**Versar INC.**

PRC ENVIRONMENTAL MANAGEMENT, INC.

April 13, 1988

Mr. John Dirgo
PRC Environmental Management
303 E. Wacker Drive
Suite 600
Chicago, Illinois 60601

Reference: EPA Contract No. 68-01-7331, WA No. 373

Dear Mr. Dirgo:

Enclosed please find one copy of the revised analytical data from the Taylor Borough Landfill. The data resulted from the following sample analyses:

| No. of Samples | Matrix | Data Received | Parameter |
|---|---|---|---|
| 13 | Charcoal tubes | 10/07/87 | Volatile Organics |

If you have any questions or comments regarding this enclosure, please call Richard Beach at (703) 750-3000.

Sincerely,

Michael Galvin

for Scott A. Slagley
TES Regional Manager

SAS/pac:2461Y

Enclosure

cc: Harry Butler, CDM FPC, HQS (letter only)
Mark diFeliciantonio, CDM FPC, Region III (letter only)

6850 VERSAR CENTER • P.O. BOX 1549 • SPRINGFIELD, VIRGINIA 22151 • TELEPHONE: (703) 750-3000 • TELEX: 901125

MEMORANDUM

To: Richard Beach
From: Victor Yastrop
Subj: Tayloroboro NIOSH results
Date: April 8, 1988

I have reviewed the results for the samples which you requested. There was an error in the preparing of the report pertaining to the field numbers. The error has been corrected on the enclosed report.

If you have any questions regarding the corrections, feel free to call me at your convenience.

Versar INC.

# DATA SUMMARY



VERSAR LAB REPORT #10288700
VERSAR PROJECT #04600 B#245

| COMPOUND | LAB # / FIELD # | 39525 / 1P-0928 | 39526 / 2P-0928 | 39527 / 3P-0928 | 39528 / 4P-0928 | 39529 / 5P-0928 | 39530 / 6P-0928 |
|---|---|---|---|---|---|---|---|
| MEK | | ND | ND | ND | ND | ND | ND |
| METHYLENE CHLORIDE | | ND | ND | ND | ND | ND | ND |
| BENZENE | | ND | ND | ND | ND | ND | ND |
| TRICHLOROETHENE | | ND | ND | ND | ND | ND | ND |
| CHLOROFORM * | | ND | ND | ND | ND | ND | ND |
| MIBK * | | ND | ND | ND | ND | ND | ND |
| TETRACHLOROETHENE | | ND | ND | ND | ND | ND | ND |
| TOLUENE | | ND | ND | ND | ND | ND | 0.08 |
| ETHYLBENZENE | | ND | ND | ND | ND | ND | ND |
| P-XYLENE | | ND | ND | ND | ND | ND | ND |
| M-XYLENE | | ND | ND | ND | ND | ND | ND |
| O-XYLENE | | ND | ND | ND | ND | ND | ND |

| COMPOUND | LAB # / FIELD # | 39532 / 1A-0929 | 39533 / 2A-0929 | 39534 / 3A-0929 | 39535 / 4A-0929 | 39536 / ~~5A~~ 5A-0929 | 39537 / ~~7A~~ 6A-0929 | 39538 / ~~8A~~ 7A-0929 |
|---|---|---|---|---|---|---|---|---|
| MEK | | ND | ND | ND | ND | ND | ND | ND |
| METHYLENE CHLORIDE | | ND | ND | ND | ND | ND | ND | ND |
| BENZENE | | ND | ND | ND | ND | ND | ND | ND |
| TRICHLOROETHENE | | ND | ND | ND | ND | ND | ND | ND |
| CHLOROFORM * | | ND | ND | ND | ND | ND | ND | ND |
| MIBK * | | ND | ND | ND | ND | ND | ND | ND |
| TETRACHLOROETHENE | | ND | ND | ND | ND | ND | ND | ND |
| TOLUENE | | ND | ND | ND | ND | ND | 0.13 | ND |
| ETHYLBENZENE | | ND | ND | ND | ND | ND | ND | ND |
| P-XYLENE | | ND | ND | ND | ND | ND | ND | ND |
| M-XYLENE | | ND | ND | ND | ND | ND | ND | ND |
| O-XYLENE | | ND | ND | ND | ND | ND | ND | ND |

Detection Limit = 0.04 mg, except methylene chloride and MEK which are 0.2 mg.
* = Compounds coelute
ND = None Detected
Units = mg/tube

LJ 11-8-88

Versar INC.



VERSAR LAB REPORT #1028870D
VERSAR PROJECT #0460D B#245

Q.C. SUMMARY

REAGENT BLANK ANALYSIS: NO ANALYTES DETECTED

METHOD STANDARD ANALYSIS:

| | | | |
|---|---|---|---|
| MEK | 75% | TETRACHLOROETHENE | 84% |
| METHYLENE CHLORIDE | 75% | TOLUENE | 86% |
| BENZENE | 90% | ETHYLBENZENE | 76% |
| TRICHLOROETHENE | 97% | P-XYLENE | 90% |
| CHLOROFORM * | 84% | M-XYLENE | 92% |
| MIBK * | 84% | O-XYLENE | 85% |

* = Compounds coelute

Victor A. Yastrop, Chief
GC Section
Laboratory Operations



6850 VERSAR CENTER • P.O. BOX 1549 • SPRINGFIELD, VIRGINIA 22151 • TELEPHONE: (703) 750-3000 • TELEX: 901125

**SUMMARY TABLES**

CC0176

TABLE 1
SUMMARY OF U.S. EPA/PRC/COE
SAMPLES COLLECTED AT TAYLOR BOROUGH LANDFILL

| Site Area | Environmental Medium | Date Collected | PRC Sample No. | Parameters Analyzed: VOC | SVOC | Pest/PCB | Metals | Hart/BES Sample No. | Versar Batch No. | Comments |
|---|---|---|---|---|---|---|---|---|---|---|
| 1. Drum Storage Areas 1 and 2 | Soil | 10/14/87 | SO-6 | X | | | | FSS6 | 256 | Samples collected after first excavation; SO-12 and 18 are duplicates |
| | | | SO-12 | X | | | | FSS12 | | |
| | | | SO-18 | X | | | | FSS12 | | |
| | Soil | 10/15/87 | SO-22 | X | | | | NA | 257 | COE judgmental samples; samples SO-24 and 25 collected from same location, but different depths |
| | | | SO-23 | X | | | | NA | | |
| | | | SO-24 | X | | X | | NA | | |
| | | | SO-25 | X | | X | | NA | | |
| | Soil | 10/27/87 | SO-26 | X | | X | | FSS21 | 272 | Samples SO-26 and 27 collected within excavated area |
| | | | SO-27 | X | | X | | FSS22 | | |
| | | | SO-28 | X | | X | | FSS23 | | |
| | | | SO-29 | X | | X | | FSS24 | | |
| | Soil | 11/23/87 | SO-38 | X | | X | | 6A | 292 | Samples collected after second excavation; SO-42 and 43 are duplicates |
| | | | SO-39 | X | | X | | 1-16 | | |
| | | | SO-40 | X | | X | | 12A | | |
| | | | SO-41 | X | | X | | 1-14 | | |
| | | | SO-42 | X | | X | | 1-15 | | |
| | | | SO-43 | X | | X | | 1-15 | | |
| | | | SO-44 | X | | X | | 14A | | |
| | Soil | 01/19/88 | SO-52 | X | | X | | 1-16A | 313 | Samples collected after first re-excavation; SO-52 and 53 are duplicates |
| | | | SO-53 | X | | X | | 1-16A | | |
| | | | SO-54 | X | | X | | 1-17 | | |
| | | | SO-55 | X | | X | | 1-18 | | |
| | | | SO-56 | X | | X | | 1-19 | | |
| | | | SO-57 | X | | X | | 1-20 | | |
| | Soil | 02/01/88 | SO-58 | X | X | X | X | 121 | 323 | Samples collected after second re-excavation; SO-61 and 62 are duplicates; SO-61R and 62R are reanalyses of SO-61 and 62 |
| | | | SO-59 | X | | X | | 122 | | |
| | | | SO-60 | X | | X | | 123 | | |
| | | | SO-61 | X | | X | | 124 | | |
| | | | SO-61R | X | | | | 124 | | |
| | | | SO-62 | X | | X | | 124 | | |
| | | | SO-62R | X | | | | 124 | | |
| | | | SO-63 | X | | X | | 125 | | |
| | | | SO-64 | X | X | X | X | NA | | |
| | Soil | 02/18/88 | SO-65 | X | | | | ? | 325 | Samples collected after third re-excavation; SO-67 and 68 are duplicates |
| | | | SO-66 | X | | | | | | |
| | | | SO-67 | X | X | X | X | | | |
| | | | SO-68 | X | | | | | | |
| | | | SO-69 | X | | | | | | |
| | Soil | 02/29/88 | SO-70 | X | | | | ? | 331 | Samples collected after fourth re-excavation |
| | | | SO-71 | X | | | | | | |

TABLE 1
SUMMARY OF U.S. EPA/PRC/COE
SAMPLES COLLECTED AT TAYLOR BOROUGH LANDFILL

| Site Area | Environmental Medium | Date Collected | PRC Sample No. | Parameters Analyzed: VOC | SVOC | Pest/PCB | Metals | Hart/BES Sample No. | Versar Batch No. | Comments |
|---|---|---|---|---|---|---|---|---|---|---|
| 1. Drum Storage Areas 1 and 2 | Drums | 10/06/87 | D-1 | X | X | X | | 002 | 251 | |
| | | | D-2 | X | X | X | | 003 | | |
| | Drums | 10/07/87 | D-3 | X | X | X | | 004 | 254 | |
| | | 10/08/87 | D-4 | X | X | X | | 005 | | |
| | Drums | 10/15/87 | D-5 | X | X | X | | 007 | 257 | |
| | | | D-6 | X | X | X | | 008 | | |
| | | | D-7 | X | X | X | | 009 | | |
| | | | D-8 | X | X | X | | 010 | | |
| 2. Ponds 1 and 2 | Sediment | 10/01/87 | SD-2 | X | | | | ? | 244 | Samples collected from Pond 1 |
| | | | SD-4 | X | | | | | | |
| | | | SD-5 | X | | | | | | |
| | Sediment | 10/14/87 | SD-16 | X | | X | | 17 | 256 | SD-16 and 17 are duplicate samples from Pond 1; SD-21 is from Pond 2 |
| | | | SD-17 | X | | X | | 17 | | |
| | | | SD-21 | X | | X | | 20 | | |
| | Sediment | 12/08/87 | SD-6 | X | | | | SD-6 | 297 | Sample collected from Pond 2 |
| | Sediment | 12/18/87 | SD-49 | X | | | | FSS25 | 303 | Samples collected from Pond 2; SD-50 and 51 are duplicate samples |
| | | | SD-50 | X | | | | FSS26 | | |
| | | | SD-51 | X | | | | FSS26 | | |
| | Surface Water | 10/15/87 | WS-1 | X | X | X | | ? | 257 | WS-1, 2, and 3 collected from Pond 1, WS-2 and 3 are duplicates; WS-4 collected from Pond 2; WS-5 and 6 are field blanks |
| | | | WS-2 | X | X | X | | | | |
| | | | WS-3 | X | X | X | | | | |
| | | | WS-4 | X | X | X | | | | |
| | | | WS-5 | X | X | X | | | | |
| | | | WS-6 | X | X | X | | | | |
| | Surface Water | 10/26/87 | WS-7 | X | | | | NA | 269 | Samples collected from Pond 1; WS-7 is field blank |
| | | | WS-8 | X | | | | 1-A | | |
| | | | WS-9 | X | | | | 1-B | | |
| | Surface Water | 12/08/87 | WS-10 | X | | | | GW10 | 297 | Samples collected from Pond 2; WS-12 is field blank |
| | | | WS-12 | X | | | | NA | | |
| 3. Drum Storage Area 6 | Soil | 11/17/87 | SD-35 | | | | X | NA | 292 | SD-37 is background sample |
| | | | SD-36 | | | | X | NA | | |
| | | | SD-37 | | | | X | NA | | |

TABLE 1
SUMMARY OF U.S. EPA/PRC/COE
SAMPLES COLLECTED AT TAYLOR BOROUGH LANDFILL

| Site Area | Environmental Medium | Date Collected | PRC Sample No. | Parameters Analyzed VOC | SVOC | Pest/PCB | Metals | Hart/BES Sample No. | Versar Batch No. | Comments |
|---|---|---|---|---|---|---|---|---|---|---|
| 4. St. John's Creek | Sediment | 12/09/87 | SD-8 | X | X | X | X | NA | 298 | SD-8 and 10 are duplicates collected upstream of Drum Storage Areas 1 and 2; SD-9 is downstream sample |
| | | | SD-9 | X | X | X | X | NA | | |
| | | | SD-10 | X | X | X | X | NA | | |
| | Surface Water | 12/09/87 | WS-14 | X | X | X | X | NA | 298 | WS-15 and 16 are duplicates collected downstream of Drum Storage Areas 1 and 2; WS-14 is upstream sample; WS-17 is field blank; F indicates that sample was filtered in field |
| | | | WS-14F | | | | X | NA | | |
| | | | WS-15 | X | X | X | X | NA | | |
| | | | WS-15F | | | | X | NA | | |
| | | | WS-16 | X | X | X | X | NA | | |
| | | | WS-16F | | | | X | NA | | |
| | | | WS-17 | X | X | X | X | NA | | |
| | | | WS-17F | | | | X | NA | | |
| 5. Off-Site Borrow Areas | Soil | 10/29/87 | SO-30 | X | X | X | X | NA | 276 | Samples collected from five off-site soil borrow areas |
| | | | SO-31 | X | X | X | X | NA | | |
| | | | SO-32 | X | X | X | X | NA | | |
| | | | SO-33 | X | X | X | X | NA | | |
| | | | SO-34 | X | X | X | X | NA | | |
| 6. Air Samples | Air | 09/22/87 | 6 samples | X | | | | NA | 239 | Each date includes upwind, downwind, residential area, excavation area, and blank samples; see section on air sampling for details |
| | | 09/24/87 | 6 samples | X | | | | NA | | |
| | Air | 09/28/87 | 6 samples | X | | | | NA | 245 | |
| | | 09/29/87 | 7 samples | X | | | | NA | | |
| | Air | 10/08/87 | 7 samples | X | | | | NA | 256 | |
| | | 10/09/87 | 6 samples | X | | | | NA | | |
| | Air | 10/13/87 | 7 samples | X | | | | NA | 261 | |
| | | 10/14/87 | 7 samples | X | | | | NA | | |
| | Air | 11/17/87 | 6 samples | X | | | | NA | 297 | |
| | | 11/19/87 | 6 samples | X | | | | NA | | |

TABLE 2
U.S. EPA/PRC/COE
SAMPLE RESULTS FOR TAYLOR BOROUGH LANDFILL[1]
DRUM STORAGE AREAS 1 AND 2 : SOIL

| SAMPLE NO.:[2] | SO-6 | SO-12 | SO-18 | SO-22 | SO-23 | SO-23R | SO-24 | SO-25 | SO-26 | SO-27 | SO-28 | SO-28R | SO-29 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| VOLATILE ORGANIC COMPOUNDS (ug/kg): | | | | ND | | | | | | | | | |
| Methylene chloride | -- | 200 J | -- | | 2 J | 2 J | -- | -- | 9 | -- | 14 | 10 | -- |
| Acetone | 410 J | 760 | 290 | | -- | -- | 21 | 57 | 58 | 1900 | -- | -- | 57 |
| 1,1-Dichloroethene | -- | -- | -- | | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 2-Butanone | 4500 | 1100 J | 390 | | -- | -- | -- | 17 | 22 T | 5000 | -- | -- | -- |
| Trichloroethene | 510 | -- | -- | | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 4-Methyl-2-pentanone | 1100 | 490 J | 73 | | -- | -- | -- | -- | 88 | 6300 | -- | -- | -- |
| 2-Hexanone | -- | -- | -- | | -- | -- | -- | -- | 50 T | 59000 | -- | -- | -- |
| Toluene | 4600 | 3000 | 120 T | | 6 | -- | 58 | 130 | -- | 58000 | 60 | 30 | 10 |
| Ethylbenzene | 3600 | 380 J | 15 J | | -- | -- | -- | -- | -- | 4300 | -- | -- | 8 |
| Styrene | -- | -- | -- | | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Total xylenes | 5200 | 2300 | 190 | | -- | -- | -- | -- | 58 | 20000 | -- | -- | 120 |
| SEMIVOLATILE ORGANIC COMPOUNDS (ug/kg): | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Di-n-buthyphthalate | | | | | | | | | | | | | |
| Butylbenzylphthalate | | | | | | | | | | | | | |
| Bis(2-ethylhexyl)phthalate | | | | | | | | | | | | | |
| PESTICIDES/PCBs (ug/kg): | NA | NA | NA | NA | NA | NA | ND | | | | ND | NA | |
| 4,4'-DDE | | | | | | | | 7.7 | -- | -- | | | -- |
| 4,4'-DDD | | | | | | | | 6.7 | -- | -- | | | -- |
| Aroclor-1254 | | | | | | | | -- | 190 | 750 | | | -- |
| Aroclor-1260 | | | | | | | | -- | -- | -- | | | 350 |
| INORGANICS (mg/kg): | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Aluminum | | | | | | | | | | | | | |
| Antimony | | | | | | | | | | | | | |
| Arsenic | | | | | | | | | | | | | |
| Barium | | | | | | | | | | | | | |
| Beryllium | | | | | | | | | | | | | |
| Calcium | | | | | | | | | | | | | |
| Chromium | | | | | | | | | | | | | |
| Cobalt | | | | | | | | | | | | | |
| Copper | | | | | | | | | | | | | |
| Iron | | | | | | | | | | | | | |
| Lead | | | | | | | | | | | | | |
| Magnesium | | | | | | | | | | | | | |
| Manganese | | | | | | | | | | | | | |
| Nickel | | | | | | | | | | | | | |
| Potassium | | | | | | | | | | | | | |
| Sodium | | | | | | | | | | | | | |
| Vanadium | | | | | | | | | | | | | |
| Zinc | | | | | | | | | | | | | |

TABLE 2
U.S. EPA/PRC/COE
SAMPLE RESULTS FOR TAYLOR BOROUGH LANDFILL[1]
DRUM STORAGE AREAS 1 AND 2 : SOIL

| SAMPLE NO.:[2] | SO-38 | SO-39 | SO-39R | SO-40 | SO-41 | SO-41R | SO-42 | SO-42R | SO-43 | SO-43R | SO-44 | SO-52 | SO-53 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| VOLATILE ORGANIC COMPOUNDS (ug/kg): | ND | | | | | | | | | | | | |
| Methylene chloride | | 4900 JB | 2700 J | 8 B | 650 B | 120 J | 640 B | -- | 14 JB | 21 JB | 600 B | 12 J | 24 J |
| Acetone | | -- | -- | 14 | 780 | -- | 1100 | -- | 66 B | -- | 590 B | 78 B | 92 B |
| 1,1-Dichloroethene | | -- | -- | -- | -- | -- | -- | -- | -- | -- | 300 | -- | -- |
| 2-Butanone | | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 270 | 370 |
| Trichloroethene | | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 4-Methyl-2-pentanone | | -- | -- | -- | -- | -- | -- | -- | 110 T | -- | 470 J | 700 | 1900 |
| 2-Hexanone | | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Toluene | | 71000 | 76000 | -- | 2900 | 3400 | 360 | 430 | 120 | 30 | 7300 | 960 | 4600 |
| Ethylbenzene | | 9500 | 11000 | -- | 460 | 560 | 93 J | 110 J | 25 J | -- | 500 | 160 | 410 |
| Styrene | | 41000 | 42000 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Total xylenes | | 59000 | 30000 | -- | 1800 | 2000 | 530 | 610 | 150 | 49 | 3900 | 570 | 1400 |
| SEMIVOLATILE ORGANIC COMPOUNDS (ug/kg): | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Di-n-buthyphthalate | | | | | | | | | | | | | |
| Butylbenzylphthalate | | | | | | | | | | | | | |
| bis(2-ethylhexyl)phthalate | | | | | | | | | | | | | |
| PESTICIDES/PCBs (ug/kg): | ND | | NA | | ND | NA | | NA | | NA | ND | | ND |
| 4,4'-DDE | | -- | | -- | | | -- | | -- | | | -- | |
| 4,4'-DDD | | -- | | -- | | | -- | | -- | | | -- | |
| Aroclor-1254 | | 880 | | 250 | | | 320 | | 450 | | | 210 J | |
| Aroclor-1260 | | -- | | -- | | | -- | | -- | | | -- | |
| INORGANICS (mg/kg): | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Aluminum | | | | | | | | | | | | | |
| Antimony | | | | | | | | | | | | | |
| Arsenic | | | | | | | | | | | | | |
| Barium | | | | | | | | | | | | | |
| Beryllium | | | | | | | | | | | | | |
| Calcium | | | | | | | | | | | | | |
| Chromium | | | | | | | | | | | | | |
| Cobalt | | | | | | | | | | | | | |
| Copper | | | | | | | | | | | | | |
| Iron | | | | | | | | | | | | | |
| Lead | | | | | | | | | | | | | |
| Magnesium | | | | | | | | | | | | | |
| Manganese | | | | | | | | | | | | | |
| Nickel | | | | | | | | | | | | | |
| Potassium | | | | | | | | | | | | | |
| Sodium | | | | | | | | | | | | | |
| Vanadium | | | | | | | | | | | | | |
| Zinc | | | | | | | | | | | | | |

TABLE 2
U.S. EPA/PRC/COE
SAMPLE RESULTS FOR TAYLOR BOROUGH LANDFILL[1]
DRUM STORAGE AREAS 1 AND 2 : SOIL

| SAMPLE NO.:[2] | SO-54 | SO-55 | SO-56 | SO-57 | SO-58 | SO-59 | SO-60 | SO-61 | SO-61R | SO-62 | SO-62R | SO-63 | SO-64 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| VOLATILE ORGANIC COMPOUNDS (ug/kg): | | | | | | | | | | | | | |
| Methylene chloride | 7 | 8600 JB | 12 J | -- | -- | -- | -- | 2500 | 950 J | -- | -- | -- | -- |
| Acetone | 46 B | 4000 J | 100 B | 20 B | 26 B | 24 B | 19 JB | -- | -- | -- | -- | 13 B | 3 JB |
| 1,1-Dichloroethene | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 2-Butanone | -- | -- | 79 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Trichloroethene | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 4-Methyl-2-pentanone | -- | -- | 200 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 2-Hexanone | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Toluene | 24 | 101000 | 4100 | 13 | 300 | 14 | 88 | 11000 | 2400 | 8800 | 8300 | 78 | -- |
| Ethylbenzene | 6 | 15000 | 210 | -- | 95 | -- | 38 | 2300 | 620 J | 1900 | 2600 | 30 | -- |
| Styrene | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Total xylenes | 30 | 62000 | 870 | -- | 210 | -- | 110 | 15000 | 4100 | 11000 | 18000 | 97 | -- |
| SEMIVOLATILE ORGANIC COMPOUNDS (ug/kg): | NA | NA | NA | NA | | NA | NA | NA | NA | NA | NA | NA | |
| Di-n-buthyphthalate | | | | | -- | | | | | | | | -- |
| Butylbenzylphthalate | | | | | -- | | | | | | | | -- |
| bis(2-ethylhexyl)phthalate | | | | | 250 J | | | | | | | | 370 J |
| PESTICIDES/PCBs (ug/kg): | ND | | ND | ND | ND | ND | ND | | NA | | NA | ND | ND |
| 4,4'-DDE | | -- | | | | | | -- | | -- | | | |
| 4,4'-DDD | | -- | | | | | | -- | | -- | | | |
| Aroclor-1254 | | 170 J | | | | | | 150 | | 180 | | | |
| Aroclor-1260 | | -- | | | | | | -- | | -- | | | |
| INORGANICS (mg/kg): | NA | NA | NA | NA | | NA | NA | NA | NA | NA | NA | NA | |
| Aluminum | | | | | 5280 | | | | | | | | 4410 |
| Antimony | | | | | -- | | | | | | | | -- |
| Arsenic | | | | | 5.7 | | | | | | | | 5.3 |
| Barium | | | | | [34] | | | | | | | | [36] |
| Beryllium | | | | | [0.46] | | | | | | | | [0.46] |
| Calcium | | | | | [798] | | | | | | | | [396] |
| Chromium | | | | | 8.0 | | | | | | | | 6.0 |
| Cobalt | | | | | [10] | | | | | | | | [10] |
| Copper | | | | | 15 | | | | | | | | 14 |
| Iron | | | | | 17700 | | | | | | | | 12500 |
| Lead | | | | | 11 N | | | | | | | | 11 N |
| Magnesium | | | | | 1530 | | | | | | | | [975] |
| Manganese | | | | | 482 | | | | | | | | 658 |
| Nickel | | | | | 15 | | | | | | | | 13 |
| Potassium | | | | | [563] | | | | | | | | [437] |
| Sodium | | | | | [68] | | | | | | | | [62] |
| Vanadium | | | | | [7.5] | | | | | | | | [6.6] |
| Zinc | | | | | 45 | | | | | | | | 38 |

TABLE 2
U.S. EPA/PRC/COE
SAMPLE RESULTS FOR TAYLOR BOROUGH LANDFILL[1]
DRUM STORAGE AREAS 1 AND 2 : SOIL

| SAMPLE NO.:[2] | SO-65 | SO-66 | SO-67 | SO-68 | SO-69 | SO-70 | SO-71 |
|---|---|---|---|---|---|---|---|
| VOLATILE ORGANIC COMPOUNDS (ug/kg): | | | | | | | |
| Methylene chloride | -- | -- | -- | -- | -- | -- | 10 J |
| Acetone | -- | -- | -- | -- | -- | 14 | 29 J |
| 1,1-Dichloroethene | -- | -- | -- | -- | -- | -- | -- |
| 2-Butanone | -- | -- | -- | -- | -- | 22 | 45 J |
| Trichloroethene | -- | -- | -- | -- | -- | -- | -- |
| 4-Methyl-2-pentanone | -- | -- | -- | -- | -- | -- | -- |
| 2-Hexanone | -- | -- | -- | -- | -- | -- | -- |
| Toluene | 8000 | 38000 | 6100 | 5600 | 1900 | 380 | 1000 |
| Ethylbenzene | 1900 | 2000 | 760 | 550 J | 320 | 54 | 120 |
| Styrene | -- | -- | -- | -- | -- | -- | -- |
| Total xylenes | 9100 | 12000 | 4100 | 3200 | 1900 | 150 | 690 |
| SEMIVOLATILE ORGANIC COMPOUNDS (ug/kg): | NA | NA | | NA | NA | NA | NA |
| Di-n-buthyphthalate | | | 270 JB | | | | |
| Butylbenzylphthalate | | | 380 J | | | | |
| bis(2-ethylhexyl)phthalate | | | 5100 | | | | |
| PESTICIDES/PCBs (ug/kg): | NA | NA | | NA | NA | NA | NA |
| 4,4'-DDE | | | -- | | | | |
| 4,4'-DDD | | | -- | | | | |
| Aroclor-1254 | | | 170 | | | | |
| Aroclor-1260 | | | -- | | | | |
| INORGANICS (mg/kg): | NA | NA | | NA | NA | NA | NA |
| Aluminum | | | 7530 | | | | |
| Antimony | | | 33 N | | | | |
| Arsenic | | | 5.5 | | | | |
| Barium | | | [46] | | | | |
| Beryllium | | | [0.47] | | | | |
| Calcium | | | [604] | | | | |
| Chromium | | | 25 N* | | | | |
| Cobalt | | | [12] | | | | |
| Copper | | | 44 * | | | | |
| Iron | | | 38500 * | | | | |
| Lead | | | 27 * | | | | |
| Magnesium | | | 1660 | | | | |
| Manganese | | | 622 | | | | |
| Nickel | | | 21 | | | | |
| Potassium | | | [807] | | | | |
| Sodium | | | [61] | | | | |
| Vanadium | | | [9.7] | | | | |
| Zinc | | | 143 N | | | | |

TABLE 2
U.S. EPA/PRC/COE
SAMPLE RESULTS FOR TAYLOR BOROUGH LANDFILL[1]
DRUM STORAGE AREAS 1 AND 2 : SOIL

Notes:

1 Table includes only Target Compound List (TCL) compounds; additional tentatively identified compounds are included with complete sample results

2 See Table 1 for further description of samples

J Estimated value; compound present but at a concentration less than contract required detection limit

T Spectrum does not meet criteria for confirmation but does indicate presence of compound

B Compound present but may be due to blank contamination

R Repeat sample analysis

ND Parameters were analyzed for but were not detected

NA Parameters were not analyzed for

[ ] See note for J above

N Sample spike recovery not within CLP control limits

* Duplicate analysis not within CLP control limits

-- Compound analyzed for but not detected

TABLE 3
U.S. EPA/PRC/COE
SAMPLE RESULTS FOR TAYLOR BOROUGH LANDFILL[1]
DRUM STORAGE AREAS 1 AND 2 : DRUMS

| SAMPLE NO.:[2] | D-1 | D-2 | D-3 | D-4 | D-5 | D-6 | D-7 | D-8 |
|---|---|---|---|---|---|---|---|---|
| VOLATILE ORGANIC COMPOUNDS (mg/kg): | | | | | | | | |
| Methylene chloride | 2200 JB | 5100 JB | 5100 JB | 4400 JB | -- | -- | -- | -- |
| Acetone | 20000 B | 7000 JB | 7700 JB | 10000 JB | 70000 | 110000 | -- | -- |
| 2-Butanone | -- | -- | 210000 | 37000 | 450000 | 210000 | 66000 | -- |
| 4-Methyl-2-pentanone | -- | -- | 120000 | -- | 72000 | 190000 | 10000 | 12000 |
| 2-Hexanone | -- | -- | -- | -- | -- | -- | 92000 T | 110000 |
| Toluene | 200000 | 190000 | 33000 | 180000 | -- | 57000 | 79000 | 63000 |
| Ethylbenzene | -- | -- | -- | 8300 J | -- | -- | 4200 | -- |
| Total xylenes | -- | -- | -- | 45000 | -- | -- | 23000 | -- |
| SEMIVOLATILE ORGANIC COMPOUNDS (mg/kg): | | | | | | | | ND |
| Phenol | -- | -- | -- | -- | -- | 650 JT | -- | |
| Di-n-buthyphthalate | -- | -- | -- | 7.6 J | -- | -- | -- | |
| Butylbenzylphthalate | -- | -- | -- | -- | -- | 230 J | -- | |
| Bis(2-ethylhexyl)phthalate | 130 | 76 JT | 8300 D | 200 | 800 | 5600 | 170 J | |
| Di-n-octylphthalate | -- | -- | -- | 17 JT | -- | 88 J | 120 J | |
| PESTICIDES/PCBs (mg/kg): | ND | ND | ND | ND | | | | ND |
| Aroclor-1254 | | | | | 120 | 9500 | 19 | |
| INORGANICS (mg/kg): | NA | NA | NA | NA | NA | NA | NA | NA |

Notes:

1 Table includes only Target Compound List (TCL) compounds; additional tentatively identified compounds are included with complete sample results

2 See Table 1 for further description of samples

J Estimated value; compound present but at a concentration less than contract required detection limit

T Spectrum does not meet criteria for confirmation but does indicate presence of compound

B Compound present but may be due to blank contamination

ND Parameters were analyzed for but were not detected

NA Parameters were not analyzed for

-- Compound analyzed for but not detected

D Result calculated from 1/50 dilution

TABLE 4
U.S. EPA/PRC/COE
SAMPLE RESULTS FOR TAYLOR BOROUGH LANDFILL[1]
PONDS 1 AND 2: SEDIMENT

| SAMPLE NO.:[2] | SD-2 | SD-4 | SD-5 | SD-16 | SD-17 | SD-21 | SD-6 | SD-49 | SD-50 | SD-51 |
|---|---|---|---|---|---|---|---|---|---|---|
| VOLATILE ORGANIC COMPOUNDS (ug/kg): | | | | ND | | | | | | |
| Methylene Chloride | -- | -- | 2 J | | 3 JB | 3 JB | 2 JB | 3 J | -- | -- |
| Acetone | 14 B | 21 B | 9 JB | | 5 JB | 37 B | 50 B | 52 | 54 | 9 J |
| Trans-1,2-dichloroethene | -- | -- | -- | | -- | -- | 2 J | -- | -- | -- |
| 2-Butanone | -- | -- | -- | | -- | -- | 1100 | -- | -- | -- |
| 4-Methyl-2-pentanone | -- | -- | -- | | -- | -- | 790 | -- | -- | -- |
| Trichloroethene | -- | -- | -- | | -- | -- | 5 J | -- | -- | -- |
| Toluene | -- | -- | -- | | 4 J | -- | 4300 | 69 | 19 | 25 |
| Ethylbenzene | -- | -- | -- | | -- | -- | 510 | 11 | 6 J | -- |
| Total Xylenes | -- | -- | -- | | -- | -- | 1500 | 16 | -- | -- |
| SEMIVOLATILE ORGANIC COMPOUNDS (ug/kg): | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| PESTICIDES/PCBs (ug/kg): | NA | NA | NA | ND | ND | | NA | NA | NA | NA |
| Aroclor - 1260 | | | | | | 60 | | | | |
| INORGANICS (mg/kg): | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |

Notes:

1 Table includes only Target Compound List (TCL) compounds; additional tentatively identified compounds are included with complete sample results.

2 See Table 1 for further description of samples.

J Estimated value; compound present but at a concentration less than contract required detection limit.

B Compound present but may be due to blank contamination.

ND Parameters were analyzed for but were not detected.

NA Parameters were not analyzed for.

-- Compound analyzed for but not detected.

TABLE 5
U.S. EPA/PRC/COE
SAMPLE RESULTS FOR TAYLOR BOROUGH LANDFILL[1]
PONDS 1 AND 2: SURFACE WATER

| SAMPLE NO.:[2] | WS-1 | WS-2 | WS-3 | WS-4 | WS-5 | WS-6 | WS-7* | WS-8 | WS-9 | WS-10 | WS-12* |
|---|---|---|---|---|---|---|---|---|---|---|---|
| VOLATILE ORGANIC COMPOUNDS (ug/L): | ND | ND | ND | ND | | ND | | | | | |
| Acetone | | | | | 10 | | 17 T | -- | -- | 8 J | 13 |
| 4-Methyl-2-pentanone | | | | | -- | | -- | -- | -- | 8 J | -- |
| Toluene | | | | | -- | | 3 JB | 2 JB | 5 B | 6 | -- |
| Total xylenes | | | | | -- | | -- | -- | -- | 4 J | -- |
| Chloroform | | | | | -- | | -- | -- | -- | -- | 4 J |
| SEMIVOLATILE ORGANIC COMPOUNDS (ug/L): | ND | ND | ND | ND | ND | ND | NA | NA | NA | NA | NA |
| PESTICIDES/PCBs (ug/L): | ND | ND | ND | ND | ND | ND | NA | NA | NA | NA | NA |
| INORGANICS (ug/L): | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |

Notes:

1 Table includes only Target Compound List (TCL) compounds; additional tentatively identified compounds are included with complete sample results

2 See Table 1 for further description of samples

J Estimated value; compound present but at a concentration less than contract required detection limit

T Spectrum does not meet criteria for confirmation but does indicate presence of compound

B Compound present but may be due to blank contamination

ND Parameters were analyzed for but were not detected

NA Parameters were not analyzed for

-- Compound analyzed for but not detected

* Field blank sample

TABLE 6
U.S. EPA/PRC/COE
SAMPLE RESULTS FOR TAYLOR BOROUGH LANDFILL[1]
DRUM STORAGE AREA 6: SOIL

| SAMPLE NO.:[2] | SO-35 | SO-36 | SO-37 |
|---|---|---|---|
| VOLATILE ORGANIC COMPOUNDS (ug/kg): | NA | NA | NA |
| SEMIVOLATILE ORGANIC COMPOUNDS (ug/kg): | NA | NA | NA |
| PESTICIDES/PCBs (ug/kg): | NA | NA | NA |
| INORGANICS (mg/kg): | | | |
| Aluminum | 7860 * | 7810 * | 5650 * |
| Antimony | [3.8] N | [1.8] N | -- |
| Arsenic | 18 * | 12 * | 10 * |
| Barium | 143 | [31] | [39] |
| Beryllium | [1.0] | -- | [0.45] |
| Cadmium | 3.0 | -- | [0.70] |
| Calcium | 2710 | [588] | [1110] |
| Chromium | 17 * | 6.7 * | 7.8 * |
| Cobalt | [14] | [8.3] | [11] |
| Copper | 48 * | [7.7] * | 14 * |
| Iron | 23500 | 14700 | 15500 |
| Lead | 312 NS | 12 NS | 30 NS |
| Magnesium | [1940] | 1570 | 2020 |
| Manganese | 944 | 391 | 573 |
| Mercury | 1.1 | 0.073 | 0.074 |
| Nickel | 31 | 15 | 17 |
| Potassium | [876] | [450] | [631] |
| Selenium | 2.8 | [0.91] | [0.67] |
| Silver | 4.4 | -- | -- |
| Sodium | [117] | -- | [38] |
| Thallium | [0.43] | [0.58] | [0.28] |
| Vanadium | 21 | [12] | 12 |
| Zinc | 290 | 37 | 52 |
| Cyanide | 1.52 | -- | -- |

Notes:

1 Table includes only Target Compound List (TCL) compounds; additional tentatively identified compounds are included with complete sample results

2 See Table 1 for further description of samples

NA Parameters were not analyzed for

N Sample spike recovery not within CLP control limits

* Duplicate analysis not within CLP control limits

-- Compound analyzed for but not detected

[ ] Estimated value; compound present but at a concentration less than contract required detection limits

S Concentration determined by method of standard additions

TABLE 7

U.S. EPA/PRC/COE
SAMPLE RESULTS FOR TAYLOR BOROUGH LANDFILL[1]
ST. JOHN'S CREEK: SEDIMENT

| SAMPLE NO.[2] | SD-8 | SD-9 | SD-10 |
|---|---|---|---|
| **VOLATILE ORGANIC COMPOUNDS (ug/kg):** | | | |
| Acetone | 6 J | 4 J | 6 J |
| Toluene | 42 | -- | -- |
| Styrene | -- | 11 | 7 |
| **SEMIVOLATILE ORGANIC COMPOUNDS (ug/kg):** | | | |
| Benzoic acid | 840 | -- | 860 J |
| Phenanthrene | 490 J | -- | 220 J |
| Anthracene | 130 J | -- | -- |
| Di-n-butylphthalate | 100 J | -- | 160 J |
| Fluoranthene | 1100 | -- | 980 |
| Pyrene | 830 | -- | 940 |
| Benzo(a)anthracene | 600 | -- | 610 |
| Bis(2-ethylhexyl)phthalate | -- | -- | 130 J |
| Chrysene | 590 | -- | 630 |
| Benzo(b)fluoranthene | 400 J | -- | 800 |
| Benzo(k)fluoranthene | 400 J | -- | 340 J |
| Benzo(a)pyrene | 420 J | -- | 370 J |
| Indeno(1,2,3-cd)pyrene | 240 J | -- | 260 J |
| Benzo(g,h,i)perylene | 170 J | -- | 200 J |
| **PESTICIDES/PCBs (ug/kg):** | ND | ND | ND |
| **INORGANICS (mg/kg):** | | | |
| Aluminum | 8080 * | 30800 * | 34600 * |
| Arsenic | 8.5 | 22 | 20 |
| Barium | [23] | 128 | 155 |
| Beryllium | -- | 1.6 | [1.3] |
| Calcium | 1580 | 2840 | 2620 |
| Chromium | 61 N | 95 N | 62 N |
| Cobalt | [2.9] | [12] | [13] |
| Copper | 8.9 | 26 | 26 |
| Iron | 9080 | 34200 | 35500 |
| Lead | 11 N* | 78 N* | 13 N* |
| Magnesium | 1530 | 8320 | 9430 |
| Manganese | 164 N | 518 N | 500 N |
| Nickel | [9.2] | 41 | 38 |
| Potassium | -- | 6380 * | 5860 * |
| Sodium | [154] | [270] | [262] |
| Vanadium | [11] * | 58 * | 65 * |
| Zinc | 23 E | 65 E | 73 E |

Notes:

1 Table includes only Target Compound List (TCL) compounds; additional tentatively identified compounds are included with complete sample results

2 See Table 1 for further description of samples

J Estimated value; compound present but at a concentration less than contract required detection limit

[ ] See note for J above

N Sample spike recovery not within CLP control limits

* Duplicate analysis not within CLP control limits

-- Compound analyzed for but not detected

E Concentration estimated due to presence of interference

TABLE 8
U.S. EPA/PRC/COE
SAMPLE RESULTS FOR TAYLOR BOROUGH LANDFILL[1]
ST. JOHN'S CREEK: SURFACE WATER

| SAMPLE NO.:[2] | WS-14 | WS-14F | WS-15 | WS-15F | WS-16 | WS-16F | WS-17* | WS-17F* |
|---|---|---|---|---|---|---|---|---|
| VOLATILE ORGANIC COMPOUNDS (ug/L): | | NA | ND | NA | | NA | | NA |
| Acetone | 25 | | | | 24 | | 25 | |
| SEMIVOLATILE ORGANIC COMPOUNDS (ug/L): | ND | NA | ND | NA | ND | NA | ND | NA |
| PESTICIDES/PCBs (ug/L): | ND | NA | ND | NA | ND | NA | ND | NA |
| INORGANICS (ug/L): | | | | | | | | |
| Aluminum | [154] | [31] | [110] | -- | 275 | -- | -- | -- |
| Barium | [23] | [23] | [23] | [20] | [23] | [20] | -- | -- |
| Calcium | [2170] | [2460] | [2510] | [2450] | [2490] | [2460] | [1450] | [1480] |
| Copper | [13] | [10] | -- | [15] | [8.8] | [10] | 218 | 214 |
| Iron | 374 | -- | 254 | -- | 616 | [11] | -- | -- |
| Lead | -- | -- | -- | -- | 24 | -- | -- | -- |
| Magnesium | [915] | [852] | [1100] | [1100] | [1100] | [1100] | [310] | [314] |
| Manganese | [13] | -- | [12] | -- | 27 | [3.0] | -- | -- |
| Sodium | [792] | [804] | [855] | [734] | [771] | [817] | [307] | [320] |
| Zinc | 21 | 24 | [17] | [19] | [20] | 26 | 40 | 40 |

Notes:

1 Table includes only Target Compound List (TCL) compounds; additional tentatively identified compounds are included with complete sample results
2 See Table 1 for further description of samples
ND Parameters were analyzed for but were not detected
NA Parameters were not analyzed for
[ ] Estimated value; compound present but at a concentration less than contract required detection limit
-- Compound analyzed for but not detected
* Field blank sample
F Filtered sample

TABLE 9
U.S. EPA/PRC/COE
SAMPLE RESULTS FOR TAYLOR BOROUGH LANDFILL[1]
OFF-SITE BORROW AREAS: SOIL

| SAMPLE NO.:[2] | SO-30 | SO-31 | SO-32 | SO-33 | SO-34 |
|---|---|---|---|---|---|
| VOLATILE ORGANIC COMPOUNDS (ug/kg): | | | | | |
| Methylene chloride | 6 | 10 | 18 | 34 | 31 |
| Acetone | 9 J | -- | 7 J | 11 J | 9 J |
| 2-Butanone | 26 | -- | -- | -- | -- |
| Toluene | 10 | 17 | -- | 59 | 13 |
| SEMIVOLATILE ORGANIC COMPOUNDS (ug/kg): | | ND | | | |
| Benzoic acid | 20 JT | | -- | -- | 62 JT |
| Bis(2-ethylhexyl)phthalate | -- | | 60 J | 98 J | 62 J |
| PESTICIDES/PCBs (ug/kg): | ND | ND | ND | ND | ND |
| INORGANICS (mg/kg): | | | | | |
| Aluminum | 5930 | 5010 | 4480 | 5700 | 5380 |
| Antimony | -- | -- | -- | [8.4] | -- |
| Arsenic | 3.5 | 5.9 | 3.1 | 2.4 | 6.5 |
| Barium | [28] | [37] | [37] | [40] | 50 |
| Beryllium | [0.37] | [0.46] | [0.49] | [0.44] | [0.63] |
| Calcium | [489] | [730] | [960] | [409] | [255] |
| Chromium | 11 | 9.1 | 11 | 9.6 | 9.6 |
| Cobalt | [7.2] | [8.4] | [9.3] | [7.9] | [11] |
| Copper | 14 | 16 | 16 | 12 | 12 |
| Iron | 16300 | 16300 | 25000 | 17100 | 16400 |
| Lead | 7.6 S | 10 | 9.5 S | 12 S | 12 S |
| Magnesium | 1870 | 1470 | 1550 | [1110] | [938] |
| Manganese | 170 | 479 | 749 | 551 | 1340 |
| Nickel | 13 | 14 | 19 | 11 | 12 |
| Potassium | [951] | [699] | [784] | [601] | [459] |
| Sodium | [58] | [83] | [91] | [59] | [86] |
| Vanadium | [8.0] | [8.1] | [9.2] | [8.9] | [9.2] |
| Zinc | 36 | 43 | 44 | 36 | 35 |

Notes:

1 Table includes only Target Compound List (TCL) compounds; additional tentatively identified compounds are included with complete sample results

2 Sample numbers correspond to the following off-site borrow areas:

| | |
|---|---|
| SO-30 | Bichler property |
| SO-31 | Evanish property |
| SO-32 | St. George's Church |
| SO-33 | Shegula (Rae Dan) property |
| SO-34 | Bald Mountain Road area |

J Estimated value; compound present but at a concentration less than contract required detection limit

T Spectrum does not meet criteria for confirmation but does indicate presence of compound

ND Parameters were analyzed for but were not detected

NA Parameters were not analyzed for

[ ] See note for J above

-- Compound analyzed for but not detected

S Concentration determined by method of standard additions

TABLE 10
U.S. EPA/PRC/COE
SAMPLE RESULTS FOR TAYLOR BOROUGH LANDFILL[1]
AIR SAMPLES

| SAMPLE NO.: | TYPE[1] | AIR CONCENTRATION (ppm)[2] Toluene | m-Xylene |
|---|---|---|---|
| 1A-0922 | U | -- | -- |
| 2A-0922 | D | -- | -- |
| 3A-0922 | D | -- | -- |
| 4A-0922 | D | -- | -- |
| 6A-0922 | E | 0.08 | -- |
| 7A-0922 | B | -- | -- |
| 1A-0924 | U | -- | -- |
| 2A-0924 | D | -- | -- |
| 3A-0924 | D | -- | -- |
| 4A-0924 | D | -- | -- |
| 6A-0924 | E | 0.06 | 0.03 |
| 7A-0924 | B | -- | -- |
| 1P-0928 | U | -- | -- |
| 2P-0928 | D | -- | -- |
| 3P-0928 | D | -- | -- |
| 4P-0928 | D | -- | -- |
| 5P-0928 | R | -- | -- |
| 6P-0928 | E | 0.07 | -- |
| 1A-0929 | U | -- | -- |
| 2A-0929 | D | -- | -- |
| 3A-0929 | D | -- | -- |
| 4A-0929 | D | -- | -- |
| 5A-0929 | R | -- | -- |
| 6A-0929 | E | 0.19 | -- |
| 7A-0929 | B | -- | -- |
| 1P-1008 | U | -- | -- |
| 2P-1008 | D | -- | -- |
| 4P-1008 | D | -- | -- |
| 5P-1008 | R | -- | -- |
| 6P-1008 | E | -- | -- |
| 7P-1008 | B | -- | -- |
| 9P-1008 | E (Dup-6) | -- | -- |

| SAMPLE NO.: | TYPE[1] | AIR CONCENTRATION (ppm)[2] Toluene | m-Xylene |
|---|---|---|---|
| 1A-1009 | U | -- | -- |
| 2A-1009 | D | -- | -- |
| 4A-1009 | D | -- | -- |
| 5A-1009 | R | -- | -- |
| 6A-1009 | E | 0.10 | -- |
| 7A-1009 | B | -- | -- |
| 1A-1014 | U | -- | -- |
| 2A-1014 | D | -- | -- |
| 3A-1014 | D | -- | -- |
| 4A-1014 | D | -- | -- |
| 5A-1014 | R | -- | -- |
| 6A-1014 | D (Dup-2) | -- | -- |
| 7A-1014 | B | -- | -- |
| 1P-1013 | U | -- | -- |
| 2P-1013 | D | -- | -- |
| 3P-1013 | D | -- | -- |
| 4P-1013 | D | -- | -- |
| 5P-1013 | R * | -- | -- |
| 6P-1013 | D (Dup-3) | -- | -- |
| 7P-1013 | B | -- | -- |
| 1A-1117 | U | -- | -- |
| 2A-1117 | D | -- | -- |
| 3A-1117 | D | -- | -- |
| 4A-1117 | D | -- | -- |
| 5A-1117 | R | -- | -- |
| 7A-1117 | B | -- | -- |
| 1A-1119 | U | -- | -- |
| 2A-1119 | D | -- | -- |
| 3A-1119 | D | -- | -- |
| 4A-1119 | D | -- | -- |
| 5A-1119 | R | -- | -- |
| 7A-1119 | B | -- | -- |

Notes:

1 Sample types are designated as follows:

- U - Upwind
- D - Downwind
- E - Downwind at edge of excavation area
- R - Residential area, upwind
- R * - Residential area, downwind
- B - Blank sample
- Dup - Duplicate sample

2 In addition to two compounds listed, all samples were analyzed for methyl ethyl ketone (2-butanone), methylene chloride, benzene, trichloroethene, chloroform, methyl isobutyl ketone (4-methyl-2-pentanone), tetrachloroethene, ethylbenzene, p-xylene, and o-xylene.

-- Not detected

**OFF-SITE BORROW AREAS**
**SOIL SAMPLES**

Versar, Inc. Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

| Sample Number |
|---|
| SO-30 |

ORGANICS ANALYSIS DATA SHEET (Page 1)

Laboratory Name: VERSAR
Lab Sample ID No: A1145
Sample Matrix: SOIL
Data Release Authorized By:

Case No: 4600 B0276
QC Report No: 4600 B0276
Contract No:
Date Sample Received: 10/30/87

VOLATILE COMPOUNDS

Concentration: LOW
Date Extracted/Prepared: 10/30/87
Date Analyzed: 10/30/87
Conc/Dil Factor: 1 pH 4.5
Percent Moisture: 5.82

| CAS Number | | ug/Kg | CAS Number | | ug/Kg |
|---|---|---|---|---|---|
| 74-87-3 | Chloromethane | 11 u | 78-87-5 | 1,2-Dichloropropane | 5 u |
| 74-83-9 | Bromomethane | 11 u | 10061-02-6 | Trans-1,3-Dichloropropene | 5 u |
| 75-01-4 | Vinyl Chloride | 11 u | 79-01-6 | Trichloroethene | 5 u |
| 75-00-3 | Chloroethane | 11 u | 124-48-1 | Dibromochloromethane | 5 u |
| 75-09-2 | Methylene Chloride | 6 B | 79-00-5 | 1,1,2-Trichloroethane | 5 u |
| 67-64-1 | Acetone | 9 J B | 71-43-2 | Benzene | 5 u |
| 75-15-0 | Carbon Disulfide | 5 u | 10061-01-5 | cis-1,3-Dichloropropene | 5 u |
| 75-35-4 | 1,1-Dichloroethene | 5 u | 110-75-8 | 2-chloroethylvinylether | 11 u |
| 75-34-3 | 1,1-Dichloroethane | 5 u | 75-25-2 | Bromoform | 5 u |
| 156-60-5 | Trans-1,2-Dichloroethene | 5 u | 108-10-1 | 4-Methyl-2-Pentanone | 11 u |
| 67-66-3 | Chloroform | 5 u | 591-78-6 | 2-Hexanone | 11 u |
| 107-06-2 | 1,2-Dichloroethane | 5 u | 127-18-4 | Tetrachloroethene | 5 u |
| 78-93-3 | 2-butanone | 26 B | 79-34-5 | 1,1,2,2-Tetrachloroethane | 5 u |
| 71-55-6 | 1,1,1-Trichloroethane | 5 u | 108-88-3 | Toluene | 10 B |
| 56-23-5 | Carbon Tetrachloride | 5 u | 108-90-7 | Chlorobenzene | 5 u |
| 108-05-4 | Vinyl Acetate | 11 u | 100-41-4 | Ethylbenzene | 5 u |
| 75-27-4 | Bromodichloromethane | 5 u | 100-42-5 | Styrene | 5 u |
| | | | | Total Xylenes | 5 u |

Data Reporting Qualifiers

Value If the result is a value greater than or equal to the detection limit, report the value.

u Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response factor is assumed, or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero. (e.g. 10J)

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

T Spectrum does not meet criteria for confirmation but does indicate compound presence.

NA Compound present in both matrix spike standard and unspiked sample.

Versar Inc., Laboratory Operations
6850 Versar Center, Springfield VA 22151. (703) 750-3000

| SAMPLE ID |
|---|
| 90-30 |

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

| | CAS Number | Compound Name | Fraction | RT or Scan | Estimated Concentration (ug/Kg or ug/l) |
|---|---|---|---|---|---|
| 11. | | NO VOLATILES DETECTED | VOA | NA | NA |
| 12. | | | | | |
| 13. | | | | | |
| 14. | | | | | |
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| 129. | | | | | |
| 130. | | | | | |

Versar Inc., Laboratory Operations
6850 Versar Center, Springfield VA 22151 703/750-3000

Case No: 4600 B4276

| Sample Number |
|---|
| S0-30 |

ORGANICS ANALYSIS DATA SHEET (Page 2)
Semivolatile Compounds

Concentration: LOW

Date Extracted/Prepared: 11/09/87

Date Analyzed: 11/14/87

Conc/Dil Factor: 1

GPC Cleanup [ ]Yes [X]No

Separatory Funnel Extraction [ ]Yes

Continuous Liquid-Liquid Extraction [ ]Yes

| CAS Number | | ug/Kg |
|---|---|---|
| 108-95-2 | Phenol | 440 u |
| 111-44-4 | bis(2-Chloroethyl)Ether | 440 u |
| 95-57-8 | 2-Chlorophenol | 440 u |
| 541-73-1 | 1,3-Dichlorobenzene | 440 u |
| 106-46-7 | 1,4-Dichlorobenzene | 440 u |
| 100-51-6 | Benzyl Alcohol | 440 u |
| 95-50-1 | 1,2-Dichlorobenzene | 440 u |
| 95-48-7 | 2-Methylphenol | 440 u |
| 39638-32-9 | bis(2-chloroisopropyl)ether | 440 u |
| 106-44-5 | 4-methylphenol | 440 u |
| 621-64-7 | N-Nitroso-Di-n-propylamine | 440 u |
| 67-72-1 | Hexachloroethane | 440 u |
| 98-95-3 | Nitrobenzene | 440 u |
| 78-59-1 | Isophorone | 440 u |
| 88-75-5 | 2-Nitrophenol | 440 u |
| 105-67-9 | 2,4-dimethylphenol | 440 u |
| 65-85-0 | Benzoic Acid | 20 JVL |
| 111-91-1 | bis(2-chloroethoxy)methane | 440 u |
| 120-83-2 | 2,4-dichlorophenol | 440 u |
| 120-82-1 | 1,2,4-trichlorobenzene | 440 u |
| 91-20-3 | Naphthalene | 440 u |
| 106-47-8 | 4-Chloroaniline | 440 u |
| 87-68-3 | Hexachlorobutadiene | 440 u |
| 59-50-7 | 4-chloro-3-methylphenol | 440 u |
| 91-57-6 | 2-methylnaphthalene | 440 u |
| 77-47-4 | Hexachlorocyclopentadiene | 440 u |
| 88-06-2 | 2,4,6-Trichlorophenol | 440 u |
| 95-95-4 | 2,4,5-Trichlorophenol | 440 u |
| 91-58-7 | 2-Chloronaphthalene | 2200 u |
| 88-74-4 | 2-Nitroaniline | 440 u |
| 131-11-3 | Dimethyl Phthalate | 2200 u |
| 208-96-8 | Acenaphthylene | 440 u |
| 99-09-2 | 3-Nitroaniline | 440 u |
| 83-32-9 | Acenaphthene | 440 u |
| 51-28-5 | 2,4-Dinitrophenol | 2200 u |
| 100-02-7 | 4-Nitrophenol | 2200 u |
| 132-64-9 | Dibenzofuran | 440 u |
| 121-14-2 | 2,4-Dinitrotoluene | 440 u |
| 606-20-2 | 2,6-Dinitrotoluene | 440 u |
| 84-66-2 | Diethylphthalate | 440 u |
| 7005-22-3 | 4-Chlorophenyl-phenylether | 440 u |
| 86-73-7 | Fluorene | 440 u |
| 100-01-6 | 4-Nitroaniline | 2200 u |
| 534-52-1 | 4,6-dinitro-2-methylphenol | 2200 u |
| 86-30-6 | N-Nitrosodiphenylamine (1) | 440 u |
| 101-55-3 | 4-Bromophenyl-phenylether | 440 u |
| 118-74-1 | Hexachlorobenzene | 440 u |
| 87-86-5 | Pentachlorophenol | 2200 u |
| 85-01-8 | Phenanthrene | 440 u |
| 120-12-7 | Anthracene | 440 u |
| 84-74-2 | Di-n-butylphthalate | 440 u |
| 206-44-0 | Fluoranthene | 440 u |
| 129-00-0 | Pyrene | 440 u |
| 85-68-7 | Butylbenzylphthalate | 440 u |
| 91-94-1 | 3,3'-Dichlorobenzidine | 880 u |
| 56-55-3 | Benzo(a)anthracene | 440 u |
| 117-81-7 | bis(2-Ethylhexyl)Phthalate | 440 u |
| 218-01-9 | Chrysene | 440 u |
| 117-84-0 | Di-n-Octylphthalate | 440 u |
| 205-99-2 | Benzo(b)Fluoranthene | 440 u |
| 207-08-9 | Benzo(k)Fluoranthene | 440 u |
| 50-32-8 | Benzo(a)pyrene | 440 u |
| 193-39-5 | Indeno(1,2,3-cd)Pyrene | 440 u |
| 53-70-3 | Dibenz(a,h)Anthracene | 440 u |
| 191-24-2 | Benzo(g,h,i)Perylene | 440 u |

(1)-Cannot be separated from diphenylamine

Versar Inc., Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

| SAMPLE ID |
|---|
| 150-30 |

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

| | CAS Number | Compound Name | Fraction | RT or Scan | Estimated Concentration (ug/Kg or ug/l) |
|---|---|---|---|---|---|
| 11. | UNKNOWN | | BNA | 551 | 220 J,B. |
| 12. | UNKNOWN | | BNA | 1945 | 190 J... |
| 13. | UNKNOWN | | BNA | 1948 | 180 J... |
| 14. | | | | | |
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| 130. | | | | | |

Versar Inc. Laboratory Operations
6850 Versar Center, Springfield Va. 22151
(703) 750-3000

| Sample Number |
| --- |
| SO-30 |

ORGANICS ANALYSIS DATA SHEET
(Page 3)

Pesticides/PCBs

Concentration: Low Medium (circle one)

GPC Cleanup [ ] Yes [X] No

Date Extracted/Prepared: 11-09-87

Separatory Funnel Extration [ ] Yes

Date Analyzed: 11-24-87

Continuous Liquid-Liquid Extraction [ ] Yes [X] No

Conc/Dil Factor 1.00

Percent Moisture(decanted) 5.82

| CAS Number | | ug/kg |
| --- | --- | --- |
| 319-84-6 | alpha-BHC | 3.5 u |
| 319-85-7 | beta-BHC | 3.5 u |
| 319-86-8 | delta-BHC | 3.5 u |
| 58-89-9 | gamma-BHC (Lindane) | 3.5 u |
| 76-44-8 | Heptachlor | 3.5 u |
| 309-00-2 | Aldrin | 3.5 u |
| 1024-57-3 | Heptachlor Epoxide | 3.5 u |
| 959-98-8 | Endosulfan I | 3.5 u |
| 60-57-1 | Dieldrin | 7.1 u |
| 72-55-9 | 4,4'-DDE | 7.1 u |
| 72-20-8 | Endrin | 7.1 u |
| 33213-65-9 | Endosulfan II | 7.1 u |
| 72-54-8 | 4,4'-DDD | 7.1 u |
| 1031-07-8 | Endosulfan Sulfate | 7.1 u |
| 50-29-3 | 4,4'-DDT | 7.1 u |
| 72-43-5 | Methoxychlor | 7.1 u |
| 53494-70-5 | Endrin Ketone | 7.1 u |
| 57-74-9 | Chlordane | 35 u |
| 8001-35-2 | Toxaphene | 71 u |
| 12674-11-2 | Aroclor-1016 | 35 u |
| 11104-28-2 | Aroclor-1221 | 35 u |
| 11141-16-5 | Aroclor-1232 | 35 u |
| 53469-21-9 | Aroclor-1242 | 35 u |
| 12672-29-6 | Aroclor-1248 | 35 u |
| 11097-69-1 | Aroclor-1254 | 71 u |
| 11096-82-5 | Aroclor-1260 | 71 u |

S. Burkhart
11-30-87

Vi = Volume of extract injected (ul)
Vs = Volume of Water Extracted (ml)
Ws = Weight of sample extracted (g)
Vt = Volume of total extract (ul)

Vs _____ or Ws 30.[illegible] Vt 20000 Vi 2.00

FORM I

SAMPLE NO.
SD-30

DATE 12/16/87

INORGANIC ANALYSIS DATA SHEET

LAB NAME VERSAR INC.

CASE NO. ---

SOW NO. 785

LAB RECEIPT DATE 10/30/87

LAB SAMPLE ID. NO. 41155, 871104-001

QC REPORT NO. 276

PROJECT-TASK 4600.0000

BATCH 276

ELEMENTS IDENTIFIED AND MEASURED

CONCENTRATION: LOW X MEDIUM HIGH

MATRIX: WATER SOIL X WIPE

MG/KG DRY WEIGHT

| | | | | | |
|---|---|---|---|---|---|
| 1. ALUMINUM | 5930. | P | 13. MAGNESIUM | 1870. | P |
| 2. ANTIMONY | 7.1 U | P | 14. MANGANESE | 170. | P |
| 3. ARSENIC | 3.5 | F | 15. MERCURY | 0.11 U | |
| 4. BARIUM | [ 28.] | P | 16. NICKEL | 13. | P |
| 5. BERYLLIUM | [ 0.37] | P | 17. POTASSIUM | [ 951.] | P |
| 6. CADMIUM | 1.1 U | P | 18. SELENIUM | 1.1 U | F |
| 7. CALCIUM | [ 489.] | P | 19. SILVER | 1.5 U | P |
| 8. CHROMIUM | 11. | P | 20. SODIUM | [ 58.] | P |
| 9. COBALT | [ 7.2] | P | 21. THALLIUM | 2.1 U | F |
| 10. COPPER | 14. | P | 22. VANADIUM | [ 8.0] | P |
| 11. IRON | 16300. | P | 23. ZINC | 36. | P |
| 12. LEAD | 7.6 | F S | PERCENT SOLIDS | 93.3 | |
| CYANIDE | 0.53 U | | | | |

FOOTNOTES: SEE COVER PAGE.

COMMENTS: COLOR - BROWN; TEXTURE - FINE; SD;

LAB MANAGER

WILLIAM T. NIVENS

Versar, Inc. Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

| Sample Number |
|---|
| 50-31 |

ORGANICS ANALYSIS DATA SHEET (Page 1)

Laboratory Name: VERSAR
Lab Sample ID No: 41146
Sample Matrix: SOIL
Data Release Authorized By:

Case No: 4600 B0276
QC Report No: 4600 B0276
Contract No:
Date Sample Received: 10/30/87

VOLATILE COMPOUNDS

Concentration: LOW
Date Extracted/Prepared: 10/30/87
Date Analyzed: 10/30/87
Conc/Dil Factor: 1 pH 5.0
Percent Moisture: 13.1

| CAS Number | | ug/Kg | CAS Number | | ug/Kg |
|---|---|---|---|---|---|
| 74-87-3 | Chloromethane | 12 u | 78-87-5 | 1,2-Dichloropropane | 6 u |
| 74-83-9 | Bromomethane | 12 u | 10061-02-6 | Trans-1,3-Dichloropropene | 6 u |
| 75-01-4 | Vinyl Chloride | 12 u | 79-01-6 | Trichloroethene | 6 u |
| 75-00-3 | Chloroethane | 12 u | 124-48-1 | Dibromochloromethane | 6 u |
| 75-09-2 | Methylene Chloride | 10 | 79-00-5 | 1,1,2-Trichloroethane | 6 u |
| 67-64-1 | Acetone | 12 u | 71-43-2 | Benzene | 6 u |
| 75-15-0 | Carbon Disulfide | 6 u | 10061-01-5 | cis-1,3-Dichloropropene | 6 u |
| 75-35-4 | 1,1-Dichloroethene | 6 u | 110-75-8 | 2-chloroethylvinylether | 12 u |
| 75-34-3 | 1,1-Dichloroethane | 6 u | 75-25-2 | Bromoform | 6 u |
| 156-60-5 | Trans-1,2-Dichloroethene | 6 u | 108-10-1 | 4-Methyl-2-Pentanone | 12 u |
| 67-66-3 | Chloroform | 6 u | 591-78-6 | 2-Hexanone | 12 u |
| 107-06-2 | 1,2-Dichloroethane | 6 u | 127-18-4 | Tetrachloroethene | 6 u |
| 78-93-3 | 2-butanone | 12 u | 79-34-5 | 1,1,2,2-Tetrachloroethane | 6 u |
| 71-55-6 | 1,1,1-Trichloroethane | 6 u | 108-88-3 | Toluene | 17 |
| 56-23-5 | Carbon Tetrachloride | 6 u | 108-90-7 | Chlorobenzene | 6 u |
| 108-05-4 | Vinyl Acetate | 12 u | 100-41-4 | Ethylbenzene | 6 u |
| 75-27-4 | Bromodichloromethane | 6 u | 100-42-5 | Styrene | 6 u |
| | | | | Total Xylenes | 6 u |

Data Reporting Qualifiers

Value If the result is a value greater than or equal to the detection limit, report the value.

u Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response factor is assumed, or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero. (e.g. 10J)

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

T Spectrum does not meet criteria for confirmation but does indicate compound presence.

NA Compound present in both matrix spike standard and unspiked sample.

Form I

Versar Inc., Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

| SAMPLE ID |
|---|
| 90-31 |

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

| | CAS Number | Compound Name | Fraction | RT or Scan | Estimated Concentration (ug/kg or ug/l) |
|---|---|---|---|---|---|
| 11. | | NO VOLATILES DETECTED | VOA | NA | NA |
| 12. | | | | | |
| 13. | | | | | |
| 14. | | | | | |
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| 129. | | | | | |
| 130. | | | | | |

Versar Inc., Laboratory Operations
6850 Versar Center, Springfield VA 22151 703/750-3000

Case No: 4600 B8276

| Sample Number |
|---|
| SO-31 |

ORGANICS ANALYSIS DATA SHEET (Page 2)
Semivolatile Compounds

Concentration: LOW

Date Extracted/Prepared: 11/09/87

Date Analyzed: 11/14/87

Conc/Dil Factor: 1

GPC Cleanup [ ]Yes [X]No

Separatory Funnel Extraction [ ]Yes

Continuous Liquid-Liquid Extraction [ ]Yes

| CAS Number | | ug/Kg |
|---|---|---|
| 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 |
| 39638-32-9 | 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 | 480 u |
| 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 | 480 u |
| 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 | Dimethyl Phthalate | 480 u |
| 208-96-8 | Acenaphthylene | 480 u |
| 99-09-2 | 3-Nitroaniline | 2400 u |

| CAS Number | | ug/Kg |
|---|---|---|
| 83-32-9 | Acenaphthene | 480 u |
| 51-28-5 | 2,4-Dinitrophenol | 2400 u |
| 100-02-7 | 4-Nitrophenol | 2400 u |
| 132-64-9 | Dibenzofuran | 480 u |
| 121-14-2 | 2,4-Dinitrotoluene | 480 u |
| 606-20-2 | 2,6-Dinitrotoluene | 480 u |
| 84-66-2 | Diethylphthalate | 480 u |
| 7005-22-3 | 4-Chlorophenyl-phenylether | 480 u |
| 86-73-7 | Fluorene | 480 u |
| 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 | 480 u |
| 120-12-7 | Anthracene | 480 u |
| 84-74-2 | Di-n-butylphthalate | 480 u |
| 206-44-0 | Fluoranthene | 480 u |
| 129-00-0 | Pyrene | 480 u |
| 85-68-7 | Butylbenzylphthalate | 480 u |
| 91-94-1 | 3,3'-Dichlorobenzidine | 960 u |
| 56-55-3 | Benzo(a)anthracene | 480 u |
| 117-81-7 | bis(2-Ethylhexyl)Phthalate | 480 u |
| 218-01-9 | Chrysene | 480 u |
| 117-84-0 | Di-n-Octylphthalate | 480 u |
| 205-99-2 | Benzo(b)Fluoranthene | 480 u |
| 207-08-9 | Benzo(k)Fluoranthene | 480 u |
| 50-32-8 | Benzo(a)pyrene | 480 u |
| 193-39-5 | Indeno(1,2,3-cd)Pyrene | 480 u |
| 53-70-3 | Dibenz(a,h)Anthracene | 480 u |
| 191-24-2 | Benzo(g,h,i)Perylene | 480 u |

BNAF1:R032286

Form I

(1)-Cannot be separated from diphenylamine

Versar Inc., Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

| SAMPLE ID |
|---|
| 150-31 |

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

| | CAS Number | Compound Name | Fraction | RT or Scan | Estimated Concentration (ug/Kg or ug/l) |
|---|---|---|---|---|---|
| 11. | | | | | |
| 12. | UNKNOWN | | BNA | 551 | 540 J,B, |
| 13. | UNKNOWN | | BNA | 596 | 180 J,B, |
| 14. | UNKNOWN | | BNA | 678 | 240 J,B, |
| 15. | | | | | |
| 16. | | | | | |
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| 129. | | | | | |
| 130. | | | | | |

Versar Inc. Laboratory Operations
6850 Versar Center, Springfield Va. 22151
(703) 750-3000

| Sample Number |
| --- |
| 50-31 |

ORGANICS ANALYSIS DATA SHEET
(Page 3)

Pesticides/PCBs

Concentration: Low Medium (circle one)

GPC Cleanup [ ] Yes [X] No

Date Extracted/Prepared: 11-09-87

Separatory Funnel Extration [ ] Yes

Date Analyzed: 11-24-87

Continuous Liquid-Liquid Extraction [ ] Yes [X] No

Conc/Dil Factor 1.00

Percent Moisture(decanted) 13.10

| CAS Number | | ug/kg |
| --- | --- | --- |
| 319-84-6 | alpha-BHC | 3.8 u |
| 319-85-7 | beta-BHC | 3.8 u |
| 319-86-8 | delta-BHC | 3.8 u |
| 58-89-9 | gamma-BHC (Lindane) | 3.8 u |
| 76-44-8 | Heptachlor | 3.8 u |
| 309-00-2 | Aldrin | 3.8 u |
| 1024-57-3 | Heptachlor Epoxide | 3.8 u |
| 959-98-8 | Endosulfan I | 3.8 u |
| 60-57-1 | Dieldrin | 7.7 u |
| 72-55-9 | 4,4'-DDE | 7.7 u |
| 72-20-8 | Endrin | 7.7 u |
| 33213-65-9 | Endosulfan II | 7.7 u |
| 72-54-8 | 4,4'-DDD | 7.7 u |
| 1031-07-8 | Endosulfan Sulfate | 7.7 u |
| 50-29-3 | 4,4'-DDT | 7.7 u |
| 72-43-5 | Methoxychlor | 7.7 u |
| 53494-70-5 | Endrin Ketone | 7.7 u |
| 57-74-9 | Chlordane | 38 u |
| 8001-35-2 | Toxaphene | 77 u |
| 12674-11-2 | Aroclor-1016 | 38 u |
| 11104-28-2 | Aroclor-1221 | 38 u |
| 11141-16-5 | Aroclor-1232 | 38 u |
| 53469-21-9 | Aroclor-1242 | 38 u |
| 12672-29-6 | Aroclor-1248 | 38 u |
| 11097-69-1 | Aroclor-1254 | 77 u |
| 11096-82-5 | Aroclor-1260 | 77 u |

S. Grafham
11-30-87

Vi = Volume of extract injected (ul)
Vs = Volume of Water Extracted (ml)
Ws = Weight of sample extracted (g)
Vt = Volume of total extract (ul)

Vs ____ or Ws 30.02 ____ Vt 20000 Vi 2.00

FORM I

SAMPLE NO.
SO-31

DATE 12/16/87

INORGANIC ANALYSIS DATA SHEET

LAB NAME VERSAR INC.

CASE NO. ---

SOW NO. 785

LAB RECEIPT DATE 10/30/87

LAB SAMPLE ID. NO. 41156, 871104-002

QC REPORT NO. 276

PROJECT-TASK 4600.0000

BATCH 276

ELEMENTS IDENTIFIED AND MEASURED

CONCENTRATION: LOW X MEDIUM HIGH

MATRIX: WATER SOIL X WIPE

MG/KG DRY WEIGHT

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1. | ALUMINUM | 5010. | P | 13. | MAGNESIUM | 1470. | P |
| 2. | ANTIMONY | 7.6 U | P | 14. | MANGANESE | 479. | P |
| 3. | ARSENIC | 5.9 | F | 15. | MERCURY | 0.11 U | |
| 4. | BARIUM | [ 37.] | P | 16. | NICKEL | 14. | P |
| 5. | BERYLLIUM | [ 0.46] | P | 17. | POTASSIUM | [ 699.] | P |
| 6. | CADMIUM | 1.1 U | P | 18. | SELENIUM | 1.1 U | F |
| 7. | CALCIUM | [ 730.] | P | 19. | SILVER | 1.6 U | P |
| 8. | CHROMIUM | 9.1 | P | 20. | SODIUM | [ 83.] | P |
| 9. | COBALT | [ 8.4] | P | 21. | THALLIUM | 2.3 U | F |
| 10. | COPPER | 16. | P | 22. | VANADIUM | [ 8.1] | P |
| 11. | IRON | 16300. | P | 23. | ZINC | 43. | P |
| 12. | LEAD | 10. | F | | PERCENT SOLIDS | 87.0 | |
| | CYANIDE | 0.57 U | | | | | |

FOOTNOTES: SEE COVER PAGE.

COMMENTS: COLOR - BROWN; TEXTURE - MEDIUM; DF OF 2 FOR PB;

LAB MANAGER

WILLIAM T. [illegible]

Versar, Inc. Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

| Sample Number |
|---|
| SO-32 |

ORGANICS ANALYSIS DATA SHEET (Page 1)

Laboratory Name: VERSAR
Lab Sample ID No: 41147
Sample Matrix: SOIL
Data Release Authorized By:

Case No: 4600 B#276
QC Report No: 4600 B#276
Contract No:
Date Sample Received: 10/30/87

VOLATILE COMPOUNDS

Concentration: LOW
Date Extracted/Prepared: 10/30/87
Date Analyzed: 10/30/87
Conc/Dil Factor: 1
Percent Moisture: 14.14
pH 5.8

| CAS Number | | ug/Kg |
|---|---|---|
| 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 | 18 |
| 67-64-1 | Acetone | 7 J |
| 75-15-0 | Carbon Disulfide | 6 u |
| 75-35-4 | 1,1-Dichloroethene | 6 u |
| 75-34-3 | 1,1-Dichloroethane | 6 u |
| 156-60-5 | Trans-1,2-Dichloroethene | 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 |

| CAS Number | | ug/Kg |
|---|---|---|
| 78-87-5 | 1,2-Dichloropropane | 6 u |
| 10061-02-6 | Trans-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 |
| 10061-01-5 | cis-1,3-Dichloropropene | 6 u |
| 110-75-8 | 2-chloroethylvinylether | 12 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 |
| | Total Xylenes | 6 u |

Data Reporting Qualifiers

Value If the result is a value greater than or equal to the detection limit, report the value.

u Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response factor is assumed, or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero. (e.g. 10J)

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

T Spectrum does not meet criteria for confirmation but does indicate compound presence.

NA Compound present in both matrix spike standard and unspiked sample.

Versar Inc., Laboratory Operations
6850 Versar Center, Springfield VA 22151, (703) 750-3000

| SAMPLE ID |
|---|
| SO-32 |

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

| | CAS Number | Compound Name | Fraction | RT or Scan | Estimated Concentration (ug/Kg or ug/l) |
|---|---|---|---|---|---|
| 11. | | NO VOLATILES DETECTED | VOA | NA | NA |
| 12. | | | | | |
| 13. | | | | | |
| 14. | | | | | |
| 15. | | | | | |
| 16. | | | | | |
| 17. | | | | | |
| 18. | | | | | |
| 19. | | | | | |
| 110. | | | | | |
| 111. | | | | | |
| 112. | | | | | |
| 113. | | | | | |
| 114. | | | | | |
| 115. | | | | | |
| 116. | | | | | |
| 117. | | | | | |
| 118. | | | | | |
| 119. | | | | | |
| 120. | | | | | |
| 121. | | | | | |
| 122. | | | | | |
| 123. | | | | | |
| 124. | | | | | |
| 125. | | | | | |
| 126. | | | | | |
| 127. | | | | | |
| 128. | | | | | |
| 129. | | | | | |
| 130. | | | | | |

Versar Inc., Laboratory Operations
6850 Versar Center, Springfield VA 22151 703/750-3000

| Sample Number |
|---|
| 150-32 |

Case No: 4600 B8276

ORGANICS ANALYSIS DATA SHEET (Page 2)
Semivolatile Compounds

Concentration: LOW

Date Extracted/Prepared: 11/09/87

Date Analyzed: 11/18/87

Conc/Dil Factor: 1

GPC Cleanup [ ]Yes [X]No

Separatory Funnel Extraction [ ]Yes

Continuous Liquid-Liquid Extraction [ ]Yes

| CAS Number | | ug/Kg | CAS Number | | ug/Kg |
|---|---|---|---|---|---|
| 108-95-2 | Phenol | 480 u | 83-32-9 | Acenaphthene | 480 u |
| 111-44-4 | bis(2-Chloroethyl)Ether | 480 u | 51-28-5 | 2,4-Dinitrophenol | 2400 u |
| 95-57-8 | 2-Chlorophenol | 480 u | 100-02-7 | 4-Nitrophenol | 2400 u |
| 541-73-1 | 1,3-Dichlorobenzene | 480 u | 132-64-9 | Dibenzofuran | 480 u |
| 106-46-7 | 1,4-Dichlorobenzene | 480 u | 121-14-2 | 2,4-Dinitrotoluene | 480 u |
| 100-51-6 | Benzyl Alcohol | 480 u | 606-20-2 | 2,6-Dinitrotoluene | 480 u |
| 95-50-1 | 1,2-Dichlorobenzene | 480 u | 84-66-2 | Diethylphthalate | 480 u |
| 95-48-7 | 2-Methylphenol | 480 u | 7005-22-3 | 4-Chlorophenyl-phenylether | 480 u |
| 39638-32-9 | bis(2-chloroisopropyl)ether | 480 u | 86-73-7 | Fluorene | 480 u |
| 106-44-5 | 4-methylphenol | 480 u | 100-01-6 | 4-Nitroaniline | 2400 u |
| 621-64-7 | N-Nitroso-Di-n-propylamine | 480 u | 534-52-1 | 4,6-dinitro-2-methylphenol | 2400 u |
| 67-72-1 | Hexachloroethane | 480 u | 86-30-6 | N-Nitrosodiphenylamine (1) | 480 u |
| 98-95-3 | Nitrobenzene | 480 u | 101-55-3 | 4-Bromophenyl-phenylether | 480 u |
| 78-59-1 | Isophorone | 480 u | 118-74-1 | Hexachlorobenzene | 480 u |
| 88-75-5 | 2-Nitrophenol | 480 u | 87-86-5 | Pentachlorophenol | 2400 u |
| 105-67-9 | 2,4-dimethylphenol | 480 u | 85-01-8 | Phenanthrene | 480 u |
| 65-85-0 | Benzoic Acid | 2400 u | 120-12-7 | Anthracene | 480 u |
| 111-91-1 | bis(2-chloroethoxy)methane | 480 u | 84-74-2 | Di-n-butylphthalate | 480 u |
| 120-83-2 | 2,4-dichlorophenol | 480 u | 206-44-0 | Fluoranthene | 480 u |
| 120-82-1 | 1,2,4-trichlorobenzene | 480 u | 129-00-0 | Pyrene | 480 u |
| 91-20-3 | Naphthalene | 480 u | 85-68-7 | Butylbenzylphthalate | 480 u |
| 106-47-8 | 4-Chloroaniline | 480 u | 91-94-1 | 3,3'-Dichlorobenzidine | 960 u |
| 87-68-3 | Hexachlorobutadiene | 480 u | 56-55-3 | Benzo(a)anthracene | 480 u |
| 59-50-7 | 4-chloro-3-methylphenol | 480 u | 117-81-7 | bis(2-Ethylhexyl)Phthalate | [illegible] |
| 91-57-6 | 2-methylnaphthalene | 480 u | 218-01-9 | Chrysene | 480 u |
| 77-47-4 | Hexachlorocyclopentadiene | 480 u | 117-84-0 | Di-n-Octylphthalate | 480 u |
| 88-06-2 | 2,4,6-Trichlorophenol | 480 u | 205-99-2 | Benzo(b)Fluoranthene | 480 u |
| 95-95-4 | 2,4,5-Trichlorophenol | 2400 u | 207-08-9 | Benzo(k)Fluoranthene | 480 u |
| 91-58-7 | 2-Chloronaphthalene | 480 u | 50-32-8 | Benzo(a)pyrene | 480 u |
| 88-74-4 | 2-Nitroaniline | 2400 u | 193-39-5 | Indeno(1,2,3-cd)Pyrene | 480 u |
| 131-11-3 | Dimethyl Phthalate | 480 u | 53-70-3 | Dibenz(a,h)Anthracene | 480 u |
| 208-96-8 | Acenaphthylene | 480 u | 191-24-2 | Benzo(g,h,i)Perylene | 480 u |
| 99-09-2 | 3-Nitroaniline | 2400 u | | | |

(1)-Cannot be separated from diphenylamine

Versar Inc., Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

| SAMPLE ID |
|---|
| 150-32 |

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

| | CAS Number | Compound Name | Fraction | RT or Scan | Estimated Concentration ug/Kg or ug/l |
|---|---|---|---|---|---|
| 11. | | | | | |
| 12. | | UNKNOWN | BNA | 547 | 430 J,B. |
| 13. | | UNKNOWN | BNA | 592 | 140 J. |
| 14. | | UNKNOWN | BNA | 673 | 180 J. |
| 15. | | | | | |
| 16. | | | | | |
| 17. | | | | | |
| 18. | | | | | |
| 19. | | | | | |
| 110. | | | | | |
| 111. | | | | | |
| 112. | | | | | |
| 113. | | | | | |
| 114. | | | | | |
| 115. | | | | | |
| 116. | | | | | |
| 117. | | | | | |
| 118. | | | | | |
| 119. | | | | | |
| 120. | | | | | |
| 121. | | | | | |
| 122. | | | | | |
| 123. | | | | | |
| 124. | | | | | |
| 125. | | | | | |
| 126. | | | | | |
| 127. | | | | | |
| 128. | | | | | |
| 129. | | | | | |
| 130. | | | | | |

Versar Inc. Laboratory Operations
6850 Versar Center, Springfield Va. 22151
(703) 750-3000

| Sample Number |
| --- |
| SO-3c |

ORGANICS ANALYSIS DATA SHEET
(Page 3)

Pesticides/PCBs

Concentration: Low Medium (circle one)

GPC Cleanup [ ] Yes [X] No

Date Extracted/Prepared: 11-09-87

Separatory Funnel Extration [ ] Yes

Date Analyzed: 11-24-87

Continuous Liquid-Liquid Extraction [ ] Yes [X] No

Conc/Dil Factor 1.00

Percent Moisture(decanted) 14.14

| CAS Number | | ug/kg |
| --- | --- | --- |
| 319-84-6 | alpha-BHC | 3.8 u |
| 319-85-7 | beta-BHC | 3.8 u |
| 319-86-8 | delta-BHC | 3.8 u |
| 58-89-9 | gamma-BHC (Lindane) | 3.8 u |
| 76-44-8 | Heptachlor | 3.8 u |
| 309-00-2 | Aldrin | 3.8 u |
| 1024-57-3 | Heptachlor Epoxide | 3.8 u |
| 959-98-8 | Endosulfan I | 3.8 u |
| 60-57-1 | Dieldrin | 7.7 u |
| 72-55-9 | 4,4'-DDE | 7.7 u |
| 72-20-8 | Endrin | 7.7 u |
| 33213-65-9 | Endosulfan II | 7.7 u |
| 72-54-8 | 4,4'-DDD | 7.7 u |
| 1031-07-8 | Endosulfan Sulfate | 7.7 u |
| 50-29-3 | 4,4'-DDT | 7.7 u |
| 72-43-5 | Methoxychlor | 7.7 u |
| 53494-70-5 | Endrin Ketone | 7.7 u |
| 57-74-9 | Chlordane | 38 u |
| 8001-35-2 | Toxaphene | 77 u |
| 12674-11-2 | Aroclor-1016 | 38 u |
| 11104-28-2 | Aroclor-1221 | 38 u |
| 11141-16-5 | Aroclor-1232 | 38 u |
| 53469-21-9 | Aroclor-1242 | 38 u |
| 12672-29-6 | Aroclor-1248 | 38 u |
| 11097-69-1 | Aroclor-1254 | 77 u |
| 11096-82-5 | Aroclor-1260 | 77 u |

S. Zaufelner
11-30-87

Vi = Volume of extract injected (ul)
Vs = Volume of Water Extracted (ml)
Ws = Weight of sample extracted (g)
Vt = Volume of total extract (ul)

Vs ____ or Ws 30.41 Vt 20000 Vi 2.00

FORM I

SAMPLE NO.
SO-32

DATE 12/16/87

INORGANIC ANALYSIS DATA SHEET

LAB NAME VERSAR INC.

CASE NO. ---

SOW NO. 785

LAB RECEIPT DATE 10/30/87

LAB SAMPLE ID. NO. 41157, 871104-003

QC REPORT NO. 276

PROJECT-TASK 4600.0000

BATCH 276

ELEMENTS IDENTIFIED AND MEASURED

CONCENTRATION: LOW X MEDIUM HIGH

MATRIX: WATER SOIL X WIPE

MG/KG DRY WEIGHT

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1. | ALUMINUM | 4480. | P | 13. | MAGNESIUM | 1550. | P |
| 2. | ANTIMONY | 7.7 U | P | 14. | MANGANESE | 749. | P |
| 3. | ARSENIC | 3.1 | F | 15. | MERCURY | 0.12 U | |
| 4. | BARIUM | [ 37.] | P | 16. | NICKEL | 19. | P |
| 5. | BERYLLIUM | [ 0.49] | P | 17. | POTASSIUM | [ 784.] | P |
| 6. | CADMIUM | 1.2 U | P | 18. | SELENIUM | 1.2 U | F |
| 7. | CALCIUM | [ 960.] | P | 19. | SILVER | 1.6 U | F |
| 8. | CHROMIUM | 11. | P | 20. | SODIUM | [ 51.] | F |
| 9. | COBALT | [ 9.3] | P | 21. | THALLIUM | 2.3 U | F |
| 10. | COPPER | 16. | P | 22. | VANADIUM | [ 9.2] | P |
| 11. | IRON | 25000. | P | 23. | ZINC | 44. | P |
| 12. | LEAD | 9.5 | F S | | PERCENT SOLIDS | 85.7 | |
| | CYANIDE | 0.57 U | | | | | |

FOOTNOTES: SEE COVER PAGE.

COMMENTS: COLOR - BROWN; TEXTURE - MEDIUM; DF OF 2 FOR FE, PB;

LAB MANAGER

Versar, Inc. Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

| Sample Number |
|---|
| SO-33 |

ORGANICS ANALYSIS DATA SHEET (Page 1)

Laboratory Name: VERSAR
Lab Sample ID No: 41148
Sample Matrix: SOIL
Data Release Authorized By:

Case No: 4600 BW276
QC Report No: 4600 BW276
Contract No:
Date Sample Received: 10/30/87

VOLATILE COMPOUNDS

Concentration: LOW
Date Extracted/Prepared: 10/30/87 BF
Date Analyzed: 10/30/87 BF
Conc/Dil Factor: 1 pH 4.1
Percent Moisture: 16.6

| CAS Number | | ug/Kg | CAS Number | | ug/Kg |
|---|---|---|---|---|---|
| 74-87-3 | Chloromethane | 12 u | 78-87-5 | 1,2-Dichloropropane | 6 u |
| 74-83-9 | Bromomethane | 12 u | 10061-02-6 | Trans-1,3-Dichloropropene | 6 u |
| 75-01-4 | Vinyl Chloride | 12 u | 79-01-6 | Trichloroethene | 6 u |
| 75-00-3 | Chloroethane | 12 u | 124-48-1 | Dibromochloromethane | 6 u |
| 75-09-2 | Methylene Chloride | 34 | 79-00-5 | 1,1,2-Trichloroethane | 6 u |
| 67-64-1 | Acetone | 11 J | 71-43-2 | Benzene | 6 u |
| 75-15-0 | Carbon Disulfide | 6 u | 10061-01-5 | cis-1,3-Dichloropropene | 6 u |
| 75-35-4 | 1,1-Dichloroethene | 6 u | 110-75-8 | 2-chloroethylvinylether | 12 u |
| 75-34-3 | 1,1-Dichloroethane | 6 u | 75-25-2 | Bromoform | 6 u |
| 156-60-5 | Trans-1,2-Dichloroethene | 6 u | 108-10-1 | 4-Methyl-2-Pentanone | 12 u |
| 67-66-3 | Chloroform | 6 u | 591-78-6 | 2-Hexanone | 12 u |
| 107-06-2 | 1,2-Dichloroethane | 6 u | 127-18-4 | Tetrachloroethene | 6 u |
| 78-93-3 | 2-butanone | 12 u | 79-34-5 | 1,1,2,2-Tetrachloroethane | 6 u |
| 71-55-6 | 1,1,1-Trichloroethane | 6 u | 108-88-3 | Toluene | 59 |
| 56-23-5 | Carbon Tetrachloride | 6 u | 108-90-7 | Chlorobenzene | 6 u |
| 108-05-4 | Vinyl Acetate | 12 u | 100-41-4 | Ethylbenzene | 6 u |
| 75-27-4 | Bromodichloromethane | 6 u | 100-42-5 | Styrene | 6 u |
| | | | | Total Xylenes | 6 u |

Data Reporting Qualifiers

Value If the result is a value greater than or equal to the detection limit, report the value.

u Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response factor is assumed, or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero. (e.g. 10J)

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

T Spectrum does not meet criteria for confirmation but does indicate compound presence.

NA Compound present in both matrix spike standard and unspiked sample.



000213

Versar Inc., Laboratory Operations
6850 Versar Center, Springfield VA 22151, (703) 750-3000

| SAMPLE ID |
|---|
| SD-93 |

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

| CAS Number | Compound Name | Fraction | RT or Scan | Estimated Concentration (ug/Kg or ug/l) |
|---|---|---|---|---|
| 11. | NO VOLATILES DETECTED | VOA | NA | NA |
| 12. | | | | |
| 13. | | | | |
| 14. | | | | |
| 15. | | | | |
| 16. | | | | |
| 17. | | | | |
| 18. | | | | |
| 19. | | | | |
| 110. | | | | |
| 111. | | | | |
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| 123. | | | | |
| 124. | | | | |
| 125. | | | | |
| 126. | | | | |
| 127. | | | | |
| 128. | | | | |
| 129. | | | | |
| 130. | | | | |

Versar Inc., Laboratory Operations
6850 Versar Center, Springfield VA 22151 703/750-3000

|Sample Number
|SO-33

Case No:____4600 R4276_____

ORGANICS ANALYSIS DATA SHEET (Page 2)
Semivolatile Compounds

Concentration:LOW

Date Extracted/Prepared:_____11/09/87__

Date Analyzed:_____11/18/87__

Conc/Dil Factor:_____1_____

GPC Cleanup [ ]Yes [X]No

Separatory Funnel Extraction [ ]Yes

Continuous Liquid-Liquid Extraction [ ]Yes

| CAS Number | | ug/Kg | CAS Number | | ug/Kg |
|---|---|---|---|---|---|
| 108-95-2 | Phenol | 500 u | 83-32-9 | Acenaphthene | 500 u |
| 111-44-4 | bis(2-Chloroethyl)Ether | 500 u | 51-28-5 | 2,4-Dinitrophenol | 2400 u |
| 95-57-8 | 2-Chlorophenol | 500 u | 100-02-7 | 4-Nitrophenol | 2400 u |
| 541-73-1 | 1,3-Dichlorobenzene | 500 u | 132-64-9 | Dibenzofuran | 500 u |
| 106-46-7 | 1,4-Dichlorobenzene | 500 u | 121-14-2 | 2,4-Dinitrotoluene | 500 u |
| 100-51-6 | Benzyl Alcohol | 500 u | 606-20-2 | 2,6-Dinitrotoluene | 500 u |
| 95-50-1 | 1,2-Dichlorobenzene | 500 u | 84-66-2 | Diethylphthalate | 500 u |
| 95-48-7 | 2-Methylphenol | 500 u | 7005-22-3 | 4-Chlorophenyl-phenylether | 500 u |
| 39638-32-9 | bis(2-chloroisopropyl)ether | 500 u | 86-73-7 | Fluorene | 500 u |
| 106-44-5 | 4-methylphenol | 500 u | 100-01-6 | 4-Nitroaniline | 2400 u |
| 621-64-7 | N-Nitroso-Di-n-propylamine | 500 u | 534-52-1 | 4,6-dinitro-2-methylphenol | 2400 u |
| 67-72-1 | Hexachloroethane | 500 u | 86-30-6 | N-Nitrosodiphenylamine (1) | 500 u |
| 98-95-3 | Nitrobenzene | 500 u | 101-55-3 | 4-Bromophenyl-phenylether | 500 u |
| 78-59-1 | Isophorone | 500 u | 118-74-1 | Hexachlorobenzene | 500 u |
| 88-75-5 | 2-Nitrophenol | 500 u | 87-86-5 | Pentachlorophenol | 2400 u |
| 105-67-9 | 2,4-dimethylphenol | 500 u | 85-01-8 | Phenanthrene | 500 u |
| 65-85-0 | Benzoic Acid | 2400 u | 120-12-7 | Anthracene | 500 u |
| 111-91-1 | bis(2-chloroethoxy)methane | 500 u | 84-74-2 | Di-n-butylphthalate | 500 u |
| 120-83-2 | 2,4-dichlorophenol | 500 u | 206-44-0 | Fluoranthene | 500 u |
| 120-82-1 | 1,2,4-trichlorobenzene | 500 u | 129-00-0 | Pyrene | 500 u |
| 91-20-3 | Naphthalene | 500 u | 85-68-7 | Butylbenzylphthalate | 500 u |
| 106-47-8 | 4-Chloroaniline | 500 u | 91-94-1 | 3,3'-Dichlorobenzidine | 1000 u |
| 87-68-3 | Hexachlorobutadiene | 500 u | 56-55-3 | Benzo(a)anthracene | 500 u |
| 59-50-7 | 4-chloro-3-methylphenol | 500 u | 117-81-7 | bis(2-Ethylhexyl)Phthalate | 98 J |
| 91-57-6 | 2-methylnaphthalene | 500 u | 218-01-9 | Chrysene | 500 u |
| 77-47-4 | Hexachlorocyclopentadiene | 500 u | 117-84-0 | Di-n-Octylphthalate | 500 u |
| 88-06-2 | 2,4,6-Trichlorophenol | 500 u | 205-99-2 | Benzo(b)Fluoranthene | 500 u |
| 95-95-4 | 2,4,5-Trichlorophenol | 2400 u | 207-08-9 | Benzo(k)Fluoranthene | 500 u |
| 91-58-7 | 2-Chloronaphthalene | 500 u | 50-32-8 | Benzo(a)pyrene | 500 u |
| 88-74-4 | 2-Nitroaniline | 2400 u | 193-39-5 | Indeno(1,2,3-cd)Pyrene | 500 u |
| 131-11-3 | Dimethyl Phthalate | 500 u | 53-70-3 | Dibenz(a,h)Anthracene | 500 u |
| 208-96-8 | Acenaphthylene | 500 u | 191-24-2 | Benzo(g,h,i)Perylene | 500 u |
| 99-09-2 | 3-Nitroaniline | 2400 u | | | |

(1)-Cannot be separated from diphenylamine

Versar Inc., Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

| SAMPLE ID |
|---|
| SO-33 |

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

| | CAS Number | Compound Name | Fraction | RT or Scan | Estimated Concentration (ug/Kg or ug/l) |
|---|---|---|---|---|---|
| 11. | | | | | |
| 12. | | UNKNOWN | BNA | 547 | 390 J,B. |
| 13. | | UNKNOWN | BNA | 592 | 130 J... |
| 14. | | UNKNOWN | BNA | 674 | 180 J... |
| 15. | | | | | |
| 16. | | | | | |
| 17. | | | | | |
| 18. | | | | | |
| 19. | | | | | |
| 110. | | | | | |
| 111. | | | | | |
| 112. | | | | | |
| 113. | | | | | |
| 114. | | | | | |
| 115. | | | | | |
| 116. | | | | | |
| 117. | | | | | |
| 118. | | | | | |
| 119. | | | | | |
| 120. | | | | | |
| 121. | | | | | |
| 122. | | | | | |
| 123. | | | | | |
| 124. | | | | | |
| 125. | | | | | |
| 126. | | | | | |
| 127. | | | | | |
| 128. | | | | | |
| 129. | | | | | |
| 130. | | | | | |

Versar Inc. Laboratory Operations
6850 Versar Center, Springfield Va. 22151
(703) 750-3000

| Sample Number |
|---|
| 50-33 |

- ORGANICS ANALYSIS DATA SHEET
(Page 3)

Pesticides/PCBs

Concentration: Low Medium (circle one)

GPC Cleanup [ ] Yes [X] No

Date Extracted/Prepared: 11-09-87

Separatory Funnel Extration [ ] Yes

Date Analyzed: 11-24-87

Continuous Liquid-Liquid Extraction [ ] Yes [X] No

Conc/Dil Factor 1.00

Percent Moisture(decanted) 16.60

| CAS Number | | ug/kg |
|---|---|---|
| 319-84-6 | alpha-BHC | 4.0 u |
| 319-85-7 | beta-BHC | 4.0 u |
| 319-86-8 | delta-BHC | 4.0 u |
| 58-89-9 | gamma-BHC (Lindane) | 4.0 u |
| 76-44-8 | Heptachlor | 4.0 u |
| 309-00-2 | Aldrin | 4.0 u |
| 1024-57-3 | Heptachlor Epoxide | 4.0 u |
| 959-98-8 | Endosulfan I | 4.0 u |
| 60-57-1 | Dieldrin | 7.9 u |
| 72-55-9 | 4,4'-DDE | 7.9 u |
| 72-20-8 | Endrin | 7.9 u |
| 33213-65-9 | Endosulf·, II | 7.9 u |
| 72-54-8 | 4,4'-DDD | 7.9 u |
| 1031-07-8 | Endosulfan Sulfate | 7.9 u |
| 50-29-3 | 4,4'-DDT | 7.9 u |
| 72-43-5 | Methoxychlor | 7.9 u |
| 53494-70-5 | Endrin Ketone | 7.9 u |
| 57-74-9 | Chlordane | 40 u |
| 8001-35-2 | Toxaphene | 79 u |
| 12674-11-2 | Aroclor-1016 | 40 u |
| 11104-28-2 | Aroclor-1221 | 40 u |
| 11141-16-5 | Aroclor-1232 | 40 u |
| 53469-21-9 | Aroclor-1242 | 40 u |
| 12672-29-6 | Aroclor-1248 | 40 u |
| 11097-69-1 | Aroclor-1254 | 79 u |
| 11096-82-5 | Aroclor-1260 | 79 u |

S. Zmafekar
11-30-87

Vi = Volume of extract injected (ul)
Vs = Volume of Water Extracted (ml)
Ws = Weight of sample extracted (g)
Vt = Volume of total extract (ul)

FORM I

SAMPLE NO.
SO-33

DATE 12/16/87

INORGANIC ANALYSIS DATA SHEET

LAB NAME VERSAR INC.

CASE NO. ---

SOW NO. 785

LAB RECEIPT DATE 10/30/87

LAB SAMPLE ID. NO. 41158, 871104-004

QC REPORT NO. 276

PROJECT-TASK 4600.0000

BATCH 276

ELEMENTS IDENTIFIED AND MEASURED

CONCENTRATION: LOW X MEDIUM HIGH

MATRIX: WATER SOIL X WIPE

MG/KG DRY WEIGHT

| | | | | | |
|---|---|---|---|---|---|
| 1. ALUMINUM | 5700. | P | 13. MAGNESIUM | [ 1110.] | P |
| 2. ANTIMONY | [ 8.4] | P | 14. MANGANESE | 551. | P |
| 3. ARSENIC | 2.4 | F | 15. MERCURY | 0.12 U | |
| 4. BARIUM | [ 40.] | P | 16. NICKEL | 11. | P |
| 5. BERYLLIUM | [ 0.44] | P | 17. POTASSIUM | [ 601.] | P |
| 6. CADMIUM | 1.2 U | P | 18. SELENIUM | 1.2 U | F |
| 7. CALCIUM | [ 409.] | P | 19. SILVER | 1.7 U | P |
| 8. CHROMIUM | 9.6 | P | 20. SODIUM | [ 59.] | P |
| 9. COBALT | [ 7.9] | P | 21. THALLIUM | 2.4 U | F |
| 10. COPPER | 12. | P | 22. VANADIUM | [ 8.9] | P |
| 11. IRON | 17100. | P | 23. ZINC | 36. | P |
| 12. LEAD | 12. | F S | PERCENT SOLIDS | 83.2 | |
| CYANIDE | 0.59 U | | | | |

FOOTNOTES: SEE COVER PAGE.

COMMENTS: COLOR - BROWN; TEXTURE - MEDIUM; DF OF 2 FOR PB;

LAB MANAGER

WILLIAM T. NIVENS

Versar, Inc. Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

| Sample Number |
|---|
| SQ-34 |

* ORGANICS ANALYSIS DATA SHEET (Page 1)

Laboratory Name: VERSAR
Lab Sample ID No: 41149
Sample Matrix: SOIL
Data Release Authorized By:

Case No: 4600 B#276
QC Report No: 4600 B#276
Contract No:
Date Sample Received: 10/30/87

VOLATILE COMPOUNDS

Concentration: LOW
Date Extracted/Prepared: 10/30/87 BF
Date Analyzed: 10/30/87 BF
Conc/Dil Factor: 1 pH 4.1
Percent Moisture: 13.25

| CAS Number | | ug/Kg | CAS Number | | ug/Kg |
|---|---|---|---|---|---|
| 74-87-3 | Chloromethane | 12 u | 78-87-5 | 1,2-Dichloropropane | 6 u |
| 74-83-9 | Bromomethane | 12 u | 10061-02-6 | Trans-1,3-Dichloropropene | 6 u |
| 75-01-4 | Vinyl Chloride | 12 u | 79-01-6 | Trichloroethene | 6 u |
| 75-00-3 | Chloroethane | 12 u | 124-48-1 | Dibromochloromethane | 6 u |
| 75-09-2 | Methylene Chloride | 31 | 79-00-5 | 1,1,2-Trichloroethane | 6 u |
| 67-64-1 | Acetone | 9 J | 71-43-2 | Benzene | 6 u |
| 75-15-0 | Carbon Disulfide | 6 u | 10061-01-5 | cis-1,3-Dichloropropene | 6 u |
| 75-35-4 | 1,1-Dichloroethene | 6 u | 110-75-8 | 2-chloroethylvinylether | 12 u |
| 75-34-3 | 1,1-Dichloroethane | 6 u | 75-25-2 | Bromoform | 6 u |
| 156-60-5 | Trans-1,2-Dichloroethene | 6 u | 108-10-1 | 4-Methyl-2-Pentanone | 12 u |
| 67-66-3 | Chloroform | 6 u | 591-78-6 | 2-Hexanone | 12 u |
| 107-06-2 | 1,2-Dichloroethane | 6 u | 127-18-4 | Tetrachloroethene | 6 u |
| 78-93-3 | 2-butanone | 12 u | 79-34-5 | 1,1,2,2-Tetrachloroethane | 6 u |
| 71-55-6 | 1,1,1-Trichloroethane | 6 u | 108-88-3 | Toluene | 13 |
| 56-23-5 | Carbon Tetrachloride | 6 u | 108-90-7 | Chlorobenzene | 6 u |
| 108-05-4 | Vinyl Acetate | 12 u | 100-41-4 | Ethylbenzene | 6 u |
| 75-27-4 | Bromodichloromethane | 6 u | 100-42-5 | Styrene | 6 u |
| | | | | Total Xylenes | 6 u |

Data Reporting Qualifiers

Value If the result is a value greater than or equal to the detection limit, report the value.

u Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response factor is assumed, or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero. (e.g. 10J)

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

T Spectrum does not meet criteria for confirmation but does indicate compound presence.

NA Compound present in both matrix spike standard and unspiked sample.

