcethane	10	U
75-09-2	Methylene Chloride	10	U
67-64-1	Acetone	10 ~~8~~	~~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	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 4/2/93

9713505.1588

000016

EPA SAMPLE NO.

B07218

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09012 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209012-07C

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 20908R14

Level: (low/med) LOW Date Received: 09/03/92

% Moisture: not dec. 3 Date Analyzed: 09/08/92

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
4/2/93

9713505.1589

000017

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07219

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09012 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209012-04A

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 20908R11

Level: (low/med) LOW Date Received: 09/03/92

% Moisture: not dec. 0 Date Analyzed: 09/08/92

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	~~5~~ 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	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

BB 4/2/93

9713505.1590

000018

EPA SAMPLE NO.

B07219

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09012 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209012-04A

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 20908R11

Level: (low/med) LOW Date Received: 09/03/92

% Moisture: not dec. 0 Date Analyzed: 09/08/92

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 ALKANE	29.53	15	J

MB
4/2/93

9713505.1591

000019

EPA SAMPLE NO.

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

B07220

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09012 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209012-09C

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 20908R16

Level: (low/med) LOW Date Received: 09/03/92

% Moisture: not dec. 0 Date Analyzed: 09/08/92

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~~ 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	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 4/2/93

9713505.1592

000020
EPA SAMPLE NO.

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B07220

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09012 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209012-09C

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 20908R16

Level: (low/med) LOW Date Received: 09/03/92

% Moisture: not dec. 0 Date Analyzed: 09/08/92

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 ALKENE	29.53	22	J

BB
4/2/93

9713505.1593

000021

EPA SAMPLE NO.

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

B07221

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09012 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209012-10C

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 20908R17

Level: (low/med) LOW Date Received: 09/03/92

% Moisture: not dec. 5 Date Analyzed: 09/08/92

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	11	U
74-83-9	Bromomethane	11	U
75-01-4	Vinyl Chloride	11	U
75-00-3	Chloroethane	11	U
75-09-2	Methylene Chloride	11	U
67-64-1	Acetone	11	U
75-15-0	Carbon Disulfide	11	U
75-35-4	1,1-Dichloroethene	11	U
75-34-3	1,1-Dichloroethane	11	U
540-59-0	1,2-Dichloroethene (total)	11	U
67-66-3	Chloroform	11	U
107-06-2	1,2-Dichloroethane	11	U
78-93-3	2-Butanone	11	U
71-55-6	1,1,1-Trichloroethane	11	U
56-23-5	Carbon Tetrachloride	11	U
75-27-4	Bromodichloromethane	11	U
78-87-5	1,2-Dichloropropane	11	U
10061-01-5	cis-1,3-Dichloropropene	11	U
79-01-6	Trichloroethene	11	U
124-48-1	Dibromochloromethane	11	U
79-00-5	1,1,2-Trichloroethane	11	U
71-43-2	Benzene	11	U
10061-02-6	trans-1,3-Dichloropropene	11	U
75-25-2	Bromoform	11	U
108-10-1	4-Methyl-2-Pentanone	11	U
591-78-6	2-Hexanone	11	U
127-18-4	Tetrachloroethene	11	U
79-34-5	1,1,2,2-Tetrachloroethane	11	U
108-88-3	Toluene	11	U
108-90-7	Chlorobenzene	11	U
100-41-4	Ethylbenzene	11	U
100-42-5	Styrene	11	U
1330-20-7	Xylene (total)	11	U

RB 4/6/93

9713505.1594

000022

EPA SAMPLE NO.

B07221

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09012 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209012-10C

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 20908R17

Level: (low/med) LOW Date Received: 09/03/92

% Moisture: not dec. 5 Date Analyzed: 09/08/92

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

AB
4/2/93

9713505.1595

000023

EPA SAMPLE NO.

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

B07222

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09012 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209012-11C

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 20909R14

Level: (low/med) LOW Date Received: 09/03/92

% Moisture: not dec. 1 Date Analyzed: 09/09/92

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

RC 4/21/93

9713505.1596

000024

EPA SAMPLE NO.

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B07222

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09012 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209012-11C

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 20909R14

Level: (low/med) LOW Date Received: 09/03/92

% Moisture: not dec. 1 Date Analyzed: 09/09/92

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
4-2-93

9713505.1597

000025
EPA SAMPLE NO.

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

B07224

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09012 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209012-13C

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 20909R16

Level: (low/med) LOW Date Received: 09/03/92

% Moisture: not dec. 1 Date Analyzed: 09/09/92

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 4/2/97

9713505.1598

000026

1E

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B07224

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09012 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209012-13C

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 20909R16

Level: (low/med) LOW Date Received: 09/03/92

% Moisture: not dec. 1 Date Analyzed: 09/09/92

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
4/2/93

9713505.1599

000027

EPA SAMPLE NO.

B07225

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09012 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209012-14C

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 20909R20

Level: (low/med) LOW Date Received: 09/03/92

% Moisture: not dec. 2 Date Analyzed: 09/10/92

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 ~~6~~	~~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	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 1/12/93

9713505.1600

000028

EPA SAMPLE NO.

B07225

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09012 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209012-14C

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 20909R20

Level: (low/med) LOW Date Received: 09/03/92

% Moisture: not dec. 2 Date Analyzed: 09/10/92

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 ALKENE	29.47	9	J

MB
4/2/93

9713505.1601

000029

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07226

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09012 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209012-15C

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 20909R21

Level: (low/med) LOW Date Received: 09/03/92

% Moisture: not dec. 3 Date Analyzed: 09/10/92

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	~~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	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 4/2/93

9713505.1602

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

000030
EPA SAMPLE NO.

B07226

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09012 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209012-15C

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 20909R21

Level: (low/med) LOW Date Received: 09/03/92

% Moisture: not dec. 3 Date Analyzed: 09/10/92

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
4/2/93

9713505.1603

000031

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07240

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09012 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209012-08A

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 20908R15

Level: (low/med) LOW Date Received: 09/03/92

% Moisture: not dec. 0 Date Analyzed: 09/08/92

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 ~~9~~	~~B~~ U. RB 4/2/93
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

9713505.1604

000032

EPA SAMPLE NO.

B07240

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09012 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209012-08A

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 20908R15

Level: (low/med) LOW Date Received: 09/03/92

% Moisture: not dec. 0 Date Analyzed: 09/08/92

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 ALKENE	29.50	44	J

RB
4/2/13

9713505.1605

000033

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07242

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09012 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209012-12A

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 20910R05

Level: (low/med) LOW Date Received: 09/03/92

% Moisture: not dec. 0 Date Analyzed: 09/10/92

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	107	~~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 4/2/93

9713505.1606

000034

EPA SAMPLE NO.

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B07242

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09012 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209012-12A

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 20910R05

Level: (low/med) LOW Date Received: 09/03/92

% Moisture: not dec. 0 Date Analyzed: 09/10/92

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	29.50	25	J

RB
4/2/93

9713505.1607

000035

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07243

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09012 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209012-16A

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 20909R22

Level: (low/med) LOW Date Received: 09/03/92

% Moisture: not dec. 0 Date Analyzed: 09/10/92

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 4/2/93

9713505.1608

000036

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

B07243

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09012 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209012-16A

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 20909R22

Level: (low/med) LOW Date Received: 09/03/92

% Moisture: not dec. 0 Date Analyzed: 09/10/92

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 ALKENE	29.42	31	J

RB
4/2/93

9713505.1609

000037

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07212

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09012 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209012-01A

Sample wt/vol: 30.7 (g/mL) G Lab File ID: 20921N13

Level: (low/med) LOW Date Received: 09/03/92

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

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/21/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.4

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	320	UJ
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	780	U
91-58-7	2-Chloronaphthalene	320	U
88-74-4	2-Nitroaniline	780	U
131-11-3	Dimethylphthalate	320	U
208-96-8	Acenaphthylene	320	U
99-09-2	3-Nitroaniline	780	U
83-32-9	Acenaphthene	320	U
51-28-5	2,4-Dinitrophenol	780	U

RB 4/6/93 HT's

9713505.1610

000038

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07212

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09012 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209012-01A

Sample wt/vol: 30.7 (g/mL) G Lab File ID: 20921N13

Level: (low/med) LOW Date Received: 09/03/92

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

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/21/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.4

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
100-02-7	4-Nitrophenol	780	UJ
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	780	U
534-52-1	4,6-Dinitro-2-methylphenol	780	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	780	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	330 ~~25~~	~~B~~ UJ
206-44-0	Fluoranthene	320	UJ
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

HT's
RB
9/6/93

(1) - Cannot be separated from Diphenylamine

9713505.1611

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

000039
EPA SAMPLE NO.

B07212

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09012 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209012-01A

Sample wt/vol: 30.7 (g/mL) G Lab File ID: 20921N13

Level: (low/med) LOW Date Received: 09/03/92

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

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/21/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.4

Number TICs found: 7

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN ALKENE	3.73	160	~~BJ~~ UJ
2.	UNKNOWN ACID	4.47	460	J
3.	UNKNOWN KETONE	4.55	260	J
4.	UNKNOWN HYDROCARBON	4.93	490	~~BJ~~ UJ
5.	UNKNOWN HYDROCARBON	5.50	14000	~~BJ~~ UJ
6.	UNKNOWN HYDROCARBON	6.72	130	~~BJ~~ UJ
7.	UNKNOWN HYDROCARBON	18.58	130	~~BJ~~ UJ

blk cont;
RT's
RB
4/6/93

9713505.1612

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

000040
EPA SAMPLE NO.

B07213

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09012 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209012-02A

Sample wt/vol: 30.7 (g/mL) G Lab File ID: 20921N12

Level: (low/med) LOW Date Received: 09/03/92

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

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/21/92

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	UJ
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	800	U
91-58-7	2-Chloronaphthalene	330	U
88-74-4	2-Nitroaniline	800	U
131-11-3	Dimethylphthalate	330	U
208-96-8	Acenaphthylene	330	U
99-09-2	3-Nitroaniline	800	U
83-32-9	Acenaphthene	99	J
51-28-5	2,4-Dinitrophenol	800	UJ

RB
4/6/93
HT's

9713505.1613

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

000041
EPA SAMPLE NO.

B07213

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09012 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209012-02A

Sample wt/vol: 30.7 (g/mL) G Lab File ID: 20921N12

Level: (low/med) LOW Date Received: 09/03/92

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

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/21/92

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	800	UJ	
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	800	U	
534-52-1	4,6-Dinitro-2-methylphenol	800	U	
86-30-6	N-Nitrosodiphenylamine (1)	330	U	RB 4/6/9
101-55-3	4-Bromophenyl-phenylether	330	U	
118-74-1	Hexachlorobenzene	330	U	
87-86-5	Pentachlorophenol	800	U	HTs
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 ~~41~~	~~B~~ UJ	blk cont; H
206-44-0	Fluoranthene	330	UJ	
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	510	J	
218-01-9	Chrysene	330	UJ	
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

9713505.1614

000042

EPA SAMPLE NO.

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B07213

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09012 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209012-02A

Sample wt/vol: 30.7 (g/mL) G Lab File ID: 20921N12

Level: (low/med) LOW Date Received: 09/03/92

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

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/21/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

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

Number TICs found: 20

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN ALKENE	3.78	300	~~BJ~~ UJ
2.	UNKNOWN HYDROCARBON	4.45	170	J
3.	UNKNOWN ACID	4.55	130	J
4.	UNKNOWN KETONE	4.63	330	J
5.	UNKNOWN HYDROCARBON	5.02	670	~~BJ~~ UJ
6.	UNKNOWN HYDROCARBON	5.60	18000	~~BJ~~ UJ
7.	UNKNOWN HYDROCARBON	6.82	170	~~BJ~~ UJ
8.	UNKNOWN HYDROCARBON	6.90	200	J
9.	UNKNOWN HYDROCARBON	7.28	330	J
10.	UNKNOWN ALCOHOL	8.65	930	~~BJ~~ UJ
11.	UNKNOWN HYDROCARBON	18.78	130	~~BJ~~ UJ
12.	UNKNOWN CARBOYXLIC ACID ESTE	20.33	470	J
13.	HEXANEDIOIC ACID ISOMER	23.73	6000	J
14.	HEXANEDIOIC ACID ISOMER	23.88	330	J
15.	HEXANEDIOIC ACID ISOMER	24.10	170	J
16.	HEXANEDIOIC ACID ISOMER	24.18	270	J
17.	UNKNOWN POLYAROMATIC HYDROCA	25.82	130	J
18.	UNKNOWN ACID	29.12	2100	J
19.	UNKNOWN ACID	29.23	1100	J
20.	UNKNOWN ACID	29.37	3800	J

blk c
HT:

RB
4/6/93

9713505.1615

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

000043

EPA SAMPLE NO.

B07213RE

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09012 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209012-02A

Sample wt/vol: 30.7 (g/mL) G Lab File ID: 21008S05

Level: (low/med) LOW Date Received: 09/03/92

% Moisture: 2 decanted: (Y/N) N Date Extracted: 10/06/92

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 10/08/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

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

RB 4/6/93

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	800	U
91-58-7	2-Chloronaphthalene	330	U
88-74-4	2-Nitroaniline	800	U
131-11-3	Dimethylphthalate	330	U
208-96-8	Acenaphthylene	330	U
99-09-2	3-Nitroaniline	800	U
83-32-9	Acenaphthene	330	U
51-28-5	2,4-Dinitrophenol	800	U

DO NOT USE

9713505.1616
1c

000044
EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

B07213RE

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09012 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209012-02A

Sample wt/vol: 30.7 (g/mL) G Lab File ID: 21008S05

Level: (low/med) LOW Date Received: 09/03/92

% Moisture: 2 decanted: (Y/N) N Date Extracted: 10/06/92

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 10/08/92

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	800	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	800	U
534-52-1	4,6-Dinitro-2-methylphenol	800	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	800	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

DO NOT USE

RB 4/6/93

(1) - Cannot be separated from Diphenylamine

9713505.1617

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

000045
EPA SAMPLE NO.

B07213RE

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09012 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209012-02A

Sample wt/vol: 30.7 (g/mL) G Lab File ID: 21008S05

Level: (low/med) LOW Date Received: 09/03/92

% Moisture: 2 decanted: (Y/N) N Date Extracted: 10/06/92

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 10/08/92

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	5.12	770	J
2.	UNKNOWN HYDROCARBON	5.53	53000	BJ
3.	UNKNOWN HYDROCARBON	6.53	200	J
4.	UNKNOWN HYDROCARBON	7.18	230	J
5.	UNKNOWN ALCOHOL	8.32	470	J
6.	PROPANOIC ACID ISOMER	17.00	100	J
7.	UNKNOWN CARBOXYLIC ACID ESTE	20.10	900	BJ
8.	HEXANEDIOIC ACID ISOMER	24.65	130	BJ

DO NOT USE

RB
4/6/93

9713505.1618

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

000046

EPA SAMPLE NO.

B07214

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09012 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209012-03A

Sample wt/vol: 30.7 (g/mL) G Lab File ID: 20922N03

Level: (low/med) LOW Date Received: 09/03/92

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

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 J
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	800	U
91-58-7	2-Chloronaphthalene	330	U
88-74-4	2-Nitroaniline	800	U
131-11-3	Dimethylphthalate	330	U
208-96-8	Acenaphthylene	330	U
99-09-2	3-Nitroaniline	800	U
83-32-9	Acenaphthene	330	U
51-28-5	2,4-Dinitrophenol	800	U

RA 4/6/93 HT'S

9713505.1619

000047

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07214

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09012 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209012-03A

Sample wt/vol: 30.7 (g/mL) G Lab File ID: 20922N03

Level: (low/med) LOW Date Received: 09/03/92

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

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

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

CAS NO.	COMPOUND		Q
100-02-7	4-Nitrophenol	800	U J
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	800	U
534-52-1	4,6-Dinitro-2-methylphenol	800	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	800	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 9/6/93 HTS

(1) - Cannot be separated from Diphenylamine

9713505.1620

000048

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

B07214

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09012 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209012-03A

Sample wt/vol: 30.7 (g/mL) G Lab File ID: 20922N03

Level: (low/med) LOW Date Received: 09/03/92

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

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: 13

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN ALKENE	3.72	230	~~BJ~~ UJ
2.	UNKNOWN HYDROCARBON	4.38	130	~~BJ~~ UJ
3.	UNKNOWN KETONE	4.57	570	J
4.	UNKNOWN HYDROCARBON	4.97	730	~~BJ~~ UJ
5.	UNKNOWN HYDROCARBON	5.57	19000	~~BJ~~ UJ
6.	UNKNOWN HYDROCARBON	6.77	200	~~BJ~~ UJ
7.	UNKNOWN HYDROCARBON	17.57	67	J
8.	UNKNOWN HYDROCARBON	18.70	230	~~BJ~~ UJ
9.	UNKNOWN CARBOXYLIC ACID ESTE	20.23	470	J
10.	HEXANEDIOIC ACID ISOMER	23.47	200	J
11.	UNKNOWN ACID	27.42	700	J
12.	UNKNOWN ACID	27.57	1200	J
13.	UNKNOWN ACID	27.67	1600	J

RB
4/6/93
G/C cont; holding times

9713505.1621

000049

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07215

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09012 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209012-05A

Sample wt/vol: 30.6 (g/mL) G Lab File ID: 20921N17

Level: (low/med) LOW Date Received: 09/03/92

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

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/21/92

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	UJ
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	800	U
91-58-7	2-Chloronaphthalene	330	U
88-74-4	2-Nitroaniline	800	U
131-11-3	Dimethylphthalate	330	U
208-96-8	Acenaphthylene	330	U
99-09-2	3-Nitroaniline	800	U
83-32-9	Acenaphthene	330	U
51-28-5	2,4-Dinitrophenol	800	U

RB 4/6/93 HT's ow

9713505.1622

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

000050
EPA SAMPLE NO.

B07215

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09012 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209012-05A

Sample wt/vol: 30.6 (g/mL) G Lab File ID: 20921N17

Level: (low/med) LOW Date Received: 09/03/92

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

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/21/92

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	800	UJ
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	800	U
534-52-1	4,6-Dinitro-2-methylphenol	800	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	800	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 4/6/93 HT's

(1) - Cannot be separated from Diphenylamine

9713505.1623

000051

EPA SAMPLE NO.

