US EPA RECORDS CENTER REGION 5
464278

# SAMPLING DATA

CALIBRATION OUTLIER
VOLATILE TCL COMPOUNDS

CASE\SAS#: 18642 CONTRACTOR: WRI

| Instrument# 9682 | | Initial Cal. | | | Contin. Cal. | | | Contin. Cal. | | | Contin. Cal. | | | Contin. Cal. | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Date/Time: | | 8-6-92/1058 | | | 8-24-92/1509 | | | 8-25-92/1105 | | | | | | | | |
| | # | rf | %rsd | * | rf | %d | * | rf | %d | * | rf | %d | * | rf | %d | * |
| Chloromethane | 0.01 | | | | | | | | | | | | | | | |
| Bromomethane | 0.10 | | | | | | | | | | | | | | | |
| Vinyl chloride | 0.10 | | | | | | | | | | | | | | | |
| Chloroethane | 0.01 | | | | | | | | | | | | | | | |
| Methylene chloride | 0.01 | | | | | | | | | | | | | | | |
| Acetone | 0.01 | | | | | | | | | | | | | | | |
| Carbon disulfide | 0.01 | | | | | | | | | | | | | | | |
| 1,1-Dichloroethene | 0.10 | | | | | | | | | | | | | | | |
| 1,1-Dichloroethane | 0.20 | | | | | | | | | | | | | | | |
| 1,2-Dichloroethene (total) | | | | | | | | | | | | | | | | |
| Chloroform | 0.20 | | | | | | | | | | | | | | | |
| 1,2-Dichloroethane | 0.10 | | | | | | | | | | | | | | | |
| 2-Butanone | 0.01 | 0.123 | | | 0.090 | 26.8 | J | 0.076 | 38.2 | J | | | | | | |
| 1,1,1-Trichloroethane | 0.10 | | | | | | | | | | | | | | | |
| Carbon tetrachloride | 0.10 | | | | | | | | | | | | | | | |
| Bromodichloromethane | 0.20 | | | | | | | | | | | | | | | |
| 1,2-Dichloropropene | | | | | | | | | | | | | | | | |
| cis-1,3-Dichloropropene | 0.20 | | | | | | | | | | | | | | | |
| Trichloroethene | 0.30 | | | | | | | | | | | | | | | |
| Dibromochloromethane | 0.10 | | | | | | | | | | | | | | | |
| 1,1,2-Trichloroethane | 0.10 | | | | | | | | | | | | | | | |
| Benzene | 0.50 | | | | | | | | | | | | | | | |
| tran-1,3-Dichloropropene | 0.10 | | | | | | | | | | | | | | | |
| Bromoform | 0.10 | | | | | | | | | | | | | | | |
| 4-Methyl-2-pentanone | 0.01 | | | | | | | | | | | | | | | |
| 2-Hexanone | 0.01 | | | | | | | | | | | | | | | |
| Tetrachloroethene | 0.20 | | | | | | | | | | | | | | | |
| 1,1,2,2-Tetrachloroethane | 0.50 | | | | | | | | | | | | | | | |
| Toluene | 0.40 | | | | | | | | | | | | | | | |
| Chlorobenzene | 0.50 | | | | | | | | | | | | | | | |
| Ethylbenzene | 0.10 | | | | | | | | | | | | | | | |
| Styrene | 0.30 | | | | | | | | | | | | | | | |
| Xylene (total) | 0.30 | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| Toluene-d8 | | | | | | | | | | | | | | | | |
| Bromofluorobenzene | | | | | | | | | | | | | | | | |
| 1,2-Dichloroethane-d4 | | | | | | | | | | | | | | | | |

Samples affected:

| | | |
|---|---|---|
| VBLK2 | VBLK3 | |
| ERW01 | ERW02MS | |
| ERW02 | ERW02MSD | |
| ERW04 | ERW01RE | |
| ERW05 | | |

Reviewer's Init/Date: CL/10-19-92

* These flags should be applied to the analytes on the sample data sheets.
# Minimum Relative Response Factor

CALIBRATION OUTLIER
VOLATILE TCL COMPOUNDS

CASE\SAS#: 18642 CONTRACTOR: WRI

| Instrument# 9602 | | Initial Cal. | | | Contin. Cal. | | | Contin. Cal. | | | Contin. Cal. | | | Contin. Cal. | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Date/Time: | | 8-7-92/2011 | | | 8-21-92/1253 | | | 8-26-92/0803 | | | | | | | | |
| | # | rf | %rsd | * | rf | %d | * | rf | %d | * | rf | %d | * | rf | %d | * |
| Chloromethane | 0.01 | | | | | | | | | | | | | | | |
| Bromomethane | 0.10 | | | | | | | | | | | | | | | |
| Vinyl chloride | 0.10 | | | | | | | | | | | | | | | |
| Chloroethane | 0.01 | | | | | | | | | | | | | | | |
| Methylene chloride | 0.01 | | | | | | | | | | | | | | | |
| Acetone | 0.01 | | | | | | | | | | | | | | | |
| Carbon disulfide | 0.01 | | | | | | | | | | | | | | | |
| 1,1-Dichloroethene | 0.10 | | | | | | | | | | | | | | | |
| 1,1-Dichloroethane | 0.20 | | | | | | | | | | | | | | | |
| 1,2-Dichloroethene (total) | | | | | | | | | | | | | | | | |
| Chloroform | 0.20 | | | | | | | | | | | | | | | |
| 1,2-Dichloroethane | 0.10 | | | | | | | | | | | | | | | |
| 2-Butanone | 0.01 | | | | | | | | | | | | | | | |
| 1,1,1-Trichloroethane | 0.10 | | | | | | | | | | | | | | | |
| Carbon tetrachloride | 0.10 | | | | | | | | | | | | | | | |
| Bromodichloromethane | 0.20 | | | | | | | | | | | | | | | |
| 1,2-Dichloropropene | | | | | | | | | | | | | | | | |
| cis-1,3-Dichloropropene | 0.20 | | | | | | | | | | | | | | | |
| Trichloroethene | 0.30 | | | | | | | | | | | | | | | |
| Dibromochloromethane | 0.10 | | | | | | | | | | | | | | | |
| 1,1,2-Trichloroethane | 0.10 | | | | | | | | | | | | | | | |
| Benzene | 0.50 | | | | | | | | | | | | | | | |
| tran-1,3-Dichloropropene | 0.10 | | | | | | | | | | | | | | | |
| Bromoform | 0.10 | | | | | | | | | | | | | | | |
| 4-Methyl-2-pentanone | 0.01 | | | | | | | | | | | | | | | |
| 2-Hexanone | 0.01 | | | | | | | | | | | | | | | |
| Tetrachloroethene | 0.20 | | | | | | | | | | | | | | | |
| 1,1,2,2-Tetrachloroethane | 0.50 | | | | | | | | | | | | | | | |
| Toluene | 0.40 | | | | | | | | | | | | | | | |
| Chlorobenzene | 0.50 | | | | | | | | | | | | | | | |
| Ethylbenzene | 0.10 | | | | | | | | | | | | | | | |
| Styrene | 0.30 | | | | | | | | | | | | | | | |
| Xylene (total) | 0.30 | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| Toluene-d8 | | | | | | | | | | | | | | | | |
| Bromofluorobenzene | | | | | | | | | | | | | | | | |
| 1,2-Dichloroethane-d4 | | | | | | | | | | | | | | | | |

| Samples affected: | | | | | |
|---|---|---|---|---|---|
| | | VBLK1 | VBLK5 | | |
| | | ERW11 | ERW03 | | |
| | | ERW12 | ERW03MS | | |
| | | ERW12MS | ERW03MSD | | |
| | | ERW12MSD | | | |
| | | ERW13 | | | |
| | | ERW14 | | | |
| | | ERW15 | | | |
| | | ERW16 | | | |

Reviewer's Init/Date CL 10-19-92

* These flags should be applied to the analytes on the sample data sheets.
# Minimum Relative Response Factor

CALIBRATION OUTLIER
SEMIVOLATILE TCL COMPOUNDS
(Page 1)

CASE\SAS#: 18642 CL CONTRACTOR: WRI

| Instrument# 7001 | | Initial Cal 0902 | | | Contin. Cal. | | | Contin. Cal. | | | Contin. Cal. | | | Contin. Cal. | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Date/Time: | | 9-1-92/1207 | | | 9-1-92/0948 | | | 9-2-92/0848 | | | | | | | | |
| | # | rf | %rsd | * | rf | %d | * | rf | %d | * | rf | %d | * | rf | %d | * |
| Phenol | 0.80 | | | | | | | | | | | | | | | |
| bis(chloromethyl) Ether | 0.70 | | | | | | | | | | | | | | | |
| 2-Chlorophenol | 0.70 | | | | | | | | | | | | | | | |
| 1,3-Dichlorobenzene | | | | | | | | | | | | | | | | |
| 1,4-Dichlorobenzene | | | | | | | | | | | | | | | | |
| 1,2-Dichlorobenzene | | | | | | | | | | | | | | | | |
| 2-Methylphenol | 0.70 | | | | | | | | | | | | | | | |
| 2,2'-Oxybis(1-chl-propane) | 0.01 | 1.846 | | | 1.970 | | | 2.374 | 28.9 | J | | | | | | |
| 4-Methylphenol | 0.60 | | | | | | | | | | | | | | | |
| N-nitroso-di-n-propylamine | 0.50 | | | | | | | | | | | | | | | |
| Hexachloroethane | 0.30 | | | | | | | | | | | | | | | |
| Nitrobenzene | 0.20 | | | | | | | | | | | | | | | |
| Isophorone | 0.40 | | | | | | | | | | | | | | | |
| 2-Nitrophenol | 0.10 | | | | | | | | | | | | | | | |
| 2,4-Dimethylphenol | 0.20 | | | | | | | | | | | | | | | |
| bis-(2-chloroethoxyl)methane | 0.30 | | | | | | | | | | | | | | | |
| 2,4-Dichlorophenol | 0.20 | | | | | | | | | | | | | | | |
| 1,2,4-Trichlorobenzene | 0.20 | | | | | | | | | | | | | | | |
| Naphthalene | 0.70 | | | | | | | | | | | | | | | |
| 4-Chloroaniline | 0.01 | | | | | | | | | | | | | | | |
| Hexachlorobutadiene | 0.01 | | | | | | | | | | | | | | | |
| 4-Chloro-3-methylphenol | 0.20 | | | | | | | | | | | | | | | |
| 2-Methylnaphthalene | 0.40 | | | | | | | | | | | | | | | |
| Hexachlorocyclopentadiene | 0.01 | | | | | | | | | | | | | | | |
| 2,4,6-Trichlorophenol | 0.20 | | | | | | | | | | | | | | | |
| 2,4,5-Trichlorophenol | 0.20 | | | | | | | | | | | | | | | |
| 2-Chloronaphthalene | 0.80 | | | | | | | | | | | | | | | |
| 2-Nitroaniline | 0.01 | | | | | | | | | | | | | | | |
| Dimethyl phthlate | 0.01 | | | | | | | | | | | | | | | |
| Acenaphthylene | 1.30 | | | | | | | | | | | | | | | |
| 2,6-Dinitrotoluene | 0.20 | | | | | | | | | | | | | | | |
| 3-Nitroaniline | 0.01 | | | | | | | | | | | | | | | |
| Acenaphthene | 0.30 | | | | | | | | | | | | | | | |
| 2,4-Dinitrophenol | 0.01 | 0.190 | 33.1 | J | 0.157 | | | | | | | | | | | |
| 4-Nitrophenol | 0.01 | | | | | | | | | | | | | | | |
| Dibenzofuran | 0.80 | | | | | | | | | | | | | | | |
| 2,4-Dinitrotoluene | 0.20 | | | | | | | | | | | | | | | |

Affected samples:

| | | | |
|---|---|---|---|
| SBLK1 | | SBLK2 | |
| ERW12 | | SBLK3 | |
| ERW12MS | | SBLK4 | |
| ERW12MSD | | SBLK5 | |
| ERW13 | | ERW01 | |
| ERW14 | | ERW01MS | |
| ERW15 | | ERW01MSD | |
| ERW16 | | | |

Reviewer's Init/Date: CL/10-20-92

* These flags should be applied to the analytes on the sample data sheets.
# Minimum Relative Response Factor

CALIBRATION OUTLIER
SEMVOLATILE TCL COMPOUNDS
(Page 2)

CASE\SAS#: 18642 CONTRACTOR: WRI

CL

| Instrument# 7001 | | Initial Cal. 0902 | | | Contin. Cal. | | | Contin. Cal. | | | Contin. Cal. | | | Contin. Cal. | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Date/Time: | | 9-1-92/~~1207~~ | | | 9-1-92/0948 | | | | | | | | | | | |
| | # | rf | %rsd | * | rf | %d | * | rf | %d | * | rf | %d | * | rf | %d | * |
| Diethylphthalate | 0.01 | | | | | | | | | | | | | | | |
| 4-Chlorophenyl-phenylether | 0.40 | | | | | | | | | | | | | | | |
| Fluorene | 0.90 | | | | | | | | | | | | | | | |
| 4-Nitroaniline | 0.01 | | | | | | | | | | | | | | | |
| 4,6-Dinitro-2-methylphenol | 0.01 | | | | | | | | | | | | | | | |
| N-nitrosodiphenylamine | 0.01 | | | | | | | | | | | | | | | |
| 4-Bromophenyl-phenylether | 0.10 | | | | | | | | | | | | | | | |
| Hexachlorobenzene | 0.10 | | | | | | | | | | | | | | | |
| Pentachlorophenol | 0.05 | 0.106 | | | 0.079 | 25.5 | J | | | | | | | | | |
| Phenanthrene | 0.70 | | | | | | | | | | | | | | | |
| Anthracene | 0.70 | | | | | | | | | | | | | | | |
| Carbazole | | | | | | | | | | | | | | | | |
| Di-n-butylphthalate | 0.01 | | | | | | | | | | | | | | | |
| Fluoranthene | 0.60 | | | | | | | | | | | | | | | |
| Pyrene | 0.60 | | | | | | | | | | | | | | | |
| Butylbenzylphthalate | 0.01 | | | | | | | | | | | | | | | |
| 3,3'-Dichlorobenzidine | 0.01 | | | | | | | | | | | | | | | |
| Benzo(a)anthracene | 0.80 | | | | | | | | | | | | | | | |
| Chrysene | 0.70 | | | | | | | | | | | | | | | |
| bis(2-Ethylhexyl)phthalate | 0.01 | | | | | | | | | | | | | | | |
| Di-n-octyl phthalate | 0.01 | | | | | | | | | | | | | | | |
| Benzo(b)fluoranthene | 0.70 | | | | | | | | | | | | | | | |
| Benzo(k)fluoranthene | 0.70 | | | | | | | | | | | | | | | |
| Benzo(a)pyrene | 0.70 | | | | | | | | | | | | | | | |
| Indeno(1,2,3-cd)pyrene | 0.50 | | | | | | | | | | | | | | | |
| Dibenz(a,h)anthrancene | 0.40 | | | | | | | | | | | | | | | |
| Benzo(g,h,i)perylene | 0.50 | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| Nitrobenzene-d5 | 0.01 | | | | | | | | | | | | | | | |
| 2-Fluorobiphenyl | 0.70 | | | | | | | | | | | | | | | |
| Terphenyl-d14 | 0.50 | | | | | | | | | | | | | | | |
| Phenol-d5 | 0.80 | | | | | | | | | | | | | | | |
| 2-Fluorophenol | 0.60 | | | | | | | | | | | | | | | |
| 2,4,6-Tribromophenol | 0.01 | | | | | | | | | | | | | | | |
| 2-Chlorophenol-d4 | | | | | | | | | | | | | | | | |
| 1,2-Dichlorobenzene-d4 | | | | | | | | | | | | | | | | |

Reviewer's Init/Date: CL/10-20-92

* These flags should be applied to the analytes on the sample data sheets.
# Minimum Relative Response Factor

# CALIBRATION OUTLIER
## SEMIVOLATILE TCL COMPOUNDS
(Page 1)

CASE\SAS#: 18642 CONTRACTOR: WRI

CL

| Instrument# 7002 | | Initial Cal. 0901 | | | Contin. Cal. | | | Contin. Cal. | | | Contin. Cal. | | | Contin. Cal. | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Date/Time: | | 9-9-92/1252 | | | 9-9-92/1252 | | | | | | | | | | | |
| | # | rf | %rsd | * | rf | %d | * | rf | %d | * | rf | %d | * | rf | %d | * |
| Phenol | 0.80 | | | | | | | | | | | | | | | |
| bis(chloroethyl) Ether | 0.70 | | | | | | | | | | | | | | | |
| 2-Chlorophenol | 0.70 | | | | | | | | | | | | | | | |
| 1,3-Dichlorobenzene | | | | | | | | | | | | | | | | |
| 1,4-Dichlorobenzene | | | | | | | | | | | | | | | | |
| 1,2-Dichlorobenzene | | | | | | | | | | | | | | | | |
| 2-Methylphenol | 0.70 | | | | | | | | | | | | | | | |
| 2,2'-Oxybis(1-chl-propane) | 0.01 | | | | | | | | | | | | | | | |
| 4-Methylphenol | 0.60 | | | | | | | | | | | | | | | |
| N-nitroso-di-n-propylamine | 0.50 | | | | | | | | | | | | | | | |
| Hexachloroethane | 0.30 | | | | | | | | | | | | | | | |
| Nitrobenzene | 0.20 | | | | | | | | | | | | | | | |
| Isophorone | 0.40 | | | | | | | | | | | | | | | |
| 2-Nitrophenol | 0.10 | | | | | | | | | | | | | | | |
| 2,4-Dimethylphenol | 0.20 | | | | | | | | | | | | | | | |
| bis-(2-chloroethoxyl)methane | 0.30 | | | | | | | | | | | | | | | |
| 2,4-Dichlorophenol | 0.20 | | | | | | | | | | | | | | | |
| 1,2,4-Trichlorobenzene | 0.20 | | | | | | | | | | | | | | | |
| Naphthalene | 0.70 | | | | | | | | | | | | | | | |
| 4-Chloroaniline | 0.01 | | | | | | | | | | | | | | | |
| Hexachlorobutadiene | 0.01 | | | | | | | | | | | | | | | |
| 4-Chloro-3-methylphenol | 0.20 | | | | | | | | | | | | | | | |
| 2-Methylnaphthalene | 0.40 | | | | | | | | | | | | | | | |
| Hexachlorocyclopentadiene | 0.01 | | | | | | | | | | | | | | | |
| 2,4,6-Trichlorophenol | 0.20 | | | | | | | | | | | | | | | |
| 2,4,5-Trichlorophenol | 0.20 | | | | | | | | | | | | | | | |
| 2-Chloronaphthalene | 0.80 | | | | | | | | | | | | | | | |
| 2-Nitroaniline | 0.01 | | | | | | | | | | | | | | | |
| Dimethyl phthlate | 0.01 | | | | | | | | | | | | | | | |
| Acenaphthylene | 1.30 | | | | | | | | | | | | | | | |
| 2,6-Dinitrotoluene | 0.20 | | | | | | | | | | | | | | | |
| 3-Nitroaniline | 0.01 | | | | | | | | | | | | | | | |
| Acenaphthene | 0.30 | | | | | | | | | | | | | | | |
| 2,4-Dinitrophenol | 0.01 | 0.129 | 47.6 | J | | | | | | | | | | | | |
| 4-Nitrophenol | 0.01 | | | | | | | | | | | | | | | |
| Dibenzofuran | 0.80 | | | | | | | | | | | | | | | |
| 2,4-Dinitrotoluene | 0.20 | | | | | | | | | | | | | | | |

Affected samples:

ERW02
ERW 05
ERW04
ERW04MS
ERW04MSD
ERW03

Reviewer's Init/Date: CL/10-20-92

* These flags should be applied to the analytes on the sample data sheets.
# Minimum Relative Response Factor

CALIBRATION OUTLIER
SEMIVOLATILE TCL COMPOUNDS
(Page 2)

CASE\SAS#: 18642 CONTRACTOR: WRI

CL

| Instrument# 7002 | | Initial Cal. 0901 | | | Contin. Cal. | | | Contin. Cal. | | | Contin. Cal. | | | Contin. Cal. | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Date/Time: | | 9-9-92/1252 | | | 9-9-92/1252 | | | | | | | | | | | |
| | # | rf | %rsd | * | rf | %d | * | rf | %d | * | rf | %d | * | rf | %d | * |
| Diethylphthalate | 0.01 | | | | | | | | | | | | | | | |
| 4-Chlorophenyl-phenylether | 0.40 | | | | | | | | | | | | | | | |
| Fluorene | 0.90 | | | | | | | | | | | | | | | |
| 4-Nitroaniline | 0.01 | | | | | | | | | | | | | | | |
| 4,6-Dinitro-2-methylphenol | 0.01 | | | | | | | | | | | | | | | |
| N-nitrosodiphenylamine | 0.01 | | | | | | | | | | | | | | | |
| 4-Bromophenyl-phenylether | 0.10 | | | | | | | | | | | | | | | |
| Hexachlorobenzene | 0.10 | | | | | | | | | | | | | | | |
| Pentachlorophenol | 0.05 | 0.088 | | | 0.054 | 38.6 | J | | | | | | | | | |
| Phenanthrene | 0.70 | | | | | | | | | | | | | | | |
| Anthracene | 0.70 | | | | | | | | | | | | | | | |
| Carbazole | | | | | | | | | | | | | | | | |
| Di-n-butylphthalate | 0.01 | | | | | | | | | | | | | | | |
| Fluoranthene | 0.60 | | | | | | | | | | | | | | | |
| Pyrene | 0.60 | | | | | | | | | | | | | | | |
| Butylbenzylphthalate | 0.01 | | | | | | | | | | | | | | | |
| 3,3'-Dichlorobenzidine | 0.01 | 0.280 | | | 0.355 | 26.8 | J | | | | | | | | | |
| Benzo(a)anthracene | 0.80 | | | | | | | | | | | | | | | |
| Chrysene | 0.70 | | | | | | | | | | | | | | | |
| bis(2-Ethylhexyl)phthalate | 0.01 | | | | | | | | | | | | | | | |
| Di-n-octyl phthalate | 0.01 | | | | | | | | | | | | | | | |
| Benzo(b)fluoranthene | 0.70 | | | | | | | | | | | | | | | |
| Benzo(k)fpuoranthene | 0.70 | | | | | | | | | | | | | | | |
| Benzo(a)pyrene | 0.70 | | | | | | | | | | | | | | | |
| Indeno(1,2,3-cd)pyrene | 0.50 | | | | | | | | | | | | | | | |
| Dibenz(a,h)anthrancene | 0.40 | | | | | | | | | | | | | | | |
| Benzo(g,h,i)perylene | 0.50 | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| Nitrobenzene-d5 | 0.01 | | | | | | | | | | | | | | | |
| 2-Fluorobiphenyl | 0.70 | | | | | | | | | | | | | | | |
| Terphenyl-d14 | 0.50 | | | | | | | | | | | | | | | |
| Phenol-d5 | 0.80 | | | | | | | | | | | | | | | |
| 2-Fluorophenol | 0.60 | | | | | | | | | | | | | | | |
| 2,4,6-Tribromophenol | 0.01 | | | | | | | | | | | | | | | |
| 2-Chlorophenol-d4 | | | | | | | | | | | | | | | | |
| 1,2-Dichlorobenzene-d4 | | | | | | | | | | | | | | | | |

Reviewer's Init/Date: CL/10-20-92

* These flags should be applied to the analytes on the sample data sheets.
# Minimum Relative Response Factor

CALIBRATION OUTLIERS
PEST/PCB TCL COMPOUNDS

CASE\SAS#: 18642 CONTRACTOR: WRI

Column: DB-1701

| Instrument#: HP5890-7 | Init. Cal. | | Cont. Cal. | | Cont. Cal. | | Cont.Cal | |
|---|---|---|---|---|---|---|---|---|
| Date/Time | 8-26-92/1448 | | 8-26-92/2237 | | 8-27-92/1244 | | 8-26-92/1415 | |
| | %RSD | * | %RPD | * | %RPD | * | %RPD | * |
| Alpha-BHC | | | | | | | | |
| Beta-BHC | | | | | | | | |
| Delta-BHC | | | | | | | | |
| Gamma-BHC | | | | | | | | |
| Heptachlor | | | | | | | | |
| Aldrin | | | | | | | | |
| Heptachlor epoxide | | | | | | | | |
| Endosulfan I | | | | | | | | |
| Dieldrin | | | | | | | | |
| 4,4'-DDE | | | | | | | | |
| Endrin | | | | | | | | |
| Endosulfan II | | | | | | | | |
| 4,4'-DDD | | | | | | | | |
| Endosulfan sulfate | | | | | | | | |
| 4,4'-DDT | | | | | | | | |
| Methoxychlor | | | | | | | | |
| Endrin ketone | | | | | | | | |
| Endrin aldehyde | | | | | | | | |
| Alpha chlordane | | | | | | | | |
| Gamma chlordane | | | | | | | | |
| Aroclor-1016 | | | | | | | | |
| Aroclor-1221 | | | | | | | | |
| Aroclor-1232 | | | | | | | | |
| Aroclor-1242 | | | | | | | | |
| Aroclor-1248 | | | | | | | | |
| Aroclor-1254 | | | | | | | | |
| Aroclor-1260 | | | | | | | | |
| Toxaphene | | | | | | | | |

Affected samples:

ERW13
ERW14
ERW15
ERW16
ERW12
ERW12MS
ERW12MSD
PBLK01
ERW01
ERW02
ERW04
ERW05
PBLK02
ERW03
ERW03MS
ERW03MSD
PBLK02
ERW01DL
ERW03DL

Pest/PCB

Reviewer's Initial/Date CL/10-20-92

3/90 Rev

* These flags should be applied to the analytes on the Sample Data Sheets.

# CALIBRATION OUTLIERS
## PEST/PCB TCL COMPOUNDS

CASE\SAS#: 18642 CONTRACTOR: WRI

Column: DB-608

| Instrument#: HP5890_7 | Init. Cal. | | Cont. Cal. | | Cont. Cal. | | Cont.Cal | |
|---|---|---|---|---|---|---|---|---|
| Date/Time | 8-26-92/1448 | | 8-26-92/1415 | | 8-26-92/2237 | | 8-27-92/1244 | |
| | %RSD | * | %RPD | * | %RPD | * | %RPD | * |
| Alpha-BHC | | | | | | | | |
| Beta-BHC | | | | | | | | |
| Delta-BHC | | | | | | | | |
| Gamma-BHC | | | | | | | | |
| Heptachlor | | | | | | | | |
| Aldrin | | | | | | | | |
| Heptachlor epoxide | | | | | | | | |
| Endosulfan I | | | | | | | | |
| Dieldrin | | | | | | | | |
| 4,4'-DDE | | | | | | | | |
| Endrin | | | | | | | | |
| Endosulfan II | | | | | | | | |
| 4,4'-DDD | | | | | | | | |
| Endosulfan sulfate | | | | | | | | |
| 4,4'-DDT | | | | | | | | |
| Methoxychlor | | | | | | | | |
| Endrin ketone | | | | | | | | |
| Endrin aldehyde | | | | | | | | |
| Alpha chlordane | | | | | | | | |
| Gamma chlordane | | | | | | | | |
| Aroclor-1016 | | | | | | | | |
| Aroclor-1221 | | | | | | | | |
| Aroclor-1232 | | | | | | | | |
| Aroclor-1242 | | | | | | | | |
| Aroclor-1248 | | | | | | | | |
| Aroclor-1254 | | | | | | | | |
| Aroclor-1260 | | | | | | | | |
| Toxaphene | | | | | | | | |

Affected samples:

ERW13
ERW14
ERW15
ERW16
ERW12MS
ERW12
ERW12MSD
PBLK01
ERW01
ERW02
ERW04
ERW05
PBLK02
ERW03
ERW03MS
ERW03MSD
PIBLK02
ERW01DL

Pest/PCB PIBLK03

Reviewer's Initial/Date CL/10-20-92

3/90 Rev

* These flags should be applied to the analytes on the Sample Data Sheets.

## DATA REPORTING QUALIFIERS
(page 1)

For reporting results to EPA, the following result qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

VALUE-if the results is a value greater than or equal to the Contract Required Quantitation Limit (CRQL), report the value.

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

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

and df = dilution factor

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

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

For soil samples subjected to GPC clean-up procedures, the extract must be concentrated to 0.5 ml, and the sensitivity of the analysis is not compromised by the cleanup procedures. Therefore, the CRQL values will apply to all samples, regardless of cleanup. However, if a sample extract cannot be concentrated to the protocol-specified volume, this fact be accounted for in reporting the Sample Quantitation Limit.

J - Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed, or when the mass spectral data indicate the presence of a compound that meets the identification criteria but the result is less than the sample quantitation limit bur greater than zero. For example, if the sample quantitation limit is 10 ug/L, but a concentration of 3 ug/L is calculated, report it is as 3J. The Sample Quantitation Limit must be adjusted for dilution as discussed for the U flag. The J flag is also applied to pesticide/Aroclor results where the pesticide/Aroclor is confirmed to be present but the concentration is less than the CRQL.

N - Indicates presumptive evidence of a compound. This flag is only used for tentatively identified compounds. Where the identification is based on a mass spectral library search. It is applied to all TIC results.

## DATA REPORTING QUALIFIERS
(page 2)

P - This flag is used for a pesticide/Aroclor target analyte when there is greater than 25% difference for detected concentrations between the two columns (see Form X). The lower of the two values is reported on Form I and flagged with a "P".

C - This flag applies to pesticide results where identification has been confirmed by GC/MS. If GC/MS confirmation was attempted but unsuccessful, do not apply this flag, instead use a laboratory-defined, discussed below.

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

E - This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for the specific analysis. This flag will not apply to pesticide/PCBs analyzed by GC/MS methods. If one or more compounds have a response greater than full scale, the sample or extract must be diluted and re-analyzed according to the specifications. All such compounds with a response greater than full scale should have the concentration flagged with an "E" on the Form I for the original analysis. If the dilution of the extract causes any compounds identified in the first analysis to be below the calibration range in the second analysis, then the results of both analyses shall be reported on separate Form I. The Form I for the diluted sample shall have the "DL" suffix appended to the sample number.

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

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

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

## TABLE 4

### VOLATILE INTERNAL STANDARDS WITH CORRESPONING TCL ANALYTES ASSIGNED FOR QUANTITATION

| Bromochloromathane | 1,4-Difluorobenzene | Chlorobenzene-d5 |
|---|---|---|
| Chloromethane | 2-Butanone | 2-Hexanone |
| Bromomethane | 1,1,1-Trichloroethane | 4-Methyl-2-pentanone |
| Vinyl chloride | Carbon tetrachloride | Tetrachloroethene |
| Chloroethane | Vinyl acetate | 1,1,2,2-Tetrachloroethane |
| Methylene chloride | Bromodichloromethane | Toluene |
| Acetone | 1,2-Dichloropropane | Chlorobenzene |
| Carbon disulfide | trans-1,3-Dichloropropane | Ethylbenzene |
| 1,1-Dichloroethene | Trichloroethene | Styrene |
| 1,1-Dichloroethane | Dibromochloromethane | Xylene (total) |
| 1,2-Dichloroethene (total) | 1,1,2-Trichloroethane | Bromofluorobenzene (surr) |
| Chloroform | Benzene | Toluene-d8 (surr) |
| 1,2-Dichloroethane | cis-1,3-Dichloropropene | |
| 1,2-Dichloroethane-d4 (surr) | Bromoform | |

### SEMIVOLATILE INTERNAL STANDARDS WITH CORRESPONING TCL ANALYTES ASSIGNED FOR QUANTITATION

| 1,4-Dichlorobenzene-d4 | Naphthalene-d8 | Acenaphthene-d10 | Phenanthrene-d10 | Chrysene-d12 | Perylene-d12 |
|---|---|---|---|---|---|
| Phenol | Nitrobenzene | Hexachlorocyclopentadiene | 4,6-Dinitro-2-methylphenol | Pyrene | Di-n-octyl phthalate |
| bis(2-Chloroethyl)ether | Isophorone | 2,4,6-Trichlorophenol | N-nitroso-di-phenylamine | Butylbenzyl phthalate | Benzo(b)fluoranthene |
| 2-Chlorophenol | 2-Nitrophenol | 2,4,5-Trichlorophenol | 1,2-Diphenylhydrazine | 3,3'-Dichlorobenzidine | Benzo(k)fluoranthene |
| 1,3-Dichlorobenzene | 2,4-Dimethylphenol | 2-Chloronaphthalene | 4-Bromophenyl phenyl ether | Benz(a)anthracene | Benzo(a)pyrene |
| 1,4-Dichlorobenzene | Benzoic acid | 2-Nitroaniline | Hexachlorobenzene | bis(2-Ethylhexyl)phthalate | Indeno(1,2,3-cd)pyrene |
| Benzyl alcohol | bis(2-Chloroethoxy)methane | Dimethyl phthalate | Pentachlorophenol | Chrysene | Dibenz(a,h)anthracene |
| 1,2-Dichlorobenzene | 2,4-Dichlorophenol | Acenaphthylene | Phenanthrene | Terphenyl-d14 (surr) | Benzo(g,h,i)perylene |
| 2-Methylphenol | 1,2,4-Trichlorobenzene | 3-Nitroaniline | Anthracene | | |
| bis(2-Chloroisopropyl)ether | 4-Chloroaniline | Acenaphthene | Di-n-butyl phthalate | | |
| 4-Methylphenol | Hexachlorobutadiene | 2,4-Dinitrophenol | Fluoranthene | | |
| N-nitroso-di-n-propylamine | 4-Chloro-3-methylphenol | 4-Nitrophenol | | | |
| Hexachloroethane | 2-Methylnaphthalene | Dibenzofuran | | | |
| 2-Fluorophenol (surr) | Nitrobenzene-d5 (surr) | 2,4-Dinitrotoluene | | | |
| Phenol-d6 (surr) | | 2,6-Dinitrotoluene | | | |
| | | Diethyl phthalate | | | |
| | | 4-Chlorophenyl phenyl ether | | | |
| | | Fluorene | | | |
| | | 4-Nitroaniline | | | |
| | | 2-Fluorobiphenyl (surr) | | | |
| | | 2,4,6-Tribromophenol (surr) | | | |

WESTERN RESEARCH INSTITUTE
The University of Wyoming Research Corporation

**WRI SDG Narrative**

**Contract Number 68-D2-0017**

**Case 18642**
**SDG Number ERW01**

9 1992
US ... ...SIONAL LAB.
... ...ARK ST.
CHICAGO, ILLINOIS 60605

Case 18642 consisted of five low soil samples (ERW01-ERW05) and five low water samples (ERW12-ERW16) for full organics analysis and one low water sample for VOA's only.

## Volatile Organic Analysis

Sample ERW03 contained high concentrations of target compounds and had to be extracted and run as a medium level soil with ERW03MS and ERW03MSD. Since sample ERW01 exhibited a matrix effect, both ERW01 and ERW01RE are submitted and billable.

Samples ERW01 and ERW01RE were analyzed on different days. Before, in between, and after the two analyses, other samples were analyzed without evidence of matrix effects, thereby indicating that the instrument was working properly. Recoveries for ERW01 and ERW01RE were nearly identical. The areas for IS2 and IS3 are below the allowed limits for ERW01; the area for IS2 is low and that of IS3 is below the allowed limit for ERW01RE. System monitoring compound recoveries for toluene-d8 are high (at the limit for ERW01 (138%) and above the limit (141%) for ERW01RE). Other areas for these two samples are not consistent with standards but comparable to each other.

All water samples have a pH of 1.

## Semi-Volatile Organic Analysis

No difficulties were encountered in the SV analysis of EPA Case 18642. All surrogate percent recoveries were within QA/QC windows.

Matrix spike recoveries for the water samples showed two problems with the method in that 4-nitrophenol percent recovery was high at 87% recovery in the MSD

00001

P.O. Box 3395, University Station, Laramie, WY 82071-3395 • Phone: (307) 721-2011 • Fax: (307) 721-2345

and pentachlorophenol percent recoveries were artificially high due to the way response factors are used. With use of the response factor from a 50 ng injection of pentachlorophenol, often this response factor is up to 50% low due to breakdown or adsorption of the compound in the injection port. Therefore, values for the MS and MSD samples become artificially high (in this case only slightly high) compared to values that could be obtained from an average response factor. RPD's for the water matrix spikes were excellent.

Matrix spikes for the low soil indicate some heterogeneous tendencies as three RPD's were barely outside allowed windows and several others were just within allowed windows. 2,4-Dinitrotoluene percent recovery was out high at 90% recovery in the MSD.

Matrix spike recoveries for the medium soil were good except for 4-nitrophenol, which was undetected in both spiked samples. Lack of 4-nitrophenol in either sample could be due to two problems. One is a moderate dilution factor. The other is that the sample may show some affinity for the compound, i.e., a matrix effect.

## Pesticide/PCB Analysis

After the analysis of pesticides/PCB's, it was discovered that the computer system contained the incorrect date. Either the computer was booted with the wrong date, or a power glitch caused a date change. All chromatograms for pest/PCB analysis had either 8/13/92 or 8/14/92 printed, which dates are impossible since the case was received on 8/20/92. When the mistake was found, the date logged by the computer was 13 days off. All the dates on the chromatograms were manually changed +13 days. The analyses, therefore, actually took place on 8/26/92 and 8/27/92. This problem only affected the hardcopy chromatograms; all data originating from the diskette are correct.

Samples ERW01 and ERW03 contain large concentrations of both Aroclor 1254 and Aroclor 1260. The concentrations were so high that none of the matrix spike compounds in ERW03MS and ERW03MSD could be observed. It can be seen in the chromatograms that the combination of both multicomponent PCB's completely covers the retention time range of the six matrix spike compounds. Form 3F therefore shows 0% recovery for MS and MSD recoveries.

Soil samples for this case were originally found to contain very low % recoveries for surrogate spikes. Upon investigation, the recoveries seemed to be low by a factor of two. We traced the problem to the fact that only 1 mL, rather than the specified 2 mL, of surrogate spike was added to all soil samples. While producing the forms and diskette, we changed the amount of spike added to compensate for this error, and surrogate recovery calculations are now correct.

Form 1D CRQL'S have been manually changed in some instances. These changes reflect the EPA rounding methods. Our software rounds at the end of the calculation rather than in the middle as required by the EPA, thereby causing variations at times.

## General Information on Software

### ACQUISITION/QUANTITATION

TIC library searches were performed on all samples as required by the contract. Hewlett-Packard RTE-6/VM software (current revision F, August 1991) has two procedures which may cause some confusion to data reviewers:

1. If no hit is found during the library search, a "no data" message is reported. This means that no spectrum was found in the NBS library to meet the software search algorithm. When this occurs the data message is submitted and the compound identity is reported as "unknown".

2. The revision F library search software allows for up to 20 hits per search. The spectra for the best 3 hits are displayed. A listing of the best hits (up to 7) is also reported.

An "M" appears on quantitation reports in which a manual integration for a particular compound was required. Manual integrations may be required for those compounds for which the peak shows one or more valleys. The area for a peak having a valley of as small as 5-10% may be chopped, thereby yielding a result much lower than the actual area.

### DISKETTE DELIVERABLES

The diskette deliverable is a double sided high density (96 TPI) diskette. The files contained are as follows:

ERW01.O1A - SV Fraction First Production Run
ERW01.O2A - SV Fraction Second Production Run
ERW01.O3A - VOA Fraction First Production Run
ERW01.O4A - VOA Fraction Second Production Run
ERW01.O5A - PEST Fraction First Production Run
ERW01.O6A - PEST Fraction Second Production Run

## Sample Data Package

Page B-52, section Q, paragraph 2 in the the SOW OLMO1.8 indicates that the documents of the sample data package are to be assembled in the order specified in Form DC-2 and Sections II & III, which are contradictory to each other. The sample data package is assembled in the following manner: items 1 through 6 on form DC-2 are in the order specified in the SOW pages B-8 through B-22. Items 7 through 11 on form DC-2 are in the order specified on form DC-2, according to instructions on page B-52 of the SOW.

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

Dorothy C. Lane, Ph. D.
WRI EPA CLP Project Manager

9/23/92
Date

EPA

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

# Organic Traffic Report & Chain of Custody Record

(For Organic CLP Analysis)

SAS No. (if applicable): —

Case No.: 18642

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

2. Preservative (Enter in Column D)
   1. HCl
   2. $HNO_3$
   3. $NaHSO_4$
   4. $H_2SO_4$
   5. Other (Specify)
   6. Ice only
   N. Not preserved

3. Region No.: V

Sampling Co.: Weston

5. Date Shipped: 8/19/92

Carrier: Federal Express

7. Date Received -- Received by: 8/20/92 Kellie K Olsen

Sampler (Name): Jeff Watson

Airbill Number: # 2583984222

Laboratory Contract Number: 68-02-0017

Unit Price: 720

Sampler Signature: Jeffrey V. Wat

4. Type of Activity

| | Lead | Pre-Remedial | Remedial | Removal |
|---|---|---|---|---|
| SF | | | RIFS | CLEM |
| PRP | | PA | RD | REMA |
| ST | | SSI | RA | REM |
| FED | | LSI | O&M | OIL |
| | | | NPLD | UST |

6. Ship To: Western Research Institute
365 N. 9th St.
Laramie, Wyoming 82071
tel # (307) 721-2343
ATTN: Steve Salmans

8. Transfer to

Date Received

Received by

Contract Number

Price

| CLP Sample Numbers (from labels) | A Enter # From Box 1 | B Conc. Low Med High | C Sample Type: Comp./ Grab | D Preservative from Box 6 | E RAS Analysis: VOA | BNA | Pest/ PCB | High ARO/ TOX | F Regional Specific Tracking Number or Tag Numbers | G Station Location Number | H Mo/Day/ Year/Time Sample Collection | I Sampler Initials | J Corresp. CLP Inorg. Samp. No. | K Sample Condition on Rec't | L High Conc. Phases (Check below): Solids | Water -- Mis Liq. | Non Water -- Mis Liq. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ERW01 | 5 | L | G | 6 | X | | | | 5-11290(3),(4) | SS1SE- | | | | | | | |
| ↓ | | | C | | | X | X | | 5112913 | ↓ | | | | | | | |
| ERW02 | | | G | | X | | | | 5112914(Y),(2) | SB01-01 | 8/19/92 1450 | | MERP01 | | | | |
| ↓ | | | C | | | X | X | | 5112914 | ↓ | ↓ | | ↓ | | | | |
| ERW03 | | | G | | X | | | | 5112915(Y),(2) | SB01-01 DP | 1615 | | MERP02 | | | | |
| ↓ | | | C | | | X | X | | 5112915 | ↓ | ↓ | | ↓ | | | | |
| ERW04 | | | G | | X | | | | 5112916(Y),(2) | SB02-01 MSD | 1500 | | MERP03 | | | | |
| ↓ | | | C | | | X | X | | 5112919 | ↓ | ↓ | | ↓ | | | | |
| ERW05 | | | G | | X | | | | 5112920(Y),(2) | SB03-01 | 1615 | | MERP04 | | | | |
| ↓ | | | C | | | X | X | | 5112923 | ↓ | ↓ | | ↓ | | | | |
| | | | | | | | | | | SB04-01 | 1645 | | MERP05 | | | | |
| | | | | | | | | | | ↓ | ↓ | | ↓ | | | | |

Shipment for Case complete? (Y/N): Y

Page 1 of 2 LK

Sample used for a spike and/or duplicate: ERW03

Additional Sampler Signatures: Linda Korobka

Chain of Custody Seal Number: 154409; 154410

## CHAIN OF CUSTODY RECORD

| Relinquished by: (Signature) | Date / Time | Received by: (Signature) | Relinquished by: (Signature) | Date / Time | Received by: (Signature) |
|---|---|---|---|---|---|
| Jeffrey V. Wat | 8/19/92 1800 | Linda Korobka | | | |
| Linda Korobka | 8/19/92 1900 | | | | |
| | | Received for Laboratory by: (Signature) Kellie K Olsen | Date / Time 8/20/92 1130A | Remarks: Is custody seal intact? Y/N/none | |

Split Samples: ☐ Accepted (Signature) ☐ Declined

EPA Form #110-2 (Rev. 5-91) Replaces EPA Form (2075-7), previous edition which may be used

DISTRIBUTION:
Blue - Region Copy Pink - SMO Copy White - Lab Copy for Return to Region Yellow - Lab Copy for Return to SMO

SEE REVERSE FOR ADDITIONAL STANDARD INSTRUCTIONS

Org-2

O340003

O00002

# EPA Organic Traffic Report & Chain of Custody Record

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

(For Organic CLP Analysis)

SAS No. (if applicable): —

Case No.: 18642

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

2. Preservative (Enter in Column D): 1. HCl, 2. HNO3, 3. NaHSO4, 4. $H_2SO_4$, 5. Other (SAS) (Specify), 6. Ice only, N. Not preserved

3. Region No.: V | Sampling Co.: Weston

Sampler (Name): Jeff Watson

Sampler Signature: Jeffrey V. Watson

4. Type of Activity — Lead: SF, PRP, ST, FED; Pre-Remedial: PA, SSI, LSI; Remedial: RIFS, RD, RA, O&M, NPLD; Removal: CLEM, REMA, REM, OIL, UST

5. Date Shipped: 8/19/92 | Carrier: Federal Express

Airbill Number: # 258983975

6. Ship To: Western Research Institute, 365 N. 9th St., Laramie, Wyoming 82071, tel # (307) 721-2243, Attn: Steve Salmans

7. Date Received -- Received by: 8/20/92 Bellie K Olsen

Laboratory Contract Number: 68-D2 0017 | Unit Price: 720

8. Transfer to | Date Received

Received by | Contract Number | Price

| CLP Sample Numbers (from labels) | A Enter # From Box 1 | B Conc. Low Med High | C Sample Type: Comp./ Grab | D Preservative from Box 6 | E RAS Analysis: VOA | BNA | Pest/ PCB | High ARO/ TOX | F Regional Specific Tracking Number or Tag Numbers | G Station Location Number | H Mo/Day/ Year/Time Sample Collection | I Sampler Initials | J Corresp. CLP Inorg. Samp. No. | K Sample Condition on Rec't | High Conc. Phases (Check below): Solids | Water -- Ms Liq. | Non Water -- Ms Liq. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ERW 11 | 1 | L | G | 1 | X | | | | 51129(45), (46) | PWTB-01 | 8/18/92 1600 | | — | | | | |
| ERW 12 | 1 | | G | 1 | X | | | | 51129(47)-(52) | SW01-01 MSD | | | MEEP 11 | | | | |
| ↓ | | | C | 6 | | X | X | | 51129(53)-(56) | ↓ | | | ↓ | | | | |
| ERW 13 | | | G | 1 | X | | | | 51129(61), (62) | SW02-01 | 1515 | | MEEP 12 | | | | |
| ↓ | | | C | 6 | | X | X | | 51129(63), (64) | ↓ | | | ↓ | | | | |
| ERW 14 | | | G | 1 | X | | | | 51129(67), (68) | SW02-01 FB | | | MEEP 13 | | | | |
| ↓ | | | C | 6 | | X | X | | 51129(69), (70) | ↓ | | | ↓ | | | | |
| ERW 15 | | | G | 1 | X | | | | 51129(73), (74) | SW03-01 | 1445 | | MEEP 14 | | | | |
| LK 8/19/92 ↓ | | | C | 6 | | X | X | | 51129(75), (76) | ↓ | | | ↓ | | | | LK |
| ERW 16 | 1 | L | G | 1 | X | | | | 51129(79), (80) | SW03-01 DP | 8/18/92 1445 | | MEEP 15 | | | | |

Shipment for Case complete? (Y/N): Y | Page 1 of 2

Sample used for a spike and/or duplicate: ERW 12

Additional Sampler Signatures: Linda Korobka

Chain of Custody Seal Number: 154407; 154408

## CHAIN OF CUSTODY RECORD

| Relinquished by: (Signature) | Date / Time | Received by: (Signature) | Relinquished by: (Signature) | Date / Time | Received by: (Signature) |
|---|---|---|---|---|---|
| Jeffrey V. Watson | 8/19/92 0900 | Linda Korobka | | | |
| Linda Korobka | 8/19/92 1000 | | | | |

| Received by: (Signature) | Date / Time | Received for Laboratory by: (Signature) | Date / Time | Remarks | Is custody seal intact? Y/N/none |
|---|---|---|---|---|---|
| | | Bellie K Olsen | 8/20/92 1130A | | Y |

Split Samples ☐ Accepted (Signature) ☐ Declined

EPA Form 9110-2 (Rev. 5-91) Replaces EPA Form (2075-7), previous edition which may be used

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Org-2

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# EPA — Organic Traffic Report & Chain of Custody Record

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

(For Organic CLP Analysis)

SAS No. (if applicable): —

Case No.: 18642

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

2. Preservative (Enter in Column D): 1. HCl 2. $HNO_3$ 3. NaHSO4 4. $H_2SO_4$ 5. Other (SAS) (Specify) 6. Ice only N. Not preserved

3. Region No.: V — Sampling Co.: Weston

5. Date Shipped: 8/19/92 — Carrier: Federal Express

7. Date Received -- Received by: 8/20/92 Kellie K Olsen

Sampler (Name): Jeff Watson — Airbill Number: # 258398 3975

Laboratory Contract Number: 68-D2-0017 — Unit Price: 720

Sampler Signature: J. Jeff V. Wat

6. Ship To: Western Research Institute, 365 N. 9th St., Laramie, Wyoming 82071, tel # (307) 721-2243, attn: Steve Salmons

8. Transfer to — Date Received

Received by

Contract Number — Price

4. Type of Activity — Left: SF, PRP, ST, FED; Pre-Remedial: PA, SS (X), LSI; Remedial: RIFS, RD, RA, O&M, NPLD; Removal: CLEM, REMA, REM, OIL, UST

| CLP Sample Numbers (from labels) | A Enter # From Box 1 | B Conc. Low Med High | C Sample Type: Comp./ Grab | D Preservative from Box 6 | E RAS Analysis: VOA | BNA | Pest/ PCB | High ARO/ TOX | F Regional Specific Tracking Number or Tag Numbers | G Station Location Number | H Mo/Day/ Year/Time Sample Collection | I Sampler Initials | J Corresp. CLP Inorg. Samp. No. | K Sample Condition on Rec't | High Conc. Phases (Check below): Solids | Water - Mis Liq. | Non Water - Mis Liq. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ERW16 | 1 | L | G | 1 | X | | | | 51129(79),(80) | SW03-01DP | 8/18/92 1445 | | MERP15 | | | | |
| ERW16 LK | 1 LK | L | C | 6 | | X | X | | 51129(81),(82) | " SW03-01DP | " 8/18/92 1445 | | " | | | | |
| ERW15 | 1 | L | C | 6 | | X | X | | 51129(75),(76) | SW03-01 | 8/18/92 | | MERP14 | | | | |

Shipment for Case complete? (Y/N): Y

Page 1 of 2 (2 LK)

Sample used for a spike and/or duplicate

Additional Sampler Signatures: Linda Korobka

Chain of Custody Seal Number: 154407 (15 LK); 154408 (16 LL)

## CHAIN OF CUSTODY RECORD

| Relinquished by: (Signature) | Date / Time | Received by: (Signature) | Relinquished by: (Signature) | Date / Time | Received by: (Signature) |
|---|---|---|---|---|---|
| J. Jeff V. Wat | 8/19/92 0900 | Linda Korobka | | | |
| Linda Korobka | 8/19/92 1000 | | | | |
| Received by: (Signature) | Date / Time | Received for Laboratory by: (Signature) | Date / Time | Remarks | Is custody seal intact? Y/N/none |
| | | Kellie K Olsen | 8/20/92 11:30A | | |

Split Samples: ☐ Accepted (Signature) ☐ Declined

EPA Form 9110-2 (Rev. 5-91) Replaces EPA Form (2075-7), previous edition which may be used

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Org-2

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# WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name:Western Research Institut  Contract:68-D2-0017

Lab Code:WRI  Case No.:18642  SAS No.:  SDG No.:ERW01

| | EPA SAMPLE NO. | SMC1 (TOL)# | SMC2 (BFB)# | SMC3 (DCE)# | OTHER | TOT OUT |
|---|---|---|---|---|---|---|
| 01 | ERW11 | 104 | 98 | 108 | | 0 |
| 02 | ERW12 | 96 | 86 | 94 | | 0 |
| 03 | ERW12MS | 100 | 96 | 104 | | 0 |
| 04 | ERW12MSD | 102 | 98 | 94 | | 0 |
| 05 | ERW13 | 98 | 90 | 102 | | 0 |
| 06 | ERW14 | 104 | 94 | 102 | | 0 |
| 07 | ERW15 | 102 | 96 | 98 | | 0 |
| 08 | ERW16 | 108 | 92 | 100 | | 0 |
| 09 | VBLK1 | 100 | 88 | 98 | | 0 |
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| | QC LIMITS |
|---|---|
| SMC1 (TOL) = Toluene-d8 | (88-110) |
| SMC2 (BFB) = Bromofluorobenzene | (86-115) |
| SMC3 (DCE) = 1,2-Dichloroethane-d4 | (76-114) |

# Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

# SOIL VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name:Western Research Institut  Contract:68-D2-0017

Lab Code:WRI  Case No.:18642  SAS No.:  SDG No.:ERW01

Level:(low/med) LOW

| | EPA SAMPLE NO. | SMC1 (TOL)# | SMC2 (BFB)# | SMC3 (DCE)# | OTHER | TOT OUT |
|---|---|---|---|---|---|---|
| 01 | ERW01 | 138 | 76 | 95 | | 0 |
| 02 | ERW01RE | 141* | 67 | 98 | | 1 |
| 03 | ERW02 | 101 | 99 | 103 | | 0 |
| 04 | ERW02MS | 110 | 97 | 104 | | 0 |
| 05 | ERW02MSD | 106 | 99 | 101 | | 0 |
| 06 | ERW04 | 113 | 113 | 102 | | 0 |
| 07 | ERW05 | 113 | 104 | 102 | | 0 |
| 08 | VBLK2 | 96 | 102 | 92 | | 0 |
| 09 | VBLK3 | 102 | 102 | 100 | | 0 |
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| | QC LIMITS |
|---|---|
| SMC1 (TOL) = Toluene-d8 | (84-138) |
| SMC2 (BFB) = Bromofluorobenzene | (59-113) |
| SMC3 (DCE) = 1,2-Dichloroethane-d4 | (70-121) |

# Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

# SOIL VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name:Western Research Institut  Contract:68-D2-0017

Lab Code:WRI  Case No.:18642  SAS No.:  SDG No.:ERW01

Level:(low/med) MED

| | EPA SAMPLE NO. | SMC1 (TOL)# | SMC2 (BFB)# | SMC3 (DCE)# | OTHER | TOT OUT |
|---|---|---|---|---|---|---|
| 01 | ERW03 | 100 | 80 | 95 | | 0 |
| 02 | ERW03MS | 108 | 83 | 104 | | 0 |
| 03 | ERW03MSD | 96 | 83 | 96 | | 0 |
| 04 | VBLK5 | 99 | 86 | 101 | | 0 |
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| | QC LIMITS |
|---|---|
| SMC1 (TOL) = Toluene-d8 | (84-138) |
| SMC2 (BFB) = Bromofluorobenzene | (59-113) |
| SMC3 (DCE) = 1,2-Dichloroethane-d4 | (70-121) |

# Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

[redacted]

# WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name:Western Research Institut  Contract:68-D2-0017

Lab Code:WRI  Case No.:18642  SAS No.:  SDG No.:ERW01

Matrix Spike - EPA Sample No.:  ERW12

| COMPOUND | SPIKE ADDED (ug/L) | SAMPLE CONCENTRATION (ug/L) | MS CONCENTRATION (ug/L) | MS % REC # | QC. LIMITS REC. |
|---|---|---|---|---|---|
| 1,1-Dichloroethene | 50. | 0. | 51. | 102 | 61-145 |
| Trichloroethene | 50. | 0. | 48. | 96 | 71-120 |
| Benzene | 50. | 0. | 51. | 102 | 76-127 |
| Toluene | 50. | 0. | 48. | 96 | 76-125 |
| Chlorobenzene | 50. | 0. | 48. | 96 | 75-130 |
| | | | | | |

| COMPOUND | SPIKE ADDED (ug/L) | MSD CONCENTRATION (ug/L) | MSD % REC # | % RPD # | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| 1,1-Dichloroethene | 50. | 50. | 100 | 2 | 14 | 61-145 |
| Trichloroethene | 50. | 50. | 100 | 4 | 14 | 71-120 |
| Benzene | 50. | 54. | 108 | 6 | 11 | 76-127 |
| Toluene | 50. | 51. | 102 | 6 | 13 | 76-125 |
| Chlorobenzene | 50. | 52. | 104 | 8 | 13 | 75-130 |
| | | | | | | |

# Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD:  0 out of  5 outside limits
Spike Recovery:  0 out of  10  outside limits

COMMENTS:

# SOIL VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name:Western Research Institut  Contract:68-D2-0017

Lab Code:WRI  Case No.:18642  SAS No.:  SDG No.:ERW01

Matrix Spike - EPA Sample No.:  ERW02  Level:(low/med) LOW

| COMPOUND | SPIKE ADDED (ug/Kg) | SAMPLE CONCENTRATION (ug/Kg) | MS CONCENTRATION (ug/Kg) | MS % REC # | QC. LIMITS REC. |
|---|---|---|---|---|---|
| 1,1-Dichloroethene | 53. | 0. | 54. | 102 | 59-172 |
| Trichloroethene | 53. | 0. | 51. | 96 | 62-137 |
| Benzene | 53. | 0. | 56. | 106 | 66-142 |
| Toluene | 53. | 0. | 58. | 109 | 59-139 |
| Chlorobenzene | 53. | 0. | 54. | 102 | 60-133 |
| | | | | | |

| COMPOUND | SPIKE ADDED (ug/Kg) | MSD CONCENTRATION (ug/Kg) | MSD % REC # | % RPD # | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| 1,1-Dichloroethene | 53. | 56. | 106 | 4 | 22 | 59-172 |
| Trichloroethene | 53. | 56. | 106 | 10 | 24 | 62-137 |
| Benzene | 53. | 59. | 111 | 5 | 21 | 66-142 |
| Toluene | 53. | 60. | 113 | 4 | 21 | 59-139 |
| Chlorobenzene | 53. | 61. | 115 | 12 | 21 | 60-133 |
| | | | | | | |

# Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD:  0 out of  5 outside limits
Spike Recovery:  0 out of  10  outside limits

COMMENTS:

[redacted]

# SOIL VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name:Western Research Institut  Contract:68-D2-0017

Lab Code:WRI  Case No.:18642  SAS No.:  SDG No.:ERW01

Matrix Spike - EPA Sample No.:  ERW03  Level:(low/med) MED

| COMPOUND | SPIKE ADDED (ug/Kg) | SAMPLE CONCENTRATION (ug/Kg) | MS CONCENTRATION (ug/Kg) | MS % REC # | QC. LIMITS REC. |
|---|---|---|---|---|---|
| 1,1-Dichloroethene | 7800. | 0. | 8600. | 110 | 59-172 |
| Trichloroethene | 7800. | 340. | 8300. | 102 | 62-137 |
| Benzene | 7800. | 0. | 7700. | 99 | 66-142 |
| Toluene | 7800. | 360. | 8400. | 103 | 59-139 |
| Chlorobenzene | 7800. | 0. | 8200. | 105 | 60-133 |
| | | | | | |

| COMPOUND | SPIKE ADDED (ug/Kg) | MSD CONCENTRATION (ug/Kg) | MSD % REC # | % RPD # | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| 1,1-Dichloroethene | 7800. | 7900. | 101 | 9 | 22 | 59-172 |
| Trichloroethene | 7800. | 8300. | 102 | 0 | 24 | 62-137 |
| Benzene | 7800. | 7600. | 97 | 2 | 21 | 66-142 |
| Toluene | 7800. | 7400. | 90 | 13 | 21 | 59-139 |
| Chlorobenzene | 7800. | 7300. | 94 | 11 | 21 | 60-133 |
| | | | | | | |

# Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD:  0 out of  5 outside limits
Spike Recovery:  0 out of  10  outside limits

COMMENTS:

[redacted]

4A

VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLK1

Lab Name:Western Research InstitutContract:68-D2-0017

Lab Code:WRI Case No.:18642 SAS No.: SDG No.:ERW01

Lab File ID:VB230 Lab Sample ID:

Date Analyzed: 8/21/92 Time Analyzed:1345

GC Column:DB-624 ID: 0.53 (mm) Heated Purge: (Y/N) N

Instrument ID:9602

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS, AND MSD:

| | EPA SAMPLE NO. | LAB SAMPLE ID | LAB FILE ID | TIME ANALYZED |
|---|---|---|---|---|
| 01 | ERW11 | | ER001 | 1426 |
| 02 | ERW12 | | ER002 | 1505 |
| 03 | ERW12MS | | ER003 | 1545 |
| 04 | ERW12MSD | | ER004 | 1629 |
| 05 | ERW13 | | ER005 | 1709 |
| 06 | ERW14 | | ER006 | 1748 |
| 07 | ERW15 | | ER007 | 1825 |
| 08 | ERW16 | | ER008 | 1902 |
| 09 | | | | |
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COMMENTS:

[redacted]

4A

VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLK2

Lab Name:Western Research InstitutContract:68-D2-0017

Lab Code:WRI Case No.:18642 SAS No.: SDG No.:ERW01

Lab File ID:VB231 Lab Sample ID:

Date Analyzed: 8/24/92 Time Analyzed:1714

GC Column:DB-624 ID: 0.53 (mm) Heated Purge: (Y/N) Y

Instrument ID:9602

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS, AND MSD:

| | EPA SAMPLE NO. | LAB SAMPLE ID | LAB FILE ID | TIME ANALYZED |
|---|---|---|---|---|
| 01 | ERW01 | | ER009 | 1824 |
| 02 | ERW02 | | ER010 | 1904 |
| 03 | ERW04 | | ER013 | 2137 |
| 04 | ERW05 | | ER015 | 0009 |
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COMMENTS:

[redacted]

4A

EPA SAMPLE NO.

VOLATILE METHOD BLANK SUMMARY

VBLK3

Lab Name:Western Research InstitutContract:68-D2-0017

Lab Code:WRI Case No.:18642 SAS No.: SDG No.:ERW01

Lab File ID:VB232 Lab Sample ID:

Date Analyzed: 8/25/92 Time Analyzed:1203

GC Column:DB-624 ID: 0.53 (mm) Heated Purge: (Y/N) Y

Instrument ID:9602

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS, AND MSD:

| | EPA SAMPLE NO. | LAB SAMPLE ID | LAB FILE ID | TIME ANALYZED |
|---|---|---|---|---|
| 01 | ERW01RE | | ER020 | 1807 |
| 02 | ERW02MS | | ER018 | 1621 |
| 03 | ERW02MSD | | ER019 | 1712 |
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COMMENTS:

4A

VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLK5

Lab Name:Western Research InstitutContract:68-D2-0017

Lab Code:WRI Case No.:18642 SAS No.: SDG No.:ERW01

Lab File ID:ER022 Lab Sample ID:

Date Analyzed: 8/26/92 Time Analyzed:1245

GC Column:DB-624 ID: 0.53 (mm) Heated Purge: (Y/N) N

Instrument ID:9602

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS, AND MSD:

| | EPA SAMPLE NO. | LAB SAMPLE ID | LAB FILE ID | TIME ANALYZED |
|---|---|---|---|---|
| 01 | ERW03 | | ER023 | 1453 |
| 02 | ERW03MS | | ER025 | 1624 |
| 03 | ERW03MSD | | ER026 | 1731 |
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COMMENTS:

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK1

Lab Name:Western Research Institut Contract:68-D2-0017

Lab Code:WRI Case No.:18642 SAS No.: SDG No.:ERW01

Matrix: (soil/water) WATER Lab Sample ID:

Sample wt/vol: 5.00 (g/ml) ML Lab File ID: VB230

Level: (low/med) LOW Date Received: / /

% Moisture: not dec. Date Analyzed: 8/21/92

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 74-87-3 | Chloromethane | 10. | U |
| 74-83-9 | Bromomethane | 10. | U |
| 75-01-4 | Vinyl Chloride | 10. | U |
| 75-00-3 | Chloroethane | 10. | U |
| 75-09-2 | Methylene Chloride | 1. | J |
| 67-64-1 | Acetone | 10. | U |
| 75-15-0 | Carbon Disulfide | 10. | U |
| 75-35-4 | 1,1-Dichloroethene | 10. | U |
| 75-34-3 | 1,1-Dichloroethane | 10. | U |
| 540-59-0 | 1,2-Dichloroethene | 10. | U |
| 67-66-3 | Chloroform | 10. | U |
| 107-06-2 | 1,2-Dichloroethane | 10. | U |
| 78-93-3 | 2-Butanone | 10. | U |
| 71-55-6 | 1,1,1-Trichloroethane | 10. | U |
| 56-23-5 | Carbon Tetrachloride | 10. | U |
| 75-27-4 | Bromodichloromethane | 10. | U |
| 78-87-5 | 1,2-Dichloropropane | 10. | U |
| 10061-01-5 | cis-1,3-Dichloropropene | 10. | U |
| 79-01-6 | Trichloroethene | 10. | U |
| 124-48-1 | Dibromochloromethane | 10. | U |
| 79-00-5 | 1,1,2-Trichloroethane | 10. | U |
| 71-43-2 | Benzene | 10. | U |
| 10061-02-6 | trans-1,3-Dichloropropene | 10. | U |
| 75-25-2 | Bromoform | 10. | U |
| 108-10-1 | 4-Methyl-2-Pentanone | 10. | U |
| 591-78-6 | 2-Hexanone | 10. | U |
| 127-18-4 | Tetrachloroethene | 10. | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 10. | U |
| 108-88-3 | Toluene | 10. | U |
| 108-90-7 | Chlorobenzene | 10. | U |
| 100-41-4 | Ethylbenzene | 10. | U |
| 100-42-5 | Styrene | 10. | U |
| 1330-20-7 | Total Xylenes | 10. | U |

000186

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

VBLK1

Lab Name:Western Research Institut Contract:68-D2-0017

Lab Code:WRI Case No.:18642 SAS No.: SDG No.:ERW01

Matrix: (soil/water) WATER Lab Sample ID:

Sample wt/vol: 5.00 (g/ml) ML Lab File ID: VB230

Level: (low/med) LOW Date Received: / /

% Moisture: not dec. Date Analyzed: 8/21/92

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

Number TICs Found: 1

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

| | CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|---|
| 1. | 0 | CO2 background | 0.65 | 590. | J |
| 2. | | | | | |
| 3. | | | | | |
| 4. | | | | | |
| 5. | | | | | |
| 6. | | | | | |
| 7. | | | | | |
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000187

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK2

Lab Name:Western Research Institut Contract:68-D2-0017

Lab Code:WRI Case No.:18642 SAS No.: SDG No.:ERW01

Matrix: (soil/water) SOIL Lab Sample ID:

Sample wt/vol: 5.00 (g/ml) G Lab File ID: VB231

Level: (low/med) LOW Date Received: / /

% Moisture: not dec. 0 Date Analyzed: 8/24/92

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG | Q |
|---|---|---|---|
| 74-87-3 | Chloromethane | 10. | U |
| 74-83-9 | Bromomethane | 10. | U |
| 75-01-4 | Vinyl Chloride | 10. | U |
| 75-00-3 | Chloroethane | 10. | U |
| 75-09-2 | Methylene Chloride | 10. | U |
| 67-64-1 | Acetone | 10. | U |
| 75-15-0 | Carbon Disulfide | 10. | U |
| 75-35-4 | 1,1-Dichloroethene | 10. | U |
| 75-34-3 | 1,1-Dichloroethane | 10. | U |
| 540-59-0 | 1,2-Dichloroethene | 10. | U |
| 67-66-3 | Chloroform | 10. | U |
| 107-06-2 | 1,2-Dichloroethane | 10. | U |
| 78-93-3 | 2-Butanone | 10. | U |
| 71-55-6 | 1,1,1-Trichloroethane | 10. | U |
| 56-23-5 | Carbon Tetrachloride | 10. | U |
| 75-27-4 | Bromodichloromethane | 10. | U |
| 78-87-5 | 1,2-Dichloropropane | 10. | U |
| 10061-01-5 | cis-1,3-Dichloropropene | 10. | U |
| 79-01-6 | Trichloroethene | 10. | U |
| 124-48-1 | Dibromochloromethane | 10. | U |
| 79-00-5 | 1,1,2-Trichloroethane | 10. | U |
| 71-43-2 | Benzene | 10. | U |
| 10061-02-6 | trans-1,3-Dichloropropene | 10. | U |
| 75-25-2 | Bromoform | 10. | U |
| 108-10-1 | 4-Methyl-2-Pentanone | 10. | U |
| 591-78-6 | 2-Hexanone | 10. | U |
| 127-18-4 | Tetrachloroethene | 10. | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 10. | U |
| 108-88-3 | Toluene | 10. | U |
| 108-90-7 | Chlorobenzene | 10. | U |
| 100-41-4 | Ethylbenzene | 10. | U |
| 100-42-5 | Styrene | 10. | U |
| 1330-20-7 | Total Xylenes | 10. | U |

KAL 9-23-92

000193

1E

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

VBLK2

Lab Name:Western Research Institut Contract:68-D2-0017

Lab Code:WRI Case No.:18642 SAS No.: SDG No.:ERW01

Matrix: (soil/water) SOIL Lab Sample ID:

Sample wt/vol: 5.00 (g/ml) G Lab File ID: VB231

Level: (low/med) LOW Date Received: / /

% Moisture: not dec. 0 Date Analyzed: 8/24/92

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

Number TICs Found: 1 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG

| | CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|---|
| 1. | 0 | CO2 background | 0.65 | 1400. | J |
| 2. | | | | | |
| 3. | | | | | |
| 4. | | | | | |
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000184

# VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK3

Lab Name:Western Research Institut Contract:68-D2-0017

Lab Code:WRI Case No.:18642 SAS No.: SDG No.:ERW01

Matrix: (soil/water) SOIL Lab Sample ID:

Sample wt/vol: 5.00 (g/ml) G Lab File ID: VB232

Level: (low/med) LOW Date Received: / /

% Moisture: not dec. 0 Date Analyzed: 8/25/92

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG | Q |
|---|---|---|---|
| 74-87-3 | Chloromethane | 10. | U |
| 74-83-9 | Bromomethane | 10. | U |
| 75-01-4 | Vinyl Chloride | 10. | U |
| 75-00-3 | Chloroethane | 10. | U |
| 75-09-2 | Methylene Chloride | 10. | U |
| 67-64-1 | Acetone | 10. | U |
| 75-15-0 | Carbon Disulfide | 10. | U |
| 75-35-4 | 1,1-Dichloroethene | 10. | U |
| 75-34-3 | 1,1-Dichloroethane | 10. | U |
| 540-59-0 | 1,2-Dichloroethene | 10. | U |
| 67-66-3 | Chloroform | 10. | U |
| 107-06-2 | 1,2-Dichloroethane | 10. | U |
| 78-93-3 | 2-Butanone | 10. | U |
| 71-55-6 | 1,1,1-Trichloroethane | 10. | U |
| 56-23-5 | Carbon Tetrachloride | 10. | U |
| 75-27-4 | Bromodichloromethane | 10. | U |
| 78-87-5 | 1,2-Dichloropropane | 10. | U |
| 10061-01-5 | cis-1,3-Dichloropropene | 10. | U |
| 79-01-6 | Trichloroethene | 10. | U |
| 124-48-1 | Dibromochloromethane | 10. | U |
| 79-00-5 | 1,1,2-Trichloroethane | 10. | U |
| 71-43-2 | Benzene | 10. | U |
| 10061-02-6 | trans-1,3-Dichloropropene | 10. | U |
| 75-25-2 | Bromoform | 10. | U |
| 108-10-1 | 4-Methyl-2-Pentanone | 10. | U |
| 591-78-6 | 2-Hexanone | 10. | U |
| 127-18-4 | Tetrachloroethene | 10. | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 10. | U |
| 108-88-3 | Toluene | 10. | U |
| 108-90-7 | Chlorobenzene | 10. | U |
| 100-41-4 | Ethylbenzene | 10. | U |
| 100-42-5 | Styrene | 10. | U |
| 1330-20-7 | Total Xylenes | 10. | U |

000199

1E

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

VBLK3

Lab Name:Western Research Institut Contract:68-D2-0017

Lab Code:WRI Case No.:18642 SAS No.: SDG No.:ERW01

Matrix: (soil/water) SOIL Lab Sample ID:

Sample wt/vol: 5.00 (g/ml) G Lab File ID: VB232

Level: (low/med) LOW Date Received: / /

% Moisture: not dec. 0 Date Analyzed: 8/25/92

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

Number TICs Found: 0

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

| | CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|---|
| 1. | | | | | |
| 2. | | | | | |
| 3. | | | | | |
| 4. | | | | | |
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000200

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK5

Lab Name:Western Research Institut Contract:68-D2-0017

Lab Code:WRI Case No.:18642 SAS No.: SDG No.:ERW01

Matrix: (soil/water) SOIL Lab Sample ID:

Sample wt/vol: 4.00 (g/ml) G Lab File ID: ER022

Level: (low/med) MED Date Received: / /

% Moisture: not dec. 0 Date Analyzed: 8/26/92

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:10000.00 (uL) Soil Aliquot Volume: 100.0 (uL)

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG | Q |
|---|---|---|---|
| 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 | 1200. | U |
| 67-64-1 | Acetone | 1200. | U |
| 75-15-0 | Carbon Disulfide | 1200. | U |
| 75-35-4 | 1,1-Dichloroethene | 1200. | U |
| 75-34-3 | 1,1-Dichloroethane | 1200. | U |
| 540-59-0 | 1,2-Dichloroethene | 1200. | U |
| 67-66-3 | Chloroform | 1200. | U |
| 107-06-2 | 1,2-Dichloroethane | 1200. | U |
| 78-93-3 | 2-Butanone | 1200. | U |
| 71-55-6 | 1,1,1-Trichloroethane | 1200. | U |
| 56-23-5 | Carbon Tetrachloride | 1200. | U |
| 75-27-4 | Bromodichloromethane | 1200. | U |
| 78-87-5 | 1,2-Dichloropropane | 1200. | U |
| 10061-01-5 | cis-1,3-Dichloropropene | 1200. | U |
| 79-01-6 | Trichloroethene | 1200. | U |
| 124-48-1 | Dibromochloromethane | 1200. | U |
| 79-00-5 | 1,1,2-Trichloroethane | 1200. | U |
| 71-43-2 | Benzene | 1200. | U |
| 10061-02-6 | trans-1,3-Dichloropropene | 1200. | U |
| 75-25-2 | Bromoform | 1200. | U |
| 108-10-1 | 4-Methyl-2-Pentanone | 1200. | U |
| 591-78-6 | 2-Hexanone | 1200. | U |
| 127-18-4 | Tetrachloroethene | 1200. | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 1200. | U |
| 108-88-3 | Toluene | 1200. | U |
| 108-90-7 | Chlorobenzene | 1200. | U |
| 100-41-4 | Ethylbenzene | 1200. | U |
| 100-42-5 | Styrene | 1200. | U |
| 1330-20-7 | Total Xylenes | 1200. | U |

000204

1E

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

VBLK5

Lab Name:Western Research Institut Contract:68-D2-0017

Lab Code:WRI Case No.:18642 SAS No.: SDG No.:ERW01

Matrix: (soil/water) SOIL Lab Sample ID:

Sample wt/vol: 4.00 (g/ml) G Lab File ID: ER022

Level: (low/med) MED Date Received: / /

% Moisture: not dec. 0 Date Analyzed: 8/26/92

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:10000.00 (uL) Soil Aliquot Volume: 100.0 (uL)

Number TICs Found: 1

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

| | CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|---|
| 1. | 0 | CO2 background | 0.66 | 25000. | J |
| 2. | | | | | |
| 3. | | | | | |
| 4. | | | | | |
| 5. | | | | | |
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000205

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ERW01

Lab Name:Western Research Institut Contract:68-D2-0017

Lab Code:WRI Case No.:18642 SAS No.: SDG No.:ERW01

Matrix: (soil/water) SOIL Lab Sample ID:

Sample wt/vol: 5.00 (g/ml) G Lab File ID: ER009

Level: (low/med) LOW Date Received: 8/20/92

% Moisture: not dec. 14 Date Analyzed: 8/24/92

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG | Q | |
|---|---|---|---|---|
| 74-87-3 | Chloromethane | 12. | U | |
| 74-83-9 | Bromomethane | 12. | U | |
| 75-01-4 | Vinyl Chloride | 12. | U | |
| 75-00-3 | Chloroethane | 12. | U | |
| 75-09-2 | Methylene Chloride | 12. | U | |
| 67-64-1 | Acetone | 12. | U | |
| 75-15-0 | Carbon Disulfide | 12. | U | |
| 75-35-4 | 1,1-Dichloroethene | 12. | U | |
| 75-34-3 | 1,1-Dichloroethane | 12. | U | |
| 540-59-0 | 1,2-Dichloroethene | 120. | | |
| 67-66-3 | Chloroform | 12. | U | |
| 107-06-2 | 1,2-Dichloroethane | 12. | U | |
| 78-93-3 | 2-Butanone | 12. | U | |
| 71-55-6 | 1,1,1-Trichloroethane | 12. | U | J |
| 56-23-5 | Carbon Tetrachloride | 12. | U | |
| 75-27-4 | Bromodichloromethane | 12. | U | |
| 78-87-5 | 1,2-Dichloropropane | 12. | U | |
| 10061-01-5 | cis-1,3-Dichloropropene | 12. | U | |
| 79-01-6 | Trichloroethene | 27. | | |
| 124-48-1 | Dibromochloromethane | 12. | U | |
| 79-00-5 | 1,1,2-Trichloroethane | 12. | U | |
| 71-43-2 | Benzene | 12. | U | |
| 10061-02-6 | trans-1,3-Dichloropropene | 12. | U | |
| 75-25-2 | Bromoform | 12. | U | J |
| 108-10-1 | 4-Methyl-2-Pentanone | 12. | U | |
| 591-78-6 | 2-Hexanone | 12. | U | |
| 127-18-4 | Tetrachloroethene | 12. | U | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 12. | U | |
| 108-88-3 | Toluene | 12. | U | |
| 108-90-7 | Chlorobenzene | 12. | U | |
| 100-41-4 | Ethylbenzene | 12. | U | |
| 100-42-5 | Styrene | 12. | U | |
| 1330-20-7 | Total Xylenes | 12. | U | |

PDC
10/30/92

[redacted]

1E

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

ERW01

Lab Name:Western Research Institut Contract:68-D2-0017

Lab Code:WRI Case No.:18642 SAS No.: SDG No.:ERW01

Matrix: (soil/water) SOIL Lab Sample ID:

Sample wt/vol: 5.00 (g/ml) G Lab File ID: ER009

Level: (low/med) LOW Date Received: 8/20/92

% Moisture: not dec. 14 Date Analyzed: 8/24/92

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

Number TICs Found: 3

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

| | CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|---|
| 1. | 0 | CO2 background | 0.66 | 3500. | JBU |
| 2. | 55-66-7 | Cyclotetrasiloxane, octameth | 19.03 | 90. | JN |
| 3. | 0 | Column bleed | 22.97 | 17. | J |
| 4. | | | | | |
| 5. | | | | | |
| 6. | | | | | |
| 7. | | | | | |
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CL 10-19-92

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ERW01RE

Lab Name:Western Research Institut Contract:68-D2-0017

Lab Code:WRI Case No.:18642 SAS No.: SDG No.:ERW01

Matrix: (soil/water) SOIL Lab Sample ID:

Sample wt/vol: 5.00 (g/ml) G Lab File ID: ER020

Level: (low/med) LOW Date Received: 8/20/92

% Moisture: not dec. 14 Date Analyzed: 8/25/92

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG | Q | |
|---|---|---|---|---|
| 74-87-3 | Chloromethane | 12. | U | |
| 74-83-9 | Bromomethane | 12. | U | |
| 75-01-4 | Vinyl Chloride | 12. | U | |
| 75-00-3 | Chloroethane | 12. | U | |
| 75-09-2 | Methylene Chloride | 12. | U | |
| 67-64-1 | Acetone | 12. | U | |
| 75-15-0 | Carbon Disulfide | 12. | U | |
| 75-35-4 | 1,1-Dichloroethene | 12. | U | |
| 75-34-3 | 1,1-Dichloroethane | 12. | U | |
| 540-59-0 | 1,2-Dichloroethene | 110. | J | PDC 11/9/92 |
| 67-66-3 | Chloroform | 12. | U | |
| 107-06-2 | 1,2-Dichloroethane | 12. | U | |
| 78-93-3 | 2-Butanone | 12. | U | |
| 71-55-6 | 1,1,1-Trichloroethane | 12. | U | |
| 56-23-5 | Carbon Tetrachloride | 12. | U | |
| 75-27-4 | Bromodichloromethane | 12. | U | |
| 78-87-5 | 1,2-Dichloropropane | 12. | U | PDC 11/9/92 |
| 10061-01-5 | cis-1,3-Dichloropropene | 12. | U | |
| 79-01-6 | Trichloroethene | 23. | J | |
| 124-48-1 | Dibromochloromethane | 12. | U | |
| 79-00-5 | 1,1,2-Trichloroethane | 12. | U | |
| 71-43-2 | Benzene | 12. | U | |
| 10061-02-6 | trans-1,3-Dichloropropene | 12. | U | |
| 75-25-2 | Bromoform | 12. | U | |
| 108-10-1 | 4-Methyl-2-Pentanone | 12. | U | J |
| 591-78-6 | 2-Hexanone | 12. | U | PDC 10/30/92 |
| 127-18-4 | Tetrachloroethene | 12. | U | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 12. | U | |
| 108-88-3 | Toluene | 12. | U | |
| 108-90-7 | Chlorobenzene | 12. | U | |
| 100-41-4 | Ethylbenzene | 12. | U | |
| 100-42-5 | Styrene | 12. | U | |
| 1330-20-7 | Total Xylenes | 12. | U | |

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EPA SAMPLE NO.

ERW01RE

# VOLATILE ORGANICS ANALYSIS DATA SHEET
## TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name:Western Research Institut Contract:68-D2-0017

Lab Code:WRI Case No.:18642 SAS No.: SDG No.:ERW01

Matrix: (soil/water) SOIL Lab Sample ID:

Sample wt/vol: 5.00 (g/ml) G Lab File ID: ER020

Level: (low/med) LOW Date Received: 8/20/92

% Moisture: not dec. 14 Date Analyzed: 8/25/92

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

Number TICs Found: 4

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

| | CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|---|
| 1. | 0 | CO2 background | 0.65 | 5400. | J |
| 2. | 556-67-2 | Cyclotetrasiloxane, octameth | 19.04 | 140. | JN |
| 3. | 0 | >/= C11H24 alkane | 22.10 | 9. | J |
| 4. | | Column bleed | 22.94 | 37. | J |
| 5. | | | | | |
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ERW02

Lab Name:Western Research Institut Contract:68-D2-0017

Lab Code:WRI Case No.:18642 SAS No.: SDG No.:ERW01

Matrix: (soil/water) SOIL Lab Sample ID:

Sample wt/vol: 5.00 (g/ml) G Lab File ID: ER010

Level: (low/med) LOW Date Received: 8/20/92

% Moisture: not dec. 5 Date Analyzed: 8/24/92

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG | Q |
|---|---|---|---|
| 74-87-3 | Chloromethane | 11. | U |
| 74-83-9 | Bromomethane | 11. | U |
| 75-01-4 | Vinyl Chloride | 11. | U |
| 75-00-3 | Chloroethane | 11. | U |
| 75-09-2 | Methylene Chloride | 11. | U |
| 67-64-1 | Acetone | 11. | U |
| 75-15-0 | Carbon Disulfide | 11. | U |
| 75-35-4 | 1,1-Dichloroethene | 11. | U |
| 75-34-3 | 1,1-Dichloroethane | 11. | U |
| 540-59-0 | 1,2-Dichloroethene | 11. | U |
| 67-66-3 | Chloroform | 11. | U |
| 107-06-2 | 1,2-Dichloroethane | 11. | U |
| 78-93-3 | 2-Butanone | 11. | U |
| 71-55-6 | 1,1,1-Trichloroethane | 11. | U |
| 56-23-5 | Carbon Tetrachloride | 11. | U |
| 75-27-4 | Bromodichloromethane | 11. | U |
| 78-87-5 | 1,2-Dichloropropane | 11. | U |
| 10061-01-5 | cis-1,3-Dichloropropene | 11. | U |
| 79-01-6 | Trichloroethene | 11. | U |
| 124-48-1 | Dibromochloromethane | 11. | U |
| 79-00-5 | 1,1,2-Trichloroethane | 11. | U |
| 71-43-2 | Benzene | 11. | U |
| 10061-02-6 | trans-1,3-Dichloropropene | 11. | U |
| 75-25-2 | Bromoform | 11. | U |
| 108-10-1 | 4-Methyl-2-Pentanone | 11. | U |
| 591-78-6 | 2-Hexanone | 11. | U |
| 127-18-4 | Tetrachloroethene | 11. | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 11. | U |
| 108-88-3 | Toluene | 11. | U |
| 108-90-7 | Chlorobenzene | 11. | U |
| 100-41-4 | Ethylbenzene | 11. | U |
| 100-42-5 | Styrene | 11. | U |
| 1330-20-7 | Total Xylenes | 11. | U |

1E

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

ERW02

Lab Name:Western Research Institut Contract:68-D2-0017

Lab Code:WRI Case No.:18642 SAS No.: SDG No.:ERW01

Matrix: (soil/water) SOIL Lab Sample ID:

Sample wt/vol: 5.00 (g/ml) G Lab File ID: ER010

Level: (low/med) LOW Date Received: 8/20/92

% Moisture: not dec. 5 Date Analyzed: 8/24/92

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

Number TICs Found: 3

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

| | CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|---|
| 1. | 0 | CO2 background | 0.67 | 1400. | JBU |
| 2. | 556-67-2 | Cyclotetrasiloxane, octameth | 19.04 | 220. | JN |
| 3. | | Unknown column bleed | 22.96 | 120. | J |
| 4. | | | | | |
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CL 10-19-92

# VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ERW03

Lab Name:Western Research Institut  Contract:68-D2-0017

Lab Code:WRI  Case No.:18642  SAS No.:  SDG No.:ERW01

Matrix: (soil/water) SOIL  Lab Sample ID:

Sample wt/vol: 4.00 (g/ml) G  Lab File ID: ER023

Level: (low/med) MED  Date Received: 8/20/92

% Moisture: not dec. 20  Date Analyzed: 8/26/92

GC Column:DB-624  ID: 0.53 (mm)  Dilution Factor: 1.0

Soil Extract Volume:10000.00 (uL)  Soil Aliquot Volume: 100.0 (uL)

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG | Q |
|---|---|---|---|
| 74-87-3 | Chloromethane | 1500. | U |
| 74-83-9 | Bromomethane | 1500. | U |
| 75-01-4 | Vinyl Chloride | 1500. | U |
| 75-00-3 | Chloroethane | 1500. | U |
| 75-09-2 | Methylene Chloride | 1500. | U |
| 67-64-1 | Acetone | 1500. | U |
| 75-15-0 | Carbon Disulfide | 1500. | U |
| 75-35-4 | 1,1-Dichloroethene | 1500. | U |
| 75-34-3 | 1,1-Dichloroethane | 1500. | U |
| 540-59-0 | 1,2-Dichloroethene | 4200. | |
| 67-66-3 | Chloroform | 1500. | U |
| 107-06-2 | 1,2-Dichloroethane | 1500. | U |
| 78-93-3 | 2-Butanone | 1500. | U |
| 71-55-6 | 1,1,1-Trichloroethane | 1500. | U |
| 56-23-5 | Carbon Tetrachloride | 1500. | U |
| 75-27-4 | Bromodichloromethane | 1500. | U |
| 78-87-5 | 1,2-Dichloropropane | 1500. | U |
| 10061-01-5 | cis-1,3-Dichloropropene | 1500. | U |
| 79-01-6 | Trichloroethene | 340. | J |
| 124-48-1 | Dibromochloromethane | 1500. | U |
| 79-00-5 | 1,1,2-Trichloroethane | 1500. | U |
| 71-43-2 | Benzene | 1500. | U |
| 10061-02-6 | trans-1,3-Dichloropropene | 1500. | U |
| 75-25-2 | Bromoform | 1500. | U |
| 108-10-1 | 4-Methyl-2-Pentanone | 1500. | U |
| 591-78-6 | 2-Hexanone | 1500. | U |
| 127-18-4 | Tetrachloroethene | 1500. | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 1500. | U |
| 108-88-3 | Toluene | 360. | J |
| 108-90-7 | Chlorobenzene | 1500. | U |
| 100-41-4 | Ethylbenzene | 1500. | U |
| 100-42-5 | Styrene | 1500. | U |
| 1330-20-7 | Total Xylenes | 7900. | |

EPA SAMPLE NO.

ERW03

# VOLATILE ORGANICS ANALYSIS DATA SHEET
## TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name:Western Research Institut  Contract:68-D2-0017

Lab Code:WRI  Case No.:18642  SAS No.:  SDG No.:ERW01

Matrix: (soil/water) SOIL  Lab Sample ID:

Sample wt/vol: 4.00 (g/ml) G  Lab File ID: ER023

Level: (low/med) MED  Date Received: 8/20/92

% Moisture: not dec. 20  Date Analyzed: 8/26/92

GC Column:DB-624  ID: 0.53 (mm)  Dilution Factor: 1.0

Soil Extract Volume:10000.00 (uL)  Soil Aliquot Volume: 100.0 (uL)

Number TICs Found: 10  CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG

| | CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|---|
| 1. | | Possible C10H20 isomer | 16.84 | 20000. | J |
| 2. | | Possible C10H20 isomer | 17.23 | 28000. | J |
| 3. | 74511-51-6 | 1-Octene, 3,3-dimethyl- or | 17.75 | 19000. | JN |
| 4. | 29053-04-1 | Cyclopentane, 1-methyl-3-(2- | 18.66 | 32000. | JN |
| 5. | | >/= C10H22 alkane | 19.10 | 120000. | J |
| 6. | 526-73-8 | Benzene, 1,2,3-trimethyl- o | 19.55 | 17000. | JN |
| 7. | 1678-98-4 | Cyclohexane, (2-methylpropyl | 20.16 | 18000. | JN |
| 8. | 622-96-8 | Benzene, 1-ethyl-4-methyl- | 20.52 | 20000. | JN |
| 9. | 493-02-7 | Naphthalene, decahydro-, tra | 21.00 | 22000. | JN |
| 10. | 1120-21-4 | Undecane or isomer | 22.08 | 66000. | JN |
| 11. | | | | | |
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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ERW04

Lab Name:Western Research Institut Contract:68-D2-0017

Lab Code:WRI Case No.:18642 SAS No.: SDG No.:ERW01

Matrix: (soil/water) SOIL Lab Sample ID:

Sample wt/vol: 5.00 (g/ml) G Lab File ID: ER013

Level: (low/med) LOW Date Received: 8/20/92

% Moisture: not dec. 4 Date Analyzed: 8/24/92

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG | Q |
|---|---|---|---|
| 74-87-3 | Chloromethane | 10. | U |
| 74-83-9 | Bromomethane | 10. | U |
| 75-01-4 | Vinyl Chloride | 10. | U |
| 75-00-3 | Chloroethane | 10. | U |
| 75-09-2 | Methylene Chloride | 10. | U |
| 67-64-1 | Acetone | 10. | U |
| 75-15-0 | Carbon Disulfide | 10. | U |
| 75-35-4 | 1,1-Dichloroethene | 10. | U |
| 75-34-3 | 1,1-Dichloroethane | 10. | U |
| 540-59-0 | 1,2-Dichloroethene | 10. | U |
| 67-66-3 | Chloroform | 10. | U |
| 107-06-2 | 1,2-Dichloroethane | 10. | U |
| 78-93-3 | 2-Butanone | 10. | U |
| 71-55-6 | 1,1,1-Trichloroethane | 10. | U |
| 56-23-5 | Carbon Tetrachloride | 10. | U |
| 75-27-4 | Bromodichloromethane | 10. | U |
| 78-87-5 | 1,2-Dichloropropane | 10. | U |
| 10061-01-5 | cis-1,3-Dichloropropene | 10. | U |
| 79-01-6 | Trichloroethene | 10. | U |
| 124-48-1 | Dibromochloromethane | 10. | U |
| 79-00-5 | 1,1,2-Trichloroethane | 10. | U |
| 71-43-2 | Benzene | 10. | U |
| 10061-02-6 | trans-1,3-Dichloropropene | 10. | U |
| 75-25-2 | Bromoform | 10. | U |
| 108-10-1 | 4-Methyl-2-Pentanone | 10. | U |
| 591-78-6 | 2-Hexanone | 10. | U |
| 127-18-4 | Tetrachloroethene | 10. | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 10. | U |
| 108-88-3 | Toluene | 4. | J |
| 108-90-7 | Chlorobenzene | 10. | U |
| 100-41-4 | Ethylbenzene | 10. | U |
| 100-42-5 | Styrene | 10. | U |
| 1330-20-7 | Total Xylenes | 5. | J |

1E

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

ERW04

Lab Name:Western Research Institut Contract:68-D2-0017

Lab Code:WRI Case No.:18642 SAS No.: SDG No.:ERW01

Matrix: (soil/water) SOIL Lab Sample ID:

Sample wt/vol: 5.00 (g/ml) G Lab File ID: ER013

Level: (low/med) LOW Date Received: 8/20/92

% Moisture: not dec. 4 Date Analyzed: 8/24/92

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

Number TICs Found: 10

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

| | CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|---|
| 1. | 15869-93-9 | Octane, 3,5-dimethyl- or is | 17.92 | 47. | JN |
| 2. | 29053-04-1 | Cyclopentane, 1-methyl-3-(2- | 18.70 | 42. | JN |
| 3. | 0 | Column bleed + alkane | 19.08 | 590. | J |
| 4. | 611-14-3 | Benzene, 1-ethyl-2-methyl- | 19.55 | 32. | JN |
| 5. | 2847-72-5 | Decane, 4-methyl- or isomer | 19.79 | 40. | JN |
| 6. | | C11H24 alkane | 21.32 | 26. | J |
| 7. | | C11H22 isomer | 21.80 | 48. | J |
| 8. | 1120-21-4 | Undecane or isomer | 22.08 | 530. | JN |
| 9. | | Column bleed | 22.93 | 140. | J |
| 10. | 7045-71-8 | Undecane, 2-methyl- or is | 23.60 | 100. | JN |
| 11. | | | | | |
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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ERW05

Lab Name:Western Research Institut Contract:68-D2-0017

Lab Code:WRI Case No.:18642 SAS No.: SDG No.:ERW01

Matrix: (soil/water) SOIL Lab Sample ID:

Sample wt/vol: 5.00 (g/ml) G Lab File ID: ER015

Level: (low/med) LOW Date Received: 8/20/92

% Moisture: not dec. 7 Date Analyzed: 8/25/92

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG | Q |
|---|---|---|---|
| 74-87-3 | Chloromethane | 11. | U |
| 74-83-9 | Bromomethane | 11. | U |
| 75-01-4 | Vinyl Chloride | 11. | U |
| 75-00-3 | Chloroethane | 11. | U |
| 75-09-2 | Methylene Chloride | 11. | U |
| 67-64-1 | Acetone | 11. | U |
| 75-15-0 | Carbon Disulfide | 11. | U |
| 75-35-4 | 1,1-Dichloroethene | 11. | U |
| 75-34-3 | 1,1-Dichloroethane | 11. | U |
| 540-59-0 | 1,2-Dichloroethene | 11. | U |
| 67-66-3 | Chloroform | 11. | U |
| 107-06-2 | 1,2-Dichloroethane | 11. | U |
| 78-93-3 | 2-Butanone | 11. | U |
| 71-55-6 | 1,1,1-Trichloroethane | 11. | U |
| 56-23-5 | Carbon Tetrachloride | 11. | U |
| 75-27-4 | Bromodichloromethane | 11. | U |
| 78-87-5 | 1,2-Dichloropropane | 11. | U |
| 10061-01-5 | cis-1,3-Dichloropropene | 11. | U |
| 79-01-6 | Trichloroethene | 11. | U |
| 124-48-1 | Dibromochloromethane | 11. | U |
| 79-00-5 | 1,1,2-Trichloroethane | 11. | U |
| 71-43-2 | Benzene | 11. | U |
| 10061-02-6 | trans-1,3-Dichloropropene | 11. | U |
| 75-25-2 | Bromoform | 11. | U |
| 108-10-1 | 4-Methyl-2-Pentanone | 11. | U |
| 591-78-6 | 2-Hexanone | 11. | U |
| 127-18-4 | Tetrachloroethene | 11. | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 11. | U |
| 108-88-3 | Toluene | 3. | J |
| 108-90-7 | Chlorobenzene | 11. | U |
| 100-41-4 | Ethylbenzene | 11. | U |
| 100-42-5 | Styrene | 11. | U |
| 1330-20-7 | Total Xylenes | 11. | U |

1E

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

ERW05

Lab Name:Western Research Institut Contract:68-D2-0017

Lab Code:WRI Case No.:18642 SAS No.: SDG No.:ERW01

Matrix: (soil/water) SOIL Lab Sample ID:

Sample wt/vol: 5.00 (g/ml) G Lab File ID: ER015

Level: (low/med) LOW Date Received: 8/20/92

% Moisture: not dec. 7 Date Analyzed: 8/25/92

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

Number TICs Found: 2

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

| | CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|---|
| 1. | 556-67-2 | Cyclotetrasiloxane, octameth | 19.03 | 99. | JN |
| 2. | | Column bleed | 22.95 | 67. | J |
| 3. | | | | | |
| 4. | | | | | |
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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ERW11

Lab Name:Western Research Institut Contract:68-D2-0017

Lab Code:WRI Case No.:18642 SAS No.: SDG No.:ERW01

Matrix: (soil/water) WATER Lab Sample ID:

Sample wt/vol: 5.00 (g/ml) ML Lab File ID: ER001

Level: (low/med) LOW Date Received: 8/20/92

% Moisture: not dec. Date Analyzed: 8/21/92

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 74-87-3 | Chloromethane | 10. | U |
| 74-83-9 | Bromomethane | 10. | U |
| 75-01-4 | Vinyl Chloride | 10. | U |
| 75-00-3 | Chloroethane | 10. | U |
| 75-09-2 | Methylene Chloride | 10. | U |
| 67-64-1 | Acetone | 10. | U |
| 75-15-0 | Carbon Disulfide | 10. | U |
| 75-35-4 | 1,1-Dichloroethene | 10. | U |
| 75-34-3 | 1,1-Dichloroethane | 10. | U |
| 540-59-0 | 1,2-Dichloroethene | 10. | U |
| 67-66-3 | Chloroform | 10. | U |
| 107-06-2 | 1,2-Dichloroethane | 10. | U |
| 78-93-3 | 2-Butanone | 10. | U |
| 71-55-6 | 1,1,1-Trichloroethane | 10. | U |
| 56-23-5 | Carbon Tetrachloride | 10. | U |
| 75-27-4 | Bromodichloromethane | 10. | U |
| 78-87-5 | 1,2-Dichloropropane | 10. | U |
| 10061-01-5 | cis-1,3-Dichloropropene | 10. | U |
| 79-01-6 | Trichloroethene | 10. | U |
| 124-48-1 | Dibromochloromethane | 10. | U |
| 79-00-5 | 1,1,2-Trichloroethane | 10. | U |
| 71-43-2 | Benzene | 10. | U |
| 10061-02-6 | trans-1,3-Dichloropropene | 10. | U |
| 75-25-2 | Bromoform | 10. | U |
| 108-10-1 | 4-Methyl-2-Pentanone | 10. | U |
| 591-78-6 | 2-Hexanone | 10. | U |
| 127-18-4 | Tetrachloroethene | 10. | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 10. | U |
| 108-88-3 | Toluene | 10. | U |
| 108-90-7 | Chlorobenzene | 10. | U |
| 100-41-4 | Ethylbenzene | 10. | U |
| 100-42-5 | Styrene | 10. | U |
| 1330-20-7 | Total Xylenes | 10. | U |

1E

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

ERW11

Lab Name:Western Research Institut Contract:68-D2-0017

Lab Code:WRI Case No.:18642 SAS No.: SDG No.:ERW01

Matrix: (soil/water) WATER Lab Sample ID:

Sample wt/vol: 5.00 (g/ml) ML Lab File ID: ER001

Level: (low/med) LOW Date Received: 8/20/92

% Moisture: not dec. Date Analyzed: 8/21/92

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

Number TICs Found: 1

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

| | CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|---|
| 1. | 1.0 | CO2 background | 0.65 | 700. | JB/A |
| 2. | | | | | |
| 3. | | | | | |
| 4. | | | | | |
| 5. | | | | | |
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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ERW12

Lab Name:Western Research Institut Contract:68-D2-0017

Lab Code:WRI Case No.:18642 SAS No.: SDG No.:ERW01

Matrix: (soil/water) WATER Lab Sample ID:

Sample wt/vol: 5.00 (g/ml) ML Lab File ID: ER002

Level: (low/med) LOW Date Received: 8/20/92

% Moisture: not dec. Date Analyzed: 8/21/92

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 74-87-3 | Chloromethane | 2. | J |
| 74-83-9 | Bromomethane | 10. | U |
| 75-01-4 | Vinyl Chloride | 10. | U |
| 75-00-3 | Chloroethane | 10. | U |
| 75-09-2 | Methylene Chloride | 10 | JBU |
| 67-64-1 | Acetone | 10. | U |
| 75-15-0 | Carbon Disulfide | 10. | U |
| 75-35-4 | 1,1-Dichloroethene | 10. | U |
| 75-34-3 | 1,1-Dichloroethane | 10. | U |
| 540-59-0 | 1,2-Dichloroethene | 10. | U |
| 67-66-3 | Chloroform | 2. | J |
| 107-06-2 | 1,2-Dichloroethane | 5. | J |
| 78-93-3 | 2-Butanone | 10. | U |
| 71-55-6 | 1,1,1-Trichloroethane | 10. | U |
| 56-23-5 | Carbon Tetrachloride | 10. | U |
| 75-27-4 | Bromodichloromethane | 10. | U |
| 78-87-5 | 1,2-Dichloropropane | 10. | U |
| 10061-01-5 | cis-1,3-Dichloropropene | 10. | U |
| 79-01-6 | Trichloroethene | 10. | U |
| 124-48-1 | Dibromochloromethane | 10. | U |
| 79-00-5 | 1,1,2-Trichloroethane | 10. | U |
| 71-43-2 | Benzene | 10. | U |
| 10061-02-6 | trans-1,3-Dichloropropene | 10. | U |
| 75-25-2 | Bromoform | 10. | U |
| 108-10-1 | 4-Methyl-2-Pentanone | 10. | U |
| 591-78-6 | 2-Hexanone | 10. | U |
| 127-18-4 | Tetrachloroethene | 10. | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 10. | U |
| 108-88-3 | Toluene | 10. | U |
| 108-90-7 | Chlorobenzene | 10. | U |
| 100-41-4 | Ethylbenzene | 10. | U |
| 100-42-5 | Styrene | 10. | U |
| 1330-20-7 | Total Xylenes | 10. | U |

000103

1E

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

ERW12

Lab Name:Western Research Institut Contract:68-D2-0017

Lab Code:WRI Case No.:18642 SAS No.: SDG No.:ERW01

Matrix: (soil/water) WATER Lab Sample ID:

Sample wt/vol: 5.00 (g/ml) ML Lab File ID: ER002

Level: (low/med) LOW Date Received: 8/20/92

% Moisture: not dec. Date Analyzed: 8/21/92

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

Number TICs Found: 0

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

| | CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|---|
| 1. | | | | | |
| 2. | | | | | |
| 3. | | | | | |
| 4. | | | | | |
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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ERW13

Lab Name:Western Research Institut Contract:68-D2-0017

Lab Code:WRI Case No.:18642 SAS No.: SDG No.:ERW01

Matrix: (soil/water) WATER Lab Sample ID:

Sample wt/vol: 5.00 (g/ml) ML Lab File ID: ER005

Level: (low/med) LOW Date Received: 8/20/92

% Moisture: not dec. Date Analyzed: 8/21/92

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 74-87-3 | Chloromethane | 10. | U |
| 74-83-9 | Bromomethane | 10. | U |
| 75-01-4 | Vinyl Chloride | 10. | U |
| 75-00-3 | Chloroethane | 10. | U |
| 75-09-2 | Methylene Chloride | 10. | U |
| 67-64-1 | Acetone | 10. | U |
| 75-15-0 | Carbon Disulfide | 10. | U |
| 75-35-4 | 1,1-Dichloroethene | 10. | U |
| 75-34-3 | 1,1-Dichloroethane | 10. | U |
| 540-59-0 | 1,2-Dichloroethene | 10. | U |
| 67-66-3 | Chloroform | 10. | U |
| 107-06-2 | 1,2-Dichloroethane | 2. | J |
| 78-93-3 | 2-Butanone | 10. | U |
| 71-55-6 | 1,1,1-Trichloroethane | 10. | U |
| 56-23-5 | Carbon Tetrachloride | 10. | U |
| 75-27-4 | Bromodichloromethane | 10. | U |
| 78-87-5 | 1,2-Dichloropropane | 10. | U |
| 10061-01-5 | cis-1,3-Dichloropropene | 10. | U |
| 79-01-6 | Trichloroethene | 10. | U |
| 124-48-1 | Dibromochloromethane | 10. | U |
| 79-00-5 | 1,1,2-Trichloroethane | 10. | U |
| 71-43-2 | Benzene | 10. | U |
| 10061-02-6 | trans-1,3-Dichloropropene | 10. | U |
| 75-25-2 | Bromoform | 10. | U |
| 108-10-1 | 4-Methyl-2-Pentanone | 10. | U |
| 591-78-6 | 2-Hexanone | 10. | U |
| 127-18-4 | Tetrachloroethene | 10. | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 10. | U |
| 108-88-3 | Toluene | 10. | U |
| 108-90-7 | Chlorobenzene | 10. | U |
| 100-41-4 | Ethylbenzene | 10. | U |
| 100-42-5 | Styrene | 10. | U |
| 1330-20-7 | Total Xylenes | 10. | U |

000112

KAL 9-23-92



WESTERN RES INST 3077 721 2345 10:50 10/21/92 004

1E

# VOLATILE ORGANICS ANALYSIS DATA SHEET
## TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

ERW13

Lab Name:Western Research Institut Contract:68-D2-0017

Lab Code:WRI Case No.:18642 SAS No.: SDG No.:ERW01

Matrix: (soil/water) WATER Lab Sample ID:

Sample wt/vol: 5.00 (g/ml) ML Lab File ID: ER005

Level: (low/med) LOW Date Received: 8/20/92

% Moisture: not dec. Date Analyzed: 8/21/92

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

Number TICs Found: 0

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

| CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|
| 1. | | | | |
| 2. | | | | |
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000113

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ERW14

Lab Name:Western Research Institut Contract:68-D2-0017

Lab Code:WRI Case No.:18642 SAS No.: SDG No.:ERW01

Matrix: (soil/water) WATER Lab Sample ID:

Sample wt/vol: 5.00 (g/ml) ML Lab File ID: ER006

Level: (low/med) LOW Date Received: 8/20/92

% Moisture: not dec. Date Analyzed: 8/21/92

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 74-87-3 | Chloromethane | 10. | U |
| 74-83-9 | Bromomethane | 10. | U |
| 75-01-4 | Vinyl Chloride | 10. | U |
| 75-00-3 | Chloroethane | 10. | U |
| 75-09-2 | Methylene Chloride | 10. | U |
| 67-64-1 | Acetone | 10. | U |
| 75-15-0 | Carbon Disulfide | 10. | U |
| 75-35-4 | 1,1-Dichloroethene | 10. | U |
| 75-34-3 | 1,1-Dichloroethane | 10. | U |
| 540-59-0 | 1,2-Dichloroethene | 10. | U |
| 67-66-3 | Chloroform | 10. | U |
| 107-06-2 | 1,2-Dichloroethane | 10. | U |
| 78-93-3 | 2-Butanone | 10. | U |
| 71-55-6 | 1,1,1-Trichloroethane | 10. | U |
| 56-23-5 | Carbon Tetrachloride | 10. | U |
| 75-27-4 | Bromodichloromethane | 10. | U |
| 78-87-5 | 1,2-Dichloropropane | 10. | U |
| 10061-01-5 | cis-1,3-Dichloropropene | 10. | U |
| 79-01-6 | Trichloroethene | 10. | U |
| 124-48-1 | Dibromochloromethane | 10. | U |
| 79-00-5 | 1,1,2-Trichloroethane | 10. | U |
| 71-43-2 | Benzene | 10. | U |
| 10061-02-6 | trans-1,3-Dichloropropene | 10. | U |
| 75-25-2 | Bromoform | 10. | U |
| 108-10-1 | 4-Methyl-2-Pentanone | 10. | U |
| 591-78-6 | 2-Hexanone | 10. | U |
| 127-18-4 | Tetrachloroethene | 10. | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 10. | U |
| 108-88-3 | Toluene | 10. | U |
| 108-90-7 | Chlorobenzene | 10. | U |
| 100-41-4 | Ethylbenzene | 10. | U |
| 100-42-5 | Styrene | 10. | U |
| 1330-20-7 | Total Xylenes | 10. | U |

000118

1E

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

ERW14

Lab Name:Western Research Institut Contract:68-D2-0017

Lab Code:WRI Case No.:18642 SAS No.: SDG No.:ERW01

Matrix: (soil/water) WATER Lab Sample ID:

Sample wt/vol: 5.00 (g/ml) ML Lab File ID: ER006

Level: (low/med) LOW Date Received: 8/20/92

% Moisture: not dec. Date Analyzed: 8/21/92

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

Number TICs Found: 0

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

| | CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|---|
| 1. | | | | | |
| 2. | | | | | |
| 3. | | | | | |
| 4. | | | | | |
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000119

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ERW15

Lab Name:Western Research Institut Contract:68-D2-0017

Lab Code:WRI Case No.:18642 SAS No.: SDG No.:ERW01

Matrix: (soil/water) WATER Lab Sample ID:

Sample wt/vol: 5.00 (g/ml) ML Lab File ID: ER007

Level: (low/med) LOW Date Received: 8/20/92

% Moisture: not dec. Date Analyzed: 8/21/92

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 74-87-3 | Chloromethane | 10. | U |
| 74-83-9 | Bromomethane | 10. | U |
| 75-01-4 | Vinyl Chloride | 10. | U |
| 75-00-3 | Chloroethane | 10. | U |
| 75-09-2 | Methylene Chloride | 10. | U |
| 67-64-1 | Acetone | 10. | U |
| 75-15-0 | Carbon Disulfide | 10. | U |
| 75-35-4 | 1,1-Dichloroethene | 10. | U |
| 75-34-3 | 1,1-Dichloroethane | 10. | U |
| 540-59-0 | 1,2-Dichloroethene | 10. | U |
| 67-66-3 | Chloroform | 10. | U |
| 107-06-2 | 1,2-Dichloroethane | 10. | U |
| 78-93-3 | 2-Butanone | 10. | U |
| 71-55-6 | 1,1,1-Trichloroethane | 10. | U |
| 56-23-5 | Carbon Tetrachloride | 10. | U |
| 75-27-4 | Bromodichloromethane | 10. | U |
| 78-87-5 | 1,2-Dichloropropane | 10. | U |
| 10061-01-5 | cis-1,3-Dichloropropene | 10. | U |
| 79-01-6 | Trichloroethene | 10. | U |
| 124-48-1 | Dibromochloromethane | 10. | U |
| 79-00-5 | 1,1,2-Trichloroethane | 10. | U |
| 71-43-2 | Benzene | 10. | U |
| 10061-02-6 | trans-1,3-Dichloropropene | 10. | U |
| 75-25-2 | Bromoform | 10. | U |
| 108-10-1 | 4-Methyl-2-Pentanone | 10. | U |
| 591-78-6 | 2-Hexanone | 10. | U |
| 127-18-4 | Tetrachloroethene | 10. | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 10. | U |
| 108-88-3 | Toluene | 10. | U |
| 108-90-7 | Chlorobenzene | 10. | U |
| 100-41-4 | Ethylbenzene | 10. | U |
| 100-42-5 | Styrene | 10. | U |
| 1330-20-7 | Total Xylenes | 10. | U |

000123

1E

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

ERW15

Lab Name:Western Research Institut Contract:68-D2-0017

Lab Code:WRI Case No.:18642 SAS No.: SDG No.:ERW01

Matrix: (soil/water) WATER Lab Sample ID:

Sample wt/vol: 5.00 (g/ml) ML Lab File ID: ER007

Level: (low/med) LOW Date Received: 8/20/92

% Moisture: not dec. Date Analyzed: 8/21/92

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

Number TICs Found: 0

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

| | CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|---|
| 1. | | | | | |
| 2. | | | | | |
| 3. | | | | | |
| 4. | | | | | |
| 5. | | | | | |
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ERW16

Lab Name:Western Research Institut Contract:68-D2-0017

Lab Code:WRI Case No.:18642 SAS No.: SDG No.:ERW01

Matrix: (soil/water) WATER Lab Sample ID:

Sample wt/vol: 5.00 (g/ml) ML Lab File ID: ER008

Level: (low/med) LOW Date Received: 8/20/92

% Moisture: not dec. Date Analyzed: 8/21/92

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 74-87-3 | Chloromethane | 10. | U |
| 74-83-9 | Bromomethane | 10. | U |
| 75-01-4 | Vinyl Chloride | 10. | U |
| 75-00-3 | Chloroethane | 10. | U |
| 75-09-2 | Methylene Chloride | 10. | U |
| 67-64-1 | Acetone | 10. | U |
| 75-15-0 | Carbon Disulfide | 10. | U |
| 75-35-4 | 1,1-Dichloroethene | 10. | U |
| 75-34-3 | 1,1-Dichloroethane | 10. | U |
| 540-59-0 | 1,2-Dichloroethene | 10. | U |
| 67-66-3 | Chloroform | 10. | U |
| 107-06-2 | 1,2-Dichloroethane | 1. | J |
| 78-93-3 | 2-Butanone | 10. | U |
| 71-55-6 | 1,1,1-Trichloroethane | 10. | U |
| 56-23-5 | Carbon Tetrachloride | 10. | U |
| 75-27-4 | Bromodichloromethane | 10. | U |
| 78-87-5 | 1,2-Dichloropropane | 10. | U |
| 10061-01-5 | cis-1,3-Dichloropropene | 10. | U |
| 79-01-6 | Trichloroethene | 10. | U |
| 124-48-1 | Dibromochloromethane | 10. | U |
| 79-00-5 | 1,1,2-Trichloroethane | 10. | U |
| 71-43-2 | Benzene | 10. | U |
| 10061-02-6 | trans-1,3-Dichloropropene | 10. | U |
| 75-25-2 | Bromoform | 10. | U |
| 108-10-1 | 4-Methyl-2-Pentanone | 10. | U |
| 591-78-6 | 2-Hexanone | 10. | U |
| 127-18-4 | Tetrachloroethene | 10. | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 10. | U |
| 108-88-3 | Toluene | 10. | U |
| 108-90-7 | Chlorobenzene | 10. | U |
| 100-41-4 | Ethylbenzene | 10. | U |
| 100-42-5 | Styrene | 10. | U |
| 1330-20-7 | Total Xylenes | 10. | U |

1E

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

ERW16

Lab Name:Western Research Institut Contract:68-D2-0017

Lab Code:WRI Case No.:18642 SAS No.: SDG No.:ERW01

Matrix: (soil/water) WATER Lab Sample ID:

Sample wt/vol: 5.00 (g/ml) ML Lab File ID: ER008

Level: (low/med) LOW Date Received: 8/20/92

% Moisture: not dec. Date Analyzed: 8/21/92

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

Number TICs Found: 0

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

| | CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
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000129

# WATER SEMIVOLATILE SURROGATE RECOVERY

Lab Name:WESTERN RESEARCH INSTITUT Contract:68-D2-0017

Lab Code:WRI Case No.:18642 SAS No.: SDG No.:ERW01

| | EPA SAMPLE NO. | S1 (NBZ)# | S2 (FBP)# | S3 (TPH)# | S4 (PHL)# | S5 (2FP)# | S6 (TBP)# | S7 (2CP)# | S8 (DCB)# | TOT OUT |
|---|---|---|---|---|---|---|---|---|---|---|
| 01 | ERW12 | 62 | 60 | 75 | 59 | 52 | 108 | 59 | 53 | 0 |
| 02 | ERW12MS | 69 | 69 | 86 | 65 | 64 | 105 | 67 | 61 | 0 |
| 03 | ERW12MSD | 62 | 58 | 64 | 60 | 59 | 115 | 61 | 60 | 0 |
| 04 | ERW13 | 72 | 66 | 62 | 65 | 60 | 112 | 64 | 62 | 0 |
| 05 | ERW14 | 75 | 68 | 75 | 68 | 63 | 111 | 68 | 65 | 0 |
| 06 | ERW15 | 69 | 60 | 66 | 64 | 59 | 113 | 63 | 55 | 0 |
| 07 | ERW16 | 75 | 69 | 74 | 68 | 63 | 116 | 69 | 64 | 0 |
| 08 | SBLK1 | 72 | 65 | 79 | 68 | 63 | 93 | 67 | 66 | 0 |
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| | QC LIMITS | |
|---|---|---|
| S1 (NBZ) = Nitrobenzene-d5 | (35-114) | |
| S2 (FBP) = 2-Fluorobiphenyl | (43-116) | |
| S3 (TPH) = Terphenyl-d14 | (33-141) | |
| S4 (PHL) = Phenol-d5 | (10-110) | |
| S5 (2FP) = 2-Fluorophenol | (21-110) | |
| S6 (TBP) = 2,4,6-Tribromophenol | (10-123) | |
| S7 (2CP) = 2-Chlorophenol-d4 | (33-110) | (advisory) |
| S8 (DCB) = 1,2-Dichlorobenzene-d4 | (16-110) | (advisory) |

# Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogate diluted out

2D

# SOIL SEMIVOLATILE SURROGATE RECOVERY

Lab Name:WESTERN RESEARCH INSTITUT  Contract:68-D2-0017

Lab Code:WRI  Case No.:18642  SAS No.:  SDG No.:ERW01

Level:(low/med) LOW

| | EPA SAMPLE NO. | S1 (NBZ) # | S2 (FBP) # | S3 (TPH) # | S4 (PHL) # | S5 (2FP) # | S6 (TBP) # | S7 (2CP) # | S8 (DCB) # | TOT OUT |
|---|---|---|---|---|---|---|---|---|---|---|
| 01 | ERW01 | 51 | 53 | 91 | 52 | 44 | 90 | 51 | 48 | 0 |
| 02 | ERW01MS | 57 | 57 | 101 | 55 | 52 | 94 | 55 | 57 | 0 |
| 03 | ERW01MSD | 71 | 66 | 94 | 70 | 69 | 99 | 70 | 71 | 0 |
| 04 | ERW02 | 31 | 35 | 78 | 32 | 28 | 54 | 34 | 32 | 0 |
| 05 | ERW05 | 34 | 36 | 55 | 35 | 33 | 41 | 38 | 35 | 0 |
| 06 | SBLK2 | 66 | 57 | 82 | 64 | 61 | 77 | 66 | 65 | 0 |
| 07 | SBLK3 | 69 | 59 | 80 | 63 | 58 | 79 | 64 | 66 | 0 |
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| | | QC LIMITS | |
|---|---|---|---|
| S1 (NBZ) | = Nitrobenzene-d5 | (23-120) | |
| S2 (FBP) | = 2-Fluorobiphenyl | (30-115) | |
| S3 (TPH) | = Terphenyl-d14 | (18-137) | |
| S4 (PHL) | = Phenol-d5 | (24-113) | |
| S5 (2FP) | = 2-Fluorophenol | (25-121) | |
| S6 (TBP) | = 2,4,6-Tribromophenol | (19-122) | |
| S7 (2CP) | = 2-Chlorophenol-d4 | (20-130) | (advisory) |
| S8 (DCB) | = 1,2-Dichlorobenzene-d4 | (20-130) | (advisory) |

\# Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogate diluted out

SOIL SEMIVOLATILE SURROGATE RECOVERY

Lab Name:WESTERN RESEARCH INSTITUT  Contract:68-D2-0017

Lab Code:WRI  Case No.:18642  SAS No.:  SDG No.:ERW01

Level:(low/med) MED

| | EPA SAMPLE NO. | S1 (NBZ)# | S2 (FBP)# | S3 (TPH)# | S4 (PHL)# | S5 (2FP)# | S6 (TBP)# | S7 (2CP)# | S8 (DCB)# | TOT OUT |
|---|---|---|---|---|---|---|---|---|---|---|
| 01 | ERW03 | 48 | 52 | 65 | 39 | 36 | 43 | 45 | 41 | 0 |
| 02 | ERW04 | 37 | 41 | 68 | 37 | 34 | 50 | 42 | 40 | 0 |
| 03 | ERW04MS | 54 | 55 | 70 | 50 | 51 | 66 | 56 | 58 | 0 |
| 04 | ERW04MSD | 56 | 55 | 66 | 52 | 53 | 74 | 58 | 61 | 0 |
| 05 | SBLK4 | 56 | 63 | 102 | 62 | 57 | 60 | 66 | 64 | 0 |
| 06 | SBLK5 | 57 | 54 | 74 | 55 | 51 | 74 | 57 | 58 | 0 |
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| | | QC LIMITS | |
|---|---|---|---|
| S1 (NBZ) = | Nitrobenzene-d5 | (23-120) | |
| S2 (FBP) = | 2-Fluorobiphenyl | (30-115) | |
| S3 (TPH) = | Terphenyl-d14 | (18-137) | |
| S4 (PHL) = | Phenol-d5 | (24-113) | |
| S5 (2FP) = | 2-Fluorophenol | (25-121) | |
| S6 (TBP) = | 2,4,6-Tribromophenol | (19-122) | |
| S7 (2CP) = | 2-Chlorophenol-d4 | (20-130) | (advisory) |
| S8 (DCB) = | 1,2-Dichlorobenzene-d4 | (20-130) | (advisory) |

# Column to be used to flag recovery values

* Values outside of contract required QC limits

D Surrogate diluted out

000230

# WATER SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name:WESTERN RESEARCH INSTITUT  Contract:68-D2-0017

Lab Code:WRI  Case No.:18642  SAS No.:  SDG No.:ERW01

Matrix Spike - EPA Sample No.:  ERW12

| COMPOUND | SPIKE ADDED (ug/L) | SAMPLE CONCENTRATION (ug/L) | MS CONCENTRATION (ug/L) | MS % REC # | QC. LIMITS REC. |
|---|---|---|---|---|---|
| Phenol | 75. | 0. | 46. | 61 | 12- 89 |
| 2-Chlorophenol | 75. | 0. | 43. | 57 | 27-123 |
| 1,4-Dichlorobenzene | 50. | 0. | 26. | 52 | 36- 97 |
| N-Nitroso-di-n-prop.(1) | 50. | 0. | 34. | 68 | 41-116 |
| 1,2,4-Trichlorobenzene | 50. | 0. | 28. | 56 | 39- 98 |
| 4-Chloro-3-methylphenol | 75. | 0. | 54. | 72 | 23- 97 |
| Acenaphthene | 50. | 0. | 35. | 70 | 46-118 |
| 4-Nitrophenol | 75. | 0. | 60. | 80 | 10- 80 |
| 2,4-Dinitrotoluene | 50. | 0. | 39. | 78 | 24- 96 |
| Pentachlorophenol | 75. | 0. | 85. | 113* | 9-103 |
| Pyrene | 50. | 0. | 35. | 70 | 26-127 |
| | | | | | |

| COMPOUND | SPIKE ADDED (ug/L) | MSD CONCENTRATION (ug/L) | MSD % REC # | % RPD # | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| Phenol | 75. | 42. | 56 | 9 | 42 | 12- 89 |
| 2-Chlorophenol | 75. | 41. | 55 | 4 | 40 | 27-123 |
| 1,4-Dichlorobenzene | 50. | 27. | 54 | 4 | 28 | 36- 97 |
| N-Nitroso-di-n-prop.(1) | 50. | 32. | 64 | 6 | 38 | 41-116 |
| 1,2,4-Trichlorobenzene | 50. | 28. | 56 | 0 | 28 | 39- 98 |
| 4-Chloro-3-methylphenol | 75. | 53. | 71 | 1 | 42 | 23- 97 |
| Acenaphthene | 50. | 35. | 70 | 0 | 31 | 46-118 |
| 4-Nitrophenol | 75. | 65. | 87* | 8 | 50 | 10- 80 |
| 2,4-Dinitrotoluene | 50. | 40. | 80 | 3 | 38 | 24- 96 |
| Pentachlorophenol | 75. | 100. | 133* | 16 | 50 | 9-103 |
| Pyrene | 50. | 38. | 76 | 8 | 31 | 26-127 |
| | | | | | | |

(1) N-Nitroso-di-n-propylamine

# Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

RPD:  0 out of  11 outside limits
Spike Recovery:  3 out of  22  outside limits

COMMENTS:

000231

# SOIL SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name:WESTERN RESEARCH INSTITUT  Contract:68-D2-0017

Lab Code:WRI  Case No.:18642  SAS No.:  SDG No.:ERW01

Matrix Spike - EPA Sample No.: ERW01  Level:(low/med) LOW

| COMPOUND | SPIKE ADDED (ug/Kg) | SAMPLE CONCENTRATION (ug/Kg) | MS CONCENTRATION (ug/Kg) | MS % REC # | QC. LIMITS REC. |
|---|---|---|---|---|---|
| Phenol | 2900. | 0. | 1500. | 52 | 26- 90 |
| 2-Chlorophenol | 2900. | 0. | 1400. | 48 | 25-102 |
| 1,4-Dichlorobenzene | 2000. | 0. | 970. | 48 | 28-104 |
| N-Nitroso-di-n-prop.(1) | 2000. | 0. | 1200. | 60 | 41-126 |
| 1,2,4-Trichlorobenzene | 2000. | 0. | 1000. | 50 | 38-107 |
| 4-Chloro-3-methylphenol | 2900. | 0. | 2000. | 69 | 26-103 |
| Acenaphthene | 2000. | 0. | 1200. | 60 | 31-137 |
| 4-Nitrophenol | 2900. | 0. | 3000. | 103 | 11-114 |
| 2,4-Dinitrotoluene | 2000. | 0. | 1500. | 75 | 28- 89 |
| Pentachlorophenol | 2900. | 0. | 1700. | 59 | 17-109 |
| Pyrene | 2000. | 34. | 1700. | 83 | 35-142 |
| | | | | | |

| COMPOUND | SPIKE ADDED (ug/Kg) | MSD CONCENTRATION (ug/Kg) | MSD % REC # | % RPD # | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| Phenol | 2900. | 2000. | 69 | 28 | 35 | 26- 90 |
| 2-Chlorophenol | 2900. | 1900. | 66 | 32 | 50 | 25-102 |
| 1,4-Dichlorobenzene | 2000. | 1300. | 65 | 30* | 27 | 28-104 |
| N-Nitroso-di-n-prop.(1) | 2000. | 1600. | 80 | 29 | 38 | 41-126 |
| 1,2,4-Trichlorobenzene | 2000. | 1300. | 65 | 26* | 23 | 38-107 |
| 4-Chloro-3-methylphenol | 2900. | 2400. | 83 | 18 | 33 | 26-103 |
| Acenaphthene | 2000. | 1500. | 75 | 22* | 19 | 31-137 |
| 4-Nitrophenol | 2900. | 3100. | 107 | 4 | 50 | 11-114 |
| 2,4-Dinitrotoluene | 2000. | 1800. | 90* | 18 | 47 | 28- 89 |
| Pentachlorophenol | 2900. | 2100. | 72 | 20 | 47 | 17-109 |
| Pyrene | 2000. | 1800. | 88 | 6 | 36 | 35-142 |
| | | | | | | |

(1) N-Nitroso-di-n-propylamine

# Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

RPD: 3 out of 11 outside limits
Spike Recovery: 1 out of 22 outside limits

COMMENTS:

000232

# SOIL SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name:WESTERN RESEARCH INSTITUT  Contract:68-D2-0017

Lab Code:WRI  Case No.:18642  SAS No.:  SDG No.:ERW01

Matrix Spike - EPA Sample No.: ERW04  Level:(low/med) MED

| COMPOUND | SPIKE ADDED (ug/Kg) | SAMPLE CONCENTRATION (ug/Kg) | MS CONCENTRATION (ug/Kg) | MS % REC # | QC. LIMITS REC. |
|---|---|---|---|---|---|
| Phenol | 75000. | 0. | 34000. | 45 | 26- 90 |
| 2-Chlorophenol | 75000. | 0. | 35000. | 47 | 25-102 |
| 1,4-Dichlorobenzene | 50000. | 0. | 24000. | 48 | 28-104 |
| N-Nitroso-di-n-prop.(1) | 50000. | 0. | 30000. | 60 | 41-126 |
| 1,2,4-Trichlorobenzene | 50000. | 0. | 24000. | 48 | 38-107 |
| 4-Chloro-3-methylphenol | 75000. | 0. | 32000. | 43 | 26-103 |
| Acenaphthene | 50000. | 0. | 26000. | 52 | 31-137 |
| 4-Nitrophenol | 75000. | 0. | 0. | 0* | 11-114 |
| 2,4-Dinitrotoluene | 50000. | 0. | 28000. | 56 | 28- 89 |
| Pentachlorophenol | 75000. | 0. | 39000. | 52 | 17-109 |
| Pyrene | 50000. | 0. | 31000. | 62 | 35-142 |
| | | | | | |

| COMPOUND | SPIKE ADDED (ug/Kg) | MSD CONCENTRATION (ug/Kg) | MSD % REC # | % RPD # | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| Phenol | 75000. | 37000. | 49 | 8 | 35 | 26- 90 |
| 2-Chlorophenol | 75000. | 39000. | 52 | 12 | 50 | 25-102 |
| 1,4-Dichlorobenzene | 50000. | 26000. | 52 | 8 | 27 | 28-104 |
| N-Nitroso-di-n-prop.(1) | 50000. | 33000. | 66 | 10 | 38 | 41-126 |
| 1,2,4-Trichlorobenzene | 50000. | 27000. | 54 | 12 | 23 | 38-107 |
| 4-Chloro-3-methylphenol | 75000. | 35000. | 47 | 9 | 33 | 26-103 |
| Acenaphthene | 50000. | 29000. | 58 | 11 | 19 | 31-137 |
| 4-Nitrophenol | 75000. | 0. | 0* | 0 | 50 | 11-114 |
| 2,4-Dinitrotoluene | 50000. | 31000. | 62 | 10 | 47 | 28- 89 |
| Pentachlorophenol | 75000. | 66000. | 88 | 51* | 47 | 17-109 |
| Pyrene | 50000. | 30000. | 60 | 3 | 36 | 35-142 |
| | | | | | | |

(1) N-Nitroso-di-n-propylamine

# Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

RPD: 1 out of 11 outside limits
Spike Recovery: 2 out of 22 outside limits

COMMENTS:

000233

4B

# SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

SBLK1

Lab Name:WESTERN RESEARCH INSTITUTContract:68-D2-0017

Lab Code:WRI Case No.:18642 SAS No.: SDG No.:ERW01

Lab File ID:ERW01 Lab Sample ID:

Instrument ID:7001 Date Extracted: 8/20/92

Matrix: (soil/water) WATER Date Analyzed: 9/01/92

Level:(low/med) LOW Time Analyzed: 1312

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS, AND MSD:

| | EPA SAMPLE NO. | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED |
|---|---|---|---|---|
| 01 | ERW12 | | ERW02 | 9/01/92 |
| 02 | ERW12MS | | ERW03 | 9/01/92 |
| 03 | ERW12MSD | | ERW04 | 9/01/92 |
| 04 | ERW13 | | ERW05 | 9/01/92 |
| 05 | ERW14 | | ERW06 | 9/01/92 |
| 06 | ERW15 | | ERW07 | 9/01/92 |
| 07 | ERW16 | | ERW08 | 9/01/92 |
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COMMENTS:

000234

SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

SBLK2

Lab Name:WESTERN RESEARCH INSTITUTContract:68-D2-0017

Lab Code:WRI Case No.:18642 SAS No.: SDG No.:ERW01

Lab File ID:ERW09 Lab Sample ID:

Instrument ID:7001 Date Extracted: 8/25/92

Matrix: (soil/water) SOIL Date Analyzed: 9/02/92

Level:(low/med) LOW Time Analyzed: 0933

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS, AND MSD:

| | EPA SAMPLE NO. | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED |
|---|---|---|---|---|
| 01 | ERW01MS | | ERW14 | 9/02/92 |
| 02 | ERW01MSD | | ERW15 | 9/02/92 |
| 03 | ERW02 | | ERW22 | 9/09/92 |
| 04 | ERW05 | | ERW23 | 9/09/92 |
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COMMENTS:

000235

4B

SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

SBLK3

Lab Name:WESTERN RESEARCH INSTITUTContract:68-D2-0017

Lab Code:WRI Case No.:18642 SAS No.: SDG No.:ERW01

Lab File ID:ERW10 Lab Sample ID:

Instrument ID:7001 Date Extracted: 8/27/92

Matrix: (soil/water) SOIL Date Analyzed: 9/02/92

Level:(low/med) LOW Time Analyzed: 1014

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS, AND MSD:

| | EPA SAMPLE NO. | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED |
|---|---|---|---|---|
| 01 | ERW01 | | ERW13 | 9/02/92 |
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COMMENTS:

000236

4B

SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

SBLK4

Lab Name:WESTERN RESEARCH INSTITUTContract:68-D2-0017

Lab Code:WRI Case No.:18642 SAS No.: SDG No.:ERW01

Lab File ID:ERW11 Lab Sample ID:

Instrument ID:7001 Date Extracted: 8/27/92

Matrix: (soil/water) SOIL Date Analyzed: 9/02/92

Level:(low/med) MED Time Analyzed: 1056

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS, AND MSD:

| | EPA SAMPLE NO. | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED |
|---|---|---|---|---|
| 01 | ERW03 | | ERW27 | 9/09/92 |
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COMMENTS:

000237

4B

# SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

SBLK5

Lab Name:WESTERN RESEARCH INSTITUTContract:68-D2-0017

Lab Code:WRI Case No.:18642 SAS No.: SDG No.:ERW01

Lab File ID:ERW12 Lab Sample ID:

Instrument ID:7001 Date Extracted: 8/27/92

Matrix: (soil/water) SOIL Date Analyzed: 9/02/92

Level:(low/med) MED Time Analyzed: 1137

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS, AND MSD:

| | EPA SAMPLE NO. | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED |
|---|---|---|---|---|
| 01 | ERW04 | | ERW24 | 9/09/92 |
| 02 | ERW04MS | | ERW25 | 9/09/92 |
| 03 | ERW04MSD | | ERW26 | 9/09/92 |
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COMMENTS:

# SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK1

Lab Name:WESTERN RESEARCH INSTITUT Contract:68-D2-0017

Lab Code:WRI Case No.:18642 SAS No.: SDG No.:ERW01

Matrix: (soil/water) WATER Lab Sample ID:

Sample wt/vol: 1000.0 (g/ml) ML Lab File ID: ERW01

Level: (low/med) LOW Date Received: 8/20/92

% Moisture: decanted: (Y/N) Date Extracted: 8/20/92

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 9/01/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 108-95-2 | Phenol | 10. | U |
| 111-44-4 | bis(2-Chloroethyl)ether | 10. | U |
| 95-57-8 | 2-Chlorophenol | 10. | U |
| 541-73-1 | 1,3-Dichlorobenzene | 10. | U |
| 106-46-7 | 1,4-Dichlorobenzene | 10. | U |
| 95-50-1 | 1,2-Dichlorobenzene | 10. | U |
| 95-48-7 | 2-Methylphenol | 10. | U |
| 108-60-1 | 2,2'-oxybis(1-Chloropropane) | 10. | U |
| 106-44-5 | 4-Methylphenol | 10. | U |
| 621-64-7 | N-Nitroso-di-n-propylamine | 10. | U |
| 67-72-1 | Hexachloroethane | 10. | U |
| 98-95-3 | Nitrobenzene | 10. | U |
| 78-59-1 | Isophorone | 10. | U |
| 88-75-5 | 2-Nitrophenol | 10. | U |
| 105-67-9 | 2,4-Dimethylphenol | 10. | U |
| 111-91-1 | bis(2-Chloroethoxy)methane | 10. | U |
| 120-83-2 | 2,4-Dichlorophenol | 10. | U |
| 120-82-1 | 1,2,4-Trichlorobenzene | 10. | U |
| 91-20-3 | Naphthalene | 10. | U |
| 106-47-8 | 4-Chloroaniline | 10. | U |
| 87-68-3 | Hexachlorobutadiene | 10. | U |
| 59-50-7 | 4-Chloro-3-methylphenol | 10. | U |
| 91-57-6 | 2-Methylnaphthalene | 10. | U |
| 77-47-4 | Hexachlorocyclopentadiene | 10. | U |
| 88-06-2 | 2,4,6-Trichlorophenol | 10. | U |
| 95-95-4 | 2,4,5-Trichlorophenol | 25. | U |
| 91-58-7 | 2-Chloronaphthalene | 10. | U |
| 88-74-4 | 2-Nitroaniline | 25. | U |
| 131-11-3 | Dimethylphthalate | 10. | U |
| 208-96-8 | Acenaphthylene | 10. | U |
| 606-20-2 | 2,6-Dinitrotoluene | 10. | U |
| 99-09-2 | 3-Nitroaniline | 25. | U |
| 83-32-9 | Acenaphthene | 10. | U |

000492

# SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK1

Lab Name:WESTERN RESEARCH INSTITUT Contract:68-D2-0017

Lab Code:WRI Case No.:18642 SAS No.: SDG No.:ERW01

Matrix: (soil/water) WATER Lab Sample ID:

Sample wt/vol: 1000.0 (g/ml) ML Lab File ID: ERW01

Level: (low/med) LOW Date Received: 8/20/92

% Moisture: decanted: (Y/N) Date Extracted: 8/20/92

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 9/01/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 51-28-5 | 2,4-Dinitrophenol | 25. | U |
| 100-02-7 | 4-Nitrophenol | 25. | U |
| 132-64-9 | Dibenzofuran | 10. | U |
| 121-14-2 | 2,4-Dinitrotoluene | 10. | U |
| 84-66-2 | Diethylphthalate | 10. | U |
| 7005-72-3 | 4-Chlorophenyl-phenylether | 10. | U |
| 86-73-7 | Fluorene | 10. | U |
| 100-01-6 | 4-Nitroaniline | 25. | U |
| 534-52-1 | 4,6-Dinitro-2-methylphenol | 25. | U |
| 86-30-6 | N-Nitrosodiphenylamine (1) | 10. | U |
| 101-55-3 | 4-Bromophenyl-phenylether | 10. | U |
| 118-74-1 | Hexachlorobenzene | 10. | U |
| 87-86-5 | Pentachlorophenol | 25. | U |
| 85-01-8 | Phenanthrene | 10. | U |
| 120-12-7 | Anthracene | 10. | U |
| 86-74-8 | Carbazole | 10. | U |
| 84-74-2 | Di-n-butylphthalate | 10. | U |
| 206-44-0 | Fluoranthene | 10. | U |
| 129-00-0 | Pyrene | 10. | U |
| 85-68-7 | Butylbenzylphthalate | 10. | U |
| 91-94-1 | 3,3'-Dichlorobenzidine | 10. | U |
| 56-55-3 | Benzo(a)anthracene | 10. | U |
| 218-01-9 | Chrysene | 10. | U |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | 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

000493

# SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
## TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SBLK1

Lab Name:WESTERN RESEARCH INSTITUT Contract:68-D2-0017

Lab Code:WRI Case No.:18642 SAS No.: SDG No.:ERW01

Matrix: (soil/water) WATER Lab Sample ID:

Sample wt/vol: 1000.0 (g/ml) ML Lab File ID: ERW01

Level: (low/med) LOW Date Received: 8/20/92

% Moisture: decanted: (Y/N) Date Extracted: 8/20/92

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 9/01/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

Number TICs Found: 6

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

| | CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|---|
| 1. | 0 | UNKNOWN | 6.00 | 3. | J |
| 2. | 0 | UNKNOWN OXYGENATED COMPOUND | 6.18 | 4. | J |
| 3. | 61142-69-6 | Cyclohexane, 1-ethyl-2,4-dim | 7.37 | 4. | JN |
| 4. | 4291-79-6 | Cyclohexane, 1-methyl-2-prop | 7.50 | 5. | JN |
| 5. | 0 | POSSIBLE C23H32O2 ISOMER | 26.27 | 2. | J |
| 6. | 0 | UNKNOWN | 29.67 | 3. | J |
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# SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK2

Lab Name:WESTERN RESEARCH INSTITUT Contract:68-D2-0017

Lab Code:WRI Case No.:18642 SAS No.: SDG No.:ERW01

Matrix: (soil/water) SOIL Lab Sample ID:

Sample wt/vol: 30.0 (g/ml) G Lab File ID: ERW09

Level: (low/med) LOW Date Received: / /

% Moisture: 0 decanted: (Y/N) N Date Extracted: 8/25/92

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 9/02/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 0.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG | Q |
|---|---|---|---|
| 108-95-2 | Phenol | 330. | U |
| 111-44-4 | bis(2-Chloroethyl)ether | 330. | U |
| 95-57-8 | 2-Chlorophenol | 330. | U |
| 541-73-1 | 1,3-Dichlorobenzene | 330. | U |
| 106-46-7 | 1,4-Dichlorobenzene | 330. | U |
| 95-50-1 | 1,2-Dichlorobenzene | 330. | U |
| 95-48-7 | 2-Methylphenol | 330. | U |
| 108-60-1 | 2,2'-oxybis(1-Chloropropane) | 330. | U |
| 106-44-5 | 4-Methylphenol | 330. | U |
| 621-64-7 | N-Nitroso-di-n-propylamine | 330. | U |
| 67-72-1 | Hexachloroethane | 330. | U |
| 98-95-3 | Nitrobenzene | 330. | U |
| 78-59-1 | Isophorone | 330. | U |
| 88-75-5 | 2-Nitrophenol | 330. | U |
| 105-67-9 | 2,4-Dimethylphenol | 330. | U |
| 111-91-1 | bis(2-Chloroethoxy)methane | 330. | U |
| 120-83-2 | 2,4-Dichlorophenol | 330. | U |
| 120-82-1 | 1,2,4-Trichlorobenzene | 330. | U |
| 91-20-3 | Naphthalene | 330. | U |
| 106-47-8 | 4-Chloroaniline | 330. | U |
| 87-68-3 | Hexachlorobutadiene | 330. | U |
| 59-50-7 | 4-Chloro-3-methylphenol | 330. | U |
| 91-57-6 | 2-Methylnaphthalene | 330. | U |
| 77-47-4 | Hexachlorocyclopentadiene | 330. | U |
| 88-06-2 | 2,4,6-Trichlorophenol | 330. | U |
| 95-95-4 | 2,4,5-Trichlorophenol | 800. | U |
| 91-58-7 | 2-Chloronaphthalene | 330. | U |
| 88-74-4 | 2-Nitroaniline | 800. | U |
| 131-11-3 | Dimethylphthalate | 330. | U |
| 208-96-8 | Acenaphthylene | 330. | U |
| 606-20-2 | 2,6-Dinitrotoluene | 330. | U |
| 99-09-2 | 3-Nitroaniline | 800. | U |
| 83-32-9 | Acenaphthene | 330. | U |

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK2

Lab Name:WESTERN RESEARCH INSTITUT Contract:68-D2-0017

Lab Code:WRI Case No.:18642 SAS No.: SDG No.:ERW01

Matrix: (soil/water) SOIL Lab Sample ID:

Sample wt/vol: 30.0 (g/ml) G Lab File ID: ERW09

Level: (low/med) LOW Date Received: / /

% Moisture: 0 decanted: (Y/N) N Date Extracted: 8/25/92

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 9/02/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 0.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG | Q |
|---|---|---|---|
| 51-28-5 | 2,4-Dinitrophenol | 800. | U |
| 100-02-7 | 4-Nitrophenol | 800. | U |
| 132-64-9 | Dibenzofuran | 330. | U |
| 121-14-2 | 2,4-Dinitrotoluene | 330. | U |
| 84-66-2 | Diethylphthalate | 330. | U |
| 7005-72-3 | 4-Chlorophenyl-phenylether | 330. | U |
| 86-73-7 | Fluorene | 330. | U |
| 100-01-6 | 4-Nitroaniline | 800. | U |
| 534-52-1 | 4,6-Dinitro-2-methylphenol | 800. | U |
| 86-30-6 | N-Nitrosodiphenylamine (1) | 330. | U |
| 101-55-3 | 4-Bromophenyl-phenylether | 330. | U |
| 118-74-1 | Hexachlorobenzene | 330. | U |
| 87-86-5 | Pentachlorophenol | 800. | U |
| 85-01-8 | Phenanthrene | 330. | U |
| 120-12-7 | Anthracene | 330. | U |
| 86-74-8 | Carbazole | 330. | U |
| 84-74-2 | Di-n-butylphthalate | 41. | J |
| 206-44-0 | Fluoranthene | 330. | U |
| 129-00-0 | Pyrene | 330. | U |
| 85-68-7 | Butylbenzylphthalate | 330. | U |
| 91-94-1 | 3,3'-Dichlorobenzidine | 330. | U |
| 56-55-3 | Benzo(a)anthracene | 330. | U |
| 218-01-9 | Chrysene | 330. | U |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | 32. | J |
| 117-84-0 | Di-n-octylphthalate | 330. | U |
| 205-99-2 | Benzo(b)fluoranthene | 330. | U |
| 207-08-9 | Benzo(k)fluoranthene | 330. | U |
| 50-32-8 | Benzo(a)pyrene | 330. | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 330. | U |
| 53-70-3 | Dibenz(a,h)anthracene | 330. | U |
| 191-24-2 | Benzo(g,h,i)perylene | 330. | U |

(1) - Cannot be separated from Diphenylamine

1F

# SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
## TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SBLK2

Lab Name:WESTERN RESEARCH INSTITUT Contract:68-D2-0017

Lab Code:WRI Case No.:18642 SAS No.: SDG No.:ERW01

Matrix: (soil/water) SOIL Lab Sample ID:

Sample wt/vol: 30.0 (g/ml) G Lab File ID: ERW09

Level: (low/med) LOW Date Received: / /

% Moisture: 0 decanted: (Y/N) N Date Extracted: 8/25/92

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 9/02/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 0.0

Number TICs Found: 9

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

| | CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|---|
| 1. | 0 | ALDOL CONDENSATION PRODUCT | 5.55 | 2100. | JA |
| 2. | 0 | UNKNOWN | 5.83 | 74. | J |
| 3. | 0 | UNKNOWN OXYGENATED COMPOUND | 6.01 | 120. | J |
| 4. | 0 | UNKNOWN | 6.80 | 77. | J |
| 5. | 79-34-5 | Ethane, 1,1,2,2-tetrachloro- | 6.85 | 97. | JN |
| 6. | 13152-02-8 | Cyclooctane, ethyl- OR ISOME | 7.17 | 120. | JN |
| 7. | 4291-79-6 | Cyclohexane, 1-methyl-2-prop | 7.30 | 150. | JN |
| 8. | 0 | UNKNOWN PHTHALATE | 20.60 | 280. | J |
| 9. | 791-28-6 | Phosphine oxide, triphenyl- | 27.13 | 270. | JN |
| 10. | | | | | |
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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK3

Lab Name:WESTERN RESEARCH INSTITUT Contract:68-D2-0017

Lab Code:WRI Case No.:18642 SAS No.: SDG No.:ERW01

Matrix: (soil/water) SOIL Lab Sample ID:

Sample wt/vol: 30.0 (g/ml) G Lab File ID: ERW10

Level: (low/med) LOW Date Received: / /

% Moisture: 0 decanted: (Y/N) N Date Extracted: 8/27/92

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 9/02/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 0.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG | Q |
|---|---|---|---|
| 108-95-2 | Phenol | 330. | U |
| 111-44-4 | bis(2-Chloroethyl)ether | 330. | U |
| 95-57-8 | 2-Chlorophenol | 330. | U |
| 541-73-1 | 1,3-Dichlorobenzene | 330. | U |
| 106-46-7 | 1,4-Dichlorobenzene | 330. | U |
| 95-50-1 | 1,2-Dichlorobenzene | 330. | U |
| 95-48-7 | 2-Methylphenol | 330. | U |
| 108-60-1 | 2,2'-oxybis(1-Chloropropane) | 330. | U |
| 106-44-5 | 4-Methylphenol | 330. | U |
| 621-64-7 | N-Nitroso-di-n-propylamine | 330. | U |
| 67-72-1 | Hexachloroethane | 330. | U |
| 98-95-3 | Nitrobenzene | 330. | U |
| 78-59-1 | Isophorone | 330. | U |
| 88-75-5 | 2-Nitrophenol | 330. | U |
| 105-67-9 | 2,4-Dimethylphenol | 330. | U |
| 111-91-1 | bis(2-Chloroethoxy)methane | 330. | U |
| 120-83-2 | 2,4-Dichlorophenol | 330. | U |
| 120-82-1 | 1,2,4-Trichlorobenzene | 330. | U |
| 91-20-3 | Naphthalene | 330. | U |
| 106-47-8 | 4-Chloroaniline | 330. | U |
| 87-68-3 | Hexachlorobutadiene | 330. | U |
| 59-50-7 | 4-Chloro-3-methylphenol | 330. | U |
| 91-57-6 | 2-Methylnaphthalene | 330. | U |
| 77-47-4 | Hexachlorocyclopentadiene | 330. | U |
| 88-06-2 | 2,4,6-Trichlorophenol | 330. | U |
| 95-95-4 | 2,4,5-Trichlorophenol | 800. | U |
| 91-58-7 | 2-Chloronaphthalene | 330. | U |
| 88-74-4 | 2-Nitroaniline | 800. | U |
| 131-11-3 | Dimethylphthalate | 330. | U |
| 208-96-8 | Acenaphthylene | 330. | U |
| 606-20-2 | 2,6-Dinitrotoluene | 330. | U |
| 99-09-2 | 3-Nitroaniline | 800. | U |
| 83-32-9 | Acenaphthene | 330. | U |

000521

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK3

Lab Name:WESTERN RESEARCH INSTITUT Contract:68-D2-0017

Lab Code:WRI Case No.:18642 SAS No.: SDG No.:ERW01

Matrix: (soil/water) SOIL Lab Sample ID:

Sample wt/vol: 30.0 (g/ml) G Lab File ID: ERW10

Level: (low/med) LOW Date Received: / /

% Moisture: 0 decanted: (Y/N) N Date Extracted: 8/27/92

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 9/02/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 0.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG | Q |
|---|---|---|---|
| 51-28-5 | 2,4-Dinitrophenol | 800. | U |
| 100-02-7 | 4-Nitrophenol | 800. | U |
| 132-64-9 | Dibenzofuran | 330. | U |
| 121-14-2 | 2,4-Dinitrotoluene | 330. | U |
| 84-66-2 | Diethylphthalate | 330. | U |
| 7005-72-3 | 4-Chlorophenyl-phenylether | 330. | U |
| 86-73-7 | Fluorene | 330. | U |
| 100-01-6 | 4-Nitroaniline | 800. | U |
| 534-52-1 | 4,6-Dinitro-2-methylphenol | 800. | U |
| 86-30-6 | N-Nitrosodiphenylamine (1) | 330. | U |
| 101-55-3 | 4-Bromophenyl-phenylether | 330. | U |
| 118-74-1 | Hexachlorobenzene | 330. | U |
| 87-86-5 | Pentachlorophenol | 800. | U |
| 85-01-8 | Phenanthrene | 330. | U |
| 120-12-7 | Anthracene | 330. | U |
| 86-74-8 | Carbazole | 330. | U |
| 84-74-2 | Di-n-butylphthalate | 36. | J |
| 206-44-0 | Fluoranthene | 330. | U |
| 129-00-0 | Pyrene | 330. | U |
| 85-68-7 | Butylbenzylphthalate | 330. | U |
| 91-94-1 | 3,3'-Dichlorobenzidine | 330. | U |
| 56-55-3 | Benzo(a)anthracene | 330. | U |
| 218-01-9 | Chrysene | 330. | U |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | 100. | J |
| 117-84-0 | Di-n-octylphthalate | 330. | U |
| 205-99-2 | Benzo(b)fluoranthene | 330. | U |
| 207-08-9 | Benzo(k)fluoranthene | 330. | U |
| 50-32-8 | Benzo(a)pyrene | 330. | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 330. | U |
| 53-70-3 | Dibenz(a,h)anthracene | 330. | U |
| 191-24-2 | Benzo(g,h,i)perylene | 330. | U |

(1) - Cannot be separated from Diphenylamine

000522

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SBLK3

Lab Name:WESTERN RESEARCH INSTITUT Contract:68-D2-0017

Lab Code:WRI Case No.:18642 SAS No.: SDG No.:ERW01

Matrix: (soil/water) SOIL Lab Sample ID:

Sample wt/vol: 30.0 (g/ml) G Lab File ID: ERW10

Level: (low/med) LOW Date Received: / /

% Moisture: 0 decanted: (Y/N) N Date Extracted: 8/27/92

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 9/02/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 0.0

Number TICs Found: 13

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

| | CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|---|
| 1. | 0 | ALDOL CONDENSATION PRODUCT | 5.56 | 3700. | JA |
| 2. | 0 | UNKNOWN | 5.83 | 82. | J |
| 3. | 0 | UNKNOWN OXYGENATED COMPOUND | 6.01 | 130. | J |
| 4. | 0 | UNKNOWN | 6.80 | 79. | J |
| 5. | 79-34-5 | Ethane, 1,1,2,2-tetrachloro- | 6.85 | 130. | JN |
| 6. | 13152-02-8 | Cyclooctane, ethyl- OR ISOME | 7.18 | 160. | JN |
| 7. | 4291-79-6 | Cyclohexane, 1-methyl-2-prop | 7.30 | 180. | JN |
| 8. | 53386-38-4 | Cyclopentane, (2-methylbutyl | 7.39 | 71. | JN |
| 9. | 29053-04-1 | Cyclopentane, 1-methyl-3-(2- | 7.47 | 78. | JN |
| 10. | 0 | UNKNOWN | 17.45 | 67. | J |
| 11. | 0 | UNKNOWN PHTHALATE | 20.60 | 300. | J |
| 12. | 0 | POSSIBLE ALCOHOL OR DIENE | 22.52 | 110. | J |
| 13. | 791-28-6 | Phosphine oxide, triphenyl- | 27.13 | 240. | JN |
| 14. | | | | | |
| 15. | | | | | |
| 16. | | | | | |
| 17. | | | | | |
| 18. | | | | | |
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000523

# SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK4

Lab Name:WESTERN RESEARCH INSTITUT Contract:68-D2-0017

Lab Code:WRI Case No.:18642 SAS No.: SDG No.:ERW01

Matrix: (soil/water) SOIL Lab Sample ID:

Sample wt/vol: 1.0 (g/ml) G Lab File ID: ERW11

Level: (low/med) MED Date Received: / /

% Moisture: 0 decanted: (Y/N) N Date Extracted: 8/27/92

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 9/02/92

Injection Volume: 2.0 (uL) Dilution Factor: 4.0

GPC Cleanup: (Y/N) Y pH: 0.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG | Q |
|---|---|---|---|
| 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 |
| 95-50-1 | 1,2-Dichlorobenzene | 40000. | U |
| 95-48-7 | 2-Methylphenol | 40000. | U |
| 108-60-1 | 2,2'-oxybis(1-Chloropropane) | 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 |
| 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 | 100000. | U |
| 91-58-7 | 2-Chloronaphthalene | 40000. | U |
| 88-74-4 | 2-Nitroaniline | 100000. | U |
| 131-11-3 | Dimethylphthalate | 40000. | U |
| 208-96-8 | Acenaphthylene | 40000. | U |
| 606-20-2 | 2,6-Dinitrotoluene | 40000. | U |
| 99-09-2 | 3-Nitroaniline | 100000. | U |
| 83-32-9 | Acenaphthene | 40000. | U |

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK4

Lab Name:WESTERN RESEARCH INSTITUT Contract:68-D2-0017

Lab Code:WRI Case No.:18642 SAS No.: SDG No.:ERW01

Matrix: (soil/water) SOIL Lab Sample ID:

Sample wt/vol: 1.0 (g/ml) G Lab File ID: ERW11

Level: (low/med) MED Date Received: / /

% Moisture: 0 decanted: (Y/N) N Date Extracted: 8/27/92

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 9/02/92

Injection Volume: 2.0 (uL) Dilution Factor: 4.0

GPC Cleanup: (Y/N) Y pH: 0.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG | Q |
|---|---|---|---|
| 51-28-5 | 2,4-Dinitrophenol | 100000. | U |
| 100-02-7 | 4-Nitrophenol | 100000. | U |
| 132-64-9 | Dibenzofuran | 40000. | U |
| 121-14-2 | 2,4-Dinitrotoluene | 40000. | U |
| 84-66-2 | Diethylphthalate | 40000. | U |
| 7005-72-3 | 4-Chlorophenyl-phenylether | 40000. | U |
| 86-73-7 | Fluorene | 40000. | U |
| 100-01-6 | 4-Nitroaniline | 100000. | U |
| 534-52-1 | 4,6-Dinitro-2-methylphenol | 100000. | 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 | 100000. | U |
| 85-01-8 | Phenanthrene | 40000. | U |
| 120-12-7 | Anthracene | 40000. | U |
| 86-74-8 | Carbazole | 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 | 40000. | U |
| 56-55-3 | Benzo(a)anthracene | 40000. | U |
| 218-01-9 | Chrysene | 40000. | U |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | 850. | J |
| 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

000543

1F

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SBLK4

Lab Name:WESTERN RESEARCH INSTITUT Contract:68-D2-0017

Lab Code:WRI Case No.:18642 SAS No.: SDG No.:ERW01

Matrix: (soil/water) SOIL Lab Sample ID:

Sample wt/vol: 1.0 (g/ml) G Lab File ID: ERW11

Level: (low/med) MED Date Received: / /

% Moisture: 0 decanted: (Y/N) N Date Extracted: 8/27/92

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 9/02/92

Injection Volume: 2.0 (uL) Dilution Factor: 4.0

GPC Cleanup: (Y/N) Y pH: 0.0

Number TICs Found: 1

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

| | CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|---|
| 1. | 791-28-6 | Phosphine oxide, triphenyl- | 27.12 | 24000. | JN |
| 2. | | | | | |
| 3. | | | | | |
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000544

# SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK5

Lab Name:WESTERN RESEARCH INSTITUT Contract:68-D2-0017

Lab Code:WRI Case No.:18642 SAS No.: SDG No.:ERW01

Matrix: (soil/water) SOIL Lab Sample ID:

Sample wt/vol: 1.0 (g/ml) G Lab File ID: ERW12

Level: (low/med) MED Date Received: / /

% Moisture: 0 decanted: (Y/N) N Date Extracted: 8/27/92

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 9/02/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 0.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG | Q |
|---|---|---|---|
| 108-95-2 | Phenol | 10000. | U |
| 111-44-4 | bis(2-Chloroethyl)ether | 10000. | U |
| 95-57-8 | 2-Chlorophenol | 10000. | U |
| 541-73-1 | 1,3-Dichlorobenzene | 10000. | U |
| 106-46-7 | 1,4-Dichlorobenzene | 10000. | U |
| 95-50-1 | 1,2-Dichlorobenzene | 10000. | U |
| 95-48-7 | 2-Methylphenol | 10000. | U |
| 108-60-1 | 2,2'-oxybis(1-Chloropropane) | 10000. | U |
| 106-44-5 | 4-Methylphenol | 10000. | U |
| 621-64-7 | N-Nitroso-di-n-propylamine | 10000. | U |
| 67-72-1 | Hexachloroethane | 10000. | U |
| 98-95-3 | Nitrobenzene | 10000. | U |
| 78-59-1 | Isophorone | 10000. | U |
| 88-75-5 | 2-Nitrophenol | 10000. | U |
| 105-67-9 | 2,4-Dimethylphenol | 10000. | U |
| 111-91-1 | bis(2-Chloroethoxy)methane | 10000. | U |
| 120-83-2 | 2,4-Dichlorophenol | 10000. | U |
| 120-82-1 | 1,2,4-Trichlorobenzene | 10000. | U |
| 91-20-3 | Naphthalene | 10000. | U |
| 106-47-8 | 4-Chloroaniline | 10000. | U |
| 87-68-3 | Hexachlorobutadiene | 10000. | U |
| 59-50-7 | 4-Chloro-3-methylphenol | 10000. | U |
| 91-57-6 | 2-Methylnaphthalene | 10000. | U |
| 77-47-4 | Hexachlorocyclopentadiene | 10000. | U |
| 88-06-2 | 2,4,6-Trichlorophenol | 10000. | U |
| 95-95-4 | 2,4,5-Trichlorophenol | 25000. | U |
| 91-58-7 | 2-Chloronaphthalene | 10000. | U |
| 88-74-4 | 2-Nitroaniline | 25000. | U |
| 131-11-3 | Dimethylphthalate | 10000. | U |
| 208-96-8 | Acenaphthylene | 10000. | U |
| 606-20-2 | 2,6-Dinitrotoluene | 10000. | U |
| 99-09-2 | 3-Nitroaniline | 25000. | U |
| 83-32-9 | Acenaphthene | 10000. | U |

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK5

Lab Name:WESTERN RESEARCH INSTITUT Contract:68-D2-0017

Lab Code:WRI Case No.:18642 SAS No.: SDG No.:ERW01

Matrix: (soil/water) SOIL Lab Sample ID:

Sample wt/vol: 1.0 (g/ml) G Lab File ID: ERW12

Level: (low/med) MED Date Received: / /

% Moisture: 0 decanted: (Y/N) N Date Extracted: 8/27/92

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 9/02/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 0.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG | Q |
|---|---|---|---|
| 51-28-5 | 2,4-Dinitrophenol | 25000. | U |
| 100-02-7 | 4-Nitrophenol | 25000. | U |
| 132-64-9 | Dibenzofuran | 10000. | U |
| 121-14-2 | 2,4-Dinitrotoluene | 10000. | U |
| 84-66-2 | Diethylphthalate | 10000. | U |
| 7005-72-3 | 4-Chlorophenyl-phenylether | 10000. | U |
| 86-73-7 | Fluorene | 10000. | U |
| 100-01-6 | 4-Nitroaniline | 25000. | U |
| 534-52-1 | 4,6-Dinitro-2-methylphenol | 25000. | U |
| 86-30-6 | N-Nitrosodiphenylamine (1) | 10000. | U |
| 101-55-3 | 4-Bromophenyl-phenylether | 10000. | U |
| 118-74-1 | Hexachlorobenzene | 10000. | U |
| 87-86-5 | Pentachlorophenol | 25000. | U |
| 85-01-8 | Phenanthrene | 10000. | U |
| 120-12-7 | Anthracene | 10000. | U |
| 86-74-8 | Carbazole | 10000. | U |
| 84-74-2 | Di-n-butylphthalate | 10000. | U |
| 206-44-0 | Fluoranthene | 10000. | U |
| 129-00-0 | Pyrene | 10000. | U |
| 85-68-7 | Butylbenzylphthalate | 10000. | U |
| 91-94-1 | 3,3'-Dichlorobenzidine | 10000. | U |
| 56-55-3 | Benzo(a)anthracene | 10000. | U |
| 218-01-9 | Chrysene | 10000. | U |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | 1500. | J |
| 117-84-0 | Di-n-octylphthalate | 10000. | U |
| 205-99-2 | Benzo(b)fluoranthene | 10000. | U |
| 207-08-9 | Benzo(k)fluoranthene | 10000. | U |
| 50-32-8 | Benzo(a)pyrene | 10000. | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 10000. | U |
| 53-70-3 | Dibenz(a,h)anthracene | 10000. | U |
| 191-24-2 | Benzo(g,h,i)perylene | 10000. | U |

(1) - Cannot be separated from Diphenylamine

000551

TF

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SBLK5

Lab Name:WESTERN RESEARCH INSTITUT Contract:68-D2-0017

Lab Code:WRI Case No.:18642 SAS No.: SDG No.:ERW01

Matrix: (soil/water) SOIL Lab Sample ID:

Sample wt/vol: 1.0 (g/ml) G Lab File ID: ERW12

Level: (low/med) MED Date Received: / /

% Moisture: 0 decanted: (Y/N) N Date Extracted: 8/27/92

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 9/02/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 0.0

Number TICs Found: 2

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

| | CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|---|
| 1. | 0 | POSSIBLE ALCOHOL OR DIENE | 22.57 | 2500. | J |
| 2. | 791-28-6 | Phosphine oxide, triphenyl- | 27.15 | 5300. | JN |
| 3. | | | | | |
| 4. | | | | | |
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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ERW01

Lab Name:WESTERN RESEARCH INSTITUT Contract:68-D2-0017

Lab Code:WRI Case No.:18642 SAS No.: SDG No.:ERW01

Matrix: (soil/water) SOIL Lab Sample ID:

Sample wt/vol: 25.0 (g/ml) G Lab File ID: ERW13

Level: (low/med) LOW Date Received: 8/20/92

% Moisture: 14 decanted: (Y/N) N Date Extracted: 8/27/92

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 9/02/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.2

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG | Q | |
|---|---|---|---|---|
| 108-95-2 | Phenol | 460. | U | |
| 111-44-4 | bis(2-Chloroethyl)ether | 460. | U | |
| 95-57-8 | 2-Chlorophenol | 460. | U | |
| 541-73-1 | 1,3-Dichlorobenzene | 460. | U | |
| 106-46-7 | 1,4-Dichlorobenzene | 460. | U J | PDC 10/30/92 |
| 95-50-1 | 1,2-Dichlorobenzene | 460. | U | |
| 95-48-7 | 2-Methylphenol | 460. | U | |
| 108-60-1 | 2,2'-oxybis(1-Chloropropane) | 460. | U | |
| 106-44-5 | 4-Methylphenol | 460. | U | |
| 621-64-7 | N-Nitroso-di-n-propylamine | 460. | U | |
| 67-72-1 | Hexachloroethane | 460. | U | |
| 98-95-3 | Nitrobenzene | 460. | U | |
| 78-59-1 | Isophorone | 460. | U | |
| 88-75-5 | 2-Nitrophenol | 460. | U | |
| 105-67-9 | 2,4-Dimethylphenol | 460. | U | |
| 111-91-1 | bis(2-Chloroethoxy)methane | 460. | U | |
| 120-83-2 | 2,4-Dichlorophenol | 460. | U | |
| 120-82-1 | 1,2,4-Trichlorobenzene | 460. | U J | PDC 10/30/92 |
| 91-20-3 | Naphthalene | 100. | J | |
| 106-47-8 | 4-Chloroaniline | 460. | U | |
| 87-68-3 | Hexachlorobutadiene | 460. | U | |
| 59-50-7 | 4-Chloro-3-methylphenol | 460. | U | |
| 91-57-6 | 2-Methylnaphthalene | 99. | J | |
| 77-47-4 | Hexachlorocyclopentadiene | 460. | U | |
| 88-06-2 | 2,4,6-Trichlorophenol | 460. | U | |
| 95-95-4 | 2,4,5-Trichlorophenol | 1100. | U | |
| 91-58-7 | 2-Chloronaphthalene | 460. | U | |
| 88-74-4 | 2-Nitroaniline | 1100. | U | |
| 131-11-3 | Dimethylphthalate | 460. | U | |
| 208-96-8 | Acenaphthylene | 460. | U | PDC 10/30/92 |
| 606-20-2 | 2,6-Dinitrotoluene | 460. | U | |
| 99-09-2 | 3-Nitroaniline | 1100. | U | |
| 83-32-9 | Acenaphthene | 460. | U J | |

000248

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ERW01

Lab Name:WESTERN RESEARCH INSTITUT Contract:68-D2-0017

Lab Code:WRI Case No.:18642 SAS No.: SDG No.:ERW01

Matrix: (soil/water) SOIL Lab Sample ID:

Sample wt/vol: 25.0 (g/ml) G Lab File ID: ERW13

Level: (low/med) LOW Date Received: 8/20/92

% Moisture: 14 decanted: (Y/N) N Date Extracted: 8/27/92

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 9/02/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.2

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG | Q | |
|---|---|---|---|---|
| 51-28-5 | 2,4-Dinitrophenol | 1100. | U | |
| 100-02-7 | 4-Nitrophenol | 1100. | U | |
| 132-64-9 | Dibenzofuran | 27. | J | |
| 121-14-2 | 2,4-Dinitrotoluene | 460. | U | |
| 84-66-2 | Diethylphthalate | 460. | U | |
| 7005-72-3 | 4-Chlorophenyl-phenylether | 460. | U | |
| 86-73-7 | Fluorene | 460. | U | |
| 100-01-6 | 4-Nitroaniline | 1100. | U | |
| 534-52-1 | 4,6-Dinitro-2-methylphenol | 1100. | U | |
| 86-30-6 | N-Nitrosodiphenylamine (1) | 460. | U | |
| 101-55-3 | 4-Bromophenyl-phenylether | 460. | U | |
| 118-74-1 | Hexachlorobenzene | 460. | U | |
| 87-86-5 | Pentachlorophenol | 1100. | U | |
| 85-01-8 | Phenanthrene | 89. | J | |
| 120-12-7 | Anthracene | 460. | U | |
| 86-74-8 | Carbazole | 460. | U | |
| 84-74-2 | Di-n-butylphthalate | 460 ~~70.~~ | JU | CL 10-19-92 |
| 206-44-0 | Fluoranthene | 460. | U | |
| 129-00-0 | Pyrene | 34. | J | |
| 85-68-7 | Butylbenzylphthalate | 460. | U | |
| 91-94-1 | 3,3'-Dichlorobenzidine | 460. | U | |
| 56-55-3 | Benzo(a)anthracene | 460. | U | |
| 218-01-9 | Chrysene | 24. | J | |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | 460 ~~53.~~ | JU | CL 10-19-92 |
| 117-84-0 | Di-n-octylphthalate | 460. | U | |
| 205-99-2 | Benzo(b)fluoranthene | 460. | U | |
| 207-08-9 | Benzo(k)fluoranthene | 460. | U | |
| 50-32-8 | Benzo(a)pyrene | 460. | U | |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 460. | U | |
| 53-70-3 | Dibenz(a,h)anthracene | 460. | U | |
| 191-24-2 | Benzo(g,h,i)perylene | 460. | U | |

(1) - Cannot be separated from Diphenylamine

000249

TF

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

ERW01

Lab Name:WESTERN RESEARCH INSTITUT Contract:68-D2-0017

Lab Code:WRI Case No.:18642 SAS No.: SDG No.:ERW01

Matrix: (soil/water) SOIL Lab Sample ID:

Sample wt/vol: 25.0 (g/ml) G Lab File ID: ERW13

Level: (low/med) LOW Date Received: 8/20/92

% Moisture: 14 decanted: (Y/N) N Date Extracted: 8/27/92

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 9/02/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.2

Number TICs Found: 21

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

| | CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|---|
| 1. | 0 | ALDOL CONDENSATION PRODUCT | 5.56 | 2700. | JAB |
| 2. | 124-18-5 | Decane OR ISOMER | 8.44 | 380. | JN |
| 3. | 1120-21-4 | Undecane OR ISOMER | 10.17 | 890. | JN |
| 4. | 112-05-0 | Nonanoic acid OR ISOMER | 12.76 | 94. | JN |
| 5. | 0 | >=C13H28 ALKANE + DIMETHYL N | 15.59 | 120. | J |
| 6. | 0 | >=C15H32 ALKANE | 17.96 | 110. | J |
| 7. | 0 | >=C17H36 ALKANE | 18.56 | 130. | J |
| 8. | 0 | >=C16H34 ALKANE | 18.65 | 240. | J |
| 9. | 0 | >=C18H38 ALKANE | 19.72 | 120. | J |
| 10. | 0 | UNKNOWN PHTHALATE | 20.61 | 430. | JB |
| 11. | 0 | >=C19H40 ALKANE | 20.82 | 140. | J |
| 12. | 0 | PROBABLY ALKENE OR OXYGENATE | 21.29 | 140. | J |
| 13. | 0 | >=C20H42 ALKANE | 21.87 | 130. | J |
| 14. | 0 | >=C21H44 ALKANE | 22.87 | 140. | J |
| 15. | 55215-17-3 | 1,1'-Biphenyl, 2,2',3,4,6-Pe | 22.99 | 180. | JN |
| 16. | 55215-17-3 | 1,1'-Biphenyl, 2,2',3,4,6-Pe | 23.45 | 210. | JN |
| 17. | 51908-16-8 | 1,1'-Biphenyl, 2,2',3,4',5,5 | 24.69 | 230. | JN |
| 18. | 52663-72-6 | 1,1'-Biphenyl, 2,3',4,4',5,5 | 25.15 | 180. | JN |
| 19. | 35694-06-5 | 1,1'-Biphenyl, 2,2',3,4,4',5 | 25.73 | 200. | JN |
| 20. | 0 | UNKNOWN AROMATIC | 27.21 | 570. | J |
| 21. | 0 | POSSIBLE C29H480 OR C30H52 I | 34.26 | 270. | J |
| 22. | | | | | |
| 23. | | | | | |
| 24. | | | | | |
| 25. | | | | | |
| 26. | | | | | |
| 27. | | | | | |
| 28. | | | | | |
| 29. | | | | | |
| 30. | | | | | |

CL 10-19-92

CL 10-19-92

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ERW02

Lab Name:WESTERN RESEARCH INSTITUT Contract:68-D2-0017

Lab Code:WRI Case No.:18642 SAS No.: SDG No.:ERW01

Matrix: (soil/water) SOIL Lab Sample ID:

Sample wt/vol: 30.0 (g/ml) G Lab File ID: ERW22

Level: (low/med) LOW Date Received: 8/20/92

% Moisture: 5 decanted: (Y/N) N Date Extracted: 8/25/92

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 9/09/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.6

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG | Q |
|---|---|---|---|
| 108-95-2 | Phenol | 350. | U |
| 111-44-4 | bis(2-Chloroethyl)ether | 350. | U |
| 95-57-8 | 2-Chlorophenol | 350. | U |
| 541-73-1 | 1,3-Dichlorobenzene | 350. | U |
| 106-46-7 | 1,4-Dichlorobenzene | 350. | U |
| 95-50-1 | 1,2-Dichlorobenzene | 350. | U |
| 95-48-7 | 2-Methylphenol | 350. | U |
| 108-60-1 | 2,2'-oxybis(1-Chloropropane) | 350. | U |
| 106-44-5 | 4-Methylphenol | 350. | U |
| 621-64-7 | N-Nitroso-di-n-propylamine | 350. | U |
| 67-72-1 | Hexachloroethane | 350. | U |
| 98-95-3 | Nitrobenzene | 350. | U |
| 78-59-1 | Isophorone | 350. | U |
| 88-75-5 | 2-Nitrophenol | 350. | U |
| 105-67-9 | 2,4-Dimethylphenol | 350. | U |
| 111-91-1 | bis(2-Chloroethoxy)methane | 350. | U |
| 120-83-2 | 2,4-Dichlorophenol | 350. | U |
| 120-82-1 | 1,2,4-Trichlorobenzene | 350. | U |
| 91-20-3 | Naphthalene | 350. | U |
| 106-47-8 | 4-Chloroaniline | 350. | U |
| 87-68-3 | Hexachlorobutadiene | 350. | U |
| 59-50-7 | 4-Chloro-3-methylphenol | 350. | U |
| 91-57-6 | 2-Methylnaphthalene | 350. | U |
| 77-47-4 | Hexachlorocyclopentadiene | 350. | U |
| 88-06-2 | 2,4,6-Trichlorophenol | 350. | U |
| 95-95-4 | 2,4,5-Trichlorophenol | 840. | U |
| 91-58-7 | 2-Chloronaphthalene | 350. | U |
| 88-74-4 | 2-Nitroaniline | 840. | U |
| 131-11-3 | Dimethylphthalate | 350. | U |
| 208-96-8 | Acenaphthylene | 350. | U |
| 606-20-2 | 2,6-Dinitrotoluene | 350. | U |
| 99-09-2 | 3-Nitroaniline | 840. | U |
| 83-32-9 | Acenaphthene | 350. | U |

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE

ERW02

Lab Name:WESTERN RESEARCH INSTITUT Contract:68-D2-0017

Lab Code:WRI Case No.:18642 SAS No.: SDG No.:ERW01

Matrix: (soil/water) SOIL Lab Sample ID:

Sample wt/vol: 30.0 (g/ml) G Lab File ID: ERW22

Level: (low/med) LOW Date Received: 8/20/92

% Moisture: 5 decanted: (Y/N) N Date Extracted: 8/25/92

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 9/09/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.6

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG | Q | |
|---|---|---|---|---|
| 51-28-5 | 2,4-Dinitrophenol | 840. | U | |
| 100-02-7 | 4-Nitrophenol | 840. | U | |
| 132-64-9 | Dibenzofuran | 350. | U | |
| 121-14-2 | 2,4-Dinitrotoluene | 350. | U | |
| 84-66-2 | Diethylphthalate | 350. | U | |
| 7005-72-3 | 4-Chlorophenyl-phenylether | 350. | U | |
| 86-73-7 | Fluorene | 350. | U | |
| 100-01-6 | 4-Nitroaniline | 840. | U | |
| 534-52-1 | 4,6-Dinitro-2-methylphenol | 840. | U | |
| 86-30-6 | N-Nitrosodiphenylamine (1) | 350. | U | |
| 101-55-3 | 4-Bromophenyl-phenylether | 350. | U | |
| 118-74-1 | Hexachlorobenzene | 350. | U | |
| 87-86-5 | Pentachlorophenol | 840. | U | |
| 85-01-8 | Phenanthrene | 350. | U | |
| 120-12-7 | Anthracene | 350. | U | |
| 86-74-8 | Carbazole | 350. | U | CL 10-19-92 |
| 84-74-2 | Di-n-butylphthalate | 350 ~~34.~~ | JUB | |
| 206-44-0 | Fluoranthene | 350. | U | |
| 129-00-0 | Pyrene | 350. | U | |
| 85-68-7 | Butylbenzylphthalate | 350. | U | |
| 91-94-1 | 3,3'-Dichlorobenzidine | 350. | U | |
| 56-55-3 | Benzo(a)anthracene | 350. | U | |
| 218-01-9 | Chrysene | 350. | U | |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | 820. | U | PDC 11/9/92 |
| 117-84-0 | Di-n-octylphthalate | 350. | U | |
| 205-99-2 | Benzo(b)fluoranthene | 350. | U | |
| 207-08-9 | Benzo(k)fluoranthene | 350. | U | |
| 50-32-8 | Benzo(a)pyrene | 350. | U | |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 350. | U | |
| 53-70-3 | Dibenz(a,h)anthracene | 350. | U | |
| 191-24-2 | Benzo(g,h,i)perylene | 350. | U | |

(1) - Cannot be separated from Diphenylamine

000284

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# SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
## TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

ERW02

Lab Name:WESTERN RESEARCH INSTITUT Contract:68-D2-0017

Lab Code:WRI Case No.:18642 SAS No.: SDG No.:ERW01

Matrix: (soil/water) SOIL Lab Sample ID:

Sample wt/vol: 30.0 (g/ml) G Lab File ID: ERW22

Level: (low/med) LOW Date Received: 8/20/92

% Moisture: 5 decanted: (Y/N) N Date Extracted: 8/25/92

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 9/09/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.6

Number TICs Found: 13 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG

CL 10-19-92

| | CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|---|
| 1. | 0 | ALDOL CONDENSATION PRODUCT | 3.79 | 3900. | JABU |
| 2. | 4291-79-6 | Cyclohexane, 1-methyl-2-prop | 5.36 | 74. | JNBU |
| 3. | 0 | UNKNOWN PHTHALATE | 18.33 | 160. | JBU |
| 4. | 0 | >=C20H42 ALKANE | 21.55 | 88. | J |
| 5. | 0 | >=C20H42 ALKANE | 22.47 | 82. | J |
| 6. | 0 | >=C20H42 ALKANE | 23.35 | 96. | J |
| 7. | 0 | UNKNOWN AROMATIC | 24.81 | 370. | J |
| 8. | 0 | >=C21H44 ALKANE | 25.01 | 76. | J |
| 9. | 0 | >=C22H46 ALKANE | 26.57 | 88. | J |
| 10. | 0 | UNKNOWN | 26.87 | 120. | J |
| 11. | 0 | >=C28H58 ALKANE | 27.32 | 120. | J |
| 12. | 0 | >=C29H60 ALKANE | 29.12 | 99. | J |
| 13. | 0 | POSSIBLE C29H480 OR C30H52 I | 30.28 | 110. | J |
| 14. | | | | | |
| 15. | | | | | |
| 16. | | | | | |
| 17. | | | | | |
| 18. | | | | | |
| 19. | | | | | |
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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ERW03

Lab Name:WESTERN RESEARCH INSTITUT Contract:68-D2-0017

Lab Code:WRI Case No.:18642 SAS No.: SDG No.:ERW01

Matrix: (soil/water) SOIL Lab Sample ID:

Sample wt/vol: 1.0 (g/ml) G Lab File ID: ERW27

Level: (low/med) MED Date Received: 8/20/92

% Moisture: 0 decanted: (Y/N) N Date Extracted: 8/27/92

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 9/09/92

Injection Volume: 2.0 (uL) Dilution Factor: 4.0

GPC Cleanup: (Y/N) Y pH: 8.6

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG | Q |
|---|---|---|---|
| 108-95-2 | Phenol | 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 |
| 95-50-1 | 1,2-Dichlorobenzene | 40000. | U |
| 95-48-7 | 2-Methylphenol | 40000. | U |
| 108-60-1 | 2,2'-oxybis(1-Chloropropane) | 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 |
| 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 | 2000. | J |
| 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 | 1100. | J |
| 77-47-4 | Hexachlorocyclopentadiene | 40000. | U |
| 88-06-2 | 2,4,6-Trichlorophenol | 40000. | U |
| 95-95-4 | 2,4,5-Trichlorophenol | 100000. | U |
| 91-58-7 | 2-Chloronaphthalene | 40000. | U |
| 88-74-4 | 2-Nitroaniline | 100000. | U |
| 131-11-3 | Dimethylphthalate | 40000. | U |
| 208-96-8 | Acenaphthylene | 40000. | U |
| 606-20-2 | 2,6-Dinitrotoluene | 40000. | U |
| 99-09-2 | 3-Nitroaniline | 100000. | U |
| 83-32-9 | Acenaphthene | 40000. | U |

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ERW03

Lab Name:WESTERN RESEARCH INSTITUT Contract:68-D2-0017

Lab Code:WRI Case No.:18642 SAS No.: SDG No.:ERW01

Matrix: (soil/water) SOIL Lab Sample ID:

Sample wt/vol: 1.0 (g/ml) G Lab File ID: ERW27

Level: (low/med) MED Date Received: 8/20/92

% Moisture: 0 decanted: (Y/N) N Date Extracted: 8/27/92

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 9/09/92

Injection Volume: 2.0 (uL) Dilution Factor: 4.0

GPC Cleanup: (Y/N) Y pH: 8.6

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG | Q |
|---|---|---|---|
| 51-28-5 | 2,4-Dinitrophenol | 100000. | U |
| 100-02-7 | 4-Nitrophenol | 100000. | U |
| 132-64-9 | Dibenzofuran | 40000. | U |
| 121-14-2 | 2,4-Dinitrotoluene | 40000. | U |
| 84-66-2 | Diethylphthalate | 40000. | U |
| 7005-72-3 | 4-Chlorophenyl-phenylether | 40000. | U |
| 86-73-7 | Fluorene | 40000. | U |
| 100-01-6 | 4-Nitroaniline | 100000. | U |
| 534-52-1 | 4,6-Dinitro-2-methylphenol | 100000. | 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 | 100000. | U |
| 85-01-8 | Phenanthrene | 2000. | J |
| 120-12-7 | Anthracene | 40000. | U |
| 86-74-8 | Carbazole | 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 | 40000. | U |
| 56-55-3 | Benzo(a)anthracene | 40000. | U |
| 218-01-9 | Chrysene | 40000. | U |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | 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

EPA SAMPLE NO.