Versar Inc., Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

| SAMPLE ID |
|---|
| SD-34 |

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

| | CAS Number | Compound Name | Fraction | RT or Scan | Estimated Concentration (ug/Kg or ug/l) |
|---|---|---|---|---|---|
| 11. | | NO VOLATILES DETECTED | VOA | NA | NA |
| 12. | | | | | |
| 13. | | | | | |
| 14. | | | | | |
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| 129. | | | | | |
| 130. | | | | | |

Versar Inc., Laboratory Operations
6850 Versar Center, Springfield VA 22151 703/750-3000

Sample Number
150-34

Case No: 4600 B0276

ORGANICS ANALYSIS DATA SHEET (Page 2)
Semivolatile Compounds

Concentration: LOW

Date Extracted/Prepared: 11/09/87

Date Analyzed: 11/17/87

Conc/Dil Factor: 1

GPC Cleanup [ ]Yes [X]No

Separatory Funnel Extraction [ ]Yes

Continuous Liquid-Liquid Extraction [ ]Yes

| CAS Number | | ug/Kg |
|---|---|---|
| 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 |
| 139638-32-9 | 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 | 62 JT |
| 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 | 520 u |
| 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 | 520 u |
| 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 | Dimethyl Phthalate | 520 u |
| 208-96-8 | Acenaphthylene | 520 u |
| 99-09-2 | 3-Nitroaniline | 2600 u |

| CAS Number | | ug/Kg |
|---|---|---|
| 83-32-9 | Acenaphthene | 520 u |
| 51-28-5 | 2,4-Dinitrophenol | 2600 u |
| 100-02-7 | 4-Nitrophenol | 2600 u |
| 132-64-9 | Dibenzofuran | 520 u |
| 121-14-2 | 2,4-Dinitrotoluene | 520 u |
| 606-20-2 | 2,6-Dinitrotoluene | 520 u |
| 84-66-2 | Diethylphthalate | 520 u |
| 7005-22-3 | 4-Chlorophenyl-phenylether | 520 u |
| 86-73-7 | Fluorene | 520 u |
| 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 | 520 u |
| 120-12-7 | Anthracene | 520 u |
| 84-74-2 | Di-n-butylphthalate | 520 u |
| 206-44-0 | Fluoranthene | 520 u |
| 129-00-0 | Pyrene | 520 u |
| 85-68-7 | Butylbenzylphthalate | 520 u |
| 91-94-1 | 3,3'-Dichlorobenzidine | 1020 u |
| 56-55-3 | Benzo(a)anthracene | 520 u |
| 117-81-7 | bis(2-Ethylhexyl)Phthalate | 62 J |
| 218-01-9 | Chrysene | 520 u |
| 117-84-0 | Di-n-Octylphthalate | 520 u |
| 205-99-2 | Benzo(b)Fluoranthene | 520 u |
| 207-08-9 | Benzo(k)Fluoranthene | 520 u |
| 50-32-8 | Benzo(a)pyrene | 520 u |
| 193-39-5 | Indeno(1,2,3-cd)Pyrene | 520 u |
| 53-70-3 | Dibenz(a,h)Anthracene | 520 u |
| 191-24-2 | Benzo(g,h,i)Perylene | 520 u |

(1)-Cannot be separated from diphenylamine

BNAF1:R032286

Form I

Versar Inc., Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

| SAMPLE ID |
|---|
| ISO-34 |

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

| | CAS Number | Compound Name | Fraction | RT or Scan | Estimated Concentration ug/Kg or ug/l | |
|---|---|---|---|---|---|---|
| 1 | | UNKNOWN | BNA | 548 | 440 | J,B |
| 2 | | UNKNOWN | BNA | 594 | 190 | J,B |
| 3 | | ACETATE 2-PENTANOL | BNA | 675 | 320 | J,B |
| 4 | | | | | | |
| 5 | | | | | | |
| 6 | | | | | | |
| 7 | | | | | | |
| 8 | | | | | | |
| 9 | | | | | | |
| 10 | | | | | | |
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| 29 | | | | | | |
| 30 | | | | | | |

Versar Inc. Laboratory Operations
6850 Versar Center, Springfield Va. 22151
(703) 750-3000

| Sample Number |
|---|
| SO-34 |

ORGANICS ANALYSIS DATA SHEET
(Page 3)

Pesticides/PCBs

Concentration: Low Medium (circle one)

GPC Cleanup [ ] Yes [X] No

Date Extracted/Prepared: 11-09-87

Separatory Funnel Extration [ ] Yes

Date Analyzed: 11-24-87

Continuous Liquid-Liquid Extraction [ ] Yes [X] No

Conc/Dil Factor 1.00

Percent Moisture (decanted) 19.25

| CAS Number | | ug/kg |
|---|---|---|
| 319-84-6 | alpha-BHC | 4.1 u |
| 319-85-7 | beta-BHC | 4.1 u |
| 319-86-8 | delta-BHC | 4.1 u |
| 58-89-9 | gamma-BHC (Lindane) | 4.1 u |
| 76-44-8 | Heptachlor | 4.1 u |
| 309-00-2 | Aldrin | 4.1 u |
| 1024-57-3 | Heptachlor Epoxide | 4.1 u |
| 959-98-8 | Endosulfan I | 4.1 u |
| 60-57-1 | Dieldrin | 8.2 u |
| 72-55-9 | 4,4'-DDE | 8.2 u |
| 72-20-8 | Endrin | 8.2 u |
| 33213-65-9 | Endosulfan II | 8.2 u |
| 72-54-8 | 4,4'-DDD | 8.2 u |
| 1031-07-8 | Endosulfan Sulfate | 8.2 u |
| 50-29-3 | 4,4'-DDT | 8.2 u |
| 72-43-5 | Methoxychlor | 8.2 u |
| 53494-70-5 | Endrin Ketone | 8.2 u |
| 57-74-9 | Chlordane | 41 u |
| 8001-35-2 | Toxaphene | 82 u |
| 12674-11-2 | Aroclor-1016 | 41 u |
| 11104-28-2 | Aroclor-1221 | 41 u |
| 11141-16-5 | Aroclor-1232 | 41 u |
| 53469-21-9 | Aroclor-1242 | 41 u |
| 12672-29-6 | Aroclor-1248 | 41 u |
| 11097-69-1 | Aroclor-1254 | 82 u |
| 11096-82-5 | Aroclor-1260 | 82 u |

S. Zaufelhan
11-30-87

Vi = Volume of extract injected (ul)
Vs = Volume of Water Extracted (ml)
Ws = Weight of sample extracted (g)
Vt = Volume of total extract (ul)

Vs _____ or Ws 30.29 Vt 20000 Vi 2.00

FORM I

SAMPLE NO.
SO-34

DATE 12/16/87

INORGANIC ANALYSIS DATA SHEET

LAB NAME VERSAR INC.

CASE NO. ---

SOW NO. 785

LAB RECEIPT DATE 10/30/87

LAB SAMPLE ID. NO. 41159, 871104-005

QC REPORT NO. 276

PROJECT-TASK 4600.0000

BATCH 276

ELEMENTS IDENTIFIED AND MEASURED

CONCENTRATION: LOW X MEDIUM HIGH

MATRIX: WATER SOIL X WIPE

MG/KG DRY WEIGHT

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1. | ALUMINUM | 5380. | P | 13. | MAGNESIUM | [ 938.] | P |
| 2. | ANTIMONY | 8.0 U | P | 14. | MANGANESE | 1340. | P |
| 3. | ARSENIC | 6.5 | F | 15. | MERCURY | 0.12 U | |
| 4. | BARIUM | 50. | P | 16. | NICKEL | 12. | P |
| 5. | BERYLLIUM | [ 0.63] | P | 17. | POTASSIUM | [ 459.] | P |
| 6. | CADMIUM | 1.2 U | P | 18. | SELENIUM | 1.2 U | F |
| 7. | CALCIUM | [ 255.] | P | 19. | SILVER | 1.7 U | P |
| 8. | CHROMIUM | 9.6 | P | 20. | SODIUM | [ 86.] | P |
| 9. | COBALT | [ 11.] | P | 21. | THALLIUM | 2.4 U | F |
| 10. | COPPER | 12. | P | 22. | VANADIUM | [ 9.2] | P |
| 11. | IRON | 16400. | P | 23. | ZINC | 35. | P |
| 12. | LEAD | 12. | F S | | PERCENT SOLIDS | 82.1 | |
| | CYANIDE | 0.63 U | | | | | |

FOOTNOTES: SEE COVER PAGE.

COMMENTS: COLOR - BROWN; TEXTURE - MEDIUM; DF OF 2 FOR PB;

LAB MANAGER

# CASE NARRATIVES

Versar INC.

PRC ENVIRONMENTAL MANAGEMENT, INC.
NOV 6 1987

NARRATIVE
Versar Project 4600
Batches 239, 245 & 256
Client/Site: Taylorboro
October 30, 1987

Please find attached the Data and Quality Control (QC) summaries for 38 NIOSH tubes analyzed for 12 solvents. The samples were analyzed by single column GC/FID.

Five samples contain detectable levels of the analytes of interest. Samples, 6A-0922, 6P-0928, 7A-0929 and 6A-1009 contain toluene. Sample 6A-0924 contains m-xylene in addition to toluene.

The two samples from the first batch 6A-0922 and 6A-0924, contained several early eluting peaks which were not the analytes of interest. A peak was also present near the retention time of chloroform and MIBK, which coelute. There were also trace level concentrations of ethylbenzene and the xylene isomers present below the detection limit.

The samples from the second batch 6P-0928 and 7A-0929 contained similar early eluting peaks as with the first batch of samples. The trace levels of either the ethylbenzene or the xylene isomers were not present.

In the third batch, sample 6A-1009 contained the same early eluting peak arrangement, in addition to the peak present near chloroform and MIBK. Trace levels of ethylbenzene and the xylene isomers were also present, although they were below the detection limit.

The early eluting peaks in the above mentioned samples contained a similar pattern but varied in intensity. If a general response factor was assumed based on the analytes of interest, the concentration of these peaks and the peak eluting near chloroform / MIBK would be between 0.04 and 0.1 mg/tube. It is important to point out that this is only an estimate, since each compound responds differently a response factor would have to be generated based on a standard of these unknown compounds.

The method standard recoveries for the third batch of samples were slightly lower than the first two batches. On the whole the QC was acceptable for the analyses.

If you have any questions regarding these reports please feel free to call me at your convenience.

Victor A. Yastrop
GC Section Chief
Laboratory Operations

000226

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SAMPLE DATA SUMMARY
PACKAGE

PROJECT #4600 BH244
DATE 11/02/87

000227

Versar INC.

November 2, 1987

I. Narrative
Volatile Organic Analysis - CLP Protocol
Client: PRC
Site: Taylorboro Landfill
Versar Project 4600 - Batch 244 (5031.94)

This report contains the analytical data for three ~~soil~~ sediment samples which arrived intact at Versar on October 2, 1987. The samples, listed below, were analyzed for volatile organic compounds following EPA CLP procedures.

SAMPLE LIST

S-2 S-4 S-5

GC/MS instrument calibration using BFB met CLP contract requirements for volatile analyses. All SPCC and CCC criteria were met for the volatile initial calibration curve and the daily ongoing calibration check standard. Volatile organic analyses were performed two days after the ten day specified sample holding time criteria had elapsed. All analyses occurred during the twelve hour period that followed daily instrument calibration.

All volatile organic surrogate compounds spiked into the soil samples met recovery criteria. Matrix spike and matrix spike duplicate quality control samples were analyzed. All recovery and relative percent difference values met specified ranges.

The samples did not contain any volatile organic compounds with the exception of methylene chloride and acetone detected at low concentrations. Although acetone was confirmed present in the laboratory reagent blank analyzed prior to the samples, methylene chloride was not confirmable in this daily blank. Both methylene chloride and acetone are common laboratory solvent contaminants. The samples did not require dilution prior to analyses. All analyte concentrations are reported on a "wet weight" basis, rather than a dry weight which accounts for percent moisture content of the individual sample.

Please contact either Mike Buchanan, Mass Spectrometry Section Chief, or me, should you require any additional information or have any questions pertaining to the analyses of these soil samples.

Sincerely,

Lawrence P. Pollack
GC/MS Data Quality Manager
Laboratory Operations



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SAMPLE DATA SUMMARY
PACKAGE

PROJECT #4600 B#251 & 254
DATE 12/07/87
CLIENT TAYLORBORO L.

000320

Versar INC.

December 7, 1987

I. Narrative
Client: Taylorboro Landfill
Organic Analyses - CLP Protocol
Versar Project 4600 - Batches 251 & 254

This report contains the analytical data for the analysis of four liquid waste samples, listed below, for volatile and semi-volatile compounds. The samples were extracted and analyzed for volatile, semivolatile, and pesticide compounds following EPA CLP procedures. The samples were received at Versar in two batch shipments on October 8, 1987 and October 10, 1987, respectively.

SAMPLE LIST

| | | |
|---|---|---|
| DATE RCVD. | 10/08/87 | D-1 |
| | | D-2 |
| | 10/10/87 | D-3 |
| | | D-4 |

---

GC/MS instrument calibrations using BFB and DFTPP met tuning requirements for volatile and semivolatile analyses, respectively. All SPCC and CCC criteria were met for both volatile and semi-volatile initial calibration curves. Continuing calibration standards for volatile and semivolatile analyses also met percent deviation requirements. All samples were analyzed during the twelve hour period that followed daily instrument calibration.

The surrogate recovery criteria which were used as suggested reference values are specified by the EPA for volatile and semi-volatile organic analysis of environmental soil samples. These waste samples may not be amenable to these surrogate recovery criteria. Volatile surrogate recovery values met specified criteria for all samples. Most semivolatile surrogate recovery values also met these QC limits. CLP protocol does not require corrective action if only one acid or one base-neutral surrogate recovery value is noncompliant.

Analyses for volatile organic compounds required dilution by a factor of no less than one million prior to analysis. The dilutions were required to quantify the predominant target compound, toluene, within the linear range of the standards calibration curve and to prevent instrument saturation. This dilution factor was also chosen in an attempt to minimize the degree of foaming that occurred during sample purging.

The hazardous waste samples were characterized by the extraction chemist as brown, viscous, oily liquids which were miscible in both water and organic solvents such as methylene chloride. The mid concentration soil method was used to extract the semivolatile fraction of each sample. The samples were weighed gravimetrically and the results are reported in ug/Kg units.

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Versar INC.



The predominate semivolatile compounds detected in each sample included bis(2-ethylhexyl) phthalate in addition to numerous nontarget compounds. The concentration of bis(2-ethyl hexyl) phthalate exceeded the linear range of the standards calibration curve in the initial analysis of sample D-3. The sample was reanalyzed using a dilution factor of fifty for the sole purpose of properly quantifying this target compound. Sample D-3 also contained hydrocarbons and sample D-4 had many nontarget organic acid compounds present. Samples D-1 and D-2 also required dilution of the sample extracts prior to each analysis.

Matrix spike and matrix spike duplicate QC samples were analyzed for both the volatile and semivolatile fractions. All recovery and relative percent difference QC limits were met. As previously discussed, this criteria used to evaluate these QC samples were developed for environmental soil samples rather than industrial liquid wastes.

Percent moisture determinations are not applicable for these solvent waste samples.

A separate pesticide fraction narrative outlining analytical results, and the results of quality control samples, immediately follows this case narrative.

Please contact Mike Buchanan, Mass Spectrometry Section Chief, or me, should you have any questions or require additional information pertaining to analyses for volatile and semivolatile organic compounds performed for these waste samples.

Sincerely,

Lawrence P. Pollack
GC/MS Data Quality Manager
Laboratory Operations



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Versar INC.

Pesticide Fraction Narrative
Versar Job No. 4600 B251, 254
Site: Taylorboro
Matrix: Mid Level Waste
November 19, 1987

Please find enclosed the analytical data package for four liquid waste samples received at Versar on 8 and 10 October, 1987. The samples were requested for analysis by EPA-CLP protocol. Although the samples were liquid, they were extracted as mid level soil samples. This package contains the pesticide results and raw data for the following samples, extracted on 14 October, 1987:

SAMPLES

| Field ID# | Lab ID# |
|---|---|
| D 1 | 39878 |
| D 2 | 39879 |
| *D 3 | *40008 |
| D 4 | 40009 |

*Denotes sample chosen for QC extraction (MS/MSD).

Laboratory IDs were used in tracking samples throughout extraction and analysis.

All criteria were adhered to during analysis. All calibration standards were acceptable where required. All data has been reviewed for completeness and validity. None of the samples contain either pesticides or PCBs above the provided detection limit.

Samples were analyzed on both packed and capillary column chromatographic systems. The primary, packed column analyses included the full EPA multicomponent standard series prior to sample injection. The primary analysis of all of the extracts was completed in three analytical sequences. Samples requiring further analysis were confirmed by capillary analysis. Since no multicomponents were identified in the primary analyses, no standards for those compounds were analyzed in confirmation. The required confirmation analyses for these extracts were completed in one analytical sequence.

Linearity criteria were met in each sequence, although current protocol does not require linearity in confirmation.

The second packed column analysis was halted due to degradation in its first continuing evaluation standard. No other degradation check standards exceeded the CLP prescribed limit of 20 percent.

DBC shift was tracked throughout each analysis, and remained within the contract prescribed criteria. Although the DBC retention time remained within the prescribed limits, the final standards in the first two packed analyses had responses outside of their daily retention time windows.

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Standard comparison results from beginning and final calibration standards had results qualifying all data for quantitation (≤15% difference), with the exception 4,4'DDT in the final standards of the first and last primary analytical sequences. The final standard in the confirmation sequence exceeded the contract confirmation limit (≤20% difference) for 4,4'DDT also. Since no positive identifications were made for environmental samples, no quantitations were affected.

Comments regarding each analytical sequence are included in the sample preparation section of the report. They include further discussion of standard comparison results, as well as discussion of any difficulties encountered during analysis.

In the front of the package is a QC summary section in which surrogate, matrix spike, and matrix spike duplicate recoveries are reported, as well as method blank and precision results. The results are reported on EPA Forms II and III, which include QC limits as a set of reference guidelines. Overall QC for the case indicates acceptable efficiency with three of seven surrogate recoveries outside of advisory QC limit windows. The three outlying results are for the MS, the MSD, and the unspiked sample. The results are all reported as "0" because of a late eluting peak native to the sample which obscures DBCs response and forces it outside of its retention time window. Matrix spike and matrix spike duplicate recoveries indicate excellent extraction efficiency and precision with no recovery results outside of QC limit windows, and no precision results in excess of five percent (RPD).

If you have any questions regarding the pesticide data detailed herein, please feel free to call me at your convenience.

John O'Donnell
Data Quality Manager
GC Section
Laboratory Operations



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SAMPLE DATA SUMMARY
PACKAGE

PROJECT #4600 Batch 256
DATE 12/10/87
CLIENT PRC

Versar INC.

December 10, 1987

I. Narrative
Client: PRC
Site: Taylor/Borough Landfill
Organic Analysis - CLP Protocol
Versar Project 4600 - Batch 256

This report contains the analytical data for the volatile organic analysis of six soil samples collected from the Taylor/Borough site. This batch of samples arrived at Versar on October 15, 1987. Analyses for volatile compounds were performed using guidelines for extraction and analysis established by the US EPA CLP protocol (Rev.10/86). Analyses for pesticide compounds were reported on December 1, 1987.

SAMPLE LIST

SD 16
SD 17
SD 21
SD 6 *
SD 12 *
SD 18

GC/MS instrument calibrations using BFB met requirements for volatile analyses. SPCC and CCC criteria were met for the volatile initial calibration curve and all continuing calibration check standards. Sample analysis holding times were met and all samples were analyzed during the twelve hour period that followed daily instrument calibration.

Volatile surrogate standard recovery values met all specified requirements. Matrix spike and matrix spike duplicate (MS/MSD) quality control samples were analyzed for both low and mid concentration soil matrices. MS/MSD recoveries met QC limits except for toluene in the mid level QC analyses. Toluene was confirmed present in the unspiked sample. Sample homogeneity may have been a factor which resulted in the apparent low recovery values for this compound. However, relative percent difference values for all matrix spike compounds were within specified criteria.

Numerous target compounds including toluene, ethylbenzene, and xylenes were present in samples SD 6, SD 12, and SD 18. Samples SD 6 and SD 12, flagged in the sample list provided above, were extracted and analyzed for volatile organic compounds following guidelines for a medium level soil matrix. These two samples required dilution prior to analysis by a factor of 100 in order to quantify target compounds within the linear range of the standards calibration curve and to prevent instrument saturation. Sample SD 18 required dilution by a factor of five.



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Versar INC.



Please contact Mike Buchanan, Mass Spectrometry Section Chief, or me should you have any questions or require any additional information pertaining to analyses of these Taylor/Borough samples.

Sincerely,

Lawrence P. Pollack
GC/MS Data Quality Manager
Laboratory Operations



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ANALYTICAL REPORT
FOR

PROJECT #4600 B#256 & 257
DATE 12/02/87
CLIENT TAYLORBOROUGH L.

Versar INC.

Pesticide Fraction Narrative
Versar Job No. 4600 Batches 256 and 257
Site: Taylorborough Landfill
Low Level Soils
November 30, 1987

Please find, enclosed the raw data and reduced results for the pesticide analysis of the low level soil samples received at Versar on 15 and 16 October, 1987. The samples were requested for analysis by EPA-CLP protocol. All extracts were prepared within the holding time prescribed in the requested method. The date of extraction was 20 October, 1987 for the following, low level soil samples:

SAMPLES

| Received 10/15 | | Received 10/16 | |
|---|---|---|---|
| Field ID# | Lab ID# | Field ID# | Lab ID# |
| 16 | 40136 | 24 | 40328 |
| 17 | 40137 | 25 | 40329 |
| *21 | *40138 | | |

*Denotes sample chosen for QC extraction (MS/MSD).

Laboratory IDs were used in tracking samples throughout extraction and analysis.

All criteria were adhered to during analysis. All calibration standards yielded results acceptable for quantitation where required. All data has been reviewed for completeness and validity. With the exception of numbers 21 and 25, none of the samples contain either pesticides or PCBs above the reported detection limit. Sample number 21 contains Aroclor 1260, while sample 25 contains 4,4'DDE and 4,4'DDD above their respective method detection limits.

Samples were analyzed on both packed and capillary column chromatographic systems. The primary analysis was performed on a packed column with a full set of CLP multicomponent standards to allow for quantitation of tentatively identified pesticide compounds. The primary analyses of these extracts were completed in three analytical sequences. Samples requiring further analysis (the QC extracts) were analyzed on a capillary column system. Since no multicomponent analytes other than Aroclor 1260 were detected in the primary analysis, no standards for those compounds were included in confirmation. The confirmation analyses, were completed in a two analytical sequences.

Linearity criteria were met in all sequences, although current protocol does not require this of confirmation analyses.

Degradation checks were performed prior to, during, or after analyses, and those in the first and last packed column analyses yielded results in excess of the contractual limit. Where the criteria were exceeded, only standard analyses were allowed to be performed, and the sequence was terminated.

000238

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DBC shift was tracked throughout the analyses, and remained within the prescribed limits.

All calibration check standards yielded results acceptable for quantitation (≤15%DIFF) or confirmation (<20%DIFF) where required. Where continuing calibration standards exceeded their respective criteria, sequences were discontinued and no further sample analyses were performed. Since no sample analyses were performed after an outlying standard result, no further analyses were required.

Comments regarding each analytical sequence are included in the sample preparation of the report. They include further discussion of calibration and check standard results, as well as any difficulties encountered during analyses.

In the front of the package is a QC section in which surrogate, matrix spike, and matrix spike recoveries are reported, as well as precision and method blank results. The results are included on EPA-CLP Forms II, III, and IV which include QC limits as a set of reference guidelines. Overall, QC for the case exhibits excellent extraction efficiency and precision. Recovery results for both surrogate and matrix spike compounds were acceptable with only one of 20 determinations in excess of the provided QC limit windows. Precision for the two spiked extracts, as demonstrated by the relative percent difference (RPD) results, was excellent with no results in excess of seven percent.

If you have any questions regarding the pesticide data included herein, please feel free to call me at your convenience.

J. O'Donnell

John O'Donnell
Data Quality Manager
GC Section
Laboratory Operations



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D

SAMPLE DATA SUMMARY
PACKAGE

PROJECT #4600 BATCH 257
DATE 12/15/87
CLIENT PRC

Versar INC.

December 15, 1987

I. Narrative
Client: Taylor/Borough Landfill
Organic Analyses - CLP Protocol
Versar Project 4600 - Batch 257

This report contains the analytical data for the analysis of four liquid waste samples, six water samples, and four soil samples listed below. The samples were received at Versar on October 16, 1987 and were extracted and analyzed for volatile, semivolatile, and pesticide compounds following EPA CLP procedures. Analyses for pesticide compounds were reported on December 1, 1987 and volatile organic analyses for the water samples were performed by ESM, Environmental Systems of Maryland, a subsidiary of Versar, Incorporated.

SAMPLE LIST

| | | |
|---|---|---|
| D-5 * | SO-22 | W-1 |
| D-6 * | SO-23 | W-2 |
| D-7 * | SO-24 | W-3 |
| D-8 * | SO-25 | W-4 |
| | | W-5 |
| | | W-6 |

---

GC/MS instrument calibrations using BFB and DFTPP met tuning requirements for volatile and semivolatile analyses, respectively. All SPCC and CCC criteria were met for both volatile and semivolatile initial calibration curves. Continuing calibration standards for volatile and semivolatile analyses also met percent deviation requirements. All samples were analyzed during the twelve hour period that followed daily instrument calibration.

Samples flagged above with an asterisk were extracted and analyzed for volatile and semivolatile compounds following guidelines for a medium concentration matrix.

Volatile surrogate recovery values met specified criteria with the exception toluene-D8 in soil sample SO-23 which exceeded the QC limit. The sample was reanalyzed and toluene-D8 again exceeded the limit by five percent. Both sets of data are included in this report. Semivolatile surrogate recovery values met criteria with the exception of 2-fluorobiphenyl in water samples W-1, and W-6. CLP protocol does not require corrective action if only one acid and/or one base-neutral surrogate recovery value is noncompliant.

Analyses for the volatile liquid waste samples required dilution of at least one million or more prior to analysis. The dilutions were required to quantify target compounds within the linear range of the standards calibration curve and to prevent instrument saturation.



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Numerous target compounds were confirmed present at high concentrations in the liquid waste samples. In addition, ethylbenzene and xylenes were detected in sample D-7. Toluene was confirmed present at low concentrations in some soil samples.

The predominant semivolatile compound detected in each liquid waste sample was bis(2-ethylhexyl)phthalate in addition to several other target compounds. All semivolatile liquid waste samples required dilutions prior to analysis to properly quantify target compounds.

Matrix spike and matrix spike duplicate (MS/MSD) QC samples were analyzed for the water and the soil semivolatile fractions. No MS/MSD QC samples were analyzed for the volatile fraction. CLP criteria specifies that one set of QC analyses be analyzed for every twenty unspiked samples collected in conjunction with cases that are extracted and analyzed in multiple batches. Semivolatile MS/MSD recoveries for the water samples met QC limits with the exception of 2,4-dinitrotoluene and 4-nitrophenol which exceeded the maximum limits. N-nitroso-di-n-propylamine did not meet minimum recovery criteria by two percent in the soil semivolatile MSD QC sample. All relative percent difference (RPD) values for both matrices met specified ranges.

Percent moisture determinations are not applicable for the solvent waste samples identified with a "D-" prefix.

Please contact Mike Buchanan, Mass Spectrometry Section Chief, or me, should you have any questions or require additional information pertaining to analyses for volatile and semivolatile organic compounds performed for these samples collected in conjunction with the Taylor/Borough project.

Sincerely,

Benjamin R. Landas

Benjamin R. Landas
Assistant GC/MS Data Quality Manager
Laboratory Operations

Date Release Authorized by:

Lawrence P. Pollack
GC/MS Data Quality Manager
Laboratory Operations

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ANALYTICAL REPORT
FOR

PROJECT #4600 B#257
DATE 12/02/87
CLIENT TAYLORBOROUGH L.

Versar INC.

Pesticide Fraction Narrative
Versar Job No. 4600 Batch 257
Site: Taylorborough Landfill
Mid Level Soils
November 30, 1987

Please find enclosed the raw data and reduced results for the pesticide analysis of the mid level soils received at Versar on 16 October, 1987. The samples were requested for analysis by EPA-CLP protocol. All extracts were prepared within the holding time prescribed in the requested method. The date of extraction was 20 October, 1987 for the following samples:

SAMPLES

| Field ID# | Lab ID# |
|---|---|
| D-5 | 40322 |
| *D-6 | *40323 |
| D-7 | 40324 |
| D-8 | 40325 |

*Denotes sample chosen for QC extraction (MS/MSD).

Laboratory IDs were used in tracking samples throughout extraction and analysis.

All criteria were adhered to during analysis. All calibration standards yielded acceptable results where required. All data has been reviewed for completeness and validity. Three of the four samples contain Aroclor 1254 at part per million levels. Samples D-5 and D-6 required dilutions of 1/10 and 1/100, respectively, during analysis. The result for sample D-6 was quantitated at nearly one percent PCB by weight.

Samples were analyzed on both packed and capillary column chromatographic systems. The primary analyses were performed on a packed column with a full set of CLP multicomponent standards to allow for quantitation of tentatively identified pesticide compounds. The primary analysis was completed in three analytical sequences. Samples requiring further analysis were analyzed on a capillary column system. Since only Aroclor 1254 was detected in the primary analysis, no standards for the other multicomponent analytes were included in confirmation. The confirmation analysis was completed in a single analytical sequence.

Linearity criteria were met in both sequences, although current protocol does not require this of confirmation analyses.

No degradation checks performed prior to, during, or after analyses yielded results in excess of the contractual limit.

DBC shift was tracked throughout the analyses, and remained within the prescribed limits, but the last standard in the primary analysis had four of eight of its component compounds outside of their daily windows.



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All calibration check standards yielded results acceptable for quantitation where required, with the exception of the first two primary sequences. Neither of these sequences were allowed to continue after the outlying results, therefore no reanalyses were required. The calibration standards in the confirmation analysis were all acceptable for confirmation.

Comments regarding each analytical sequence are included in the sample preparation of the report. They include further discussion of calibration and check standard results, as well as any difficulties encountered during analyses.

In the front of the package is a QC section in which surrogate, matrix spike, and matrix spike recoveries are reported, as well as precision and method blank results. The results are included on EPA-CLP Forms II, III, and IV which include QC limits as a set of reference guidelines. Overall, QC for the case exhibits the complexity of the matrix, with only seven of nineteen surrogate and matrix spike recovery results within the provided QC limit windows. Precision for the two spiked extracts, as demonstrated by the relative percent difference (RPD) results, was acceptable with no results in excess of QC limits.
It should be noted, with respect to the precision results, that only two results are representative of actual results, and that four of the six results are demonstrating uniform interference exhibited by the sample matrix.

If you have any questions regarding the pesticide data included herein, please feel free to call me at your convenience.

John O'Donnell
Data Quality Manager
GC Section
Laboratory Operations



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VERSAR, INC., ESM OPERATIONS
9200 Rumsey Road
Columbia, Md. 21045
(301) 964-9200

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SAMPLE DATA SUMMARY PACKAGE

OF VOLATILE ORGANICS ANALYSIS OF

TAYLOR BUROUGH SAMPLES

RECEIVED 16 OCTOBER 1987

Batch 257

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27 OCTOBER 1987

000218

CASE NARRATIVE (VOLATILES)

NOTE: This DATA PACKAGE was organized following the 1/87 revision of the EPA CLP Statement of Work.

LABORATORY NAME: VERSAR INC., ESM OPERATIONS

EPA LABORATORY CODE: VERESM

CONTRACT NUMBER: TAYLOR BUROUGH

PROJECT: 4600 BATCH: 257

DATE RECEIVED AT SPRINGFIELD LABORATORY: 16 OCTOBER 1987

DATE RECEIVED AT COLUMBIA LABORATORY: 19 OCTOBER 1987

SAMPLE ANALYSES INCLUDED IN THIS REPORT

| FIELD # | CLIENT ID | ESM# | SPRINFIED # |
|---|---|---|---|
| WS-1 | WATER SURFACE POND 1 | 4277 | 40334 |
| WS-2 | WATER SURFACE POND 1 | 4278 | 40335 |
| WS-3 | WATER SURFACE POND 1 | 4279 | 40336 |
| WS-4 | WATER SURFACE POND 2 | 4280 | 40337 |
| WS-5 | WATER SURFACE | 4281 | 40338 |
| WS-6 | WATER SURFACE | 4282 | 40339 |

MATRIX SPIKE AND MATRIX SPIKE DUPLICATE ANALYSES WERE PERFORMED ON SAMPLE WS-1 (ESM # 4277).

All analyzes were performed in accordance with the 1/87 revision of the EPA CLP SOW.

All surrogate recoveries were within EPA CLP requirements.

Two of ten of the matrix spike/matrix spike duplicate recoveries were outside of EPA "suggested" limits.

One of five of the matrix spike/matrix spike duplicate relative standard deviation (RPD) values was outside of the EPA "suggested" limits.

Holding times were met for all analyses.

These results were communicated by telephone on 21 October 1987.

After the initial results were reported there was some concern because another laboratory apparently had a significant positive for toluene for sample WS-1 which was not observed in this laboratory. Upon learning this we analyzed the second container of sample WS-1 and still found no toluene. A recommendation was made that two more samples be collected and this time preserve one with 1+ 1 HCl (to pH=2) and not preserved the second sample. By analyzing both of these samples we might learn if there is a biodegradation problem at this site.

A summary of results is on the following pages. Please note that these tables list only positives for target compounds found at or above the contract required quantitation level (CRQL).

RELEASE OF THE DATA CONTAINED IN THIS HARDCOPY DATA PACKAGE HAS BEEN AUTHORIZED BY THE LABORATORY MANAGER OR HIS DESIGNEE, AS VERIFIED BY THE FOLLOWING SIGNATURE:

DATE: 27 Oct 87

Samuel G. Hamner, III
ESMD Organics Manager

27 October 1987

ANALYTICAL REPORT
FOR

PROJECT H4600 B0257
DATE 12/02/87
CLIENT TAYLORBOROUGH L.

000249

Versar INC.

Pesticide Fraction Narrative
Versar Job No. 4600 Batch 257
Site: Taylorborough Landfill
Low Level Waters
November 30, 1987

Please find enclosed the raw data and reduced results of the pesticide analysis of the water samples received at Versar on 16 October, 1987. The samples were requested for analysis by EPA-CLP protocol. All extracts were prepared within the holding time prescribed in the requested method. The date of extraction was 20 October, 1987 for the following samples:

SAMPLES

| Field ID# | Lab ID# | Field ID# | Lab ID# |
|---|---|---|---|
| W-1 | 40334 | W-4 | 40337 |
| *W-2 | *40335 | W-5 | 40338 |
| W-3 | 40336 | W-6 | 40339 |

*Denotes sample chosen for QC extraction (MS/MSD).

Laboratory IDs were used in tracking samples throughout extraction and analysis.

All criteria were adhered to during analysis. All calibration standards yielded results acceptable for quantitation. All data has been reviewed for completeness and validity. None of the samples contain either pesticides or PCBs above the reported detection limit.

Samples were analyzed on both packed and capillary column chromatographic systems. The primary analysis was performed on a packed column with a full set of CLP multicomponent standards to allow for quantitation of tentatively identified pesticide compounds. Samples requiring further analysis (the QC extracts) were analyzed on a capillary column system. Since no multicomponent analytes were detected in the primary analysis, no standards for those compounds were included in confirmation. The confirmation analysis, like the primary, was completed in a single analytical sequence.

Linearity criteria were met in both sequences, although current protocol does not require this of confirmation analyses.

No degradation checks performed prior to, during, or after analyses yielded results in excess of the contractual limit.

DBC shift was tracked throughout the analyses, and remained within the prescribed limits with the exception of the last standard in the primary analysis. Since all analyses were completed prior to the outlying result, no action was required.

All calibration check standards yielded results acceptable for quantitation, but the requested protocol disallows the use of capillary analyses in quantitation of results.

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Comments regarding each analytical sequence are included in the sample preparation of the report. They include further discussion of calibration and check standard results.

In the front of the package is a QC section in which surrogate, matrix spike, and matrix spike recoveries are reported, as well as precision and method blank results. The results are included on EPA-CLP Forms II, III, and IV which include QC limits as a set of reference guidelines. Overall, QC for the case exhibits acceptable extraction efficiency and precision. Recovery results for both surrogate and matrix spike compounds were acceptable with only one of 21 determinations outside of the provided advisory and QC limit windows. Precision for the two spiked extracts, as demonstrated by the relative percent difference (RPD) results, was acceptable with two of six results in excess of QC limits. It should be noted, with respect to the precision of the spiked extracts, that the two outlying results exceeded QC limits by as little as two and seven percent, respectively, and that the only one of the four acceptable RPD results exceeded ten percent.

If you have any questions regarding the pesticide data included herein, please feel free to call me at your convenience.

J. O'Donnell

John O'Donnell
Data Quality Manager
GC Section
Laboratory Operations

Versar INC.

NARRATIVE
Versar Project 4600 B#261
Client/Site: Taylorboro
November 4, 1987

Please find attached the Data and Quality Control (QC) summary for 14 NIOSH tubes analyzed for 12 solvents. The samples were analyzed by single column GC/FID. None of the samples contained the analytes of interest above the reported detection limits.

An early eluting peak was present in the chromatogram for both the front and back portions of sample number 6P-1013. Sample number 5P-1013 had a peak at the same retention time, but was only present in the back portion of the tube.

The quality control for this batch of samples on the whole is acceptable. If you have any questions regarding this report please feel free to call me at your convenience.

Victor A. Yautrop
GC Section Chief
Laboratory Operations

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SAMPLE DATA SUMMARY
PACKAGE

PROJECT #4600 BATCH 269
DATE 11/12/87

Versar INC.

November 12, 1987

I. Narrative
Volatile Organic Analysis - CLP protocol
Samples: WS-7 WS-8 WS-9
Client: PRC
Versar Project 4600 - Batch 269

This report contains the analytical data for three water samples which arrived at Versar on October 27, 1987. The samples listed above were analyzed for volatile organic compounds following EPA CLP procedures. Preliminary results were reported by Scott Powers, Laboratory Operations Project Coordinator to Rick Beach on October 28, 1987 at 3:30PM.

GC/MS instrument calibration using BFB met contract requirements for volatile analyses. All SPCC and CCC criteria were met for the volatile initial calibration curve and the daily ongoing calibration check standard. Analysis for volatile organics was performed within specified sample holding times.

All volatile organic surrogate compounds spiked into the water samples met recovery criteria. Matrix spike and matrix spike duplicate quality control samples were analyzed. All recovery and relative percent difference values met specified ranges.

Each sample contained toluene at concentrations equal to or less than the Contract Required Detection Limit (CRDL) of 5 ug/L. The amount of toluene detected in the reagent blank analyzed immediately prior to the samples was slightly less than the amount present in the samples. Acetone was also detected in sample WS-7; this compound also is a common laboratory solvent contaminant and was also tentatively identified at a slightly lower concentration in the laboratory reagent blank. The samples did not require dilution prior to analyses.

Please contact either Scott Powers, Laboratory Operations Project Coordinator, or me, should you require any additional information or have any questions pertaining to the analysis of these samples.

Sincerely,

Lawrence P. Pollack

Lawrence P. Pollack
GC/MS Data Quality Manager
Laboratory Operations

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SAMPLE DATA SUMMARY
PACKAGE

PROJECT #4600 B#272
DATE 12/10/87
CLIENT PRC

Versar INC.

December 10, 1987

I. Narrative
Client: PRC
Organic Analysis - CLP Protocol
Versar Project 4600 - Batch 272

This report contains the analytical data for the organic analysis of four sediment samples collected from the Taylor/Borough site. Analyses for volatile and pesticide compounds were performed using guidelines for extraction and analysis established by the US EPA CLP protocol (10/86 Rev.). This batch of samples arrived at Versar on October 28, 1987.

SAMPLE LIST

SO 26
SO 27
SO 28
SO 29

---

GC/MS instrument calibrations using BFB met requirements for volatile analyses. SPCC and CCC criteria were met for the volatile initial calibration curve and all continuing calibration check standards. Sample analysis holding times were met and all samples were analyzed during the twelve hour period that followed daily instrument calibration.

Volatile surrogate standard recovery values met specified requirements except for sample SO 28. This sample was reanalyzed and again, toluene-D8 exceeded the QC limit. Both sets of data are included in this report.

Matrix spike and matrix spike duplicate (MS/MSD) quality control samples were performed for the volatile analyses. MS/MSD recoveries met QC limits with the exception of toluene. The concentration of toluene was greater in the unspiked sample than the amount present in the MS and MSD samples. This indicates that the sample may not have been homogeneous prior to analysis. However, the relative percent difference values for percent recovery of the matrix spike compounds are within specified criteria.

Numerous target compounds including ethylbenzene and xylenes were present in the samples. Sample SO 27 was extracted and analyzed for volatile organic compounds following guidelines for a medium level soil concentration analysis. This sample required dilution prior to analysis in order to quantify target compounds within the linear range of the standards calibration curve and to prevent instrument saturation. Preliminary analysis indicated that toluene in sample SO 26 and acetone in sample SO 28 were present at concentrations less than the method detection limit. After final evaluation of the data, it was determined that toluene and acetone were not confirmed present.



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The pesticide fraction narrative follows this case narrative. Also, the hardcopy of the preliminary verbal data, provided by Scott Powers to Richard Beach on October 30, 1987, follows the pesticide narrative.

Please contact Mike Buchanan, Mass Spectrometry Section Chief, or me should you have any questions or require any additional information pertaining to analyses of these Taylor/Borough samples.

Sincerely,

Benjamin R Landas

Benjamin R. Landas
Assistant GC/MS Data Quality Manager
Laboratory Operations

Data release authorized by:

Lawrence P. Pollack

Lawrence P. Pollack
GC/MS Data Quality Manager
Laboratory Operations

000017

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Versar INC.

Pesticide Fraction Narrative
Versar Project No. 4600 Batch 272
Site: Taylorborough Landfill
December 3, 1987

Please find enclosed the raw data and reduced results for the pesticide analysis of low level soils received at Versar on 28 October, 1987. The samples were requested for analysis by EPA-CLP protocol. All samples were prepared within the holding time requirement prescribed in the method. The date of extraction was 4 November, 1987 for the following, low level soils:

SAMPLES

| Field ID# | Lab ID# |
|---|---|
| SO 26 | 40918 |
| SO 27 | 40919 |
| *SO 28 | *40920 |
| SO 29 | 40921 |

*Denotes sample chosen for QC extraction (MS/MSD).

Laboratory IDs were used in tracking samples throughout extraction and analysis.

All criteria were adhered to during analysis. All calibration standards were acceptable where required. All data has been reviewed for completeness and validity. Three of the four samples contain PCBs above the method detection limit. Samples SO 26 and SO 27 contain Aroclor 1254, while sample SO 29 contains Aroclor 1260.

Samples were analyzed on both packed and capillary column chromatographic systems. The primary analysis was performed on a packed column with a complete set of CLP multicomponent standards to allow for the quantitation of tentatively identified pesticide compounds. At the end of the primary analysis, a final standard for Aroclor 1254 was analyzed after the final individual standard. The result for Aroclor 1260 went unnoticed until after instrument had been performed, otherwise an appropriate standard would have accompanied the final 1254 standard. Samples requiring further analysis were analyzed on a capillary column. Since only Aroclors 1254 and 1260 were identified in the primary analysis, standards for the other multicomponent analytes were excluded from the confirmation analysis. Both the primary and confirmation analyses were completed in single analytical sequences.

Linearity criteria were met in both sequences, although current protocol does not require this of confirmation analyses.

Degradation checks performed prior to, during, and after analyses all had results well within the prescribed limits.

DBC shift was tracked throughout analyses, and remained well within their respective contractual limits.

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Versar INC.

Calibration standards yielded results qualifying all data for quantitation with the exception of the final standards in the primary analysis. Since no sample analyses were performed after an outlying standard result, no further analyses were required.

Comments regarding each analytical sequence are included in the sample preparation section of the report. They include further discussion of standard comparison results, as well as any difficulties encountered during analysis.

The report also includes a QC summary section where surrogate, matrix spike, and matrix spike duplicate recoveries are reported, as well as method blank and precision results. The results are reported on EPA Forms II, III, and IV which include QC limits as a set of reference guidelines. Overall QC for the case indicates acceptable extraction efficiency with no surrogate recovery results outside of advisory QC limit windows. Matrix spike and matrix spike duplicate recoveries also indicate acceptable extraction efficiency with only one of twelve results outside QC limit windows. The matrix spike solution used in extraction is currently under investigation as it would appear that three of its constituent compounds (dieldrin, endrin, and 4,4'DDT) are at half of the concentration indicated in the standards' log. This observation has been based on two different cases in which similar results were noted in both spiked samples and method standards (spiked reagent blank). Use of this solution has been discontinued, and it has been removed from the laboratory to prevent its inadvertent use. Precision for the two spiked extracts, as demonstrated by the relative percent difference (RPD) results, was acceptable with only one of six results in excess of QC limits. The single outlying standard result was for 4,4'DDT which had an unconfirmed result in the MSD extract. This being the case, the RPD result was evaluated at 200 percent. It should be noted that the five acceptable RPD results were evaluated at less than ten percent.

If you have any questions regarding the pesticide results, please feel free to call me at your convenience.

J. O'Donnell

John O'Donnell
Data Quality Manager
GC Section
Laboratory Operations



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Versar INC.

December 11, 1987

I. Narrative
Client: PRC
Site: Taylor/Borough Landfill
Organic Analysis - CLP Protocol
Versar Project 4600 - Batch 276

This report contains the analytical data for organics analysis of five soil samples collected from the Taylor/Borough site. Analyses for volatile, semivolatile, and pesticide compounds were performed, using guidelines for extraction and analysis established by the US EPA CLP protocol. This batch of samples arrived at Versar, intact, on October 30, 1987 and are listed below in the sample list that follows:

SAMPLE LIST

SO 30
SO 31
SO 32
SO 33
SO 34

---

GC/MS instrument calibrations using BFB and DFTPP met requirements for volatile and semivolatile analyses, respectively. All SPCC and CCC criteria were met for volatile and semivolatile initial calibration curves and continuing calibration check standards. Sample extraction and analysis holding times were met prior to their expiration. All samples were analyzed during the twelve hour period that followed daily instrument calibration.

Volatile and semivolatile surrogate standard recovery values met requirements for all soil samples. One set of matrix spike and matrix spike duplicate (MS/MSD) QC samples were performed for semivolatile analyses. Semivolatile MS/MSD recoveries and relative percent difference (RPD) values met specified criteria. Required QC analyses for the volatile fraction was supplied with results from analyses of samples in laboratory batch 272. CLP criteria specifies that one set of MS/MSD QC analyses be analyzed for every twenty unspiked samples collected in conjunction with cases that are received in multiple batch shipments.

GC/FID screening of the soil samples prior to extraction for semivolatile compounds indicated that procedures outlined for the low concentration soil matrix were required for each sample contained in batch 276.

Methylene chloride, acetone, and toluene were confirmed present in the volatile fraction of most samples. Although these solvents are common laboratory contaminants, none of these target compounds were confirmed present in the daily reagent blanks analyzed prior to the samples. Few semivolatile compounds were confirmed present. The samples did not require dilution prior to volatile or semivolatile analyses.



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A separate pesticide fraction narrative outlining analytical results, and the results of quality control samples, immediately follows this case narrative.

Please contact Mike Buchanan, Mass Spectrometry Section Chief, or me, should you have any questions or require additional information pertaining to analyses of these soil samples.

Sincerely,

Lawrence P. Pollack
GC/MS Data Quality Manager
Laboratory Operations



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Versar INC.

Pesticide Fraction Narrative
Versar Project No. 4600 B276
Site Taylorborough Landfill
Low Level Soils
December 8, 1987

Please find enclosed the analytical results and raw data for the analysis of the low level soils received at Versar on 30 October, 1987. The samples were requested for analysis of pesticides and PCBs by EPA- Contract Laboratory Program (EPA-CLP) protocol. The samples were extracted within the holding time prescribed in the contract. The date of extraction was 9 November, 1987 for the following samples:

SAMPLES

| Field ID# | Lab ID# | Field ID# | Lab ID# |
|---|---|---|---|
| *SO-30 | *41150 | SO-33 | 41153 |
| SO-31 | 41151 | SO-34 | 41154 |
| SO-32 | 41152 | | |

*Denotes sample chosen for QC extraction (MS/MSD).

Laboratory IDs were used in tracking samples throughout extraction and analysis.

All criteria were adhered to during analysis. All calibration standards were acceptable where required. All data has been reviewed for completeness and validity. None of the samples contain either pesticides or PCBs above the reported detection limit.

Samples were analyzed on both packed and capillary column chromatographic systems. The primary analysis was performed on a packed column to allow for quantitation of tentatively identified pesticide compounds. Samples requiring further analysis were analyzed on a capillary column system. Since no multicomponent analytes were detected in the primary analysis, no multicomponent standards were included in the confirmation analysis.

Linearity criteria were met prior to commencement of each analytical sequence, although current protocol does not require the criteria of confirmation analyses.

Degradation checks performed prior to, during, and after analyses all were well within the contract prescribed limits.

DBC retention time shift was tracked throughout each analytical sequence and remained well within the contractual limits of 2 and 0.3% for packed and capillary columns, respectively.

Calibration check standards all yielded results qualifying all data for quantitation, but current protocol prohibits the use of capillary column results for quantitation of results.

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Comments regarding each analytical sequence are included in the sample preparation section of the report. They include discussion of contract criteria and instrument performance, as well as any difficulties encountered during analysis.

Also included in the report is a QC section in which surrogate, matrix spike, and matrix spike duplicate recoveries are reported, as well as precision and method blank results. These results are reported on EPA-CLP Forms II, III, and IV which include QC limits as a set of reference guidelines. Overall, QC for the case indicates acceptable extraction efficiency with no results outside of the advisory QC limit window. Matrix spike and matrix spike duplicate recoveries also indicate acceptable extraction efficiency with only two of the twelve calculated recoveries outside of QC limit windows. The matrix spike solution used in the extraction has been found to be at different concentrations than prescribed in the protocol. Although acceptable, the recoveries for dieldrin, endrin, and 4,4'DDT as reported on Form III are notably low due to an error in preparation of the spiking solution. The spike solution is documented in the standards' log as being at 0.8 ug/ml of G-BHC, heptachlor, and aldrin, and 2.0 ug/ml of dieldrin, endrin, and 4,4'-DDT. The solution has been observed to be 1.0 rather than 2.0 ug/ml for the latter three compounds. Matrix spike solution P531 has been removed form the laboratory to alleviate recurrence of this problem. Precision for the two spiked extracts, as demonstrated by the relative percent difference (RPD) results, was acceptable with only one result in excess of QC limits. It should be noted that the five acceptable results all had results of ≤16 percent.

If you have any questions regarding the pesticide results, please feel free to call me at your convenience.

John O'Donnell
Data Quality Manager
GC Section
Laboratory Operations

000093

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Versar INC.

ANALYSIS NARRATIVE

Project: 4600-276
Title: Taylor/Bourough Project
Client: Taylor/Bourough
Date: January 7, 1988

This is an Taylor/Bourough project consisting of five low soils for metals analysis that arrived on October 30, 1987. The samples were digested under SOW 785 procedures on November 16, 1987. The samples were quantitated for CLP Task I metals by ICP on November 24, 1987 and for CLP Task II metals from November 19, 1987 to December 28, 1987. Precision of duplicate aliquots was good and all spike recoveries were within the 25 percent windows. All results are reported on a dry weight basis.

Penelope K. Wong

Penelope K. Wong
Laboratory Operations

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DATE: 12/20/87

COVER PAGE
INORGANIC ANALYSES DATA PACKAGE

QC REPORT: 276
CASE NO.: ---
PROJECT NO.:4600.00

LAB NAME: VERSAR, INC.
SOW NO.: 785

SAMPLE NUMBERS

| EPA NO. | LAB ID NO. | EPA NO. | LAB ID NO. |
|---|---|---|---|
| SO-30 | 41155 | SO-31 | 41156 |
| SO-32 | 41157 | SO-33 | 41158 |
| SO-34 | 41159 | | |

COMMENTS:

ICP INTERELEMENT AND BACKGROUND CORRECTION APPLIED? YES.
CORRECTIONS APPLIED BEFORE GENERATION OF RAW DATA.

FOOTNOTES:
NR - NOT REQUIRED BY CONTRACT AT THIS TIME

FORM I:
VALUE - IF THE RESULT IS A VALUE GREATER THAN OR EQUAL TO THE INSTRUMENT DETECTION LIMIT BUT LESS THAN THE CONTRACT REQUIRED DETECTION LIMIT, REPORT THE VALUE IN BRACKETS ( I.E., [10] ). INDICATE THE ANALYTICAL METHOD USED WITH P ( FOR ICP), A (FLAME AA) OR F ( FOR FURNACE ).
U - INDICATES ELEMENT WAS ANALYZED FOR BUT NOT DETECTED. REPORT WITH THE DETECTION LIMIT VALUE ( E.G., 10U ).
E - INDICATES A VALUE ESTIMATED OR NOT REPORTED DUE TO THE PRESENCE OF INTERFERENCE. EXPLANATORY NOTE INCLUDED ON COVER PAGE.
S - INDICATES VALUE DETERMINED BY METHOD OF STANDARD ADDITION
N - INDICATES SPIKE SAMPLE RECOVERY IS NOT WITHIN CONTROL LIMITS.
* - INDICATES DUPLICATE ANALYSIS IS NOT WITHIN CONTROL LIMITS.
+ - INDICATES THE CORRELATION COEFFICIENT FOR METHOD OF STANDARD ADDITION IS LESS THAN 0.995
DF - DILUTION FACTOR
SD - SAMPLE USED FOR ICP SERIAL DILUTION
M - INDICATES DUPLICATE INJECTION RESULTS EXCEED CONTROL LIMITS

INDICATE METHOD USED: P FOR ICP; A FOR FLAME AA AND F FOR FURNACE.

SAMPLE DATA SUMMARY
PACKAGE

PROJECT #4600 BH292
DATE 12/23/87
CLIENT PRC

020236

Versar INC.

M*E*M*O*R*A*N*D*U*M

December 31, 1987

To: Rick Beach
From: Scott Powers
Subject: Quick Turnaround VOA Reporting Errors/Corrective Action
4600 Batch 292
PRC Taylor Borough Site
Project 15031.94.3

I have reviewed the problem which you informed me of yesterday. You are correct. There was an error in reporting the verbal results for 4600 batch 292 48 hour turnaround VOA samples. The dilution factor was not applied to the analytical result. I have discussed the problem with Linda Bock, the data processing review chemist who is responsible for reviewing and reporting the results to me.

For most of the 48 hour turnaround samples I have reviewed the raw data before reporting the numbers. In this case I was not provided the raw data. In the future I will not report any quick turnaround data without reviewing the laboratory data. Also, Linda is informed that all data should be reported with the dilution factor adjustment.

Thanks for bringing this to my attention.

cc: Linda Bock

000037

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Versar INC.

December 23, 1987

I. Narrative
Client: PRC
Volatile Organic Analysis - CLP Protocol
Versar Project 4600 - Batch 292

This report contains the analytical data for the organic analysis of seven soil samples collected from the Taylor/Borough site. Analyses for volatile compounds were performed using guidelines for extraction and analysis established by the US EPA CLP protocol (10/86 Rev.). This batch of samples arrived at Versar on November 24, 1987. All additional requested analyses for other parameters are reported in separate data packages.

SAMPLE LIST

SO-38
SO-39 *
SO-40
SO-41 *
SO-42 *
SO-43
SO-44 *

---

GC/MS instrument calibrations using BFB met requirements for volatile analyses. SPCC and CCC criteria were met for volatile initial calibration curves and all continuing calibration check standards. Sample analysis holding times were met and all samples were analyzed during the twelve hour period that followed daily instrument calibration.

Volatile surrogate standard recovery values did not meet specified requirements for most of the samples. Volatile surrogates exceeded the maximum recovery limit for samples SO-39, SO-41, SO-42, SO-43, and SO-44. These samples were reanalyzed and again, volatile surrogates exceeded the QC limit in each sample. Both sets of data are included in this report.

Matrix spike and matrix spike duplicate (MS/MSD) quality control samples were analyzed for both the low and mid concentration soil matrices. MS/MSD recoveries met QC limits with the exception of 1,1-dichloroethene which exceeded the QC limit in the low level quality control samples. All relative percent difference values for percent recovery of the matrix spike compounds are within specified criteria.

Numerous target compounds including ethylbenzene, toluene, and xylenes were present in the samples which required dilution. Samples flagged above were extracted and analyzed for volatile organic compounds following guidelines for a medium level soil concentration analysis. Most samples required dilutions prior to analysis in order to quantify target compounds within the linear range of the standards calibration curve and to prevent instrument saturation.

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Versar INC.



Please contact Mike Buchanan, Mass Spectrometry Section Chief, or me should you have any questions or require any additional information pertaining to analyses of these Taylor/Borough soil samples.

Sincerely,

Benjamin R. Landas
Assistant GC/MS Data Quality Manager
Laboratory Operations

Data release authorized by:

Lawrence P. Pollack
GC/MS Data Quality Manager
Laboratory Operations

VERSAR, INC., ESM OPERATIONS
9200 Rumsey Road
Columbia, Md. 21045
(301) 964-9200

---

SAMPLE DATA SUMMARY PACKAGE

FOR PESTICIDE/PCB ANALYSIS OF

TAYLOR BUROUGH SAMPLES

RECEIVED 30 ~~OCTOBER~~ NOVEMBER 1987 1/26/88.

4600 B292

---

31 DECEMBER 1987

CASE NARRATIVE (Pesticides/PCBs)

NOTE: This DATA PACKAGE was organized following the 1/87 revision of the EPA CLP Statement of Work.

LABORATORY NAME: VERSAR INC., ESM OPERATIONS

EPA LABORATORY CODE: VERESM

CONTRACT NUMBER: Taylor Borough Landfill
PROJECT: 4600 B292

DATE RECEIVED AT EMSO LABORATORY: 30 November 1987

SAMPLES INCLUDED IN THIS GROUP:

| CLIENT ID | VERESM # | SPRINGFIELD# | ANALYSIS |
|---|---|---|---|
| SO-38 | 871130-007 | 42189 | PCB/PEST SOIL |
| SO-39 | 871130-008 | 42190 | PCB/PEST SOIL |
| SO-40 | 871130-009 | 42191 | PCB/PEST SOIL |
| SO-41 | 871130-010 | 42192 | PCB/PEST SOIL |
| SO-42 | 871130-011 | 42193 | PCB/PEST SOIL |
| SO-43 | 871130-012 | 42194 | PCB/PEST SOIL |
| SO-44* | 871130-013* | 42195* | PCB/PEST SOIL |

*MATRIX SPIKE AND MATRIX SPIKE DUPLICATE ANALYSES WERE PERFORMED ON SAMPLE SO-44.

All results are in ug/kg(ppb).

Surrogate recoveries on seven samples were outside the EPA CLP "advisory" limits. These high recoveries appear to be due to a co-eluting peak which was partially separated on the confirmation column. The blank did not show the elevated DBC levels that the samples did.

Six of twelve matrix spike/matrix spike duplicate recoveries were outside the EPA "suggested" limits.

All of the matrix spike/matrix spike duplicate relative percent difference (RPD) values were within the EPA "suggested" limits.

Holding times were within the contract requirements

RELEASE OF THE DATA CONTAINED IN THIS HARDCOPY DATA PACKAGE HAS BEEN AUTHORIZED BY THE LABORATORY MANAGER OR HIS DESIGNEE, AS VERIFIED BY THE FOLLOWING SIGNATURE:

DATE: 31 Dec 87

Samuel G. Hamner, III
ESMO Organics Manager

Versar INC.

MEMO

TO: RICHARD BEACH JANUARY 28, 1988

FROM: STUART A. WINSLOW

SUBJECT: AROCHLOR 1254 PRESENT

THE FOLLOWING SAMPLES RECIEVED AT VERSAR, INC. ESM OPERATIONS ON NOVEMBER 30, 1987 FOR THE TAYLOR BOROUGH LANDFILL, PROJECT 4600 BATCH 292, CONTAIN AROCHLOR 1254 BELOW THE CONTRACT REQUIRED DETECTION LIMIT.

| CLIENT ID | VERESM # | SPRINGFIELD # |
|---|---|---|
| SO-41 | 871130-010 | 42192 |
| SO-44 | 871130-013 | 42195 |

ALTHOUGH THE LEVELS ARE BELOW THE CRDL, THE PATTERN IS CLEARLY AROCHLOR 1254.

DATA SUMMARY PACKAGE FOR
METALS ANALYSIS OF
TAYLOR BOROUGH SAMPLES

4600 B292

Versar INC.

CASE NARRATIVE
4600 Batch 292 PRC Taylor Borough Landfill
Inorganics HSL CLP Analysis

This report contains the results of the full CLP Inorganics analysis of three soil samples from Taylor Borough Landfill delivered to Versar by PRC on November 24, 1987. The samples are listed below.

| Field No. | Laboratory Identification | |
|---|---|---|
| SO-35 | 42186 | 871130-004 |
| SO-36 | 42187 | 871130-005 |
| SO-37 | 42188 | 871130-006 |

Quality Control Summary

For the inorganics analysis the initial calibration and continuing calibrations were all within CLP control windows. All blanks and instrument check standards were within the CLP criteria as well. Most spiked sample results were within the CLP recovery windows, with the exception of antimony and lead. For these two elements the results are flagged with an "N", to show that there may be some question about the values reported.

For antimony the recovery was low. There may be a negative bias on these data points. Antimony was detected in two of the samples below the CLP Contract Required Detection Limit. The lead results indicate that there was a problem with obtaining an homogenous representative sample for analysis, and that the spike level was too low to produce meaningful recovery data. Lead was detected in all of the samples. There may be a problem with the accuracy of the reported values.

The duplicate data was also generally within the precision windows of the CLP. Four elements exceeded the RPD windows of the CLP and are flagged on the data summary with an "*". They are aliminum, arsenic, chromium and copper. The flag indicates that the values may be somewhat inaccurate based on the duplicate precision data and should be used with that in mind. Again, there is an indication that there may be some difficulty in obtaining a representative aliquot of sample for analysis.

Should you have questions or require additional information please call.

Approved,
Scott E. Powers 1/27/88
Scott E. Powers
Project Coordinator/QA Officer



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Versar INC.

01/27/88

6850 VERSAR CENTER
SPRINGFIELD, VIRGINIA 22151

COVER PAGE
INORGANIC ANALYSIS DATA PACKAGE

Lab Name : VERSAR INC.  Case No. : 4600 8292

Sow No. : 7/85  QC Report No. : 292

SAMPLE NUMBERS

| LAB# | LAB ID NO. | FIELD# | LAB# | LAB ID NO. | FIELD# |
|---|---|---|---|---|---|
| 42186 | 871130-004 | SO-35 | | | |
| 42187 | 871130-005 | SO-36 | | | |
| 42188 | 871130-006 | SO-37 | | | |

COMMENTS:

ICP interelement and background corrections applied? No

Footnotes:
NR - Not required by contract at this time.

Form I:
Value - If the result is a value greater than or equal to the instrument detection limit but less than the contract-required detection limit, report the value in brackets (i.e.,[10]). Indicate the analytical method used with P (for ICP), A (for Flame AA) or F (for Furnace AA).
U - Indicates element was analyzed for but not detected. Report with the instrument detection limit value (e.g., 10U).
E - Indicates a value estimated or not reported due to the presence of interferences. Explanatory note included on cover page.
a - Indicates value determined by Method of StanLab Manager
N - Indicates spike sample recovery is not within control limits.
* - Indicates duplicate analysis is not within control limits.
+ - Indicates the correlation coefficient for method of standard addition is less than 0.995.
m - Indicates duplicate injection results exceeded control limits.

D

SAMPLE DATA SUMMARY
PACKAGE

PROJECT #4600 B#297
DATE 01/06/88
CLIENT PRC
SITE TAYLOR/BOROUGH

Versar INC.

January 5, 1988

I. Narrative
Volatile Organic Analysis - CLP Protocol
Client: PRC
Site: Taylor/Borough
Versar Project 4600 - Batch 297

This report contains the analytical data for two water samples and one sediment sample. The samples, listed below, arrived at Versar on December 9, 1987 and were analyzed for volatile organic compounds following EPA CLP procedures (Rev. 10/86). Preliminary results for the sediment sample was reported to R. Beach by S. Powers on December 11, 1987. The preliminary results of the two water samples were verbally reported on December 14, 1987.

SAMPLE LIST

| Water Samples | Sediment Sample |
|---|---|
| W-10 | SD-6 |
| W-12 | |

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GC/MS instrument calibrations using BFB met requirements for volatile analyses. All SPCC and CCC criteria were met for volatile initial calibration curves and ongoing calibration check standards. Samples were analyzed for volatile organics prior to expiration of sample holding time criteria and all analyses occurred during the twelve hour period that followed daily instrument calibration.

Volatile organic surrogate compounds spiked into the water and the sediment samples met recovery criteria. Matrix spike and matrix spike duplicate (MS/MSD) quality control samples were analyzed for each matrix. All recovery and relative percent difference values met specified limits for all QC analyses.

Numerous volatile target compounds were confirmed present in the sediment sample. Although the water samples did not require dilution prior to analysis, the sediment sample required dilution in order to properly quantify all target compounds within the linear range of the standards calibration curve. The initial undiluted analysis of sample SD-6 resulted in five target compounds that exceeded the linear range of the standards calibration curve. Reanalysis using a dilution factor of five allowed for quantitation of 2-butanone, 4-methyl-2-pentanone, ethylbenzene and xylenes. Additional dilution of this sample was performed to quantify toluene, the predominant sample constituent. Many nontarget hydrocarbons were also tentatively identified using the EPA/NBS mass spectra database library. All three analyses are provided in this report.



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Please contact either Mike Buchanan, Mass Spectrometry Section Chief, or Stuart Winslow, Laboratory Operations Project Coordinator, should you require any additional information or have any questions pertaining to the analysis of these samples.

Sincerely,

Lawrence P. Pollack
GC/MS Data Quality Manager
Laboratory Operations



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MEMORANDUM

To: Stuart Winslow
From: Victor A. Yastrop
Subject: Project 04600 B#297 (Taylorborough)
Date: December 31, 1987

Please find attached the data summary for 12 NIOSH tubes analyzed for solvents. The samples were analyzed by an approved NIOSH method. The analysis used a single column gas chromatograph with a flame ionization detector.

None of the analytes of interest were present in the samples above the reported detection limit. The quality control results for the samples was acceptable.

Peaks which would represent compounds, other than those of interest, were minimal in response when present in the samples.

If you have any questions regarding this data summary please feel free to call me at your convenience.

000030

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Versar INC.

January 13, 1988

I. Narrative
Client: PRC
Site: Taylor/Borough Landfill
Organic Analyses - CLP Protocol
Versar Project 4600 - Batch 298

This report contains the analytical data for the analysis of four water samples and three sediment samples listed below. The samples were received at Versar on December 10, 1987 and were extracted and analyzed for volatile, semivolatile, and pesticide compounds following EPA CLP procedures. Separate fraction narratives outlining pesticide results, and results of pesticide quality control analyses, immediately follow this case narrative.

SAMPLE LIST

| Sediment | Water |
|---|---|
| SD-8 | WS-14 |
| SD-9 | WS-15 |
| SD-10 | WS-16 |
| | WS-17 |

---

GC/MS instrument calibrations using BFB and DFTPP met tuning requirements for volatile and semivolatile analyses, respectively. All SPCC and CCC criteria were met for all volatile and semivolatile initial calibration curves. Continuing calibration standards for volatile and semivolatile analyses also met percent deviation requirements. Sample analyses and extractions for volatile and semivolatile fractions were completed prior to expiration of sample holding times. All samples were analyzed during the twelve hour period that followed daily instrument calibration.

GC/FID screening of the soil samples prior to extraction for semivolatile and pesticide compounds indicated that procedures outlined for the low concentration soil matrix were applicable.

All water and soil volatile surrogate recovery values met specified criteria. Most water semivolatile surrogate recovery values and all soil semivolatile surrogate recovery values met specified criteria. CLP protocol does not require corrective action if only one acid and/or one base-neutral surrogate recovery value is noncompliant.

Few volatile and no semivolatile target compounds were confirmed present in the water samples. Toluene was confirmed present in sediment sample SD-8 and styrene was present in samples SD-9 and SD-10. Numerous polynuclear aromatic hydrocarbon compounds were confirmed present in semivolatile sediment samples SD-8 and SD-10. No samples required dilution prior to analysis.



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Matrix spike and matrix spike duplicate (MS/MSD) QC samples were analyzed for each matrix with the exception of volatile soil samples. MS/MSD QC samples for the volatile soils were performed with samples in Versar Project 4600 Batch 303. CLP criteria specifies that one set of QC analyses be analyzed for every twenty unspiked samples collected in conjunction with cases that are extracted and analyzed in multiple batches. All soil semivolatile MS/MSD recovery and relative percent difference (RPD) values met specified QC limits.

The volatile QC analyses performed on the water matrix also met all recovery criteria and RPD limits. The semivolatile MS/MSD results for the water matrix were acceptable for acid compounds; however, the base-neutral compounds had low recovery and high RPD values. The base-neutral surrogate recoveries for the MS aliquot did not meet minimum recovery limits. Reextraction cannot be performed because there is no more sample available. The analyses for WS-14 and MS/MSD QC were performed with less than the method specified 1000mL since the laboratory was not supplied with the required sample volume in order to perform all analyses.

Please contact Mike Buchanan, Mass Spectrometry Section Chief, or Stuart Winslow, Laboratory Project Coordinator, should you have questions or require additional information pertaining to volatile and semivolatile organic analyses performed on these samples collected in conjunction with the Taylor/Borough project.

Sincerely,

Benjamin R. Landas
Assistant GC/MS Data Quality Manager
Laboratory Operations

Date Release Authorized by:

Lawrence P. Pollack
GC/MS Data Quality Manager
Laboratory Operations

000702

Versar INC.

Pesticide Fraction Narrative
Versar Project No. 4600 Batch 298
Site: Taylorborough Landfill
Low Level Soils
8 January, 1988

Please find enclosed the raw data and calculated results for the pesticide analysis of the soil samples received at Versar on 10 December, 1987. The samples were received with four water samples, and requested by full organic EPA- Contract Laboratory Program (EPA-CLP) protocol. This narrative addresses only the pesticide fraction of the soils for the batch. The samples were extracted within the holding time prescribed in the method. The date of extraction was 20 December, 1987 for the following, low level soils:

SAMPLES

| Field ID# | Lab ID# |
|---|---|
| SD 8 | 43019 |
| *SD 9 | *43020 |
| SD 10 | 43021 |

*Denotes sample chosen for QC extraction (MS/MSD).

Laboratory IDs were used in tracking samples throughout extraction and analysis.

All criteria were adhered to during analysis. All calibration standard results were acceptable where required. All data has been reviewed for completeness and validity. None of the samples contain either pesticides or PCBs above the reported detection limit.

Samples were analyzed on a packed column chromatograph with a full set of CLP multicomponent standards to allow for quantitation of tentatively identified pesticide results. The primary analysis was completed in a single analytical sequence. Since no tentative identifications were determined above the method detection limit, no further analyses were required.

Linearity criteria were met prior to analysis of the calibration standard series.

Degradation checks performed on evaluation standards prior to, and at appropriate intervals throughout the analysis all had results well within the CLP limit of 20 percent.

The pesticide surrogate, dibutylchlorendate, retention time shift was monitored throughout the analysis, and remained within the 2% limit established in the protocol.

Calibration standard comparisons yielded results acceptable for quantitation (<15% difference) where required. In the final standard, results for 4,4'DDT exceeded the quantitation limit, but no further standard or sample analyses were performed.

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Since no sample analyses were performed after the outlying standard result, no reanalyses were required.

Comments regarding the analysis are included in the sample preparation section of the report. They include further discussion of standard comparison results as well as any difficulties encountered during analysis.

The QC section of the report includes surrogate, matrix spike, and matrix spike duplicate recoveries as well as precision and method blank results. The results are reported on EPA Forms II, III, and IV which include QC limits as a set of reference guidelines. Overall, QC for the package indicates acceptable extraction efficiency with only one of seven surrogate recovery results in excess of the advisory QC limits. Matrix spike and matrix spike duplicate recoveries also exhibit acceptable extraction efficiency with two results outside of QC limit windows. The two outlying results were for aldrin which was obscured by a leading contaminant peak in the chromatography. Recovery results for aldrin were unable to be calculated due to this coelution, and are, therefore, reported as zero percent recovery. Precision for the two spiked extracts, as demonstrated by the relative percent difference (RPD) results, was excellent with no results in excess of twelve percent.

If you have any questions regarding the pesticide analysis detailed herein, please feel free to call me at your convenience.

John O'Donnell
Data Quality Manager
GC Section
Laboratory Operations

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Versar INC.

Pesticide Fraction Narrative
Versar Project No. 4600 Batch 298
Site: Taylorborough Landfill
Low Level Waters
8 January, 1988

Please find enclosed the raw data and calculated results for the pesticide analysis of the water samples received at Versar on 10 December, 1987. The samples were received with three sediment samples, and requested by full organic EPA- Contract Laboratory Program (EPA-CLP) protocol. This narrative addresses only the pesticide fraction of the waters for the batch. The samples were extracted within the holding time prescribed in the method. The date of extraction was 12 December, 1987 for the following, low level waters:

SAMPLES

| Field ID# | Lab ID# |
|---|---|
| *WS 14 | *43033 |
| WS 15 | 43034 |
| WS 16 | 43035 |
| WS 17 | 43036 |

*Denotes sample chosen for QC extraction (MS/MSD).

Laboratory IDs were used in tracking samples throughout extraction and analysis.

All criteria were adhered to during analysis. All calibration standard results were acceptable where required. All data has been reviewed for completeness and validity. None of the samples contain either pesticides or PCBs above the reported detection limit.

Samples were analyzed on a packed column chromatograph with a full set of CLP multicomponent standards to allow for quantitation of tentatively identified pesticide results. The primary analysis was completed in a single analytical sequence. Since no tentative identifications were determined above the method detection limit, no further analyses were required.

Linearity criteria were met prior to analysis of the calibration standard series.

Degradation checks performed on evaluation standards prior to, and at appropriate intervals throughout the analysis all had results within the CLP limit of 20 percent. Since degradation products, 4,4'DDD and endrin aldehyde coelute on this system, combined degradation results are used to determine acceptance limits.

The pesticide surrogate, dibutylchlorendate, retention time shift was monitored throughout the analysis, and remained within the 2% limit established in the protocol.

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Calibration standard comparisons yielded results acceptable for quantitation (<15% difference) where required. In fact, all comparison results yielded values less than five percent difference demonstrating excellent stability.

Comments regarding the analysis are included in the sample preparation section of the report. They include further discussion of standard comparison results as well as any difficulties encountered during analysis.

The QC section of the report includes surrogate, matrix spike, and matrix spike duplicate recoveries as well as precision and method blank results. The results are reported on EPA Forms II, III, and IV which include QC limits as a set of reference guidelines. Overall, QC for the package indicates excellent extraction efficiency with no surrogate recovery results in outside of the advisory QC limit windows. Matrix spike and matrix spike duplicate recoveries also exhibit excellent extraction efficiency with no results outside of QC limit windows, and a range of actual results form 86 to 100 percent. Precision for the two spiked extracts, as demonstrated by the relative percent difference (RPD) results, was also excellent with no results in excess of eleven percent. IT should be noted, also, with respect to the precision results, that five of the six evaluations had results of ≤7 percent.

If you have any questions regarding the pesticide analysis detailed herein, please feel free to call me at your convenience.

John O'Donnell
Data Quality Manager
GC Section
Laboratory Operations

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Versar INC.

ANALYSIS NARRATIVE

Project: 4600-298
Title: Taylor/Bourough Project
Client: PRC
Date: January 28, 1988

This is a PRC project consisting of eight waters and three soils which were received on December 10, 1987. The water and soil samples were digested under SOW 785 procedures on December 14, 1987 and December 18, 1987 respectively.

The samples were quantitated for CLP Task 1 metals by ICP following SOW 785 on December 30, 1987 and again on January 11, 1988 for aluminum, iron and magnesium. On Form II C and II D data appears for all elements but only the values for the three elements mentioned previously need be considered. The Task 2 elements were quantitated by graphite furnace AA and by cold vapor techniques following SOW 785.

Precision of duplicate aliquots was good for all metals for the water matrix and all metals for the soil matrix except for aluminum, lead, potassium and vanadium. These high RPD's are the result of non-homogeneous samples. All spike recoveries were within 75-125 percent control windows for both matrices with the exception of antimony, chromium, lead, manganese, selenium and silver for the soil matrix. Poor spike recoveries for these elements was probably due the non-homogeneity of the sample and matrix interference. All results are reported on a dry weight basis.

Penelope K. Wong

Penelope K. Wong
Labortory Operation

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U.S. EPA CONTRACT LABORATORY PROGRAM
SAMPLE MANAGEMENT OFFICE
P.O. BOX 818 - ALEXANDRIA, VA 22313
703/557-2490 FTS:8-557-2490

DATE: 1/20/88

COVER PAGE
INORGANIC ANALYSES DATA PACKAGE

QC REPORT: 298
CASE NO.: ---
PROJECT NO.:4600.0

LAB NAME: VERSAR, INC.
SOW NO.: 785

SAMPLE NUMBERS

| SAMPLE NO. | LAB ID NO. | SAMPLE NO. | LAB ID NO. |
|---|---|---|---|
| WS 14 | 43025 | WS 15 | 43026 |
| WS 16 | 43027 | WS 17 | 43028 |
| WS 14F | 43029 | WS 15F | 43030 |
| WS 16F | 43031 | WS 17F | 43032 |
| SD 8 | 43013 | SD 9 | 43014 |
| SD 10 | 43015 | | |

COMMENTS: THE ZINC VALUES WERE FLAGGED WITH E'S DUE TO THE SERIAL DILUTION.

ICP INTERELEMENT AND BACKGROUND CORRECTION APPLIED? YES.
CORRECTIONS APPLIED BEFORE GENERATION OF RAW DATA.

FOOTNOTES:
NR - NOT REQUIRED BY CONTRACT AT THIS TIME

FORM I:
VALUE - IF THE RESULT IS A VALUE GREATER THAN OR EQUAL TO THE INSTRUMENT DETECTION LIMIT BUT LESS THAN THE CONTRACT REQUIRED DETECTION LIMIT, REPORT THE VALUE IN BRACKETS ( I.E., [10] ). INDICATE THE ANALYTICAL METHOD USED WITH P ( FOR ICP),A (FLAME AA) OR F ( FOR FURNACE ).
U - INDICATES ELEMENT WAS ANALYZED FOR BUT NOT DETECTED. REPORT WITH THE DETECTION LIMIT VALUE ( E.G., 10U ).
E - INDICATES A VALUE ESTIMATED OR NOT REPORTED DUE TO THE PRESENCE OF INTERFERENCE. EXPLANATORY NOTE INCLUDED ON COVER PAGE.
S - INDICATES VALUE DETERMINED BY METHOD OF STANDARD ADDITION
N - INDICATES SPIKE SAMPLE RECOVERY IS NOT WITHIN CONTROL LIMITS.
* - INDICATES DUPLICATE ANALYSIS IS NOT WITHIN CONTROL LIMITS.
+ - INDICATES THE CORRELATION COEFFICIENT FOR METHOD OF STANDARD ADDITION IS LESS THAN 0.995
DF - DILUTION FACTOR
SD - SAMPLE USED FOR ICP SERIAL DILUTION
M - INDICATES DUPLICATE INJECTION RESULTS EXCEED CONTROL LIMITS

INDICATE METHOD USED: P FOR ICP; A FOR FLAME AA AND F FOR FURNACE.

D

SAMPLE DATA SUMMARY
PACKAGE

PROJECT #4600 B#303
DATE 01-04-88
CLIENT PRC
SITE TAYLOR/BOROUGH

Versar INC.

January 4, 1988

I. Narrative
Client: PRC
Site: Taylor/Borough
Volatile Organic Analysis - CLP Protocol
Versar Project 4600 - Batch 303

This report contains the analytical data for three soil samples which arrived intact at Versar on December 19, 1987. The samples, listed below, were analyzed for volatile organic compounds following EPA CLP procedures (Rev. 10/86). Preliminary results were reported verbally on December 23, 1987.

SAMPLE LIST

SD-49 SD-50 SD-51

GC/MS instrument calibrations using BFB met CLP contract requirements for volatile analyses. All SPCC and CCC criteria were met for the volatile initial calibration curve and the daily ongoing calibration check standards. Analyses for volatile organics were performed within specified sample holding times and all analyses occurred during the twelve hour period that followed daily instrument calibration.

All volatile organic surrogate compounds spiked into the soil samples met recovery criteria. Matrix spike and matrix spike duplicate quality control samples were analyzed. All recovery and relative percent difference values met specified ranges.

Each sample contained volatile target compounds including toluene. The concentration of toluene exceeded the linear range of the standards calibration curve in two samples: SD-49 and SD-50 were reanalyzed using a dilution factor of two in order to properly quantify toluene within the linear range of the standards calibration curve. Both sets of data are included in this report. Acetone was also confirmed present in sample SD-49 at a concentration greater than the Method Detection Limit (MDL). Acetone was also present in the other two samples at a concentration less than the MDL although acetone was not confirmable in the reagent blanks analyzed daily prior to the samples.

Please contact either Mike Buchanan, Mass Spectrometry Section Chief, or Stuart Winslow, Laboratory Project Coordinator, should you require additional information or have any questions pertaining to analyses of these samples.

Sincerely,

Lawrence P. Pollack
GC/MS Data Quality Manager
Laboratory Operations

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Versar INC

SAMPLE DATA SUMMARY
PACKAGE

PROJECT #4600 - B#313
DATE 02/09/88
CLIENT PRC
SITE TAYLOR/BOROUGH

Versar INC.

February 9, 1988

I. Narrative
Client: PRC
Site: Taylor/Borough
Volatile Organic Analysis - CLP Protocol
Versar Project 4600 - Batch 313

This report contains the analytical data for six soil samples which arrived intact at Versar on January 20, 1988. The samples, listed below, were analyzed for volatile organic compounds following EPA CLP procedures (Rev. 10/86). Preliminary results were reported on January 22, 1988.

SAMPLE LIST

| | |
|---|---|
| SO-52 | SO-55 |
| SO-53 | SO-56 |
| SO-54 | SO-57 |

GC/MS instrument calibrations using BFB met CLP contract requirements for volatile analyses. All SPCC and CCC criteria were met for the volatile initial calibration curve and the daily ongoing calibration check standards. Analyses for volatile organics were performed within specified sample holding times and all analyses occurred during the twelve hour period that followed daily instrument calibration. All volatile organic surrogate compounds spiked into the soil samples met recovery criteria.

Each sample contained volatile target compounds. The concentration of toluene exceeded the linear range of the standards calibration curve in two samples: SO-53 and SO-56 were reanalyzed using a larger dilution factor in order to properly quantify toluene within the linear range of the standards calibration curve. Both sets of data are included in this report. The only samples which did not require dilution prior to analysis were SO-54 and SO-57.

4-methyl-2-pentanone was confirmed present in some of the samples contained in this batch shipment; a nontarget compound, which appears to elute with the target compound, was tentatively identified as a hydrocarbon in other samples. If the amount of 4-methyl-2-pentanone is greater than the nontarget compound, the target compound can be confirmed present; alternatively, if the concentration of the hydrocarbon is greater than the target compound, only the nontarget compound can be tentatively identified due to coelution.

Versar INC.



Please contact either Mike Buchanan, Mass Spectrometry Section Chief, or Stuart Winslow, Laboratory Project Coordinator, should you require additional information or have any questions pertaining to analyses of these samples.

Sincerely,

Lawrence P. Pollack
GC/MS Data Quality Manager
Laboratory Operations

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ANALYTICAL REPORT
FOR

PROJECT #4600 B#313
DATE 02/16/88
CLIENT . T.BOROUGH

Versar INC.

Pesticide Fraction Narrative
Versar Project No. 4600 Batch 313
Site: Taylor Borough Landfill
Low Level Soils
February 15, 1988

Please find enclosed the raw data and calculated results for the pesticide analysis of the soil samples received at Versar on 20 January, 1988. The samples were requested for analysis of pesticides and PCBs by EPA- Contract Laboratory Program (EPA-CLP) protocol. This narrative addresses only the pesticide fraction of the soils for the batch. The samples were extracted within the holding time prescribed in the method. The date of extraction was 21 January, 1988 for the following, low level soils:

SAMPLES

| Field ID# | Lab ID# | Field ID# | Lab ID# |
|---|---|---|---|
| *SO 52 | *44150 | SO 55 | 44153 |
| SO 53 | 44151 | SO 56 | 44154 |
| SO 54 | 44152 | SO 57 | 44155 |

*Denotes sample chosen for QC extraction (MS/MSD).

Laboratory IDs were used in tracking samples throughout extraction and analysis.

All criteria were adhered to during analysis. All calibration standard results were acceptable where required. All data has been revieved for completeness and validity. Samples SO 52 and SO 55 contain Aroclor 1254 at levels above the reported detection limits. In addition, sample SO 52 had a confirmed identification for endosulfan I. It is the opinion of the analyst that the result for endosulfan I is due to the fact that it elutes in the Aroclor chromatographic pattern, and that it is likely that the result is a false positive. The result has been flagged appropriately to alert the user to the suspect nature of the result.

Samples were analyzed on both packed and capillary column chromatographic systems. The packed analysis was performed with a full set of CLP multicomponent standards to allow for quantitation of tentatively identified pesticide results. The primary analysis was completed in a single analytical sequence. Samples requiring further analysis were analyzed on a capillary column instrument. Since only Aroclor 1254 was identified in the primary analysis, no calibration for the other multi-component analytes was performed in confirmation. The confirmation analyses were also able to be completed in a single analytical sequence.

Linearity criteria were met prior to analysis of the calibration standards in both sequences, although current protocol does not require this criteria of confirmation analyses.

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Degradation checks performed on evaluation standards prior to, and at appropriate intervals throughout the analysis all had results within the CLP limit of 20 percent.

The shift of the retention time of the pesticide surrogate, dibutylchlorendate (DBC), was monitored throughout the analysis, and remained within the limits established in the protocol for packed and capillary columns, respectively.

Calibration standard comparisons yielded results acceptable for quantitation (<15% difference) where required. In fact, all comparison results yielded values less than five percent difference demonstrating excellent stability. The final standards in the confirmation analysis had four standard responses outside of their respective daily retention time windows, however all analyses were completed prior to its injection. Since no sample analyses were performed after an outlying standard result, no reanalyses were required.

Comments regarding the analysis are included in the sample preparation section of the report. They include further discussion of standard comparison results as well as any difficulties encountered during analysis.

The QC section of the report includes surrogate, matrix spike, and matrix spike duplicate recoveries as well as precision and method blank results. The results are reported on EPA Forms II, III, and IV which include QC limits as a set of reference guidelines. Overall, QC for the package indicates excellent extraction efficiency with no surrogate recovery results in outside of the advisory QC limit windows. Matrix spike and matrix spike duplicate recoveries also exhibit excellent extraction efficiency with only one result outside of QC limit windows. Precision for the two spiked extracts, as demonstrated by the relative percent difference (RPD) results, was acceptable with two of six results in excess of the prescribed QC limits. It should be noted, that if results were reported from the capillary analysis, no recovery results or RPD evaluations would have exceeded QC limits. Current protocol disallows the use of capillary analyses for quantitation of any results other than surrogate recoveries.

If you have any questions regarding the pesticide analysis detailed herein, please feel free to call me at your convenience.

John O'Donnell
Data Quality Manager
GC Section
Laboratory Operations

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SAMPLE DATA SUMMARY
PACKAGE

PROJECT #4600 BATCH 323
DATE 02/17/88
CLIENT PRC

Versar INC.

February 17, 1988

I. Narrative
Client: PRC
Site: Taylor/Borough Landfill
Organic Analysis - CLP Protocol
Versar Project 4600 - Batch 323

This report contains the analytical data for organics analysis of seven soil samples, listed below, that were collected from the Taylor/Borough site. Analyses for volatile compounds were performed on all samples and two samples were also analyzed for semivolatile compounds following procedures for extraction and analysis established by the US EPA CLP protocol. This batch of samples arrived at Versar on February 2, 1988. Preliminary results for volatile analyses were provided to R. Beach 48 hours after sample receipt on February 4, 1988.

SAMPLE LIST

SO 58 *
SO 59
SO 60
SO 61
SO 62
SO 63
SO 64 *

* - VOA & BNA analyses

GC/MS instrument calibrations using BFB and DFTPP met requirements for volatile and semivolatile analyses, respectively. All SPCC and CCC criteria were met for volatile and semivolatile initial calibration curves and continuing calibration check standards. Sample extraction and analysis holding times were met prior to their expiration. All samples were analyzed during the twelve hour period that followed daily instrument calibration.

Volatile and semivolatile surrogate standard recovery values met requirements for all soil samples. Volatile matrix spike and matrix spike duplicate QC samples were analyzed for both the low and the mid concentration soil matrices. Recovery and relative percent difference (RPD) values met QC limits. One set of MS/MSD QC samples were extracted and analyzed for semivolatile compounds. Semivolatile MS/MSD recoveries and RPD values met specified criteria.

GC/FID screening of the soil samples prior to extraction for semivolatile compounds indicated that procedures outlined for the low concentration soil matrix were required for samples SO-58 and SO-64 contained in batch 323. Few semivolatile compounds were confirmed present in these two soil samples.

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Toluene, ethylbenzene, and xylenes were confirmed present in the volatile fraction of most samples. Samples SO-58 and SO-60 required dilution by a factor of two prior to analysis in order to quantify target compounds within the linear range of the standards calibration curve. Samples SO-61 and SO-62 were diluted and analyzed using procedures developed for soils containing mid concentrations of volatile analytes. Samples SO-59, SO-63, and SO-64 did not require dilution.

Duplicate analyses were requested for samples SO-61 and SO-62 in an attempt to verify that the initial results for methylene chloride were reproducible. In both analyses, methylene chloride was confirmed present in sample SO-61, but was not detected in sample SO-62. Methylene chloride was not confirmed present in any laboratory reagent blank analyzed prior to the samples.

Please contact Mike Buchanan, Mass Spectrometry Section Chief, or Stuart Winslow, Laboratory Project Coordinator, should you have any questions or require additional information pertaining to analyses of these soil samples.

Sincerely,

Lawrence P. Pollack

Lawrence P. Pollack
GC/MS Data Quality Manager
Laboratory Operations

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Versar INC.

Pesticide Fraction Narrative
Versar Project No. 4600 Batch 323
Site: Taylor Borough Landfill
Low Level Soils
February 28, 1988

Please find enclosed the raw data and calculated results for the pesticide analysis of the soil samples received at Versar on 2 February, 1988. The samples were requested for analysis of pesticides and PCBs by EPA- Contract Laboratory Program (EPA-CLP) protocol. This narrative addresses only the pesticide fraction of the soils for the batch. The samples were extracted within the holding time prescribed in the method. The date of extraction was 5 February, 1988 for the following, low level soils:

SAMPLES

| Field ID# | Lab ID# | Field ID# | Lab ID# |
|---|---|---|---|
| SO 58 | 44698 | SO 62 | 44702 |
| *SO 59 | *44699 | SO 63 | 44703 |
| SO 60 | 44700 | SO 64 | 44704 |
| SO 61 | 44701 | | |

*Denotes sample chosen for QC extraction (MS/MSD).

Laboratory IDs were used in tracking samples throughout extraction and analysis.

All criteria were adhered to during analysis. All calibration standard results were acceptable where required. All data has been reviewed for completeness and validity. Samples SO 61 and SO 62 contain Aroclor 1254 at levels above the reported detection limits. In addition, the two samples had results qualifying for identification for endosulfan I. It is the opinion of the analyst that the result for endosulfan I is due to the fact that it elutes in the Aroclor chromatographic pattern, and that it is likely that the result is a false positive. The result has been excluded from the Forms I, as they are suspect at best. It may be worthy of note that samples SO 60 and SO 64 also appear to contain Aroclor, but their results are below the reported detection limits.

Samples were analyzed on both packed and capillary column chromatographic systems. The packed analysis was performed with a full set of CLP multicomponent standards to allow for quantitation of tentatively identified pesticide results. The primary analysis was completed in a single analytical sequence. Samples requiring further analysis were analyzed on a capillary column instrument. Since only Aroclor 1254 was identified in the primary analysis, no calibration for the other multicomponent analytes was performed in confirmation. The confirmation analyses were completed in a two analytical sequences. The second capillary sequence was performed due to one extract being excluded from the initial confirmation analysis.

Linearity criteria were met prior to analysis of the calibration

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standards in both sequences, although current protocol does not require this criteria of confirmation analyses.

Degradation checks performed on evaluation standards prior to, and at appropriate intervals throughout the analysis all had results within the CLP limit of 20 percent.

The shift of the retention time of the pesticide surrogate, dibutylchlorendate (DBC), was monitored throughout the analysis, and remained within the limits established in the protocol for packed and capillary columns, respectively.

Calibration standard comparisons yielded results acceptable for quantitation (<15% difference) where required. In fact, all comparison results yielded values less than six percent difference demonstrating excellent stability. The final standards in the confirmation analyses were also acceptable with the exception of the final standards in the second confirmation sequence. Due to an autosampler malfunction, the syringe was broken during the injection of the first of the two individual standard mixes. The syringe was replaced incorrectly, thus none of the comparison results for the second individual standard had results of less than 70 percent. Since no sample analyses were performed after an outlying standard result, no reanalyses were required.

Comments regarding the analysis are included in the sample preparation section of the report. They include further discussion of standard comparison results as well as any difficulties encountered during analysis.

The QC section of the report includes surrogate, matrix spike, and matrix spike duplicate recoveries as well as precision and method blank results. The results are reported on EPA Forms II, III, and IV which include QC limits as a set of reference guidelines. Overall, QC for the package indicates acceptable extraction efficiency with only one surrogate recovery result in excess of the upper advisory window limit. Matrix spike and matrix spike duplicate recoveries also exhibit acceptable extraction efficiency with no results outside of QC limit windows. Precision for the two spiked extracts, as demonstrated by the relative percent difference (RPD) results, was acceptable with no six results in excess of the prescribed QC limits. It should be noted, with respect to precision, that none of the RPD results exceeded 25 percent.

If you have any questions regarding the pesticide analysis detailed herein, please feel free to call me at your convenience.

J O'Donnell 04/29/88

John O'Donnell
GC Data Quality Manager
Laboratory Operations

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SAMPLE DATA SUMMARY
PACKAGE

PROJECT #4600 B#323
DATE 03/03/88
CLIENT PRC
SITE TAYLOR/BOROUGH

Versar INC.

ANALYSIS NARRATIVE

Project: 4600-323
Title: Taylor/Bourough Project
Client: PRC
Date: March 3, 1988

This is a PRC project consisting of two soils which were received on February 2, 1988 and were digested under SOW 785 procedure on the same day.

The samples were quantitated for CLP Task 1 metals by ICP and for Task 2 metals by graphite furnace AA and by cold vapor techniques following SOW 785.

Precision of duplicate aliquots was good for all metals for the samples. All spike recoveries were within 75-125 percent control windows except for antimony, lead and selenium. Poor spike recoveries for these elements was probably due the non-homogeneity of the sample and matrix interference. All results are reported on a dry weight basis.

Penelope K. Wong
Penelope K. Wong
Laboratory Operations

Reviewed by: J. Helberg
NRAS Supervisor



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DATE: 8/12/88

COVER PAGE
INORGANIC ANALYSES DATA PACKAGE

LAB NAME: VERSAR, INC.
SOW NO.: 705

WC REPORT: 383
CASE NO.: ----
PROJECT NO.:4600.0000

SAMPLE NUMBERS

| FIELD NO. | LAB ID NO. | FIELD NO. | LAB ID NO |
|---|---|---|---|
| SD 58 | 44696 | SD 64 | 44697 |

COMMENTS:

ICP INTERELEMENT AND BACKGROUND CORRECTION APPLIED? YES.
CORRECTIONS APPLIED BEFORE GENERATION OF RAW DATA.

FOOTNOTES:

NR - NOT REQUIRED BY CONTRACT AT THIS TIME
FORM I:

VALUE - IF THE RESULT IS A VALUE GREATER THAN OR EQUAL TO THE INSTRUMENT DETECTION LIMIT BUT LESS THAN THE CONTRACT REQUIRED DETECTION LIMIT, REPORT THE VALUE IN BRACKETS ( I.E., [10.] ). INDICATE THE ANALYTICAL METHOD USED WITH P ( FOR ICP/FLAME AA ) OR F ( FOR FURNACE ).

U - INDICATES ELEMENT WAS ANALYZED FOR BUT NOT DETECTED. REPORT WITH THE DETECTION LIMIT VALUE ( E.G., 10U ).

E - INDICATES A VALUE ESTIMATED OR NOT REPORTED DUE TO THE PRESENCE OF INTERFERENCE. EXPLANATORY NOTE INCLUDED ON COVER PAGE.

S - INDICATES VALUE DETERMINED BY METHOD OF STANDARD ADDITION

N - INDICATES SPIKE SAMPLE RECOVERY IS NOT WITHIN CONTROL LIMITS.

* - INDICATES DUPLICATE ANALYSIS IS NOT WITHIN CONTROL LIMITS.

\+ - INDICATES THE CORRELATION COEFFICIENT FOR METHOD OF STANDARD ADDITION IS LESS THAN 0.995

DF - DILUTION FACTOR

SD - SAMPLE USED FOR ICP SERIAL DILUTION

M - INDICATES DUPLICATE INJECTION RESULTS EXCEED CONTROL LIMITS

INDICATE METHOD USED: P FOR ICP; A FOR FLAME AA; AND F FOR FURNACE.

Versar INC.

SAMPLE DATA SUMMARY
PACKAGE

PROJECT #4600 B#325
DATE 03/16/88
CLIENT PRC
SITE TAYLOR/BOROUGH

FINAL DATA REPORT

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Versar INC.

March 16, 1988

I. Narrative
Client: PRC
Site: Taylor/Borough Landfill
Organic Analysis - CLP Protocol
Versar Project 4600 - Batch 325

This report contains the analytical data for the organics analysis of five soil samples, listed below, that were collected from the Taylor/Borough site. Analyses for volatile compounds were performed on all samples and one sample, SO-67, was also analyzed for semivolatile compounds following procedures for extraction and analysis established by the US EPA CLP protocol. This batch of samples arrived at Versar on February 19, 1988. Preliminary results for volatile analyses were provided to R. Beach on February 23, 1988.

SAMPLE LIST

SO 65
SO 66
SO 67 *
SO 68
SO 69

* - Volatile & Semivolatile analyses

GC/MS instrument calibrations using BFB and DFTPP met requirements for volatile and semivolatile analyses, respectively. All SPCC and CCC criteria were met for volatile and semivolatile initial calibration curves and continuing calibration check standards. Sample extraction and analysis holding times were met prior to their expiration. All samples were analyzed during the twelve hour period that followed daily instrument calibration.

Volatile and semivolatile surrogate standard recovery values met requirements for all soil samples. Volatile matrix spike and matrix spike duplicate QC samples were analyzed for the mid concentration soil matrix. Recovery and relative percent difference (RPD) values met QC limits. One set of MS/MSD QC samples were extracted and analyzed for semivolatile compounds. Semivolatile MS/MSD recoveries and RPD values also met specified criteria.

GC/FID screening of soil sample SO-67 prior to extraction for semivolatile compounds indicated that procedures outlined for the low concentration soil matrix were required. Few semivolatile target compounds were confirmed present in this soil sample.

Versar INC.



Toluene, ethylbenzene, and xylenes were confirmed present in the volatile fraction of each sample. Each sample required dilution using procedures developed for soils containing mid concentrations of volatile analytes. The dilutions were performed prior to analysis in order to quantify target compounds within the linear range of the standards calibration curve.

Please contact Mike Buchanan, Mass Spectrometry Section Chief, or Stuart Winslow, Laboratory Project Coordinator, should you have any questions or require additional information pertaining to analyses of these soil samples.

Sincerely,

Lawrence P. Pollack

Lawrence P. Pollack
GC/MS Data Quality Manager
Laboratory Operations



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Versar INC.

SAMPLE DATA SUMMARY
PACKAGE

PROJECT# 4600 B325
DATE 3-19-88
CLIENT Taylor Borough Landfill

Versar INC.

Pesticide Fraction Narrative
Versar Project No. 4600 Batch 325
Site: Taylor Borough Landfill
Low Level Soils
March 19, 1988

Please find enclosed the raw data and calculated results for the pesticide analysis of the soil sample received at Versar on 19 February, 1988. The sample was requested for analysis of pesticides and PCBs by EPA- Contract Laboratory Program (EPA-CLP) protocol. This narrative addresses only the pesticide fraction of the sample. The samples were extracted within the holding time prescribed in the method. The date of extraction was 26 February, 1988 for the following, low level soil:

SAMPLES

| Field ID# | Lab ID# |
|---|---|
| *SO-67 | *45376 |

*Denotes sample chosen for QC extraction (MS/MSD).

Laboratory IDs were used in tracking samples throughout extraction and analysis.

All criteria were adhered to during analysis. All calibration standard results were acceptable where required. All data has been reviewed for completeness and validity. The sample contains Aroclor 1254 at levels above the reported detection limit. Samples were analyzed on two packed column chromatographic systems of different configuration. The primary analysis was performed on a 3%SP2100 column, with a full set of CLP multicomponent standards to allow for quantitation of tentatively identified pesticide results. The primary analysis was completed in a single analytical sequence. Samples requiring further analysis were analyzed on another packed column (mixed phase) instrument. Since only Aroclor 1254 was identified in the primary analysis, no calibration for the other multicomponent analytes was performed in confirmation. The confirmation analyses was also completed in a single analytical sequence. Linearity criteria were met prior to analysis of the calibration standards in both sequences, although current protocol does not require this criteria of confirmation analyses.

Degradation checks performed on evaluation standards prior to, and at appropriate intervals throughout the analysis all had results within the CLP limit of 20 percent.

The shift of the retention time of the pesticide surrogate, dibutylchlorendate (DBC), was monitored throughout the analysis, and remained within the limits established in the protocol.

Calibration standard comparisons yielded results acceptable for quantitation (<15% difference) where required. In fact, all comparison results yielded values less than 12 percent difference, indicating excellent stability in both analyses.

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Comments regarding the analysis are included in the sample preparation section of the report. They include further discussion of standard comparison results as well as any difficulties encountered during analysis.

The QC section of the report includes surrogate, matrix spike, and matrix spike duplicate recoveries as well as precision and method blank results. The results are reported on EPA Forms II, III, and IV which include QC limits as a set of reference guidelines. Overall, QC for the package indicates acceptable extraction efficiency with no surrogate recovery results in excess of the upper advisory window limit. Matrix spike and matrix spike duplicate recoveries also exhibit acceptable extraction efficiency with only 4 results outside of QC limit windows. Two compounds had outlying results in both extracts: heptachlor which had results which exceeded 300% due to the presence of the PCB; and aldrin which could not be confirmed, probably due to the same affects. Precision for the two spiked extracts, as demonstrated by the relative percent difference (RPD) results, was acceptable with no results in excess of the prescribed QC limits. It should be noted, with respect to precision, that none of the RPD results exceeded 10 percent.

If you have any questions regarding the pesticide analysis detailed herein, please feel free to call me at your convenience.

John O'Donnell
Data Quality Manager
GC Section
Laboratory Operations

ANALYSIS NARRATIVE

Project: 4600-325
Title: Taylor/Bourough Project
Client: PRC
Date: March 17, 1988

This is a PRC project consisting of one soil sample which was received on February 19, 1988. The sample was digested under SOW 785 procedures on February 24, 1988. The LCSB solution for ICP was redigested on February 29, 1988 because the original solution was suspect.

The sample was quantitated for CLP Task 1 metals by ICP following SOW 785 on February 25, 1988 and again on February March 2, 1988 for the redigested LCSB. The Task 2 elements were quantitated by graphite furnace AA and by cold vapor techniques following the sam protocol.

Precision of the duplicate aliquot was good for all elements except for chromium, iron, lead and magnesium. These high RPD's are probably the results of a non-homogeneous sample. All spike recoverie were within the 75-125 percent control windows with the exception of antimony, chromium and zinc. The poor spike recoveries for these elements was probably due the non-homogeneity of the sample and matrix interference. All results are reported on a dry weight basis.

Penelope K. Wong

Penelope K. Wong
Labortory Operations

DATE: 3/ 1/88

COVER PAGE
INORGANIC ANALYSES DATA PACKAGE

LAB NAME: VERSAR, INC.
SOW NO.: 785

QC REPORT: 325
CASE NO.: ---
PROJECT NO.:4600.0000

SAMPLE NUMBERS

| FIELD NO. | LAB ID NO. |
|---|---|
| SO-67 | 45375 |

COMMENTS:

ICP INTERELEMENT AND BACKGROUND CORRECTION APPLIED? YES.
CORRECTIONS APPLIED BEFORE GENERATION OF RAW DATA.

FOOTNOTES:

NR - NOT REQUIRED BY CONTRACT AT THIS TIME
FORM I:

VALUE - IF THE RESULT IS A VALUE GREATER THAN OR EQUAL TO THE INSTRUMENT DETECTION LIMIT BUT LESS THAN THE CONTRACT REQUIRED DETECTION LIMIT, REPORT THE VALUE IN BRACKETS ( I.E., [10] ). INDICATE THE ANALYTICAL METHOD USED WITH P ( FOR ICP/FLAME AA ) OR F ( FOR FURNACE ).

U - INDICATES ELEMENT WAS ANALYZED FOR BUT NOT DETECTED. REPORT WITH THE DETECTION LIMIT VALUE ( E.G., 10U ).

E - INDICATES A VALUE ESTIMATED OR NOT REPORTED DUE TO THE PRESENCE OF INTERFERENCE. EXPLANATORY NOTE INCLUDED ON COVER PAGE.

S - INDICATES VALUE DETERMINED BY METHOD OF STANDARD ADDITION

N - INDICATES SPIKE SAMPLE RECOVERY IS NOT WITHIN CONTROL LIMITS.

* - INDICATES DUPLICATE ANALYSIS IS NOT WITHIN CONTROL LIMITS.

\+ - INDICATES THE CORRELATION COEFFICIENT FOR METHOD OF STANDARD ADDITION IS LESS THAN 0.995

DF - DILUTION FACTOR

SD - SAMPLE USED FOR ICP SERIAL DILUTION

M - INDICATES DUPLICATE INJECTION RESULTS EXCEED CONTROL LIMITS

INDICATE METHOD USED: P FOR ICP; A FOR FLAME AA; AND F FOR FURNACE.

Versar INC.