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B07215

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09012 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209012-05A

Sample wt/vol: 30.6 (g/mL) G Lab File ID: 20921N17

Level: (low/med) LOW Date Received: 09/03/92

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

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/21/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

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

Number TICs found: 13

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN ALKENE	3.77	230	~~BJ~~ UJ
2.	UNKNOWN HYDROCARBON	4.38	330	~~BJ~~ UJ
3.	UNKNOWN KETONE	4.57	500	J
4.	UNKNOWN HYDROCARBON	4.93	670	~~BJ~~ UJ
5.	UNKNOWN HYDROCARBON	5.52	17000	~~BJ~~ UJ
6.	UNKNOWN HYDROCARBON	6.68	170	~~BJ~~ UJ
7.	UNKNOWN ACID	17.48	67	J
8.	UNKNOWN HYDROCARBON	18.62	270	~~BJ~~ UJ
9.	UNKNOWN ACID	28.43	500	J
10.	UNKNOWN ACID	28.78	1800	J
11.	UNKNOWN ACID	28.87	2400	J
12.	UNKNOWN ACID	29.08	7000	J
13.	UNKNOWN ACID	29.20	2100	J

like ATs

BB
4/6/93

9713505.1624

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

000052
EPA SAMPLE NO.

B07217

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09012 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209012-06A

Sample wt/vol: 30.7 (g/mL) G Lab File ID: 20921N18

Level: (low/med) LOW Date Received: 09/03/92

% Moisture: 5 decanted: (Y/N) N Date Extracted: 09/09/92

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/21/92

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	UJ
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	820	U
91-58-7	2-Chloronaphthalene	340	U
88-74-4	2-Nitroaniline	820	U
131-11-3	Dimethylphthalate	340	U
208-96-8	Acenaphthylene	340	U
99-09-2	3-Nitroaniline	820	U
83-32-9	Acenaphthene	340	U
51-28-5	2,4-Dinitrophenol	820	U

RB 4/6/93 HTS

9713505.1625

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO. 000053

B07217

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09012 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209012-06A

Sample wt/vol: 30.7 (g/mL) G Lab File ID: 20921N18

Level: (low/med) LOW Date Received: 09/03/92

% Moisture: 5 decanted: (Y/N) N Date Extracted: 09/09/92

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/21/92

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	820	U J
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	820	U
534-52-1	4,6-Dinitro-2-methylphenol	820	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	820	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 4/6/93 HT's

(1) - Cannot be separated from Diphenylamine

9713505.1626

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

000054
EPA SAMPLE NO.

B07217

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09012 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209012-06A

Sample wt/vol: 30.7 (g/mL) G Lab File ID: 20921N18

Level: (low/med) LOW Date Received: 09/03/92

% Moisture: 5 decanted: (Y/N) N Date Extracted: 09/09/92

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/21/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

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

Number TICs found: 12

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN KETONE	3.53	69	J
2.	UNKNOWN ALKENE	3.75	270	~~BJ~~ UJ
3.	UNKNOWN HYDROCARBON	4.37	69	J
4.	UNKNOWN KETONE	4.55	580	J
5.	UNKNOWN HYDROCARBON	4.93	820	~~BJ~~ UJ
6.	UNKNOWN HYDROCARBON	5.50	18000	~~BJ~~ UJ
7.	UNKNOWN HYDROCARBON	6.68	210	~~BJ~~ UJ
8.	UNKNOWN HYDROCARBON	18.62	140	~~BJ~~ UJ
9.	HEXANEDIOIC ACID ISOMER	23.43	140	J
10.	UNKNOWN ACID	27.33	270	J
11.	UNKNOWN ACID	27.95	5900	J
12.	UNKNOWN ACID	28.08	620	J

RB 4/2/93
HT2, blk cont

9713505.1627

000055

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07218

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09012 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209012-07A

Sample wt/vol: 30.3 (g/mL) G Lab File ID: 20921N19

Level: (low/med) LOW Date Received: 09/03/92

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

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/21/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 9.6

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	340	UJ
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	820	U
91-58-7	2-Chloronaphthalene	340	U
88-74-4	2-Nitroaniline	820	U
131-11-3	Dimethylphthalate	340	U
208-96-8	Acenaphthylene	340	U
99-09-2	3-Nitroaniline	820	U
83-32-9	Acenaphthene	340	U
51-28-5	2,4-Dinitrophenol	820	U

RB 4/6/93 HT's

9713505.1628

000056

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07218

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09012 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209012-07A

Sample wt/vol: 30.3 (g/mL) G Lab File ID: 20921N19

Level: (low/med) LOW Date Received: 09/03/92

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

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/21/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 9.6

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
100-02-7	4-Nitrophenol	820	U J
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	820	U
534-52-1	4,6-Dinitro-2-methylphenol	820	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	820	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 ~~40~~	~~BJ~~ UJ
206-44-0	Fluoranthene	340	U J
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 4/6/93

HT's

-blk cont

(1) - Cannot be separated from Diphenylamine

9713505.1629

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

000057
EPA SAMPLE NO.

B07218

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09012 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209012-07A

Sample wt/vol: 30.3 (g/mL) G Lab File ID: 20921N19

Level: (low/med) LOW Date Received: 09/03/92

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

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/21/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 9.6

Number TICs found: 9

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN ALKENE	3.75	140	~~BJ~~ UJ
2.	UNKNOWN HYDROCARBON	4.38	170	J
3.	UNKNOWN KETONE	4.55	540	J
4.	UNKNOWN HYDROCARBON	4.95	1100	~~BJ~~ UJ
5.	UNKNOWN HYDROCARBON	5.52	21000	~~BJ~~ UJ
6.	UNKNOWN HYDROCARBON	6.68	170	J
7.	UNKNOWN HYDROCARBON	17.58	68	J
8.	UNKNOWN HYDROCARBON	18.73	170	J
9.	UNKNOWN ACID	28.02	68	J

Unk cont; HTS

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07220

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09012 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209012-09A

Sample wt/vol: 30.7 (g/mL) G Lab File ID: 20921N20

Level: (low/med) LOW Date Received: 09/03/92

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

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/21/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.4

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	320	UJ
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	780	U
91-58-7	2-Chloronaphthalene	320	U
88-74-4	2-Nitroaniline	780	U
131-11-3	Dimethylphthalate	320	U
208-96-8	Acenaphthylene	320	U
99-09-2	3-Nitroaniline	780	U
83-32-9	Acenaphthene	320	U
51-28-5	2,4-Dinitrophenol	780	U

MB 4/6/93

HTS

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07220

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09012 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209012-09A

Sample wt/vol: 30.7 (g/mL) G Lab File ID: 20921N20

Level: (low/med) LOW Date Received: 09/03/92

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

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/21/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.4

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
100-02-7	4-Nitrophenol	780	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	780	U
534-52-1	4,6-Dinitro-2-methylphenol	780	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	780	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

RB 4/6/93

(1) - Cannot be separated from Diphenylamine

9713505.1632

1F

EPA SAMPLE NO.

B07220

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09012 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209012-09A

Sample wt/vol: 30.7 (g/mL) G Lab File ID: 20921N20

Level: (low/med) LOW Date Received: 09/03/92

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

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/21/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.4

Number TICs found: 15

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN ALKENE	3.70	65	~~BJ~~ UJ
2.	UNKNOWN HYDROCARBON	4.40	98	~~BJ~~ UJ
3.	UNKNOWN KETONE	4.57	590	J
4.	UNKNOWN HYDROCARBON	4.97	1500	~~BJ~~ UJ
5.	UNKNOWN HYDROCARBON	5.57	22000	~~BJ~~ UJ
6.	UNKNOWN HYDROCARBON	6.70	130	~~BJ~~ UJ
7.	UNKNOWN HYDROCARBON	6.80	490	J
8.	UNKNOWN HYDROCARBON	7.15	290	J
9.	UNKNOWN ALCOHOL	8.52	980	~~BJ~~ UJ
10.	UNKNOWN HYDROCARBON	18.63	130	~~BJ~~ UJ
11.	UNKNOWN CARBOXYLIC ACID ESTE	20.17	420	J
12.	UNKNOWN HYDROCARBON	22.02	98	J
13.	HEXANEDIOIC ACID ISOMER	23.43	160	J
14.	UNKNOWN ACID	28.22	1900	J
15.	UNKNOWN ACID	28.40	6200	J

RB 4/6/93
HT's, blk
Const

9713505.1633

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07221

ab Name: TMA/ARLI Contract: WHC

ab Code: TMALA Case No.: 09012 SAS No.: NA SDG No.: NA

atrix: (soil/water) SOIL Lab Sample ID: A209012-10A

ample wt/vol: 30.4 (g/mL) G Lab File ID: 20921N21

evel: (low/med) LOW Date Received: 09/03/92

Moisture: 5 decanted: (Y/N) N Date Extracted: 09/09/92

oncentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/21/92

njection Volume: 2.0(uL) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	340	UJ
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 4/6/93 HTS

9713505.1634

000062

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07221

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09012 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209012-10A

Sample wt/vol: 30.4 (g/mL) G Lab File ID: 20921N21

Level: (low/med) LOW Date Received: 09/03/92

% Moisture: 5 decanted: (Y/N) N Date Extracted: 09/09/92

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/21/92

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	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 ~~50~~	~~B~~ U J
206-44-0	Fluoranthene	340	U J
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

NB 4/6/93

HCl, blks cont

9713505.1635

000063

EPA SAMPLE NO.

B07221

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09012 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209012-10A

Sample wt/vol: 30.4 (g/mL) G Lab File ID: 20921N21

Level: (low/med) LOW Date Received: 09/03/92

% Moisture: 5 decanted: (Y/N) N Date Extracted: 09/09/92

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/21/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

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

Number TICs found: 15

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN KETONE	3.55	100	J
2.	UNKNOWN ALKENE	3.77	310	~~BJ~~ UJ
3.	UNKNOWN HYDROCARBON	4.38	140	~~BJ~~ UJ
4.	UNKNOWN KETONE	4.57	690	J
5.	UNKNOWN HYDROCARBON	4.95	1900	~~BJ~~ UJ
6.	UNKNOWN HYDROCARBON	5.57	28000	~~BJ~~ UJ
7.	UNKNOWN HYDROCARBON	5.73	69	J
8.	UNKNOWN HYDROCARBON	6.68	170	~~BJ~~ UJ
9.	UNKNOWN HYDROCARBON	6.78	660	J
10.	UNKNOWN HYDROCARBON	7.13	380	J
11.	UNKNOWN ALCOHOL	8.52	1200	~~BJ~~ UJ
12.	UNKNOWN HYDROCARBON	18.53	210	~~BJ~~ UJ
13.	UNKNOWN CARBOXYLIC ACID ESTE	20.08	690	J
14.	HEXANEDIOIC ACID ISOMER	23.33	420	J
15.	UNKNOWN ACID	27.72	8500	J

BB
4/6/93
blk corr.
HTi

9713505.1636

000064

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07222

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09012 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209012-11A

Sample wt/vol: 30.5 (g/mL) G Lab File ID: 20921N22

Level: (low/med) LOW Date Received: 09/03/92

% Moisture: 1 decanted: (Y/N) N Date Extracted: 09/09/92

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/21/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 9.1

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	800	U
91-58-7	2-Chloronaphthalene	330	U
88-74-4	2-Nitroaniline	800	U
131-11-3	Dimethylphthalate	330	U
208-96-8	Acenaphthylene	330	U
99-09-2	3-Nitroaniline	800	U
83-32-9	Acenaphthene	330	U
51-28-5	2,4-Dinitrophenol	800	U

RB 4/6/93 HT's exceeded

9713505.1637

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

000065
EPA SAMPLE NO.

B07222

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09012 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209012-11A

Sample wt/vol: 30.5 (g/mL) G Lab File ID: 20921N22

Level: (low/med) LOW Date Received: 09/03/92

% Moisture: 1 decanted: (Y/N) N Date Extracted: 09/09/92

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/21/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 9.1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
100-02-7	4-Nitrophenol	800	UJ
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	800	U
534-52-1	4,6-Dinitro-2-methylphenol	800	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	800	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	350 ~~38~~	~~BJ~~ UJ
206-44-0	Fluoranthene	330	UJ
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 4/6/93

HT's exceeded b/k cont.

9713505.1638

000066

EPA SAMPLE NO.

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B07222

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09012 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209012-11A

Sample wt/vol: 30.5 (g/mL) G Lab File ID: 20921N22

Level: (low/med) LOW Date Received: 09/03/92

% Moisture: 1 decanted: (Y/N) N Date Extracted: 09/09/92

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/21/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 9.1

Number TICs found: 12

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN KETONE	3.52	99	J
2.	UNKNOWN ALKENE	3.73	230	~~BJ~~ UJ
3.	UNKNOWN KETONE	4.53	600	J
4.	UNKNOWN ACID	4.70	400	J
5.	UNKNOWN HYDROCARBON	4.95	2400	~~BJ~~ UJ
6.	UNKNOWN HYDROCARBON	5.57	30000	~~BJ~~ UJ
7.	UNKNOWN HYDROCARBON	6.68	170	~~BJ~~ UJ
8.	UNKNOWN HYDROCARBON	17.43	66	J
9.	UNKNOWN HYDROCARBON	18.57	130	~~BJ~~ UJ
10.	UNKNOWN CARBOXYLIC ACID ESTE	20.12	530	J
11.	UNKNOWN HYDROCARBON	26.87	130	J
12.	UNKNOWN ACID	27.60	3000	J

BB
4/6/93
blk cont.,
HT✓

✓

9713505.1639

000067

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07224

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09012 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209012-13A

Sample wt/vol: 30.6 (g/mL) G Lab File ID: 20922N05

Level: (low/med) LOW Date Received: 09/03/92

% Moisture: 1 decanted: (Y/N) N Date Extracted: 09/09/92

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: 9.1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	330	UJ
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	790	U
91-58-7	2-Chloronaphthalene	330	U
88-74-4	2-Nitroaniline	790	U
131-11-3	Dimethylphthalate	330	U
208-96-8	Acenaphthylene	330	U
99-09-2	3-Nitroaniline	790	U
83-32-9	Acenaphthene	330	U
51-28-5	2,4-Dinitrophenol	790	U

RB 4/6/93 blk cont. HTS

9713505.1640

1C

000068

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

B07224

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09012 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209012-13A

Sample wt/vol: 30.6 (g/mL) G Lab File ID: 20922N05

Level: (low/med) LOW Date Received: 09/03/92

% Moisture: 1 decanted: (Y/N) N Date Extracted: 09/09/92

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: 9.1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
100-02-7	4-Nitrophenol	790	U J
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	790	U
534-52-1	4,6-Dinitro-2-methylphenol	790	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	790	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 ~~45~~	~~BJ~~ UJ
206-44-0	Fluoranthene	330	UJ
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 4/6/93

b/k cont., HTS

(1) - Cannot be separated from Diphenylamine

9713505.1641

000069

EPA SAMPLE NO.

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B07224

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09012 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209012-13A

Sample wt/vol: 30.6 (g/mL) G Lab File ID: 20922N05

Level: (low/med) LOW Date Received: 09/03/92

% Moisture: 1 decanted: (Y/N) N Date Extracted: 09/09/92

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: 9.1

Number TICs found: 7

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN ALKENE	3.73	200	~~BJ~~ UJ
2.	UNKNOWN HYDROCARBON	4.35	99	~~BJ~~ UJ
3.	UNKNOWN KETONE	4.53	590	J
4.	UNKNOWN HYDROCARBON	4.95	1600	~~BJ~~ UJ
5.	UNKNOWN HYDROCARBON	5.55	27000	~~BJ~~ UJ
6.	UNKNOWN HYDROCARBON	6.68	170	~~BJ~~ UJ
7.	UNKNOWN ALCOHOL	8.50	990	~~BJ~~ UJ

MB
4/6/93

blk cont,
HT's

9713505.1642

000070

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07225

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09012 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209012-14A

Sample wt/vol: 30.8 (g/mL) G Lab File ID: 20924N2

Level: (low/med) LOW Date Received: 09/03/92

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

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/24/92

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	UJ
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	800	U
91-58-7	2-Chloronaphthalene	330	U
88-74-4	2-Nitroaniline	800	U
131-11-3	Dimethylphthalate	330	U
208-96-8	Acenaphthylene	330	U
99-09-2	3-Nitroaniline	800	U
83-32-9	Acenaphthene	330	U
51-28-5	2,4-Dinitrophenol	800	U

RB 4/6/93 HTS

9713505.1643

1C

000071

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

B07225

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09012 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209012-14A

Sample wt/vol: 30.8 (g/mL) G Lab File ID: 20924N2

Level: (low/med) LOW Date Received: 09/03/92

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

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/24/92

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	800	UJ
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	800	U
534-52-1	4,6-Dinitro-2-methylphenol	800	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	800	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 4/6/93 HTS

(1) - Cannot be separated from Diphenylamine

9713505.1644

1F

000072
EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B07225

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09012 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209012-14A

Sample wt/vol: 30.8 (g/mL) G Lab File ID: 20924N2

Level: (low/med) LOW Date Received: 09/03/92

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

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/24/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

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

Number TICs found: 11

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN KETONE	3.53	99	J
2.	UNKNOWN KETONE	4.60	430	J
3.	UNKNOWN HYDROCARBON	4.78	230	J
4.	UNKNOWN HYDROCARBON	5.02	1700	~~BJ~~ UJ
5.	UNKNOWN HYDROCARBON	5.68	25000	~~BJ~~ UJ
6.	UNKNOWN HYDROCARBON	6.83	170	~~BJ~~ UJ
7.	UNKNOWN HYDROCARBON	6.93	530	J
8.	UNKNOWN HYDROCARBON	7.32	300	J
9.	UNKNOWN ALCOHOL	8.67	900	~~BJ~~ UJ
10.	UNKNOWN CARBOXYLIC ACID ESTE	20.28	500	J
11.	HEXANEDIOIC ACID ISOMER	23.55	170	J

RB
4/6/93

blk cont; HT's exceeded

9713505.1645

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

000073
EPA SAMPLE NO.

B07226

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09012 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209012-15A

Sample wt/vol: 30.5 (g/mL) G Lab File ID: 20924N3

Level: (low/med) LOW Date Received: 09/03/92

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

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/24/92

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 J
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 4/6/93 HT's exceeds blk cont.

9713505.1646

1C

000074
EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

B07226

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09012 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209012-15A

Sample wt/vol: 30.5 (g/mL) G Lab File ID: 20924N3

Level: (low/med) LOW Date Received: 09/03/92

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

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/24/92

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 J
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	536 ~~36~~	~~BJ~~ UJ
206-44-0	Fluoranthene	330	U J
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 4/6/93
HT's exceeded w/o cont

(1) - Cannot be separated from Diphenylamine

1F

EPA SAMPLE NO.

B07226

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09012 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209012-15A

Sample wt/vol: 30.5 (g/mL) G Lab File ID: 20924N3

Level: (low/med) LOW Date Received: 09/03/92

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

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/24/92

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 KETONE	4.53	410	J
2.	UNKNOWN ACID	4.68	140	J
3.	UNKNOWN HYDROCARBON	4.93	1400	~~BJ~~ UJ
4.	UNKNOWN HYDROCARBON	5.57	23000	~~BJ~~ UJ
5.	UNKNOWN HYDROCARBON	6.70	140	~~BJ~~ UJ
6.	UNKNOWN HYDROCARBON	18.60	140	~~BJ~~ UJ
7.	UNKNOWN CARBOXYLIC ACID ESTE	20.15	510	J
8.	HEXANEDIOIC ACID ISOMER	23.40	140	J
9.	UNKNOWN ACID	27.35	100	J

BB
4/6/93
HT's exceeded
blk. cont.

9713505.1648

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

000076

EPA SAMPLE NO.

B07212

ab Name: TMA/ARLI Contract: WHC

ab Code: TMALA Case No.: 09012 SAS No.: NA SDG No.: NA

atrix: (soil/water) SOIL Lab Sample ID: A209012-01A

ample wt/vol: 30.6 (g/mL) G Lab File ID:

Moisture: 0 decanted: (Y/N) N Date Received: 09/03/92

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

oncentrated Extract Volume: 5000 (uL) Date Analyzed: 09/30/92

njection Volume: 1.00 (uL) Dilution Factor: 1.00

PC Cleanup: (Y/N) Y pH: 7.4 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	3.2	U
72-55-9	4,4'-DDE	3.2	U
72-20-8	Endrin	3.2	U
33213-65-9	Endosulfan II	3.2	U
72-54-8	4,4'-DDD	3.2	U
1031-07-8	Endosulfan sulfate	3.2	U
50-29-3	4,4'-DDT	3.2	U
72-43-5	Methoxychlor	17	U
53494-70-5	Endrin ketone	3.2	U
7421-36-3	Endrin aldehyde	3.2	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	32	U
11104-28-2	Aroclor-1221	66	U
11141-16-5	Aroclor-1232	32	U
53469-21-9	Aroclor-1242	32	U
12672-29-6	Aroclor-1248	32	U
11097-69-1	Aroclor-1254	32	U
11096-82-5	Aroclor-1260	32	U

RB 4/6/93

all: HT!

alpha, & BA 90 D

all but tox. + thoc surrogat

9713505.1649

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

000077

EPA SAMPLE NO.