ERW03

# SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
## TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name:WESTERN RESEARCH INSTITUT Contract:68-D2-0017

Lab Code:WRI Case No.:18642 SAS No.: SDG No.:ERW01

Matrix: (soil/water) SOIL Lab Sample ID:

Sample wt/vol: 1.0 (g/ml) G Lab File ID: ERW27

Level: (low/med) MED Date Received: 8/20/92

% Moisture: 0 decanted: (Y/N) N Date Extracted: 8/27/92

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 9/09/92

Injection Volume: 2.0 (uL) Dilution Factor: 4.0

GPC Cleanup: (Y/N) Y pH: 8.6

Number TICs Found: 20

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

| | CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|---|
| 1. | 1072-05-5 | Heptane, 2,6-dimethyl-OR ISO | 4.74 | 38000. | JN |
| 2. | 0 | >=C10H22 ALKANE | 5.44 | 34000. | J |
| 3. | 6783-92-2 | Cyclohexane, 1,1,2,3-tetrame | 5.71 | 27000. | JN |
| 4. | 0 | >=C8H18 ALKANE | 5.94 | 23000. | J |
| 5. | 15869-93-9 | Octane, 3,5-dimethyl-OR ISOM | 6.43 | 260000. | JN |
| 6. | 5171-84-6 | Hexane, 3,3,4,4-tetramethyl- | 6.82 | 66000. | JN |
| 7. | 0 | POSSIBLE C10H18 ISOMER | 7.40 | 37000. | J |
| 8. | 0 | C4 SUBSTITUTED BENZENE + ALK | 7.44 | 30000. | J |
| 9. | 0 | >=C11H24 ALKANE | 7.50 | 42000. | J |
| 10. | 0 | >=C11H24 ALKANE | 7.60 | 27000. | J |
| 11. | 0 | >=C11H24 ALKANE | 8.10 | 260000. | J |
| 12. | 15932-80-6 | Cyclohexanone, 5-methyl-2-(1 | 8.34 | 19000. | JN |
| 13. | 99-87-6 | Benzene, 1-methyl-4-(1-methy | 8.98 | 20000. | JN |
| 14. | 119-64-2 | Naphthalene, 1,2,3,4-tetrahy | 9.16 | 17000. | JN |
| 15. | 0 | >=C12H26 ALKANE | 9.66 | 98000. | J |
| 16. | 0 | >=C20H42 ALKANE | 20.61 | 17000. | J |
| 17. | 0 | POSSIBLE HEXADECANOIC ACID B | 21.44 | 57000. | J |
| 18. | 0 | POSSIBLE HEXADECANOIC ACID H | 23.25 | 40000. | J |
| 19. | 0 | >=C21H44 ALKANE | 23.35 | 22000. | J |
| 20. | 0 | >=C21H44 ALKANE | 25.02 | 27000. | J |
| 21. | | | | | |
| 22. | | | | | |
| 23. | | | | | |
| 24. | | | | | |
| 25. | | | | | |
| 26. | | | | | |
| 27. | | | | | |
| 28. | | | | | |
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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ERW04

Lab Name:WESTERN RESEARCH INSTITUT Contract:68-D2-0017

Lab Code:WRI Case No.:18642 SAS No.: SDG No.:ERW01

Matrix: (soil/water) SOIL Lab Sample ID:

Sample wt/vol: 1.0 (g/ml) G Lab File ID: ERW24

Level: (low/med) MED Date Received: 8/20/92

% Moisture: 0 decanted: (Y/N) N Date Extracted: 8/27/92

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 9/09/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.8

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG | Q |
|---|---|---|---|
| 108-95-2 | Phenol | 10000. | U |
| 111-44-4 | bis(2-Chloroethyl)ether | 10000. | U |
| 95-57-8 | 2-Chlorophenol | 10000. | U |
| 541-73-1 | 1,3-Dichlorobenzene | 10000. | U |
| 106-46-7 | 1,4-Dichlorobenzene | 10000. | U |
| 95-50-1 | 1,2-Dichlorobenzene | 10000. | U |
| 95-48-7 | 2-Methylphenol | 10000. | U |
| 108-60-1 | 2,2'-oxybis(1-Chloropropane) | 10000. | U |
| 106-44-5 | 4-Methylphenol | 10000. | U |
| 621-64-7 | N-Nitroso-di-n-propylamine | 10000. | U |
| 67-72-1 | Hexachloroethane | 10000. | U |
| 98-95-3 | Nitrobenzene | 10000. | U |
| 78-59-1 | Isophorone | 10000. | U |
| 88-75-5 | 2-Nitrophenol | 10000. | U |
| 105-67-9 | 2,4-Dimethylphenol | 10000. | U |
| 111-91-1 | bis(2-Chloroethoxy)methane | 10000. | U |
| 120-83-2 | 2,4-Dichlorophenol | 10000. | U |
| 120-82-1 | 1,2,4-Trichlorobenzene | 10000. | U |
| 91-20-3 | Naphthalene | 10000. | U |
| 106-47-8 | 4-Chloroaniline | 10000. | U |
| 87-68-3 | Hexachlorobutadiene | 10000. | U |
| 59-50-7 | 4-Chloro-3-methylphenol | 10000. | U |
| 91-57-6 | 2-Methylnaphthalene | 10000. | U |
| 77-47-4 | Hexachlorocyclopentadiene | 10000. | U |
| 88-06-2 | 2,4,6-Trichlorophenol | 10000. | U |
| 95-95-4 | 2,4,5-Trichlorophenol | 25000. | U |
| 91-58-7 | 2-Chloronaphthalene | 10000. | U |
| 88-74-4 | 2-Nitroaniline | 25000. | U |
| 131-11-3 | Dimethylphthalate | 10000. | U |
| 208-96-8 | Acenaphthylene | 10000. | U |
| 606-20-2 | 2,6-Dinitrotoluene | 10000. | U |
| 99-09-2 | 3-Nitroaniline | 25000. | U |
| 83-32-9 | Acenaphthene | 10000. | U |

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ERW04

Lab Name:WESTERN RESEARCH INSTITUT Contract:68-D2-0017

Lab Code:WRI Case No.:18642 SAS No.: SDG No.:ERW01

Matrix: (soil/water) SOIL Lab Sample ID:

Sample wt/vol: 1.0 (g/ml) G Lab File ID: ERW24

Level: (low/med) MED Date Received: 8/20/92

% Moisture: 0 decanted: (Y/N) N Date Extracted: 8/27/92

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 9/09/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.8

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG | Q | |
|---|---|---|---|---|
| 51-28-5 | 2,4-Dinitrophenol | 25000. | U | |
| 100-02-7 | 4-Nitrophenol | 25000. | U R | PDC 10/30/92 |
| 132-64-9 | Dibenzofuran | 10000. | U | |
| 121-14-2 | 2,4-Dinitrotoluene | 10000. | U | |
| 84-66-2 | Diethylphthalate | 10000. | U | |
| 7005-72-3 | 4-Chlorophenyl-phenylether | 10000. | U | |
| 86-73-7 | Fluorene | 10000. | U | |
| 100-01-6 | 4-Nitroaniline | 25000. | U | |
| 534-52-1 | 4,6-Dinitro-2-methylphenol | 25000. | U | |
| 86-30-6 | N-Nitrosodiphenylamine (1) | 10000. | U | |
| 101-55-3 | 4-Bromophenyl-phenylether | 10000. | U | |
| 118-74-1 | Hexachlorobenzene | 10000. | U | |
| 87-86-5 | Pentachlorophenol | 25000. | U ~~R~~ J | PDC 10/30/92 |
| 85-01-8 | Phenanthrene | 10000. | U | |
| 120-12-7 | Anthracene | 10000. | U | |
| 86-74-8 | Carbazole | 10000. | U | |
| 84-74-2 | Di-n-butylphthalate | 10000. | U | |
| 206-44-0 | Fluoranthene | 10000. | U | |
| 129-00-0 | Pyrene | 10000. | U | |
| 85-68-7 | Butylbenzylphthalate | 10000. | U | |
| 91-94-1 | 3,3'-Dichlorobenzidine | 10000. | U | |
| 56-55-3 | Benzo(a)anthracene | 10000. | U | |
| 218-01-9 | Chrysene | 10000. | U | CL 10-19-92 |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | 10000 ~~1000.~~ | JUB | |
| 117-84-0 | Di-n-octylphthalate | 10000. | U | |
| 205-99-2 | Benzo(b)fluoranthene | 10000. | U | |
| 207-08-9 | Benzo(k)fluoranthene | 10000. | U | |
| 50-32-8 | Benzo(a)pyrene | 10000. | U | |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 10000. | U | |
| 53-70-3 | Dibenz(a,h)anthracene | 10000. | U | |
| 191-24-2 | Benzo(g,h,i)perylene | 10000. | U | |

(1) - Cannot be separated from Diphenylamine

000334

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# SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
## TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

ERW04

Lab Name:WESTERN RESEARCH INSTITUT Contract:68-D2-0017

Lab Code:WRI Case No.:18642 SAS No.: SDG No.:ERW01

Matrix: (soil/water) SOIL Lab Sample ID:

Sample wt/vol: 1.0 (g/ml) G Lab File ID: ERW24

Level: (low/med) MED Date Received: 8/20/92

% Moisture: 0 decanted: (Y/N) N Date Extracted: 8/27/92

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 9/09/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.8

Number TICs Found: 13

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

| | CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|---|
| 1. | 0 | POSSIBLE ALCOHOL OR DIENE | 20.27 | 2600. | J |
| 2. | 0 | POSSIBLE HEXADECANOIC ACID B | 21.44 | 18000. | J |
| 3. | 0 | >=C20H42 ALKANE | 21.56 | 3300. | J |
| 4. | 0 | >=C20H42 ALKANE | 22.46 | 4800. | J |
| 5. | 0 | POSSIBLE HEXADECANOIC ACID H | 23.25 | 13000. | J |
| 6. | 0 | >=C20H42 ALKANE | 23.35 | 6000. | J |
| 7. | 0 | UNKNOWN | 23.68 | 2400. | J |
| 8. | 0 | >=C21H44 ALKANE | 25.01 | 4600. | J |
| 9. | 0 | >=C21H44 ALKANE | 25.80 | 4000. | J |
| 10. | 0 | >=C22H46 ALKANE | 26.56 | 6900. | J |
| 11. | 0 | UNKNOWN | 26.87 | 2800. | J |
| 12. | 0 | >=C28H58 ALKANE | 27.31 | 3800. | J |
| 13. | 0 | >=C28H58 ALKANE | 28.14 | 2800. | J |
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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ERW05

Lab Name:WESTERN RESEARCH INSTITUT Contract:68-D2-0017

Lab Code:WRI Case No.:18642 SAS No.: SDG No.:ERW01

Matrix: (soil/water) SOIL Lab Sample ID:

Sample wt/vol: 30.0 (g/ml) G Lab File ID: ERW23

Level: (low/med) LOW Date Received: 8/20/92

% Moisture: 7 decanted: (Y/N) N Date Extracted: 8/25/92

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 9/09/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.5

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG | Q |
|---|---|---|---|
| 108-95-2 | Phenol | 350. | U |
| 111-44-4 | bis(2-Chloroethyl)ether | 350. | U |
| 95-57-8 | 2-Chlorophenol | 350. | U |
| 541-73-1 | 1,3-Dichlorobenzene | 350. | U |
| 106-46-7 | 1,4-Dichlorobenzene | 350. | U |
| 95-50-1 | 1,2-Dichlorobenzene | 350. | U |
| 95-48-7 | 2-Methylphenol | 350. | U |
| 108-60-1 | 2,2'-oxybis(1-Chloropropane) | 350. | U |
| 106-44-5 | 4-Methylphenol | 350. | U |
| 621-64-7 | N-Nitroso-di-n-propylamine | 350. | U |
| 67-72-1 | Hexachloroethane | 350. | U |
| 98-95-3 | Nitrobenzene | 350. | U |
| 78-59-1 | Isophorone | 350. | U |
| 88-75-5 | 2-Nitrophenol | 350. | U |
| 105-67-9 | 2,4-Dimethylphenol | 350. | U |
| 111-91-1 | bis(2-Chloroethoxy)methane | 350. | U |
| 120-83-2 | 2,4-Dichlorophenol | 350. | U |
| 120-82-1 | 1,2,4-Trichlorobenzene | 350. | U |
| 91-20-3 | Naphthalene | 350. | U |
| 106-47-8 | 4-Chloroaniline | 350. | U |
| 87-68-3 | Hexachlorobutadiene | 350. | U |
| 59-50-7 | 4-Chloro-3-methylphenol | 350. | U |
| 91-57-6 | 2-Methylnaphthalene | 350. | U |
| 77-47-4 | Hexachlorocyclopentadiene | 350. | U |
| 88-06-2 | 2,4,6-Trichlorophenol | 350. | U |
| 95-95-4 | 2,4,5-Trichlorophenol | 860. | U |
| 91-58-7 | 2-Chloronaphthalene | 350. | U |
| 88-74-4 | 2-Nitroaniline | 860. | U |
| 131-11-3 | Dimethylphthalate | 350. | U |
| 208-96-8 | Acenaphthylene | 350. | U |
| 606-20-2 | 2,6-Dinitrotoluene | 350. | U |
| 99-09-2 | 3-Nitroaniline | 860. | U |
| 83-32-9 | Acenaphthene | 350. | U |

000353

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ERW05

Lab Name:WESTERN RESEARCH INSTITUT Contract:68-D2-0017

Lab Code:WRI Case No.:18642 SAS No.: SDG No.:ERW01

Matrix: (soil/water) SOIL Lab Sample ID:

Sample wt/vol: 30.0 (g/ml) G Lab File ID: ERW23

Level: (low/med) LOW Date Received: 8/20/92

% Moisture: 7 decanted: (Y/N) N Date Extracted: 8/25/92

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 9/09/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.5

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG | Q |
|---|---|---|---|
| 51-28-5 | 2,4-Dinitrophenol | 860. | U |
| 100-02-7 | 4-Nitrophenol | 860. | U |
| 132-64-9 | Dibenzofuran | 350. | U |
| 121-14-2 | 2,4-Dinitrotoluene | 350. | U |
| 84-66-2 | Diethylphthalate | 350. | U |
| 7005-72-3 | 4-Chlorophenyl-phenylether | 350. | U |
| 86-73-7 | Fluorene | 350. | U |
| 100-01-6 | 4-Nitroaniline | 860. | U |
| 534-52-1 | 4,6-Dinitro-2-methylphenol | 860. | U |
| 86-30-6 | N-Nitrosodiphenylamine (1) | 350. | U |
| 101-55-3 | 4-Bromophenyl-phenylether | 350. | U |
| 118-74-1 | Hexachlorobenzene | 350. | U |
| 87-86-5 | Pentachlorophenol | 860. | U |
| 85-01-8 | Phenanthrene | 350. | U |
| 120-12-7 | Anthracene | 350. | U |
| 86-74-8 | Carbazole | 350. | U |
| 84-74-2 | Di-n-butylphthalate | ~~350~~ 22. | J UB |
| 206-44-0 | Fluoranthene | 350. | U |
| 129-00-0 | Pyrene | 350. | U |
| 85-68-7 | Butylbenzylphthalate | 350. | U |
| 91-94-1 | 3,3'-Dichlorobenzidine | 350. | U |
| 56-55-3 | Benzo(a)anthracene | 350. | U |
| 218-01-9 | Chrysene | 350. | U |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | 450. | U |
| 117-84-0 | Di-n-octylphthalate | 350. | U |
| 205-99-2 | Benzo(b)fluoranthene | 350. | U |
| 207-08-9 | Benzo(k)fluoranthene | 350. | U |
| 50-32-8 | Benzo(a)pyrene | 350. | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 350. | U |
| 53-70-3 | Dibenz(a,h)anthracene | 350. | U |
| 191-24-2 | Benzo(g,h,i)perylene | 350. | U |

CL 10-19-92

PDC 11/9/92

(1) - Cannot be separated from Diphenylamine

000354

EPA SAMPLE NO.

ERW05

# SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
## TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name:WESTERN RESEARCH INSTITUT Contract:68-D2-0017

Lab Code:WRI Case No.:18642 SAS No.: SDG No.:ERW01

Matrix: (soil/water) SOIL Lab Sample ID:

Sample wt/vol: 30.0 (g/ml) G Lab File ID: ERW23

Level: (low/med) LOW Date Received: 8/20/92

% Moisture: 7 decanted: (Y/N) N Date Extracted: 8/25/92

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 9/09/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.5

Number TICs Found: 14

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

CL 10-19-92

| | CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|---|
| 1. | 0 | ALDOL CONDENSATION PRODUCT | 3.81 | 4100. | JABU |
| 2. | 0 | UNKNOWN OXYGENATED COMPOUND | 4.21 | 82. | JBU |
| 3. | 0 | PROBABLE C10H20 ISOMER | 5.37 | 90. | JB |
| 4. | 0 | UNKNOWN PHTHALATE | 18.33 | 120. | JBU |
| 5. | 0 MEH 10-19-92 | POSS HEXADECANOIC ACID, BUTY | 21.44 | 500. | J |
| 6. | ~~630-02-4~~ C | >=C20H42 ALKANE | 21.55 | 110. | J |
| 7. | ~~630-02-4~~ C | >=C20H42 ALKANE | 22.47 | 140. | J |
| 8. | 0 MEH 10-19-92 | POSS HEXADECANOIC ACID, HEXY | 23.26 | 340. | J |
| 9. | 0 | >=C20H42 ALKANE | 23.35 | 170. | J |
| 10. | 0 | UNKNOWN AROMATIC | 24.81 | 190. | J |
| 11. | 0 | >=C21H44 ALKANE | 25.01 | 140. | J |
| 12. | 0 | >=C21H44 ALKANE | 25.80 | 100. | J |
| 13. | 0 | >=C22H46 ALKANE | 26.57 | 110. | J |
| 14. | 0 | >=C28H58 ALKANE | 27.31 | 100. | J |
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**000355**

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ERW12

Lab Name:WESTERN RESEARCH INSTITUT Contract:68-D2-0017

Lab Code:WRI Case No.:18642 SAS No.: SDG No.:ERW01

Matrix: (soil/water) WATER Lab Sample ID:

Sample wt/vol: 1000.0 (g/ml) ML Lab File ID: ERW02

Level: (low/med) LOW Date Received: 8/20/92

% Moisture: decanted: (Y/N) Date Extracted: 8/20/92

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 9/01/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 108-95-2 | Phenol | 10. | U |
| 111-44-4 | bis(2-Chloroethyl)ether | 10. | U |
| 95-57-8 | 2-Chlorophenol | 10. | U |
| 541-73-1 | 1,3-Dichlorobenzene | 10. | U |
| 106-46-7 | 1,4-Dichlorobenzene | 10. | U |
| 95-50-1 | 1,2-Dichlorobenzene | 10. | U |
| 95-48-7 | 2-Methylphenol | 10. | U |
| 108-60-1 | 2,2'-oxybis(1-Chloropropane) | 10. | U |
| 106-44-5 | 4-Methylphenol | 10. | U |
| 621-64-7 | N-Nitroso-di-n-propylamine | 10. | U |
| 67-72-1 | Hexachloroethane | 10. | U |
| 98-95-3 | Nitrobenzene | 10. | U |
| 78-59-1 | Isophorone | 10. | U |
| 88-75-5 | 2-Nitrophenol | 10. | U |
| 105-67-9 | 2,4-Dimethylphenol | 10. | U |
| 111-91-1 | bis(2-Chloroethoxy)methane | 10. | U |
| 120-83-2 | 2,4-Dichlorophenol | 10. | U |
| 120-82-1 | 1,2,4-Trichlorobenzene | 10. | U |
| 91-20-3 | Naphthalene | 10. | U |
| 106-47-8 | 4-Chloroaniline | 10. | U |
| 87-68-3 | Hexachlorobutadiene | 10. | U |
| 59-50-7 | 4-Chloro-3-methylphenol | 10. | U |
| 91-57-6 | 2-Methylnaphthalene | 10. | U |
| 77-47-4 | Hexachlorocyclopentadiene | 10. | U |
| 88-06-2 | 2,4,6-Trichlorophenol | 10. | U |
| 95-95-4 | 2,4,5-Trichlorophenol | 25. | U |
| 91-58-7 | 2-Chloronapnthalene | 10. | U |
| 88-74-4 | 2-Nitroaniline | 25. | U |
| 131-11-3 | Dimethylphthalate | 10. | U |
| 208-96-8 | Acenaphthylene | 10. | U |
| 606-20-2 | 2,6-Dinitrotoluene | 10. | U |
| 99-09-2 | 3-Nitroaniline | 25. | U |
| 83-32-9 | Acenaphthene | 10. | U |

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ERW12

Lab Name:WESTERN RESEARCH INSTITUT Contract:68-D2-0017

Lab Code:WRI Case No.:18642 SAS No.: SDG No.:ERW01

Matrix:/ (soil/water) WATER Lab Sample ID:

Sample wt/vol: 1000.0 (g/ml) ML Lab File ID: ERW02

Level: (low/med) LOW Date Received: 8/20/92

% Moisture: decanted: (Y/N) Date Extracted: 8/20/92

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 9/01/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q | |
|---|---|---|---|---|
| 51-28-5 | 2,4-Dinitrophenol | 25. | U | |
| 100-02-7 | 4-Nitrophenol | 25. | U | |
| 132-64-9 | Dibenzofuran | 10. | U | |
| 121-14-2 | 2,4-Dinitrotoluene | 10. | U | |
| 84-66-2 | Diethylphthalate | 10. | U | |
| 7005-72-3 | 4-Chlorophenyl-phenylether | 10. | U | |
| 86-73-7 | Fluorene | 10. | U | |
| 100-01-6 | 4-Nitroaniline | 25. | U | |
| 534-52-1 | 4,6-Dinitro-2-methylphenol | 25. | U | |
| 86-30-6 | N-Nitrosodiphenylamine (1) | 10. | U | |
| 101-55-3 | 4-Bromophenyl-phenylether | 10. | U | |
| 118-74-1 | Hexachlorobenzene | 10. | U | |
| 87-86-5 | Pentachlorophenol | 25. | U J | PDC 10/30/92 |
| 85-01-8 | Phenanthrene | 10. | U | |
| 120-12-7 | Anthracene | 10. | U | |
| 86-74-8 | Carbazole | 10. | U | |
| 84-74-2 | Di-n-butylphthalate | 10. | U | |
| 206-44-0 | Fluoranthene | 10. | U | |
| 129-00-0 | Pyrene | 10. | U | |
| 85-68-7 | Butylbenzylphthalate | 10. | U | |
| 91-94-1 | 3,3'-Dichlorobenzidine | 10. | U | |
| 56-55-3 | Benzo(a)anthracene | 10. | U | |
| 218-01-9 | Chrysene | 10. | U | |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | 2. | J U | PDC 10/30/92 |
| 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

# SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
## TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

ERW12

Lab Name:WESTERN RESEARCH INSTITUT Contract:68-D2-0017

Lab Code:WRI Case No.:18642 SAS No.: SDG No.:ERW01

Matrix: (soil/water) WATER Lab Sample ID:

Sample wt/vol: 1000.0 (g/ml) ML Lab File ID: ERW02

Level: (low/med) LOW Date Received: 8/20/92

% Moisture: decanted: (Y/N) Date Extracted: 8/20/92

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 9/01/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

Number TICs Found: 4

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

| | CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|---|
| 1. | 683-72-7 | Acetamide, 2,2-dichloro-OR I | 9.17 | 2. | JN |
| 2. | 112-05-0 | Nonanoic acid OR ISOMER | 12.98 | 4. | JN |
| 3. | 0 | UNKNOWN | 22.78 | 3. | J |
| 4. | 0 | UNKNOWN | 27.46 | 3. | J |
| 5. | | | | | |
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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ERW13

Lab Name:WESTERN RESEARCH INSTITUT Contract:68-D2-0017

Lab Code:WRI Case No.:18642 SAS No.: SDG No.:ERW01

Matrix: (soil/water) WATER Lab Sample ID:

Sample wt/vol: 1000.0 (g/ml) ML Lab File ID: ERW05

Level: (low/med) LOW Date Received: 8/20/92

% Moisture: decanted: (Y/N) Date Extracted: 8/20/92

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 9/01/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 108-95-2 | Phenol | 10. | U |
| 111-44-4 | bis(2-Chloroethyl)ether | 10. | U |
| 95-57-8 | 2-Chlorophenol | 10. | U |
| 541-73-1 | 1,3-Dichlorobenzene | 10. | U |
| 106-46-7 | 1,4-Dichlorobenzene | 10. | U |
| 95-50-1 | 1,2-Dichlorobenzene | 10. | U |
| 95-48-7 | 2-Methylphenol | 10. | U |
| 108-60-1 | 2,2'-oxybis(1-Chloropropane) | 10. | U |
| 106-44-5 | 4-Methylphenol | 10. | U |
| 621-64-7 | N-Nitroso-di-n-propylamine | 10. | U |
| 67-72-1 | Hexachloroethane | 10. | U |
| 98-95-3 | Nitrobenzene | 10. | U |
| 78-59-1 | Isophorone | 10. | U |
| 88-75-5 | 2-Nitrophenol | 10. | U |
| 105-67-9 | 2,4-Dimethylphenol | 10. | U |
| 111-91-1 | bis(2-Chloroethoxy)methane | 10. | U |
| 120-83-2 | 2,4-Dichlorophenol | 10. | U |
| 120-82-1 | 1,2,4-Trichlorobenzene | 10. | U |
| 91-20-3 | Naphthalene | 10. | U |
| 106-47-8 | 4-Chloroaniline | 10. | U |
| 87-68-3 | Hexachlorobutadiene | 10. | U |
| 59-50-7 | 4-Chloro-3-methylphenol | 10. | U |
| 91-57-6 | 2-Methylnaphthalene | 10. | U |
| 77-47-4 | Hexachlorocyclopentadiene | 10. | U |
| 88-06-2 | 2,4,6-Trichlorophenol | 10. | U |
| 95-95-4 | 2,4,5-Trichlorophenol | 25. | U |
| 91-58-7 | 2-Chloronaphthalene | 10. | U |
| 88-74-4 | 2-Nitroaniline | 25. | U |
| 131-11-3 | Dimethylphthalate | 10. | U |
| 208-96-8 | Acenaphthylene | 10. | U |
| 606-20-2 | 2,6-Dinitrotoluene | 10. | U |
| 99-09-2 | 3-Nitroaniline | 25. | U |
| 83-32-9 | Acenaphthene | 10. | U |

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ERW13

Lab Name:WESTERN RESEARCH INSTITUT Contract:68-02-0017

Lab Code:WRI Case No.:18642 SAS No.: SDG No.:ERW01

Matrix: (soil/water) WATER Lab Sample ID:

Sample wt/vol: 1000.0 (g/ml) ML Lab File ID: ERW05

Level: (low/med) LOW Date Received: 8/20/92

% Moisture: decanted: (Y/N) Date Extracted: 8/20/92

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 9/01/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 51-28-5 | 2,4-Dinitrophenol | 25. | U |
| 100-02-7 | 4-Nitrophenol | 25. | U |
| 132-64-9 | Dibenzofuran | 10. | U |
| 121-14-2 | 2,4-Dinitrotoluene | 10. | U |
| 84-66-2 | Diethylphthalate | 10. | U |
| 7005-72-3 | 4-Chlorophenyl-phenylether | 10. | U |
| 86-73-7 | Fluorene | 10. | U |
| 100-01-6 | 4-Nitroaniline | 25. | U |
| 534-52-1 | 4,6-Dinitro-2-methylphenol | 25. | U |
| 86-30-6 | N-Nitrosodiphenylamine (1) | 10. | U |
| 101-55-3 | 4-Bromophenyl-phenylether | 10. | U |
| 118-74-1 | Hexachlorobenzene | 10. | U |
| 87-86-5 | Pentachlorophenol | 25. | U |
| 85-01-8 | Phenanthrene | 10. | U |
| 120-12-7 | Anthracene | 10. | U |
| 86-74-8 | Carbazole | 10. | U |
| 84-74-2 | Di-n-butylphthalate | 10. | U |
| 206-44-0 | Fluoranthene | 10. | U |
| 129-00-0 | Pyrene | 10. | U |
| 85-68-7 | Butylbenzylphthalate | 10. | U |
| 91-94-1 | 3,3'-Dichlorobenzidine | 10. | U |
| 56-55-3 | Benzo(a)anthracene | 10. | U |
| 218-01-9 | Chrysene | 10. | U |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | 0.9 | J 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 |

ADC 10/30/92

(1) - Cannot be separated from Diphenylamine

000387

EPA SAMPLE NO.

ERW13

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name:WESTERN RESEARCH INSTITUT Contract:68-D2-0017

Lab Code:WRI Case No.:18642 SAS No.: SDG No.:ERW01

Matrix: (soil/water) WATER Lab Sample ID:

Sample wt/vol: 1000.0 (g/ml) ML Lab File ID: ERW05

Level: (low/med) LOW Date Received: 8/20/92

% Moisture: decanted: (Y/N) Date Extracted: 8/20/92

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 9/01/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

Number TICs Found: 3

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

| | CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|---|
| 1. | 1.0 | UNKNOWN OXYGENATED COMPOUND | 6.14 | 3. | JBU |
| 2. | 61142-69-6 | Cyclohexane, 1-ethyl-2,4-dim | 7.34 | 4. | JNBU |
| 3. | 4291-79-6 | Cyclohexane, 1-methyl-2-prop | 7.47 | 4. | JNBU |
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CL 10-19-92

000388

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ERW14

Lab Name:WESTERN RESEARCH INSTITUT Contract:68-D2-0017

Lab Code:WRI Case No.:18642 SAS No.: SDG No.:ERW01

Matrix: (soil/water) WATER Lab Sample ID:

Sample wt/vol: 1000.0 (g/ml) ML Lab File ID: ERW06

Level: (low/med) LOW Date Received: 8/20/92

% Moisture: decanted: (Y/N) Date Extracted: 8/20/92

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 9/01/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 6.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 108-95-2 | Phenol | 10. | U |
| 111-44-4 | bis(2-Chloroethyl)ether | 10. | U |
| 95-57-8 | 2-Chlorophenol | 10. | U |
| 541-73-1 | 1,3-Dichlorobenzene | 10. | U |
| 106-46-7 | 1,4-Dichlorobenzene | 10. | U |
| 95-50-1 | 1,2-Dichlorobenzene | 10. | U |
| 95-48-7 | 2-Methylphenol | 10. | U |
| 108-60-1 | 2,2'-oxybis(1-Chloropropane) | 10. | U |
| 106-44-5 | 4-Methylphenol | 10. | U |
| 621-64-7 | N-Nitroso-di-n-propylamine | 10. | U |
| 67-72-1 | Hexachloroethane | 10. | U |
| 98-95-3 | Nitrobenzene | 10. | U |
| 78-59-1 | Isophorone | 10. | U |
| 88-75-5 | 2-Nitrophenol | 10. | U |
| 105-67-9 | 2,4-Dimethylphenol | 10. | U |
| 111-91-1 | bis(2-Chloroethoxy)methane | 10. | U |
| 120-83-2 | 2,4-Dichlorophenol | 10. | U |
| 120-82-1 | 1,2,4-Trichlorobenzene | 10. | U |
| 91-20-3 | Naphthalene | 10. | U |
| 106-47-8 | 4-Chloroaniline | 10. | U |
| 87-68-3 | Hexachlorobutadiene | 10. | U |
| 59-50-7 | 4-Chloro-3-methylphenol | 10. | U |
| 91-57-6 | 2-Methylnaphthalene | 10. | U |
| 77-47-4 | Hexachlorocyclopentadiene | 10. | U |
| 88-06-2 | 2,4,6-Trichlorophenol | 10. | U |
| 95-95-4 | 2,4,5-Trichlorophenol | 25. | U |
| 91-58-7 | 2-Chloronaphthalene | 10. | U |
| 88-74-4 | 2-Nitroaniline | 25. | U |
| 131-11-3 | Dimethylphthalate | 10. | U |
| 208-96-8 | Acenaphthylene | 10. | U |
| 606-20-2 | 2,6-Dinitrotoluene | 10. | U |
| 99-09-2 | 3-Nitroaniline | 25. | U |
| 83-32-9 | Acenaphthene | 10. | U |

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ERW14

Lab Name:WESTERN RESEARCH INSTITUT Contract:68-D2-0017

Lab Code:WRI Case No.:1864Z SAS No.: SDG No.:ERW01

Matrix: (soil/water) WATER Lab Sample ID:

Sample wt/vol: 1000.0 (g/ml) ML Lab File ID: ERW06

Level: (low/med) LOW Date Received: 8/20/92

% Moisture: decanted: (Y/N) Date Extracted: 8/20/92

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 9/01/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 6.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 51-28-5 | 2,4-Dinitrophenol | 25. | U |
| 100-02-7 | 4-Nitrophenol | 25. | U |
| 132-64-9 | Dibenzofuran | 10. | U |
| 121-14-2 | 2,4-Dinitrotoluene | 10. | U |
| 84-66-2 | Diethylphthalate | 10. | U |
| 7005-72-3 | 4-Chlorophenyl-phenylether | 10. | U |
| 86-73-7 | Fluorene | 10. | U |
| 100-01-6 | 4-Nitroaniline | 25. | U |
| 534-52-1 | 4,6-Dinitro-2-methylphenol | 25. | U |
| 86-30-6 | N-Nitrosodiphenylamine (1) | 10. | U |
| 101-55-3 | 4-Bromophenyl-phenylether | 10. | U |
| 118-74-1 | Hexachlorobenzene | 10. | U |
| 87-86-5 | Pentachlorophenol | 25. | U |
| 85-01-8 | Phenanthrene | 10. | U |
| 120-12-7 | Anthracene | 10. | U |
| 86-74-8 | Carbazole | 10. | U |
| 84-74-2 | Di-n-butylphthalate | 10. | U |
| 206-44-0 | Fluoranthene | 10. | U |
| 129-00-0 | Pyrene | 10. | U |
| 85-68-7 | Butylbenzylphthalate | 10. | U |
| 91-94-1 | 3,3'-Dichlorobenzidine | 10. | U |
| 56-55-3 | Benzo(a)anthracene | 10. | U |
| 218-01-9 | Chrysene | 10. | U |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | 0.9 | J |
| 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

000397

1F

# SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
## TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

ERW14

Lab Name:WESTERN RESEARCH INSTITUT Contract:68-D2-0017

Lab Code:WRI Case No.:18642 SAS No.: SDG No.:ERW01

Matrix: (soil/water) WATER Lab Sample ID:

Sample wt/vol: 1000.0 (g/ml) ML Lab File ID: ERW06

Level: (low/med) LOW Date Received: 8/20/92

% Moisture: decanted: (Y/N) Date Extracted: 8/20/92

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 9/01/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 6.0

Number TICs Found: 8

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

CL 10-19-92

| | CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|---|
| 1. | 0 | UNKNOWN | 5.96 | 2. | JBU |
| 2. | 0 | UNKNOWN OXYGENATED COMPOUND | 6.15 | 3. | JBU |
| 3. | 61142-69-6 | Cyclohexane, 1-ethyl-2,4-dim | 7.36 | 4. | JNBU |
| 4. | 4291-79-6 | Cyclohexane, 1-methyl-2-prop | 7.48 | 4. | JNBU |
| 5. | 0 | >=C7H14O2 ACID | 12.98 | 2. | J |
| 6. | 143-28-2 | 9-Octadecen-1-ol, (Z)-OR ISO | 22.77 | 32. | JN |
| 7. | 0 | UNKNOWN OXYGENATED COMPOUND | 22.98 | 2. | J |
| 8. | 0 | UNKNOWN OXYGENATED COMPOUND | 24.72 | 2. | J |
| 9. | | | | | |
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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ERW15

Lab Name:WESTERN RESEARCH INSTITUT Contract:68-D2-0017

Lab Code:WRI Case No.:18642 SAS No.: SDG No.:ERW01

Matrix: (soil/water) WATER Lab Sample ID:

Sample wt/vol: 1000.0 (g/ml) ML Lab File ID: ERW07

Level: (low/med) LOW Date Received: 8/20/92

% Moisture: decanted: (Y/N) Date Extracted: 8/20/92

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 9/01/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 108-95-2 | Phenol | 10. | U |
| 111-44-4 | bis(2-Chloroethyl)ether | 10. | U |
| 95-57-8 | 2-Chlorophenol | 10. | U |
| 541-73-1 | 1,3-Dichlorobenzene | 10. | U |
| 106-46-7 | 1,4-Dichlorobenzene | 10. | U |
| 95-50-1 | 1,2-Dichlorobenzene | 10. | U |
| 95-48-7 | 2-Methylphenol | 10. | U |
| 108-60-1 | 2,2'-oxybis(1-Chloropropane) | 10. | U |
| 106-44-5 | 4-Methylphenol | 10. | U |
| 621-64-7 | N-Nitroso-di-n-propylamine | 10. | U |
| 67-72-1 | Hexachloroethane | 10. | U |
| 98-95-3 | Nitrobenzene | 10. | U |
| 78-59-1 | Isophorone | 10. | U |
| 88-75-5 | 2-Nitrophenol | 10. | U |
| 105-67-9 | 2,4-Dimethylphenol | 10. | U |
| 111-91-1 | bis(2-Chloroethoxy)methane | 10. | U |
| 120-83-2 | 2,4-Dichlorophenol | 10. | U |
| 120-82-1 | 1,2,4-Trichlorobenzene | 10. | U |
| 91-20-3 | Naphthalene | 10. | U |
| 106-47-8 | 4-Chloroaniline | 10. | U |
| 87-68-3 | Hexachlorobutadiene | 10. | U |
| 59-50-7 | 4-Chloro-3-methylphenol | 10. | U |
| 91-57-6 | 2-Methylnaphthalene | 10. | U |
| 77-47-4 | Hexachlorocyclopentadiene | 10. | U |
| 88-06-2 | 2,4,6-Trichlorophenol | 10. | U |
| 95-95-4 | 2,4,5-Trichlorophenol | 25. | U |
| 91-58-7 | 2-Chloronaphthalene | 10. | U |
| 88-74-4 | 2-Nitroaniline | 25. | U |
| 131-11-3 | Dimethylphthalate | 10. | U |
| 208-96-8 | Acenaphthylene | 10. | U |
| 606-20-2 | 2,6-Dinitrotoluene | 10. | U |
| 99-09-2 | 3-Nitroaniline | 25. | U |
| 83-32-9 | Acenaphthene | 10. | U |

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ERW15

Lab Name:WESTERN RESEARCH INSTITUT Contract:68-D2-0017

Lab Code:WRI Case No.:18642 SAS No.: SDG No.:ERW01

Matrix: (soil/water) WATER Lab Sample ID:

Sample wt/vol: 1000.0 (g/ml) ML Lab File ID: ERW07

Level: (low/med) LOW Date Received: 8/20/92

% Moisture: decanted: (Y/N) Date Extracted: 8/20/92

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 9/01/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 51-28-5 | 2,4-Dinitrophenol | 25. | U |
| 100-02-7 | 4-Nitrophenol | 25. | U |
| 132-64-9 | Dibenzofuran | 10. | U |
| 121-14-2 | 2,4-Dinitrotoluene | 10. | U |
| 84-66-2 | Diethylphthalate | 10. | U |
| 7005-72-3 | 4-Chlorophenyl-phenylether | 10. | U |
| 86-73-7 | Fluorene | 10. | U |
| 100-01-6 | 4-Nitroaniline | 25. | U |
| 534-52-1 | 4,6-Dinitro-2-methylphenol | 25. | U |
| 86-30-6 | N-Nitrosodiphenylamine (1) | 10. | U |
| 101-55-3 | 4-Bromophenyl-phenylether | 10. | U |
| 118-74-1 | Hexachlorobenzene | 10. | U |
| 87-86-5 | Pentachlorophenol | 25. | U |
| 85-01-8 | Phenanthrene | 10. | U |
| 120-12-7 | Anthracene | 10. | U |
| 86-74-8 | Carbazole | 10. | U |
| 84-74-2 | Di-n-butylphthalate | 10. | U |
| 206-44-0 | Fluoranthene | 10. | U |
| 129-00-0 | Pyrene | 10. | U |
| 85-68-7 | Butylbenzylphthalate | 10. | U |
| 91-94-1 | 3,3'-Dichlorobenzidine | 10. | U |
| 56-55-3 | Benzo(a)anthracene | 10. | U |
| 218-01-9 | Chrysene | 10. | U |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | 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

000412

EPA SAMPLE NO.

ERW15

# SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
## TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name:WESTERN RESEARCH INSTITUT Contract:68-D2-0017

Lab Code:WRI Case No.:18642 SAS No.: SDG No.:ERW01

Matrix: (soil/water) WATER Lab Sample ID:

Sample wt/vol: 1000.0 (g/ml) ML Lab File ID: ERW07

Level: (low/med) LOW Date Received: 8/20/92

% Moisture: decanted: (Y/N) Date Extracted: 8/20/92

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 9/01/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

Number TICs Found: 4 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CL 10-19-92

| | CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|---|
| 1. | 0 | UNKNOWN OXYGENATED COMPOUND | 6.15 | 3. | JB U |
| 2. | 61142-69-6 | Cyclohexane, 1-ethyl-2,4-dim | 7.36 | 3. | JNB U |
| 3. | 4291-79-6 | Cyclohexane, 1-methyl-2-prop | 7.48 | 4. | JNB U |
| 4. | 683-72-7 | Acetamide, 2,2-dichloro-OR I | 9.17 | 2. | JN |
| 5. | | | | | |
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000413

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ERW16

Lab Name:WESTERN RESEARCH INSTITUT Contract:68-D2-0017

Lab Code:WRI Case No.:18642 SAS No.: SDG No.:ERW01

Matrix: (soil/water) WATER Lab Sample ID:

Sample wt/vol: 1000.0 (g/ml) ML Lab File ID: ERW08

Level: (low/med) LOW Date Received: 8/20/92

% Moisture: decanted: (Y/N) Date Extracted: 8/20/92

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 9/01/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 108-95-2 | Phenol | 10. | U |
| 111-44-4 | bis(2-Chloroethyl)ether | 10. | U |
| 95-57-8 | 2-Chlorophenol | 10. | U |
| 541-73-1 | 1,3-Dichlorobenzene | 10. | U |
| 106-46-7 | 1,4-Dichlorobenzene | 10. | U |
| 95-50-1 | 1,2-Dichlorobenzene | 10. | U |
| 95-48-7 | 2-Methylphenol | 10. | U |
| 108-60-1 | 2,2'-oxybis(1-Chloropropane) | 10. | U |
| 106-44-5 | 4-Methylphenol | 10. | U |
| 621-64-7 | N-Nitroso-di-n-propylamine | 10. | U |
| 67-72-1 | Hexachloroethane | 10. | U |
| 98-95-3 | Nitrobenzene | 10. | U |
| 78-59-1 | Isophorone | 10. | U |
| 88-75-5 | 2-Nitrophenol | 10. | U |
| 105-67-9 | 2,4-Dimethylphenol | 10. | U |
| 111-91-1 | bis(2-Chloroethoxy)methane | 10. | U |
| 120-83-2 | 2,4-Dichlorophenol | 10. | U |
| 120-82-1 | 1,2,4-Trichlorobenzene | 10. | U |
| 91-20-3 | Naphthalene | 10. | U |
| 106-47-8 | 4-Chloroaniline | 10. | U |
| 87-68-3 | Hexachlorobutadiene | 10. | U |
| 59-50-7 | 4-Chloro-3-methylphenol | 10. | U |
| 91-57-6 | 2-Methylnaphthalene | 10. | U |
| 77-47-4 | Hexachlorocyclopentadiene | 10. | U |
| 88-06-2 | 2,4,6-Trichlorophenol | 10. | U |
| 95-95-4 | 2,4,5-Trichlorophenol | 25. | U |
| 91-58-7 | 2-Chloronaphthalene | 10. | U |
| 88-74-4 | 2-Nitroaniline | 25. | U |
| 131-11-3 | Dimethylphthalate | 10. | U |
| 208-96-8 | Acenaphthylene | 10. | U |
| 606-20-2 | 2,6-Dinitrotoluene | 10. | U |
| 99-09-2 | 3-Nitroaniline | 25. | U |
| 83-32-9 | Acenaphthene | 10. | U |

000421

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ERW16

Lab Name:WESTERN RESEARCH INSTITUT Contract:68-D2-0017

Lab Code:WRI Case No.:18642 SAS No.: SDG No.:ERW01

Matrix: (soil/water) WATER Lab Sample ID:

Sample wt/vol: 1000.0 (g/ml) ML Lab File ID: ERW08

Level: (low/med) LOW Date Received: 8/20/92

% Moisture: decanted: (Y/N) Date Extracted: 8/20/92

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 9/01/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 51-28-5 | 2,4-Dinitrophenol | 25. | U |
| 100-02-7 | 4-Nitrophenol | 25. | U |
| 132-64-9 | Dibenzofuran | 10. | U |
| 121-14-2 | 2,4-Dinitrotoluene | 10. | U |
| 84-66-2 | Diethylphthalate | 10. | U |
| 7005-72-3 | 4-Chlorophenyl-phenylether | 10. | U |
| 86-73-7 | Fluorene | 10. | U |
| 100-01-6 | 4-Nitroaniline | 25. | U |
| 534-52-1 | 4,6-Dinitro-2-methylphenol | 25. | U |
| 86-30-6 | N-Nitrosodiphenylamine (1) | 10. | U |
| 101-55-3 | 4-Bromophenyl-phenylether | 10. | U |
| 118-74-1 | Hexachlorobenzene | 10. | U |
| 87-86-5 | Pentachlorophenol | 25. | U |
| 85-01-8 | Phenanthrene | 10. | U |
| 120-12-7 | Anthracene | 10. | U |
| 86-74-8 | Carbazole | 10. | U |
| 84-74-2 | Di-n-butylphthalate | 10. | U |
| 206-44-0 | Fluoranthene | 10. | U |
| 129-00-0 | Pyrene | 10. | U |
| 85-68-7 | Butylbenzylphthalate | 10. | U |
| 91-94-1 | 3,3'-Dichlorobenzidine | 10. | U |
| 56-55-3 | Benzo(a)anthracene | 10. | U |
| 218-01-9 | Chrysene | 10. | U |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | 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

000422

1F

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

ERW16

Lab Name:WESTERN RESEARCH INSTITUT Contract:68-D2-0017

Lab Code:WRI Case No.:18642 SAS No.: SDG No.:ERW01

Matrix: (soil/water) WATER Lab Sample ID:

Sample wt/vol: 1000.0 (g/ml) ML Lab File ID: ERW08

Level: (low/med) LOW Date Received: 8/20/92

% Moisture: decanted: (Y/N) Date Extracted: 8/20/92

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 9/01/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

Number TICs Found: 6

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

CL
10-19-92

| | CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|---|
| 1. | 0 | UNKNOWN | 5.94 | 2. | JBU |
| 2. | 0 | UNKNOWN OXYGENATED COMPOUND | 6.13 | 3. | JBU |
| 3. | 61142-69-6 | Cyclohexane, 1-ethyl-2,4-dim | 7.33 | 4. | JNBU |
| 4. | 4291-79-6 | Cyclohexane, 1-methyl-2-prop | 7.46 | 5. | JNBU |
| 5. | 62238-31-7 | Cyclohexane, 1-ethyl-1,3-dim | 7.56 | 2. | JN |
| 6. | 683-72-7 | Acetamide, 2,2-dichloro-OR I | 9.16 | 2. | JN |
| 7. | | | | | |
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2E

WATER PESTICIDE SURROGATE RECOVERY

Lab Name:Western Research Institut  Contract:68-D2-0017

Lab Code:WRI  Case No.:18642  SAS No.:  SDG No.:ERW01

GC Column(1):DB-1701  ID: 0.53 (mm)  GC Column(2):DB-608  ID: 0.53 (mm)

| | EPA SAMPLE NO. | TCX 1 %REC # | TCX 2 %REC # | DCB 1 %REC # | DCB 2 %REC # | OTHER (1) | OTHER (2) | TOT OUT |
|---|---|---|---|---|---|---|---|---|
| 01 | ERW12 | 130 | 65 | 50* | 47* | | | 2 |
| 02 | ERW12MS | 135 | 70 | 80 | 43* | | | 1 |
| 03 | ERW12MSD | 145 | 60 | 90 | 44* | | | 1 |
| 04 | ERW13 | 120 | 65 | 48* | 55* | | | 2 |
| 05 | ERW14 | 130 | 60 | 75 | 65 | | | 0 |
| 06 | ERW15 | 145 | 70 | 90 | 60 | | | 0 |
| 07 | ERW16 | 125 | 65 | 55* | 55* | | | 2 |
| 08 | PBLK01 | 120 | 60 | 100 | 70 | | | 0 |
| 09 | PIBLK01 | 90 | 90 | 80 | 90 | | | 0 |
| 10 | PIBLK02 | 80 | 85 | 60 | 65 | | | 0 |
| 11 | PIBLK03 | 90 | 85 | 70 | 75 | | | 0 |
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| | ADVISORY QC LIMITS |
|---|---|
| TCX = Tetrachloro-m-xylene | (60-150) |
| DCB = Decachlorobiphenyl | (60-150) |

# Column to be used to flag recovery values

* Values outside of QC limits

D Surrogates diluted out

2F

# SOIL PESTICIDE SURROGATE RECOVERY

Lab Name:Western Research Institut  Contract:68-D2-0017

Lab Code:WRI  Case No.:18642  SAS No.:  SDG No.:ERW01

GC Column(1):DB-1701  ID: 0.53 (mm)  GC Column(2):DB-608  ID: 0.53 (mm)

| | EPA SAMPLE NO. | TCX 1 %REC # | TCX 2 %REC # | DCB 1 %REC # | DCB 2 %REC # | OTHER (1) | OTHER (2) | TOT OUT |
|---|---|---|---|---|---|---|---|---|
| 01 | ERW01 | 87 | 83 | 74 | 103 | | | 0 |
| 02 | ERW01DL | 109 | 84 | 84 | 100 | | | 0 |
| 03 | ERW02 | 106 | 53* | 76 | 53* | | | 2 |
| 04 | ERW03 | 51* | 48* | 75 | 91 | | | 2 |
| 05 | ERW03DL | 0D | 65 | 0D | 84 | | | 0 |
| 06 | ERW03MS | 60 | 64 | 65 | 144 | | | 0 |
| 07 | ERW03MSD | 64 | 64 | 61 | 89 | | | 0 |
| 08 | ERW04 | 128 | 32* | 45* | 35* | | | 3 |
| 09 | ERW05 | 107 | 50* | 51* | 51* | | | 3 |
| 10 | PBLK02 | 134 | 69 | 111 | 66 | | | 0 |
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| | ADVISORY QC LIMITS |
|---|---|
| TCX = Tetrachloro-m-xylene | (60-150) |
| DCB = Decachlorobiphenyl | (60-150) |

\# Column to be used to flag recovery values
* Values outside of QC limits
D Surrogates diluted out



FORM II PEST-2  3/90

KAR 9-23-92

000584

3E

# WATER PESTICIDE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name:Western Research Institut Contract:68-D2-0017

Lab Code:WRI Case No.:18642 SAS No.: SDG No.:ERW01

Matrix Spike - EPA Sample No.: ERW12

| COMPOUND | SPIKE ADDED (ug/L) | SAMPLE CONCENTRATION (ug/L) | MS CONCENTRATION (ug/L) | MS % REC # | QC LIMITS REC. |
|---|---|---|---|---|---|
| gamma-BHC (Lindane) | 0.50 | 0.0 | 0.38 | 76 | 56-123 |
| Heptachlor | 0.50 | 0.0 | 0.33 | 66 | 40-131 |
| Aldrin | 0.50 | 0.0 | 0.35 | 70 | 40-120 |
| Dieldrin | 1.0 | 0.0 | 0.86 | 86 | 52-126 |
| Endrin | 1.0 | 0.0 | 0.87 | 87 | 56-121 |
| 4,4'-DDT | 1.0 | 0.0 | 0.76 | 76 | 38-127 |
| | | | | | |

| COMPOUND | SPIKE ADDED (ug/L) | MSD CONCENTRATION (ug/L) | MSD % REC # | % RPD # | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| gamma-BHC (Lindane) | 0.50 | 0.39 | 78 | 3 | 15 | 56-123 |
| Heptachlor | 0.50 | 0.30 | 60 | 10 | 20 | 40-131 |
| Aldrin | 0.50 | 0.33 | 66 | 6 | 22 | 40-120 |
| Dieldrin | 1.0 | 0.83 | 83 | 4 | 18 | 52-126 |
| Endrin | 1.0 | 0.85 | 85 | 2 | 21 | 56-121 |
| 4,4'-DDT | 1.0 | 0.72 | 72 | 5 | 27 | 38-127 |
| | | | | | | |

# Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 6 outside limits
Spike Recovery: 0 out of 12 outside limits

COMMENTS:

KTR 9-23-92

3F

# SOIL PESTICIDE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name:Western Research Institut Contract:68-D2-0017

Lab Code:WRI Case No.:18642 SAS No.: SDG No.:ERW01

Matrix Spike - EPA Sample No.: ERW03

| COMPOUND | SPIKE ADDED (ug/Kg) | SAMPLE CONCENTRATION (ug/Kg) | MS CONCENTRATION (ug/Kg) | MS % REC # | QC LIMITS REC. |
|---|---|---|---|---|---|
| gamma-BHC (Lindane) | 21. | 0.0 | 0.0 | 0* | 46-127 |
| Heptachlor | 21. | 0.0 | 0.0 | 0* | 35-130 |
| Aldrin | 21. | 0.0 | 0.0 | 0* | 34-132 |
| Dieldrin | 42. | 0.0 | 0.0 | 0* | 31-134 |
| Endrin | 42. | 0.0 | 0.0 | 0* | 42-139 |
| 4,4'-DDT | 42. | 0.0 | 0.0 | 0* | 23-134 |
| | | | | | |

| COMPOUND | SPIKE ADDED (ug/Kg) | MSD CONCENTRATION (ug/Kg) | MSD % REC # | % RPD # | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| gamma-BHC (Lindane) | 21. | 0.0 | 0* | 0 | 50 | 46-127 |
| Heptachlor | 21. | 0.0 | 0* | 0 | 31 | 35-130 |
| Aldrin | 21. | 0.0 | 0* | 0 | 43 | 34-132 |
| Dieldrin | 42. | 0.0 | 0* | 0 | 38 | 31-134 |
| Endrin | 42. | 0.0 | 0* | 0 | 45 | 42-139 |
| 4,4'-DDT | 42. | 0.0 | 0* | 0 | 50 | 23-134 |
| | | | | | | |

# Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 6 outside limits
Spike Recovery: 12 out of 12 outside limits

COMMENTS:

4C

PESTICIDE METHOD BLANK SUMMARY

EPA SAMPLE NO.

PBLK01

Lab Name:Western Research Institut Contract:68-D2-0017

Lab Code:WRI Case No.:18642 SAS No.: SDG No.:ERW01

Lab Sample ID:PBLK01 Lab File ID:

Matrix:(soil/water) WATER Extraction:(SepF/Cont/Sonc)CONT

Sulfur Cleanup:(Y/N) N Date Extracted: 8/21/92

Date Analyzed (1): 8/27/92 Date Analyzed (2): 8/27/92

Time Analyzed (1):0306 Time Analyzed (2):0306

Instrument ID (1):HP5890_7 Instrument ID (2):HP5890_7

GC Column (1):DB-1701 ID: 0.53(mm) GC Column (2):DB-608 ID: 0.53(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS, AND MSD:

| | EPA SAMPLE NO. | LAB SAMPLE ID | DATE ANALYZED 1 | DATE ANALYZED 2 |
|---|---|---|---|---|
| 01 | ERW12 | ERW12 | 8/27/92 | 8/27/92 |
| 02 | ERW12MS | ERW12MS | 8/27/92 | 8/27/92 |
| 03 | ERW12MSD | ERW12MSD | 8/27/92 | 8/27/92 |
| 04 | ERW13 | ERW13 | 8/26/92 | 8/26/92 |
| 05 | ERW14 | ERW14 | 8/26/92 | 8/26/92 |
| 06 | ERW15 | ERW15 | 8/27/92 | 8/27/92 |
| 07 | ERW16 | ERW16 | 8/27/92 | 8/27/92 |
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COMMENTS:

4C

PESTICIDE METHOD BLANK SUMMARY

EPA SAMPLE NO.

PBLK02

Lab Name:Western Research Institut  Contract:68-D2-0017

Lab Code:WRI  Case No.:18642  SAS No.:  SDG No.:ERW01

Lab Sample ID:PBLK02  Lab File ID:

Matrix:(soil/water) SOIL  Extraction:(SepF/Cont/Sonc)SONC

Sulfur Cleanup: (Y/N) N  Date Extracted: 8/24/92

Date Analyzed (1): 8/27/92  Date Analyzed (2): 8/27/92

Time Analyzed (1):0554  Time Analyzed (2):0554

Instrument ID (1):HP5890_7  Instrument ID (2):HP5890_7

GC Column (1):DB-1701  ID: 0.53(mm)  GC Column (2):DB-608  ID: 0.53(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS, AND MSD:

| | EPA SAMPLE NO. | LAB SAMPLE ID | DATE ANALYZED 1 | DATE ANALYZED 2 |
|---|---|---|---|---|
| 01 | ERW01 | ERW01 | 8/27/92 | 8/27/92 |
| 02 | ERW01DL | ERW01DL | 8/27/92 | 8/27/92 |
| 03 | ERW02 | ERW02 | 8/27/92 | 8/27/92 |
| 04 | ERW03 | ERW03 | 8/27/92 | 8/27/92 |
| 05 | ERW03DL | ERW03DL | 8/27/92 | 8/27/92 |
| 06 | ERW03MS | ERW03MS | 8/27/92 | 8/27/92 |
| 07 | ERW03MSD | ERW03MSD | 8/27/92 | 8/27/92 |
| 08 | ERW04 | ERW04 | 8/27/92 | 8/27/92 |
| 09 | ERW05 | ERW05 | 8/27/92 | 8/27/92 |
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COMMENTS:



000088

1D

# PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PBLK01

Lab Name:Western Research Institut Contract:68-D2-0017

Lab Code:WRI Case No.18642 SAS No.: SDG No.:ERW01

Matrix: (soil/water)WATER Lab Sample ID: PBLK01

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

% Moisture: decanted: (Y/N) Date Received: / /

Extraction: (SepF/Cont/Sonc)CONT Date Extracted: 8/21/92

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 8/27/92

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N)N pH: 7.0 Sulfur Cleanup: (Y/N) N

| 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 | 0.50 | U |
| 53494-70-5 | Endrin ketone | 0.10 | U |
| 7421-93-4 | Endrin aldehyde | 0.10 | U |
| 5103-71-9 | alpha-Chlordane | 0.05 | U |
| 5103-74-2 | gamma-Chlordane | 0.05 | U |
| 8001-35-2 | Toxaphene | 5.0 | U |
| 12674-11-2 | Aroclor-1016 | 1.0 | U |
| 11104-28-2 | Aroclor-1221 | 2.0 | U |
| 11141-16-5 | Aroclor-1232 | 1.0 | U |
| 53469-21-9 | Aroclor-1242 | 1.0 | U |
| 12672-29-6 | Aroclor-1248 | 1.0 | U |
| 11097-69-1 | Aroclor-1254 | 1.0 | U |
| 11096-82-5 | Aroclor-1260 | 1.0 | U |
| | | | |

1D

# PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PBLK02

Lab Name:Western Research Institut Contract:68-D2-0017

Lab Code:WRI Case No.18642 SAS No.: SDG No.:ERW01

Matrix: (soil/water)SOIL Lab Sample ID: PBLK02

Sample wt/vol: 30(g/ml)G Lab File ID:

% Moisture: Ø decanted: (Y/N) N Date Received: 8/20/92

Extraction: (SepF/Cont/Sonc)SONC Date Extracted: 8/24/92

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 8/27/92

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N)Y pH: 7.0 Sulfur Cleanup: (Y/N) N

| CAS NO. | COMPOUND | CONCENTRATION UNITS (ug/L or ug/Kg)UG/KG | Q |
|---|---|---|---|
| 319-84-6 | alpha-BHC | 1.7 | U |
| 319-85-7 | beta-BHC | 1.7 | U |
| 319-86-8 | delta-BHC | 1.7 | U |
| 58-89-9 | gamma-BHC (Lindane) | 1.7 | U |
| 76-44-8 | Heptachlor | 1.7 | U |
| 309-00-2 | Aldrin | 1.7 | U |
| 1024-57-3 | Heptachlor epoxide | 1.7 | U |
| 959-98-8 | Endosulfan I | 1.7 | U |
| 60-57-1 | Dieldrin | 3.3 | U |
| 72-55-9 | 4,4'-DDE | 3.3 | U |
| 72-20-8 | Endrin | 3.3 | U |
| 33213-65-9 | Endosulfan II | 3.3 | U |
| 72-54-8 | 4,4'-DDD | 3.3 | U |
| 1031-07-8 | Endosulfan sulfate | 3.3 | U |
| 50-29-3 | 4,4'-DDT | 3.3 | U |
| 72-43-5 | Methoxychlor | 17. | U |
| 53494-70-5 | Endrin ketone | 3.3 | U |
| 7421-93-4 | Endrin aldehyde | 3.3 | U |
| 5103-71-9 | alpha-Chlordane | 1.7 | U |
| 5103-74-2 | gamma-Chlordane | 1.7 | U |
| 8001-35-2 | Toxaphene | 170. | U |
| 12674-11-2 | Aroclor-1016 | 33. | U |
| 11104-28-2 | Aroclor-1221 | 67. | U |
| 11141-16-5 | Aroclor-1232 | 33. | U |
| 53469-21-9 | Aroclor-1242 | 33. | U |
| 12672-29-6 | Aroclor-1248 | 33. | U |
| 11097-69-1 | Aroclor-1254 | 33. | U |
| 11096-82-5 | Aroclor-1260 | 33. | U |
| | | | |

1D

# PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ERW01

Lab Name:Western Research Institut Contract:68-D2-0017

Lab Code:WRI Case No.18642 SAS No.: SDG No.:ERW01

Matrix: (soil/water)SOIL Lab Sample ID: ERW01

Sample wt/vol: 30.03 ~~30~~(g/ml)G KAR 9-14-92 Lab File ID:

% Moisture: 14 decanted: (Y/N) N Date Received: 8/20/92

Extraction: (SepF/Cont/Sonc)SONC Date Extracted: 8/24/92

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 8/27/92

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N)Y pH: 7.2 Sulfur Cleanup: (Y/N) N

| CAS NO. | COMPOUND | CONCENTRATION UNITS (ug/L or ug/Kg)UG/KG KAR 9-14-92 | Q |
|---|---|---|---|
| 319-84-6 | alpha-BHC | 2.0 ~~1.9~~ | U |
| 319-85-7 | beta-BHC | 2.0 ~~1.9~~ | U |
| 319-86-8 | delta-BHC | 2.0 ~~1.9~~ | U |
| 58-89-9 | gamma-BHC (Lindane) | 2.0 ~~1.9~~ | U |
| 76-44-8 | Heptachlor | 2.0 ~~1.9~~ | U |
| 309-00-2 | Aldrin | 2.0 ~~1.9~~ | U |
| 1024-57-3 | Heptachlor epoxide | 2.0 ~~1.9~~ | U |
| 959-98-8 | Endosulfan I | 2.0 ~~1.9~~ | U |
| 60-57-1 | Dieldrin | 3.8 ~~3.9~~ | U |
| 72-55-9 | 4,4'-DDE | 3.8 ~~3.9~~ | U |
| 72-20-8 | Endrin | 3.8 ~~3.9~~ | U |
| 33213-65-9 | Endosulfan II | 3.8 ~~3.9~~ | U |
| 72-54-8 | 4,4'-DDD | 3.8 ~~3.9~~ | U |
| 1031-07-8 | Endosulfan sulfate | 3.8 ~~3.9~~ | U |
| 50-29-3 | 4,4'-DDT | 3.8 ~~3.9~~ | U |
| 72-43-5 | Methoxychlor | 20 ~~19~~. | U |
| 53494-70-5 | Endrin ketone | 3.8 ~~3.9~~ | U |
| 7421-93-4 | Endrin aldehyde | 3.8 ~~3.9~~ | U |
| 5103-71-9 | alpha-Chlordane | 2.0 ~~1.9~~ | U |
| 5103-74-2 | gamma-Chlordane | 2.0 ~~1.9~~ | U |
| 8001-35-2 | Toxaphene | 200 ~~190~~. | U |
| 12674-11-2 | Aroclor-1016 | 38 ~~39~~. | U |
| 11104-28-2 | Aroclor-1221 | 78 ~~77~~. | U |
| 11141-16-5 | Aroclor-1232 | 38 ~~38~~. | U |
| 53469-21-9 | Aroclor-1242 | 38 ~~39~~. | U |
| 12672-29-6 | Aroclor-1248 | 38 ~~39~~. | U |
| 11097-69-1 | Aroclor-1254 | 560. | PC |
| 11096-82-5 | Aroclor-1260 | 590. | PC |
| | | | |



000588

1D

# PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ERW01DL

Lab Name:Western Research Institut Contract:68-D2-0017

Lab Code:WRI Case No.18642 SAS No.: SDG No.:ERW01

Matrix: (soil/water)SOIL Lab Sample ID: ERW01DL

Sample wt/vol: 30.08 ~~30~~(g/ml)G KAK 9-14-92 Lab File ID:

% Moisture: 1.4 decanted: (Y/N) N Date Received: 8/20/92

Extraction: (SepF/Cont/Sonc)SONC Date Extracted: 8/24/92

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 8/27/92

Injection Volume: 1.0 (uL) Dilution Factor: 10.0

GPC Cleanup: (Y/N)Y pH: 7.2 Sulfur Cleanup: (Y/N) N

| CAS NO. | COMPOUND | CONCENTRATION UNITS (ug/L or ug/Kg)UG/KG KAK 9-14-92 | Q |
|---|---|---|---|
| 319-84-6 | alpha-BHC | 20 ~~19.~~ | U |
| 319-85-7 | beta-BHC | 20 ~~19.~~ | U |
| 319-86-8 | delta-BHC | 20 ~~19.~~ | U |
| 58-89-9 | gamma-BHC (Lindane) | 20 ~~19.~~ | U |
| 76-44-8 | Heptachlor | 20 ~~19.~~ | U |
| 309-00-2 | Aldrin | 20 ~~19.~~ | U |
| 1024-57-3 | Heptachlor epoxide | 20 ~~19.~~ | U |
| 959-98-8 | Endosulfan I | 20 ~~19.~~ | U |
| 60-57-1 | Dieldrin | 38 ~~39.~~ | U |
| 72-55-9 | 4,4'-DDE | 38 ~~39.~~ | U |
| 72-20-8 | Endrin | 38 ~~39.~~ | U |
| 33213-65-9 | Endosulfan II | 38 ~~39.~~ | U |
| 72-54-8 | 4,4'-DDD | 38 ~~39.~~ | U |
| 1031-07-8 | Endosulfan sulfate | 38 ~~39.~~ | U |
| 50-29-3 | 4,4'-DDT | 38 ~~39.~~ | U |
| 72-43-5 | Methoxychlor | 200 ~~190.~~ | U |
| 53494-70-5 | Endrin ketone | 38 ~~39.~~ | U |
| 7421-93-4 | Endrin aldehyde | 38 ~~39.~~ | U |
| 5103-71-9 | alpha-Chlordane | 20 ~~19.~~ | U |
| 5103-74-2 | gamma-Chlordane | 20 ~~19.~~ | U |
| 8001-35-2 | Toxaphene | 2000 ~~1900.~~ | U |
| 12674-11-2 | Aroclor-1016 | 380 ~~390.~~ | U |
| 11104-28-2 | Aroclor-1221 | 780 ~~770.~~ | U |
| 11141-16-5 | Aroclor-1232 | 380 ~~390.~~ | U |
| 53469-21-9 | Aroclor-1242 | 380 ~~390.~~ | U |
| 12672-29-6 | Aroclor-1248 | 380 ~~390.~~ | U |
| 11097-69-1 | Aroclor-1254 | 550 ~~990.~~ | PC |
| 11096-82-5 | Aroclor-1260 | 650. | PC |
| | | | |



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# PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ERW02

Lab Name:Western Research Institut Contract:68-D2-0017

Lab Code:WRI Case No.18642 SAS No.: SDG No.:ERW01

Matrix: (soil/water)SOIL Lab Sample ID: ERW02

KAR 9-14-92

Sample wt/vol: 30.04 ~~30~~(g/ml)G Lab File ID:

% Moisture: 5 decanted: (Y/N) N Date Received: 8/20/92

Extraction: (SepF/Cont/Sonc)SONC Date Extracted: 8/24/92

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 8/27/92

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N)Y pH: 7.6 Sulfur Cleanup: (Y/N) N

| CAS NO. | COMPOUND | CONCENTRATION UNITS (ug/L or ug/Kg)UG/KG | Q |
|---|---|---|---|
| | | KAR 9-14-92 | |
| 319-84-6 | alpha-BHC | 1.8 | U J |
| 319-85-7 | beta-BHC | 1.8 | U |
| 319-86-8 | delta-BHC | 1.8 | U |
| 58-89-9 | gamma-BHC (Lindane) | 1.8 | U |
| 76-44-8 | Heptachlor | 1.8 | U |
| 309-00-2 | Aldrin | 1.8 | U |
| 1024-57-3 | Heptachlor epoxide | 1.8 | U |
| 959-98-8 | Endosulfan I | 1.8 | U |
| 60-57-1 | Dieldrin | 3.5 | U |
| 72-55-9 | 4,4'-DDE | 3.5 | U |
| 72-20-8 | Endrin | 3.5 | U |
| 33213-65-9 | Endosulfan II | 3.5 | U |
| 72-54-8 | 4,4'-DDD | 3.5 | U |
| 1031-07-8 | Endosulfan sulfate | 3.5 | U |
| 50-29-3 | 4,4'-DDT | 3.5 | U |
| 72-43-5 | Methoxychlor | 18. | U |
| 53494-70-5 | Endrin ketone | 3.5 | U |
| 7421-93-4 | Endrin aldehyde | 3.5 | U |
| 5103-71-9 | alpha-Chlordane | 1.8 | U |
| 5103-74-2 | gamma-Chlordane | 1.8 | U |
| 8001-35-2 | Toxaphene | 180. | U |
| 12674-11-2 | Aroclor-1016 | 35. | U |
| 11104-28-2 | Aroclor-1221 | 71 ~~70~~. | 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 | 35. | U |
| 11096-82-5 | Aroclor-1260 | 35. | U |
| | | | |

PDC 10/30/92



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# PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ERW03

Lab Name:Western Research Institut Contract:68-D2-0017

Lab Code:WRI Case No.18642 SAS No.: SDG No.:ERW01

Matrix: (soil/water)SOIL Lab Sample ID: ERW03

Sample wt/vol: KTR 9-14-92 30.06 ~~30~~g/ml)G Lab File ID:

% Moisture: 20 decanted: (Y/N) N Date Received: 8/20/92

Extraction: (SepF/Cont/Sonc)SONC Date Extracted: 8/24/92

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 8/27/92

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N)Y pH: 8.6 Sulfur Cleanup: (Y/N) N

| CAS NO. | COMPOUND | CONCENTRATION UNITS (ug/L or ug/Kg)UG/KG KTR 9-14-92 | | Q |
|---|---|---|---|---|
| 319-84-6 | alpha-BHC | 2.1 | U | J |
| 319-85-7 | beta-BHC | 2.1 | U | |
| 319-86-8 | delta-BHC | 2.1 | U | |
| 58-89-9 | gamma-BHC (Lindane) | 2.1 | U | R |
| 76-44-8 | Heptachlor | 2.1 | U | R |
| 309-00-2 | Aldrin | 2.1 | U | R |
| 1024-57-3 | Heptachlor epoxide | 2.1 | U | |
| 959-98-8 | Endosulfan I | 2.1 | U | |
| 60-57-1 | Dieldrin | 4.1 ~~4.2~~ | U | R |
| 72-55-9 | 4,4'-DDE | 4.1 ~~4.2~~ | U | |
| 72-20-8 | Endrin | 4.1 ~~4.2~~ | U | R |
| 33213-65-9 | Endosulfan II | 4.1 ~~4.2~~ | U | |
| 72-54-8 | 4,4'-DDD | 4.1 ~~4.2~~ | U | |
| 1031-07-8 | Endosulfan sulfate | 4.1 ~~4.2~~ | U | |
| 50-29-3 | 4,4'-DDT | 4.1 ~~4.2~~ | U | R |
| 72-43-5 | Methoxychlor | 21. | U | |
| 53494-70-5 | Endrin ketone | 4.1 ~~4.2~~ | U | |
| 7421-93-4 | Endrin aldehyde | 4.1 ~~4.2~~ | U | |
| 5103-71-9 | alpha-Chlordane | 2.1 | U | |
| 5103-74-2 | gamma-Chlordane | 2.1 | U | |
| 8001-35-2 | Toxaphene | 210. | U | |
| 12674-11-2 | Aroclor-1016 | 41 ~~42.~~ | U | |
| 11104-28-2 | Aroclor-1221 | 84 ~~83.~~ | U | |
| 11141-16-5 | Aroclor-1232 | 41 ~~42.~~ | U | |
| 53469-21-9 | Aroclor-1242 | 41 ~~42.~~ | U | |
| 12672-29-6 | Aroclor-1248 | 41 ~~42.~~ | U | |
| 11097-69-1 | Aroclor-1254 | 3700. | P | |
| 11096-82-5 | Aroclor-1260 | 1400. | P | |

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PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ERW03DL

Lab Name:Western Research Institut Contract:68-D2-0017

Lab Code:WRI Case No.18642 SAS No.: SDG No.:ERW01

Matrix: (soil/water)SOIL Lab Sample ID: ERW03DL

Sample wt/vol: KR 9-14-92 30.06 ~~30~~(g/ml)G Lab File ID:

% Moisture: 20 decanted: (Y/N) N Date Received: 8/20/92

Extraction: (SepF/Cont/Sonc)SONC Date Extracted: 8/24/92

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 8/27/92

Injection Volume: 1.0 (uL) Dilution Factor: 20.0

GPC Cleanup: (Y/N)Y pH: 8.6 Sulfur Cleanup: (Y/N) N

| CAS NO. | COMPOUND | CONCENTRATION UNITS (ug/L or ug/Kg)UG/KG KR 9-14-92 | Q |
|---|---|---|---|
| 319-84-6 | alpha-BHC | 42. | U |
| 319-85-7 | beta-BHC | 42. | U |
| 319-86-8 | delta-BHC | 42. | U |
| 58-89-9 | gamma-BHC (Lindane) | 42. | U |
| 76-44-8 | Heptachlor | 42. | U |
| 309-00-2 | Aldrin | 42. | U |
| 1024-57-3 | Heptachlor epoxide | 42. | U |
| 959-98-8 | Endosulfan I | 42. | U |
| 60-57-1 | Dieldrin | 83. | U |
| 72-55-9 | 4,4'-DDE | 83. | U |
| 72-20-8 | Endrin | 83. | U |
| 33213-65-9 | Endosulfan II | 83. | U |
| 72-54-8 | 4,4'-DDD | 83. | U |
| 1031-07-8 | Endosulfan sulfate | 83. | U |
| 50-29-3 | 4,4'-DDT | 83. | U |
| 72-43-5 | Methoxychlor | 420. | U |
| 53494-70-5 | Endrin ketone | 83. | U |
| 7421-93-4 | Endrin aldehyde | 83. | U |
| 5103-71-9 | alpha-Chlordane | 42. | U |
| 5103-74-2 | gamma-Chlordane | 42. | U |
| 8001-35-2 | Toxaphene | 4200. | U |
| 12674-11-2 | Aroclor-1016 | 830. | U |
| 11104-28-2 | Aroclor-1221 | 1700. | U |
| 11141-16-5 | Aroclor-1232 | 830. | U |
| 53469-21-9 | Aroclor-1242 | 830. | U |
| 12672-29-6 | Aroclor-1248 | 830. | U |
| 11097-69-1 | Aroclor-1254 | 6600. | P |
| 11096-82-5 | Aroclor-1260 | 1700. | P |
| | | | |

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# PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ERW04

Lab Name:Western Research Institut Contract:68-D2-0017

Lab Code:WRI Case No.18642 SAS No.: SDG No.:ERW01

Matrix: (soil/water)SOIL Lab Sample ID: ERW04

Sample wt/vol: KR 9-14-92 30.05 ~~30~~(g/ml)G Lab File ID:

% Moisture: 4 decanted: (Y/N) N Date Received: 8/20/92

Extraction: (SepF/Cont/Sonc)SONC Date Extracted: 8/24/92

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 8/27/92

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N)Y pH: 8.8 Sulfur Cleanup: (Y/N) N

| CAS NO. | COMPOUND | CONCENTRATION UNITS (ug/L or ug/Kg)UG/KG | Q |
|---|---|---|---|
| | | KR 9-14-92 | |
| 319-84-6 | alpha-BHC | 1.8 ~~1.7~~ | U J |
| 319-85-7 | beta-BHC | 1.8 ~~1.7~~ | U |
| 319-86-8 | delta-BHC | 1.8 ~~1.7~~ | U |
| 58-89-9 | gamma-BHC (Lindane) | 1.8 ~~1.7~~ | U |
| 76-44-8 | Heptachlor | 1.8 ~~1.7~~ | U |
| 309-00-2 | Aldrin | 1.8 ~~1.7~~ | U |
| 1024-57-3 | Heptachlor epoxide | 1.8 ~~1.7~~ | U |
| 959-98-8 | Endosulfan I | 1.8 ~~1.7~~ | U |
| 60-57-1 | Dieldrin | 3.4 ~~3.5~~ | U |
| 72-55-9 | 4,4'-DDE | 3.4 ~~3.5~~ | U |
| 72-20-8 | Endrin | 3.4 ~~3.5~~ | U |
| 33213-65-9 | Endosulfan II | 3.4 ~~3.5~~ | U |
| 72-54-8 | 4,4'-DDD | 3.4 ~~3.5~~ | U |
| 1031-07-8 | Endosulfan sulfate | 3.4 ~~3.5~~ | U |
| 50-29-3 | 4,4'-DDT | 3.4 ~~3.4~~ ~~3.5~~ | U |
| 72-43-5 | Methoxychlor | 18 ~~17.~~ | U |
| 53494-70-5 | Endrin ketone | 3.4 ~~3.5~~ | U |
| 7421-93-4 | Endrin aldehyde | 3.4 ~~3.5~~ | U |
| 5103-71-9 | alpha-Chlordane | 1.8 ~~1.7~~ | U |
| 5103-74-2 | gamma-Chlordane | 1.8 ~~1.7~~ | U |
| 8001-35-2 | Toxaphene | 180 ~~170.~~ | U |
| 12674-11-2 | Aroclor-1016 | 34 ~~35.~~ | U |
| 11104-28-2 | Aroclor-1221 | 70 ~~69.~~ | U |
| 11141-16-5 | Aroclor-1232 | 34 ~~35.~~ | U |
| 53469-21-9 | Aroclor-1242 | 34 ~~35.~~ | U |
| 12672-29-6 | Aroclor-1248 | 34 ~~35.~~ | U |
| 11097-69-1 | Aroclor-1254 | 34 ~~35.~~ | U |
| 11096-82-5 | Aroclor-1260 | 34 ~~35.~~ | U |

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PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ERW05

Lab Name:Western Research Institut Contract:68-D2-0017

Lab Code:WRI Case No.18642 SAS No.: SDG No.:ERW01

Matrix: (soil/water)SOIL Lab Sample ID: ERW05

KTR 9-14-92

Sample wt/vol: 30.0 ~~30~~ (g/ml)G Lab File ID:

% Moisture: ~~7~~ ~~8~~ decanted: (Y/N) N Date Received: 8/20/92

KTR 9-15-92

Extraction: (SepF/Cont/Sonc)SONC Date Extracted: 8/24/92

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 8/27/92

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N)Y pH: ~~6.9~~ 8.5 Sulfur Cleanup: (Y/N) N

KTR 9-15-92

| CAS NO. | COMPOUND | CONCENTRATION UNITS (ug/L or ug/Kg)UG/KG | Q |
|---|---|---|---|
| 319-84-6 | alpha-BHC | 1.8 | U J |
| 319-85-7 | beta-BHC | 1.8 | U |
| 319-86-8 | delta-BHC | 1.8 | U |
| 58-89-9 | gamma-BHC (Lindane) | 1.8 | U |
| 76-44-8 | Heptachlor | 1.8 | U |
| 309-00-2 | Aldrin | 1.8 | U |
| 1024-57-3 | Heptachlor epoxide | 1.8 | U |
| 959-98-8 | Endosulfan I | 1.8 | U |
| 60-57-1 | Dieldrin | 3.6 | U |
| 72-55-9 | 4,4'-DDE | 3.6 | U |
| 72-20-8 | Endrin | 3.6 | U |
| 33213-65-9 | Endosulfan II | 3.6 | U |
| 72-54-8 | 4,4'-DDD | 3.6 | U |
| 1031-07-8 | Endosulfan sulfate | 3.6 | U |
| 50-29-3 | 4,4'-DDT | 3.6 | U |
| 72-43-5 | Methoxychlor | 18. | U |
| 53494-70-5 | Endrin ketone | 3.6 | U |
| 7421-93-4 | Endrin aldehyde | 3.6 | U |
| 5103-71-9 | alpha-Chlordane | 1.8 | U |
| 5103-74-2 | gamma-Chlordane | 1.8 | U |
| 8001-35-2 | Toxaphene | 180. | U |
| 12674-11-2 | Aroclor-1016 | 36. | U |
| 11104-28-2 | Aroclor-1221 | 72. | U |
| 11141-16-5 | Aroclor-1232 | 36. | U |
| 53469-21-9 | Aroclor-1242 | 36. | U |
| 12672-29-6 | Aroclor-1248 | 36. | U |
| 11097-69-1 | Aroclor-1254 | 36. | U |
| 11096-82-5 | Aroclor-1260 | 36. | U |

PDC 10/30/92

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PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ERW12

Lab Name:Western Research Institut Contract:68-D2-0017

Lab Code:WRI Case No.18642 SAS No.: SDG No.:ERW01

Matrix: (soil/water)WATER Lab Sample ID: ERW12

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

% Moisture: decanted: (Y/N) Date Received: 8/20/92

Extraction: (SepF/Cont/Sonc)CONT Date Extracted: 8/21/92

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 8/27/92

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N)N pH: 7.0 Sulfur Cleanup: (Y/N) N

| CAS NO. | COMPOUND | CONCENTRATION UNITS (ug/L or ug/Kg)UG/L | Q |
|---|---|---|---|
| 319-84-6 | alpha-BHC | 0.05 | U J |
| 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 | 0.50 | U |
| 53494-70-5 | Endrin ketone | 0.10 | U |
| 7421-93-4 | Endrin aldehyde | 0.10 | U |
| 5103-71-9 | alpha-Chlordane | 0.05 | U |
| 5103-74-2 | gamma-Chlordane | 0.05 | U |
| 8001-35-2 | Toxaphene | 5.0 | U |
| 12674-11-2 | Aroclor-1016 | 1.0 | U |
| 11104-28-2 | Aroclor-1221 | 2.0 | U |
| 11141-16-5 | Aroclor-1232 | 1.0 | U |
| 53469-21-9 | Aroclor-1242 | 1.0 | U |
| 12672-29-6 | Aroclor-1248 | 1.0 | U |
| 11097-69-1 | Aroclor-1254 | 1.0 | U |
| 11096-82-5 | Aroclor-1260 | 1.0 | U |

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# PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ERW13

Lab Name:Western Research Institut  Contract:68-D2-0017

Lab Code:WRI  Case No.18642  SAS No.:  SDG No.:ERW01

Matrix: (soil/water)WATER  Lab Sample ID: ERW13

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

% Moisture:  decanted: (Y/N)  Date Received: 8/20/92

Extraction: (SepF/Cont/Sonc)CONT  Date Extracted: 8/21/92

Concentrated Extract Volume: 10000 (uL)  Date Analyzed: 8/26/92

Injection Volume: 1.0 (uL)  Dilution Factor: 1.0

GPC Cleanup: (Y/N)N  pH: 7.0  Sulfur Cleanup: (Y/N) N

| 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 | 0.50 | U |
| 53494-70-5 | Endrin ketone | 0.10 | U |
| 7421-93-4 | Endrin aldehyde | 0.10 | U |
| 5103-71-9 | alpha-Chlordane | 0.05 | U |
| 5103-74-2 | gamma-Chlordane | 0.05 | U |
| 8001-35-2 | Toxaphene | 5.0 | U |
| 12674-11-2 | Aroclor-1016 | 1.0 | U |
| 11104-28-2 | Aroclor-1221 | 2.0 | U |
| 11141-16-5 | Aroclor-1232 | 1.0 | U |
| 53469-21-9 | Aroclor-1242 | 1.0 | U |
| 12672-29-6 | Aroclor-1248 | 1.0 | U |
| 11097-69-1 | Aroclor-1254 | 1.0 | U |
| 11096-82-5 | Aroclor-1260 | 1.0 | U |
| | | | |

1D

# PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ERW14

Lab Name:Western Research Institut Contract:68-D2-0017

Lab Code:WRI Case No.18642 SAS No.: SDG No.:ERW01

Matrix: (soil/water)WATER Lab Sample ID: ERW14

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

% Moisture: decanted: (Y/N) Date Received: 8/20/92

Extraction: (SepF/Cont/Sonc)CONT Date Extracted: 8/21/92

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 8/26/92

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N)N pH: 6.0 Sulfur Cleanup: (Y/N) N

| 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 | 0.50 | U |
| 53494-70-5 | Endrin ketone | 0.10 | U |
| 7421-93-4 | Endrin aldehyde | 0.10 | U |
| 5103-71-9 | alpha-Chlordane | 0.05 | U |
| 5103-74-2 | gamma-Chlordane | 0.05 | U |
| 8001-35-2 | Toxaphene | 5.0 | U |
| 12674-11-2 | Aroclor-1016 | 1.0 | U |
| 11104-28-2 | Aroclor-1221 | 2.0 | U |
| 11141-16-5 | Aroclor-1232 | 1.0 | U |
| 53469-21-9 | Aroclor-1242 | 1.0 | U |
| 12672-29-6 | Aroclor-1248 | 1.0 | U |
| 11097-69-1 | Aroclor-1254 | 1.0 | U |
| 11096-82-5 | Aroclor-1260 | 1.0 | U |
| | | | |

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ERW15

Lab Name:Western Research Institut Contract:68-D2-0017

Lab Code:WRI Case No.18642 SAS No.: SDG No.:ERW01

Matrix: (soil/water)WATER Lab Sample ID: ERW15

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

% Moisture: decanted: (Y/N) Date Received: 8/20/92

Extraction: (SepF/Cont/Sonc)CONT Date Extracted: 8/21/92

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 8/27/92

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N)N pH: 7.0 Sulfur Cleanup: (Y/N) N

| 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 | 0.50 | U |
| 53494-70-5 | Endrin ketone | 0.10 | U |
| 7421-93-4 | Endrin aldehyde | 0.10 | U |
| 5103-71-9 | alpha-Chlordane | 0.05 | U |
| 5103-74-2 | gamma-Chlordane | 0.05 | U |
| 8001-35-2 | Toxaphene | 5.0 | U |
| 12674-11-2 | Aroclor-1016 | 1.0 | U |
| 11104-28-2 | Aroclor-1221 | 2.0 | U |
| 11141-16-5 | Aroclor-1232 | 1.0 | U |
| 53469-21-9 | Aroclor-1242 | 1.0 | U |
| 12672-29-6 | Aroclor-1248 | 1.0 | U |
| 11097-69-1 | Aroclor-1254 | 1.0 | U |
| 11096-82-5 | Aroclor-1260 | 1.0 | U |
| | | | |

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ERW16

Lab Name:Western Research Institut Contract:68-D2-0017

Lab Code:WRI Case No.18642 SAS No.: SDG No.:ERW01

Matrix: (soil/water)WATER Lab Sample ID: ERW16

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

% Moisture: decanted: (Y/N) Date Received: 8/20/92

Extraction: (SepF/Cont/Sonc)CONT Date Extracted: 8/21/92

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 8/27/92

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N)N pH: 7.0 Sulfur Cleanup: (Y/N) N

| CAS NO. | COMPOUND | CONCENTRATION UNITS (ug/L or ug/Kg)UG/L | Q |
|---|---|---|---|
| 319-84-6 | alpha-BHC | 0.05 | U J |
| 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 | 0.50 | U |
| 53494-70-5 | Endrin ketone | 0.10 | U |
| 7421-93-4 | Endrin aldehyde | 0.10 | U |
| 5103-71-9 | alpha-Chlordane | 0.05 | U |
| 5103-74-2 | gamma-Chlordane | 0.05 | U |
| 8001-35-2 | Toxaphene | 5.0 | U |
| 12674-11-2 | Aroclor-1016 | 1.0 | U |
| 11104-28-2 | Aroclor-1221 | 2.0 | U |
| 11141-16-5 | Aroclor-1232 | 1.0 | U |
| 53469-21-9 | Aroclor-1242 | 1.0 | U |
| 12672-29-6 | Aroclor-1248 | 1.0 | U |
| 11097-69-1 | Aroclor-1254 | 1.0 | U |
| 11096-82-5 | Aroclor-1260 | 1.0 | U |

PDC 10/30/92

# DRINKING WATER MEMORANDUM
# WELL OWNER'S LOG

DATE:

TO: STATE: Indiana

FROM: P. Krishnan, Roy F. Weston, Inc.

SUBJECT: Drinking Water Sample Results

SITE NAME: LEESBURG FOUNDRY CERCLIS ID: IND 984867747

| | NAME | ADDRESS | CITY, STATE, ZIP |
|---|---|---|---|
| RW02-01 | 1. School Well | | |
| RW02-01DP | 2. (Duplicate) | | |
| RW03-01 | 3. | | |
| RW04-01 | 4. | | |
| | 5. | | |
| | 6. | | |
| | 7. | | |
| | 8. | | |
| | 9. | | |
| | 10. | | |

State Contact:

Received By:

Date:

Note:
Please return a signed copy within 5 working days to:
Roy F. Weston, Inc.
Three Hawthorn Parkway, Suite 400,
Vernon Hills, Illinois 60047

# Drinking Water Memorandum

DATE: _____

Site Name: LEESBURG FOUNDRY
CERCLIS ID: IND984867747
WA NO.: 45-5JZZ

TO: 1. Ms. Jan Pels, U.S. EPA
2. State Contact _____

FROM: P. Krishnan, Roy F. Weston, Inc.

SUBJECT: Drinking Water Sample Results

Sample: RW02-01 / EQD35 / MEQF36

Action Level

☐ No Contamination _____
No hits above any health-related standards.

☐ Low Level Contamination _____
Hits just above health-related standards.

☐ Significant Contamination _____
Hits are above health-related standards.

☐ Please check the following. They are less than health-related standards but above detection limits.

| | |
|---|---|
| _____ | _____ |
| _____ | _____ |
| _____ | _____ |
| _____ | _____ |
| _____ | _____ |

☐ Please check secondary maximum contamination limits for:

| | | | |
|---|---|---|---|
| Aluminum | _____ | Manganese | _____ |
| Copper | _____ | Silver | _____ |
| Iron | _____ | Zinc | _____ |

_____
P. Krishnan

Sample: RW02-01 | EQD35

**Analytical Data and Related Health Advisory Table**

| Sample Collection Information and Parameters | Detection Limits (µg/L) | Sample Result (µg/L) | SMCL* | Standards | | | | Status HA | 10-kg Child | | | 70-kg Adult | | | | µg/L at 10-4 Cancer Risk | Cancer Group |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Status Reg. | NIPDWR (µg/L) | MCLG (µg/L) | MCL (µg/L) | | One Day µg/L | Ten-Day µg/L | Longer-Term µg/L | Longer-Term µg/L | RFD µg/kg/day | DWEL µg/L | Life-time µg/L | | |
| VOLATILE ORGANICS | | | | | | | | | | | | | | | | | |
| Chloromethane | 1 | | | L | — | — | — | F | 9,000 | 400 | 400 | 1,000 | 4 | 100 | 3 | — | C |
| Bromomethane | 1 | | | L | — | — | — | F | 100 | 100 | 100 | 600 | 1 | 60 | 10 | — | D |
| Vinyl Chloride | 1 | | | F | — | ZERO | 2 | F | 3,000 | 3,000 | 10 | 50 | — | — | — | 1.5 | A |
| Chloroethane | 1 | 5 | | L | — | — | — | D | — | — | — | — | — | — | — | — | — |
| Methylene Chloride | 2 | | | | | | | | | | | | | | | | |
| Acetone | 5 | | | | | | | | | | | | | | | | |
| Carbon Disulfide | 1 | | | | | | | | | | | | | | | | |
| 1,1-Dichloroethene | 1 | | | F | — | 7 | 7 | F | 2,000 | 1,000 | 1,000 | 4,000 | 9 | 400 | 7 | — | C |
| 1,1-Dichloroethane | 1 | | | L | — | — | — | D | — | — | — | — | — | — | — | — | — |
| cis-1,2-Dichloroethene | 1 | | | F | — | 70 | 70 | F | 4,000 | 3,000 | 3,000 | 11,000 | 10 | 400 | 70 | — | D |
| trans-1,2-Dichloroethene | 1 | | | F | — | 100 | 100 | F | 20,000 | 2,000 | 2,000 | 6,000 | 20 | 600 | 100 | — | D |
| Chloroform | 1 | | | L | 100 | — | 100 | D | 4,000 | 4,000 | 100 | 400 | 10 | 400 | — | 600 | B2 |
| 1,2-Dichloroethane | 1 | | | F | — | ZERO | 5 | F | 700 | 700 | 700 | 2,600 | — | — | — | 40 | B2 |
| 2-Butanone | 5 | | | L | — | — | — | F | 80,000 | 8,000 | 3,000 | 8,000 | 0.05 | 900 | 200 | — | D |
| Bromochloromethane | 1 | | | — | 100 | — | — | F | 50,000 | 1,000 | 1,000 | 5,000 | 13 | 500 | 90 | — | — |
| 1,1,1-Trichloroethane | 1 | | | F | — | 200 | 200 | F | 100,000 | 40,000 | 40,000 | 100,000 | 35 | 1,000 | 200 | — | D |
| Carbon Tetrachloride | 1 | | | F | — | ZERO | 5 | F | 4,000 | 200 | 70 | 300 | 0.7 | 30 | — | 30 | B2 |
| Bromodichloromethane | 1 | | | L | — | — | 100 | D | 7,000 | 7,000 | 4,000 | 13,000 | 20 | 700 | — | 140 | B2 |
| 1,2-Dichloropropane | 1 | | | F | — | ZERO | 5 | F | — | 90 | — | — | — | — | — | 50 | B2 |
| cis-1,3-Dichloropropene | 1 | | | | | | | | | | | | | | | | |
| Trichloroethene | 1 | | | F | — | ZERO | 5 | F | — | — | — | — | — | 300 | — | 300 | B2 |
| Dibromochloromethane | 1 | | | | | | | | | | | | | | | | |
| 1,1,2,2-Tetrachloroethane | 1 | | | L | — | — | — | D | — | — | — | — | — | — | — | — | — |
| 1,1,2-Trichloroethane | 1 | | | P | 5 | 3 | 5 | F | 600 | 400 | 400 | 1,000 | 4 | 100 | 3 | — | C |
| Benzene | 1 | | | F | — | ZERO | 5 | F | 200 | 200 | — | — | — | — | — | 100 | A |
| trans-1,3-Dichloropropene | 1 | | | | | | | | | | | | | | | | |
| Bromoform | 1 | | | L | 100 | — | 100 | D | 6,000 | 2,000 | 2,000 | 8,000 | 20 | 700 | — | 400 | B2 |
| 4-Methyl-2-pentanone | 5 | | | | | | | | | | | | | | | | |
| 2-Hexanone | 5 | | | | | | | | | | | | | | | | |
| Tetrachloroethene | 1 | | | F | — | ZERO | 5 | F | 2,000 | 2,000 | 1,000 | 5,000 | 10 | 500 | — | 70 | — |
| 1,2-Dibromoethane | 1 | | | | | | 1,000 | | | | | | | | | | |
| Toluene | 1 | | | F | — | 1,000 | | F | 20,000 | 2,000 | 2,000 | 7,000 | 200 | 7,000 | 1,000 | — | D |
| Chlorobenzene | 1 | | | | | | | | | | | | | | | | |
| Ethyl Benzene | 1 | | | F | — | 700 | 700 | F | 30,000 | 3,000 | 1,000 | 300 | 100 | 3,000 | 700 | — | D |
| Styrene | 1 | | | F | — | 100 | 100 | F | 20,000 | 2,000 | 2,000 | 7,000 | 200 | 7,000 | 100 | — | C |
| Xylene (total) | 1 | | | F | — | 10,000 | 10,000 | F | 40,000 | 40,000 | 40,000 | 100,000 | 2,000 | 60,000 | 10,000 | — | D |
| 1,3-Dichlorobenzene | 1 | | | | | | | | | | | | | | | | |
| 1,4-Dichlorobenzene | 1 | | | | | | | | | | | | | | | | |
| 1,2-Dichlorobenzene | 1 | | | | | | | | | | | | | | | | |
| 1,2-Dibromo-3-chloropropane | 1 | | | | | | | | | | | | | | | | |

Sample: RW02-01/EQD35

**Analytical Data and Related Health Advisory Table**

| Sample Collection Information and Parameters | Detection Limits (µg/L) | Sample Result (µg/L) | SMCL[a] | Standards | | | | Status HA | 10-kg Child | | | 70-kg Adult | | | | µg/L at 10-4 Cancer Risk | Cancer Group |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Status Reg. | NIPDWR (µg/L) | MCLG (µg/L) | MCL (µg/L) | | One Day µg/L | Ten-Day µg/L | Longer-Term µg/L | Longer-Term µg/L | RFD µg/kg/day | DWEL µg/L | Life-time µg/L | | |
| SEMIVOLATILE ORGANICS | | | | | | | | | | | | | | | | | |
| Phenol | 5 | | | --- | --- | --- | --- | D | 6,000 | 6,000 | 6,000 | 20,000 | 600 | 20,000 | 4,000 | --- | D |
| bis(2-Chloroethyl)ether | 5 | | | | | | | | | | | | | | | | |
| 2-Chlorophenol | 5 | | | --- | --- | --- | --- | D | 50 | 50 | 50 | 200 | 5 | 200 | 40 | --- | D |
| 2-Methylphenol | 5 | | | | | | | | | | | | | | | | |
| 2,2'-oxybis(1-Chloropropane) | 5 | | | | | | | | | | | | | | | | |
| 4-Methylphenol | 5 | | | | | | | | | | | | | | | | |
| N-Nitroso-di-n-propylamine | 5 | | | | | | | | | | | | | | | | |
| Hexachloroethane | 5 | | | L | --- | --- | --- | F | 5,000 | 5,000 | 100 | 500 | 1 | 400 | 1 | --- | C |
| Nitrobenzene | 5 | | | | | | | | | | | | | | | | |
| Isophorone | 5 | | | L | --- | --- | --- | D | 15,000 | 15,000 | 15,000 | 15,000 | 200 | 7,000 | 100 | --- | C |
| 2-Nitrophenol | 5 | | | | | | | | | | | | | | | | |
| 2,4-Dimethylphenol | 5 | | | | | | | | | | | | | | | | |
| bis(2-Chloroethoxy)methane | 5 | | | | | | | | | | | | | | | | |
| 2,4-Dichlorophenol | 5 | | | --- | --- | --- | --- | D | 30 | 30 | 30 | 100 | 3 | 100 | 20 | --- | D |
| 1,2,4-Trichlorobenzene | 5 | | | P | --- | 70 | 70 | F | 100 | 100 | 100 | 500 | 10 | 400 | 70 | --- | D |
| Naphthalene | 5 | | | --- | --- | --- | --- | F | 500 | 500 | 400 | 1,000 | 4 | 100 | 20 | --- | D |
| 4-Chloroaniline | 5 | | | | | | | | | | | | | | | | |
| Hexachlorobutadiene | 5 | | | L | --- | --- | --- | F | 300 | 300 | 100 | 400 | 2 | 70 | 1 | --- | C |
| 4-Chloro-3-methylphenol | 5 | | | | | | | | | | | | | | | | |
| 2-Methylnaphthalene | 5 | | | | | | | | | | | | | | | | |
| Hexachlorocyclopentadiene | 5 | | 8 | P | --- | 50 | 50 | --- | --- | --- | --- | --- | 7 | 200 | --- | --- | D |
| 2,4,6-Trichlorophenol | 5 | | | L | --- | --- | --- | D | --- | --- | --- | --- | --- | --- | --- | 300 | B2 |
| 2,4,5-Trichlorophenol | 20 | | | | | | | | | | | | | | | | |
| 2-Chloronaphthalene | 5 | | | | | | | | | | | | | | | | |
| 2-Nitroaniline | 20 | | | | | | | | | | | | | | | | |
| Dimethylphthalate | 5 | | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | D |
| Acenaphthylene | 5 | | | | | | | | | | | | | | | | |
| 2,6-Dinitrotoluene | 5 | | | L | --- | --- | --- | F | 400 | 400 | 400 | 1,000 | 1 | 40 | --- | 5,000 | B2 |
| 3-Nitroaniline | 20 | | | | | | | | | | | | | | | | |
| Acenaphthene | 5 | | | --- | --- | --- | --- | --- | --- | --- | --- | --- | 60 | --- | --- | --- | --- |
| 2,4-Dinitrophenol | 20 | | | | | | | | | | | | | | | | |
| 4-Nitrophenol | 20 | | | | | | | | | | | | | | | | |
| Dibenzofuran | 5 | | | | | | | | | | | | | | | | |
| 2,4-Dinitrotoluene | 5 | | | L | --- | --- | --- | F | 500 | 500 | 300 | 1,000 | 2 | 100 | --- | 5,000 | B2 |
| Diethylphthalate | 5 | | | | | | | | | | | | | | | | |
| 4-Chlorophenyl-phenyl ether | 5 | | | | | | | | | | | | | | | | |
| Fluorene | 5 | | | --- | --- | --- | --- | --- | --- | --- | --- | --- | 40 | --- | --- | --- | D |
| 4-Nitroaniline | 20 | | | | | | | | | | | | | | | | |
| 4,6-Dinitro-2-methylphenol | 20 | | | | | | | | | | | | | | | | |
| N-Nitrosodiphenylamine (1) | 5 | | | | | | | | | | | | | | | | |

Sample: RW02-01/EQD35

Analytical Data and Related Health Advisory Table (Continued)

| Sample Collection Information and Parameters | Detection Limits (µg/L) | Sample Result (µg/L) | SMCL* | Standards | | | | Status HA | 10-kg Child | | | 70-kg Adult | | | | µg/L at 10-4 Cancer Risk | Cancer Group |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Status Reg. | NIPDWR (µg/L) | MCLG (µg/L) | MCL (µg/L) | | One Day µg/L | Ten-Day µg/L | Longer-Term µg/L | Longer-Term µg/L | RFD µg/kg/day | DWEL µg/L | Lifetime µg/L | | |
| SEMIVOLATILE ORGANICS (CONT.) | | | | | | | | | | | | | | | | | |
| 4-Bromophenyl-phenylether | 5 | | | | | | | | | | | | | | | | |
| Hexachlorobenzene | 5 | | | P | — | ZERO | 1 | F | 50 | 50 | 50 | 200 | 0.8 | 30 | — | 2 | B2 |
| Pentachlorophenol | 20 | | | F | — | ZERO | 1 | F | 1,000 | 300 | 300 | 1,000 | 30 | 1,000 | — | 30 | B2 |
| Phenanthrene | 5 | | | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Anthracene | 5 | | | — | — | — | — | — | — | — | — | — | 300 | — | — | — | D |
| Di-n-butylphthalate | 5 | | | | | | | | | | | | | | | | |
| Fluoranthene | 5 | | | | | | | | | | | | | | | | |
| Pyrene | 5 | | | — | — | — | — | — | — | — | — | — | 30 | — | — | — | D |
| Butylbenzylphthalate | 5 | | | P | — | ZERO | 100 | — | — | — | — | — | 200 | 6,000 | — | — | C |
| 3,3'Dichlorobenzidine | 5 | | | | | | | | | | | | | | | | |
| Benzo(a)anthracene | 5 | | | P | — | ZERO | 0.1 | — | — | — | — | — | — | — | — | — | B2 |
| Chrysene | 5 | | | P | — | ZERO | 0.2 | — | — | — | — | — | — | — | — | — | B2 |
| Bis(2-Ethylhexyl)phthalate | 5 | | | | | | | | | | | | | | | | |
| Di-n-octylphthalate | 5 | | | | | | | | | | | | | | | | |
| Benzo(b)fluoranthene | 5 | | | P | — | ZERO | 0.2 | — | — | — | — | — | — | — | — | — | B2 |
| Benzo(k)fluoranthene | 5 | | | P | — | ZERO | 0.2 | — | — | — | — | — | — | — | — | — | B2 |
| Benzo(a)pyrene | 5 | | | P | — | ZERO | 0.2 | — | — | — | — | — | — | — | — | — | B2 |
| Indeno(1,2,3-cd)pyrene | 5 | | | P | — | ZERO | 0.4 | D | — | — | — | — | — | — | — | — | B2 |
| Dibenz(a,h)anthracene | 5 | | | P | — | ZERO | 0.3 | — | — | — | — | — | — | — | — | — | B2 |
| Benzo(g,h,i)perylene | 5 | | | — | — | — | — | — | — | — | — | — | — | — | — | — | D |

Sample: RW02-01 | EQD35

**Analytical Data and Related Health Advisory Table**

| Sample Collection Information and Parameters | Detection Limits (µg/L) | Sample Result (µg/L) | SMCL* | Standards | | | | Status HA | 10-kg Child | | | 70-kg Adult | | | | µg/L at 10-4 Cancer Risk | Cancer Group |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Status Reg. | NIPDWR (µg/L) | MCLG (µg/L) | MCL (µg/L) | | One Day µg/L | Ten-Day µg/L | Longer-Term µg/L | Longer-Term µg/L | RFD µg/kg/day | DWEL µg/L | Life-time µg/L | | |
| PESTICIDE/PCBS | | | | | | | | | | | | | | | | | |
| alpha-BHC | 0.010 | | | | | | | | | | | | | | | | |
| beta-BHC | 0.010 | | | | | | | | | | | | | | | | |
| delta-BHC | 0.010 | | | | | | | | | | | | | | | | |
| gamma-BHC (Lindane) | 0.010 | | | F | 4 | 0.2 | 0.2 | F | 1,000 | 1,000 | 30 | 100 | 0.3 | 10 | 0.2 | — | C |
| Heptachlor | 0.010 | | | F | — | ZERO | 0.4 | F | 10 | 10 | 5 | 5 | 0.5 | 20 | — | 0.8 | B2 |
| Aldrin | 0.010 | | | — | — | — | — | D | 0.3 | 0.3 | 0.3 | 0.3 | 0.03 | 1 | — | 0.2 | B2 |
| Heptachlor epoxide | 0.010 | | | F | — | ZERO | 0.2 | F | 10 | — | 0.1 | 0.1 | 1.3E-02 | 0.4 | — | 0.4 | B2 |
| Endosulfan I | 0.010 | | | | | | | | | | | | | | | | |
| Dieldrin | 0.020 | | | — | — | — | — | F | 0.5 | 0.5 | 0.5 | 2 | 0.05 | 2 | — | 0.2 | B2 |
| 4,4'-DDE | 0.020 | | | | | | | | | | | | | | | | |
| Endrin | 0.020 | | | P | 0.2 | 2 | 2 | F | 20 | 20 | 3 | 10 | 0.3 | 10 | 2 | — | D |
| Endosulfan II | 0.020 | | | | | | | | | | | | | | | | |
| 4,4'-DDD | 0.020 | | | | | | | | | | | | | | | | |
| Endosulfan sulfate | 0.020 | | | | | | | | | | | | | | | | |
| 4,4'-DDT | 0.020 | | | | | | | | | | | | | | | | |
| Methyoxychlor | 0.100 | | | F | 100 | 40 | 40 | F | 50 | 50 | 50 | 200 | 5 | 200 | 40 | — | D |
| Endrin ketone | 0.020 | | | | | | | | | | | | | | | | |
| Endrin Aldehyde | 0.020 | | | | | | | | | | | | | | | | |
| alpha-Chlordane | 0.010 | | | | | | | | | | | | | | | | |
| gamma-Chlordane | 0.010 | | | | | | | | | | | | | | | | |
| Toxaphene | 1.00 | | | F | 5 | ZERO | 3 | F | 500 | 40 | — | — | 100 | 3.5 | — | 3 | B2 |
| PCBs | 0.200 - 0.400 | | | F | — | ZERO | 0.5 | P | — | — | — | — | — | — | — | 0.5 | B2 |

Sample: RW02-01 | MEQF36

**Analytical Data and Related Health Advisory Table**

| Sample Collection Information and Parameters | Detection Limits (µg/L) | Sample Result (µg/L) | SMCL* | Standards | | | | Status HA | 10-kg Child | | | 70-kg Adult | | | | µg/L at 10-4 Cancer Risk | Cancer Group |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Status Reg. | NIPDWR (µg/L) | MCLG (µg/L) | MCL (µg/L) | | One Day µg/L | Ten-Day µg/L | Longer-Term µg/L | Longer-Term µg/L | RFD µg/kg/day | DWEL µg/L | Lifetime µg/L | | |
| INORGANICS | | | | | | | | | | | | | | | | | |
| Aluminum | 80 | | 50-200 | L | — | — | — | D | — | — | — | — | — | — | | — | |
| Antimony | 2 | | | P | — | 3.0 | 10/6 | D | 15 | 15 | 15 | 15 | 0.4 | 15 | 3 | — | D |
| Arsenic | 2 | 1.3 BJ | | | 50 | — | 50 | D | — | — | — | — | — | — | — | 2 | A |
| Barium | 6 | 124 | | F | 1,000 | 2,000 | 2,000 | F | — | — | — | — | 70 | 2,000 | 2,000 | — | D |
| Beryllium | 1 | | | P | — | ZERO | 1 | D | 30,000 | 30,000 | 4,000 | 20,000 | 5 | 200 | — | 0.8 | B2 |
| Cadmium | 0.2 | | | F | 10 | 5 | 5 | F | 40 | 40 | 5 | 20 | 0.5 | 20 | 5 | — | D |
| Calcium | 500 | 12,700 NJ | | | | | | | | | | | | | | | |
| Chromium | 8 | | | F | 50 | 100 | 100 | F | 1,000 | 1,000 | 200 | 800 | 5 | 200 | 100 | — | D |
| Cobalt | 6 | | | | | | | | | | | | | | | | |
| Copper | 6 | | 1,000 | | | 1,300 | 1,300 | — | — | — | — | — | — | — | — | — | D |
| Iron | 80 | 462 | 300 | | | | | | | | | | | | | | |
| Lead (at top) | 2 | | | F | — | ZERO | TT | — | — | — | — | — | — | — | — | — | B2 |
| Magnesium | 100 | 33,200 NJ | | | | | | | | | | | | | | | |
| Manganese | 5 | 327 NJ | 50 | | — | — | — | D | — | — | — | — | 140 | — | — | — | — |
| Mercury | 0.1 | | | F | 2 | 2 | 2 | F | — | — | — | 2 | 0.3 | 10 | 2 | — | D |
| Nickel | 15 | | | P | — | 100 | 100 | F | 1,000 | 1,000 | 500 | 1,700 | 20 | 800 | 100 | — | D |
| Potassium | 5,000 | 2,960 | | | | | | | | | | | | | | | |
| Selenium | 2 | | | F | 10 | 50 | 50 | — | — | — | — | — | 5 | — | — | — | — |
| Silver | 6 | | 100 | — | 50 | — | — | D | 200 | 200 | 200 | 200 | 5 | 20 | 100 | — | D |
| Sodium | 1,000 | ~~30,100~~ | 30,100 | | — | — | — | D | — | — | — | — | — | 20,000 | — | — | — |
| Thallium | 2 | | | P | — | 0.5 | 4 | D | 7 | 7 | 7 | 20 | 0.07 | 2 | 0.4 | — | — |
| Vanadium | 5 | | | L | — | — | — | D | 80 | 80 | 30 | 110 | 3 | 110 | 20 | — | D |
| Zinc | 40 | | 5,000 | L | — | — | — | D | — | — | — | — | 300 | 10,500 | 2,100 | — | D |
| Cyanide | 8 | | | T | — | 200 | 200 | F | 200 | 200 | 200 | 800 | 22 | 800 | 200 | — | D |

* - Secondary Maximum Contaminant Levels (µg/L) as indicated in "Drinking Water Regulations and Health Advisories" April 1992.

DESCRIPTION AND QUALIFIERS FOR ANALYTICAL DATA AND RELATED HEALTH ADVISORY TABLE

| NO | COLUMN | DESCRIPTION |
|---|---|---|
| 1 | SAMPLE COLLECTION, INFORMATION AND PARAMETERS | The compounds and analytes analyzed for in this water sample |
| 2 | Detection Limits | The limits that a laboratory must meet as part of the analytical service contract. |
| 3 | Samples Results | The value determined by the analysis. |
| 4 | SMCL | This column includes the currently available secondary Maximum Contaminant Levels (SMCLs). |
| 5 | Status Reg | F = Final; D = Draft; L = Listed; P = Proposed (Phase II); T = Tentative (Phase V) |
| 6 | NIPDWR | National Interim Primary Drinking Water Regulation. Interim enforceable drinking water regulations first established under the Safe Drinking Water Act that are protective of public health to the extent feasible. |
| 7 | MCLG | Maximum Contaminant Level Goal. A non-enforceable concentration of a drinking water contaminant that is protective of adverse human health effects and allows a adequate margin of safety. |
| 8 | MCL | Maximum Contaminant Level. Maximum permissible level of a contaminant in water which is delivered to any user of a public water system. MCL's are legally enforceable. |
| 9 | Status HA<br>(also see Status Reg) | Health Advisories (HA) provide information on the health effects, analytical methods and treatments technology useful for dealing with drinking contamination. HA are non-regulated concentrations and contain a margin of safety to protect sensitive members of the population: HA are not construed as legally enforceable federal standards and are subject to change as new information becomes available. HA values are derived for adult (assuming 70 kg weight and consuming 2 L. of water daily) and for child (assuming 10 kg weight) the same way. |
| 10 | 10 Kg Child<br>a. 1 day<br>b. 10 day<br>c. Longer Term | The child is assumed to be a more sensitive population entity. Assumption is that body weight of child is 10 kg and 1 Liter of water is ingested daily. Under these and other assumptions specific to the available toxicological data bases, HA values have been derived for 1 day and 10 day exposures.<br>Longer term is defined as approximately 7 years of 10% of an individual's life time. |
| 11 | 70 Kg Adult<br>a. Longer Term<br>b. RFD<br><br>c. DWEL<br><br>d. Lifetime | The adult is assumed to weigh 70 kg and consume 2 Liters of water daily.<br>Longer term is defined as approximately 7 years of 10% of an individual's life time.<br>Reference Dose: The RFD is an estimate of a daily exposure to the human population that is likely to be without appreciable risk or deleterious effects over a lifetime. The RFD is expressed in units of daily dose.<br>Drinking Water Equivalent Level. A lifetime exposure concentration that is likely to have adverse, noncancer health effects, that assumes all of the exposure to a contaminant is from a drinking water source.<br>Lifetime Health Advisory: This value is determined by factoring in other sources of exposure to the particular contaminant. The relative source contribution from drinking water is based on actual exposure data. In the absence of chemical specific data, a value of 20% for organics and 10% for inorganics is assumed. |

DESCRIPTION AND QUALIFIERS FOR ANALYTICAL DATA AND RELATED HEALTH ADVISORY TABLE

| NO | COLUMN | DESCRIPTION |
|---|---|---|
| 12 | µg/L as E-04 Cancer Risk | This column contains values indicating the concentration of the particular contaminant in drinking water that would produce an E-04 (10 to the minus 4 power) excess lifetime cancer risk. It means if a group of 10,000 persons were exposed to the contaminant at its respective concentration (as listed in this column), then ONE individual in the group might be expected to develop cancer (above background) solely from exposure to that contaminant in drinking water. |
| 13 | Cancer Group | These are the guidelines developed for carcinogen risk assessment. These guidelines discuss weighing the evidence that a substance is a carcinogen, and classifying the chemical into one of five groups, based on weight of evidence.<br><br>Group A - Human Carcinogen<br>Group B - Probable human carcinogen<br>Group B1 - Probable human carcinogen, limited human evidence but sufficient animal evidence.<br>Group B2 - Probable human carcinogen, sufficient animal evidence, but inadequate or no human evidence.<br>Group C - Possible human carcinogen.<br>Group D - Not classified as to human carcinogenicity<br>Group E - Evidence of non-carcinogenicity for humans. |
| NA | Not Applicable | |
| PS | Performance Standard 0.5 NTU - 1.0 NTU | |

## DATA QUALIFIERS[1]

| Organics<br>Footnote | Definition | Interpretation |
|---|---|---|
| U | Indicates compound was analyzed for but not detected | Compound was not detected. |
| J | Indicates an estimated value. | Compound value may be semiquantitative. |
| UJ | Quantitation limit is estimated due to a Quality Control (QC) protocol. | Compound was not detected. |
| C | This flag applies to pesticide results where the identification has been confirmed by GC/MS. Single component pesticides ≥ ng/ul in the final extract shall be confirmed by GC/MS. | Compound was confirmed by mass spectroscopy. |
| B | This flag is used when the analyte is found in the associated blank as well as in the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action. | Compound value may be semiquantitative if it is <5x the blank concentration (10x the blank concentrations for common lab artifacts: phthalates, methylene chloride, acetone, toluene, 2-butanone). |
| E | This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for that specific analysis. This flag will not apply to pesticides/PCBs analyzed by GC/EC methods. | Compound value may be semiquantitative. |
| D | This flag identifies all compounds identified in an analysis at a secondary dilution factor. | Alerts data user to a possible change in the CRQL. |
| A | This flag indicates that a TIC is a suspected aldol-condensation product. | Alerts data user of a lab artifact. |
| R | Results are unusable due to a major violation of QC protocol. | Compound value is not usable. |

[1] - Only detectable concentrations are included in the analytical data table.

## DATA QUALIFIERS[1]

**(Continued)**

| Inorganics Footnote | | Definition | Interpretation |
|---|---|---|---|
| Old | New | | |
| E | E | Estimated or not reported due to interference. See laboratory narrative. | Compound or element was not detected or value may be semiquantitative. |
| * | * | Analysis by Method of Standard Additions. | Value may be quantitative. |
| R | N | Spike recoveries outside QC protocols which indicates a possible matrix problem. Data may be biased high or low. See spike results and laboratory narrative. | Value may be quantitative or semiquantitative. |
| * | * | Duplicate value outside QC protocols which indicates a possible matrix problem. | Value may be semiquantitative. |
| + | + | Correlation coefficient for standard additions to less than 0.995. See review and laboratory narrative. | Data value may be biased. |
| { } | B | Value is real, but is above instrument DL and below CRDL. | Value may be quantitative or semiquantitative. |
| UJ | | DL is estimated because of a QC protocol. DL is possibly above or below CRDL. | Compound or element was not detected. |
| J | | Value is above CRDL and is an estimated value because of a QC protocol. | Value may be semiquantitative. |
| U | U | Compound was analyzed for but not detected. | Compound was not detected. |
| | M | Duplicate injection precision not met. | Value may be semiquantitative. |
| | W | Post-digestion spike for furnace AA analysis is out of control limits (35-115%), while sample absorbance is <50% of spike absorbance. | Value may be semiquantitative. |

Sample: _____

**Analytical Data and Related Health Advisory Table**

| Sample Collection Information and Parameters | Detection Limits (µg/L) | Sample Result (µg/L) | SMCL* | Standards | | | | Status HA | 10-kg Child | | | 70-kg Adult | | | | µg/L at 10-4 Cancer Risk | Cancer Group |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Status Reg. | NIPDWR (µg/L) | MCLG (µg/L) | MCL (µg/L) | | One Day µg/L | Ten-Day µg/L | Longer-Term µg/L | Longer-Term µg/L | RFD µg/kg/day | DWEL µg/L | Life-time µg/L | | |
| INORGANICS | | | | | | | | | | | | | | | | | |
| Aluminum | 100 | | 50-200 | L | --- | --- | --- | D | --- | --- | --- | --- | --- | --- | | --- | |
| Antimony | 6 | | | P | --- | 3.0 | 10/6 | D | 15 | 15 | 15 | 15 | 0.4 | 15 | 3 | --- | D |
| Arsenic | 6 | | | | 50 | --- | 50 | D | --- | --- | --- | --- | --- | --- | --- | 2 | A |
| Barium | 50 | | | F | 1,000 | 2,000 | 2,000 | F | --- | --- | --- | --- | 70 | 2,000 | 2,000 | --- | D |
| Beryllium | 6 | | | P | --- | ZERO | 1 | D | 30,000 | 30,000 | 4,000 | 20,000 | 5 | 200 | --- | 0.8 | B2 |
| Cadmium | 0.5 | | | F | 10 | 5 | 5 | F | 40 | 40 | 6 | 20 | 0.5 | 20 | 5 | --- | D |
| Calcium | 1,000 | | | | | | | | | | | | | | | | |
| Chromium | 10 | | | F | 50 | 100 | 100 | F | 1,000 | 1,000 | 200 | 800 | 5 | 200 | 100 | --- | D |
| Cobalt | 10 | | | | | | | | | | | | | | | | |
| Copper | 10 | | 1,000 | | | 1,300 | 1,300 | --- | --- | --- | --- | --- | --- | --- | --- | --- | D |
| Iron | 100 | | 300 | | | | | | | | | | | | | | |
| Lead (at top) | 2 | | | F | --- | ZERO | TT | --- | --- | --- | --- | --- | --- | --- | --- | --- | B2 |
| Magnesium | 1,000 | | | | | | | | | | | | | | | | |
| Manganese | 10 | | 50 | | --- | --- | --- | D | --- | --- | --- | --- | 140 | --- | --- | --- | --- |
| Mercury | 0.2 | | | F | 2 | 2 | 2 | F | --- | --- | --- | 2 | 0.3 | 10 | 2 | --- | D |
| Nickel | 20 | | | P | --- | 100 | 100 | F | 1,000 | 1,000 | 500 | 1,700 | 20 | 600 | 100 | --- | D |
| Potassium | 2,000 | | | | | | | | | | | | | | | | |
| Selenium | 2 | | | F | 10 | 50 | 50 | --- | --- | --- | --- | --- | 5 | --- | --- | --- | --- |
| Silver | 5 | | 100 | --- | 50 | --- | --- | D | 200 | 200 | 200 | 200 | 5 | 20 | 100 | --- | D |
| Sodium | 1,000 | | | | --- | --- | --- | D | --- | --- | --- | --- | --- | 20,000 | --- | --- | --- |
| Thallium | 2 | | | P | --- | 0.5 | 4 | D | 7 | 7 | 7 | 20 | 0.07 | 2 | 0.4 | --- | --- |
| Vanadium | 20 | | | L | --- | --- | --- | D | 80 | 80 | 30 | 110 | 3 | 110 | 20 | --- | D |
| Zinc | 20 | | 5,000 | L | --- | --- | --- | D | --- | --- | --- | --- | 300 | 10,500 | 2,100 | --- | D |
| Cyanide | 10 | | | T | --- | 200 | 200 | F | 200 | 200 | 200 | 800 | 22 | 800 | 200 | --- | D |

* - Secondary Maximum Contaminant Levels (µg/L) as indicated in "Drinking Water Regulations and Health Advisories" April 1992.

# Drinking Water Memorandum

DATE: _____

Site Name: LEESBURG FOUNDRY
CERCLIS ID: IND 984867747
WA NO.: 45-5JZZ

TO: 1. Ms. Jan Pels, U.S. EPA
2. State Contact _____

FROM: P. Krishnan, Roy F. Weston, Inc.

SUBJECT: Drinking Water Sample Results

Sample: RW02-01DP / EQD36 / MEQF37

Action Level

☐ No Contamination _____
No hits above any health-related standards.

☐ Low Level Contamination _____
Hits just above health-related standards.

☐ Significant Contamination _____
Hits are above health-related standards.

☐ Please check the following. They are less than health-related standards but above detection limits.

| | |
|---|---|
| _____ | _____ |
| _____ | _____ |
| _____ | _____ |
| _____ | _____ |
| _____ | _____ |

☐ Please check secondary maximum contamination limits for:

| | | | |
|---|---|---|---|
| Aluminum | _____ | Manganese | _____ |
| Copper | _____ | Silver | _____ |
| Iron | _____ | Zinc | _____ |

_____
P. Krishnan

Sample: RW02-01DP / EQD36

**Analytical Data and Related Health Advisory Table**

| Sample Collection Information and Parameters | Detection Limits (µg/L) | Sample Result (µg/L) | SMCL* | Standards | | | | Status HA | 10-kg Child | | | 70-kg Adult | | | | µg/L at 10-4 Cancer Risk | Cancer Group |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Status Reg. | NIPDWR (µg/L) | MCLG (µg/L) | MCL (µg/L) | | One Day µg/L | Ten-Day µg/L | Longer-Term µg/L | Longer-Term µg/L | RFD µg/kg/day | DWEL µg/L | Life-time µg/L | | |
| VOLATILE ORGANICS | | | | | | | | | | | | | | | | | |
| Chloromethane | 1 | | | L | — | — | — | F | 9,000 | 400 | 400 | 1,000 | 4 | 100 | 3 | — | C |
| Bromomethane | 1 | | | L | — | — | — | F | 100 | 100 | 100 | 600 | 1 | 50 | 10 | — | D |
| Vinyl Chloride | 1 | | | F | — | ZERO | 2 | F | 3,000 | 3,000 | 10 | 50 | — | — | — | 1.5 | A |
| Chloroethane | 1 | 6 | | L | — | — | — | D | — | — | — | — | — | — | — | — | — |
| Methylene Chloride | 2 | | | | | | | | | | | | | | | | |
| Acetone | 5 | | | | | | | | | | | | | | | | |
| Carbon Disulfide | 1 | | | | | | | | | | | | | | | | |
| 1,1-Dichloroethene | 1 | | | F | — | 7 | 7 | F | 2,000 | 1,000 | 1,000 | 4,000 | 9 | 400 | 7 | — | C |
| 1,1-Dichloroethane | 1 | | | L | — | — | — | D | — | — | — | — | — | — | — | — | — |
| cis-1,2-Dichloroethene | 1 | | | F | — | 70 | 70 | F | 4,000 | 3,000 | 3,000 | 11,000 | 10 | 400 | 70 | — | D |
| trans-1,2-Dichloroethene | 1 | | | F | — | 100 | 100 | F | 20,000 | 2,000 | 2,000 | 6,000 | 20 | 600 | 100 | — | D |
| Chloroform | 1 | | | L | 100 | — | 100 | D | 4,000 | 4,000 | 100 | 400 | 10 | 400 | — | 600 | B2 |
| 1,2-Dichloroethane | 1 | | | F | — | ZERO | 5 | F | 700 | 700 | 700 | 2,600 | — | — | — | 40 | B2 |
| 2-Butanone | 5 | | | L | — | — | — | F | 80,000 | 8,000 | 3,000 | 9,000 | 0.05 | 900 | 200 | — | D |
| Bromochloromethane | 1 | | | — | 100 | — | — | F | 50,000 | 1,000 | 1,000 | 5,000 | 13 | 500 | 90 | — | — |
| 1,1,1-Trichloroethane | 1 | | | F | — | 200 | 200 | F | 100,000 | 40,000 | 40,000 | 100,000 | 35 | 1,000 | 200 | — | D |
| Carbon Tetrachloride | 1 | | | F | — | ZERO | 5 | F | 4,000 | 200 | 70 | 300 | 0.7 | 30 | — | 30 | B2 |
| Bromodichloromethane | 1 | | | L | — | — | 100 | D | 7,000 | 7,000 | 4,000 | 13,000 | 20 | 700 | — | 140 | B2 |
| 1,2-Dichloropropane | 1 | | | F | — | ZERO | 5 | F | — | 90 | — | — | — | — | — | 50 | B2 |
| cis-1,3-Dichloropropene | 1 | | | | | | | | | | | | | | | | |
| Trichloroethene | 1 | | | F | — | ZERO | 5 | F | — | — | — | — | — | 300 | — | 300 | B2 |
| Dibromochloromethane | 1 | | | | | | | | | | | | | | | | |
| 1,1,2,2-Tetrachloroethane | 1 | | | L | — | — | — | D | — | — | — | — | — | — | — | — | — |
| 1,1,2-Trichloroethane | 1 | | | P | 5 | 3 | 5 | F | 600 | 400 | 400 | 1,000 | 4 | 100 | 3 | — | C |
| Benzene | 1 | | | F | — | ZERO | 5 | F | 200 | 200 | — | — | — | — | — | 100 | A |
| trans-1,3-Dichloropropene | 1 | | | | | | | | | | | | | | | | |
| Bromoform | 1 | | | L | 100 | — | 100 | D | 5,000 | 2,000 | 2,000 | 8,000 | 20 | 700 | — | 400 | B2 |
| 4-Methyl-2-pentanone | 5 | | | | | | | | | | | | | | | | |
| 2-Hexanone | 5 | | | | | | | | | | | | | | | | |
| Tetrachloroethene | 1 | | | F | — | ZERO | 5 | F | 2,000 | 2,000 | 1,000 | 5,000 | 10 | 500 | — | 70 | — |
| 1,2-Dibromoethane | 1 | | | | | | 1,000 | | | | | | | | | | |
| Toluene | 1 | | | F | — | 1,000 | | F | 20,000 | 2,000 | 2,000 | 7,000 | 200 | 7,000 | 1,000 | — | D |
| Chlorobenzene | 1 | | | | | | | | | | | | | | | | |
| Ethyl Benzene | 1 | | | F | — | 700 | 700 | F | 30,000 | 3,000 | 1,000 | 300 | 100 | 3,000 | 700 | — | D |
| Styrene | 1 | | | F | — | 100 | 100 | F | 20,000 | 2,000 | 2,000 | 7,000 | 200 | 7,000 | 100 | — | C |
| Xylene (total) | 1 | | | F | — | 10,000 | 10,000 | F | 40,000 | 40,000 | 40,000 | 100,000 | 2,000 | 80,000 | 10,000 | — | D |
| 1,3-Dichlorobenzene | 1 | | | | | | | | | | | | | | | | |
| 1,4-Dichlorobenzene | 1 | | | | | | | | | | | | | | | | |
| 1,2-Dichlorobenzene | 1 | | | | | | | | | | | | | | | | |
| 1,2-Dibromo-3-chloropropane | 1 | | | | | | | | | | | | | | | | |

Sample: RW02-01DP1 EED36

**Analytical Data and Related Health Advisory Table**

| Sample Collection Information and Parameters | Detection Limits (µg/L) | Sample Result (µg/L) | SMCL[a] | Standards | | | | Status HA | 10-kg Child | | | 70-kg Adult | | | | µg/L at 10-4 Cancer Risk | Cancer Group |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Status Reg. | NIPDWR (µg/L) | MCLG (µg/L) | MCL (µg/L) | | One Day µg/L | Ten-Day µg/L | Longer-Term µg/L | Longer-Term µg/L | RFD µg/kg/day | DWEL µg/L | Life-time µg/L | | |
| SEMIVOLATILE ORGANICS | | | | | | | | | | | | | | | | | |
| Phenol | 5 | | | — | — | — | — | D | 6,000 | 6,000 | 6,000 | 20,000 | 600 | 20,000 | 4,000 | — | D |
| bis(2-Chloroethyl)ether | 5 | | | | | | | | | | | | | | | | |
| 2-Chlorophenol | 5 | | | — | — | — | — | D | 50 | 50 | 50 | 200 | 5 | 200 | 40 | — | D |
| 2-Methylphenol | 5 | | | | | | | | | | | | | | | | |
| 2,2'-oxybis(1-Chloropropane) | 5 | | | | | | | | | | | | | | | | |
| 4-Methylphenol | 5 | | | | | | | | | | | | | | | | |
| N-Nitroso-di-n-propylamine | 5 | | | | | | | | | | | | | | | | |
| Hexachloroethane | 5 | | | L | — | — | — | F | 5,000 | 5,000 | 100 | 500 | 1 | 400 | 1 | — | C |
| Nitrobenzene | 5 | | | | | | | | | | | | | | | | |
| Isophorone | 5 | | | L | — | — | — | D | 15,000 | 15,000 | 15,000 | 15,000 | 200 | 7,000 | 100 | — | C |
| 2-Nitrophenol | 5 | | | | | | | | | | | | | | | | |
| 2,4-Dimethylphenol | 5 | | | | | | | | | | | | | | | | |
| bis(2-Chloroethoxy)methane | 5 | | | | | | | | | | | | | | | | |
| 2,4-Dichlorophenol | 5 | | | — | — | — | — | D | 30 | 30 | 30 | 100 | 3 | 100 | 20 | — | D |
| 1,2,4-Trichlorobenzene | 5 | | | P | — | 70 | 70 | F | 100 | 100 | 100 | 500 | 10 | 400 | 70 | — | D |
| Naphthalene | 5 | | | — | — | — | — | F | 500 | 500 | 400 | 1,000 | 4 | 100 | 20 | — | D |
| 4-Chloroaniline | 5 | | | | | | | | | | | | | | | | |
| Hexachlorobutadiene | 5 | | | L | — | — | — | F | 300 | 300 | 100 | 400 | 2 | 70 | 1 | — | C |
| 4-Chloro-3-methylphenol | 5 | | | | | | | | | | | | | | | | |
| 2-Methylnaphthalene | 5 | | | | | | | | | | | | | | | | |
| Hexachlorocyclopentadiene | 5 | | 8 | P | — | 50 | 50 | — | — | — | — | — | 7 | 200 | — | — | D |
| 2,4,6-Trichlorophenol | 5 | | | L | — | — | — | D | — | — | — | — | — | — | — | 300 | B2 |
| 2,4,5-Trichlorophenol | 20 | | | | | | | | | | | | | | | | |
| 2-Chloronaphthalene | 5 | | | | | | | | | | | | | | | | |
| 2-Nitroaniline | 20 | | | | | | | | | | | | | | | | |
| Dimethylphthalate | 5 | | | — | — | — | — | — | — | — | — | — | — | — | — | — | D |
| Acenaphthylene | 5 | | | | | | | | | | | | | | | | |
| 2,6-Dinitrotoluene | 5 | | | L | — | — | — | F | 400 | 400 | 400 | 1,000 | 1 | 40 | — | 5,000 | B2 |
| 3-Nitroaniline | 20 | | | | | | | | | | | | | | | | |
| Acenaphthene | 5 | | | — | — | — | — | — | — | — | — | — | 60 | — | — | — | — |
| 2,4-Dinitrophenol | 20 | | | | | | | | | | | | | | | | |
| 4-Nitrophenol | 20 | | | | | | | | | | | | | | | | |
| Dibenzofuran | 5 | | | | | | | | | | | | | | | | |
| 2,4-Dinitrotoluene | 5 | | | L | — | — | — | F | 500 | 500 | 300 | 1,000 | 2 | 100 | — | 5,000 | B2 |
| Diethylphthalate | 5 | | | | | | | | | | | | | | | | |
| 4-Chlorophenyl-phenyl ether | 5 | | | | | | | | | | | | | | | | |
| Fluorene | 5 | | | — | — | — | — | — | — | — | — | — | 40 | — | — | — | D |
| 4-Nitroaniline | 20 | | | | | | | | | | | | | | | | |
| 4,6-Dinitro-2-methylphenol | 20 | | | | | | | | | | | | | | | | |
| N-Nitrosodiphenylamine (1) | 5 | | | | | | | | | | | | | | | | |

Sample: RW02-01DP/EQD 36

**Analytical Data and Related Health Advisory Table (Continued)**

| Sample Collection Information and Parameters | Detection Limits (µg/L) | Sample Result (µg/L) | SMCL* | Standards | | | | Status HA | 10-kg Child | | | 70-kg Adult | | | | µg/L at 10-4 Cancer Risk | Cancer Group |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Status Reg. | NIPDWR (µg/L) | MCLG (µg/L) | MCL (µg/L) | | One Day µg/L | Ten-Day µg/L | Longer-Term µg/L | Longer-Term µg/L | RfD µg/kg/day | DWEL µg/L | Life-time µg/L | | |
| SEMIVOLATILE ORGANICS (CONT.) | | | | | | | | | | | | | | | | | |
| 4-Bromophenyl-phenylether | 5 | | | | | | | | | | | | | | | | |
| Hexachlorobenzene | 5 | | | P | — | ZERO | 1 | F | 50 | 50 | 50 | 200 | 0.8 | 30 | — | 2 | B2 |
| Pentachlorophenol | 20 | | | F | — | ZERO | 1 | F | 1,000 | 300 | 300 | 1,000 | 30 | 1,000 | — | 30 | B2 |
| Phenanthrene | 5 | | | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Anthracene | 5 | | | — | — | — | — | — | — | — | — | — | 300 | — | — | — | D |
| Di-n-butylphthalate | 5 | | | | | | | | | | | | | | | | |
| Fluoranthene | 5 | | | | | | | | | | | | | | | | |
| Pyrene | 5 | | | — | — | — | — | — | — | — | — | — | 30 | — | — | — | D |
| Butylbenzylphthalate | 5 | | | P | — | ZERO | 100 | — | — | — | — | — | 200 | 6,000 | — | — | C |
| 3,3'Dichlorobenzidine | 5 | | | | | | | | | | | | | | | | |
| Benzo(a)anthracene | 5 | | | P | — | ZERO | 0.1 | — | — | — | — | — | — | — | — | — | B2 |
| Chrysene | 5 | | | P | — | ZERO | 0.2 | — | — | — | — | — | — | — | — | — | B2 |
| Bis(2-Ethylhexyl)phthalate | 5 | | | | | | | | | | | | | | | | |
| Di-n-octylphthalate | 5 | | | | | | | | | | | | | | | | |
| Benzo(b)fluoranthene | 5 | | | P | — | ZERO | 0.2 | — | — | — | — | — | — | — | — | — | B2 |
| Benzo(k)fluoranthene | 5 | | | P | — | ZERO | 0.2 | — | — | — | — | — | — | — | — | — | B2 |
| Benzo(a)pyrene | 5 | | | P | — | ZERO | 0.2 | — | — | — | — | — | — | — | — | — | B2 |
| Indeno(1,2,3-cd)pyrene | 5 | | | P | — | ZERO | 0.4 | D | — | — | — | — | — | — | — | — | B2 |
| Dibenz(a,h)anthracene | 5 | | | P | — | ZERO | 0.3 | — | — | — | — | — | — | — | — | — | B2 |
| Benzo(g,h,i)perylene | 5 | | | — | — | — | — | — | — | — | — | — | — | — | — | — | D |

Sample: RW02-01DP/EQD36

**Analytical Data and Related Health Advisory Table**

| Sample Collection Information and Parameters | Detection Limits (µg/L) | Sample Result (µg/L) | SMCL* | Standards | | | | Status HA | 10-kg Child | | | 70-kg Adult | | | | µg/L at 10-4 Cancer Risk | Cancer Group |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Status Reg. | NIPDWR (µg/L) | MCLG (µg/L) | MCL (µg/L) | | One Day µg/L | Ten-Day µg/L | Longer-Term µg/L | Longer-Term µg/L | RFD µg/kg/day | DWEL µg/L | Life-time µg/L | | |
| PESTICIDE/PCBS | | | | | | | | | | | | | | | | | |
| alpha-BHC | 0.010 | | | | | | | | | | | | | | | | |
| beta-BHC | 0.010 | | | | | | | | | | | | | | | | |
| delta-BHC | 0.010 | | | | | | | | | | | | | | | | |
| gamma-BHC (Lindane) | 0.010 | | | F | 4 | 0.2 | 0.2 | F | 1,000 | 1,000 | 30 | 100 | 0.3 | 10 | 0.2 | — | C |
| Heptachlor | 0.010 | 0.0040JPB | | F | — | ZERO | 0.4 | F | 10 | 10 | 5 | 5 | 0.5 | 20 | — | 0.8 | B2 |
| Aldrin | 0.010 | | | — | — | — | — | D | 0.3 | 0.3 | 0.3 | 0.3 | 0.03 | 1 | — | 0.2 | B2 |
| Heptachlor epoxide | 0.010 | | | F | — | ZERO | 0.2 | F | 10 | — | 0.1 | 0.1 | 1.3E-02 | 0.4 | — | 0.4 | B2 |
| Endosulfan I | 0.010 | | | | | | | | | | | | | | | | |
| Dieldrin | 0.020 | | | — | — | — | — | F | 0.5 | 0.5 | 0.5 | 2 | 0.05 | 2 | — | 0.2 | B2 |
| 4,4'-DDE | 0.020 | | | | | | | | | | | | | | | | |
| Endrin | 0.020 | | | P | 0.2 | 2 | 2 | F | 20 | 20 | 3 | 10 | 0.3 | 10 | 2 | — | D |
| Endosulfan II | 0.020 | | | | | | | | | | | | | | | | |
| 4,4'-DDD | 0.020 | | | | | | | | | | | | | | | | |
| Endosulfan sulfate | 0.020 | | | | | | | | | | | | | | | | |
| 4,4'-DDT | 0.020 | | | | | | | | | | | | | | | | |
| Methyoxychlor | 0.100 | | | F | 100 | 40 | 40 | F | 50 | 50 | 50 | 200 | 5 | 200 | 40 | — | D |
| Endrin ketone | 0.020 | | | | | | | | | | | | | | | | |
| Endrin Aldehyde | 0.020 | | | | | | | | | | | | | | | | |
| alpha-Chlordane | 0.010 | | | | | | | | | | | | | | | | |
| gamma-Chlordane | 0.010 | | | | | | | | | | | | | | | | |
| Toxaphene | 1.00 | | | F | 5 | ZERO | 3 | F | 500 | 40 | — | — | 100 | 3.5 | — | 3 | B2 |
| PCBs | 0.200 - 0.400 | | | F | — | ZERO | 0.5 | P | — | — | — | — | — | — | — | 0.5 | B2 |

Sample: RW02-01DP | MEQF37

**Analytical Data and Related Health Advisory Table**

| Sample Collection Information and Parameters | Detection Limits (µg/L) | Sample Result (µg/L) | SMCL* | Standards | | | | Status HA | 10-kg Child | | | 70-kg Adult | | | | µg/L at 10-4 Cancer Risk | Cancer Group |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Status Reg. | NIPDWR (µg/L) | MCLG (µg/L) | MCL (µg/L) | | One Day µg/L | Ten-Day µg/L | Longer-Term µg/L | Longer-Term µg/L | RFD µg/kg/day | DWEL µg/L | Life-time µg/L | | |
| INORGANICS | | | | | | | | | | | | | | | | | |
| Aluminum | 80 | | 50-200 | L | — | — | — | D | — | — | — | — | — | — | | — | |
| Antimony | 2 | | | P | — | 3.0 | 10/5 | D | 15 | 15 | 15 | 15 | 0.4 | 15 | 3 | — | D |
| Arsenic | 2 | 2.2 BJ | | | 50 | — | 50 | D | — | — | — | — | — | — | — | 2 | A |
| Barium | 6 | 123 | | F | 1,000 | 2,000 | 2,000 | F | — | — | — | — | 70 | 2,000 | 2,000 | — | D |
| Beryllium | 1 | | | P | — | ZERO | 1 | D | 30,000 | 30,000 | 4,000 | 20,000 | 5 | 200 | — | 0.8 | B2 |
| Cadmium | 0.2 | | | F | 10 | 5 | 5 | F | 40 | 40 | 5 | 20 | 0.5 | 20 | 5 | — | D |
| Calcium | 500 | 12,700 NJ | | | | | | | | | | | | | | | |
| Chromium | 8 | | | F | 50 | 100 | 100 | F | 1,000 | 1,000 | 200 | 800 | 5 | 200 | 100 | — | D |
| Cobalt | 6 | | | | | | | | | | | | | | | | |
| Copper | 6 | | 1,000 | | | 1,300 | 1,300 | — | — | — | — | — | — | — | — | — | D |
| Iron | 80 | 485 | 300 | | | | | | | | | | | | | | |
| Lead (at top) | 2 | | | F | — | ZERO | TT | — | — | — | — | — | — | — | — | — | B2 |
| Magnesium | 100 | 32,100 NJ | | | | | | | | | | | | | | | |
| Manganese | 5 | 326 NJ | 50 | | — | — | — | D | — | — | — | — | 140 | — | — | — | — |
| Mercury | 0.1 | | | F | 2 | 2 | 2 | F | — | — | — | 2 | 0.3 | 10 | 2 | — | D |
| Nickel | 15 | | | P | — | 100 | 100 | F | 1,000 | 1,000 | 500 | 1,700 | 20 | 600 | 100 | — | D |
| Potassium | 5,000 | 3,150 | | | | | | | | | | | | | | | |
| Selenium | 2 | | | F | 10 | 50 | 50 | — | — | — | — | — | 5 | — | — | — | — |
| Silver | 6 | | 100 | — | 50 | — | — | D | 200 | 200 | 200 | 200 | 5 | 20 | 100 | — | D |
| Sodium | 1,000 | 29,100 | | | — | — | — | D | — | — | — | — | — | 20,000 | — | — | — |
| Thallium | 2 | | | P | — | 0.5 | 4 | D | 7 | 7 | 7 | 20 | 0.07 | 2 | 0.4 | — | — |
| Vanadium | 5 | | | L | — | — | — | D | 80 | 80 | 30 | 110 | 3 | 110 | 20 | — | D |
| Zinc | 40 | | 5,000 | L | — | — | — | D | — | — | — | — | 300 | 10,500 | 2,100 | — | D |
| Cyanide | 8 | | | T | — | 200 | 200 | F | 200 | 200 | 200 | 800 | 22 | 800 | 200 | — | D |

* - Secondary Maximum Contaminant Levels (µg/L) as indicated in "Drinking Water Regulations and Health Advisories" April 1992.