SAMPLE DATA SUMMARY
PACKAGE

PROJECT #4600 B#331
DATE 03/11/88
CLIENT TAYLOR/BOROUGH

FINAL DATA REPORT



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Versar INC.

FINAL DATA REPORT

March 11, 1988

I. Narrative

Client: PRC
Site: Taylor/Borough
Samples: SO-70
SO-71
Volatile Organic Analysis - CLP Protocol
Versar Project 4600 - Batch 331

This report contains the analytical data for two soil samples which arrived intact at Versar on March 1, 1988. The samples, listed above, were analyzed for volatile organic compounds following EPA CLP procedures (Rev. 10/86). Preliminary results were reported within 48 hours of sample receipt on March 3, 1988.

GC/MS instrument calibrations using BFB met CLP contract requirements for volatile analyses. All SPCC and CCC criteria were met for the volatile initial calibration curve. Vinyl chloride, a CCC compound, exceeded the 25 percent deviation limit by four percent in the continuing calibration check standard. The sample analyses were allowed to proceed so that the rapid response requests could be fulfilled. The data quality has not been affected by this noncompliance. No vinyl chloride was detected in either soil sample. The excessive deviation was a result of increased instrument sensitivity.

Analyses for volatile organics were performed within specified sample holding times and all analyses occurred during the twelve hour period that followed daily instrument calibration. All volatile organic surrogate compounds spiked into the soil samples met recovery criteria.

Each sample contained volatile target compounds in addition to nontarget hydrocarbon compounds. The concentration of toluene exceeded the linear range of the standards calibration curve in sample SO-70. The sample was reanalyzed using a dilution factor of five in order to properly quantify toluene within the linear range of the standards calibration curve. Both sets of data are included in this report. Sample SO-71 also required dilution by a factor of five prior to analysis.

Please contact either Mike Buchanan, Mass Spectrometry Section Chief, or Stuart Winslow, Laboratory Project Coordinator, should you require additional information or have any questions pertaining to the analyses of these samples.

Sincerely,

Lawrence P. Pollack
GC/MS Data Quality Manager
Laboratory Operations

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*dl*-Form, crystals from petr ether or methanol, mp 63.5-64.5°. Readily sol in the usual solvents.

*dl*-Form hydrochloride, *Metheph*. Crystals from acetone, mp 207-208°.

*d*-Form, crystals, mp 87-87.5°. $[\alpha]_D^{20}$ +29.2° (c = 4 in methanol).

*d*-Form hydrochloride, crystals from ethyl acetate, mp 192°. $[\alpha]_D^{20}$ −30.1°.

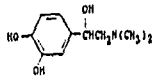
*l*-Form, crystals from petr ether, mp 87-88°. $[\alpha]_D$ −29.5° (c = 4.5 in methanol).

*l*-Form hydrochloride, crystals from ethyl acetate or alcohol, mp 192°. $[\alpha]_D^{20}$ −29.8° (c = 4.6). Readily sol in water; less sol in alcohol, sparingly sol in acetone.

*β*-Camphorsulfonate, *N-methylephedrine camsylate, Tybraine.*

THERAP CAT: Analeptic.

**5942. N-Methylepinephrine.** *4-[2-(Dimethylamino)-1-hydroxyethyl]-1,2-benzenediol; α-[(dimethylamino)methyl]-3,4-dihydroxybenzyl alcohol; α-(3,4-dihydroxyphenyl)-2-dimethylaminoethanol; α-(3,4-dihydroxyphenyl)-α-hydroxy-β-dimethylaminoethane; dimethylaminomethyl-(3,4-dihydroxyphenyl) carbinol; α-(dimethylaminomethyl)protocatechuyl alcohol; N-methyladrenaline.* $C_9H_{13}NO_3$; mol wt 197.23. C 60.89%, H 7.07%, N 7.10%, O 24.34%. Prepn and resolution of racemic mixture: Manna, Campiglio, *Farmaco Ed. Sci.* **14**, 317 (1959). Configuration: Manna, Ghislandi, *ibid.* **19**, 377 (1964).



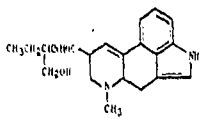
DL-Form, *Methadrenin.* Crystals from alcohol + ethyl acetate, mp 142-143°.

D(−)-Form, crystals from ethyl acetate, mp 149-150°. $[\alpha]_D^{20}$ −65.1° (c = 1.41 in 0.5*N* HCl).

L(+)-Form, crystals, mp 149-150°. $[\alpha]_D^{20}$ +62.3° (c = 1.4).

THERAP CAT: Adrenergic.

**5943. Methylergonovine.** *9,10-Didehydro-N-[1-(hydroxymethyl)propyl]-6-methylergoline-8-carboxamide; N-[α-(hydroxymethyl)propyl]-D-lysergamide; D-lysergic acid (+)-butanolamide-(2); d-lysergic acid-dl-hydroxybutylamide-2; methylergometrine; methylergobasine.* $C_{20}H_{25}N_3O_2$; mol wt 339.42. C 70.77%, H 7.42%, N 12.38%, O 9.43%. A homolog of ergonovine contg one more $CH_2$ group. Prepd by condensing isolysergic acid azide with *d*-2-amino-1-butanol and subjecting the reaction product to an isomerization treatment: Stoll, Hofmann, U.S. pat. 2,265,207 (1941 to Sandoz).



Shiny crystals from benzene, mp 172° (some decompn). $[\alpha]_D^{20}$ −45° (c = 0.4 in pyridine). Sparingly sol in water. Freely sol in alcohol, acetone.

Maleate, $C_{20}H_{25}N_3O_2 \cdot C_4H_4O_4$. *Bavofortine, Methergin, Methergine, Metenarin, Methylergobrevin, Ergonovin, Partergin, Spametrin-M.* White to pinkish-tan microcryst powder; odorless; bitter taste. Slightly sol in water, alcohol; very slightly sol in chloroform, ether.

Tartrate, $2C_{20}H_{25}N_3O_2 \cdot C_4H_6O_6$, clusters of needles, usually with 2 mols of methanol of crystn. Easily sol in water, alcohol; very slightly sol in ether, chloroform. pH of aq solns 5.0-5.8.

THERAP CAT: Oxytocic.

**5944. Methyl Ether.** *Oxybismethane;* dimethyl ether. $C_2H_6O$; mol wt 46.07. C 52.14%, H 13.13%, O 34.73%. $CH_3OCH_3$.

Colorless gas, ethereal odor, burns with a slightly luminous flame. d 1.617 (air = 1). bp −23.6°. Flash pt −41°. One vol water takes up 37 vols gas; far more sol in alcohol.

USE: In refrigeration.

**5945. Methyl Ethyl Ketone.** *2-Butanone;* ethyl methyl ketone. $C_4H_8O$; mol wt 72.10. C 66.63%, H 11.18%, O 22.19%. $CH_3COCH_2CH_3$. Obtained by refluxing methyl acetoacetate and dil $H_2SO_4$, or by the oxidation of secondary butyl alcohol; also by fermentation. Manuf: Faith, Keyes & Clark's *Industrial Chemicals*, F. A. Lowenheim, M. K. Moran, Eds. (Wiley-Interscience, New York, 4th ed., 1975) pp 539-542.

Flammable liquid; acetone-like odor. $d_4^{20}$ 0.805. Solidif −86° (bp 79.6°). Flash pt 35°F. $n_D^{20}$ 1.3814. Sol in about 4 parts water (27.5°C); less sol at higher temp; miscible with alcohol, ether, benzene. Constant boiling mixture with water, bp 73.4°, contains 88.7% methyl ethyl ketone. Soly of water in methyl ethyl ketone: 12.5% at 25°. $LD_{50}$ orally in rats: 6.86 ml/kg. Smyth *et al., Am. Ind. Hyg. Assoc. J.* **23**, 95 (1962).

USE: As solvent; in the surface coating industry; manuf smokeless powder, colorless synthetic resins.

**5946. Methyl Fluorosulfonate.** *Fluorosulfuric acid methyl ester;* methyl fluorosulfate; methyl fluosulfonate; Magic Methyl. $CH_3FO_3S$; mol wt 114.09. C 10.53%, H 2.65%, F 16.65%, O 42.07%, S 28.10%. $CH_3OSO_2F$. Prepn from dimethyl ether and fluosulfonic acid: J. Meyer, G. Schramm, *Z. Anorg. Allgem. Chem.* **206**, 24 (1932); from dimethyl sulfate and fluosulfonic acid: R. W. Alder, *Chem. & Ind. (London)* **1973**, 983. Electrochemical prepn: J. P. Coleman, D. Pletcher, *Tetrahedron Letters* **1974**, 147. Powerful methylating agent: M. O. Ahmed *et al., Chem. Commun.* **1968**, 1533. Extremely toxic to humans: D. M. W. vanden Ham, D. van der Meer, *Chem. & Eng. News* **54**, 5 (Aug. 30, 1976); *eidem, Chem. & Ind. (London)* **1976**, 782.

Volatile liq, bp 92-94°, mp −95°. *Severe Poison!* d 1.412. $n_D^{20}$ 1.3326. Good solvent for most organic compounds. Proton NMR absorption at tau 5.88. $LD_{50}$ orally in mice: < 112 mg/kg; $LC_{50}$: 1 hr for rats: 5-6 ppm. M. Hite *et al., Am. Ind. Hyg. Assoc.* **40**, 600 (1979).

*Caution:* Exposure can cause fatal pulmonary edema.

USE: In organic synthesis as methylating agent.

**5947. Methyl Formate.** *Formic acid methyl ester.* $C_2H_4O_2$; mol wt 60.05. C 40.00%, H 6.71%, O 53.29%. $HCOOCH_3$.

Colorless flammable liquid, agreeable odor. $d_4^{20}$ 0.987. bp 31.5°. $n_D^{20}$ 1.3440. Flash pt, closed cup: −2°F (−19°C). Solidif about −100°. Sol in about 3.3 parts water; miscible with alcohol.

USE: Fumigant and larvicide for tobacco, dried fruits, cereals, etc. Fire hazard is avoided by use with $CO_2$. *Caution:* Inhalation of vapor produces nasal and conjunctival irritation, retching, narcosis, death from pulmonary effects. Patty's *Industrial Hygiene and Toxicology* vol. 2A, G. D. Clayton, F. E. Clayton, Eds. (Wiley-Interscience, New York, 3rd ed., 1981) p 2263.

**5948. Methyl Gallate.** *3,4,5-Trihydroxybenzoic acid methyl ester;* gallicin. $C_8H_8O_5$; mol wt 184.14. C 52.18%, H 4.38%, O 43.44%. $C_6H_2(OH)_3COOCH_3$.

Monoclinic prisms from methanol, often hydrated or solvated. When dry, mp 202°. Sol in hot water, alcohol, methanol, ether.

USE: Antioxidant.

**5949. N-Methylglucamine.** *1-Deoxy-1-(methylamino)-D-glucitol; N-methyl-D-glucamine;* meglumine. $C_7H_{17}NO_5$; mol wt 195.22. C 43.06%, H 8.78%, N 7.18%, O 40.98%. Prepd from D-glucose and methylamine: Karrer, Herkenrath, *Helv. Chim. Acta* **20**, 83 (1937).

**DRUM STORAGE AREAS 1 AND 2**
**SOIL SAMPLES**

Versar, Inc. Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

| Sample Number |
|---|
| S0-6 |

ORGANICS ANALYSIS DATA SHEET (Page 1)

Laboratory Name: VERSAR
Lab Sample ID No: 40139
Sample Matrix: SOIL
Data Release Authorized By:

Case No: A600 B4256
GC Report No: A600 B4256
Contract No:
Date Sample Received: 10/15/87

VOLATILE COMPOUNDS

Concentration: ~~MED~~ LOW
Date Extracted/Prepared: 10/16/87
Date Analyzed: 10/16/87
Conc/(Dil) Factor: 100 pH NA
Percent Moisture: 11.27

| CAS Number | | ug/Kg | CAS Number | | ug/Kg |
|---|---|---|---|---|---|
| 74-87-3 | Chloromethane | 1000 u | 78-87-5 | 1,2-Dichloropropane | 500 u |
| 74-83-9 | Bromomethane | 1000 u | 10061-02-6 | Trans-1,3-Dichloropropene | 500 u |
| 75-01-4 | Vinyl Chloride | 1000 u | 79-01-6 | Trichloroethene | 510 ✓ |
| 75-00-3 | Chloroethane | 1000 u | 124-48-1 | Dibromochloromethane | 500 u |
| 75-09-2 | Methylene Chloride | 500 u | 79-00-5 | 1,1,2-Trichloroethane | 500 u |
| 67-64-1 | Acetone | 450 J ✓ | 71-43-2 | Benzene | 500 u |
| 75-15-0 | Carbon Disulfide | 500 u | 10061-01-5 | cis-1,3-Dichloropropene | 500 u |
| 75-35-4 | 1,1-Dichloroethene | 500 u | 110-75-8 | 2-chloroethylvinylether | 1000 u |
| 75-34-3 | 1,1-Dichloroethane | 500 u | 75-25-2 | Bromoform | 500 u |
| 156-60-5 | Trans-1,2-Dichloroethene | 500 u | 108-10-1 | 4-Methyl-2-Pentanone | 1100 ✓ |
| 67-66-3 | Chloroform | 500 u | 591-78-6 | 2-Hexanone | 1000 u |
| 107-06-2 | 1,2-Dichloroethane | 500 u | 127-18-4 | Tetrachloroethene | 500 u |
| 78-93-3 | 2-butanone | 4500 ✓ | 79-34-5 | 1,1,2,2-Tetrachloroethane | 500 u |
| 71-55-6 | 1,1,1-Trichloroethane | 500 u | 108-88-3 | Toluene | 4600 ✓ |
| 56-23-5 | Carbon Tetrachloride | 500 u | 108-90-7 | Chlorobenzene | 500 u |
| 108-05-4 | Vinyl Acetate | 1000 u | 100-41-4 | Ethylbenzene | 3600 ✓ |
| 75-27-4 | Bromodichloromethane | 500 u | 100-42-5 | Styrene | 500 u |
| | | | | Total Xylenes | 5200 ✓ |

Data Reporting Qualifiers

Value If the result is a value greater than or equal to the detection limit, report the value.

u Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response factor is assumed, or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero. (e.g. 10J)

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

T Spectrum does not meet criteria for confirmation but does indicate compound presence.

NA Compound present in both matrix spike standard and unspiked sample.

Form I

Versar Inc., Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

| SAMPLE ID |
|---|
| ISO-6 |

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

| | CAS Number | Compound Name | Fraction | RT or Scan | Estimated Concentration (ug/Kg or ug/l) |
|---|---|---|---|---|---|
| 11. | | UNKNOWN | VOA | 404 | 1,900 J |
| 12. | | UNKNOWN | VOA | 492 | 1,000 J |
| 13. | | UNKNOWN HYDROCARBON | VOA | 503 | 530 J |
| 14. | | UNKNOWN | VOA | 566 | 190 J |
| 15. | | UNKNOWN HYDROCARBON | VOA | 581 | 290 J |
| 16. | | UNKNOWN | VOA | 595 | 400 J |
| 17. | 628-63-7 | ACETIC ACID, PENTYL ESTER | VOA | 639 | 370 J |
| 18. | | UNKNOWN HYDROCARBON | VOA | 617 | 230 J |
| 19. | | | | | |
| 110. | | | | | |
| 111. | | | | | |
| 112. | | | | | |
| 113. | | | | | |
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| 127. | | | | | |
| 128. | | | | | |
| 129. | | | | | |
| 130. | | | | | |

Versar, Inc. Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

| Sample Number |
|---|
| 50-12 |

ORGANICS ANALYSIS DATA SHEET (Page 1)

Laboratory Name: VERSAR
Lab Sample ID No: 40140
Sample Matrix: SOIL
Data Release Authorized By:

Case No: 4600 B#256
QC Report No: 4600 B#256
Contract No:
Date Sample Received: 10/15/87

VOLATILE COMPOUNDS

Concentration: MID
Date Extracted/Prepared: 10/16/87
Date Analyzed: 10/16/87
Conc/Dil Factor: 100 pH NA
Percent Moisture: 12.21

| CAS Number | | ug/Kg |
|---|---|---|
| 74-87-3 | Chloromethane | 1100 u |
| 74-83-9 | Bromomethane | 1100 u |
| 75-01-4 | Vinyl Chloride | 1100 u |
| 75-00-3 | Chloroethane | 1100 u |
| 75-09-2 | Methylene Chloride | 200 J |
| 67-64-1 | Acetone | 760 |
| 75-15-0 | Carbon Disulfide | 570 u |
| 75-35-4 | 1,1-Dichloroethene | 570 u |
| 75-34-3 | 1,1-Dichloroethane | 570 u |
| 156-60-5 | Trans-1,2-Dichloroethene | 570 u |
| 67-66-3 | Chloroform | 570 u |
| 107-06-2 | 1,2-Dichloroethane | 570 u |
| 78-93-3 | 2-butanone | 1100 J |
| 71-55-6 | 1,1,1-Trichloroethane | 570 u |
| 56-23-5 | Carbon Tetrachloride | 570 u |
| 108-05-4 | Vinyl Acetate | 1100 u |
| 75-27-4 | Bromodichloromethane | 570 u |

| CAS Number | | ug/Kg |
|---|---|---|
| 78-87-5 | 1,2-Dichloropropane | 570 u |
| 10061-02-6 | Trans-1,3-Dichloropropene | 570 u |
| 79-01-6 | Trichloroethene | 570 u |
| 124-48-1 | Dibromochloromethane | 570 u |
| 79-00-5 | 1,1,2-Trichloroethane | 570 u |
| 71-43-2 | Benzene | 570 u |
| 10061-01-5 | cis-1,3-Dichloropropene | 570 u |
| 110-75-8 | 2-chloroethylvinylether | 1100 u |
| 75-25-2 | Bromoform | 570 u |
| 108-10-1 | 4-Methyl-2-Pentanone | 490 J |
| 591-78-6 | 2-Hexanone | 1100 u |
| 127-18-4 | Tetrachloroethene | 570 u |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 570 u |
| 108-88-3 | Toluene | 3000 |
| 108-90-7 | Chlorobenzene | 570 u |
| 100-41-4 | Ethylbenzene | 380 J |
| 100-42-5 | Styrene | 570 u |
| | Total Xylenes | 2300 |

Data Reporting Qualifiers

Value If the result is a value greater than or equal to the detection limit, report the value.

u Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response factor is assumed, or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero. (e.g. 10J)

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

T Spectrum does not meet criteria for confirmation but does indicate compound presence.

NA Compound present in both matrix spike standard and unspiked sample.

Versar Inc., Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

| SAMPLE ID |
|---|
| ISO-12 |

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

| | CAS Number | Compound Name | Fraction | RT or Scan | Estimated Concentration (ug/Kg) or ug/l |
|---|---|---|---|---|---|
| 11. | | UNKNOWN HYDROCARBON | VOA | 406 | 210 J |
| 12. | | UNKNOWN | VOA | 425 | 140 J |
| 13. | | UNKNOWN HYDROCARBON | VOA | 464 | 260 J |
| 14. | | UNKNOWN | VOA | 493 | 1,000 J |
| 15. | | UNKNOWN HYDROCARBON | VOA | 503 | 780 J |
| 16. | | UNKNOWN HYDROCARBON | VOA | 579 | 940 J |
| 17. | 628-63-7 | ACETIC ACID, PENTYL ESTER | VOA | 639 | 130 J |
| 18. | 592-27-8 | HEPTANE, 2-METHYL | VOA | 617 | 170 J |
| 19. | | UNKNOWN | VOA | 595 | 190 J |
| 110. | | | | | |
| 111. | | | | | |
| 112. | | | | | |
| 113. | | | | | |
| 114. | | | | | |
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| 127. | | | | | |
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| 129. | | | | | |
| 130. | | | | | |

Versar, Inc. Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

| Sample Number |
|---|
| SO-18 |

ORGANICS ANALYSIS DATA SHEET (Page 1)

Laboratory Name: VERSAR
Lab Sample ID No: 40141
Sample Matrix: SOIL
Data Release Authorized By:

Case No: 4600 B8256
QC Report No: 4600 B8256
Contract No:
Date Sample Received: 10/15/87

VOLATILE COMPOUNDS

Concentration: LOW
Date Extracted/Prepared: 10/16/87
Date Analyzed: 10/16/87
Conc/Dil Factor: 5 pH NA
Percent Moisture: 11.45

| CAS Number | | ug/Kg | CAS Number | | ug/Kg |
|---|---|---|---|---|---|
| 74-87-3 | Chloromethane | 56 u | 78-87-5 | 1,2-Dichloropropane | 28 u |
| 74-83-9 | Bromomethane | 56 u | 10061-02-6 | Trans-1,3-Dichloropropene | 28 u |
| 75-01-4 | Vinyl Chloride | 56 u | 79-01-6 | Trichloroethene | 28 u |
| 75-00-3 | Chloroethane | 56 u | 124-48-1 | Dibromochloromethane | 28 u |
| 75-09-2 | Methylene Chloride | 28 u | 79-00-5 | 1,1,2-Trichloroethane | 28 u |
| 67-64-1 | Acetone | 290 | 71-43-2 | Benzene | 28 u |
| 75-15-0 | Carbon Disulfide | 28 u | 10061-01-5 | cis-1,3-Dichloropropene | 28 u |
| 75-35-4 | 1,1-Dichloroethene | 28 u | 110-75-8 | 2-chloroethylvinylether | 56 u |
| 75-34-3 | 1,1-Dichloroethane | 28 u | 75-25-2 | Bromoform | 28 u |
| 156-60-5 | Trans-1,2-Dichloroethene | 28 u | 108-10-1 | 4-Methyl-2-Pentanone | 73 |
| 67-66-3 | Chloroform | 28 u | 591-78-6 | 2-Hexanone | 56 u |
| 107-06-2 | 1,2-Dichloroethane | 28 u | 127-18-4 | Tetrachloroethene | 28 u |
| 78-93-3 | 2-butanone | 390 | 79-34-5 | 1,1,2,2-Tetrachloroethane | 28 u |
| 71-55-6 | 1,1,1-Trichloroethane | 28 u | 108-88-3 | Toluene | 120 T |
| 56-23-5 | Carbon Tetrachloride | 28 u | 108-90-7 | Chlorobenzene | 28 u |
| 108-05-4 | Vinyl Acetate | 56 u | 100-41-4 | Ethylbenzene | 15 J |
| 75-27-4 | Bromodichloromethane | 28 u | 100-42-5 | Styrene | 28 u |
| | | | | Total Xylenes | 190 |

Data Reporting Qualifiers

Value If the result is a value greater than or equal to the detection limit, report the value.

u Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response factor is assumed, or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero. (e.g. 10J)

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

T Spectrum does not meet criteria for confirmation but does indicate compound presence.

NA Compound present in both matrix spike standard and unspiked sample.

Versar Inc., Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

| SAMPLE ID |
|---|
| 150-18 |

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

| CAS Number | Compound Name | Fraction | RT or Scan | Estimated Concentration (ug/Kg or ug/l) |
|---|---|---|---|---|
| 11. | UNKNOWN | VOA | 493 | 49 J |
| 12. | UNKNOWN HYDROCARBON | VOA | 504 | 38 J |
| 13. | UNKNOWN HYDROCARBON | VOA | 581 | 25 J |
| 14. | UNKNOWN HYDROCARBON | VOA | 619 | 6 J |
| 15. | UNKNOWN | VOA | 680 | 5 J |
| 16. | | | | |
| 17. | | | | |
| 18. | | | | |
| 19. | | | | |
| 110. | | | | |
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| 128. | | | | |
| 129. | | | | |
| 130. | | | | |

Versar, Inc. Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

| Sample Number |
|---|
| S022 |

ORGANICS ANALYSIS DATA SHEET (Page 1)

Laboratory Name: VERSAR
Lab Sample ID No: 40330
Sample Matrix: SOIL
Data Release Authorized By:

Case No: 4600 BW257
QC Report No: 4600 BW257
Contract No:
Date Sample Received: 10/15/87

VOLATILE COMPOUNDS

Concentration: LOW
Date Extracted/Prepared: 10/19/87
Date Analyzed: 10/19/87
Conc/Dil Factor: 1 pH NA
Percent Moisture: 13.39

| CAS Number | | ug/Kg |
|---|---|---|
| 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 | 6 u |
| 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 |
| 156-60-5 | Trans-1,2-Dichloroethene | 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 |

| CAS Number | | ug/Kg |
|---|---|---|
| 78-87-5 | 1,2-Dichloropropane | 6 u |
| 10061-02-6 | Trans-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 |
| 10061-01-5 | cis-1,3-Dichloropropene | 6 u |
| 110-75-8 | 2-chloroethylvinylether | 12 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 |
| | Total Xylenes | 6 u |

Data Reporting Qualifiers

Value If the result is a value greater than or equal to the detection limit, report the value.

u Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response factor is assumed, or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero. (e.g. 10J)

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

T Spectrum does not meet criteria for confirmation but does indicate compound presence.

NA Compound present in both matrix spike standard and unspiked sample.

Form I

Versar Inc., Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

| SAMPLE ID |
|---|
| S022 |

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

| | CAS Number | Compound Name | Fraction | RT or Scan | Estimated Concentration (ug/Kg or ug/l) |
|---|---|---|---|---|---|
| 11. | 110-54-3 | HEXANE | VOA | 427 | 16 J |
| 12. | | | | | |
| 13. | | | | | |
| 14. | | | | | |
| 15. | | | | | |
| 16. | | | | | |
| 17. | | | | | |
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| 19. | | | | | |
| 110. | | | | | |
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| 128. | | | | | |
| 129. | | | | | |
| 130. | | | | | |

Versar, Inc. Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

| Sample Number |
|---|
| 9023 |

ORGANICS ANALYSIS DATA SHEET (Page 1)

Laboratory Name: VERSAR
Lab Sample ID No: 40331
Sample Matrix: SOIL
Data Release Authorized By:

Case No: 4600 BH257
QC Report No: 4600 BH257
Contract No:
Date Sample Received: 10/16/87

VOLATILE COMPOUNDS

Concentration: LOW
Date Extracted/Prepared: 10/19/87
Date Analyzed: 10/19/87
Conc/Dil Factor: 1 pH NA
Percent Moisture: ND

| CAS Number | | ug/Kg | CAS Number | | ug/Kg |
|---|---|---|---|---|---|
| 74-87-3 | Chloromethane | 10 u | 78-87-5 | 1,2-Dichloropropane | 5 u |
| 74-83-9 | Bromomethane | 10 u | 10061-02-6 | Trans-1,3-Dichloropropene | 5 u |
| 75-01-4 | Vinyl Chloride | 10 u | 79-01-6 | Trichloroethene | 5 u |
| 75-00-3 | Chloroethane | 10 u | 124-48-1 | Dibromochloromethane | 5 u |
| 75-09-2 | Methylene Chloride | 2 J | 79-00-5 | 1,1,2-Trichloroethane | 5 u |
| 67-64-1 | Acetone | 10 u | 71-43-2 | Benzene | 5 u |
| 75-15-0 | Carbon Disulfide | 5 u | 10061-01-5 | cis-1,3-Dichloropropene | 5 u |
| 75-35-4 | 1,1-Dichloroethene | 5 u | 110-75-8 | 2-chloroethylvinylether | 10 u |
| 75-34-3 | 1,1-Dichloroethane | 5 u | 75-25-2 | Bromoform | 5 u |
| 156-60-5 | Trans-1,2-Dichloroethene | 5 u | 108-10-1 | 4-Methyl-2-Pentanone | 10 u |
| 67-66-3 | Chloroform | 5 u | 591-78-6 | 2-Hexanone | 10 u |
| 107-06-2 | 1,2-Dichloroethane | 5 u | 127-18-4 | Tetrachloroethene | 5 u |
| 78-93-3 | 2-butanone | 10 u | 79-34-5 | 1,1,2,2-Tetrachloroethane | 5 u |
| 71-55-6 | 1,1,1-Trichloroethane | 5 u | 108-88-3 | Toluene | 6 |
| 56-23-5 | Carbon Tetrachloride | 5 u | 108-90-7 | Chlorobenzene | 5 u |
| 108-05-4 | Vinyl Acetate | 10 u | 100-41-4 | Ethylbenzene | 5 u |
| 75-27-4 | Bromodichloromethane | 5 u | 100-42-5 | Styrene | 5 u |
| | | | | Total Xylenes | 5 u |

Data Reporting Qualifiers

Value If the result is a value greater than or equal to the detection limit, report the value.

u Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response factor is assumed, or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero. (e.g. 10J)

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

T Spectrum does not meet criteria for confirmation but does indicate compound presence.

ND NOT DETERMINED

NA Compound present in both matrix spike standard and unspiked sample.

Form I

Versar Inc., Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

| SAMPLE ID |
|---|
| 19023 |

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

| | CAS Number | Compound Name | Fraction | RT or Scan | Estimated Concentration (ug/Kg or ug/l) |
|---|---|---|---|---|---|
| 11. | 110-54-3 | HEXANE | VOA | 425 | 3 J |
| 12. | | | | | |
| 13. | | | | | |
| 14. | | | | | |
| 15. | | | | | |
| 16. | | | | | |
| 17. | | | | | |
| 18. | | | | | |
| 19. | | | | | |
| 110. | | | | | |
| 111. | | | | | |
| 112. | | | | | |
| 113. | | | | | |
| 114. | | | | | |
| 115. | | | | | |
| 116. | | | | | |
| 117. | | | | | |
| 118. | | | | | |
| 119. | | | | | |
| 120. | | | | | |
| 121. | | | | | |
| 122. | | | | | |
| 123. | | | | | |
| 124. | | | | | |
| 125. | | | | | |
| 126. | | | | | |
| 127. | | | | | |
| 128. | | | | | |
| 129. | | | | | |
| 130. | | | | | |

Versar, Inc. Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

Sample Number
SO33-RE

ORGANICS ANALYSIS DATA SHEET (Page 1)

Laboratory Name: VERSAR
Lab Sample ID No: 8215
Sample Matrix: SOIL
Data Release Authorized By:

Case No: 4600 E4157
GC Report No: 4600 E4257
Contract No:
Date Sample Received: 10/15/87

VOLATILE COMPOUNDS

Concentration: LOW
Date Extracted/Prepared: 10/13/87
Date Analyzed: 10/13/87
Conc/Dil Factor: 1 pH NA
Percent Moisture: ND

| CAS Number | | ug/Kg |
|---|---|---|
| 74-87-3 | Chloromethane | 10 u |
| 74-83-9 | Bromomethane | 10 u |
| 75-01-4 | Vinyl Chloride | 10 u |
| 75-00-3 | Chloroethane | 10 u |
| 75-09-2 | Methylene Chloride | 2 J |
| 67-64-1 | Acetone | 10 u |
| 75-15-0 | Carbon Disulfide | 5 u |
| 75-35-4 | 1,1-Dichloroethene | 5 u |
| 75-34-3 | 1,1-Dichloroethane | 5 u |
| 156-60-5 | Trans-1,2-Dichloroethene | 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 |

| CAS Number | | ug/Kg |
|---|---|---|
| 78-87-5 | 1,2-Dichloropropane | 5 u |
| 10061-02-6 | Trans-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 |
| 10061-01-5 | cis-1,3-Dichloropropene | 5 u |
| 110-75-8 | 2-chloroethylvinylether | 10 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 |
| | Total Xylenes | 5 u |

Data Reporting Qualifiers

Value If the result is a value greater than or equal to the detection limit, report the value.

u Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response factor is assumed, or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero. (e.g. 10J)

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

T Spectrum does not meet criteria for confirmation but does indicate compound presence.

ND NOT DETERMINED

NA Compound present in both matrix spike standard and unspiked sample.

Form 1

Versar Inc., Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

| SAMPLE ID |
|---|
| SO-23 RE |

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

| | CAS Number | Compound Name | Fraction | RT or Scan | Estimated Concentration (ug/Kg or ug/l) |
|---|---|---|---|---|---|
| 11. | | NO VOLATILES DETECTED | IVOA | NA | NA |
| 12. | | | | | |
| 13. | | | | | |
| 14. | | | | | |
| 15. | | | | | |
| 16. | | | | | |
| 17. | | | | | |
| 18. | | | | | |
| 19. | | | | | |
| 110. | | | | | |
| 111. | | | | | |
| 112. | | | | | |
| 113. | | | | | |
| 114. | | | | | |
| 115. | | | | | |
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Versar, Inc. Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

| Sample Number |
|---|
| S024 |

ORGANICS ANALYSIS DATA SHEET (Page 1)

Laboratory Name: VERSAR
Lab Sample ID No: 40332
Sample Matrix: SOIL
Data Release Authorized By:

Case No: A600 PW257
QC Report No: A600 PW257
Contract No:
Date Sample Received: 10/16/87

VOLATILE COMPOUNDS

Concentration: LOW
Date Extracted/Prepared: 10/19/87
Date Analyzed: 10/19/87
Conc/Dil Factor: 1 pH NA
Percent Moisture: 13.1

| CAS Number | | ug/Kg | CAS Number | | ug/Kg |
|---|---|---|---|---|---|
| 74-87-3 | Chloromethane | 12 u | 78-87-5 | 1,2-Dichloropropane | 6 u |
| 74-83-9 | Bromomethane | 12 u | 10061-02-6 | Trans-1,3-Dichloropropene | 6 u |
| 75-01-4 | Vinyl Chloride | 12 u | 79-01-6 | Trichloroethene | 6 u |
| 75-00-3 | Chloroethane | 12 u | 124-48-1 | Dibromochloromethane | 6 u |
| 75-09-2 | Methylene Chloride | 6 u | 79-00-5 | 1,1,2-Trichloroethane | 6 u |
| 67-64-1 | Acetone | 21 | 71-43-2 | Benzene | 6 u |
| 75-15-0 | Carbon Disulfide | 6 u | 10061-01-5 | cis-1,3-Dichloropropene | 6 u |
| 75-35-4 | 1,1-Dichloroethene | 6 u | 110-75-8 | 2-chloroethylvinylether | 12 u |
| 75-34-3 | 1,1-Dichloroethane | 6 u | 75-25-2 | Bromoform | 6 u |
| 156-60-5 | Trans-1,2-Dichloroethene | 6 u | 108-10-1 | 4-Methyl-2-Pentanone | 12 u |
| 67-66-3 | Chloroform | 6 u | 591-78-6 | 2-Hexanone | 12 u |
| 107-06-2 | 1,2-Dichloroethane | 6 u | 127-18-4 | Tetrachloroethene | 6 u |
| 78-93-3 | 2-butanone | 12 u | 79-34-5 | 1,1,2,2-Tetrachloroethane | 6 u |
| 71-55-6 | 1,1,1-Trichloroethane | 6 u | 108-88-3 | Toluene | 58 |
| 56-23-5 | Carbon Tetrachloride | 6 u | 108-90-7 | Chlorobenzene | 6 u |
| 108-05-4 | Vinyl Acetate | 12 u | 100-41-4 | Ethylbenzene | 6 u |
| 75-27-4 | Bromodichloromethane | 6 u | 100-42-5 | Styrene | 6 u |
| | | | | Total Xylenes | 6 u |

Data Reporting Qualifiers

Value If the result is a value greater than or equal to the detection limit, report the value.

u Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response factor is assumed, or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero. (e.g. 18J)

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

T Spectrum does not meet criteria for confirmation but does indicate compound presence.

NA Compound present in both matrix spike standard and unspiked sample.

Form I

Versar Inc., Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

| SAMPLE ID |
|---|
| S024 |

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

| | CAS Number | Compound Name | Fraction | RT or Scan | Estimated Concentration (ug/Kg or ug/l) |
|---|---|---|---|---|---|
| 11 | | NO VOLATILES DETECTED | VOA | NA | NA |
| 12 | | | | | |
| 13 | | | | | |
| 14 | | | | | |
| 15 | | | | | |
| 16 | | | | | |
| 17 | | | | | |
| 18 | | | | | |
| 19 | | | | | |
| 110 | | | | | |
| 111 | | | | | |
| 112 | | | | | |
| 113 | | | | | |
| 114 | | | | | |
| 115 | | | | | |
| 116 | | | | | |
| 117 | | | | | |
| 118 | | | | | |
| 119 | | | | | |
| 120 | | | | | |
| 121 | | | | | |
| 122 | | | | | |
| 123 | | | | | |
| 124 | | | | | |
| 125 | | | | | |
| 126 | | | | | |
| 127 | | | | | |
| 128 | | | | | |
| 129 | | | | | |
| 130 | | | | | |

Versar Inc. Laboratory Operations
[illegible]
[illegible]

| Sample Number |
|---|
| 40720 |

FIELD ID# 24

ORGANICS ANALYSIS DATA SHEET
(Page 3)

Pesticides/PCBs

Concentration: Low Medium (circle one)

GPC Cleanup [ ] Yes [X] No

Date Extracted/Prepared 10-31-87

Separatory Funnel Extration [ ] Yes

Date Analyzed 11-10-87

Continuous Liquid-Liquid Extraction [ ] Yes [X] No

Conc/Dil Factor 1.00

Percent Moisture (decanted) 10.7%

| CAS Number | | ug/kg |
|---|---|---|
| 319-84-6 | alpha-BHC | 0.74 u |
| 319-85-7 | beta-BHC | 0.74 u |
| 319-86-8 | delta-BHC | 0.74 u |
| 58-89-9 | gamma-BHC (Lindane) | 0.74 u |
| 76-44-8 | Heptachlor | 0.74 u |
| 309-00-2 | Aldrin | 0.74 u |
| 1024-57-3 | Heptachlor Epoxide | 0.74 u |
| 959-98-8 | Endosulfan I | 0.74 u |
| 60-57-1 | Dieldrin | 1.5 u |
| 72-55-9 | 4,4'-DDE | 1.5 u |
| 72-20-8 | Endrin | 1.5 u |
| 33213-65-9 | Endosulfan II | 1.5 u |
| 72-54-8 | 4,4'-DDD | 1.5 u |
| 1031-07-8 | Endosulfan Sulfate | 1.5 u |
| 50-29-3 | 4,4'-DDT | 1.5 u |
| 72-43-5 | Methoxychlor | 1.5 u |
| 53494-70-5 | Endrin Ketone | 1.5 u |
| 57-74-9 | Chlordane | 7.4 u |
| 8001-35-2 | Toxaphene | 15 u |
| 12674-11-2 | Aroclor-1016 | 7.4 u |
| 11104-28-2 | Aroclor-1221 | 7.4 u |
| 11141-16-5 | Aroclor-1232 | 7.4 u |
| 53469-21-9 | Aroclor-1242 | 7.4 u |
| 12672-29-6 | Aroclor-1248 | 7.4 u |
| 11097-69-1 | Aroclor-1254 | 15 u |
| 11096-82-5 | Aroclor-1260 | 15 u |

David Fugani
11-19-87

Vi = Volume of extract injected (ul)
Vo = Volume of Water Extracted (ml)
Wt = Weight of sample extracted (g)
Vt = Volume of total extract (ul)

Vs _____ or Ws 30.20 Vt 4000 Vi 2.00

Versar, Inc. Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

| Sample Number |
|---|
| S025 |

ORGANICS ANALYSIS DATA SHEET (Page 1)

Laboratory Name: VERSAR
Lab Sample ID No: 40333
Sample Matrix: SOIL
Data Release Authorized By:

Case No: 4600 B0257
QC Report No: 4600 B0257
Contract No:
Date Sample Received: 10/16/87

VOLATILE COMPOUNDS

Concentration: LOW
Date Extracted/Prepared: 10/19/87
Date Analyzed: 10/19/87
Conc/Dil Factor: 1 pH NA
Percent Moisture: 17.4

| CAS Number | | ug/Kg | CAS Number | | ug/Kg |
|---|---|---|---|---|---|
| 74-87-3 | Chloromethane | 12 u | 78-87-5 | 1,2-Dichloropropane | 6 u |
| 74-83-9 | Bromomethane | 12 u | 10061-02-6 | Trans-1,3-Dichloropropene | 6 u |
| 75-01-4 | Vinyl Chloride | 12 u | 79-01-6 | Trichloroethene | 6 u |
| 75-00-3 | Chloroethane | 12 u | 124-48-1 | Dibromochloromethane | 6 u |
| 75-09-2 | Methylene Chloride | 6 u | 79-00-5 | 1,1,2-Trichloroethane | 5 u |
| 67-64-1 | Acetone | 57 | 71-43-2 | Benzene | 6 u |
| 75-15-0 | Carbon Disulfide | 6 u | 10061-01-5 | cis-1,3-Dichloropropene | 6 u |
| 75-35-4 | 1,1-Dichloroethene | 6 u | 110-75-8 | 2-chloroethylvinylether | 12 u |
| 75-34-3 | 1,1-Dichloroethane | 6 u | 75-25-2 | Bromoform | 6 u |
| 156-60-5 | Trans-1,2-Dichloroethene | 6 u | 108-10-1 | 4-Methyl-2-Pentanone | 12 u |
| 67-66-3 | Chloroform | 6 u | 591-78-6 | 2-Hexanone | 12 u |
| 107-06-2 | 1,2-Dichloroethane | 6 u | 127-18-4 | Tetrachloroethene | 6 u |
| 78-93-3 | 2-butanone | 17 | 79-34-5 | 1,1,2,2-Tetrachloroethane | 6 u |
| 71-55-6 | 1,1,1-Trichloroethane | 6 u | 108-88-3 | Toluene | 130 |
| 56-23-5 | Carbon Tetrachloride | 6 u | 108-90-7 | Chlorobenzene | 6 u |
| 108-05-4 | Vinyl Acetate | 12 u | 100-41-4 | Ethylbenzene | 6 u |
| 75-27-4 | Bromodichloromethane | 6 u | 100-42-5 | Styrene | 6 u |
| | | | | Total Xylenes | 6 u |

Data Reporting Qualifiers

Value If the result is a value greater than or equal to the detection limit, report the value.

u Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response factor is assumed, or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero. (e.g. 10J)

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

T Spectrum does not meet criteria for confirmation but does indicate compound presence.

NA Compound present in both matrix spike standard and unspiked sample.

Form I

Versar Inc., Laboratory Operations
5850 Versar Center, Springfield VA 22151 (703) 750-3000

| SAMPLE ID |
|---|
| S025 |

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

| | CAS Number | Compound Name | Fraction | RT or Scan | Estimated Concentration ug/kg or ug/l |
|---|---|---|---|---|---|
| 11. | | NO VOLATILES DETECTED | VOA | NA | NA |
| 12. | | | | | |
| 13. | | | | | |
| 14. | | | | | |
| 15. | | | | | |
| 16. | | | | | |
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| 128. | | | | | |
| 129. | | | | | |
| 130. | | | | | |

Versar Inc. Laboratory Operations
6850 Versar Center, Springfield Va. 22151
(703) 750-3000

Source Number
[illegible]

ORGANICS ANALYSIS DATA SHEET
(Page 3)

FIELD ID# 25

Pesticides/PCBs

Concentration: Low Medium (circle one)

GPC Cleanup [ ] Yes [X] No

Date Extracted/Prepared: 10-21-87

Separatory Funnel Extraction [ ] Yes

Date Analyzed: 11-10-87

Continuous Liquid-Liquid Extraction [ ] Yes [X] No

Conc/Dil Factor: 1.00

Percent Moisture(decanted): 15.63

| CAS Number | | ug/kg |
|---|---|---|
| 319-84-6 | alpha-BHC | 0.79 u |
| 319-85-7 | beta-BHC | 0.79 u |
| 319-86-8 | delta-BHC | 0.79 u |
| 58-89-9 | gamma-BHC (Lindane) | 0.79 u |
| 76-44-8 | Heptachlor | 0.79 u |
| 309-00-2 | Aldrin | 0.79 u |
| 1024-57-3 | Heptachlor Epoxide | 0.79 u |
| 959-98-8 | Endosulfan I | 0.79 u |
| 60-57-1 | Dieldrin | 1.6 u |
| 72-55-9 | 4,4'-DDE | 7.7 |
| 72-20-8 | Endrin | 1.6 u |
| 33213-65-9 | Endosulfan II | 1.6 u |
| 72-54-8 | 4,4'-DDD | 6.7 |
| 1031-07-8 | Endosulfan Sulfate | 1.6 u |
| 50-29-3 | 4,4'-DDT | 1.6 u |
| 72-43-5 | Methoxychlor | 1.6 u |
| 53494-70-5 | Endrin Ketone | 1.6 u |
| 57-74-9 | Chlordane | 7.9 u |
| 8001-35-2 | Toxaphene | 16 u |
| 12674-11-2 | Aroclor-1016 | 7.9 u |
| 11104-28-2 | Aroclor-1221 | 7.9 u |
| 11141-16-5 | Aroclor-1232 | 7.9 u |
| 53469-21-9 | Aroclor-1242 | 7.9 u |
| 12672-29-6 | Aroclor-1248 | 7.9 u |
| 11097-69-1 | Aroclor-1254 | 16 u |
| 11096-82-5 | Aroclor-1260 | 16 u |

NA- Spiked Compounds not to be Included on Form's 1.

Vi = Volume of extract injected (ul)
Vo = Volume of Water Extracted (ml)
Ws = Weight of sample extracted (g)
Vt = Volume of total extract (ul)

David Lipsmi
11-19-87

Vo [illegible] or Ws 30.13 Vt 4000 Vi 3.00

Versar, Inc. Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

| Sample Number |
|---|
| S026 |

ORGANICS ANALYSIS DATA SHEET (Page 1)

Laboratory Name: VERSAR
Lab Sample ID No: 40922
Sample Matrix: SOIL
Data Release Authorized By:

Case No: 4600 BW272
QC Report No: 4600 BW272
Contract No:
Date Sample Received: 10/28/87

VOLATILE COMPOUNDS

Concentration: LOW
Date Extracted/Prepared: 10/28/87
Date Analyzed: 10/28/87
Conc/Dil Factor: 1 pH 5.2 HA
Percent Moisture: 6.82

| CAS Number | | ug/Kg |
|---|---|---|
| 74-87-3 | Chloromethane | 11 u |
| 74-83-9 | Bromomethane | 11 u |
| 75-01-4 | Vinyl Chloride | 11 u |
| 75-00-3 | Chloroethane | 11 u |
| 75-09-2 | Methylene Chloride | 9 |
| 67-64-1 | Acetone | 58 |
| 75-15-0 | Carbon Disulfide | 5 u |
| 75-35-4 | 1,1-Dichloroethene | 5 u |
| 75-34-3 | 1,1-Dichloroethane | 5 u |
| 156-60-5 | Trans-1,2-Dichloroethene | 5 u |
| 67-66-3 | Chloroform | 5 u |
| 107-06-2 | 1,2-Dichloroethane | 5 u |
| 78-93-3 | 2-butanone | 22 T |
| 71-55-6 | 1,1,1-Trichloroethane | 5 u |
| 56-23-5 | Carbon Tetrachloride | 5 u |
| 108-05-4 | Vinyl Acetate | 11 u |
| 75-27-4 | Bromodichloromethane | 5 u |

| CAS Number | | ug/Kg |
|---|---|---|
| 78-87-5 | 1,2-Dichloropropane | 5 u |
| 10061-02-6 | Trans-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 |
| 10061-01-5 | cis-1,3-Dichloropropene | 5 u |
| 110-75-8 | 2-chloroethylvinylether | 11 u |
| 75-25-2 | Bromoform | 5 u |
| 108-10-1 | 4-Methyl-2-Pentanone | 88 |
| 591-78-6 | 2-Hexanone | 50 T |
| 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 |
| | Total Xylenes | 58 |

Data Reporting Qualifiers

Value If the result is a value greater than or equal to the detection limit, report the value.

u Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response factor is assumed, or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero. (e.g. 10J)

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

T Spectrum does not meet criteria for confirmation but does indicate compound presence.

HA Compound present in both matrix spike standard and unspiked sample.

Versar Inc., Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

| SAMPLE ID |
|---|
| SR35 |

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

| | CAS Number | Compound Name | Fraction | RT or Scan | Estimated Concentration (ug/Kg or ug/l) |
|---|---|---|---|---|---|
| 11. | | UNKNOWN | VOA | 430 | 5 J |
| 12. | 3377-86-4 | HEXANE, 2-BROMO | VOA | 508 | 21 J |
| 13. | | | | | |
| 14. | | | | | |
| 15. | | | | | |
| 16. | | | | | |
| 17. | | | | | |
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| 19. | | | | | |
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| 128. | | | | | |
| 129. | | | | | |
| 130. | | | | | |

Versar Inc. Laboratory Operations
6850 Versar Center, Springfield Va. 22151
(703) 750-3000

| Sample Number |
| --- |
| 40918 |

ORGANICS ANALYSIS DATA SHEET
(Page 3)

FIELD # SO 26

Pesticides/PCBs

Concentration: Low Medium (circle one)

GPC Cleanup [ ] Yes [X] No

Date Extracted/Prepared: 11-04-87

Separatory Funnel Extration [ ] Yes

Date Analyzed: 11-21-87

Continuous Liquid-Liquid Extraction [ ] Yes [X] No

Conc/Dil Factor 1.00

Percent Moisture(decanted) 9.02

| CAS Number | | ug/kg |
| --- | --- | --- |
| 319-84-6 | alpha-BHC | 0.7 u |
| 319-85-7 | beta-BHC | 0.7 u |
| 319-86-8 | delta-BHC | 0.7 u |
| 58-89-9 | gamma-BHC (Lindane) | 0.7 u |
| 76-44-8 | Heptachlor | 0.7 u |
| 309-00-2 | Aldrin | 0.7 u |
| 1024-57-3 | Heptachlor Epoxide | 0.7 u |
| 959-98-8 | Endosulfan I | 0.7 u |
| 60-57-1 | Dieldrin | 1.5 u |
| 72-55-9 | 4,4'-DDE | 1.5 u |
| 72-20-8 | Endrin | 1.5 u |
| 33213-65-9 | Endosulfan II | 1.5 u |
| 72-54-8 | 4,4'-DDD | 1.5 u |
| 1031-07-8 | Endosulfan Sulfate | 1.5 u |
| 50-29-3 | 4,4'-DDT | 1.5 u |
| 72-43-5 | Methoxychlor | 1.5 u |
| 53494-70-5 | Endrin Ketone | 1.5 u |
| 57-74-9 | Chlordane | 7.3 u |
| 8001-35-2 | Toxaphene | 15 u |
| 12674-11-2 | Aroclor-1016 | 7.3 u |
| 11104-28-2 | Aroclor-1221 | 7.3 u |
| 11141-16-5 | Aroclor-1232 | 7.3 u |
| 53469-21-9 | Aroclor-1242 | 7.3 u |
| 12672-29-6 | Aroclor-1248 | 7.3 u |
| 11097-69-1 | Aroclor-1254 | 190 |
| 11096-82-5 | Aroclor-1260 | 15 u |

Vi = Volume of extract injected (ul)
Vs = Volume of Water Extracted (ml)
Ws = Weight of sample extracted (g)
Vt = Volume of total extract (ul)

Judy Kelle
11-24-87

Vs ____ or Ws 30.19 Vt 4000 Vi 2.00

Versar, Inc. Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

| Sample Number |
|---|
| S027 |

ORGANICS ANALYSIS DATA SHEET (Page 1)

Laboratory Name: VERSAR
Lab Sample ID No: 40923
Sample Matrix: SOIL
Data Release Authorized By:

Case No: 4600 BW272
QC Report No: 4600 BW272
Contract No:
Date Sample Received: 10/28/87

VOLATILE COMPOUNDS

Concentration: MID
Date Extracted/Prepared: 10/28/87
Date Analyzed: 10/28/87
Conc/Dil Factor: 250 pH 5.0 NA
Percent Moisture: 14.07

| CAS Number | | ug/Kg | CAS Number | | ug/Kg |
|---|---|---|---|---|---|
| 74-87-3 | Chloromethane | 2900 u | 78-87-5 | 1,2-Dichloropropane | 1500 u |
| 74-83-9 | Bromomethane | 2900 u | 10061-02-6 | Trans-1,3-Dichloropropene | 1500 u |
| 75-01-4 | Vinyl Chloride | 2900 u | 79-01-6 | Trichloroethene | 1500 u |
| 75-00-3 | Chloroethane | 2900 u | 124-48-1 | Dibromochloromethane | 1500 u |
| 75-09-2 | Methylene Chloride | 1500 u | 79-00-5 | 1,1,2-Trichloroethane | 1500 u |
| 67-64-1 | Acetone | 1900 | 71-43-2 | Benzene | 1500 u |
| 75-15-0 | Carbon Disulfide | 1500 u | 10061-01-5 | cis-1,3-Dichloropropene | 1500 u |
| 75-35-4 | 1,1-Dichloroethene | 1500 u | 110-75-8 | 2-chloroethylvinylether | 2900 u |
| 75-34-3 | 1,1-Dichloroethane | 1500 u | 75-25-2 | Bromoform | 1500 u |
| 156-60-5 | Trans-1,2-Dichloroethene | 1500 u | 108-10-1 | 4-Methyl-2-Pentanone | 6300 |
| 67-66-3 | Chloroform | 1500 u | 591-78-6 | 2-Hexanone | 59000 |
| 107-06-2 | 1,2-Dichloroethane | 1500 u | 127-18-4 | Tetrachloroethene | 1500 u |
| 78-93-3 | 2-butanone | 5000 | 79-34-5 | 1,1,2,2-Tetrachloroethane | 1500 u |
| 71-55-6 | 1,1,1-Trichloroethane | 1500 u | 108-88-3 | Toluene | 58000 |
| 56-23-5 | Carbon Tetrachloride | 1500 u | 108-90-7 | Chlorobenzene | 1500 u |
| 108-05-4 | Vinyl Acetate | 2900 u | 100-41-4 | Ethylbenzene | 4300 |
| 75-27-4 | Bromodichloromethane | 1500 u | 100-42-5 | Styrene | 1500 u |
| | | | | Total Xylenes | 20000 |

Data Reporting Qualifiers

Value If the result is a value greater than or equal to the detection limit, report the value.

u Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response factor is assumed, or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero. (e.g. 10J)

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

T Spectrum does not meet criteria for confirmation but does indicate compound presence.

NA Compound present in both matrix spike standard and unspiked sample.

Form I

Versar Inc., Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

| SAMPLE ID |
|---|
| 19027 |

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

| CAS Number | Compound Name | Fraction | RT or Scan | Estimated Concentration (ug/Kg or ug/l) |
|---|---|---|---|---|
| 11..2415-72-7... | CYCLOPROPANE, PROPYL | VOA | 343 | 100 J... |
| 12... | UNKNOWN HYDROCARBON | VOA | 360 | 22 J... |
| 13..1638-26-2... | CYCLOPENTANE, 1,1-DIMETHYL | VOA | 395 | 440 J... |
| 14..592-76-7.... | 1-HEPTENE | VOA | 429 | 920 J... |
| 15... | UNKNOWN | VOA | 444 | 46 J... |
| 16..1640-89-7... | CYCLOPENTANE, ETHYL | VOA | 463 | 880 J... |
| 17... | UNKNOWN HYDROCARBON | VOA | 477 | 1,100 J... |
| 18... | UNKNOWN HYDROCARBON | VOA | 507 | 13,000 J... |
| 19... | UNKNOWN HYDROCARBON | VOA | 571 | 1,500 J... |
| 110.592-13-2.... | HEXANE, 2,5-DIMETHYL | VOA | 586 | 2,100 J... |
| 111... | UNKNOWN HYDROCARBON | VOA | 623 | 1,900 J... |
| 112... | | | | |
| 113... | | | | |
| 114... | | | | |
| 115... | | | | |
| 116... | | | | |
| 117... | | | | |
| 118... | | | | |
| 119... | | | | |
| 120... | | | | |
| 121... | | | | |
| 122... | | | | |
| 123... | | | | |
| 124... | | | | |
| 125... | | | | |
| 126... | | | | |
| 127... | | | | |
| 128... | | | | |
| 129... | | | | |
| 130... | | | | |

Versar Inc. Laboratory Operations
6850 Versar Center, Springfield Va. 22151
(703) 750-3000

| Sample Number |
| --- |
| 40919 |

FIELD # SO 27

ORGANICS ANALYSIS DATA SHEET
(Page 3)

Pesticides/PCBs

Concentration: Low Medium (circle one)

GPC Cleanup [ ] Yes [X] No

Date Extracted/Prepared: 11-04-87

Separatory Funnel Extration [ ] Yes

Date Analyzed: 11-21-87

Continuous Liquid-Liquid Extraction [ ] Yes [X] No

Conc/Dil Factor 10.00

Percent Moisture(decanted) 12.1

| CAS Number | | ug/kg |
| --- | --- | --- |
| 319-84-6 | alpha-BHC | 7.5 u |
| 319-85-7 | beta-BHC | 7.5 u |
| 319-86-8 | delta-BHC | 7.5 u |
| 58-89-9 | gamma-BHC (Lindane) | 7.5 u |
| 76-44-8 | Heptachlor | 7.5 u |
| 309-00-2 | Aldrin | 7.5 u |
| 1024-57-3 | Heptachlor Epoxide | 7.5 u |
| 959-98-8 | Endosulfan I | 7.5 u |
| 60-57-1 | Dieldrin | 15 u |
| 72-55-9 | 4,4'-DDE | 15 u |
| 72-20-8 | Endrin | 15 u |
| 33213-65-9 | Endosulfan II | 15 u |
| 72-54-8 | 4,4'-DDD | 15 u |
| 1031-07-8 | Endosulfan Sulfate | 15 u |
| 50-29-3 | 4,4'-DDT | 15 u |
| 72-43-5 | Methoxychlor | 15 u |
| 53494-70-5 | Endrin Ketone | 15 u |
| 57-74-9 | Chlordane | 75 u |
| 8001-35-2 | Toxaphene | 150 u |
| 12674-11-2 | Aroclor-1016 | 75 u |
| 11104-28-2 | Aroclor-1221 | 75 u |
| 11141-16-5 | Aroclor-1232 | 75 u |
| 53469-21-9 | Aroclor-1242 | 75 u |
| 12672-29-6 | Aroclor-1248 | 75 u |
| 11097-69-1 | Aroclor-1254 | 750 |
| 11096-82-5 | Aroclor-1260 | 150 u |

Vi = Volume of extract injected (ul)
Vs = Volume of Water Extracted (ml)
Ws = Weight of sample extracted (g)
Vt = Volume of total extract (ul)

Judy Hill
11-24-87

Vs _____ or Ws 30.15 Vt 40000 Vi 2.00

000010

Versar, Inc. Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

| Sample Number |
|---|
| S028 |

ORGANICS ANALYSIS DATA SHEET (Page 1)

Laboratory Name: VERSAR
Lab Sample ID No: 40924
Sample Matrix: SOIL
Data Release Authorized By:

Case No: 4600 BW272
QC Report No: 4600 BW272
Contract No:
Date Sample Received: 10/28/87

VOLATILE COMPOUNDS

Concentration: LOW
Date Extracted/Prepared: 10/28/87
Date Analyzed: 10/28/87
Conc/Dil Factor: 1 pH 4.4 NA
Percent Moisture: 14.36

| CAS Number | | ug/Kg | CAS Number | | ug/Kg |
|---|---|---|---|---|---|
| 74-87-3 | Chloromethane | 12 u | 78-87-5 | 1,2-Dichloropropane | 6 u |
| 74-83-9 | Bromomethane | 12 u | 10061-02-6 | Trans-1,3-Dichloropropene | 6 u |
| 75-01-4 | Vinyl Chloride | 12 u | 79-01-6 | Trichloroethene | 6 u |
| 75-00-3 | Chloroethane | 12 u | 124-48-1 | Dibromochloromethane | 6 u |
| 75-09-2 | Methylene Chloride | 14 | 79-00-5 | 1,1,2-Trichloroethane | 6 u |
| 67-64-1 | Acetone | 12 u | 71-43-2 | Benzene | 6 u |
| 75-15-0 | Carbon Disulfide | 6 u | 10061-01-5 | cis-1,3-Dichloropropene | 6 u |
| 75-35-4 | 1,1-Dichloroethene | 6 u | 110-75-8 | 2-chloroethylvinylether | 12 u |
| 75-34-3 | 1,1-Dichloroethane | 6 u | 75-25-2 | Bromoform | 6 u |
| 156-60-5 | Trans-1,2-Dichloroethene | 6 u | 108-10-1 | 4-Methyl-2-Pentanone | 12 u |
| 67-66-3 | Chloroform | 6 u | 591-78-6 | 2-Hexanone | 12 u |
| 107-06-2 | 1,2-Dichloroethane | 6 u | 127-18-4 | Tetrachloroethene | 6 u |
| 78-93-3 | 2-butanone | 12 u | 79-34-5 | 1,1,2,2-Tetrachloroethane | 6 u |
| 71-55-6 | 1,1,1-Trichloroethane | 6 u | 108-88-3 | Toluene | 60 |
| 56-23-5 | Carbon Tetrachloride | 6 u | 108-90-7 | Chlorobenzene | 6 u |
| 108-05-4 | Vinyl Acetate | 12 u | 100-41-4 | Ethylbenzene | 6 u |
| 75-27-4 | Bromodichloromethane | 6 u | 100-42-5 | Styrene | 6 u |
| | | | | Total Xylenes | 6 u |

Data Reporting Qualifiers

Value If the result is a value greater than or equal to the detection limit, report the value.

u Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response factor is assumed, or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero. (e.g. 10J)

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

T Spectrum does not meet criteria for confirmation but does indicate compound presence.

NA Compound present in both matrix spike standard and unspiked sample.

Form I

Versar Inc., Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

| SAMPLE ID |
|---|
| S028 |

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

| | CAS Number | Compound Name | Fraction | RT or Scan | Estimated Concentration (ug/Kg or ug/l) |
|---|---|---|---|---|---|
| 11. | | NO VOLATILES DETECTED | VOA | NA | NA |
| 12. | | | | | |
| 13. | | | | | |
| 14. | | | | | |
| 15. | | | | | |
| 16. | | | | | |
| 17. | | | | | |
| 18. | | | | | |
| 19. | | | | | |
| 110. | | | | | |
| 111. | | | | | |
| 112. | | | | | |
| 113. | | | | | |
| 114. | | | | | |
| 115. | | | | | |
| 116. | | | | | |
| 117. | | | | | |
| 118. | | | | | |
| 119. | | | | | |
| 120. | | | | | |
| 121. | | | | | |
| 122. | | | | | |
| 123. | | | | | |
| 124. | | | | | |
| 125. | | | | | |
| 126. | | | | | |
| 127. | | | | | |
| 128. | | | | | |
| 129. | | | | | |
| 130. | | | | | |

Versar, Inc. Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

| Sample Number |
|---|
| 5028-RE |

ORGANICS ANALYSIS DATA SHEET (Page 1)

Laboratory Name: VERSAR
Lab Sample ID No: 40924-RE
Sample Matrix: SOIL
Data Release Authorized By:

Case No: 4600 60272
QC Report No: 4600 60272
Contract No:
Date Sample Received: 10/28/87

VOLATILE COMPOUNDS

Concentration: LOW
Date Extracted/Prepared: 10/28/87
Date Analyzed: 10/28/87
Conc/Dil Factor: 1 pH 4.4 NA
Percent Moisture: 14.36

| CAS Number | | ug/Kg | CAS Number | | ug/Kg |
|---|---|---|---|---|---|
| 74-87-3 | Chloromethane | 12 u | 78-87-5 | 1,2-Dichloropropane | 6 u |
| 74-83-9 | Bromomethane | 12 u | 10061-02-6 | Trans-1,3-Dichloropropene | 6 u |
| 75-01-4 | Vinyl Chloride | 12 u | 79-01-6 | Trichloroethene | 6 u |
| 75-00-3 | Chloroethane | 12 u | 124-48-1 | Dibromochloromethane | 6 u |
| 75-09-2 | Methylene Chloride | 10 | 79-00-5 | 1,1,2-Trichloroethane | 6 u |
| 67-64-1 | Acetone | 12 u | 71-43-2 | Benzene | 6 u |
| 75-15-0 | Carbon Disulfide | 6 u | 10061-01-5 | cis-1,3-Dichloropropene | 6 u |
| 75-35-4 | 1,1-Dichloroethene | 6 u | 110-75-8 | 2-chloroethylvinylether | 12 u |
| 75-34-3 | 1,1-Dichloroethane | 6 u | 75-25-2 | Bromoform | 6 u |
| 156-60-5 | Trans-1,2-Dichloroethene | 6 u | 108-10-1 | 4-Methyl-2-Pentanone | 12 u |
| 67-66-3 | Chloroform | 6 u | 591-78-6 | 2-Hexanone | 12 u |
| 107-06-2 | 1,2-Dichloroethane | 6 u | 127-18-4 | Tetrachloroethene | 6 u |
| 78-93-3 | 2-butanone | 12 u | 79-34-5 | 1,1,2,2-Tetrachloroethane | 6 u |
| 71-55-6 | 1,1,1-Trichloroethane | 6 u | 108-88-3 | Toluene | 30 |
| 56-23-5 | Carbon Tetrachloride | 6 u | 108-90-7 | Chlorobenzene | 6 u |
| 108-05-4 | Vinyl Acetate | 12 u | 100-41-4 | Ethylbenzene | 6 u |
| 75-27-4 | Bromodichloromethane | 6 u | 100-42-5 | Styrene | 6 u |
| | | | | Total Xylenes | 6 u |

Data Reporting Qualifiers

Value If the result is a value greater than or equal to the detection limit, report the value.

u Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response factor is assumed, or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero. (e.g. 10J)

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

T Spectrum does not meet criteria for confirmation but does indicate compound presence.

NA Compound present in both matrix spike standard and unspiked sample.

Form I

Versar Inc., Laboratory Operations
6850 Versar Center, Springfield VA 22151 .(703) 750-3000

| SAMPLE ID |
|---|
| S022-RE |

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

| | CAS Number | Compound Name | Fraction | RT or Scan | Estimated Concentration (ug/Kg or ug/l) |
|---|---|---|---|---|---|
| 11. | | NO VOLATILES DETECTED | VOA | NA | NA |
| 12. | | | | | |
| 13. | | | | | |
| 14. | | | | | |
| 15. | | | | | |
| 16. | | | | | |
| 17. | | | | | |
| 18. | | | | | |
| 19. | | | | | |
| 110. | | | | | |
| 111. | | | | | |
| 112. | | | | | |
| 113. | | | | | |
| 114. | | | | | |
| 115. | | | | | |
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| 117. | | | | | |
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| 119. | | | | | |
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| 121. | | | | | |
| 122. | | | | | |
| 123. | | | | | |
| 124. | | | | | |
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| 127. | | | | | |
| 128. | | | | | |
| 129. | | | | | |
| 130. | | | | | |

Versar Inc. Laboratory Operations
6850 Versar Center, Springfield Va. 22151
(703) 750-3000

ORGANICS ANALYSIS DATA SHEET
(Page 2)

| Sample Number |
|---|
| 40920 |

FIELD # SO 28

Pesticides/PCBs

Concentration: Low Medium (circle one)

GPC Cleanup [ ] Yes [X] No

Date Extracted/Prepared: 11-04-87

Separatory Funnel Extraction [ ] Yes

Date Analyzed: 11-20-87

Continuous Liquid-Liquid Extraction [ ] Yes [X] No

Conc/Dil Factor 10.00

Percent Moisture(decanted) 13.90

| CAS Number | | ug/kg |
|---|---|---|
| 319-84-6 | alpha-BHC | 7.7 u |
| 319-85-7 | beta-BHC | 7.7 u |
| 319-86-8 | delta-BHC | 7.7 u |
| 58-89-9 | gamma-BHC (Lindane) | 7.7 u |
| 76-44-8 | Heptachlor | 7.7 u |
| 309-00-2 | Aldrin | 7.7 u |
| 1024-57-3 | Heptachlor Epoxide | 7.7 u |
| 959-98-8 | Endosulfan I | 7.7 u |
| 60-57-1 | Dieldrin | 15 u |
| 72-55-9 | 4,4'-DDE | 15 u |
| 72-20-8 | Endrin | 15 u |
| 33213-65-9 | Endosulfan II | 15 u |
| 72-54-8 | 4,4'-DDD | 15 u |
| 1031-07-8 | Endosulfan Sulfate | 15 u |
| 50-29-3 | 4,4'-DDT | 15 u |
| 72-43-5 | Methoxychlor | 15 u |
| 53494-70-5 | Endrin Ketone | 15 u |
| 57-74-9 | Chlordane | 77 u |
| 8001-35-2 | Toxaphene | 150 u |
| 12674-11-2 | Aroclor-1016 | 77 u |
| 11104-28-2 | Aroclor-1221 | 77 u |
| 11141-16-5 | Aroclor-1232 | 77 u |
| 53469-21-9 | Aroclor-1242 | 77 u |
| 12672-29-6 | Aroclor-1248 | 77 u |
| 11097-69-1 | Aroclor-1254 | 150 u |
| 11096-82-5 | Aroclor-1260 | 150 u |

Vi = Volume of extract injected (ul)
Vs = Volume of Water Extracted (ml)
Ws = Weight of sample extracted (g)
Vt = Volume of total extract (ul)

Judy Hill 11-24-87

Vs ____ or Ws 30.17 Vt 40000 Vi 2.00

Versar, Inc. Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

| Sample Number |
|---|
| S029 |

ORGANICS ANALYSIS DATA SHEET (Page 1)

Laboratory Name: VERSAR
Lab Sample ID No: 40925
Sample Matrix: SOIL
Data Release Authorized By:

Case No: 4600 BM272
QC Report No: 4600 BM272
Contract No:
Date Sample Received: 10/28/87

VOLATILE COMPOUNDS

Concentration: LOW
Date Extracted/Prepared: 10/28/87
Date Analyzed: 10/28/87
Conc/Dil Factor: 1 pH 5.0 NA
Percent Moisture: 17.58

| CAS Number | | ug/Kg | CAS Number | | ug/Kg |
|---|---|---|---|---|---|
| 74-87-3 | Chloromethane | 12 u | 78-87-5 | 1,2-Dichloropropane | 6 u |
| 74-83-9 | Bromomethane | 12 u | 10061-02-6 | Trans-1,3-Dichloropropene | 6 u |
| 75-01-4 | Vinyl Chloride | 12 u | 79-01-6 | Trichloroethene | 6 u |
| 75-00-3 | Chloroethane | 12 u | 124-48-1 | Dibromochloromethane | 6 u |
| 75-09-2 | Methylene Chloride | 6 u | 79-00-5 | 1,1,2-Trichloroethane | 6 u |
| 67-64-1 | Acetone | 57 | 71-43-2 | Benzene | 6 u |
| 75-15-0 | Carbon Disulfide | 6 u | 10061-01-5 | cis-1,3-Dichloropropene | 6 u |
| 75-35-4 | 1,1-Dichloroethene | 6 u | 110-75-8 | 2-chloroethylvinylether | 12 u |
| 75-34-3 | 1,1-Dichloroethane | 6 u | 75-25-2 | Bromoform | 6 u |
| 156-60-5 | Trans-1,2-Dichloroethene | 6 u | 108-10-1 | 4-Methyl-2-Pentanone | 12 u |
| 67-66-3 | Chloroform | 6 u | 591-78-6 | 2-Hexanone | 12 u |
| 107-06-2 | 1,2-Dichloroethane | 6 u | 127-18-4 | Tetrachloroethene | 6 u |
| 78-93-3 | 2-butanone | 12 u | 79-34-5 | 1,1,2,2-Tetrachloroethane | 6 u |
| 71-55-6 | 1,1,1-Trichloroethane | 6 u | 108-88-3 | Toluene | 10 |
| 56-23-5 | Carbon Tetrachloride | 6 u | 108-90-7 | Chlorobenzene | 6 u |
| 108-05-4 | Vinyl Acetate | 12 u | 100-41-4 | Ethylbenzene | 8 |
| 75-27-4 | Bromodichloromethane | 6 u | 100-42-5 | Styrene | 6 u |
| | | | | Total Xylenes | 120 |

Data Reporting Qualifiers

Value If the result is a value greater than or equal to the detection limit, report the value.

u Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response factor is assumed, or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero. (e.g. 10J)

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

T Spectrum does not meet criteria for confirmation but does indicate compound presence.

NA Compound present in both matrix spike standard and unspiked sample.

Form I

Versar Inc., Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

| SAMPLE ID |
|---|
| 19029 |

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

| | CAS Number | Compound Name | Fraction | RT or Scan | Estimated Concentration (ug/Kg or ug/l) |
|---|---|---|---|---|---|
| 11. | 3779-61-1 | 1,3,6-OCTATRIENE, 3,7-DIMETHYL | VOA | 587 | 4 J |
| 12. | | UNKNOWN | VOA | 812 | 4 J |
| 13. | | | | | |
| 14. | | | | | |
| 15. | | | | | |
| 16. | | | | | |
| 17. | | | | | |
| 18. | | | | | |
| 19. | | | | | |
| 110. | | | | | |
| 111. | | | | | |
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| 120. | | | | | |
| 121. | | | | | |
| 122. | | | | | |
| 123. | | | | | |
| 124. | | | | | |
| 125. | | | | | |
| 126. | | | | | |
| 127. | | | | | |
| 128. | | | | | |
| 129. | | | | | |
| 130. | | | | | |

Versar Inc. Laboratory Operations
6850 Versar Center, Springfield Va. 22151
(703) 750-3000

| Sample Number |
|---|
| 40921 |

ORGANICS ANALYSIS DATA SHEET
(Page 3)

FIELD # SO 29

Pesticides/PCBs

Concentration: Low Medium (circle one)

GPC Cleanup [ ] Yes [X] No

Date Extracted/Prepared: 11-04-87

Separatory Funnel Extration [ ] Yes

Date Analyzed: 11-21-87

Continuous Liquid-Liquid Extraction [ ] Yes [X] No

Conc/Dil Factor 10.00

Percent Moisture(decanted) 9.46

| CAS Number | | ug/kg |
|---|---|---|
| 319-84-6 | alpha-BHC | 7.3 u |
| 319-85-7 | beta-BHC | 7.3 u |
| 319-86-8 | delta-BHC | 7.3 u |
| 58-89-9 | gamma-BHC (Lindane) | 7.3 u |
| 76-44-8 | Heptachlor | 7.3 u |
| 309-00-2 | Aldrin | 7.3 u |
| 1024-57-3 | Heptachlor Epoxide | 7.3 u |
| 959-98-8 | Endosulfan I | 7.3 u |
| 60-57-1 | Dieldrin | 15 u |
| 72-55-9 | 4,4'-DDE | 15 u |
| 72-20-8 | Endrin | 15 u |
| 33213-65-9 | Endosulfan II | 15 u |
| 72-54-8 | 4,4'-DDD | 15 u |
| 1031-07-8 | Endosulfan Sulfate | 15 u |
| 50-29-3 | 4,4'-DDT | 15 u |
| 72-43-5 | Methoxychlor | 15 u |
| 53494-70-5 | Endrin Ketone | 15 u |
| 57-74-9 | Chlordane | 73 u |
| 8001-35-2 | Toxaphene | 150 u |
| 12674-11-2 | Aroclor-1016 | 73 u |
| 11104-28-2 | Aroclor-1221 | 73 u |
| 11141-16-5 | Aroclor-1232 | 73 u |
| 53469-21-9 | Aroclor-1242 | 73 u |
| 12672-29-6 | Aroclor-1248 | 73 u |
| 11097-69-1 | Aroclor-1254 | 150 u |
| 11096-82-5 | Aroclor-1260 | 350 |

Vi = Volume of extract injected (ul)
Vs = Volume of Water Extracted (ml)
Ws = Weight of sample extracted (g)
Vt = Volume of total extract (ul)

Vs _____ or Ws 30.21 Vt 40000 Vi 2.00

11-24-87

000018

Versar, Inc. Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

| Sample Number |
|---|
| 90-38 |

ORGANICS ANALYSIS DATA SHEET (Page 1)

Laboratory Name: VERSAR
Lab Sample ID No: 42196
Sample Matrix: SOIL
Data Release Authorized By:

Case No: 4600 BW292
QC Report No: 4600 BW292
Contract No:
Date Sample Received: 11/24/87

VOLATILE COMPOUNDS

Concentration: LOW
Date Extracted/Prepared: 11/25/87
Date Analyzed: 11/25/87
Conc/Dil Factor: 1 pH NA
Percent Moisture: 30.68

| CAS Number | | ug/Kg |
|---|---|---|
| 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 |
| 156-60-5 | Trans-1,2-Dichloroethene | 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 |

| CAS Number | | ug/Kg |
|---|---|---|
| 78-87-5 | 1,2-Dichloropropane | 7 u |
| 10061-02-6 | Trans-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 |
| 10061-01-5 | cis-1,3-Dichloropropene | 7 u |
| 110-75-8 | 2-chloroethylvinylether | 14 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 |
| | Total Xylenes | 7 u |

Data Reporting Qualifiers

Value If the result is a value greater than or equal to the detection limit, report the value.

u Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response factor is assumed, or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero. (e.g. 10J)

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

T Spectrum does not meet criteria for confirmation but does indicate compound presence.

NA Compound present in both matrix spike standard and unspiked sample.

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE

SO-38

Lab Name: VERSAR ESMO Contract: _____

Lab Code: VERESM Case No.: TBLF SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 1130-007

Sample wt/vol: 30.0 (g/mL) G Lab File ID: _____

Level: (low/med) LOW Date Received: 11/30/87

% Moisture: not dec. 30 dec. ____ Date Extracted: 12/01/87

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/24/87

GPC Cleanup: (Y/N) N pH: 5.4 Dilution Factor: 1.000

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG | Q |
|---|---|---|---|
| 319-84-6 | alpha-BHC | 11 | U |
| 319-85-7 | beta-BHC | 11 | U |
| 319-86-8 | delta-BHC | 11 | U |
| 58-89-9 | gamma-BHC (Lindane) | 11 | U |
| 76-44-8 | Heptachlor | 11 | U |
| 309-00-2 | Aldrin | 11 | U |
| 1024-57-3 | Heptachlor epoxide | 11 | U |
| 959-98-8 | Endosulfan I | 11 | U |
| 60-57-1 | Dieldrin | 23 | U |
| 72-55-9 | 4,4'-DDE | 23 | U |
| 72-20-8 | Endrin | 23 | U |
| 33213-65-9 | Endosulfan II | 23 | U |
| 72-54-8 | 4,4'-DDD | 23 | U |
| 1031-07-8 | Endosulfan sulfate | 23 | U |
| 50-29-3 | 4,4'-DDT | 23 | U |
| 72-43-5 | Methoxychlor | 110 | U |
| 53494-70-5 | Endrin ketone | 23 | U |
| 5103-71-9 | alpha-Chlordane | 110 | U |
| 5103-74-2 | gamma-Chlordane | 110 | U |
| 8001-35-2 | Toxaphene | 230 | U |
| 12674-11-2 | Aroclor-1016 | 110 | U |
| 11104-28-2 | Aroclor-1221 | 110 | U |
| 11141-16-5 | Aroclor-1232 | 110 | U |
| 53469-21-9 | Aroclor-1242 | 110 | U |
| 12672-29-6 | Aroclor-1248 | 110 | U |
| 11097-69-1 | Aroclor-1254 | 230 | U |
| 11096-82-5 | Aroclor-1260 | 230 | U |

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| Sample Number |
|---|
| SO-39 |

ORGANICS ANALYSIS DATA SHEET (Page 1)

Laboratory Name: VERSAR
Lab Sample ID No: 42197
Sample Matrix: SOIL
Data Release Authorized By:

Case No: 4600 B#232
QC Report No: 4600 B#232
Contract No:
Date Sample Received: 11/24/87

VOLATILE COMPOUNDS

Concentration: MID
Date Extracted/Prepared: 11/28/87
Date Analyzed: 11/28/87
Conc/Dil Factor: 1000 pH: NA
Percent Moisture: 18.77

| CAS Number | | ug/Kg | CAS Number | | ug/Kg |
|---|---|---|---|---|---|
| 74-87-3 | Chloromethane | 12000 u | 78-87-5 | 1,2-Dichloropropane | 6200 u |
| 74-83-9 | Bromomethane | 12000 u | 10061-02-6 | Trans-1,3-Dichloropropene | 6200 u |
| 75-01-4 | Vinyl Chloride | 12000 u | 79-01-6 | Trichloroethene | 6200 u |
| 75-00-3 | Chloroethane | 12000 u | 124-48-1 | Dibromochloromethane | 6200 u |
| 75-09-2 | Methylene Chloride | 4900 JB | 79-00-5 | 1,1,2-Trichloroethane | 6200 u |
| 67-64-1 | Acetone | 12000 u | 71-43-2 | Benzene | 6200 u |
| 75-15-0 | Carbon Disulfide | 6200 u | 10061-01-5 | cis-1,3-Dichloropropene | 6200 u |
| 75-35-4 | 1,1-Dichloroethene | 6200 u | 110-75-8 | 2-chloroethylvinylether | 12000 u |
| 75-34-3 | 1,1-Dichloroethane | 6200 u | 75-25-2 | Bromoform | 6200 u |
| 156-60-5 | Trans-1,2-Dichloroethene | 6200 u | 108-10-1 | 4-Methyl-2-Pentanone | 12000 u |
| 67-66-3 | Chloroform | 6200 u | 591-78-6 | 2-Hexanone | 12000 u |
| 107-06-2 | 1,2-Dichloroethane | 6200 u | 127-18-4 | Tetrachloroethene | 6200 u |
| 78-93-3 | 2-butanone | 12000 u | 79-34-5 | 1,1,2,2-Tetrachloroethane | 6200 u |
| 71-55-6 | 1,1,1-Trichloroethane | 6200 u | 108-88-3 | Toluene | 71000 |
| 56-23-5 | Carbon Tetrachloride | 6200 u | 108-90-7 | Chlorobenzene | 6200 u |
| 108-05-4 | Vinyl Acetate | 12000 u | 100-41-4 | Ethylbenzene | 9500 |
| 75-27-4 | Bromodichloromethane | 6200 u | 100-42-5 | Styrene | 41000 |
| | | | | Total Xylenes | 59000 |

Data Reporting Qualifiers

Value If the result is a value greater than or equal to the detection limit, report the value.

u Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response factor is assumed, or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero. (e.g. 10J)

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

T Spectrum does not meet criteria for confirmation but does indicate compound presence.

NA Compound present in both matrix spike standard and unspiked sample.

Versar, Inc. Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

| Sample Number |
|---|
| 50-39 RE |

ORGANICS ANALYSIS DATA SHEET (Page 1)

Laboratory Name: VERSAR
Lab Sample ID No: 42197 RE
Sample Matrix: SOIL
Data Release Authorized By:

Case No: 4600 B#292
QC Report No: 4600 B#292
Contract No:
Date Sample Received: 11/24/87

VOLATILE COMPOUNDS

Concentration: MID
Date Extracted/Prepared: 11/30/87
Date Analyzed: 11/30/87
Conc/Dil Factor: 1000 pH NA
Percent Moisture: 18.77

| CAS Number | | ug/Kg |
|---|---|---|
| 74-87-3 | Chloromethane | 12000 u |
| 74-83-9 | Bromomethane | 12000 u |
| 75-01-4 | Vinyl Chloride | 12000 u |
| 75-00-3 | Chloroethane | 12000 u |
| 75-09-2 | Methylene Chloride | 2700 J |
| 67-64-1 | Acetone | 12000 u |
| 75-15-0 | Carbon Disulfide | 6200 u |
| 75-35-4 | 1,1-Dichloroethene | 6200 u |
| 75-34-3 | 1,1-Dichloroethane | 6200 u |
| 156-60-5 | Trans-1,2-Dichloroethene | 6200 u |
| 67-66-3 | Chloroform | 6200 u |
| 107-06-2 | 1,2-Dichloroethane | 6200 u |
| 78-93-3 | 2-butanone | 12000 u |
| 71-55-6 | 1,1,1-Trichloroethane | 6200 u |
| 56-23-5 | Carbon Tetrachloride | 6200 u |
| 108-05-4 | Vinyl Acetate | 12000 u |
| 75-27-4 | Bromodichloromethane | 6200 u |

| CAS Number | | ug/Kg |
|---|---|---|
| 78-87-5 | 1,2-Dichloropropane | 6200 u |
| 10061-02-6 | Trans-1,3-Dichloropropene | 6200 u |
| 79-01-6 | Trichloroethene | 6200 u |
| 124-48-1 | Dibromochloromethane | 6200 u |
| 79-00-5 | 1,1,2-Trichloroethane | 6200 u |
| 71-43-2 | Benzene | 6200 u |
| 10061-01-5 | cis-1,3-Dichloropropene | 6200 u |
| 110-75-8 | 2-chloroethylvinylether | 12000 u |
| 75-25-2 | Bromoform | 6200 u |
| 108-10-1 | 4-Methyl-2-Pentanone | 12000 u |
| 591-78-6 | 2-Hexanone | 12000 u |
| 127-18-4 | Tetrachloroethene | 6200 u |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 6200 u |
| 108-88-3 | Toluene | 76000 |
| 108-90-7 | Chlorobenzene | 6200 u |
| 100-41-4 | Ethylbenzene | 11000 |
| 100-42-5 | Styrene | 42000 |
| | Total Xylenes | 30000 |

Data Reporting Qualifiers

Value If the result is a value greater than or equal to the detection limit, report the value.

u Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response factor is assumed, or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero. (e.g. 10J)

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

T Spectrum does not meet criteria for confirmation but does indicate compound presence.

NA Compound present in both matrix spike standard and unspiked sample.

Form I

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE

SO-39

Lab Name: VERSAR ESMO Contract: _____

Lab Code: VERESM Case No.: TBLE SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 1130-008

Sample wt/vol: 30.0 (g/mL) G Lab File ID: _____

Level: (low/med) LOW Date Received: 11/30/87

% Moisture: not dec. 18 dec. ____ Date Extracted: 12/01/87

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/24/87

GPC Cleanup: (Y/N) N pH: 6.1 Dilution Factor: 2.50

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG | Q |
|---|---|---|---|
| 319-84-6 | alpha-BHC | 24 | U |
| 319-85-7 | beta-BHC | 24 | U |
| 319-86-8 | delta-BHC | 24 | U |
| 58-89-9 | gamma-BHC (Lindane) | 24 | U |
| 76-44-8 | Heptachlor | 24 | U |
| 309-00-2 | Aldrin | 24 | U |
| 1024-57-3 | Heptachlor epoxide | 24 | U |
| 959-98-8 | Endosulfan I | 24 | U |
| 60-57-1 | Dieldrin | 49 | U |
| 72-55-9 | 4,4'-DDE | 49 | U |
| 72-20-8 | Endrin | 49 | U |
| 33213-65-9 | Endosulfan II | 49 | U |
| 72-54-8 | 4,4'-DDD | 49 | U |
| 1031-07-8 | Endosulfan sulfate | 49 | U |
| 50-29-3 | 4,4'-DDT | 49 | U |
| 72-43-5 | Methoxychlor | 240 | U |
| 53494-70-5 | Endrin ketone | 49 | U |
| 5103-71-9 | alpha-Chlordane | 240 | U |
| 5103-74-2 | gamma-Chlordane | 240 | U |
| 8001-35-2 | Toxaphene | 490 | U |
| 12674-11-2 | Aroclor-1016 | 240 | U |
| 11104-28-2 | Aroclor-1221 | 240 | U |
| 11141-16-5 | Aroclor-1232 | 240 | U |
| 53469-21-9 | Aroclor-1242 | 240 | U |
| 12672-29-6 | Aroclor-1248 | 240 | U |
| 11097-69-1 | Aroclor-1254 | 880 | |
| 11096-82-5 | Aroclor-1260 | 490 | U |

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| Sample Number |
|---|
| SO-40 |

ORGANICS ANALYSIS DATA SHEET (Page 1)

Laboratory Name: VERSAR
Lab Sample ID No: 42198
Sample Matrix: SOIL
Data Release Authorized By:

Case No: 4600 B4292
QC Report No: 4600 B4292
Contract No:
Date Sample Received: 11/24/87

VOLATILE COMPOUNDS

Concentration: LOW
Date Extracted/Prepared: 11/28/87
Date Analyzed: 11/28/87
Conc/Dil Factor: 1 pH NA
Percent Moisture: 12.38

| CAS Number | | ug/Kg |
|---|---|---|
| 74-87-3 | Chloromethane | 11 u |
| 74-83-9 | Bromomethane | 11 u |
| 75-01-4 | Vinyl Chloride | 11 u |
| 75-00-3 | Chloroethane | 11 u |
| 75-09-2 | Methylene Chloride | 8 B |
| 67-64-1 | Acetone | 14 |
| 75-15-0 | Carbon Disulfide | 6 u |
| 75-35-4 | 1,1-Dichloroethene | 6 u |
| 75-34-3 | 1,1-Dichloroethane | 6 u |
| 156-60-5 | Trans-1,2-Dichloroethene | 6 u |
| 67-66-3 | Chloroform | 6 u |
| 107-06-2 | 1,2-Dichloroethane | 6 u |
| 78-93-3 | 2-butanone | 11 u |
| 71-55-6 | 1,1,1-Trichloroethane | 6 u |
| 56-23-5 | Carbon Tetrachloride | 6 u |
| 108-05-4 | Vinyl Acetate | 11 u |
| 75-27-4 | Bromodichloromethane | 6 u |

| CAS Number | | ug/Kg |
|---|---|---|
| 78-87-5 | 1,2-Dichloropropane | 6 u |
| 10061-02-6 | Trans-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 |
| 10061-01-5 | cis-1,3-Dichloropropene | 6 u |
| 110-75-8 | 2-chloroethylvinylether | 11 u |
| 75-25-2 | Bromoform | 6 u |
| 108-10-1 | 4-Methyl-2-Pentanone | 11 u |
| 591-78-6 | 2-Hexanone | 11 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 |
| | Total Xylenes | 6 u |

Data Reporting Qualifiers

Value If the result is a value greater than or equal to the detection limit, report the value.

u Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response factor is assumed, or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero. (e.g. 10J)

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

T Spectrum does not meet criteria for confirmation but does indicate compound presence.

NA Compound present in both matrix spike standard and unspiked sample.

Form I

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE

SO-40

Lab Name: VERSAR ESMO Contract: _____

Lab Code: VERESM Case No.: TBLF SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 1130-009

Sample wt/vol: 30.0 (g/mL) G Lab File ID: _____

Level: (low/med) LOW Date Received: 11/30/87

% Moisture: not dec. 12 dec. ____ Date Extracted: 12/01/87

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/24/87

GPC Cleanup: (Y/N) N pH: 5.8 Dilution Factor: 1.000

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG | Q |
|---|---|---|---|
| 319-84-6 | alpha-BHC | 9.1 | U |
| 319-85-7 | beta-BHC | 9.1 | U |
| 319-86-8 | delta-BHC | 9.1 | U |
| 58-89-9 | gamma-BHC (Lindane) | 9.1 | U |
| 76-44-8 | Heptachlor | 9.1 | U |
| 309-00-2 | Aldrin | 9.1 | U |
| 1024-57-3 | Heptachlor epoxide | 9.1 | U |
| 959-98-8 | Endosulfan I | 9.1 | U |
| 60-57-1 | Dieldrin | 18 | U |
| 72-55-9 | 4,4'-DDE | 18 | U |
| 72-20-8 | Endrin | 18 | U |
| 33213-65-9 | Endosulfan II | 18 | U |
| 72-54-8 | 4,4'-DDD | 18 | U |
| 1031-07-8 | Endosulfan sulfate | 18 | U |
| 50-29-3 | 4,4'-DDT | 18 | U |
| 72-43-5 | Methoxychlor | 91 | U |
| 53494-70-5 | Endrin ketone | 18 | U |
| 5103-71-9 | alpha-Chlordane | 91 | U |
| 5103-74-2 | gamma-Chlordane | 91 | U |
| 8001-35-2 | Toxaphene | 180 | U |
| 12674-11-2 | Aroclor-1016 | 91 | U |
| 11104-28-2 | Aroclor-1221 | 91 | U |
| 11141-16-5 | Aroclor-1232 | 91 | U |
| 53469-21-9 | Aroclor-1242 | 91 | U |
| 12672-29-6 | Aroclor-1248 | 91 | U |
| 11097-69-1 | Aroclor-1254 | 250 | |
| 11096-82-5 | Aroclor-1260 | 180 | U |

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| Sample Number |
|---|
| S0-41 |

ORGANICS ANALYSIS DATA SHEET (Page 1)

Laboratory Name: VERSAR
Lab Sample ID No: A2199
Sample Matrix: SOIL
Data Release Authorized By:

Case No: 4600 BW292
QC Report No: 4600 BW292
Contract No:
Date Sample Received: 11/24/87

VOLATILE COMPOUNDS

Concentration: MID
Date Extracted/Prepared: 11/28/87
Date Analyzed: 11/28/87
Conc/(Dil) Factor: 50 pH NA
Percent Moisture: 14.07

| CAS Number | | ug/Kg | | CAS Number | | ug/Kg | |
|---|---|---|---|---|---|---|---|
| 74-87-3 | Chloromethane | 580 u | | 78-87-5 | 1,2-Dichloropropane | 290 u | |
| 74-83-9 | Bromomethane | 580 u | | 10061-02-6 | Trans-1,3-Dichloropropene | 290 u | |
| 75-01-4 | Vinyl Chloride | 580 u | | 79-01-6 | Trichloroethene | 290 u | |
| 75-00-3 | Chloroethane | 580 u | | 124-48-1 | Dibromochloromethane | 290 u | |
| 75-09-2 | Methylene Chloride | 650 B | ✓ | 79-00-5 | 1,1,2-Trichloroethane | 290 u | |
| 67-64-1 | Acetone | 780 | ✓ | 71-43-2 | Benzene | 290 u | |
| 75-15-0 | Carbon Disulfide | 290 u | | 10061-01-5 | cis-1,3-Dichloropropene | 290 u | |
| 75-35-4 | 1,1-Dichloroethene | 290 u | | 110-75-8 | 2-chloroethylvinylether | 580 u | |
| 75-34-3 | 1,1-Dichloroethane | 290 u | | 75-25-2 | Bromoform | 290 u | |
| 156-60-5 | Trans-1,2-Dichloroethene | 290 u | | 108-10-1 | 4-Methyl-2-Pentanone | 580 u | |
| 67-66-3 | Chloroform | 290 u | | 591-78-6 | 2-Hexanone | 580 u | |
| 107-06-2 | 1,2-Dichloroethane | 290 u | | 127-18-4 | Tetrachloroethene | 290 u | |
| 78-93-3 | 2-butanone | 580 u | | 79-34-5 | 1,1,2,2-Tetrachloroethane | 290 u | |
| 71-55-6 | 1,1,1-Trichloroethane | 290 u | | 108-88-3 | Toluene | 2900 | ✓ |
| 56-23-5 | Carbon Tetrachloride | 290 u | | 108-90-7 | Chlorobenzene | 290 u | |
| 108-05-4 | Vinyl Acetate | 580 u | | 100-41-4 | Ethylbenzene | 460 | ✓ |
| 75-27-4 | Bromodichloromethane | 290 u | | 100-42-5 | Styrene | 290 u | |
| | | | | | Total Xylenes | 1800 | ✓ |

Data Reporting Qualifiers

Value If the result is a value greater than or equal to the detection limit, report the value.

u Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response factor is assumed, or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero. (e.g. 10J)

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

T Spectrum does not meet criteria for confirmation but does indicate compound presence.

NA Compound present in both matrix spike standard and unspiked sample.

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| Sample Number |
|---|
| S0-41 RE |

ORGANICS ANALYSIS DATA SHEET (Page 1)

Laboratory Name: VERSAR
Lab Sample ID No: 42199 RE
Sample Matrix: SOIL
Data Release Authorized By:

Case No: 4600 R#292
QC Report No: 4600 R#292
Contract No:
Date Sample Received: 11/24/87

VOLATILE COMPOUNDS

Concentration: MID
Date Extracted/Prepared: 11/30/87
Date Analyzed: 11/30/87
Conc/Dil Factor: 50 pH NA
Percent Moisture: 14.07

| CAS Number | | ug/Kg | CAS Number | | ug/Kg |
|---|---|---|---|---|---|
| 74-87-3 | Chloromethane | 580 u | 78-87-5 | 1,2-Dichloropropane | 290 u |
| 74-83-9 | Bromomethane | 580 u | 10061-02-6 | Trans-1,3-Dichloropropene | 290 u |
| 75-01-4 | Vinyl Chloride | 580 u | 79-01-6 | Trichloroethene | 290 u |
| 75-00-3 | Chloroethane | 580 u | 124-48-1 | Dibromochloromethane | 290 u |
| 75-09-2 | Methylene Chloride | 120 J | 79-00-5 | 1,1,2-Trichloroethane | 290 u |
| 67-64-1 | Acetone | 580 u | 71-43-2 | Benzene | 290 u |
| 75-15-0 | Carbon Disulfide | 290 u | 10061-01-5 | cis-1,3-Dichloropropene | 290 u |
| 75-35-4 | 1,1-Dichloroethene | 290 u | 110-75-8 | 2-chloroethylvinylether | 580 u |
| 75-34-3 | 1,1-Dichloroethane | 290 u | 75-25-2 | Bromoform | 290 u |
| 156-60-5 | Trans-1,2-Dichloroethene | 290 u | 108-10-1 | 4-Methyl-2-Pentanone | 580 u |
| 67-66-3 | Chloroform | 290 u | 591-78-6 | 2-Hexanone | 580 u |
| 107-06-2 | 1,2-Dichloroethane | 290 u | 127-18-4 | Tetrachloroethene | 290 u |
| 78-93-3 | 2-butanone | 580 u | 79-34-5 | 1,1,2,2-Tetrachloroethane | 290 u |
| 71-55-6 | 1,1,1-Trichloroethane | 290 u | 108-88-3 | Toluene | 3400 |
| 56-23-5 | Carbon Tetrachloride | 290 u | 108-90-7 | Chlorobenzene | 290 u |
| 108-05-4 | Vinyl Acetate | 580 u | 100-41-4 | Ethylbenzene | 560 |
| 75-27-4 | Bromodichloromethane | 290 u | 100-42-5 | Styrene | 290 u |
| | | | | Total Xylenes | 2000 |

Data Reporting Qualifiers

Value If the result is a value greater than or equal to the detection limit, report the value.

u Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response factor is assumed, or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero. (e.g. 10J)

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

T Spectrum does not meet criteria for confirmation but does indicate compound presence.

NA Compound present in both matrix spike standard and unspiked sample.

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE

SO-41

Lab Name: VERSAR ESMO Contract: _____

Lab Code: VERESM Case No.: TRLF SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 1130-010

Sample wt/vol: 30.0 (g/mL) G Lab File ID: _____

Level: (low/med) LOW Date Received: 11/30/87

% Moisture: not dec. 14 dec. ____ Date Extracted: 12/01/87

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/24/87

GPC Cleanup: (Y/N) N pH: 6.4 Dilution Factor: 1.000

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

| CAS NO. | COMPOUND | | Q |
|---|---|---|---|
| 319-84-6 | alpha-BHC | 9.3 | U |
| 319-85-7 | beta-BHC | 9.3 | U |
| 319-86-8 | delta-BHC | 9.3 | U |
| 58-89-9 | gamma-BHC (Lindane) | 9.3 | U |
| 76-44-8 | Heptachlor | 9.3 | U |
| 309-00-2 | Aldrin | 9.3 | U |
| 1024-57-3 | Heptachlor epoxide | 9.3 | U |
| 959-98-8 | Endosulfan I | 9.3 | U |
| 60-57-1 | Dieldrin | 19 | U |
| 72-55-9 | 4,4'-DDE | 19 | U |
| 72-20-8 | Endrin | 19 | U |
| 33213-65-9 | Endosulfan II | 19 | U |
| 72-54-8 | 4,4'-DDD | 19 | U |
| 1031-07-8 | Endosulfan sulfate | 19 | U |
| 50-29-3 | 4,4'-DDT | 19 | U |
| 72-43-5 | Methoxychlor | 93 | U |
| 53494-70-5 | Endrin ketone | 19 | U |
| 5103-71-9 | alpha-Chlordane | 93 | U |
| 5103-74-2 | gamma-Chlordane | 93 | U |
| 8001-35-2 | Toxaphene | 190 | U |
| 12674-11-2 | Aroclor-1016 | 93 | U |
| 11104-28-2 | Aroclor-1221 | 93 | U |
| 11141-16-5 | Aroclor-1232 | 93 | U |
| 53469-21-9 | Aroclor-1242 | 93 | U |
| 12672-29-6 | Aroclor-1248 | 93 | U |
| 11097-69-1 | Aroclor-1254 | 190 | U |
| 11096-82-5 | Aroclor-1260 | 190 | U |

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| Sample Number |
|---|
| S0-A2 |

ORGANICS ANALYSIS DATA SHEET (Page 1)

Laboratory Name: VERSAR
Lab Sample ID No: 42200
Sample Matrix: SOIL
Data Release Authorized By:

Case No: 4600 B0292
QC Report No: 4600 B0292
Contract No:
Date Sample Received: 11/24/87

VOLATILE COMPOUNDS

Concentration: MID
Date Extracted/Prepared: 11/28/87
Date Analyzed: 11/28/87
Conc/Dil Factor: 50 pH NA
Percent Moisture: 12.79

| CAS Number | | ug/Kg | CAS Number | | ug/Kg |
|---|---|---|---|---|---|
| 74-87-3 | Chloromethane | 570 u | 78-87-5 | 1,2-Dichloropropane | 290 u |
| 74-83-9 | Bromomethane | 570 u | 10061-02-6 | Trans-1,3-Dichloropropene | 290 u |
| 75-01-4 | Vinyl Chloride | 570 u | 79-01-6 | Trichloroethene | 290 u |
| 75-00-3 | Chloroethane | 570 u | 124-48-1 | Dibromochloromethane | 290 u |
| 75-09-2 | Methylene Chloride | 640 B | 79-00-5 | 1,1,2-Trichloroethane | 290 u |
| 67-64-1 | Acetone | 1100 | 71-43-2 | Benzene | 290 u |
| 75-15-0 | Carbon Disulfide | 290 u | 10061-01-5 | cis-1,3-Dichloropropene | 290 u |
| 75-35-4 | 1,1-Dichloroethene | 290 u | 110-75-8 | 2-chloroethylvinylether | 570 u |
| 75-34-3 | 1,1-Dichloroethane | 290 u | 75-25-2 | Bromoform | 290 u |
| 156-60-5 | Trans-1,2-Dichloroethene | 290 u | 108-10-1 | 4-Methyl-2-Pentanone | 570 u |
| 67-66-3 | Chloroform | 290 u | 591-78-6 | 2-Hexanone | 570 u |
| 107-06-2 | 1,2-Dichloroethane | 290 u | 127-18-4 | Tetrachloroethene | 290 u |
| 78-93-3 | 2-butanone | 570 u | 79-34-5 | 1,1,2,2-Tetrachloroethane | 290 u |
| 71-55-6 | 1,1,1-Trichloroethane | 290 u | 108-88-3 | Toluene | 360 |
| 56-23-5 | Carbon Tetrachloride | 290 u | 108-90-7 | Chlorobenzene | 290 u |
| 108-05-4 | Vinyl Acetate | 570 u | 100-41-4 | Ethylbenzene | 93 J |
| 75-27-4 | Bromodichloromethane | 290 u | 100-42-5 | Styrene | 290 u |
| | | | | Total Xylenes | 530 |

Data Reporting Qualifiers

Value If the result is a value greater than or equal to the detection limit, report the value.

u Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response factor is assumed, or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero. (e.g. 10J)

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

T Spectrum does not meet criteria for confirmation but does indicate compound presence.

NA Compound present in both matrix spike standard and unspiked sample.

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| Sample Number |
|---|
| 50-42 RE |

ORGANICS ANALYSIS DATA SHEET (Page 1)

Laboratory Name: VERSAR
Lab Sample ID No: 42200 RE
Sample Matrix: SOIL
Data Release Authorized By:

Case No: 4600 B4292
QC Report No: 4600 B4292
Contract No:
Date Sample Received: 11/24/87

VOLATILE COMPOUNDS

Concentration: MID
Date Extracted/Prepared: 11/29/87
Date Analyzed: 11/29/87
Conc/Dil Factor: 50 pH NA
Percent Moisture: 12.79

| CAS Number | | ug/Kg | CAS Number | | ug/Kg |
|---|---|---|---|---|---|
| 74-87-3 | Chloromethane | 570 u | 78-87-5 | 1,2-Dichloropropane | 290 u |
| 74-83-9 | Bromomethane | 570 u | 10061-02-6 | Trans-1,3-Dichloropropene | 290 u |
| 75-01-4 | Vinyl Chloride | 570 u | 79-01-6 | Trichloroethene | 290 u |
| 75-00-3 | Chloroethane | 570 u | 124-48-1 | Dibromochloromethane | 290 u |
| 75-09-2 | Methylene Chloride | 290 u | 79-00-5 | 1,1,2-Trichloroethane | 290 u |
| 67-64-1 | Acetone | 570 u | 71-43-2 | Benzene | 290 u |
| 75-15-0 | Carbon Disulfide | 290 u | 10061-01-5 | cis-1,3-Dichloropropene | 290 u |
| 75-35-4 | 1,1-Dichloroethene | 290 u | 110-75-8 | 2-chloroethylvinylether | 570 u |
| 75-34-3 | 1,1-Dichloroethane | 290 u | 75-25-2 | Bromoform | 290 u |
| 156-60-5 | Trans-1,2-Dichloroethene | 290 u | 108-10-1 | 4-Methyl-2-Pentanone | 570 u |
| 67-66-3 | Chloroform | 290 u | 591-78-6 | 2-Hexanone | 570 u |
| 107-06-2 | 1,2-Dichloroethane | 290 u | 127-18-4 | Tetrachloroethene | 290 u |
| 78-93-3 | 2-butanone | 570 u | 79-34-5 | 1,1,2,2-Tetrachloroethane | 290 u |
| 71-55-6 | 1,1,1-Trichloroethane | 290 u | 108-88-3 | Toluene | 430 |
| 56-23-5 | Carbon Tetrachloride | 290 u | 108-90-7 | Chlorobenzene | 290 u |
| 108-05-4 | Vinyl Acetate | 570 u | 100-41-4 | Ethylbenzene | 110 J |
| 75-27-4 | Bromodichloromethane | 290 u | 100-42-5 | Styrene | 290 u |
| | | | | Total Xylenes | 610 |

Data Reporting Qualifiers

Value If the result is a value greater than or equal to the detection limit, report the value.

u Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response factor is assumed, or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero. (e.g. 10J)

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

T Spectrum does not meet criteria for confirmation but does indicate compound presence.

