US EPA RECORDS CENTER REGION 5
486290

SAMPLING DATA

SAMPLE PROPOSAL
FIT REGION V

Confirmed X
LABS Ass ___
Paperworkout ___

1. Date Form Completed 5/15/89

2. Account # FIL0055SB TDD # F05-8612-077

EPA I.D. # ILD059995423

3. Site Name, City, State Swift Ag Chem Fairmont City Plant
Fairmont City, Il

4. Team Leader R. Bayer Sampler J. Dickson

5. Number and Type of Samples:

Soil/Sediment 12 Surface Water ___ Ground Water ___

Residential/Municipal Wells ___ Other ___

Number of Blanks ___ Number of Duplicates ___

6. RAS Parameters Requested:

A/B/N ✓ Pest/PCB ✓ Volatiles ✓ Metals ✓ Cyanide ✓

SAS Parameters Requested: ___

7. Expected Sampling Date(s): ~~June 27~~ w/o July ~~18+19~~ ~~30~~ 31

Expected Shipping Date(s): ~~June 27~~ w/o July 31

8. Lab Used For Analysis: Organic Soil WADS

Inorganic Soil ENSECO (RMAL)

SAS ___

9. Case Number 12464 SAS Number ___

10. Airbill Numbers:

Organic Lab WADS 2734217754 # Coolers 1 # Samples 12 > 8/2

Inorganic Lab RMAL 4260355713 # Coolers 1 # Samples 12

CRL/SAS Lab ___ # Coolers ___ # Samples ___

Complete

Smith Ag. Chem Fairmont City

RECEIPT FOR SAMPLES

U.S. EPA, 230 S. Dearborn St., Chicago, IL 60604

U. S. EPA ID NO ILD059995423

PROJ. ACCT. NO. FIL0055SB

TDD FD5-8612-077

SPLIT SAMPLES N/A ACCEPTED( ) DECLINED( )

FACILITY/OCCUPANT NAME: Scott M. McL

FACILITY/OCCUPANT ADDRESS: 2551 Kingshighway, Fairmont City, Ill 62201

SAMPLE NUMBER	DATE	TIME	SPLIT SAMPLES (✓)	OTR#	ITR#	DESCRIPTION OF SAMPLE LOCATIONS	SEMIVOLATILES	PESTICIDES/PCBS	VOLATILES	METALS	CYANIDE			MATRIX
S11	8/2/89	14:30	—	EFA22	EFF22	S11 ditch south end	✓	✓	✓	✓	✓			Soil/Sediment

Follow-up

TRANSFERRED BY: Regina Draper 8/2/89 3:30

(Signature) (Date) (Time)

RECEIVED BY:

(Signature) (Date) (Time)

DISTRIBUTION
WHITE: FIT SITE FILE
YELLOW: FACILITY/OCCUPANT
GREEN: FIT SAMPLE MANAGEMENT
PINK: U.S. EPA

TITLE

TELEPHONE

SAMPLE DESCRIPTION

SITE NAME/TDD# Swift Ag Chem. Fairmont City Plant FOS-8612-077

CASE NUMBER 12411

SAMPLE #/STATION LOCATION S1

SAMPLING DATE 8/2/89 SAMPLING TIME 1100

ORGANIC TRAFFIC NUMBER EFA 12

INORGANIC TRAFFIC NUMBER MEEF 12

BOTTLE	ANALYSIS	TAG NUMBERS	LOT NUMBER
8oz. wide mouth	Ext.	5-156301	F9158524
"	M/C	302	"
120ml wide mouth	VOA	303	G8200074
	VOA	304	"

PHYSICAL DESCRIPTION AT TIME OF COLLECTION: brown clay with white quartz sand and small red-white pebbles

PHYSICAL CHANGES FROM TIME OF COLLECTION UNTIL SHIPMENT: none

INSTRUMENT READINGS NA

pH

CONDUCTIVITY

TEMPERATURE

SAMPLE DESCRIPTION

SITE NAME/TDD# Swift Ag Chem. Fairmont City Plant FOS-8612-077

CASE NUMBER 12411

SAMPLE #/STATION LOCATION S2

SAMPLING DATE 8/2/89 SAMPLING TIME 1110

ORGANIC TRAFFIC NUMBER EFA 13

INORGANIC TRAFFIC NUMBER MEEF 13

BOTTLE	ANALYSIS	TAG NUMBERS	LOT NUMBER
8 oz. widemouth	Ext.	S-156305	F9158524
"	m/c	06	"
120 ml widemouth	VOA	07	68200074
"	VOA	08	"

PHYSICAL DESCRIPTION AT TIME OF COLLECTION: brown sand some small white pebbles

PHYSICAL CHANGES FROM TIME OF COLLECTION UNTIL SHIPMENT: none

INSTRUMENT READINGS NA

pH

CONDUCTIVITY

TEMPERATURE

SAMPLE DESCRIPTION

SITE NAME/TDD# Swift Ag Chem. Fairmont City Plant FOS-8612-077

CASE NUMBER 12411

SAMPLE #/STATION LOCATION S3

SAMPLING DATE 8/2/89 SAMPLING TIME 1130

ORGANIC TRAFFIC NUMBER EFA 14

INORGANIC TRAFFIC NUMBER MEEF 14

BOTTLE	ANALYSIS	TAG NUMBERS	LOT NUMBER
8 oz wide mouth	Ext	5-156309	F 9158524
"	m/c	10	"
120 ml wide mouth	VOG	"	G 8200074
"	VOA	12	"

PHYSICAL DESCRIPTION AT TIME OF COLLECTION: dark brown sandy small white pebbles in soil

PHYSICAL CHANGES FROM TIME OF COLLECTION UNTIL SHIPMENT: none

INSTRUMENT READINGS NA

pH

CONDUCTIVITY

TEMPERATURE

SAMPLE DESCRIPTION

SITE NAME/TDD# Swift Ag Chem. Fairmont City Plant F05-8612-077

CASE NUMBER 12411

SAMPLE #/STATION LOCATION S4

SAMPLING DATE 8/2/89 SAMPLING TIME 1140

ORGANIC TRAFFIC NUMBER EFA 15

INORGANIC TRAFFIC NUMBER MEEF 15

BOTTLE	ANALYSIS	TAG NUMBERS	LOT NUMBER
8 oz wide mouth	Ext	5-156313	F9158524
"	m/c	14	"
120 ml wide mouth	VOA	15	G8200074
"	VOA	16	"

PHYSICAL DESCRIPTION AT TIME OF COLLECTION: micaceous sand

PHYSICAL CHANGES FROM TIME OF COLLECTION UNTIL SHIPMENT: none

INSTRUMENT READINGS NA

pH

CONDUCTIVITY

TEMPERATURE

SAMPLE DESCRIPTION

SITE NAME/TDD# Swift Ag Chem. Fairmont City Plant F05-8612-077

CASE NUMBER 12411

SAMPLE #/STATION LOCATION S5

SAMPLING DATE 8/2/89 SAMPLING TIME 1235

ORGANIC TRAFFIC NUMBER EFA 16

INORGANIC TRAFFIC NUMBER MEEF 16

BOTTLE	ANALYSIS	TAG NUMBERS	LOT NUMBER
8 oz. wide mouth	Ext	S-156317	F9158524
" "	m/c	18	"
120 ml wide mouth	VOA	19	G82000074
"	VOA	20	"

PHYSICAL DESCRIPTION AT TIME OF COLLECTION: dark brown sandy soil some small pebbles

PHYSICAL CHANGES FROM TIME OF COLLECTION UNTIL SHIPMENT: none

INSTRUMENT READINGS NA

pH

CONDUCTIVITY

TEMPERATURE

SAMPLE DESCRIPTION

SITE NAME/TDD# Swift Ag Chem. Fairmont City Plant F05-8612-077

CASE NUMBER 12411

SAMPLE #/STATION LOCATION S6

SAMPLING DATE 8/2/89 SAMPLING TIME 1250

ORGANIC TRAFFIC NUMBER EFA 17

INORGANIC TRAFFIC NUMBER MEEF 17

BOTTLE	ANALYSIS	TAG NUMBERS	LOT NUMBER
8 oz wide mouth	EXT.	S-156321	F9158524
"	M/C	22	"
120 ml wide mouth	VOA	23	G8200074
"	VOA	24	"

PHYSICAL DESCRIPTION AT TIME OF COLLECTION: dark grey-green silt

PHYSICAL CHANGES FROM TIME OF COLLECTION UNTIL SHIPMENT: none

INSTRUMENT READINGS N.A

pH

CONDUCTIVITY

TEMPERATURE

SAMPLE DESCRIPTION

SITE NAME/TDD# Swift Ag Chem. Fairmont City Plant FOS-8612-077

CASE NUMBER 12411

SAMPLE #/STATION LOCATION 57

SAMPLING DATE 8/2/89 SAMPLING TIME 1305

ORGANIC TRAFFIC NUMBER EFA 18

INORGANIC TRAFFIC NUMBER MEEF 18

BOTTLE	ANALYSIS	TAG NUMBERS	LOT NUMBER
8 OZ widemouth	Ext	5-156 325	F9158524
"	M/C	26	"
120 ml widemouth	VOA	27	G8200074
	VOA	28	"

PHYSICAL DESCRIPTION AT TIME OF COLLECTION: dark grey-green silt

PHYSICAL CHANGES FROM TIME OF COLLECTION UNTIL SHIPMENT: none

INSTRUMENT READINGS N.A

pH

CONDUCTIVITY

TEMPERATURE

SAMPLE DESCRIPTION

SITE NAME/TDD# Swift Ag Chem. Fairmont City Plant FOS-8612-077

CASE NUMBER 12411

SAMPLE #/STATION LOCATION 58

SAMPLING DATE 8/2/89 SAMPLING TIME 1315

ORGANIC TRAFFIC NUMBER EFA 19

INORGANIC TRAFFIC NUMBER MEEF 19

BOTTLE	ANALYSIS	TAG NUMBERS	LOT NUMBER
8 oz wide mouth	EXT	5-156329	F9158524
"	M/C	30	"
120 ml wide mouth	VOA	31	D8202184
	VOA	32	"

PHYSICAL DESCRIPTION AT TIME OF COLLECTION: dark grey-green silt.

PHYSICAL CHANGES FROM TIME OF COLLECTION UNTIL SHIPMENT: none

INSTRUMENT READINGS NA

pH

CONDUCTIVITY

TEMPERATURE

SAMPLE DESCRIPTION

SITE NAME/TDD# Swift Ag Chem. Fairmont City Plant F05-8612-077

CASE NUMBER 12411

SAMPLE #/STATION LOCATION S9

SAMPLING DATE 8/2/89 SAMPLING TIME 1400

ORGANIC TRAFFIC NUMBER EFA 20

INORGANIC TRAFFIC NUMBER MEEF 20

BOTTLE	ANALYSIS	TAG NUMBERS	LOT NUMBER
8 oz. wide mouth	EXT	5-156 333	F9158524
"	m/c	34	"
120 ml wide mouth	VOA	35	D8202184
"	VOA	36	"

PHYSICAL DESCRIPTION AT TIME OF COLLECTION: med gray sandy silt

PHYSICAL CHANGES FROM TIME OF COLLECTION UNTIL SHIPMENT: none

INSTRUMENT READINGS NA

pH

CONDUCTIVITY

TEMPERATURE

SAMPLE DESCRIPTION

SITE NAME/TDD# Swift Ag Chem. Fairmont City Plant FOS-8612-077

CASE NUMBER 12411

SAMPLE #/STATION LOCATION S10

SAMPLING DATE 8/2/89 SAMPLING TIME 1410

ORGANIC TRAFFIC NUMBER EFA 21

INORGANIC TRAFFIC NUMBER MEEF 21

BOTTLE	ANALYSIS	TAG NUMBERS	LOT NUMBER
8 oz wide mouth	EXT	5-156 337	F9158524
"	M/C	38	"
120 ml wide mouth	VOA	39	D8252094
"	VOA	40	D8257134

PHYSICAL DESCRIPTION AT TIME OF COLLECTION: grey to light grey mottled sandy silt

PHYSICAL CHANGES FROM TIME OF COLLECTION UNTIL SHIPMENT: none

INSTRUMENT READINGS NA

pH

CONDUCTIVITY

TEMPERATURE

SAMPLE DESCRIPTION

SITE NAME/TDD# Swift Ag Chem. Fairmont City Plant FOS-8612-077

CASE NUMBER 12411

SAMPLE #/STATION LOCATION S11

SAMPLING DATE 8/2/89 SAMPLING TIME 1430

ORGANIC TRAFFIC NUMBER EFA 22

INORGANIC TRAFFIC NUMBER MEEF 22

BOTTLE	ANALYSIS	TAG NUMBERS	LOT NUMBER
8 oz wide mouth	EXT	S-156341	F9158524
"	M/C	42	"
120 ml wide mouth	VOA	43	D8202184
"	VOA	44	D8202054

PHYSICAL DESCRIPTION AT TIME OF COLLECTION: black silt

PHYSICAL CHANGES FROM TIME OF COLLECTION UNTIL SHIPMENT: none

INSTRUMENT READINGS NA

pH

CONDUCTIVITY

TEMPERATURE

SAMPLE DESCRIPTION

SITE NAME/TDD# Swift Ag Chem. Fairmont City Plant FOS-8612-077

CASE NUMBER 12411

SAMPLE #/STATION LOCATION S12

SAMPLING DATE 8/2/89 SAMPLING TIME 1435

ORGANIC TRAFFIC NUMBER EFA 23

INORGANIC TRAFFIC NUMBER MEEF23

BOTTLE	ANALYSIS	TAG NUMBERS	LOT NUMBER
8 oz wide mouth	Ext	S-156 345	F9158524
"	m/c	46	"
120 ml wide mouth	VOA	47	G8200074
	VOA	48	D8202164

PHYSICAL DESCRIPTION AT TIME OF COLLECTION: brown-tan loamy soil with some clay

PHYSICAL CHANGES FROM TIME OF COLLECTION UNTIL SHIPMENT: none

INSTRUMENT READINGS NA

pH

CONDUCTIVITY

TEMPERATURE

RECEIPT FOR SAMPLES

U.S. EPA, 230 S. Dearborn St., Chicago, IL 60604

U. S. EPA ID NO ILD059995423

PROJ. ACCT. NO. FIL0055SB

TDD F05-8612-077

SPLIT SAMPLES ACCEPTED( ) DECLINED(✓)

FACILITY/OCCUPANT NAME: Swift Ag Chem Fairmont City Plant

FACILITY/OCCUPANT ADDRESS: Swift Ag Chem Fairmont City Plant, 2501 N. Kings Hwy, Fairmont City, Illinois 62202

SAMPLE NUMBER	DATE	TIME	SPLIT SAMPLES (✓)	OTR#	ITR#	DESCRIPTION OF SAMPLE LOCATIONS	SEMIVOLATILES	PESTICIDES/PCBS	VOLATILES	METALS	CYANIDE			MATRIX
S1	8/2/89	11:00		EFA 12	MEEF 12	S1	✓	✓	✓	✓	✓			soil
S2	8/2/89	11:10		EFA 13	MEEF 13	S2	✓	✓	✓	✓	✓			soil
S3	8/2/89	11:30		EFA 14	MEEF 14	S3	✓	✓	✓	✓	✓			soil
S4	8/2/89	11:40		EFA 15	MEEF 15	S4	✓	✓	✓	✓	✓			soil
S5	8/2/89	12:35		EFA 16	MEEF 16	S5	✓	✓	✓	✓	✓			soil
S6	8/2/89	12:50		EFA 17	MEEF 17	S6	✓	✓	✓	✓	✓			soil/sed
S7	8/2/89	13:05		EFA 18	MEEF 18	S7	✓	✓	✓	✓	✓			soil/sed
S8	8/2/89	13:15		EFA 19	MEEF 19	S8	✓	✓	✓	✓	✓			soil/sed
S9	8/2/89	14:00		EFA 20	MEEF 20	S9	✓	✓	✓	✓	✓			soil/sed
S10	8/2/89	14:10		EFA 21	MEEF 21	S10	✓	✓	✓	✓	✓			soil/sed
~~S11~~	~~8/2/89~~			~~EFA 22~~	~~MEEF 22~~	~~S11~~	~~✓~~	~~✓~~	~~✓~~	~~✓~~	~~✓~~			~~soil/sed~~ F.P. 8/2/89
S12	8/2/89	14:35		EFA 23	MEEF 23	S12	✓	✓	✓	✓	✓			soil

TRANSFERRED BY: Karina Rojas 8/2/89 15:15

(Signature) (Date) (Time)

RECEIVED BY:

(Signature) (Date) (Time)

TITLE TELEPHONE

DISTRIBUTION
WHITE: FIT SITE FILE
YELLOW: FACILITY/OCCUPANT
GREEN: FIT SAMPLE MANAGEMENT
PINK: U.S. EPA

IL-55-06

ILLINOIS AIR POLLUTION
CONTROL BOARD

cc 80 FORM B – SOURCE OPERATION DATA

SOURCE OPERATION NUMBER 06 — cc 79 – CARD IDENTIFICATION – PUNCH: 9 — I.D. NO cc 1 – 6

A. DESCRIBE SOURCE OPERATION AND TYPE OF PROCESS EQUIPMENT.

New equipment for controlling emissions from reactor - agglomerator combined exit air

Nominal 12-12-12 as a typical large tonnage grade

OFFICE USE ONLY — CARD COLS. 10 11 12 13 — BEC NUMBER — 14 15 16 17 — BEC FACTOR

B. RAW MATERIALS USED IN SOURCE OPERATION FOR NORMAL THROUGHPUT CAPACITY. NORMAL OPERATION IS 20 TPH (Card Cols. 7 8 9) % OF MAXIMUM CAPACITY. 100

MATERIAL	STARTING WEIGHT	MATERIAL	STARTING WEIGHT
1. Ammonium Sulfate	16,760 lbs./hr.	5. Anhydrous Ammonia	1,920 lbs./hr.
2. Triple Super	920 lbs./hr.	6. Sulfuric Acid	2,160 lbs./hr.
3. Potassium Chloride	8,000 lbs./hr.	7. Phosphoric Acid	6,800 lbs./hr.
4. Neutro-Phos	2,000 lbs./hr.	8. Filler	2,700 lbs./hr.

C. EMISSION: Check types of discharge that can possibly be emitted from process or equipment directly to atmosphere through stacks or ducts.

cc 18 - 1 [X] Solid, particulate matter — cc 20 - 3 [X] Gases, vapors or fumes — cc 22 - 5 [X] Mists or Aerosols

cc 19 - 2 [X] Steam — cc 21 - 4 [X] Odors of any type — cc 23 - 6 [ ] None

SOURCE OPERATION DISCHARGES – cc 24: 1 [X] From Stack 2 [ ] At Ground Level 3 [ ] From Vents or other Opening

25 26 27 28: 3 8 (FT.) STACK HEIGHT ABOVE GRADE

D. PROCESS WEIGHT RATE (lbs./hr.) cc 29 30 31 32 33 34 35: 7 2 0 0 0

E. OPERATION TIME hrs./day cc 36 37 38: 1 6

COLLECTION EQUIPMENT

F. INLET GAS RATE (SCFM) 9,000

INLET LOADING

G. GRAINS/SCF To wet scrubber. 39 40 41 42: 0.285

H. lbs/1000 lbs GAS 58 59 60 61

I. PRIMARY COLLECTOR: 43 44: 0 6 (See Code Below) — Card Cols. 45 46 47: 9 0

J. SECONDARY COLLECTOR: 62 63 (See Code Below) — Card Cols. 64 65 66

L. OPERATION IS [X] Continuous [ ] Batch Cycle per batch (hrs.) — CO. COLS. 48 49 50 — CARD COLS 51 52 53 54 55 56 57

M. MEASURED – ESTIMATED – EMISSIONS TO ATMOSPHERE (lbs/hr) 67 68 69 70 71: 2.2

N. ALLOWABLE EMISSIONS TO ATMOSPHERE (lbs/hr.) 72 73 74 75 76: 2.2

INSTRUCTIONS: (NOTE – Dotted lines indicate position of decimal point. Use additional sheets for miscellaneous comments.)

Item A. Describe your source operation and type of process equipment.
B. List all starting raw materials charged, including solid fuels. Specify lbs/hr. For batch operations specify lbs.
C. Check appropriate boxes and enter discharge information.
D. Indicate the total weight rate of all materials introduced into the source operation. Solid fuels charged will be considered as part of the process weight but liquid and gaseous fuels and combustion air will not. Include recycled material. -- 80% of production.
E. Enter normal operational hours per day for this source operation.
F. Enter rate of gas inlet to collection equipment in standard cubic feet per minute.
G&H. Enter particulate concentration of gas inlet to collection equipment in either column G or H.
I&J. List collection equipment serving the process, code as follows:

01–Absorber 03–Catalytic burner 05–Spray Chamber 07–Packed Tower 09–Settling Chamber 11–Multiclone 13–Baghouse 15–Mechanical
02–Adsorber 04–Afterburner 06–Scrubber 08–Venturi Scrubber 10–Cyclone 12–Rotoclone 14–Precipitator 16–Other

K. Enter estimate of collector efficiency (%).
L. Check type of operation. For batch operation, enter hours per batch cycle.
M. Enter estimate of particulates emitted to the atmosphere from this operation in lbs/hr. Circle Measured or Estimated.
N. Enter allowable emission from Table I, Chapter III of the Regulations.

ILLINOIS POLLUTION CONTROL BOARD

cc 80 FORM B – SOURCE OPERATION DATA

SOURCE OPERATION NUMBER 12 | cc 79 = CARD IDENTIFICATION – PUNCH: 9 | I.D. NO cc 1 – 6

A. DESCRIBE SOURCE OPERATION AND TYPE OF PROCESS EQUIPMENT.

Existing equipment for controlling emissions from dryer-cooler combined exit air

Nominal 12-12-12 as a typical large tonnage grade

Card Cols. 7 8 9

OFFICE USE ONLY — CARD COLS. 10 11 12 13 — BEC NUMBER — 14 15 16 17 — BEC FACTOR

B. RAW MATERIALS USED IN SOURCE OPERATION FOR NORMAL THROUGHPUT CAPACITY. NORMAL OPERATION IS 2 0 TH % OF MAXIMUM CAPACITY. 100

MATERIAL	STARTING WEIGHT	MATERIAL	STARTING WEIGHT
1. Ammonium Sulfate	16,760 lbs./hr.	5. Anhydrous Ammonia	1,920 lbs./hr.
2. Triple Super	920 lbs./hr.	6. Sulfuric Acid	2,160 lbs./hr.
3. Potassium Chloride	8,000 lbs./hr.	7. Phosphoric Acid	6,800 lbs./hr.
4. Neutro-Phos	2,000 lbs./hr.	8. Filler	2,700 lbs./hr.

C. EMISSION: Check types of discharge that can possibly be emitted from process or equipment directly to atmosphere through stacks or ducts.

cc 18 - 1 [X] Solid, particulate matter — cc 20 - 3 [X] Gases, vapors or fumes — cc 22 - 5 [X] Mists or Aerosols

cc 19 - 2 [X] Steam — cc 21 - 4 [X] Odors of any type — cc 23 - 6 [ ] None

SOURCE OPERATION DISCHARGES – cc 24: 1 [X] From Stack 2 [ ] At Ground Level 3 [ ] From Vents or other Opening

25 26 27 28: 3 8 (FT.) STACK HEIGHT ABOVE GRADE

D. PROCESS WEIGHT RATE (lbs./hr.) cc- 29 30 31 32 33 34 35: 7 2 0 0 0

E. OPERATION TIME hrs/day cc- 36 37 38: 1 6

COLLECTION EQUIPMENT

F. INLET GAS RATE (SCFM) 32,000

INLET LOADING

G. GRAINS/SCF 39 40 41 42: 9.3 ✓

H. lbs/1000 lbs GAS 58 59 60 61

I. PRIMARY COLLECTOR: (See Code Below) 43 44: 1 0

J. SECONDARY COLLECTOR: (See Code Below) 62 63: 1 2

K. Card Cols. 45 46 47: 9 0 — 64 65 66: 9 4

L. OPERATION IS [X] Continuous [ ] Batch Cycle per batch (hrs.) CD. COLS. 48 49 50

CARD COLS 51 52 53 54 55 56 57

M. MEASURED – ESTIMATED – EMISSIONS TO ATMOSPHERE (lbs/hr) 67 68 69 70 71: 1 5.36

N. ALLOWABLE EMISSIONS TO ATMOSPHERE (lbs/hr.) 72 73 74 75 76: 1 5.36

INSTRUCTIONS: (NOTE – Dotted lines indicate position of decimal point. Use additional sheets for miscellaneous comments.)

Item A. Describe your source operation and type of process equipment.

B. List all starting raw materials charged, including solid fuels. Specify lbs/hr. For batch operations specify lbs.

C. Check appropriate boxes and enter discharge information.

D. Indicate the total weight rate of all materials introduced into the source operation. Solid fuels charged will be considered as part of the process weight but liquid and gaseous fuels and combustion air will not. Include recycled material. -- 80% of production.

E. Enter normal operational hours per day for this source operation.

F. Enter rate of gas inlet to collection equipment in standard cubic feet per minute.

G&H. Enter particulate concentration of gas inlet to collection equipment in either column G or H.

I&J. List collection equipment serving the process, code as follows:

01–Absorber 03–Catalytic burner 05–Spray Chamber 07–Packed Tower 09–Settling Chamber 11–Multiclone 13–Baghouse 15–Masking
02–Adsorber 04–Afterburner 06–Scrubber 08–Venturi Scrubber 10–Cyclone 12–Rotoclone 14–Precipitator 16–Other

K. Enter estimate of collector efficiency (%).

L. Check type of operation. For batch operation, enter hours per batch cycle.

M. Enter estimate of particulates emitted to the atmosphere from this operation in lbs/hr. Circle Measured or Estimated.

N. [illegible] allowable emission from Table I, Chapter III of the Regulations.

ILLINOIS AIR POLLUTION
CONTROL BOARD

cc 80 FORM B – SOURCE OPERATION DATA

I.D. NO

SOURCE OPERATION NUMBER 06 — cc 79 = CARD IDENTIFICATION – PUNCH: 9 — cc 1 – 6

A. DESCRIBE SOURCE OPERATION AND TYPE OF PROCESS EQUIPMENT.

New equipment for controlling emissions from reactor – agglomerator combined exit air

Nominal 12-12-12 as a typical large tonnage grade

OFFICE USE ONLY — CARD COLS. 10 11 12 13 — BEC NUMBER — 14 15 16 17 — BEC FACTOR

Card Cols. 7 8 9

B. RAW MATERIALS USED IN SOURCE OPERATION FOR NORMAL THROUGHPUT CAPACITY. NORMAL OPERATION IS 2 0 TPH % OF MAXIMUM CAPACITY. 100

MATERIAL	STARTING WEIGHT	MATERIAL	STARTING WEIGHT
1. Ammonium Sulfate	16,760 lbs./hr.	5. Anhydrous Ammonia	1,920 lbs./hr.
2. Triple Super	920 lbs./hr.	6. Sulfuric Acid	2,160 lbs./hr.
3. Potassium Chloride	8,000 lbs./hr.	7. Phosphoric Acid	6,800 lbs./hr.
4. Neutro-Phos	2,000 lbs./hr.	8. Filler	2,700 lbs./hr.

C. EMISSION: Check types of discharge that can possibly be emitted from process or equipment directly to atmosphere through stacks or ducts.

cc 19 - 1 [X] Solid, particulate matter — cc 20 - 3 [X] Gases, vapors or fumes — cc 22 - 5 [X] Mists or Aerosols

cc 19 - 2 [X] Steam — cc 21 - 4 [X] Odors of any type — cc 23 - 6 [ ] None

SOURCE OPERATION DISCHARGES – cc 24: 1 [X] From Stack 2 [ ] At Ground Level 3 [ ] From Vents or other Openings

25 26 27 28: 3 8 (FT.) STACK HEIGHT ABOVE GRADE

D. PROCESS WEIGHT RATE (lbs./hr.) cc 29 30 31 32 33 34 35: 7 2 0 0 0

E. OPERATION TIME hrs./day cc 36 37 38: 1 6

COLLECTION EQUIPMENT

F. INLET GAS RATE (SCFM) 9,000

INLET LOADING

G. GRAINS/SCF To wet scrubber. 39 40 41 42: 0 .28 5

H. lbs/1000 lbs GAS 58 59 60 61

I. PRIMARY COLLECTOR: (See Code Below) 43 44: 0 6

J. SECONDARY COLLECTOR: (See Code Below) 62 63

K. 45 46 47: 9.0

L. OPERATION [X] Continuous [ ] Batch — Cycle per batch (hrs.) 48 49 50

CARD COLS 51 52 53 54 55 56 57: 9 0 0 0

M. MEASURED – ESTIMATED – EMISSIONS TO ATMOSPHERE (lbs/hr) 67 68 69 70 71: 2 .2

N. ALLOWABLE EMISSIONS TO ATMOSPHERE (lbs/hr.) 72 73 74 75 76: 2.2

INSTRUCTIONS: (NOTE – Dotted lines indicate position of decimal point. Use additional sheets for miscellaneous comments.)

Item A. Describe your source operation and type of process equipment.

B. List all starting raw materials charged, including solid fuels. Specify lbs/hr. For batch operations specify lbs.

C. Check appropriate boxes and enter discharge information.

D. Indicate the total weight rate of all materials introduced into the source operation. Solid fuels charged will be considered as part of the process weight but liquid and gaseous fuels and combustion air will not. Include recycled material. -- 80% of production.

E. Enter normal operational hours per day for this source operation.

F. Enter rate of gas inlet to collection equipment in standard cubic feet per minute.

G&H. Enter particulate concentration of gas inlet to collection equipment in either column G or H.

I&J. List collection equipment serving the process, code as follows:

01–Absorber, 02–Adsorber, 03–Catalytic burner, 04–Afterburner, 05–Spray Chamber, 06–Scrubber, 07–Packed Tower, 08–Venturi Scrubber, 09–Settling Chamber, 10–Cyclone, 11–Multiclone, 12–Rotoclone, 13–Baghouse, 14–Precipitator, 15–Mechanical, 16–Other

K. Enter estimate of collector efficiency (%).

L. Check type of operation. For batch operation, enter hours per batch cycle.

1.37

ILLINOIS AIR POLLUTION
CONTR' OARD

cc 80 FORM B – SOURCE OPERATION DATA

SOURCE OPERATION NUMBER 12 — cc 79 = CARD IDENTIFICATION – PUNCH: 9 — I.D. NO cc 1 – 6

A. DESCRIBE SOURCE OPERATION AND TYPE OF PROCESS EQUIPMENT.

Existing equipment for controlling emissions from dryer-cooler combined exit air

Nominal 12-12-12 as a typical large tonnage grade

OFFICE USE ONLY — CARD COLS 10 11 12 13 — BEC NUMBER — 14 15 16 17 — BEC FACTOR

B. RAW MATERIALS USED IN SOURCE OPERATION FOR NORMAL THROUGHPUT CAPACITY. NORMAL OPERATION IS 20 TH % OF MAXIMUM CAPACITY. 100 (Card Cols. 7 8 9)

MATERIAL	STARTING WEIGHT	MATERIAL	STARTING WEIGHT
1. Ammonium Sulfate	16,760 lbs./hr.	5. Anhydrous Ammonia	1,920 lbs./hr.
2. Triple Super	920 lbs./hr.	6. Sulfuric Acid	2,160 lbs./hr.
3. Potassium Chloride	8,000 lbs./hr.	7. Phosphoric Acid	6,800 lbs./hr.
4. Neutro-Phos	2,000 lbs./hr.	8. Filler	2,700 lbs./hr.

C. EMISSION: Check types of discharge that can possibly be emitted from process or equipment directly to atmosphere through stacks or ducts.

cc 18 - 1 [X] Solid, particulate matter — cc 20 - 3 [X] Gases, vapors or fumes — cc 22 - 5 [X] Mists or Aerosols

cc 19 - 2 [X] Steam — cc 21 - 4 [X] Odors of any type — cc 23 - 6 [ ] None

SOURCE OPERATION DISCHARGES – cc 24: 1 [X] From Stack 2 [ ] At Ground Level 3 [ ] From Vents or other Opening

25 26 27 28: 3 8 (FT.) STACK HEIGHT ABOVE GRADE

D. PROCESS WEIGHT RATE (lbs./hr.) cc 29 30 31 32 33 34 35: 7 2 0 0 0

E. OPERATION TIME hrs/day cc 36 37 38: 1 6

OPERATION 74268 — [X] Continuous — [ ] Batch — Cycle per batch (hrs.) CD. COLS. 48 49 50 — CARD COLS 51 52 53 54 55 56 57: 3 2 0 2 0

COLLECTION EQUIPMENT

F. INLET GAS RATE (SCFM) 32,000

G. INLET LOADING GRAINS/SCF 39 40 41 42: 9.3 — To dryer-cooler dry cyclones.

H. INLET LOADING lbs/1000 lbs GAS 58 59 60 61

I. PRIMARY COLLECTOR: 43 44: 1 0 (See Code Below) — K. (%) Card Cols. 45 46 47: 9 0

J. SECONDARY COLLECTOR: 62 63: 1 2 (See Code Below) — K. (%) 64 65 66: 9 4

MEASURED — ESTIMATED – EMISSIONS TO ATMOSPHERE (lbs/hr) 67 68 69 70 71: 1 5.36 N.

ALLOWABLE EMISSIONS TO ATMOSPHERE (lbs/hr.) 72 73 74 75 76: ~~15.36~~ 13.71

INSTRUCTIONS: (NOTE – Dotted lines indicate position of decimal point. Use additional sheets for miscellaneous comments.)

em A. Describe your source operation and type of process equipment.
B. List all starting raw materials charged, including solid fuels. Specify lbs/hr. For batch operations specify lbs.
C. Check appropriate boxes and enter discharge information.
D. Indicate the total weight rate of all materials introduced into the source operation. Solid fuels charged will be considered as part of the process weight but liquid and gaseous fuels and combustion air will not. Include recycled material. -- 80% of production.
E. Enter normal operational hours per day for this source operation.
F. Enter rate of gas inlet to collection equipment in standard cubic feet per minute.
G&H. Enter particulate concentration of gas inlet to collection equipment in either column G or H.
I&J. List collection equipment serving the process, code as follows:

01–Absorber 03–Catalytic burner 05–Spray Chamber 07–Packed Tower 09–Settling Chamber 11–Multiclone 13–Baghouse 15–Masking
02–Adsorber 04–Afterburner 06–Scrubber 08–Venturi Scrubber 10–Cyclone 12–Rotoclone 14–Precipitator 16–Other

K. Enter estimate of collector efficiency (%).
L. Check type of operation. For batch operation, enter hours per batch cycle.
M. Enter estimate of particulates emitted to the atmosphere from this operation in lbs/hr. Circle Measured or Estimated.
N. Enter allowable emission from Table I, Chapter III of the Regulations.

ILLINOIS AIR POLLUTION
CONTROL BOARD

cc 80 FORM B – SOURCE OPERATION DATA

SOURCE OPERATION NUMBER 06 | cc 79 = CARD IDENTIFICATION – PUNCH: 9 | I.D. NO cc 1 – 6

A. DESCRIBE SOURCE OPERATION AND TYPE OF PROCESS EQUIPMENT.

New equipment for controlling emissions from reactor - agglomerator combined exit air

Nominal 12-12-12 as a typical large tonnage grade

OFFICE USE ONLY | CARD COLS 10 11 12 13 | BEC NUMBER | 14 15 16 17 | BEC FACTOR

B. RAW MATERIALS USED IN SOURCE OPERATION FOR NORMAL THROUGHPUT CAPACITY. NORMAL OPERATION IS 20 TPH (Card Cols. 7 8 9) % OF MAXIMUM CAPACITY. 100

MATERIAL	STARTING WEIGHT	MATERIAL	STARTING WEIGHT
1. Ammonium Sulfate	16,760 lbs./hr.	5. Anhydrous Ammonia	1,920 lbs./hr.
2. Triple Super	920 lbs./hr.	6. Sulfuric Acid	2,160 lbs./hr.
3. Potassium Chloride	8,000 lbs./hr.	7. Phosphoric Acid	6,800 lbs./hr.
4. Neutro-Phos	2,000 lbs./hr.	8. Filler	2,700 lbs./hr.

C. EMISSION: Check types of discharge that can possibly be emitted from process or equipment directly to atmosphere through stacks or ducts.

cc 19 - 1 [X] Solid, particulate matter
cc 19 - 2 [X] Steam
cc 20 - 3 [X] Gases, vapors or fumes
cc 21 - 4 [X] Odors of any type
cc 22 - 5 [X] Mists or Aerosols
cc 23 - 6 [ ] None

SOURCE OPERATION DISCHARGES – cc 24: 1 [X] From Stack 2 [ ] At Ground Level 3 [ ] From Vents or other Openings

25 26 27 28: 3 8 (FT.) STACK HEIGHT ABOVE GRADE

D. PROCESS WEIGHT RATE (lbs. hr.) cc 29 30 31 32 33 34 35: 7 2 0 6 0 5

E. OPERATION TIME hrs./day cc 36 37 38: 1 6

L. OPERATION 4268 hrs/yr
[X] Continuous
[ ] Batch
Cycle per batch (hrs.) ..... CO. COLS. 48 49 50

COLLECTION EQUIPMENT

F. INLET GAS RATE (SCFM) 9,000 — CARD COLS 51 52 53 54 55 56 57: 9 2 0 0

INLET LOADING

G. GRAINS/SCF ... To wet scrubber..... 39 40 41 42: 0.285

H. lbs/1000 lbs GAS 58 59 60 61

I. PRIMARY COLLECTOR: 43 44: 0 6 (See Code Below) — Card Cols. 45 46: 9 0

J. SECONDARY COLLECTOR: 62 63 (See Code Below) — Card Cols. 64

M. MEASURED – ESTIMATED – EMISSIONS TO ATMOSPHERE (lbs/hr) 67 68 69 70 71: 2.2

N. ALLOWABLE EMISSIONS TO ATMOSPHERE (lbs/hr.) 72 73 74: 2

INSTRUCTIONS: (NOTE – Dotted lines indicate position of decimal point. Use additional sheets for miscellaneous comments.)

Item A. Describe your source operation and type of process equipment.
B. List all starting raw materials charged, including solid fuels. Specify lbs/hr. For batch operations specify lbs.
C. Check appropriate boxes and enter discharge information.
D. Indicate the total weight rate of all materials introduced into the source operation. Solid fuels charged will be considered as part of the process weight but liquid and gaseous fuels and combustion air will not. Include recycled material. -- 80% of production.
E. Enter normal operational hours per day for this source operation.
F. Enter rate of gas inlet to collection equipment in standard cubic feet per minute.
G&H. Enter particulate concentration of gas inlet to collection equipment in either column G or H.
I&J. List collection equipment serving the process, code as follows:

01–Absorber 03–Catalytic burner 05–Spray Chamber 07–Packed Tower 09–Settling Chamber 11–Multiclone 13–Baghouse 15–Mechanical
02–Adsorber 04–Afterburner 06–Scrubber 08–Venturi Scrubber 10–Cyclone 12–Rotoclone 14–Precipitator 16–Other

K. Enter estimate of collector efficiency (%).
L. Check type of operation. For batch operation, enter hours per batch cycle.
M. Check Measured or Estimated.

1-37

INDUSTRIAL TESTING LABORATORIES inc.

Chemists
Engineers
Metallurgists

2350 Seventh Blvd. • St. Louis, Missouri 63104

314/PRospect 1-7111

ALLAN M. SIEGEL, Director

IL-SS-07

Report No. 25-1-235 (b) March 12, 1971

Determination of stack emissions at Swift Agricultural Chemical Corp., Fairmont, Illinois.

Swift Agricultural Chemical Corp.
2 North Riverside Plaza
Chicago, Illinois 60606

P. O. 220-295
Attn: Mr. E. N. Mortenson

0366 0 1 7 5 4

TEST REPORT

On March 4, 1971, additional tests were conducted at Swift Agricultural Chemical Corporation, Fairmont, Illinois.

Background on the plant systems and testing procedures are given in two previous I.T.L. reports, No. 25-1-235 and No. 25-1-235(a). These tests were performed in the presence of Mr. A. Telford and Mr. C. Beck of the Illinois Enviornmental Protection Agency.

Due to very low ammonia inventories at the plant on the test date, it was decided that the second test on each scrubber would be reduced to one-half hour duration and sampled on the basis of the velocity data collected for the first sampling period.

Respectfully submitted,

INDUSTRIAL TESTING LABORATORIES, INC.

Allan M. Siegel, Director

AMS/ps

INDUSTRIAL TESTING LABORATORIES inc.

Chemists
Engineers
Metallurgists

2350 Seventh Blvd. • St. Louis, Missouri 63104 | 314/PRospect 1-7111

ALLAN M. SIEGEL, Director

SUMMARY

Location (Scrubber for)	Granulator	Granulator
Test Number	A	B
Duration, hrs.	1	½
Particulate Emissions *		
Total Particulate, lbs/hr	1.07	0.90
Total Particulate, grains/SCF	0.025	0.021
Fume, lb/hr	0.016	0.013
Fume Weight Percent	1.5	1.4

O/C O/C

* Standard Conditions 70°F. and 29.92 in Hg.

Location (Scrubber for)	Granulator	Granulator
Test Number	A	B
Test Date	3/4/71	3/4/71
Time	3:30 p.m.-4:30 p.m.	4:45 p.m.-5:45 p.m.
Ambient Conditions:		
Barometric Pressure, in Hg.	29.65	29.65
Average Temperature, °F.	52	52
Relative Humidity, %	20	20
Collection Equipment:		
Nozzle Diameter, in.	¼	¼
Nozzle Area, sq. ft.	0.000341	0.000341
Impingers	Greenburg-Smith	Greenburg-Smith

0 3 6 6 0 0 1 7 5 5

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ALLAN M. SIEGEL, Director

SUMMARY

Location (Scrubber for)	Dryer-Cooler	Dryer-Cooler
Test Number	C	D
Duration, hrs.	1	½
Particulate Emissions*	Doesn't meet Rule 3-3.2512	.005 gr/SCF
Total Particulate, lbs/hr.	18.1	21.6
Total Particulate, grains/SCF	0.069	0.082
Fume, lbs/hr.	0.42	1.15
Fume, Weight Percent	2.3	5.4

* Standard Conditions 70°F. and 29.92 in Hg.

Location (Scrubber for)	Granulator	Granulator
Test Number	A	B
Test Date	3/4/71	3/4/71
Time	3:30 P.M.-4:30 P.M.	4:45 P.M.-5:45 P.M.
Ambient Conditions:		
Barometric Pressure, in Hg.	29.65	29.65
Average Temperature, °F.	52	52
Relative Humidity, %	20	20
Collection Equipment:		
Nozzle Diameter, in.	¼	¼
Nozzle Area, sq. ft.	0.000341	0.000341
Impingers	Greenburg-Smith	Greenburg-Smith

0 3 6 6 0 1 7 5 6

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Metallurgists

2350 Seventh Blvd. • St. Louis, Missouri 63104 | 314/PRospect 1-7111

ALLAN M. SIEGEL, Director

Swift Agri. Chem. Co.
CHICAGO
MAY 3 1971
Engineering Services

Report No. 25-4-230 April 21, 1971

Determination of stack emissions at Swift Agricultural Chemical Corporation, Fairmount, Illinois.

Swift Agricultural Chemical Corporation
2 North Riverside Plaza
Chicago, Illinois 60606

Attn: Mr. E. N. MORTENSON
E. N. MORTENSON

0366 1017 60

TEST REPORT

On April 14, 1971 emission tests were conducted on the American Air Filter scrubber (dryer-cooler system) of Swift Agricultural Chemical Corporation, Fairmount, Illinois.

Background information on plant systems and test procedures may be found in previously issued Industrial Testing Laboratories Reports No. 25-1-235, 25-1-235 (a), and 25-1-235 (b).

Mr. Joe Burrough, of the Illinois Environmental Protection Agency, was present while the tests were being conducted.

Respectfully submitted,

INDUSTRIAL TESTING LABORATORIES, INC.

Allan M. Siegel

Allan M. Siegel, Director

es

INDUSTRIAL TESTING LABORATORIES inc.

Chemists
Engineers
Metallurgists

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ALLAN M. SIEGEL, Director

SUMMARY

Date	4/14/71	4/14/71
Location (Scrubber for)	Dryer-Cooler	Dryer-Cooler
Test No.	1	2
Duration, hours	1	1
Particulate Emissions *		
Total Particulate, lbs/hr.	4.1	2.9
Total Particulate, grains/SCF	0.017	0.012
Fume, lbs/hr.	0.0008	0.0005
Fume, Weight, %	0.2	0.2

* Standard Conditions of 70°F and 29.92 in Hg.

0366 001761

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ALLAN M. SIEGEL, Director

Location - Exhaust Gases from Dryer-Cooler Scrubber Stack

Test No.	1	2
Test Date	4/14/71	4/14/71
Test Time	2:00-3:00 P.M.	3:30-4:30 P.M.
Ambient Conditions		
Barometric Pressure, in Hg.	30.04	30.00
Average Temperature, °F.	62	63
Relative Humidity, %	26	22
Collection Equipment		
Nozzle Diameter, in.	1/4	1/4
Nozzle Area, Sq. Ft.	0.000341	0.000341
Impinger	Greenburg-Smith	Greenburg-Smith
Stack Data		
Traverse Points	6	6
Diameter, in.	38	38
Area, Sq. Ft.	7.87	7.87
Gas Temperature, °F.	102	102
°R.	562	562
Stack Pressure, in Hg.	30.08	30.04
Gas Density (A=1)	0.954	0.954
Volume Output, c.f.m.		
Stack Conditions	30,360	30,360
Standard Conditions	28,790	28,790

0 3 6 6 1 0 1 7 6 2

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ALLAN M. SIEGEL, Director

Test No.	1	2
Meter Data		
Meter Temperature, °F.	77	74
°R.	537	534
Average Vacuum, in Hg.	7.6	7.1
Average Pressure, in Hg.	22.5	23.0
Sampling Rate, c.f.m.	1.31	1.31
Sample Volume, cu. ft.		
Metered Volume	78.6	78.6
Total Volume (meter cond.)	79.2	79.4
Total Volume (Std. cond.)	59.6	60.6
Particulate Matter Collected		
Water Condensed, mls.	13	17
Alundum Thimble, gms	0.0651	0.0454
Impinger Train, gms	0.0001	0.0001
Total Solid Particulate, gms	0.0652	0.0455
Particulate Output		
Grains/SCF (Total Particulate)	0.0171	0.0116
Pounds/hr. (Total Particulate)	4.21	2.86
Fume, %	0.2	0.2

0366701763

Calculations

I Volume Output = 64.3 ft/sec × 60 × 7.87 ft² = 30,362 aFm

Standard Conditions 30,362 × $\frac{30.08}{29.92}$ × $\frac{530}{562}$ = 28,786 scfm

II Sample Volume (H_2O condensate correction)

V_1 = .00267 × $\frac{13 \times 527}{22.5}$ = 0.83 + 78.6 = 79.4

V_2 = .00267 × $\frac{17 \times 534}{23.0}$ 1.05 + 78.6 = 79.6

III Sample Volume; Standard Conditions

V_1 = 79.4 × $\frac{22.5}{29.92}$ × $\frac{530}{527}$ = 58.9

V_2 = 79.6 × $\frac{23.0}{29.92}$ × $\frac{530}{534}$ = 60.7

IV Particulate Concentration & Dust Load

Test No 1 $\frac{.0652 \times 15.43}{58.9}$ = .0171 × $\frac{28,786}{7000}$ × 60 = 4.21 #/hr

Test No 2 $\frac{.0455 \times 15.43}{60.7}$ = .0116 × $\frac{28,786}{7000}$ × 60 = 2.86 #/hr

V Fume Percent

Test No 1 = $\frac{.0001 \times 100\%}{.0652}$ = 0.2%

Test No 2 = $\frac{.0001 \times 100\%}{.0455}$ = 0.2%

Job: Swift Agricultural Chem Date 4-14-71 Test No 1, 2

Location Dryer Cooler Scrubber Exhaust

Pt. No.	STACK DATA Milli-Volts	Temp °F	Draft In. H_2O	Velocity Ft/Sec	METER DATA FOR SAMPLING Sample Rate CFM	Meter Start	Meter Stop	Sample C.F.	Vacuum In Hg	Temp °F		TIME Start	Stop
A1	1.55	102	.72	59.5	1.21	70.0	82.1	12.1	6.0	77		2:00	2:10
2	1.56	102	.74	60.5	1.23	82.1	94.4	12.3	7.0	77		2:10	2:20
3	156	102	.72	59.5	1.21	94.4	106.5	12.1	6.8	77		2:20	2:30
4	156	102	.90	66.6	1.36	106.5	120.1	13.6	7.5	76		2:30	2:40
5	156	102	1.02	71.0	1.45	120.1	134.6	14.5	9.0	76		2:40	2:50
6	156	102	.94	68.7	1.40	134.6	148.6	14.0	9.0	77		2:50	3:00
$\bar{x}$				64.3	1.31			78.6	7.6	77			
B1					1.21	148.6	160.7	12.1	6.5	74		3:30	3:40
2					1.23	160.7	173.0	12.3	6.5	74		3:40	3:50
3					1.21	173.0	185.1	12.1	7.0	74		3:50	4:00
4					1.36	185.1	198.7	13.6	7.5	74		4:00	4:10
5					1.45	198.7	213.2	14.5	7.8	74		4:10	4:20
6					1.40	213.2	227.2	14.0	7.6	74		4:20	4:30 PM
$\bar{x}$					1.31			78.6	7.1	74			

$V_s = 2.9\sqrt{\frac{29.92}{30.08} \times \frac{1}{.954} \times HTS} = 70.2\sqrt{H} =$ Sample Rate = $V_s \times .0204$

Stack Dimensions 3" x 2.5" Stack Area 7.5" Static Pressure 0.04" .50

Ambient Conditions: Temp: 72 @ 72 Bar Press: 30.00 @ 30.04 Relative Humidity 22 @ 26

Gas Analysis (Bg Orsat) CO_2 0 CO 0 O_2 21.0 N_2 79.0

Gas Moisture Content: 3.7 % Gas Density .954

Collection Nozzle: Dia 1/4 Area 0.000341 sq ft Factor 0.0204

Matter Collected: Solid Particulate _____; Water @ = 13 @ = 17

Smoke Observation: _____

Comments P_B @ 30.08 @ 30.04, V_{mc} @ = 7.6, $\bar{H}$ @ = 7.1, T_s @ = 562 @ = 562; T_M @ = 534 @ = 537, P_M @ 22.5 @ 23.0

RICHARD B. OGILVIE
Governor

STATE OF ILLINOIS

ENVIRONMENTAL PROTECTION AGENCY

WILLIAM L. BLASER
DIRECTOR

June 23, 1971

In Reply Refer To:
APC/RRF
ID#504190

ST. CLAIR CO/FAIRMONT CITY
CE 71 114

W. H. Biederman
Director of Engineering
Swift Agricultural Chemicals Corp.
111 West Jackson
Chicago, Illinois 60604

Dear Mr. Bierman:

Permit is hereby granted to Swift Agricultural Chemical Corporation to operate its fertilizer plant in Fairmont City, Illinois, which was constructed pursuant to installation permit CE 70 147 1.

This permit is issued subject to the following conditions: (1) this permit shall not be valid after August 31, 1971. (2) in the event that odors are emitted from the plant during the temporary operating period and are determined to be objectionable beyond the plant boundaries Swift Agricultural Chemicals Corporation shall immediately modify its operation of the plant to reduce the odors to an acceptable level. (3) the emissions from the dryer-cooler shall be tested for particulate matter and fume concentrations. As a minimum such tests shall be conducted when the plant is producing a fertilizer formulation known as 12-12-12. Such tests are to be conducted by a third party and shall be conducted during the temporary operating period.

Respectfully,

John J. Roberts, Manager
Bureau of Air Pollution Control

RRF:ld
cc: Region 4

0366 0 01769

This permit is granted in accordance with requirements of "Rules and Regulations Governing the Control of Air Pollution" as authorized by the "Environmental Protection Act" approved June 29, 1970, and is subject to the following conditions:

1. If any statement or representation in the application is incorrect, this permit is void and the permittee thereupon waives all rights thereunder.

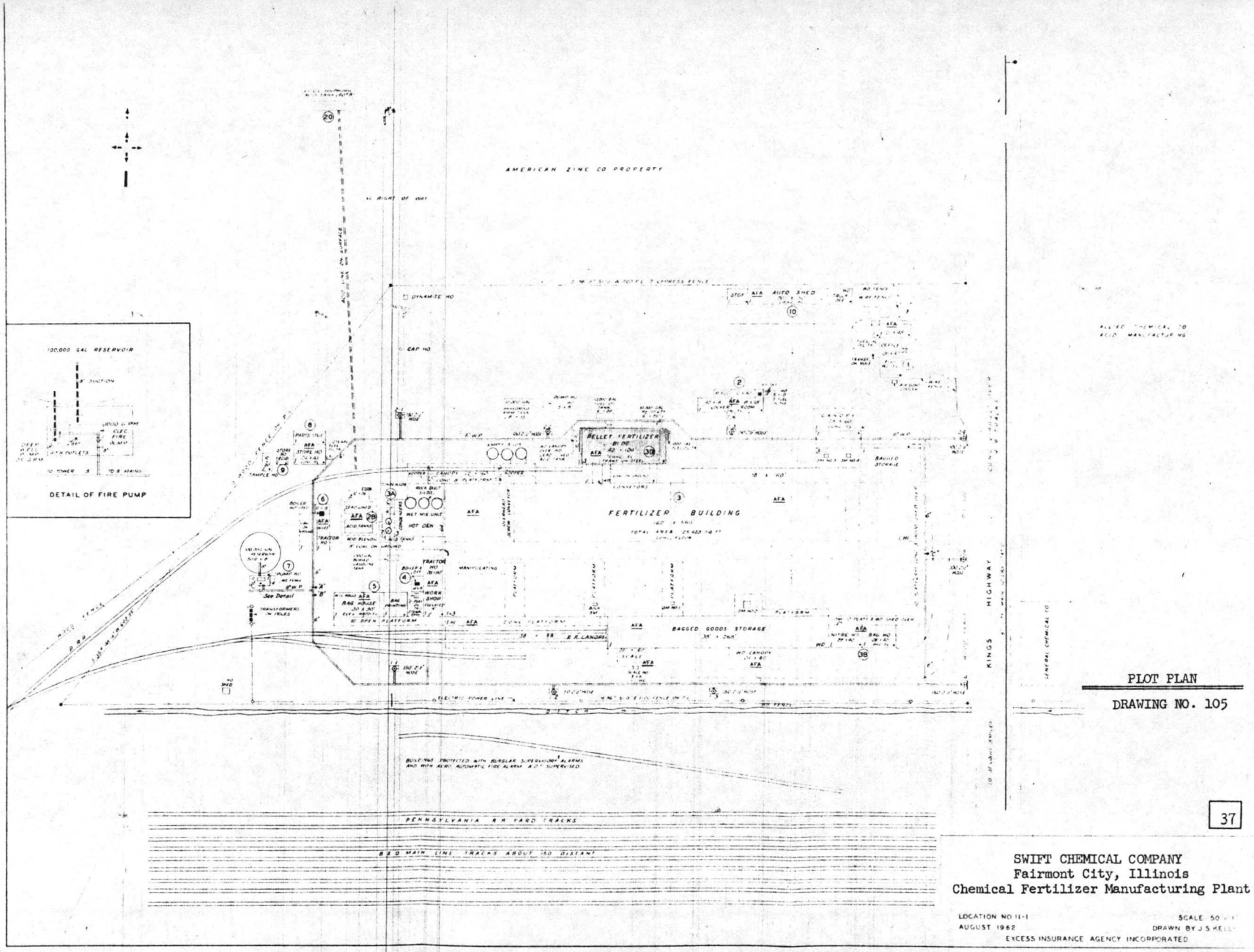
2. There shall be no deviation from the approved plans and specifications unless additional or revised plans are submitted to the Environmental Protection Agency and a supplemental written permit issued.

3. At any time during or after the construction or the installation of the equipment for which this permit was issued, any agent of the Environmental Protection Agency shall have the right and authority to inspect such equipment.

4. This authority, (a) shall not in any manner affect the title to the premises upon which the equipment is to be located, (b) does not release the permittee from any liability for any loss due to damage to person or property caused by, resulting from or arising out of the design installation, maintenance, or operation of the proposed equipment, (c) does not release the permittee from compliance with other applicable statutes of the State of Illinois, or with applicable local laws, regulations or ordinances. (d) in no manner implies or suggests that the Environmental Protection Agency, or its officers, agents or employees, assumes any liability, directly or indirectly, for any loss due to damage to person or property caused by, resulting from or arising out of the design installation, maintenance, or operation of the proposed equipment.

5. This permit is subject to review and change by the Environmental Protection Agency as deemed necessary to fulfill the intent and purpose of the Environmental Protection Act and Regulations thereunder promulgated.

0366101770



PLOT PLAN

DRAWING NO. 105

37

SWIFT CHEMICAL COMPANY
Fairmont City, Illinois
Chemical Fertilizer Manufacturing Plant

LOCATION NO 11-1
AUGUST 1962
SCALE 50 - 1
DRAWN BY J S KELL
EXCESS INSURANCE AGENCY INCORPORATED

0 3 6 6 0 0 0 1 9 5 7

ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF AIR POLLUTION CONTROL
2200 CHURCHILL ROAD
SPRINGFIELD, ILLINOIS 62706

RICHARD B. OGILVIE, GOVERN
WILLIAM L. BLASER, DIRECT

ADDENDUM A
DATA AND INFORMATION
FOR EXISTING EMISSION SOURCE

FAN DATA

FOR OFFICIAL USE ONLY
I.D. NO.
PERMIT NO. S
DATE

1. NAME OF OWNER: SWIFT CHEMICAL CO.	2. NAME OF CORPORATE DIVISION OR PLANT (IF DIFFERENT FROM OWNER):
3. STREET ADDRESS OF EMISSION SOURCE: 2501 North Kingshighway	4. CITY: Fairmont City
5. MANUFACTURER OF FAN: Buffalo Forge Co.	6. MANUFACTURER OF MOTOR: Westinghouse
7. MODEL NUMBER OF FAN: Buffalo #90 MW	8. TYPE OF MOTOR: Totally enclosed
9. TYPE OF FAN BLADE: OW	10. MOTOR HORSEPOWER: 150 Hp
11. IDENTIFICATION OF FAN ON THE FLOW DIAGRAM: B-Z	12. LOCATION OF FAN: Between CY 1 & 2 and SR-2
13. MANUFACTURER OF FAN: Plastic Blower Co.	14. MANUFACTURER OF MOTOR: Allis-Chalmers
15. MODEL NUMBER OF FAN: BPH Series, Size 20	16. TYPE OF MOTOR: Totally enclosed
17. TYPE OF FAN BLADE: Open Impeller	18. MOTOR HORSEPOWER: 50 Hp
19. IDENTIFICATION OF FAN ON THE FLOW DIAGRAM: B-1	20. LOCATION OF FAN: Between R-1 and SR-1
21. MANUFACTURER OF FAN:	22. MANUFACTURER OF MOTOR:
23. MODEL NUMBER OF FAN:	24. TYPE OF MOTOR:
25. TYPE OF FAN BLADE:	26. MOTOR HORSEPOWER:
27. IDENTIFICATION OF FAN ON THE FLOW DIAGRAM:	28. LOCATION OF FAN:
29. MANUFACTURER OF FAN:	30. MANUFACTURER OF MOTOR:
31. MODEL NUMBER OF FAN:	32. TYPE OF MOTOR:
33. TYPE OF FAN BLADE:	34. MOTOR HORSEPOWER:
35. IDENTIFICATION OF FAN ON THE FLOW DIAGRAM:	36. LOCATION OF FAN:
37. MANUFACTURER OF FAN:	38. MANUFACTURER OF MOTOR:
39. MODEL NUMBER OF FAN:	40. TYPE OF MOTOR:
41. TYPE OF FAN BLADE:	42. MOTOR HORSEPOWER
43. IDENTIFICATION OF FAN ON THE FLOW DIAGRAM:	44. LOCATION OF FAN:

STATE OF ILLINOIS
ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF AIR POLLUTION CONTROL
2200 CHURCHILL ROAD
SPRINGFIELD, ILLINOIS 62706

RICHARD B. OGILVIE, GOVERNOR

WILLIAM L. BLASER, DIRECTOR

004

ADDENDUM F
DATA AND INFORMATION
FOR EXISTING EMISSION SOURCE

TANK (Fuel oil)

FOR OFFICIAL USE ONLY

I.D. NO.