B07213

ıb Name: TMA/ARLI Contract: WHC

ıb Code: TMALA Case No.: 09012 SAS No.: NA SDG No.: NA

ıtrix: (soil/water) SOIL Lab Sample ID: A209012-02A

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

Moisture: 2 decanted: (Y/N) N Date Received: 09/03/92

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

ɔncentrated Extract Volume: 5000 (uL) Date Analyzed: 09/30/92

ıjection Volume: 1.00 (uL) Dilution Factor: 1.00

PC 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	3.3	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	67	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

VRB 4/6/93 all: HT α, δ BHC Calib ns all but Aroc+tox Surr. out

9713505.1650

000078

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07214

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09012 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209012-03A

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

% Moisture: 2 decanted: (Y/N) N Date Received: 09/03/92

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

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 10/01/92

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	3.3	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	67	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 4/6/93

all: HT

γ, δ BHC calib 70%

all but Aroc. HT surrog. re

9713505.1651

000078

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07215

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09012 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209012-05A

Sample wt/vol: 30.8 (g/mL) G Lab File ID:

% Moisture: 2 decanted: (Y/N) N Date Received: 09/03/92

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

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 10/01/92

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	67	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 4/6/93

all; HTS α,δ Bhc calc. n.st. all but Aroc. + tox; surrog.

9713505.1652

000080

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07217

ab Name: TMA/ARLI Contract: WHC

ab Code: TMALA Case No.: 09012 SAS No.: NA SDG No.: NA

atrix: (soil/water) SOIL Lab Sample ID: A209012-06A

ample wt/vol: 30.6 (g/mL) G Lab File ID:

Moisture: 5 decanted: (Y/N) N Date Received: 09/03/92

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

oncentrated Extract Volume: 5000 (uL) Date Analyzed: 10/01/92

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	1.8	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

RB 4/6/93

all: HTs

α, δ BHC

All but tox + aroc surrog

9713505.1653

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07218

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09012 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209012-07A

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

% Moisture: 3 decanted: (Y/N) N Date Received: 09/03/92

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

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 10/01/92

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 9.6 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	3.3	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 4/6/93

all: HT: α, δ BHC-d

10x: Surr,

9713505.1654

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO. 000082

B07220

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09012 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209012-09A

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

% Moisture: 0 decanted: (Y/N) N Date Received: 09/03/92

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

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 10/01/92

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 8.4 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	3.2	U
72-55-9	4,4'-DDE	3.2	U
72-20-8	Endrin	3.2	U
33213-65-9	Endosulfan II	3.2	U
72-54-8	4,4'-DDD	3.2	U
1031-07-8	Endosulfan sulfate	3.2	U
50-29-3	4,4'-DDT	3.2	U
72-43-5	Methoxychlor	17	U
53494-70-5	Endrin ketone	3.2	U
7421-36-3	Endrin aldehyde	3.2	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	32	U
11104-28-2	Aroclor-1221	66	U
11141-16-5	Aroclor-1232	32	U
53469-21-9	Aroclor-1242	32	U
12672-29-6	Aroclor-1248	32	U
11097-69-1	Aroclor-1254	32	U
11096-82-5	Aroclor-1260	32	U

RB 4/6/93

all HT's

d BHC – Calc RST

9713505.1655

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

000083

EPA SAMPLE NO.

B07221

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09012 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209012-10A

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

% Moisture: 5 decanted: (Y/N) N Date Received: 09/03/92

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

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 10/01/92

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

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

RB 4/6/

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	70	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

all ~~etc~~ if TJ

γ, δ Bit calc ?

all but toxt no surrog. below

9713505.1656

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07222

ab Name: TMA/ARLI Contract: WHC

ab Code: TMALA Case No.: 09012 SAS No.: NA SDG No.: NA

atrix: (soil/water) SOIL Lab Sample ID: A209012-11A

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

Moisture: 1 decanted: (Y/N) N Date Received: 09/03/92

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

oncentrated Extract Volume: 5000 (uL) Date Analyzed: 10/01/92

njection Volume: 1.00 (uL) Dilution Factor: 1.00

PC Cleanup: (Y/N) Y pH: 9.1 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	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	67	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 4/6/93

HTS

γ, δ BHC

9713505.1657

000085

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07224

ab Name: TMA/ARLI Contract: WHC

ab Code: TMALA Case No.: 09012 SAS No.: NA SDG No.: NA

atrix: (soil/water) SOIL Lab Sample ID: A209012-13A

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

Moisture: 1 decanted: (Y/N) N Date Received: 09/03/92

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

oncentrated Extract Volume: 5000 (uL) Date Analyzed: 10/01/92

njection Volume: 1.00 (uL) Dilution Factor: 1.00

PC Cleanup: (Y/N) Y pH: 9.1 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	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	67	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 4/6/93

all: H-7: calib RSD on α,δ BHC

9713505.1658

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

000086
EPA SAMPLE NO.

B07225

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09012 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209012-14A

Sample wt/vol: 30.7 (g/mL) G Lab File ID: _____

% Moisture: 2 decanted: (Y/N) N Date Received: 09/03/92

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

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 10/01/92

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 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	67	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 4/6/93

All: H TS

d,e VBHC: Cabl MS out

9713505.1659

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO. 000087

B07226

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09012 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209012-15A

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

% Moisture: 3 decanted: (Y/N) N Date Received: 09/03/92

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

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 10/01/92

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

AB 4/6/93

all HT's

α,β BHC Calib. Out

SAMPLE NUMBER:

B07212

INORGANIC ANALYSIS DATA SHEET

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

Lab Code: SKINER Case No.: N2-09-031SAS No.: SDG No.: B07212

Matrix (soil/water): SOIL Lab Sample ID: 09084-01S

Level (low/med): LOW Date Received: 09/04/92

% Solids: 99.9

4/5/93

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

CAS No.	Analyte	Concentration	C	Q	M	
7429-90-5	Aluminum	51.9			P	
7440-36-0	Antimony	3.1	U	~~N~~ J	P-	Matrix Spike
7440-38-2	Arsenic	0.52	U	~~N~~ J	F-	GFAA Analytical Spike
7440-39-3	Barium	0.53	U		P-	Lab Blank
7440-41-7	Beryllium	0.07	U		P	
7440-43-9	Cadmium	0.18	U		P-	Lab Blank
7440-70-2	Calcium	12.6	~~B~~ U		P-	Lab Blank
7440-47-3	Chromium	0.83	U		P-	Lab Blank
7440-48-4	Cobalt	0.50	U		P-	Lab Blank
7440-50-8	Copper	0.71	~~B~~ U		P-	Lab Blank
7439-89-6	Iron	252			P	
7439-92-1	Lead	0.36	U		F	
7439-95-4	Magnesium	7.5	U		P-	Lab Blank
7439-96-5	Manganese	0.86	U		P	
7439-97-6	Mercury	0.05	U	~~N~~ J	CV-	Matrix Spike/Lab Dup.
7440-02-0	Nickel	0.99	U		P	
7440-09-7	Potassium	44.4	U		P	
7782-49-2	Selenium	0.68	U	~~N~~ J	F-	GFAA Analytical Spike
7440-22-4	Silver	0.46	U		P-	Lab Blank
7440-23-5	Sodium	17.7	~~B~~ U		P-	Lab Blank
7440-28-0	Thallium	0.23	U		F	
7440-62-2	Vanadium	0.51	U		P-	Lab Blank
7440-66-6	Zinc	2.4	~~B~~	~~E~~ U J	P-	Lab Blank/Icp Ser. Dilut
	Cyanide	0.50	U		CA	

Color Before: WHITE Clarity Before: Texture: FINE

Color After: WHITE Clarity After: Artifacts:

Comments:

002

SAMPLE NUMBER:

B07213

INORGANIC ANALYSIS DATA SHEET

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

Lab Code: SKINER Case No.: N2-09-031SAS No.: SDG No.: B07212

Matrix (soil/water): SOIL Lab Sample ID: 09084-02S

Level (low/med): LOW Date Received: 09/04/92

% Solids: 99.0

Concentration Units (ug/L or mg/Kg dry weight): MG/KG 4/5/93 [illegible]

CAS No.	Analyte	Concentration	C	Q	M	
7429-90-5	Aluminum	7660			P	
7440-36-0	Antimony	3.2	U	~~N~~J	P-	Matrix Spike
7440-38-2	Arsenic	0.55	U	WJ	F-	GFAA Analytical Spike
7440-39-3	Barium	55.7			P	
7440-41-7	Beryllium	0.34	B		P	
7440-43-9	Cadmium	0.19	U		P-	Lab Blank
7440-70-2	Calcium	4190			P	
7440-47-3	Chromium	85.1			P	
7440-48-4	Cobalt	8.9	B		P	
7440-50-8	Copper	18.0			P	
7439-89-6	Iron	17400			P	
7439-92-1	Lead	7.2			F	
7439-95-4	Magnesium	4650			P	
7439-96-5	Manganese	240			P	
7439-97-6	Mercury	0.05	U	~~N~~*J	CV-	Matrix Spike/Lab Dup.
7440-02-0	Nickel	11.7			P	
7440-09-7	Potassium	1470			P	
7782-49-2	Selenium	4.1	B		F	
7440-22-4	Silver	0.75	~~B~~ U		P-	Lab Blank
7440-23-5	Sodium	204	B		P	
7440-28-0	Thallium	0.25	U		F	
7440-62-2	Vanadium	45.0			P	
7440-66-6	Zinc	46.9		~~E~~J	P-	ICP Serial Dilution
	Cyanide	0.46	U		CA	

Color Before: BROWN Clarity Before: Texture: FINE

Color After: BROWN Clarity After: Artifacts: YES

Comments:
STONES

003

INORGANIC ANALYSIS DATA SHEET

SAMPLE NUMBER: B07214

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

Lab Code: SKINER Case No.: N2-09-031SAS No.: SDG No.: B07212

Matrix (soil/water): SOIL Lab Sample ID: 09084-03S

Level (low/med): LOW Date Received: 09/04/92

% Solids: 97.1

Concentration Units (ug/L or mg/Kg dry weight): MG/KG 4/5/93 fm

CAS No.	Analyte	Concentration	C	Q	M	
7429-90-5	Aluminum	4590			P	
7440-36-0	Antimony	3.1	U	~~N~~ J	P-	Matrix Spike
7440-38-2	Arsenic	0.59	U		F	
7440-39-3	Barium	36.7	B		P	
7440-41-7	Beryllium	0.07	U		P	
7440-43-9	Cadmium	0.18	U		P-	Lab Blank
7440-70-2	Calcium	2100			P	
7440-47-3	Chromium	8.8			P	
7440-48-4	Cobalt	4.8	B		P	
7440-50-8	Copper	16.6			P	
7439-89-6	Iron	8260			P	
7439-92-1	Lead	3.3			F	
7439-95-4	Magnesium	3040			P	
7439-96-5	Manganese	163			P	
7439-97-6	Mercury	0.05	U	~~N~~ J	CV+	Matrix Spike/Lab Dup
7440-02-0	Nickel	9.8			P	
7440-09-7	Potassium	918	B		P	
7782-49-2	Selenium	0.77	U	W J	F-	GFAA Analytical Spike
7440-22-4	Silver	0.46	U		P-	Lab Blank
7440-23-5	Sodium	84.8	B		P	
7440-28-0	Thallium	0.27	U		F	
7440-62-2	Vanadium	14.5			P	
7440-66-6	Zinc	23.6		~~E~~ J	P-	GFAA Analytical Spike
	Cyanide	0.51	U		CA	

Color Before: BROWN Clarity Before: Texture: MEIDUM

Color After: BROWN Clarity After: Artifacts: YES

Comments:
STONES

004

INORGANIC ANALYSIS DATA SHEET

SAMPLE NUMBER: B07215

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

Lab Code: SKINER Case No.: N2-09-031SAS No.: SDG No.: B07212

Matrix (soil/water): SOIL Lab Sample ID: 09084-04S

Level (low/med): LOW Date Received: 09/04/92

% Solids: 98.5

4/5/93 fjlo

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

CAS No.	Analyte	Concentration	C	Q	M	
7429-90-5	Aluminum	5270			P	
7440-36-0	Antimony	3.3	U	~~N~~ J	P-	Matrix Spike
7440-38-2	Arsenic	0.57	U	~~N~~ J	F-	GFAA Analytical Spike
7440-39-3	Barium	38.4	B		P	
7440-41-7	Beryllium	0.08	U		P	
7440-43-9	Cadmium	0.20	U		P—	Lab Blank
7440-70-2	Calcium	2730			P	
7440-47-3	Chromium	10.4			P	
7440-48-4	Cobalt	4.6	B		P	
7440-50-8	Copper	18.0			P	
7439-89-6	Iron	9510			P	
7439-92-1	Lead	5.4			F	
7439-95-4	Magnesium	3430			P	
7439-96-5	Manganese	167			P	
7439-97-6	Mercury	0.05	U	~~N~~ J	CV	Matrix Spike/Lab Duplic
7440-02-0	Nickel	10.8			P	
7440-09-7	Potassium	901	B		P	
7782-49-2	Selenium	0.75	U	~~N~~ J	F-	GFAA Analytical Spik
7440-22-4	Silver	0.49	U		P—	Lab Blank
7440-23-5	Sodium	108	B		P	
7440-28-0	Thallium	0.26	U		F	
7440-62-2	Vanadium	17.8			P	
7440-66-6	Zinc	26.4		~~E~~ J	P-	Icp Serial Dilution
	Cyanide	0.47	U		CA	

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: BROWN Clarity After: Artifacts: YES

Comments:
STONES

005

INORGANIC ANALYSIS DATA SHEET

SAMPLE NUMBER: B07217

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

Lab Code: SKINER Case No.: N2-09-031SAS No.: SDG No.: B07212

Matrix (soil/water): SOIL Lab Sample ID: 09084-05S

Level (low/med): LOW Date Received: 09/04/92

% Solids: 96.8

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

4/5/93 JR

CAS No.	Analyte	Concentration	C	Q	M	
7429-90-5	Aluminum	4960			P	
7440-36-0	Antimony	3.2	U	~~N~~J.	P-	Matrix Spike
7440-38-2	Arsenic	0.58	U	~~W~~J.	F-	GFAA Analytical Spik
7440-39-3	Barium	36.6	B		P	
7440-41-7	Beryllium	0.08	U		P	
7440-43-9	Cadmium	0.19	U		P-	Lab Blank
7440-70-2	Calcium	6780			P	
7440-47-3	Chromium	9.3			P	
7440-48-4	Cobalt	4.4	B		P	
7440-50-8	Copper	14.7			P	
7439-89-6	Iron	8620			P	
7439-92-1	Lead	3.2			F	
7439-95-4	Magnesium	3300			P	
7439-96-5	Manganese	139			P	
7439-97-6	Mercury	0.05	U	~~N~~J.	CV-	Matrix Spike/Lab Dup
7440-02-0	Nickel	9.0			P	
7440-09-7	Potassium	1140			P	
7782-49-2	Selenium	3.8	U		F	
7440-22-4	Silver	0.61	~~B~~U.		P-	Lab Blank
7440-23-5	Sodium	87.7	B		P	
7440-28-0	Thallium	0.26	U		F	
7440-62-2	Vanadium	15.9			P	
7440-66-6	Zinc	26.0		~~E~~J.	P-	Icp Serial Dilution
	Cyanide	0.52	U		CA	

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: BROWN Clarity After: Artifacts: YES

Comments:
STONES

INORGANIC ANALYSIS DATA SHEET

SAMPLE NUMBER: B07218

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

Lab Code: SKINER Case No.: N2-09-031SAS No.: SDG No.: B07212

Matrix (soil/water): SOIL Lab Sample ID: 09084-06S

Level (low/med): LOW Date Received: 09/04/92

% Solids: 97.0

Concentration Units (ug/L or mg/Kg dry weight): MG/KG 4/5/93 JM

CAS No.	Analyte	Concentration	C	Q	M	
7429-90-5	Aluminum	5040			P	
7440-36-0	Antimony	3.4	U	~~N~~J.	P-	Matrix Spike
7440-38-2	Arsenic	0.59	U		F	
7440-39-3	Barium	34.5	B		P	
7440-41-7	Beryllium	0.08	U		P	
7440-43-9	Cadmium	0.20	U		P-	Lab Blank
7440-70-2	Calcium	5150			P	
7440-47-3	Chromium	9.3			P	
7440-48-4	Cobalt	4.8	B		P	
7440-50-8	Copper	19.2			P	
7439-89-6	Iron	8730			P	
7439-92-1	Lead	2.8			F	
7439-95-4	Magnesium	3230			P	
7439-96-5	Manganese	159			P	
7439-97-6	Mercury	0.05	U	~~N~~* J.	CV-	Matrix Spike/Lab Dupli
7440-02-0	Nickel	10.1			P	
7440-09-7	Potassium	877	B		P	
7782-49-2	Selenium	0.77	U	~~W~~J.	F-	GFAA Analytical Spike
7440-22-4	Silver	0.50	U		P-	Lab Blank
7440-23-5	Sodium	102	B		P	
7440-28-0	Thallium	0.26	U		F	
7440-62-2	Vanadium	15.6			P	
7440-66-6	Zinc	24.1		~~E~~J.	P-	Icp Serial Dilution
	Cyanide	0.51	U		CA	

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: BROWN Clarity After: Artifacts: YES

Comments:
STONES

INORGANIC ANALYSIS DATA SHEET

SAMPLE NUMBER: B07220

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

Lab Code: SKINER Case No.: N2-09-031SAS No.: SDG No.: B07212

Matrix (soil/water): SOIL Lab Sample ID: 09084-07S

Level (low/med): LOW Date Received: 09/04/92

% Solids: 99.9

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

4/5/93 J.M

CAS No.	Analyte	Concentration	C	Q	M	
7429-90-5	Aluminum	33.8	B		P	
7440-36-0	Antimony	3.0	U	~~N~~ J	P-	Matrix Spike
7440-38-2	Arsenic	0.57	U		F	
7440-39-3	Barium	0.52	U		P-	Lab Blank
7440-41-7	Beryllium	0.07	U		P	
7440-43-9	Cadmium	0.18	U		P-	Lab Blank
7440-70-2	Calcium	14.6	~~B~~ U		P-	Lab Blank
7440-47-3	Chromium	0.81	U		P-	Lab Blank
7440-48-4	Cobalt	0.49	U		P-	Lab Blank
7440-50-8	Copper	0.63	U		P-	Lab Blank
7439-89-6	Iron	148			P	
7439-92-1	Lead	0.40	U		F	
7439-95-4	Magnesium	7.4	U		P-	Lab Blank
7439-96-5	Manganese	0.85	U		P	
7439-97-6	Mercury	0.05	U	~~N~~ J	CV-	Matrix Spike/Lab Dup
7440-02-0	Nickel	0.97	U		P	
7440-09-7	Potassium	43.6	U		P	
7782-49-2	Selenium	0.75	U	~~N~~ J	F-	GFAA Analytical Spike
7440-22-4	Silver	0.45	U		P-	Lab Blank
7440-23-5	Sodium	8.6	~~B~~ U		P-	Lab Blank
7440-28-0	Thallium	0.26	U		F	
7440-62-2	Vanadium	0.50	U		P-	Lab Blank
7440-66-6	Zinc	2.2	~~B~~	~~E~~ UJ	P-	Lab Blank/Icp Serial Dilution
	Cyanide	0.49	U		CA	