NA Compound present in both matrix spike standard and unspiked sample.

Form I

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE I

SO-42

Lab Name: VERSAR ESMO Contract: _____

Lab Code: VERESM Case No.: TBLF SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 1130-011

Sample wt/vol: 30.0 (g/mL) G Lab File ID: _____

Level: (low/med) LOW Date Received: 11/30/87

% Moisture: not dec. 12 dec. ____ Date Extracted: 12/01/87

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/24/87

GPC Cleanup: (Y/N) N pH: 5.9 Dilution Factor: 1.000

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG | Q |
|---|---|---|---|
| 319-84-6 | alpha-BHC | 9.1 | U |
| 319-85-7 | beta-BHC | 9.1 | U |
| 319-86-8 | delta-BHC | 9.1 | U |
| 58-89-9 | gamma-BHC (Lindane) | 9.1 | U |
| 76-44-8 | Heptachlor | 9.1 | U |
| 309-00-2 | Aldrin | 9.1 | U |
| 1024-57-3 | Heptachlor epoxide | 9.1 | U |
| 959-98-8 | Endosulfan I | 9.1 | U |
| 60-57-1 | Dieldrin | 18 | U |
| 72-55-9 | 4,4'-DDE | 18 | U |
| 72-20-8 | Endrin | 18 | U |
| 33213-65-9 | Endosulfan II | 18 | U |
| 72-54-8 | 4,4'-DDD | 18 | U |
| 1031-07-8 | Endosulfan sulfate | 18 | U |
| 50-29-3 | 4,4'-DDT | 18 | U |
| 72-43-5 | Methoxychlor | 91 | U |
| 53494-70-5 | Endrin ketone | 18 | U |
| 5103-71-9 | alpha-Chlordane | 91 | U |
| 5103-74-2 | gamma-Chlordane | 91 | U |
| 8001-35-2 | Toxaphene | 180 | U |
| 12674-11-2 | Aroclor-1016 | 91 | U |
| 11104-28-2 | Aroclor-1221 | 91 | U |
| 11141-16-5 | Aroclor-1232 | 91 | U |
| 53469-21-9 | Aroclor-1242 | 91 | U |
| 12672-29-6 | Aroclor-1248 | 91 | U |
| 11097-69-1 | Aroclor-1254 | 320 | |
| 11096-82-5 | Aroclor-1260 | 180 | U |

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| Sample Number |
|---|
| S0-43 |

ORGANICS ANALYSIS DATA SHEET (Page 1)

Laboratory Name: VERSAR
Lab Sample ID No: 42301
Sample Matrix: SOIL
Data Release Authorized By:

Case No: 4600 BW232
QC Report No: 4600 BW232
Contract No:
Date Sample Received: 11/24/87

VOLATILE COMPOUNDS

Concentration: LOW
Date Extracted/Prepared: 11/29/87
Date Analyzed: 11/29/87
Conc/Dil Factor: 5 pH NA
Percent Moisture: 14.38

| CAS Number | | ug/Kg |
|---|---|---|
| 74-87-3 | Chloromethane | 58 u |
| 74-83-9 | Bromomethane | 58 u |
| 75-01-4 | Vinyl Chloride | 58 u |
| 75-00-3 | Chloroethane | 58 u |
| 75-09-2 | Methylene Chloride | 14 JB |
| 67-64-1 | Acetone | 66 B |
| 75-15-0 | Carbon Disulfide | 29 u |
| 75-35-4 | 1,1-Dichloroethene | 29 u |
| 75-34-3 | 1,1-Dichloroethane | 29 u |
| 156-60-5 | Trans-1,2-Dichloroethene | 29 u |
| 67-66-3 | Chloroform | 29 u |
| 107-06-2 | 1,2-Dichloroethane | 29 u |
| 78-93-3 | 2-butanone | 58 u |
| 71-55-6 | 1,1,1-Trichloroethane | 29 u |
| 56-23-5 | Carbon Tetrachloride | 29 u |
| 108-05-4 | Vinyl Acetate | 58 u |
| 75-27-4 | Bromodichloromethane | 29 u |

| CAS Number | | ug/Kg |
|---|---|---|
| 78-87-5 | 1,2-Dichloropropane | 29 u |
| 10061-02-6 | Trans-1,3-Dichloropropene | 29 u |
| 79-01-6 | Trichloroethene | 29 u |
| 124-48-1 | Dibromochloromethane | 29 u |
| 79-00-5 | 1,1,2-Trichloroethane | 29 u |
| 71-43-2 | Benzene | 29 u |
| 10061-01-5 | cis-1,3-Dichloropropene | 29 u |
| 110-75-8 | 2-chloroethylvinylether | 58 u |
| 75-25-2 | Bromoform | 29 u |
| 108-10-1 | 4-Methyl-2-Pentanone | 110 T |
| 591-78-6 | 2-Hexanone | 58 u |
| 127-18-4 | Tetrachloroethene | 29 u |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 29 u |
| 108-88-3 | Toluene | 120 |
| 108-90-7 | Chlorobenzene | 29 u |
| 100-41-4 | Ethylbenzene | 25 J |
| 100-42-5 | Styrene | 29 u |
| | Total Xylenes | 150 |

Data Reporting Qualifiers

Value If the result is a value greater than or equal to the detection limit, report the value.

u Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response factor is assumed, or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero. (e.g. 10J)

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

T Spectrum does not meet criteria for confirmation but does indicate compound presence.

NA Compound present in both matrix spike standard and unspiked sample.

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| Sample Number |
|---|
| 90-43RE |

ORGANICS ANALYSIS DATA SHEET (Page 1)

Laboratory Name: VERSAR
Lab Sample ID No: 43201 RE
Sample Matrix: SOIL
Data Release Authorized By:

Case No: 4600 BW292
QC Report No: 4600 BW292
Contract No:
Date Sample Received: 11/24/87

VOLATILE COMPOUNDS

Concentration: LOW
Date Extracted/Prepared: 11/29/87
Date Analyzed: 11/29/87
Conc/Dil Factor: 5 pH NA
Percent Moisture: 14.38

| CAS Number | | ug/Kg | CAS Number | | ug/Kg |
|---|---|---|---|---|---|
| 74-87-3 | Chloromethane | 58 u | 78-87-5 | 1,2-Dichloropropane | 29 u |
| 74-83-9 | Bromomethane | 58 u | 10061-02-6 | Trans-1,3-Dichloropropene | 29 u |
| 75-01-4 | Vinyl Chloride | 58 u | 79-01-6 | Trichloroethene | 29 u |
| 75-00-3 | Chloroethane | 58 u | 124-48-1 | Dibromochloromethane | 29 u |
| 75-09-2 | Methylene Chloride | 21 JB | 79-00-5 | 1,1,2-Trichloroethane | 29 u |
| 67-64-1 | Acetone | 58 u | 71-43-2 | Benzene | 29 u |
| 75-15-0 | Carbon Disulfide | 29 u | 10061-01-5 | cis-1,3-Dichloropropene | 29 u |
| 75-35-4 | 1,1-Dichloroethene | 29 u | 110-75-8 | 2-chloroethylvinylether | 58 u |
| 75-34-3 | 1,1-Dichloroethane | 29 u | 75-25-2 | Bromoform | 29 u |
| 156-60-5 | Trans-1,2-Dichloroethene | 29 u | 108-10-1 | 4-Methyl-2-Pentanone | 58 u |
| 67-66-3 | Chloroform | 29 u | 591-78-6 | 2-Hexanone | 58 u |
| 107-06-2 | 1,2-Dichloroethane | 29 u | 127-18-4 | Tetrachloroethene | 29 u |
| 78-93-3 | 2-butanone | 58 u | 79-34-5 | 1,1,2,2-Tetrachloroethane | 29 u |
| 71-55-6 | 1,1,1-Trichloroethane | 29 u | 108-88-3 | Toluene | 30 |
| 56-23-5 | Carbon Tetrachloride | 29 u | 108-90-7 | Chlorobenzene | 29 u |
| 108-05-4 | Vinyl Acetate | 58 u | 100-41-4 | Ethylbenzene | 29 u |
| 75-27-4 | Bromodichloromethane | 29 u | 100-42-5 | Styrene | 29 u |
| | | | | Total Xylenes | 49 |

Data Reporting Qualifiers

Value If the result is a value greater than or equal to the detection limit, report the value.

u Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response factor is assumed, or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero. (e.g. 10J)

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

T Spectrum does not meet criteria for confirmation but does indicate compound presence.

NA Compound present in both matrix spike standard and unspiked sample.

Form I

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SO-43

Lab Name: VERSAR ESMO Contract: _____

Lab Code: VERESM Case No.: TBLF SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 1130-012

Sample wt/vol: 30.0 (g/mL) G Lab File ID: _____

Level: (low/med) LOW Date Received: 11/30/87

% Moisture: not dec. 14 dec. ____ Date Extracted: 12/01/87

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/24/87

GPC Cleanup: (Y/N) N pH: 5.3 Dilution Factor: 1.000

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

| CAS NO. | COMPOUND | | Q |
|---|---|---|---|
| 319-84-6 | alpha-BHC | 9.3 | U |
| 319-85-7 | beta-BHC | 9.3 | U |
| 319-86-8 | delta-BHC | 9.3 | U |
| 58-89-9 | gamma-BHC (Lindane) | 9.3 | U |
| 76-44-8 | Heptachlor | 9.3 | U |
| 309-00-2 | Aldrin | 9.3 | U |
| 1024-57-3 | Heptachlor epoxide | 9.3 | U |
| 959-98-8 | Endosulfan I | 9.3 | U |
| 60-57-1 | Dieldrin | 19 | U |
| 72-55-9 | 4,4'-DDE | 19 | U |
| 72-20-8 | Endrin | 19 | U |
| 33213-65-9 | Endosulfan II | 19 | U |
| 72-54-8 | 4,4'-DDD | 19 | U |
| 1031-07-8 | Endosulfan sulfate | 19 | U |
| 50-29-3 | 4,4'-DDT | 19 | U |
| 72-43-5 | Methoxychlor | 93 | U |
| 53494-70-5 | Endrin ketone | 19 | U |
| 5103-71-9 | alpha-Chlordane | 93 | U |
| 5103-74-2 | gamma-Chlordane | 93 | U |
| 8001-35-2 | Toxaphene | 190 | U |
| 12674-11-2 | Aroclor-1016 | 93 | U |
| 11104-28-2 | Aroclor-1221 | 93 | U |
| 11141-16-5 | Aroclor-1232 | 93 | U |
| 53469-21-9 | Aroclor-1242 | 93 | U |
| 12672-29-6 | Aroclor-1248 | 93 | U |
| 11097-69-1 | Aroclor-1254 | 450 | |
| 11096-82-5 | Aroclor-1260 | 190 | U |

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| Sample Number |
|---|
| SO-44 |

ORGANICS ANALYSIS DATA SHEET (Page 1)

Laboratory Name: VERSAR
Lab Sample ID No: A2202
Sample Matrix: SOIL
Data Release Authorized By:

Case No: 4600 BW292
QC Report No: 4600 BW292
Contract No:
Date Sample Received: 11/24/87

VOLATILE COMPOUNDS

Concentration: MID
Date Extracted/Prepared: 11/29/87
Date Analyzed: 11/29/87
Conc/Dil Factor: 50 pH NA
Percent Moisture: 11.11

| CAS Number | | ug/Kg | CAS Number | | ug/Kg |
|---|---|---|---|---|---|
| 74-87-3 | Chloromethane | 560 u | 78-87-5 | 1,2-Dichloropropane | 280 u |
| 74-83-9 | Bromomethane | 560 u | 10061-02-6 | Trans-1,3-Dichloropropene | 280 u |
| 75-01-4 | Vinyl Chloride | 560 u | 79-01-6 | Trichloroethene | 280 u |
| 75-00-3 | Chloroethane | 560 u | 124-48-1 | Dibromochloromethane | 280 u |
| 75-09-2 | Methylene Chloride | 600 B | 79-00-5 | 1,1,2-Trichloroethane | 280 u |
| 67-64-1 | Acetone | 590 B | 71-43-2 | Benzene | 280 u |
| 75-15-0 | Carbon Disulfide | 280 u | 10061-01-5 | cis-1,3-Dichloropropene | 280 u |
| 75-35-4 | 1,1-Dichloroethene | 300 | 110-75-8 | 2-chloroethylvinylether | 560 u |
| 75-34-3 | 1,1-Dichloroethane | 280 u | 75-25-2 | Bromoform | 280 u |
| 156-60-5 | Trans-1,2-Dichloroethene | 280 u | 108-10-1 | 4-Methyl-2-Pentanone | 470 J |
| 67-66-3 | Chloroform | 280 u | 591-78-6 | 2-Hexanone | 560 u |
| 107-06-2 | 1,2-Dichloroethane | 280 u | 127-18-4 | Tetrachloroethene | 280 u |
| 78-93-3 | 2-butanone | 560 u | 79-34-5 | 1,1,2,2-Tetrachloroethane | 280 u |
| 71-55-6 | 1,1,1-Trichloroethane | 280 u | 108-88-3 | Toluene | 7300 |
| 56-23-5 | Carbon Tetrachloride | 280 u | 108-90-7 | Chlorobenzene | 280 u |
| 108-05-4 | Vinyl Acetate | 560 u | 100-41-4 | Ethylbenzene | 500 |
| 75-27-4 | Bromodichloromethane | 280 u | 100-42-5 | Styrene | 280 u |
| | | | | Total Xylenes | 3900 |

Data Reporting Qualifiers

Value If the result is a value greater than or equal to the detection limit, report the value.

u Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response factor is assumed, or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero. (e.g. 10J)

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

T Spectrum does not meet criteria for confirmation but does indicate compound presence.

NA Compound present in both matrix spike standard and unspiked sample.

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE I

SO-44

Lab Name: VERSAR ESMO Contract: _____

Lab Code: VERESM Case No.: TBLF SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 1130-013

Sample wt/vol: 30.0 (g/mL) G Lab File ID: _____

Level: (low/med) LOW Date Received: 11/30/87

% Moisture: not dec. 11 dec. ____ Date Extracted: 12/01/87

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/24/87

GPC Cleanup: (Y/N) N pH: 5.5 Dilution Factor: 2.50

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG | Q |
|---|---|---|---|
| 319-84-6 | alpha-BHC | 22 | U |
| 319-85-7 | beta-BHC | 22 | U |
| 319-86-8 | delta-BHC | 22 | U |
| 58-89-9 | gamma-BHC (Lindane) | 22 | U |
| 76-44-8 | Heptachlor | 22 | U |
| 309-00-2 | Aldrin | 22 | U |
| 1024-57-3 | Heptachlor epoxide | 22 | U |
| 959-98-8 | Endosulfan I | 22 | U |
| 60-57-1 | Dieldrin | 45 | U |
| 72-55-9 | 4,4'-DDE | 45 | U |
| 72-20-8 | Endrin | 45 | U |
| 33213-65-9 | Endosulfan II | 45 | U |
| 72-54-8 | 4,4'-DDD | 45 | U |
| 1031-07-8 | Endosulfan sulfate | 45 | U |
| 50-29-3 | 4,4'-DDT | 45 | U |
| 72-43-5 | Methoxychlor | 220 | U |
| 53494-70-5 | Endrin ketone | 45 | U |
| 5103-71-9 | alpha-Chlordane | 220 | U |
| 5103-74-2 | gamma-Chlordane | 220 | U |
| 8001-35-2 | Toxaphene | 450 | U |
| 12674-11-2 | Aroclor-1016 | 220 | U |
| 11104-28-2 | Aroclor-1221 | 220 | U |
| 11141-16-5 | Aroclor-1232 | 220 | U |
| 53469-21-9 | Aroclor-1242 | 220 | U |
| 12672-29-6 | Aroclor-1248 | 220 | U |
| 11097-69-1 | Aroclor-1254 | 450 | U |
| 11096-82-5 | Aroclor-1260 | 450 | U |

Versar, Inc. Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

| Sample Number |
|---|
| S0-52 |

ORGANICS ANALYSIS DATA SHEET (Page 1)

Laboratory Name: VERSAR
Lab Sample ID No: 44156
Sample Matrix: SOIL
Data Release Authorized By:

Case No: 4600 BW313
QC Report No: 4600 BW313
Contract No:
Date Sample Received: 01/20/88

VOLATILE COMPOUNDS

Concentration: LOW
Date Extracted/Prepared: 01/20/88
Date Analyzed: 01/20/88
Conc/Dil Factor: 5 pH NA
Percent Moisture: 13.95

| CAS Number | | ug/Kg |
|---|---|---|
| 74-87-3 | Chloromethane | 58 u |
| 74-83-9 | Bromomethane | 58 u |
| 75-01-4 | Vinyl Chloride | 58 u |
| 75-00-3 | Chloroethane | 58 u |
| 75-09-2 | Methylene Chloride | 12 J |
| 67-64-1 | Acetone | 78 B |
| 75-15-0 | Carbon Disulfide | 29 u |
| 75-35-4 | 1,1-Dichloroethene | 29 u |
| 75-34-3 | 1,1-Dichloroethane | 29 u |
| 156-60-5 | Trans-1,2-Dichloroethene | 29 u |
| 67-66-3 | Chloroform | 29 u |
| 107-06-2 | 1,2-Dichloroethane | 29 u |
| 78-93-3 | 2-butanone | 270 |
| 71-55-6 | 1,1,1-Trichloroethane | 29 u |
| 56-23-5 | Carbon Tetrachloride | 29 u |
| 108-05-4 | Vinyl Acetate | 58 u |
| 75-27-4 | Bromodichloromethane | 29 u |

| CAS Number | | ug/Kg |
|---|---|---|
| 78-87-5 | 1,2-Dichloropropane | 29 u |
| 10061-02-6 | Trans-1,3-Dichloropropene | 29 u |
| 79-01-6 | Trichloroethene | 29 u |
| 124-48-1 | Dibromochloromethane | 29 u |
| 79-00-5 | 1,1,2-Trichloroethane | 29 u |
| 71-43-2 | Benzene | 29 u |
| 10061-01-5 | cis-1,3-Dichloropropene | 29 u |
| 110-75-8 | 2-chloroethylvinyletner | 58 u |
| 75-25-2 | Bromoform | 29 u |
| 108-10-1 | 4-Methyl-2-Pentanone | 700 |
| 591-78-6 | 2-Hexanone | 58 u |
| 127-18-4 | Tetrachloroethene | 29 u |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 29 u |
| 108-88-3 | Toluene | 960 |
| 108-90-7 | Chlorobenzene | 29 u |
| 100-41-4 | Ethylbenzene | 160 |
| 100-42-5 | Styrene | 29 u |
| | Total Xylenes | 570 |

Data Reporting Qualifiers

Value If the result is a value greater than or equal to the detection limit, report the value.

u Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response factor is assumed, or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero. (e.g. 10J)

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

T Spectrum does not meet criteria for confirmation but does indicate compound presence.

NA Compound present in both matrix spike standard and unspiked sample.

Form I

Versar Inc., Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

| SAMPLE ID |
|---|
| SO-52 |

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

| | CAS Number | Compound Name | Fraction | RT or Scan | Estimated Concentration (ug/Kg or ug/l) |
|---|---|---|---|---|---|
| 11. | 589-34-4 | UNKNOWN | VOA | 472 | 56 J |
| 12. | | UNKNOWN HYDROCARBON | VOA | 482 | 62 J |
| 13. | | | | | |
| 14. | | | | | |
| 15. | | | | | |
| 16. | | | | | |
| 17. | | | | | |
| 18. | | | | | |
| 19. | | | | | |
| 110. | | | | | |
| 111. | | | | | |
| 112. | | | | | |
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| 117. | | | | | |
| 118. | | | | | |
| 119. | | | | | |
| 120. | | | | | |
| 121. | | | | | |
| 122. | | | | | |
| 123. | | | | | |
| 124. | | | | | |
| 125. | | | | | |
| 126. | | | | | |
| 127. | | | | | |
| 128. | | | | | |
| 129. | | | | | |
| 130. | | | | | |

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SO 52

Name: VERSAR, INC. Contract: TAYLOR/BOROU

Lab Code: VERSAR Case No.: 4600 SAS No.: SDG No.: SO 52

Matrix: (soil/water) SOIL Lab Sample ID: 44150

Sample wt/vol: 30.10 (g/ml) G Lab File ID:

Level: (low/med) LOW Date Received: 01/20/88

% Moisture: not dec. 13.02 dec. Date Extracted: 01/21/88

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 01/29/88

GPC Cleanup: (Y/N) N pH: 6.8 Dilution Factor: 1.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG | Q |
|---|---|---|---|
| 319-84-6 | alpha-BHC | 3.8 | U |
| 319-85-7 | beta-BHC | 3.8 | U |
| 319-86-8 | delta-BHC | 3.8 | U |
| 58-89-9 | gamma-BHC (Lindane) | 3.8 | U |
| 76-44-8 | Heptachlor | 3.8 | U |
| 309-00-2 | Aldrin | 3.8 | U |
| 1024-57-3 | Heptachlor Epoxide | 3.8 | U |
| 959-98-8 | Endosulfan I | 3.8 | U |
| 60-57-1 | Dieldrin | 7.6 | U |
| 72-55-9 | 4,4'-DDE | 7.6 | U |
| 72-20-8 | Endrin | 7.6 | U |
| 33213-65-9 | Endosulfan II | 11 | * |
| 72-54-8 | 4,4'-DDD | 7.6 | U |
| 1031-07-8 | Endosulfan Sulfate | 7.6 | U |
| 50-29-3 | 4,4'-DDT | 7.6 | U |
| 72-43-5 | Methoxychlor | 7.6 | U |
| 53494-70-5 | Endrin Ketone | 7.6 | U |
| 5103-71-9 | alpha-Chlordane | 7.6 | U |
| 5103-74-2 | gamma-Chlordane | 7.6 | U |
| 8001-35-2 | Toxaphene | 76 | U |
| 12674-11-2 | Aroclor-1016 | 38 | U |
| 11104-28-2 | Aroclor-1221 | 38 | U |
| 11141-16-5 | Aroclor-1232 | 38 | U |
| 53469-21-9 | Aroclor-1242 | 38 | U |
| 12672-29-6 | Aroclor-1248 | 38 | U |
| 11097-69-1 | Aroclor-1254 | 200 | |
| 11096-82-5 | Aroclor-1260 | 76 | U |

* Possible false positive ID. Due to presence of multicomponent Aroclor 1254, result should be viewed with discretion.

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SO 52

Lab Name: VERSAR, INC. Contract: TAYLOR/BORDU

Lab Code: VERSAR Case No.: 4600 SAS No.: SDG No.: SO 52

Matrix: (soil/water) SOIL Lab Sample ID: 44150

Sample wt/vol: 30.10 (g/ml) G Lab File ID:

Level: (low/med) LOW Date Received: 01/20/88

% Moisture: not dec. 13.02 dec. Date Extracted: 01/21/88

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 01/30/88

GPC Cleanup: (Y/N) N pH: 6.8 Dilution Factor: 5.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG | Q |
|---|---|---|---|
| 319-84-6 | alpha-BHC | 19 | U |
| 319-85-7 | beta-BHC | 19 | U |
| 319-86-8 | delta-BHC | 19 | U |
| 58-89-9 | gamma-BHC (Lindane) | 19 | U |
| 76-44-8 | Heptachlor | 19 | U |
| 309-00-2 | Aldrin | 19 | U |
| 1024-57-3 | Heptachlor Epoxide | 19 | U |
| 959-98-8 | Endosulfan I | 19 | U |
| 60-57-1 | Dieldrin | 38 | U |
| 72-55-9 | 4,4'-DDE | 38 | U |
| 72-20-8 | Endrin | 38 | U |
| 33213-65-9 | Endosulfan II | 38 | U |
| 72-54-8 | 4,4'-DDD | 38 | U |
| 1031-07-8 | Endosulfan Sulfate | 38 | U |
| 50-29-3 | 4,4'-DDT | 38 | U |
| 72-43-5 | Methoxychlor | 38 | U |
| 53494-70-5 | Endrin Ketone | 38 | U |
| 5103-71-9 | alpha-Chlordane | 38 | U |
| 5103-74-2 | gamma-Chlordane | 38 | U |
| 8001-35-2 | Toxaphene | 380 | U |
| 12674-11-2 | Aroclor-1016 | 190 | U |
| 11104-28-2 | Aroclor-1221 | 190 | U |
| 11141-16-5 | Aroclor-1232 | 190 | U |
| 53469-21-9 | Aroclor-1242 | 190 | U |
| 12672-29-6 | Aroclor-1248 | 190 | U |
| 11097-69-1 | Aroclor-1254 | 210 ~~380~~ | J ~~U~~ |
| 11096-82-5 | Aroclor-1260 | 380 | U |

J - EPA-CLP FLAG; DENOTES ESTIMATED VALUE QUANTITATED BELOW THE DETECTION LIMIT. 02/15/88

David Ingram
02/04/88

FORM I PEST 1/87 Rev.

Versar, Inc. Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

| Sample Number |
|---|
| SO-53 |

ORGANICS ANALYSIS DATA SHEET (Page 1)

Laboratory Name: VERSAR
Lab Sample ID No: 44157
Sample Matrix: SOIL
Data Release Authorized By:

Case No: 4600 B#313
QC Report No: 4600 B#313
Contract No:
Date Sample Received: 01/20/88

VOLATILE COMPOUNDS

Concentration: LOW
Date Extracted/Prepared: 01/20/88
Date Analyzed: 01/20/88
Conc/Dil Factor: 5 pH NA
Percent Moisture: 13.46

| CAS Number | | ug/Kg | | CAS Number | | ug/Kg | |
|---|---|---|---|---|---|---|---|
| 74-87-3 | Chloromethane | 58 u | | 78-87-5 | 1,2-Dichloropropane | 29 u | |
| 74-83-9 | Bromomethane | 58 u | | 10061-02-6 | Trans-1,3-Dichloropropene | 29 u | |
| 75-01-4 | Vinyl Chloride | 58 u | | 79-01-6 | Trichloroethene | 29 u | |
| 75-00-3 | Chloroethane | 58 u | | 124-48-1 | Dibromochloromethane | 29 u | |
| 75-09-2 | Methylene Chloride | 24 J | ✓ | 79-00-5 | 1,1,2-Trichloroethane | 29 u | |
| 67-64-1 | Acetone | 92 B | ✓ | 71-43-2 | Benzene | 29 u | |
| 75-15-0 | Carbon Disulfide | 29 u | | 10061-01-5 | cis-1,3-Dichloropropene | 29 u | |
| 75-35-4 | 1,1-Dichloroethene | 29 u | | 110-75-8 | 2-chloroethylvinylether | 58 u | |
| 75-34-3 | 1,1-Dichloroethane | 29 u | | 75-25-2 | Bromoform | 29 u | |
| 156-60-5 | Trans-1,2-Dichloroethene | 29 u | | 108-10-1 | 4-Methyl-2-Pentanone | E | ✓ |
| 67-66-3 | Chloroform | 29 u | | 591-78-6 | 2-Hexanone | 58 u | |
| 107-06-2 | 1,2-Dichloroethane | 29 u | | 127-18-4 | Tetrachloroethene | 29 u | |
| 78-93-3 | 2-butanone | 370 | ✓ | 79-34-5 | 1,1,2,2-Tetrachloroethane | 29 u | |
| 71-55-6 | 1,1,1-Trichloroethane | 29 u | | 108-88-3 | Toluene | E | ✓ |
| 56-23-5 | Carbon Tetrachloride | 29 u | | 108-90-7 | Chlorobenzene | 29 u | |
| 108-05-4 | Vinyl Acetate | 58 u | | 100-41-4 | Ethylbenzene | 410 | ✓ |
| 75-27-4 | Bromodichloromethane | 29 u | | 100-42-5 | Styrene | 29 u | |
| | | | | | Total Xylenes | 1400 | ✓ |

Data Reporting Qualifiers

Value If the result is a value greater than or equal to the detection limit, report the value.

u Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response factor is assumed, or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero. (e.g. 10J)

E Exceeds linear range. Requires dilution.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

T Spectrum does not meet criteria for confirmation but does indicate compound presence.

NA Compound present in both matrix spike standard and unspiked sample.

Form I

Versar, Inc. Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

| Sample Number |
|---|
| S0-53 DIL |

ORGANICS ANALYSIS DATA SHEET (Page 1)

Laboratory Name: VERSAR
Lab Sample ID No: 44157
Sample Matrix: SOIL
Data Release Authorized By:

Case No: 4600 BN313
QC Report No: 4600 BN313
Contract No:
Date Sample Received: 01/20/88

VOLATILE COMPOUNDS

Concentration: MID
Date Extracted/Prepared: 01/21/88
Date Analyzed: 01/21/88
Conc/Dil Factor: 50 pH NA
Percent Moisture: 13.46

| CAS Number | | ug/Kg | CAS Number | | ug/Kg |
|---|---|---|---|---|---|
| 74-87-3 | Chloromethane | 580 u | 78-87-5 | 1,2-Dichloropropane | 290 u |
| 74-83-9 | Bromomethane | 580 u | 10061-02-6 | Trans-1,3-Dichloropropene | 290 u |
| 75-01-4 | Vinyl Chloride | 580 u | 79-01-6 | Trichloroethene | 290 u |
| 75-00-3 | Chloroethane | 580 u | 124-48-1 | Dibromochloromethane | 290 u |
| 75-09-2 | Methylene Chloride | 290 u | 79-00-5 | 1,1,2-Trichloroethane | 290 u |
| 67-64-1 | Acetone | 580 u | 71-43-2 | Benzene | 290 u |
| 75-15-0 | Carbon Disulfide | 290 u | 10061-01-5 | cis-1,3-Dichloropropene | 290 u |
| 75-35-4 | 1,1-Dichloroethene | 290 u | 110-75-8 | 2-chloroethylvinylether | 580 u |
| 75-34-3 | 1,1-Dichloroetnane | 290 u | 75-25-2 | Bromoform | 290 u |
| 156-60-5 | Trans-1,2-Dichloroethene | 290 u | 108-10-1 | 4-Methyl-2-Pentanone | 1900 |
| 67-66-3 | Chloroform | 290 u | 591-78-6 | 2-Hexanone | 580 u |
| 107-06-2 | 1,2-Dichloroethane | 290 u | 127-18-4 | Tetrachloroethene | 290 u |
| 78-93-3 | 2-butanone | 580 u | 79-34-5 | 1,1,2,2-Tetrachloroethane | 290 u |
| 71-55-6 | 1,1,1-Trichloroethane | 290 u | 108-88-3 | Toluene | 4600 |
| 56-23-5 | Carbon Tetrachloride | 290 u | 108-90-7 | Chlorobenzene | 290 u |
| 108-05-4 | Vinyl Acetate | 580 u | 100-41-4 | Ethylbenzene | 290 u |
| 75-27-4 | Bromodichloromethane | 290 u | 100-42-5 | Styrene | 290 u |
| | | | | Total Xylenes | 290 u |

Data Reporting Qualifiers

Value If the result is a value greater than or equal to the detection limit, report the value.

u Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response factor is assumed, or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero. (e.g. 10J)

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

T Spectrum does not meet criteria for confirmation but does indicate compound presence.

MA Compound present in both matrix spike standard and unspiked sample.

Versar Inc., Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

| SAMPLE ID |
|---|
| SO-53 |

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

| CAS Number | Compound Name | Fraction | RT or Scan | Estimated Concentration (ug/Kg or ug/l) |
|---|---|---|---|---|
| 11. 583-34-4 | HEXANE, 3-METHYL | VOA | 473 | 110 J |
| 12. | UNKNOWN HYDROCARBON | VOA | 482 | 320 J |
| 13. | | | | |
| 14. | | | | |
| 15. | | | | |
| 16. | | | | |
| 17. | | | | |
| 18. | | | | |
| 19. | | | | |
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| 122. | | | | |
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| 127. | | | | |
| 128. | | | | |
| 129. | | | | |
| 130. | | | | |

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SO 53

Lab Name: VERSAR, INC. Contract: TAYLOR/BOROU

Lab Code: VERSAR Case No.: 4600 SAS No.: SDG No.: SO 52

Matrix: (soil/water) SOIL Lab Sample ID: 44151

Sample wt/vol: 30.05 (g/ml) G Lab File ID:

Level: (low/med) LOW Date Received: 01/20/88

% Moisture: not dec. 11.55 dec. Date Extracted: 01/21/88

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 01/29/88

GPC Cleanup: (Y/N) N pH: 6.4 Dilution Factor: 1.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG | Q |
|---|---|---|---|
| 319-84-6 | alpha-BHC | 3.8 | U |
| 319-85-7 | beta-BHC | 3.8 | U |
| 319-86-8 | delta-BHC | 3.8 | U |
| 58-89-9 | gamma-BHC (Lindane) | 3.8 | U |
| 76-44-8 | Heptachlor | 3.8 | U |
| 309-00-2 | Aldrin | 3.8 | U |
| 1024-57-3 | Heptachlor Epoxide | 3.8 | U |
| 959-98-8 | Endosulfan I | 3.8 | U |
| 60-57-1 | Dieldrin | 7.5 | U |
| 72-55-9 | 4,4'-DDE | 7.5 | U |
| 72-20-8 | Endrin | 7.5 | U |
| 33213-65-9 | Endosulfan II | 7.5 | U |
| 72-54-8 | 4,4'-DDD | 7.5 | U |
| 1031-07-8 | Endosulfan Sulfate | 7.5 | U |
| 50-29-3 | 4,4'-DDT | 7.5 | U |
| 72-43-5 | Methoxychlor | 7.5 | U |
| 53494-70-5 | Endrin Ketone | 7.5 | U |
| 5103-71-9 | alpha-Chlordane | 7.5 | U |
| 5103-74-2 | gamma-Chlordane | 7.5 | U |
| 8001-35-2 | Toxaphene | 75 | U |
| 12674-11-2 | Aroclor-1016 | 38 | U |
| 11104-28-2 | Aroclor-1221 | 38 | U |
| 11141-16-5 | Aroclor-1232 | 38 | U |
| 53469-21-9 | Aroclor-1242 | 38 | U |
| 12672-29-6 | Aroclor-1248 | 38 | U |
| 11097-69-1 | Aroclor-1254 | 75 | U |
| 11096-82-5 | Aroclor-1260 | 75 | U |

David Lipsom 02/04/88

FORM I PEST 1/87 Rev.

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SO 53

Lab Name: VERSAR, INC. Contract: TAYLOR/BOROU

Lab Code: VERSAR Case No.: 4600 SAS No.: SDG No.: SO 52

Matrix: (soil/water) SOIL Lab Sample ID: 44151

Sample wt/vol: 30.05 (g/ml) G Lab File ID:

Level: (low/med) LOW Date Received: 01/20/88

% Moisture: not dec. 11.55 dec. Date Extracted: 01/21/88

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 01/30/88

GPC Cleanup: (Y/N) N pH: 6.4 Dilution Factor: 5.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG | Q |
|---|---|---|---|
| 319-84-6 | alpha-BHC | 19 | U |
| 319-85-7 | beta-BHC | 19 | U |
| 319-86-8 | delta-BHC | 19 | U |
| 58-89-9 | gamma-BHC (Lindane) | 19 | U |
| 76-44-8 | Heptachlor | 19 | U |
| 309-00-2 | Aldrin | 19 | U |
| 1024-57-3 | Heptachlor Epoxide | 19 | U |
| 959-98-8 | Endosulfan I | 19 | U |
| 60-57-1 | Dieldrin | 38 | U |
| 72-55-9 | 4,4'-DDE | 38 | U |
| 72-20-8 | Endrin | 38 | U |
| 33213-65-9 | Endosulfan II | 38 | U |
| 72-54-8 | 4,4'-DDD | 38 | U |
| 1031-07-8 | Endosulfan Sulfate | 38 | U |
| 50-29-3 | 4,4'-DDT | 38 | U |
| 72-43-5 | Methoxychlor | 38 | U |
| 53494-70-5 | Endrin Ketone | 38 | U |
| 5103-71-9 | alpha-Chlordane | 38 | U |
| 5103-74-2 | gamma-Chlordane | 38 | U |
| 8001-35-2 | Toxaphene | 380 | U |
| 12674-11-2 | Aroclor-1016 | 190 | U |
| 11104-28-2 | Aroclor-1221 | 190 | U |
| 11141-16-5 | Aroclor-1232 | 190 | U |
| 53469-21-9 | Aroclor-1242 | 190 | U |
| 12672-29-6 | Aroclor-1248 | 190 | U |
| 11097-69-1 | Aroclor-1254 | 380 | U |
| 11096-82-5 | Aroclor-1260 | 380 | U |

David Figoni 02/04/89

Versar, Inc. Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

| Sample Number |
|---|
| S0-54 |

ORGANICS ANALYSIS DATA SHEET (Page 1)

Laboratory Name: VERSAR
Lab Sample ID No: 44156
Sample Matrix: SOIL
Data Release Authorized By:

Case No: 4600 BW313
QC Report No: 4600 BW313
Contract No:
Date Sample Received: 01/20/88

VOLATILE COMPOUNDS

Concentration: LOW
Date Extracted/Prepared: 01/20/88
Date Analyzed: 01/20/88
Conc/Dil Factor: 1 pH NA
Percent Moisture: 11.37

| CAS Number | | ug/Kg | CAS Number | | ug/Kg |
|---|---|---|---|---|---|
| 74-87-3 | Chloromethane | 11 u | 78-87-5 | 1,2-Dichloropropane | 6 u |
| 74-83-9 | Bromomethane | 11 u | 10061-02-6 | Trans-1,3-Dichloropropene | 6 u |
| 75-01-4 | Vinyl Chloride | 11 u | 79-01-6 | Trichloroethene | 6 u |
| 75-00-3 | Chloroethane | 11 u | 124-48-1 | Dibromochloromethane | 6 u |
| 75-09-2 | Methylene Chloride | 7 | 79-00-5 | 1,1,2-Trichloroethane | 6 u |
| 67-64-1 | Acetone | 46 B | 71-43-2 | Benzene | 6 u |
| 75-15-0 | Carbon Disulfide | 6 u | 10061-01-5 | cis-1,3-Dichloropropene | 6 u |
| 75-35-4 | 1,1-Dichloroethene | 6 u | 110-75-8 | 2-chloroethylvinylether | 11 u |
| 75-34-3 | 1,1-Dichloroethane | 6 u | 75-25-2 | Bromoform | 6 u |
| 156-60-5 | Trans-1,2-Dichloroethene | 6 u | 108-10-1 | 4-Methyl-2-Pentanone | 11 u |
| 67-66-3 | Chloroform | 6 u | 591-78-6 | 2-Hexanone | 11 u |
| 107-06-2 | 1,2-Dichloroethane | 6 u | 127-18-4 | Tetrachloroethene | 6 u |
| 78-93-3 | 2-butanone | 11 u | 79-34-5 | 1,1,2,2-Tetrachloroethane | 6 u |
| 71-55-6 | 1,1,1-Trichloroethane | 6 u | 108-88-3 | Toluene | 24 |
| 56-23-5 | Carbon Tetrachloride | 6 u | 108-90-7 | Chlorobenzene | 6 u |
| 108-05-4 | Vinyl Acetate | 11 u | 100-41-4 | Ethylbenzene | 6 |
| 75-27-4 | Bromodichloromethane | 6 u | 100-42-5 | Styrene | 6 u |
| | | | | Total Xylenes | 30 |

Data Reporting Qualifiers

Value If the result is a value greater than or equal to the detection limit, report the value.

u Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response factor is assumed, or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero. (e.g. 10J)

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

T Spectrum does not meet criteria for confirmation but does indicate compound presence.

NA Compound present in both matrix spike standard and unspiked sample.

Versar Inc., Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

| SAMPLE ID |
|---|
| 1S8-S4 |

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

| | CAS Number | Compound Name | Fraction | RT or Scan | Estimated Concentration (ug/Kg or ug/l) |
|---|---|---|---|---|---|
| 11. | | UNKNOWN HYDROCARBON | VOA | 447 | 3 J |
| 12. | | UNKNOWN | VOA | 471 | 13 J |
| 13. | | UNKNOWN HYDROCARBON | VOA | 488 | 20 J |
| 14. | | | | | |
| 15. | | | | | |
| 16. | | | | | |
| 17. | | | | | |
| 18. | | | | | |
| 19. | | | | | |
| 110. | | | | | |
| 111. | | | | | |
| 112. | | | | | |
| 113. | | | | | |
| 114. | | | | | |
| 115. | | | | | |
| 116. | | | | | |
| 117. | | | | | |
| 118. | | | | | |
| 119. | | | | | |
| 120. | | | | | |
| 121. | | | | | |
| 122. | | | | | |
| 123. | | | | | |
| 124. | | | | | |
| 125. | | | | | |
| 126. | | | | | |
| 127. | | | | | |
| 128. | | | | | |
| 129. | | | | | |
| 130. | | | | | |

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SO 54

Lab Name: VERSAR, INC. Contract: TAYLOR/BOROU

Lab Code: VERSAR Case No.: 4600 SAS No.: SDG No.: SO 52

Matrix: (soil/water) SOIL Lab Sample ID: 44152

Sample wt/vol: 30.09 (g/ml) G Lab File ID:

Level: (low/med) LOW Date Received: 01/20/88

% Moisture: not dec. 10.47 dec. Date Extracted: 01/21/88

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 01/29/88

GPC Cleanup: (Y/N) N pH: 6.1 Dilution Factor: 1.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG | Q |
|---|---|---|---|
| 319-84-6 | alpha-BHC | 3.7 | U |
| 319-85-7 | beta-BHC | 3.7 | U |
| 319-86-8 | delta-BHC | 3.7 | U |
| 58-89-9 | gamma-BHC (Lindane) | 3.7 | U |
| 76-44-8 | Heptachlor | 3.7 | U |
| 309-00-2 | Aldrin | 3.7 | U |
| 1024-57-3 | Heptachlor Epoxide | 3.7 | U |
| 959-98-8 | Endosulfan I | 3.7 | U |
| 60-57-1 | Dieldrin | 7.4 | U |
| 72-55-9 | 4,4'-DDE | 7.4 | U |
| 72-20-8 | Endrin | 7.4 | U |
| 33213-65-9 | Endosulfan II | 7.4 | U |
| 72-54-8 | 4,4'-DDD | 7.4 | U |
| 1031-07-8 | Endosulfan Sulfate | 7.4 | U |
| 50-29-3 | 4,4'-DDT | 7.4 | U |
| 72-43-5 | Methoxychlor | 7.4 | U |
| 53494-70-5 | Endrin Ketone | 7.4 | U |
| 5103-71-9 | alpha-Chlordane | 7.4 | U |
| 5103-74-2 | gamma-Chlordane | 7.4 | U |
| 8001-35-2 | Toxaphene | 74 | U |
| 12674-11-2 | Aroclor-1016 | 37 | U |
| 11104-28-2 | Aroclor-1221 | 37 | U |
| 11141-16-5 | Aroclor-1232 | 37 | U |
| 53469-21-9 | Aroclor-1242 | 37 | U |
| 12672-29-6 | Aroclor-1248 | 37 | U |
| 11097-69-1 | Aroclor-1254 | 74 | U |
| 11096-82-5 | Aroclor-1260 | 74 | U |

FORM I PEST David Ryomi 02/04/88 1/87 Rev.

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SO 54

Lab Name: VERSAR, INC. Contract: TAYLOR/BORDU

Lab Code: VERSAR Case No.: 4600 SAS No.: SDG No.: SO 52

Matrix: (soil/water) SOIL Lab Sample ID: 44152

Sample wt/vol: 30.09 (g/ml) G Lab File ID:

Level: (low/med) LOW Date Received: 01/20/88

% Moisture: not dec. 10.47 dec. Date Extracted: 01/21/88

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 01/30/88

GPC Cleanup: (Y/N) N pH: 6.1 Dilution Factor: 5.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG | Q |
|---|---|---|---|
| 319-84-6 | alpha-BHC | 19 | U |
| 319-85-7 | beta-BHC | 19 | U |
| 319-86-8 | delta-BHC | 19 | U |
| 58-89-9 | gamma-BHC (Lindane) | 19 | U |
| 76-44-8 | Heptachlor | 19 | U |
| 309-00-2 | Aldrin | 19 | U |
| 1024-57-3 | Heptachlor Epoxide | 19 | U |
| 959-98-8 | Endosulfan I | 19 | U |
| 60-57-1 | Dieldrin | 37 | U |
| 72-55-9 | 4,4'-DDE | 37 | U |
| 72-20-8 | Endrin | 37 | U |
| 33213-65-9 | Endosulfan II | 37 | U |
| 72-54-8 | 4,4'-DDD | 37 | U |
| 1031-07-8 | Endosulfan Sulfate | 37 | U |
| 50-29-3 | 4,4'-DDT | 37 | U |
| 72-43-5 | Methoxychlor | 37 | U |
| 53494-70-5 | Endrin Ketone | 37 | U |
| 5103-71-9 | alpha-Chlordane | 37 | U |
| 5103-74-2 | gamma-Chlordane | 37 | U |
| 8001-35-2 | Toxaphene | 370 | U |
| 12674-11-2 | Aroclor-1016 | 190 | U |
| 11104-28-2 | Aroclor-1221 | 190 | U |
| 11141-16-5 | Aroclor-1232 | 190 | U |
| 53469-21-9 | Aroclor-1242 | 190 | U |
| 12672-29-6 | Aroclor-1248 | 190 | U |
| 11097-69-1 | Aroclor-1254 | 370 | U |
| 11096-82-5 | Aroclor-1260 | 370 | U |

David Lipani
02/04/88

FORM I PEST 1/87 Rev.

Versar, Inc. Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

| Sample Number |
|---|
| SO-55 |

ORGANICS ANALYSIS DATA SHEET (Page 1)

Laboratory Name: VERSAR
Lab Sample ID No: 44159
Sample Matrix: SOIL
Data Release Authorized By:

Case No: 4600 BW313
QC Report No: 4600 BW313
Contract No:
Date Sample Received: 01/20/88

VOLATILE COMPOUNDS

Concentration: MID
Date Extracted/Prepared: 01/21/88
Date Analyzed: 01/21/88
Conc/Dil Factor: 2000 pH: NA
Percent Moisture: 12.73

| CAS Number | | ug/Kg | CAS Number | | ug/Kg |
|---|---|---|---|---|---|
| 74-87-3 | Chloromethane | 23000 u | 78-87-5 | 1,2-Dichloropropane | 11000 u |
| 74-83-9 | Bromomethane | 23000 u | 10061-02-6 | Trans-1,3-Dichloropropene | 11000 u |
| 75-01-4 | Vinyl Chloride | 23000 u | 79-01-6 | Trichloroethene | 11000 u |
| 75-00-3 | Chloroethane | 23000 u | 124-48-1 | Dibromochloromethane | 11000 u |
| 75-09-2 | Methylene Chloride | 8600 JB | 79-00-5 | 1,1,2-Trichloroethane | 11000 u |
| 67-64-1 | Acetone | 4000 J | 71-43-2 | Benzene | 11000 u |
| 75-15-0 | Carbon Disulfide | 11000 u | 10061-01-5 | cis-1,3-Dichloropropene | 11000 u |
| 75-35-4 | 1,1-Dichloroethene | 11000 u | 110-75-8 | 2-chloroethylvinylether | 23000 u |
| 75-34-3 | 1,1-Dichloroethane | 11000 u | 75-25-2 | Bromoform | 11000 u |
| 156-60-5 | Trans-1,2-Dichloroethene | 11000 u | 108-10-1 | 4-Methyl-2-Pentanone | 23000 u |
| 67-66-3 | Chloroform | 11000 u | 591-78-6 | 2-Hexanone | 23000 u |
| 107-06-2 | 1,2-Dichloroethane | 11000 u | 127-18-4 | Tetrachloroethene | 11000 u |
| 78-93-3 | 2-butanone | 23000 u | 79-34-5 | 1,1,2,2-Tetrachloroethane | 11000 u |
| 71-55-6 | 1,1,1-Trichloroethane | 11000 u | 108-88-3 | Toluene | 101000 |
| 56-23-5 | Carbon Tetrachloride | 11000 u | 108-90-7 | Chlorobenzene | 11000 u |
| 108-05-4 | Vinyl Acetate | 23000 u | 100-41-4 | Ethylbenzene | 15000 |
| 75-27-4 | Bromodichloromethane | 11000 u | 100-42-5 | Styrene | 11000 u |
| | | | | Total Xylenes | 62000 |

Data Reporting Qualifiers

Value If the result is a value greater than or equal to the detection limit, report the value.

u Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response factor is assumed, or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero. (e.g. 10J)

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

T Spectrum does not meet criteria for confirmation out does indicate compound presence.

NA Compound present in both matrix spike standard and unspiked sample.

Form I

Versar Inc., Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

| SAMPLE ID |
|---|
| 150-55 |

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

| | CAS Number | Compound Name | Fraction | RT or Scan | Estimated Concentration (ug/Kg or ug/l) |
|---|---|---|---|---|---|
| 11. | | UNKNOWN HYDROCARBON | VOA | 448 | 6,200 J |
| 12. | 589-34-4 | HEXANE, 3-METHYL | VOA | 473 | 35,000 J |
| 13. | 108-08-7 | PENTANE, 2,4-DIMETHYL | VOA | 482 | 50,000 J |
| 14. | | | | | |
| 15. | | | | | |
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| 127. | | | | | |
| 128. | | | | | |
| 129. | | | | | |
| 130. | | | | | |

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SO 55

Lab Name: VERSAR, INC. Contract: TAYLOR/BORDU

Lab Code: VERSAR Case No.: 4600 SAS No.: SDG No.: SO 52

Matrix: (soil/water) SOIL Lab Sample ID: 44153

Sample wt/vol: 30.12 (g/ml) G Lab File ID:

Level: (low/med) LOW Date Received: 01/20/88

% Moisture: not dec. 13.24 dec. Date Extracted: 01/21/88

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 01/29/88

GPC Cleanup: (Y/N) N pH: 5.8 Dilution Factor: 1.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG | Q |
|---|---|---|---|
| 319-84-6 | alpha-BHC | 3.8 | U |
| 319-85-7 | beta-BHC | 3.8 | U |
| 319-86-8 | delta-BHC | 3.8 | U |
| 58-89-9 | gamma-BHC (Lindane) | 3.8 | U |
| 76-44-8 | Heptachlor | 3.8 | U |
| 309-00-2 | Aldrin | 3.8 | U |
| 1024-57-3 | Heptachlor Epoxide | 3.8 | U |
| 959-98-8 | Endosulfan I | 3.8 | U |
| 60-57-1 | Dieldrin | 7.7 | U |
| 72-55-9 | 4,4'-DDE | 7.7 | U |
| 72-20-8 | Endrin | 7.7 | U |
| 33213-65-9 | Endosulfan II | 7.7 | U |
| 72-54-8 | 4,4'-DDD | 7.7 | U |
| 1031-07-8 | Endosulfan Sulfate | 7.7 | U |
| 50-29-3 | 4,4'-DDT | 7.7 | U |
| 72-43-5 | Methoxychlor | 7.7 | U |
| 53494-70-5 | Endrin Ketone | 7.7 | U |
| 5103-71-9 | alpha-Chlordane | 7.7 | U |
| 5103-74-2 | gamma-Chlordane | 7.7 | U |
| 8001-35-2 | Toxaphene | 77 | U |
| 12674-11-2 | Aroclor-1016 | 38 | U |
| 11104-28-2 | Aroclor-1221 | 38 | U |
| 11141-16-5 | Aroclor-1232 | 38 | U |
| 53469-21-9 | Aroclor-1242 | 38 | U |
| 12672-29-6 | Aroclor-1248 | 38 | U |
| 11097-69-1 | Aroclor-1254 | 150 | |
| 11096-82-5 | Aroclor-1260 | 77 | U |

David Pisani
02/04/88

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SO 55

Lab Name: VERSAR, INC. Contract: TAYLOR/BOROU

Lab Code: VERSAR Case No.: 4600 SAS No.: SDG No.: SO 52

Matrix: (soil/water) SOIL Lab Sample ID: 44153

Sample wt/vol: 30.12 (g/ml) G Lab File ID:

Level: (low/med) LOW Date Received: 01/20/88

% Moisture: not dec. 13.24 dec. Date Extracted: 01/21/88

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 01/30/88

GPC Cleanup: (Y/N) N pH: 5.8 Dilution Factor: 5.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG | Q |
|---|---|---|---|
| 319-84-6 | alpha-BHC | 19 | U |
| 319-85-7 | beta-BHC | 19 | U |
| 319-86-8 | delta-BHC | 19 | U |
| 58-89-9 | gamma-BHC (Lindane) | 19 | U |
| 76-44-8 | Heptachlor | 19 | U |
| 309-00-2 | Aldrin | 19 | U |
| 1024-57-3 | Heptachlor Epoxide | 19 | U |
| 959-98-8 | Endosulfan I | 19 | U |
| 60-57-1 | Dieldrin | 38 | U |
| 72-55-9 | 4,4'-DDE | 38 | U |
| 72-20-8 | Endrin | 38 | U |
| 33213-65-9 | Endosulfan II | 38 | U |
| 72-54-8 | 4,4'-DDD | 38 | U |
| 1031-07-8 | Endosulfan Sulfate | 38 | U |
| 50-29-3 | 4,4'-DDT | 38 | U |
| 72-43-5 | Methoxychlor | 38 | U |
| 53494-70-5 | Endrin Ketone | 38 | U |
| 5103-71-9 | alpha-Chlordane | 38 | U |
| 5103-74-2 | gamma-Chlordane | 38 | U |
| 8001-35-2 | Toxaphene | 380 | U |
| 12674-11-2 | Aroclor-1016 | 190 | U |
| 11104-28-2 | Aroclor-1221 | 190 | U |
| 11141-16-5 | Aroclor-1232 | 190 | U |
| 53469-21-9 | Aroclor-1242 | 190 | U |
| 12672-29-6 | Aroclor-1248 | 190 | U |
| 11097-69-1 | Aroclor-1254 | 170 ~~380~~ | J-U |
| 11096-82-5 | Aroclor-1260 | 380 | U |

J-EPA-CLP FLAG) DENOTES ESTIMATED VALUE QUANTITATED BELOW THE DETECTION LIMIT. 02/15/88

David Lipani 02/04/88

FORM I PEST 1/87 Rev.

Versar, Inc. Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

| Sample Number |
|---|
| SO-56 |

ORGANICS ANALYSIS DATA SHEET (Page 1)

Laboratory Name: VERSAR
Lab Sample ID No: 44160
Sample Matrix: SOIL
Data Release Authorized By:

Case No: 4600 BW313
QC Report No: 4600 BW313
Contract No:
Date Sample Received: 01/20/88

VOLATILE COMPOUNDS

Concentration: LOW
Date Extracted/Prepared: 01/20/88
Date Analyzed: 01/20/88
Conc/Dil Factor: 5 pH NA
Percent Moisture: 13.82

| CAS Number | | ug/Kg |
|---|---|---|
| 74-87-3 | Chloromethane | 58 u |
| 74-83-9 | Bromomethane | 58 u |
| 75-01-4 | Vinyl Chloride | 58 u |
| 75-00-3 | Chloroethane | 58 u |
| 75-09-2 | Methylene Chloride | 12 J |
| 67-64-1 | Acetone | 100 B |
| 75-15-0 | Carbon Disulfide | 29 u |
| 75-35-4 | 1,1-Dichloroethene | 29 u |
| 75-34-3 | 1,1-Dichloroethane | 29 u |
| 156-60-5 | Trans-1,2-Dichloroethene | 29 u |
| 67-66-3 | Chloroform | 29 u |
| 107-06-2 | 1,2-Dichloroethane | 29 u |
| 78-93-3 | 2-butanone | 79 |
| 71-55-6 | 1,1,1-Trichloroethane | 29 u |
| 56-23-5 | Carbon Tetrachloride | 29 u |
| 108-05-4 | Vinyl Acetate | 58 u |
| 75-27-4 | Bromodichloromethane | 29 u |

| CAS Number | | ug/Kg |
|---|---|---|
| 78-87-5 | 1,2-Dichloropropane | 29 u |
| 10061-02-6 | Trans-1,3-Dichloropropene | 29 u |
| 79-01-6 | Trichloroethene | 29 u |
| 124-48-1 | Dibromochloromethane | 29 u |
| 79-00-5 | 1,1,2-Trichloroethane | 29 u |
| 71-43-2 | Benzene | 29 u |
| 10061-01-5 | cis-1,3-Dichloropropene | 29 u |
| 110-75-8 | 2-chloroethylvinylether | 58 u |
| 75-25-2 | Bromoform | 29 u |
| 108-10-1 | 4-Methyl-2-Pentanone | 200 |
| 591-78-6 | 2-Hexanone | 58 u |
| 127-18-4 | Tetrachloroethene | 29 u |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 29 u |
| 108-88-3 | Toluene | 6 |
| 108-90-7 | Chlorobenzene | 29 u |
| 100-41-4 | Ethylbenzene | 210 |
| 100-42-5 | Styrene | 29 u |
| | Total Xylenes | 870 |

Data Reporting Qualifiers

Value If the result is a value greater than or equal to the detection limit, report the value.

u Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response factor is assumed, or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero. (e.g. 10J)

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

T Spectrum does not meet criteria for confirmation but does indicate compound presence.

NA Compound present in both matrix spike standard and unspiked sample.

Form I

Versar, Inc. Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

| Sample Number |
| --- |
| SD-56 DIL |

ORGANICS ANALYSIS DATA SHEET (Page 1)

Laboratory Name: VERSAR
Lab Sample ID No: 44156
Sample Matrix: SOIL
Data Release Authorized By:

Case No: 4600 B#313
QC Report No: 4600 B#313
Contract No:
Date Sample Received: 01/20/88

VOLATILE COMPOUNDS

Concentration: MID
Date Extracted/Prepared: 01/21/88
Date Analyzed: 01/21/88
Conc/Dil Factor: 50 pH NA
Percent Moisture: 13.82

| CAS Number | | ug/Kg |
| --- | --- | --- |
| 74-87-3 | Chloromethane | 580 u |
| 74-83-9 | Bromomethane | 580 u |
| 75-01-4 | Vinyl Chloride | 580 u |
| 75-00-3 | Chloroethane | 580 u |
| 75-09-2 | Methylene Chloride | 290 u |
| 67-64-1 | Acetone | 580 u |
| 75-15-0 | Carbon Disulfide | 290 u |
| 75-35-4 | 1,1-Dichloroethene | 290 u |
| 75-34-3 | 1,1-Dichloroethane | 290 u |
| 156-60-5 | Trans-1,2-Dichloroethene | 290 u |
| 67-66-3 | Chloroform | 290 u |
| 107-06-2 | 1,2-Dichloroethane | 290 u |
| 78-93-3 | 2-butanone | 580 u |
| 71-55-6 | 1,1,1-Trichloroethane | 290 u |
| 56-23-5 | Carbon Tetrachloride | 290 u |
| 108-05-4 | Vinyl Acetate | 580 u |
| 75-27-4 | Bromodichloromethane | 290 u |

| CAS Number | | ug/Kg |
| --- | --- | --- |
| 78-87-5 | 1,2-Dichloropropane | 290 u |
| 10061-02-6 | Trans-1,3-Dichloropropene | 290 u |
| 79-01-6 | Trichloroethene | 290 u |
| 124-48-1 | Dibromochloromethane | 290 u |
| 79-00-5 | 1,1,2-Trichloroethane | 290 u |
| 71-43-2 | Benzene | 290 u |
| 10061-01-5 | cis-1,3-Dichloropropene | 290 u |
| 110-75-8 | 2-chloroethylvinylether | 580 u |
| 75-25-2 | Bromoform | 290 u |
| 108-10-1 | 4-Methyl-2-Pentanone | 580 u |
| 591-78-6 | 2-Hexanone | 580 u |
| 127-18-4 | Tetrachloroethene | 290 u |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 290 u |
| 108-88-3 | Toluene | 4100 |
| 108-90-7 | Chlorobenzene | 290 u |
| 100-41-4 | Ethylbenzene | 290 u |
| 100-42-5 | Styrene | 290 u |
| | Total Xylenes | 290 u |

Data Reporting Qualifiers

Value If the result is a value greater than or equal to the detection limit, report the value.

u Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response factor is assumed, or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero. (e.g. 10J)

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

T Spectrum does not meet criteria for confirmation but does indicate compound presence.

NA Compound present in both matrix spike standard and unspiked sample.

Form I

Versar Inc., Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

| SAMPLE ID |
|---|
| 150-56 |

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

| | CAS Number | Compound Name | Fraction | RT or Scan | Estimated Concentration (ug/Kg or ug/l) |
|---|---|---|---|---|---|
| 11. | | UNKNOWN | VOA | 472 | 59 J |
| 12. | 108-08-7 | PENTANE, 2,4-DIMETHYL | VOA | 482 | 74 J |
| 13. | | | | | |
| 14. | | | | | |
| 15. | | | | | |
| 16. | | | | | |
| 17. | | | | | |
| 18. | | | | | |
| 19. | | | | | |
| 110. | | | | | |
| 111. | | | | | |
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| 122. | | | | | |
| 123. | | | | | |
| 124. | | | | | |
| 125. | | | | | |
| 126. | | | | | |
| 127. | | | | | |
| 128. | | | | | |
| 129. | | | | | |
| 130. | | | | | |

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SO 56

Lab Name: VERSAR, INC. Contract: TAYLOR/BOROU

Lab Code: VERSAR Case No.: 4600 SAS No.: SDG No.: SO 52

Matrix: (soil/water) SOIL Lab Sample ID: 44154

Sample wt/vol: 30.38 (g/ml) G Lab File ID:

Level: (low/med) LOW Date Received: 01/20/88

% Moisture: not dec. 13.21 dec. Date Extracted: 01/21/88

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 01/29/88

GPC Cleanup: (Y/N) N pH: 6.4 Dilution Factor: 1.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG | Q |
|---|---|---|---|
| 319-84-6 | alpha-BHC | 3.8 | U |
| 319-85-7 | beta-BHC | 3.8 | U |
| 319-86-8 | delta-BHC | 3.8 | U |
| 58-89-9 | gamma-BHC (Lindane) | 3.8 | U |
| 76-44-8 | Heptachlor | 3.8 | U |
| 309-00-2 | Aldrin | 3.8 | U |
| 1024-57-3 | Heptachlor Epoxide | 3.8 | U |
| 959-98-8 | Endosulfan I | 3.8 | U |
| 60-57-1 | Dieldrin | 7.6 | U |
| 72-55-9 | 4,4'-DDE | 7.6 | U |
| 72-20-8 | Endrin | 7.6 | U |
| 33213-65-9 | Endosulfan II | 7.6 | U |
| 72-54-8 | 4,4'-DDD | 7.6 | U |
| 1031-07-8 | Endosulfan Sulfate | 7.6 | U |
| 50-29-3 | 4,4'-DDT | 7.6 | U |
| 72-43-5 | Methoxychlor | 7.6 | U |
| 53494-70-5 | Endrin Ketone | 7.6 | U |
| 5103-71-9 | alpha-Chlordane | 7.6 | U |
| 5103-74-2 | gamma-Chlordane | 7.6 | U |
| 8001-35-2 | Toxaphene | 76 | U |
| 12674-11-2 | Aroclor-1016 | 38 | U |
| 11104-28-2 | Aroclor-1221 | 38 | U |
| 11141-16-5 | Aroclor-1232 | 38 | U |
| 53469-21-9 | Aroclor-1242 | 38 | U |
| 12672-29-6 | Aroclor-1248 | 38 | U |
| 11097-69-1 | Aroclor-1254 | 76 | U |
| 11096-82-5 | Aroclor-1260 | 76 | U |

David Rupani
02/04/88

FORM I PEST 1/87 Rev.

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SO 56

Lab Name: VERSAR, INC. Contract: TAYLOR/BOROU

Lab Code: VERSAR Case No.: 4600 SAS No.: SDG No.: SO 52

Matrix: (soil/water) SOIL Lab Sample ID: 44154

Sample wt/vol: 30.38 (g/ml) G Lab File ID:

Level: (low/med) LOW Date Received: 01/20/88

% Moisture: not dec. 13.21 dec. Date Extracted: 01/21/88

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 01/30/88

GPC Cleanup: (Y/N) N pH: 6.4 Dilution Factor: 5.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG | Q |
|---|---|---|---|
| 319-84-6 | alpha-BHC | 19 | U |
| 319-85-7 | beta-BHC | 19 | U |
| 319-86-8 | delta-BHC | 19 | U |
| 58-89-9 | gamma-BHC (Lindane) | 19 | U |
| 76-44-8 | Heptachlor | 19 | U |
| 309-00-2 | Aldrin | 19 | U |
| 1024-57-3 | Heptachlor Epoxide | 19 | U |
| 959-98-8 | Endosulfan I | 19 | U |
| 60-57-1 | Dieldrin | 38 | U |
| 72-55-9 | 4,4'-DDE | 38 | U |
| 72-20-8 | Endrin | 38 | U |
| 33213-65-9 | Endosulfan II | 38 | U |
| 72-54-8 | 4,4'-DDD | 38 | U |
| 1031-07-8 | Endosulfan Sulfate | 38 | U |
| 50-29-3 | 4,4'-DDT | 38 | U |
| 72-43-5 | Methoxychlor | 38 | U |
| 53494-70-5 | Endrin Ketone | 38 | U |
| 5103-71-9 | alpha-Chlordane | 38 | U |
| 5103-74-2 | gamma-Chlordane | 38 | U |
| 8001-35-2 | Toxaphene | 380 | U |
| 12674-11-2 | Aroclor-1016 | 190 | U |
| 11104-28-2 | Aroclor-1221 | 190 | U |
| 11141-16-5 | Aroclor-1232 | 190 | U |
| 53469-21-9 | Aroclor-1242 | 190 | U |
| 12672-29-6 | Aroclor-1248 | 190 | U |
| 11097-69-1 | Aroclor-1254 | 380 | U |
| 11096-82-5 | Aroclor-1260 | 380 | U |

David Nipani
02/04/88

FORM I PEST 1/87 Rev.

Versar, Inc. Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

| Sample Number |
|---|
| SO-57 |

ORGANICS ANALYSIS DATA SHEET (Page 1)

Laboratory Name: VERSAR
Lab Sample ID No: 44161
Sample Matrix: SOIL
Data Release Authorized By:

Case No: 4600 BN313
QC Report No: 4600 BN313
Contract No:
Date Sample Received: 01/20/88

VOLATILE COMPOUNDS

Concentration: LOW
Date Extracted/Prepared: 01/20/88
Date Analyzed: 01/20/88
Conc/Dil Factor: 1 pH NA
Percent Moisture: 10.31

| CAS Number | | ug/Kg |
|---|---|---|
| 74-87-3 | Chloromethane | 11 u |
| 74-83-9 | Bromomethane | 11 u |
| 75-01-4 | Vinyl Chloride | 11 u |
| 75-00-3 | Chloroethane | 11 u |
| 75-09-2 | Methylene Chloride | 6 u |
| 67-64-1 | Acetone | 20 B |
| 75-15-0 | Carbon Disulfide | 6 u |
| 75-35-4 | 1,1-Dichloroethene | 6 u |
| 75-34-3 | 1,1-Dichloroethane | 6 u |
| 156-60-5 | Trans-1,2-Dichloroethene | 6 u |
| 67-66-3 | Chloroform | 6 u |
| 107-06-2 | 1,2-Dichloroethane | 6 u |
| 78-93-3 | 2-butanone | 11 u |
| 71-55-6 | 1,1,1-Trichloroethane | 6 u |
| 56-23-5 | Carbon Tetrachloride | 6 u |
| 108-05-4 | Vinyl Acetate | 11 u |
| 75-27-4 | Bromodichloromethane | 6 u |

| CAS Number | | ug/Kg |
|---|---|---|
| 78-87-5 | 1,2-Dichloropropane | 6 u |
| 10061-02-6 | Trans-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 |
| 10061-01-5 | cis-1,3-Dichloropropene | 6 u |
| 110-75-8 | 2-chloroethylvinylether | 11 u |
| 75-25-2 | Bromoform | 6 u |
| 108-10-1 | 4-Methyl-2-Pentanone | 11 u |
| 591-78-6 | 2-Hexanone | 11 u |
| 127-18-4 | Tetrachloroethene | 6 u |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 6 u |
| 108-88-3 | Toluene | 13 |
| 108-90-7 | Chlorobenzene | 6 u |
| 100-41-4 | Ethylbenzene | 6 u |
| 100-42-5 | Styrene | 6 u |
| | Total Xylenes | 6 u |

Data Reporting Qualifiers

Value If the result is a value greater than or equal to the detection limit, report the value.

u Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response factor is assumed, or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero. (e.g. 10J)

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

T Spectrum does not meet criteria for confirmation but does indicate compound presence.

SA Compound present in both matrix spike standard and unspiked sample.

Form I

Versar Inc., Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

| SAMPLE ID |
|---|
| 90-57 |

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

| | CAS Number | Compound Name | Fraction | RT or Scan | Estimated Concentration (ug/Kg or ug/l) |
|---|---|---|---|---|---|
| 11. | | NO VOLATILES DETECTED | VOA | NA | NA |
| 12. | | | | | |
| 13. | | | | | |
| 14. | | | | | |
| 15. | | | | | |
| 16. | | | | | |
| 17. | | | | | |
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| 126. | | | | | |
| 127. | | | | | |
| 128. | | | | | |
| 129. | | | | | |
| 130. | | | | | |

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SO 57

Lab Name: VERSAR, INC. Contract: TAYLOR/BOROU

Lab Code: VERSAR Case No.: 4600 SAS No.: SDG No.: SO 52

Matrix: (soil/water) SOIL Lab Sample ID: 44155

Sample wt/vol: 30.46 (g/ml) G Lab File ID:

Level: (low/med) LOW Date Received: 01/20/88

% Moisture: not dec. 10.06 dec. Date Extracted: 01/21/88

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 01/29/88

GPC Cleanup: (Y/N) N pH: 6.3 Dilution Factor: 1.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG | Q |
|---|---|---|---|
| 319-84-6 | alpha-BHC | 3.7 | U |
| 319-85-7 | beta-BHC | 3.7 | U |
| 319-86-8 | delta-BHC | 3.7 | U |
| 58-89-9 | gamma-BHC (Lindane) | 3.7 | U |
| 76-44-8 | Heptachlor | 3.7 | U |
| 309-00-2 | Aldrin | 3.7 | U |
| 1024-57-3 | Heptachlor Epoxide | 3.7 | U |
| 959-98-8 | Endosulfan I | 3.7 | U |
| 60-57-1 | Dieldrin | 7.3 | U |
| 72-55-9 | 4,4'-DDE | 7.3 | U |
| 72-20-8 | Endrin | 7.3 | U |
| 33213-65-9 | Endosulfan II | 7.3 | U |
| 72-54-8 | 4,4'-DDD | 7.3 | U |
| 1031-07-8 | Endosulfan Sulfate | 7.3 | U |
| 50-29-3 | 4,4'-DDT | 7.3 | U |
| 72-43-5 | Methoxychlor | 7.3 | U |
| 53494-70-5 | Endrin Ketone | 7.3 | U |
| 5103-71-9 | alpha-Chlordane | 7.3 | U |
| 5103-74-2 | gamma-Chlordane | 7.3 | U |
| 8001-35-2 | Toxaphene | 73 | U |
| 12674-11-2 | Aroclor-1016 | 37 | U |
| 11104-28-2 | Aroclor-1221 | 37 | U |
| 11141-16-5 | Aroclor-1232 | 37 | U |
| 53469-21-9 | Aroclor-1242 | 37 | U |
| 12672-29-6 | Aroclor-1248 | 37 | U |
| 11097-69-1 | Aroclor-1254 | 73 | U |
| 11096-82-5 | Aroclor-1260 | 73 | U |

David Lipsani
02/04/88

FORM I PEST 1/87 Rev.

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SO 57

Lab Name: VERSAR, INC. Contract: TAYLOR/BOROU

Lab Code: VERSAR Case No.: 4600 SAS No.: SDG No.: SO 52

Matrix: (soil/water) SOIL Lab Sample ID: 44155

Sample wt/vol: 30.46 (g/ml) G Lab File ID:

Level: (low/med) LOW Date Received: 01/20/88

% Moisture: not dec. 10.06 dec. Date Extracted: 01/21/88

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 01/30/88

GPC Cleanup: (Y/N) N pH: 6.3 Dilution Factor: 5.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG | Q |
|---|---|---|---|
| 319-84-6 | alpha-BHC | 18 | U |
| 319-85-7 | beta-BHC | 18 | U |
| 319-86-8 | delta-BHC | 18 | U |
| 58-89-9 | gamma-BHC (Lindane) | 18 | U |
| 76-44-8 | Heptachlor | 18 | U |
| 309-00-2 | Aldrin | 18 | U |
| 1024-57-3 | Heptachlor Epoxide | 18 | U |
| 959-98-8 | Endosulfan I | 18 | U |
| 60-57-1 | Dieldrin | 37 | U |
| 72-55-9 | 4,4'-DDE | 37 | U |
| 72-20-8 | Endrin | 37 | U |
| 33213-65-9 | Endosulfan II | 37 | U |
| 72-54-8 | 4,4'-DDD | 37 | U |
| 1031-07-8 | Endosulfan Sulfate | 37 | U |
| 50-29-3 | 4,4'-DDT | 37 | U |
| 72-43-5 | Methoxychlor | 37 | U |
| 53494-70-5 | Endrin Ketone | 37 | U |
| 5103-71-9 | alpha-Chlordane | 37 | U |
| 5103-74-2 | gamma-Chlordane | 37 | U |
| 8001-35-2 | Toxaphene | 370 | U |
| 12674-11-2 | Aroclor-1016 | 180 | U |
| 11104-28-2 | Aroclor-1221 | 180 | U |
| 11141-16-5 | Aroclor-1232 | 180 | U |
| 53469-21-9 | Aroclor-1242 | 180 | U |
| 12672-29-6 | Aroclor-1248 | 180 | U |
| 11097-69-1 | Aroclor-1254 | 370 | U |
| 11096-82-5 | Aroclor-1260 | 370 | U |

David Lipomi
02/04/88

FORM I PEST 1/87 Rev.

Versar, Inc. Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

| Sample Number |
|---|
| S0-58 |

ORGANICS ANALYSIS DATA SHEET (Page 1)

Laboratory Name: VERSAR
Lab Sample ID No: 44707
Sample Matrix: SOIL
Data Release Authorized By:

Case No: 4600 BW323
QC Report No: 4600 BW323
Contract No:
Date Sample Received: 02/02/88

VOLATILE COMPOUNDS

Concentration: LOW
Date Extracted/Prepared: 02/02/88
Date Analyzed: 02/02/88
Conc/Dil Factor: 2 pH NA
Percent Moisture: 14.17

| CAS Number | | ug/Kg | CAS Number | | ug/Kg |
|---|---|---|---|---|---|
| 74-87-3 | Chloromethane | 23 u | 78-87-5 | 1,2-Dichloropropane | 12 u |
| 74-83-9 | Bromomethane | 23 u | 10061-02-6 | Trans-1,3-Dichloropropene | 12 u |
| 75-01-4 | Vinyl Chloride | 23 u | 79-01-6 | Trichloroethene | 12 u |
| 75-00-3 | Chloroethane | 23 u | 124-48-1 | Dibromochloromethane | 12 u |
| 75-09-2 | Methylene Chloride | 12 u | 79-00-5 | 1,1,2-Trichloroethane | 12 u |
| 67-64-1 | Acetone | 26 B | 71-43-2 | Benzene | 12 u |
| 75-15-0 | Carbon Disulfide | 12 u | 10061-01-5 | cis-1,3-Dichloropropene | 12 u |
| 75-35-4 | 1,1-Dichloroethene | 12 u | 110-75-8 | 2-chloroethylvinylether | 23 u |
| 75-34-3 | 1,1-Dichloroethane | 12 u | 75-25-2 | Bromoform | 12 u |
| 156-60-5 | Trans-1,2-Dichloroethene | 12 u | 108-10-1 | 4-Methyl-2-Pentanone | 23 u |
| 67-66-3 | Chloroform | 12 u | 591-78-6 | 2-Hexanone | 23 u |
| 107-06-2 | 1,2-Dichloroethane | 12 u | 127-18-4 | Tetrachloroethene | 12 u |
| 78-93-3 | 2-butanone | 23 u | 79-34-5 | 1,1,2,2-Tetrachloroethane | 12 u |
| 71-55-6 | 1,1,1-Trichloroethane | 12 u | 108-88-3 | Toluene | 300 |
| 56-23-5 | Carbon Tetrachloride | 12 u | 108-90-7 | Chlorobenzene | 12 u |
| 108-05-4 | Vinyl Acetate | 23 u | 100-41-4 | Ethylbenzene | 95 |
| 75-27-4 | Bromodichloromethane | 12 u | 100-42-5 | Styrene | 12 u |
| | | | | Total Xylenes | 210 |

Data Reporting Qualifiers

Value If the result is a value greater than or equal to the detection limit, report the value.

u Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response factor is assumed, or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero. (e.g. 10J)

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

T Spectrum does not meet criteria for confirmation but does indicate compound presence.

NA Compound present in both matrix spike standard and unspiked sample.

Versar Inc., Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

| SAMPLE ID |
|---|
| SO-5d |

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

| | CAS Number | Compound Name | Fraction | RT or Scan | Estimated Concentration (ug/Kg or ug/l) |
|---|---|---|---|---|---|
| 11. | 1638-26-2 | CYCLOPENTANE, 1,1-DIMETHYL | VOA | 391 | 5 J |
| 12. | | UNKNOWN HYDROCARBON | VOA | 453 | 14 J |
| 13. | 589-34-4 | HEXANE, 3-METHYL | VOA | 477 | 64 J |
| 14. | | UNKNOWN. Hydrocarbon | VOA | 485 | 41 J |
| 15. | | | | | |
| 16. | | | | | |
| 17. | | | | | |
| 18. | | | | | |
| 19. | | | | | |
| 110. | | | | | |
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| 129. | | | | | |
| 130. | | | | | |

Versar Inc., Laboratory Operations
6850 Versar Center, Springfield VA 22151 703/750-3000

| Sample number |
|---|
| S0-58 |

Case No: 4600 BATCH#323

ORGANICS ANALYSIS DATA SHEET (Page 2)
Semivolatile Compounds

Concentration: LOW

Date Extracted/Prepared: 02/04/88

Date Analyzed: 02/04/88

Conc/Dil Factor: 1

GPC Cleanup [ ]Yes [X]No

Separatory Funnel Extraction [ ]Yes

Continuous Liquid-Liquid Extraction [ ]Yes

| CAS Number | | ug/Kg |
|---|---|---|
| 108-95-2 | Phenol | 380 u |
| 111-44-4 | bis(2-Chloroethyl)Ether | 380 u |
| 95-57-8 | 2-Chlorophenol | 380 u |
| 541-73-1 | 1,3-Dichlorobenzene | 380 u |
| 106-46-7 | 1,4-Dichlorobenzene | 380 u |
| 100-51-6 | Benzyl Alcohol | 380 u |
| 95-50-1 | 1,2-Dichlorobenzene | 380 u |
| 95-48-7 | 2-Methylphenol | 380 u |
| 39638-32-9 | bis(2-chloroisopropyl)ether | 380 u |
| 106-44-5 | 4-methylphenol | 380 u |
| 621-64-7 | N-Nitroso-Di-n-propylamine | 380 u |
| 67-72-1 | Hexachloroethane | 380 u |
| 98-95-3 | Nitrobenzene | 380 u |
| 78-59-1 | Isophorone | 380 u |
| 88-75-5 | 2-Nitrophenol | 380 u |
| 105-67-9 | 2,4-dimethylphenol | 380 u |
| 65-85-0 | Benzoic Acid | 1920 u |
| 111-91-1 | bis(2-chloroethoxy)methane | 380 u |
| 120-83-2 | 2,4-dichlorophenol | 380 u |
| 120-82-1 | 1,2,4-trichlorobenzene | 380 u |
| 91-20-3 | Naphthalene | 380 u |
| 106-47-8 | 4-Chloroaniline | 380 u |
| 87-68-3 | Hexachlorobutadiene | 380 u |
| 59-50-7 | 4-chloro-3-methylphenol | 380 u |
| 91-57-6 | 2-methylnaphthalene | 380 u |
| 77-47-4 | Hexachlorocyclopentadiene | 380 u |
| 88-06-2 | 2,4,6-Trichlorophenol | 380 u |
| 95-95-4 | 2,4,5-Trichlorophenol | 1920 u |
| 91-58-7 | 2-Chloronaphthalene | 380 u |
| 88-74-4 | 2-nitroaniline | 1920 u |
| 131-11-3 | Dimetnyl Phthalate | 380 u |
| 208-96-8 | Acenaphthylene | 380 u |
| 99-09-2 | 3-Nitroaniline | 1920 u |

| CAS Number | | ug/Kg |
|---|---|---|
| 83-32-9 | Acenaphthene | 380 u |
| 51-28-5 | 2,4-Dinitrophenol | 1920 u |
| 100-02-7 | 4-Nitrophenol | 1920 u |
| 132-64-9 | Dibenzofuran | 380 u |
| 121-14-2 | 2,4-Dinitrotoluene | 380 u |
| 606-20-2 | 2,6-Dinitrotoluene | 380 u |
| 84-66-2 | Diethylphthalate | 380 u |
| 7005-22-3 | 4-Chlorophenyl-phenylether | 380 u |
| 86-73-7 | Fluorene | 380 u |
| 100-01-6 | 4-Nitroaniline | 1920 u |
| 534-52-1 | 4,6-dinitro-2-methylphenol | 1920 u |
| 86-30-6 | N-Nitrosodiphenylamine (1) | 380 u |
| 101-55-3 | 4-Bromophenyl-phenylether | 380 u |
| 118-74-1 | Hexachlorobenzene | 380 u |
| 87-86-5 | Pentachlorophenol | 1920 u |
| 85-01-8 | Phenanthrene | 380 u |
| 120-12-7 | Anthracene | 380 u |
| 84-74-2 | Di-n-butylphthalate | 380 u |
| 206-44-0 | Fluoranthene | 380 u |
| 129-00-0 | Pyrene | 380 u |
| 85-68-7 | Butylbenzylphthalate | 380 u |
| 91-94-1 | 3,3'-Dichlorobenzidine | 780 u |
| 56-55-3 | Benzo(a)anthracene | 380 u |
| 117-81-7 | bis(2-Ethylhexyl)Phthalate | 250 J |
| 218-01-9 | Chrysene | 380 u |
| 117-84-0 | Di-n-Octylphthalate | 380 u |
| 205-99-2 | Benzo(b)Fluoranthene | 380 u |
| 207-08-9 | Benzo(k)Fluoranthene | 380 u |
| 50-32-8 | Benzo(a)pyrene | 380 u |
| 193-39-5 | Indeno(1,2,3-cd)Pyrene | 380 u |
| 53-70-3 | Dibenz(a,h)Anthracene | 380 u |
| 191-24-2 | Benzo(g,h,i)Perylene | 380 u |

(1)-Cannot be separated from diphenylamine

Versar Inc., Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

| SAMPLE ID |
|---|
| SO-58 |

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

| | CAS Number | Compound Name | Fraction | RT or Scan | Estimated Concentration (ug/kg or ug/l) |
|---|---|---|---|---|---|
| 1 | | UNKNOWN HYDROCARBON | BNA | 467 | 3,600 J,B |
| 2 | 123-54-6 | 2,4-PENTANEDIONE | BNA | 519 | 170 J |
| 3 | 17257-81-7 | ETHANONE, 1-(3-ETHYLOXIRANYL)- | BNA | 549 | 1,700 J |
| 4 | | UNKNOWN | BNA | 575 | 450 J,B |
| 5 | | UNKNOWN KETONE | BNA | 635 | 230 J |
| 6 | | UNKNOWN | BNA | 710 | 440 J |
| 7 | | UNKNOWN | BNA | 718 | 140 J |
| 8 | 10544-50-0 | SULFUR, MOL. (S8) | BNA | 1715 | 130 J |
| 9 | | | | | |
| 10 | | | | | |
| 11 | | | | | |
| 12 | | | | | |
| 13 | | | | | |
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PESTICIDE ORGANICS ANALYSIS DATA SHEET

SDG NAME / No.: 30 38

Lab Name: VERSAR, INC. Contract:

Lab Code: VERSAR Case No.: 4600 SAS No.: SDG No.: 3058

Matrix: (soil/water) SOIL Lab Sample ID: 44698

Sample wt/vol: 30 (g/ml) G Lab File ID:

Level: (low/med) LOW Date Received: 02/02/88

% Moisture: not dec. 14 dec. Date Extracted: 02/05/88

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 02/09/88

GPC Cleanup: (Y/N) N pH: 7.1 Dilution Factor: 1.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG | Q |
|---|---|---|---|
| 319-84-6 | alpha-BHC | 3.9 | U |
| 319-85-7 | beta-BHC | 3.9 | U |
| 319-86-8 | delta-BHC | 3.9 | U |
| 58-89-9 | gamma-BHC (Lindane) | 3.9 | U |
| 76-44-8 | Heptachlor | 3.9 | U |
| 309-00-2 | Aldrin | 3.9 | U |
| 1024-57-3 | Heptachlor Epoxide | 3.9 | U |
| 959-98-8 | Endosulfan I | 3.9 | U |
| 60-57-1 | Dieldrin | 7.8 | U |
| 72-55-9 | 4,4'-DDE | 7.8 | U |
| 72-20-8 | Endrin | 7.8 | U |
| 33213-65-9 | Endosulfan II | 7.8 | U |
| 72-54-8 | 4,4'-DDD | 7.8 | U |
| 1031-07-8 | Endosulfan Sulfate | 7.8 | U |
| 50-29-3 | 4,4'-DDT | 7.8 | U |
| 72-43-5 | Methoxychlor | 7.8 | U |
| 53494-70-5 | Endrin Ketone | 7.8 | U |
| 5103-71-9 | alpha-Chlordane | 7.8 | U |
| 5103-74-2 | gamma-Chlordane | 7.8 | U |
| 8001-35-2 | Toxaphene | 78 | U |
| 12674-11-2 | Aroclor-1016 | 39 | U |
| 11104-28-2 | Aroclor-1221 | 39 | U |
| 11141-16-5 | Aroclor-1232 | 39 | U |
| 53469-21-9 | Aroclor-1242 | 39 | U |
| 12672-29-6 | Aroclor-1248 | 39 | U |
| 11097-69-1 | Aroclor-1254 | 78 | U |
| 11096-82-5 | Aroclor-1260 | 78 | U |



P. Chinnaswamy
02/11/88

PESTICIDE ORGANICS ANALYSIS DATA SHEET

SDG No.

Lab Name: VERSAR, INC. Contract:

Code: VERSAR Case No. 14600 SAS No.: SDG No.: 3058

Matrix: (soil/water) SOIL Lab Sample ID: 44698

Sample wt/vol: 30 (g/ml) G Lab File ID:

Level: (low/med) LOW Date Received: 02/02/88

% Moisture: not dec. 14 dec. Date Extracted: 02/05/88

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 02/09/88

GPC Cleanup: (Y/N) N pH: 7.1 Dilution Factor: 10.0

| 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 | 78 | U |
| 53494-70-5 | Endrin Ketone | 78 | U |
| 5103-71-9 | alpha-Chlordane | 78 | U |
| 5103-74-2 | gamma-Chlordane | 78 | 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 |



P. Chinyawong 02/17/88

FORM I

| SAMPLE NO. |
|---|
| 50 58 |

DATE 2/12/88

INORGANIC ANALYSIS DATA SHEET

LAB NAME VERSAR INC.

CASE NO. -----

SOW NO. 785

LAB RECEIPT DATE 2/2/88

LAB SAMPLE ID. NO. 44696

QC REPORT NO. 323

PROJECT-TASK 4600.0000

BATCH 323

ELEMENTS IDENTIFIED AND MEASURED

CONCENTRATION: LOW X MEDIUM HIGH

MATRIX: WATER SOIL X WIPE

UNITS IN MG/KG DRY WEIGHT

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1. | ALUMINUM | 5280. | P | 13. | MAGNESIUM | 1530. | P |
| 2. | ANTIMONY | 5.2 UN | P | 14. | MANGANESE | [illegible] | P |
| 3. | ARSENIC | 5.7 | F | 15. | MERCURY | 0.12 U | |
| 4. | BARIUM | [ 34.] | P | 16. | NICKEL | 15. | P |
| 5. | BERYLLIUM | [ 0.46] | P | 17. | POTASSIUM | [ 563.] | P |
| 6. | CADMIUM | 0.96 U | P | 18. | SELENIUM | 12. UN | F |
| 7. | CALCIUM | [ 798.] | P | 19. | SILVER | 0.48 U | P |
| 8. | CHROMIUM | 8.0 | P | 20. | SODIUM | [ 68.] | P |
| 9. | COBALT | [ 10.] | P | 21. | THALLIUM | 2.4 U | F |
| 10. | COPPER | 15. | P | 22. | VANADIUM | [ 7.5] | P |
| 11. | IRON | 17700. | P | 23. | ZINC | 45. | P |
| 12. | LEAD | 11. N | F S | | PERCENT SOLIDS | 83.7 | |
| | CYANIDE | NR | | | | | |

FOOTNOTES: SEE COVER PAGE.

COMMENTS: TEXTURE - FINE; COLOR - LIGHT BROWN; DF OF 10 FOR SE; DF OF 2 FOR PB; SD;

LAB MANAGER Steven L. Helberg for

WILLIAM T. NIVENS

Versar, Inc. Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

| Sample Number |
|---|
| S0-59 |

ORGANICS ANALYSIS DATA SHEET (Page 1)

Laboratory Name: VERSAR
Lab Sample ID No: 44708
Sample Matrix: SOIL
Data Release Authorized By:

Case No: 4600 BW323
QC Report No: 4600 BW323
Contract No:
Date Sample Received: 02/02/88

VOLATILE COMPOUNDS

Concentration: LOW
Date Extracted/Prepared: 02/03/88
Date Analyzed: 02/03/88
Conc/Dil Factor: 1 pH: NA
Percent Moisture: 18.92

| CAS Number | | ug/Kg |
|---|---|---|
| 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 | 6 u |
| 67-64-1 | Acetone | 24 B |
| 75-15-0 | Carbon Disulfide | 6 u |
| 75-35-4 | 1,1-Dichloroethene | 6 u |
| 75-34-3 | 1,1-Dichloroethane | 6 u |
| 156-60-5 | Trans-1,2-Dichloroethene | 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 |

| CAS Number | | ug/Kg |
|---|---|---|
| 78-87-5 | 1,2-Dichloropropane | 6 u |
| 10061-02-6 | Trans-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 |
| 10061-01-5 | cis-1,3-Dichloropropene | 6 u |
| 110-75-8 | 2-chloroethylvinylether | 12 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 | 14 |
| 108-90-7 | Chlorobenzene | 6 u |
| 100-41-4 | Ethylbenzene | 6 u |
| 100-42-5 | Styrene | 6 u |
| | Total Xylenes | 6 u |

Data Reporting Qualifiers

Value If the result is a value greater than or equal to the detection limit, report the value.

u Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response factor is assumed, or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero. (e.g. 10J)

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

T Spectrum does not meet criteria for confirmation but does indicate compound presence.

NA Compound present in both matrix spike standard and unspiked sample.

Versar Inc., Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

| SAMPLE ID |
|---|
| SO-59 |

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

| | CAS Number | Compound Name | Fraction | RT or Scan | Estimated Concentration ug/Kg or ug/l |
|---|---|---|---|---|---|
| 11. | | NO VOLATILES DETECTED | IVOA | NA | NA |
| 12. | | | | | |
| 13. | | | | | |
| 14. | | | | | |
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| 118. | | | | | |
| 119. | | | | | |
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| 121. | | | | | |
| 122. | | | | | |
| 123. | | | | | |
| 124. | | | | | |
| 125. | | | | | |
| 126. | | | | | |
| 127. | | | | | |
| 128. | | | | | |
| 129. | | | | | |
| 130. | | | | | |

1F

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SO 39

Lab Name: VERSAR, INC. Contract:

Lab Code: VERSAR Case No.: 4600 SAS No.: SDG No.: SO58

Matrix: (soil/water) SOIL Lab Sample ID: 44699

Sample wt/vol: 30 (g/ml) G Lab File ID:

Level: (low/med) LOW Date Received: 02/02/88

% Moisture: not dec. 19 dec. Date Extracted: 02/05/88

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 02/09/88

GPC Cleanup: (Y/N) N pH: 6.8 Dilution Factor: 1.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG | Q |
|---|---|---|---|
| 319-84-6 | alpha-BHC | 4.1 | U |
| 319-85-7 | beta-BHC | 4.1 | U |
| 319-86-8 | delta-BHC | 4.1 | U |
| 58-89-9 | gamma-BHC (Lindane) | 4.1 | U |
| 76-44-8 | Heptachlor | 4.1 | U |
| 309-00-2 | Aldrin | 4.1 | U |
| 1024-57-3 | Heptachlor Epoxide | 4.1 | U |
| 959-98-8 | Endosulfan I | 4.1 | U |
| 60-57-1 | Dieldrin | 8.2 | U |
| 72-55-9 | 4,4'-DDE | 8.2 | U |
| 72-20-8 | Endrin | 8.2 | U |
| 33213-65-9 | Endosulfan II | 8.2 | U |
| 72-54-8 | 4,4'-DDD | 8.2 | U |
| 1031-07-8 | Endosulfan Sulfate | 8.2 | U |
| 50-29-3 | 4,4'-DDT | 8.2 | U |
| 72-43-5 | Methoxychlor | 8.2 | U |
| 53494-70-5 | Endrin Ketone | 8.2 | U |
| 5103-71-9 | alpha-Chlordane | 8.2 | U |
| 5103-74-2 | gamma-Chlordane | 8.2 | U |
| 8001-35-2 | Toxaphene | 82 | U |
| 12674-11-2 | Aroclor-1016 | 41 | U |
| 11104-28-2 | Aroclor-1221 | 41 | U |
| 11141-16-5 | Aroclor-1232 | 41 | U |
| 53469-21-9 | Aroclor-1242 | 41 | U |
| 12672-29-6 | Aroclor-1248 | 41 | U |
| 11097-69-1 | Aroclor-1254 | 82 | U |
| 11096-82-5 | Aroclor-1260 | 82 | U |



P. Chinyawong
02/17/88

Versar, Inc. Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

| Sample Number |
|---|
| 90-60 |

ORGANICS ANALYSIS DATA SHEET (Page 1)

Laboratory Name: VERSAR
Lab Sample ID No: 44709
Sample Matrix: SOIL
Data Release Authorized By:

Case No: 4600 BW323
QC Report No: 4600 BW323
Contract No:
Date Sample Received: 02/02/88

VOLATILE COMPOUNDS

Concentration: LOW
Date Extracted/Prepared: 02/03/88
Date Analyzed: 02/03/88
Conc/Dil Factor: 2 pH NA
Percent Moisture: 12.28

| CAS Number | | ug/Kg | CAS Number | | ug/Kg |
|---|---|---|---|---|---|
| 74-87-3 | Chloromethane | 23 u | 78-87-5 | 1,2-Dichloropropane | 11 u |
| 74-83-9 | Bromomethane | 23 u | 10061-02-6 | Trans-1,3-Dichloropropene | 11 u |
| 75-01-4 | Vinyl Chloride | 23 u | 79-01-6 | Trichloroethene | 11 u |
| 75-00-3 | Chloroethane | 23 u | 124-48-1 | Dibromochloromethane | 11 u |
| 75-09-2 | Methylene Chloride | 11 u | 79-00-5 | 1,1,2-Trichloroethane | 11 u |
| 67-64-1 | Acetone | 19 JB | 71-43-2 | Benzene | 11 u |
| 75-15-0 | Carbon Disulfide | 11 u | 10061-01-5 | cis-1,3-Dichloropropene | 11 u |
| 75-35-4 | 1,1-Dichloroethene | 11 u | 110-75-8 | 2-chloroethylvinylether | 23 u |
| 75-34-3 | 1,1-Dichloroethane | 11 u | 75-25-2 | Bromoform | 11 u |
| 156-60-5 | Trans-1,2-Dichloroethene | 11 u | 108-10-1 | 4-Methyl-2-Pentanone | 23 u |
| 67-66-3 | Chloroform | 11 u | 591-78-6 | 2-Hexanone | 23 u |
| 107-06-2 | 1,2-Dichloroethane | 11 u | 127-18-4 | Tetrachloroethene | 11 u |
| 78-93-3 | 2-butanone | 23 u | 79-34-5 | 1,1,2,2-Tetrachloroethane | 11 u |
| 71-55-6 | 1,1,1-Trichloroethane | 11 u | 108-88-3 | Toluene | 88 |
| 56-23-5 | Carbon Tetrachloride | 11 u | 108-90-7 | Chlorobenzene | 11 u |
| 108-05-4 | Vinyl Acetate | 23 u | 100-41-4 | Ethylbenzene | 38 |
| 75-27-4 | Bromodichloromethane | 11 u | 100-42-5 | Styrene | 11 u |
| | | | | Total Xylenes | 110 |

Data Reporting Qualifiers

Value If the result is a value greater than or equal to the detection limit, report the value.

u Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response factor is assumed, or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero. (e.g. 10J)

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

T Spectrum does not meet criteria for confirmation but does indicate compound presence.

NA Compound present in both matrix spike standard and unspiked sample.

Form I

Versar Inc., Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

| SAMPLE ID |
|---|
| 150-60 |

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

| | CAS Number | Compound Name | Fraction | RT or Scan | Estimated Concentration (ug/Kg or ug/l) |
|---|---|---|---|---|---|
| 11. | 1638-26-2 | CYCLOPENTANE, 1,1-DIMETHYL | VOA | 330 | 11 J |
| 12. | | UNKNOWN HYDROCARBON | VOA | 453 | 22 J |
| 13. | 589-34-4 | HEXANE, 3-METHYL | VOA | 476 | 43 J |
| 14. | | UNKNOWN. Hydrocarbon | VOA | 485 | 55 J |
| 15. | | | | | |
| 16. | | | | | |
| 17. | | | | | |
| 18. | | | | | |
| 19. | | | | | |
| 110. | | | | | |
| 111. | | | | | |
| 112. | | | | | |
| 113. | | | | | |
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| 116. | | | | | |
| 117. | | | | | |
| 118. | | | | | |
| 119. | | | | | |
| 120. | | | | | |
| 121. | | | | | |
| 122. | | | | | |
| 123. | | | | | |
| 124. | | | | | |
| 125. | | | | | |
| 126. | | | | | |
| 127. | | | | | |
| 128. | | | | | |
| 129. | | | | | |
| 130. | | | | | |

PESTICIDE ORGANICS ANALYSIS DATA SHEET

Lab Name: VERSAR, INC. Contract:

Lab Code: VERSAR Case No.: 14600 SAS No.: SDG No.: 5058

Matrix: (soil/water) SOIL Lab Sample ID: 44700

Sample wt/vol: 30 (g/ml) G Lab File ID:

Level: (low/med) LOW Date Received: 02/02/88

% Moisture: not dec. 12 dec. Date Extracted: 02/05/88

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 02/09/88

GPC Cleanup: (Y/N) N pH: 6.9 Dilution Factor: 1.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG | Q |
|---|---|---|---|
| 319-84-6 | alpha-BHC | 3.8 | U |
| 319-85-7 | beta-BHC | 3.8 | U |
| 319-86-8 | delta-BHC | 3.8 | U |
| 58-89-9 | gamma-BHC (Lindane) | 3.8 | U |
| 76-44-8 | Heptachlor | 3.8 | U |
| 309-00-2 | Aldrin | 3.8 | U |
| 1024-57-3 | Heptachlor Epoxide | 3.8 | U |
| 959-98-8 | Endosulfan I | 3.8 | U |
| 60-57-1 | Dieldrin | 7.6 | U |
| 72-55-9 | 4,4'-DDE | 7.6 | U |
| 72-20-8 | Endrin | 7.6 | U |
| 33213-65-9 | Endosulfan II | 7.6 | U |
| 72-54-8 | 4,4'-DDD | 7.6 | U |
| 1031-07-8 | Endosulfan Sulfate | 7.6 | U |
| 50-29-3 | 4,4'-DDT | 7.6 | U |
| 72-43-5 | Methoxychlor | 7.6 | U |
| 53494-70-5 | Endrin Ketone | 7.6 | U |
| 5103-71-9 | alpha-Chlordane | 7.6 | U |
| 5103-74-2 | gamma-Chlordane | 7.6 | U |
| 8001-35-2 | Toxaphene | 76 | U |
| 12674-11-2 | Aroclor-1016 | 38 | U |
| 11104-28-2 | Aroclor-1221 | 38 | U |
| 11141-16-5 | Aroclor-1232 | 38 | U |
| 53469-21-9 | Aroclor-1242 | 38 | U |
| 12672-29-6 | Aroclor-1248 | 38 | U |
| 11097-69-1 | Aroclor-1254 | 76 | U |
| 11096-82-5 | Aroclor-1260 | 76 | U |



P. Chinyavong
02/17/88

# PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SD 400

Lab Name: VERSAR, INC. Contract:

Lab Code: VERSAR Case No.: 4600 SAS No.: SDG No.: 8058

Matrix: (soil/water) SOIL Lab Sample ID: 44700

Sample wt/vol: 30 (g/ml) G Lab File ID:

Level: (low/med) LOW Date Received: 02/02/88

% Moisture: not dec. 12 dec. Date Extracted: 02/05/88

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 02/10/88

GPC Cleanup: (Y/N) N pH: 6.9 Dilution Factor: 10.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG | Q |
|---|---|---|---|
| 319-84-6 | alpha-BHC | 38 | U |
| 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 | 38 | U |
| 309-00-2 | Aldrin | 38 | U |
| 1024-57-3 | Heptachlor Epoxide | 38 | U |
| 959-98-8 | Endosulfan I | 38 | U |
| 60-57-1 | Dieldrin | 76 | U |
| 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 | 76 | U |
| 72-43-5 | Methoxychlor | 76 | U |
| 53494-70-5 | Endrin Ketone | 76 | U |
| 5103-71-9 | alpha-Chlordane | 76 | U |
| 5103-74-2 | gamma-Chlordane | 76 | U |
| 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 |



P Chinyavong
02/12/88

Versar, Inc. Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

| Sample Number |
|---|
| S0-61 |

ORGANICS ANALYSIS DATA SHEET (Page 1)

Laboratory Name: VERSAR
Lab Sample ID No: 44710
Sample Matrix: SOIL
Data Release Authorized By:

Case No: 4600 BN323
QC Report No: 4600 BN323
Contract No:
Date Sample Received: 02/02/88

VOLATILE COMPOUNDS

Concentration: MID
Date Extracted/Prepared: 02/04/88
Date Analyzed: 02/04/88
Conc/Dil Factor: 200 pH NA
Percent Moisture: 12.8

| CAS Number | | ug/Kg | CAS Number | | ug/Kg |
|---|---|---|---|---|---|
| 74-87-3 | Chloromethane | 2300 u | 78-87-5 | 1,2-Dichloropropane | 1100 u |
| 74-83-9 | Bromomethane | 2300 u | 10061-02-6 | Trans-1,3-Dichloropropene | 1100 u |
| 75-01-4 | Vinyl Chloride | 2300 u | 79-01-6 | Trichloroethene | 1100 u |
| 75-00-3 | Chloroethane | 2300 u | 124-48-1 | Dibromochloromethane | 1100 u |
| 75-09-2 | Methylene Chloride | 2500 | 79-00-5 | 1,1,2-Trichloroethane | 1100 u |
| 67-64-1 | Acetone | 2300 u | 71-43-2 | Benzene | 1100 u |
| 75-15-0 | Carbon Disulfide | 1100 u | 10061-01-5 | cis-1,3-Dichloropropene | 1100 u |
| 75-35-4 | 1,1-Dichloroethene | 1100 u | 110-75-8 | 2-chloroethylvinylether | 2300 u |
| 75-34-3 | 1,1-Dichloroetnane | 1100 u | 75-25-2 | Bromoform | 1100 u |
| 156-60-5 | Trans-1,2-Dichloroethene | 1100 u | 108-10-1 | 4-Methyl-2-Pentanone | 2300 u |
| 67-66-3 | Chloroform | 1100 u | 591-78-6 | 2-Hexanone | 2300 u |
| 107-06-2 | 1,2-Dichloroethane | 1100 u | 127-18-4 | Tetrachloroethene | 1100 u |
| 78-93-3 | 2-butanone | 2300 u | 79-34-5 | 1,1,2,2-Tetrachloroethane | 1100 u |
| 71-55-6 | 1,1,1-Trichloroethane | 1100 u | 108-88-3 | Toluene | 11000 |
| 56-23-5 | Carbon Tetrachloride | 1100 u | 108-90-7 | Chlorobenzene | 1100 u |
| 108-05-4 | Vinyl Acetate | 2300 u | 100-41-4 | Ethylbenzene | 2300 |
| 75-27-4 | Bromodichloromethane | 1100 u | 100-42-5 | Styrene | 1100 u |
| | | | | Total Xylenes | 15000 |

Data Reporting Qualifiers

Value If the result is a value greater than or equal to the detection limit, report the value.

u Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response factor is assumed, or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero. (e.g. 10J)

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

T Spectrum does not meet criteria for confirmation but does indicate compound presence.

NA Compound present in both matrix spike standard and unspiked sample.