DESCRIPTION AND QUALIFIERS FOR ANALYTICAL DATA AND RELATED HEALTH ADVISORY TABLE

| NO | COLUMN | DESCRIPTION |
|---|---|---|
| 1 | SAMPLE COLLECTION, INFORMATION AND PARAMETERS | The compounds and analytes analyzed for in this water sample |
| 2 | Detection Limits | The limits that a laboratory must meet as part of the analytical service contract. |
| 3 | Samples Results | The value determined by the analysis. |
| 4 | SMCL | This column includes the currently available secondary Maximum Contaminant Levels (SMCLs). |
| 5 | Status Reg | F = Final; D = Draft; L = Listed; P = Proposed (Phase II); T = Tentative (Phase V) |
| 6 | NIPDWR | National Interim Primary Drinking Water Regulation. Interim enforceable drinking water regulations first established under the Safe Drinking Water Act that are protective of public health to the extent feasible. |
| 7 | MCLG | Maximum Contaminant Level Goal. A non-enforceable concentration of a drinking water contaminant that is protective of adverse human health effects and allows a adequate margin of safety. |
| 8 | MCL | Maximum Contaminant Level. Maximum permissible level of a contaminant in water which is delivered to any user of a public water system. MCL's are legally enforceable. |
| 9 | Status HA (also see Status Reg) | Health Advisories (HA) provide information on the health effects, analytical methods and treatments technology useful for dealing with drinking contamination. HA are non-regulated concentrations and contain a margin of safety to protect sensitive members of the population: HA are not construed as legally enforceable federal standards and are subject to change as new information becomes available. HA values are derived for adult (assuming 70 kg weight and consuming 2 L. of water daily) and for child (assuming 10 kg weight) the same way. |
| 10 | 10 Kg Child<br>a. 1 day<br>b. 10 day<br>c. Longer Term | The child is assumed to be a more sensitive population entity. Assumption is that body weight of child is 10 kg and 1 Liter of water is ingested daily. Under these and other assumptions specific to the available toxicological data bases, HA values have been derived for 1 day and 10 day exposures.<br>Longer term is defined as approximately 7 years of 10% of an individual's life time. |
| 11 | 70 Kg Adult<br>a. Longer Term<br>b. RFD<br><br>c. DWEL<br><br>d. Lifetime | The adult is assumed to weigh 70 kg and consume 2 Liters of water daily.<br>Longer term is defined as approximately 7 years of 10% of an individual's life time.<br>Reference Dose: The RFD is an estimate of a daily exposure to the human population that is likely to be without appreciable risk or deleterious effects over a lifetime. The RFD is expressed in units of daily dose.<br>Drinking Water Equivalent Level. A lifetime exposure concentration that is likely to have adverse, noncancer health effects, that assumes all of the exposure to a contaminant is from a drinking water source.<br>Lifetime Health Advisory: This value is determined by factoring in other sources of exposure to the particular contaminant. The relative source contribution from drinking water is based on actual exposure data. In the absence of chemical specific data, a value of 20% for organics and 10% for inorganics is assumed. |

DESCRIPTION AND QUALIFIERS FOR ANALYTICAL DATA AND RELATED HEALTH ADVISORY TABLE

| NO | COLUMN | DESCRIPTION |
|---|---|---|
| 12 | µg/L as E-04 Cancer Risk | This column contains values indicating the concentration of the particular contaminant in drinking water that would produce an E-04 (10 to the minus 4 power) excess lifetime cancer risk. It means if a group of 10,000 persons were exposed to the contaminant at its respective concentration (as listed in this column), then ONE individual in the group might be expected to develop cancer (above background) solely from exposure to that contaminant in drinking water. |
| 13 | Cancer Group | These are the guidelines developed for carcinogen risk assessment. These guidelines discuss weighing the evidence that a substance is a carcinogen, and classifying the chemical into one of five groups, based on weight of evidence.<br><br>Group A - Human Carcinogen<br>Group B - Probable human carcinogen<br>Group B1 - Probable human carcinogen, limited human evidence but sufficient animal evidence.<br>Group B2 - Probable human carcinogen, sufficient animal evidence, but inadequate or no human evidence.<br>Group C - Possible human carcinogen.<br>Group D - Not classified as to human carcinogenicity<br>Group E - Evidence of non-carcinogenicity for humans. |
| NA | Not Applicable | |
| PS | Performance Standard 0.5 NTU - 1.0 NTU | |

## DATA QUALIFIERS[1]

| Organics<br>Footnote | Definition | Interpretation |
|---|---|---|
| U | Indicates compound was analyzed for but not detected | Compound was not detected. |
| J | Indicates an estimated value. | Compound value may be semiquantitative. |
| UJ | Quantitation limit is estimated due to a Quality Control (QC) protocol. | Compound was not detected. |
| C | This flag applies to pesticide results where the identification has been confirmed by GC/MS. Single component pesticides ≥ng/ul in the final extract shall be confirmed by GC/MS. | Compound was confirmed by mass spectroscopy. |
| B | This flag is used when the analyte is found in the associated blank as well as in the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action. | Compound value may be semiquantitative if it is <5x the blank concentration (10x the blank concentrations for common lab artifacts: phthalates, methylene chloride, acetone, toluene, 2-butanone). |
| E | This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for that specific analysis. This flag will not apply to pesticides/PCBs analyzed by GC/EC methods. | Compound value may be semiquantitative. |
| D | This flag identifies all compounds identified in an analysis at a secondary dilution factor. | Alerts data user to a possible change in the CRQL. |
| A | This flag indicates that a TIC is a suspected aldol-condensation product. | Alerts data user of a lab artifact. |
| R | Results are unusable due to a major violation of QC protocol. | Compound value is not usable. |

[1] - Only detectable concentrations are included in the analytical data table.

## DATA QUALIFIERS[1]

**(Continued)**

| Inorganics Footnote | | Definition | Interpretation |
|---|---|---|---|
| Old | New | | |
| E | E | Estimated or not reported due to interference. See laboratory narrative. | Compound or element was not detected or value may be semiquantitative. |
| * | * | Analysis by Method of Standard Additions. | Value may be quantitative. |
| R | N | Spike recoveries outside QC protocols which indicates a possible matrix problem. Data may be biased high or low. See spike results and laboratory narrative. | Value may be quantitative or semiquantitative. |
| * | * | Duplicate value outside QC protocols which indicates a possible matrix problem. | Value may be semiquantitative. |
| + | + | Correlation coefficient for standard additions to less than 0.995. See review and laboratory narrative. | Data value may be biased. |
| { } | B | Value is real, but is above instrument DL and below CRDL. | Value may be quantitative or semiquantitative. |
| UJ | | DL is estimated because of a QC protocol. DL is possibly above or below CRDL. | Compound or element was not detected. |
| J | | Value is above CRDL and is an estimated value because of a QC protocol. | Value may be semiquantitative. |
| U | U | Compound was analyzed for but not detected. | Compound was not detected. |
| | M | Duplicate injection precision not met. | Value may be semiquantitative. |
| | W | Post-digestion spike for furnace AA analysis is out of control limits (35-115%), while sample absorbance is <50% of spike absorbance. | Value may be semiquantitative. |

Sample: _____

**Analytical Data and Related Health Advisory Table**

| Sample Collection Information and Parameters | Detection Limits (µg/L) | Sample Result (µg/L) | SMCL* | Standards | | | | Status HA | 10-kg Child | | | 70-kg Adult | | | | µg/L at 10-4 Cancer Risk | Cancer Group |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Status Reg. | NIPDWR (µg/L) | MCLG (µg/L) | MCL (µg/L) | | One Day µg/L | Ten-Day µg/L | Longer-Term µg/L | Longer-Term µg/L | RFD µg/kg/day | DWEL µg/L | Lifetime µg/L | | |
| INORGANICS | | | | | | | | | | | | | | | | | |
| Aluminum | 100 | | 50-200 | L | — | — | — | D | — | — | — | — | — | — | | — | |
| Antimony | 5 | | | P | — | 3.0 | 10/5 | D | 15 | 15 | 15 | 15 | 0.4 | 15 | 3 | — | D |
| Arsenic | 5 | | | | 50 | — | 50 | D | — | — | — | — | — | — | — | 2 | A |
| Barium | 50 | | | F | 1,000 | 2,000 | 2,000 | F | — | — | — | — | 70 | 2,000 | 2,000 | — | D |
| Beryllium | 5 | | | P | — | ZERO | 1 | D | 30,000 | 30,000 | 4,000 | 20,000 | 5 | 200 | — | 0.8 | B2 |
| Cadmium | 0.5 | | | F | 10 | 5 | 5 | F | 40 | 40 | 5 | 20 | 0.5 | 20 | 5 | — | D |
| Calcium | 1,000 | | | | | | | | | | | | | | | | |
| Chromium | 10 | | | F | 50 | 100 | 100 | F | 1,000 | 1,000 | 200 | 800 | 5 | 200 | 100 | — | D |
| Cobalt | 10 | | | | | | | | | | | | | | | | |
| Copper | 10 | | 1,000 | | | 1,300 | 1,300 | — | — | — | — | — | — | — | — | — | D |
| Iron | 100 | | 300 | | | | | | | | | | | | | | |
| Lead (at tap) | 2 | | | F | — | ZERO | TT | — | — | — | — | — | — | — | — | — | B2 |
| Magnesium | 1,000 | | | | | | | | | | | | | | | | |
| Manganese | 10 | | 50 | | — | — | — | D | — | — | — | — | 140 | — | — | — | — |
| Mercury | 0.2 | | | F | 2 | 2 | 2 | F | — | — | — | 2 | 0.3 | 10 | 2 | — | D |
| Nickel | 20 | | | P | — | 100 | 100 | F | 1,000 | 1,000 | 500 | 1,700 | 20 | 600 | 100 | — | D |
| Potassium | 2,000 | | | | | | | | | | | | | | | | |
| Selenium | 2 | | | F | 10 | 50 | 50 | — | — | — | — | — | 5 | — | — | — | — |
| Silver | 5 | | 100 | — | 50 | — | — | D | 200 | 200 | 200 | 200 | 5 | 20 | 100 | — | D |
| Sodium | 1,000 | | | | — | — | — | D | — | — | — | — | — | 20,000 | — | — | — |
| Thallium | 2 | | | P | — | 0.5 | 4 | D | 7 | 7 | 7 | 20 | 0.07 | 2 | 0.4 | — | — |
| Vanadium | 20 | | | L | — | — | — | D | 80 | 80 | 30 | 110 | 3 | 110 | 20 | — | D |
| Zinc | 20 | | 5,000 | L | — | — | — | D | — | — | — | — | 300 | 10,500 | 2,100 | — | D |
| Cyanide | 10 | | | T | — | 200 | 200 | F | 200 | 200 | 200 | 800 | 22 | 800 | 200 | — | D |

* - Secondary Maximum Contaminant Levels (µg/L) as indicated in "Drinking Water Regulations and Health Advisories" April 1992.

# Drinking Water Memorandum

DATE: _____

Site Name: LEESBURG FOUNDRY
CERCLIS ID: IND 984867747
WA NO.: 45-5JZZ

TO: 1. Ms. Jan Pels, U.S. EPA
2. State Contact _____

FROM: P. Krishnan, Roy F. Weston, Inc.

SUBJECT: Drinking Water Sample Results

Sample: RW03-01 / EQD37 / MEQF38

Action Level

☐ No Contamination _____
No hits above any health-related standards.

☐ Low Level Contamination _____
Hits just above health-related standards.

☐ Significant Contamination _____
Hits are above health-related standards.

☐ Please check the following. They are less than health-related standards but above detection limits.

| | |
|---|---|
| _____ | _____ |
| _____ | _____ |
| _____ | _____ |
| _____ | _____ |
| _____ | _____ |

☐ Please check secondary maximum contamination limits for:

| | | | |
|---|---|---|---|
| Aluminum | _____ | Manganese | _____ |
| Copper | _____ | Silver | _____ |
| Iron | _____ | Zinc | _____ |

_____
P. Krishnan

Sample: RW03-01 / EQD37 / ~~MEQF38~~ [2]

**Analytical Data and Related Health Advisory Table**

| Sample Collection Information and Parameters | Detection Limits (µg/L) | Sample Result (µg/L) | SMCL* | Standards | | | | Status HA | 10-kg Child | | | 70-kg Adult | | | | µg/L at 10-4 Cancer Risk | Cancer Group |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Status Reg. | NIPDWR (µg/L) | MCLG (µg/L) | MCL (µg/L) | | One Day µg/L | Ten-Day µg/L | Longer-Term µg/L | Longer-Term µg/L | RFD µg/kg/day | DWEL µg/L | Life-time µg/L | | |
| VOLATILE ORGANICS | | | | | | | | | | | | | | | | | |
| Chloromethane | 1 | | | L | — | — | — | F | 9,000 | 400 | 400 | 1,000 | 4 | 100 | 3 | — | C |
| Bromomethane | 1 | | | L | — | — | — | F | 100 | 100 | 100 | 600 | 1 | 50 | 10 | — | D |
| Vinyl Chloride | 1 | | | F | — | ZERO | 2 | F | 3,000 | 3,000 | 10 | 50 | — | — | — | 1.5 | A |
| Chloroethane | 1 | | | L | — | — | — | D | — | — | — | — | — | — | — | — | — |
| Methylene Chloride | 2 | | | | | | | | | | | | | | | | |
| Acetone | 5 | | | | | | | | | | | | | | | | |
| Carbon Disulfide | 1 | | | | | | | | | | | | | | | | |
| 1,1-Dichloroethene | 1 | | | F | — | 7 | 7 | F | 2,000 | 1,000 | 1,000 | 4,000 | 9 | 400 | 7 | — | C |
| 1,1-Dichloroethane | 1 | | | L | — | — | — | D | — | — | — | — | — | — | — | — | — |
| cis-1,2-Dichloroethene | 1 | | | F | — | 70 | 70 | F | 4,000 | 3,000 | 3,000 | 11,000 | 10 | 400 | 70 | — | D |
| trans-1,2-Dichloroethene | 1 | | | F | — | 100 | 100 | F | 20,000 | 2,000 | 2,000 | 6,000 | 20 | 600 | 100 | — | D |
| Chloroform | 1 | | | L | 100 | — | 100 | D | 4,000 | 4,000 | 100 | 400 | 10 | 400 | — | 600 | B2 |
| 1,2-Dichloroethane | 1 | | | F | — | ZERO | 5 | F | 700 | 700 | 700 | 2,600 | — | — | — | 40 | B2 |
| 2-Butanone | 5 | | | L | — | — | — | F | 80,000 | 8,000 | 3,000 | 9,000 | 0.05 | 900 | 200 | — | D |
| Bromochloromethane | 1 | | | — | 100 | — | — | F | 50,000 | 1,000 | 1,000 | 5,000 | 13 | 500 | 90 | — | — |
| 1,1,1-Trichloroethane | 1 | | | F | — | 200 | 200 | F | 100,000 | 40,000 | 40,000 | 100,000 | 35 | 1,000 | 200 | — | D |
| Carbon Tetrachloride | 1 | | | F | — | ZERO | 5 | F | 4,000 | 200 | 70 | 300 | 0.7 | 30 | — | 30 | B2 |
| Bromodichloromethane | 1 | | | L | — | — | 100 | D | 7,000 | 7,000 | 4,000 | 13,000 | 20 | 700 | — | 140 | B2 |
| 1,2-Dichloropropane | 1 | | | F | — | ZERO | 5 | F | — | 90 | — | — | — | — | — | 50 | B2 |
| cis-1,3-Dichloropropene | 1 | | | | | | | | | | | | | | | | |
| Trichloroethene | 1 | | | F | — | ZERO | 5 | F | — | — | — | — | — | 300 | — | 300 | B2 |
| Dibromochloromethane | 1 | | | | | | | | | | | | | | | | |
| 1,1,2,2-Tetrachloroethane | 1 | | | L | — | — | — | D | — | — | — | — | — | — | — | — | — |
| 1,1,2-Trichloroethane | 1 | | | P | 5 | 3 | 5 | F | 600 | 400 | 400 | 1,000 | 4 | 100 | 3 | — | C |
| Benzene | 1 | | | F | — | ZERO | 5 | F | 200 | 200 | — | — | — | — | — | 100 | A |
| trans-1,3-Dichloropropene | 1 | | | | | | | | | | | | | | | | |
| Bromoform | 1 | | | L | 100 | — | 100 | D | 6,000 | 2,000 | 2,000 | 6,000 | 20 | 700 | — | 400 | B2 |
| 4-Methyl-2-pentanone | 5 | | | | | | | | | | | | | | | | |
| 2-Hexanone | 5 | | | | | | | | | | | | | | | | |
| Tetrachloroethene | 1 | | | F | — | ZERO | 5 | F | 2,000 | 2,000 | 1,000 | 5,000 | 10 | 500 | — | 70 | — |
| 1,2-Dibromoethane | 1 | | | | | | 1,000 | | | | | | | | | | |
| Toluene | 1 | | | F | — | 1,000 | | F | 20,000 | 2,000 | 2,000 | 7,000 | 200 | 7,000 | 1,000 | — | D |
| Chlorobenzene | 1 | | | | | | | | | | | | | | | | |
| Ethyl Benzene | 1 | | | F | — | 700 | 700 | F | 30,000 | 3,000 | 1,000 | 300 | 100 | 3,000 | 700 | — | D |
| Styrene | 1 | | | F | — | 100 | 100 | F | 20,000 | 2,000 | 2,000 | 7,000 | 200 | 7,000 | 100 | — | C |
| Xylene (total) | 1 | | | F | — | 10,000 | 10,000 | F | 40,000 | 40,000 | 40,000 | 100,000 | 2,000 | 60,000 | 10,000 | — | D |
| 1,3-Dichlorobenzene | 1 | | | | | | | | | | | | | | | | |
| 1,4-Dichlorobenzene | 1 | | | | | | | | | | | | | | | | |
| 1,2-Dichlorobenzene | 1 | | | | | | | | | | | | | | | | |
| 1,2-Dibromo-3-chloropropane | 1 | | | | | | | | | | | | | | | | |

Sample: RW03-01/EQD37

**Analytical Data and Related Health Advisory Table**

| Sample Collection Information and Parameters | Detection Limits (µg/L) | Sample Result (µg/L) | SMCL* | Standards | | | | Status HA | 10-kg Child | | | 70-kg Adult | | | | µg/L at 10-4 Cancer Risk | Cancer Group |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Status Reg. | NIPDWR (µg/L) | MCLG (µg/L) | MCL (µg/L) | | One Day µg/L | Ten-Day µg/L | Longer-Term µg/L | Longer-Term µg/L | RFD µg/kg/day | DWEL µg/L | Life-time µg/L | | |
| SEMIVOLATILE ORGANICS | | | | | | | | | | | | | | | | | |
| Phenol | 5 | | | — | — | — | — | D | 6,000 | 6,000 | 6,000 | 20,000 | 600 | 20,000 | 4,000 | — | D |
| bis(2-Chloroethyl)ether | 5 | | | | | | | | | | | | | | | | |
| 2-Chlorophenol | 5 | | | — | — | — | — | D | 50 | 50 | 50 | 200 | 5 | 200 | 40 | — | D |
| 2-Methylphenol | 5 | | | | | | | | | | | | | | | | |
| 2,2'-oxybis(1-Chloropropane) | 5 | | | | | | | | | | | | | | | | |
| 4-Methylphenol | 5 | | | | | | | | | | | | | | | | |
| N-Nitroso-di-n-propylamine | 5 | | | | | | | | | | | | | | | | |
| Hexachloroethane | 5 | | | L | — | — | — | F | 5,000 | 5,000 | 100 | 500 | 1 | 400 | 1 | — | C |
| Nitrobenzene | 5 | | | | | | | | | | | | | | | | |
| Isophorone | 5 | | | L | — | — | — | D | 15,000 | 15,000 | 15,000 | 15,000 | 200 | 7,000 | 100 | — | C |
| 2-Nitrophenol | 5 | | | | | | | | | | | | | | | | |
| 2,4-Dimethylphenol | 5 | | | | | | | | | | | | | | | | |
| bis(2-Chloroethoxy)methane | 5 | | | | | | | | | | | | | | | | |
| 2,4-Dichlorophenol | 5 | | | — | — | — | — | D | 30 | 30 | 30 | 100 | 3 | 100 | 20 | — | D |
| 1,2,4-Trichlorobenzene | 5 | | | P | — | 70 | 70 | F | 100 | 100 | 100 | 500 | 10 | 400 | 70 | — | D |
| Naphthalene | 5 | | | — | — | — | — | F | 500 | 500 | 400 | 1,000 | 4 | 100 | 20 | — | D |
| 4-Chloroaniline | 5 | | | | | | | | | | | | | | | | |
| Hexachlorobutadiene | 5 | | | L | — | — | — | F | 300 | 300 | 100 | 400 | 2 | 70 | 1 | — | C |
| 4-Chloro-3-methylphenol | 5 | | | | | | | | | | | | | | | | |
| 2-Methylnaphthalene | 5 | | | | | | | | | | | | | | | | |
| Hexachlorocyclopentadiene | 5 | | 8 | P | — | 50 | 50 | — | — | — | — | — | 7 | 200 | — | — | D |
| 2,4,6-Trichlorophenol | 5 | | | L | — | — | — | D | — | — | — | — | — | — | — | 300 | B2 |
| 2,4,5-Trichlorophenol | 20 | | | | | | | | | | | | | | | | |
| 2-Chloronaphthalene | 5 | | | | | | | | | | | | | | | | |
| 2-Nitroaniline | 20 | | | | | | | | | | | | | | | | |
| Dimethylphthalate | 5 | | | — | — | — | — | — | — | — | — | — | — | — | — | — | D |
| Acenaphthylene | 5 | | | | | | | | | | | | | | | | |
| 2,6-Dinitrotoluene | 5 | | | L | — | — | — | F | 400 | 400 | 400 | 1,000 | 1 | 40 | — | 5,000 | B2 |
| 3-Nitroaniline | 20 | | | | | | | | | | | | | | | | |
| Acenaphthene | 5 | | | — | — | — | — | — | — | — | — | — | 60 | — | — | — | — |
| 2,4-Dinitrophenol | 20 | | | | | | | | | | | | | | | | |
| 4-Nitrophenol | 20 | | | | | | | | | | | | | | | | |
| Dibenzofuran | 5 | | | | | | | | | | | | | | | | |
| 2,4-Dinitrotoluene | 5 | | | L | — | — | — | F | 500 | 500 | 300 | 1,000 | 2 | 100 | — | 5,000 | B2 |
| Diethylphthalate | 5 | | | | | | | | | | | | | | | | |
| 4-Chlorophenyl-phenyl ether | 5 | | | | | | | | | | | | | | | | |
| Fluorene | 5 | | | — | — | — | — | — | — | — | — | — | 40 | — | — | — | D |
| 4-Nitroaniline | 20 | | | | | | | | | | | | | | | | |
| 4,6-Dinitro-2-methylphenol | 20 | | | | | | | | | | | | | | | | |
| N-Nitrosodiphenylamine (1) | 5 | | | | | | | | | | | | | | | | |

Sample: RW03-01/EQD37

Analytical Data and Related Health Advisory Table (Continued)

| Sample Collection Information and Parameters | Detection Limits (µg/L) | Sample Result (µg/L) | SMCL* | Standards | | | | Status HA | 10-kg Child | | | 70-kg Adult | | | | µg/L at 10-4 Cancer Risk | Cancer Group |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Status Reg. | NIPDWR (µg/L) | MCLG (µg/L) | MCL (µg/L) | | One Day µg/L | Ten-Day µg/L | Longer-Term µg/L | Longer-Term µg/L | RfD µg/kg/day | DWEL µg/L | Lifetime µg/L | | |
| SEMIVOLATILE ORGANICS (CONT.) | | | | | | | | | | | | | | | | | |
| 4-Bromophenyl-phenylether | 5 | | | | | | | | | | | | | | | | |
| Hexachlorobenzene | 5 | | | P | --- | ZERO | 1 | F | 60 | 60 | 60 | 200 | 0.8 | 30 | --- | 2 | B2 |
| Pentachlorophenol | 20 | | | F | --- | ZERO | 1 | F | 1,000 | 300 | 300 | 1,000 | 30 | 1,000 | --- | 30 | B2 |
| Phenanthrene | 5 | | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Anthracene | 5 | | | --- | --- | --- | --- | --- | --- | --- | --- | --- | 300 | --- | --- | --- | D |
| Di-n-butylphthalate | 5 | | | | | | | | | | | | | | | | |
| Fluoranthene | 5 | | | | | | | | | | | | | | | | |
| Pyrene | 5 | | | --- | --- | --- | --- | --- | --- | --- | --- | --- | 30 | --- | --- | --- | D |
| Butylbenzylphthalate | 5 | | | P | --- | ZERO | 100 | --- | --- | --- | --- | --- | 200 | 6,000 | --- | --- | C |
| 3,3'Dichlorobenzidine | 5 | | | | | | | | | | | | | | | | |
| Benzo(a)anthracene | 5 | | | P | --- | ZERO | 0.1 | --- | --- | --- | --- | --- | --- | --- | --- | --- | B2 |
| Chrysene | 5 | | | P | --- | ZERO | 0.2 | --- | --- | --- | --- | --- | --- | --- | --- | --- | B2 |
| Bis(2-Ethylhexyl)phthalate | 5 | | | | | | | | | | | | | | | | |
| Di-n-octylphthalate | 5 | | | | | | | | | | | | | | | | |
| Benzo(b)fluoranthene | 5 | | | P | --- | ZERO | 0.2 | --- | --- | --- | --- | --- | --- | --- | --- | --- | B2 |
| Benzo(k)fluoranthene | 5 | | | P | --- | ZERO | 0.2 | --- | --- | --- | --- | --- | --- | --- | --- | --- | B2 |
| Benzo(a)pyrene | 5 | | | P | --- | ZERO | 0.2 | --- | --- | --- | --- | --- | --- | --- | --- | --- | B2 |
| Indeno(1,2,3-cd)pyrene | 5 | | | P | --- | ZERO | 0.4 | D | --- | --- | --- | --- | --- | --- | --- | --- | B2 |
| Dibenz(a,h)anthracene | 5 | | | P | --- | ZERO | 0.3 | --- | --- | --- | --- | --- | --- | --- | --- | --- | B2 |
| Benzo(g,h,i)perylene | 5 | | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | D |

Sample: RW03-01 | EQD37

Analytical Data and Related Health Advisory Table

| Sample Collection Information and Parameters | Detection Limits (µg/L) | Sample Result (µg/L) | SMCL* | Standards | | | | Status HA | 10-kg Child | | | 70-kg Adult | | | | µg/L at 10-4 Cancer Risk | Cancer Group |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Status Reg. | NIPDWR (µg/L) | MCLG (µg/L) | MCL (µg/L) | | One Day µg/L | Ten-Day µg/L | Longer-Term µg/L | Longer-Term µg/L | RFD µg/kg/day | DWEL µg/L | Life-time µg/L | | |
| PESTICIDE/PCBS | | | | | | | | | | | | | | | | | |
| alpha-BHC | 0.010 | | | | | | | | | | | | | | | | |
| beta-BHC | 0.010 | | | | | | | | | | | | | | | | |
| delta-BHC | 0.010 | | | | | | | | | | | | | | | | |
| gamma-BHC (Lindane) | 0.010 | | | F | 4 | 0.2 | 0.2 | F | 1,000 | 1,000 | 30 | 100 | 0.3 | 10 | 0.2 | — | C |
| Heptachlor | 0.010 | 0-0036JPB | | F | — | ZERO | 0.4 | F | 10 | 10 | 5 | 5 | 0.5 | 20 | — | 0.8 | B2 |
| Aldrin | 0.010 | | | — | — | — | — | D | 0.3 | 0.3 | 0.3 | 0.3 | 0.03 | 1 | — | 0.2 | B2 |
| Heptachlor epoxide | 0.010 | | | F | — | ZERO | 0.2 | F | 10 | — | 0.1 | 0.1 | 1.3E-02 | 0.4 | — | 0.4 | B2 |
| Endosulfan I | 0.010 | | | | | | | | | | | | | | | | |
| Dieldrin | 0.020 | | | — | — | — | — | F | 0.5 | 0.5 | 0.5 | 2 | 0.05 | 2 | — | 0.2 | B2 |
| 4,4'-DDE | 0.020 | | | | | | | | | | | | | | | | |
| Endrin | 0.020 | | | P | 0.2 | 2 | 2 | F | 20 | 20 | 3 | 10 | 0.3 | 10 | 2 | — | D |
| Endosulfan II | 0.020 | | | | | | | | | | | | | | | | |
| 4,4'-DDD | 0.020 | | | | | | | | | | | | | | | | |
| Endosulfan sulfate | 0.020 | | | | | | | | | | | | | | | | |
| 4,4'-DDT | 0.020 | | | | | | | | | | | | | | | | |
| Methyoxychlor | 0.100 | | | F | 100 | 40 | 40 | F | 60 | 60 | 60 | 200 | 5 | 200 | 40 | — | D |
| Endrin ketone | 0.020 | | | | | | | | | | | | | | | | |
| Endrin Aldehyde | 0.020 | | | | | | | | | | | | | | | | |
| alpha-Chlordane | 0.010 | | | | | | | | | | | | | | | | |
| gamma-Chlordane | 0.010 | | | | | | | | | | | | | | | | |
| Toxaphene | 1.00 | | | F | 5 | ZERO | 3 | F | 500 | 40 | — | — | 100 | 3.5 | — | 3 | B2 |
| PCBs | 0.200 - 0.400 | | | F | — | ZERO | 0.5 | P | — | — | — | — | — | — | — | 0.5 | B2 |

Sample: RW03-01 | MEQF38

**Analytical Data and Related Health Advisory Table**

| Sample Collection Information and Parameters | Detection Limits (µg/L) | Sample Result (µg/L) | SMCL* | Standards | | | | Status HA | 10-kg Child | | | 70-kg Adult | | | | µg/L at 10-4 Cancer Risk | Cancer Group |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Status Reg. | NIPDWR (µg/L) | MCLG (µg/L) | MCL (µg/L) | | One Day µg/L | Ten-Day µg/L | Longer-Term µg/L | Longer-Term µg/L | RFD µg/kg/day | DWEL µg/L | Lifetime µg/L | | |
| INORGANICS | | | | | | | | | | | | | | | | | |
| Aluminum | 80 | 39.7 B | 50-200 | L | --- | --- | --- | D | --- | --- | --- | --- | --- | --- | | --- | |
| Antimony | 2 | | | P | --- | 3.0 | 10/6 | D | 15 | 15 | 15 | 15 | 0.4 | 15 | 3 | --- | D |
| Arsenic | 2 | | | | 50 | --- | 50 | D | --- | --- | --- | --- | --- | --- | --- | 2 | A |
| Barium | 6 | 208 | | F | 1,000 | 2,000 | 2,000 | F | --- | --- | --- | --- | 70 | 2,000 | 2,000 | --- | D |
| Beryllium | 1 | | | P | --- | ZERO | 1 | D | 30,000 | 30,000 | 4,000 | 20,000 | 5 | 200 | --- | 0.8 | B2 |
| Cadmium | 0.2 | | | F | 10 | 5 | 5 | F | 40 | 40 | 5 | 20 | 0.5 | 20 | 5 | --- | D |
| Calcium | 500 | 13,600 NJ | | | | | | | | | | | | | | | |
| Chromium | 8 | | | F | 50 | 100 | 100 | F | 1,000 | 1,000 | 200 | 800 | 5 | 200 | 100 | --- | D |
| Cobalt | 6 | | | | | | | | | | | | | | | | |
| Copper | 6 | | 1,000 | | | 1,300 | 1,300 | --- | --- | --- | --- | --- | --- | --- | --- | --- | D |
| Iron | 80 | 2,990 | 300 | | | | | | | | | | | | | | |
| Lead (at top) | 2 | | | F | --- | ZERO | TT | --- | --- | --- | --- | --- | --- | --- | --- | --- | B2 |
| Magnesium | 100 | 34,600 N.J | | | | | | | | | | | | | | | |
| Manganese | 5 | 177 NJ | 50 | | --- | --- | --- | D | --- | --- | --- | --- | 140 | --- | --- | --- | --- |
| Mercury | 0.1 | | | F | 2 | 2 | 2 | F | --- | --- | --- | 2 | 0.3 | 10 | 2 | --- | D |
| Nickel | 15 | | | P | --- | 100 | 100 | F | 1,000 | 1,000 | 500 | 1,700 | 20 | 600 | 100 | --- | D |
| Potassium | 5,000 | 3,440 | | | | | | | | | | | | | | | |
| Selenium | 2 | | | F | 10 | 50 | 50 | --- | --- | --- | --- | --- | 5 | --- | --- | --- | --- |
| Silver | 6 | | 100 | --- | 50 | --- | --- | D | 200 | 200 | 200 | 200 | 5 | 20 | 100 | --- | D |
| Sodium | 1,000 | 21,300 | | | --- | --- | --- | D | --- | --- | --- | --- | --- | 20,000 | --- | --- | --- |
| Thallium | 2 | | | P | --- | 0.5 | 4 | D | 7 | 7 | 7 | 20 | 0.07 | 2 | 0.4 | --- | --- |
| Vanadium | 5 | | | L | --- | --- | --- | D | 80 | 80 | 30 | 110 | 3 | 110 | 20 | --- | D |
| Zinc | 40 | | 5,000 | L | --- | --- | --- | D | --- | --- | --- | --- | 300 | 10,500 | 2,100 | --- | D |
| Cyanide | 8 | | | T | --- | 200 | 200 | F | 200 | 200 | 200 | 800 | 22 | 800 | 200 | --- | D |

* - Secondary Maximum Contaminant Levels (µg/L) as indicated in "Drinking Water Regulations and Health Advisories" April 1992.

DESCRIPTION AND QUALIFIERS FOR ANALYTICAL DATA AND RELATED HEALTH ADVISORY TABLE

| NO | COLUMN | DESCRIPTION |
|---|---|---|
| 1 | SAMPLE COLLECTION, INFORMATION AND PARAMETERS | The compounds and analytes analyzed for in this water sample |
| 2 | Detection Limits | The limits that a laboratory must meet as part of the analytical service contract. |
| 3 | Samples Results | The value determined by the analysis. |
| 4 | SMCL | This column includes the currently available secondary Maximum Contaminant Levels (SMCLs). |
| 5 | Status Reg | F = Final; D = Draft; L = Listed; P = Proposed (Phase II); T = Tentative (Phase V) |
| 6 | NIPDWR | National Interim Primary Drinking Water Regulation. Interim enforceable drinking water regulations first established under the Safe Drinking Water Act that are protective of public health to the extent feasible. |
| 7 | MCLG | Maximum Contaminant Level Goal. A non-enforceable concentration of a drinking water contaminant that is protective of adverse human health effects and allows a adequate margin of safety. |
| 8 | MCL | Maximum Contaminant Level. Maximum permissible level of a contaminant in water which is delivered to any user of a public water system. MCL's are legally enforceable. |
| 9 | Status HA (also see Status Reg) | Health Advisories (HA) provide information on the health effects, analytical methods and treatments technology useful for dealing with drinking contamination. HA are non-regulated concentrations and contain a margin of safety to protect sensitive members of the population: HA are not construed as legally enforceable federal standards and are subject to change as new information becomes available. HA values are derived for adult (assuming 70 kg weight and consuming 2 L. of water daily) and for child (assuming 10 kg weight) the same way. |
| 10 | 10 Kg Child | The child is assumed to be a more sensitive population entity. Assumption is that body weight of child is 10 kg and 1 Liter of water is ingested daily. Under these and other assumptions specific to the available toxicological data bases, HA values have been derived for 1 day and 10 day exposures. |
| | a. 1 day | |
| | b. 10 day | |
| | c. Longer Term | Longer term is defined as approximately 7 years of 10% of an individual's life time. |
| 11 | 70 Kg Adult | The adult is assumed to weigh 70 kg and consume 2 Liters of water daily. |
| | a. Longer Term | Longer term is defined as approximately 7 years of 10% of an individual's life time. |
| | b. RFD | Reference Dose: The RFD is an estimate of a daily exposure to the human population that is likely to be without appreciable risk or deleterious effects over a lifetime. The RFD is expressed in units of daily dose. |
| | c. DWEL | Drinking Water Equivalent Level. A lifetime exposure concentration that is likely to have adverse, noncancer health effects, that assumes all of the exposure to a contaminant is from a drinking water source. |
| | d. Lifetime | Lifetime Health Advisory: This value is determined by factoring in other sources of exposure to the particular contaminant. The relative source contribution from drinking water is based on actual exposure data. In the absence of chemical specific data, a value of 20% for organics and 10% for inorganics is assumed. |

DESCRIPTION AND QUALIFIERS FOR ANALYTICAL DATA AND RELATED HEALTH ADVISORY TABLE

| NO | COLUMN | DESCRIPTION |
|---|---|---|
| 12 | µg/L as E-04 Cancer Risk | This column contains values indicating the concentration of the particular contaminant in drinking water that would produce an E-04 (10 to the minus 4 power) excess lifetime cancer risk. It means if a group of 10,000 persons were exposed to the contaminant at its respective concentration (as listed in this column), then ONE individual in the group might be expected to develop cancer (above background) solely from exposure to that contaminant in drinking water. |
| 13 | Cancer Group | These are the guidelines developed for carcinogen risk assessment. These guidelines discuss weighing the evidence that a substance is a carcinogen, and classifying the chemical into one of five groups, based on weight of evidence.<br><br>Group A - Human Carcinogen<br>Group B - Probable human carcinogen<br>Group B1 - Probable human carcinogen, limited human evidence but sufficient animal evidence.<br>Group B2 - Probable human carcinogen, sufficient animal evidence, but inadequate or no human evidence.<br>Group C - Possible human carcinogen.<br>Group D - Not classified as to human carcinogenicity<br>Group E - Evidence of non-carcinogenicity for humans. |
| NA | Not Applicable | |
| PS | Performance Standard 0.5 NTU - 1.0 NTU | |

## DATA QUALIFIERS[1]

| Organics<br>Footnote | Definition | Interpretation |
|---|---|---|
| U | Indicates compound was analyzed for but not detected | Compound was not detected. |
| J | Indicates an estimated value. | Compound value may be semiquantitative. |
| UJ | Quantitation limit is estimated due to a Quality Control (QC) protocol. | Compound was not detected. |
| C | This flag applies to pesticide results where the identification has been confirmed by GC/MS. Single component pesticides ≥ng/ul in the final extract shall be confirmed by GC/MS. | Compound was confirmed by mass spectroscopy. |
| B | This flag is used when the analyte is found in the associated blank as well as in the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action. | Compound value may be semiquantitative if it is <5x the blank concentration (10x the blank concentrations for common lab artifacts: phthalates, methylene chloride, acetone, toluene, 2-butanone). |
| E | This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for that specific analysis. This flag will not apply to pesticides/PCBs analyzed by GC/EC methods. | Compound value may be semiquantitative. |
| D | This flag identifies all compounds identified in an analysis at a secondary dilution factor. | Alerts data user to a possible change in the CRQL. |
| A | This flag indicates that a TIC is a suspected aldol-condensation product. | Alerts data user of a lab artifact. |
| R | Results are unusable due to a major violation of QC protocol. | Compound value is not usable. |

[1] - Only detectable concentrations are included in the analytical data table.

## DATA QUALIFIERS[1]

**(Continued)**

| Inorganics Footnote | | Definition | Interpretation |
|---|---|---|---|
| Old | New | | |
| E | E | Estimated or not reported due to interference. See laboratory narrative. | Compound or element was not detected or value may be semiquantitative. |
| * | * | Analysis by Method of Standard Additions. | Value may be quantitative. |
| R | N | Spike recoveries outside QC protocols which indicates a possible matrix problem. Data may be biased high or low. See spike results and laboratory narrative. | Value may be quantitative or semiquantitative. |
| * | * | Duplicate value outside QC protocols which indicates a possible matrix problem. | Value may be semiquantitative. |
| + | + | Correlation coefficient for standard additions to less than 0.995. See review and laboratory narrative. | Data value may be biased. |
| { } | B | Value is real, but is above instrument DL and below CRDL. | Value may be quantitative or semiquantitative. |
| UJ | | DL is estimated because of a QC protocol. DL is possibly above or below CRDL. | Compound or element was not detected. |
| J | | Value is above CRDL and is an estimated value because of a QC protocol. | Value may be semiquantitative. |
| U | U | Compound was analyzed for but not detected. | Compound was not detected. |
| | M | Duplicate injection precision not met. | Value may be semiquantitative. |
| | W | Post-digestion spike for furnace AA analysis is out of control limits (35-115%), while sample absorbance is <50% of spike absorbance. | Value may be semiquantitative. |

Sample: _____

**Analytical Data and Related Health Advisory Table**

| Sample Collection Information and Parameters | Detection Limits (µg/L) | Sample Result (µg/L) | SMCL* | Standards | | | | Status HA | 10-kg Child | | | 70-kg Adult | | | | µg/L at 10-4 Cancer Risk | Cancer Group |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Status Reg. | NIPDWR (µg/L) | MCLG (µg/L) | MCL (µg/L) | | One Day µg/L | Ten-Day µg/L | Longer-Term µg/L | Longer-Term µg/L | RFD µg/kg/day | DWEL µg/L | Lifetime µg/L | | |
| INORGANICS | | | | | | | | | | | | | | | | | |
| Aluminum | 100 | | 50-200 | L | — | — | — | D | — | — | — | — | — | — | | — | |
| Antimony | 5 | | | P | — | 3.0 | 10/5 | D | 15 | 15 | 15 | 15 | 0.4 | 15 | 3 | — | D |
| Arsenic | 5 | | | | 50 | — | 50 | D | — | — | — | — | — | — | — | 2 | A |
| Barium | 50 | | | F | 1,000 | 2,000 | 2,000 | F | — | — | — | — | 70 | 2,000 | 2,000 | — | D |
| Beryllium | 5 | | | P | — | ZERO | 1 | D | 30,000 | 30,000 | 4,000 | 20,000 | 5 | 200 | — | 0.8 | B2 |
| Cadmium | 0.5 | | | F | 10 | 5 | 5 | F | 40 | 40 | 5 | 20 | 0.5 | 20 | 5 | — | D |
| Calcium | 1,000 | | | | | | | | | | | | | | | | |
| Chromium | 10 | | | F | 50 | 100 | 100 | F | 1,000 | 1,000 | 200 | 800 | 5 | 200 | 100 | — | D |
| Cobalt | 10 | | | | | | | | | | | | | | | | |
| Copper | 10 | | 1,000 | | | 1,300 | 1,300 | — | — | — | — | — | — | — | — | — | D |
| Iron | 100 | | 300 | | | | | | | | | | | | | | |
| Lead (at top) | 2 | | | F | — | ZERO | TT | — | — | — | — | — | — | — | — | — | B2 |
| Magnesium | 1,000 | | | | | | | | | | | | | | | | |
| Manganese | 10 | | 50 | | — | — | — | D | — | — | — | — | 140 | — | — | — | — |
| Mercury | 0.2 | | | F | 2 | 2 | 2 | F | — | — | — | 2 | 0.3 | 10 | 2 | — | D |
| Nickel | 20 | | | P | — | 100 | 100 | F | 1,000 | 1,000 | 500 | 1,700 | 20 | 600 | 100 | — | D |
| Potassium | 2,000 | | | | | | | | | | | | | | | | |
| Selenium | 2 | | | F | 10 | 50 | 50 | — | — | — | — | — | 5 | — | — | — | — |
| Silver | 5 | | 100 | — | 50 | — | — | D | 200 | 200 | 200 | 200 | 5 | 20 | 100 | — | D |
| Sodium | 1,000 | | | | — | — | — | D | — | — | — | — | — | 20,000 | — | — | — |
| Thallium | 2 | | | P | — | 0.5 | 4 | D | 7 | 7 | 7 | 20 | 0.07 | 2 | 0.4 | — | — |
| Vanadium | 20 | | | L | — | — | — | D | 80 | 80 | 30 | 110 | 3 | 110 | 20 | — | D |
| Zinc | 20 | | 5,000 | L | — | — | — | D | — | — | — | — | 300 | 10,500 | 2,100 | — | D |
| Cyanide | 10 | | | T | — | 200 | 200 | F | 200 | 200 | 200 | 800 | 22 | 800 | 200 | — | D |

* - Secondary Maximum Contaminant Levels (µg/L) as indicated in "Drinking Water Regulations and Health Advisories" April 1992.

# Drinking Water Memorandum

DATE: _____

Site Name: LEESBURG FOUNDRY
CERCLIS ID: IND984867747
WA NO.: 45-5JZZ

TO: 1. Ms. Jan Pels, U.S. EPA
2. State Contact _____

FROM: P. Krishnan, Roy F. Weston, Inc.

SUBJECT: Drinking Water Sample Results

Sample: RW04-01 / EQD39 / MEQF40

Action Level

☐ No Contamination _____
No hits above any health-related standards.

☐ Low Level Contamination _____
Hits just above health-related standards.

☐ Significant Contamination _____
Hits are above health-related standards.

☐ Please check the following. They are less than health-related standards but above detection limits.

| | |
|---|---|
| _____ | _____ |
| _____ | _____ |
| _____ | _____ |
| _____ | _____ |
| _____ | _____ |

☐ Please check secondary maximum contamination limits for:

| | | | |
|---|---|---|---|
| Aluminum | _____ | Manganese | _____ |
| Copper | _____ | Silver | _____ |
| Iron | _____ | Zinc | _____ |

_____
P. Krishnan

Sample: RW04-01/EQ039

**Analytical Data and Related Health Advisory Table**

| Sample Collection Information and Parameters | Detection Limits (µg/L) | Sample Result (µg/L) | SMCL* | Standards | | | | Status HA | 10-kg Child | | | 70-kg Adult | | | | µg/L at 10-4 Cancer Risk | Cancer Group |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Status Reg. | NIPDWR (µg/L) | MCLG (µg/L) | MCL (µg/L) | | One Day µg/L | Ten-Day µg/L | Longer-Term µg/L | Longer-Term µg/L | RFD µg/kg/day | DWEL µg/L | Life-time µg/L | | |
| VOLATILE ORGANICS | | | | | | | | | | | | | | | | | |
| Chloromethane | 1 | | | L | — | — | — | F | 9,000 | 400 | 400 | 1,000 | 4 | 100 | 3 | — | C |
| Bromomethane | 1 | | | L | — | — | — | F | 100 | 100 | 100 | 600 | 1 | 60 | 10 | — | D |
| Vinyl Chloride | 1 | | | F | — | ZERO | 2 | F | 3,000 | 3,000 | 10 | 50 | — | — | — | 1.5 | A |
| Chloroethane | 1 | | | L | — | — | — | D | — | — | — | — | — | — | — | — | — |
| Methylene Chloride | 2 | | | | | | | | | | | | | | | | |
| Acetone | 5 | | | | | | | | | | | | | | | | |
| Carbon Disulfide | 1 | 1 | | | | | | | | | | | | | | | |
| 1,1-Dichloroethene | 1 | | | F | — | 7 | 7 | F | 2,000 | 1,000 | 1,000 | 4,000 | 9 | 400 | 7 | — | C |
| 1,1-Dichloroethane | 1 | | | L | — | — | — | D | — | — | — | — | — | — | — | — | — |
| cis-1,2-Dichloroethene | 1 | | | F | — | 70 | 70 | F | 4,000 | 3,000 | 3,000 | 11,000 | 10 | 400 | 70 | — | D |
| trans-1,2-Dichloroethene | 1 | | | F | — | 100 | 100 | F | 20,000 | 2,000 | 2,000 | 6,000 | 20 | 800 | 100 | — | D |
| Chloroform | 1 | | | L | 100 | — | 100 | D | 4,000 | 4,000 | 100 | 400 | 10 | 400 | — | 600 | B2 |
| 1,2-Dichloroethane | 1 | | | F | — | ZERO | 5 | F | 700 | 700 | 700 | 2,600 | — | — | — | 40 | B2 |
| 2-Butanone | 5 | | | L | — | — | — | F | 80,000 | 8,000 | 3,000 | 9,000 | 0.05 | 900 | 200 | — | D |
| Bromochloromethane | 1 | | | — | 100 | — | — | F | 50,000 | 1,000 | 1,000 | 5,000 | 13 | 500 | 90 | — | — |
| 1,1,1-Trichloroethane | 1 | | | F | — | 200 | 200 | F | 100,000 | 40,000 | 40,000 | 100,000 | 35 | 1,000 | 200 | — | D |
| Carbon Tetrachloride | 1 | | | F | — | ZERO | 5 | F | 4,000 | 200 | 70 | 300 | 0.7 | 30 | — | 30 | B2 |
| Bromodichloromethane | 1 | | | L | — | — | 100 | D | 7,000 | 7,000 | 4,000 | 13,000 | 20 | 700 | — | 140 | B2 |
| 1,2-Dichloropropane | 1 | | | F | — | ZERO | 5 | F | — | 90 | — | — | — | — | — | 50 | B2 |
| cis-1,3-Dichloropropene | 1 | | | | | | | | | | | | | | | | |
| Trichloroethene | 1 | | | F | — | ZERO | 5 | F | — | — | — | — | — | 300 | — | 300 | B2 |
| Dibromochloromethane | 1 | | | | | | | | | | | | | | | | |
| 1,1,2,2-Tetrachloroethane | 1 | | | L | — | — | — | D | — | — | — | — | — | — | — | — | — |
| 1,1,2-Trichloroethane | 1 | | | P | 5 | 3 | 5 | F | 600 | 400 | 400 | 1,000 | 4 | 100 | 3 | — | C |
| Benzene | 1 | | | F | — | ZERO | 5 | F | 200 | 200 | — | — | — | — | — | 100 | A |
| trans-1,3-Dichloropropene | 1 | | | | | | | | | | | | | | | | |
| Bromoform | 1 | | | L | 100 | — | 100 | D | 5,000 | 2,000 | 2,000 | 6,000 | 20 | 700 | — | 400 | B2 |
| 4-Methyl-2-pentanone | 5 | | | | | | | | | | | | | | | | |
| 2-Hexanone | 5 | | | | | | | | | | | | | | | | |
| Tetrachloroethene | 1 | | | F | — | ZERO | 5 | F | 2,000 | 2,000 | 1,000 | 5,000 | 10 | 500 | — | 70 | — |
| 1,2-Dibromoethane | 1 | | | | | | 1,000 | | | | | | | | | | |
| Toluene | 1 | 2J | | F | — | 1,000 | | F | 20,000 | 2,000 | 2,000 | 7,000 | 200 | 7,000 | 1,000 | — | D |
| Chlorobenzene | 1 | | | | | | | | | | | | | | | | |
| Ethyl Benzene | 1 | | | F | — | 700 | 700 | F | 30,000 | 3,000 | 1,000 | 300 | 100 | 3,000 | 700 | — | D |
| Styrene | 1 | | | F | — | 100 | 100 | F | 20,000 | 2,000 | 2,000 | 7,000 | 200 | 7,000 | 100 | — | C |
| Xylene (total) | 1 | | | F | — | 10,000 | 10,000 | F | 40,000 | 40,000 | 40,000 | 100,000 | 2,000 | 80,000 | 10,000 | — | D |
| 1,3-Dichlorobenzene | 1 | | | | | | | | | | | | | | | | |
| 1,4-Dichlorobenzene | 1 | | | | | | | | | | | | | | | | |
| 1,2-Dichlorobenzene | 1 | | | | | | | | | | | | | | | | |
| 1,2-Dibromo-3-chloropropane | 1 | | | | | | | | | | | | | | | | |

Sample: RW04-01/EQD39

**Analytical Data and Related Health Advisory Table**

| Sample Collection Information and Parameters | Detection Limits (µg/L) | Sample Result (µg/L) | SMCL* | Standards | | | | Status HA | 10-kg Child | | | 70-kg Adult | | | | µg/L at 10-4 Cancer Risk | Cancer Group |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Status Reg. | NIPDWR (µg/L) | MCLG (µg/L) | MCL (µg/L) | | One Day µg/L | Ten-Day µg/L | Longer-Term µg/L | Longer-Term µg/L | RFD µg/kg/day | DWEL µg/L | Life-time µg/L | | |
| SEMIVOLATILE ORGANICS | | | | | | | | | | | | | | | | | |
| Phenol | 5 | | | — | — | — | — | D | 6,000 | 6,000 | 6,000 | 20,000 | 600 | 20,000 | 4,000 | — | D |
| bis(2-Chloroethyl)ether | 5 | | | | | | | | | | | | | | | | |
| 2-Chlorophenol | 5 | | | — | — | — | — | D | 50 | 50 | 50 | 200 | 5 | 200 | 40 | — | D |
| 2-Methylphenol | 5 | | | | | | | | | | | | | | | | |
| 2,2'-oxybis(1-Chloropropane) | 5 | | | | | | | | | | | | | | | | |
| 4-Methylphenol | 5 | | | | | | | | | | | | | | | | |
| N-Nitroso-di-n-propylamine | 5 | | | | | | | | | | | | | | | | |
| Hexachloroethane | 5 | | | L | — | — | — | F | 5,000 | 5,000 | 100 | 500 | 1 | 400 | 1 | — | C |
| Nitrobenzene | 5 | | | | | | | | | | | | | | | | |
| Isophorone | 5 | | | L | — | — | — | D | 15,000 | 15,000 | 15,000 | 15,000 | 200 | 7,000 | 100 | — | C |
| 2-Nitrophenol | 5 | | | | | | | | | | | | | | | | |
| 2,4-Dimethylphenol | 5 | | | | | | | | | | | | | | | | |
| bis(2-Chloroethoxy)methane | 5 | | | | | | | | | | | | | | | | |
| 2,4-Dichlorophenol | 5 | | | — | — | — | — | D | 30 | 30 | 30 | 100 | 3 | 100 | 20 | — | D |
| 1,2,4-Trichlorobenzene | 5 | | | P | — | 70 | 70 | F | 100 | 100 | 100 | 500 | 10 | 400 | 70 | — | D |
| Naphthalene | 5 | | | — | — | — | — | F | 500 | 500 | 400 | 1,000 | 4 | 100 | 20 | — | D |
| 4-Chloroaniline | 5 | | | | | | | | | | | | | | | | |
| Hexachlorobutadiene | 5 | | | L | — | — | — | F | 300 | 300 | 100 | 400 | 2 | 70 | 1 | — | C |
| 4-Chloro-3-methylphenol | 5 | | | | | | | | | | | | | | | | |
| 2-Methylnaphthalene | 5 | | | | | | | | | | | | | | | | |
| Hexachlorocyclopentadiene | 5 | | 8 | P | — | 50 | 50 | — | — | — | — | — | 7 | 200 | — | — | D |
| 2,4,6-Trichlorophenol | 5 | | | L | — | — | — | D | — | — | — | — | — | — | — | 300 | B2 |
| 2,4,5-Trichlorophenol | 20 | | | | | | | | | | | | | | | | |
| 2-Chloronaphthalene | 5 | | | | | | | | | | | | | | | | |
| 2-Nitroaniline | 20 | | | | | | | | | | | | | | | | |
| Dimethylphthalate | 5 | | | — | — | — | — | — | — | — | — | — | — | — | — | — | D |
| Acenaphthylene | 5 | | | | | | | | | | | | | | | | |
| 2,6-Dinitrotoluene | 5 | | | L | — | — | — | F | 400 | 400 | 400 | 1,000 | 1 | 40 | — | 5,000 | B2 |
| 3-Nitroaniline | 20 | | | | | | | | | | | | | | | | |
| Acenaphthene | 5 | | | — | — | — | — | — | — | — | — | — | 60 | — | — | — | — |
| 2,4-Dinitrophenol | 20 | | | | | | | | | | | | | | | | |
| 4-Nitrophenol | 20 | | | | | | | | | | | | | | | | |
| Dibenzofuran | 5 | | | | | | | | | | | | | | | | |
| 2,4-Dinitrotoluene | 5 | | | L | — | — | — | F | 500 | 500 | 300 | 1,000 | 2 | 100 | — | 5,000 | B2 |
| Diethylphthalate | 5 | | | | | | | | | | | | | | | | |
| 4-Chlorophenyl-phenyl ether | 5 | | | | | | | | | | | | | | | | |
| Fluorene | 5 | | | — | — | — | — | — | — | — | — | — | 40 | — | — | — | D |
| 4-Nitroaniline | 20 | | | | | | | | | | | | | | | | |
| 4,6-Dinitro-2-methylphenol | 20 | | | | | | | | | | | | | | | | |
| N-Nitrosodiphenylamine (1) | 5 | | | | | | | | | | | | | | | | |

Sample: RW04-01 | EQD39

Analytical Data and Related Health Advisory Table (Continued)

| Sample Collection Information and Parameters | Detection Limits (µg/L) | Sample Result (µg/L) | SMCL* | Standards | | | | Status HA | 10-kg Child | | | 70-kg Adult | | | | µg/L at 10-4 Cancer Risk | Cancer Group |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Status Reg. | NIPDWR (µg/L) | MCLG (µg/L) | MCL (µg/L) | | One Day µg/L | Ten-Day µg/L | Longer-Term µg/L | Longer-Term µg/L | RfD µg/kg/day | DWEL µg/L | Life-time µg/L | | |
| SEMIVOLATILE ORGANICS (CONT.) | | | | | | | | | | | | | | | | | |
| 4-Bromophenyl-phenylether | 5 | | | | | | | | | | | | | | | | |
| Hexachlorobenzene | 5 | | | P | — | ZERO | 1 | F | 50 | 50 | 50 | 200 | 0.8 | 30 | — | 2 | B2 |
| Pentachlorophenol | 20 | | | F | — | ZERO | 1 | F | 1,000 | 300 | 300 | 1,000 | 30 | 1,000 | — | 30 | B2 |
| Phenanthrene | 5 | | | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Anthracene | 5 | | | — | — | — | — | — | — | — | — | — | 300 | — | — | — | D |
| Di-n-butylphthalate | 5 | | | | | | | | | | | | | | | | |
| Fluoranthene | 5 | | | | | | | | | | | | | | | | |
| Pyrene | 5 | | | — | — | — | — | — | — | — | — | — | 30 | — | — | — | D |
| Butylbenzylphthalate | 5 | | | P | — | ZERO | 100 | — | — | — | — | — | 200 | 6,000 | — | — | C |
| 3,3'Dichlorobenzidine | 5 | | | | | | | | | | | | | | | | |
| Benzo(a)anthracene | 5 | | | P | — | ZERO | 0.1 | — | — | — | — | — | — | — | — | — | B2 |
| Chrysene | 5 | | | P | — | ZERO | 0.2 | — | — | — | — | — | — | — | — | — | B2 |
| Bis(2-Ethylhexyl)phthalate | 5 | | | | | | | | | | | | | | | | |
| Di-n-octylphthalate | 5 | | | | | | | | | | | | | | | | |
| Benzo(b)fluoranthene | 5 | | | P | — | ZERO | 0.2 | — | — | — | — | — | — | — | — | — | B2 |
| Benzo(k)fluoranthene | 5 | | | P | — | ZERO | 0.2 | — | — | — | — | — | — | — | — | — | B2 |
| Benzo(a)pyrene | 5 | | | P | — | ZERO | 0.2 | — | — | — | — | — | — | — | — | — | B2 |
| Indeno(1,2,3-cd)pyrene | 5 | | | P | — | ZERO | 0.4 | D | — | — | — | — | — | — | — | — | B2 |
| Dibenz(a,h)anthracene | 5 | | | P | — | ZERO | 0.3 | — | — | — | — | — | — | — | — | — | B2 |
| Benzo(g,h,i)perylene | 5 | | | — | — | — | — | — | — | — | — | — | — | — | — | — | D |

Sample: RW04-01/EQD39

**Analytical Data and Related Health Advisory Table**

| Sample Collection Information and Parameters | Detection Limits (µg/L) | Sample Result (µg/L) | SMCL* | Standards | | | | Status HA | 10-kg Child | | | 70-kg Adult | | | | µg/L at 10-4 Cancer Risk | Cancer Group |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Status Reg. | NIPDWR (µg/L) | MCLG (µg/L) | MCL (µg/L) | | One Day µg/L | Ten-Day µg/L | Longer-Term µg/L | Longer-Term µg/L | RFD µg/kg/day | DWEL µg/L | Life-time µg/L | | |
| PESTICIDE/PCBS | | | | | | | | | | | | | | | | | |
| alpha-BHC | 0.010 | | | | | | | | | | | | | | | | |
| beta-BHC | 0.010 | | | | | | | | | | | | | | | | |
| delta-BHC | 0.010 | | | | | | | | | | | | | | | | |
| gamma-BHC (Lindane) | 0.010 | | | F | 4 | 0.2 | 0.2 | F | 1,000 | 1,000 | 30 | 100 | 0.3 | 10 | 0.2 | — | C |
| Heptachlor | 0.010 | 0.0049 JB | | F | — | ZERO | 0.4 | F | 10 | 10 | 6 | 6 | 0.6 | 20 | — | 0.8 | B2 |
| Aldrin | 0.010 | | | — | — | — | — | D | 0.3 | 0.3 | 0.3 | 0.3 | 0.03 | 1 | — | 0.2 | B2 |
| Heptachlor epoxide | 0.010 | | | F | — | ZERO | 0.2 | F | 10 | — | 0.1 | 0.1 | 1.3E-02 | 0.4 | — | 0.4 | B2 |
| Endosulfan I | 0.010 | | | | | | | | | | | | | | | | |
| Dieldrin | 0.020 | | | — | — | — | — | F | 0.6 | 0.6 | 0.6 | 2 | 0.06 | 2 | — | 0.2 | B2 |
| 4,4'-DDE | 0.020 | | | | | | | | | | | | | | | | |
| Endrin | 0.020 | | | P | 0.2 | 2 | 2 | F | 20 | 20 | 3 | 10 | 0.3 | 10 | 2 | — | D |
| Endosulfan II | 0.020 | | | | | | | | | | | | | | | | |
| 4,4'-DDD | 0.020 | | | | | | | | | | | | | | | | |
| Endosulfan sulfate | 0.020 | | | | | | | | | | | | | | | | |
| 4,4'-DDT | 0.020 | | | | | | | | | | | | | | | | |
| Methyoxychlor | 0.100 | | | F | 100 | 40 | 40 | F | 60 | 60 | 60 | 200 | 5 | 200 | 40 | — | D |
| Endrin ketone | 0.020 | | | | | | | | | | | | | | | | |
| Endrin Aldehyde | 0.020 | | | | | | | | | | | | | | | | |
| alpha-Chlordane | 0.010 | | | | | | | | | | | | | | | | |
| gamma-Chlordane | 0.010 | | | | | | | | | | | | | | | | |
| Toxaphene | 1.00 | | | F | 5 | ZERO | 3 | F | 600 | 40 | — | — | 100 | 3.5 | — | 3 | B2 |
| PCBs | 0.200 - 0.400 | | | F | — | ZERO | 0.5 | P | — | — | — | — | — | — | — | 0.5 | B2 |

Sample: RW04-01 | MEQF40

**Analytical Data and Related Health Advisory Table**

| Sample Collection Information and Parameters | Detection Limits (µg/L) | Sample Result (µg/L) | SMCL* | Standards | | | | Status HA | 10-kg Child | | | 70-kg Adult | | | | µg/L at 10-4 Cancer Risk | Cancer Group |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Status Reg. | NIPDWR (µg/L) | MCLG (µg/L) | MCL (µg/L) | | One Day µg/L | Ten-Day µg/L | Longer-Term µg/L | Longer-Term µg/L | RFD µg/kg/day | DWEL µg/L | Lifetime µg/L | | |
| INORGANICS | | | | | | | | | | | | | | | | | |
| Aluminum | 80 | | 50-200 | L | — | — | — | D | — | — | — | — | — | — | | — | |
| Antimony | 2 | | | P | — | 3.0 | 10/6 | D | 15 | 15 | 15 | 15 | 0.4 | 15 | 3 | — | D |
| Arsenic | 2 | | | | 50 | — | 50 | D | — | — | — | — | — | — | — | 2 | A |
| Barium | 6 | 262 | | F | 1,000 | 2,000 | 2,000 | F | — | — | — | — | 70 | 2,000 | 2,000 | — | D |
| Beryllium | 1 | | | P | — | ZERO | 1 | D | 30,000 | 30,000 | 4,000 | 20,000 | 5 | 200 | — | 0.8 | B2 |
| Cadmium | 0.2 | | | F | 10 | 5 | 5 | F | 40 | 40 | 5 | 20 | 0.5 | 20 | 5 | — | D |
| Calcium | 500 | 93,800 NJ | | | | | | | | | | | | | | | |
| Chromium | 8 | | | F | 50 | 100 | 100 | F | 1,000 | 1,000 | 200 | 800 | 5 | 200 | 100 | — | D |
| Cobalt | 6 | | | | | | | | | | | | | | | | |
| Copper | 6 | | 1,000 | | | 1,300 | 1,300 | — | — | — | — | — | — | — | — | — | D |
| Iron | 80 | 2,280 | 300 | | | | | | | | | | | | | | |
| Lead (at top) | 2 | | | F | — | ZERO | TT | — | — | — | — | — | — | — | — | — | B2 |
| Magnesium | 100 | 24,700 NJ | | | | | | | | | | | | | | | |
| Manganese | 5 | 40.5 NJ | 50 | | — | — | — | D | — | — | — | — | 140 | — | — | — | — |
| Mercury | 0.1 | | | F | 2 | 2 | 2 | F | — | — | — | 2 | 0.3 | 10 | 2 | — | D |
| Nickel | 15 | | | P | — | 100 | 100 | F | 1,000 | 1,000 | 500 | 1,700 | 20 | 500 | 100 | — | D |
| Potassium | 5,000 | 1450 BJ | | | | | | | | | | | | | | | |
| Selenium | 2 | | | F | 10 | 50 | 50 | — | — | — | — | — | 5 | — | — | — | — |
| Silver | 6 | | 100 | — | 50 | — | — | D | 200 | 200 | 200 | 200 | 5 | 20 | 100 | — | D |
| Sodium | 1,000 | 4,100 | | | — | — | — | D | — | — | — | — | — | 20,000 | — | — | — |
| Thallium | 2 | | | P | — | 0.5 | 4 | D | 7 | 7 | 7 | 20 | 0.07 | 2 | 0.4 | — | — |
| Vanadium | 5 | | | L | — | — | — | D | 80 | 80 | 30 | 110 | 3 | 110 | 20 | — | D |
| Zinc | 40 | | 5,000 | L | — | — | — | D | — | — | — | — | 300 | 10,500 | 2,100 | — | D |
| Cyanide | 8 | | | T | — | 200 | 200 | F | 200 | 200 | 200 | 800 | 22 | 800 | 200 | — | D |

* - Secondary Maximum Contaminant Levels (µg/L) as indicated in "Drinking Water Regulations and Health Advisories" April 1992.

DESCRIPTION AND QUALIFIERS FOR ANALYTICAL DATA AND RELATED HEALTH ADVISORY TABLE

| NO | COLUMN | DESCRIPTION |
|---|---|---|
| 1 | SAMPLE COLLECTION, INFORMATION AND PARAMETERS | The compounds and analytes analyzed for in this water sample |
| 2 | Detection Limits | The limits that a laboratory must meet as part of the analytical service contract. |
| 3 | Samples Results | The value determined by the analysis. |
| 4 | SMCL | This column includes the currently available secondary Maximum Contaminant Levels (SMCLs). |
| 5 | Status Reg | F = Final; D = Draft; L = Listed; P = Proposed (Phase II); T = Tentative (Phase V) |
| 6 | NIPDWR | National Interim Primary Drinking Water Regulation. Interim enforceable drinking water regulations first established under the Safe Drinking Water Act that are protective of public health to the extent feasible. |
| 7 | MCLG | Maximum Contaminant Level Goal. A non-enforceable concentration of a drinking water contaminant that is protective of adverse human health effects and allows a adequate margin of safety. |
| 8 | MCL | Maximum Contaminant Level. Maximum permissible level of a contaminant in water which is delivered to any user of a public water system. MCL's are legally enforceable. |
| 9 | Status HA (also see Status Reg) | Health Advisories (HA) provide information on the health effects, analytical methods and treatments technology useful for dealing with drinking contamination. HA are non-regulated concentrations and contain a margin of safety to protect sensitive members of the population: HA are not construed as legally enforceable federal standards and are subject to change as new information becomes available. HA values are derived for adult (assuming 70 kg weight and consuming 2 L. of water daily) and for child (assuming 10 kg weight) the same way. |
| 10 | 10 Kg Child<br>a. 1 day<br>b. 10 day<br>c. Longer Term | The child is assumed to be a more sensitive population entity. Assumption is that body weight of child is 10 kg and 1 Liter of water is ingested daily. Under these and other assumptions specific to the available toxicological data bases, HA values have been derived for 1 day and 10 day exposures.<br>Longer term is defined as approximately 7 years of 10% of an individual's life time. |
| 11 | 70 Kg Adult<br>a. Longer Term<br>b. RFD<br><br>c. DWEL<br><br>d. Lifetime | The adult is assumed to weigh 70 kg and consume 2 Liters of water daily.<br>Longer term is defined as approximately 7 years of 10% of an individual's life time.<br>Reference Dose: The RFD is an estimate of a daily exposure to the human population that is likely to be without appreciable risk or deleterious effects over a lifetime. The RFD is expressed in units of daily dose.<br>Drinking Water Equivalent Level. A lifetime exposure concentration that is likely to have adverse, noncancer health effects, that assumes all of the exposure to a contaminant is from a drinking water source.<br>Lifetime Health Advisory: This value is determined by factoring in other sources of exposure to the particular contaminant. The relative source contribution from drinking water is based on actual exposure data. In the absence of chemical specific data, a value of 20% for organics and 10% for inorganics is assumed. |

DESCRIPTION AND QUALIFIERS FOR ANALYTICAL DATA AND RELATED HEALTH ADVISORY TABLE

| NO | COLUMN | DESCRIPTION |
|---|---|---|
| 12 | µg/L as E-04 Cancer Risk | This column contains values indicating the concentration of the particular contaminant in drinking water that would produce an E-04 (10 to the minus 4 power) excess lifetime cancer risk. It means if a group of 10,000 persons were exposed to the contaminant at its respective concentration (as listed in this column), then ONE individual in the group might be expected to develop cancer (above background) solely from exposure to that contaminant in drinking water. |
| 13 | Cancer Group | These are the guidelines developed for carcinogen risk assessment. These guidelines discuss weighing the evidence that a substance is a carcinogen, and classifying the chemical into one of five groups, based on weight of evidence.<br><br>Group A - Human Carcinogen<br>Group B - Probable human carcinogen<br>Group B1 - Probable human carcinogen, limited human evidence but sufficient animal evidence.<br>Group B2 - Probable human carcinogen, sufficient animal evidence, but inadequate or no human evidence.<br>Group C - Possible human carcinogen.<br>Group D - Not classified as to human carcinogenicity<br>Group E - Evidence of non-carcinogenicity for humans. |
| NA | Not Applicable | |
| PS | Performance Standard 0.5 NTU - 1.0 NTU | |

## DATA QUALIFIERS[1]

| Organics<br>Footnote | Definition | Interpretation |
|---|---|---|
| U | Indicates compound was analyzed for but not detected | Compound was not detected. |
| J | Indicates an estimated value. | Compound value may be semiquantitative. |
| UJ | Quantitation limit is estimated due to a Quality Control (QC) protocol. | Compound was not detected. |
| C | This flag applies to pesticide results where the identification has been confirmed by GC/MS. Single component pesticides ≥ng/ul in the final extract shall be confirmed by GC/MS. | Compound was confirmed by mass spectroscopy. |
| B | This flag is used when the analyte is found in the associated blank as well as in the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action. | Compound value may be semiquantitative if it is <5x the blank concentration (10x the blank concentrations for common lab artifacts: phthalates, methylene chloride, acetone, toluene, 2-butanone). |
| E | This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for that specific analysis. This flag will not apply to pesticides/PCBs analyzed by GC/EC methods. | Compound value may be semiquantitative. |
| D | This flag identifies all compounds identified in an analysis at a secondary dilution factor. | Alerts data user to a possible change in the CRQL. |
| A | This flag indicates that a TIC is a suspected aldol-condensation product. | Alerts data user of a lab artifact. |
| R | Results are unusable due to a major violation of QC protocol. | Compound value is not usable. |

1 - Only detectable concentrations are included in the analytical data table.

## DATA QUALIFIERS[1]

**(Continued)**

| Inorganics Footnote | | Definition | Interpretation |
|---|---|---|---|
| Old | New | | |
| E | E | Estimated or not reported due to interference. See laboratory narrative. | Compound or element was not detected or value may be semiquantitative. |
| * | * | Analysis by Method of Standard Additions. | Value may be quantitative. |
| R | N | Spike recoveries outside QC protocols which indicates a possible matrix problem. Data may be biased high or low. See spike results and laboratory narrative. | Value may be quantitative or semiquantitative. |
| * | * | Duplicate value outside QC protocols which indicates a possible matrix problem. | Value may be semiquantitative. |
| + | + | Correlation coefficient for standard additions to less than 0.995. See review and laboratory narrative. | Data value may be biased. |
| { } | B | Value is real, but is above instrument DL and below CRDL. | Value may be quantitative or semiquantitative. |
| UJ | | DL is estimated because of a QC protocol. DL is possibly above or below CRDL. | Compound or element was not detected. |
| J | | Value is above CRDL and is an estimated value because of a QC protocol. | Value may be semiquantitative. |
| U | U | Compound was analyzed for but not detected. | Compound was not detected. |
| | M | Duplicate injection precision not met. | Value may be semiquantitative. |
| | W | Post-digestion spike for furnace AA analysis is out of control limits (35-115%), while sample absorbance is <50% of spike absorbance. | Value may be semiquantitative. |

Sample: _____

**Analytical Data and Related Health Advisory Table**

| Sample Collection Information and Parameters | Detection Limits (µg/L) | Sample Result (µg/L) | SMCL* | Standards | | | | Status HA | 10-kg Child | | | 70-kg Adult | | | | µg/L at 10-4 Cancer Risk | Cancer Group |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Status Reg. | NIPDWR (µg/L) | MCLG (µg/L) | MCL (µg/L) | | One Day µg/L | Ten-Day µg/L | Longer-Term µg/L | Longer-Term µg/L | RFD µg/kg/day | DWEL µg/L | Life-time µg/L | | |
| INORGANICS | | | | | | | | | | | | | | | | | |
| Aluminum | 100 | | 50-200 | L | — | — | — | D | — | — | — | — | — | — | | — | |
| Antimony | 5 | | | P | — | 3.0 | 10/5 | D | 15 | 15 | 15 | 15 | 0.4 | 15 | 3 | — | D |
| Arsenic | 5 | | | | 50 | — | 50 | D | — | — | — | — | — | — | — | 2 | A |
| Barium | 50 | | | F | 1,000 | 2,000 | 2,000 | F | — | — | — | — | 70 | 2,000 | 2,000 | — | D |
| Beryllium | 5 | | | P | — | ZERO | 1 | D | 30,000 | 30,000 | 4,000 | 20,000 | 5 | 200 | — | 0.8 | B2 |
| Cadmium | 0.5 | | | F | 10 | 5 | 5 | F | 40 | 40 | 5 | 20 | 0.5 | 20 | 5 | — | D |
| Calcium | 1,000 | | | | | | | | | | | | | | | | |
| Chromium | 10 | | | F | 50 | 100 | 100 | F | 1,000 | 1,000 | 200 | 800 | 5 | 200 | 100 | — | D |
| Cobalt | 10 | | | | | | | | | | | | | | | | |
| Copper | 10 | | 1,000 | | | 1,300 | 1,300 | — | — | — | — | — | — | — | — | — | D |
| Iron | 100 | | 300 | | | | | | | | | | | | | | |
| Lead (at top) | 2 | | | F | — | ZERO | TT | — | — | — | — | — | — | — | — | — | B2 |
| Magnesium | 1,000 | | | | | | | | | | | | | | | | |
| Manganese | 10 | | 50 | | — | — | — | D | — | — | — | — | 140 | — | — | — | — |
| Mercury | 0.2 | | | F | 2 | 2 | 2 | F | — | — | — | 2 | 0.3 | 10 | 2 | — | D |
| Nickel | 20 | | | P | — | 100 | 100 | F | 1,000 | 1,000 | 500 | 1,700 | 20 | 600 | 100 | — | D |
| Potassium | 2,000 | | | | | | | | | | | | | | | | |
| Selenium | 2 | | | F | 10 | 50 | 50 | — | — | — | — | — | 5 | — | — | — | — |
| Silver | 5 | | 100 | — | 50 | — | — | D | 200 | 200 | 200 | 200 | 5 | 20 | 100 | — | D |
| Sodium | 1,000 | | | | — | — | — | D | — | — | — | — | — | 20,000 | — | — | — |
| Thallium | 2 | | | P | — | 0.5 | 4 | D | 7 | 7 | 7 | 20 | 0.07 | 2 | 0.4 | — | — |
| Vanadium | 20 | | | L | — | — | — | D | 80 | 80 | 30 | 110 | 3 | 110 | 20 | — | D |
| Zinc | 20 | | 5,000 | L | — | — | — | D | — | — | — | — | 300 | 10,500 | 2,100 | — | D |
| Cyanide | 10 | | | T | — | 200 | 200 | F | 200 | 200 | 200 | 800 | 22 | 800 | 200 | — | D |

* - Secondary Maximum Contaminant Levels (µg/L) as indicated in "Drinking Water Regulations and Health Advisories" April 1992.

# Drinking Water Memorandum

DATE: _____

Site Name: SANYO E&E CORPORATION
CERCLIS ID: IND 087032207
WA NO.: 45-5JZZ

TO: 1. Ms. Jan Pels, U.S. EPA
2. State Contact _____

FROM: P. Krishnan, Roy F. Weston, Inc.

SUBJECT: Drinking Water Sample Results

Sample: RW01-01DP | ERW25 | MERP22

Action Level

☐ No Contamination
No hits above any health-related standards.

☒ Low Level Contamination For Trans-1,2-Dichloroethene, and Trichloroethene
Hits just above health-related standards.

☒ Significant Contamination For Arsenic, Sodium, and Vinyl chloride
Hits are above health-related standards.

☐ Please check the following. They are less than health-related standards but above detection limits.

| | |
|---|---|
| Barium | |
| Copper | |
| Cis-1,2-Dichloroethene | |
| | |
| | |

☐ Please check secondary maximum contamination limits for:

| | | | |
|---|---|---|---|
| Aluminum | | Manganese | ✓ |
| Copper | | Silver | |
| Iron | ✓ | Zinc | |

P. Krishnan

Sample: RW01-01DP / ERW 25

**Analytical Data and Related Health Advisory Table**

| Sample Collection Information and Parameters | Detection Limits (µg/L) | Sample Result (µg/L) | SMCL* | Standards | | | | Status HA | 10-kg Child | | | 70-kg Adult | | | | µg/L at 10-4 Cancer Risk | Cancer Group |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Status Reg. | NIPDWR (µg/L) | MCLG (µg/L) | MCL (µg/L) | | One Day µg/L | Ten-Day µg/L | Longer-Term µg/L | Longer-Term µg/L | RFD µg/kg/day | DWEL µg/L | Life-time µg/L | | |
| VOLATILE ORGANICS | | | | | | | | | | | | | | | | | |
| Chloromethane | 1 | | | L | — | — | — | F | 9,000 | 400 | 400 | 1,000 | 4 | 100 | 3 | — | C |
| Bromomethane | 1 | | | L | — | — | — | F | 100 | 100 | 100 | 600 | 1 | 50 | 10 | — | D |
| Vinyl Chloride | 1 | 23 D | | F | — | ZERO | 2 | F | 3,000 | 3,000 | 10 | 50 | — | — | — | 1.5 | A |
| Chloroethane | 1 | | | L | — | — | — | D | — | — | — | — | — | — | — | — | — |
| Methylene Chloride | 2 | | | | | | | | | | | | | | | | |
| Acetone | 5 | | | | | | | | | | | | | | | | |
| Carbon Disulfide | 1 | | | | | | | | | | | | | | | | |
| 1,1-Dichloroethene | 1 | 0.3 J | | F | — | 7 | 7 | F | 2,000 | 1,000 | 1,000 | 4,000 | 9 | 400 | 7 | — | C |
| 1,1-Dichloroethane | 1 | 1 | | L | — | — | — | D | — | — | — | — | — | — | — | — | — |
| cis-1,2-Dichloroethene | 1 | 2 | | F | — | 70 | 70 | F | 4,000 | 3,000 | 3,000 | 11,000 | 10 | 400 | 70 | — | D |
| trans-1,2-Dichloroethene | 1 | 110 D | | F | — | 100 | 100 | F | 20,000 | 2,000 | 2,000 | 6,000 | 20 | 600 | 100 | — | D |
| Chloroform | 1 | | | L | 100 | — | 100 | D | 4,000 | 4,000 | 100 | 400 | 10 | 400 | — | 600 | B2 |
| 1,2-Dichloroethane | 1 | 2 | | F | — | ZERO | 5 | F | 700 | 700 | 700 | 2,600 | — | — | — | 40 | B2 |
| 2-Butanone | 5 | | | L | — | — | — | F | 80,000 | 8,000 | 3,000 | 9,000 | 0.05 | 900 | 200 | — | D |
| Bromochloromethane | 1 | | | — | 100 | — | — | F | 60,000 | 1,000 | 1,000 | 5,000 | 13 | 500 | 90 | — | — |
| 1,1,1-Trichloroethane | 1 | | | F | — | 200 | 200 | F | 100,000 | 40,000 | 40,000 | 100,000 | 35 | 1,000 | 200 | — | D |
| Carbon Tetrachloride | 1 | | | F | — | ZERO | 5 | F | 4,000 | 200 | 70 | 300 | 0.7 | 30 | — | 30 | B2 |
| Bromodichloromethane | 1 | | | L | — | — | 100 | D | 7,000 | 7,000 | 4,000 | 13,000 | 20 | 700 | — | 140 | B2 |
| 1,2-Dichloropropane | 1 | | | F | — | ZERO | 5 | F | — | 90 | — | — | — | — | — | 50 | B2 |
| cis-1,3-Dichloropropene | 1 | | | | | | | | | | | | | | | | |
| Trichloroethene | 1 | 5 | | F | — | ZERO | 5 | F | — | — | — | — | — | 300 | — | 300 | B2 |
| Dibromochloromethane | 1 | | | | | | | | | | | | | | | | |
| 1,1,2,2-Tetrachloroethane | 1 | | | L | — | — | — | D | — | — | — | — | — | — | — | — | — |
| 1,1,2-Trichloroethane | 1 | | | P | 5 | 3 | 5 | F | 600 | 400 | 400 | 1,000 | 4 | 100 | 3 | — | C |
| Benzene | 1 | | | F | — | ZERO | 5 | F | 200 | 200 | — | — | — | — | — | 100 | A |
| trans-1,3-Dichloropropene | 1 | | | | | | | | | | | | | | | | |
| Bromoform | 1 | | | L | 100 | — | 100 | D | 6,000 | 2,000 | 2,000 | 6,000 | 20 | 700 | — | 400 | B2 |
| 4-Methyl-2-pentanone | 5 | | | | | | | | | | | | | | | | |
| 2-Hexanone | 5 | | | | | | | | | | | | | | | | |
| Tetrachloroethene | 1 | | | F | — | ZERO | 5 | F | 2,000 | 2,000 | 1,000 | 5,000 | 10 | 500 | — | 70 | — |
| 1,2-Dibromoethane | 1 | | | | | | 1,000 | | | | | | | | | | |
| Toluene | 1 | | | F | — | 1,000 | | F | 20,000 | 2,000 | 2,000 | 7,000 | 200 | 7,000 | 1,000 | — | D |
| Chlorobenzene | 1 | | | | | | | | | | | | | | | | |
| Ethyl Benzene | 1 | | | F | — | 700 | 700 | F | 30,000 | 3,000 | 1,000 | 300 | 100 | 3,000 | 700 | — | D |
| Styrene | 1 | | | F | — | 100 | 100 | F | 20,000 | 2,000 | 2,000 | 7,000 | 200 | 7,000 | 100 | — | C |
| Xylene (total) | 1 | | | F | — | 10,000 | 10,000 | F | 40,000 | 40,000 | 40,000 | 100,000 | 2,000 | 60,000 | 10,000 | — | D |
| 1,3-Dichlorobenzene | 1 | | | | | | | | | | | | | | | | |
| 1,4-Dichlorobenzene | 1 | | | | | | | | | | | | | | | | |
| 1,2-Dichlorobenzene | 1 | | | | | | | | | | | | | | | | |
| 1,2-Dibromo-3-chloropropane | 1 | | | | | | | | | | | | | | | | |

Sample: RW01-01DP | ERW25

**Analytical Data and Related Health Advisory Table**

| Sample Collection Information and Parameters | Detection Limits (µg/L) | Sample Result (µg/L) | SMCL* | Standards | | | | Status HA | 10-kg Child | | | 70-kg Adult | | | | µg/L at 10-4 Cancer Risk | Cancer Group |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Status Reg. | NIPDWR (µg/L) | MCLG (µg/L) | MCL (µg/L) | | One Day µg/L | Ten-Day µg/L | Longer-Term µg/L | Longer-Term µg/L | RfD µg/kg/day | DWEL µg/L | Life-time µg/L | | |
| SEMIVOLATILE ORGANICS | | | | | | | | | | | | | | | | | |
| Phenol | 5 | | | --- | --- | --- | --- | D | 6,000 | 6,000 | 6,000 | 20,000 | 600 | 20,000 | 4,000 | --- | D |
| bis(2-Chloroethyl)ether | 5 | | | | | | | | | | | | | | | | |
| 2-Chlorophenol | 5 | | | --- | --- | --- | --- | D | 50 | 50 | 50 | 200 | 5 | 200 | 40 | --- | D |
| 2-Methylphenol | 5 | | | | | | | | | | | | | | | | |
| 2,2'-oxybis(1-Chloropropane) | 5 | | | | | | | | | | | | | | | | |
| 4-Methylphenol | 5 | | | | | | | | | | | | | | | | |
| N-Nitroso-di-n-propylamine | 5 | | | | | | | | | | | | | | | | |
| Hexachloroethane | 5 | | | L | --- | --- | --- | F | 5,000 | 5,000 | 100 | 500 | 1 | 400 | 1 | --- | C |
| Nitrobenzene | 5 | | | | | | | | | | | | | | | | |
| Isophorone | 5 | | | L | --- | --- | --- | D | 15,000 | 15,000 | 15,000 | 15,000 | 200 | 7,000 | 100 | --- | C |
| 2-Nitrophenol | 5 | | | | | | | | | | | | | | | | |
| 2,4-Dimethylphenol | 5 | | | | | | | | | | | | | | | | |
| bis(2-Chloroethoxy)methane | 5 | | | | | | | | | | | | | | | | |
| 2,4-Dichlorophenol | 5 | | | --- | --- | --- | --- | D | 30 | 30 | 30 | 100 | 3 | 100 | 20 | --- | D |
| 1,2,4-Trichlorobenzene | 5 | | | P | --- | 70 | 70 | F | 100 | 100 | 100 | 500 | 10 | 400 | 70 | --- | D |
| Naphthalene | 5 | | | --- | --- | --- | --- | F | 500 | 500 | 400 | 1,000 | 4 | 100 | 20 | --- | D |
| 4-Chloroaniline | 5 | | | | | | | | | | | | | | | | |
| Hexachlorobutadiene | 5 | | | L | --- | --- | --- | F | 300 | 300 | 100 | 400 | 2 | 70 | 1 | --- | C |
| 4-Chloro-3-methylphenol | 5 | | | | | | | | | | | | | | | | |
| 2-Methylnaphthalene | 5 | | | | | | | | | | | | | | | | |
| Hexachlorocyclopentadiene | 5 | | 8 | P | --- | 50 | 50 | --- | --- | --- | --- | --- | 7 | 200 | --- | --- | D |
| 2,4,6-Trichlorophenol | 5 | | | L | --- | --- | --- | D | --- | --- | --- | --- | --- | --- | --- | 300 | B2 |
| 2,4,5-Trichlorophenol | 20 | | | | | | | | | | | | | | | | |
| 2-Chloronaphthalene | 5 | | | | | | | | | | | | | | | | |
| 2-Nitroaniline | 20 | | | | | | | | | | | | | | | | |
| Dimethylphthalate | 5 | | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | D |
| Acenaphthylene | 5 | | | | | | | | | | | | | | | | |
| 2,6-Dinitrotoluene | 5 | | | L | --- | --- | --- | F | 400 | 400 | 400 | 1,000 | 1 | 40 | --- | 5,000 | B2 |
| 3-Nitroaniline | 20 | | | | | | | | | | | | | | | | |
| Acenaphthene | 5 | | | --- | --- | --- | --- | --- | --- | --- | --- | --- | 60 | --- | --- | --- | --- |
| 2,4-Dinitrophenol | 20 | | | | | | | | | | | | | | | | |
| 4-Nitrophenol | 20 | | | | | | | | | | | | | | | | |
| Dibenzofuran | 5 | | | | | | | | | | | | | | | | |
| 2,4-Dinitrotoluene | 5 | | | L | --- | --- | --- | F | 500 | 500 | 300 | 1,000 | 2 | 100 | --- | 5,000 | B2 |
| Diethylphthalate | 5 | | | | | | | | | | | | | | | | |
| 4-Chlorophenyl-phenyl ether | 5 | | | | | | | | | | | | | | | | |
| Fluorene | 5 | | | --- | --- | --- | --- | --- | --- | --- | --- | --- | 40 | --- | --- | --- | D |
| 4-Nitroaniline | 20 | | | | | | | | | | | | | | | | |
| 4,6-Dinitro-2-methylphenol | 20 | | | | | | | | | | | | | | | | |
| N-Nitrosodiphenylamine (1) | 5 | | | | | | | | | | | | | | | | |

Sample: RW01-01DP/ERW25

Analytical Data and Related Health Advisory Table (Continued)

| Sample Collection Information and Parameters | Detection Limits (µg/L) | Sample Result (µg/L) | SMCL* | Standards | | | | Status HA | 10-kg Child | | | 70-kg Adult | | | | µg/L at 10-4 Cancer Risk | Cancer Group |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Status Reg. | NIPDWR (µg/L) | MCLG (µg/L) | MCL (µg/L) | | One Day µg/L | Ten-Day µg/L | Longer-Term µg/L | Longer-Term µg/L | RFD µg/kg/day | DWEL µg/L | Life-time µg/L | | |
| SEMIVOLATILE ORGANICS (CONT.) | | | | | | | | | | | | | | | | | |
| 4-Bromophenyl-phenylether | 5 | | | | | | | | | | | | | | | | |
| Hexachlorobenzene | 5 | | | P | --- | ZERO | 1 | F | 50 | 50 | 50 | 200 | 0.8 | 30 | --- | 2 | B2 |
| Pentachlorophenol | 20 | | | F | --- | ZERO | 1 | F | 1,000 | 300 | 300 | 1,000 | 30 | 1,000 | --- | 30 | B2 |
| Phenanthrene | 5 | | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Anthracene | 5 | | | --- | --- | --- | --- | --- | --- | --- | --- | --- | 300 | --- | --- | --- | D |
| Di-n-butylphthalate | 5 | | | | | | | | | | | | | | | | |
| Fluoranthene | 5 | | | | | | | | | | | | | | | | |
| Pyrene | 5 | | | --- | --- | --- | --- | --- | --- | --- | --- | --- | 30 | --- | --- | --- | D |
| Butylbenzylphthalate | 5 | | | P | --- | ZERO | 100 | --- | --- | --- | --- | --- | 200 | 6,000 | --- | --- | C |
| 3,3'Dichlorobenzidine | 5 | | | | | | | | | | | | | | | | |
| Benzo(a)anthracene | 5 | | | P | --- | ZERO | 0.1 | --- | --- | --- | --- | --- | --- | --- | --- | --- | B2 |
| Chrysene | 5 | | | P | --- | ZERO | 0.2 | --- | --- | --- | --- | --- | --- | --- | --- | --- | B2 |
| Bis(2-Ethylhexyl)phthalate | 5 | | | | | | | | | | | | | | | | |
| Di-n-octylphthalate | 5 | | | | | | | | | | | | | | | | |
| Benzo(b)fluoranthene | 5 | | | P | --- | ZERO | 0.2 | --- | --- | --- | --- | --- | --- | --- | --- | --- | B2 |
| Benzo(k)fluoranthene | 5 | | | P | --- | ZERO | 0.2 | --- | --- | --- | --- | --- | --- | --- | --- | --- | B2 |
| Benzo(a)pyrene | 5 | | | P | --- | ZERO | 0.2 | --- | --- | --- | --- | --- | --- | --- | --- | --- | B2 |
| Indeno(1,2,3-cd)pyrene | 5 | | | P | --- | ZERO | 0.4 | D | --- | --- | --- | --- | --- | --- | --- | --- | B2 |
| Dibenz(a,h)anthracene | 5 | | | P | --- | ZERO | 0.3 | --- | --- | --- | --- | --- | --- | --- | --- | --- | B2 |
| Benzo(g,h,i)perylene | 5 | | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | D |

Sample: RW01-01DP | ERW 25

**Analytical Data and Related Health Advisory Table**

| Sample Collection Information and Parameters | Detection Limits (µg/L) | Sample Result (µg/L) | SMCL* | Standards | | | | Status HA | 10-kg Child | | | 70-kg Adult | | | | µg/L at 10-4 Cancer Risk | Cancer Group |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Status Reg. | NIPDWR (µg/L) | MCLG (µg/L) | MCL (µg/L) | | One Day µg/L | Ten-Day µg/L | Longer-Term µg/L | Longer-Term µg/L | RFD µg/kg/day | DWEL µg/L | Life-time µg/L | | |
| PESTICIDE/PCBS | | | | | | | | | | | | | | | | | |
| alpha-BHC | 0.010 | | | | | | | | | | | | | | | | |
| beta-BHC | 0.010 | | | | | | | | | | | | | | | | |
| delta-BHC | 0.010 | | | | | | | | | | | | | | | | |
| gamma-BHC (Lindane) | 0.010 | | | F | 4 | 0.2 | 0.2 | F | 1,000 | 1,000 | 30 | 100 | 0.3 | 10 | 0.2 | — | C |
| Heptachlor | 0.010 | | | F | — | ZERO | 0.4 | F | 10 | 10 | 6 | 6 | 0.5 | 20 | — | 0.8 | B2 |
| Aldrin | 0.010 | | | — | — | — | — | D | 0.3 | 0.3 | 0.3 | 0.3 | 0.03 | 1 | — | 0.2 | B2 |
| Heptachlor epoxide | 0.010 | | | F | — | ZERO | 0.2 | F | 10 | — | 0.1 | 0.1 | 1.3E-02 | 0.4 | — | 0.4 | B2 |
| Endosulfan I | 0.010 | | | | | | | | | | | | | | | | |
| Dieldrin | 0.020 | | | — | — | — | — | F | 0.5 | 0.5 | 0.5 | 2 | 0.06 | 2 | — | 0.2 | B2 |
| 4,4'-DDE | 0.020 | | | | | | | | | | | | | | | | |
| Endrin | 0.020 | | | P | 0.2 | 2 | 2 | F | 20 | 20 | 3 | 10 | 0.3 | 10 | 2 | — | D |
| Endosulfan II | 0.020 | | | | | | | | | | | | | | | | |
| 4,4'-DDD | 0.020 | | | | | | | | | | | | | | | | |
| Endosulfan sulfate | 0.020 | | | | | | | | | | | | | | | | |
| 4,4'-DDT | 0.020 | | | | | | | | | | | | | | | | |
| Methyoxychlor | 0.100 | | | F | 100 | 40 | 40 | F | 50 | 50 | 50 | 200 | 5 | 200 | 40 | — | D |
| Endrin ketone | 0.020 | | | | | | | | | | | | | | | | |
| Endrin Aldehyde | 0.020 | | | | | | | | | | | | | | | | |
| alpha-Chlordane | 0.010 | | | | | | | | | | | | | | | | |
| gamma-Chlordane | 0.010 | | | | | | | | | | | | | | | | |
| Toxaphene | 1.00 | | | F | 5 | ZERO | 3 | F | 500 | 40 | — | — | 100 | 3.5 | — | 3 | B2 |
| PCBs | 0.200 - 0.400 | | | F | — | ZERO | 0.5 | P | — | — | — | — | — | — | — | 0.5 | B2 |

Sample: RW01-01DP|MERP22

Analytical Data and Related Health Advisory Table

| Sample Collection Information and Parameters | Detection Limits (µg/L) | Sample Result (µg/L) | SMCL* | Standards | | | | Status HA | 10-kg Child | | | 70-kg Adult | | | | µg/L at 10-4 Cancer Risk | Cancer Group |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Status Reg. | NIPDWR (µg/L) | MCLG (µg/L) | MCL (µg/L) | | One Day µg/L | Ten-Day µg/L | Longer-Term µg/L | Longer-Term µg/L | RFD µg/kg/day | DWEL µg/L | Lifetime µg/L | | |
| INORGANICS | | | | | | | | | | | | | | | | | |
| Aluminum | 33 | | 50-200 | L | — | — | — | D | — | — | — | — | — | — | | — | |
| Antimony | 51 | | | P | — | 3.0 | 10/5 | D | 15 | 15 | 15 | 15 | 0.4 | 15 | 3 | — | D |
| Arsenic | 1 | 6.3 | | | 50 | — | 50 | D | — | — | — | — | — | — | — | 2 | A |
| Barium | 2 | 214 | | P | 1,000 | 2,000 | 2,000 | F | — | — | — | — | 70 | 2,000 | 2,000 | — | D |
| Beryllium | 1 | | | P | — | ZERO | 1 | D | 30,000 | 30,000 | 4,000 | 20,000 | 5 | 200 | — | 0.8 | B2 |
| Cadmium | 0.1 | | | F | 10 | 5 | 5 | F | 40 | 40 | 5 | 20 | 0.5 | 20 | 5 | — | D |
| Calcium | 18 | | | | | | | | | | | | | | | | |
| Chromium | 9 | | | F | 50 | 100 | 100 | F | 1,000 | 1,000 | 200 | 800 | 5 | 200 | 100 | — | D |
| Cobalt | 10 | | | | | | | | | | | | | | | | |
| Copper | 6 | 10.4 | 1,000 | | | 1,300 | 1,300 | — | — | — | — | — | — | — | — | — | D |
| Iron | 6 | 6,940 | 300 | | | | | | | | | | | | | | |
| Lead (at tap) | 1 | | | F | — | ZERO | TT | — | — | — | — | — | — | — | — | — | B2 |
| Magnesium | 63 | 38,100 | | | | | | | | | | | | | | | |
| Manganese | 1 | 629 | 50 | | — | — | — | D | — | — | — | — | 140 | — | — | — | — |
| Mercury | 0.2 | | | F | 2 | 2 | 2 | F | — | — | — | 2 | 0.3 | 10 | 2 | — | D |
| Nickel | 13 | | | P | — | 100 | 100 | F | 1,000 | 1,000 | 500 | 1,700 | 20 | 600 | 100 | — | D |
| Potassium | 323 | 3,200 | | | | | | | | | | | | | | | |
| Selenium | 2 | | | F | 10 | 50 | 50 | — | — | — | — | — | 5 | — | — | — | — |
| Silver | 3 | | 100 | — | 50 | — | — | D | 200 | 200 | 200 | 200 | 5 | 20 | 100 | — | D |
| Sodium | 42 | 28,900 | | | — | — | — | D | — | — | — | — | — | 20,000 | — | — | — |
| Thallium | 1 | | | P | — | 0.5 | 4 | D | 7 | 7 | 7 | 20 | 0.07 | 2 | 0.4 | — | — |
| Vanadium | 9 | | | L | — | — | — | D | 80 | 80 | 30 | 110 | 3 | 110 | 20 | — | D |
| Zinc | 5 | 45.1 | 5,000 | L | — | — | — | D | — | — | — | — | 300 | 10,500 | 2,100 | — | D |
| Cyanide | 10 | | | T | — | 200 | 200 | F | 200 | 200 | 200 | 800 | 22 | 800 | 200 | — | D |

* - Secondary Maximum Contaminant Levels (µg/L) as indicated in "Drinking Water Regulations and Health Advisories" April 1992.

DESCRIPTION AND QUALIFIERS FOR ANALYTICAL DATA AND RELATED HEALTH ADVISORY TABLE

| NO | COLUMN | DESCRIPTION |
|---|---|---|
| 1 | SAMPLE COLLECTION, INFORMATION AND PARAMETERS | The compounds and analytes analyzed for in this water sample |
| 2 | Detection Limits | The limits that a laboratory must meet as part of the analytical service contract. |
| 3 | Samples Results | The value determined by the analysis. |
| 4 | SMCL | This column includes the currently available secondary Maximum Contaminant Levels (SMCLs). |
| 5 | Status Reg | F = Final; D = Draft; L = Listed; P = Proposed (Phase II); T = Tentative (Phase V) |
| 6 | NIPDWR | National Interim Primary Drinking Water Regulation. Interim enforceable drinking water regulations first established under the Safe Drinking Water Act that are protective of public health to the extent feasible. |
| 7 | MCLG | Maximum Contaminant Level Goal. A non-enforceable concentration of a drinking water contaminant that is protective of adverse human health effects and allows a adequate margin of safety. |
| 8 | MCL | Maximum Contaminant Level. Maximum permissible level of a contaminant in water which is delivered to any user of a public water system. MCL's are legally enforceable. |
| 9 | Status HA (also see Status Reg) | Health Advisories (HA) provide information on the health effects, analytical methods and treatments technology useful for dealing with drinking contamination. HA are non-regulated concentrations and contain a margin of safety to protect sensitive members of the population: HA are not construed as legally enforceable federal standards and are subject to change as new information becomes available. HA values are derived for adult (assuming 70 kg weight and consuming 2 L. of water daily) and for child (assuming 10 kg weight) the same way. |
| 10 | 10 Kg Child<br>a. 1 day<br>b. 10 day<br>c. Longer Term | The child is assumed to be a more sensitive population entity. Assumption is that body weight of child is 10 kg and 1 Liter of water is ingested daily. Under these and other assumptions specific to the available toxicological data bases, HA values have been derived for 1 day and 10 day exposures.<br>Longer term is defined as approximately 7 years of 10% of an individual's life time. |
| 11 | 70 Kg Adult<br>a. Longer Term<br>b. RFD<br><br>c. DWEL<br><br>d. Lifetime | The adult is assumed to weigh 70 kg and consume 2 Liters of water daily.<br>Longer term is defined as approximately 7 years of 10% of an individual's life time.<br>Reference Dose: The RFD is an estimate of a daily exposure to the human population that is likely to be without appreciable risk or deleterious effects over a lifetime. The RFD is expressed in units of daily dose.<br>Drinking Water Equivalent Level. A lifetime exposure concentration that is likely to have adverse, noncancer health effects, that assumes all of the exposure to a contaminant is from a drinking water source.<br>Lifetime Health Advisory: This value is determined by factoring in other sources of exposure to the particular contaminant. The relative source contribution from drinking water is based on actual exposure data. In the absence of chemical specific data, a value of 20% for organics and 10% for inorganics is assumed. |

DESCRIPTION AND QUALIFIERS FOR ANALYTICAL DATA AND RELATED HEALTH ADVISORY TABLE

| NO | COLUMN | DESCRIPTION |
|---|---|---|
| 12 | µg/L as E-04 Cancer Risk | This column contains values indicating the concentration of the particular contaminant in drinking water that would produce an E-04 (10 to the minus 4 power) excess lifetime cancer risk. It means if a group of 10,000 persons were exposed to the contaminant at its respective concentration (as listed in this column), then ONE individual in the group might be expected to develop cancer (above background) solely from exposure to that contaminant in drinking water. |
| 13 | Cancer Group | These are the guidelines developed for carcinogen risk assessment. These guidelines discuss weighing the evidence that a substance is a carcinogen, and classifying the chemical into one of five groups, based on weight of evidence.<br><br>Group A - Human Carcinogen<br>Group B - Probable human carcinogen<br>Group B1 - Probable human carcinogen, limited human evidence but sufficient animal evidence.<br>Group B2 - Probable human carcinogen, sufficient animal evidence, but inadequate or no human evidence.<br>Group C - Possible human carcinogen.<br>Group D - Not classified as to human carcinogenicity<br>Group E - Evidence of non-carcinogenicity for humans. |
| NA | Not Applicable | |
| PS | Performance Standard 0.5 NTU - 1.0 NTU | |

## DATA QUALIFIERS[1]

| Organics Footnote | Definition | Interpretation |
|---|---|---|
| U | Indicates compound was analyzed for but not detected | Compound was not detected. |
| J | Indicates an estimated value. | Compound value may be semiquantitative. |
| UJ | Quantitation limit is estimated due to a Quality Control (QC) protocol. | Compound was not detected. |
| C | This flag applies to pesticide results where the identification has been confirmed by GC/MS. Single component pesticides ≥ng/ul in the final extract shall be confirmed by GC/MS. | Compound was confirmed by mass spectroscopy. |
| B | This flag is used when the analyte is found in the associated blank as well as in the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action. | Compound value may be semiquantitative if it is <5x the blank concentration (10x the blank concentrations for common lab artifacts: phthalates, methylene chloride, acetone, toluene, 2-butanone). |
| E | This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for that specific analysis. This flag will not apply to pesticides/PCBs analyzed by GC/EC methods. | Compound value may be semiquantitative. |
| D | This flag identifies all compounds identified in an analysis at a secondary dilution factor. | Alerts data user to a possible change in the CRQL. |
| A | This flag indicates that a TIC is a suspected aldol-condensation product. | Alerts data user of a lab artifact. |
| R | Results are unusable due to a major violation of QC protocol. | Compound value is not usable. |

[1] - Only detectable concentrations are included in the analytical data table.

## DATA QUALIFIERS[1]

(Continued)

| Inorganics Footnote | | Definition | Interpretation |
|---|---|---|---|
| Old | New | | |
| E | E | Estimated or not reported due to interference. See laboratory narrative. | Compound or element was not detected or value may be semiquantitative. |
| * | * | Analysis by Method of Standard Additions. | Value may be quantitative. |
| R | N | Spike recoveries outside QC protocols which indicates a possible matrix problem. Data may be biased high or low. See spike results and laboratory narrative. | Value may be quantitative or semiquantitative. |
| * | * | Duplicate value outside QC protocols which indicates a possible matrix problem. | Value may be semiquantitative. |
| + | + | Correlation coefficient for standard additions to less than 0.995. See review and laboratory narrative. | Data value may be biased. |
| { } | B | Value is real, but is above instrument DL and below CRDL. | Value may be quantitative or semiquantitative. |
| UJ | | DL is estimated because of a QC protocol. DL is possibly above or below CRDL. | Compound or element was not detected. |
| J | | Value is above CRDL and is an estimated value because of a QC protocol. | Value may be semiquantitative. |
| U | U | Compound was analyzed for but not detected. | Compound was not detected. |
| | M | Duplicate injection precision not met. | Value may be semiquantitative. |
| | W | Post-digestion spike for furnace AA analysis is out of control limits (35-115%), while sample absorbance is <50% of spike absorbance. | Value may be semiquantitative. |

# DRINKING WATER MEMORANDUM
# WELL OWNER'S LOG

DATE:

TO: Mr. Steve Roush — STATE: Indiana

FROM: P. Krishnan, Roy F. Weston, Inc.

SUBJECT: Drinking Water Sample Results

SITE NAME: SANYO E&E CORPORATION — CERCLIS ID: IND 087032207

| | NAME | ADDRESS | CITY, STATE, ZIP |
|---|---|---|---|
| RW01-01 | 1. Sarah Johnson, Facility | 50 North, 5th Street | Richmond, IN 47374 |
| RW01-01DP | 2. Navajo, Parks & Recr. | | |
| GW01-01 | 3. Sanyo Production well | 1767 Sheridan Street | Richmond, IN 47374 |
| ~~GW01-01DP~~ GW01-01D | 4. E&E Corporation | | |
| | 5. | | |
| | 6. | | |
| | 7. | | |
| | 8. | | |
| | 9. | | |
| | 10. | | |

State Contact:

Received By: _____

Date: _____

Note:
Please return a signed copy within 5 working days to:
Roy F. Weston, Inc.
Three Hawthorn Parkway, Suite 400,
Vernon Hills, Illinois 60047

# Drinking Water Memorandum

DATE: _____

Site Name: SANYO E&E CORPORATION
CERCLIS ID: IND 087032207
WA NO.: 45-5JZZ

TO: 1. Ms. Jan Pels, U.S. EPA
2. State Contact _____

FROM: P. Krishnan, Roy F. Weston, Inc.

SUBJECT: Drinking Water Sample Results

Sample: GW01-01DP | ERW~~9~~19 | MERP17

Change same as MERP16

Action Level

☐ No Contamination _____
No hits above any health-related standards.

☐ Low Level Contamination _____
Hits just above health-related standards.

☒ Significant Contamination For Trichloroethene
Hits are above health-related standards.

☐ Please check the following. They are less than health-related standards but above detection limits.

1,2-Dichloroethene (Total) _____
~~1,2-Dichloroethane~~ _____
Copper _____
Zinc _____
Cyanide _____

☐ Please check secondary maximum contamination limits for:

| | | | |
|---|---|---|---|
| Aluminum | | Manganese | |
| Copper | | Silver | |
| Iron | ✓ | Zinc | |

P. Krishnan

CH01\PUBLIC\WO\ARCS\040\9929.T-E

Sample: GW01-01DP/ERW19

**Analytical Data and Related Health Advisory Table**

| Sample Collection Information and Parameters | Detection Limits (µg/L) | Sample Result (µg/L) | SMCL* | Standards | | | | Status HA | 10-kg Child | | | 70-kg Adult | | | | µg/L at 10-4 Cancer Risk | Cancer Group |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Status Reg. | NIPDWR (µg/L) | MCLG (µg/L) | MCL (µg/L) | | One Day µg/L | Ten-Day µg/L | Longer-Term µg/L | Longer-Term µg/L | RFD µg/kg/day | DWEL µg/L | Life-time µg/L | | |
| VOLATILE ORGANICS | | | | | | | | | | | | | | | | | |
| Chloromethane | 1 | | | L | — | — | — | F | 9,000 | 400 | 400 | 1,000 | 4 | 100 | 3 | — | C |
| Bromomethane | 1 | | | L | — | — | — | F | 100 | 100 | 100 | 500 | 1 | 50 | 10 | — | D |
| Vinyl Chloride | 1 | | | F | — | ZERO | 2 | F | 3,000 | 3,000 | 10 | 50 | — | — | — | 1.5 | A |
| Chloroethane | 1 | | | L | — | — | — | D | — | — | — | — | — | — | — | — | — |
| Methylene Chloride | 2 | | | | | | | | | | | | | | | | |
| Acetone | 5 | | | | | | | | | | | | | | | | |
| Carbon Disulfide | 1 | | | | | | | | | | | | | | | | |
| 1,1-Dichloroethene | 1 | | | F | — | 7 | 7 | F | 2,000 | 1,000 | 1,000 | 4,000 | 9 | 400 | 7 | — | C |
| 1,1-Dichloroethane | 1 | | | L | — | — | — | D | — | — | — | — | — | — | — | — | — |
| cis-1,2-Dichloroethene | 1 | 94 JD | | F | — | 70 | 70 | F | 4,000 | 3,000 | 3,000 | 11,000 | 10 | 400 | 70 | — | D |
| trans-1,2-Dichloroethene | 1 | | | F | — | 100 | 100 | F | 20,000 | 2,000 | 2,000 | 6,000 | 20 | 600 | 100 | — | D |
| Chloroform | 1 | | | L | 100 | — | 100 | D | 4,000 | 4,000 | 100 | 400 | 10 | 400 | — | 600 | B2 |
| 1,2-Dichloroethane | 1 | 2 J | | F | — | ZERO | 5 | F | 700 | 700 | 700 | 2,600 | — | — | — | 40 | B2 |
| 2-Butanone | 5 | | | L | — | — | — | F | 80,000 | 8,000 | 3,000 | 9,000 | 0.05 | 900 | 200 | — | D |
| Bromochloromethane | 1 | | | — | 100 | — | — | F | 60,000 | 1,000 | 1,000 | 5,000 | 13 | 500 | 90 | — | — |
| 1,1,1-Trichloroethane | 1 | | | F | — | 200 | 200 | F | 100,000 | 40,000 | 40,000 | 100,000 | 35 | 1,000 | 200 | — | D |
| Carbon Tetrachloride | 1 | | | F | — | ZERO | 5 | F | 4,000 | 200 | 70 | 300 | 0.7 | 30 | — | 30 | B2 |
| Bromodichloromethane | 1 | | | L | — | — | 100 | D | 7,000 | 7,000 | 4,000 | 13,000 | 20 | 700 | — | 140 | B2 |
| 1,2-Dichloropropane | 1 | | | F | — | ZERO | 5 | F | — | 90 | — | — | — | — | — | 50 | B2 |
| cis-1,3-Dichloropropene | 1 | | | | | | | | | | | | | | | | |
| Trichloroethene | 1 | 1300 D | | F | — | ZERO | 5 | F | — | — | — | — | — | 300 | — | 300 | B2 |
| Dibromochloromethane | 1 | | | | | | | | | | | | | | | | |
| 1,1,2,2-Tetrachloroethane | 1 | | | L | — | — | — | D | — | — | — | — | — | — | — | — | — |
| 1,1,2-Trichloroethane | 1 | | | P | 5 | 3 | 5 | F | 600 | 400 | 400 | 1,000 | 4 | 100 | 3 | — | C |
| Benzene | 1 | | | F | — | ZERO | 5 | F | 200 | 200 | — | — | — | — | — | 100 | A |
| trans-1,3-Dichloropropene | 1 | | | | | | | | | | | | | | | | |
| Bromoform | 1 | | | L | 100 | — | 100 | D | 6,000 | 2,000 | 2,000 | 6,000 | 20 | 700 | — | 400 | B2 |
| 4-Methyl-2-pentanone | 5 | | | | | | | | | | | | | | | | |
| 2-Hexanone | 5 | | | | | | | | | | | | | | | | |
| Tetrachloroethene | 1 | | | F | — | ZERO | 5 | F | 2,000 | 2,000 | 1,000 | 5,000 | 10 | 500 | — | 70 | — |
| 1,2-Dibromoethane | 1 | | | | | | 1,000 | | | | | | | | | | |
| Toluene | 1 | | | F | — | 1,000 | | F | 20,000 | 2,000 | 2,000 | 7,000 | 200 | 7,000 | 1,000 | — | D |
| Chlorobenzene | 1 | | | | | | | | | | | | | | | | |
| Ethyl Benzene | 1 | | | F | — | 700 | 700 | F | 30,000 | 3,000 | 1,000 | 300 | 100 | 3,000 | 700 | — | D |
| Styrene | 1 | | | F | — | 100 | 100 | F | 20,000 | 2,000 | 2,000 | 7,000 | 200 | 7,000 | 100 | — | C |
| Xylene (total) | 1 | | | F | — | 10,000 | 10,000 | F | 40,000 | 40,000 | 40,000 | 100,000 | 2,000 | 60,000 | 10,000 | — | D |
| 1,3-Dichlorobenzene | 1 | | | | | | | | | | | | | | | | |
| 1,4-Dichlorobenzene | 1 | | | | | | | | | | | | | | | | |
| 1,2-Dichlorobenzene | 1 | | | | | | | | | | | | | | | | |
| 1,2-Dibromo-3-chloropropane | 1 | | | | | | | | | | | | | | | | |

Sample: GW01-01DP | ERW19

**Analytical Data and Related Health Advisory Table**

| Sample Collection Information and Parameters | Detection Limits (µg/L) | Sample Result (µg/L) | SMCL* | Standards | | | | Status HA | 10-kg Child | | | 70-kg Adult | | | | µg/L at 10-4 Cancer Risk | Cancer Group |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Status Reg. | NIPDWR (µg/L) | MCLG (µg/L) | MCL (µg/L) | | One Day µg/L | Ten-Day µg/L | Longer-Term µg/L | Longer-Term µg/L | RFD µg/kg/day | DWEL µg/L | Life-time µg/L | | |
| SEMIVOLATILE ORGANICS | | | | | | | | | | | | | | | | | |
| Phenol | 5 | | | --- | --- | --- | --- | D | 6,000 | 6,000 | 6,000 | 20,000 | 600 | 20,000 | 4,000 | --- | D |
| bis(2-Chloroethyl)ether | 5 | | | | | | | | | | | | | | | | |
| 2-Chlorophenol | 5 | | | --- | --- | --- | --- | D | 50 | 50 | 50 | 200 | 5 | 200 | 40 | --- | D |
| 2-Methylphenol | 5 | | | | | | | | | | | | | | | | |
| 2,2'-oxybis(1-Chloropropane) | 5 | | | | | | | | | | | | | | | | |
| 4-Methylphenol | 5 | | | | | | | | | | | | | | | | |
| N-Nitroso-di-n-propylamine | 5 | | | | | | | | | | | | | | | | |
| Hexachloroethane | 5 | | | L | --- | --- | --- | F | 5,000 | 5,000 | 100 | 500 | 1 | 400 | 1 | --- | C |
| Nitrobenzene | 5 | | | | | | | | | | | | | | | | |
| Isophorone | 5 | | | L | --- | --- | --- | D | 15,000 | 15,000 | 15,000 | 15,000 | 200 | 7,000 | 100 | --- | C |
| 2-Nitrophenol | 5 | | | | | | | | | | | | | | | | |
| 2,4-Dimethylphenol | 5 | | | | | | | | | | | | | | | | |
| bis(2-Chloroethoxy)methane | 5 | | | | | | | | | | | | | | | | |
| 2,4-Dichlorophenol | 5 | | | --- | --- | --- | --- | D | 30 | 30 | 30 | 100 | 3 | 100 | 20 | --- | D |
| 1,2,4-Trichlorobenzene | 5 | | | P | --- | 70 | 70 | F | 100 | 100 | 100 | 500 | 10 | 400 | 70 | --- | D |
| Naphthalene | 5 | | | --- | --- | --- | --- | F | 500 | 500 | 400 | 1,000 | 4 | 100 | 20 | --- | D |
| 4-Chloroaniline | 5 | | | | | | | | | | | | | | | | |
| Hexachlorobutadiene | 5 | | | L | --- | --- | --- | F | 300 | 300 | 100 | 400 | 2 | 70 | 1 | --- | C |
| 4-Chloro-3-methylphenol | 5 | | | | | | | | | | | | | | | | |
| 2-Methylnaphthalene | 5 | | | | | | | | | | | | | | | | |
| Hexachlorocyclopentadiene | 5 | | 8 | P | --- | 50 | 50 | --- | --- | --- | --- | --- | 7 | 200 | --- | --- | D |
| 2,4,6-Trichlorophenol | 5 | | | L | --- | --- | --- | D | --- | --- | --- | --- | --- | --- | --- | 300 | B2 |
| 2,4,5-Trichlorophenol | 20 | | | | | | | | | | | | | | | | |
| 2-Chloronaphthalene | 5 | | | | | | | | | | | | | | | | |
| 2-Nitroaniline | 20 | | | | | | | | | | | | | | | | |
| Dimethylphthalate | 5 | | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | D |
| Acenaphthylene | 5 | | | | | | | | | | | | | | | | |
| 2,6-Dinitrotoluene | 5 | | | L | --- | --- | --- | F | 400 | 400 | 400 | 1,000 | 1 | 40 | --- | 5,000 | B2 |
| 3-Nitroaniline | 20 | | | | | | | | | | | | | | | | |
| Acenaphthene | 5 | | | --- | --- | --- | --- | --- | --- | --- | --- | --- | 60 | --- | --- | --- | --- |
| 2,4-Dinitrophenol | 20 | | | | | | | | | | | | | | | | |
| 4-Nitrophenol | 20 | | | | | | | | | | | | | | | | |
| Dibenzofuran | 5 | | | | | | | | | | | | | | | | |
| 2,4-Dinitrotoluene | 5 | | | L | --- | --- | --- | F | 500 | 500 | 300 | 1,000 | 2 | 100 | --- | 5,000 | B2 |
| Diethylphthalate | 5 | | | | | | | | | | | | | | | | |
| 4-Chlorophenyl-phenyl ether | 5 | | | | | | | | | | | | | | | | |
| Fluorene | 5 | | | --- | --- | --- | --- | --- | --- | --- | --- | --- | 40 | --- | --- | --- | D |
| 4-Nitroaniline | 20 | | | | | | | | | | | | | | | | |
| 4,6-Dinitro-2-methylphenol | 20 | | | | | | | | | | | | | | | | |
| N-Nitrosodiphenylamine (1) | 5 | | | | | | | | | | | | | | | | |

Sample: GW01-01DP/ERW19

Analytical Data and Related Health Advisory Table (Continued)

| Sample Collection Information and Parameters | Detection Limits (µg/L) | Sample Result (µg/L) | SMCL* | Standards | | | | Status HA | 10-kg Child | | | 70-kg Adult | | | | µg/L at 10-4 Cancer Risk | Cancer Group |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Status Reg. | NIPDWR (µg/L) | MCLG (µg/L) | MCL (µg/L) | | One Day µg/L | Ten-Day µg/L | Longer-Term µg/L | Longer-Term µg/L | RFD µg/kg/day | DWEL µg/L | Life-time µg/L | | |
| SEMIVOLATILE ORGANICS (CONT.) | | | | | | | | | | | | | | | | | |
| 4-Bromophenyl-phenylether | 5 | | | | | | | | | | | | | | | | |
| Hexachlorobenzene | 5 | | | P | --- | ZERO | 1 | F | 50 | 50 | 50 | 200 | 0.8 | 30 | --- | 2 | B2 |
| Pentachlorophenol | 20 | | | F | --- | ZERO | 1 | F | 1,000 | 300 | 300 | 1,000 | 30 | 1,000 | --- | 30 | B2 |
| Phenanthrene | 5 | | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Anthracene | 5 | | | --- | --- | --- | --- | --- | --- | --- | --- | --- | 300 | --- | --- | --- | D |
| Di-n-butylphthalate | 5 | | | | | | | | | | | | | | | | |
| Fluoranthene | 5 | | | | | | | | | | | | | | | | |
| Pyrene | 5 | | | --- | --- | --- | --- | --- | --- | --- | --- | --- | 30 | --- | --- | --- | D |
| Butylbenzylphthalate | 5 | | | P | --- | ZERO | 100 | --- | --- | --- | --- | --- | 200 | 6,000 | --- | --- | C |
| 3,3'Dichlorobenzidine | 5 | | | | | | | | | | | | | | | | |
| Benzo(a)anthracene | 5 | | | P | --- | ZERO | 0.1 | --- | --- | --- | --- | --- | --- | --- | --- | --- | B2 |
| Chrysene | 5 | | | P | --- | ZERO | 0.2 | --- | --- | --- | --- | --- | --- | --- | --- | --- | B2 |
| Bis(2-Ethylhexyl)phthalate | 5 | | | | | | | | | | | | | | | | |
| Di-n-octylphthalate | 5 | | | | | | | | | | | | | | | | |
| Benzo(b)fluoranthene | 5 | | | P | --- | ZERO | 0.2 | --- | --- | --- | --- | --- | --- | --- | --- | --- | B2 |
| Benzo(k)fluoranthene | 5 | | | P | --- | ZERO | 0.2 | --- | --- | --- | --- | --- | --- | --- | --- | --- | B2 |
| Benzo(a)pyrene | 5 | | | P | --- | ZERO | 0.2 | --- | --- | --- | --- | --- | --- | --- | --- | --- | B2 |
| Indeno(1,2,3-cd)pyrene | 5 | | | P | --- | ZERO | 0.4 | D | --- | --- | --- | --- | --- | --- | --- | --- | B2 |
| Dibenz(a,h)anthracene | 5 | | | P | --- | ZERO | 0.3 | --- | --- | --- | --- | --- | --- | --- | --- | --- | B2 |
| Benzo(g,h,i)perylene | 5 | | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | D |

Sample: GW01-01DP/ERW19

**Analytical Data and Related Health Advisory Table**

| Sample Collection Information and Parameters | Detection Limits (µg/L) | Sample Result (µg/L) | SMCL* | Standards | | | | Status HA | 10-kg Child | | | 70-kg Adult | | | | µg/L at 10-4 Cancer Risk | Cancer Group |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Status Reg. | NIPDWR (µg/L) | MCLG (µg/L) | MCL (µg/L) | | One Day µg/L | Ten-Day µg/L | Longer-Term µg/L | Longer-Term µg/L | RFD µg/kg/day | DWEL µg/L | Life-time µg/L | | |
| PESTICIDE/PCBS | | | | | | | | | | | | | | | | | |
| alpha-BHC | 0.010 | | | | | | | | | | | | | | | | |
| beta-BHC | 0.010 | | | | | | | | | | | | | | | | |
| delta-BHC | 0.010 | | | | | | | | | | | | | | | | |
| gamma-BHC (Lindane) | 0.010 | | | F | 4 | 0.2 | 0.2 | F | 1,000 | 1,000 | 30 | 100 | 0.3 | 10 | 0.2 | — | C |
| Heptachlor | 0.010 | | | F | — | ZERO | 0.4 | F | 10 | 10 | 6 | 6 | 0.6 | 20 | — | 0.8 | B2 |
| Aldrin | 0.010 | | | — | — | — | — | D | 0.3 | 0.3 | 0.3 | 0.3 | 0.03 | 1 | — | 0.2 | B2 |
| Heptachlor epoxide | 0.010 | | | F | — | ZERO | 0.2 | F | 10 | — | 0.1 | 0.1 | 1.3E-02 | 0.4 | — | 0.4 | B2 |
| Endosulfan I | 0.010 | | | | | | | | | | | | | | | | |
| Dieldrin | 0.020 | | | — | — | — | — | F | 0.6 | 0.6 | 0.6 | 2 | 0.06 | 2 | — | 0.2 | B2 |
| 4,4'-DDE | 0.020 | | | | | | | | | | | | | | | | |
| Endrin | 0.020 | | | P | 0.2 | 2 | 2 | F | 20 | 20 | 3 | 10 | 0.3 | 10 | 2 | — | D |
| Endosulfan II | 0.020 | | | | | | | | | | | | | | | | |
| 4,4'-DDD | 0.020 | | | | | | | | | | | | | | | | |
| Endosulfan sulfate | 0.020 | | | | | | | | | | | | | | | | |
| 4,4'-DDT | 0.020 | | | | | | | | | | | | | | | | |
| Methyoxychlor | 0.100 | | | F | 100 | 40 | 40 | F | 60 | 60 | 60 | 200 | 6 | 200 | 40 | — | D |
| Endrin ketone | 0.020 | | | | | | | | | | | | | | | | |
| Endrin Aldehyde | 0.020 | | | | | | | | | | | | | | | | |
| alpha-Chlordane | 0.010 | | | | | | | | | | | | | | | | |
| gamma-Chlordane | 0.010 | | | | | | | | | | | | | | | | |
| Toxephene | 1.00 | | | F | 5 | ZERO | 3 | F | 600 | 40 | — | — | 100 | 3.5 | — | 3 | B2 |
| PCBs | 0.200 - 0.400 | | | F | — | ZERO | 0.5 | P | — | — | — | — | — | — | — | 0.5 | B2 |

Sample: GW01-01DP | MERP 17

Analytical Data and Related Health Advisory Table

| Sample Collection Information and Parameters | Detection Limits (µg/L) | Sample Result (µg/L) | SMCL* | Standards | | | | Status HA | 10-kg Child | | | 70-kg Adult | | | | µg/L at 10-4 Cancer Risk | Cancer Group |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Status Reg. | NIPDWR (µg/L) | MCLG (µg/L) | MCL (µg/L) | | One Day µg/L | Ten-Day µg/L | Longer-Term µg/L | Longer-Term µg/L | RFD µg/kg/day | DWEL µg/L | Lifetime µg/L | | |
| INORGANICS | | | | | | | | | | | | | | | | | |
| Aluminum | 33 | | 50-200 | L | — | — | — | D | — | — | — | — | — | — | | — | |
| Antimony | 51 | | | P | — | 3.0 | 10/5 | D | 15 | 15 | 15 | 15 | 0.4 | 15 | 3 | — | D |
| Arsenic | 1 | | | | 50 | — | 50 | D | — | — | — | — | — | — | — | 2 | A |
| Barium | 2 | | | F | 1,000 | 2,000 | 2,000 | F | — | — | — | — | 70 | 2,000 | 2,000 | — | D |
| Beryllium | 1 | | | P | — | ZERO | 1 | D | 30,000 | 30,000 | 4,000 | 20,000 | 5 | 200 | — | 0.8 | B2 |
| Cadmium | 0.1 | | | F | 10 | 5 | 5 | F | 40 | 40 | 5 | 20 | 0.5 | 20 | 5 | — | D |
| Calcium | 18 | 110,000 | | | | | | | | | | | | | | | |
| Chromium | 9 | 14.2 J | | F | 50 | 100 | 100 | F | 1,000 | 1,000 | 200 | 800 | 5 | 200 | 100 | — | D |
| Cobalt | 10 | | | | | | | | | | | | | | | | |
| Copper | 6 | 9.2 BJ | 1,000 | | | 1,300 | 1,300 | — | — | — | — | — | — | — | — | — | D |
| Iron | 6 | 647 | 300 | | | | | | | | | | | | | | |
| Lead (at top) | 1 | | | F | — | ZERO | TT | — | — | — | — | — | — | — | — | — | B2 |
| Magnesium | 63 | 38,700 | | | | | | | | | | | | | | | |
| Manganese | 1 | 31.4 | 50 | | — | — | — | D | — | — | — | — | 140 | — | — | — | — |
| Mercury | 0.2 | | | F | 2 | 2 | 2 | F | — | — | — | 2 | 0.3 | 10 | 2 | — | D |
| Nickel | 13 | 8.6 BJ | | P | — | 100 | 100 | F | 1,000 | 1,000 | 500 | 1,700 | 20 | 600 | 100 | — | D |
| Potassium | 323 | 2,620 B | | | | | | | | | | | | | | | |
| Selenium | 2 | 1.6 B | | F | 10 | 50 | 50 | — | — | — | — | — | 5 | — | — | — | — |
| Silver | 3 | | 100 | — | 50 | — | — | D | 200 | 200 | 200 | 200 | 5 | 20 | 100 | — | D |
| Sodium | 42 | 19,100 | | | — | — | — | D | — | — | — | — | — | 20,000 | — | — | — |
| Thallium | 1 | | | P | — | 0.5 | 4 | D | 7 | 7 | 7 | 20 | 0.07 | 2 | 0.4 | — | — |
| Vanadium | 9 | | | L | — | — | — | D | 80 | 80 | 30 | 110 | 3 | 110 | 20 | — | D |
| Zinc | 5 | 9.6 BJ | 5,000 | L | — | — | — | D | — | — | — | — | 300 | 10,500 | 2,100 | — | D |
| Cyanide | 10 | 30 | | T | — | 200 | 200 | F | 200 | 200 | 200 | 800 | 22 | 800 | 200 | — | D |

* - Secondary Maximum Contaminant Levels (µg/L) as indicated in "Drinking Water Regulations and Health Advisories" April 1992.

DESCRIPTION AND QUALIFIERS FOR ANALYTICAL DATA AND RELATED HEALTH ADVISORY TABLE

| NO | COLUMN | DESCRIPTION |
|---|---|---|
| 1 | SAMPLE COLLECTION, INFORMATION AND PARAMETERS | The compounds and analytes analyzed for in this water sample |
| 2 | Detection Limits | The limits that a laboratory must meet as part of the analytical service contract. |
| 3 | Samples Results | The value determined by the analysis. |
| 4 | SMCL | This column includes the currently available secondary Maximum Contaminant Levels (SMCLs). |
| 5 | Status Reg | F = Final; D = Draft; L = Listed; P = Proposed (Phase II); T = Tentative (Phase V) |
| 6 | NIPDWR | National Interim Primary Drinking Water Regulation. Interim enforceable drinking water regulations first established under the Safe Drinking Water Act that are protective of public health to the extent feasible. |
| 7 | MCLG | Maximum Contaminant Level Goal. A non-enforceable concentration of a drinking water contaminant that is protective of adverse human health effects and allows a adequate margin of safety. |
| 8 | MCL | Maximum Contaminant Level. Maximum permissible level of a contaminant in water which is delivered to any user of a public water system. MCL's are legally enforceable. |
| 9 | Status HA (also see Status Reg) | Health Advisories (HA) provide information on the health effects, analytical methods and treatments technology useful for dealing with drinking contamination. HA are non-regulated concentrations and contain a margin of safety to protect sensitive members of the population: HA are not construed as legally enforceable federal standards and are subject to change as new information becomes available. HA values are derived for adult (assuming 70 kg weight and consuming 2 L. of water daily) and for child (assuming 10 kg weight) the same way. |
| 10 | 10 Kg Child<br>a. 1 day<br>b. 10 day<br>c. Longer Term | The child is assumed to be a more sensitive population entity. Assumption is that body weight of child is 10 kg and 1 Liter of water is ingested daily. Under these and other assumptions specific to the available toxicological data bases, HA values have been derived for 1 day and 10 day exposures.<br>Longer term is defined as approximately 7 years of 10% of an individual's life time. |
| 11 | 70 Kg Adult<br>a. Longer Term<br>b. RFD<br><br>c. DWEL<br><br>d. Lifetime | The adult is assumed to weigh 70 kg and consume 2 Liters of water daily.<br>Longer term is defined as approximately 7 years of 10% of an individual's life time.<br>Reference Dose: The RFD is an estimate of a daily exposure to the human population that is likely to be without appreciable risk or deleterious effects over a lifetime. The RFD is expressed in units of daily dose.<br>Drinking Water Equivalent Level. A lifetime exposure concentration that is likely to have adverse, noncancer health effects, that assumes all of the exposure to a contaminant is from a drinking water source.<br>Lifetime Health Advisory: This value is determined by factoring in other sources of exposure to the particular contaminant. The relative source contribution from drinking water is based on actual exposure data. In the absence of chemical specific data, a value of 20% for organics and 10% for inorganics is assumed. |

DESCRIPTION AND QUALIFIERS FOR ANALYTICAL DATA AND RELATED HEALTH ADVISORY TABLE

| NO | COLUMN | DESCRIPTION |
|---|---|---|
| 12 | µg/L as E-04 Cancer Risk | This column contains values indicating the concentration of the particular contaminant in drinking water that would produce an E-04 (10 to the minus 4 power) excess lifetime cancer risk. It means if a group of 10,000 persons were exposed to the contaminant at its respective concentration (as listed in this column), then ONE individual in the group might be expected to develop cancer (above background) solely from exposure to that contaminant in drinking water. |
| 13 | Cancer Group | These are the guidelines developed for carcinogen risk assessment. These guidelines discuss weighing the evidence that a substance is a carcinogen, and classifying the chemical into one of five groups, based on weight of evidence.<br><br>Group A - Human Carcinogen<br>Group B - Probable human carcinogen<br>Group B1 - Probable human carcinogen, limited human evidence but sufficient animal evidence.<br>Group B2 - Probable human carcinogen, sufficient animal evidence, but inadequate or no human evidence.<br>Group C - Possible human carcinogen.<br>Group D - Not classified as to human carcinogenicity<br>Group E - Evidence of non-carcinogenicity for humans. |
| NA | Not Applicable | |
| PS | Performance Standard 0.5 NTU - 1.0 NTU | |

## DATA QUALIFIERS[1]

| Organics<br>Footnote | Definition | Interpretation |
|---|---|---|
| U | Indicates compound was analyzed for but not detected | Compound was not detected. |
| J | Indicates an estimated value. | Compound value may be semiquantitative. |
| UJ | Quantitation limit is estimated due to a Quality Control (QC) protocol. | Compound was not detected. |
| C | This flag applies to pesticide results where the identification has been confirmed by GC/MS. Single component pesticides ≥ng/ul in the final extract shall be confirmed by GC/MS. | Compound was confirmed by mass spectroscopy. |
| B | This flag is used when the analyte is found in the associated blank as well as in the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action. | Compound value may be semiquantitative if it is <5x the blank concentration (10x the blank concentrations for common lab artifacts: phthalates, methylene chloride, acetone, toluene, 2-butanone). |
| E | This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for that specific analysis. This flag will not apply to pesticides/PCBs analyzed by GC/EC methods. | Compound value may be semiquantitative. |
| D | This flag identifies all compounds identified in an analysis at a secondary dilution factor. | Alerts data user to a possible change in the CRQL. |
| A | This flag indicates that a TIC is a suspected aldol-condensation product. | Alerts data user of a lab artifact. |
| R | Results are unusable due to a major violation of QC protocol. | Compound value is not usable. |

1 - Only detectable concentrations are included in the analytical data table.

## DATA QUALIFIERS[1]

(Continued)

| Inorganics Footnote | | Definition | Interpretation |
|---|---|---|---|
| Old | New | | |
| E | E | Estimated or not reported due to interference. See laboratory narrative. | Compound or element was not detected or value may be semiquantitative. |
| * | * | Analysis by Method of Standard Additions. | Value may be quantitative. |
| R | N | Spike recoveries outside QC protocols which indicates a possible matrix problem. Data may be biased high or low. See spike results and laboratory narrative. | Value may be quantitative or semiquantitative. |
| * | * | Duplicate value outside QC protocols which indicates a possible matrix problem. | Value may be semiquantitative. |
| + | + | Correlation coefficient for standard additions to less than 0.995. See review and laboratory narrative. | Data value may be biased. |
| { } | B | Value is real, but is above instrument DL and below CRDL. | Value may be quantitative or semiquantitative. |
| UJ | | DL is estimated because of a QC protocol. DL is possibly above or below CRDL. | Compound or element was not detected. |
| J | | Value is above CRDL and is an estimated value because of a QC protocol. | Value may be semiquantitative. |
| U | U | Compound was analyzed for but not detected. | Compound was not detected. |
| | M | Duplicate injection precision not met. | Value may be semiquantitative. |
| | W | Post-digestion spike for furnace AA analysis is out of control limits (35-115%), while sample absorbance is <50% of spike absorbance. | Value may be semiquantitative. |

# Drinking Water Memorandum

DATE: _____

Site Name: SANYO E&E CORPORATION
CERCLIS ID: IND 087032207
WA NO.: 45-5JZZ

TO: 1. Ms. Jan Pels, U.S. EPA
2. State Contact _____

FROM: P. Krishnan, Roy F. Weston, Inc.

SUBJECT: Drinking Water Sample Results

Sample: RW01-01 | ERW23 | MERP 20

Action Level

☐ No Contamination _____
No hits above any health-related standards.

☒ Low Level Contamination Trans-1,2-Dichloroethene, Trichloroethene
Hits just above health-related standards.

☒ Significant Contamination For Arsenic, ~~and~~ Sodium, Vinyl chloride
Hits are above health-related standards.

☐ Please check the following. They are less than health-related standards but above detection limits.

| | |
|---|---|
| Barium | |
| Copper | |
| Cis-1,2-Dichloroethene | |
| | |
| | |

☐ Please check secondary maximum contamination limits for:

| | | | |
|---|---|---|---|
| Aluminum | | Manganese | ✓ |
| Copper | | Silver | |
| Iron | ✓ | Zinc | |

P. Krishnan

Sample: RW01-01 | ERW23

**Analytical Data and Related Health Advisory Table**

| Sample Collection Information and Parameters | Detection Limits (µg/L) | Sample Result (µg/L) | SMCL* | Standards | | | | Status HA | 10-kg Child | | | 70-kg Adult | | | | µg/L at 10-4 Cancer Risk | Cancer Group |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Status Reg. | NIPDWR (µg/L) | MCLG (µg/L) | MCL (µg/L) | | One Day µg/L | Ten-Day µg/L | Longer-Term µg/L | Longer-Term µg/L | RFD µg/kg/day | DWEL µg/L | Life-time µg/L | | |
| VOLATILE ORGANICS | | | | | | | | | | | | | | | | | |
| Chloromethane | 1 | | | L | — | — | — | F | 8,000 | 400 | 400 | 1,000 | 4 | 100 | 3 | — | C |
| Bromomethane | 1 | | | L | — | — | — | F | 100 | 100 | 100 | 500 | 1 | 50 | 10 | — | D |
| Vinyl Chloride | 1 | 22.D | | F | — | ZERO | 2 | F | 3,000 | 3,000 | 10 | 50 | — | — | — | 1.5 | A |
| Chloroethane | 1 | | | L | — | — | — | D | — | — | — | — | — | — | — | — | — |
| Methylene Chloride | 2 | | | | | | | | | | | | | | | | |
| Acetone | 5 | | | | | | | | | | | | | | | | |
| Carbon Disulfide | 1 | | | | | | | | | | | | | | | | |
| 1,1-Dichloroethene | 1 | 0.3J | | F | — | 7 | 7 | F | 2,000 | 1,000 | 1,000 | 4,000 | 9 | 400 | 7 | — | C |
| 1,1-Dichloroethane | 1 | 1 | | L | — | — | — | D | — | — | — | — | — | — | — | — | — |
| cis-1,2-Dichloroethene | 1 | 2 | | F | — | 70 | 70 | F | 4,000 | 3,000 | 3,000 | 11,000 | 10 | 400 | 70 | — | D |
| trans-1,2-Dichloroethene | 1 | 100D | | F | — | 100 | 100 | F | 20,000 | 2,000 | 2,000 | 6,000 | 20 | 600 | 100 | — | D |
| Chloroform | 1 | | | L | 100 | — | 100 | D | 4,000 | 4,000 | 100 | 400 | 10 | 400 | — | 600 | B2 |
| 1,2-Dichloroethane | 1 | | | F | — | ZERO | 5 | F | 700 | 700 | 700 | 2,600 | — | — | — | 40 | B2 |
| 2-Butanone | 5 | | | L | — | — | — | F | 80,000 | 8,000 | 3,000 | 9,000 | 0.06 | 900 | 200 | — | D |
| Bromochloromethane | 1 | | | — | 100 | — | — | F | 50,000 | 1,000 | 1,000 | 5,000 | 13 | 500 | 90 | — | — |
| 1,1,1-Trichloroethane | 1 | | | F | — | 200 | 200 | F | 100,000 | 40,000 | 40,000 | 100,000 | 35 | 1,000 | 200 | — | D |
| Carbon Tetrachloride | 1 | | | F | — | ZERO | 5 | F | 4,000 | 200 | 70 | 300 | 0.7 | 30 | — | 30 | B2 |
| Bromodichloromethane | 1 | | | L | — | — | 100 | D | 7,000 | 7,000 | 4,000 | 13,000 | 20 | 700 | — | 140 | B2 |
| 1,2-Dichloropropane | 1 | | | F | — | ZERO | 5 | F | — | 90 | — | — | — | — | — | 50 | B2 |
| cis-1,3-Dichloropropene | 1 | | | | | | | | | | | | | | | | |
| Trichloroethene | 1 | 5 | | F | — | ZERO | 5 | F | — | — | — | — | — | 300 | — | 300 | B2 |
| Dibromochloromethane | 1 | | | | | | | | | | | | | | | | |
| 1,1,2,2-Tetrachloroethane | 1 | | | L | — | — | — | D | — | — | — | — | — | — | — | — | — |
| 1,1,2-Trichloroethane | 1 | | | P | 5 | 3 | 5 | F | 600 | 400 | 400 | 1,000 | 4 | 100 | 3 | — | C |
| Benzene | 1 | | | F | — | ZERO | 5 | F | 200 | 200 | — | — | — | — | — | 100 | A |
| trans-1,3-Dichloropropene | 1 | | | | | | | | | | | | | | | | |
| Bromoform | 1 | | | L | 100 | — | 100 | D | 6,000 | 2,000 | 2,000 | 6,000 | 20 | 700 | — | 400 | B2 |
| 4-Methyl-2-pentanone | 5 | | | | | | | | | | | | | | | | |
| 2-Hexanone | 5 | | | | | | | | | | | | | | | | |
| Tetrachloroethene | 1 | | | F | — | ZERO | 5 | F | 2,000 | 2,000 | 1,000 | 5,000 | 10 | 500 | — | 70 | — |
| 1,2-Dibromoethane | 1 | | | | | | 1,000 | | | | | | | | | | |
| Toluene | 1 | | | F | — | 1,000 | | F | 20,000 | 2,000 | 2,000 | 7,000 | 200 | 7,000 | 1,000 | — | D |
| Chlorobenzene | 1 | | | | | | | | | | | | | | | | |
| Ethyl Benzene | 1 | | | F | — | 700 | 700 | F | 30,000 | 3,000 | 1,000 | 300 | 100 | 3,000 | 700 | — | D |
| Styrene | 1 | | | F | — | 100 | 100 | F | 20,000 | 2,000 | 2,000 | 7,000 | 200 | 7,000 | 100 | — | C |
| Xylene (total) | 1 | | | F | — | 10,000 | 10,000 | F | 40,000 | 40,000 | 40,000 | 100,000 | 2,000 | 60,000 | 10,000 | — | D |
| 1,3-Dichlorobenzene | 1 | | | | | | | | | | | | | | | | |
| 1,4-Dichlorobenzene | 1 | | | | | | | | | | | | | | | | |
| 1,2-Dichlorobenzene | 1 | | | | | | | | | | | | | | | | |
| 1,2-Dibromo-3-chloropropane | 1 | | | | | | | | | | | | | | | | |

Sample: RW01-01 | ERW23

**Analytical Data and Related Health Advisory Table**

| Sample Collection Information and Parameters | Detection Limits (µg/L) | Sample Result (µg/L) | SMCL* | Standards | | | | Status HA | 10-kg Child | | | 70-kg Adult | | | | µg/L at 10-4 Cancer Risk | Cancer Group |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Status Reg. | NIPDWR (µg/L) | MCLG (µg/L) | MCL (µg/L) | | One Day µg/L | Ten-Day µg/L | Longer-Term µg/L | Longer-Term µg/L | RfD µg/kg/day | DWEL µg/L | Life-time µg/L | | |
| SEMIVOLATILE ORGANICS | | | | | | | | | | | | | | | | | |
| Phenol | 5 | | | — | — | — | — | D | 6,000 | 6,000 | 6,000 | 20,000 | 600 | 20,000 | 4,000 | — | D |
| bis(2-Chloroethyl)ether | 5 | | | | | | | | | | | | | | | | |
| 2-Chlorophenol | 5 | | | — | — | — | — | D | 50 | 50 | 50 | 200 | 5 | 200 | 40 | — | D |
| 2-Methylphenol | 5 | | | | | | | | | | | | | | | | |
| 2,2'-oxybis(1-Chloropropane) | 5 | | | | | | | | | | | | | | | | |
| 4-Methylphenol | 5 | | | | | | | | | | | | | | | | |
| N-Nitroso-di-n-propylamine | 5 | | | | | | | | | | | | | | | | |
| Hexachloroethane | 5 | | | L | — | — | — | F | 5,000 | 5,000 | 100 | 500 | 1 | 400 | 1 | — | C |
| Nitrobenzene | 5 | | | | | | | | | | | | | | | | |
| Isophorone | 5 | | | L | — | — | — | D | 15,000 | 15,000 | 15,000 | 15,000 | 200 | 7,000 | 100 | — | C |
| 2-Nitrophenol | 5 | | | | | | | | | | | | | | | | |
| 2,4-Dimethylphenol | 5 | | | | | | | | | | | | | | | | |
| bis(2-Chloroethoxy)methane | 5 | | | | | | | | | | | | | | | | |
| 2,4-Dichlorophenol | 5 | | | — | — | — | — | D | 30 | 30 | 30 | 100 | 3 | 100 | 20 | — | D |
| 1,2,4-Trichlorobenzene | 5 | | | P | — | 70 | 70 | F | 100 | 100 | 100 | 500 | 10 | 400 | 70 | — | D |
| Naphthalene | 5 | | | — | — | — | — | F | 500 | 500 | 400 | 1,000 | 4 | 100 | 20 | — | D |
| 4-Chloroaniline | 5 | | | | | | | | | | | | | | | | |
| Hexachlorobutadiene | 5 | | | L | — | — | — | F | 300 | 300 | 100 | 400 | 2 | 70 | 1 | — | C |
| 4-Chloro-3-methylphenol | 5 | | | | | | | | | | | | | | | | |
| 2-Methylnaphthalene | 5 | | | | | | | | | | | | | | | | |
| Hexachlorocyclopentadiene | 5 | | 8 | P | — | 50 | 50 | — | — | — | — | — | 7 | 200 | — | — | D |
| 2,4,6-Trichlorophenol | 5 | | | L | — | — | — | D | — | — | — | — | — | — | — | 300 | B2 |
| 2,4,5-Trichlorophenol | 20 | | | | | | | | | | | | | | | | |
| 2-Chloronaphthalene | 5 | | | | | | | | | | | | | | | | |
| 2-Nitroaniline | 20 | | | | | | | | | | | | | | | | |
| Dimethylphthalate | 5 | | | — | — | — | — | — | — | — | — | — | — | — | — | — | D |
| Acenaphthylene | 5 | | | | | | | | | | | | | | | | |
| 2,6-Dinitrotoluene | 5 | | | L | — | — | — | F | 400 | 400 | 400 | 1,000 | 1 | 40 | — | 5,000 | B2 |
| 3-Nitroaniline | 20 | | | | | | | | | | | | | | | | |
| Acenaphthene | 5 | | | — | — | — | — | — | — | — | — | — | 60 | — | — | — | — |
| 2,4-Dinitrophenol | 20 | | | | | | | | | | | | | | | | |
| 4-Nitrophenol | 20 | | | | | | | | | | | | | | | | |
| Dibenzofuran | 5 | | | | | | | | | | | | | | | | |
| 2,4-Dinitrotoluene | 5 | | | L | — | — | — | F | 500 | 500 | 300 | 1,000 | 2 | 100 | — | 5,000 | B2 |
| Diethylphthalate | 5 | | | | | | | | | | | | | | | | |
| 4-Chlorophenyl-phenyl ether | 5 | | | | | | | | | | | | | | | | |
| Fluorene | 5 | | | — | — | — | — | — | — | — | — | — | 40 | — | — | — | D |
| 4-Nitroaniline | 20 | | | | | | | | | | | | | | | | |
| 4,6-Dinitro-2-methylphenol | 20 | | | | | | | | | | | | | | | | |
| N-Nitrosodiphenylamine (1) | 5 | | | | | | | | | | | | | | | | |

Sample: RW01-01 | ERW 23

Analytical Data and Related Health Advisory Table (Continued)

| Sample Collection Information and Parameters | Detection Limits (µg/L) | Sample Result (µg/L) | SMCL* | Standards | | | | Status HA | 10-kg Child | | | 70-kg Adult | | | | µg/L at 10-4 Cancer Risk | Cancer Group |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Status Reg. | NIPDWR (µg/L) | MCLG (µg/L) | MCL (µg/L) | | One Day µg/L | Ten-Day µg/L | Longer-Term µg/L | Longer-Term µg/L | RfD µg/kg/day | DWEL µg/L | Life-time µg/L | | |
| SEMIVOLATILE ORGANICS (CONT.) | | | | | | | | | | | | | | | | | |
| 4-Bromophenyl-phenylether | 5 | | | | | | | | | | | | | | | | |
| Hexachlorobenzene | 5 | | | P | --- | ZERO | 1 | F | 60 | 60 | 60 | 200 | 0.8 | 30 | --- | 2 | B2 |
| Pentachlorophenol | 20 | | | F | --- | ZERO | 1 | F | 1,000 | 300 | 300 | 1,000 | 30 | 1,000 | --- | 30 | B2 |
| Phenanthrene | 5 | | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Anthracene | 5 | | | --- | --- | --- | --- | --- | --- | --- | --- | --- | 300 | --- | --- | --- | D |
| Di-n-butylphthalate | 5 | | | | | | | | | | | | | | | | |
| Fluoranthene | 5 | | | | | | | | | | | | | | | | |
| Pyrene | 5 | | | --- | --- | --- | --- | --- | --- | --- | --- | --- | 30 | --- | --- | --- | D |
| Butylbenzylphthalate | 5 | | | P | --- | ZERO | 100 | --- | --- | --- | --- | --- | 200 | 6,000 | --- | --- | C |
| 3,3'Dichlorobenzidine | 5 | | | | | | | | | | | | | | | | |
| Benzo(a)anthracene | 5 | | | P | --- | ZERO | 0.1 | --- | --- | --- | --- | --- | --- | --- | --- | --- | B2 |
| Chrysene | 5 | | | P | --- | ZERO | 0.2 | --- | --- | --- | --- | --- | --- | --- | --- | --- | B2 |
| Bis(2-Ethylhexyl)phthalate | 5 | | | | | | | | | | | | | | | | |
| Di-n-octylphthalate | 5 | | | | | | | | | | | | | | | | |
| Benzo(b)fluoranthene | 5 | | | P | --- | ZERO | 0.2 | --- | --- | --- | --- | --- | --- | --- | --- | --- | B2 |
| Benzo(k)fluoranthene | 5 | | | P | --- | ZERO | 0.2 | --- | --- | --- | --- | --- | --- | --- | --- | --- | B2 |
| Benzo(a)pyrene | 5 | | | P | --- | ZERO | 0.2 | --- | --- | --- | --- | --- | --- | --- | --- | --- | B2 |
| Indeno(1,2,3-cd)pyrene | 5 | | | P | --- | ZERO | 0.4 | D | --- | --- | --- | --- | --- | --- | --- | --- | B2 |
| Dibenz(a,h)anthracene | 5 | | | P | --- | ZERO | 0.3 | --- | --- | --- | --- | --- | --- | --- | --- | --- | B2 |
| Benzo(g,h,i)perylene | 5 | | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | D |

Sample: RW01-01 | ERW23

**Analytical Data and Related Health Advisory Table**

| Sample Collection Information and Parameters | Detection Limits (µg/L) | Sample Result (µg/L) | SMCL* | Standards | | | | Status HA | 10-kg Child | | | 70-kg Adult | | | | µg/L at 10-4 Cancer Risk | Cancer Group |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Status Reg. | NIPDWR (µg/L) | MCLG (µg/L) | MCL (µg/L) | | One Day µg/L | Ten-Day µg/L | Longer-Term µg/L | Longer-Term µg/L | RFD µg/kg/day | DWEL µg/L | Life-time µg/L | | |
| PESTICIDE/PCBS | | | | | | | | | | | | | | | | | |
| alpha-BHC | 0.010 | | | | | | | | | | | | | | | | |
| beta-BHC | 0.010 | | | | | | | | | | | | | | | | |
| delta-BHC | 0.010 | | | | | | | | | | | | | | | | |
| gamma-BHC (Lindane) | 0.010 | | | F | 4 | 0.2 | 0.2 | F | 1,000 | 1,000 | 30 | 100 | 0.3 | 10 | 0.2 | — | C |
| Heptachlor | 0.010 | | | F | — | ZERO | 0.4 | F | 10 | 10 | 5 | 5 | 0.5 | 20 | — | 0.8 | B2 |
| Aldrin | 0.010 | | | — | — | — | — | D | 0.3 | 0.3 | 0.3 | 0.3 | 0.03 | 1 | — | 0.2 | B2 |
| Heptachlor epoxide | 0.010 | | | F | — | ZERO | 0.2 | F | 10 | — | 0.1 | 0.1 | 1.3E-02 | 0.4 | — | 0.4 | B2 |
| Endosulfan I | 0.010 | | | | | | | | | | | | | | | | |
| Dieldrin | 0.020 | | | — | — | — | — | F | 0.5 | 0.5 | 0.5 | 2 | 0.05 | 2 | — | 0.2 | B2 |
| 4,4'-DDE | 0.020 | | | | | | | | | | | | | | | | |
| Endrin | 0.020 | | | P | 0.2 | 2 | 2 | F | 20 | 20 | 3 | 10 | 0.3 | 10 | 2 | — | D |
| Endosulfan II | 0.020 | | | | | | | | | | | | | | | | |
| 4,4'-DDD | 0.020 | | | | | | | | | | | | | | | | |
| Endosulfan sulfate | 0.020 | | | | | | | | | | | | | | | | |
| 4,4'-DDT | 0.020 | | | | | | | | | | | | | | | | |
| Methyoxychlor | 0.100 | | | F | 100 | 40 | 40 | F | 50 | 50 | 50 | 200 | 5 | 200 | 40 | — | D |
| Endrin ketone | 0.020 | | | | | | | | | | | | | | | | |
| Endrin Aldehyde | 0.020 | | | | | | | | | | | | | | | | |
| alpha-Chlordane | 0.010 | | | | | | | | | | | | | | | | |
| gamma-Chlordane | 0.010 | | | | | | | | | | | | | | | | |
| Toxaphene | 1.00 | | | F | 5 | ZERO | 3 | F | 500 | 40 | — | — | 100 | 3.5 | — | 3 | B2 |
| PCBs | 0.200 - 0.400 | | | F | — | ZERO | 0.5 | P | — | — | — | — | — | — | — | 0.5 | B2 |

Sample: RW01-01 | MERP 20

**Analytical Data and Related Health Advisory Table**

| Sample Collection Information and Parameters | Detection Limits (µg/L) | Sample Result (µg/L) | SMCL* | Standards | | | | Status HA | 10-kg Child | | | 70-kg Adult | | | | µg/L at 10-4 Cancer Risk | Cancer Group |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Status Reg. | NPDWR (µg/L) | MCLG (µg/L) | MCL (µg/L) | | One Day µg/L | Ten-Day µg/L | Longer-Term µg/L | Longer-Term µg/L | RFD µg/kg/day | DWEL µg/L | Lifetime µg/L | | |
| INORGANICS | | | | | | | | | | | | | | | | | |
| Aluminum | 33 | | 50-200 | L | — | — | — | D | — | — | — | — | — | — | | — | |
| Antimony | 51 | | | P | — | 3.0 | 10/5 | D | 15 | 15 | 15 | 15 | 0.4 | 15 | 3 | — | D |
| Arsenic | 1 | 7.1 | | | 50 | — | 50 | D | — | — | — | — | — | — | — | 2 | A |
| Barium | 2 | 222 | | F | 1,000 | 2,000 | 2,000 | F | — | — | — | — | 70 | 2,000 | 2,000 | — | D |
| Beryllium | 1 | | | P | — | ZERO | 1 | D | 30,000 | 30,000 | 4,000 | 20,000 | 5 | 200 | — | 0.8 | B2 |
| Cadmium | 0.1 | | | F | 10 | 5 | 5 | F | 40 | 40 | 5 | 20 | 0.5 | 20 | 5 | — | D |
| Calcium | 18 | | | | | | | | | | | | | | | | |
| Chromium | 9 | | | F | 50 | 100 | 100 | F | 1,000 | 1,000 | 200 | 800 | 5 | 200 | 100 | — | D |
| Cobalt | 10 | | | | | | | | | | | | | | | | |
| Copper | 6 | 12.6 | 1,000 | | | 1,300 | 1,300 | — | — | — | — | — | — | — | — | — | D |
| Iron | 6 | 6,020 | 300 | | | | | | | | | | | | | | |
| Lead (at tap) | 1 | | | F | — | ZERO | TT | — | — | — | — | — | — | — | — | — | B2 |
| Magnesium | 63 | 39,200 | | | | | | | | | | | | | | | |
| Manganese | 1 | 635 | 50 | | — | — | — | D | — | — | — | — | 140 | — | — | — | — |
| Mercury | 0.2 | | | F | 2 | 2 | 2 | F | — | — | — | 2 | 0.3 | 10 | 2 | — | D |
| Nickel | 13 | | | P | — | 100 | 100 | F | 1,000 | 1,000 | 500 | 1,700 | 20 | 600 | 100 | — | D |
| Potassium | 323 | 3,260 | | | | | | | | | | | | | | | |
| Selenium | 2 | | | F | 10 | 50 | 50 | — | — | — | — | — | 5 | — | — | — | — |
| Silver | 3 | | 100 | — | 50 | — | — | D | 200 | 200 | 200 | 200 | 5 | 20 | 100 | — | D |
| Sodium | 42 | 29,400 | | | — | — | — | D | — | — | — | — | — | 20,000 | — | — | — |
| Thallium | 1 | | | P | — | 0.5 | 4 | D | 7 | 7 | 7 | 20 | 0.07 | 2 | 0.4 | — | — |
| Vanadium | 9 | | | L | — | — | — | D | 80 | 80 | 30 | 110 | 3 | 110 | 20 | — | D |
| Zinc | 5 | 42.9 | 5,000 | L | — | — | — | D | — | — | — | — | 300 | 10,500 | 2,100 | — | D |
| Cyanide | 10 | | | T | — | 200 | 200 | F | 200 | 200 | 200 | 800 | 22 | 800 | 200 | — | D |

* - Secondary Maximum Contaminant Levels (µg/L) as indicated in "Drinking Water Regulations and Health Advisories" April 1992.