PERMIT NO. S

DATE

1. NAME OF OWNER: SWIFT CHEMICAL CO.

2. NAME OF CORPORATE DIVISION OR PLANT (IF DIFFERENT FROM OWNER):

3. STREET ADDRESS OF EMISSION SOURCE: 2501 N. Kingshighway

4. CITY: Fairmont City

5. NAME OF TANK MANUFACTURER: Unknown

6. DESIGNATION OF TANK: Fuel Oil Storage

7. SERIAL NUMBER: None shown on tank

8. CAPACITY: 10,000 ☐ BBLS ☒ GALS

9. TANK USE: Storage of No. 2 Fuel Oil

10. TANK SHAPE: ☒ HORIZONTAL ☐ CYLINDRICAL ☐ SPHERICAL ☐ OTHER (SPECIFY)

11. TANK DIAMETER: 8.5 FT.

12. TANK HEIGHT: FT

13. TANK LENGTH: 27 FT

14. STATUS: Existing ☐ NEW ☐ ALTERATION

15. TANK TYPE: ☐ FIXED ROOF ☐ FLOATING ROOF ☐ PRESSURE ☐ OTHER (SPECIFY)

16. SEAL: None ☐ SINGLE ☐ DOUBLE ☐ OTHER (SPECIFY)

17. AVERAGE DISTANCE FROM TOP OF TANK SHELL TO LIQUID: 6" at maximum fill FT

18. SHELL TYPE: ☐ RIVETED ☒ WELDED ☐ OTHER (SPECIFY)

19. PAINT COLOR: Gray

VENT VALVE DATA

TYPE OF VENT	NUMBER OF VENTS	PRESSURE SETTING	DISCHARGE VENTED TO (ATMOSPHERE, FLARE, ETC)
20. Combination	a.	b. PSIG	c.
21. PRESSURE	a.	b. PSIG	c.
22. VACUUM	a.	b. PSIG	c.
23. OPEN To Atmos.	a.	b. PSIG	c. To atmosphere

MATERIALS TO BE STORED

MATERIAL	DENSITY	VAPOR PRESSURE AT 70° F
24. a.	b. LBS/GAL	c. PSIA
25. a. No. 2 Fuel Oil	b. 7.3 LBS/GAL	c. RVP > 0.10* PSIA
26. a.	b. LBS/GAL	c. PSIA
27. a.	b. LBS/GAL	c. PSIA

28. STORAGE TEMPERATURE: MINIMUM 30 °F MAXIMUM 75 °F

29. TANK TURN OVER PER YEAR: Approx. 8

30. MAXIMUM FILLING RATE: 100 gpm ☐ BBLS/DAY ☐ GALS/DAY

31. AVERAGE THROUGH PUT: 300 ☐ BBLS/DAY ☒ GALS/DAY

32. PRESSURE EQUALIZERS USED: ☐ YES ☒ NO

33. VAPOR LOSS CONTROL DEVICE: ☐ YES ☒ NO

IF VAPOR LOSS CONTROL DEVICE IS USED COMPLETION PERMIT APPLICATION FOR AIR POLLUTION CONTROL EQUIPMENT (FORM APC-61) SHALL ALSO BE COMPLETED AND SUBMITTED AS PART OF THIS APPLICATI

Swift Agri. Chem.

* Basis information from American Oil Company - Standard oil Div.

Reid Vapor Pressure less than 0.10 PSIA at 100° F

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APC 76

STATE OF ILLINOIS
ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF AIR POLLUTION CONTROL
2200 CHURCHILL ROAD
SPRINGFIELD, ILLINOIS 62706

RICHARD B. OGILVIE, GOVERNOR
WILLIAM L. BLASER, DIRECTOR

ADDENDUM F
DATA AND INFORMATION
FOR EXISTING EMISSION SOURCE

TANK (Small Anhydrous NH_3)

FOR OFFICIAL USE ONLY
I.D. NO.
PERMIT NO. S
DATE

1. NAME OF OWNER: SWIFT CHEMICAL COMPANY
2. NAME OF CORPORATE DIVISION OR PLANT (IF DIFFERENT FROM OWNER):
3. STREET ADDRESS OF EMISSION SOURCE: 2501 North Kingshighway
4. CITY: Fairmont City
5. NAME OF TANK MANUFACTURER: Not known - name plate missing
6. DESIGNATION OF TANK: Anhydrous small Ammonia Storage
7. SERIAL NUMBER: Ditto
8. CAPACITY: ☐ BBLS ☐ GALS
9. TANK USE: Liquid Anhydrous Ammonia
10. TANK SHAPE: ☒ HORIZONTAL ☐ CYLINDRICAL ☐ SPHERICAL ☐ OTHER (SPECIFY)
11. TANK DIAMETER: 6 FT.
12. TANK HEIGHT: FT.
13. TANK LENGTH: 50
14. STATUS: Existing ☐ NEW ☐ ALTERATION
15. TANK TYPE: ☒ PRESSURE ☐ FIXED ROOF ☐ FLOATING ROOF ☐ OTHER (SPECIFY)
16. SEAL: ☐ SINGLE ☐ DOUBLE ☐ OTHER (SPECIFY)
17. AVERAGE DISTANCE FROM TOP OF TANK SHELL TO LIQUID: At maximum fill (85% of capacity) 1'-3"
18. SHELL TYPE: ☐ RIVETED ☒ WELDED ☐ OTHER (SPECIFY)
19. PAINT COLOR: Gray

VENT VALVE DATA 2 vents with two safety relief valves

TYPE OF VENT	NUMBER OF VENTS	PRESSURE SETTING	DISCHARGE VENTED TO (ATMOSPHERE, FLARE, ETC)
20. Combination	a.	b. PSIG	c.
21. PRESSURE (Safety)	a. 2	b. 250 PSIG	c. Discharge to atmosphere only in unlikely event tank pressure exceeds 250 psig
22. VACUUM	a.	b. PSIG	c.
23. OPEN	a.	b. PSIG	c.

MATERIALS TO BE STORED

MATERIAL	DENSITY	VAPOR PRESSURE AT 70° F
24. a. Liquid Anhydrous Ammonia	b. 5.08 LBS/GAL	c. 128.8 PS
25. a.	b. LBS/GAL	c. PS
26. a.	b. LBS/GAL	c. PS
27. a.	b. LBS/GAL	c. PS

28. STORAGE TEMPERATURE: MINIMUM 20 °F MAXIMUM 85 °F
29. TANK TURN OVER PER YEAR: 28
30. MAXIMUM FILLING RATE: 50 gpm ☐ BBLS/DAY ☐ GALS/DAY
31. AVERAGE THROUGHPUT: 1300 ☐ BBLS/DAY ☒ GALS/DAY
32. PRESSURE EQUALIZERS USED: ☒ YES ☐ NO
33. VAPOR LOSS CONTROL DEVICE: ☐ YES ☒ NO
IF VAPOR LOSS CONTROL DEVICE IS USED, [illegible] PERMIT APPLICATION FOR AIR POLLUTION CONTROL EQUIPMENT (FORM APC-61) [illegible] SUBMITTED AS PART OF THIS APPLIC.

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APC 76

STATE OF ILLINOIS
ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF AIR POLLUTION CONTROL
2200 CHURCHILL ROAD
SPRINGFIELD, ILLINOIS 62706

RICHARD B. OGILVIE, GOVERNOR

WILLIAM L. BLASER, DIRECTOR

ADDENDUM F
DATA AND INFORMATION
FOR EXISTING EMISSION SOURCE

TANK (Large Anhydrous NH_3)

FOR OFFICIAL USE ONLY
I.D. NO.
PERMIT NO. S
DATE

1. NAME OF OWNER: SWIFT CHEMICAL COMPANY
2. NAME OF CORPORATE DIVISION OR PLANT (IF DIFFERENT FROM OWNER
3. STREET ADDRESS OF EMISSION SOURCE: 2501 North Kingshighway
4. CITY: Fairmont City
5. NAME OF TANK MANUFACTURER: Not known name plate missing
6. DESIGNATION OF TANK: Large Anhydrous Ammonia Storage
7. SERIAL NUMBER: Ditto
8. CAPACITY: 32000 ☐ BBLS ☒ GALS
9. TANK USE: Liquid Anhydrous Ammonia
10. TANK SHAPE: ☒ HORIZONTAL ☐ CYLINDRICAL ☐ SPHERICAL ☐ OTHER (SPECIFY)
11. TANK DIAMETER: 9'-3" FT.
12. TANK HEIGHT: FT.
13. TANK LENGTH: 62'-9"
14. STATUS: Existing ☐ NEW ☐ ALTERATION
15. TANK TYPE: ☐ FIXED ROOF ☐ FLOATING RO ☒ PRESSURE ☐ OTHER (SPECIFY)
16. SEAL: ☐ SINGLE ☐ DOUBLE ☐ OTHER (SPECIFY)
17. AVERAGE DISTANCE FROM TOP OF TANK SHELL TO LIQUID: At maximum fill (85% of capacity) 2
18. SHELL TYPE: ☐ RIVETED ☒ WELDED ☐ OTHER (SPECIFY)
19. PAINT COLOR: Gray

VENT VALVE DATA 2 vents with two safety relief valves

TYPE OF VENT	NUMBER OF VENTS	PRESSURE SETTING	DISCHARGE VENTED TO (ATMOSPHERE, FLARE, ETC)
20. Combination	a.	b. PSIG	c.
21. PRESSURE Safety	a.	b. 250 PSIG	c. Discharge to atmosphere only in unlikely event tank pressure exceeds 250 psig
22. VACUUM	a.	b. PSIG	c.
23. OPEN	a.	b. PSIG	c.

MATERIALS TO BE STORED

MATERIAL	DENSITY	VAPOR PRESSURE AT 70° F
24. a. Liquid Anhydrous Ammonia	b. 5.08 LBS/GAL	c. 128.8 PS
25. a.	b. LBS/GAL	c. PS
26. a.	b. LBS/GAL	c. PS
27. a.	b. LBS/GAL	c. PS

28. STORAGE TEMPERATURE: MINIMUM 20 °F MAXIMUM 85 °F
29. TANK TURN OVER PER YEAR: 32
30. MAXIMUM FILLING RATE: 50 gpm ☐ BBLS/DAY ☐ GALS/DAY
31. AVERAGE THROUGH PUT: 3700 ☐ BBLS/DA ☒ GALS/DA
32. PRESSURE EQUALIZERS USED: ☒ YES ☐ NO
33. VAPOR LOSS CONTROL DEVICE: ☐ YES ☒ NO
IF VAPOR LOSS CONTROL DEVICE IS USED, [illegible] PERMIT APPLICATION FOR AIR POLLUTION CONTROL EQUIPMENT (FORM APC-61) SHALL HAVE BEEN COMPLETED AND SUBMITTED AS PART OF THIS APPLIC.

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APC 76

STATE OF ILLINOIS
ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF AIR POLLUTION CONTROL
2200 CHURCHILL ROAD
SPRINGFIELD, ILLINOIS 62706

RICHARD B. OGILVIE, GOVERNOR
WILLIAM L. BLASER, DIRECTOR

ADDENDUM F
DATA AND INFORMATION
FOR EXISTING EMISSION SOURCE

005

TANK
(South Phosphoric Acid Tank)

FOR OFFICIAL USE ONLY
I.D. NO.
PERMIT NO. S
DATE

1. NAME OF OWNER: SWIFT CHEMICAL CO.
2. NAME OF CORPORATE DIVISION OR PLANT (IF DIFFERENT FROM OWNER
3. STREET ADDRESS OF EMISSION SOURCE: 2501 N. Kingshighway
4. CITY: Fairmont City
5. NAME OF TANK MANUFACTURER: Built by prior owners-Manuf. not known
6. DESIGNATION OF TANK: Phosphoric Acid Tank (South)
7. SERIAL NUMBER: Has none
8. CAPACITY: 32000 ☐ BBL ☒ GAL
9. TANK USE: Storage of Wet Process Phosphoric Acid
10. TANK SHAPE: ☐ HORIZONTAL ☐ CYLINDRICAL ☐ SPHERICAL ☒ OTHER (SPECIFY) Open rectangular lead-lin wood vat
11. TANK DIAMETER: Width 12 FT.
12. TANK HEIGHT: 10 FT
13. TANK LENGTH: 36
14. STATUS: Existing ☐ NEW ☐ ALTERATION
15. TANK TYPE: ☐ FIXED ROOF ☐ FLOATING R ☐ PRESSURE ☒ OTHER (SPECIFY) Open top
16. SEAL: None ☐ SINGLE ☐ DOUBLE ☐ OTHER (SPECIFY)
17. AVERAGE DISTANCE FROM TOP OF TANK SHELL TO LIQUID: Not applicable
18. SHELL TYPE: ☐ RIVETED ☐ WELDED ☐ OTHER (SPECIFY)
19. PAINT COLOR: Not painted

VENT VALVE DATA None required - open vat

TYPE OF VENT	NUMBER OF VENTS	PRESSURE SETTING	DISCHARGE VENTED TO (ATMOSPHERE, FLARE, ETC)
20. Combination	a.	b. PSIG	c.
21. PRESSURE	a.	b. PSIG	c.
22. VACUUM	a.	b. PSIG	c.
23. OPEN	a.	b. PSIG	c.

MATERIALS TO BE STORED

MATERIAL	DENSITY	VAPOR PRESSURE AT 70° F
24. a. Wet Process Phosphoric Acid	b. 14.1 LBS/GAL	c. 1 mm Hg* PS
25. a.	b. LBS/GAL	c. PS
26. a.	b. LBS/GAL	c. PS
27. a.	b. LBS/GAL	c. PS

28. STORAGE TEMPERATURE: MINIMUM 30 °F MAXIMUM 70 °F
29. TANK TURN OVER PER YEAR: 7.5
30. MAXIMUM FILLING RATE: 50 gpm ☐ BBLS/DAY ☐ GALS/DAY
31. AVERAGE THROUGH PUT: 3400 ☐ BBLS/DA ☒ GALS/DA
32. PRESSURE EQUALIZERS USED: ☐ YES ☒ NO
33. VAPOR LOSS CONTROL DEVICE: ☐ YES ☒ NO
IF VAPOR LOSS CONTROL DEVICE IS [illegible] PERMIT APPLICATION FOR AIR POLLUTION CO TROL EQUIPMENT (FORM APC-61) [illegible] SUBMITTED AS PART OF THIS APPLIC

*See Fig. 3-1 page 3-61 Chemical Engrs. Hdbk. 4th Ed.

STATE OF ILLINOIS
ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF AIR POLLUTION CONTROL
2200 CHURCHILL ROAD
SPRINGFIELD, ILLINOIS 62706

RICHARD B. OGILVIE, GOVERNOR
WILLIAM L. BLASER, DIRECTOR

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ADDENDUM F
DATA AND INFORMATION
FOR EXISTING EMISSION SOURCE
TANK (Sulfuric Acid Tank)

FOR OFFICIAL USE ONLY
I.D. NO.
PERMIT NO. $
DATE

1. NAME OF OWNER: SWIFT CHEMICAL COMPANY
2. NAME OF CORPORATE DIVISION OR PLANT (IF DIFFERENT FROM OWNER
3. STREET ADDRESS OF EMISSION SOURCE: 2501 N. Kingshighway
4. CITY: Fairmont City
5. NAME OF TANK MANUFACTURER: Built by prior owners - Manuf.not known
6. DESIGNATION OF TANK: Sulfuric Acid (60° Be) Storage
7. SERIAL NUMBER: Has none
8. CAPACITY: 10,000 ☐ BBLS ☒ GALS
9. TANK USE: Storage of Sulfuric Acid (60° Be)
10. TANK SHAPE: ☐ HORIZONTAL ☐ CYLINDRICAL ☐ SPHERICAL ☐ OTHER (SPECIFY) Open rectangular lead-lined wood vat
11. TANK ~~DIAMETER~~ Width 8 FT.
12. TANK HEIGHT: 7 FT
13. TANK LENGTH: 24
14. STATUS: Existing ☐ NEW ☐ ALTERATION
15. TANK TYPE: ☐ FIXED ROOF ☐ FLOATING RO ☐ PRESSURE ☒ OTHER (SPECIFY) Open to
16. SEAL: None ☐ SINGLE ☐ DOUBLE ☐ OTHER (SPECIFY)
17. AVERAGE DISTANCE FROM TOP OF TANK SHELL TO LIQUID: Not applicable
18. SHELL TYPE: ☐ RIVETED ☐ WELDED ☒ OTHER (SPECIFY) Lead-Lined Wood
19. PAINT COLOR: Not painted

VENT VALVE DATA none required - open vat

TYPE OF VENT	NUMBER OF VENTS	PRESSURE SETTING	DISCHARGE VENTED TO (ATMOSPHERE, FLARE, ETC)
20. Combination	a.	b. PSIG	c.
21. PRESSURE	a.	b. PSIG	c.
22. VACUUM	a.	b. PSIG	c.
23. OPEN	a.	b. PSIG	c.

MATERIALS TO BE STORED

MATERIAL	DENSITY	VAPOR PRESSURE AT 70° F
24. a. Sulfuric Acid (60° Be)	b. 11.3 LBS/GAL	c. Approx.0.25mm Hg* PS
25. a.	b. LBS/GAL	c. PS
26. a.	b. LBS/GAL	c. PS
27. a.	b. LBS/GAL	c. PS

28. STORAGE TEMPERATURE: MINIMUM 30 °F MAXIMUM 70 °F
29. TANK TURN OVER PER YEAR: 26
30. MAXIMUM FILLING RATE: 50 gpm ☐ BBLS/DAY ☐ GALS/DAY
31. AVERAGE THROUGH PUT: 1000 ☐ BBLS/DA ☒ GALS/DA
32. PRESSURE EQUALIZERS USED: ☐ YES ☐ NO
33. VAPOR LOSS CONTROL DEVICE: ☐ YES ☒ NO
IF VAPOR LOSS CONTROL DEVICE IS USED, COMPLETE PERMIT APPLICATION FOR AIR POLLUTION CONTROL EQUIPMENT (FORM APC-61) AND SUBMITTED AS PART OF THIS APPLIC

*See table 3-13 Chem. Engns. Hdbk -4th Ed.

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STATE OF ILLINOIS
ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF AIR POLLUTION CONTROL
2200 CHURCHILL ROAD
SPRINGFIELD, ILLINOIS 62706

RICHARD B. OGILVIE, GOVERNOR

WILLIAM L. BLASER, DIRECTOR

ADDENDUM F
DATA AND INFORMATION
FOR EXISTING EMISSION SOURCE

005

TANK
(North Phosphoric Acid Tank)

FOR OFFICIAL USE ONLY
I.D. NO.
PERMIT NO. S
DATE

1. NAME OF OWNER: SWIFT CHEMICAL COMPANY
2. NAME OF CORPORATE DIVISION OR PLANT (IF DIFFERENT FROM OWNER
3. STREET ADDRESS OF EMISSION SOURCE: 2501 N. Kingshighway
4. CITY: Fairmont City
5. NAME OF TANK MANUFACTURER: Built by prior owners-Manuf. not known
6. DESIGNATION OF TANK: Phosphoric Acid Storage (North)
7. SERIAL NUMBER: Has None
8. CAPACITY: 32000 ☐ BBLS ☒ GALS
9. TANK USE: Storage of Wet Process Phosphoric Acid
10. TANK SHAPE: ☐ HORIZONTAL ☐ CYLINDRICAL ☐ SPHERICAL ☒ OTHER (SPECIFY) Open rectangular lead-li wood vat
11. TANK DIAMETER: Width 12 FT.
12. TANK HEIGHT: 10' FT.
13. TANK LENGTH: 36
14. STATUS: Existing ☐ NEW ☐ ALTERATION
15. TANK TYPE: ☐ FIXED ROOF ☐ FLOATING R ☐ PRESSURE ☒ OTHER (SPECIFY) Open top
16. SEAL: None ☐ SINGLE ☐ DOUBLE ☐ OTHER (SPECIFY)
17. AVERAGE DISTANCE FROM TOP OF TANK SHELL TO LIQUID: Not applicable
18. SHELL TYPE: ☐ RIVETED ☐ WELDED ☐ OTHER (SPECIFY)
19. PAINT COLOR: Not painted

VENT VALVE DATA None required - open vat

TYPE OF VENT	NUMBER OF VENTS	PRESSURE SETTING	DISCHARGE VENTED TO (ATMOSPHERE, FLARE, ETC)
20. Combination	a.	b. PSIG	c.
21. PRESSURE	a.	b. PSIG	c.
22. VACUUM	a.	b. PSIG	c.
23. OPEN	a.	b. PSIG	c.

MATERIALS TO BE STORED

MATERIAL	DENSITY	VAPOR PRESSURE AT 70° F
24. a. Wet process phosphoric Acid	b. 14.1 LBS/GAL	c. 1mm Hg* PS
25. a.	b. LBS/GAL	c. PS
26. a.	b. LBS/GAL	c. PS
27. a.	b. LBS/GAL	c. PS

28. STORAGE TEMPERATURE: MINIMUM 30 °F MAXIMUM 70 °F
29. TANK TURN OVER PER YEAR: 7.5
30. MAXIMUM FILLING RATE: 50 gpm ☐ BBLS/DAY ☐ GALS/DAY
31. AVERAGE THROUGH PUT: 3400 ☐ BBLS/DA ☒ GALS/DA
32. PRESSURE EQUALIZERS USED: ☐ YES ☒ NO
33. VAPOR LOSS CONTROL DEVICE: ☐ YES ☒ NO
IF VAPOR LOSS CONTROL DEVICE IS USED, [illegible] PERMIT APPLICATION FOR AIR POLLUTION CONTROL EQUIPMENT (FORM APC-61) [illegible] SUBMITTED AS PART OF THIS APPLIC

*See Fig. 3-1 page 3-61 Chemical Engrs. Hdbk. 4th Ed.

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PAGE 1 OF

02 04 408 003

X

Twp 11 Bk 01 Pge009 Line 110 SWIFT AGRICULTURAL CHEM CORP

Address of Property:

Pt NE 1/4 SEC 9 & Pt SE 1/4 SEC 4 as desc
in 2241-91 10.33 acres

	11,363	82,461	93,824

ENV 70

000-000 4 2N 9W

Previous deed ref. on reverse

STATE OF ILLINOIS
ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF AIR POLLUTION CONTROL
2200 CHURCHILL ROAD
SPRINGFIELD, ILLINOIS 62706

RICHARD B. OGILVIE, GOVERN
WILLIAM L. BLASER, DIRECT

DATA AND INFORMATION
FOR EXISTING COMBUSTION EQUIPMENT
AND
INDIRECT HEATING

Dryer Burner (E-2)

FOR OFFICIAL USE ONLY
I.D. NO.
PERMIT NO. F
DATE

1a. NAME OF OWNER: SWIFT CHEMICAL CO.	1b. NAME OF OPERATOR:
2a. STREET ADDRESS OF OWNER: 111 W. Jackson Boulevard	2b. STREET ADDRESS OF OPERATOR: 2501 N. Kingshighway
3a. CITY OF OWNER: Chicago	3b. CITY OF OPERATOR: Fairmont City
4a. STATE OF OWNER: Illinois / 4b. ZIP CODE: 60604	5a. STATE OF OPERATOR: Illinois / 5b. ZIP CODE: 62201

6. NAME OF CORPORATE DIVISION OR PLANT (IF DIFFERENT FROM OWNER):

7. LOCATED WITHIN CITY LIMITS: ☒ YES ☐ NO	8. STREET ADDRESS OF EMISSION SOURCE: 2501 N. Kingshighway
9a. CITY: Fairmont City / 9b. LOCATED WITHIN CITY LIMITS: ☐ YES ☐ NO	10. COUNTY: St. Clair / 11. ZIP CODE: 62201

12. WAS THE EQUIPMENT DESCRIBED IN THIS INFORMATIONAL FORM INSTALLED AT THE PLANT OR PREMISES OF THE APPLICANT ON OR BEFORE APRIL 14, 1972?

☒ YES ☐ NO

IF "NO," STATE WHETHER THE APPLICANT HAD, ON OR BEFORE APRIL 14, 1972, ENTERED INTO A BINDING AGREEMENT OR CONTRACTUAL OBLIGATION TO UNDERTAKE AND COMPLETE, WITHIN A REASONABLE TIME, A CONTINUOUS PROGRAM OF CONSTRUCTION OR MODIFICATION OF THE EQUIPMENT DESCRIBED IN THIS INFORMATIONAL FORM:

☐ YES ☐ NO

13. THE APPLICANT SHALL PROVIDE THE RESULTS OF TESTS CONDUCTED IN ACCORDANCE WITH APPLICABLE REGULATIONS OF CHAPTER 2, AIR POLLUTION, WHICH SHOW WHETHER OR NOT THE EMISSIONS OF CONTAMINANTS FROM THIS EMISSION SOURCE, EITHER ALONE OR IN COMBINATION WITH CONTAMINANTS FROM OTHER SOURCES LOCATED AT THE SAME PLANT OR PREMISES OF THE APPLICANT, COMPLY WITH APPLICABLE SUBSTANTIVE REGULATIONS OF CHAPTER 2, AIR POLLUTION.

IN LIEU OF ONE OR MORE OF SUCH TESTS, THE APPLICANT MAY SUBMIT OTHER STANDARD TESTING INFORMATION OR THE DETAILS AND RESULTS OF ENGINEERING STUDIES SUFFICIENT TO ACCURATELY ESTIMATE THE RATES OF EMISSIONS OF CONTAMINANTS FROM THIS EMISSION SOURCE AND FURTHER TO SHOW WHETHER OR NOT THE EMISSIONS OF SUCH CONTAMINANTS, EITHER ALONE OR IN COMBINATION WITH CONTAMINANTS FROM OTHER SOURCES LOCATED AT THE SAME PLANT OR PREMISES OF THE APPLICANT, COMPLY WITH APPLICABLE SUBSTANTIVE REGULATIONS OF CHAPTER 2, AIR POLLUTION.

Combustion gases from this burner (E-2) vent directly into dryer(R-2) and represent a portion of gases vented at emission source SR-2. Emissions are covered by test reports summarized in exhibit 3.

THESE DATA AND INFORMATION CONSIST OF APPLICATION FORMS AND OTHER EXHIBITS LISTED BY TITLE AND NUMBER OF PAGES BELOW.

APC-86

0 3 6 6 0 1 9 6 5

I.D. NO. [ ] FOR OFFICIAL USE ONLY PERMIT APPLICATION NO. F [ ]

GENERAL INFORMATION

NOTE: APPLICANT MUST SUBMIT TWO COPIES (THREE IF LOCATED IN COOK COUNTY) OF EACH OF THE FOLLOWING:
1. CONSTRUCTION PERMIT APPLICATION FORM (SEPARATE APPLICATION FORMS FOR EACH ITEM OF CONTROL EQUIPMENT NOT COVERED BY AN ATTACHED ADDENDUM).
2. DIMENSIONED DRAWINGS, PLAN, ELEVATION (SECTIONED WHERE NECESSARY AND WHERE APPLICABLE) AND PLOT PLAN AND MAP SHOWING DISTANCES TO NEAREST BOUNDARY OF THE PROPERTY ON WHICH THE CONTROL EQUIPMENT IS LOCATED, AND THE DISTANCES TO NEAREST RESIDENCES, LODGINGS, NURSING HOMES, HOSPITALS, SCHOOLS, AND COMMERCIAL AND MANUFACTURING ESTABLISHMENTS.
3. FLOW DIAGRAM AS SPECIFIED IN THE INSTRUCTION SHEET.

14. BOILER MANUFACTURER:
15. MODEL NUMBER:
16. SERIAL NUMBER
17. OPERATION TIME OF BOILER: _____ HRS/DAY _____ DAYS/WK _____ WKS/YR
18. PERCENT OF ANNUAL THROUGHPUT: DEC-FEB ___ % MAR-MAY ___ % JUNE-AUG ___ % SEPT-NOV ___ %
19. RATED HEAT INPUT: THOUSAND BTU/HR
20. TOTAL COST OF HEATING EQUIPMENT (NOT INCLUDING INSTALLATION): $
21. OPERATING PRESSURE OF BOILER: PSIG
22. PERCENT CAPACITY USED FOR SPACE HEATING: %

GAS FIRED UNITS

23. GAS BURNER MANUFACTURER & MODEL NUMBER:
24. BURNER VOLUME: FT^3
25. RETENTION TIME: SEC
26. MAXIMUM FIRING RATE: SCFH
27. AVERAGE FIRING RATE: SCFH
28. AVERAGE HEAT CONTENT: BTU/FT^3
29. AVERAGE SULFUR CONTENT: % BY WT
30. EST. ANNUAL CONSUMPTION: SCF
31. EXCESS AIR: % BY VOL

OIL FIRED UNITS

32. OIL BURNER MANUFACTURER & MODEL NUMBER: Iron Fireman A02 - 9.8
33. BURNER VOLUME: 432 FT^3
34. RETENTION TIME: SEC
35. MAXIMUM FIRING RATE: 9,000 THOUSAND BTU/HR
36. AVERAGE FIRING RATE: 4,008 THOUSAND BTU/HR
37. TYPE OF OIL: 2 Fuel Oil
38. EST. ANNUAL CONSUMPTION: 485,888 LB
39. AVERAGE HEAT CONTENT OF OIL: 19,500 BTU/LB
40. EXCESS AIR: 40 - 50 % BY VOL
41. AVERAGE SULFUR CONTENT: 0.28 % BY WT
42. AVERAGE ASH CONTENT: NIL % BY WT
43. OIL BURNER TYPE: [X] ATOMIZING [ ] STEAM OR AIR ATOMIZING [ ] OTHER SPECIFY _____
44. DIRECTION OF FIRING: [X] HORIZONTAL [ ] TANGENTIAL
45. OIL BURNER CONTROL: [ ] MANUAL [ ] AUTOMATIC ON-OFF [ ] AUTOMATIC HIGH-LOW [ ] AUTOMATIC FULL MODULATION

COAL FIRED UNITS

46. TYPE OF COAL: [ ] BITUMINOUS [ ] ANTHRACITE [ ] OTHER SPECIFY _____
47. AVERAGE SULFUR CONTENT: % BY WT
48. AVERAGE ASH CONTENT: % BY WT
49. MAXIMUM FIRING RATE: THOUSAND BTU/HR
50. AVERAGE FIRING RATE: THOUSAND BTU/HR
51. VOLATILE CONTENTS: % BY WT
52. EXCESS AIR: % BY WT
53. MAXIMUM SULFUR CONTENT: % BY WT
54. MOISTURE CONTENT: % BY WT
55. AVERAGE HEAT VALUE: BTU/LB
56. IDENTIFY SOURCE OF COAL BY MINE AND SEAM:
57. ANNUAL CONSUMPTION: TONS/YR
58. TYPE OF FIRING:
a. [ ] PULVERIZED DRY BOTTOM
b. [ ] PULVERIZED WET BOTTOM
c. [ ] CYCLONE
d. [ ] SPREADER NO REINJECTION
e. [ ] SPREADER _____ % REINJECTION
f. [ ] OTHER SPECIFY _____
59. DIRECTION OF FIRING: [ ] HORIZONTAL [ ] VERTICAL [ ] TANGENTIAL [ ] CORNER [ ] OTHER SPECIFY _____

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I.D. NO. | | | | | | | | | | FOR OFFICIAL USE ONLY PERMIT APPLICATION NO. F | | | | | | | |

EXHAUST GAS ANALYSIS
(PRIOR TO PASSAGE THROUGH ANY CONTROL EQUIPMENT)

NOTE: IF THE EMISSION SOURCE WHICH IS THE SUBJECT OF THIS CONSTRUCTION PERMIT APPLICATION IS SERVED BY MORE THAN ONE EXHAUST STACK OR VENT, THE APPLICANT SHALL COMPLETE SEPARATE SHEETS FOR EACH SUCH STACK OR VENT.

CONTAMINANT	CONCENTRATION	EMISSION RATE	METHOD OF MEASURE AND ANALYSIS	METHOD OF MONITORING
60. CARBON MONOXIDE	a. PPM	b. LB/HR	c.	d.
61. CARBON DIOXIDE	a. 11% PPM	b. 156 LB/HR	c. Table 9 - 16 Perry's 4th Ed.	d.
62. CHLORINE	a. PPM	b. LB/HR	c.	d.
63. HYDROCARBONS AS CH_4	a. PPM	b. LB/HR	c.	d.
64. HYDROGEN CHLORIDE	a. PPM	b. LB/HR	c.	d.
65. HYDROGEN SULFIDE	a. PPM	b. LB/HR	c.	d.
66. NITROGEN	a. PPM	b. LB/HR	c.	d.
67. NITROGEN OXIDES AS NO_2	a. 24 PPM	b. 0.49 LB/HR	c. See chap. 9 of	d.
68. SULFUR DIOXIDE	a. 11 PPM	b. 0.287 LB/HR	c. Air Pollution Manual HEW - 1967	d.
69. OTHER (SPECIFY)	a. PPM	b. LB/HR	c.	d.
70. PARTICULATE MATTER	a. .045 GRAIN/SCF	b. Est. Avg. 0.075 LB/HR	c.	d.

71. PARTICULATE MATTER COMPOSITION EXPRESSED AS PERCENT BY WEIGHT OF EACH COMPONENT (COMMON NAME SHALL BE GIVEN IF CHEMICAL NAME IS UNKNOWN):

Carbon particles assumed to be major portion of particulate

NOTE: THIS SECTION TO BE COMPLETED ONLY IF EMISSIONS ARE EXHAUSTED DIRECTLY TO THE ATMOSPHERE WITHOUT ANY CONTROL EQUIPMENT:

72. HOW EMISSIONS ARE EXHAUSTED: ☐ STACK ☐ VENT

73. GAS EXIT VELOCITY: FPS

74. GAS EXIT TEMPERATURE: °F

75. DRAFT CONTROLS: ☐ MANUAL ☐ AUTOMATIC ☐ BAROMETRIC ☐ OTHER (SPECIFY)

76. DISTANCE OF THE STACK OR VENT FROM THE NEAREST PLANT BOUNDARY OF THE APPLICANT: FT.

77. HEIGHT OF STACK OR VENT ABOVE GRADE: FT.

78. HEIGHT OF STACK OR VENT ABOVE ROOF: FT.

79. HEIGHT OF TALLEST BUILDING WITHIN 150 FEET: FT.

80. YOUR DESIGNATION OF STACK OR VENT:

81. AREA OF STACK OR VENT AT EXIT: FT^2

82. IF OTHER EMISSION SOURCES OR AIR POLLUTION CONTROL EQUIPMENT ARE EXHAUSTED THROUGH THE STACK OR VENT SERVING THE EQUIPMENT COVERED BY THIS APPLICATION, THE APPLICANT SHALL DEFINE THE EMISSIONS FROM SUCH OTHER EQUIPMENT AND ATTACH SUCH INFORMATION TO THIS APPLICATION AS EXHIBIT G.

TOTAL NUMBER OF PAGES IN EXHIBIT G:

83. THE APPLICANT SHALL SUBMIT AN ESTIMATE OF THE MAXIMUM ONE-HOUR AMOUNTS OF PARTICULATE MATTER, SULFUR DIOXIDE, CARBON MONOXIDE, OXIDES OF NITROGEN, AND HYDROCARBONS (AS METHANE) EMITTED FROM ALL SOURCES LOCATED ON THE PLANT OR PREMISES, INCLUDING THE EMISSIONS ESTIMATED FROM THE EQUIPMENT COVERED BY THIS APPLICATION, AND THE AREA (IN ACRES) OF THE PLANT OR PREMISES OF THE APPLICANT.

MATERIAL	ONE-HOUR MAX. AMOUNTS	MATERIAL	ONE-HOUR MAX. AMOUNTS	MATERIAL	ONE-HOUR MAX. AMOUNTS
PARTICULATE MATTER	35.2 LB	SULFUR DIOXIDE	1.44 LB	NITROGEN OXIDES AS NO_2	2.45 LB
HYDROCARBONS AS CH_4	LB	CARBON MONOXIDE	LB	NH - 134 lbs./hr.max.	

3

APC-86

STATE OF ILLINOIS
ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF AIR POLLUTION CONTROL
2200 CHURCHILL ROAD
SPRINGFIELD, ILLINOIS 62706

RICHARD B. OGILVIE, GOVERNOR
WILLIAM L. BLASER, DIRECTOR

COMPLIANCE PLAN	I.D. NO.
	PERMIT NO. 0
	DATE

1. NAME OF OWNER: SWIFT CHEMICAL CO.	7. NAME OF CORPORATE DIVISION OR PLANT (IF DIFFERENT FROM OWNER):
2. TELEPHONE NUMBER: 312/431-2533	8. TELEPHONE NUMBER: 618/271-5650 618/874-7811
3. STREET ADDRESS OF OWNER: 111 W. Jackson Blvd.	9. STREET ADDRESS OF EMISSION SOURCE: 2501 N. Kingshighway
4. CITY: Chicago	10. CITY: Fairmont City / 11. LOCATED WITHIN CITY LIMITS ☒ YES ☐ NO
5. STATE: Ill. / 6. ZIP CODE: 60604	12. COUNTY: St. Clair / 13. ZIP CODE: 62201

THE UNDERSIGNED HEREBY FILES THIS COMPLIANCE PLAN RELATING TO THE EQUIPMENT DESCRIBED HEREIN AND CERTIFIES THAT THE STATEMENTS CONTAINED HEREIN ARE TRUE AND CORRECT, AND FURTHER CERTIFIES THAT ALL PREVIOUSLY SUBMITTED INFORMATION REFERENCED IN THIS APPLICATION REMAINS TRUE, CORRECT AND CURRENT. THE UNDERSIGNED APPROVES EACH AND EVERY PROVISION OF THE PROGRAM DESCRIBED IN THIS COMPLIANCE PLAN AND RELATED PROJECT COMPLETION SCHEDULES.

OWNER (IF INDIVIDUAL)

SIGNATURE DATE

YOUR IDENTIFICATION NUMBER (OPTIONAL)

OWNER (IF CORPORATION OR PARTNERSHIP)

SWIFT CHEMICAL CO. 1/15/73
EXACT CORPORATE OR PARTNERSHIP NAME DATE

E R Trabbh
SIGNATURE OF OFFICER TITLE OF OFFICER

A CORPORATE OWNER MUST HAVE ON FILE WITH THE AGENCY A CERTIFIED COPY OF A RESOLUTION OF ITS BOARD OF DIRECTORS AUTHORIZING THE OFFICER SIGNING THE APPLICATION TO EXECUTE THIS COMPLIANCE PLAN, AND TO CAUSE OR ALLOW THE CONSTRUCTION, MODIFICATION AND OPERATION OF THE EQUIPMENT TO BE COVERED THEREUNDER.

Enclosed with letter of transmittal.

THIS PERMIT APPLICATION CONSISTS OF APPLICATION FORMS AND OTHER EXHIBITS LISTED BY TITLE AND NUMBER OF PAGES BELOW.

APC 05

14. The applicant shall submit a process flow diagram depicting all emission sources and all air pollution control equipment covered by this Compliance Plan and related Operating Permit application. The diagram shall include labels for each source and equipment, and shall set forth maximum flow rates for (1) all process equipment, (2) all air pollution control equipment, (3) all emission sources and (4) all stacks and vents.

(If this information has been previously submitted with the Operating Permit application, the applicant need not resubmit the diagram but may reference appropriate drawing number(s)).

Number of sheets: 2 Drawing Number(s): 102 & 104 pages 34 & 35

15. The applicant shall submit a detailed description of the equipment he proposes to install to comply with the Environmental Protection Act and applicable substantive Regulations. This description shall include information as to the technical reasonableness of the proposed air pollution control equipment or control techniques, and engineering reports or studies sufficient to prove that the installation of this equipment will result in the operation being in compliance with the Act and applicable substantive Regulations. This equipment shall be accurately and clearly labeled on the process flow diagram. Detailed information for each item of equipment shall be submitted in one of the following three ways:

(a) If the applicant has entered into a binding agreement or contractural obligation to purchase specific items of equipment, he shall complete applicable Construction Permit application forms, and shall note on page one (1) of such forms "This equipment is purchased, but not installed, as part of our Compliance Plan for the operation, and is indicated on drawing (complete as necessary) as item (complete as necessary)." The applicant shall submit a list of those forms so marked and attach to this Plan as Exhibit N.

Total number of pages in Exhibit N: 1 Fuel oil contract will not be entered into until July 1973

(b) If the applicant has selected but not entered into a binding agreement or contracturual obligation to purchase specific items of equipment, he shall complete applicable Construction Permit application forms and shall note on page (1) of such forms "This equipment is to be purchased and installed as part of our Compliance Plan for this operation and is indicated on drawing (complete as necessary) as item (complete as necessary)." The applicant shall submit a list of those forms so marked and attach to this Plan as Exhibit P.

Total number of pages in Exhibit P: _____

(c) If the applicant has selected the type of air pollution control equipment or control techniques but has not selected specific items of equipment, he shall (A) submit performance specifications which detail the performance of the equipment to be procured; (B) provide a test plan which will detail how the equipment, purchased pursuant to a given specification, will be tested to prove that the equipment meets the applicable performance specifications; and (C) attach this information to this Plan as Exhibit Q.

Total number of pages in Exhibit Q: _____

16. The applicant shall submit a Project Completion Schedule (Form APC-98) for each item of air pollution control equipment or control technique. The final compliance date of such Project Completion Schedule shall be no later than the applicable date described in Chapter 2: Air Pollution.

Total number of Forms APC-98 submitted with this application: 1

STATE OF ILLINOIS
ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF AIR POLLUTION CONTROL
2200 CHURCHILL ROAD
SPRINGFIELD, ILLINOIS 62706

RICHARD B. OGILVIE, GOVERNOR

WILLIAM L. BLASER, DIRECTOR

PROJECT COMPLETION SCHEDULE

FOR OFFICIAL USE ONLY

I.D. NO.

PERMIT NO. 0

DATE

1. NAME OF OWNER: SWIFT CHEMICAL CO.

2. NAME OF CORPORATE DIVISION OR PLANT (IF DIFFERENT FROM OWNER):

2. STREET ADDRESS OF EMISSION SOURCE: 2501 N. Kingshighway

4. CITY: Fairmont City

5. NAME OF AUTHORIZED PERSON PREPARING THIS FORM:

6. SIGNATURE:

7. YOUR IDENTIFICATION NUMBER: (OPTIONAL)

8. DATE THIS FORM 98 PREPARED: January 15, 1973

9. OPERATING PERMIT NUMBER: (IF AVAILABLE)

10. CONSTRUCTION PERMIT NUMBER: (IF AVAILABLE)

THIS FORM MUST BE COMPLETED FOR EACH ITEM OF EQUIPMENT TO BE CONSTRUCTED OR MODIFIED IN ACCORDANCE WITH A COMPLIANCE PLAN.

16. DESCRIBE THE ITEM OF EQUIPMENT TO BE CONSTRUCTED OR MODIFIED:

The steam boiler E-1 burns No. 2 fuel oil presently. This is purchased from American Oil Company, Standard Oil Div. It now contains an average of 0.4% sulfur. To comply with Rule 204(C)(2)(B) on December 31, 1973, the sulfur content of the No. 2 fuel oil will be reduced to less than 0.28% which will give an emission of only 0.287 lbs. $SO_2/10^6$ BTU

12. IDENTIFY THE LABEL OF THIS ITEM OF EQUIPMENT AS GIVEN ON THE APPROPRIATE PROCESS FLOW DIAGRAM:
E-1 as shown on drawings 102 and 104 pages 34 & 35

13. STATE THE PURCHASE PRICE OF THIS EQUIPMENT: ☒ ESTIMATED ☐ ACTUAL $ 6905*

14. STATE THE TOTAL COST (EQUIPMENT PLUS INSTALLATION): ☐ ESTIMATED ☐ ACTUAL $ None **

15. COMPLETE ALL OF THE FOLLOWING INFORMATION IN COLUMNS A AND B. COMPLETE COLUMN C AS APPLICABLE.

	A. EXPECTED DATE ACTIVITY WILL BE COMPLETED	B. LATEST DATE ACTIVITY WILL BE COMPLETED	C. ACTUAL DATE ACTIVITY WAS COMPLETED
a. STATE DATE THE APPLICANT WILL ENTER INTO A BINDING AGREEMENT TO PURCHASE OR MODIFY THIS ITEM OF EQUIPMENT.		See item 6 above	
b. STATE DATE THE APPLICANT WILL APPLY FOR A CONSTRUCTION PERMIT FOR THIS ITEM OF EQUIPMENT OR MODIFICATION OF EQUIPMENT.			
c. STATE DATE THIS ITEM OF EQUIPMENT WILL BE DELIVERED (IF PRESENT EQUIPMENT IS TO BE MODIFIED, STATE WHEN SUCH MODIFICATION SHALL BEGIN) TO THE APPLICANT'S FACILITY.			
d. STATE DATE CONSTRUCTION OR MODIFICATION OF EQUIPMENT WILL BE COMPLETED.			
e. STATE DATE APPLICANT WILL TEST EQUIPMENT TO DEMONSTRATE COMPLIANCE WITH THE ENVIRONMENTAL PROTECTION ACT AND SUBSTANTIVE REGULATIONS PROMULGATED THEREUNDER.			
f. STATE DATE EQUIPMENT WILL BE FULLY OPERATIONAL.			

NOTE: THE TIME ELAPSED BETWEEN TWO CONSECUTIVE EVENTS LISTED IN ITEM 15 ABOVE SHALL NOT EXCEED 6 MONTHS. IN CASE CONSECUTIVE DATES EXCEED 6 MONTHS YOU MUST INTRODUCE AN INTERIM EVENT OR EVENTS SO THE TIME INTERVAL BETWEEN ANY TWO CONSECUTIVE EVENTS IS 6 MONTHS OR LESS.

* original boiler cost in 1965

** to meet rules no equipment changes will be required. Supplier will provide lower S content fuel

50

APC-98

STATE OF ILLINOIS
ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF AIR POLLUTION CONTROL
2200 CHURCHILL ROAD
SPRINGFIELD, ILLINOIS 62706

RICHARD B. OGILVIE, GOVERNOR

WILLIAM L. BLASER, DIRECTOR

ADDENDUM L
DISPOSITION OF SOLID WASTE MATERIAL
FROM
DRY COLLECTORS

FOR OFFICIAL USE ONLY

I.D. NO. 1 6 3 0 5 0 A A B

PERMIT NO. Ø 2 1 0 0 6 9 0

DATE

1. NAME OF OWNER: Swift Chemical Co.

2. NAME OF CORPORATE DIVISION OR PLANT (IF DIFFERENT FROM OWNER):

3. STREET ADDRESS OF EMISSION SOURCE: 2501 North Kingshighway

4. CITY: E. St. Louis, Il. 62201 (Fairmont City)

5. Describe the processes which result in the production of solid waste material and attach this description to this addendum.

   Total number of pages in Exhibit S: 1

6. Describe the state of the waste material (slurry, cake, fine ash, cinders, powder, sludge, etc.) at the applicant's proposed disposal site and attach this description to this addendum as Exhibit T.

   Total number of pages in Exhibit T: 1

7. State the chemical composition, expressed as a weight percentage, of the solid waste and attach to this addendum as Exhibit U: Not applicable as process has no solid waste as such, it is all recycled back into the process

8. State the volume and weight of the solid waste generated by this operation on each of the following time intervals; daily, weekly, monthly, and annually. (If these interval bases are not applicable to your operation, you may select different time bases, but must justify such selection.) Attach your answer to this addendum as Exhibit V:

   Total number of pages in Exhibit V: not applicable - see note under Item 7

9. Will the solid waste material be deposited in a sanitary landfill permitted by the Environmental Protection Agency? ☐ Yes ☒ No

   If "Yes" state the name and Agency permit number of such site.

   _____ NAME

   _____ PERMIT NUMBER

10. State if the solid waste material will be deposited in a sanitary landfill for which an Agency permit application is pending. ☐ Yes ☒ No

    If "Yes" give the name and legal description of this site: _____

11. Will the solid waste material be reused or recycled at the applicant's plant or premises? ☒ Yes ☐ No

    If "Yes" describe the reclaiming process and attach to this addendum as Exhibit W.

    Total number of pages in Exhibit W: 1

12. Will the solid waste material be transported to a remote site for reuse or recycling? ☐ Yes ☒ No

    If "Yes" describe the location and reclaiming process and attach to this addendum as Exhibit X.

    Total number of pages in Exhibit X: _____

13. Will the solid waste material be incinerated? ☐ Yes ☒ No

    If "Yes" state the name, location, and owner of the incinerator and attach to this addendum as Exhibit Y.

    Total number of pages in Exhibit Y: _____

14. If the solid waste will be disposed in a manner not described in Questions 5 through 9 of this addendum, state the method if disposal to be used, the owner and location of the disposal facility, and attach to this addendum as Exhibit Z.

    Total number of pages in Exhibit Z: See exhibit W

0366 0019 71

April 12, 1973

EXHIBIT S

DESCRIPTION OF THE PROCESS WHICH RESULTS IN THE PRODUCTION OF SOLID RECYCLE(WASTE)MATERIAL

Referring to the Process Flow Diagram (Drawing No. 102) Page 34, a maximum of 18,000 scfm of air is drawn through a rotary tube dryer(R-2) to remove moisture from a showering and cascading mass of fertilizer (M.G.) which was mixed and granulated in the ammoniator-granulator(R-1). The moisture content of the M.G. as it enters the dryer(R-2) will range from 5% to 7%. In drying this is reduced to a desired 1.00 to 2.0% depending on the M.G. formulation. The product dryness is only reduced to that level which will insure good product quality in subsequent storage and use.

Dryer air flow entrains particulate during its passage through the showering M.G. and is carried by the air stream into a dry collector of the conventional cyclone type (CY-1). See Exhibit 6, 7, & 8, Pages 29, 30, & 31, for data on particulate size range. Particulate collected therein is conveyed immediately and continuously back to the ammoniator-granulator (R-1) as a part of the return fines or recycle load.

Mixed fertilizer(M.G.) subsequent to drying is then sized into 3 separate fractions by being subjected to screening on an enclosed double deck screen(SC-1). Material larger than the top deck screen mesh, usually a nominal 6 mesh(3.36 mm opening), is diverted to a crusher(CR-1) and then returned directly again to the top section of the double deck screen(SC-1). Material retained on the lower deck of screen SC-1 is the desired product size, nominally a -6+16 mesh, and this discharges to a rotary tube cooler(R-3). Material which passes the 16 mesh (1.19 mm opening) of the lower deck constitutes additional fines which are returned to the ammoniator-granulator(R-1) as part of the recycle load.

The on-size warm product passes through the rotary tube in a showering and cascading fashion counter-currently to a maximum flow of 12,000 scfm of ambient air which primarily cools and secondarily, further drys the product prior to conveying to storage. The flow of air passing through the cooler (R-3) will entrain airborne particulate which is to a large extent captured in dry collector CY-2, a conventional cyclone. The fines from this cooler cyclone collector (CY-2), like those from the double deck screen (SC-1), and the dryer cyclone (CY-1), are gravity fed through enclosed chutes to a belt conveyor discharging these fines along with fresh dry solids feed into the ammoniator-granulator (R-1). The quantity of recycle fines will vary depending on the particular grade of mixed goods (M.G.) being formulated and the physical characteristics of individual ingredients. The amount of return cannot be stated with exactitude for those reasons. However, the weight of fines recycling will range from 0.5 to 2.0 tons per ton of product produced, but for most grades the recycle rate is about 0.75 to 1.0 ton per ton of M.G. conveyed to storage.

0 3 6 6 0 0 1 9 7 2

EXHIBIT T

DESCRIPTION OF RECYCLE MATERIAL FROM DRY COLLECTORS

There is no waste of material from the dry collectors. Recovered fines constitute dry solids such as superphosphate, ammonium sulfate, potassium chloride, dolomite, etc. These are returned to the ammoniator-granulator as part of the solids recycle. Particulate material which escapes the dry collectors is almost entirely recovered in a subsequent wet scrubber (Rotoclone SR-2) - see drawing No. 102, Page. These solids are ch are recovered by return of the concentrated scrubber liquid to either the ammoniator-granulator(R-1) or to the dryer (R-2) or a portion to both. All the solids material entering the dry collectors is recycled. The small fraction escaping is thoroughly documented in Exhibit-B(3) "A Summary of Stack Emission Tests on Dry/Cooler Scrubber Emission Source #12, Page 14".

0 3 6 6 ( ) 0 1 9 7 3

EXHIBIT W

DESCRIPTION OF RECLAIMING PROCESS

(This is a repetition of description given in the latter portion of Exhibit S):

"The fines from this cooler cyclone collector (CY-2), like those from the double deck screen (SC-1) and the dryer cyclone (CY-1), are gravity fed through enclosed chutes to a belt conveyor discharging these fines along with fresh dry solids feed into the ammoniator-granulator (R-1)"

Particulate which is not captured in the cyclones is almost completely captured in the wet scrubber and the scrubbing solution is reclaimed by return to the ammoniator-granulator (R-1) and dryer (R-2).

0366(01974

ID: 163 050 AAB

COMPANY NAME: ESTECH GENERAL ~~SWIFT~~ CHEMICAL CORP.

PERMIT NUMBER: Ø2 10 0690

SOURCE			CONTROL			STACK
NO.	NAME	PG	NO.	NAME	PG	NO.
001	AMMONIATOR / GRANULATOR	1924	C01	WET CYCLONE	1935	S01
002	DRYER & COOLER	1931	C02	CYCLONE + CYCLONE + ROTOCLONE		
—		—	—			
003	BOILER	1943				
004	STORAGE TANK	1959				
005	STORAGE TANK	1959				
006	STORAGE TANK	1964				

Plotted on St. Louis Mineral Rights. 4 4

LOG OF WATER WELL

Property owner General Chemical Co. E. St. Louis Well No. 7

Drilled by Thorpe (Morgan) Year 1940

Formations passed through	Thickness	Depth of Bottom
Black soil	10	10
Yellow clay	5	15
Sandy loam	5	20
Silt	15	35
Dirty sand	5	40
Extremely fine sand	10	50
Sand	10	60
Lt. fine sand	10	70
Coarse sand	5	75
Lt. fine dirty sand	15	90
Coarse sand	25	115
" "	5	120

[Continue on back if necessary]

Finished in _____ at _____ to _____ ft.

Cased with _____ inch COUNTY No. 1884 from 0 to _____ ft.

and _____ inch _____ from _____ to _____ ft.

Size hole below casing _____ inch. Static level from surf. _____ ft.

Tested capacity _____ gal. per min. Temperature _____ °F.

Water lowered to _____ ft. _____ in. in _____ hrs. _____ min.

Length of test _____ hrs. _____ min. Screen _____

Slot _____ Diam. _____ Length _____ Bottom set at _____ ft.

[Show location in Section Plat]

Township name _____ Elev. _____ Sec. 3

Description of location SW, SW Sec. 3 Twp. 2N

T 2N, R 9W Rge. 9W

Signed _____ County St. Clair

St. CLAIR NO ENVELOPE

Copy for Illinois State Geological Survey Index: 3-2N-9W

(36941—50M—2-67)27-0

IL-55-05

Page 1

ILLINOIS GEOLOGICAL SURVEY, URBANA

	Thickness	Top	Bottom
Top alum sand-white		0	7
Clay		7	29
Fine sand, brown		29	31
Sand		37	74
Sand coarse		74	115
			TD

Chief aquifer - sand and gravel

Hole record 38"

Casing 20" outside diameter steel + 1.6'-94.6', 0.0375 wall thickness

Screen record Johnson stainless steel 20", 94.6-115'

Gravel pack: to 38' above screen, WB 40 1/16" to 1/8"

*SE corner of plant, Near East St. Louis.

NO ENVELOPE

COMPANY

FARM Allied Chemical NO. 13

DATE DRILLED 1960 COUNTY NO. 3600

AUTHORITY State Water Survey (W.H. Baker)

ELEVATION 420' TM

LOCATION * 250' S line, 1000' W line of SW

COUNTY ST. CLAIR

3-2N-9W

C. Moore Corporation, Rochester, N.Y. Binder and holes in leaves, each Patented 1906. 386790

TOWN Fairmont TOWNSHIP

Map No. 4

COMPANY C. S. Wise No.

R. 9W

FARM General Chemical Co. No. T. Sec.

AUTHORITY C.S.Wise written log 2 3

ELEVATION 419 topo. N.

COLLECTOR Ireland DATE DRILLED 1924

CONFIDENTIAL SW SW SW

COUNTY No. 1442

No. STRATA	Thickness Feet	Thickness In.	Depth Feet	Depth In.
Soil	6		6	
Clay, yellow	10		16	
Gumbo	6		22	
Quicksand	30		52	
Sand, fine	18		70	
Sand, coarse	20		90	
Sand, coarse and gravel	25		115	

4 wells

NO ENVELOPE

County ST. CLAIR Index No. 0403

T.—DRILL RECORD

47327—10M—4-35 4 Illinois Geological Survey, Urbana. 3-2N-9W

See Monks Well and Grad.

LOG OF WATER WELL

Property owner Olivier Farm Supply Well No.

Drilled by H.L. Watson (well + Fine) Year Apr. 1948

COUNTY No. 1957

Formations passed through	Thickness	Depth of Bottom
Mud	12	12
Fine sand	18	30
Med sand	15	45
Coarse sand	15	60
Fine sand + rock	5	65
Med sand	5	70
Med. sand	5	75
Coarse sand + gravel	5	80
Med. sand + rock	5	85
Fine sand + rock	5	90
Coarse sand + gravel	5	95
" " + rock	5	100 TD

[Continue on back if necessary]

Finished in at to 6-56 ft.

received from Ground water Co.

Cased with inch black from 0 to 80' ft.

and inch from to ft.

Size hole below casing 10" inch. Static level from surf. 12' ft.

Tested capacity gal. per min. Temperature °F.

Water lowered to ft. in. in hrs. min.

Length of test hrs. min. Screen Johnson

Slot 40 Diam. 10" Length 21'4" Bottom set at 80 -100' ft.

[Show location in Section Plat]

Township name Elev. 420' TM

Typed information from S.W.S. 1-73

Description of location

800' N line, 1300' E line of NE

Sec. 3

Twp. T2N

Rge. R9W

Signed County ST. CLAIR

ST. CLAIR NO ENVELOPE 3-2N-9W

Copy for Illinois State Geological Survey Index:

N.E. Brown & Ric Fischer 247

Am. Zinc Co

LOG OF WATER WELL

Property owner: United Engineers - Fairmont City Well No. 1

Drilled by: H.L. Watson (Graves) Year: Oct. 1942

Formations passed through	Thickness	Depth of Bottom
Slag + Concrete	8	8
Gumbo	12	20
Mud	3	23
Sand	2	25
Mud	5	30
Quicksand	20	50
Mud	5	55
Quicksand	15	70
Fine sand + gravel	10	80
Coarse sand	5	85
Coarse sand + gravel	10	95
Med. sand + gravel	5	100
Pink sand + gravel	5	105
Coarse sand + gravel	5	110
Coarse sand + gravel	7	117
		TD

[Continue on back if necessary]

Finished in _____ to _____ ft.

COUNTY No. 1887

Cased with _____ inch _____ from 0 to _____ ft.

and _____ inch _____ from _____ to _____ ft.

Size hole below casing _____ inch. Static level from surf. _____ ft.

Tested capacity _____ gal. per min. Temperature _____ °F.

Water lowered to _____ ft. _____ in. in _____ hrs. _____ min.

Length of test _____ hrs. _____ min. Screen _____

Slot _____ Diam. 16" Length _____ Bottom set at _____ ft.