Color Before: WHITE Clarity Before: Texture: FINE

Color After: WHITE Clarity After: Artifacts:

Comments:

003

INORGANIC ANALYSIS DATA SHEET

SAMPLE NUMBER: B07221

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

Lab Code: SKINER Case No.: N2-09-031SAS No.: SDG No.: B07212

Matrix (soil/water): SOIL Lab Sample ID: 09084-08S

Level (low/med): LOW Date Received: 09/04/92

% Solids: 94.9

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

4/5/93 JMO

CAS No.	Analyte	Concentration	C	Q	M	
7429-90-5	Aluminum	8150			P	
7440-36-0	Antimony	3.3	U	~~N~~ J	P-	Matrix Spike
7440-38-2	Arsenic	2.2			F	
7440-39-3	Barium	67.0			P	
7440-41-7	Beryllium	0.43	B		P	
7440-43-9	Cadmium	0.20	U		P-	Lab Blank
7440-70-2	Calcium	7090			P	
7440-47-3	Chromium	21.7			P	
7440-48-4	Cobalt	10.2			P	
7440-50-8	Copper	16.0			P	
7439-89-6	Iron	20700			P	
7439-92-1	Lead	6.2			F	
7439-95-4	Magnesium	6040			P	
7439-96-5	Manganese	325			P	
7439-97-6	Mercury	0.07	B	~~N~~ J	CV+	Matrix Spike/Lab Dup
7440-02-0	Nickel	14.4			P	
7440-09-7	Potassium	1340			P	
7782-49-2	Selenium	0.78	U	~~M~~ J	F-	GFAA Analytical Spike
7440-22-4	Silver	0.88	~~B~~ U		P-	Lab Blank
7440-23-5	Sodium	238	B		P	
7440-28-0	Thallium	0.27	U		F	
7440-62-2	Vanadium	45.7			P	
7440-66-6	Zinc	48.3		~~E~~ J	P-	Icp Serial Dilution
_____	Cyanide	0.51	U		CA	

Color Before: BROWN Clarity Before: Texture: MEIDUM

Color After: BROWN Clarity After: Artifacts: YES

Comments:
STONES

003

INORGANIC ANALYSIS DATA SHEET

SAMPLE NUMBER: B07222

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

Lab Code: SKINER Case No.: N2-09-031SAS No.: SDG No.: B07212

Matrix (soil/water): SOIL Lab Sample ID: 09084-09S

Level (low/med): LOW Date Received: 09/04/92

% Solids: 98.8

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

4/5/93 [illegible]

CAS No.	Analyte	Concentration	C	Q	M	
7429-90-5	Aluminum	5430			P	
7440-36-0	Antimony	3.1	U	~~N~~ J.	P-	Matrix Spike
7440-38-2	Arsenic	0.84	B		F	
7440-39-3	Barium	38.1			P	
7440-41-7	Beryllium	0.12	B		P	
7440-43-9	Cadmium	0.19	U		P-	Lab Blank
7440-70-2	Calcium	2590			P	
7440-47-3	Chromium	10.1			P	
7440-48-4	Cobalt	4.9	B		P	
7440-50-8	Copper	17.0			P	
7439-89-6	Iron	10100			P	
7439-92-1	Lead	2.7			F	
7439-95-4	Magnesium	3480			P	
7439-96-5	Manganese	168			P	
7439-97-6	Mercury	0.05	U	~~N~~ J.	CV-	Matrix Spike / Lab Dup
7440-02-0	Nickel	9.4			P	
7440-09-7	Potassium	907	B		P	
7782-49-2	Selenium	0.74	U		F	
7440-22-4	Silver	0.46	U		P-	Lab Blank
7440-23-5	Sodium	101	~~B~~ U.		P-	Lab Blank
7440-28-0	Thallium	0.25	U		F	
7440-62-2	Vanadium	20.3			P	
7440-66-6	Zinc	27.4		~~E~~ J.	P-	Icp Serial Dilution
	Cyanide	0.47	U		CA	

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: BROWN Clarity After: Artifacts: YES

Comments:
STONES

010

INORGANIC ANALYSIS DATA SHEET

SAMPLE NUMBER: B07224

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

Lab Code: SKINER Case No.: N2-09-031SAS No.: SDG No.: B07212

Matrix (soil/water): SOIL Lab Sample ID: 09084-10S

Level (low/med): LOW Date Received: 09/04/92

% Solids: 99.0

Concentration Units (ug/L or mg/Kg dry weight): MG/KG 4/5/93

CAS No.	Analyte	Concentration	C	Q	M	
7429-90-5	Aluminum	5970			P	
7440-36-0	Antimony	3.3	U	~~N~~J.	P-	Matrix Spike
7440-38-2	Arsenic	0.68	B		F	
7440-39-3	Barium	56.0			P	
7440-41-7	Beryllium	0.08	U		P	
7440-43-9	Cadmium	0.20	U		P-	Lab Blank
7440-70-2	Calcium	2400			P	
7440-47-3	Chromium	21.0			P	
7440-48-4	Cobalt	5.8	B		P	
7440-50-8	Copper	14.8			P	
7439-89-6	Iron	11100			P	
7439-92-1	Lead	2.0			F	
7439-95-4	Magnesium	4350			P	
7439-96-5	Manganese	129			P	
7439-97-6	Mercury	0.05	U	~~N~~ J.	CV-	Matrix Spike/Lab Dup
7440-02-0	Nickel	11.4			P	
7440-09-7	Potassium	1450			P	
7782-49-2	Selenium	0.73	U	~~N~~J.	F-	GFAA Analytical Sp
7440-22-4	Silver	0.60	~~B~~ U.		P-	Lab Blank
7440-23-5	Sodium	122	B		P	
7440-28-0	Thallium	0.25	U		F	
7440-62-2	Vanadium	22.3			P	
7440-66-6	Zinc	29.3		~~E~~J.	P-	Icp Serial Dilution
	Cyanide	0.48	U		CA	

Color Before: BROWN Clarity Before: Texture: FINE

Color After: BROWN Clarity After: Artifacts: YES

Comments:
STONES

011

INORGANIC ANALYSIS DATA SHEET

SAMPLE NUMBER: B07225

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

Lab Code: SKINER Case No.: N2-09-031SAS No.: SDG No.: B07212

Matrix (soil/water): SOIL Lab Sample ID: 09084-11S

Level (low/med): LOW Date Received: 09/~~04/92~~

% Solids: 98.3

4/5/93

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

CAS No.	Analyte	Concentration	C	Q	M	
7429-90-5	Aluminum	4860			P	
7440-36-0	Antimony	3.3	U	~~N~~ J	P-	Matrix Spike
7440-38-2	Arsenic	0.56	U		F	
7440-39-3	Barium	37.5	B		P	
7440-41-7	Beryllium	0.08	U		P	
7440-43-9	Cadmium	0.19	U		P-	Lab Blank
7440-70-2	Calcium	3630			P	
7440-47-3	Chromium	8.5			P	
7440-48-4	Cobalt	4.5	B		P	
7440-50-8	Copper	14.4			P	
7439-89-6	Iron	9160			P	
7439-92-1	Lead	2.4			F	
7439-95-4	Magnesium	3190			P	
7439-96-5	Manganese	158			P	
7439-97-6	Mercury	0.37		~~N~~ J	CV-	Matrix Spike/Lab Dup
7440-02-0	Nickel	8.7			P	
7440-09-7	Potassium	780	B		P	
7782-49-2	Selenium	0.73	U		F	
7440-22-4	Silver	0.48	U		P-	Lab Blank
7440-23-5	Sodium	107	~~B~~ U		P-	Lab Blank
7440-28-0	Thallium	0.25	U		F	
7440-62-2	Vanadium	17.2			P	
7440-66-6	Zinc	24.5		~~E~~ J	P-	Icp Serial Dilution
	Cyanide	0.50	U		CA	

Color Before: BROWN Clarity Before: Texture: FINE

Color After: BROWN Clarity After: Artifacts: YES

Comments:
STONES

INORGANIC ANALYSIS DATA SHEET

SAMPLE NUMBER: B07226

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

Lab Code: SKINER Case No.: N2-09-031SAS No.: SDG No.: B07212

Matrix (soil/water): SOIL Lab Sample ID: 09084-12S

Level (low/med): LOW Date Received: 09/04/92

% Solids: 96.5

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

4/5/93 fm

CAS No.	Analyte	Concentration	C	Q	M	
7429-90-5	Aluminum	4950			P	
7440-36-0	Antimony	3.3	U	~~N~~ J	P	Matrix Spike
7440-38-2	Arsenic	0.57	U		F	
7440-39-3	Barium	31.1	B		F	
7440-41-7	Beryllium	0.08	U		P	
7440-43-9	Cadmium	0.20	U		P	Lab Blank
7440-70-2	Calcium	4870			P	
7440-47-3	Chromium	8.7			P	
7440-48-4	Cobalt	4.3	B		P	
7440-50-8	Copper	14.8			P	
7439-89-6	Iron	8950			P	
7439-92-1	Lead	3.0			F	
7439-95-4	Magnesium	3280			P	
7439-96-5	Manganese	163			P	
7439-97-6	Mercury	0.42		~~N~~ J	CV	Matrix Spike/Lab Dup.
7440-02-0	Nickel	8.8			P	
7440-09-7	Potassium	834	B		P	
7782-49-2	Selenium	0.74	U		F	
7440-22-4	Silver	0.49	U		P	Lab Blank
7440-23-5	Sodium	113	~~B~~ U		P	Lab Blank
7440-28-0	Thallium	0.25	U		F	
7440-62-2	Vanadium	17.2			P	
7440-66-6	Zinc	25.0		~~E~~ J	P	Trip Serial Dilution
	Cyanide	0.51	U		CA	

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: BROWN Clarity After: Artifacts: YES

Comments:
STONES

Page 2 Skinner&Sherman REPORT Work Order # S2-09-092

Received: 09/05/92 Results by Sample

4/8/13 gw

SAMPLE ID B07212 SAMPLE # 01 FRACTIONS: A
Date & Time Collected 08/31/92 10:00:00 Category SOIL

NO3NO2 <2.47 (UJ)
mg N/Kg

SAMPLE ID B07213 SAMPLE # 02 FRACTIONS: A
Date & Time Collected 08/31/92 10:50:00 Category SOIL

NO3NO2 <2.43 (UJ)
mg N/Kg

SAMPLE ID B07214 SAMPLE # 03 FRACTIONS: A
Date & Time Collected 08/31/92 11:27:00 Category SOIL

NO3NO2 <2.46 (UJ)
mg N/Kg

SAMPLE ID B07215 SAMPLE # 04 FRACTIONS: A
Date & Time Collected 08/31/92 11:27:00 Category SOIL

NO3NO2 <2.54 (UJ)
mg N/Kg

SAMPLE ID B07217 SAMPLE # 05 FRACTIONS: A
Date & Time Collected 08/31/92 12:16:00 Category SOIL

NO3NO2 <2.49 (UJ)
mg N/Kg

SAMPLE ID B07218 SAMPLE # 06 FRACTIONS: A
Date & Time Collected 08/31/92 12:45:00 Category SOIL

NO3NO2 <2.56 (UJ)
mg N/Kg

SAMPLE ID B07220 SAMPLE # 07 FRACTIONS: A
Date & Time Collected 09/01/92 09:50:00 Category SOIL

NO3NO2 <2.48 (UJ)
mg N/Kg

TMA
Thermo Analytical Inc.
Skinner & Sherman Laboratories Inc.

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

Received: 09/05/92 Results by Sample

4/8/93 [illegible]

SAMPLE ID B07221 SAMPLE # 08 FRACTIONS: A
Date & Time Collected 09/01/92 10:16:00 Category SOIL

NO3NO2 7.24 (J)
mg N/Kg

SAMPLE ID B07222 SAMPLE # 09 FRACTIONS: A
Date & Time Collected 09/01/92 10:38:00 Category SOIL

NO3NO2 <2.55 (UJ)
mg N/Kg

SAMPLE ID B07224 SAMPLE # 10 FRACTIONS: A
Date & Time Collected 09/01/92 10:38:00 Category SOIL

NO3NO2 <2.45 (UJ)
mg N/Kg

SAMPLE ID B07225 SAMPLE # 11 FRACTIONS: A
Date & Time Collected 09/01/92 11:07:00 Category SOIL

NO3NO2 <2.45 (UJ)
mg N/Kg

SAMPLE ID B07226 SAMPLE # 12 FRACTIONS: A
Date & Time Collected 09/01/92 11:23:00 Category SOIL

NO3NO2 <2.43 (UJ)
mg N/Kg

SAMPLE ID B07226 DUPL SAMPLE # 12 FRACTIONS: B
Date & Time Collected 09/01/92 11:23:00 Category SOIL

NO3NO2 <2.41
mg N/Kg

SAMPLE ID B07226 SPIKE SAMPLE # 12 FRACTIONS: C
Date & Time Collected 09/01/92 11:23:00 Category SOIL

NO3NO2 20.0
mg N/Kg

TMA
Thermo Analytical Inc.
Skinner & Sherman Laboratories 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 satisfi
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1-800-4 LAB TEST FAX (617) 890-3883

TMA Inc. REPORT Work Order # A2-09-012

Received: 09/03/92

Results by Sample

SAMPLE ID B07212 FRACTION 01D TEST CODE WCCLPS NAME Anions in Solids - WM232

Date & Time Collected 08/31/92 Category

4/8/93 JM

ANIONS AND WET CHEMISTRY - SOLIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT	
Chloride	300.0	6	mg/Kg	2.	J
Fluoride	300.0	<1	mg/Kg	1.	UJ
Phosphate	300.0	<4	mg/Kg	4.	R
pH	9045	7.4	pH	.1	R
Sulfate	300.0	<10	mg/Kg	10.	UJ

FORM I

TMA Inc. REPORT Work Order # A2-09-012

Received: 09/03/92

Results by Sample

SAMPLE ID B07213 FRACTION 02D TEST CODE WCCLPS NAME Anions in Solids - VM232

Date & Time Collected 08/31/92 Category

9/8/93 BM

ANIONS AND WET CHEMISTRY - SOLIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT	
Chloride	300.0	<2	mg/Kg	2.	UJ
Fluoride	300.0	2	mg/Kg	1.	J
Phosphate	300.0	<4	mg/Kg	4.	R
pH	9045	9.2	pH	.1	R
Sulfate	300.0	<10	mg/Kg	10.	UJ

FORM I

TRA Inc. REPORT Work Order # A2-09-012

Received: 09/03/92 Results by Sample

SAMPLE ID B07214 FRACTION 03B TEST CODE WCCLPS NAME Anions in Solids - WN232

Date & Time Collected 08/31/92 Category

ANIONS AND WET CHEMISTRY - SOLIDS

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

4/8/93 (8#)

FORM I

9713505.1677

000020

TRA Inc. REPORT Work Order # A2-09-012

Received: 09/03/92

Results by Sample

SAMPLE ID B07215 FRACTION 05B TEST CODE VCCLPS NAME Anions in Solids - VN232

Date & Time Collected 08/31/92 Category

ANIONS AND WET CHEMISTRY - SOLIDS

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

4/8/93

FORM I

TMA Inc. REPORT Work Order # A2-09-012

Received: 09/03/92

Results by Sample

SAMPLE ID B07217 FRACTION 06B TEST CODE WCCLPS NAME Anions in Solids - WM232

Date & Time Collected 08/31/92 Category

4/8/93 (JN)

ANIONS AND WET CHEMISTRY - SOLIDS

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

FORM I

TMA Inc. REPORT Work Order # A2-09-012

Received: 09/03/92

Results by Sample

SAMPLE ID B07218 FRACTION 07B TEST CODE WCCLPS NAME Anions in Solids - WM232

Date & Time Collected 08/31/92 Category

4/3/93 JN

ANIONS AND WET CHEMISTRY - SOLIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT	
Chloride	300.0	<2	mg/Kg	2.	UJ
Fluoride	300.0	<1	mg/Kg	1.	UJ
Phosphate	300.0	<4	mg/Kg	4.	R
pH	9045	9.6	pH	.1	R
Sulfate	300.0	<10	mg/Kg	10.	UJ

FORM I

9713505.1680

000023

TMA Inc. REPORT Work Order # A2-09-012

Received: 09/03/92

Results by Sample

SAMPLE ID B07220 FRACTION 09B TEST CODE WCCLPS NAME Anions in Solids - VM232

Date & Time Collected 09/01/92 Category

4/8/93

ANIONS AND WET CHEMISTRY - SOLIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT	
Chloride	300.0	6	mg/Kg	2.	J
Fluoride	300.0	<1	mg/Kg	1.	UJ
Phosphate	300.0	<4	mg/Kg	4.	R
pH	150.1	8.4	pH	.1	R
Sulfate	300.0	<10	mg/Kg	10.	UJ

FORM I

TMA Inc. REPORT Work Order # A2-09-012

Received: 09/03/92

Results by Sample

SAMPLE ID B07221 FRACTION 10B TEST CODE WCCLPS NAME Anions in Solids - WM232

Date & Time Collected 09/01/92 Category

4/8/93 JN

ANIONS AND WET CHEMISTRY - SOLIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT	
Chloride	300.0	<2	mg/Kg	2.	UJ
Fluoride	300.0	<1	mg/Kg	1.	UJ
Phosphate	300.0	<4	mg/Kg	4.	R
pH	9045	9.0	pH	.1	R
Sulfate	300.0	22	mg/Kg	10.	J

FORM I

TMA Inc. REPORT Work Order # A2-09-012

Received: 09/03/92 Results by Sample

SAMPLE ID B07222 FRACTION 11B TEST CODE VCCLPS NAME Anions in Solids - VN232

Date & Time Collected 09/01/92 Category

4/8/93 (gm)

ANIONS AND WET CHEMISTRY - SOLIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT	
Chloride	300.0	<2	mg/Kg	2.	UJ
Fluoride	300.0	<1	mg/Kg	1.	UJ
Phosphate	300.0	<4	mg/Kg	4.	R
pH	150.1	9.1	pH	.1	R
Sulfate	300.0	<10	mg/Kg	10.	UJ

FORM I

TMA Inc. REPORT Work Order # A2-09-012

Received: 09/03/92

Results by Sample

SAMPLE ID B07224 FRACTION 13B TEST CODE WCCLPS NAME Anions in Solids - VM232

Date & Time Collected 09/01/92 Category

4/8/93

ANIONS AND WET CHEMISTRY - SOLIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT	
Chloride	300.0	<2	mg/Kg	2.	UJ
Fluoride	300.0	<1	mg/Kg	1.	UJ
Phosphate	300.0	<4	mg/Kg	4.	R
pH	150.1	9.1	pH	.1	R
Sulfate	300.0	<10	mg/Kg	10.	UJ