DESCRIPTION AND QUALIFIERS FOR ANALYTICAL DATA AND RELATED HEALTH ADVISORY TABLE

| NO | COLUMN | DESCRIPTION |
|---|---|---|
| 1 | SAMPLE COLLECTION, INFORMATION AND PARAMETERS | The compounds and analytes analyzed for in this water sample |
| 2 | Detection Limits | The limits that a laboratory must meet as part of the analytical service contract. |
| 3 | Samples Results | The value determined by the analysis. |
| 4 | SMCL | This column includes the currently available secondary Maximum Contaminant Levels (SMCLs). |
| 5 | Status Reg | F = Final; D = Draft; L = Listed; P = Proposed (Phase II); T = Tentative (Phase V) |
| 6 | NIPDWR | National Interim Primary Drinking Water Regulation. Interim enforceable drinking water regulations first established under the Safe Drinking Water Act that are protective of public health to the extent feasible. |
| 7 | MCLG | Maximum Contaminant Level Goal. A non-enforceable concentration of a drinking water contaminant that is protective of adverse human health effects and allows a adequate margin of safety. |
| 8 | MCL | Maximum Contaminant Level. Maximum permissible level of a contaminant in water which is delivered to any user of a public water system. MCL's are legally enforceable. |
| 9 | Status HA (also see Status Reg) | Health Advisories (HA) provide information on the health effects, analytical methods and treatments technology useful for dealing with drinking contamination. HA are non-regulated concentrations and contain a margin of safety to protect sensitive members of the population: HA are not construed as legally enforceable federal standards and are subject to change as new information becomes available. HA values are derived for adult (assuming 70 kg weight and consuming 2 L. of water daily) and for child (assuming 10 kg weight) the same way. |
| 10 | 10 Kg Child<br>a. 1 day<br>b. 10 day<br>c. Longer Term | The child is assumed to be a more sensitive population entity. Assumption is that body weight of child is 10 kg and 1 Liter of water is ingested daily. Under these and other assumptions specific to the available toxicological data bases, HA values have been derived for 1 day and 10 day exposures.<br>Longer term is defined as approximately 7 years of 10% of an individual's life time. |
| 11 | 70 Kg Adult<br>a. Longer Term<br>b. RFD<br><br>c. DWEL<br><br>d. Lifetime | The adult is assumed to weigh 70 kg and consume 2 Liters of water daily.<br>Longer term is defined as approximately 7 years of 10% of an individual's life time.<br>Reference Dose: The RFD is an estimate of a daily exposure to the human population that is likely to be without appreciable risk or deleterious effects over a lifetime. The RFD is expressed in units of daily dose.<br>Drinking Water Equivalent Level. A lifetime exposure concentration that is likely to have adverse, noncancer health effects, that assumes all of the exposure to a contaminant is from a drinking water source.<br>Lifetime Health Advisory: This value is determined by factoring in other sources of exposure to the particular contaminant. The relative source contribution from drinking water is based on actual exposure data. In the absence of chemical specific data, a value of 20% for organics and 10% for inorganics is assumed. |

DESCRIPTION AND QUALIFIERS FOR ANALYTICAL DATA AND RELATED HEALTH ADVISORY TABLE

| NO | COLUMN | DESCRIPTION |
|---|---|---|
| 12 | µg/L as E-04 Cancer Risk | This column contains values indicating the concentration of the particular contaminant in drinking water that would produce an E-04 (10 to the minus 4 power) excess lifetime cancer risk. It means if a group of 10,000 persons were exposed to the contaminant at its respective concentration (as listed in this column), then ONE individual in the group might be expected to develop cancer (above background) solely from exposure to that contaminant in drinking water. |
| 13 | Cancer Group | These are the guidelines developed for carcinogen risk assessment. These guidelines discuss weighing the evidence that a substance is a carcinogen, and classifying the chemical into one of five groups, based on weight of evidence.<br><br>Group A - Human Carcinogen<br>Group B - Probable human carcinogen<br>Group B1 - Probable human carcinogen, limited human evidence but sufficient animal evidence.<br>Group B2 - Probable human carcinogen, sufficient animal evidence, but inadequate or no human evidence.<br>Group C - Possible human carcinogen.<br>Group D - Not classified as to human carcinogenicity<br>Group E - Evidence of non-carcinogenicity for humans. |
| NA | Not Applicable | |
| PS | Performance Standard 0.5 NTU - 1.0 NTU | |

## DATA QUALIFIERS[1]

| Organics<br>Footnote | Definition | Interpretation |
|---|---|---|
| U | Indicates compound was analyzed for but not detected | Compound was not detected. |
| J | Indicates an estimated value. | Compound value may be semiquantitative. |
| UJ | Quantitation limit is estimated due to a Quality Control (QC) protocol. | Compound was not detected. |
| C | This flag applies to pesticide results where the identification has been confirmed by GC/MS. Single component pesticides ≥ng/ul in the final extract shall be confirmed by GC/MS. | Compound was confirmed by mass spectroscopy. |
| B | This flag is used when the analyte is found in the associated blank as well as in the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action. | Compound value may be semiquantitative if it is <5x the blank concentration (10x the blank concentrations for common lab artifacts: phthalates, methylene chloride, acetone, toluene, 2-butanone). |
| E | This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for that specific analysis. This flag will not apply to pesticides/PCBs analyzed by GC/EC methods. | Compound value may be semiquantitative. |
| D | This flag identifies all compounds identified in an analysis at a secondary dilution factor. | Alerts data user to a possible change in the CRQL. |
| A | This flag indicates that a TIC is a suspected aldol-condensation product. | Alerts data user of a lab artifact. |
| R | Results are unusable due to a major violation of QC protocol. | Compound value is not usable. |

[1] - Only detectable concentrations are included in the analytical data table.

## DATA QUALIFIERS[1]

(Continued)

| Inorganics Footnote | | Definition | Interpretation |
|---|---|---|---|
| Old | New | | |
| E | E | Estimated or not reported due to interference. See laboratory narrative. | Compound or element was not detected or value may be semiquantitative. |
| * | * | Analysis by Method of Standard Additions. | Value may be quantitative. |
| R | N | Spike recoveries outside QC protocols which indicates a possible matrix problem. Data may be biased high or low. See spike results and laboratory narrative. | Value may be quantitative or semiquantitative. |
| * | * | Duplicate value outside QC protocols which indicates a possible matrix problem. | Value may be semiquantitative. |
| + | + | Correlation coefficient for standard additions to less than 0.995. See review and laboratory narrative. | Data value may be biased. |
| { } | B | Value is real, but is above instrument DL and below CRDL. | Value may be quantitative or semiquantitative. |
| UJ | | DL is estimated because of a QC protocol. DL is possibly above or below CRDL. | Compound or element was not detected. |
| J | | Value is above CRDL and is an estimated value because of a QC protocol. | Value may be semiquantitative. |
| U | U | Compound was analyzed for but not detected. | Compound was not detected. |
| | M | Duplicate injection precision not met. | Value may be semiquantitative. |
| | W | Post-digestion spike for furnace AA analysis is out of control limits (35-115%), while sample absorbance is <50% of spike absorbance. | Value may be semiquantitative. |

# Drinking Water Memorandum

DATE: _____

Site Name: SANYO E+E CORPORATION
CERCLIS ID: IND 087032207
WA NO.: 45-5JZZ

TO: 1. Ms. Jan Pels, U.S. EPA 2. State Contact _____

FROM: P. Krishnan, Roy F. Weston, Inc.

SUBJECT: Drinking Water Sample Results

Sample: GW01-01 | ERW18 | MERP16

Action Level

☐ No Contamination _____
No hits above any health-related standards.

☐ Low Level Contamination _____
Hits just above health-related standards.

☒ Significant Contamination For ~~Tetra~~ Tri chloroethene ($10^{-4}$ cancer risk)
Hits are above health-related standards.

☒ Please check the following. They are less than health-related standards but above detection limits.

| | |
|---|---|
| ~~cis~~-1,2-Dichloroethene (Total) | Cyanide |
| ~~trans~~-1,2-Dichloroethene | Magnesium |
| ~~Copper~~ | Manganese |
| ~~Selenium~~ | Sodium |
| ~~Zinc~~ | |

☐ Please check secondary maximum contamination limits for:

| | | | |
|---|---|---|---|
| Aluminum | _____ | Manganese | _____ |
| Copper | _____ | Silver | _____ |
| Iron | ✓ | Zinc | _____ |

P. Krishnan

Sample: GW01-01 | ERW18

**Analytical Data and Related Health Advisory Table**

| Sample Collection Information and Parameters | Detection Limits (µg/L) | Sample Result (µg/L) | SMCL* | Standards | | | | Status HA | 10-kg Child | | | 70-kg Adult | | | | µg/L at 10-4 Cancer Risk | Cancer Group |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Status Reg. | NIPDWR (µg/L) | MCLG (µg/L) | MCL (µg/L) | | One Day µg/L | Ten-Day µg/L | Longer-Term µg/L | Longer-Term µg/L | RfD µg/kg/day | DWEL µg/L | Life-time µg/L | | |
| VOLATILE ORGANICS | | | | | | | | | | | | | | | | | |
| Chloromethane | 10 | | | L | — | — | — | F | 9,000 | 400 | 400 | 1,000 | 4 | 100 | 3 | — | C |
| Bromomethane | 10 | | | L | — | — | — | F | 100 | 100 | 100 | 600 | 1 | 60 | 10 | — | D |
| Vinyl Chloride | 10 | | | F | — | ZERO | 2 | F | 3,000 | 3,000 | 10 | 60 | — | — | — | 1.6 | A |
| Chloroethane | 10 | | | L | — | — | — | D | — | — | — | — | — | — | — | — | — |
| Methylene Chloride | 10 | | | | | | | | | | | | | | | | |
| Acetone | 610 | | | | | | | | | | | | | | | | |
| Carbon Disulfide | 10 | | | | | | | | | | | | | | | | |
| 1,1-Dichloroethene | 10 | | | F | — | 7 | 7 | F | 2,000 | 1,000 | 1,000 | 4,000 | 9 | 400 | 7 | — | C |
| 1,1-Dichloroethane | 10 | | | L | — | — | — | D | — | — | — | — | — | — | — | — | — |
| cis-1,2-Dichloroethene | 10 | 96 JD | | F | — | 70 | 70 | F | 4,000 | 3,000 | 3,000 | 11,000 | 10 | 400 | 70 | — | D |
| trans-1,2-Dichloroethene | 10 | | | F | — | 100 | 100 | F | 20,000 | 2,000 | 2,000 | 6,000 | 20 | 600 | 100 | — | D |
| Chloroform | 10 | 2 J | | L | 100 | — | 100 | D | 4,000 | 4,000 | 100 | 400 | 10 | 400 | — | 600 | B2 |
| 1,2-Dichloroethane | 10 | ~~2 J~~ | | F | — | ZERO | 5 | F | 700 | 700 | 700 | 2,600 | — | — | — | 40 | B2 |
| 2-Butanone | 610 | | | L | — | — | — | F | 80,000 | 8,000 | 3,000 | 9,000 | 0.05 | 800 | 200 | — | D |
| Bromochloromethane | 10 | | | — | 100 | — | — | F | 50,000 | 1,000 | 1,000 | 5,000 | 13 | 500 | 90 | — | — |
| 1,1,1-Trichloroethane | 10 | | | F | — | 200 | 200 | F | 100,000 | 40,000 | 40,000 | 100,000 | 35 | 1,000 | 200 | — | D |
| Carbon Tetrachloride | 10 | | | F | — | ZERO | 5 | F | 4,000 | 200 | 70 | 300 | 0.7 | 30 | — | 30 | B2 |
| Bromodichloromethane | 10 | | | L | — | — | 100 | D | 7,000 | 7,000 | 4,000 | 13,000 | 20 | 700 | — | 140 | B2 |
| 1,2-Dichloropropane | 10 | | | F | — | ZERO | 5 | F | — | 90 | — | — | — | — | — | 50 | B2 |
| cis-1,3-Dichloropropene | 10 | | | | | | | | | | | | | | | | |
| Trichloroethene | 10 | 1300 D | | F | — | ZERO | 5 | F | — | — | — | — | — | 300 | — | 300 | B2 |
| Dibromochloromethane | 10 | | | | | | | | | | | | | | | | |
| 1,1,2,2-Tetrachloroethane | 10 | | | L | — | — | — | D | — | — | — | — | — | — | — | — | — |
| 1,1,2-Trichloroethane | 10 | | | P | 5 | 3 | 5 | F | 600 | 400 | 400 | 1,000 | 4 | 100 | 3 | — | C |
| Benzene | 10 | | | F | — | ZERO | 5 | F | 200 | 200 | — | — | — | — | — | 100 | A |
| trans-1,3-Dichloropropene | 10 | | | | | | | | | | | | | | | | |
| Bromoform | 10 | | | L | 100 | — | 100 | D | 6,000 | 2,000 | 2,000 | 6,000 | 20 | 700 | — | 400 | B2 |
| 4-Methyl-2-pentanone | ~~8~~ 10 | | | | | | | | | | | | | | | | |
| 2-Hexanone | ~~5~~ 10 | | | | | | | | | | | | | | | | |
| Tetrachloroethene | 10 | ~~1300 D~~ | | F | — | ZERO | 5 | F | 2,000 | 2,000 | 1,000 | 6,000 | 10 | 500 | — | 70 | — |
| 1,2-Dibromoethane | 10 | | | | | | 1,000 | | | | | | | | | | |
| Toluene | 10 | | | F | — | 1,000 | | F | 20,000 | 2,000 | 2,000 | 7,000 | 200 | 7,000 | 1,000 | — | D |
| Chlorobenzene | 10 | | | | | | | | | | | | | | | | |
| Ethyl Benzene | 10 | | | F | — | 700 | 700 | F | 30,000 | 3,000 | 1,000 | 300 | 100 | 3,000 | 700 | — | D |
| Styrene | 10 | | | F | — | 100 | 100 | F | 20,000 | 2,000 | 2,000 | 7,000 | 200 | 7,000 | 100 | — | C |
| Xylene (total) | 10 | | | F | — | 10,000 | 10,000 | F | 40,000 | 40,000 | 40,000 | 100,000 | 2,000 | 60,000 | 10,000 | — | D |
| 1,3-Dichlorobenzene | 10 | | | | | | | | | | | | | | | | |
| 1,4-Dichlorobenzene | 10 | | | | | | | | | | | | | | | | |
| 1,2-Dichlorobenzene | 10 | | | | | | | | | | | | | | | | |
| 1,2-Dibromo-3-chloropropane | 10 | | | | | | | | | | | | | | | | |

Scan Mail

Sample: GW01-01 / ERW18

**Analytical Data and Related Health Advisory Table**

| Sample Collection Information and Parameters | Detection Limits (µg/L) | Sample Result (µg/L) | SMCL* | Standards | | | | Status HA | 10-kg Child | | | 70-kg Adult | | | | µg/L at 10-4 Cancer Risk | Cancer Group |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Status Reg. | NIPDWR (µg/L) | MCLG (µg/L) | MCL (µg/L) | | One Day µg/L | Ten-Day µg/L | Longer-Term µg/L | Longer-Term µg/L | RfD µg/kg/day | DWEL µg/L | Life-time µg/L | | |
| SEMIVOLATILE ORGANICS | | | | | | | | | | | | | | | | | |
| Phenol | 5 | | | — | — | — | — | D | 6,000 | 6,000 | 6,000 | 20,000 | 600 | 20,000 | 4,000 | — | D |
| bis(2-Chloroethyl)ether | 10 5 | | | | | | | | | | | | | | | | |
| 2-Chlorophenol | ~~10~~ 5 | | | — | — | — | — | D | 50 | 50 | 50 | 200 | 5 | 200 | 40 | — | D |
| 2-Methylphenol | 5 | | | | | | | | | | | | | | | | |
| 2,2'-oxybis(1-Chloropropane) | 5 | | | | | | | | | | | | | | | | |
| 4-Methylphenol | 5 | | | | | | | | | | | | | | | | |
| N-Nitroso-di-n-propylamine | 5 | | | | | | | | | | | | | | | | |
| Hexachloroethane | 5 | | | L | — | — | — | F | 5,000 | 5,000 | 100 | 500 | 1 | 400 | 1 | — | C |
| Nitrobenzene | 5 | | | | | | | | | | | | | | | | |
| Isophorone | 5 | | | L | — | — | — | D | 15,000 | 15,000 | 15,000 | 15,000 | 200 | 7,000 | 100 | — | C |
| 2-Nitrophenol | 5 | | | | | | | | | | | | | | | | |
| 2,4-Dimethylphenol | 5 | | | | | | | | | | | | | | | | |
| bis(2-Chloroethoxy)methane | 5 | | | | | | | | | | | | | | | | |
| 2,4-Dichlorophenol | 5 | | | — | — | — | — | D | 30 | 30 | 30 | 100 | 3 | 100 | 20 | — | D |
| 1,2,4-Trichlorobenzene | 5 | | | P | — | 70 | 70 | F | 100 | 100 | 100 | 500 | 10 | 400 | 70 | — | D |
| Naphthalene | 5 | | | — | — | — | — | F | 500 | 500 | 400 | 1,000 | 4 | 100 | 20 | — | D |
| 4-Chloroaniline | 5 | | | | | | | | | | | | | | | | |
| Hexachlorobutadiene | 5 | | | L | — | — | — | F | 300 | 300 | 100 | 400 | 2 | 70 | 1 | — | C |
| 4-Chloro-3-methylphenol | 5 | | | | | | | | | | | | | | | | |
| 2-Methylnaphthalene | 5 | | | | | | | | | | | | | | | | |
| Hexachlorocyclopentadiene | 5 | | 8 | P | — | 50 | 50 | — | — | — | — | — | 7 | 200 | — | — | D |
| 2,4,6-Trichlorophenol | 5 | | | L | — | — | — | D | — | — | — | — | — | — | — | 300 | B2 |
| 2,4,5-Trichlorophenol | ~~25~~ 25 | | | | | | | | | | | | | | | | |
| 2-Chloronaphthalene | ~~5~~ 10 | | | | | | | | | | | | | | | | |
| 2-Nitroaniline | ~~25~~ 25 | | | | | | | | | | | | | | | | |
| Dimethylphthalate | ~~5~~ | | | — | — | — | — | — | — | — | — | — | — | — | — | — | D |
| Acenaphthylene | 5 10 | | | | | | | | | | | | | | | | |
| 2,6-Dinitrotoluene | 5 | | | L | — | — | — | F | 400 | 400 | 400 | 1,000 | 1 | 40 | — | 5,000 | B2 |
| 3-Nitroaniline | ~~25~~ 25 | | | | | | | | | | | | | | | | |
| Acenaphthene | 5 | | | — | — | — | — | — | — | — | — | — | 60 | — | — | — | — |
| 2,4-Dinitrophenol | ~~25~~ 25 | | | | | | | | | | | | | | | | |
| 4-Nitrophenol | ~~25~~ 25 | | | | | | | | | | | | | | | | |
| Dibenzofuran | 5 | | | | | | | | | | | | | | | | |
| 2,4-Dinitrotoluene | 5 (4 | | | L | — | — | — | F | 500 | 500 | 300 | 1,000 | 2 | 100 | — | 5,000 | B2 |
| Diethylphthalate | 5 | | | | | | | | | | | | | | | | |
| 4-Chlorophenyl-phenyl ether | 5 | | | | | | | | | | | | | | | | |
| Fluorene | 5 | | | — | — | — | — | — | — | — | — | — | 40 | — | — | — | D |
| 4-Nitroaniline | ~~25~~ 25 | | | | | | | | | | | | | | | | |
| 4,6-Dinitro-2-methylphenol | ~~25~~ 25 | | | | | | | | | | | | | | | | |
| N-Nitrosodiphenylamine (1) | ~~5~~ 10 | | | | | | | | | | | | | | | | |

Sample: GW01-01/ERW18

Analytical Data and Related Health Advisory Table (Continued)

| Sample Collection Information and Parameters | Detection Limits (µg/L) | Sample Result (µg/L) | SMCL* | Standards | | | | Status HA | 10-kg Child | | | 70-kg Adult | | | | µg/L at 10-4 Cancer Risk | Cancer Group |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Status Reg. | NIPDWR (µg/L) | MCLG (µg/L) | MCL (µg/L) | | One Day µg/L | Ten-Day µg/L | Longer-Term µg/L | Longer-Term µg/L | RFD µg/kg/day | DWEL µg/L | Life-time µg/L | | |
| SEMIVOLATILE ORGANICS (CONT.) | | | | | | | | | | | | | | | | | |
| 4-Bromophenyl-phenylether | ~~10~~ 5 10 | | | | | | | | | | | | | | | | |
| Hexachlorobenzene | ~~10~~ 5 10 | | | P | --- | ZERO | 1 | F | 50 | 50 | 50 | 200 | 0.8 | 30 | --- | 2 | B2 |
| Pentachlorophenol | ~~200~~ 20 21 | | | F | --- | ZERO | 1 | F | 1,000 | 300 | 300 | 1,000 | 30 | 1,000 | --- | 30 | B2 |
| Phenanthrene | 5 | | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Anthracene | 5 | | | --- | --- | --- | --- | --- | --- | --- | --- | --- | 300 | --- | --- | --- | D |
| Di-n-butylphthalate | BQ 5 | | | | | | | | | | | | | | | | |
| Fluoranthene | 5 | | | | | | | | | | | | | | | | |
| Pyrene | 5 | | | --- | --- | --- | --- | --- | --- | --- | --- | --- | 30 | --- | --- | --- | D |
| Butylbenzylphthalate | 5 | | | P | --- | ZERO | 100 | --- | --- | --- | --- | --- | 200 | 6,000 | --- | --- | C |
| 3,3'Dichlorobenzidine | 5 | | | | | | | | | | | | | | | | |
| Benzo(a)anthracene | 5 | | | P | --- | ZERO | 0.1 | --- | --- | --- | --- | --- | --- | --- | --- | --- | B2 |
| Chrysene | 5 | | | P | --- | ZERO | 0.2 | --- | --- | --- | --- | --- | --- | --- | --- | --- | B2 |
| Bis(2-Ethylhexyl)phthalate | 5 | | | | | | | | | | | | | | | | |
| Di-n-octylphthalate | 5 | | | | | | | | | | | | | | | | |
| Benzo(b)fluoranthene | 5 | | | P | --- | ZERO | 0.2 | --- | --- | --- | --- | --- | --- | --- | --- | --- | B2 |
| Benzo(k)fluoranthene | 5 | | | P | --- | ZERO | 0.2 | --- | --- | --- | --- | --- | --- | --- | --- | --- | B2 |
| Benzo(a)pyrene | 5 | | | P | --- | ZERO | 0.2 | --- | --- | --- | --- | --- | --- | --- | --- | --- | B2 |
| Indeno(1,2,3-cd)pyrene | 5 | | | P | --- | ZERO | 0.4 | D | --- | --- | --- | --- | --- | --- | --- | --- | B2 |
| Dibenz(a,h)anthracene | 5 | | | P | --- | ZERO | 0.3 | --- | --- | --- | --- | --- | --- | --- | --- | --- | B2 |
| Benzo(g,h,i)perylene | 5 | | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | D |

Sample: GW01-01 | ERW18

**Analytical Data and Related Health Advisory Table**

| Sample Collection Information and Parameters | Detection Limits (µg/L) | Sample Result (µg/L) | SMCL* | Standards | | | | Status HA | 10-kg Child | | | 70-kg Adult | | | | µg/L at 10-4 Cancer Risk | Cancer Group |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Status Reg. | NIPDWR (µg/L) | MCLG (µg/L) | MCL (µg/L) | | One Day µg/L | Ten-Day µg/L | Longer-Term µg/L | Longer-Term µg/L | RFD µg/kg/day | DWEL µg/L | Lifetime µg/L | | |
| PESTICIDE/PCBS | | | | | | | | | | | | | | | | | |
| alpha-BHC | ~~0.050.010~~ | | | | | | | | | | | | | | | | |
| beta-BHC | 0.010 | | | | | | | | | | | | | | | | |
| delta-BHC | 0.010 | | | | | | | | | | | | | | | | |
| gamma-BHC (Lindane) | 0.010 | | | F | 4 | 0.2 | 0.2 | F | 1,000 | 1,000 | 30 | 100 | 0.3 | 10 | 0.2 | — | C |
| Heptachlor | 0.010 | | | F | — | ZERO | 0.4 | F | 10 | 10 | 5 | 5 | 0.5 | 20 | — | 0.8 | B2 |
| Aldrin | 0.010 | | | — | — | — | — | D | 0.3 | 0.3 | 0.3 | 0.3 | 0.03 | 1 | — | 0.2 | B2 |
| Heptachlor epoxide | 0.010 | | | F | — | ZERO | 0.2 | F | 10 | — | 0.1 | 0.1 | 1.3E-02 | 0.4 | — | 0.4 | B2 |
| Endosulfan I | 0.010 | | | | | | | | | | | | | | | | |
| Dieldrin | ~~0.020~~ | | | — | — | — | — | F | 0.5 | 0.5 | 0.5 | 2 | 0.05 | 2 | — | 0.2 | B2 |
| 4,4'-DDE | ~~0.020~~ | | | | | | | | | | | | | | | | |
| Endrin | ~~0.020~~ | | | P | 0.2 | 2 | 2 | F | 20 | 20 | 3 | 10 | 0.3 | 10 | 2 | — | D |
| Endosulfan II | ~~0.020~~ | | | | | | | | | | | | | | | | |
| 4,4'-DDD | ~~0.020~~ | | | | | | | | | | | | | | | | |
| Endosulfan sulfate | ~~0.020~~ | | | | | | | | | | | | | | | | |
| 4,4'-DDT | 0.020 | | | | | | | | | | | | | | | | |
| Methyoxychlor | ~~0.050.100~~ | 0.50 | | F | 100 | 40 | 40 | F | 50 | 50 | 50 | 200 | 5 | 200 | 40 | — | D |
| Endrin ketone | ~~0.020~~ | | | | | | | | | | | | | | | | |
| Endrin Aldehyde | ~~0.020~~ | | | | | | | | | | | | | | | | |
| alpha-Chlordane | ~~0.010~~ | | | | | | | | | | | | | | | | |
| gamma-Chlordane | 0.010 | | | | | | | | | | | | | | | | |
| Toxephene | ~~1.00~~ 5 | | | F | 5 | ZERO | 3 | F | 500 | 40 | — | — | 100 | 3.5 | — | 3 | B2 |
| PCBs | ~~0.200~~ 1.0<br>~~0.400~~ 2.0 | | | F | — | ZERO | 0.5 | P | — | — | — | — | — | — | — | 0.5 | B2 |

0.01 = 0.05

0.02 — ~~0.01~~ 0.1

1.0 — 5.0

Sample: GW01-01 | MERP 16

**Analytical Data and Related Health Advisory Table**

| Sample Collection Information and Parameters | Detection Limits (µg/L) | Sample Result (µg/L) | SMCL* | Standards | | | | Status HA | 10-kg Child | | | 70-kg Adult | | | | µg/L at 10-4 Cancer Risk | Cancer Group |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Status Reg. | NJPDWR (µg/L) | MCLG (µg/L) | MCL (µg/L) | | One Day µg/L | Ten-Day µg/L | Longer-Term µg/L | Longer-Term µg/L | RFD µg/kg/day | DWEL µg/L | Lifetime µg/L | | |
| INORGANICS | | | | | | | | | | | | | | | | | |
| Aluminum | 200 | ~~33~~ 34 B | 50-200 | L | — | — | — | D | — | — | — | — | — | — | | — | |
| Antimony | 60 | 51 | | P | — | 3.0 | 10/5 | D | 15 | 15 | 15 | 15 | 0.4 | 15 | 3 | — | D |
| Arsenic | 10 | ~~1~~ | | | 50 | — | 50 | D | — | — | — | — | — | — | — | 2 | A |
| Barium | 200 | ~~2~~ 182 B | | F | 1,000 | 2,000 | 2,000 | F | — | — | — | — | 70 | 2,000 | 2,000 | — | D |
| Beryllium | 5 | ~~1~~ | | P | — | ZERO | 1 | D | 30,000 | 30,000 | 4,000 | 20,000 | 5 | 200 | — | 0.8 | B2 |
| Cadmium | 5 | ~~0.1~~ | | F | 10 | 5 | 5 | F | 40 | 40 | 5 | 20 | 0.5 | 20 | 5 | — | D |
| Calcium | 5000 | ~~18~~ 114,000 | | | | | | | | | | | | | | | |
| Chromium | 10 | ~~9~~ 6.5 B | | F | 50 | 100 | 100 | F | 1,000 | 1,000 | 200 | 800 | 5 | 200 | 100 | — | D |
| Cobalt | 50 | ~~10~~ | | | | | | | | | | | | | | | |
| Copper | 25 | ~~6~~ 7.3 B | 1,000 | | | 1,300 | 1,300 | — | — | — | — | — | — | — | — | — | D |
| Iron | 100 | ~~6~~ 612 | 300 | | | | | | | | | | | | | | |
| Lead (at tap) | 3 | ~~1~~ | | F | — | ZERO | TT | — | — | — | — | — | — | — | — | — | B2 |
| Magnesium | 5000 | ~~63~~ 38,800 | | | | | | | | | | | | | | | |
| Manganese | 15 | ~~1~~ 31.5 | 50 | | — | — | — | D | — | — | — | — | 140 | — | — | — | — |
| Mercury | | ~~0.2~~ | | F | 2 | 2 | 2 | F | — | — | — | 2 | 0.3 | 10 | 2 | — | D |
| Nickel | 40 | ~~13~~ | | P | — | 100 | 100 | F | 1,000 | 1,000 | 500 | 1,700 | 20 | 600 | 100 | — | D |
| Potassium | 5000 | ~~325~~ 2,470 B | | | | | | | | | | | | | | | |
| Selenium | 5 | ~~2~~ 2.6 B | | F | 10 | 50 | 50 | — | — | — | — | — | 5 | — | — | — | — |
| Silver | 10 | ~~3~~ | 100 | — | 50 | — | — | D | 200 | 200 | 200 | 200 | 5 | 20 | 100 | — | D |
| Sodium | 5000 | ~~42~~ 19,100 | | | — | — | — | D | — | — | — | — | — | 20,000 | — | — | — |
| Thallium | 10 | ~~1~~ | | P | — | 0.5 | 4 | D | 7 | 7 | 7 | 20 | 0.07 | 2 | 0.4 | — | — |
| Vanadium | 50 | ~~9~~ | | L | — | — | — | D | 80 | 80 | 30 | 110 | 3 | 110 | 20 | — | D |
| Zinc | 20 | ~~5~~ 6.5 B | B ≠ J 5,000 | L | — | — | — | D | — | — | — | — | 300 | 10,500 | 2,100 | — | D |
| Cyanide | | ~~10~~ 30 | | T | — | 200 | 200 | F | 200 | 200 | 200 | 800 | 22 | 800 | 200 | — | D |

* - Secondary Maximum Contaminant Levels (µg/L) as indicated in "Drinking Water Regulations and Health Advisories" April 1992.

DESCRIPTION AND QUALIFIERS FOR ANALYTICAL DATA AND RELATED HEALTH ADVISORY TABLE

| NO | COLUMN | DESCRIPTION |
|---|---|---|
| 1 | SAMPLE COLLECTION, INFORMATION AND PARAMETERS | The compounds and analytes analyzed for in this water sample |
| 2 | Detection Limits | The limits that a laboratory must meet as part of the analytical service contract. |
| 3 | Samples Results | The value determined by the analysis. |
| 4 | SMCL | This column includes the currently available secondary Maximum Contaminant Levels (SMCLs). |
| 5 | Status Reg | F = Final; D = Draft; L = Listed; P = Proposed (Phase II); T = Tentative (Phase V) |
| 6 | NIPDWR | National Interim Primary Drinking Water Regulation. Interim enforceable drinking water regulations first established under the Safe Drinking Water Act that are protective of public health to the extent feasible. |
| 7 | MCLG | Maximum Contaminant Level Goal. A non-enforceable concentration of a drinking water contaminant that is protective of adverse human health effects and allows a adequate margin of safety. |
| 8 | MCL | Maximum Contaminant Level. Maximum permissible level of a contaminant in water which is delivered to any user of a public water system. MCL's are legally enforceable. |
| 9 | Status HA (also see Status Reg) | Health Advisories (HA) provide information on the health effects, analytical methods and treatments technology useful for dealing with drinking contamination. HA are non-regulated concentrations and contain a margin of safety to protect sensitive members of the population: HA are not construed as legally enforceable federal standards and are subject to change as new information becomes available. HA values are derived for adult (assuming 70 kg weight and consuming 2 L. of water daily) and for child (assuming 10 kg weight) the same way. |
| 10 | 10 Kg Child<br>a. 1 day<br>b. 10 day<br>c. Longer Term | The child is assumed to be a more sensitive population entity. Assumption is that body weight of child is 10 kg and 1 Liter of water is ingested daily. Under these and other assumptions specific to the available toxicological data bases, HA values have been derived for 1 day and 10 day exposures.<br>Longer term is defined as approximately 7 years of 10% of an individual's life time. |
| 11 | 70 Kg Adult<br>a. Longer Term<br>b. RFD<br><br>c. DWEL<br><br>d. Lifetime | The adult is assumed to weigh 70 kg and consume 2 Liters of water daily.<br>Longer term is defined as approximately 7 years of 10% of an individual's life time.<br>Reference Dose: The RFD is an estimate of a daily exposure to the human population that is likely to be without appreciable risk or deleterious effects over a lifetime. The RFD is expressed in units of daily dose.<br>Drinking Water Equivalent Level. A lifetime exposure concentration that is likely to have adverse, noncancer health effects, that assumes all of the exposure to a contaminant is from a drinking water source.<br>Lifetime Health Advisory: This value is determined by factoring in other sources of exposure to the particular contaminant. The relative source contribution from drinking water is based on actual exposure data. In the absence of chemical specific data, a value of 20% for organics and 10% for inorganics is assumed. |

DESCRIPTION AND QUALIFIERS FOR ANALYTICAL DATA AND RELATED HEALTH ADVISORY TABLE

| NO | COLUMN | DESCRIPTION |
|---|---|---|
| 12 | µg/L as E-04 Cancer Risk | This column contains values indicating the concentration of the particular contaminant in drinking water that would produce an E-04 (10 to the minus 4 power) excess lifetime cancer risk. It means if a group of 10,000 persons were exposed to the contaminant at its respective concentration (as listed in this column), then ONE individual in the group might be expected to develop cancer (above background) solely from exposure to that contaminant in drinking water. |
| 13 | Cancer Group | These are the guidelines developed for carcinogen risk assessment. These guidelines discuss weighing the evidence that a substance is a carcinogen, and classifying the chemical into one of five groups, based on weight of evidence.<br><br>Group A - Human Carcinogen<br>Group B - Probable human carcinogen<br>Group B1 - Probable human carcinogen, limited human evidence but sufficient animal evidence.<br>Group B2 - Probable human carcinogen, sufficient animal evidence, but inadequate or no human evidence.<br>Group C - Possible human carcinogen.<br>Group D - Not classified as to human carcinogenicity<br>Group E - Evidence of non-carcinogenicity for humans. |
| NA | Not Applicable | |
| PS | Performance Standard 0.5 NTU - 1.0 NTU | |

## DATA QUALIFIERS[1]

| Organics<br>Footnote | Definition | Interpretation |
|---|---|---|
| U | Indicates compound was analyzed for but not detected | Compound was not detected. |
| J | Indicates an estimated value. | Compound value may be semiquantitative. |
| UJ | Quantitation limit is estimated due to a Quality Control (QC) protocol. | Compound was not detected. |
| C | This flag applies to pesticide results where the identification has been confirmed by GC/MS. Single component pesticides ≥ng/ul in the final extract shall be confirmed by GC/MS. | Compound was confirmed by mass spectroscopy. |
| B | This flag is used when the analyte is found in the associated blank as well as in the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action. | Compound value may be semiquantitative if it is <5x the blank concentration (10x the blank concentrations for common lab artifacts: phthalates, methylene chloride, acetone, toluene, 2-butanone). |
| E | This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for that specific analysis. This flag will not apply to pesticides/PCBs analyzed by GC/EC methods. | Compound value may be semiquantitative. |
| D | This flag identifies all compounds identified in an analysis at a secondary dilution factor. | Alerts data user to a possible change in the CRQL. |
| A | This flag indicates that a TIC is a suspected aldol-condensation product. | Alerts data user of a lab artifact. |
| R | Results are unusable due to a major violation of QC protocol. | Compound value is not usable. |

[1] - Only detectable concentrations are included in the analytical data table.

## DATA QUALIFIERS[1]

(Continued)

| Inorganics Footnote | | Definition | Interpretation |
|---|---|---|---|
| Old | New | | |
| E | E | Estimated or not reported due to interference. See laboratory narrative. | Compound or element was not detected or value may be semiquantitative. |
| * | * | Analysis by Method of Standard Additions. | Value may be quantitative. |
| R | N | Spike recoveries outside QC protocols which indicates a possible matrix problem. Data may be biased high or low. See spike results and laboratory narrative. | Value may be quantitative or semiquantitative. |
| * | * | Duplicate value outside QC protocols which indicates a possible matrix problem. | Value may be semiquantitative. |
| + | + | Correlation coefficient for standard additions to less than 0.995. See review and laboratory narrative. | Data value may be biased. |
| { } | B | Value is real, but is above instrument DL and below CRDL. | Value may be quantitative or semiquantitative. |
| UJ | | DL is estimated because of a QC protocol. DL is possibly above or below CRDL. | Compound or element was not detected. |
| J | | Value is above CRDL and is an estimated value because of a QC protocol. | Value may be semiquantitative. |
| U | U | Compound was analyzed for but not detected. | Compound was not detected. |
| | M | Duplicate injection precision not met. | Value may be semiquantitative. |
| | W | Post-digestion spike for furnace AA analysis is out of control limits (35-115%), while sample absorbance is <50% of spike absorbance. | Value may be semiquantitative. |

Sample: GW01-01/MERP16

**Analytical Data and Related Health Advisory Table**

| Sample Collection Information and Parameters | Detection Limits (µg/L) | Sample Result (µg/L) | SMCL* | Standards | | | | Status HA | 10-kg Child | | | 70-kg Adult | | | | µg/L at 10-4 Cancer Risk | Cancer Group |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Status Reg. | NIPDWR (µg/L) | MCLG (µg/L) | MCL (µg/L) | | One Day µg/L | Ten-Day µg/L | Longer-Term µg/L | Longer-Term µg/L | RFD µg/kg/day | DWEL µg/L | Life-time µg/L | | |
| INORGANICS | | | | | | | | | | | | | | | | | |
| Aluminum | 200 | 34 B | 50-200 | L | — | — | — | D | — | — | — | — | — | — | | — | |
| Antimony | 60 | | | P | — | 3.0 | 10/5 | D | 15 | 15 | 15 | 15 | 0.4 | 15 | 3 | — | D |
| Arsenic | 10 | | | | 50 | — | 50 | D | — | — | — | — | — | — | — | 2 | A |
| Barium | 200 | 182 B | | F | 1,000 | 2,000 | 2,000 | F | — | — | — | — | 70 | 2,000 | 2,000 | — | D |
| Beryllium | 5 | | | P | — | ZERO | 1 | D | 30,000 | 30,000 | 4,000 | 20,000 | 5 | 200 | — | 0.8 | B2 |
| Cadmium | 5 | | | F | 10 | 5 | 5 | F | 40 | 40 | 5 | 20 | 0.5 | 20 | 5 | — | D |
| Calcium | 5000 | 111,000 | | | | | | | | | | | | | | | |
| Chromium | 10 | 6.5 BJ | | F | 50 | 100 | 100 | F | 1,000 | 1,000 | 200 | 800 | 5 | 200 | 100 | — | D |
| Cobalt | 50 | | | | | | | | | | | | | | | | |
| Copper | 25 | 7.3 BJ | 1,000 | | | 1,300 | 1,300 | — | — | — | — | — | — | — | — | — | D |
| Iron | 100 | 612 | 300 | | | | | | | | | | | | | | |
| Lead (at top) | 3 | | | F | — | ZERO | TT | — | — | — | — | — | — | — | — | — | B2 |
| Magnesium | 5000 | 38800 | | | | | | | | | | | | | | | |
| Manganese | 15 | 31.5 | 50 | | — | — | — | D | — | — | — | — | 140 | — | — | — | — |
| Mercury | 0.2 | | | F | 2 | 2 | 2 | F | — | — | — | 2 | 0.3 | 10 | 2 | — | D |
| Nickel | 40 | 8 J | | P | — | 100 | 100 | F | 1,000 | 1,000 | 500 | 1,700 | 20 | 600 | 100 | — | D |
| Potassium | 5000 | 2470 B | | | | | | | | | | | | | | | |
| Selenium | 5 | 2.6 B | | F | 10 | 50 | 50 | — | — | — | — | — | 5 | — | — | — | — |
| Silver | 10 | | 100 | — | 50 | — | — | D | 200 | 200 | 200 | 200 | 5 | 20 | 100 | — | D |
| Sodium | 5000 | 19100 | | | — | — | — | D | — | — | — | — | — | 20,000 | — | — | — |
| Thallium | 10 | | | P | — | 0.5 | 4 | D | 7 | 7 | 7 | 20 | 0.07 | 2 | 0.4 | — | — |
| Vanadium | 50 | | | L | — | — | — | D | 80 | 80 | 30 | 110 | 3 | 110 | 20 | — | D |
| Zinc | 20 | 6.5 B* J | 5,000 | L | — | — | — | D | — | — | — | — | 300 | 10,500 | 2,100 | — | D |
| Cyanide | 10 | 30 | | T | — | 200 | 200 | F | 200 | 200 | 200 | 800 | 22 | 800 | 200 | — | D |

* - Secondary Maximum Contaminant Levels (µg/L) as indicated in "Drinking Water Regulations and Health Advisories" April 1992.

Sample: GW01-01DP/MERP 17

**Analytical Data and Related Health Advisory Table**

| Sample Collection Information and Parameters | Detection Limits (µg/L) | Sample Result (µg/L) | SMCL* | Standards | | | | Status HA | 10-kg Child | | | 70-kg Adult | | | | µg/L at 10-4 Cancer Risk | Cancer Group |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Status Reg. | NIPDWR (µg/L) | MCLG (µg/L) | MCL (µg/L) | | One Day µg/L | Ten-Day µg/L | Longer-Term µg/L | Longer-Term µg/L | RFD µg/kg/day | DWEL µg/L | Lifetime µg/L | | |
| INORGANICS | | | | | | | | | | | | | | | | | |
| Aluminum | 200 | 40.7B | 50-200 | L | — | — | — | D | — | — | — | — | — | — | | — | |
| Antimony | 60 | | | P | — | 3.0 | 10/5 | D | 15 | 15 | 15 | 15 | 0.4 | 15 | 3 | — | D |
| Arsenic | 10 | | | | 50 | — | 50 | D | — | — | — | — | — | — | — | 2 | A |
| Barium | 200 | 181 | | F | 1,000 | 2,000 | 2,000 | F | — | — | — | — | 70 | 2,000 | 2,000 | — | D |
| Beryllium | 5 | | | P | — | ZERO | 1 | D | 30,000 | 30,000 | 4,000 | 20,000 | 5 | 200 | — | 0.8 | B2 |
| Cadmium | 5 | | | F | 10 | 5 | 5 | F | 40 | 40 | 5 | 20 | 0.5 | 20 | 5 | — | D |
| Calcium | 5000 | 111,000 | | | | | | | | | | | | | | | |
| Chromium | 10 | 14.2J | | F | 50 | 100 | 100 | F | 1,000 | 1,000 | 200 | 800 | 5 | 200 | 100 | — | D |
| Cobalt | 50 | | | | | | | | | | | | | | | | |
| Copper | 25 | 9.2BJ | 1,000 | | | 1,300 | 1,300 | — | — | — | — | — | — | — | — | — | D |
| Iron | 100 | 647 | 300 | | | | | | | | | | | | | | |
| Lead (at top) | 3 | | | F | — | ZERO | TT | — | — | — | — | — | — | — | — | — | B2 |
| Magnesium | 5000 | 38700 | | | | | | | | | | | | | | | |
| Manganese | 15 | 31.4 | 50 | | — | — | — | D | — | — | — | — | 140 | — | — | — | — |
| Mercury | 0.2 | | | F | 2 | 2 | 2 | F | — | — | — | 2 | 0.3 | 10 | 2 | — | D |
| Nickel | 40 | 8.6BJ | | P | — | 100 | 100 | F | 1,000 | 1,000 | 500 | 1,700 | 20 | 600 | 100 | — | D |
| Potassium | 5000 | 2620B | | | | | | | | | | | | | | | |
| Selenium | 5 | | | F | 10 | 50 | 50 | — | — | — | — | — | 5 | — | — | — | — |
| Silver | 10 | | 100 | — | 50 | — | — | D | 200 | 200 | 200 | 200 | 5 | 20 | 100 | — | D |
| Sodium | 5000 | 19100 | | | — | — | — | D | — | — | — | — | — | 20,000 | — | — | — |
| Thallium | 10 | | | P | — | 0.5 | 4 | D | 7 | 7 | 7 | 20 | 0.07 | 2 | 0.4 | — | — |
| Vanadium | 50 | | | L | — | — | — | D | 80 | 80 | 30 | 110 | 3 | 110 | 20 | — | D |
| Zinc | 20 | 9.6BEJ | 5,000 | L | — | — | — | D | — | — | — | — | 300 | 10,500 | 2,100 | — | D |
| Cyanide | 10 | .30 | | T | — | 200 | 200 | F | 200 | 200 | 200 | 800 | 22 | 800 | 200 | — | D |

* - Secondary Maximum Contaminant Levels (µg/L) as indicated in "Drinking Water Regulations and Health Advisories" April 1992.

Sample: RW01-01/MERP20

**Analytical Data and Related Health Advisory Table**

| Sample Collection Information and Parameters | Detection Limits (µg/L) | Sample Result (µg/L) | SMCL* | Standards | | | | Status HA | 10-kg Child | | | 70-kg Adult | | | | µg/L at 10-4 Cancer Risk | Cancer Group |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Status Reg. | NIPDWR (µg/L) | MCLG (µg/L) | MCL (µg/L) | | One Day µg/L | Ten-Day µg/L | Longer-Term µg/L | Longer-Term µg/L | RFD µg/kg/day | DWEL µg/L | Lifetime µg/L | | |
| INORGANICS | | | | | | | | | | | | | | | | | |
| Aluminum | 80 | 35.1BJ | 50-200 | L | — | — | — | D | — | — | — | — | — | — | | — | |
| Antimony | 60 | | | P | — | 3.0 | 10/5 | D | 15 | 15 | 15 | 15 | 0.4 | 15 | 3 | — | D |
| Arsenic | 5 | 7.1 | | | 50 | — | 50 | D | — | — | — | — | — | — | — | 2 | A |
| Barium | 20 | 222 | | F | 1,000 | 2,000 | 2,000 | F | — | — | — | — | 70 | 2,000 | 2,000 | — | D |
| Beryllium | 5 | | | P | — | ZERO | 1 | D | 30,000 | 30,000 | 4,000 | 20,000 | 5 | 200 | — | 0.8 | B2 |
| Cadmium | 0.5 | | | F | 10 | 5 | 5 | F | 40 | 40 | 5 | 20 | 0.5 | 20 | 5 | — | D |
| Calcium | 1000 | 96300 | | | | | | | | | | | | | | | |
| Chromium | 10 | | | F | 50 | 100 | 100 | F | 1,000 | 1,000 | 200 | 800 | 5 | 200 | 100 | — | D |
| Cobalt | 10 | | | | | | | | | | | | | | | | |
| Copper | 10 | 12.6 | 1,000 | | | 1,300 | 1,300 | — | — | — | — | — | — | — | — | — | D |
| Iron | 100 | 6020 | 300 | | | | | | | | | | | | | | |
| Lead (at top) | 2 | | | F | — | ZERO | TT | — | — | — | — | — | — | — | — | — | B2 |
| Magnesium | 1000 | 39200 | | | | | | | | | | | | | | | |
| Manganese | 10 | 635 | 50 | | — | — | — | D | — | — | — | — | 140 | — | — | — | — |
| Mercury | 0.2 | | | F | 2 | 2 | 2 | F | — | — | — | 2 | 0.3 | 10 | 2 | — | D |
| Nickel | 20 | | | P | — | 100 | 100 | F | 1,000 | 1,000 | 500 | 1,700 | 20 | 600 | 100 | — | D |
| Potassium | 2000 | 3260 | | | | | | | | | | | | | | | |
| Selenium | 2 | | | F | 10 | 50 | 50 | — | — | — | — | — | 5 | — | — | — | — |
| Silver | 5 | | 100 | — | 50 | — | — | D | 200 | 200 | 200 | 200 | 5 | 20 | 100 | — | D |
| Sodium | 1000 | 29400 | | | — | — | — | D | — | — | — | — | — | 20,000 | — | — | — |
| Thallium | 2 | | | P | — | 0.5 | 4 | D | 7 | 7 | 7 | 20 | 0.07 | 2 | 0.4 | — | — |
| Vanadium | 10 | | | L | — | — | — | D | 80 | 80 | 30 | 110 | 3 | 110 | 20 | — | D |
| Zinc | 20 | 42.9 | 5,000 | L | — | — | — | D | — | — | — | — | 300 | 10,500 | 2,100 | — | D |
| Cyanide | 10 | | | T | — | 200 | 200 | F | 200 | 200 | 200 | 800 | 22 | 800 | 200 | — | D |

* - Secondary Maximum Contaminant Levels (µg/L) as indicated in "Drinking Water Regulations and Health Advisories" April 1992.

Sample: RW01-0107 / MERP 22

**Analytical Data and Related Health Advisory Table**

| Sample Collection Information and Parameters | Detection Limits (µg/L) | Sample Result (µg/L) | SMCL* | Standards | | | | Status HA | 10-kg Child | | | 70-kg Adult | | | | µg/L at 10-4 Cancer Risk | Cancer Group |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Status Reg. | NIPDWR (µg/L) | MCLG (µg/L) | MCL (µg/L) | | One Day µg/L | Ten-Day µg/L | Longer-Term µg/L | Longer-Term µg/L | RFD µg/kg/day | DWEL µg/L | Life-time µg/L | | |
| INORGANICS | | | | | | | | | | | | | | | | | |
| Aluminum | 80 | 418T | 50-200 | L | — | — | — | D | — | — | — | — | — | — | | — | |
| Antimony | 60 | | | P | — | 3.0 | 10/5 | D | 15 | 15 | 15 | 15 | 0.4 | 15 | 3 | — | D |
| Arsenic | 5 | 6.3 | | | 50 | — | 50 | D | — | — | — | — | — | — | — | 2 | A |
| Barium | 20 | 214 | | F | 1,000 | 2,000 | 2,000 | F | — | — | — | — | 70 | 2,000 | 2,000 | — | D |
| Beryllium | 5 | | | P | — | ZERO | 1 | D | 30,000 | 30,000 | 4,000 | 20,000 | 5 | 200 | — | 0.8 | B2 |
| Cadmium | 0.5 | | | F | 10 | 5 | 5 | F | 40 | 40 | 5 | 20 | 0.5 | 20 | 5 | — | D |
| Calcium | 1000 | 94100 | | | | | | | | | | | | | | | |
| Chromium | 10 | | | F | 50 | 100 | 100 | F | 1,000 | 1,000 | 200 | 800 | 5 | 200 | 100 | — | D |
| Cobalt | 10 | | | | | | | | | | | | | | | | |
| Copper | 10 | 10.4 | 1,000 | | | 1,300 | 1,300 | — | — | — | — | — | — | — | — | — | D |
| Iron | 100 | 5940 | 300 | | | | | | | | | | | | | | |
| Lead (at tap) | 2 | | | F | — | ZERO | TT | — | — | — | — | — | — | — | — | — | B2 |
| Magnesium | 1000 | 38100 | | | | | | | | | | | | | | | |
| Manganese | 10 | 629 | 50 | | — | — | — | D | — | — | — | — | 140 | — | — | — | — |
| Mercury | 0.2 | | | F | 2 | 2 | 2 | F | — | — | — | 2 | 0.3 | 10 | 2 | — | D |
| Nickel | 20 | | | P | — | 100 | 100 | F | 1,000 | 1,000 | 500 | 1,700 | 20 | 600 | 100 | — | D |
| Potassium | 2000 | 3200 | | | | | | | | | | | | | | | |
| Selenium | 2 | | | F | 10 | 50 | 50 | — | — | — | — | — | 5 | — | — | — | — |
| Silver | 5 | | 100 | — | 50 | — | — | D | 200 | 200 | 200 | 200 | 5 | 20 | 100 | — | D |
| Sodium | 1000 | 28900 | | | — | — | — | D | — | — | — | — | — | 20,000 | — | — | — |
| Thallium | 2 | | | P | — | 0.5 | 4 | D | 7 | 7 | 7 | 20 | 0.07 | 2 | 0.4 | — | — |
| Vanadium | 10 | | | L | — | — | — | D | 80 | 80 | 30 | 110 | 3 | 110 | 20 | — | D |
| Zinc | 20 | 45.1 | 5,000 | L | — | — | — | D | — | — | — | — | 300 | 10,500 | 2,100 | — | D |
| Cyanide | 10 | | | T | — | 200 | 200 | F | 200 | 200 | 200 | 800 | 22 | 800 | 200 | — | D |

* - Secondary Maximum Contaminant Levels (µg/L) as indicated in "Drinking Water Regulations and Health Advisories" April 1992.

# DRINKING WATER MEMORANDUM
# WELL OWNER'S LOG

DATE:

TO: Mr. Steve Roush, Drinking Water Branch STATE: Indiana

FROM: P. Krishnan, Roy F. Weston, Inc.

SUBJECT: Drinking Water Sample Results

SITE NAME: SANTOERE CORPORATION CERCLIS ID: IND 087032207

| | NAME | ADDRESS | CITY, STATE, ZIP |
|---|---|---|---|
| RW01-01 | 1. Ms. Sarah Johnson Facility Manager | 50, North 5th Street | Richmond, IN 47374 |
| RW01-01P | 2. Parks & Recreation | | |
| | 3. SANTOERE Corp | 1761, Sheridan Street | Richmond, IN 47374 |
| | 4. | | |
| | 5. | | |
| | 6. | | |
| | 7. | | |
| | 8. | | |
| | 9. | | |
| | 10. | | |

State Contact:

Received By: _____

Date: _____

Note:
Please return a signed copy within 5 working days to:
Roy F. Weston, Inc.
Three Hawthorn Parkway, Suite 400,
Vernon Hills, Illinois 60061

# Drinking Water Memorandum

DATE: _____

Site Name: Sanyo ERE Corp
CERCLIS ID: IND 087032207
WA NO.: 45-5JZZ

TO: 1. Ms. Jan Pels, U.S. EPA
2. State Contact Steve Roush

FROM: P. Krishnan, Roy F. Weston, Inc.

SUBJECT: Drinking Water Sample Results

Sample: RW01-01 / ERW 23 / MERP20

Action Level

☐ No Contamination _____
No hits above any health-related standards.

☐ Low Level Contamination _____
Hits just above health-related standards.

☐ Significant Contamination _____
Hits are above health-related standards.

☐ Please check the following. They are less than health-related standards but above detection limits.

| | |
|---|---|
| _____ | _____ |
| _____ | _____ |
| _____ | _____ |
| _____ | _____ |
| _____ | _____ |

☐ Please check secondary maximum contamination limits for:

| | | | |
|---|---|---|---|
| Aluminum | _____ | Manganese | _____ |
| Copper | _____ | Silver | _____ |
| Iron | _____ | Zinc | _____ |

P. Krishnan

# Drinking Water Memorandum

DATE: _____

Site Name: Sanyo ERE Corp
CERCLIS ID: IND 087032207
WA NO.: 45-5JZZ

TO: 1. Ms. Jan Pels, U.S. EPA
2. State Contact Steve Roush

FROM: P. Krishnan, Roy F. Weston, Inc.

SUBJECT: Drinking Water Sample Results

Sample: RW01-01DP / ERW25 / MERP22

Action Level

☐ No Contamination _____
No hits above any health-related standards.

☐ Low Level Contamination _____
Hits just above health-related standards.

☐ Significant Contamination _____
Hits are above health-related standards.

☐ Please check the following. They are less than health-related standards but above detection limits.

| | |
|---|---|
| _____ | _____ |
| _____ | _____ |
| _____ | _____ |
| _____ | _____ |
| _____ | _____ |

☐ Please check secondary maximum contamination limits for:

| | | | |
|---|---|---|---|
| Aluminum | _____ | Manganese | _____ |
| Copper | _____ | Silver | _____ |
| Iron | _____ | Zinc | _____ |

P. Krishnan

# Drinking Water Memorandum

DATE: _____

Site Name: Sanyo ERE Corp
CERCLIS ID: NJD 087032207
WA NO.: 45-5JZZ

TO: 1. Ms. Jan Pels, U.S. EPA
2. State Contact Steve Roush

FROM: P. Krishnan, Roy F. Weston, Inc.

SUBJECT: Drinking Water Sample Results

Sample: GW01-01 / ERW 18 / MERP 16

Action Level

☐ No Contamination _____
No hits above any health-related standards.

☐ Low Level Contamination _____
Hits just above health-related standards.

☐ Significant Contamination _____
Hits are above health-related standards.

☐ Please check the following. They are less than health-related standards but above detection limits.

| | |
|---|---|
| _____ | _____ |
| _____ | _____ |
| _____ | _____ |
| _____ | _____ |
| _____ | _____ |

☐ Please check secondary maximum contamination limits for:

| | | | |
|---|---|---|---|
| Aluminum | _____ | Manganese | _____ |
| Copper | _____ | Silver | _____ |
| Iron | _____ | Zinc | _____ |

P. Krishnan

# Drinking Water Memorandum

DATE: _____

Site Name: Sanyo E&E Corp
CERCLIS ID: IND 080732207
WA NO.: 45-5JZZ

TO: 1. Ms. Jan Pels, U.S. EPA
2. State Contact Steve Roush

FROM: P. Krishnan, Roy F. Weston, Inc.

SUBJECT: Drinking Water Sample Results

Sample: GW01-01DP | GRW19 | MERP17

Action Level

☐ No Contamination _____
No hits above any health-related standards.

☐ Low Level Contamination _____
Hits just above health-related standards.

☐ Significant Contamination _____
Hits are above health-related standards.

☐ Please check the following. They are less than health-related standards but above detection limits.

| | |
|---|---|
| _____ | _____ |
| _____ | _____ |
| _____ | _____ |
| _____ | _____ |
| _____ | _____ |

☐ Please check secondary maximum contamination limits for:

| | | | |
|---|---|---|---|
| Aluminum | _____ | Manganese | _____ |
| Copper | _____ | Silver | _____ |
| Iron | _____ | Zinc | _____ |

P. Krishnan

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ERW18

Lab Name: McCoy and McCoy Labs, Inc Contract: 68-D1-0081

Lab Code: MCCOY Case No.: 18642 SAS No.: SDG No.: ERW07

Matrix: (soil/water) WATER Lab Sample ID: ERW18

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: C9447

Level: (low/med) LOW Date Received: 08/20/92

% Moisture: not dec._____ Date Analyzed: 08/21/92

GC Column: RTx502.2 ID: .53 (mm) Dilution Factor: 1.0

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

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q | |
|---|---|---|---|---|
| 74-87-3 | Chloromethane | 10. | U | |
| 74-83-9 | Bromomethane | 10. | U | |
| 75-01-4 | Vinyl Chloride | 10. | U | |
| 75-00-3 | Chloroethane | 10. | U | |
| 75-09-2 | Methylene Chloride | 10. | U | |
| 67-64-1 | Acetone | 10. | U | |
| 75-15-0 | Carbon Disulfide | 10. | U | |
| 75-35-4 | 1,1-Dichloroethene | 10. | UJ | PDC 11/9/92 |
| 75-34-3 | 1,1-Dichloroethane | 10. | U | |
| 540-59-0 | 1,2-Dichloroethene (total) | 100. | | |
| 67-66-3 | Chloroform | 2. | J | |
| 107-06-2 | 1,2-Dichloroethane | 10. | U | |
| 78-93-3 | 2-Butanone | 10. | U | |
| 71-55-6 | 1,1,1-Trichloroethane | 7. | J | |
| 56-23-5 | Carbon Tetrachloride | 10. | U | |
| 75-27-4 | Bromodichloromethane | 10. | U | |
| 78-87-5 | 1,2-Dichloropropane | 10. | U | |
| 10061-01-5 | cis-1,3-Dichloropropene | 10. | U | |
| 79-01-6 | Trichloroethene | 1200. | EJ | ADC 11/9/92 |
| 124-48-1 | Dibromochloromethane | 10. | U | |
| 79-00-5 | 1,1,2-Trichloroethane | 10. | U | |
| 71-43-2 | Benzene | 10. | U | |
| 10061-02-6 | trans-1,3-Dichloropropene | 10. | U | |
| 75-25-2 | Bromoform | 10. | U | |
| 108-10-1 | 4-Methyl-2-Pentanone | 10. | U | |
| 591-78-6 | 2-Hexanone | 10. | U | |
| 127-18-4 | Tetrachloroethene | 10. | U | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 10. | U | |
| 108-88-3 | Toluene | 10. | U | |
| 108-90-7 | Chlorobenzene | 10. | U | |
| 100-41-4 | Ethylbenzene | 10. | U | |
| 100-42-5 | Styrene | 10. | U | |
| 1330-20-7 | Xylene (total) | 10. | U | |

1E

EPA SAMPLE NO.

ERW18

# VOLATILE ORGANICS ANALYSIS DATA SHEET
# TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: McCoy and McCoy Labs, Inc  Contract: 68-D1-0081

Lab Code: MCCOY  Case No.: 18642  SAS No.:  SDG No.: ERW07

Matrix: (soil/water) WATER  Lab Sample ID: ERW18

Sample wt/vol: 5.000 (g/mL) ML  Lab File ID: C9447

Level: (low/med) LOW  Date Received: 08/20/92

% Moisture: not dec._____  Date Analyzed: 08/21/92

GC Column: RTx502.2 ID: .53 (mm)  Dilution Factor: 1.0

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

Number TICs found: 0

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

| | CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|---|
| 1. | | | | | |
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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ERW18 DL

Lab Name: McCoy and McCoy Labs, Inc Contract: 68-D1-0081

Lab Code: MCCOY Case No.: 18642 SAS No.: SDG No.: ERW07

Matrix: (soil/water) WATER Lab Sample ID: ERW18

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: C9453

Level: (low/med) LOW Date Received: 08/20/92

% Moisture: not dec._____ Date Analyzed: 08/21/92

GC Column: RTx502.2 ID: .53 (mm) Dilution Factor: 10.0

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

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 74-87-3 | Chloromethane | 100. | U |
| 74-83-9 | Bromomethane | 100. | U |
| 75-01-4 | Vinyl Chloride | 100. | U |
| 75-00-3 | Chloroethane | 100. | U |
| 75-09-2 | Methylene Chloride | 100. | U |
| 67-64-1 | Acetone | 100. | U |
| 75-15-0 | Carbon Disulfide | 100. | U |
| 75-35-4 | 1,1-Dichloroethene | 100. | U |
| 75-34-3 | 1,1-Dichloroethane | 100. | U |
| 540-59-0 | 1,2-Dichloroethene (total) | 96. | J D |
| 67-66-3 | Chloroform | 100. | U |
| 107-06-2 | 1,2-Dichloroethane | 100. | U |
| 78-93-3 | 2-Butanone | 100. | U |
| 71-55-6 | 1,1,1-Trichloroethane | 100. | U |
| 56-23-5 | Carbon Tetrachloride | 100. | U |
| 75-27-4 | Bromodichloromethane | 100. | U |
| 78-87-5 | 1,2-Dichloropropane | 100. | U |
| 10061-01-5 | cis-1,3-Dichloropropene | 100. | U |
| 79-01-6 | Trichloroethene | 1300. | D POC 11/9/92 |
| 124-48-1 | Dibromochloromethane | 100. | U |
| 79-00-5 | 1,1,2-Trichloroethane | 100. | U |
| 71-43-2 | Benzene | 100. | U |
| 10061-02-6 | trans-1,3-Dichloropropene | 100. | U |
| 75-25-2 | Bromoform | 100. | U |
| 108-10-1 | 4-Methyl-2-Pentanone | 100. | U |
| 591-78-6 | 2-Hexanone | 100. | U |
| 127-18-4 | Tetrachloroethene | 100. | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 100. | U |
| 108-88-3 | Toluene | 100. | U |
| 108-90-7 | Chlorobenzene | 100. | U |
| 100-41-4 | Ethylbenzene | 100. | U |
| 100-42-5 | Styrene | 100. | U |
| 1330-20-7 | Xylene (total) | 100. | U |

1E

# VOLATILE ORGANICS ANALYSIS DATA SHEET
# TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

ERW18 DL

Lab Name: McCoy and McCoy Labs, Inc Contract: 68-D1-0081

Lab Code: MCCOY Case No.: 18642 SAS No.: SDG No.: ERW07

Matrix: (soil/water) WATER Lab Sample ID: ERW18

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: C9453

Level: (low/med) LOW Date Received: 08/20/92

% Moisture: not dec._____ Date Analyzed: 08/21/92

GC Column: RTx502.2 ID: .53 (mm) Dilution Factor: 10.0

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

Number TICs found: 0 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

| | CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|---|
| 1. | | | | | |
| 2. | | | | | |
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# SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ERW18

Lab Name: McCoy and McCoy Labs, Inc  Contract: 68D10081

Lab Code: MCCOY  Case No.: 18642  SAS No.:  SDG No.: ERW07

Matrix: (soil/water) WATER  Lab Sample ID: 92-08-471-06

Sample wt/vol: 1000.0 (g/mL) ML  Lab File ID: D1238

Level: (low/med) LOW  Date Received: 08/20/92

% Moisture: _____ decanted: (Y/N)___  Date Extracted: 08/24/92

Concentrated Extract Volume: 1000.0 (uL)  Date Analyzed: 08/27/92

Injection Volume: 1.0 (uL)  Dilution Factor: 1.0

GPC Cleanup: (Y/N) N  pH: 6.8

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 108-95-2 | Phenol | 20. | U |
| 111-44-4 | bis(2-Chloroethyl)ether | 20. | U |
| 95-57-8 | 2-Chlorophenol | 20. | U |
| 541-73-1 | 1,3-Dichlorobenzene | 20. | U |
| 106-46-7 | 1,4-Dichlorobenzene | 20. | U |
| 95-50-1 | 1,2-Dichlorobenzene | 20. | U |
| 95-48-7 | 2-Methylphenol | 20. | U |
| 108-60-1 | 2,2'-oxybis(1-Chloropropane) | 20. | U |
| 106-44-5 | 4-Methylphenol | 20. | U |
| 621-64-7 | N-Nitroso-Di-n-propylamine | 20. | U |
| 67-72-1 | Hexachloroethane | 20. | U |
| 98-95-3 | Nitrobenzene | 20. | U |
| 78-59-1 | Isophorone | 20. | U |
| 88-75-5 | 2-Nitrophenol | 20. | U |
| 105-67-9 | 2,4-Dimethylphenol | 20. | U |
| 111-91-1 | bis(2-Chloroethoxy)methane | 20. | U |
| 120-83-2 | 2,4-Dichlorophenol | 20. | U |
| 120-82-1 | 1,2,4-Trichlorobenzene | 20. | U |
| 91-20-3 | Naphthalene | 20. | U |
| 106-47-8 | 4-Chloroaniline | 20. | U |
| 87-68-3 | Hexachlorobutadiene | 20. | U |
| 59-50-7 | 4-Chloro-3-methylphenol | 20. | U |
| 91-57-6 | 2-Methylnaphthalene | 20. | U |
| 77-47-4 | Hexachlorocyclopentadiene | 20. | U |
| 88-06-2 | 2,4,6-Trichlorophenol | 20. | U |
| 95-95-4 | 2,4,5-Trichlorophenol | 50. | U |
| 91-58-7 | 2-Chloronaphthalene | 20. | U |
| 88-74-4 | 2-Nitroaniline | 50. | U |
| 131-11-3 | Dimethylphthalate | 20. | U |
| 208-96-8 | Acenaphthylene | 20. | U |
| 606-20-2 | 2,6-Dinitrotoluene | 20. | U |
| 99-09-2 | 3-Nitroaniline | 50. | U |
| 83-32-9 | Acenaphthene | 20. | U |

# SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ERW18

Lab Name: McCoy and McCoy Labs, Inc  Contract: 68D10081

Lab Code: MCCOY  Case No.: 18642  SAS No.:  SDG No.: ERW07

Matrix: (soil/water) WATER  Lab Sample ID: 92-08-471-06

Sample wt/vol: 1000.0 (g/mL) ML  Lab File ID: D1238

Level: (low/med) LOW  Date Received: 08/20/92

% Moisture: _____ decanted: (Y/N)___  Date Extracted: 08/24/92

Concentrated Extract Volume: 1000.0 (uL)  Date Analyzed: 08/27/92

Injection Volume: 1.0 (uL)  Dilution Factor: 1.0

GPC Cleanup: (Y/N) N  pH: 6.8

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | | Q |
|---|---|---|---|---|
| 51-28-5 | 2,4-Dinitrophenol | 50. | U | |
| 100-02-7 | 4-Nitrophenol | 50. | U | |
| 132-64-9 | Dibenzofuran | 20. | U | |
| 121-14-2 | 2,4-Dinitrotoluene | 20. | U | |
| 84-66-2 | Diethylphthalate | 20. | U | |
| 7005-72-3 | 4-Chlorophenyl-phenylether | 20. | U | |
| 86-73-7 | Fluorene | 20. | U | |
| 100-01-6 | 4-Nitroaniline | 50. | U | |
| 534-52-1 | 4,6-Dinitro-2-methylphenol | 50. | U | |
| 86-30-6 | N-Nitrosodiphenylamine | 20. | U | |
| 101-55-3 | 4-Bromophenyl-phenylether | 20. | U | |
| 118-74-1 | Hexachlorobenzene | 20. | U | |
| 87-86-5 | Pentachlorophenol | 50. | U | |
| 85-01-8 | Phenanthrene | 20. | U | |
| 120-12-7 | Anthracene | 20. | U | |
| 86-74-8 | CARBAZOLE | 20. | U | |
| 84-74-2 | Di-n-butylphthalate | 25. | B | V |
| 206-44-0 | Fluoranthene | 20. | U | |
| 129-00-0 | Pyrene | 20. | U | |
| 85-68-7 | Butylbenzylphthalate | 20. | U | |
| 91-94-1 | 3,3'-Dichlorobenzidine | 20. | U | |
| 56-55-3 | Benzo(a)anthracene | 20. | U | |
| 218-01-9 | Chrysene | 20. | U | |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | 20 ~~10.~~ | BJ | V |
| 117-84-0 | Di-n-octylphthalate | 20. | U | |
| 205-99-2 | Benzo(b)fluoranthene | 20. | U | |
| 207-08-9 | Benzo(k)fluoranthene | 20. | U | |
| 50-32-8 | Benzo(a)pyrene | 20. | U | |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 20. | U | |
| 53-70-3 | Dibenz(a,h)anthracene | 20. | U | |
| 191-24-2 | Benzo(g,h,i)perylene | 20. | U | |

(1) - Cannot be separated from diphenylamine

RWH 9-28

# SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
## TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.: ERW18

Lab Name: McCoy and McCoy Labs, Inc  Contract: 68D10081

Lab Code: MCCOY  Case No.: 18642  SAS No.:  SDG No.: ERW07

Matrix: (soil/water) WATER  Lab Sample ID: 92-08-471-06

Sample wt/vol: 1000.0 (g/mL) ML  Lab File ID: D1238

Level: (low/med) LOW  Date Received: 08/20/92

% Moisture: _____ decanted: (Y/N)___  Date Extracted: 08/24/92

Concentrated Extract Volume: 1000.0 (uL)  Date Analyzed: 08/27/92

Injection Volume: 1.0 (uL)  Dilution Factor: 1.0

GPC Cleanup: (Y/N) N  pH: 6.8

Number TICs found: 3

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

| | CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|---|
| 1. | 111-76-2 | Ethanol, 2-butoxy- (8CI9CI) | 8.35 | 100. | BJ N |
| 2. | 111-77-3 | Ethanol, 2-(2-methoxyethoxy) | 8.95 | 10. | BJ N |
| 3. | 74381-40-1 | Propanoic acid, 2-methyl-, 1 | 19.83 | 6. | J N |
| 4. | | | | | |
| 5. | | | | | |
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1D

# PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ERW18

Lab Name: McCoy and McCoy Labs, Inc  Contract: 68-D1-0081

Lab Code: McCOY  Case No.: 18642  SAS No.:  SDG No.: ERW07

Matrix: (soil/water) WATER  Lab Sample ID: 92-08-471-06A

Sample wt/vol: 1000.0 (g/mL) ML  Lab File ID: 02376

% Moisture: _____ decanted: (Y/N)___  Date Received: 08/20/92

Extraction: (SepF/Cont/Sonc) SONC  Date Extracted: 08/21/92

Concentrated Extract Volume: 5000.0 (uL)  Date Analyzed: 09/02/92

Injection Volume: 2.0 (uL)  Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y  pH: 6.8  Sulfur Cleanup: (Y/N) N

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q | |
|---|---|---|---|---|
| 319-84-6 | alpha-BHC | .050 | U | |
| 319-85-7 | beta-BHC | .050 | U | |
| 319-86-8 | delta-BHC | .050 | U | |
| 58-89-9 | gamma-BHC | .050 | UJ | PDC 11/9/92 |
| 76-44-8 | Heptachlor | .050 | U | |
| 309-00-2 | Aldrin | .050 | U | |
| 1024-57-3 | Heptachlor epoxide | .050 | U | |
| 959-98-8 | Endosulfan I | .050 | U | |
| 60-57-1 | Dieldrin | .10 | U | |
| 72-55-9 | 4,4'-DDE | .10 | U | |
| 72-20-8 | Endrin | .10 | U | |
| 33213-65-9 | Endosulfan II | .10 | U | |
| 72-54-8 | 4,4'-DDD | .10 | U | |
| 1031-07-8 | Endosulfan Sulfate | 0.1 ~~.028~~ | BJ PU | PDC 11/9/92 |
| 50-29-3 | 4,4'-DDT | .10 | U | |
| 72-43-5 | Methoxychlor | .50 | U | |
| 53494-70-5 | Endrin ketone | .10 | U | |
| 7421-93-4 | Endrin aldehyde | .10 | U | |
| 5103-71-9 | alpha-Chlordane | .050 | U | |
| 5103-74-2 | gamma-Chlordane | .050 | U | |
| 8001-35-2 | Toxaphene | 5.0 | U | |
| 12674-11-2 | Aroclor-1016 | 1.0 | U | |
| 11104-28-2 | Aroclor-1221 | 2.0 | U | |
| 11141-16-5 | Aroclor-1232 | 1.0 | U | |
| 53469-21-9 | Aroclor-1242 | 1.0 | U | |
| 12672-29-6 | Aroclor-1248 | 1.0 | U | |
| 11097-69-1 | Aroclor-1254 | 1.0 | U | |
| 11096-82-5 | Aroclor-1260 | 1.0 | U | |

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MERP16

Lab Name: KEYSTONE ENVIRONMENTAL Contract: 68-D0-0148

Lab Code: KEYPA Case No.: 15542 SAS No.: SDG No.: MERP07

Matrix (soil/water): WATER Lab Sample ID: MERP16

Level (low/med): LOW Date Received: 08/20/92

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): ug/L

| CAS No. | Analyte | Concentration | C | Q | M |
|---|---|---|---|---|---|
| 7429-90-5 | Aluminum | 34.00 | B | J | P |
| 7440-36-0 | Antimony | 11.00 | U | | P |
| 7440-38-2 | Arsenic | 3.00 | U | | F |
| 7440-39-3 | Barium | 182.00 | B | J | P |
| 7440-41-7 | Beryllium | 1.00 | U | | P |
| 7440-43-9 | Cadmium | 2.00 | U | | P |
| 7440-70-2 | Calcium | 111000.00 | | J | P |
| 7440-47-3 | Chromium | 6.50 | B | J | P |
| 7440-48-4 | Cobalt | 2.00 | U | | P |
| 7440-50-8 | Copper | 7.30 | B | J | P |
| 7439-89-6 | Iron | 612.00 | | J | P |
| 7439-92-1 | Lead | 1.00 | U | W J | P |
| 7439-95-4 | Magnesium | 38800.00 | | J | P |
| 7439-96-5 | Manganese | 31.50 | | J | P |
| 7439-97-6 | Mercury | 0.20 | U | | CV |
| 7439-02-0 | Nickel | 8.00 | U | * J | P |
| 7440-09-7 | Potassium | 2470.00 | B | J | P |
| 7782-49-2 | Selenium | 2.60 | B | J | F |
| 7440-22-4 | Silver | 1.00 | U | | P |
| 7440-23-5 | Sodium | 19100.00 | | J | P |
| 7440-28-0 | Thallium | 1.00 | U | | F |
| 7440-62-2 | Vanadium | 2.00 | U | | P |
| 7440-66-6 | Zinc | 6.50 | B | * J | P |
| | Cyanide | 30.00 | | J | AS |

PDC 11/16/92

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ERW19

Lab Name: McCoy and McCoy Labs, Inc Contract: 68-D1-0081

Lab Code: MCCOY Case No.: 18642 SAS No.: SDG No.: ERW07

Matrix: (soil/water) WATER Lab Sample ID: ERW19

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: C9448

Level: (low/med) LOW Date Received: 08/20/92

% Moisture: not dec._____ Date Analyzed: 08/21/92

GC Column: RTx502.2 ID: .53 (mm) Dilution Factor: 1.0

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

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 74-87-3 | Chloromethane | 10. | U |
| 74-83-9 | Bromomethane | 10. | U |
| 75-01-4 | Vinyl Chloride | 10. | U |
| 75-00-3 | Chloroethane | 10. | U |
| 75-09-2 | Methylene Chloride | 10. | U |
| 67-64-1 | Acetone | 10. | U |
| 75-15-0 | Carbon Disulfide | 10. | U |
| 75-35-4 | 1,1-Dichloroethene | 10. | U |
| 75-34-3 | 1,1-Dichloroethane | 10. | U |
| 540-59-0 | 1,2-Dichloroethene (total) | 97. | |
| 67-66-3 | Chloroform | 2. | J |
| 107-06-2 | 1,2-Dichloroethane | 10. | U |
| 78-93-3 | 2-Butanone | 10. | U |
| 71-55-6 | 1,1,1-Trichloroethane | 7. | J |
| 56-23-5 | Carbon Tetrachloride | 10. | U |
| 75-27-4 | Bromodichloromethane | 10. | U |
| 78-87-5 | 1,2-Dichloropropane | 10. | U |
| 10061-01-5 | cis-1,3-Dichloropropene | 10. | U |
| 79-01-6 | Trichloroethene | 1200. | E |
| 124-48-1 | Dibromochloromethane | 10. | U |
| 79-00-5 | 1,1,2-Trichloroethane | 10. | U |
| 71-43-2 | Benzene | 10. | U |
| 10061-02-6 | trans-1,3-Dichloropropene | 10. | U |
| 75-25-2 | Bromoform | 10. | U |
| 108-10-1 | 4-Methyl-2-Pentanone | 10. | U |
| 591-78-6 | 2-Hexanone | 10. | U |
| 127-18-4 | Tetrachloroethene | 10. | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 10. | U |
| 108-88-3 | Toluene | 10. | U |
| 108-90-7 | Chlorobenzene | 10. | U |
| 100-41-4 | Ethylbenzene | 10. | U |
| 100-42-5 | Styrene | 10. | U |
| 1330-20-7 | Xylene (total) | 10. | U |

1E

# VOLATILE ORGANICS ANALYSIS DATA SHEET
## TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

ERW19

Lab Name: McCoy and McCoy Labs, Inc  Contract: 68-D1-0081

Lab Code: MCCOY  Case No.: 18642  SAS No.:  SDG No.: ERW07

Matrix: (soil/water) WATER  Lab Sample ID: ERW19

Sample wt/vol: 5.000 (g/mL) ML  Lab File ID: C9448

Level: (low/med) LOW  Date Received: 08/20/92

% Moisture: not dec._____  Date Analyzed: 08/21/92

GC Column: RTx502.2 ID: .53 (mm)  Dilution Factor: 1.0

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

Number TICs found: 0

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

| | CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|---|
| 1. | | | | | |
| 2. | | | | | |
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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ERW19 DL

Lab Name: McCoy and McCoy Labs, Inc Contract: 68-D1-0081

Lab Code: MCCOY Case No.: 18642 SAS No.: SDG No.: ERW07

Matrix: (soil/water) WATER Lab Sample ID: ERW19

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: C9454

Level: (low/med) LOW Date Received: 08/20/92

% Moisture: not dec._____ Date Analyzed: 08/21/92

GC Column: RTx502.2 ID: .53 (mm) Dilution Factor: 10.0

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

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 74-87-3 | Chloromethane | 100. | U |
| 74-83-9 | Bromomethane | 100. | U |
| 75-01-4 | Vinyl Chloride | 100. | U |
| 75-00-3 | Chloroethane | 100. | U |
| 75-09-2 | Methylene Chloride | 100. | U |
| 67-64-1 | Acetone | 100. | U |
| 75-15-0 | Carbon Disulfide | 100. | U |
| 75-35-4 | 1,1-Dichloroethene | 100. | U |
| 75-34-3 | 1,1-Dichloroethane | 100. | U |
| 540-59-0 | 1,2-Dichloroethene (total) | 94. | J D |
| 67-66-3 | Chloroform | 100. | U |
| 107-06-2 | 1,2-Dichloroethane | 100. | U |
| 78-93-3 | 2-Butanone | 100. | U |
| 71-55-6 | 1,1,1-Trichloroethane | 100. | U |
| 56-23-5 | Carbon Tetrachloride | 100. | U |
| 75-27-4 | Bromodichloromethane | 100. | U |
| 78-87-5 | 1,2-Dichloropropane | 100. | U |
| 10061-01-5 | cis-1,3-Dichloropropene | 100. | U |
| 79-01-6 | Trichloroethene | 1300. | D |
| 124-48-1 | Dibromochloromethane | 100. | U |
| 79-00-5 | 1,1,2-Trichloroethane | 100. | U |
| 71-43-2 | Benzene | 100. | U |
| 10061-02-6 | trans-1,3-Dichloropropene | 100. | U |
| 75-25-2 | Bromoform | 100. | U |
| 108-10-1 | 4-Methyl-2-Pentanone | 100. | U |
| 591-78-6 | 2-Hexanone | 100. | U |
| 127-18-4 | Tetrachloroethene | 100. | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 100. | U |
| 108-88-3 | Toluene | 100. | U |
| 108-90-7 | Chlorobenzene | 100. | U |
| 100-41-4 | Ethylbenzene | 100. | U |
| 100-42-5 | Styrene | 100. | U |
| 1330-20-7 | Xylene (total) | 100. | U |

1E

# VOLATILE ORGANICS ANALYSIS DATA SHEET
# TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

| ERW19 DL |
|---|

Lab Name: McCoy and McCoy Labs, Inc Contract: 68-D1-0081

Lab Code: MCCOY Case No.: 18642 SAS No.: SDG No.: ERW07

Matrix: (soil/water) WATER Lab Sample ID: ERW19

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: C9454

Level: (low/med) LOW Date Received: 08/20/92

% Moisture: not dec._____ Date Analyzed: 08/21/92

GC Column: RTx502.2 ID: .53 (mm) Dilution Factor: 10.0

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

Number TICs found: 0 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

| | CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|---|
| 1. | | | | | |
| 2. | | | | | |
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1B

# SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ERW19

Lab Name: McCoy and McCoy Labs, Inc  Contract: 68D10081

Lab Code: MCCOY  Case No.: 18642  SAS No.:  SDG No.: ERW07

Matrix: (soil/water) WATER  Lab Sample ID: 92-08-471-09

Sample wt/vol: 1000.0 (g/mL) ML  Lab File ID: D1241

Level: (low/med) LOW  Date Received: 08/20/92

% Moisture: _____ decanted: (Y/N)___  Date Extracted: 08/24/92

Concentrated Extract Volume: 1000.0 (uL)  Date Analyzed: 08/27/92

Injection Volume: 1.0 (uL)  Dilution Factor: 1.0

GPC Cleanup: (Y/N) N  pH: 6.8

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 108-95-2 | Phenol | 20. | U |
| 111-44-4 | bis(2-Chloroethyl)ether | 20. | U |
| 95-57-8 | 2-Chlorophenol | 20. | U |
| 541-73-1 | 1,3-Dichlorobenzene | 20. | U |
| 106-46-7 | 1,4-Dichlorobenzene | 20. | U |
| 95-50-1 | 1,2-Dichlorobenzene | 20. | U |
| 95-48-7 | 2-Methylphenol | 20. | U |
| 108-60-1 | 2,2'-oxybis(1-Chloropropane) | 20. | U |
| 106-44-5 | 4-Methylphenol | 20. | U |
| 621-64-7 | N-Nitroso-Di-n-propylamine | 20. | U |
| 67-72-1 | Hexachloroethane | 20. | U |
| 98-95-3 | Nitrobenzene | 20. | U |
| 78-59-1 | Isophorone | 20. | U |
| 88-75-5 | 2-Nitrophenol | 20. | U |
| 105-67-9 | 2,4-Dimethylphenol | 20. | U |
| 111-91-1 | bis(2-Chloroethoxy)methane | 20. | U |
| 120-83-2 | 2,4-Dichlorophenol | 20. | U |
| 120-82-1 | 1,2,4-Trichlorobenzene | 20. | U |
| 91-20-3 | Naphthalene | 20. | U |
| 106-47-8 | 4-Chloroaniline | 20. | U |
| 87-68-3 | Hexachlorobutadiene | 20. | U |
| 59-50-7 | 4-Chloro-3-methylphenol | 20. | U |
| 91-57-6 | 2-Methylnaphthalene | 20. | U |
| 77-47-4 | Hexachlorocyclopentadiene | 20. | U |
| 88-06-2 | 2,4,6-Trichlorophenol | 20. | U |
| 95-95-4 | 2,4,5-Trichlorophenol | 50. | U |
| 91-58-7 | 2-Chloronaphthalene | 20. | U |
| 88-74-4 | 2-Nitroaniline | 50. | U |
| 131-11-3 | Dimethylphthalate | 20. | U |
| 208-96-8 | Acenaphthylene | 20. | U |
| 606-20-2 | 2,6-Dinitrotoluene | 20. | U |
| 99-09-2 | 3-Nitroaniline | 50. | U |
| 83-32-9 | Acenaphthene | 20. | U |

# SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ERW19

Lab Name: McCoy and McCoy Labs, Inc  Contract: 68D10081

Lab Code: MCCOY  Case No.: 18642  SAS No.:  SDG No.: ERW07

Matrix: (soil/water) WATER  Lab Sample ID: 92-08-471-09

Sample wt/vol: 1000.0 (g/mL) ML  Lab File ID: D1241

Level: (low/med) LOW  Date Received: 08/20/92

% Moisture: _____ decanted: (Y/N)___  Date Extracted: 08/24/92

Concentrated Extract Volume: 1000.0 (uL)  Date Analyzed: 08/27/92

Injection Volume: 1.0 (uL)  Dilution Factor: 1.0

GPC Cleanup: (Y/N) N  pH: 6.8

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q | |
|---|---|---|---|---|
| 51-28-5 | 2,4-Dinitrophenol | 50. | U | |
| 100-02-7 | 4-Nitrophenol | 50. | U | |
| 132-64-9 | Dibenzofuran | 20. | U | |
| 121-14-2 | 2,4-Dinitrotoluene | 20. | U | |
| 84-66-2 | Diethylphthalate | 20. | U | |
| 7005-72-3 | 4-Chlorophenyl-phenylether | 20. | U | |
| 86-73-7 | Fluorene | 20. | U | |
| 100-01-6 | 4-Nitroaniline | 50. | U | |
| 534-52-1 | 4,6-Dinitro-2-methylphenol | 50. | U | |
| 86-30-6 | N-Nitrosodiphenylamine | 20. | U | |
| 101-55-3 | 4-Bromophenyl-phenylether | 20. | U | |
| 118-74-1 | Hexachlorobenzene | 20. | U | |
| 87-86-5 | Pentachlorophenol | 50. | U | |
| 85-01-8 | Phenanthrene | 20. | U | |
| 120-12-7 | Anthracene | 20. | U | |
| 86-74-8 | CARBAZOLE | 20. | U | |
| 84-74-2 | Di-n-butylphthalate | 45. | B | U |
| 206-44-0 | Fluoranthene | 20. | U | |
| 129-00-0 | Pyrene | 20. | U | RWW 9-28-92 |
| 85-68-7 | Butylbenzylphthalate | 20. | U | |
| 91-94-1 | 3,3'-Dichlorobenzidine | 20. | U | |
| 56-55-3 | Benzo(a)anthracene | 20. | U | |
| 218-01-9 | Chrysene | 20. | U | |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | 30. | B | U |
| 117-84-0 | Di-n-octylphthalate | 20. | U | |
| 205-99-2 | Benzo(b)fluoranthene | 20. | U | |
| 207-08-9 | Benzo(k)fluoranthene | 20. | U | |
| 50-32-8 | Benzo(a)pyrene | 20. | U | |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 20. | U | |
| 53-70-3 | Dibenz(a,h)anthracene | 20. | U | |
| 191-24-2 | Benzo(g,h,i)perylene | 20. | U | |

(1) - Cannot be separated from diphenylamine

# SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
## TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

ERW19

Lab Name: McCoy and McCoy Labs, Inc  Contract: 68D10081

Lab Code: MCCOY  Case No.: 18642  SAS No.:  SDG No.: ERW07

Matrix: (soil/water) WATER  Lab Sample ID: 92-08-471-09

Sample wt/vol: 1000.0 (g/mL) ML  Lab File ID: D1241

Level: (low/med) LOW  Date Received: 08/20/92

% Moisture: _____ decanted: (Y/N)___  Date Extracted: 08/24/92

Concentrated Extract Volume: 1000.0 (uL)  Date Analyzed: 08/27/92

Injection Volume: 1.0 (uL)  Dilution Factor: 1.0

GPC Cleanup: (Y/N) N  pH: 6.8

Number TICs found: 6

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

| | CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q | |
|---|---|---|---|---|---|---|
| 1. | 464-07-3 | 2-Butanol, 3,3-dimethyl- (8C | 8.32 | 100. | J N | |
| 2. | 111-77-3 | Ethanol, 2-(2-methoxyethoxy) | 8.95 | 20. | BJ N | ✓ |
| 3. | 19686-73-8 | 2-Propanol, 1-bromo- (8CI9CI | 10.46 | 300. | BJ N | ✓ |
| 4. | 3587-64-2 | 2-Propanol, 1-methoxy-2-meth | 14.70 | 6. | J N | |
| 5. | 1638-16-0 | 2-Propanol, 1,1'-[(1-methyl- | 14.76 | 7. | J N | Rwa 9-28-9 |
| 6. | 67682-47-7 | 1,5-Heptadiene, 3,3-dimethyl | 31.61 | 7. | J N | |
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1D

# PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ERW19

Lab Name: McCoy and McCoy Labs, Inc  Contract: 68-D1-0081

Lab Code: McCOY  Case No.: 18642  SAS No.:  SDG No.: ERW07

Matrix: (soil/water) WATER  Lab Sample ID: 92-08-471-09A

Sample wt/vol: 1000.0 (g/mL) ML  Lab File ID: 02377

% Moisture: _____ decanted: (Y/N)___  Date Received: 08/20/92

Extraction: (SepF/Cont/Sonc) SONC  Date Extracted: 08/21/92

Concentrated Extract Volume: 5000.0 (uL)  Date Analyzed: 09/02/92

Injection Volume: 2.0 (uL)  Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y  pH: 6.8  Sulfur Cleanup: (Y/N) N

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 319-84-6 | alpha-BHC | .050 | U |
| 319-85-7 | beta-BHC | .050 | U |
| 319-86-8 | delta-BHC | .018 | J P |
| 58-89-9 | gamma-BHC | .050 | U |
| 76-44-8 | Heptachlor | .050 | U |
| 309-00-2 | Aldrin | .050 | U |
| 1024-57-3 | Heptachlor epoxide | .050 | U |
| 959-98-8 | Endosulfan I | .050 | U |
| 60-57-1 | Dieldrin | .10 | U |
| 72-55-9 | 4,4'-DDE | .10 | U |
| 72-20-8 | Endrin | .10 | U |
| 33213-65-9 | Endosulfan II | .10 | U |
| 72-54-8 | 4,4'-DDD | .10 | U |
| 1031-07-8 | Endosulfan Sulfate | .10 | U |
| 50-29-3 | 4,4'-DDT | .10 | U |
| 72-43-5 | Methoxychlor | .50 | U |
| 53494-70-5 | Endrin ketone | .10 | U |
| 7421-93-4 | Endrin aldehyde | .10 | U |
| 5103-71-9 | alpha-Chlordane | .050 | U |
| 5103-74-2 | gamma-Chlordane | .050 | U |
| 8001-35-2 | Toxaphene | 5.0 | U |
| 12674-11-2 | Aroclor-1016 | 1.0 | U |
| 11104-28-2 | Aroclor-1221 | 2.0 | U |
| 11141-16-5 | Aroclor-1232 | 1.0 | U |
| 53469-21-9 | Aroclor-1242 | 1.0 | U |
| 12672-29-6 | Aroclor-1248 | 1.0 | U |
| 11097-69-1 | Aroclor-1254 | 1.0 | U |
| 11096-82-5 | Aroclor-1260 | 1.0 | U |

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MERP17

Lab Name: KEYSTONE ENVIRONMENTAL Contract: 68-D0-0148

Lab Code: KEYPA Case No.: 16642 SAS No.: SDG No.: MERP07

Matrix (soil/water): WATER Lab Sample ID: MERP17

Level (low/med): LOW Date Received: 08/20/92

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): ug/L

| CAS No. | Analyte | Concentration | C | Q | M |
|---|---|---|---|---|---|
| 7429-90-5 | Aluminum | 40.70 | B | | P |
| 7440-36-0 | Antimony | 11.00 | U | | P |
| 7440-38-2 | Arsenic | 3.00 | U | | F |
| 7440-39-3 | Barium | 181.00 | B | | P |
| 7440-41-7 | Beryllium | 1.00 | U | | P |
| 7440-43-9 | Cadmium | 2.00 | U | | P |
| 7440-70-2 | Calcium | 111000.00 | | | P |
| 7440-47-3 | Chromium | 14.20 | | J | P |
| 7440-48-4 | Cobalt | 2.00 | U | | P |
| 7440-50-8 | Copper | 9.20 | B | J | P |
| 7439-89-6 | Iron | 647.00 | | | P |
| 7439-92-1 | Lead | 1.00 | U | W J | F |
| 7439-95-4 | Magnesium | 38700.00 | | | P |
| 7439-96-5 | Manganese | 31.40 | | | P |
| 7439-97-6 | Mercury | 0.20 | U | | CV |
| 7439-02-0 | Nickel | 8.80 | B | * J | P |
| 7440-09-7 | Potassium | 1620.00 | B | | P |
| 7782-49-2 | Selenium | 1.60 | B | | F |
| 7440-22-4 | Silver | 1.00 | U | | P |
| 7440-23-5 | Sodium | 19100.00 | | | P |
| 7440-28-0 | Thallium | 1.00 | U | | F |
| 7440-62-2 | Vanadium | 2.00 | U | | P |
| 7440-66-6 | Zinc | 9.60 | B | * J | P |
| | Cyanide | 30.00 | | | AS |

PDC 1116192

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

ERW23

Lab Name: S-CUBED Contract: 68-D9-0135
Lab Code: S3 Case No.: 18642/SAS 6702HQ.: 6702HQ SDG No.: 3226
Matrix: (soil/water) WATER Lab Sample ID: 3230-02
Sample wt/vol: 25.00 (g/ml) ML Lab File ID: ERW23
Level: (low/med) LOW Date Received: 8/19/92
%Moisture: not dec. 100.00 Date Analyzed: 8/23/92
GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.00
Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 74-87-3 | Chloromethane | 2 | U |
| 74-83-9 | Bromomethane | 1 | U |
| 75-01-4 | Vinyl Chloride | 26 | E |
| 75-00-3 | Chloroethane | 1 | U |
| 75-09-2 | Methylene Chloride | 2 | B |
| 67-64-1 | Acetone | 5 | U |
| 75-15-0 | Carbon Disulfide | 1 | U |
| 75-35-4 | 1,1-Dichloroethene | 0.3 | J |
| 75-34-3 | 1,1-Dichloroethane | 1 | |
| 156-59-4 | cis-1,2-Dichloroethene | 2 | |
| 156-60-5 | trans-1,2-Dichloroethene | 130 | E |
| 67-66-3 | Chloroform | 1 | U |
| 107-06-2 | 1,2-Dichloroethane | 3 | U |
| 78-93-3 | 2-Butanone | 5 | U |
| 74-97-5 | Bromochloromethane | 1 | U |
| 71-55-6 | 1,1,1-Trichloroethane | 1 | U |
| 56-23-5 | Carbon Tetrachloride | 1 | U |
| 75-27-4 | Bromodichloromethane | 1 | U |
| 78-87-5 | 1,2-Dichloropropane | 1 | U |
| 10061-01-5 | cis-1,3-Dichloropropene | 1 | U |
| 79-01-6 | Trichloroethene | 5 | |
| 124-48-1 | Dibromochloromethane | 1 | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 1 | U |
| 79-00-5 | 1,1,2-Trichloroethane | 1 | U |
| 71-43-2 | Benzene | 1 | U |
| 10061-02-6 | trans-1,3-Dichloropropene | 1 | U |
| 75-25-2 | Bromoform | 1 | U |
| 108-10-1 | 4-Methyl-2-pentanone | 5 | U |
| 591-78-6 | 2-Hexanone | 5 | U |
| 127-18-4 | Tetrachloroethene | 1 | U |
| 106-93-4 | 1,2-Dibromoethane | 1 | U |
| 108-88-3 | Toluene | 0.6 | J U |
| 108-90-7 | Chlorobenzene | 1 | U |
| 100-41-4 | Ethyl Benzene | 1 | U |

ADC 11/9/92

B 0 MK 9-23-92

ADC 11/9/92

ADC 11/9/92

1A

# VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ERW23

Lab Name: S-CUBED Contract: 68-D9-0135
Lab Code: S3 Case No.: 18642/SAS 6702HQ.: 6702HQ SDG No.: 3226
Matrix: (soil/water) WATER Lab Sample ID: 3230-02
Sample wt/vol: 25.00 (g/ml) ML Lab File ID: ERW23
Level: (low/med) LOW Date Received: 8/19/92
%Moisture: not dec. 100.00 Date Analyzed: 8/23/92
GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.00
Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 100-42-5 | Styrene | 1 | U |
| 1330-20-7 | Xylene (total) | 1 | U |
| 541-73-1 | 1,3-Dichlcrobenzene | 1 | U |
| 106-46-7 | 1,4-Dichlorobenzene | 1 | U |
| 95-50-1 | 1,2-Dichlorobenzene | 1 | U |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | 1 | U |

Environmental Protection Agency. CLP Sample Management Office.
P. O. Box 818. Alexandria, Virginia 22313 703/557-2490

Sample Number
ERW23

# Organics Analysis Data Sheet
(Page 4)

## Tentatively Identified Compounds

| | CAS Number | Compound Name | Fraction | RT or Scan Number | Estimated Concentration (ug/l or ug/kg) |
|---|---|---|---|---|---|
| 1. | 0054-05-9 | CYCLOTRISILOXANE, HEXAMETHYL- | VOA | 15.07 | 4JBNV |
| 2. | 0056-67-2 | CYCLOTETRASILOXANE, OCTAMETHYL- | " | 20.57 | 3JBNV |
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1A

# VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ERW23DL

Lab Name: S-CUBED Contract: 68-D9-0135
Lab Code: S3 Case No.: 18642/SAS 6702HQ.: 6702HQ SDG No.: 3226
Matrix: (soil/water) WATER Lab Sample ID: 3230-02DL
Sample wt/vol: 25.00(g/ml) ML Lab File ID: DLW23
Level: (low/med) LOW Date Received: 8/19/92
%Moisture: not dec. 100.00 Date Analyzed: 8/24/92
GC Column: CAP ID: 0.53 (mm) Dilution Factor: 10.00
Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 74-87-3 | Chloromethane | 10 | U |
| 74-83-9 | Bromomethane | 10 | U |
| 75-01-4 | Vinyl Chloride | 22 | D |
| 75-00-3 | Chloroethane | 10 | U |
| 75-09-2 | Methylene Chloride | 18 | JD U |
| 67-64-1 | Acetone | 13 | JD U |
| 75-15-0 | Carbon Disulfide | 10 | U |
| 75-35-4 | 1,1-Dichloroethene | 10 | U |
| 75-34-3 | 1,1-Dichloroethane | 10 | U |
| 156-59-4 | cis-1,2-Dichloroethene | 10 | U |
| 156-60-5 | trans-1,2-Dichloroethene | 100 | D |
| 67-66-3 | Chloroform | 10 | U |
| 107-06-2 | 1,2-Dichloroethane | 4 | JD |
| 78-93-3 | 2-Butanone | 50 | U |
| 74-97-5 | Bromochloromethane | 10 | U |
| 71-55-6 | 1,1,1-Trichloroethane | 10 | U |
| 56-23-5 | Carbon Tetrachloride | 10 | U |
| 75-27-4 | Bromodichloromethane | 10 | U |
| 78-87-5 | 1,2-Dichloropropane | 10 | U |
| 10061-01-5 | cis-1,3-Dichloropropene | 10 | U |
| 79-01-6 | Trichloroethene | 4 | JD |
| 124-48-1 | Dibromochloromethane | 10 | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 10 | U |
| 79-00-5 | 1,1,2-Trichloroethane | 10 | U |
| 71-43-2 | Benzene | 10 | U |
| 10061-02-6 | trans-1,3-Dichloropropene | 10 | U |
| 75-25-2 | Bromoform | 10 | U |
| 108-10-1 | 4-Methyl-2-pentanone | 50 | U |
| 591-78-6 | 2-Hexanone | 50 | U |
| 127-18-4 | Tetrachloroethene | 10 | U |
| 106-93-4 | 1,2-Dibromoethane | 10 | U |
| 108-88-3 | Toluene | 10 | U |
| 108-90-7 | Chlorobenzene | 10 | U |
| 100-41-4 | Ethyl Benzene | 10 | U |

PDC 11/9/92

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ERW23DL

Lab Name: S-CUBED Contract: 68-D9-0135
Lab Code: S3 Case No.: 18642/SAS 6702HQ.: 6702HQ SDG No.: 3226
Matrix: (soil/water) WATER Lab Sample ID: 3230-02DL
Sample wt/vol: 25.00(g/ml) ML Lab File ID: DLW23
Level: (low/med) LOW Date Received: 8/19/92
%Moisture: not dec. 100.00 Date Analyzed: 8/24/92
GC Column: CAP ID: 0.53 (mm) Dilution Factor: 10.00
Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 100-42-5 | Styrene | 10 | U |
| 1330-20-7 | Xylene (total) | 10 | U |
| 541-73-1 | 1,3-Dichlorobenzene | 10 | U |
| 106-46-7 | 1,4-Dichlorobenzene | 10 | U |
| 95-50-1 | 1,2-Dichlorobenzene | 10 | U |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | 10 | U |

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Sample Number
ERW23BL

# Organics Analysis Data Sheet
(Page 4)

## Tentatively Identified Compounds

| | CAS Number | Compound Name | Fraction | RT or Scan Number | Estimated Concentration (ug/l or ug/kg) |
|---|---|---|---|---|---|
| 1 | 0054-05-9 | CYCLOTRISILOXANE, HEXAMETHYL- | VOA | 15.10 | 42 JBN |
| 2 | 0056-67-2 | CYCLOTETRASILOXANE, OCTAMETHYL- | " | 20.55 | 27 JBN |
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1B

# SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ERW23

Lab Name: S-CUBED Contract: 68-D9-0135
Lab Code: S3 Case No.: 18642 SAS No.: 6702HQ SDG No.: 3226
Matrix: (soil/water) WATER Lab Sample ID: 3230-02
Sample wt/vol: 1000 (g/ml) ML Lab File ID: ERW23
Level: (low/med) LOW Date Received: 8/19/92
%Moisture: 100.00 decanted: (Y/N) N Date Extracted: 8/20/92
Concentrated Extract Volume: 1000.00 (uL) Date Analyzed: 8/25/92
Injection Volume: 1.00 (u/L) Dilution Factor: 1.00
GPC Cleanup: (Y/N) N pH: 0.00

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 108-95-2 | Phenol | 5 | U |
| 111-44-4 | bis(2-Chloroethyl)ether | 5 | U |
| 95-57-8 | 2-Chlorophenol | 5 | U |
| 95-48-7 | 2-Methylphenol | 5 | U |
| 108-60-1 | 2,2'-oxybis(1-Chloropropane) | 5 | U |
| 106-44-5 | 4-Methylphenol | 5 | U |
| 621-64-7 | N-Nitroso-di-n-propylamine | 5 | U |
| 67-72-1 | Hexachloroethane | 5 | U |
| 98-95-3 | Nitrobenzene | 5 | U |
| 78-59-1 | Isophorone | 5 | U |
| 88-75-5 | 2-Nitrophenol | 5 | U |
| 105-67-9 | 2,4-Dimethylphenol | 5 | U |
| 111-91-1 | bis(2-Chloroethoxy)methane | 5 | U |
| 120-83-2 | 2,4-Dichlorophenol | 5 | U |
| 120-82-1 | 1,2,4-Trichlorobenzene | 5 | U |
| 91-20-3 | Naphthalene | 5 | U |
| 106-47-8 | 4-Chloroaniline | 5 | U |
| 87-68-3 | Hexachlorobutadiene | 5 | U |
| 59-50-7 | 4-Chloro-3-methylphenol | 5 | U |
| 91-57-6 | 2-Methylnaphthalene | 5 | U |
| 77-47-4 | Hexachlorocyclopentadiene | 5 | U |
| 88-06-2 | 2,4,6-Trichlorophenol | 5 | U |
| 95-95-4 | 2,4,5-Trichlorophenol | 20 | U |
| 91-58-7 | 2-Chloronaphthalene | 5 | U |
| 88-74-4 | 2-Nitroaniline | 20 | U |
| 131-11-3 | Dimethylphthalate | 5 | U |
| 208-96-8 | Acenaphthylene | 5 | U |
| 606-20-2 | 2,6-Dinitrotoluene | 5 | U |
| 99-09-2 | 3-Nitroaniline | 20 | U |
| 83-32-9 | Acenaphthene | 5 | U |
| 51-28-5 | 2,4-Dinitrophenol | 20 | U |
| 100-02-7 | 4-Nitrophenol | 20 | U |
| 132-64-9 | Dibenzofuran | 5 | U |

1C

# SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ERW23

Lab Name: S-CUBED Contract: 68-D9-0135
Lab Code: S3 Case No.: 18642 SAS No.: 6702HQ SDG No.: 3226
Matrix: (soil/water) WATER Lab Sample ID: 3230-02
Sample wt/vol: 1000 (g/ml) ML Lab File ID: ERW23
Level: (low/med) LOW Date Received: 8/19/92
%Moisture: 100.00 decanted: (Y/N) N Date Extracted: 8/20/92
Concentrated Extract Volume: 1000.00 (uL) Date Analyzed: 8/25/92
Injection Volume: 1.00 (u/L) Dilution Factor: 1.00
GPC Cleanup: (Y/N) N pH: 0.00

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q | |
|---|---|---|---|---|
| 121-14-2 | 2,4-Dinitrotoluene | 5 | U J | PDC 11/9/92 |
| 84-66-2 | Diethylphthalate | 5 | U | |
| 7005-72-3 | 4-Chlorophenyl-phenyl ether | 5 | U | |
| 86-73-7 | Fluorene | 5 | U | |
| 100-01-6 | 4-Nitroaniline | 20 | U | |
| 534-52-1 | 4,6-Dinitro-2-methylphenol | 20 | U | |
| 86-30-6 | N-Nitrosodiphenylamine (1) | 5 | U | |
| 101-55-3 | 4-Bromophenyl-phenylether | 5 | U | |
| 118-74-1 | Hexachlorobenzene | 5 | U | |
| 87-86-5 | Pentachlorophenol | 20 | U | |
| 85-01-8 | Phenanthrene | 5 | U | |
| 120-12-7 | Anthracene | 5 | U | |
| 84-74-2 | Di-n-butylphthalate | 5 | U | |
| 206-44-0 | Fluoranthene | 5 | U | |
| 129-00-0 | Pyrene | 5 | U | |
| 85-68-7 | Butylbenzylphthalate | 5 | U | |
| 91-94-1 | 3,3'-Dichlorobenzidine | 5 | U | |
| 56-55-3 | Benzo(a)anthracene | 5 | U | |
| 218-01-9 | Chrysene | 5 | U | |
| 117-81-7 | Bis(2-Ethylhexyl)phthalate | 5 | U | |
| 117-84-0 | Di-n-octylphthalate | 5 | U | |
| 205-99-2 | Benzo(b)fluoranthene | 5 | U | |
| 207-08-9 | Benzo(k)fluoranthene | 5 | U R | PDC 11/9/92 |
| 50-32-8 | Benzo(a)pyrene | 5 | U | |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 5 | U | |
| 53-70-3 | Dibenz(a,h)anthracene | 5 | U | |
| 191-24-2 | Benzo(g,h,i)perylene | 5 | U | |

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Sample Number
ERN23

# Organics Analysis Data Sheet
(Page 4)

## Tentatively Identified Compounds

| | CAS Number | Compound Name | Fraction | RT or Scan Number | Estimated Concentration (ug/l or ug/kg) |
|---|---|---|---|---|---|
| 1. | | NO TIC'S FOUND | BNA | | |
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1D

# PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ERW23

Lab Name: S-CUBED Contract: 68-D9-0135
Lab Code: S3 Case No.: 18642 SAS No.: 6702HQ SDG No.: 3226
Matrix: (soil/water) WATER Lab Sample ID: 3230-02
Sample wt/vol: 1000 (g/ml) ML Lab File ID: R0819-9DB608149
%Moisture: 100.00 decanted: (Y/N) N Date Received: 8/19/92
Extraction: (SepF/Cont/Sonc) CONT Date Extracted: 8/20/92
Concentrated Extract Volume: 2000 (uL) Date Analyzed: 8-26-92
Injection Volume: 1.00 (uL) Dilution Factor: 1.00
GPC Cleanup: (Y/N) N pH: 0.00 Sulfur Cleanup: (Y/N) N

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 319-84-6 | alpha-BHC | 0.010 | U |
| 319-85-7 | beta-BHC | 0.010 | U |
| 319-86-8 | delta-BHC | 0.010 | U |
| 58-89-9 | gamma-BHC (Lindane) | 0.010 | U |
| 76-44-8 | Heptachlor | 0.010 | U |
| 309-00-2 | Aldrin | 0.010 | U |
| 1024-57-3 | Heptachlor epoxide | 0.010 | U |
| 959-98-8 | Endosulfan I | 0.010 | U |
| 60-57-1 | Dieldrin | 0.020 | U |
| 72-55-9 | 4,4'-DDE | 0.020 | U |
| 72-20-8 | Endrin | 0.020 | U |
| 33213-65-9 | Endosulfan II | 0.020 | U |
| 72-54-8 | 4,4'-DDD | 0.020 | U |
| 1031-07-8 | Endosulfan sulfate | 0.020 | U |
| 50-29-3 | 4,4'-DDT | 0.020 | U |
| 72-43-5 | Methoxychlor | 0.100 | U |
| 53494-70-5 | Endrin ketone | 0.020 | U |
| 7421-36-3 | Endrin Aldehyde | 0.020 | U |
| 5103-71-9 | alpha-Chlordane | 0.010 | U |
| 5103-74-2 | gamma-Chlordane | 0.010 | U |
| 8001-35-2 | Toxaphene | 1.00 | U |
| 12674-11-2 | Aroclor-1016 | 0.200 | U |
| 11104-28-2 | Aroclor-1221 | 0.200 | U |
| 11141-16-5 | Aroclor-1232 | 0.400 | U |
| 53469-21-9 | Aroclor-1242 | 0.200 | U |
| 12672-29-6 | Aroclor-1248 | 0.200 | U |
| 11097-69-1 | Aroclor-1254 | 0.200 | U |
| 11096-82-5 | Aroclor-1260 | 0.200 | U |

2

ENVIROFORMS/INORGANIC CLP

SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

MERP20

Lab Name: ETS Analytical Services Contract: 68-D2-0048

Lab Code: ETS Case No.: 18642 SAS No.: SDG No.: MERP20

Matrix (soil/water): WATER Lab Sample ID: 128423

Level (low/med): LOW Date Received: 08/19/92

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

| CAS No. | Analyte | Concentration | C | Q | M |
|---|---|---|---|---|---|
| 7429-90-5 | Aluminum | 35.1 | B | J | P |
| 7440-36-0 | Antimony | 51.0 | U | | P |
| 7440-38-2 | Arsenic | 7.1 | | | F |
| 7440-39-3 | Barium | 222 | | | P |
| 7440-41-7 | Beryllium | 1.0 | U | | P |
| 7440-43-9 | Cadmium | 0.10 | U | | F |
| 7440-70-2 | Calcium | 96300 | | | P |
| 7440-47-3 | Chromium | 9.0 | U | | P |
| 7440-48-4 | Cobalt | 10.0 | U | | P |
| 7440-50-8 | Copper | 12.6 | | | P |
| 7439-89-6 | Iron | 6020 | | N | P |
| 7439-92-1 | Lead | 1.0 | U | | F |
| 7439-95-4 | Magnesium | 39200 | | | P |
| 7439-96-5 | Manganese | 635 | | | P |
| 7439-97-6 | Mercury | 0.20 | U | | CV |
| 7440-02-0 | Nickel | 13.0 | U | | P |
| 7440-09-7 | Potassium | 3260 | | | P |
| 7782-49-2 | Selenium | 2.0 | U | * | F |
| 7440-22-4 | Silver | 3.0 | U | | P |
| 7440-23-5 | Sodium | 29400 | | | P |
| 7440-28-0 | Thallium | 1.0 | U | | F |
| 7440-62-2 | Vanadium | 9.0 | U | | P |
| 7440-66-6 | Zinc | 42.9 | | | P |
| | Cyanide | 10.0 | U | | C |

MF 9/28/92

PDC 11/6/92

Color Before: COLORLESS Clarity Before: CLEAR Texture:

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Comments:

1A

# VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ERW25

Lab Name: S-CUBED Contract: 68-D9-0135
Lab Code: S3 Case No.: 18642/SAS 6702HQ.: 6702HQ SDG No.: 3226
Matrix: (soil/water) WATER Lab Sample ID: 3230-04
Sample wt/vol: 25.00 g/ml) ML Lab File ID: ERW25
Level: (low/med) LOW Date Received: 8/19/92
%Moisture: not dec. 100.00 Date Analyzed: 8/24/92
GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.00
Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 74-87-3 | Chloromethane | 1 | U |
| 74-83-9 | Bromomethane | 1 | U |
| 75-01-4 | Vinyl Chloride | 26 | E |
| 75-00-3 | Chloroethane | 1 | U |
| 75-09-2 | Methylene Chloride | 1 ~~0.8~~ | JBU PDC 9-23-92 |
| 67-64-1 | Acetone | 5 | U |
| 75-15-0 | Carbon Disulfide | 1 | U |
| 75-35-4 | 1,1-Dichloroethene | 0.3 | J |
| 75-34-3 | 1,1-Dichloroethane | 1 | |
| 156-59-4 | cis-1,2-Dichloroethene | 2 | |
| 156-60-5 | trans-1,2-Dichloroethene | 140 | E |
| 67-66-3 | Chloroform | 1 | U |
| 107-06-2 | 1,2-Dichloroethane | 2 | U |
| 78-93-3 | 2-Butanone | 5 | U |
| 74-97-5 | Bromochloromethane | 1 | U |
| 71-55-6 | 1,1,1-Trichloroethane | 0.3 | J |
| 56-23-5 | Carbon Tetrachloride | 1 | U |
| 75-27-4 | Bromodichloromethane | 1 | U |
| 78-87-5 | 1,2-Dichloropropane | 1 | U |
| 10061-01-5 | cis-1,3-Dichloropropene | 1 | U |
| 79-01-6 | Trichloroethene | 5 | |
| 124-48-1 | Dibromochloromethane | 1 | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 1 | U |
| 79-00-5 | 1,1,2-Trichloroethane | 1 | U |
| 71-43-2 | Benzene | 1 | U |
| 10061-02-6 | trans-1,3-Dichloropropene | 1 | U |
| 75-25-2 | Bromoform | 1 | U |
| 108-10-1 | 4-Methyl-2-pentanone | 5 | U |
| 591-78-6 | 2-Hexanone | 5 | U |
| 127-18-4 | Tetrachloroethene | 1 | U |
| 106-93-4 | 1,2-Dibromoethane | 1 | U |
| 108-88-3 | Toluene | 0.5 | JU PDC 11/19/92 |
| 108-90-7 | Chlorobenzene | 1 | U |
| 100-41-4 | Ethyl Benzene | 1 | U |

PDC 11/9/92

1A

# VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ERW25

Lab Name: S-CUBED Contract: 68-D9-0135
Lab Code: S3 Case No.: 18642/SAS 6702HQ.: 6702HQ SDG No.: 3226
Matrix: (soil/water) WATER Lab Sample ID: 3230-04
Sample wt/vol: 25.00 g/ml) ML Lab File ID: ERW25
Level: (low/med) LOW Date Received: 8/19/92
%Moisture: not dec. 100.00 Date Analyzed: 8/24/92
GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.00
Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 100-42-5 | Styrene | 1 | U |
| 1330-20-7 | Xylene (total) | 1 | U |
| 541-73-1 | 1,3-Dichlorobenzene | 1 | U |
| 106-46-7 | 1,4-Dichlorobenzene | 1 | U |
| 95-50-1 | 1,2-Dichlorobenzene | 1 | U |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | 1 | U |

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Sample Number
ERW25

# Organics Analysis Data Sheet
(Page 4)

## Tentatively Identified Compounds

| | CAS Number | Compound Name | Fraction | RT or Scan Number | Estimated Concentration (ug/l or ug/kg) |
|---|---|---|---|---|---|
| 1 | 00541-05-9 | CYCLOTRISILOXANE, HEXAMETHYL- | VOA | 15.10 | 4JBNU |
| 2 | 00556-67-2 | CYCLOTETRASILOXANE, OCTAMETHYL- | " | 20.55 | 3JBNU |
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# VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ERW25DL

Lab Name: S-CUBED Contract: 68-D9-0135
Lab Code: S3 Case No.: 18642/SAS 6702HQ.: 6702HQ SDG No.: 3226
Matrix: (soil/water) WATER Lab Sample ID: 3230-04DL
Sample wt/vol: 25.00 (g/ml) ML Lab File ID: DLW25
Level: (low/med) LOW Date Received: 8/19/92
%Moisture: not dec. 100.00 Date Analyzed: 8/24/92
GC Column: CAP ID: 0.53 (mm) Dilution Factor: 10.00
Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q | |
|---|---|---|---|---|
| 74-87-3 | Chloromethane | 10 | U | |
| 74-83-9 | Bromomethane | 10 | U | |
| 75-01-4 | Vinyl Chloride | 23 | D | |
| 75-00-3 | Chloroethane | 10 | U | |
| 75-09-2 | Methylene Chloride | 9 | JDU | PDC 11/19/92 |
| 67-64-1 | Acetone | 50 | U | |
| 75-15-0 | Carbon Disulfide | 10 | U | |
| 75-35-4 | 1,1-Dichloroethene | 10 | U | |
| 75-34-3 | 1,1-Dichloroethane | 10 | U | |
| 156-59-4 | cis-1,2-Dichloroethene | 10 | U | |
| 156-60-5 | trans-1,2-Dichloroethene | 110 | D | |
| 67-66-3 | Chloroform | 10 | U | |
| 107-06-2 | 1,2-Dichloroethane | 4 | JDU | PDC 11/19/92 |
| 78-93-3 | 2-Butanone | 50 | U | |
| 74-97-5 | Bromochloromethane | 10 | U | |
| 71-55-6 | 1,1,1-Trichloroethane | 10 | U | |
| 56-23-5 | Carbon Tetrachloride | 10 | U | |
| 75-27-4 | Bromodichloromethane | 10 | U | |
| 78-87-5 | 1,2-Dichloropropane | 10 | U | |
| 10061-01-5 | cis-1,3-Dichloropropene | 10 | U | |
| 79-01-6 | Trichloroethene | 4 | JD | |
| 124-48-1 | Dibromochloromethane | 10 | U | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 10 | U | |
| 79-00-5 | 1,1,2-Trichloroethane | 10 | U | |
| 71-43-2 | Benzene | 10 | U | |
| 10061-02-6 | trans-1,3-Dichloropropene | 10 | U | |
| 75-25-2 | Bromoform | 10 | U | |
| 108-10-1 | 4-Methyl-2-pentanone | 50 | U | |
| 591-78-6 | 2-Hexanone | 50 | U | |
| 127-18-4 | Tetrachloroethene | 10 | U | |
| 106-93-4 | 1,2-Dibromoethane | 10 | U | |
| 108-88-3 | Toluene | 10 | U | |
| 108-90-7 | Chlorobenzene | 10 | U | |
| 100-41-4 | Ethyl Benzene | 10 | U | |

1A

# VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ERW25DL

Lab Name: S-CUBED Contract: 68-D9-0135
Lab Code: S3 Case No.: 18642/SAS 6702HQ.: 6702HQ SDG No.: 3226
Matrix: (soil/water) WATER Lab Sample ID: 3230-04DL
Sample wt/vol: 25.00(g/ml) ML Lab File ID: DLW25
Level: (low/med) LOW Date Received: 8/19/92
%Moisture: not dec. 100.00 Date Analyzed: 8/24/92
GC Column: CAP ID: 0.53 (mm) Dilution Factor: 10.00
Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 100-42-5 | Styrene | 10 | U |
| 1330-20-7 | Xylene (total) | 10 | U |
| 541-73-1 | 1,3-Dichlorobenzene | 10 | U |
| 106-46-7 | 1,4-Dichlorobenzene | 10 | U |
| 95-50-1 | 1,2-Dichlorobenzene | 10 | U |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | 10 | U |

Environmental Protection Agency. CLP Sample Management Office.
P. O. Box 818, Alexandria, Virginia 22313 703/557-2490

Sample Number
ERW 25 DL

# Organics Analysis Data Sheet
(Page 4)

## Tentatively Identified Compounds

| | CAS Number | Compound Name | Fraction | RT or Scan Number | Estimated Concentration (ug/l or ug/kg) |
|---|---|---|---|---|---|
| 1 | 00541-05-9 | CYCLOTRISILOXANE, HEXAMETHYL- | VOA | 15.11 | 32 JBN |
| 2 | 00556-67-2 | CYCLOTETRASILOXANE, OCTAMETHYL- | " | 20.55 | 29 JBN |
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1B

EPA SAMPLE NO.

ERW25

# SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: S-CUBED Contract: 68-D9-0135
Lab Code: S3 Case No.: 18642 SAS No.: 6702HQ SDG No.: 3226
Matrix: (soil/water) WATER Lab Sample ID: 3230-04
Sample wt/vol: 1000 (g/ml) ML Lab File ID: ERW25
Level: (low/med) LOW Date Received: 8/19/92
%Moisture: 100.00 decanted: (Y/N) N Date Extracted: 8/20/92
Concentrated Extract Volume:1000.00 (uL) Date Analyzed: 8/25/92
Injection Volume: 1.00 (u/L) Dilution Factor: 1.00
GPC Cleanup: (Y/N) N pH: 0.00

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 108-95-2 | Phenol | 5 | U |
| 111-44-4 | bis(2-Chloroethyl)ether | 5 | U |
| 95-57-8 | 2-Chlorophenol | 5 | U |
| 95-48-7 | 2-Methylphenol | 5 | U |
| 108-60-1 | 2,2'-oxybis(1-Chloropropane) | 5 | U |
| 106-44-5 | 4-Methylphenol | 5 | U |
| 621-64-7 | N-Nitroso-di-n-propylamine | 5 | U |
| 67-72-1 | Hexachloroethane | 5 | U |
| 98-95-3 | Nitrobenzene | 5 | U |
| 78-59-1 | Isophorone | 5 | U |
| 88-75-5 | 2-Nitrophenol | 5 | U |
| 105-67-9 | 2,4-Dimethylphenol | 5 | U |
| 111-91-1 | bis(2-Chloroethoxy)methane | 5 | U |
| 120-83-2 | 2,4-Dichlorophenol | 5 | U |
| 120-82-1 | 1,2,4-Trichlorobenzene | 5 | U |
| 91-20-3 | Naphthalene | 5 | U |
| 106-47-8 | 4-Chloroaniline | 5 | U |
| 87-68-3 | Hexachlorobutadiene | 5 | U |
| 59-50-7 | 4-Chloro-3-methylphenol | 5 | U |
| 91-57-6 | 2-Methylnaphthalene | 5 | U |
| 77-47-4 | Hexachlorocyclopentadiene | 5 | U |
| 88-06-2 | 2,4,6-Trichlorophenol | 5 | U |
| 95-95-4 | 2,4,5-Trichlorophenol | 20 | U |
| 91-58-7 | 2-Chloronaphthalene | 5 | U |
| 88-74-4 | 2-Nitroaniline | 20 | U |
| 131-11-3 | Dimethylphthalate | 5 | U |
| 208-96-8 | Acenaphthylene | 5 | U |
| 606-20-2 | 2,6-Dinitrotoluene | 5 | U |
| 99-09-2 | 3-Nitroaniline | 20 | U |
| 83-32-9 | Acenaphthene | 5 | U |
| 51-28-5 | 2,4-Dinitrophenol | 20 | U |
| 100-02-7 | 4-Nitrophenol | 20 | U |
| 132-64-9 | Dibenzofuran | 5 | U |

1C

# SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ERW25

Lab Name: S-CUBED Contract: 68-D9-0135
Lab Code: S3 Case No.: 18642 SAS No.: 6702HQ SDG No.: 3226
Matrix: (soil/water) WATER Lab Sample ID: 3230-04
Sample wt/vol: 1000 (g/ml) ML Lab File ID: ERW25
Level: (low/med) LOW Date Received: 8/19/92
%Moisture: 100.00 decanted: (Y/N) N Date Extracted: 8/20/92
Concentrated Extract Volume: 1000.00 (uL) Date Analyzed: 8/25/92
Injection Volume: 1.00 (u/L) Dilution Factor: 1.00
GPC Cleanup: (Y/N) N pH: 0.00

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

PDC 11/9/92



AE

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Sample Number
ERW25

# Organics Analysis Data Sheet
## (Page 4)

### Tentatively Identified Compounds

| | CAS Number | Compound Name | Fraction | RT or Scan Number | Estimated Concentration (ug/l or ug/kg) |
|---|---|---|---|---|---|
| 1. | | NO D'C'S FOUND | BNA | | |
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1D

# PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ERW25

Lab Name: S-CUBED Contract: 68-D9-0135
Lab Code: S3 Case No.: 18642 SAS No.: 6702HQ SDG No.: 3226
Matrix: (soil/water) WATER Lab Sample ID: 3230-04
Sample wt/vol: 1000 (g/ml) ML Lab File ID: R0819-9DB608151
%Moisture: 100.00 decanted: (Y/N) N Date Received: 8/19/92
Extraction: (SepF/Cont/Sonc) CONT Date Extracted: 8/20/92
Concentrated Extract Volume: 2000 (uL) Date Analyzed: 8-26-92
Injection Volume: 1.00 (uL) Dilution Factor: 1.00
GPC Cleanup: (Y/N) N pH: 0.00 Sulfur Cleanup: (Y/N) N

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 319-84-6 | alpha-BHC | 0.010 | U |
| 319-85-7 | beta-BHC | 0.010 | U |
| 319-86-8 | delta-BHC | 0.010 | U |
| 58-89-9 | gamma-BHC (Lindane) | 0.010 | U |
| 76-44-8 | Heptachlor | 0.010 | U |
| 309-00-2 | Aldrin | 0.010 | U |
| 1024-57-3 | Heptachlor epoxide | 0.010 | U |
| 959-98-8 | Endosulfan I | 0.010 | U |
| 60-57-1 | Dieldrin | 0.020 | U |
| 72-55-9 | 4,4'-DDE | 0.020 | U |
| 72-20-8 | Endrin | 0.020 | U |
| 33213-65-9 | Endosulfan II | 0.020 | U |
| 72-54-8 | 4,4'-DDD | 0.020 | U |
| 1031-07-8 | Endosulfan sulfate | 0.020 | U |
| 50-29-3 | 4,4'-DDT | 0.020 | U |
| 72-43-5 | Methoxychlor | 0.100 | U |
| 53494-70-5 | Endrin ketone | 0.020 | U |
| 7421-36-3 | Endrin Aldehyde | 0.020 | U |
| 5103-71-9 | alpha-Chlordane | 0.010 | U |
| 5103-74-2 | gamma-Chlordane | 0.010 | U |
| 8001-35-2 | Toxaphene | 1.00 | U |
| 12674-11-2 | Aroclor-1016 | 0.200 | U |
| 11104-28-2 | Aroclor-1221 | 0.200 | U |
| 11141-16-5 | Aroclor-1232 | 0.400 | U |
| 53469-21-9 | Aroclor-1242 | 0.200 | U |
| 12672-29-6 | Aroclor-1248 | 0.200 | U |
| 11097-69-1 | Aroclor-1254 | 0.200 | U |
| 11096-82-5 | Aroclor-1260 | 0.200 | U |

ENVIROFORMS/INORGANIC CLP

SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

MERP22

Lab Name: ETS Analytical Services Contract: 68-D2-0048

Lab Code: ETS Case No.: 18642 SAS No.: SDG No.: MERP20

Matrix (soil/water): WATER Lab Sample ID: 128425

Level (low/med): LOW Date Received: 08/19/92

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

| CAS No. | Analyte | Concentration | C | Q | M |
|---|---|---|---|---|---|
| 7429-90-5 | Aluminum | 41.0 | B | J | P |
| 7440-36-0 | Antimony | 51.0 | U | | P |
| 7440-38-2 | Arsenic | 6.3 | | | F |
| 7440-39-3 | Barium | 214 | | | P |
| 7440-41-7 | Beryllium | 1.0 | U | | P |
| 7440-43-9 | Cadmium | 0.10 | U | | F |
| 7440-70-2 | Calcium | 94100 | | | P |
| 7440-47-3 | Chromium | 9.0 | U | | P |
| 7440-48-4 | Cobalt | 10.0 | U | | P |
| 7440-50-8 | Copper | 10.4 | | | P |
| 7439-89-6 | Iron | 5940 | | ~~N~~ | P |
| 7439-92-1 | Lead | 1.0 | U | | F |
| 7439-95-4 | Magnesium | 38100 | | | P |
| 7439-96-5 | Manganese | 629 | | | P |
| 7439-97-6 | Mercury | 0.20 | U | | CV |
| 7440-02-0 | Nickel | 13.0 | U | | P |
| 7440-09-7 | Potassium | 3200 | | | P |
| 7782-49-2 | Selenium | 2.0 | U | * | F |
| 7440-22-4 | Silver | 3.0 | U | | P |
| 7440-23-5 | Sodium | 28900 | | | P |
| 7440-28-0 | Thallium | 1.0 | U | | F |
| 7440-62-2 | Vanadium | 9.0 | U | | P |
| 7440-66-6 | Zinc | 45.1 | | | P |
| | Cyanide | 10.0 | U | | C |

PDC 11/6/92

MF 9128/92

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

Not validated - qualifiers on other copy PDC 10/6/92



Doc. Contr. 4570-45 - AGBB-

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

DATE: 10/7/92

SUBJECT: Review of Region V CLP Data Received for Review on Sept 17, 1992

FROM: Charles T. Elly, Director(5SCRL) Central Regional Laboratory
Patrick J. Churilla for C.T. Elly

TO: Data User: Weston

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

SITE NAME: Sanyo (IN) SMO Case No. 18642

EPA Data Set No. _____ No. of Samples 9 DU/Activity Numbers ERW07

CRL No. _____

SMO Traffic No. ERW07-10 ERW17-21

CLP Laboratory: McCoy Hrs. for Review 14+2=16 wks

Following are our findings:

THE DATA ARE ACCEPTABLE WITH QUALIFICATIONS NOTED IN THE ATTACHED REVIEW - Patrick J. Churilla 10/7/92

( ) Data are acceptable for use.
(X) Data are acceptable for use with qualifications.
( ) Data are preliminary - pending verification by laboratory.
( ) Data are unacceptable.

cc: Elenor McLean, Sample Mgmt.Office
Edward Kantor, EMSL-Las Vegas

CONTRACTOR: SWRI CASE 18530

Nine (9) samples were submitted to McCoy Laboratories for volatile, semivolatile, and pesticide analysis. Samples ERW07 to ERW10 were analyzed as low concentration soils. Samples ERW17 to ERW21 were analyzed as low concentration waters.

Sample ERW18 was used for water matrix spike and matrix spike duplicate analysis. Sample ERW09 was used for soil matrix spike and matrix spike duplicate analysis. Samples ERW18 and ERW19 required dilution and reanalysis.

Sample ERW19 is a water field blank. Samples ERW20 and ERW21 are duplicate water samples. Samples ERW07 and ERW08 are duplicate soil samples.

This review is based upon the SOW OLM01.7.

Reviewed by: Robert W. Wenig
Date: September 25, 1992

**CONTRACTOR: McCOY** **CASE 18642**

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

**1. HOLDING TIMES:**

All sampling was performed on 8-18-92.

Volatile analysis was performed 8-21-92 and 8-22-92. The 14 day analysis limit was met for preserved volatile water samples.

Semivolatile and pesticide extractions were performed on 8-21-92 and 8-24-92 within the 7 day extraction holding time for waters and 14 day extraction holding time for soils. Semivolatile analysis was performed on 8-26-92 and 8-27-92 within the 40 day analysis holding time. Pesticide analysis was performed 9-02-92 within the 40 day analysis holding time.

Therefore, all holding time criteria were met.

**2. GC/MS TUNING AND GC PERFORMANCE:**

GC/MS tuning complied with the mass list and ion abundance criteria for BFB and DFTPP. Tuning was provided for each 12 hour period.

For pesticide analysis, the percent breakdown for 4,4'-DDT and endrin met the QC limits of 20% on the DB-5 and DB-1701 columns. The resolution of adjacent pesticide peaks met the acceptance criteria of 60% GC retention time windows for pesticides and PCBs were reported for both columns.

**3. CALIBRATION:**

Initial and continuing calibration outliers for volatile, semivolatile, and pesticide TCLs are included on the attached forms.

**4. METHOD BLANK:**

VBLK01 (analyzed 8-21-92) is the volatile water method blank. This blank was found to be free of TCL and TIC contamination. VBLK03 (analyzed 8-22-92) is the volatile soil method blank. This blank was found to contain acetone at 5 "J" µg/kg and no TICs. The presence of acetone in any of the samples is flagged as nondetect (U) when the sample result is less than (<) 10x the blank result (common contaminant).

**Reviewed by: Robert W. Wenig**
**Date: September 25, 1992**

**CONTRACTOR: McCOY CASE 18642**

SBLK01 (extracted 8-24-92) is the semivolatile soil blank and was found to contain 390 "J" µg/kg di-n-butylphthalate and no TIC compounds. The presence of di-n- butylphthalate in any of the samples is flagged as nondetect (U) when the sample result is less than (<) 10x the blank result (common contaminant).

SBLK02 is the semivolatile GPC blank to which no surrogates were added. Analysis was performed to determine if any contaminants were introduced during GPC cleanup. No TCLs or TICs were observed.

SBLK03 (extracted 8-24-92) is the semivolatile water blank and was found to contain 26 µg/kg di-n-butylphthalate, 20 µg/kg bis(2-ethylhexyl)phthalate and three TICs. The presence of phthalates in any of the samples is flagged as nondetect (U) when the sample result is less than (<) 10x the blank result (common contaminant). TICs (non-common contaminants) are qualified nondetect when the sample result is less than (<) 5x the blank result.

PBLK01 (extracted 8-24-92) is the pesticide soil blank and PBLK02 (extracted 8-21-92) is the pesticide water blank. Both blanks were found to contain endosulfan sulfate below the detection limit and no TICs.

**5. SURROGATE RECOVERY:**

Surrogate recoveries were acceptable for all volatile and semivolatile water and soil samples. (Surrogates were not added to the semivolatile soil GPC blank SBLK02; this is acceptable)

Pesticide surrogate recoveries were acceptable for all water samples. Pesticide soil surrogate recoveries were not acceptable for the following four samples: ERW07, ERW08, ERW09, ERW10. Samples ERW07, ERW09, and ERW10 with high recoveries are qualified with detected pesticide compounds as estimated "J". Sample ERW08 with a low recovery is qualified with positive results estimated "J" and nondetects with estimated quantitation limits "UJ".

**6. MATRIX SPIKE AND MATRIX SPIKE DUPLICATE ANALYSIS**

Sample ERW18 was used for volatile water MS and MSD analysis. All QC criteria were met, except for %REC of 1,1-dichloroethene and trichloroethene in the MS and MSD samples. Consequently, positive results are qualified as estimated "J" and nondetects are qualified with an estimated quantitation limit "UJ" for these compounds in the unspiked sample ERW18. Sample ERW09 was used for semivolatile soil MS and MSD analysis. All QC criteria were met.

Sample ERW18 was used for semivolatile water MS and MSD analysis. All QC criteria were met except for %REC of 4-nitrophenol. No results are qualified because the upper limit for %REC

**Reviewed by: Robert W. Wenig**
**Date: September 25, 1992**

was below 100% and the laboratory acheived recoveries of 87 to 100%. Sample ERW09 was used for semivolatile soil MS and MSD analysis. Sample ERW09MS with a single advisory surrogate out of QC limits low is not qualified. The %REC criteria failed for two compounds in the MS analysis and the %RPD criteria failed for all compounds. Consequently, positive results are qualified as estimated "J" and nondetects are qualified with an estimated quantitation limit "UJ" for all compounds in the unspiked sample ERW09.

Sample ERW18 was used for pesticide water MS and MSD analysis. All QC criteria were met except for %REC of $\gamma$-BHC. Consequently, positive results are qualified as estimated "J" and nondetects are qualified with an estimated quantitation limit "UJ" for this compound in the unspiked sample ERW18. Sample ERW09 was used for pesticide soil MS and MSD analysis. All QC criteria were met except for %REC of $\gamma$-BHC and 4,4'-DDT. Consequently, positive results are qualified as estimated "J" and nondetects are qualified with an estimated quantitation limit "UJ" for this compound in the unspiked sample ERW09.

**7. FIELD BLANK AND FIELD DUPLICATE:**

Sample ERW19 is a water field blank. Samples ERW20 and ERW21 are duplicate water samples. Samples ERW07 and ERW08 are duplicate soil samples.

Volatile field blank ERW19 was found to contain four TCL contaminants including trichloroethene at 1200 $\mu$g/L which exceeded the calibration range (Dilution and reanalysis was required). Semivolatile field blank ERW19 was found to contain no TCL compounds and four TIC compounds. Pesticide field blank ERW19 was found to contain the TCL contaminants delta-BHC below the quantitation limit.

Samples ERW20 and ERW21 are duplicate water samples. Both volatile samples did not contain TCL and TIC compounds. Semivolatile sample ERW20 contained no TCL compounds but did have five TIC compounds; duplicate ERW21 contained no TCL compounds but did have two TICs. Pesticide samples ERW20 and ERW21 both gave a positive result for endosulfan sulfate below the quantitation limit.

Samples ERW07 and ERW08 are duplicate soil samples. Volatile sample ERW07 was found to contain methylene chloride, chloroform, and trichloroethene below the quantitation limit. No TICs were observed. Duplicate sample ERW08 was found to contain methylene chloride, trichloroethene, and no TICs. Semivolatile sample ERW07 was found to contain ten TCL compounds and one TIC. Duplicate

semivolatile sample ERW08 was found to contain one TCL and no TICs. Pesticide samples ERW07 and ERW08 both contained endosulfan sulfate below the quantitation limit.

**8. INTERNAL STANDARDS:**

All volatile internal standard area counts and retention times met QC requirements.

All semivolatile internal standard area counts and retention times met QC requirements.

**9. COMPOUND QUANTITATION AND REPORTED DETECTION LIMITS:**

Upon review of the chromatograms, TCL and TIC quantitation is acceptable. However; the detection limits for semivolatile analysis are two to four times the contract required quantitation limits. This seems to be the result of using a 1 µL injection rather than 2 µL and concentration of the GPC samples to 1 mL not 0.5 mL.

**10. COMPOUND IDENTIFICATION :**

TCL compound identification was accurate. Many semivolatile TIC compounds were tentatively identified and can be classified as "glycol ether." Identification was acceptable.

**11. CASE SUMMARY**

WATER SAMPLES

| | SAMPLE | VOA TCL | VOA TIC | SVOA TCL | SVOA TIC | PEST TCL |
|---|---|---|---|---|---|---|
| | ERW17 | 0 | 0 | - | - | - |
| | ERW18 | 4 | 0 | 0 | 0 | 1 |
| * | ERW18DL | 2 | 0 | - | - | - |
| | ERW19 | 4 | 0 | 0 | 4 | 1 |
| ** | ERW19DL | 2 | 0 | - | - | - |
| | ERW20 | 0 | 0 | 0 | 5 | 1 |
| | ERW21 | 0 | 0 | 0 | 2 | 1 |

* The value of 1300 µg/L "D" for trichloroethene should be reported for sample ERW18.

** The value of 1300 µg/L "D" for trichloroethene should be reported for sample ERW19.

SOIL SAMPLES

| SAMPLE | VOA TCL | VOA TIC | SVOA TCL | SVOA TIC | PEST TCL |
|---|---|---|---|---|---|
| ERW07 | 3 | 0 | 9 | 1 | 2 |
| ERW08 | 2 | 0 | 1 | 0 | 1 |
| ERW09 | 4 | 2 | 4 | 1 | 1 |
| ERW10 | 1 | 0 | 0 | 1 | 1 |

**Reviewed by: __Robert W. Wenig_____**

## CALIBRATION OUTLIERS
## VOLATILE TCL COMPOUNDS

CASE\SAS#: 18642 CONTRACTOR: McCoy

| Instrument# | | Initial Cal. 17:56 | | | Contin Cal. 10:17 | | | Contin. Cal. | | | Contin. Cal. | | | Contin. Cal. | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Date/Time: HP59#1 | | 8/10/92 | | | 8/21/92 | | | | | | | | | | | |
| | # | rf | %rsd | * | rf | %d | * | rf | %d | * | rf | %d | * | rf | %d | * |
| Chloromethane | 0.01 | | | | | | | | | | | | | | | |
| Bromomethane | 0.10 | .65 | 33.2 | J | | | | | | | | | | | | |
| Vinyl chloride | 0.10 | .53 | | | .39 | 25.9 | J | | | | | | | | | |
| Chloroethane | 0.01 | | | | | | | | | | | | | | | |
| Methylene chloride | 0.01 | | | | | | | | | | | | | | | |
| Acetone | 0.01 | .62 | 127.1 | J | .21 | 66.6 | J | | | | | | | | | |
| Carbon disulfide | 0.01 | | | | | | | | | | | | | | | |
| 1,1-Dichloroethene | 0.10 | | | | | | | | | | | | | | | |
| 1,1-Dichloroethane | 0.20 | | | | | | | | | | | | | | | |
| 1,2-Dichloroethene (total) | | | | | | | | | | | | | | | | |
| Chloroform | 0.20 | | | | | | | | | | | | | | | |
| 1,2-Dichloroethane | 0.10 | | | | | | | | | | | | | | | |
| 2-Butanone | 0.01 | .86 | 130.3 | J | .36 | 57.8 | J | | | | | | | | | |
| 1,1,1-Trichloroethane | 0.10 | | | | | | | | | | | | | | | |
| Carbon tetrachloride | 0.10 | | | | | | | | | | | | | | | |
| Bromodichloromethane | 0.20 | | | | | | | | | | | | | | | |
| 1,2-Dichloropropane | | | | | | | | | | | | | | | | |
| cis-1,3-Dichloropropene | 0.20 | | | | | | | | | | | | | | | |
| Trichloroethene | 0.30 | | | | | | | | | | | | | | | |
| Dibromochloromethane | 0.10 | | | | | | | | | | | | | | | |
| 1,1,2-Trichloroethane | 0.10 | | | | | | | | | | | | | | | |
| Benzene | 0.50 | | | | | | | | | | | | | | | |
| tran-1,3-Dichloropropene | 0.10 | | | | | | | | | | | | | | | |
| Bromoform | 0.10 | | | | | | | | | | | | | | | |
| 4-Methyl-2-pentanone | 0.01 | .73 | 104.7 | J | .32 | 56.4 | J | | | | | | | | | |
| 2-Hexanone | 0.01 | .53 | 112.2 | J | .21 | 59.6 | J | | | | | | | | | |
| Tetrachloroethene | 0.20 | | | | | | | | | | | | | | | |
| 1,1,2,2-Tetrachloroethane | 0.50 | .153 | 56.4 | J | 1.07 | 33.1 | J | | | | | | | | | |
| Toluene | 0.40 | | | | | | | | | | | | | | | |
| Chlorobenzene | 0.50 | | | | | | | | | | | | | | | |
| Ethylbenzene | 0.10 | | | | | | | | | | | | | | | |
| Styrene | 0.30 | | | | | | | | | | | | | | | |
| Xylene (total) | 0.30 | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| Toluene-d8 | | | | | | | | | | | | | | | | |
| Bromofluorobenzene | | | | | | | | | | | | | | | | |
| 1,2-Dichloroethane-d4 | | | | | | | | | | | | | | | | |

Samples affected: VBLK01, ERW17-21, ERW18RE, ERW19DL

RNN

Reviewer's Init/Date: 9-24-92

* These flags should be applied to the analytes on the sample data sheets.
# Minimum Relative Response Factor

# CALIBRATION OUTLIERS
## VOLATILE TCL COMPOUNDS

CASE\SAS#: 18642 CONTRACTOR: McCoy

03:32 10:05

| Instrument# HP59#1 | | Initial Cal. | | | Contin. Cal. | | | Contin. Cal. | | | Contin. Cal. | | | Contin. Cal. | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Date/Time: | | 8/12/92 | | | 8/22/92 | | | | | | | | | | | |
| | # | rf | %rsd | * | rf | %d | * | rf | %d | * | rf | %d | * | rf | %d | * |
| Chloromethane | 0.01 | .46 | | | .22 | 53.2 | J | | | | | | | | | |
| Bromomethane | 0.10 | | | | | | | | | | | | | | | |
| Vinyl chloride | 0.10 | | | | | | | | | | | | | | | |
| Chloroethane | 0.01 | .27 | | | .14 | 48.1 | J | | | | | | | | | |
| Methylene chloride | 0.01 | .96 | | | .69 | 28.2 | J | | | | | | | | | |
| Acetone | 0.01 | 2.0 | 165 | J | .58 | 71.1 | J | | | | | | | | | |
| Carbon disulfide | 0.01 | | | | | | | | | | | | | | | |
| 1,1-Dichloroethene | 0.10 | .75 | | | .52 | 30.8 | J | | | | | | | | | |
| 1,1-Dichloroethane | 0.20 | | | | | | | | | | | | | | | |
| 1,2-Dichloroethene (total) | | | | | | | | | | | | | | | | |
| Chloroform | 0.20 | | | | | | | | | | | | | | | |
| 1,2-Dichloroethane | 0.10 | | | | | | | | | | | | | | | |
| 2-Butanone | 0.01 | .65 | | | .90 | 30.0 | J | | | | | | | | | |
| 1,1,1-Trichloroethane | 0.10 | | | | | | | | | | | | | | | |
| Carbon tetrachloride | 0.10 | | | | | | | | | | | | | | | |
| Bromodichloromethane | 0.20 | | | | | | | | | | | | | | | |
| 1,2-Dichloropropane | | | | | | | | | | | | | | | | |
| cis-1,3-Dichloropropene | 0.20 | | | | | | | | | | | | | | | |
| Trichloroethene | 0.30 | | | | | | | | | | | | | | | |
| Dibromochloromethane | 0.10 | | | | | | | | | | | | | | | |
| 1,1,2-Trichloroethane | 0.10 | | | | | | | | | | | | | | | |
| Benzene | 0.50 | | | | | | | | | | | | | | | |
| tran-1,3-Dichloropropene | 0.10 | | | | | | | | | | | | | | | |
| Bromoform | 0.10 | | | | | | | | | | | | | | | |
| 4-Methyl-2-pentanone | 0.01 | | | | | | | | | | | | | | | |
| 2-Hexanone | 0.01 | .71 | 32.7 | J | .67 | 32.9 | J | | | | | | | | | |
| Tetrachloroethene | 0.20 | | | | | | | | | | | | | | | |
| 1,1,2,2-Tetrachloroethane | 0.50 | | | | | | | | | | | | | | | |
| Toluene | 0.40 | | | | | | | | | | | | | | | |
| Chlorobenzene | 0.50 | | | | | | | | | | | | | | | |
| Ethylbenzene | 0.10 | | | | | | | | | | | | | | | |
| Styrene | 0.30 | | | | | | | | | | | | | | | |
| Xylene (total) | 0.30 | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| Toluene-d8 | | | | | | | | | | | | | | | | |
| Bromofluorobenzene | | | | | | | | | | | | | | | | |
| 1,2-Dichloroethane-d4 | | | | | | | | | | | | | | | | |

Samples affected: VBLK03, ERW07-10

Reviewer's Init/Date: RHW 9-24-92

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

# Minimum Relative Response Factor

# CALIBRATION OUTLIER
## SEMVOLATILE TCL COMPOUNDS
(Page 1)

CASE\SAS#: 18642 CONTRACTOR: McCoy

| Instrument# HP5996#2 | | Initial Cal. 13:47 | | | Contin. Cal. 9:32 | | | Contin. Cal. 10:49 | | | Contin. Cal. | | | Contin. Cal. | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Date/Time: | | 8/10/92 | | | 8/27/92 | | | 8/26/92 | | | | | | | | |
| | # | rf | %rsd | * | rf | %d | * | rf | %d | * | rf | %d | * | rf | %d | * |
| Phenol | 0.80 | 1.60 | | | 2.1 | 31.6 | J | 2.1 | 34.2 | J | | | | | | |
| bis(chloroethyl) Ether | 0.70 | 1.58 | | | 1.98 | 25.1 | J | | | | | | | | | |
| 2-Chlorophenol | 0.70 | | | | | | | | | | | | | | | |
| 1,3-Dichlorobenzene | | | | | | | | | | | | | | | | |
| 1,4-Dichlorobenzene | | | | | | | | | | | | | | | | |
| 1,2-Dichlorobenzene | | | | | | | | | | | | | | | | |
| 2-Methylphenol | 0.70 | | | | | | | | | | | | | | | |
| 2,2'-Oxybis(1-chl-propane) | 0.01 | | | | | | | | | | | | | | | |
| 4-Methylphenol | 0.60 | | | | | | | | | | | | | | | |
| N-nitroso-di-n-propylamine | 0.50 | 1.88 | | | 2.4 | 30.0 | J | | | | | | | | | |
| Hexachloroethane | 0.30 | | | | | | | | | | | | | | | |
| Nitrobenzene | 0.20 | .47 | | | | | | .61 | 29.4 | J | | | | | | |
| Isophorone | 0.40 | .92 | | | | | | 1.16 | 27.0 | J | | | | | | |
| 2-Nitrophenol | 0.10 | | | | | | | | | | | | | | | |
| 2,4-Dimethylphenol | 0.20 | | | | | | | | | | | | | | | |
| bis-(2-chloroethoxyl)methane | 0.30 | | | | | | | | | | | | | | | |
| 2,4-Dichlorophenol | 0.20 | | | | | | | | | | | | | | | |
| 1,2,4-Trichlorobenzene | 0.20 | | | | | | | | | | | | | | | |
| Naphthalene | 0.70 | | | | | | | | | | | | | | | |
| 4-Chloroaniline | 0.01 | | | | | | | | | | | | | | | |
| Hexachlorobutadiene | 0.01 | | | | | | | | | | | | | | | |
| 4-Chloro-3-methylphenol | 0.20 | | | | | | | | | | | | | | | |
| 2-Methylnaphthalene | 0.40 | | | | | | | | | | | | | | | |
| Hexachlorocyclopentadiene | 0.01 | | | | | | | | | | | | | | | |
| 2,4,6-Trichlorophenol | 0.20 | | | | | | | | | | | | | | | |
| 2,4,5-Trichlorophenol | 0.20 | | | | | | | | | | | | | | | |
| 2-Chloronaphthalene | 0.80 | | | | | | | | | | | | | | | |
| 2-Nitroaniline | 0.01 | | | | | | | | | | | | | | | |
| Dimethyl phthlate | 0.01 | | | | | | | | | | | | | | | |
| Acenaphthylene | 1.30 | | | | | | | | | | | | | | | |
| 2,6-Dinitrotoluene | 0.20 | | | | | | | | | | | | | | | |
| 3-Nitroaniline | 0.01 | | | | | | | | | | | | | | | |
| Acenaphthene | 0.30 | | | | | | | | | | | | | | | |
| 2,4-Dinitrophenol | 0.01 | .22 | | | | | | .141 | 35 | J | | | | | | |
| 4-Nitrophenol | 0.01 | | | | | | | | | | | | | | | |
| Dibenzofuran | 0.80 | | | | | | | | | | | | | | | |
| 2,4-Dinitrotoluene | 0.20 | | | | | | | | | | | | | | | |

Affected samples:

| | | | | |
|---|---|---|---|---|
| | SBLK03 | SBLK01 | | |
| | ERW18-21 | ERW07-10 | | |

Reviewer's Init/Date: RWN 9-25-92

* These flags should be applied to the analytes on the sample data sheets.
\# Minimum Relative Response Factor

## CALIBRATION OUTLIER
## SEMVOLATILE TCL COMPOUNDS
(Page 2)

CASE\SAS#: 18642 CONTRACTOR: McCoy

| | | 13:47 | | | 9:32 | | | 10:49 | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Instrument# HP5996#2 | | Initial Cal. | | | Contin. Cal. | | | Contin. Cal. | | | Contin. Cal. | | | Contin. Cal. | | |
| Date/Time: | | 8/10/92 | | | 8/27/92 | | | 8/26/92 | | | | | | | | |
| | # | rf | %rsd | * | rf | %d | * | rf | %d | * | rf | %d | * | rf | %d | * |
| Diethylphthalate | 0.01 | | | | | | | | | | | | | | | |
| 4-Chlorophenyl-phenylether | 0.40 | .45 | 33.1 | J | | | | | | | | | | | | |
| Fluorene | 0.90 | | | | | | | | | | | | | | | |
| 4-Nitroaniline | 0.01 | | | | | | | | | | | | | | | |
| 4,6-Dinitro-2-methylphenol | 0.01 | | | | | | | | | | | | | | | |
| N-nitrosodiphenylamine | 0.01 | | | | | | | | | | | | | | | |
| 4-Bromophenyl-phenylether | 0.10 | | | | | | | | | | | | | | | |
| Hexachlorobenzene | 0.10 | | | | | | | | | | | | | | | |
| Pentachlorophenol | 0.05 | | | | | | | | | | | | | | | |
| Phenanthrene | 0.70 | | | | | | | | | | | | | | | |
| Anthracene | 0.70 | | | | | | | | | | | | | | | |
| Carbazole | | | | | | | | | | | | | | | | |
| Di-n-butylphthalate | 0.01 | | | | | | | | | | | | | | | |
| Fluoranthene | 0.60 | | | | | | | | | | | | | | | |
| Pyrene | 0.60 | | | | | | | | | | | | | | | |
| Butylbenzylphthalate | 0.01 | | | | | | | | | | | | | | | |
| 3,3'-Dichlorobenzidine | 0.01 | | | | | | | | | | | | | | | |
| Benzo(a)anthracene | 0.80 | | | | | | | | | | | | | | | |
| Chrysene | 0.70 | | | | | | | | | | | | | | | |
| bis(2-Ethylhexyl)phthalate | 0.01 | | | | | | | | | | | | | | | |
| Di-n-octyl phthalate | 0.01 | 1.5 | | | 2.1 | 36.5 | J | 2.2 | 39.5 | J | | | | | | |
| Benzo(b)fluoranthene | 0.70 | | | | | | | | | | | | | | | |
| Benzo(k)fluoranthene | 0.70 | | | | | | | | | | | | | | | |
| Benzo(a)pyrene | 0.70 | | | | | | | | | | | | | | | |
| Indeno(1,2,3-cd)pyrene | 0.50 | | | | | | | | | | | | | | | |
| Dibenz(a,h)anthrancene | 0.40 | | | | | | | | | | | | | | | |
| Benzo(g,h,i)perylene | 0.50 | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| Nitrobenzene-d5 | 0.01 | | | | | | | | | | | | | | | |
| 2-Fluorobiphenyl | 0.70 | | | | | | | | | | | | | | | |
| Terphenyl-d14 | 0.50 | | | | | | | | | | | | | | | |
| Phenol-d5 | 0.80 | 1.4 | | | 1.8 | 27.1 | J | 1.8 | 27 | J | | | | | | |
| 2-Fluorophenol | 0.60 | | | | | | | | | | | | | | | |
| 2,4,6-Tribromophenol | 0.01 | | | | | | | | | | | | | | | |
| 2-Chlorophenol-d4 | | | | | | | | | | | | | | | | |
| 1,2-Dichlorobenzene-d4 | | | | | | | | | | | | | | | | |

Reviewer's Init/Date: RWN 9-25-92

* These flags should be applied to the analytes on the sample data sheets.
# Minimum Relative Response Factor

## CALIBRATION OUTLIERS
## PEST/PCB TCL COMPOUNDS

CASE\SAS#: 18642 CONTRACTOR: McCoy

Column: DB-1701

1:44

| Instrument#: | Init. Cal. | | Cont. Cal. | | Cont. Cal. | | Cont.Cal | |
|---|---|---|---|---|---|---|---|---|
| Date/Time | 9/01/92 | | 9/02/92 | | | | | |
| | %RSD | * | %RPD | * | %RPD | * | %RPD | * |
| Alpha-BHC | 22.1 | J | | | | | | |
| Beta-BHC | | | | | | | | |
| Delta-BHC | | | | | | | | |
| Gamma-BHC | | | | | | | | |
| Heptachlor | | | | | | | | |
| Aldrin | | | | | | | | |
| Heptachlor epoxide | | | | | | | | |
| Endosulfan I | | | 27.5 | J | | | | |
| Dieldrin | | | 30.0 | J | | | | |
| 4,4'-DDE | | | | | | | | |
| Endrin | | | 31.2 | J | | | | |
| Endosulfan II | | | | | | | | |
| 4,4'-DDD | | | 33.8 | J | | | | |
| Endosulfan sulfate | | | | | | | | |
| 4,4'-DDT | | | 28.8 | J | | | | |
| Methoxychlor | | | 38.5 | J | | | | |
| Endrin ketone | | | | | | | | |
| Endrin aldehyde | | | 71.2 | J | | | | |
| Alpha chlordane | | | | | | | | |
| Gamma chlordane | 20.4 | J | | | | | | |
| Aroclor-1016 | | | | | | | | |
| Aroclor-1221 | | | | | | | | |
| Aroclor-1232 | | | | | | | | |
| Aroclor-1242 | | | | | | | | |
| Aroclor-1248 | | | | | | | | |
| Aroclor-1254 | | | | | | | | |
| Aroclor-1260 | | | | | | | | |
| Toxaphene | | | | | | | | |

Affected samples:

PBLK01
ERW07-10
PBLK02
ERW18-21

Pest/PCB

Reviewer's Initial/Date RWW 9-25-92

3/90 Rev

* These flags should be applied to the analytes on the Sample Data Sheets.