[Show location in Section Plat]

Township name _____ Elev. _____ Sec. 4

Description of location _____ Twp. 2N

NW, SE SE Sec 4 T2N. R9W Rge. 9W

Signed _____ County St. Clair

St. CLAIR NO ENVELOPE Index: 4-2N-9W

Copy for Illinois State Geological Survey

250

LOG OF WATER WELL

Property owner: United Engineers - Fairmont City Well No. 2

Drilled by: H.L. Watson (Graves) Year: Aug. 1942

Formations passed through	Thickness	Depth of Bottom
Slag	5	5
Gumbo	10	15
Sand	6	21
Mud	4	23
Sand	1	24
Mud	5	29
Quicksand	26	55
Mud	2	57
Quicksand	13	70
Fine sand + gravel	10	80
Fine sand + mud	5	85
Med. sand + gravel	5	90
Coarse sand + gravel	15	105
Pink sand + gravel	5	110
Med. sand + gravel	5	115
Coarse sand + gravel	8	123
		TD

[Continue on back if necessary]

Finished in _____ to _____ ft.

COUNTY No. 1888

Cased with _____ inch _____ from 0 to _____ ft.

and _____ inch _____ from _____ to _____ ft.

Size hole below casing _____ inch. Static level from surf. 26' ft.

Tested capacity _____ gal. per min. Temperature _____ °F.

Water lowered to _____ ft. _____ in. in _____ hrs. _____ min.

Length of test _____ hrs. _____ min. Screen _____

Slot _____ Diam. 16" Length _____ Bottom set at _____ ft.

[Show location in Section Plat]

Township name _____ Elev. 422 TOPO Sec. 4

Description of location _____ Twp. 2N

NW SESE Sec. 4, T2N, R9W Rge. 9W

Signed _____ County St. Clair

St. CLAIR NO ENVELOPE Index: 4-2N-9W

Copy for Illinois State Geological Survey

SAMPLE DESCRIPTION

SITE NAME/TDD# Swift Ag Chem. Fairmont City Plant FOS-8612-077

CASE NUMBER 12411

SAMPLE #/STATION LOCATION S1

SAMPLING DATE 8/2/89 SAMPLING TIME 1100

ORGANIC TRAFFIC NUMBER EFA 12

INORGANIC TRAFFIC NUMBER MEEF 12

BOTTLE	ANALYSIS	TAG NUMBERS	LOT NUMBER
8oz. wide mouth	Ext.	5-156301	F9158524
"	M/C	302	"
120ml wide mouth	VOA	303	G8200074
	VOA	304	"

PHYSICAL DESCRIPTION AT TIME OF COLLECTION: brown clay with white quartz sand and small red-white pebbles

PHYSICAL CHANGES FROM TIME OF COLLECTION UNTIL SHIPMENT: none

INSTRUMENT READINGS NA

pH

CONDUCTIVITY

TEMPERATURE

SAMPLE DESCRIPTION

SITE NAME/TDD# Swift Ag Chem. Fairmont City Plant F05-8612-077

CASE NUMBER 12411

SAMPLE #/STATION LOCATION S2

SAMPLING DATE 8/2/89 SAMPLING TIME 1110

ORGANIC TRAFFIC NUMBER EFA 13

INORGANIC TRAFFIC NUMBER MEEF 13

BOTTLE	ANALYSIS	TAG NUMBERS	LOT NUMBER
8 oz. widemouth	Ext.	S-156305	F9158524
"	m/c	06	"
120 ml widemouth	VOA	07	68200074
"	VOA	08	"

PHYSICAL DESCRIPTION AT TIME OF COLLECTION: brown sand some small white pebbles

PHYSICAL CHANGES FROM TIME OF COLLECTION UNTIL SHIPMENT: none

INSTRUMENT READINGS NA

pH

CONDUCTIVITY

TEMPERATURE

SAMPLE DESCRIPTION

SITE NAME/TDD# Swift Ag Chem. Fairmont City Plant F05-8612-077

CASE NUMBER 12411

SAMPLE #/STATION LOCATION S3

SAMPLING DATE 8/2/89 SAMPLING TIME 1130

ORGANIC TRAFFIC NUMBER EFA 14

INORGANIC TRAFFIC NUMBER MEEF 14

BOTTLE	ANALYSIS	TAG NUMBERS	LOT NUMBER
8 oz wide mouth	Ext	5-156309	F 9158524
"	m/c	10	"
120 ml wide mouth	VOA	"	G 8200074
"	VOA	12	"

PHYSICAL DESCRIPTION AT TIME OF COLLECTION: dark brown sandy small white pebbles in soil

PHYSICAL CHANGES FROM TIME OF COLLECTION UNTIL SHIPMENT: none

INSTRUMENT READINGS NA

pH

CONDUCTIVITY

TEMPERATURE

SAMPLE DESCRIPTION

SITE NAME/TDD# Swift Ag Chem. Fairmont City Plant FOS-8612-077

CASE NUMBER 12411

SAMPLE #/STATION LOCATION S4

SAMPLING DATE 8/2/89 SAMPLING TIME 1140

ORGANIC TRAFFIC NUMBER EFA 15

INORGANIC TRAFFIC NUMBER MEEF 15

BOTTLE	ANALYSIS	TAG NUMBERS	LOT NUMBER
8 oz wide mouth	Ext	5-156313	F9158524
"	m/c	14	"
120 ml wide mouth	VOA	15	G8200074
"	VOA	16	"

PHYSICAL DESCRIPTION AT TIME OF COLLECTION: micaceous sand

PHYSICAL CHANGES FROM TIME OF COLLECTION UNTIL SHIPMENT: none

INSTRUMENT READINGS NA

pH

CONDUCTIVITY

TEMPERATURE

SAMPLE DESCRIPTION

SITE NAME/TDD# Swift Ag Chem. Fairmont City Plant FOS-8612-077

CASE NUMBER 12411

SAMPLE #/STATION LOCATION S5

SAMPLING DATE 8/2/89 SAMPLING TIME 1235

ORGANIC TRAFFIC NUMBER EFA 16

INORGANIC TRAFFIC NUMBER MEEF 16

BOTTLE	ANALYSIS	TAG NUMBERS	LOT NUMBER
8 OZ. wide mouth	Ext	S-156317	F9158524
"	m/c	18	"
120 ml wide mouth	VOA	19	G82000074
"	VOA	20	"

PHYSICAL DESCRIPTION AT TIME OF COLLECTION: dark brown sandy soil some small pebbles

PHYSICAL CHANGES FROM TIME OF COLLECTION UNTIL SHIPMENT: none

INSTRUMENT READINGS NA

pH

CONDUCTIVITY

TEMPERATURE

SAMPLE DESCRIPTION

SITE NAME/TDD# Swift Ag Chem. Fairmont City Plant F05-8612-077

CASE NUMBER 12411

SAMPLE #/STATION LOCATION S6

SAMPLING DATE 8/2/89 SAMPLING TIME 1250

ORGANIC TRAFFIC NUMBER EFA 17

INORGANIC TRAFFIC NUMBER MEEF 17

BOTTLE	ANALYSIS	TAG NUMBERS	LOT NUMBER
8 OZ widemouth	EXT.	S-156321	F9158524
"	M/C	22	"
120ml wide mouth	VOA	23	G82000074
"	VOA	24	"

PHYSICAL DESCRIPTION AT TIME OF COLLECTION: dark grey-green silt

PHYSICAL CHANGES FROM TIME OF COLLECTION UNTIL SHIPMENT: none

INSTRUMENT READINGS NA

pH

CONDUCTIVITY

TEMPERATURE

SAMPLE DESCRIPTION

SITE NAME/TDD# Swift Ag Chem. Fairmont City Plant F05-8612-077

CASE NUMBER 12411

SAMPLE #/STATION LOCATION S7

SAMPLING DATE 8/2/89 SAMPLING TIME 1305

ORGANIC TRAFFIC NUMBER EFA 18

INORGANIC TRAFFIC NUMBER MEEF 18

BOTTLE	ANALYSIS	TAG NUMBERS	LOT NUMBER
8 oz widemouth	EXT	5-156 325	F9158524
"	M/C	26	"
120 ml widemouth	VOA	27	G8200074
	VOA	28	"

PHYSICAL DESCRIPTION AT TIME OF COLLECTION: dark grey-green silt

PHYSICAL CHANGES FROM TIME OF COLLECTION UNTIL SHIPMENT: none

INSTRUMENT READINGS NA

pH

CONDUCTIVITY

TEMPERATURE

SAMPLE DESCRIPTION

SITE NAME/TDD# Swift Ag Chem. Fairmont City Plant F05-8612-077

CASE NUMBER 12411

SAMPLE #/STATION LOCATION S8

SAMPLING DATE 8/2/89 SAMPLING TIME 1315

ORGANIC TRAFFIC NUMBER EFA 19

INORGANIC TRAFFIC NUMBER MEEF 19

BOTTLE	ANALYSIS	TAG NUMBERS	LOT NUMBER
8 oz wide mouth	EXT	5-156329	F9158524
"	M/C	30	"
120 ml wide mouth	VOA	31	D8202184
	VOA	32	"

PHYSICAL DESCRIPTION AT TIME OF COLLECTION: dark grey-green silt.

PHYSICAL CHANGES FROM TIME OF COLLECTION UNTIL SHIPMENT: none

INSTRUMENT READINGS NA

pH

CONDUCTIVITY

TEMPERATURE

SAMPLE DESCRIPTION

SITE NAME/TDD# Swift Ag Chem. Fairmont City Plant F05-8612-077

CASE NUMBER 12411

SAMPLE #/STATION LOCATION 59

SAMPLING DATE 8/2/89 SAMPLING TIME 1400

ORGANIC TRAFFIC NUMBER EFA 20

INORGANIC TRAFFIC NUMBER MEEF 20

BOTTLE	ANALYSIS	TAG NUMBERS	LOT NUMBER
8 oz. wide mouth	EXT	5-156 333	F9158524
"	m/c	34	"
120 ml wide mouth	VOA	35	D8202184
"	VOA	36	"

PHYSICAL DESCRIPTION AT TIME OF COLLECTION: med grey sandy silt

PHYSICAL CHANGES FROM TIME OF COLLECTION UNTIL SHIPMENT: none

INSTRUMENT READINGS NA

pH

CONDUCTIVITY

TEMPERATURE

SAMPLE DESCRIPTION

SITE NAME/TDD# Swift Ag Chem. Fairmont City Plant F05-8612-077

CASE NUMBER 12411

SAMPLE #/STATION LOCATION S10

SAMPLING DATE 8/2/89 SAMPLING TIME 1410

ORGANIC TRAFFIC NUMBER EFA 21

INORGANIC TRAFFIC NUMBER MEEF 21

BOTTLE	ANALYSIS	TAG NUMBERS	LOT NUMBER
8 oz wide mouth	EXT	5-156 337	F9158524
"	M/C	38	"
120 ml wide mouth	VOA	39	D8252094
"	VOA	40	D8257134

PHYSICAL DESCRIPTION AT TIME OF COLLECTION: grey to light grey mottled sandy silt

PHYSICAL CHANGES FROM TIME OF COLLECTION UNTIL SHIPMENT: none

INSTRUMENT READINGS NA

pH

CONDUCTIVITY

TEMPERATURE

SAMPLE DESCRIPTION

SITE NAME/TDD# Swift Ag Chem. Fairmont City Plant F05-8612-077

CASE NUMBER 12411

SAMPLE #/STATION LOCATION S12

SAMPLING DATE 8/2/89 SAMPLING TIME 1435

ORGANIC TRAFFIC NUMBER EFA 23

INORGANIC TRAFFIC NUMBER MEEF23

BOTTLE	ANALYSIS	TAG NUMBERS	LOT NUMBER
8 oz wide mouth	Ext	S-156345	F9158524
"	m/c	46	"
120 ml wide mouth	VOA	47	G8200074
	VOA	48	D8202164

PHYSICAL DESCRIPTION AT TIME OF COLLECTION: brown-tan loamy soil with some clay

PHYSICAL CHANGES FROM TIME OF COLLECTION UNTIL SHIPMENT: none

INSTRUMENT READINGS NA

pH

CONDUCTIVITY

TEMPERATURE

SAMPLE DESCRIPTION

SITE NAME/TDD# Swift Ag Chem. Fairmont City Plant FOS-8612-077

CASE NUMBER 12411

SAMPLE #/STATION LOCATION S11

SAMPLING DATE 8/2/89 SAMPLING TIME 1430

ORGANIC TRAFFIC NUMBER EFA 22

INORGANIC TRAFFIC NUMBER MEEF 22

BOTTLE	ANALYSIS	TAG NUMBERS	LOT NUMBER
8 oz wide mouth	EXT	S-156341	F9158524
"	M/C	42	"
120 ml wide mouth	VOA	43	D8202184
"	VOA	44	D8202054

PHYSICAL DESCRIPTION AT TIME OF COLLECTION: black silt

PHYSICAL CHANGES FROM TIME OF COLLECTION UNTIL SHIPMENT: none

INSTRUMENT READINGS NA

pH

CONDUCTIVITY

TEMPERATURE

ENVIRONMENTAL PROTECTION AGENCY
Office of Enforcement

REGION 5
230 South Dearborn Street
Chicago, Illinois 60604

CHAIN OF CUSTODY RECORD

PROJ. NO.: FIL 0055
PROJECT NAME: F05-8612-077 case # 12464
SAMPLERS: (Signature) Jeffrey R Dickson

STA. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	ABN, Pest/PCB 8 oz. wide mouth	VOA 120ml wide mouth					REMARKS: TAG Number ~~OTR~~ ~~SAND~~ ~~IT~~ ~~RAND~~	Low conc. matrix
EFA 12	8/2/89	1100	✓	~~X~~ RD	S1	3	1	2					5-156301, 03, 04	soil
EFA 13	8/2/89	1110		X	S2	3	1	2					5-156305, 07, 08	soil
EFA 14	8/2/89	1130		X	S3	3	1	2					5-156309, 11, 12	soil
EFA 15	8/2/89	1140		X	S4	3	1	2					5-156313, 15, 16	soil
EFA 16	8/2/89	1235		X	S5	3	1	2					5-156317, 19, 20	soil
EFA 17	8/2/89	1250		X	S6	3	1	2					5-156321, 23, 24	soil/ref
EFA 18	8/2/89	1305		X	S7	3	1	2					5-156325, 27, 28	soil/ref
EFA 19	8/2/89	1315		X	S8	3	1	2					5-156329, 31, 32	soil/ref
EFA 20	8/2/89	1400		X	S9	3	1	2					5-156333, 35, 36	soil/ref
EFA 21	8/2/89	1410		X	S10	3	1	2					5-156337, 39, 40	soil/ref
EFA 22	8/2/89	1430		X	S11	3	1	2					5-156341, 43, 44	soil/ref
EFA 23	8/2/89	1435		X	S12	3	1	2					5-156345, 47, 48	soil
													Lot # 8 oz. 59158524	
					no preservatives								Lot # 120ml S1-S7-D82CC074 S8-S9 D82[illegible] (S10-D82520794, D8257134) S11-D8202184, D8202[illegible] S12-D82CC074, D8[illegible]	
													OTR in cooler # 92	

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Jeffrey R Dickson	8/2/89 1800				
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks: Shipped Federal Express to ~~IEA~~ WADS Airbill # ~~4260355774~~ 9RD 2734217754 9RD Custody seals - 93789, 93790	

Distribution: White — Accompanies Shipment; Pink — Coordinator Field Files; Yellow — Laboratory File

5- 07397

ENVIRONMENTAL PROTECTION AGENCY
Office of Enforcement

REGION 5
230 South Dearborn Street
Chicago, Illinois 60604

CHAIN OF CUSTODY RECORD

PROJ. NO.: FIL0055
PROJECT NAME: FOS-8612-077 case # 18464
SAMPLERS: (Signature) Jeffry R Dickson

STA. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	metals/cyanide 802 wide mouth						TAG Number	REMARKS Low conc matrix
MEEF 12	8/2/89	1100	✓	~~X~~ FRP	S1	1	1						5-156302	soil
MEEF 13	8/2/89	1110		X	S2	1	1						5-156306	soil
MEEF 14	8/2/89	1130		X	S3	1	1						5-156310	soil
MEEF 15	8/2/89	1140		X	S4	1	1						5-156314	soil
MEEF 16	8/2/89	1235		X	S5	1	1						5-156318	soil
MEEF 17	8/2/89	1250		X	S6	1	1						5-156322	soil
MEEF 18	8/2/89	1305		X	S7	1	1						5-156326	soil
MEEF 19	8/2/89	1315		X	S8	1	1						5-156330	soil
MEEF 20	8/2/89	1400		X	S9	1	1						5-156334	soil
MEEF 21	8/2/89	1410		X	S10	1	1						5-156338	soil
MEEF 22	8/2/89	1430		X	S11	1	1						5-156342	soil
MEEF 23	8/2/89	1435		X	S12	1	1						5-156346	soil
													Lot # 802 F9158524	
					no preservatives								OTR in cooler # 01	

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Jeffry R Dickson	8/2/89 1800				
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks Shipped Federal Express to Enseco RMAL Airbill # 4260355713 Custody seals — 93791, 93792	

Distribution: White — Accompanies Shipment; Pink — Coordinator Field Files; Yellow — Laboratory File

5- 07398

EPA

United States Environmental Protection Agency
Contract Laboratory Program Sample Management Office
PO Box 818 Alexandria, VA 22313
703-557-2490 FTS 557-2490

Inorganic Traffic Report
(For CLP Use Only)

Case Number: 12464
SAS No. (if applicable): NA

1. Type of Activity (Check one): [ ] ENF [ ] NPLD [ ] RA [X] SI [ ] STSI [ ] ER [ ] O&M [ ] RD [ ] ST [ ] Other (Specify) [ ] ESI [ ] PA [ ] RIFS [ ] STPA

2. Region Number: V
Sampling Co.: FIT
Sampler (Name): Jeff Dickson

4. Date Shipped: 8/2/89
Airbill Number: 4260355713
Carrier: F

Non-Superfund Program

Site Name: Swift Ag Chem Fairmont City Plant
City, State: Fairmont City, Illinois
Site Spill ID: NA

3. Ship To:
Enseco/Rocky Mountain Analy.
4955 Yarrow Street
Arvada, Co. 80002
303-421-6611
ATTN Becky Williams

Double volume required for matrix spike/duplicate aqueous sample.

Ship medium and high concentration samples in paint cans.

See reverse for additional instructions.

5. Sample Description (Enter in Column A)
1. Surface Water
2. Ground Water
3. Leachate
4. Rinsate
5. Soil/Sediment
6. Oil (SAS)
7. Waste (SAS)
8. Other (SAS) (Specify)

CLP Sample Number (From labels)	(A) Sample Description (From box 1)	(B) Concentration L=low M=med H=high	(C) RAS Analysis: Total Metals	(C) RAS Analysis: Cyanide	(D) Special Handling	(E) Station Location	(F) Date/Time of Sample Collection	(G) Corresponding Organic Sample Number
MEEF 12	5	L	X	X	none	S1	8/2/89 1100	EFA 12
MEEF 13	5	L	X	X	"	S2	8/2/89 1110	EFA 13
MEEF 14	5	L	X	X	"	S3	8/2/89 1130	EFA 14
MEEF 15	5	L	X	X	"	S4	8/2/89 1140	EFA 15
MEEF 16	5	L	X	X	"	S5	8/2/89 1235	EFA 16
MEEF 17	5	L	X	X	"	S6	8/2/89 1250	EFA 17
MEEF 18	5	L	X	X	"	S7	8/2/89 1305	EFA 18
MEEF 19	5	L	X	X	"	S8	8/2/89 1315	EFA 19
MEEF 20	5	L	X	X	"	S9	8/2/89 1400	EFA 20
MEEF 21	5	L	X	X	"	S10	8/2/89 1410	EFA 21
MEEF 22	5	L	X	X	"	S11	8/2/89 1430	EFA 22
MEEF 23	5	L	X	X	"	S12	8/2/89 1435	EFA 23

Shipment (is) / is not complete

EPA Form 9110-1 (8-88) Replaces EPA Form 2075-6, which may be used. Green - SMO Copy Pink - Region Copy White - Lab Copy for Return to SMO Yellow - Lab Copy

EPA

United States Environmental Protection Agency
Contract Laboratory Program Sample Management Office
PO Box 818 Alexandria, VA 22313
703-557-2490 FTS 557-2490

Organic Traffic Report
(For CLP Use Only)

Number: 12464
SAS No. (if applicable): NA

1. Type of Activity (Check one)
- [ ] ENF
- [ ] ER
- [ ] ESI
- [ ] NPLD
- [ ] O&M
- [ ] PA
- [ ] RA
- [ ] RD
- [ ] RIFS
- [x] SI
- [ ] ST
- [ ] STPA
- [ ] STSI
- [ ] Other (Specify)

Non-Superfund Program

Site Name: Swift Ag Chem Fairmont City Plant

City, State: Fairmont City, Illinois

Site Spill ID: NA

2. Region Number: V

Sampling Co.: FIT

Sampler (Name): Jeff Dickson

3. Ship To:
Wadsworth-Alert Lab Inc
4010 Shuffel Drive NW
North Canton, Ohio 44720
ATTN: Kim Hutras
216/497-9396

4. Date Shipped: 8/2/89

Airbill Number: 2734217754

Carrier: F

Triple volume required for matrix spike/duplicate aqueous sample.

Ship medium and high concentration samples in paint cans.

See reverse for additional instructions.

5. Sample Description (Enter in Column A)
1. Surface Water
2. Ground Water
3. Leachate
4. Rinsate
5. Soil/Sediment
6. Oil (SAS)
7. Waste (SAS)
8. Other (SAS) (Specify)

CLP Sample Number (From labels)	(A) Sample Description (From box 1)	(B) Concentration L=low M=med H=high	(C) RAS Analysis VOA	BNA	Pest/PCB	(D) Special Handling	(E) Station Location	(F) Date/Time of Sample Collection	(G) Corresponding CLP Inorganic Sample Number
EFA 12	5	L	X	X	X	none	S1	8/2/89 1100	MEEF 12
EFA 13	5	L	X	X	X	"	S2	8/2/89 1110	MEEF 13
EFA 14	5	L	X	X	X	"	S3	8/2/89 1130	MEEF 14
EFA 15	5	L	X	X	X	"	S4	8/2/89 1140	MEEF 15
EFA 16	5	L	X	X	X	"	S5	8/2/89 1235	MEEF 16
EFA 17	5	L	X	X	X	"	S6	8/2/89 1250	MEEF 17
EFA 18	5	L	X	X	X	"	S7	8/2/89 1305	MEEF 18
EFA 19	5	L	X	X	X	"	S8	8/2/89 1315	MEEF 19
EFA 20	5	L	X	X	X	"	S9	8/2/89 1400	MEEF 20
EFA 21	5	L	X	X	X	"	S10	8/2/89 1410	MEEF 21
EFA 22	5	L	X	X	X	"	S11	8/2/89 1430	MEEF 22
EFA 23	5	L	X	X	X	"	S12	8/2/89 1435	MEEF 23

Shipment (is) is not complete

EPA Form 9110-2 (8-88) Replaces EPA Form 2075-7, which may be

Blue - Copy Pink - Lab Copy White - Lab Copy for Return to SMO Yellow - Lab Copy

ecology and environment
recycled paper

SAMPLE REQUEST
EPA REGION 4

Confirmed X
LABS Ass
Paperwork ok

1. Date Form Completed 5/15/89

2. Account # FIL0055SB TDD # F05-8612-077

EPA I.D. # ILD059995423

3. Site Name, City, State Swift Ag Chem Fairmont City Plant
Fairmont City, Il

4. Team Leader R. Bayer Sampler J. Dickson

5. Number and Type of Samples:

Soil/Sediment 12 Surface Water ____ Ground Water ____

Residential/Municipal Wells ____ Other ____

Number of Blanks ____ Number of Duplicates ____

6. RAS Parameters Requested:

A/B/N ✓ Pest/PCB ✓ Volatiles ✓ Metals ✓ Cyanide ✓

SAS Parameters Requested: ____

7. Expected Sampling Date(s): ~~June 27~~ w/o July ~~18-19~~ 31

Expected Shipping Date(s): ~~June 27~~ w/o July 31

8. Lab Used For Analysis: Organic Soil WADS

Inorganic Soil ENSECO (RMAL)

SAS ____

9. Case Number 12464 SAS Number ____

10. Airbill Numbers:

Organic Lab ____ # Coolers ____ # Samples ____

Inorganic Lab ____ # Coolers ____ # Samples ____

CRL/SAS Lab ____ # Coolers ____ # Samples ____

RECEIPT FOR SAMPLES

U.S. EPA, 230 S. Dearborn St., Chicago, IL 60604

U. S. EPA ID NO ILD059995423

PROJ. ACCT. NO. FIL0055SB

TDD FD5-8612-077

SPLIT SAMPLES N/A ACCEPTED( ) DECLINED( )

FACILITY/OCCUPANT NAME: Scott M. Mol

FACILITY/OCCUPANT ADDRESS: 2551 KINGSHIGHWAY FAIRMONT CITY, ILL 62201

SAMPLE NUMBER	DATE	TIME	SPLIT SAMPLES (✓)	OTR#	ITR#	DESCRIPTION OF SAMPLE LOCATIONS	SEMIVOLATILES	PESTICIDES/PCBS	VOLATILES	METALS	CYANIDE			MATRIX
S11	8/2/89	14:30	—	EFA 22	MEEF 22	S11 ditch south-east end	✓	✓	✓	✓	✓			Soil/Sediment

TRANSFERRED BY: Regina Bayer (Signature) 8/2/89 (Date) 3:30 (Time)

RECEIVED BY: (Signature) (Date) (Time)

TITLE TELEPHONE

DISTRIBUTION
WHITE: FIT SITE FILE
YELLOW: FACILITY/OCCUPANT
GREEN: FIT SAMPLE MANAGEMENT
PINK: U.S. EPA

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 5
230 SOUTH DEARBORN ST.
CHICAGO, ILLINOIS 60604

REPLY TO THE ATTENTION OF:

FIT Inspection Date: August 2, 1989

CERCLIS Site Name: Swift Ag Chem

Site Address: 2501 N. Kingshighway

Recipient Information: Rick Fields / Arnold & Porter
Name
consul for Vigaro Ind.
Title
1200 New Hampshire Ave. N.W.
Street Address
Washington D.C. 20036
City State Zip Code
(202) 872-6953
Telephone Number

Ecology and Environment, Inc. has been retained by the United States Environmental Protection Agency (U.S. EPA) under contract 68-01-7347 for the purpose of evaluating sites under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA), and the Superfund Amendments and Reauthorization Act (SARA).

A copy of the report regarding the inspection conducted at the above-referenced property will be forwarded by the U.S. EPA within 6 months. If a copy of the inspection report is not received within 6 months of the inspection date noted above, a written request may be sent to the U.S. EPA representative indicated below.

It is essential to include the U.S. EPA Identification Number listed below to ensure that your request is properly referenced.

U.S. EPA Identification Number ILD059995423

Address requests to:

William Messenger, Chief
Pre-Remedial Unit (5HR11)
United States Environmental Protection Agency
230 South Dearborn Street
Chicago, Illinois 60604
(312) 353-1057

Distribution:
White: FIT Site File; TDD No.: F05-8612-077; PAN: FIL0055SB
Yellow: Recipient
Pink: U.S. EPA

RECEIPT FOR SAMPLES

U.S. EPA, 230 S. Dearborn St., Chicago, IL 60604

U. S. EPA ID NO ILD059995423

PROJ. ACCT. NO. F1L0055SB

TDD F05-8612-077

SPLIT SAMPLES ACCEPTED( ) DECLINED(✓)

FACILITY/OCCUPANT NAME: Swift Ag Chem Fairmont City Plant

FACILITY/OCCUPANT ADDRESS: Swift Ag Chem Fairmont City Plant, 2501 N. Kings Hwy, Fairmont City, Illinois 62202

SAMPLE NUMBER	DATE	TIME	SPLIT SAMPLES (✓)	OTR#	ITR#	DESCRIPTION OF SAMPLE LOCATIONS	SEMIVOLATILES	PESTICIDES/PCBS	VOLATILES	METALS	CYANIDE			MATRIX
S1	8/2/89	11:00		EFA 12	MEEF 12	S1	✓	✓	✓	✓	✓			soil
S2	8/2/89	11:10		EFA 13	MEEF 13	S2	✓	✓	✓	✓	✓			soil
S3	8/2/89	11:30		EFA 14	MEEF 14	S3	✓	✓	✓	✓	✓			soil
S4	8/2/89	11:40		EFA 15	MEEF 15	S4	✓	✓	✓	✓	✓			soil
S5	8/2/89	12:35		EFA 16	MEEF 16	S5	✓	✓	✓	✓	✓			soil
S6	8/2/89	12:50		EFA 17	MEEF 17	S6	✓	✓	✓	✓	✓			soil/sed
S7	8/2/89	13:05		EFA 18	MEEF 18	S7	✓	✓	✓	✓	✓			soil/sed
S8	8/2/89	13:15		EFA 19	MEEF 19	S8	✓	✓	✓	✓	✓			soil/sed
S9	8/2/89	14:00		EFA 20	MEEF 20	S9	✓	✓	✓	✓	✓			soil sed
S10	8/2/89	14:10		EFA 21	MEEF 21	S10	✓	✓	✓	✓	✓			soil sed
~~S11~~	~~8/2/89~~			~~EFA 22~~	~~MEEF 22~~	~~S11~~	~~✓~~	~~✓~~	~~✓~~	~~✓~~	~~✓~~			~~soil sed~~ R.B. 8/2/89
S12	8/2/89	14:35		EFA 23	MEEF 23	S12	✓	✓	✓	✓	✓			soil

TRANSFERRED BY: Regina Bayer (Signature) 8/2/89 (Date) 15:15 (Time)

RECEIVED BY: (Signature) (Date) (Time)

TITLE

TELEPHONE

DISTRIBUTION
WHITE: FIT SITE FILE
YELLOW: FACILITY/OCCUPANT
GREEN: FIT SAMPLE MANAGEMENT
PINK: U.S. EPA

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 5
230 SOUTH DEARBORN ST.
CHICAGO, ILLINOIS 60604

REPLY TO THE ATTENTION OF:

FIT Inspection Date: August 2, 1989

CERCLIS Site Name: Swift Ag Chem

Site Address: 2501 N. Kingshighway

Recipient Information: Rick Fields / Arnold & Porter
Name

consul for Vigoro Ind.
Title

1200 New Hampshire Ave. N.W.
Street Address

Washington D.C. 20036
City State Zip Code

(202) 872-6953
Telephone Number

Ecology and Environment, Inc. has been retained by the United States Environmental Protection Agency (U.S. EPA) under contract 68-01-7347 for the purpose of evaluating sites under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA), and the Superfund Amendments and Reauthorization Act (SARA).

A copy of the report regarding the inspection conducted at the above-referenced property will be forwarded by the U.S. EPA within 6 months. If a copy of the inspection report is not received within 6 months of the inspection date noted above, a written request may be sent to the U.S. EPA representative indicated below.

It is essential to include the U.S. EPA Identification Number listed below to ensure that your request is properly referenced.

U.S. EPA Identification Number ILD059995423

Address requests to:

William Messenger, Chief
Pre-Remedial Unit (5HR11)
United States Environmental Protection Agency
230 South Dearborn Street
Chicago, Illinois 60604
(312) 353-1057

Distribution:

White: FIT Site File; TDD No.: F05-8612-077; PAN: FIL005553
Yellow: Recipient
Pink: U.S. EPA

RECEIPT FOR SAMPLES

U.S. EPA, 230 S. Dearborn St., Chicago, IL 60604

U. S. EPA ID NO ILD059995423

PROJ. ACCT. NO. FIL0055SB

TDD F05-8612-077

SPLIT SAMPLES ACCEPTED( ) DECLINED(✓)

FACILITY/OCCUPANT NAME: Swift Ag Chem Fairmont City Plant

FACILITY/OCCUPANT ADDRESS: Swift Ag Chem Fairmont City Plant, 2501 N. Kings Hwy, Fairmont City, Illinois 62202

SAMPLE NUMBER	DATE	TIME	SPLIT SAMPLES (✓)	OTR#	ITR#	DESCRIPTION OF SAMPLE LOCATIONS	SEMIVOLATILES	PESTICIDES/PCBS	VOLATILES	METALS	CYANIDE			MATRIX
							(✓)							
S1	8/2/89	11:00		EFA 12	MEEF 12	S1	✓	✓	✓	✓	✓			Soil
S2	8/2/89	11:10		EFA 13	MEEF 13	S2	✓	✓	✓	✓	✓			Soil
S3	8/2/89	11:30		EFA 14	MEEF 14	S3	✓	✓	✓	✓	✓			soil
S4	8/2/89	11:40		EFA 15	MEEF 15	S4	✓	✓	✓	✓	✓			soil
S5	8/2/89	12:05		EFA 16	MEEF 16	S5	✓	✓	✓	✓	✓			soil
S6	8/2/89	12:50		EFA 17	MEEF 17	S6	✓	✓	✓	✓	✓			soil/sed
S7	8/2/89	13:05		EFA 18	MEEF 18	S7	✓	✓	✓	✓	✓			soil/sed
S8	8/2/89	13:15		EFA 19	MEEF 19	S8	✓	✓	✓	✓	✓			soil/sed
S9	8/2/89	14:00		EFA 20	MEEF 20	S9	✓	✓	✓	✓	✓			soil/sed
S10	8/2/89	14:10		EFA 21	MEEF 21	S10	✓	✓	✓	✓	✓			soil sed
~~S11~~	~~8/2/89~~			~~EFA 22~~	~~MEEF 22~~	~~S11~~	~~✓~~	~~✓~~	~~✓~~	~~✓~~	~~✓~~			~~soil sed~~
S12	8/2/89	14:35		EFA 23	MEEF 23	S12	✓	✓	✓	✓	✓			soil

TRANSFERRED BY: Fabrice Royer 8/2/89 15:15

(Signature) (Date) (Time)

RECEIVED BY:

(Signature) (Date) (Time)

DISTRIBUTION
WHITE: FIT SITE FILE
YELLOW: FACILITY/OCCUPANT
GREEN: FIT SAMPLE MANAGEMENT
PINK: U.S. EPA

TITLE TELEPHONE

SWIFT AG CHEM FAIRMONT CITY PLT

RECEIPT FOR SAMPLES

U.S. EPA, 230 S. Dearborn St., Chicago, IL 60604

U. S. EPA ID NO ILD057975423

PROJ. ACCT. NO. FIL0055SB

TDD FD5-9612-077

SPLIT SAMPLES N/A ACCEPTED( ) DECLINED( )

FACILITY/OCCUPANT NAME

FACILITY/OCCUPANT ADDRESS 2551 KINGSHIGHWAY FAIRMONT CITY, ILL 62201

SAMPLE NUMBER	DATE	TIME	SPLIT SAMPLES (✓)	OTR#	ITR#	DESCRIPTION OF SAMPLE LOCATIONS	SEMIVOLATILES	PESTICIDES/PCBS	VOLATILES	METALS	CYANIDE			MATRIX
S11	8/2/87	14:30	—	EFF22	EFF22	S11 [illegible]	✓	✓	✓	✓	✓			Soil/Sediment

TRANSFERRED BY Ronna Draper 8/2/87 3:30

(Signature) (Date) (Time)

RECEIVED BY:

(Signature) (Date) (Time)

DISTRIBUTION
WHITE: FIT SITE FILE
YELLOW: FACILITY/OCCUPANT
GREEN: FIT SAMPLE MANAGEMENT
PINK: U.S. EPA

TITLE TELEPHONE

HAVE YOU...

1. GIVEN A COPY OF TABLES 4.1, 4.2, 4.3 TO HEALTH AND SAFETY?
2. FINISHED YOUR DRINKING WATER MEMOS?

10:00 FIT conf.

AUDITOR REVIEW SHEET Page ___ of ___

CERCLIS Site Name: Swift Ag Chem -
City: E. St. Louis State: IL
U.S. EPA I.D.: ILD059995423 SSID: None
TDD: F05-8612-077 PAN: F-IL0055SB

Meeting Date: 11/16/89 Time Slot: (am) midday pm

Author: Spangler
Supervisor: Mayees

Audit Team Members
Chairperson: Bayer
Chemist: ERIE
Geologist: P. Vojack
Other:

Audit Review

Page/Paragragh/Line (Part/Section/Number)	Comments:
2-5, line 25	determined how? by sampling?
2-7 line 1	Any past enforcement actions by IEPA due to spills?
5-1 line 26	Qualify rationale by indicating I-AWC utilizes SW not GW.
5-3 line 29	Describe Amer. Bottoms Area - "a nearly level area of bottomland in the Mississippi River Flood Plain."
from 5-3 line 31 to 5-4 line 8	Add attached blurb - Not all alluvium - only unsaturated zone.
line 19	Change to 3-mile, There is a bedrock well in Section 12 (480'-516')
5-7 line 27 & 29	Are Creeks used recreationally?
5-13 line 1-3	No potential? - What about sediment samples S7, S8, S10, S11 taken outside of fence & greenish liquid in ditches? Any potential there?

Rob Vojack
Auditor

11- -89
Date

QA005(3/29/89)

HAVE YOU...

1. GIVEN A COPY OF TABLES 4.1, 4.2, 4.3 TO HEALTH AND SAFETY?
2. FINISHED YOUR DRINKING WATER MEMOS?

10:00 FIT conf.

AUDITOR REVIEW SHEET Page ___ of ___

CERCLIS Site Name: Swift Ag Chem -
City: E. St. Louis State: IL
U.S. EPA I.D.: ILD059995423 SSID: None
TDD: F05-8612-077 PAN: F-IL0055SB

Meeting Date: 11/16/89 Time Slot: (am) midday pm

Author: Spanglee
Supervisor: Mayees

Audit Team Members
Chairperson: Bayer
Chemist: ERNE
Geologist: P. Vajrack
Other:

Audit Review

Page/Paragragh/Line (Part/Section/Number)	Comments:
Appendix A	-Contour Interval Missing
Appendix B 2070-13	Discharge Area: Potential discharge area for local GW flow is Rose Creek & Schoenberger Creek. Recharge: Mention infiltrating precipitation primary recharge for AOC
Appendix E	-Well log 1+3 are the same well. (See attached extra well logs to support Section 5)
HRS - GW Route	Change perm. of unsaturated zone to 10^{-3}-10^{-5} (2)

Auditor

Date

QA005(3/29/89)

HAVE YOU...

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2. FINISHED YOUR DRINKING WATER MEMOS?

10:00 FIT conf.

AUDITOR REVIEW SHEET Page ___ of ___

CERCLIS Site Name: Swift Ag Chem -
City: E. St. Louis State: IL
U.S. EPA I.D.: ILD059995423 SSID: None
TDD: F05-8612-077 PAN: F-IL0055SB

Meeting Date: 11/16/89 Time Slot: (am) midday pm

Author: Spangler
Supervisor: Mayers

Audit Team Members
Chairperson: Bayer
Chemist: ERM
Geologist: P. Vinck
Other:

Audit Review

Page/Paragragh/Line (Part/Section/Number)	Comments:
Figure 3-1	view photos. There is a hopper
text 3-5 ln 23	on end of building also.
3-6 line 13	Tank 12 was empty, use unknown (not H_2O)
3-7 ln 1	reservoir contained fertilizer waste, with
	fill bulldozed over the edge, mostly covering the
	waste.
p 3-9 ln 2-10	reword sentence - ambigious
Figure 3-2	ditch continues up near S1
pg 3-10	S4 was a waste sample
~~pg 5-1~~ pg 5-7	you have an obs. release to SW
	sediment samples count the same as
	SW samples.
	mention that RR yard is a likely source
	for PAH hits.
	hits - heptachlor, dieldrin, gamma chlordane,
	Cd - make strong case for SW route

Auditor Date

QA005(3/29/89)

HAVE YOU...

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2. FINISHED YOUR DRINKING WATER MEMOS?

10:00 FIT conf.

AUDITOR REVIEW SHEET Page ___ of ___

CERCLIS Site Name: Swift Ag Chem -
City: E. St. Louis State: IL
U.S. EPA I.D.: ILD059995423 SSID: None
TDD: F05-8612-077 PAN: FIL0055SB

Meeting Date: 11/16/89 Time Slot: (am) midday pm

Author: Spanglee
Supervisor: Mayees

Audit Team Members
Chairperson: Bayer
Chemist: ERNE
Geologist: P. Vajrack
Other:

Audit Review

Page/Paragragh/Line (Part/Section/Number)	Comments:
pg 1-1	2nd paragraph - not clear whether its 1 committee, or 1 committee presenting this survey to another committee?
2-1 ln 25	~~do you need this sentence here?~~ Anyways, a ditch leading to Rose Creek lies adjacent to the site, not Rose Creek itself.
ln 32	is manufacturing the correct word, when what they do is blend materials?
p 2-4 ln 5-11	are you contradicting yourself, about the use of liquid raw materials - pg. 2-3 ln. ln 9?
pg 2-3 ln 29	operator is also Vigaro. Kaiser Estech name is just a brand name. see logbook.
2-3 ln insert	what about Comarck?
Figure 3-1	my guess is that the ditch on the N side of the site is Rose Creek (?) 'Approximate' Scale
	add use of oil

Auditor Date

QA005(3/29/89)

Brenda

We need some guidance on enforcement/ response actions.

Gary

scale

not approximate from topo

approx - features

Kathy - if found in POE, but not on site is it an ob. release

recycled paper

HAVE YOU...

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2. FINISHED YOUR DRINKING WATER MEMOS?

ecology and environment inc.

AUDITOR REVIEW SHEET

Page 1 of 1

CERCLIS Site Name: Swift Ag Chem -

City: E. St. Louis State: IL

U.S. EPA I.D.: ILD059995423 SSID: None

TDD: F05-8612-077 PAN: F-IL0055SB

Meeting Date: 11/16/89 Time Slot: 10 am midday pm

Author: Spanglee

Supervisor: Mayees

Audit Team Members

Chairperson: Bayer

Chemist: ERNE

Geologist: P. Vajack

Other:

Audit Review

Page/Paragragh/Line (Part/Section/Number)	Comments:
introduction	The site was initially (identified) by reported to
2-3 line 9	dry - better term is solid.
line 23	Swift and ... ?
2-4 line 7	solid materials
	3,3'-dichlorobenzidine
Ditch and creek should be designated on map.	
many PAH'S :	what color was sediment.
4.1	mention Cd / add J qualifier to pyrene.
5-2	significantly greater ⇒ 5x, 10x ?
5-3 line 3	contradictory OK
	- dust suppressant oil
3,4	line 12 source of PAH'S

John Erne

Auditor

11/14/89

Date

QA005(3/29/89)

HAVE YOU...

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2. FINISHED YOUR DRINKING WATER MEMOS?

10:00 FIT conf.

AUDITOR REVIEW SHEET Page ___ of ___

CERCLIS Site Name: Swift Ag Chem -
City: E. St. Louis State: IL
U.S. EPA I.D.: ILD059995423 SSID: None
TDD: F05-8612-077 PAN: FI10055SB

Meeting Date: 11/16/89 Time Slot: (am) midday pm

Author: Spangler
Supervisor: Mayers

Audit Team Members
Chairperson: Bayer
Chemist: ERIE
Geologist: P. Vajrack
Other:

Page/Paragragh/Line (Part/Section/Number)	Audit Review Comments:
	~~white salt, result of spill?~~
pg 2-7	enforcement action - no past
	pit approx. scale
	hopper location ??
pg 3-7	rewrite reservoir section
3-10	# 4 - waste sample
	all pyrenes should be J qualified
5-1 ln 26	qualify JAWC as SW not GW
	bump Pb, Cu
ln 19	~~Cd not Cu~~ + γ Chlor
sec 5-2	PAH's from AR & Quest - supp oil
	Cahokia Creek - fishing?
	Obs. Rel. to SW Cd, Dieldrin, γ Chlor
	rewrite sec. 5-3

L Spangler
Auditor

11/16/89
Date

QA005(3/29/89)

HAVE YOU...

1. GIVEN A COPY OF TABLES 4.1, 4.2, 4.3 TO HEALTH AND SAFETY?
2. FINISHED YOUR DRINKING WATER MEMOS?

10:00 FIT conf.

AUDITOR REVIEW SHEET Page ___ of ___

CERCLIS Site Name: Swift Ag Chem -
City: E. St. Louis State: IL
U.S. EPA I.D.: ILD059995423 SSID: None
TDD: F05-8612-077 PAN: FIL0055SB

Meeting Date: 11/16/89 Time Slot: (am) midday pm

Audit Team Members

Author: Spangler Chairperson: Bayer
Supervisor: Mayces Chemist: Erne
Geologist: P. Vrjack
Other:

Audit Review

Page/Paragragh/Line (Part/Section/Number)	Comments:
pg 5-13	potential since TCL/TAL in ditches
2070-13	while out potential SW direct contact change recharge - infilt / precip dis-pot for local flow to Schen
	Vigaro - also operator
Scores	gw - perm to 2 SW - Obs. Rel.
	Comments - remove SW statement

K Spangler
Auditor

11/16/89
Date

QA005(3/29/89)

ECOLOGY AND ENVIRONMENT, INC

SCREENING SITE INSPECTION REPORT
QUALITY CONTROL CHECKLIST

CERCLIS Site Name: Swift Ag Chemical
City: E St. Louis State: Il.
U.S. EPA I.D.: ILD059995423 SSID: —
TDD: F05-8612-077 PAN: FIL00503B

Submittal Deadline: _____

The Quality Control Checklist (QCC) outlines the areas of review which include work objectives, technical content, thoroughness, and accuracy. This checklist also denotes the responsible persons involved in the QC process.

This checklist is divided into three stages. The first stage of review is conducted by the author and his/her immediate supervisor. The second stage involves an audit performed by selected audit members and author. Recommendations for the report are proposed and carried out by the author. The third stage is conducted by the author and his/her supervisors. They review the report to insure that recommendations and corrections were incorporated into the final draft report.

This QCC will be retained in the site file.

Stage 1

The draft Screening Site Inspection report has been revieved by the author and his/her supervisor on the basis of the following elements:

Screening Site Inspection

____ Title Page
____ Table of Contents
____ Appendix
____ List of Illustrations
____ List of Tables

Introduction

____ Site Discovery (who, when, how)
____ PA Preparation (prepared by, date)
____ SSI Work Plan (TDD, issuance date, approval date)
____ SSI Field Work (date, TDD, issuance date)

Site Background

____ Site Description (type of operation, status, size, location, address, brief area description, 4-mile map)
____ Site History (present owners/operators, current operations, and regulatory activities; past owners/operators, past operations, and past regulatory activities)

SSI Procedures and Field Observations

____ Site Representative Interview (E & E employee, site representative, date, time, location, other attendees, rationale)
____ Reconnaissance Inspection (objective, date, time, attendees)
____ Observations (topography, land use, bordering properties, security, waste site area, other observations)
____ Site Features Map

Sampling Procedures

____ Objective
____ Dates, Numbers, Matrices
____ Split Samples
____ Samples' Locations and Rationales
____ Sampling Location Maps and/or Tables
____ Field Techniques
____ Decontamination Procedures
____ Packaging
____ Labs Identification

Analytical Results

____ Identification of Groups of TCL Compounds and TAL Analytes
____ Tables, Footnotes

Discussion of Migration Pathways

Groundwater

____ TCL Compounds and TAL Analytes Detected/Not Detected
____ Attribution
____ Contamination Potential/No Potential
____ Targets

Surface Water

____ TCL Compounds and TAL Analytes Detected/Not Detected
____ Attribution
____ Contamination Potential/No Potential
____ Targets

Air

____ TCL Compounds and TAL Analytes Detected/Not Detected
____ Site Entry Readings
____ Attribution
____ Contamination Potential/No Potential
____ Targets

Fire and Explosion

____ Identification of Fire Official

____ Certification

____ Instrument Readings

Direct Contact

____ Documentation of Incident

____ Contamination Potential/No Potential

____ Targets

Bibliography

____ Proper Format

Appendices

____ Appendix A: Site 4-Mile Radius Map

Appendix B: U.S. EPA Form 2070-13

____ All Sections Completed

____ Information Consistent with Narrative

____ Appendix C: U.S. EPA Immediate Removal Action Checklist

Appendix D: Photographs

____ General Site Photographs

____ Photographs Sequenced (by number, by types, and with reference shots)

____ *Appendix E: Chemical Analysis of FIT-Collected Samples

____ Appendix: Other _____

Review	1st Review	2nd Review	3rd Review
_____	_____	_____	_____
Author			
_____	_____	_____	_____
Supervisor			

The draft SSI report has been approved for the second stage of the Quality Control Process.

Author	Date
Supervisor	Date

* Inclusion of Appendices other than those listed are to precede the Chemical Analysis of FIT-Collected samples which will always be the last appendix of the report.

Page ___ of ___

AUDITOR REVIEW SHEET

CERCLIS Site Name: Swift-Ag Chemical

City: E. St. Louis State: Il.

U.S. EPA I.D.: ILD059995423 SSID: –

TDD: F05-8612-077 PAN: FILOOSSJB

Audit Review Meeting Date: _____

Page/Paragragh/Line (Part/Section/Number)	Comments:
p. 2-3 ln. 9	ADD "liquid" in history
~~2-5 ln. 21-27~~	~~Sulfuric acid / white material~~
	TABLE 4-1 "J" pyrene
5-1 ln. 26	USE S.W.
5-2 ln.	
	Cadmium, Dieldrin Gamma Chlordane observed release to S.W.
5-13	potential does exist for D.C.
2070	change S.W. box to ~~potential~~ ob. rel. D.C. to reflect change in narrative
Scoring	permeability to unsaturated zone → 2
	Sign off on Scoring

Auditor Date

QUALITY CONTROL CHECKLIST

STAGE 1

CERCLIS Site Name: _____

City: _____ State: _____

U.S. EPA I.D.: _____ SSID: _____

TDD: _____ PAN: _____

Page/Paragragh/Line (Part/Section/Number)	Comments:

_____ _____

Supervisor Date

Stage II

The draft Screening Site Inspection report has been reviewed by the audit team listed below, on the basis of the following concepts:

- o Screening Site Inspection Work Objective
- o Identification of CERCLA and other Agency Goals
- o Site Background
- o Screening Site Inspection Procedures and Field Observations
- o Analytical Results
- o Discussion of Groundwater Migration Pathway
- o Discussion of Surface Water Migration Pathway
- o Discussion of Air Migration Pathway
- o Discussion of Fire and Explosion Migration Pathway
- o Discussion of Direct Contact Migration Pathway
- o Transmittal Memo

Audit Team:

Name	Discipline/Position
[illegible]	Geographer / U. M.
John Erve	Chemist / ASG
Pat Vojack	Earth Scientist
Karen Spangler	Env. Engineer / Author
Regina Barper	Water Chemist / State Coord.

Audit Team Meeting Date: 11/16/89

AUDIT TEAM RECOMMENDATIONS

CERCLIS Site Name: _____

City: _____ State: _____

U.S. EPA I.D.: _____ SSID: _____

TDD: _____ PAN: _____

Audit Team Recommendations Date: _____

Page/Paragragh/Line (Part/Section/Number)	Recommendations:

_____ _____

Author Date

FINAL SCREENING SITE INSPECTION REPORT

The final draft Screening Site Inspection report has been reviewed by the U.S. Environmental Protection Agency and State Agency. The attached comments have been reviewed and the final Screening Site Inspection report has been prepared for submittal.

Author	Date
Supervisor	Date
Supervisor	Date

0623:1

DOCUMENT CONTROL NO. FIL0055SB-08

INDEX FORM FOR FIT FILES

This information does not have to be written out for each item to be filed. Instead, fill in Lines 1-3 and photocopy onto yellow paper to make the form obvious in the file. Then under line 4, check the respective box on the yellow sheets. Place the form directly in front of the material it represents.

1. TECHNICAL DIRECTIVE DOCUMENT (TDD) NUMBER: F05-8612-077
2. PROJECT ACCOUNT (PAN) NUMBER: FIL0055SB
3. SITE NAME AND LOCATION: Swift Ag Chem Fairmont City IL
4. FILE DESCRIPTION (Check ONE Only):

RESERVED

___ TECHNICAL DIRECTIVE DOCUMENT(TDD)
___ ACKNOWLEDGEMENT OF COMPLETION(AOC)
___ PERFORMANCE EVALUATION REPORT
___ SITE SAFETY PLAN AND RELATED DOCUMENTS
___ SITE INSPECTION REPORT (EPA 2070-13)
___ HRS RANKING SYSTEM REPORT (HRS)

REPORTS

___ PRELIMINARY ASSESSMENT (EPA 2070-12)
___ PRELIMINARY ASSESSMENT DOCUMENTATION PACKAGE
___ FIT TECHNICAL MEMORANDA/REPORTS

PROJECT INFORMATION (Collected from non-FIT sources)

___ FEDERAL FILE INFORMATION
___ STATE FILE INFORMATION
___ COUNTY/TOWNSHIP FILE INFORMATION
___ CITY FILE INFORMATION
___ SITE OWNER/OPERATOR FILE INFORMATION
___ GEOLOGICAL INFORMATION (e.g. well logs)
___ MISCELLANEOUS FILE INFORMATION

FIELD WORK (FIT GENERATED WORK)

___ WORK PLAN/SAMPLE PLAN
___ QUALITY ASSURANCE PLAN (QAPP)
___ FIELD NOTEBOOKS
___ PHOTOGRAPHS/SLIDES/NEGATIVES
___ SITE SKETCHES/MAPS
___ SAMPLE MANAGEMENT(Chain of Custody, etc.)
X ANALYTICAL DATA Date 10/17/89
___ HYDROGEOLOGIC DATA (i.e., boring logs, pump tests, slug tests, etc.)
___ GEOPHYSICAL DATA
___ AIR MONITORING DATA
___ TELEPHONE CONVERSATION LOGS
___ MEETING NOTES/CONTACT REPORTS
___ CORRESPONDENCE

SUBCONTRACT MANAGEMENT

DRILLING SUBCONTRACTS

___ BID PACKAGE
___ BID REQUEST LETTERS
___ BIDDER'S SUBMITTALS
___ EVALUATION OF SUBMITTALS/MEMORANDUM OF JUSTIFICATION
___ REQUEST FOR SUBCONTRACT APPROVAL
___ CONTRACT
___ SUBCONTRACTOR'S DELIVERABLES
___ INVOICES/INVOICE VERIFICATION
___ CORRESPONDENCE

OTHER SUBCONTRACTS ( )

___ BID PACKAGE
___ BID REQUEST LETTERS
___ BIDDER'S SUBMITTALS
___ EVALUATION OF SUBMITTALS/MEMORANDUM OF JUSTIFICATION
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___ SUBCONTRACTOR'S DELIVERABLES
___ INVOICES/INVOICE VERIFICATION
___ CORREPSONDENCE

OTHER

___ _____
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___ _____

ecology and environment, inc.
111 WEST JACKSON BLVD., CHICAGO, ILLINOIS 60604, TEL. 312-663-9415
International Specialists in the Environment

CRL Receipt Date 9/7 FIT Receipt Date 10/12 Review Completed 10/17/89

TO: Bayer
FROM: Mary Gzyra
SUBJECT: Swift Ag. Chem.
PAN: IL0055SB (1 hour charged for review) Case # 12464

Sample Description

Organics (VOA, ABN, Pest/PCB)		Inorganics (Metals, Cyanide)	
# 12	Low Soil	#	Low Soil
	Low Water		Low Water
	Drinking Water		Drinking Water
	Other		Other

Project Data Status _____ Completed!!

✓ Incomplete, awaiting Soil work

FIT Data Review Findings:

Check Data Sheets for Transcription Errors

NN Compounds were detected in sample(s); see enclosed sheet.

Book No. 9 Page No. _____ Date Sampled 8/2

0759:2

recycled paper

Table 4-> Cont.

Physical State*	Waste Characteristics**	Category***	SI Memo	Sample Collection Information and Parameters	Sample Number >_1	>_2	>_3	>_4	>_5	>_6	>_7	>_8	>_9	>_10	>_11	>_12
				Semivolatile Organics, Cont.												
Solid	A,D	OCC	PAH	anthracene	120 J				260 J				630	520 J	250 J	
Liquid	A,D	OCC	PH,CLA	di-n-butylphthalate										170 J		
Solid	A,D	OCC	PAH	fluoranthene	2300	390 J		2700	1800	780 J	2000 J		3300	5200	1900	50 J
Solid	A,D	OCC	PAH	pyrene	3900 J	430	500 J	3900	1900	870 J	2600 J		3400	4000	2000	55 J
Liquid	A,D	OCC	PH,CLA	butylbenzylphthalate	160 J										230 J	
	A,D	OCC	HA	3,3'-dichlorobenzidine												
Solid	A,D	OCC	PAH	benzo[a]anthracene	1200 J	230 J		640 J	1100		1700 J		1700	1900	930	
Solid	A,D	OCC	PAH	chrysene	2000 J	360 J	330 J	830 J	990	1700 J	2600 J		1600	1800	1100	46 J
Liquid	A,D	OCC	PH,CLA	bis(2-ethylhexyl)phthalate	6100 J	1400	600 J	5000	270 J		3400 J		4300	1600	2500	
Liquid	A,D	OCC	PH,CLA	di-n-octylphthalate												
Solid	A,D	OCC	PAH	benzo[b]fluoranthene	2800 J	430 J	290 J	650 J	1200		5300		1800	1700	1200	66 J
Solid	A,D	OCC	PAH	benzo[k]fluoranthene	1300 J	310 J		250 J	800 J	1300 J			1200	530 J	850	
Solid	A,D,K,L	OCC	PAH	benzo[a]pyrene	1700 J	270 J		350 J	620 J	840 J	2100 J		1200	630 J	290	
Solid	A,D	OCC	PAH	indeno[1,2,3-cd]pyrene	1400 J	320 J			530 J		1800 J		840	430 J	760	
Solid	A,D	OCC	PAH	dibenzo[a,h]anthracene	240 J								190 J		130 J	
Solid	A,D	OCC	PAH	benzo[g,h,i]perylene		320 J			430 J		1800 J		800	440 J		
				Pesticides/PCBs												
Solid	A,D	PSD	PEST	alpha BHC												
Solid	A,D	PSD	PEST	beta BHC												
Solid	A,D	PSD	PEST	delta BHC												
Solid	A,D	PSD	PEST	gamma BHC (Lindane)												
Solid	A,D	PSD	PEST	Heptachlor			4800 DC				51					
Solid	A,D	PSD	PEST	Aldrin												
Solid	A,D	PSD	PEST	Heptachlor epoxide												
Solid	A,D	PSD	PEST	Endosulfan I												
Solid	A,D,E	PSD	PEST	Dieldrin	390	250	290		140 J	4000 D	340 DJ	270	88	360	210	
Solid	A,D	PSD	PEST	4,4'-DDE												
Solid	A,D	PSD	PEST	Endrin												
Solid	A,D	PSD	PEST	Endosulfan II												
Solid	A,D	PSD	PEST	4,4'-DDD									49	1500 DJ		
Solid	A,D	PSD	PEST	Endosulfan sulfate												
Solid	A,D	PSD	PEST	4,4'-DDT									36 J	1700 DJ		
Solid	A,D	PSD	PEST	Methoxychlor (Mariate)												
Solid	A,D	PSD	PEST	Endrin ketone												
Solid	A,D	PSD	PEST	alpha Chlordane											27 J	
Solid	A,D	PSD	PEST	gamma Chlordane	230 J		1700 DJ		160 J	350 J	430 DJ	140 J	6.4 J		35 J	
Solid	A,D	PSD	PEST	Toxaphene												
Liquid	A,D	OCC	PCB	Aroclor 1016												
Liquid	A,D	OCC	PCB	Aroclor 1221												
Liquid	A,D	OCC	PCB	Aroclor 1232												
Liquid	A,D	OCC	PCB	Aroclor 1242												
Liquid	A,D	OCC	PCB	Aroclor 1248												
Liquid	A,D	OCC	PCB	Aroclor 1254												
Liquid	A,D	OCC	PCB	Aroclor 1260												

Table 4-> Cont.