Form I

Versar Inc., Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

| SAMPLE ID |
|---|
| SO-01 |

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

| | CAS Number | Compound Name | Fraction | RT or Scan | Estimated Concentration (ug/kg or ug/l) |
|---|---|---|---|---|---|
| 1 | | UNKNOWN HYDROCARBON | VOA | 390 | 1,500 J |
| 2 | | UNKNOWN. CYCLIC HYDROCARBON | VOA | 437 | 39,000 J |
| 3 | | UNKNOWN HYDROCARBON | VOA | 453 | 3,400 J |
| 4 | 617-78-7 | PENTANE, 3-ETHYL | VOA | 459 | 860 J |
| 5 | 589-34-4 | HEXANE, 3-METHYL | VOA | 476 | 16,000 J |
| 6 | | UNKNOWN HYDROCARBON | VOA | 485 | 10,000 J |
| 7 | | UNKNOWN HYDROCARBON | VOA | 510 | 47,000 J |
| 8 | | UNKNOWN HYDROCARBON | VOA | 556 | 820 J |
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1F

# PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SO 61

Lab Name: VERSAR, INC. Contract:

Lab Code: VERSAR Case No.: 4600 SAS No.: SDG No.: 5056

Matrix: (soil/water) SOIL Lab Sample ID: 44701

Sample wt/vol: 30 (g/ml) G Lab File ID:

Level: (low/med) LOW Date Received: 02/02/88

% Moisture: not dec. 13 dec. Date Extracted: 02/05/88

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 02/09/88

GPC Cleanup: (Y/N) N pH: 6.6 Dilution Factor: 1.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG | Q |
|---|---|---|---|
| 319-84-6 | alpha-BHC | 3.8 | U |
| 319-85-7 | beta-BHC | 3.8 | U |
| 319-86-8 | delta-BHC | 3.8 | U |
| 58-89-9 | gamma-BHC (Lindane) | 3.8 | U |
| 76-44-8 | Heptachlor | 3.8 | U |
| 309-00-2 | Aldrin | 3.8 | U |
| 1024-57-3 | Heptachlor Epoxide | 3.8 | U |
| 959-98-8 | Endosulfan I | 3.8 | U |
| 60-57-1 | Dieldrin | 7.6 | U |
| 72-55-9 | 4,4'-DDE | 7.6 | U |
| 72-20-8 | Endrin | 7.6 | U |
| 33213-65-9 | Endosulfan II | 7.6 | U |
| 72-54-8 | 4,4'-DDD | 7.6 | U |
| 1031-07-8 | Endosulfan Sulfate | 7.6 | U |
| 50-29-3 | 4,4'-DDT | 7.6 | U |
| 72-43-5 | Methoxychlor | 7.6 | U |
| 53494-70-5 | Endrin Ketone | 7.6 | U |
| 5103-71-9 | alpha-Chlordane | 7.6 | U |
| 5103-74-2 | gamma-Chlordane | 7.6 | U |
| 8001-35-2 | Toxaphene | 76 | U |
| 12674-11-2 | Aroclor-1016 | 38 | U |
| 11104-28-2 | Aroclor-1221 | 38 | U |
| 11141-16-5 | Aroclor-1232 | 38 | U |
| 53469-21-9 | Aroclor-1242 | 38 | U |
| 12672-29-6 | Aroclor-1248 | 38 | U |
| 11097-69-1 | Aroclor-1254 | 150 | |
| 11096-82-5 | Aroclor-1260 | 76 | U |



P. Chinyawon
02/17/88

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SO 61D

Lab Name: VERSAR, INC. Contract:

Code: VERSAR Case No.: 4600 SAS No.: SDG No.: SO58

Matrix: (soil/water) SOIL Lab Sample ID: 44701

Sample wt/vol: 30 (g/ml) G Lab File ID:

Level: (low/med) LOW Date Received: 02/02/88

% Moisture: not dec. 13 dec. Date Extracted: 02/05/88

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 02/10/88

GPC Cleanup: (Y/N) N pH: 6.6 Dilution Factor: 10.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG | Q |
|---|---|---|---|
| 319-84-6 | alpha-BHC | 38 | U |
| 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 | 38 | U |
| 309-00-2 | Aldrin | 38 | U |
| 1024-57-3 | Heptachlor Epoxide | 38 | U |
| 959-98-8 | Endosulfan I | 38 | U |
| 60-57-1 | Dieldrin | 76 | U |
| 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 | 76 | U |
| 72-43-5 | Methoxychlor | 76 | U |
| 53494-70-5 | Endrin Ketone | 76 | U |
| 5103-71-9 | alpha-Chlordane | 76 | U |
| 5103-74-2 | gamma-Chlordane | 76 | U |
| 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 |



P. Chinnaswamy
02/17/88

**Versar INC**

Versar, Inc. Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

| Sample Number |
|---|
| SD-61-DUP |

ORGANICS ANALYSIS DATA SHEET (Page 1)

Laboratory Name: VERSAR
Lab Sample ID No: 44710
Sample Matrix: SOIL
Data Release Authorized By:

Case No: 4600 88323
QC Report No: 4600 88323
Contract No:
Date Sample Received: 02/02/88

VOLATILE COMPOUNDS

Concentration: MID
Date Extracted/Prepared: 02/04/88
Date Analyzed: 02/04/88
Conc/Dil Factor: 200 pH NA
Percent Moisture: 12.8

| CAS Number | | ug/Kg | CAS Number | | ug/Kg |
|---|---|---|---|---|---|
| 74-87-3 | Chloromethane | 2300 u | 78-87-5 | 1,2-Dichloropropane | 1100 u |
| 74-83-9 | Bromomethane | 2300 u | 10061-02-6 | Trans-1,3-Dichloropropene | 1100 u |
| 75-01-4 | Vinyl Chloride | 2300 u | 79-01-6 | Trichloroethene | 1100 u |
| 75-00-3 | Chloroethane | 2300 u | 124-48-1 | Dibromochloromethane | 1100 u |
| 75-09-2 | Methylene Chloride | 950 J | 79-00-5 | 1,1,2-Trichloroethane | 1100 u |
| 67-64-1 | Acetone | 2300 u | 71-43-2 | Benzene | 1100 u |
| 75-15-0 | Carbon Disulfide | 1100 u | 10061-01-5 | cis-1,3-Dichloropropene | 1100 u |
| 75-35-4 | 1,1-Dichloroethene | 1100 u | 110-75-8 | 2-chloroethylvinylether | 2300 u |
| 75-34-3 | 1,1-Dichloroethane | 1100 u | 75-25-2 | Bromoform | 1100 u |
| 156-60-5 | Trans-1,2-Dichloroethene | 1100 u | 108-10-1 | 4-Methyl-2-Pentanone | 2300 u |
| 67-66-3 | Chloroform | 1100 u | 591-78-6 | 2-Hexanone | 2300 u |
| 107-06-2 | 1,2-Dichloroethane | 1100 u | 127-18-4 | Tetrachloroethene | 1100 u |
| 78-93-3 | 2-butanone | 2300 u | 79-34-5 | 1,1,2,2-Tetrachloroethane | 1100 u |
| 71-55-6 | 1,1,1-Trichloroethane | 1100 u | 108-88-3 | Toluene | 2400 |
| 56-23-5 | Carbon Tetrachloride | 1100 u | 108-90-7 | Chlorobenzene | 1100 u |
| 108-05-4 | Vinyl Acetate | 2300 u | 100-41-4 | Ethylbenzene | 620 J |
| 75-27-4 | Bromodichloromethane | 1100 u | 100-42-5 | Styrene | 1100 u |
| | | | | Total Xylenes | 4100 |

Data Reporting Qualifiers

Value If the result is a value greater than or equal to the detection limit, report the value.

u Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response factor is assumed, or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero. (e.g. 10J)

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

T Spectrum does not meet criteria for confirmation but does indicate compound presence.

NA Compound present in both matrix spike standard and unspiked sample.

Versar Inc., Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

| SAMPLE ID |
|---|
| 150-61 DUP |

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

| | CAS Number | Compound name | Fraction | RT or Scan | Estimated Concentration ug/Kg or ug/l |
|---|---|---|---|---|---|
| 11 | | UNKNOWN HYDROCARBON | VOA | 383 | 250 J |
| 12 | | UNKNOWN HYDROCARBON | VOA | 452 | 640 J |
| 13 | | UNKNOWN HYDROCARBON | VOA | 476 | 2,500 J |
| 14 | | UNKNOWN HYDROCARBON | VOA | 484 | 1,600 J |
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Versar, Inc. Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

| Sample Number |
|---|
| S0-62 |

ORGANICS ANALYSIS DATA SHEET (Page 1)

Laboratory Name: VERSAR
Lab Sample ID No: 44711
Sample Matrix: SOIL
Data Release Authorized By:

Case No: 4600 BN323
QC Report No: 4600 BN323
Contract No:
Date Sample Received: 02/02/88

VOLATILE COMPOUNDS

Concentration: MID
Date Extracted/Prepared: 02/04/88
Date Analyzed: 02/04/88
Conc/Dil Factor: 100 pH NA
Percent Moisture: 15.42

| CAS Number | | ug/Kg | CAS Number | | ug/Kg |
|---|---|---|---|---|---|
| 74-87-3 | Chloromethane | 1200 u | 78-87-5 | 1,2-Dichloropropane | 590 u |
| 74-83-9 | Bromomethane | 1200 u | 10061-02-6 | Trans-1,3-Dichloropropene | 590 u |
| 75-01-4 | Vinyl Chloride | 1200 u | 79-01-6 | Trichloroethene | 590 u |
| 75-00-3 | Chloroethane | 1200 u | 124-48-1 | Dibromochloromethane | 590 u |
| 75-09-2 | Methylene Chloride | 590 u | 79-00-5 | 1,1,2-Trichloroethane | 590 u |
| 67-64-1 | Acetone | 1200 u | 71-43-2 | Benzene | 590 u |
| 75-15-0 | Carbon Disulfide | 590 u | 10061-01-5 | cis-1,3-Dichloropropene | 590 u |
| 75-35-4 | 1,1-Dichloroethene | 590 u | 110-75-8 | 2-chloroethylvinylether | 1200 u |
| 75-34-3 | 1,1-Dichloroethane | 590 u | 75-25-2 | Bromoform | 590 u |
| 156-60-5 | Trans-1,2-Dichloroethene | 590 u | 108-10-1 | 4-Methyl-2-Pentanone | 1200 u |
| 67-66-3 | Chloroform | 590 u | 591-78-6 | 2-Hexanone | 1200 u |
| 107-06-2 | 1,2-Dichloroetnane | 590 u | 127-18-4 | Tetrachloroethene | 590 u |
| 78-93-3 | 2-butanone | 1200 u | 79-34-5 | 1,1,2,2-Tetrachloroethane | 590 u |
| 71-55-6 | 1,1,1-Trichloroethane | 590 u | 108-88-3 | Toluene | 8800 |
| 56-23-5 | Carbon Tetrachloride | 590 u | 108-90-7 | Chlorobenzene | 590 u |
| 108-05-4 | Vinyl Acetate | 1200 u | 100-41-4 | Ethylbenzene | 1900 |
| 75-27-4 | Bromodichloromethane | 590 u | 100-42-5 | Styrene | 590 u |
| | | | | Total Xylenes | 11000 |

Data Reporting Qualifiers

Value If the result is a value greater than or equal to the detection limit, report the value.

u Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response factor is assumed, or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero. (e.g. 10J)

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

T Spectrum does not meet criteria for confirmation but does indicate compound presence.

NA Compound present in both matrix spike standard and unspiked sample.

Form I

Versar Inc., Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

| SAMPLE ID |
|---|
| S0-62 |

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

| | CAS Number | Compound Name | Fraction | RT or Scan | Estimated Concentration (ug/Kg or ug/l) |
|---|---|---|---|---|---|
| 1 | | UNKNOWN CYCLIC HYDROCARBON | VOA | 391 | 910 J |
| 2 | | UNKNOWN DIMETHYL CYCLOPENTANE | VOA | 419 | 720 J |
| 3 | | UNKNOWN CYCLIC HYDROCARBON | VOA | 438 | 22,000 J |
| 4 | | UNKNOWN HYDROCARBON | VOA | 454 | 2,100 J |
| 5 | | UNKNOWN HYDROCARBON | VOA | 461 | 670 J |
| 6 | 589-34-4 | HEXANE, 3-METHYL | VOA | 477 | 10,000 J |
| 7 | | UNKNOWN HYDROCARBON | VOA | 485 | 6,100 J |
| 8 | | UNKNOWN HYDROCARBON | VOA | 511 | 33,000 J |
| 9 | | UNKNOWN HYDROCARBON | VOA | 560 | 600 J |
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PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SO 62

Lab Name: VERSAR, INC. Contract:

Lab Code: VERSAR Case No.: 14600 SAS No.: SDG No.: S058

Matrix: (soil/water) SOIL Lab Sample ID: 44702

Sample wt/vol: 30 (g/ml) G Lab File ID:

Level: (low/med) LOW Date Received: 02/02/88

% Moisture: not dec. 15 dec. Date Extracted: 02/05/88

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 02/09/88

GPC Cleanup: (Y/N) N pH: 6.7 Dilution Factor: 1.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG | Q |
|---|---|---|---|
| 319-84-6 | alpha-BHC | 3.9 | U |
| 319-85-7 | beta-BHC | 3.9 | U |
| 319-86-8 | delta-BHC | 3.9 | U |
| 58-89-9 | gamma-BHC (Lindane) | 3.9 | U |
| 76-44-8 | Heptachlor | 3.9 | U |
| 309-00-2 | Aldrin | 3.9 | U |
| 1024-57-3 | Heptachlor Epoxide | 3.9 | U |
| 959-98-8 | Endosulfan I | 3.9 | U |
| 60-57-1 | Dieldrin | 7.9 | U |
| 72-55-9 | 4,4'-DDE | 7.9 | U |
| 72-20-8 | Endrin | 7.9 | U |
| 33213-65-9 | Endosulfan II | 7.9 | U |
| 72-54-8 | 4,4'-DDD | 7.9 | U |
| 1031-07-8 | Endosulfan Sulfate | 7.9 | U |
| 50-29-3 | 4,4'-DDT | 7.9 | U |
| 72-43-5 | Methoxychlor | 7.9 | U |
| 53494-70-5 | Endrin Ketone | 7.9 | U |
| 5103-71-9 | alpha-Chlordane | 7.9 | U |
| 5103-74-2 | gamma-Chlordane | 7.9 | U |
| 8001-35-2 | Toxaphene | 79 | U |
| 12674-11-2 | Aroclor-1016 | 39 | U |
| 11104-28-2 | Aroclor-1221 | 39 | U |
| 11141-16-5 | Aroclor-1232 | 39 | U |
| 53469-21-9 | Aroclor-1242 | 39 | U |
| 12672-29-6 | Aroclor-1248 | 39 | U |
| 11097-69-1 | Aroclor-1254 | 180 | |
| 11096-82-5 | Aroclor-1260 | 79 | U |

FORM I PEST 1/87 Rev.

P. Chinnavong
02/17/88

1F

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SO 620

Lab Name: VERSAR, INC. Contract:

Lab Code: VERSAR Case No.: 4600 SAS No.: SDG No.: 3058

Matrix: (soil/water) SOIL Lab Sample ID: 44702

Sample wt/vol: 30 (g/ml) G Lab File ID:

Level: (low/med) LOW Date Received: 02/02/88

% Moisture: not dec. 15 dec. Date Extracted: 02/05/88

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 02/10/88

GPC Cleanup: (Y/N) N pH: 6.7 Dilution Factor: 10.0

| 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 | 79 | U |
| 72-55-9 | 4,4'-DDE | 79 | U |
| 72-20-8 | Endrin | 79 | U |
| 33213-65-9 | Endosulfan II | 79 | U |
| 72-54-8 | 4,4'-DDD | 79 | U |
| 1031-07-8 | Endosulfan Sulfate | 79 | U |
| 50-29-3 | 4,4'-DDT | 79 | U |
| 72-43-5 | Methoxychlor | 79 | U |
| 53494-70-5 | Endrin Ketone | 79 | U |
| 5103-71-9 | alpha-Chlordane | 79 | U |
| 5103-74-2 | gamma-Chlordane | 79 | U |
| 8001-35-2 | Toxaphene | 790 | 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 | 790 | U |
| 11096-82-5 | Aroclor-1260 | 790 | U |



P. Chinyavong 02/17/88

**Versar INC**

Versar, Inc. Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

| Sample Number |
|---|
| SO-62-DUP |

ORGANICS ANALYSIS DATA SHEET (Page 1)

Laboratory Name: VERSAR
Lab Sample ID No: 44711
Sample Matrix: SOIL
Data Release Authorized By:

Case No: 4600 B0323
QC Report No: 4600 B0323
Contract No:
Date Sample Received: 02/02/88

VOLATILE COMPOUNDS

Concentration: MID
Date Extracted/Prepared: 02/04/88
Date Analyzed: 02/04/88
Conc/Dil Factor: 100 pH NA
Percent Moisture: 15.42

| CAS Number | | ug/Kg | CAS Number | | ug/Kg |
|---|---|---|---|---|---|
| 74-87-3 | Chloromethane | 1200 u | 78-87-5 | 1,2-Dichloropropane | 590 u |
| 74-83-9 | Bromomethane | 1200 u | 10061-02-6 | Trans-1,3-Dichloropropene | 590 u |
| 75-01-4 | Vinyl Chloride | 1200 u | 79-01-6 | Trichloroethene | 590 u |
| 75-00-3 | Chloroethane | 1200 u | 124-48-1 | Dibromochloromethane | 590 u |
| 75-09-2 | Methylene Chloride | 590 u | 79-00-5 | 1,1,2-Trichloroethane | 590 u |
| 67-64-1 | Acetone | 1200 u | 71-43-2 | Benzene | 590 u |
| 75-15-0 | Carbon Disulfide | 590 u | 10061-01-5 | cis-1,3-Dichloropropene | 590 u |
| 75-35-4 | 1,1-Dichloroethene | 590 u | 110-75-8 | 2-chloroethylvinylether | 1200 u |
| 75-34-3 | 1,1-Dichloroethane | 590 u | 75-25-2 | Bromoform | 590 u |
| 156-60-5 | Trans-1,2-Dichloroethene | 590 u | 108-10-1 | 4-Methyl-2-Pentanone | 1200 u |
| 67-66-3 | Chloroform | 590 u | 591-78-6 | 2-Hexanone | 1200 u |
| 107-06-2 | 1,2-Dichloroethane | 590 u | 127-18-4 | Tetrachloroethene | 590 u |
| 78-93-3 | 2-butanone | 1200 u | 79-34-5 | 1,1,2,2-Tetrachloroethane | 590 u |
| 71-55-6 | 1,1,1-Trichloroethane | 590 u | 108-88-3 | Toluene | 8300 |
| 56-23-5 | Carbon Tetrachloride | 590 u | 108-90-7 | Chlorobenzene | 590 u |
| 108-05-4 | Vinyl Acetate | 1200 u | 100-41-4 | Ethylbenzene | 2600 |
| 75-27-4 | Bromodichloromethane | 590 u | 100-42-5 | Styrene | 590 u |
| | | | | Total Xylenes | 18000 |

Data Reporting Qualifiers

Value If the result is a value greater than or equal to the detection limit, report the value.

u Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response factor is assumed, or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero. (e.g. 10J)

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

T Spectrum does not meet criteria for confirmation but does indicate compound presence.

NA Compound present in both matrix spike standard and unspiked sample.

Versar Inc., Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

SAMPLE ID
ISO-62 DUP

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

| | CAS Number | Compound Name | Fraction | RT or Scan | Estimated Concentration (ug/Kg or ug/l) |
|---|---|---|---|---|---|
| 1 | | UNKNOWN CYCLIC HYDROCARBON | VOA | 390 | 2,000 J |
| 2 | | UNKNOWN CYCLIC HYDROCARBON | VOA | 438 | 43,000 J |
| 3 | | UNKNOWN HYDROCARBON | VOA | 453 | 5,500 J |
| 4 | 589-34-4 | HEXANE, 3-METHYL | VOA | 477 | 30,000 J |
| 5 | | UNKNOWN HYDROCARBON | VOA | 485 | 17,000 J |
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Versar, Inc. Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

| Sample Number |
|---|
| SO-63 |

ORGANICS ANALYSIS DATA SHEET (Page 1)

Laboratory Name: VERSAR
Lab Sample ID No: 44712
Sample Matrix: SOIL
Data Release Authorized By:

Case No: 4600 BN323
QC Report No: 4600 BN323
Contract No:
Date Sample Received: 02/02/88

VOLATILE COMPOUNDS

Concentration: LOW
Date Extracted/Prepared: 02/03/88
Date Analyzed: 02/03/88
Conc/Dil Factor: 1 pH: NA
Percent Moisture: 13.44

| CAS Number | | ug/Kg | CAS Number | | ug/Kg |
|---|---|---|---|---|---|
| 74-87-3 | Chloromethane | 12 u | 78-87-5 | 1,2-Dichloropropane | 6 u |
| 74-83-9 | Bromomethane | 12 u | 10061-02-6 | Trans-1,3-Dichloropropene | 6 u |
| 75-01-4 | Vinyl Chloride | 12 u | 79-01-6 | Trichloroethene | 6 u |
| 75-00-3 | Chloroethane | 12 u | 124-48-1 | Dibromochloromethane | 6 u |
| 75-09-2 | Methylene Chloride | 6 u | 79-00-5 | 1,1,2-Trichloroethane | 6 u |
| 67-64-1 | Acetone | 13 B | 71-43-2 | Benzene | 6 u |
| 75-15-0 | Carbon Disulfide | 6 u | 10061-01-5 | Cis-1,3-Dichloropropene | 6 u |
| 75-35-4 | 1,1-Dichloroethene | 6 u | 1110-75-8 | 2-chloroethylvinylether | 12 u |
| 75-34-3 | 1,1-Dichloroethane | 6 u | 75-25-2 | Bromoform | 6 u |
| 156-60-5 | Trans-1,2-Dichloroethene | 6 u | 108-10-1 | 4-Methyl-2-Pentanone | 12 u |
| 67-66-3 | Chloroform | 6 u | 591-78-6 | 2-Hexanone | 12 u |
| 107-06-2 | 1,2-Dichloroethane | 6 u | 127-18-4 | Tetrachloroethene | 6 u |
| 78-93-3 | 2-butanone | 12 u | 79-34-5 | 1,1,2,2-Tetrachloroethane | 6 u |
| 71-55-6 | 1,1,1-Trichloroetnane | 6 u | 108-88-3 | Toluene | 78 |
| 56-23-5 | Carbon Tetrachloride | 6 u | 108-90-7 | Chlorobenzene | 6 u |
| 108-05-4 | Vinyl Acetate | 12 u | 100-41-4 | Ethylbenzene | 30 |
| 75-27-4 | Bromodichloromethane | 6 u | 100-42-5 | Styrene | 6 u |
| | | | | Total Xylenes | 97 |

Data Reporting Qualifiers

Value If the result is a value greater than or equal to the detection limit, report the value.

u Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response factor is assumed, or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero. (e.g. 10J)

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

T Spectrum does not meet criteria for confirmation but does indicate compound presence.

NA Compound present in both matrix spike standard and unspiked sample.

Form I

Versar Inc., Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

| SAMPLE ID |
|---|
| ISO-63 |

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

| | CAS Number | Compound Name | Fraction | RT or Scan | Estimated Concentration ug/Kg or ug/l |
|---|---|---|---|---|---|
| 11 | 1638-26-2 | CYCLOPENTANE, 1,1-DIMETHYL | VOA | 390 | 4 J |
| 12 | | UNKNOWN HYDROCARBON | VOA | 453 | 10 J |
| 13 | 589-34-4 | HEXANE, 3-METHYL | VOA | 477 | 35 J |
| 14 | | UNKNOWN, Hydrocarbon | VOA | 485 | 23 J |
| 15 | | | | | |
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Versar, Inc. Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

| Sample Number |
|---|
| S0-64 |

ORGANICS ANALYSIS DATA SHEET (Page 1)

Laboratory Name: VERSAR
Lab Sample ID No: 44413
Sample Matrix: SOIL
Data Release Authorized By:

Case No: 4600 BW323
QC Report No: 4600 BW323
Contract No:
Date Sample Received: 02/02/88

VOLATILE COMPOUNDS

Concentration: LOW
Date Extracted/Prepared: 02/03/88
Date Analyzed: 02/03/88
Conc/Dil Factor: 1 pH NA
Percent Moisture: 16.27

| CAS Number | | ug/Kg | CAS Number | | ug/Kg |
|---|---|---|---|---|---|
| 74-87-3 | Chloromethane | 12 u | 78-87-5 | 1,2-Dichloropropane | 6 u |
| 74-83-9 | Bromomethane | 12 u | 10061-02-6 | Trans-1,3-Dichloropropene | 6 u |
| 75-01-4 | Vinyl Chloride | 12 u | 79-01-6 | Trichloroethene | 6 u |
| 75-00-3 | Chloroethane | 12 u | 124-48-1 | Dibromochloromethane | 6 u |
| 75-09-2 | Methylene Chloride | 6 u | 79-00-5 | 1,1,2-Trichloroethane | 6 u |
| 67-64-1 | Acetone | 3 JB1 | 71-43-2 | Benzene | 6 u |
| 75-15-0 | Carbon Disulfide | 6 u | 10061-01-5 | cis-1,3-Dichloropropene | 6 u |
| 75-35-4 | 1,1-Dichloroethene | 6 u | 110-75-8 | 2-chloroethylvinylether | 12 u |
| 75-34-3 | 1,1-Dichloroethane | 6 u | 75-25-2 | Bromoform | 6 u |
| 156-60-5 | Trans-1,2-Dichloroethene | 6 u | 108-10-1 | 4-Methyl-2-Pentanone | 12 u |
| 67-66-3 | Chloroform | 6 u | 591-78-6 | 2-Hexanone | 12 u |
| 107-06-2 | 1,2-Dichloroethane | 6 u | 127-18-4 | Tetrachloroethene | 6 u |
| 78-93-3 | 2-butanone | 12 u | 79-34-5 | 1,1,2,2-Tetrachloroethane | 6 u |
| 71-55-6 | 1,1,1-Trichloroethane | 6 u | 108-88-3 | Toluene | 6 u |
| 56-23-5 | Carbon Tetrachloride | 6 u | 108-90-7 | Chlorobenzene | 6 u |
| 108-05-4 | Vinyl Acetate | 12 u | 100-41-4 | Ethylbenzene | 6 u |
| 75-27-4 | Bromodichloromethane | 6 u | 100-42-5 | Styrene | 6 u |
| | | | | Total Xylenes | 6 u |

Data Reporting Qualifiers

Value If the result is a value greater than or equal to the detection limit, report the value.

u Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response factor is assumed, or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero. (e.g. 10J)

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

T Spectrum does not meet criteria for confirmation but does indicate compound presence.

NA Compound present in both matrix spike standard and unspiked sample.

Form I

Versar Inc., Laboratory Operations
5850 Versar Center, Springfield VA 22151 (703) 750-3000

SAMPLE ID
SO-64

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

| | CAS Number | Compound Name | Fraction | RT or Scan | Estimated Concentration (ug/Kg or ug/l) |
|---|---|---|---|---|---|
| 11. | | NO VOLATILES DETECTED | VOA | NA | NA |
| 12. | | | | | |
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Versar Inc., Laboratory Operations
6850 Versar Center, Springfield VA 22151 703/750-3000

Sample number
SO-64

Case No: 4600 BATCHW323

ORGANICS ANALYSIS DATA SHEET (Page 2)
Semivolatile Compounds

Concentration: LOW

Date Extracted/Prepared: 02/04/88

Date Analyzed: 02/04/88

Conc/Dil Factor: 1

GPC Cleanup ( )Yes (X)No

Separatory Funnel Extraction ( )Yes

Continuous Liquid-Liquid Extraction ( )Yes

| CAS Number | | ug/Kg |
|---|---|---|
| 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 |
| 39638-32-9 | 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 | 400 u |
| 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 | 400 u |
| 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 | Dimethyl Phthalate | 400 u |
| 208-96-8 | Acenaphthylene | 400 u |
| 99-09-2 | 3-Nitroaniline | 2000 u |

| CAS Number | | ug/Kg |
|---|---|---|
| 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 |
| 606-20-2 | 2,6-Dinitrotoluene | 400 u |
| 84-66-2 | Diethylphthalate | 400 u |
| 7005-22-3 | 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 | 400 u |
| 120-12-7 | Anthracene | 400 u |
| 84-74-2 | Di-n-butylphthalate | 400 u |
| 206-44-0 | Fluoranthene | 400 u |
| 129-00-0 | Pyrene | 400 u |
| 85-68-7 | Butylbenzylphthalate | 400 u |
| 91-94-1 | 3,3'-Dichlorobenzidine | 820 u |
| 56-55-3 | Benzo(a)anthracene | 400 u |
| 117-81-7 | bis(2-Ethylhexyl)Phthalate | 370 J |
| 218-01-9 | Chrysene | 400 u |
| 117-84-0 | Di-n-Octylphthalate | 400 u |
| 205-99-2 | Benzo(b)Fluoranthene | 400 u |
| 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

Versar Inc., Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

| SAMPLE ID |
|---|
| 150-64 |

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

| | CAS Number | Compound Name | Fraction | RT or Scan | Estimated Concentration (ug/kg or ug/l) |
|---|---|---|---|---|---|
| 1 | | UNKNOWN HYDROCARBON | BNA | 465 | 1,800 J,B |
| 2 | | UNKNOWN | BNA | 575 | 1,500 J,B |
| 3 | | UNKNOWN | BNA | 588 | 120 J |
| 4 | | UNKNOWN HYDROCARBON | BNA | 1937 | 89 J |
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EPA SAMPLE NO.

30 64

# PESTICIDE ORGANICS ANALYSIS DATA SHEET

Lab Name: VERSAR, INC. Contract:

Lab Code: VERSAR Case No.: 4600 SAS No.: SDG No.: 5056

Matrix: (soil/water) SOIL Lab Sample ID: 44704

Sample wt/vol: 30 (g/ml) G Lab File ID:

Level: (low/med) LOW Date Received: 02/02/88

% Moisture: not dec. 16 dec. Date Extracted: 02/05/88

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 02/09/88

GPC Cleanup: (Y/N) N pH: 7.2 Dilution Factor: 1.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG | Q |
|---|---|---|---|
| 319-84-6 | alpha-BHC | 4.0 | U |
| 319-85-7 | beta-BHC | 4.0 | U |
| 319-86-8 | delta-BHC | 4.0 | U |
| 58-89-9 | gamma-BHC (Lindane) | 4.0 | U |
| 76-44-8 | Heptachlor | 4.0 | U |
| 309-00-2 | Aldrin | 4.0 | U |
| 1024-57-3 | Heptachlor Epoxide | 4.0 | U |
| 959-98-8 | Endosulfan I | 4.0 | U |
| 60-57-1 | Dieldrin | 7.9 | U |
| 72-55-9 | 4,4'-DDE | 7.9 | U |
| 72-20-8 | Endrin | 7.9 | U |
| 33213-65-9 | Endosulfan II | 7.9 | U |
| 72-54-8 | 4,4'-DDD | 7.9 | U |
| 1031-07-8 | Endosulfan Sulfate | 7.9 | U |
| 50-29-3 | 4,4'-DDT | 7.9 | U |
| 72-43-5 | Methoxychlor | 7.9 | U |
| 53494-70-5 | Endrin Ketone | 7.9 | U |
| 5103-71-9 | alpha-Chlordane | 7.9 | U |
| 5103-74-2 | gamma-Chlordane | 7.9 | U |
| 8001-35-2 | Toxaphene | 79 | U |
| 12674-11-2 | Aroclor-1016 | 40 | U |
| 11104-28-2 | Aroclor-1221 | 40 | U |
| 11141-16-5 | Aroclor-1232 | 40 | U |
| 53469-21-9 | Aroclor-1242 | 40 | U |
| 12672-29-6 | Aroclor-1248 | 40 | U |
| 11097-69-1 | Aroclor-1254 | 79 | U |
| 11096-82-5 | Aroclor-1260 | 79 | U |



P. Chinyavar
02/17/88

EPA SAMPLE NO.

# PESTICIDE ORGANICS ANALYSIS DATA SHEET

30 640

Lab Name: VERSAR, INC. Contract:

Lab Code: VERSAR Case No.: 4600 SAS No.: SDG No.: 3058

Matrix: (soil/water) SOIL Lab Sample ID: 44704

Sample wt/vol: 30 (g/ml) G Lab File ID:

Level: (low/med) LOW Date Received: 02/02/88

% Moisture: not dec. 16 dec. Date Extracted: 02/05/88

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 02/10/88

GPC Cleanup: (Y/N) N pH: 7.2 Dilution Factor: 10.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG | Q |
|---|---|---|---|
| 319-84-6 | alpha-BHC | 40 | U |
| 319-85-7 | beta-BHC | 40 | U |
| 319-86-8 | delta-BHC | 40 | U |
| 58-89-9 | gamma-BHC (Lindane) | 40 | U |
| 76-44-8 | Heptachlor | 40 | U |
| 309-00-2 | Aldrin | 40 | U |
| 1024-57-3 | Heptachlor Epoxide | 40 | U |
| 959-98-8 | Endosulfan I | 40 | U |
| 60-57-1 | Dieldrin | 79 | U |
| 72-55-9 | 4,4'-DDE | 79 | U |
| 72-20-8 | Endrin | 79 | U |
| 33213-65-9 | Endosulfan II | 79 | U |
| 72-54-8 | 4,4'-DDD | 79 | U |
| 1031-07-8 | Endosulfan Sulfate | 79 | U |
| 50-29-3 | 4,4'-DDT | 79 | U |
| 72-43-5 | Methoxychlor | 79 | U |
| 53494-70-5 | Endrin Ketone | 79 | U |
| 5103-71-9 | alpha-Chlordane | 79 | U |
| 5103-74-2 | gamma-Chlordane | 79 | U |
| 8001-35-2 | Toxaphene | 800 | U |
| 12674-11-2 | Aroclor-1016 | 400 | U |
| 11104-28-2 | Aroclor-1221 | 400 | U |
| 11141-16-5 | Aroclor-1232 | 400 | U |
| 53469-21-9 | Aroclor-1242 | 400 | U |
| 12672-29-6 | Aroclor-1248 | 400 | U |
| 11097-69-1 | Aroclor-1254 | 800 | U |
| 11096-82-5 | Aroclor-1260 | 800 | U |



P. Innamorato 02/17/88

FORM I

SAMPLE NO.
SO 64

DATE 2/12/88

INORGANIC ANALYSIS DATA SHEET

LAB NAME VERSAR INC.

CASE NO. -0-

SOW NO. 785

LAB RECEIPT DATE 2/2/88

LAB SAMPLE ID. NO. 44697

QC REPORT NO. 325

PROJECT-TASK 4600.0000

BATCH 323

ELEMENTS IDENTIFIED AND MEASURED

CONCENTRATION: LOW X MEDIUM HIGH

MATRIX: WATER SOIL X WIPE

UNITS IN MG/KG DRY WEIGHT

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1. | ALUMINUM | 4410. | P | 13. | MAGNESIUM | [ 975.] | P |
| 2. | ANTIMONY | 5.2 UN | P | 14. | MANGANESE | 633. | P |
| 3. | ARSENIC | 5.3 | F | 15. | MERCURY | 0.12 U | |
| 4. | BARIUM | [ 36.] | P | 16. | NICKEL | 13. | P |
| 5. | BERYLLIUM | [ 0.46] | P | 17. | POTASSIUM | [ 437.] | P |
| 6. | CADMIUM | 0.95 U | P | 18. | SELENIUM | 12. UN | F |
| 7. | CALCIUM | [ 396.] | P | 19. | SILVER | 0.48 U | P |
| 8. | CHROMIUM | 6.0 | P | 20. | SODIUM | [ 62.] | P |
| 9. | COBALT | [ 10.] | P | 21. | THALLIUM | 2.4 U | F |
| 10. | COPPER | 14. | P | 22. | VANADIUM | [ 6.6] | P |
| 11. | IRON | 12500. | P | 23. | ZINC | 38. | P |
| 12. | LEAD | 11. N | F | | PERCENT SOLIDS | 83.9 | |
| | CYANIDE | NR | | | | | |

FOOTNOTES: SEE COVER PAGE.

COMMENTS: TEXTURE - FINE; COLOR - DARK BROWN; DF OF 10 FOR SE; DF OF 2 FOR PB;

LAB MANAGER Steven L. Helberg for WILLIAM T. NIVENS

Versar, Inc. Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

Sample number
90-65

ORGANICS ANALYSIS DATA SHEET (Page 1)

Laboratory Name: VERSAR
Lab Sample ID No: 45378
Sample Matrix: SOIL
Data Release Authorized By:

Case No: 4600 RWJ25
QC Report No: 4600 RWJ25
Contract No:
Date Sample Received: 02/19/88

VOLATILE COMPOUNDS

Concentration: MID
Date Extracted/Prepared: 02/21/88
Date Analyzed: 02/21/88
Conc/Dil Factor: 50 pH NA
Percent Moisture: 16.8

| CAS Number | | ug/Kg | CAS Number | | ug/Kg |
|---|---|---|---|---|---|
| 74-87-3 | Chloromethane | 600 u | 78-87-5 | 1,2-Dichloropropane | 300 u |
| 74-83-9 | Bromomethane | 600 u | 10061-02-6 | Trans-1,3-Dichloropropene | 300 u |
| 75-01-4 | Vinyl Chloride | 600 u | 79-01-6 | Trichloroethene | 300 u |
| 75-00-3 | Chloroethane | 600 u | 124-48-1 | Dibromochloromethane | 300 u |
| 75-09-2 | Methylene Chloride | 300 u | 79-00-5 | 1,1,2-Trichloroethane | 300 u |
| 67-64-1 | Acetone | 600 u | 71-43-2 | Benzene | 300 u |
| 75-15-0 | Carbon Disulfide | 300 u | 10061-01-5 | cis-1,3-Dichloropropene | 300 u |
| 75-35-4 | 1,1-Dichloroethene | 300 u | 110-75-8 | 2-chloroethylvinylether | 600 u |
| 75-34-3 | 1,1-Dichloroethane | 300 u | 75-25-2 | Bromoform | 300 u |
| 156-60-5 | Trans-1,2-Dichloroethene | 300 u | 108-10-1 | 4-Methyl-2-Pentanone | 600 u |
| 67-66-3 | Chloroform | 300 u | 591-78-6 | 2-Hexanone | 600 u |
| 107-06-2 | 1,2-Dichloroethane | 300 u | 127-18-4 | Tetrachloroethene | 300 u |
| 78-93-3 | 2-butanone | 600 u | 79-34-5 | 1,1,2,2-Tetrachloroethane | 300 u |
| 71-55-6 | 1,1,1-Trichloroethane | 300 u | 108-88-3 | Toluene | 3000 |
| 56-23-5 | Carbon Tetrachloride | 300 u | 108-90-7 | Chlorobenzene | 300 u |
| 108-05-4 | Vinyl Acetate | 600 u | 100-41-4 | Ethylbenzene | 1900 |
| 75-27-4 | Bromodichloromethane | 300 u | 100-42-5 | Styrene | 300 u |
| | | | | Total Xylenes | 9100 |

Data Reporting Qualifiers

Value If the result is a value greater than or equal to the detection limit, report the value.

u Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response factor is assumed, or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero. (e.g. 10J)

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

T Spectrum does not meet criteria for confirmation but does indicate compound presence.

NA Compound present in both matrix spike/matrix spike dup and unspiked sample.

Versar Inc., Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

SAMPLE ID
'S0-55

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

| CAS Number | Compound Name | Fraction | RT or Scan | Estimated Concentration (ug/Kg or ug/l) |
|---|---|---|---|---|
| 11 | UNKNOWN | VOA | 86 | 710 J |
| 12 | 110-82-7 CYCLOHEXANE (DOT | VOA | 347 | 580 J |
| 13 | 1638-26-2 CYCLOPENTANE, 1,1-DIMETHYL | VOA | 421 | 320 J |
| 14 | UNKNOWN DIMETHYLCYCLOPENTANE ISOMER | VOA | 457 | 280 J |
| 15 | 108-87-2 CYCLOHEXANE, METHYL | VOA | 481 | 6,600 J |
| 16 | UNKNOWN HYDROCARBON | VOA | 501 | 610 J |
| 17 | UNKNOWN | VOA | 509 | 270 J |
| 18 | 589-34-4 HEXANE, 3-METHYL | VOA | 531 | 3,000 J |
| 9 | UNKNOWN HYDROCARBON | VOA | 542 | 3,100 J |
| 10 | UNKNOWN HYDROCARBON | VOA | 623 | 500 J |
| 11 | UNKNOWN HYDROCARBON | VOA | 655 | 330 J |
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Versar, Inc. Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

Sample Number
10-46

ORGANICS ANALYSIS DATA SHEET (Page 1)

Laboratory Name: VERSAR
Lab Sample ID No: 45379
Sample Matrix: SOIL
Data Release Authorized By:

Case No: 4600 BW325
QC Report No: 4600 BW325
Contract No:
Date Sample Received: 02/19/88

VOLATILE COMPOUNDS

Concentration: MID
Date Extracted/Prepared: 02/21/88
Date Analyzed: 02/21/88
Conc/Dil Factor: 250 pH NA
Percent Moisture: 17.5

| CAS Number | | ug/Kg | CAS Number | | ug/Kg |
|---|---|---|---|---|---|
| 74-87-3 | Chloromethane | 3000 u | 78-87-5 | 1,2-Dichloropropane | 1500 u |
| 74-83-9 | Bromomethane | 3000 u | 10061-02-6 | Trans-1,3-Dichloropropene | 1500 u |
| 75-01-4 | Vinyl Chloride | 3000 u | 79-01-6 | Trichloroethene | 1500 u |
| 75-00-3 | Chloroethane | 3000 u | 124-48-1 | Dibromochloromethane | 1500 u |
| 75-09-2 | Methylene Chloride | 1500 u | 79-00-5 | 1,1,2-Trichloroethane | 1500 u |
| 67-64-1 | Acetone | 3000 u | 71-43-2 | Benzene | 1500 u |
| 75-15-0 | Carbon Disulfide | 1500 u | 10061-01-5 | Cis-1,3-Dichloropropene | 1500 u |
| 75-35-4 | 1,1-Dichloroethene | 1500 u | 110-75-8 | 2-Chloroethylvinylether | 3000 u |
| 75-34-3 | 1,1-Dichloroethane | 1500 u | 75-25-2 | Bromoform | 1500 u |
| 156-60-5 | Trans-1,2-Dichloroethene | 1500 u | 108-10-1 | 4-Methyl-2-Pentanone | 3000 u |
| 67-66-3 | Chloroform | 1500 u | 591-78-6 | 2-Hexanone | 3000 u |
| 107-06-2 | 1,2-Dichloroethane | 1500 u | 127-18-4 | Tetrachloroethene | 1500 u |
| 78-93-3 | 2-Butanone | 3000 u | 79-34-5 | 1,1,2,2-Tetrachloroethane | 1500 u |
| 71-55-6 | 1,1,1-Trichloroethane | 1500 u | 108-88-3 | Toluene | 38000 |
| 56-23-5 | Carbon Tetrachloride | 1500 u | 108-90-7 | Chlorobenzene | 1500 u |
| 108-05-4 | Vinyl Acetate | 3000 u | 100-41-4 | Ethylbenzene | 2000 |
| 75-27-4 | Bromodichloromethane | 1500 u | 100-42-5 | Styrene | 1500 u |
| | | | | Total Xylenes | 12000 |

Data Reporting Qualifiers

Value If the result is a value greater than or equal to the detection limit, report the value.

u Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response factor is assumed, or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero. (e.g. 10J)

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

T Spectrum does not meet criteria for confirmation but does indicate compound presence.

NA Compound present in both matrix spike standard and unspiked sample.

Form I

Versar Inc., Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

SAMPLE ID
SO-56

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

| | CAS Number | Compound Name | Fraction | RT or Scan | Estimated Concentration (ug/Kg or ug/l) |
|---|---|---|---|---|---|
| 1 | 110-82-7 | CYCLOHEXANE DOT | VOA | 348 | 2,200 J |
| 2 | 1638-26-2 | CYCLOPENTANE, 1,1-DIMETHYL | VOA | 422 | 2,100 J |
| 3 | | UNKNOWN DIMETHYLCYCLOPENTANE ISOMER | VOA | 457 | 1,800 J |
| 4 | 108-87-2 | CYCLOHEXANE, METHYL | VOA | 481 | 45,000 J |
| 5 | 1186-53-4 | PENTANE, 2,2,3,4-TETRAMETHYL | VOA | 501 | 3,800 J |
| 6 | 617-78-7 | PENTANE, 3-ETHYL | VOA | 509 | 1,500 J |
| 7 | | UNKNOWN HYDROCARBON | VOA | 531 | 19,000 J |
| 8 | | UNKNOWN HYDROCARBON | VOA | 542 | 9,400 J |
| 9 | 592-13-2 | HEXANE, 2,5-DIMETHYL | VOA | 622 | 1,600 J |
| 10 | 592-27-8 | HEPTANE, 2-METHYL | VOA | 655 | 1,100 J |
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Versar, Inc. Laboratory Operations
5151 Versar Center, Springfield VA 22151 (703) 750-3000

Sample Number
50-67

ORGANICS ANALYSIS DATA SHEET (Page 1)

Laboratory Name: VERSAR
Lab Sample ID No: 45380
Sample Matrix: SOIL
Data Release Authorized By:

Case No: 4600 SW325
QC Report No: 4600 SW325
Contract No:
Date Sample Received: 02/19/88

VOLATILE COMPOUNDS

Concentration: MID
Date Extracted/Prepared: 02/21/88
Date Analyzed: 02/21/88
Conc/Dil Factor: 100 pH NA
Percent Moisture: 15.1

| CAS Number | | ug/Kg |
|---|---|---|
| 74-87-3 | Chloromethane | 1200 u |
| 74-83-9 | Bromomethane | 1200 u |
| 75-01-4 | Vinyl Chloride | 1200 u |
| 75-00-3 | Chloroethane | 1200 u |
| 75-09-2 | Methylene Chloride | 590 u |
| 67-64-1 | Acetone | 1200 u |
| 75-15-0 | Carbon Disulfide | 590 u |
| 75-35-4 | 1,1-Dichloroethene | 590 u |
| 75-34-3 | 1,1-Dichloroethane | 590 u |
| 156-60-5 | Trans-1,2-Dichloroethene | 590 u |
| 67-66-3 | Chloroform | 590 u |
| 107-06-2 | 1,2-Dichloroethane | 590 u |
| 78-93-3 | 2-Butanone | 1200 u |
| 71-55-6 | 1,1,1-Trichloroethane | 590 u |
| 56-23-5 | Carbon Tetrachloride | 590 u |
| 108-05-4 | Vinyl Acetate | 1200 u |
| 75-27-4 | Bromodichloromethane | 590 u |

| CAS Number | | ug/Kg |
|---|---|---|
| 78-87-5 | 1,2-Dichloropropane | 590 u |
| 10061-02-6 | Trans-1,3-Dichloropropene | 590 u |
| 79-01-6 | Trichloroethene | 590 u |
| 124-48-1 | Dibromochloromethane | 590 u |
| 79-00-5 | 1,1,2-Trichloroethane | 590 u |
| 71-43-2 | Benzene | 590 u |
| 10061-01-5 | Cis-1,3-Dichloropropene | 590 u |
| 110-75-8 | 2-chloroethylvinylether | 1200 u |
| 75-25-2 | Bromoform | 590 u |
| 108-10-1 | 4-Methyl-2-Pentanone | 1200 u |
| 591-78-6 | 2-Hexanone | 1200 u |
| 127-18-4 | Tetrachloroethene | 590 u |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 590 u |
| 108-88-3 | Toluene | 6100 |
| 108-90-7 | Chlorobenzene | 590 u |
| 100-41-4 | Ethylbenzene | 760 |
| 100-42-5 | Styrene | 590 u |
| | Total Xylenes | 4100 |

Data Reporting Qualifiers

Value If the result is a value greater than or equal to the detection limit, report the value.

u Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response factor is assumed, or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero. (e.g. 10J)

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

T Spectrum does not meet criteria for confirmation but does indicate compound presence.

NA Compound present in both matrix spike standard and unspiked sample.

Form 1

Versar Inc., Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

SAMPLE ID
190-27

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

| | CAS Number | Compound Name | Fraction | RT or Scan | Estimated Concentration (ug/Kg or ug/l) |
|---|---|---|---|---|---|
| 1 | | UNKNOWN | VOA | 75 | 680 J |
| 2 | | UNKNOWN | VOA | 482 | 6,700 J |
| 3 | 1186-53-4 | PENTANE, 2,2,3,4-TETRAMETHYL | VOA | 501 | 500 J |
| 4 | | UNKNOWN | VOA | 531 | 2,500 J |
| 5 | | UNKNOWN HYDROCARBON | VOA | 542 | 1,800 J |
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Versar Inc., Laboratory Operations
6850 Versar Center, Springfield VA 22151 703/750-3000

| Sample Number |
|---|
| 90-67 |

Case No:____4600 RM325_____

ORGANICS ANALYSIS DATA SHEET (Page 2)
Semivolatile Compounds

Concentration:LOW

Date Extracted/Prepared:_____02/26/88__

Date Analyzed:_____03/11/88__

Conc/Dil Factor:_____1_____

GPC Cleanup [ ]Yes [X]No

Separatory Funnel Extraction [ ]Yes

Continuous Liquid-Liquid Extraction [ ]Yes

| CAS Number | | ug/Kg |
|---|---|---|
| 108-95-2 | Phenol | 440 u |
| 111-44-4 | bis(2-Chloroethyl)Ether | 440 u |
| 95-57-8 | 2-Chlorophenol | 440 u |
| 541-73-1 | 1,3-Dichlorobenzene | 440 u |
| 106-46-7 | 1,4-Dichlorobenzene | 440 u |
| 100-51-6 | Benzyl Alcohol | 440 u |
| 95-50-1 | 1,2-Dichlorobenzene | 440 u |
| 95-48-7 | 2-Methylphenol | 440 u |
| 39638-32-9 | bis(2-chloroisopropyl)ether | 440 u |
| 106-44-5 | 4-methylphenol | 440 u |
| 621-64-7 | N-Nitroso-Di-n-propylamine | 440 u |
| 67-72-1 | Hexachloroethane | 440 u |
| 98-95-3 | Nitrobenzene | 440 u |
| 78-59-1 | Isophorone | 440 u |
| 88-75-5 | 2-Nitrophenol | 440 u |
| 105-67-9 | 2,4-dimethylphenol | 440 u |
| 65-85-0 | Benzoic Acid | 2200 u |
| 111-91-1 | bis(2-chloroethoxy)methane | 440 u |
| 120-83-2 | 2,4-dichlorophenol | 440 u |
| 120-82-1 | 1,2,4-trichlorobenzene | 440 u |
| 91-20-3 | Naphthalene | 440 u |
| 106-47-8 | 4-Chloroaniline | 440 u |
| 87-68-3 | Hexachlorobutadiene | 440 u |
| 59-50-7 | 4-chloro-3-methylphenol | 440 u |
| 91-57-6 | 2-methylnaphthalene | 440 u |
| 77-47-4 | Hexachlorocyclopentadiene | 440 u |
| 88-06-2 | 2,4,6-Trichlorophenol | 440 u |
| 95-95-4 | 2,4,5-Trichlorophenol | 2200 u |
| 91-58-7 | 2-Chloronaphthalene | 440 u |
| 88-74-4 | 2-Nitroaniline | 2200 u |
| 131-11-3 | Dimethyl Phthalate | 440 u |
| 208-96-8 | Acenaphthylene | 440 u |
| 99-09-2 | 3-Nitroaniline | 2200 u |

| CAS Number | | ug/Kg |
|---|---|---|
| 83-32-9 | Acenaphthene | 440 u |
| 51-28-5 | 2,4-Dinitrophenol | 2200 u |
| 100-02-7 | 4-Nitrophenol | 2200 u |
| 132-64-9 | Dibenzofuran | 440 u |
| 121-14-2 | 2,4-Dinitrotoluene | 440 u |
| 606-20-2 | 2,6-Dinitrotoluene | 440 u |
| 84-66-2 | Diethylphthalate | 440 u |
| 7005-22-3 | 4-Chlorophenyl-phenylether | 440 u |
| 86-73-7 | Fluorene | 440 u |
| 100-01-6 | 4-Nitroaniline | 2200 u |
| 534-52-1 | 4,6-dinitro-2-methylphenol | 2200 u |
| 86-30-6 | N-Nitrosodiphenylamine (1) | 440 u |
| 101-55-3 | 4-Bromophenyl-phenylether | 440 u |
| 118-74-1 | Hexachlorobenzene | 440 u |
| 87-86-5 | Pentachlorophenol | 2200 u |
| 85-01-8 | Phenanthrene | 440 u |
| 120-12-7 | Anthracene | 440 u |
| 84-74-2 | Di-n-butylphthalate | 270 JB |
| 206-44-0 | Fluoranthene | 440 u |
| 129-00-0 | Pyrene | 440 u |
| 85-68-7 | Butylbenzylphthalate | 380 J |
| 91-94-1 | 3,3'-Dichlorobenzidine | 880 u |
| 56-55-3 | Benzo(a)anthracene | 440 u |
| 117-81-7 | bis(2-Ethylhexyl)Phthalate | 5100 |
| 218-01-9 | Chrysene | 440 u |
| 117-84-0 | Di-n-Octylphthalate | 440 u |
| 205-99-2 | Benzo(b)Fluoranthene | 440 u |
| 207-08-9 | Benzo(k)Fluoranthene | 440 u |
| 50-32-8 | Benzo(a)pyrene | 440 u |
| 193-39-5 | Indeno(1,2,3-cd)Pyrene | 440 u |
| 53-70-3 | Dibenz(a,h)Anthracene | 440 u |
| 191-24-2 | Benzo(g,h,i)Perylene | 440 u |

(1)-Cannot be separated from diphenylamine

000435

Versar Inc., Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

| SAMPLE ID |
|---|
| ISO-67 |

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

| CAS Number | Compound Name | Fraction | RT or Scan | Estimated Concentration (ug/Kg or ug/l) |
|---|---|---|---|---|
| 11. | UNKNOWN | BNA | 431 | 230 J,B. |
| 12. | UNKNOWN HYDROCARBON | BNA | 437 | 3,700 J,B. |
| 13. | UNKNOWN HYDROCARBON | BNA | 447 | 4,100 J,B. |
| 14. | UNKNOWN | BNA | 528 | 940 J... |
| 15. | UNKNOWN | BNA | 554 | 1,100 J,B. |
| 16. | UNKNOWN | BNA | 614 | 420 J... |
| 17. | UNKNOWN | BNA | 688 | 360 J... |
| 18. | UNKNOWN | BNA | 1615 | 240 J... |
| 19. | UNKNOWN | BNA | 1926 | 330 J... |
| 110. | UNKNOWN | BNA | 1999 | 280 J... |
| 111. | UNKNOWN | BNA | 2031 | 250 J... |
| 112. | UNKNOWN | BNA | 2049 | 180 J... |
| 113. | UNKNOWN | BNA | 2140 | 930 J... |
| 114. | | | | |
| 115. | | | | |
| 116. | | | | |
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| 130. | | | | |

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SD-67

Lab Name: VERSAR, INC. Contract: TAYLOR/BOROU

Lab Code: VERSAR Case No.: 4600 SAS No.: SDG No.: SD-67

Matrix: (soil/water) SOIL Lab Sample ID: 45376

Sample wt/vol: 30.0 (g/ml) G Lab File ID:

Level: (low/med) LOW Date Received: 02/19/88

% Moisture: not dec. 16 dec. Date Extracted: 02/26/88

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 03/04/88

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG | Q |
|---|---|---|---|
| 319-84-6 | alpha-BHC | 4.0 | U |
| 319-85-7 | beta-BHC | 4.0 | U |
| 319-86-8 | delta-BHC | 4.0 | U |
| 58-89-9 | gamma-BHC (Lindane) | 4.0 | U |
| 76-44-8 | Heptachlor | 4.0 | U |
| 309-00-2 | Aldrin | 4.0 | U |
| 1024-57-3 | Heptachlor Epoxide | 4.0 | U |
| 959-98-8 | Endosulfan I | 4.0 | U |
| 60-57-1 | Dieldrin | 7.9 | U |
| 72-55-9 | 4,4'-DDE | 7.9 | U |
| 72-20-8 | Endrin | 7.9 | U |
| 33213-65-9 | Endosulfan II | 7.9 | U |
| 72-54-8 | 4,4'-DDD | 7.9 | U |
| 1031-07-8 | Endosulfan Sulfate | 7.9 | U |
| 50-29-3 | 4,4'-DDT | 7.9 | U |
| 72-43-5 | Methoxychlor | 7.9 | U |
| 53494-70-5 | Endrin Ketone | 7.9 | U |
| 5103-71-9 | alpha-Chlordane | 7.9 | U |
| 5103-74-2 | gamma-Chlordane | 7.9 | U |
| 8001-35-2 | Toxaphene | 79 | U |
| 12674-11-2 | Aroclor-1016 | 40 | U |
| 11104-28-2 | Aroclor-1221 | 40 | U |
| 11141-16-5 | Aroclor-1232 | 40 | U |
| 53469-21-9 | Aroclor-1242 | 40 | U |
| 12672-29-6 | Aroclor-1248 | 40 | U |
| 11097-69-1 | Aroclor-1254 | 170 | |
| 11096-82-5 | Aroclor-1260 | 79 | U |

David Lipsmi
03/07/88

FORM I

| SAMPLE NO. |
|---|
| 30-67 |

DATE 3/ 1/88

INORGANIC ANALYSIS DATA SHEET

LAB NAME VERSAR INC.

CASE NO. ---

SOW NO. 785

LAB RECEIPT DATE 02/19/88

LAB SAMPLE ID. NO. 45375

QC REPORT NO. 325

PROJECT-TASK 4600.0000

BATCH 325

ELEMENTS IDENTIFIED AND MEASURED

CONCENTRATION: LOW X MEDIUM HIGH

MATRIX: WATER SOIL X WIPE

MG/KG DRY WEIGHT

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1. | ALUMINUM | 7530. | P | 13. | MAGNESIUM | 1660. | P |
| 2. | ANTIMONY | 33. N | P | 14. | MANGANESE | 622. | P |
| 3. | ARSENIC | 5.5 | F | 15. | MERCURY | 0.12 U | |
| 4. | BARIUM | E 46.J | P | 16. | NICKEL | 21. | P |
| 5. | BERYLLIUM | E 0.47J | P | 17. | POTASSIUM | E 807.J | P |
| 6. | CADMIUM | 1.2 U | P | 18. | SELENIUM | 1.2 U | F |
| 7. | CALCIUM | E 604.J | P | 19. | SILVER | 1.2 U | P |
| 8. | CHROMIUM | 25. N* | P | 20. | SODIUM | E 61.J | P |
| 9. | COBALT | E 12.J | P | 21. | THALLIUM | 2.4 U | F |
| 10. | COPPER | 44. * | P | 22. | VANADIUM | E 9.7J | P |
| 11. | IRON | 38500. * | P | 23. | ZINC | 143. N | P |
| 12. | LEAD | 27. * | F | | PERCENT SOLIDS | 84.9 | |
| | CYANIDE | NR | | | | | |

FOOTNOTES: SEE COVER PAGE.

COMMENTS: COLOR - BLACK; TEXTURE - MEDIUM; SD; DF OF 5 FOR FE, PB;

LAB MANAGER Steve Helberg for

WILLIAM T. NIVENS

Versar, Inc. Laboratory Operations
5250 Westar Center, Springfield VA 22151 (703) 750-1000

ORGANICS ANALYSIS DATA SHEET (Page 1)

Laboratory Name: VERSAR
Lab Sample ID No: 4538
Sample Matrix: SOIL
Data Release Authorized By:

Date No: 4600 [illegible]
QC Report No: 4600 [illegible]
Contract No:
Date Sample Received: 02/19/88

VOLATILE COMPOUNDS

Concentration: MID
Date Extracted/Prepared: 02/21/88
Date Analyzed: 02/21/88
Conc/Dil Factor: 130 pH NA
Percent Moisture: 15.7

| CAS Number | | ug/Kg |
|---|---|---|
| 74-87-3 | Chloromethane | 1200 u |
| 74-83-9 | Bromomethane | 1200 u |
| 75-01-4 | Vinyl Chloride | 1200 u |
| 75-00-3 | Chloroethane | 1200 u |
| 75-09-2 | Methylene Chloride | 590 u |
| 67-64-1 | Acetone | 1200 u |
| 75-15-0 | Carbon Disulfide | 590 u |
| 75-35-4 | 1,1-Dichloroethene | 590 u |
| 75-34-3 | 1,1-Dichloroethane | 590 u |
| 156-60-5 | Trans-1,2-Dichloroethene | 590 u |
| 67-66-3 | Chloroform | 590 u |
| 107-06-2 | 1,2-Dichloroethane | 590 u |
| 78-93-3 | 2-Butanone | 1200 u |
| 71-55-6 | 1,1,1-Trichloroethane | 590 u |
| 56-23-5 | Carbon Tetrachloride | 590 u |
| 108-05-4 | Vinyl Acetate | 1200 u |
| 75-27-4 | Bromodichloromethane | 590 u |

| CAS Number | | ug/Kg |
|---|---|---|
| 78-87-5 | 1,2-Dichloropropane | 590 u |
| 10061-02-6 | Trans-1,3-Dichloropropene | 590 u |
| 79-01-6 | Trichloroethene | 590 u |
| 124-48-1 | Dibromochloromethane | 590 u |
| 79-00-5 | 1,1,2-Trichloroethane | 590 u |
| 71-43-2 | Benzene | 590 u |
| 10061-01-5 | Cis-1,3-Dichloropropene | 590 u |
| 110-75-8 | 2-Chloroethylvinylether | 1200 u |
| 75-25-2 | Bromoform | 590 u |
| 108-10-1 | 4-Methyl-2-Pentanone | 1200 u |
| 591-78-6 | 2-Hexanone | 1200 u |
| 127-18-4 | Tetrachloroethene | 590 u |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 590 u |
| 108-88-3 | Toluene | 5600 |
| 108-90-7 | Chlorobenzene | 590 u |
| 100-41-4 | Ethylbenzene | 550 J |
| 100-42-5 | Styrene | 590 u |
| | Total Xylenes | 3200 |

Data Reporting Qualifiers

Value If the result is a value greater than or equal to the detection limit, report the value.

u Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response factor is assumed, or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero. (e.g. 10J)

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

T Spectrum does not meet criteria for confirmation but does indicate compound presence.

NA Compound present in both matrix spike standard and unspiked sample.

Form I

Versar Inc., Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

SAMPLE ID
S0-68

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

| | CAS Number | Compound Name | Fraction | RT or Scan | Estimated Concentration (ug/Kg or ug/l) |
|---|---|---|---|---|---|
| 11 | | UNKNOWN | VOA | 70 | 790 J |
| 12 | | UNKNOWN CYCLIC HYDROCARBON | VOA | 482 | 8,200 J |
| 13 | 565-59-3 | PENTANE, 2,3-DIMETHYL | VOA | 501 | 500 J |
| 14 | | UNKNOWN | VOA | 531 | 2,500 J |
| 15 | | UNKNOWN HYDROCARBON | VOA | 542 | 1,200 J |
| 16 | | | | | |
| 17 | | | | | |
| 18 | | | | | |
| 9 | | | | | |
| 110 | | | | | |
| 111 | | | | | |
| 112 | | | | | |
| 113 | | | | | |
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| 129 | | | | | |
| 130 | | | | | |

Versar, Inc. Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

Sample number
[illegible]

ORGANICS ANALYSIS DATA SHEET (Page 1)

Laboratory Name: VERSAR
Lab Sample ID No: 45382
Sample Matrix: SOIL
Data Release Authorized By:

Case No: 4600 SW125
QC Report No: 4600 SW125
Contract No:
Date Sample Received: 02/19/88

VOLATILE COMPOUNDS

Concentration: MID
Date Extracted/Prepared: 02/21/88
Date Analyzed: 02/21/88
Conc/Dil Factor: 50 pH NA
Percent Moisture: 18.1

| CAS Number | | ug/Kg | CAS Number | | ug/Kg |
|---|---|---|---|---|---|
| 74-87-3 | Chloromethane | 610 u | 78-87-5 | 1,2-Dichloropropane | 310 u |
| 74-83-9 | Bromomethane | 610 u | 10061-02-6 | Trans-1,3-Dichloropropene | 310 u |
| 75-01-4 | Vinyl Chloride | 610 u | 79-01-6 | Trichloroethene | 310 u |
| 75-00-3 | Chloroethane | 610 u | 124-48-1 | Dibromochloromethane | 310 u |
| 75-09-2 | Methylene Chloride | 310 u | 79-00-5 | 1,1,2-Trichloroethane | 310 u |
| 67-64-1 | Acetone | 610 u | 71-43-2 | Benzene | 310 u |
| 75-15-0 | Carbon Disulfide | 310 u | 10061-01-5 | Cis-1,3-Dichloropropene | 310 u |
| 75-35-4 | 1,1-Dichloroethene | 310 u | 110-75-8 | 2-Chloroethylvinylether | 610 u |
| 75-34-3 | 1,1-Dichloroethane | 310 u | 75-25-2 | Bromoform | 310 u |
| 156-60-5 | Trans-1,2-Dichloroethene | 310 u | 108-10-1 | 4-Methyl-2-Pentanone | 610 u |
| 67-66-3 | Chloroform | 310 u | 591-78-6 | 2-Hexanone | 610 u |
| 107-06-2 | 1,2-Dichloroethane | 310 u | 127-18-4 | Tetrachloroethene | 310 u |
| 78-93-3 | 2-Butanone | 610 u | 79-34-5 | 1,1,2,2-Tetrachloroethane | 310 u |
| 71-55-6 | 1,1,1-Trichloroethane | 310 u | 108-88-3 | Toluene | 1900 |
| 56-23-5 | Carbon Tetrachloride | 310 u | 108-90-7 | Chlorobenzene | 310 u |
| 108-05-4 | Vinyl Acetate | 610 u | 100-41-4 | Ethylbenzene | 320 |
| 75-27-4 | Bromodichloromethane | 310 u | 100-42-5 | Styrene | 310 u |
| | | | | Total Xylenes | 1900 |

Data Reporting Qualifiers

Value If the result is a value greater than or equal to the detection limit, report the value.

u Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response factor is assumed, or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero. (e.g. 10J)

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

T Spectrum does not meet criteria for confirmation but does indicate compound presence.

NA Compound present in both matrix spike standard and unspiked sample.

Form I

Versar Inc., Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

SAMPLE ID
50-49

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

| | CAS Number | Compound Name | Fraction | RT or Scan | Estimated Concentration (ug/kg or ug/l) |
|---|---|---|---|---|---|
| 11 | | UNKNOWN | VOA | 82 | 760 J |
| 12 | | UNKNOWN CYCLIC HYDROCARBON | VOA | 482 | 3,600 J |
| 13 | | UNKNOWN HYDROCARBON | VOA | 501 | 210 J |
| 14 | | UNKNOWN | VOA | 531 | 1,100 J |
| 15 | | UNKNOWN HYDROCARBON | VOA | 542 | 680 J |
| 16 | | UNKNOWN HYDROCARBON | VOA | 573 | 3,700 J |
| 17 | | | | | |
| 18 | | | | | |
| 19 | | | | | |
| 20 | | | | | |
| 21 | | | | | |
| 22 | | | | | |
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| 40 | | | | | |

Versar, Inc. Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

| Sample Number |
|---|
| SD-70 |

ORGANICS ANALYSIS DATA SHEET (Page 1)

Laboratory Name: VERSAR
Lab Sample ID No: 45627
Sample Matrix: SOIL
Data Release Authorized By:

Case No: 4600 RW331
QC Report No: 4600 RW331
Contract No:
Date Sample Received: 03/01/88

VOLATILE COMPOUNDS

Concentration: LOW
Date Extracted/Prepared: 03/01/88
Date Analyzed: 03/01/88
Conc/Dil Factor: 1 pH NA
Percent Moisture: 20.1

| CAS Number | | ug/Kg | |
|---|---|---|---|
| 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 u | |
| 67-64-1 | Acetone | 14 | ✓ |
| 75-15-0 | Carbon Disulfide | 6 u | |
| 75-35-4 | 1,1-Dichloroethene | 6 u | |
| 75-34-3 | 1,1-Dichloroethane | 6 u | |
| 156-60-5 | Trans-1,2-Dichloroethene | 6 u | |
| 67-66-3 | Chloroform | 6 u | |
| 107-06-2 | 1,2-Dichloroethane | 6 u | |
| 78-93-3 | 2-butanone | 22 | ✓ |
| 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 | |

| CAS Number | | ug/Kg | |
|---|---|---|---|
| 78-87-5 | 1,2-Dichloropropane | 6 u | |
| 10061-02-6 | Trans-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 | |
| 10061-01-5 | cis-1,3-Dichloropropene | 6 u | |
| 110-75-8 | 2-chloroethylvinylether | 13 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 | 6 | ✓ |
| 108-90-7 | Chlorobenzene | 6 u | |
| 100-41-4 | Ethylbenzene | 54 | ✓ |
| 100-42-5 | Styrene | 6 u | |
| | Total Xylenes | 150 | ✓ |

Data Reporting Qualifiers

Value If the result is a value greater than or equal to the detection limit, report the value.

u Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response factor is assumed, or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero. (e.g. 10J)

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

T Spectrum does not meet criteria for confirmation but does indicate compound presence.

NA Compound present in both matrix spike standard and unspiked sample.

Versar, Inc. Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

Sample number
SD-70 DL

ORGANICS ANALYSIS DATA SHEET (Page 1)

Laboratory Name: VERSAR
Lab Sample ID No: 45627 DL
Sample Matrix: SOIL
Data Release Authorized By:

Case No: 4600 SW331
QC Report No: 4600 SW331
Contract No:
Date Sample Received: 03/01/88

VOLATILE COMPOUNDS

Concentration: LOW
Date Extracted/Prepared: 03/02/88
Date Analyzed: 03/02/88
Conc/Dil Factor: 5 pH NA
Percent Moisture: 20.1

| CAS Number | | ug/Kg | CAS Number | | ug/Kg |
|---|---|---|---|---|---|
| 74-87-3 | Chloromethane | 63 u | 78-87-5 | 1,2-Dichloropropane | 31 u |
| 74-83-9 | Bromomethane | 63 u | 10061-02-6 | Trans-1,3-Dichloropropene | 31 u |
| 75-01-4 | Vinyl Chloride | 63 u | 79-01-6 | Trichloroethene | 31 u |
| 75-00-3 | Chloroethane | 63 u | 124-48-1 | Dibromochloromethane | 31 u |
| 75-09-2 | Methylene Chloride | 31 u | 79-00-5 | 1,1,2-Trichloroethane | 31 u |
| 67-64-1 | Acetone | 63 u | 71-43-2 | Benzene | 31 u |
| 75-15-0 | Carbon Disulfide | 31 u | 10061-01-5 | cis-1,3-Dichloropropene | 31 u |
| 75-35-4 | 1,1-Dichloroethene | 31 u | 110-75-8 | 2-chloroethylvinylether | 63 u |
| 75-34-3 | 1,1-Dichloroethane | 31 u | 75-25-2 | Bromoform | 31 u |
| 156-60-5 | Trans-1,2-Dichloroethene | 31 u | 108-10-1 | 4-Methyl-2-Pentanone | 63 u |
| 67-66-3 | Chloroform | 31 u | 591-78-6 | 2-Hexanone | 63 u |
| 107-06-2 | 1,2-Dichloroethane | 31 u | 127-18-4 | Tetrachloroethene | 31 u |
| 78-93-3 | 2-butanone | 63 u | 79-34-5 | 1,1,2,2-Tetrachloroethane | 31 u |
| 71-55-6 | 1,1,1-Trichloroethane | 31 u | 108-88-3 | Toluene | 380 |
| 56-23-5 | Carbon Tetrachloride | 31 u | 108-90-7 | Chlorobenzene | 31 u |
| 108-05-4 | Vinyl Acetate | 63 u | 100-41-4 | Ethylbenzene | 31 u |
| 75-27-4 | Bromodichloromethane | 31 u | 100-42-5 | Styrene | 31 u |
| | | | | Total Xylenes | 31 u |

Data Reporting Qualifiers

Value If the result is a value greater than or equal to the detection limit, report the value.

u Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response factor is assumed, or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero. (e.g. 10J)

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

T Spectrum does not meet criteria for confirmation but does indicate compound presence.

NA Compound present in both matrix spike standard and unspiked sample.

Form I

Versar Inc., Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

| SAMPLE ID |
|---|
| ISO-70 |

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

| | CAS Number | Compound Name | Fraction | RT or Scan | Estimated Concentration (ug/Kg or ug/l) |
|---|---|---|---|---|---|
| 11. | 110-82-7 | CYCLOHEXANE (DOT) | VOA | 343 | 16 J |
| 12. | 96-37-7 | CYCLOPENTANE, METHYL- | VOA | 367 | 7 J |
| 13. | 1638-26-2 | CYCLOPENTANE, 1,1-DIMETHYL- | VOA | 423 | 18 J |
| 14. | | UNKNOWN HYDROCARBON | VOA | 460 | 28 J |
| 15. | 108-87-2 | CYCLOHEXANE, METHYL- | VOA | 482 | 220 J |
| 16. | | UNKNOWN HYDROCARBON | VOA | 502 | 39 J |
| 17. | | UNKNOWN | VOA | 533 | 190 J |
| 18. | | UNKNOWN HYDROCARBON | VOA | 544 | 93 J |
| 19. | 142-82-5 | HEPTANE (DOT) | VOA | 575 | 370 J |
| 110. | 592-13-2 | HEXANE, 2,5-DIMETHYL- | VOA | 624 | 12 J |
| 111. | | UNKNOWN HYDROCARBON | VOA | 657 | 8 J |
| 112. | | | | | |
| 113. | | | | | |
| 114. | | | | | |
| 115. | | | | | |
| 116. | | | | | |
| 117. | | | | | |
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| 128. | | | | | |
| 129. | | | | | |
| 130. | | | | | |

Versar, Inc. Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

| Sample number |
|---|
| SO-71 |

ORGANICS ANALYSIS DATA SHEET (Page 1)

Laboratory Name: VERSAR
Lab Sample ID No: 45628
Sample Matrix: SOIL
Data Release Authorized By:

Case No: 4600 BW331
QC Report No: 4600 BW331
Contract No:
Date Sample Received: 03/01/88

VOLATILE COMPOUNDS

Concentration: LOW
Date Extracted/Prepared: 03/01/88
Date Analyzed: 03/01/88
Conc/Dil Factor: 5 pH NA
Percent Moisture: 20.7

| CAS Number | | ug/Kg | |
|---|---|---|---|
| 74-87-3 | Chloromethane | 63 u | |
| 74-83-9 | Bromomethane | 63 u | |
| 75-01-4 | Vinyl Chloride | 63 u | |
| 75-00-3 | Chloroethane | 63 u | |
| 75-09-2 | Methylene Chloride | 10 J | ✓ |
| 67-64-1 | Acetone | 29 J | ✓ |
| 75-15-0 | Carbon Disulfide | 32 u | |
| 75-35-4 | 1,1-Dichloroethene | 32 u | |
| 75-34-3 | 1,1-Dichloroethane | 32 u | |
| 156-60-5 | Trans-1,2-Dichloroethene | 32 u | |
| 67-66-3 | Chloroform | 32 u | |
| 107-06-2 | 1,2-Dichloroethane | 32 u | |
| 78-93-3 | 2-butanone | 45 J | ✓ |
| 71-55-6 | 1,1,1-Trichloroethane | 32 u | |
| 56-23-5 | Carbon Tetrachloride | 32 u | |
| 108-05-4 | Vinyl Acetate | 63 u | |
| 75-27-4 | Bromodichloromethane | 32 u | |

| CAS Number | | ug/Kg | |
|---|---|---|---|
| 78-87-5 | 1,2-Dichloropropane | 32 u | |
| 10061-02-6 | Trans-1,3-Dichloropropene | 32 u | |
| 79-01-6 | Trichloroethene | 32 u | |
| 124-48-1 | Dibromochloromethane | 32 u | |
| 79-00-5 | 1,1,2-Trichloroethane | 32 u | |
| 71-43-2 | Benzene | 32 u | |
| 10061-01-5 | cis-1,3-Dichloropropene | 32 u | |
| 110-75-8 | 2-chloroethylvinylether | 63 u | |
| 75-25-2 | Bromoform | 32 u | |
| 108-10-1 | 4-Methyl-2-Pentanone | 63 u | |
| 591-78-6 | 2-Hexanone | 63 u | |
| 127-18-4 | Tetrachloroethene | 32 u | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 32 u | |
| 108-88-3 | Toluene | 1000 | ✓ |
| 108-90-7 | Chlorobenzene | 32 u | |
| 100-41-4 | Ethylbenzene | 120 | ✓ |
| 100-42-5 | Styrene | 32 u | |
| | Total Xylenes | 690 | ✓ |

Data Reporting Qualifiers

Value If the result is a value greater than or equal to the detection limit, report the value.

u Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response factor is assumed, or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero. (e.g. 10J)

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

T Spectrum does not meet criteria for confirmation but does indicate compound presence.

NA Compound present in both matrix spike standard and unspiked sample.

Form I

Versar Inc., Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

| SAMPLE ID |
|---|
| 150-71 |

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

| | CAS Number | Compound Name | Fraction | RT or Scan | Estimated Concentration (ug/Kg or ug/l) |
|---|---|---|---|---|---|
| 11. | 110-83-7 | CYCLOHEXANE (DOT) | VOA | 348 | 110 J |
| 12. | 1638-26-2 | CYCLOPENTANE, 1,1-DIMETHYL- | VOA | 422 | 30 J |
| 13. | 108-87-2 | CYCLOHEXANE, METHYL- | VOA | 482 | 370 J |
| 14. | | UNKNOWN HYDROCARBON | VOA | 502 | 46 J |
| 15. | 617-78-7 | PENTANE, 3-ETHYL- | VOA | 510 | 19 J |
| 16. | | UNKNOWN | VOA | 532 | 190 J |
| 17. | | UNKNOWN HYDROCARBON | VOA | 543 | 360 J |
| 18. | 142-82-5 | HEPTANE (DOT) | VOA | 575 | 1,300 J |
| 19. | 592-13-2 | HEXANE, 2,5-DIMETHYL- | VOA | 623 | 38 J |
| 110. | | | | | |
| 111. | | | | | |
| 112. | | | | | |
| 113. | | | | | |
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| 130. | | | | | |

**DRUM STORAGE AREAS 1 AND 2**
**DRUM SAMPLES**

Versar, Inc. Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

| Sample Number |
|---|
| D-1 |

ORGANICS ANALYSIS DATA SHEET (Page 1)

Laboratory Name: VERSAR
Lab Sample ID No: 39837
Sample Matrix: LIQUID WASTE
Data Release Authorized By:

Case No: 4600 BM251
QC Report No: 4600 BM251
Contract No:
Date Sample Received: 10/08/87

VOLATILE COMPOUNDS

Concentration: MID
Date Extracted/Prepared: 10/21/87
Date Analyzed: 10/21/87
Conc/Dil Factor: 1000000 pH NA
Percent Moisture: ND

| CAS Number | | ug/Kg |
|---|---|---|
| 74-87-3 | Chloromethane | 10000000 u |
| 74-83-9 | Bromomethane | 10000000 u |
| 75-01-4 | Vinyl Chloride | 10000000 u |
| 75-00-3 | Chloroethane | 10000000 u |
| 75-09-2 | Methylene Chloride | 2200000 JB |
| 67-64-1 | Acetone | 20000000 B |
| 75-15-0 | Carbon Disulfide | 5000000 u |
| 75-35-4 | 1,1-Dichloroethene | 5000000 u |
| 75-34-3 | 1,1-Dichloroethane | 5000000 u |
| 156-60-5 | Trans-1,2-Dichloroethene | 5000000 u |
| 67-66-3 | Chloroform | 5000000 u |
| 107-06-2 | 1,2-Dichloroethane | 5000000 u |
| 78-93-3 | 2-butanone | 10000000 u |
| 71-55-6 | 1,1,1-Trichloroethane | 5000000 u |
| 56-23-5 | Carbon Tetrachloride | 5000000 u |
| 108-05-4 | Vinyl Acetate | 10000000 u |
| 75-27-4 | Bromodichloromethane | 5000000 u |

| CAS Number | | ug/Kg |
|---|---|---|
| 78-87-5 | 1,2-Dichloropropane | 5000000 u |
| 10061-02-6 | Trans-1,3-Dichloropropene | 5000000 u |
| 79-01-6 | Trichloroethene | 5000000 u |
| 124-48-1 | Dibromochloromethane | 5000000 u |
| 79-00-5 | 1,1,2-Trichloroethane | 5000000 u |
| 71-43-2 | Benzene | 5000000 u |
| 10061-01-5 | cis-1,3-Dichloropropene | 5000000 u |
| 110-75-8 | 2-chloroethylvinylether | 10000000 u |
| 75-25-2 | Bromoform | 5000000 u |
| 108-10-1 | 4-Methyl-2-Pentanone | 10000000 u |
| 591-78-6 | 2-Hexanone | 10000000 u |
| 127-18-4 | Tetrachloroethene | 5000000 u |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 5000000 u |
| 108-88-3 | Toluene | 200000000 |
| 108-90-7 | Chlorobenzene | 5000000 u |
| 100-41-4 | Ethylbenzene | 5000000 u |
| 100-42-5 | Styrene | 5000000 u |
| | Total Xylenes | 5000000 u |

Data Reporting Qualifiers

Value If the result is a value greater than or equal to the detection limit, report the value.

u Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response factor is assumed, or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero. (e.g. 10J)

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

T Spectrum does not meet criteria for confirmation but does indicate compound presence.

NA Compound present in both matrix spike standard and unspiked sample.

Form I

Versar Inc., Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

| SAMPLE ID |
|---|
| D1 |

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

| CAS Number | Compound Name | Fraction | RT or Scan | Estimated Concentration (ug/Kg or ug/L) |
|---|---|---|---|---|
| 11. | UNKNOWN | VOA | 410 | 110,190,000 J |
| 12. 589-34-4 | HEXANE, 3-METHYL | VOA | 434 | 147,520,000 J |
| 13. | UNKNOWN HYDROCARBON | VOA | 443 | 125,180,000 J |
| 14. | | | | |
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| 129. | | | | |
| 130. | | | | |

Versar Inc., Laboratory Operations
6850 Versar Center, Springfield VA 22151 703/750-3000

| Sample Number |
|---|
| ID-1 |

Case No:____4600 RM251 & 254_____

ORGANICS ANALYSIS DATA SHEET (Page 2)
Semivolatile Compounds

Concentration:MID

Date Extracted/Prepared:_____10/14/87__

Date Analyzed:_____11/03/87__

Conc/Dil Factor:_____5_____

GPC Cleanup [ ]Yes [X]No

Separatory Funnel Extraction [ ]Yes

Continuous Liquid-Liquid Extraction [ ]Yes

| CAS Number | | ug/Kg |
|---|---|---|
| 108-95-2 | Phenol | 96000 u |
| 111-44-4 | bis(2-Chloroethyl)Ether | 96000 u |
| 95-57-8 | 2-Chlorophenol | 96000 u |
| 541-73-1 | 1,3-Dichlorobenzene | 96000 u |
| 106-46-7 | 1,4-Dichlorobenzene | 96000 u |
| 100-51-6 | Benzyl Alcohol | 96000 u |
| 95-50-1 | 1,2-Dichlorobenzene | 96000 u |
| 95-48-7 | 2-Methylphenol | 96000 u |
| 39638-32-9 | bis(2-chloroisopropyl)ether | 96000 u |
| 106-44-5 | 4-methylphenol | 96000 u |
| 621-64-7 | N-Nitroso-Di-n-propylamine | 96000 u |
| 67-72-1 | Hexachloroethane | 96000 u |
| 98-95-3 | Nitrobenzene | 96000 u |
| 78-59-1 | Isophorone | 96000 u |
| 88-75-5 | 2-Nitrophenol | 96000 u |
| 105-67-9 | 2,4-dimethylphenol | 96000 u |
| 65-85-0 | Benzoic Acid | 480000 u |
| 111-91-1 | bis(2-chloroethoxy)methane | 96000 u |
| 120-83-2 | 2,4-dichlorophenol | 96000 u |
| 120-82-1 | 1,2,4-trichlorobenzene | 96000 u |
| 91-20-3 | Naphthalene | 96000 u |
| 106-47-8 | 4-Chloroaniline | 96000 u |
| 87-68-3 | Hexachlorobutadiene | 96000 u |
| 59-50-7 | 4-chloro-3-methylphenol | 96000 u |
| 91-57-6 | 2-methylnaphthalene | 96000 u |
| 77-47-4 | Hexachlorocyclopentadiene | 96000 u |
| 88-06-2 | 2,4,6-Trichlorophenol | 96000 u |
| 95-95-4 | 2,4,5-Trichlorophenol | 480000 u |
| 91-58-7 | 2-Chloronaphthalene | 96000 u |
| 88-74-4 | 2-Nitroaniline | 480000 u |
| 131-11-3 | Dimethyl Phthalate | 96000 u |
| 208-96-8 | Acenaphthylene | 96000 u |
| 99-09-2 | 3-Nitroaniline | 480000 u |

| CAS Number | | ug/Kg |
|---|---|---|
| 83-32-9 | Acenaphthene | 96000 u |
| 51-28-5 | 2,4-Dinitrophenol | 480000 u |
| 100-02-7 | 4-Nitrophenol | 480000 u |
| 132-64-9 | Dibenzofuran | 96000 u |
| 121-14-2 | 2,4-Dinitrotoluene | 96000 u |
| 606-20-2 | 2,6-Dinitrotoluene | 96000 u |
| 84-66-2 | Diethylphthalate | 96000 u |
| 7005-22-3 | 4-Chlorophenyl-phenylether | 96000 u |
| 86-73-7 | Fluorene | 96000 u |
| 100-01-6 | 4-Nitroaniline | 480000 u |
| 534-52-1 | 4,6-dinitro-2-methylphenol | 480000 u |
| 86-30-6 | N-Nitrosodiphenylamine (1) | 96000 u |
| 101-55-3 | 4-Bromophenyl-phenylether | 96000 u |
| 118-74-1 | Hexachlorobenzene | 96000 u |
| 87-86-5 | Pentachlorophenol | 480000 u |
| 85-01-8 | Phenanthrene | 96000 u |
| 120-12-7 | Anthracene | 96000 u |
| 84-74-2 | Di-n-butylphthalate | 96000 u |
| 206-44-0 | Fluoranthene | 96000 u |
| 129-00-0 | Pyrene | 96000 u |
| 85-68-7 | Butylbenzylphthalate | 96000 u |
| 91-94-1 | 3,3'-Dichlorobenzidine | 192000 u |
| 56-55-3 | Benzo(a)anthracene | 96000 u |
| 117-81-7 | bis(2-Ethylhexyl)Phthalate | 130000 |
| 218-01-9 | Chrysene | 96000 u |
| 117-84-0 | Di-n-Octylphthalate | 96000 u |
| 205-99-2 | Benzo(b)Fluoranthene | 96000 u |
| 207-08-9 | Benzo(k)Fluoranthene | 96000 u |
| 50-32-8 | Benzo(a)pyrene | 96000 u |
| 193-39-5 | Indeno(1,2,3-cd)Pyrene | 96000 u |
| 53-70-3 | Dibenz(a,h)Anthracene | 96000 u |
| 191-24-2 | Benzo(g,h,i)Perylene | 96000 u |

(1)-Cannot be separated from diphenylamine

Versar Inc., Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

| SAMPLE ID |
|---|
| D-1 |

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

| | CAS Number | Compound Name | Fraction | RT or Scan | Estimated Concentration (ug/Kg or ug/L) |
|---|---|---|---|---|---|
| 1 | | UNKNOWN XYLENE OR ETHYLBENZENE | BNA | 519 | 26,000 J |
| 2 | 556-67-2 | CYCLOTETRASILOXANE, OCTAMETHYL | BNA | 667 | 130,000 J |
| 3 | 541-02-6 | CYCLOPENTASILOXANE, DECAMETHYL | BNA | 867 | 66,000 J |
| 4 | | UNKNOWN SLICON COMPOUND | BNA | 1066 | 31,000 J |
| 5 | | UNKNOWN SUBSTITUTED PHENOL | BNA | 1273 | 33,000 J |
| 6 | | UNKNOWN | BNA | 1311 | 180,000 J |
| 7 | | UNKNOWN | BNA | 1372 | 24,000 J |
| 8 | | UNKNOWN ORGANIC ACID | BNA | 1490 | 21,000 J |
| 9 | | UNKNOWN | BNA | 1635 | 27,000 J |
| 10 | | UNKNOWN | BNA | 2003 | 57,000 J |
| 11 | | | | | |
| 12 | | | | | |
| 13 | | | | | |
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Versar Inc. Laboratory Operations
6850 Versar Center, Springfield Va. 22151
(703) 750-3000

| Sample Number |
| --- |
| D-1 |

ORGANICS ANALYSIS DATA SHEET
(Page 3)

Lab ID# 39837

Pesticides/PCBs

Concentration: Low | Medium | (circle one)

GPC Cleanup [ ] Yes [X] No

Date Extracted/Prepared: 10/14/87

Separatory Funnel Extration [ ] Yes

Date Analyzed: 11/12/87

Continuous Liquid-Liquid Extraction [ ] Yes [X] No

Conc/Dil Factor 1.00

Percent Moisture(decanted) ND

| CAS Number | | ug/Kg |
| --- | --- | --- |
| 319-84-6 | alpha-BHC | 49 u |
| 319-85-7 | beta-BHC | 49 u |
| 319-86-8 | delta-BHC | 49 u |
| 58-89-9 | gamma-BHC (Lindane) | 49 u |
| 76-44-8 | Heptachlor | 49 u |
| 309-00-2 | Aldrin | 49 u |
| 1024-57-3 | Heptachlor Epoxide | 49 u |
| 959-98-8 | Endosulfan I | 49 u |
| 60-57-1 | Dieldrin | 97 u |
| 72-55-9 | 4,4'-DDE | 97 u |
| 72-20-8 | Endrin | 97 u |
| 33213-65-9 | Endosulfan II | 97 u |
| 72-54-8 | 4,4'-DDD | 97 u |
| 1031-07-8 | Endosulfan Sulfate | 97 u |
| 50-29-3 | 4,4'-DDT | 97 u |
| 72-43-5 | Methoxychlor | 97 u |
| 53494-70-5 | Endrin Ketone | 97 u |
| 57-74-9 | Chlordane | 490 u |
| 8001-35-2 | Toxaphene | 970 u |
| 12674-11-2 | Aroclor-1016 | 490 u |
| 11104-28-2 | Aroclor-1221 | 490 u |
| 11141-16-5 | Aroclor-1232 | 490 u |
| 53469-21-9 | Aroclor-1242 | 490 u |
| 12672-29-6 | Aroclor-1248 | 490 u |
| 11097-69-1 | Aroclor-1254 | 970 u |
| 11096-82-5 | Aroclor-1260 | 970 u |

Vi = Volume of extract injected (ul)
Vs = Volume of Water Extracted (ml)
Ws = Weight of sample extracted (g)
Vt = Volume of total extract (ul)

Vs _____ or Ws 1.03 Vt 10000 Vi 2.00

Versar, Inc. Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

| Sample Number |
|---|
| D-2 |

ORGANICS ANALYSIS DATA SHEET (Page 1)

Laboratory Name: VERSAR
Lab Sample ID No: 38938
Sample Matrix: LIQUID WASTE
Data Release Authorized By:

Case No: 4600 BN251
QC Report No: 4600 BN251
Contract No:
Date Sample Received: 10/08/87

VOLATILE COMPOUNDS

Concentration: MID
Date Extracted/Prepared: 10/21/87
Date Analyzed: 10/21/87
Conc/Dil Factor: 2000000 pH NA
Percent Moisture: ND

| CAS Number | | ug/Kg | CAS Number | | ug/Kg |
|---|---|---|---|---|---|
| 74-87-3 | Chloromethane | 20000000 u | 78-87-5 | 1,2-Dichloropropane | 10000000 u |
| 74-83-9 | Bromomethane | 20000000 u | 10061-02-6 | Trans-1,3-Dichloropropene | 10000000 u |
| 75-01-4 | Vinyl Chloride | 20000000 u | 79-01-6 | Trichloroethene | 10000000 u |
| 75-00-3 | Chloroethane | 20000000 u | 124-48-1 | Dibromochloromethane | 10000000 u |
| 75-09-2 | Methylene Chloride | 5100000 JB | 79-00-5 | 1,1,2-Trichloroethane | 10000000 u |
| 67-64-1 | Acetone | 7000000 JB | 71-43-2 | Benzene | 10000000 u |
| 75-15-0 | Carbon Disulfide | 10000000 u | 10061-01-5 | cis-1,3-Dichloropropene | 10000000 u |
| 75-35-4 | 1,1-Dichloroethene | 10000000 u | 110-75-8 | 2-chloroethylvinylether | 20000000 u |
| 75-34-3 | 1,1-Dichloroethane | 10000000 u | 75-25-2 | Bromoform | 10000000 u |
| 156-60-5 | Trans-1,2-Dichloroethene | 10000000 u | 108-10-1 | 4-Methyl-2-Pentanone | 20000000 u |
| 67-66-3 | Chloroform | 10000000 u | 591-78-6 | 2-Hexanone | 20000000 u |
| 107-06-2 | 1,2-Dichloroethane | 10000000 u | 127-18-4 | Tetrachloroethene | 10000000 u |
| 78-93-3 | 2-butanone | 20000000 u | 79-34-5 | 1,1,2,2-Tetrachloroethane | 10000000 u |
| 71-55-6 | 1,1,1-Trichloroethane | 10000000 u | 108-88-3 | Toluene | 190000000 |
| 56-23-5 | Carbon Tetrachloride | 10000000 u | 108-90-7 | Chlorobenzene | 10000000 u |
| 108-05-4 | Vinyl Acetate | 20000000 u | 100-41-4 | Ethylbenzene | 10000000 u |
| 75-27-4 | Bromodichloromethane | 10000000 u | 100-42-5 | Styrene | 10000000 u |
| | | | | Total Xylenes | 10000000 u |

Data Reporting Qualifiers

Value If the result is a value greater than or equal to the detection limit, report the value.

u Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response factor is assumed, or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero. (e.g. 10J)

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

T Spectrum does not meet criteria for confirmation but does indicate compound presence.

NA Compound present in both matrix spike standard and unspiked sample.

Form I

Versar Inc., Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

| SAMPLE ID |
|---|
| ID2 |

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

| | CAS Number | Compound Name | Fraction | RT or Scan | Estimated Concentration (ug/Kg or ug/L) |
|---|---|---|---|---|---|
| 11. | | UNKNOWN HYDROCARBON | VOA | 411 | 6,120,000 J |
| 12. | 589-34-4 | HEXANE 3-METHY | VOA | 434 | 129,380,000 J |
| 13. | | UNKNOWN HYDROCARBON | VOA | 443 | 122,080,000 J |
| 14. | | | | | |
| 15. | | | | | |
| 16. | | | | | |
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| 30. | | | | | |

Versar Inc., Laboratory Operations
6850 Versar Center, Springfield VA 22151 703/750-3000

| Sample Number |
|---|
| D-2 |

Case No:____4600 RM251 & 254_____

ORGANICS ANALYSIS DATA SHEET (Page 2)
Semivolatile Compounds

Concentration:MID

Date Extracted/Prepared:_____10/14/87__

GPC Cleanup [ ]Yes [X]No

Date Analyzed:_____11/10/87__

Separatory Funnel Extraction [ ]Yes

Conc/Dil Factor:_____4_____

Continuous Liquid-Liquid Extraction [ ]Yes

| CAS Number | | ug/Kg |
|---|---|---|
| 108-95-2 | Phenol | 80000 u |
| 111-44-4 | bis(2-Chloroethyl)Ether | 80000 u |
| 95-57-8 | 2-Chlorophenol | 80000 u |
| 541-73-1 | 1,3-Dichlorobenzene | 80000 u |
| 106-46-7 | 1,4-Dichlorobenzene | 80000 u |
| 100-51-6 | Benzyl Alcohol | 80000 u |
| 95-50-1 | 1,2-Dichlorobenzene | 80000 u |
| 95-48-7 | 2-Methylphenol | 80000 u |
| 139638-32-9 | bis(2-chloroisopropyl)ether | 80000 u |
| 106-44-5 | 4-Methylphenol | 80000 u |
| 621-64-7 | N-Nitroso-Di-n-propylamine | 80000 u |
| 67-72-1 | Hexachloroethane | 80000 u |
| 98-95-3 | Nitrobenzene | 80000 u |
| 78-59-1 | Isophorone | 80000 u |
| 88-75-5 | 2-Nitrophenol | 80000 u |
| 105-67-9 | 2,4-dimethylphenol | 80000 u |
| 65-85-0 | Benzoic Acid | 400000 u |
| 111-91-1 | bis(2-chloroethoxy)methane | 80000 u |
| 120-83-2 | 2,4-dichlorophenol | 80000 u |
| 120-82-1 | 1,2,4-trichlorobenzene | 80000 u |
| 91-20-3 | Naphthalene | 80000 u |
| 106-47-8 | 4-Chloroaniline | 80000 u |
| 87-68-3 | Hexachlorobutadiene | 80000 u |
| 59-50-7 | 4-chloro-3-methylphenol | 80000 u |
| 91-57-6 | 2-methylnaphthalene | 80000 u |
| 77-47-4 | Hexachlorocyclopentadiene | 80000 u |
| 88-06-2 | 2,4,6-Trichlorophenol | 80000 u |
| 95-95-4 | 2,4,5-Trichlorophenol | 400000 u |
| 91-58-7 | 2-Chloronaphthalene | 80000 u |
| 88-74-4 | 2-Nitroaniline | 400000 u |
| 131-11-3 | Dimethyl Phthalate | 80000 u |
| 208-96-8 | Acenaphthylene | 80000 u |
| 99-09-2 | 3-Nitroaniline | 400000 u |

| CAS Number | | ug/Kg |
|---|---|---|
| 83-32-9 | Acenaphthene | 80000 u |
| 51-28-5 | 2,4-Dinitrophenol | 400000 u |
| 100-02-7 | 4-Nitrophenol | 400000 u |
| 132-64-9 | Dibenzofuran | 80000 u |
| 121-14-2 | 2,4-Dinitrotoluene | 80000 u |
| 606-20-2 | 2,6-Dinitrotoluene | 80000 u |
| 84-66-2 | Diethylphthalate | 80000 u |
| 7005-22-3 | 4-Chlorophenyl-phenylether | 80000 u |
| 86-73-7 | Fluorene | 80000 u |
| 100-01-6 | 4-Nitroaniline | 400000 u |
| 534-52-1 | 4,6-dinitro-2-methylphenol | 400000 u |
| 86-30-6 | N-Nitrosodiphenylamine (1) | 80000 u |
| 101-55-3 | 4-Bromophenyl-phenylether | 80000 u |
| 118-74-1 | Hexachlorobenzene | 80000 u |
| 87-86-5 | Pentachlorophenol | 400000 u |
| 85-01-8 | Phenanthrene | 80000 u |
| 120-12-7 | Anthracene | 80000 u |
| 84-74-2 | Di-n-butylphthalate | 80000 u |
| 206-44-0 | Fluoranthene | 80000 u |
| 129-00-0 | Pyrene | 80000 u |
| 85-68-7 | Butylbenzylphthalate | 80000 u |
| 91-94-1 | 3,3'-Dichlorobenzidine | 160000 u |
| 56-55-3 | Benzo(a)anthracene | 80000 u |
| 117-81-7 | bis(2-Ethylhexyl)Phthalate | 76000 J |
| 218-01-9 | Chrysene | 80000 u |
| 117-84-0 | Di-n-Octylphthalate | 80000 u |
| 205-99-2 | Benzo(b)Fluoranthene | 80000 u |
| 207-08-9 | Benzo(k)Fluoranthene | 80000 u |
| 50-32-8 | Benzo(a)pyrene | 80000 u |
| 193-39-5 | Indeno(1,2,3-cd)Pyrene | 80000 u |
| 53-70-3 | Dibenz(a,h)Anthracene | 80000 u |
| 191-24-2 | Benzo(g,h,i)Perylene | 80000 u |

(1)-Cannot be separated from diphenylamine.

Versar Inc., Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

| SAMPLE ID |
|---|
| D-2 |

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

| | CAS Number | Compound Name | Fraction | RT or Scan | Estimated Concentration (ug/Kg or ug/l) |
|---|---|---|---|---|---|
| 11 | | UNKNOWN XYLENE OR ETHYLBENZENE | BNA | 494 | 1,130,000 J |
| 12 | | UNKNOWN XYLENE OR ETHYLBENZENE | BNA | 528 | 260,000 J |
| 13 | 556-67-2 | CYCLOTETRASILOXANE, OCTAMETHYL | BNA | 669 | 170,000 J |
| 14 | 541-02-6 | CYCLOPENTASILOXANE, DECAMETHYL | BNA | 867 | 100,000 J |
| 15 | PHENOL ISOME | UNKNOWN DIMETHYLETHYL | BNA | 1035 | 23,000 J |
| 16 | 540-97-6 | CYCLOHEXASILOXANE, DODECAMETHYL | BNA | 1066 | 38,000 J |
| 17 | | PHENOL, 2,6-BIS(1,1-DIMETHYLETHYL)-4-METHYL, ISOMER | BNA | 1273 | 74,000 J |
| 18 | | UNKNOWN | BNA | 1310 | 150,000 J |
| 19 | | UNKNOWN ORGANIC ACID | BNA | 1371 | 30,000 J |
| 110 | | UNKNOWN | BNA | 1489 | 20,000 J |
| 111 | | UNKNOWN | BNA | 1695 | 27,000 J |
| 112 | | UNKNOWN | BNA | 1949 | 38,000 J |
| 113 | | | | | |
| 114 | | | | | |
| 115 | | | | | |
| 116 | | | | | |
| 117 | | | | | |
| 118 | | | | | |
| 119 | | | | | |
| 120 | | | | | |
| 121 | | | | | |
| 122 | | | | | |
| 123 | | | | | |
| 124 | | | | | |
| 125 | | | | | |
| 126 | | | | | |
| 127 | | | | | |
| 128 | | | | | |
| 129 | | | | | |
| 130 | | | | | |

Versar Inc. Laboratory Operations
6850 Versar Center, Springfield Va. 22151
(703) 750-3000

| Sample Number |
|---|
| D-2 |

Lab ID# 39838

ORGANICS ANALYSIS DATA SHEET
(Page 3)

Pesticides/PCBs

Concentration: Low | Medium | (circle one)

GPC Cleanup [ ] Yes [X] No

Date Extracted/Prepared: 10/14/87

Separatory Funnel Extration [ ] Yes

Date Analyzed: 11/12/87

Continuous Liquid-Liquid Extraction [ ] Yes [X] No

Conc/Dil Factor 1.00

Percent Moisture(decanted) ND

| CAS Number | | ug/Kg |
|---|---|---|
| 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 | 100 u |
| 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 | 100 u |
| 53494-70-5 | Endrin Ketone | 100 u |
| 57-74-9 | Chlordane | 500 u |
| 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 |

Vi = Volume of extract injected (ul)
Vs = Volume of Water Extracted (ml)
Ws = Weight of sample extracted (g)
Vt = Volume of total extract (ul)

Vs ____ or Ws 1.00 Vt 10000 Vi 2.00

Versar, Inc. Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

| Sample Number |
|---|
| D-3 |

ORGANICS ANALYSIS DATA SHEET (Page 1)

Laboratory Name: VERSAR
Lab Sample ID No: 40008
Sample Matrix: LIQUID WASTE
Data Release Authorized By:

Case No: 4600 BM254
QC Report No: 4600 BM254
Contract No:
Date Sample Received: 10/08/87

VOLATILE COMPOUNDS

Concentration: MID
Date Extracted/Prepared: 10/21/87
Date Analyzed: 10/21/87
Conc/Dil Factor: 2000000 pH NA
Percent Moisture: ND

| CAS Number | | ug/Kg | CAS Number | | ug/Kg |
|---|---|---|---|---|---|
| 74-87-3 | Chloromethane | 20000000 u | 78-87-5 | 1,2-Dichloropropane | 10000000 u |
| 74-83-9 | Bromomethane | 20000000 u | 10061-02-6 | Trans-1,3-Dichloropropene | 10000000 u |
| 75-01-4 | Vinyl Chloride | 20000000 u | 79-01-6 | Trichloroethene | 10000000 u |
| 75-00-3 | Chloroethane | 20000000 u | 124-48-1 | Dibromochloromethane | 10000000 u |
| 75-09-2 | Methylene Chloride | 5100000 JB | 79-00-5 | 1,1,2-Trichloroethane | 10000000 u |
| 67-64-1 | Acetone | 7700000 JB | 71-43-2 | Benzene | 10000000 u |
| 75-15-0 | Carbon Disulfide | 10000000 u | 10061-01-5 | cis-1,3-Dichloropropene | 10000000 u |
| 75-35-4 | 1,1-Dichloroethene | 10000000 u | 110-75-8 | 2-chloroethylvinylether | 20000000 u |
| 75-34-3 | 1,1-Dichloroethane | 10000000 u | 75-25-2 | Bromoform | 10000000 u |
| 156-60-5 | Trans-1,2-Dichloroethene | 10000000 u | 108-10-1 | 4-Methyl-2-Pentanone | 120000000 |
| 67-66-3 | Chloroform | 10000000 u | 591-78-6 | 2-Hexanone | 20000000 u |
| 107-06-2 | 1,2-Dichloroethane | 10000000 u | 127-18-4 | Tetrachloroethene | 10000000 u |
| 78-93-3 | 2-butanone | 210000000 | 79-34-5 | 1,1,2,2-Tetrachloroethane | 10000000 u |
| 71-55-6 | 1,1,1-Trichloroethane | 10000000 u | 108-88-3 | Toluene | 33000000 |
| 56-23-5 | Carbon Tetrachloride | 10000000 u | 108-90-7 | Chlorobenzene | 10000000 u |
| 108-05-4 | Vinyl Acetate | 20000000 u | 100-41-4 | Ethylbenzene | 10000000 u |
| 75-27-4 | Bromodichloromethane | 10000000 u | 100-42-5 | Styrene | 10000000 u |
| | | | | Total Xylenes | 10000000 u |

Data Reporting Qualifiers

Value If the result is a value greater than or equal to the detection limit, report the value.

u Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response factor is assumed, or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero. (e.g. 10J)

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

T Spectrum does not meet criteria for confirmation but does indicate compound presence.

NA Compound present in both matrix spike standard and unspiked sample.