**CALIBRATION OUTLIERS**
**PEST/PCB TCL COMPOUNDS**

**CASE\SAS#:** 18642 **CONTRACTOR:** McCoy

**Column:** DB-5

1:4

| Instrument#: | Init. Cal. | | Cont. Cal. | | Cont. Cal. | | Cont.Cal | |
|---|---|---|---|---|---|---|---|---|
| Date/Time | 9/01/92 | | 9/02/92 | | | | | |
| | %RSD | * | %RPD | * | %RPD | * | %RPD | * |
| Alpha-BHC | 43.9 | J | | | | | | |
| Beta-BHC | | | 37.5 | J | | | | |
| Delta-BHC | | | 35.0 | J | | | | |
| Gamma-BHC | 39.0 | J | | | | | | |
| Heptachlor | | | | | | | | |
| Aldrin | | | 32.5 | J | | | | |
| Heptachlor epoxide | | | 30.0 | J | | | | |
| Endosulfan I | | | | | | | | |
| Dieldrin | 22.6 | J | 26.3 | J | | | | |
| 4,4'-DDE | | | 35.0 | J | | | | |
| Endrin | 22.1 | J | 27.5 | J | | | | |
| Endosulfan II | | | | | | | | |
| 4,4'-DDD | 24.6 | J | 28.8 | J | | | | |
| Endosulfan sulfate | | | 28.8 | J | | | | |
| 4,4'-DDT | 27.7 | J | 28.8 | J | | | | |
| Methoxychlor | 20.5 | J | 28.0 | J | | | | |
| Endrin ketone | | | | | | | | |
| Endrin aldehyde | | | 27.5 | J | | | | |
| Alpha chlordane | | | 30.0 | J | | | | |
| Gamma chlordane | | | 27.5 | J | | | | |
| Aroclor-1016 | | | | | | | | |
| Aroclor-1221 | | | | | | | | |
| Aroclor-1232 | | | | | | | | |
| Aroclor-1242 | | | | | | | | |
| Aroclor-1248 | | | | | | | | |
| Aroclor-1254 | | | | | | | | |
| Aroclor-1260 | | | | | | | | |
| Toxaphene | | | | | | | | |

| Affected samples: | |
|---|---|
| | PBLK01 |
| | ERN07-10 |
| | PBLK02 |
| | ERW18-21 |

Pest/PCB

Reviewer's Initial/Date RWW 9-25-92

3/90 Rev

* These flags should be applied to the analytes on the Sample Data Sheets.

## DATA REPORTING QUALIFIERS
(page 1)

For reporting results to EPA, the following result qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

VALUE-if the results is a value greater than or equal to the Contract Required Quantitation Limit (CRQL), report the value.

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

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

and df = dilution factor

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

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

For soil samples subjected to GPC clean-up procedures, the extract must be concentrated to 0.5 ml, and the sensitivity of the analysis is not compromised by the cleanup procedures. Therefore, the CRQL values will apply to all samples, regardless of cleanup. However, if a sample extract cannot be concentrated to the protocol-specified volume, this fact be accounted for in reporting the Sample Quantitation Limit.

J - Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed, or when the mass spectral data indicate the presence of a compound that meets the identification criteria but the result is less than the sample quantitation limit bur greater than zero. For example, if the sample quantitation limit is 10 ug/L, but a concentration of 3 ug/L is calculated, report it is as 3J. The Sample Quantitation Limit must be adjusted for dilution as discussed for the U flag. The J flag is also applied to pesticide/Aroclor results where the pesticide/Aroclor is confirmed to be present but the concentration is less than the CRQL.

N - Indicates presumptive evidence of a compound. This flag is only used for tentatively identified compounds. Where the identification is based on a mass spectral library search. It is applied to all TIC results.

## DATA REPORTING QUALIFIERS
(page 2)

P - This flag is used for a pesticide/Aroclor target analyte when there is greater than 25% difference for detected concentrations between the two columns (see Form X). The lower of the two values is reported on Form I and flagged with a "P".

C - This flag applies to pesticide results where identification has been confirmed by GC/MS. If GC/MS confirmation was attempted but unsuccessful, do not apply this flag, instead use a laboratory-defined, discussed below.

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

E - This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for the specific analysis. This flag will not apply to pesticide/PCBs analyzed by GC/MS methods. If one or more compounds have a response greater than full scale, the sample or extract must be diluted and re-analyzed according to the specifications. All such compounds with a response greater than full scale should have the concentration flagged with an "E" on the Form I for the original analysis. If the dilution of the extract causes any compounds identified in the first analysis to be below the calibration range in the second analysis, then the results of both analyses shall be reported on separate Form I. The Form I for the diluted sample shall have the "DL" suffix appended to the sample number.

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

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

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

**McCoy & McCoy Laboratories, Inc.**

P. O. Box 907
85 East Noel Avenue
Madisonville, Kentucky 42431
Telephone
502/821-7375

a subsidiary of
McCoy & McCoy, Inc.

# SDG COVER SHEET

**LAB NAME: MCCOY & MCCOY LABORATORIES INC.**

**CONTRACT NUMBER: 68D10081**

**SAMPLE ANALYSIS PRICE: $670.00 PER FULL SAMPLE ANALYSIS**

**CASE NUMBER: 18642**

**SAMPLE NUMBERS:**

| | | |
|---|---|---|
| ERW07 | ERW10 | ERW19 |
| ERW08 | ERW17 | ERW20 |
| ERW09 | ERW18 | ERW21 |

**FIRST SAMPLE RECEIVED: ERW07 DATE RECEIVED: 08/20/92**

**LAST SAMPLE RECEIVED: ERW21 DATE RECEIVED: 08/20/92**

**SDG: ERW07**

RECEIVED
SEP 17 1992
US EPA CENTRAL REGIONAL LAB.
536 S. CLARK ST.
CHICAGO, ILLINOIS 60605

RECEIVED
SEP 17 1992
US EPA CENTRAL REGIONAL LAB.
536 S. CLARK ST.
CHICAGO, ILLINOIS 60605

**Case: 18642 SDG: ERW07**

**Volatiles Data:** The peaks for the dichloroethenes and xylenes were manually integrated to produce the totals for each. Acetone required manual integration in some standards and samples. Our diskette software incorrectly "D" flagged the system monitoring compounds for the diluted samples ERW18DL and ERW19DL on the form 2A.

**Semivolatiles Data:** A 1uL injection was used rather than the contract required 2uLs to prevent column overload. The CRQL's were increased by a factor of 2 to compensate for the smaller injection volume, however our IDL and MDL studies indicate that the CRQL's would not be affected by the smaller injection volume. The dilution factor was not changed and remains at 1. The extract final volume for GPC'ed samples is 1.0 ml rather than the contract required 0.5 ml. Again the dilution factor remains at 1 however the CRQL's were multiplied by a factor of 4 to compensate for the smaller injection volume and greater final volume.

**Pesticides Data:** Several peaks that did not autointegrate required manual integration. They are identified on each quant report with an "M" after each area.

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

John S. Murray
Organic Section Leader

John S. Murray Date 9/16/92

# EPA Organic Traffic Report & Chain of Custody Record

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

(For Organic CLP Analysis)

| SAS No. (if applicable) | Case No. |
|---|---|
| | |

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

2. Preservative (Enter in Column D)
   1. HCl
   2. HNO3
   3. NaHSO4
   4. $H_2SO_4$
   5. Other (Specify)
   6. Ice only
   N. Not preserved

| 3. Region No. | Sampling Co. | 5. Date Shipped | Carrier |
|---|---|---|---|
| 1 | | 8/19/92 | |

| Sampler (Name) | Airbill Number |
|---|---|
| | # 25839839860 |

Sampler Signature:

4. Type of Activity

| | Lead | Pre Remedial | Remedial | Removal |
|---|---|---|---|---|
| SF | | | RIFS | CLEM |
| PRP | | PA | RD | REMA |
| ST | | SSI | RA | REM |
| FED | | LSI | O&M | OIL |
| | | | NPLD | UST |

6. Ship To
Bishop and Associates
[illegible] Nori Ave.
Maryville, KY [illegible]
ATTN: [illegible]

| 7. Date Received -- Received by | |
|---|---|
| Laboratory Contract Number | Unit Price |
| 8. Transfer to | Date Received |
| Received by | |
| Contract Number | Price |

| CLP Sample Numbers (from labels) | A Enter # From Box 1 | B Conc. Low Med High | C Sample Type: Comp./ Grab | D Preservative from Box 6 | E RAS Analysis VOA | BNA | Pest/ PCB | High ARO/ TOX | F Regional Specific Tracking Number or Tag Numbers | G Station Location Number | H Mo/Day/ Year/Time Sample Collection | I Sampler Initials | J Corresp. CLP Inorg. Samp. No. | K Sample Condition on Rec't | L High Conc. Phases (Check below) Solids | Water -- Mls Liq. | Non Water -- Mls Liq. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| [illegible] | 2 | L | G | 1 | X | | | | [illegible] | [illegible] | 8/19/92 [illegible] | | — | | | | |
| [illegible] | 1 | L | G | | X | | | | 51129(87), -(92) | GW01-01 1030 | 1350 | | MB0[illegible] | | | | |
| ↓ | | | | | | X | X | | 51129(3), (4) | ↓ | ↓ | | ↓ | | | | |
| [illegible] | | | G | | X | | | | 51135(01), (02) | GW01-01 TB | | | MB0[illegible] | | | | |
| ↓ | | | | | | X | X | | 51135(03), (04) | ↓ | ↓ | | ↓ | | | | |
| [illegible] | | | G | | X | | | | 51135(07), (08) | GW01-01 | 925 | | MB0[illegible] | | | | |
| ↓ | | | | | | X | X | | 51135(09), (10) | ↓ | ↓ | | ↓ | | | | |
| [illegible] | | | G | | X | | | | 51135(13), (14) | GW01-01 FB | 925 | | MB0[illegible] | | | | |
| ↓ | ↓ | ↓ | | | | X | X | | 51135(15), (16) | ↓ | ↓ | | ↓ | | | | |
| | | | | | | | | | | | | | | | | | |

| Shipment for Case complete? (Y/N) | Page 1 of 1 | Sample used for a spike and/or duplicate | Additional Sampler Signatures | Chain of Custody Seal Number |
|---|---|---|---|---|
| | | [illegible] | [illegible] | 154119, 154130 |

## CHAIN OF CUSTODY RECORD

| Relinquished by: (Signature) | Date / Time | Received by: (Signature) | Relinquished by: (Signature) | Date / Time | Received by: (Signature) |
|---|---|---|---|---|---|
| [illegible] | 8/19/92 0900 | [illegible] | | | |
| Relinquished by: (Signature) | Date / Time | Received by: (Signature) | Relinquished by: (Signature) | Date / Time | Received by: (Signature) |
| [illegible] | 8/19/92 1130 | | | | |
| Relinquished by: (Signature) | Date / Time | Received for Laboratory by: (Signature) | Date / Time | Remarks | Is custody seal intact? Y/N/none |
| | | [illegible] | 08/20/92 1100 | | Yes |

Split Samples ☐ Accepted (Signature)
☐ Declined

EPA Form 9110-2 (Rev. 5-91) Replaces EPA Form (2075-7), previous edition which may be used

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SEE REVERSE FOR ADDITIONAL STANDARD INSTRUCTIONS

Org-2

0003 1003

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

# Organic Traffic Report & Chain of Custody Record

(For Organic CLP Analysis)

SAS No. (if applicable): —

Case No.: 18042

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

2. Preservative (Enter in Column D)
   1. HCl
   2. HNO3
   3. NaHSO4
   4. $H_2SO_4$
   5. Other (SAS) (Specify)
   6. Ice only
   N. Not preserved

3. Region No.: V
Sampling Co.: WESTON
Sampler (Name): [illegible]
Sampler Signature: [illegible]

4. Type of Activity: Lead / Pre-Remedial / Remedial / Removal
SF / PRP / ST / FED / PA / SSI / LSI / RIFS / RD / RA / O&M / NPLD / CLEM / REMA / REM / OIL / UST

5. Date Shipped: 8/19/92
Carrier: Federal Express
Airbill Number: # 2583983986

6. Ship To: McCoy and McCoy Inc.
85 E. Noel Ave.
Madisonville, KY 42431
tel # (502) 821-7375
Attn: Sherri Crowley

7. Date Received -- Received by:
Laboratory Contract Number:
Unit Price:

8. Transfer to:
Date Received:
Received by:
Contract Number:
Price:

~~0003A~~ 1003A
1193

| CLP Sample Numbers (from labels) | A Enter # From Box 1 | B Conc. Low Med High | C Sample Type: Comp./Grab | D Preservative from Box 6 | E RAS Analysis: VOA | BNA | Pest/PCB | High ARO/TOX | F Regional Specific Tracking Number or Tag Numbers | G Station Location Number (SS1SE-) | H Mo/Day/Year/Time Sample Collection | I Sampler Initials | J Corresp. CLP Inorg. Samp. No. | K Sample Condition on Rec't | L High Conc. Phases (Check below): Solids | Water -- Mis Liq. | Non Water -- Mis Liq. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ERW07 | 5 | L | G | 6 | X | | | | 51129(29),(30) | SD01-01 | 8/18/92 1600 | | MERP 07 | | | | |
| ↓ | ↓ | ↓ | C | ↓ | | X | X | | 5112931 | ↓ | ↓ | | ↓ | | | | |
| ERW08 | ↓ | ↓ | G | ↓ | X | | | | 51129(33),(34) | SD01 01 DP | ↓ | | MERP 08 | | | | |
| ↓ | ↓ | ↓ | C | ↓ | | X | X | | 5112935 | ↓ | ↓ | | ↓ | | | | |
| ERW09 | ↓ | ↓ | G | ↓ | X | | | | 51129(37),(38) | SD02 01 MSD | 1515 | | MERP 09 | | | | |
| ↓ | ↓ | ↓ | C | ↓ | | X | X | | 5112939 | ↓ | ↓ | | ↓ | | | | |
| ERW10 | ↓ | ↓ | G | ↓ | X | | | | 51129(41),(42) | SD03 01 | 1445 | | MERP 10 | | | | |
| ↓ | ↓ | ↓ | C | ↓ | | X | X | | 5112943 | ↓ | ↓ | | ↓ | | | | |

Shipment for Case complete? (Y/N): Y
Page 1 of 1
Sample used for a spike and/or duplicate: ERW09
Additional Sampler Signatures: Linda Korobka
Chain of Custody Seal Number: 154417; 154418

## CHAIN OF CUSTODY RECORD

| Relinquished by: (Signature) | Date / Time | Received by: (Signature) | Relinquished by: (Signature) | Date / Time | Received by: (Signature) |
|---|---|---|---|---|---|
| [illegible] | | Linda Korobka | | | |
| Linda Korobka | 8/19/92 1030 | | | | |
| Received by: (Signature) | Date / Time | Received for Laboratory by: (Signature) | Date / Time | Remarks | Is custody seal intact? Y/N/none |
| | | Tabetha Francis | 08-20-92 11:00A | | yes |

Split Samples: ☐ Accepted (Signature) ☐ Declined

EPA Form 9110-2 (Rev. 5-91) Replaces EPA Form (2075-7), previous edition which may be used

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Org-2

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3A

# WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: McCoy and McCoy Labs, Inc  Contract: 68-D1-0081

Lab Code: MCCOY  Case No.: 18642  SAS No.:  SDG No.: ERW07

Matrix Spike - EPA Sample No.: ERW18

| COMPOUND | SPIKE ADDED (UG/L ) | SAMPLE CONCENTRATION (UG/L ) | MS CONCENTRATION (UG/L ) | MS % REC # | QC LIMITS REC. |
|---|---|---|---|---|---|
| 1,1-Dichloroethene | 50. | 0. | 24. | 48 * | 61-145 |
| Trichloroethene | 50. | 1200. | 1200. | 0 * | 71-120 |
| Benzene | 50. | 0. | 46. | 92 | 76-127 |
| Toluene | 50. | 0. | 51. | 102 | 76-125 |
| Chlorobenzene | 50. | 0. | 50. | 100 | 75-130 |

| COMPOUND | SPIKE ADDED (UG/L ) | MSD CONCENTRATION (UG/L ) | MSD % REC # | % RPD # | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| 1,1-Dichloroethene | 50. | 27. | 54 * | 12 | 14 | 61-145 |
| Trichloroethene | 50. | 1200. | 0 * | 0 | 14 | 71-120 |
| Benzene | 50. | 46. | 92 | 0 | 11 | 76-127 |
| Toluene | 50. | 49. | 98 | 4 | 13 | 76-125 |
| Chlorobenzene | 50. | 50. | 100 | 0 | 13 | 75-130 |

# Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD:  0  out of  5  outside limits
Spike Recovery:  4  out of  10  outside limits

COMMENTS:

3B

# SOIL VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: McCoy and McCoy Labs, Inc  Contract: 68-D1-0081

Lab Code: MCCOY  Case No.: 18642  SAS No.:  SDG No.: ERW07

Matrix Spike - EPA Sample No.: ERW09  Level:(low/med) LOW

| COMPOUND | SPIKE ADDED (UG/KG) | SAMPLE CONCENTRATION (UG/KG) | MS CONCENTRATION (UG/KG) | MS % REC # | QC LIMITS REC. |
|---|---|---|---|---|---|
| 1,1-Dichloroethene | 64. | 0. | 42. | 66 | 59-172 |
| Trichloroethene | 64. | 4. | 54. | 78 | 62-137 |
| Benzene | 64. | 0. | 69. | 108 | 66-142 |
| Toluene | 64. | 0. | 86. | 134 | 59-139 |
| Chlorobenzene | 64. | 0. | 67. | 105 | 60-133 |

| COMPOUND | SPIKE ADDED (UG/KG) | MSD CONCENTRATION (UG/KG) | MSD % REC # | % RPD # | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| 1,1-Dichloroethene | 66. | 46. | 69 | 4 | 22 | 59-172 |
| Trichloroethene | 66. | 59. | 83 | 6 | 22 | 62-137 |
| Benzene | 66. | 67. | 101 | 7 | 21 | 66-142 |
| Toluene | 66. | 90. | 135 | 1 | 21 | 59-139 |
| Chlorobenzene | 66. | 68. | 102 | 3 | 21 | 60-133 |

# Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD:  0  out of  5  outside limits
Spike Recovery:  0  out of  10  outside limits

COMMENTS:

2A

# WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: McCoy and McCoy Labs, Inc  Contract: 68-D1-0081

Lab Code: MCCOY  Case No.: 18642  SAS No.:  SDG No.: ERW07

| | EPA SAMPLE NO. | SMC1 (TOL)# | SMC2 (BFB)# | SMC3 (DCE)# | OTHER | TOT OUT |
|---|---|---|---|---|---|---|
| 1 | VBLK01 | 99 | 97 | 105 | | 0 |
| 2 | ERW17 | 98 | 95 | 106 | | 0 |
| 3 | ERW18 | 95 | 95 | 103 | | 0 |
| 4 | ERW19 | 99 | 93 | 105 | | 0 |
| 5 | ERW20 | 97 | 96 | 99 | | 0 |
| 6 | ERW21 | 96 | 93 | 103 | | 0 |
| 7 | ERW18MS | 98 | 96 | 104 | | 0 |
| 8 | ERW18MSD | 96 | 95 | 107 | | 0 |
| 9 | ERW18 DL | 98 D | 96 D | 108 D | | 0 |
| 10 | ERW19 DL | 97 D | 96 D | 108 D | | 0 |
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| | QC LIMITS |
|---|---|
| SMC1 (TOL) = Toluene-d8 | (88-110) |
| SMC2 (BFB) = Bromofluorobenzene | (86-115) |
| SMC3 (DCE) = 1,2-Dichloroethane-d4 | (76-114) |

# Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

2B

# SOIL VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: McCoy and McCoy Labs, Inc  Contract: 68-D1-0081

Lab Code: MCCOY  Case No.: 18642  SAS No.:  SDG No.: ERW07

Level:(low/med) LOW

| | EPA SAMPLE NO. | SMC1 (TOL)# | SMC2 (BFB)# | SMC3 (DCE)# | OTHER | TOT OUT |
|---|---|---|---|---|---|---|
| 1 | VBLK03 | 97 | 94 | 95 | | 0 |
| 2 | ERW07 | 95 | 89 | 94 | | 0 |
| 3 | ERW08 | 99 | 89 | 90 | | 0 |
| 4 | ERW09 | 123 | 71 | 94 | | 0 |
| 5 | ERW10 | 112 | 74 | 97 | | 0 |
| 6 | ERW09MS | 128 | 69 | 94 | | 0 |
| 7 | ERW09MSD | 129 | 65 | 98 | | 0 |
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| | QC LIMITS |
|---|---|
| SMC1 (TOL) = Toluene-d8 | (84-138) |
| SMC2 (BFB) = Bromofluorobenzene | (59-113) |
| SMC3 (DCE) = 1,2-Dichloroethane-d4 | (70-121) |

# Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

4A

EPA SAMPLE NO.

VOLATILE METHOD BLANK SUMMARY

VBLK01

Lab Name: McCoy and McCoy Labs, Inc  Contract: 68-D1-0081

Lab Code: MCCOY  Case No.: 18642  SAS No.:  SDG No.: ERW07

Lab File ID: C9445  Lab Sample ID: VBLK01

Date Analyzed: 08/21/92  Time Analyzed: 11:17

GC Column: RTx502.2 ID: .53 (mm)  Heated Purge: (Y/N) N

Instrument ID: HP59#1

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

| | EPA SAMPLE NO. | LAB SAMPLE ID | LAB FILE ID | TIME ANALYZED |
|---|---|---|---|---|
| 1 | ERW17 | ERW17 | C9446 | 11:58 |
| 2 | ERW18 | ERW18 | C9447 | 12:39 |
| 3 | ERW19 | ERW19 | C9448 | 13:20 |
| 4 | ERW20 | ERW20 | C9449 | 14:14 |
| 5 | ERW21 | ERW21 | C9450 | 14:55 |
| 6 | ERW18MS | ERW18 | C9451 | 15:35 |
| 7 | ERW18MSD | ERW18 | C9452 | 16:20 |
| 8 | ERW18 DL | ERW18 | C9453 | 17:01 |
| 9 | ERW19 DL | ERW19 | C9454 | 17:42 |
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COMMENTS:

4A

VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLK03

Lab Name: McCoy and McCoy Labs, Inc  Contract: 68-D1-0081

Lab Code: MCCOY  Case No.: 18642  SAS No.:  SDG No.: ERW07

Lab File ID: C9469  Lab Sample ID: VBLK03

Date Analyzed: 08/22/92  Time Analyzed: 12:07

GC Column: RTx502.2 ID: .53 (mm)  Heated Purge: (Y/N) Y

Instrument ID: HP59#1

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

| | EPA SAMPLE NO. | LAB SAMPLE ID | LAB FILE ID | TIME ANALYZED |
|---|---|---|---|---|
| 1 | ERW07 | ERW07 | C9470 | 12:48 |
| 2 | ERW08 | ERW08 | C9471 | 13:29 |
| 3 | ERW09 | ERW09 | C9472 | 14:09 |
| 4 | ERW10 | ERW10 | C9473 | 14:49 |
| 5 | ERW09MS | ERW09 | C9474 | 15:30 |
| 6 | ERW09MSD | ERW09 | C9475 | 16:10 |
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COMMENTS:

1A

# VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK01

Lab Name: McCoy and McCoy Labs, Inc  Contract: 68-D1-0081

Lab Code: MCCOY  Case No.: 18642  SAS No.:  SDG No.: ERW07

Matrix: (soil/water) WATER  Lab Sample ID: VBLK01

Sample wt/vol: 5.000 (g/mL) ML  Lab File ID: C9445

Level: (low/med) LOW  Date Received: 00/00/00

% Moisture: not dec._____  Date Analyzed: 08/21/92

GC Column: RTx502.2 ID: .53 (mm)  Dilution Factor: 1.0

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

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 74-87-3 | Chloromethane | 10. | U |
| 74-83-9 | Bromomethane | 10. | U |
| 75-01-4 | Vinyl Chloride | 10. | U |
| 75-00-3 | Chloroethane | 10. | U |
| 75-09-2 | Methylene Chloride | 10. | U |
| 67-64-1 | Acetone | 10. | U |
| 75-15-0 | Carbon Disulfide | 10. | U |
| 75-35-4 | 1,1-Dichloroethene | 10. | U |
| 75-34-3 | 1,1-Dichloroethane | 10. | U |
| 540-59-0 | 1,2-Dichloroethene (total) | 10. | U |
| 67-66-3 | Chloroform | 10. | U |
| 107-06-2 | 1,2-Dichloroethane | 10. | U |
| 78-93-3 | 2-Butanone | 10. | U |
| 71-55-6 | 1,1,1-Trichloroethane | 10. | U |
| 56-23-5 | Carbon Tetrachloride | 10. | U |
| 75-27-4 | Bromodichloromethane | 10. | U |
| 78-87-5 | 1,2-Dichloropropane | 10. | U |
| 10061-01-5 | cis-1,3-Dichloropropene | 10. | U |
| 79-01-6 | Trichloroethene | 10. | U |
| 124-48-1 | Dibromochloromethane | 10. | U |
| 79-00-5 | 1,1,2-Trichloroethane | 10. | U |
| 71-43-2 | Benzene | 10. | U |
| 10061-02-6 | trans-1,3-Dichloropropene | 10. | U |
| 75-25-2 | Bromoform | 10. | U |
| 108-10-1 | 4-Methyl-2-Pentanone | 10. | U |
| 591-78-6 | 2-Hexanone | 10. | U |
| 127-18-4 | Tetrachloroethene | 10. | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 10. | U |
| 108-88-3 | Toluene | 10. | U |
| 108-90-7 | Chlorobenzene | 10. | U |
| 100-41-4 | Ethylbenzene | 10. | U |
| 100-42-5 | Styrene | 10. | U |
| 1330-20-7 | Xylene (total) | 10. | U |

1E

# VOLATILE ORGANICS ANALYSIS DATA SHEET
# TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLK01

Lab Name: McCoy and McCoy Labs, Inc  Contract: 68-D1-0081

Lab Code: MCCOY  Case No.: 18642  SAS No.:  SDG No.: ERW07

Matrix: (soil/water) WATER  Lab Sample ID: VBLK01

Sample wt/vol: 5.000 (g/mL) ML  Lab File ID: C9445

Level: (low/med) LOW  Date Received: 00/00/00

% Moisture: not dec._____  Date Analyzed: 08/21/92

GC Column: RTx502.2 ID: .53 (mm)  Dilution Factor: 1.0

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

Number TICs found: 0

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

| | CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|---|
| 1. | | | | | |
| 2. | | | | | |
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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK03

Lab Name: McCoy and McCoy Labs, Inc Contract: 68-D1-0081

Lab Code: MCCOY Case No.: 18642 SAS No.: SDG No.: ERW07

Matrix: (soil/water) SOIL Lab Sample ID: VBLK03

Sample wt/vol: 5.000 (g/mL) G Lab File ID: C9469

Level: (low/med) LOW Date Received: 00/00/00

% Moisture: not dec. 0. Date Analyzed: 08/22/92

GC Column: RTx502.2 ID: .53 (mm) Dilution Factor: 1.0

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

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG | Q |
|---|---|---|---|
| 74-87-3 | Chloromethane | 10. | U |
| 74-83-9 | Bromomethane | 10. | U |
| 75-01-4 | Vinyl Chloride | 10. | U |
| 75-00-3 | Chloroethane | 10. | U |
| 75-09-2 | Methylene Chloride | 10. | U |
| 67-64-1 | Acetone | 5. | J |
| 75-15-0 | Carbon Disulfide | 10. | U |
| 75-35-4 | 1,1-Dichloroethene | 10. | U |
| 75-34-3 | 1,1-Dichloroethane | 10. | U |
| 540-59-0 | 1,2-Dichloroethene (total) | 10. | U |
| 67-66-3 | Chloroform | 10. | U |
| 107-06-2 | 1,2-Dichloroethane | 10. | U |
| 78-93-3 | 2-Butanone | 10. | U |
| 71-55-6 | 1,1,1-Trichloroethane | 10. | U |
| 56-23-5 | Carbon Tetrachloride | 10. | U |
| 75-27-4 | Bromodichloromethane | 10. | U |
| 78-87-5 | 1,2-Dichloropropane | 10. | U |
| 10061-01-5 | cis-1,3-Dichloropropene | 10. | U |
| 79-01-6 | Trichloroethene | 10. | U |
| 124-48-1 | Dibromochloromethane | 10. | U |
| 79-00-5 | 1,1,2-Trichloroethane | 10. | U |
| 71-43-2 | Benzene | 10. | U |
| 10061-02-6 | trans-1,3-Dichloropropene | 10. | U |
| 75-25-2 | Bromoform | 10. | U |
| 108-10-1 | 4-Methyl-2-Pentanone | 10. | U |
| 591-78-6 | 2-Hexanone | 10. | U |
| 127-18-4 | Tetrachloroethene | 10. | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 10. | U |
| 108-88-3 | Toluene | 10. | U |
| 108-90-7 | Chlorobenzene | 10. | U |
| 100-41-4 | Ethylbenzene | 10. | U |
| 100-42-5 | Styrene | 10. | U |
| 1330-20-7 | Xylene (total) | 10. | U |

1E

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

VBLK03

Lab Name: McCoy and McCoy Labs, Inc  Contract: 68-D1-0081

Lab Code: MCCOY  Case No.: 18642  SAS No.:  SDG No.: ERW07

Matrix: (soil/water) SOIL  Lab Sample ID: VBLK03

Sample wt/vol: 5.000 (g/mL) G  Lab File ID: C9469

Level: (low/med) LOW  Date Received: 00/00/00

% Moisture: not dec. 0.  Date Analyzed: 08/22/92

GC Column: RTx502.2 ID: .53 (mm)  Dilution Factor: 1.0

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

Number TICs found: 0

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

| | CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|---|
| 1. | | | | | |
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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ERW07

Lab Name: McCoy and McCoy Labs, Inc  Contract: 68-D1-0081

Lab Code: MCCOY  Case No.: 18642  SAS No.:  SDG No.: ERW07

Matrix: (soil/water) SOIL  Lab Sample ID: ERW07

Sample wt/vol: 5.030 (g/mL) G  Lab File ID: C9470

Level: (low/med) LOW  Date Received: 08/20/92

% Moisture: not dec. 20.  Date Analyzed: 08/22/92

GC Column: RTx502.2 ID: .53 (mm)  Dilution Factor: 1.0

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

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG | Q |
|---|---|---|---|
| 74-87-3 | Chloromethane | 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 | 7. | J |
| 67-64-1 | Acetone | 12. | U |
| 75-15-0 | Carbon Disulfide | 12. | U |
| 75-35-4 | 1,1-Dichloroethene | 12. | U |
| 75-34-3 | 1,1-Dichloroethane | 12. | U |
| 540-59-0 | 1,2-Dichloroethene (total) | 12. | U |
| 67-66-3 | Chloroform | 3. | J |
| 107-06-2 | 1,2-Dichloroethane | 12. | U |
| 78-93-3 | 2-Butanone | 12. | U |
| 71-55-6 | 1,1,1-Trichloroethane | 12. | U |
| 56-23-5 | Carbon Tetrachloride | 12. | U |
| 75-27-4 | Bromodichloromethane | 12. | U |
| 78-87-5 | 1,2-Dichloropropane | 12. | U |
| 10061-01-5 | cis-1,3-Dichloropropene | 12. | U |
| 79-01-6 | Trichloroethene | 3. | J |
| 124-48-1 | Dibromochloromethane | 12. | U |
| 79-00-5 | 1,1,2-Trichloroethane | 12. | U |
| 71-43-2 | Benzene | 12. | U |
| 10061-02-6 | trans-1,3-Dichloropropene | 12. | U |
| 75-25-2 | Bromoform | 12. | U |
| 108-10-1 | 4-Methyl-2-Pentanone | 12. | U |
| 591-78-6 | 2-Hexanone | 12. | U |
| 127-18-4 | Tetrachloroethene | 12. | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 12. | U |
| 108-88-3 | Toluene | 12. | U |
| 108-90-7 | Chlorobenzene | 12. | U |
| 100-41-4 | Ethylbenzene | 12. | U |
| 100-42-5 | Styrene | 12. | U |
| 1330-20-7 | Xylene (total) | 12. | U |

1E

# VOLATILE ORGANICS ANALYSIS DATA SHEET
# TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

ERW07

Lab Name: McCoy and McCoy Labs, Inc  Contract: 68-D1-0081

Lab Code: MCCOY  Case No.: 18642  SAS No.:  SDG No.: ERW07

Matrix: (soil/water) SOIL  Lab Sample ID: ERW07

Sample wt/vol: 5.030 (g/mL) G  Lab File ID: C9470

Level: (low/med) LOW  Date Received: 08/20/92

% Moisture: not dec. 20.  Date Analyzed: 08/22/92

GC Column: RTx502.2 ID: .53 (mm)  Dilution Factor: 1.0

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

Number TICs found: 0  CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG

| | CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|---|
| 1. | | | | | |
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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ERW08

Lab Name: McCoy and McCoy Labs, Inc  Contract: 68-D1-0081

Lab Code: MCCOY  Case No.: 18642  SAS No.:  SDG No.: ERW07

Matrix: (soil/water) SOIL  Lab Sample ID: ERW08

Sample wt/vol: 5.020 (g/mL) G  Lab File ID: C9471

Level: (low/med) LOW  Date Received: 08/20/92

% Moisture: not dec. 16.  Date Analyzed: 08/22/92

GC Column: RTx502.2 ID: .53 (mm)  Dilution Factor: 1.0

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

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG | Q |
|---|---|---|---|
| 74-87-3 | Chloromethane | 12. | U |
| 74-83-9 | Bromomethane | 12. | U |
| 75-01-4 | Vinyl Chloride | 12. | U |
| 75-00-3 | Chloroethane | 12. | U |
| 75-09-2 | Methylene Chloride | 5. | J |
| 67-64-1 | Acetone | 12. | U |
| 75-15-0 | Carbon Disulfide | 12. | U |
| 75-35-4 | 1,1-Dichloroethene | 12. | U |
| 75-34-3 | 1,1-Dichloroethane | 12. | U |
| 540-59-0 | 1,2-Dichloroethene (total) | 12. | U |
| 67-66-3 | Chloroform | 12. | U |
| 107-06-2 | 1,2-Dichloroethane | 12. | U |
| 78-93-3 | 2-Butanone | 12. | U |
| 71-55-6 | 1,1,1-Trichloroethane | 12. | U |
| 56-23-5 | Carbon Tetrachloride | 12. | U |
| 75-27-4 | Bromodichloromethane | 12. | U |
| 78-87-5 | 1,2-Dichloropropane | 12. | U |
| 10061-01-5 | cis-1,3-Dichloropropene | 12. | U |
| 79-01-6 | Trichloroethene | 3. | J |
| 124-48-1 | Dibromochloromethane | 12. | U |
| 79-00-5 | 1,1,2-Trichloroethane | 12. | U |
| 71-43-2 | Benzene | 12. | U |
| 10061-02-6 | trans-1,3-Dichloropropene | 12. | U |
| 75-25-2 | Bromoform | 12. | U |
| 108-10-1 | 4-Methyl-2-Pentanone | 12. | U |
| 591-78-6 | 2-Hexanone | 12. | U |
| 127-18-4 | Tetrachloroethene | 12. | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 12. | U |
| 108-88-3 | Toluene | 12. | U |
| 108-90-7 | Chlorobenzene | 12. | U |
| 100-41-4 | Ethylbenzene | 12. | U |
| 100-42-5 | Styrene | 12. | U |
| 1330-20-7 | Xylene (total) | 12. | U |

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ERW09

Lab Name: McCoy and McCoy Labs, Inc  Contract: 68-D1-0081

Lab Code: MCCOY  Case No.: 18642  SAS No.:  SDG No.: ERW07

Matrix: (soil/water) SOIL  Lab Sample ID: ERW09

Sample wt/vol: 5.090 (g/mL) G  Lab File ID: C9472

Level: (low/med) LOW  Date Received: 08/20/92

% Moisture: not dec. 25.  Date Analyzed: 08/22/92

GC Column: RTx502.2 ID: .53 (mm)  Dilution Factor: 1.0

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

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG | Q |
|---|---|---|---|
| 74-87-3 | Chloromethane | 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 | 8. | J |
| 67-64-1 | Acetone | 96. | B |
| 75-15-0 | Carbon Disulfide | 13. | U |
| 75-35-4 | 1,1-Dichloroethene | 13. | U |
| 75-34-3 | 1,1-Dichloroethane | 13. | U |
| 540-59-0 | 1,2-Dichloroethene (total) | 13. | U |
| 67-66-3 | Chloroform | 13. | U |
| 107-06-2 | 1,2-Dichloroethane | 13. | U |
| 78-93-3 | 2-Butanone | 18. | |
| 71-55-6 | 1,1,1-Trichloroethane | 13. | U |
| 56-23-5 | Carbon Tetrachloride | 13. | U |
| 75-27-4 | Bromodichloromethane | 13. | U |
| 78-87-5 | 1,2-Dichloropropane | 13. | U |
| 10061-01-5 | cis-1,3-Dichloropropene | 13. | U |
| 79-01-6 | Trichloroethene | 4. | J |
| 124-48-1 | Dibromochloromethane | 13. | U |
| 79-00-5 | 1,1,2-Trichloroethane | 13. | U |
| 71-43-2 | Benzene | 13. | U |
| 10061-02-6 | trans-1,3-Dichloropropene | 13. | U |
| 75-25-2 | Bromoform | 13. | U |
| 108-10-1 | 4-Methyl-2-Pentanone | 13. | U |
| 591-78-6 | 2-Hexanone | 13. | U |
| 127-18-4 | Tetrachloroethene | 13. | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 13. | U |
| 108-88-3 | Toluene | 13. | U |
| 108-90-7 | Chlorobenzene | 13. | U |
| 100-41-4 | Ethylbenzene | 13. | U |
| 100-42-5 | Styrene | 13. | U |
| 1330-20-7 | Xylene (total) | 13. | U |

1E

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

ERW09

Lab Name: McCoy and McCoy Labs, Inc  Contract: 68-D1-0081

Lab Code: MCCOY  Case No.: 18642  SAS No.:  SDG No.: ERW07

Matrix: (soil/water) SOIL  Lab Sample ID: ERW09

Sample wt/vol: 5.090 (g/mL) G  Lab File ID: C9472

Level: (low/med) LOW  Date Received: 08/20/92

% Moisture: not dec. 25.  Date Analyzed: 08/22/92

GC Column: RTx502.2 ID: .53 (mm)  Dilution Factor: 1.0

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

Number TICs found: 2

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

| | CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|---|
| 1. | - - | UNKNOWN HYDROCARBON | 9.17 | 10. | J |
| 2. | - - | UNKNOWN | 31.29 | 9. | J |
| 3. | | | | | |
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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ERW10

Lab Name: McCoy and McCoy Labs, Inc  Contract: 68-D1-0081

Lab Code: MCCOY  Case No.: 18642  SAS No.:  SDG No.: ERW07

Matrix: (soil/water) SOIL  Lab Sample ID: ERW10

Sample wt/vol: 5.040 (g/mL) G  Lab File ID: C9473

Level: (low/med) LOW  Date Received: 08/20/92

% Moisture: not dec. 35.  Date Analyzed: 08/22/92

GC Column: RTx502.2 ID: .53 (mm)  Dilution Factor: 1.0

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

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG | Q |
|---|---|---|---|
| 74-87-3 | Chloromethane | 15. | U |
| 74-83-9 | Bromomethane | 15. | U |
| 75-01-4 | Vinyl Chloride | 15. | U |
| 75-00-3 | Chloroethane | 15. | U |
| 75-09-2 | Methylene Chloride | 9. | J |
| 67-64-1 | Acetone | 15. | U |
| 75-15-0 | Carbon Disulfide | 15. | U |
| 75-35-4 | 1,1-Dichloroethene | 15. | U |
| 75-34-3 | 1,1-Dichloroethane | 15. | U |
| 540-59-0 | 1,2-Dichloroethene (total) | 15. | U |
| 67-66-3 | Chloroform | 15. | U |
| 107-06-2 | 1,2-Dichloroethane | 15. | U |
| 78-93-3 | 2-Butanone | 15. | U |
| 71-55-6 | 1,1,1-Trichloroethane | 15. | U |
| 56-23-5 | Carbon Tetrachloride | 15. | U |
| 75-27-4 | Bromodichloromethane | 15. | U |
| 78-87-5 | 1,2-Dichloropropane | 15. | U |
| 10061-01-5 | cis-1,3-Dichloropropene | 15. | U |
| 79-01-6 | Trichloroethene | 15. | U |
| 124-48-1 | Dibromochloromethane | 15. | U |
| 79-00-5 | 1,1,2-Trichloroethane | 15. | U |
| 71-43-2 | Benzene | 15. | U |
| 10061-02-6 | trans-1,3-Dichloropropene | 15. | U |
| 75-25-2 | Bromoform | 15. | U |
| 108-10-1 | 4-Methyl-2-Pentanone | 15. | U |
| 591-78-6 | 2-Hexanone | 15. | U |
| 127-18-4 | Tetrachloroethene | 15. | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 15. | U |
| 108-88-3 | Toluene | 15. | U |
| 108-90-7 | Chlorobenzene | 15. | U |
| 100-41-4 | Ethylbenzene | 15. | U |
| 100-42-5 | Styrene | 15. | U |
| 1330-20-7 | Xylene (total) | 15. | U |

1E

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

ERW10

Lab Name: McCoy and McCoy Labs, Inc  Contract: 68-D1-0081

Lab Code: MCCOY  Case No.: 18642  SAS No.:  SDG No.: ERW07

Matrix: (soil/water) SOIL  Lab Sample ID: ERW10

Sample wt/vol: 5.040 (g/mL) G  Lab File ID: C9473

Level: (low/med) LOW  Date Received: 08/20/92

% Moisture: not dec. 35.  Date Analyzed: 08/22/92

GC Column: RTx502.2 ID: .53 (mm)  Dilution Factor: 1.0

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

Number TICs found: 0  CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG

| | CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|---|
| 1. | | | | | |
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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ERW17

Lab Name: McCoy and McCoy Labs, Inc Contract: 68-D1-0081

Lab Code: MCCOY Case No.: 18642 SAS No.: SDG No.: ERW07

Matrix: (soil/water) WATER Lab Sample ID: ERW17

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: C9446

Level: (low/med) LOW Date Received: 08/20/92

% Moisture: not dec._____ Date Analyzed: 08/21/92

GC Column: RTx502.2 ID: .53 (mm) Dilution Factor: 1.0

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

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 74-87-3 | Chloromethane | 10. | U |
| 74-83-9 | Bromomethane | 10. | U |
| 75-01-4 | Vinyl Chloride | 10. | U |
| 75-00-3 | Chloroethane | 10. | U |
| 75-09-2 | Methylene Chloride | 10. | U |
| 67-64-1 | Acetone | 10. | U |
| 75-15-0 | Carbon Disulfide | 10. | U |
| 75-35-4 | 1,1-Dichloroethene | 10. | U |
| 75-34-3 | 1,1-Dichloroethane | 10. | U |
| 540-59-0 | 1,2-Dichloroethene (total) | 10. | U |
| 67-66-3 | Chloroform | 10. | U |
| 107-06-2 | 1,2-Dichloroethane | 10. | U |
| 78-93-3 | 2-Butanone | 10. | U |
| 71-55-6 | 1,1,1-Trichloroethane | 10. | U |
| 56-23-5 | Carbon Tetrachloride | 10. | U |
| 75-27-4 | Bromodichloromethane | 10. | U |
| 78-87-5 | 1,2-Dichloropropane | 10. | U |
| 10061-01-5 | cis-1,3-Dichloropropene | 10. | U |
| 79-01-6 | Trichloroethene | 10. | U |
| 124-48-1 | Dibromochloromethane | 10. | U |
| 79-00-5 | 1,1,2-Trichloroethane | 10. | U |
| 71-43-2 | Benzene | 10. | U |
| 10061-02-6 | trans-1,3-Dichloropropene | 10. | U |
| 75-25-2 | Bromoform | 10. | U |
| 108-10-1 | 4-Methyl-2-Pentanone | 10. | U |
| 591-78-6 | 2-Hexanone | 10. | U |
| 127-18-4 | Tetrachloroethene | 10. | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 10. | U |
| 108-88-3 | Toluene | 10. | U |
| 108-90-7 | Chlorobenzene | 10. | U |
| 100-41-4 | Ethylbenzene | 10. | U |
| 100-42-5 | Styrene | 10. | U |
| 1330-20-7 | Xylene (total) | 10. | U |

1E

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

ERW17

Lab Name: McCoy and McCoy Labs, Inc  Contract: 68-D1-0081

Lab Code: MCCOY  Case No.: 18642  SAS No.:  SDG No.: ERW07

Matrix: (soil/water) WATER  Lab Sample ID: ERW17

Sample wt/vol: 5.000 (g/mL) ML  Lab File ID: C9446

Level: (low/med) LOW  Date Received: 08/20/92

% Moisture: not dec._____  Date Analyzed: 08/21/92

GC Column: RTx502.2 ID: .53 (mm)  Dilution Factor: 1.0

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

Number TICs found: 0

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

| | CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|---|
| 1. | | | | | |
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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ERW18

Lab Name: McCoy and McCoy Labs, Inc  Contract: 68-D1-0081

Lab Code: MCCOY  Case No.: 18642  SAS No.:  SDG No.: ERW07

Matrix: (soil/water) WATER  Lab Sample ID: ERW18

Sample wt/vol: 5.000 (g/mL) ML  Lab File ID: C9447

Level: (low/med) LOW  Date Received: 08/20/92

% Moisture: not dec._____  Date Analyzed: 08/21/92

GC Column: RTx502.2 ID: .53 (mm)  Dilution Factor: 1.0

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

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 74-87-3 | Chloromethane | 10. | U |
| 74-83-9 | Bromomethane | 10. | U |
| 75-01-4 | Vinyl Chloride | 10. | U |
| 75-00-3 | Chloroethane | 10. | U |
| 75-09-2 | Methylene Chloride | 10. | U |
| 67-64-1 | Acetone | 10. | U |
| 75-15-0 | Carbon Disulfide | 10. | U |
| 75-35-4 | 1,1-Dichloroethene | 10. | U |
| 75-34-3 | 1,1-Dichloroethane | 10. | U |
| 540-59-0 | 1,2-Dichloroethene (total) | 100. | |
| 67-66-3 | Chloroform | 2. | J |
| 107-06-2 | 1,2-Dichloroethane | 10. | U |
| 78-93-3 | 2-Butanone | 10. | U |
| 71-55-6 | 1,1,1-Trichloroethane | 7. | J |
| 56-23-5 | Carbon Tetrachloride | 10. | U |
| 75-27-4 | Bromodichloromethane | 10. | U |
| 78-87-5 | 1,2-Dichloropropane | 10. | U |
| 10061-01-5 | cis-1,3-Dichloropropene | 10. | U |
| 79-01-6 | Trichloroethene | 1200. | E |
| 124-48-1 | Dibromochloromethane | 10. | U |
| 79-00-5 | 1,1,2-Trichloroethane | 10. | U |
| 71-43-2 | Benzene | 10. | U |
| 10061-02-6 | trans-1,3-Dichloropropene | 10. | U |
| 75-25-2 | Bromoform | 10. | U |
| 108-10-1 | 4-Methyl-2-Pentanone | 10. | U |
| 591-78-6 | 2-Hexanone | 10. | U |
| 127-18-4 | Tetrachloroethene | 10. | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 10. | U |
| 108-88-3 | Toluene | 10. | U |
| 108-90-7 | Chlorobenzene | 10. | U |
| 100-41-4 | Ethylbenzene | 10. | U |
| 100-42-5 | Styrene | 10. | U |
| 1330-20-7 | Xylene (total) | 10. | U |

1E

EPA SAMPLE NO.

ERW18

# VOLATILE ORGANICS ANALYSIS DATA SHEET
# TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: McCoy and McCoy Labs, Inc  Contract: 68-D1-0081

Lab Code: MCCOY  Case No.: 18642  SAS No.:  SDG No.: ERW07

Matrix: (soil/water) WATER  Lab Sample ID: ERW18

Sample wt/vol: 5.000 (g/mL) ML  Lab File ID: C9447

Level: (low/med) LOW  Date Received: 08/20/92

% Moisture: not dec._____  Date Analyzed: 08/21/92

GC Column: RTx502.2 ID: .53 (mm)  Dilution Factor: 1.0

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

Number TICs found: 0

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

| | CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ERW18 DL

Lab Name: McCoy and McCoy Labs, Inc Contract: 68-D1-0081

Lab Code: MCCOY Case No.: 18642 SAS No.: SDG No.: ERW07

Matrix: (soil/water) WATER Lab Sample ID: ERW18

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: C9453

Level: (low/med) LOW Date Received: 08/20/92

% Moisture: not dec._____ Date Analyzed: 08/21/92

GC Column: RTx502.2 ID: .53 (mm) Dilution Factor: 10.0

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

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 74-87-3 | Chloromethane | 100. | U |
| 74-83-9 | Bromomethane | 100. | U |
| 75-01-4 | Vinyl Chloride | 100. | U |
| 75-00-3 | Chloroethane | 100. | U |
| 75-09-2 | Methylene Chloride | 100. | U |
| 67-64-1 | Acetone | 100. | U |
| 75-15-0 | Carbon Disulfide | 100. | U |
| 75-35-4 | 1,1-Dichloroethene | 100. | U |
| 75-34-3 | 1,1-Dichloroethane | 100. | U |
| 540-59-0 | 1,2-Dichloroethene (total) | 96. | J D |
| 67-66-3 | Chloroform | 100. | U |
| 107-06-2 | 1,2-Dichloroethane | 100. | U |
| 78-93-3 | 2-Butanone | 100. | U |
| 71-55-6 | 1,1,1-Trichloroethane | 100. | U |
| 56-23-5 | Carbon Tetrachloride | 100. | U |
| 75-27-4 | Bromodichloromethane | 100. | U |
| 78-87-5 | 1,2-Dichloropropane | 100. | U |
| 10061-01-5 | cis-1,3-Dichloropropene | 100. | U |
| 79-01-6 | Trichloroethene | 1300. | D |
| 124-48-1 | Dibromochloromethane | 100. | U |
| 79-00-5 | 1,1,2-Trichloroethane | 100. | U |
| 71-43-2 | Benzene | 100. | U |
| 10061-02-6 | trans-1,3-Dichloropropene | 100. | U |
| 75-25-2 | Bromoform | 100. | U |
| 108-10-1 | 4-Methyl-2-Pentanone | 100. | U |
| 591-78-6 | 2-Hexanone | 100. | U |
| 127-18-4 | Tetrachloroethene | 100. | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 100. | U |
| 108-88-3 | Toluene | 100. | U |
| 108-90-7 | Chlorobenzene | 100. | U |
| 100-41-4 | Ethylbenzene | 100. | U |
| 100-42-5 | Styrene | 100. | U |
| 1330-20-7 | Xylene (total) | 100. | U |

1E

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

| ERW18 DL |
|---|

Lab Name: McCoy and McCoy Labs, Inc Contract: 68-D1-0081

Lab Code: MCCOY Case No.: 18642 SAS No.: SDG No.: ERW07

Matrix: (soil/water) WATER Lab Sample ID: ERW18

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: C9453

Level: (low/med) LOW Date Received: 08/20/92

% Moisture: not dec._____ Date Analyzed: 08/21/92

GC Column: RTx502.2 ID: .53 (mm) Dilution Factor: 10.0

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

Number TICs found: 0

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

| | CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|---|
| 1. | | | | | |
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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ERW19

Lab Name: McCoy and McCoy Labs, Inc  Contract: 68-D1-0081

Lab Code: MCCOY  Case No.: 18642  SAS No.:  SDG No.: ERW07

Matrix: (soil/water) WATER  Lab Sample ID: ERW19

Sample wt/vol: 5.000 (g/mL) ML  Lab File ID: C9448

Level: (low/med) LOW  Date Received: 08/20/92

% Moisture: not dec._____  Date Analyzed: 08/21/92

GC Column: RTx502.2 ID: .53 (mm)  Dilution Factor: 1.0

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

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 74-87-3 | Chloromethane | 10. | U |
| 74-83-9 | Bromomethane | 10. | U |
| 75-01-4 | Vinyl Chloride | 10. | U |
| 75-00-3 | Chloroethane | 10. | U |
| 75-09-2 | Methylene Chloride | 10. | U |
| 67-64-1 | Acetone | 10. | U |
| 75-15-0 | Carbon Disulfide | 10. | U |
| 75-35-4 | 1,1-Dichloroethene | 10. | U |
| 75-34-3 | 1,1-Dichloroethane | 10. | U |
| 540-59-0 | 1,2-Dichloroethene (total) | 97. | |
| 67-66-3 | Chloroform | 2. | J |
| 107-06-2 | 1,2-Dichloroethane | 10. | U |
| 78-93-3 | 2-Butanone | 10. | U |
| 71-55-6 | 1,1,1-Trichloroethane | 7. | J |
| 56-23-5 | Carbon Tetrachloride | 10. | U |
| 75-27-4 | Bromodichloromethane | 10. | U |
| 78-87-5 | 1,2-Dichloropropane | 10. | U |
| 10061-01-5 | cis-1,3-Dichloropropene | 10. | U |
| 79-01-6 | Trichloroethene | 1200. | E |
| 124-48-1 | Dibromochloromethane | 10. | U |
| 79-00-5 | 1,1,2-Trichloroethane | 10. | U |
| 71-43-2 | Benzene | 10. | U |
| 10061-02-6 | trans-1,3-Dichloropropene | 10. | U |
| 75-25-2 | Bromoform | 10. | U |
| 108-10-1 | 4-Methyl-2-Pentanone | 10. | U |
| 591-78-6 | 2-Hexanone | 10. | U |
| 127-18-4 | Tetrachloroethene | 10. | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 10. | U |
| 108-88-3 | Toluene | 10. | U |
| 108-90-7 | Chlorobenzene | 10. | U |
| 100-41-4 | Ethylbenzene | 10. | U |
| 100-42-5 | Styrene | 10. | U |
| 1330-20-7 | Xylene (total) | 10. | U |

1E

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

ERW19

Lab Name: McCoy and McCoy Labs, Inc  Contract: 68-D1-0081

Lab Code: MCCOY  Case No.: 18642  SAS No.:  SDG No.: ERW07

Matrix: (soil/water) WATER  Lab Sample ID: ERW19

Sample wt/vol: 5.000 (g/mL) ML  Lab File ID: C9448

Level: (low/med) LOW  Date Received: 08/20/92

% Moisture: not dec._____  Date Analyzed: 08/21/92

GC Column: RTx502.2 ID: .53 (mm)  Dilution Factor: 1.0

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

Number TICs found: 0  CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

| | CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|---|
| 1. | | | | | |
| 2. | | | | | |
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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ERW19 DL

Lab Name: McCoy and McCoy Labs, Inc Contract: 68-D1-0081

Lab Code: MCCOY Case No.: 18642 SAS No.: SDG No.: ERW07

Matrix: (soil/water) WATER Lab Sample ID: ERW19

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: C9454

Level: (low/med) LOW Date Received: 08/20/92

% Moisture: not dec._____ Date Analyzed: 08/21/92

GC Column: RTx502.2 ID: .53 (mm) Dilution Factor: 10.0

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

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 74-87-3 | Chloromethane | 100. | U |
| 74-83-9 | Bromomethane | 100. | U |
| 75-01-4 | Vinyl Chloride | 100. | U |
| 75-00-3 | Chloroethane | 100. | U |
| 75-09-2 | Methylene Chloride | 100. | U |
| 67-64-1 | Acetone | 100. | U |
| 75-15-0 | Carbon Disulfide | 100. | U |
| 75-35-4 | 1,1-Dichloroethene | 100. | U |
| 75-34-3 | 1,1-Dichloroethane | 100. | U |
| 540-59-0 | 1,2-Dichloroethene (total) | 94. | J D |
| 67-66-3 | Chloroform | 100. | U |
| 107-06-2 | 1,2-Dichloroethane | 100. | U |
| 78-93-3 | 2-Butanone | 100. | U |
| 71-55-6 | 1,1,1-Trichloroethane | 100. | U |
| 56-23-5 | Carbon Tetrachloride | 100. | U |
| 75-27-4 | Bromodichloromethane | 100. | U |
| 78-87-5 | 1,2-Dichloropropane | 100. | U |
| 10061-01-5 | cis-1,3-Dichloropropene | 100. | U |
| 79-01-6 | Trichloroethene | 1300. | D |
| 124-48-1 | Dibromochloromethane | 100. | U |
| 79-00-5 | 1,1,2-Trichloroethane | 100. | U |
| 71-43-2 | Benzene | 100. | U |
| 10061-02-6 | trans-1,3-Dichloropropene | 100. | U |
| 75-25-2 | Bromoform | 100. | U |
| 108-10-1 | 4-Methyl-2-Pentanone | 100. | U |
| 591-78-6 | 2-Hexanone | 100. | U |
| 127-18-4 | Tetrachloroethene | 100. | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 100. | U |
| 108-88-3 | Toluene | 100. | U |
| 108-90-7 | Chlorobenzene | 100. | U |
| 100-41-4 | Ethylbenzene | 100. | U |
| 100-42-5 | Styrene | 100. | U |
| 1330-20-7 | Xylene (total) | 100. | U |

1E

# VOLATILE ORGANICS ANALYSIS DATA SHEET
# TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

| ERW19 DL |
|---|

Lab Name: McCoy and McCoy Labs, Inc  Contract: 68-D1-0081

Lab Code: MCCOY  Case No.: 18642  SAS No.:  SDG No.: ERW07

Matrix: (soil/water) WATER  Lab Sample ID: ERW19

Sample wt/vol: 5.000 (g/mL) ML  Lab File ID: C9454

Level: (low/med) LOW  Date Received: 08/20/92

% Moisture: not dec._____  Date Analyzed: 08/21/92

GC Column: RTx502.2 ID: .53 (mm)  Dilution Factor: 10.0

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

Number TICs found: 0  CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

| | CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ERW20

Lab Name: McCoy and McCoy Labs, Inc  Contract: 68-D1-0081

Lab Code: MCCOY  Case No.: 18642  SAS No.:  SDG No.: ERW07

Matrix: (soil/water) WATER  Lab Sample ID: ERW20

Sample wt/vol: 5.000 (g/mL) ML  Lab File ID: C9449

Level: (low/med) LOW  Date Received: 08/20/92

% Moisture: not dec._____  Date Analyzed: 08/21/92

GC Column: RTx502.2 ID: .53 (mm)  Dilution Factor: 1.0

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

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 74-87-3 | Chloromethane | 10. | U |
| 74-83-9 | Bromomethane | 10. | U |
| 75-01-4 | Vinyl Chloride | 10. | U |
| 75-00-3 | Chloroethane | 10. | U |
| 75-09-2 | Methylene Chloride | 10. | U |
| 67-64-1 | Acetone | 10. | U |
| 75-15-0 | Carbon Disulfide | 10. | U |
| 75-35-4 | 1,1-Dichloroethene | 10. | U |
| 75-34-3 | 1,1-Dichloroethane | 10. | U |
| 540-59-0 | 1,2-Dichloroethene (total) | 10. | U |
| 67-66-3 | Chloroform | 10. | U |
| 107-06-2 | 1,2-Dichloroethane | 10. | U |
| 78-93-3 | 2-Butanone | 10. | U |
| 71-55-6 | 1,1,1-Trichloroethane | 10. | U |
| 56-23-5 | Carbon Tetrachloride | 10. | U |
| 75-27-4 | Bromodichloromethane | 10. | U |
| 78-87-5 | 1,2-Dichloropropane | 10. | U |
| 10061-01-5 | cis-1,3-Dichloropropene | 10. | U |
| 79-01-6 | Trichloroethene | 10. | U |
| 124-48-1 | Dibromochloromethane | 10. | U |
| 79-00-5 | 1,1,2-Trichloroethane | 10. | U |
| 71-43-2 | Benzene | 10. | U |
| 10061-02-6 | trans-1,3-Dichloropropene | 10. | U |
| 75-25-2 | Bromoform | 10. | U |
| 108-10-1 | 4-Methyl-2-Pentanone | 10. | U |
| 591-78-6 | 2-Hexanone | 10. | U |
| 127-18-4 | Tetrachloroethene | 10. | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 10. | U |
| 108-88-3 | Toluene | 10. | U |
| 108-90-7 | Chlorobenzene | 10. | U |
| 100-41-4 | Ethylbenzene | 10. | U |
| 100-42-5 | Styrene | 10. | U |
| 1330-20-7 | Xylene (total) | 10. | U |

1E

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

ERW20

Lab Name: McCoy and McCoy Labs, Inc  Contract: 68-D1-0081

Lab Code: MCCOY  Case No.: 18642  SAS No.:  SDG No.: ERW07

Matrix: (soil/water) WATER  Lab Sample ID: ERW20

Sample wt/vol: 5.000 (g/mL) ML  Lab File ID: C9449

Level: (low/med) LOW  Date Received: 08/20/92

% Moisture: not dec._____  Date Analyzed: 08/21/92

GC Column: RTx502.2 ID: .53 (mm)  Dilution Factor: 1.0

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

Number TICs found: 0

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

| | CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ERW21

Lab Name: McCoy and McCoy Labs, Inc  Contract: 68-D1-0081

Lab Code: MCCOY  Case No.: 18642  SAS No.:  SDG No.: ERW07

Matrix: (soil/water) WATER  Lab Sample ID: ERW21

Sample wt/vol: 5.000 (g/mL) ML  Lab File ID: C9450

Level: (low/med) LOW  Date Received: 08/20/92

% Moisture: not dec._____  Date Analyzed: 08/21/92

GC Column: RTx502.2 ID: .53 (mm)  Dilution Factor: 1.0

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

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 74-87-3 | Chloromethane | 10. | U |
| 74-83-9 | Bromomethane | 10. | U |
| 75-01-4 | Vinyl Chloride | 10. | U |
| 75-00-3 | Chloroethane | 10. | U |
| 75-09-2 | Methylene Chloride | 10. | U |
| 67-64-1 | Acetone | 10. | U |
| 75-15-0 | Carbon Disulfide | 10. | U |
| 75-35-4 | 1,1-Dichloroethene | 10. | U |
| 75-34-3 | 1,1-Dichloroethane | 10. | U |
| 540-59-0 | 1,2-Dichloroethene (total) | 10. | U |
| 67-66-3 | Chloroform | 10. | U |
| 107-06-2 | 1,2-Dichloroethane | 10. | U |
| 78-93-3 | 2-Butanone | 10. | U |
| 71-55-6 | 1,1,1-Trichloroethane | 10. | U |
| 56-23-5 | Carbon Tetrachloride | 10. | U |
| 75-27-4 | Bromodichloromethane | 10. | U |
| 78-87-5 | 1,2-Dichloropropane | 10. | U |
| 10061-01-5 | cis-1,3-Dichloropropene | 10. | U |
| 79-01-6 | Trichloroethene | 10. | U |
| 124-48-1 | Dibromochloromethane | 10. | U |
| 79-00-5 | 1,1,2-Trichloroethane | 10. | U |
| 71-43-2 | Benzene | 10. | U |
| 10061-02-6 | trans-1,3-Dichloropropene | 10. | U |
| 75-25-2 | Bromoform | 10. | U |
| 108-10-1 | 4-Methyl-2-Pentanone | 10. | U |
| 591-78-6 | 2-Hexanone | 10. | U |
| 127-18-4 | Tetrachloroethene | 10. | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 10. | U |
| 108-88-3 | Toluene | 10. | U |
| 108-90-7 | Chlorobenzene | 10. | U |
| 100-41-4 | Ethylbenzene | 10. | U |
| 100-42-5 | Styrene | 10. | U |
| 1330-20-7 | Xylene (total) | 10. | U |

1E

# VOLATILE ORGANICS ANALYSIS DATA SHEET
# TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

ERW21

Lab Name: McCoy and McCoy Labs, Inc Contract: 68-D1-0081

Lab Code: MCCOY Case No.: 18642 SAS No.: SDG No.: ERW07

Matrix: (soil/water) WATER Lab Sample ID: ERW21

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: C9450

Level: (low/med) LOW Date Received: 08/20/92

% Moisture: not dec._____ Date Analyzed: 08/21/92

GC Column: RTx502.2 ID: .53 (mm) Dilution Factor: 1.0

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

Number TICs found: 0 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

| | CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|---|
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# SOIL SEMIVOLATILE SURROGATE RECOVERY

Lab Name: McCoy and McCoy Labs, Inc  Contract: 68D10081

Lab Code: MCCOY  Case No.: 18642  SAS No.:  SDG No.: ERW07

Level: (low/med) LOW

| | EPA SAMPLE NO. | S1 (NBZ)# | S2 (FBP)# | S3 (TPH)# | S4 (PHL)# | S5 (2FP)# | S6 (TBP)# | S7 (2CP)# | S8 (DCB)# | TOT OUT |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | SBLK01 | 50 | 76 | 86 | 58 | 51 | 75 | 31 | 63 | 0 |
| 2 | ERW07 | 53 | 83 | 92 | 55 | 36 | 79 | 28 | 55 | 0 |
| 3 | ERW08 | 56 | 84 | 84 | 59 | 46 | 76 | 31 | 66 | 0 |
| 4 | ERW09 | 62 | 97 | 90 | 73 | 61 | 89 | 38 | 78 | 0 |
| 5 | ERW10 | 50 | 73 | 83 | 59 | 50 | 66 | 31 | 64 | 0 |
| 6 | ERW09MS | 26 | 53 | 57 | 31 | 25 | 52 | 16 * | 31 | 1 |
| 7 | ERW09MSD | 53 | 97 | 93 | 58 | 45 | 86 | 30 | 62 | 0 |
| 8 | SBLK02 | 0 * | 0 * | 0 * | 0 * | 0 * | 0 * | 0 * | 0 * | 8 |
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| | | QC LIMITS | |
|---|---|---|---|
| S1 (NBZ) | = Nitrobenzene-d5 | (23-120) | |
| S2 (FBP) | = 2-Fluorobiphenyl | (30-115) | |
| S3 (TPH) | = Terphenyl-d14 | (18-137) | |
| S4 (PHL) | = Phenol-d6 | (24-113) | |
| S5 (2FP) | = 2-Fluorophenol | (25-121) | |
| S6 (TBP) | = 2,4,6-Tribromophenol | (19-122) | |
| S7 (2CP) | = 2-Chlorophenol-d4 | (20-130) | (advisory) |
| S8 (DCB) | = 1,2-Dichlorobenzene-d4 | (20-130) | (advisory) |

# Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogate diluted out

# WATER SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: McCoy and McCoy Labs, Inc  Contract: 68D10081

Lab Code: MCCOY  Case No.: 18642  SAS No.:  SDG No.: ERW07

Matrix Spike - EPA Sample No.: ERW18

| COMPOUND | SPIKE ADDED (UG/L ) | SAMPLE CONCENTRATION (UG/L ) | MS CONCENTRATION (UG/L ) | MS % REC # | QC LIMITS REC. |
|---|---|---|---|---|---|
| Phenol | 150. | 0. | 80. | 53 | 12-110 |
| 2-Chlorophenol | 150. | 0. | 140. | 93 | 27-123 |
| 1,4-Dichlorobenzene | 100. | 0. | 66. | 66 | 36- 97 |
| N-Nitroso-Di-n-prop.(1) | 100. | 0. | 74. | 74 | 41-116 |
| 1,2,4-Trichlorobenzene | 100. | 0. | 70. | 70 | 39- 98 |
| 4-Chloro-3-methylphenol | 150. | 0. | 140. | 93 | 23- 97 |
| Acenaphthene | 100. | 0. | 100. | 100 | 46-118 |
| 4-Nitrophenol | 150. | 0. | 150. | 100 * | 10- 80 |
| 2,4-Dinitrotoluene | 100. | 0. | 93. | 93 | 24- 96 |
| Pentachlorophenol | 150. | 0. | 140. | 93 | 9-103 |
| Pyrene | 100. | 0. | 83. | 83 | 26-127 |

| COMPOUND | SPIKE ADDED (UG/L ) | MSD CONCENTRATION (UG/L ) | MSD % REC # | % RPD # | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| Phenol | 150. | 120. | 80 | 41 | 42 | 12-110 |
| 2-Chlorophenol | 150. | 120. | 80 | 15 | 40 | 27-123 |
| 1,4-Dichlorobenzene | 100. | 54. | 54 | 20 | 28 | 36- 97 |
| N-Nitroso-Di-n-prop.(1) | 100. | 66. | 66 | 11 | 38 | 41-116 |
| 1,2,4-Trichlorobenzene | 100. | 59. | 59 | 17 | 28 | 39- 98 |
| 4-Chloro-3-methylphenol | 150. | 110. | 73 | 24 | 42 | 23- 97 |
| Acenaphthene | 100. | 90. | 90 | 11 | 31 | 46-118 |
| 4-Nitrophenol | 150. | 130. | 87 * | 14 | 50 | 10- 80 |
| 2,4-Dinitrotoluene | 100. | 85. | 85 | 9 | 38 | 24- 96 |
| Pentachlorophenol | 150. | 130. | 87 | 7 | 50 | 9-103 |
| Pyrene | 100. | 75. | 75 | 10 | 31 | 26-127 |

(1) N-Nitroso-di-n-propylamine

# Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

RPD:  0 out of  11 outside limits
Spike Recovery:  2 out of  22 outside limits

COMMENTS:

# SOIL SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: McCoy and McCoy Labs, Inc  Contract: 68D10081

Lab Code: MCCOY  Case No.: 18642  SAS No.:  SDG No.: ERW07

Matrix Spike - EPA Sample No.: ERW09  Level:(low/med) LOW

| COMPOUND | SPIKE ADDED (UG/KG) | SAMPLE CONCENTRATION (UG/KG) | MS CONCENTRATION (UG/KG) | MS % REC # | QC LIMITS REC. |
|---|---|---|---|---|---|
| Phenol | 3225. | 0. | 1000. | 31 | 26- 90 |
| 2-Chlorophenol | 3225. | 0. | 990. | 31 | 25-102 |
| 1,4-Dichlorobenzene | 2150. | 0. | 600. | 28 | 28-104 |
| N-Nitroso-Di-n-prop.(1) | 2150. | 0. | 700. | 33 * | 41-126 |
| 1,2,4-Trichlorobenzene | 2150. | 0. | 720. | 33 * | 38-107 |
| 4-Chloro-3-methylphenol | 3225. | 0. | 1600. | 50 | 26-103 |
| Acenaphthene | 2150. | 0. | 1400. | 65 | 31-137 |
| 4-Nitrophenol | 3225. | 0. | 1300. | 40 | 11-114 |
| 2,4-Dinitrotoluene | 2150. | 0. | 930. | 43 | 28- 89 |
| Pentachlorophenol | 3225. | 0. | 1500. | 47 | 17-109 |
| Pyrene | 2150. | 460. | 1500. | 48 | 35-142 |

| COMPOUND | SPIKE ADDED (UG/KG) | MSD CONCENTRATION (UG/KG) | MSD % REC # | % RPD # | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| Phenol | 3254. | 1900. | 58 | 61 * | 35 | 26- 90 |
| 2-Chlorophenol | 3254. | 1900. | 58 | 61 * | 50 | 25-102 |
| 1,4-Dichlorobenzene | 2170. | 1100. | 51 | 58 * | 27 | 28-104 |
| N-Nitroso-Di-n-prop.(1) | 2170. | 1400. | 65 | 65 * | 38 | 41-126 |
| 1,2,4-Trichlorobenzene | 2170. | 1400. | 65 | 65 * | 23 | 38-107 |
| 4-Chloro-3-methylphenol | 3254. | 2500. | 77 | 43 * | 33 | 26-103 |
| Acenaphthene | 2170. | 2500. | 115 | 56 * | 19 | 31-137 |
| 4-Nitrophenol | 3254. | 2600. | 80 | 67 * | 50 | 11-114 |
| 2,4-Dinitrotoluene | 2170. | 1700. | 78 | 58 * | 47 | 28- 89 |
| Pentachlorophenol | 3254. | 2800. | 86 | 59 * | 47 | 17-109 |
| Pyrene | 2170. | 2300. | 85 | 56 * | 36 | 35-142 |

(1) N-Nitroso-di-n-propylamine

# Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

RPD:  11  out of  11  outside limits
Spike Recovery:  2  out of  22  outside limits

COMMENTS:

# SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

SBLK01

Lab Name: McCoy and McCoy Labs, Inc  Contract: 68D10081

Lab Code: MCCOY  Case No.: 18642  SAS No.:  SDG No.: ERW07

Lab File ID: D1225  Lab Sample ID: SBLK01

Instrument ID: ~~HP59#2~~ HP5996#2  DHM 09-10-92  Date Extracted: 08/24/92

Matrix: (soil/water) SOIL  Date Analyzed: 08/26/92

Level:(low/med) LOW  Time Analyzed: 12:36

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

| | EPA SAMPLE NO. | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED |
|---|---|---|---|---|
| 1 | ERW07 | 92-08-471-01 | D1226 | 08/26/92 |
| 2 | ERW08 | 92-08-471-02 | D1227 | 08/26/92 |
| 3 | ERW09 | 92-08-471-03 | D1228 | 08/26/92 |
| 4 | ERW10 | 92-08-471-04 | D1229 | 08/26/92 |
| 5 | ERW09MS | 92-08-471-12 | D1230 | 08/26/92 |
| 6 | ERW09MSD | 92-08-471-13 | D1231 | 08/26/92 |
| 7 | SBLK02 | GPC BLANK | D1232 | 08/26/92 |
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COMMENTS:

# SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

SBLK03

Lab Name: McCoy and McCoy Labs, Inc  Contract: 68D10081

Lab Code: MCCOY  Case No.: 18642  SAS No.:  SDG No.: ERW07

Lab File ID: D1237  Lab Sample ID: SBLK03

Instrument ID: ~~HP5972~~ HP5996 #2  Date Extracted: 08/24/92

Matrix: (soil/water) WATER  Date Analyzed: 08/27/92

Level: (low/med) LOW  Time Analyzed: 10:30

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

| | EPA SAMPLE NO. | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED |
|---|---|---|---|---|
| 1 | ERW18 | 92-08-471-06 | D1238 | 08/27/92 |
| 2 | ERW18MS | 92-08-471-07 | D1239 | 08/27/92 |
| 3 | ERW18MSD | 92-08-471-08 | D1240 | 08/27/92 |
| 4 | ERW19 | 92-08-471-09 | D1241 | 08/27/92 |
| 5 | ERW20 | 92-08-471-10 | D1242 | 08/27/92 |
| 6 | ERW21 | 92-08-471-11 | D1243 | 08/27/92 |
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COMMENTS:

# SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK01

Lab Name: McCoy and McCoy Labs, Inc  Contract: 68D10081

Lab Code: MCCOY  Case No.: 18642  SAS No.:  SDG No.: ERW07

Matrix: (soil/water) SOIL  Lab Sample ID: SBLK01

Sample wt/vol: 30.0 (g/mL) G  Lab File ID: D1225

Level: (low/med) LOW  Date Received: 00/00/00

% Moisture: 0. decanted: (Y/N) N  Date Extracted: 08/24/92

Concentrated Extract Volume: 1000.0 (uL)  Date Analyzed: 08/26/92

Injection Volume: 1.0 (uL)  Dilution Factor: 1.0

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

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG | Q |
|---|---|---|---|
| 108-95-2 | Phenol | 1300. | U |
| 111-44-4 | bis(2-Chloroethyl)ether | 1300. | U |
| 95-57-8 | 2-Chlorophenol | 1300. | U |
| 541-73-1 | 1,3-Dichlorobenzene | 1300. | U |
| 106-46-7 | 1,4-Dichlorobenzene | 1300. | U |
| 95-50-1 | 1,2-Dichlorobenzene | 1300. | U |
| 95-48-7 | 2-Methylphenol | 1300. | U |
| 108-60-1 | 2,2'-oxybis(1-Chloropropane) | 1300. | U |
| 106-44-5 | 4-Methylphenol | 1300. | U |
| 621-64-7 | N-Nitroso-Di-n-propylamine | 1300. | U |
| 67-72-1 | Hexachloroethane | 1300. | U |
| 98-95-3 | Nitrobenzene | 1300. | U |
| 78-59-1 | Isophorone | 1300. | U |
| 88-75-5 | 2-Nitrophenol | 1300. | U |
| 105-67-9 | 2,4-Dimethylphenol | 1300. | U |
| 111-91-1 | bis(2-Chloroethoxy)methane | 1300. | U |
| 120-83-2 | 2,4-Dichlorophenol | 1300. | U |
| 120-82-1 | 1,2,4-Trichlorobenzene | 1300. | U |
| 91-20-3 | Naphthalene | 1300. | U |
| 106-47-8 | 4-Chloroaniline | 1300. | U |
| 87-68-3 | Hexachlorobutadiene | 1300. | U |
| 59-50-7 | 4-Chloro-3-methylphenol | 1300. | U |
| 91-57-6 | 2-Methylnaphthalene | 1300. | U |
| 77-47-4 | Hexachlorocyclopentadiene | 1300. | U |
| 88-06-2 | 2,4,6-Trichlorophenol | 1300. | U |
| 95-95-4 | 2,4,5-Trichlorophenol | 3300. | U |
| 91-58-7 | 2-Chloronaphthalene | 1300. | U |
| 88-74-4 | 2-Nitroaniline | 3300. | U |
| 131-11-3 | Dimethylphthalate | 1300. | U |
| 208-96-8 | Acenaphthylene | 1300. | U |
| 606-20-2 | 2,6-Dinitrotoluene | 1300. | U |
| 99-09-2 | 3-Nitroaniline | 3300. | U |
| 83-32-9 | Acenaphthene | 1300. | U |

# SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK01

Lab Name: McCoy and McCoy Labs, Inc  Contract: 68D10081

Lab Code: MCCOY  Case No.: 18642  SAS No.:  SDG No.: ERW07

Matrix: (soil/water) SOIL  Lab Sample ID: SBLK01

Sample wt/vol: 30.0 (g/mL) G  Lab File ID: D1225

Level: (low/med) LOW  Date Received: 00/00/00

% Moisture: 0. decanted: (Y/N) N  Date Extracted: 08/24/92

Concentrated Extract Volume: 1000.0 (uL)  Date Analyzed: 08/26/92

Injection Volume: 1.0 (uL)  Dilution Factor: 1.0

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

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG | Q |
|---|---|---|---|
| 51-28-5 | 2,4-Dinitrophenol | 3300. | U |
| 100-02-7 | 4-Nitrophenol | 3300. | U |
| 132-64-9 | Dibenzofuran | 1300. | U |
| 121-14-2 | 2,4-Dinitrotoluene | 1300. | U |
| 84-66-2 | Diethylphthalate | 1300. | U |
| 7005-72-3 | 4-Chlorophenyl-phenylether | 1300. | U |
| 86-73-7 | Fluorene | 1300. | U |
| 100-01-6 | 4-Nitroaniline | 3300. | U |
| 534-52-1 | 4,6-Dinitro-2-methylphenol | 3300. | U |
| 86-30-6 | N-Nitrosodiphenylamine | 1300. | U |
| 101-55-3 | 4-Bromophenyl-phenylether | 1300. | U |
| 118-74-1 | Hexachlorobenzene | 1300. | U |
| 87-86-5 | Pentachlorophenol | 3300. | U |
| 85-01-8 | Phenanthrene | 1300. | U |
| 120-12-7 | Anthracene | 1300. | U |
| 86-74-8 | CARBAZOLE | 1300. | U |
| 84-74-2 | Di-n-butylphthalate | 390. | J |
| 206-44-0 | Fluoranthene | 1300. | U |
| 129-00-0 | Pyrene | 1300. | U |
| 85-68-7 | Butylbenzylphthalate | 1300. | U |
| 91-94-1 | 3,3'-Dichlorobenzidine | 1300. | U |
| 56-55-3 | Benzo(a)anthracene | 1300. | U |
| 218-01-9 | Chrysene | 1300. | U |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | 1300. | U |
| 117-84-0 | Di-n-octylphthalate | 1300. | U |
| 205-99-2 | Benzo(b)fluoranthene | 1300. | U |
| 207-08-9 | Benzo(k)fluoranthene | 1300. | U |
| 50-32-8 | Benzo(a)pyrene | 1300. | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 1300. | U |
| 53-70-3 | Dibenz(a,h)anthracene | 1300. | U |
| 191-24-2 | Benzo(g,h,i)perylene | 1300. | U |

(1) - Cannot be separated from diphenylamine

EPA SAMPLE NO.

SBLK01

# SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
# TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: McCoy and McCoy Labs, Inc  Contract: 68D10081

Lab Code: MCCOY  Case No.: 18642  SAS No.:  SDG No.: ERW07

Matrix: (soil/water) SOIL  Lab Sample ID: SBLK01

Sample wt/vol: 30.0 (g/mL) G  Lab File ID: D1225

Level: (low/med) LOW  Date Received: 00/00/00

% Moisture: 0.  decanted: (Y/N) N  Date Extracted: 08/24/92

Concentrated Extract Volume: 1000.0 (uL)  Date Analyzed: 08/26/92

Injection Volume: 1.0 (uL)  Dilution Factor: 1.0

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

Number TICs found: 0

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

| | CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|---|
| 1. | | | | | |
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# SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK02

Lab Name: McCoy and McCoy Labs, Inc  Contract: 68D10081

Lab Code: MCCOY  Case No.: 18642  SAS No.:  SDG No.: ERW07

Matrix: (soil/water) SOIL  Lab Sample ID: GPC BLANK

Sample wt/vol: 30.0 (g/mL) G  Lab File ID: D1232

Level: (low/med) LOW  Date Received: 08/20/92

% Moisture: 0. decanted: (Y/N) N  Date Extracted: 08/24/92

Concentrated Extract Volume: 1000.0 (uL)  Date Analyzed: 08/26/92

Injection Volume: 1.0 (uL)  Dilution Factor: 1.0

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

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG | Q |
|---|---|---|---|
| 108-95-2 | Phenol | 1300. | U |
| 111-44-4 | bis(2-Chloroethyl)ether | 1300. | U |
| 95-57-8 | 2-Chlorophenol | 1300. | U |
| 541-73-1 | 1,3-Dichlorobenzene | 1300. | U |
| 106-46-7 | 1,4-Dichlorobenzene | 1300. | U |
| 95-50-1 | 1,2-Dichlorobenzene | 1300. | U |
| 95-48-7 | 2-Methylphenol | 1300. | U |
| 108-60-1 | 2,2'-oxybis(1-Chloropropane) | 1300. | U |
| 106-44-5 | 4-Methylphenol | 1300. | U |
| 621-64-7 | N-Nitroso-Di-n-propylamine | 1300. | U |
| 67-72-1 | Hexachloroethane | 1300. | U |
| 98-95-3 | Nitrobenzene | 1300. | U |
| 78-59-1 | Isophorone | 1300. | U |
| 88-75-5 | 2-Nitrophenol | 1300. | U |
| 105-67-9 | 2,4-Dimethylphenol | 1300. | U |
| 111-91-1 | bis(2-Chloroethoxy)methane | 1300. | U |
| 120-83-2 | 2,4-Dichlorophenol | 1300. | U |
| 120-82-1 | 1,2,4-Trichlorobenzene | 1300. | U |
| 91-20-3 | Naphthalene | 1300. | U |
| 106-47-8 | 4-Chloroaniline | 1300. | U |
| 87-68-3 | Hexachlorobutadiene | 1300. | U |
| 59-50-7 | 4-Chloro-3-methylphenol | 1300. | U |
| 91-57-6 | 2-Methylnaphthalene | 1300. | U |
| 77-47-4 | Hexachlorocyclopentadiene | 1300. | U |
| 88-06-2 | 2,4,6-Trichlorophenol | 1300. | U |
| 95-95-4 | 2,4,5-Trichlorophenol | 3300. | U |
| 91-58-7 | 2-Chloronaphthalene | 1300. | U |
| 88-74-4 | 2-Nitroaniline | 3300. | U |
| 131-11-3 | Dimethylphthalate | 1300. | U |
| 208-96-8 | Acenaphthylene | 1300. | U |
| 606-20-2 | 2,6-Dinitrotoluene | 1300. | U |
| 99-09-2 | 3-Nitroaniline | 3300. | U |
| 83-32-9 | Acenaphthene | 1300. | U |

# SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK02

Lab Name: McCoy and McCoy Labs, Inc  Contract: 68D10081

Lab Code: MCCOY  Case No.: 18642  SAS No.:  SDG No.: ERW07

Matrix: (soil/water) SOIL  Lab Sample ID: GPC BLANK

Sample wt/vol: 30.0 (g/mL) G  Lab File ID: D1232

Level: (low/med) LOW  Date Received: 08/20/92

% Moisture: 0. decanted: (Y/N) N  Date Extracted: 08/24/92

Concentrated Extract Volume: 1000.0 (uL)  Date Analyzed: 08/26/92

Injection Volume: 1.0 (uL)  Dilution Factor: 1.0

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

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG | Q |
|---|---|---|---|
| 51-28-5 | 2,4-Dinitrophenol | 3300. | U |
| 100-02-7 | 4-Nitrophenol | 3300. | U |
| 132-64-9 | Dibenzofuran | 1300. | U |
| 121-14-2 | 2,4-Dinitrotoluene | 1300. | U |
| 84-66-2 | Diethylphthalate | 1300. | U |
| 7005-72-3 | 4-Chlorophenyl-phenylether | 1300. | U |
| 86-73-7 | Fluorene | 1300. | U |
| 100-01-6 | 4-Nitroaniline | 3300. | U |
| 534-52-1 | 4,6-Dinitro-2-methylphenol | 3300. | U |
| 86-30-6 | N-Nitrosodiphenylamine | 1300. | U |
| 101-55-3 | 4-Bromophenyl-phenylether | 1300. | U |
| 118-74-1 | Hexachlorobenzene | 1300. | U |
| 87-86-5 | Pentachlorophenol | 3300. | U |
| 85-01-8 | Phenanthrene | 1300. | U |
| 120-12-7 | Anthracene | 1300. | U |
| 86-74-8 | CARBAZOLE | 1300. | U |
| 84-74-2 | Di-n-butylphthalate | 1300. | U |
| 206-44-0 | Fluoranthene | 1300. | U |
| 129-00-0 | Pyrene | 1300. | U |
| 85-68-7 | Butylbenzylphthalate | 1300. | U |
| 91-94-1 | 3,3'-Dichlorobenzidine | 1300. | U |
| 56-55-3 | Benzo(a)anthracene | 1300. | U |
| 218-01-9 | Chrysene | 1300. | U |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | 1300. | U |
| 117-84-0 | Di-n-octylphthalate | 1300. | U |
| 205-99-2 | Benzo(b)fluoranthene | 1300. | U |
| 207-08-9 | Benzo(k)fluoranthene | 1300. | U |
| 50-32-8 | Benzo(a)pyrene | 1300. | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 1300. | U |
| 53-70-3 | Dibenz(a,h)anthracene | 1300. | U |
| 191-24-2 | Benzo(g,h,i)perylene | 1300. | U |

(1) - Cannot be separated from diphenylamine

1F

# SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
# TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SBLK02

Lab Name: McCoy and McCoy Labs, Inc  Contract: 68D10081

Lab Code: MCCOY  Case No.: 18642  SAS No.:  SDG No.: ERW07

Matrix: (soil/water) SOIL  Lab Sample ID: GPC BLANK

Sample wt/vol: 30.0 (g/mL) G  Lab File ID: D1232

Level: (low/med) LOW  Date Received: 08/20/92

% Moisture: 0. decanted: (Y/N) N  Date Extracted: 08/24/92

Concentrated Extract Volume: 1000.0 (uL)  Date Analyzed: 08/26/92

Injection Volume: 1.0 (uL)  Dilution Factor: 1.0

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

Number TICs found: 0

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

| | CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|---|
| 1. | | | | | |
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# SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK03

Lab Name: McCoy and McCoy Labs, Inc  Contract: 68D10081

Lab Code: MCCOY  Case No.: 18642  SAS No.:  SDG No.: ERW07

Matrix: (soil/water) WATER  Lab Sample ID: SBLK03

Sample wt/vol: 1000.0 (g/mL) ML  Lab File ID: D1237

Level: (low/med) LOW  Date Received: 00/00/00

% Moisture: _____ decanted: (Y/N)___  Date Extracted: 08/24/92

Concentrated Extract Volume: 1000.0 (uL)  Date Analyzed: 08/27/92

Injection Volume: 1.0 (uL)  Dilution Factor: 1.0

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

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 108-95-2 | Phenol | 20. | U |
| 111-44-4 | bis(2-Chloroethyl)ether | 20. | U |
| 95-57-8 | 2-Chlorophenol | 20. | U |
| 541-73-1 | 1,3-Dichlorobenzene | 20. | U |
| 106-46-7 | 1,4-Dichlorobenzene | 20. | U |
| 95-50-1 | 1,2-Dichlorobenzene | 20. | U |
| 95-48-7 | 2-Methylphenol | 20. | U |
| 108-60-1 | 2,2'-oxybis(1-Chloropropane) | 20. | U |
| 106-44-5 | 4-Methylphenol | 20. | U |
| 621-64-7 | N-Nitroso-Di-n-propylamine | 20. | U |
| 67-72-1 | Hexachloroethane | 20. | U |
| 98-95-3 | Nitrobenzene | 20. | U |
| 78-59-1 | Isophorone | 20. | U |
| 88-75-5 | 2-Nitrophenol | 20. | U |
| 105-67-9 | 2,4-Dimethylphenol | 20. | U |
| 111-91-1 | bis(2-Chloroethoxy)methane | 20. | U |
| 120-83-2 | 2,4-Dichlorophenol | 20. | U |
| 120-82-1 | 1,2,4-Trichlorobenzene | 20. | U |
| 91-20-3 | Naphthalene | 20. | U |
| 106-47-8 | 4-Chloroaniline | 20. | U |
| 87-68-3 | Hexachlorobutadiene | 20. | U |
| 59-50-7 | 4-Chloro-3-methylphenol | 20. | U |
| 91-57-6 | 2-Methylnaphthalene | 20. | U |
| 77-47-4 | Hexachlorocyclopentadiene | 20. | U |
| 88-06-2 | 2,4,6-Trichlorophenol | 20. | U |
| 95-95-4 | 2,4,5-Trichlorophenol | 50. | U |
| 91-58-7 | 2-Chloronaphthalene | 20. | U |
| 88-74-4 | 2-Nitroaniline | 50. | U |
| 131-11-3 | Dimethylphthalate | 20. | U |
| 208-96-8 | Acenaphthylene | 20. | U |
| 606-20-2 | 2,6-Dinitrotoluene | 20. | U |
| 99-09-2 | 3-Nitroaniline | 50. | U |
| 83-32-9 | Acenaphthene | 20. | U |

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK03

Lab Name: McCoy and McCoy Labs, Inc Contract: 68D10081

Lab Code: MCCOY Case No.: 18642 SAS No.: SDG No.: ERW07

Matrix: (soil/water) WATER Lab Sample ID: SBLK03

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: D1237

Level: (low/med) LOW Date Received: 00/00/00

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 08/24/92

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 08/27/92

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

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

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 51-28-5 | 2,4-Dinitrophenol | 50. | U |
| 100-02-7 | 4-Nitrophenol | 50. | U |
| 132-64-9 | Dibenzofuran | 20. | U |
| 121-14-2 | 2,4-Dinitrotoluene | 20. | U |
| 84-66-2 | Diethylphthalate | 20. | U |
| 7005-72-3 | 4-Chlorophenyl-phenylether | 20. | U |
| 86-73-7 | Fluorene | 20. | U |
| 100-01-6 | 4-Nitroaniline | 50. | U |
| 534-52-1 | 4,6-Dinitro-2-methylphenol | 50. | U |
| 86-30-6 | N-Nitrosodiphenylamine | 20. | U |
| 101-55-3 | 4-Bromophenyl-phenylether | 20. | U |
| 118-74-1 | Hexachlorobenzene | 20. | U |
| 87-86-5 | Pentachlorophenol | 50. | U |
| 85-01-8 | Phenanthrene | 20. | U |
| 120-12-7 | Anthracene | 20. | U |
| 86-74-8 | CARBAZOLE | 20. | U |
| 84-74-2 | Di-n-butylphthalate | 26. | |
| 206-44-0 | Fluoranthene | 20. | U |
| 129-00-0 | Pyrene | 20. | U |
| 85-68-7 | Butylbenzylphthalate | 20. | U |
| 91-94-1 | 3,3'-Dichlorobenzidine | 20. | U |
| 56-55-3 | Benzo(a)anthracene | 20. | U |
| 218-01-9 | Chrysene | 20. | U |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | 20. | |
| 117-84-0 | Di-n-octylphthalate | 20. | U |
| 205-99-2 | Benzo(b)fluoranthene | 20. | U |
| 207-08-9 | Benzo(k)fluoranthene | 20. | U |
| 50-32-8 | Benzo(a)pyrene | 20. | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 20. | U |
| 53-70-3 | Dibenz(a,h)anthracene | 20. | U |
| 191-24-2 | Benzo(g,h,i)perylene | 20. | U |

(1) - Cannot be separated from diphenylamine

# SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
## TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.: SBLK03

Lab Name: McCoy and McCoy Labs, Inc  Contract: 68D10081

Lab Code: MCCOY  Case No.: 18642  SAS No.:  SDG No.: ERW07

Matrix: (soil/water) WATER  Lab Sample ID: SBLK03

Sample wt/vol: 1000.0 (g/mL) ML  Lab File ID: D1237

Level: (low/med) LOW  Date Received: 00/00/00

% Moisture: _____ decanted: (Y/N)___  Date Extracted: 08/24/92

Concentrated Extract Volume: 1000.0 (uL)  Date Analyzed: 08/27/92

Injection Volume: 1.0 (uL)  Dilution Factor: 1.0

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

Number TICs found: 3

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

| | CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|---|
| 1. | 111-76-2 | Ethanol, 2-butoxy- (8CI9CI) | 8.35 | 200. | J N |
| 2. | 111-77-3 | Ethanol, 2-(2-methoxyethoxy) | 8.95 | 20. | J N |
| 3. | 19686-73-8 | 2-Propanol, 1-bromo- (8CI9CI | 10.46 | 300. | J N |
| 4. | | | | | |
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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ERW07

Lab Name: McCoy and McCoy Labs, Inc  Contract: 68D10081

Lab Code: MCCOY  Case No.: 18642  SAS No.:  SDG No.: ERW07

Matrix: (soil/water) SOIL  Lab Sample ID: 92-08-471-01

Sample wt/vol: 30.7 (g/mL) G  Lab File ID: D1226

Level: (low/med) LOW  Date Received: 08/20/92

% Moisture: 20. decanted: (Y/N) N  Date Extracted: 08/24/92

Concentrated Extract Volume: 1000.0 (uL)  Date Analyzed: 08/26/92

Injection Volume: 1.0 (uL)  Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y  pH: 8.2

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG | Q |
|---|---|---|---|
| 108-95-2 | Phenol | 1600. | U |
| 111-44-4 | bis(2-Chloroethyl)ether | 1600. | U |
| 95-57-8 | 2-Chlorophenol | 1600. | U |
| 541-73-1 | 1,3-Dichlorobenzene | 1600. | U |
| 106-46-7 | 1,4-Dichlorobenzene | 1600. | U |
| 95-50-1 | 1,2-Dichlorobenzene | 1600. | U |
| 95-48-7 | 2-Methylphenol | 1600. | U |
| 108-60-1 | 2,2'-oxybis(1-Chloropropane) | 1600. | U |
| 106-44-5 | 4-Methylphenol | 1600. | U |
| 621-64-7 | N-Nitroso-Di-n-propylamine | 1600. | U |
| 67-72-1 | Hexachloroethane | 1600. | U |
| 98-95-3 | Nitrobenzene | 1600. | U |
| 78-59-1 | Isophorone | 1600. | U |
| 88-75-5 | 2-Nitrophenol | 1600. | U |
| 105-67-9 | 2,4-Dimethylphenol | 1600. | U |
| 111-91-1 | bis(2-Chloroethoxy)methane | 1600. | U |
| 120-83-2 | 2,4-Dichlorophenol | 1600. | U |
| 120-82-1 | 1,2,4-Trichlorobenzene | 1600. | U |
| 91-20-3 | Naphthalene | 1600. | U |
| 106-47-8 | 4-Chloroaniline | 1600. | U |
| 87-68-3 | Hexachlorobutadiene | 1600. | U |
| 59-50-7 | 4-Chloro-3-methylphenol | 1600. | U |
| 91-57-6 | 2-Methylnaphthalene | 1600. | U |
| 77-47-4 | Hexachlorocyclopentadiene | 1600. | U |
| 88-06-2 | 2,4,6-Trichlorophenol | 1600. | U |
| 95-95-4 | 2,4,5-Trichlorophenol | 4000. | U |
| 91-58-7 | 2-Chloronaphthalene | 1600. | U |
| 88-74-4 | 2-Nitroaniline | 4000. | U |
| 131-11-3 | Dimethylphthalate | 1600. | U |
| 208-96-8 | Acenaphthylene | 1600. | U |
| 606-20-2 | 2,6-Dinitrotoluene | 1600. | U |
| 99-09-2 | 3-Nitroaniline | 4000. | U |
| 83-32-9 | Acenaphthene | 1600. | U |

# SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ERW07

Lab Name: McCoy and McCoy Labs, Inc  Contract: 68D10081

Lab Code: MCCOY  Case No.: 18642  SAS No.:  SDG No.: ERW07

Matrix: (soil/water) SOIL  Lab Sample ID: 92-08-471-01

Sample wt/vol: 30.7 (g/mL) G  Lab File ID: D1226

Level: (low/med) LOW  Date Received: 08/20/92

% Moisture: 20. decanted: (Y/N) N  Date Extracted: 08/24/92

Concentrated Extract Volume: 1000.0 (uL)  Date Analyzed: 08/26/92

Injection Volume: 1.0 (uL)  Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y  pH: 8.2

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG | Q |
|---|---|---|---|
| 51-28-5 | 2,4-Dinitrophenol | 4000. | U |
| 100-02-7 | 4-Nitrophenol | 4000. | U |
| 132-64-9 | Dibenzofuran | 1600. | U |
| 121-14-2 | 2,4-Dinitrotoluene | 1600. | U |
| 84-66-2 | Diethylphthalate | 1600. | U |
| 7005-72-3 | 4-Chlorophenyl-phenylether | 1600. | U |
| 86-73-7 | Fluorene | 1600. | U |
| 100-01-6 | 4-Nitroaniline | 4000. | U |
| 534-52-1 | 4,6-Dinitro-2-methylphenol | 4000. | U |
| 86-30-6 | N-Nitrosodiphenylamine | 1600. | U |
| 101-55-3 | 4-Bromophenyl-phenylether | 1600. | U |
| 118-74-1 | Hexachlorobenzene | 1600. | U |
| 87-86-5 | Pentachlorophenol | 4000. | U |
| 85-01-8 | Phenanthrene | 1400. | J |
| 120-12-7 | Anthracene | 1600. | U |
| 86-74-8 | CARBAZOLE | 1600. | U |
| 84-74-2 | Di-n-butylphthalate | 430. | BJ |
| 206-44-0 | Fluoranthene | 3400. | |
| 129-00-0 | Pyrene | 1800. | |
| 85-68-7 | Butylbenzylphthalate | 1600. | U |
| 91-94-1 | 3,3'-Dichlorobenzidine | 1600. | U |
| 56-55-3 | Benzo(a)anthracene | 1200. | J |
| 218-01-9 | Chrysene | 1300. | J |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | 1600. | U |
| 117-84-0 | Di-n-octylphthalate | 1600. | U |
| 205-99-2 | Benzo(b)fluoranthene | 1600. | J |
| 207-08-9 | Benzo(k)fluoranthene | 1600. | U |
| 50-32-8 | Benzo(a)pyrene | 1700. | |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 1200. | J |
| 53-70-3 | Dibenz(a,h)anthracene | 1600. | U |
| 191-24-2 | Benzo(g,h,i)perylene | 1200. | J |

(1) - Cannot be separated from diphenylamine

1F

# SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
# TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

ERW07

Lab Name: McCoy and McCoy Labs, Inc  Contract: 68D10081

Lab Code: MCCOY  Case No.: 18642  SAS No.:  SDG No.: ERW07

Matrix: (soil/water) SOIL  Lab Sample ID: 92-08-471-01

Sample wt/vol: 30.7 (g/mL) G  Lab File ID: D1226

Level: (low/med) LOW  Date Received: 08/20/92

% Moisture: 20. decanted: (Y/N) N  Date Extracted: 08/24/92

Concentrated Extract Volume: 1000.0 (uL)  Date Analyzed: 08/26/92

Injection Volume: 1.0 (uL)  Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y  pH: 8.2

Number TICs found: 1

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

| | CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|---|
| 1. | 205-82-3 | Benzo[j]fluoranthene (8CI9CI | 32.85 | 1000. | J N |
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# SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ERW08

Lab Name: McCoy and McCoy Labs, Inc  Contract: 68D10081

Lab Code: MCCOY  Case No.: 18642  SAS No.:  SDG No.: ERW07

Matrix: (soil/water) SOIL  Lab Sample ID: 92-08-471-02

Sample wt/vol: 30.2 (g/mL) G  Lab File ID: D1227

Level: (low/med) LOW  Date Received: 08/20/92

% Moisture: 16. decanted: (Y/N) N  Date Extracted: 08/24/92

Concentrated Extract Volume: 1000.0 (uL)  Date Analyzed: 08/26/92

Injection Volume: 1.0 (uL)  Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y  pH: 8.1

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG | Q |
|---|---|---|---|
| 108-95-2 | Phenol | 1600. | U |
| 111-44-4 | bis(2-Chloroethyl)ether | 1600. | U |
| 95-57-8 | 2-Chlorophenol | 1600. | U |
| 541-73-1 | 1,3-Dichlorobenzene | 1600. | U |
| 106-46-7 | 1,4-Dichlorobenzene | 1600. | U |
| 95-50-1 | 1,2-Dichlorobenzene | 1600. | U |
| 95-48-7 | 2-Methylphenol | 1600. | U |
| 108-60-1 | 2,2'-oxybis(1-Chloropropane) | 1600. | U |
| 106-44-5 | 4-Methylphenol | 1600. | U |
| 621-64-7 | N-Nitroso-Di-n-propylamine | 1600. | U |
| 67-72-1 | Hexachloroethane | 1600. | U |
| 98-95-3 | Nitrobenzene | 1600. | U |
| 78-59-1 | Isophorone | 1600. | U |
| 88-75-5 | 2-Nitrophenol | 1600. | U |
| 105-67-9 | 2,4-Dimethylphenol | 1600. | U |
| 111-91-1 | bis(2-Chloroethoxy)methane | 1600. | U |
| 120-83-2 | 2,4-Dichlorophenol | 1600. | U |
| 120-82-1 | 1,2,4-Trichlorobenzene | 1600. | U |
| 91-20-3 | Naphthalene | 1600. | U |
| 106-47-8 | 4-Chloroaniline | 1600. | U |
| 87-68-3 | Hexachlorobutadiene | 1600. | U |
| 59-50-7 | 4-Chloro-3-methylphenol | 1600. | U |
| 91-57-6 | 2-Methylnaphthalene | 1600. | U |
| 77-47-4 | Hexachlorocyclopentadiene | 1600. | U |
| 88-06-2 | 2,4,6-Trichlorophenol | 1600. | U |
| 95-95-4 | 2,4,5-Trichlorophenol | 4000. | U |
| 91-58-7 | 2-Chloronaphthalene | 1600. | U |
| 88-74-4 | 2-Nitroaniline | 4000. | U |
| 131-11-3 | Dimethylphthalate | 1600. | U |
| 208-96-8 | Acenaphthylene | 1600. | U |
| 606-20-2 | 2,6-Dinitrotoluene | 1600. | U |
| 99-09-2 | 3-Nitroaniline | 4000. | U |
| 83-32-9 | Acenaphthene | 1600. | U |

1C

# SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ERW08

Lab Name: McCoy and McCoy Labs, Inc  Contract: 68D10081

Lab Code: MCCOY  Case No.: 18642  SAS No.:  SDG No.: ERW07

Matrix: (soil/water) SOIL  Lab Sample ID: 92-08-471-02

Sample wt/vol: 30.2 (g/mL) G  Lab File ID: D1227

Level: (low/med) LOW  Date Received: 08/20/92

% Moisture: 16. decanted: (Y/N) N  Date Extracted: 08/24/92

Concentrated Extract Volume: 1000.0 (uL)  Date Analyzed: 08/26/92

Injection Volume: 1.0 (uL)  Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y  pH: 8.1

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG | Q |
|---|---|---|---|
| 51-28-5 | 2,4-Dinitrophenol | 4000. | U |
| 100-02-7 | 4-Nitrophenol | 4000. | U |
| 132-64-9 | Dibenzofuran | 1600. | U |
| 121-14-2 | 2,4-Dinitrotoluene | 1600. | U |
| 84-66-2 | Diethylphthalate | 1600. | U |
| 7005-72-3 | 4-Chlorophenyl-phenylether | 1600. | U |
| 86-73-7 | Fluorene | 1600. | U |
| 100-01-6 | 4-Nitroaniline | 4000. | U |
| 534-52-1 | 4,6-Dinitro-2-methylphenol | 4000. | U |
| 86-30-6 | N-Nitrosodiphenylamine | 1600. | U |
| 101-55-3 | 4-Bromophenyl-phenylether | 1600. | U |
| 118-74-1 | Hexachlorobenzene | 1600. | U |
| 87-86-5 | Pentachlorophenol | 4000. | U |
| 85-01-8 | Phenanthrene | 1600. | U |
| 120-12-7 | Anthracene | 1600. | U |
| 86-74-8 | CARBAZOLE | 1600. | U |
| 84-74-2 | Di-n-butylphthalate | 1600. | U |
| 206-44-0 | Fluoranthene | 580. | J |
| 129-00-0 | Pyrene | 1600. | U |
| 85-68-7 | Butylbenzylphthalate | 1600. | U |
| 91-94-1 | 3,3'-Dichlorobenzidine | 1600. | U |
| 56-55-3 | Benzo(a)anthracene | 1600. | U |
| 218-01-9 | Chrysene | 1600. | U |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | 1600. | U |
| 117-84-0 | Di-n-octylphthalate | 1600. | U |
| 205-99-2 | Benzo(b)fluoranthene | 1600. | U |
| 207-08-9 | Benzo(k)fluoranthene | 1600. | U |
| 50-32-8 | Benzo(a)pyrene | 1600. | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 1600. | U |
| 53-70-3 | Dibenz(a,h)anthracene | 1600. | U |
| 191-24-2 | Benzo(g,h,i)perylene | 1600. | U |

(1) - Cannot be separated from diphenylamine

EPA SAMPLE NO.

ERW08

# SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
## TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: McCoy and McCoy Labs, Inc  Contract: 68D10081

Lab Code: MCCOY  Case No.: 18642  SAS No.:  SDG No.: ERW07

Matrix: (soil/water) SOIL  Lab Sample ID: 92-08-471-02

Sample wt/vol: 30.2 (g/mL) G  Lab File ID: D1227

Level: (low/med) LOW  Date Received: 08/20/92

% Moisture: 16. decanted: (Y/N) N  Date Extracted: 08/24/92

Concentrated Extract Volume: 1000.0 (uL)  Date Analyzed: 08/26/92

Injection Volume: 1.0 (uL)  Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y  pH: 8.1

Number TICs found: 0

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

| | CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
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# SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ERW09

Lab Name: McCoy and McCoy Labs, Inc  Contract: 68D10081

Lab Code: MCCOY  Case No.: 18642  SAS No.:  SDG No.: ERW07

Matrix: (soil/water) SOIL  Lab Sample ID: 92-08-471-03

Sample wt/vol: 30.0 (g/mL) G  Lab File ID: D1228

Level: (low/med) LOW  Date Received: 08/20/92

% Moisture: 25. decanted: (Y/N) N  Date Extracted: 08/24/92

Concentrated Extract Volume: 1000.0 (uL)  Date Analyzed: 08/26/92

Injection Volume: 1.0 (uL)  Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y  pH: 6.9

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG | Q |
|---|---|---|---|
| 108-95-2 | Phenol | 1800. | U |
| 111-44-4 | bis(2-Chloroethyl)ether | 1800. | U |
| 95-57-8 | 2-Chlorophenol | 1800. | U |
| 541-73-1 | 1,3-Dichlorobenzene | 1800. | U |
| 106-46-7 | 1,4-Dichlorobenzene | 1800. | U |
| 95-50-1 | 1,2-Dichlorobenzene | 1800. | U |
| 95-48-7 | 2-Methylphenol | 1800. | U |
| 108-60-1 | 2,2'-oxybis(1-Chloropropane) | 1800. | U |
| 106-44-5 | 4-Methylphenol | 1800. | U |
| 621-64-7 | N-Nitroso-Di-n-propylamine | 1800. | U |
| 67-72-1 | Hexachloroethane | 1800. | U |
| 98-95-3 | Nitrobenzene | 1800. | U |
| 78-59-1 | Isophorone | 1800. | U |
| 88-75-5 | 2-Nitrophenol | 1800. | U |
| 105-67-9 | 2,4-Dimethylphenol | 1800. | U |
| 111-91-1 | bis(2-Chloroethoxy)methane | 1800. | U |
| 120-83-2 | 2,4-Dichlorophenol | 1800. | U |
| 120-82-1 | 1,2,4-Trichlorobenzene | 1800. | U |
| 91-20-3 | Naphthalene | 1800. | U |
| 106-47-8 | 4-Chloroaniline | 1800. | U |
| 87-68-3 | Hexachlorobutadiene | 1800. | U |
| 59-50-7 | 4-Chloro-3-methylphenol | 1800. | U |
| 91-57-6 | 2-Methylnaphthalene | 1800. | U |
| 77-47-4 | Hexachlorocyclopentadiene | 1800. | U |
| 88-06-2 | 2,4,6-Trichlorophenol | 1800. | U |
| 95-95-4 | 2,4,5-Trichlorophenol | 4400. | U |
| 91-58-7 | 2-Chloronaphthalene | 1800. | U |
| 88-74-4 | 2-Nitroaniline | 4400. | U |
| 131-11-3 | Dimethylphthalate | 1800. | U |
| 208-96-8 | Acenaphthylene | 1800. | U |
| 606-20-2 | 2,6-Dinitrotoluene | 1800. | U |
| 99-09-2 | 3-Nitroaniline | 4400. | U |
| 83-32-9 | Acenaphthene | 1800. | U |

# SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ERW09

Lab Name: McCoy and McCoy Labs, Inc  Contract: 68D10081

Lab Code: MCCOY  Case No.: 18642  SAS No.:  SDG No.: ERW07

Matrix: (soil/water) SOIL  Lab Sample ID: 92-08-471-03

Sample wt/vol: 30.0 (g/mL) G  Lab File ID: D1228

Level: (low/med) LOW  Date Received: 08/20/92

% Moisture: 25. decanted: (Y/N) N  Date Extracted: 08/24/92

Concentrated Extract Volume: 1000.0 (uL)  Date Analyzed: 08/26/92

Injection Volume: 1.0 (uL)  Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y  pH: 6.9

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG | Q |
|---|---|---|---|
| 51-28-5 | 2,4-Dinitrophenol | 4400. | U |
| 100-02-7 | 4-Nitrophenol | 4400. | U |
| 132-64-9 | Dibenzofuran | 1800. | U |
| 121-14-2 | 2,4-Dinitrotoluene | 1800. | U |
| 84-66-2 | Diethylphthalate | 1800. | U |
| 7005-72-3 | 4-Chlorophenyl-phenylether | 1800. | U |
| 86-73-7 | Fluorene | 1800. | U |
| 100-01-6 | 4-Nitroaniline | 4400. | U |
| 534-52-1 | 4,6-Dinitro-2-methylphenol | 4400. | U |
| 86-30-6 | N-Nitrosodiphenylamine | 1800. | U |
| 101-55-3 | 4-Bromophenyl-phenylether | 1800. | U |
| 118-74-1 | Hexachlorobenzene | 1800. | U |
| 87-86-5 | Pentachlorophenol | 4400. | U |
| 85-01-8 | Phenanthrene | 440. | J |
| 120-12-7 | Anthracene | 1800. | U |
| 86-74-8 | CARBAZOLE | 1800. | U |
| 84-74-2 | Di-n-butylphthalate | 1800. | U |
| 206-44-0 | Fluoranthene | 800. | J |
| 129-00-0 | Pyrene | 460. | J |
| 85-68-7 | Butylbenzylphthalate | 1800. | U |
| 91-94-1 | 3,3'-Dichlorobenzidine | 1800. | U |
| 56-55-3 | Benzo(a)anthracene | 1800. | U |
| 218-01-9 | Chrysene | 1800. | U |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | 3100. | |
| 117-84-0 | Di-n-octylphthalate | 1800. | U |
| 205-99-2 | Benzo(b)fluoranthene | 1800. | U |
| 207-08-9 | Benzo(k)fluoranthene | 1800. | U |
| 50-32-8 | Benzo(a)pyrene | 1800. | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 1800. | U |
| 53-70-3 | Dibenz(a,h)anthracene | 1800. | U |
| 191-24-2 | Benzo(g,h,i)perylene | 1800. | U |

(1) - Cannot be separated from diphenylamine

# SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
## TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

ERW09

Lab Name: McCoy and McCoy Labs, Inc  Contract: 68D10081

Lab Code: MCCOY  Case No.: 18642  SAS No.:  SDG No.: ERW07

Matrix: (soil/water) SOIL  Lab Sample ID: 92-08-471-03

Sample wt/vol: 30.0 (g/mL) G  Lab File ID: D1228

Level: (low/med) LOW  Date Received: 08/20/92

% Moisture: 25. decanted: (Y/N) N  Date Extracted: 08/24/92

Concentrated Extract Volume: 1000.0 (uL)  Date Analyzed: 08/26/92

Injection Volume: 1.0 (uL)  Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y  pH: 6.9

Number TICs found: 1

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

| | CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|---|
| 1. | 5961-33-1 | Azetidine, 3-methyl-3-phenyl | 31.53 | 500. | J N |
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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ERW10

Lab Name: McCoy and McCoy Labs, Inc  Contract: 68D10081

Lab Code: MCCOY  Case No.: 18642  SAS No.:  SDG No.: ERW07

Matrix: (soil/water) SOIL  Lab Sample ID: 92-08-471-04

Sample wt/vol: 30.7 (g/mL) G  Lab File ID: D1229

Level: (low/med) LOW  Date Received: 08/20/92

% Moisture: 35. decanted: (Y/N) N  Date Extracted: 08/24/92

Concentrated Extract Volume: 1000.0 (uL)  Date Analyzed: 08/26/92

Injection Volume: 1.0 (uL)  Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y  pH: 7.1

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG | Q |
|---|---|---|---|
| 108-95-2 | Phenol | 2000. | U |
| 111-44-4 | bis(2-Chloroethyl)ether | 2000. | U |
| 95-57-8 | 2-Chlorophenol | 2000. | U |
| 541-73-1 | 1,3-Dichlorobenzene | 2000. | U |
| 106-46-7 | 1,4-Dichlorobenzene | 2000. | U |
| 95-50-1 | 1,2-Dichlorobenzene | 2000. | U |
| 95-48-7 | 2-Methylphenol | 2000. | U |
| 108-60-1 | 2,2'-oxybis(1-Chloropropane) | 2000. | U |
| 106-44-5 | 4-Methylphenol | 2000. | U |
| 621-64-7 | N-Nitroso-Di-n-propylamine | 2000. | U |
| 67-72-1 | Hexachloroethane | 2000. | U |
| 98-95-3 | Nitrobenzene | 2000. | U |
| 78-59-1 | Isophorone | 2000. | U |
| 88-75-5 | 2-Nitrophenol | 2000. | U |
| 105-67-9 | 2,4-Dimethylphenol | 2000. | U |
| 111-91-1 | bis(2-Chloroethoxy)methane | 2000. | U |
| 120-83-2 | 2,4-Dichlorophenol | 2000. | U |
| 120-82-1 | 1,2,4-Trichlorobenzene | 2000. | U |
| 91-20-3 | Naphthalene | 2000. | U |
| 106-47-8 | 4-Chloroaniline | 2000. | U |
| 87-68-3 | Hexachlorobutadiene | 2000. | U |
| 59-50-7 | 4-Chloro-3-methylphenol | 2000. | U |
| 91-57-6 | 2-Methylnaphthalene | 2000. | U |
| 77-47-4 | Hexachlorocyclopentadiene | 2000. | U |
| 88-06-2 | 2,4,6-Trichlorophenol | 2000. | U |
| 95-95-4 | 2,4,5-Trichlorophenol | 5000. | U |
| 91-58-7 | 2-Chloronaphthalene | 2000. | U |
| 88-74-4 | 2-Nitroaniline | 5000. | U |
| 131-11-3 | Dimethylphthalate | 2000. | U |
| 208-96-8 | Acenaphthylene | 2000. | U |
| 606-20-2 | 2,6-Dinitrotoluene | 2000. | U |
| 99-09-2 | 3-Nitroaniline | 5000. | U |
| 83-32-9 | Acenaphthene | 2000. | U |

# SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ERW10

Lab Name: McCoy and McCoy Labs, Inc  Contract: 68D10081

Lab Code: MCCOY  Case No.: 18642  SAS No.:  SDG No.: ERW07

Matrix: (soil/water) SOIL  Lab Sample ID: 92-08-471-04

Sample wt/vol: 30.7 (g/mL) G  Lab File ID: D1229

Level: (low/med) LOW  Date Received: 08/20/92

% Moisture: 35. decanted: (Y/N) N  Date Extracted: 08/24/92

Concentrated Extract Volume: 1000.0 (uL)  Date Analyzed: 08/26/92

Injection Volume: 1.0 (uL)  Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y  pH: 7.1

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG | Q |
|---|---|---|---|
| 51-28-5 | 2,4-Dinitrophenol | 5000. | U |
| 100-02-7 | 4-Nitrophenol | 5000. | U |
| 132-64-9 | Dibenzofuran | 2000. | U |
| 121-14-2 | 2,4-Dinitrotoluene | 2000. | U |
| 84-66-2 | Diethylphthalate | 2000. | U |
| 7005-72-3 | 4-Chlorophenyl-phenylether | 2000. | U |
| 86-73-7 | Fluorene | 2000. | U |
| 100-01-6 | 4-Nitroaniline | 5000. | U |
| 534-52-1 | 4,6-Dinitro-2-methylphenol | 5000. | U |
| 86-30-6 | N-Nitrosodiphenylamine | 2000. | U |
| 101-55-3 | 4-Bromophenyl-phenylether | 2000. | U |
| 118-74-1 | Hexachlorobenzene | 2000. | U |
| 87-86-5 | Pentachlorophenol | 5000. | U |
| 85-01-8 | Phenanthrene | 2000. | U |
| 120-12-7 | Anthracene | 2000. | U |
| 86-74-8 | CARBAZOLE | 2000. | U |
| 84-74-2 | Di-n-butylphthalate | 2000. | U |
| 206-44-0 | Fluoranthene | 2000. | U |
| 129-00-0 | Pyrene | 2000. | U |
| 85-68-7 | Butylbenzylphthalate | 2000. | U |
| 91-94-1 | 3,3'-Dichlorobenzidine | 2000. | U |
| 56-55-3 | Benzo(a)anthracene | 2000. | U |
| 218-01-9 | Chrysene | 2000. | U |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | 2000. | U |
| 117-84-0 | Di-n-octylphthalate | 2000. | U |
| 205-99-2 | Benzo(b)fluoranthene | 2000. | U |
| 207-08-9 | Benzo(k)fluoranthene | 2000. | U |
| 50-32-8 | Benzo(a)pyrene | 2000. | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 2000. | U |
| 53-70-3 | Dibenz(a,h)anthracene | 2000. | U |
| 191-24-2 | Benzo(g,h,i)perylene | 2000. | U |

(1) - Cannot be separated from diphenylamine

1F

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

ERW10

Lab Name: McCoy and McCoy Labs, Inc Contract: 68D10081

Lab Code: MCCOY Case No.: 18642 SAS No.: SDG No.: ERW07

Matrix: (soil/water) SOIL Lab Sample ID: 92-08-471-04

Sample wt/vol: 30.7 (g/mL) G Lab File ID: D1229

Level: (low/med) LOW Date Received: 08/20/92

% Moisture: 35. decanted: (Y/N) N Date Extracted: 08/24/92

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 08/26/92

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.1

Number TICs found: 1

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

| | CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|---|
| 1. | 111-76-2 | Ethanol, 2-butoxy- (8CI9CI) | 8.32 | 600. | J N |
| 2. | | | | | |
| 3. | | | | | |
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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ERW18

Lab Name: McCoy and McCoy Labs, Inc  Contract: 68D10081

Lab Code: MCCOY  Case No.: 18642  SAS No.:  SDG No.: ERW07

Matrix: (soil/water) WATER  Lab Sample ID: 92-08-471-06

Sample wt/vol: 1000.0 (g/mL) ML  Lab File ID: D1238

Level: (low/med) LOW  Date Received: 08/20/92

% Moisture: _____ decanted: (Y/N)___  Date Extracted: 08/24/92

Concentrated Extract Volume: 1000.0 (uL)  Date Analyzed: 08/27/92

Injection Volume: 1.0 (uL)  Dilution Factor: 1.0

GPC Cleanup: (Y/N) N  pH: 6.8

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 108-95-2 | Phenol | 20. | U |
| 111-44-4 | bis(2-Chloroethyl)ether | 20. | U |
| 95-57-8 | 2-Chlorophenol | 20. | U |
| 541-73-1 | 1,3-Dichlorobenzene | 20. | U |
| 106-46-7 | 1,4-Dichlorobenzene | 20. | U |
| 95-50-1 | 1,2-Dichlorobenzene | 20. | U |
| 95-48-7 | 2-Methylphenol | 20. | U |
| 108-60-1 | 2,2'-oxybis(1-Chloropropane) | 20. | U |
| 106-44-5 | 4-Methylphenol | 20. | U |
| 621-64-7 | N-Nitroso-Di-n-propylamine | 20. | U |
| 67-72-1 | Hexachloroethane | 20. | U |
| 98-95-3 | Nitrobenzene | 20. | U |
| 78-59-1 | Isophorone | 20. | U |
| 88-75-5 | 2-Nitrophenol | 20. | U |
| 105-67-9 | 2,4-Dimethylphenol | 20. | U |
| 111-91-1 | bis(2-Chloroethoxy)methane | 20. | U |
| 120-83-2 | 2,4-Dichlorophenol | 20. | U |
| 120-82-1 | 1,2,4-Trichlorobenzene | 20. | U |
| 91-20-3 | Naphthalene | 20. | U |
| 106-47-8 | 4-Chloroaniline | 20. | U |
| 87-68-3 | Hexachlorobutadiene | 20. | U |
| 59-50-7 | 4-Chloro-3-methylphenol | 20. | U |
| 91-57-6 | 2-Methylnaphthalene | 20. | U |
| 77-47-4 | Hexachlorocyclopentadiene | 20. | U |
| 88-06-2 | 2,4,6-Trichlorophenol | 20. | U |
| 95-95-4 | 2,4,5-Trichlorophenol | 50. | U |
| 91-58-7 | 2-Chloronaphthalene | 20. | U |
| 88-74-4 | 2-Nitroaniline | 50. | U |
| 131-11-3 | Dimethylphthalate | 20. | U |
| 208-96-8 | Acenaphthylene | 20. | U |
| 606-20-2 | 2,6-Dinitrotoluene | 20. | U |
| 99-09-2 | 3-Nitroaniline | 50. | U |
| 83-32-9 | Acenaphthene | 20. | U |

# SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ERW18

Lab Name: McCoy and McCoy Labs, Inc  Contract: 68D10081

Lab Code: MCCOY  Case No.: 18642  SAS No.:  SDG No.: ERW07

Matrix: (soil/water) WATER  Lab Sample ID: 92-08-471-06

Sample wt/vol: 1000.0 (g/mL) ML  Lab File ID: D1238

Level: (low/med) LOW  Date Received: 08/20/92

% Moisture: _____ decanted: (Y/N)___  Date Extracted: 08/24/92

Concentrated Extract Volume: 1000.0 (uL)  Date Analyzed: 08/27/92

Injection Volume: 1.0 (uL)  Dilution Factor: 1.0

GPC Cleanup: (Y/N) N  pH: 6.8

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q | |
|---|---|---|---|---|
| 51-28-5 | 2,4-Dinitrophenol | 50. | U | |
| 100-02-7 | 4-Nitrophenol | 50. | U | |
| 132-64-9 | Dibenzofuran | 20. | U | |
| 121-14-2 | 2,4-Dinitrotoluene | 20. | U | |
| 84-66-2 | Diethylphthalate | 20. | U | |
| 7005-72-3 | 4-Chlorophenyl-phenylether | 20. | U | |
| 86-73-7 | Fluorene | 20. | U | |
| 100-01-6 | 4-Nitroaniline | 50. | U | |
| 534-52-1 | 4,6-Dinitro-2-methylphenol | 50. | U | |
| 86-30-6 | N-Nitrosodiphenylamine | 20. | U | |
| 101-55-3 | 4-Bromophenyl-phenylether | 20. | U | |
| 118-74-1 | Hexachlorobenzene | 20. | U | |
| 87-86-5 | Pentachlorophenol | 50. | U | |
| 85-01-8 | Phenanthrene | 20. | U | |
| 120-12-7 | Anthracene | 20. | U | |
| 86-74-8 | CARBAZOLE | 20. | U | |
| 84-74-2 | Di-n-butylphthalate | 25. | B | V |
| 206-44-0 | Fluoranthene | 20. | U | |
| 129-00-0 | Pyrene | 20. | U | |
| 85-68-7 | Butylbenzylphthalate | 20. | U | |
| 91-94-1 | 3,3'-Dichlorobenzidine | 20. | U | |
| 56-55-3 | Benzo(a)anthracene | 20. | U | |
| 218-01-9 | Chrysene | 20. | U | |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | 20 ~~10.~~ | BJ | V |
| 117-84-0 | Di-n-octylphthalate | 20. | U | |
| 205-99-2 | Benzo(b)fluoranthene | 20. | U | |
| 207-08-9 | Benzo(k)fluoranthene | 20. | U | |
| 50-32-8 | Benzo(a)pyrene | 20. | U | |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 20. | U | |
| 53-70-3 | Dibenz(a,h)anthracene | 20. | U | |
| 191-24-2 | Benzo(g,h,i)perylene | 20. | U | |

(1) - Cannot be separated from diphenylamine

RWH 9-28-

1F

# SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
# TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

ERW18

Lab Name: McCoy and McCoy Labs, Inc  Contract: 68D10081

Lab Code: MCCOY  Case No.: 18642  SAS No.:  SDG No.: ERW07

Matrix: (soil/water) WATER  Lab Sample ID: 92-08-471-06

Sample wt/vol: 1000.0 (g/mL) ML  Lab File ID: D1238

Level: (low/med) LOW  Date Received: 08/20/92

% Moisture: _____ decanted: (Y/N)___  Date Extracted: 08/24/92

Concentrated Extract Volume: 1000.0 (uL)  Date Analyzed: 08/27/92

Injection Volume: 1.0 (uL)  Dilution Factor: 1.0

GPC Cleanup: (Y/N) N  pH: 6.8

Number TICs found: 3

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

| | CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|---|
| 1. | 111-76-2 | Ethanol, 2-butoxy- (8CI9CI) | 8.35 | 100. | BJ N |
| 2. | 111-77-3 | Ethanol, 2-(2-methoxyethoxy) | 8.95 | 10. | BJ N |
| 3. | 74381-40-1 | Propanoic acid, 2-methyl-, 1 | 19.83 | 6. | J N |
| 4. | | | | | |
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# SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ERW19

Lab Name: McCoy and McCoy Labs, Inc  Contract: 68D10081

Lab Code: MCCOY  Case No.: 18642  SAS No.:  SDG No.: ERW07

Matrix: (soil/water) WATER  Lab Sample ID: 92-08-471-09

Sample wt/vol: 1000.0 (g/mL) ML  Lab File ID: D1241

Level: (low/med) LOW  Date Received: 08/20/92

% Moisture: _____ decanted: (Y/N)___  Date Extracted: 08/24/92

Concentrated Extract Volume: 1000.0 (uL)  Date Analyzed: 08/27/92

Injection Volume: 1.0 (uL)  Dilution Factor: 1.0

GPC Cleanup: (Y/N) N  pH: 6.8

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 108-95-2 | Phenol | 20. | U |
| 111-44-4 | bis(2-Chloroethyl)ether | 20. | U |
| 95-57-8 | 2-Chlorophenol | 20. | U |
| 541-73-1 | 1,3-Dichlorobenzene | 20. | U |
| 106-46-7 | 1,4-Dichlorobenzene | 20. | U |
| 95-50-1 | 1,2-Dichlorobenzene | 20. | U |
| 95-48-7 | 2-Methylphenol | 20. | U |
| 108-60-1 | 2,2'-oxybis(1-Chloropropane) | 20. | U |
| 106-44-5 | 4-Methylphenol | 20. | U |
| 621-64-7 | N-Nitroso-Di-n-propylamine | 20. | U |
| 67-72-1 | Hexachloroethane | 20. | U |
| 98-95-3 | Nitrobenzene | 20. | U |
| 78-59-1 | Isophorone | 20. | U |
| 88-75-5 | 2-Nitrophenol | 20. | U |
| 105-67-9 | 2,4-Dimethylphenol | 20. | U |
| 111-91-1 | bis(2-Chloroethoxy)methane | 20. | U |
| 120-83-2 | 2,4-Dichlorophenol | 20. | U |
| 120-82-1 | 1,2,4-Trichlorobenzene | 20. | U |
| 91-20-3 | Naphthalene | 20. | U |
| 106-47-8 | 4-Chloroaniline | 20. | U |
| 87-68-3 | Hexachlorobutadiene | 20. | U |
| 59-50-7 | 4-Chloro-3-methylphenol | 20. | U |
| 91-57-6 | 2-Methylnaphthalene | 20. | U |
| 77-47-4 | Hexachlorocyclopentadiene | 20. | U |
| 88-06-2 | 2,4,6-Trichlorophenol | 20. | U |
| 95-95-4 | 2,4,5-Trichlorophenol | 50. | U |
| 91-58-7 | 2-Chloronaphthalene | 20. | U |
| 88-74-4 | 2-Nitroaniline | 50. | U |
| 131-11-3 | Dimethylphthalate | 20. | U |
| 208-96-8 | Acenaphthylene | 20. | U |
| 606-20-2 | 2,6-Dinitrotoluene | 20. | U |
| 99-09-2 | 3-Nitroaniline | 50. | U |
| 83-32-9 | Acenaphthene | 20. | U |

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# SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ERW19

Lab Name: McCoy and McCoy Labs, Inc  Contract: 68D10081

Lab Code: MCCOY  Case No.: 18642  SAS No.:  SDG No.: ERW07

Matrix: (soil/water) WATER  Lab Sample ID: 92-08-471-09

Sample wt/vol: 1000.0 (g/mL) ML  Lab File ID: D1241

Level: (low/med) LOW  Date Received: 08/20/92

% Moisture: _____ decanted: (Y/N)___  Date Extracted: 08/24/92

Concentrated Extract Volume: 1000.0 (uL)  Date Analyzed: 08/27/92

Injection Volume: 1.0 (uL)  Dilution Factor: 1.0

GPC Cleanup: (Y/N) N  pH: 6.8

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 51-28-5 | 2,4-Dinitrophenol | 50. | U |
| 100-02-7 | 4-Nitrophenol | 50. | U |
| 132-64-9 | Dibenzofuran | 20. | U |
| 121-14-2 | 2,4-Dinitrotoluene | 20. | U |
| 84-66-2 | Diethylphthalate | 20. | U |
| 7005-72-3 | 4-Chlorophenyl-phenylether | 20. | U |
| 86-73-7 | Fluorene | 20. | U |
| 100-01-6 | 4-Nitroaniline | 50. | U |
| 534-52-1 | 4,6-Dinitro-2-methylphenol | 50. | U |
| 86-30-6 | N-Nitrosodiphenylamine | 20. | U |
| 101-55-3 | 4-Bromophenyl-phenylether | 20. | U |
| 118-74-1 | Hexachlorobenzene | 20. | U |
| 87-86-5 | Pentachlorophenol | 50. | U |
| 85-01-8 | Phenanthrene | 20. | U |
| 120-12-7 | Anthracene | 20. | U |
| 86-74-8 | CARBAZOLE | 20. | U |
| 84-74-2 | Di-n-butylphthalate | 45. | B |
| 206-44-0 | Fluoranthene | 20. | U |
| 129-00-0 | Pyrene | 20. | U |
| 85-68-7 | Butylbenzylphthalate | 20. | U |
| 91-94-1 | 3,3'-Dichlorobenzidine | 20. | U |
| 56-55-3 | Benzo(a)anthracene | 20. | U |
| 218-01-9 | Chrysene | 20. | U |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | 30. | B |
| 117-84-0 | Di-n-octylphthalate | 20. | U |
| 205-99-2 | Benzo(b)fluoranthene | 20. | U |
| 207-08-9 | Benzo(k)fluoranthene | 20. | U |
| 50-32-8 | Benzo(a)pyrene | 20. | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 20. | U |
| 53-70-3 | Dibenz(a,h)anthracene | 20. | U |
| 191-24-2 | Benzo(g,h,i)perylene | 20. | U |

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RWW 9-28-92

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(1) - Cannot be separated from diphenylamine

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# SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
## TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

ERW19

Lab Name: McCoy and McCoy Labs, Inc  Contract: 68D10081

Lab Code: MCCOY  Case No.: 18642  SAS No.:  SDG No.: ERW07

Matrix: (soil/water) WATER  Lab Sample ID: 92-08-471-09

Sample wt/vol: 1000.0 (g/mL) ML  Lab File ID: D1241

Level: (low/med) LOW  Date Received: 08/20/92

% Moisture: _____ decanted: (Y/N)___  Date Extracted: 08/24/92

Concentrated Extract Volume: 1000.0 (uL)  Date Analyzed: 08/27/92

Injection Volume: 1.0 (uL)  Dilution Factor: 1.0

GPC Cleanup: (Y/N) N  pH: 6.8

Number TICs found: 6

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

| | CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q | |
|---|---|---|---|---|---|---|
| 1. | 464-07-3 | 2-Butanol, 3,3-dimethyl- (8C | 8.32 | 100. | J N | |
| 2. | 111-77-3 | Ethanol, 2-(2-methoxyethoxy) | 8.95 | 20. | BJ N | U |
| 3. | 19686-73-8 | 2-Propanol, 1-bromo- (8CI9CI | 10.46 | 300. | BJ N | U |
| 4. | 3587-64-2 | 2-Propanol, 1-methoxy-2-meth | 14.70 | 6. | J N | Rwa |
| 5. | 1638-16-0 | 2-Propanol, 1,1'-[(1-methyl- | 14.76 | 7. | J N | |
| 6. | 67682-47-7 | 1,5-Heptadiene, 3,3-dimethyl | 31.61 | 7. | J N | 9-28-92 |
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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ERW20

Lab Name: McCoy and McCoy Labs, Inc  Contract: 68D10081

Lab Code: MCCOY  Case No.: 18642  SAS No.:  SDG No.: ERW07

Matrix: (soil/water) WATER  Lab Sample ID: 92-08-471-10

Sample wt/vol: 1000.0 (g/mL) ML  Lab File ID: D1242

Level: (low/med) LOW  Date Received: 08/20/92

% Moisture: _____ decanted: (Y/N)___  Date Extracted: 08/24/92

Concentrated Extract Volume: 1000.0 (uL)  Date Analyzed: 08/27/92

Injection Volume: 1.0 (uL)  Dilution Factor: 1.0

GPC Cleanup: (Y/N) N  pH: 6.9

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 108-95-2 | Phenol | 20. | U |
| 111-44-4 | bis(2-Chloroethyl)ether | 20. | U |
| 95-57-8 | 2-Chlorophenol | 20. | U |
| 541-73-1 | 1,3-Dichlorobenzene | 20. | U |
| 106-46-7 | 1,4-Dichlorobenzene | 20. | U |
| 95-50-1 | 1,2-Dichlorobenzene | 20. | U |
| 95-48-7 | 2-Methylphenol | 20. | U |
| 108-60-1 | 2,2'-oxybis(1-Chloropropane) | 20. | U |
| 106-44-5 | 4-Methylphenol | 20. | U |
| 621-64-7 | N-Nitroso-Di-n-propylamine | 20. | U |
| 67-72-1 | Hexachloroethane | 20. | U |
| 98-95-3 | Nitrobenzene | 20. | U |
| 78-59-1 | Isophorone | 20. | U |
| 88-75-5 | 2-Nitrophenol | 20. | U |
| 105-67-9 | 2,4-Dimethylphenol | 20. | U |
| 111-91-1 | bis(2-Chloroethoxy)methane | 20. | U |
| 120-83-2 | 2,4-Dichlorophenol | 20. | U |
| 120-82-1 | 1,2,4-Trichlorobenzene | 20. | U |
| 91-20-3 | Naphthalene | 20. | U |
| 106-47-8 | 4-Chloroaniline | 20. | U |
| 87-68-3 | Hexachlorobutadiene | 20. | U |
| 59-50-7 | 4-Chloro-3-methylphenol | 20. | U |
| 91-57-6 | 2-Methylnaphthalene | 20. | U |
| 77-47-4 | Hexachlorocyclopentadiene | 20. | U |
| 88-06-2 | 2,4,6-Trichlorophenol | 20. | U |
| 95-95-4 | 2,4,5-Trichlorophenol | 50. | U |
| 91-58-7 | 2-Chloronaphthalene | 20. | U |
| 88-74-4 | 2-Nitroaniline | 50. | U |
| 131-11-3 | Dimethylphthalate | 20. | U |
| 208-96-8 | Acenaphthylene | 20. | U |
| 606-20-2 | 2,6-Dinitrotoluene | 20. | U |
| 99-09-2 | 3-Nitroaniline | 50. | U |
| 83-32-9 | Acenaphthene | 20. | U |

# SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ERW20

Lab Name: McCoy and McCoy Labs, Inc  Contract: 68D10081

Lab Code: MCCOY  Case No.: 18642  SAS No.:  SDG No.: ERW07

Matrix: (soil/water) WATER  Lab Sample ID: 92-08-471-10

Sample wt/vol: 1000.0 (g/mL) ML  Lab File ID: D1242

Level: (low/med) LOW  Date Received: 08/20/92

% Moisture: _____ decanted: (Y/N)___  Date Extracted: 08/24/92

Concentrated Extract Volume: 1000.0 (uL)  Date Analyzed: 08/27/92

Injection Volume: 1.0 (uL)  Dilution Factor: 1.0

GPC Cleanup: (Y/N) N  pH: 6.9

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q | |
|---|---|---|---|---|
| 51-28-5 | 2,4-Dinitrophenol | 50. | U | |
| 100-02-7 | 4-Nitrophenol | 50. | U | |
| 132-64-9 | Dibenzofuran | 20. | U | |
| 121-14-2 | 2,4-Dinitrotoluene | 20. | U | |
| 84-66-2 | Diethylphthalate | 20. | U | |
| 7005-72-3 | 4-Chlorophenyl-phenylether | 20. | U | |
| 86-73-7 | Fluorene | 20. | U | |
| 100-01-6 | 4-Nitroaniline | 50. | U | |
| 534-52-1 | 4,6-Dinitro-2-methylphenol | 50. | U | |
| 86-30-6 | N-Nitrosodiphenylamine | 20. | U | |
| 101-55-3 | 4-Bromophenyl-phenylether | 20. | U | |
| 118-74-1 | Hexachlorobenzene | 20. | U | |
| 87-86-5 | Pentachlorophenol | 50. | U | |
| 85-01-8 | Phenanthrene | 20. | U | |
| 120-12-7 | Anthracene | 20. | U | |
| 86-74-8 | CARBAZOLE | 20. | U | |
| 84-74-2 | Di-n-butylphthalate | 43. | B | U |
| 206-44-0 | Fluoranthene | 20. | U | RWW 9-28-92 |
| 129-00-0 | Pyrene | 20. | U | |
| 85-68-7 | Butylbenzylphthalate | 20. | U | |
| 91-94-1 | 3,3'-Dichlorobenzidine | 20. | U | |
| 56-55-3 | Benzo(a)anthracene | 20. | U | |
| 218-01-9 | Chrysene | 20. | U | |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | 20 ~~16~~. | BJ | U |
| 117-84-0 | Di-n-octylphthalate | 20. | U | |
| 205-99-2 | Benzo(b)fluoranthene | 20. | U | |
| 207-08-9 | Benzo(k)fluoranthene | 20. | U | |
| 50-32-8 | Benzo(a)pyrene | 20. | U | |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 20. | U | |
| 53-70-3 | Dibenz(a,h)anthracene | 20. | U | |
| 191-24-2 | Benzo(g,h,i)perylene | 20. | U | |

(1) - Cannot be separated from diphenylamine

1F

# SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
# TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

ERW20

Lab Name: McCoy and McCoy Labs, Inc  Contract: 68D10081

Lab Code: MCCOY  Case No.: 18642  SAS No.:  SDG No.: ERW07

Matrix: (soil/water) WATER  Lab Sample ID: 92-08-471-10

Sample wt/vol: 1000.0 (g/mL) ML  Lab File ID: D1242

Level: (low/med) LOW  Date Received: 08/20/92

% Moisture: _____ decanted: (Y/N)___  Date Extracted: 08/24/92

Concentrated Extract Volume: 1000.0 (uL)  Date Analyzed: 08/27/92

Injection Volume: 1.0 (uL)  Dilution Factor: 1.0

GPC Cleanup: (Y/N) N  pH: 6.9

Number TICs found: 7

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

| | CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q | |
|---|---|---|---|---|---|---|
| 1. | 111-76-2 | Ethanol, 2-butoxy- (8CI9CI) | 8.33 | 100. | BJ N | ✓ |
| 2. | 67-63-0 | 2-Propanol (ACN)(9CI) | 8.96 | 30. | J N | |
| 3. | 19686-73-8 | 2-Propanol, 1-bromo- (8CI9CI | 10.46 | 500. | BJ N | ✓ |
| 4. | 106-62-7 | 1-Propanol, 2-(2-hydroxyprop | 10.63 | 20. | J N | |
| 5. | 78-99-9 | Propane, 1,1-dichloro- (8CI9 | 12.36 | 6. | J N | |
| 6. | 2110-78-3 | Propanoic acid, 2-hydroxy-2- | 14.72 | 10. | J N | RWR 9-28 |
| 7. | 3587-64-2 | 2-Propanol, 1-methoxy-2-meth | 14.78 | 10. | J N | |
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# SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ERW21

Lab Name: McCoy and McCoy Labs, Inc  Contract: 68D10081

Lab Code: MCCOY  Case No.: 18642  SAS No.:  SDG No.: ERW07

Matrix: (soil/water) WATER  Lab Sample ID: 92-08-471-11

Sample wt/vol: 1000.0 (g/mL) ML  Lab File ID: D1243

Level: (low/med) LOW  Date Received: 08/20/92

% Moisture: _____ decanted: (Y/N)___  Date Extracted: 08/24/92

Concentrated Extract Volume: 1000.0 (uL)  Date Analyzed: 08/27/92

Injection Volume: 1.0 (uL)  Dilution Factor: 1.0

GPC Cleanup: (Y/N) N  pH: 6.9

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 108-95-2 | Phenol | 20. | U |
| 111-44-4 | bis(2-Chloroethyl)ether | 20. | U |
| 95-57-8 | 2-Chlorophenol | 20. | U |
| 541-73-1 | 1,3-Dichlorobenzene | 20. | U |
| 106-46-7 | 1,4-Dichlorobenzene | 20. | U |
| 95-50-1 | 1,2-Dichlorobenzene | 20. | U |
| 95-48-7 | 2-Methylphenol | 20. | U |
| 108-60-1 | 2,2'-oxybis(1-Chloropropane) | 20. | U |
| 106-44-5 | 4-Methylphenol | 20. | U |
| 621-64-7 | N-Nitroso-Di-n-propylamine | 20. | U |
| 67-72-1 | Hexachloroethane | 20. | U |
| 98-95-3 | Nitrobenzene | 20. | U |
| 78-59-1 | Isophorone | 20. | U |
| 88-75-5 | 2-Nitrophenol | 20. | U |
| 105-67-9 | 2,4-Dimethylphenol | 20. | U |
| 111-91-1 | bis(2-Chloroethoxy)methane | 20. | U |
| 120-83-2 | 2,4-Dichlorophenol | 20. | U |
| 120-82-1 | 1,2,4-Trichlorobenzene | 20. | U |
| 91-20-3 | Naphthalene | 20. | U |
| 106-47-8 | 4-Chloroaniline | 20. | U |
| 87-68-3 | Hexachlorobutadiene | 20. | U |
| 59-50-7 | 4-Chloro-3-methylphenol | 20. | U |
| 91-57-6 | 2-Methylnaphthalene | 20. | U |
| 77-47-4 | Hexachlorocyclopentadiene | 20. | U |
| 88-06-2 | 2,4,6-Trichlorophenol | 20. | U |
| 95-95-4 | 2,4,5-Trichlorophenol | 50. | U |
| 91-58-7 | 2-Chloronaphthalene | 20. | U |
| 88-74-4 | 2-Nitroaniline | 50. | U |
| 131-11-3 | Dimethylphthalate | 20. | U |
| 208-96-8 | Acenaphthylene | 20. | U |
| 606-20-2 | 2,6-Dinitrotoluene | 20. | U |
| 99-09-2 | 3-Nitroaniline | 50. | U |
| 83-32-9 | Acenaphthene | 20. | U |

1C

# SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ERW21

Lab Name: McCoy and McCoy Labs, Inc  Contract: 68D10081

Lab Code: MCCOY  Case No.: 18642  SAS No.:  SDG No.: ERW07

Matrix: (soil/water) WATER  Lab Sample ID: 92-08-471-11

Sample wt/vol: 1000.0 (g/mL) ML  Lab File ID: D1243

Level: (low/med) LOW  Date Received: 08/20/92

% Moisture: _____ decanted: (Y/N)___  Date Extracted: 08/24/92

Concentrated Extract Volume: 1000.0 (uL)  Date Analyzed: 08/27/92

Injection Volume: 1.0 (uL)  Dilution Factor: 1.0

GPC Cleanup: (Y/N) N  pH: 6.9

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | | Q |
|---|---|---|---|---|
| 51-28-5 | 2,4-Dinitrophenol | 50. | U | |
| 100-02-7 | 4-Nitrophenol | 50. | U | |
| 132-64-9 | Dibenzofuran | 20. | U | |
| 121-14-2 | 2,4-Dinitrotoluene | 20. | U | |
| 84-66-2 | Diethylphthalate | 20. | U | |
| 7005-72-3 | 4-Chlorophenyl-phenylether | 20. | U | |
| 86-73-7 | Fluorene | 20. | U | |
| 100-01-6 | 4-Nitroaniline | 50. | U | |
| 534-52-1 | 4,6-Dinitro-2-methylphenol | 50. | U | |
| 86-30-6 | N-Nitrosodiphenylamine | 20. | U | |
| 101-55-3 | 4-Bromophenyl-phenylether | 20. | U | |
| 118-74-1 | Hexachlorobenzene | 20. | U | |
| 87-86-5 | Pentachlorophenol | 50. | U | |
| 85-01-8 | Phenanthrene | 20. | U | |
| 120-12-7 | Anthracene | 20. | U | |
| 86-74-8 | CARBAZOLE | 20. | U | |
| 84-74-2 | Di-n-butylphthalate | 60. | B | V |
| 206-44-0 | Fluoranthene | 20. | U | |
| 129-00-0 | Pyrene | 20. | U | RWM 9-25-92 |
| 85-68-7 | Butylbenzylphthalate | 20. | U | |
| 91-94-1 | 3,3'-Dichlorobenzidine | 20. | U | |
| 56-55-3 | Benzo(a)anthracene | 20. | U | |
| 218-01-9 | Chrysene | 20. | U | |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | ~~20.~~ 5. | BJ | J |
| 117-84-0 | Di-n-octylphthalate | 20. | U | |
| 205-99-2 | Benzo(b)fluoranthene | 20. | U | |
| 207-08-9 | Benzo(k)fluoranthene | 20. | U | |
| 50-32-8 | Benzo(a)pyrene | 20. | U | |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 20. | U | |
| 53-70-3 | Dibenz(a,h)anthracene | 20. | U | |
| 191-24-2 | Benzo(g,h,i)perylene | 20. | U | |

(1) - Cannot be separated from diphenylamine

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# SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
## TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

ERW21

Lab Name: McCoy and McCoy Labs, Inc  Contract: 68D10081

Lab Code: MCCOY  Case No.: 18642  SAS No.:  SDG No.: ERW07

Matrix: (soil/water) WATER  Lab Sample ID: 92-08-471-11

Sample wt/vol: 1000.0 (g/mL) ML  Lab File ID: D1243

Level: (low/med) LOW  Date Received: 08/20/92

% Moisture: _____ decanted: (Y/N)___  Date Extracted: 08/24/92

Concentrated Extract Volume: 1000.0 (uL)  Date Analyzed: 08/27/92

Injection Volume: 1.0 (uL)  Dilution Factor: 1.0

GPC Cleanup: (Y/N) N  pH: 6.9

Number TICs found: 4

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

| | CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q | |
|---|---|---|---|---|---|---|
| 1. | 111-76-2 | Ethanol, 2-butoxy- (8CI9CI) | 8.33 | 50. | BJ N | ✓ |
| 2. | 19089-47-5 | 1-Propanol, 2-ethoxy- (8CI9C | 8.97 | 7. | J N | RW 9-2 |
| 3. | 1809-10-5 | Pentane, 3-bromo- (8CI9CI) | 9.16 | 20. | J N | |
| 4. | 19686-73-8 | 2-Propanol, 1-bromo- (8CI9CI | 10.44 | 200. | BJ N | ✓ |
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2E
WATER PESTICIDE SURROGATE RECOVERY

Lab Name: McCoy and McCoy Labs, Inc  Contract: 68-D1-0081

Lab Code: McCOY  Case No.: 18642  SAS No.:  SDG No.: ERW07

GC Column(1): DB-5  ID: .25 (mm)  GC Column(2): DB-1701  ID: .25 (mm)

| | EPA SAMPLE NO. | TCX 1 %REC | # | TCX 2 %REC | # | DCB 1 %REC | # | DCB 2 %REC | # | OTHER (1) | OTHER (2) | TOT OUT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | PBLK02 | 106 | | 82 | | 106 | | 69 | | | | 0 |
| 2 | ERW18 | 84 | | 79 | | 73 | | 99 | | | | 0 |
| 3 | ERW19 | 86 | | 76 | | 73 | | 80 | | | | 0 |
| 4 | ERW20 | 78 | | 85 | | 65 | | 112 | | | | 0 |
| 5 | ERW21 | 91 | | 70 | | 102 | | 85 | | | | 0 |
| 6 | ERW18MS | 93 | | 104 | | 118 | | 135 | | | | 0 |
| 7 | ERW18MSD | 116 | | 91 | | 111 | | 81 | | | | 0 |
| 8 | PIBLK02 | 123 | | 132 | | 99 | | 187 | * | | | 1 |
| 9 | | | | | | | | | | | | |
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| | ADVISORY QC LIMITS |
|---|---|
| TCX = Tetrachloro-m-xylene | (60-150) |
| DCB = Decachlorobiphenyl | (60-150) |

\# Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out

# SOIL PESTICIDE SURROGATE RECOVERY

Lab Name: McCoy and McCoy Labs, Inc  Contract: 68-D1-0081

Lab Code: McCOY  Case No.: 18642  SAS No.:  SDG No.: ERW07

GC Column(1): DB-5  ID: .25 (mm)  GC Column(2): DB-1701  ID: .25 (mm)

| | EPA SAMPLE NO. | TCX 1 %REC | # | TCX 2 %REC | # | DCB 1 %REC | # | DCB 2 %REC | # | OTHER (1) | OTHER (2) | TOT OUT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | PIBLK01 | 118 | | 116 | | 164 | * | 160 | * | | | 2 |
| 2 | PBLK01 | 74 | | 76 | | 80 | | 93 | | | | 0 |
| 3 | ERW07 | 82 | | 122 | | 78 | | 179 | * | | | 1 |
| 4 | ERW08 | 54 | * | 108 | | 59 | * | 67 | | | | 2 |
| 5 | ERW09 | 97 | | 177 | * | 98 | | 237 | * | | | 2 |
| 6 | ERW10 | 102 | | 145 | | 108 | | 165 | * | | | 1 |
| 7 | ERW09MS | 98 | | 108 | | 93 | | 120 | | | | 0 |
| 8 | ERW09MSD | 89 | | 108 | | 92 | | 118 | | | | 0 |
| 9 | | | | | | | | | | | | |
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| | ADVISORY QC LIMITS |
|---|---|
| TCX = Tetrachloro-m-xylene | (60-150) |
| DCB = Decachlorobiphenyl | (60-150) |

\# Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out

# WATER PESTICIDE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: McCoy and McCoy Labs, Inc  Contract: 68-D1-0081

Lab Code: McCOY  Case No.: 18642  SAS No.:  SDG No.: ERW07

Matrix Spike - EPA Sample No.: ERW18

| COMPOUND | SPIKE ADDED (UG/L ) | SAMPLE CONCENTRATION (UG/L ) | MS CONCENTRATION (UG/L ) | MS % REC # | QC LIMITS REC. |
|---|---|---|---|---|---|
| gamma-BHC | 1.00 | 0. | 1.3 | 130 * | 56-123 |
| Heptachlor | 1.00 | 0. | .94 | 94 | 40-131 |
| Aldrin | 1.00 | 0. | .60 | 60 | 40-120 |
| Dieldrin | 2.00 | .10 | 2.0 | 95 | 52-126 |
| Endrin | 2.00 | 0. | 1.8 | 90 | 56-121 |
| 4,4'-DDT | 2.00 | 0. | 2.1 | 105 | 38-127 |

| COMPOUND | SPIKE ADDED (UG/L ) | MSD CONCENTRATION (UG/L ) | MSD % REC # | % RPD # | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| gamma-BHC | 1.00 | 1.3 | 130 * | 0 | 15 | 56-123 |
| Heptachlor | 1.00 | .95 | 95 | 1 | 20 | 40-131 |
| Aldrin | 1.00 | .60 | 60 | 0 | 22 | 40-120 |
| Dieldrin | 2.00 | 1.8 | 85 | 11 | 18 | 52-126 |
| Endrin | 2.00 | 1.6 | 80 | 12 | 21 | 56-121 |
| 4,4'-DDT | 2.00 | 1.9 | 95 | 10 | 27 | 38-127 |

# Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD:  0  out of  6  outside limits
Spike Recovery:  2  out of  12  outside limits

COMMENTS:

# SOIL PESTICIDE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: McCoy and McCoy Labs, Inc  Contract: 68-D1-0081

Lab Code: McCOY  Case No.: 18642  SAS No.:  SDG No.: ERW07

Matrix Spike - EPA Sample No.: ERW09  Level:(low/med)

| COMPOUND | SPIKE ADDED (UG/KG) | SAMPLE CONCENTRATION (UG/KG) | MS CONCENTRATION (UG/KG) | MS % REC | # | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| gamma-BHC | 21.67 | 0. | 30. | 138 | * | 46-127 |
| Heptachlor | 21.67 | 2.2 | 23. | 96 | | 35-130 |
| Aldrin | 21.67 | 0. | 14. | 65 | | 34-132 |
| Dieldrin | 43.34 | 4.4 | 46. | 96 | | 31-134 |
| Endrin | 43.34 | 0. | 40. | 92 | | 42-139 |
| 4,4'-DDT | 43.34 | 0. | 46. | 106 | | 23-134 |

| COMPOUND | SPIKE ADDED (UG/KG) | MSD CONCENTRATION (UG/KG) | MSD % REC | # | % RPD | # | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|---|---|
| gamma-BHC | 21.77 | 32. | 147 | * | 6 | | 50 | 46-127 |
| Heptachlor | 21.77 | 24. | 100 | | 4 | | 31 | 35-130 |
| Aldrin | 21.77 | 16. | 73 | | 12 | | 43 | 34-132 |
| Dieldrin | 43.55 | 49. | 102 | | 6 | | 38 | 31-134 |
| Endrin | 43.55 | 48. | 110 | | 18 | | 45 | 42-139 |
| 4,4'-DDT | 43.55 | 59. | 135 | * | 24 | | 50 | 23-134 |

# Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 6 outside limits
Spike Recovery: 3 out of 12 outside limits

COMMENTS:

4C

PESTICIDE METHOD BLANK SUMMARY

EPA SAMPLE NO.