2070-13 Physical State*	Waste CHARACTERISTICS	CATEGORY**	SI Memo	Sample Collection Information and Parameters	Sample Number >_1	>_2	>_3	>_4	>_5	>_6	>_7	>_8	>_9	>_10	>_11	>_12
				Semivolatile Organics												
S, thick liquid	A,B,E	OCC	P	phenol												
Liquid	A,D,B	OCC	HH	bis(2-chloroethyl)ether												
Liquid	A,D,B	OCC	P	2-chlorophenol												
Liquid	A,D,H	SOL	HA	1,3-dichlorobenzene												
Solid	A,D,H	OCC	HA	1,4-dichlorobenzene												
Liquid	A,D,H	SOL	A	benzyl alcohol												
Liquid	A,D,H	OCC	HA	1,2-dichlorobenzene												
Liquid	A,B	OCC	P	2-methylphenol												
	A,D	OCC	HH	bis(2-chloroisopropyl)ether												
Liquid	A,B	OCC	P	4-methylphenol												
	A	OCC	H-Amine	n-nitroso-di-n-dipropylamine												
Solid	A,D	OCC	HH	hexachloroethane												
Liquid	A,D	OCC	HA	nitrobenzene												
Liquid	A,D	OCC	H	isophorone												
Solid	A,D	OCC	P	2-nitrophenol												
Solid	A,B	OCC	P	2,4-dimethylphenol												
Solid	A	OCC	A	benzoic acid												
	A,D	OCC	HH	bis(2-chloroethoxy)methane												
Liquid	A,D	OCC	P	2,4-dichlorophenol										1300		
Liquid	A,D	OCC	HA	1,2,4-trichlorobenzene												
Solid	A	OCC	PAH	naphthalene		82 J							130 J	360 J	170 J	40 J
Solid	A,D	OCC	HH	4-chloroaniline												
Liquid	A,D,B	OCC	HH	hexachlorobutadiene												
Solid	A,D	OCC	P	4-chloro-3-methylphenol					200 J							
Liquid	A,D	OCC	PAH	2-methylnaphthalene		46 J						13000 J	290 J	870 J	110 J	45 J
Liquid	A,D,B	OCC	HH	hexachlorocyclopentadiene												
Solid	A,D	OCC	P	2,4,6-trichlorophenol												
Solid	A,D	OCC	P	2,4,5-trichlorophenol												
Liquid	A,D	OCC	PAH	2-chloronaphthalene												
Solid	A,D	OCC	NH	2-nitroaniline												
Liquid	A,D	OCC	PH,CLA	dimethylphthalate												
Solid	A,D	OCC	PAH	acenaphthylene		45 J			100 J							
Solid	A,D	OCC	NA	2,6-dinitrotoluene												
Solid	A,D	OCC	NH	3-nitroaniline												
Solid	A,D	OCC	PAH	acenaphthene					87 J				170 J	210 J	100 J	
Solid	A,D,G	OCC	P	2,4-dinitrophenol												
Solid	A,D	OCC	P	4-nitrophenol												
Solid	A,D	OCC	A	dibenzofuran									230 J	270 J	110 J	
Solid	A,D	OCC	NA	2,4-dinitrotoluene												
Liquid	A,D	OCC	PH	diethylphthalate											450 J	
	A,D	OCC	HH	4-chlorophenyl-phenylether												
Solid	A,D	OCC	PAH	fluorene								3700 J	240 J	270 J	160 J	
Solid	A,D,E	OCC	NH	4-nitroaniline												
Solid	A,D	OCC	P	4,6-dinitro-2-methylphenol												
Solid	A,D	OCC	NH	n-nitrosodiphenylamine												
Liquid	A,D	OCC	HH	4-bromophenyl-phenylether												
Solid	A,D	OCC	HA	hexachlorobenzene		98 J			240 J							
Solid	A,D	OCC	P	pentachlorophenol												
Solid	A,D	OCC	PAH	phenanthrene	160	360 J			1100		670 J	14000 J	3600	4300	1300	51 J

Table 4-_>_
RESULTS OF CHEMICAL ANALYSIS OF
FIT-COLLECTED >_____ SAMPLES

10/16/89

2070-13				Sample Collection Information and Parameters	Sample Number											
Physical State*	Waste Characteristics**	Category***	SI Memo		>_1	>_2	>_3	>_4	>_5	>_6	>_7	>_8	>_9	>_10	>_11	>_12
				Date												
				Time												
				Organic Traffic Report Number	EFA 12	13	14	15	16	17	18	19	20	21	22	23
				Inorganic Traffic Report Number												
				Temperature (°C)												
				Specific Conductivity (µmhos)												
				pH												
				Compound Detected (values in > µg/L or µg/kg)												
				Volatile Organics												
Gas	A,D,G,I	OCC	HH	chloromethane												
Gas	A,D,G,I	OCC	HH	bromomethane												
Gas	A,D,G,I	OCC	HH	vinyl chloride												
Gas	A,D,G,I	OCC	HH	chloroethane												
Liquid	A,D,H,I	SOL	HH,CLA	methylene chloride	6 J	9	27	13	5 J	9 J	30 J			30 J	28 J	14
Liquid	E,H,I,A	SOL	K,CLA	acetone			33		54	46	240 J	57 J		210 J	130 J	
Liquid	A,H,I	SOL	SH	carbon disulfide												
Liquid	A,D,G,I	SOL	HH	1,1-dichloroethene												
Liquid	A,D,H,G	SOL	HH	1,1-dichloroethane												
Liquid	A,D,G	SOL	HH	1,2-dichloroethene (total)												
Liquid	A,D	SOL	HH	chloroform												
Liquid	A,D,G	SOL	HH	1,2-dichloroethane												
Liquid	A,E,G	SOL	K,CLA	2-butanone (MEK)							22 J			21 J	21 J	
Liquid	A,D	SOL	HH	1,1,1-trichloroethane												
Liquid	A,D	SOL	HH	carbon tetrachloride												
Liquid	A,D,G	SOL	HYD	vinyl acetate												
Liquid	A,D	OCC	HH	bromodichloromethane												
Liquid	A,D,G	SOL	HH	1,2-dichloropropane												
Liquid	A,D,G	SOL	HH	cis-1,3-dichloropropene												
Liquid	A,D,G,B	SOL	HH	trichloroethene												
Liquid	A,D	OCC	HH	dibromochloromethane												
Liquid	A,D	SOL	HH	1,1,2-trichloroethane												
Liquid	A,G	SOL	A	benzene			4 J									
Liquid	A,D,G	SOL	HH	trans-1,3-dichloropropene												
Liquid	A,D	SOL	HH,CLA	bromoform												
Liquid	A,E,G	SOL	K,CLA	4-methyl-2-pentanone												
Liquid	A,E,G	SOL	K	2-hexanone												
Liquid	A,D	SOL	HH	tetrachloroethene								13 J				
Liquid	A,G,E	SOL	A,CLA	toluene	5 J	16	36	14	110			9 J		5 J		
Liquid	A,D,E	SOL	HH	1,1,2,2-tetrachloroethane												
Liquid	A,D,G	SOL	HA	chlorobenzene												
Liquid	A,G	SOL	A	ethylbenzene →			5 J									
Liquid	A,D,G	OCC	A	styrene												
Liquid	A,G	SOL	A	xylenes (total)			22									

10/11

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

DATE: 10/11/89

SUBJECT: Review of Region V CLP Data
Received for Review on 7 Sept 89

10/12/89

FROM: Curtis Ross, Director (5SCRL) Patrick J. Chuille for
Central Regional Laboratory

TO: Data User: FIT

We have reviewed the data for the following case(s).

SITE NAME: Swift Agri. Chemical SMO Case No. 12464

EPA Data Set No. SF6484 No. of Samples: 12 D.U./Activity Numbers TFA/TFA102

CRL No. 89FB28S09-20

SMO Traffic No. EFA 12-23

CLP Laboratory: Wadsworth/Alert Hrs. Required for Review: 9+1=10

Following are our findings:

The laboratory received twelve (12) soil samples on 2 August 1989 in good condition.

No field blank nor field duplicate was included in SDG# EFA12.

The reviewer's narrative and data qualifiers are noted in the following pages.

Several Form I Best reports for several samples had an 'N' flag. The laboratory narrative nor Statement of Work for Organics 2/88 does not explain this flag.

( ) Data are acceptable for use.
(✓) Data are acceptable for use with qualifications referenced above. See Data Qualifier sheets and Calibration Outlier forms for flags and additional comments.
( ) Data are preliminary - pending verification by Contractor Laboratory. See Case Summary above.
( ) Data are unacceptable.

Duane E. Hines
5 October 1989
Weston/EDAT

cc: Carla Dempsey, CLP Quality Assurance Officer, Analytical Operations Branch
James Petty, Chief Quality Assurance Research, EMSL, Las Vegas

FORM 1330-4

Region V

ORGANIC REGIONAL DATA ASSESSMENT

CASE NO. 12464

SITE Swift Agricultural Chemical

LABORATORY Wadsworth/Alert

NO. OF SAMPLES/MATRIX 12 / Soil

SDG # EFA12

REVIEWER (IF NOT ESD) ESAT

SOW# 2/88

REVIEWER'S NAME Duane E. Hinds

DPO: ACTION _____ FYI _____

COMPLETION DATE 5 October 1989

DATA ASSESSMENT SUMMARY

		VOA	BNA	PEST	OTHER
1.	HOLDING TIMES	O	O	O	
2.	GC/MS TUNE/INSTR. PERFORM.	O	O	O	
3.	CALIBRATIONS	O	O	O	
4.	BLANKS	O	O	O	
5.	SURROGATES	O	O	O	
6.	MATRIX SPIKE/DUP	O	O	O	
7.	OTHER QC	O	O	O	
8.	INTERNAL STANDARDS	O	O	O	
9.	COMPOUND IDENTIFICATION	O	O	O	
10.	SYSTEM PERFORMANCE	O	O	O	
11.	OVERALL ASSESSMENT	O	O	O	

O = Data had no problems/or qualified due to minor problems.
M = Data qualified due to major problems.
Z = Data unacceptable.
X = Problems, but do not affect data.

ACTION ITEMS: _____

AREAS OF CONCERN: _____

NOTABLE PERFORMANCE: _____

DATA QUALIFIERS

Contractor: Wadsworth/Alert

Case 12464

Below is a summary of the out-of-control audits and the possible effect on the data for this case:

1. Holding Time:

The soil was sampled on 2 August 1989. The laboratory received twelve (12) soil samples on 3 August 1989 in good condition.

EFA19, EFA20, EFA21RE, and EFA22RE were analyzed for volatiles on 13 August 1989. This analysis date exceeded the ten (10) day holding time for soil by one (1) day. All aromatic volatile positive results in samples EFA19, EFA20, EFA21RE, and EFA22RE are flagged as estimated (J) and any aromatic volatile non-detect result is flagged with the sample quantitation limit as estimated (UJ).

All SVOA and pesticide extractions and analyses met holding time criteria for soils.

2. GC/MS Tuning and GC Performance:

GC/MS tuning complied with the mass list and ion abundance criteria for BFB and DFTPP.

RTs for 4,4'-DDT > 12 minutes.

RT shift for all pesticide/PCB standards, DDT degradation check using evaluation mix B, and endrin degradation check using evaluation mix B on the primary column met QC criteria.

RT shift of DBC in EFA17 on DB608 had a matrix interference. All DBC in DL samples were diluted out. All other DBC shifts were within 1.5% for wide bore columns.

3. [illegible]

S O
CL
as
CF

[illegible]ewed by: Duane E. Hines

Phone: 312-353-8307

Date: 2 October 1989

DATA QUALIFIERS

Contractor: Wadsworth/Alert

Case 12464

Below is a summary of the out-of-control audits and the possible effect on the data for this case:

3. Calibration (continued):
evaluation mix A, B and C were within 10% RSD on DB608 primary column.
All %D on continuing calibration met the fifteen percent (15%) criteria for DB608 primary column.

4. Method Blank:
VBlk 1, VBlk 2, and VBlk 3 are low level volatile method blanks for soil.
VBlk 3 contained methylene chloride and one (1) TIC. Methylene chloride is a common laboratory contaminant. The presence of methylene chloride in any of the associated samples is flagged as non-detect (u) when sample results were < 10X the blank result. The volatile method blank summary (Form IV OA) lists the associated samples. VBlk 1 and VBlk 2 were clean.
SBlk 1 and SBlk 3 are medium level semivolatile method blanks for soil. SBlk 2 and SBlk 2RE are low level semivolatile method blanks for soil. SBlk 2 and SBlk 2RE contained one (1) TIC. SBlk 3 contained three (3) TICs. SBlk 1 was clean.
PBlk 1 is the low-level pesticide method blank for soil. PBlk 1 was clean.

5. Surrogate Recovery:
Soil volatile surrogate, Bromofluorobenzene, in EFA18 (67%), EFA21
(% E A19 6 % E 0% ' - C '
' ' ' ' ' ' E OMS %
C ' ' ' ' soil ' 12 -
' - ' ' - x 67% EF 7 55% EFA22 61% - 23
6 % EF 18 F(69% EFA21RE 63% E A22 E 55% EF 7 55% E (55%),

Reviewed by: Duane E. Hines
Phone: 312-353-8307
Date: 4 October 1989

DATA QUALIFIERS

Contractor: Wadsworth/Alert

Case 12464

Below is a summary of the out-of-control audits and the possible effect on the data for this case:

5. Surrogate Recovery (continued):

EFA20MS (52%), EFA20MSD (50%), and EFA19RE (47%) is below QC required recovery limits. Any positive volatile results in EFA18, EFA19, EFA20, EFA21, and EFA22 is flagged as estimated (J) and any non-detect volatile result in EFA18, EFA19, EFA20, EFA21, and EFA22 is flagged with the sample quantitation limit as estimated (UJ).

All soil semivolatile surrogate recoveries in the medium level concentration met QC criteria. Soil semivolatile surrogate, nitrobenzene-d5, in EFA17 (13%) is below QC required recovery limits in the low-level concentration. Soil semivolatile surrogate, Phenol-d5, in EFA17 (19%) is below QC required recovery limits in the low-level concentration. The QC protocol requires two semivolatile surrogate recoveries in the acid fraction or the base/neutral fraction to qualify any semivolatile results in that sample. EFA17 has one semivolatile surrogate recovery out of control in the acid and base/neutral fraction. All other semivolatile surrogate recoveries met QC criteria.

Soil pesticide surrogate, dibutylchlorendate, in all diluted pesticide extracts was not detected, therefore no qualification of the data is required in these sample dilutions.

6. Matrix Spike/Matrix Spike Duplicate and RPD:

Sample EFA20 was used as the soil spike for low level volatiles. Sample EFA19 was used as the soil spike for medium level semivolatiles. Sample EFA23 was used as the soil spike for low level semivolatiles and low-level pesticides.

The following VOA matrix spikes, Benzene (42%) and Toluene (56%), and all RPD volatile results were out of control, therefore any

Reviewed by: Duane E. Hines

Phone: 312-353-8307

Date: 4 October 1989

DATA QUALIFIERS

Contractor: Wadsworth/Alert

Case 12464

Below is a summary of the out-of-control audits and the possible effect on the data for this case:

6. Matrix Spike / Matrix Spike Duplicate and RPD (continued):
positive result in the unspiked sample (EFA20) is flagged as estimated (J) and any non-detect result in the unspiked sample (EFA20) is flagged with the sample quantitation limit as estimated (UJ).

The SVOA matrix spike; 1,2,4-Trichlorobenzene (33%) was out of control, therefore any positive result for 1,2,4-Trichlorobenzene in the unspiked sample (EFA19) is flagged as estimated (J) and any non-detect result is flagged with the sample quantitation limit as estimated (UJ) in the unspiked sample (EFA19). All other matrix spikes, all matrix spike duplicates, and all RPDs met QC criteria. The SVOA spike, Acenaphthene's RPD (23%), was out of control, therefore any positive result for Acenaphthene in the unspiked sample (EFA23) is flagged as estimated (J) and any non-detect result for Acenaphthene in the unspiked sample (EFA23) is flagged with the sample quantitation limit as estimated (UJ). All matrix spike, all matrix spike duplicates and all other RPDs met QC criteria.

All soil pesticide matrix spike, matrix spike duplicate, and RPDs met QC criteria.

7. Field Blank and Field Duplicate:
No field blank nor field duplicate was included in SDG # EFA12.

8. Internal Standards:
VOA internal standards; 1,4-Difluorobenzene and Chlorobenzene-D5 in sample EFA19RE were below the internal standard lower limit for area. All VOA internal standard RTs met QC criteria.

Reviewed by: Duane E. Hines

Phone: 312-353-8307

Date: 5 October 1989

DATA QUALIFIERS

Contractor: Wadsworth/Alert

Case 12464

Below is a summary of the out-of-control audits and the possible effect on the data for this case:

8. Internal Standards (continued):
SVOA internal standard, Chrysene-d12, in SBlk2, EFA12, and EFA12RE is below the internal standard lower limit for area. SVOA internal standard, Perylene-d12, in SBlk2, EFA12, EFA12RE, and SBlk2RE is below the internal standard lower limit for area. all SVOA internal standard RTs met QC criteria.
Please refer to Table 4 to locate those VOA and SVOA compounds quantitated using each internal standard, because any positive results are flagged as estimated (J) for that sample fraction in each sample and any non-detect result is flagged with the sample quantitation limit as estimated (UJ).

9. Compound Quantitation and Reported Detection Limits:
all VOA, SVOA, and pesticide target compound quantitation results were properly reported.
The CRQLs were adjusted to reflect all sample dilutions.

10. Additional Case Specific Problems:
The following Form I's Best had 'N' flags for samples: EFA12, EFA12DL, EFA14, EFA14DL, EFA17, EFA17DL, EFA18, EFA18DL, EFA19, EFA19DL, EFA20, and EFA21DL. The laboratory narrative nor Statement of Work for Organics 2/88 does not explain this flag.

Reviewed by: Duane E. Hines
Phone: 312-353-8307
Date: 5 October 1989

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION V
CALIBRATION OUTLIERS
VOLATILE HSL COMPOUNDS

CASE/SAS # 12464 CONTRACTOR Wadsworth/Alert

Instrument # 510000	Init. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.		
DATE/TIME:	4Aug89 2136			6Aug89 1156			7Aug89 1116								
	RF	%RSD	*	RF	%D	*	RF	%D	*	RF	%D	*	RF	%D	*
Chloromethane															
Bromomethane															
Vinyl Chloride															
Chloroethane															
Methylene Chloride															
Acetone															
Carbon Disulfide															
1,1-Dichloroethane															
1,1-Dichloroethene															
Trans-1,2-Dichloroethene															
Chloroform															
2-Butanone	0.018	22.4	R	0.021	16.0	R	0.021	16.0	R						
1,2-Dichloroethane															
1,1,1-Trichloroethane															
Carbon Tetrachloride															
Vinyl Acetate	0.343	33.5	J	0.347			0.347								
Bromodichloromethane															
1,2-Dichloropropane															
Trans-1,3-Dichloropropene															
Trichloroethene															
Dibromochloromethane															
1,1,2-Trichloroethane															
Benzene															
cis-1,3-Dichloropropene															
2-Chloroethylvinylether															
Bromoform															
4-Methyl-2-Pentanone	0.322	31.3	J	0.291			0.291								
2-Hexanone															
Tetrachloroethene															
1,1,2,2-Tetrachloroethane															
Toluene															
Chlorobenzene															
Ethylbenzene															
Styrene															
m-Xylene															
o/p-Xylene															

AFFECTED SAMPLES:

	VBLK1	VBLK2
	EFA12	EFA14
	EFA13	EFA18
	EFA16	EFA21
	EFA17	EFA22
		EFA23

Reviewer's Initials/Date: DCH 29Sep89

* These flags should be applied to the analytes on the sample data sheets.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION V
CALIBRATION OUTLIERS
VOLATILE HSL COMPOUNDS

CASE/SAS # 12464 CONTRACTOR Wadsworth/Alert

Instrument # 1050C	Init. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.		
DATE/TIME:	13 Aug 89 1119														
	RF	%RSD	*	RF	%D	*	RF	%D	*	RF	%D	*	RF	%D	*
Chloromethane															
Bromomethane															
Vinyl Chloride															
Chloroethane															
Methylene Chloride	1.747	41.3	J												
Acetone	0.562	31.1	J												
Carbon Disulfide															
1,1-Dichloroethane															
1,1-Dichloroethene															
Trans-1,2-Dichloroethene															
Chloroform															
2-Butanone	0.022	2.4	R												
1,2-Dichloroethane															
1,1,1-Trichloroethane															
Carbon Tetrachloride															
Vinyl Acetate															
Bromodichloromethane															
1,2-Dichloropropane															
Trans-1,3-Dichloropropene															
Trichloroethene															
Dibromochloromethane															
1,1,2-Trichloroethane															
Benzene															
cis-1,3-Dichloropropene															
2-Chloroethylvinylether															
Bromoform															
4-Methyl-2-Pentanone															
2-Hexanone															
Tetrachloroethene															
1,1,2,2-Tetrachloroethane															
Toluene															
Chlorobenzene															
Ethylbenzene															
Styrene															
m-Xylene															
o/p-Xylene															

AFFECTED SAMPLES:

VBLB3
EFA18RE
EFA21RE
EFA22RE
EFA20
EFA20MS
EFA20MSD
EFA19
EFA19RE

Reviewer's Initials/Date: DEH 29 Sep 1989

* These flags should be applied to the analytes on the sample data sheets.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION V
CALIBRATION OUTLIERS
SEMIVOLATILE HSL COMPOUNDS
(Page 1)

CASE/SAS # 12464 CONTRACTOR Wadsworth/Alert

Instrument # EXTR 2	Init. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.		
DATE/TIME:	7Aug89 1340			10Aug89 1450			14Aug89 1523			15Aug89 1422			17Aug89 1450		
	RF	%RSD	*	RF	%D	*	RF	%D	*	RF	%D	*	RF	%D	*
Phenol															
bis(-2-Chloroethyl)Ether															
2-Chlorophenol															
1,3-Dichlorobenzene															
1,4-Dichlorobenzene															
Benzyl Alcohol	0.866			0.764			0.763			0.875			0.635	26.7	J
1,2-Dichlorobenzene															
2-Methylphenol	1.316			1.339			1.326			1.202			1.261		
bis(2-chloroisopropyl)Ether															
4-Methylphenol	1.380			1.440			1.400			1.341			1.292		
N-Nitroso-Di-n-Propylamine	1.265			1.108			1.102			0.928			0.873	27.5	J
Hexachloroethane															
Nitrobenzene	0.499			0.509			0.502			0.478			0.459		
Isophorone															
2-Nitrophenol															
2,4-Dimethylphenol															
Benzoic Acid	0.094			0.136	44.2	J	0.093			0.087			0.101		
bis(2-Chloroethoxy)Methane															
2,4-Dichlorophenol															
1,2,4-Trichlorobenzene															
Naphthalene															
4-Chloroaniline	0.423			0.427			0.403			0.427			0.416		
Hexachlorobutadiene															
4-Chloro-3-Methylphenol															
2-Methylnaphthalene	0.840			0.909			0.843			0.635			0.652		
Hexachlorocyclopentadiene															
2,4,6-Trichlorophenol															
2,4,5-Trichlorophenol															
2-Chloronaphthalene															
2-Nitroaniline	0.445			0.405			0.362			0.388			0.354		
Dimethyl Phthalate															
Acenaphthylene															
3-Nitroaniline	0.336			0.324			0.287			0.295			0.279		
Acenaphthene															
2,4-Dinitrophenol	0.080			0.085			0.069			0.054	32.5	J	0.086		
4-Nitrophenol	0.123			0.105			0.090	27.1	J	0.094			0.105		
Dibenzofuran															

AFFECTED SAMPLES:

SB1601	SB1602	SB1603	EFA12RE
EFA19	EFA12	EFA19MS	EFA18
	EFA13	EFA19MSD	
	EFA22	EFA14	
	EFA23	EFA15	
	EFA23MS	EFA16	
		EFA20	
		EFA21	

Reviewer Initials/Date: DEH 29 Sep 1989

* These flags should be applied to the analytes on the sample data sheets.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION V
CALIBRATION OUTLIERS
SEMIVOLATILE HSL COMPOUNDS
Page 2

CASE/SAS # 12464 CONTRACTOR Wadsworth/Alert

Instrument # EXTR 2	Init. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.		
DATE/TIME:	7 Aug 89 1340			10 Aug 89 1450			14 Aug 89 1523			15 Aug 89 1422			17 Aug 89 1450		
	RF	%RSD	*	RF	%D	*	RF	%D	*	RF	%D	*	RF	%D	*
2,4-Dinitrotoluene															
2,6-Dinitrotoluene	0.346			0.376			0.348			0.340			0.349		
Diethylphthalate															
4-Chlorophenyl-phenylether															
Fluorene															
4-Nitroaniline	0.213			0.219			0.160			0.201			0.187		
4,6-Dinitro-2-Methylphenol	0.075			0.096	28.2	J	0.083			0.068			0.099	32.2	J
N-Nitrosodiphenylamine															
4-Bromophenyl-phenylether															
Hexachlorobenzene	0.210			0.225			0.218			0.226			0.217		
Pentachlorophenol															
Phenanthrene															
Anthracene															
Di-n-Butylphthalate															
Fluoranthene															
Pyrene	2.080			2.099			2.235			2.630			1.538	26.0	J
Butylbenzylphthalate															
Benzo(a)Anthracene															
bis(2-Ethylhexyl)Phthalate															
Chrysene															
Di-n-Octyl Phthalate															
Benzo(b)Fluoranthene	1.534			1.257			1.353			1.405			1.265		
Benzo(k)Fluoranthene	1.306			1.267			1.261			1.334			1.231		
Benzo(a)Pyrene															
Indeno(1,2,3-cd)Pyrene															
Dibenz(a,h)Anthracene															
Benzo(g,h,i) Perylene															
3,3'-Dichlorobenzene	0.271	36.5	J	0.304			0.202	26.4	J	0.230			0.230		

SEE PAGE 1 FOR AFFECTED SAMPLES.

* These flags should be applied to the analytes on the sample data sheets.

Reviewer's Initials/Date: DEH 29 September 1989

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION V
CALIBRATION OUTLIERS
SEMIVOLATILE HSL COMPOUNDS
(Page 1)

CASE/SAS # 12464 CONTRACTOR Wadsworth/Alert

Instrument # EXTR 2	Init. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.		
DATE/TIME:	7Aug89 1340			18Aug89 1617			28Aug89 1200								
	RF	%RSD	*	RF	%D	*	RF	%D	*	RF	%D	*	RF	%D	*
Phenol															
bis(-2-Chloroethyl)Ether															
2-Chlorophenol															
1,3-Dichlorobenzene															
1,4-Dichlorobenzene															
Benzyl Alcohol	0.866			0.555	36.0	J	0.717								
1,2-Dichlorobenzene															
2-Methylphenol	1.316			0.866	34.5	J	1.169								
bis(2-chloroisopropyl)Ether															
4-Methylphenol	1.380			1.025	25.7	J	1.198								
N-Nitroso-Di-n-Propylamine	1.265			1.177			1.009								
Hexachloroethane															
Nitrobenzene	0.499			0.410			0.352	29.4	J						
Isophorone															
2-Nitrophenol															
2,4-Dimethylphenol															
Benzoic Acid	0.094			0.266	182.4	J	0.089								
bis(2-Chloroethoxy)Methane															
2,4-Dichlorophenol															
1,2,4-Trichlorobenzene															
Naphthalene															
4-Chloroaniline	0.423			0.313	26.0	J	0.338								
Hexachlorobutadiene															
4-Chloro-3-Methylphenol															
2-Methylnaphthalene	0.840			0.587	30.1	J	0.839								
Hexachlorocyclopentadiene															
2,4,6-Trichlorophenol															
2,4,5-Trichlorophenol															
2-Chloronaphthalene															
2-Nitroaniline	0.445			0.259	41.8	J	0.270	39.4	J						
Dimethyl Phthalate															
Acenaphthylene															
3-Nitroaniline	0.336			0.206	38.6	J	0.192	42.8	J						
Acenaphthene															
2,4-Dinitrophenol	0.080			0.050	37.9	J	0.065								
4-Nitrophenol	0.123			0.064	47.7	J	0.070	43.3	J						
Dibenzofuran															

EFA17 SB662-RE
EFA23MSD

AFFECTED SAMPLES:

Reviewer Initials/Date: DEH
29 Sep 1989

* These flags should be applied to the analytes on the sample data sheets.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION V
CALIBRATION OUTLIERS
SEMIVOLATILE HSL COMPOUNDS
Page 2

CASE/SAS # 12464 CONTRACTOR Wadsworth/Alert

Instrument # EXTR 2	Init. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.		
DATE/TIME:	7Aug89 1340			18Aug89 1612			28Aug89 1200								
	RF	%RSD	*	RF	%D	*	RF	%D	*	RF	%D	*	RF	%D	*
2,4-Dinitrotoluene															
2,6-Dinitrotoluene	0.346			0.077	77.7	J	0.285								
Diethylphthalate															
4-Chlorophenyl-phenylether															
Fluorene															
4-Nitroaniline	0.273			0.125	41.1	J	0.164	51.0	J						
4,6-Dinitro-2-Methylphenol	0.075			0.083			0.089								
N-Nitrosodiphenylamine															
4-Bromophenyl-phenylether															
Hexachlorobenzene	0.210			0.274	30.1	J	0.258								
Pentachlorophenol															
Phenanthrene															
Anthracene															
Di-n-Butylphthalate															
Fluoranthene															
Pyrene	2.080			1.824			2.107								
Butylbenzylphthalate															
Benzo(a)Anthracene															
bis(2-Ethylhexyl)Phthalate															
Chrysene															
Di-n-Octyl Phthalate															
Benzo(b)Fluoranthene	1.539			1.077	30.0	J	1.297								
Benzo(k)Fluoranthene	1.306			2.020	54.6	J		1.345							
Benzo(a)Pyrene															
Indeno(1,2,3-cd)Pyrene															
Dibenz(a,h)Anthracene															
Benzo(g,h,i) Perylene															
3,3'-Dichlorobenzidine	0.271	36.5	J	0.176	35.2	J	0.169	37.8	J						

SEE PAGE 1 FOR AFFECTED SAMPLES.

* These flags should be applied to the analytes on the sample data sheets.

Reviewer's Initials/Date: DEH 29 September 1989

EXPLAINATION OF DATA QUALIFIERS

For reporting results to the USEPA, the following contract specific qualifiers are to be used. The seven qualifiers defined below are not subject to modification by the laboratory. Up to five qualifiers may be reported on Form I for each compound.

The seven EPA-defined qualifiers to be used are as follows:

U - Indicates compound was analyzed for but not detected. The sample quantitation limit must be corrected for dilution and for percent moisture. For example, 10 U for phenol in water if the sample final volume is the protocol-specified final volume. If a 1 to 10 dilution of extract is necessary, the reported limit is 100 U. For a soil sample, the value must also be adjusted for percent moisture. For example, if the sample had 24% moisture and a 1 to 10 dilution factor, the sample quantitation limit for phenol (330 U) would be corrected to:

$$\frac{(330\ U)}{D} \times df \qquad \text{where } D = \frac{100 - \%\ \text{moisture}}{100}$$

and df = dilution factor

at 24% moisture, $D = \frac{100-24}{100} = 0.76$

$$\frac{(330\ U)}{.76} \times 10 = 4300\ U$$ rounded to the appropriate number of significant figures

For soil samples subjected to GPC clean-up procedures, the CRQL is also multiplied by 2, to account for the fact that only half of the extract is recovered.

J - Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed, or when the mass spectral data indicate the presence of a compound that meets the identification criteria but the result is less than the sample quantitation limit but greater than zero. For example, if the sample quantitation limit is 10 ug/L, but a concentration of 3 ug/L is calculated, report it as 3J. The sample quantitation limit must be adjusted for both dilution and percent moisture as discussed for the U flag, so that if a sample with 24% moisture and a 1 to 10 dilution factor has a calculated concentration of 300 ug/L and a sample quantitation limit of 430 ug/kg, report the concentration as 300J on Form I.

C - This flag applies to pesticide results where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/ul in the final extract shall be confirmed by GC/MS.

B - This flag is used when the analyte is found in the associated blank as well as in the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action. This flag must be used for a TIC as well as for a positively identified TCL compound.

E - This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for that specific analysis. This flag will not apply to pesticides/PCBs analyzed by GC/EC methods. If one or more compounds have a response greater than full scale, the sample or extract must be diluted and re-analyzed according to the specifications in Exhibit D. All such compounds with a response greater than full scale should have the concentration flagged with an "E" on the Form I for the original analysis. If the dilution of the extract causes any compounds identified in the first analysis to be below the calibration range in the second analysis, then the results of both analyses shall be reported on separate Forms I. The Form I for the diluted sample shall have the "DL" suffix appended to the sample number. NOTE: For total xylenes, where three isomers are quantified as two peaks, the calibration range of each peak should be considered separately, e.g., a diluted analysis is not required for total xylenes unless the concentration of either peak separately exceeds 200 ug/L.

D - This flag identifies all compounds identified in an analysis at a secondary dilution factor. If a sample or extract is re-analyzed at a higher dilution factor, as in the "E" flag above, the "DL" suffix is appended to the sample number on the Form I for the diluted sample, and all concentration values reported on that Form I are flagged with the "D" flag.

A - This flag indicates that a TIC is a suspected aldol-condensation product.

X - Other specific flags may be required to properly define the results. If used, they must be fully described and such description attached to the Sample Data Summary Package and the Case Narrative. Begin by using "X". If more than one flag is required, use "Y" and "Z", as needed. If more than five qualifiers are required for a sample result, use the "X" flag to combine several flags, as needed. For instance, the "X" flag might combine the "A", "B", and "D" flags for some samples.

The combination of flags "BU" or "UB" is expressly prohibited. Blank contaminants are flagged "B" only when they are also detected in the sample.

If analyses at two different dilution factors are required (see Exhibit D), follow the data reporting instructions given in Exh. D and with the "D" and "E" flags above.

TABLE 4

VOLATILE INTERNAL STANDARDS WITH CORRESPONING TCL ANALYTES ASSIGNED FOR QUANTITATION

Bromochloromethane	1,4-Difluorobenzene	Chlorobenzene-d_5
Chloromethane	2- Butanone	2-Hexanone
Bromomethane	1,1,1-Trichloroethane	4-Methyl-2-Pentanone
*Vinyl Chloride	Carbon Tetrachloride	Tetrachloroethene
Chloroethane	Vinyl Acetate	1,1,2,2-Tetrachloroethane
Methylene Chloride	Bromodichloromethane	*Toluene
Acetone	*1,2-Dichloropropane	Chlorobenzene
Carbon Disulfide	trans-1,3-Dichloropropane	*Ethylbenzene
*1,1-Dichloroethene	Trichloroethene	Styrene
1,1-Dichloroethane	Dibromochloromethane	Xylene (total)
1,2-Dichloroethene (total)	1,1,2-Trichloroethane	Bromofluorobenzene (surr)
*Chloroform	Benzene	
1,2-Dichloroethane	cis-1,3-Dichloropropene	Toluene-d_8 (surr)
1,2-Dichloroethane-d_4 (surr)	Bromoform	

(surr) = surrogate compound
*Calibration check compounds

SEMIVOLATILE INTERNAL STANDARDS WITH CORRESPONDING TCL ANALYTES ASSIGNED FOR QUANTITATION

1,4-Dichlorobenzene-d_4	Naphthalene-d_8	Acenaphthene-d_{10}	Phenanthrene-d_{10}	Chrysene-d_{12}	Perylene-d_{12}
Phenol	Nitrobenzene	Hexachlorocyclopentadiene	4,6-Dinitro-2-methylphenol	Pyrene	Di-n-octyl Phthalate
bis(2-Chloroethyl) ether	Isophorone	2,4,6-Trichlorophenol	N-nitrosodiphenylamine	Butylbenzyl Phthalate	Benzo(b)fluoranthene
2-Chlorophenol	2-Nitrophenol	2,4,5-Trichlorophenol	1,2-Diphenylhydrazine	3,3'-Dichlorobenzidine	Benzo(k)fluoranthene
1,3-Dichlorobenzene	2,4-Dimethylphenol	2-Chloronaphthalene	4-Bromophenyl Phenyl Ether	Benzo(a)anthracene	Benzo(a)pyrene
1,4-Dichlorobenzene	Benzoic acid	2-Nitroaniline	Hexachlorobenzene	bis(2-ethylhexyl Phthalate	Indeno(1,2,3-cd) pyrene
Benzyl Alcohol	bis(2-Chloroethoxy)methane	Dimethyl Phthalate	Pentachlorophenol	Chrysene	Dibenz(a,h) anthracene
1,2-Dichlorobenzene	2,4-Dichlorophenol	Acenaphthylene	Phenanthrene	Terphenyl-d_{14} (surr)	Benzo(g,h,i) perylene
2-Methylphenol	1,2,4-Trichlorobenzene	3-Nitroaniline	Anthracene		
bis(2-Chloroisopropyl)ether	Naphthalene	Acenaphthene	Di-n-butyl Phthalate		
4-Methylphenol	4-Chloroaniline	2,4-Dinitrophenol	Fluoranthene		
N-nitroso-Di-n-propylamine	Hexachlorobutadiene	4-Nitrophenol			
Hexachloroethane	4-Chloro-3-methylphenol	Dibenzofuran			
2-Fluorophenol (surr)	2-Methylnaphthalene	2,4-Dinitrotoluene			
Phenol-d_6 (surr)	Nitrobenzene-d_5 (surr)	2,6-Dinitrotoluene			
		Diethyl Phthalate			
		4-Chlorophenyl-phenyl ether			
		Fluorene			
		4-Nitroaniline			
		2-Fluorobiphenyl (surr)			
		2,4,6-Tribromo Phenol (surr)			

surr = surrogate compound

AUG 11 1989

SUPERFUND 6484

CENTRAL REGIONAL LABORATORY SAMPLE DATA REPORT
ORGANICS/INORGANICS
THIS FORM IS TO BE USED FOR SAMPLES SENT TO CONTRACT ONLY

SAMPLE DATE: 8/2/89
LOG IN DATE: 8/21/89
DUE DATE:

CASE NUMBER/SAS No. 12464 SITE NAME Swift Ag Chemical LABORATORY WADS/RMAL DATE SHIPPED 8/2

SUPERFUND DU NUMBER TEA-102 EPA RPM or OSC (S.M.S.) (CES) CERCLIS NUMBER ILD059445423 PAGE 1 OF 1

ACTIVITY NUMBER ZZ

CRL LOG NUMBER	ORGANIC TRAFFIC REPORT NUMBER or SAS Packing List No.	INORGANIC TRAFFIC REPORT NUMBER or SAS Packing List No.	WATER OR LIQUIDS: ACID-BASE NEUTRAL CPDS ORGANIC SCAN UG/L TOX17574	VOLATILE ORGANIC ANALYSIS ORGANIC SCAN UG/L TOX17544	WATER POLYCHLORINATED BIPHENYLS UG/L PES 17144	WATER CHLORINATED PESTICIDES UG/L PES17134	TOTAL METALS IN WATER UG/L MET111	WATER CYANIDE UG/L MM74818	NITRATE/NITRITE MG/L MM7294	AMMONIA MG/L MM7294	RESIDUE, FILTERABLE TDS MG/L MM7302	RESIDUE, NON-FILT TSS MG/L MM7372	SEDIMENTS or SOILS: ACID-BASE NEUTRAL CPDS ORGANIC SCAN MG/KG TOX215722	VOLATILE ORGANIC ANALYSIS ORGANIC SCAN MG/KG TOX215422	SEDIMENTS POLYCHLORINATED BIPHENYLS MG/KG PES211422	SEDIMENT CHLORINATED PESTICIDES MG/KG 211322	TOTAL METALS MG/KG MET413	CYANIDE MG/KG MM44820	EP TOXICITY METALS MG/KG	AMMONIA MG/KG MM47925
84FB28S09	EFA 12	MEEF 12											X	X	X	X	X	X		
10	13	13																		
11	14	14																		
12	15	15																		
13	16	16																		
14	17	17																		
15	18	18																		
16	19	19																		
17	20	20																		
18	21	21																		
19	22	22																		
84FB28S 20	EFA 23	MEEF 23																		

RUTH BLEYLER

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EFA12

Lab Name: WADS Contract: 68-D9-0022

Lab Code: WADS Case No.: 12464 SAS No.: SDG No.: EFA12

Matrix: (soil/water) SOIL Lab Sample ID: 7470-26927

Sample wt/vol: 5.0 (g/mL) G Lab File ID: VOL10286

Level: (low/med) LOW Date Received: 8/ 3/89

% Moisture: not dec. 23. Date Analyzed: 8/ 6/89

Column: (pack/cap) PACK Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	CHLOROMETHANE	13.	U
74-83-9	BROMOMETHANE	13.	U
75-01-4	VINYL CHLORIDE	13.	U
75-00-3	CHLOROETHANE	13.	U
75-09-2	METHYLENE CHLORIDE	6.	J
67-64-1	ACETONE	13.	U
75-15-0	CARBON DISULFIDE	6.	U
75-35-4	1,1-DICHLOROETHENE	6.	U
75-34-3	1,1-DICHLOROETHANE	6.	U
544-59-2	1,2-DICHLOROETHENE (TOTAL)	6.	U
67-66-3	CHLOROFORM	6.	U
107-06-2	1,2-DICHLOROETHANE	6.	U
78-93-3	2-BUTANONE	13.	U
71-55-6	1,1,1-TRICHLOROETHANE	6.	U
56-23-5	CARBON TETRACHLORIDE	6.	U
108-05-4	VINYL ACETATE	13.	U
75-27-4	BROMODICHLOROMETHANE	6.	U
78-87-5	1,2-DICHLOROPROPANE	6.	U
10061-01-5	CIS-1,3-DICHLOROPROPENE	6.	U
79-01-6	TRICHLOROETHENE	6.	U
124-48-1	DIBROMOCHLOROMETHANE	6.	U
79-00-5	1,1,2-TRICHLOROETHANE	6.	U
71-43-2	BENZENE	6.	U
10061-02-6	TRANS-1,3-DICHLOROPROPENE	6.	U
75-25-2	BROMOFORM	6.	U
108-10-1	4-METHYL-2-PENTANONE	13.	U
591-78-6	2-HEXANONE	13.	U
127-18-4	TETRACHLOROETHENE	6.	U
79-34-5	1,1,2,2-TETRACHLOROETHANE	6.	U
108-88-3	TOLUENE	5.	J
108-90-7	CHLOROBENZENE	6.	U
100-41-4	ETHYLBENZENE	6.	U
100-42-5	STYRENE	6.	U
1330-20-7	XYLENE (TOTAL)	6.	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EFA12

Lab Name: WADS Contract: 68-D9-0022

Lab Code: WADS Case No.: 12464 SAS No.: SDG No.: EFA12

Matrix: (soil/water) SOIL Lab Sample ID: 7470-26927

Sample wt/vol: 5.0 (g/mL) G Lab File ID: VOL10286

Level: (low/med) LOW Date Received: 8/ 3/89

% Moisture: not dec. 23. Date Analyzed: 8/ 6/89

Column: (pack/cap) PACK Dilution Factor: 1.00

Number TICs found: 2

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. - -	UNKNOWN	9.27	40.	J
2. - -	UNKNOWN	12.10	9.	J
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EFA13

Lab Name: WADS Contract: 68-D9-0022

Lab Code: WADS Case No.: 12464 SAS No.: SDG No.: EFA12

Matrix: (soil/water) SOIL Lab Sample ID: 7470-26928

Sample wt/vol: 5.0 (g/mL) G Lab File ID: VOL10287

Level: (low/med) LOW Date Received: 8/ 3/89

% Moisture: not dec. 29. Date Analyzed: 8/ 6/89

Column: (pack/cap) PACK Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	CHLOROMETHANE	14.	U
74-83-9	BROMOMETHANE	14.	U
75-01-4	VINYL CHLORIDE	14.	U
75-00-3	CHLOROETHANE	14.	U
75-09-2	METHYLENE CHLORIDE	9.	
67-64-1	ACETONE	14.	U
75-15-0	CARBON DISULFIDE	7.	U
75-35-4	1,1-DICHLOROETHENE	7.	U
75-34-3	1,1-DICHLOROETHANE	7.	U
544-59-2	1,2-DICHLOROETHENE (TOTAL)	7.	U
67-66-3	CHLOROFORM	7.	U
107-06-2	1,2-DICHLOROETHANE	7.	U
78-93-3	2-BUTANONE	14.	U
71-55-6	1,1,1-TRICHLOROETHANE	7.	U
56-23-5	CARBON TETRACHLORIDE	7.	U
108-05-4	VINYL ACETATE	14.	U
75-27-4	BROMODICHLOROMETHANE	7.	U
78-87-5	1,2-DICHLOROPROPANE	7.	U
10061-01-5	CIS-1,3-DICHLOROPROPENE	7.	U
79-01-6	TRICHLOROETHENE	7.	U
124-48-1	DIBROMOCHLOROMETHANE	7.	U
79-00-5	1,1,2-TRICHLOROETHANE	7.	U
71-43-2	BENZENE	7.	U
10061-02-6	TRANS-1,3-DICHLOROPROPENE	7.	U
75-25-2	BROMOFORM	7.	U
108-10-1	4-METHYL-2-PENTANONE	14.	U
591-78-6	2-HEXANONE	14.	U
127-18-4	TETRACHLOROETHENE	7.	U
79-34-5	1,1,2,2-TETRACHLOROETHANE	7.	U
108-88-3	TOLUENE	16.	
108-90-7	CHLOROBENZENE	7.	U
100-41-4	ETHYLBENZENE	7.	U
100-42-5	STYRENE	7.	U
1330-20-7	XYLENE (TOTAL)	7.	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EFA13

Lab Name: WADS Contract: 68-D9-0022

Lab Code: WADS Case No.: 12464 SAS No.: SDG No.: EFA12

Matrix: (soil/water) SOIL Lab Sample ID: 7470-26928

Sample wt/vol: 5.0 (g/mL) G Lab File ID: VOL10287

Level: (low/med) LOW Date Received: 8/ 3/89

% Moisture: not dec. 29. Date Analyzed: 8/ 6/89

Column: (pack/cap) PACK Dilution Factor: 1.00

Number TICs found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EFA14

Lab Name: WADS Contract: 68-D9-0022

Lab Code: WADS Case No.: 12464 SAS No.: SDG No.: EFA12

Matrix: (soil/water) SOIL Lab Sample ID: 7470-26929

Sample wt/vol: 5.0 (g/mL) G Lab File ID: VOL10297

Level: (low/med) LOW Date Received: 8/ 3/89

% Moisture: not dec. 37. Date Analyzed: 8/ 7/89

Column: (pack/cap) PACK Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	CHLOROMETHANE	16.	U
74-83-9	BROMOMETHANE	16.	U
75-01-4	VINYL CHLORIDE	16.	U
75-00-3	CHLOROETHANE	16.	U
75-09-2	METHYLENE CHLORIDE	27.	
67-64-1	ACETONE	33.	
75-15-0	CARBON DISULFIDE	8.	U
75-35-4	1,1-DICHLOROETHENE	8.	U
75-34-3	1,1-DICHLOROETHANE	8.	U
544-59-2	1,2-DICHLOROETHENE (TOTAL)	8.	U
67-66-3	CHLOROFORM	8.	U
107-06-2	1,2-DICHLOROETHANE	8.	U
78-93-3	2-BUTANONE	16.	U
71-55-6	1,1,1-TRICHLOROETHANE	8.	U
56-23-5	CARBON TETRACHLORIDE	8.	U
108-05-4	VINYL ACETATE	16.	U
75-27-4	BROMODICHLOROMETHANE	8.	U
78-87-5	1,2-DICHLOROPROPANE	8.	U
10061-01-5	CIS-1,3-DICHLOROPROPENE	8.	U
79-01-6	TRICHLOROETHENE	8.	U
124-48-1	DIBROMOCHLOROMETHANE	8.	U
79-00-5	1,1,2-TRICHLOROETHANE	8.	U
71-43-2	BENZENE	4.	J
10061-02-6	TRANS-1,3-DICHLOROPROPENE	8.	U
75-25-2	BROMOFORM	8.	U
108-10-1	4-METHYL-2-PENTANONE	16.	U
591-78-6	2-HEXANONE	16.	U
127-18-4	TETRACHLOROETHENE	8.	U
79-34-5	1,1,2,2-TETRACHLOROETHANE	8.	U
108-88-3	TOLUENE	36.	
108-90-7	CHLOROBENZENE	8.	U
100-41-4	ETHYLBENZENE	5.	J
100-42-5	STYRENE	8.	U
1330-20-7	XYLENE (TOTAL)	22.	

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EFA14

Lab Name: WADS Contract: 68-D9-0022

Lab Code: WADS Case No.: 12464 SAS No.: SDG No.: EFA12

Matrix: (soil/water) SOIL Lab Sample ID: 7470-26929

Sample wt/vol: 5.0 (g/mL) G Lab File ID: VOL10297

Level: (low/med) LOW Date Received: 8/ 3/89

% Moisture: not dec. 37. Date Analyzed: 8/ 7/89

Column: (pack/cap) PACK Dilution Factor: 1.00

Number TICs found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EFA15

Lab Name: WADS Contract: 68-D9-0022

Lab Code: WADS Case No.: 12464 SAS No.: SDG No.: EFA12

Matrix: (soil/water) SOIL Lab Sample ID: 7470-26930

Sample wt/vol: 5.0 (g/mL) G Lab File ID: VOL10289

Level: (low/med) LOW Date Received: 8/ 3/89

% Moisture: not dec. 59. Date Analyzed: 8/ 6/89

Column: (pack/cap) PACK Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	CHLOROMETHANE	24.	U
74-83-9	BROMOMETHANE	24.	U
75-01-4	VINYL CHLORIDE	24.	U
75-00-3	CHLOROETHANE	24.	U
75-09-2	METHYLENE CHLORIDE	13.	
67-64-1	ACETONE	24.	U
75-15-0	CARBON DISULFIDE	12.	U
75-35-4	1,1-DICHLOROETHENE	12.	U
75-34-3	1,1-DICHLOROETHANE	12.	U
544-59-2	1,2-DICHLOROETHENE (TOTAL)	12.	U
67-66-3	CHLOROFORM	12.	U
107-06-2	1,2-DICHLOROETHANE	12.	U
78-93-3	2-BUTANONE	24.	U
71-55-6	1,1,1-TRICHLOROETHANE	12.	U
56-23-5	CARBON TETRACHLORIDE	12.	U
108-05-4	VINYL ACETATE	24.	U
75-27-4	BROMODICHLOROMETHANE	12.	U
78-87-5	1,2-DICHLOROPROPANE	12.	U
10061-01-5	CIS-1,3-DICHLOROPROPENE	12.	U
79-01-6	TRICHLOROETHENE	12.	U
124-48-1	DIBROMOCHLOROMETHANE	12.	U
79-00-5	1,1,2-TRICHLOROETHANE	12.	U
71-43-2	BENZENE	12.	U
10061-02-6	TRANS-1,3-DICHLOROPROPENE	12.	U
75-25-2	BROMOFORM	12.	U
108-10-1	4-METHYL-2-PENTANONE	24.	U
591-78-6	2-HEXANONE	24.	U
127-18-4	TETRACHLOROETHENE	12.	U
79-34-5	1,1,2,2-TETRACHLOROETHANE	12.	U
108-88-3	TOLUENE	14.	
108-90-7	CHLOROBENZENE	12.	U
100-41-4	ETHYLBENZENE	12.	U
100-42-5	STYRENE	12.	U
1330-20-7	XYLENE (TOTAL)	12.	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EFA15

Lab Name: WADS Contract: 68-D9-0022

Lab Code: WADS Case No.: 12464 SAS No.: SDG No.: EFA12

Matrix: (soil/water) SOIL Lab Sample ID: 7470-26930

Sample wt/vol: 5.0 (g/mL) G Lab File ID: VOL10289

Level: (low/med) LOW Date Received: 8/ 3/89

% Moisture: not dec. 59. Date Analyzed: 8/ 6/89

Column: (pack/cap) PACK Dilution Factor: 1.00

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EFA16

Lab Name: WADS Contract: 68-D9-0022

Lab Code: WADS Case No.: 12464 SAS No.: SDG No.: EFA12

Matrix: (soil/water) SOIL Lab Sample ID: 7470-26931

Sample wt/vol: 5.0 (g/mL) G Lab File ID: VOL10290

Level: (low/med) LOW Date Received: 8/ 3/89

% Moisture: not dec. 18. Date Analyzed: 8/ 6/89

Column: (pack/cap) PACK Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	CHLOROMETHANE	12.	U
74-83-9	BROMOMETHANE	12.	U
75-01-4	VINYL CHLORIDE	12.	U
75-00-3	CHLOROETHANE	12.	U
75-09-2	METHYLENE CHLORIDE	5.	J
67-64-1	ACETONE	54.	
75-15-0	CARBON DISULFIDE	6.	U
75-35-4	1,1-DICHLOROETHENE	6.	U
75-34-3	1,1-DICHLOROETHANE	6.	U
544-59-2	1,2-DICHLOROETHENE (TOTAL)	6.	U
67-66-3	CHLOROFORM	6.	U
107-06-2	1,2-DICHLOROETHANE	6.	U
78-93-3	2-BUTANONE	12.	U
71-55-6	1,1,1-TRICHLOROETHANE	6.	U
56-23-5	CARBON TETRACHLORIDE	6.	U
108-05-4	VINYL ACETATE	12.	U
75-27-4	BROMODICHLOROMETHANE	6.	U
78-87-5	1,2-DICHLOROPROPANE	6.	U
10061-01-5	CIS-1,3-DICHLOROPROPENE	6.	U
79-01-6	TRICHLOROETHENE	6.	U
124-48-1	DIBROMOCHLOROMETHANE	6.	U
79-00-5	1,1,2-TRICHLOROETHANE	6.	U
71-43-2	BENZENE	6.	U
10061-02-6	TRANS-1,3-DICHLOROPROPENE	6.	U
75-25-2	BROMOFORM	6.	U
108-10-1	4-METHYL-2-PENTANONE	12.	U
591-78-6	2-HEXANONE	12.	U
127-18-4	TETRACHLOROETHENE	6.	U
79-34-5	1,1,2,2-TETRACHLOROETHANE	6.	U
108-88-3	TOLUENE	110.	
108-90-7	CHLOROBENZENE	6.	U
100-41-4	ETHYLBENZENE	6.	U
100-42-5	STYRENE	6.	U
1330-20-7	XYLENE (TOTAL)	6.	U

00068

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EFA16

Lab Name: WADS Contract: 68-D9-0022

Lab Code: WADS Case No.: 12464 SAS No.: SDG No.: EFA12

Matrix: (soil/water) SOIL Lab Sample ID: 7470-26931

Sample wt/vol: 5.0 (g/mL) G Lab File ID: VOL10290

Level: (low/med) LOW Date Received: 8/ 3/89

% Moisture: not dec. 18. Date Analyzed: 8/ 6/89

Column: (pack/cap) PACK Dilution Factor: 1.00

Number TICs found: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. - -	UNKNOWN HYDROCARBON	18.90	10.	J
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EFA17

Lab Name: WADS Contract: 68-D9-0022

Lab Code: WADS Case No.: 12464 SAS No.: SDG No.: EFA12

Matrix: (soil/water) SOIL Lab Sample ID: 7470-26932

Sample wt/vol: 5.0 (g/mL) G Lab File ID: VOL10291

Level: (low/med) LOW Date Received: 8/ 3/89

% Moisture: not dec. 48. Date Analyzed: 8/ 6/89

Column: (pack/cap) PACK Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	CHLOROMETHANE	19.	U
74-83-9	BROMOMETHANE	19.	U
75-01-4	VINYL CHLORIDE	19.	U
75-00-3	CHLOROETHANE	19.	U
75-09-2	METHYLENE CHLORIDE	9.	J
67-64-1	ACETONE	46.	
75-15-0	CARBON DISULFIDE	10.	U
75-35-4	1,1-DICHLOROETHENE	10.	U
75-34-3	1,1-DICHLOROETHANE	10.	U
544-59-2	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	19.	U
71-55-6	1,1,1-TRICHLOROETHANE	10.	U
56-23-5	CARBON TETRACHLORIDE	10.	U
108-05-4	VINYL ACETATE	19.	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	19.	U
591-78-6	2-HEXANONE	19.	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

00081

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VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EFA17

Lab Name: WADS Contract: 68-D9-0022

Lab Code: WADS Case No.: 12464 SAS No.: SDG No.: EFA12

Matrix: (soil/water) SOIL Lab Sample ID: 7470-26932

Sample wt/vol: 5.0 (g/mL) G Lab File ID: VOL10291

Level: (low/med) LOW Date Received: 8/ 3/89

% Moisture: not dec. 48. Date Analyzed: 8/ 6/89

Column: (pack/cap) PACK Dilution Factor: 1.00

Number TICs found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EFA18

Lab Name: WADS Contract: 68-D9-0022

Lab Code: WADS Case No.: 12464 SAS No.: SDG No.: EFA12

Matrix: (soil/water) SOIL Lab Sample ID: 7470-26933

Sample wt/vol: 5.0 (g/mL) G Lab File ID: VOL10298

Level: (low/med) LOW Date Received: 8/ 3/89

% Moisture: not dec. 58. Date Analyzed: 8/ 7/89

Column: (pack/cap) PACK Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	CHLOROMETHANE	24.	U
74-83-9	BROMOMETHANE	24.	U
75-01-4	VINYL CHLORIDE	24.	U
75-00-3	CHLOROETHANE	24.	U
75-09-2	METHYLENE CHLORIDE	30.	
67-64-1	ACETONE	240.	
75-15-0	CARBON DISULFIDE	12.	U
75-35-4	1,1-DICHLOROETHENE	12.	U
75-34-3	1,1-DICHLOROETHANE	12.	U
544-59-2	1,2-DICHLOROETHENE (TOTAL)	12.	U
67-66-3	CHLOROFORM	12.	U
107-06-2	1,2-DICHLOROETHANE	12.	U
78-93-3	2-BUTANONE	22.	J
71-55-6	1,1,1-TRICHLOROETHANE	12.	U
56-23-5	CARBON TETRACHLORIDE	12.	U
108-05-4	VINYL ACETATE	24.	U
75-27-4	BROMODICHLOROMETHANE	12.	U
78-87-5	1,2-DICHLOROPROPANE	12.	U
10061-01-5	CIS-1,3-DICHLOROPROPENE	12.	U
79-01-6	TRICHLOROETHENE	12.	U
124-48-1	DIBROMOCHLOROMETHANE	12.	U
79-00-5	1,1,2-TRICHLOROETHANE	12.	U
71-43-2	BENZENE	12.	U
10061-02-6	TRANS-1,3-DICHLOROPROPENE	12.	U
75-25-2	BROMOFORM	12.	U
108-10-1	4-METHYL-2-PENTANONE	24.	U
591-78-6	2-HEXANONE	24.	U
127-18-4	TETRACHLOROETHENE	12.	U
79-34-5	1,1,2,2-TETRACHLOROETHANE	12.	U
108-88-3	TOLUENE	12.	U
108-90-7	CHLOROBENZENE	12.	U
100-41-4	ETHYLBENZENE	12.	U
100-42-5	STYRENE	12.	U
1330-20-7	XYLENE (TOTAL)	12.	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EFA18

Lab Name: WADS Contract: 68-D9-0022

Lab Code: WADS Case No.: 12464 SAS No.: SDG No.: EFA12

Matrix: (soil/water) SOIL Lab Sample ID: 7470-26933

Sample wt/vol: 5.0 (g/mL) G Lab File ID: VOL10298

Level: (low/med) LOW Date Received: 8/ 3/89

% Moisture: not dec. 58. Date Analyzed: 8/ 7/89

Column: (pack/cap) PACK Dilution Factor: 1.00

Number TICs found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EFA18 RE

Lab Name: WADS Contract: 68-D9-0022

Lab Code: WADS Case No.: 12464 SAS No.: SDG No.: EFA12

Matrix: (soil/water) SOIL Lab Sample ID: 7470-26933

Sample wt/vol: 5.0 (g/mL) G Lab File ID: VOL9975

Level: (low/med) LOW Date Received: 8/ 3/89

% Moisture: not dec. 58. Date Analyzed: 8/12/89

Column: (pack/cap) PACK Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	CHLOROMETHANE	24.	U
74-83-9	BROMOMETHANE	24.	U
75-01-4	VINYL CHLORIDE	24.	U
75-00-3	CHLOROETHANE	24.	U
75-09-2	METHYLENE CHLORIDE	46.	B
67-64-1	ACETONE	110.	
75-15-0	CARBON DISULFIDE	12.	U
75-35-4	1,1-DICHLOROETHENE	12.	U
75-34-3	1,1-DICHLOROETHANE	12.	U
544-59-2	1,2-DICHLOROETHENE (TOTAL)	12.	U
67-66-3	CHLOROFORM	12.	U
107-06-2	1,2-DICHLOROETHANE	12.	U
78-93-3	2-BUTANONE	24.	U
71-55-6	1,1,1-TRICHLOROETHANE	12.	U
56-23-5	CARBON TETRACHLORIDE	12.	U
108-05-4	VINYL ACETATE	24.	U
75-27-4	BROMODICHLOROMETHANE	12.	U
78-87-5	1,2-DICHLOROPROPANE	12.	U
10061-01-5	CIS-1,3-DICHLOROPROPENE	12.	U
79-01-6	TRICHLOROETHENE	12.	U
124-48-1	DIBROMOCHLOROMETHANE	12.	U
79-00-5	1,1,2-TRICHLOROETHANE	12.	U
71-43-2	BENZENE	12.	U
10061-02-6	TRANS-1,3-DICHLOROPROPENE	12.	U
75-25-2	BROMOFORM	12.	U
108-10-1	4-METHYL-2-PENTANONE	24.	U
591-78-6	2-HEXANONE	24.	U
127-18-4	TETRACHLOROETHENE	12.	U
79-34-5	1,1,2,2-TETRACHLOROETHANE	12.	U
108-88-3	TOLUENE	12.	U
108-90-7	CHLOROBENZENE	12.	U
100-41-4	ETHYLBENZENE	12.	U
100-42-5	STYRENE	12.	U
1330-20-7	XYLENE (TOTAL)	12.	U

RuDeH 4 Oct 89

FORM I VOA 1/87 Rev.