Versar Inc., Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

| SAMPLE ID |
|---|
| 103 |

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

| CAS Number | Compound Name | Fraction | RT or Scan | Estimated Concentration (ug/Kg or ug/L) |
|---|---|---|---|---|
| 11. | UNKNOWN HYDROCARBON | VOA | 348 | 3,950,000 J |
| 12. | UNKNOWN HYDROCARBON | VOA | 376 | 9,500,000 J |
| 13. | UNKNOWN DIMETHYLCYCLOPENTANE | VOA | 390 | 116,520,000 J |
| 14. 589-34-4 | HEXANE, 3-METHYL- | VOA | 435 | 122,700,000 J |
| 15. | UNKNOWN HYDROCARBON | VOA | 443 | 117,830,000 J |
| 16. | | | | |
| 17. | | | | |
| 18. | | | | |
| 19. | | | | |
| 110. | | | | |
| 111. | | | | |
| 112. | | | | |
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| 114. | | | | |
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| 121. | | | | |
| 122. | | | | |
| 123. | | | | |
| 124. | | | | |
| 125. | | | | |
| 126. | | | | |
| 127. | | | | |
| 128. | | | | |
| 129. | | | | |
| 130. | | | | |

Versar Inc., Laboratory Operations
6850 Versar Center, Springfield VA 22151 703/750-3000

| Sample Number |
|---|
| 1D-3 |

Case No: 4600 BW251 & 254

ORGANICS ANALYSIS DATA SHEET (Page 2)
Semivolatile Compounds

Concentration: MID

Date Extracted/Prepared: 10/14/87

Date Analyzed: 10/30/87

Conc/Dil Factor: 1

GPC Cleanup [ ]Yes [X]No

Separatory Funnel Extraction [ ]Yes

Continuous Liquid-Liquid Extraction [ ]Yes

| CAS Number | | ug/Kg |
|---|---|---|
| 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 |
| 39638-32-9 | 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 | Dimethyl Phthalate | 20000 u |
| 208-96-8 | Acenaphthylene | 20000 u |
| 99-09-2 | 3-Nitroaniline | 100000 u |

| CAS Number | | ug/Kg |
|---|---|---|
| 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 |
| 606-20-2 | 2,6-Dinitrotoluene | 20000 u |
| 84-66-2 | Diethylphthalate | 20000 u |
| 7005-22-3 | 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 |
| 117-81-7 | bis(2-Ethylhexyl)Phthalate | 8300000 D |
| 218-01-9 | Chrysene | 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 |

D- Result calculated from 1/50 Dilution

(1)-Cannot be separated from diphenylamine

12-3

BNAF1:R032286

Form I

Versar Inc., Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

| SAMPLE ID |
|---|
| ID-3 |

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

| CAS Number | Compound Name | Fraction | RT or Scan | Estimated Concentration (ug/Kg or ug/l) |
|---|---|---|---|---|
| 11. | UNKNOWN XYLENE | BNA | 509 | 29,000 J |
| 12. | UNKNOWN XYLENE OR ETHYLBENZENE | BNA | 543 | 7,100 J |
| 13. | UNKNOWN HYDROCARBON | BNA | 551 | 14,000 J |
| 14. | UNKNOWN | BNA | 559 | 14,000 J |
| 15. | UNKNOWN ETHYL METHYL BENZENE COELUTING W/ HYDROCARBON | BNA | 642 | 11,000 J |
| 16. | UNKNOWN HYDROCARBON | BNA | 651 | 10,000 J |
| 17. | UNKNOWN TRIMETHYL BENZENE | BNA | 686 | 14,000 J |
| 18. | UNKNOWN HYDROCARBON | BNA | 690 | 42,000 J |
| 19. | UNKNOWN | BNA | 734 | 54,000 J |
| 110. | UNKNOWN | BNA | 744 | 31,000 J |
| 111. | UNKNOWN | BNA | 754 | 130,000 J |
| 112. | UNKNOWN HYDROCARBON | BNA | 775 | 12,000 J |
| 113. | UNKNOWN | BNA | 798 | 18,000 J |
| 114. | UNKNOWN HYDROCARBON | BNA | 821 | 44,000 J |
| 115. | UNKNOWN ORGANIC ACID | BNA | 850 | 40,000 J |
| 116. | UNKNOWN HYDROCARBON | BNA | 922 | 15,000 J |
| 117.128-37-0 | PHENOL, 2,6-BIS(1,1-DIMETHYLETHYL)-4-METHYL | BNA | 1289 | 43,000 J |
| 118. | UNKNOWN | BNA | 1682 | 28,000 J |
| 119. | UNKNOWN | BNA | 1712 | 120,000 J |
| 120. | UNKNOWN | BNA | 1722 | 26,000 J |
| 121. | UNKNOWN | BNA | 1923 | 220,000 J |
| 122. | UNKNOWN | BNA | 1965 | 140,000 J |
| 123. | UNKNOWN | BNA | 1976 | 67,000 J |
| 124. | UNKNOWN | BNA | 2016 | 200,000 J |
| 125. | UNKNOWN SUBSTITUTED PHTHALATE | BNA | 2117 | 320,000 J |
| 126. | UNKNOWN PHTHALATE ISOMER | BNA | 2125 | 82,000 J |
| 127. | UNKNOWN SUBSTITUTED PHTHALATE | BNA | 2141 | 91,000 J |
| 128. | DI-N-OCTYL PHTHALATE | BNA | 2201 | 87,000 JT |
| 129. | | | | |
| 130. | | | | |

7- HSL COMPOUND DOES NOT MEET ALL IDENFICATION CRITERIA FOR POSITIVE IDENTIFICATION.

Versar Inc. Laboratory Operations
6850 Versar Center, Springfield Va. 22151
(703) 750-3000

| Sample Number |
| --- |
| D-3 |

ORGANICS ANALYSIS DATA SHEET
(Page 3)

Lab ID# 40008

Pesticides/PCBs

Concentration: Low | Medium | (circle one)

GPC Cleanup [ ] Yes [X] No

Date Extracted/Prepared: 10/14/87

Separatory Funnel Extration [ ] Yes

Date Analyzed: 11/13/87

Continuous Liquid-Liquid Extraction [ ] Yes [X] No

Conc/Dil Factor 1.00

Percent Moisture(decanted) ND

| CAS Number | | ug/Kg |
| --- | --- | --- |
| 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 | 100 u |
| 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 | 100 u |
| 53494-70-5 | Endrin Ketone | 100 u |
| 57-74-9 | Chlordane | 500 u |
| 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 |

Vi = Volume of extract injected (ul)
Vs = Volume of Water Extracted (ml)
Ws = Weight of sample extracted (g)
Vt = Volume of total extract (ul)

Vs _____ or Ws 1.00 Vt 10000 Vi 2.00

Versar, Inc. Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

| Sample Number |
|---|
| D-4 |

ORGANICS ANALYSIS DATA SHEET (Page 1)

Laboratory Name: VERSAR
Lab Sample ID No: 40009
Sample Matrix: LIQUID WASTE
Data Release Authorized By:

Case No: 4600 BM254
QC Report No: 4600 BM254
Contract No:
Date Sample Received: 10/08/87

VOLATILE COMPOUNDS

Concentration: MID
Date Extracted/Prepared: 10/21/87
Date Analyzed: 10/21/87
Conc/Dil Factor: 2000000 pH NA
Percent Moisture: ND

| CAS Number | | ug/Kg |
|---|---|---|
| 74-87-3 | Chloromethane | 20000000 u |
| 74-83-9 | Bromomethane | 20000000 u |
| 75-01-4 | Vinyl Chloride | 20000000 u |
| 75-00-3 | Chloroethane | 20000000 u |
| 75-09-2 | Methylene Chloride | 4400000 JB |
| 67-64-1 | Acetone | 10000000 JB |
| 75-15-0 | Carbon Disulfide | 10000000 u |
| 75-35-4 | 1,1-Dichloroethene | 10000000 u |
| 75-34-3 | 1,1-Dichloroethane | 10000000 u |
| 156-60-5 | Trans-1,2-Dichloroethene | 10000000 u |
| 67-66-3 | Chloroform | 10000000 u |
| 107-06-2 | 1,2-Dichloroethane | 10000000 u |
| 78-93-3 | 2-butanone | 37000000 |
| 71-55-6 | 1,1,1-Trichloroethane | 10000000 u |
| 56-23-5 | Carbon Tetrachloride | 10000000 u |
| 108-05-4 | Vinyl Acetate | 20000000 u |
| 75-27-4 | Bromodichloromethane | 10000000 u |

| CAS Number | | ug/Kg |
|---|---|---|
| 78-87-5 | 1,2-Dichloropropane | 10000000 u |
| 10061-02-6 | Trans-1,3-Dichloropropene | 10000000 u |
| 79-01-6 | Trichloroethene | 10000000 u |
| 124-48-1 | Dibromochloromethane | 10000000 u |
| 79-00-5 | 1,1,2-Trichloroethane | 10000000 u |
| 71-43-2 | Benzene | 10000000 u |
| 10061-01-5 | cis-1,3-Dichloropropene | 10000000 u |
| 110-75-8 | 2-chloroethylvinylether | 20000000 u |
| 75-25-2 | Bromoform | 10000000 u |
| 108-10-1 | 4-Methyl-2-Pentanone | 20000000 u |
| 591-78-6 | 2-Hexanone | 20000000 u |
| 127-18-4 | Tetrachloroethene | 10000000 u |
| 79-34-5 | 1,1,2,2 Tetrachloroethane | 10000000 u |
| 108-88-3 | Toluene | 180000000 |
| 108-90-7 | Chlorobenzene | 10000000 u |
| 100-41-4 | Ethylbenzene | 8300000 J |
| 100-42-5 | Styrene | 10000000 u |
| | Total Xylenes | 45000000 |

Data Reporting Qualifiers

Value If the result is a value greater than or equal to the detection limit, report the value.

u Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response factor is assumed, or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero. (e.g. 10J)

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

T Spectrum does not meet criteria for confirmation but does indicate compound presence.

NA Compound present in both matrix spike standard and unspiked sample.

Versar Inc., Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

| SAMPLE ID |
|---|
| D4 |

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

| | CAS Number | Compound Name | Fraction | RT or Scan | Estimated Concentration (ug/Kg or ug/L) |
|---|---|---|---|---|---|
| 11. | 589-34-4 | HEXANE, 3-METHYL | VOA | 434 | 125,030,000 J |
| 12. | | UNKNOWN HYDROCARBON | VOA | 443 | 125,250,000 J |
| 13. | | | | | |
| 14. | | | | | |
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| 49. | | | | | |
| 50. | | | | | |

Versar Inc., Laboratory Operations
6850 Versar Center, Springfield VA 22151 703/750-3000

| Sample Number |
|---|
| D-4 |

Case No:____4600 BR251 & 254_____

ORGANICS ANALYSIS DATA SHEET (Page 2)
Semivolatile Compounds

Concentration:MID

Date Extracted/Prepared:_____10/14/87__

Date Analyzed:_____10/30/87__

Conc/Dil Factor:_____1_____

GPC Cleanup [ ]Yes [X]No

Separatory Funnel Extraction [ ]Yes

Continuous Liquid-Liquid Extraction [ ]Yes

| CAS Number | | ug/Kg |
|---|---|---|
| 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 |
| 39638-32-9 | 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 | Dimethyl Phthalate | 20000 u |
| 208-96-8 | Acenaphthylene | 20000 u |
| 99-09-2 | 3-Nitroaniline | 100000 u |

| CAS Number | | ug/Kg |
|---|---|---|
| 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 |
| 606-20-2 | 2,6-Dinitrotoluene | 20000 u |
| 84-66-2 | Diethylphthalate | 20000 u |
| 7005-22-3 | 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 | 7600 J |
| 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 |
| 117-81-7 | bis(2-Ethylhexyl)Phthalate | 200000 |
| 218-01-9 | Chrysene | 20000 u |
| 117-84-0 | Di-n-Octylphthalate | 17000 JT |
| 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

Versar Inc., Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

| SAMPLE ID |
|---|
| D-4 |

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

PAGE 1 of 2

| | CAS Number | Compound Name | Fraction | RT or Scan | Estimated Concentration (ug/Kg or ug/l) |
|---|---|---|---|---|---|
| 1 | | UNKNOWN | BNA | 501 | 1,580,000 J |
| 2 | | UNKNOWN | BNA | 520 | 1,040,000 J |
| 3 | | UNKNOWN | BNA | 526 | 15,000 J |
| 4 | | UNKNOWN | BNA | 549 | 1,640,000 J |
| 5 | | UNKNOWN SUBSTITUTED BENZENE | BNA | 590 | 25,000 J |
| 6 | | UNKNOWN | BNA | 661 | 100,000 J |
| 7 | 556-67-2 | CYCLOTETRASILOXANE, OCTAMETHYL | BNA | 685 | 380,000 J |
| 8 | | UNKNOWN HYDROCARBON | BNA | 691 | 15,000 J |
| 9 | | UNKNOWN | BNA | 734 | 12,000 J |
| 10 | | UNKNOWN | BNA | 754 | 22,000 J |
| 11 | | UNKNOWN | BNA | 783 | 16,000 J |
| 12 | 149-57-5 | HEXANOIC ACID, 2-ETHYL | BNA | 857 | 58,000 J |
| 13 | 541-02-6 | CYCLOPENTASILOXANE, DECAMETHYL | BNA | 883 | 420,000 J |
| 14 | | UNKNOWN | BNA | 988 | 15,000 J |
| 15 | | UNKNOWN | BNA | 994 | 13,000 J |
| 16 | | UNKNOWN | BNA | 1081 | 200,000 J |
| 17 | | UNKNOWN | BNA | 1261 | 79,000 J |
| 18 | | UNKNOWN ORGANIC ACID | BNA | 1290 | 87,000 J |
| 19 | | UNKNOWN | BNA | 1322 | 21,000 J |
| 20 | | UNKNOWN | BNA | 1329 | 15,000 J |
| 21 | | UNKNOWN | BNA | 1421 | 130,000 J |
| 22 | | UNKNOWN ORGANIC ACID | BNA | 1476 | 50,000 J |
| 23 | | UNKNOWN | BNA | 1606 | 20,000 J |
| 24 | | UNKNOWN ORGANIC ACID | BNA | 1645 | 32,000 J |
| 25 | | UNKNOWN | BNA | 1727 | 15,000 J |
| 26 | | UNKNOWN METHYL ESTER ORGANIC ACID | BNA | 1782 | 66,000 J |
| 27 | | UNKNOWN ORGANIC ACID | BNA | 1799 | 27,000 J |
| 28 | | UNKNOWN | BNA | 1868 | 110,000 J |
| 29 | | UNKNOWN SUBSTITUTED PHENANTHRENE CARBOXYLIC ACID | BNA | 1977 | 86,000 J |
| 30 | | UNKNOWN PHTHALATE ISOMER | BNA | 2115 | 240,000 J |

Versar Inc., Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

| SAMPLE ID |
|---|
| ID-4 |

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

PAGE 2 OF 2

| | CAS Number | Compound Name | Fraction | RT or Scan | Estimated Concentration (ug/Kg or ug/l) |
|---|---|---|---|---|---|
| 11 | | UNKNOWN PHTHALATE ESTER | BNA | 2120 | 76,000 J |
| 12 | | UNKNOWN PHTHALATE ESTER | BNA | 2138 | 130,000 J |
| 13 | 1330-96-7 | 1,2-BENZENEDICARBOXYLIC ACID, ISODECYL OCTYL ESTER | BNA | 2147 | 210,000 J |
| 14 | | UNKNOWN PHTHALATE ESTER | BNA | 2349 | 76,000 J |
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| 130 | | | | | |

Versar Inc. Laboratory Operations
6850 Versar Center, Springfield Va. 22151
(703) 750-3000

| Sample Number |
| --- |
| D-4 |

ORGANICS ANALYSIS DATA SHEET
(Page 3)

Lab ID# 40009

Pesticides/PCBs

Concentration: Low | Medium | (circle one)

GPC Cleanup [ ] Yes [X] No

Date Extracted/Prepared: 10/14/87

Separatory Funnel Extration [ ] Yes

Date Analyzed: 11/12/87

Continuous Liquid-Liquid Extraction [ ] Yes [X] No

Conc/Dil Factor 1.00

Percent Moisture(decanted) ND

| CAS Number | | ug/Kg |
| --- | --- | --- |
| 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 | 100 u |
| 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 | 100 u |
| 53494-70-5 | Endrin Ketone | 100 u |
| 57-74-9 | Chlordane | 500 u |
| 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 |

Vi = Volume of extract injected (ul)
Vs = Volume of Water Extracted (ml)
Ws = Weight of sample extracted (g)
Vt = Volume of total extract (ul)

Vs _____ or Ws 1.00 Vt 10000 Vi 2.00

Versar, Inc, Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

| Sample Number |
|---|
| D5 |

ORGANICS ANALYSIS DATA SHEET (Page 1)

Laboratory Name: VERSAR
Lab Sample ID No: 40322
Sample Matrix: LIQUID WASTE
Data Release Authorized By:

Case No: 4600 B8257
QC Report No: 4600 B8257
Contract No:
Date Sample Received: 10/16/87

VOLATILE COMPOUNDS

Concentration: MID
Date Extracted/Prepared: 10/28/87
Date Analyzed: 10/28/87
Conc/Dil Factor: 2000000 pH NA
Percent Moisture: ND

| CAS Number | | ug/kg |
|---|---|---|
| 74-87-3 | Chloromethane | 20000000 u |
| 74-83-9 | Bromomethane | 20000000 u |
| 75-01-4 | Vinyl Chloride | 20000000 u |
| 75-00-3 | Chloroethane | 20000000 u |
| 75-09-2 | Methylene Chloride | 10000000 u |
| 67-64-1 | Acetone | 70000000 |
| 75-15-0 | Carbon Disulfide | 10000000 u |
| 75-35-4 | 1,1-Dichloroethene | 10000000 u |
| 75-34-3 | 1,1-Dichloroethane | 10000000 u |
| 156-60-5 | Trans-1,2-Dichloroethene | 10000000 u |
| 67-66-3 | Chloroform | 10000000 u |
| 107-06-2 | 1,2-Dichloroethane | 10000000 u |
| 78-93-3 | 2-butanone | 450000000 |
| 71-55-6 | 1,1,1-Trichloroethane | 10000000 u |
| 56-23-5 | Carbon Tetrachloride | 10000000 u |
| 108-05-4 | Vinyl Acetate | 20000000 u |
| 75-27-4 | Bromodichloromethane | 10000000 u |

| CAS Number | | ug/kg |
|---|---|---|
| 78-87-5 | 1,2-Dichloropropane | 10000000 u |
| 10061-02-6 | Trans-1,3-Dichloropropene | 10000000 u |
| 79-01-6 | Trichloroethene | 10000000 u |
| 124-48-1 | Dibromochloromethane | 10000000 u |
| 79-00-5 | 1,1,2-Trichloroethane | 10000000 u |
| 71-43-2 | Benzene | 10000000 u |
| 10061-01-5 | cis-1,3-Dichloropropene | 10000000 u |
| 110-75-8 | 2-chloroethylvinylether | 20000000 u |
| 75-25-2 | Bromoform | 10000000 u |
| 108-10-1 | 4-Methyl-2-Pentanone | 72000000 |
| 591-78-6 | 2-Hexanone | 20000000 u |
| 127-18-4 | Tetrachloroethene | 10000000 u |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 10000000 u |
| 108-88-3 | Toluene | 10000000 u |
| 108-90-7 | Chlorobenzene | 10000000 u |
| 100-41-4 | Ethylbenzene | 10000000 u |
| 100-42-5 | Styrene | 10000000 u |
| | Total Xylenes | 10000000 u |

Data Reporting Qualifiers

Value If the result is a value greater than or equal to the detection limit, report the value.

u Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response factor is assumed, or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero. (e.g. 10J)

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

T Spectrum does not meet criteria for confirmation but does indicate compound presence.

NA Compound present in both matrix spike standard and unspiked sample.

Versar Inc., Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

| SAMPLE ID |
|---|
| D-5 |

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

| | CAS Number | Compound Name | Fraction | RT or Scan | Estimated Concentration (ug/Kg or ug/l) |
|---|---|---|---|---|---|
| 11. | | NO VOLATILES DETECTED | VOA | NA | NA |
| 12. | | | | | |
| 13. | | | | | |
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| 129. | | | | | |
| 130. | | | | | |

Versar Inc., Laboratory Operations
6850 Versar Center, Springfield VA 22151 703/750-3000

| Sample Number |
|---|
| D-5 |

Case No: 4600 BW257

ORGANICS ANALYSIS DATA SHEET (Page 2)
Semivolatile Compounds

Concentration: MID

Date Extracted/Prepared: 10/20/87

Date Analyzed: 11/17/87

Conc/Dil Factor: 50

GPC Cleanup [ ]Yes [X]No

Separatory Funnel Extraction [ ]Yes

Continuous Liquid-Liquid Extraction [ ]Yes

| CAS Number | | ug/Kg |
|---|---|---|
| 108-95-2 | Phenol | 1000000 u |
| 111-44-4 | bis(2-Chloroethyl)Ether | 1000000 u |
| 95-57-8 | 2-Chlorophenol | 1000000 u |
| 541-73-1 | 1,3-Dichlorobenzene | 1000000 u |
| 106-46-7 | 1,4-Dichlorobenzene | 1000000 u |
| 100-51-6 | Benzyl Alcohol | 1000000 u |
| 95-50-1 | 1,2-Dichlorobenzene | 1000000 u |
| 95-48-7 | 2-Methylphenol | 1000000 u |
| 139638-32-9 | bis(2-chloroisopropyl)ether | 1000000 u |
| 106-44-5 | 4-methylphenol | 1000000 u |
| 621-64-7 | N-Nitroso-Di-n-propylamine | 1000000 u |
| 67-72-1 | Hexachloroethane | 1000000 u |
| 98-95-3 | Nitrobenzene | 1000000 u |
| 78-59-1 | Isophorone | 1000000 u |
| 88-75-5 | 2-Nitrophenol | 1000000 u |
| 105-67-9 | 2,4-dimethylphenol | 1000000 u |
| 65-85-0 | Benzoic Acid | 5000000 u |
| 111-91-1 | bis(2-chloroethoxy)methane | 1000000 u |
| 120-83-2 | 2,4-dichlorophenol | 1000000 u |
| 120-82-1 | 1,2,4-trichlorobenzene | 1000000 u |
| 91-20-3 | Naphthalene | 1000000 u |
| 106-47-8 | 4-Chloroaniline | 1000000 u |
| 87-68-3 | Hexachlorobutadiene | 1000000 u |
| 59-50-7 | 4-chloro-3-methylphenol | 1000000 u |
| 91-57-6 | 2-methylnaphthalene | 1000000 u |
| 77-47-4 | Hexachlorocyclopentadiene | 1000000 u |
| 88-06-2 | 2,4,6-Trichlorophenol | 1000000 u |
| 95-95-4 | 2,4,5-Trichlorophenol | 5000000 u |
| 91-58-7 | 2-Chloronaphthalene | 1000000 u |
| 88-74-4 | 2-Nitroaniline | 5000000 u |
| 131-11-3 | Dimethyl Phthalate | 1000000 u |
| 208-96-8 | Acenaphthylene | 1000000 u |
| 99-09-2 | 3-Nitroaniline | 5000000 u |

| CAS Number | | ug/Kg |
|---|---|---|
| 83-32-9 | Acenaphthene | 1000000 u |
| 51-28-5 | 2,4-Dinitrophenol | 5000000 u |
| 100-02-7 | 4-Nitrophenol | 5000000 u |
| 132-64-9 | Dibenzofuran | 1000000 u |
| 121-14-2 | 2,4-Dinitrotoluene | 1000000 u |
| 606-20-2 | 2,6-Dinitrotoluene | 1000000 u |
| 84-66-2 | Diethylphthalate | 1000000 u |
| 7005-22-3 | 4-Chlorophenyl-phenylether | 1000000 u |
| 86-73-7 | Fluorene | 1000000 u |
| 100-01-6 | 4-Nitroaniline | 5000000 u |
| 534-52-1 | 4,6-dinitro-2-methylphenol | 5000000 u |
| 86-30-6 | N-Nitrosodiphenylamine (1) | 1000000 u |
| 101-55-3 | 4-Bromophenyl-phenylether | 1000000 u |
| 118-74-1 | Hexachlorobenzene | 1000000 u |
| 87-86-5 | Pentachlorophenol | 5000000 u |
| 85-01-8 | Phenanthrene | 1000000 u |
| 120-12-7 | Anthracene | 1000000 u |
| 84-74-2 | Di-n-butylphthalate | 1000000 u |
| 206-44-0 | Fluoranthene | 1000000 u |
| 129-00-0 | Pyrene | 1000000 u |
| 85-68-7 | Butylbenzylphthalate | 1000000 u |
| 91-94-1 | 3,3'-Dichlorobenzidine | 2000000 u |
| 56-55-3 | Benzo(a)anthracene | 1000000 u |
| 117-81-7 | bis(2-Ethylhexyl)Phthalate | 800000 |
| 218-01-9 | Chrysene | 1000000 u |
| 117-84-0 | Di-n-Octylphthalate | 1000000 u |
| 205-99-2 | Benzo(b)Fluoranthene | 1000000 u |
| 207-08-9 | Benzo(k)Fluoranthene | 1000000 u |
| 50-32-8 | Benzo(a)pyrene | 1000000 u |
| 193-39-5 | Indeno(1,2,3-cd)Pyrene | 1000000 u |
| 53-70-3 | Dibenz(a,h)Anthracene | 1000000 u |
| 191-24-2 | Benzo(g,h,i)Perylene | 1000000 u |

(1)-Cannot be separated from diphenylamine

Versar Inc., Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

| SAMPLE ID |
|---|
| ID-5 |

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

| | CAS Number | Compound Name | Fraction | RT or Scan | Estimated Concentration (ug/Kg or ug/l) |
|---|---|---|---|---|---|
| 11 | UNKNOWN | | BNA | 727 | 320,000 J |
| 12 | 149-57-5 | HEXANOIC ACID, 2-ETHYL | BNA | 816 | 470,000 J |
| 13 | UNKNOWN | | BNA | 1379 | 270,000 J |
| 14 | | | | | |
| 15 | | | | | |
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| 17 | | | | | |
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| 110 | | | | | |
| 111 | | | | | |
| 112 | | | | | |
| 113 | | | | | |
| 114 | | | | | |
| 115 | | | | | |
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| 129 | | | | | |
| 130 | | | | | |

Versar Inc. Laboratory Operations
6850 Versar Center, Springfield Va. 22151
(703) 750-3000

| Sample Number |
|---|
| 40322 |

ORGANICS ANALYSIS DATA SHEET
(Page 3)

Field ID# D-5

Pesticides/PCBs

Concentration: Low | Medium | (circle one)

GPC Cleanup [ ] Yes [X] No

Date Extracted/Prepared: 10-20-87

Separatory Funnel Extration [ ] Yes

Date Analyzed: 11-15-87

Continuous Liquid-Liquid Extraction [ ] Yes [X] No

Conc/Dil Factor 10

Percent Moisture(decanted) 25.00

| CAS Number | | ug/kg |
|---|---|---|
| 319-84-6 | alpha-BHC | 650 u |
| 319-85-7 | beta-BHC | 650 u |
| 319-86-8 | delta-BHC | 650 u |
| 58-89-9 | gamma-BHC (Lindane) | 650 u |
| 76-44-8 | Heptachlor | 650 u |
| 309-00-2 | Aldrin | 650 u |
| 1024-57-3 | Heptachlor Epoxide | 650 u |
| 959-98-8 | Endosulfan I | 650 u |
| 60-57-1 | Dieldrin | 1300 u |
| 72-55-9 | 4,4'-DDE | 1300 u |
| 72-20-8 | Endrin | 1300 u |
| 33213-65-9 | Endosulfan II | 1300 u |
| 72-54-8 | 4,4'-DDD | 1300 u |
| 1031-07-8 | Endosulfan Sulfate | 1300 u |
| 50-29-3 | 4,4'-DDT | 1300 u |
| 72-43-5 | Methoxychlor | 1300 u |
| 53494-70-5 | Endrin Ketone | 1300 u |
| 57-74-9 | Chlordane | 6500 u |
| 8001-35-2 | Toxaphene | 13000 u |
| 12674-11-2 | Aroclor-1016 | 6500 u |
| 11104-28-2 | Aroclor-1221 | 6500 u |
| 11141-16-5 | Aroclor-1232 | 6500 u |
| 53469-21-9 | Aroclor-1242 | 6500 u |
| 12672-29-6 | Aroclor-1248 | 6500 u |
| 11097-69-1 | Aroclor-1254 | 120000 |
| 11096-82-5 | Aroclor-1260 | 13000 u |

David Lipani
11-23-87

Vi = Volume of extract injected (ul)
Vs = Volume of Water Extracted (ml)
Ws = Weight of sample extracted (g)
Vt = Volume of total extract (ul)

Vs _____ or Ws 1.03 Vt 100000 Vi 2.00

000071

Versar, Inc. Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

| Sample Number |
|---|
| D-6 |

ORGANICS ANALYSIS DATA SHEET (Page 1)

Laboratory Name: VERSAR
Lab Sample ID No: 40323
Sample Matrix: LIQUID WASTE
Data Release Authorized By:

Case No: 4600 B#257
QC Report No: 4600 B#257
Contract No:
Date Sample Received: 10/16/87

VOLATILE COMPOUNDS

Concentration: MID
Date Extracted/Prepared: 10/28/87
Date Analyzed: 10/28/87
Conc/Dil Factor: 2000000 pH NA
Percent Moisture: ND

| CAS Number | | ug/kg | CAS Number | | ug/kg |
|---|---|---|---|---|---|
| 74-87-3 | Chloromethane | 20000000 u | 78-87-5 | 1,2-Dichloropropane | 10000000 u |
| 74-83-9 | Bromomethane | 20000000 u | 10061-02-6 | Trans-1,3-Dichloropropene | 10000000 u |
| 75-01-4 | Vinyl Chloride | 20000000 u | 79-01-6 | Trichloroethene | 10000000 u |
| 75-00-3 | Chloroethane | 20000000 u | 124-48-1 | Dibromochloromethane | 10000000 u |
| 75-09-2 | Methylene Chloride | 10000000 u | 79-00-5 | 1,1,2-Trichloroethane | 10000000 u |
| 67-64-1 | Acetone | 110000000 | 71-43-2 | Benzene | 10000000 u |
| 75-15-0 | Carbon Disulfide | 10000000 u | 10061-01-5 | cis-1,3-Dichloropropene | 10000000 u |
| 75-35-4 | 1,1-Dichloroethene | 10000000 u | 110-75-8 | 2-chloroethylvinylether | 20000000 u |
| 75-34-3 | 1,1-Dichloroethane | 10000000 u | 75-25-2 | Bromoform | 10000000 u |
| 156-60-5 | Trans-1,2-Dichloroethene | 10000000 u | 108-10-1 | 4-Methyl-2-Pentanone | 190000000 |
| 67-66-3 | Chloroform | 10000000 u | 591-78-6 | 2-Hexanone | 20000000 u |
| 107-06-2 | 1,2-Dichloroethane | 10000000 u | 127-18-4 | Tetrachloroethene | 10000000 u |
| 78-93-3 | 2-butanone | 210000000 | 79-34-5 | 1,1,2,2-Tetrachloroethane | 10000000 u |
| 71-55-6 | 1,1,1-Trichloroethane | 10000000 u | 108-88-3 | Toluene | 57000000 |
| 56-23-5 | Carbon Tetrachloride | 10000000 u | 108-90-7 | Chlorobenzene | 10000000 u |
| 108-05-4 | Vinyl Acetate | 20000000 u | 100-41-4 | Ethylbenzene | 10000000 u |
| 75-27-4 | Bromodichloromethane | 10000000 u | 100-42-5 | Styrene | 10000000 u |
| | | | | Total Xylenes | 10000000 u |

Data Reporting Qualifiers

Value If the result is a value greater than or equal to the detection limit, report the value.

u Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response factor is assumed, or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero. (e.g. 10J)

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

T Spectrum does not meet criteria for confirmation but does indicate compound presence.

NA Compound present in both matrix spike standard and unspiked sample.

Form I

Versar Inc., Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

| SAMPLE ID |
|---|
| D-6 |

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

| CAS Number | Compound Name | Fraction | RT or Scan | Estimated Concentration (ug/Kg or ug/l) |
|---|---|---|---|---|
| 11. | NO VOLATILES DETECTED | VOA | NA | NA |
| 12. | | | | |
| 13. | | | | |
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| 130. | | | | |

Versar Inc., Laboratory Operations
6850 Versar Center, Springfield VA 22151 703/750-3000

Sample Number
ID-6

Case No: 4600 BN257

ORGANICS ANALYSIS DATA SHEET (Page 2)
Semivolatile Compounds

Concentration: MID

Date Extracted/Prepared: 10/20/87

Date Analyzed: 11/17/87

Conc/Dil Factor: 20

GPC Cleanup [ ]Yes [X]No

Separatory Funnel Extraction [ ]Yes

Continuous Liquid-Liquid Extraction [ ]Yes

| CAS Number | | ug/Kg |
|---|---|---|
| 108-95-2 | Phenol | 650000 JT |
| 111-44-4 | bis(2-Chloroethyl)Ether | 400000 u |
| 95-57-8 | 2-Chlorophenol | 400000 u |
| 541-73-1 | 1,3-Dichlorobenzene | 400000 u |
| 106-46-7 | 1,4-Dichlorobenzene | 400000 u |
| 100-51-6 | Benzyl Alcohol | 400000 u |
| 95-50-1 | 1,2-Dichlorobenzene | 400000 u |
| 95-48-7 | 2-Methylphenol | 400000 u |
| 139638-32-9 | bis(2-chloroisopropyl)ether | 400000 u |
| 106-44-5 | 4-methylphenol | 400000 u |
| 621-64-7 | N-Nitroso-Di-n-propylamine | 400000 u |
| 67-72-1 | Hexachloroethane | 400000 u |
| 98-95-3 | Nitrobenzene | 400000 u |
| 78-59-1 | Isophorone | 400000 u |
| 88-75-5 | 2-Nitrophenol | 400000 u |
| 105-67-9 | 2,4-dimethylphenol | 400000 u |
| 65-85-0 | Benzoic Acid | 2000000 u |
| 111-91-1 | bis(2-chloroethoxy)methane | 400000 u |
| 120-83-2 | 2,4-dichlorophenol | 400000 u |
| 120-82-1 | 1,2,4-trichlorobenzene | 400000 u |
| 91-20-3 | Naphthalene | 400000 u |
| 106-47-8 | 4-Chloroaniline | 400000 u |
| 87-68-3 | Hexachlorobutadiene | 400000 u |
| 59-50-7 | 4-chloro-3-methylphenol | 400000 u |
| 91-57-6 | 2-methylnaphthalene | 400000 u |
| 77-47-4 | Hexachlorocyclopentadiene | 400000 u |
| 88-06-2 | 2,4,6-Trichlorophenol | 400000 u |
| 95-95-4 | 2,4,5-Trichlorophenol | 2000000 u |
| 91-58-7 | 2-Chloronaphthalene | 400000 u |
| 88-74-4 | 2-Nitroaniline | 2000000 u |
| 131-11-3 | Dimethyl Phthalate | 400000 u |
| 208-96-8 | Acenaphthylene | 400000 u |
| 99-09-2 | 3-Nitroaniline | 2000000 u |

| CAS Number | | ug/Kg |
|---|---|---|
| 83-32-9 | Acenaphthene | 400000 u |
| 51-28-5 | 2,4-Dinitrophenol | 2000000 u |
| 100-02-7 | 4-Nitrophenol | 2000000 u |
| 132-64-9 | Dibenzofuran | 400000 u |
| 121-14-2 | 2,4-Dinitrotoluene | 400000 u |
| 606-20-2 | 2,6-Dinitrotoluene | 400000 u |
| 84-66-2 | Diethylphthalate | 400000 u |
| 7005-22-3 | 4-Chlorophenyl-phenylether | 400000 u |
| 86-73-7 | Fluorene | 400000 u |
| 100-01-6 | 4-Nitroaniline | 2000000 u |
| 534-52-1 | 4,6-dinitro-2-methylphenol | 2000000 u |
| 86-30-6 | N-Nitrosodiphenylamine (1) | 400000 u |
| 101-55-3 | 4-Bromophenyl-phenylether | 400000 u |
| 118-74-1 | Hexachlorobenzene | 400000 u |
| 87-86-5 | Pentachlorophenol | 2000000 u |
| 85-01-8 | Phenanthrene | 400000 u |
| 120-12-7 | Anthracene | 400000 u |
| 84-74-2 | Di-n-butylphthalate | 400000 u |
| 206-44-0 | Fluoranthene | 400000 u |
| 129-00-0 | Pyrene | 400000 u |
| 85-68-7 | Butylbenzylphthalate | 230000 J |
| 91-94-1 | 3,3'-Dichlorobenzidine | 800000 u |
| 56-55-3 | Benzo(a)anthracene | 400000 u |
| 117-81-7 | bis(2-Ethylhexyl)Phthalate | 5600000 |
| 218-01-9 | Chrysene | 400000 u |
| 117-84-0 | Di-n-Octylphthalate | 88000 J |
| 205-99-2 | Benzo(b)Fluoranthene | 400000 u |
| 207-08-9 | Benzo(k)Fluoranthene | 400000 u |
| 50-32-8 | Benzo(a)pyrene | 400000 u |
| 193-39-5 | Indeno(1,2,3-cd)Pyrene | 400000 u |
| 53-70-3 | Dibenz(a,h)Anthracene | 400000 u |
| 191-24-2 | Benzo(g,h,i)Perylene | 400000 u |

T- spectrum does not meet criteria for confirmation but does indicate compound presence.
(1)-Cannot be separated from diphenylamine

BNAF1:R032286

Form I

Versar Inc., Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

| SAMPLE ID |
|---|
| ID-6 |

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

| CAS Number | Compound Name | Fraction | RT or Scan | Estimated Concentration (ug/Kg or ug/l) |
|---|---|---|---|---|
| 11. | UNKNOWN. | BNA. | 482 | 120,000 J. |
| 12. | UNKNOWN. | BNA. | 811 | 69,000 J. |
| 13. 88-19-7 | BENZENESULFONAMIDE, 2-METHYL. | BNA. | 1367 | 210,000 J. |
| 14. 70-55-3 | BENZENESULFONAMIDE, 4-METHYL. | BNA. | 1404 | 360,000 J. |
| 15. | | | | |
| 16. | | | | |
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| 130. | | | | |

Versar Inc. Laboratory Operations
6850 Versar Center, Springfield Va. 22151
(703) 750-3000

| Sample Number |
|---|
| 40323 |

Field ID# D-6

ORGANICS ANALYSIS DATA SHEET
(Page 3)

Pesticides/PCBs

Concentrations: Low | Medium | (circle one)

GPC Cleanup [ ] Yes [X] No

Date Extracted/Prepared: 10-20-87

Separatory Funnel Extration [ ] Yes

Date Analyzed: 11-13-87

Continuous Liquid-Liquid Extraction [ ] Yes [X] No

Conc/Dil Factor 100

Percent Moisture(decanted) 94.21

| CAS Number | | ug/kg |
|---|---|---|
| 319-84-6 | alpha-BHC | 86000 u |
| 319-85-7 | beta-BHC | 86000 u |
| 319-86-8 | delta-BHC | 86000 u |
| 58-89-9 | gamma-BHC (Lindane) | 86000 u |
| 76-44-8 | Heptachlor | 86000 u |
| 309-00-2 | Aldrin | 86000 u |
| 1024-57-3 | Heptachlor Epoxide | 86000 u |
| 959-98-8 | Endosulfan I | 86000 u |
| 60-57-1 | Dieldrin | 173000 u |
| 72-55-9 | 4,4'-DDE | 173000 u |
| 72-20-8 | Endrin | 173000 u |
| 33213-65-9 | Endosulfan II | 173000 u |
| 72-54-8 | 4,4'-DDD | 173000 u |
| 1031-07-8 | Endosulfan Sulfate | 173000 u |
| 50-29-3 | 4,4'-DDT | 173000 u |
| 72-43-5 | Methoxychlor | 173000 u |
| 53494-70-5 | Endrin Ketone | 173000 u |
| 57-74-9 | Chlordane | 864000 u |
| 8001-35-2 | Toxaphene | 1727000 u |
| 12674-11-2 | Aroclor-1016 | 864000 u |
| 11104-28-2 | Aroclor-1221 | 864000 u |
| 11141-16-5 | Aroclor-1232 | 864000 u |
| 53469-21-9 | Aroclor-1242 | 864000 u |
| 12672-29-6 | Aroclor-1248 | 864000 u |
| 11097-69-1 | Aroclor-1254 | 9500000 |
| 11096-82-5 | Aroclor-1260 | 1727000 u |

David Lipani
11-23-87

Vi = Volume of extract injected (ul)
Vs = Volume of Water Extracted (ml)
Ws = Weight of sample extracted (g)
Vt = Volume of total extract (ul)

Vs _____ or Ws 1.00 Vt 1000000 Vi 2.00

Versar, Inc. Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

| Sample Number |
|---|
| D7 |

ORGANICS ANALYSIS DATA SHEET (Page 1)

Laboratory Name: VERSAR
Lab Sample ID No: 40324
Sample Matrix: LIQUID WASTE
Data Release Authorized By:

Case No: 4600 BW257
QC Report No: 4600 BW257
Contract No:
Date Sample Received: 10/16/87

VOLATILE COMPOUNDS

Concentration: MID
Date Extracted/Prepared: 10/28/87
Date Analyzed: 10/28/87
Conc/Dil Factor: 1000000 pH NA
Percent Moisture: ND

| CAS Number | | ug/kg | CAS Number | | ug/kg |
|---|---|---|---|---|---|
| 74-87-3 | Chloromethane | 10000000 u | 78-87-5 | 1,2-Dichloropropane | 5000000 u |
| 74-83-9 | Bromomethane | 10000000 u | 10061-02-6 | Trans-1,3-Dichloropropene | 5000000 u |
| 75-01-4 | Vinyl Chloride | 10000000 u | 79-01-6 | Trichloroethene | 5000000 u |
| 75-00-3 | Chloroethane | 10000000 u | 124-48-1 | Dibromochloromethane | 5000000 u |
| 75-09-2 | Methylene Chloride | 5000000 u | 79-00-5 | 1,1,2-Trichloroethane | 5000000 u |
| 67-64-1 | Acetone | 10000000 u | 71-43-2 | Benzene | 5000000 u |
| 75-15-0 | Carbon Disulfide | 5000000 u | 10061-01-5 | cis-1,3-Dichloropropene | 5000000 u |
| 75-35-4 | 1,1-Dichloroethene | 5000000 u | 110-75-8 | 2-chloroethylvinylether | 10000000 u |
| 75-34-3 | 1,1-Dichloroethane | 5000000 u | 75-25-2 | Bromoform | 5000000 u |
| 156-60-5 | Trans-1,2-Dichloroethene | 5000000 u | 108-10-1 | 4-Methyl-2-Pentanone | 10000000 |
| 67-66-3 | Chloroform | 5000000 u | 591-78-6 | 2-Hexanone | 92000000 T |
| 107-06-2 | 1,2-Dichloroethane | 5000000 u | 127-18-4 | Tetrachloroethene | 5000000 u |
| 78-93-3 | 2-butanone | 66000000 | 79-34-5 | 1,1,2,2-Tetrachloroethane | 5000000 u |
| 71-55-6 | 1,1,1-Trichloroethane | 5000000 u | 108-88-3 | Toluene | 79000000 |
| 56-23-5 | Carbon Tetrachloride | 5000000 u | 108-90-7 | Chlorobenzene | 5000000 u |
| 108-05-4 | Vinyl Acetate | 10000000 u | 100-41-4 | Ethylbenzene | 4200000 |
| 75-27-4 | Bromodichloromethane | 5000000 u | 100-42-5 | Styrene | 5000000 u |
| | | | | Total Xylenes | 23000000 |

Data Reporting Qualifiers

Value If the result is a value greater than or equal to the detection limit, report the value.

u Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response factor is assumed, or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero. (e.g. 10J)

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

T Spectrum does not meet criteria for confirmation but does indicate compound presence.

NA Compound present in both matrix spike standard and unspiked sample.

Versar Inc., Laboratory Operations
8850 Versar Center, Springfield VA 22151 (703) 750-3000

| SAMPLE ID |
|---|
| 107 |

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

| CAS Number | Compound Name | Fraction | RT or Scan | Estimated Concentration (ug/Kg or ug/l) |
|---|---|---|---|---|
| 11. | UNKNOWN HYDROCARBON | VOA | 326 | 750,000 J |
| 12. | UNKNOWN HYDROCARBON | VOA | 396 | 210,000 J |
| 13. | UNKNOWN HYDROCARBON | VOA | 507 | 3,610,000 J |
| 14. | | | | |
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| 128. | | | | |
| 129. | | | | |
| 130. | | | | |

98

Versar Inc., Laboratory Operations
6850 Versar Center, Springfield VA 22151 703/750-3000

Case No:____4600 BM257_____

| Sample Number |
|---|
| ID-7 |

ORGANICS ANALYSIS DATA SHEET (Page 2)
Semivolatile Compounds

Concentration:MID

Date Extracted/Prepared:_____10/20/87__

Date Analyzed:_____11/17/87__

Conc/Dil Factor:_____10_____

GPC Cleanup [ ]Yes [X]No

Separatory Funnel Extraction [ ]Yes

Continuous Liquid-Liquid Extraction [ ]Yes

| CAS Number | | ug/Kg |
|---|---|---|
| 108-95-2 | Phenol | 200000 u |
| 111-44-4 | bis(2-Chloroethyl)Ether | 200000 u |
| 95-57-8 | 2-Chlorophenol | 200000 u |
| 541-73-1 | 1,3-Dichlorobenzene | 200000 u |
| 106-46-7 | 1,4-Dichlorobenzene | 200000 u |
| 100-51-6 | Benzyl Alcohol | 200000 u |
| 95-50-1 | 1,2-Dichlorobenzene | 200000 u |
| 95-48-7 | 2-Methylphenol | 200000 u |
| 39638-32-9 | bis(2-chloroisopropyl)ether | 200000 u |
| 106-44-5 | 4-methylphenol | 200000 u |
| 621-64-7 | N-Nitroso-Di-n-propylamine | 200000 u |
| 67-72-1 | Hexachloroethane | 200000 u |
| 98-95-3 | Nitrobenzene | 200000 u |
| 78-59-1 | Isophorone | 200000 u |
| 88-75-5 | 2-Nitrophenol | 200000 u |
| 105-67-9 | 2,4-dimethylphenol | 200000 u |
| 65-85-0 | Benzoic Acid | 1000000 u |
| 111-91-1 | bis(2-chloroethoxy)methane | 200000 u |
| 120-83-2 | 2,4-dichlorophenol | 200000 u |
| 120-82-1 | 1,2,4-trichlorobenzene | 200000 u |
| 91-20-3 | Naphthalene | 200000 u |
| 106-47-8 | 4-Chloroaniline | 200000 u |
| 87-68-3 | Hexachlorobutadiene | 200000 u |
| 59-50-7 | 4-chloro-3-methylphenol | 200000 u |
| 91-57-6 | 2-methylnaphthalene | 200000 u |
| 77-47-4 | Hexachlorocyclopentadiene | 200000 u |
| 88-06-2 | 2,4,6-Trichlorophenol | 200000 u |
| 95-95-4 | 2,4,5-Trichlorophenol | 1000000 u |
| 91-58-7 | 2-Chloronaphthalene | 200000 u |
| 88-74-4 | 2-Nitroaniline | 1000000 u |
| 131-11-3 | Dimethyl Phthalate | 200000 u |
| 208-96-8 | Acenaphthylene | 200000 u |
| 99-09-2 | 3-Nitroaniline | 1000000 u |

| CAS Number | | ug/Kg |
|---|---|---|
| 83-32-9 | Acenaphthene | 200000 u |
| 51-28-5 | 2,4-Dinitrophenol | 1000000 u |
| 100-02-7 | 4-Nitrophenol | 1000000 u |
| 132-64-9 | Dibenzofuran | 200000 u |
| 121-14-2 | 2,4-Dinitrotoluene | 200000 u |
| 606-20-2 | 2,6-Dinitrotoluene | 200000 u |
| 84-66-2 | Diethylphthalate | 200000 u |
| 7005-22-3 | 4-Chlorophenyl-phenylether | 200000 u |
| 86-73-7 | Fluorene | 200000 u |
| 100-01-6 | 4-Nitroaniline | 1000000 u |
| 534-52-1 | 4,6-dinitro-2-methylphenol | 1000000 u |
| 86-30-6 | N-Nitrosodiphenylamine (1) | 200000 u |
| 101-55-3 | 4-Bromophenyl-phenylether | 200000 u |
| 118-74-1 | Hexachlorobenzene | 200000 u |
| 87-86-5 | Pentachlorophenol | 1000000 u |
| 85-01-8 | Phenanthrene | 200000 u |
| 120-12-7 | Anthracene | 200000 u |
| 84-74-2 | Di-n-butylphthalate | 200000 u |
| 206-44-0 | Fluoranthene | 200000 u |
| 129-00-0 | Pyrene | 200000 u |
| 85-68-7 | Butylbenzylphthalate | 200000 u |
| 91-94-1 | 3,3'-Dichlorobenzidine | 400000 u |
| 56-55-3 | Benzo(a)anthracene | 200000 u |
| 117-81-7 | bis(2-Ethylhexyl)Phthalate | 170000 J |
| 218-01-9 | Chrysene | 200000 u |
| 117-84-0 | Di-n-Octylphthalate | 120000 J |
| 205-99-2 | Benzo(b)Fluoranthene | 200000 u |
| 207-08-9 | Benzo(k)Fluoranthene | 200000 u |
| 50-32-8 | Benzo(a)pyrene | 200000 u |
| 193-39-5 | Indeno(1,2,3-cd)Pyrene | 200000 u |
| 53-70-3 | Dibenz(a,h)Anthracene | 200000 u |
| 191-24-2 | Benzo(g,h,i)Perylene | 200000 u |

(1)-Cannot be separated from diphenylamine

BMAF1:R032286

Form I

Versar Inc., Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

| SAMPLE ID |
|---|
| ID-7 |

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

| CAS Number | Compound Name | Fraction | RT or Scan | Estimated Concentration (ug/Kg or ug/l) |
|---|---|---|---|---|
| 11. | UNKNOWN DIMETHYL BENZENE | BNA | 485 | 7,680,000 J |
| 12. | UNKNOWN SUBSTITUTED BENZENE | BNA | 518 | 2,470,000 J |
| 13. 556-67-2 | CYCLOTETRASILOXANE, OCTAMETHYL | BNA | 660 | 320,000 J |
| 14. 149-57-5 | HEXANOIC ACID, 2-ETHYL | BNA | 814 | 46,000 J |
| 15. 541-02-6 | CYCLOPENTASILOXANE, DECAMETHYL | BNA | 856 | 270,000 J |
| 16. 540-97-6 | CYCLOHEXASILOXANE, DODECAMETHYL | BNA | 1053 | 99,000 J |
| 17. | UNKNOWN PHENANTHRENE CARBOXYLIC ACID | BNA | 1877 | 83,000 J |
| 18. | UNKNOWN | BNA | 1932 | 380,000 J |
| 19. | UNKNOWN PHENANTHRENE CARBOXYLIC ACID | BNA | 1943 | 380,000 J |
| 110. | | | | |
| 111. | | | | |
| 112. | | | | |
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Versar Inc. Laboratory Operations
6850 Versar Center, Springfield Va. 22151
(703) 750-3000

| Sample Number |
| --- |
| 40324 |

ORGANICS ANALYSIS DATA SHEET
(Page 3)

Field ID# D-7

Pesticides/PCBs

Concentration: Low | Medium | (circle one)

GPC Cleanup [ ] Yes [X] No

Date Extracted/Prepared: 10-20-87

Separatory Funnel Extration [ ] Yes

Date Analyzed: 11-15-87

Continuous Liquid-Liquid Extraction [ ] Yes [X] No

Conc/Dil Factor 1.00

Percent Moisture(decanted) 85.66

| CAS Number | | ug/kg |
| --- | --- | --- |
| 319-84-6 | alpha-BHC | 350 u |
| 319-85-7 | beta-BHC | 350 u |
| 319-86-8 | delta-BHC | 350 u |
| 58-89-9 | gamma-BHC (Lindane) | 350 u |
| 76-44-8 | Heptachlor | 350 u |
| 309-00-2 | Aldrin | 350 u |
| 1024-57-3 | Heptachlor Epoxide | 350 u |
| 959-98-8 | Endosulfan I | 350 u |
| 60-57-1 | Dieldrin | 700 u |
| 72-55-9 | 4,4'-DDE | 700 u |
| 72-20-8 | Endrin | 700 u |
| 33213-65-9 | Endosulfan II | 700 u |
| 72-54-8 | 4,4'-DDD | 700 u |
| 1031-07-8 | Endosulfan Sulfate | 700 u |
| 50-29-3 | 4,4'-DDT | 700 u |
| 72-43-5 | Methoxychlor | 700 u |
| 53494-70-5 | Endrin Ketone | 700 u |
| 57-74-9 | Chlordane | 3500 u |
| 8001-35-2 | Toxaphene | 7000 u |
| 12674-11-2 | Aroclor-1016 | 3500 u |
| 11104-28-2 | Aroclor-1221 | 3500 u |
| 11141-16-5 | Aroclor-1232 | 3500 u |
| 53469-21-9 | Aroclor-1242 | 3500 u |
| 12672-29-6 | Aroclor-1248 | 3500 u |
| 11097-69-1 | Aroclor-1254 | 19000 |
| 11096-82-5 | Aroclor-1260 | 7000 u |

Vi = Volume of extract injected (ul)
Vs = Volume of Water Extracted (ml)
Ws = Weight of sample extracted (g)
Vt = Volume of total extract (ul)

Vs _____ or Ws 1.00 Vt 10000 Vi 2.00

Versar, Inc. Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

| Sample Number |
|---|
| D8 |

ORGANICS ANALYSIS DATA SHEET (Page 1)

Laboratory Name: VERSAR
Lab Sample ID No: 40325
Sample Matrix: LIQUID WASTE
Data Release Authorized By:

Case No: 4600 BW257
QC Report No: 4600 BW257
Contract No:
Date Sample Received: 10/16/87

VOLATILE COMPOUNDS

Concentration: MID
Date Extracted/Prepared: 10/28/87
Date Analyzed: 10/28/87
Conc/Dil Factor: 1000000 pH NA
Percent Moisture: ND

| CAS Number | | ug/kg |
|---|---|---|
| 74-87-3 | Chloromethane | 10000000 u |
| 74-83-9 | Bromomethane | 10000000 u |
| 75-01-4 | Vinyl Chloride | 10000000 u |
| 75-00-3 | Chloroethane | 10000000 u |
| 75-09-2 | Methylene Chloride | 5000000 u |
| 67-64-1 | Acetone | 10000000 u |
| 75-15-0 | Carbon Disulfide | 5000000 u |
| 75-35-4 | 1,1-Dichloroethene | 5000000 u |
| 75-34-3 | 1,1-Dichloroethane | 5000000 u |
| 156-60-5 | Trans-1,2-Dichloroethene | 5000000 u |
| 67-66-3 | Chloroform | 5000000 u |
| 107-06-2 | 1,2-Dichloroethane | 5000000 u |
| 78-93-3 | 2-butanone | 10000000 u |
| 74-55-6 | 1,1,1-Trichloroethane | 5000000 u |
| 56-23-5 | Carbon Tetrachloride | 5000000 u |
| 108-05-4 | Vinyl Acetate | 10000000 u |
| 75-27-4 | Bromodichloromethane | 5000000 u |

| CAS Number | | ug/kg |
|---|---|---|
| 78-87-5 | 1,2-Dichloropropane | 5000000 u |
| 10061-02-6 | Trans-1,3-Dichloropropene | 5000000 u |
| 79-01-6 | Trichloroethene | 5000000 u |
| 124-48-1 | Dibromochloromethane | 5000000 u |
| 79-00-5 | 1,1,2-Trichloroethane | 5000000 u |
| 71-43-2 | Benzene | 5000000 u |
| 10061-01-5 | cis-1,3-Dichloropropene | 5000000 u |
| 110-75-8 | 2-chloroethylvinylether | 10000000 u |
| 75-25-2 | Bromoform | 5000000 u |
| 108-10-1 | 4-Methyl-2-Pentanone | 12000000 |
| 591-78-6 | 2-Hexanone | 110000000 |
| 127-18-4 | Tetrachloroethene | 5000000 u |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 5000000 u |
| 108-88-3 | Toluene | 63000000 |
| 108-90-7 | Chlorobenzene | 5000000 u |
| 100-41-4 | Ethylbenzene | 5000000 u |
| 100-42-5 | Styrene | 5000000 u |
| | Total Xylenes | 5000000 u |

Data Reporting Qualifiers

Value If the result is a value greater than or equal to the detection limit, report the value.

u Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response factor is assumed, or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero. (e.g. 10J)

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

T Spectrum does not meet criteria for confirmation but does indicate compound presence.

NA Compound present in both matrix spike standard and unspiked sample.

Form I

Versar Inc., Laboratory Operations
5850 Versar Center, Springfield VA 22151 (703) 750-3000

| SAMPLE ID |
|---|
| D8 |

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

| | CAS Number | Compound Name | Fraction | RT or Scan | Estimated Concentration (ug/Kg or ug/L) |
|---|---|---|---|---|---|
| 11. | | UNKNOWN HYDROCARBON | VOA | 326 | 110,200,000 J |
| 12. | | UNKNOWN HYDROCARBON | VOA | 396 | 2,540,000 J |
| 13. | | UNKNOWN HYDROCARBON | VOA | 507 | 42,900,000 J |
| 14. | | | | | |
| 15. | | | | | |
| 16. | | | | | |
| 17. | | | | | |
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| 130. | | | | | |

Versar Inc., Laboratory Operations
6850 Versar Center, Springfield VA 22151 703/750-3000

| Sample Number |
|---|
| D-8 |

Case No:____4600 BM257_____

ORGANICS ANALYSIS DATA SHEET (Page 2)
Semivolatile Compounds

Concentration:MID

Date Extracted/Prepared:_____10/20/87__

Date Analyzed:_____11/17/87__

Conc/Dil Factor:_____2_____

GPC Cleanup [ ]Yes [X]No

Separatory Funnel Extraction [ ]Yes

Continuous Liquid-Liquid Extraction [ ]Yes

| CAS Number | | ug/Kg |
|---|---|---|
| 108-95-2 | Phenol | 40000 u |
| 111-44-4 | bis(2-Chloroethyl)Ether | 40000 u |
| 95-57-8 | 2-Chlorophenol | 40000 u |
| 541-73-1 | 1,3-Dichlorobenzene | 40000 u |
| 106-46-7 | 1,4-Dichlorobenzene | 40000 u |
| 100-51-6 | Benzyl Alcohol | 40000 u |
| 95-50-1 | 1,2-Dichlorobenzene | 40000 u |
| 95-48-7 | 2-Methylphenol | 40000 u |
| 39638-32-9 | bis(2-chloroisopropyl)ether | 40000 u |
| 106-44-5 | 4-methylphenol | 40000 u |
| 621-64-7 | N-Nitroso-Di-n-propylamine | 40000 u |
| 67-72-1 | Hexachloroethane | 40000 u |
| 98-95-3 | Nitrobenzene | 40000 u |
| 78-59-1 | Isophorone | 40000 u |
| 88-75-5 | 2-Nitrophenol | 40000 u |
| 105-67-9 | 2,4-dimethylphenol | 40000 u |
| 65-85-0 | Benzoic Acid | 200000 u |
| 111-91-1 | bis(2-chloroethoxy)methane | 40000 u |
| 120-83-2 | 2,4-dichlorophenol | 40000 u |
| 120-82-1 | 1,2,4-trichlorobenzene | 40000 u |
| 91-20-3 | Naphthalene | 40000 u |
| 106-47-8 | 4-Chloroaniline | 40000 u |
| 87-68-3 | Hexachlorobutadiene | 40000 u |
| 59-50-7 | 4-chloro-3-methylphenol | 40000 u |
| 91-57-6 | 2-methylnaphthalene | 40000 u |
| 77-47-4 | Hexachlorocyclopentadiene | 40000 u |
| 88-06-2 | 2,4,6-Trichlorophenol | 40000 u |
| 95-95-4 | 2,4,5-Trichlorophenol | 200000 u |
| 91-58-7 | 2-Chloronaphthalene | 40000 u |
| 88-74-4 | 2-Nitroaniline | 200000 u |
| 131-11-3 | Dimethyl Phthalate | 40000 u |
| 208-96-8 | Acenaphthylene | 40000 u |
| 99-09-2 | 3-Nitroaniline | 200000 u |

| CAS Number | | ug/Kg |
|---|---|---|
| 83-32-9 | Acenaphthene | 40000 u |
| 51-28-5 | 2,4-Dinitrophenol | 200000 u |
| 100-02-7 | 4-Nitrophenol | 200000 u |
| 132-64-9 | Dibenzofuran | 40000 u |
| 121-14-2 | 2,4-Dinitrotoluene | 40000 u |
| 606-20-2 | 2,6-Dinitrotoluene | 40000 u |
| 84-66-2 | Diethylphthalate | 40000 u |
| 7005-22-3 | 4-Chlorophenyl-phenylether | 40000 u |
| 86-73-7 | Fluorene | 40000 u |
| 100-01-6 | 4-Nitroaniline | 200000 u |
| 534-52-1 | 4,6-dinitro-2-methylphenol | 200000 u |
| 86-30-6 | N-Nitrosodiphenylamine (1) | 40000 u |
| 101-55-3 | 4-Bromophenyl-phenylether | 40000 u |
| 118-74-1 | Hexachlorobenzene | 40000 u |
| 87-86-5 | Pentachlorophenol | 200000 u |
| 85-01-8 | Phenanthrene | 40000 u |
| 120-12-7 | Anthracene | 40000 u |
| 84-74-2 | Di-n-butylphthalate | 40000 u |
| 206-44-0 | Fluoranthene | 40000 u |
| 129-00-0 | Pyrene | 40000 u |
| 85-68-7 | Butylbenzylphthalate | 40000 u |
| 91-94-1 | 3,3'-Dichlorobenzidine | 80000 u |
| 56-55-3 | Benzo(a)anthracene | 40000 u |
| 117-81-7 | bis(2-Ethylhexyl)Phthalate | 40000 u |
| 218-01-9 | Chrysene | 40000 u |
| 117-84-0 | Di-n-Octylphthalate | 40000 u |
| 205-99-2 | Benzo(b)Fluoranthene | 40000 u |
| 207-08-9 | Benzo(k)Fluoranthene | 40000 u |
| 50-32-8 | Benzo(a)pyrene | 40000 u |
| 193-39-5 | Indeno(1,2,3-cd)Pyrene | 40000 u |
| 53-70-3 | Dibenz(a,h)Anthracene | 40000 u |
| 191-24-2 | Benzo(g,h,i)Perylene | 40000 u |

(1)-Cannot be separated from diphenylamine

Versar Inc., Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

| SAMPLE ID |
|---|
| D-8 |

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

| CAS Number | Compound Name | Fraction | RT or Scan | Estimated Concentration (ug/Kg or ug/l) |
|---|---|---|---|---|
| 11 | UNKNOWN DIMETHYL BENZENE | BNA | 486 | 1,720,000 J |
| 12 | UNKNOWN SUBSTITUTED BENZENE | BNA | 519 | 570,000 J |
| 13 | 556-67-2 CYCLOTETRASILOXANE, OCTAMETHYL | BNA | 660 | 100,000 J |
| 14 | 149-57-5 HEXANDIC ACID, 2-ETHYL | BNA | 820 | 33,000 J |
| 15 | 541-02-6 CYCLOPENTASILOXANE, DECAMETHYL | BNA | 856 | 120,000 J |
| 16 | 540-97-6 CYCLOHEXASILOXANE, DODECAMETHYL | BNA | 1054 | 50,000 J |
| 17 | UNKNOWN SUBSTITUTED PHENOL | BNA | 1259 | 42,000 J |
| 18 | UNKNOWN | BNA | 1298 | 150,000 J |
| 19 | UNKNOWN | BNA | 1358 | 13,000 J |
| 110 | UNKNOWN | BNA | 1476 | 34,000 J |
| 111 | UNKNOWN | BNA | 1532 | 16,000 J |
| 112 | UNKNOWN | BNA | 1679 | 66,000 J |
| 113 | UNKNOWN | BNA | 1890 | 88,000 J |
| 114 | UNKNOWN | BNA | 1932 | 79,000 J |
| 115 | UNKNOWN PHENANTHRENE CARBOXYLIC ACID | BNA | 1944 | 60,000 J |
| 116 | UNKNOWN | BNA | 1986 | 190,000 J |
| 117 | UNKNOWN | BNA | 2183 | 54,000 J |
| 118 | UNKNOWN | BNA | 2193 | 35,000 J |
| 119 | | | | |
| 120 | | | | |
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Versar Inc. Laboratory Operations
6850 Versar Center, Springfield Va. 22151
(703) 750-3000

| Sample Number |
| --- |
| 40325 |

ORGANICS ANALYSIS DATA SHEET
(Page 3)

Field ID# D-8

Pesticides/PCBs

Concentration: Low | Medium | (circle one)

GPC Cleanup [ ] Yes [X] No

Date Extracted/Prepared: 10-20-87

Separatory Funnel Extration [ ] Yes

Date Analyzed: 11-15-87

Continuous Liquid-Liquid Extraction [ ] Yes [X] No

Conc/Dil Factor 1.00

Percent Moisture(decanted) 77.01

| CAS Number | | ug/kg |
| --- | --- | --- |
| 319-84-6 | alpha-BHC | 220 u |
| 319-85-7 | beta-BHC | 220 u |
| 319-86-8 | delta-BHC | 220 u |
| 58-89-9 | gamma-BHC (Lindane) | 220 u |
| 76-44-8 | Heptachlor | 220 u |
| 309-00-2 | Aldrin | 220 u |
| 1024-57-3 | Heptachlor Epoxide | 220 u |
| 959-98-8 | Endosulfan I | 220 u |
| 60-57-1 | Dieldrin | 430 u |
| 72-55-9 | 4,4'-DDE | 430 u |
| 72-20-8 | Endrin | 430 u |
| 33213-65-9 | Endosulfan II | 430 u |
| 72-54-8 | 4,4'-DDD | 430 u |
| 1031-07-8 | Endosulfan Sulfate | 430 u |
| 50-29-3 | 4,4'-DDT | 430 u |
| 72-43-5 | Methoxychlor | 430 u |
| 53494-70-5 | Endrin Ketone | 430 u |
| 57-74-9 | Chlordane | 2200 u |
| 8001-35-2 | Toxaphene | 4300 u |
| 12674-11-2 | Aroclor-1016 | 2200 u |
| 11104-28-2 | Aroclor-1221 | 2200 u |
| 11141-16-5 | Aroclor-1232 | 2200 u |
| 53469-21-9 | Aroclor-1242 | 2200 u |
| 12672-29-6 | Aroclor-1248 | 2200 u |
| 11097-69-1 | Aroclor-1254 | 4300 u |
| 11096-82-5 | Aroclor-1260 | 4300 u |

David Lipari
11-23-87

Vi = Volume of extract injected (ul)
Vs = Volume of Water Extracted (ml)
Ws = Weight of sample extracted (g)
Vt = Volume of total extract (ul)

Vs _____ or Ws 1.00 Vt 10000 Vi 2.00

**PONDS 1 AND 2**
**SEDIMENT SAMPLES**

Versar, Inc. Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

| Sample Number |
|---|
| S2 |

ORGANICS ANALYSIS DATA SHEET (Page 1)

Laboratory Name: VERSAR
Lab Sample ID No: 39389
Sample Matrix: SOIL
Data Release Authorized By:

Case No: 4600 EW244
QC Report No: 4600 EW244
Contract No:
Date Sample Received: 10/02/87

VOLATILE COMPOUNDS

Concentration: LOW
Date Extracted/Prepared: 10/14/87
Date Analyzed: 10/14/87
Conc/Dil Factor: 1 pH NA
Percent Moisture: NA

| CAS Number | | ug/Kg | CAS Number | | ug/Kg |
|---|---|---|---|---|---|
| 74-87-3 | Chloromethane | 10 u | 78-87-5 | 1,2-Dichloropropane | 5 u |
| 74-83-9 | Bromomethane | 10 u | 10061-02-6 | Trans-1,3-Dichloropropene | 5 u |
| 75-01-4 | Vinyl Chloride | 10 u | 79-01-6 | Trichloroethene | 5 u |
| 75-00-3 | Chloroethane | 10 u | 124-48-1 | Dibromochloromethane | 5 u |
| 75-09-2 | Methylene Chloride | 5 u | 79-00-5 | 1,1,2-Trichloroethane | 5 u |
| 67-64-1 | Acetone | 14 B | 71-43-2 | Benzene | 5 u |
| 75-15-0 | Carbon Disulfide | 5 u | 10061-01-5 | cis-1,3-Dichloropropene | 5 u |
| 75-35-4 | 1,1-Dichloroethene | 5 u | 110-75-8 | 2-chloroethylvinylether | 10 u |
| 75-34-3 | 1,1-Dichloroethane | 5 u | 75-25-2 | Bromoform | 5 u |
| 156-60-5 | Trans-1,2-Dichloroethene | 5 u | 108-10-1 | 4-Methyl-2-Pentanone | 10 u |
| 67-66-3 | Chloroform | 5 u | 591-78-6 | 2-Hexanone | 10 u |
| 107-06-2 | 1,2-Dichloroethane | 5 u | 127-18-4 | Tetrachloroethene | 5 u |
| 78-93-3 | 2-butanone | 10 u | 79-34-5 | 1,1,2,2-Tetrachloroethane | 5 u |
| 71-55-6 | 1,1,1-Trichloroethane | 5 u | 108-88-3 | Toluene | 5 u |
| 56-23-5 | Carbon Tetrachloride | 5 u | 108-90-7 | Chlorobenzene | 5 u |
| 108-05-4 | Vinyl Acetate | 10 u | 100-41-4 | Ethylbenzene | 5 u |
| 75-27-4 | Bromodichloromethane | 5 u | 100-42-5 | Styrene | 5 u |
| | | | | Total Xylenes | 5 u |

Data Reporting Qualifiers

Value If the result is a value greater than or equal to the detection limit, report the value.

u Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response factor is assumed, or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero. (e.g. 10J)

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as the sample. It indicates possible/probable blank co. amination and warns the data user to take appropriate action.

T Spectrum does not meet criteria for confirmation but does indicate compound presence.

Versar Inc., Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

| SAMPLE ID |
|---|
| S2 |

Organics Analysis Data Sheet
(Page 4)

* Tentatively Identified Compounds

| CAS Number | Compound Name | Fraction | RT or Scan | Estimated Concentration (ug/Kg or ug/l) |
|---|---|---|---|---|
| 11. | NO VOLATILES DETECTED | VOA | NA | NA |
| 12. | | | | |
| 13. | | | | |
| 14. | | | | |
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| 130. | | | | |

Versar, Inc. Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

| Sample Number |
|---|
| S4 |

ORGANICS ANALYSIS DATA SHEET (Page 1)

Laboratory Name: VERSAR
Lab Sample ID No: 33231
Sample Matrix: SOIL
Data Release Authorized By:

Case No: 4600 SW244
QC Report No: 4600 SW244
Contract No:
Date Sample Received: 10/02/87

VOLATILE COMPOUNDS

Concentration: LOW
Date Extracted/Prepared: 10/14/87
Date Analyzed: 10/14/87
Conc/Dil Factor: 1 pH NA
Percent Moisture: NA

| CAS Number | | ug/Kg | CAS Number | | ug/Kg |
|---|---|---|---|---|---|
| 74-87-3 | Chloromethane | 10 u | 78-87-5 | 1,2-Dichloropropane | 5 u |
| 74-83-9 | Bromomethane | 10 u | 10061-02-6 | Trans-1,3-Dichloropropene | 5 u |
| 75-01-4 | Vinyl Chloride | 10 u | 79-01-6 | Trichloroethene | 5 u |
| 75-00-3 | Chloroethane | 10 u | 124-48-1 | Dibromochloromethane | 5 u |
| 75-09-2 | Methylene Chloride | 5 u | 79-00-5 | 1,1,2-Trichloroethane | 5 u |
| 67-64-1 | Acetone | 21 B | 71-43-2 | Benzene | 5 u |
| 75-15-0 | Carbon Disulfide | 5 u | 10061-01-5 | cis-1,3-Dichloropropene | 5 u |
| 75-35-4 | 1,1-Dichloroethene | 5 u | 110-75-8 | 2-chloroethylvinylether | 10 u |
| 75-34-3 | 1,1-Dichloroethane | 5 u | 75-25-2 | Bromoform | 5 u |
| 156-60-5 | Trans-1,2-Dichloroethene | 5 u | 108-10-1 | 4-Methyl-2-Pentanone | 10 u |
| 67-66-3 | Chloroform | 5 u | 591-78-6 | 2-Hexanone | 10 u |
| 107-06-2 | 1,2-Dichloroethane | 5 u | 127-18-4 | Tetrachloroethene | 5 u |
| 78-93-3 | 2-butanone | 10 u | 79-34-5 | 1,1,2,2-Tetrachloroethane | 5 u |
| 71-55-6 | 1,1,1-Trichloroethane | 5 u | 108-88-3 | Toluene | 5 u |
| 56-23-5 | Carbon Tetrachloride | 5 u | 108-90-7 | Chlorobenzene | 5 u |
| 108-05-4 | Vinyl Acetate | 10 u | 100-41-4 | Ethylbenzene | 5 u |
| 75-27-4 | Bromodichloromethane | 5 u | 100-42-5 | Styrene | 5 u |
| | | | | Total Xylenes | 5 u |

Data Reporting Qualifiers

Value If the result is a value greater than or equal to the detection limit, report the value.

u Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response factor is assumed, or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero. (e.g. 10J)

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

T Spectrum does not meet criteria for confirmation but does indicate compound presence.

Form I

Versar Inc., Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

| SAMPLE ID |
|---|
| S4 |

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

| | CAS Number | Compound Name | Fraction | RT or Scan | Estimated Concentration (ug/Kg or ug/l) |
|---|---|---|---|---|---|
| 11. | | NO VOLATILES DETECTED | VOA | NA | NA |
| 12. | | | | | |
| 13. | | | | | |
| 14. | | | | | |
| 15. | | | | | |
| 16. | | | | | |
| 17. | | | | | |
| 18. | | | | | |
| 19. | | | | | |
| 110. | | | | | |
| 111. | | | | | |
| 112. | | | | | |
| 113. | | | | | |
| 114. | | | | | |
| 115. | | | | | |
| 116. | | | | | |
| 117. | | | | | |
| 118. | | | | | |
| 119. | | | | | |
| 120. | | | | | |
| 121. | | | | | |
| 122. | | | | | |
| 123. | | | | | |
| 124. | | | | | |
| 125. | | | | | |
| 126. | | | | | |
| 127. | | | | | |
| 128. | | | | | |
| 129. | | | | | |
| 130. | | | | | |

Versar, Inc. Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

| Sample Number |
|---|
| SS |

ORGANICS ANALYSIS DATA SHEET (Page 1)

Laboratory Name: VERSAR
Lab Sample ID No: 39292
Sample Matrix: SOIL
Data Release Authorized By:

Case No: 4600 88244
QC Report No: 4600 88244
Contract No:
Date Sample Received: 10/02/87

VOLATILE COMPOUNDS

Concentration: LOW
Date Extracted/Prepared: 10/14/87
Date Analyzed: 10/14/87
Conc/Dil Factor: 1 pH NA
Percent Moisture: NA

| CAS Number | | ug/Kg |
|---|---|---|
| 74-87-3 | Chloromethane | 10 u |
| 74-83-9 | Bromomethane | 10 u |
| 75-01-4 | Vinyl Chloride | 10 u |
| 75-00-3 | Chloroethane | 10 u |
| 75-09-2 | Methylene Chloride | 2 J |
| 67-64-1 | Acetone | 9 JB |
| 75-15-0 | Carbon Disulfide | 5 u |
| 75-35-4 | 1,1-Dichloroethene | 5 u |
| 75-34-3 | 1,1-Dichloroethane | 5 u |
| 156-60-5 | Trans-1,2-Dichloroethene | 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 |

| CAS Number | | ug/Kg |
|---|---|---|
| 78-87-5 | 1,2-Dichloropropane | 5 u |
| 10061-02-6 | Trans-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 |
| 10061-01-5 | cis-1,3-Dichloropropene | 5 u |
| 110-75-8 | 2-chloroethylvinylether | 10 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 |
| | Total Xylenes | 5 u |

Data Reporting Qualifiers

Value If the result is a value greater than or equal to the detection limit, report the value.

u Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response factor is assumed, or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero. (e.g. 10J)

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

T Spectrum does not meet criteria for confirmation but does indicate compound presence.

Versar Inc., Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

| SAMPLE ID |
|---|
| S5 |

Organics Analysis Data Sheet
(Page 4)

* Tentatively Identified Compounds

| CAS Number | Compound Name | Fraction | RT or Scan | Estimated Concentration (ug/Kg or ug/l) |
|---|---|---|---|---|
| 11. | NO VOLATILES DETECTED | VOA | NA | NA |
| 12. | | | | |
| 13. | | | | |
| 14. | | | | |
| 15. | | | | |
| 16. | | | | |
| 17. | | | | |
| 18. | | | | |
| 19. | | | | |
| 110. | | | | |
| 111. | | | | |
| 112. | | | | |
| 113. | | | | |
| 114. | | | | |
| 115. | | | | |
| 116. | | | | |
| 117. | | | | |
| 118. | | | | |
| 119. | | | | |
| 120. | | | | |
| 121. | | | | |
| 122. | | | | |
| 123. | | | | |
| 124. | | | | |
| 125. | | | | |
| 126. | | | | |
| 127. | | | | |
| 128. | | | | |
| 129. | | | | |
| 130. | | | | |

Versar, Inc. Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

| Sample Number |
|---|
| SD 16 |

ORGANICS ANALYSIS DATA SHEET (Page 1)

Laboratory Name: VERSAR
Lab Sample ID No: 40142
Sample Matrix: SEDIMENT
Data Release Authorized By:

Case No: 4600 B4256
QC Report No: 4600 B4256
Contract No:
Date Sample Received: 10/15/87

VOLATILE COMPOUNDS

Concentration: LOW
Date Extracted/Prepared: 10/16/87
Date Analyzed: 10/16/87
Conc/Dil Factor: 1 pH NA
Percent Moisture: 25.86

| CAS Number | | ug/Kg | CAS Number | | ug/Kg |
|---|---|---|---|---|---|
| 74-87-3 | Chloromethane | 13 u | 78-87-5 | 1,2-Dichloropropane | 7 u |
| 74-83-9 | Bromomethane | 13 u | 10061-02-6 | Trans-1,3-Dichloropropene | 7 u |
| 75-01-4 | Vinyl Chloride | 13 u | 79-01-6 | Trichloroethene | 7 u |
| 75-00-3 | Chloroethane | 13 u | 124-48-1 | Dibromochloromethane | 7 u |
| 75-09-2 | Methylene Chloride | 7 u | 79-00-5 | 1,1,2-Trichloroethane | 7 u |
| 67-64-1 | Acetone | 13 u | 71-43-2 | Benzene | 7 u |
| 75-15-0 | Carbon Disulfide | 7 u | 10061-01-5 | cis-1,3-Dichloropropene | 7 u |
| 75-35-4 | 1,1-Dichloroethene | 7 u | 110-75-8 | 2-chloroethylvinylether | 13 u |
| 75-34-3 | 1,1-Dichloroethane | 7 u | 75-25-2 | Bromoform | 7 u |
| 156-60-5 | Trans-1,2-Dichloroethene | 7 u | 108-10-1 | 4-Methyl-2-Pentanone | 13 u |
| 67-66-3 | Chloroform | 7 u | 591-78-6 | 2-Hexanone | 13 u |
| 107-06-2 | 1,2-Dichloroethane | 7 u | 127-18-4 | Tetrachloroethene | 7 u |
| 78-93-3 | 2-butanone | 13 u | 79-34-5 | 1,1,2,2-Tetrachloroethane | 7 u |
| 71-55-6 | 1,1,1-Trichloroethane | 7 u | 108-88-3 | Toluene | 7 u |
| 56-23-5 | Carbon Tetrachloride | 7 u | 108-90-7 | Chlorobenzene | 7 u |
| 108-05-4 | Vinyl Acetate | 13 u | 100-41-4 | Ethylbenzene | 7 u |
| 75-27-4 | Bromodichloromethane | 7 u | 100-42-5 | Styrene | 7 u |
| | | | | Total Xylenes | 7 u |

Data Reporting Qualifiers

Value If the result is a value greater than or equal to the detection limit, report the value.

u Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response factor is assumed, or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero. (e.g. 10J)

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

T Spectrum does not meet criteria for confirmation but does indicate compound presence.

NA Compound present in both matrix spike standard and unspiked sample.

Versar Inc., Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

| SAMPLE ID |
|---|
| SD 16 |

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

| | CAS Number | Compound Name | Fraction | RT or Scan | Estimated Concentration (ug/Kg or ug/l) |
|---|---|---|---|---|---|
| 11. | | NO VOLATILES DETECTED | VOA | NA | NA |
| 12. | | | | | |
| 13. | | | | | |
| 14. | | | | | |
| 15. | | | | | |
| 16. | | | | | |
| 17. | | | | | |
| 18. | | | | | |
| 19. | | | | | |
| 110. | | | | | |
| 111. | | | | | |
| 112. | | | | | |
| 113. | | | | | |
| 114. | | | | | |
| 115. | | | | | |
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| 117. | | | | | |
| 118. | | | | | |
| 119. | | | | | |
| 120. | | | | | |
| 121. | | | | | |
| 122. | | | | | |
| 123. | | | | | |
| 124. | | | | | |
| 125. | | | | | |
| 126. | | | | | |
| 127. | | | | | |
| 128. | | | | | |
| 129. | | | | | |
| 130. | | | | | |

[illegible] Laboratory Corporation
[illegible] Eastern Specialty Co. [illegible]
[illegible]

| Sample Number |
|---|
| 40136 |

FIELD ID# 16

PESTICIDES ANALYSIS DATA SHEET
(Page 3)

Pesticides/PCBs

Concentration: Low Medium (circle one)

GPC Cleanup [ ] Yes [X] No

Date Extracted/Prepared 10-21-87

Separatory Funnel Extration [ ] Yes

Date Analyzed 11-7-87

Continuous Liquid-Liquid Extraction [ ] Yes [X] No

Conc/Dil Factor 1.00

Percent Moisture(Decanted) 25.86

| CAS Number | | ug/kg |
|---|---|---|
| 319-84-6 | alpha-BHC | 0.90 u |
| 319-85-7 | beta-BHC | 0.90 u |
| 319-86-8 | delta-BHC | 0.90 u |
| 58-89-9 | gamma-BHC (Lindane) | 0.90 u |
| 76-44-8 | Heptachlor | 0.90 u |
| 309-00-2 | Aldrin | 0.90 u |
| 1024-57-3 | Heptachlor Epoxide | 0.90 u |
| 959-98-8 | Endosulfan I | 0.90 u |
| 60-57-1 | Dieldrin | 1.8 u |
| 72-55-9 | 4,4'-DDE | 1.8 u |
| 72-20-8 | Endrin | 1.8 u |
| 33213-65-9 | Endosulfan II | 1.8 u |
| 72-54-8 | 4,4'-DDD | 1.8 u |
| 1031-07-8 | Endosulfan Sulfate | 1.8 u |
| 50-29-3 | 4,4'-DDT | 1.8 u |
| 72-43-5 | Methoxychlor | 1.8 u |
| 53494-70-5 | Endrin Ketone | 1.8 u |
| 57-74-9 | Chlordane | 9.0 u |
| 8001-35-2 | Toxaphene | 18 u |
| 12674-11-2 | Aroclor-1016 | 9.0 u |
| 11104-28-2 | Aroclor-1221 | 9.0 u |
| 11141-16-5 | Aroclor-1232 | 9.0 u |
| 53469-21-9 | Aroclor-1242 | 9.0 u |
| 12672-29-6 | Aroclor-1248 | 9.0 u |
| 11097-69-1 | Aroclor-1254 | 18 u |
| 11096-82-5 | Aroclor-1260 | 18 u |

Vi = Volume of extract injected (ul)
Vs = Volume of Water Extracted (ml)
Ws = Weight of sample extracted (g)
Vt = Volume of total extract (ul)

David Lipani
11-19-87

Vs _____ or Ws 30.06 _____ Vt 4000 Vi 2.00 _____

Versar, Inc. Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

| Sample Number |
|---|
| SD 17 |

ORGANICS ANALYSIS DATA SHEET (Page 1)

Laboratory Name: VERSAR
Lab Sample ID No: 40143
Sample Matrix: SEDIMENT
Data Release Authorized By:

Case No: 4600 B8256
QC Report No: 4600 B8256
Contract No:
Date Sample Received: 10/15/87

VOLATILE COMPOUNDS

Concentration: LOW
Date Extracted/Prepared: 10/16/87
Date Analyzed: 10/16/87
Conc/Dil Factor: 1 pH NA
Percent Moisture: 3.832

| CAS Number | | ug/Kg | CAS Number | | ug/Kg |
|---|---|---|---|---|---|
| 74-87-3 | Chloromethane | 10 u | 78-87-5 | 1,2-Dichloropropane | 5 u |
| 74-83-9 | Bromomethane | 10 u | 10061-02-6 | Trans-1,3-Dichloropropene | 5 u |
| 75-01-4 | Vinyl Chloride | 10 u | 79-01-6 | Trichloroethene | 5 u |
| 75-00-3 | Chloroethane | 10 u | 124-48-1 | Dibromochloromethane | 5 u |
| 75-09-2 | Methylene Chloride | 3 BJT | 79-00-5 | 1,1,2-Trichloroethane | 5 u |
| 67-64-1 | Acetone | 5 BJT | 71-43-2 | Benzene | 5 u |
| 75-15-0 | Carbon Disulfide | 5 u | 10061-01-5 | cis-1,3-Dichloropropene | 5 u |
| 75-35-4 | 1,1-Dichloroethene | 5 u | 110-75-8 | 2-chloroethylvinylether | 10 u |
| 75-34-3 | 1,1-Dichloroethane | 5 u | 75-25-2 | Bromoform | 5 u |
| 156-60-5 | Trans-1,2-Dichloroethene | 5 u | 108-10-1 | 4-Methyl-2-Pentanone | 10 u |
| 67-66-3 | Chloroform | 5 u | 591-78-6 | 2-Hexanone | 10 u |
| 107-06-2 | 1,2-Dichloroethane | 5 u | 127-18-4 | Tetrachloroethene | 5 u |
| 78-93-3 | 2-butanone | 10 u | 79-34-5 | 1,1,2,2-Tetrachloroethane | 5 u |
| 71-55-6 | 1,1,1-Trichloroethane | 5 u | 108-88-3 | Toluene | 4 J |
| 56-23-5 | Carbon Tetrachloride | 5 u | 108-90-7 | Chlorobenzene | 5 u |
| 108-05-4 | Vinyl Acetate | 10 u | 100-41-4 | Ethylbenzene | 5 u |
| 75-27-4 | Bromodichloromethane | 5 u | 100-42-5 | Styrene | 5 u |
| | | | | Total Xylenes | 5 u |

Data Reporting Qualifiers

Value If the result is a value greater than or equal to the detection limit, report the value.

u Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response factor is assumed, or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero. (e.g. 10J)

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

T Spectrum does not meet criteria for confirmation but does indicate compound presence.

NA Compound present in both matrix spike standard and unspiked sample.

Form I

Versar Inc., Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

| SAMPLE ID |
|---|
| SD # 17 |

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

| | CAS Number | Compound Name | Fraction | RT or Scan | Estimated Concentration (ug/Kg or ug/l) |
|---|---|---|---|---|---|
| 11. | | NO VOLATILES DETECTED | VOA | NA | NA |
| 12. | | | | | |
| 13. | | | | | |
| 14. | | | | | |
| 15. | | | | | |
| 16. | | | | | |
| 17. | | | | | |
| 18. | | | | | |
| 19. | | | | | |
| 110. | | | | | |
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| 112. | | | | | |
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| 122. | | | | | |
| 123. | | | | | |
| 124. | | | | | |
| 125. | | | | | |
| 126. | | | | | |
| 127. | | | | | |
| 128. | | | | | |
| 129. | | | | | |
| 130. | | | | | |

Versar Inc. Laboratory Operations
[illegible] Inspection Ave. 23141
[illegible]

| Sample Number |
|---|
| [illegible] |

ORGANICS ANALYSIS DATA SHEET
Page 31

FIELD ID # 17

Pesticides/PCBs

Concentration: (Low) Medium (Circle one)

GPC Cleanup [ ] Yes [X] No

Date Extracted/Prepared 10-21-87

Separatory Funnel Extraction [ ] Yes

Date Analyzed 11-10-87

Continuous Liquid-Liquid Extraction [ ] Yes [X] No

Dilution Factor 1.00

Percent Moisture(decanted) 23.71

| CAS Number | | ug/kg |
|---|---|---|
| 319-84-6 | Alpha-BHC | 0.87 u |
| 319-85-7 | Beta-BHC | 0.87 u |
| 319-86-8 | Delta-BHC | 0.87 u |
| 58-89-9 | Gamma-BHC (Lindane) | 0.87 u |
| 76-44-8 | Heptachlor | 0.87 u |
| 309-00-2 | Aldrin | 0.87 u |
| 1024-57-3 | Heptachlor Epoxide | 0.87 u |
| 959-98-8 | Endosulfan I | 0.87 u |
| 60-57-1 | Dieldrin | 1.7 u |
| 72-55-9 | 4,4'-DDE | 1.7 u |
| 72-20-8 | Endrin | 1.7 u |
| 33213-65-9 | Endosulfan II | 1.7 u |
| 72-54-8 | 4,4'-DDD | 1.7 u |
| 1031-07-8 | Endosulfan Sulfate | 1.7 u |
| 50-29-3 | 4,4'-DDT | 1.7 u |
| 72-43-5 | Methoxychlor | 1.7 u |
| 53494-70-5 | Endrin Ketone | 1.7 u |
| 57-74-9 | Chlordane | 8.7 u |
| 8001-35-2 | Toxaphene | 17 u |
| 12674-11-2 | Aroclor-1016 | 8.7 u |
| 11104-28-2 | Aroclor-1221 | 8.7 u |
| 11141-16-5 | Aroclor-1232 | 8.7 u |
| 53469-21-9 | Aroclor-1242 | 8.7 u |
| 12672-29-6 | Aroclor-1248 | 8.7 u |
| 11097-69-1 | Aroclor-1254 | 17 u |
| 11096-82-5 | Aroclor-1260 | 17 u |

Vi = Volume of extract injected (ul)
Vt = Volume of Water Extracted (ml)
Ws = Weight of sample extracted (g)
Vt = Volume of total extract (ml)

David Lupain
11-19-87

Vs or Ws 30.01 Vt 4000 Vi 2.00

Versar, Inc. Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

| Sample Number |
|---|
| SD 21 |

ORGANICS ANALYSIS DATA SHEET (Page 1)

Laboratory Name: VERSAR
Lab Sample ID No: A0144
Sample Matrix: SEDIMENT
Data Release Authorized By:

Case No: 4600 B0256
QC Report No: 4600 B0256
Contract No:
Date Sample Received: 10/15/87

VOLATILE COMPOUNDS

Concentration: LOW
Date Extracted/Prepared: 10/16/87
Date Analyzed: 10/16/87
Conc/Dil Factor: 1 pH NA
Percent Moisture: 30.6

| CAS Number | | ug/Kg | CAS Number | | ug/Kg |
|---|---|---|---|---|---|
| 74-87-3 | Chloromethane | 14 u | 78-87-5 | 1,2-Dichloropropane | 7 u |
| 74-83-9 | Bromomethane | 14 u | 10061-02-6 | Trans-1,3-Dichloropropene | 7 u |
| 75-01-4 | Vinyl Chloride | 14 u | 79-01-6 | Trichloroethene | 7 u |
| 75-00-3 | Chloroethane | 14 u | 124-48-1 | Dibromochloromethane | 7 u |
| 75-09-2 | Methylene Chloride | 3 BJ | 79-00-5 | 1,1,2-Trichloroethane | 7 u |
| 67-64-1 | Acetone | 37 B | 71-43-2 | Benzene | 7 u |
| 75-15-0 | Carbon Disulfide | 7 u | 10061-01-5 | cis-1,3-Dichloropropene | 7 u |
| 75-35-4 | 1,1-Dichloroethene | 7 u | 110-75-8 | 2-chloroethylvinylether | 14 u |
| 75-34-3 | 1,1-Dichloroethane | 7 u | 75-25-2 | Bromoform | 7 u |
| 156-60-5 | Trans-1,2-Dichloroethene | 7 u | 108-10-1 | 4-Methyl-2-Pentanone | 14 u |
| 67-66-3 | Chloroform | 7 u | 591-78-6 | 2-Hexanone | 14 u |
| 107-06-2 | 1,2-Dichloroethane | 7 u | 127-18-4 | Tetrachloroethene | 7 u |
| 78-93-3 | 2-butanone | 14 u | 79-34-5 | 1,1,2,2-Tetrachloroethane | 7 u |
| 71-55-6 | 1,1,1-Trichloroethane | 7 u | 108-88-3 | Toluene | 7 u |
| 56-23-5 | Carbon Tetrachloride | 7 u | 108-90-7 | Chlorobenzene | 7 u |
| 108-05-4 | Vinyl Acetate | 14 u | 100-41-4 | Ethylbenzene | 7 u |
| 75-27-4 | Bromodichloromethane | 7 u | 100-42-5 | Styrene | 7 u |
| | | | | Total Xylenes | 7 u |

Data Reporting Qualifiers

Value If the result is a value greater than or equal to the detection limit, report the value.

u Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response factor is assumed, or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero. (e.g. 10J)

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

T Spectrum does not meet criteria for confirmation but does indicate compound presence.

NA Compound present in both matrix spike standard and unspiked sample.

Versar Inc., Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

| SAMPLE ID |
|---|
| SD21 |

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

| | CAS Number | Compound Name | Fraction | RT or Scan | Estimated Concentration (ug/Kg or ug/l) |
|---|---|---|---|---|---|
| 11. | | NO VOLATILES DETECTED | VOA | NA | NA |
| 12. | | | | | |
| 13. | | | | | |
| 14. | | | | | |
| 15. | | | | | |
| 16. | | | | | |
| 17. | | | | | |
| 18. | | | | | |
| 19. | | | | | |
| 110. | | | | | |
| 111. | | | | | |
| 112. | | | | | |
| 113. | | | | | |
| 114. | | | | | |
| 115. | | | | | |
| 116. | | | | | |
| 117. | | | | | |
| 118. | | | | | |
| 119. | | | | | |
| 120. | | | | | |
| 121. | | | | | |
| 122. | | | | | |
| 123. | | | | | |
| 124. | | | | | |
| 125. | | | | | |
| 126. | | | | | |
| 127. | | | | | |
| 128. | | | | | |
| 129. | | | | | |
| 130. | | | | | |

Versar Inc. Laboratory Operations
6850 Versar Center, Springfield Va. 22151
(703) 750-3000

| Sample Number |
|---|
| [illegible] |
| FIELD ID # 21 |

ORGANICS ANALYSIS DATA SHEET
(Page 3)

Pesticides/PCBs

Concentration: Low Medium (circle one)

GPC Cleanup [ ] Yes [X] No

Date Extracted/Prepared 10-21-87

Separatory Funnel Extraction [ ] Yes

Date Analyzed: 11-10-87

Continuous Liquid-Liquid Extraction [ ] Yes [X] No

Conc/Dil Factor 1.00

Percent Moisture(Decanted) 30.60

| CAS Number | | ug/kg |
|---|---|---|
| 319-84-6 | alpha-BHC | 0.95 u |
| 319-85-7 | beta-BHC | 0.95 u |
| 319-86-8 | delta-BHC | 0.95 u |
| 58-89-9 | gamma-BHC (Lindane) | 0.95 u |
| 76-44-8 | Heptachlor | 0.95 u |
| 309-00-2 | Aldrin | 0.95 u |
| 1024-57-3 | Heptachlor Epoxide | 0.95 u |
| 959-98-8 | Endosulfan I | 0.95 u |
| 60-57-1 | Dieldrin | 1.9 u |
| 72-55-9 | 4,4'-DDE | 1.9 u |
| 72-20-8 | Endrin | 1.9 u |
| 33213-65-9 | Endosulfan II | 1.9 u |
| 72-54-8 | 4,4'-DDD | 1.9 u |
| 1031-07-8 | Endosulfan Sulfate | 1.9 u |
| 50-29-3 | 4,4'-DDT | 1.9 u |
| 72-43-5 | Methoxychlor | 1.9 u |
| 53494-70-5 | Endrin Ketone | 1.9 u |
| 57-74-9 | Chlordane | 9.6 u |
| 8001-35-2 | Toxaphene | 19 u |
| 12674-11-2 | Aroclor-1016 | 9.6 u |
| 11104-28-2 | Aroclor-1221 | 9.6 u |
| 11141-16-5 | Aroclor-1232 | 9.6 u |
| 53469-21-9 | Aroclor-1242 | 9.6 u |
| 12672-29-6 | Aroclor-1248 | 9.6 u |
| 11097-69-1 | Aroclor-1254 | 19 u |
| 11096-82-5 | Aroclor-1260 | 60 |

Vi = Volume of extract injected (ul)
Vc = Volume of Water Extracted (ml)
Ws = Weight of sample extracted (g)
Vt = Volume of total extract (ul)

David Lipsini
11-19-87

Vs or Ws 30.00 Vt 4000 Vi 2.00

Versar, Inc. Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

| Sample Number |
|---|
| SD6 |

ORGANICS ANALYSIS DATA SHEET (Page 1)

Laboratory Name: VERSAR
Lab Sample ID No: 42853
Sample Matrix: SOIL
Data Release Authorized By:

Case No: 4600 B8297
QC Report No: 4600 B8297
Contract No:
Date Sample Received: 12/03/87

VOLATILE COMPOUNDS

Concentration: LOW
Date Extracted/Prepared: 12/10/87
Date Analyzed: 12/10/87
Conc/Dil Factor: 1 pH NA
Percent Moisture: 18.5

| CAS Number | | ug/Kg | CAS Number | | ug/Kg |
|---|---|---|---|---|---|
| 74-87-3 | Chloromethane | 12 u | 78-87-5 | 1,2-Dichloropropane | 6 u |
| 74-83-9 | Bromomethane | 12 u | 10061-02-6 | Trans-1,3-Dichloropropene | 6 u |
| 75-01-4 | Vinyl Chloride | 12 u | 79-01-6 | Trichloroethene | 5 J ✓ |
| 75-00-3 | Chloroethane | 12 u | 124-48-1 | Dibromochloromethane | 6 u |
| 75-09-2 | Methylene Chloride | 2 JB ✓ | 79-00-5 | 1,1,2-Trichloroethane | 6 u |
| 67-64-1 | Acetone | 50 B ✓ | 71-43-2 | Benzene | 6 u |
| 75-15-0 | Carbon Disulfide | 6 u | 10061-01-5 | cis-1,3-Dichloropropene | 6 u |
| 75-35-4 | 1,1-Dichloroethene | 6 u | 110-75-8 | 2-chloroethylvinylether | 12 u |
| 75-34-3 | 1,1-Dichloroethane | 6 u | 75-25-2 | Bromoform | 6 u |
| 156-60-5 | Trans-1,2-Dichloroethene | 2 J ✓ | 108-10-1 | 4-Methyl-2-Pentanone | E ✓ |
| 67-66-3 | Chloroform | 6 u | 591-78-6 | 2-Hexanone | 12 u |
| 107-06-2 | 1,2-Dichloroethane | 6 u | 127-18-4 | Tetrachloroethene | 6 u |
| 78-93-3 | 2-butanone | E ✓ | 79-34-5 | 1,1,2,2-Tetrachloroethane | 6 u |
| 71-55-6 | 1,1,1-Trichloroethane | 6 u | 108-88-3 | Toluene | E ✓ |
| 56-23-5 | Carbon Tetrachloride | 6 u | 108-90-7 | Chlorobenzene | 6 u |
| 108-05-4 | Vinyl Acetate | 12 u | 100-41-4 | Ethylbenzene | E ✓ |
| 75-27-4 | Bromodichloromethane | 6 u | 100-42-5 | Styrene | 6 u |
| | | | | Total Xylenes | E ✓ |

Data Reporting Qualifiers

Value If the result is a value greater than or equal to the detection limit, report the value.

u Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response factor is assumed, or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero. (e.g. 10J)

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

T Spectrum does not meet criteria for confirmation but does indicate compound presence.

NA Compound present in both matrix spike standard and unspiked sample.

Form I

E Exceeds Linear Range of Standard Calibration Curve

Versar Inc., Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

SAMPLE ID
SD-5

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

| | CAS Number | Compound Name | Fraction | RT of Scan | Estimated Concentration (ug/Kg or ug/l) |
|---|---|---|---|---|---|
| 11. | 110-82-7 | CYCLOHEXANE (DOT) | VOA | 319 | 79 J |
| 12. | 96-37-7 | CYCLOPENTANE, METHYL- | VOA | 332 | 75 J |
| 13. | | UNKNOWN HYDROCARBON | VOA | 370 | 69 J |
| 14. | | UNKNOWN CYCLIC HYDROCARBON | VOA | 381 | 60 J |
| 15. | | UNKNOWN HYDROCARBON | VOA | 407 | 160 J |
| 16. | | UNKNOWN DIMETHYL CYCLOPENTANE ISOMER | VOA | 423 | 400 J |
| 17. | 108-87-2 | CYCLOHEXANE, METHYL- | VOA | 428 | 1,000 J |
| 18. | 584-94-1 | HEXANE, 2,3-DIMETHYL- | VOA | 450 | 76 J |
| 19. | 142-82-5 | HEPTANE (DOT) | VOA | 467 | 850 J |
| 110. | | UNKNOWN HYDROCARBON | VOA | 475 | 560 J |
| 111. | 13475-81-5 | HEXANE, 2,2,3,3-TETRAMETHYL- | VOA | 512 | 49 J |
| 112. | | UNKNOWN HYDROCARBON | VOA | 533 | 45 J |
| 113. | | UNKNOWN HYDROCARBON | VOA | 545 | 63 J |
| 114. | | | | | |
| 115. | | | | | |
| 116. | | | | | |
| 117. | | | | | |
| 118. | | | | | |
| 119. | | | | | |
| 120. | | | | | |
| 121. | | | | | |
| 122. | | | | | |
| 123. | | | | | |
| 124. | | | | | |
| 125. | | | | | |
| 126. | | | | | |
| 127. | | | | | |
| 128. | | | | | |
| 129. | | | | | |
| 130. | | | | | |

6850 Versar Center, Springfield VA 22151 (703) 750-3000

| Sample Number |
| --- |
| SD6(1/5) |

ORGANICS ANALYSIS DATA SHEET (Page 1)

Laboratory Name: VERSAR
Lab Sample ID No: 42852
Sample Matrix: SOIL
Data Release Authorized By:

Case No: 4600 BW297
QC Report No: 4600 BW297
Contract No:
Date Sample Received: 12/09/87

VOLATILE COMPOUNDS

Concentration: LOW
Date Extracted/Prepared: 12/10/87
Date Analyzed: 12/10/87
Conc/(Dil) Factor: 5 pH NA
Percent Moisture: 18.5

| CAS Number | | ug/Kg | CAS Number | | ug/Kg |
| --- | --- | --- | --- | --- | --- |
| 74-87-3 | Chloromethane | 61 u | 78-87-5 | 1,2-Dichloropropane | 31 u |
| 74-83-9 | Bromomethane | 61 u | 10061-02-6 | Trans-1,3-Dichloropropene | 31 u |
| 75-01-4 | Vinyl Chloride | 61 u | 79-01-6 | Trichloroethene | 31 u |
| 75-00-3 | Chloroethane | 61 u | 124-48-1 | Dibromochloromethane | 31 u |
| 75-09-2 | Methylene Chloride | 31 u | 79-00-5 | 1,1,2-Trichloroethane | 31 u |
| 67-64-1 | Acetone | 61 u | 71-43-2 | Benzene | 31 u |
| 75-15-0 | Carbon Disulfide | 31 u | 10061-01-5 | cis-1,3-Dichloropropene | 31 u |
| 75-35-4 | 1,1-Dichloroethene | 31 u | 110-75-8 | 2-chloroethylvinylether | 61 u |
| 75-34-3 | 1,1-Dichloroethane | 31 u | 75-25-2 | Bromoform | 31 u |
| 156-60-5 | Trans-1,2-Dichloroethene | 31 u | 108-10-1 | 4-Methyl-2-Pentanone | 790 |
| 67-66-3 | Chloroform | 31 u | 591-78-6 | 2-Hexanone | 61 u |
| 107-06-2 | 1,2-Dichloroethane | 31 u | 127-18-4 | Tetrachloroethene | 31 u |
| 78-93-3 | 2-butanone | 1100 | 79-34-5 | 1,1,2,2-Tetrachloroethane | 31 u |
| 71-55-6 | 1,1,1-Trichloroethane | 31 u | 108-88-3 | Toluene | E |
| 56-23-5 | Carbon Tetrachloride | 31 u | 108-90-7 | Chlorobenzene | 31 u |
| 108-05-4 | Vinyl Acetate | 61 u | 100-41-4 | Ethylbenzene | 510 |
| 75-27-4 | Bromodichloromethane | 31 u | 100-42-5 | Styrene | 31 u |
| | | | | Total Xylenes | 1500 |

Data Reporting Qualifiers

Value If the result is a value greater than or equal to the detection limit, report the value.

u Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response factor is assumed, or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero. (e.g. 10J)

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

T Spectrum does not meet criteria for confirmation but does indicate compound presence.

NA Compound present in both matrix spike standard and unspiked sample.