FORM I

TMA Inc. REPORT Work Order # A2-09-012

Received: 09/03/92

Results by Sample

SAMPLE ID B07225 FRACTION 14B TEST CODE VCCLPS NAME Anions in Solids - VN232

Date & Time Collected 09/01/92 Category

ANIONS AND WET CHEMISTRY - SOLIDS

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

4/8/93

FORM I

TMA Inc. REPORT Work Order # A2-09-012

Received: 09/03/92

Results by Sample

SAMPLE ID B07226 FRACTION 15B TEST CODE WCCLPS NAME Anions in Solids - WM232

Date & Time Collected 09/01/92 Category

ANIONS AND WET CHEMISTRY - SOLIDS

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

4/8/93

FORM I

9713505.1686

XO 2046

TMA NORCAL

REPORTING GROUP 7080

N209033-01

B07212

DATA SHEET

SDG	7080	Client	Westinghouse Hanford
Contact	Dinkar Kharker	Contract	MBH-SVV-069262
Lab sample id	N209033-01	Client sample id	B07212
Dept sample id	7080-001	Matrix	SOIL
Received	09/03/92	Collected	08/31/92
% moisture		Chain of custody id	002894

PARAMETER	CAS NO	RESULT pCi/G	2σ ERR (COUNT)	MDA pCi/G	RDL pCi/G	QUALI-FIERS	TEST
Gross Alpha	Alpha	3.6	4.3	5.7	10	~~U~~ R	80A
Gross Beta	Beta	-0.73	3.2	5.4	15	~~U~~ R	80B
Uranium 233/234		0.15	0.071	0.053	0.30	J	U
Uranium 235	15117-96-1	0	0.034	0.065	0.30	U	U
Uranium 238	7440-61-1	0.056	0.042	0.053	0.30	J	U
Plutonium 238	13981-16-3	-0.004	0.017	0.039	0.050	U	PU
Plutonium 239/240		-0.009	0.013	0.033	0.050	~~U~~ R	PU
Americium 241	14596-10-2	0	0.028	0.052	0.050	~~U~~ R	AM
Strontium 90	10098-97-2	0.57	0.90	0.73	1.0	U	Y
Carbon 14	14762-75-5	2.9	3.4	3.8	50	U	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2	U		1.3		U	GAM
Iron 59		U		0.48	0.050	U	GAM
Chromium 51	14392-02-0	U		1.6		U	GAM
Cobalt 60	10198-40-0	U		0.081	0.050	U	GAM
Zinc 65	17982-39-3	U		0.20		U	GAM
Ruthenium 106	13967-48-1	U		0.74		U	GAM
Cesium 134	17967-70-9	U		0.10		U	GAM
Cesium 137	10045-97-3	U		0.075	0.050	U	GAM
Europium 152	14683-23-9	U		0.12	0.10	U	GAM
Europium 154	15585-10-1	U		0.081	0.10	U	GAM
Radium 226	13982-67-7	U		0.17		U	GAM
Thorium 228	14274-82-9	0.22	0.12				GAM
Thorium 232	7440-29-1	U		0.35		U	GAM

RB 31/93

Lab id	TMAN
Protocol	WHC-HEIS
Version	Ver 1.0
Form	DVD-DS
Version	2.20
Report date	12/30/92

9713505.1687

TMA NORCAL
REPORTING GROUP 7080

N209033-02

DATA SHEET

B07213

SDG	7080	Client	Westinghouse Hanford
Contact	Dinkar Kharkar	Contract	MBH-SVV-069262
Lab sample id	N209033-02	Client sample id	B07213
Dept sample id	7080-002	Matrix	SOIL
Received	09/03/92	Collected	08/31/92
% moisture		Chain of custody id	002894

PARAMETER	CAS NO	RESULT pCi/G	2σ ERR (COUNT)	MDA pCi/G	RDL pCi/G	QUALI-FIERS	TEST
Gross Alpha	Alpha	11	7.7	9.4	10	R	80A
Gross Beta	Beta	28	5.5	6.9	15	R	80B
Uranium 233/234		0.40	0.17	0.10	0.30		U
Uranium 235	15117-96-1	0.048	0.065	0.12	0.30	U	U
Uranium 238	7440-61-1	0.33	0.14	0.10	0.30		U
Plutonium 238	13981-16-3	0.054	0.033	0.044	0.050		PU
Plutonium 239/240		1.4	0.16	0.046	0.050	R	PU
Americium 241	14596-10-2	0.24	0.066	0.048	0.050	R	AM
Strontium 90	10098-97-2	1.7	0.57	0.90	1.0		Y
Carbon 14	14762-75-5	2.9	3.3	3.7	50	U	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2	13	0.95				GAM
Iron 59		U		0.39	0.050	U	GAM
Chromium 51	14392-02-0	U		2.4		U	GAM
Cobalt 60	10198-40-0	2.7	0.15		0.050		GAM
Zinc 65	17982-39-3	U		0.49		U	GAM
Ruthenium 106	13967-48-1	U		1.1		U	GAM
Cesium 134	17967-70-9	U		0.13		U	GAM
Cesium 137	10045-97-3	2.1	0.14		0.050		GAM
Europium 152	14683-23-9	21	0.39		0.10		GAM
Europium 154	15585-10-1	2.9	0.34		0.10		GAM
Radium 226	13982-67-7	0.47	0.17				GAM
Thorium 228	14274-82-9	0.67	0.097				GAM
Thorium 232	7440-29-1	0.69	0.40				GAM

RB 3/1/95

Lab id	TMAN
Protocol	WHC-HEIS
Version	Ver 1.0
Form	DVD-DS
Version	2.20
Report date	12/30/92

9713505.1688

TMA NORCAL
REPORTING GROUP 7080

N209033-03

DATA SHEET

B07214

SDG 7080
Contact Dinkar Kharkar
Client Westinghouse Hanford
Contract MBH-SVV-069262

Lab sample id N209033-03
Dept sample id 7080-003
Received 09/03/92
% moisture
Client sample id B07214
Matrix SOIL
Collected 08/31/92
Chain of custody id 002894

PARAMETER	CAS NO	RESULT pCi/G	2σ ERR (COUNT)	MDA pCi/G	RDL pCi/G	QUALIFIERS	TEST
Gross Alpha	Alpha	1.1	4.1	6.3	10	~~U~~ R	80A
Gross Beta	Beta	12	4.8	7.0	15	~~U~~ R	80B
Uranium 233/234		0.37	0.14	0.11	0.30		U
Uranium 235	15117-96-1	0	0.028	0.11	0.30	U	U
Uranium 238	7440-61-1	0.41	0.14	0.089	0.30		U
Plutonium 238	13981-16-3	-0.006	0.017	0.034	0.050	U	PU
Plutonium 239/240		0.008	0.008	0.016	0.050	~~U~~ R	PU
Americium 241	14596-10-2	-0.004	0.053	0.10	0.050	~~U~~ R	AM
Strontium 90	10098-97-2	0.50	0.44	0.74	1.0	U	Y
Carbon 14	14762-75-5	0.99	3.8	4.4	50	U	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2	12	0.91				GAM
Iron 59		U		0.27	0.050	U	GAM
Chromium 51	14392-02-0	U		0.75		U	GAM
Cobalt 60	10198-40-0	U		0.050	0.050	U	GAM
Zinc 65	17982-39-3	U		0.13		U	GAM
Ruthenium 106	13967-48-1	U		0.38		U	GAM
Cesium 134	17967-70-9	U		0.045		U	GAM
Cesium 137	10045-97-3	U		0.039	0.050	U	GAM
Europium 152	14683-23-9	0.071	0.063		0.10	J	GAM
Europium 154	15585-10-1	U		0.15	0.10	U	GAM
Radium 226	13982-67-7	0.41	0.077				GAM
Thorium 228	14274-82-9	0.75	0.080				GAM
Thorium 232	7440-29-1	0.54	0.20				GAM

RB 3/1/93

Lab id TMAN
Protocol WHC-HEIS
Version Ver 1.0
Form DVD-DS
Version 2.20
Report date 12/30/92

9713505.1689

TMA NORCAL

REPORTING GROUP 7080

DATA SHEET

N209033-04

B07215

SDG	7080	Client	Westinghouse Hanford
Contact	Dinkar Kharkar	Contract	MBH-SVV-069262
Lab sample id	N209033-04	Client sample id	B07215
Dept sample id	7080-004	Matrix	SOIL
Received	09/03/92	Collected	08/31/92
% moisture		Chain of custody id	002896

PARAMETER	CAS NO	RESULT pCi/G	2σ ERR (COUNT)	MDA pCi/G	RDL pCi/G	QUALI-FIERS	TEST
Gross Alpha	Alpha	3.2	4.8	6.8	10	~~U~~ R	80A
Gross Beta	Beta	20	4.4	5.4	15	R	80B
Uranium 233/234		0.21	0.12	0.13	0.30	J	U
Uranium 235	15117-96-1	0.028	0.055	0.11	0.30	U	U
Uranium 238	7440-61-1	0.40	0.14	0.087	0.30		U
Plutonium 238	13981-16-3	0.017	0.016	0.025	0.050	U	PU
Plutonium 239/240		0.012	0.009	0.012	0.050	~~J~~ R	PU
Americium 241	14596-10-2	0.008	0.017	0.032	0.050	~~U~~ R	AM
Strontium 90	10098-97-2	0.96	0.44	0.98	1.0	U	Y
Carbon 14	14762-75-5	1.5	4.4	5.1	50	U	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2	12	0.83				GAM
Iron 59		U		0.23	0.050	U	GAM
Chromium 51	14392-02-0	U		0.83		U	GAM
Cobalt 60	10198-40-0	U		0.044	0.050	U	GAM
Zinc 65	17982-39-3	U		0.12		U	GAM
Ruthenium 106	13967-48-1	U		0.34		U	GAM
Cesium 134	17967-70-9	U		0.040		U	GAM
Cesium 137	10045-97-3	U		0.044	0.050	U	GAM
Europium 152	14683-23-9	U		0.079	0.10	U	GAM
Europium 154	15585-10-1	U		0.051	0.10	U	GAM
Radium 226	13982-67-7	0.40	0.073				GAM
Thorium 228	14274-82-9	0.85	0.058				GAM
Thorium 232	7440-29-1	0.70	0.21				GAM

RB 3/1/93

Lab id	TMAN
Protocol	WHC-HEIS
Version	Ver 1.0
Form	DVD-DS
Version	2.20
Report date	12/30/92

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TMA NORCAL
REPORTING GROUP 7080

N209033-05

DATA SHEET

B07217

SDG	7080	Client	Westinghouse Hanford
Contact	Dinkar Kharkar	Contract	MBH-SVV-069262
Lab sample id	N209033-05	Client sample id	B07217
Dept sample id	7080-005	Matrix	SOIL
Received	09/03/92	Collected	08/31/92
% moisture		Chain of custody id	002896

PARAMETER	CAS NO	RESULT pCi/G	2σ ERR (COUNT)	MDA pCi/G	RDL pCi/G	QUALI-FIERS	TEST
Gross Alpha	Alpha	3.0	3.7	5.2	10	~~U~~ R	80A
Gross Beta	Beta	15	4.2	5.4	15	R	80B
Uranium 233/234		0.41	0.17	0.13	0.30		U
Uranium 235	15117-96-1	0.033	0.033	0.13	0.30	U	U
Uranium 238	7440-61-1	0.51	0.17	0.10	0.30		U
Plutonium 238	13981-16-3	-0.018	0.022	0.044	0.050	U	PU
Plutonium 239/240		0.013	0.015	0.020	0.050	~~U~~ R	PU
Americium 241	14596-10-2	-0.006	0.013	0.030	0.050	~~U~~ R	AM
Strontium 90	10098-97-2	0.81	0.57	0.77	1.0	J	Y
Carbon 14	14762-75-5	0.77	4.2	4.8	50	U	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2	13	1.1				GAM
Iron 59		U		0.28	0.050	U	GAM
Chromium 51	14392-02-0	U		1.0		U	GAM
Cobalt 60	10198-40-0	U		0.047	0.050	U	GAM
Zinc 65	17982-39-3	U		0.13		U	GAM
Ruthenium 106	13967-48-1	U		0.46		U	GAM
Cesium 134	17967-70-9	U		0.059		U	GAM
Cesium 137	10045-97-3	U		0.045	0.050	U	GAM
Europium 152	14683-23-9	U		0.11	0.10	U	GAM
Europium 154	15585-10-1	U		0.064	0.10	U	GAM
Radium 226	13982-67-7	0.42	0.11				GAM
Thorium 228	14274-82-9	0.80	0.067				GAM
Thorium 232	7440-29-1	0.69	0.24				GAM

RB 3/1/93

Lab id	TMAN
Protocol	WHC-HEIS
Version	Ver 1.0
Form	DVD-DS
Version	2.20
Report date	12/30/92

9713505.1691

TMA NORCAL

REPORTING GROUP 7080

N209033-06

DATA SHEET

B07218

SDG	7080	Client	Westinghouse Hanford
Contact	Dinkar Kharkar	Contract	MBH-SVV-069262
Lab sample id	N209033-06	Client sample id	B07218
Dept sample id	7080-006	Matrix	SOIL
Received	09/03/92	Collected	08/31/92
% moisture		Chain of custody id	002896

PARAMETER	CAS NO	RESULT pCi/G	2σ ERR (COUNT)	MDA pCi/G	RDL pCi/G	QUALI-FIERS	TEST
Gross Alpha	Alpha	4.1	4.1	5.2	10	~~U~~ R	80A
Gross Beta	Beta	17	4.3	5.4	15	R	80B
Uranium 233/234		0.46	0.18	0.11	0.30		U
Uranium 235	15117-96-1	0.069	0.069	0.13	0.30	U	U
Uranium 238	7440-61-1	0.41	0.15	0.11	0.30		U
Plutonium 238	13981-16-3	0.009	0.014	0.026	0.050	U	PU
Plutonium 239/240		0.003	0.003	0.013	0.050	~~U~~ R	PU
Americium 241	14596-10-2	-0.004	0.015	0.041	0.050	~~U~~ R	AM
Strontium 90	10098-97-2	0.37	0.37	0.83	1.0	U	Y
Carbon 14	14762-75-5	-3.2	4.2	5.0	50	U	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2	13	1.0				GAM
Iron 59		U		0.28	0.050	U	GAM
Chromium 51	14392-02-0	U		0.85		U	GAM
Cobalt 60	10198-40-0	U		0.048	0.050	U	GAM
Zinc 65	17982-39-3	U		0.12		U	GAM
Ruthenium 106	13967-48-1	U		0.41		U	GAM
Cesium 134	17967-70-9	U		0.055		U	GAM
Cesium 137	10045-97-3	U		0.046	0.050	U	GAM
Europium 152	14683-23-9	U		0.088	0.10	U	GAM
Europium 154	15585-10-1	U		0.058	0.10	U	GAM
Radium 226	13982-67-7	0.38	0.076				GAM
Thorium 228	14274-82-9	0.66	0.057				GAM
Thorium 232	7440-29-1	0.77	0.19				GAM

RB 3/1/93

Lab id	TMAN
Protocol	WHC-HEIS
Version	Ver 1.0
Form	DVD-DS
Version	2.20
Report date	12/30/92

9713505.1692

TMA NORCAL

REPORTING GROUP 7080

N209033-07

B07220

DATA SHEET

SDG 7080 | Client Westinghouse Hanford
Contact Dinkar Kharkar | Contract MBH-SVV-069262

Lab sample id N209033-07 | Client sample id B07220
Dept sample id 7080-007 | Matrix SOIL
Received 09/03/92 | Collected 09/01/92
% moisture | Chain of custody id 002897

PARAMETER	CAS NO	RESULT pCi/G	2σ ERR (COUNT)	MDA pCi/G	RDL pCi/G	QUALIFIERS	TEST
Gross Alpha	Alpha	0.40	4.8	7.8	10	~~U~~ R	80A
Gross Beta	Beta	-0.12	4.0	6.6	15	~~U~~ R	80B
Uranium 233/234		0.073	0.088	0.11	0.30	U	U
Uranium 235	15117-96-1	0	0.035	0.13	0.30	U	U
Uranium 238	7440-61-1	0.13	0.089	0.11	0.30	J	U
Plutonium 238	13981-16-3	0	0.018	0.035	0.050	U	PU
Plutonium 239/240		0.007	0.009	0.017	0.050	~~U~~ R	PU
Americium 241	14596-10-2	-0.007	0.013	0.032	0.050	~~U~~ R	AM
Strontium 90	10098-97-2	0.42	0.33	0.74	1.0	U	Y
Carbon 14	14762-75-5	0.048	4.0	4.7	50	U	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2	0.39	0.23				GAM
Iron 59		U		0.097	0.050	U	GAM
Chromium 51	14392-02-0	U		0.51		U	GAM
Cobalt 60	10198-40-0	U		0.022	0.050	U	GAM
Zinc 65	17982-39-3	U		0.048		U	GAM
Ruthenium 106	13967-48-1	U		0.18		U	GAM
Cesium 134	17967-70-9	U		0.024		U	GAM
Cesium 137	10045-97-3	U		0.017	0.050	U	GAM
Europium 152	14683-23-9	U		0.047	0.10	U	GAM
Europium 154	15585-10-1	U		0.030	0.10	U	GAM
Radium 226	13982-67-7	0.14	0.047				GAM
Thorium 228	14274-82-9	0.19	0.048				GAM
Thorium 232	7440-29-1	0.12	0.079				GAM

RB 3/1/93

Lab id TMAN
Protocol WHC-HEIS
Version Ver 1.0
Form DVD-DS
Version 2.20
Report date 12/30/92

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TMA NORCAL

REPORTING GROUP 7080

DATA SHEET

N209033-08

B07221

SDG 7080
Contact Dinkar Kharkar
Client Westinghouse Hanford
Contract MBH-SVV-069262

Lab sample id N209033-08
Dept sample id 7080-008
Received 09/03/92
% moisture
Client sample id B07221
Matrix SOIL
Collected 09/01/92
Chain of custody id 002897

PARAMETER	CAS NO	RESULT pCi/G	2σ ERR (COUNT)	MDA pCi/G	RDL pCi/G	QUALIFIERS	TEST
Gross Alpha	Alpha	12	6.5	7.1	10	R	80A
Gross Beta	Beta	16	4.9	6.7	15	R	80B
Uranium 233/234		0.66	0.21	0.093	0.30		U
Uranium 235	15117-96-1	0.044	0.059	0.11	0.30	U	U
Uranium 238	7440-61-1	0.60	0.18	0.093	0.30		U
Plutonium 238	13981-16-3	0.054	0.068	0.10	0.050	U	PU
Plutonium 239/240		0.027	0.027	0.051	0.050	UR	PU
Americium 241	14596-10-2	-0.003	0.015	0.028	0.050	UR	AM
Strontium 90	10098-97-2	0.59	0.32	0.75	1.0	U	Y
Carbon 14	14762-75-5	3.4	4.3	4.8	50	U	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2	15	1.1				GAM
Iron 59		U		0.34	0.050	U	GAM
Chromium 51	14392-02-0	U		1.2		U	GAM
Cobalt 60	10198-40-0	0.47	0.078		0.050		GAM
Zinc 65	17982-39-3	U		0.19		U	GAM
Ruthenium 106	13967-48-1	U		0.57		U	GAM
Cesium 134	17967-70-9	U		0.075		U	GAM
Cesium 137	10045-97-3	1.3	0.088		0.050		GAM
Europium 152	14683-23-9	1.2	0.12		0.10		GAM
Europium 154	15585-10-1	U		0.32	0.10	U	GAM
Radium 226	13982-67-7	0.77	0.11				GAM
Thorium 228	14274-82-9	1.2	0.074				GAM
Thorium 232	7440-29-1	1.1	0.31				GAM

RB 3/1/93

Lab id TMAN
Protocol WHC-HEIS
Version Ver 1.0
Form DVD-DS
Version 2.20
Report date 12/30/92