1E

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EFA18 RE

Lab Name: WADS Contract: 68-D9-0022

Lab Code: WADS Case No.: 12464 SAS No.: SDG No.: EFA12

Matrix: (soil/water) SOIL Lab Sample ID: 7470-26933

Sample wt/vol: 5.0 (g/mL) G Lab File ID: VOL9975

Level: (low/med) LOW Date Received: 8/ 3/89

% Moisture: not dec. 58. Date Analyzed: 8/13/89

Column: (pack/cap) PACK Dilution Factor: 1.00

Number TICs found: 1

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	76-13-1	ETHANE, 1,1,2-TRICHLORO-1,2,	10.00	20.	RJ Drill 4 octs
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EFA19

Lab Name: WADS Contract: 68-D9-0022

Lab Code: WADS Case No.: 12464 SAS No.: SDG No.: EFA12

Matrix: (soil/water) SOIL Lab Sample ID: 7470-26934

Sample wt/vol: 1.0 (g/mL) G Lab File ID: VOL9981

Level: (low/med) LOW Date Received: 8/ 3/89

% Moisture: not dec. 47. Date Analyzed: 8/13/89

Column: (pack/cap) PACK Dilution Factor: 5.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	CHLOROMETHANE	94.	U
74-83-9	BROMOMETHANE	94.	U
75-01-4	VINYL CHLORIDE	94.	U
75-00-3	CHLOROETHANE	94.	U
75-09-2	METHYLENE CHLORIDE	47.	U
67-64-1	ACETONE	94.	U
75-15-0	CARBON DISULFIDE	47.	U
75-35-4	1,1-DICHLOROETHENE	47.	U
75-34-3	1,1-DICHLOROETHANE	47.	U
544-59-2	1,2-DICHLOROETHENE (TOTAL)	47.	U
67-66-3	CHLOROFORM	47.	U
107-06-2	1,2-DICHLOROETHANE	47.	U
78-93-3	2-BUTANONE	94.	U
71-55-6	1,1,1-TRICHLOROETHANE	47.	U
56-23-5	CARBON TETRACHLORIDE	47.	U
108-05-4	VINYL ACETATE	94.	U
75-27-4	BROMODICHLOROMETHANE	47.	U
78-87-5	1,2-DICHLOROPROPANE	47.	U
10061-01-5	CIS-1,3-DICHLOROPROPENE	47.	U
79-01-6	TRICHLOROETHENE	47.	U
124-48-1	DIBROMOCHLOROMETHANE	47.	U
79-00-5	1,1,2-TRICHLOROETHANE	47.	U
71-43-2	BENZENE	47.	U
10061-02-6	TRANS-1,3-DICHLOROPROPENE	47.	U
75-25-2	BROMOFORM	47.	U
108-10-1	4-METHYL-2-PENTANONE	94.	U
591-78-6	2-HEXANONE	94.	U
127-18-4	TETRACHLOROETHENE	47.	U
79-34-5	1,1,2,2-TETRACHLOROETHANE	47.	U
108-88-3	TOLUENE	47.	U
108-90-7	CHLOROBENZENE	47.	U
100-41-4	ETHYLBENZENE	47.	U
100-42-5	STYRENE	47.	U
1330-20-7	XYLENE (TOTAL)	47.	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EFA19

Lab Name: WADS Contract: 68-D9-0022

Lab Code: WADS Case No.: 12464 SAS No.: SDG No.: EFA12

Matrix: (soil/water) SOIL Lab Sample ID: 7470-26934

Sample wt/vol: 1.0 (g/mL) G Lab File ID: VOL9981

Level: (low/med) LOW Date Received: 8/ 3/89

% Moisture: not dec. 47. Date Analyzed: 8/13/89

Column: (pack/cap) PACK Dilution Factor: 5.00

Number TICs found: 2

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	4889-83-2	BICYCLO[3.1.1]HEPT-2-ENE, 3,	21.87	100.	J
2.	- -	UNKNOWN HYDROCARBON	27.07	100.	J
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EFA19 RE

Lab Name: WADS Contract: 68-D9-0022

Lab Code: WADS Case No.: 12464 SAS No.: SDG No.: EFA12

Matrix: (soil/water) SOIL Lab Sample ID: 7470-26934

Sample wt/vol: 5.0 (g/mL) G Lab File ID: VOL9982

Level: (low/med) LOW Date Received: 8/ 3/89

% Moisture: not dec. 47. Date Analyzed: 8/13/89

Column: (pack/cap) PACK Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	CHLOROMETHANE	19.	U
74-83-9	BROMOMETHANE	19.	U
75-01-4	VINYL CHLORIDE	19.	U
75-00-3	CHLOROETHANE	19.	U
75-09-2	METHYLENE CHLORIDE	12.	B U
67-64-1	ACETONE	57	
75-15-0	CARBON DISULFIDE	9.	U
75-35-4	1,1-DICHLOROETHENE	9.	U
75-34-3	1,1-DICHLOROETHANE	9.	U
544-59-2	1,2-DICHLOROETHENE (TOTAL)	9.	U
67-66-3	CHLOROFORM	9.	U
107-06-2	1,2-DICHLOROETHANE	9.	U
78-93-3	2-BUTANONE	19.	U
71-55-6	1,1,1-TRICHLOROETHANE	9.	U
56-23-5	CARBON TETRACHLORIDE	9.	U
108-05-4	VINYL ACETATE	19.	U
75-27-4	BROMODICHLOROMETHANE	9.	U
78-87-5	1,2-DICHLOROPROPANE	9.	U
10061-01-5	CIS-1,3-DICHLOROPROPENE	9.	U
79-01-6	TRICHLOROETHENE	9.	U
124-48-1	DIBROMOCHLOROMETHANE	9.	U
79-00-5	1,1,2-TRICHLOROETHANE	9.	U
71-43-2	BENZENE	9.	U
10061-02-6	TRANS-1,3-DICHLOROPROPENE	9.	U
75-25-2	BROMOFORM	9.	U
108-10-1	4-METHYL-2-PENTANONE	19.	U
591-78-6	2-HEXANONE	19.	U
127-18-4	TETRACHLOROETHENE	13.	
79-34-5	1,1,2,2-TETRACHLOROETHANE	9.	U
108-88-3	TOLUENE	9.	J
108-90-7	CHLOROBENZENE	9.	U
100-41-4	ETHYLBENZENE	9.	U
100-42-5	STYRENE	9.	U
1330-20-7	XYLENE (TOTAL)	9.	U

4 Oct 89

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EFA19 RE

Lab Name: WADS Contract: 6S-D9-0022

Lab Code: WADS Case No.: 12464 SAS No.: SDG No.: EFA12

Matrix: (soil/water) SOIL Lab Sample ID: 7470-26934

Sample wt/vol: 5.0 (g/mL) G Lab File ID: VOL9982

Level: (low/med) LOW Date Received: 8/ 3/89

% Moisture: not dec. 47. Date Analyzed: 8/13/89

Column: (pack/cap) PACK Dilution Factor: 1.00

Number TICs found: 10

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	- -	UNKNOWN HYDROCARBON	23.73	80.	J
2.	- -	UNKNOWN AROMATIC	24.70	100.	J
3.	- -	UNKNOWN HYDROCARBON	25.43	60.	J
4.	- -	UNKNOWN HYDROCARBON	26.10	20.	J
5.	50876-32-9	CYCLOHEXANE, 1,1,3,5-TETRAME	27.03	200.	J
6.	- -	UNKNOWN HYDROCARBON	27.60	80.	J
7.	24524-52-5	CYCLOPROPANE, 1-METHYL-2-(1-	28.53	100.	J
8.	13466-78-9	3-CARENE	21.87	300.	J
9.	3387-41-5	BICYCLO[3.1.0]HEXANE, 4-METH	22.40	200.	J
10.	76-13-1	ETHANE,1,1,2-TRICHLORO-1,2,2	10.00	10.	J Jeff Hoch
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EFA20

Lab Name: WADS Contract: 68-D9-0022

Lab Code: WADS Case No.: 12464 SAS No.: SDG No.: EFA12

Matrix: (soil/water) SOIL Lab Sample ID: 7470-26935

Sample wt/vol: 5.0 (g/mL) G Lab File ID: VOL9978

Level: (low/med) LOW Date Received: 8/ 3/89

% Moisture: not dec. 30. Date Analyzed: 8/13/89

Column: (pack/cap) PACK Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	CHLOROMETHANE	14.	U
74-83-9	BROMOMETHANE	14.	U
75-01-4	VINYL CHLORIDE	14.	U
75-00-3	CHLOROETHANE	14.	U
75-09-2	METHYLENE CHLORIDE	7.	U
67-64-1	ACETONE	14.	U
75-15-0	CARBON DISULFIDE	7.	U
75-35-4	1,1-DICHLOROETHENE	7.	U
75-34-3	1,1-DICHLOROETHANE	7.	U
544-59-2	1,2-DICHLOROETHENE (TOTAL)	7.	U
67-66-3	CHLOROFORM	7.	U
107-06-2	1,2-DICHLOROETHANE	7.	U
78-93-3	2-BUTANONE	14.	U
71-55-6	1,1,1-TRICHLOROETHANE	7.	U
56-23-5	CARBON TETRACHLORIDE	7.	U
108-05-4	VINYL ACETATE	14.	U
75-27-4	BROMODICHLOROMETHANE	7.	U
78-87-5	1,2-DICHLOROPROPANE	7.	U
10061-01-5	CIS-1,3-DICHLOROPROPENE	7.	U
79-01-6	TRICHLOROETHENE	7.	U
124-48-1	DIBROMOCHLOROMETHANE	7.	U
79-00-5	1,1,2-TRICHLOROETHANE	7.	U
71-43-2	BENZENE	7.	U
10061-02-6	TRANS-1,3-DICHLOROPROPENE	7.	U
75-25-2	BROMOFORM	7.	U
108-10-1	4-METHYL-2-PENTANONE	14.	U
591-78-6	2-HEXANONE	14.	U
127-18-4	TETRACHLOROETHENE	7.	U
79-34-5	1,1,2,2-TETRACHLOROETHANE	7.	U
108-88-3	TOLUENE	7.	U
108-90-7	CHLOROBENZENE	7.	U
100-41-4	ETHYLBENZENE	7.	U
100-42-5	STYRENE	7.	U
1330-20-7	XYLENE (TOTAL)	7.	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EFA20

Lab Name: WADS Contract: 68-D9-0022

Lab Code: WADS Case No.: 12464 SAS No.: SDG No.: EFA12

Matrix: (soil/water) SOIL Lab Sample ID: 7470-26935

Sample wt/vol: 5.0 (g/mL) G Lab File ID: VOL9978

Level: (low/med) LOW Date Received: 8/ 3/89

% Moisture: not dec. 30. Date Analyzed: 8/13/89

Column: (pack/cap) PACK Dilution Factor: 1.00

Number TICs found: 0 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EFA21

Lab Name: WADS Contract: 68-D9-0022

Lab Code: WADS Case No.: 12464 SAS No.: SDG No.: EFA12

Matrix: (soil/water) SOIL Lab Sample ID: 7470-26936

Sample wt/vol: 5.0 (g/mL) G Lab File ID: VOL10302

Level: (low/med) LOW Date Received: 8/ 3/89

% Moisture: not dec. 43. Date Analyzed: 8/ 7/89

Column: (pack/cap) PACK Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	CHLOROMETHANE	18.	U
74-83-9	BROMOMETHANE	18.	U
75-01-4	VINYL CHLORIDE	18.	U
75-00-3	CHLOROETHANE	18.	U
75-09-2	METHYLENE CHLORIDE	30.	
67-64-1	ACETONE	210.	
75-15-0	CARBON DISULFIDE	9.	U
75-35-4	1,1-DICHLOROETHENE	9.	U
75-34-3	1,1-DICHLOROETHANE	9.	U
544-59-2	1,2-DICHLOROETHENE (TOTAL)	9.	U
67-66-3	CHLOROFORM	9.	U
107-06-2	1,2-DICHLOROETHANE	9	U
78-93-3	2-BUTANONE	21.	
71-55-6	1,1,1-TRICHLOROETHANE	9.	U
56-23-5	CARBON TETRACHLORIDE	9.	U
108-05-4	VINYL ACETATE	18.	U
75-27-4	BROMODICHLOROMETHANE	9.	U
78-87-5	1,2-DICHLOROPROPANE	9.	U
10061-01-5	CIS-1,3-DICHLOROPROPENE	9.	U
79-01-6	TRICHLOROETHENE	9.	U
124-48-1	DIBROMOCHLOROMETHANE	9.	U
79-00-5	1,1,2-TRICHLOROETHANE	9.	U
71-43-2	BENZENE	9.	U
10061-02-6	TRANS-1,3-DICHLOROPROPENE	9.	U
75-25-2	BROMOFORM	9.	U
108-10-1	4-METHYL-2-PENTANONE	18.	U
591-78-6	2-HEXANONE	18.	U
127-18-4	TETRACHLOROETHENE	9.	U
79-34-5	1,1,2,2-TETRACHLOROETHANE	9	U
108-88-3	TOLUENE	5.	J
108-90-7	CHLOROBENZENE	9.	U
100-41-4	ETHYLBENZENE	9.	U
100-42-5	STYRENE	9.	U
1330-20-7	XYLENE (TOTAL)	9.	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EFA21

Lab Name: WADS Contract: 68-D9-0022

Lab Code: WADS Case No.: 12464 SAS No.: SDG No.: EFA12

Matrix: (soil/water) SOIL Lab Sample ID: 7470-26936

Sample wt/vol: 5.0 (g/mL) G Lab File ID: VOL10302

Level: (low/med) LOW Date Received: 8/ 3/89

% Moisture: not dec. 43. Date Analyzed: 8/ 7/89

Column: (pack/cap) PACK Dilution Factor: 1.00

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EFA21 RE

Lab Name: WADS Contract: 68-D9-0022

Lab Code: WADS Case No.: 12464 SAS No.: SDG No.: EFA12

Matrix: (soil/water) SOIL Lab Sample ID: 7470-26936

Sample wt/vol: 5.0 (g/mL) G Lab File ID: VOL9976

Level: (low/med) LOW Date Received: 8/ 3/89

% Moisture: not dec. 43. Date Analyzed: 8/13/89

Column: (pack/cap) PACK Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	CHLOROMETHANE	18.	U
74-83-9	BROMOMETHANE	18.	U
75-01-4	VINYL CHLORIDE	18.	U
75-00-3	CHLOROETHANE	18.	U
75-09-2	METHYLENE CHLORIDE	28.	B U Del 4Oct89
67-64-1	ACETONE	120.	
75-15-0	CARBON DISULFIDE	9.	U
75-35-4	1,1-DICHLOROETHENE	9.	U
75-34-3	1,1-DICHLOROETHANE	9.	U
544-59-2	1,2-DICHLOROETHENE (TOTAL)	9.	U
67-66-3	CHLOROFORM	9.	U
107-06-2	1,2-DICHLOROETHANE	9.	U
78-93-3	2-BUTANONE	22.	
71-55-6	1,1,1-TRICHLOROETHANE	9.	U
56-23-5	CARBON TETRACHLORIDE	9.	U
108-05-4	VINYL ACETATE	18.	U
75-27-4	BROMODICHLOROMETHANE	9.	U
78-87-5	1,2-DICHLOROPROPANE	9.	U
10061-01-5	CIS-1,3-DICHLOROPROPENE	9.	U
79-01-6	TRICHLOROETHENE	9.	U
124-48-1	DIBROMOCHLOROMETHANE	9.	U
79-00-5	1,1,2-TRICHLOROETHANE	9.	U
71-43-2	BENZENE	9.	U
10061-02-6	TRANS-1,3-DICHLOROPROPENE	9.	U
75-25-2	BROMOFORM	9.	U
108-10-1	4-METHYL-2-PENTANONE	18.	U
591-78-6	2-HEXANONE	18.	U
127-18-4	TETRACHLOROETHENE	9.	U
79-34-5	1,1,2,2-TETRACHLOROETHANE	9.	U
108-88-3	TOLUENE	9.	U
108-90-7	CHLOROBENZENE	9.	U
100-41-4	ETHYLBENZENE	9.	U
100-42-5	STYRENE	9.	U
1330-20-7	XYLENE (TOTAL)	9.	U

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TENTATIVELY IDENTIFIED COMPOUNDS

EFA21 RE

Lab Name: WADS Contract: 68-D9-0022

Lab Code: WADS Case No.: 12464 SAS No.: SDG No.: EFA12

Matrix: (soil/water) SOIL Lab Sample ID: 7470-26936

Sample wt/vol: 5.0 (g/mL) G Lab File ID: VOL9976

Level: (low/med) LOW Date Received: 8/ 3/89

% Moisture: not dec. 43. Date Analyzed: 8/13/89

Column: (pack/cap) PACK Dilution Factor: 1.00

Number TICs found: 1

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	76-13-1	ETHANE, 1,1,2-TRICHLORO-1,2,	9.97	10.	~~B~~ J Dw 4oct
2.					
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EFA22

Lab Name: WADS Contract: 68-D9-0022

Lab Code: WADS Case No.: 12464 SAS No.: SDG No.: EFA12

Matrix: (soil/water) SOIL Lab Sample ID: 7470-26937

Sample wt/vol: 5.0 (g/mL) G Lab File ID: VOL10303

Level: (low/med) LOW Date Received: 8/ 3/89

% Moisture: not dec. 36. Date Analyzed: 8/ 7/89

Column: (pack/cap) PACK Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	CHLOROMETHANE	16.	U
74-83-9	BROMOMETHANE	16.	U
75-01-4	VINYL CHLORIDE	16.	U
75-00-3	CHLOROETHANE	16.	U
75-09-2	METHYLENE CHLORIDE	28.	
67-64-1	ACETONE	130.	
75-15-0	CARBON DISULFIDE	8.	U
75-35-4	1,1-DICHLOROETHENE	8.	U
75-34-3	1,1-DICHLOROETHANE	8.	U
544-59-2	1,2-DICHLOROETHENE (TOTAL)	8.	U
67-66-3	CHLOROFORM	8.	U
107-06-2	1,2-DICHLOROETHANE	8.	U
78-93-3	2-BUTANONE	21.	
71-55-6	1,1,1-TRICHLOROETHANE	8.	U
56-23-5	CARBON TETRACHLORIDE	8.	U
108-05-4	VINYL ACETATE	16.	U
75-27-4	BROMODICHLOROMETHANE	8.	U
78-87-5	1,2-DICHLOROPROPANE	8.	U
10061-01-5	CIS-1,3-DICHLOROPROPENE	8.	U
79-01-6	TRICHLOROETHENE	8.	U
124-48-1	DIBROMOCHLOROMETHANE	8.	U
79-00-5	1,1,2-TRICHLOROETHANE	8.	U
71-43-2	BENZENE	8.	U
10061-02-6	TRANS-1,3-DICHLOROPROPENE	8.	U
75-25-2	BROMOFORM	8.	U
108-10-1	4-METHYL-2-PENTANONE	16.	U
591-78-6	2-HEXANONE	16.	U
127-18-4	TETRACHLOROETHENE	8.	U
79-34-5	1,1,2,2-TETRACHLOROETHANE	8.	U
108-88-3	TOLUENE	8.	U
108-90-7	CHLOROBENZENE	8.	U
100-41-4	ETHYLBENZENE	8.	U
100-42-5	STYRENE	8.	U
1330-20-7	XYLENE (TOTAL)	8.	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EFA22

Lab Name: WADS Contract: 68-D9-0022

Lab Code: WADS Case No.: 12464 SAS No.: SDG No.: EFA12

Matrix: (soil/water) SOIL Lab Sample ID: 7470-26937

Sample wt/vol: 5.0 (g/mL) G Lab File ID: VOL10303

Level: (low/med) LOW Date Received: 8/ 3/89

% Moisture: not dec. 36. Date Analyzed: 8/ 7/89

Column: (pack/cap) PACK Dilution Factor: 1.00

Number TICs found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EFA22 RE

Lab Name: WADS Contract: 68-D9-0022

Lab Code: WADS Case No.: 12464 SAS No.: SDG No.: EFA12

Matrix: (soil/water) SOIL Lab Sample ID: 7470-26937

Sample wt/vol: 5.0 (g/mL) G Lab File ID: VOL9977

Level: (low/med) LOW Date Received: 8/ 3/89

% Moisture: not dec. 36. Date Analyzed: 8/13/89

Column: (pack/cap) PACK Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	CHLOROMETHANE	16.	U
74-83-9	BROMOMETHANE	16.	U
75-01-4	VINYL CHLORIDE	16.	U
75-00-3	CHLOROETHANE	16.	U
75-09-2	METHYLENE CHLORIDE	8.	U
67-64-1	ACETONE	16.	U
75-15-0	CARBON DISULFIDE	8.	U
75-35-4	1,1-DICHLOROETHENE	8.	U
75-34-3	1,1-DICHLOROETHANE	8.	U
544-59-2	1,2-DICHLOROETHENE (TOTAL)	8.	U
67-66-3	CHLOROFORM	8.	U
107-06-2	1,2-DICHLOROETHANE	8.	U
78-93-3	2-BUTANONE	16.	U
71-55-6	1,1,1-TRICHLOROETHANE	8.	U
56-23-5	CARBON TETRACHLORIDE	8.	U
108-05-4	VINYL ACETATE	16.	U
75-27-4	BROMODICHLOROMETHANE	8.	U
78-87-5	1,2-DICHLOROPROPANE	8.	U
10061-01-5	CIS-1,3-DICHLOROPROPENE	8.	U
79-01-6	TRICHLOROETHENE	8.	U
124-48-1	DIBROMOCHLOROMETHANE	8.	U
79-00-5	1,1,2-TRICHLOROETHANE	8.	U
71-43-2	BENZENE	8.	U
10061-02-6	TRANS-1,3-DICHLOROPROPENE	8.	U
75-25-2	BROMOFORM	8.	U
108-10-1	4-METHYL-2-PENTANONE	16.	U
591-78-6	2-HEXANONE	16.	U
127-18-4	TETRACHLOROETHENE	8.	U
79-34-5	1,1,2,2-TETRACHLOROETHANE	8.	U
108-88-3	TOLUENE	8.	U
108-90-7	CHLOROBENZENE	8.	U
100-41-4	ETHYLBENZENE	8.	U
100-42-5	STYRENE	8.	U
1330-20-7	XYLENE (TOTAL)	8.	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EFA22 RE

Lab Name: WADS Contract: 68-D9-0022

Lab Code: WADS Case No.: 12464 SAS No.: SDG No.: EFA12

Matrix: (soil/water) SOIL Lab Sample ID: 7470-26937

Sample wt/vol: 5.0 (g/mL) G Lab File ID: VOL9977

Level: (low/med) LOW Date Received: 8/ 3/89

% Moisture: not dec. 36. Date Analyzed: 8/13/89

Column: (pack/cap) PACK Dilution Factor: 1.00

Number TICs found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EFA23

Lab Name: WADS Contract: 68-D9-0022

Lab Code: WADS Case No.: 12464 SAS No.: SDG No.: EFA12

Matrix: (soil/water) SOIL Lab Sample ID: 7470-26938

Sample wt/vol: 5.0 (g/mL) G Lab File ID: VOL10304

Level: (low/med) LOW Date Received: 8/ 3/89

% Moisture: not dec. 17. Date Analyzed: 8/ 7/89

Column: (pack/cap) PACK Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	CHLOROMETHANE	12.	U
74-83-9	BROMOMETHANE	12.	U
75-01-4	VINYL CHLORIDE	12.	U
75-00-3	CHLOROETHANE	12.	U
75-09-2	METHYLENE CHLORIDE	14	
67-64-1	ACETONE	12.	U
75-15-0	CARBON DISULFIDE	6.	U
75-35-4	1,1-DICHLOROETHENE	6.	U
75-34-3	1,1-DICHLOROETHANE	6.	U
544-59-2	1,2-DICHLOROETHENE (TOTAL)	6.	U
67-66-3	CHLOROFORM	6.	U
107-06-2	1,2-DICHLOROETHANE	6.	U
78-93-3	2-BUTANONE	12.	U
71-55-6	1,1,1-TRICHLOROETHANE	6.	U
56-23-5	CARBON TETRACHLORIDE	6.	U
108-05-4	VINYL ACETATE	12.	U
75-27-4	BROMODICHLOROMETHANE	6.	U
78-87-5	1,2-DICHLOROPROPANE	6.	U
10061-01-5	CIS-1,3-DICHLOROPROPENE	6.	U
79-01-6	TRICHLOROETHENE	6.	U
124-48-1	DIBROMOCHLOROMETHANE	6.	U
79-00-5	1,1,2-TRICHLOROETHANE	6.	U
71-43-2	BENZENE	6.	U
10061-02-6	TRANS-1,3-DICHLOROPROPENE	6.	U
75-25-2	BROMOFORM	6.	U
108-10-1	4-METHYL-2-PENTANONE	12.	U
591-78-6	2-HEXANONE	12.	U
127-18-4	TETRACHLOROETHENE	6.	U
79-34-5	1,1,2,2-TETRACHLOROETHANE	6.	U
108-88-3	TOLUENE	6.	U
108-90-7	CHLOROBENZENE	6.	U
100-41-4	ETHYLBENZENE	6.	U
100-42-5	STYRENE	6.	U
1330-20-7	XYLENE (TOTAL)	6.	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EFA23

Lab Name: WADS Contract: 68-D9-0022

Lab Code: WADS Case No.: 12464 SAS No.: SDG No.: EFA12

Matrix: (soil/water) SOIL Lab Sample ID: 7470-26938

Sample wt/vol: 5.0 (g/mL) G Lab File ID: VOL10304

Level: (low/med) LOW Date Received: 8/ 3/89

% Moisture: not dec. 17. Date Analyzed: 8/ 7/89

Column: (pack/cap) PACK Dilution Factor: 1.00

Number TICs found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EFA12

Lab Name: WADS Contract: 68-D9-0022

Lab Code: WADS Case No.: 12464 SAS No.: SDG No.: EFA12

Matrix: (soil/water) SOIL Lab Sample ID: 7470-26927

Sample wt/vol: 30. (g/mL) G Lab File ID: EFA12

Level: (low/med) LOW Date Received: 8/ 3/89

% Moisture: not dec. 23. dec. 0. Date Extracted: 8/11/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 8/14/89

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	430.	U
111-44-4	bis(2-Chloroethyl)ether	430.	U
95-57-8	2-Chlorophenol	430.	U
541-73-1	1,3-Dichlorobenzene	430.	U
106-46-7	1,4-Dichlorobenzene	430.	U
100-51-6	Benzyl alcohol	430.	U
95-50-1	1,2-Dichlorobenzene	430.	U
95-48-7	2-Methylphenol	430.	U
108-60-1	bis(2-Chloroisopropyl)ether	430.	U
106-44-5	4-Methylphenol	430.	U
621-64-7	N-Nitroso-di-n-propylamine	430.	U
67-72-1	Hexachloroethane	430.	U
98-95-3	Nitrobenzene	430.	U
78-59-1	Isophorone	430.	U
88-75-5	2-Nitrophenol	430.	U
105-67-9	2,4-Dimethylphenol	430.	U
65-85-0	Benzoic acid	2200.	U
111-91-1	bis(2-Chloroethoxy)methane	430.	U
120-83-2	2,4-Dichlorophenol	430.	U
120-82-1	1,2,4-Trichlorobenzene	430.	U
91-20-3	Naphthalene	430.	U
106-47-8	4-Chloroaniline	430.	U
87-68-3	Hexachlorobutadiene	430.	U
59-50-7	4-Chloro-3-methylphenol	430.	U
91-57-6	2-Methylnaphthalene	430.	U
77-47-4	Hexachlorocyclopentadiene	430.	U
88-06-2	2,4,6-Trichlorophenol	430.	U
95-95-4	2,4,5-Trichlorophenol	2200.	U
91-58-7	2-Chloronaphthalene	430.	U
88-74-4	2-Nitroaniline	2200.	U
131-11-3	Dimethylphthalate	430.	U
208-96-8	Acenaphthylene	430.	U
606-20-2	2,6-Dinitrotoluene	430.	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EFA12

Lab Name: WADS Contract: 68-D9-0022

Lab Code: WADS Case No.: 12464 SAS No.: SDG No.: EFA12

Matrix: (soil/water) SOIL Lab Sample ID: 7470-26927

Sample wt/vol: 30. (g/mL) G Lab File ID: EFA12

Level: (low/med) LOW Date Received: 8/ 3/89

% Moisture: not dec. 23. dec. 0. Date Extracted: 8/11/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 8/14/89

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	2200.	U
83-32-9	Acenaphthene	430.	U
51-28-5	2,4-Dinitrophenol	2200.	U
100-02-7	4-Nitrophenol	2200.	U
132-64-9	Dibenzofuran	430.	U
121-14-2	2,4-Dinitrotoluene	430.	U
84-66-2	Diethylphthalate	430.	U
7005-72-3	4-Chlorophenyl-phenylether	430.	U
86-73-7	Fluorene	430.	U
100-01-6	4-Nitroaniline	2200.	U
534-52-1	4,6-Dinitro-2-methylphenol	2200.	U
86-30-6	N-Nitrosodiphenylamine (1)	430.	U
101-55-3	4-Bromophenyl-phenylether	430.	U
118-74-1	Hexachlorobenzene	160.	J
87-86-5	Pentachlorophenol	2200.	U
85-01-8	Phenanthrene	730.	
120-12-7	Anthracene	120.	J
84-74-2	Di-n-butylphthalate	430.	U
206-44-0	Fluoranthene	2300.	
129-00-0	Pyrene	2800.	
85-68-7	Butylbenzylphthalate	110.	J
91-94-1	3,3'-Dichlorobenzidine	870.	U
56-55-3	Benzo(a)anthracene	1200.	
218-01-9	Chrysene	1800.	
117-81-7	bis(2-Ethylhexyl)phthalate	5000.	
117-84-0	Di-n-octylphthalate	430.	U
205-99-2	Benzo(b)fluoranthene	2600.	
207-08-9	Benzo(k)fluoranthene	1000.	
50-32-8	Benzo(a)pyrene	1600.	
193-39-5	Indeno(1,2,3-cd)pyrene	1700.	
53-70-3	Dibenz(a,h)anthracene	240.	J
191-24-2	Benzo(g,h,i)perylene	1400.	

(1) - Cannot be separated from diphenylamine

1F

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EFA12

Lab Name: WADS Contract: 68-D9-0022

Lab Code: WADS Case No.: 12464 SAS No.: SDG No.: EFA12

Matrix: (soil/water) SOIL Lab Sample ID: 7470-26927

Sample wt/vol: 30. (g/mL) G Lab File ID: EFA12

Level: (low/med) LOW Date Received: 8/ 3/89

% Moisture: not dec. 23. dec. 0. Date Extracted: 8/11/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 8/14/89

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.00

Number TICs found: 15

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	123-42-2	2-Pentanone, 4-hydroxy-4-met	3.57	5000.	~~B~~J A Lab 4 oct 89
2.	1861-40-1	Benfluralin	16.83	2000.	J
3.	- -	UNKNOWN	25.87	300.	J
4.	205-82-3	Benzo[j]fluoranthene	27.32	1000.	J
5.	205-99-2	Benz[e]acephenanthrylene	27.58	1000.	J
6.	- -	UNKNOWN	29.33	400.	J
7.	- -	UNKNOWN HYDROCARBON	16.98	400.	J
8.	- -	UNKNOWN HYDROCARBON	18.13	400.	J
9.	57-10-3	Hexadecanoic acid	19.80	1000.	J
10.	1861-32-1	DCPA (VAN)	20.18	5000.	J
11.	10544-50-0	Sulfur, mol. (S8)	20.42	400.	J
12.	- -	UNKNOWN	21.30	1000.	J
13.	- -	UNKNOWN	21.70	300.	J
14.	- -	UNKNOWN	29.43	500.	J
15.	- -	UNKNOWN	19.10	300.	J
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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EFA12 RE

Lab Name: WADS Contract: 68-D9-0022

Lab Code: WADS Case No.: 12464 SAS No.: SDG No.: EFA12

Matrix: (soil/water) SOIL Lab Sample ID: 7470-26927-R1

Sample wt/vol: 30. (g/mL) G Lab File ID: EFA12R1

Level: (low/med) LOW Date Received: 8/ 3/89

% Moisture: not dec. 23. dec. 0. Date Extracted: 8/11/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 8/17/89

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	430.	U
111-44-4	bis(2-Chloroethyl)ether	430.	U
95-57-8	2-Chlorophenol	430.	U
541-73-1	1,3-Dichlorobenzene	430.	U
106-46-7	1,4-Dichlorobenzene	430.	U
100-51-6	Benzyl alcohol	430.	U
95-50-1	1,2-Dichlorobenzene	430.	U
95-48-7	2-Methylphenol	430.	U
108-60-1	bis(2-Chloroisopropyl)ether	430.	U
106-44-5	4-Methylphenol	430.	U
621-64-7	N-Nitroso-di-n-propylamine	430.	U
67-72-1	Hexachloroethane	430.	U
98-95-3	Nitrobenzene	430.	U
78-59-1	Isophorone	430.	U
88-75-5	2-Nitrophenol	430.	U
105-67-9	2,4-Dimethylphenol	430.	U
65-85-0	Benzoic acid	2200.	U
111-91-1	bis(2-Chloroethoxy)methane	430.	U
120-83-2	2,4-Dichlorophenol	430.	U
120-82-1	1,2,4-Trichlorobenzene	430.	U
91-20-3	Naphthalene	430.	U
106-47-8	4-Chloroaniline	430.	U
87-68-3	Hexachlorobutadiene	430.	U
59-50-7	4-Chloro-3-methylphenol	430.	U
91-57-6	2-Methylnaphthalene	430.	U
77-47-4	Hexachlorocyclopentadiene	430.	U
88-06-2	2,4,6-Trichlorophenol	430.	U
95-95-4	2,4,5-Trichlorophenol	2200.	U
91-58-7	2-Chloronaphthalene	430.	U
88-74-4	2-Nitroaniline	2200.	U
131-11-3	Dimethylphthalate	430.	U
208-96-8	Acenaphthylene	430.	U
606-20-2	2,6-Dinitrotoluene	430.	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EFA12 RE

Lab Name: WADS Contract: 68-D9-0022

Lab Code: WADS Case No.: 12464 SAS No.: SDG No.: EFA12

Matrix: (soil/water) SOIL Lab Sample ID: 7470-26927-R1

Sample wt/vol: 30. (g/mL) G Lab File ID: EFA12R1

Level: (low/med) LOW Date Received: 8/ 3/89

% Moisture: not dec. 23. dec. 0. Date Extracted: 8/11/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 8/17/89

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	2200.	U
83-32-9	Acenaphthene	430.	U
51-28-5	2,4-Dinitrophenol	2200.	U
100-02-7	4-Nitrophenol	2200.	U
132-64-9	Dibenzofuran	430.	U
121-14-2	2,4-Dinitrotoluene	430.	U
84-66-2	Diethylphthalate	430.	U
7005-72-3	4-Chlorophenyl-phenylether	430.	U
86-73-7	Fluorene	430.	U
100-01-6	4-Nitroaniline	2200.	U
534-52-1	4,6-Dinitro-2-methylphenol	2200.	U
86-30-6	N-Nitrosodiphenylamine (1)	430.	U
101-55-3	4-Bromophenyl-phenylether	430.	U
118-74-1	Hexachlorobenzene	430.	U
87-86-5	Pentachlorophenol	2200.	U
85-01-8	Phenanthrene	660.	
120-12-7	Anthracene	120.	J
84-74-2	Di-n-butylphthalate	430.	U
206-44-0	Fluoranthene	2300.	
129-00-0	Pyrene	3900.	
85-68-7	Butylbenzylphthalate	160.	J
91-94-1	3,3'-Dichlorobenzidine	870.	U
56-55-3	Benzo(a)anthracene	1200.	
218-01-9	Chrysene	2000.	
117-81-7	bis(2-Ethylhexyl)phthalate	6100.	
117-84-0	Di-n-octylphthalate	430.	U
205-99-2	Benzo(b)fluoranthene	2800.	
207-08-9	Benzo(k)fluoranthene	1300.	
50-32-8	Benzo(a)pyrene	1700.	
193-39-5	Indeno(1,2,3-cd)pyrene	1400.	
53-70-3	Dibenz(a,h)anthracene	240.	J
191-24-2	Benzo(g,h,i)perylene	430.	U

(1) - Cannot be separated from diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EFA12 RE

Lab Name: WADS Contract: 68-D9-0022

Lab Code: WADS Case No.: 12464 SAS No.: SDG No.: EFA12

Matrix: (soil/water) SOIL Lab Sample ID: 7470-26927-R1

Sample wt/vol: 30. (g/mL) G Lab File ID: EFA12R1

Level: (low/med) LOW Date Received: 8/ 3/89

% Moisture: not dec. 23. dec. 0. Date Extracted: 8/11/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 8/17/89

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.00

Number TICs found: 12

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	123-42-2	2-Pentanone, 4-hydroxy-4-met	3.15	2000.	~~B~~J A Diff factor
2.	1861-40-1	Benfluralin	16.43	2000.	J
3.	- -	UNKNOWN HYDROCARBON	16.57	400.	J
4.	205-82-3	Benzo[j]fluoranthene	26.78	1000.	J
5.	205-99-2	Benz[e]acephenanthrylene	27.07	600.	J
6.	- -	UNKNOWN	28.30	500.	J
7.	- -	UNKNOWN	16.50	1000.	J
8.	- -	UNKNOWN HYDROCARBON	17.73	300.	J
9.	57-10-3	Hexadecanoic acid	19.40	2000.	J
10.	1861-32-1	DCPA (VAN)	19.73	4000.	J
11.	10544-50-0	Sulfur, mol. (S8)	19.93	800.	J
12.	- -	UNKNOWN	20.83	500.	J
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1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EFA13

Lab Name: WADS Contract: 68-D9-0022

Lab Code: WADS Case No.: 12464 SAS No.: SDG No.: EFA12

Matrix: (soil/water) SOIL Lab Sample ID: 7470-26928

Sample wt/vol: 30. (g/mL) G Lab File ID: EFA13

Level: (low/med) LOW Date Received: 8/ 3/89

% Moisture: not dec. 29. dec. 0. Date Extracted: 8/11/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 8/14/89

GPC Cleanup: (Y/N) N pH: 5.0 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	470.	U
111-44-4	bis(2-Chloroethyl)ether	470.	U
95-57-8	2-Chlorophenol	470.	U
541-73-1	1,3-Dichlorobenzene	470.	U
106-46-7	1,4-Dichlorobenzene	470.	U
100-51-6	Benzyl alcohol	470.	U
95-50-1	1,2-Dichlorobenzene	470.	U
95-48-7	2-Methylphenol	470.	U
108-60-1	bis(2-Chloroisopropyl)ether	470.	U
106-44-5	4-Methylphenol	470.	U
621-64-7	N-Nitroso-di-n-propylamine	470.	U
67-72-1	Hexachloroethane	470.	U
98-95-3	Nitrobenzene	470.	U
78-59-1	Isophorone	470.	U
88-75-5	2-Nitrophenol	470.	U
105-67-9	2,4-Dimethylphenol	470.	U
65-85-0	Benzoic acid	2300.	U
111-91-1	bis(2-Chloroethoxy)methane	470.	U
120-83-2	2,4-Dichlorophenol	470.	U
120-82-1	1,2,4-Trichlorobenzene	470.	U
91-20-3	Naphthalene	82.	J
106-47-8	4-Chloroaniline	470.	U
87-68-3	Hexachlorobutadiene	470.	U
59-50-7	4-Chloro-3-methylphenol	470.	U
91-57-6	2-Methylnaphthalene	46.	J
77-47-4	Hexachlorocyclopentadiene	470.	U
88-06-2	2,4,6-Trichlorophenol	470.	U
95-95-4	2,4,5-Trichlorophenol	2300.	U
91-58-7	2-Chloronaphthalene	470.	U
88-74-4	2-Nitroaniline	2300.	U
131-11-3	Dimethylphthalate	470.	U
208-96-8	Acenaphthylene	45.	J
606-20-2	2,6-Dinitrotoluene	470.	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EFA13

Lab Name: WADS Contract: 68-D9-0022

Lab Code: WADS Case No.: 12464 SAS No.: SDG No.: EFA12

Matrix: (soil/water) SOIL Lab Sample ID: 7470-26928

Sample wt/vol: 30. (g/mL) G Lab File ID: EFA13

Level: (low/med) LOW Date Received: 8/ 3/89

% Moisture: not dec. 29. dec. 0. Date Extracted: 8/11/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 8/14/89

GPC Cleanup: (Y/N) N pH: 5.0 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	2300.	U
83-32-9	Acenaphthene	470.	U
51-28-5	2,4-Dinitrophenol	2300.	U
100-02-7	4-Nitrophenol	2300.	U
132-64-9	Dibenzofuran	470.	U
121-14-2	2,4-Dinitrotoluene	470.	U
84-66-2	Diethylphthalate	470.	U
7005-72-3	4-Chlorophenyl-phenylether	470.	U
86-73-7	Fluorene	470.	U
100-01-6	4-Nitroaniline	2300.	U
534-52-1	4,6-Dinitro-2-methylphenol	2300.	U
86-30-6	N-Nitrosodiphenylamine (1)	470.	U
101-55-3	4-Bromophenyl-phenylether	470.	U
118-74-1	Hexachlorobenzene	98.	J
87-86-5	Pentachlorophenol	2300.	U
85-01-8	Phenanthrene	260.	J
120-12-7	Anthracene	470.	U
84-74-2	Di-n-butylphthalate	470.	U
206-44-0	Fluoranthene	390.	J
129-00-0	Pyrene	480	
85-68-7	Butylbenzylphthalate	470.	U
91-94-1	3,3'-Dichlorobenzidine	940.	U
56-55-3	Benzo(a)anthracene	230.	J
218-01-9	Chrysene	360.	J
117-81-7	bis(2-Ethylhexyl)phthalate	1400.	
117-84-0	Di-n-octylphthalate	470.	U
205-99-2	Benzo(b)fluoranthene	430.	J
207-08-9	Benzo(k)fluoranthene	310.	J
50-32-8	Benzo(a)pyrene	270.	J
193-39-5	Indeno(1,2,3-cd)pyrene	320.	J
53-70-3	Dibenz(a,h)anthracene	470.	U
191-24-2	Benzo(g,h,i)perylene	320.	J

(1) - Cannot be separated from diphenylamine

1F

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EFA13

Lab Name: WADS Contract: 68-D9-0022

Lab Code: WADS Case No.: 12464 SAS No.: SDG No.: EFA12

Matrix: (soil/water) SOIL Lab Sample ID: 7470-26928

Sample wt/vol: 30. (g/mL) G Lab File ID: EFA13

Level: (low/med) LOW Date Received: 8/ 3/89

% Moisture: not dec. 29. dec. 0. Date Extracted: 8/11/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 8/14/89

GPC Cleanup: (Y/N) N pH: 5.0 Dilution Factor: 1.00

Number TICs found: 14

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	123-42-2	2-Pentanone, 4-hydroxy-4-met	3.50	2000.	~~B~~ J A
2.	17302-32-8	Nonane, 3,7-dimethyl-	12.32	500.	J
3.	1861-40-1	Benfluralin	16.83	1000.	J
4.	- -	UNKNOWN HYDROCARBON	18.17	800.	J
5.	- -	UNKNOWN	27.15	2000.	J
6.	- -	UNKNOWN HYDROCARBON	15.73	400.	J
7.	- -	UNKNOWN HYDROCARBON	16.93	600.	J
8.	- -	UNKNOWN HYDROCARBON	17.00	1000.	J
9.	- -	UNKNOWN HYDROCARBON	19.13	500.	J
10.	1861-32-1	DCPA (VAN)	20.18	5000.	J
11.	- -	UNKNOWN	25.88	2000.	J
12.	- -	UNKNOWN	28.85	2000.	J
13.	- -	UNKNOWN	28.88	700.	J
14.	- -	UNKNOWN	29.45	4000.	J
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1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EFA14

Lab Name: WADS Contract: 68-D9-0022

Lab Code: WADS Case No.: 12464 SAS No.: SDG No.: EFA12

Matrix: (soil/water) SOIL Lab Sample ID: 7470-26929

Sample wt/vol: 30. (g/mL) G Lab File ID: EFA14R1

Level: (low/med) LOW Date Received: 8/ 3/89

% Moisture: not dec. 37. dec. 0. Date Extracted: 8/11/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 8/15/89

GPC Cleanup: (Y/N) N pH: 6.0 Dilution Factor: 5.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	2600.	U
111-44-4	bis(2-Chloroethyl)ether	2600.	U
95-57-8	2-Chlorophenol	2600.	U
541-73-1	1,3-Dichlorobenzene	2600.	U
106-46-7	1,4-Dichlorobenzene	2600.	U
100-51-6	Benzyl alcohol	2600.	U
95-50-1	1,2-Dichlorobenzene	2600.	U
95-48-7	2-Methylphenol	2600.	U
108-60-1	bis(2-Chloroisopropyl)ether	2600.	U
106-44-5	4-Methylphenol	2600.	U
621-64-7	N-Nitroso-di-n-propylamine	2600.	U
67-72-1	Hexachloroethane	2600.	U
98-95-3	Nitrobenzene	2600.	U
78-59-1	Isophorone	2600.	U
88-75-5	2-Nitrophenol	2600.	U
105-67-9	2,4-Dimethylphenol	2600.	U
65-85-0	Benzoic acid	13000.	U
111-91-1	bis(2-Chloroethoxy)methane	2600.	U
120-83-2	2,4-Dichlorophenol	2600.	U
120-82-1	1,2,4-Trichlorobenzene	2600.	U
91-20-3	Naphthalene	2600.	U
106-47-8	4-Chloroaniline	2600.	U
87-68-3	Hexachlorobutadiene	2600.	U
59-50-7	4-Chloro-3-methylphenol	2600.	U
91-57-6	2-Methylnaphthalene	2600.	U
77-47-4	Hexachlorocyclopentadiene	2600.	U
88-06-2	2,4,6-Trichlorophenol	2600.	U
95-95-4	2,4,5-Trichlorophenol	13000.	U
91-58-7	2-Chloronaphthalene	2600.	U
88-74-4	2-Nitroaniline	13000.	U
131-11-3	Dimethylphthalate	2600.	U
208-96-8	Acenaphthylene	2600.	U
606-20-2	2,6-Dinitrotoluene	2600.	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EFA14

Lab Name: WADS Contract: 68-D9-0022

Lab Code: WADS Case No.: 12464 SAS No.: SDG No.: EFA12

Matrix: (soil/water) SOIL Lab Sample ID: 7470-26929

Sample wt/vol: 30. (g/mL) G Lab File ID: EFA14R1

Level: (low/med) LOW Date Received: 8/ 3/89

% Moisture: not dec. 37. dec. 0. Date Extracted: 8/11/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 8/15/89

GPC Cleanup: (Y/N) N pH: 6.0 Dilution Factor: 5.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	13000.	U
83-32-9	Acenaphthene	2600.	U
51-28-5	2,4-Dinitrophenol	13000.	U
100-02-7	4-Nitrophenol	13000.	U
132-64-9	Dibenzofuran	2600.	U
121-14-2	2,4-Dinitrotoluene	2600.	U
84-66-2	Diethylphthalate	2600.	U
7005-72-3	4-Chlorophenyl-phenylether	2600.	U
86-73-7	Fluorene	2600.	U
100-01-6	4-Nitroaniline	13000.	U
534-52-1	4,6-Dinitro-2-methylphenol	13000.	U
86-30-6	N-Nitrosodiphenylamine (1)	2600.	U
101-55-3	4-Bromophenyl-phenylether	2600.	U
118-74-1	Hexachlorobenzene	2600.	U
87-86-5	Pentachlorophenol	13000.	U
85-01-8	Phenanthrene	2600.	U
120-12-7	Anthracene	2600.	U
84-74-2	Di-n-butylphthalate	2600.	U
206-44-0	Fluoranthene	2600.	U
129-00-0	Pyrene	500.	J
85-68-7	Butylbenzylphthalate	2600.	U
91-94-1	3,3'-Dichlorobenzidine	5300.	U
56-55-3	Benzo(a)anthracene	2600.	U
218-01-9	Chrysene	330.	J
117-81-7	bis(2-Ethylhexyl)phthalate	600.	J
117-84-0	Di-n-octylphthalate	2600.	U
205-99-2	Benzo(b)fluoranthene	290.	J
207-08-9	Benzo(k)fluoranthene	2600.	U
50-32-8	Benzo(a)pyrene	2600.	U
193-39-5	Indeno(1,2,3-cd)pyrene	2600.	U
53-70-3	Dibenz(a,h)anthracene	2600.	U
191-24-2	Benzo(g,h,i)perylene	2600.	U

(1) - Cannot be separated from diphenylamine

00477

1F

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EFA14

Lab Name: WADS Contract: 68-D9-0022

Lab Code: WADS Case No.: 12464 SAS No.: SDG No.: EFA12

Matrix: (soil/water) SOIL Lab Sample ID: 7470-26929

Sample wt/vol: 30. (g/mL) G Lab File ID: EFA14R1

Level: (low/med) LOW Date Received: 8/ 3/89

% Moisture: not dec. 37. dec. 0. Date Extracted: 8/11/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 8/15/89

GPC Cleanup: (Y/N) N pH: 6.0 Dilution Factor: 5.00

Number TICs found: 18

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	123-42-2	2-Pentanone, 4-hydroxy-4-met	3.28	3000.	~~B~~J A
2.	1120-21-4	Undecane	11.57	2000.	J
3.	17302-32-8	Nonane, 3,7-dimethyl-	12.97	3000.	J
4.	- -	UNKNOWN HYDROCARBON	14.28	3000.	J
5.	- -	UNKNOWN HYDROCARBON	15.52	3000.	J
6.	- -	UNKNOWN HYDROCARBON	16.12	2000.	J
7.	- -	UNKNOWN HYDROCARBON	16.78	6000.	J
8.	- -	UNKNOWN HYDROCARBON	19.92	3000.	J
9.	- -	UNKNOWN HYDROCARBON	20.88	3000.	J
10.	- -	UNKNOWN	25.62	3000.	J
11.	- -	UNKNOWN	28.53	1000.	J
12.	- -	UNKNOWN	29.12	2000.	J
13.	- -	UNKNOWN	29.83	2000.	J
14.	- -	UNKNOWN HYDROCARBON	13.78	2000.	J
15.	- -	UNKNOWN HYDROCARBON	16.70	5000.	J
16.	- -	UNKNOWN HYDROCARBON	17.82	3000.	J
17.	- -	UNKNOWN HYDROCARBON	17.93	4000.	J
18.	76-44-8	Heptachlor (ACN)	18.87	3000.	J
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1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EFA15

Lab Name: WADS Contract: 68-D9-0022

Lab Code: WADS Case No.: 12464 SAS No.: SDG No.: EFA12

Matrix: (soil/water) SOIL Lab Sample ID: 7470-26930

Sample wt/vol: 30. (g/mL) G Lab File ID: EFA15R1

Level: (low/med) LOW Date Received: 8/ 3/89

% Moisture: not dec. 59. dec. 0. Date Extracted: 8/11/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 8/15/89

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 2.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	1600.	U
111-44-4	bis(2-Chloroethyl)ether	1600.	U
95-57-8	2-Chlorophenol	1600.	U
541-73-1	1,3-Dichlorobenzene	1600.	U
106-46-7	1,4-Dichlorobenzene	1600.	U
100-51-6	Benzyl alcohol	1600.	U
95-50-1	1,2-Dichlorobenzene	1600.	U
95-48-7	2-Methylphenol	1600.	U
108-60-1	bis(2-Chloroisopropyl)ether	1600.	U
106-44-5	4-Methylphenol	1600.	U
621-64-7	N-Nitroso-di-n-propylamine	1600.	U
67-72-1	Hexachloroethane	1600.	U
98-95-3	Nitrobenzene	1600.	U
78-59-1	Isophorone	1600.	U
88-75-5	2-Nitrophenol	1600.	U
105-67-9	2,4-Dimethylphenol	1600.	U
65-85-0	Benzoic acid	8100.	U
111-91-1	bis(2-Chloroethoxy)methane	1600.	U
120-83-2	2,4-Dichlorophenol	1600.	U
120-82-1	1,2,4-Trichlorobenzene	1600.	U
91-20-3	Naphthalene	1600.	U
106-47-8	4-Chloroaniline	1600.	U
87-68-3	Hexachlorobutadiene	1600.	U
59-50-7	4-Chloro-3-methylphenol	1600.	U
91-57-6	2-Methylnaphthalene	1600.	U
77-47-4	Hexachlorocyclopentadiene	1600.	U
88-06-2	2,4,6-Trichlorophenol	1600.	U
95-95-4	2,4,5-Trichlorophenol	8100.	U
91-58-7	2-Chloronaphthalene	1600.	U
88-74-4	2-Nitroaniline	8100.	U
131-11-3	Dimethylphthalate	1600.	U
208-96-8	Acenaphthylene	1600.	U
606-20-2	2,6-Dinitrotoluene	1600.	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EFA15

Lab Name: WADS Contract: 68-D9-0022

Lab Code: WADS Case No.: 12464 SAS No.: SDG No.: EFA12

Matrix: (soil/water) SOIL Lab Sample ID: 7470-26930

Sample wt/vol: 30. (g/mL) G Lab File ID: EFA15R1

Level: (low/med) LOW Date Received: 8/ 3/89

% Moisture: not dec. 59. dec. 0. Date Extracted: 8/11/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 8/15/89

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 2.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	8100.	U
83-32-9	Acenaphthene	1600.	U
51-28-5	2,4-Dinitrophenol	8100.	U
100-02-7	4-Nitrophenol	8100.	U
132-64-9	Dibenzofuran	1600.	U
121-14-2	2,4-Dinitrotoluene	1600.	U
84-66-2	Diethylphthalate	1600.	U
7005-72-3	4-Chlorophenyl-phenylether	1600.	U
86-73-7	Fluorene	1600.	U
100-01-6	4-Nitroaniline	8100.	U
534-52-1	4,6-Dinitro-2-methylphenol	8100.	U
86-30-6	N-Nitrosodiphenylamine (1)	1600.	U
101-55-3	4-Bromophenyl-phenylether	1600.	U
118-74-1	Hexachlorobenzene	1600.	U
87-86-5	Pentachlorophenol	8100.	U
85-01-8	Phenanthrene	1600.	U
120-12-7	Anthracene	1600.	U
84-74-2	Di-n-butylphthalate	1600.	U
206-44-0	Fluoranthene	2700.	
129-00-0	Pyrene	3900.	
85-68-7	Butylbenzylphthalate	1600.	U
91-94-1	3,3'-Dichlorobenzidine	3300.	U
56-55-3	Benzo(a)anthracene	640.	J
218-01-9	Chrysene	830.	J
117-81-7	bis(2-Ethylhexyl)phthalate	5000.	
117-84-0	Di-n-octylphthalate	1600.	U
205-99-2	Benzo(b)fluoranthene	650.	J
207-08-9	Benzo(k)fluoranthene	250.	J
50-32-8	Benzo(a)pyrene	350.	J
193-39-5	Indeno(1,2,3-cd)pyrene	1600.	U
53-70-3	Dibenz(a,h)anthracene	1600.	U
191-24-2	Benzo(g,h,i)perylene	1600.	U

(1) - Cannot be separated from diphenylamine

1F

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EFA15

Lab Name: WADS Contract: 68-D9-0022

Lab Code: WADS Case No.: 12464 SAS No.: SDG No.: EFA12

Matrix: (soil/water) SOIL Lab Sample ID: 7470-26930

Sample wt/vol: 30. (g/mL) G Lab File ID: EFA15R1

Level: (low/med) LOW Date Received: 8/ 3/89

% Moisture: not dec. 59. dec. 0. Date Extracted: 8/11/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 8/15/89

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 2.00

Number TICs found: 7

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	123-42-2	2-Pentanone, 4-hydroxy-4-met	3.28	5000.	BJ A Dell 4 oct 8.
2.	- -	UNKNOWN	14.95	800.	J
3.	- -	UNKNOWN HYDROCARBON	16.78	2000.	J
4.	- -	UNKNOWN	28.55	2000.	J
5.	- -	UNKNOWN HYDROCARBON	17.95	3000.	J
6.	1861-32-1	DCPA (VAN)	19.93	3000.	J
7.	- -	UNKNOWN	29.13	2000.	J
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1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EFA16

Lab Name: WADS Contract: 68-D9-0022

Lab Code: WADS Case No.: 12464 SAS No.: SDG No.: EFA12

Matrix: (soil/water) SOIL Lab Sample ID: 7470-26931

Sample wt/vol: 30. (g/mL) G Lab File ID: EFA16R1

Level: (low/med) LOW Date Received: 8/ 3/89

% Moisture: not dec. 18. dec. 0. Date Extracted: 8/11/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 8/15/89

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 2.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	810.	U
111-44-4	bis(2-Chloroethyl)ether	810.	U
95-57-8	2-Chlorophenol	810.	U
541-73-1	1,3-Dichlorobenzene	810.	U
106-46-7	1,4-Dichlorobenzene	810.	U
100-51-6	Benzyl alcohol	810.	U
95-50-1	1,2-Dichlorobenzene	810.	U
95-48-7	2-Methylphenol	810.	U
108-60-1	bis(2-Chloroisopropyl)ether	810.	U
106-44-5	4-Methylphenol	810.	U
621-64-7	N-Nitroso-di-n-propylamine	810.	U
67-72-1	Hexachloroethane	810.	U
98-95-3	Nitrobenzene	810.	U
78-59-1	Isophorone	810.	U
88-75-5	2-Nitrophenol	810.	U
105-67-9	2,4-Dimethylphenol	810.	U
65-85-0	Benzoic acid	4100.	U
111-91-1	bis(2-Chloroethoxy)methane	810.	U
120-83-2	2,4-Dichlorophenol	810.	U
120-82-1	1,2,4-Trichlorobenzene	810.	U
91-20-3	Naphthalene	810.	U
106-47-8	4-Chloroaniline	810.	U
87-68-3	Hexachlorobutadiene	810.	U
59-50-7	4-Chloro-3-methylphenol	200.	J
91-57-6	2-Methylnaphthalene	810.	U
77-47-4	Hexachlorocyclopentadiene	810.	U
88-06-2	2,4,6-Trichlorophenol	810.	U
95-95-4	2,4,5-Trichlorophenol	4100.	U
91-58-7	2-Chloronaphthalene	810.	U
88-74-4	2-Nitroaniline	4100.	U
131-11-3	Dimethylphthalate	810.	U
208-96-8	Acenaphthylene	100.	J
606-20-2	2,6-Dinitrotoluene	810.	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EFA16

Lab Name: WADS Contract: 68-D9-0022

Lab Code: WADS Case No.: 12464 SAS No.: SDG No.: EFA12

Matrix: (soil/water) SOIL Lab Sample ID: 7470-26931

Sample wt/vol: 30. (g/mL) G Lab File ID: EFA16R1

Level: (low/med) LOW Date Received: 8/ 3/89

% Moisture: not dec. 18. dec. 0. Date Extracted: 8/11/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 8/15/89