Form I

E - Exceeds Linear Range of Standard Calibration Curve

Versar, Inc. Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

(Sample Number )
( SD61(1/100) )

ORGANICS ANALYSIS DATA SHEET (Page 1)

Laboratory Name: VERSAR
Lab Sample ID No: 42852
Sample Matrix: SOIL
Data Release Authorized By:

Case No: 4600 88297
QC Report No: 4600 88297
Contract No:
Date Sample Received: 12/09/87

VOLATILE COMPOUNDS

Concentration: LOW
Date Extracted/Prepared: 12/11/87
Date Analyzed: 12/11/87
Conc/Dil Factor: 100 pH NA
Percent Moisture: 18.5

| CAS Number | | ug/Kg | CAS Number | | ug/Kg |
|---|---|---|---|---|---|
| 74-87-3 | Chloromethane | 1200 u | 78-87-5 | 1,2-Dichloropropane | 610 u |
| 74-83-9 | Bromomethane | 1200 u | 10061-02-6 | trans-1,3-Dichloropropene | 610 u |
| 75-01-4 | Vinyl Chloride | 1200 u | 79-01-6 | Trichloroethene | 610 u |
| 75-00-3 | Chloroethane | 1200 u | 124-48-1 | Dibromochloromethane | 610 u |
| 75-09-2 | Methylene Chloride | 610 u | 79-00-5 | 1,1,2-Trichloroethane | 610 u |
| 67-64-1 | Acetone | 1200 u | 71-43-2 | Benzene | 610 u |
| 75-15-0 | Carbon Disulfide | 610 u | 10061-01-5 | cis-1,3-Dichloropropene | 610 u |
| 75-35-4 | 1,1-Dichloroethene | 610 u | 110-75-8 | 2-chloroethylvinylether | 1200 u |
| 75-34-3 | 1,1-Dichloroethane | 610 u | 75-25-2 | Bromoform | 610 u |
| 156-60-5 | Trans-1,2-Dichloroethene | 610 u | 108-10-1 | 4-Methyl-2-Pentanone | 1200 u |
| 67-66-3 | Chloroform | 610 u | 591-78-6 | 2-Hexanone | 1200 u |
| 107-06-2 | 1,2-Dichloroethane | 610 u | 127-18-4 | Tetrachloroethene | 610 u |
| 78-93-3 | 2-butanone | 1200 u | 79-34-5 | 1,1,2,2-Tetrachloroethane | 610 u |
| 71-55-6 | 1,1,1-Trichloroethane | 610 u | 108-88-3 | Toluene | 4300 |
| 56-23-5 | Carbon Tetrachloride | 610 u | 108-90-7 | Chlorobenzene | 610 u |
| 108-05-4 | Vinyl Acetate | 1200 u | 100-41-4 | Ethylbenzene | 610 u |
| 75-27-4 | Bromodichloromethane | 610 u | 100-42-5 | Styrene | 610 u |
| | | | | Total Xylenes | 610 u |

Data Reporting Qualifiers

Value If the result is a value greater than or equal to the detection limit, report the value.

u Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response factor is assumed, or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero. (e.g. 10J)

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

T Spectrum does not meet criteria for confirmation but does indicate compound presence.

NA Compound present in both matrix spike standard and unspiked sample.

Versar, Inc. Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

| Sample Number |
|---|
| SD-49 |

ORGANICS ANALYSIS DATA SHEET (Page 1)

Laboratory Name: VERSAR
Lab Sample ID No: 43334
Sample Matrix: SOIL
Data Release Authorized By:

Case No: 4600 SW303
QC Report No: 4600 SW303
Contract No:
Date Sample Received: 12/19/87

VOLATILE COMPOUNDS

Concentration: LOW
Date Extracted/Prepared: 12/21/87
Date Analyzed: 12/21/87
Conc/Dil Factor: 1 pH NR
Percent Moisture: 15.1

| CAS number | | ug/Kg | |
|---|---|---|---|
| 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 | 3 J | ✓ |
| 67-64-1 | Acetone | 52 | ✓ |
| 75-15-0 | Carbon Disulfide | 6 u | |
| 75-35-4 | 1,1-Dichloroethene | 6 u | |
| 75-34-3 | 1,1-Dichloroethane | 6 u | |
| 156-60-5 | Trans-1,2-Dichloroethene | 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 | |

| CAS number | | ug/Kg | |
|---|---|---|---|
| 78-87-5 | 1,2-Dichloropropane | 6 u | |
| 10061-02-6 | Trans-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 | |
| 10061-01-5 | cis-1,3-Dichloropropene | 6 u | |
| 110-75-8 | 2-chloroethylvinylether | 12 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 | 330 E | ✓ |
| 108-90-7 | Chlorobenzene | 6 u | |
| 100-41-4 | Ethylbenzene | 11 | ✓ |
| 100-42-5 | Styrene | 6 u | |
| | Total Xylenes | 16 | ✓ |

E AMOUNT DETECTED EXCEEDS LINEAR RANGE OF STANDARDS CALIBRATION CURVE.

Data Reporting Qualifiers

Value If the result is a value greater than or equal to the detection limit, report the value.

u Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response factor is assumed, or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero. (e.g. 10J)

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

T Spectrum does not meet criteria for confirmation but does indicate compound presence.

NR NOT REQUIRED

NA Compound present in both matrix spike standard and unspiked sample.

Form I

Versar Inc., Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

| SAMPLE ID |
|---|
| SD-49 |

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

| CAS Number | Compound Name | Fraction | RT or Scan | Estimated Concentration (ug/Kg or ug/l) |
|---|---|---|---|---|
| 11. | NO VOLATILES DETECTED | VOA | NA | NA |
| 12. | | | | |
| 13. | | | | |
| 14. | | | | |
| 15. | | | | |
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| 127. | | | | |
| 128. | | | | |
| 129. | | | | |
| 130. | | | | |

Versar, Inc. Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

| Sample Number |
|---|
| SD-49 DIL |

ORGANICS ANALYSIS DATA SHEET (Page 1)

Laboratory Name: VERSAR
Lab Sample ID No: 42224
Sample Matrix: SOIL
Data Release Authorized By:

Case No: 4600 PA202
QC Report No: 4600 PA202
Contract No:
Date Sample Received: 12/19/87

VOLATILE COMPOUNDS

Concentration: LOW
Date Extracted/Prepared: 12/22/87
Date Analyzed: 12/22/87
Conc/Dil Factor: 2 pH NR
Percent Moisture: 15.1

| CAS Number | | ug/Kg | CAS Number | | ug/Kg |
|---|---|---|---|---|---|
| 74-87-3 | Chloromethane | 24 u | 78-87-5 | 1,2-Dichloropropane | 12 u |
| 74-83-9 | Bromomethane | 24 u | 10061-02-6 | Trans-1,3-Dichloropropene | 12 u |
| 75-01-4 | Vinyl Chloride | 24 u | 79-01-6 | Trichloroethene | 12 u |
| 75-00-3 | Chloroethane | 24 u | 124-48-1 | Dibromochloromethane | 12 u |
| 75-09-2 | Methylene Chloride | 12 u | 79-00-5 | 1,1,2-Trichloroethane | 12 u |
| 67-64-1 | Acetone | 24 u | 71-43-2 | Benzene | 12 u |
| 75-15-0 | Carbon Disulfide | 12 u | 10061-01-5 | cis-1,3-Dichloropropene | 12 u |
| 75-35-4 | 1,1-Dichloroethene | 12 u | 110-75-8 | 2-chloroethylvinylether | 24 u |
| 75-34-3 | 1,1-Dichloroethane | 12 u | 75-25-2 | Bromoform | 12 u |
| 156-60-5 | Trans-1,2-Dichloroethene | 12 u | 108-10-1 | 4-Methyl-2-Pentanone | 24 u |
| 67-66-3 | Chloroform | 12 u | 591-78-6 | 2-Hexanone | 24 u |
| 107-06-2 | 1,2-Dichloroethane | 12 u | 127-18-4 | Tetrachloroethene | 12 u |
| 78-93-3 | 2-butanone | 24 u | 79-34-5 | 1,1,2,2-Tetrachloroethane | 12 u |
| 71-55-6 | 1,1,1-Trichloroethane | 12 u | 108-88-3 | Toluene | 69 |
| 56-23-5 | Carbon Tetrachloride | 12 u | 108-90-7 | Chlorobenzene | 12 u |
| 108-05-4 | Vinyl Acetate | 24 u | 100-41-4 | Ethylbenzene | 12 u |
| 75-27-4 | Bromodichloromethane | 12 u | 100-42-5 | Styrene | 12 u |
| | | | | Total Xylenes | 12 u |

Data Reporting Qualifiers

Value If the result is a value greater than or equal to the detection limit, report the value.

u Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response factor is assumed, or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero. (e.g. 10J)

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

T Spectrum does not meet criteria for confirmation but does indicate compound presence.

NR NOT REQUIRED

NA Compound present in both matrix spike standard and unspiked sample.

Form I

Versar Inc., Laboratory Operations
6850 Versar Center, Springfield VA 22151 ,(703) 750-3000

| SAMPLE ID |
|---|
| SD-49 DIL |

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

| | CAS Number | Compound Name | Fraction | RT or Scan | Estimated Concentration (ug/Kg or ug/l) |
|---|---|---|---|---|---|
| 11. | | NO VOLATILES DETECTED | VOA | NA | NA |
| 12. | | | | | |
| 13. | | | | | |
| 14. | | | | | |
| 15. | | | | | |
| 16. | | | | | |
| 17. | | | | | |
| 18. | | | | | |
| 19. | | | | | |
| 110. | | | | | |
| 111. | | | | | |
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| 117. | | | | | |
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| 119. | | | | | |
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| 122. | | | | | |
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| 124. | | | | | |
| 125. | | | | | |
| 126. | | | | | |
| 127. | | | | | |
| 128. | | | | | |
| 129. | | | | | |
| 130. | | | | | |

Versar, Inc. Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

| Sample Number |
|---|
| SD-50 |

ORGANICS ANALYSIS DATA SHEET (Page 1)

Laboratory Name: VERSAR
Lab Sample ID No: 4333E
Sample Matrix: SOIL
Data Release Authorized By:

Case No: 4600 SW303
QC Report No: 4600 SW303
Contract No:
Date Sample Received: 12/19/87

VOLATILE COMPOUNDS

Concentration: LOW
Date Extracted/Prepared: 12/21/87
Date Analyzed: 12/21/87
Conc/Dil Factor: 1 pH: NR
Percent Moisture: 14.4

| CAS Number | | ug/Kg | CAS Number | | ug/Kg |
|---|---|---|---|---|---|
| 74-87-3 | Chloromethane | 12 u | 78-87-5 | 1,2-Dichloropropane | 6 u |
| 74-83-9 | Bromomethane | 12 u | 10061-02-6 | Trans-1,3-Dichloropropene | 6 u |
| 75-01-4 | Vinyl Chloride | 12 u | 79-01-6 | Trichloroethene | 6 u |
| 75-00-3 | Chloroethane | 12 u | 124-48-1 | Dibromochloromethane | 6 u |
| 75-09-2 | Methylene Chloride | 6 u | 79-00-5 | 1,1,2-Trichloroethane | 6 u |
| 67-64-1 | Acetone | 54 | 71-43-2 | Benzene | 6 u |
| 75-15-0 | Carbon Disulfide | 6 u | 10061-01-5 | cis-1,3-Dichloropropene | 6 u |
| 75-35-4 | 1,1-Dichloroethene | 6 u | 110-75-8 | 2-chloroethylvinylether | 12 u |
| 75-34-3 | 1,1-Dichloroethane | 6 u | 75-25-2 | Bromoform | 6 u |
| 156-60-5 | Trans-1,2-Dichloroethene | 6 u | 108-10-1 | 4-Methyl-2-Pentanone | 12 u |
| 67-66-3 | Chloroform | 6 u | 591-78-6 | 2-Hexanone | 12 u |
| 107-06-2 | 1,2-Dichloroethane | 6 u | 127-18-4 | Tetrachloroethene | 6 u |
| 78-93-3 | 2-butanone | 12 u | 79-34-5 | 1,1,2,2-Tetrachloroethane | 6 u |
| 71-55-6 | 1,1,1-Trichloroethane | 6 u | 108-88-3 | Toluene | 310 E |
| 56-23-5 | Carbon Tetrachloride | 6 u | 108-90-7 | Chlorobenzene | 6 u |
| 108-05-4 | Vinyl Acetate | 12 u | 100-41-4 | Ethylbenzene | 6 J |
| 75-27-4 | Bromodichloromethane | 6 u | 100-42-5 | Styrene | 6 u |
| | | | | Total Xylenes | 6 u |

E - AMOUNT DETECTED EXCEEDS LINEAR RANGE OF STANDARDS CALIBRATION CURVE.

Data Reporting Qualifiers

Value If the result is a value greater than or equal to the detection limit, report the value.

u Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response factor is assumed, or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero. (e.g. 10J)

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

T Spectrum does not meet criteria for confirmation but does indicate compound presence.

NR NOT REQUIRED

NA Compound present in both matrix spike standard and unspiked sample.

Versar Inc., Laboratory Operations
6850 Versar Center, Springfield VA 22151 . (703) 750-3000

| SAMPLE ID |
|---|
| SD-50 |

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

| | CAS Number | Compound Name | Fraction | RT or Scan | Estimated Concentration (ug/Kg or ug/l) |
|---|---|---|---|---|---|
| 11. | | NO VOLATILES DETECTED | VOA | NA | NA |
| 12. | | | | | |
| 13. | | | | | |
| 14. | | | | | |
| 15. | | | | | |
| 16. | | | | | |
| 17. | | | | | |
| 18. | | | | | |
| 19. | | | | | |
| 110. | | | | | |
| 111. | | | | | |
| 112. | | | | | |
| 113. | | | | | |
| 114. | | | | | |
| 115. | | | | | |
| 116. | | | | | |
| 117. | | | | | |
| 118. | | | | | |
| 119. | | | | | |
| 120. | | | | | |
| 121. | | | | | |
| 122. | | | | | |
| 123. | | | | | |
| 124. | | | | | |
| 125. | | | | | |
| 126. | | | | | |
| 127. | | | | | |
| 128. | | | | | |
| 129. | | | | | |
| 130. | | | | | |

Versar, Inc. Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

| Sample Number |
|---|
| 50-50 DIL |

ORGANICS ANALYSIS DATA SHEET (Page 1)

Laboratory Name: VERSAR
Lab Sample ID No: [illegible]
Sample Matrix: SOIL
Data Release Authorized By:

Case No: 4600 [illegible]
QC Report No: 4600 [illegible]
Contract No:
Date Sample Received: 12/[illegible]/87

VOLATILE COMPOUNDS

Concentration: LOW
Date Extracted/Prepared: 12/22/87
Date Analyzed: 12/22/87
Comp/Dil Factor: 2 NR
Percent Moisture: 14.4

| CAS Number | | ug/Kg | CAS Number | | ug/Kg |
|---|---|---|---|---|---|
| 74-87-3 | Chloromethane | 23 u | 78-87-5 | 1,2-Dichloropropane | 12 u |
| 74-83-9 | Bromomethane | 23 u | 10061-02-6 | Trans-1,3-Dichloropropene | 12 u |
| 75-01-4 | Vinyl Chloride | 23 u | 79-01-6 | Trichloroethene | 12 u |
| 75-00-3 | Chloroethane | 23 u | 124-48-1 | Dibromochloromethane | 12 u |
| 75-09-2 | Methylene Chloride | 12 u | 79-00-5 | 1,1,2-Trichloroethane | 12 u |
| 67-64-1 | Acetone | 23 u | 71-43-2 | Benzene | 12 u |
| 75-15-0 | Carbon Disulfide | 12 u | 10061-01-5 | cis-1,3-Dichloropropene | 12 u |
| 75-35-4 | 1,1-Dichloroethene | 12 u | 110-75-8 | 2-chloroethylvinylether | 23 u |
| 75-34-3 | 1,1-Dichloroethane | 12 u | 75-25-2 | Bromoform | 12 u |
| 156-60-5 | Trans-1,2-Dichloroethene | 12 u | 108-10-1 | 4-Methyl-2-Pentanone | 23 u |
| 67-66-3 | Chloroform | 12 u | 591-78-6 | 2-Hexanone | 23 u |
| 107-06-2 | 1,2-Dichloroethane | 12 u | 127-18-4 | Tetrachloroethere | 12 u |
| 78-93-3 | 2-butanone | 23 u | 79-34-5 | 1,1,2,2-Tetrachloroethane | 12 u |
| 71-55-6 | 1,1,1-Trichloroethane | 12 u | 108-88-3 | Toluene | 19 |
| 56-23-5 | Carbon Tetrachloride | 12 u | 108-90-7 | Chlorobenzene | 12 u |
| 108-05-4 | Vinyl Acetate | 23 u | 100-41-4 | Ethylbenzene | 12 u |
| 75-27-4 | Bromodichloromethane | 12 u | 100-42-5 | Styrene | 12 u |
| | | | | Total Xylenes | 12 u |

Data Reporting Qualifiers

Value If the result is a value greater than or equal to the detection limit, report the value.

u Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response factor is assumed, or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero. (e.g. 10J)

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

T Spectrum does not meet criteria for confirmation but does indicate compound presence.

NR NOT REQUIRED

NA Compound present in both matrix spike standard and unspiked sample.

Form I

Versar Inc., Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

| SAMPLE ID |
|---|
| SD-50 DIL |

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

| CAS Number | Compound Name | Fraction | RT or Scan | Estimated Concentration (ug/Kg or ug/l) |
|---|---|---|---|---|
| 11. | NO VOLATILES DETECTED | VOA | NA | NA |
| 12. | | | | |
| 13. | | | | |
| 14. | | | | |
| 15. | | | | |
| 16. | | | | |
| 17. | | | | |
| 18. | | | | |
| 19. | | | | |
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| 128. | | | | |
| 129. | | | | |
| 130. | | | | |

Versar, Inc. Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

Sample Number
SD-51

ORGANICS ANALYSIS DATA SHEET

Laboratory Name: VERSAR
Lab Sample ID No: 43336
Sample Matrix: SOIL
Data Release Authorized By:

Case No: 4600 SW303
QC Report No: 4600 SW303
Contract No:
Date Sample Received: 12/19/87

VOLATILE COMPOUNDS

Concentration: LOW
Date Extracted/Prepared: 12/22/87
Date Analyzed: 12/22/87
Conc/Dil Factor: 1 or NR
Percent Moisture: 16.7

| CAS Number | | ug/Kg |
|---|---|---|
| 74-87-3 | Chloroethane | 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 | 6 u |
| 67-64-1 | Acetone | 9 J |
| 75-15-0 | Carbon Disulfide | 6 u |
| 75-35-4 | 1,1-Dichloroethene | 6 u |
| 75-34-3 | 1,1-Dichloroethane | 6 u |
| 156-60-5 | Trans-1,2-Dichloroethene | 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 |

| CAS Number | | ug/Kg |
|---|---|---|
| 78-87-5 | 1,2-Dichloropropane | 6 u |
| 10061-02-6 | Trans-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 |
| 10061-01-5 | cis-1,3-Dichloropropene | 6 u |
| 110-75-8 | 2-chloroethylvinylether | 12 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 | 25 |
| 108-90-7 | Chlorobenzene | 6 u |
| 100-41-4 | Ethylbenzene | 6 u |
| 100-42-5 | Styrene | 6 u |
| | Total Xylenes | 6 u |

Data Reporting Qualifiers

Value If the result is a value greater than or equal to the detection limit, report the value.

u Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response factor is assumed, or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero. (e.g. 10J)

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

T Spectrum does not meet criteria for confirmation but does indicate compound presence.

NR - NOT REQUIRED

NA Compound present in both matrix spike standard and unspiked sample.

Form I

Versar Inc., Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

| SAMPLE ID |
|---|
| SD-51 |

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

| CAS Number | Compound Name | Fraction | RT or Scan | Estimated Concentration (ug/Kg or ug/l) |
|---|---|---|---|---|
| 11. | NO VOLATILES DETECTED | VOA | NA | NA |
| 12. | | | | |
| 13. | | | | |
| 14. | | | | |
| 15. | | | | |
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| 130. | | | | |

**PONDS 1 AND 2**
**SURFACE WATER SAMPLES**

ORGANICS ANALYSIS DATA SHEETS
Versar Inc., ESM Operations

Volatile Compounds

| | | | | | |
|---|---|---|---|---|---|
| CLIENT SAMPLE ID: | 40334 | 40335 | 40336 | 40337 | 403 |
| | WS-1 | WS-2 | WS-3 | WS-4 | WS |
| LAB SAMPLE ID: | 4277 | 4278 | 4279 | 4280 | 42 |
| SAMPLE DATE: | | | | | |
| ANALYSIS DATE: | 10/19/87 | 10/19/87 | 10/19/87 | 10/19/87 | 10/19/ |
| FILE NAME: | 4277 | 4278 | 4279 | 4280 | 42 |
| INSTRUMENT ID: | MS-B | MS-B | MS-B | MS-B | MS |
| MATRIX: | WATER | WATER | WATER | WATER | WAT |
| UNITS: | UG/L | UG/L | UG/L | UG/L | UG |
| DILUTION FACTOR: | 1 | 1 | 1 | 1 | |
| COMPOUNDS | | | | | |
| Acetone | < 10 | < 10 | < 10 | < 10 | |
| Benzene | < 5 | < 5 | < 5 | < 5 | < |
| Bromodichloromethane | < 5 | < 5 | < 5 | < 5 | < |
| Bromoform | < 5 | < 5 | < 5 | < 5 | < |
| Bromomethane | < 10 | < 10 | < 10 | < 10 | < |
| 2-Butanone | < 10 | < 10 | < 10 | < 10 | < |
| Carbon Disulfide | < 5 | < 5 | < 5 | < 5 | < |
| Carbon Tetrachloride | < 5 | < 5 | < 5 | < 5 | < |
| Chlorobenzene | < 5 | < 5 | < 5 | < 5 | < |
| Chloroethane | < 10 | < 10 | < 10 | < 10 | < |
| 2-Chloroethylvinylether | < 10 | < 10 | < 10 | < 10 | < |
| Chloroform | < 5 | < 5 | < 5 | < 5 | < |
| Chloromethane | < 10 | < 10 | < 10 | < 10 | < |
| Dibromochloromethane | < 5 | < 5 | < 5 | < 5 | < |
| 1,2-Dichloroethane | < 5 | < 5 | < 5 | < 5 | < |
| 1,1-Dichloroethane | < 5 | < 5 | < 5 | < 5 | < |
| 1,1-Dichloroethene | < 5 | < 5 | < 5 | < 5 | < |
| 1,2-Dichloroethene (total) | < 5 | < 5 | < 5 | < 5 | < |
| 1,2-Dichloropropane | < 5 | < 5 | < 5 | < 5 | < |
| trans-1,3-Dichloropropene | < 5 | < 5 | < 5 | < 5 | < |
| cis-1,3-Dichloropropene | < 5 | < 5 | < 5 | < 5 | < |
| Ethylbenzene | < 5 | < 5 | < 5 | < 5 | < |
| 2-Hexanone | < 10 | < 10 | < 10 | < 10 | < 1 |
| 4-Methyl-2-pentanone | < 10 | < 10 | < 10 | < 10 | < 1 |
| Methylene Chloride | < 5 | < 5 | < 5 | < 5 | < |
| Styrene | < 5 | < 5 | < 5 | < 5 | < |
| 1,1,2,2-Tetrachloroethane | < 5 | < 5 | < 5 | < 5 | < |
| Tetrachloroethene | < 5 | < 5 | < 5 | < 5 | < |
| Toluene | < 5 | < 5 | < 5 | < 5 | < |
| 1,1,1-Trichloroethane | < 5 | < 5 | < 5 | < 5 | < |
| 1,1,2-Trichloroethane | < 5 | < 5 | < 5 | < 5 | < |
| Trichloroethene | < 5 | < 5 | < 5 | < 5 | < |
| Vinyl Acetate | < 10 | < 10 | < 10 | < 10 | < 1 |
| Vinyl Chloride | < 10 | < 10 | < 10 | < 10 | < 1 |
| Xylene (total) | < 5 | < 5 | < 5 | < 5 | < |

< - less than given quantitation level

ORGANICS ANALYSIS DATA SHEETS
Versar Inc., ESM Operations

Volatile Compounds

| | |
|---|---|
| CLIENT SAMPLE ID: | 40339 WS-6 |
| LAB SAMPLE ID: | 4282 |
| SAMPLE DATE: | |
| ANALYSIS DATE: | 10/19/87 |
| FILE NAME: | 4282 |
| INSTRUMENT ID: | MS-B |
| MATRIX: | WATER |
| UNITS: | UG/L |
| DILUTION FACTOR: | 1 |

| COMPOUNDS | |
|---|---|
| Acetone | < 10 |
| Benzene | < 5 |
| Bromodichloromethane | < 5 |
| Bromoform | < 5 |
| Bromomethane | < 10 |
| 2-Butanone | < 10 |
| Carbon Disulfide | < 5 |
| Carbon Tetrachloride | < 5 |
| Chlorobenzene | < 5 |
| Chloroethane | < 10 |
| 2-Chloroethylvinylether | < 10 |
| Chloroform | < 5 |
| Chloromethane | < 10 |
| Dibromochloromethane | < 5 |
| 1,2-Dichloroethane | < 5 |
| 1,1-Dichloroethane | < 5 |
| 1,1-Dichloroethene | < 5 |
| 1,2-Dichloroethene (total) | < 5 |
| 1,2-Dichloropropane | < 5 |
| trans-1,3-Dichloropropene | < 5 |
| cis-1,3-Dichloropropene | < 5 |
| Ethylbenzene | < 5 |
| 2-Hexanone | < 10 |
| 4-Methyl-2-pentanone | < 10 |
| Methylene Chloride | < 5 |
| Styrene | < 5 |
| 1,1,2,2-Tetrachloroethane | < 5 |
| Tetrachloroethene | < 5 |
| Toluene | < 5 |
| 1,1,1-Trichloroethane | < 5 |
| 1,1,2-Trichloroethane | < 5 |
| Trichloroethene | < 5 |
| Vinyl Acetate | < 10 |
| Vinyl Chloride | < 10 |
| Xylene (total) | < 5 |



< = less than given quantitation level

Versar Inc., Laboratory Operations
6850 Versar Center, Springfield VA 22151 703/750-3000

| Sample Number |
|---|
| IN-1 |

Case No: 4600 B0257

ORGANICS ANALYSIS DATA SHEET (Page 2)
Semivolatile Compounds

Concentration: LOW

Date Extracted/Prepared: 10/21/87

Date Analyzed: 11/10/87

Conc/Dil Factor: 1

GPC Cleanup [ ]Yes [ ]No

Separatory Funnel Extraction [ ]Yes

Continuous Liquid-Liquid Extraction [X]Yes

| CAS Number | | ug/l |
|---|---|---|
| 108-95-2 | Phenol | 10 u |
| 111-44-4 | bis(2-Chloroethyl)Ether | 10 u |
| 95-57-8 | 2-Chlorophenol | 10 u |
| 541-73-1 | 1,3-Dichlorobenzene | 10 u |
| 106-46-7 | 1,4-Dichlorobenzene | 10 u |
| 100-51-6 | Benzyl Alcohol | 10 u |
| 95-50-1 | 1,2-Dichlorobenzene | 10 u |
| 95-48-7 | 2-Methylphenol | 10 u |
| 39638-32-9 | bis(2-chloroisopropyl)ether | 10 u |
| 106-44-5 | 4-methylphenol | 10 u |
| 621-64-7 | N-Nitroso-Di-n-propylamine | 10 u |
| 67-72-1 | Hexachloroethane | 10 u |
| 98-95-3 | Nitrobenzene | 10 u |
| 78-59-1 | Isophorone | 10 u |
| 88-75-5 | 2-Nitrophenol | 10 u |
| 105-67-9 | 2,4-dimethylphenol | 10 u |
| 65-85-0 | Benzoic Acid | 50 u |
| 111-91-1 | bis(2-chloroethoxy)methane | 10 u |
| 120-83-2 | 2,4-dichlorophenol | 10 u |
| 120-82-1 | 1,2,4-trichlorobenzene | 10 u |
| 91-20-3 | Naphthalene | 10 u |
| 106-47-8 | 4-Chloroaniline | 10 u |
| 87-68-3 | Hexachlorobutadiene | 10 u |
| 59-50-7 | 4-chloro-3-methylphenol | 10 u |
| 91-57-6 | 2-methylnaphthalene | 10 u |
| 77-47-4 | Hexachlorocyclopentadiene | 10 u |
| 88-06-2 | 2,4,6-Trichlorophenol | 10 u |
| 95-95-4 | 2,4,5-Trichlorophenol | 50 u |
| 91-58-7 | 2-Chloronaphthalene | 10 u |
| 88-74-4 | 2-Nitroaniline | 50 u |
| 131-11-3 | Dimethyl Phthalate | 10 u |
| 208-96-8 | Acenaphthylene | 10 u |
| 99-09-2 | 3-Nitroaniline | 50 u |

| CAS Number | | ug/l |
|---|---|---|
| 83-32-9 | Acenaphthene | 10 u |
| 51-28-5 | 2,4-Dinitrophenol | 50 u |
| 100-02-7 | 4-Nitrophenol | 50 u |
| 132-64-9 | Dibenzofuran | 10 u |
| 121-14-2 | 2,4-Dinitrotoluene | 10 u |
| 606-20-2 | 2,6-Dinitrotoluene | 10 u |
| 84-66-2 | Diethylphthalate | 10 u |
| 7005-22-3 | 4-Chlorophenyl-phenylether | 10 u |
| 86-73-7 | Fluorene | 10 u |
| 100-01-6 | 4-Nitroaniline | 50 u |
| 534-52-1 | 4,6-dinitro-2-methylphenol | 50 u |
| 86-30-6 | N-Nitrosodiphenylamine (1) | 10 u |
| 101-55-3 | 4-Bromophenyl-phenylether | 10 u |
| 118-74-1 | Hexachlorobenzene | 10 u |
| 87-86-5 | Pentachlorophenol | 50 u |
| 85-01-8 | Phenanthrene | 10 u |
| 120-12-7 | Anthracene | 10 u |
| 84-74-2 | Di-n-butylphthalate | 10 u |
| 206-44-0 | Fluoranthene | 10 u |
| 129-00-0 | Pyrene | 10 u |
| 85-68-7 | Butylbenzylphthalate | 10 u |
| 91-94-1 | 3,3'-Dichlorobenzidine | 20 u |
| 56-55-3 | Benzo(a)anthracene | 10 u |
| 117-81-7 | bis(2-Ethylhexyl)Phthalate | 10 u |
| 218-01-9 | Chrysene | 10 u |
| 117-84-0 | Di-n-Octylphthalate | 10 u |
| 205-99-2 | Benzo(b)Fluoranthene | 10 u |
| 207-08-9 | Benzo(k)Fluoranthene | 10 u |
| 50-32-8 | Benzo(a)pyrene | 10 u |
| 193-39-5 | Indeno(1,2,3-cd)Pyrene | 10 u |
| 53-70-3 | Dibenz(a,h)Anthracene | 10 u |
| 191-24-2 | Benzo(g,h,i)Perylene | 10 u |

(1)-Cannot be separated from diphenylamine

Versar Inc., Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

| SAMPLE ID |
|---|
| IW-1 |

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

| | CAS Number | Compound Name | Fraction | RT or Scan | Estimated Concentration (ug/Kg or ug/l) |
|---|---|---|---|---|---|
| 11. | | UNKNOWN 2-METHYL CYCLOPENTANOL ISOMER | BNA | 517 | 320 J |
| 12. | | UNKNOWN | BNA | 724 | 9 J |
| 13. | | UNKNOWN | BNA | 727 | 9 J |
| 14. | | UNKNOWN | BNA | 736 | 9 J |
| 15. | | UNKNOWN | BNA | 1704 | 260 J |
| 16. | | | | | |
| 17. | | | | | |
| 18. | | | | | |
| 19. | | | | | |
| 110. | | | | | |
| 111. | | | | | |
| 112. | | | | | |
| 113. | | | | | |
| 114. | | | | | |
| 115. | | | | | |
| 116. | | | | | |
| 117. | | | | | |
| 118. | | | | | |
| 119. | | | | | |
| 120. | | | | | |
| 121. | | | | | |
| 122. | | | | | |
| 123. | | | | | |
| 124. | | | | | |
| 125. | | | | | |
| 126. | | | | | |
| 127. | | | | | |
| 128. | | | | | |
| 129. | | | | | |
| 130. | | | | | |

Versar Inc. Laboratory Operations
6850 Versar Center, Springfield Va. 22151
(703) 750-3000

| Sample Number |
|---|
| 40334 |

ORGANICS ANALYSIS DATA SHEET
(Page 3)

W-1

Pesticides/PCBs

Concentration: Low Medium (circle one)

GPC Cleanup [ ] Yes [X] No

Date Extracted/Prepared: 10-20-87

Separatory Funnel Extration [ ] Yes

Date Analyzed: 11-19-87

Continuous Liquid-Liquid Extraction [X] Yes [ ] No

Conc/Dil Factor 1.00

Percent Moisture(decanted) 0.00

| CAS Number | | ug/l |
|---|---|---|
| 319-84-6 | alpha-BHC | 0.05 u |
| 319-85-7 | beta-BHC | 0.05 u |
| 319-86-8 | delta-BHC | 0.05 u |
| 58-89-9 | gamma-BHC (Lindane) | 0.05 u |
| 76-44-8 | Heptachlor | 0.05 u |
| 309-00-2 | Aldrin | 0.05 u |
| 1024-57-3 | Heptachlor Epoxide | 0.05 u |
| 959-98-8 | Endosulfan I | 0.05 u |
| 60-57-1 | Dieldrin | 0.10 u |
| 72-55-9 | 4,4'-DDE | 0.10 u |
| 72-20-8 | Endrin | 0.10 u |
| 33213-65-9 | Endosulfan II | 0.10 u |
| 72-54-8 | 4,4'-DDD | 0.10 u |
| 1031-07-8 | Endosulfan Sulfate | 0.10 u |
| 50-29-3 | 4,4'-DDT | 0.10 u |
| 72-43-5 | Methoxychlor | 0.10 u |
| 53494-70-5 | Endrin Ketone | 0.10 u |
| 57-74-9 | Chlordane | 0.50 u |
| 8001-35-2 | Toxaphene | 1.0 u |
| 12674-11-2 | Aroclor-1016 | 0.50 u |
| 11104-28-2 | Aroclor-1221 | 0.50 u |
| 11141-16-5 | Aroclor-1232 | 0.50 u |
| 53469-21-9 | Aroclor-1242 | 0.50 u |
| 12672-29-6 | Aroclor-1248 | 0.50 u |
| 11097-69-1 | Aroclor-1254 | 1.0 u |
| 11096-82-5 | Aroclor-1260 | 1.0 u |

Vi = Volume of extract injected (ul)
Vs = Volume of Water Extracted (ml)
Ws = Weight of sample extracted (g)
Vt = Volume of total extract (ul)

Vs 1000.00 or Ws Vt 10000 Vi 2.00

S. Zoufahar
11-23-87

Versar Inc., Laboratory Operations
6850 Versar Center, Springfield VA 22151 703/750-3000

Case No: 4000 B0257

| Sample Number |
|---|
| IW-2 |

ORGANICS ANALYSIS DATA SHEET (Page 2)
Semivolatile Compounds

Concentration: LOW

Date Extracted/Prepared: 10/21/87

Date Analyzed: 11/10/87

Conc/Dil Factor: 1

GPC Cleanup [ ]Yes [ ]No

Separatory Funnel Extraction [ ]Yes

Continuous Liquid-Liquid Extraction [X]Yes

| CAS Number | | ug/l |
|---|---|---|
| 108-95-2 | Phenol | 10 u |
| 111-44-4 | bis(2-Chloroethyl)Ether | 10 u |
| 95-57-8 | 2-Chlorophenol | 10 u |
| 541-73-1 | 1,3-Dichlorobenzene | 10 u |
| 106-46-7 | 1,4-Dichlorobenzene | 10 u |
| 100-51-6 | Benzyl Alcohol | 10 u |
| 95-50-1 | 1,2-Dichlorobenzene | 10 u |
| 95-48-7 | 2-Methylphenol | 10 u |
| 39638-32-9 | bis(2-chloroisopropyl)ether | 10 u |
| 106-44-5 | 4-methylphenol | 10 u |
| 621-64-7 | N-Nitroso-Di-n-propylamine | 10 u |
| 67-72-1 | Hexachloroethane | 10 u |
| 98-95-3 | Nitrobenzene | 10 u |
| 78-59-1 | Isophorone | 10 u |
| 88-75-5 | 2-Nitrophenol | 10 u |
| 105-67-9 | 2,4-dimethylphenol | 10 u |
| 65-85-0 | Benzoic Acid | 50 u |
| 111-91-1 | bis(2-chloroethoxy)methane | 10 u |
| 120-83-2 | 2,4-dichlorophenol | 10 u |
| 120-82-1 | 1,2,4-trichlorobenzene | 10 u |
| 91-20-3 | Naphthalene | 10 u |
| 106-47-8 | 4-Chloroaniline | 10 u |
| 87-68-3 | Hexachlorobutadiene | 10 u |
| 59-50-7 | 4-chloro-3-methylphenol | 10 u |
| 91-57-6 | 2-methylnaphthalene | 10 u |
| 77-47-4 | Hexachlorocyclopentadiene | 10 u |
| 88-06-2 | 2,4,6-Trichlorophenol | 10 u |
| 95-95-4 | 2,4,5-Trichlorophenol | 50 u |
| 91-58-7 | 2-Chloronaphthalene | 10 u |
| 88-74-4 | 2-Nitroaniline | 50 u |
| 131-11-3 | Dimethyl Phthalate | 10 u |
| 208-96-8 | Acenaphthylene | 10 u |
| 99-09-2 | 3-Nitroaniline | 50 u |

| CAS Number | | ug/l |
|---|---|---|
| 83-32-9 | Acenaphthene | 10 u |
| 51-28-5 | 2,4-Dinitrophenol | 50 u |
| 100-02-7 | 4-Nitrophenol | 50 u |
| 132-64-9 | Dibenzofuran | 10 u |
| 121-14-2 | 2,4-Dinitrotoluene | 10 u |
| 606-20-2 | 2,6-Dinitrotoluene | 10 u |
| 84-66-2 | Diethylphthalate | 10 u |
| 7005-82-3 | 4-Chlorophenyl-phenylether | 10 u |
| 86-73-7 | Fluorene | 10 u |
| 100-01-6 | 4-Nitroaniline | 50 u |
| 534-52-1 | 4,6-dinitro-2-methylphenol | 50 u |
| 86-30-6 | N-Nitrosodiphenylamine (1) | 10 u |
| 101-55-3 | 4-Bromophenyl-phenylether | 10 u |
| 118-74-1 | Hexachlorobenzene | 10 u |
| 87-86-5 | Pentachlorophenol | 50 u |
| 85-01-8 | Phenanthrene | 10 u |
| 120-12-7 | Anthracene | 10 u |
| 84-74-2 | Di-n-butylphthalate | 10 u |
| 206-44-0 | Fluoranthene | 10 u |
| 129-00-0 | Pyrene | 10 u |
| 85-68-7 | Butylbenzylphthalate | 10 u |
| 91-94-1 | 3,3'-Dichlorobenzidine | 20 u |
| 56-55-3 | Benzo(a)anthracene | 10 u |
| 117-81-7 | bis(2-Ethylhexyl)Phthalate | 10 u |
| 218-01-9 | Chrysene | 10 u |
| 117-84-0 | Di-n-Octylphthalate | 10 u |
| 205-99-2 | Benzo(b)Fluoranthene | 10 u |
| 207-08-9 | Benzo(k)Fluoranthene | 10 u |
| 50-32-8 | Benzo(a)pyrene | 10 u |
| 193-39-5 | Indeno(1,2,3-cd)Pyrene | 10 u |
| 53-70-3 | Dibenz(a,h)Anthracene | 10 u |
| 191-24-2 | Benzo(g,h,i)Perylene | 10 u |

(1)-Cannot be separated from diphenylamine

BNAF1:R032286

Form I

Versar Inc., Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

| SAMPLE ID |
|---|
| IW-2 |

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

| | CAS Number | Compound Name | Fraction | RT or Scan | Estimated Concentration (ug/Kg or ug/l) |
|---|---|---|---|---|---|
| 11. | | UNKNOWN | BNA | 515 | 55 J |
| 12. | | UNKNOWN | BNA | 725 | 10 J |
| 13. | | UNKNOWN | BNA | 727 | 10 J |
| 14. | | UNKNOWN | BNA | 1704 | 270 J |
| 15. | | | | | |
| 16. | | | | | |
| 17. | | | | | |
| 18. | | | | | |
| 19. | | | | | |
| 110. | | | | | |
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| 127. | | | | | |
| 128. | | | | | |
| 129. | | | | | |
| 130. | | | | | |

Versar Inc. Laboratory Operations
6850 Versar Center, Springfield Va. 22151
(703) 750-3000

| Sample Number |
|---|
| 40335 |
| W-2 |

ORGANICS ANALYSIS DATA SHEET
(Page 3)

Pesticides/PCBs

Concentration: (Low) Medium (circle one)

GPC Cleanup [ ] Yes [X] No

Date Extracted/Prepared: 10-20-87

Separatory Funnel Extration [ ] Yes

Date Analyzed: 11-18-87

Continuous Liquid-Liquid Extraction [X] Yes [ ] No

Conc/Dil Factor 1.00

Percent Moisture(decanted) 0.00

| CAS Number | | ug/l |
|---|---|---|
| 319-84-6 | alpha-BHC | 0.05 u |
| 319-85-7 | beta-BHC | 0.05 u |
| 319-86-8 | delta-BHC | 0.05 u |
| 58-89-9 | gamma-BHC (Lindane) | 0.05 u |
| 76-44-8 | Heptachlor | 0.05 u |
| 309-00-2 | Aldrin | 0.05 u |
| 1024-57-3 | Heptachlor Epoxide | 0.05 u |
| 959-98-8 | Endosulfan I | 0.05 u |
| 60-57-1 | Dieldrin | 0.10 u |
| 72-55-9 | 4,4'-DDE | 0.10 u |
| 72-20-8 | Endrin | 0.10 u |
| 33213-65-9 | Endosulfan II | 0.10 u |
| 72-54-8 | 4,4'-DDD | 0.10 u |
| 1031-07-8 | Endosulfan Sulfate | 0.10 u |
| 50-29-3 | 4,4'-DDT | 0.10 u |
| 72-43-5 | Methoxychlor | 0.10 u |
| 53494-70-5 | Endrin Ketone | 0.10 u |
| 57-74-9 | Chlordane | 0.50 u |
| 8001-35-2 | Toxaphene | 1.0 u |
| 12674-11-2 | Aroclor-1016 | 0.50 u |
| 11104-28-2 | Aroclor-1221 | 0.50 u |
| 11141-16-5 | Aroclor-1232 | 0.50 u |
| 53469-21-9 | Aroclor-1242 | 0.50 u |
| 12672-29-6 | Aroclor-1248 | 0.50 u |
| 11097-69-1 | Aroclor-1254 | 1.0 u |
| 11096-82-5 | Aroclor-1260 | 1.0 u |

S. Zuspehn
11-23-87

Vi = Volume of extract injected (ul)
Vs = Volume of Water Extracted (ml)
Ws = Weight of sample extracted (g)
Vt = Volume of total extract (ul)

Vs 1000.00 or Ws _____ Vt 10000 Vi 2.00

Versar Inc., Laboratory Operations
6850 Versar Center, Springfield VA 22151 703/750-3000

| Sample Number |
|---|
| W-3 |

Case No: 4600 B0257

ORGANICS ANALYSIS DATA SHEET (Page 2)
Semivolatile Compounds

Concentration: LOW

Date Extracted/Prepared: 10/21/87

Date Analyzed: 11/13/87

Conc/Dil Factor: 1

GPC Cleanup [ ]Yes [ ]No

Separatory Funnel Extraction [ ]Yes

Continuous Liquid-Liquid Extraction [X]Yes

| CAS Number | | ug/l |
|---|---|---|
| 108-95-2 | Phenol | 10 u |
| 111-44-4 | bis(2-Chloroethyl)Ether | 10 u |
| 95-57-8 | 2-Chlorophenol | 10 u |
| 541-73-1 | 1,3-Dichlorobenzene | 10 u |
| 106-46-7 | 1,4-Dichlorobenzene | 10 u |
| 100-51-6 | Benzyl Alcohol | 10 u |
| 95-50-1 | 1,2-Dichlorobenzene | 10 u |
| 95-48-7 | 2-Methylphenol | 10 u |
| 39638-32-9 | bis(2-chloroisopropyl)ether | 10 u |
| 106-44-5 | 4-methylphenol | 10 u |
| 621-64-7 | N-Nitroso-Di-n-propylamine | 10 u |
| 67-72-1 | Hexachloroethane | 10 u |
| 98-95-3 | Nitrobenzene | 10 u |
| 78-59-1 | Isophorone | 10 u |
| 88-75-5 | 2-Nitrophenol | 10 u |
| 105-67-9 | 2,4-dimethylphenol | 10 u |
| 65-85-0 | Benzoic Acid | 50 u |
| 111-91-1 | bis(2-chloroethoxy)methane | 10 u |
| 120-83-2 | 2,4-dichlorophenol | 10 u |
| 120-82-1 | 1,2,4-trichlorobenzene | 10 u |
| 91-20-3 | Naphthalene | 10 u |
| 106-47-8 | 4-Chloroaniline | 10 u |
| 87-68-3 | Hexachlorobutadiene | 10 u |
| 59-50-7 | 4-chloro-3-methylphenol | 10 u |
| 91-57-6 | 2-methylnaphthalene | 10 u |
| 77-47-4 | Hexachlorocyclopentadiene | 10 u |
| 88-06-2 | 2,4,6-Trichlorophenol | 10 u |
| 95-95-4 | 2,4,5-Trichlorophenol | 50 u |
| 91-58-7 | 2-Chloronaphthalene | 10 u |
| 88-74-4 | 2-Nitroaniline | 50 u |
| 131-11-3 | Dimethyl Phthalate | 10 u |
| 208-96-8 | Acenaphthylene | 10 u |
| 99-09-2 | 3-Nitroaniline | 50 u |

| CAS Number | | ug/l |
|---|---|---|
| 83-32-9 | Acenaphthene | 10 u |
| 51-28-5 | 2,4-Dinitrophenol | 50 u |
| 100-02-7 | 4-Nitrophenol | 50 u |
| 132-64-9 | Dibenzofuran | 10 u |
| 121-14-2 | 2,4-Dinitrotoluene | 10 u |
| 606-20-2 | 2,6-Dinitrotoluene | 10 u |
| 84-66-2 | Diethylphthalate | 10 u |
| 7005-22-3 | 4-Chlorophenyl-phenylether | 10 u |
| 86-73-7 | Fluorene | 10 u |
| 100-01-6 | 4-Nitroaniline | 50 u |
| 534-52-1 | 4,6-dinitro-2-methylphenol | 50 u |
| 86-30-6 | N-Nitrosodiphenylamine (1) | 10 u |
| 101-55-3 | 4-Bromophenyl-phenylether | 10 u |
| 118-74-1 | Hexachlorobenzene | 10 u |
| 87-86-5 | Pentachlorophenol | 50 u |
| 85-01-8 | Phenanthrene | 10 u |
| 120-12-7 | Anthracene | 10 u |
| 84-74-2 | Di-n-butylphthalate | 10 u |
| 206-44-0 | Fluoranthene | 10 u |
| 129-00-0 | Pyrene | 10 u |
| 85-68-7 | Butylbenzylphthalate | 10 u |
| 91-94-1 | 3,3'-Dichlorobenzidine | 20 u |
| 56-55-3 | Benzo(a)anthracene | 10 u |
| 117-81-7 | bis(2-Ethylhexyl)Phthalate | 10 u |
| 218-01-9 | Chrysene | 10 u |
| 117-84-0 | Di-n-Octylphthalate | 10 u |
| 205-99-2 | Benzo(b)Fluoranthene | 10 u |
| 207-08-9 | Benzo(k)Fluoranthene | 10 u |
| 50-32-8 | Benzo(a)pyrene | 10 u |
| 193-39-5 | Indeno(1,2,3-cd)Pyrene | 10 u |
| 53-70-3 | Dibenz(a,h)Anthracene | 10 u |
| 191-24-2 | Benzo(g,h,i)Perylene | 10 u |

(1)-Cannot be separated from diphenylamine

Versar Inc., Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

| SAMPLE ID |
|---|
| IW-3 |

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

| | CAS Number | Compound Name | Fraction | RT or Scan | Estimated Concentration (ug/Kg or ug/l) |
|---|---|---|---|---|---|
| 11. | | UNKNOWN | BNA | 718 | 9 J |
| 12. | | UNKNOWN | BNA | 720 | 10 J |
| 13. | | UNKNOWN | BNA | 1695 | 390 J |
| 14. | | | | | |
| 15. | | | | | |
| 16. | | | | | |
| 17. | | | | | |
| 18. | | | | | |
| 19. | | | | | |
| 110. | | | | | |
| 111. | | | | | |
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| 128. | | | | | |
| 129. | | | | | |
| 130. | | | | | |

Versar Inc. Laboratory Operations
6850 Versar Center, Springfield Va. 22151
(703) 750-3000

| Sample Number |
|---|
| 40336 |
| W-3 |

ORGANICS ANALYSIS DATA SHEET
(Page 3)

Pesticides/PCBs

Concentration: Low Medium (circle one)

GPC Cleanup [ ] Yes [X] No

Date Extracted/Prepared: 10-20-87

Separatory Funnel Extration [ ] Yes

Date Analyzed: 11-18-87

Continuous Liquid-Liquid Extraction [X] Yes [ ] No

Conc/Dil Factor 1.00

Percent Moisture(decanted) 0.00

| CAS Number | | ug/l |
|---|---|---|
| 319-84-6 | alpha-BHC | 0.05 u |
| 319-85-7 | beta-BHC | 0.05 u |
| 319-86-8 | delta-BHC | 0.05 u |
| 58-89-9 | gamma-BHC (Lindane) | 0.05 u |
| 76-44-8 | Heptachlor | 0.05 u |
| 309-00-2 | Aldrin | 0.05 u |
| 11024-57-3 | Heptachlor Epoxide | 0.05 u |
| 1959-98-8 | Endosulfan I | 0.05 u |
| 60-57-1 | Dieldrin | 0.10 u |
| 72-55-9 | 4,4'-DDE | 0.10 u |
| 72-20-8 | Endrin | 0.10 u |
| 33213-65-9 | Endosulfan II | 0.10 u |
| 72-54-8 | 4,4'-DDD | 0.10 u |
| 1031-07-8 | Endosulfan Sulfate | 0.10 u |
| 50-29-3 | 4,4'-DDT | 0.10 u |
| 72-43-5 | Methoxychlor | 0.10 u |
| 53494-70-5 | Endrin Ketone | 0.10 u |
| 57-74-9 | Chlordane | 0.50 u |
| 8001-35-2 | Toxaphene | 1.0 u |
| 12674-11-2 | Aroclor-1016 | 0.50 u |
| 11104-28-2 | Aroclor-1221 | 0.50 u |
| 11141-16-5 | Aroclor-1232 | 0.50 u |
| 53469-21-9 | Aroclor-1242 | 0.50 u |
| 12672-29-6 | Aroclor-1248 | 0.50 u |
| 11097-69-1 | Aroclor-1254 | 1.0 u |
| 11096-82-5 | Aroclor-1260 | 1.0 u |

S. Jonathan
11-23-87

Vi = Volume of extract injected (ul)
Vs = Volume of Water Extracted (ml)
Ws = Weight of sample extracted (g)
Vt = Volume of total extract (ul)

Vs 1000.00 or Ws _____ Vt 10000 Vi 2.00

Versar Inc., Laboratory Operations
6850 Versar Center, Springfield VA 22151 703/750-3000

| Sample Number |
|---|
| IW-4 |

Case No: 4600 B0257

ORGANICS ANALYSIS DATA SHEET (Page 2)
Semivolatile Compounds

Concentration: LOW

Date Extracted/Prepared: 10/21/87

Date Analyzed: 11/13/87

Conc/Dil Factor: 1

GPC Cleanup [ ]Yes [ ]No

Separatory Funnel Extraction [ ]Yes

Continuous Liquid-Liquid Extraction [X]Yes

| CAS Number | | ug/l |
|---|---|---|
| 108-95-2 | Phenol | 10 u |
| 111-44-4 | bis(2-Chloroethyl)Ether | 10 u |
| 95-57-8 | 2-Chlorophenol | 10 u |
| 541-73-1 | 1,3-Dichlorobenzene | 10 u |
| 106-46-7 | 1,4-Dichlorobenzene | 10 u |
| 100-51-6 | Benzyl Alcohol | 10 u |
| 95-50-1 | 1,2-Dichlorobenzene | 10 u |
| 95-48-7 | 2-Methylphenol | 10 u |
| 39638-32-9 | bis(2-chloroisopropyl)ether | 10 u |
| 106-44-5 | 4-methylphenol | 10 u |
| 621-64-7 | N-Nitroso-Di-n-propylamine | 10 u |
| 67-72-1 | Hexachloroethane | 10 u |
| 98-95-3 | Nitrobenzene | 10 u |
| 78-59-1 | Isophorone | 10 u |
| 88-75-5 | 2-Nitrophenol | 10 u |
| 105-67-9 | 2,4-dimethylphenol | 10 u |
| 65-85-0 | Benzoic Acid | 50 u |
| 111-91-1 | bis(2-chloroethoxy)methane | 10 u |
| 120-83-2 | 2,4-dichlorophenol | 10 u |
| 120-82-1 | 1,2,4-trichlorobenzene | 10 u |
| 91-20-3 | Naphthalene | 10 u |
| 106-47-8 | 4-Chloroaniline | 10 u |
| 87-68-3 | Hexachlorobutadiene | 10 u |
| 59-50-7 | 4-chloro-3-methylphenol | 10 u |
| 91-57-6 | 2-methylnaphthalene | 10 u |
| 77-47-4 | Hexachlorocyclopentadiene | 10 u |
| 88-06-2 | 2,4,6-Trichlorophenol | 10 u |
| 95-95-4 | 2,4,5-Trichlorophenol | 50 u |
| 91-58-7 | 2-Chloronaphthalene | 10 u |
| 88-74-4 | 2-Nitroaniline | 50 u |
| 131-11-3 | Dimethyl Phthalate | 10 u |
| 208-96-8 | Acenaphthylene | 10 u |
| 99-09-2 | 3-Nitroaniline | 50 u |

| CAS Number | | ug/l |
|---|---|---|
| 83-32-9 | Acenaphthene | 10 u |
| 51-28-5 | 2,4-Dinitrophenol | 50 u |
| 100-02-7 | 4-Nitrophenol | 50 u |
| 132-64-9 | Dibenzofuran | 10 u |
| 121-14-2 | 2,4-Dinitrotoluene | 10 u |
| 606-20-2 | 2,6-Dinitrotoluene | 10 u |
| 84-66-2 | Diethylphthalate | 10 u |
| 7005-22-3 | 4-Chlorophenyl-phenylether | 10 u |
| 86-73-7 | Fluorene | 10 u |
| 100-01-6 | 4-Nitroaniline | 50 u |
| 534-52-1 | 4,6-dinitro-2-methylphenol | 50 u |
| 86-30-6 | N-Nitrosodiphenylamine (1) | 10 u |
| 101-55-3 | 4-Bromophenyl-phenylether | 10 u |
| 118-74-1 | Hexachlorobenzene | 10 u |
| 87-86-5 | Pentachlorophenol | 50 u |
| 85-01-8 | Phenanthrene | 10 u |
| 120-12-7 | Anthracene | 10 u |
| 84-74-2 | Di-n-butylphthalate | 10 u |
| 206-44-0 | Fluoranthene | 10 u |
| 129-00-0 | Pyrene | 10 u |
| 85-68-7 | Butylbenzylphthalate | 10 u |
| 91-94-1 | 3,3'-Dichlorobenzidine | 20 u |
| 56-55-3 | Benzo(a)anthracene | 10 u |
| 117-81-7 | bis(2-Ethylhexyl)Phthalate | 10 u |
| 218-01-9 | Chrysene | 10 u |
| 117-84-0 | Di-n-Octylphthalate | 10 u |
| 205-99-2 | Benzo(b)Fluoranthene | 10 u |
| 207-08-9 | Benzo(k)Fluoranthene | 10 u |
| 50-32-8 | Benzo(a)pyrene | 10 u |
| 193-39-5 | Indeno(1,2,3-cd)Pyrene | 10 u |
| 53-70-3 | Dibenz(a,h)Anthracene | 10 u |
| 191-24-2 | Benzo(g,h,i)Perylene | 10 u |

(1)-Cannot be separated from diphenylamine

Versar Inc., Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

| SAMPLE ID |
|---|
| W-4 |

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

| CAS Number | Compound Name | Fraction | RT or Scan | Estimated Concentration (ug/Kg or ug/l) |
|---|---|---|---|---|
| 11 | UNKNOWN | BNA | 521 | 19 J |
| 12 | 126-30-7 1,3-PROPANEDIOL, 2,2-DIMETHYL- | BNA | 578 | 37 J |
| 13 | UNKNOWN | BNA | 652 | 8 J |
| 14 | 556-67-2 CYCLOTETRASILOXANE, OCTAMETHYL- | BNA | 663 | 11 J |
| 15 | UNKNOWN | BNA | 699 | 11 J |
| 16 | 3387-41-5 BICYCLO[3.1.0]HEXANE, 4-METHYLENE-1-(1-METHYLETHYL)- | BNA | 712 | 14 J |
| 17 | UNKNOWN | BNA | 718 | 24 J |
| 18 | UNKNOWN | BNA | 730 | 12 J |
| 19 | UNKNOWN | BNA | 733 | 12 J |
| 110 | UNKNOWN | BNA | 1482 | 9 J |
| 111 | UNKNOWN | BNA | 1568 | 8 J |
| 112 | UNKNOWN | BNA | 1632 | 45 J |
| 113 | UNKNOWN | BNA | 1638 | 18 J |
| 114 | UNKNOWN | BNA | 1644 | 9 J |
| 115 | 57-10-3 HEXADECANOIC ACID | BNA | 1652 | 51 J |
| 116 | UNKNOWN | BNA | 1692 | 220 J |
| 117 | UNKNOWN | BNA | 1793 | 89 J |
| 118 | | | | |
| 119 | | | | |
| 120 | | | | |
| 121 | | | | |
| 122 | | | | |
| 123 | | | | |
| 124 | | | | |
| 125 | | | | |
| 126 | | | | |
| 127 | | | | |
| 128 | | | | |
| 129 | | | | |
| 130 | | | | |

Versar Inc. Laboratory Operations
6850 Versar Center, Springfield Va. 22151
(703) 750-3000

| Sample Number |
|---|
| 40337 |
| W-4 |

ORGANICS ANALYSIS DATA SHEET
(Page 3)

Pesticides/PCBs

Concentration: Low Medium (circle one)

GPC Cleanup [ ] Yes [X] No

Date Extracted/Prepared: 10-20-87

Separatory Funnel Extration [ ] Yes

Date Analyzed: 11-18-87

Continuous Liquid-Liquid Extraction [X] Yes [ ] No

Conc/Dil Factor 1.00

Percent Moisture(decanted) 0.00

| CAS Number | | ug/l |
|---|---|---|
| 319-84-6 | alpha-BHC | 0.05 u |
| 319-85-7 | beta-BHC | 0.05 u |
| 319-86-8 | delta-BHC | 0.05 u |
| 58-89-9 | gamma-BHC (Lindane) | 0.05 u |
| 76-44-8 | Heptachlor | 0.05 u |
| 309-00-2 | Aldrin | 0.05 u |
| 1024-57-3 | Heptachlor Epoxide | 0.05 u |
| 959-98-8 | Endosulfan I | 0.05 u |
| 60-57-1 | Dieldrin | 0.10 u |
| 72-55-9 | 4,4'-DDE | 0.10 u |
| 72-20-8 | Endrin | 0.10 u |
| 33213-65-9 | Endosulfan II | 0.10 u |
| 72-54-8 | 4,4'-DDD | 0.10 u |
| 1031-07-8 | Endosulfan Sulfate | 0.10 u |
| 50-29-3 | 4,4'-DDT | 0.10 u |
| 72-43-5 | Methoxychlor | 0.10 u |
| 53494-70-5 | Endrin Ketone | 0.10 u |
| 57-74-9 | Chlordane | 0.50 u |
| 8001-35-2 | Toxaphene | 1.0 u |
| 12674-11-2 | Aroclor-1016 | 0.50 u |
| 11104-28-2 | Aroclor-1221 | 0.50 u |
| 11141-16-5 | Aroclor-1232 | 0.50 u |
| 53469-21-9 | Aroclor-1242 | 0.50 u |
| 12672-29-6 | Aroclor-1248 | 0.50 u |
| 11097-69-1 | Aroclor-1254 | 1.0 u |
| 11096-82-5 | Aroclor-1260 | 1.0 u |

S. Zarakhov
11-23-87

Vi = Volume of extract injected (ul)
Vs = Volume of Water Extracted (ml)
Ws = Weight of sample extracted (g)
Vt = Volume of total extract (ul)

Vs 1000.00 or Ws Vt 10000 Vi 2.00

000534

Versar Inc., Laboratory Operations
6850 Versar Center, Springfield VA 22151 703/750-3000

| Sample Number |
|---|
| W-5 |

Case No: 4600 B4257

ORGANICS ANALYSIS DATA SHEET (Page 2)
Semivolatile Compounds

Concentration: LOW

Date Extracted/Prepared: 10/21/87

Date Analyzed: 11/12/87

Conc/Dil Factor: 1

GPC Cleanup [ ]Yes [ ]No

Separatory Funnel Extraction [ ]Yes

Continuous Liquid-Liquid Extraction [X]Yes

| CAS Number | | ug/l |
|---|---|---|
| 108-95-2 | Phenol | 10 u |
| 111-44-4 | bis(2-Chloroethyl)Ether | 10 u |
| 95-57-8 | 2-Chlorophenol | 10 u |
| 541-73-1 | 1,3-Dichlorobenzene | 10 u |
| 106-46-7 | 1,4-Dichlorobenzene | 10 u |
| 100-51-6 | Benzyl Alcohol | 10 u |
| 95-50-1 | 1,2-Dichlorobenzene | 10 u |
| 95-48-7 | 2-Methylphenol | 10 u |
| 39638-32-9 | bis(2-chloroisopropyl)ether | 10 u |
| 106-44-5 | 4-methylphenol | 10 u |
| 621-64-7 | N-Nitroso-Di-n-propylamine | 10 u |
| 67-72-1 | Hexachloroethane | 10 u |
| 98-95-3 | Nitrobenzene | 10 u |
| 78-59-1 | Isophorone | 10 u |
| 88-75-5 | 2-Nitrophenol | 10 u |
| 105-67-9 | 2,4-dimethylphenol | 10 u |
| 65-85-0 | Benzoic Acid | 50 u |
| 111-91-1 | bis(2-chloroethoxy)methane | 10 u |
| 120-83-2 | 2,4-dichlorophenol | 10 u |
| 120-82-1 | 1,2,4-trichlorobenzene | 10 u |
| 91-20-3 | Naphthalene | 10 u |
| 106-47-8 | 4-Chloroaniline | 10 u |
| 87-68-3 | Hexachlorobutadiene | 10 u |
| 59-50-7 | 4-chloro-3-methylphenol | 10 u |
| 91-57-6 | 2-methylnaphthalene | 10 u |
| 77-47-4 | Hexachlorocyclopentadiene | 10 u |
| 88-06-2 | 2,4,6-Trichlorophenol | 10 u |
| 95-95-4 | 2,4,5-Trichlorophenol | 50 u |
| 91-58-7 | 2-Chloronaphthalene | 10 u |
| 88-74-4 | 2-Nitroaniline | 50 u |
| 131-11-3 | Dimethyl Phthalate | 10 u |
| 208-96-8 | Acenaphthylene | 10 u |
| 99-09-2 | 3-Nitroaniline | 50 u |

| CAS Number | | ug/l |
|---|---|---|
| 83-32-9 | Acenaphthene | 10 u |
| 51-28-5 | 2,4-Dinitrophenol | 50 u |
| 100-02-7 | 4-Nitrophenol | 50 u |
| 132-64-9 | Dibenzofuran | 10 u |
| 121-14-2 | 2,4-Dinitrotoluene | 10 u |
| 606-20-2 | 2,6-Dinitrotoluene | 10 u |
| 84-66-2 | Diethylphthalate | 10 u |
| 7005-22-3 | 4-Chlorophenyl-phenylether | 10 u |
| 86-73-7 | Fluorene | 10 u |
| 100-01-6 | 4-Nitroaniline | 50 u |
| 534-52-1 | 4,6-dinitro-2-methylphenol | 50 u |
| 86-30-6 | N-Nitrosodiphenylamine (1) | 10 u |
| 101-55-3 | 4-Bromophenyl-phenylether | 10 u |
| 118-74-1 | Hexachlorobenzene | 10 u |
| 87-86-5 | Pentachlorophenol | 50 u |
| 85-01-8 | Phenanthrene | 10 u |
| 120-12-7 | Anthracene | 10 u |
| 84-74-2 | Di-n-butylphthalate | 10 u |
| 206-44-0 | Fluoranthene | 10 u |
| 129-00-0 | Pyrene | 10 u |
| 85-68-7 | Butylbenzylphthalate | 10 u |
| 91-94-1 | 3,3'-Dichlorobenzidine | 20 u |
| 56-55-3 | Benzo(a)anthracene | 10 u |
| 117-81-7 | bis(2-Ethylhexyl)Phthalate | 10 u |
| 218-01-9 | Chrysene | 10 u |
| 117-84-0 | Di-n-Octylphthalate | 10 u |
| 205-99-2 | Benzo(b)Fluoranthene | 10 u |
| 207-08-9 | Benzo(k)Fluoranthene | 10 u |
| 50-32-8 | Benzo(a)pyrene | 10 u |
| 193-39-5 | Indeno(1,2,3-cd)Pyrene | 10 u |
| 53-70-3 | Dibenz(a,h)Anthracene | 10 u |
| 191-24-2 | Benzo(g,h,i)Perylene | 10 u |

(1)-Cannot be separated from diphenylamine

Versar Inc., Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

| SAMPLE ID |
|---|
| IW-5 |

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

| | CAS Number | Compound Name | Fraction | RT or Scan | Estimated Concentration (ug/Kg or ug/l) |
|---|---|---|---|---|---|
| 11. | 3377-86-4 | HEXANE, 2-BROMO- | BNA | 520 | 11 J,B. |
| 12. | | | | | |
| 13. | | | | | |
| 14. | | | | | |
| 15. | | | | | |
| 16. | | | | | |
| 17. | | | | | |
| 18. | | | | | |
| 19. | | | | | |
| 110. | | | | | |
| 111. | | | | | |
| 112. | | | | | |
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| 114. | | | | | |
| 115. | | | | | |
| 116. | | | | | |
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| 119. | | | | | |
| 120. | | | | | |
| 121. | | | | | |
| 122. | | | | | |
| 123. | | | | | |
| 124. | | | | | |
| 125. | | | | | |
| 126. | | | | | |
| 127. | | | | | |
| 128. | | | | | |
| 129. | | | | | |
| 130. | | | | | |

Versar Inc. Laboratory Operations
6850 Versar Center, Springfield Va. 22151
(703) 750-3000

| Sample Number |
| --- |
| 40338 |

W-5

ORGANICS ANALYSIS DATA SHEET
(Page 3)

Pesticides/PCBs

Concentration: Low Medium (circle one)

GPC Cleanup [ ] Yes [X] No

Date Extracted/Prepared: 10-20-87

Separatory Funnel Extration [ ] Yes

Date Analyzed: 11-18-87

Continuous Liquid-Liquid Extraction [X] Yes [ ] No

Conc/Dil Factor 1.00

Percent Moisture(decanted) 0.00

| CAS Number | | ug/l |
| --- | --- | --- |
| 319-84-6 | alpha-BHC | 0.05 u |
| 319-85-7 | beta-BHC | 0.05 u |
| 319-86-8 | delta-BHC | 0.05 u |
| 58-89-9 | gamma-BHC (Lindane) | 0.05 u |
| 76-44-8 | Heptachlor | 0.05 u |
| 309-00-2 | Aldrin | 0.05 u |
| 1024-57-3 | Heptachlor Epoxide | 0.05 u |
| 959-98-8 | Endosulfan I | 0.05 u |
| 60-57-1 | Dieldrin | 0.10 u |
| 72-55-9 | 4,4'-DDE | 0.10 u |
| 72-20-8 | Endrin | 0.10 u |
| 33213-65-9 | Endosulfan II | 0.10 u |
| 72-54-8 | 4,4'-DDD | 0.10 u |
| 1031-07-8 | Endosulfan Sulfate | 0.10 u |
| 50-29-3 | 4,4'-DDT | 0.10 u |
| 72-43-5 | Methoxychlor | 0.10 u |
| 53494-70-5 | Endrin Ketone | 0.10 u |
| 57-74-9 | Chlordane | 0.50 u |
| 8001-35-2 | Toxaphene | 1.0 u |
| 12674-11-2 | Aroclor-1016 | 0.50 u |
| 11104-28-2 | Aroclor-1221 | 0.50 u |
| 11141-16-5 | Aroclor-1232 | 0.50 u |
| 53469-21-9 | Aroclor-1242 | 0.50 u |
| 12672-29-6 | Aroclor-1248 | 0.50 u |
| 11097-69-1 | Aroclor-1254 | 1.0 u |
| 11096-82-5 | Aroclor-1260 | 1.0 u |

Vi = Volume of extract injected (ul)
Vs = Volume of Water Extracted (ml)
Ws = Weight of sample extracted (g)
Vt = Volume of total extract (ul)

Vs 1000.00 or Ws _____ Vt 10000 Vi 2.00

S. Zaufhaw
11-23-87

Versar Inc., Laboratory Operations
6850 Versar Center, Springfield VA 22151 703/750-3000

| Sample Number |
|---|
| IW-6 |

Case No: 4600 B#257

ORGANICS ANALYSIS DATA SHEET (Page 2)
Semivolatile Compounds

Concentration: LOW

Date Extracted/Prepared: 10/21/87

Date Analyzed: 11/10/87

Conc/Dil Factor: 1

GPC Cleanup [ ]Yes [ ]No

Separatory Funnel Extraction [ ]Yes

Continuous Liquid-Liquid Extraction [X]Yes

| CAS Number | | ug/l | CAS Number | | ug/l |
|---|---|---|---|---|---|
| 108-95-2 | Phenol | 10 u | 83-32-9 | Acenaphthene | 10 u |
| 111-44-4 | bis(2-Chloroethyl)Ether | 10 u | 51-28-5 | 2,4-Dinitrophenol | 50 u |
| 95-57-8 | 2-Chlorophenol | 10 u | 100-02-7 | 4-Nitrophenol | 50 u |
| 541-73-1 | 1,3-Dichlorobenzene | 10 u | 132-64-9 | Dibenzofuran | 10 u |
| 106-46-7 | 1,4-Dichlorobenzene | 10 u | 121-14-2 | 2,4-Dinitrotoluene | 10 u |
| 100-51-6 | Benzyl Alcohol | 10 u | 606-20-2 | 2,6-Dinitrotoluene | 10 u |
| 95-50-1 | 1,2-Dichlorobenzene | 10 u | 84-66-2 | Diethylphthalate | 10 u |
| 95-48-7 | 2-Methylphenol | 10 u | 7005-22-3 | 4-Chlorophenyl-phenylether | 10 u |
| 39638-32-9 | bis(2-chloroisopropyl)ether | 10 u | 86-73-7 | Fluorene | 10 u |
| 106-44-5 | 4-methylphenol | 10 u | 100-01-6 | 4-Nitroaniline | 50 u |
| 621-64-7 | N-Nitroso-Di-n-propylamine | 10 u | 534-52-1 | 4,6-dinitro-2-methylphenol | 50 u |
| 67-72-1 | Hexachloroethane | 10 u | 86-30-6 | N-Nitrosodiphenylamine (1) | 10 u |
| 98-95-3 | Nitrobenzene | 10 u | 101-55-3 | 4-Bromophenyl-phenylether | 10 u |
| 78-59-1 | Isophorone | 10 u | 118-74-1 | Hexachlorobenzene | 10 u |
| 88-75-5 | 2-Nitrophenol | 10 u | 87-86-5 | Pentachlorophenol | 50 u |
| 105-67-9 | 2,4-dimethylphenol | 10 u | 85-01-8 | Phenanthrene | 10 u |
| 65-85-0 | Benzoic Acid | 50 u | 120-12-7 | Anthracene | 10 u |
| 111-91-1 | bis(2-chloroethoxy)methane | 10 u | 84-74-2 | Di-n-butylphthalate | 10 u |
| 120-83-2 | 2,4-dichlorophenol | 10 u | 206-44-0 | Fluoranthene | 10 u |
| 120-82-1 | 1,2,4-trichlorobenzene | 10 u | 129-00-0 | Pyrene | 10 u |
| 91-20-3 | Naphthalene | 10 u | 85-68-7 | Butylbenzylphthalate | 10 u |
| 106-47-8 | 4-Chloroaniline | 10 u | 91-94-1 | 3,3'-Dichlorobenzidine | 20 u |
| 87-68-3 | Hexachlorobutadiene | 10 u | 56-55-3 | Benzo(a)anthracene | 10 u |
| 59-50-7 | 4-chloro-3-methylphenol | 10 u | 117-81-7 | bis(2-Ethylhexyl)Phthalate | 10 u |
| 91-57-6 | 2-methylnaphthalene | 10 u | 218-01-9 | Chrysene | 10 u |
| 77-47-4 | Hexachlorocyclopentadiene | 10 u | 117-84-0 | Di-n-Octylphthalate | 10 u |
| 88-06-2 | 2,4,6-Trichlorophenol | 10 u | 205-99-2 | Benzo(b)Fluoranthene | 10 u |
| 95-95-4 | 2,4,5-Trichlorophenol | 50 u | 207-08-9 | Benzo(k)Fluoranthene | 10 u |
| 91-58-7 | 2-Chloronaphthalene | 10 u | 50-32-8 | Benzo(a)pyrene | 10 u |
| 88-74-4 | 2-Nitroaniline | 50 u | 193-39-5 | Indeno(1,2,3-cd)Pyrene | 10 u |
| 131-11-3 | Dimethyl Phthalate | 10 u | 53-70-3 | Dibenz(a,h)Anthracene | 10 u |
| 208-96-8 | Acenaphthylene | 10 u | 191-24-2 | Benzo(g,h,i)Perylene | 10 u |
| 99-09-2 | 3-Nitroaniline | 50 u | | | |

(1)-Cannot be separated from diphenylamine

Versar Inc., Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

| SAMPLE ID |
|---|
| IW-6 |

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

| | CAS Number | Compound Name | Fraction | RT or Scan | Estimated Concentration (ug/Kg or ug/L) |
|---|---|---|---|---|---|
| 11 | | UNKNOWN 2-METHYL CYCLOPENTANOL ISOMER | BNA | 515 | 54 J |
| 12 | 3377-86-4 | HEXANE, 2-BROMO- | BNA | 527 | 11 JB |
| 13 | | | | | |
| 14 | | | | | |
| 15 | | | | | |
| 16 | | | | | |
| 17 | | | | | |
| 18 | | | | | |
| 19 | | | | | |
| 110 | | | | | |
| 111 | | | | | |
| 112 | | | | | |
| 113 | | | | | |
| 114 | | | | | |
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| 128 | | | | | |
| 129 | | | | | |
| 130 | | | | | |

Versar Inc. Laboratory Operations
6850 Versar Center, Springfield Va. 22151
(703) 750-3000

| Sample Number |
| --- |
| 40339 |

W-6

ORGANICS ANALYSIS DATA SHEET
(Page 3)

Pesticides/PCBs

Concentration: Low Medium (circle one)

GPC Cleanup [ ] Yes [X] No

Date Extracted/Prepared: 10-20-87

Separatory Funnel Extration [ ] Yes

Date Analyzed: 11-18-87

Continuous Liquid-Liquid Extraction [X] Yes [ ] No

Conc/Dil Factor 1.00

Percent Moisture(decanted) 0.00

| CAS Number | | ug/l |
| --- | --- | --- |
| 319-84-6 | alpha-BHC | 0.05 u |
| 319-85-7 | beta-BHC | 0.05 u |
| 319-86-8 | delta-BHC | 0.05 u |
| 58-89-9 | gamma-BHC (Lindane) | 0.05 u |
| 76-44-8 | Heptachlor | 0.05 u |
| 309-00-2 | Aldrin | 0.05 u |
| 1024-57-3 | Heptachlor Epoxide | 0.05 u |
| 959-98-8 | Endosulfan I | 0.05 u |
| 60-57-1 | Dieldrin | 0.10 u |
| 72-55-9 | 4,4'-DDE | 0.10 u |
| 72-20-8 | Endrin | 0.10 u |
| 33213-65-9 | Endosulfan II | 0.10 u |
| 72-54-8 | 4,4'-DDD | 0.10 u |
| 1031-07-8 | Endosulfan Sulfate | 0.10 u |
| 50-29-3 | 4,4'-DDT | 0.10 u |
| 72-43-5 | Methoxychlor | 0.10 u |
| 53494-70-5 | Endrin Ketone | 0.10 u |
| 57-74-9 | Chlordane | 0.50 u |
| 8001-35-2 | Toxaphene | 1.0 u |
| 12674-11-2 | Aroclor-1016 | 0.50 u |
| 11104-28-2 | Aroclor-1221 | 0.50 u |
| 11141-16-5 | Aroclor-1232 | 0.50 u |
| 53469-21-9 | Aroclor-1242 | 0.50 u |
| 12672-29-6 | Aroclor-1248 | 0.50 u |
| 11097-69-1 | Aroclor-1254 | 1.0 u |
| 11096-82-5 | Aroclor-1260 | 1.0 u |

S. Zaafcher
11-23-87

Vi = Volume of extract injected (ul)
Vs = Volume of Water Extracted (ml)
Ws = Weight of sample extracted (g)
Vt = Volume of total extract (ul)

Vs 1000.00 or Ws Vt 10000 Vi 2.00

Versar, Inc. Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

| Sample Number |
|---|
| WS-7 |

ORGANICS ANALYSIS DATA SHEET (Page 1)

Laboratory Name: VERSAR
Lab Sample ID No: 40848
Sample Matrix: WATER
Data Release Authorized By:

Case No: 4600 B#269
QC Report No: 4600 B#269
Contract No:
Date Sample Received: 10/27/87

VOLATILE COMPOUNDS

Concentration: LOW
Date Extracted/Prepared: 10/27/87
Date Analyzed: 10/27/87
Conc/Dil Factor: 1 pH NA
Percent Moisture: 100

| CAS Number | | ug/l | CAS Number | | ug/l |
|---|---|---|---|---|---|
| 74-87-3 | Chloroethane | 10 u | 78-87-5 | 1,2-Dichloropropane | 5 u |
| 74-83-9 | Bromomethane | 10 u | 10061-02-6 | Trans-1,3-Dichloropropene | 5 u |
| 75-01-4 | Vinyl Chloride | 10 u | 79-01-6 | Trichloroethene | 5 u |
| 75-00-3 | Chloroethane | 10 u | 124-48-1 | Dibromochloromethane | 5 u |
| 75-09-2 | Methylene Chloride | 5 u | 79-00-5 | 1,1,2-Trichloroethane | 5 u |
| 67-64-1 | Acetone | 17 T | 71-43-2 | Benzene | 5 u |
| 75-15-0 | Carbon Disulfide | 5 u | 10061-01-5 | cis-1,3-Dichloropropene | 5 u |
| 75-35-4 | 1,1-Dichloroethene | 5 u | 110-75-8 | 2-chloroethylvinylether | 10 u |
| 75-34-3 | 1,1-Dichloroethane | 5 u | 75-25-2 | Bromoform | 5 u |
| 156-60-5 | Trans-1,2-Dichloroethene | 5 u | 108-10-1 | 4-Methyl-2-Pentanone | 10 u |
| 67-66-3 | Chloroform | 5 u | 591-78-6 | 2-Hexanone | 10 u |
| 107-06-2 | 1,2-Dichloroethane | 5 u | 127-18-4 | Tetrachloroethene | 5 u |
| 78-93-3 | 2-butanone | 10 u | 79-34-5 | 1,1,2,2-Tetrachloroethane | 5 u |
| 71-55-6 | 1,1,1-Trichloroethane | 5 u | 108-88-3 | Toluene | 3 JB |
| 56-23-5 | Carbon Tetrachloride | 5 u | 108-90-7 | Chlorobenzene | 5 u |
| 108-05-4 | Vinyl Acetate | 10 u | 100-41-4 | Ethylbenzene | 5 u |
| 75-27-4 | Bromodichloromethane | 5 u | 100-42-5 | Styrene | 5 u |
| | | | | Total Xylenes | 5 u |

Data Reporting Qualifiers

Value If the result is a value greater than or equal to the detection limit, report the value.

u Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response factor is assumed, or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero. (e.g. 10J)

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

T Spectrum does not meet criteria for confirmation but does indicate compound presence.

NA Compound present in both matrix spike standard and unspiked sample.

Form I

Versar Inc., Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

SAMPLE ID
WS-7

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

| | CAS Number | Compound Name | Fraction | RT or Scan | Estimated Concentration (ug/Kg or ug/l) |
|---|---|---|---|---|---|
| 11. | | NO VOLATILES DETECTED | VOA | NA | NA |
| 12. | | | | | |
| 13. | | | | | |
| 14. | | | | | |
| 15. | | | | | |
| 16. | | | | | |
| 17. | | | | | |
| 18. | | | | | |
| 19. | | | | | |
| 110. | | | | | |
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| 118. | | | | | |
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| 121. | | | | | |
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| 124. | | | | | |
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| 126. | | | | | |
| 127. | | | | | |
| 128. | | | | | |
| 129. | | | | | |
| 130. | | | | | |

Versar, Inc. Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

| Sample Number |
|---|
| WS-8 |

ORGANICS ANALYSIS DATA SHEET (Page 1)

Laboratory Name: VERSAR
Lab Sample ID No: 40849
Sample Matrix: WATER
Data Release Authorized By:

Case No: 4600 B0269
QC Report No: 4600 B0269
Contract No:
Date Sample Received: 10/27/87

VOLATILE COMPOUNDS

Concentration: LOW
Date Extracted/Prepared: 10/27/87
Date Analyzed: 10/27/87
Conc/Dil Factor: 1 pH NA
Percent Moisture: 100

| CAS Number | | ug/l |
|---|---|---|
| 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 |
| 156-60-5 | Trans-1,2-Dichloroethene | 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 |

| CAS Number | | ug/l |
|---|---|---|
| 78-87-5 | 1,2-Dichloropropane | 5 u |
| 10061-02-6 | Trans-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 |
| 10061-01-5 | cis-1,3-Dichloropropene | 5 u |
| 110-75-8 | 2-chloroethylvinylether | 10 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 | 2 JB |
| 108-90-7 | Chlorobenzene | 5 u |
| 100-41-4 | Ethylbenzene | 5 u |
| 100-42-5 | Styrene | 5 u |
| | Total Xylenes | 5 u |

Data Reporting Qualifiers

Value. If the result is a value greater than or equal to the detection limit, report the value.

u Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response factor is assumed, or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero. (e.g. 10J)

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

T Spectrum does not meet criteria for confirmation but does indicate compound presence.

NA Compound present in both matrix spike standard and unspiked sample.

Form I

Versar Inc., Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

| SAMPLE ID |
|---|
| WS-8 |

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

| | CAS Number | Compound Name | Fraction | RT or Scan | Estimated Concentration (ug/Kg or ug/l) |
|---|---|---|---|---|---|
| 11. | | NO VOLATILES DETECTED | VOA | NA | NA |
| 12. | | | | | |
| 13. | | | | | |
| 14. | | | | | |
| 15. | | | | | |
| 16. | | | | | |
| 17. | | | | | |
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| 128. | | | | | |
| 129. | | | | | |
| 130. | | | | | |

Versar, Inc. Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

| Sample Number |
|---|
| WS-9 |

ORGANICS ANALYSIS DATA SHEET (Page 1)

Laboratory Name: VERSAR
Lab Sample ID No: 40850
Sample Matrix: WATER
Data Release Authorized By:

Case No: 4600 B#269
QC Report No: 4600 B#269
Contract No:
Date Sample Received: 10/27/87

VOLATILE COMPOUNDS

Concentration: LOW
Date Extracted/Prepared: 10/27/87
Date Analyzed: 10/27/87
Conc/Dil Factor: 1 pH NA
Percent Moisture: 100

| CAS Number | | ug/l |
|---|---|---|
| 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 |
| 156-60-5 | Trans-1,2-Dichloroethene | 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 |

| CAS Number | | ug/l |
|---|---|---|
| 78-87-5 | 1,2-Dichloropropane | 5 u |
| 10061-02-6 | Trans-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 |
| 10061-01-5 | cis-1,3-Dichloropropene | 5 u |
| 1110-75-8 | 2-chloroethylvinylether | 10 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 B |
| 108-90-7 | Chlorobenzene | 5 u |
| 100-41-4 | Ethylbenzene | 5 u |
| 100-42-5 | Styrene | 5 u |
| | Total Xylenes | 5 u |

Data Reporting Qualifiers

Value If the result is a value greater than or equal to the detection limit, report the value.

u Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response factor is assumed, or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero. (e.g. 10J)

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

T Spectrum does not meet criteria for confirmation but does indicate compound presence.

NA Compound present in both matrix spike standard and unspiked sample.

Form I

Versar Inc., Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

SAMPLE ID
W3-9

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

| CAS Number | Compound Name | Fraction | RT or Scan | Estimated Concentration (ug/Kg or ug/l) |
|---|---|---|---|---|
| 11. | NO VOLATILES DETECTED | VOA | NA | NA |
| 12. | | | | |
| 13. | | | | |
| 14. | | | | |
| 15. | | | | |
| 16. | | | | |
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| 110. | | | | |
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| 127. | | | | |
| 128. | | | | |
| 129. | | | | |
| 130. | | | | |

Versar, Inc. Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

| Sample Number |
|---|
| WS-10 |

ORGANICS ANALYSIS DATA SHEET (Page 1)

Laboratory Name: VERSAR
Lab Sample ID No: 42850A
Sample Matrix: WATER
Data Release Authorized By:

Case No: 4600 B#297
QC Report No: 4600 B#297
Contract No:
Date Sample Received: 12/09/87

VOLATILE COMPOUNDS

Concentration: LOW
Date Extracted/Prepared: 12/11/87
Date Analyzed: 12/11/87
Conc/Dil Factor: 1 pH NA
Percent Moisture: 100

| CAS Number | | ug/l |
|---|---|---|
| 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 | 8 J |
| 75-15-0 | Carbon Disulfide | 5 u |
| 75-35-4 | 1,1-Dichloroethene | 5 u |
| 75-34-3 | 1,1-Dichloroethane | 5 u |
| 156-60-5 | Trans-1,2-Dichloroethene | 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 |

| CAS Number | | ug/l |
|---|---|---|
| 78-87-5 | 1,2-Dichloropropane | 5 u |
| 10061-02-6 | Trans-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 |
| 10061-01-5 | cis-1,3-Dichloropropene | 5 u |
| 110-75-8 | 2-chloroethylvinylether | 10 u |
| 75-25-2 | Bromoform | 5 u |
| 108-10-1 | 4-Methyl-2-Pentanone | 8 J |
| 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 | 6 |
| 108-90-7 | Chlorobenzene | 5 u |
| 100-41-4 | Ethylbenzene | 5 u |
| 100-42-5 | Styrene | 5 u |
| | Total Xylenes | 4 J |

Data Reporting Qualifiers

Value If the result is a value greater than or equal to the detection limit, report the value.

u Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response factor is assumed, or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero. (e.g. 10J)

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

T Spectrum does not meet criteria for confirmation but does indicate compound presence.

NA Compound present in both matrix spike standard and unspiked sample.

Form I

Versar Inc., Laboratory Operations
8850 Versar Center, Springfield VA 22151 (703) 750-3000

| SAMPLE ID |
|---|
| WS-10 |

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

| | CAS Number | Compound Name | Fraction | RT or Scan | Estimated Concentration (ug/Kg or ug/l) |
|---|---|---|---|---|---|
| 11 | 124-38-9 | CARBON DIOXIDE | VOA | 23 | 5 J |
| 12 | | UNKNOWN HYDROCARBON | VOA | 467 | 3 J |
| 13 | | | | | |
| 14 | | | | | |
| 15 | | | | | |
| 16 | | | | | |
| 17 | | | | | |
| 18 | | | | | |
| 19 | | | | | |
| 110 | | | | | |
| 111 | | | | | |
| 112 | | | | | |
| 113 | | | | | |
| 114 | | | | | |
| 115 | | | | | |
| 116 | | | | | |
| 117 | | | | | |
| 118 | | | | | |
| 119 | | | | | |
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| 124 | | | | | |
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| 126 | | | | | |
| 127 | | | | | |
| 128 | | | | | |
| 129 | | | | | |
| 130 | | | | | |

Versar, Inc. Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

Sample Number
MS-12

ORGANICS ANALYSIS DATA SHEET (Page 1)

Organic Matrix: SEDIMENT
Lab Sample ID: 4285LA
Sample Matrix: WATER
Date Received: [illegible]
Case No.: [illegible]
% Moisture: [illegible]
Contract No.: [illegible]
Date Sample Received: [illegible]

VOLATILE COMPOUNDS

Target [illegible]
Date Extracted/Prepared: [illegible]
Date [illegible]
[illegible] Method: [illegible]
Percent Moisture: [illegible]

| CAS Number | | ug/l |
|---|---|---|
| 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 | 13 |
| 75-15-0 | Carbon Disulfide | 5 u |
| -35-4 | 1,1-Dichloroethene | 5 u |
| 75-34-3 | 1,1-Dichloroethane | 5 u |
| 156-60-5 | Trans-1,2-Dichloroethene | 5 u |
| 67-66-3 | Chloroform | 4 J |
| 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 |

| CAS Number | | ug/l |
|---|---|---|
| 78-87-5 | 1,2-Dichloropropane | 5 u |
| 10061-02-6 | Trans-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 |
| 10061-01-5 | cis-1,3-Dichloropropene | 5 u |
| 110-75-8 | 2-chloroethylvinylether | 10 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 |
| | Total Xylenes | 5 u |

Data Reporting Qualifiers

Value If the result is a value greater than or equal to the detection limit, report the value.

u Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response factor is assumed, or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero. (e.g. 10J)

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

T Spectrum does not meet criteria for confirmation but does indicate compound presence.

NA Compound present in both matrix spike standard and unspiked sample.

Form I

Versar Inc., Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

| SAMPLE ID |
|---|
| 105-12 |

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

| | CAS Number | Compound Name | Fraction | RT or Scan | Estimated Concentration (ug/Kg or ug/l) |
|---|---|---|---|---|---|
| 11. | | NO VOLATILES DETECTED | VOA | NA | NA |
| 12. | | | | | |
| 13. | | | | | |
| 14. | | | | | |
| 15. | | | | | |
| 16. | | | | | |
| 17. | | | | | |
| 18. | | | | | |
| 19. | | | | | |
| 110. | | | | | |
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| 130. | | | | | |

**DRUM STORAGE AREA 6**
**SOIL SAMPLES**

**Versar INC.**

Form I

01/13/88

6850 VERSAR CENTER
SPRINGFIELD, VIRGINIA 22151

PRC Sample No.
S035

## INORGANIC ANALYSIS DATA SHEET

Lab Name : VERSAR INC.

Case No. : 4600 B 292

Sow No. : 7/85

Lab Receipt Date : 11/24/87

Lab Sample ID. No. : 871130-004
42186

QC Report No. : 292

Elements Identified and Measured

Concentration : LOW

Matrix: SOIL

mg/Kg dry weight

| | | UNITS | Q | | | UNITS | |
|---|---|---|---|---|---|---|---|
| 1. | Aluminum | 7860 | *P | 13. | Magnesium | [1940] | F |
| 2. | Antimony | [3.8] | FN | 14. | Manganese | 944 | F |
| 3. | Arsenic | 18 | *F | 15. | Mercury | 1.1 | C |
| 4. | Barium | 143 | P | 16. | Nickel | 31 | F |
| 5. | Beryllium | [1.0] | P | 17. | Potassium | [876] | F |
| 6. | Cadmium | 3.0 | P | 18. | Selenium | 2.8 | F |
| 7. | Calcium | 2710 | P | 19. | Silver | 4.4 | F |
| 8. | Chromium | 17 | *P | 20. | Sodium | [117] | F |
| 9. | Cobalt | [14] | P | 21. | Thallium | [0.43] | F |
| 10. | Copper | 48 | *P | 22. | Vanadium | 21 | F |
| 11. | Iron | 23,500 | P | 23. | Zinc | 290 | F |
| 12. | Lead | 312 | FNS | | Percent Solids (%) | 49 | |
| | Cyanide | 1.52 | | | | | |

Footnotes:
For reporting results to EPA, standard result qualifiers are used as defined on the Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments:

Lab Manager

**Versar INC.**

Form I

01/13/88

6850 VERSAR CENTER
SPRINGFIELD, VIRGINIA 22151

PRC Sample No.
S036

## INORGANIC ANALYSIS DATA SHEET

Lab Name : VERSAR INC.

Case No. : 4600 B 292

Sow No. : 7/85

Lab Receipt Date : 11/24/87

Lab Sample ID. No. : 871130-005
42187

QC Report No. : 292

Elements Identified and Measured

Concentration : LOW

Matrix: SOIL

mg/Kg dry weight

| | | UNITS | Q | | | UNITS | |
|---|---|---|---|---|---|---|---|
| 1. | Aluminum | 7810 | *P | 13. | Magnesium | 1570 | F |
| 2. | Antimony | [1.8] | FN | 14. | Manganese | 391 | F |
| 3. | Arsenic | 12 | *F | 15. | Mercury | 0.073 | C |
| 4. | Barium | [31] | P | 16. | Nickel | 15 | F |
| 5. | Beryllium | 0.35 | UP | 17. | Potassium | [450] | F |
| 6. | Cadmium | 0.64 | UP | 18. | Selenium | [0.91] | F |
| 7. | Calcium | [588] | P | 19. | Silver | 1.6 | L |
| 8. | Chromium | 6.7 | *P | 20. | Sodium | 34 | L |
| 9. | Cobalt | [8.3] | P | 21. | Thallium | [0.58] | F |
| 10. | Copper | 7.7 | *P | 22. | Vanadium | [12] | P |
| 11. | Iron | 14,700 | P | 23. | Zinc | 37 | P |
| 12. | Lead | 12 | FNS | | Percent Solids (%) | 79 | |
| | Cyanide | <0.60 | | | | | |

Footnotes:
For reporting results to EPA, standard result qualifiers are used as defined on the Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments:

Lab Manager

Versar INC.

Form I

01/13/88

6850 VERSAR CENTER
SPRINGFIELD, VIRGINIA 22151

PRC Sample No.
SQ37

INORGANIC ANALYSIS DATA SHEET

Lab Name : VERSAR INC.

Case No. : 4600 B292

Sow No. : 7/85

Lab Receipt Date : 11/24/87

Lab Sample ID. No. : 871130-006
42188

QC Report No. : 292

Elements Identified and Measured

Concentration : LOW

Matrix: SOIL

mg/Kg dry weight

| | | UNITS | Q | | | UNITS | |
|---|---|---|---|---|---|---|---|
| 1. | Aluminum | 5650 | *P | 13. | Magnesium | 2020 | I |
| 2. | Antimony | 1.1 | UFN | 14. | Manganese | 573 | I |
| 3. | Arsenic | 10 | *F | 15. | Mercury | 0.074 | C |
| 4. | Barium | [39] | P | 16. | Nickel | 17 | I |
| 5. | Beryllium | [0.45] | P | 17. | Potassium | [631] | F |
| 6. | Cadmium | [0.70] | P | 18. | Selenium | [0.67] | F |
| 7. | Calcium | [1110] | P | 19. | Silver | 1.6 | L |
| 8. | Chromium | 7.8 | *P | 20. | Sodium | [38] | F |
| 9. | Cobalt | [11] | P | 21. | Thallium | [0.28] | F |
| 10. | Copper | 14 | *P | 22. | Vanadium | 12 | F |
| 11. | Iron | 15,500 | P | 23. | Zinc | 52 | F |
| 12. | Lead | 30 | FNS | | Percent Solids (%) | 84 | |
| | Cyanide | <0.60 | | | | | |

Footnotes:
For reporting results to EPA, standard result qualifiers are used as defined on the Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments:

Lab Manager

**ST. JOHN'S CREEK**
**SEDIMENT SAMPLES**

Versar, Inc. Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

| Sample number |
|---|
| SD-8 |

ORGANICS ANALYSIS DATA SHEET (Page 1)

Laboratory Name: VERSAR
Lab Sample ID No: 43022
Sample Matrix: SOIL
Data Release Authorized By:

Case No: 4600 BN238
QC Report No: 4600 BN238
Contract No:
Date Sample Received: 12/10/87

VOLATILE COMPOUNDS

Concentration: LOW
Date Extracted/Prepared: 12/20/87
Date Analyzed: 12/20/87
Conc/Dil Factor: 1 pH 6.4
Percent Moisture: 16.7

| CAS Number | | ug/Kg | CAS Number | | ug/Kg |
|---|---|---|---|---|---|
| 74-87-3 | Chloromethane | 12 u | 78-87-5 | 1,2-Dichloropropane | 6 u |
| 74-83-9 | Bromomethane | 12 u | 10061-02-6 | Trans-1,3-Dichloropropene | 6 u |
| 75-01-4 | Vinyl Chloride | 12 u | 79-01-6 | Trichloroethene | 6 u |
| 75-00-3 | Chloroethane | 12 u | 124-48-1 | Dibromochloromethane | 6 u |
| 75-09-2 | Methylene Chloride | 6 u | 79-00-5 | 1,1,2-Trichloroethane | 6 u |
| 67-64-1 | Acetone | 6 J | 71-43-2 | Benzene | 6 u |
| 75-15-0 | Carbon Disulfide | 6 u | 10061-01-5 | cis-1,3-Dichloropropene | 6 u |
| 75-35-4 | 1,1-Dichloroethene | 6 u | 110-75-8 | 2-chloroethylvinylether | 12 u |
| 75-34-3 | 1,1-Dichloroethane | 6 u | 75-25-2 | Bromoform | 6 u |
| 156-60-5 | Trans-1,2-Dichloroethene | 6 u | 108-10-1 | 4-Methyl-2-Pentanone | 12 u |
| 67-66-3 | Chloroform | 6 u | 591-78-6 | 2-Hexanone | 12 u |
| 107-06-2 | 1,2-Dichloroethane | 6 u | 127-18-4 | Tetrachloroethene | 6 u |
| 78-93-3 | 2-butanone | 12 u | 79-34-5 | 1,1,2,2-Tetrachloroethane | 6 u |
| 71-55-6 | 1,1,1-Trichloroethane | 6 u | 108-88-3 | Toluene | 42 |
| 56-23-5 | Carbon Tetrachloride | 6 u | 108-90-7 | Chlorobenzene | 6 u |
| 108-05-4 | Vinyl Acetate | 12 u | 100-41-4 | Ethylbenzene | 6 u |
| 75-27-4 | Bromodichloromethane | 6 u | 100-42-5 | Styrene | 6 u |
| | | | | Total Xylenes | 6 u |

Data Reporting Qualifiers

Value If the result is a value greater than or equal to the detection limit, report the value.

u Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response factor is assumed, or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero. (e.g. 10J)

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

T Spectrum does not meet criteria for confirmation but does indicate compound presence.

NR NOT REQUIRED

MA Compound present in both matrix spike standard and unspiked sample.

Form 1

Versar Inc., Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

| SAMPLE ID |
|---|
| SD-8 |

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

| | CAS Number | Compound Name | Fraction | RT or Scan | Estimated Concentration ug/Kg or ug/l |
|---|---|---|---|---|---|
| 11. | | NO VOLATILES DETECTED | VOA | NA | NA |
| 12. | | | | | |
| 13. | | | | | |
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| 130. | | | | | |

Versar Inc., Laboratory Operations
6850 Versar Center, Springfield VA 22151 . 703/750-3000

| Sample Number |
|---|
| SDB |

Case No:____4600 BM238_____

ORGANICS ANALYSIS DATA SHEET (Page 2)
Semivolatile Compounds.

Concentration:LOW

Date Extracted/Prepared:_____12/20/87__

Date Analyzed:_____01/07/88__

Conc/Dil Factor:_____1_____

GPC Cleanup [ ]Yes [X]No

Separatory Funnel Extraction [ ]Yes

Continuous Liquid-Liquid Extraction [ ]Yes

| CAS Number | | ug/Kg |
|---|---|---|
| 108-95-2 | Phenol | 500 u |
| 111-44-4 | bis(2-Chloroethyl)Ether | 500 u |
| 95-57-8 | 2-Chlorophenol | 500 u |
| 541-73-1 | 1,3-Dichlorobenzene | 500 u |
| 106-46-7 | 1,4-Dichlorobenzene | 500 u |
| 100-51-6 | Benzyl Alcohol | 500 u |
| 95-50-1 | 1,2-Dichlorobenzene | 500 u |
| 95-48-7 | 2-Methylphenol | 500 u |
| 39638-32-9 | bis(2-chloroisopropyl)ether | 500 u |
| 106-44-5 | 4-methylphenol | 500 u |
| 621-64-7 | N-Nitroso-Di-n-propylamine | 500 u |
| 67-72-1 | Hexachloroethane | 500 u |
| 98-95-3 | Nitrobenzene | 500 u |
| 78-59-1 | Isophorone | 500 u |
| 88-75-5 | 2-Nitrophenol | 500 u |
| 105-67-9 | 2,4-dimethylphenol | 500 u |
| 65-85-0 | Benzoic Acid | 840 |
| 111-91-1 | bis(2-chloroethoxy)methane | 500 u |
| 120-83-2 | 2,4-dichlorophenol | 500 u |
| 120-82-1 | 1,2,4-trichlorobenzene | 500 u |
| 91-20-3 | Naphthalene | 500 u |
| 106-47-8 | 4-Chloroaniline | 500 u |
| 87-68-3 | Hexachlorobutadiene | 500 u |
| 59-50-7 | 4-chloro-3-methylphenol | 500 u |
| 91-57-6 | 2-methylnaphthalene | 500 u |
| 77-47-4 | Hexachlorocyclopentadiene | 500 u |
| 88-06-2 | 2,4,6-Trichlorophenol | 500 u |
| 95-95-4 | 2,4,5-Trichlorophenol | 2400 u |
| 91-58-7 | 2-Chloronaphthalene | 500 u |
| 88-74-4 | 2-Nitroaniline | 2400 u |
| 131-11-3 | Dimethyl Phthalate | 500 u |
| 208-96-8 | Acenaphthylene | 500 u |
| 99-09-2 | 3-Nitroaniline | 2400 u |

| CAS Number | | ug/Kg |
|---|---|---|
| 83-32-9 | Acenaphthene | 500 u |
| 51-28-5 | 2,4-Dinitrophenol | 2400 u |
| 100-02-7 | 4-Nitrophenol | 2400 u |
| 132-64-9 | Dibenzofuran | 500 u |
| 121-14-2 | 2,4-Dinitrotoluene | 500 u |
| 606-20-2 | 2,6-Dinitrotoluene | 500 u |
| 84-66-2 | Diethylphthalate | 500 u |
| 7005-22-3 | 4-Chlorophenyl-phenylether | 500 u |
| 86-73-7 | Fluorene | 500 u |
| 100-01-6 | 4-Nitroaniline | 2400 u |
| 534-52-1 | 4,6-dinitro-2-methylphenol | 2400 u |
| 86-30-6 | N-Nitrosodiphenylamine (1) | 500 u |
| 101-55-3 | 4-Bromophenyl-phenylether | 500 u |
| 118-74-1 | Hexachlorobenzene | 500 u |
| 87-86-5 | Pentachlorophenol | 2400 u |
| 85-01-8 | Phenanthrene | 490 J |
| 120-12-7 | Anthracene | 130 J |
| 84-74-2 | Di-n-butylphthalate | 100 J |
| 206-44-0 | Fluoranthene | 1100 |
| 129-00-0 | Pyrene | 830 |
| 85-68-7 | Butylbenzylphthalate | 500 u |
| 91-94-1 | 3,3'-Dichlorobenzidine | 1000 u |
| 56-55-3 | Benzo(a)anthracene | 600 |
| 117-81-7 | bis(2-Ethylhexyl)Phthalate | 500 u |
| 218-01-9 | Chrysene | 590 |
| 117-84-0 | Di-n-Octylphthalate | 500 u |
| 205-99-2 | Benzo(b)Fluoranthene | 400 J |
| 207-08-9 | Benzo(k)Fluoranthene | 400 J |
| 50-32-8 | Benzo(a)pyrene | 420 J |
| 193-39-5 | Indeno(1,2,3-cd)Pyrene | 240 J |
| 53-70-3 | Dibenz(a,h)Anthracene | 500 u |
| 191-24-2 | Benzo(g,h,i)Perylene | 170 J |

(1)-Cannot be separated from diphenylamine

Versar Inc., Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

| SAMPLE ID |
|---|
| SD8 |

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

| CAS Number | Compound Name | Fraction | RT or Scan | Estimated Concentration (ug/Kg or ug/l) |
|---|---|---|---|---|
| 11 | UNKNOWN | BNA | 615 | 140 J,B. |
| 12 | UNKNOWN ALCOHOL | BNA | 697 | 310 J,B. |
| 13 | UNKNOWN METHOXY, HYDROXY BENZALDEHYDE | BNA | 1169 | 94 J... |
| 14 | UNKNOWN | BNA | 1666 | 270 J... |
| 15 | UNKNOWN SATURATED CYCLIC HYDROCARBON | BNA | 1807 | 130 J... |
| 16 | UNKNOWN HYDROCARBON | BNA | 1893 | 270 J... |
| 17 | UNKNOWN HYDROCARBON | BNA | 1917 | 170 J... |
| 18 | UNKNOWN ISOMER OF BENZO (B) NAPHTHOTHIOPENE | BNA | 2013 | 130 J... |
| 9 | UNKNOWN HYDROCARBON | BNA | 2021 | 150 J... |
| 10 | UNKNOWN HYDROCARBON | BNA | 2047 | 600 J... |
| 11 | UNKNOWN HYDROCARBON | BNA | 2104 | 180 J... |
| 12 | UNKNOWN | BNA | 2111 | 180 J... |
| 13 | UNKNOWN ALDEHYDE | BNA | 2127 | 340 J... |
| 14 | UNKNOWN HYDROCARBON | BNA | 2160 | 1,300 J... |
| 15 | UNKNOWN | BNA | 2171 | 210 J... |
| 16 | UNKNOWN ALKENE | BNA | 2193 | 240 J... |
| 17 | UNKNOWN | BNA | 2214 | 540 J,B. |
| 18 | UNKNOWN ALDEHYDE | BNA | 2245 | 1,200 J... |
| 19 | UNKNOWN HYDROCARBON | BNA | 2284 | 740 J... |
| 20 | UNKNOWN | BNA | 2297 | 160 J... |
| 21 | UNKNOWN | BNA | 2301 | 160 J... |
| 22,205-82-3 | BENZO(J)FLUORANTHENE | BNA | 2312 | 300 J... |
| 23 | UNKNOWN ALDEHYDE | BNA | 2405 | 1,400 J... |
| 24 | UNKNOWN HYDROCARBON | BNA | 2456 | 400 J... |
| 25 | UNKNOWN | BNA | 2632 | 200 J... |
| 26 | | | | |
| 27 | | | | |
| 28 | | | | |
| 29 | | | | |
| 30 | | | | |

1D

# PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SD 8

Lab Name: VERSAR, INC. Contract: TAYLORBOROUGH

Lab Code: VERSAR Case No.: 4600 B.2 SAS No.: SDG No.: 4301

Matrix: (soil/water) SOIL Lab Sample ID: 43019

Sample wt/vol: 30.02 (g/ml) G Lab File ID:

Level: (low/med) LOW Date Received: 12-10-87

% Moisture: not dec. 16.7 dec. Date Extracted: 12-20-87

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12-23-87

GPC Cleanup: (Y/N) N pH: 6.4 Dilution Factor: 1.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) (ug/Kg) | Q |
|---|---|---|---|
| 319-84-6 | alpha-BHC | 4.0 | U |
| 319-85-7 | beta-BHC | 4.0 | U |
| 319-86-8 | delta-BHC | 4.0 | U |
| 58-89-9 | gamma-BHC (Lindane) | 4.0 | U |
| 76-44-8 | Heptachlor | 4.0 | U |
| 309-00-2 | Aldrin | 4.0 | U |
| 1024-57-3 | Heptachlor Epoxide | 4.0 | U |
| 959-98-8 | Endosulfan I | 4.0 | U |
| 60-57-1 | Dieldrin | 8.0 | U |
| 72-55-9 | 4,4'-DDE | 8.0 | U |
| 72-20-8 | Endrin | 8.0 | U |
| 33213-65-9 | Endosulfan II | 8.0 | U |
| 72-54-8 | 4,4'-DDD | 8.0 | U |
| 1031-07-8 | Endosulfan Sulfate | 8.0 | U |
| 50-29-3 | 4,4'-DDT | 8.0 | U |
| 72-43-5 | Methoxychlor | 8.0 | U |
| 53494-70-5 | Endrin Ketone | 8.0 | U |
| 5103-71-9 | alpha-Chlordane | 8.0 | U |
| 5103-74-2 | gamma-Chlordane | 8.0 | U |
| 8001-35-2 | Toxaphene | 80 | U |
| 12674-11-2 | Aroclor-1016 | 40 | U |
| 11104-28-2 | Aroclor-1221 | 40 | U |
| 11141-16-5 | Aroclor-1232 | 40 | U |
| 53469-21-9 | Aroclor-1242 | 40 | U |
| 12672-29-6 | Aroclor-1248 | 40 | U |
| 11097-69-1 | Aroclor-1254 | 80 | U |
| 11096-82-5 | Aroclor-1260 | 80 | U |



50

Jay Hill 12-28-87

FORM I

SAMPLE NO.
SD 8

DATE 1/20/88

INORGANIC ANALYSIS DATA SHEET

LAB NAME VERSAR INC.