PBLK01

Lab Name: McCoy and McCoy Labs, Inc Contract: 68-D1-0081

Lab Code: McCOY Case No.: 18642 SAS No.: SDG No.: ERW07

Lab Sample ID: PBLKA1 Lab File ID: 02368

Matrix: (soil/water) SOIL Extraction: (SepF/Cont/Sonc) SONC

Sulfur Cleanup: (Y/N) N Date Extracted: 08/24/92

Date Analyzed (1): 09/02/92 Date Analyzed (2): 09/02/92

Time Analyzed (1): 01:46 Time Analyzed (2): 00:55

Instrument ID (1): D2DBD2 Instrument ID (2): D1D1D1

GC Column (1): DB-5 ID: .25 (mm) GC Column (2): DB-1701 ID: .25 (mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

| | EPA SAMPLE NO. | LAB SAMPLE ID | DATE ANALYZED 1 | DATE ANALYZED 2 |
|---|---|---|---|---|
| 1 | ERW07 | 92-08-471-01A | 09/02/92 | 09/02/92 |
| 2 | ERW08 | 92-08-471-02A | 09/02/92 | 09/02/92 |
| 3 | ERW09 | 92-08-471-03A | 09/02/92 | 09/02/92 |
| 4 | ERW10 | 92-08-471-04A | 09/02/92 | 09/02/92 |
| 5 | ERW09MS | 92-08-471-12A | 09/02/92 | 09/02/92 |
| 6 | ERW09MSD | 92-08-471-13A | 09/02/92 | 09/02/92 |
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COMMENTS:

4C

# PESTICIDE METHOD BLANK SUMMARY

EPA SAMPLE NO.

PBLK02

Lab Name: McCoy and McCoy Labs, Inc Contract: 68-D1-0081

Lab Code: McCOY Case No.: 18642 SAS No.: SDG No.: ERW07

Lab Sample ID: PBLKA2 Lab File ID: 02375

Matrix: (soil/water) WATER Extraction: (SepF/Cont/Sonc) SONC

Sulfur Cleanup: (Y/N) N Date Extracted: 08/21/92

Date Analyzed (1): 09/02/92 Date Analyzed (2): 09/02/92

Time Analyzed (1): 08:06 Time Analyzed (2): 07:16

Instrument ID (1): D2DBD2 Instrument ID (2): D1D1D1

GC Column (1): DB-5 ID: .25 (mm) GC Column (2): DB-1701 ID: .25 (mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

| | EPA SAMPLE NO. | LAB SAMPLE ID | DATE ANALYZED 1 | DATE ANALYZED 2 |
|---|---|---|---|---|
| 1 | ERW18 | 92-08-471-06A | 09/02/92 | 09/02/92 |
| 2 | ERW19 | 92-08-471-09A | 09/02/92 | 09/02/92 |
| 3 | ERW20 | 92-08-471-10A | 09/02/92 | 09/02/92 |
| 4 | ERW21 | 92-08-471-11A | 09/02/92 | 09/02/92 |
| 5 | ERW18MS | 92-08-471-07A | 09/02/92 | 09/02/92 |
| 6 | ERW18MSD | 92-08-471-08A | 09/02/92 | 09/02/92 |
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COMMENTS:

1D

# PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PBLK01

Lab Name: McCoy and McCoy Labs, Inc  Contract: 68-D1-0081

Lab Code: McCOY  Case No.: 18642  SAS No.:  SDG No.: ERW07

Matrix: (soil/water) SOIL  Lab Sample ID: PBLKA1

Sample wt/vol: 30.0 (g/mL) G  Lab File ID: 02368

% Moisture: 0. decanted: (Y/N) N  Date Received: 00/00/00

Extraction: (SepF/Cont/Sonc) SONC  Date Extracted: 08/24/92

Concentrated Extract Volume: 5000.0 (uL)  Date Analyzed: 09/02/92

Injection Volume: 2.0 (uL)  Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y  pH: 7.0  Sulfur Cleanup: (Y/N) N

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG | Q |
|---|---|---|---|
| 319-84-6 | alpha-BHC | 1.7 | U |
| 319-85-7 | beta-BHC | 1.7 | U |
| 319-86-8 | delta-BHC | 1.7 | U |
| 58-89-9 | gamma-BHC | 1.7 | U |
| 76-44-8 | Heptachlor | 1.7 | U |
| 309-00-2 | Aldrin | 1.7 | U |
| 1024-57-3 | Heptachlor epoxide | 1.7 | U |
| 959-98-8 | Endosulfan I | 1.7 | U |
| 60-57-1 | Dieldrin | 3.3 | U |
| 72-55-9 | 4,4'-DDE | 3.3 | U |
| 72-20-8 | Endrin | 3.3 | U |
| 33213-65-9 | Endosulfan II | 3.3 | U |
| 72-54-8 | 4,4'-DDD | 3.3 | U |
| 1031-07-8 | Endosulfan Sulfate | .89 | J P |
| 50-29-3 | 4,4'-DDT | 3.3 | U |
| 72-43-5 | Methoxychlor | 17. | U |
| 53494-70-5 | Endrin ketone | 3.3 | U |
| * 7421-93-4 | Endrin aldehyde | 3.3 | U |
| 5103-71-9 | alpha-Chlordane | 1.7 | U |
| 5103-74-2 | gamma-Chlordane | 1.7 | U |
| 8001-35-2 | Toxaphene | 170. | U |
| 12674-11-2 | Aroclor-1016 | 33. | U |
| 11104-28-2 | Aroclor-1221 | 67. | U |
| 11141-16-5 | Aroclor-1232 | 33. | U |
| 53469-21-9 | Aroclor-1242 | 33. | U |
| 12672-29-6 | Aroclor-1248 | 33. | U |
| 11097-69-1 | Aroclor-1254 | 33. | U |
| 11096-82-5 | Aroclor-1260 | 33. | U |

1D

# PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PBLK02

Lab Name: McCoy and McCoy Labs, Inc  Contract: 68-D1-0081

Lab Code: McCOY  Case No.: 18642  SAS No.:  SDG No.: ERW07

Matrix: (soil/water) WATER  Lab Sample ID: PBLKA2

Sample wt/vol: 1000.0 (g/mL) ML  Lab File ID: 02375

% Moisture: _____ decanted: (Y/N)___  Date Received: 00/00/00

Extraction: (SepF/Cont/Sonc) SONC  Date Extracted: 08/21/92

Concentrated Extract Volume: 5000.0 (uL)  Date Analyzed: 09/02/92

Injection Volume: 2.0 (uL)  Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y  pH: 7.0  Sulfur Cleanup: (Y/N) N

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 319-84-6 | alpha-BHC | .050 | U |
| 319-85-7 | beta-BHC | .050 | U |
| 319-86-8 | delta-BHC | .050 | U |
| 58-89-9 | gamma-BHC | .050 | U |
| 76-44-8 | Heptachlor | .050 | U |
| 309-00-2 | Aldrin | .050 | U |
| 1024-57-3 | Heptachlor epoxide | .050 | U |
| 959-98-8 | Endosulfan I | .050 | U |
| 60-57-1 | Dieldrin | .10 | U |
| 72-55-9 | 4,4'-DDE | .10 | U |
| 72-20-8 | Endrin | .10 | U |
| 33213-65-9 | Endosulfan II | .10 | U |
| 72-54-8 | 4,4'-DDD | .10 | U |
| 1031-07-8 | Endosulfan Sulfate | .063 | J P |
| 50-29-3 | 4,4'-DDT | .10 | U |
| 72-43-5 | Methoxychlor | .50 | U |
| 53494-70-5 | Endrin ketone | .10 | U |
| 7421-93-4 | Endrin aldehyde | .10 | U |
| 5103-71-9 | alpha-Chlordane | .050 | U |
| 5103-74-2 | gamma-Chlordane | .050 | U |
| 8001-35-2 | Toxaphene | 5.0 | U |
| 12674-11-2 | Aroclor-1016 | 1.0 | U |
| 11104-28-2 | Aroclor-1221 | 2.0 | U |
| 11141-16-5 | Aroclor-1232 | 1.0 | U |
| 53469-21-9 | Aroclor-1242 | 1.0 | U |
| 12672-29-6 | Aroclor-1248 | 1.0 | U |
| 11097-69-1 | Aroclor-1254 | 1.0 | U |
| 11096-82-5 | Aroclor-1260 | 1.0 | U |

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# PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ERW07

Lab Name: McCoy and McCoy Labs, Inc  Contract: 68-D1-0081

Lab Code: McCOY  Case No.: 18642  SAS No.:  SDG No.: ERW07

Matrix: (soil/water) SOIL  Lab Sample ID: 92-08-471-01A

Sample wt/vol: 30.3 (g/mL) G  Lab File ID: 02369

% Moisture: 20. decanted: (Y/N) N  Date Received: 08/20/92

Extraction: (SepF/Cont/Sonc) SONC  Date Extracted: 08/24/92

Concentrated Extract Volume: 5000.0 (uL)  Date Analyzed: 09/02/92

Injection Volume: 2.0 (uL)  Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y  pH: 8.2  Sulfur Cleanup: (Y/N) N

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG | Q |
|---|---|---|---|
| 319-84-6 | alpha-BHC | 2.1 | U |
| 319-85-7 | beta-BHC | 2.1 | U |
| 319-86-8 | delta-BHC | 2.1 | U |
| 58-89-9 | gamma-BHC | 2.1 | U |
| 76-44-8 | Heptachlor | 2.1 | U |
| 309-00-2 | Aldrin | 2.1 | U |
| 1024-57-3 | Heptachlor epoxide | 2.1 | U |
| 959-98-8 | Endosulfan I | 2.1 | U |
| 60-57-1 | Dieldrin | .45 | J P |
| 72-55-9 | 4,4'-DDE | 4.1 | U |
| 72-20-8 | Endrin | 4.1 | U |
| 33213-65-9 | Endosulfan II | 4.1 | U |
| 72-54-8 | 4,4'-DDD | 4.1 | U |
| 1031-07-8 | Endosulfan Sulfate | 1.3 | BJ P |
| 50-29-3 | 4,4'-DDT | 4.1 | U |
| 72-43-5 | Methoxychlor | 21. | U |
| 53494-70-5 | Endrin ketone | 4.1 | U |
| 7421-93-4 | Endrin aldehyde | 4.1 | U |
| 5103-71-9 | alpha-Chlordane | 2.1 | U |
| 5103-74-2 | gamma-Chlordane | 2.1 | U |
| 8001-35-2 | Toxaphene | 210. | U |
| 12674-11-2 | Aroclor-1016 | 41. | U |
| 11104-28-2 | Aroclor-1221 | 82. | 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 | 41. | U |
| 11096-82-5 | Aroclor-1260 | 41. | U |

1D

# PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ERW08

Lab Name: McCoy and McCoy Labs, Inc  Contract: 68-D1-0081

Lab Code: McCOY  Case No.: 18642  SAS No.:  SDG No.: ERW07

Matrix: (soil/water) SOIL  Lab Sample ID: 92-08-471-02A

Sample wt/vol: 30.9 (g/mL) G  Lab File ID: 02370

% Moisture: 16. decanted: (Y/N) N  Date Received: 08/20/92

Extraction: (SepF/Cont/Sonc) SONC  Date Extracted: 08/24/92

Concentrated Extract Volume: 5000.0 (uL)  Date Analyzed: 09/02/92

Injection Volume: 2.0 (uL)  Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y  pH: 8.1  Sulfur Cleanup: (Y/N) N

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG | Q |
|---|---|---|---|
| 319-84-6 | alpha-BHC | 1.9 | U |
| 319-85-7 | beta-BHC | 1.9 | U |
| 319-86-8 | delta-BHC | 1.9 | U |
| 58-89-9 | gamma-BHC | 1.9 | U |
| 76-44-8 | Heptachlor | 1.9 | U |
| 309-00-2 | Aldrin | 1.9 | U |
| 1024-57-3 | Heptachlor epoxide | 1.9 | U |
| 959-98-8 | Endosulfan I | 1.9 | U |
| 60-57-1 | Dieldrin | 3.9 | U |
| 72-55-9 | 4,4'-DDE | 3.9 | U |
| 72-20-8 | Endrin | 3.9 | U |
| 33213-65-9 | Endosulfan II | 3.9 | U |
| 72-54-8 | 4,4'-DDD | 3.9 | U |
| 1031-07-8 | Endosulfan Sulfate | .67 | BJ P |
| 50-29-3 | 4,4'-DDT | 3.9 | U |
| 72-43-5 | Methoxychlor | 19. | U |
| 53494-70-5 | Endrin ketone | 3.9 | U |
| 7421-93-4 | Endrin aldehyde | 3.9 | U |
| 5103-71-9 | alpha-Chlordane | 1.9 | U |
| 5103-74-2 | gamma-Chlordane | 1.9 | U |
| 8001-35-2 | Toxaphene | 190. | U |
| 12674-11-2 | Aroclor-1016 | 39. | U |
| 11104-28-2 | Aroclor-1221 | 77. | 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 | 39. | U |
| 11096-82-5 | Aroclor-1260 | 39. | U |

1D

# PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ERW09

Lab Name: McCoy and McCoy Labs, Inc  Contract: 68-D1-0081

Lab Code: McCOY  Case No.: 18642  SAS No.:  SDG No.: ERW07

Matrix: (soil/water) SOIL  Lab Sample ID: 92-08-471-03A

Sample wt/vol: 30.1 (g/mL) G  Lab File ID: 02371

% Moisture: 25. decanted: (Y/N) N  Date Received: 08/20/92

Extraction: (SepF/Cont/Sonc) SONC  Date Extracted: 08/24/92

Concentrated Extract Volume: 5000.0 (uL)  Date Analyzed: 09/02/92

Injection Volume: 2.0 (uL)  Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y  pH: 6.9  Sulfur Cleanup: (Y/N) N

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG | Q |
|---|---|---|---|
| 319-84-6 | alpha-BHC | 2.2 | U |
| 319-85-7 | beta-BHC | 2.2 | U |
| 319-86-8 | delta-BHC | 2.2 | U |
| 58-89-9 | gamma-BHC | 2.2 | U |
| 76-44-8 | Heptachlor | 2.2 | U |
| 309-00-2 | Aldrin | 2.2 | U |
| 1024-57-3 | Heptachlor epoxide | 2.2 | U |
| 959-98-8 | Endosulfan I | 2.2 | U |
| 60-57-1 | Dieldrin | 4.4 | U |
| 72-55-9 | 4,4'-DDE | 4.4 | U |
| 72-20-8 | Endrin | 4.4 | U |
| 33213-65-9 | Endosulfan II | 4.4 | U |
| 72-54-8 | 4,4'-DDD | 4.4 | U |
| 1031-07-8 | Endosulfan Sulfate | 1.6 | BJ P |
| 50-29-3 | 4,4'-DDT | 4.4 | U |
| 72-43-5 | Methoxychlor | 22. | U |
| 53494-70-5 | Endrin ketone | 4.4 | U |
| 7421-93-4 | Endrin aldehyde | 4.4 | U |
| 5103-71-9 | alpha-Chlordane | 2.2 | U |
| 5103-74-2 | gamma-Chlordane | 2.2 | U |
| 8001-35-2 | Toxaphene | 220. | U |
| 12674-11-2 | Aroclor-1016 | 44. | U |
| 11104-28-2 | Aroclor-1221 | 88. | U |
| 11141-16-5 | Aroclor-1232 | 44. | U |
| 53469-21-9 | Aroclor-1242 | 44. | U |
| 12672-29-6 | Aroclor-1248 | 44. | U |
| 11097-69-1 | Aroclor-1254 | 44. | U |
| 11096-82-5 | Aroclor-1260 | 44. | U |

# PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ERW10

Lab Name: McCoy and McCoy Labs, Inc  Contract: 68-D1-0081

Lab Code: McCOY  Case No.: 18642  SAS No.:  SDG No.: ERW07

Matrix: (soil/water) SOIL  Lab Sample ID: 92-08-471-04A

Sample wt/vol: 31.2 (g/mL) G  Lab File ID: 02372

% Moisture: 35. decanted: (Y/N) N  Date Received: 08/20/92

Extraction: (SepF/Cont/Sonc) SONC  Date Extracted: 08/24/92

Concentrated Extract Volume: 5000.0 (uL)  Date Analyzed: 09/02/92

Injection Volume: 2.0 (uL)  Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y  pH: 7.1  Sulfur Cleanup: (Y/N) N

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG | Q |
|---|---|---|---|
| 319-84-6 | alpha-BHC | 2.5 | U |
| 319-85-7 | beta-BHC | 2.5 | U |
| 319-86-8 | delta-BHC | 2.5 | U |
| 58-89-9 | gamma-BHC | 2.5 | U |
| 76-44-8 | Heptachlor | 2.5 | U |
| 309-00-2 | Aldrin | 2.5 | U |
| 1024-57-3 | Heptachlor epoxide | 2.5 | U |
| 959-98-8 | Endosulfan I | 2.5 | U |
| 60-57-1 | Dieldrin | 5.0 | U |
| 72-55-9 | 4,4'-DDE | 5.0 | U |
| 72-20-8 | Endrin | 5.0 | U |
| 33213-65-9 | Endosulfan II | 5.0 | U |
| 72-54-8 | 4,4'-DDD | 5.0 | U |
| 1031-07-8 | Endosulfan Sulfate | 1.4 | BJ P |
| 50-29-3 | 4,4'-DDT | 5.0 | U |
| 72-43-5 | Methoxychlor | 25. | U |
| 53494-70-5 | Endrin ketone | 5.0 | U |
| 7421-93-4 | Endrin aldehyde | 5.0 | U |
| 5103-71-9 | alpha-Chlordane | 2.5 | U |
| 5103-74-2 | gamma-Chlordane | 2.5 | U |
| 8001-35-2 | Toxaphene | 250. | U |
| 12674-11-2 | Aroclor-1016 | 50. | U |
| 11104-28-2 | Aroclor-1221 | 99. | U |
| 11141-16-5 | Aroclor-1232 | 50. | U |
| 53469-21-9 | Aroclor-1242 | 50. | U |
| 12672-29-6 | Aroclor-1248 | 50. | U |
| 11097-69-1 | Aroclor-1254 | 50. | U |
| 11096-82-5 | Aroclor-1260 | 50. | U |

1D

# PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ERW18

Lab Name: McCoy and McCoy Labs, Inc  Contract: 68-D1-0081

Lab Code: McCOY  Case No.: 18642  SAS No.:  SDG No.: ERW07

Matrix: (soil/water) WATER  Lab Sample ID: 92-08-471-06A

Sample wt/vol: 1000.0 (g/mL) ML  Lab File ID: 02376

% Moisture: _____ decanted: (Y/N)___  Date Received: 08/20/92

Extraction: (SepF/Cont/Sonc) SONC  Date Extracted: 08/21/92

Concentrated Extract Volume: 5000.0 (uL)  Date Analyzed: 09/02/92

Injection Volume: 2.0 (uL)  Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y  pH: 6.8  Sulfur Cleanup: (Y/N) N

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 319-84-6 | alpha-BHC | .050 | U |
| 319-85-7 | beta-BHC | .050 | U |
| 319-86-8 | delta-BHC | .050 | U |
| 58-89-9 | gamma-BHC | .050 | U |
| 76-44-8 | Heptachlor | .050 | U |
| 309-00-2 | Aldrin | .050 | U |
| 1024-57-3 | Heptachlor epoxide | .050 | U |
| 959-98-8 | Endosulfan I | .050 | U |
| 60-57-1 | Dieldrin | .10 | U |
| 72-55-9 | 4,4'-DDE | .10 | U |
| 72-20-8 | Endrin | .10 | U |
| 33213-65-9 | Endosulfan II | .10 | U |
| 72-54-8 | 4,4'-DDD | .10 | U |
| 1031-07-8 | Endosulfan Sulfate | .028 | BJ P |
| 50-29-3 | 4,4'-DDT | .10 | U |
| 72-43-5 | Methoxychlor | .50 | U |
| 53494-70-5 | Endrin ketone | .10 | U |
| 7421-93-4 | Endrin aldehyde | .10 | U |
| 5103-71-9 | alpha-Chlordane | .050 | U |
| 5103-74-2 | gamma-Chlordane | .050 | U |
| 8001-35-2 | Toxaphene | 5.0 | U |
| 12674-11-2 | Aroclor-1016 | 1.0 | U |
| 11104-28-2 | Aroclor-1221 | 2.0 | U |
| 11141-16-5 | Aroclor-1232 | 1.0 | U |
| 53469-21-9 | Aroclor-1242 | 1.0 | U |
| 12672-29-6 | Aroclor-1248 | 1.0 | U |
| 11097-69-1 | Aroclor-1254 | 1.0 | U |
| 11096-82-5 | Aroclor-1260 | 1.0 | U |

# PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ERW19

Lab Name: McCoy and McCoy Labs, Inc  Contract: 68-D1-0081

Lab Code: McCOY  Case No.: 18642  SAS No.:  SDG No.: ERW07

Matrix: (soil/water) WATER  Lab Sample ID: 92-08-471-09A

Sample wt/vol: 1000.0 (g/mL) ML  Lab File ID: 02377

% Moisture: _____ decanted: (Y/N)___  Date Received: 08/20/92

Extraction: (SepF/Cont/Sonc) SONC  Date Extracted: 08/21/92

Concentrated Extract Volume: 5000.0 (uL)  Date Analyzed: 09/02/92

Injection Volume: 2.0 (uL)  Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y  pH: 6.8  Sulfur Cleanup: (Y/N) N

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 319-84-6 | alpha-BHC | .050 | U |
| 319-85-7 | beta-BHC | .050 | U |
| 319-86-8 | delta-BHC | .018 | J P |
| 58-89-9 | gamma-BHC | .050 | U |
| 76-44-8 | Heptachlor | .050 | U |
| 309-00-2 | Aldrin | .050 | U |
| 1024-57-3 | Heptachlor epoxide | .050 | U |
| 959-98-8 | Endosulfan I | .050 | U |
| 60-57-1 | Dieldrin | .10 | U |
| 72-55-9 | 4,4'-DDE | .10 | U |
| 72-20-8 | Endrin | .10 | U |
| 33213-65-9 | Endosulfan II | .10 | U |
| 72-54-8 | 4,4'-DDD | .10 | U |
| 1031-07-8 | Endosulfan Sulfate | .10 | U |
| 50-29-3 | 4,4'-DDT | .10 | U |
| 72-43-5 | Methoxychlor | .50 | U |
| 53494-70-5 | Endrin ketone | .10 | U |
| 7421-93-4 | Endrin aldehyde | .10 | U |
| 5103-71-9 | alpha-Chlordane | .050 | U |
| 5103-74-2 | gamma-Chlordane | .050 | U |
| 8001-35-2 | Toxaphene | 5.0 | U |
| 12674-11-2 | Aroclor-1016 | 1.0 | U |
| 11104-28-2 | Aroclor-1221 | 2.0 | U |
| 11141-16-5 | Aroclor-1232 | 1.0 | U |
| 53469-21-9 | Aroclor-1242 | 1.0 | U |
| 12672-29-6 | Aroclor-1248 | 1.0 | U |
| 11097-69-1 | Aroclor-1254 | 1.0 | U |
| 11096-82-5 | Aroclor-1260 | 1.0 | U |

1D

# PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ERW20

Lab Name: McCoy and McCoy Labs, Inc  Contract: 68-D1-0081

Lab Code: McCOY  Case No.: 18642  SAS No.:  SDG No.: ERW07

Matrix: (soil/water) WATER  Lab Sample ID: 92-08-471-10A

Sample wt/vol: 1000.0 (g/mL) ML  Lab File ID: 02378

% Moisture: _____ decanted: (Y/N)___  Date Received: 08/20/92

Extraction: (SepF/Cont/Sonc) SONC  Date Extracted: 08/21/92

Concentrated Extract Volume: 5000.0 (uL)  Date Analyzed: 09/02/92

Injection Volume: 2.0 (uL)  Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y  pH: 6.9  Sulfur Cleanup: (Y/N) N

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 319-84-6 | alpha-BHC | .050 | U |
| 319-85-7 | beta-BHC | .050 | U |
| 319-86-8 | delta-BHC | .050 | U |
| 58-89-9 | gamma-BHC | .050 | U |
| 76-44-8 | Heptachlor | .050 | U |
| 309-00-2 | Aldrin | .050 | U |
| 1024-57-3 | Heptachlor epoxide | .050 | U |
| 959-98-8 | Endosulfan I | .050 | U |
| 60-57-1 | Dieldrin | .10 | U |
| 72-55-9 | 4,4'-DDE | .10 | U |
| 72-20-8 | Endrin | .10 | U |
| 33213-65-9 | Endosulfan II | .10 | U |
| 72-54-8 | 4,4'-DDD | .10 | U |
| 1031-07-8 | Endosulfan Sulfate | .022 | BJ P |
| 50-29-3 | 4,4'-DDT | .10 | U |
| 72-43-5 | Methoxychlor | .50 | U |
| 53494-70-5 | Endrin ketone | .10 | U |
| 7421-93-4 | Endrin aldehyde | .10 | U |
| 5103-71-9 | alpha-Chlordane | .050 | U |
| 5103-74-2 | gamma-Chlordane | .050 | U |
| 8001-35-2 | Toxaphene | 5.0 | U |
| 12674-11-2 | Aroclor-1016 | 1.0 | U |
| 11104-28-2 | Aroclor-1221 | 2.0 | U |
| 11141-16-5 | Aroclor-1232 | 1.0 | U |
| 53469-21-9 | Aroclor-1242 | 1.0 | U |
| 12672-29-6 | Aroclor-1248 | 1.0 | U |
| 11097-69-1 | Aroclor-1254 | 1.0 | U |
| 11096-82-5 | Aroclor-1260 | 1.0 | U |

1D

# PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ERW21

Lab Name: McCoy and McCoy Labs, Inc  Contract: 68-D1-0081

Lab Code: McCOY  Case No.: 18642  SAS No.:  SDG No.: ERW07

Matrix: (soil/water) WATER  Lab Sample ID: 92-08-471-11A

Sample wt/vol: 1000.0 (g/mL) ML  Lab File ID: 02379

% Moisture: _____ decanted: (Y/N)___  Date Received: 08/20/92

Extraction: (SepF/Cont/Sonc) SONC  Date Extracted: 08/21/92

Concentrated Extract Volume: 5000.0 (uL)  Date Analyzed: 09/02/92

Injection Volume: 2.0 (uL)  Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y  pH: 6.9  Sulfur Cleanup: (Y/N) N

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 319-84-6 | alpha-BHC | .050 | U |
| 319-85-7 | beta-BHC | .050 | U |
| 319-86-8 | delta-BHC | .050 | U |
| 58-89-9 | gamma-BHC | .050 | U |
| 76-44-8 | Heptachlor | .050 | U |
| 309-00-2 | Aldrin | .050 | U |
| 1024-57-3 | Heptachlor epoxide | .050 | U |
| 959-98-8 | Endosulfan I | .050 | U |
| 60-57-1 | Dieldrin | .10 | U |
| 72-55-9 | 4,4'-DDE | .10 | U |
| 72-20-8 | Endrin | .10 | U |
| 33213-65-9 | Endosulfan II | .10 | U |
| 72-54-8 | 4,4'-DDD | .10 | U |
| 1031-07-8 | Endosulfan Sulfate | .026 | BJ P |
| 50-29-3 | 4,4'-DDT | .10 | U |
| 72-43-5 | Methoxychlor | .50 | U |
| 53494-70-5 | Endrin ketone | .10 | U |
| 7421-93-4 | Endrin aldehyde | .10 | U |
| 5103-71-9 | alpha-Chlordane | .050 | U |
| 5103-74-2 | gamma-Chlordane | .050 | U |
| 8001-35-2 | Toxaphene | 5.0 | U |
| 12674-11-2 | Aroclor-1016 | 1.0 | U |
| 11104-28-2 | Aroclor-1221 | 2.0 | U |
| 11141-16-5 | Aroclor-1232 | 1.0 | U |
| 53469-21-9 | Aroclor-1242 | 1.0 | U |
| 12672-29-6 | Aroclor-1248 | 1.0 | U |
| 11097-69-1 | Aroclor-1254 | 1.0 | U |
| 11096-82-5 | Aroclor-1260 | 1.0 | U |

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

ESD Central Regional Laboratory
Data Tracking Form for Contract Samples

Data Set No._____ CERCLIS No. IN

Case No. 18642 Site Name Location: Sanyo

Contractor or EPA Lab: McCoy Data User: Weston

No. of Samples: 9 Date Samples or Data Received: 9-17-92

Have Chain-of-Custody records been received? YES ✓ NO____
Have traffic reports or packing lists been received? YES ✓ NO____
If no, are traffic report or packing list numbers written on the chain-of-custody record? YES ✓ NO____
If no, which traffic report or packing list numbers are missing?

Are basic data forms in? YES ✓ NO____
No. of samples claimed: 9 No. of samples received: 9

Received by: Lynette Burnett Date: 9-17-92

Received by LSSS: DMM Date: 9-17-92

Review started: 9/25/92 Reviewer Signature: [signature]

Total time spent on review: 14 Date review completed: 9/28/92

Copied by: Eric Miller Date: 10-7-92

Mailed to user by: [signature] Date: 10-7-92

DATA USERS:
Please fill in the blanks below and return this form to:
Sylvia Griffin, Data Mgmt. Coordinator, Region V, 5SCRL

Data received by:_____ Date:_____

Data review received by:_____ Date:_____
Inorganic Data Complete[ ] Suitable for Intended Purpose[ ] ✓if OK
Organic Data Complete [ ] Suitable for Intended Purpose[ ] list
Dioxin Data Complete [ ] Suitable for Intended Purpose[ ] prblms
SAS Data Complete [ ] Suitable for Intended Purpose[ ] below.
PROBLEMS: Please indicate reasons why data are not suitable for your uses.

Received by Data Mgmt. Coordinator for Files Date:_____

**ANALYTICAL RESULTS**
**SITE NAME** Sanyo
**SITE I.D.:**

| FIT SAMPLE NO. | RW01-01MSD | RW01-01DP | RW01-01FB | PWTB-03 | | | | |
|---|---|---|---|---|---|---|---|---|
| OTR NUMBER | ERW23 | ERW25 | ERW24 | ERW22 | | | | |
| ITR NUMBER | MERP20 | MERP22 | MERP21 | —— | | | | |
| pH (WATER) | | | | | | | | |
| TEMPERATURE (WATER) | | | | | | | | |
| CONDUCTIVITY (WATER) | | | | | | | | |
| SAMPLE MATRIX | RW | RW | RW | RW | | | | |
| | | | | | | | | |
| VOLATILES | | | | | | | | |
| UNITS: mg/L | | | | | | | | |
| Chloromethane | | | 0.5J | (1J) | | | | |
| Bromomethane | | | | | | | | |
| Vinyl Chloride | (22D) | (23D) | | | | | | |
| Chloroethane | | | | | | | | |
| Methylene Chloride | | | 0.9J | | | | | |
| Acetone | | | | 12J | | | | |
| Carbon Disulfide | | | | | | | | |
| 1,1 – Dichloroethene | 0.3J | 0.3J | | | | | | |
| 1,1 – Dichloroethane | 1 | 1 | | | | | | |
| 1,2 – Dichloroethene (total) | 2 (cis); (100D (trans)) | 2 (cis); (110D (trans)) | | | | | | |
| Chloroform | | | | | | | | |
| 1,2 – Dichloroethane | | 2 | 1 | 2 | | | | |
| 2 – Butanone | | | | | | | | |
| 1,1,1 – Trichloroethane | | 0.3J | | | | | | |
| Carbon Tetrachloride | | | | | | | | |
| Bromodichloromethane | | | | | | | | |
| 1,2 – Dichloropropane | | | | | | | | |
| cis – 1,3 – Dichloropropene | | | | | | | | |
| Trichloroethene | (5) | (5) | | | | | | |
| Dibromochloromethane | | | | | | | | |
| 1,1,2 – Trichloroethane | | | | | | | | |
| Benzene | | | | | | | | |
| trans – 1,3 – Dichloropropene | | | | | | | | |
| Bromoform | | | | | | | | |
| 4 – Methyl – 2 – Pentanone | | | | | | | | |

SDW 2

**ANALYTICAL RESULTS**
**SITE NAME** Sanyo
**SITE I.D.:**

| FIT SAMPLE NO. | RW01-01MSD | RW01-01DP | RW01-01FB | PWTB-03 | | | | |
|---|---|---|---|---|---|---|---|---|
| OTR NUMBER | ERW 23 | ERW 25 | ERW 24 | ERW 22 | | | | |
| ITR NUMBER | MERP 20 | MERP 22 | MERP 21 | ——— | | | | |
| pH (WATER) | | | | | | | | |
| TEMPERATURE (WATER) | | | | | | | | |
| CONDUCTIVITY (WATER) | | | | | | | | |
| SAMPLE MATRIX | RW | RW | RW | PW | | | | |
| 2-Hexanone | | | | | | | | |
| Tetrachloroethene | | | | | | | | |
| 1,1,2,2-Tetrachloroethane | | | | | | | | |
| Toluene | | | 0.3 J | 0.4 J | | | | |
| Chlorobenzene | | | | | | | | |
| Ethylbenzene | | | | | | | | |
| Styrene | | | | | | | | |
| Xylenes (total) | | | | | | | | |
| | | | | | | | | |
| SEMIVOLATILES | | | | | | | | |
| UNITS: | | | | | | | | |
| Phenol | | | | | | | | |
| bis(2-Chloroethyl)Ether | | | | | | | | |
| 2-Chlorophenol | | | | | | | | |
| 1,3-Dichlorobenzene | | | | | | | | |
| 1,4-Dichlorobenzene | | | | | | | | |
| 1,2-Dichlorobenzene | | | | | | | | |
| 2-Methylphenol | | | | | | | | |
| 2,2'-oxybis(1-Chloropropane) | | | | | | | | |
| 4-Methylphenol | | | | | | | | |
| N-Nitroso-Di-n-Propylamine | | | | | | | | |
| Hexachloroethane | | | | | | | | |
| Isophorone | | | | | | | | |
| Nitrobenzene | | | | | | | | |
| 2-Nitrophenol | | | | | | | | |
| 2,4-Dimethylphenol | | | | | | | | |
| bis(2-Chloroethoxy)Methane | | | | | | | | |
| 2,4-Dichlorophenol | | | | | | | | |

**ANALYTICAL RESULTS**
**SITE NAME** Sanyo
**SITE I.D.:**

| FIT SAMPLE NO. | RW01-01MSD | RW01-01DP | RW01-01FB | PWTB-03 | | | | |
|---|---|---|---|---|---|---|---|---|
| OTR NUMBER | ERW23 | ERW25 | ERW24 | ERW22 | | | | |
| ITR NUMBER | MERP 20 | MERP 22 | MERP 21 | — | | | | |
| pH (WATER) | | | | | | | | |
| TEMPERATURE (WATER) | | | | | | | | |
| CONDUCTIVITY (WATER) | | | | | | | | |
| SAMPLE MATRIX | RW | RW | RW | PW | | | | |
| 1,2,4-Trichlorobenzene | | | | | | | | |
| Naphthalene | | | | | | | | |
| 4-Chloroaniline | | | | | | | | |
| Hexachlorobutadiene | | | | | | | | |
| 4-Chloro-3-Methylphenol | | | | | | | | |
| 2-Methylnaphthalene | | | | | | | | |
| Hexachlorocyclopentadiene | | | | | | | | |
| 2,4,6-Trichlorophenol | | | | | | | | |
| 2,4,5-Trichlorophenol | | | | | | | | |
| 2-Chloronaphthalene | | | | | | | | |
| 2-Nitroaniline | | | | | | | | |
| Dimethylphthalate | | | | | | | | |
| Acenaphthlene | | | | | | | | |
| 2,6-Dinitrotoluene | | | | | | | | |
| 3-Nitroaniline | | | | | | | | |
| Acenaphthene | | | | | | | | |
| 2,4-Dinitrophenol | | | | | | | | |
| 4-Nitrophenol | | | | | | | | |
| Dibenzofuran | | | | | | | | |
| 2,4-Dinitrotoluene | | | | | | | | |
| Diethylphthalate | | | | | | | | |
| 4-Chlorophenyl-phenylether | | | | | | | | |
| Fluorene | | | | | | | | |
| 4-Nitroaniline | | | | | | | | |
| 4,6-Dinitro-2-methylphenol | | | | | | | | |
| N-Nitrosodiphenylamine | | | | | | | | |
| 4-Bromophenyl-phenylether | | | | | | | | |
| Hexachlorobenzene | | | | | | | | |

ANALYTICAL RESULTS
SITE NAME Sanyo
SITE I.D.:

| FIT SAMPLE NO. | RW01-01MSD | RW01-01DP | RW01-01FB | PWTB-03 | | | | |
|---|---|---|---|---|---|---|---|---|
| OTR NUMBER | ERW 23 | ERW 25 | ERW 24 | ERW 22 | | | | |
| ITR NUMBER | MERP 20 | MERP 22 | MERP 21 | ——— | | | | |
| pH (WATER) | | | | | | | | |
| TEMPERATURE (WATER) | | | | | | | | |
| CONDUCTIVITY (WATER) | | | | | | | | |
| SAMPLE MATRIX | RW | RW | RW | PW | | | | |
| Pentachlorophenol | | | | | | | | |
| Phenanthrene | | | | | | | | |
| Anthracene | | | | | | | | |
| Carbazole | | | | | | | | |
| Di-n-Butylphthalate | | | | | | | | |
| Fluoranthene | | | | | | | | |
| Pyrene | | | | | | | | |
| Butylbenzylphthalate | | | | | | | | |
| 3,3'-Dichlorobenzidine | | | | | | | | |
| Benzo(a)anthracene | | | | | | | | |
| Chrysene | | | | | | | | |
| bis(2-Ethylhexyl)phthalate | | | | | | | | |
| Di-n-Octyl phthalate | | | | | | | | |
| Benzo(b)fluoranthene | | | | | | | | |
| Benzo(k)fluoranthene | | | | | | | | |
| Benzo(a)pyrene | | | | | | | | |
| Indeno(1,2,3-cd)pyrene | | | | | | | | |
| Dibenzo(a,h)anthracene | | | | | | | | |
| Benzo(g,h,i)perylene | | | | | | | | |
| | | | | | | | | |
| PESTICIDES/PCBs | | | | | | | | |
| alpha-BHC | | | | | | | | |
| beta-BHC | | | | | | | | |
| delta-BHC | | | | | | | | |
| gamma-BHC (Lindane) | | | | | | | | |
| Heptachlor | | | | | | | | |
| Aldrin | | | | | | | | |
| Heptachlor epoxide | | | | | | | | |

ANALYTICAL RESULTS
SITE NAME Sanyo
SITE I.D.:

| FIT SAMPLE NO. | RW01-01MSD | RW01-01 DP | RW01-01 FB | PWTB-03 | | | | |
|---|---|---|---|---|---|---|---|---|
| OTR NUMBER | ERW 23 | ERW 25 | ERW 24 | ERW 22 | | | | |
| ITR NUMBER | MERP 20 | MERP 22 | MERP 21 | — | | | | |
| pH (WATER) | | | | | | | | |
| TEMPERATURE (WATER) | | | | | | | | |
| CONDUCTIVITY (WATER) | | | | | | | | |
| SAMPLE MATRIX | RW | RW | RW | PW | | | | |
| Endosulfan I | | | | | | | | |
| Dieldrin | | | | | | | | |
| 4,4'-DDE | | | | | | | | |
| Endrin | | | | | | | | |
| Endosulfan II | | | | | | | | |
| 4,4'-DDD | | | | | | | | |
| Endosulfan sulfate | | | | | | | | |
| 4,4'-DDT | | | | | | | | |
| Methoxychlor | | | | | | | | |
| Endrin ketone | | | | | | | | |
| Endrin aldehyde | | | | | | | | |
| alpha-Chlordane | | | | | | | | |
| gamma-Chlordane | | | | | | | | |
| Toxaphene | | | | | | | | |
| Aroclor - 1016 | | | | | | | | |
| Aroclor - 1221 | | | | | | | | |
| Aroclor - 1232 | | | | | | | | |
| Aroclor - 1242 | | | | | | | | |
| Aroclor - 1248 | | | | | | | | |
| Aroclor - 1254 | | | | | | | | |
| Aroclor - 1260 | | | | | | | | |
| Metals unfiltered | | | | | | | | |
| UNITS: mg/L | | | | | | | | |
| Aluminum | 35.1 BJ | 41.0 BJ | 39.9 B | | | | | |
| Antimony | | | | | | | | |
| Arsenic | (7.1) | 6.3 | | | | | | |
| Barium | (222) | 214 | | | | | | |
| Beryllium | | | | | | | | |

ANALYTICAL RESULTS
SITE NAME Sanyo
SITE I.D.:

| FIT SAMPLE NO. | RW01-01 MSD | RW01-01 DP | RW01-01 FB | PWTB-03 | | | | |
|---|---|---|---|---|---|---|---|---|
| OTR NUMBER | ERW 23 | ERW 25 | ERW 24 | ERW 22 | | | | |
| ITR NUMBER | MERP 20 | MERP 22 | MERP 21 | — | | | | |
| pH (WATER) | | | | | | | | |
| TEMPERATURE (WATER) | | | | | | | | |
| CONDUCTIVITY (WATER) | | | | | | | | |
| SAMPLE MATRIX | RW | RW | RW | PW | | | | |
| Cadmium | | | | | | | | |
| Calcium | 96300 | 94100 | | | | | | |
| Chromium | | | | | | | | |
| Cobalt | | | | | | | | |
| Copper | 12.6 | 10.4 | | | | | | |
| Iron | 6020 | 5940 | 12.7 B | | | | | |
| Lead | | | | | | | | |
| Magnesium | 39200 | 38100 | | | | | | |
| manganese | 635 | 629 | | | | | | |
| Mercury | | | | | | | | |
| Nickel | | | | | | | | |
| Potassium | 3260 | 3200 | 571 BJ | | | | | |
| Selenium | | | | | | | | |
| Silver | | | | | | | | |
| Sodium | 29400 | 28900 | 100 B | | | | | |
| Thallium | | | | | | | | |
| Vanadium | | | | | | | | |
| Zinc | 42.9 | 45.1 | | | | | | |
| Cyanide | | | | | | | | |
| | | | | | | | | |
| Metals filtered | | | | | | | | |
| UNITS: | | | | | | | | |
| Aluminum | | | | | | | | |
| Antimony | | | | | | | | |
| Arsenic | | | | | | | | |
| Barium | | | | | | | | |
| Beryllium | | | | | | | | |
| Cadmium | | | | | | | | |

3 soil borings

**ANALYTICAL RESULTS**
**SITE NAME** Alcoa
**SITE I.D.:**

SS1AL-

| FIT SAMPLE NO. | SBΦ1-Φ1 | SBΦ2-Φ1 DP | SBΦ2-Φ1 MSD | | | | | |
|---|---|---|---|---|---|---|---|---|
| OTR NUMBER | EQD 73 | EQD 74 | EQD 75 | | | | | |
| ITR NUMBER | MEQF26 | MEQF27 | MEQF28 | | | | | |
| pH (WATER) | | | | | | | | |
| TEMPERATURE (WATER) | | | | | | | | |
| CONDUCTIVITY (WATER) | | | | | | | | |
| SAMPLE MATRIX | SOIL | SOIL | SOIL | | | | | |
| Endosulfan I | | | | | | | | |
| Dieldrin | | | | | | | | |
| 4,4'-DDE | | | | | | | | |
| Endrin | | | | | | | | |
| Endosulfan II | | | | | | | | |
| 4,4'-DDD | | | | | | | | |
| Endosulfan sulfate | | | 1.1 JP | | | | | |
| 4,4'-DDT | | | | | | | | |
| Methoxychlor | | | | | | | | |
| Endrin ketone | | | | | | | | |
| Endrin adehyde | | | | | | | | |
| alpha-Chlordane | | | | | | | | |
| gamma-Chlordane | | | | | | | | |
| Toxaphene | | | | | | | | |
| Aroclor - 1016 | | | | | | | | |
| Aroclor - 1221 | | | | | | | | |
| Aroclor - 1232 | | | | | | | | |
| Aroclor - 1242 | | | | | | | | |
| Aroclor - 1248 | | | | | | | | |
| Aroclor - 1254 | | | | | | | | |
| Aroclor - 1260 | | | | | | | | |
| Metals unfiltered | | | | | | | | |
| UNITS: | MG/KG | MG/KG | MG/KG | | | | | |
| Aluminum | 15600 | 11900 | 13200 | | | | | |
| Antimony | | | | | | | | |
| Arsenic | 17.2 | 11.8 | 11.6 S | | | | | |
| Barium | 104 | 73.2 | 84.5 | | | | | |
| Beryllium | 0.77B | 0.73B | 0.80B | | | | | |

3 SOIL BORINGS

**ANALYTICAL RESULTS**
**SITE NAME** Alcoa
**SITE I.D.:**

SSIAL-

| FIT SAMPLE NO. | SB#1-#1 | SB#2-#1 DP | SB#2-#1 MSD | | | | | |
|---|---|---|---|---|---|---|---|---|
| OTR NUMBER | EQD 73 | EQD 74 | EQD 75 | | | | | |
| ITR NUMBER | MEQF 26 | MEQF 27 | MEQF 28 | | | | | |
| pH (WATER) | | | | | | | | |
| TEMPERATURE (WATER) | | | | | | | | |
| CONDUCTIVITY (WATER) | | | | | | | | |
| SAMPLE MATRIX | Soil | Soil | Soil | | | | | |
| Cadmium | 4.3 | 3.4 | 3.6 | | | | | |
| Calcium | 2420 EJ | 11800 EJ | 9380 EJ | | | | | |
| Chromium | 21.7 | 16.9 | 18.3 | | | | | |
| Cobalt | 11.6 B | 6.6 B | 7.5 B | | | | | |
| Copper | 25.7 | 19.5 | 22.5 | | | | | |
| Iron | 27400 | 19700 | 22500 | | | | | |
| Lead | 18.5 *J | 18.0 *J | 49.8 *J | | | | | |
| Magnesium | 3170 | 7710 | 6230 | | | | | |
| manganese | 765 | 457 | 566 | | | | | |
| Mercury | 0.05 B | 0.06 | 0.05 B | | | | | |
| Nickel | 25.0 | 17.3 | 19.5 | | | | | |
| Potassium | 1100 BEJ | 996 BEJ | 978 BEJ | | | | | |
| Selenium | 0.64 BJ | | | | | | | |
| Silver | | | | | | | | |
| Sodium | 79.2 B | 127 B | 114 B | | | | | |
| Thallium | 0.25 B | 0.20 B | 0.23 BWJ | | | | | |
| Vanadium | 36.5 | 29.2 | 32.6 | | | | | |
| Zinc | 103 | 132 | 75.2 | | | | | |
| Cyanide | | | | | | | | |
| | | | | | | | | |
| Metals filtered | | | | | | | | |
| UNITS: | | | | | | | | |
| Aluminum | | | | | | | | |
| Antimony | | | | | | | | |
| Arsenic | | | | | | | | |
| Barium | | | | | | | | |
| Beryllium | | | | | | | | |
| Cadmium | | | | | | | | |

**ANALYTICAL RESULTS**
**SITE NAME** Sanyo
**SITE I.D.:**

| FIT SAMPLE NO. | GW01-01MSD | GW01-01FD | GW02-01 | GW02-01FD | PWTB-02 | | | |
|---|---|---|---|---|---|---|---|---|
| OTR NUMBER | ERW 18 | ERW 19 | ERW 20 | ERW 21 | ERW 17 | | | |
| ITR NUMBER | MERP 16 | MERP 17 | MERP 18 | MERP 19 | — | | | |
| pH (WATER) | | | | | | | | |
| TEMPERATURE (WATER) | | | | | | | | |
| CONDUCTIVITY (WATER) | | | | | | | | |
| SAMPLE MATRIX | GW | GW | GW | GW | GW | | | |
| | | | | | | | | |
| VOLATILES | | | | | | | | |
| UNITS: µg/L | | | | | | | | |
| Chloromethane | | | | | | | | |
| Bromomethane | | | | | | | | |
| Vinyl Chloride | | | | | | | | |
| Chloroethane | | | | | | | | |
| Methylene Chloride | | | | | | | | |
| Acetone | | | | | | | | |
| Carbon Disulfide | | | | | | | | |
| 1,1 – Dichloroethene | | | | | | | | |
| 1,1 – Dichloroethane | | | | | | | | |
| 1,2-Dichloroethene (total) | (96 JD) | (94 JD) | | | | | | |
| Chloroform | (2 J) | (2 J) | | | | | | |
| 1,2 – Dichloroethane | | | | | | | | |
| 2 – Butanone | | | | | | | | |
| 1,1,1 – Trichloroethane | (7 J) | (7 J) | | | | | | |
| Carbon Tetrachloride | | | | | | | | |
| Bromodichloromethane | | | | | | | | |
| 1,2 – Dichloropropane | | | | | | | | |
| cis-1,3 – Dichloropropene | | | | | | | | |
| Trichloroethene | (1300 D) | (1300 D) | | | | | | |
| Dibromochloromethane | | | | | | | | |
| 1,1,2-Trichloroethane | | | | | | | | |
| Benzene | | | | | | | | |
| trans-1,3-Dichloropropene | | | | | | | | |
| Bromoform | | | | | | | | |
| 4-Methyl-2-Pentanone | | | | | | | | |

**ANALYTICAL RESULTS**
**SITE NAME** Sanyo
**SITE I.D.:**

| FIT SAMPLE NO. | GW01-01MSD | GW01-01FD | GW02-01 | GW02-01FD | PWTB-02 | | | |
|---|---|---|---|---|---|---|---|---|
| OTR NUMBER | ERW 18 | ERW 19 | ERW 20 | ERW 21 | ERW 17 | | | |
| ITR NUMBER | MERP 16 | MERP 17 | MERP 18 | MERP 19 | ——— | | | |
| pH (WATER) | | | | | | | | |
| TEMPERATURE (WATER) | | | | | | | | |
| CONDUCTIVITY (WATER) | | | | | | | | |
| SAMPLE MATRIX | GW | GW | GW | GW | PW | | | |
| 2-Hexanone | | | | | | | | |
| Tetrachloroethene | | | | | | | | |
| 1,1,2,2-Tetrachloroethane | | | | | | | | |
| Toluene | | | | | | | | |
| Chlorobenzene | | | | | | | | |
| Ethylbenzene | | | | | | | | |
| Styrene | | | | | | | | |
| Xylenes (total) | | | | | | | | |
| | | | | | | | | |
| SEMIVOLATILES | | | | | | | | |
| UNITS: | | | | | | | | |
| Phenol | | | | | | | | |
| bis(2-Chloroethyl) Ether | | | | | | | | |
| 2-Chlorophenol | | | | | | | | |
| 1,3-Dichlorobenzene | | | | | | | | |
| 1,4-Dichlorobenzene | | | | | | | | |
| 1,2-Dichlorobenzene | | | | | | | | |
| 2-Methylphenol | | | | | | | | |
| 2,2'-oxybis(1-Chloropropane) | | | | | | | | |
| 4-Methylphenol | | | | | | | | |
| N-Nitroso-Di-n-Propylamine | | | | | | | | |
| Hexachloroethane | | | | | | | | |
| Isophorone | | | | | | | | |
| Nitrobenzene | | | | | | | | |
| 2-Nitrophenol | | | | | | | | |
| 2,4-Dimethylphenol | | | | | | | | |
| bis(2-Chloroethoxy) Methane | | | | | | | | |
| 2,4-Dichlorophenol | | | | | | | | |

**ANALYTICAL RESULTS**
**SITE NAME** Sanyo
**SITE I.D.:**

| FIT SAMPLE NO. | GW01-01MSD | GW01-01FD | GW02-01 | GW02-01FD | PWTB-02 | | | |
|---|---|---|---|---|---|---|---|---|
| OTR NUMBER | ERW18 | ERW19 | ERW20 | ERW21 | ERW17 | | | |
| ITR NUMBER | MERP16 | MERP17 | MERP18 | MERP19 | — | | | |
| pH (WATER) | | | | | | | | |
| TEMPERATURE (WATER) | | | | | | | | |
| CONDUCTIVITY (WATER) | | | | | | | | |
| SAMPLE MATRIX | GW | GW | GW | GW | PW | | | |
| 1,2,4-Trichlorobenzene | | | | | | | | |
| Naphthalene | | | | | | | | |
| 4-Chloroaniline | | | | | | | | |
| Hexachlorobutadiene | | | | | | | | |
| 4-Chloro-3-Methylphenol | | | | | | | | |
| 2-Methylnaphthalene | | | | | | | | |
| Hexachlorocyclopentadiene | | | | | | | | |
| 2,4,6-Trichlorophenol | | | | | | | | |
| 2,4,5-Trichlorophenol | | | | | | | | |
| 2-Chloronaphthalene | | | | | | | | |
| 2-Nitroaniline | | | | | | | | |
| Dimethylphthalate | | | | | | | | |
| Acenaphthylene | | | | | | | | |
| 2,6-Dinitrotoluene | | | | | | | | |
| 3-Nitroaniline | | | | | | | | |
| Acenaphthene | | | | | | | | |
| 2,4-Dinitrophenol | | | | | | | | |
| 4-Nitrophenol | | | | | | | | |
| Dibenzofuran | | | | | | | | |
| 2,4-Dinitrotoluene | | | | | | | | |
| Diethylphthalate | | | | | | | | |
| 4-Chlorophenyl-phenylether | | | | | | | | |
| Fluorene | | | | | | | | |
| 4-Nitroaniline | | | | | | | | |
| 4,6-Dinitro-2-methylphenol | | | | | | | | |
| N-Nitrosodiphenylamine | | | | | | | | |
| 4-Bromophenyl-phenylether | | | | | | | | |
| Hexachlorobenzene | | | | | | | | |

**ANALYTICAL RESULTS**
**SITE NAME** Sanyo
**SITE I.D.:**

| FIT SAMPLE NO. | GW01-01MSD | GW01-01FD | GW02-01 | GW02-01FD | PWTB-02 | | | |
|---|---|---|---|---|---|---|---|---|
| OTR NUMBER | ERW 18 | ERW 19 | ERW 20 | ERW 21 | ERW 17 | | | |
| ITR NUMBER | MERP 16 | MERP 17 | MERP 18 | MERP 19 | ——— | | | |
| pH (WATER) | | | | | | | | |
| TEMPERATURE (WATER) | | | | | | | | |
| CONDUCTIVITY (WATER) | | | | | | | | |
| SAMPLE MATRIX | GW | GW | GW | GW | PW | | | |
| Pentachlorophenol | | | | | | | | |
| Phenanthrene | | | | | | | | |
| Anthracene | | | | | | | | |
| Carbazole | | | | | | | | |
| Di-n-Butylphthalate | | | | | | | | |
| Fluoranthene | | | | | | | | |
| Pyrene | | | | | | | | |
| Butylbenzylphthalate | | | | | | | | |
| 3,3'-Dichlorobenzidine | | | | | | | | |
| Benzo(a)anthracene | | | | | | | | |
| Chrysene | | | | | | | | |
| bis(2-Ethylhexyl)phthalate | | | | | | | | |
| Di-n-Octyl phthalate | | | | | | | | |
| Benzo(b)fluoranthene | | | | | | | | |
| Benzo(k)fluoranthene | | | | | | | | |
| Benzo(a)pyrene | | | | | | | | |
| Indeno(1,2,3-cd)pyrene | | | | | | | | |
| Dibenzo(a,h)anthracene | | | | | | | | |
| Benzo(g,h,i)perylene | | | | | | | | |
| | | | | | | | | |
| PESTICIDES/PCBs (ug/L) | | | | | | | | |
| alpha-BHC | | | | | | | | |
| beta-BHC | | | | | | | | |
| delta-BHC | | 0.018 JP | | | | | | |
| gamma-BHC (Lindane) | | | | | | | | |
| Heptachlor | | | | | | | | |
| Aldrin | | | | | | | | |
| Heptachlor epoxide | | | | | | | | |

**ANALYTICAL RESULTS**
**SITE NAME** Sanyo
**SITE I.D.:**

| FIT SAMPLE NO. | GW01-01MSD | GW01-01FD | GW02-01 | GW02-01FD | PWTB-02 | | | |
|---|---|---|---|---|---|---|---|---|
| OTR NUMBER | ERW 18 | ERW 19 | ERW 20 | ERW 21 | ERW 17 | | | |
| ITR NUMBER | MERP 16 | MERP 17 | MERP 18 | MERP 19 | — | | | |
| pH (WATER) | | | | | | | | |
| TEMPERATURE (WATER) | | | | | | | | |
| CONDUCTIVITY (WATER) | | | | | | | | |
| SAMPLE MATRIX | GW | GW | GW | GW | PW | | | |
| Endosulfan I | | | | | | | | |
| Dieldrin | | | | | | | | |
| 4,4'-DDE | | | | | | | | |
| Endrin | | | | | | | | |
| Endosulfan II | | | | | | | | |
| 4,4'-DDD | | | | | | | | |
| Endosulfan sulfate | | | | | | | | |
| 4,4'-DDT | | | | | | | | |
| Methoxychlor | | | | | | | | |
| Endrin ketone | | | | | | | | |
| Endrin adehyde | | | | | | | | |
| alpha-Chlordane | | | | | | | | |
| gamma-Chlordane | | | | | | | | |
| Toxaphene | | | | | | | | |
| Aroclor - 1016 | | | | | | | | |
| Aroclor - 1221 | | | | | | | | |
| Aroclor - 1232 | | | | | | | | |
| Aroclor - 1242 | | | | | | | | |
| Aroclor - 1248 | | | | | | | | |
| Aroclor - 1254 | | | | | | | | |
| Aroclor - 1260 | | | | | | | | |
| Metals unfiltered | | | | | | | | |
| UNITS: ug/L | | | | | | | | |
| Aluminum | 34 B | 40.7 B | | | | | | |
| Antimony | | | | | | | | |
| Arsenic | | | | | | | | |
| Barium | 182 B | 181 B | 95.7 B | 102 B | | | | |
| Beryllium | | | | | | | | |

**ANALYTICAL RESULTS**
**SITE NAME** Sanyo
**SITE I.D.:**

| FIT SAMPLE NO. | GW01-01MSD | GW01-01FD | GW02-01 | GW02-01FD | PWTB-02 | | | |
|---|---|---|---|---|---|---|---|---|
| OTR NUMBER | ERW18 | ERW19 | ERW20 | ERW21 | ERW17 | | | |
| ITR NUMBER | MERP16 | MERP17 | MERP18 | MERP19 | ——— | | | |
| pH (WATER) | | | | | | | | |
| TEMPERATURE (WATER) | | | | | | | | |
| CONDUCTIVITY (WATER) | | | | | | | | |
| SAMPLE MATRIX | GW | GW | GW | GW | PW | | | |
| Cadmium | | | | | | | | |
| Calcium | 110000 | 110000 | 92100 | 98400 | | | | |
| Chromium | ~~6.5 B J~~ | 14.2 J | | 12 | | | | |
| Cobalt | | | | | | | | |
| Copper | ~~7.3 B J~~ | ~~9.2 B J~~ | ~~5.9 B~~ | ~~8.5 B J~~ | | | | |
| Iron | 612 | 647 | 55.6 B | 108 | | | | |
| Lead | | | | | | | | |
| Magnesium | 38800 | 38700 | 35500 | 37900 | | | | |
| manganese | 31.5 | 31.4 | ~~2.4 B~~ | ~~2.1 B~~ | | | | |
| Mercury | | | | | | | | |
| Nickel | | ~~8.6 B J~~ | | | | | | |
| Potassium | ~~2470 B~~ | ~~2620 B~~ | ~~1150 B~~ | 1200 B | | | | |
| Selenium | ~~2.6 B~~ | ~~1.6 B~~ | | | | | | |
| Silver | | | | | | | | |
| Sodium | 19100 | 19100 | 9270 | 9970 | | | | |
| Thallium | | | | | | | | |
| Vanadium | | | | | | | | |
| Zinc | ~~6.5 B J~~ | ~~9.6 B J~~ | | | | | | |
| Cyanide | 30 | 30 | | | | | | |
| | | | | | | | | |
| Metals filtered | | | | | | | | |
| UNITS: | | | | | | | | |
| Aluminum | | | | | | | | |
| Antimony | | | | | | | | |
| Arsenic | | | | | | | | |
| Barium | | | | | | | | |
| Beryllium | | | | | | | | |
| Cadmium | | | | | | | | |

3 - Soil Borings

BKgd

**ANALYTICAL RESULTS**
**SITE NAME** ALCOA
**SITE I.D.:**

SS1AL-

| FIT SAMPLE NO. | SB01-01 | SB02-01 OP | SB02-01 MSD | | | | | |
|---|---|---|---|---|---|---|---|---|
| OTR NUMBER | EQD 73 | EQD 74 | EQD 75 | | | | | |
| ITR NUMBER | MEQF 26 | MEQF 27 | MEQF 28 | | | | | |
| pH (WATER) | | | | | | | | |
| TEMPERATURE (WATER) | | | | | | | | |
| CONDUCTIVITY (WATER) | | | | | | | | |
| SAMPLE MATRIX | Soil | Soil | Soil | | | | | |
| | | | | | | | | |
| VOLATILES | | | | | | | | |
| UNITS: | ug/kg | ug/kg | ug/kg | | | | | |
| Chloromethane | | | | | | | | |
| Bromomethane | | | | | | | | |
| Vinyl Chloride | | | | | | | | |
| Chloroethane | | | | | | | | |
| Methylene Chloride | 16 B | 7 BJ | 13 B | | | | | |
| Acetone | | | | | | | | |
| Carbon Disulfide | | | | | | | | |
| 1,1 – Dichloroethene | | | | | | | | |
| 1,1 – Dichloroethane | | | | | | | | |
| 1,2 – Dichloroethene (total) | | | | | | | | |
| Chloroform | | | | | | | | |
| 1,2 – Dichloroethane | | | | | | | | |
| 2 – Butanone | | | | | | | | |
| 1,1,1 – Trichloroethane | | | | | | | | |
| Carbon Tetrachloride | | | | | | | | |
| Bromodichloromethane | | | | | | | | |
| 1,2 – Dichloropropane | | | | | | | | |
| cis – 1,3 – Dichloropropene | | | | | | | | |
| Trichloroethene | | | | | | | | |
| Dibromochloromethane | | | | | | | | |
| 1,1,2 – Trichloroethane | | | | | | | | |
| Benzene | | | | | | | | |
| trans – 1,3 – Dichloropropene | | | | | | | | |
| Bromoform | | | | | | | | |
| 4 – Methyl – 2 – Pentanone | | | | | | | | |

3 soil borings

**ANALYTICAL RESULTS**
**SITE NAME** Alcoa
**SITE I.D.:**

SS1AL-

| FIT SAMPLE NO. | SB01-01 | SB02-01 DP | SB02-01 MSD | | | | | |
|---|---|---|---|---|---|---|---|---|
| OTR NUMBER | EQ073 | EQ074 | EQ075 | | | | | |
| ITR NUMBER | MEQF 26 | MEQF 27 | MEQF 28 | | | | | |
| pH (WATER) | | | | | | | | |
| TEMPERATURE (WATER) | | | | | | | | |
| CONDUCTIVITY (WATER) | | | | | | | | |
| SAMPLE MATRIX | SOIL | SOIL | SOIL | | | | | |
| 2-Hexanone | | | | | | | | |
| Tetrachloroethene | | | | | | | | |
| 1,1,2,2-Tetrachloroethane | | | | | | | | |
| Toluene | | | | | | | | |
| Chlorobenzene | | | | | | | | |
| Ethylbenzene | | | | | | | | |
| Styrene | | | | | | | | |
| Xylenes (total) | | | | | | | | |
| | | | | | | | | |
| SEMIVOLATILES | | | | | | | | |
| UNITS: | ug/kg | ug/kg | ug/kg | | | | | |
| Phenol | | | | | | | | |
| bis(2-Chloroethyl)Ether | | | | | | | | |
| 2-Chlorophenol | | | | | | | | |
| 1,3-Dichlorobenzene | | | | | | | | |
| 1,4-Dichlorobenzene | | | | | | | | |
| 1,2-Dichlorobenzene | | | | | | | | |
| 2-Methylphenol | | | | | | | | |
| 2,2'-oxybis(1-Chloropropane) | | | | | | | | |
| 4-Methylphenol | | | | | | | | |
| N-Nitroso-Di-n-Propylamine | | | | | | | | |
| Hexachloroethane | | | | | | | | |
| Isophorone | | | | | | | | |
| Nitrobenzene | | | | | | | | |
| 2-Nitrophenol | | | | | | | | |
| 2,4-Dimethylphenol | | | | | | | | |
| bis(2-Chloroethoxy)Methane | | | | | | | | |
| 2,4-Dichlorophenol | | | | | | | | |

3 soil borings

ANALYTICAL RESULTS
SITE NAME Alcoa
SITE I.D.:

SS1AL-

| FIT SAMPLE NO. | SBØ1-Ø1 | SBØ2-Ø1 DP | SBØ2-Ø1 MSD | | | | | |
|---|---|---|---|---|---|---|---|---|
| OTR NUMBER | EQD73 | EQD74 | EQD75 | EQD74RE | | | | |
| ITR NUMBER | | | | | | | | |
| pH (WATER) | | | | | | | | |
| TEMPERATURE (WATER) | | | | | | | | |
| CONDUCTIVITY (WATER) | | | | | | | | |
| SAMPLE MATRIX | | | | | | | | |
| 1,2,4-Trichlorobenzene | | | | | | | | |
| Naphthalene | | | | | | | | |
| 4-Chloroaniline | | | | | | | | |
| Hexachlorobutadiene | | | | | | | | |
| 4-Chloro-3-Methylphenol | | | | | | | | |
| 2-Methylnaphthalene | | | | | | | | |
| Hexachlorocyclopentadiene | | | | | | | | |
| 2,4,6-Trichlorophenol | | | | | | | | |
| 2,4,5-Trichlorophenol | | | | | | | | |
| 2-Chloronaphthalene | | | | | | | | |
| 2-Nitroaniline | | | | | | | | |
| Dimethylphthalate | | | | | | | | |
| Acenaphthlene | | | | | | | | |
| 2,6-Dinitrotoluene | | | | | | | | |
| 3-Nitroaniline | | | | | | | | |
| Acenaphthene | | | | | | | | |
| 2,4-Dinitrophenol | | | | | | | | |
| 4-Nitrophenol | | | | | | | | |
| Dibenzofuran | | | | | | | | |
| 2,4-Dinitrotoluene | | | | | | | | |
| Diethylphthalate | | 37000 | | | | | | |
| 4-Chlorophenyl-phenylether | | | | | | | | |
| Fluorene | | | | | | | | |
| 4-Nitroaniline | | | | | | | | |
| 4,6-Dinitro-2-methylphenol | | | | | | | | |
| N-Nitrosodiphenylamine | | | | | | | | |
| 4-Bromophenyl-phenylether | | | | | | | | |
| Hexachlorobenzene | | | | | | | | |

3 soil borings

SS1AL-

**ANALYTICAL RESULTS**
**SITE NAME** Alcoa
**SITE I.D.:**

| FIT SAMPLE NO. | SBΦ1-Φ1 | SBΦ2-Φ1 DP | SBΦ2-Φ1 MSD | | | | | |
|---|---|---|---|---|---|---|---|---|
| OTR NUMBER | EQD 73 | EQD 74 | EQD 75 | EQD 74 RE | | | | |
| ITR NUMBER | | | | | | | | |
| pH (WATER) | | | | | | | | |
| TEMPERATURE (WATER) | | | | | | | | |
| CONDUCTIVITY (WATER) | | | | | | | | |
| SAMPLE MATRIX | Soil | Soil | Soil | Soil | | | | |
| Pentachlorophenol | | | | | | | | |
| Phenanthrene | [illegible] | | 29 J | | | | | |
| Anthracene | | | | | | | | |
| Carbazole | | | | | | | | |
| Di-n-Butylphthalate | | | | | | | | |
| Fluoranthene | [illegible] | | 72 J | | | | | |
| Pyrene | [illegible] | | 56 J | | | | | |
| Butylbenzylphthalate | | | | | | | | |
| 3,3'-Dichlorobenzidine | | | | | | | | |
| Benzo(a)anthracene | | | | | | | | |
| Chrysene | | | | | | | | |
| bis(2-Ethylhexyl)phthalate | 89 BJ | [illegible] | 61 BJ | | | | | |
| Di-n-Octyl phthalate | | | | | | | | |
| Benzo(b)fluoranthene | | | 52 J | | | | | |
| Benzo(k)fluoranthene | | | 36 J | | | | | |
| Benzo(a)pyrene | | | | | | | | |
| Indeno(1,2,3-cd)pyrene | | | | | | | | |
| Dibenzo(a,h)anthracene | | | | | | | | |
| Benzo(g,h,i)perylene | | | 29 J | | | | | |
| | | | | | | | | |
| PESTICIDES/PCBs | | | | | | | | |
| alpha-BHC | | | | | | | | |
| beta-BHC | | | | | | | | |
| delta-BHC | | | | | | | | |
| gamma-BHC (Lindane) | | | | | | | | |
| Heptachlor | | | | | | | | |
| Aldrin | | | | | | | | |
| Heptachlor epoxide | | | | | | | | |

**ANALYTICAL RESULTS**
**SITE NAME** Sanyo
**SITE I.D.:**

| FIT SAMPLE NO. | SB01-01 | SB03-01 DP | SB02-01MSD | SB03-01 | SB04-01 | | | |
|---|---|---|---|---|---|---|---|---|
| OTR NUMBER | ERW 01 | ERW 02 | ERW 03 | ERW 04 | ERW 05 | | | |
| ITR NUMBER | MERP 01 | MERP 02 | MERP 03 | MERP 04 | MERP 05 | | | |
| pH (WATER) | | | | | | | | |
| TEMPERATURE (WATER) | | | | | | | | |
| CONDUCTIVITY (WATER) | | | | | | | | |
| SAMPLE MATRIX | soil | soil | soil | soil | soil | | | |
| | | | | | | | | |
| VOLATILES | | | | | | | | |
| UNITS: mg/kg | | | | | | | | |
| Chloromethane | | | | | | | | |
| Bromomethane | | | | | | | | |
| Vinyl Chloride | | | | | | | | |
| Chloroethane | | | | | | | | |
| Methylene Chloride | | | | | | | | |
| Acetone | | | | | | | | |
| Carbon Disulfide | | | | | | | | |
| 1,1 – Dichloroethene | | | | | | | | |
| 1,1 – Dichloroethane | | | | | | | | |
| 1,2-Dichloroethene (total) | 120 | | 4200 | | | | | |
| Chloroform | | | | | | | | |
| 1,2 – Dichloroethane | | | | | | | | |
| 2 – Butanone | | | | | | | | |
| 1,1,1 – Trichloroethane | | | | | | | | |
| Carbon Tetrachloride | | | | | | | | |
| Bromodichloromethane | | | | | | | | |
| 1,2 – Dichloropropane | | | | | | | | |
| cis-1,3 – Dichloropropene | | | | | | | | |
| Trichloroethene | 27 J | | 340 J | | | | | |
| Dibromochloromethane | | | | | | | | |
| 1,1,2-Trichloroethane | | | | | | | | |
| Benzene | | | | | | | | |
| trans-1,3-Dichloropropene | | | | | | | | |
| Bromoform | | | | | | | | |
| 4-Methyl-2-Pentanone | | | | | | | | |

**ANALYTICAL RESULTS**
**SITE NAME** Sanyo
**SITE I.D.:**

| FIT SAMPLE NO. | SB01-01 | SB03-01 DP | SB02-01 MSD | SB03-01 | SB04-01 | | | |
|---|---|---|---|---|---|---|---|---|
| OTR NUMBER | ERW01 | ERW02 | ERW03 | ERW04 | ERW05 | | | |
| ITR NUMBER | MERP01 | MERP02 | MERP03 | MERP04 | MERP05 | | | |
| pH (WATER) | | | | | | | | |
| TEMPERATURE (WATER) | | | | | | | | |
| CONDUCTIVITY (WATER) | | | | | | | | |
| SAMPLE MATRIX | Soil | Soil | Soil | Soil | Soil | | | |
| 2-Hexanone | | | | | | | | |
| Tetrachloroethene | | | | | | | | |
| 1,1,2,2-Tetrachloroethane | | | | | | | | |
| Toluene | | | 360 J | 4J | 3J | | | |
| Chlorobenzene | | | | | | | | |
| Ethylbenzene | | | | | | | | |
| Styrene | | | | | | | | |
| Xylenes (total) | | | 7900 | 5J | | | | |
| | | | | | | | | |
| SEMIVOLATILES | | | | | | | | |
| UNITS: ug/kg | | | | | | | | |
| Phenol | | | | | | | | |
| bis(2-Chloroethyl)Ether | | | | | | | | |
| 2-Chlorophenol | | | | | | | | |
| 1,3-Dichlorobenzene | | | | | | | | |
| 1,4-Dichlorobenzene | | | | | | | | |
| 1,2-Dichlorobenzene | | | | | | | | |
| 2-Methylphenol | | | | | | | | |
| 2,2'-oxybis(1-Chloropropane) | | | | | | | | |
| 4-Methylphenol | | | | | | | | |
| N-Nitroso-Di-n-Propylamine | | | | | | | | |
| Hexachloroethane | | | | | | | | |
| Isophorone | | | | | | | | |
| Nitrobenzene | | | | | | | | |
| 2-Nitrophenol | | | | | | | | |
| 2,4-Dimethylphenol | | | | | | | | |
| bis(2-Chloroethoxy)Methane | | | | | | | | |
| 2,4-Dichlorophenol | | | | | | | | |

**ANALYTICAL RESULTS**
**SITE NAME** Sanyo
**SITE I.D.:**

| FIT SAMPLE NO. | SB01-01 | SB03-01 DP | SB02-01 MSD | SB03-01 | SB04-01 | | | |
|---|---|---|---|---|---|---|---|---|
| OTR NUMBER | ERW 01 | ERW 02 | ERW 03 | ERW 04 | ERW 05 | | | |
| ITR NUMBER | MERP 01 | MERP 02 | MERP 03 | MERP 04 | MERP 05 | | | |
| pH (WATER) | | | | | | | | |
| TEMPERATURE (WATER) | | | | | | | | |
| CONDUCTIVITY (WATER) | | | | | | | | |
| SAMPLE MATRIX | Soil | Soil | Soil | Soil | Soil | | | |
| 1,2,4-Trichlorobenzene | | | | | | | | |
| Naphthalene | 100 J | | 2000 J | | | | | |
| 4-Chloroaniline | | | | | | | | |
| Hexachlorobutadiene | | | | | | | | |
| 4-Chloro-3-Methylphenol | | | | | | | | |
| 2-Methylnaphthalene | 99 J | | 1100 J | | | | | |
| Hexachlorocyclopentadiene | | | | | | | | |
| 2,4,6-Trichlorophenol | | | | | | | | |
| 2,4,5-Trichlorophenol | | | | | | | | |
| 2-Chloronaphthalene | | | | | | | | |
| 2-Nitroaniline | | | | | | | | |
| Dimethylphthalate | | | | | | | | |
| Acenaphthlene | | | | | | | | |
| 2,6-Dinitrotoluene | | | | | | | | |
| 3-Nitroaniline | | | | | | | | |
| Acenaphthene | | | | | | | | |
| 2,4-Dinitrophenol | | | | | | | | |
| 4-Nitrophenol | | | | | | | | |
| Dibenzofuran | 27 J | | | | | | | |
| 2,4-Dinitrotoluene | | | | | | | | |
| Diethylphthalate | | | | | | | | |
| 4-Chlorophenyl-phenylether | | | | | | | | |
| Fluorene | | | | | | | | |
| 4-Nitroaniline | | | | | | | | |
| 4,6-Dinitro-2-methylphenol | | | | | | | | |
| N-Nitrosodiphenylamine | | | | | | | | |
| 4-Bromophenyl-phenylether | | | | | | | | |
| Hexachlorobenzene | | | | | | | | |

**ANALYTICAL RESULTS**
**SITE NAME** Sanyo
**SITE I.D.:**

| FIT SAMPLE NO. | SB01-01 | SB03-01 DP | SB02-01 MSD | SB03-01 | SB04-01 | | | |
|---|---|---|---|---|---|---|---|---|
| OTR NUMBER | ERW01 | ERW02 | ERW03 | ERW04 | ERW05 | | | |
| ITR NUMBER | MERP01 | MERP02 | MERP03 | MERP04 | MERP05 | | | |
| pH (WATER) | | | | | | | | |
| TEMPERATURE (WATER) | | | | | | | | |
| CONDUCTIVITY (WATER) | | | | | | | | |
| SAMPLE MATRIX | Soil | Soil | Soil | Soil | Soil | | | |
| Pentachlorophenol | | | | | | | | |
| Phenanthrene | 8.9 J | | 2000 J | | | | | |
| Anthracene | | | | | | | | |
| Carbazole | | | | | | | | |
| Di-n-Butylphthalate | | | | | | | | |
| Fluoranthene | | | | | | | | |
| Pyrene | 3.4 J | | | | | | | |
| Butylbenzylphthalate | | | | | | | | |
| 3,3'-Dichlorobenzidine | | | | | | | | |
| Benzo(a)anthracene | | | | | | | | |
| Chrysene | 2.4 J | | | | | | | |
| bis(2-Ethylhexyl)phthalate | | | | | | | | |
| Di-n-Octyl phthalate | | | | | | | | |
| Benzo(b)fluoranthene | | | | | | | | |
| Benzo(k)fluoranthene | | | | | | | | |
| Benzo(a)pyrene | | | | | | | | |
| Indeno(1,2,3-cd)pyrene | | | | | | | | |
| Dibenzo(a,h)anthracene | | | | | | | | |
| Benzo(g,h,i)perylene | | | | | | | | |
| | | | | | | | | |
| PESTICIDES/PCBs (ug/kg) | | | | | | | | |
| alpha-BHC | | | | | | | | |
| beta-BHC | | | | | | | | |
| delta-BHC | | | | | | | | |
| gamma-BHC (Lindane) | | | | | | | | |
| Heptachlor | | | | | | | | |
| Aldrin | | | | | | | | |
| Heptachlor epoxide | | | | | | | | |

**ANALYTICAL RESULTS**
**SITE NAME** Sanyo
**SITE I.D.:**

| FIT SAMPLE NO. | SB01-01 | SB03-01 DP | SB02-01 MSD | SB03-01 | SB04-01 | | | |
|---|---|---|---|---|---|---|---|---|
| OTR NUMBER | ERW 01 | ERW 02 | ERW 03 | ERW 04 | ERW 05 | | | |
| ITR NUMBER | MERP 01 | MERP 02 | MERP 03 | MERP 04 | MERP 05 | | | |
| pH (WATER) | | | | | | | | |
| TEMPERATURE (WATER) | | | | | | | | |
| CONDUCTIVITY (WATER) | | | | | | | | |
| SAMPLE MATRIX | Soil | Soil | Soil | Soil | Soil | | | |
| Endosulfan I | | | | | | | | |
| Dieldrin | | | | | | | | |
| 4,4'-DDE | | | | | | | | |
| Endrin | | | | | | | | |
| Endosulfan II | | | | | | | | |
| 4,4'-DDD | | | | | | | | |
| Endosulfan sulfate | | | | | | | | |
| 4,4'-DDT | | | | | | | | |
| Methoxychlor | | | | | | | | |
| Endrin ketone | | | | | | | | |
| Endrin adehyde | | | | | | | | |
| alpha-Chlordane | | | | | | | | |
| gamma-Chlordane | | | | | | | | |
| Toxaphene | | | | | | | | |
| Aroclor - 1016 | | | | | | | | |
| Aroclor - 1221 | | | | | | | | |
| Aroclor - 1232 | | | | | | | | |
| Aroclor - 1242 | | | | | | | | |
| Aroclor - 1248 | | | | | | | | |
| Aroclor - 1254 | 890 PC | | 6600 P | | | | | |
| Aroclor - 1260 | 650 PC | | 1700 P | | | | | |
| Metals unfiltered | | | | | | | | |
| UNITS: mg/kg | | | | | | | | |
| Aluminum | 4600 | 4340 | 6200 | 4430 | 6620 | | | |
| Antimony | | | | | | | | |
| Arsenic | 15.6 | 4.6 | 9.2 | 4.4 | 4.9 | | | |
| Barium | 152 | 21.6 B | 299 | 21.5 B | 35.8 B | | | |
| Beryllium | 2.6 | 1.5 | 3.1 | 1.8 | 1.6 | | | |

**ANALYTICAL RESULTS**
**SITE NAME** Sanyo
**SITE I.D.:**

| FIT SAMPLE NO. | SB01-01 | SB03-01 DP | SB02-01MSD | SB03-01 | SB04-01 | | | |
|---|---|---|---|---|---|---|---|---|
| OTR NUMBER | ERW 01 | ERW 02 | ERW03 | ERW 04 | ERW 05 | | | |
| ITR NUMBER | MERP 01 | MERP 02 | MERP 03 | MERP 04 | MERP 05 | | | |
| pH (WATER) | | | | | | | | |
| TEMPERATURE (WATER) | | | | | | | | |
| CONDUCTIVITY (WATER) | | | | | | | | |
| SAMPLE MATRIX | Soil | Soil | Soil | Soil | Soil | | | |
| Cadmium | | | 406 | | | | | |
| Calcium | 5020 J | 115000 | 9470 J | 165000 J | 117000 J | | | |
| Chromium | 208 | 6.6 | 1330 | 5.2 | 8.9 | | | |
| Cobalt | 6.0 B | 3.9 B | 11.6 B | 3.5 B | 4.6 B | | | |
| Copper | 112 | 8.3 | 143 | 6.9 | 9.6 | | | |
| Iron | 52900 | 8640 | 16600 | 8330 | 11500 | | | |
| Lead | 27.7 WJ | 9.7 WJ | 336 WMJ | 7.1 WMJ | 7.2 WMJ | | | |
| Magnesium | 2010 | 53800 | 2980 | 70500 | 52200 | | | |
| manganese | 292 NJ | 238 NJ | 361 NJ | 211 NJ | 286 NJ | | | |
| Mercury | | | 0.15 * | | | | | |
| Nickel | 20.4 | 10.0 | 24.8 | 6.9 B | 13.0 | | | |
| Potassium | 755 B | 939 B | 859 B | 1070 | 1450 | | | |
| Selenium | 1.9 | | 0.97 B | | | | | |
| Silver | | | | | | | | |
| Sodium | | | 218 B | | | | | |
| Thallium | | | | | | | | |
| Vanadium | 25.2 | 11.2 | 24.6 | 11.5 | 14.6 | | | |
| Zinc | 59.3 | 24.3 | 755 | 20.1 | 29.6 | | | |
| Cyanide | | 0.68 * J | 94 * J | 0.73 * J | | | | |
| | | | | | | | | |
| Metals filtered | | | | | | | | |
| UNITS: | | | | | | | | |
| Aluminum | | | | | | | | |
| Antimony | | | | | | | | |
| Arsenic | | | | | | | | |
| Barium | | | | | | | | |
| Beryllium | | | | | | | | |
| Cadmium | | | | | | | | |

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**ANALYTICAL RESULTS**
**SITE NAME** Sanyo
**SITE I.D.:**

| FIT SAMPLE NO. | GW01-01MSD | GW01-01FD | GW02-01 | GW02-01FD | PWTB-02 | | | |
|---|---|---|---|---|---|---|---|---|
| OTR NUMBER | ERW 18 | ERW 19 | ERW 20 | ERW 21 | ERW 17 | | | |
| ITR NUMBER | MERP 16 | MERP 17 | MERP 18 | MERP 19 | ——— | | | |
| pH (WATER) | | | | | | | | |
| TEMPERATURE (WATER) | | | | | | | | |
| CONDUCTIVITY (WATER) | | | | | | | | |
| SAMPLE MATRIX | GW | GW | GW | GW | PW | | | |
| 2-Hexanone | | | | | | | | |
| Tetrachloroethene | | | | | | | | |
| 1,1,2,2-Tetrachloroethane | | | | | | | | |
| Toluene | | | | | | | | |
| Chlorobenzene | | | | | | | | |
| Ethylbenzene | | | | | | | | |
| Styrene | | | | | | | | |
| Xylenes (total) | | | | | | | | |
| | | | | | | | | |
| SEMIVOLATILES | | | | | | | | |
| UNITS: | | | | | | | | |
| Phenol | | | | | | | | |
| bis(2-Chloroethyl)Ether | | | | | | | | |
| 2-Chlorophenol | | | | | | | | |
| 1,3-Dichlorobenzene | | | | | | | | |
| 1,4-Dichlorobenzene | | | | | | | | |
| 1,2-Dichlorobenzene | | | | | | | | |
| 2-Methylphenol | | | | | | | | |
| 2,2'-oxybis(1-Chloropropane) | | | | | | | | |
| 4-Methylphenol | | | | | | | | |
| N-Nitroso-Di-n-Propylamine | | | | | | | | |
| Hexachloroethane | | | | | | | | |
| Isophorone | | | | | | | | |
| Nitrobenzene | | | | | | | | |
| 2-Nitrophenol | | | | | | | | |
| 2,4-Dimethylphenol | | | | | | | | |
| bis(2-Chloroethoxy)Methane | | | | | | | | |
| 2,4-Dichlorophenol | | | | | | | | |

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**ANALYTICAL RESULTS**
**SITE NAME** Sanyo
**SITE I.D.:**

| FIT SAMPLE NO. | GW01-01MSD | GW01-01FD | GW02-01 | GW02-01FD | PWTB-02 | | | |
|---|---|---|---|---|---|---|---|---|
| OTR NUMBER | ERW18 | ERW19 | ERW20 | ERW21 | ERW17 | | | |
| ITR NUMBER | MERP 16 | MERP 17 | MERP 18 | MERP 19 | — | | | |
| pH (WATER) | | | | | | | | |
| TEMPERATURE (WATER) | | | | | | | | |
| CONDUCTIVITY (WATER) | | | | | | | | |
| SAMPLE MATRIX | GW | GW | GW | GW | PW | | | |
| 1,2,4-Trichlorobenzene | | | | | | | | |
| Naphthalene | | | | | | | | |
| 4-Chloroaniline | | | | | | | | |
| Hexachlorobutadiene | | | | | | | | |
| 4-Chloro-3-Methylphenol | | | | | | | | |
| 2-Methylnaphthalene | | | | | | | | |
| Hexachlorocyclopentadiene | | | | | | | | |
| 2,4,6-Trichlorophenol | | | | | | | | |
| 2,4,5-Trichlorophenol | | | | | | | | |
| 2-Chloronaphthalene | | | | | | | | |
| 2-Nitroaniline | | | | | | | | |
| Dimethylphthalate | | | | | | | | |
| Acenaphthlene | | | | | | | | |
| 2,6-Dinitrotoluene | | | | | | | | |
| 3-Nitroaniline | | | | | | | | |
| Acenaphthene | | | | | | | | |
| 2,4-Dinitrophenol | | | | | | | | |
| 4-Nitrophenol | | | | | | | | |
| Dibenzofuran | | | | | | | | |
| 2,4-Dinitrotoluene | | | | | | | | |
| Diethylphthalate | | | | | | | | |
| 4-Chlorophenyl-phenylether | | | | | | | | |
| Fluorene | | | | | | | | |
| 4-Nitroaniline | | | | | | | | |
| 4,6-Dinitro-2-methylphenol | | | | | | | | |
| N-Nitrosodiphenylamine | | | | | | | | |
| 4-Bromophenyl-phenylether | | | | | | | | |
| Hexachlorobenzene | | | | | | | | |

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**ANALYTICAL RESULTS**
**SITE NAME** Sanyo
**SITE I.D.:**

| FIT SAMPLE NO. | GW01-01MSD | GW01-01FD | GW02-01 | GW02-01FD | PWTB-02 | | | |
|---|---|---|---|---|---|---|---|---|
| OTR NUMBER | ERW18 | ERW19 | ERW20 | ERW21 | ERW17 | | | |
| ITR NUMBER | MERP16 | MERP17 | MERP18 | MERP19 | — | | | |
| pH (WATER) | | | | | | | | |
| TEMPERATURE (WATER) | | | | | | | | |
| CONDUCTIVITY (WATER) | | | | | | | | |
| SAMPLE MATRIX | GW | GW | GW | GW | PW | | | |
| Endosulfan I | | | | | | | | |
| Dieldrin | | | | | | | | |
| 4,4'-DDE | | | | | | | | |
| Endrin | | | | | | | | |
| Endosulfan II | | | | | | | | |
| 4,4'-DDD | | | | | | | | |
| Endosulfan sulfate | | | | | | | | |
| 4,4'-DDT | | | | | | | | |
| Methoxychlor | | | | | | | | |
| Endrin ketone | | | | | | | | |
| Endrin adehyde | | | | | | | | |
| alpha-Chlordane | | | | | | | | |
| gamma-Chlordane | | | | | | | | |
| Toxaphene | | | | | | | | |
| Aroclor - 1016 | | | | | | | | |
| Aroclor - 1221 | | | | | | | | |
| Aroclor - 1232 | | | | | | | | |
| Aroclor - 1242 | | | | | | | | |
| Aroclor - 1248 | | | | | | | | |
| Aroclor - 1254 | | | | | | | | |
| Aroclor - 1260 | | | | | | | | |
| Metals unfiltered | | | | | | | | |
| UNITS: mg/L | | | | | | | | |
| Aluminum | 34 B | 40.7 B | U | | | | | |
| Antimony | | | | | | | | |
| Arsenic | | | | | | | | |
| Barium | 182 B | 181 B | 95.7 B | 102 B | U | | | |
| Beryllium | | | | | | | | |

# TABLE 5-3

(Continued)

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~~ANALYTICAL RESULTS~~
~~SITE NAME~~ Sanyo
~~SITE I.D.:~~

| ~~FIT SAMPLE NO.~~ | SW01-01MSD | SW02-01 | SW02-01 FB | SW03-01 | SW03-01 DP | PWTB-01 | | |
|---|---|---|---|---|---|---|---|---|
| ~~OTR NUMBER~~ | ~~ERW12~~ | ~~ERW13~~ | ~~ERW14~~ | ~~ERW15~~ | ~~ERW16~~ | ~~ERW11~~ | | |
| ~~ITR NUMBER~~ | ~~MERP11~~ | ~~MERP12~~ | ~~MERP13~~ | ~~MERP14~~ | ~~MERP15~~ | — | | |
| ~~pH (WATER)~~ | | | | | | | | |
| ~~TEMPERATURE (WATER)~~ | | | | | | | | |
| ~~CONDUCTIVITY (WATER)~~ | | | | | | | | |
| ~~SAMPLE MATRIX~~ | ~~SW~~ | ~~SW~~ | ~~SW~~ | ~~SW~~ | ~~SW~~ | ~~PW~~ | | |
| 2-Hexanone | | | | | | | | |
| Tetrachloroethene | | | | | | | | |
| 1,1,2,2-Tetrachloroethane | | | | | | | | |
| Toluene | | | | | | | | |
| Chlorobenzene | | | | | | | | |
| Ethylbenzene | | | | | | | | |
| Styrene | | | | | | | | |
| Xylenes (total) | | | | | | | | |
| | | | | | | | | |
| SEMIVOLATILES | | | | | | | | |
| UNITS: ug/L | | | | | | | | |
| Phenol | | | | | | | | |
| bis(2-Chloroethyl)Ether | | | | | | | | |
| 2-Chlorophenol | | | | | | | | |
| 1,3-Dichlorobenzene | | | | | | | | |
| 1,4-Dichlorobenzene | | | | | | | | |
| 1,2-Dichlorobenzene | | | | | | | | |
| 2-Methylphenol | | | | | | | | |
| 2,2'-oxybis(1-Chloropropane) | | | | | | | | |
| 4-Methylphenol | | | | | | | | |
| N-Nitroso-Di-n-Propylamine | | | | | | | | |
| Hexachloroethane | | | | | | | | |
| Isophorone | | | | | | | | |
| Nitrobenzene | | | | | | | | |
| 2-Nitrophenol | | | | | | | | |
| 2,4-Dimethylphenol | | | | | | | | |
| bis(2-Chloroethoxy)Methane | | | | | | | | |
| 2,4-Dichlorophenol | | | | | | | | |

Not in report CK

**ANALYTICAL RESULTS**
**SITE NAME** Sanyo
**SITE I.D.:**

| FIT SAMPLE NO. | SW01-01MSD | SW02-01 | SW02-01 FB | SW03-01 | SW03-01DP | AWTB-01 | | |
|---|---|---|---|---|---|---|---|---|
| OTR NUMBER | ERW12 | ERW13 | ERW14 | ERW15 | ERW16 | ERW11 | | |
| ITR NUMBER | MERP11 | MERP12 | MERP13 | MERP14 | MERP15 | ——— | | |
| pH (WATER) | | | | | | | | |
| TEMPERATURE (WATER) | | | | | | | | |
| CONDUCTIVITY (WATER) | | | | | | | | |
| SAMPLE MATRIX | SW | SW | SW | SW | SW | PW | | |
| 1,2,4-Trichlorobenzene | | | | | | | | |
| Naphthalene | | | | | | | | |
| 4-Chloroaniline | | | | | | | | |
| Hexachlorobutadiene | | | | | | | | |
| 4-Chloro-3-Methylphenol | | | | | | | | |
| 2-Methylnaphthalene | | | | | | | | |
| Hexachlorocyclopentadiene | | | | | | | | |
| 2,4,6-Trichlorophenol | | | | | | | | |
| 2,4,5-Trichlorophenol | | | | | | | | |
| 2-Chloronaphthalene | | | | | | | | |
| 2-Nitroaniline | | | | | | | | |
| Dimethylphthalate | | | | | | | | |
| Acenaphthlene | | | | | | | | |
| 2,6-Dinitrotoluene | | | | | | | | |
| 3-Nitroaniline | | | | | | | | |
| Acenaphthene | | | | | | | | |
| 2,4-Dinitrophenol | | | | | | | | |
| 4-Nitrophenol | | | | | | | | |
| Dibenzofuran | | | | | | | | |
| 2,4-Dinitrotoluene | | | | | | | | |
| Diethylphthalate | | | | | | | | |
| 4-Chlorophenyl-phenylether | | | | | | | | |
| Fluorene | | | | | | | | |
| 4-Nitroaniline | | | | | | | | |
| 4,6-Dinitro-2-methylphenol | | | | | | | | |
| N-Nitrosodiphenylamine | | | | | | | | |
| 4-Bromophenyl-phenylether | | | | | | | | |
| Hexachlorobenzene | | | | | | | | |

Not in report LK

**ANALYTICAL RESULTS**
**SITE NAME** Sanyo
**SITE I.D.:**

| FIT SAMPLE NO. | SD01-01 | SD01-01 DP | SD02-01MSD | SD03-01 | | | | |
|---|---|---|---|---|---|---|---|---|
| OTR NUMBER | ERW07 | ERW08 | ERW09 | ERW10 | | | | |
| ITR NUMBER | MERP 07 | MERP 08 | MERP 09 | MERP 10 | | | | |
| pH (WATER) | | | | | | | | |
| TEMPERATURE (WATER) | | | | | | | | |
| CONDUCTIVITY (WATER) | | | | | | | | |
| SAMPLE MATRIX | sed | sed | sed | sed | | | | |
| 2-Hexanone | | | | | | | | |
| Tetrachloroethene | | | | | | | | |
| 1,1,2,2-Tetrachloroethane | | | | | | | | |
| Toluene | | | | | | | | |
| Chlorobenzene | | | | | | | | |
| Ethylbenzene | | | | | | | | |
| Styrene | | | | | | | | |
| Xylenes (total) | | | | | | | | |
| | | | | | | | | |
| SEMIVOLATILES | | | | | | | | |
| UNITS: mg/kg | | | | | | | | |
| Phenol | | | | | | | | |
| bis(2-Chloroethyl)Ether | | | | | | | | |
| 2-Chlorophenol | | | | | | | | |
| 1,3-Dichlorobenzene | | | | | | | | |
| 1,4-Dichlorobenzene | | | | | | | | |
| 1,2-Dichlorobenzene | | | | | | | | |
| 2-Methylphenol | | | | | | | | |
| 2,2'-oxybis(1-Chloropropane) | | | | | | | | |
| 4-Methylphenol | | | | | | | | |
| N-Nitroso-Di-n-Propylamine | | | | | | | | |
| Hexachloroethane | | | | | | | | |
| Isophorone | | | | | | | | |
| Nitrobenzene | | | | | | | | |
| 2-Nitrophenol | | | | | | | | |
| 2,4-Dimethylphenol | | | | | | | | |
| bis(2-Chloroethoxy)Methane | | | | | | | | |
| 2,4-Dichlorophenol | | | | | | | | |

Not in report

**ANALYTICAL RESULTS**
**SITE NAME** Sanyo
**SITE I.D.:**

| FIT SAMPLE NO. | SD01-01 | SD01-01 DP | SD02-01 MSD | SD03-01 | | | | |
|---|---|---|---|---|---|---|---|---|
| OTR NUMBER | ERW 07 | ERW 08 | ERW 09 | ERW 10 | | | | |
| ITR NUMBER | MERP 07 | MERP 08 | MERP 09 | MERP 10 | | | | |
| pH (WATER) | | | | | | | | |
| TEMPERATURE (WATER) | | | | | | | | |
| CONDUCTIVITY (WATER) | | | | | | | | |
| SAMPLE MATRIX | Sed | Sed | Sed | Sed | | | | |
| 1,2,4-Trichlorobenzene | | | | | | | | |
| Naphthalene | | | | | | | | |
| 4-Chloroaniline | | | | | | | | |
| Hexachlorobutadiene | | | | | | | | |
| 4-Chloro-3-Methylphenol | | | | | | | | |
| 2-Methylnaphthalene | | | | | | | | |
| Hexachlorocyclopentadiene | | | | | | | | |
| 2,4,6-Trichlorophenol | | | | | | | | |
| 2,4,5-Trichlorophenol | | | | | | | | |
| 2-Chloronaphthalene | | | | | | | | |
| 2-Nitroaniline | | | | | | | | |
| Dimethylphthalate | | | | | | | | |
| Acenaphthylene | | | | | | | | |
| 2,6-Dinitrotoluene | | | | | | | | |
| 3-Nitroaniline | | | | | | | | |
| Acenaphthene | | | | | | | | |
| 2,4-Dinitrophenol | | | | | | | | |
| 4-Nitrophenol | | | | | | | | |
| Dibenzofuran | | | | | | | | |
| 2,4-Dinitrotoluene | | | | | | | | |
| Diethylphthalate | | | | | | | | |
| 4-Chlorophenyl-phenylether | | | | | | | | |
| Fluorene | | | | | | | | |
| 4-Nitroaniline | | | | | | | | |
| 4,6-Dinitro-2-methylphenol | | | | | | | | |
| N-Nitrosodiphenylamine | | | | | | | | |
| 4-Bromophenyl-phenylether | | | | | | | | |
| Hexachlorobenzene | | | | | | | | |

Spring SW sample table S-3

not in rept

**ANALYTICAL RESULTS**
**SITE NAME** Sanyo
**SITE I.D.:**

SW

| FIT SAMPLE NO. | GW01-01MSD | GW01-01 FD | GW02-01 | GW02-01FD | PWTB-02 | | | |
|---|---|---|---|---|---|---|---|---|
| OTR NUMBER | ERW 18 | ERW 19 | ERW 20 | ERW 21 | ERW 17 | | | |
| ITR NUMBER | MERP 16 | MERP 17 | MERP 18 | MERP 19 | — | | | |
| pH (WATER) | | | | | | | | |
| TEMPERATURE (WATER) | | | | | | | | |
| CONDUCTIVITY (WATER) | | | | | | | | |
| SAMPLE MATRIX | GW | GW | GW | GW | PW | | | |
| | | | | | | | | |
| VOLATILES | | | | | | | | |
| UNITS: ug/L | | | | | | | | |
| Chloromethane | | | | | | | | |
| Bromomethane | | | | | | | | |
| Vinyl Chloride | | | | | | | | |
| Chloroethane | | | | | | | | |
| Methylene Chloride | | | | | | | | |
| Acetone | | | | | | | | |
| Carbon Disulfide | | | | | | | | |
| 1,1 – Dichloroethene | | | | | | | | |
| 1,1 – Dichloroethane | | | | | | | | |
| 1,2-Dichloroethene (total) | 96 J D | 94 J D | | | | | | |
| Chloroform | 2 J | 2 J | | | | | | |
| 1,2 – Dichloroethane | | | | | | | | |
| 2 – Butanone | | | | | | | | |
| 1,1,1 – Trichloroethane | 7 J | 7 J | | | | | | |
| Carbon Tetrachloride | | | | | | | | |
| Bromodichloromethane | | | | | | | | |
| 1,2 – Dichloropropane | | | | | | | | |
| cis-1,3 – Dichloropropene | | | | | | | | |
| Trichloroethene | 1300 D | 1300 D | | | | | | |
| Dibromochloromethane | | | | | | | | |
| 1,1,2-Trichloroethane | | | | | | | | |
| Benzene | | | | | | | | |
| trans-1,3-Dichloropropene | | | | | | | | |
| Bromoform | | | | | | | | |
| 4-Methyl-2-Pentanone | | | | | | | | |

Prod W

→ Spring SW sample not in rept

table 5-3

**ANALYTICAL RESULTS**
**SITE NAME** Sanyo
**SITE I.D.:**

| FIT SAMPLE NO. | GW01-01MSD | GW01-01FD | GW02-01 | GW02-01FD | PWTB-02 | | | |
|---|---|---|---|---|---|---|---|---|
| OTR NUMBER | ERW18 | ERW19 | ERW20 | ERW21 | ERW17 | | | |
| ITR NUMBER | MERP 16 | MERP 17 | MERP 18 | MERP 19 | — | | | |
| pH (WATER) | | | | | | | | |
| TEMPERATURE (WATER) | | | | | | | | |
| CONDUCTIVITY (WATER) | | | | | | | | |
| SAMPLE MATRIX | GW | GW | GW | GW | PW | | | |
| 1,2,4-Trichlorobenzene | | | | | | | | |
| Naphthalene | | | | | | | | |
| 4-Chloroaniline | | | | | | | | |
| Hexachlorobutadiene | | | | | | | | |
| 4-Chloro-3-Methylphenol | | | | | | | | |
| 2-Methylnaphthalene | | | | | | | | |
| Hexachlorocyclopentadiene | | | | | | | | |
| 2,4,6-Trichlorophenol | | | | | | | | |
| 2,4,5-Trichlorophenol | | | | | | | | |
| 2-Chloronaphthalene | | | | | | | | |
| 2-Nitroaniline | | | | | | | | |
| Dimethylphthalate | | | | | | | | |
| Acenaphthylene | | | | | | | | |
| 2,6-Dinitrotoluene | | | | | | | | |
| 3-Nitroaniline | | | | | | | | |
| Acenaphthene | | | | | | | | |
| 2,4-Dinitrophenol | | | | | | | | |
| 4-Nitrophenol | | | | | | | | |
| Dibenzofuran | | | | | | | | |
| 2,4-Dinitrotoluene | | | | | | | | |
| Diethylphthalate | | | | | | | | |
| 4-Chlorophenyl-phenylether | | | | | | | | |
| Fluorene | | | | | | | | |
| 4-Nitroaniline | | | | | | | | |
| 4,6-Dinitro-2-methylphenol | | | | | | | | |
| N-Nitrosodiphenylamine | | | | | | | | |
| 4-Bromophenyl-phenylether | | | | | | | | |
| Hexachlorobenzene | | | | | | | | |

→ not in rept Spring SW sample Table 5-3

**ANALYTICAL RESULTS**
**SITE NAME** Sanyo
**SITE I.D.:**

| FIT SAMPLE NO. | GW01-01MSD | GW01-01FD | GW02-01 | GW02-01FD | PWTB-02 | | | |
|---|---|---|---|---|---|---|---|---|
| OTR NUMBER | ERW 18 | ERW 19 | ERW 20 | ERW 21 | ERW 17 | | | |
| ITR NUMBER | MERP 16 | MERP 17 | MERP 18 | MERP 19 | — | | | |
| pH (WATER) | | | | | | | | |
| TEMPERATURE (WATER) | | | | | | | | |
| CONDUCTIVITY (WATER) | | | | | | | | |
| SAMPLE MATRIX | GW | GW | GW | GW | PW | | | |
| 2-Hexanone | | | | | | | | |
| Tetrachloroethene | | | | | | | | |
| 1,1,2,2-Tetrachloroethane | | | | | | | | |
| Toluene | | | | | | | | |
| Chlorobenzene | | | | | | | | |
| Ethylbenzene | | | | | | | | |
| Styrene | | | | | | | | |
| Xylenes (total) | | | | | | | | |
| | | | | | | | | |
| SEMIVOLATILES | | | | | | | | |
| UNITS: | | | | | | | | |
| Phenol | | | | | | | | |
| bis(2-Chloroethyl)Ether | | | | | | | | |
| 2-Chlorophenol | | | | | | | | |
| 1,3-Dichlorobenzene | | | | | | | | |
| 1,4-Dichlorobenzene | | | | | | | | |
| 1,2-Dichlorobenzene | | | | | | | | |
| 2-Methylphenol | | | | | | | | |
| 2,2'-oxybis(1-Chloropropane) | | | | | | | | |
| 4-Methylphenol | | | | | | | | |
| N-Nitroso-Di-n-Propylamine | | | | | | | | |
| Hexachloroethane | | | | | | | | |
| Isophorone | | | | | | | | |
| Nitrobenzene | | | | | | | | |
| 2-Nitrophenol | | | | | | | | |
| 2,4-Dimethylphenol | | | | | | | | |
| bis(2-Chloroethoxy)Methane | | | | | | | | |
| 2,4-Dichlorophenol | | | | | | | | |

not in rept Spring SW sample

**ANALYTICAL RESULTS**
**SITE NAME** Sanyo
**SITE I.D.:**

| FIT SAMPLE NO. | GW01-01MSD | GW01-01FD | GW02-01 | GW02-01FD | PWTB-02 | | | |
|---|---|---|---|---|---|---|---|---|
| OTR NUMBER | ERW 18 | ERW19 | ERW20 | ERW21 | ERW17 | | | |
| ITR NUMBER | MERP16 | MERP17 | MERP18 | MERP19 | — | | | |
| pH (WATER) | | | | | | | | |
| TEMPERATURE (WATER) | | | | | | | | |
| CONDUCTIVITY (WATER) | | | | | | | | |
| SAMPLE MATRIX | GW | GW | GW | GW | PW | | | |
| Pentachlorophenol | | | | | | | | |
| Phenanthrene | | | | | | | | |
| Anthracene | | | | | | | | |
| Carbazole | | | | | | | | |
| Di-n-Butylphthalate | | | | | | | | |
| Fluoranthene | | | | | | | | |
| Pyrene | | | | | | | | |
| Butylbenzylphthalate | | | | | | | | |
| 3,3'-Dichlorobenzidine | | | | | | | | |
| Benzo(a)anthracene | | | | | | | | |
| Chrysene | | | | | | | | |
| bis(2-Ethylhexyl)phthalate | | | | | | | | |
| Di-n-Octyl phthalate | | | | | | | | |
| Benzo(b)fluoranthene | | | | | | | | |
| Benzo(k)fluoranthene | | | | | | | | |
| Benzo(a)pyrene | | | | | | | | |
| Indeno(1,2,3-cd)pyrene | | | | | | | | |
| Dibenzo(a,h)anthracene | | | | | | | | |
| Benzo(g,h,i)perylene | | | | | | | | |
| | | | | | | | | |
| PESTICIDES/PCBs (ug/L) | | | | | | | | |
| alpha-BHC | | | | | | | | |
| beta-BHC | | | | | | | | |
| delta-BHC | | 0.018 JP | | | | | | |
| gamma-BHC (Lindane) | | | | | | | | |
| Heptachlor | | | | | | | | |
| Aldrin | | | | | | | | |
| Heptachlor epoxide | | | | | | | | |

not in rept Spring SW sample Table 5-3

**ANALYTICAL RESULTS**
**SITE NAME** Sanyo
**SITE I.D.:**

| FIT SAMPLE NO. | GW01-01MSD | GW01-01FD | GW02-01 | GW02-01FD | PWTB-02 | | | |
|---|---|---|---|---|---|---|---|---|
| OTR NUMBER | ERW 18 | ERW19 | ERW20 | ERW21 | ERW17 | | | |
| ITR NUMBER | MERP16 | MERP17 | MERP18 | MERP19 | ——— | | | |
| pH (WATER) | | | | | | | | |
| TEMPERATURE (WATER) | | | | | | | | |
| CONDUCTIVITY (WATER) | | | | | | | | |
| SAMPLE MATRIX | GW | GW | GW | GW | PW | | | |
| Pentachlorophenol | | | | | | | | |
| Phenanthrene | | | | | | | | |
| Anthracene | | | | | | | | |
| Carbazole | | | | | | | | |
| Di-n-Butylphthalate | | | | | | | | |
| Fluoranthene | | | | | | | | |
| Pyrene | | | | | | | | |
| Butylbenzylphthalate | | | | | | | | |
| 3,3'-Dichlorobenzidine | | | | | | | | |
| Benzo(a)anthracene | | | | | | | | |
| Chrysene | | | | | | | | |
| bis(2-Ethylhexyl)phthalate | | | | | | | | |
| Di-n-Octyl phthalate | | | | | | | | |
| Benzo(b)fluoranthene | | | | | | | | |
| Benzo(k)fluoranthene | | | | | | | | |
| Benzo(a)pyrene | | | | | | | | |
| Indeno(1,2,3-cd)pyrene | | | | | | | | |
| Dibenzo(a,h)anthracene | | | | | | | | |
| Benzo(g,h,i)perylene | | | | | | | | |
| | | | | | | | | |
| PESTICIDES/PCBs (ug/L) | | | | | | | | |
| alpha-BHC | | | | | | | | |
| beta-BHC | | | | | | | | |
| delta-BHC | | 0.018 JP | | | | | | |
| gamma-BHC (Lindane) | | | | | | | | |
| Heptachlor | | | | | | | | |
| Aldrin | | | | | | | | |
| Heptachlor epoxide | | | | | | | | |

not in rept Spring SW Sample LC

**ANALYTICAL RESULTS**
**SITE NAME** Sanyo
**SITE I.D.:**

| FIT SAMPLE NO. | GW01-01MSD | GW01-01FD | GW02-01 | GW02-01FD | PWTB-02 | | | |
|---|---|---|---|---|---|---|---|---|
| OTR NUMBER | ERW18 | ERW19 | ERW20 | ERW21 | ERW17 | | | |
| ITR NUMBER | MERP16 | MERP17 | MERP18 | MERP19 | — | | | |
| pH (WATER) | | | | | | | | |
| TEMPERATURE (WATER) | | | | | | | | |
| CONDUCTIVITY (WATER) | | | | | | | | |
| SAMPLE MATRIX | GW | GW | GW | GW | PW | | | |
| Endosulfan I | | | | | | | | |
| Dieldrin | | | | | | | | |
| 4,4'-DDE | | | | | | | | |
| Endrin | | | | | | | | |
| Endosulfan II | | | | | | | | |
| 4,4'-DDD | | | | | | | | |
| Endosulfan sulfate | | | | | | | | |
| 4,4'-DDT | | | | | | | | |
| Methoxychlor | | | | | | | | |
| Endrin ketone | | | | | | | | |
| Endrin aldehyde | | | | | | | | |
| alpha-Chlordane | | | | | | | | |
| gamma-Chlordane | | | | | | | | |
| Toxaphene | | | | | | | | |
| Aroclor - 1016 | | | | | | | | |
| Aroclor - 1221 | | | | | | | | |
| Aroclor - 1232 | | | | | | | | |
| Aroclor - 1242 | | | | | | | | |
| Aroclor - 1248 | | | | | | | | |
| Aroclor - 1254 | | | | | | | | |
| Aroclor - 1260 | | | | | | | | |
| Metals unfiltered | | | | | | | | |
| UNITS: mg/L | | | | | | | | |
| Aluminum | 34 B | 40.7 B | | | | | | |
| Antimony | | | | | | | | |
| Arsenic | | | | | | | | |
| Barium | ~~182 B~~ | 181 B | ~~95.7 B~~ | 102 B | | | | |
| Beryllium | | | | | | | | |

Doc. Control: ASW-4-
AGBD

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

DATE: 10/9/92

SUBJECT: Review of Region V CLP Data
Received for Review on Sept 8, 1992

FROM: Charles T. Elly, Director(5SCRL)
Central Regional Laboratory
Patrick J. Chanilla for C.T. Elly

TO: Data User: Weston

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

SITE NAME: Adrian (IN) SMO Case No. 18642

EPA Data Set No. (1) No. of Samples 10 DU/Activity Numbers 1

CRL No.

SMO Traffic No. MERP 01-05 MERP 11-15

CLP Laboratory: AATS Hrs. for Review 6.5 +1

Following are our findings:

THE DATA ARE ACCEPTABLE WITH QUALIFICATIONS AS NOTED IN THE ATTACHED REVIEW. - Patrick J. Chanilla 10/9/92

PDC
11/6/92

( ) Data are acceptable for use.
(x) Data are acceptable for use with qualifications.
( ) Data are preliminary - pending verification by laboratory.
( ) Data are unacceptable.

cc: Elenor McLean, Sample Mgmt.Office
Edward Kantor, EMSL-Las Vegas

## DATA QUALIFIERS

**Below is a summary of the out of control audits and their possible effects on the data for this case.**

**LABORATORY: AATS** **CASE NO. 18642**
**SDG NO. MERP01**

The laboratory's portion of this case contains 5 low level soil samples and 5 low level water samples analyzed for total metals and cyanide.

**EVIDENTIAL AUDIT:** All forms and documents are originals and present in the order indicated on the DC-2 form (inventory sheet). One of the two airbills was not in the case. Federal Express only sent a written copy of the delivery for package tracking number 258398364. The DC-1 form was resubmitted and inserted in the case. All original sample tags are included in the case and their numbers match the numbers on the DC-1 form.

## WATER (MERP11-15)

**ICP ANALYSES:** The matrix spike recovery for Fe (159.1%) was not flagged by the lab because the sample concentration is greater than 4 times the spiked added. Fe results for water samples are not qualified on this basis. The preparation blank contains Fe (9.494 ug/l) and a CCB contains Fe (12.1 ug/l). Fe result on sample MERP13 is estimated (J) due to contamination.

The ICP serial dilution for Zn (14.7 %difference) is out of control. All Zn results for water samples are estimated (J) due to interference.

The duplicate audit for Al (37.1 %RPD) was not flagged by the lab because the duplicate difference is less than +/- CRDL. Al results for water samples are not qualified on this basis and will be qualified below.

**GFAA ANALYSES:** The matrix spike recovery for Pb (62.9%) is out of control. The Pb result on sample MERP11 is estimated (J) due to low bias. The Pb result on sample MERP12 was flagged (W) by the lab and is estimated (UJ) due to a possible elevated detection limit and interference. Pb results on samples MERP13-15 are estimated (UJ) due to a possible elevated detection limit.

After recalculation, a (W) flag was added to the Se result for MERP12 on form 1. The Se result on sample MERP12 is estimated (UJ) due to interference. The Se result on sample MERP13 was flagged (W) by the lab and is estimated (UJ) due to interference.

The matrix spike recovery for Tl (60.1%) is out of control. Tl results on samples MERP11, 12 and 15 were flagged (W) by the lab and are estimated (UJ) due to a possible elevated detection limit and interference. Tl results on samples MERP13 and 14 are estimated (UJ) due to a possible elevated detection limit.

**OTHER QUALIFIERS:** All Hg and CN results for water samples are acceptable.

Samples MERP14/15 are field duplicates and show good correlation.

Sample MERP13 is a field blank and contains Al (112 ug/l) which affects sample results. Al results on samples MERP11, 12, 14 and 15 are estimated (J) due to field contamination.

**SOIL (MERP01-05)**

**ICP ANALYSES:** The matrix spike recovery for Mn (149.5%) is out of control. All Mn results for soil samples are estimated (J) due to high bias.

The matrix spike recoveries for Cd (42.2%) and Zn (138.7%) were not flagged by the lab because the sample concentrations are greater than 4 times the spiked added concentrations. All Cd and Zn results for soil samples are acceptable.

The duplicate audit for Na (200.0 %RPD) was not flagged by the lab because the duplicate difference is less than 2xCRDL. All Na results for soil samples are acceptable.

**GFAA ANALYSES:** The matrix spike recovery for Pb (3042.3%) was not flagged by the lab because the sample concentration is greater than 4 times the spike added. Pb results for soil samples are not qualified on this basis. Pb results on MERP01 and 02 were flagged (W) by the lab and are estimated (J) due to interference. Pb results on samples MERP03, 04 and 05 were flagged (W) which indicated interference and (M) which indicated that the duplicate injection criterion was not met. Pb results on samples MERP03, 04 and 05 are estimated (J) due to interference.

Se results on sample MERP02, 04 and 05 were flagged (W) by the lab and are estimated (UJ) due to interference.

Tl results on MERP01 and 03 were flagged (W) by the lab and are estimated (UJ) due to interference.

**OTHER QUALIFIERS:** The duplicate audit for Hg (200.0 %RPD) was flagged by the lab. However, the duplicate difference is less than +/- 2xCRDL. All Hg results for soil samples are acceptable.

The matrix spike recovery for CN (-543.7%) was not flagged by the lab because the sample concentration is greater than 4 times the spike added. CN results for soil samples are not qualified on this basis. After checking the duplicate audit (49.7% RPD) for CN, the reviewer added (*) flags to the CN results for soil on forms 1 and 6. CN results on MERP01-05 are estimated (J) due to poor precision.

Samples MERP02/04 are field duplicates. The %RPD for Ca (35.7%) is out of control. All Ca results for soil samples are estimated (J) due to poor field precision.

**REVIEWED BY: BAI YUEN**
**LOCKHEED / ESAT**

Bai Yuen

**10-7-92**

## GLOSSARY A

### Data Qualifier Definitions

For the purposes of this document the following code letters and associated definitions are provided.

U - The material was analyzed for, but was not detected above the level of the associated value. The associated value is either the sample quantitation limit or the sample detection limit.

J - The associated value is an estimated quantity.

R - The data are unusable. (Note: Analyte may or may not be present.)

UJ - The material was analyzed for, but was not detected. The associated value is an estimate and may be inaccurate or imprecise.

| In Reference to Case No(s): |
| --- |
| 18642 (1) |

**Contract Laboratory Program**
**REGIONAL/LABORATORY COMMUNICATION SYSTEM**

**Telephone Record Log**

Date of Call: 9-30-92

Laboratory Name: AATS
Lab Contact: Steve Markham 918-251-0545

Region: 5
Regional Contact: Bai Ufuen

Call Initiated By: ___ Laboratory ✓ Region

In reference to data for the following sample number(s):

SDG # MERP01

Summary of Questions/Issues Discussed:

Two airbill numbers were listed on the chain of custody sheets but only one airbill was included in the case.

Summary of Resolution:

The lab could not find another copy of the airbill and called the Federal Express to request the copy. The lab will send the airbill to the Region on 10-1-92.

(and resubmitted DC-1 forms.

Bai Ufuen
Signature

9-30-92
Date

Distribution: (1) Lab Copy, (2) Region Copy, (3) SMO Copy

| In Reference to Case No(s): |
| --- |
| 18642 (1) |

Contract Laboratory Program
REGIONAL/LABORATORY COMMUNICATION SYSTEM

**Telephone Record Log**

Date of Call: 10-6-92

Laboratory Name: AATS

Lab Contact: Steve Markham

Region: 5

Regional Contact: Brian Green

Call Initiated By: ___ Laboratory ✓ Region

In reference to data for the following sample number(s):

SDG # MERP01

Summary of Questions/Issues Discussed:

No resubmission for the DC-1 form.

Summary of Resolution:

Will send right away

Brian Green
Signature

10-6-92
Date

Distribution: (1) Lab Copy, (2) Region Copy, (3) SMO Copy

# QC EXCEPTION SUMMARY REPORT

CASE # 18642 (1)
DATA SET #
LAB Q.C.# MERP01
DATE: 10-7-92

SITE Sanyo (IN)
LAB AATS
REVIEWED BY Bari Yuen

MATRIX: soil, Water
CONC. : Low

WATER SAMPLE SPK.
WATER SAMPLE DUP.
SOIL SAMPLE SPK.
SOIL SAMPLE DUP.

| | OVERALL CASE QC | | | | | | | | | MATRIX SPECIFIC QC | | | | | | SAMPLE SPECIFIC QC | | FIELD QC | | | REGIONAL QC | | | OTHER/ COMMENTS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Holding Time | Cal Blanks | Bld Calcon | Contin Calcon | Prep Bk AQ | Prep Bk SOL | ICS %R | LCS % AQ | LCS % SOL | Sol Dup RPD | Sol Spk %R | AQ Dup RPD | AQ Spk %R | Ser Dilu AQ | Ser Dilu SOL | GFAA Dup | GFAA Spike | Blank | Dup RPD | Spike %R | Blank Blank | Blank Spike %R | Spike Sample RPD | |
| Aluminum | | | | | | | | | | | | | | | | | | 112 | | | | | | |
| Antimony | | | | | | | | | | | | | | | | | | | | | | | | |
| Arsenic | | | | | | | | | | | | | | | | | | | | | | | | |
| Barium | | | | | | | | | | | | | | | | | | | | | | | | |
| Beryllium | | | | | | | | | | | | | | | | | | | | | | | | |
| Cadmium | | | | | | | | | | | | | | | | | | | | | | | | |
| Calcium | | | | | | | | | | | | | | | | | | | 35.7 | | | | | |
| Chromium | | | | | | | | | | | | | | | | | | | | | | | | |
| Cobalt | | | | | | | | | | | | | | | | | | | | | | | | |
| Copper | | | | | | | | | | | | | | | | | | | | | | | | |
| Iron | | 12.1 | | | 9.494 | | | | | | | | | | | | | | | | | | | |
| Lead | | | | | | | | | | | | | 62.9 | | | | | | | | | | | |
| Magnesium | | | | | | | | | | | | | | | | | | | | | | | | |
| Manganese | | | | | | | | | | | 149.5 | | | | | | | | | | | | | |
| Mercury | | | | | | | | | | | | | | | | | | | | | | | | |
| Nickel | | | | | | | | | | | | | | | | | | | | | | | | |
| Potassium | | | | | | | | | | | | | | | | | | | | | | | | |
| Selenium | | | | | | | | | | | | | | | | | | | | | | | | |
| Silver | | | | | | | | | | | | | | | | | | | | | | | | |
| Sodium | | | | | | | | | | | | | | | | | | | | | | | | |
| Thallium | | | | | | | | | | | | | 60.1 | | | | | | | | | | | |
| Tin | | | | | | | | | | | | | | | | | | | | | | | | |
| Vanadium | | | | | | | | | | | | | | | | | | | | | | | | |
| Zinc | | | | | | | | | | | | | | 14.7 | | | | | | | | | | |
| Cyanide | | | | | | | | | | 49.7 | | | | | | | | | | | | | | |

U.S. EPA - CLP

COVER PAGE - INORGANIC ANALYSES DATA PACKAGE

MERICAN_ANALYTICAL_____ Contract: 68-D1-0024

AATS__ Case No.: 18642 SAS No.: _____ SDG No.: MERP01

: 3/90_

| EPA Sample No. | Lab Sample ID |
|---|---|
| MERP01 | 1072901 |
| MERP02 | 1072902 |
| MERP03 | 1072903 |
| MERP03D | 1072903D |
| MERP03S | 1072903S |
| MERP04 | 1072904 |
| MERP05 | 1072905 |
| MERP11 | 1072906 |
| MERP11D | 1072906D |
| MERP11S | 10729065 |
| MERP12 | 1072907 |
| MERP13 | 1072908 |
| MERP14 | 1072909 |
| MERP15 | 1072910 |

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US EPA CENTRAL REGIONAL LAB.
536 S. CLARK ST.
CHICAGO, ILLINOIS 60605

re ICP interelement corrections applied ? Yes/No YES

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

Comments:
THE "C" FLAG FOR ZINC WATER SAMPLES IS DUE TO THE SERIAL DILUTION PERCENT DIFFERENCE BEING GREATER THAN 10%. THIS INDICATES A POSSIBLE CHEMICAL OR PHYSICAL INTERFERENCE.

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

Signature: Steve L. Markham Name: Steve L. Markham

Date: September 4, 1992 Title: Inorganic Program Manager

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO. 002

MERP01

Lab Name: AMERICAN_ANALYTICAL_____ Contract: 68-D1-0024

Lab Code: 9ATS__ Case No.: 13642_ SAS No.: _____ SDG No.: MERP01

Matrix (soil/water): SOIL_ Lab Sample ID: 1072901____

Level (low/med): LOW__ Date Received: 08/20/92

% Solids: _83.4

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

| CAS No. | Analyte | Concentration | C | Q | M |
|---|---|---|---|---|---|
| 7429-90-5 | Aluminum | 4660 | | | P |
| 7440-36-0 | Antimony | 9.4 | U | | P |
| 7440-38-2 | Arsenic | 5.6 | | | F |
| 7440-39-3 | Barium | 152 | | | P |
| 7440-41-7 | Beryllium | 2.6 | | | P |
| 7440-43-9 | Cadmium | 0.72 | U | | P |
| 7440-70-2 | Calcium | 5020 | | J | P |
| 7440-47-3 | Chromium | 208 | | | P |
| 7440-48-4 | Cobalt | 6.0 | S | | P |
| 7440-50-8 | Copper | 112 | | | P |
| 7439-89-6 | Iron | 52900 | | | P |
| 7439-92-1 | Lead | 27.7 | | W J | F |
| 7439-95-4 | Magnesium | 2010 | | | P |
| 7439-96-5 | Manganese | 292 | | N J | P |
| 7439-97-6 | Mercury | 0.12 | U | * | CV |
| 7440-02-0 | Nickel | 20.4 | | | P |
| 7440-09-7 | Potassium | 755 | B | | P |
| 7782-49-2 | Selenium | 1.7 | | | F |
| 7440-22-4 | Silver | 1.9 | U | | P |
| 7440-23-5 | Sodium | 197 | U | | P |
| 7440-28-0 | Thallium | 0.72 | U | W J | F |
| 7440-62-2 | Vanadium | 25.2 | | | P |
| 7440-66-6 | Zinc | 59.3 | | | P |
| | Cyanide | 0.60 | U | * | CA |

PDC 11/6/92

BY 9-30-92

Color Before: BLACK____ Clarity Before: _____ Texture: MEDIUM

Color After: COLORLESS Clarity After: _____ Artifacts: _____

Comments:

FORM I - IN

ILM02.1

1

EPA SAMPLE NO. 003

INORGANIC ANALYSES DATA SHEET

MERP02

b Name: AMERICAN_ANALYTICAL_____ Contract: 68-D1-0024

Lab Code: AATS__ Case No.: 18642_ SAS No.: _____ SDG No.: MERP01

Matrix (soil/water): SOIL_ Lab Sample ID: 1072902___

Level (low/med): LOW__ Date Received: 08/20/92

% Solids: 95.7

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

| CAS No. | Analyte | Concentration | C | Q | M |
|---|---|---|---|---|---|
| 7429-90-5 | Aluminum | 4340 | | | P |
| 7440-36-0 | Antimony | 8.2 | U | | P |
| 7440-38-2 | Arsenic | 4.6 | | | F |
| 7440-39-3 | Barium | 21.6 | B | | P |
| 7440-41-7 | Beryllium | 1.5 | | | P |
| 7440-43-9 | Cadmium | 0.63 | U | | P |
| 7440-70-2 | Calcium | 115000 | | J | P |
| 7440-47-3 | Chromium | 6.6 | | | P |
| 7440-48-4 | Cobalt | 3.9 | B | | P |
| 7440-50-8 | Copper | 8.3 | | | P |
| 7439-89-6 | Iron | 8640 | | | P |
| 7439-92-1 | Lead | 9.7 | | W J | F |
| 7439-95-4 | Magnesium | 53800 | | | P |
| 7439-96-5 | Manganese | 238 | | N J | P |
| 7439-97-6 | Mercury | 0.10 | U | * | CV |
| 7440-02-0 | Nickel | 10.0 | | | P |
| 7440-09-7 | Potassium | 939 | B | | P |
| 7782-49-2 | Selenium | 0.42 | U | W J | F |
| 7440-22-4 | Silver | 1.7 | U | | P |
| 7440-23-5 | Sodium | 172 | U | | P |
| 7440-28-0 | Thallium | 0.63 | U | | F |
| 7440-62-2 | Vanadium | 11.2 | | | P |
| 7440-66-6 | Zinc | 24.3 | | | P |
| | Cyanide | 0.68 | | * J | CA |

PDC 11/6/92

BY 9-30-92

Color Before: BROWN Clarity Before: _____ Texture: MEDIUM

Color After: COLORLESS Clarity After: _____ Artifacts: _____

Comments:

U.S. EPA - CLP

# INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.
** 004
MERP03

Lab Name: AMERICAN_ANALYTICAL_____ Contract: 68-D1-0024

Lab Code: AATG__ Case No.: 18642_ SAS No.: _____ SDG No.: MERP01

Matrix (soil/water): SOIL_ Lab Sample ID: 107C903___

Level (low/med): LOW__ Date Received: 08/20/92

% Solids: 82.0

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

| CAS No. | Analyte | Concentration | C | Q | M |
|---|---|---|---|---|---|
| 7429-90-5 | Aluminum | 6200 | | | P |
| 7440-36-0 | Antimony | 9.5 | U | | P |
| 7440-38-2 | Arsenic | 9.2 | | | F |
| 7440-39-3 | Barium | 299 | | | P |
| 7440-41-7 | Beryllium | 3.1 | | | P |
| 7440-43-9 | Cadmium | 406 | | | P |
| 7440-70-2 | Calcium | 3470 | | J | P |
| 7440-47-3 | Chromium | 1330 | | | P |
| 7440-48-4 | Cobalt | 11.6 | B | | P |
| 7440-50-8 | Copper | 143 | | | P |
| 7439-89-6 | Iron | 16600 | | | P |
| 7439-92-1 | Lead | 336 | | WM J | F |
| 7439-95-4 | Magnesium | 2980 | | | P |
| 7439-96-5 | Manganese | 361 | | N J | P |
| 7439-97-6 | Mercury | 0.15 | | * | CV |
| 7440-02-0 | Nickel | 24.6 | | | P |
| 7440-09-7 | Potassium | 859 | B | | P |
| 7782-49-2 | Selenium | 0.97 | B | | F |
| 7440-22-4 | Silver | 2.0 | U | | P |
| 7440-23-5 | Sodium | 218 | B | | P |
| 7440-28-0 | Thallium | 0.73 | U | W J | F |
| 7440-62-2 | Vanadium | 24.6 | | | P |
| 7440-66-6 | Zinc | 755 | | | P |
| | Cyanide | 94.0 | | * J | CN |

PDC
11/6/92

By 9-30-92

Color Before: BLACK_____ Clarity Before: _____ Texture: MEDIUM

Color After: COLORLESS Clarity After: _____ Artifacts: _____

Comments:

FORM I - IN

JLM02.1

# INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO. 005

MERP04

Lab Name: AMERICAN ANALYTICAL Contract: 68-D1-0024

Lab Code: AATS Case No.: 18642 SAS No.: SDG No.: MERP01

Matrix (soil/water): SOIL Lab Sample ID: 1072904

Level (low/med): LOW Date Received: 08/20/92

% Solids: 96.3

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

| CAS No. | Analyte | Concentration | C | Q | M |
|---|---|---|---|---|---|
| 7429-90-5 | Aluminum | 4430 | | | P |
| 7440-36-0 | Antimony | 9.1 | U | | P |
| 7440-38-2 | Arsenic | 4.4 | | | F |
| 7440-39-3 | Barium | 21.5 | B | | P |
| 7440-41-7 | Beryllium | 1.8 | | | P |
| 7440-43-9 | Cadmium | 0.62 | U | | P |
| 7440-70-2 | Calcium | 165000 | | J | P |
| 7440-47-3 | Chromium | 5.2 | | | P |
| 7440-48-4 | Cobalt | 3.5 | B | | P |
| 7440-50-8 | Copper | 6.7 | | | P |
| 7439-89-6 | Iron | 8330 | | | P |
| 7439-92-1 | Lead | 7.1 | | WN J | F |
| 7439-95-4 | Magnesium | 70500 | | | P |
| 7439-96-5 | Manganese | 211 | | N J | P |
| 7439-97-6 | Mercury | 0.10 | U | * | CV |
| 7440-02-0 | Nickel | 6.9 | B | | P |
| 7440-09-7 | Potassium | 1070 | | | P |
| 7782-49-2 | Selenium | 0.42 | U | W J | F |
| 7440-22-4 | Silver | 1.7 | U | | P |
| 7440-23-5 | Sodium | 171 | U | | P |
| 7440-28-0 | Thallium | 0.62 | U | | F |
| 7440-62-2 | Vanadium | 11.5 | | | P |
| 7440-66-6 | Zinc | 20.1 | | | P |
| | Cyanide | 0.73 | | * J | CA |

PDC 11/6/92

By 9-30-92

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: COLORLESS Clarity After: Artifacts:

Comments:

1

# INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO. 006

MERP05

Lab Name: AMERICAN_ANALYTICAL_____ Contract: 68-D1-0024

Lab Code: AATS__ Case No.: 18642_ SAS No.: _____ SDG No.: MERP01

Matrix (soil/water): SOIL_ Lab Sample ID: 1072905___

Level (low/med): LOW__ Date Received: 08/20/92

% Solids: _93.7

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

| CAS No. | Analyte | Concentration | C | Q | M |
|---|---|---|---|---|---|
| 7429-90-5 | Aluminum | 6620 | | | P |
| 7440-36-0 | Antimony | 3.3 | U | | P |
| 7440-38-2 | Arsenic | 4.9 | | | F |
| 7440-39-3 | Barium | 35.8 | B | | P |
| 7440-41-7 | Beryllium | 1.6 | | | P |
| 7440-43-9 | Cadmium | 0.64 | U | | P |
| 7440-70-2 | Calcium | 117000 | | J | P |
| 7440-47-3 | Chromium | 8.9 | | | P |
| 7440-48-4 | Cobalt | 4.6 | B | | P |
| 7440-50-8 | Copper | 9.6 | | | P |
| 7439-89-6 | Iron | 11500 | | | P |
| 7439-92-1 | Lead | 7.2 | | W J | F |
| 7439-95-4 | Magnesium | 52200 | | | P |
| 7439-96-5 | Manganese | 286 | | N J | P |
| 7439-97-6 | Mercury | 0.11 | U | * | CV |
| 7440-02-0 | Nickel | 13.0 | | | P |
| 7440-09-7 | Potassium | 450 | | | P |
| 7782-49-2 | Selenium | 0.43 | U | W J | F |
| 7440-22-4 | Silver | 1.7 | U | | P |
| 7440-23-5 | Sodium | 175 | U | | P |
| 7440-28-0 | Thallium | 0.64 | U | | F |
| 7440-62-2 | Vanadium | 14.6 | | | P |
| 7440-66-6 | Zinc | 29.6 | | | P |
| | Cyanide | 0.53 | U | * | CA |

PDC 11/16/92

By 9-30-92

Color Before: BROWN ____ Clarity Before: _____ Texture: MEDIUM

Color After: COLORLESS Clarity After: _____ Artifacts: _____

Comments:

1

# INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO. 007

MERP11

b Name: AMERICAN_ANALYTICAL_____ Contract: 68-D1-0024

Lab Code: AATS__ Case No.: 16642_ SAS No.: _____ SDG No.: MERP01

Matrix (soil/water): WATER Lab Sample ID: 1072906___

Level (low/med): LOW__ Date Received: 08/20/92

% Solids: __0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L_

| CAS No. | Analyte | Concentration | C | Q | M |
|---|---|---|---|---|---|
| 7429-90-5 | Aluminum | 213 | | J | P |
| 7440-36-0 | Antimony | 39.0 | U | | P |
| 7440-38-2 | Arsenic | 9.3 | B | S | F |
| 7440-39-3 | Barium | 307 | | | P |
| 7440-41-7 | Beryllium | 2.0 | U | | P |
| 7440-43-9 | Cadmium | 3.0 | U | | P |
| 7440-70-2 | Calcium | 81000 | | | P |
| 7440-47-3 | Chromium | 6.0 | U | | P |
| 7440-48-4 | Cobalt | 6.0 | U | | P |
| 7440-50-8 | Copper | 25.9 | | | P |
| 7439-89-6 | Iron | 7130 | | | P |
| 7439-92-1 | Lead | 18.2 | | SN J | F |
| 7439-95-4 | Magnesium | 30300 | | | P |
| 7439-96-5 | Manganese | 128 | | | P |
| 7439-97-6 | Mercury | 0.20 | U | | CV |
| 7440-02-0 | Nickel | 8.0 | U | | P |
| 7440-09-7 | Potassium | 4000 | B | | P |
| 7782-49-2 | Selenium | 2.0 | U | | F |
| 7440-22-4 | Silver | 6.0 | U | | P |
| 7440-23-5 | Sodium | 21300 | | | P |
| 7440-28-0 | Thallium | 3.0 | U | WN J | F |
| 7440-62-2 | Vanadium | 5.0 | U | | P |
| 7440-66-6 | Zinc | 200 | | E J | P |
| | Cyanide | 10.0 | U | | CA |

ADC 11/6/92

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO. 008

MERP12

b Name: AMERICAN ANALYTICAL Contract: 68-D1-0024

Lab Code: AATS Case No.: 18642 SAS No.: EDD No.: MERP01

Matrix (soil/water): WATER Lab Sample ID: 1072907

Level (low/med): LOW Date Received: 08/20/92

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

| CAS No. | Analyte | Concentration | C | Q | M |
|---|---|---|---|---|---|
| 7429-90-5 | Aluminum | 133 | B | J | P |
| 7440-36-0 | Antimony | 39.0 | U | | P |
| 7440-38-2 | Arsenic | 3.6 | B | | F |
| 7440-39-3 | Barium | 242 | | | P |
| 7440-41-7 | Beryllium | 2.0 | U | | P |
| 7440-43-9 | Cadmium | 3.0 | U | | P |
| 7440-70-2 | Calcium | 78000 | | | P |
| 7440-47-3 | Chromium | 6.0 | U | | P |
| 7440-48-4 | Cobalt | 6.0 | U | | P |
| 7440-50-8 | Copper | 9.0 | U | | P |
| 7439-89-6 | Iron | 876 | | | P |
| 7439-92-1 | Lead | 1.0 | U | WN J | F |
| 7439-95-4 | Magnesium | 29500 | | | P |
| 7439-96-5 | Manganese | 22.6 | | | P |
| 7439-97-6 | Mercury | 0.20 | U | | CV |
| 7440-02-0 | Nickel | 8.0 | U | | P |
| 7440-09-7 | Potassium | 3730 | B | | P |
| 7782-49-2 | Selenium | 2.0 | U | W J | F |
| 7440-22-4 | Silver | 6.0 | U | | P |
| 7440-23-5 | Sodium | 21500 | | | P |
| 7440-28-0 | Thallium | 3.0 | U | WN J | F |
| 7440-62-2 | Vanadium | 5.0 | U | | P |
| 7440-66-6 | Zinc | 19.6 | B | E J | P |
| | Cyanide | 10.0 | U | | CA |

BY 9-30-92

ADC 11/6/92

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

1

# INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.
MB 009
MERP13

Lab Name: AMERICAN_ANALYTICAL_____ Contract: 68-D1-0024

Lab Code: AATS__ Case No.: 18642_ SAS No.: _____ SDG No.: MERP01

Matrix (soil/water): WATER Lab Sample ID: 1072908___

Level (low/med): LOW__ Date Received: 08/20/92

% Solids: __0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L_

| CAS No. | Analyte | Concentration | C | Q | M |
|---|---|---|---|---|---|
| 7429-90-5 | Aluminum | 112 | B | | P |
| 7440-36-0 | Antimony | 39.0 | U | | P |
| 7440-38-2 | Arsenic | 1.0 | U | | F |
| 7440-39-3 | Barium | 14.0 | U | | P |
| 7440-41-7 | Beryllium | 2.0 | U | | P |
| 7440-43-9 | Cadmium | 3.0 | U | | P |
| 7440-70-2 | Calcium | 399 | U | | P |
| 7440-47-3 | Chromium | 6.0 | U | | P |
| 7440-48-4 | Cobalt | 6.0 | U | | P |
| 7440-50-8 | Copper | 9.0 | U | | P |
| 7439-89-6 | Iron | 9.9 | B | J | P |
| 7439-92-1 | Lead | 1.0 | U | N J | F |
| 7439-95-4 | Magnesium | 386 | U | | P |
| 7439-96-5 | Manganese | 2.0 | U | | P |
| 7439-97-6 | Mercury | 0.20 | U | | CV |
| 7440-02-0 | Nickel | 8.0 | U | | P |
| 7440-09-7 | Potassium | 398 | U | | P |
| 7782-49-2 | Selenium | 2.0 | U | W J | F |
| 7440-22-4 | Silver | 8.0 | U | | P |
| 7440-23-5 | Sodium | 822 | U | | P |
| 7440-28-0 | Thallium | 3.0 | U | N J | F |
| 7440-62-2 | Vanadium | 5.0 | U | | P |
| 7440-66-6 | Zinc | 4.0 | U | E J | P |
| | Cyanide | 10.0 | U | | CA |

PDC
11/6/92

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

1

EPA SAMPLE NO. 010

# INORGANIC ANALYSES DATA SHEET

MERP14

Lab Name: AMERICAN_ANALYTICAL_____ Contract: 68-D1-0024

Lab Code: AATS__ Case No.: 18642_ SAS No.: _____ SDG No.: MERP01

Matrix (soil/water): WATER Lab Sample ID: 1072909____

Level (low/med): LOW__ Date Received: 08/20/92

% Solids: __0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L_

| CAS No. | Analyte | Concentration | C | Q | M |
|---|---|---|---|---|---|
| 7429-90-5 | Aluminum | 144 | B | J | P |
| 7440-36-0 | Antimony | 39.0 | U | | P |
| 7440-38-2 | Arsenic | 3.7 | B | | F |
| 7440-39-3 | Barium | 249 | | | P |
| 7440-41-7 | Beryllium | 2.0 | U | | P |
| 7440-43-9 | Cadmium | 3.0 | U | | P |
| 7440-70-2 | Calcium | 82200 | | | P |
| 7440-47-3 | Chromium | 6.0 | U | | P |
| 7440-48-4 | Cobalt | 6.0 | U | | P |
| 7440-50-8 | Copper | 9.0 | U | | P |
| 7439-89-6 | Iron | 693 | | | P |
| 7439-92-1 | Lead | 1.0 | U | N J | F |
| 7439-95-4 | Magnesium | 31000 | | | P |
| 7439-96-5 | Manganese | 19.2 | | | P |
| 7439-97-6 | Mercury | 0.20 | U | | CV |
| 7440-02-0 | Nickel | 3.0 | U | | P |
| 7440-09-7 | Potassium | 3660 | B | | P |
| 7782-49-2 | Selenium | 2.0 | U | | F |
| 7440-22-4 | Silver | 9.0 | U | | P |
| 7440-23-5 | Sodium | 22700 | | | P |
| 7440-28-0 | Thallium | 3.0 | U | N J | F |
| 7440-62-2 | Vanadium | 5.0 | U | | P |
| 7440-66-6 | Zinc | 16.0 | B | E J | P |
| | Cyanide | 10.0 | U | | CA |

PDC
11/6/92

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO. 011

MERP15

b Name: AMERICAN_ANALYTICAL_____ Contract: 68-D1-0024

Lab Code: AATS__ Case No.: 18642_ SAS No.: _____ SDG No.: MERP01

Matrix (soil/water): WATER Lab Sample ID: 1072910____

Level (low/med): LOW_ Date Received: 08/20/92

% Solids: __0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L_

| CAS No. | Analyte | Concentration | C | Q | M |
|---|---|---|---|---|---|
| 7429-90-5 | Aluminum | 151 | B | J | P |
| 7440-36-0 | Antimony | 39.0 | U | | P |
| 7440-38-2 | Arsenic | 3.0 | B | | F |
| 7440-39-3 | Barium | 242 | | | P |
| 7440-41-7 | Beryllium | 2.0 | U | | P |
| 7440-43-9 | Cadmium | 3.0 | U | | P |
| 7440-70-2 | Calcium | 79500 | | | P |
| 7440-47-3 | Chromium | 6.0 | U | | P |
| 7440-48-4 | Cobalt | 6.0 | U | | P |
| 7440-50-8 | Copper | 9.0 | U | | P |
| 7439-89-6 | Iron | 735 | | | P |
| 7439-92-1 | Lead | 1.0 | U | N J | F |
| 7439-95-4 | Magnesium | 30100 | | | P |
| 7439-96-5 | Manganese | 19.0 | | | P |
| 7439-97-6 | Mercury | 0.20 | U | | CV |
| 7440-02-0 | Nickel | 8.0 | U | | P |
| 7440-09-7 | Potassium | 3870 | B | | P |
| 7782-49-2 | Selenium | 3.0 | U | | F |
| 7440-22-4 | Silver | 3.0 | U | | P |
| 7440-23-5 | Sodium | 22100 | | | P |
| 7440-28-0 | Thallium | 3.0 | U | WN J | F |
| 7440-62-2 | Vanadium | 5.0 | U | | P |
| 7440-66-6 | Zinc | 17.5 | B | E J | P |
| | Cyanide | 10.0 | U | | CA |

PDC 11/6/92

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

# BLANKS

Lab Name: AMERICAN ANALYTICAL  Contract: 68-D1-0024

Lab Code: AATS  Case No.: 18642  SAS No.:  SDG No.: MERP01

Preparation Blank Matrix (soil/water): SOIL

Preparation Blank Concentration Units (ug/L or mg/kg): MG/KG

| Analyte | Initial Calib. Blank (ug/L) | C | Continuing Calibration Blank (ug/L) 1 | C | 2 | C | 3 | C | Prepa-ration Blank | C | M |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Aluminum | 43.0 | U | 43.0 | U | 43.0 | U | 43.0 | U | 6.600 | U | P |
| Antimony | 39.0 | U | 39.0 | U | 39.0 | U | 39.0 | U | 7.800 | U | P |
| Arsenic | 1.0 | U | 1.0 | U | 1.0 | U | 1.0 | U | 0.200 | U | F |
| Barium | 14.0 | U | 14.0 | U | 14.0 | U | 14.0 | U | 2.800 | U | P |
| Beryllium | 2.0 | U | 2.0 | U | 2.0 | U | 2.0 | U | 0.400 | U | P |
| Cadmium | 3.0 | U | 3.0 | U | 3.0 | U | 3.0 | U | 0.600 | U | P |
| Calcium | 399.0 | U | 399.0 | U | 399.0 | U | 399.0 | U | 79.800 | U | P |
| Chromium | 6.0 | U | 6.0 | U | 6.0 | U | 6.0 | U | 1.200 | U | P |
| Cobalt | 6.0 | U | 6.0 | U | 6.0 | U | 6.0 | U | 1.200 | U | P |
| Copper | 9.0 | U | 9.0 | U | 9.0 | U | 9.0 | U | 1.800 | U | P |
| Iron | 7.0 | U | 12.1 | B | 7.0 | U | 10.6 | B | 2.272 | B | P |
| Lead | 1.0 | U | 1.1 | B | 1.0 | U | 1.0 | U | -0.288 | B | F |
| Magnesium | 386.0 | U | 386.0 | U | 386.0 | U | 386.0 | U | 77.200 | U | P |
| Manganese | 2.0 | U | 2.0 | U | 2.0 | U | 2.0 | U | 0.400 | U | P |
| Mercury | 0.2 | U | 0.2 | U | 0.2 | U | 0.2 | U | 0.100 | U | CV |
| Nickel | -9.1 | B | 8.0 | U | 8.0 | U | 8.0 | U | 1.600 | U | P |
| Potassium | 398.0 | U | 398.0 | U | 398.0 | U | 398.0 | U | 79.600 | U | P |
| Selenium | 2.0 | U | 2.0 | U | 2.0 | U | 2.0 | U | 0.400 | U | F |
| Silver | 8.0 | U | 8.0 | U | 8.0 | U | 8.0 | U | 1.600 | U | P |
| Sodium | 822.0 | U | 822.0 | U | 822.0 | U | 822.0 | U | 164.400 | U | P |
| Thallium | 3.0 | U | 3.0 | U | 3.0 | U | 3.0 | U | 0.600 | U | F |
| Vanadium | 5.0 | U | 5.0 | U | 5.0 | U | 5.0 | U | 1.000 | U | P |
| Zinc | 4.0 | U | 4.0 | U | 4.0 | U | 4.0 | U | 1.420 | B | P |
| Cyanide | 10.0 | U | 10.0 | U | 10.0 | U | 10.0 | U | 0.300 | U | CA |

3
BLANKS

Lab Name: AMERICAN_ANALYTICAL_____ Contract: 68-01-0024

Lab Code: A4TS__ Case No.: 18642_ SAS No.: _____ SDG No.: MERP01

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L_

| Analyte | Initial Calib. Blank (ug/L) | C | Continuing Calibration Blank (ug/L) 1 | C | 2 | C | 3 | C | Prepa-ration Blank | C | M |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Aluminum | 43.0 | U | 43.0 | U | 57.2 | B | 43.0 | U | 43.000 | U | P |
| Antimony | 39.0 | U | 39.0 | U | 39.0 | U | 39.0 | U | 39.000 | U | P |
| Arsenic | | | 1.0 | U | 1.0 | U | 1.0 | U | 1.000 | U | F |
| Barium | 14.0 | U | 14.0 | U | 14.0 | U | 14.0 | U | 14.000 | U | P |
| Beryllium | 2.0 | U | 2.0 | U | 2.0 | U | 2.0 | U | 2.000 | U | P |
| Cadmium | 3.0 | U | 3.0 | U | 3.0 | U | 3.0 | U | 3.000 | U | P |
| alcium | 399.0 | U | 399.0 | U | 399.0 | U | 399.0 | U | 399.000 | U | P |
| Chromium | 6.0 | U | 6.0 | U | 6.0 | U | 6.0 | U | 6.000 | U | P |
| Cobalt | 6.0 | U | 6.0 | U | 6.0 | U | 6.0 | U | 6.000 | U | P |
| Copper | -21.9 | B | 9.0 | U | 9.0 | U | 9.0 | U | 9.000 | U | P |
| Iron | 7.0 | U | 8.5 | B | 7.4 | B | 7.0 | U | 9.494 | B | P |
| Lead | 1.0 | U | -1.8 | B | -2.7 | B | -1.4 | B | 1.000 | U | F |
| Magnesium | 386.0 | U | 386.0 | U | 386.0 | U | 386.0 | U | 386.000 | U | P |
| Manganese | 2.0 | U | 2.0 | U | 2.0 | U | 2.0 | U | 2.000 | U | P |
| Mercury | | | 0.2 | U | 0.2 | U | 0.2 | U | 0.200 | U | CV |
| Nickel | 8.0 | U | 8.0 | U | 8.0 | U | 8.0 | U | 8.000 | U | P |
| Potassium | 398.0 | U | 398.0 | U | 398.0 | U | 398.0 | U | 398.000 | U | P |
| Selenium | 2.0 | U | 2.0 | U | 2.0 | U | 2.0 | U | 2.000 | U | F |
| Silver | 8.0 | U | 8.0 | U | 8.0 | U | 8.0 | U | 8.000 | U | P |
| Sodium | 822.0 | U | 822.0 | U | 822.0 | U | 822.0 | U | 822.000 | U | P |
| Thallium | | | 3.0 | U | | | | | 3.000 | U | F |
| Vanadium | 5.0 | U | 5.0 | U | 5.0 | U | 5.0 | U | 5.000 | U | P |
| Zinc | 4.0 | U | 4.0 | U | 5.4 | B | 7.6 | B | 4.000 | U | P |
| Cyanide | | | 10.0 | U | | | | | 10.000 | U | CA |

Lab Name: AMERICAN ANALYTICAL Contract: 68-D1-0024

Lab Code: AATS Case No.: 18642 SAS No.: SDG No.: MERP01

Preparation Blank Matrix (soil/water): _____

Preparation Blank Concentration Units (ug/L or mg/kg): _____

| Analyte | Initial Calib. Blank (ug/L) | C | Continuing Calibration Blank (ug/L) 1 | C | 2 | C | 3 | C | Prepa-ration Blank | C | M |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Aluminum | | | | | | | | | | | NR |
| Antimony | | | | | | | | | | | NR |
| Arsenic | | | | | | | | | | | NR |
| Barium | | | | | | | | | | | NR |
| Beryllium | | | | | | | | | | | NR |
| Cadmium | | | | | | | | | | | NR |
| alcium | 399.0 | U | 399.0 | U | 399.0 | U | 399.0 | U | | | P |
| Chromium | | | | | | | | | | | NR |
| Cobalt | | | | | | | | | | | NR |
| Copper | | | | | | | | | | | NR |
| Iron | | | | | | | | | | | NR |
| Lead | 1.0 | B | 1.0 | U | 2.2 | B | | | | | F |
| Magnesium | | | | | | | | | | | NR |
| Manganese | 2.0 | U | 2.0 | U | 2.0 | U | 2.0 | U | | | P |
| Mercury | | | | | | | | | | | NR |
| Nickel | | | | | | | | | | | NR |
| Potassium | | | | | | | | | | | NR |
| Selenium | | | | | | | | | | | NR |
| Silver | | | | | | | | | | | NR |
| Sodium | | | | | | | | | | | NR |
| Thallium | 3.0 | U | 3.0 | U | 3.0 | U | 3.0 | U | | | F |
| Vanadium | | | | | | | | | | | NR |
| Zinc | | | | | | | | | | | NR |
| Cyanide | 10.0 | U | 10.0 | U | 10.0 | U | | | | | CA |

3
BLANKS

KO 029

Lab Name: AMERICAN_ANALYTICAL_____ Contract: 68-D1-0024

Lab Code: AATS__ Case No.: 18642_ SAS No.: _____ SDG No.: MERP01

Preparation Blank Matrix (soil/water): _____

Preparation Blank Concentration Units (ug/L or mg/kg): _____

| Analyte | Initial Calib. Blank (ug/L) | C | Continuing Calibration Blank (ug/L) 1 | C | 2 | C | 3 | C | Prepa-ration Blank | C | M |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Aluminum | | | | | | | | | | | NR |
| Antimony | | | | | | | | | | | NR |
| Arsenic | | | | | | | | | | | NR |
| Barium | | | | | | | | | | | NR |
| Beryllium | | | | | | | | | | | NR |
| Cadmium | | | | | | | | | | | NR |
| Calcium | | | | | | | | | | | NR |
| Chromium | | | | | | | | | | | NR |
| Cobalt | | | | | | | | | | | NR |
| Copper | | | | | | | | | | | NR |
| Iron | | | | | | | | | | | NR |
| Lead | 1.0 | U | 1.0 | U | 1.0 | U | -1.3 | B | | | P |
| Magnesium | | | | | | | | | | | NR |
| Manganese | | | | | | | | | | | NR |
| Mercury | | | | | | | | | | | NR |
| Nickel | | | | | | | | | | | NR |
| Potassium | | | | | | | | | | | NR |
| Selenium | | | | | | | | | | | NR |
| Silver | | | | | | | | | | | NR |
| Sodium | | | | | | | | | | | NR |
| Thallium | | | 2.0 | U | | | | | | | P |
| Vanadium | | | | | | | | | | | NR |
| Zinc | | | | | | | | | | | NR |
| Cyanide | | | | | | | | | | | NR |

# 3
# BLANKS

Lab Name: AMERICAN ANALYTICAL Contract: 68-D1-0024

Lab Code: AATS Case No.: 16642 SAS No.: EDD No.: MERF01

Preparation Blank Matrix (soil/water): _____

Preparation Blank Concentration Units (ug/L or mg/kg): _____

| Analyte | Initial Calib. Blank (ug/L) | C | Continuing Calibration Blank (ug/L) 1 | C | 2 | C | 3 | C | Prepa-ration Blank | C | M |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Aluminum | | | | | | | | | | | NR |
| Antimony | | | | | | | | | | | NR |
| Arsenic | | | | | | | | | | | NR |
| Barium | | | | | | | | | | | NR |
| Beryllium | | | | | | | | | | | NR |
| Cadmium | | | | | | | | | | | NR |
| Calcium | | | | | | | | | | | NR |
| Chromium | | | | | | | | | | | NR |
| Cobalt | | | | | | | | | | | NR |
| Copper | | | | | | | | | | | NR |
| Iron | | | | | | | | | | | NR |
| Lead | | | 1.0 | U | 1.0 | U | -1.6 | B | | | F |
| Magnesium | | | | | | | | | | | NR |
| Manganese | | | | | | | | | | | NR |
| Mercury | | | | | | | | | | | NR |
| Nickel | | | | | | | | | | | NR |
| Potassium | | | | | | | | | | | NR |
| Selenium | | | | | | | | | | | NR |
| Silver | | | | | | | | | | | NR |
| Sodium | | | | | | | | | | | NR |
| Thallium | 3.0 | U | 3.0 | U | 3.0 | U | | | | | F |
| Vanadium | | | | | | | | | | | NR |
| Zinc | | | | | | | | | | | NR |
| Cyanide | | | | | | | | | | | NR |

BLANKS

Lab Name: AMERICAN_ANALYTICAL_____ Contract: 68-D1-0024

Lab Code: AATS__ Case No.: 18642_ SAS No.: _____ SDG No.: MERP01

Preparation Blank Matrix (soil/water): _____

Preparation Blank Concentration Units (ug/L or mg/kg): _____

| Analyte | Initial Calib. Blank (ug/L) | C | Continuing Calibration Blank (ug/L) 1 | C | 2 | C | 3 | C | Prepa-ration Blank | C | M |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Aluminum | | | | | | | | | | | NR |
| Antimony | | | | | | | | | | | NR |
| Arsenic | | | | | | | | | | | NR |
| Barium | | | | | | | | | | | NR |
| Beryllium | | | | | | | | | | | NR |
| Cadmium | | | | | | | | | | | NR |
| Calcium | | | | | | | | | | | NR |
| Chromium | | | | | | | | | | | NR |
| Cobalt | | | | | | | | | | | NR |
| Copper | | | | | | | | | | | NR |
| Iron | | | | | | | | | | | NR |
| Lead | | | -2.5 | B | 1.0 | U | -1.0 | B | | | F |
| Magnesium | | | | | | | | | | | NR |
| Manganese | | | | | | | | | | | NR |
| Mercury | | | | | | | | | | | NR |
| Nickel | | | | | | | | | | | NR |
| Potassium | | | | | | | | | | | NR |
| Selenium | | | | | | | | | | | NR |
| Silver | | | | | | | | | | | NR |
| Sodium | | | | | | | | | | | NR |
| Thallium | | | | | | | | | | | NR |
| Vanadium | | | | | | | | | | | NR |
| Zinc | | | | | | | | | | | NR |
| Cyanide | | | | | | | | | | | NR |

U.S. EPA - CLP

5A

SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

035

MERP03S

D Name: AMERICAN_ANALYTICAL_____ Contract: 68-D1-0024

Lab Code: AATS__ Case No.: 18642_ SAS No.: _____ SDG No.: MERP01

Matrix (soil/water): SOIL___ Level (low/med): LOW___

% Solids for Sample: _82.0

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

| Analyte | Control Limit %R | Spiked Sample Result (SSR) | C | Sample Result (SR) | C | Spike Added (SA) | %R | C | M |
|---|---|---|---|---|---|---|---|---|---|
| Aluminum | | | | | | | | | NR |
| Antimony | 75-125 | 109.9439 | | 9.5122 | U | 121.95 | 90.2 | | P |
| Arsenic | 75-125 | 17.4488 | | 9.1537 | | 9.76 | 85.0 | | P |
| Barium | 75-125 | 224.4639 | | 298.7322 | | 487.80 | 107.8 | | P |
| Beryllium | 75-125 | 15.5744 | | 3.1490 | | 12.20 | 101.8 | | P |
| Cadmium | | 411.3695 | | 406.2180 | | 12.20 | 42.2 | | P |
| Calcium | | | | | | | | | NR |
| Chromium | | 1377.4751 | | 1331.7015 | | 48.78 | 93.8 | | P |
| Cobalt | 75-125 | 139.1795 | | 11.5598 | B | 121.95 | 104.6 | | P |
| Copper | 75-125 | 210.1234 | | 143.2000 | | 60.98 | 109.7 | | P |
| Iron | | | | | | | | | NR |
| Lead | | 484.0244 | | 335.5410 | | 4.88 | 3042.3 | | P |
| Magnesium | | | | | | | | | NR |
| Manganese | 75-125 | 543.4063 | | 361.0832 | | 121.95 | 149.5 | N | P |
| Mercury | 75-125 | 0.6280 | | 0.1457 | | 0.61 | 79.1 | | CV |
| Nickel | 75-125 | 155.1790 | | 24.8361 | | 121.95 | 106.9 | | P |
| Potassium | | | | | | | | | NR |
| Selenium | 75-125 | 3.3902 | | 0.7732 | B | 2.44 | 99.1 | | P |
| Silver | 75-125 | 12.0666 | | 1.9512 | U | 12.20 | 98.9 | | P |
| Sodium | | | | | | | | | NR |
| Thallium | 75-125 | 13.5927 | | 0.7317 | U | 12.20 | 111.4 | | P |
| Vanadium | 75-125 | 148.1956 | | 24.5573 | | 121.95 | 101.4 | | P |
| Zinc | | 934.1793 | | 755.0893 | | 121.95 | 138.7 | | P |
| Cyanide | | 60.3835 | | 74.0463 | | 6.10 | -543.7 | | CA |

Comments:

U.S. EPA - CLP

NU 036

3A

SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

MERP11S

b Name: AMERICAN_ANALYTICAL_____ Contract: 68-D1-0024

Lab Code: AATS__ Case No.: 15642_ SAS No.: _____ SDG No.: MERP01

Matrix (soil/water): WATER_ Level (low/med): LOW___

% Solids for Sample: __0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L_

| Analyte | Control Limit %R | Spiked Sample Result (SSR) | C | Sample Result (SR) | C | Spike Added (SA) | %R | Q | M |
|---|---|---|---|---|---|---|---|---|---|
| Aluminum | 75-125 | 2473.1680 | | 212.7500 | | 2000.00 | 113.0 | | P |
| Antimony | 75-125 | 515.4130 | | 39.0000 | U | 500.00 | 103.1 | | P |
| Arsenic | 75-125 | 40.3900 | | 9.3000 | B | 40.00 | 77.7 | | F |
| Barium | 75-125 | 2392.8570 | | 306.6900 | | 2000.00 | 104.3 | | P |
| Beryllium | 75-125 | 50.4690 | | 2.0000 | U | 50.00 | 100.9 | | P |
| Cadmium | 75-125 | 52.7700 | | 3.0000 | U | 50.00 | 105.5 | | P |
| Calcium | | | | | | | | | NR |
| Chromium | 75-125 | 223.4940 | | 6.0000 | U | 200.00 | 111.7 | | P |
| Cobalt | 75-125 | 534.4880 | | 6.0000 | U | 500.00 | 106.9 | | P |
| Copper | 75-125 | 285.0080 | | 25.9030 | | 250.00 | 103.6 | | P |
| Iron | | 8716.3160 | | 7125.6440 | | 1000.00 | 159.1 | | P |
| Lead | 75-125 | 30.6120 | | 18.2320 | | 20.00 | 62.9 | N | F |
| Magnesium | | | | | | | | | NR |
| Manganese | 75-125 | 652.2810 | | 128.3200 | | 500.00 | 104.8 | | P |
| Mercury | 75-125 | 0.9720 | | 0.2000 | U | 1.00 | 97.2 | | CV |
| Nickel | 75-125 | 526.2090 | | 8.0000 | U | 500.00 | 105.2 | | P |
| Potassium | | | | | | | | | NR |
| Selenium | 75-125 | 9.9400 | | 2.0000 | U | 10.00 | 99.4 | | F |
| Silver | 75-125 | 55.9340 | | 8.0000 | U | 50.00 | 167.9 | | P |
| Sodium | | | | | | | | | NR |
| Thallium | 75-125 | 30.0500 | | 3.0000 | U | 50.00 | 60.1 | N | F |
| Vanadium | 75-125 | 512.3790 | | 5.0000 | U | 500.00 | 102.3 | | P |
| Zinc | 75-125 | 735.9690 | | 200.1870 | | 500.00 | 197.2 | | P |
| Cyanide | 75-125 | 102.5530 | | 10.0000 | U | 100.00 | 102.6 | | CA |

Comments:

U.S. EPA - CLP

5B

POST DIGEST SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

MW 037

MERPO3A

Lab Name: AMERICAN ANALYTICAL Contract: 68-D1-0024

Lab Code: AMTS Case No.: 18642 SAS No.: EDD No.: MERP01

Matrix (soil/water) : SOIL Level (low/med): LOW

Concentration Units: ug/L

| Analyte | Control Limit %R | Spiked Sample Result (SSR) | C | Sample Result (SR) | C | Added (SA) | %R | Q | M |
|---|---|---|---|---|---|---|---|---|---|
| Aluminum | | | | | | | | | NR |
| Antimony | | | | | | | | | NR |
| Arsenic | | | | | | | | | NR |
| Barium | | | | | | | | | NR |
| Beryllium | | | | | | | | | NR |
| Cadmium | | | | | | | | | NR |
| Calcium | | | | | | | | | NR |
| Chromium | | | | | | | | | NR |
| Cobalt | | | | | | | | | NR |
| Copper | | | | | | | | | NR |
| Iron | | | | | | | | | NR |
| Lead | | | | | | | | | NR |
| agnesium | | | | | | | | | NR |
| Manganese | | 4661.31 | | 1480.44 | | 3000.0 | 106.0 | | P |
| Mercury | | | | | | | | | NR |
| Nickel | | | | | | | | | NR |
| Potassium | | | | | | | | | NR |
| Selenium | | | | | | | | | NR |
| Silver | | | | | | | | | NR |
| Sodium | | | | | | | | | NR |
| Thallium | | | | | | | | | NR |
| Vanadium | | | | | | | | | NR |
| Zinc | | | | | | | | | NR |
| Cyanide | | | | | | | | | NR |

Comments:

MW 038

6
DUPLICATES

EPA SAMPLE NO.