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 2.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	4100.	U
83-32-9	Acenaphthene	87.	J
51-28-5	2,4-Dinitrophenol	4100.	U
100-02-7	4-Nitrophenol	4100.	U
132-64-9	Dibenzofuran	810.	U
121-14-2	2,4-Dinitrotoluene	810.	U
84-66-2	Diethylphthalate	810.	U
7005-72-3	4-Chlorophenyl-phenylether	810.	U
86-73-7	Fluorene	810.	U
100-01-6	4-Nitroaniline	4100.	U
534-52-1	4,6-Dinitro-2-methylphenol	4100.	U
86-30-6	N-Nitrosodiphenylamine (1)	810.	U
101-55-3	4-Bromophenyl-phenylether	810.	U
118-74-1	Hexachlorobenzene	240.	J
87-86-5	Pentachlorophenol	4100.	U
85-01-8	Phenanthrene	1100.	
120-12-7	Anthracene	260.	J
84-74-2	Di-n-butylphthalate	810.	U
206-44-0	Fluoranthene	1800.	
129-00-0	Pyrene	1900.	
85-68-7	Butylbenzylphthalate	810.	U
91-94-1	3,3'-Dichlorobenzidine	1600.	U
56-55-3	Benzo(a)anthracene	1100.	
218-01-9	Chrysene	990.	
117-81-7	bis(2-Ethylhexyl)phthalate	270.	J
117-84-0	Di-n-octylphthalate	810.	U
205-99-2	Benzo(b)fluoranthene	1200.	
207-08-9	Benzo(k)fluoranthene	800.	J
50-32-8	Benzo(a)pyrene	620.	J
193-39-5	Indeno(1,2,3-cd)pyrene	530.	J
53-70-3	Dibenz(a,h)anthracene	810.	U
191-24-2	Benzo(g,h,i)perylene	430.	J

(1) - Cannot be separated from diphenylamine

1F

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EFA16

Lab Name: WADS Contract: 68-D9-0022

Lab Code: WADS Case No.: 12464 SAS No.: SDG No.: EFA12

Matrix: (soil/water) SOIL Lab Sample ID: 7470-26931

Sample wt/vol: 30. (g/mL) G Lab File ID: EFA16R1

Level: (low/med) LOW Date Received: 8/ 3/89

% Moisture: not dec. 18. dec. 0. Date Extracted: 8/11/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 8/15/89

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 2.00

Number TICs found: 11

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	123-42-2	2-Pentanone, 4-hydroxy-4-met	3.30	2000.	BJ A
2.	- -	UNKNOWN HYDROCARBON	16.77	700.	J
3.	- -	UNKNOWN	18.68	500.	J
4.	- -	UNKNOWN	22.12	700.	J
5.	- -	UNKNOWN	25.60	600.	J
6.	- -	UNKNOWN	26.83	700.	J
7.	- -	UNKNOWN	28.53	500.	J
8.	- -	UNKNOWN HYDROCARBON	17.92	700.	J
9.	- -	UNKNOWN CARBOXYLIC ACID	19.55	2000.	J
10.	10544-50-0	Sulfur, mol. (S8)	20.17	1000.	J
11.	1861-32-1	DCPA (VAN)	19.90	1000.	J
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13.					
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EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EFA17

Lab Name: WADS Contract: 68-D9-0022

Lab Code: WADS Case No.: 12464 SAS No.: SDG No.: EFA12

Matrix: (soil/water) SOIL Lab Sample ID: 7470-26932

Sample wt/vol: 30. (g/mL) G Lab File ID: EFA17LOR1

Level: (low/med) LOW Date Received: 8/ 3/89

% Moisture: not dec. 48. dec. 0. Date Extracted: 8/11/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 8/18/89

GPC Cleanup: (Y/N) N pH: 5.0 Dilution Factor: 10.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	6400.	U
111-44-4	bis(2-Chloroethyl)ether	6400.	U
95-57-8	2-Chlorophenol	6400.	U
541-73-1	1,3-Dichlorobenzene	6400.	U
106-46-7	1,4-Dichlorobenzene	6400.	U
100-51-6	Benzyl alcohol	6400.	U
95-50-1	1,2-Dichlorobenzene	6400.	U
95-48-7	2-Methylphenol	6400.	U
108-60-1	bis(2-Chloroisopropyl)ether	6400.	U
106-44-5	4-Methylphenol	6400.	U
621-64-7	N-Nitroso-di-n-propylamine	6400.	U
67-72-1	Hexachloroethane	6400.	U
98-95-3	Nitrobenzene	6400.	U
78-59-1	Isophorone	6400.	U
88-75-5	2-Nitrophenol	6400.	U
105-67-9	2,4-Dimethylphenol	6400.	U
65-85-0	Benzoic acid	32000.	U
111-91-1	bis(2-Chloroethoxy)methane	6400.	U
120-83-2	2,4-Dichlorophenol	6400.	U
120-82-1	1,2,4-Trichlorobenzene	6400.	U
91-20-3	Naphthalene	6400.	U
106-47-8	4-Chloroaniline	6400.	U
87-68-3	Hexachlorobutadiene	6400.	U
59-50-7	4-Chloro-3-methylphenol	6400.	U
91-57-6	2-Methylnaphthalene	6400.	U
77-47-4	Hexachlorocyclopentadiene	6400.	U
88-06-2	2,4,6-Trichlorophenol	6400.	U
95-95-4	2,4,5-Trichlorophenol	32000.	U
91-58-7	2-Chloronaphthalene	6400.	U
88-74-4	2-Nitroaniline	32000.	U
131-11-3	Dimethylphthalate	6400.	U
208-96-8	Acenaphthylene	6400.	U
606-20-2	2,6-Dinitrotoluene	6400.	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EFA17

Lab Name: WADS Contract: 68-D9-0022

Lab Code: WADS Case No.: 12464 SAS No.: SDG No.: EFA12

Matrix: (soil/water) SOIL Lab Sample ID: 7470-26932

Sample wt/vol: 30. (g/mL) G Lab File ID: EFA17LOR1

Level: (low/med) LOW Date Received: 8/ 3/89

% Moisture: not dec. 48. dec. 0. Date Extracted: 8/11/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 8/18/89

GPC Cleanup: (Y/N) N pH: 5.0 Dilution Factor: 10.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	32000.	U
83-32-9	Acenaphthene	6400.	U
51-28-5	2,4-Dinitrophenol	32000.	U
100-02-7	4-Nitrophenol	32000.	U
132-64-9	Dibenzofuran	6400.	U
121-14-2	2,4-Dinitrotoluene	6400.	U
84-66-2	Diethylphthalate	6400.	U
7005-72-3	4-Chlorophenyl-phenylether	6400.	U
86-73-7	Fluorene	6400.	U
100-01-6	4-Nitroaniline	32000.	U
534-52-1	4,6-Dinitro-2-methylphenol	32000.	U
86-30-6	N-Nitrosodiphenylamine (1)	6400.	U
101-55-3	4-Bromophenyl-phenylether	6400.	U
118-74-1	Hexachlorobenzene	6400.	U
87-86-5	Pentachlorophenol	32000.	U
85-01-8	Phenanthrene	6400.	U
120-12-7	Anthracene	6400.	U
84-74-2	Di-n-butylphthalate	6400.	U
206-44-0	Fluoranthene	780.	J
129-00-0	Pyrene	870.	J
85-68-7	Butylbenzylphthalate	6400.	U
91-94-1	3,3'-Dichlorobenzidine	13000.	U
56-55-3	Benzo(a)anthracene	6400.	U
218-01-9	Chrysene	1700.	J
117-81-7	bis(2-Ethylhexyl)phthalate	6400.	U
117-84-0	Di-n-octylphthalate	6400.	U
205-99-2	Benzo(b)fluoranthene	6400.	U
207-08-9	Benzo(k)fluoranthene	1300.	J
50-32-8	Benzo(a)pyrene	840.	J
193-39-5	Indeno(1,2,3-cd)pyrene	6400.	U
53-70-3	Dibenz(a,h)anthracene	6400.	U
191-24-2	Benzo(g,h,i)perylene	6400.	U

(1) - Cannot be separated from diphenylamine

1F

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EFA17

Lab Name: WADS Contract: 68-D9-0022

Lab Code: WADS Case No.: 12464 SAS No.: SDG No.: EFA12

Matrix: (soil/water) SOIL Lab Sample ID: 7470-26932

Sample wt/vol: 30. (g/mL) G Lab File ID: EFA17LOR1

Level: (low/med) LOW Date Received: 8/ 3/89

% Moisture: not dec. 48. dec. 0. Date Extracted: 8/11/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 8/18/89

GPC Cleanup: (Y/N) N pH: 5.0 Dilution Factor: 10.00

Number TICs found: 13

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. - -	UNKNOWN HYDROCARBON	12.13	4000.	J
2. - -	UNKNOWN HYDROCARBON	12.18	3000.	J
3. - -	UNKNOWN HYDROCARBON	12.23	3000.	J
4. - -	UNKNOWN HYDROCARBON	12.72	4000.	J
5. - -	UNKNOWN	21.23	30000.	J
6. - -	UNKNOWN	21.45	10000.	J
7. - -	UNKNOWN	21.58	9000.	J
8. - -	UNKNOWN	21.63	9000.	J
9. - -	UNKNOWN	22.03	20000.	J
10. - -	UNKNOWN	21.88	10000.	J
11. - -	UNKNOWN	26.47	10000.	J
12. - -	UNKNOWN	27.82	20000.	J
13. - -	UNKNOWN	28.73	8000.	J
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EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EFA18

Lab Name: WADS Contract: 68-D9-0022

Lab Code: WADS Case No.: 12464 SAS No.: SDG No.: EFA12

Matrix: (soil/water) SOIL Lab Sample ID: 7470-26933

Sample wt/vol: 30. (g/mL) G Lab File ID: EFA18

Level: (low/med) LOW Date Received: 8/ 3/89

% Moisture: not dec. 58. dec. 0. Date Extracted: 8/11/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 8/17/89

GPC Cleanup: (Y/N) N pH: 6.0 Dilution Factor: 5.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	4000.	U
111-44-4	bis(2-Chloroethyl)ether	4000.	U
95-57-8	2-Chlorophenol	4000.	U
541-73-1	1,3-Dichlorobenzene	4000.	U
106-46-7	1,4-Dichlorobenzene	4000.	U
100-51-6	Benzyl alcohol	4000.	U
95-50-1	1,2-Dichlorobenzene	4000.	U
95-48-7	2-Methylphenol	4000.	U
108-60-1	bis(2-Chloroisopropyl)ether	4000.	U
106-44-5	4-Methylphenol	4000.	U
621-64-7	N-Nitroso-di-n-propylamine	4000.	U
67-72-1	Hexachloroethane	4000.	U
98-95-3	Nitrobenzene	4000.	U
78-59-1	Isophorone	4000.	U
88-75-5	2-Nitrophenol	4000.	U
105-67-9	2,4-Dimethylphenol	4000.	U
65-85-0	Benzoic acid	20000.	U
111-91-1	bis(2-Chloroethoxy)methane	4000.	U
120-83-2	2,4-Dichlorophenol	4000.	U
120-82-1	1,2,4-Trichlorobenzene	4000.	U
91-20-3	Naphthalene	4000.	U
106-47-8	4-Chloroaniline	4000.	U
87-68-3	Hexachlorobutadiene	4000.	U
59-50-7	4-Chloro-3-methylphenol	4000.	U
91-57-6	2-Methylnaphthalene	4000.	U
77-47-4	Hexachlorocyclopentadiene	4000.	U
88-06-2	2,4,6-Trichlorophenol	4000.	U
95-95-4	2,4,5-Trichlorophenol	20000.	U
91-58-7	2-Chloronaphthalene	4000.	U
88-74-4	2-Nitroaniline	20000.	U
131-11-3	Dimethylphthalate	4000.	U
208-96-8	Acenaphthylene	4000.	U
606-20-2	2,6-Dinitrotoluene	4000.	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EFA18

Lab Name: WADS Contract: 68-D9-0022

Lab Code: WADS Case No.: 12464 SAS No.: SDG No.: EFA12

Matrix: (soil/water) SOIL Lab Sample ID: 7470-26933

Sample wt/vol: 30. (g/mL) G Lab File ID: EFA18

Level: (low/med) LOW Date Received: 8/ 3/89

% Moisture: not dec. 58. dec. 0. Date Extracted: 8/11/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 8/17/89

GPC Cleanup: (Y/N) N pH: 6.0 Dilution Factor: 5.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	20000.	U
83-32-9	Acenaphthene	4000.	U
51-28-5	2,4-Dinitrophenol	20000.	U
100-02-7	4-Nitrophenol	20000.	U
132-64-9	Dibenzofuran	4000.	U
121-14-2	2,4-Dinitrotoluene	4000.	U
84-66-2	Diethylphthalate	4000.	U
7005-72-3	4-Chlorophenyl-phenylether	4000.	U
86-73-7	Fluorene	4000.	U
100-01-6	4-Nitroaniline	20000.	U
534-52-1	4,6-Dinitro-2-methylphenol	20000.	U
86-30-6	N-Nitrosodiphenylamine (1)	4000.	U
101-55-3	4-Bromophenyl-phenylether	4000.	U
118-74-1	Hexachlorobenzene	4000.	U
87-86-5	Pentachlorophenol	20000.	U
85-01-8	Phenanthrene	670.	J
120-12-7	Anthracene	4000.	U
84-74-2	Di-n-butylphthalate	4000.	U
206-44-0	Fluoranthene	2000.	J
129-00-0	Pyrene	2600.	J
85-68-7	Butylbenzylphthalate	4000.	U
91-94-1	3,3'-Dichlorobenzidine	7900.	U
56-55-3	Benzo(a)anthracene	1700.	J
218-01-9	Chrysene	2600.	J
117-81-7	bis(2-Ethylhexyl)phthalate	3400.	J
117-84-0	Di-n-octylphthalate	4000.	U
205-99-2	Benzo(b)fluoranthene	5300.	
207-08-9	Benzo(k)fluoranthene	4000.	U
50-32-8	Benzo(a)pyrene	2100.	J
193-39-5	Indeno(1,2,3-cd)pyrene	1800.	J
53-70-3	Dibenz(a,h)anthracene	4000.	U
191-24-2	Benzo(g,h,i)perylene	1800.	J

(1) - Cannot be separated from diphenylamine

00658

1F

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EFA18

Lab Name: WADS Contract: 68-D9-0022

Lab Code: WADS Case No.: 12464 SAS No.: SDG No.: EFA12

Matrix: (soil/water) SOIL Lab Sample ID: 7470-26933

Sample wt/vol: 30. (g/mL) G Lab File ID: EFA18

Level: (low/med) LOW Date Received: 8/ 3/89

% Moisture: not dec. 58. dec. 0. Date Extracted: 8/11/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 8/17/89

GPC Cleanup: (Y/N) N pH: 6.0 Dilution Factor: 5.00

Number TICs found: 20

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	123-42-2	2-Pentanone, 4-hydroxy-4-met	3.10	5000.	~~B~~ J DEH 4 October 89
2.	- -	UNKNOWN HYDROCARBON	13.62	2000.	J
3.	4537-15-9	Benzene, (1-butylheptyl)-	15.77	2000.	J
4.	- -	UNKNOWN HYDROCARBON	15.93	4000.	J
5.	- -	UNKNOWN HYDROCARBON	16.53	4000.	J
6.	- -	UNKNOWN HYDROCARBON	16.60	10000.	J
7.	2719-63-3	Benzene, (1-butyloctyl)-	16.92	3000.	J
8.	2719-64-4	Benzene, (1-propylnonyl)-	17.05	2000.	J
9.	- -	UNKNOWN	25.43	10000.	J
10.	- -	UNKNOWN	26.65	4000.	J
11.	- -	UNKNOWN	26.70	10000.	J
12.	- -	UNKNOWN	28.32	8000.	J
13.	- -	UNKNOWN	28.90	10000.	J
14.	2719-62-2	Benzene, (1-pentylheptyl)-	16.85	3000.	J
15.	- -	UNKNOWN HYDROCARBON	17.77	8000.	J
16.	4534-50-3	Benzene, (1-butylnonyl)-	18.02	2000.	J
17.	4534-51-4	Benzene, (1-propyldecyl)-	18.15	2000.	J
18.	- -	UNKNOWN	18.52	2000.	J
19.	- -	UNKNOWN HYDROCARBON	18.72	2000.	J
20.	- -	UNKNOWN	19.40	2000.	J
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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EFA19

Lab Name: WADS Contract: 68-D9-0022

Lab Code: WADS Case No.: 12464 SAS No.: SDG No.: EFA12

Matrix: (soil/water) SOIL Lab Sample ID: 7470-26934

Sample wt/vol: 1. (g/mL) G Lab File ID: EFA19

Level: (low/med) MED Date Received: 8/ 3/89

% Moisture: not dec. 47. dec. 0. Date Extracted: 8/ 9/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 8/10/89

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	38000.	U
111-44-4	bis(2-Chloroethyl)ether	38000.	U
95-57-8	2-Chlorophenol	38000.	U
541-73-1	1,3-Dichlorobenzene	38000.	U
106-46-7	1,4-Dichlorobenzene	38000.	U
100-51-6	Benzyl alcohol	38000.	U
95-50-1	1,2-Dichlorobenzene	38000.	U
95-48-7	2-Methylphenol	38000.	U
108-60-1	bis(2-Chloroisopropyl)ether	38000.	U
106-44-5	4-Methylphenol	38000.	U
621-64-7	N-Nitroso-di-n-propylamine	38000.	U
67-72-1	Hexachloroethane	38000.	U
98-95-3	Nitrobenzene	38000.	U
78-59-1	Isophorone	38000.	U
88-75-5	2-Nitrophenol	38000.	U
105-67-9	2,4-Dimethylphenol	38000.	U
65-85-0	Benzoic acid	190000.	U
111-91-1	bis(2-Chloroethoxy)methane	38000.	U
120-83-2	2,4-Dichlorophenol	38000.	U
120-82-1	1,2,4-Trichlorobenzene	38000.	U
91-20-3	Naphthalene	38000.	U
106-47-8	4-Chloroaniline	38000.	U
87-68-3	Hexachlorobutadiene	38000.	U
59-50-7	4-Chloro-3-methylphenol	38000.	U
91-57-6	2-Methylnaphthalene	13000.	J
77-47-4	Hexachlorocyclopentadiene	38000.	U
88-06-2	2,4,6-Trichlorophenol	38000.	U
95-95-4	2,4,5-Trichlorophenol	190000.	U
91-58-7	2-Chloronaphthalene	38000.	U
88-74-4	2-Nitroaniline	190000.	U
131-11-3	Dimethylphthalate	38000.	U
208-96-8	Acenaphthylene	38000.	U
606-20-2	2,6-Dinitrotoluene	38000.	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EFA19

Lab Name: WADS Contract: 68-D9-0022

Lab Code: WADS Case No.: 12464 SAS No.: SDG No.: EFA12

Matrix: (soil/water) SOIL Lab Sample ID: 7470-26934

Sample wt/vol: 1. (g/mL) G Lab File ID: EFA19

Level: (low/med) MED Date Received: 8/ 3/89

% Moisture: not dec. 47. dec. 0. Date Extracted: 8/ 9/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 8/10/89

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	190000.	U
83-32-9	Acenaphthene	38000.	U
51-28-5	2,4-Dinitrophenol	190000.	U
100-02-7	4-Nitrophenol	190000.	U
132-64-9	Dibenzofuran	38000.	U
121-14-2	2,4-Dinitrotoluene	38000.	U
84-66-2	Diethylphthalate	38000.	U
7005-72-3	4-Chlorophenyl-phenylether	38000.	U
86-73-7	Fluorene	3700.	J
100-01-6	4-Nitroaniline	190000.	U
534-52-1	4,6-Dinitro-2-methylphenol	190000.	U
86-30-6	N-Nitrosodiphenylamine (1)	38000.	U
101-55-3	4-Bromophenyl-phenylether	38000.	U
118-74-1	Hexachlorobenzene	38000.	U
87-86-5	Pentachlorophenol	190000.	U
85-01-8	Phenanthrene	14000.	J
120-12-7	Anthracene	38000.	U
84-74-2	Di-n-butylphthalate	38000.	U
206-44-0	Fluoranthene	38000.	U
129-00-0	Pyrene	38000.	U
85-68-7	Butylbenzylphthalate	38000.	U
91-94-1	3,3'-Dichlorobenzidine	75000.	U
56-55-3	Benzo(a)anthracene	38000.	U
218-01-9	Chrysene	38000.	U
117-81-7	bis(2-Ethylhexyl)phthalate	38000.	U
117-84-0	Di-n-octylphthalate	38000.	U
205-99-2	Benzo(b)fluoranthene	38000.	U
207-08-9	Benzo(k)fluoranthene	38000.	U
50-32-8	Benzo(a)pyrene	38000.	U
193-39-5	Indeno(1,2,3-cd)pyrene	38000.	U
53-70-3	Dibenz(a,h)anthracene	38000.	U
191-24-2	Benzo(g,h,i)perylene	38000.	U

(1) - Cannot be separated from diphenylamine

1F

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EFA19

Lab Name: WADS Contract: 68-D9-0022

Lab Code: WADS Case No.: 12464 SAS No.: SDG No.: EFA12

Matrix: (soil/water) SOIL Lab Sample ID: 7470-26934

Sample wt/vol: 1. (g/mL) G Lab File ID: EFA19

Level: (low/med) MED Date Received: 8/ 3/89

% Moisture: not dec. 47. dec. 0. Date Extracted: 8/ 9/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 8/10/89

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.00

Number TICs found: 17

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. - -	UNKNOWN HYDROCARBON	13.20	200000.	J
2. - -	UNKNOWN HYDROCARBON	14.52	200000.	J
3. - -	UNKNOWN HYDROCARBON	15.65	20000.	J
4. - -	UNKNOWN HYDROCARBON	16.35	200000.	J
5. - -	UNKNOWN HYDROCARBON	16.95	200000.	J
6. - -	UNKNOWN HYDROCARBON	17.02	400000.	J
7. - -	UNKNOWN HYDROCARBON	18.05	90000.	J
8. - -	UNKNOWN HYDROCARBON	18.17	200000.	J
9. - -	UNKNOWN HYDROCARBON	19.03	40000.	J
10. - -	UNKNOWN HYDROCARBON	19.12	70000.	J
11. 17302-32-8	Nonane, 3,7-dimethyl-	11.78	50000.	J
12. - -	UNKNOWN HYDROCARBON	14.03	90000.	J
13. - -	UNKNOWN HYDROCARBON	15.77	200000.	J
14. - -	UNKNOWN HYDROCARBON	20.12	30000.	J
15. - -	UNKNOWN HYDROCARBON	12.88	50000.	J
16. - -	Dimethylnaphthalene isomer	13.40	60000.	J
17. 13151-34-3	Decane, 3-methyl-	10.28	40000.	J
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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EFA20

Lab Name: WADS Contract: 68-D9-0022

Lab Code: WADS Case No.: 12464 SAS No.: SDG No.: EFA12

Matrix: (soil/water) SOIL Lab Sample ID: 7470-26935

Sample wt/vol: 30. (g/mL) G Lab File ID: EFA20R1

Level: (low/med) LOW Date Received: 8/ 3/89

% Moisture: not dec. 30. dec. 0. Date Extracted: 8/11/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 8/15/89

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	480.	U
111-44-4	bis(2-Chloroethyl)ether	480.	U
95-57-8	2-Chlorophenol	480.	U
541-73-1	1,3-Dichlorobenzene	480.	U
106-46-7	1,4-Dichlorobenzene	480.	U
100-51-6	Benzyl alcohol	480.	U
95-50-1	1,2-Dichlorobenzene	480.	U
95-48-7	2-Methylphenol	480.	U
108-60-1	bis(2-Chloroisopropyl)ether	480.	U
106-44-5	4-Methylphenol	480.	U
621-64-7	N-Nitroso-di-n-propylamine	480.	U
67-72-1	Hexachloroethane	480.	U
98-95-3	Nitrobenzene	480.	U
78-59-1	Isophorone	480.	U
88-75-5	2-Nitrophenol	480.	U
105-67-9	2,4-Dimethylphenol	480.	U
65-85-0	Benzoic acid	2400.	U
111-91-1	bis(2-Chloroethoxy)methane	480.	U
120-83-2	2,4-Dichlorophenol	480.	U
120-82-1	1,2,4-Trichlorobenzene	480.	U
91-20-3	Naphthalene	130.	J
106-47-8	4-Chloroaniline	480.	U
87-68-3	Hexachlorobutadiene	480.	U
59-50-7	4-Chloro-3-methylphenol	480.	U
91-57-6	2-Methylnaphthalene	290.	J
77-47-4	Hexachlorocyclopentadiene	480.	U
88-06-2	2,4,6-Trichlorophenol	480.	U
95-95-4	2,4,5-Trichlorophenol	2400.	U
91-58-7	2-Chloronaphthalene	480.	U
88-74-4	2-Nitroaniline	2400.	U
131-11-3	Dimethylphthalate	480.	U
208-96-8	Acenaphthylene	480.	U
606-20-2	2,6-Dinitrotoluene	480.	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EFA20

Lab Name: WADS Contract: 68-D9-0022

Lab Code: WADS Case No.: 12464 SAS No.: SDG No.: EFA12

Matrix: (soil/water) SOIL Lab Sample ID: 7470-26935

Sample wt/vol: 30. (g/mL) G Lab File ID: EFA20R1

Level: (low/med) LOW Date Received: 8/ 3/89

% Moisture: not dec. 30. dec. 0. Date Extracted: 8/11/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 8/15/89

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	2400.	U
83-32-9	Acenaphthene	170.	J
51-28-5	2,4-Dinitrophenol	2400.	U
100-02-7	4-Nitrophenol	2400.	U
132-64-9	Dibenzofuran	230.	J
121-14-2	2,4-Dinitrotoluene	480.	U
84-66-2	Diethylphthalate	480.	U
7005-72-3	4-Chlorophenyl-phenylether	480.	U
86-73-7	Fluorene	240.	J
100-01-6	4-Nitroaniline	2400.	U
534-52-1	4,6-Dinitro-2-methylphenol	2400.	U
86-30-6	N-Nitrosodiphenylamine (1)	480.	U
101-55-3	4-Bromophenyl-phenylether	480.	U
118-74-1	Hexachlorobenzene	480.	U
87-86-5	Pentachlorophenol	2400.	U
85-01-8	Phenanthrene	3600.	
120-12-7	Anthracene	630.	
84-74-2	Di-n-butylphthalate	480.	U
206-44-0	Fluoranthene	3800.	
129-00-0	Pyrene	3400.	
85-68-7	Butylbenzylphthalate	480.	U
91-94-1	3,3'-Dichlorobenzidine	950.	U
56-55-3	Benzo(a)anthracene	1700.	
218-01-9	Chrysene	1600.	
117-81-7	bis(2-Ethylhexyl)phthalate	4300	
117-84-0	Di-n-octylphthalate	480.	U
205-99-2	Benzo(b)fluoranthene	1800.	
207-08-9	Benzo(k)fluoranthene	1200.	
50-32-8	Benzo(a)pyrene	1200.	
193-39-5	Indeno(1,2,3-cd)pyrene	840.	
53-70-3	Dibenz(a,h)anthracene	190.	J
191-24-2	Benzo(g,h,i)perylene	800.	

(1) - Cannot be separated from diphenylamine

00771

1F

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EFA20

Lab Name: WADS Contract: 68-D9-0022

Lab Code: WADS Case No.: 12464 SAS No.: SDG No.: EFA12

Matrix: (soil/water) SOIL Lab Sample ID: 7470-26935

Sample wt/vol: 30. (g/mL) G Lab File ID: EFA20R1

Level: (low/med) LOW Date Received: 8/ 3/89

% Moisture: not dec. 30. dec. 0. Date Extracted: 8/11/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 8/15/89

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.00

Number TICs found: 12

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	123-42-2	2-Pentanone, 4-hydroxy-4-met	3.35	3000.	~~B~~J A DEH 4 Oct 89
2.	- -	UNKNOWN	11.57	400.	J
3.	90-12-0	Naphthalene, 1-methyl-	11.62	200.	J
4.	- -	UNKNOWN	12.95	300.	J
5.	575-41-7	Naphthalene, 1,3-dimethyl-	13.15	300.	J
6.	573-98-8	Naphthalene, 1,2-dimethyl-	13.40	200.	J
7.	- -	UNKNOWN HYDROCARBON	16.77	600.	J
8.	- -	UNKNOWN HYDROCARBON	14.27	200.	J
9.	- -	UNKNOWN	17.03	200.	J
10.	- -	UNKNOWN	19.57	1000.	J
11.	10544-50-0	Sulfur, mol. (S8)	20.20	4000.	J
12.	205-82-3	Benzo[j]fluoranthene	27.00	1000.	J
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1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EFA21

Lab Name: WADS Contract: 68-D9-0022

Lab Code: WADS Case No.: 12464 SAS No.: SDG No.: EFA12

Matrix: (soil/water) SOIL Lab Sample ID: 7470-26936

Sample wt/vol: 30. (g/mL) G Lab File ID: EFA21

Level: (low/med) LOW Date Received: 8/ 3/89

% Moisture: not dec. 43. dec. 0. Date Extracted: 8/11/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 8/15/89

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 2.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	1200.	U
111-44-4	bis(2-Chloroethyl)ether	1200.	U
95-57-8	2-Chlorophenol	1200.	U
541-73-1	1,3-Dichlorobenzene	1200.	U
106-46-7	1,4-Dichlorobenzene	1200.	U
100-51-6	Benzyl alcohol	1200.	U
95-50-1	1,2-Dichlorobenzene	1200.	U
95-48-7	2-Methylphenol	1200.	U
108-60-1	bis(2-Chloroisopropyl)ether	1200.	U
106-44-5	4-Methylphenol	1200.	U
621-64-7	N-Nitroso-di-n-propylamine	1200.	U
67-72-1	Hexachloroethane	1200.	U
98-95-3	Nitrobenzene	1200.	U
78-59-1	Isophorone	1200.	U
88-75-5	2-Nitrophenol	1200.	U
105-67-9	2,4-Dimethylphenol	1200.	U
65-85-0	Benzoic acid	5800.	U
111-91-1	bis(2-Chloroethoxy)methane	1200.	U
120-83-2	2,4-Dichlorophenol	1300.	
120-82-1	1,2,4-Trichlorobenzene	1200.	U
91-20-3	Naphthalene	360.	J
106-47-8	4-Chloroaniline	1200.	U
87-68-3	Hexachlorobutadiene	1200.	U
59-50-7	4-Chloro-3-methylphenol	1200.	U
91-57-6	2-Methylnaphthalene	870.	J
77-47-4	Hexachlorocyclopentadiene	1200.	U
88-06-2	2,4,6-Trichlorophenol	1200.	U
95-95-4	2,4,5-Trichlorophenol	5800.	U
91-58-7	2-Chloronaphthalene	1200.	U
88-74-4	2-Nitroaniline	5800.	U
131-11-3	Dimethylphthalate	1200.	U
208-96-8	Acenaphthylene	1200.	U
606-20-2	2,6-Dinitrotoluene	1200.	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EFA21

Lab Name: WADS Contract: 68-D9-0022

Lab Code: WADS Case No.: 12464 SAS No.: SDG No.: EFA12

Matrix: (soil/water) SOIL Lab Sample ID: 7470-26936

Sample wt/vol: 30. (g/mL) G Lab File ID: EFA21

Level: (low/med) LOW Date Received: 8/ 3/89

% Moisture: not dec. 43. dec. 0. Date Extracted: 8/11/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 8/15/89

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 2.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	G
99-09-2	3-Nitroaniline	5800.	U
83-32-9	Acenaphthene	210.	J
51-28-5	2,4-Dinitrophenol	5800.	U
100-02-7	4-Nitrophenol	5800.	U
132-64-9	Dibenzofuran	270.	J
121-14-2	2,4-Dinitrotoluene	1200.	U
84-66-2	Diethylphthalate	1200.	U
7005-72-3	4-Chlorophenyl-phenylether	1200.	U
86-73-7	Fluorene	270.	J
100-01-6	4-Nitroaniline	5800.	U
534-52-1	4,6-Dinitro-2-methylphenol	5800.	U
86-30-6	N-Nitrosodiphenylamine (1)	1200.	U
101-55-3	4-Bromophenyl-phenylether	1200.	U
118-74-1	Hexachlorobenzene	1200.	U
87-86-5	Pentachlorophenol	5800.	U
85-01-8	Phenanthrene	4300.	
120-12-7	Anthracene	520.	J
84-74-2	Di-n-butylphthalate	170.	J
206-44-0	Fluoranthene	5200.	
129-00-0	Pyrene	4000.	
85-68-7	Butylbenzylphthalate	1200.	U
91-94-1	3,3'-Dichlorobenzidine	2300.	U
56-55-3	Benzo(a)anthracene	1800.	
218-01-9	Chrysene	1800.	
117-81-7	bis(2-Ethylhexyl)phthalate	1600.	
117-84-0	Di-n-octylphthalate	1200.	U
205-99-2	Benzo(b)fluoranthene	1700.	
207-08-9	Benzo(k)fluoranthene	530.	J
50-32-8	Benzo(a)pyrene	630.	J
193-39-5	Indeno(1,2,3-cd)pyrene	430.	J
53-70-3	Dibenz(a,h)anthracene	1200.	U
191-24-2	Benzo(g,h,i)perylene	440.	J

(1) - Cannot be separated from diphenylamine

1F

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EFA21

Lab Name: WADS Contract: 68-D9-0022

Lab Code: WADS Case No.: 12464 SAS No.: SDG No.: EFA12

Matrix: (soil/water) SOIL Lab Sample ID: 7470-26936

Sample wt/vol: 30. (g/mL) G Lab File ID: EFA21

Level: (low/med) LOW Date Received: 8/ 3/89

% Moisture: not dec. 43. dec. 0. Date Extracted: 8/11/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 8/15/89

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 2.00

Number TICs found: 21

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q	
1.	123-42-2	2-Pentanone, 4-hydroxy-4-met	3.30	3000.	~~B~~ J	A DEB 4 Oct 89
2.	124-18-5	Decane	8.43	1000.	J	
3.	1120-21-4	Undecane	10.07	1000.	J	
4.	17302-32-8	Nonane, 3,7-dimethyl-	11.58	3000.	J	
5.	62238-11-3	Decane, 2,3,5-trimethyl-	12.97	4000.	J	
6.	544-76-3	Hexadecane	14.28	6000.	J	
7.	- -	UNKNOWN HYDROCARBON	15.52	4000.	J	
8.	- -	UNKNOWN HYDROCARBON	16.78	2000.	J	
9.	- -	UNKNOWN HYDROCARBON	17.93	3000.	J	
10.	- -	UNKNOWN HYDROCARBON	19.93	2000.	J	
11.	- -	UNKNOWN HYDROCARBON	24.38	1000.	J	
12.	- -	UNKNOWN	25.62	2000.	J	
13.	- -	UNKNOWN	30.55	5000.	J	
14.	- -	UNKNOWN HYDROCARBON	16.70	3000.	J	
15.	- -	UNKNOWN HYDROCARBON	17.83	3000.	J	
16.	- -	UNKNOWN HYDROCARBON	18.82	900.	J	
17.	- -	UNKNOWN HYDROCARBON	18.90	7000.	J	
18.	10544-50-0	Sulfur, mol. (S8)	20.25	4000.	J	
19.	- -	UNKNOWN HYDROCARBON	20.90	1000.	J	
20.	- -	UNKNOWN HYDROCARBON	22.15	3000.	J	
21.	- -	UNKNOWN HYDROCARBON	23.57	600.	J	
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EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EFA22

Lab Name: WADS Contract: 68-D9-0022

Lab Code: WADS Case No.: 12464 SAS No.: SDG No.: EFA12

Matrix: (soil/water) SOIL Lab Sample ID: 7470-26937

Sample wt/vol: 30. (g/mL) G Lab File ID: EFA22

Level: (low/med) LOW Date Received: 8/ 3/89

% Moisture: not dec. 36. dec. 0. Date Extracted: 8/11/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 8/14/89

GPC Cleanup: (Y/N) N pH: 8.0 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	520.	U
111-44-4	bis(2-Chloroethyl)ether	520.	U
95-57-8	2-Chlorophenol	520.	U
541-73-1	1,3-Dichlorobenzene	520.	U
106-46-7	1,4-Dichlorobenzene	520.	U
100-51-6	Benzyl alcohol	520.	U
95-50-1	1,2-Dichlorobenzene	520.	U
95-48-7	2-Methylphenol	520.	U
108-60-1	bis(2-Chloroisopropyl)ether	520.	U
106-44-5	4-Methylphenol	520.	U
621-64-7	N-Nitroso-di-n-propylamine	520.	U
67-72-1	Hexachloroethane	520.	U
98-95-3	Nitrobenzene	520.	U
78-59-1	Isophorone	520.	U
88-75-5	2-Nitrophenol	520.	U
105-67-9	2,4-Dimethylphenol	520.	U
65-85-0	Benzoic acid	2600.	U
111-91-1	bis(2-Chloroethoxy)methane	520.	U
120-83-2	2,4-Dichlorophenol	520.	U
120-82-1	1,2,4-Trichlorobenzene	520.	U
91-20-3	Naphthalene	170.	J
106-47-8	4-Chloroaniline	520.	U
87-68-3	Hexachlorobutadiene	520.	U
59-50-7	4-Chloro-3-methylphenol	520.	U
91-57-6	2-Methylnaphthalene	110.	J
77-47-4	Hexachlorocyclopentadiene	520.	U
88-06-2	2,4,6-Trichlorophenol	520.	U
95-95-4	2,4,5-Trichlorophenol	2600.	U
91-58-7	2-Chloronaphthalene	520.	U
88-74-4	2-Nitroaniline	2600.	U
131-11-3	Dimethylphthalate	520.	U
208-96-8	Acenaphthylene	520.	U
606-20-2	2,6-Dinitrotoluene	520.	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EFA22

Lab Name: WADS Contract: 68-D9-0022

Lab Code: WADS Case No.: 12464 SAS No.: SDG No.: EFA12

Matrix: (soil/water) SOIL Lab Sample ID: 7470-26937

Sample wt/vol: 30. (g/mL) G Lab File ID: EFA22

Level: (low/med) LOW Date Received: 8/ 3/89

% Moisture: not dec. 36. dec. 0. Date Extracted: 8/11/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 8/14/89

GPC Cleanup: (Y/N) N pH: 8.0 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	2600.	U
83-32-9	Acenaphthene	100.	J
51-28-5	2,4-Dinitrophenol	2600.	U
100-02-7	4-Nitrophenol	2600.	U
132-64-9	Dibenzofuran	110.	J
121-14-2	2,4-Dinitrotoluene	520.	U
84-66-2	Diethylphthalate	450.	J
7005-72-3	4-Chlorophenyl-phenylether	520.	U
86-73-7	Fluorene	160.	J
100-01-6	4-Nitroaniline	2600.	U
534-52-1	4,6-Dinitro-2-methylphenol	2600.	U
86-30-6	N-Nitrosodiphenylamine (1)	520.	U
101-55-3	4-Bromophenyl-phenylether	520.	U
118-74-1	Hexachlorobenzene	520.	U
87-86-5	Pentachlorophenol	2600.	U
85-01-8	Phenanthrene	1300.	
120-12-7	Anthracene	250.	J
84-74-2	Di-n-butylphthalate	520.	U
206-44-0	Fluoranthene	1900.	
129-00-0	Pyrene	2000.	
85-68-7	Butylbenzylphthalate	230.	J
91-94-1	3,3'-Dichlorobenzidine	1000.	U
56-55-3	Benzo(a)anthracene	950.	
218-01-9	Chrysene	1100.	
117-81-7	bis(2-Ethylhexyl)phthalate	2500.	
117-84-0	Di-n-octylphthalate	520.	U
205-99-2	Benzo(b)fluoranthene	1200.	
207-08-9	Benzo(k)fluoranthene	850.	
50-32-8	Benzo(a)pyrene	990.	
193-39-5	Indeno(1,2,3-cd)pyrene	760.	
53-70-3	Dibenz(a,h)anthracene	130.	J
191-24-2	Benzo(g,h,i)perylene	720.	

(1) - Cannot be separated from diphenylamine

1F

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EFA22

Lab Name: WADS Contract: 68-D9-0022

Lab Code: WADS Case No.: 12464 SAS No.: SDG No.: EFA12

Matrix: (soil/water) SOIL Lab Sample ID: 7470-26937

Sample wt/vol: 30. (g/mL) G Lab File ID: EFA22

Level: (low/med) LOW Date Received: 8/ 3/89

% Moisture: not dec. 36. dec. 0. Date Extracted: 8/11/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 8/14/89

GPC Cleanup: (Y/N) N pH: 8.0 Dilution Factor: 1.00

Number TICs found: 13

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	- -	UNKNOWN HYDROCARBON	16.90	400.	J
2.	- -	UNKNOWN	16.97	500.	J
3.	- -	UNKNOWN CARBOXYLIC ACID	19.73	500.	J
4.	- -	UNKNOWN HYDROCARBON	20.10	300.	J
5.	10544-50-0	Sulfur, mol. (S8)	20.42	4000.	J
6.	- -	UNKNOWN	23.90	500.	J
7.	123-42-2	2-Pentanone, 4-hydroxy-4-met	3.65	2000.	~~B~~J A [illegible]
8.	- -	UNKNOWN HYDROCARBON	18.05	300.	J
9.	- -	UNKNOWN HYDROCARBON	18.12	300.	J
10.	- -	UNKNOWN HYDROCARBON	19.08	300.	J
11.	205-82-3	Benzo[j]fluoranthene	27.25	1000.	J
12.	- -	UNKNOWN	29.42	500.	J
13.	- -	UNKNOWN	30.48	500.	J
14.					
15.					
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1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EFA23

Lab Name: WADS Contract: 68-D9-0022

Lab Code: WADS Case No.: 12464 SAS No.: SDG No.: EFA12

Matrix: (soil/water) SOIL Lab Sample ID: 7470-26938

Sample wt/vol: 30. (g/mL) G Lab File ID: EFA23

Level: (low/med) LOW Date Received: 8/ 3/89

% Moisture: not dec. 17. dec. 0. Date Extracted: 8/11/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 8/14/89

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	400.	U
111-44-4	bis(2-Chloroethyl)ether	400.	U
95-57-8	2-Chlorophenol	400.	U
541-73-1	1,3-Dichlorobenzene	400.	U
106-46-7	1,4-Dichlorobenzene	400.	U
100-51-6	Benzyl alcohol	400.	U
95-50-1	1,2-Dichlorobenzene	400.	U
95-48-7	2-Methylphenol	400.	U
108-60-1	bis(2-Chloroisopropyl)ether	400.	U
106-44-5	4-Methylphenol	400.	U
621-64-7	N-Nitroso-di-n-propylamine	400.	U
67-72-1	Hexachloroethane	400.	U
98-95-3	Nitrobenzene	400.	U
78-59-1	Isophorone	400.	U
88-75-5	2-Nitrophenol	400.	U
105-67-9	2,4-Dimethylphenol	400.	U
65-85-0	Benzoic acid	2000.	U
111-91-1	bis(2-Chloroethoxy)methane	400.	U
120-83-2	2,4-Dichlorophenol	400.	U
120-82-1	1,2,4-Trichlorobenzene	400.	U
91-20-3	Naphthalene	40.	J
106-47-8	4-Chloroaniline	400.	U
87-68-3	Hexachlorobutadiene	400.	U
59-50-7	4-Chloro-3-methylphenol	400.	U
91-57-6	2-Methylnaphthalene	45.	J
77-47-4	Hexachlorocyclopentadiene	400.	U
88-06-2	2,4,6-Trichlorophenol	400.	U
95-95-4	2,4,5-Trichlorophenol	2000.	U
91-58-7	2-Chloronaphthalene	400.	U
88-74-4	2-Nitroaniline	2000.	U
131-11-3	Dimethylphthalate	400.	U
208-96-8	Acenaphthylene	400.	U
606-20-2	2,6-Dinitrotoluene	400.	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EFA23

Lab Name: WADS Contract: 68-D9-0022

Lab Code: WADS Case No.: 12464 SAS No.: SDG No.: EFA12

Matrix: (soil/water) SOIL Lab Sample ID: 7470-26938

Sample wt/vol: 30. (g/mL) G Lab File ID: EFA23

Level: (low/med) LOW Date Received: 8/ 3/89

% Moisture: not dec. 17. dec. 0. Date Extracted: 8/11/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 8/14/89

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	2000.	U
83-32-9	Acenaphthene	400.	U
51-28-5	2,4-Dinitrophenol	2000.	U
100-02-7	4-Nitrophenol	2000.	U
132-64-9	Dibenzofuran	400.	U
121-14-2	2,4-Dinitrotoluene	400.	U
84-66-2	Diethylphthalate	400.	U
7005-72-3	4-Chlorophenyl-phenylether	400.	U
86-73-7	Fluorene	400.	U
100-01-6	4-Nitroaniline	2000.	U
534-52-1	4,6-Dinitro-2-methylphenol	2000.	U
86-30-6	N-Nitrosodiphenylamine (1)	400.	U
101-55-3	4-Bromophenyl-phenylether	400.	U
118-74-1	Hexachlorobenzene	400.	U
87-86-5	Pentachlorophenol	2000.	U
85-01-8	Phenanthrene	51.	J
120-12-7	Anthracene	400.	U
84-74-2	Di-n-butylphthalate	400.	U
206-44-0	Fluoranthene	50.	J
129-00-0	Pyrene	55.	J
85-68-7	Butylbenzylphthalate	400.	U
91-94-1	3,3'-Dichlorobenzidine	800.	U
56-55-3	Benzo(a)anthracene	400.	U
218-01-9	Chrysene	46.	J
117-81-7	bis(2-Ethylhexyl)phthalate	400.	U
117-84-0	Di-n-octylphthalate	400.	U
205-99-2	Benzo(b)fluoranthene	66.	J
207-08-9	Benzo(k)fluoranthene	400.	U
50-32-8	Benzo(a)pyrene	400.	U
193-39-5	Indeno(1,2,3-cd)pyrene	400.	U
53-70-3	Dibenz(a,h)anthracene	400.	U
191-24-2	Benzo(g,h,i)perylene	400.	U

(1) - Cannot be separated from diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EFA23

Lab Name: WADS Contract: 68-D9-0022

Lab Code: WADS Case No.: 12464 SAS No.: SDG No.: EFA12

Matrix: (soil/water) SOIL Lab Sample ID: 7470-26938

Sample wt/vol: 30. (g/mL) G Lab File ID: EFA23

Level: (low/med) LOW Date Received: 8/ 3/89

% Moisture: not dec. 17. dec. 0. Date Extracted: 8/11/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 8/14/89

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.00

Number TICs found: 9

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	123-42-2	2-Pentanone, 4-hydroxy-4-met	3.50	2000.	~~B~~ J A
2.	- -	UNKNOWN CARBOXYLIC ACID	19.70	200.	J
3.	- -	UNKNOWN HYDROCARBON	26.15	200.	J
4.	- -	UNKNOWN	27.15	400.	J
5.	- -	UNKNOWN HYDROCARBON	27.62	400.	J
6.	- -	UNKNOWN	27.77	1000.	J
7.	- -	UNKNOWN HYDROCARBON	29.02	400.	J
8.	- -	UNKNOWN	30.17	600.	J
9.	- -	UNKNOWN	31.03	600.	J
10.					
11.					
12.					
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1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EFA12

Lab Name: WADS Contract: 68-D9-0022

Lab Code: WADS Case No.: 12464 SAS No.: SDG No.: EFA12

Matrix: (soil/water) SOIL Lab Sample ID: 26927

Sample wt/vol: 30. (g/mL) G Lab File ID: EFA12XB

Level: (low/med) LOW Date Received: 8/ 3/89

% Moisture: not dec. 23. dec. 0. Date Extracted: 8/ 5/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 8/23/89

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 10.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	0.	N
319-85-7	beta-BHC	100.	U
319-86-8	delta-BHC	100.	U
58-89-9	gamma-BHC (Lindane)	100.	U
76-44-8	Heptachlor	0.	N
309-00-2	Aldrin	0.	N
1024-57-3	Heptachlor epoxide	100.	U
959-98-8	Endosulfan I	100.	U
60-57-1	Dieldrin	390.	
72-55-9	4,4'-DDE	210.	U
72-20-8	Endrin	210.	U
33213-65-9	Endosulfan II	210.	U
72-54-8	4,4'-DDD	210.	U
1031-07-8	Endosulfan sulfate	210.	U
50-29-3	4,4'-DDT	210.	U
72-43-5	Methoxychlor	1000.	U
53494-70-5	Endrin ketone	210.	U
5103-71-9	alpha-Chlordane	1000.	U
5103-74-2	gamma-Chlordane	230.	J
8001-35-2	Toxaphene	2100.	U
12674-11-2	Aroclor-1016	1000.	U
11104-28-2	Aroclor-1221	1000.	U
11141-16-5	Aroclor-1232	1000.	U
53469-21-9	Aroclor-1242	1000.	U
12672-29-6	Aroclor-1248	1000.	U
11097-69-1	Aroclor-1254	2100.	U
11096-82-5	Aroclor-1260	2100.	U

01215

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EFA12 DL

Lab Name: WADS Contract: 68-D9-0022

Lab Code: WADS Case No.: 12464 SAS No.: SDG No.: EFA12

Matrix: (soil/water) SOIL Lab Sample ID: 26927DL

Sample wt/vol: 30. (g/mL) G Lab File ID: EFA12DXB

Level: (low/med) LOW Date Received: 8/ 3/89

% Moisture: not dec. 23. dec. 0. Date Extracted: 8/ 5/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 8/22/89

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 100.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	1000.	U
319-85-7	beta-BHC	0.	N
319-86-8	delta-BHC	0.	N
58-89-9	gamma-BHC (Lindane)	0.	N
76-44-8	Heptachlor	1000.	U
309-00-2	Aldrin	1000.	U
1024-57-3	Heptachlor epoxide	0.	N
959-98-8	Endosulfan I	0.	N
60-57-1	Dieldrin	0.	N
72-55-9	4,4'-DDE	0.	N
72-20-8	Endrin	0.	N
33213-65-9	Endosulfan II	0.	N
72-54-8	4,4'-DDD	0.	N
1031-07-8	Endosulfan sulfate	0.	N
50-29-3	4,4'-DDT	0.	N
72-43-5	Methoxychlor	0.	N
53494-70-5	Endrin ketone	0.	N
5103-71-9	alpha-Chlordane	0.	N
5103-74-2	gamma-Chlordane	0.	N
8001-35-2	Toxaphene	0.	N
12674-11-2	Aroclor-1016	0.	N
11104-28-2	Aroclor-1221	0.	N
11141-16-5	Aroclor-1232	0.	N
53469-21-9	Aroclor-1242	0.	N
12672-29-6	Aroclor-1248	0.	N
11097-69-1	Aroclor-1254	0.	N
11096-82-5	Aroclor-1260	0.	N
1770-80-5	Dibutylchlorendate	0.	N

01218

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EFA13

Lab Name: WADS Contract: 68-D9-0022

Lab Code: WADS Case No.: 12464 SAS No.: SDG No.: EFA12

Matrix: (soil/water) SOIL Lab Sample ID: 26928

Sample wt/vol: 30. (g/mL) G Lab File ID: EFA13XB

Level: (low/med) LOW Date Received: 8/ 3/89

% Moisture: not dec. 29. dec. 0. Date Extracted: 8/ 5/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 8/22/89

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 9.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	100.	U
319-85-7	beta-BHC	100.	U
319-86-8	delta-BHC	100.	U
58-89-9	gamma-BHC (Lindane)	100.	U
76-44-8	Heptachlor	100.	U
309-00-2	Aldrin	100.	U
1024-57-3	Heptachlor epoxide	100.	U
959-98-8	Endosulfan I	100.	U
60-57-1	Dieldrin	250.	
72-55-9	4,4`-DDE	200.	U
72-20-8	Endrin	200.	U
33213-65-9	Endosulfan II	200.	U
72-54-8	4,4`-DDD	200.	U
1031-07-8	Endosulfan sulfate	200.	U
50-29-3	4,4'-DDT	200.	U
72-43-5	Methoxychlor	1000.	U
53494-70-5	Endrin ketone	200.	U
5103-71-9	alpha-Chlordane	1000.	U
5103-74-2	gamma-Chlordane	1000.	U
8001-35-2	Toxaphene	2000.	U
12674-11-2	Aroclor-1016	1000.	U
11104-28-2	Aroclor-1221	1000.	U
11141-16-5	Aroclor-1232	1000.	U
53469-21-9	Aroclor-1242	1000.	U
12672-29-6	Aroclor-1248	1000.	U
11097-69-1	Aroclor-1254	2000.	U
11096-82-5	Aroclor-1260	2000.	U

01222

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EFA14

Lab Name: WADS Contract: 68-D9-0022

Lab Code: WADS Case No.: 12464 SAS No.: SDG No.: EFA12

Matrix: (soil/water) SOIL Lab Sample ID: 26929

Sample wt/vol: 30. (g/mL) G Lab File ID: EFA14XB

Level: (low/med) LOW Date Received: 8/ 3/89

% Moisture: not dec. 37. dec. 0. Date Extracted: 8/ 5/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 8/22/89

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 10.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	130.	U
319-85-7	beta-BHC	130.	U
319-86-8	delta-BHC	130.	U
58-89-9	gamma-BHC (Lindane)	130.	U
76-44-8	Heptachlor	0.	N
309-00-2	Aldrin	0.	N
1024-57-3	Heptachlor epoxide	130.	U
959-98-8	Endosulfan I	130.	U
60-57-1	Dieldrin	290.	
72-55-9	4,4'-DDE	250.	U
72-20-8	Endrin	250.	U
33213-65-9	Endosulfan II	250.	U
72-54-8	4,4'-DDD	250.	U
1031-07-8	Endosulfan sulfate	250.	U
50-29-3	4,4'-DDT	250.	U
72-43-5	Methoxychlor	1300.	U
53494-70-5	Endrin ketone	250.	U
5103-71-9	alpha-Chlordane	0.	N
5103-74-2	gamma-Chlordane	0.	N
8001-35-2	Toxaphene	2500.	U
12674-11-2	Aroclor-1016	1300.	U
11104-28-2	Aroclor-1221	1300.	U
11141-16-5	Aroclor-1232	1300.	U
53469-21-9	Aroclor-1242	1300.	U
12672-29-6	Aroclor-1248	1300.	U
11097-69-1	Aroclor-1254	2500.	U
11096-82-5	Aroclor-1260	2500.	U

01225

PESTICIDE ORGANICS ANALYSIS DATA SHEET 1D

EPA SAMPLE NO.