9713505.1694

TMA NORCAL

REPORTING GROUP 7080

N209033-09

DATA SHEET

B07222

SDG	7080	Client	Westinghouse Hanford
Contact	Dinkar Kharkar	Contract	MBH-SVV-069262
Lab sample id	N209033-09	Client sample id	B07222
Dept sample id	7080-009	Matrix	SOIL
Received	09/03/92	Collected	09/01/92
% moisture		Chain of custody id	002897

PARAMETER	CAS NO	RESULT pCi/G	2σ ERR (COUNT)	MDA pCi/G	RDL pCi/G	QUALI-FIERS	TEST
Gross Alpha	Alpha	5.2	4.4	5.7	10	UR	80A
Gross Beta	Beta	18	4.4	5.6	15	R	80B
Uranium 233/234		0.45	0.18	0.13	0.30		U
Uranium 235	15117-96-1	0.084	0.085	0.16	0.30	U	U
Uranium 238	7440-61-1	0.42	0.18	0.13	0.30		U
Plutonium 238	13981-16-3	0.002	0.023	0.042	0.050	U	PU
Plutonium 239/240		-0.002	0.005	0.017	0.050	UR	PU
Americium 241	14596-10-2	-0.002	0.023	0.042	0.050	UR	AM
Strontium 90	10098-97-2	0.30	0.31	0.78	1.0	U	Y
Carbon 14	14762-75-5	1.5	4.0	4.6	50	U	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2	13	0.88				GAM
Iron 59		U		0.22	0.050	U	GAM
Chromium 51	14392-02-0	U		0.95		U	GAM
Cobalt 60	10198-40-0	U		0.042	0.050	U	GAM
Zinc 65	17982-39-3	U		0.12		U	GAM
Ruthenium 106	13967-48-1	U		0.35		U	GAM
Cesium 134	17967-70-9	U		0.047		U	GAM
Cesium 137	10045-97-3	U		0.098	0.050	U	GAM
Europium 152	14683-23-9	U		0.092	0.10	U	GAM
Europium 154	15585-10-1	U		0.060	0.10	U	GAM
Radium 226	13982-67-7	0.41	0.072				GAM
Thorium 228	14274-82-9	0.92	0.089				GAM
Thorium 232	7440-29-1	0.61	0.17				GAM

RH 3/1/93

Lab id	TMAN
Protocol	WHC-HEIS
Version	Ver 1.0
Form	DVD-DS
Version	2.20
Report date	12/30/92

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TMA NORCAL
REPORTING GROUP 7080

N209033-10

DATA SHEET

B07224

SDG	7080	Client	Westinghouse Hanford
Contact	Dinkar Kharkar	Contract	MBH-SVV-069262
Lab sample id	N209033-10	Client sample id	B07224
Dept sample id	7080-010	Matrix	SOIL
Received	09/03/92	Collected	09/01/92
% moisture		Chain of custody id	002898

PARAMETER	CAS NO	RESULT pCi/G	2σ ERR (COUNT)	MDA pCi/G	RDL pCi/G	QUALI-FIERS	TEST
Gross Alpha	Alpha	3.2	4.2	5.7	10	~~U~~R	80A
Gross Beta	Beta	14	4.5	6.2	15	~~U~~R	80B
Uranium 233/234		0.32	0.15	0.14	0.30		U
Uranium 235	15117-96-1	0.065	0.087	0.16	0.30	U	U
Uranium 238	7440-61-1	0.39	0.18	0.14	0.30		U
Plutonium 238	13981-16-3	0.031	0.029	0.047	0.050	U	PU
Plutonium 239/240		0.024	0.024	0.036	0.050	~~U~~R	PU
Americium 241	14596-10-2	0.004	0.017	0.033	0.050	~~U~~R	AM
Strontium 90	10098-97-2	0.54	0.81	0.93	1.0	U	Y
Carbon 14	14762-75-5	1.0	3.9	4.4	50	U	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2	13	0.93				GAM
Iron 59		U		0.21	0.050	U	GAM
Chromium 51	14392-02-0	U		0.75		U	GAM
Cobalt 60	10198-40-0	U		0.045	0.050	U	GAM
Zinc 65	17982-39-3	U		0.12		U	GAM
Ruthenium 106	13967-48-1	U		0.37		U	GAM
Cesium 134	17967-70-9	U		0.049		U	GAM
Cesium 137	10045-97-3	U		0.061	0.050	U	GAM
Europium 152	14683-23-9	U		0.083	0.10	U	GAM
Europium 154	15585-10-1	U		0.055	0.10	U	GAM
Radium 226	13982-67-7	0.53	0.078				GAM
Thorium 228	14274-82-9	0.65	0.053				GAM
Thorium 232	7440-29-1	0.73	0.20				GAM

RB, 3/1/93

Lab id	TMAN
Protocol	WHC-HEIS
Version	Ver 1.0
Form	DVD-DS
Version	2.20
Report date	12/30/92

9713505.1696

TMA NORCAL

REPORTING GROUP 7080

N209033-11

B07225

DATA SHEET

SDG 7080 | Client Westinghouse Hanford
Contact Dinkar Kharkar | Contract MBH-SVV-069262

Lab sample id N209033-11 | Client sample id B07225
Dept sample id 7080-011 | Matrix SOIL
Received 09/03/92 | Collected 09/01/92
% moisture | Chain of custody id 002898

PARAMETER	CAS NO	RESULT pCi/G	2σ ERR (COUNT)	MDA pCi/G	RDL pCi/G	QUALIFIERS	TEST
Gross Alpha	Alpha	0.11	3.9	6.3	10	~~U~~ R	80A
Gross Beta	Beta	12	4.2	5.8	15	~~U~~ R	80B
Uranium 233/234		0.47	0.15	0.094	0.30		U
Uranium 235	15117-96-1	0.059	0.060	0.11	0.30	U	U
Uranium 238	7440-61-1	0.42	0.15	0.094	0.30		U
Plutonium 238	13981-16-3	0	0.024	0.048	0.050	U	PU
Plutonium 239/240		0.003	0.018	0.033	0.050	~~U~~ R	PU
Americium 241	14596-10-2	0	0.018	0.034	0.050	~~U~~ R	AM
Strontium 90	10098-97-2	0.57	0.42	0.82	1.0	U	Y
Carbon 14	14762-75-5	-0.59	3.4	3.9	50	U	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2	13	0.92				GAM
Iron 59		U		0.26	0.050	U	GAM
Chromium 51	14392-02-0	U		0.94		U	GAM
Cobalt 60	10198-40-0	U		0.044	0.050	U	GAM
Zinc 65	17982-39-3	U		0.12		U	GAM
Ruthenium 106	13967-48-1	U		0.34		U	GAM
Cesium 134	17967-70-9	U		0.052		U	GAM
Cesium 137	10045-97-3	U		0.045	0.050	U	GAM
Europium 152	14683-23-9	U		0.091	0.10	U	GAM
Europium 154	15585-10-1	U		0.060	0.10	U	GAM
Radium 226	13982-67-7	0.43	0.090				GAM
Thorium 228	14274-82-9	0.83	0.092				GAM
Thorium 232	7440-29-1	0.68	0.20				GAM

Rjb 8/1/93

Lab id TMAN
Protocol WHC-HEIS
Version Ver 1.0
Form DVD-DS
Version 2.20
Report date 12/30/92

9713505.1697

TMA NORCAL
REPORTING GROUP 7080

N209033-12

DATA SHEET

B07226

SDG	7080	Client	Westinghouse Hanford
Contact	Dinkar Kharkar	Contract	MBH-SVV-069262
Lab sample id	N209033-12	Client sample id	B07226
Dept sample id	7080-012	Matrix	SOIL
Received	09/03/92	Collected	09/01/92
% moisture		Chain of custody id	002898

PARAMETER	CAS NO	RESULT pCi/G	2σ ERR (COUNT)	MDA pCi/G	RDL pCi/G	QUALI-FIERS	TEST
Gross Alpha	Alpha	8.3	6.1	7.5	10	~~U~~	80A
Gross Beta	Beta	13	4.4	6.0	15	~~U~~	80B
Uranium 233/234		0.41	0.15	0.093	0.30		U
Uranium 235	15117-96-1	0.015	0.029	0.11	0.30	U	U
Uranium 238	7440-61-1	0.35	0.13	0.093	0.30		U
Plutonium 238	13981-16-3	-0.005	0.009	0.029	0.050	U	PU
Plutonium 239/240		0.005	0.005	0.018	0.050	~~U~~	PU
Americium 241	14596-10-2	0.018	0.028	0.044	0.050	~~U~~	AM
Strontium 90	10098-97-2	0.19	0.68	0.91	1.0	U	Y
Carbon 14	14762-75-5	1.1	4.1	4.7	50	U	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2	14	0.82				GAM
Iron 59		U		0.25	0.050	U	GAM
Chromium 51	14392-02-0	U		0.91		U	GAM
Cobalt 60	10198-40-0	U		0.038	0.050	U	GAM
Zinc 65	17982-39-3	U		0.11		U	GAM
Ruthenium 106	13967-48-1	U		0.33		U	GAM
Cesium 134	17967-70-9	U		0.044		U	GAM
Cesium 137	10045-97-3	U		0.038	0.050	U	GAM
Europium 152	14683-23-9	U		0.080	0.10	U	GAM
Europium 154	15585-10-1	U		0.053	0.10	U	GAM
Radium 226	13982-67-7	0.43	0.073				GAM
Thorium 228	14274-82-9	0.81	0.078				GAM
Thorium 232	7440-29-1	0.70	0.14				GAM

MA 3/1/93

Lab id	TMAN
Protocol	WHC-HEIS
Version	Ver 1.0
Form	DVD-DS
Version	2.20
Report date	12/30/92

9713505.1698

TMA NORCAL

REPORTING GROUP 7080

N209033-13

B07231

DATA SHEET

SDG 7080 | Client Westinghouse Hanford
Contact Dinker Kharkar | Contract MBH-SVV-069262

Lab sample id N209033-13 | Client sample id B07231
Dept sample id 7080-013 | Matrix SOIL
Received 09/14/92 | Collected 09/10/92
% moisture | Chain of custody id 002905

PARAMETER	CAS NO	RESULT pCi/G	2σ ERR (COUNT)	MDA pCi/G	RDL pCi/G	QUALIFIERS	TEST
Gross Alpha	Alpha	1.6	5.3	8.2	10	~~U~~ R	80A
Gross Beta	Beta	-0.59	3.4	5.7	15	~~U~~ R	80B
Uranium 233/234		0.12	0.066	0.062	0.30	J	U
Uranium 235	15117-96-1	0.016	0.031	0.060	0.30	U	U
Uranium 238	7440-61-1	0.065	0.052	0.050	0.30	J	U
Plutonium 238	13981-16-3	0.006	0.015	0.030	0.050	U	PU
Plutonium 239/240		0.002	0.007	0.014	0.050	~~U~~ R	PU
Americium 241	14596-10-2	0.002	0.015	0.024	0.050	~~U~~ R	AM
Strontium 90	10098-97-2	0.46	0.35	0.81	1.0	U	Y
Carbon 14	14762-75-5	-0.32	3.8	4.5	50	U	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2	0.32	0.20				GAM
Iron 59		U		0.11	0.050	U	GAM
Chromium 51	14392-02-0	U		0.32		U	GAM
Cobalt 60	10198-40-0	U		0.024	0.050	U	GAM
Zinc 65	17982-39-3	U		0.047		U	GAM
Ruthenium 106	13967-48-1	U		0.18		U	GAM
Cesium 134	17967-70-9	U		0.025		U	GAM
Cesium 137	10045-97-3	U		0.020	0.050	U	GAM
Europium 152	14683-23-9	U		0.042	0.10	U	GAM
Europium 154	15585-10-1	U		0.030	0.10	U	GAM
Radium 226	13982-67-7	0.10	0.041				GAM
Thorium 228	14274-82-9	0.10	0.031				GAM
Thorium 232	7440-29-1	0.099	0.066				GAM

KB 3/1/93

Lab id TMAN
Protocol WHC-HEIS
Version Ver 1.0
Form DVD-DS
Version 2.20
Report date 12/30/92

9713505.1699

TMA NORCAL

REPORTING GROUP 7080

N209033-14

B07233

DATA SHEET

SDG 7080
Contact Dinkar Kharkar
Client Westinghouse Hanford
Contract MBH-SVV-069262

Lab sample id N209033-14
Dept sample id 7080-014
Received 09/14/92
% moisture
Client sample id B07233
Matrix SOIL
Collected 09/10/92
Chain of custody id 002905

PARAMETER	CAS NO	RESULT pCi/G	2σ ERR (COUNT)	MDA pCi/G	RDL pCi/G	QUALIFIERS	TEST
Gross Alpha	Alpha	5.3	5.1	6.1	10	~~U~~ R	80A
Gross Beta	Beta	28	5.1	6.1	15	R	80B
Uranium 233/234		0.60	0.18	0.093	0.30		U
Uranium 235	15117-96-1	0.015	0.030	0.11	0.30	U	U
Uranium 238	7440-61-1	0.48	0.15	0.093	0.30		U
Plutonium 238	13981-16-3	0.008	0.010	0.016	0.050	U	PU
Plutonium 239/240		0.060	0.020	0.013	0.050	R	PU
Americium 241	14596-10-2	0.026	0.028	0.039	0.050	~~U~~ R	AM
Strontium 90	10098-97-2	1.1	1.2	1.1	1.0		Y
Carbon 14	14762-75-5	2.7	4.7	5.3	50	U	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2	11	0.94				GAM
Iron 59		U		0.28	0.050	U	GAM
Chromium 51	14392-02-0	U		2.1		U	GAM
Cobalt 60	10198-40-0	1.1	0.090		0.050		GAM
Zinc 65	17982-39-3	U		0.35		U	GAM
Ruthenium 106	13967-48-1	U		0.91		U	GAM
Cesium 134	17967-70-9	U		0.095		U	GAM
Cesium 137	10045-97-3	11	0.22		0.050		GAM
Europium 152	14683-23-9	8.8	0.33		0.10		GAM
Europium 154	15585-10-1	1.2	0.26		0.10		GAM
Radium 226	13982-67-7	0.60	0.13				GAM
Thorium 228	14274-82-9	0.86	0.14				GAM
Thorium 232	7440-29-1	0.56	0.34				GAM

RB
3/1/93

Lab id TMAN
Protocol WHC-HEIS
Version Ver 1.0
Form DVD-DS
Version 2.20
Report date 12/30/92

9713505.1700

N209033-15

TMA NORCAL
REPORTING GROUP 7080

DATA SHEET

B07234

SDG	7080	Client	Westinghouse Hanford
Contact	Dinkar Kharkar	Contract	MBH-SVV-069262
Lab sample id	N209033-15	Client sample id	B07234
Dept sample id	7080-015	Matrix	SOIL
Received	09/14/92	Collected	09/10/92
% moisture		Chain of custody id	002905

PARAMETER	CAS NO	RESULT pCi/G	2σ ERR (COUNT)	MDA pCi/G	RDL pCi/G	QUALI-FIERS	TEST
Gross Alpha	Alpha	2.2	4.1	5.8	10	~~U~~ R	80A
Gross Beta	Beta	22	4.8	6.1	15	R	80B
Uranium 233/234		17	2.2	0.27	0.30		U
Uranium 235	15117-96-1	1.7	0.39	0.13	0.30		U
Uranium 238	7440-61-1	17	2.1	0.25	0.30		U
Plutonium 238	13981-16-3	0.007	0.014	0.034	0.050	U	PU
Plutonium 239/240		0.057	0.029	0.027	0.050	R	PU
Americium 241	14596-10-2	0.034	0.039	0.065	0.050	~~U~~ R	AM
Strontium 90	10098-97-2	0.84	0.92	0.84	1.0	J	Y
Carbon 14	14762-75-5	-1.2	4.4	5.1	50	U	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2	12	0.88				GAM
Iron 59		U		0.25	0.050	U	GAM
Chromium 51	14392-02-0	U		1.8		U	GAM
Cobalt 60	10198-40-0	0.89	0.093		0.050		GAM
Zinc 65	17982-39-3	U		0.35		U	GAM
Ruthenium 106	13967-48-1	U		0.84		U	GAM
Cesium 134	17967-70-9	U		0.095		U	GAM
Cesium 137	10045-97-3	12	0.21		0.050		GAM
Europium 152	14683-23-9	7.8	0.27		0.10		GAM
Europium 154	15585-10-1	1.1	0.19		0.10		GAM
Radium 226	13982-67-7	0.50	0.16				GAM
Thorium 228	14274-82-9	0.81	0.090				GAM
Thorium 232	7440-29-1	0.56	0.30				GAM

RB 3/1/93

Lab id	TMAN
Protocol	WHC-HEIS
Version	Ver 1.0
Form	DVD-DS
Version	2.20
Report date	12/30/92

9713505.1701

TMA NORCAL
REPORTING GROUP 7080

N209033-16

DATA SHEET

B07235

SDG	7080	Client	Westinghouse Hanford
Contact	Dinkar Kharkar	Contract	MBH-SVV-069262
Lab sample id	N209033-16	Client sample id	B07235
Dept sample id	7080-016	Matrix	SOIL
Received	09/14/92	Collected	09/10/92
% moisture		Chain of custody id	002904

PARAMETER	CAS NO	RESULT pCi/G	2σ ERR (COUNT)	MDA pCi/G	RDL pCi/G	QUALIFIERS	TEST
Gross Alpha	Alpha	5.5	4.7	6.0	10	~~U~~ R	80A
Gross Beta	Beta	13	4.2	5.7	15	~~U~~ R	80B
Uranium 233/234		0.70	0.35	0.25	0.30		U
Uranium 235	15117-96-1	0.040	0.081	0.31	0.30	U	U
Uranium 238	7440-61-1	0.53	0.28	0.25	0.30		U
Plutonium 238	13981-16-3	-0.004	0.011	0.024	0.050	U	PU
Plutonium 239/240		-0.005	0.007	0.020	0.050	~~U~~ R	PU
Americium 241	14596-10-2	-0.004	0.017	0.046	0.050	~~U~~ R	AM
Strontium 90	10098-97-2	0.35	0.41	1.1	1.0	U	Y
Carbon 14	14762-75-5	0.97	3.7	4.3	50	U	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2	14	0.97				GAM
Iron 59		U		0.22	0.050	U	GAM
Chromium 51	14392-02-0	U		0.89		U	GAM
Cobalt 60	10198-40-0	U		0.047	0.050	U	GAM
Zinc 65	17982-39-3	U		0.14		U	GAM
Ruthenium 106	13967-48-1	U		0.40		U	GAM
Cesium 134	17967-70-9	U		0.055		U	GAM
Cesium 137	10045-97-3	U		0.048	0.050	U	GAM
Europium 152	14683-23-9	U		0.11	0.10	U	GAM
Europium 154	15585-10-1	U		0.070	0.10	U	GAM
Radium 226	13982-67-7	0.63	0.085				GAM
Thorium 228	14274-82-9	1.1	0.074				GAM
Thorium 232	7440-29-1	0.96	0.20				GAM

BB 3/1/93

Lab id	TMAN
Protocol	WHC-HEIS
Version	Ver 1.0
Form	DVD-DS
Version	2.20
Report date	12/30/92

9713505.1702

TMA NORCAL

REPORTING GROUP 7080

N209033-17

DATA SHEET

B07236

SDG	7080	Client	Westinghouse Hanford
Contact	Dinkar Kharkar	Contract	MBH-SVV-069262
Lab sample id	N209033-17	Client sample id	B07236
Dept sample id	7080-017	Matrix	SOIL
Received	09/14/92	Collected	09/10/92
% moisture		Chain of custody id	002904