MERP03D

Lab Name: AMERICAN ANALYTICAL Contract: 68-D1-0024

Lab Code: AATS Case No.: 18642 SAS No.: SDG No.: MERP01

Matrix (soil/water): SOIL Level (low/med): LOW

% Solids for Sample: 92.0 % Solids for Duplicate: 82.2

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

| Analyte | Control Limit | Sample (S) | C | Duplicate (D) | C | RPD | Q | M |
|---|---|---|---|---|---|---|---|---|
| Aluminum | | 6200.9368 | | 5261.6805 | | 16.4 | | P |
| Antimony | | 9.5122 | U | 9.5122 | U | | | P |
| Arsenic | 2.4 | 9.1537 | | 8.4585 | | 7.9 | | F |
| Barium | | 298.7322 | | 294.8373 | | 1.3 | | P |
| Beryllium | 1.2 | 3.1490 | | 2.7249 | | 14.4 | | P |
| Cadmium | | 406.2180 | | 388.0737 | | 4.6 | | P |
| Calcium | | 9472.8222 | | 9769.4654 | | 3.1 | | P |
| Chromium | | 1331.7015 | | 1234.0085 | | 7.6 | | P |
| Cobalt | | 11.5598 | B | 9.6044 | B | 18.5 | | P |
| Copper | | 143.2000 | | 144.7137 | | 1.1 | | P |
| Iron | | 16591.5095 | | 14855.0637 | | 11.0 | | P |
| Lead | | 335.5610 | | 401.7805 | | 18.0 | | F |
| Magnesium | 1219.5 | 2982.7200 | | 3210.3771 | | 7.4 | | P |
| Manganese | | 361.0832 | | 360.3520 | | 0.2 | | P |
| Mercury | 0.1 | 0.1457 | | 0.1220 | U | 200.0 | * | CV |
| Nickel | 9.8 | 24.8361 | | 21.7490 | | 13.3 | | P |
| Potassium | | 858.9510 | B | 657.3385 | B | 26.6 | | P |
| Selenium | | 0.9732 | B | 1.1317 | B | 15.1 | | F |
| Silver | | 1.9512 | U | 1.9512 | U | | | P |
| Sodium | | 218.4432 | B | 200.4878 | U | 200.0 | | P |
| Thallium | | 0.7317 | U | 0.7317 | U | | | F |
| Vanadium | 12.2 | 24.5573 | | 22.7546 | | 7.6 | | P |
| Zinc | | 755.0693 | | 728.2593 | | 3.6 | | P |
| Cyanide | | 94.0463 | | 56.6311 | | 49.7 | * | CA |

BY 9-30-92

6
DUPLICATES

EPA SAMPLE NO. MB 039

MERP11D

Lab Name: AMERICAN_ANALYTICAL_____ Contract: 68-D1-0024

Lab Code: AATS__ Case No.: 18642_ SAS No.: _____ SDG No.: MERP01

Matrix (soil/water): WATER Level (low/med): _LOW__

% Solids for Sample: __0.0 % Solids for Duplicate: ___0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L_

| Analyte | Control Limit | Sample (S) | C | Duplicate (D) | C | RPD | Q | M |
|---|---|---|---|---|---|---|---|---|
| Aluminum | 200.0 | 212.7500 | | 309.7260 | | 37.1 | | P |
| Antimony | | 39.0000 | U | 39.0000 | U | | | P |
| Arsenic | | 9.3000 | B | 8.4400 | B | 9.7 | | F |
| Barium | 200.0 | 306.8900 | | 325.6190 | | 6.0 | | P |
| Beryllium | | 2.0000 | U | 2.0000 | U | | | P |
| Cadmium | | 3.0000 | U | 3.0000 | U | | | P |
| Calcium | | 80976.9760 | | 86125.5700 | | 6.2 | | P |
| Chromium | | 6.0000 | U | 6.0000 | U | | | P |
| Cobalt | | 6.0000 | U | 6.0000 | U | | | P |
| Copper | 25.0 | 25.9030 | | 27.7270 | | 6.8 | | P |
| Iron | | 7125.6440 | | 7724.6250 | | 8.1 | | P |
| Lead | | 18.2320 | | 19.5380 | | 6.9 | | F |
| Magnesium | | 30339.7440 | | 31969.8690 | | 5.2 | | P |
| Manganese | | 128.3200 | | 137.2790 | | 6.7 | | P |
| Mercury | | 0.2000 | U | 0.2000 | U | | | CV |
| Nickel | | 8.0000 | U | 8.0000 | U | | | P |
| Potassium | | 4000.3270 | B | 3971.7530 | B | 0.7 | | P |
| Selenium | | 2.0000 | U | 2.0000 | U | | | F |
| Silver | | 6.0000 | U | 6.0000 | U | | | P |
| Sodium | 3000.0 | 21300.4020 | | 22637.2420 | | 6.1 | | P |
| Thallium | | 3.0000 | U | 3.0000 | U | | | F |
| Vanadium | | 5.0000 | U | 5.0000 | U | | | P |
| Zinc | | 200.1870 | | 211.8380 | | 5.7 | | P |
| Cyanide | | 10.0000 | U | 10.0000 | U | | | CA |

10

Instrument Detection Limits (Quarterly)

Lab Name: AMERICAN ANALYTICAL Contract: 68-D1-0024

Lab Code: AATS Case No.: 18648 SAS No.: SDG No.: MERP01

ICP ID Number: ARL3560 Date: 06/17/92

Flame AA ID Number :

Furnace AA ID Number :

| Analyte | Wave-length (nm) | Back-ground | CRDL (ug/L) | IDL (ug/L) | M |
|---|---|---|---|---|---|
| Aluminum | 308.22 | | 200 | 43.0 | P |
| Antimony | 217.59 | | 60 | 39.0 | P |
| Arsenic | | | 10 | | |
| Barium | 445.40 | | 200 | 8.0 | P |
| Beryllium | 313.40 | | 5 | 1.0 | P |
| Cadmium | 226.50 | | 5 | 3.0 | P |
| Calcium | 317.92 | | 5000 | 154.0 | P |
| Chromium | 267.72 | | 10 | 6.0 | P |
| Cobalt | 228.62 | | 50 | 5.0 | P |
| Copper | 324.75 | | 25 | 9.0 | P |
| Iron | 259.61 | | 100 | 6.0 | P |
| Lead | | | 3 | | |
| Magnesium | 279.08 | | 5000 | 138.0 | P |
| Manganese | 257.61 | | 15 | 1.0 | P |
| Mercury | | | 0.2 | | |
| Nickel | 231.60 | | 40 | 7.0 | P |
| Potassium | 776.49 | | 5000 | 271.0 | P |
| Selenium | | | 5 | | |
| Silver | 328.07 | | 10 | 8.0 | P |
| Sodium | 589.00 | | 5000 | 822.0 | P |
| Thallium | | | 10 | | |
| Vanadium | 292.40 | | 50 | 5.0 | P |
| Zinc | 213.86 | | 20 | 4.0 | P |

Comments:

10

Instrument Detection Limits (Quarterly)

Lab Name: AMERICAN ANALYTICAL Contract: 68-D1-0024

Lab Code: AATS Case No.: 10642 SAS No.: SDG No.: MERF01

ICP ID Number: TJA61 Date: 06/19/92

Flame AA ID Number :

Furnace AA ID Number :

| Analyte | Wave-length (nm) | Back-ground | CRDL (ug/L) | IDL (ug/L) | M |
|---|---|---|---|---|---|
| Aluminum | 308.22 | | 200 | 23.0 | P |
| Antimony | 217.58 | | 60 | 14.0 | P |
| Arsenic | | | 10 | | |
| Barium | 493.41 | | 200 | 14.0 | P |
| Beryllium | 313.04 | | 5 | 2.0 | P |
| Cadmium | 228.80 | | 5 | 2.0 | P |
| Calcium | 317.93 | | 5000 | 399.0 | P |
| Chromium | 267.72 | | 10 | 3.0 | P |
| Cobalt | 228.62 | | 50 | 6.0 | P |
| Copper | 324.75 | | 25 | 6.0 | P |
| Iron | 259.94 | | 100 | 7.0 | P |
| Lead | | | 3 | | |
| Magnesium | 279.08 | | 5000 | 386.0 | P |
| Manganese | 257.61 | | 15 | 2.0 | P |
| Mercury | | | 0.2 | | |
| Nickel | 221.60 | | 40 | 3.0 | P |
| Potassium | 776.49 | | 5000 | 398.0 | P |
| Selenium | | | 5 | | |
| Silver | 328.07 | | 10 | 3.0 | P |
| Sodium | 588.99 | | 5000 | 403.0 | P |
| Thallium | | | 10 | | |
| Vanadium | 292.40 | | 50 | 4.0 | P |
| Zinc | 213.86 | | 20 | 3.0 | P |

Comments:

10

Instrument Detection Limits (Quarterly)

Lab Name: AMERICAN ANALYTICAL  Contract: 68-D1-0024

Lab Code: AATS  Case No.: 18642  SAS No.:  SDG No.: MERP01

ICP ID Number:  Date: 06/03/92

Flame AA ID Number :

Furnace AA ID Number : PE5100A

| Analyte | Wave-length (nm) | Back-ground | CRDL (ug/L) | IDL (ug/L) | M |
|---|---|---|---|---|---|
| Aluminum | | | 200 | | |
| Antimony | | | 60 | | |
| Arsenic | 193.70 | BZ | 10 | 1.0 | F |
| Barium | | | 200 | | |
| Beryllium | | | 5 | | |
| Cadmium | | | 5 | | |
| Calcium | | | 5000 | | |
| Chromium | | | 10 | | |
| Cobalt | | | 50 | | |
| Copper | | | 25 | | |
| Iron | | | 100 | | |
| Lead | | | 3 | | |
| Magnesium | | | 5000 | | |
| Manganese | | | 15 | | |
| Mercury | | | 0.2 | | |
| Nickel | | | 40 | | |
| Potassium | | | 5000 | | |
| Selenium | | | 5 | | |
| Silver | | | 10 | | |
| Sodium | | | 5000 | | |
| Thallium | | | 10 | | |
| Vanadium | | | 50 | | |
| Zinc | | | 20 | | |

Comments:

10

Instrument Detection Limits (Quarterly)

Lab Name: AMERICAN_ANALYTICAL_____ Contract: 68-D1-0024

Lab Code: AATS__ Case No.: 18642_ SAS No.: _____ SDG No.: MERP01

ICP ID Number: _____ Date: 05/26/92

Flame AA ID Number : _____

Furnace AA ID Number : TJA22B_____

| Analyte | Wave-length (nm) | Back-ground | CRDL (ug/L) | IDL (ug/L) | M |
|---|---|---|---|---|---|
| Aluminum | | | 200 | | |
| Antimony | | | 60 | | |
| Arsenic | | | 10 | | |
| Barium | | | 200 | | |
| Beryllium | | | 5 | | |
| Cadmium | | | 5 | | |
| Calcium | | | 5000 | | |
| Chromium | | | 10 | | |
| Cobalt | | | 50 | | |
| Copper | | | 25 | | |
| Iron | | | 100 | | |
| Lead | 283.30 | BS | 3 | 1.0 | F |
| Magnesium | | | 5000 | | |
| Manganese | | | 15 | | |
| Mercury | | | 0.2 | | |
| Nickel | | | 40 | | |
| Potassium | | | 5000 | | |
| Selenium | | | 5 | | |
| Silver | | | 10 | | |
| Sodium | | | 5000 | | |
| Thallium | | | 10 | | |
| Vanadium | | | 50 | | |
| Zinc | | | 20 | | |

Comments:

# 1O
## Instrument Detection Limits (Quarterly)

Lab Name: AMERICAN ANALYTICAL  Contract: 68-D1-0024

Lab Code: AATS  Case No.: 18642  SAS No.:  SDG No.: NERF01

ICP ID Number:  Date: 06/03/92

Flame AA ID Number :

Furnace AA ID Number : PE5100A

| Analyte | Wave-length (nm) | Back-ground | CRDL (ug/L) | IDL (ug/L) | M |
|---|---|---|---|---|---|
| Aluminum | | | 200 | | |
| Antimony | | | 60 | | |
| Arsenic | | | 10 | | |
| Barium | | | 200 | | |
| Beryllium | | | 5 | | |
| Cadmium | | | 5 | | |
| Calcium | | | 5000 | | |
| Chromium | | | 10 | | |
| Cobalt | | | 50 | | |
| Copper | | | 25 | | |
| Iron | | | 100 | | |
| Lead | | | 3 | | |
| Magnesium | | | 5000 | | |
| Manganese | | | 15 | | |
| Mercury | | | 0.2 | | |
| Nickel | | | 40 | | |
| Potassium | | | 5000 | | |
| Selenium | 196.00 | BZ | 5 | 2.0 | F |
| Silver | | | 10 | | |
| Sodium | | | 5000 | | |
| Thallium | | | 10 | | |
| Vanadium | | | 50 | | |
| Zinc | | | 20 | | |

Comments:

10

# Instrument Detection Limits (Quarterly)



Lab Name: AMERICAN_ANALYTICAL_____ Contract: 68-D1-0024

Lab Code: AATS___ Case No.: 18642_ SAS No.: _____ SDG No.: MERP01

ICP ID Number: _____ Date: 05/26/92

Flame AA ID Number : _____

Furnace AA ID Number : TJA22A_____

| Analyte | Wave-length (nm) | Back-ground | CRDL (ug/L) | IDL (ug/L) | M |
|---|---|---|---|---|---|
| Aluminum | | | 200 | | |
| Antimony | | | 60 | | |
| Arsenic | | | 10 | | |
| Barium | | | 200 | | |
| Beryllium | | | 5 | | |
| Cadmium | | | 5 | | |
| Calcium | | | 5000 | | |
| Chromium | | | 10 | | |
| Cobalt | | | 50 | | |
| Copper | | | 25 | | |
| Iron | | | 100 | | |
| Lead | | | 3 | | |
| Magnesium | | | 5000 | | |
| Manganese | | | 15 | | |
| Mercury | | | 0.2 | | |
| Nickel | | | 40 | | |
| Potassium | | | 5000 | | |
| Selenium | | | 5 | | |
| Silver | | | 10 | | |
| Sodium | | | 5000 | | |
| Thallium | 276.80 | BS | 10 | 3.0 | F |
| Vanadium | | | 50 | | |
| Zinc | | | 20 | | |

Comments:

10

# Instrument Detection Limits (Quarterly)

Lab Name: AMERICAN ANALYTICAL  Contract: 68-D1-0024

Lab Code: AATS  Case No.: 18642  SAS No.:  SDG No.: MERP01

ICP ID Number:  Date: 06/19/92

Flame AA ID Number : LEEMAN

Furnace AA ID Number :

| Analyte | Wave-length (nm) | Back-ground | CRDL (ug/L) | IDL (ug/L) | M |
|---|---|---|---|---|---|
| Aluminum | | | 200 | | |
| Antimony | | | 60 | | |
| Arsenic | | | 10 | | |
| Barium | | | 200 | | |
| Beryllium | | | 5 | | |
| Cadmium | | | 5 | | |
| Calcium | | | 5000 | | |
| Chromium | | | 10 | | |
| Cobalt | | | 50 | | |
| Copper | | | 25 | | |
| Iron | | | 100 | | |
| Lead | | | 3 | | |
| Magnesium | | | 5000 | | |
| Manganese | | | 15 | | |
| Mercury | 253.70 | | 0.2 | 0.2 | CV |
| Nickel | | | 40 | | |
| Potassium | | | 5000 | | |
| Selenium | | | 5 | | |
| Silver | | | 10 | | |
| Sodium | | | 5000 | | |
| Thallium | | | 10 | | |
| Vanadium | | | 50 | | |
| Zinc | | | 20 | | |

Comments:

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

ESD Central Regional Laboratory
Data Tracking Form for Contract Samples

Data Set No. (1) CERCLIS No. IN

Case No. 18642 Site Name Location: Sanyo

Contractor or EPA Lab: AATS Data User: Weston

No. of Samples: 10 Date Samples or Data Received: 9-8-92

Have Chain-of-Custody records been received? YES ✓ NO ___
Have traffic reports or packing lists been received? YES ✓ NO ___
If no, are traffic report or packing list numbers written on the chain-of-custody record? YES ✓ NO ___
If no, which traffic report or packing list numbers are missing?

Are basic data forms in? YES ✓ NO ___
No. of samples claimed: 10 No. of samples received: 10

Received by: Lynette Burnett Date: 9-8-92

Received by LSSS: DMM Date: 9-8-92

Review started: 9-29-92 Reviewer Signature: B Yuen

Total time spent on review: 6.5 +1 qwts 10-7-92 Date review completed: 10-7-92

Copied by: Eric Miller Date: 10-9-92

Mailed to user by: Lynette Burnett Date: 10-13-92

DATA USERS:
Please fill in the blanks below and return this form to:
Sylvia Griffin, Data Mgmt. Coordinator, Region V, 5SCRL

Data received by: _____ Date: _____

Data review received by: _____ Date: _____
Inorganic Data Complete[ ] Suitable for Intended Purpose[ ] ✓ if OK
Organic Data Complete [ ] Suitable for Intended Purpose[ ] list
Dioxin Data Complete [ ] Suitable for Intended Purpose[ ] prblms
SAS Data Complete [ ] Suitable for Intended Purpose[ ] below.
PROBLEMS: Please indicate reasons why data are not suitable for your uses.

Received by Data Mgmt. Coordinator for Files Date: _____

P. Krishnan

# DRINKING WATER REGULATIONS

# AND HEALTH ADVISORIES

by

Office of Water
U.S. Environmental Protection Agency
Washington, D.C.
202-260-7571

**SAFE DRINKING WATER HOTLINE**
**1-800-426-4791**
**Monday thru Friday, 8:30 AM to 5:00 PM EST**

April 1992

# LEGEND

Abbreviations column descriptions are:

MCLG - Maximum Contaminant Level Goal. A non-enforceable concentration of a drinking water contaminant that is protective of adverse human health effects and allows an adequate margin of safety.

MCL - Maximum Contaminant Level. Maximum permissible level of a contaminant in water which is delivered to any user of a public water system.

RfD - Reference Dose. An estimate of a daily exposure to the human population that is likely to be without appreciable risk of deleterious effects over a lifetime.

DWEL - Drinking Water Equivalent Level. A lifetime exposure concentration protective of adverse, non-cancer health effects, that assumes all of the exposure to a contaminant is from a drinking water source.

(*) The codes for the Status Reg and Status HA columns are as follows:

F - final
D - draft
L - listed for regulation
P - proposed (Phase II and V proposals)
T - tentative

Other codes found in the table include the following:

NA - not applicable
PS - performance standard 0.5 NTU - 1.0 NTU
TT - treatment technique

** - No more than 5% of the samples per month may be positive. For systems collecting fewer than 40 samples/month, no more than 1 sample per month may be positive.

*** - guidance

- Large discrepancies between Lifetime and Longer-term HA values may occur because of the Agency's conservative policies, especially with regard to carcinogenicity, relative source contribution, and less than lifetime exposures in chronic toxicity testing. These factors can result in a cumulative UF (uncertainty factor) of 10 to 1000 when calculating a Lifetime HA.

Chemical abbreviations include the following:

PAH - polycyclic aromated hydrocarbon
EDB - ethylene dibromide
PAE - phthalate acid ester
PCBs - polychlorinated biphenyls
THM - trihalomethane
DBCP - dibromochloropropane

# DRINKING WATER STANDAI AND HEALTH ADVISORIES



| | Standards | | | Health Advisories | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | 10-kg Child | | | 70-kg Adult | | | | | |
| Chemicals | Status Reg.* | MCLG (mg/l) | MCL (mg/l) | Status HA* | One-day mg/l | Ten-day mg/l | Longer-term mg/l | Longer-term mg/l | RfD mg/kg/day | DWEL mg/l | Lifetime mg/l | mg/l at $10^{-6}$ Cancer Risk | Cancer Group |
| ORGANICS | | | | | | | | | | | | | |
| *Acenaphthene* | - | - | - | - | - | - | - | - | 0.06 | - | - | - | - |
| Acifluorfen | - | - | - | F | 2 | 2 | 0.1 | 0.4 | 0.013 | 0.4 | - | 0.1 | B2 |
| Acrylamide | F | zero | TT | F | 1.5 | 0.3 | 0.02 | 0.07 | 0.0002 | 0.007 | - | 0.001 | B2 |
| Acrylonitrile | L | - | - | D | 0.02 | 0.02 | 0.001 | 0.004 | 0.0001 | 0.004 | - | 0.007 | B1 |
| Adipates (diethylhexyl) | P | 0.5 | 0.5 | - | - | - | - | - | 0.7 | 20 | 0.5 | - | C |
| Alachlor | F | zero | 0.002 | F | 0.1 | 0.1 | - | - | 0.01 | 0.4 | - | 0.04 | B2 |
| Aldicarb | F | 0.001 | 0.003 | F | - | - | - | - | 0.0002 | 0.004 | 0.001 | - | D |
| Aldicarb sulfone | F | 0.001 | *0.002* | F | - | - | - | - | *0.0002* | 0.004 | 0.001 | - | D |
| Aldicarb sulfoxide | F | 0.001 | *0.004* | F | - | - | - | - | 0.0002 | 0.004 | 0.001 | - | D |
| Aldrin | - | - | - | D | 0.0003 | 0.0003 | 0.0003 | 0.0003 | 0.00003 | 0.001 | - | 0.0002 | B2 |
| Ametryn | - | - | - | F | 9 | 9 | 0.9 | 3 | 0.009 | 0.3 | 0.06 | - | D |
| Ammonium Sulfamate | - | - | - | F | 20 | 20 | 20 | 80 | 0.28 | 8 | 2 | - | D |
| Anthracene (PAH) | - | - | - | - | - | - | - | - | 0.3 | - | - | - | D |
| Atrazine | F | 0.003 | 0.003 | F | 0.1 | 0.1 | 0.05 | 0.2 | 0.005 | 0.2 | 0.003 | - | C |
| Baygon | - | - | - | F | 0.04 | 0.04 | 0.04 | 0.1 | 0.004 | 0.1 | 0.003 | - | C |
| Bentazon | L | - | - | F | 0.3 | 0.3 | 0.3 | 0.9 | 0.0025 | 0.09 | 0.02 | - | D |
| Benz(a)anthracene (PAH) | P | zero | 0.0001 | - | - | - | - | - | - | - | - | - | B2 |
| Benzene | F | zero | 0.005 | F | 0.2 | 0.2 | - | - | - | - | - | 0.1 | A |
| Benzo(a)pyrene (PAH) | P | zero | 0.0002 | - | - | - | - | - | - | - | - | - | B2* |
| Benzo(b)fluoranthene (PAH) | P | zero | 0.0002 | - | - | - | - | - | - | - | - | - | B2 |
| Benzo(g,h,i)perylene (PAH) | - | - | - | - | - | - | - | - | - | - | - | - | D |
| Benzo(k)fluoranthene (PAH) | P | zero | 0.0002 | - | - | - | - | - | - | - | - | - | B2 |
| bis-2-Chloroisopropyl ether | - | - | - | F | 4 | 4 | 4 | 13 | 0.04 | 1 | 0.3 | - | D |
| Bromacil | L | - | - | F | 5 | 5 | 3 | 9 | 0.13 | 5 | 0.09 | - | C |
| Bromobenzene | L | - | - | D | - | - | - | - | - | - | - | - | - |

* Under review.

NOTE: Anthracene and Benzo(g,h,i)perylene -- not proposed in Phase V.

| Chemicals | Standards: Status Reg.* | MCLG (mg/l) | MCL (mg/l) | Health Advisories: Status HA* | 10-kg Child: One-day mg/l | Ten-day mg/l | Longer-term mg/l | 70-kg Adult: Longer-term mg/l | RfD mg/kg/day | DWEL mg/l | Lifetime mg/l | mg/l at $10^{-4}$ Cancer Risk | Cancer Group |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bromochloroacetonitrile | L | - | - | D | - | - | - | - | - | - | - | - | - |
| Bromochloromethane | - | - | - | F | 50 | 1 | 1 | 5 | 0.013 | 0.5 | 0.09 | - | - |
| Bromodichloromethane (THM) | L | - | 0.1 | D | 7 | 7 | 4 | 13 | 0.02 | *0.7* | - | *0.14* | B2 |
| Bromoform (THM) | L | - | 0.1 | D | 5 | 2 | 2 | 8 | 0.02 | *0.7* | - | 0.4 | B2 |
| Bromomethane | L | - | - | F | 0.1 | 0.1 | 0.1 | 0.5 | 0.001 | 0.05 | 0.01 | - | D |
| Butyl benzyl phthalate (PAE) | P | zero | 0.1 | - | - | - | - | - | 0.2 | 6 | - | - | C |
| Butylate | - | - | - | F | 2 | 2 | 1 | 4 | 0.05 | 2 | 0.35 | - | D |
| Butylbenzene n- | - | - | - | D | - | - | - | - | - | - | - | - | - |
| Butylbenzene sec- | - | - | - | D | - | - | - | - | - | - | - | - | - |
| Butylbenzene tert- | - | - | - | D | - | - | - | - | - | - | - | - | - |
| Carbaryl | - | - | - | F | 1 | 1 | 1 | 1 | 0.1 | 4 | 0.7 | - | D |
| Carbofuran | F | 0.04 | 0.04 | F | 0.05 | 0.05 | 0.05 | 0.2 | 0.005 | 0.2 | 0.04 | - | E |
| Carbon Tetrachloride | F | zero | 0.005 | F | 4 | 0.2 | 0.07 | 0.3 | 0.0007 | 0.03 | - | 0.03 | B2 |
| Carboxin | - | - | - | F | 1 | 1 | 1 | 4 | 0.1 | 4 | 0.7 | - | D |
| Chloral Hydrate | L | - | - | D | 7 | 1.4 | 0.16 | 0.56 | 0.0016 | 0.056 | 0.045 | - | - |
| Chloramben | - | - | - | F | 3 | 3 | 0.2 | 0.5 | 0.015 | 0.5 | 0.1 | - | D |
| Chlordane | F | zero | 0.002 | F | 0.06 | 0.06 | - | - | 0.00006 | 0.002 | - | 0.003 | B2 |
| Chlorodibromomethane (THM) | L | - | 0.1 | D | 7 | 7 | 2 | 8 | 0.02 | 0.7 | *0.06* | - | C |
| Chloroethane | L | - | - | D | - | - | - | - | - | - | - | - | - |
| Chloroform (THM) | L | - | 0.1 | D | 4 | 4 | 0.1 | *0.4* | 0.01 | *0.4* | - | 0.6 | B2 |
| Chloromethane | L | - | - | F | 9 | 0.4 | 0.4 | 1 | 0.004 | 0.1 | 0.003 | - | C |
| Chlorophenol (2-) | - | - | - | D | 0.05 | 0.05 | 0.05 | 0.2 | 0.005 | 0.2 | 0.04 | - | D |
| p-Chlorophenyl methyl sulfide/sulfone/sulfoxide | - | - | - | D | - | - | - | - | - | - | - | - | *D* |
| Chloropicrin | L | - | - | - | - | - | - | - | - | - | - | - | - |
| Chlorothalonil | - | - | - | F | 0.2 | 0.2 | 0.2 | 0.5 | 0.015 | 0.5 | - | 0.15 | B2 |
| Chlorotoluene o- | L | - | - | F | 2 | 2 | 2 | 7 | 0.02 | 0.7 | 0.1 | - | D |
| Chlorotoluene p- | L | - | - | F | 2 | 2 | 2 | 7 | 0.02 | 0.7 | 0.1 | - | D |
| Chlorpyrifos | - | - | - | D | 0.03 | 0.03 | 0.03 | 0.1 | 0.003 | 0.1 | 0.02 | - | D |
| Chrysene (PAH) | P | zero | 0.0002 | - | - | - | - | - | - | - | - | - | B2 |
| Cyanazine | L | - | - | F | 0.1 | 0.1 | 0.02 | 0.07 | 0.002* | 0.07* | 0.001 | - | C |

* Under review.

NOTE: Chrysene was proposed in second option.

| Chemicals | Standards: Status Reg.* | MCLG (mg/l) | MCL (mg/l) | Health Advisories: Status HA* | 10-kg Child: One-day mg/l | Ten-day mg/l | Longer-term mg/l | 70-kg Adult: Longer-term mg/l | RfD mg/kg/day | DWEL mg/l | Lifetime mg/l | mg/l at 10⁻⁴ Cancer Risk | Cancer Group |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Cyanogen Chloride | L | - | - | - | - | - | - | - | - | - | - | - | - |
| Cymene p- | - | - | - | D | - | - | - | - | - | - | - | - | - |
| 2,4-D | F | 0.07 | 0.07 | F | 1 | 0.3 | 0.1 | 0.4 | 0.01 | 0.4 | 0.07 | - | D |
| DCPA (Dacthal) | L | - | - | F | 80 | 80 | 5 | 20 | 0.5 | 20 | 4 | - | D |
| Dalapon | P | 0.2 | 0.2 | F | 3 | 3 | 0.3 | 0.9 | 0.026 | 0.9 | 0.2 | - | D |
| Di[2-ethylhexyl]adipate | P | 0.4 | 0.4 | - | 20 | 20 | 20 | 60 | 0.6 | 20 | 0.4 | 3 | C |
| Diazinon | - | - | - | F | 0.02 | 0.02 | 0.005 | 0.02 | 0.00009 | 0.003 | 0.0006 | - | E |
| Dibenz(a,h)anthracene (PAH) | P | zero | 0.0003 | - | - | - | - | - | - | - | - | | B2 |
| Dibromoacetonitrile | L | - | - | D | 2 | 2 | 2 | 8 | 0.02 | 0.8 | 0.02 | - | C |
| Dibromochloropropane (DBCP) | F | zero | 0.0002 | F | 0.2 | 0.05 | - | - | - | - | - | 0.003 | B2 |
| *Dibromomethane* | L | - | - | - | - | - | - | - | - | - | - | - | D |
| Dibutyl phthalate (PAE) | - | - | - | - | - | - | - | - | 0.1 | 4 | - | - | D |
| Dicamba | L | - | - | F | 0.3 | 0.3 | 0.3 | 1 | 0.03 | 1 | 0.2 | - | D |
| Dichloroacetaldehyde | L | - | - | D | - | - | - | - | - | - | - | - | - |
| Dichloroacetic acid | L | - | - | D | - | - | - | - | - | - | - | - | - |
| Dichloroacetonitrile | L | - | - | D | 1 | 1 | 0.8 | 3 | 0.008 | 0.3 | 0.006 | - | C |
| *Dichlorobenzene o-* | F | 0.6 | 0.6 | F | 9 | 9 | 9 | 30 | 0.9 | 3 | 0.6 | - | D |
| *Dichlorobenzene m-* * | F | 0.6 | 0.6 | F | 9 | 9 | 9 | 30 | 0.9 | 3 | 0.6 | - | D |
| Dichlorobenzene p- | F | 0.075 | 0.075 | F | 10 | 10 | 10 | 40 | 0.1 | 4 | 0.075 | - | C |
| Dichlorodifluoromethane | L | - | - | F | 40 | 40 | 9 | 30 | 0.2 | 5 | 1 | - | D |
| Dichloroethane (1,1-) | L | - | - | D | - | - | - | - | - | - | - | - | - |
| Dichloroethane (1,2-) | F | zero | 0.005 | F | 0.7 | 0.7 | 0.7 | 2.6 | - | - | - | 0.04 | B2 |
| Dichloroethylene (1,1-) | F | 0.007 | 0.007 | F | 2 | 1 | 1 | 4 | 0.009 | 0.4 | 0.007 | - | C |
| Dichloroethylene (cis-1,2-) | F | 0.07 | 0.07 | F | 4 | 3 | 3 | 11 | 0.01 | 0.4 | 0.07 | - | D |
| Dichloroethylene (trans-1,2-) | F | 0.1 | 0.1 | F | 20 | 2 | 2 | 6 | 0.02 | 0.6 | 0.1 | - | D |
| Dichloromethane | P | zero | 0.005 | F | 10 | 2 | - | - | 0.06 | 2 | - | 0.5 | B2 |
| Dichlorophenol (2,4-) | - | - | - | D | 0.03 | 0.03 | 0.03 | 0.1 | 0.003 | 0.1 | 0.02 | - | D |
| Dichloropropane (1,1-) | - | - | - | D | - | - | - | - | - | - | - | - | - |
| Dichloropropane (1,2-) | F | zero | 0.005 | F | - | 0.09 | - | - | - | - | - | 0.05 | B2 |
| Dichloropropane (1,3-) | L | - | - | D | - | - | - | - | - | - | - | - | - |
| Dichloropropane (2,2-) | L | - | - | D | - | - | - | - | - | - | - | - | - |

* *The values for m-dichlorobenzene are based on data for o-dichlorobenzene*

| Chemicals | Standards: Status Reg.* | MCLG (mg/l) | MCL (mg/l) | Health Advisories: Status HA* | 10-kg Child: One-day mg/l | Ten-day mg/l | Longer-term mg/l | 70-kg Adult: Longer-term mg/l | RfD mg/kg/day | DWEL mg/l | Lifetime mg/l | mg/l at $10^{-4}$ Cancer Risk | Cancer Group |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Dichloropropene (1,1-) | L | - | - | D | - | - | - | - | - | - | - | - | - |
| Dichloropropene (1,3-) | L | - | - | F | 0.03 | 0.03 | 0.03 | 0.1 | 0.0003 | 0.01 | - | 0.02 | B2 |
| Dieldrin | - | - | - | F | 0.0005 | 0.0005 | 0.0005 | 0.002 | 0.00005 | 0.002 | - | 0.0002 | B2 |
| Diethyl phthalate (PAE) | - | - | - | D | - | - | - | - | 0.8 | 30 | 5 | - | D |
| Diethylene glycol dinitrate | - | - | - | D | - | - | - | - | - | - | - | - | - |
| Diethylhexyl phthalate (PAE) | P | zero | 0.004 | D | - | - | - | - | 0.02 | 0.7 | - | 0.3 | B2* |
| Diisopropyl methylphosphonate | - | - | - | F | 8 | 8 | 8 | 30 | 0.08 | 3 | 0.6 | - | D |
| Dimethrin | - | - | - | F | 10 | 10 | 10 | 40 | 0.3 | 10 | 2 | - | D |
| Dimethyl methylphosphonate | - | - | - | D | - | - | - | - | 0.2 | - | - | - | C |
| Dimethyl phthlate (PAE) | - | - | - | - | - | - | - | - | - | - | - | - | D |
| 1,3-Dinitrobenzene | - | - | - | F | 0.04 | 0.04 | 0.04 | 0.14 | 0.0001 | 0.005 | 0.001 | - | D |
| Dinitrotoluene (2,4-) | L | - | - | F | *0.50* | *0.50* | *0.30* | *1.0* | *0.002* | *0.1* | - | *5.0* | B2 |
| Dinitrotoluene (2,6) | L | - | - | F | *0.40* | *0.40* | *0.40* | *1.0* | *0.001* | *0.04* | - | *5.0* | B2 |
| Dinoseb | P | 0.007 | 0.007 | F | 0.3 | 0.3 | 0.01 | 0.04 | 0.001 | 0.04 | 0.007 | - | D |
| Dioxane p- | - | - | - | F | 4 | 0.4 | - | - | - | - | - | 0.7 | B2 |
| Diphenamid | - | - | - | F | 0.3 | 0.3 | 0.3 | 1 | 0.03 | 1 | 0.2 | - | D |
| Diquat | P | 0.02 | 0.02 | - | - | - | - | - | 0.0022 | 0.08 | 0.02 | - | D |
| Disulfoton | - | - | - | F | 0.01 | 0.01 | 0.003 | 0.009 | 0.00004 | 0.001 | 0.0003 | - | E |
| 1,4-Dithiane | - | - | - | D | - | - | - | - | - | - | - | - | D |
| Diuron | - | - | - | F | 1 | 1 | 0.3 | 0.9 | 0.002 | 0.07 | 0.01 | - | D |
| Endothall | P | 0.1 | 0.1 | F | 0.8 | 0.8 | 0.2 | 0.2 | 0.02 | 0.7 | 0.1 | - | D |
| Endrin | P | 0.002 | 0.002 | F | 0.02 | 0.02 | 0.003 | 0.01 | 0.0003 | 0.01 | 0.002 | - | D |
| Epichlorohydrin | F | zero | TT | F | 0.1 | 0.1 | 0.07 | 0.07 | 0.002 | 0.07 | - | 0.4 | B2 |
| Ethylbenzene | F | 0.7 | 0.7 | F | 30 | 3 | 1 | 3 | 0.1 | 3 | 0.7 | - | D |
| Ethylene dibromide (EDB) | F | zero | 0.00005 | F | 0.008 | 0.008 | - | - | - | - | - | 0.00004 | B2 |
| Ethylene glycol | - | - | - | F | 20 | 6 | 6 | 20 | 2 | 40 | 7 | - | D |
| ETU | L | - | - | F | 0.3 | 0.3 | 0.1 | 0.4 | 0.00008 | 0.003 | - | 0.006** | B2 |
| Fenamiphos | - | - | - | F | 0.009 | 0.009 | 0.005 | 0.02 | 0.00025 | 0.009 | 0.002 | - | D |
| Fluometuron | - | - | - | F | 2 | 2 | 2 | 5 | 0.013 | 0.4 | 0.09 | - | D |
| Fluorene (PAH) | - | - | - | - | - | - | - | - | 0.04 | - | - | - | D |

* Under review. ** Not verified yet.

| Chemicals | Standards: Status Reg.[a] | MCLG (mg/l) | MCL (mg/l) | Health Advisories: Status HA[a] | 10-kg Child: One-day mg/l | Ten-day mg/l | Longer-term mg/l | 70-kg Adult: Longer-term mg/l | RfD mg/kg/day | DWEL mg/l | Lifetime mg/l | mg/l at $10^{-4}$ Cancer Risk | Cancer Group |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Fluorotrichloromethane | L | - | - | F | 7 | 7 | 3 | 10 | 0.3 | 10 | 2 | - | D |
| Fog Oil | - | - | - | D | - | - | - | - | - | - | - | - | - |
| Fonofos | - | - | - | F | 0.02 | 0.02 | 0.02 | 0.07 | 0.002 | 0.07 | 0.01 | - | D |
| Formaldehyde | - | - | - | D | 10 | 5 | 5 | 20 | 0.15 | 5 | 1 | - | B1 |
| Gasoline, unleaded (benzene) | - | - | - | D | - | - | - | - | - | - | 0.005 | - | - |
| Glyphosate | P | 0.7 | 0.7 | F | 20 | 20 | 1 | 1 | 0.1 | 4 | 0.7 | - | D |
| Heptachlor | F | zero | 0.0004 | F | 0.01 | 0.01 | 0.005 | 0.005 | 0.0005 | 0.02 | - | 0.0008 | B2 |
| Heptachlor epoxide | F | zero | 0.0002 | F | 0.01 | - | 0.0001 | 0.0001 | 1.3E-05 | 0.0004 | - | 0.0004 | B2 |
| Hexachlorobenzene | P | zero | 0.001 | F | 0.05 | 0.05 | 0.05 | 0.2 | 0.0008 | 0.03 | - | 0.002 | B2 |
| Hexachlorobutadiene | L | - | - | F | 0.3 | 0.3 | 0.1 | 0.4 | 0.002 | 0.07 | 0.001 | - | C |
| Hexachlorocyclopentadiene | P | 0.05 | 0.05 | - | - | - | - | - | 0.007 | 0.2 | - | - | D |
| Hexachloroethane | L | - | - | F | 5 | 5 | 0.1 | 0.5 | 0.001 | 0.04 | 0.001 | - | C |
| Hexane (n-) | - | - | - | F | 10 | 4 | 4 | 10 | - | - | - | - | D |
| Hexazinone | - | - | - | F | 3 | 3 | 3 | 9 | 0.033 | 1 | 0.2 | - | D |
| HMX | - | - | - | F | 5 | 5 | 5 | 20 | 0.05 | 2 | 0.4 | - | D |
| Hypochlorite | L | - | - | - | - | - | - | - | - | - | - | - | - |
| Hypochlorous acid | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Indeno(1,2,3,-c,d)pyrene (PAH) | P | zero | 0.0004 | D | - | - | - | - | - | - | - | - | B2 |
| Isophorone | L | - | - | D | 15 | 15 | 15 | 15 | 0.2 | 7 | 0.1 | - | C |
| Isopropyl methylphosphonate | - | - | - | D | *30* | *30* | *30* | *100* | 0.1 | *4.0* | *0.7* | - | D |
| Isopropylbenzene | - | - | - | D | - | - | - | - | - | - | - | - | - |
| Lindane | F | 2E-4 | 0.0002 | F | 1 | 1 | 0.03 | 0.1 | 0.0003 | 0.01 | 0.0002 | - | C |
| Malathion | - | - | - | D | 0.2 | 0.2 | 0.2 | 0.8 | 0.02 | 0.8 | 0.2 | - | D |
| Maleic hydrazide | - | - | - | F | 10 | 10 | 5 | 20 | 0.5 | 20 | 4 | - | D |
| MCPA | - | - | - | F | 0.1 | 0.1 | 0.1 | 0.4 | 0.0015 | 0.05 | 0.01 | - | E |
| Methomyl | L | - | - | F | 0.3 | 0.3 | 0.3 | 0.3 | 0.025 | 0.9 | 0.2 | - | D |
| Methoxychlor | F | 0.04 | 0.04 | F | *0.05* | *0.05* | *0.05* | 0.2 | 0.005 | 0.2 | 0.04 | - | D |
| Methyl ethyl ketone | L | - | - | F | 80 | 8 | 3 | 9 | 0.00005 | 0.9 | 0.2 | - | D |
| Methyl parathion | - | - | - | F | 0.3 | 0.3 | 0.03 | 0.1 | 0.00025 | 0.009 | 0.002 | - | D |
| Methyl tert butyl ether | L | - | - | D | 3 | 3 | 0.5 | 2 | 0.005 | 0.2 | 0.04 | - | D |

| Chemicals | Standards: Status Reg.* | MCLG (mg/l) | MCL (mg/l) | Health Advisories: Status HA* | 10-kg Child: One-day mg/l | Ten-day mg/l | Longer-term mg/l | 70-kg Adult: Longer-term mg/l | RfD mg/kg/day | DWEL mg/l | Lifetime mg/l | mg/l at $10^{-4}$ Cancer Risk | Cancer Group |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Metolachlor | L | - | - | F | 2 | 2 | 2 | 5 | 0.15 | 5 | 0.1 | - | C |
| Metribuzin | L | - | - | F | 5 | 5 | 0.3 | 0.9 | 0.025 | 0.9 | 0.2 | - | D |
| Monochloroacetic acid | L | - | - | D | - | - | - | - | - | - | - | - | - |
| Monochlorobenzene | F | 0.1 | 0.1 | F | 2 | 2 | 2 | 7 | 0.02 | 0.7 | 0.1 | - | D |
| Naphthalene | - | - | - | F | 0.5 | 0.5 | 0.4 | 1 | 0.004 | 0.1 | 0.02 | - | D |
| Nitrocellulose (non-toxic) | - | - | - | F | - | - | - | - | - | - | - | - | - |
| Nitroguanidine | - | - | - | F | 10 | 10 | 10 | 40 | 0.1 | 4 | 0.7 | - | D |
| Nitrophenols p- | - | - | - | D | 0.8 | 0.8 | 0.8 | 3 | 0.008 | 0.3 | 0.06 | - | D |
| Oxamyl (Vydate) | P | 0.2 | 0.2 | F | 0.2 | 0.2 | 0.2 | 0.9 | 0.025 | 0.9 | 0.2 | - | E |
| Ozone by-products | L | - | - | - | - | - | - | - | - | - | - | - | - |
| Paraquat | - | - | - | F | 0.1 | 0.1 | 0.05 | 0.2 | 0.0045 | 0.2 | 0.03 | - | E |
| Pentachloroethane | - | - | - | D | - | - | - | - | - | - | - | - | - |
| Pentachlorophenol | F | zero | 0.001 | F | 1 | 0.3 | 0.3 | 1 | 0.03 | 1 | - | 0.03 | B2 |
| Phenanthrene (PAH) | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Phenol | - | - | - | D | 6 | 6 | 6 | 20 | 0.6 | 20 | 4 | - | D |
| Picloram | P | 0.5 | 0.5 | F | 20 | 20 | 0.7 | 2 | 0.07 | 2 | 0.5 | - | D |
| Polychlorinated byphenyls (PCBs) | F | zero | 0.0005 | P | - | - | - | - | - | - | - | 0.0005 | B2 |
| Prometon | L | - | - | F | 0.2 | 0.2 | 0.2 | 0.5 | 0.015 | 0.5 | 0.1 | - | D |
| Pronamide | - | - | - | F | 0.8 | 0.8 | 0.8 | 3 | 0.075 | 3 | 0.05 | - | C |
| Propachlor | - | - | - | F | 0.5 | 0.5 | 0.1 | 0.5 | 0.013 | 0.5 | 0.09 | - | D |
| Propazine | - | - | - | F | 1 | 1 | 0.5 | 2 | 0.02 | 0.7 | 0.01 | - | C |
| Propham | - | - | - | F | 5 | 5 | 5 | 20 | 0.02 | 0.6 | 0.1 | - | D |
| Propylbenzene n- | - | - | - | D | - | - | - | - | - | - | - | - | - |
| Pyrene (PAH) | - | - | - | - | - | - | - | - | 0.03 | - | - | - | D |
| RDX | - | - | - | F | 0.1 | 0.1 | 0.1 | 0.4 | 0.003 | 0.1 | 0.002 | 0.03 | C |
| Simazine | P | *0.004* | *0.004* | F | 0.07 | 0.07 | 0.07 | 0.07 | 0.005 | 0.2 | 0.004 | - | C |
| Styrene | F | 0.1 | 0.1 | F | 20 | 2 | 2 | 7 | 0.2 | 7 | 0.1 | - | C |
| 2,4,5 T | L | - | - | F | 0.8 | 0.8 | 0.8 | 1 | 0.01 | 0.35 | 0.07 | - | D |
| 2,3,7,8-TCDD (Dioxin) | P | zero | 5E-08 | F | 1E-06 | 1E-07 | 1E-08 | 4E-08 | 1E-06 | 4E-08 | - | 2E-08 | B2 |
| Tebuthiuron | - | - | - | F | 3 | 3 | 0.7 | 2 | 0.07 | 2 | 0.5 | - | D |

Under review. NOTE: Phenanthrene -- not proposed.

| Chemicals | Standards: Status Reg.* | MCLG (mg/l) | MCL (mg/l) | Health Advisories: Status HA* | 10-kg Child: One-day mg/l | Ten-day mg/l | Longer-term mg/l | 70-kg Adult: Longer-term mg/l | RfD mg/kg/day | DWEL mg/l | Lifetime mg/l | mg/l at $10^{-4}$ Cancer Risk | Cancer Group |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Terbacil | - | - | - | F | 0.3 | 0.3 | 0.3 | 0.9 | 0.013 | 0.4 | 0.09 | - | E |
| Terbufos | - | - | - | F | 0.005 | 0.005 | 0.001 | 0.005 | 0.00013 | 0.005 | 0.0009 | - | D |
| Tetrachloroethane (1,1,1,2-) | L | - | - | F | 2 | 2 | 0.9 | 3 | 0.03 | 1 | 0.07 | 0.1 | C |
| Tetrachloroethane (1,1,2,2-) | L | - | - | D | - | - | - | - | - | - | - | - | - |
| Tetrachloroethylene | F | zero | 0.005 | F | 2 | 2 | 1 | 5 | 0.01 | 0.5 | - | 0.07 | - |
| Tetranitromethane | - | - | - | D | - | - | - | - | - | - | - | - | - |
| Toluene | F | 1 | 1 | F | 20 | 2 | 2 | 7 | 0.2 | 7 | 1 | - | D |
| Toxaphene | F | zero | 0.003 | F | 0.5 | 0.04 | - | - | 0.1 | 0.0035 | - | 0.003 | B2 |
| 2,4,5-TP | F | 0.05 | 0.05 | F | 0.2 | 0.2 | 0.07 | 0.3 | 0.0075 | 0.3 | 0.05 | - | D |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Trichloroacetic acid | L | - | - | D | - | - | - | - | - | - | - | - | - |
| Trichloroacetonitrile | L | - | - | D | 0.05 | 0.05 | - | - | - | - | - | - | - |
| Trichlorobenzene (1,2,4-) | P | *0.07* | *0.07* | F | 0.1 | 0.1 | 0.1 | 0.5 | *0.01* | *0.4* | *0.07* | - | D |
| Trichlorobenzene (1,3,5-) | - | - | - | F | 0.6 | 0.6 | 0.6 | 2 | 0.006 | 0.2 | 0.04 | - | D |
| Trichloroethane (1,1,1-) | F | 0.2 | 0.2 | F | 100 | 40 | 40 | 100 | 0.035 | 1 | 0.2 | - | D |
| Trichloroethane (1,1,2-) | P | 0.003 | 0.005 | F | 0.6 | 0.4 | 0.4 | 1 | 0.004 | 0.1 | 0.003 | - | C |
| Trichloroethanol (2,2,2-) | L | - | - | - | - | - | - | - | - | - | - | - | - |
| Trichloroethylene | F | zero | 0.005 | F | - | - | - | - | - | 0.3 | - | 0.3 | B2 |
| Trichlorophenol (2,4,6-) | L | - | - | D | - | - | - | - | - | - | - | 0.3 | B2 |
| Trichloropropane (1,1,1-) | - | - | - | D | - | - | - | - | - | - | - | - | - |
| Trichloropropane (1,2,3-) | L | - | - | F | 0.6 | 0.6 | 0.6 | 2 | 0.006 | 0.2 | 0.04 | - | - |
| Trifluralin | L | - | - | F | 0.08 | 0.08 | 0.08 | 0.3 | 0.0075 | 0.3 | 0.005 | - | C |
| Trimethylbenzene (1,2,4-) | - | - | - | D | - | - | - | - | - | - | - | - | - |
| Trimethylbenzene (1,3,5-) | - | - | - | D | - | - | - | - | - | - | - | - | - |
| Trinitroglycerol | - | - | - | F | 0.005 | 0.005 | 0.005 | 0.005 | - | - | 0.005 | - | - |
| Trinitrotoluene | - | - | - | F | 0.02 | 0.02 | 0.02 | 0.02 | 0.0005 | 0.02 | 0.002 | 0.1 | C |
| Vinyl chloride | F | zero | 0.002 | F | 3 | 3 | 0.01 | 0.05 | - | - | - | 0.0015 | A |
| White phosphorus | - | - | - | F | - | - | - | - | 0.00002 | 0.0005 | 0.0001 | - | D |
| Xylenes | F | 10 | 10 | F | 40 | 40 | 40 | 100 | 2 | 60 | 10 | - | D |

* Under review.

| | Standards | | | Health Advisories | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | 10-kg Child | | | 70-kg Adult | | | | | |
| Chemicals | Status Reg.* | MCLG (mg/l) | MCL (mg/l) | Status HA* | One-day mg/l | Ten-day mg/l | Longer-term mg/l | Longer-term mg/l | RfD mg/kg/day | DWEL mg/l | Lifetime mg/l | mg/l at $10^{-4}$ Cancer Risk | Cancer Group |
| INORGANICS | | | | | | | | | | | | | |
| Aluminum | L | - | - | D | - | - | - | - | - | - | - | - | - |
| Ammonia | - | - | - | D | - | - | - | - | - | - | 30 | - | D |
| Antimony | P | 0.003 | 0.01/0.005 | D | 0.015 | 0.015 | 0.015 | 0.015 | 0.0004 | 0.015 | 0.003 | - | D |
| Arsenic | * | - | 0.05 | D | - | - | - | - | - | - | - | *0.002* | A |
| Asbestos (fibers/l > 10um length) | F | 7 MFL | 7 MFL | - | - | - | - | - | - | - | - | 700 MFL | A |
| Barium | F | 2 | 2 | F | - | - | - | - | 0.07 | 2 | 2 | - | D |
| Beryllium | P | zero | 0.001 | D | 30 | 30 | 4 | 20 | 0.005 | 0.2 | - | 0.0008 | B2 |
| Boron | L | - | - | D | 4 | 0.9 | 0.9 | 3 | 0.09 | 3 | 0.6 | - | D |
| Cadmium | F | 0.005 | 0.005 | F | 0.04 | 0.04 | 0.005 | 0.02 | 0.0005 | 0.02 | 0.005 | - | D |
| Chloramine | L | - | - | D | 1 | 1 | 1 | 1 | 0.1 | 3.3 | 2.6 | - | - |
| Chlorate | L | - | - | D | - | - | - | - | - | - | - | - | - |
| Chlorine | L | - | - | D | - | - | - | - | - | - | - | - | - |
| Chlorine dioxide | L | - | - | D | - | - | - | - | - | - | - | - | - |
| Chlorite | L | - | - | D | - | - | - | - | - | - | - | - | - |
| Chromium (total) | F | 0.1 | 0.1 | F | 1 | 1 | 0.2 | 0.8 | 0.005 | 0.2 | 0.1 | - | D |
| Copper | P | 1.3 | TT** | - | - | - | - | - | - | - | - | - | D |
| Cyanide | P | 0.2 | 0.2 | F | 0.2 | 0.2 | 0.2 | 0.8 | 0.022 | 0.8 | 0.2 | - | D |
| Fluoride* | F | 4 | 4 | - | - | - | - | - | 0.12 | - | - | - | - |
| Lead (at tap) | F | zero | TT** | - | - | - | - | - | - | - | - | - | B2 |
| Manganese | - | - | - | D | - | - | - | - | 0.14 | - | - | - | - |
| Mercury *(inorganic)* | F | 0.002 | 0.002 | F | - | - | - | 0.002 | 0.0003 | 0.01 | 0.002 | - | D |
| Molybdenum | L | - | - | D | - | - | - | - | *0.005* | *0.175* | *0.035* | - | D |
| Nickel | P | 0.1 | 0.1 | F | 1 | 1 | *0.5* | *1.7* | 0.02 | 0.6 | 0.1 | - | D |
| Nitrate (as N) | F | 10 | 10 | F | - | 10* | - | - | 1.6 | - | - | - | * |
| Nitrite (as N) | F | 1 | 1 | F | - | 1* | - | - | 0.16* | - | - | - | * |

* Under review.

** Copper - action level 1.3 mg/L
Lead - action level 0.015 mg/L

| Chemicals | Standards: Status Reg.* | MCLG (mg/l) | MCL (mg/l) | Health Advisories: Status HA* | 10-kg Child: One-day mg/l | Ten-day mg/l | Longer-term mg/l | 70-kg Adult: Longer-term mg/l | RfD mg/kg/day | DWEL mg/l | Lifetime mg/l | mg/l at $10^{-4}$ Cancer Risk | Cancer Group |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Nitrate + Nitrite (both as N) | F | 10 | 10 | F | - | - | - | - | - | - | - | - | * |
| Selenium | F | 0.05 | 0.05 | - | - | - | - | - | 0.005 | - | - | - | - |
| Silver | - | - | - | D | 0.2 | 0.2 | 0.2 | 0.2 | 0.005 | 0.2 | 0.1 | - | D |
| Sodium | - | - | - | D | - | - | - | - | - | 20*** | - | - | - |
| Strontium | L | - | - | D | 25 | 25 | 25 | 90 | 2.5 | 90 | 17 | - | D |
| Sulfate | P | 400/500 | 400/500 | - | - | - | - | - | - | - | - | - | - |
| Thallium | P | 0.0005 | 0.002/ 0.001 | D | 0.007 | 0.007 | 0.007 | 0.02 | 0.00007 | 0.002 | 0.0014 | - | - |
| Vanadium | L | - | - | D | 0.08 | 0.08 | 0.03 | 0.11 | 0.003 | 0.11 | 0.02 | - | D |
| Zinc | L | - | - | D | - | - | - | - | *0.3* | *10.5* | *2.1* | - | D |
| Zinc chloride *(measured as Zinc)* | L | - | - | D | - | - | - | - | *0.3* | *10.5* | *2.1* | - | D |
| **RADIONUCLIDES** | | | | | | | | | | | | | |
| Beta particle and photon activity (formerly man-made radionuclides) | F | zero | 4 mrem | - | - | - | - | - | - | - | - | 4 mrem/y | A |
| Gross alpha particle activity | F | zero | 15 pCi/L | - | - | - | - | - | - | - | - | - | A |
| Radium 226/228 | P | zero | 20 pCi/L | - | - | - | - | - | - | - | - | 22/26 pCi/l | A |
| Radon | P | zero | 300 pCi/L | - | - | - | - | - | - | - | - | 150 pCi/l | A |
| Uranium | P | zero | 20 µg/l | - | - | - | - | - | - | - | - | 170 pCi/l | A |

* Under review.

*** Guidance.

## MICROBIOLOGY

| | Status | MCLG | MCL |
|---|---|---|---|
| Cryptosporidium | L | - | - |
| *Giardia lamblia* | F | zero | TT |
| *Legionella* | F[a] | zero | TT |
| Standard Plate Count | F[a] | NA | TT |
| Total Coliforms (after 12/31/90) | F | zero | ** |
| Turbidity (after 12/31/90) | F | NA | PS |
| Viruses | F[a] | zero | TT |

Key: PS, TT, F, defined as previously stated.

[a]: Final for systems using surface water; also being considered for regulation under groundwater disinfection rule.

## SECONDARY MAXIMUM ..JTAMINANT LEVELS



| Chemicals | Status | SMCLs (mg/l) |
|---|---|---|
| Aluminum | F | 0.05 to 0.2 |
| Chloride | F | 250 |
| Color | F | 15 color units |
| Copper | F | 1 |
| Corrosivity | F | non-corrosive |
| Fluoride* | F | 2 |
| Foaming Agents | F | 0.5 |
| Hexachlorocyclopentadiene | P | 0.008 |
| Iron | F | 0.3 |
| Manganese | F | 0.05 |
| Odor | F | 3 threshold odor numbers |
| pH | F | 6.5 - 8.5 |
| Silver | F | 0.10 |
| Sulfate | F | 250 |
| Total Dissolved Solids (TDS) | F | 500 |
| Zinc | F | 5 |

Status Codes: P - proposed, F - final

* Under review.

Dic. contd 4SW-45
AGDI

**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**
**REGION V**

DATE: 10/19/92

SUBJECT: Review of Region V CLP Data Received for Review on Sept 30, 1992

FROM: Charles T. Elly, Director (SL-10C) Central Regional Laboratory Patrick J. Chunlla 10/19/92

TO: Data User: Weston

We have reviewed the data for the following case.

SITE NAME: Sanyo (IN)

CASE and/or SAS NUMBER: 18642 SDG NUMBER: MERP07

Number and Type of Samples: 8 (Soil + Water)

CLP Sample Numbers: MERP 07-10 MERP 16-19

CLP Laboratory: Keystone (PA) Hrs. for Review 6.5 +0.5

Following are our findings:

THE DATA ARE ACCEPTABLE WITH QUALIFICATIONS NOTED IN THE ATTACHED REVIEW. - Patrick J. Chunlla 10/19/92

PDC 11/6/92

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( ) Data are acceptable for use.
(X) Data are acceptable for use with qualification.
( ) Data are preliminary, pending verification by laboratory.
( ) Data are unacceptable.

cc: Edward Kantor, EMSL-Las Vegas
Julie Frankel, VIAR & Co. (SMO)

The laboratory's portion of case 18642 contains 4 low level water and 4 low level soil samples assayed for total metals and total cyanide. The following narrative lists the out of control audits and their possible effects on the results.

**LABORATORY: Keystone** **CASE: 18642**

**EVIDENTIAL AUDIT:** All forms are originals. Most of the raw data sheets are originals, those photocopied state where the originals can be found. The original Hg and ICP raw data are with case 18613 SDG: MDDN45. The original sample tags are present. The chain of custody forms are originals. All forms are present and in the order indicated on the Form DC-2 [inventory sheet].

**WATER SAMPLES MERP16-19**

**ICP ANALYSES:**

The duplicate RPDs for Al(30.3 %) and Cr(58.1 %) were not flagged by the laboratory because the duplicate differences did not exceed the technical criterion (±CRDL) for water samples. All Al and Cr data are qualified below.

The duplicate RPDs for Ni(200 %) and Zn(144.1 %) are out of control. All Ni and Zn data are estimated (J) due to poor precision.

The preparation blank contains Cr(3.4 µg/L), Cu(9.1 µg/L), Fe(44.5 µg/L), Mn(1.4 ug/l), and Zn(5.2 ug/l). The CCB contains Cu(9.5 µg/L). All Cu data and Cr results for MERP16, 17, and 19, are estimated (J) due to contamination. Zn results for MERP16 and 17 are affected by cotamination, but remain qualified as previously stated above. Mn and Fe results for MERP18 and 19 are affected by contamination and are qualified below.

**GFAA ANALYSES:**

The duplicate RPDs for Pb(200 %) and Se(31.1 %) were not flagged by the laboratory because the duplicate differences did not exceed the technical criterion (±CRDL) for water samples. Se and Pb data are qualified below.

The Pb results for MERP16, 17, and 19 were flagged (W) by the laboratory indicating interference. These data are estimated (UJ).

**OTHER ANALYSES:** All Hg data are acceptable.

Samples MERP18/19 are field duplicates that show good field correlation.

Reviewed by: M. Fletcher Date: 10/9/92
Lockheed/ESAT

**OTHER ANALYSES:**

Sample MERP17 is a field blank containing Al(40.70 µg/L), Ba(181 ug/L), Ca(111,000 ug/l), Cr(14.2 ug/l), Cu(9.2 ug/l), Fe(647 ug/l), Mg(38700 ug/l), Mn(31.4 ug/l), K(2620 ug/l), Se(1.6 ug/l), Na(19100 ug/l), Zn(9.6 ug/l), and CN(30 µg/L). Cr data on MERP16 and 19, Cu data on MERP16, 18, and 19, and Zn data for MERP16 are affected by field contamination, but remain qualified as stated above. All Ba, Ca, Fe, Mg, Mn, K, and Na data except MERP17 are estimated (J) due to field contamination. Al, CN, and Se data for sample MERP16 are estimated (J) due to field contamination.

**SOIL SAMPLES MERP07-10**

**ICP ANALYSES:**

The duplicate RPDs for Ag(51.2 %) and Sb(200 %) were not flagged by the laboratory because the duplicate differences did not exceed the technical criterion (± 2 X CRDL) for soil samples. All Ag data are acceptable. All Sb data are qualified below.

The matrix spike recovery for Zn(135.1 %) was not flagged by the laboratory because the sample concentration was more than 4x the spike level. All Zn data are acceptable.

The matrix spike recoveries for Sb(39.9 %) and Mn(271.3 %) are out of control. All Mn data are estimated (J) due to high bias. All Sb data are estimated (UJ) due to possible elevation of the detection limit.

**GFAA ANALYSES:**

The duplicate RPD for As(200 %) was not flagged by the laboratory because the duplicate difference did not exceed the technical criterion (± 2 X CRDL) for soil samples. As data are qualified below. The As result for MERP08 was flagged (+) by the laboratory indicating interference. The sample, when assayed twice by MSA, failed to have a correlation coefficient greater than 0.995. As data on MERP08 is estimated (J) due to interference. The CCB contains (6.5 ug/l). As results for MERP07 and 10 are estimated (J) due to contamination.

The matrix spike recovery for Pb(4318.5 %) was not flagged by the laboratory because the sample concentrations was more than 4x the spike level. All Pb data are not qualified on this basis. The duplicate RPD for Pb(193.7 %) is out of control. All Pb data are estimated (J) due to poor precision.

M Fletcher

Reviewed by: M. Fletcher
Lockheed/ESAT

Date: 10/9/92

**OTHER ANALYSES:** All Hg data are acceptable.

Samples MERP07/08 are field duplicates with a field RPD for Pb(98 %). All Pb data remain qualified as previously stated.

The matrix spike recovery of CN(28%) is out of control indicating a low bias. All CN data are < IDL and are unusable(R).

Reviewed by: M. Fletcher
Lockheed/ESAT

Date: 10/9/92

# QC EXCEPTION SUMMARY REPORT

CASE # 18642
DATA B...
...
DATE 10/8/92

SITE Sanyo (In)
LAB Keystone
REVIEWED BY M. Sletchek

MATRIX: Water
CONC.: low
Matrix: soil
Conc: low

WATER SAMPLE SPK.
WATER SAMPLE DUP.
SOIL SAMPLE SPK.
SOIL SAMPLE DUP.

| | OVERALL CASE QC | | | | | | | | | MATRIX SPECIFIC QC | | | | | | SAMPLE SPECIFIC QC | | FIELD QC | | | REGIONAL QC | | | OTHER/ COMMENTS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Holding Time | Cal Blanks | Init Calver | Contin Calver | Prep Blk AQ | Prep Blk SOL | ICS %R | LCS % AQ | LCS % SOL | Sol Dup RPD | Sol Spk %R | AQ Dup RPD | AQ Spk %R | Ser Dilu AQ | Ser Dilu SOL | GFAA Dup | GFAA Spike | Blank | Dup RPD | Spike %R | Blind Blank | Blind Spike %R | Split Sample RPD | |
| Aluminum | | | | | | | | | | | | | | | | | | 40.70 | | | | | | |
| Antimony | | | | | | | | | | | 39.9 | | | | | | | | | | | | | |
| Arsenic | | 6.5 | | | | | | | | | | | | | | | | | 73 | | | | | |
| Barium | | | | | | | | | | | | | | | | | | 181 | | | | | | |
| Beryllium | | | | | | | | | | | | | | | | | | | | | | | | |
| Cadmium | | | | | | | | | | | | | | | | | | | | | | | | |
| Calcium | | | | | | | | | | | | | | | | | | 111,000 | | | | | | |
| Chromium | | | | | 3.4 | | | | | | | | | | | | | 14.2 | | | | | | |
| Cobalt | | | | | | | | | | | | | | | | | | | | | | | | |
| Copper | | 9.5 | | | 9.1 | | | | | | | | | | | | | 9.2 | | | | | | |
| Iron | | | | | 44.6 | | | | | | | | | | | | | 647 | | | | | | |
| Lead | | | | | | | | | | 193.7 | | | | | | | | | 98 | | | | | |
| Magnesium | | | | | | | | | | | | | | | | | | 38700 | | | | | | |
| Manganese | | | | | 1.4 | | | | | | 271.3 | | | | | | | 31.4 | | | | | | |
| Mercury | | | | | | | | | | | | | | | | | | | | | | | | |
| Nickel | | | | | | | | | | | | | 200 | | | | | | | | | | | |
| Potassium | | | | | | | | | | | | | | | | | | 2620 | | | | | | |
| Selenium | | | | | | | | | | | | | | | | | | 1.6 | | | | | | |
| Silver | | | | | | | | | | | | | | | | | | | | | | | | |
| Sodium | | | | | | | | | | | | | | | | | | 19100 | | | | | | |
| Thallium | | | | | | | | | | | | | | | | | | | | | | | | |
| Tin | | | | | | | | | | | | | | | | | | | | | | | | |
| Vanadium | | | | | | | | | | | | | | | | | | | | | | | | |
| Zinc | | | | | 5.2 | | | | | | | | 144.1 | | | | | 9.6 | | | | | | |
| Cyanide | | | | | | | | | | | 98 | | | | | | | 30 | | | | | | |

MC 10/9/92

## GLOSSARY A

### Data Qualifier Definitions

For the purposes of this document the following code letters and associated definitions are provided.

U - The material was analyzed for, but was not detected above the level of the associated value. The associated value is either the sample quantitation limit or the sample detection limit.

J - The associated value is an estimated quantity.

R - The data are unusable. (Note: Analyte may or may not be present.)

UJ - The material was analyzed for, but was not detected. The associated value is an estimate and may be inaccurate or imprecise.

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00002

COVER PAGE - INORGANIC ANALYSES DATA PACKAGE

Lab Name: KEYSTONE ENVIRONMENTAL Contract: 68-D0-0148

Lab Code: KEYPA Case No.: 18642 SAS No.: SDG No.: MERP07

SOW No.: 3/90

| EPA Sample No. | Lab Sample ID. |
|---|---|
| MERP07 | MERP07 |
| MERP08 | MERP08 |
| MERP09 | MERP09 |
| MERP09D | MERP09D |
| MERP09S | MERP09S |
| MERP10 | MERP10 |
| MERP16 | MERP16 |
| MERP16D | MERP16D |
| MERP16S | MERP16S |
| MERP17 | MERP17 |
| MERP18 | MERP18 |
| MERP19 | MERP19 |

RECEIVED
[illegible] 1992
US [illegible] REGIONAL LAB.
[illegible] CLARK ST.
CHICAGO, ILLINOIS 60605

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

Comments:
SEE NARRATIVE

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

Signature: Cheryl Matias Name: CHERYL MATIAS

Date: 9/29/92 Title: PROJECT MANAGER

COVER PAGE - IN

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MERP07

Lab Name: KEYSTONE ENVIRONMENTAL Contract: 68-D0-0148

Lab Code: KEYPA Case No.: 13642 SAS No.: SDG No.: MERP07

Matrix (soil/water): SOIL Lab Sample ID: MERP07

Level (low/med): LOW Date Received: 08/20/92

% Solids: 83.8

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

| CAS No. | Analyte | Concentration | C | Q | M |
|---|---|---|---|---|---|
| 7429-90-5 | Aluminum | 2780.00 | | | P |
| 7440-36-0 | Antimony | 2.60 | U | N J | P |
| 7440-38-2 | Arsenic | 7.50 | | J | F |
| 7440-39-3 | Barium | 79.40 | | | P |
| 7440-41-7 | Beryllium | 0.62 | B | | P |
| 7440-43-9 | Cadmium | 0.48 | U | | P |
| 7440-70-2 | Calcium | 82600.00 | | | P |
| 7440-47-3 | Chromium | 21.10 | | | P |
| 7440-48-4 | Cobalt | 2.10 | B | | P |
| 7440-50-8 | Copper | 27.30 | | | P |
| 7439-89-6 | Iron | 7730.00 | | | P |
| 7439-92-1 | Lead | 87.40 | | * J | F |
| 7439-95-4 | Magnesium | 30200.00 | | | P |
| 7439-96-5 | Manganese | 401.00 | | N J | P |
| 7439-97-6 | Mercury | 0.12 | U | | CV |
| 7439-02-0 | Nickel | 11.30 | | | P |
| 7440-09-7 | Potassium | 527.00 | B | | P |
| 7782-49-2 | Selenium | 0.24 | U | | F |
| 7440-22-4 | Silver | 0.24 | U | | P |
| 7440-23-5 | Sodium | 180.00 | B | | P |
| 7440-28-0 | Thallium | 0.24 | U | | F |
| 7440-62-2 | Vanadium | 9.30 | B | | P |
| 7440-66-6 | Zinc | 105.00 | | | P |
| | Cyanide | 0.60 | U | N R | AS |

POL 11/16/92

Color Before: BROWN Clarity Before: Texture: COARSE

Color After: BROWN Clarity After: Artifacts:

Comments:
10X DILUTION FOR PB

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MERP08

Lab Name: KEYSTONE ENVIRONMENTAL Contract: 68-D0-0148

Lab Code: KEYPA Case No.: 18642 SAS No.: SDG No.: MERP07

Matrix (soil/water): SOIL Lab Sample ID: MERP08

Level (low/med): LOW Date Received: 08/20/92

% Solids: 83.4

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

| CAS No. | Analyte | Concentration | C | Q | M |
|---|---|---|---|---|---|
| 7429-90-5 | Aluminum | 2440.00 | | | P |
| 7440-36-0 | Antimony | 2.60 | U | N J | P |
| 7440-38-2 | Arsenic | 3.50 | | + J | F |
| 7440-39-3 | Barium | 35.90 | B | | P |
| 7440-41-7 | Beryllium | 0.61 | B | | P |
| 7440-43-9 | Cadmium | 0.48 | U | | P |
| 7440-70-2 | Calcium | 93100.00 | | | P |
| 7440-47-3 | Chromium | 21.00 | | | P |
| 7440-48-4 | Cobalt | 1.70 | B | | P |
| 7440-50-8 | Copper | 17.60 | | | P |
| 7439-89-6 | Iron | 7970.00 | | | P |
| 7439-92-1 | Lead | 29.90 | | * J | F |
| 7439-95-4 | Magnesium | 38600.00 | | | P |
| 7439-96-5 | Manganese | 431.00 | | N J | P |
| 7439-97-6 | Mercury | 0.12 | U | | CV |
| 7439-02-0 | Nickel | 9.10 | B | | P |
| 7440-09-7 | Potassium | 427.00 | B | | P |
| 7782-49-2 | Selenium | 0.24 | U | | F |
| 7440-22-4 | Silver | 0.24 | U | | P |
| 7440-23-5 | Sodium | 189.00 | B | | P |
| 7440-28-0 | Thallium | 0.31 | B | | F |
| 7440-62-2 | Vanadium | 8.50 | B | | P |
| 7440-66-6 | Zinc | 97.30 | | | P |
| | Cyanide | 0.60 | U | N R | AS |

PDC 11/16/92

Color Before: BROWN Clarity Before: Texture: COARSE

Color After: BROWN Clarity After: Artifacts:

Comments:
3X DILUTION FOR FS

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MERP09

Lab Name: KEYSTONE ENVIRONMENTAL Contract: 68-D0-0148

Lab Code: KEYPA Case No.: 18642 SAS No.: SDG No.: MERP07

Matrix (soil/water): SOIL Lab Sample ID: MERP09

Level (low/med): LOW Date Received: 08/20/92

% Solids: 72.4

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

| CAS No. | Analyte | Concentration | C | Q | M |
|---|---|---|---|---|---|
| 7429-90-5 | Aluminum | 6810.00 | | | P |
| 7440-36-0 | Antimony | 3.00 | U | N J | P |
| 7440-38-2 | Arsenic | 12.30 | | | F |
| 7440-39-3 | Barium | 75.00 | | | P |
| 7440-41-7 | Beryllium | 0.84 | B | | P |
| 7440-43-9 | Cadmium | 6.70 | | | P |
| 7440-70-2 | Calcium | 51200.00 | | | P |
| 7440-47-3 | Chromium | 36.20 | | | P |
| 7440-48-4 | Cobalt | 5.70 | B | | P |
| 7440-50-8 | Copper | 112.00 | | | P |
| 7439-89-6 | Iron | 14400.00 | | | P |
| 7439-92-1 | Lead | 717.00 | | S* J | F |
| 7439-95-4 | Magnesium | 21600.00 | | | P |
| 7439-96-5 | Manganese | 514.00 | | N J | P |
| 7439-97-6 | Mercury | 0.14 | U | | CV |
| 7439-02-0 | Nickel | 38.90 | | | P |
| 7440-09-7 | Potassium | 983.00 | B | | P |
| 7782-49-2 | Selenium | 0.91 | B | | F |
| 7440-22-4 | Silver | 0.91 | B | | P |
| 7440-23-5 | Sodium | 144.00 | B | | P |
| 7440-28-0 | Thallium | 0.52 | B | | F |
| 7440-62-2 | Vanadium | 14.30 | | | P |
| 7440-66-6 | Zinc | 798.00 | | | P |
| | Cyanide | 0.69 | U | N R | AS |

PDC 11/6/92

Color Before: BROWN Clarity Before: Texture: FINE

Color After: BROWN Clarity After: Artifacts:

Comments:
100X DILUTION FOR PB BY MSA

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MERP10

Lab Name: KEYSTONE ENVIRONMENTAL Contract: 68-D0-0148

Lab Code: KEYPA Case No.: 18642 SAS No.: SDG No.: MERP07

Matrix (soil/water): SOIL Lab Sample ID: MERP10

Level (low/med): LOW Date Received: 08/20/92

% Solids: 68.5

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

| CAS No. | Analyte | Concentration | C | Q | M |
|---|---|---|---|---|---|
| 7429-90-5 | Aluminum | 4430.00 | | | P |
| 7440-36-0 | Antimony | 3.20 | U | NJ | P |
| 7440-38-2 | Arsenic | 5.70 | | J | F |
| 7440-39-3 | Barium | 53.10 | B | | P |
| 7440-41-7 | Beryllium | 0.67 | B | | P |
| 7440-43-9 | Cadmium | 0.58 | U | | P |
| 7440-70-2 | Calcium | 61100.00 | | | P |
| 7440-47-3 | Chromium | 29.20 | | | P |
| 7440-48-4 | Cobalt | 3.70 | B | | P |
| 7440-50-8 | Copper | 40.90 | | | P |
| 7439-89-6 | Iron | 10800.00 | | | P |
| 7439-92-1 | Lead | 104.00 | | *J | F |
| 7439-95-4 | Magnesium | 24300.00 | | | P |
| 7439-96-5 | Manganese | 350.00 | | NJ | P |
| 7439-97-6 | Mercury | 0.15 | U | | CV |
| 7439-02-0 | Nickel | 22.30 | | | P |
| 7440-09-7 | Potassium | 736.00 | B | | P |
| 7782-49-2 | Selenium | 0.38 | B | | F |
| 7440-22-4 | Silver | 0.29 | U | | P |
| 7440-23-5 | Sodium | 148.00 | B | | P |
| 7440-28-0 | Thallium | 0.38 | B | | F |
| 7440-62-2 | Vanadium | 13.70 | B | | P |
| 7440-66-6 | Zinc | 193.00 | | | P |
| | Cyanide | 0.73 | U | NR | AS |

PDC
11/6/92

Color Before: BROWN Clarity Before: Texture: FINE

Color After: BROWN Clarity After: Artifacts:

Comments:
10X DILUTION FOR PB

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MERP16

Lab Name: KEYSTONE ENVIRONMENTAL Contract: 68-D0-0148

Lab Code: KEYPA Case No.: 18642 SAS No.: SDG No.: MERP07

Matrix (soil/water): WATER Lab Sample ID: MERP16

Level (low/med): LOW Date Received: 08/20/92

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): ug/L

| CAS No. | Analyte | Concentration | C | Q | M |
|---|---|---|---|---|---|
| 7429-90-5 | Aluminum | 34.00 | B | F | P |
| 7440-36-0 | Antimony | 11.00 | U | | P |
| 7440-38-2 | Arsenic | 3.00 | U | | F |
| 7440-39-3 | Barium | 182.00 | B | F | P |
| 7440-41-7 | Beryllium | 1.00 | U | | P |
| 7440-43-9 | Cadmium | 2.00 | U | | P |
| 7440-70-2 | Calcium | 111000.00 | | F | P |
| 7440-47-3 | Chromium | 6.50 | B | J | P |
| 7440-48-4 | Cobalt | 2.00 | U | | P |
| 7440-50-8 | Copper | 7.30 | B | J | P |
| 7439-89-6 | Iron | 612.00 | | F | P |
| 7439-92-1 | Lead | 1.00 | U | W J | F |
| 7439-95-4 | Magnesium | 38800.00 | | F | P |
| 7439-96-5 | Manganese | 31.50 | | F | P |
| 7439-97-6 | Mercury | 0.20 | U | | CV |
| 7439-02-0 | Nickel | 8.00 | U | * J | P |
| 7440-09-7 | Potassium | 2470.00 | B | F | P |
| 7782-49-2 | Selenium | 2.60 | B | F | P |
| 7440-22-4 | Silver | 1.00 | U | | P |
| 7440-23-5 | Sodium | 19100.00 | | F | P |
| 7440-28-0 | Thallium | 1.00 | U | | P |
| 7440-62-2 | Vanadium | 2.00 | U | | P |
| 7440-66-6 | Zinc | 6.50 | B | * J | P |
| | Cyanide | 30.00 | | F | AS |

PDC 11/16/92

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MERP17

Lab Name: KEYSTONE ENVIRONMENTAL Contract: 68-D0-0148

Lab Code: KEYPA Case No.: 18642 SAS No.: SDG No.: MERP07

Matrix (soil/water): WATER Lab Sample ID: MERP17

Level (low/med): LOW Date Received: 08/20/92

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): ug/L

| CAS No. | Analyte | Concentration | C | Q | M |
|---|---|---|---|---|---|
| 7429-90-5 | Aluminum | 40.70 | B | | P |
| 7440-36-0 | Antimony | 11.00 | U | | P |
| 7440-38-2 | Arsenic | 3.00 | U | | F |
| 7440-39-3 | Barium | 181.00 | B | | P |
| 7440-41-7 | Beryllium | 1.00 | U | | P |
| 7440-43-9 | Cadmium | 2.00 | U | | P |
| 7440-70-2 | Calcium | 111000.00 | | | P |
| 7440-47-3 | Chromium | 14.20 | | J | P |
| 7440-48-4 | Cobalt | 2.00 | U | | P |
| 7440-50-8 | Copper | 9.20 | B | J | P |
| 7439-89-6 | Iron | 647.00 | | | P |
| 7439-92-1 | Lead | 1.00 | U | W J | F |
| 7439-95-4 | Magnesium | 38700.00 | | | P |
| 7439-96-5 | Manganese | 31.40 | | | P |
| 7439-97-6 | Mercury | 0.20 | U | | CV |
| 7439-02-0 | Nickel | 8.60 | B | * J | P |
| 7440-09-7 | Potassium | 2620.00 | B | | P |
| 7782-49-2 | Selenium | 1.60 | B | | F |
| 7440-22-4 | Silver | 1.00 | U | | P |
| 7440-23-5 | Sodium | 19100.00 | | | P |
| 7440-28-0 | Thallium | 1.00 | U | | F |
| 7440-62-2 | Vanadium | 2.00 | U | | P |
| 7440-66-6 | Zinc | 9.60 | B | * J | P |
| | Cyanide | 30.00 | | | AS |

PDC 11/16/92

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MERP18

Lab Name: KEYSTONE ENVIRONMENTAL Contract: 68-D0-0148

Lab Code: KEYPA Case No.: 18642 SAS No.: SDG No.: MERP07

Matrix (soil/water): WATER Lab Sample ID: MERP18

Level (low/med): LOW Date Received: 08/20/92

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): ug/L

| CAS No. | Analyte | Concentration | C | Q | M |
|---|---|---|---|---|---|
| 7429-90-5 | Aluminum | 20.00 | U | | P |
| 7440-36-0 | Antimony | 11.00 | U | | P |
| 7440-38-2 | Arsenic | 3.00 | U | | F |
| 7440-39-3 | Barium | 95.70 | B | J | P |
| 7440-41-7 | Beryllium | 1.00 | U | | P |
| 7440-43-9 | Cadmium | 2.00 | U | | P |
| 7440-70-2 | Calcium | 92100.00 | | J | P |
| 7440-47-3 | Chromium | 2.00 | U | | P |
| 7440-48-4 | Cobalt | 2.00 | U | | P |
| 7440-50-8 | Copper | 5.90 | B | J | P |
| 7439-89-6 | Iron | 55.60 | B | J | P |
| 7439-92-1 | Lead | 1.00 | U | | F |
| 7439-95-4 | Magnesium | 35500.00 | | J | P |
| 7439-96-5 | Manganese | 2.40 | B | J | P |
| 7439-97-6 | Mercury | 0.20 | U | | CV |
| 7439-02-0 | Nickel | 8.00 | U | *J | P |
| 7440-09-7 | Potassium | 1150.00 | B | J | P |
| 7782-49-2 | Selenium | 1.00 | U | | F |
| 7440-22-4 | Silver | 1.00 | U | | P |
| 7440-23-5 | Sodium | 9270.00 | | J | P |
| 7440-28-0 | Thallium | 1.00 | U | | F |
| 7440-62-2 | Vanadium | 2.00 | U | | P |
| 7440-66-6 | Zinc | 5.00 | U | *J | P |
| | Cyanide | 10.00 | U | | AS |

PDC 11/6/92

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MERP19

Lab Name: KEYSTONE ENVIRONMENTAL Contract: 68-D0-0148

Lab Code: KEYPA Case No.: 18642 SAS No.: SDG No.: MERP07

Matrix (soil/water): WATER Lab Sample ID: MERP19

Level (low/med): LOW Date Received: 08/20/92

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): ug/L

| CAS No. | Analyte | Concentration | C | Q | M |
|---|---|---|---|---|---|
| 7429-90-5 | Aluminum | 20.00 | U | | P |
| 7440-36-0 | Antimony | 11.00 | U | | P |
| 7440-38-2 | Arsenic | 3.00 | U | | F |
| 7440-39-3 | Barium | 102.00 | B | J | P |
| 7440-41-7 | Beryllium | 1.00 | U | | P |
| 7440-43-9 | Cadmium | 2.00 | U | | P |
| 7440-70-2 | Calcium | 98400.00 | | J | P |
| 7440-47-3 | Chromium | 12.00 | | J | P |
| 7440-48-4 | Cobalt | 2.00 | U | | P |
| 7440-50-8 | Copper | 8.50 | B | J | P |
| 7439-89-6 | Iron | 108.00 | | J | P |
| 7439-92-1 | Lead | 1.00 | U | WJ | P |
| 7439-95-4 | Magnesium | 37900.00 | | J | P |
| 7439-96-5 | Manganese | 2.10 | B | J | P |
| 7439-97-6 | Mercury | 0.20 | U | | CV |
| 7439-02-0 | Nickel | 8.00 | U | *J | P |
| 7440-09-7 | Potassium | 1220.00 | B | J | P |
| 7782-49-2 | Selenium | 1.00 | U | | F |
| 7440-22-4 | Silver | 1.00 | U | | P |
| 7440-23-5 | Sodium | 9970.00 | | J | P |
| 7440-28-0 | Thallium | 1.00 | U | | F |
| 7440-62-2 | Vanadium | 2.00 | U | | P |
| 7440-66-6 | Zinc | 5.00 | U | *J | P |
| | Cyanide | 10.00 | U | | AS |

PDC 11/6/92

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

3

BLANKS

Lab Name: KEYSTONE ENVIRONMENTAL Contract: 68-D0-0148

Lab Code: KEYPA Case No.: 18642 SAS No.: SDG No.: MERP07

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): ug/L

| Analyte | Initial Calib. Blank (ug/L) | C | Continuing Calibration Blank (ug/L) 1 | C | 2 | C | 3 | C | Prepa-ration Blank | C | M |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Aluminum | 20.0 | U | 20.0 | U | 20.0 | U | 20.0 | U | 20.000 | U | P |
| Antimony | 11.0 | U | 11.0 | U | 11.0 | U | 11.0 | U | 11.000 | U | P |
| Arsenic | 3.0 | U | 3.0 | U | 6.5 | B | 3.0 | U | 3.000 | U | F |
| Barium | 2.0 | U | 2.0 | U | 2.0 | U | 2.0 | U | 2.000 | U | P |
| Beryllium | 1.0 | U | 1.0 | U | 1.0 | U | 1.0 | U | 1.000 | U | P |
| Cadmium | 2.0 | U | 2.0 | U | 2.0 | U | 2.0 | U | 2.000 | U | P |
| Calcium | 16.0 | U | 16.0 | U | 16.0 | U | 16.0 | U | 129.600 | B | P |
| Chromium | 2.0 | U | 2.0 | U | 2.0 | U | 2.0 | U | 3.400 | B | P |
| Cobalt | 2.0 | U | 2.0 | U | 2.0 | U | 2.0 | U | 2.000 | U | P |
| Copper | 1.0 | U | 1.2 | B | 1.0 | B | 9.5 | B | 9.100 | B | P |
| Iron | 8.0 | U | 8.0 | U | 8.0 | U | 8.0 | U | 44.500 | B | P |
| Lead | 1.0 | U | 1.0 | U | 1.0 | B | 1.0 | U | 1.200 | B | F |
| Magnesium | 26.0 | U | 26.0 | U | 26.0 | U | 26.0 | U | 34.500 | B | P |
| Manganese | 1.0 | U | 1.0 | U | 1.0 | U | 1.0 | U | 1.400 | B | P |
| Mercury | 0.2 | U | 0.2 | U | 0.2 | U | 0.2 | U | 0.200 | U | CV |
| Nickel | 8.0 | U | 8.0 | U | 8.0 | U | 8.0 | U | 8.000 | U | P |
| Potassium | 409.0 | U | 409.0 | U | 409.0 | U | 409.0 | U | 409.000 | U | P |
| Selenium | 1.0 | U | 1.0 | U | 1.0 | U | | | 1.000 | U | F |
| Silver | 1.1 | B | 1.0 | U | 1.0 | U | 1.0 | U | 1.000 | U | P |
| Sodium | -36.5 | B | -41.3 | B | -47.8 | B | -49.9 | B | 146.600 | B | P |
| Thallium | 1.0 | U | 1.0 | U | 1.0 | U | 1.0 | U | 1.000 | U | F |
| Vanadium | -2.6 | B | -2.4 | B | 2.0 | U | 2.0 | U | -2.100 | B | P |
| Zinc | 5.0 | U | 5.0 | U | 5.0 | U | 5.0 | U | 5.200 | B | P |
| Cyanide | 10.0 | U | 10.0 | U | 10.0 | U | 10.0 | U | 10.000 | U | AS |

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BLANKS

Lab Name: KEYSTONE ENVIRONMENTAL Contract: 68-D0-0148

Lab Code: KEYPA Case No.: 18642 SAS No.: SDG No.: MERP07

Preparation Blank Matrix (soil/water): SOIL

Preparation Blank Concentration Units (ug/L or mg/kg): MG/KG

| Analyte | Initial Calib. Blank (ug/L) | C | Continuing Calibration Blank (ug/L) 1 | C | 2 | C | 3 | C | Prepa-ration Blank | C | M |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Aluminum | | | 20.0 | U | 20.0 | U | | | 4.000 | U | P |
| Antimony | | | 11.0 | U | 11.0 | U | | | 2.200 | U | P |
| Arsenic | | | 3.0 | U | 3.0 | U | | | 0.600 | U | F |
| Barium | | | 2.0 | U | 2.0 | U | | | 0.400 | U | P |
| Beryllium | | | 1.0 | U | 1.0 | U | | | 0.200 | U | P |
| Cadmium | | | 2.0 | U | 2.0 | U | | | 0.400 | U | P |
| Calcium | | | 16.0 | U | 16.0 | U | | | 11.890 | B | P |
| Chromium | | | 2.0 | U | 2.0 | U | | | 0.400 | U | P |
| Cobalt | | | 2.0 | U | 2.0 | U | | | 0.400 | U | P |
| Copper | | | 1.8 | B | 2.2 | B | | | 1.096 | B | P |
| Iron | | | 8.0 | U | 8.0 | U | | | 3.096 | B | P |
| Lead | | | 1.0 | U | 1.0 | U | | | 0.200 | U | F |
| Magnesium | | | 26.0 | U | 26.0 | U | | | 5.200 | U | P |
| Manganese | | | 1.0 | U | 1.0 | U | | | 0.200 | U | P |
| Mercury | | | 0.2 | U | 0.2 | U | 0.2 | U | 0.100 | U | CV |
| Nickel | | | 8.0 | U | 8.0 | U | | | 1.600 | U | P |
| Potassium | | | 409.0 | U | 409.0 | U | | | 81.800 | U | P |
| Selenium | 1.0 | U | 1.0 | U | 1.0 | U | 1.0 | U | 0.200 | U | F |
| Silver | | | 1.3 | B | 1.0 | U | | | 0.200 | U | P |
| Sodium | | | -68.8 | B | -92.6 | B | | | 6.200 | U | P |
| Thallium | | | 1.0 | U | 1.0 | U | | | 0.200 | U | F |
| Vanadium | | | -2.6 | B | -2.6 | B | | | -0.454 | B | P |
| Zinc | | | 5.0 | U | 5.0 | U | | | 1.000 | U | P |
| Cyanide | | | 10.0 | U | 10.0 | U | 10.0 | U | 0.500 | U | AS |

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BLANKS

Lab Name: KEYSTONE ENVIRONMENTAL Contract: 68-D0-0148

Lab Code: KEYPA Case No.: 18642 SAS No.: SDG No.: MERP07

Preparation Blank Matrix (soil/water):

Preparation Blank Concentration Units (ug/L or mg/kg):

| Analyte | Initial Calib. Blank (ug/L) | C | Continuing Calibration Blank (ug/L) 1 | C | 2 | C | 3 | C | Prepa-ration Blank | C | M |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Aluminum | | | | | | | | | | | |
| Antimony | | | | | | | | | | | |
| Arsenic | 3.0 | U | 3.0 | U | 3.0 | U | | | | | F |
| Barium | | | | | | | | | | | |
| Beryllium | | | | | | | | | | | |
| Cadmium | | | | | | | | | | | |
| Calcium | | | | | | | | | | | |
| Chromium | | | | | | | | | | | |
| Cobalt | | | | | | | | | | | |
| Copper | | | | | | | | | | | |
| Iron | | | | | | | | | | | |
| Lead | -1.1 | B | -1.3 | B | 1.0 | U | -1.3 | B | | | F |
| Magnesium | | | | | | | | | | | |
| Manganese | | | | | | | | | | | |
| Mercury | | | | | | | | | | | |
| Nickel | | | | | | | | | | | |
| Potassium | | | | | | | | | | | |
| Selenium | | | 1.0 | U | | | | | | | F |
| Silver | | | | | | | | | | | |
| Sodium | | | | | | | | | | | |
| Thallium | | | | | | | | | | | |
| Vanadium | | | | | | | | | | | |
| Zinc | | | | | | | | | | | |
| Cyanide | | | | | | | | | | | |

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BLANKS

Lab Name: KEYSTONE ENVIRONMENTAL Contract: 68-D0-0148

Lab Code: KEYPA Case No.: 18642 SAS No.: SDG No.: MERP07

Preparation Blank Matrix (soil/water):

Preparation Blank Concentration Units (ug/L or mg/kg):

| Analyte | Initial Calib. Blank (ug/L) | C | Continuing Calibration Blank (ug/L) 1 | C | 2 | C | 3 | C | Prepa-ration Blank | C | M |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Aluminum | | | | | | | | | | | |
| Antimony | | | | | | | | | | | |
| Arsenic | 3.0 | U | 3.0 | U | 3.0 | U | | | | | F |
| Barium | | | | | | | | | | | |
| Beryllium | | | | | | | | | | | |
| Cadmium | | | | | | | | | | | |
| Calcium | | | | | | | | | | | |
| Chromium | | | | | | | | | | | |
| Cobalt | | | | | | | | | | | |
| Copper | | | | | | | | | | | |
| Iron | | | | | | | | | | | |
| Lead | | | -1.2 | B | 1.0 | U | | | | | F |
| Magnesium | | | | | | | | | | | |
| Manganese | | | | | | | | | | | |
| Mercury | | | | | | | | | | | |
| Nickel | | | | | | | | | | | |
| Potassium | | | | | | | | | | | |
| Selenium | | | | | | | | | | | |
| Silver | | | | | | | | | | | |
| Sodium | | | | | | | | | | | |
| Thallium | | | | | | | | | | | |
| Vanadium | | | | | | | | | | | |
| Zinc | | | | | | | | | | | |
| Cyanide | | | | | | | | | | | |

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5A

SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

MERP09S

Lab Name: KEYSTONE ENVIRONMENTAL Contract: 68-D0-0148

Lab Code: KEYPA Case No.: 18642 SAS No.: SDG No.: MERP07

Matrix: SOIL Level (low/med): LOW

% Solids for Sample: 72.4

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

| Analyte | Control Limit %R | Spiked Sample Result (SSR) | C | Sample Result (SR) | C | Spike Added (SA) | %R | Q | M |
|---|---|---|---|---|---|---|---|---|---|
| Aluminum | | | | | | | | | NR |
| Antimony | 75-125 | 55.1271 | | 3.0387 | U | 138.12 | 39.9 | N | P |
| Arsenic | 75-125 | 21.1050 | | 12.3204 | | 11.05 | 79.5 | | F |
| Barium | 75-125 | 588.3094 | | 74.9862 | | 552.49 | 92.9 | | P |
| Beryllium | 75-125 | 13.3204 | | 0.8398 | B | 13.81 | 90.4 | | P |
| Cadmium | 75-125 | 20.2431 | | 6.7459 | | 13.81 | 97.7 | | P |
| Calcium | | | | | | | | | NR |
| Chromium | 75-125 | 86.7210 | | 36.1878 | | 55.25 | 91.5 | | P |
| Cobalt | 75-125 | 128.1989 | | 5.7238 | B | 138.12 | 88.7 | | P |
| Copper | 75-125 | 178.2017 | | 112.1961 | | 69.06 | 95.6 | | P |
| Iron | | | | | | | | | NR |
| Lead | | 955.8011 | | 717.4200 | | 5.52 | 4318.5 | | F |
| Magnesium | | | | | | | | | NR |
| Manganese | 75-125 | 868.7901 | | 514.0277 | | 138.12 | 271.3 | N | P |
| Mercury | 75-125 | 0.8287 | | 0.1381 | U | 0.69 | 120.1 | | CV |
| Nickel | 75-125 | 159.3287 | | 38.8729 | | 138.12 | 87.2 | | P |
| Potassium | | | | | | | | | NR |
| Selenium | 75-125 | 3.2873 | | 0.9116 | B | 2.76 | 86.1 | | F |
| Silver | 75-125 | 14.6381 | | 0.9061 | B | 13.81 | 99.4 | | P |
| Sodium | | | | | | | | | NR |
| Thallium | 75-125 | 13.0663 | | 0.5249 | B | 13.81 | 90.8 | | F |
| Vanadium | 75-125 | 139.0884 | | 14.2514 | | 138.12 | 90.4 | | P |
| Zinc | | 984.4117 | | 797.7652 | | 138.12 | 135.1 | | P |
| Cyanide | 75-125 | 1.9337 | | 0.6906 | U | 6.91 | 28.0 | N | AS |

Comments:

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5A

SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

MERP16S

Lab Name: KEYSTONE ENVIRONMENTAL Contract: 68-D0-0148

Lab Code: KEYPA Case No.: 18642 SAS No.: SDG No.: MERP07

Matrix: WATER Level (low/med): LOW

% Solids for Sample: 0.0

Concentration Units (ug/L or mg/kg dry weight): ug/L

| Analyte | Control Limit %R | Spiked Sample Result (SSR) | C | Sample Result (SR) | C | Spike Added (SA) | %R | Q | M |
|---|---|---|---|---|---|---|---|---|---|
| Aluminum | 75-125 | 1953.6400 | | 34.0100 | B | 2000.00 | 96.0 | | P |
| Antimony | 75-125 | 478.1900 | | 11.0000 | U | 500.00 | 95.6 | | P |
| Arsenic | 75-125 | 36.0000 | | 3.0000 | U | 40.00 | 90.0 | | F |
| Barium | 75-125 | 2072.8401 | | 181.9900 | B | 2000.00 | 94.5 | | P |
| Beryllium | 75-125 | 48.5900 | | 1.0000 | U | 50.00 | 97.2 | | P |
| Cadmium | 75-125 | 49.0500 | | 2.0000 | U | 50.00 | 98.1 | | P |
| Calcium | | | | | | | | | NR |
| Chromium | 75-125 | 192.1400 | | 6.4900 | B | 200.00 | 92.8 | | P |
| Cobalt | 75-125 | 467.7900 | | 2.0000 | U | 500.00 | 93.6 | | P |
| Copper | 75-125 | 242.2000 | | 7.3500 | B | 250.00 | 93.9 | | P |
| Iron | 75-125 | 1548.7100 | | 612.4300 | | 1000.00 | 93.6 | | P |
| Lead | 75-125 | 22.4000 | | 1.0000 | U | 20.00 | 112.0 | | F |
| Magnesium | | | | | | | | | NR |
| Manganese | 75-125 | 510.2800 | | 31.5400 | | 500.00 | 95.7 | | P |
| Mercury | 75-125 | 0.8990 | | 0.2000 | U | 1.00 | 89.9 | | CV |
| Nickel | 75-125 | 459.0100 | | 8.0000 | U | 500.00 | 91.8 | | P |
| Potassium | | | | | | | | | NR |
| Selenium | 75-125 | 10.9000 | | 2.6000 | B | 10.00 | 83.0 | | F |
| Silver | 75-125 | 50.9500 | | 1.0000 | U | 50.00 | 101.9 | | P |
| Sodium | | | | | | | | | NR |
| Thallium | 75-125 | 38.7000 | | 1.0000 | U | 50.00 | 77.4 | | F |
| Vanadium | 75-125 | 477.2300 | | 2.0000 | U | 500.00 | 95.4 | | P |
| Zinc | 75-125 | 487.7100 | | 6.4800 | B | 500.00 | 96.2 | | P |
| Cyanide | 75-125 | 139.0000 | | 30.0000 | | 100.00 | 109.0 | | AS |

Comments:

U.S. EPA - CLP

3B

POST DIGEST SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

MERP09A

Lab Name: KEYSTONE ENVIRONMENTAL Contract: 68-D0-0148

Lab Code: KEYPA Case No.: 18642 SAS No.: SDG No.: MERP07

Matrix (soil/water): SOIL Level (low/med): LOW

Concentration Units: ug/L

| Analyte | Control Limit %R | Spiked Sample Result (SSR) | C | Sample Result (SR) | C | Spike Added (SA) | %R | Q | M |
|---|---|---|---|---|---|---|---|---|---|
| Aluminum | | | | | | | | | NR |
| Antimony | | 115.59 | | 11.00 | U | 120.0 | 96.3 | | P |
| Arsenic | | | | | | | | | NR |
| Barium | | | | | | | | | NR |
| Beryllium | | | | | | | | | NR |
| Cadmium | | | | | | | | | NR |
| Calcium | | | | | | | | | NR |
| Chromium | | | | | | | | | NR |
| Cobalt | | | | | | | | | NR |
| Copper | | | | | | | | | NR |
| Iron | | | | | | | | | NR |
| Lead | | | | | | | | | NR |
| Magnesium | | | | | | | | | NR |
| Manganese | | 5412.34 | | 1860.78 | | 3720.0 | 95.5 | | P |
| Mercury | | | | | | | | | NR |
| Nickel | | | | | | | | | NR |
| Potassium | | | | | | | | | NR |
| Selenium | | | | | | | | | NR |
| Silver | | | | | | | | | NR |
| Sodium | | | | | | | | | NR |
| Thallium | | | | | | | | | NR |
| Vanadium | | | | | | | | | NR |
| Zinc | | | | | | | | | NR |
| Cyanide | | 42.00 | | 10.00 | U | 100.0 | 42.0 | | AS |

Comments:

U.S. EPA - CLP

6
DUPLICATES

EPA SAMPLE NO.
MERF09D

Lab Name: KEYSTONE ENVIRONMENTAL  Contract: 68-D0-0148

Lab Code: KEYPA  Case No.: 18642  SAS No.:  SDG No.: MERF07

Matrix (soil/water): SOIL  Level (low/med): LOW

% Solids for Sample: 72.4  % Solids for Duplicate: 76.4

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

| Analyte | Control Limit | Sample (S) | C | Duplicate (D) | C | RPD | Q | M |
|---|---|---|---|---|---|---|---|---|
| Aluminum | | 6809.2739 | | 7513.7673 | | 9.8 | | P |
| Antimony | | 3.0367 | U | 3.5608 | B | 200.0 | | P |
| Arsenic | 2.8 | 12.3204 | | 13.6464 | | 10.2 | | F |
| Barium | 55.2 | 74.9862 | | 76.8785 | | 2.5 | | P |
| Beryllium | | 0.8398 | B | 0.8508 | B | 1.3 | | P |
| Cadmium | 1.4 | 6.7459 | | 5.6464 | | 17.7 | | P |
| Calcium | | 51218.8203 | | 46593.4531 | | 9.5 | | P |
| Chromium | | 36.1878 | | 33.2514 | | 8.5 | | P |
| Cobalt | | 5.7238 | B | 5.7459 | B | 0.4 | | P |
| Copper | | 112.1961 | | 97.7680 | | 13.7 | | P |
| Iron | | 14364.2236 | | 14902.4424 | | 3.7 | | P |
| Lead | | 717.4175 | | 11.5193 | | 193.7 | * | F |
| Magnesium | | 21631.3438 | | 19400.7773 | | 10.9 | | P |
| Manganese | | 514.0276 | | 454.3867 | | 12.3 | | P |
| Mercury | | 0.1381 | U | 0.1381 | U | | | CV |
| Nickel | 11.0 | 38.8729 | | 37.0580 | | 4.8 | | P |
| Potassium | | 983.0525 | B | 1034.7487 | B | 5.1 | | P |
| Selenium | | 0.9116 | B | 0.9945 | B | 8.7 | | F |
| Silver | | 0.9061 | B | 1.5304 | B | 51.2 | | P |
| Sodium | | 144.3149 | B | 125.8757 | B | 13.6 | | P |
| Thallium | | 0.5249 | B | 0.6354 | B | 19.0 | | F |
| Vanadium | 13.8 | 14.2514 | | 16.1630 | | 12.6 | | P |
| Zinc | | 797.7652 | | 669.6409 | | 17.5 | | P |
| Cyanide | | 0.6906 | U | 0.6906 | U | | | AS |

U.S. EPA - CLP

DUPLICATES

EPA SAMPLE NO.
MERP16D

Lab Name: KEYSTONE ENVIRONMENTAL  Contract: 68-D0-0148

Lab Code: KEYPA  Case No.: 18642  SAS No.:  SDG No.: MERP07

Matrix (soil/water): WATER  Level (low/med): LOW

% Solids for Sample: 0.0  % Solids for Duplicate: 0.0

Concentration Units (ug/L or mg/kg dry weight): ug/L

| Analyte | Control Limit | Sample (S) | C | Duplicate (D) | C | RPD | Q | M |
|---|---|---|---|---|---|---|---|---|
| Aluminum | | 34.0100 | B | 46.1700 | B | 30.3 | | P |
| Antimony | | 11.0000 | U | 11.0000 | U | | | P |
| Arsenic | | 3.0000 | U | 3.0000 | U | | | F |
| Barium | | 181.9900 | B | 177.9700 | B | 2.2 | | P |
| Beryllium | | 1.0000 | U | 1.0000 | U | | | P |
| Cadmium | | 2.0000 | U | 2.0000 | U | | | P |
| Calcium | | 110840.1406 | | 108839.4063 | | 1.8 | | P |
| Chromium | | 6.4900 | B | 3.5700 | B | 58.1 | | P |
| Cobalt | | 2.0000 | U | 2.0000 | U | | | P |
| Copper | | 7.3500 | B | 8.7700 | B | 17.6 | | P |
| Iron | | 612.4300 | | 586.4800 | | 4.3 | | P |
| Lead | | 1.0000 | U | 1.1000 | B | 200.0 | | F |
| Magnesium | | 38795.4414 | | 37910.1602 | | 2.3 | | P |
| Manganese | 15.0 | 31.3400 | | 31.1900 | | 1.1 | | P |
| Mercury | | 0.2000 | U | 0.2000 | U | | | CV |
| Nickel | 40.0 | 8.0000 | U | 48.6500 | | 200.0 | * | P |
| Potassium | | 2467.3701 | B | 2627.7500 | B | 6.3 | | P |
| Selenium | | 2.6000 | B | 1.9000 | B | 31.1 | | F |
| Silver | | 1.0000 | U | 1.0000 | U | | | P |
| Sodium | 5000.0 | 19117.0195 | | 18643.3809 | | 2.5 | | P |
| Thallium | | 1.0000 | U | 1.0000 | U | | | F |
| Vanadium | | 2.0000 | U | 2.0000 | U | | | P |
| Zinc | 20.0 | 6.4800 | B | 39.8700 | | 144.1 | * | P |
| Cyanide | 10.0 | 30.0000 | | 29.0000 | | 3.4 | | AS |

U.S. EPA - CLP

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Instrument Detection Limits (Quarterly)

Lab Name: KEYSTONE ENVIRONMENTAL  Contract: 68-D0-0148

Lab Code: KEYPA  Case No.: 18642  SAS No.:  SDG No.: MERF07

ICP ID Number:  Date: 07/16/92

Flame AA ID Number:

Furnace AA ID Number: Z3030-1

| Analyte | Wave-length (nm) | Back-ground | CRDL (ug/L) | IDL (ug/L) | M |
|---|---|---|---|---|---|
| Aluminum | | | 200 | | NR |
| Antimony | | | 60 | | NR |
| Arsenic | 193.70 | BZ | 10 | 3.0 | F |
| Barium | | | 200 | | NR |
| Beryllium | | | 5 | | NR |
| Cadmium | | | 5 | | NR |
| Calcium | | | 5000 | | NR |
| Chromium | | | 10 | | NR |
| Cobalt | | | 50 | | NR |
| Copper | | | 25 | | NR |
| Iron | | | 100 | | NR |
| Lead | | | 3 | | NR |
| Magnesium | | | 5000 | | NR |
| Manganese | | | 15 | | NR |
| Mercury | | | 0.2 | | NR |
| Nickel | | | 40 | | NR |
| Potassium | | | 5000 | | NR |
| Selenium | | | 5 | | NR |
| Silver | | | 10 | | NR |
| Sodium | | | 5000 | | NR |
| Thallium | | | 10 | | NR |
| Vanadium | | | 50 | | NR |
| Zinc | | | 20 | | NR |

Comments:

U.S. EPA - CLP

10

Instrument Detection Limits (Quarterly)

Lab Name: KEYSTONE ENVIRONMENTAL  Contract: 68-D0-0148

Lab Code: KEYPA  Case No.: 18642  SAS No.:  SDG No.: MERP07

ICP ID Number:  Date: 07/16/92

Flame AA ID Number:

Furnace AA ID Number: Z3030-2

| Analyte | Wavelength (nm) | Background | CRDL (ug/L) | IDL (ug/L) | M |
|---|---|---|---|---|---|
| Aluminum | | | 200 | | NR |
| Antimony | | | 60 | | NR |
| Arsenic | 193.70 | BZ | 10 | 3.0 | F |
| Barium | | | 200 | | NR |
| Beryllium | | | 5 | | NR |
| Cadmium | | | 5 | | NR |
| Calcium | | | 5000 | | NR |
| Chromium | | | 10 | | NR |
| Cobalt | | | 50 | | NR |
| Copper | | | 25 | | NR |
| Iron | | | 100 | | NR |
| Lead | 283.30 | BZ | 3 | 1.0 | F |
| Magnesium | | | 5000 | | NR |
| Manganese | | | 15 | | NR |
| Mercury | | | 0.2 | | NR |
| Nickel | | | 40 | | NR |
| Potassium | | | 5000 | | NR |
| Selenium | | | 5 | | NR |
| Silver | | | 10 | | NR |
| Sodium | | | 5000 | | NR |
| Thallium | | | 10 | | NR |
| Vanadium | | | 50 | | NR |
| Zinc | | | 20 | | NR |

Comments:

U.S. EPA - CLP

10

Instrument Detection Limits (Quarterly)

Lab Name: KEYSTONE ENVIRONMENTAL  Contract: 68-D0-0148

Lab Code: KEYPA  Case No.: 18642  SAS No.:  SDG No.: MERF07

ICP ID Number: ICAP61  Date: 07/16/92

Flame AA ID Number:

Furnace AA ID Number:

| Analyte | Wavelength (nm) | Background | CRDL (ug/L) | IDL (ug/L) | M |
|---|---|---|---|---|---|
| Aluminum | 308.20 | | 200 | 20.0 | P |
| Antimony | 206.80 | | 60 | 11.0 | P |
| Arsenic | | | 10 | | NR |
| Barium | 493.40 | | 200 | 2.0 | P |
| Beryllium | 313.00 | | 5 | 1.0 | P |
| Cadmium | 228.80 | | 5 | 2.0 | P |
| Calcium | 317.80 | | 5000 | 16.0 | P |
| Chromium | 267.70 | | 10 | 2.0 | P |
| Cobalt | 228.60 | | 50 | 2.0 | P |
| Copper | 324.70 | | 25 | 1.0 | P |
| Iron | 259.90 | | 100 | 8.0 | P |
| Lead | | | 3 | | NR |
| Magnesium | 279.00 | | 5000 | 26.0 | P |
| Manganese | 257.60 | | 15 | 1.0 | P |
| Mercury | | | 0.2 | | NR |
| Nickel | 231.60 | | 40 | 8.0 | P |
| Potassium | 766.40 | | 5000 | 409.0 | P |
| Selenium | | | 5 | | NR |
| Silver | 328.00 | | 10 | 1.0 | P |
| Sodium | 588.90 | | 5000 | 31.0 | P |
| Thallium | | | 10 | | NR |
| Vanadium | 292.40 | | 50 | 2.0 | P |
| Zinc | 213.80 | | 20 | 3.0 | P |

Comments:

10

Instrument Detection Limits (Quarterly)

Lab Name: KEYSTONE ENVIRONMENTAL  Contract: 68-D0-0148

Lab Code: KEYPA  Case No.: 18642  SAS No.:  SDG No.: MERP07

ICP ID Number:  Date: 07/16/92

Flame AA ID Number:

Furnace AA ID Number: Z5100

| Analyte | Wave-length (nm) | Back-ground | CRDL (ug/L) | IDL (ug/L) | M |
|---|---|---|---|---|---|
| Aluminum | | | 200 | | NR |
| Antimony | | | 60 | | NR |
| Arsenic | | | 10 | | NR |
| Barium | | | 200 | | NR |
| Beryllium | | | 5 | | NR |
| Cadmium | | | 5 | | NR |
| Calcium | | | 5000 | | NR |
| Chromium | | | 10 | | NR |
| Cobalt | | | 50 | | NR |
| Copper | | | 25 | | NR |
| Iron | | | 100 | | NR |
| Lead | | | 3 | | NR |
| Magnesium | | | 5000 | | NR |
| Manganese | | | 15 | | NR |
| Mercury | | | 0.2 | | NR |
| Nickel | | | 40 | | NR |
| Potassium | | | 5000 | | NR |
| Selenium | 196.00 | BZ | 5 | 1.0 | F |
| Silver | | | 10 | | NR |
| Sodium | | | 5000 | | NR |
| Thallium | 276.80 | BZ | 10 | 1.0 | F |
| Vanadium | | | 50 | | NR |
| Zinc | | | 20 | | NR |

Comments:

IO

Instrument Detection Limits (Quarterly)

Lab Name: KEYSTONE ENVIRONMENTAL  Contract: 68-D0-0148

Lab Code: KEYPA  Case No.: 18642  SAS No.:  SDG No.: MERP07

ICP ID Number:  Date: 07/16/92

Flame AA ID Number: PE5OB

Furnace AA ID Number:

| Analyte | Wave-length (nm) | Back-ground | CRDL (ug/L) | IDL (ug/L) | M |
|---|---|---|---|---|---|
| Aluminum | | | 200 | | NR |
| Antimony | | | 60 | | NR |
| Arsenic | | | 10 | | NR |
| Barium | | | 200 | | NR |
| Beryllium | | | 5 | | NR |
| Cadmium | | | 5 | | NR |
| Calcium | | | 5000 | | NR |
| Chromium | | | 10 | | NR |
| Cobalt | | | 50 | | NR |
| Copper | | | 25 | | NR |
| Iron | | | 100 | | NR |
| Lead | | | 3 | | NR |
| Magnesium | | | 5000 | | NR |
| Manganese | | | 15 | | NR |
| Mercury | 253.70 | | 0.2 | 0.2 | CV |
| Nickel | | | 40 | | NR |
| Potassium | | | 5000 | | NR |
| Selenium | | | 5 | | NR |
| Silver | | | 10 | | NR |
| Sodium | | | 5000 | | NR |
| Thallium | | | 10 | | NR |
| Vanadium | | | 50 | | NR |
| Zinc | | | 20 | | NR |

Comments:

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

ESD Central Regional Laboratory
Data Tracking Form for Contract Samples

Data Set No._____ CERCLIS No. IN

Case No. 18642 Site Name Location: Sanyo

Contractor or EPA Lab: Keystone Data User: Weston

No. of Samples: 8 Date Samples or Data Received: 9-30-92

Have Chain-of-Custody records been received? YES ✓ NO____
Have traffic reports or packing lists been received? YES ✓ NO____
If no, are traffic report or packing list numbers written on the chain-of-custody record? YES____ NO____
If no, which traffic report or packing list numbers are missing?

Are basic data forms in? YES ✓ NO____
No. of samples claimed: 8 No. of samples received: 8

Received by: Lynette Burnett Date: 9-30-92

Received by LESS: DMM Date: 9-30-92

Review started: 10/8/92 Reviewer Signature: M. Deloach

Total time spent on review: 6.5 +0.5 By 10-9-92 Date review completed: 10/9/92

Copied by: Eric Müller Date: 10-19-92

Mailed to user by: Lynette Burnett Date: 10-19-92

DATA USERS:
Please fill in the blanks below and return this form to:
Sylvia Griffin, Data Mgmt. Coordinator, Region V, 5SCRL

Data received by:_____ Date:_____

Data review received by:_____ Date:_____
Inorganic Data Complete( ) Suitable for Intended Purpose( ) ✓if OK
Organic Data Complete ( ) Suitable for Intended Purpose( ) list
Dioxin Data Complete ( ) Suitable for Intended Purpose( ) prblms
SAS Data Complete ( ) Suitable for Intended Purpose( ) below.
PROBLEMS: Please indicate reasons why data are not suitable for your uses.

Received by Data Mgmt. Coordinator for Files Date:_____

45sc-45-AGAZ

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

DATE: 10/8/92

SUBJECT: Review of Region V CLP Data
Received for Review on Sept 2, 1992

FROM: Charles T. Elly, Director(5SCRL)
Central Regional Laboratory
Patrick J. Churilla for C.T. Elly

TO: Data User: Weston

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

SITE NAME: Sanyo (IN) SMO Case No. 18648SAS7262

EPA Data Set No. _____ No. of Samples 3 DU/Activity Numbers _____/_____

CRL No. _____

SMO Traffic No. MERP 20-22 + (PF-216, PN 442)

CLP Laboratory: Centec (ETS) Hrs. for Review 4 +.5

Following are our findings:

THE DATA ARE ACCEPTABLE WITH QUALIFICATIONS NOTED IN THE ATTACHED REVIEW. - Patrick J. Churilla 10/8/92

PDC
11/6/92

( ) Data are acceptable for use.
(X) Data are acceptable for use with qualifications.
( ) Data are preliminary - pending verification by laboratory.
( ) Data are unacceptable.

cc: Elenor McLean, Sample Mgmt. Office
Edward Kantor, EMSL-Las Vegas

REGION V
SPECIAL ANALYTICAL SERVICES
REVIEW DOCUMENT DATE 9/28/92

SAS NUMBER 8642 SITE NAME Sanyo, (IN)

CLIENT (SAMPLER) Weston LABORATORY Centec

ANALYTES/MATRICES Water

REVIEWER'S NAME M. Featherc EPA/ESAT ESAT

(PLEASE USE ADDITIONAL PAGES IF THE SPACE PROVIDED BELOW IS NOT ADEQUATE TO ANSWER THE QUESTIONS. ALSO, PLEASE INCLUDE ALL PHONE LOGS WITH THE DATA REVIEW.)

DID THE REFERENCED METHODOLOGY(IES) OR PROTOCOL PROVIDE TECHNICALLY USEFUL INFORMATION FOR THIS SPECIFIC SAS REQUEST? IF NOT, PLEASE EXPLAIN. Yes

DESCRIBE ANY CHANGES IN METHODOLOGY OR OTHER TECHNICAL IMPROVEMENTS THAT YOU RECOMMEND IN ORDER TO MORE ADEQUATELY PERFORM THIS SPECIFIC SAS TASK. None

WERE THE QC PROCEDURES ADEQUATE FOR DETERMINING THE QUALITY OF THE DATA FOR THIS SPECIFIC SAS REQUEST? IF NOT, DESCRIBE ANY PROBLEMS ENCOUNTERED WITH THE QC INFORMATION. Yes

DESCRIBE ANY CHANGES IN THE QC REQUIREMENTS THAT YOU RECOMMEND IN ORDER TO MORE ADEQUATELY PERFORM THIS SPECIFIC SAS. None

IF THERE WERE SIGNIFICANT PROBLEMS WITH THIS SAS DATA, PLEASE DESCRIBE THE CAUSES, i.e., THE LAB DIDN'T READ THE SAS REQUEST, THE LAB CHANGED METHODS WITHOUT GETTING REGIONAL AUTHORIZATION, THE LAB DID NOT UNDERSTAND THE SAS REQUEST, THE LAB IS UNRESPONSIVE, CORRECTIVE ACTION WAS NOT TAKEN IN A TIMELY MANNER, HOLDING TIMES WERE MISSED, THERE WERE MATRIX PROBLEMS ETC. Not

OTHER COMMENTS:

(Please submit this document with a copy of the data review to the RSCC.)

The laboratory's portion of case 18642SAS7262E contains 3 low level water samples assayed for total metals and total cyanide. The following narrative lists the out of control audits and their possible effects on the results.

**LABORATORY: CENTEC** **CASE: 18642SAS7262E**

**EVIDENTIAL AUDIT:** All forms are originals. Most of the raw data sheets are originals, those photocopied state where the originals can be found. The original CN raw data are with case 18588 SDG: MERM10. The original sample tags are present. The original Federal Express airbill is present. The chain of custody forms are originals. All forms are present and in the order indicated on the Form DC-2 [inventory sheet].

**ICP ANALYSES:**

The matrix spike recovery of Fe(79.4 %) exceeded the SAS limits(85-115 %), however the lab did not flag the matrix spike recovery of Fe since the sample result was 4 times greater than the spike added. All Fe data are not qualified on this basis. All Fe data are acceptable.

The duplicate RPDs for Al(200 %) and Zn(10.7 %) were not flagged by the laboratory because the duplicate differences did not exceed the technical criterion (SAS IDL) for water samples. All Zn data are acceptable. Al data are qualified below.

The preparation blank contains K(367.83 µg/L). The CCB contains K(588.6 µg/L). K data for MERP21 is estimated (J) due to contamination.

**GFAA ANALYSES:**

The duplicate RPD for Se(200 %) was flagged by the lab. Se data are not qualified on this basis because the duplicate difference did not exceed the technical criterion (SAS IDL). All Se data are acceptable.

The duplicate RPD for As(28%) was not flagged by the laboratory because the duplicate difference did not exceed the technical criterion( SAS IDL). All As data are acceptable.

**OTHER ANALYSES:** All Hg and CN data are acceptable.

Sample MERP21 is a field blank containing Al (39.9 µg/L). Samples MERP20 and MERP22 for Al are estimated (J) due to field contamination.

Reviewed by: M. Fletcher Date: 9/29/92
Lockheed/ESAT

**OTHER ANALYSES:** Samples MERP20/MERP22 are field duplicates that show good field correlation.

**PE RESULTS:** PE sample PN-442 was assayed for total metals. The Cd, K, and Zn results were scored as TLC Contaminants. The Sb result was scored as a TLC Miss. PE sample PF-216 was assayed for total cyanide. Total metals and total cyanide data are not qualified on these bases.

M. Fletcher

Reviewed by: M. Fletcher Date: 9/29/92
Lockheed/ESAT

CASE # 16642 SAS 7262 E SITE Sanyo (IN)
LAB Ceatec
REVIEWED BY M Fletcher
DATE 9/28/92

MATRIX: Water
CONC. : low

WATER SAMPLE SPK.
WATER SAMPLE DUP.
SOIL SAMPLE SPK.
SOIL SAMPLE DUP.

| | OVERALL CASE QC | | | | | | | | | MATRIX SPECIFIC QC | | | | | | SAMPLE SPECIFIC QC | | FIELD QC | | | REGIONAL QC | | | OTHER/ COMMENTS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Holding Time | Cal Blanks | Init Calver | Contin Calver | Prep Blk AQ | Prep Blk SOL | ICS %R | LCS % AQ | LCS % SOL | Sol Dup RPD | Sol Spk %R | AQ Dup RPD | AQ Spk %R | Ser Dun AQ | Ser Dun SOL | GFAA Dup | GFAA Spike | Blank | Dup RPD | Spike %R | Blind Blank | Blind Spike %R | Split Sample RPD | |
| Aluminum | | | | | | | | | | | | | | | | | | 31.9 | | | | | | |
| Antimony | | | | | | | | | | | | | | | | | | | | | | | | |
| Arsenic | | | | | | | | | | | | | | | | | | | | | | | | |
| Barium | | | | | | | | | | | | | | | | | | | | | | | | |
| Beryllium | | | | | | | | | | | | | | | | | | | | | | | | |
| Cadmium | | | | | | | | | | | | | | | | | | | | | | | | |
| Calcium | | | | | | | | | | | | | | | | | | | | | | | | |
| Chromium | | | | | | | | | | | | | | | | | | | | | | | | |
| Cobalt | | | | | | | | | | | | | | | | | | | | | | | | |
| Copper | | | | | | | | | | | | | | | | | | | | | | | | |
| Iron | | | | | | | | | | | | | 79.4 | | | | | | | | | | | |
| Lead | | | | | | | | | | | | | | | | | | | | | | | | |
| Magnesium | | | | | | | | | | | | | | | | | | | | | | | | |
| Manganese | | | | | | | | | | | | | | | | | | | | | | | | |
| Mercury | | | | | | | | | | | | | | | | | | | | | | | | |
| Nickel | | | | | | | | | | | | | | | | | | | | | | | | |
| Potassium | | 588.6 | | | 369.68 | | | | | | | | | | | | | | | | | | | |
| Selenium | | | | | | | | | | | | | | | | | | | | | | | | |
| Silver | | | | | | | | | | | | | | | | | | | | | | | | |
| Sodium | | | | | | | | | | | | | | | | | | | | | | | | |
| Thallium | | | | | | | | | | | | | | | | | | | | | | | | |
| Tin | | | | | | | | | | | | | | | | | | | | | | | | |
| Vanadium | | | | | | | | | | | | | | | | | | | | | | | | |
| Zinc | | | | | | | | | | | | | | | | | | | | | | | | |
| Cyanide | | | | | | | | | | | | | | | | | | | | | | | | |

ENVIROFORMS/INORGANIC CLP

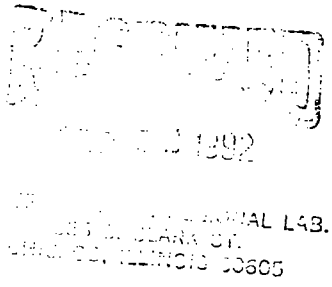
COVER PAGE - INORGANIC ANALYSES DATA PACKAGE

Lab Name: ETS Analytical Services Contract: 68-D2-0048

Lab Code: ETS Case No.: 18642 SAS No.: SDG No.: MERP20

SOW No.: ILM02.0

| Sample No. | Lab Sample ID. |
|---|---|
| MERP20 | 128423 |
| MERP20D | 128423D |
| MERP20S | 128423S |
| MERP21 | 128424 |
| MERP22 | 128425 |
| PF-216 | 128432 |
| PN-442 | 128431 |



Were ICP interelement corrections applied? Yes/No NO

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

Comments:

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

Signature: Cheryl M Daniel Name: Cheryl M Daniel

Date: 09/01/92 Title: Project Manager

2

ENVIROFORMS/INORGANIC CLP

SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

MERP20

Lab Name: ETS Analytical Services Contract: 68-D2-0048

Lab Code: ETS Case No.: 18642 SAS No.: SDG No.: MERP20

Matrix (soil/water): WATER Lab Sample ID: 128423

Level (low/med): LOW Date Received: 08/19/92

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

| CAS No. | Analyte | Concentration | C | Q | M |
|---|---|---|---|---|---|
| 7429-90-5 | Aluminum | 35.1 | B | J | P |
| 7440-36-0 | Antimony | 51.0 | U | | P |
| 7440-38-2 | Arsenic | 7.1 | | | F |
| 7440-39-3 | Barium | 222 | | | P |
| 7440-41-7 | Beryllium | 1.0 | U | | P |
| 7440-43-9 | Cadmium | 0.10 | U | | F |
| 7440-70-2 | Calcium | 96300 | | | P |
| 7440-47-3 | Chromium | 9.0 | U | | P |
| 7440-48-4 | Cobalt | 10.0 | U | | P |
| 7440-50-8 | Copper | 12.6 | | | P |
| 7439-89-6 | Iron | 6020 | | N | P |
| 7439-92-1 | Lead | 1.0 | U | | F |
| 7439-95-4 | Magnesium | 39200 | | | P |
| 7439-96-5 | Manganese | 635 | | | P |
| 7439-97-6 | Mercury | 0.20 | U | | CV |
| 7440-02-0 | Nickel | 13.0 | U | | P |
| 7440-09-7 | Potassium | 3260 | | | P |
| 7782-49-2 | Selenium | 2.0 | U | * | F |
| 7440-22-4 | Silver | 3.0 | U | | P |
| 7440-23-5 | Sodium | 29400 | | | P |
| 7440-28-0 | Thallium | 1.0 | U | | F |
| 7440-62-2 | Vanadium | 9.0 | U | | P |
| 7440-66-6 | Zinc | 42.9 | | | P |
| | Cyanide | 10.0 | U | | C |

MF 9/28/92

PDC 11/6/92

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

ENVIROFORMS/INORGANIC CLP

1

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

MERP21

Lab Name: ETS Analytical Services Contract: 68-D2-0048

Lab Code: ETS Case No.: 18642 SAS No.: SDG No.: MERP20

Matrix (soil/water): WATER Lab Sample ID: 128424

Level (low/med): LOW Date Received: 08/19/92

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

| CAS No. | Analyte | Concentration | C | Q | M |
|---|---|---|---|---|---|
| 7429-90-5 | Aluminum | 39.9 | B | | P |
| 7440-36-0 | Antimony | 51.0 | U | | P |
| 7440-38-2 | Arsenic | 1.0 | U | | F |
| 7440-39-3 | Barium | 2.0 | U | | P |
| 7440-41-7 | Beryllium | 1.0 | U | | P |
| 7440-43-9 | Cadmium | 0.10 | U | | F |
| 7440-70-2 | Calcium | 18.0 | U | | P |
| 7440-47-3 | Chromium | 9.0 | U | | P |
| 7440-48-4 | Cobalt | 10.0 | U | | P |
| 7440-50-8 | Copper | 6.0 | U | | P |
| 7439-89-6 | Iron | 12.7 | B | ~~N~~ | P |
| 7439-92-1 | Lead | 1.0 | U | | F |
| 7439-95-4 | Magnesium | 63.0 | U | | P |
| 7439-96-5 | Manganese | 1.0 | U | | P |
| 7439-97-6 | Mercury | 0.20 | U | | CV |
| 7440-02-0 | Nickel | 13.0 | U | | P |
| 7440-09-7 | Potassium | 571 | B | J | P |
| 7782-49-2 | Selenium | 2.0 | U | * | F |
| 7440-22-4 | Silver | 3.0 | U | | P |
| 7440-23-5 | Sodium | 100 | B | | P |
| 7440-28-0 | Thallium | 1.0 | U | | F |
| 7440-62-2 | Vanadium | 9.0 | U | | P |
| 7440-66-6 | Zinc | 5.0 | U | | P |
| | Cyanide | 10.0 | U | | C |

MF 4/28/93

PDC 11/6/92

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

ENVIROFORMS/INORGANIC CLP

SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

MERP22

Lab Name: ETS Analytical Services Contract: 68-D2-0048

Lab Code: ETS Case No.: 18642 SAS No.: SDG No.: MERP20

Matrix (soil/water): WATER Lab Sample ID: 128425

Level (low/med): LOW Date Received: 08/19/92

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

| CAS No. | Analyte | Concentration | C | Q | M | |
|---|---|---|---|---|---|---|
| 7429-90-5 | Aluminum | 41.0 | B | J | P | PDC 11/16/92 |
| 7440-36-0 | Antimony | 51.0 | U | | P | |
| 7440-38-2 | Arsenic | 6.3 | | | F | |
| 7440-39-3 | Barium | 214 | | | P | |
| 7440-41-7 | Beryllium | 1.0 | U | | P | |
| 7440-43-9 | Cadmium | 0.10 | U | | F | |
| 7440-70-2 | Calcium | 94100 | | | P | |
| 7440-47-3 | Chromium | 9.0 | U | | P | |
| 7440-48-4 | Cobalt | 10.0 | U | | P | |
| 7440-50-8 | Copper | 10.4 | | | P | |
| 7439-89-6 | Iron | 5940 | | ~~N~~ | P | MF 9128/92 |
| 7439-92-1 | Lead | 1.0 | U | | F | |
| 7439-95-4 | Magnesium | 38100 | | | P | |
| 7439-96-5 | Manganese | 629 | | | P | |
| 7439-97-6 | Mercury | 0.20 | U | | CV | |
| 7440-02-0 | Nickel | 13.0 | U | | P | |
| 7440-09-7 | Potassium | 3200 | | | P | |
| 7782-49-2 | Selenium | 2.0 | U | * | F | |
| 7440-22-4 | Silver | 3.0 | U | | P | |
| 7440-23-5 | Sodium | 28900 | | | P | |
| 7440-28-0 | Thallium | 1.0 | U | | F | |
| 7440-62-2 | Vanadium | 9.0 | U | | P | |
| 7440-66-6 | Zinc | 45.1 | | | P | |
| | Cyanide | 10.0 | U | | C | |

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

ENVIROFORMS/INORGANIC CLP

3
BLANKS

Lab Name: ETS Analytical Services Contract: 68-D2-0048

Lab Code: ETS Case No.: 18642 SAS No.: SDG No.: MERP20

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

| Analyte | Initial Calib. Blank (ug/L) | C | Continuing Calibration Blank (ug/L) 1 | C | 2 | C | 3 | C | Prepa-ration Blank | C | M |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Aluminum | 33.0 | U | 33.0 | U | 33.0 | U | 33.0 | U | 33.000 | U | P |
| Antimony | 51.0 | U | 51.0 | U | 51.0 | U | 51.0 | U | 51.000 | U | P |
| Arsenic | 1.0 | U | 1.1 | B | 1.0 | U | 1.0 | U | | | F |
| Barium | 2.0 | U | 2.0 | U | 2.0 | U | 2.0 | U | 2.000 | U | P |
| Beryllium | 1.0 | U | 1.0 | U | 1.0 | U | 1.0 | U | 1.040 | B | P |
| Cadmium | 0.1 | U | 0.1 | U | 0.1 | U | | | | | F |
| Calcium | -28.0 | B | -20.8 | B | -29.6 | B | -29.8 | B | -29.240 | B | P |
| Chromium | 9.0 | U | 9.0 | U | 9.0 | U | 9.0 | U | 9.000 | U | P |
| Cobalt | 10.0 | U | 10.0 | U | 10.0 | U | 10.0 | U | 10.000 | U | P |
| Copper | 6.0 | U | 6.0 | U | 6.0 | U | 6.0 | U | 6.000 | U | P |
| Iron | 6.0 | U | 6.0 | U | 6.0 | U | 6.0 | U | 6.000 | U | P |
| Lead | 1.0 | U | 1.0 | U | 1.0 | U | | | | | F |
| Magnesium | 63.0 | U | 63.0 | U | 63.0 | U | 63.0 | U | 63.000 | U | P |
| Manganese | 1.0 | U | 1.0 | U | 1.0 | U | 1.5 | B | 1.000 | U | P |
| Mercury | 0.2 | U | 0.2 | U | 0.2 | U | | | 0.200 | U | CV |
| Nickel | 13.0 | U | 13.0 | U | 13.0 | U | 13.0 | U | 13.000 | U | P |
| Potassium | 1043.9 | B | 588.6 | B | 323.0 | U | 633.7 | B | 367.830 | B | P |
| Selenium | 2.0 | U | 2.0 | U | 2.0 | U | 2.0 | U | | | F |
| Silver | 3.0 | U | 3.0 | U | 3.0 | U | -3.2 | B | 3.000 | U | P |
| Sodium | 42.0 | U | 42.0 | U | 42.0 | U | 42.0 | U | 42.000 | U | P |
| Thallium | 1.0 | U | 1.0 | U | 1.0 | U | | | | | F |
| Vanadium | 9.0 | U | 9.0 | U | 9.0 | U | 9.0 | U | 9.000 | U | P |
| Zinc | 5.0 | U | 5.0 | U | 5.0 | U | 5.0 | U | 8.100 | B | P |
| Cyanide | 10.0 | U | 10.0 | U | 10.0 | U | | | 10.000 | U | C |

ENVIROFORMS/INORGANIC CLP

3
BLANKS

Lab Name: ETS Analytical Services Contract: 68-D2-0048

Lab Code: ETS Case No.: 18642 SAS No.: SDG No.: MERP20

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

| Analyte | Initial Calib. Blank (ug/L) | C | Continuing Calibration Blank (ug/L) 1 | C | 2 | C | 3 | C | Prepa-ration Blank | C | M |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Aluminum | | | | | | | | | | | |
| Antimony | | | | | | | | | | | |
| Arsenic | | | | | | | | | | | |
| Barium | | | | | | | | | | | |
| Beryllium | | | | | | | | | | | |
| Cadmium | | | | | | | | | | | |
| Calcium | | | | | | | | | | | |
| Chromium | | | | | | | | | | | |
| Cobalt | | | | | | | | | | | |
| Copper | | | | | | | | | | | |
| Iron | | | | | | | | | | | |
| Lead | | | | | | | | | | | |
| Magnesium | | | | | | | | | | | |
| Manganese | | | | | | | | | | | |
| Mercury | | | | | | | | | | | |
| Nickel | | | | | | | | | | | |
| Potassium | | | | | | | | | | | |
| Selenium | | | 2.0 | U | 2.0 | U | | | | | F |
| Silver | | | | | | | | | | | |
| Sodium | | | | | | | | | | | |
| Thallium | | | | | | | | | | | |
| Vanadium | | | | | | | | | | | |
| Zinc | | | | | | | | | | | |
| Cyanide | | | | | | | | | | | |

ENVIROFORMS/INORGANIC CLP

5A
SPIKE SAMPLE RECOVERY

SAMPLE NO.

MERP20S

Lab Name: ETS Analytical Services Contract: 68-D2-0048

Lab Code: ETS Case No.: 18642 SAS No.: SDG No.: MERP20

Matrix (soil/water): WATER Level (low/med): LOW

% Solids for Sample: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

| Analyte | Control Limit %R | Spiked Sample Result (SSR) | C | Sample Result (SR) | C | Spike Added (SA) | %R | Q | M |
|---|---|---|---|---|---|---|---|---|---|
| Aluminum | 85-115 | 2028.1900 | | 35.1400 | B | 2000.00 | 99.7 | | P |
| Antimony | 85-115 | 542.8500 | | 51.0000 | U | 500.00 | 108.6 | | P |
| Arsenic | | | | | | | | | NR |
| Barium | 85-115 | 2224.6800 | | 221.5600 | | 2000.00 | 100.2 | | P |
| Beryllium | 85-115 | 45.9100 | | 1.0000 | U | 50.00 | 91.8 | | P |
| Cadmium | | | | | | | | | NR |
| Calcium | 85-115 | 140772.8900 | | 96295.6500 | | 50000.00 | 89.0 | | P |
| Chromium | 85-115 | 199.4300 | | 9.0000 | U | 200.00 | 99.7 | | P |
| Cobalt | 85-115 | 470.3900 | | 10.0000 | U | 500.00 | 94.1 | | P |
| Copper | 85-115 | 273.0800 | | 12.5700 | | 250.00 | 104.2 | | P |
| Iron | ~~85-115~~ MF 9/24/92 | 6818.1100 | | 6023.7800 | | 1000.00 | 79.4 | N | P |
| Lead | | | | | | | | | NR |
| Magnesium | 85-115 | 63425.2900 | | 39203.2300 | | 25000.00 | 96.9 | | P |
| Manganese | 85-115 | 813.2700 | | 635.2600 | | 200.00 | 89.0 | | P |
| Mercury | 80-120 | 1.0200 | | 0.2000 | U | 1.00 | 102.0 | | CV |
| Nickel | 85-115 | 390.3100 | | 13.0000 | U | 400.00 | 97.6 | | P |
| Potassium | 85-115 | 23895.1900 | | 3258.7500 | | 20000.00 | 103.2 | | P |
| Selenium | | | | | | | | | NR |
| Silver | 85-115 | 46.4100 | | 3.0000 | U | 50.00 | 92.8 | | P |
| Sodium | 85-115 | 86447.2900 | | 29350.3900 | | 50000.00 | 114.2 | | P |
| Thallium | | | | | | | | | NR |
| Vanadium | 85-115 | 491.0200 | | 9.0000 | U | 500.00 | 98.2 | | P |
| Zinc | 85-115 | 233.2800 | | 42.8800 | | 200.00 | 95.2 | | P |
| Cyanide | 80-120 | 112.5000 | | 10.0000 | U | 100.00 | 112.5 | | C |

NF 9/25

Comments:

ENVIROFORMS/INORGANIC CLP

6
DUPLICATES

SAMPLE NO.

MERP20D

Lab Name: ETS Analytical Services Contract: 68-D2-0048

Lab Code: ETS Case No.: 18642 SAS No.: SDG No.: MERP20

Matrix (soil/water): WATER Level (low/med): LOW

% Solids for Sample: 0.0 % Solids for Duplicate: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

| Analyte | Control Limit | Sample (S) | C | Duplicate (D) | C | RPD | Q | M |
|---|---|---|---|---|---|---|---|---|
| Aluminum | | 35.1400 | B | 33.0000 | U | 200.0 | | P |
| Antimony | | 51.0000 | U | 51.0000 | U | | | P |
| Arsenic | 5.0 | 7.1200 | | 5.3700 | | 28.0 | | F |
| Barium | | 221.5600 | | 219.4200 | | 1.0 | | P |
| Beryllium | | 1.0000 | U | 1.0000 | U | | | P |
| Cadmium | | 0.1000 | U | 0.1000 | U | | | F |
| Calcium | | 96295.6500 | | 94936.3400 | | 1.4 | | P |
| Chromium | | 9.0000 | U | 9.0000 | U | | | P |
| Cobalt | | 10.0000 | U | 10.0000 | U | | | P |
| Copper | 10.0 | 12.5700 | | 13.5200 | | 7.3 | | P |
| Iron | | 6023.7800 | | 5943.6800 | | 1.3 | | P |
| Lead | | 1.0000 | U | 1.0000 | U | | | F |
| Magnesium | | 39203.2300 | | 39330.9300 | | 0.3 | | P |
| Manganese | | 635.2600 | | 624.8800 | | 1.6 | | P |
| Mercury | | 0.2000 | U | 0.2000 | U | | | CV |
| Nickel | | 13.0000 | U | 13.0000 | U | | | P |
| Potassium | 2000.0 | 3258.7500 | | 3037.7500 | | 7.0 | | P |
| Selenium | 2.0 | 2.0000 | U | 3.0000 | | 200.0 | * | F |
| Silver | | 3.0000 | U | 3.0000 | U | | | P |
| Sodium | | 29350.3900 | | 29244.1800 | | 0.4 | | P |
| Thallium | | 1.0000 | U | 1.0000 | U | | | F |
| Vanadium | | 9.0000 | U | 9.0000 | U | | | P |
| Zinc | 20.0 | 42.8800 | | 47.7300 | | 10.7 | | P |
| Cyanide | | 10.0000 | U | 10.0000 | U | | | C |

ENVIROFORMS/INORGANIC CLP

10

INSTRUMENT DETECTION LIMITS (QUARTERLY)

Lab Name: ETS Analytical Services Contract: 68-D2-0048

Lab Code: ETS Case No.: 18642 SAS No.: SDG No.: MERP20

ICP ID Number: PLASMA2 Date: 07/23/92

Flame AA ID Number:

Furnace AA ID Number:

| Analyte | Wave-length (nm) | Back-ground | CRDL (ug/L) | IDL (ug/L) | M |
|---|---|---|---|---|---|
| Aluminum | 396.15 | | 80.0 | 33.0 | P |
| Antimony | 206.84 | | 60.0 | 51.0 | P |
| Arsenic | | | 5.0 | | |
| Barium | 455.39 | | 20.0 | 2.0 | P |
| Beryllium | 313.04 | | 5.0 | 1.0 | P |
| Cadmium | | | 0.5 | | |
| Calcium | 317.93 | | 1000.0 | 18.0 | P |
| Chromium | 205.56 | | 10.0 | 9.0 | P |
| Cobalt | 228.62 | | 10.0 | 10.0 | P |
| Copper | 324.75 | | 10.0 | 6.0 | P |
| Iron | 259.94 | | 100.0 | 6.0 | P |
| Lead | | | 3.0 | | |
| Magnesium | 279.08 | | 1000.0 | 63.0 | P |
| Manganese | 257.61 | | 10.0 | 1.0 | P |
| Mercury | | | 0.2 | | |
| Nickel | 231.60 | | 20.0 | 13.0 | P |
| Potassium | 766.46 | | 2000.0 | 323.0 | P |
| Selenium | | | 2.0 | | |
| Silver | 328.07 | | 5.0 | 3.0 | P |
| Sodium | 589.58 | | 1000.0 | 42.0 | P |
| Thallium | | | 2.0 | | |
| Vanadium | 292.40 | | 10.0 | 9.0 | P |
| Zinc | 213.86 | | 20.0 | 5.0 | P |
| Cyanide | | | 10.0 | | |

Comments:

ENVIROFORMS/INORGANIC CLP

10
INSTRUMENT DETECTION LIMITS (QUARTERLY)

Lab Name: ETS Analytical Services Contract: 68-D2-0048

Lab Code: ETS Case No.: 18642 SAS No.: SDG No.: MERP20

ICP ID Number: Date: 07/20/92

Flame AA ID Number:

Furnace AA ID Number: Z5100

| Analyte | Wave-length (nm) | Back-ground | CRDL (ug/L) | IDL (ug/L) | M |
|---|---|---|---|---|---|
| Aluminum | | | 80.0 | | |
| Antimony | | | 60.0 | | |
| Arsenic | | | 5.0 | | |
| Barium | | | 20.0 | | |
| Beryllium | | | 5.0 | | |
| Cadmium | | | 0.5 | | |
| Calcium | | | 1000.0 | | |
| Chromium | | | 10.0 | | |
| Cobalt | | | 10.0 | | |
| Copper | | | 10.0 | | |
| Iron | | | 100.0 | | |
| Lead | | | 2.0 | | |
| Magnesium | | | 1000.0 | | |
| Manganese | | | 10.0 | | |
| Mercury | | | 0.2 | | |
| Nickel | | | 20.0 | | |
| Potassium | | | 2000.0 | | |
| Selenium | | | 2.0 | | |
| Silver | | | 5.0 | | |
| Sodium | | | 1000.0 | | |
| Thallium | 276.80 | BZ | 2.0 | 1.0 | F |
| Vanadium | | | 10.0 | | |
| Zinc | | | 20.0 | | |
| Cyanide | | | 10.0 | 10.0 | C |

Comments:

ENVIROFORMS/INORGANIC CLP

10
INSTRUMENT DETECTION LIMITS (QUARTERLY)

Lab Name: ETS Analytical Services  Contract: 68-D2-0048

Lab Code: ETS  Case No.: 18642  SAS No.:  SDG No.: MERP20

ICP ID Number:  Date: 07/20/92

Flame AA ID Number:

Furnace AA ID Number: Z5100B

| Analyte | Wave-length (nm) | Back-ground | CRDL (ug/L) | IDL (ug/L) | M |
|---|---|---|---|---|---|
| Aluminum | | | 80.0 | | |
| Antimony | | | 60.0 | | |
| Arsenic | 193.70 | BZ | 5.0 | 1.0 | F |
| Barium | | | 20.0 | | |
| Beryllium | | | 5.0 | | |
| Cadmium | 228.80 | BZ | 0.5 | 0.1 | F |
| Calcium | | | 1000.0 | | |
| Chromium | | | 10.0 | | |
| Cobalt | | | 10.0 | | |
| Copper | | | 10.0 | | |
| Iron | | | 100.0 | | |
| Lead | | | 2.0 | | |
| Magnesium | | | 1000.0 | | |
| Manganese | | | 10.0 | | |
| Mercury | | | 0.2 | | |
| Nickel | | | 20.0 | | |
| Potassium | | | 2000.0 | | |
| Selenium | 196.00 | BZ | 2.0 | 2.0 | F |
| Silver | | | 5.0 | | |
| Sodium | | | 1000.0 | | |
| Thallium | | | 2.0 | | |
| Vanadium | | | 10.0 | | |
| Zinc | | | 20.0 | | |
| Cyanide | | | 10.0 | | |

Comments:

ENVIROFORMS/INORGANIC CLP

10
INSTRUMENT DETECTION LIMITS (QUARTERLY)

Lab Name: ETS Analytical Services Contract: 68-D2-0048

Lab Code: ETS Case No.: 18642 SAS No.: SDG No.: MERP20

ICP ID Number: Date: 07/20/92

Flame AA ID Number:

Furnace AA ID Number: Z5000

| Analyte | Wave-length (nm) | Back-ground | CRDL (ug/L) | IDL (ug/L) | M |
|---|---|---|---|---|---|
| Aluminum | | | 80.0 | | |
| Antimony | | | 60.0 | | |
| Arsenic | | | 5.0 | | |
| Barium | | | 20.0 | | |
| Beryllium | | | 5.0 | | |
| Cadmium | | | 0.5 | | |
| Calcium | | | 1000.0 | | |
| Chromium | | | 10.0 | | |
| Cobalt | | | 10.0 | | |
| Copper | | | 10.0 | | |
| Iron | | | 100.0 | | |
| Lead | 283.30 | BZ | 2.0 | 1.0 | F |
| Magnesium | | | 1000.0 | | |
| Manganese | | | 10.0 | | |
| Mercury | | | 0.2 | | |
| Nickel | | | 20.0 | | |
| Potassium | | | 2000.0 | | |
| Selenium | | | 2.0 | | |
| Silver | | | 5.0 | | |
| Sodium | | | 1000.0 | | |
| Thallium | | | 2.0 | | |
| Vanadium | | | 10.0 | | |
| Zinc | | | 20.0 | | |
| Cyanide | | | 10.0 | | |

Comments:

ENVIROFORMS/INORGANIC CLP

10
INSTRUMENT DETECTION LIMITS (QUARTERLY)

Lab Name: ETS Analytical Services Contract: 68-D2-0048

Lab Code: ETS Case No.: 18642 SAS No.: SDG No.: MERP20

ICP ID Number: Date: 07/20/92

Flame AA ID Number: MAS50B

Furnace AA ID Number:

| Analyte | Wave-length (nm) | Back-ground | CRDL (ug/L) | IDL (ug/L) | M |
|---|---|---|---|---|---|
| Aluminum | | | 80.0 | | |
| Antimony | | | 60.0 | | |
| Arsenic | | | 5.0 | | |
| Barium | | | 20.0 | | |
| Beryllium | | | 5.0 | | |
| Cadmium | | | 0.5 | | |
| Calcium | | | 1000.0 | | |
| Chromium | | | 10.0 | | |
| Cobalt | | | 10.0 | | |
| Copper | | | 10.0 | | |
| Iron | | | 100.0 | | |
| Lead | | | 2.0 | | |
| Magnesium | | | 1000.0 | | |
| Manganese | | | 10.0 | | |
| Mercury | 253.70 | | 0.2 | 0.2 | CV |
| Nickel | | | 20.0 | | |
| Potassium | | | 2000.0 | | |
| Selenium | | | 2.0 | | |
| Silver | | | 5.0 | | |
| Sodium | | | 1000.0 | | |
| Thallium | | | 2.0 | | |
| Vanadium | | | 10.0 | | |
| Zinc | | | 20.0 | | |
| Cyanide | | | 10.0 | | |

Comments:

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

ESD Central Regional Laboratory
Data Tracking Form for Contract Samples

Data Set No. _____ CERCLIS No. (IN)

Case No. 18642SAS7262 Site Name Location: Samyo

Contractor or EPA Lab: Centec (ESD) Data User: Weston

No. of Samples: 3 Date Samples or Data Received: Sept 2, 1992

Have Chain-of-Custody records been received? YES ✓ NO ____
Have traffic reports or packing lists been received? YES ✓ NO ____
If no, are traffic report or packing list numbers written on the chain-of-custody record? YES ____ NO ____
If no, which traffic report or packing list numbers are missing?

Are basic data forms in? YES ✓ NO ____
No. of samples claimed: 3 No. of samples received: 3

Received by: A. D. Harris Date: Sept 2, 1992

Received by LSSS: DMM Date: 9-2-92

Review started: 9/28/92 Reviewer Signature: M. Fletcher

Total time spent on review: 4 Date review completed: 9/28/92

Copied by: Eric Miller +.5 [illegible] Date: 10-8-92

Mailed to user by: A. D. Harris Date: 10-8-92

DATA USERS:
Please fill in the blanks below and return this form to:
Sylvia Griffin, Data Mgmt. Coordinator, Region V, 5SCRL

Data received by: _____ Date: _____

Data review received by: _____ Date: _____
Inorganic Data Complete[ ] Suitable for Intended Purpose[ ] ✓ if OK
Organic Data Complete [ ] Suitable for Intended Purpose[ ] list
Dioxin Data Complete [ ] Suitable for Intended Purpose[ ] prblms
SAS Data Complete [ ] Suitable for Intended Purpose[ ] below.
PROBLEMS: Please indicate reasons why data are not suitable for your uses.

Received by Data Mgmt. Coordinator for Files Date: _____

Doc. Control #570 - 45 - AG, BB.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

DATE: 10/7/92

SUBJECT: Review of Region V CLP Data
Received for Review on Sept 17, 1992

FROM: Charles T. Elly, Director(5SCRL) Patrick J. Chmilla for C. T. Elly
Central Regional Laboratory

TO: Data User: Weston

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

SITE NAME: Sharyo (IN) SMO Case No. 18642

EPA Data Set No. _____ No. of Samples 9 DU/Activity Numbers ERW07

CRL No. _____

SMO Traffic No. ERW07-10 ERW17-21

CLP Laboratory: McCoy Hrs. for Review 14+2=16 weeks

Following are our findings:

THE DATA ARE ACCEPTABLE WITH QUALIFICATIONS NOTED IN THE ATTACHED REVIEW - Patrick J. Chmilla 10/7/92

POC
11/9/92

( ) Data are acceptable for use.
(X) Data are acceptable for use with qualifications.
( ) Data are preliminary - pending verification by laboratory.
( ) Data are unacceptable.

cc: Elenor McLean, Sample Mgmt.Office
Edward Kantor, EMSL-Las Vegas

CONTRACTOR: SWRI CASE 18530

Nine (9) samples were submitted to McCoy Laboratories for volatile, semivolatile, and pesticide analysis. Samples ERW07 to ERW10 were analyzed as low concentration soils. Samples ERW17 to ERW21 were analyzed as low concentration waters.

Sample ERW18 was used for water matrix spike and matrix spike duplicate analysis. Sample ERW09 was used for soil matrix spike and matrix spike duplicate analysis. Samples ERW18 and ERW19 required dilution and reanalysis.

Sample ERW19 is a water field blank. Samples ERW20 and ERW21 are duplicate water samples. Samples ERW07 and ERW08 are duplicate soil samples.

This review is based upon the SOW OLM01.7.

Reviewed by: Robert W. Wenig
Date: September 25, 1992

CONTRACTOR: McCOY CASE 18642

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

**1. HOLDING TIMES:**

All sampling was performed on 8-18-92.

Volatile analysis was performed 8-21-92 and 8-22-92. The 14 day analysis limit was met for preserved volatile water samples.

Semivolatile and pesticide extractions were performed on 8-21-92 and 8-24-92 within the 7 day extraction holding time for waters and 14 day extraction holding time for soils. Semivolatile analysis was performed on 8-26-92 and 8-27-92 within the 40 day analysis holding time. Pesticide analysis was performed 9-02-92 within the 40 day analysis holding time.

Therefore, all holding time criteria were met.