EFA14 DL

Lab Name: WADS Contract: 68-D9-0022

Lab Code: WADS Case No.: 12464 SAS No.: SDG No.: EFA12

Matrix: (soil/water) SOIL Lab Sample ID: 26929DL

Sample wt/vol: 30. (g/mL) G Lab File ID: EFA14DXB

Level: (low/med) LOW Date Received: 8/ 3/89

% Moisture: not dec. 37. dec. 0. Date Extracted: 8/ 5/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 8/22/89

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 100.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	0.	N
319-85-7	beta-BHC	0.	N
319-86-8	delta-BHC	0.	N
58-89-9	gamma-BHC (Lindane)	0.	N
76-44-8	Heptachlor	4800.	C
309-00-2	Aldrin	1300.	U
1024-57-3	Heptachlor epoxide	0.	N
959-98-8	Endosulfan I	0.	N
60-57-1	Dieldrin	0.	N
72-55-9	4,4'-DDE	0.	N
72-20-8	Endrin	0.	N
33213-65-9	Endosulfan II	0.	N
72-54-8	4,4'-DDD	0.	N
1031-07-8	Endosulfan sulfate	0.	N
50-29-3	4,4'-DDT	0.	N
72-43-5	Methoxychlor	0.	N
53494-70-5	Endrin ketone	0.	N
5103-71-9	alpha-Chlordane	13000.	U
5103-74-2	gamma-Chlordane	1700.	J
8001-35-2	Toxaphene	0.	N
12674-11-2	Aroclor-1016	0.	N
11104-28-2	Aroclor-1221	0.	N
11141-16-5	Aroclor-1232	0.	N
53469-21-9	Aroclor-1242	0.	N
12672-29-6	Aroclor-1248	0.	N
11097-69-1	Aroclor-1254	0.	N
11096-82-5	Aroclor-1260	0.	N
1770-80-5	Dibutylchlorendate	0.	N

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EFA15

Lab Name: WADS Contract: 68-D9-0022

Lab Code: WADS Case No.: 12464 SAS No.: SDG No.: EFA12

Matrix: (soil/water) SOIL Lab Sample ID: 26930

Sample wt/vol: 30. (g/mL) G Lab File ID: EFA15XB

Level: (low/med) LOW Date Received: 8/ 3/89

% Moisture: not dec. 59. dec. 0. Date Extracted: 8/ 5/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 8/22/89

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 2.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	39.	U
319-85-7	beta-BHC	39.	U
319-86-8	delta-BHC	39.	U
58-89-9	gamma-BHC (Lindane)	39.	U
76-44-8	Heptachlor	39.	U
309-00-2	Aldrin	39.	U
1024-57-3	Heptachlor epoxide	39.	U
959-98-8	Endosulfan I	39.	U
60-57-1	Dieldrin	78.	U
72-55-9	4,4'-DDE	78.	U
72-20-8	Endrin	78.	U
33213-65-9	Endosulfan II	78.	U
72-54-8	4,4'-DDD	78.	U
1031-07-8	Endosulfan sulfate	78.	U
50-29-3	4,4'-DDT	78.	U
72-43-5	Methoxychlor	390.	U
53494-70-5	Endrin ketone	78.	U
5103-71-9	alpha-Chlordane	390.	U
5103-74-2	gamma-Chlordane	390.	U
8001-35-2	Toxaphene	780.	U
12674-11-2	Aroclor-1016	390.	U
11104-28-2	Aroclor-1221	390.	U
11141-16-5	Aroclor-1232	390.	U
53469-21-9	Aroclor-1242	390.	U
12672-29-6	Aroclor-1248	390.	U
11097-69-1	Aroclor-1254	780.	U
11096-82-5	Aroclor-1260	780.	U

01233

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EFA16

Lab Name: WADS Contract: 68-D9-0022

Lab Code: WADS Case No.: 12464 SAS No.: SDG No.: EFA12

Matrix: (soil/water) SOIL Lab Sample ID: 26931

Sample wt/vol: 30. (g/mL) G Lab File ID: EFA16XB

Level: (low/med) LOW Date Received: 8/ 3/89

% Moisture: not dec. 18. dec. 0. Date Extracted: 8/ 5/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 8/22/89

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 9.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	88.	U
319-85-7	beta-BHC	88.	U
319-86-8	delta-BHC	88.	U
58-89-9	gamma-BHC (Lindane)	88.	U
76-44-8	Heptachlor	88.	U
309-00-2	Aldrin	88.	U
1024-57-3	Heptachlor epoxide	88.	U
959-98-8	Endosulfan I	88.	U
60-57-1	Dieldrin	140.	J
72-55-9	4,4'-DDE	180.	U
72-20-8	Endrin	180.	U
33213-65-9	Endosulfan II	180.	U
72-54-8	4,4'-DDD	180.	U
1031-07-8	Endosulfan sulfate	180.	U
50-29-3	4,4'-DDT	180.	U
72-43-5	Methoxychlor	880.	U
53494-70-5	Endrin ketone	180.	U
5103-71-9	alpha-Chlordane	880.	U
5103-74-2	gamma-Chlordane	160.	J
8001-35-2	Toxaphene	1800.	U
12674-11-2	Aroclor-1016	880.	U
11104-28-2	Aroclor-1221	880.	U
11141-16-5	Aroclor-1232	880.	U
53469-21-9	Aroclor-1242	880.	U
12672-29-6	Aroclor-1248	880.	U
11097-69-1	Aroclor-1254	1800.	U
11096-82-5	Aroclor-1260	1800.	U

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EFA17

Lab Name: WADS Contract: 68-D9-0022

Lab Code: WADS Case No.: 12464 SAS No.: SDG No.: EFA12

Matrix: (soil/water) SOIL Lab Sample ID: 26932

Sample wt/vol: 30. (g/mL) G Lab File ID: EFA17XB

Level: (low/med) LOW Date Received: 8/ 3/89

% Moisture: not dec. 48. dec. 0. Date Extracted: 8/ 5/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 8/22/89

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 10.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	0.	N
319-85-7	beta-BHC	0.	N
319-86-8	delta-BHC	150.	U
58-89-9	gamma-BHC (Lindane)	0.	N
76-44-8	Heptachlor	150.	U
309-00-2	Aldrin	150.	U
1024-57-3	Heptachlor epoxide	150.	U
959-98-8	Endosulfan I	0.	N
60-57-1	Dieldrin	0.	N
72-55-9	4,4'-DDE	310.	U
72-20-8	Endrin	0.	N
33213-65-9	Endosulfan II	310.	U
72-54-8	4,4'-DDD	310.	U
1031-07-8	Endosulfan sulfate	310.	U
50-29-3	4,4'-DDT	310.	U
72-43-5	Methoxychlor	1500.	U
53494-70-5	Endrin ketone	0.	N
5103-71-9	alpha-Chlordane	0.	N
5103-74-2	gamma-Chlordane	350.	J
8001-35-2	Toxaphene	3100.	U
12674-11-2	Aroclor-1016	1500.	U
11104-28-2	Aroclor-1221	0.	N
11141-16-5	Aroclor-1232	1500.	U
53469-21-9	Aroclor-1242	1500.	U
12672-29-6	Aroclor-1248	1500.	U
11097-69-1	Aroclor-1254	3100.	U
11096-82-5	Aroclor-1260	3100.	U

01241

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EFA17 DL

Lab Name: WADS Contract: 68-D9-0022

Lab Code: WADS Case No.: 12464 SAS No.: SDG No.: EFA12

Matrix: (soil/water) SOIL Lab Sample ID: 26932DL

Sample wt/vol: 30. (g/mL) G Lab File ID: EFA17DXB

Level: (low/med) LOW Date Received: 8/ 3/89

% Moisture: not dec. 48. dec. 0. Date Extracted: 8/ 5/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 8/22/89

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 100.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	1500.	U
319-85-7	beta-BHC	1500.	U
319-86-8	delta-BHC	0.	N
58-89-9	gamma-BHC (Lindane)	1500.	U
76-44-8	Heptachlor	0.	N
309-00-2	Aldrin	0.	N
1024-57-3	Heptachlor epoxide	0.	N
959-98-8	Endosulfan I	1500.	U
60-57-1	Dieldrin	4000.	
72-55-9	4,4`-DDE	0.	N
72-20-8	Endrin	3100.	U
33213-65-9	Endosulfan II	0.	N
72-54-8	4,4`-DDD	0.	N
1031-07-8	Endosulfan sulfate	0.	N
50-29-3	4,4'-DDT	0.	N
72-43-5	Methoxychlor	0.	N
53494-70-5	Endrin ketone	3100.	U
5103-71-9	alpha-Chlordane	15000.	U
5103-74-2	gamma-Chlordane	0.	N
8001-35-2	Toxaphene	0.	N
12674-11-2	Aroclor-1016	0.	N
11104-28-2	Aroclor-1221	15000.	U
11141-16-5	Aroclor-1232	0.	N
53469-21-9	Aroclor-1242	0.	N
12672-29-6	Aroclor-1248	0.	N
11097-69-1	Aroclor-1254	0.	N
11096-82-5	Aroclor-1260	0.	N
1770-80-5	Dibutylchlorendate	0.	N

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EFA18

Lab Name: WADS Contract: 68-D9-0022

Lab Code: WADS Case No.: 12464 SAS No.: SDG No.: EFA12

Matrix: (soil/water) SOIL Lab Sample ID: 26933

Sample wt/vol: 30. (g/mL) G Lab File ID: EFA18XB

Level: (low/med) LOW Date Received: 8/ 3/89

% Moisture: not dec. 58. dec. 0. Date Extracted: 8/ 5/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 8/22/89

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 2.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	0.	N
319-85-7	beta-BHC	38.	U
319-86-8	delta-BHC	38.	U
58-89-9	gamma-BHC (Lindane)	38.	U
76-44-8	Heptachlor	51.	
309-00-2	Aldrin	38.	U
1024-57-3	Heptachlor epoxide	38.	U
959-98-8	Endosulfan I	0.	N
60-57-1	Dieldrin	0.	N
72-55-9	4,4'-DDE	76.	U
72-20-8	Endrin	76.	U
33213-65-9	Endosulfan II	76.	U
72-54-8	4,4'-DDD	76.	U
1031-07-8	Endosulfan sulfate	76.	U
50-29-3	4,4'-DDT	0.	N
72-43-5	Methoxychlor	380.	U
53494-70-5	Endrin ketone	76.	U
5103-71-9	alpha-Chlordane	380.	U
5103-74-2	gamma-Chlordane	0.	N
8001-35-2	Toxaphene	760.	U
12674-11-2	Aroclor-1016	380.	U
11104-28-2	Aroclor-1221	380.	U
11141-16-5	Aroclor-1232	380.	U
53469-21-9	Aroclor-1242	380.	U
12672-29-6	Aroclor-1248	380.	U
11097-69-1	Aroclor-1254	760.	U
11096-82-5	Aroclor-1260	760.	U

01249

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EFA18 DL

Lab Name: WADS Contract: 68-D9-0022

Lab Code: WADS Case No.: 12464 SAS No.: SDG No.: EFA12

Matrix: (soil/water) SOIL Lab Sample ID: 26933DL

Sample wt/vol: 30. (g/mL) G Lab File ID: EFA18DXB

Level: (low/med) LOW Date Received: 8/ 3/89

% Moisture: not dec. 58. dec. 0. Date Extracted: 8/ 5/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 8/22/89

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 20.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	380.	U
319-85-7	beta-BHC	0.	N
319-86-8	delta-BHC	0.	N
58-89-9	gamma-BHC (Lindane)	0.	N
76-44-8	Heptachlor	0.	N
309-00-2	Aldrin	0.	N
1024-57-3	Heptachlor epoxide	0.	N
959-98-8	Endosulfan I	380.	U
60-57-1	Dieldrin	340.	J
72-55-9	4,4'-DDE	0.	N
72-20-8	Endrin	0.	N
33213-65-9	Endosulfan II	0.	N
72-54-8	4,4'-DDD	760.	U
1031-07-8	Endosulfan sulfate	0.	N
50-29-3	4,4'-DDT	760.	U
72-43-5	Methoxychlor	0.	N
53494-70-5	Endrin ketone	0.	N
5103-71-9	alpha-Chlordane	0.	N
5103-74-2	gamma-Chlordane	430.	J
8001-35-2	Toxaphene	0.	N
12674-11-2	Aroclor-1016	0.	N
11104-28-2	Aroclor-1221	0.	N
11141-16-5	Aroclor-1232	0.	N
53469-21-9	Aroclor-1242	0.	N
12672-29-6	Aroclor-1248	0.	N
11097-69-1	Aroclor-1254	0.	N
11096-82-5	Aroclor-1260	0.	N
1770-80-5	Dibutylchlorendate	0.	N

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA S

EFA19

Lab Name: WADS Contract: 68-D9-0022

Lab Code: WADS Case No.: 12464 SAS No.: SDG No.: EFA12

Matrix: (soil/water) SOIL Lab Sample ID: 26934

Sample wt/vol: 30. (g/mL) G Lab File ID: EFA19XB

Level: (low/med) LOW Date Received: 8/ 3/89

% Moisture: not dec. 47. dec. 0. Date Extracted: 8/ 5/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 8/23/89

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 5.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	0.	N
319-85-7	beta-BHC	0.	N
319-86-8	delta-BHC	75.	U
58-89-9	gamma-BHC (Lindane)	75.	U
76-44-8	Heptachlor	75.	U
309-00-2	Aldrin	0.	N
1024-57-3	Heptachlor epoxide	75.	U
959-98-8	Endosulfan I	75.	U
60-57-1	Dieldrin	270.	
72-55-9	4,4'-DDE	150.	U
72-20-8	Endrin	150.	U
33213-65-9	Endosulfan II	150.	U
72-54-8	4,4'-DDD	150.	U
1031-07-8	Endosulfan sulfate	150.	U
50-29-3	4,4'-DDT	150.	U
72-43-5	Methoxychlor	750.	U
53494-70-5	Endrin ketone	150.	U
5103-71-9	alpha-Chlordane	750.	U
5103-74-2	gamma-Chlordane	140.	J
8001-35-2	Toxaphene	1500.	U
12674-11-2	Aroclor-1016	750.	U
11104-28-2	Aroclor-1221	0.	N
11141-16-5	Aroclor-1232	750.	U
53469-21-9	Aroclor-1242	750.	U
12672-29-6	Aroclor-1248	750.	U
11097-69-1	Aroclor-1254	1500.	U
11096-82-5	Aroclor-1260	1500.	U

01257

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EFA19 DL

Lab Name: WADS Contract: 68-D9-0022

Lab Code: WADS Case No.: 12464 SAS No.: SDG No.: EFA12

Matrix: (soil/water) SOIL Lab Sample ID: 26934DL

Sample wt/vol: 30. (g/mL) G Lab File ID: EFA19DXB

Level: (low/med) LOW Date Received: 8/ 3/89

% Moisture: not dec. 47. dec. 0. Date Extracted: 8/ 5/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 8/22/89

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 50.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	750.	U
319-85-7	beta-BHC	750.	U
319-86-8	delta-BHC	0.	N
58-89-9	gamma-BHC (Lindane)	0.	N
76-44-8	Heptachlor	0.	N
309-00-2	Aldrin	750.	U
1024-57-3	Heptachlor epoxide	0.	N
959-98-8	Endosulfan I	0.	N
60-57-1	Dieldrin	0.	N
72-55-9	4,4'-DDE	0.	N
72-20-8	Endrin	0.	N
33213-65-9	Endosulfan II	0.	N
72-54-8	4,4'-DDD	0.	N
1031-07-8	Endosulfan sulfate	0.	N
50-29-3	4,4'-DDT	0.	N
72-43-5	Methoxychlor	0.	N
53494-70-5	Endrin ketone	0.	N
5103-71-9	alpha-Chlordane	0.	N
5103-74-2	gamma-Chlordane	0.	N
8001-35-2	Toxaphene	0.	N
12674-11-2	Aroclor-1016	0.	N
11104-28-2	Aroclor-1221	7500.	U
11141-16-5	Aroclor-1232	0.	N
53469-21-9	Aroclor-1242	0.	N
12672-29-6	Aroclor-1248	0.	N
11097-69-1	Aroclor-1254	0.	N
11096-82-5	Aroclor-1260	0.	N

01261

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EFA20

Lab Name: WADS Contract: 68-D9-0022

Lab Code: WADS Case No.: 12464 SAS No.: SDG No.: EFA12

Matrix: (soil/water) SOIL Lab Sample ID: 26935

Sample wt/vol: 30. (g/mL) G Lab File ID: EFA20XB

Level: (low/med) LOW Date Received: 8/ 3/89

% Moisture: not dec. 30. dec. 0. Date Extracted: 8/ 5/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 8/23/89

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 2.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	23.	U
319-85-7	beta-BHC	23.	U
319-86-8	delta-BHC	23.	U
58-89-9	gamma-BHC (Lindane)	23.	U
76-44-8	Heptachlor	23.	U
309-00-2	Aldrin	23.	U
1024-57-3	Heptachlor epoxide	23.	U
959-98-8	Endosulfan I	23.	U
60-57-1	Dieldrin	88.	
72-55-9	4,4'-DDE	46.	U
72-20-8	Endrin	46.	U
33213-65-9	Endosulfan II	46.	U
72-54-8	4,4'-DDD	49.	
1031-07-8	Endosulfan sulfate	46.	U
50-29-3	4,4'-DDT	36.	J
72-43-5	Methoxychlor	230.	U
53494-70-5	Endrin ketone	46.	U
5103-71-9	alpha-Chlordane	230.	U
5103-74-2	gamma-Chlordane	6.4	J
8001-35-2	Toxaphene	460.	U
12674-11-2	Aroclor-1016	230.	U
11104-28-2	Aroclor-1221	230.	U
11141-16-5	Aroclor-1232	230.	U
53469-21-9	Aroclor-1242	230.	U
12672-29-6	Aroclor-1248	230.	U
11097-69-1	Aroclor-1254	460.	U
11096-82-5	Aroclor-1260	460.	U

01265

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EFA21

Lab Name: WADS Contract: 68-D9-0022

Lab Code: WADS Case No.: 12464 SAS No.: SDG No.: EFA12

Matrix: (soil/water) SOIL Lab Sample ID: 26936

Sample wt/vol: 30. (g/mL) G Lab File ID: EFA21XB

Level: (low/med) LOW Date Received: 8/ 3/89

% Moisture: not dec. 43. dec. 0. Date Extracted: 8/ 5/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 8/23/89

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 10.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	0.	N
319-85-7	beta-BHC	140.	U
319-86-8	delta-BHC	140.	U
58-89-9	gamma-BHC (Lindane)	140.	U
76-44-8	Heptachlor	140.	U
309-00-2	Aldrin	140.	U
1024-57-3	Heptachlor epoxide	140.	U
959-98-8	Endosulfan I	140.	U
60-57-1	Dieldrin	360.	
72-55-9	4,4`-DDE	280.	U
72-20-8	Endrin	280.	U
33213-65-9	Endosulfan II	0.	N
72-54-8	4,4`-DDD	0.	N
1031-07-8	Endosulfan sulfate	280.	U
50-29-3	4,4'-DDT	0.	N
72-43-5	Methoxychlor	1400.	U
53494-70-5	Endrin ketone	280.	U
5103-71-9	alpha-Chlordane	1400.	U
5103-74-2	gamma-Chlordane	0.	N
8001-35-2	Toxaphene	2800.	U
12674-11-2	Aroclor-1016	1400.	U
11104-28-2	Aroclor-1221	0.	N
11141-16-5	Aroclor-1232	1400.	U
53469-21-9	Aroclor-1242	1400.	U
12672-29-6	Aroclor-1248	1400.	U
11097-69-1	Aroclor-1254	2800.	U
11096-82-5	Aroclor-1260	2800.	U

01269

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EFA21 DL

Lab Name: WADS Contract: 68-D9-0022

Lab Code: WADS Case No.: 12464 SAS No.: SDG No.: EFA12

Matrix: (soil/water) SOIL Lab Sample ID: 26936DL

Sample wt/vol: 30. (g/mL) G Lab File ID: EFA21DXB

Level: (low/med) LOW Date Received: 8/ 3/89

% Moisture: not dec. 43. dec. 0. Date Extracted: 8/ 5/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 8/23/89

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 100.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	1400.	U
319-85-7	beta-BHC	0.	N
319-86-8	delta-BHC	0.	N
58-89-9	gamma-BHC (Lindane)	0.	N
76-44-8	Heptachlor	0.	N
309-00-2	Aldrin	0.	N
1024-57-3	Heptachlor epoxide	0.	N
959-98-8	Endosulfan I	0.	N
60-57-1	Dieldrin	0.	N
72-55-9	4,4'-DDE	0.	N
72-20-8	Endrin	0.	N
33213-65-9	Endosulfan II	2800.	U
72-54-8	4,4'-DDD	1500.	J
1031-07-8	Endosulfan sulfate	0.	N
50-29-3	4,4'-DDT	1700.	J
72-43-5	Methoxychlor	0.	N
53494-70-5	Endrin ketone	0.	N
5103-71-9	alpha-Chlordane	0.	N
5103-74-2	gamma-Chlordane	14000.	U
8001-35-2	Toxaphene	0.	N
12674-11-2	Aroclor-1016	0.	N
11104-28-2	Aroclor-1221	14000.	U
11141-16-5	Aroclor-1232	0.	N
53469-21-9	Aroclor-1242	0.	N
12672-29-6	Aroclor-1248	0.	N
11097-69-1	Aroclor-1254	0.	N
11096-82-5	Aroclor-1260	0.	N
1770-80-5	Dibutylchlorendate	0.	N

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EFA22

Lab Name: WADS Contract: 68-D9-0022

Lab Code: WADS Case No.: 12464 SAS No.: SDG No.: EFA12

Matrix: (soil/water) SOIL Lab Sample ID: 26937

Sample wt/vol: 30. (g/mL) G Lab File ID: EFA22XB

Level: (low/med) LOW Date Received: 8/ 3/89

% Moisture: not dec. 36. dec. 0. Date Extracted: 8/ 5/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 8/22/89

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 4.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	50.	U
319-85-7	beta-BHC	50.	U
319-86-8	delta-BHC	50.	U
58-89-9	gamma-BHC (Lindane)	50.	U
76-44-8	Heptachlor	50.	U
309-00-2	Aldrin	50.	U
1024-57-3	Heptachlor epoxide	50.	U
959-98-8	Endosulfan I	50.	U
60-57-1	Dieldrin	210.	
72-55-9	4,4'-DDE	100.	U
72-20-8	Endrin	100.	U
33213-65-9	Endosulfan II	100.	U
72-54-8	4,4'-DDD	100.	U
1031-07-8	Endosulfan sulfate	100.	U
50-29-3	4,4'-DDT	100.	U
72-43-5	Methoxychlor	500.	U
53494-70-5	Endrin ketone	100.	U
5103-71-9	alpha-Chlordane	27.	J
5103-74-2	gamma-Chlordane	35.	J
8001-35-2	Toxaphene	1000.	U
12674-11-2	Aroclor-1016	500.	U
11104-28-2	Aroclor-1221	500.	U
11141-16-5	Aroclor-1232	500.	U
53469-21-9	Aroclor-1242	500.	U
12672-29-6	Aroclor-1248	500.	U
11097-69-1	Aroclor-1254	1000.	U
11096-82-5	Aroclor-1260	1000.	U

01276

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EFA23

Lab Name: WADS Contract: 68-D9-0022

Lab Code: WADS Case No.: 12464 SAS No.: SDG No.: EFA12

Matrix: (soil/water) SOIL Lab Sample ID: 26938

Sample wt/vol: 30. (g/mL) G Lab File ID: EFA23XB

Level: (low/med) LOW Date Received: 8/ 3/89

% Moisture: not dec. 18. dec. 0. Date Extracted: 8/ 5/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 8/22/89

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 2.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	20.	U
319-85-7	beta-BHC	20.	U
319-86-8	delta-BHC	20.	U
58-89-9	gamma-BHC (Lindane)	20.	U
76-44-8	Heptachlor	20.	U
309-00-2	Aldrin	20.	U
1024-57-3	Heptachlor epoxide	20.	U
959-98-8	Endosulfan I	20.	U
60-57-1	Dieldrin	39.	U
72-55-9	4,4'-DDE	39.	U
72-20-8	Endrin	39.	U
33213-65-9	Endosulfan II	39.	U
72-54-8	4,4'-DDD	39.	U
1031-07-8	Endosulfan sulfate	39.	U
50-29-3	4,4'-DDT	39.	U
72-43-5	Methoxychlor	200.	U
53494-70-5	Endrin ketone	39.	U
5103-71-9	alpha-Chlordane	200.	U
5103-74-2	gamma-Chlordane	200.	U
8001-35-2	Toxaphene	390.	U
12674-11-2	Aroclor-1016	200.	U
11104-28-2	Aroclor-1221	200.	U
11141-16-5	Aroclor-1232	200.	U
53469-21-9	Aroclor-1242	200.	U
12672-29-6	Aroclor-1248	200.	U
11097-69-1	Aroclor-1254	390.	U
11096-82-5	Aroclor-1260	390.	U

01280

EPA

United States Environmental Protection Agency
Contract Laboratory Program Sample Management Office
PO Box 818 Alexandria, VA 22313
703-557-2490 FTS 557-2490

Organic Traffic Report
(For CLP Use Only)

Case Number: 12464
SAS No. (if applicable): NA

1. Sample Description (Enter in Column A)
1. Surface Water
2. Ground Water
3. Leachate
4. Rinsate
5. Soil/Sediment
6. Oil (SAS)
7. Waste (SAS)
8. Other (SAS) (Specify)

2. Region Number: V
Sampling Co.: FIT
Sampler (Name): Jeff Dickson
3. Ship To: Wadsworth-Alert Lab Inc
4010 Shuffel Drive NW
North Canton, Ohio 44720
ATTN: Kim Hutras
216/497-9396

4. Date Shipped: 8/2/89
Airbill Number: 2734217754
Carrier: F
Triple volume required for matrix spike/duplicate aqueous sample.
Ship medium and high concentration samples in paint cans.
See reverse for additional instructions.

5. Date Received: 8-3-89
Received by: [signature] SDG=EFA12
Laboratory Contract Number: 68-D9-0022
Unit Price: 557
6. Transfer to:
Date Received:
Received by:
Contract Number:
Price:

00003

CLP Sample Number (From labels)	(A) Sample Description (From box 1)	(B) Concentration L=low M=med H=high	(C) RAS Analysis VOA	BNA	Pest/PCB	(D) Special Handling	(E) Station Location	(F) Date/Time of Sample Collection	(G) Corresponding CLP Inorganic Sample Number	(H) Sample Condition on Receipt	(I) High Conc. Phases (Check below) Soil	Water—MIS Liq.	Non Water—MIS Liq.
EFA 12	5	L	X	X	X	none	S1	8/2/89 1100	MEEF 12	INTACT			
EFA 13	5	L	X	X	X	"	S2	8/2/89 1110	MEEF 13				
EFA 14	5	L	X	X	X	"	S3	8/2/89 1130	MEEF 14				
EFA 15	5	L	X	X	X	"	S4	8/2/89 1140	MEEF 15				
EFA 16	5	L	X	X	X	"	S5	8/2/89 1235	MEEF 16				
EFA 17	5	L	X	X	X	"	S6	8/2/89 1250	MEEF 17				
EFA 18	5	L	X	X	X	"	S7	8/2/89 1305	MEEF 18				
EFA 19	5	L	X	X	X	"	S8	8/2/89 1315	MEEF 19				
EFA 20	5	L	X	X	X	"	S9	8/2/89 1400	MEEF 20				
EFA 21	5	L	X	X	X	"	S10	8/2/89 1410	MEEF 21				
EFA 22	5	L	X	X	X	"	S11	8/2/89 1430	MEEF 22				
EFA 23	5	L	X	X	X	"	S12	8/2/89 1435	MEEF 23	SDG FINAL SAMPLE			

Shipment is/is not complete

EPA Form 9110-2 (8-88) Replaces EPA Form 2075-7, which may be used. Blue - SMO Copy Pink - Region Copy White - Lab Copy for Return to SMO Yellow - Lab Copy

1938-1988
50 YEARS
WADSWORTH/ALERT
LABORATORIES, INC.
Sampling, testing, mobile labs
4101 Shuffel Drive N.W. / North Canton, Ohio 44720

RECEIVED
SEP 06 1989
US EPA CENTRAL REGIONAL LAB.
536 S. CLARK ST.
CHICAGO, ILLINOIS 60605

CASE NARRATIVE

This narrative is for case number #12464 which was completed by Wadsworth/ALERT Laboratories, Inc. under contract number 68-D9-0022. The following sample numbers are associated with this case under sample delivery group (SDG) number EFA12:

EPA Sample Number	Date Sample Received
EFA 12	8-3-89
EFA 13	8-3-89
EFA 14	8-3-89
EFA 15	8-3-89
EFA 16	8-3-89
EFA 17	8-3-89
EFA 18	8-3-89
EFA 19	8-3-89
EFA 20	8-3-89
EFA 21	8-3-89
EFA 22	8-3-89
EFA 23	8-3-89

During the 8/4/89 analysis of volatile standard VSTD50 on instrument 51000, twice the required amount of surrogate standard was added.

During the initial volatile analysis of samples EFA 18, EFA 19, EFA 20, EFA 21, and EFA 22, failed surrogate recoveries and or low internal standard areas were noted. Upon reanalysis of these samples the same phenomenon occurred. These samples and the reanalysis are considered to be billable as a matrix effect has been demonstrated. The volatile analysis of sample EFA 23 demonstrated a similar matrix effect as the above samples but was inadvertantly not reanalyzed.

Upon the original semivolatile analysis of sample SBLK1, SBLK2, and EFA 12 the internal standards were outside of control limits. After corrective maintenance was performed, including column change, the samples were reanalyzed with the same phenomenon occuring.

During the generation of the semivolatile Form I's using Format B, a round off error was noticed. For example, 96,000 ug/kg is reported as 100,000 ug/kg on Form I.

During the pesticide/PCB analysis several samples had to be diluted. The dilutions have been reported on seperate Form I's with a DL suffix appended to the sample number. These are being reported on seperate Form I' due to the surrogates being diluted out. The dilutions are considered to be billable under these circumstances.

WADSWORTH/ALERT
LABORATORIES, INC.

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

Jeff Graham
CLP Manager
9-6-89

2B
SOIL VOLATILE SURROGATE RECOVERY

Lab Name: WADS Contract: 68-D9-0022

Lab Code: WADS Case No.: 12464 SAS No.: SDG No.: EFA12

Level: (low/med) LOW

	EPA SAMPLE NO.	S1 (TOL)#	S2 (BFB)#	S3 (DCE)#	OTHER	TOT OUT
1	VBLK1	102	100	101		0
2	EFA12	109	87	90		0
3	EFA13	111	84	86		0
4	EFA15	110	87	85		0
5	EFA16	112	80	87		0
6	EFA17	108	87	85		0
7	VBLK2	102	100	91		0
8	EFA14	108	78	73		0
9	EFA18	114	67 *	67 *		2
10	EFA21	115	66 *	55 *		2
11	EFA22	106	79	61 *		1
12	EFA23	104	83	64 *		1
13	VBLK3	92	95	88		0
14	EFA18 RE	97	75	69 *		1
15	EFA21 RE	93	75	63 *		1
16	EFA22 RE	86	75	55 *		1
17	EFA20	82	76	55 *		1
18	EFA20MS	81	75	52 *		1
19	EFA20MSD	79 *	76	50 *		2
20	EFA19	81	69 *	55 *		2
21	EFA19 RE	95	70 *	47 *		2
22						
23						
24						
25						
26						
27						
28						
29						
30						

		QC LIMITS
S1 (TOL)	= TOLUENE-D8	(81-117)
S2 (BFB)	= BROMOFLUOROBENZENE	(74-121)
S3 (DCE)	= 1,2-DICHLOROETHANE-D4	(70-121)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D Surrogates diluted out

00006

FORM II VOA-2 1/87 Rev.

2D
SOIL SEMIVOLATILE SURROGATE RECOVERY

Lab Name: WADS Contract: 68-D9-0022

Lab Code: WADS Case No.: 12464 SAS No.: SDG No.: EFA12

Level: (low/med) MED

	EPA SAMPLE NO.	S1 (NBZ)#	S2 (FBP)#	S3 (TPH)#	S4 (PHL)#	S5 (2FP)#	S6 (TBP)#	OTHER	TOT OUT
1	SBLK1	46	73	75	72	74	65		0
2	EFA19	54	87	89	76	80	75		0
3	SBLK3	47	67	80	66	69	57		0
4	EFA19MS	29	48	51	60	62	60		0
5	EFA19MSD	33	55	59	61	62	68		0
6									
7									
8									
9									
10									
11									
12									
13									
14									
15									
16									
17									
18									
19									
20									
21									
22									
23									
24									
25									
26									
27									
28									
29									
30									

		QC LIMITS
S1 (NBZ)	= Nitrobenzene-d5	(23-120)
S2 (FBP)	= 2-Fluorobiphenyl	(30-115)
S3 (TPH)	= Terphenyl-d14	(18-137)
S4 (PHL)	= Phenol-d5	(24-113)
S5 (2FP)	= 2-Fluorophenol	(25-121)
S6 (TBP)	= 2,4,6-Tribromophenol	(19-122)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D Surrogates diluted out

00286

2D
SOIL SEMIVOLATILE SURROGATE RECOVERY

Lab Name: WADS Contract: 68-D9-0022

Lab Code: WADS Case No.: 12464 SAS No.: SDG No.: EFA12

Level: (low/med) LOW

	EPA SAMPLE NO.	S1 (NBZ)#	S2 (FBP)#	S3 (TPH)#	S4 (PHL)#	S5 (2FP)#	S6 (TBP)#	OTHER	TOT OUT
1	SBLK2	44	99	85	67	74	86		0
2	EFA22	27	43	44	39	48	39		0
3	EFA23	32	57	79	51	55	67		0
4	EFA23MS	37	62	80	66	64	67		0
5	EFA13	42	75	80	61	66	82		0
6	EFA12	41	65	83	60	69	65		0
7	EFA14	41	64	67	59	61	66		0
8	EFA20	39	59	69	59	62	74		0
9	EFA21	37	58	60	56	58	75		0
10	EFA15	43	66	77	59	67	88		0
11	EFA16	35	56	82	44	45	79		0
12	EFA18	45	72	103	64	76	69		0
13	EFA12 RE	40	58	121	52	66	74		0
14	EFA17	13 *	56	69	19 *	47	23		2
15	SBLK2	35	51	63	53	63	39		0
16	EFA23MSD	26	41	53	48	47	41		0
17									
18									
19									
20									
21									
22									
23									
24									
25									
26									
27									
28									
29									
30									

		QC LIMITS
S1 (NBZ)	= Nitrobenzene-d5	(23-120)
S2 (FBP)	= 2-Fluorobiphenyl	(30-115)
S3 (TPH)	= Terphenyl-d14	(18-137)
S4 (PHL)	= Phenol-d5	(24-113)
S5 (2FP)	= 2-Fluorophenol	(25-121)
S6 (TBP)	= 2,4,6-Tribromophenol	(19-122)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D Surrogates diluted out

00287

FORM II SV-2 1/87 Rev.

2F

SOIL PESTICIDE SURROGATE RECOVERY

Lab Name: WADS Contract: 68-D9-0022

Lab Code: WADS Case No.: 12464 SAS No.: SDG No.: EFA12

Level:(low/med) LOW

	EPA SAMPLE NO.		S1 (DBC)	#	OTHER
1	PBLK1		94		
2	EFA12	DL	0	*	D
3	EFA14	DL	0	*	D
4	EFA17	DL	0	*	D
5	EFA23		111		
6	EFA14		99		
7	EFA15		39		
8	EFA16		76		
9	EFA17		72		
10	EFA18	DL	0	*	D
11	EFA19	DL	94		
12	EFA13		74		
13	EFA22		69		
14	EFA18		59		
15	EFA19		59		
16	EFA20		34		
17	EFA12		27		
18	EFA21		64		
19	EFA21	DL	0	*	D
20	EFA23MS		142		
21	EFA23MSD		148		
22					
23					
24					
25					
26					
27					
28					
29					
30					

ADVISORY QC LIMITS (20-150)

S1 (DBC) = Dibutylchlorendate

Column to be used to flag recovery values

* Values outside of contract required QC limits

D Surrogates diluted out

3B

SOIL VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: WADS Contract: 68-D9-0022

Lab Code: WADS Case No.: 12464 SAS No.: SDG No.: EFA12

Matrix Spike - EPA Sample No.: EFA20 Level: (low/med) LOW

COMPOUND	SPIKE ADDED (UG/KG)	SAMPLE CONCENTRATION (UG/KG)	MS CONCENTRATION (UG/KG)	MS % REC	#	QC LIMITS REC.
1,1-DICHLOROETHENE	71.	0.	43.	60		59-172
TRICHLOROETHENE	71.	0.	67.	93		62-137
BENZENE	71.	0.	30.	42	*	66-142
TOLUENE	71.	0.	40.	56	*	59-139
CHLOROBENZENE	71.	0.	52.	73		60-133

COMPOUND	SPIKE ADDED (UG/KG)	MSD CONCENTRATION (UG/KG)	MSD % REC	#	% RPD	#	QC LIMITS RPD	QC LIMITS REC.
1,1-DICHLOROETHENE	71.	62.	87		37	*	22	59-172
TRICHLOROETHENE	71.	96.	134		36	*	24	62-137
BENZENE	71.	54.	75		55	*	21	66-142
TOLUENE	71.	61.	85		41	*	21	59-139
CHLOROBENZENE	71.	78.	110		40	*	21	60-133

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

00007

RPD: 5 out of 5 outside limits
Spike Recovery: 2 out of 10 outside limits

COMMENTS:

3D

SOIL SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: WADS Contract: 68-D9-0022

Lab Code: WADS Case No.: 12464 SAS No.: SDG No.: EFA12

Matrix Spike - EPA Sample No.: EFA19 Level: (low/med) MED

COMPOUND	SPIKE ADDED (UG/KG)	SAMPLE CONCENTRATION (UG/KG)	MS CONCENTRATION (UG/KG)	MS % REC	#	QC LIMITS REC.
Phenol	377358.	0.	252880.	67.		26- 90
2-Chlorophenol	377358.	0.	207621.	55.		25-102
1,4-Dichlorobenzene	188679.	0.	62024.	33.		28-104
N-Nitroso-di-n-prop.(1)	188679.	0.	130583.	69.		41-126
1,2,4-Trichlorobenzene	188679.	0.	62316.	33.	*	38-107
4-Chloro-3-methylphenol	377358.	0.	213012.	56.		26-103
Acenaphthene	188679.	0.	113103.	60.		31-137
4-Nitrophenol	377358.	0.	165053.	44.		11-114
2,4-Dinitrotoluene	188679.	0.	104089.	55.		28- 89
Pentachlorophenol	377358.	0.	274648.	73.		17-109
Pyrene	188679.	0.	120572.	64.		35-142

COMPOUND	SPIKE ADDED (UG/KG)	MSD CONCENTRATION (UG/KG)	MSD % REC	#	% RPD	#	QC LIMITS RPD	REC.
Phenol	377358.	255955.	68.		1.		35	26- 90
2-Chlorophenol	377358.	213731.	57.		3.		50	25-102
1,4-Dichlorobenzene	188679.	58326.	31.		6.		27	28-104
N-Nitroso-di-n-prop.(1)	188679.	130219.	69.		0.		38	41-126
1,2,4-Trichlorobenzene	188679.	71261.	38.	*	13.		23	38-107
4-Chloro-3-methylphenol	377358.	248028.	66.		15.		33	26-103
Acenaphthene	188679.	135287.	72.		18.		19	31-137
4-Nitrophenol	377358.	176492.	47.		7.		50	11-114
2,4-Dinitrotoluene	188679.	114386.	61.		9.		47	28- 89
Pentachlorophenol	377358.	308423.	82.		12.		47	17-109
Pyrene	188679.	136752.	72.		13.		36	35-142

(1) N-Nitroso-di-n-propylamine

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 11 outside limits
Spike Recovery: 2 out of 22 outside limits

COMMENTS:

00288

3D

SOIL SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: WADS Contract: 68-D9-0022

Lab Code: WADS Case No.: 12464 SAS No.: SDG No.: EFA12

Matrix Spike - EPA Sample No.: EFA23 Level: (low/med) LOW

COMPOUND	SPIKE ADDED (UG/KG)	SAMPLE CONCENTRATION (UG/KG)	MS CONCENTRATION (UG/KG)	MS % REC #	QC LIMITS REC.
Phenol	8032.	0.	5530.	69.	26- 90
2-Chlorophenol	8032.	0.	4616.	57.	25-102
1,4-Dichlorobenzene	4016.	0.	2356.	59.	28-104
N-Nitroso-di-n-prop.(1)	4016.	0.	2634.	66.	41-126
1,2,4-Trichlorobenzene	4016.	0.	2181.	54.	38-107
4-Chloro-3-methylphenol	8032.	0.	6039.	75.	26-103
Acenaphthene	4016.	0.	2894.	72.	31-137
4-Nitrophenol	8032.	0.	4462.	56.	11-114
2,4-Dinitrotoluene	4016.	0.	2402.	60.	28- 89
Pentachlorophenol	8032.	0.	4336.	54.	17-109
Pyrene	4016.	55.	3931.	97.	35-142

COMPOUND	SPIKE ADDED (UG/KG)	MSD CONCENTRATION (UG/KG)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Phenol	8032.	4372.	54.	23.	35	26- 90
2-Chlorophenol	8032.	3633.	45.	24.	50	25-102
1,4-Dichlorobenzene	4016.	1970.	49.	18.	27	28-104
N-Nitroso-di-n-prop.(1)	4016.	2061.	51.	24.	38	41-126
1,2,4-Trichlorobenzene	4016.	1770.	44.	21.	23	38-107
4-Chloro-3-methylphenol	8032.	4536.	56.	28.	33	26-103
Acenaphthene	4016.	2302.	57.	23. *	19	31-137
4-Nitrophenol	8032.	3021.	38.	39.	50	11-114
2,4-Dinitrotoluene	4016.	2042.	51.	16.	47	28- 89
Pentachlorophenol	8032.	3930.	49.	10.	47	17-109
Pyrene	4016.	3124.	76.	23.	36	35-142

(1) N-Nitroso-di-n-propylamine

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 1 out of 11 outside limits
Spike Recovery: 0 out of 22 outside limits

COMMENTS:

00289

3F

SOIL PESTICIDE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: WADS Contract: 68-D9-0022

Lab Code: WADS Case No.: 12464 SAS No.: SDG No.: EFA12

Matrix Spike - EPA Sample No.: EFA23 Level:(low/med) LOW

COMPOUND	SPIKE ADDED (UG/KG)	SAMPLE CONCENTRATION (UG/KG)	MS CONCENTRATION (UG/KG)	MS % REC #	QC LIMITS REC.
gamma-BHC (Lindane)	28.67	.00	25.62	89	46-127
Heptachlor	28.67	.00	23.44	82	35-130
Aldrin	28.67	.00	24.99	87	34-132
Dieldrin	71.68	.00	85.14	119	31-134
Endrin	71.68	.00	74.77	104	42-139
4,4'-DDT	71.68	.00	74.38	104	23-134

COMPOUND	SPIKE ADDED (UG/KG)	MSD CONCENTRATION (UG/KG)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
gamma-BHC (Lindane)	28.67	24.64	86	4	50	46-127
Heptachlor	28.67	22.22	77	5	31	35-130
Aldrin	28.67	23.47	82	6	43	34-132
Dieldrin	71.68	79.07	110	7	38	31-134
Endrin	71.68	71.50	100	4	45	42-139
4,4'-DDT	71.68	69.53	97	7	50	23-134

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 6 outside limits
Spike Recovery: 0 out of 12 outside limits

COMMENTS:

4A
VOLATILE METHOD BLANK SUMMARY

Lab Name: WADS Contract: 68-D9-0022

Lab Code: WADS Case No.: 12464 SAS No.: SDG No.: EFA12

Lab File ID: VOL10280 Lab Sample ID: VBLK1

Date Analyzed: 8/ 6/89 Time Analyzed: 12:40

Matrix: (soil/water) SOIL Level: (low/med) LOW

Instrument ID: 510000

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
1	EFA12	7470-26927	VOL10286	17:17
2	EFA13	7470-26928	VOL10287	18:01
3	EFA15	7470-26930	VOL10289	19:30
4	EFA16	7470-26931	VOL10290	20:14
5	EFA17	7470-26932	VOL10291	20:58
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COMMENTS:

00008

FORM IV VOA 1/87 Rev.

4A

VOLATILE METHOD BLANK SUMMARY

Lab Name: WADS Contract: 68-D9-0022

Lab Code: WADS Case No.: 12464 SAS No.: SDG No.: EFA12

Lab File ID: VOL10294 Lab Sample ID: VBLK2

Date Analyzed: 8/ 7/89 Time Analyzed: 12:00

Matrix: (soil/water) SOIL Level: (low/med) LOW

Instrument ID: 510000

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
1	EFA14	7470-26929	VOL10297	14:31
2	EFA18	7470-26933	VOL10298	15:16
3	EFA21	7470-26936	VOL10302	18:15
4	EFA22	7470-26937	VOL10303	18:59
5	EFA23	7470-26938	VOL10304	19:46
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COMMENTS:

00009

FORM IV VOA 1/87 Rev.

4A

VOLATILE METHOD BLANK SUMMARY

Lab Name: WADS Contract: 68-D9-0022

Lab Code: WADS Case No.: 12464 SAS No.: SDG No.: EFA12

Lab File ID: VOL9974 Lab Sample ID: VBLK3

Date Analyzed: 8/13/89 Time Analyzed: 15:03

Matrix: (soil/water) SOIL Level: (low/med) LOW

Instrument ID: 1050CC

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
1	EFA18 RE	7470-26933	VOL9975	15:49
2	EFA21 RE	7470-26936	VOL9976	16:35
3	EFA22 RE	7470-26937	VOL9977	17:22
4	EFA20	7470-26935	VOL9978	18:14
5	EFA20MS	78470-26935A	VOL9979	19:00
6	EFA20MSD	7470-26935B	VOL9980	19:46
7	EFA19	7470-26934	VOL9981	20:36
8	EFA19 RE	7470-26934	VOL9982	21:28
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COMMENTS:

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4B
SEMIVOLATILE METHOD BLANK SUMMARY

Lab Name: WADS Contract: 68-D9-0022

Lab Code: WADS Case No.: 12464 SAS No.: SDG No.: EFA12

Lab File ID: SBLK1L Lab Sample ID: 9289-92809

Date Extracted: 8/ 9/89 Extraction: (SepF/Cont/Sonc) SONC

Date Analyzed: 8/10/89 Time Analyzed: 19:04

Matrix: (soil/water) SOIL Level: (low/med) MED

Instrument ID: EXTR2

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
1	EFA19	7470-26934	EFA19	8/10/89
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COMMENTS:

00290

FORM IV SV 1/87 Rev.

4B

SEMIVOLATILE METHOD BLANK SUMMARY

Lab Name: WADS Contract: 68-D9-0022

Lab Code: WADS Case No.: 12464 SAS No.: SDG No.: EFA12

Lab File ID: SBLK2 Lab Sample ID: 9289-92811

Date Extracted: 8/11/89 Extraction: (SepF/Cont/Sonc) SONC

Date Analyzed: 8/14/89 Time Analyzed: 16:03

Matrix: (soil/water) SOIL Level: (low/med) LOW

Instrument ID: EXTR2

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
1	EFA22	7470-26937	EFA22	8/14/89
2	EFA23	7470-26938	EFA23	8/14/89
3	EFA23MS	7470-26938	EFA23MS	8/14/89
4	EFA13	7470-26928	EFA13	8/14/89
5	EFA12	7470-26927	EFA12	8/14/89
6	EFA14	7470-26929	EFA14R1	8/15/89
7	EFA20	7470-26935	EFA20R1	8/15/89
8	EFA21	7470-26936	EFA21	8/15/89
9	EFA15	7470-26930	EFA15R1	8/15/89
10	EFA16	7470-26931	EFA16R1	8/15/89
11	EFA18	7470-26933	EFA18	8/17/89
12	EFA12 RE	7470-26927-R1	EFA12R1	8/17/89
13	EFA17	7470-26932	EFA17LOR1	8/18/89
14	EFA23MSD	7470-26938	EFA23MDR2	8/28/89
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COMMENTS:

4B
SEMIVOLATILE METHOD BLANK SUMMARY

Lab Name: WADS Contract: 68-D9-0022

Lab Code: WADS Case No.: 12464 SAS No.: SDG No.: EFA12

Lab File ID: SBLK3 Lab Sample ID: 9289-92811

Date Extracted: 8/11/89 Extraction: (SepF/Cont/Sonc) SONC

Date Analyzed: 8/15/89 Time Analyzed: 15:39

Matrix: (soil/water) SOIL Level: (low/med) MED

Instrument ID: EXTR2

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
1	EFA19MS	7470-26934-MS	EFA19MS	8/15/89
2	EFA19MSD	7470-26934-MSD	EFA19MSD	8/15/89
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COMMENTS:

4C

PESTICIDE METHOD BLANK SUMMARY

Lab Name: WADS Contract: 68-D9-0022

Lab Code: WADS Case No.: 12464 SAS No.: SDG No.: EFA12

Lab Sample ID: 92805 Lab File ID: 92805XB

Matrix: (soil/water) SOIL Level:(low/med) LOW

Date Extracted: 8/ 5/89 Extraction: (SepF/Cont/Sonc) SON

Date Analyzed (1): 8/22/89 Date Analyzed (2): 8/22/89

Time Analyzed (1): 8:40 Time Analyzed (2): 8:07

Instrument ID (1): GCXB Instrument ID (2): GCXA

GC Column ID (1): DB608 GC Column ID (2): SPB5

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

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
1	EFA12 DL	26927DL	8/22/89	8/22/89
2	EFA14 DL	26929DL	8/22/89	8/22/89
3	EFA17 DL	26932DL	8/22/89	8/22/89
4	EFA23	26938	8/22/89	8/22/89
5	EFA14	26929	8/22/89	8/22/89
6	EFA15	26930	8/22/89	8/22/89
7	EFA16	26931	8/22/89	8/22/89
8	EFA17	26932	8/22/89	8/22/89
9	EFA18 DL	26933DL	8/22/89	8/22/89
10	EFA19 DL	26934DL	8/22/89	8/22/89
11	EFA13	26928	8/22/89	8/22/89
12	EFA22	26937	8/22/89	8/22/89
13	EFA18	26933	8/22/89	8/22/89
14	EFA23MSD	26938MSD	8/23/89	8/23/89
15	EFA19	26934	8/23/89	8/22/89
16	EFA20	26935	8/23/89	8/23/89
17	EFA12	26927	8/23/89	8/22/89
18	EFA21	26936	8/23/89	8/23/89
19	EFA21 DL	26936DL	8/23/89	8/23/89
20	EFA23MS	26938MS	8/23/89	8/23/89
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Comments:

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK1

Lab Name: WADS Contract: 68-D9-0022

Lab Code: WADS Case No.: 12464 SAS No.: SDG No.: EFA12

Matrix: (soil/water) SOIL Lab Sample ID: VBLK1

Sample wt/vol: 5.0 (g/mL) G Lab File ID: VOL10280

Level: (low/med) LOW Date Received: 0/ 0/ 0

% Moisture: not dec. 0. Date Analyzed: 8/ 6/89

Column: (pack/cap) PACK Dilution Factor: 1.00

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	5.	U
67-64-1	ACETONE	10.	U
75-15-0	CARBON DISULFIDE	5.	U
75-35-4	1,1-DICHLOROETHENE	5.	U
75-34-3	1,1-DICHLOROETHANE	5.	U
544-59-2	1,2-DICHLOROETHENE (TOTAL)	5.	U
67-66-3	CHLOROFORM	5.	U
107-06-2	1,2-DICHLOROETHANE	5.	U
78-93-3	2-BUTANONE	10.	U
71-55-6	1,1,1-TRICHLOROETHANE	5.	U
56-23-5	CARBON TETRACHLORIDE	5.	U
108-05-4	VINYL ACETATE	10.	U
75-27-4	BROMODICHLOROMETHANE	5.	U
78-87-5	1,2-DICHLOROPROPANE	5.	U
10061-01-5	CIS-1,3-DICHLOROPROPENE	5.	U
79-01-6	TRICHLOROETHENE	5.	U
124-48-1	DIBROMOCHLOROMETHANE	5.	U
79-00-5	1,1,2-TRICHLOROETHANE	5.	U
71-43-2	BENZENE	5.	U
10061-02-6	TRANS-1,3-DICHLOROPROPENE	5.	U
75-25-2	BROMOFORM	5.	U
108-10-1	4-METHYL-2-PENTANONE	10.	U
591-78-6	2-HEXANONE	10.	U
127-18-4	TETRACHLOROETHENE	5.	U
79-34-5	1,1,2,2-TETRACHLOROETHANE	5.	U
108-88-3	TOLUENE	5.	U
108-90-7	CHLOROBENZENE	5.	U
100-41-4	ETHYLBENZENE	5.	U
100-42-5	STYRENE	5.	U
1330-20-7	XYLENE (TOTAL)	5.	U

00257

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLK1

Lab Name: WADS Contract: 68-D9-0022

Lab Code: WADS Case No.: 12464 SAS No.: SDG No.: EFA12

Matrix: (soil/water) SOIL Lab Sample ID: VBLK1

Sample wt/vol: 5.0 (g/mL) G Lab File ID: VOL10280

Level: (low/med) LOW Date Received: 0/ 0/ 0

% Moisture: not dec. 0. Date Analyzed: 8/ 6/89

Column: (pack/cap) PACK Dilution Factor: 1.00

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK2

Lab Name: WADS Contract: 68-D9-0022

Lab Code: WADS Case No.: 12464 SAS No.: SDG No.: EFA12

Matrix: (soil/water) SOIL Lab Sample ID: VBLK2

Sample wt/vol: 5.0 (g/mL) G Lab File ID: VOL10294

Level: (low/med) LOW Date Received: 0/ 0/ 0

% Moisture: not dec. 0. Date Analyzed: 8/ 7/89

Column: (pack/cap) PACK Dilution Factor: 1.00

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	5.	U
67-64-1	ACETONE	10.	U
75-15-0	CARBON DISULFIDE	5.	U
75-35-4	1,1-DICHLOROETHENE	5.	U
75-34-3	1,1-DICHLOROETHANE	5.	U
544-59-2	1,2-DICHLOROETHENE (TOTAL)	5.	U
67-66-3	CHLOROFORM	5.	U
107-06-2	1,2-DICHLOROETHANE	5.	U
78-93-3	2-BUTANONE	10.	U
71-55-6	1,1,1-TRICHLOROETHANE	5.	U
56-23-5	CARBON TETRACHLORIDE	5.	U
108-05-4	VINYL ACETATE	10.	U
75-27-4	BROMODICHLOROMETHANE	5.	U
78-87-5	1,2-DICHLOROPROPANE	5.	U
10061-01-5	CIS-1,3-DICHLOROPROPENE	5.	U
79-01-6	TRICHLOROETHENE	5.	U
124-48-1	DIBROMOCHLOROMETHANE	5.	U
79-00-5	1,1,2-TRICHLOROETHANE	5.	U
71-43-2	BENZENE	5.	U
10061-02-6	TRANS-1,3-DICHLOROPROPENE	5.	U
75-25-2	BROMOFORM	5.	U
108-10-1	4-METHYL-2-PENTANONE	10.	U
591-78-6	2-HEXANONE	10.	U
127-18-4	TETRACHLOROETHENE	5.	U
79-34-5	1,1,2,2-TETRACHLOROETHANE	5.	U
108-88-3	TOLUENE	5.	U
108-90-7	CHLOROBENZENE	5.	U
100-41-4	ETHYLBENZENE	5.	U
100-42-5	STYRENE	5.	U
1330-20-7	XYLENE (TOTAL)	5.	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLK2

Lab Name: WADS Contract: 68-D9-0022

Lab Code: WADS Case No.: 12464 SAS No.: SDG No.: EFA12

Matrix: (soil/water) SOIL Lab Sample ID: VBLK2

Sample wt/vol: 5.0 (g/mL) G Lab File ID: VOL10294

Level: (low/med) LOW Date Received: 0/ 0/ 0

% Moisture: not dec. 0. Date Analyzed: 8/ 7/89

Column: (pack/cap) PACK Dilution Factor: 1.00

Number TICs found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK3

Lab Name: WADS Contract: 68-D9-0022

Lab Code: WADS Case No.: 12464 SAS No.: SDG No.: EFA12

Matrix: (soil/water) SOIL Lab Sample ID: VBLK3

Sample wt/vol: 5.0 (g/mL) G Lab File ID: VOL9974

Level: (low/med) LOW Date Received: 0/ 0/ 0

% Moisture: not dec. 0. Date Analyzed: 8/13/89

Column: (pack/cap) PACK Dilution Factor: 1.00

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	22.	
67-64-1	ACETONE	10.	U
75-15-0	CARBON DISULFIDE	5.	U
75-35-4	1,1-DICHLOROETHENE	5.	U
75-34-3	1,1-DICHLOROETHANE	5.	U
544-59-2	1,2-DICHLOROETHENE (TOTAL)	5.	U
67-66-3	CHLOROFORM	5.	U
107-06-2	1,2-DICHLOROETHANE	5.	U
78-93-3	2-BUTANONE	10.	U
71-55-6	1,1,1-TRICHLOROETHANE	5.	U
56-23-5	CARBON TETRACHLORIDE	5.	U
108-05-4	VINYL ACETATE	10.	U
75-27-4	BROMODICHLOROMETHANE	5.	U
78-87-5	1,2-DICHLOROPROPANE	5.	U
10061-01-5	CIS-1,3-DICHLOROPROPENE	5.	U
79-01-6	TRICHLOROETHENE	5.	U
124-48-1	DIBROMOCHLOROMETHANE	5.	U
79-00-5	1,1,2-TRICHLOROETHANE	5.	U
71-43-2	BENZENE	5.	U
10061-02-6	TRANS-1,3-DICHLOROPROPENE	5.	U
75-25-2	BROMOFORM	5.	U
108-10-1	4-METHYL-2-PENTANONE	10.	U
591-78-6	2-HEXANONE	10.	U
127-18-4	TETRACHLOROETHENE	5.	U
79-34-5	1,1,2,2-TETRACHLOROETHANE	5.	U
108-88-3	TOLUENE	5.	U
108-90-7	CHLOROBENZENE	5.	U
100-41-4	ETHYLBENZENE	5.	U
100-42-5	STYRENE	5.	U
1330-20-7	XYLENE (TOTAL)	5.	U

FORM I VOA
1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

1/87 Rev.

EPA SAMPLE NO.