PARAMETER	CAS NO	RESULT pCi/G	2σ ERR (COUNT)	MDA pCi/G	RDL pCi/G	QUALIFIERS	TEST
Gross Alpha	Alpha	9.2	5.8	6.9	10	~~U~~ R	80A
Gross Beta	Beta	18	5.1	6.9	15	R	80B
Uranium 233/234		0.74	0.24	0.14	0.30		U
Uranium 235	15117-96-1	0.068	0.091	0.17	0.30	U	U
Uranium 238	7440-61-1	0.91	0.29	0.14	0.30		U
Plutonium 238	13981-16-3	-0.003	0.007	0.019	0.050	U	PU
Plutonium 239/240		0	0.003	0.013	0.050	~~U~~ R	PU
Americium 241	14596-10-2	0.097	0.39	0.74	0.050	~~U~~ R	AM
Strontium 90	10098-97-2	0.11	0.69	0.88	1.0	U	Y
Carbon 14	14762-75-5	-3.1	4.1	4.8	50	U	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2	15	1.1				GAM
Iron 59		U		0.27	0.050	U	GAM
Chromium 51	14392-02-0	U		0.90		U	GAM
Cobalt 60	10198-40-0	U		0.052	0.050	U	GAM
Zinc 65	17982-39-3	U		0.14		U	GAM
Ruthenium 106	13967-48-1	U		0.44		U	GAM
Cesium 134	17967-70-9	U		0.063		U	GAM
Cesium 137	10045-97-3	U		0.048	0.050	U	GAM
Europium 152	14683-23-9	U		0.11	0.10	U	GAM
Europium 154	15585-10-1	U		0.070	0.10	U	GAM
Radium 226	13982-67-7	0.86	0.10				GAM
Thorium 228	14274-82-9	1.2	0.072				GAM
Thorium 232	7440-29-1	1.1	0.25				GAM

RB 3/1/93

Lab id	TMAN
Protocol	WHC-HEIS
Version	Ver 1.0
Form	DVD-DS
Version	2.20
Report date	12/30/92

9713505.1703

TMA NORCAL
REPORTING GROUP 7080

N209033-18

DATA SHEET

B07237

SDG 7080
Contact Dinkar Kharkar
Client Westinghouse Hanford
Contract MBH-SVV-069262

Lab sample id N209033-18
Dept sample id 7080-018
Received 09/14/92
% moisture
Client sample id B07237
Matrix SOIL
Collected 09/10/92
Chain of custody id 002904

PARAMETER	CAS NO	RESULT pCi/G	2σ ERR (COUNT)	MDA pCi/G	RDL pCi/G	QUALI-FIERS	TEST
Gross Alpha	Alpha	7.7	4.7	5.1	10	~~U~~ R	80A
Gross Beta	Beta	21	4.5	5.5	15	R	80B
Uranium 233/234		1.0	0.27	0.13	0.30		U
Uranium 235	15117-96-1	0.049	0.065	0.12	0.30	U	U
Uranium 238	7440-61-1	0.73	0.21	0.10	0.30		U
Plutonium 238	13981-16-3	-0.003	0.017	0.035	0.050	U	PU
Plutonium 239/240		-0.003	0.006	0.022	0.050	~~U~~ R	PU
Americium 241	14596-10-2	0	0.040	0.073	0.050	~~U~~ R	AM
Strontium 90	10098-97-2	0.15	0.37	0.98	1.0	U	Y
Carbon 14	14762-75-5	0.81	4.4	5.1	50	U	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2	16	0.99				GAM
Iron 59		U		0.26	0.050	U	GAM
Chromium 51	14392-02-0	U		1.1		U	GAM
Cobalt 60	10198-40-0	U		0.051	0.050	U	GAM
Zinc 65	17982-39-3	U		0.14		U	GAM
Ruthenium 106	13967-48-1	U		0.43		U	GAM
Cesium 134	17967-70-9	U		0.063		U	GAM
Cesium 137	10045-97-3	U		0.051	0.050	U	GAM
Europium 152	14683-23-9	U		0.12	0.10	U	GAM
Europium 154	15585-10-1	U		0.076	0.10	U	GAM
Radium 226	13982-67-7	0.85	0.13				GAM
Thorium 228	14274-82-9	1.7	0.13				GAM
Thorium 232	7440-29-1	1.4	0.24				GAM

RB 3/1/93

Lab id TMAN
Protocol WHC-HEIS
Version Ver 1.0
Form DVD-DS
Version 2.20
Report date 12/30/92

9713505.1704 2033

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07231

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09033 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209033-01A

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 20918R06

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

% Moisture: not dec. 0 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	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

NV 3/31/9 SC

9713505.1705

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

000006
EPA SAMPLE NO.

B07231

o Name: TMA/ARLI Contract: WHC

o Code: TMALA Case No.: 09033 SAS No.: NA SDG No.: NA

trix: (soil/water) SOIL Lab Sample ID: A209033-01A

nple wt/vol: 5.0 (g/mL) G Lab File ID: 20918R06

vel: (low/med) LOW Date Received: 09/14/92

Moisture: not dec. 0 Date Analyzed: 09/18/92

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

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

umber TICs found: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN ALCOHOL	29.58	22	J

RB
3/31/93

9713505.1706

IA

VOLATILE ORGANICS ANALYSIS DATA SHEET

000007
EPA SAMPLE NO.

B07233

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09033 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209033-02A

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 20918R07

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

% 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	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	5	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 2/3/93 NV

EPA SAMPLE NO.

B07233

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

ab Name: TMA/ARLI Contract: WHC

ab Code: TMALA Case No.: 09033 SAS No.: NA SDG No.: NA

atrix: (soil/water) SOIL Lab Sample ID: A209033-02A

ample wt/vol: 5.0 (g/mL) G Lab File ID: 20918R07

evel: (low/med) LOW Date Received: 09/14/92

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

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

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

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

RB
3/31/93

9713505.1708

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

000009
EPA SAMPLE NO.

B07234

ıb Name: TMA/ARLI Contract: WHC

ıb Code: TMALA Case No.: 09033 SAS No.: NA SDG No.: NA

ıtrix: (soil/water) SOIL Lab Sample ID: A209033-03A

ımple wt/vol: 5.0 (g/mL) G Lab File ID: 20918R08

ɜvel: (low/med) LOW Date Received: 09/14/92

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

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

ɔil 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	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	11	
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 3/31/93

NV

9713505.1709

1E

000010

EPA SAMPLE NO.

B07234

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

ab Name: TMA/ARLI Contract: WHC

ab Code: TMALA Case No.: 09033 SAS No.: NA SDG No.: NA

atrix: (soil/water) SOIL Lab Sample ID: A209033-03A

ample wt/vol: 5.0 (g/mL) G Lab File ID: 20918R08

evel: (low/med) LOW Date Received: 09/14/92

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

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

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

umber TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

RB
3/31/93

9713505.1710

000011

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07235

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09033 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209033-05A

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 20918R12

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

% 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	11	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

NN

RB 3/31/93

9713505.1711

000012
EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B07235

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09033 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209033-05A

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 20918R12

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

% 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

MB
3/31/93

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07236

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09033 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209033-06A

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 20918R13

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

% 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	15	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

NV

RB 3/31/93

9713505.1713

1E

EPA SAMPLE NO.

B07236

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09033 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209033-06A

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 20918R13

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

% 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

RB
3/31/93

9713505.1714

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

000015
EPA SAMPLE NO.

B07237

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09033 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209033-07A

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 20918R14

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

% 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	13	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

NV

RB 3/3/93

EPA SAMPLE NO.

B07237

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09033 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209033-07A

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 20918R14

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

% 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: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN ALKENE	29.45	11	J

RB
3/31/93

9713505.1716

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

000017
EPA SAMPLE NO.

B07245

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09033 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209033-04A

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 20918R11

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

% Moisture: not dec. 0 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	~~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

NN
RB
3/31/93

9713505.1717

000018
EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B07245

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09033 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209033-04A

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 20918R11

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

% Moisture: not dec. 0 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: 1

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

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

RB
3/31/93

9713505.1718

1A

000019

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

B07246

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09033 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209033-08A

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 20918R15

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

% Moisture: not dec. 0 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	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	~~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

NV

RB 3/31/93

9713505.1719

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

B07246

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09033 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209033-08A

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 20918R15

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

% Moisture: not dec. 0 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: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN HYDROCARBON	29.50	28	J

BA
3/31/93

9713505.1720

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

000021
EPA SAMPLE NO.

B07231

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09033 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209033-01B

Sample wt/vol: 30.8 (g/mL) G Lab File ID: 20921S13

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

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

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/21/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.6

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	780	U
91-58-7	2-Chloronaphthalene	320	U
88-74-4	2-Nitroaniline	780	U
131-11-3	Dimethylphthalate	320	U
208-96-8	Acenaphthylene	320	U
99-09-2	3-Nitroaniline	780	U
83-32-9	Acenaphthene	320	U
51-28-5	2,4-Dinitrophenol	780	U

NJ
RB
3/31/93

9713505.1721
1C

000022
EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

B07231

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09033 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209033-01B

Sample wt/vol: 30.8 (g/mL) G Lab File ID: 20921S13

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

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

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/21/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.6

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
100-02-7	4-Nitrophenol	780	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	780	U
534-52-1	4,6-Dinitro-2-methylphenol	780	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	780	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	38	J
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

NV
RB 3/31/93

9713505.1722

1F

000023
EPA SAMPLE NO.

B07231

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09033 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209033-01B

Sample wt/vol: 30.8 (g/mL) G Lab File ID: 20921S13

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

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

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/21/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.6

Number TICs found: 11

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN ACID	5.10	2200	~~BJ~~ U
2.	UNKNOWN HYDROCARBON	5.20	1600	~~BJ~~
3.	UNKNOWN HYDROCARBON	5.62	73000	~~BJ~~
4.	UNKNOWN HYDROCARBON	6.33	65	J
5.	UNKNOWN HYDROCARBON	6.55	230	~~BJ~~ U
6.	UNKNOWN HYDROCARBON	6.67	1200	~~BJ~~
7.	UNKNOWN HYDROCARBON	7.10	680	~~BJ~~
8.	UNKNOWN ALCOHOL	8.32	1800	~~BJ~~
9.	PROPANOIC ACID ISOMER	13.92	160	J
10.	UNKNOWN HYDROCARBON	22.65	130	J
11.	HEXANEDIOIC ACID ISOMER	24.63	98	~~BJ~~ U

MB
3/31/93

NV

9713505.1723

1B

000024
EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

B07233

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09033 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209033-02B

Sample wt/vol: 30.6 (g/mL) G Lab File ID: 20921S16

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

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

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/21/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.2

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

CAS NO.	COMPOUND		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	800	U
91-58-7	2-Chloronaphthalene	330	U
88-74-4	2-Nitroaniline	800	U
131-11-3	Dimethylphthalate	330	U
208-96-8	Acenaphthylene	330	U
99-09-2	3-Nitroaniline	800	U
83-32-9	Acenaphthene	330	U
51-28-5	2,4-Dinitrophenol	800	U

RB 3/3/95

NV

9713505.1724

1C

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EPA SAMPLE NO.

B07233

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09033 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209033-02B

Sample wt/vol: 30.6 (g/mL) G Lab File ID: 20921S16

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

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

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/21/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.2

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
100-02-7	4-Nitrophenol	800	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	800	U
534-52-1	4,6-Dinitro-2-methylphenol	800	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	800	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	270	J
129-00-0	Pyrene	220	J
85-68-7	Butylbenzylphthalate	330	U
91-94-1	3,3'-Dichlorobenzidine	330	U
56-55-3	Benzo(a)Anthracene	170	J
117-81-7	bis(2-Ethylhexyl)Phthalate	330	U
218-01-9	Chrysene	170	J
117-84-0	Di-n-Octyl Phthalate	330	U
205-99-2	Benzo(b)Fluoranthene	160	J
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 8/31/9

NV

(1) - Cannot be separated from Diphenylamine

9713505.1725

1F

000026

EPA SAMPLE NO.

B07233

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09033 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209033-02B

Sample wt/vol: 30.6 (g/mL) G Lab File ID: 20921S16

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

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

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/21/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.2

Number TICs found: 20

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN HYDROCARBON	5.18	2800	~~BJ~~ U
2.	UNKNOWN HYDROCARBON	5.62	80000	~~BJ~~
3.	UNKNOWN HYDROCARBON	6.57	230	~~BJ~~
4.	UNKNOWN HYDROCARBON	6.68	1200	~~BJ~~
5.	UNKNOWN HYDROCARBON	7.10	600	~~BJ~~
6.	UNKNOWN ALCOHOL	8.33	1500	~~BJ~~
7.	UNKNOWN HYDROCARBON	12.30	170	J
8.	PROPANOIC ACID ISOMER	17.00	130	J
9.	UNKNOWN POLYNUCLEAR AROMATIC	24.82	100	J
10.	UNKNOWN HYDROCARBON	25.10	100	J
11.	UNKNOWN ALKANE	26.90	200	J
12.	UNKNOWN ALKANE	28.13	200	J
13.	UNKNOWN ALKANE	28.45	2400	J
14.	UNKNOWN ALKANE	29.35	300	J
15.	UNKNOWN ALKANE	30.02	830	J
16.	UNKNOWN ALKANE	30.50	4700	J
17.	UNKNOWN HYDROCARBON	31.00	400	J
18.	UNKNOWN ALKANE	31.68	170	J
19.	UNKNOWN ALKANE	32.63	170	J
20.	UNKNOWN ALKANE	33.25	300	J

RB 3/31/9

NV

9713505.1726

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO. 000027

B07234

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09033 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209033-03D

Sample wt/vol: 30.6 (g/mL) G Lab File ID: 20921S17

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

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

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/21/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.6

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	800	U
91-58-7	2-Chloronaphthalene	330	U
88-74-4	2-Nitroaniline	800	U
131-11-3	Dimethylphthalate	330	U
208-96-8	Acenaphthylene	330	U
99-09-2	3-Nitroaniline	800	U
83-32-9	Acenaphthene	330	U
51-28-5	2,4-Dinitrophenol	800	U

RB 3/31/9:

NV

9713505.1727

000028

EPA SAMPLE NO.

B07234

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09033 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209033-03D

Sample wt/vol: 30.6 (g/mL) G Lab File ID: 20921S17

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

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

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/21/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.6

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
100-02-7	4-Nitrophenol	800	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	800	U
534-52-1	4,6-Dinitro-2-methylphenol	800	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	800	U
85-01-8	Phenanthrene	390	
120-12-7	Anthracene	330	U
86-74-8	Carbazole	330	U
84-74-2	Di-n-Butylphthalate	330	U
206-44-0	Fluoranthene	980	
129-00-0	Pyrene	750	
85-68-7	Butylbenzylphthalate	330	U
91-94-1	3,3'-Dichlorobenzidine	330	U
56-55-3	Benzo(a)Anthracene	370	
117-81-7	bis(2-Ethylhexyl)Phthalate	330	U
218-01-9	Chrysene	310	J
117-84-0	Di-n-Octyl Phthalate	330	U
205-99-2	Benzo(b)Fluoranthene	340	
207-08-9	Benzo(k)Fluoranthene	330	U
50-32-8	Benzo(a)Pyrene	130	J
193-39-5	Indeno(1,2,3-cd)Pyrene	45	J
53-70-3	Dibenz(a,h)Anthracene	330	U
191-24-2	Benzo(g,h,i)Perylene	330	U

RB 3/31/93

NV

(1) - Cannot be separated from Diphenylamine

9713505 1728
1F

000029
EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B07234

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09033 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209033-03D

Sample wt/vol: 30.6 (g/mL) G Lab File ID: 20921S17

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

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

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/21/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.6

Number TICs found: 20

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN HYDROCARBON	5.18	2400	~~BJ~~ U
2.	UNKNOWN HYDROCARBON	5.60	76000	~~BJ~~ |
3.	UNKNOWN HYDROCARBON	6.12	170	~~BJ~~ |
4.	UNKNOWN HYDROCARBON	6.55	230	~~BJ~~ |
5.	UNKNOWN HYDROCARBON	6.67	1300	~~BJ~~ |
6.	UNKNOWN HYDROCARBON	7.10	700	~~BJ~~ |
7.	UNKNOWN HYDROCARBON	8.32	1700	~~BJ~~ |
8.	PROPANOIC ACID ISOMER	17.00	130	J
9.	UNKNOWN POLYNUCLEAR AROMATIC	20.98	170	J
10.	UNKNOWN POLYNUCLEAR AROMATIC	23.67	130	J
11.	UNKNOWN POLYNUCLEAR AROMATIC	25.12	200	J
12.	UNKNOWN POLYNUCLEAR AROMATIC	25.27	130	J
13.	UNKNOWN ALKANE	26.88	130	J
14.	UNKNOWN HYDROCARBON	28.12	630	J
15.	UNKNOWN ALKANE	28.45	1200	J
16.	UNKNOWN POLYNUCLEAR AROMATIC	28.60	300	J
17.	UNKNOWN ALKANE	29.33	130	J
18.	UNKNOWN ALKANE	29.98	230	J
19.	UNKNOWN ALKANE	30.43	1800	J
20.	UNKNOWN COMPOUND	31.10	230	J

RB 3/31/93
NV

9713505.1729

IB

000030

EPA SAMPLE NO.

B07235

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09033 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209033-05B

Sample wt/vol: 30.3 (g/mL) G Lab File ID: 20921S18

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

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

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/21/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.5

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	820	U
91-58-7	2-Chloronaphthalene	340	U
88-74-4	2-Nitroaniline	820	U
131-11-3	Dimethylphthalate	340	U
208-96-8	Acenaphthylene	340	U
99-09-2	3-Nitroaniline	820	U
83-32-9	Acenaphthene	340	U
51-28-5	2,4-Dinitrophenol	820	U

RB 3/31/93

VV

9713505.1730

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

000031
EPA SAMPLE NO.

B07235

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09033 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209033-05B

Sample wt/vol: 30.3 (g/mL) G Lab File ID: 20921S18

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

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

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/21/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.5

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
100-02-7	4-Nitrophenol	820	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	820	U
534-52-1	4,6-Dinitro-2-methylphenol	820	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	820	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 3/31/93

NV

(1) - Cannot be separated from Diphenylamine

9713505.1731

1F

000032

EPA SAMPLE NO.

B07235

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09033 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209033-05B

Sample wt/vol: 30.3 (g/mL) G Lab File ID: 20921S18

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

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

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 09/21/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.5

Number TICs found: 13

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN HYDROCARBON	5.17	2700	~~BJ~~ U
2.	UNKNOWN HYDROCARBON	5.60	74000	~~BJ~~ |
3.	UNKNOWN HYDROCARBON	6.12	140	J
4.	UNKNOWN KETONE	6.32	100	J
5.	UNKNOWN ALKANE	6.53	240	J
6.	UNKNOWN HYDROCARBON	6.65	1200	~~BJ~~ U
7.	UNKNOWN HYDROCARBON	7.08	680	~~BJ~~ |
8.	UNKNOWN ALCOHOL	8.30	1400	~~BJ~~ |
9.	HEXANEDIOIC ACID ISOMER	24.63	68	~~BJ~~ |
10.	UNKNOWN ALKANE	26.87	68	J
11.	UNKNOWN ALKANE	28.05	68	J
12.	UNKNOWN ALKANE	28.40	170	J
13.	UNKNOWN ALKANE	30.37	68	J

RB
3/31/93

NV

9713505.1732

000033

EPA SAMPLE NO.