CASE NO. ---

SOW NO. 785

LAB RECEIPT DATE 12/10/87

LAB SAMPLE ID. NO. 43013

QC REPORT NO. 298

PROJECT-TASK 4600.0000

BATCH 298

ELEMENTS IDENTIFIED AND MEASURED

CONCENTRATION: LOW X MEDIUM HIGH

MATRIX: WATER SOIL X WIPE

MG/KG DRY WEIGHT

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1. | ALUMINUM | 8080. | * P | 13. | MAGNESIUM | 1530. | P |
| 2. | ANTIMONY | 8.8 UN | P | 14. | MANGANESE | 164. N | P |
| 3. | ARSENIC | 8.5 | F | 15. | MERCURY | 0.13 U | |
| 4. | BARIUM | [ 23.] | P | 16. | NICKEL | [ 9.2] | P |
| 5. | BERYLLIUM | 0.54 U | P | 17. | POTASSIUM | 461. U * | P |
| 6. | CADMIUM | 1.3 U | P | 18. | SELENIUM | 6.7 UN | F |
| 7. | CALCIUM | 1580. | P | 19. | SILVER | 1.9 UN | P |
| 8. | CHROMIUM | 61. N | P | 20. | SODIUM | [ 154.] | P |
| 9. | COBALT | [ 2.9] | P | 21. | THALLIUM | 2.7 U | F |
| 10. | COPPER | 8.9 | P | 22. | VANADIUM | [ 11.] * | P |
| 11. | IRON | 9080. | P | 23. | ZINC | 23. E | P |
| 12. | LEAD | 11. N* | F | | PERCENT SOLIDS | 74.6 | |
| | CYANIDE | NR | | | | | |

FOOTNOTES: SEE COVER PAGE.

COMMENTS: COLOR - GRAY; TEXTURE - MEDIUM; DF 5 FOR SE; 000081

LAB MANAGER

WILLIAM T. NIVENS

Versar, Inc. Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

| Sample Number |
|---|
| SD-9 |

ORGANICS ANALYSIS DATA SHEET (Page 1)

Laboratory Name: VERSAR
Lab Sample ID No: 43023
Sample Matrix: SOIL
Data Release Authorized By:

Case No: 4600 BW298
QC Report No: 4600 BW298
Contract No:
Date Sample Received: 12/10/87

VOLATILE COMPOUNDS

Concentration: LOW
Date Extracted/Prepared: 12/20/87
Date Analyzed: 12/20/87
Conc/Dil Factor: 1 pH 6.5
Percent Moisture: 19.4

| CAS Number | | ug/Kg | CAS Number | | ug/Kg |
|---|---|---|---|---|---|
| 74-87-3 | Chloromethane | 12 u | 78-87-5 | 1,2-Dichloropropane | 6 u |
| 74-83-9 | Bromomethane | 12 u | 10061-02-6 | Trans-1,3-Dichloropropene | 6 u |
| 75-01-4 | Vinyl Chloride | 12 u | 79-01-6 | Trichloroethene | 6 u |
| 75-00-3 | Chloroethane | 12 u | 124-48-1 | Dibromochloromethane | 6 u |
| 75-09-2 | Methylene Chloride | 6 u | 79-00-5 | 1,1,2-Trichloroethane | 6 u |
| 67-64-1 | Acetone | 4 J | 71-43-2 | Benzene | 6 u |
| 75-15-0 | Carbon Disulfide | 6 u | 10061-01-5 | cis-1,3-Dichloropropene | 6 u |
| 75-35-4 | 1,1-Dichloroethene | 6 u | 110-75-8 | 2-chloroethylvinylether | 12 u |
| 75-34-3 | 1,1-Dichloroethane | 6 u | 75-25-2 | Bromoform | 6 u |
| 156-60-5 | Trans-1,2-Dichloroethene | 6 u | 108-10-1 | 4-Methyl-2-Pentanone | 12 u |
| 67-66-3 | Chloroform | 6 u | 591-78-6 | 2-Hexanone | 12 u |
| 107-06-2 | 1,2-Dichloroethane | 6 u | 127-18-4 | Tetrachloroethene | 6 u |
| 78-93-3 | 2-butanone | 12 u | 79-34-5 | 1,1,2,2-Tetrachloroethane | 6 u |
| 71-55-6 | 1,1,1-Trichloroethane | 6 u | 108-88-3 | Toluene | 6 u |
| 56-23-5 | Carbon Tetrachloride | 6 u | 108-90-7 | Chlorobenzene | 6 u |
| 108-05-4 | Vinyl Acetate | 12 u | 100-41-4 | Ethylbenzene | 6 u |
| 75-27-4 | Bromodichloromethane | 6 u | 100-42-5 | Styrene | 11 |
| | | | | Total Xylenes | 6 u |

Data Reporting Qualifiers

Value If the result is a value greater than or equal to the detection limit, report the value.

u Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response factor is assumed, or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero. (e.g. 10J)

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

T Spectrum does not meet criteria for confirmation but does indicate compound presence.

NR NOT REQUIRED

NA Compound present in both matrix spike standard and unspiked sample.

Form I

Versar Inc., Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

| SAMPLE ID |
| --- |
| SD-9 |

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

| CAS Number | Compound Name | Fraction | RT or Scan | Estimated Concentration ug/Kg or ug/l |
| --- | --- | --- | --- | --- |
| 11. | NO VOLATILES DETECTED. | VOA | NA | NA |
| 12. | | | | |
| 13. | | | | |
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| 130. | | | | |

Versar Inc., Laboratory Operations
6850 Versar Center, Springfield VA 22151 - 703/750-3000

| Sample Number |
|---|
| SD9 |

Case No: 4600 BW298

ORGANICS ANALYSIS DATA SHEET (Page 2)
Semivolatile Compounds

Concentration: LOW

Date Extracted/Prepared: 12/20/87

Date Analyzed: 01/07/88

Conc/Dil Factor: 1

GPC Cleanup [ ]Yes [X]No

Separatory Funnel Extraction [ ]Yes

Continuous Liquid-Liquid Extraction [ ]Yes

| CAS Number | | ug/Kg |
|---|---|---|
| 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 |
| 39638-32-9 | 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 | 520 u |
| 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 | 520 u |
| 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 | Dimethyl Phthalate | 520 u |
| 208-96-8 | Acenaphthylene | 520 u |
| 99-09-2 | 3-Nitroaniline | 2600 u |

| CAS Number | | ug/Kg |
|---|---|---|
| 83-32-9 | Acenaphthene | 520 u |
| 51-28-5 | 2,4-Dinitrophenol | 2600 u |
| 100-02-7 | 4-Nitrophenol | 2600 u |
| 132-64-9 | Dibenzofuran | 520 u |
| 121-14-2 | 2,4-Dinitrotoluene | 520 u |
| 606-20-2 | 2,6-Dinitrotoluene | 520 u |
| 84-66-2 | Diethylphthalate | 520 u |
| 7005-22-3 | 4-Chlorophenyl-phenylether | 520 u |
| 86-73-7 | Fluorene | 520 u |
| 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 | 520 u |
| 120-12-7 | Anthracene | 520 u |
| 84-74-2 | Di-n-butylphthalate | 520 u |
| 206-44-0 | Fluoranthene | 520 u |
| 129-00-0 | Pyrene | 520 u |
| 85-68-7 | Butylbenzylphthalate | 520 u |
| 91-94-1 | 3,3'-Dichlorobenzidine | 1020 u |
| 56-55-3 | Benzo(a)anthracene | 520 u |
| 117-81-7 | bis(2-Ethylhexyl)Phthalate | 520 u |
| 218-01-9 | Chrysene | 520 u |
| 117-84-0 | Di-n-Octylphthalate | 520 u |
| 205-99-2 | Benzo(b)Fluoranthene | 520 u |
| 207-08-9 | Benzo(k)Fluoranthene | 520 u |
| 50-32-8 | Benzo(a)pyrene | 520 u |
| 193-39-5 | Indeno(1,2,3-cd)Pyrene | 520 u |
| 53-70-3 | Dibenz(a,h)Anthracene | 520 u |
| 191-24-2 | Benzo(g,h,i)Perylene | 520 u |

(1)-Cannot be separated from diphenylamine

Versar Inc., Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

| SAMPLE ID |
|---|
| SD9 |

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

| | CAS Number | Compound Name | Fraction | RT or Scan | Estimated Concentration ug/Kg or ug/l |
|---|---|---|---|---|---|
| 11. | | UNKNOWN | BNA | 616 | 130 J,B, |
| 12. | | UNKNOWN ALCOHOL | BNA | 698 | 220 J,B, |
| 13. | | UNKNOWN HYDROCARBON | BNA | 2047 | 130 J... |
| 14. | | UNKNOWN HYDROCARBON | BNA | 2160 | 200 J... |
| 15. | | UNKNOWN | BNA | 2214 | 320 J,B, |
| 16. | | UNKNOWN ALIPHATIC HYDROCARBON DIOL | BNA | 2245 | 170 J... |
| 17. | | | | | |
| 18. | | | | | |
| 9. | | | | | |
| 110. | | | | | |
| 111. | | | | | |
| 112. | | | | | |
| 113. | | | | | |
| 114. | | | | | |
| 115. | | | | | |
| 116. | | | | | |
| 117. | | | | | |
| 118. | | | | | |
| 119. | | | | | |
| 120. | | | | | |
| 121. | | | | | |
| 122. | | | | | |
| 123. | | | | | |
| 124. | | | | | |
| 125. | | | | | |
| 126. | | | | | |
| 127. | | | | | |
| 128. | | | | | |
| 129. | | | | | |
| 130. | | | | | |

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SD 9

Lab Name: VERSAR, INC. Contract: Tarrardorough

Lab Code: VERSAR Case No.: 14600 B.2 SAS No.: SDG No.: 4301

Matrix: (soil/water) SOIL Lab Sample ID: 43020

Sample wt/vol: 30.14 (g/ml) G Lab File ID:

Level: (low/med) LOW Date Received: 12-10-87

% Moisture: not dec. 19.4 dec. Date Extracted: 12-20-87

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12-23-87

GPC Cleanup: (Y/N) N pH: 5.5 Dilution Factor: 1.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) (ug/Kg) | Q |
|---|---|---|---|
| 319-84-6 | alpha-BHC | 4.1 | U |
| 319-85-7 | beta-BHC | 4.1 | U |
| 319-86-8 | delta-BHC | 4.1 | U |
| 58-89-9 | gamma-BHC (Lindane) | 4.1 | U |
| 76-44-8 | Heptachlor | 4.1 | U |
| 309-00-2 | Aldrin | 4.1 | U |
| 1024-57-3 | Heptachlor Epoxide | 4.1 | U |
| 959-98-8 | Endosulfan I | 4.1 | U |
| 60-57-1 | Dieldrin | 8.2 | U |
| 72-55-9 | 4,4'-DDE | 8.2 | U |
| 72-20-8 | Endrin | 8.2 | U |
| 33213-65-9 | Endosulfan II | 8.2 | U |
| 72-54-8 | 4,4'-DDD | 8.2 | U |
| 1031-07-8 | Endosulfan Sulfate | 8.2 | U |
| 50-29-3 | 4,4'-DDT | 8.2 | U |
| 72-43-5 | Methoxychlor | 8.2 | U |
| 53494-70-5 | Endrin Ketone | 8.2 | U |
| 5103-71-9 | alpha-Chlordane | 8.2 | U |
| 5103-74-2 | gamma-Chlordane | 8.2 | U |
| 8001-35-2 | Toxaphene | 82 | U |
| 12674-11-2 | Aroclor-1016 | 41 | U |
| 11104-28-2 | Aroclor-1221 | 41 | U |
| 11141-16-5 | Aroclor-1232 | 41 | U |
| 53469-21-9 | Aroclor-1242 | 41 | U |
| 12672-29-6 | Aroclor-1248 | 41 | U |
| 11097-69-1 | Aroclor-1254 | 82 | U |
| 11096-82-5 | Aroclor-1260 | 82 | U |



000708

Jay Hill 12-28-87

FORM I

SAMPLE NO.
SD 9

DATE 1/20/88

INORGANIC ANALYSIS DATA SHEET

LAB NAME VERSAR INC.

CASE NO. ---

SOW NO. 785

LAB RECEIPT DATE 12/10/87

LAB SAMPLE ID. NO. 43014

QC REPORT NO. 298

PROJECT-TASK 4600.0000

BATCH 298

ELEMENTS IDENTIFIED AND MEASURED

CONCENTRATION: LOW X MEDIUM HIGH

MATRIX: WATER SOIL X WIPE

MG/KG DRY WEIGHT

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1. | ALUMINUM | 30800. | * P | 13. | MAGNESIUM | 8320. | P |
| 2. | ANTIMONY | 9.6 UN | P | 14. | MANGANESE | 518. N | P |
| 3. | ARSENIC | 22. | F | 15. | MERCURY | 0.14 U | |
| 4. | BARIUM | 128. | P | 16. | NICKEL | 41. | P |
| 5. | BERYLLIUM | 1.6 | P | 17. | POTASSIUM | 6380. * | P |
| 6. | CADMIUM | 1.4 U | P | 18. | SELENIUM | 14. UN | F |
| 7. | CALCIUM | 2840. | P | 19. | SILVER | 2.0 UN | P |
| 8. | CHROMIUM | 95. N | P | 20. | SODIUM | [ 270.] | P |
| 9. | COBALT | [ 12.] | P | 21. | THALLIUM | 2.9 U | F |
| 10. | COPPER | 26. | P | 22. | VANADIUM | 58. * | P |
| 11. | IRON | 34200. | P | 23. | ZINC | 65. E | P |
| 12. | LEAD | 78. N* | F | | PERCENT SOLIDS | 68.6 | |
| | CYANIDE | NR | | | | | |

FOOTNOTES: SEE COVER PAGE.

COMMENTS: COLOR - GRAY; TEXTURE - COARSE; DF OF 2 FOR AL, FE; DF OF 2 FOR AS; DF OF 10 FOR PB, SE;

LAB MANAGER

WILLIAM T. NIVENS

Versar, Inc. Laboratory Operations
6350 Versar Center, Springfield VA 22151 (703) 750-3000

| Sample Number |
|---|
| SD-10 |

ORGANICS ANALYSIS DATA SHEET (Page 1)

Laboratory Name: VERSAR
Lab Sample ID No: 43024
Sample Matrix: SOIL
Data Release Authorized By:

Case No: 4600 BW298
QC Report No: 4600 BW298
Contract No:
Date Sample Received: 12/10/87

VOLATILE COMPOUNDS

Concentration: LOW
Date Extracted/Prepared: 12/20/87
Date Analyzed: 12/20/87
Conc/Dil Factor: 1 pH 7.0
Percent Moisture: 16.7

| CAS Number | | ug/Kg | CAS Number | | ug/Kg |
|---|---|---|---|---|---|
| 74-87-3 | Chloromethane | 12 u | 78-87-5 | 1,2-Dichloropropane | 6 u |
| 74-83-9 | Bromomethane | 12 u | 10061-02-6 | Trans-1,3-Dichloropropene | 6 u |
| 75-01-4 | Vinyl Chloride | 12 u | 79-01-6 | Trichloroethene | 6 u |
| 75-00-3 | Chloroethane | 12 u | 124-48-1 | Dibromochloromethane | 6 u |
| 75-09-2 | Methylene Chloride | 6 u | 79-00-5 | 1,1,2-Trichloroethane | 6 u |
| 67-64-1 | Acetone | 6 J | 71-43-2 | Benzene | 6 u |
| 75-15-0 | Carbon Disulfide | 6 u | 10061-01-5 | cis-1,3-Dichloropropene | 6 u |
| 75-35-4 | 1,1-Dichloroethene | 6 u | 110-75-8 | 2-chloroethylvinylether | 12 u |
| 75-34-3 | 1,1-Dichloroethane | 6 u | 75-25-2 | Bromoform | 6 u |
| 156-60-5 | Trans-1,2-Dichloroethene | 6 u | 108-10-1 | 4-Methyl-2-Pentanone | 12 u |
| 67-66-3 | Chloroform | 6 u | 591-78-6 | 2-Hexanone | 12 u |
| 107-06-2 | 1,2-Dichloroethane | 6 u | 127-18-4 | Tetrachloroethene | 6 u |
| 78-93-3 | 2-butanone | 12 u | 79-34-5 | 1,1,2,2-Tetrachloroethane | 6 u |
| 71-55-6 | 1,1,1-Trichloroethane | 6 u | 108-88-3 | Toluene | 6 u |
| 56-23-5 | Carbon Tetrachloride | 6 u | 108-90-7 | Chlorobenzene | 6 u |
| 108-05-4 | Vinyl Acetate | 12 u | 100-41-4 | Ethylbenzene | 6 u |
| 75-27-4 | Bromodichloromethane | 6 u | 100-42-5 | Styrene | 7 |
| | | | | Total Xylenes | 5 u |

Data Reporting Qualifiers

Value If the result is a value greater than or equal to the detection limit, report the value.

u Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response factor is assumed, or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero. (e.g. 10J)

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

T Spectrum does not meet criteria for confirmation but does indicate compound presence.

NR NOT REQUIRED

NA Compound present in both matrix spike standard and unspiked sample.

Form I

GB

Versar Inc., Laboratory Operations
6850 Versar Center, Springfield VA 22151, (703) 750-3000

| SAMPLE ID |
|---|
| SD-10 |

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

| | CAS Number | Compound Name | Fraction | RT or Scan | Estimated Concentration (ug/Kg or ug/l) |
|---|---|---|---|---|---|
| 11. | | NO VOLATILES DETECTED | VOA | NA | NA |
| 12. | | | | | |
| 13. | | | | | |
| 14. | | | | | |
| 15. | | | | | |
| 16. | | | | | |
| 17. | | | | | |
| 18. | | | | | |
| 19. | | | | | |
| 110. | | | | | |
| 111. | | | | | |
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| 120. | | | | | |
| 121. | | | | | |
| 122. | | | | | |
| 123. | | | | | |
| 124. | | | | | |
| 125. | | | | | |
| 126. | | | | | |
| 127. | | | | | |
| 128. | | | | | |
| 129. | | | | | |
| 130. | | | | | |

Versar Inc., Laboratory Operations
6850 Versar Center, Springfield VA 22151, 703/750-3000

| Sample Number |
|---|
| SD10 |

Case No: 4600 BM298

ORGANICS ANALYSIS DATA SHEET (Page 2)
Semivolatile Compounds

Concentration: LOW

Date Extracted/Prepared: 12/20/87

Date Analyzed: 01/07/88

Conc/Dil Factor: 1

GPC Cleanup [ ]Yes [X]No

Separatory Funnel Extraction [ ]Yes

Continuous Liquid-Liquid Extraction [ ]Yes

| CAS Number | | ug/Kg |
|---|---|---|
| 108-95-2 | Phenol | 500 u |
| 111-44-4 | bis(2-Chloroethyl)Ether | 500 u |
| 95-57-8 | 2-Chlorophenol | 500 u |
| 541-73-1 | 1,3-Dichlorobenzene | 500 u |
| 106-46-7 | 1,4-Dichlorobenzene | 500 u |
| 100-51-6 | Benzyl Alcohol | 500 u |
| 95-50-1 | 1,2-Dichlorobenzene | 500 u |
| 95-48-7 | 2-Methylphenol | 500 u |
| 39638-32-9 | bis(2-chloroisopropyl)ether | 500 u |
| 106-44-5 | 4-methylphenol | 500 u |
| 621-64-7 | N-Nitroso-Di-n-propylamine | 500 u |
| 67-72-1 | Hexachloroethane | 500 u |
| 98-95-3 | Nitrobenzene | 500 u |
| 78-59-1 | Isophorone | 500 u |
| 88-75-5 | 2-Nitrophenol | 500 u |
| 105-67-9 | 2,4-dimethylphenol | 500 u |
| 65-85-0 | Benzoic Acid | 860 J |
| 111-91-1 | bis(2-chloroethoxy)methane | 500 u |
| 120-83-2 | 2,4-dichlorophenol | 500 u |
| 120-82-1 | 1,2,4-trichlorobenzene | 500 u |
| 91-20-3 | Naphthalene | 500 u |
| 106-47-8 | 4-Chloroaniline | 500 u |
| 87-68-3 | Hexachlorobutadiene | 500 u |
| 59-50-7 | 4-chloro-3-methylphenol | 500 u |
| 91-57-6 | 2-methylnaphthalene | 500 u |
| 77-47-4 | Hexachlorocyclopentadiene | 500 u |
| 88-06-2 | 2,4,6-Trichlorophenol | 500 u |
| 95-95-4 | 2,4,5-Trichlorophenol | 2400 u |
| 91-58-7 | 2-Chloronaphthalene | 500 u |
| 88-74-4 | 2-Nitroaniline | 2400 u |
| 131-11-3 | Dimethyl Phthalate | 500 u |
| 208-96-8 | Acenaphthylene | 500 u |
| 99-09-2 | 3-Nitroaniline | 2400 u |

| CAS Number | | ug/Kg |
|---|---|---|
| 83-32-9 | Acenaphthene | 500 u |
| 51-28-5 | 2,4-Dinitrophenol | 2400 u |
| 100-02-7 | 4-Nitrophenol | 2400 u |
| 132-64-9 | Dibenzofuran | 500 u |
| 121-14-2 | 2,4-Dinitrotoluene | 500 u |
| 606-20-2 | 2,6-Dinitrotoluene | 500 u |
| 84-66-2 | Diethylphthalate | 500 u |
| 7005-22-3 | 4-Chlorophenyl-phenylether | 500 u |
| 86-73-7 | Fluorene | 500 u |
| 100-01-6 | 4-Nitroaniline | 2400 u |
| 534-52-1 | 4,6-dinitro-2-methylphenol | 2400 u |
| 86-30-6 | N-Nitrosodiphenylamine (1) | 500 u |
| 101-55-3 | 4-Bromophenyl-phenylether | 500 u |
| 118-74-1 | Hexachlorobenzene | 500 u |
| 87-86-5 | Pentachlorophenol | 2400 u |
| 85-01-8 | Phenanthrene | 220 J |
| 120-12-7 | Anthracene | 500 u |
| 84-74-2 | Di-n-butylphthalate | 160 J |
| 206-44-0 | Fluoranthene | 980 |
| 129-00-0 | Pyrene | 940 |
| 85-68-7 | Butylbenzylphthalate | 500 u |
| 91-94-1 | 3,3'-Dichlorobenzidine | 1000 u |
| 56-55-3 | Benzo(a)anthracene | 610 |
| 117-81-7 | bis(2-Ethylhexyl)Phthalate | 130 J |
| 218-01-9 | Chrysene | 630 |
| 117-84-0 | Di-n-Octylphthalate | 500 u |
| 205-99-2 | Benzo(b)Fluoranthene | 800 |
| 207-08-9 | Benzo(k)Fluoranthene | 340 J |
| 50-32-8 | Benzo(a)pyrene | 370 J |
| 193-39-5 | Indeno(1,2,3-cd)Pyrene | 260 J |
| 53-70-3 | Dibenz(a,h)Anthracene | 500 u |
| 191-24-2 | Benzo(g,h,i)Perylene | 200 J |

(1)-Cannot be separated from diphenylamine

Versar Inc., Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

| SAMPLE ID |
|---|
| SD10 |

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

| CAS Number | Compound Name | Fraction | RT or Scan | Estimated Concentration (ug/Kg or ug/l) |
|---|---|---|---|---|
| 1 | UNKNOWN | BNA | 614 | 130 J,B |
| 2 | UNKNOWN ALCOHOL | BNA | 697 | 210 J,B |
| 3. 140-10-3 | 2-PROPENOIC ACID, 3-PHENYL | BNA | 1186 | 92 J |
| 4 | UNKNOWN | BNA | 1628 | 53 J |
| 5 | UNKNOWN | BNA | 1666 | 230 J |
| 6 | UNKNOWN | BNA | 1806 | 150 J |
| 7 | UNKNOWN PHENOL DERIVATIVE | BNA | 1847 | 580 J |
| 8 | UNKNOWN POLYCYCLIC AROMATIC | BNA | 1892 | 260 J |
| 9 | UNKNOWN HYDROCARBON | BNA | 1916 | 220 J |
| 10 | UNKNOWN POLYCYCLIC AROMATIC | BNA | 2020 | 200 J |
| 11 | UNKNOWN HYDROCARBON | BNA | 2046 | 590 J |
| 12 | UNKNOWN POLYCYCLIC AROMATIC | BNA | 2057 | 690 J |
| 13 | UNKNOWN | BNA | 2110 | 360 J |
| 14 | UNKNOWN | BNA | 2126 | 310 J |
| 15 | UNKNOWN POLYCYCLIC AROMATIC | BNA | 2133 | 150 J |
| 16 | UNKNOWN HYDROCARBON | BNA | 2159 | 1,100 J |
| 17 | UNKNOWN | BNA | 2177 | 200 J,B |
| 18 | UNKNOWN | BNA | 2213 | 490 J,B |
| 19 | UNKNOWN | BNA | 2244 | 670 J |
| 20 | UNKNOWN HYDROCARBON | BNA | 2283 | 520 J |
| 21. 205-82-3 | BENZO(J)FLUORANTHENE | BNA | 2311 | 310 J |
| 22 | UNKNOWN ALPHATIC ALDEHYDE | BNA | 2403 | 820 J |
| 23 | UNKNOWN HYDROCARBON | BNA | 2454 | 260 J |
| 24 | UNKNOWN | BNA | 2490 | 110 J |
| 25 | UNKNOWN | BNA | 2633 | 130 J |
| 26 | | | | |
| 27 | | | | |
| 28 | | | | |
| 29 | | | | |
| 30 | | | | |

ID

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SD 10

Lab Name: VERSAR, INC. Contract: TAYLORBOROUGH

Lab Code: VERSAR Case No. 14600 B.2 SAS No.: SDG No.: 43019

Matrix: (soil/water) SOIL Lab Sample ID: 43021

Sample wt/vol: 30.05 (g/ml) G Lab File ID:

Level: (low/med) LOW Date Received: 12-10-87

% Moisture: not dec. 16.7 dec. Date Extracted: 12-20-87

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12-23-87

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) (ug/Kg) | Q |
|---|---|---|---|
| 319-84-6 | alpha-BHC | 4.0 | U |
| 319-85-7 | beta-BHC | 4.0 | U |
| 319-86-8 | delta-BHC | 4.0 | U |
| 58-89-9 | gamma-BHC (Lindane) | 4.0 | U |
| 76-44-8 | Heptachlor | 4.0 | U |
| 309-00-2 | Aldrin | 4.0 | U |
| 1024-57-3 | Heptachlor Epoxide | 4.0 | U |
| 959-98-8 | Endosulfan I | 4.0 | U |
| 60-57-1 | Dieldrin | 8.0 | U |
| 72-55-9 | 4,4'-DDE | 8.0 | U |
| 72-20-8 | Endrin | 8.0 | U |
| 33213-65-9 | Endosulfan II | 8.0 | U |
| 72-54-8 | 4,4'-DDD | 8.0 | U |
| 1031-07-8 | Endosulfan Sulfate | 8.0 | U |
| 50-29-3 | 4,4'-DDT | 8.0 | U |
| 72-43-5 | Methoxychlor | 8.0 | U |
| 53494-70-5 | Endrin Ketone | 8.0 | U |
| 5103-71-9 | alpha-Chlordane | 8.0 | U |
| 5103-74-2 | gamma-Chlordane | 8.0 | U |
| 8001-35-2 | Toxaphene | 80 | U |
| 12674-11-2 | Aroclor-1016 | 40 | U |
| 11104-28-2 | Aroclor-1221 | 40 | U |
| 11141-16-5 | Aroclor-1232 | 40 | U |
| 53469-21-9 | Aroclor-1242 | 40 | U |
| 12672-29-6 | Aroclor-1248 | 40 | U |
| 11097-69-1 | Aroclor-1254 | 80 | U |
| 11096-82-5 | Aroclor-1260 | 80 | U |



12-28-87

FORM I

SAMPLE NO.
SD 10

DATE 1/20/88

INORGANIC ANALYSIS DATA SHEET

LAB NAME VERSAR INC.

CASE NO. ---

SOW NO. 785

LAB RECEIPT DATE 12/10/87

LAB SAMPLE ID. NO. 43015

QC REPORT NO. 298

PROJECT-TASK 4600.0000

BATCH 298

ELEMENTS IDENTIFIED AND MEASURED

CONCENTRATION: LOW X MEDIUM HIGH

MATRIX: WATER SOIL X WIPE

MG/KG DRY WEIGHT

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1. | ALUMINUM | 34600. | * P | 13. | MAGNESIUM | 9430. | P |
| 2. | ANTIMONY | 8.8 UN | P | 14. | MANGANESE | 500. N | P |
| 3. | ARSENIC | 20. | F | 15. | MERCURY | 0.13 U | |
| 4. | BARIUM | 155. | P | 16. | NICKEL | 38. | P |
| 5. | BERYLLIUM | [ 1.3] | P | 17. | POTASSIUM | 5860. * | P |
| 6. | CADMIUM | 1.3 U | P | 18. | SELENIUM | 6.7 UN | F |
| 7. | CALCIUM | 2620. | P | 19. | SILVER | 1.9 UN | P |
| 8. | CHROMIUM | 62. N | P | 20. | SODIUM | [ 262.] | P |
| 9. | COBALT | [ 13.] | P | 21. | THALLIUM | 2.7 U | F |
| 10. | COPPER | 25. | P | 22. | VANADIUM | 65. * | P |
| 11. | IRON | 35500. | P | 23. | ZINC | 73. E | P |
| 12. | LEAD | 13. N* | F | | PERCENT SOLIDS | 74.6 | |
| | CYANIDE | NR | | | | | |

FOOTNOTES: SEE COVER PAGE.

COMMENTS: COLOR - GRAY; TEXTURE - MEDIUM; DF OF 2 FOR AL, FE, MG; SD; DF OF 5 FOR SE;

LAB MANAGER

WILLIAM T. NIVENS

**ST. JOHN'S CREEK**
**SURFACE WATER SAMPLES**

Versar, Inc. Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

| Sample Number |
|---|
| VS-14 |

ORGANICS ANALYSIS DATA SHEET (Page 1)

Laboratory Name: VERSAR
Lab Sample ID No: 43041
Sample Matrix: WATER
Data Release Authorized By:

Case No: 4600 BN298
QC Report No: 4600 BN298
Contract No:
Date Sample Received: 12/10/87

VOLATILE COMPOUNDS

Concentration: LOW
Date Extracted/Prepared: 12/18/87
Date Analyzed: 12/18/87
Conc/Dil Factor: 1 pH NR
Percent Moisture: 100

| CAS Number | | ug/l |
|---|---|---|
| 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 | 25 |
| 75-15-0 | Carbon Disulfide | 5 u |
| 75-35-4 | 1,1-Dichloroethene | 5 u |
| 75-34-3 | 1,1-Dichloroethane | 5 u |
| 156-60-5 | Trans-1,2-Dichloroethene | 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 |

| CAS Number | | ug/l |
|---|---|---|
| 78-87-5 | 1,2-Dichloropropane | 5 u |
| 10061-02-6 | Trans-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 |
| 10061-01-5 | cis-1,3-Dichloropropene | 5 u |
| 110-75-8 | 2-chloroethylvinylether | 10 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 |
| | Total Xylenes | 5 u |

Data Reporting Qualifiers

Value If the result is a value greater than or equal to the detection limit, report the value.

u Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response factor is assumed, or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero. (e.g. 10J)

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

T Spectrum does not meet criteria for confirmation but does indicate compound presence.

NR NOT REQUIRED

NA Compound present in both matrix spike standard and unspiked sample.

Form I

Versar Inc., Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

| SAMPLE ID |
|---|
| WS-14 |

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

| | CAS Number | Compound Name | Fraction | RT or Scan | Estimated Concentration ug/Kg or ug/l |
|---|---|---|---|---|---|
| 11. | | NO VOLATILES DETECTED | VOA | NA | NA |
| 12. | | | | | |
| 13. | | | | | |
| 14. | | | | | |
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| 129. | | | | | |
| 130. | | | | | |

Versar Inc., Laboratory Operations
6850 Versar Center, Springfield VA 22151 703/750-3000

Sample Number
WS14

Case No: 4600 B8298

ORGANICS ANALYSIS DATA SHEET (Page 2)
Semivolatile Compounds

Concentration: LOW

Date Extracted/Prepared: 12/14/87

Date Analyzed: 12/29/87

Conc/Dil Factor: 1

GPC Cleanup ( )Yes ( )No

Separatory Funnel Extraction ( )Yes

Continuous Liquid-Liquid Extraction (X)Yes

| CAS Number | | ug/l |
|---|---|---|
| 108-95-2 | Phenol | 14 u |
| 111-44-4 | bis(2-Chloroethyl)Ether | 14 u |
| 95-57-8 | 2-Chlorophenol | 14 u |
| 541-73-1 | 1,3-Dichlorobenzene | 14 u |
| 106-46-7 | 1,4-Dichlorobenzene | 14 u |
| 100-51-6 | Benzyl Alcohol | 14 u |
| 95-50-1 | 1,2-Dichlorobenzene | 14 u |
| 95-48-7 | 2-Methylphenol | 14 u |
| 39638-32-9 | bis(2-chloroisopropyl)ether | 14 u |
| 106-44-5 | 4-methylphenol | 14 u |
| 621-64-7 | N-Nitroso-Di-n-propylamine | 14 u |
| 67-72-1 | Hexachloroethane | 14 u |
| 98-95-3 | Nitrobenzene | 14 u |
| 78-59-1 | Isophorone | 14 u |
| 88-75-5 | 2-Nitrophenol | 14 u |
| 105-67-9 | 2,4-dimethylphenol | 14 u |
| 65-85-0 | Benzoic Acid | 71 u |
| 111-91-1 | bis(2-chloroethoxy)methane | 14 u |
| 120-83-2 | 2,4-dichlorophenol | 14 u |
| 120-82-1 | 1,2,4-trichlorobenzene | 14 u |
| 91-20-3 | Naphthalene | 14 u |
| 106-47-8 | 4-Chloroaniline | 14 u |
| 87-68-3 | Hexachlorobutadiene | 14 u |
| 59-50-7 | 4-chloro-3-methylphenol | 14 u |
| 91-57-6 | 2-methylnaphthalene | 14 u |
| 77-47-4 | Hexachlorocyclopentadiene | 14 u |
| 88-06-2 | 2,4,6-Trichlorophenol | 14 u |
| 95-95-4 | 2,4,5-Trichlorophenol | 71 u |
| 91-58-7 | 2-Chloronaphthalene | 14 u |
| 88-74-4 | 2-Nitroaniline | 71 u |
| 131-11-3 | Dimethyl Phthalate | 14 u |
| 208-96-8 | Acenaphthylene | 14 u |
| 99-09-2 | 3-Nitroaniline | 71 u |

| CAS Number | | ug/l |
|---|---|---|
| 83-32-9 | Acenaphthene | 14 u |
| 51-28-5 | 2,4-Dinitrophenol | 71 u |
| 100-02-7 | 4-Nitrophenol | 71 u |
| 132-64-9 | Dibenzofuran | 14 u |
| 121-14-2 | 2,4-Dinitrotoluene | 14 u |
| 606-20-2 | 2,6-Dinitrotoluene | 14 u |
| 84-66-2 | Diethylphthalate | 14 u |
| 7005-22-3 | 4-Chlorophenyl-phenylether | 14 u |
| 86-73-7 | Fluorene | 14 u |
| 100-01-6 | 4-Nitroaniline | 71 u |
| 534-52-1 | 4,6-Dinitro-2-methylphenol | 71 u |
| 86-30-6 | N-Nitrosodiphenylamine (1) | 14 u |
| 101-55-3 | 4-Bromophenyl-phenylether | 14 u |
| 118-74-1 | Hexachlorobenzene | 14 u |
| 87-86-5 | Pentachlorophenol | 71 u |
| 85-01-8 | Phenanthrene | 14 u |
| 120-12-7 | Anthracene | 14 u |
| 84-74-2 | Di-n-butylphthalate | 14 u |
| 206-44-0 | Fluoranthene | 14 u |
| 129-00-0 | Pyrene | 14 u |
| 85-68-7 | Butylbenzylphthalate | 14 u |
| 91-94-1 | 3,3'-Dichlorobenzidine | 29 u |
| 56-55-3 | Benzo(a)anthracene | 14 u |
| 117-81-7 | bis(2-Ethylhexyl)Phthalate | 14 u |
| 218-01-9 | Chrysene | 14 u |
| 117-84-0 | Di-n-Octylphthalate | 14 u |
| 205-99-2 | Benzo(b)Fluoranthene | 14 u |
| 207-08-9 | Benzo(k)Fluoranthene | 14 u |
| 50-32-8 | Benzo(a)pyrene | 14 u |
| 193-39-5 | Indeno(1,2,3-cd)Pyrene | 14 u |
| 53-70-3 | Dibenz(a,h)Anthracene | 14 u |
| 191-24-2 | Benzo(g,h,i)Perylene | 14 u |

(1)-Cannot be separated from diphenylamine

Versar Inc., Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

| SAMPLE ID |
|---|
| WS-14 |

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

| | CAS Number | Compound Name | Fraction | RT or Scan | Estimated Concentration (ug/Kg or ug/l) |
|---|---|---|---|---|---|
| 11. | | NO SEMIVOLATILES DETECTED | BNA | NA | NA |
| 12. | | | | | |
| 13. | | | | | |
| 14. | | | | | |
| 15. | | | | | |
| 16. | | | | | |
| 17. | | | | | |
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| 127. | | | | | |
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| 130. | | | | | |

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

WS 14

Lab Name: VERSAR, INC. Contract: TAYLOR BOROUGH

Lab Code: VERSAR Case No.: 4600 B29 SAS No.: SDG No.: WS 14

Matrix: (soil/water) WATER Lab Sample ID: 43033

Sample wt/vol: 740 (g/ml) ML Lab File ID:

Level: (low/med) LOW Date Received: 12-10-87

% Moisture: not dec. dec. Date Extracted: 12-12-87

Extraction: (SepF/Cont/Sonc) CONT Date Analyzed: 12-17-87

GPC Cleanup: (Y/N) N pH: Dilution Factor: 1.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) (ug/l) | Q |
|---|---|---|---|
| 319-84-6 | alpha-BHC | 0.05 | U |
| 319-85-7 | beta-BHC | 0.05 | U |
| 319-86-8 | delta-BHC | 0.05 | U |
| 58-89-9 | gamma-BHC (Lindane) | 0.05 | U |
| 76-44-8 | Heptachlor | 0.05 | U |
| 309-00-2 | Aldrin | 0.05 | U |
| 1024-57-3 | Heptachlor Epoxide | 0.05 | U |
| 959-98-8 | Endosulfan I | 0.05 | U |
| 60-57-1 | Dieldrin | 0.10 | U |
| 72-55-9 | 4,4'-DDE | 0.10 | U |
| 72-20-8 | Endrin | 0.10 | U |
| 33213-65-9 | Endosulfan II | 0.10 | U |
| 72-54-8 | 4,4'-DDD | 0.10 | U |
| 1031-07-8 | Endosulfan Sulfate | 0.10 | U |
| 50-29-3 | 4,4'-DDT | 0.10 | U |
| 72-43-5 | Methoxychlor | 0.10 | U |
| 53494-70-5 | Endrin Ketone | 0.10 | U |
| 5103-71-9 | alpha-Chlordane | 0.10 | U |
| 5103-74-2 | gamma-Chlordane | 0.10 | U |
| 8001-35-2 | Toxaphene | 1.0 | U |
| 12674-11-2 | Aroclor-1016 | 0.50 | U |
| 11104-28-2 | Aroclor-1221 | 0.50 | U |
| 11141-16-5 | Aroclor-1232 | 0.50 | U |
| 53469-21-9 | Aroclor-1242 | 0.50 | U |
| 12672-29-6 | Aroclor-1248 | 0.50 | U |
| 11097-69-1 | Aroclor-1254 | 1.0 | U |
| 11096-82-5 | Aroclor-1260 | 1.0 | U |

Gary Hill 12-17-87

FORM I PEST 1/87 Rev.

FORM I

SAMPLE NO.
WS 14

DATE 1/20/88

INORGANIC ANALYSIS DATA SHEET

LAB NAME VERSAR INC.

CASE NO. ---

SOW NO. 785

LAB RECEIPT DATE 12/10/87

LAB SAMPLE ID. NO. 43025

QC REPORT NO. 298

PROJECT-TASK 4600.0000

BATCH 298

ELEMENTS IDENTIFIED AND MEASURED

CONCENTRATION: LOW X MEDIUM HIGH

MATRIX: WATER X SOIL WIPE

UG/L

| | | | | | |
|---|---|---|---|---|---|
| 1. ALUMINUM | [ 154.] | P | 13. MAGNESIUM | [ 915.] | P |
| 2. ANTIMONY | 33. U | P | 14. MANGANESE | [ 13.] | P |
| 3. ARSENIC | 10. U | F | 15. MERCURY | 0.2 U | |
| 4. BARIUM | [ 23.] | P | 16. NICKEL | 11. U | P |
| 5. BERYLLIUM | 2.0 U | P | 17. POTASSIUM | 1720. U | P |
| 6. CADMIUM | 5.0 U | P | 18. SELENIUM | 5.0 U | F |
| 7. CALCIUM | [ 2170.] | P | 19. SILVER | 7.0 U | P |
| 8. CHROMIUM | 6.0 U | P | 20. SODIUM | [ 792.] | P |
| 9. COBALT | 5.0 U | P | 21. THALLIUM | 10. U | F |
| 10. COPPER | [ 13.] | P | 22. VANADIUM | 5.0 U | P |
| 11. IRON | 374. | P | 23. ZINC | 21. | P |
| 12. LEAD | 5.0 U | F | | | |
| CYANIDE | NR | | | | |

FOOTNOTES: SEE COVER PAGE.

COMMENTS: COLOR - COLORLESS; CLARITY - CLEAR;

LAB MANAGER

WILLIAM T. NIVENS

FORM I

SAMPLE NO.
WS 14F

DATE 1/20/88

INORGANIC ANALYSIS DATA SHEET

LAB NAME VERSAR INC.

CASE NO. ---

SOW NO. 785

LAB RECEIPT DATE 12/10/87

LAB SAMPLE ID. NO. 43029

QC REPORT NO. 298

PROJECT-TASK 4600.0000

BATCH 298

ELEMENTS IDENTIFIED AND MEASURED

CONCENTRATION: LOW X MEDIUM HIGH

MATRIX: WATER X SOIL WIPE

UG/L

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1. | ALUMINUM | [ 31.] | P | 13. | MAGNESIUM | [ 952.] | P |
| 2. | ANTIMONY | 33. U | P | 14. | MANGANESE | 2.0 U | P |
| 3. | ARSENIC | 10. U | F | 15. | MERCURY | 0.2 U | |
| 4. | BARIUM | [ 23.] | P | 16. | NICKEL | 11. U | P |
| 5. | BERYLLIUM | 2.0 U | P | 17. | POTASSIUM | 1720. U | P |
| 6. | CADMIUM | 5.0 U | P | 18. | SELENIUM | 5.0 U | F |
| 7. | CALCIUM | [ 2460.] | P | 19. | SILVER | 7.0 U | P |
| 8. | CHROMIUM | 6.0 U | P | 20. | SODIUM | [ 804.] | P |
| 9. | COBALT | 5.0 U | P | 21. | THALLIUM | 10. U | F |
| 10. | COPPER | [ 10.] | P | 22. | VANADIUM | 5.0 U | P |
| 11. | IRON | 10. U | P | 23. | ZINC | 24. | P |
| 12. | LEAD | 5.0 U | F | | | | |
| | CYANIDE | NR | | | | | |

FOOTNOTES: SEE COVER PAGE.

COMMENTS: COLOR - COLORLESS; CLARITY - CLEAR;

LAB MANAGER

WILLIAM T. NIVENS

Versar, Inc. Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

| Sample Number |
|---|
| WS-15 |

ORGANICS ANALYSIS DATA SHEET (Page 1)

Laboratory Name: VERSAR
Lab Sample ID No: 43042
Sample Matrix: WATER
Data Release Authorized By:

Case No: 4600 RW298
QC Report No: 4600 RW298
Contract No:
Date Sample Received: 12/10/87

VOLATILE COMPOUNDS

Concentration: LOW
Date Extracted/Prepared: 12/18/87
Date Analyzed: 12/18/87
Conc/Dil Factor: 1 pH NR
Percent Moisture: 100

| CAS Number | | ug/l |
|---|---|---|
| 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 |
| 156-60-5 | Trans-1,2-Dichloroethene | 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 |

| CAS Number | | ug/l |
|---|---|---|
| 78-87-5 | 1,2-Dichloropropane | 5 u |
| 10061-02-6 | Trans-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 |
| 10061-01-5 | cis-1,3-Dichloropropene | 5 u |
| 110-75-8 | 2-chloroethylvinylether | 10 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 |
| | Total Xylenes | 5 u |

Data Reporting Qualifiers

Value If the result is a value greater than or equal to the detection limit, report the value.

u Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response factor is assumed, or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero. (e.g. 10J)

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

T Spectrum does not meet criteria for confirmation but does indicate compound presence.

NR NOT REQUIRED

MA Compound present in both matrix spike standard and unspiked sample.

Form I

Versar Inc., Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

SAMPLE ID
WS-15

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

| CAS Number | Compound Name | Fraction | RT or Scan | Estimated Concentration (ug/Kg or ug/l) |
|---|---|---|---|---|
| 11. | NO VOLATILES DETECTED | VOA | NA | NA |
| 12. | | | | |
| 13. | | | | |
| 14. | | | | |
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| 130. | | | | |

Versar Inc., Laboratory Operations
6850 Versar Center, Springfield VA 22151 703/750-3000

| Sample Number |
|---|
| WS15 |

Case No: 4600 BW398

ORGANICS ANALYSIS DATA SHEET (Page 2)
Semivolatile Compounds

Concentration: LOW

Date Extracted/Prepared: 12/14/87

Date Analyzed: 12/22/87

Conc/Dil Factor: 1

GPC Cleanup [ ]Yes [ ]No

Separatory Funnel Extraction [ ]Yes

Continuous Liquid-Liquid Extraction [X]Yes

| CAS Number | | ug/l | CAS Number | | ug/l |
|---|---|---|---|---|---|
| 108-95-2 | Phenol | 10 u | 83-32-9 | Acenapnthene | 10 u |
| 111-44-4 | bis(2-Chloroethyl)Ether | 10 u | 51-28-5 | 2,4-Dinitrophenol | 50 u |
| 95-57-8 | 2-Chlorophenol | 10 u | 100-02-7 | 4-Nitropnenol | 50 u |
| 541-73-1 | 1,3-Dichlorobenzene | 10 u | 132-64-9 | Dibenzofuran | 10 u |
| 106-46-7 | 1,4-Dichlorobenzene | 10 u | 121-14-2 | 2,4-Dinitrotoluene | 10 u |
| 100-51-6 | Benzyl Alcohol | 10 u | 606-20-2 | 2,6-Dinitrotoluene | 10 u |
| 95-50-1 | 1,2-Dichlorobenzene | 10 u | 84-66-2 | Diethylphthalate | 10 u |
| 95-48-7 | 2-Methylphenol | 10 u | 7005-22-3 | 4-Chlorophenyl-phenylether | 10 u |
| 39638-32-9 | bis(2-chloroisopropyl)ether | 10 u | 86-73-7 | Fluorene | 10 u |
| 106-44-5 | 4-Methylphenol | 10 u | 100-01-6 | 4-Nitroaniline | 50 u |
| 621-64-7 | N-Nitroso-Di-n-propylamine | 10 u | 534-52-1 | 4,6-dinitro-2-methylphenol | 50 u |
| 67-72-1 | Hexachloroethane | 10 u | 86-30-6 | N-Nitrosodiphenylamine (1) | 10 u |
| 98-95-3 | Nitrobenzene | 10 u | 101-55-3 | 4-Bromophenyl-phenylether | 10 u |
| 78-59-1 | Isophorone | 10 u | 118-74-1 | Hexachlorobenzene | 10 u |
| 88-75-5 | 2-Nitrophenol | 10 u | 87-86-5 | Pentachlorophenol | 50 u |
| 105-67-9 | 2,4-dimethylphenol | 10 u | 85-01-8 | Phenanthrene | 10 u |
| 65-85-0 | Benzoic Acid | 50 u | 120-12-7 | Anthracene | 10 u |
| 111-91-1 | bis(2-chloroethoxy)methane | 10 u | 84-74-2 | Di-n-butylphthalate | 10 u |
| 120-83-2 | 2,4-dichlorophenol | 10 u | 206-44-0 | Fluoranthene | 10 u |
| 120-82-1 | 1,2,4-trichlorobenzene | 10 u | 129-00-0 | Pyrene | 10 u |
| 91-20-3 | Naphthalene | 10 u | 85-68-7 | Butylbenzylphthalate | 10 u |
| 106-47-8 | 4-Chloroaniline | 10 u | 91-94-1 | 3,3'-Dichlorobenzidine | 20 u |
| 87-68-3 | Hexachlorobutadiene | 10 u | 56-55-3 | Benzo(a)anthracene | 10 u |
| 59-50-7 | 4-chloro-3-methylphenol | 10 u | 1117-81-7 | bis(2-Ethylhexyl)Phthalate | 10 u |
| 91-57-6 | 2-methylnaphthalene | 10 u | 218-01-9 | Chrysene | 10 u |
| 77-47-4 | Hexachlorocyclopentadiene | 10 u | 1117-84-0 | Di-n-Octylphthalate | 10 u |
| 88-06-2 | 2,4,6-Trichlorophenol | 10 u | 205-99-2 | Benzo(b)Fluoranthene | 10 u |
| 95-95-4 | 2,4,5-Trichlorophenol | 50 u | 207-08-9 | Benzo(k)Fluoranthene | 10 u |
| 91-58-7 | 2-Chloronaphthalene | 10 u | 50-32-8 | Benzo(a)pyrene | 10 u |
| 88-74-4 | 2-Nitroaniline | 50 u | 193-39-5 | Indeno(1,2,3-cd)Pyrene | 10 u |
| 131-11-3 | Dimethyl Phthalate | 10 u | 53-70-3 | Dibenz(a,h)Anthracene | 10 u |
| 208-96-8 | Acenaphthylene | 10 u | 191-24-2 | Benzo(g,h,i)Perylene | 10 u |
| 99-09-2 | 3-Nitroaniline | 50 u | | | |

(1)-Cannot be separated from diphenylamine

Versar Inc., Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

| SAMPLE ID |
|---|
| WS-15 |

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

| | CAS Number | Compound Name | Fraction | RT or Scan | Estimated Concentration ug/Kg or ug/l |
|---|---|---|---|---|---|
| 11. | | NO SEMIVOLATILES DETECTED | BNA | NA | NA |
| 12. | | | | | |
| 13. | | | | | |
| 14. | | | | | |
| 15. | | | | | |
| 16. | | | | | |
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| 130. | | | | | |

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

WS 15

Lab Name: VERSAR, INC. Contract: Taylorsburgh

Code: VERSAR Case No.: 4600 B29 SAS No.: SDG No.: WS 14

Matrix: (soil/water) WATER Lab Sample ID: 43034

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

Level: (low/med) LOW Date Received: 12-10-87

% Moisture: not dec. dec. Date Extracted: 12-12-87

Extraction: (SepF/Cont/Sonc) CONT Date Analyzed: 12-17-87

GPC Cleanup: (Y/N) N pH: Dilution Factor: 1.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) (ug/l) | Q |
|---|---|---|---|
| 319-84-6 | alpha-BHC | 0.05 | U |
| 319-85-7 | beta-BHC | 0.05 | U |
| 319-86-8 | delta-BHC | 0.05 | U |
| 58-89-9 | gamma-BHC (Lindane) | 0.05 | U |
| 76-44-8 | Heptachlor | 0.05 | U |
| 309-00-2 | Aldrin | 0.05 | U |
| 1024-57-3 | Heptachlor Epoxide | 0.05 | U |
| 959-98-8 | Endosulfan I | 0.05 | U |
| 60-57-1 | Dieldrin | 0.10 | U |
| 72-55-9 | 4,4'-DDE | 0.10 | U |
| 72-20-8 | Endrin | 0.10 | U |
| 33213-65-9 | Endosulfan II | 0.10 | U |
| 72-54-8 | 4,4'-DDD | 0.10 | U |
| 1031-07-8 | Endosulfan Sulfate | 0.10 | U |
| 50-29-3 | 4,4'-DDT | 0.10 | U |
| 72-43-5 | Methoxychlor | 0.10 | U |
| 53494-70-5 | Endrin Ketone | 0.10 | U |
| 5103-71-9 | alpha-Chlordane | 0.10 | U |
| 5103-74-2 | gamma-Chlordane | 0.10 | U |
| 8001-35-2 | Toxaphene | 1.0 | U |
| 12674-11-2 | Aroclor-1016 | 0.50 | U |
| 11104-28-2 | Aroclor-1221 | 0.50 | U |
| 11141-16-5 | Aroclor-1232 | 0.50 | U |
| 53469-21-9 | Aroclor-1242 | 0.50 | U |
| 12672-29-6 | Aroclor-1248 | 0.50 | U |
| 11097-69-1 | Aroclor-1254 | 1.0 | U |
| 11096-82-5 | Aroclor-1260 | 1.0 | U |

Gary Hill
12-17-87

FORM I PEST 1/87 Rev.

FORM I

SAMPLE NO.
WS 15

DATE 1/20/88

INORGANIC ANALYSIS DATA SHEET

LAB NAME VERSAR INC.

CASE NO. ---

SOW NO. 785

LAB RECEIPT DATE 12/10/87

LAB SAMPLE ID. NO. 43026

QC REPORT NO. 298

PROJECT-TASK 4600.0000

BATCH 298

ELEMENTS IDENTIFIED AND MEASURED

CONCENTRATION: LOW X MEDIUM HIGH

MATRIX: WATER X SOIL WIPE

UG/L

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1. | ALUMINUM | [ 110.] | P | 13. | MAGNESIUM | [ 1100.] | P |
| 2. | ANTIMONY | 33. U | P | 14. | MANGANESE | [ 12.] | P |
| 3. | ARSENIC | 10. U | F | 15. | MERCURY | 0.2 U | |
| 4. | BARIUM | [ 23.] | P | 16. | NICKEL | 11. U | P |
| 5. | BERYLLIUM | 2.0 U | P | 17. | POTASSIUM | 1720. U | P |
| 6. | CADMIUM | 5.0 U | P | 18. | SELENIUM | 5.0 U | F |
| 7. | CALCIUM | [ 2510.] | P | 19. | SILVER | 7.0 U | P |
| 8. | CHROMIUM | 6.0 U | P | 20. | SODIUM | [ 855.] | P |
| 9. | COBALT | 5.0 U | P | 21. | THALLIUM | 10. U | F |
| 10. | COPPER | 5.0 U | P | 22. | VANADIUM | 5.0 U | P |
| 11. | IRON | 254. | P | 23. | ZINC | [ 17.] | P |
| 12. | LEAD | 5.0 U | F | | | | |
| | CYANIDE | NR | | | | | |

FOOTNOTES: SEE COVER PAGE.

COMMENTS: COLOR - COLORLESS; CLARITY - CLEAR;

LAB MANAGER

WILLIAM T. NIVENS

FORM I

SAMPLE NO.
WS 15F

DATE 1/20/88

# INORGANIC ANALYSIS DATA SHEET

LAB NAME VERSAR INC.

CASE NO. ---

SOW NO. 785

LAB RECEIPT DATE 12/10/87

LAB SAMPLE ID. NO. 43030

QC REPORT NO. 298

PROJECT-TASK 4600.0000

BATCH 298

## ELEMENTS IDENTIFIED AND MEASURED

CONCENTRATION: LOW X MEDIUM HIGH

MATRIX: WATER X SOIL WIPE

UG/L

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1. | ALUMINUM | 26. U | P | 13. | MAGNESIUM | [ 1100.] | P |
| 2. | ANTIMONY | 33. U | P | 14. | MANGANESE | 2.0 U | P |
| 3. | ARSENIC | 10. U | F | 15. | MERCURY | 0.2 U | |
| 4. | BARIUM | [ 20.] | P | 16. | NICKEL | 11. U | P |
| 5. | BERYLLIUM | 2.0 U | P | 17. | POTASSIUM | 1720. U | P |
| 6. | CADMIUM | 5.0 U | P | 18. | SELENIUM | 5.0 U | F |
| 7. | CALCIUM | [ 2450.] | P | 19. | SILVER | 7.0 U | P |
| 8. | CHROMIUM | 6.0 U | P | 20. | SODIUM | [ 734.] | P |
| 9. | COBALT | 5.0 U | P | 21. | THALLIUM | 10. U | F |
| 10. | COPPER | [ 15.] | P | 22. | VANADIUM | 5.0 U | P |
| 11. | IRON | 10. U | P | 23. | ZINC | [ 19.] | P |
| 12. | LEAD | 5.0 U | F | | | | |
| | CYANIDE | NR | | | | | |

FOOTNOTES: SEE COVER PAGE.

COMMENTS: COLOR - COLORLESS; CLARITY - CLEAR;

LAB MANAGER

WILLIAM T. NIVENS

Versar, Inc. Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

| Sample Number |
|---|
| WS-16 |

ORGANICS ANALYSIS DATA SHEET (Page 1)

Laboratory Name: VERSAR
Lab Sample ID No: 43043
Sample Matrix: WATER
Data Release Authorized By:

Case No: 4600 RW238
QC Report No: 4600 RW238
Contract No:
Date Sample Received: 12/10/87

VOLATILE COMPOUNDS

Concentration: LOW
Date Extracted/Prepared: 12/18/87
Date Analyzed: 12/18/87
Conc/Dil Factor: 1 pH NR
Percent Moisture: 100

| CAS Number | | ug/l |
|---|---|---|
| 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 | 24 |
| 75-15-0 | Carbon Disulfide | 5 u |
| 75-35-4 | 1,1-Dichloroethene | 5 u |
| 75-34-3 | 1,1-Dichloroethane | 5 u |
| 156-60-5 | Trans-1,2-Dichloroethene | 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 |

| CAS Number | | ug/l |
|---|---|---|
| 78-87-5 | 1,2-Dichloropropane | 5 u |
| 10061-02-6 | Trans-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 |
| 10061-01-5 | cis-1,3-Dichloropropene | 5 u |
| 110-75-8 | 2-chloroethylvinylether | 10 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 |
| | Total Xylenes | 5 u |

Data Reporting Qualifiers

Value If the result is a value greater than or equal to the detection limit, report the value.

u Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response factor is assumed, or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero. (e.g. 10J)

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

T Spectrum does not meet criteria for confirmation but does indicate compound presence.

NR NOT REQUIRED

NA Compound present in both matrix spike standard and unspiked sample.

Form I

Versar Inc., Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

| SAMPLE ID |
|---|
| WS-16 |

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

| CAS Number | Compound Name | Fraction | RT or Scan | Estimated Concentration (ug/Kg or ug/l) |
|---|---|---|---|---|
| 11. | NO VOLATILES DETECTED | VOA | NA | NA |
| 12. | | | | |
| 13. | | | | |
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| 130. | | | | |

Versar Inc., Laboratory Operations
6850 Versar Center, Springfield VA 22151 703/750-3000

Sample Number
WS16

Case No: 4600 84298

ORGANICS ANALYSIS DATA SHEET (Page 2)
Semivolatile Compounds

Concentration: LOW

Date Extracted/Prepared: 12/14/87

Date Analyzed: 12/29/87

Conc/Dil Factor: 1

GPC Cleanup ( )Yes ( )No

Separatory Funnel Extraction ( )Yes

Continuous Liquid-Liquid Extraction (X)Yes

| CAS Number | | ug/l |
|---|---|---|
| 108-95-2 | Phenol | 10 u |
| 111-44-4 | bis(2-Chloroethyl)Ether | 10 u |
| 95-57-8 | 2-Chlorophenol | 10 u |
| 541-73-1 | 1,3-Dichlorobenzene | 10 u |
| 106-46-7 | 1,4-Dichlorobenzene | 10 u |
| 100-51-6 | Benzyl Alcohol | 10 u |
| 95-50-1 | 1,2-Dichlorobenzene | 10 u |
| 95-48-7 | 2-Methylphenol | 10 u |
| 39638-32-9 | bis(2-chloroisopropyl)ether | 10 u |
| 106-44-5 | 4-methylphenol | 10 u |
| 621-64-7 | N-Nitroso-Di-n-propylamine | 10 u |
| 67-72-1 | Hexachloroethane | 10 u |
| 98-95-3 | Nitrobenzene | 10 u |
| 78-59-1 | Isophorone | 10 u |
| 88-75-5 | 2-Nitrophenol | 10 u |
| 105-67-9 | 2,4-dimethylphenol | 10 u |
| 65-85-0 | Benzoic Acid | 50 u |
| 111-91-1 | bis(2-chloroethoxy)methane | 10 u |
| 120-83-2 | 2,4-dichlorophenol | 10 u |
| 120-82-1 | 1,2,4-trichlorobenzene | 10 u |
| 91-20-3 | Naphthalene | 10 u |
| 106-47-8 | 4-Chloroaniline | 10 u |
| 87-68-3 | Hexachlorobutadiene | 10 u |
| 59-50-7 | 4-chloro-3-methylphenol | 10 u |
| 91-57-6 | 2-methylnaphthalene | 10 u |
| 77-47-4 | Hexachlorocyclopentadiene | 10 u |
| 88-06-2 | 2,4,6-Trichlorophenol | 10 u |
| 95-95-4 | 2,4,5-Trichlorophenol | 50 u |
| 91-58-7 | 2-Chloronapthalene | 10 u |
| 88-74-4 | 2-Nitroaniline | 50 u |
| 131-11-3 | Dimethyl Phtnalate | 10 u |
| 208-96-8 | Acenaphthylene | 10 u |
| 99-09-2 | 3-Nitroaniline | 50 u |

| CAS Number | | ug/l |
|---|---|---|
| 83-32-9 | Acenaphthene | 10 u |
| 51-28-5 | 2,4-Dinitrophenol | 50 u |
| 100-02-7 | 4-Nitrophenol | 50 u |
| 132-64-9 | Dibenzofuran | 10 u |
| 121-14-2 | 2,4-Dinitrotoluene | 10 u |
| 606-20-2 | 2,6-Dinitrotoluene | 10 u |
| 84-66-2 | Diethylphthalate | 10 u |
| 7005-22-3 | 4-Chlorophenyl-phenylether | 10 u |
| 86-73-7 | Fluorene | 10 u |
| 100-01-6 | 4-Nitroaniline | 50 u |
| 534-52-1 | 4,6-Dinitro-2-methylphenol | 50 u |
| 86-30-6 | N-Nitrosodiphenylamine (1) | 10 u |
| 101-55-3 | 4-Bromophenyl-phenylether | 10 u |
| 118-74-1 | Hexachlorobenzene | 10 u |
| 87-86-5 | Pentachlorophenol | 50 u |
| 85-01-8 | Phenanthrene | 10 u |
| 120-12-7 | Anthracene | 10 u |
| 84-74-2 | Di-n-butylphthalate | 10 u |
| 206-44-0 | Fluoranthene | 10 u |
| 129-00-0 | Pyrene | 10 u |
| 85-68-7 | Butylbenzylphtnalate | 10 u |
| 91-94-1 | 3,3'-Dichlorobenzidine | 20 u |
| 56-55-3 | Benzo(a)anthracene | 10 u |
| 117-81-7 | bis(2-Ethylhexyl)Phthalate | 10 u |
| 218-01-9 | Chrysene | 10 u |
| 117-84-0 | Di-n-Octylphthalate | 10 u |
| 205-99-2 | Benzo(b)Fluoranthene | 10 u |
| 207-08-9 | Benzo(k)Fluoranthene | 10 u |
| 50-32-8 | Benzo(a)pyrene | 10 u |
| 193-39-5 | Indeno(1,2,3-cd)Pyrene | 10 u |
| 53-70-3 | Dibenz(a,h)Anthracene | 10 u |
| 191-24-2 | Benzo(g,h,i)Perylene | 10 u |

(1)-Cannot be separated from diphenylamine

Versar Inc., Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

| SAMPLE ID |
|---|
| WS-16 |

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

| | CAS Number | Compound Name | Fraction | RT or Scan | Estimated Concentration (ug/Kg or ug/L) |
|---|---|---|---|---|---|
| 11. | | NO SEMIVOLATILES DETECTED | BNA | NA | NA |
| 12. | | | | | |
| 13. | | | | | |
| 14. | | | | | |
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| 130. | | | | | |

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

WS 16

Lab Name: VERSAR, INC. Contract: TAYLOR BOROUGH

Lab Code: VERSAR Case No.: 4600 B29 SAS No.: SDG No.: WS 14

Matrix: (soil/water) WATER Lab Sample ID: 43035

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

Level: (low/med) LOW Date Received: 12-10-87

% Moisture: not dec. dec. Date Extracted: 12-12-87

Extraction: (SepF/Cont/Sonc) CONT Date Analyzed: 12-17-87

GPC Cleanup: (Y/N) N pH: Dilution Factor: 1.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) (ug/l) | Q |
|---|---|---|---|
| 319-84-6 | alpha-BHC | 0.05 | U |
| 319-85-7 | beta-BHC | 0.05 | U |
| 319-86-8 | delta-BHC | 0.05 | U |
| 58-89-9 | gamma-BHC (Lindane) | 0.05 | U |
| 76-44-8 | Heptachlor | 0.05 | U |
| 309-00-2 | Aldrin | 0.05 | U |
| 1024-57-3 | Heptachlor Epoxide | 0.05 | U |
| 959-98-8 | Endosulfan I | 0.05 | U |
| 60-57-1 | Dieldrin | 0.10 | U |
| 72-55-9 | 4,4'-DDE | 0.10 | U |
| 72-20-8 | Endrin | 0.10 | U |
| 33213-65-9 | Endosulfan II | 0.10 | U |
| 72-54-8 | 4,4'-DDD | 0.10 | U |
| 1031-07-8 | Endosulfan Sulfate | 0.10 | U |
| 50-29-3 | 4,4'-DDT | 0.10 | U |
| 72-43-5 | Methoxychlor | 0.10 | U |
| 53494-70-5 | Endrin Ketone | 0.10 | U |
| 5103-71-9 | alpha-Chlordane | 0.10 | U |
| 5103-74-2 | gamma-Chlordane | 0.10 | U |
| 8001-35-2 | Toxaphene | 1.0 | U |
| 12674-11-2 | Aroclor-1016 | 0.50 | U |
| 11104-28-2 | Aroclor-1221 | 0.50 | U |
| 11141-16-5 | Aroclor-1232 | 0.50 | U |
| 53469-21-9 | Aroclor-1242 | 0.50 | U |
| 12672-29-6 | Aroclor-1248 | 0.50 | U |
| 11097-69-1 | Aroclor-1254 | 1.0 | U |
| 11096-82-5 | Aroclor-1260 | 1.0 | U |

Judy Hill
12-17-87

FORM I PEST 1/87 Rev.

000703

FORM I

SAMPLE NO.
WS 16

DATE 1/20/88

INORGANIC ANALYSIS DATA SHEET

LAB NAME VERSAR INC.

CASE NO. ---

SOW NO. 785

LAB RECEIPT DATE 12/10/87

LAB SAMPLE ID. NO. 43027

QC REPORT NO. 298

PROJECT-TASK 4600.0000

BATCH 298

ELEMENTS IDENTIFIED AND MEASURED

CONCENTRATION: LOW X MEDIUM HIGH

MATRIX: WATER X SOIL WIPE

UG/L

| | | | | | |
|---|---|---|---|---|---|
| 1. ALUMINUM | 275. | P | 13. MAGNESIUM | [ 1110.] | P |
| 2. ANTIMONY | 33. U | P | 14. MANGANESE | 27. | P |
| 3. ARSENIC | 10. U | F | 15. MERCURY | 0.2 U | |
| 4. BARIUM | [ 23.] | P | 16. NICKEL | 11. U | P |
| 5. BERYLLIUM | 2.0 U | P | 17. POTASSIUM | 1720. U | P |
| 6. CADMIUM | 5.0 U | P | 18. SELENIUM | 5.0 U | F |
| 7. CALCIUM | [ 2490.] | P | 19. SILVER | 7.0 U | P |
| 8. CHROMIUM | 6.0 U | P | 20. SODIUM | [ 771.] | P |
| 9. COBALT | 5.0 U | P | 21. THALLIUM | 10. U | F |
| 10. COPPER | [ 8.8] | P | 22. VANADIUM | 5.0 U | P |
| 11. IRON | 616. | P | 23. ZINC | [ 20.] | P |
| 12. LEAD | 24. | F | | | |
| CYANIDE | NR | | | | |

FOOTNOTES: SEE COVER PAGE.

COMMENTS: COLOR - COLORLESS; CLARITY - CLEAR;

LAB MANAGER

WILLIAM T. NIVENS

FORM I

SAMPLE NO.
WS 16F

DATE 1/20/88

INORGANIC ANALYSIS DATA SHEET

LAB NAME VERSAR INC.

CASE NO. ---

SOW NO. 785

LAB RECEIPT DATE 12/10/87

LAB SAMPLE ID. NO. 43031

QC REPORT NO. 298

PROJECT-TASK 4600.0000

BATCH 298

ELEMENTS IDENTIFIED AND MEASURED

CONCENTRATION: LOW X MEDIUM HIGH

MATRIX: WATER X SOIL WIPE

UG/L

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1. | ALUMINUM | 26. U | P | 13. | MAGNESIUM | [ 1100.] | P |
| 2. | ANTIMONY | 33. U | P | 14. | MANGANESE | [ 3.0] | P |
| 3. | ARSENIC | 10. U | F | 15. | MERCURY | 0.2 U | |
| 4. | BARIUM | [ 20.] | P | 16. | NICKEL | 11. U | P |
| 5. | BERYLLIUM | 2.0 U | P | 17. | POTASSIUM | 1720. U | P |
| 6. | CADMIUM | 5.0 U | P | 18. | SELENIUM | 5.0 U | F |
| 7. | CALCIUM | [ 2460.] | P | 19. | SILVER | 7.0 U | P |
| 8. | CHROMIUM | 6.0 U | P | 20. | SODIUM | [ 817.] | P |
| 9. | COBALT | 5.0 U | P | 21. | THALLIUM | 10. U | F |
| 10. | COPPER | [ 10.] | P | 22. | VANADIUM | 5.0 U | P |
| 11. | IRON | [ 11.] | P | 23. | ZINC | 26. | P |
| 12. | LEAD | 5.0 U | F | | | | |
| | CYANIDE | NR | | | | | |

FOOTNOTES: SEE COVER PAGE.

COMMENTS: COLOR - COLORLESS; CLARITY - CLEAR;

LAB MANAGER

WILLIAM T. NIVENS

Versar, Inc. Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

| Sample Number |
|---|
| WS-17 |

ORGANICS ANALYSIS DATA SHEET (Page 1)

Laboratory Name: VERSAR
Lab Sample ID No: 43044
Sample Matrix: WATER
Data Release Authorized By:

Case No: 4600 BW298
QC Report No: 4600 BW298
Contract No:
Date Sample Received: 12/10/87

VOLATILE COMPOUNDS

Concentration: LOW
Date Extracted/Prepared: 12/18/87
Date Analyzed: 12/18/87
Conc/Dil Factor: 1 pH NR
Percent Moisture: 100

| CAS Number | | ug/l | CAS Number | | ug/l |
|---|---|---|---|---|---|
| 74-87-3 | Chloromethane | 10 u | 78-87-5 | 1,2-Dichloropropane | 5 u |
| 74-83-9 | Bromomethane | 10 u | 10061-02-6 | Trans-1,3-Dichloropropene | 5 u |
| 75-01-4 | Vinyl Chloride | 10 u | 79-01-6 | Trichloroethene | 5 u |
| 75-00-3 | Chloroethane | 10 u | 124-48-1 | Dibromochloromethane | 5 u |
| 75-09-2 | Methylene Chloride | 5 u | 79-00-5 | 1,1,2-Trichloroethane | 5 u |
| 67-64-1 | Acetone | 25 | 71-43-2 | Benzene | 5 u |
| 75-15-0 | Carbon Disulfide | 5 u | 10061-01-5 | cis-1,3-Dichloropropene | 5 u |
| 75-35-4 | 1,1-Dichloroethene | 5 u | 110-75-8 | 2-chloroethylvinylether | 10 u |
| 75-34-3 | 1,1-Dichloroethane | 5 u | 75-25-2 | Bromoform | 5 u |
| 156-60-5 | Trans-1,2-Dichloroethene | 5 u | 108-10-1 | 4-Methyl-2-Pentanone | 10 u |
| 67-66-3 | Chloroform | 5 u | 591-78-6 | 2-Hexanone | 10 u |
| 107-06-2 | 1,2-Dichloroethane | 5 u | 127-18-4 | Tetrachloroethene | 5 u |
| 78-93-3 | 2-butanone | 10 u | 79-34-5 | 1,1,2,2-Tetrachloroethane | 5 u |
| 71-55-6 | 1,1,1-Trichloroethane | 5 u | 108-88-3 | Toluene | 5 u |
| 56-23-5 | Carbon Tetrachloride | 5 u | 108-90-7 | Chlorobenzene | 5 u |
| 108-05-4 | Vinyl Acetate | 10 u | 100-41-4 | Ethylbenzene | 5 u |
| 75-27-4 | Bromodichloromethane | 5 u | 100-42-5 | Styrene | 5 u |
| | | | | Total Xylenes | 5 u |

Data Reporting Qualifiers

Value If the result is a value greater than or equal to the detection limit, report the value.

u Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response factor is assumed, or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero. (e.g. 10J)

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

T Spectrum does not meet criteria for confirmation but does indicate compound presence.

NR NOT REQUIRED

NA Compound present in both matrix spike standard and unspiked sample.

Form I

Versar Inc., Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

| SAMPLE ID |
|---|
| WS-17 |

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

| | CAS Number | Compound Name | Fraction | RT or Scan | Estimated Concentration (ug/Kg or ug/l) |
|---|---|---|---|---|---|
| 11 | UNKNOWN | | VOA | 694 | 2 J |
| 12 | | | | | |
| 13 | | | | | |
| 14 | | | | | |
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| 17 | | | | | |
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| 129 | | | | | |
| 130 | | | | | |

Versar Inc., Laboratory Operations
6850 Versar Center, Springfield VA 22151 703/750-3000

| Sample Number |
|---|
| W517 |

Case No: 4600 B#238

ORGANICS ANALYSIS DATA SHEET (Page 2)
Semivolatile Compounds

Concentration: LOW

Date Extracted/Prepared: 12/14/87

Date Analyzed: 12/29/87

Conc/Dil Factor: 1

GPC Cleanup [ ]Yes [ ]No

Separatory Funnel Extraction [ ]Yes

Continuous Liquid-Liquid Extraction [X]Yes

| CAS Number | | ug/l | CAS Number | | ug/l |
|---|---|---|---|---|---|
| 108-95-2 | Phenol | 10 u | 83-32-9 | Acenaphthene | 10 u |
| 111-44-4 | bis(2-Chloroethyl)Ether | 10 u | 51-28-5 | 2,4-Dinitrophenol | 50 u |
| 95-57-8 | 2-Chlorophenol | 10 u | 100-02-7 | 4-Nitrophenol | 50 u |
| 541-73-1 | 1,3-Dichlorobenzene | 10 u | 132-64-9 | Dibenzofuran | 10 u |
| 106-46-7 | 1,4-Dichlorobenzene | 10 u | 121-14-2 | 2,4-Dinitrotoluene | 10 u |
| 100-51-6 | Benzyl Alcohol | 10 u | 606-20-2 | 2,6-Dinitrotoluene | 10 u |
| 95-50-1 | 1,2-Dichlorobenzene | 10 u | 84-66-2 | Diethylphthalate | 10 u |
| 95-48-7 | 2-Methylphenol | 10 u | 7005-22-3 | 4-Chlorophenyl-phenylether | 10 u |
| 39638-32-9 | bis(2-chloroisopropyl)ether | 10 u | 86-73-7 | Fluorene | 10 u |
| 106-44-5 | 4-Methylphenol | 10 u | 100-01-6 | 4-Nitroaniline | 50 u |
| 621-64-7 | N-Nitroso-Di-n-propylamine | 10 u | 534-52-1 | 4,6-dinitro-2-methylphenol | 50 u |
| 67-72-1 | Hexachloroethane | 10 u | 86-30-6 | N-Nitrosodiphenylamine (1) | 10 u |
| 98-95-3 | Nitrobenzene | 10 u | 101-55-3 | 4-Bromophenyl-phenylether | 10 u |
| 78-59-1 | Isophorone | 10 u | 118-74-1 | Hexachlorobenzene | 10 u |
| 88-75-5 | 2-Nitrophenol | 10 u | 87-86-5 | Pentachlorophenol | 50 u |
| 105-67-9 | 2,4-dimethylphenol | 10 u | 85-01-8 | Phenanthrene | 10 u |
| 65-85-0 | Benzoic Acid | 50 u | 120-12-7 | Anthracene | 10 u |
| 111-91-1 | bis(2-chloroethoxy)methane | 10 u | 84-74-2 | Di-n-butylphthalate | 10 u |
| 120-83-2 | 2,4-dichlorophenol | 10 u | 206-44-0 | Fluoranthene | 10 u |
| 120-82-1 | 1,2,4-trichlorobenzene | 10 u | 129-00-0 | Pyrene | 10 u |
| 91-20-3 | Naphthalene | 10 u | 85-68-7 | Butylbenzylphthalate | 10 u |
| 106-47-8 | 4-Chloroaniline | 10 u | 91-94-1 | 3,3'-Dichlorobenzidine | 20 u |
| 87-68-3 | Hexachlorobutadiene | 10 u | 56-55-3 | Benzo(a)anthracene | 10 u |
| 59-50-7 | 4-chloro-3-methylphenol | 10 u | 117-81-7 | bis(2-Ethylhexyl)Phthalate | 10 u |
| 91-57-6 | 2-methylnaphthalene | 10 u | 218-01-9 | Chrysene | 10 u |
| 77-47-4 | Hexachlorocyclopentadiene | 10 u | 117-84-0 | Di-n-Octylphthalate | 10 u |
| 88-06-2 | 2,4,6-Trichlorophenol | 10 u | 205-99-2 | Benzo(b)Fluoranthene | 10 u |
| 95-95-4 | 2,4,5-Trichlorophenol | 50 u | 207-08-9 | Benzo(k)Fluoranthene | 10 u |
| 91-58-7 | 2-Chloronaphthalene | 10 u | 50-32-8 | Benzo(a)pyrene | 10 u |
| 88-74-4 | 2-Nitroaniline | 50 u | 193-39-5 | Indeno(1,2,3-cd)Pyrene | 10 u |
| 131-11-3 | Dimethyl Phthalate | 10 u | 53-70-3 | Dibenz(a,h)Anthracene | 10 u |
| 208-96-8 | Acenaphthylene | 10 u | 191-24-2 | Benzo(g,h,i)Perylene | 10 u |
| 99-09-2 | 3-Nitroaniline | 50 u | | | |

(1)-Cannot be separated from diphenylamine

Versar Inc., Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

| SAMPLE ID |
|---|
| 1DS-17 |

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

| | CAS Number | Compound Name | Fraction | RT or Scan | Estimated Concentration (ug/Kg or ug/L) |
|---|---|---|---|---|---|
| 11 | | NO SEMIVOLATILES DETECTED | BNA | NA | NA |
| 12 | | | | | |
| 13 | | | | | |
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1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

WS 17

Lab Name: VERSAR, INC. Contract: TAYLOR BOROUGH

Lab Code: VERSAR Case No.: 4600 B29 SAS No.: SDG No.: WS 1

Matrix: (soil/water) WATER Lab Sample ID: 43036

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

Level: (low/med) LOW Date Received: 12-10-87

% Moisture: not dec. dec. Date Extracted: 12-12-87

Extraction: (SepF/Cont/Sonc) CONT Date Analyzed: 12-17-87

GPC Cleanup: (Y/N) N pH: Dilution Factor: 1.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) (ug/l) | Q |
|---|---|---|---|
| 319-84-6 | alpha-BHC | 0.05 | U |
| 319-85-7 | beta-BHC | 0.05 | U |
| 319-86-8 | delta-BHC | 0.05 | U |
| 58-89-9 | gamma-BHC (Lindane) | 0.05 | U |
| 76-44-8 | Heptachlor | 0.05 | U |
| 309-00-2 | Aldrin | 0.05 | U |
| 1024-57-3 | Heptachlor Epoxide | 0.05 | U |
| 959-98-8 | Endosulfan I | 0.05 | U |
| 60-57-1 | Dieldrin | 0.10 | U |
| 72-55-9 | 4,4'-DDE | 0.10 | U |
| 72-20-8 | Endrin | 0.10 | U |
| 33213-65-9 | Endosulfan II | 0.10 | U |
| 72-54-8 | 4,4'-DDD | 0.10 | U |
| 1031-07-8 | Endosulfan Sulfate | 0.10 | U |
| 50-29-3 | 4,4'-DDT | 0.10 | U |
| 72-43-5 | Methoxychlor | 0.10 | U |
| 53494-70-5 | Endrin Ketone | 0.10 | U |
| 5103-71-9 | alpha-Chlordane | 0.10 | U |
| 5103-74-2 | gamma-Chlordane | 0.10 | U |
| 8001-35-2 | Toxaphene | 1.0 | U |
| 12674-11-2 | Aroclor-1016 | 0.50 | U |
| 11104-28-2 | Aroclor-1221 | 0.50 | U |
| 11141-16-5 | Aroclor-1232 | 0.50 | U |
| 53469-21-9 | Aroclor-1242 | 0.50 | U |
| 12672-29-6 | Aroclor-1248 | 0.50 | U |
| 11097-69-1 | Aroclor-1254 | 1.0 | U |
| 11096-82-5 | Aroclor-1260 | 1.0 | U |

Judy Hill
12-17-87

FORM I PEST 1/87 Rev.

FORM I

SAMPLE NO.
WS 17

DATE 1/20/88

# INORGANIC ANALYSIS DATA SHEET

LAB NAME VERSAR INC.

CASE NO. ---

SDW NO. 785

LAB RECEIPT DATE 12/10/87

LAB SAMPLE ID. NO. 43028

QC REPORT NO. 298

PROJECT-TASK 4600.0000

BATCH 298

## ELEMENTS IDENTIFIED AND MEASURED

CONCENTRATION: LOW X MEDIUM HIGH

MATRIX: WATER X SOIL WIPE

UG/L

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1. | ALUMINUM | 26. U | P | 13. | MAGNESIUM | [ 310.] | P |
| 2. | ANTIMONY | 33. U | P | 14. | MANGANESE | 2.0 U | P |
| 3. | ARSENIC | 10. U | F | 15. | MERCURY | 0.2 U | |
| 4. | BARIUM | 2.0 U | P | 16. | NICKEL | 11. U | P |
| 5. | BERYLLIUM | 2.0 U | P | 17. | POTASSIUM | 1720. U | P |
| 6. | CADMIUM | 5.0 U | P | 18. | SELENIUM | 5.0 U | F |
| 7. | CALCIUM | [ 1450.] | P | 19. | SILVER | 7.0 U | P |
| 8. | CHROMIUM | 6.0 U | P | 20. | SODIUM | [ 307.] | P |
| 9. | COBALT | 5.0 U | P | 21. | THALLIUM | 10. U | F |
| 10. | COPPER | 218. | P | 22. | VANADIUM | 5.0 U | P |
| 11. | IRON | 10. U | P | 23. | ZINC | 40. | P |
| 12. | LEAD | 5.0 U | F | | | | |
| | CYANIDE | NR | | | | | |

FOOTNOTES: SEE COVER PAGE.

COMMENTS: COLOR - COLORLESS; CLARITY - CLEAR;

LAB MANAGER

WILLIAM T. NIVENS

FORM I

SAMPLE NO.
WS 17F

DATE 1/20/88

INORGANIC ANALYSIS DATA SHEET

LAB NAME VERSAR INC.

CASE NO. ---

SOW NO. 785

LAB RECEIPT DATE 12/10/87

LAB SAMPLE ID. NO. 43032

QC REPORT NO. 298

PROJECT-TASK 4600.0000

BATCH 298

ELEMENTS IDENTIFIED AND MEASURED

CONCENTRATION: LOW X MEDIUM HIGH

MATRIX: WATER X SOIL WIPE

UG/L

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1. | ALUMINUM | 26. U | P | 13. | MAGNESIUM | [ 314.] | P |
| 2. | ANTIMONY | 33. U | P | 14. | MANGANESE | 2.0 U | P |
| 3. | ARSENIC | 10. U | F | 15. | MERCURY | 0.2 U | |
| 4. | BARIUM | 2.0 U | P | 16. | NICKEL | 11. U | P |
| 5. | BERYLLIUM | 2.0 U | P | 17. | POTASSIUM | 1720. U | P |
| 6. | CADMIUM | 5.0 U | P | 18. | SELENIUM | 5.0 U | F |
| 7. | CALCIUM | [ 1480.] | P | 19. | SILVER | 7.0 U | P |
| 8. | CHROMIUM | 6.0 U | P | 20. | SODIUM | [ 320.] | P |
| 9. | COBALT | 5.0 U | P | 21. | THALLIUM | 10. U | F |
| 10. | COPPER | 214. | P | 22. | VANADIUM | 5.0 U | P |
| 11. | IRON | 10. U | P | 23. | ZINC | 40. | P |
| 12. | LEAD | 5.0 U | F | | | | |
| | CYANIDE | NR | | | | | |

FOOTNOTES: SEE COVER PAGE.

COMMENTS: COLOR - COLORLESS; CLARITY - CLEAR; SD;

LAB MANAGER

WILLIAM T. NIVENS

**AIR SAMPLES**

Versar INC.

# DATA SUMMARY



VERSAR LAB REPORT #1028870C
VERSAR PROJECT #04600 8#239

| COMPOUND | LAB # / FIELD # | 38770 / 1A-0922 | 38771 / 2A-0922 | 38772 / 3A-0922 | 38773 / 4A-0922 | 38774 / 6A-0922 | 38775 / 7A-0922 |
|---|---|---|---|---|---|---|---|
| MEK | | ND | ND | ND | ND | ND | ND |
| METHYLENE CHLORIDE | | ND | ND | ND | ND | ND | ND |
| BENZENE | | ND | ND | ND | ND | ND | ND |
| TRICHLOROETHENE | | ND | ND | ND | ND | ND | ND |
| CHLOROFORM * | | ND | ND | ND | ND | ND | ND |
| MIBK * | | ND | ND | ND | ND | ND | ND |
| TETRACHLOROETHENE | | ND | ND | ND | ND | ND | ND |
| TOLUENE | | ND | ND | ND | ND | 0.08 | ND |
| ETHYLBENZENE | | ND | ND | ND | ND | ND | ND |
| P-XYLENE | | ND | ND | ND | ND | ND | ND |
| M-XYLENE | | ND | ND | ND | ND | ND | ND |
| O-XYLENE | | ND | ND | ND | ND | ND | ND |

| COMPOUND | LAB # / FIELD # | 38777 / 1A-0924 | 38778 / 2A-0924 | 38779 / 3A-0924 | 38780 / 4A-0924 | 38781 / 6A-0924 | 38782 / 7A-0924 |
|---|---|---|---|---|---|---|---|
| MEK | | ND | ND | ND | ND | ND | ND |
| METHYLENE CHLORIDE | | ND | ND | ND | ND | ND | ND |
| BENZENE | | ND | ND | ND | ND | ND | ND |
| TRICHLOROETHENE | | ND | ND | ND | ND | ND | ND |
| CHLOROFORM * | | ND | ND | ND | ND | ND | ND |
| MIBK * | | ND | ND | ND | ND | ND | ND |
| TETRACHLOROETHENE | | ND | ND | ND | ND | ND | ND |
| TOLUENE | | ND | ND | ND | ND | 0.08 | ND |
| ETHYLBENZENE | | ND | ND | ND | ND | ND | ND |
| P-XYLENE | | ND | ND | ND | ND | ND | ND |
| M-XYLENE | | ND | ND | ND | ND | 0.04 | ND |
| O-XYLENE | | ND | ND | ND | ND | ND | ND |

Detection Limit = 0.04 mg, except methylene chloride and MEK which are 0.2 mg.
* = Compounds coelute
ND = None Detected
Units = mg/tube



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Versar INC.



VERSAR LAB REPORT #1028870C
VERSAR PROJECT #04600 B#239

G.C. SUMMARY

REAGENT BLANK ANALYSIS: NO ANALYTES DETECTED

METHOD STANDARD ANALYSIS:

| | | | |
|---|---|---|---|
| MEK | 92% | TETRACHLOROETHENE | 95% |
| METHYLENE CHLORIDE | 78% | TOLUENE | 96% |
| BENZENE | 93% | ETHYLBENZENE | 96% |
| TRICHLOROETHENE | 102% | P-XYLENE | 98% |
| CHLOROFORM * | 89% | M-XYLENE | 77% |
| MIBK * | 89% | O-XYLENE | 93% |

* = Compounds coelute

Victor A. Yastrop, Chief
GC Section
Laboratory Operations



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Versar INC.

# DATA SUMMARY



VERSAR LAB REPORT #10288700
VERSAR PROJECT #04600 B#245

| COMPOUND | LAB # / FIELD # | 39525 1P-0928 | 39526 2P-0928 | 39527 3P-0928 | 39528 4P-0928 | 39529 5P-0928 | 39530 6P-0928 |
|---|---|---|---|---|---|---|---|
| MEK | | ND | ND | ND | ND | ND | ND |
| METHYLENE CHLORIDE | | ND | ND | ND | ND | ND | ND |
| BENZENE | | ND | ND | ND | ND | ND | ND |
| TRICHLOROETHENE | | ND | ND | ND | ND | ND | ND |
| CHLOROFORM * | | ND | ND | ND | ND | ND | ND |
| MIBK * | | ND | ND | ND | ND | ND | ND |
| TETRACHLOROETHENE | | ND | ND | ND | ND | ND | ND |
| TOLUENE | | ND | ND | ND | ND | ND | 0.08 |
| ETHYLBENZENE | | ND | ND | ND | ND | ND | ND |
| P-XYLENE | | ND | ND | ND | ND | ND | ND |
| M-XYLENE | | ND | ND | ND | ND | ND | ND |
| O-XYLENE | | ND | ND | ND | ND | ND | ND |

| COMPOUND | LAB # / FIELD # | 39532 1A-0929 | 39533 2A-0929 | 39534 3A-0929 | 39535 4A-0929 | 39536 ~~6A~~ 5A-0929 | 39537 ~~7A~~ 6A-0929 | 3953( ~~8A~~ 7A-0929 |
|---|---|---|---|---|---|---|---|---|
| MEK | | ND | ND | ND | ND | ND | ND | NI |
| METHYLENE CHLORIDE | | ND | ND | ND | ND | ND | ND | NI |
| BENZENE | | ND | ND | ND | ND | ND | ND | NI |
| TRICHLOROETHENE | | ND | ND | ND | ND | ND | ND | NI |
| CHLOROFORM * | | ND | ND | ND | ND | ND | ND | NI |
| MIBK * | | ND | ND | ND | ND | ND | ND | NI |
| TETRACHLOROETHENE | | ND | ND | ND | ND | ND | ND | NI |
| TOLUENE | | ND | ND | ND | ND | ND | 0.13 | NI |
| ETHYLBENZENE | | ND | ND | ND | ND | ND | ND | NI |
| P-XYLENE | | ND | ND | ND | ND | ND | ND | NI |
| M-XYLENE | | ND | ND | ND | ND | ND | ND | NI |
| O-XYLENE | | ND | ND | ND | ND | ND | ND | NI |

Detection Limit = 0.04 mg, except methylene chloride and MEK which are 0.2 mg.
* = Compounds coelute
ND = None Detected
Units = mg/tube

11-8-88



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Versar INC.



VERSAR LAB REPORT #1028870D
VERSAR PROJECT #04600 B#245

Q.C. SUMMARY

REAGENT BLANK ANALYSIS: NO ANALYTES DETECTED

METHOD STANDARD ANALYSIS:

| | | | |
|---|---|---|---|
| MEK | 75% | TETRACHLOROETHENE | 84% |
| METHYLENE CHLORIDE | 75% | TOLUENE | 86% |
| BENZENE | 90% | ETHYLBENZENE | 76% |
| TRICHLOROETHENE | 97% | P-XYLENE | 90% |
| CHLOROFORM * | 84% | M-XYLENE | 92% |
| MIBK * | 84% | O-XYLENE | 85% |

* = Compounds coelute

Victor W. Yastrop, Chief
GC Section
Laboratory Operations



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Versar INC.

# DATA SUMMARY



VERSAR LAB REPORT #1028870F
VERSAR PROJECT #04600 B#256

| COMPOUND | LAB # / FIELD # | 40118 / 1P-1008 | 40119 / 2P-1008 | 40120 / 4P-1008 | 40121 / 5P-1008 | 40122 / 6P-1008 | 40123 / 7P-1008 | 4( / 9P-1 |
|---|---|---|---|---|---|---|---|---|
| MEK | | ND | ND | ND | ND | ND | ND | |
| METHYLENE CHLORIDE | | ND | ND | ND | ND | ND | ND | |
| BENZENE | | ND | ND | ND | ND | ND | ND | |
| TRICHLOROETHENE | | ND | ND | ND | ND | ND | ND | |
| CHLOROFORM * | | ND | ND | ND | ND | ND | ND | |
| MIBK * | | ND | ND | ND | ND | ND | ND | |
| TETRACHLOROETHENE | | ND | ND | ND | ND | ND | ND | |
| TOLUENE | | ND | ND | ND | ND | ND | ND | |
| ETHYLBENZENE | | ND | ND | ND | ND | ND | ND | |
| P-XYLENE | | ND | ND | ND | ND | ND | ND | |
| M-XYLENE | | ND | ND | ND | ND | ND | ND | |
| O-XYLENE | | ND | ND | ND | ND | ND | ND | |

| COMPOUND | LAB # / FIELD # | 40125 / 1A-1009 | 40126 / 2A-1009 | 40127 / 4A-1009 | 40128 / 5A-1009 | 40129 / 6A-1009 | 40130 / 7A-1009 |
|---|---|---|---|---|---|---|---|
| MEK | | ND | ND | ND | ND | ND | ND |
| METHYLENE CHLORIDE | | ND | ND | ND | ND | ND | ND |
| BENZENE | | ND | ND | ND | ND | ND | ND |
| TRICHLOROETHENE | | ND | ND | ND | ND | ND | ND |
| CHLOROFORM * | | ND | ND | ND | ND | ND | ND |
| MIBK * | | ND | ND | ND | ND | ND | ND |
| TETRACHLOROETHENE | | ND | ND | ND | ND | ND | ND |
| TOLUENE | | ND | ND | ND | ND | 0.09 | ND |
| ETHYLBENZENE | | ND | ND | ND | ND | ND | ND |
| P-XYLENE | | ND | ND | ND | ND | ND | ND |
| M-XYLENE | | ND | ND | ND | ND | ND | ND |
| O-XYLENE | | ND | ND | ND | ND | ND | ND |

Detection Limit = 0.04 mg, except methylene chloride and MEK which are 0.2 mg.
* = Compounds coelute
ND = None Detected
Units = mg/tube

000098

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Versar INC.



VERSAR LAB REPORT #1028870F
VERSAR PROJECT #04600 B#256

Q.C. SUMMARY

REAGENT BLANK ANALYSIS: NO ANALYTES DETECTED

METHOD STANDARD ANALYSIS:

| | | | |
|---|---|---|---|
| MEK | 66% | TETRACHLOROETHENE | 81% |
| METHYLENE CHLORIDE | 70% | TOLUENE | 77% |
| BENZENE | 76% | ETHYLBENZENE | 64% |
| TRICHLOROETHENE | 87% | P-XYLENE | 92% |
| CHLOROFORM * | 84% | M-XYLENE | 83% |
| MIBK * | 84% | O-XYLENE | 69% |

* = Compounds coelute

Victor A. Tastrop, Chief
GC Section
Laboratory Operations

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Versar INC.

# DATA SUMMARY



VERSAR LAB REPORT #1104870C
VERSAR PROJECT #04600 B#261

| COMPOUND | LAB # / FIELD # | 40573 1A-1014 | 40574 2A-1014 | 40575 3A-1014 | 40576 4A-1014 | 40577 5A-1014 | 40578 6A-1014 | 4057 7A-101 |
|---|---|---|---|---|---|---|---|---|
| MEK | | ND | ND | ND | ND | ND | ND | N |
| METHYLENE CHLORIDE | | ND | ND | ND | ND | ND | ND | N |
| BENZENE | | ND | ND | ND | ND | ND | ND | N |
| TRICHLOROETHENE | | ND | ND | ND | ND | ND | ND | N |
| CHLOROFORM * | | ND | ND | ND | ND | ND | ND | N |
| MIBK * | | ND | ND | ND | ND | ND | ND | N |
| TETRACHLOROETHENE | | ND | ND | ND | ND | ND | ND | N |
| TOLUENE | | ND | ND | ND | ND | ND | ND | N |
| ETHYLBENZENE | | ND | ND | ND | ND | ND | ND | N |
| P-XYLENE | | ND | ND | ND | ND | ND | ND | N |
| M-XYLENE | | ND | ND | ND | ND | ND | ND | N |
| O-XYLENE | | ND | ND | ND | ND | ND | ND | N |

| COMPOUND | LAB # / FIELD # | 40581 1P-1013 | 40582 2P-1013 | 40583 3P-1013 | 40584 4P-1013 | 40585 5P-1013 | 40586 6P-1013 | 4058 7P-101 |
|---|---|---|---|---|---|---|---|---|
| MEK | | ND | ND | ND | ND | ND | ND | N |
| METHYLENE CHLORIDE | | ND | ND | ND | ND | ND | ND | N |
| BENZENE | | ND | ND | ND | ND | ND | ND | N |
| TRICHLOROETHENE | | ND | ND | ND | ND | ND | ND | N |
| CHLOROFORM * | | ND | ND | ND | ND | ND | ND | N |
| MIBK * | | ND | ND | ND | ND | ND | ND | N |
| TETRACHLOROETHENE | | ND | ND | ND | ND | ND | ND | N |
| TOLUENE | | ND | ND | ND | ND | ND | ND | N |
| ETHYLBENZENE | | ND | ND | ND | ND | ND | ND | N |
| P-XYLENE | | ND | ND | ND | ND | ND | ND | N |
| M-XYLENE | | ND | ND | ND | ND | ND | ND | N |
| O-XYLENE | | ND | ND | ND | ND | ND | ND | N |

Detection Limit = 0.04 mg, except methylene chloride and MEK which are 0.2 mg.
* = Compounds coelute
ND = None Detected
Units = mg/tube

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Versar INC.



VERSAR LAB REPORT #1104870C
VERSAR PROJECT #04600 B#261

Q.C. SUMMARY

REAGENT BLANK ANALYSIS: NO ANALYTES DETECTED

METHOD STANDARD ANALYSIS:

| | | | |
|---|---|---|---|
| MEK | 69% | TETRACHLOROETHENE | 94% |
| METHYLENE CHLORIDE | 77% | TOLUENE | 69% |
| BENZENE | 86% | ETHYLBENZENE | 89% |
| TRICHLOROETHENE | 94% | P-XYLENE | 94% |
| CHLOROFORM * | 78% | M-XYLENE | 88% |
| MIBK * | 78% | O-XYLENE | 83% |

* = Compounds coelute

Victor A. Yastrop, Chief
GC Section
Laboratory Operations

000611

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Versar INC.

# DATA SUMMARY



VERSAR LAB REPORT #1231870A
VERSAR PROJECT #04600 B#297

| COMPOUND | LAB # / FIELD # | 42836 / 1A-1117 | 42837 / 2A-1117 | 42838 / 3A-1117 | 42839 / 4A-1117 | 42840 / 5A-1117 | 42841 / 7P-1117 |
|---|---|---|---|---|---|---|---|
| MEK | | ND | ND | ND | ND | ND | ND |
| METHYLENE CHLORIDE | | ND | ND | ND | ND | ND | ND |
| BENZENE | | ND | ND | ND | ND | ND | ND |
| TRICHLOROETHENE | | ND | ND | ND | ND | ND | ND |
| CHLOROFORM * | | ND | ND | ND | ND | ND | ND |
| MIBK * | | ND | ND | ND | ND | ND | ND |
| TETRACHLOROETHENE | | ND | ND | ND | ND | ND | ND |
| TOLUENE | | ND | ND | ND | ND | ND | ND |
| ETHYLBENZENE | | ND | ND | ND | ND | ND | ND |
| P-XYLENE | | ND | ND | ND | ND | ND | ND |
| M-XYLENE | | ND | ND | ND | ND | ND | ND |
| O-XYLENE | | ND | ND | ND | ND | ND | ND |

| COMPOUND | LAB # / FIELD # | 42842 / 1A-1119 | 42843 / 2A-1119 | 42844 / 3A-1119 | 42845 / 4A-1119 | 42846 / 5A-1119 | 42847 / 7P-1119 |
|---|---|---|---|---|---|---|---|
| MEK | | ND | ND | ND | ND | ND | ND |
| METHYLENE CHLORIDE | | ND | ND | ND | ND | ND | ND |
| BENZENE | | ND | ND | ND | ND | ND | ND |
| TRICHLOROETHENE | | ND | ND | ND | ND | ND | ND |
| CHLOROFORM * | | ND | ND | ND | ND | ND | ND |
| MIBK * | | ND | ND | ND | ND | ND | ND |
| TETRACHLOROETHENE | | ND | ND | ND | ND | ND | ND |
| TOLUENE | | ND | ND | ND | ND | ND | ND |
| ETHYLBENZENE | | ND | ND | ND | ND | ND | ND |
| P-XYLENE | | ND | ND | ND | ND | ND | ND |
| M-XYLENE | | ND | ND | ND | ND | ND | ND |
| O-XYLENE | | ND | ND | ND | ND | ND | ND |

Detection Limit = 0.04 mg, except methylene chloride and MEK which are 0.2 mg.
* = Compounds coelute
ND = None Detected
Units = mg/tube



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Versar INC.



VERSAR LAB REPORT #1231870A
VERSAR PROJECT #04600 B#297

Q.C. SUMMARY

REAGENT BLANK ANALYSIS: NO ANALYTES DETECTED

METHOD STANDARD ANALYSIS:

| | | | |
|---|---|---|---|
| MEK | 90% | TETRACHLOROETHENE | 107% |
| METHYLENE CHLORIDE | 79% | TOLUENE | 98% |
| BENZENE | 91% | ETHYLBENZENE | 105% |
| TRICHLOROETHENE | 111% | P-XYLENE | 99% |
| CHLOROFORM * | 89% | M-XYLENE | 97% |
| MIBK * | 89% | O-XYLENE | 98% |

* = Compounds coelute

Victor A. Yastrop, Chief
GC Section
Laboratory Operations

000613

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