VBLK3

Lab Name: WADS Contract: 68-D9-0022

Lab Code: WADS Case No.: 12464 SAS No.: SDG No.: EFA12

Matrix: (soil/water) SOIL Lab Sample ID: VBLK3

Sample wt/vol: 5.0 (g/mL) G Lab File ID: VOL9974

Level: (low/med) LOW Date Received: 0/ 0/ 0

% Moisture: not dec. 0. Date Analyzed: 8/13/89

Column: (pack/cap) PACK Dilution Factor: 1.00

Number TICs found: 1

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	76-13-1	ETHANE, 1,1,2-TRICHLORO-1,2,	9.93	10.	J
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EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SBLK1

Lab Name: WADS Contract: 68-D9-0022

Lab Code: WADS Case No.: 12464 SAS No.: SDG No.: EFA12

Matrix: (soil/water) SOIL Lab Sample ID: 9289-92809

Sample wt/vol: 1. (g/mL) G Lab File ID: SBLK1L

Level: (low/med) MED Date Received: 0/ 0/ 0

% Moisture: not dec. 0. dec. 0. Date Extracted: 8/ 9/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 8/10/89

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	20000.	U
111-44-4	bis(2-Chloroethyl)ether	20000.	U
95-57-8	2-Chlorophenol	20000.	U
541-73-1	1,3-Dichlorobenzene	20000.	U
106-46-7	1,4-Dichlorobenzene	20000.	U
100-51-6	Benzyl alcohol	20000.	U
95-50-1	1,2-Dichlorobenzene	20000.	U
95-48-7	2-Methylphenol	20000.	U
108-60-1	bis(2-Chloroisopropyl)ether	20000.	U
106-44-5	4-Methylphenol	20000.	U
621-64-7	N-Nitroso-di-n-propylamine	20000.	U
67-72-1	Hexachloroethane	20000.	U
98-95-3	Nitrobenzene	20000.	U
78-59-1	Isophorone	20000.	U
88-75-5	2-Nitrophenol	20000.	U
105-67-9	2,4-Dimethylphenol	20000.	U
65-85-0	Benzoic acid	100000.	U
111-91-1	bis(2-Chloroethoxy)methane	20000.	U
120-83-2	2,4-Dichlorophenol	20000.	U
120-82-1	1,2,4-Trichlorobenzene	20000.	U
91-20-3	Naphthalene	20000.	U
106-47-8	4-Chloroaniline	20000.	U
87-68-3	Hexachlorobutadiene	20000.	U
59-50-7	4-Chloro-3-methylphenol	20000.	U
91-57-6	2-Methylnaphthalene	20000.	U
77-47-4	Hexachlorocyclopentadiene	20000.	U
88-06-2	2,4,6-Trichlorophenol	20000.	U
95-95-4	2,4,5-Trichlorophenol	100000.	U
91-58-7	2-Chloronaphthalene	20000.	U
88-74-4	2-Nitroaniline	100000.	U
131-11-3	Dimethylphthalate	20000.	U
208-96-8	Acenaphthylene	20000.	U
606-20-2	2,6-Dinitrotoluene	20000.	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK1

Lab Name: WADS Contract: 68-D9-0022

Lab Code: WADS Case No.: 12464 SAS No.: SDG No.: EFA12

Matrix: (soil/water) SOIL Lab Sample ID: 9289-92809

Sample wt/vol: 1. (g/mL) G Lab File ID: SBLK1L

Level: (low/med) MED Date Received: 0/ 0/ 0

% Moisture: not dec. 0. dec. 0. Date Extracted: 8/ 9/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 8/10/89

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	100000.	U
83-32-9	Acenaphthene	20000.	U
51-28-5	2,4-Dinitrophenol	100000.	U
100-02-7	4-Nitrophenol	100000.	U
132-64-9	Dibenzofuran	20000.	U
121-14-2	2,4-Dinitrotoluene	20000.	U
84-66-2	Diethylphthalate	20000.	U
7005-72-3	4-Chlorophenyl-phenylether	20000.	U
86-73-7	Fluorene	20000.	U
100-01-6	4-Nitroaniline	100000.	U
534-52-1	4,6-Dinitro-2-methylphenol	100000.	U
86-30-6	N-Nitrosodiphenylamine (1)	20000.	U
101-55-3	4-Bromophenyl-phenylether	20000.	U
118-74-1	Hexachlorobenzene	20000.	U
87-86-5	Pentachlorophenol	100000.	U
85-01-8	Phenanthrene	20000.	U
120-12-7	Anthracene	20000.	U
84-74-2	Di-n-butylphthalate	20000.	U
206-44-0	Fluoranthene	20000.	U
129-00-0	Pyrene	20000.	U
85-68-7	Butylbenzylphthalate	20000.	U
91-94-1	3,3'-Dichlorobenzidine	40000.	U
56-55-3	Benzo(a)anthracene	20000.	U
218-01-9	Chrysene	20000.	U
117-81-7	bis(2-Ethylhexyl)phthalate	20000.	U
117-84-0	Di-n-octylphthalate	20000.	U
205-99-2	Benzo(b)fluoranthene	20000.	U
207-08-9	Benzo(k)fluoranthene	20000.	U
50-32-8	Benzo(a)pyrene	20000.	U
193-39-5	Indeno(1,2,3-cd)pyrene	20000.	U
53-70-3	Dibenz(a,h)anthracene	20000.	U
191-24-2	Benzo(g,h,i)perylene	20000.	U

(1) - Cannot be separated from diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SBLK1

Lab Name: WADS Contract: 68-D9-0022

Lab Code: WADS Case No.: 12464 SAS No.: SDG No.: EFA12

Matrix: (soil/water) SOIL Lab Sample ID: 9289-92809

Sample wt/vol: 1. (g/mL) G Lab File ID: SBLK1L

Level: (low/med) MED Date Received: 0/ 0/ 0

% Moisture: not dec. 0. dec. 0. Date Extracted: 8/ 9/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 8/10/89

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.00

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				
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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK2

Lab Name: WADS Contract: 68-D9-0022

Lab Code: WADS Case No.: 12464 SAS No.: SDG No.: EFA12

Matrix: (soil/water) SOIL Lab Sample ID: 9289-92811

Sample wt/vol: 30. (g/mL) G Lab File ID: SBLK2

Level: (low/med) LOW Date Received: 0/ 0/ 0

% Moisture: not dec. 0. dec. 0. Date Extracted: 8/11/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 8/14/89

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.00

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
100-51-6	Benzyl alcohol	330.	U
95-50-1	1,2-Dichlorobenzene	330.	U
95-48-7	2-Methylphenol	330.	U
108-60-1	bis(2-Chloroisopropyl)ether	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
65-85-0	Benzoic acid	1700.	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	1700.	U
91-58-7	2-Chloronaphthalene	330.	U
88-74-4	2-Nitroaniline	1700.	U
131-11-3	Dimethylphthalate	330.	U
208-96-8	Acenaphthylene	330.	U
606-20-2	2,6-Dinitrotoluene	330.	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK2

Lab Name: WADS Contract: 68-D9-0022

Lab Code: WADS Case No.: 12464 SAS No.: SDG No.: EFA12

Matrix: (soil/water) SOIL Lab Sample ID: 9289-92811

Sample wt/vol: 30. (g/mL) G Lab File ID: SBLK2

Level: (low/med) LOW Date Received: 0/ 0/ 0

% Moisture: not dec. 0. dec. 0. Date Extracted: 8/11/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 8/14/89

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	1700.	U
83-32-9	Acenaphthene	330.	U
51-28-5	2,4-Dinitrophenol	1700.	U
100-02-7	4-Nitrophenol	1700.	U
132-64-9	Dibenzofuran	330.	U
121-14-2	2,4-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	1700.	U
534-52-1	4,6-Dinitro-2-methylphenol	1700.	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	1700.	U
85-01-8	Phenanthrene	330.	U
120-12-7	Anthracene	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	670.	U
56-55-3	Benzo(a)anthracene	330.	U
218-01-9	Chrysene	330.	U
117-81-7	bis(2-Ethylhexyl)phthalate	330.	U
117-84-0	Di-n-octylphthalate	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

01127

1F

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SBLK2

Lab Name: WADS Contract: 68-D9-0022

Lab Code: WADS Case No.: 12464 SAS No.: SDG No.: EFA12

Matrix: (soil/water) SOIL Lab Sample ID: 9289-92811

Sample wt/vol: 30. (g/mL) G Lab File ID: SBLK2

Level: (low/med) LOW Date Received: 0/ 0/ 0

% Moisture: not dec. 0. dec. 0. Date Extracted: 8/11/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 8/14/89

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.00

Number TICs found: 1

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	123-42-2	2-Pentanone, 4-hydroxy-4-met	3.52	2000.	J A
2.					
3.					
4.					
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1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK2 RE

Lab Name: WADS Contract: 68-D9-0022

Lab Code: WADS Case No.: 12464 SAS No.: SDG No.: EFA12

Matrix: (soil/water) SOIL Lab Sample ID: 9289-92811

Sample wt/vol: 30. (g/mL) G Lab File ID: SBLK2R2

Level: (low/med) LOW Date Received: 0/ 0/ 0

% Moisture: not dec. 0. dec. 0. Date Extracted: 8/11/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 8/28/89

GPC Cleanup: (Y/N) N pH: 0.0 Dilution Factor: 1.00

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
100-51-6	Benzyl alcohol	330.	U
95-50-1	1,2-Dichlorobenzene	330.	U
95-48-7	2-Methylphenol	330.	U
108-60-1	bis(2-Chloroisopropyl)ether	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
65-85-0	Benzoic acid	1700.	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	1700.	U
91-58-7	2-Chloronaphthalene	330.	U
88-74-4	2-Nitroaniline	1700.	U
131-11-3	Dimethylphthalate	330.	U
208-96-8	Acenaphthylene	330.	U
606-20-2	2,6-Dinitrotoluene	330.	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK2 RE

Lab Name: WADS Contract: 68-D9-0022

Lab Code: WADS Case No.: 12464 SAS No.: SDG No.: EFA12

Matrix: (soil/water) SOIL Lab Sample ID: 9289-92811

Sample wt/vol: 30. (g/mL) G Lab File ID: SBLK2R2

Level: (low/med) LOW Date Received: 0/ 0/ 0

% Moisture: not dec. 0. dec. 0. Date Extracted: 8/11/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 8/28/89

GPC Cleanup: (Y/N) N pH: 0.0 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	1700.	U
83-32-9	Acenaphthene	330.	U
51-28-5	2,4-Dinitrophenol	1700.	U
100-02-7	4-Nitrophenol	1700.	U
132-64-9	Dibenzofuran	330.	U
121-14-2	2,4-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	1700.	U
534-52-1	4,6-Dinitro-2-methylphenol	1700.	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	1700.	U
85-01-8	Phenanthrene	330.	U
120-12-7	Anthracene	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	670.	U
56-55-3	Benzo(a)anthracene	330.	U
218-01-9	Chrysene	330.	U
117-81-7	bis(2-Ethylhexyl)phthalate	330.	U
117-84-0	Di-n-octylphthalate	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

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SBLK2 RE

Lab Name: WADS Contract: 68-D9-0022

Lab Code: WADS Case No.: 12464 SAS No.: SDG No.: EFA12

Matrix: (soil/water) SOIL Lab Sample ID: 9289-92811

Sample wt/vol: 30. (g/mL) G Lab File ID: SBLK2R2

Level: (low/med) LOW Date Received: 0/ 0/ 0

% Moisture: not dec. 0. dec. 0. Date Extracted: 8/11/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 8/28/89

GPC Cleanup: (Y/N) N pH: 0.0 Dilution Factor: 1.00

Number TICs found: 1

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	123-42-2	2-Pentanone, 4-hydroxy-4-met	4.02	2000.	J A
2.					
3.					
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1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK3

Lab Name: WADS Contract: 68-D9-0022

Lab Code: WADS Case No.: 12464 SAS No.: SDG No.: EFA12

Matrix: (soil/water) SOIL Lab Sample ID: 9289-92811

Sample wt/vol: 1. (g/mL) G Lab File ID: SBLK3

Level: (low/med) MED Date Received: 0/ 0/ 0

% Moisture: not dec. 0. dec. 0. Date Extracted: 8/11/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 8/15/89

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	20000.	U
111-44-4	bis(2-Chloroethyl)ether	20000.	U
95-57-8	2-Chlorophenol	20000.	U
541-73-1	1,3-Dichlorobenzene	20000.	U
106-46-7	1,4-Dichlorobenzene	20000.	U
100-51-6	Benzyl alcohol	20000.	U
95-50-1	1,2-Dichlorobenzene	20000.	U
95-48-7	2-Methylphenol	20000.	U
108-60-1	bis(2-Chloroisopropyl)ether	20000.	U
106-44-5	4-Methylphenol	20000.	U
621-64-7	N-Nitroso-di-n-propylamine	20000.	U
67-72-1	Hexachloroethane	20000.	U
98-95-3	Nitrobenzene	20000.	U
78-59-1	Isophorone	20000.	U
88-75-5	2-Nitrophenol	20000.	U
105-67-9	2,4-Dimethylphenol	20000.	U
65-85-0	Benzoic acid	100000.	U
111-91-1	bis(2-Chloroethoxy)methane	20000.	U
120-83-2	2,4-Dichlorophenol	20000.	U
120-82-1	1,2,4-Trichlorobenzene	20000.	U
91-20-3	Naphthalene	20000.	U
106-47-8	4-Chloroaniline	20000.	U
87-68-3	Hexachlorobutadiene	20000.	U
59-50-7	4-Chloro-3-methylphenol	20000.	U
91-57-6	2-Methylnaphthalene	20000.	U
77-47-4	Hexachlorocyclopentadiene	20000.	U
88-06-2	2,4,6-Trichlorophenol	20000.	U
95-95-4	2,4,5-Trichlorophenol	100000.	U
91-58-7	2-Chloronaphthalene	20000.	U
88-74-4	2-Nitroaniline	100000.	U
131-11-3	Dimethylphthalate	20000.	U
208-96-8	Acenaphthylene	20000.	U
606-20-2	2,6-Dinitrotoluene	20000.	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK3

Lab Name: WADS Contract: 68-D9-0022

Lab Code: WADS Case No.: 12464 SAS No.: SDG No.: EFA12

Matrix: (soil/water) SOIL Lab Sample ID: 9289-92811

Sample wt/vol: 1. (g/mL) G Lab File ID: SBLK3

Level: (low/med) MED Date Received: 0/ 0/ 0

% Moisture: not dec. 0. dec. 0. Date Extracted: 8/11/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 8/15/89

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	100000.	U
83-32-9	Acenaphthene	20000.	U
51-28-5	2,4-Dinitrophenol	100000.	U
100-02-7	4-Nitrophenol	100000.	U
132-64-9	Dibenzofuran	20000.	U
121-14-2	2,4-Dinitrotoluene	20000.	U
84-66-2	Diethylphthalate	20000.	U
7005-72-3	4-Chlorophenyl-phenylether	20000.	U
86-73-7	Fluorene	20000.	U
100-01-6	4-Nitroaniline	100000.	U
534-52-1	4,6-Dinitro-2-methylphenol	100000.	U
86-30-6	N-Nitrosodiphenylamine (1)	20000.	U
101-55-3	4-Bromophenyl-phenylether	20000.	U
118-74-1	Hexachlorobenzene	20000.	U
87-86-5	Pentachlorophenol	100000.	U
85-01-8	Phenanthrene	20000.	U
120-12-7	Anthracene	20000.	U
84-74-2	Di-n-butylphthalate	20000.	U
206-44-0	Fluoranthene	20000.	U
129-00-0	Pyrene	20000.	U
85-68-7	Butylbenzylphthalate	20000.	U
91-94-1	3,3'-Dichlorobenzidine	40000.	U
56-55-3	Benzo(a)anthracene	20000.	U
218-01-9	Chrysene	20000.	U
117-81-7	bis(2-Ethylhexyl)phthalate	20000.	U
117-84-0	Di-n-octylphthalate	20000.	U
205-99-2	Benzo(b)fluoranthene	20000.	U
207-08-9	Benzo(k)fluoranthene	20000.	U
50-32-8	Benzo(a)pyrene	20000.	U
193-39-5	Indeno(1,2,3-cd)pyrene	20000.	U
53-70-3	Dibenz(a,h)anthracene	20000.	U
191-24-2	Benzo(g,h,i)perylene	20000.	U

(1) - Cannot be separated from diphenylamine

1F

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SBLK3

Lab Name: WADS Contract: 68-D9-0022

Lab Code: WADS Case No.: 12464 SAS No.: SDG No.: EFA12

Matrix: (soil/water) SOIL Lab Sample ID: 9289-92811

Sample wt/vol: 1. (g/mL) G Lab File ID: SBLK3

Level: (low/med) MED Date Received: 0/ 0/ 0

% Moisture: not dec. 0. dec. 0. Date Extracted: 8/11/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 8/15/89

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.00

Number TICs found: 3

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. - -	UNKNOWN HYDROCARBON	14.25	10000.	J
2. 23246-12-0	1,2,4-Trioxolane, 3,3,5-trip	15.80	60000.	J
3. - -	UNKNOWN ESTER	23.50	10000.	J
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
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27.				
28.				
29.				
30.				

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PBLK1

Lab Name: WADS Contract: 68-D9-0022

Lab Code: WADS Case No.: 12464 SAS No.: SDG No.: EFA12

Matrix: (soil/water) SOIL Lab Sample ID: 92805

Sample wt/vol: 30. (g/mL) G Lab File ID: 92805XB

Level: (low/med) LOW Date Received: 0/ 0/ 0

% Moisture: not dec. 0. dec. 0. Date Extracted: 8/ 5/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 8/22/89

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	8.0	U
319-85-7	beta-BHC	8.0	U
319-86-8	delta-BHC	8.0	U
58-89-9	gamma-BHC (Lindane)	8.0	U
76-44-8	Heptachlor	8.0	U
309-00-2	Aldrin	8.0	U
1024-57-3	Heptachlor epoxide	8.0	U
959-98-8	Endosulfan I	8.0	U
60-57-1	Dieldrin	16.	U
72-55-9	4,4'-DDE	16.	U
72-20-8	Endrin	16.	U
33213-65-9	Endosulfan II	16.	U
72-54-8	4,4'-DDD	16.	U
1031-07-8	Endosulfan sulfate	16.	U
50-29-3	4,4'-DDT	16.	U
72-43-5	Methoxychlor	80.	U
53494-70-5	Endrin ketone	16.	U
5103-71-9	alpha-Chlordane	80.	U
5103-74-2	gamma-Chlordane	80.	U
8001-35-2	Toxaphene	160.	U
12674-11-2	Aroclor-1016	80.	U
11104-28-2	Aroclor-1221	80.	U
11141-16-5	Aroclor-1232	80.	U
53469-21-9	Aroclor-1242	80.	U
12672-29-6	Aroclor-1248	80.	U
11097-69-1	Aroclor-1254	160.	U
11096-82-5	Aroclor-1260	160.	U

ecology and environment, inc.
111 WEST JACKSON BLVD., CHICAGO, ILLINOIS 60604, TEL. 312-663-9415
International Specialists in the Environment

CRL Receipt Date 9/11 FIT Receipt Date 10/19 Review Completed 10/1/89

TO: Bayer
FROM: Mary Gzyra
SUBJECT: Scaife Dg Chem
PAN: IL0095SB (1 hour charged for review) Case # 12414

Sample Description

Organics (VOA, ABN, Pest/PCB)		Inorganics (Metals, Cyanide)	
# 11	Low Soil	# 12	Low Soil
_____	Low Water	_____	Low Water
_____	Drinking Water	_____	Drinking Water
_____	Other	_____	Other

Project Data Status ✓ Completed!!

_____ Incomplete, awaiting _____

FIT Data Review Findings:

Check Data Sheets for Transcription Errors

✓ Compounds were detected in sample(s); see enclosed sheet.

Book No. 9 Page No. _____ Date Sampled 8/2

0759:2

recycled paper

3/ 11/1/89

Table 4-> Cont.

2070-13 Physical State*	Waste Characteristics**	Category***	SI Memo	Sample Collection Information and Parameters	Sample Number >_1	>_2	>_3	>_4	>_5	>_6	>_7	>_8	>_9	>_10	>_11	>_12
				Analyte Detected (values in > mg/kg or µg/L)	HEEF 12	13	14	15	16	17	18	19	20	21	22	23
Solid	A,D	MES	CSC	aluminum	10400	7600	7550	26100	10100	20700	13978	19700	12200	26000	6360	6840
Solid	A,D	MES	HM	antimony	13.4 B									12.2 B		
Solid	A,D	MES	HM	arsenic	13.7 JNWB	6.2 JNB	4.4 JN		28.5 JN	13.3 JNB	26.9 JNB	24.6 JFN	18.6 JN	27.9 JN	5.5 JN	8.4 JN
Solid	A,D	MES	CSC	barium	121	83.9	458	628	179	585	197	345	304	571	159	116
Solid	A,D	MES	M	beryllium	1.8	1.6	0.56 B	3.1	1.3	2.1	2.1 B	1.7 B	0.45 B	0.74 B	0.89 B	0.48 B
Solid	A,D	MES	HM	cadmium	28.7	27.8	14	13.7	67	76.2	344	330	5.7	6.4	14.1	
Solid	D	MES	CSC	calcium	163000	172000	56200	138000	111000	32600	36141	62300	19300	13700	43000	55700
Solid	A,D	MES	HM	chromium	51.6	48	33.3	397	56.8	83	76.6	455	29.5	90.1	46.9	15.3
Solid	A,D	MES	HM	cobalt	14	6.7 B	3.2 B	27.6 B	11.5 B	9.1 B	6.5 B	11 B	3.3 B	4.1 B	3.6 B	8.3 B
Solid	A,D	MES	HM	copper	1530 J*	688 J*	112 J*	84.8 J*	618 J*	457 J*	728 J*	446 J*	144 J*	359 J*	187 J*	18.9 J*
Solid	A,D	MES	HM,CSC	iron	21800	18500	14500	38400	24500	45600	26953	33100	14900	21300	17100	17400
Solid	A,D	MES	HM	lead	523 JN	1790 JN	576 JN	281 JN	3510 JN	1300 JN	1667 JN	2200 JN	669 JN	1800 JN	2030 JN	35.3 JN
Solid	A,D	MES	CSC	magnesium	8690	6680	1740	46500	6860	2340	3253	7270	2940	2680	9280	8980
Solid	A,D	MES	HM	manganese	3980	2650	462	1830	883	254	930	735	182	118	754	785
Liquid	A,D	MES	HM	mercury	0.4 JN	0.6 JN	5.3 JN		6.4 JN	2.7 JN	8.8 JN	12 JN	6.2 JN	10 JN	0.5 JN	
Solid	A,D	MES	HM	nickel	59.4	32	22.2	79.7	36.3	8.2 B	21.9 B	26.6	8.9 B	3.0 B	13.9	15.7
Solid	D	MES	CSC	potassium	6310	3980	6130	33900	6750	13200	6669	3820	1960	6940	809 B	797 B
Solid	A,D	MES	M	selenium			0.35 JNWB				3.1 JNB	1.8 JNB	0.57 JNWB	0.91 JWOB		
Solid	A,D	MES	HM	silver	31.5 J*N	2.2 J*NB	1.4 J*NWB	3.4 J*NB	6.6 J*N	6.0 J*N	12 J*N	7.2 J*N	2.2 J*NB	2.6 J*NB	3.9 J*N	
Solid	D	MES	CSC	sodium			689 B	1360 B						4650		
Solid	A,D	MES	HM	thallium	1.2 J*B				2.0 J*B		2.4 JWB	1.3 JWB	0.70 JWB			
Solid	A,D	MES	HM	vanadium	59.3	56.2	38.3	124	43.6	119	85.4	77.2	28.5	61.4	45.9	21.5
Solid	A,D	MES	CSC,HM	zinc	8210	27400	3760	2460	21600	8230	32700	23400	839	1370	1680	147
Solid	A	IOC	IOC	cyanide		2.8 JN		4.2 JN	1.1 JN	2.3 JN						

— Not detected.

19/4

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

10/19/89

DATE: 10-18-89

SUBJECT: Review of Region V CLP Data Received for Review on Sept 11-89

FROM: Curtis Ross, Director (5SCRL) Central Regional Laboratory Jay Thupper

TO: Data User: Jet

We have reviewed the data for the following case(s).

SITE NAME: Swift Ac Chemical SMO Case No. 12464

EPA Data Set No. SF 6484 No. of Samples: 12 D.U./Activity Numbers TFA/TFA102

CRL No. 89FB28509-20

SMO Traffic No. MEEF12-23

CLP Laboratory: RMAL Hrs. Required for Review: 8 +1 ok 10/14/89

Following are our findings:

see next page

MF 10/12/89

( ) Data are acceptable for use.
(✓) Data are acceptable for use with qualifications referenced above. See Data Qualifier sheets and Calibration Outlier forms for flags and additional comments.
( ) Data are preliminary - pending verification by Contractor Laboratory. See Case Summary above.
( ) Data are unacceptable.

cc: Carla Dempsey, CLP Quality Assurance Officer, Analytical Operations Branch
James Petty, Chief Quality Assurance Research, EMSL, Las Vegas

The laboratory portion of case 12464 contains 12 low level soil samples analyzed for total metals and total cyanide.(QC#88635)

Soil Samples(MEEF12-23)

ICP ANALYSES: The duplicate of ICP Pb(30.5%) was flagged by the lab however the duplicate limits of soils(35% RPD) was not exceeded. The matrix spike of ICP Pb(134.1%) is out of control. All ICP Pb data are estimated(J) due to a high bias.

The duplicate of Cu(50.2%) indicates poor precision. All Cu data are estimated(J) due to poor precision.

The duplicate of Ag(+/- 2X CRDL) and the spike(-95.5%) are out of control. All Ag data except MEEF23 are estimated(J) due to poor precision. MEEF23 for Ag is unusable(R).

The reviewer made a correction on form 1 for sample MEEF18 using pg. 68 raw data to recalculate data results.

GFAA ANALYSES: The matrix spike of As(70.1%) and Se(0.0%) are out of control. The lab flagged a "W" on following: As(MEEF12), Tl(MEEF13,18-20,22,23), and Se(MEEF13-15,17,20-23). The lab flagged(+) on As(MEEF19) and Tl(MEEF12,16).

For Tl: MEEF12,16 are estimated(J) due to a poor MSA coefficient correlation,MEEF13,22,23 are estimated(UJ) due to interference and MEEF18-20 are estimated(J) due to interference.
For As: MEEF19 is estimated(J) due to a poor MSA coefficient correlation and a low bias,MEEF12 is estimated(J) due to interference and a low bias,MEEF15 is estimated(UJ) due to possible elevated detection limits, and the rest of the data are estimated(J) due to a low bias.
For Se: MEEF12,13,15-17,22,23 are unusable(R),MEEF14,20,21 are estimated(J) due to interference and a low bias, and the rest of the data are estimated(J) due to a low bias.

OTHER QUALIFIERS: The matrix spike of CN(126.9%) is out of control. The holding time of CN(14 days) was exceeded by the lab. For CN: MEEF13,15-17 are estimated(J) due to a high bias and the rest of the data are estimated(UJ) due to a possible elevated detection limits.
The holding time of Hg(28 days) was exceeded by the lab. The matrix spike of Hg(71.4%) is out of control. For Hg: MEEF15 and 23 are estimated(UJ) due to elevated detection limits and MEEF14,16,17-22 are estimated(J) due to a low bias.
Although the holding time was exceeded by the lab on Hg and CN no qualification is needed since there are no established holding times for soils.

Reviewed by: M. Fletcher
Date:10/16/89

DPO: [ ] ACTION [ ] FYI Region 5

INORGANIC REGIONAL DATA ASSESSMENT SUMMARY

CASE NO. 12464 LABORATORY Rona

SDG NO. MEEF12 DATA USER FIT

SOW 7/87 REVIEW COMPLETION DATE 10/12/89

NO. OF SAMPLES _____ WATER RK MF 10/12/89 SOIL _____ OTHER

REVIEWER [ ] ESD [✓] ESAT [ ] OTHER, CONTRACT/CONTRACTOR _____

	ICP	AA	Hg	CYANIDE
1. HOLDING TIMES	O	O	M	MF 10/4/89 O M
2. INITIAL CALIBRATIONS	O	O	O	O
3. CONTINUING CALIBRATIONS	O	O	O	O
4. FIELD BLANKS ("F" = not applicable)	O	O	O	O
5. LABORATORY BLANKS	O	O	O	O
6. ICS	O			
7. LCS	O	O		
8. DUPLICATE ANALYSIS	M	O		O
9. MATRIX SPIKE	M	M	M	M
10. MSA		O		
11. SERIAL DILUTION	O			
12. SAMPLE VERIFICATION	O	O	O	O
13. REGIONAL QC ("F" = not applicable)	O	O	O	O
14. OVERALL ASSESSMENT	M	M	M	M

O = No problems or minor problems that do not affect data usability.
X = No more than *about* 5% of the data points are qualified as either estimated or unusable.
M = More than *about* 5% of the data points are qualified as estimated.
Z = More than *about* 5% of the data points are qualified as unusable.

DPO ACTION ITEMS: _____

AREAS OF CONCERN: _____

QC EXCEPTION SUMMARY REPORT

CASE # 12464
DATA SET SE6484
LAB Q.C.# 88638
DATE:

SITE Swift Ac Chemical
LAB RMAC
REVIEWED BY Ms. Fletcher

MATRIX: soil
CONC. : low
MATRIX:
CONC. :

WATER SAMPLE SPK.
WATER SAMPLE DUP.
SOIL SAMPLE SPK.
SOIL SAMPLE DUP.

	OVERALL CASE QC									MATRIX SPECIFIC QC						SAMPLE SPECIFIC QC		FIELD QC			REGIONAL QC			OTHER/ COMMENTS
	Holding Time	Cal Blanks	Int Calibr	Contin Calibr	Prep Blk AQ	Prep Blk SOL	ICS Vrfi	ICS % AQ	ICS % SOL	Sol Dup RPD	Sol Spk %R	AQ Dup RPD	AQ Spk %R	Sol Dilu AQ	Sol Dilu SOL	GFAA Dup	GFAA Spike	Blank	Dup RPD	Spike %R	Stand Blank	Stand Spike %R	Spike Sample RPD	
Aluminum																								
Antimony																								
Arsenic											70.1													
Barium																								
Beryllium																								
Cadmium																								
Calcium																								
Chromium																								
Cobalt																								
Copper										50.2														
Iron																								
Lead											134.1													
Magnesium																								
Manganese																								
Mercury											71.4													
Nickel																								
Potassium											0.0													
Selenium																								
Silver										123.1	-95.5													
Sodium																								
Thallium																								
Tin																								
Vanadium																								
Zinc																								
											126.4													

U.S. EPA - CLP

00001

COVER PAGE - INORGANIC ANALYSES DATA PACKAGE

Lab Name: ROCKY MOUNTAIN ANALYTICAL Contract: 68-01-7476

Lab Code: ENSECO Case No.: 12464 SAS No.: ____ SDG No.: MEEF12

SOW No.: 7/87

RECEIVED SEP 11 1989 US EPA CENTRAL REGIONAL LAB. 536 S. CLARK ST. CHICAGO, ILLINOIS 60605

EPA Sample No.	Lab Sample ID.
MEEF12	
MEEF12D	
MEEF12S	
MEEF13	
MEEF14	
MEEF15	
MEEF16	
MEEF17	
MEEF18	
MEEF19	
MEEF20	
MEEF21	
MEEF22	
MEEF23	

Were ICP interelement corrections applied? Yes/No YES

Were ICP background corrections applied? Yes/No YES

If yes-were raw data generated before application of background corrections? Yes/No NO

Comments:
TWELVE LOW SOIL SAMPLES FOR TOTAL METALS AND CYANIDE ANALYSIS.
RMA QC#88635

Release of the data contained in this hardcopy data package and in the computer readable data submitted on floppy diskette have been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Lab Manager: Tracy Gibson

Date: 09/08/89

U.S. EPA - CLP

1
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MEEF12

Lab Name: ROCKY MOUNTAIN ANALYTICAL Contract: 68-01-7476

Lab Code: ENSECO Case No.: 12464 SAS No.: _____ SDG No.: MEEF12

Matrix (soil/water): SOIL Lab Sample ID: _____

Level (low/med): LOW Date Received: 08/03/89

% Solids: 74.5

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	10400			P
7440-36-0	Antimony	13.4	B		P
7440-38-2	Arsenic	13.7	B	WN	F
7440-39-3	Barium	121			P
7440-41-7	Beryllium	1.8			P
7440-43-9	Cadmium	28.7			P
7440-70-2	Calcium	163000			P
7440-47-3	Chromium	51.6			P
7440-48-4	Cobalt	14.0			P
7440-50-8	Copper	1530		*	P
7439-89-6	Iron	21800			P
7439-92-1	Lead	523		*N	P
7439-95-4	Magnesium	8690			P
7439-96-5	Manganese	3980			P
7439-97-6	Mercury	0.4		N	CV
7440-02-0	Nickel	59.4			P
7440-09-7	Potassium	6310			P
7482-49-2	Selenium	2.7	U	N	F
7440-22-4	Silver	31.5		*N	P
7440-23-5	Sodium	456	U		P
7440-28-0	Thallium	1.2	B	+	F
7440-62-2	Vanadium	59.3			P
7440-66-6	Zinc	8210			P
	Cyanide	0.67	U	N	AS

Color Before: BROWN Clarity Before: _____ Texture: COARSE
Color After: BROWN Clarity After: _____ Artifacts: _____

Comments:
SELENIUM SAMPLE RESULT IS REPORTED AT AN ADDITIONAL 10X DILUTION.

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1
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MEEF13

Lab Name: ROCKY MOUNTAIN ANALYTICAL Contract: 68-01-7476

Lab Code: ENSECO Case No.: 12464 SAS No.: _____ SDG No.: MEEF12

Matrix (soil/water): SOIL Lab Sample ID: _____

Level (low/med): LOW Date Received: 08/03/89

% Solids: 70.8

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	7600			P
7440-36-0	Antimony	7.0	U		P
7440-38-2	Arsenic	6.2	B	N	F
7440-39-3	Barium	83.9			P
7440-41-7	Beryllium	1.6			P
7440-43-9	Cadmium	27.8			P
7440-70-2	Calcium	172000			P
7440-47-3	Chromium	48.0			P
7440-48-4	Cobalt	6.7	B		P
7440-50-8	Copper	688		*	P
7439-89-6	Iron	18500			P
7439-92-1	Lead	1790		*N	P
7439-95-4	Magnesium	6680			P
7439-96-5	Manganese	2650			P
7439-97-6	Mercury	0.6		N	CV
7440-02-0	Nickel	32.0			P
7440-09-7	Potassium	3980			P
7482-49-2	Selenium	0.28	U	WN	F
7440-22-4	Silver	2.2	B	*N	P
7440-23-5	Sodium	480	U		P
7440-28-0	Thallium	0.56	U	W	F
7440-62-2	Vanadium	56.2			P
7440-66-6	Zinc	27400			P
	Cyanide	2.8		N	AS

Color Before: BROWN Clarity Before: _____ Texture: COARSE
Color After: BROWN Clarity After: _____ Artifacts: _____

Comments:

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1
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MEEF14

Lab Name: ROCKY MOUNTAIN ANALYTICAL Contract: 68-01-7476

Lab Code: ENSECO Case No.: 12464 SAS No.: _____ SDG No.: MEEF12

Matrix (soil/water): SOIL Lab Sample ID: _____

Level (low/med): LOW Date Received: 08/03/89

% Solids: 67.8

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	7550			P
7440-36-0	Antimony	7.3	U		P
7440-38-2	Arsenic	4.4		SN	F
7440-39-3	Barium	458			P
7440-41-7	Beryllium	0.56	B		P
7440-43-9	Cadmium	14.0			P
7440-70-2	Calcium	56200			P
7440-47-3	Chromium	33.3			P
7440-48-4	Cobalt	3.2	B		P
7440-50-8	Copper	112		*	P
7439-89-6	Iron	14500			P
7439-92-1	Lead	526		*N	P
7439-95-4	Magnesium	1740			P
7439-96-5	Manganese	462			P
7439-97-6	Mercury	5.3		N	CV
7440-02-0	Nickel	22.2			P
7440-09-7	Potassium	6130			P
7482-49-2	Selenium	0.35	B	WN	F
7440-22-4	Silver	1.4	B	*N	P
7440-23-5	Sodium	689	B		P
7440-28-0	Thallium	5.9	U		F
7440-62-2	Vanadium	38.3			P
7440-66-6	Zinc	3760			P
	Cyanide	0.74	U	N	AS

Color Before: BROWN Clarity Before: _____ Texture: COARSE
Color After: BROWN Clarity After: _____ Artifacts: _____

Comments:
THALLIUM SAMPLE RESULT IS REPORTED AT AN ADDITIONAL 10X DILUTION.

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1
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MEEF15

Lab Name: ROCKY MOUNTAIN ANALYTICAL Contract: 68-01-7476

Lab Code: ENSECO Case No.: 12464 SAS No.: _____ SDG No.: MEEF12

Matrix (soil/water): SOIL Lab Sample ID: _____

Level (low/med): LOW Date Received: 08/03/89

% Solids: 33.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	26100			P
7440-36-0	Antimony	15.0	U		P
7440-38-2	Arsenic	6.1	U	N	F
7440-39-3	Barium	628			P
7440-41-7	Beryllium	3.1			P
7440-43-9	Cadmium	13.7			P
7440-70-2	Calcium	138000			P
7440-47-3	Chromium	397			P
7440-48-4	Cobalt	27.6	B		P
7440-50-8	Copper	84.8		*	P
7439-89-6	Iron	38400			P
7439-92-1	Lead	281		*N	P
7439-95-4	Magnesium	46500			P
7439-96-5	Manganese	1830			P
7439-97-6	Mercury	0.3	U	N	CV
7440-02-0	Nickel	79.7			P
7440-09-7	Potassium	33900			P
7482-49-2	Selenium	0.61	U	WN	F
7440-22-4	Silver	3.4	B	*N	P
7440-23-5	Sodium	1360	B		P
7440-28-0	Thallium	12.1	U		F
7440-62-2	Vanadium	124			P
7440-66-6	Zinc	2660			P
	Cyanide	4.2		N	AS

Color Before: BROWN Clarity Before: _____ Texture: COARSE
Color After: BROWN Clarity After: _____ Artifacts: _____

Comments:
ARSENIC AND THALLIUM SAMPLE RESULTS ARE REPORTED AT AN ADDITIONAL 10X DILUTION.

U.S. EPA - CLP

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MEEF16

Lab Name: ROCKY MOUNTAIN ANALYTICAL Contract: 68-01-7476

Lab Code: ENSECO Case No.: 12464 SAS No.: _____ SDG No.: MEEF12

Matrix (soil/water): SOIL Lab Sample ID: _____

Level (low/med): LOW Date Received: 08/03/89

% Solids: 80.8

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	10100			P
7440-36-0	Antimony	6.1	U		P
7440-38-2	Arsenic	28.5		N	F
7440-39-3	Barium	179			P
7440-41-7	Beryllium	1.3			P
7440-43-9	Cadmium	67.0			P
7440-70-2	Calcium	111000			P
7440-47-3	Chromium	56.8			P
7440-48-4	Cobalt	11.5	B		P
7440-50-8	Copper	618		*	P
7439-89-6	Iron	24500			P
7439-92-1	Lead	3510		*N	P
7439-95-4	Magnesium	6860			P
7439-96-5	Manganese	883			P
7439-97-6	Mercury	6.4		N	CV
7440-02-0	Nickel	36.3			P
7440-09-7	Potassium	6750			P
7482-49-2	Selenium	2.5	U	N	F
7440-22-4	Silver	6.6		*N	P
7440-23-5	Sodium	421	U		P
7440-28-0	Thallium	2.0	B	+	F
7440-62-2	Vanadium	43.6			P
7440-66-6	Zinc	21600			P
	Cyanide	1.1		N	AS

Color Before: BROWN Clarity Before: _____ Texture: COARSE
Color After: BROWN Clarity After: _____ Artifacts: _____

Comments:
SELENIUM SAMPLE RESULT IS REPORTED AT AN ADDITIONAL 10X DILUTION.

U.S. EPA - CLP

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MEEF17

Lab Name: ROCKY MOUNTAIN ANALYTICAL Contract: 68-01-7476

Lab Code: ENSECO Case No.: 12464 SAS No.: _____ SDG No.: MEEF12

Matrix (soil/water): SOIL Lab Sample ID: _____

Level (low/med): LOW Date Received: 08/03/89

% Solids: 51.2

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	20700			P
7440-36-0	Antimony	9.6	U		P
7440-38-2	Arsenic	13.3	B	N	F
7440-39-3	Barium	585			P
7440-41-7	Beryllium	2.1			P
7440-43-9	Cadmium	76.2			P
7440-70-2	Calcium	32600			P
7440-47-3	Chromium	83.0			P
7440-48-4	Cobalt	9.1	B		P
7440-50-8	Copper	457		*	P
7439-89-6	Iron	45600			P
7439-92-1	Lead	1300		*N	P
7439-95-4	Magnesium	2340			P
7439-96-5	Manganese	254			P
7439-97-6	Mercury	2.7		N	CV
7440-02-0	Nickel	8.2	B		P
7440-09-7	Potassium	13200			P
7482-49-2	Selenium	0.39	U	WN	F
7440-22-4	Silver	6.0		*N	P
7440-23-5	Sodium	664	U		P
7440-28-0	Thallium	7.8	U		F
7440-62-2	Vanadium	119			P
7440-66-6	Zinc	8230			P
	Cyanide	2.3		N	AS

Color Before: BROWN Clarity Before: _____ Texture: COARSE

Color After: BROWN Clarity After: _____ Artifacts: _____

Comments:

THALLIUM SAMPLE RESULT IS REPORTED AT AN ADDITIONAL 10X DILUTION.

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MEEF18

Lab Name: ROCKY MOUNTAIN ANALYTICAL Contract: 68-01-7476

Lab Code: ENSECO Case No.: 12464 SAS No.: _____ SDG No.: MEEF12

Matrix (soil/water): SOIL Lab Sample ID: _____

Level (low/med): LOW Date Received: 08/03/89

% Solids: 32.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	~~13718~~ 28000			P
7440-36-0	Antimony	30.9	U		P
7440-38-2	Arsenic	26.9	B	N	F
7440-39-3	Barium	~~400~~ ~~394~~ 197			P
7440-41-7	Beryllium	2.1 ~~4.1~~ ~~4.2~~	B		P
7440-43-9	Cadmium	344 ~~688~~ ~~703~~			P
7440-70-2	Calcium	36141 72300			P
7440-47-3	Chromium	~~156~~ ~~153~~ 76.55			P
7440-48-4	Cobalt	6.49 ~~46~~ ~~13.0~~	B		P
7440-50-8	Copper	~~1836~~ 1460 727.5		*	P
7439-89-6	Iron	26953 53900			P
7439-92-1	Lead	~~3250~~ ~~3330~~ 1667		*N	P
7439-95-4	Magnesium	~~6220~~ ~~6510~~ 3253			P
7439-96-5	Manganese	~~1876~~ ~~1860~~ 930			P
7439-97-6	Mercury	8.8		N	CV
7440-02-0	Nickel	~~52.22~~ ~~43.8~~ 21.9	B		P
7440-09-7	Potassium	~~4984~~ 13300 6649			P
7482-49-2	Selenium	3.1	B	SN	F
7440-22-4	Silver	~~22.45~~ ~~23.9~~ ~~11.97~~		*N 11.97	P
7440-23-5	Sodium	2120	U		P
7440-28-0	Thallium	2.4	B	W	F
7440-62-2	Vanadium	85.36 ~~171~~			P
7440-66-6	Zinc	32700 ~~65400~~			P
	Cyanide	1.6	U	N	AS

CLP corrections MF 10/16/89

Color Before: BROWN Clarity Before: _____ Texture: COARSE
Color After: BROWN Clarity After: _____ Artifacts: _____

Comments:
ICP SAMPLE RESULTS ARE REPORTED AT AN ADDITIONAL 2X DILUTION DUE TO HIGH CONCENTRATIONS OF CALCIUM AND ZINC IN SAMPLE.

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MEEF19

Lab Name: ROCKY MOUNTAIN ANALYTICAL Contract: 68-01-7476

Lab Code: ENSECO Case No.: 12464 SAS No.: _____ SDG No.: MEEF12

Matrix (soil/water): SOIL Lab Sample ID: _____

Level (low/med): LOW Date Received: 08/03/89

% Solids: 44.8

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	19700			P
7440-36-0	Antimony	11.0	U		P
7440-38-2	Arsenic	24.6		+N	F
7440-39-3	Barium	345			P
7440-41-7	Beryllium	1.7	B		P
7440-43-9	Cadmium	330			P
7440-70-2	Calcium	62300			P
7440-47-3	Chromium	455			P
7440-48-4	Cobalt	11.0	B		P
7440-50-8	Copper	446		*	P
7439-89-6	Iron	33100			P
7439-92-1	Lead	2200		*N	P
7439-95-4	Magnesium	7270			P
7439-96-5	Manganese	735			P
7439-97-6	Mercury	12		N	CV
7440-02-0	Nickel	26.6			P
7440-09-7	Potassium	3820			P
7482-49-2	Selenium	1.8	B	SN	F
7440-22-4	Silver	7.2		*N	P
7440-23-5	Sodium	759	U		P
7440-28-0	Thallium	1.3	B	W	F
7440-62-2	Vanadium	77.2			P
7440-66-6	Zinc	23400			P
	Cyanide	1.1	U	N	AS

Color Before: BROWN Clarity Before: _____ Texture: COARSE
Color After: BROWN Clarity After: _____ Artifacts: _____

Comments:

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MEEF20

Lab Name: ROCKY MOUNTAIN ANALYTICAL Contract: 68-01-7476

Lab Code: ENSECO Case No.: 12464 SAS No.: _____ SDG No.: MEEF12

Matrix (soil/water): SOIL Lab Sample ID: _____

Level (low/med): LOW Date Received: 08/03/89

% Solids: 62.8

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	12200			P
7440-36-0	Antimony	7.9	U		P
7440-38-2	Arsenic	18.6		N	F
7440-39-3	Barium	304			P
7440-41-7	Beryllium	0.45	B		P
7440-43-9	Cadmium	5.7			P
7440-70-2	Calcium	19300			P
7440-47-3	Chromium	29.5			P
7440-48-4	Cobalt	3.3	B		P
7440-50-8	Copper	144		*	P
7439-89-6	Iron	14900			P
7439-92-1	Lead	669		*N	P
7439-95-4	Magnesium	2940			P
7439-96-5	Manganese	182			P
7439-97-6	Mercury	6.2		N	CV
7440-02-0	Nickel	8.9	B		P
7440-09-7	Potassium	1960			P
7482-49-2	Selenium	0.57	B	WN	F
7440-22-4	Silver	2.2	B	*N	P
7440-23-5	Sodium	541	U		P
7440-28-0	Thallium	0.70	B	W	F
7440-62-2	Vanadium	28.5			P
7440-66-6	Zinc	839			P
	Cyanide	0.80	U	N	AS

Color Before: BROWN Clarity Before: _____ Texture: COARSE

Color After: BROWN Clarity After: _____ Artifacts: _____

Comments:

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MEEF21

Lab Name: ROCKY MOUNTAIN ANALYTICAL Contract: 68-01-7476

Lab Code: ENSECO Case No.: 12464 SAS No.: _____ SDG No.: MEEF12

Matrix (soil/water): SOIL Lab Sample ID: _____

Level (low/med): LOW Date Received: 08/03/89

% Solids: 50.4

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	26000			P
7440-36-0	Antimony	12.2	B		P
7440-38-2	Arsenic	27.8		SN	F
7440-39-3	Barium	571			P
7440-41-7	Beryllium	0.74	B		P
7440-43-9	Cadmium	6.4			P
7440-70-2	Calcium	13700			P
7440-47-3	Chromium	90.1			P
7440-48-4	Cobalt	4.1	B		P
7440-50-8	Copper	359		*	P
7439-89-6	Iron	21300			P
7439-92-1	Lead	1800		*N	P
7439-95-4	Magnesium	2680			P
7439-96-5	Manganese	118			P
7439-97-6	Mercury	10		N	CV
7440-02-0	Nickel	3.0	B		P
7440-09-7	Potassium	6940			P
7482-49-2	Selenium	0.91	B	WN	F
7440-22-4	Silver	2.6	B	*N	P
7440-23-5	Sodium	4650			P
7440-28-0	Thallium	0.79	U		F
7440-62-2	Vanadium	61.4			P
7440-66-6	Zinc	1370			P
	Cyanide	0.99	U	N	AS

Color Before: GREY Clarity Before: _____ Texture: COARSE
Color After: GREY Clarity After: _____ Artifacts: _____

Comments:

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MEEF22

Lab Name: ROCKY MOUNTAIN ANALYTICAL Contract: 68-01-7476

Lab Code: ENSECO Case No.: 12464 SAS No.: _____ SDG No.: MEEF12

Matrix (soil/water): SOIL Lab Sample ID: _____

Level (low/med): LOW Date Received: 08/03/89

% Solids: 64.9

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	6360			P
7440-36-0	Antimony	7.6	U		P
7440-38-2	Arsenic	5.5		N	F
7440-39-3	Barium	159			P
7440-41-7	Beryllium	0.89	B		P
7440-43-9	Cadmium	14.1			P
7440-70-2	Calcium	113000			P
7440-47-3	Chromium	46.9			P
7440-48-4	Cobalt	3.6	B		P
7440-50-8	Copper	187		*	P
7439-89-6	Iron	17100			P
7439-92-1	Lead	2030		*N	P
7439-95-4	Magnesium	9280			P
7439-96-5	Manganese	754			P
7439-97-6	Mercury	0.5		N	CV
7440-02-0	Nickel	13.9			P
7440-09-7	Potassium	809	B		P
7482-49-2	Selenium	0.31	U	WN	F
7440-22-4	Silver	3.9		*N	P
7440-23-5	Sodium	524	U		P
7440-28-0	Thallium	0.62	U	W	F
7440-62-2	Vanadium	45.9			P
7440-66-6	Zinc	1680			P
	Cyanide	0.77	U	N	AS

Color Before: BLACK Clarity Before: _____ Texture: COARSE
Color After: BLACK Clarity After: _____ Artifacts: _____

Comments:

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INORGANIC ANALYSIS DATA SHEET

00013

EPA SAMPLE NO.

MEEF23

Lab Name: ROCKY MOUNTAIN ANALYTICAL Contract: 68-01-7476

Lab Code: ENSECO Case No.: 12464 SAS No.: _____ SDG No.: MEEF12

Matrix (soil/water): SOIL Lab Sample ID: _____

Level (low/med): LOW Date Received: 08/03/89

% Solids: 79.7

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	6840			P
7440-36-0	Antimony	6.2	U		P
7440-38-2	Arsenic	8.4		N	F
7440-39-3	Barium	116			P
7440-41-7	Beryllium	0.48	B		P
7440-43-9	Cadmium	0.90	U		P
7440-70-2	Calcium	55700			P
7440-47-3	Chromium	15.3			P
7440-48-4	Cobalt	8.3	B		P
7440-50-8	Copper	18.9		*	P
7439-89-6	Iron	17400			P
7439-92-1	Lead	35.3		*N	P
7439-95-4	Magnesium	19800			P
7439-96-5	Manganese	785			P
7439-97-6	Mercury	0.1	U	N	CV
7440-02-0	Nickel	15.7			P
7440-09-7	Potassium	797	B		P
7482-49-2	Selenium	0.25	U	WN	F
7440-22-4	Silver	0.98	U	*N	P
7440-23-5	Sodium	427	U		P
7440-28-0	Thallium	0.50	U	W	F
7440-62-2	Vanadium	21.5			P
7440-66-6	Zinc	147			P
	Cyanide	0.63	U	N	AS

Color Before: BROWN Clarity Before: _____ Texture: COARSE

Color After: BROWN Clarity After: _____ Artifacts: _____

Comments:

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3
BLANKS

Lab Name: ROCKY MOUNTAIN ANALYTICAL Contract: 68-01-7476

Lab Code: ENSECO Case No.: 12464 SAS No.: _____ SDG No.: MEEF12

Preparation Blank Matrix (soil/water): SOIL

Preparation Blank Concentration Units (ug/L or mg/kg): MG/KG

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum	30.7	U	30.7	U	30.7	U	30.7	U	6.1	U	P
Antimony	24.7	U	24.7	U	24.7	U	24.7	U	4.9	U	P
Arsenic											
Barium	2.7	U	2.7	U	2.7	U	2.7	U	0.54	U	P
Beryllium	0.5	U	0.7	B	0.5	U	0.5	B	0.10	U	P
Cadmium	3.6	U	3.6	U	3.6	U	3.6	U	0.72	U	P
Calcium	94.5	U	94.5	U	103.0	B	94.5	U	18.9	B	P
Chromium	5.5	U	5.5	U	5.5	U	5.5	U	1.1	U	P
Cobalt	4.1	U	4.1	U	4.1	U	4.1	U	0.82	U	P
Copper	6.0	U	6.0	U	6.0	U	6.0	U	1.2	U	P
Iron	22.3	U	22.3	U	22.3	U	22.3	U	4.5	U	P
Lead	27.4	U	27.4	U	27.4	U	27.4	U	5.5	U	P
Magnesium	122.0	U	122.0	U	122.0	U	122.0	U	24.3	U	P
Manganese	7.8	U	7.8	U	7.8	U	7.8	U	1.6	U	P
Mercury											
Nickel	-14.6	B	-11.1	B	-13.4	B	-11.0	B	-3.2	B	P
Potassium	161.0	U	161.0	U	161.0	U	161.0	U	32.2	U	P
Selenium											
Silver	3.9	U	4.7	B	4.7	B	3.9	U	0.78	U	P
Sodium	1700.0	U	1700.0	U	1700.0	U	1700.0	U	340	U	P
Thallium											
Vanadium	5.5	U	5.5	U	5.5	U	5.5	U	1.1	U	P
Zinc	2.4	B	1.4	B	2.6	B	6.5	B	1.3	B	P
Cyanide											

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BLANKS

Lab Name: ROCKY MOUNTAIN ANALYTICAL Contract: 68-01-7476

Lab Code: ENSECO Case No.: 12464 SAS No.: _____ SDG No.: MEEF12

Preparation Blank Matrix (soil/water): SOIL

Preparation Blank Concentration Units (ug/L or mg/kg): MG/KG

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum			30.7	U	30.7	U	30.7	U			P
Antimony			24.7	U	24.7	U	24.7	U			P
Arsenic											
Barium			2.7	U	2.7	U	2.7	U			P
Beryllium			0.5	U	0.7	B	0.5	U			P
Cadmium			3.6	U	3.6	U	3.6	U			P
Calcium			113.0	B	103.0	B	113.0	B			P
Chromium			5.5	U	-5.5	B	5.5	U			P
Cobalt			4.1	U	4.1	U	4.1	U			P
Copper			6.0	U	6.0	U	6.0	U			P
Iron			22.3	U	22.3	U	22.3	U			P
Lead			27.4	U	27.4	U	27.4	U			P
Magnesium			122.0	U	122.0	U	122.0	U			P
Manganese			9.2	B	7.8	U	7.8	U			P
Mercury											
Nickel			5.8	U	-17.5	B	-11.7	B			P
Potassium			161.0	U	161.0	U	161.0	U			P
Selenium											
Silver			4.5	B	3.9	U	3.9	U			P
Sodium			1700.0	U	1700.0	U	1700.0	U			P
Thallium											
Vanadium			5.5	U	5.5	U	5.5	U			P
Zinc			18.1	B	1.9	B	3.0	B			P
Cyanide											

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BLANKS

Lab Name: ROCKY MOUNTAIN ANALYTICAL Contract: 68-01-7476

Lab Code: ENSECO Case No.: 12464 SAS No.: _____ SDG No.: MEEF12

Preparation Blank Matrix (soil/water): SOIL

Preparation Blank Concentration Units (ug/L or mg/kg): MG/KG

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum											
Antimony											
Arsenic	1.0	U	1.0	U	1.0	U	1.0	U	0.20	U	F
Barium											
Beryllium											
Cadmium											
Calcium											
Chromium											
Cobalt											
Copper											
Iron											
Lead											
Magnesium											
Manganese											
Mercury	0.2	U	0.2	U	0.2	U	0.2	U	0.10	U	CV
Nickel											
Potassium											
Selenium	1.0	U	1.0	U	1.0	U	1.0	U	0.20	U	F
Silver											
Sodium											
Thallium	2.0	U	2.0	U	2.0	U	2.0	U	0.40	U	F
Vanadium											
Zinc											
Cyanide	10.0	U	10.0	U	10.0	U	10.0	U	0.50	U	AS

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3
BLANKS

Lab Name: ROCKY MOUNTAIN ANALYTICAL Contract: 68-01-7476

Lab Code: ENSECO Case No.: 12464 SAS No.: _____ SDG No.: MEEF12

Preparation Blank Matrix (soil/water): SOIL

Preparation Blank Concentration Units (ug/L or mg/kg): MG/KG

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum											
Antimony											
Arsenic			1.0	U	1.0	U	1.0	U			F
Barium											
Beryllium											
Cadmium											
Calcium											
Chromium											
Cobalt											
Copper											
Iron											
Lead											
Magnesium											
Manganese											
Mercury											
Nickel											
Potassium											
Selenium			1.0	U	1.0	U	1.0	U			F
Silver											
Sodium											
Thallium			2.0	U	2.0	U	2.0	U			F
Vanadium											
Zinc											
Cyanide											

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BLANKS

Lab Name: ROCKY MOUNTAIN ANALYTICAL Contract: 68-01-7476

Lab Code: ENSECO Case No.: 12464 SAS No.: _____ SDG No.: MEEF12

Preparation Blank Matrix (soil/water): SOIL

Preparation Blank Concentration Units (ug/L or mg/kg): MG/KG

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum											
Antimony											
Arsenic			1.0	U							F
Barium											
Beryllium											
Cadmium											
Calcium											
Chromium											
Cobalt											
Copper											
Iron											
Lead											
Magnesium											
Manganese											
Mercury											
Nickel											
Potassium											
Selenium											
Silver											
Sodium											
Thallium			2.0	U							F
Vanadium											
Zinc											
Cyanide											

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C0029

3
BLANKS

Lab Name: ROCKY MOUNTAIN ANALYTICAL Contract: 68-01-7476

Lab Code: ENSECO Case No.: 12464 SAS No.: _____ SDG No.: MEEF12

Preparation Blank Matrix (soil/water): SOIL

Preparation Blank Concentration Units (ug/L or mg/kg): MG/KG

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum											
Antimony											
Arsenic											
Barium											
Beryllium											
Cadmium											
Calcium											
Chromium											
Cobalt											
Copper											
Iron											
Lead											
Magnesium											
Manganese											
Mercury	0.2	U	0.2	U	0.2	U	0.2	U	0.10	U	CV
Nickel											
Potassium											
Selenium											
Silver											
Sodium											
Thallium											
Vanadium											
Zinc											
Cyanide	10.0	U	10.0	U	10.0	U					AS

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5A
SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

MEEF12S

Lab Name: ROCKY MOUNTAIN ANALYTICAL Contract: 68-01-7476

Lab Code: ENSECO Case No.: 12464 SAS No.: _____ SDG No.: MEEF12

Matrix (soil/water): SOIL Level (low/med): LOW

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

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Aluminum		9790		10400					NR
Antimony	75-125	115		13.4	B	134.2	75.7		P
Arsenic	75-125	21.2	B	13.7	B	10.7	70.1	N	F
Barium	75-125	593		121		536.9	87.9		P
Beryllium	75-125	13.7		1.8		13.4	88.8		P
Cadmium	75-125	41.0		28.7		13.4	91.8		P
Calcium		156000		163000					NR
Chromium	75-125	103		51.6		53.7	95.7		P
Cobalt	75-125	141		14.0		134.2	94.6		P
Copper		860		1530		67.1	-998.5		P
Iron		19100		21800					NR
Lead	75-125	703		523		134.2	134.1	N	P
Magnesium		9890		8690					NR
Manganese		4540		3980		134.2	417.3		P
Mercury	75-125	0.9		0.4		0.7	71.4	N	CV
Nickel	75-125	191		59.4		134.2	98.1		P
Potassium		8610		6310					NR
Selenium	75-125	2.7	U	2.7	U	2.7	0.0	N	F
Silver	75-125	18.7		31.5		13.4	-95.5	N	P
Sodium		456	U	456	U				NR
Thallium	75-125	14.2		1.2	B	13.4	97.0		F
Vanadium	75-125	198		59.3		134.2	103.4		P
Zinc		9650		8210		134.2	1073.0		P
Cyanide	75-125	8.5		0.67	U	6.7	126.9	N	AS

Comments:
SELENIUM SAMPLE RESULT IS REPORTED AT AN ADDITIONAL 10X DILUTION.
THALLIUM SAMPLE AND SPIKE SAMPLE RESULTS ARE DETERMINED BY MSA.
MERCURY SPIKE PERCENT RECOVERY IS WITHIN CONTROL LIMITS ON A WET WEIGHT BASIS. POST DIGEST SPIKE IS NOT REQUIRED.

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5B
POST DIGEST SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

MEEF12A

Lab Name: ROCKY MOUNTAIN ANALYTICAL Contract: 68-01-7476

Lab Code: ENSECO Case No.: 12464 SAS No.: _____ SDG No.: MEEF12

Matrix (soil/water): SOIL Level (low/med): LOW

Concentration Units: ug/L

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Aluminum									NR
Antimony									NR
Arsenic									NR
Barium									NR
Beryllium									NR
Cadmium									NR
Calcium									NR
Chromium									NR
Cobalt									NR
Copper									NR
Iron									NR
Lead		5900.00		1950.00		3900.0	101.3		P
Magnesium									NR
Manganese									NR
Mercury									NR
Nickel									NR
Potassium									NR
Selenium									NR
Silver									NR
Sodium									NR
Thallium									NR
Vanadium									NR
Zinc									NR
Cyanide		218.00		10.00	U	200.0	109.0		AS

Comments:

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6
DUPLICATES

EPA SAMPLE NO.

MEEF12D

Lab Name: ROCKY MOUNTAIN ANALYTICAL Contract: 68-01-7476

Lab Code: ENSECO Case No.: 12464 SAS No.: _____ SDG No.: MEEF12

Matrix (soil/water): SOIL Level (low/med): LOW

% Solids for Sample: 74.5 % Solids for Duplicate: 80.0

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

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Aluminum		10400		10100		2.9		P
Antimony		13.4	B	9.0	B	39.3		P
Arsenic	2.7	13.7	B	13.4	B	2.2		F
Barium	53.7	121		116		4.2		P
Beryllium	1.3	1.8		2.0		10.5		P
Cadmium		28.7		34.6		18.6		P
Calcium		163000		149000		9.0		P
Chromium		51.6		54.2		4.9		P
Cobalt	13.4	14.0		15.9		12.7		P
Copper		1530		916		50.2	*	P
Iron		21800		22900		4.9		P
Lead		523		711		30.5	*	P
Magnesium		8690		9020		3.7		P
Manganese		3980		3880		2.5		P
Mercury	0.1	0.4		0.4		0.0		CV
Nickel		59.4		68.1		13.6		P
Potassium	1342	6310		6830		7.9		P
Selenium		2.7	U	2.7	U			F
Silver	2.7	31.5		7.5		123.1	*	P
Sodium		456	U	456	U			P
Thallium		1.2	B	1.7	B	34.5		F
Vanadium	13.4	59.3		63.1		6.2		P
Zinc		8210		8450		2.9		P
Cyanide		0.67	U	0.67	U			AS

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11
INSTRUMENT DETECTION LIMITS (QUARTERLY)

Lab Name: ROCKY MOUNTAIN ANALYTICAL Contract: 68-01-7476

Lab Code: ENSECO Case No.: 12464 SAS No.: _____ SDG No.: MEEF12

ICP ID Number: JA9000 Date: 07/21/89

Flame AA ID Number: _____

Furnace AA ID Number: Z5000/5100

Analyte	Wave-length (nm)	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Aluminum			200		
Antimony			60		
Arsenic	193.70	BZ	10	1.0	F
Barium			200		
Beryllium			5		
Cadmium			5		
Calcium			5000		
Chromium			10		
Cobalt			50		
Copper			25		
Iron			100		
Lead	283.30	BZ	5	1.0	F
Magnesium			5000		
Manganese			15		
Mercury			0.2		
Nickel			40		
Potassium			5000		
Selenium	196.03	BZ	5	1.0	F
Silver			10		
Sodium			5000		
Thallium			10		
Vanadium			50		
Zinc			20		

Comments:
SPECTRO PRODUCTS HG-3 SPECTROPHOTOMETER USED FOR MANUAL COLD VAPOR DETERMINATION

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00040

11

INSTRUMENT DETECTION LIMITS (QUARTERLY)

Lab Name: ROCKY MOUNTAIN ANALYTICAL Contract: 68-01-7476

Lab Code: ENSECO Case No.: 12464 SAS No.: _____ SDG No.: MEEF12

ICP ID Number: JA9000 Date: 07/21/89

Flame AA ID Number: _____

Furnace AA ID Number: _____

Analyte	Wave-length (nm)	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Aluminum	237.31		200	30.7	P
Antimony	206.84		60	24.7	P
Arsenic			10		
Barium	233.53		200	2.7	P
Beryllium	313.04		5	0.5	P
Cadmium	228.80		5	3.6	P
Calcium	370.60		5000	94.5	P
Chromium	267.72		10	5.5	P
Cobalt	228.62		50	4.1	P
Copper	324.75		25	6.0	P
Iron	259.84		100	22.3	P
Lead	220.35		5	27.4	P
Magnesium	279.08		5000	122	P
Manganese	294.92		15	7.8	P
Mercury	253.70		0.2	0.1	CV
Nickel	231.60		40	5.8	P
Potassium	766.49		5000	161	P
Selenium			5		
Silver	328.07		10	3.9	P
Sodium	330.24		5000	1700	P
Thallium			10		
Vanadium	292.40		50	5.5	P
Zinc	213.80		20	1.0	P

Comments:

SPECTRO PRODUCTS HG-3 SPECTROPHOTOMETER USED FOR MANUAL COLD VAPOR DETERMINATION

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11
INSTRUMENT DETECTION LIMITS (QUARTERLY)

Lab Name: ROCKY MOUNTAIN ANALYTICAL Contract: 68-01-7476

Lab Code: ENSECO Case No.: 12464 SAS No.: _____ SDG No.: MEEF12

ICP ID Number: JA9000 Date: 07/21/89

Flame AA ID Number: _____

Furnace AA ID Number: PE2380

Analyte	Wave-length (nm)	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Aluminum			200		
Antimony			60		
Arsenic	193.70	BD	10	2.0	F
Barium			200		
Beryllium			5		
Cadmium			5		
Calcium			5000		
Chromium			10		
Cobalt			50		
Copper			25		
Iron			100		
Lead	283.30	BD	5	1.0	F
Magnesium			5000		
Manganese			15		
Mercury			0.2		
Nickel			40		
Potassium			5000		
Selenium	196.03	BD	5	2.0	F
Silver			10		
Sodium			5000		
Thallium	276.80	BD	10	2.0	F
Vanadium			50		
Zinc			20		

Comments:
SPECTRO PRODUCTS HG-3 SPECTROPHOTOMETER USED FOR MANUAL COLD VAPOR DETERMINATION