B07236

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09033 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209033-06B

Sample wt/vol: 30.6 (g/mL) G Lab File ID: 20922S03

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

% 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: 8.7

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

RB 3/3/93

NV

9713505 1733

1c

000034

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

B07236

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09033 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209033-06B

Sample wt/vol: 30.6 (g/mL) G Lab File ID: 20922S03

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

% 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: 8.7

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 3/31/93

NV

(1) - Cannot be separated from Diphenylamine

9713505.1734

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

000035
EPA SAMPLE NO.

B07236

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09033 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209033-06B

Sample wt/vol: 30.6 (g/mL) G Lab File ID: 20922S03

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

% 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: 8.7

Number TICs found: 7

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN HYDROCARBON	5.18	2600	~~BJ~~ U
2.	UNKNOWN HYDROCARBON	5.60	86000	~~BJ~~
3.	UNKNOWN HYDROCARBON	6.55	240	~~BJ~~
4.	UNKNOWN HYDROCARBON	6.67	1300	~~BJ~~
5.	UNKNOWN HYDROCARBON	7.10	740	~~BJ~~
6.	UNKNOWN ALCOHOL	8.32	1700	~~BJ~~
7.	UNKNOWN ALKANE	28.42	100	J

RB
3/31/93

NV

9713505.1735

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

000036
EPA SAMPLE NO.

B07237

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09033 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209033-07B

Sample wt/vol: 30.3 (g/mL) G Lab File ID: 20922S04

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

% 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: 8.5

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 3/31/93

VV

9713505.1736

000037
EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

B07237

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09033 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209033-07B

Sample wt/vol: 30.3 (g/mL) G Lab File ID: 20922S04

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

% 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: 8.5

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

MB 3/31/93

NV

(1) - Cannot be separated from Diphenylamine

9713505.1737
1F

000038
EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B07237

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09033 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209033-07B

Sample wt/vol: 30.3 (g/mL) G Lab File ID: 20922S04

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

% 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: 8.5

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	2600	~~BJ~~ U
2.	UNKNOWN HYDROCARBON	5.62	85000	~~BJ~~
3.	UNKNOWN HYDROCARBON	6.57	270	~~BJ~~
4.	UNKNOWN HYDROCARBON	6.68	1300	~~BJ~~
5.	UNKNOWN HYDROCARBON	7.10	740	~~BJ~~
6.	UNKNOWN ALCOHOL	8.33	1800	~~BJ~~
7.	HEXANEDIOIC ACID ISOMER	24.65	67	~~BJ~~
8.	UNKNOWN ALKANE	28.42	100	J

AB
3/31/93

9713505.1738

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

000039

EPA SAMPLE NO.

B07231

ıb Name: TMA/ARLI Contract: WHC

ıb Code: TMALA Case No.: 09033 SAS No.: NA SDG No.: NA

ıtrix: (soil/water) SOIL Lab Sample ID: A209033-01B

ımple wt/vol: 30.9 (g/mL) G Lab File ID: _____

Moisture: 0 decanted: (Y/N) N Date Received: 09/14/92

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

ɔncentrated Extract Volume: 5000 (uL) Date Analyzed: 10/06/92

ıjection Volume: 1.00 (uL) Dilution Factor: 1.00

PC Cleanup: (Y/N) Y pH: 8.6 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	3.2	U
72-55-9	4,4'-DDE	3.2	U
72-20-8	Endrin	3.2	U
33213-65-9	Endosulfan II	3.2	U
72-54-8	4,4'-DDD	3.2	U
1031-07-8	Endosulfan sulfate	3.2	U
50-29-3	4,4'-DDT	3.2	U
72-43-5	Methoxychlor	17	U
53494-70-5	Endrin ketone	3.2	U
7421-36-3	Endrin aldehyde	3.2	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	32	U
11104-28-2	Aroclor-1221	65	U
11141-16-5	Aroclor-1232	32	U
53469-21-9	Aroclor-1242	32	U
12672-29-6	Aroclor-1248	32	U
11097-69-1	Aroclor-1254	32	U
11096-82-5	Aroclor-1260	32	U

NV 4-9-93

9713505.1739

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

000040
EPA SAMPLE NO.

B07233

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09033 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209033-02B

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

% Moisture: 2 decanted: (Y/N) N Date Received: 09/14/92

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

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 10/06/92

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 8.2 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	3.3	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	67	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

NV 4-9-93

9713505.1740

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

000041

EPA SAMPLE NO.

B07234

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09033 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209033-03D

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

% Moisture: 2 decanted: (Y/N) N Date Received: 09/14/92

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

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 10/06/92

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 8.6 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	67	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

NV 4-9-93 SC

9713505.1741

1D

000042

EPA SAMPLE NO.

PESTICIDE ORGANICS ANALYSIS DATA SHEET

B07235

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09033 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209033-05B

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

% Moisture: 3 decanted: (Y/N) N Date Received: 09/14/92

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: 8.5 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

NV 4-9-93 SC

9713505.1742

1D

000043

EPA SAMPLE NO.

PESTICIDE ORGANICS ANALYSIS DATA SHEET

B07236

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09033 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209033-06B

Sample wt/vol: 30.7 (g/mL) G Lab File ID: _____

% Moisture: 3 decanted: (Y/N) N Date Received: 09/14/92

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: 8.7 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	3.3	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	67	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

NV 4-9-93 SC

9713505.1743

1D

000044

EPA SAMPLE NO.

PESTICIDE ORGANICS ANALYSIS DATA SHEET

B07237

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 09033 SAS No.: NA SDG No.: NA

Matrix: (soil/water) SOIL Lab Sample ID: A209033-07B

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

% Moisture: 3 decanted: (Y/N) N Date Received: 09/14/92

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: 8.5 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

NV 4-9-93 SC

9713505.1744

WESTINGHOUSE/HANFORD
1

SAMPLE NUMBER:

INORGANIC ANALYSIS DATA SHEET

B07231

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

Lab Code: SKINER Case No.: N2-09-082SAS No.: SDG No.: B07231

Matrix (soil/water): SOIL Lab Sample ID: 09220-01S

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

% Solids: 99.1

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	67.0			P
7440-36-0	Antimony	3.2	U	N	P
7440-38-2	Arsenic	0.58	U		F
7440-39-3	Barium	1.6	~~B~~		P
7440-41-7	Beryllium	0.08	U		P
7440-43-9	Cadmium	0.19	U		P
7440-70-2	Calcium	33.0	~~B~~		P
7440-47-3	Chromium	1.5	~~B~~		P
7440-48-4	Cobalt	0.52	U		P
7440-50-8	Copper	2.0	~~B~~		P
7439-89-6	Iron	218			P
7439-92-1	Lead	0.68		N	F
7439-95-4	Magnesium	27.6	~~B~~		P
7439-96-5	Manganese	0.90	U	N	P
7439-97-6	Mercury	0.05	U		CV
7440-02-0	Nickel	1.0	U		P
7440-09-7	Potassium	46.5	U		P
7782-49-2	Selenium	0.71	U	N	F
7440-22-4	Silver	0.48	U		P
7440-23-5	Sodium	27.4	~~B~~		P
7440-28-0	Thallium	0.31	U		F
7440-62-2	Vanadium	0.54	U		P
7440-66-6	Zinc	2.3	~~B~~		P
	Cyanide	0.50	U		CA

NV
RB
5/18/93

Color Before: WHITE Clarity Before: Texture: FINE

Color After: WHITE Clarity After: Artifacts:

Comments:

002

9713505.1745

WESTINGHOUSE/HANFORD
1

INORGANIC ANALYSIS DATA SHEET

SAMPLE NUMBER: B07233

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

Lab Code: SKINER Case No.: N2-09-0829AS No.: SDG No.: B07231

Matrix (soil/water): SOIL Lab Sample ID: 09220-029

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

% Solids: 94.3

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	7370			P
7440-36-0	Antimony	3.4	U	N	P
7440-38-2	Arsenic	1.9	B		F
7440-39-3	Barium	66.7			P
7440-41-7	Beryllium	0.58	B		P
7440-43-9	Cadmium	0.20	U		P
7440-70-2	Calcium	5920			P
7440-47-3	Chromium	16.3			P
7440-48-4	Cobalt	10.1			P
7440-50-8	Copper	18.3			P
7439-89-6	Iron	18800			P
7439-92-1	Lead	11.3		S	F
7439-95-4	Magnesium	4610			P
7439-96-5	Manganese	308		N	P
7439-97-6	Mercury	0.20			CV
7440-02-0	Nickel	10.7			P
7440-09-7	Potassium	1620			P
7782-49-2	Selenium	0.77	U	WN	F
7440-22-4	Silver	0.50	U		P
7440-23-5	Sodium	219	B		P
7440-28-0	Thallium	0.33	U		F
7440-62-2	Vanadium	43.2			P
7440-66-6	Zinc	59.4			P
	Cyanide	0.51	U		CA

NV

RB 5/18/93

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: BROWN Clarity After: Artifacts: YES

Comments:
STONES

003

9713505.1746

WESTINGHOUSE/HANFORD
1

SAMPLE NUMBER:

INORGANIC ANALYSIS DATA SHEET

B07234

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

Lab Code: SKINER Case No.: N2-09-082SAS No.: SDG No.: B07231

Matrix (soil/water): SOIL Lab Sample ID: 09220-03S

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

% Solids: 97.4

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	6370			P
7440-36-0	Antimony	3.9	B	N	P
7440-38-2	Arsenic	1.9			F
7440-39-3	Barium	64.6			P
7440-41-7	Beryllium	0.39	B		P
7440-43-9	Cadmium	0.19	U		P
7440-70-2	Calcium	6260			P
7440-47-3	Chromium	17.8			P
7440-48-4	Cobalt	10.4			P
7440-50-8	Copper	16.7			P
7439-89-6	Iron	20100			P
7439-92-1	Lead	8.2			F
7439-95-4	Magnesium	4500			P
7439-96-5	Manganese	305		N	P
7439-97-6	Mercury	0.11			CV
7440-02-0	Nickel	10.4			P
7440-09-7	Potassium	1510			P
7782-49-2	Selenium	0.72	U	N	F
7440-22-4	Silver	1.1	B		P
7440-23-5	Sodium	213	B		P
7440-28-0	Thallium	0.31	U		F
7440-62-2	Vanadium	47.0			P
7440-66-6	Zinc	58.1			P
	Cyanide	0.49	U		CA

RB 5/18/93

NV

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: BROWN Clarity After: Artifacts: YES

Comments:
STONES

004

FORM I - IN ILM02.1

9713505.1747

- WESTINGHOUSE/HANFORD
1

SAMPLE NUMBER:

INORGANIC ANALYSIS DATA SHEET

B07235

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

Lab Code: SKINER Case No.: N2-09-082SAS No.: SDG No.: B07231

Matrix (soil/water): SOIL Lab Sample ID: 09220-04S

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

% Solids. 94.2

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	9860			P
7440-36-0	Antimony	3.5	U	N	P
7440-38-2	Arsenic	1.9	~~B~~	~~S~~	F
7440-39-3	Barium	90.4			P
7440-41-7	Beryllium	0.60	~~B~~		P
7440-43-9	Cadmium	0.21	U		P
7440-70-2	Calcium	3700			P
7440-47-3	Chromium	14.8			P
7440-48-4	Cobalt	9.4	~~B~~		P
7440-50-8	Copper	15.3			P
7439-89-6	Iron	20300			P
7439-92-1	Lead	6.5			F
7439-95-4	Magnesium	4300			P
7439-96-5	Manganese	368		~~N~~	P
7439-97-6	Mercury	0.06	~~B~~		CV
7440-02-0	Nickel	11.8			P
7440-09-7	Potassium	1990			P
7782-49-2	Selenium	0.76	U	~~WN~~	F
7440-22-4	Silver	0.95	~~B~~		P
7440-23-5	Sodium	185	~~B~~		P
7440-28-0	Thallium	0.33	U		F
7440-62-2	Vanadium	44.0			P
7440-66-6	Zinc	52.4			P
	Cyanide	0.53	U		CA

RB 5/18/93

NV

Color Before: BROWN Clarity Before: Texture: FINE

Color After: BROWN Clarity After: Artifacts: YES

Comments:
STONES

005

9713505.1748

WESTINGHOUSE/HANFORD
1

SAMPLE NUMBER:

INORGANIC ANALYSIS DATA SHEET

B07236

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

Lab Code: SKINER Case No.: N2-09-082SAS No.: SDG No.: B07231

Matrix (soil/water): SOIL Lab Sample ID: 09220-05S

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

% Solids: 95.3

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	7990			P
7440-36-0	Antimony	3.5	U	N	P
7440-38-2	Arsenic	4.0			F
7440-39-3	Barium	75.8			P
7440-41-7	Beryllium	0.47	B		P
7440-43-9	Cadmium	0.21	U		P
7440-70-2	Calcium	15500			P
7440-47-3	Chromium	16.8			P
7440-48-4	Cobalt	7.5	B		P
7440-50-8	Copper	13.2			P
7439-89-6	Iron	16300			P
7439-92-1	Lead	5.3			F
7439-95-4	Magnesium	6070			P
7439-96-5	Manganese	292		N	P
7439-97-6	Mercury	0.06	B		CV
7440-02-0	Nickel	15.2			P
7440-09-7	Potassium	1610			P
7782-49-2	Selenium	0.78	U	UN	F
7440-22-4	Silver	0.84	B		P
7440-23-5	Sodium	205	B		P
7440-28-0	Thallium	0.34	U		F
7440-62-2	Vanadium	33.0			P
7440-66-6	Zinc	42.4			P
	Cyanide	0.52	U		CA

RB 5/18/93

NV

Color Before: BROWN Clarity Before: Texture: FINE

Color After: BROWN Clarity After: Artifacts:

Comments:

006

9713505.1749

WESTINGHOUSE/HANFORD

1

INORGANIC ANALYSIS DATA SHEET

SAMPLE NUMBER:

B07237

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

Lab Code: SKINER Case No.: N2-09-082SAS No.: SDG No.: B07231

Matrix (soil/water): SOIL Lab Sample ID: 09220-06S

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

% Solids: 94.9

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	7960			P
7440-36-0	Antimony	3.3	B	N	P
7440-38-2	Arsenic	4.1			F
7440-39-3	Barium	65.4			P
7440-41-7	Beryllium	0.53	B		P
7440-43-9	Cadmium	0.19	U		P
7440-70-2	Calcium	14700			P
7440-47-3	Chromium	17.2			P
7440-48-4	Cobalt	7.3	B		P
7440-50-8	Copper	11.8			P
7439-89-6	Iron	16100			P
7439-92-1	Lead	5.0			F
7439-95-4	Magnesium	6360			P
7439-96-5	Manganese	262		N	P
7439-97-6	Mercury	0.05	U		CV
7440-02-0	Nickel	15.7			P
7440-09-7	Potassium	1080			P
7782-49-2	Selenium	0.78	U	WN	F
7440-22-4	Silver	0.98	B		P
7440-23-5	Sodium	206	B		P
7440-28-0	Thallium	0.34	U		F
7440-62-2	Vanadium	33.9			P
7440-66-6	Zinc	39.7			P
	Cyanide	0.53	U		CA

RB 5/18/93

NV

Color Before: BROWN Clarity Before: Texture: FINE

Color After: BROWN Clarity After: Artifacts:

Comments:

007

FORM I - IN ILM02.1

TMA Inc. REPORT Work Order # A2-09-033

Received: 09/14/92

Results by Sample

SAMPLE ID B07231 FRACTION 01E TEST CODE WCCLPS NAME Anions in Solids - WH232

Date & Time Collected 09/10/92 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	8.6	pH	.1
Sulfate	300.0	<10.	mg/Kg	10.

FORM I

NV

RB

5/18/93

TMA Inc. REPORT Work Order # A2-09-033

Received: 09/14/92 Results by Sample

SAMPLE ID B07233 FRACTION 02E TEST CODE WCCLPS NAME Anions in Solids - WH232

Date & Time Collected 09/10/92 Category

ANIONS AND WET CHEMISTRY - SOLIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Chloride	300.0	6	mg/Kg	2.
Fluoride	300.0	3	mg/Kg	1.
Phosphate	300.0	15	mg/Kg	4.
pH	150.1	8.2	pH	.1
Sulfate	300.0	26	mg/Kg	10.

FORM I

NV
RB
5/18/93

9713505.1752

TMA Inc. REPORT Work Order # A2-09-033

Received: 09/14/92

Results by Sample

SAMPLE ID B07234 FRACTION 03E TEST CODE WCCLPS NAME Anions in Solids - WM232

Date & Time Collected 09/10/92 Category

ANIONS AND WET CHEMISTRY - SOLIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Chloride	300.0	7	mg/Kg	2.
Fluoride	300.0	<1.	mg/Kg	1.
Phosphate	300.0	14	mg/Kg	4.
pH	150.1	8.6	pH	.1
Sulfate	300.0	29	mg/Kg	10.

FORM I

NV

RB
5/18/93

TMA Inc. REPORT Work Order # A2-09-033

Received: 09/14/92

Results by Sample

SAMPLE ID B07235 FRACTION 05C TEST CODE WCCLPS NAME Anions in Solids - WH232

Date & Time Collected 09/10/92 Category

ANIONS AND WET CHEMISTRY - SOLIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Chloride	300.0	6	mg/Kg	2.
Fluoride	300.0	3	mg/Kg	1.
Phosphate	300.0	14	mg/Kg	4.
pH	150.1	8.5	pH	.1
Sulfate	300.0	23	mg/Kg	10.

FORM I

NV
RB
5/18/93

TMA Inc. REPORT Work Order # A2-09-033

Received: 09/14/92

Results by Sample

SAMPLE ID B07236 FRACTION 06C TEST CODE WCCLPS NAME Anions in Solids - WM232

Date & Time Collected 09/10/92 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	9045	8.7	pH	.1
Sulfate	300.0	26	mg/Kg	10.

FORM I

NV
RB
5/18/93

TMA Inc. REPORT Work Order # A2-09-033

Received: 09/14/92

Results by Sample

SAMPLE ID B07237 FRACTION 07C TEST CODE WCCLPS NAME Anions in Solids - WH232

Date & Time Collected 09/10/92 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	8.5	pH	.1
Sulfate	300.0	43	mg/Kg	10.

FORM I

NV

RB 5/18/93

Received: 09/15/92 Results by Sample

SAMPLE ID B07231 SAMPLE # 01 FRACTIONS: A
Date & Time Collected 09/10/92 Category SOIL

NO3NO2 <2.53
mg N/Kg

SAMPLE ID B07233 SAMPLE # 02 FRACTIONS: A
Date & Time Collected 09/10/92 Category SOIL

NO3NO2 9.18
mg N/Kg

SAMPLE ID B07234 SAMPLE # 03 FRACTIONS: A
Date & Time Collected 09/10/92 Category SOIL

NO3NO2 18.8
mg N/Kg

SAMPLE ID B07235 SAMPLE # 04 FRACTIONS: A
Date & Time Collected 09/10/92 Category SOIL

NO3NO2 <2.42
mg N/Kg

NV
RB
5/18/9

SAMPLE ID B07236 SAMPLE # 05 FRACTIONS: A
Date & Time Collected 09/10/92 Category SOIL

NO3NO2 <2.44
mg N/Kg

SAMPLE ID B07237 SAMPLE # 06 FRACTIONS: A
Date & Time Collected 09/10/92 Category SOIL

NO3NO2 2.91
mg N/Kg

SAMPLE ID B07237 DUPL SAMPLE # 06 FRACTIONS: B
Date & Time Collected 09/10/92 Category SOIL

NO3NO2 2.80
mg N/Kg

TMA Thermo Analytical Inc.

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