**2. GC/MS TUNING AND GC PERFORMANCE:**

GC/MS tuning complied with the mass list and ion abundance criteria for BFB and DFTPP. Tuning was provided for each 12 hour period.

For pesticide analysis, the percent breakdown for 4,4'-DDT and endrin met the QC limits of 20% on the DB-5 and DB-1701 columns. The resolution of adjacent pesticide peaks met the acceptance criteria of 60% GC retention time windows for pesticides and PCBs were reported for both columns.

**3. CALIBRATION:**

Initial and continuing calibration outliers for volatile, semivolatile, and pesticide TCLs are included on the attached forms.

**4. METHOD BLANK:**

VBLK01 (analyzed 8-21-92) is the volatile water method blank. This blank was found to be free of TCL and TIC contamination. VBLK03 (analyzed 8-22-92) is the volatile soil method blank. This blank was found to contain acetone at 5 "J" µg/kg and no TICs. The presence of acetone in any of the samples is flagged as nondetect (U) when the sample result is less than (<) 10x the blank result (common contaminant).

**Reviewed by: Robert W. Wenig**
**Date: September 25, 1992**

**CONTRACTOR: McCOY CASE 18642**

SBLK01 (extracted 8-24-92) is the semivolatile soil blank and was found to contain 390 "J" µg/kg di-n-butylphthalate and no TIC compounds. The presence of di-n- butylphthalate in any of the samples is flagged as nondetect (U) when the sample result is less than (<) 10x the blank result (common contaminant).

SBLK02 is the semivolatile GPC blank to which no surrogates were added. Analysis was performed to determine if any contaminants were introduced during GPC cleanup. No TCLs or TICs were observed.

SBLK03 (extracted 8-24-92) is the semivolatile water blank and was found to contain 26 µg/kg di-n-butylphthalate, 20 µg/kg bis(2-ethylhexyl)phthalate and three TICs. The presence of phthalates in any of the samples is flagged as nondetect (U) when the sample result is less than (<) 10x the blank result (common contaminant). TICs (non-common contaminants) are qualified nondetect when the sample result is less than (<) 5x the blank result.

PBLK01 (extracted 8-24-92) is the pesticide soil blank and PBLK02 (extracted 8-21-92) is the pesticide water blank. Both blanks were found to contain endosulfan sulfate below the detection limit and no TICs.

**5. SURROGATE RECOVERY:**

Surrogate recoveries were acceptable for all volatile and semivolatile water and soil samples. (Surrogates were not added to the semivolatile soil GPC blank SBLK02; this is acceptable)

Pesticide surrogate recoveries were acceptable for all water samples. Pesticide soil surrogate recoveries were not acceptable for the following four samples: ERW07, ERW08, ERW09, ERW10. Samples ERW07, ERW09, and ERW10 with high recoveries are qualified with detected pesticide compounds as estimated "J". Sample ERW08 with a low recovery is qualified with positive results estimated "J" and nondetects with estimated quantitation limits "UJ".

**6. MATRIX SPIKE AND MATRIX SPIKE DUPLICATE ANALYSIS**

Sample ERW18 was used for volatile water MS and MSD analysis. All QC criteria were met, except for %REC of 1,1-dichloroethene and trichloroethene in the MS and MSD samples. Consequently, positive results are qualified as estimated "J" and nondetects are qualified with an estimated quantitation limit "UJ" for these compounds in the unspiked sample ERW18. Sample ERW09 was used for semivolatile soil MS and MSD analysis. All QC criteria were met.

Sample ERW18 was used for semivolatile water MS and MSD analysis. All QC criteria were met except for %REC of 4-nitrophenol. No results are qualified because the upper limit for %REC

**Reviewed by: Robert W. Wenig**
**Date: September 25, 1992**

was below 100% and the laboratory acheived recoveries of 87 to 100%. Sample ERW09 was used for semivolatile soil MS and MSD analysis. Sample ERW09MS with a single advisory surrogate out of QC limits low is not qualified. The %REC criteria failed for two compounds in the MS analysis and the %RPD criteria failed for all compounds. Consequently, positive results are qualified as estimated "J" and nondetects are qualified with an estimated quantitation limit "UJ" for all compounds in the unspiked sample ERW09.

Sample ERW18 was used for pesticide water MS and MSD analysis. All QC criteria were met except for %REC of γ-BHC. Consequently, positive results are qualified as estimated "J" and nondetects are qualified with an estimated quantitation limit "UJ" for this compound in the unspiked sample ERW18. Sample ERW09 was used for pesticide soil MS and MSD analysis. All QC criteria were met except for %REC of γ-BHC and 4,4'-DDT. Consequently, positive results are qualified as estimated "J" and nondetects are qualified with an estimated quantitation limit "UJ" for this compound in the unspiked sample ERW09.

**7. FIELD BLANK AND FIELD DUPLICATE:**

Sample ERW19 is a water field blank. Samples ERW20 and ERW21 are duplicate water samples. Samples ERW07 and ERW08 are duplicate soil samples.

Volatile field blank ERW19 was found to contain four TCL contaminants including trichloroethene at 1200 µg/L which exceeded the calibration range (Dilution and reanalysis was required). Semivolatile field blank ERW19 was found to contain no TCL compounds and four TIC compounds. Pesticide field blank ERW19 was found to contain the TCL contaminants delta-BHC below the quantitation limit.

Samples ERW20 and ERW21 are duplicate water samples. Both volatile samples did not contain TCL and TIC compounds. Semivolatile sample ERW20 contained no TCL compounds but did have five TIC compounds; duplicate ERW21 contained no TCL compounds but did have two TICs. Pesticide samples ERW20 and ERW21 both gave a positive result for endosulfan sulfate below the quantitation limit.

Samples ERW07 and ERW08 are duplicate soil samples. Volatile sample ERW07 was found to contain methylene chloride, chloroform, and trichloroethene below the quantitation limit. No TICs were observed. Duplicate sample ERW08 was found to contain methylene chloride, trichloroethene, and no TICs. Semivolatile sample ERW07 was found to contain ten TCL compounds and one TIC. Duplicate

semivolatile sample ERW08 was found to contain one TCL and no TICs. Pesticide samples ERW07 and ERW08 both contained endosulfan sulfate below the quantitation limit.

**8. INTERNAL STANDARDS:**

All volatile internal standard area counts and retention times met QC requirements.

All semivolatile internal standard area counts and retention times met QC requirements.

**9. COMPOUND QUANTITATION AND REPORTED DETECTION LIMITS:**

Upon review of the chromatograms, TCL and TIC quantitation is acceptable. However; the detection limits for semivolatile analysis are two to four times the contract required quantitation limits. This seems to be the result of using a 1 µL injection rather than 2 µL and concentration of the GPC samples to 1 mL not 0.5 mL.

**10. COMPOUND IDENTIFICATION :**

TCL compound identification was accurate. Many semivolatile TIC compounds were tentatively identified and can be classified as "glycol ether." Identification was acceptable.

**11. CASE SUMMARY**

WATER SAMPLES

| | SAMPLE | VOA TCL | VOA TIC | SVOA TCL | SVOA TIC | PEST TCL |
|---|---|---|---|---|---|---|
| | ERW17 | 0 | 0 | - | - | - |
| | ERW18 | 4 | 0 | 0 | 0 | 1 |
| * | ERW18DL | 2 | 0 | - | - | - |
| | ERW19 | 4 | 0 | 0 | 4 | 1 |
| ** | ERW19DL | 2 | 0 | - | - | - |
| | ERW20 | 0 | 0 | 0 | 5 | 1 |
| | ERW21 | 0 | 0 | 0 | 2 | 1 |

* The value of 1300 µg/L "D" for trichloroethene should be reported for sample ERW18.

** The value of 1300 µg/L "D" for trichloroethene should be reported for sample ERW19.

SOIL SAMPLES

| SAMPLE | VOA TCL | VOA TIC | SVOA TCL | SVOA TIC | PEST TCL |
|---|---|---|---|---|---|
| ERW07 | 3 | 0 | 9 | 1 | 2 |
| ERW08 | 2 | 0 | 1 | 0 | 1 |
| ERW09 | 4 | 2 | 4 | 1 | 1 |
| ERW10 | 1 | 0 | 0 | 1 | 1 |

**Reviewed by: Robert W. Wenig**

## CALIBRATION OUTLIERS
## VOLATILE TCL COMPOUNDS

CASE\SAS#: 18642 CONTRACTOR: McCoy

| | | 17:56 | | | 10:17 | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Instrument# | | Initial Cal. | | | Contin. Cal. | | | Contin. Cal. | | | Contin. Cal. | | | Contin. Cal. | | |
| Date/Time: HP59#1 | | 8/10/92 | | | 8/21/92 | | | | | | | | | | | |
| | # | rf | %rsd | * | rf | %d | * | rf | %d | * | rf | %d | * | rf | %d | * |
| Chloromethane | 0.01 | | | | | | | | | | | | | | | |
| Bromomethane | 0.10 | .65 | 33.2 | J | | | | | | | | | | | | |
| Vinyl chloride | 0.10 | .53 | | | .39 | 25.9 | J | | | | | | | | | |
| Chloroethane | 0.01 | | | | | | | | | | | | | | | |
| Methylene chloride | 0.01 | | | | | | | | | | | | | | | |
| Acetone | 0.01 | .62 | 127.1 | J | .21 | 66.6 | J | | | | | | | | | |
| Carbon disulfide | 0.01 | | | | | | | | | | | | | | | |
| 1,1-Dichloroethene | 0.10 | | | | | | | | | | | | | | | |
| 1,1-Dichloroethane | 0.20 | | | | | | | | | | | | | | | |
| 1,2-Dichloroethene (total) | | | | | | | | | | | | | | | | |
| Chloroform | 0.20 | | | | | | | | | | | | | | | |
| 1,2-Dichloroethane | 0.10 | | | | | | | | | | | | | | | |
| 2-Butanone | 0.01 | .86 | 130.3 | J | .36 | 57.8 | J | | | | | | | | | |
| 1,1,1-Trichloroethane | 0.10 | | | | | | | | | | | | | | | |
| Carbon tetrachloride | 0.10 | | | | | | | | | | | | | | | |
| Bromodichloromethane | 0.20 | | | | | | | | | | | | | | | |
| 1,2-Dichloropropane | | | | | | | | | | | | | | | | |
| cis-1,3-Dichloropropene | 0.20 | | | | | | | | | | | | | | | |
| Trichloroethene | 0.30 | | | | | | | | | | | | | | | |
| Dibromochloromethane | 0.10 | | | | | | | | | | | | | | | |
| 1,1,2-Trichloroethane | 0.10 | | | | | | | | | | | | | | | |
| Benzene | 0.50 | | | | | | | | | | | | | | | |
| tran-1,3-Dichloropropene | 0.10 | | | | | | | | | | | | | | | |
| Bromoform | 0.10 | | | | | | | | | | | | | | | |
| 4-Methyl-2-pentanone | 0.01 | .73 | 104.7 | J | .32 | 56.4 | J | | | | | | | | | |
| 2-Hexanone | 0.01 | .53 | 112.2 | J | .21 | 59.6 | J | | | | | | | | | |
| Tetrachloroethene | 0.20 | | | | | | | | | | | | | | | |
| 1,1,2,2-Tetrachloroethane | 0.50 | .159 | 56.4 | J | 1.07 | 33.1 | J | | | | | | | | | |
| Toluene | 0.40 | | | | | | | | | | | | | | | |
| Chlorobenzene | 0.50 | | | | | | | | | | | | | | | |
| Ethylbenzene | 0.10 | | | | | | | | | | | | | | | |
| Styrene | 0.30 | | | | | | | | | | | | | | | |
| Xylene (total) | 0.30 | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| Toluene-d8 | | | | | | | | | | | | | | | | |
| Bromofluorobenzene | | | | | | | | | | | | | | | | |
| 1,2-Dichloroethane-d4 | | | | | | | | | | | | | | | | |

Samples affected: VBLK01, ERW17-20, ERW18RE, ERW19DL

RNN

Reviewer's Init/Date: 9-24-92

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

# Minimum Relative Response Factor

# CALIBRATION OUTLIERS
## VOLATILE TCL COMPOUNDS

CASE\SAS#: 18642 CONTRACTOR: McCoy

| | | Initial Cal. 03:32 | | | Contin. Cal. 10:05 | | | Contin. Cal. | | | Contin. Cal. | | | Contin. Cal. | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Instrument# HP59#1 | | | | | | | | | | | | | | | | |
| Date/Time: | | 8/12/92 | | | 8/22/92 | | | | | | | | | | | |
| | # | rf | %rsd | * | rf | %d | * | rf | %d | * | rf | %d | * | rf | %d | * |
| Chloromethane | 0.01 | .46 | | | .22 | 53.2 | J | | | | | | | | | |
| Bromomethane | 0.10 | | | | | | | | | | | | | | | |
| Vinyl chloride | 0.10 | | | | | | | | | | | | | | | |
| Chloroethane | 0.01 | .27 | | | .14 | 48.1 | J | | | | | | | | | |
| Methylene chloride | 0.01 | .96 | | | .69 | 28.2 | J | | | | | | | | | |
| Acetone | 0.01 | 2.0 | 165 | J | .58 | 71.1 | J | | | | | | | | | |
| Carbon disulfide | 0.01 | | | | | | | | | | | | | | | |
| 1,1-Dichloroethene | 0.10 | .75 | | | .52 | 30.8 | J | | | | | | | | | |
| 1,1-Dichloroethane | 0.20 | | | | | | | | | | | | | | | |
| 1,2-Dichloroethene (total) | | | | | | | | | | | | | | | | |
| Chloroform | 0.20 | | | | | | | | | | | | | | | |
| 1,2-Dichloroethane | 0.10 | | | | | | | | | | | | | | | |
| 2-Butanone | 0.01 | .65 | | | .90 | 30.9 | J | | | | | | | | | |
| 1,1,1-Trichloroethane | 0.10 | | | | | | | | | | | | | | | |
| Carbon tetrachloride | 0.10 | | | | | | | | | | | | | | | |
| Bromodichloromethane | 0.20 | | | | | | | | | | | | | | | |
| 1,2-Dichloropropane | | | | | | | | | | | | | | | | |
| cis-1,3-Dichloropropene | 0.20 | | | | | | | | | | | | | | | |
| Trichloroethene | 0.30 | | | | | | | | | | | | | | | |
| Dibromochloromethane | 0.10 | | | | | | | | | | | | | | | |
| 1,1,2-Trichloroethane | 0.10 | | | | | | | | | | | | | | | |
| Benzene | 0.50 | | | | | | | | | | | | | | | |
| tran-1,3-Dichloropropene | 0.10 | | | | | | | | | | | | | | | |
| Bromoform | 0.10 | | | | | | | | | | | | | | | |
| 4-Methyl-2-pentanone | 0.01 | | | | | | | | | | | | | | | |
| 2-Hexanone | 0.01 | .71 | 22.1 | J | .67 | 32.9 | J | | | | | | | | | |
| Tetrachloroethene | 0.20 | | | | | | | | | | | | | | | |
| 1,1,2,2-Tetrachloroethane | 0.50 | | | | | | | | | | | | | | | |
| Toluene | 0.40 | | | | | | | | | | | | | | | |
| Chlorobenzene | 0.50 | | | | | | | | | | | | | | | |
| Ethylbenzene | 0.10 | | | | | | | | | | | | | | | |
| Styrene | 0.30 | | | | | | | | | | | | | | | |
| Xylene (total) | 0.30 | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| Toluene-d8 | | | | | | | | | | | | | | | | |
| Bromofluorobenzene | | | | | | | | | | | | | | | | |
| 1,2-Dichloroethane-d4 | | | | | | | | | | | | | | | | |

Samples affected: VBLK03, ERW87-10

Reviewer's Init/Date: RWW 9-24-92

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

# Minimum Relative Response Factor

# CALIBRATION OUTLIER
## SEMVOLATILE TCL COMPOUNDS
(Page 1)

CASE\SAS#: 1864-2 CONTRACTOR: McCoy

| | | Initial Cal. 13:47 | | | Contin. Cal. 9:32 | | | Contin. Cal. 10:49 | | | Contin. Cal. | | | Contin. Cal. | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Instrument# HP5986#2 | | | | | | | | | | | | | | | | |
| Date/Time: | | 8/10/92 | | | 8/27/92 | | | 8/26/92 | | | | | | | | |
| | # | rf | %rsd | * | rf | %d | * | rf | %d | * | rf | %d | * | rf | %d | * |
| Phenol | 0.80 | 1.60 | | | 2.1 | 31.6 | J | 2.1 | 34.2 | J | | | | | | |
| bis(chloroethyl) Ether | 0.70 | 1.58 | | | 1.98 | 25.1 | J | | | | | | | | | |
| 2-Chlorophenol | 0.70 | | | | | | | | | | | | | | | |
| 1,3-Dichlorobenzene | | | | | | | | | | | | | | | | |
| 1,4-Dichlorobenzene | | | | | | | | | | | | | | | | |
| 1,2-Dichlorobenzene | | | | | | | | | | | | | | | | |
| 2-Methylphenol | 0.70 | | | | | | | | | | | | | | | |
| 2,2'-Oxybis(1-chl-propane) | 0.01 | | | | | | | | | | | | | | | |
| 4-Methylphenol | 0.60 | | | | | | | | | | | | | | | |
| N-nitroso-di-n-propylamine | 0.50 | 1.88 | | | 2.4 | 30.0 | J | | | | | | | | | |
| Hexachloroethane | 0.30 | | | | | | | | | | | | | | | |
| Nitrobenzene | 0.20 | .47 | | | | | | .61 | 29.4 | J | | | | | | |
| Isophorone | 0.40 | .92 | | | | | | 1.16 | 27.0 | J | | | | | | |
| 2-Nitrophenol | 0.10 | | | | | | | | | | | | | | | |
| 2,4-Dimethylphenol | 0.20 | | | | | | | | | | | | | | | |
| bis-(2-chloroethoxyl)methane | 0.30 | | | | | | | | | | | | | | | |
| 2,4-Dichlorophenol | 0.20 | | | | | | | | | | | | | | | |
| 1,2,4-Trichlorobenzene | 0.20 | | | | | | | | | | | | | | | |
| Naphthalene | 0.70 | | | | | | | | | | | | | | | |
| 4-Chloroaniline | 0.01 | | | | | | | | | | | | | | | |
| Hexachlorobutadiene | 0.01 | | | | | | | | | | | | | | | |
| 4-Chloro-3-methylphenol | 0.20 | | | | | | | | | | | | | | | |
| 2-Methylnaphthalene | 0.40 | | | | | | | | | | | | | | | |
| Hexachlorocyclopentadiene | 0.01 | | | | | | | | | | | | | | | |
| 2,4,6-Trichlorophenol | 0.20 | | | | | | | | | | | | | | | |
| 2,4,5-Trichlorophenol | 0.20 | | | | | | | | | | | | | | | |
| 2-Chloronaphthalene | 0.80 | | | | | | | | | | | | | | | |
| 2-Nitroaniline | 0.01 | | | | | | | | | | | | | | | |
| Dimethyl phthlate | 0.01 | | | | | | | | | | | | | | | |
| Acenaphthylene | 1.30 | | | | | | | | | | | | | | | |
| 2,6-Dinitrotoluene | 0.20 | | | | | | | | | | | | | | | |
| 3-Nitroaniline | 0.01 | | | | | | | | | | | | | | | |
| Acenaphthene | 0.30 | | | | | | | | | | | | | | | |
| 2,4-Dinitrophenol | 0.01 | .22 | | | | | | .141 | 35 | J | | | | | | |
| 4-Nitrophenol | 0.01 | | | | | | | | | | | | | | | |
| Dibenzofuran | 0.80 | | | | | | | | | | | | | | | |
| 2,4-Dinitrotoluene | 0.20 | | | | | | | | | | | | | | | |
| Affected samples: | | | | | SBLK03 ERW18-21 | | | SBLK01 ERW07-10 | | | | | | | | |

Reviewer's Init/Date: RWN 9-25-92

* These flags should be applied to the analytes on the sample data sheets.
# Minimum Relative Response Factor

## CALIBRATION OUTLIER
## SEMVOLATILE TCL COMPOUNDS
(Page 2)

CASE\SAS#: 18642 CONTRACTOR: McCoy

| | | 13:47 | | | 9:30 | | | 10:49 | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Instrument# HP5996#2 | | Initial Cal. | | | Contin. Cal. | | | Contin. Cal. | | | Contin. Cal. | | | Contin. Cal. | | |
| Date/Time: | | 8/10/92 | | | 8/27/92 | | | 8/26/92 | | | | | | | | |
| | # | rf | %rsd | * | rf | %d | * | rf | %d | * | rf | %d | * | rf | %d | * |
| Diethylphthalate | 0.01 | | | | | | | | | | | | | | | |
| 4-Chlorophenyl-phenylether | 0.40 | .45 | 33.1 | J | | | | | | | | | | | | |
| Fluorene | 0.90 | | | | | | | | | | | | | | | |
| 4-Nitroaniline | 0.01 | | | | | | | | | | | | | | | |
| 4,6-Dinitro-2-methylphenol | 0.01 | | | | | | | | | | | | | | | |
| N-nitrosodiphenylamine | 0.01 | | | | | | | | | | | | | | | |
| 4-Bromophenyl-phenylether | 0.10 | | | | | | | | | | | | | | | |
| Hexachlorobenzene | 0.10 | | | | | | | | | | | | | | | |
| Pentachlorophenol | 0.05 | | | | | | | | | | | | | | | |
| Phenanthrene | 0.70 | | | | | | | | | | | | | | | |
| Anthracene | 0.70 | | | | | | | | | | | | | | | |
| Carbazole | | | | | | | | | | | | | | | | |
| Di-n-butylphthalate | 0.01 | | | | | | | | | | | | | | | |
| Fluoranthene | 0.60 | | | | | | | | | | | | | | | |
| Pyrene | 0.60 | | | | | | | | | | | | | | | |
| Butylbenzylphthalate | 0.01 | | | | | | | | | | | | | | | |
| 3,3'-Dichlorobenzidine | 0.01 | | | | | | | | | | | | | | | |
| Benzo(a)anthracene | 0.80 | | | | | | | | | | | | | | | |
| Chrysene | 0.70 | | | | | | | | | | | | | | | |
| bis(2-Ethylhexyl)phthalate | 0.01 | | | | | | | | | | | | | | | |
| Di-n-octyl phthalate | 0.01 | 1.5 | | | 2.1 | 36.5 | J | 2.2 | 39.5 | J | | | | | | |
| Benzo(b)fluoranthene | 0.70 | | | | | | | | | | | | | | | |
| Benzo(k)fluoranthene | 0.70 | | | | | | | | | | | | | | | |
| Benzo(a)pyrene | 0.70 | | | | | | | | | | | | | | | |
| Indeno(1,2,3-cd)pyrene | 0.50 | | | | | | | | | | | | | | | |
| Dibenz(a,h)anthrancene | 0.40 | | | | | | | | | | | | | | | |
| Benzo(g,h,i)perylene | 0.50 | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| Nitrobenzene-d5 | 0.01 | | | | | | | | | | | | | | | |
| 2-Fluorobiphenyl | 0.70 | | | | | | | | | | | | | | | |
| Terphenyl-d14 | 0.50 | | | | | | | | | | | | | | | |
| Phenol-d5 | 0.80 | 1.4 | | | 1.8 | 27.1 | J | 1.8 | 27 | J | | | | | | |
| 2-Fluorophenol | 0.60 | | | | | | | | | | | | | | | |
| 2,4,6-Tribromophenol | 0.01 | | | | | | | | | | | | | | | |
| 2-Chlorophenol-d4 | | | | | | | | | | | | | | | | |
| 1,2-Dichlorobenzene-d4 | | | | | | | | | | | | | | | | |

Reviewer's Init/Date: RMW 9-25-92

* These flags should be applied to the analytes on the sample data sheets.
\# Minimum Relative Response Factor

## CALIBRATION OUTLIERS
## PEST/PCB TCL COMPOUNDS

CASE\SAS#: 18692 CONTRACTOR: McCoy

Column: DB-1701

1:44

| Instrument#: | Init. Cal. | | Cont. Cal. | | Cont. Cal. | | Cont. Cal | |
|---|---|---|---|---|---|---|---|---|
| Date/Time | 9/01/92 | | 9/02/92 | | | | | |
| | %RSD | * | %RPD | * | %RPD | * | %RPD | * |
| Alpha-BHC | 22.1 | J | | | | | | |
| Beta-BHC | | | | | | | | |
| Delta-BHC | | | | | | | | |
| Gamma-BHC | | | | | | | | |
| Heptachlor | | | | | | | | |
| Aldrin | | | | | | | | |
| Heptachlor epoxide | | | | | | | | |
| Endosulfan I | | | 27.5 | J | | | | |
| Dieldrin | | | 30.0 | J | | | | |
| 4,4'-DDE | | | | | | | | |
| Endrin | | | 31.2 | J | | | | |
| Endosulfan II | | | | | | | | |
| 4,4'-DDD | | | 33.8 | J | | | | |
| Endosulfan sulfate | | | | | | | | |
| 4,4'-DDT | | | 28.8 | J | | | | |
| Methoxychlor | | | 38.5 | J | | | | |
| Endrin ketone | | | | | | | | |
| Endrin aldehyde | | | 71.2 | J | | | | |
| Alpha chlordane | | | | | | | | |
| Gamma chlordane | 20.4 | J | | | | | | |
| Aroclor-1016 | | | | | | | | |
| Aroclor-1221 | | | | | | | | |
| Aroclor-1232 | | | | | | | | |
| Aroclor-1242 | | | | | | | | |
| Aroclor-1248 | | | | | | | | |
| Aroclor-1254 | | | | | | | | |
| Aroclor-1260 | | | | | | | | |
| Toxaphene | | | | | | | | |

| Affected samples: | |
|---|---|
| | PBLK01 |
| | ERW07-10 |
| | PBLK02 |
| | ERW18-21 |

Pest/PCB

Reviewer's Initial/Date RAW 9-25-92

3/90 Rev

* These flags should be applied to the analytes on the Sample Data Sheets.

**CALIBRATION OUTLIERS**
**PEST/PCB TCL COMPOUNDS**

CASE\SAS#: 18642 CONTRACTOR: McCoy

Column: DB-5 1:4u

| Instrument#: | Init. Cal. | | Cont. Cal. | | Cont. Cal. | | Cont.Cal | |
|---|---|---|---|---|---|---|---|---|
| Date/Time | 9/01/92 | | 9/02/92 | | | | | |
| | %RSD | * | %RPD | * | %RPD | * | %RPD | * |
| Alpha-BHC | 43.9 | J | | | | | | |
| Beta-BHC | | | 37.5 | J | | | | |
| Delta-BHC | | | 35.0 | J | | | | |
| Gamma-BHC | 39.0 | J | | | | | | |
| Heptachlor | | | | | | | | |
| Aldrin | | | 32.5 | J | | | | |
| Heptachlor epoxide | | | 30.0 | J | | | | |
| Endosulfan I | | | | | | | | |
| Dieldrin | 23.6 | J | 26.3 | J | | | | |
| 4,4'-DDE | | | 25.0 | J | | | | |
| Endrin | 23.1 | J | 27.5 | J | | | | |
| Endosulfan II | | | | | | | | |
| 4,4'-DDD | 24.6 | J | 28.8 | J | | | | |
| Endosulfan sulfate | | | 28.8 | J | | | | |
| 4,4'-DDT | 27.7 | J | 28.8 | J | | | | |
| Methoxychlor | 20.5 | J | 28.0 | J | | | | |
| Endrin ketone | | | | | | | | |
| Endrin aldehyde | | | 27.5 | J | | | | |
| Alpha chlordane | | | 30.0 | J | | | | |
| Gamma chlordane | | | 27.5 | J | | | | |
| Aroclor-1016 | | | | | | | | |
| Aroclor-1221 | | | | | | | | |
| Aroclor-1232 | | | | | | | | |
| Aroclor-1242 | | | | | | | | |
| Aroclor-1248 | | | | | | | | |
| Aroclor-1254 | | | | | | | | |
| Aroclor-1260 | | | | | | | | |
| Toxaphene | | | | | | | | |

| Affected samples: | |
|---|---|
| | PBLK01 |
| | ERW07-10 |
| | PBLK02 |
| | ERW18-21 |

Pest/PCB

Reviewer's Initial/Date RWW 9-25-92

3/90 Rev

* These flags should be applied to the analytes on the Sample Data Sheets.

## DATA REPORTING QUALIFIERS
(page 1)

For reporting results to EPA, the following result qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

VALUE-if the results is a value greater than or equal to the Contract Required Quantitation Limit (CRQL), report the value.

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

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

and df = dilution factor

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

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

For soil samples subjected to GPC clean-up procedures, the extract must be concentrated to 0.5 ml, and the sensitivity of the analysis is not compromised by the cleanup procedures. Therefore, the CRQL values will apply to all samples, regardless of cleanup. However, if a sample extract cannot be concentrated to the protocol-specified volume, this fact be accounted for in reporting the Sample Quantitation Limit.

J - Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed, or when the mass spectral data indicate the presence of a compound that meets the identification criteria but the result is less than the sample quantitation limit bur greater than zero. For example, if the sample quantitation limit is 10 ug/L, but a concentration of 3 ug/L is calculated, report it is as 3J. The Sample Quantitation Limit must be adjusted for dilution as discussed for the U flag. The J flag is also applied to pesticide/Aroclor results where the pesticide/Aroclor is confirmed to be present but the concentration is less than the CRQL.

N - Indicates presumptive evidence of a compound. This flag is only used for tentatively identified compounds. Where the identification is based on a mass spectral library search. It is applied to all TIC results.

## DATA REPORTING QUALIFIERS
(page 2)

P - This flag is used for a pesticide/Aroclor target analyte when there is greater than 25% difference for detected concentrations between the two columns (see Form X). The lower of the two values is reported on Form I and flagged with a "P".

C - This flag applies to pesticide results where identification has been confirmed by GC/MS. If GC/MS confirmation was attempted but unsuccessful, do not apply this flag, instead use a laboratory-defined, discussed below.

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

E - This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for the specific analysis. This flag will not apply to pesticide/PCBs analyzed by GC/MS methods. If one or more compounds have a response greater than full scale, the sample or extract must be diluted and re-analyzed according to the specifications. All such compounds with a response greater than full scale should have the concentration flagged with an "E" on the Form I for the original analysis. If the dilution of the extract causes any compounds identified in the first analysis to be below the calibration range in the second analysis, then the results of both analyses shall be reported on separate Form I. The Form I for the diluted sample shall have the "DL" suffix appended to the sample number.

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

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

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

**McCoy & McCoy Laboratories, Inc.**

P. O. Box 907
85 East Noel Avenue
Madisonville, Kentucky 42431
Telephone
502/821-7375

a subsidiary of
McCoy & McCoy, Inc.

# SDG COVER SHEET

**LAB NAME: MCCOY & MCCOY LABORATORIES INC.**

**CONTRACT NUMBER: 68D10081**

**SAMPLE ANALYSIS PRICE: $670.00 PER FULL SAMPLE ANALYSIS**

**CASE NUMBER: 18642**

**SAMPLE NUMBERS:**

| | | |
|---|---|---|
| ERW07 | ERW10 | ERW19 |
| ERW08 | ERW17 | ERW20 |
| ERW09 | ERW18 | ERW21 |

**FIRST SAMPLE RECEIVED: ERW07 DATE RECEIVED: 08/20/92**

**LAST SAMPLE RECEIVED: ERW21 DATE RECEIVED: 08/20/92**

**SDG: ERW07**

RECEIVED
SEP 17 1992
US EPA CENTRAL REGIONAL LAB.
536 S. CLARK ST.
CHICAGO, ILLINOIS 60605

RECEIVED
SEP 17 1992
US EPA CENTRAL REGIONAL LAB.
536 S. CLARK ST.
CHICAGO, ILLINOIS 60605

**Case: 18642 SDG: ERW07**

**Volatiles Data:** The peaks for the dichloroethenes and xylenes were manually integrated to produce the totals for each. Acetone required manual integration in some standards and samples. Our diskette software incorrectly "D" flagged the system monitoring compounds for the diluted samples ERW18DL and ERW19DL on the form 2A.

**Semivolatiles Data:** A 1uL injection was used rather than the contract required 2uLs to prevent column overload. The CRQL's were increased by a factor of 2 to compensate for the smaller injection volume, however our IDL and MDL studies indicate that the CRQL's would not be affected by the smaller injection volume. The dilution factor was not changed and remains at 1. The extract final volume for GPC'ed samples is 1.0 ml rather than the contract required 0.5 ml. Again the dilution factor remains at 1 however the CRQL's were multiplied by a factor of 4 to compensate for the smaller injection volume and greater final volume.

**Pesticides Data:** Several peaks that did not autointegrate required manual integration. They are identified on each quant report with an "M" after each area.

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

John S. Murray
Organic Section Leader

John S. Murray Date 9/16/92

EPA

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

# Organic Traffic Report & Chain of Custody Record

(For Organic CLP Analysis)

SAS No. (if applicable): —

Case No.: [illegible]

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

2. Preservative (Enter in Column D)
   1. HCl
   2. HNO3
   3. NaHSO4
   4. $H_2SO_4$
   5. Other (Specify)
   6. Ice only
   N. Not preserved

3. Region No.: 1

Sampling Co.: [illegible]

Sampler (Name): [illegible]

Sampler Signature: [illegible]

4. Type of Activity: Lead / Pre Remedial / Remedial / Removal

| | | | | | |
|---|---|---|---|---|---|
| SF | | RIFS | | CLEM | |
| PRP | | RD | | REMA | |
| ST | | RA | | REM | |
| FED | | O&M | | OIL | |
| | | NPLD | | UST | |

Lead: SF, PRP, ST, FED
Pre Remedial: PA, SSI, LSI
Remedial: RIFS, RD, RA, O&M, NPLD
Removal: CLEM, REMA, REM, OIL, UST

5. Date Shipped: 8/19/92

Carrier: [illegible]

Airbill Number: # 2583983986

6. Ship To: [illegible] Mad[illegible], KY [illegible]
ATTN: [illegible]

7. Date Received -- Received by

Laboratory Contract Number

Unit Price

8. Transfer to

Date Received

Received by

Contract Number

Price

| CLP Sample Numbers (from labels) | A Enter # From Box 1 | B Conc. Low Med High | C Sample Type: Comp./Grab | D Preservative from Box 6 | E RAS Analysis: VOA | BNA | Pest/PCB | High ARO/TOX | F Regional Specific Tracking Number or Tag Numbers | G Station Location Number | H Mo/Day/Year/Time Sample Collection | I Sampler Initials | J Corresp. CLP Inorg. Samp. No. | K Sample Condition on Rec't | L High Conc. Phases (Check below): Solids | Water -- Mis Liq. | Non Water -- Mis Liq. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| [illegible] | 2 | [illegible] | G | 1 | X | | | | S1129(85),(86) | [illegible] | [illegible] | | — | | | | |
| [illegible] | ↓ | ↓ | G | | X | | | | S1129(87),-(92) | GW01-01 [illegible] | 1350 | | [illegible] | | | | |
| ↓ | ↓ | ↓ | C | | | X | X | | S1129(3),(11),(6) | ↓ | ↓ | | ↓ | | | | |
| [illegible] | ↓ | ↓ | G | | X | | | | S1135(01),(02) | GW01-01 [illegible] | ↓ | | [illegible] | | | | |
| ↓ | ↓ | ↓ | C | | | X | X | | S1135(03),(04) | ↓ | ↓ | | ↓ | | | | |
| [illegible] | ↓ | ↓ | G | | X | | | | S1135(07),(08) | GW02-01 [illegible] | 925 | | [illegible] | | | | |
| ↓ | ↓ | ↓ | C | | | X | X | | S1135(09),(10) | ↓ | ↓ | | ↓ | | | | |
| [illegible] | ↓ | ↓ | G | | X | | | | S1135(13),(14) | GW02-01 [illegible] | 925 | | [illegible] | | | | |
| ↓ | ↓ | ↓ | C | | | X | X | | S1135(15),(16) | ↓ | ↓ | | ↓ | | | | |
| | | | | | | | | | | | | | | | | | |

Shipment for Case complete? (Y/N): [illegible]

Page 1 of 1

Sample used for a spike and/or duplicate: [illegible]

Additional Sampler Signatures: [illegible]

Chain of Custody Seal Number: 154419, 154420

## CHAIN OF CUSTODY RECORD

| Relinquished by: (Signature) | Date / Time | Received by: (Signature) | Relinquished by: (Signature) | Date / Time | Received by: (Signature) |
|---|---|---|---|---|---|
| [illegible] | 8/19/92 0800 | [illegible] | | | |
| [illegible] | 8/19/92 1030 | | | | |
| | | Received for Laboratory by: (Signature) [illegible] | Date / Time 03/20/92 11:00A | Remarks Is custody seal intact? Y/N/none [illegible] | |

Split Samples ☐ Accepted (Signature)
☐ Declined

EPA Form 9110-2 (Rev. 5-91) Replaces EPA Form (2075-7), previous edition which may be used

DISTRIBUTION:
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SEE REVERSE FOR ADDITIONAL STANDARD INSTRUCTIONS

0003 1003

Org-2

EPA

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

# Organic Traffic Report & Chain of Custody Record

(For Organic CLP Analysis)

SAS No. (if applicable): ----

Case No.: 15042

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

2. Preservative (Enter in Column D)
   1. HCl
   2. $HNO_3$
   3. $NaHSO_4$
   4. $H_2SO_4$
   5. Other (SAS) (Specify)
   6. Ice only
   N. Not preserved

3. Region No.: V | Sampling Co.: WESTON

Sampler (Name): T. [illegible]

Sampler Signature: [signature]

4. Type of Activity:

| | Lead | Pre-Remedial | Remedial | Removal |
|---|---|---|---|---|
| SF | | | RIFS | CLEM |
| PRP | | PA | RD | REMA |
| ST | | SSI | RA | REM |
| FED | | LSI | O&M | OIL |
| | | | NPLD | UST |

5. Date Shipped: 8/19/92 | Carrier: Federal Express

Airbill Number: # 2583983986

6. Ship To: Mccoy and McCoy Inc.
85 E. Noel Ave.
Madisonville, KY 42431
tel # (502) 821-7375
Attn: Sherri Crowley

7. Date Received -- Received by

Laboratory Contract Number | Unit Price

8. Transfer to | Date Received

Received by

Contract Number | Price

00034 10034 1493

| CLP Sample Numbers (from labels) | A Enter # From Box 1 | B Conc. Low Med High | C Sample Type: Comp./ Grab | D Preservative from Box 6 | E RAS Analysis: VOA | BNA | Pest/ PCB | High ARO/ TOX | F Regional Specific Tracking Number or Tag Numbers | G Station Location Number (SS1SE -) | H Mo/Day/ Year/Time Sample Collection | I Sampler Initials | J Corresp. CLP Inorg. Samp. No. | K Sample Condition on Rec't | L High Conc. Phases (Check below): Solids | Water -- Mis Liq. | Non Water -- Mis Liq. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ERW07 | 5 | L | G | 6 | X | | | | 51129(29),(30) | SD01-01 | 8/18/92 1600 | | MERP 07 | | | | |
| ↓ | ↓ | ↓ | C | ↓ | | X | X | | 5112931 | ↓ | ↓ | ↓ | ↓ | ↓ | | | |
| ERW08 | | | G | | X | | | | 51129(33),(34) | SD01 01 DP | | | MERP 08 | | | | |
| ↓ | | | C | | | X | X | | 5112935 | ↓ | ↓ | | ↓ | | | | |
| ERW09 | | | G | | X | | | | 51129(37),(38) | SD02 01 MS/ | 1515 | | MERP 09 | | | | |
| ↓ | | | C | | | X | X | | 5112939 | ↓ | ↓ | | ↓ | | | | |
| ERW10 | | | G | | X | | | | 51129(41),(42) | SD03 01 | 1445 | | MERP 10 | | | | |
| ↓ | | | C | | | X | X | | 5112943 | ↓ | ↓ | | ↓ | | | | |

Shipment for Case complete? (Y/N)

Page 1 of 1

Sample used for a spike and/or duplicate: ERW09

Additional Sampler Signatures: Linda Kolodka

Chain of Custody Seal Number: 154417; 154418

## CHAIN OF CUSTODY RECORD

| Relinquished by: (Signature) | Date / Time | Received by: (Signature) | Relinquished by: (Signature) | Date / Time | Received by: (Signature) |
|---|---|---|---|---|---|
| [signature] | | Linda Kolodka | | | |
| Linda Kolodka | 8/19/92 1630 | | | | |
| Received by: (Signature) | Date / Time | Received for Laboratory by: (Signature) | Date / Time | Remarks | Is custody seal intact? Y/N/none |
| | | Valentina Francis | 08-20-92 11:00A | yes | |

Split Samples ☐ Accepted (Signature)
☐ Declined

EPA Form 9110-2 (Rev. 5-91) Replaces EPA Form (2075-7), previous edition which may be used

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Org-2

0018911

3A

# WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: McCoy and McCoy Labs, Inc  Contract: 68-D1-0081

Lab Code: MCCOY  Case No.: 18642  SAS No.:  SDG No.: ERW07

Matrix Spike - EPA Sample No.: ERW18

| COMPOUND | SPIKE ADDED (UG/L ) | SAMPLE CONCENTRATION (UG/L ) | MS CONCENTRATION (UG/L ) | MS % REC # | QC LIMITS REC. |
|---|---|---|---|---|---|
| 1,1-Dichloroethene | 50. | 0. | 24. | 48 * | 61-145 |
| Trichloroethene | 50. | 1200. | 1200. | 0 * | 71-120 |
| Benzene | 50. | 0. | 46. | 92 | 76-127 |
| Toluene | 50. | 0. | 51. | 102 | 76-125 |
| Chlorobenzene | 50. | 0. | 50. | 100 | 75-130 |

| COMPOUND | SPIKE ADDED (UG/L ) | MSD CONCENTRATION (UG/L ) | MSD % REC # | % RPD # | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| 1,1-Dichloroethene | 50. | 27. | 54 * | 12 | 14 | 61-145 |
| Trichloroethene | 50. | 1200. | 0 * | 0 | 14 | 71-120 |
| Benzene | 50. | 46. | 92 | 0 | 11 | 76-127 |
| Toluene | 50. | 49. | 98 | 4 | 13 | 76-125 |
| Chlorobenzene | 50. | 50. | 100 | 0 | 13 | 75-130 |

# Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 5 outside limits
Spike Recovery: 4 out of 10 outside limits

COMMENTS:

3B

# SOIL VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: McCoy and McCoy Labs, Inc  Contract: 68-D1-0081

Lab Code: MCCOY  Case No.: 18642  SAS No.:  SDG No.: ERW07

Matrix Spike - EPA Sample No.: ERW09  Level:(low/med) LOW

| COMPOUND | SPIKE ADDED (UG/KG) | SAMPLE CONCENTRATION (UG/KG) | MS CONCENTRATION (UG/KG) | MS % REC # | QC LIMITS REC. |
|---|---|---|---|---|---|
| 1,1-Dichloroethene | 64. | 0. | 42. | 66 | 59-172 |
| Trichloroethene | 64. | 4. | 54. | 78 | 62-137 |
| Benzene | 64. | 0. | 69. | 108 | 66-142 |
| Toluene | 64. | 0. | 86. | 134 | 59-139 |
| Chlorobenzene | 64. | 0. | 67. | 105 | 60-133 |

| COMPOUND | SPIKE ADDED (UG/KG) | MSD CONCENTRATION (UG/KG) | MSD % REC # | % RPD # | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| 1,1-Dichloroethene | 66. | 46. | 69 | 4 | 22 | 59-172 |
| Trichloroethene | 66. | 59. | 83 | 6 | 22 | 62-137 |
| Benzene | 66. | 67. | 101 | 7 | 21 | 66-142 |
| Toluene | 66. | 90. | 135 | 1 | 21 | 59-139 |
| Chlorobenzene | 66. | 68. | 102 | 3 | 21 | 60-133 |

# Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD:  0  out of  5  outside limits
Spike Recovery:  0  out of  10  outside limits

COMMENTS:

2A

# WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: McCoy and McCoy Labs, Inc  Contract: 68-D1-0081

Lab Code: MCCOY  Case No.: 18642  SAS No.:  SDG No.: ERW07

| | EPA SAMPLE NO. | SMC1 (TOL) # | SMC2 (BFB) # | SMC3 (DCE) # | OTHER | TOT OUT |
|---|---|---|---|---|---|---|
| 1 | VBLK01 | 99 | 97 | 105 | | 0 |
| 2 | ERW17 | 98 | 95 | 106 | | 0 |
| 3 | ERW18 | 95 | 95 | 103 | | 0 |
| 4 | ERW19 | 99 | 93 | 105 | | 0 |
| 5 | ERW20 | 97 | 96 | 99 | | 0 |
| 6 | ERW21 | 96 | 93 | 103 | | 0 |
| 7 | ERW18MS | 98 | 96 | 104 | | 0 |
| 8 | ERW18MSD | 96 | 95 | 107 | | 0 |
| 9 | ERW18 DL | 98 D | 96 D | 108 D | | 0 |
| 10 | ERW19 DL | 97 D | 96 D | 108 D | | 0 |
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| | QC LIMITS |
|---|---|
| SMC1 (TOL) = Toluene-d8 | (88-110) |
| SMC2 (BFB) = Bromofluorobenzene | (86-115) |
| SMC3 (DCE) = 1,2-Dichloroethane-d4 | (76-114) |

# Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

2B

# SOIL VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: McCoy and McCoy Labs, Inc  Contract: 68-D1-0081

Lab Code: MCCOY  Case No.: 18642  SAS No.:  SDG No.: ERW07

Level:(low/med) LOW

| | EPA SAMPLE NO. | SMC1 (TOL)# | SMC2 (BFB)# | SMC3 (DCE)# | OTHER | TOT OUT |
|---|---|---|---|---|---|---|
| 1 | VBLK03 | 97 | 94 | 95 | | 0 |
| 2 | ERW07 | 95 | 89 | 94 | | 0 |
| 3 | ERW08 | 99 | 89 | 90 | | 0 |
| 4 | ERW09 | 123 | 71 | 94 | | 0 |
| 5 | ERW10 | 112 | 74 | 97 | | 0 |
| 6 | ERW09MS | 128 | 69 | 94 | | 0 |
| 7 | ERW09MSD | 129 | 65 | 98 | | 0 |
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| | QC LIMITS |
|---|---|
| SMC1 (TOL) = Toluene-d8 | (84-138) |
| SMC2 (BFB) = Bromofluorobenzene | (59-113) |
| SMC3 (DCE) = 1,2-Dichloroethane-d4 | (70-121) |

# Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

4A

VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLK01

Lab Name: McCoy and McCoy Labs, Inc  Contract: 68-D1-0081

Lab Code: MCCOY  Case No.: 18642  SAS No.:  SDG No.: ERW07

Lab File ID: C9445  Lab Sample ID: VBLK01

Date Analyzed: 08/21/92  Time Analyzed: 11:17

GC Column: RTx502.2 ID: .53 (mm)  Heated Purge: (Y/N) N

Instrument ID: HP59#1

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

| | EPA SAMPLE NO. | LAB SAMPLE ID | LAB FILE ID | TIME ANALYZED |
|---|---|---|---|---|
| 1 | ERW17 | ERW17 | C9446 | 11:58 |
| 2 | ERW18 | ERW18 | C9447 | 12:39 |
| 3 | ERW19 | ERW19 | C9448 | 13:20 |
| 4 | ERW20 | ERW20 | C9449 | 14:14 |
| 5 | ERW21 | ERW21 | C9450 | 14:55 |
| 6 | ERW18MS | ERW18 | C9451 | 15:35 |
| 7 | ERW18MSD | ERW18 | C9452 | 16:20 |
| 8 | ERW18 DL | ERW18 | C9453 | 17:01 |
| 9 | ERW19 DL | ERW19 | C9454 | 17:42 |
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COMMENTS:

4A

VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLK03

Lab Name: McCoy and McCoy Labs, Inc  Contract: 68-D1-0081

Lab Code: MCCOY  Case No.: 18642  SAS No.:  SDG No.: ERW07

Lab File ID: C9469  Lab Sample ID: VBLK03

Date Analyzed: 08/22/92  Time Analyzed: 12:07

GC Column: RTx502.2 ID: .53 (mm)  Heated Purge: (Y/N) Y

Instrument ID: HP59#1

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

| | EPA SAMPLE NO. | LAB SAMPLE ID | LAB FILE ID | TIME ANALYZED |
|---|---|---|---|---|
| 1 | ERW07 | ERW07 | C9470 | 12:48 |
| 2 | ERW08 | ERW08 | C9471 | 13:29 |
| 3 | ERW09 | ERW09 | C9472 | 14:09 |
| 4 | ERW10 | ERW10 | C9473 | 14:49 |
| 5 | ERW09MS | ERW09 | C9474 | 15:30 |
| 6 | ERW09MSD | ERW09 | C9475 | 16:10 |
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COMMENTS:

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK01

Lab Name: McCoy and McCoy Labs, Inc  Contract: 68-D1-0081

Lab Code: MCCOY  Case No.: 18642  SAS No.:  SDG No.: ERW07

Matrix: (soil/water) WATER  Lab Sample ID: VBLK01

Sample wt/vol: 5.000 (g/mL) ML  Lab File ID: C9445

Level: (low/med) LOW  Date Received: 00/00/00

% Moisture: not dec._____  Date Analyzed: 08/21/92

GC Column: RTx502.2 ID: .53 (mm)  Dilution Factor: 1.0

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

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 74-87-3 | Chloromethane | 10. | U |
| 74-83-9 | Bromomethane | 10. | U |
| 75-01-4 | Vinyl Chloride | 10. | U |
| 75-00-3 | Chloroethane | 10. | U |
| 75-09-2 | Methylene Chloride | 10. | U |
| 67-64-1 | Acetone | 10. | U |
| 75-15-0 | Carbon Disulfide | 10. | U |
| 75-35-4 | 1,1-Dichloroethene | 10. | U |
| 75-34-3 | 1,1-Dichloroethane | 10. | U |
| 540-59-0 | 1,2-Dichloroethene (total) | 10. | U |
| 67-66-3 | Chloroform | 10. | U |
| 107-06-2 | 1,2-Dichloroethane | 10. | U |
| 78-93-3 | 2-Butanone | 10. | U |
| 71-55-6 | 1,1,1-Trichloroethane | 10. | U |
| 56-23-5 | Carbon Tetrachloride | 10. | U |
| 75-27-4 | Bromodichloromethane | 10. | U |
| 78-87-5 | 1,2-Dichloropropane | 10. | U |
| 10061-01-5 | cis-1,3-Dichloropropene | 10. | U |
| 79-01-6 | Trichloroethene | 10. | U |
| 124-48-1 | Dibromochloromethane | 10. | U |
| 79-00-5 | 1,1,2-Trichloroethane | 10. | U |
| 71-43-2 | Benzene | 10. | U |
| 10061-02-6 | trans-1,3-Dichloropropene | 10. | U |
| 75-25-2 | Bromoform | 10. | U |
| 108-10-1 | 4-Methyl-2-Pentanone | 10. | U |
| 591-78-6 | 2-Hexanone | 10. | U |
| 127-18-4 | Tetrachloroethene | 10. | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 10. | U |
| 108-88-3 | Toluene | 10. | U |
| 108-90-7 | Chlorobenzene | 10. | U |
| 100-41-4 | Ethylbenzene | 10. | U |
| 100-42-5 | Styrene | 10. | U |
| 1330-20-7 | Xylene (total) | 10. | U |

1E

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

VBLK01

Lab Name: McCoy and McCoy Labs, Inc  Contract: 68-D1-0081

Lab Code: MCCOY  Case No.: 18642  SAS No.:  SDG No.: ERW07

Matrix: (soil/water) WATER  Lab Sample ID: VBLK01

Sample wt/vol: 5.000 (g/mL) ML  Lab File ID: C9445

Level: (low/med) LOW  Date Received: 00/00/00

% Moisture: not dec._____  Date Analyzed: 08/21/92

GC Column: RTx502.2 ID: .53 (mm)  Dilution Factor: 1.0

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

Number TICs found: 0

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

| | CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
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1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

VBLK03

Lab Name: McCoy and McCoy Labs, Inc  Contract: 68-D1-0081

Lab Code: MCCOY  Case No.: 18642  SAS No.:  SDG No.: ERW07

Matrix: (soil/water) SOIL  Lab Sample ID: VBLK03

Sample wt/vol: 5.000 (g/mL) G  Lab File ID: C9469

Level: (low/med) LOW  Date Received: 00/00/00

% Moisture: not dec. 0.  Date Analyzed: 08/22/92

GC Column: RTx502.2 ID: .53 (mm)  Dilution Factor: 1.0

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

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG | Q |
|---|---|---|---|
| 74-87-3 | Chloromethane | 10. | U |
| 74-83-9 | Bromomethane | 10. | U |
| 75-01-4 | Vinyl Chloride | 10. | U |
| 75-00-3 | Chloroethane | 10. | U |
| 75-09-2 | Methylene Chloride | 10. | U |
| 67-64-1 | Acetone | 5. | J |
| 75-15-0 | Carbon Disulfide | 10. | U |
| 75-35-4 | 1,1-Dichloroethene | 10. | U |
| 75-34-3 | 1,1-Dichloroethane | 10. | U |
| 540-59-0 | 1,2-Dichloroethene (total) | 10. | U |
| 67-66-3 | Chloroform | 10. | U |
| 107-06-2 | 1,2-Dichloroethane | 10. | U |
| 78-93-3 | 2-Butanone | 10. | U |
| 71-55-6 | 1,1,1-Trichloroethane | 10. | U |
| 56-23-5 | Carbon Tetrachloride | 10. | U |
| 75-27-4 | Bromodichloromethane | 10. | U |
| 78-87-5 | 1,2-Dichloropropane | 10. | U |
| 10061-01-5 | cis-1,3-Dichloropropene | 10. | U |
| 79-01-6 | Trichloroethene | 10. | U |
| 124-48-1 | Dibromochloromethane | 10. | U |
| 79-00-5 | 1,1,2-Trichloroethane | 10. | U |
| 71-43-2 | Benzene | 10. | U |
| 10061-02-6 | trans-1,3-Dichloropropene | 10. | U |
| 75-25-2 | Bromoform | 10. | U |
| 108-10-1 | 4-Methyl-2-Pentanone | 10. | U |
| 591-78-6 | 2-Hexanone | 10. | U |
| 127-18-4 | Tetrachloroethene | 10. | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 10. | U |
| 108-88-3 | Toluene | 10. | U |
| 108-90-7 | Chlorobenzene | 10. | U |
| 100-41-4 | Ethylbenzene | 10. | U |
| 100-42-5 | Styrene | 10. | U |
| 1330-20-7 | Xylene (total) | 10. | U |

1E

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

VBLK03

Lab Name: McCoy and McCoy Labs, Inc  Contract: 68-D1-0081

Lab Code: MCCOY  Case No.: 18642  SAS No.:  SDG No.: ERW07

Matrix: (soil/water) SOIL  Lab Sample ID: VBLK03

Sample wt/vol: 5.000 (g/mL) G  Lab File ID: C9469

Level: (low/med) LOW  Date Received: 00/00/00

% Moisture: not dec. 0.  Date Analyzed: 08/22/92

GC Column: RTx502.2 ID: .53 (mm)  Dilution Factor: 1.0

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

Number TICs found: 0  CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG

| | CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ERW07

Lab Name: McCoy and McCoy Labs, Inc  Contract: 68-D1-0081

Lab Code: MCCOY  Case No.: 18642  SAS No.:  SDG No.: ERW07

Matrix: (soil/water) SOIL  Lab Sample ID: ERW07

Sample wt/vol: 5.030 (g/mL) G  Lab File ID: C9470

Level: (low/med) LOW  Date Received: 08/20/92

% Moisture: not dec. 20.  Date Analyzed: 08/22/92

GC Column: RTx502.2 ID: .53 (mm)  Dilution Factor: 1.0

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

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG | Q |
|---|---|---|---|
| 74-87-3 | Chloromethane | 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 | 12 ~~7~~. | J U |
| 67-64-1 | Acetone | 12. | U |
| 75-15-0 | Carbon Disulfide | 12. | U |
| 75-35-4 | 1,1-Dichloroethene | 12. | U |
| 75-34-3 | 1,1-Dichloroethane | 12. | U |
| 540-59-0 | 1,2-Dichloroethene (total) | 12. | U |
| 67-66-3 | Chloroform | 3. | J |
| 107-06-2 | 1,2-Dichloroethane | 12. | U |
| 78-93-3 | 2-Butanone | 12. | U |
| 71-55-6 | 1,1,1-Trichloroethane | 12. | U |
| 56-23-5 | Carbon Tetrachloride | 12. | U |
| 75-27-4 | Bromodichloromethane | 12. | U |
| 78-87-5 | 1,2-Dichloropropane | 12. | U |
| 10061-01-5 | cis-1,3-Dichloropropene | 12. | U |
| 79-01-6 | Trichloroethene | 3. | J |
| 124-48-1 | Dibromochloromethane | 12. | U |
| 79-00-5 | 1,1,2-Trichloroethane | 12. | U |
| 71-43-2 | Benzene | 12. | U |
| 10061-02-6 | trans-1,3-Dichloropropene | 12. | U |
| 75-25-2 | Bromoform | 12. | U |
| 108-10-1 | 4-Methyl-2-Pentanone | 12. | U |
| 591-78-6 | 2-Hexanone | 12. | U |
| 127-18-4 | Tetrachloroethene | 12. | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 12. | U |
| 108-88-3 | Toluene | 12. | U |
| 108-90-7 | Chlorobenzene | 12. | U |
| 100-41-4 | Ethylbenzene | 12. | U |
| 100-42-5 | Styrene | 12. | U |
| 1330-20-7 | Xylene (total) | 12. | U |

PDC 11/18/92

1E

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

ERW07

Lab Name: McCoy and McCoy Labs, Inc  Contract: 68-D1-0081

Lab Code: MCCOY  Case No.: 18642  SAS No.:  SDG No.: ERW07

Matrix: (soil/water) SOIL  Lab Sample ID: ERW07

Sample wt/vol: 5.030 (g/mL) G  Lab File ID: C9470

Level: (low/med) LOW  Date Received: 08/20/92

% Moisture: not dec. 20.  Date Analyzed: 08/22/92

GC Column: RTx502.2 ID: .53 (mm)  Dilution Factor: 1.0

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

Number TICs found: 0  CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG

| | CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|---|
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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ERW08

Lab Name: McCoy and McCoy Labs, Inc  Contract: 68-D1-0081

Lab Code: MCCOY  Case No.: 18642  SAS No.:  SDG No.: ERW07

Matrix: (soil/water) SOIL  Lab Sample ID: ERW08

Sample wt/vol: 5.020 (g/mL) G  Lab File ID: C9471

Level: (low/med) LOW  Date Received: 08/20/92

% Moisture: not dec. 16.  Date Analyzed: 08/22/92

GC Column: RTx502.2 ID: .53 (mm)  Dilution Factor: 1.0

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

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG | Q |
|---|---|---|---|
| 74-87-3 | Chloromethane | 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 | 12 5. | JU |
| 67-64-1 | Acetone | 12. | U |
| 75-15-0 | Carbon Disulfide | 12. | U |
| 75-35-4 | 1,1-Dichloroethene | 12. | U |
| 75-34-3 | 1,1-Dichloroethane | 12. | U |
| 540-59-0 | 1,2-Dichloroethene (total) | 12. | U |
| 67-66-3 | Chloroform | 12. | U |
| 107-06-2 | 1,2-Dichloroethane | 12. | U |
| 78-93-3 | 2-Butanone | 12. | U |
| 71-55-6 | 1,1,1-Trichloroethane | 12. | U |
| 56-23-5 | Carbon Tetrachloride | 12. | U |
| 75-27-4 | Bromodichloromethane | 12. | U |
| 78-87-5 | 1,2-Dichloropropane | 12. | U |
| 10061-01-5 | cis-1,3-Dichloropropene | 12. | U |
| 79-01-6 | Trichloroethene | 3. | J |
| 124-48-1 | Dibromochloromethane | 12. | U |
| 79-00-5 | 1,1,2-Trichloroethane | 12. | U |
| 71-43-2 | Benzene | 12. | U |
| 10061-02-6 | trans-1,3-Dichloropropene | 12. | U |
| 75-25-2 | Bromoform | 12. | U |
| 108-10-1 | 4-Methyl-2-Pentanone | 12. | U |
| 591-78-6 | 2-Hexanone | 12. | U |
| 127-18-4 | Tetrachloroethene | 12. | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 12. | U |
| 108-88-3 | Toluene | 12. | U |
| 108-90-7 | Chlorobenzene | 12. | U |
| 100-41-4 | Ethylbenzene | 12. | U |
| 100-42-5 | Styrene | 12. | U |
| 1330-20-7 | Xylene (total) | 12. | U |

PDC 11/9/92

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ERW09

Lab Name: McCoy and McCoy Labs, Inc  Contract: 68-D1-0081

Lab Code: MCCOY  Case No.: 18642  SAS No.:  SDG No.: ERW07

Matrix: (soil/water) SOIL  Lab Sample ID: ERW09

Sample wt/vol: 5.090 (g/mL) G  Lab File ID: C9472

Level: (low/med) LOW  Date Received: 08/20/92

% Moisture: not dec. 25.  Date Analyzed: 08/22/92

GC Column: RTx502.2 ID: .53 (mm)  Dilution Factor: 1.0

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

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG | Q | |
|---|---|---|---|---|
| 74-87-3 | Chloromethane | 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 | 13 ~~8~~. | JU | PDC 11/9/92 |
| 67-64-1 | Acetone | 96. | B | |
| 75-15-0 | Carbon Disulfide | 13. | U | |
| 75-35-4 | 1,1-Dichloroethene | 13. | U | |
| 75-34-3 | 1,1-Dichloroethane | 13. | U | |
| 540-59-0 | 1,2-Dichloroethene (total) | 13. | U | |
| 67-66-3 | Chloroform | 13. | U | |
| 107-06-2 | 1,2-Dichloroethane | 13. | U | |
| 78-93-3 | 2-Butanone | 18. | J | PDC 11/9/92 |
| 71-55-6 | 1,1,1-Trichloroethane | 13. | U | |
| 56-23-5 | Carbon Tetrachloride | 13. | U | |
| 75-27-4 | Bromodichloromethane | 13. | U | |
| 78-87-5 | 1,2-Dichloropropane | 13. | U | |
| 10061-01-5 | cis-1,3-Dichloropropene | 13. | U | |
| 79-01-6 | Trichloroethene | 4. | J | |
| 124-48-1 | Dibromochloromethane | 13. | U | |
| 79-00-5 | 1,1,2-Trichloroethane | 13. | U | |
| 71-43-2 | Benzene | 13. | U | |
| 10061-02-6 | trans-1,3-Dichloropropene | 13. | U | |
| 75-25-2 | Bromoform | 13. | U | |
| 108-10-1 | 4-Methyl-2-Pentanone | 13. | U | |
| 591-78-6 | 2-Hexanone | 13. | U | |
| 127-18-4 | Tetrachloroethene | 13. | U | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 13. | U | |
| 108-88-3 | Toluene | 13. | U | |
| 108-90-7 | Chlorobenzene | 13. | U | |
| 100-41-4 | Ethylbenzene | 13. | U | |
| 100-42-5 | Styrene | 13. | U | |
| 1330-20-7 | Xylene (total) | 13. | U | |

1E

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

ERW09

Lab Name: McCoy and McCoy Labs, Inc  Contract: 68-D1-0081

Lab Code: MCCOY  Case No.: 18642  SAS No.:  SDG No.: ERW07

Matrix: (soil/water) SOIL  Lab Sample ID: ERW09

Sample wt/vol: 5.090 (g/mL) G  Lab File ID: C9472

Level: (low/med) LOW  Date Received: 08/20/92

% Moisture: not dec. 25.  Date Analyzed: 08/22/92

GC Column: RTx502.2 ID: .53 (mm)  Dilution Factor: 1.0

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

Number TICs found: 2

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

| | CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|---|
| 1. | - - | UNKNOWN HYDROCARBON | 9.17 | 10. | J |
| 2. | - - | UNKNOWN | 31.29 | 9. | J |
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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ERW10

Lab Name: McCoy and McCoy Labs, Inc  Contract: 68-D1-0081

Lab Code: MCCOY  Case No.: 18642  SAS No.:  SDG No.: ERW07

Matrix: (soil/water) SOIL  Lab Sample ID: ERW10

Sample wt/vol: 5.040 (g/mL) G  Lab File ID: C9473

Level: (low/med) LOW  Date Received: 08/20/92

% Moisture: not dec. 35.  Date Analyzed: 08/22/92

GC Column: RTx502.2 ID: .53 (mm)  Dilution Factor: 1.0

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

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG | Q |
|---|---|---|---|
| 74-87-3 | Chloromethane | 15. | U |
| 74-83-9 | Bromomethane | 15. | U |
| 75-01-4 | Vinyl Chloride | 15. | U |
| 75-00-3 | Chloroethane | 15. | U |
| 75-09-2 | Methylene Chloride | 15 ~~9~~. | JU |
| 67-64-1 | Acetone | 15. | U |
| 75-15-0 | Carbon Disulfide | 15. | U |
| 75-35-4 | 1,1-Dichloroethene | 15. | U |
| 75-34-3 | 1,1-Dichloroethane | 15. | U |
| 540-59-0 | 1,2-Dichloroethene (total) | 15. | U |
| 67-66-3 | Chloroform | 15. | U |
| 107-06-2 | 1,2-Dichloroethane | 15. | U |
| 78-93-3 | 2-Butanone | 15. | U |
| 71-55-6 | 1,1,1-Trichloroethane | 15. | U |
| 56-23-5 | Carbon Tetrachloride | 15. | U |
| 75-27-4 | Bromodichloromethane | 15. | U |
| 78-87-5 | 1,2-Dichloropropane | 15. | U |
| 10061-01-5 | cis-1,3-Dichloropropene | 15. | U |
| 79-01-6 | Trichloroethene | 15. | U |
| 124-48-1 | Dibromochloromethane | 15. | U |
| 79-00-5 | 1,1,2-Trichloroethane | 15. | U |
| 71-43-2 | Benzene | 15. | U |
| 10061-02-6 | trans-1,3-Dichloropropene | 15. | U |
| 75-25-2 | Bromoform | 15. | U |
| 108-10-1 | 4-Methyl-2-Pentanone | 15. | U |
| 591-78-6 | 2-Hexanone | 15. | U |
| 127-18-4 | Tetrachloroethene | 15. | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 15. | U |
| 108-88-3 | Toluene | 15. | U |
| 108-90-7 | Chlorobenzene | 15. | U |
| 100-41-4 | Ethylbenzene | 15. | U |
| 100-42-5 | Styrene | 15. | U |
| 1330-20-7 | Xylene (total) | 15. | U |

PDC 11/9/92

1E

# VOLATILE ORGANICS ANALYSIS DATA SHEET
# TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

ERW10

Lab Name: McCoy and McCoy Labs, Inc  Contract: 68-D1-0081

Lab Code: MCCOY  Case No.: 18642  SAS No.:  SDG No.: ERW07

Matrix: (soil/water) SOIL  Lab Sample ID: ERW10

Sample wt/vol: 5.040 (g/mL) G  Lab File ID: C9473

Level: (low/med) LOW  Date Received: 08/20/92

% Moisture: not dec. 35.  Date Analyzed: 08/22/92

GC Column: RTx502.2 ID: .53 (mm)  Dilution Factor: 1.0

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

Number TICs found: 0

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

| | CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ERW17

Lab Name: McCoy and McCoy Labs, Inc Contract: 68-D1-0081

Lab Code: MCCOY Case No.: 18642 SAS No.: SDG No.: ERW07

Matrix: (soil/water) WATER Lab Sample ID: ERW17

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: C9446

Level: (low/med) LOW Date Received: 08/20/92

% Moisture: not dec._____ Date Analyzed: 08/21/92

GC Column: RTx502.2 ID: .53 (mm) Dilution Factor: 1.0

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

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 74-87-3 | Chloromethane | 10. | U |
| 74-83-9 | Bromomethane | 10. | U |
| 75-01-4 | Vinyl Chloride | 10. | U |
| 75-00-3 | Chloroethane | 10. | U |
| 75-09-2 | Methylene Chloride | 10. | U |
| 67-64-1 | Acetone | 10. | U |
| 75-15-0 | Carbon Disulfide | 10. | U |
| 75-35-4 | 1,1-Dichloroethene | 10. | U |
| 75-34-3 | 1,1-Dichloroethane | 10. | U |
| 540-59-0 | 1,2-Dichloroethene (total) | 10. | U |
| 67-66-3 | Chloroform | 10. | U |
| 107-06-2 | 1,2-Dichloroethane | 10. | U |
| 78-93-3 | 2-Butanone | 10. | U |
| 71-55-6 | 1,1,1-Trichloroethane | 10. | U |
| 56-23-5 | Carbon Tetrachloride | 10. | U |
| 75-27-4 | Bromodichloromethane | 10. | U |
| 78-87-5 | 1,2-Dichloropropane | 10. | U |
| 10061-01-5 | cis-1,3-Dichloropropene | 10. | U |
| 79-01-6 | Trichloroethene | 10. | U |
| 124-48-1 | Dibromochloromethane | 10. | U |
| 79-00-5 | 1,1,2-Trichloroethane | 10. | U |
| 71-43-2 | Benzene | 10. | U |
| 10061-02-6 | trans-1,3-Dichloropropene | 10. | U |
| 75-25-2 | Bromoform | 10. | U |
| 108-10-1 | 4-Methyl-2-Pentanone | 10. | U |
| 591-78-6 | 2-Hexanone | 10. | U |
| 127-18-4 | Tetrachloroethene | 10. | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 10. | U |
| 108-88-3 | Toluene | 10. | U |
| 108-90-7 | Chlorobenzene | 10. | U |
| 100-41-4 | Ethylbenzene | 10. | U |
| 100-42-5 | Styrene | 10. | U |
| 1330-20-7 | Xylene (total) | 10. | U |

1E

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

ERW17

Lab Name: McCoy and McCoy Labs, Inc  Contract: 68-D1-0081

Lab Code: MCCOY  Case No.: 18642  SAS No.:  SDG No.: ERW07

Matrix: (soil/water) WATER  Lab Sample ID: ERW17

Sample wt/vol: 5.000 (g/mL) ML  Lab File ID: C9446

Level: (low/med) LOW  Date Received: 08/20/92

% Moisture: not dec._____  Date Analyzed: 08/21/92

GC Column: RTx502.2 ID: .53 (mm)  Dilution Factor: 1.0

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

Number TICs found: 0  CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

| | CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ERW18

Lab Name: McCoy and McCoy Labs, Inc  Contract: 68-D1-0081

Lab Code: MCCOY  Case No.: 18642  SAS No.:  SDG No.: ERW07

Matrix: (soil/water) WATER  Lab Sample ID: ERW18

Sample wt/vol: 5.000 (g/mL) ML  Lab File ID: C9447

Level: (low/med) LOW  Date Received: 08/20/92

% Moisture: not dec._____  Date Analyzed: 08/21/92

GC Column: RTx502.2 ID: .53 (mm)  Dilution Factor: 1.0

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

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q | |
|---|---|---|---|---|
| 74-87-3 | Chloromethane | 10. | U | |
| 74-83-9 | Bromomethane | 10. | U | |
| 75-01-4 | Vinyl Chloride | 10. | U | |
| 75-00-3 | Chloroethane | 10. | U | |
| 75-09-2 | Methylene Chloride | 10. | U | |
| 67-64-1 | Acetone | 10. | U | |
| 75-15-0 | Carbon Disulfide | 10. | U | |
| 75-35-4 | 1,1-Dichloroethene | 10. | UJ | PDC 11/9/92 |
| 75-34-3 | 1,1-Dichloroethane | 10. | U | |
| 540-59-0 | 1,2-Dichloroethene (total) | 100. | | |
| 67-66-3 | Chloroform | 2. | J | |
| 107-06-2 | 1,2-Dichloroethane | 10. | U | |
| 78-93-3 | 2-Butanone | 10. | U | |
| 71-55-6 | 1,1,1-Trichloroethane | 7. | J | |
| 56-23-5 | Carbon Tetrachloride | 10. | U | |
| 75-27-4 | Bromodichloromethane | 10. | U | |
| 78-87-5 | 1,2-Dichloropropane | 10. | U | |
| 10061-01-5 | cis-1,3-Dichloropropene | 10. | U | |
| 79-01-6 | Trichloroethene | 1200. | EJ | ADC 11/9/92 |
| 124-48-1 | Dibromochloromethane | 10. | U | |
| 79-00-5 | 1,1,2-Trichloroethane | 10. | U | |
| 71-43-2 | Benzene | 10. | U | |
| 10061-02-6 | trans-1,3-Dichloropropene | 10. | U | |
| 75-25-2 | Bromoform | 10. | U | |
| 108-10-1 | 4-Methyl-2-Pentanone | 10. | U | |
| 591-78-6 | 2-Hexanone | 10. | U | |
| 127-18-4 | Tetrachloroethene | 10. | U | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 10. | U | |
| 108-88-3 | Toluene | 10. | U | |
| 108-90-7 | Chlorobenzene | 10. | U | |
| 100-41-4 | Ethylbenzene | 10. | U | |
| 100-42-5 | Styrene | 10. | U | |
| 1330-20-7 | Xylene (total) | 10. | U | |

1E

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

ERW18

Lab Name: McCoy and McCoy Labs, Inc  Contract: 68-D1-0081

Lab Code: MCCOY  Case No.: 18642  SAS No.:  SDG No.: ERW07

Matrix: (soil/water) WATER  Lab Sample ID: ERW18

Sample wt/vol: 5.000 (g/mL) ML  Lab File ID: C9447

Level: (low/med) LOW  Date Received: 08/20/92

% Moisture: not dec._____  Date Analyzed: 08/21/92

GC Column: RTx502.2 ID: .53 (mm)  Dilution Factor: 1.0

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

Number TICs found: 0

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

| | CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|---|
| 1. | | | | | |
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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ERW18 DL

Lab Name: McCoy and McCoy Labs, Inc Contract: 68-D1-0081

Lab Code: MCCOY Case No.: 18642 SAS No.: SDG No.: ERW07

Matrix: (soil/water) WATER Lab Sample ID: ERW18

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: C9453

Level: (low/med) LOW Date Received: 08/20/92

% Moisture: not dec._____ Date Analyzed: 08/21/92

GC Column: RTx502.2 ID: .53 (mm) Dilution Factor: 10.0

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

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 74-87-3 | Chloromethane | 100. | U |
| 74-83-9 | Bromomethane | 100. | U |
| 75-01-4 | Vinyl Chloride | 100. | U |
| 75-00-3 | Chloroethane | 100. | U |
| 75-09-2 | Methylene Chloride | 100. | U |
| 67-64-1 | Acetone | 100. | U |
| 75-15-0 | Carbon Disulfide | 100. | U |
| 75-35-4 | 1,1-Dichloroethene | 100. | U |
| 75-34-3 | 1,1-Dichloroethane | 100. | U |
| 540-59-0 | 1,2-Dichloroethene (total) | 96. | J D |
| 67-66-3 | Chloroform | 100. | U |
| 107-06-2 | 1,2-Dichloroethane | 100. | U |
| 78-93-3 | 2-Butanone | 100. | U |
| 71-55-6 | 1,1,1-Trichloroethane | 100. | U |
| 56-23-5 | Carbon Tetrachloride | 100. | U |
| 75-27-4 | Bromodichloromethane | 100. | U |
| 78-87-5 | 1,2-Dichloropropane | 100. | U |
| 10061-01-5 | cis-1,3-Dichloropropene | 100. | U |
| 79-01-6 | Trichloroethene | 1300. | D |
| 124-48-1 | Dibromochloromethane | 100. | U |
| 79-00-5 | 1,1,2-Trichloroethane | 100. | U |
| 71-43-2 | Benzene | 100. | U |
| 10061-02-6 | trans-1,3-Dichloropropene | 100. | U |
| 75-25-2 | Bromoform | 100. | U |
| 108-10-1 | 4-Methyl-2-Pentanone | 100. | U |
| 591-78-6 | 2-Hexanone | 100. | U |
| 127-18-4 | Tetrachloroethene | 100. | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 100. | U |
| 108-88-3 | Toluene | 100. | U |
| 108-90-7 | Chlorobenzene | 100. | U |
| 100-41-4 | Ethylbenzene | 100. | U |
| 100-42-5 | Styrene | 100. | U |
| 1330-20-7 | Xylene (total) | 100. | U |

POC 11/9/92

1E

# VOLATILE ORGANICS ANALYSIS DATA SHEET
# TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

ERW18 DL

Lab Name: McCoy and McCoy Labs, Inc Contract: 68-D1-0081

Lab Code: MCCOY Case No.: 18642 SAS No.: SDG No.: ERW07

Matrix: (soil/water) WATER Lab Sample ID: ERW18

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: C9453

Level: (low/med) LOW Date Received: 08/20/92

% Moisture: not dec._____ Date Analyzed: 08/21/92

GC Column: RTx502.2 ID: .53 (mm) Dilution Factor: 10.0

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

Number TICs found: 0 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

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

EPA SAMPLE NO.

ERW19

Lab Name: McCoy and McCoy Labs, Inc  Contract: 68-D1-0081

Lab Code: MCCOY  Case No.: 18642  SAS No.:  SDG No.: ERW07

Matrix: (soil/water) WATER  Lab Sample ID: ERW19

Sample wt/vol: 5.000 (g/mL) ML  Lab File ID: C9448

Level: (low/med) LOW  Date Received: 08/20/92

% Moisture: not dec._____  Date Analyzed: 08/21/92

GC Column: RTx502.2 ID: .53 (mm)  Dilution Factor: 1.0

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

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 74-87-3 | Chloromethane | 10. | U |
| 74-83-9 | Bromomethane | 10. | U |
| 75-01-4 | Vinyl Chloride | 10. | U |
| 75-00-3 | Chloroethane | 10. | U |
| 75-09-2 | Methylene Chloride | 10. | U |
| 67-64-1 | Acetone | 10. | U |
| 75-15-0 | Carbon Disulfide | 10. | U |
| 75-35-4 | 1,1-Dichloroethene | 10. | U |
| 75-34-3 | 1,1-Dichloroethane | 10. | U |
| 540-59-0 | 1,2-Dichloroethene (total) | 97. | |
| 67-66-3 | Chloroform | 2. | J |
| 107-06-2 | 1,2-Dichloroethane | 10. | U |
| 78-93-3 | 2-Butanone | 10. | U |
| 71-55-6 | 1,1,1-Trichloroethane | 7. | J |
| 56-23-5 | Carbon Tetrachloride | 10. | U |
| 75-27-4 | Bromodichloromethane | 10. | U |
| 78-87-5 | 1,2-Dichloropropane | 10. | U |
| 10061-01-5 | cis-1,3-Dichloropropene | 10. | U |
| 79-01-6 | Trichloroethene | 1200. | E |
| 124-48-1 | Dibromochloromethane | 10. | U |
| 79-00-5 | 1,1,2-Trichloroethane | 10. | U |
| 71-43-2 | Benzene | 10. | U |
| 10061-02-6 | trans-1,3-Dichloropropene | 10. | U |
| 75-25-2 | Bromoform | 10. | U |
| 108-10-1 | 4-Methyl-2-Pentanone | 10. | U |
| 591-78-6 | 2-Hexanone | 10. | U |
| 127-18-4 | Tetrachloroethene | 10. | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 10. | U |
| 108-88-3 | Toluene | 10. | U |
| 108-90-7 | Chlorobenzene | 10. | U |
| 100-41-4 | Ethylbenzene | 10. | U |
| 100-42-5 | Styrene | 10. | U |
| 1330-20-7 | Xylene (total) | 10. | U |

1E

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

ERW19

Lab Name: McCoy and McCoy Labs, Inc  Contract: 68-D1-0081

Lab Code: MCCOY  Case No.: 18642  SAS No.:  SDG No.: ERW07

Matrix: (soil/water) WATER  Lab Sample ID: ERW19

Sample wt/vol: 5.000 (g/mL) ML  Lab File ID: C9448

Level: (low/med) LOW  Date Received: 08/20/92

% Moisture: not dec._____  Date Analyzed: 08/21/92

GC Column: RTx502.2 ID: .53 (mm)  Dilution Factor: 1.0

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

Number TICs found: 0

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

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

EPA SAMPLE NO.

ERW19 DL

Lab Name: McCoy and McCoy Labs, Inc Contract: 68-D1-0081

Lab Code: MCCOY Case No.: 18642 SAS No.: SDG No.: ERW07

Matrix: (soil/water) WATER Lab Sample ID: ERW19

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: C9454

Level: (low/med) LOW Date Received: 08/20/92

% Moisture: not dec._____ Date Analyzed: 08/21/92

GC Column: RTx502.2 ID: .53 (mm) Dilution Factor: 10.0

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

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 74-87-3 | Chloromethane | 100. | U |
| 74-83-9 | Bromomethane | 100. | U |
| 75-01-4 | Vinyl Chloride | 100. | U |
| 75-00-3 | Chloroethane | 100. | U |
| 75-09-2 | Methylene Chloride | 100. | U |
| 67-64-1 | Acetone | 100. | U |
| 75-15-0 | Carbon Disulfide | 100. | U |
| 75-35-4 | 1,1-Dichloroethene | 100. | U |
| 75-34-3 | 1,1-Dichloroethane | 100. | U |
| 540-59-0 | 1,2-Dichloroethene (total) | 94. | J D |
| 67-66-3 | Chloroform | 100. | U |
| 107-06-2 | 1,2-Dichloroethane | 100. | U |
| 78-93-3 | 2-Butanone | 100. | U |
| 71-55-6 | 1,1,1-Trichloroethane | 100. | U |
| 56-23-5 | Carbon Tetrachloride | 100. | U |
| 75-27-4 | Bromodichloromethane | 100. | U |
| 78-87-5 | 1,2-Dichloropropane | 100. | U |
| 10061-01-5 | cis-1,3-Dichloropropene | 100. | U |
| 79-01-6 | Trichloroethene | 1300. | D |
| 124-48-1 | Dibromochloromethane | 100. | U |
| 79-00-5 | 1,1,2-Trichloroethane | 100. | U |
| 71-43-2 | Benzene | 100. | U |
| 10061-02-6 | trans-1,3-Dichloropropene | 100. | U |
| 75-25-2 | Bromoform | 100. | U |
| 108-10-1 | 4-Methyl-2-Pentanone | 100. | U |
| 591-78-6 | 2-Hexanone | 100. | U |
| 127-18-4 | Tetrachloroethene | 100. | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 100. | U |
| 108-88-3 | Toluene | 100. | U |
| 108-90-7 | Chlorobenzene | 100. | U |
| 100-41-4 | Ethylbenzene | 100. | U |
| 100-42-5 | Styrene | 100. | U |
| 1330-20-7 | Xylene (total) | 100. | U |

1E

# VOLATILE ORGANICS ANALYSIS DATA SHEET
# TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

ERW19 DL

Lab Name: McCoy and McCoy Labs, Inc Contract: 68-D1-0081

Lab Code: MCCOY Case No.: 18642 SAS No.: SDG No.: ERW07

Matrix: (soil/water) WATER Lab Sample ID: ERW19

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: C9454

Level: (low/med) LOW Date Received: 08/20/92

% Moisture: not dec._____ Date Analyzed: 08/21/92

GC Column: RTx502.2 ID: .53 (mm) Dilution Factor: 10.0

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

Number TICs found: 0 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

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

EPA SAMPLE NO.

ERW20

Lab Name: McCoy and McCoy Labs, Inc  Contract: 68-D1-0081

Lab Code: MCCOY  Case No.: 18642  SAS No.:  SDG No.: ERW07

Matrix: (soil/water) WATER  Lab Sample ID: ERW20

Sample wt/vol: 5.000 (g/mL) ML  Lab File ID: C9449

Level: (low/med) LOW  Date Received: 08/20/92

% Moisture: not dec._____  Date Analyzed: 08/21/92

GC Column: RTx502.2 ID: .53 (mm)  Dilution Factor: 1.0

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

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 74-87-3 | Chloromethane | 10. | U |
| 74-83-9 | Bromomethane | 10. | U |
| 75-01-4 | Vinyl Chloride | 10. | U |
| 75-00-3 | Chloroethane | 10. | U |
| 75-09-2 | Methylene Chloride | 10. | U |
| 67-64-1 | Acetone | 10. | U |
| 75-15-0 | Carbon Disulfide | 10. | U |
| 75-35-4 | 1,1-Dichloroethene | 10. | U |
| 75-34-3 | 1,1-Dichloroethane | 10. | U |
| 540-59-0 | 1,2-Dichloroethene (total) | 10. | U |
| 67-66-3 | Chloroform | 10. | U |
| 107-06-2 | 1,2-Dichloroethane | 10. | U |
| 78-93-3 | 2-Butanone | 10. | U |
| 71-55-6 | 1,1,1-Trichloroethane | 10. | U |
| 56-23-5 | Carbon Tetrachloride | 10. | U |
| 75-27-4 | Bromodichloromethane | 10. | U |
| 78-87-5 | 1,2-Dichloropropane | 10. | U |
| 10061-01-5 | cis-1,3-Dichloropropene | 10. | U |
| 79-01-6 | Trichloroethene | 10. | U |
| 124-48-1 | Dibromochloromethane | 10. | U |
| 79-00-5 | 1,1,2-Trichloroethane | 10. | U |
| 71-43-2 | Benzene | 10. | U |
| 10061-02-6 | trans-1,3-Dichloropropene | 10. | U |
| 75-25-2 | Bromoform | 10. | U |
| 108-10-1 | 4-Methyl-2-Pentanone | 10. | U |
| 591-78-6 | 2-Hexanone | 10. | U |
| 127-18-4 | Tetrachloroethene | 10. | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 10. | U |
| 108-88-3 | Toluene | 10. | U |
| 108-90-7 | Chlorobenzene | 10. | U |
| 100-41-4 | Ethylbenzene | 10. | U |
| 100-42-5 | Styrene | 10. | U |
| 1330-20-7 | Xylene (total) | 10. | U |

1E

EPA SAMPLE NO.

ERW20

# VOLATILE ORGANICS ANALYSIS DATA SHEET
## TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: McCoy and McCoy Labs, Inc  Contract: 68-D1-0081

Lab Code: MCCOY  Case No.: 18642  SAS No.:  SDG No.: ERW07

Matrix: (soil/water) WATER  Lab Sample ID: ERW20

Sample wt/vol: 5.000 (g/mL) ML  Lab File ID: C9449

Level: (low/med) LOW  Date Received: 08/20/92

% Moisture: not dec._____  Date Analyzed: 08/21/92

GC Column: RTx502.2 ID: .53 (mm)  Dilution Factor: 1.0

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

Number TICs found: 0

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

| | CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
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| 1. | | | | | |
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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ERW21

Lab Name: McCoy and McCoy Labs, Inc  Contract: 68-D1-0081

Lab Code: MCCOY  Case No.: 18642  SAS No.:  SDG No.: ERW07

Matrix: (soil/water) WATER  Lab Sample ID: ERW21

Sample wt/vol: 5.000 (g/mL) ML  Lab File ID: C9450

Level: (low/med) LOW  Date Received: 08/20/92

% Moisture: not dec._____  Date Analyzed: 08/21/92

GC Column: RTx502.2 ID: .53 (mm)  Dilution Factor: 1.0

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

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 74-87-3 | Chloromethane | 10. | U |
| 74-83-9 | Bromomethane | 10. | U |
| 75-01-4 | Vinyl Chloride | 10. | U |
| 75-00-3 | Chloroethane | 10. | U |
| 75-09-2 | Methylene Chloride | 10. | U |
| 67-64-1 | Acetone | 10. | U |
| 75-15-0 | Carbon Disulfide | 10. | U |
| 75-35-4 | 1,1-Dichloroethene | 10. | U |
| 75-34-3 | 1,1-Dichloroethane | 10. | U |
| 540-59-0 | 1,2-Dichloroethene (total) | 10. | U |
| 67-66-3 | Chloroform | 10. | U |
| 107-06-2 | 1,2-Dichloroethane | 10. | U |
| 78-93-3 | 2-Butanone | 10. | U |
| 71-55-6 | 1,1,1-Trichloroethane | 10. | U |
| 56-23-5 | Carbon Tetrachloride | 10. | U |
| 75-27-4 | Bromodichloromethane | 10. | U |
| 78-87-5 | 1,2-Dichloropropane | 10. | U |
| 10061-01-5 | cis-1,3-Dichloropropene | 10. | U |
| 79-01-6 | Trichloroethene | 10. | U |
| 124-48-1 | Dibromochloromethane | 10. | U |
| 79-00-5 | 1,1,2-Trichloroethane | 10. | U |
| 71-43-2 | Benzene | 10. | U |
| 10061-02-6 | trans-1,3-Dichloropropene | 10. | U |
| 75-25-2 | Bromoform | 10. | U |
| 108-10-1 | 4-Methyl-2-Pentanone | 10. | U |
| 591-78-6 | 2-Hexanone | 10. | U |
| 127-18-4 | Tetrachloroethene | 10. | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 10. | U |
| 108-88-3 | Toluene | 10. | U |
| 108-90-7 | Chlorobenzene | 10. | U |
| 100-41-4 | Ethylbenzene | 10. | U |
| 100-42-5 | Styrene | 10. | U |
| 1330-20-7 | Xylene (total) | 10. | U |

1E

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

ERW21

Lab Name: McCoy and McCoy Labs, Inc  Contract: 68-D1-0081

Lab Code: MCCOY  Case No.: 18642  SAS No.:  SDG No.: ERW07

Matrix: (soil/water) WATER  Lab Sample ID: ERW21

Sample wt/vol: 5.000 (g/mL) ML  Lab File ID: C9450

Level: (low/med) LOW  Date Received: 08/20/92

% Moisture: not dec._____  Date Analyzed: 08/21/92

GC Column: RTx502.2 ID: .53 (mm)  Dilution Factor: 1.0

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

Number TICs found: 0

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

| | CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
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# SOIL SEMIVOLATILE SURROGATE RECOVERY

Lab Name: McCoy and McCoy Labs, Inc  Contract: 68D10081

Lab Code: MCCOY  Case No.: 18642  SAS No.:  SDG No.: ERW07

Level: (low/med) LOW

| | EPA SAMPLE NO. | S1 (NBZ)# | S2 (FBP)# | S3 (TPH)# | S4 (PHL)# | S5 (2FP)# | S6 (TBP)# | S7 (2CP)# | S8 (DCB)# | TOT OUT |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | SBLK01 | 50 | 76 | 86 | 58 | 51 | 75 | 31 | 63 | 0 |
| 2 | ERW07 | 53 | 83 | 92 | 55 | 36 | 79 | 28 | 55 | 0 |
| 3 | ERW08 | 56 | 84 | 84 | 59 | 46 | 76 | 31 | 66 | 0 |
| 4 | ERW09 | 62 | 97 | 90 | 73 | 61 | 89 | 38 | 78 | 0 |
| 5 | ERW10 | 50 | 73 | 83 | 59 | 50 | 66 | 31 | 64 | 0 |
| 6 | ERW09MS | 26 | 53 | 57 | 31 | 25 | 52 | 16 * | 31 | 1 |
| 7 | ERW09MSD | 53 | 97 | 93 | 58 | 45 | 86 | 30 | 62 | 0 |
| 8 | SBLK02 | 0 * | 0 * | 0 * | 0 * | 0 * | 0 * | 0 * | 0 * | 8 |
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| | | QC LIMITS | |
|---|---|---|---|
| S1 (NBZ) | = Nitrobenzene-d5 | (23-120) | |
| S2 (FBP) | = 2-Fluorobiphenyl | (30-115) | |
| S3 (TPH) | = Terphenyl-d14 | (18-137) | |
| S4 (PHL) | = Phenol-d6 | (24-113) | |
| S5 (2FP) | = 2-Fluorophenol | (25-121) | |
| S6 (TBP) | = 2,4,6-Tribromophenol | (19-122) | |
| S7 (2CP) | = 2-Chlorophenol-d4 | (20-130) | (advisory) |
| S8 (DCB) | = 1,2-Dichlorobenzene-d4 | (20-130) | (advisory) |

# Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogate diluted out

# WATER SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: McCoy and McCoy Labs, Inc  Contract: 68D10081

Lab Code: MCCOY  Case No.: 18642  SAS No.:  SDG No.: ERW07

Matrix Spike - EPA Sample No.: ERW18

| COMPOUND | SPIKE ADDED (UG/L ) | SAMPLE CONCENTRATION (UG/L ) | MS CONCENTRATION (UG/L ) | MS % REC # | QC LIMITS REC. |
|---|---|---|---|---|---|
| Phenol | 150. | 0. | 80. | 53 | 12-110 |
| 2-Chlorophenol | 150. | 0. | 140. | 93 | 27-123 |
| 1,4-Dichlorobenzene | 100. | 0. | 66. | 66 | 36- 97 |
| N-Nitroso-Di-n-prop.(1) | 100. | 0. | 74. | 74 | 41-116 |
| 1,2,4-Trichlorobenzene | 100. | 0. | 70. | 70 | 39- 98 |
| 4-Chloro-3-methylphenol | 150. | 0. | 140. | 93 | 23- 97 |
| Acenaphthene | 100. | 0. | 100. | 100 | 46-118 |
| 4-Nitrophenol | 150. | 0. | 150. | 100 * | 10- 80 |
| 2,4-Dinitrotoluene | 100. | 0. | 93. | 93 | 24- 96 |
| Pentachlorophenol | 150. | 0. | 140. | 93 | 9-103 |
| Pyrene | 100. | 0. | 83. | 83 | 26-127 |

| COMPOUND | SPIKE ADDED (UG/L ) | MSD CONCENTRATION (UG/L ) | MSD % REC # | % RPD # | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| Phenol | 150. | 120. | 80 | 41 | 42 | 12-110 |
| 2-Chlorophenol | 150. | 120. | 80 | 15 | 40 | 27-123 |
| 1,4-Dichlorobenzene | 100. | 54. | 54 | 20 | 28 | 36- 97 |
| N-Nitroso-Di-n-prop.(1) | 100. | 66. | 66 | 11 | 38 | 41-116 |
| 1,2,4-Trichlorobenzene | 100. | 59. | 59 | 17 | 28 | 39- 98 |
| 4-Chloro-3-methylphenol | 150. | 110. | 73 | 24 | 42 | 23- 97 |
| Acenaphthene | 100. | 90. | 90 | 11 | 31 | 46-118 |
| 4-Nitrophenol | 150. | 130. | 87 * | 14 | 50 | 10- 80 |
| 2,4-Dinitrotoluene | 100. | 85. | 85 | 9 | 38 | 24- 96 |
| Pentachlorophenol | 150. | 130. | 87 | 7 | 50 | 9-103 |
| Pyrene | 100. | 75. | 75 | 10 | 31 | 26-127 |

(1) N-Nitroso-di-n-propylamine

# Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

RPD:  0 out of  11 outside limits
Spike Recovery:  2 out of  22 outside limits

COMMENTS:

# SOIL SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: McCoy and McCoy Labs, Inc  Contract: 68D10081

Lab Code: MCCOY  Case No.: 18642  SAS No.:  SDG No.: ERW07

Matrix Spike - EPA Sample No.: ERW09  Level:(low/med) LOW

| COMPOUND | SPIKE ADDED (UG/KG) | SAMPLE CONCENTRATION (UG/KG) | MS CONCENTRATION (UG/KG) | MS % REC | # | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| Phenol | 3225. | 0. | 1000. | 31 | | 26- 90 |
| 2-Chlorophenol | 3225. | 0. | 990. | 31 | | 25-102 |
| 1,4-Dichlorobenzene | 2150. | 0. | 600. | 28 | | 28-104 |
| N-Nitroso-Di-n-prop.(1) | 2150. | 0. | 700. | 33 | * | 41-126 |
| 1,2,4-Trichlorobenzene | 2150. | 0. | 720. | 33 | * | 38-107 |
| 4-Chloro-3-methylphenol | 3225. | 0. | 1600. | 50 | | 26-103 |
| Acenaphthene | 2150. | 0. | 1400. | 65 | | 31-137 |
| 4-Nitrophenol | 3225. | 0. | 1300. | 40 | | 11-114 |
| 2,4-Dinitrotoluene | 2150. | 0. | 930. | 43 | | 28- 89 |
| Pentachlorophenol | 3225. | 0. | 1500. | 47 | | 17-109 |
| Pyrene | 2150. | 460. | 1500. | 48 | | 35-142 |

| COMPOUND | SPIKE ADDED (UG/KG) | MSD CONCENTRATION (UG/KG) | MSD % REC | # | % RPD | # | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|---|---|
| Phenol | 3254. | 1900. | 58 | | 61 | * | 35 | 26- 90 |
| 2-Chlorophenol | 3254. | 1900. | 58 | | 61 | * | 50 | 25-102 |
| 1,4-Dichlorobenzene | 2170. | 1100. | 51 | | 58 | * | 27 | 28-104 |
| N-Nitroso-Di-n-prop.(1) | 2170. | 1400. | 65 | | 65 | * | 38 | 41-126 |
| 1,2,4-Trichlorobenzene | 2170. | 1400. | 65 | | 65 | * | 23 | 38-107 |
| 4-Chloro-3-methylphenol | 3254. | 2500. | 77 | | 43 | * | 33 | 26-103 |
| Acenaphthene | 2170. | 2500. | 115 | | 56 | * | 19 | 31-137 |
| 4-Nitrophenol | 3254. | 2600. | 80 | | 67 | * | 50 | 11-114 |
| 2,4-Dinitrotoluene | 2170. | 1700. | 78 | | 58 | * | 47 | 28- 89 |
| Pentachlorophenol | 3254. | 2800. | 86 | | 59 | * | 47 | 17-109 |
| Pyrene | 2170. | 2300. | 85 | | 56 | * | 36 | 35-142 |

(1) N-Nitroso-di-n-propylamine

# Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

RPD:  11  out of  11  outside limits
Spike Recovery:  2  out of  22  outside limits

COMMENTS:

# SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

SBLK01

Lab Name: McCoy and McCoy Labs, Inc  Contract: 68D10081

Lab Code: MCCOY  Case No.: 18642  SAS No.:  SDG No.: ERW07

Lab File ID: D1225  Lab Sample ID: SBLK01

Instrument ID: ~~HP5971#2~~ HP5996#2  DMM 09-10-92  Date Extracted: 08/24/92

Matrix: (soil/water) SOIL  Date Analyzed: 08/26/92

Level: (low/med) LOW  Time Analyzed: 12:36

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

| | EPA SAMPLE NO. | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED |
|---|---|---|---|---|
| 1 | ERW07 | 92-08-471-01 | D1226 | 08/26/92 |
| 2 | ERW08 | 92-08-471-02 | D1227 | 08/26/92 |
| 3 | ERW09 | 92-08-471-03 | D1228 | 08/26/92 |
| 4 | ERW10 | 92-08-471-04 | D1229 | 08/26/92 |
| 5 | ERW09MS | 92-08-471-12 | D1230 | 08/26/92 |
| 6 | ERW09MSD | 92-08-471-13 | D1231 | 08/26/92 |
| 7 | SBLK02 | GPC BLANK | D1232 | 08/26/92 |
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COMMENTS:

# SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

SBLK03

Lab Name: McCoy and McCoy Labs, Inc  Contract: 68D10081

Lab Code: MCCOY  Case No.: 18642  SAS No.:  SDG No.: ERW07

Lab File ID: D1237  Lab Sample ID: SBLK03

Instrument ID: ~~HP59#2~~ HP5996#2  Dom 08-10-92  Date Extracted: 08/24/92

Matrix: (soil/water) WATER  Date Analyzed: 08/27/92

Level: (low/med) LOW  Time Analyzed: 10:30

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

| | EPA SAMPLE NO. | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED |
|---|---|---|---|---|
| 1 | ERW18 | 92-08-471-06 | D1238 | 08/27/92 |
| 2 | ERW18MS | 92-08-471-07 | D1239 | 08/27/92 |
| 3 | ERW18MSD | 92-08-471-08 | D1240 | 08/27/92 |
| 4 | ERW19 | 92-08-471-09 | D1241 | 08/27/92 |
| 5 | ERW20 | 92-08-471-10 | D1242 | 08/27/92 |
| 6 | ERW21 | 92-08-471-11 | D1243 | 08/27/92 |
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COMMENTS:

# SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK01

Lab Name: McCoy and McCoy Labs, Inc  Contract: 68D10081

Lab Code: MCCOY  Case No.: 18642  SAS No.:  SDG No.: ERW07

Matrix: (soil/water) SOIL  Lab Sample ID: SBLK01

Sample wt/vol: 30.0 (g/mL) G  Lab File ID: D1225

Level: (low/med) LOW  Date Received: 00/00/00

% Moisture: 0. decanted: (Y/N) N  Date Extracted: 08/24/92

Concentrated Extract Volume: 1000.0 (uL)  Date Analyzed: 08/26/92

Injection Volume: 1.0 (uL)  Dilution Factor: 1.0

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

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG | Q |
|---|---|---|---|
| 108-95-2 | Phenol | 1300. | U |
| 111-44-4 | bis(2-Chloroethyl)ether | 1300. | U |
| 95-57-8 | 2-Chlorophenol | 1300. | U |
| 541-73-1 | 1,3-Dichlorobenzene | 1300. | U |
| 106-46-7 | 1,4-Dichlorobenzene | 1300. | U |
| 95-50-1 | 1,2-Dichlorobenzene | 1300. | U |
| 95-48-7 | 2-Methylphenol | 1300. | U |
| 108-60-1 | 2,2'-oxybis(1-Chloropropane) | 1300. | U |
| 106-44-5 | 4-Methylphenol | 1300. | U |
| 621-64-7 | N-Nitroso-Di-n-propylamine | 1300. | U |
| 67-72-1 | Hexachloroethane | 1300. | U |
| 98-95-3 | Nitrobenzene | 1300. | U |
| 78-59-1 | Isophorone | 1300. | U |
| 88-75-5 | 2-Nitrophenol | 1300. | U |
| 105-67-9 | 2,4-Dimethylphenol | 1300. | U |
| 111-91-1 | bis(2-Chloroethoxy)methane | 1300. | U |
| 120-83-2 | 2,4-Dichlorophenol | 1300. | U |
| 120-82-1 | 1,2,4-Trichlorobenzene | 1300. | U |
| 91-20-3 | Naphthalene | 1300. | U |
| 106-47-8 | 4-Chloroaniline | 1300. | U |
| 87-68-3 | Hexachlorobutadiene | 1300. | U |
| 59-50-7 | 4-Chloro-3-methylphenol | 1300. | U |
| 91-57-6 | 2-Methylnaphthalene | 1300. | U |
| 77-47-4 | Hexachlorocyclopentadiene | 1300. | U |
| 88-06-2 | 2,4,6-Trichlorophenol | 1300. | U |
| 95-95-4 | 2,4,5-Trichlorophenol | 3300. | U |
| 91-58-7 | 2-Chloronaphthalene | 1300. | U |
| 88-74-4 | 2-Nitroaniline | 3300. | U |
| 131-11-3 | Dimethylphthalate | 1300. | U |
| 208-96-8 | Acenaphthylene | 1300. | U |
| 606-20-2 | 2,6-Dinitrotoluene | 1300. | U |
| 99-09-2 | 3-Nitroaniline | 3300. | U |
| 83-32-9 | Acenaphthene | 1300. | U |

EPA SAMPLE NO.

# SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SBLK01

Lab Name: McCoy and McCoy Labs, Inc  Contract: 68D10081

Lab Code: MCCOY  Case No.: 18642  SAS No.:  SDG No.: ERW07

Matrix: (soil/water) SOIL  Lab Sample ID: SBLK01

Sample wt/vol: 30.0 (g/mL) G  Lab File ID: D1225

Level: (low/med) LOW  Date Received: 00/00/00

% Moisture: 0. decanted: (Y/N) N  Date Extracted: 08/24/92

Concentrated Extract Volume: 1000.0 (uL)  Date Analyzed: 08/26/92

Injection Volume: 1.0 (uL)  Dilution Factor: 1.0

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

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG | Q |
|---|---|---|---|
| 51-28-5 | 2,4-Dinitrophenol | 3300. | U |
| 100-02-7 | 4-Nitrophenol | 3300. | U |
| 132-64-9 | Dibenzofuran | 1300. | U |
| 121-14-2 | 2,4-Dinitrotoluene | 1300. | U |
| 84-66-2 | Diethylphthalate | 1300. | U |
| 7005-72-3 | 4-Chlorophenyl-phenylether | 1300. | U |
| 86-73-7 | Fluorene | 1300. | U |
| 100-01-6 | 4-Nitroaniline | 3300. | U |
| 534-52-1 | 4,6-Dinitro-2-methylphenol | 3300. | U |
| 86-30-6 | N-Nitrosodiphenylamine | 1300. | U |
| 101-55-3 | 4-Bromophenyl-phenylether | 1300. | U |
| 118-74-1 | Hexachlorobenzene | 1300. | U |
| 87-86-5 | Pentachlorophenol | 3300. | U |
| 85-01-8 | Phenanthrene | 1300. | U |
| 120-12-7 | Anthracene | 1300. | U |
| 86-74-8 | CARBAZOLE | 1300. | U |
| 84-74-2 | Di-n-butylphthalate | 390. | J |
| 206-44-0 | Fluoranthene | 1300. | U |
| 129-00-0 | Pyrene | 1300. | U |
| 85-68-7 | Butylbenzylphthalate | 1300. | U |
| 91-94-1 | 3,3'-Dichlorobenzidine | 1300. | U |
| 56-55-3 | Benzo(a)anthracene | 1300. | U |
| 218-01-9 | Chrysene | 1300. | U |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | 1300. | U |
| 117-84-0 | Di-n-octylphthalate | 1300. | U |
| 205-99-2 | Benzo(b)fluoranthene | 1300. | U |
| 207-08-9 | Benzo(k)fluoranthene | 1300. | U |
| 50-32-8 | Benzo(a)pyrene | 1300. | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 1300. | U |
| 53-70-3 | Dibenz(a,h)anthracene | 1300. | U |
| 191-24-2 | Benzo(g,h,i)perylene | 1300. | U |

(1) - Cannot be separated from diphenylamine

# SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
# TENTATIVELY IDENTIFIED COMPOUNDS

SBLK01

Lab Name: McCoy and McCoy Labs, Inc  Contract: 68D10081

Lab Code: MCCOY  Case No.: 18642  SAS No.:  SDG No.: ERW07

Matrix: (soil/water) SOIL  Lab Sample ID: SBLK01

Sample wt/vol: 30.0 (g/mL) G  Lab File ID: D1225

Level: (low/med) LOW  Date Received: 00/00/00

% Moisture: 0. decanted: (Y/N) N  Date Extracted: 08/24/92

Concentrated Extract Volume: 1000.0 (uL)  Date Analyzed: 08/26/92

Injection Volume: 1.0 (uL)  Dilution Factor: 1.0

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

Number TICs found: 0  CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG

| | CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
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# SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK02

Lab Name: McCoy and McCoy Labs, Inc  Contract: 68D10081

Lab Code: MCCOY  Case No.: 18642  SAS No.:  SDG No.: ERW07

Matrix: (soil/water) SOIL  Lab Sample ID: GPC BLANK

Sample wt/vol: 30.0 (g/mL) G  Lab File ID: 01232

Level: (low/med) LOW  Date Received: 08/20/92

% Moisture: 0. decanted: (Y/N) N  Date Extracted: 08/24/92

Concentrated Extract Volume: 1000.0 (uL)  Date Analyzed: 08/26/92

Injection Volume: 1.0 (uL)  Dilution Factor: 1.0

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

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG | Q |
|---|---|---|---|
| 108-95-2 | Phenol | 1300. | U |
| 111-44-4 | bis(2-Chloroethyl)ether | 1300. | U |
| 95-57-8 | 2-Chlorophenol | 1300. | U |
| 541-73-1 | 1,3-Dichlorobenzene | 1300. | U |
| 106-46-7 | 1,4-Dichlorobenzene | 1300. | U |
| 95-50-1 | 1,2-Dichlorobenzene | 1300. | U |
| 95-48-7 | 2-Methylphenol | 1300. | U |
| 108-60-1 | 2,2'-oxybis(1-Chloropropane) | 1300. | U |
| 106-44-5 | 4-Methylphenol | 1300. | U |
| 621-64-7 | N-Nitroso-Di-n-propylamine | 1300. | U |
| 67-72-1 | Hexachloroethane | 1300. | U |
| 98-95-3 | Nitrobenzene | 1300. | U |
| 78-59-1 | Isophorone | 1300. | U |
| 88-75-5 | 2-Nitrophenol | 1300. | U |
| 105-67-9 | 2,4-Dimethylphenol | 1300. | U |
| 111-91-1 | bis(2-Chloroethoxy)methane | 1300. | U |
| 120-83-2 | 2,4-Dichlorophenol | 1300. | U |
| 120-82-1 | 1,2,4-Trichlorobenzene | 1300. | U |
| 91-20-3 | Naphthalene | 1300. | U |
| 106-47-8 | 4-Chloroaniline | 1300. | U |
| 87-68-3 | Hexachlorobutadiene | 1300. | U |
| 59-50-7 | 4-Chloro-3-methylphenol | 1300. | U |
| 91-57-6 | 2-Methylnaphthalene | 1300. | U |
| 77-47-4 | Hexachlorocyclopentadiene | 1300. | U |
| 88-06-2 | 2,4,6-Trichlorophenol | 1300. | U |
| 95-95-4 | 2,4,5-Trichlorophenol | 3300. | U |
| 91-58-7 | 2-Chloronaphthalene | 1300. | U |
| 88-74-4 | 2-Nitroaniline | 3300. | U |
| 131-11-3 | Dimethylphthalate | 1300. | U |
| 208-96-8 | Acenaphthylene | 1300. | U |
| 606-20-2 | 2,6-Dinitrotoluene | 1300. | U |
| 99-09-2 | 3-Nitroaniline | 3300. | U |
| 83-32-9 | Acenaphthene | 1300. | U |

# SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK02

Lab Name: McCoy and McCoy Labs, Inc  Contract: 68D10081

Lab Code: MCCOY  Case No.: 18642  SAS No.:  SDG No.: ERW07

Matrix: (soil/water) SOIL  Lab Sample ID: GPC BLANK

Sample wt/vol: 30.0 (g/mL) G  Lab File ID: D1232

Level: (low/med) LOW  Date Received: 08/20/92

% Moisture: 0. decanted: (Y/N) N  Date Extracted: 08/24/92

Concentrated Extract Volume: 1000.0 (uL)  Date Analyzed: 08/26/92

Injection Volume: 1.0 (uL)  Dilution Factor: 1.0

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

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG | Q |
|---|---|---|---|
| 51-28-5 | 2,4-Dinitrophenol | 3300. | U |
| 100-02-7 | 4-Nitrophenol | 3300. | U |
| 132-64-9 | Dibenzofuran | 1300. | U |
| 121-14-2 | 2,4-Dinitrotoluene | 1300. | U |
| 84-66-2 | Diethylphthalate | 1300. | U |
| 7005-72-3 | 4-Chlorophenyl-phenylether | 1300. | U |
| 86-73-7 | Fluorene | 1300. | U |
| 100-01-6 | 4-Nitroaniline | 3300. | U |
| 534-52-1 | 4,6-Dinitro-2-methylphenol | 3300. | U |
| 86-30-6 | N-Nitrosodiphenylamine | 1300. | U |
| 101-55-3 | 4-Bromophenyl-phenylether | 1300. | U |
| 118-74-1 | Hexachlorobenzene | 1300. | U |
| 87-86-5 | Pentachlorophenol | 3300. | U |
| 85-01-8 | Phenanthrene | 1300. | U |
| 120-12-7 | Anthracene | 1300. | U |
| 86-74-8 | CARBAZOLE | 1300. | U |
| 84-74-2 | Di-n-butylphthalate | 1300. | U |
| 206-44-0 | Fluoranthene | 1300. | U |
| 129-00-0 | Pyrene | 1300. | U |
| 85-68-7 | Butylbenzylphthalate | 1300. | U |
| 91-94-1 | 3,3'-Dichlorobenzidine | 1300. | U |
| 56-55-3 | Benzo(a)anthracene | 1300. | U |
| 218-01-9 | Chrysene | 1300. | U |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | 1300. | U |
| 117-84-0 | Di-n-octylphthalate | 1300. | U |
| 205-99-2 | Benzo(b)fluoranthene | 1300. | U |
| 207-08-9 | Benzo(k)fluoranthene | 1300. | U |
| 50-32-8 | Benzo(a)pyrene | 1300. | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 1300. | U |
| 53-70-3 | Dibenz(a,h)anthracene | 1300. | U |
| 191-24-2 | Benzo(g,h,i)perylene | 1300. | U |

(1) - Cannot be separated from diphenylamine

# SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
## TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SBLK02

Lab Name: McCoy and McCoy Labs, Inc  Contract: 68D10081

Lab Code: MCCOY  Case No.: 18642  SAS No.:  SDG No.: ERW07

Matrix: (soil/water) SOIL  Lab Sample ID: GPC BLANK

Sample wt/vol: 30.0 (g/mL) G  Lab File ID: D1232

Level: (low/med) LOW  Date Received: 08/20/92

% Moisture: 0.  decanted: (Y/N) N  Date Extracted: 08/24/92

Concentrated Extract Volume: 1000.0 (uL)  Date Analyzed: 08/26/92

Injection Volume: 1.0 (uL)  Dilution Factor: 1.0

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

Number TICs found: 0

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

| | CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|---|
| 1. | | | | | |
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# SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK03

Lab Name: McCoy and McCoy Labs, Inc  Contract: 68D10081

Lab Code: MCCOY  Case No.: 18642  SAS No.:  SDG No.: ERW07

Matrix: (soil/water) WATER  Lab Sample ID: SBLK03

Sample wt/vol: 1000.0 (g/mL) ML  Lab File ID: D1237

Level: (low/med) LOW  Date Received: 00/00/00

% Moisture: _____ decanted: (Y/N)___  Date Extracted: 08/24/92

Concentrated Extract Volume: 1000.0 (uL)  Date Analyzed: 08/27/92

Injection Volume: 1.0 (uL)  Dilution Factor: 1.0

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

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 108-95-2 | Phenol | 20. | U |
| 111-44-4 | bis(2-Chloroethyl)ether | 20. | U |
| 95-57-8 | 2-Chlorophenol | 20. | U |
| 541-73-1 | 1,3-Dichlorobenzene | 20. | U |
| 106-46-7 | 1,4-Dichlorobenzene | 20. | U |
| 95-50-1 | 1,2-Dichlorobenzene | 20. | U |
| 95-48-7 | 2-Methylphenol | 20. | U |
| 108-60-1 | 2,2'-oxybis(1-Chloropropane) | 20. | U |
| 106-44-5 | 4-Methylphenol | 20. | U |
| 621-64-7 | N-Nitroso-Di-n-propylamine | 20. | U |
| 67-72-1 | Hexachloroethane | 20. | U |
| 98-95-3 | Nitrobenzene | 20. | U |
| 78-59-1 | Isophorone | 20. | U |
| 88-75-5 | 2-Nitrophenol | 20. | U |
| 105-67-9 | 2,4-Dimethylphenol | 20. | U |
| 111-91-1 | bis(2-Chloroethoxy)methane | 20. | U |
| 120-83-2 | 2,4-Dichlorophenol | 20. | U |
| 120-82-1 | 1,2,4-Trichlorobenzene | 20. | U |
| 91-20-3 | Naphthalene | 20. | U |
| 106-47-8 | 4-Chloroaniline | 20. | U |
| 87-68-3 | Hexachlorobutadiene | 20. | U |
| 59-50-7 | 4-Chloro-3-methylphenol | 20. | U |
| 91-57-6 | 2-Methylnaphthalene | 20. | U |
| 77-47-4 | Hexachlorocyclopentadiene | 20. | U |
| 88-06-2 | 2,4,6-Trichlorophenol | 20. | U |
| 95-95-4 | 2,4,5-Trichlorophenol | 50. | U |
| 91-58-7 | 2-Chloronaphthalene | 20. | U |
| 88-74-4 | 2-Nitroaniline | 50. | U |
| 131-11-3 | Dimethylphthalate | 20. | U |
| 208-96-8 | Acenaphthylene | 20. | U |
| 606-20-2 | 2,6-Dinitrotoluene | 20. | U |
| 99-09-2 | 3-Nitroaniline | 50. | U |
| 83-32-9 | Acenaphthene | 20. | U |

# SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK03

Lab Name: McCoy and McCoy Labs, Inc  Contract: 68D10081

Lab Code: MCCOY  Case No.: 18642  SAS No.:  SDG No.: ERW07

Matrix: (soil/water) WATER  Lab Sample ID: SBLK03

Sample wt/vol: 1000.0 (g/mL) ML  Lab File ID: D1237

Level: (low/med) LOW  Date Received: 00/00/00

% Moisture: _____ decanted: (Y/N)___  Date Extracted: 08/24/92

Concentrated Extract Volume: 1000.0 (uL)  Date Analyzed: 08/27/92

Injection Volume: 1.0 (uL)  Dilution Factor: 1.0

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

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 51-28-5 | 2,4-Dinitrophenol | 50. | U |
| 100-02-7 | 4-Nitrophenol | 50. | U |
| 132-64-9 | Dibenzofuran | 20. | U |
| 121-14-2 | 2,4-Dinitrotoluene | 20. | U |
| 84-66-2 | Diethylphthalate | 20. | U |
| 7005-72-3 | 4-Chlorophenyl-phenylether | 20. | U |
| 86-73-7 | Fluorene | 20. | U |
| 100-01-6 | 4-Nitroaniline | 50. | U |
| 534-52-1 | 4,6-Dinitro-2-methylphenol | 50. | U |
| 86-30-6 | N-Nitrosodiphenylamine | 20. | U |
| 101-55-3 | 4-Bromophenyl-phenylether | 20. | U |
| 118-74-1 | Hexachlorobenzene | 20. | U |
| 87-86-5 | Pentachlorophenol | 50. | U |
| 85-01-8 | Phenanthrene | 20. | U |
| 120-12-7 | Anthracene | 20. | U |
| 86-74-8 | CARBAZOLE | 20. | U |
| 84-74-2 | Di-n-butylphthalate | 26. | |
| 206-44-0 | Fluoranthene | 20. | U |
| 129-00-0 | Pyrene | 20. | U |
| 85-68-7 | Butylbenzylphthalate | 20. | U |
| 91-94-1 | 3,3'-Dichlorobenzidine | 20. | U |
| 56-55-3 | Benzo(a)anthracene | 20. | U |
| 218-01-9 | Chrysene | 20. | U |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | 20. | |
| 117-84-0 | Di-n-octylphthalate | 20. | U |
| 205-99-2 | Benzo(b)fluoranthene | 20. | U |
| 207-08-9 | Benzo(k)fluoranthene | 20. | U |
| 50-32-8 | Benzo(a)pyrene | 20. | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 20. | U |
| 53-70-3 | Dibenz(a,h)anthracene | 20. | U |
| 191-24-2 | Benzo(g,h,i)perylene | 20. | U |

(1) - Cannot be separated from diphenylamine

EPA SAMPLE NO.

SBLK03

# SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
## TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: McCoy and McCoy Labs, Inc  Contract: 68D10081

Lab Code: MCCOY  Case No.: 18642  SAS No.:  SDG No.: ERW07

Matrix: (soil/water) WATER  Lab Sample ID: SBLK03

Sample wt/vol: 1000.0 (g/mL) ML  Lab File ID: D1237

Level: (low/med) LOW  Date Received: 00/00/00

% Moisture: _____ decanted: (Y/N)___  Date Extracted: 08/24/92

Concentrated Extract Volume: 1000.0 (uL)  Date Analyzed: 08/27/92

Injection Volume: 1.0 (uL)  Dilution Factor: 1.0

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

Number TICs found: 3  CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

| | CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|---|
| 1. | 111-76-2 | Ethanol, 2-butoxy- (8CI9CI) | 8.35 | 200. | J N |
| 2. | 111-77-3 | Ethanol, 2-(2-methoxyethoxy) | 8.95 | 20. | J N |
| 3. | 19686-73-8 | 2-Propanol, 1-bromo- (8CI9CI | 10.46 | 300. | J N |
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# SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ERW07

Lab Name: McCoy and McCoy Labs, Inc  Contract: 68D10081

Lab Code: MCCOY  Case No.: 18642  SAS No.:  SDG No.: ERW07

Matrix: (soil/water) SOIL  Lab Sample ID: 92-08-471-01

Sample wt/vol: 30.7 (g/mL) G  Lab File ID: D1226

Level: (low/med) LOW  Date Received: 08/20/92

% Moisture: 20. decanted: (Y/N) N  Date Extracted: 08/24/92

Concentrated Extract Volume: 1000.0 (uL)  Date Analyzed: 08/26/92

Injection Volume: 1.0 (uL)  Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y  pH: 8.2

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG | Q |
|---|---|---|---|
| 108-95-2 | Phenol | 1600. | U |
| 111-44-4 | bis(2-Chloroethyl)ether | 1600. | U |
| 95-57-8 | 2-Chlorophenol | 1600. | U |
| 541-73-1 | 1,3-Dichlorobenzene | 1600. | U |
| 106-46-7 | 1,4-Dichlorobenzene | 1600. | U |
| 95-50-1 | 1,2-Dichlorobenzene | 1600. | U |
| 95-48-7 | 2-Methylphenol | 1600. | U |
| 108-60-1 | 2,2'-oxybis(1-Chloropropane) | 1600. | U |
| 106-44-5 | 4-Methylphenol | 1600. | U |
| 621-64-7 | N-Nitroso-Di-n-propylamine | 1600. | U |
| 67-72-1 | Hexachloroethane | 1600. | U |
| 98-95-3 | Nitrobenzene | 1600. | U |
| 78-59-1 | Isophorone | 1600. | U |
| 88-75-5 | 2-Nitrophenol | 1600. | U |
| 105-67-9 | 2,4-Dimethylphenol | 1600. | U |
| 111-91-1 | bis(2-Chloroethoxy)methane | 1600. | U |
| 120-83-2 | 2,4-Dichlorophenol | 1600. | U |
| 120-82-1 | 1,2,4-Trichlorobenzene | 1600. | U |
| 91-20-3 | Naphthalene | 1600. | U |
| 106-47-8 | 4-Chloroaniline | 1600. | U |
| 87-68-3 | Hexachlorobutadiene | 1600. | U |
| 59-50-7 | 4-Chloro-3-methylphenol | 1600. | U |
| 91-57-6 | 2-Methylnaphthalene | 1600. | U |
| 77-47-4 | Hexachlorocyclopentadiene | 1600. | U |
| 88-06-2 | 2,4,6-Trichlorophenol | 1600. | U |
| 95-95-4 | 2,4,5-Trichlorophenol | 4000. | U |
| 91-58-7 | 2-Chloronaphthalene | 1600. | U |
| 88-74-4 | 2-Nitroaniline | 4000. | U |
| 131-11-3 | Dimethylphthalate | 1600. | U |
| 208-96-8 | Acenaphthylene | 1600. | U |
| 606-20-2 | 2,6-Dinitrotoluene | 1600. | U |
| 99-09-2 | 3-Nitroaniline | 4000. | U |
| 83-32-9 | Acenaphthene | 1600. | U |

# SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ERW07

Lab Name: McCoy and McCoy Labs, Inc  Contract: 68D10081

Lab Code: MCCOY  Case No.: 18642  SAS No.:  SDG No.: ERW07

Matrix: (soil/water) SOIL  Lab Sample ID: 92-08-471-01

Sample wt/vol: 30.7 (g/mL) G  Lab File ID: D1226

Level: (low/med) LOW  Date Received: 08/20/92

% Moisture: 20. decanted: (Y/N) N  Date Extracted: 08/24/92

Concentrated Extract Volume: 1000.0 (uL)  Date Analyzed: 08/26/92

Injection Volume: 1.0 (uL)  Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y  pH: 8.2

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG | Q | |
|---|---|---|---|---|
| 51-28-5 | 2,4-Dinitrophenol | 4000. | U | |
| 100-02-7 | 4-Nitrophenol | 4000. | U | |
| 132-64-9 | Dibenzofuran | 1600. | U | |
| 121-14-2 | 2,4-Dinitrotoluene | 1600. | U | |
| 84-66-2 | Diethylphthalate | 1600. | U | |
| 7005-72-3 | 4-Chlorophenyl-phenylether | 1600. | U | |
| 86-73-7 | Fluorene | 1600. | U | |
| 100-01-6 | 4-Nitroaniline | 4000. | U | |
| 534-52-1 | 4,6-Dinitro-2-methylphenol | 4000. | U | |
| 86-30-6 | N-Nitrosodiphenylamine | 1600. | U | |
| 101-55-3 | 4-Bromophenyl-phenylether | 1600. | U | |
| 118-74-1 | Hexachlorobenzene | 1600. | U | |
| 87-86-5 | Pentachlorophenol | 4000. | U | |
| 85-01-8 | Phenanthrene | 1400. | J | |
| 120-12-7 | Anthracene | 1600. | U | |
| 86-74-8 | CARBAZOLE | 1600. | U | |
| 84-74-2 | Di-n-butylphthalate | 1600 ~~430.~~ | BJU | PDC 11/9/92 |
| 206-44-0 | Fluoranthene | 3400. | | |
| 129-00-0 | Pyrene | 1800. | | |
| 85-68-7 | Butylbenzylphthalate | 1600. | U | |
| 91-94-1 | 3,3'-Dichlorobenzidine | 1600. | U | |
| 56-55-3 | Benzo(a)anthracene | 1200. | J | |
| 218-01-9 | Chrysene | 1300. | J | |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | 1600. | U | |
| 117-84-0 | Di-n-octylphthalate | 1600. | U | |
| 205-99-2 | Benzo(b)fluoranthene | 1600. | J | |
| 207-08-9 | Benzo(k)fluoranthene | 1600. | U | |
| 50-32-8 | Benzo(a)pyrene | 1700. | | |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 1200. | J | |
| 53-70-3 | Dibenz(a,h)anthracene | 1600. | U | |
| 191-24-2 | Benzo(g,h,i)perylene | 1200. | J | |

(1) - Cannot be separated from diphenylamine

EPA SAMPLE NO.

ERW07

# SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
## TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: McCoy and McCoy Labs, Inc  Contract: 68D10081

Lab Code: MCCOY  Case No.: 18642  SAS No.:  SDG No.: ERW07

Matrix: (soil/water) SOIL  Lab Sample ID: 92-08-471-01

Sample wt/vol: 30.7 (g/mL) G  Lab File ID: D1226

Level: (low/med) LOW  Date Received: 08/20/92

% Moisture: 20.  decanted: (Y/N) N  Date Extracted: 08/24/92

Concentrated Extract Volume: 1000.0 (uL)  Date Analyzed: 08/26/92

Injection Volume: 1.0 (uL)  Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y  pH: 8.2

Number TICs found: 1

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

| | CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|---|
| 1. | 205-82-3 | Benzo[j]fluoranthene (8CI9CI | 32.85 | 1000. | J N |
| 2. | | | | | |
| 3. | | | | | |
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# SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ERW08

Lab Name: McCoy and McCoy Labs, Inc  Contract: 68D10081

Lab Code: MCCOY  Case No.: 18642  SAS No.:  SDG No.: ERW07

Matrix: (soil/water) SOIL  Lab Sample ID: 92-08-471-02

Sample wt/vol: 30.2 (g/mL) G  Lab File ID: D1227

Level: (low/med) LOW  Date Received: 08/20/92

% Moisture: 16. decanted: (Y/N) N  Date Extracted: 08/24/92

Concentrated Extract Volume: 1000.0 (uL)  Date Analyzed: 08/26/92

Injection Volume: 1.0 (uL)  Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y  pH: 8.1

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG | Q |
|---|---|---|---|
| 108-95-2 | Phenol | 1600. | U |
| 111-44-4 | bis(2-Chloroethyl)ether | 1600. | U |
| 95-57-8 | 2-Chlorophenol | 1600. | U |
| 541-73-1 | 1,3-Dichlorobenzene | 1600. | U |
| 106-46-7 | 1,4-Dichlorobenzene | 1600. | U |
| 95-50-1 | 1,2-Dichlorobenzene | 1600. | U |
| 95-48-7 | 2-Methylphenol | 1600. | U |
| 108-60-1 | 2,2'-oxybis(1-Chloropropane) | 1600. | U |
| 106-44-5 | 4-Methylphenol | 1600. | U |
| 621-64-7 | N-Nitroso-Di-n-propylamine | 1600. | U |
| 67-72-1 | Hexachloroethane | 1600. | U |
| 98-95-3 | Nitrobenzene | 1600. | U |
| 78-59-1 | Isophorone | 1600. | U |
| 88-75-5 | 2-Nitrophenol | 1600. | U |
| 105-67-9 | 2,4-Dimethylphenol | 1600. | U |
| 111-91-1 | bis(2-Chloroethoxy)methane | 1600. | U |
| 120-83-2 | 2,4-Dichlorophenol | 1600. | U |
| 120-82-1 | 1,2,4-Trichlorobenzene | 1600. | U |
| 91-20-3 | Naphthalene | 1600. | U |
| 106-47-8 | 4-Chloroaniline | 1600. | U |
| 87-68-3 | Hexachlorobutadiene | 1600. | U |
| 59-50-7 | 4-Chloro-3-methylphenol | 1600. | U |
| 91-57-6 | 2-Methylnaphthalene | 1600. | U |
| 77-47-4 | Hexachlorocyclopentadiene | 1600. | U |
| 88-06-2 | 2,4,6-Trichlorophenol | 1600. | U |
| 95-95-4 | 2,4,5-Trichlorophenol | 4000. | U |
| 91-58-7 | 2-Chloronaphthalene | 1600. | U |
| 88-74-4 | 2-Nitroaniline | 4000. | U |
| 131-11-3 | Dimethylphthalate | 1600. | U |
| 208-96-8 | Acenaphthylene | 1600. | U |
| 606-20-2 | 2,6-Dinitrotoluene | 1600. | U |
| 99-09-2 | 3-Nitroaniline | 4000. | U |
| 83-32-9 | Acenaphthene | 1600. | U |

# SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ERW08

Lab Name: McCoy and McCoy Labs, Inc  Contract: 68D10081

Lab Code: MCCOY  Case No.: 18642  SAS No.:  SDG No.: ERW07

Matrix: (soil/water) SOIL  Lab Sample ID: 92-08-471-02

Sample wt/vol: 30.2 (g/mL) G  Lab File ID: D1227

Level: (low/med) LOW  Date Received: 08/20/92

% Moisture: 16. decanted: (Y/N) N  Date Extracted: 08/24/92

Concentrated Extract Volume: 1000.0 (uL)  Date Analyzed: 08/26/92

Injection Volume: 1.0 (uL)  Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y  pH: 8.1

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG | Q |
|---|---|---|---|
| 51-28-5 | 2,4-Dinitrophenol | 4000. | U |
| 100-02-7 | 4-Nitrophenol | 4000. | U |
| 132-64-9 | Dibenzofuran | 1600. | U |
| 121-14-2 | 2,4-Dinitrotoluene | 1600. | U |
| 84-66-2 | Diethylphthalate | 1600. | U |
| 7005-72-3 | 4-Chlorophenyl-phenylether | 1600. | U |
| 86-73-7 | Fluorene | 1600. | U |
| 100-01-6 | 4-Nitroaniline | 4000. | U |
| 534-52-1 | 4,6-Dinitro-2-methylphenol | 4000. | U |
| 86-30-6 | N-Nitrosodiphenylamine | 1600. | U |
| 101-55-3 | 4-Bromophenyl-phenylether | 1600. | U |
| 118-74-1 | Hexachlorobenzene | 1600. | U |
| 87-86-5 | Pentachlorophenol | 4000. | U |
| 85-01-8 | Phenanthrene | 1600. | U |
| 120-12-7 | Anthracene | 1600. | U |
| 86-74-8 | CARBAZOLE | 1600. | U |
| 84-74-2 | Di-n-butylphthalate | 1600. | U |
| 206-44-0 | Fluoranthene | 580. | J |
| 129-00-0 | Pyrene | 1600. | U |
| 85-68-7 | Butylbenzylphthalate | 1600. | U |
| 91-94-1 | 3,3'-Dichlorobenzidine | 1600. | U |
| 56-55-3 | Benzo(a)anthracene | 1600. | U |
| 218-01-9 | Chrysene | 1600. | U |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | 1600. | U |
| 117-84-0 | Di-n-octylphthalate | 1600. | U |
| 205-99-2 | Benzo(b)fluoranthene | 1600. | U |
| 207-08-9 | Benzo(k)fluoranthene | 1600. | U |
| 50-32-8 | Benzo(a)pyrene | 1600. | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 1600. | U |
| 53-70-3 | Dibenz(a,h)anthracene | 1600. | U |
| 191-24-2 | Benzo(g,h,i)perylene | 1600. | U |

(1) - Cannot be separated from diphenylamine

# SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
## TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

ERW08

Lab Name: McCoy and McCoy Labs, Inc  Contract: 68D10081

Lab Code: MCCOY  Case No.: 18642  SAS No.:  SDG No.: ERW07

Matrix: (soil/water) SOIL  Lab Sample ID: 92-08-471-02

Sample wt/vol: 30.2 (g/mL) G  Lab File ID: D1227

Level: (low/med) LOW  Date Received: 08/20/92

% Moisture: 16. decanted: (Y/N) N  Date Extracted: 08/24/92

Concentrated Extract Volume: 1000.0 (uL)  Date Analyzed: 08/26/92

Injection Volume: 1.0 (uL)  Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y  pH: 8.1

Number TICs found: 0

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

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

EPA SAMPLE NO.

ERW09

Lab Name: McCoy and McCoy Labs, Inc  Contract: 68D10081

Lab Code: MCCOY  Case No.: 18642  SAS No.:  SDG No.: ERW07

Matrix: (soil/water) SOIL  Lab Sample ID: 92-08-471-03

Sample wt/vol: 30.0 (g/mL) G  Lab File ID: D1228

Level: (low/med) LOW  Date Received: 08/20/92

% Moisture: 25. decanted: (Y/N) N  Date Extracted: 08/24/92

Concentrated Extract Volume: 1000.0 (uL)  Date Analyzed: 08/26/92

Injection Volume: 1.0 (uL)  Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y  pH: 6.9

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG | Q |
|---|---|---|---|
| 108-95-2 | Phenol | 1800. | U J |
| 111-44-4 | bis(2-Chloroethyl)ether | 1800. | U |
| 95-57-8 | 2-Chlorophenol | 1800. | U |
| 541-73-1 | 1,3-Dichlorobenzene | 1800. | U |
| 106-46-7 | 1,4-Dichlorobenzene | 1800. | U |
| 95-50-1 | 1,2-Dichlorobenzene | 1800. | U |
| 95-48-7 | 2-Methylphenol | 1800. | U |
| 108-60-1 | 2,2'-oxybis(1-Chloropropane) | 1800. | U |
| 106-44-5 | 4-Methylphenol | 1800. | U |
| 621-64-7 | N-Nitroso-Di-n-propylamine | 1800. | U |
| 67-72-1 | Hexachloroethane | 1800. | U |
| 98-95-3 | Nitrobenzene | 1800. | U |
| 78-59-1 | Isophorone | 1800. | U |
| 88-75-5 | 2-Nitrophenol | 1800. | U |
| 105-67-9 | 2,4-Dimethylphenol | 1800. | U |
| 111-91-1 | bis(2-Chloroethoxy)methane | 1800. | U |
| 120-83-2 | 2,4-Dichlorophenol | 1800. | U |
| 120-82-1 | 1,2,4-Trichlorobenzene | 1800. | U |
| 91-20-3 | Naphthalene | 1800. | U |
| 106-47-8 | 4-Chloroaniline | 1800. | U |
| 87-68-3 | Hexachlorobutadiene | 1800. | U |
| 59-50-7 | 4-Chloro-3-methylphenol | 1800. | U |
| 91-57-6 | 2-Methylnaphthalene | 1800. | U |
| 77-47-4 | Hexachlorocyclopentadiene | 1800. | U |
| 88-06-2 | 2,4,6-Trichlorophenol | 1800. | U |
| 95-95-4 | 2,4,5-Trichlorophenol | 4400. | U |
| 91-58-7 | 2-Chloronaphthalene | 1800. | U |
| 88-74-4 | 2-Nitroaniline | 4400. | U |
| 131-11-3 | Dimethylphthalate | 1800. | U |
| 208-96-8 | Acenaphthylene | 1800. | U |
| 606-20-2 | 2,6-Dinitrotoluene | 1800. | U |
| 99-09-2 | 3-Nitroaniline | 4400. | U |
| 83-32-9 | Acenaphthene | 1800. | U |

# SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ERW09

Lab Name: McCoy and McCoy Labs, Inc  Contract: 68D10081

Lab Code: MCCOY  Case No.: 18642  SAS No.:  SDG No.: ERW07

Matrix: (soil/water) SOIL  Lab Sample ID: 92-08-471-03

Sample wt/vol: 30.0 (g/mL) G  Lab File ID: D1228

Level: (low/med) LOW  Date Received: 08/20/92

% Moisture: 25. decanted: (Y/N) N  Date Extracted: 08/24/92

Concentrated Extract Volume: 1000.0 (uL)  Date Analyzed: 08/26/92

Injection Volume: 1.0 (uL)  Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y  pH: 6.9

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG | Q |
|---|---|---|---|
| 51-28-5 | 2,4-Dinitrophenol | 4400. | U |
| 100-02-7 | 4-Nitrophenol | 4400. | U |
| 132-64-9 | Dibenzofuran | 1800. | U |
| 121-14-2 | 2,4-Dinitrotoluene | 1800. | U |
| 84-66-2 | Diethylphthalate | 1800. | U |
| 7005-72-3 | 4-Chlorophenyl-phenylether | 1800. | U |
| 86-73-7 | Fluorene | 1800. | U |
| 100-01-6 | 4-Nitroaniline | 4400. | U |
| 534-52-1 | 4,6-Dinitro-2-methylphenol | 4400. | U |
| 86-30-6 | N-Nitrosodiphenylamine | 1800. | U |
| 101-55-3 | 4-Bromophenyl-phenylether | 1800. | U |
| 118-74-1 | Hexachlorobenzene | 1800. | U |
| 87-86-5 | Pentachlorophenol | 4400. | U |
| 85-01-8 | Phenanthrene | 440. | J |
| 120-12-7 | Anthracene | 1800. | U |
| 86-74-8 | CARBAZOLE | 1800. | U |
| 84-74-2 | Di-n-butylphthalate | 1800. | U |
| 206-44-0 | Fluoranthene | 800. | J |
| 129-00-0 | Pyrene | 460. | J |
| 85-68-7 | Butylbenzylphthalate | 1800. | U |
| 91-94-1 | 3,3'-Dichlorobenzidine | 1800. | U |
| 56-55-3 | Benzo(a)anthracene | 1800. | U |
| 218-01-9 | Chrysene | 1800. | U |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | 3100. | J |
| 117-84-0 | Di-n-octylphthalate | 1800. | U |
| 205-99-2 | Benzo(b)fluoranthene | 1800. | U |
| 207-08-9 | Benzo(k)fluoranthene | 1800. | U |
| 50-32-8 | Benzo(a)pyrene | 1800. | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 1800. | U |
| 53-70-3 | Dibenz(a,h)anthracene | 1800. | U |
| 191-24-2 | Benzo(g,h,i)perylene | 1800. | U |

(1) - Cannot be separated from diphenylamine

# SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
## TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.: ERW09

Lab Name: McCoy and McCoy Labs, Inc  Contract: 68D10081

Lab Code: MCCOY  Case No.: 18642  SAS No.:  SDG No.: ERW07

Matrix: (soil/water) SOIL  Lab Sample ID: 92-08-471-03

Sample wt/vol: 30.0 (g/mL) G  Lab File ID: D1228

Level: (low/med) LOW  Date Received: 08/20/92

% Moisture: 25. decanted: (Y/N) N  Date Extracted: 08/24/92

Concentrated Extract Volume: 1000.0 (uL)  Date Analyzed: 08/26/92

Injection Volume: 1.0 (uL)  Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y  pH: 6.9

Number TICs found: 1  CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG

| | CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|---|
| 1. | 5961-33-1 | Azetidine, 3-methyl-3-phenyl | 31.53 | 500. | J N |
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# SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ERW10

Lab Name: McCoy and McCoy Labs, Inc  Contract: 68D10081

Lab Code: MCCOY  Case No.: 18642  SAS No.:  SDG No.: ERW07

Matrix: (soil/water) SOIL  Lab Sample ID: 92-08-471-04

Sample wt/vol: 30.7 (g/mL) G  Lab File ID: D1229

Level: (low/med) LOW  Date Received: 08/20/92

% Moisture: 35. decanted: (Y/N) N  Date Extracted: 08/24/92

Concentrated Extract Volume: 1000.0 (uL)  Date Analyzed: 08/26/92

Injection Volume: 1.0 (uL)  Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y  pH: 7.1

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG | Q |
|---|---|---|---|
| 108-95-2 | Phenol | 2000. | U |
| 111-44-4 | bis(2-Chloroethyl)ether | 2000. | U |
| 95-57-8 | 2-Chlorophenol | 2000. | U |
| 541-73-1 | 1,3-Dichlorobenzene | 2000. | U |
| 106-46-7 | 1,4-Dichlorobenzene | 2000. | U |
| 95-50-1 | 1,2-Dichlorobenzene | 2000. | U |
| 95-48-7 | 2-Methylphenol | 2000. | U |
| 108-60-1 | 2,2'-oxybis(1-Chloropropane) | 2000. | U |
| 106-44-5 | 4-Methylphenol | 2000. | U |
| 621-64-7 | N-Nitroso-Di-n-propylamine | 2000. | U |
| 67-72-1 | Hexachloroethane | 2000. | U |
| 98-95-3 | Nitrobenzene | 2000. | U |
| 78-59-1 | Isophorone | 2000. | U |
| 88-75-5 | 2-Nitrophenol | 2000. | U |
| 105-67-9 | 2,4-Dimethylphenol | 2000. | U |
| 111-91-1 | bis(2-Chloroethoxy)methane | 2000. | U |
| 120-83-2 | 2,4-Dichlorophenol | 2000. | U |
| 120-82-1 | 1,2,4-Trichlorobenzene | 2000. | U |
| 91-20-3 | Naphthalene | 2000. | U |
| 106-47-8 | 4-Chloroaniline | 2000. | U |
| 87-68-3 | Hexachlorobutadiene | 2000. | U |
| 59-50-7 | 4-Chloro-3-methylphenol | 2000. | U |
| 91-57-6 | 2-Methylnaphthalene | 2000. | U |
| 77-47-4 | Hexachlorocyclopentadiene | 2000. | U |
| 88-06-2 | 2,4,6-Trichlorophenol | 2000. | U |
| 95-95-4 | 2,4,5-Trichlorophenol | 5000. | U |
| 91-58-7 | 2-Chloronaphthalene | 2000. | U |
| 88-74-4 | 2-Nitroaniline | 5000. | U |
| 131-11-3 | Dimethylphthalate | 2000. | U |
| 208-96-8 | Acenaphthylene | 2000. | U |
| 606-20-2 | 2,6-Dinitrotoluene | 2000. | U |
| 99-09-2 | 3-Nitroaniline | 5000. | U |
| 83-32-9 | Acenaphthene | 2000. | U |

# SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ERW10

Lab Name: McCoy and McCoy Labs, Inc  Contract: 68D10081

Lab Code: MCCOY  Case No.: 18642  SAS No.:  SDG No.: ERW07

Matrix: (soil/water) SOIL  Lab Sample ID: 92-08-471-04

Sample wt/vol: 30.7 (g/mL) G  Lab File ID: D1229

Level: (low/med) LOW  Date Received: 08/20/92

% Moisture: 35. decanted: (Y/N) N  Date Extracted: 08/24/92

Concentrated Extract Volume: 1000.0 (uL)  Date Analyzed: 08/26/92

Injection Volume: 1.0 (uL)  Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y  pH: 7.1

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG | Q |
|---|---|---|---|
| 51-28-5 | 2,4-Dinitrophenol | 5000. | U |
| 100-02-7 | 4-Nitrophenol | 5000. | U |
| 132-64-9 | Dibenzofuran | 2000. | U |
| 121-14-2 | 2,4-Dinitrotoluene | 2000. | U |
| 84-66-2 | Diethylphthalate | 2000. | U |
| 7005-72-3 | 4-Chlorophenyl-phenylether | 2000. | U |
| 86-73-7 | Fluorene | 2000. | U |
| 100-01-6 | 4-Nitroaniline | 5000. | U |
| 534-52-1 | 4,6-Dinitro-2-methylphenol | 5000. | U |
| 86-30-6 | N-Nitrosodiphenylamine | 2000. | U |
| 101-55-3 | 4-Bromophenyl-phenylether | 2000. | U |
| 118-74-1 | Hexachlorobenzene | 2000. | U |
| 87-86-5 | Pentachlorophenol | 5000. | U |
| 85-01-8 | Phenanthrene | 2000. | U |
| 120-12-7 | Anthracene | 2000. | U |
| 86-74-8 | CARBAZOLE | 2000. | U |
| 84-74-2 | Di-n-butylphthalate | 2000. | U |
| 206-44-0 | Fluoranthene | 2000. | U |
| 129-00-0 | Pyrene | 2000. | U |
| 85-68-7 | Butylbenzylphthalate | 2000. | U |
| 91-94-1 | 3,3'-Dichlorobenzidine | 2000. | U |
| 56-55-3 | Benzo(a)anthracene | 2000. | U |
| 218-01-9 | Chrysene | 2000. | U |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | 2000. | U |
| 117-84-0 | Di-n-octylphthalate | 2000. | U |
| 205-99-2 | Benzo(b)fluoranthene | 2000. | U |
| 207-08-9 | Benzo(k)fluoranthene | 2000. | U |
| 50-32-8 | Benzo(a)pyrene | 2000. | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 2000. | U |
| 53-70-3 | Dibenz(a,h)anthracene | 2000. | U |
| 191-24-2 | Benzo(g,h,i)perylene | 2000. | U |

(1) - Cannot be separated from diphenylamine

EPA SAMPLE NO.

ERW10

# SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
## TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: McCoy and McCoy Labs, Inc  Contract: 68D10081

Lab Code: MCCOY  Case No.: 18642  SAS No.:  SDG No.: ERW07

Matrix: (soil/water) SOIL  Lab Sample ID: 92-08-471-04

Sample wt/vol: 30.7 (g/mL) G  Lab File ID: D1229

Level: (low/med) LOW  Date Received: 08/20/92

% Moisture: 35. decanted: (Y/N) N  Date Extracted: 08/24/92

Concentrated Extract Volume: 1000.0 (uL)  Date Analyzed: 08/26/92

Injection Volume: 1.0 (uL)  Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y  pH: 7.1

Number TICs found: 1

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

| | CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|---|
| 1. | 111-76-2 | Ethanol, 2-butoxy- (8CI9CI) | 8.32 | 600. | J N |
| 2. | | | | | |
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# SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ERW18

Lab Name: McCoy and McCoy Labs, Inc  Contract: 68D10081

Lab Code: MCCOY  Case No.: 18642  SAS No.:  SDG No.: ERW07

Matrix: (soil/water) WATER  Lab Sample ID: 92-08-471-06

Sample wt/vol: 1000.0 (g/mL) ML  Lab File ID: D1238

Level: (low/med) LOW  Date Received: 08/20/92

% Moisture: _____ decanted: (Y/N)___  Date Extracted: 08/24/92

Concentrated Extract Volume: 1000.0 (uL)  Date Analyzed: 08/27/92

Injection Volume: 1.0 (uL)  Dilution Factor: 1.0

GPC Cleanup: (Y/N) N  pH: 6.8

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 108-95-2 | Phenol | 20. | U |
| 111-44-4 | bis(2-Chloroethyl)ether | 20. | U |
| 95-57-8 | 2-Chlorophenol | 20. | U |
| 541-73-1 | 1,3-Dichlorobenzene | 20. | U |
| 106-46-7 | 1,4-Dichlorobenzene | 20. | U |
| 95-50-1 | 1,2-Dichlorobenzene | 20. | U |
| 95-48-7 | 2-Methylphenol | 20. | U |
| 108-60-1 | 2,2'-oxybis(1-Chloropropane) | 20. | U |
| 106-44-5 | 4-Methylphenol | 20. | U |
| 621-64-7 | N-Nitroso-Di-n-propylamine | 20. | U |
| 67-72-1 | Hexachloroethane | 20. | U |
| 98-95-3 | Nitrobenzene | 20. | U |
| 78-59-1 | Isophorone | 20. | U |
| 88-75-5 | 2-Nitrophenol | 20. | U |
| 105-67-9 | 2,4-Dimethylphenol | 20. | U |
| 111-91-1 | bis(2-Chloroethoxy)methane | 20. | U |
| 120-83-2 | 2,4-Dichlorophenol | 20. | U |
| 120-82-1 | 1,2,4-Trichlorobenzene | 20. | U |
| 91-20-3 | Naphthalene | 20. | U |
| 106-47-8 | 4-Chloroaniline | 20. | U |
| 87-68-3 | Hexachlorobutadiene | 20. | U |
| 59-50-7 | 4-Chloro-3-methylphenol | 20. | U |
| 91-57-6 | 2-Methylnaphthalene | 20. | U |
| 77-47-4 | Hexachlorocyclopentadiene | 20. | U |
| 88-06-2 | 2,4,6-Trichlorophenol | 20. | U |
| 95-95-4 | 2,4,5-Trichlorophenol | 50. | U |
| 91-58-7 | 2-Chloronaphthalene | 20. | U |
| 88-74-4 | 2-Nitroaniline | 50. | U |
| 131-11-3 | Dimethylphthalate | 20. | U |
| 208-96-8 | Acenaphthylene | 20. | U |
| 606-20-2 | 2,6-Dinitrotoluene | 20. | U |
| 99-09-2 | 3-Nitroaniline | 50. | U |
| 83-32-9 | Acenaphthene | 20. | U |

# SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ERW18

Lab Name: McCoy and McCoy Labs, Inc  Contract: 68D10081

Lab Code: MCCOY  Case No.: 18642  SAS No.:  SDG No.: ERW07

Matrix: (soil/water) WATER  Lab Sample ID: 92-08-471-06

Sample wt/vol: 1000.0 (g/mL) ML  Lab File ID: D1238

Level: (low/med) LOW  Date Received: 08/20/92

% Moisture: _____ decanted: (Y/N)___  Date Extracted: 08/24/92

Concentrated Extract Volume: 1000.0 (uL)  Date Analyzed: 08/27/92

Injection Volume: 1.0 (uL)  Dilution Factor: 1.0

GPC Cleanup: (Y/N) N  pH: 6.8

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | | Q |
|---|---|---|---|---|
| 51-28-5 | 2,4-Dinitrophenol | 50. | U | |
| 100-02-7 | 4-Nitrophenol | 50. | U | |
| 132-64-9 | Dibenzofuran | 20. | U | |
| 121-14-2 | 2,4-Dinitrotoluene | 20. | U | |
| 84-66-2 | Diethylphthalate | 20. | U | |
| 7005-72-3 | 4-Chlorophenyl-phenylether | 20. | U | |
| 86-73-7 | Fluorene | 20. | U | |
| 100-01-6 | 4-Nitroaniline | 50. | U | |
| 534-52-1 | 4,6-Dinitro-2-methylphenol | 50. | U | |
| 86-30-6 | N-Nitrosodiphenylamine | 20. | U | |
| 101-55-3 | 4-Bromophenyl-phenylether | 20. | U | |
| 118-74-1 | Hexachlorobenzene | 20. | U | |
| 87-86-5 | Pentachlorophenol | 50. | U | |
| 85-01-8 | Phenanthrene | 20. | U | |
| 120-12-7 | Anthracene | 20. | U | |
| 86-74-8 | CARBAZOLE | 20. | U | |
| 84-74-2 | Di-n-butylphthalate | 25. | B | V |
| 206-44-0 | Fluoranthene | 20. | U | |
| 129-00-0 | Pyrene | 20. | U | |
| 85-68-7 | Butylbenzylphthalate | 20. | U | |
| 91-94-1 | 3,3'-Dichlorobenzidine | 20. | U | |
| 56-55-3 | Benzo(a)anthracene | 20. | U | |
| 218-01-9 | Chrysene | 20. | U | |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | 20 ~~10~~. | BJ | V |
| 117-84-0 | Di-n-octylphthalate | 20. | U | |
| 205-99-2 | Benzo(b)fluoranthene | 20. | U | |
| 207-08-9 | Benzo(k)fluoranthene | 20. | U | |
| 50-32-8 | Benzo(a)pyrene | 20. | U | |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 20. | U | |
| 53-70-3 | Dibenz(a,h)anthracene | 20. | U | |
| 191-24-2 | Benzo(g,h,i)perylene | 20. | U | |

RWW 9-28-

(1) - Cannot be separated from diphenylamine

EPA SAMPLE NO.

ERW18

# SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
## TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: McCoy and McCoy Labs, Inc  Contract: 68D10081

Lab Code: MCCOY  Case No.: 18642  SAS No.:  SDG No.: ERW07

Matrix: (soil/water) WATER  Lab Sample ID: 92-08-471-06

Sample wt/vol: 1000.0 (g/mL) ML  Lab File ID: D1238

Level: (low/med) LOW  Date Received: 08/20/92

% Moisture: _____ decanted: (Y/N)___  Date Extracted: 08/24/92

Concentrated Extract Volume: 1000.0 (uL)  Date Analyzed: 08/27/92

Injection Volume: 1.0 (uL)  Dilution Factor: 1.0

GPC Cleanup: (Y/N) N  pH: 6.8

Number TICs found: 3

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

| | CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|---|
| 1. | 111-76-2 | Ethanol, 2-butoxy- (8CI9CI) | 8.35 | 100. | BJ N |
| 2. | 111-77-3 | Ethanol, 2-(2-methoxyethoxy) | 8.95 | 10. | BJ N |
| 3. | 74381-40-1 | Propanoic acid, 2-methyl-, 1 | 19.83 | 6. | J N |
| 4. | | | | | |
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# SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ERW19

Lab Name: McCoy and McCoy Labs, Inc  Contract: 68D10081

Lab Code: MCCOY  Case No.: 18642  SAS No.:  SDG No.: ERW07

Matrix: (soil/water) WATER  Lab Sample ID: 92-08-471-09

Sample wt/vol: 1000.0 (g/mL) ML  Lab File ID: D1241

Level: (low/med) LOW  Date Received: 08/20/92

% Moisture: _____ decanted: (Y/N)___  Date Extracted: 08/24/92

Concentrated Extract Volume: 1000.0 (uL)  Date Analyzed: 08/27/92

Injection Volume: 1.0 (uL)  Dilution Factor: 1.0

GPC Cleanup: (Y/N) N  pH: 6.8

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 108-95-2 | Phenol | 20. | U |
| 111-44-4 | bis(2-Chloroethyl)ether | 20. | U |
| 95-57-8 | 2-Chlorophenol | 20. | U |
| 541-73-1 | 1,3-Dichlorobenzene | 20. | U |
| 106-46-7 | 1,4-Dichlorobenzene | 20. | U |
| 95-50-1 | 1,2-Dichlorobenzene | 20. | U |
| 95-48-7 | 2-Methylphenol | 20. | U |
| 108-60-1 | 2,2'-oxybis(1-Chloropropane) | 20. | U |
| 106-44-5 | 4-Methylphenol | 20. | U |
| 621-64-7 | N-Nitroso-Di-n-propylamine | 20. | U |
| 67-72-1 | Hexachloroethane | 20. | U |
| 98-95-3 | Nitrobenzene | 20. | U |
| 78-59-1 | Isophorone | 20. | U |
| 88-75-5 | 2-Nitrophenol | 20. | U |
| 105-67-9 | 2,4-Dimethylphenol | 20. | U |
| 111-91-1 | bis(2-Chloroethoxy)methane | 20. | U |
| 120-83-2 | 2,4-Dichlorophenol | 20. | U |
| 120-82-1 | 1,2,4-Trichlorobenzene | 20. | U |
| 91-20-3 | Naphthalene | 20. | U |
| 106-47-8 | 4-Chloroaniline | 20. | U |
| 87-68-3 | Hexachlorobutadiene | 20. | U |
| 59-50-7 | 4-Chloro-3-methylphenol | 20. | U |
| 91-57-6 | 2-Methylnaphthalene | 20. | U |
| 77-47-4 | Hexachlorocyclopentadiene | 20. | U |
| 88-06-2 | 2,4,6-Trichlorophenol | 20. | U |
| 95-95-4 | 2,4,5-Trichlorophenol | 50. | U |
| 91-58-7 | 2-Chloronaphthalene | 20. | U |
| 88-74-4 | 2-Nitroaniline | 50. | U |
| 131-11-3 | Dimethylphthalate | 20. | U |
| 208-96-8 | Acenaphthylene | 20. | U |
| 606-20-2 | 2,6-Dinitrotoluene | 20. | U |
| 99-09-2 | 3-Nitroaniline | 50. | U |
| 83-32-9 | Acenaphthene | 20. | U |

# SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ERW19

Lab Name: McCoy and McCoy Labs, Inc  Contract: 68D10081

Lab Code: MCCOY  Case No.: 18642  SAS No.:  SDG No.: ERW07

Matrix: (soil/water) WATER  Lab Sample ID: 92-08-471-09

Sample wt/vol: 1000.0 (g/mL) ML  Lab File ID: D1241

Level: (low/med) LOW  Date Received: 08/20/92

% Moisture: _____ decanted: (Y/N)___  Date Extracted: 08/24/92

Concentrated Extract Volume: 1000.0 (uL)  Date Analyzed: 08/27/92

Injection Volume: 1.0 (uL)  Dilution Factor: 1.0

GPC Cleanup: (Y/N) N  pH: 6.8

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q | |
|---|---|---|---|---|
| 51-28-5 | 2,4-Dinitrophenol | 50. | U | |
| 100-02-7 | 4-Nitrophenol | 50. | U | |
| 132-64-9 | Dibenzofuran | 20. | U | |
| 121-14-2 | 2,4-Dinitrotoluene | 20. | U | |
| 84-66-2 | Diethylphthalate | 20. | U | |
| 7005-72-3 | 4-Chlorophenyl-phenylether | 20. | U | |
| 86-73-7 | Fluorene | 20. | U | |
| 100-01-6 | 4-Nitroaniline | 50. | U | |
| 534-52-1 | 4,6-Dinitro-2-methylphenol | 50. | U | |
| 86-30-6 | N-Nitrosodiphenylamine | 20. | U | |
| 101-55-3 | 4-Bromophenyl-phenylether | 20. | U | |
| 118-74-1 | Hexachlorobenzene | 20. | U | |
| 87-86-5 | Pentachlorophenol | 50. | U | |
| 85-01-8 | Phenanthrene | 20. | U | |
| 120-12-7 | Anthracene | 20. | U | |
| 86-74-8 | CARBAZOLE | 20. | U | |
| 84-74-2 | Di-n-butylphthalate | 45. | B | U |
| 206-44-0 | Fluoranthene | 20. | U | |
| 129-00-0 | Pyrene | 20. | U | RWW 9-28-92 |
| 85-68-7 | Butylbenzylphthalate | 20. | U | |
| 91-94-1 | 3,3'-Dichlorobenzidine | 20. | U | |
| 56-55-3 | Benzo(a)anthracene | 20. | U | |
| 218-01-9 | Chrysene | 20. | U | |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | 30. | B | U |
| 117-84-0 | Di-n-octylphthalate | 20. | U | |
| 205-99-2 | Benzo(b)fluoranthene | 20. | U | |
| 207-08-9 | Benzo(k)fluoranthene | 20. | U | |
| 50-32-8 | Benzo(a)pyrene | 20. | U | |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 20. | U | |
| 53-70-3 | Dibenz(a,h)anthracene | 20. | U | |
| 191-24-2 | Benzo(g,h,i)perylene | 20. | U | |

(1) - Cannot be separated from diphenylamine

1F

EPA SAMPLE NO.

# SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
## TENTATIVELY IDENTIFIED COMPOUNDS

ERW19

Lab Name: McCoy and McCoy Labs, Inc  Contract: 68D10081

Lab Code: MCCOY  Case No.: 18642  SAS No.:  SDG No.: ERW07

Matrix: (soil/water) WATER  Lab Sample ID: 92-08-471-09

Sample wt/vol: 1000.0 (g/mL) ML  Lab File ID: D1241

Level: (low/med) LOW  Date Received: 08/20/92

% Moisture: _____ decanted: (Y/N)___  Date Extracted: 08/24/92

Concentrated Extract Volume: 1000.0 (uL)  Date Analyzed: 08/27/92

Injection Volume: 1.0 (uL)  Dilution Factor: 1.0

GPC Cleanup: (Y/N) N  pH: 6.8

Number TICs found: 6

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

| | CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q | |
|---|---|---|---|---|---|---|
| 1. | 464-07-3 | 2-Butanol, 3,3-dimethyl- (8C | 8.32 | 100. | J N | |
| 2. | 111-77-3 | Ethanol, 2-(2-methoxyethoxy) | 8.95 | 20. | BJ N | ✓ |
| 3. | 19686-73-8 | 2-Propanol, 1-bromo- (8CI9CI | 10.46 | 300. | BJ N | ✓ |
| 4. | 3587-64-2 | 2-Propanol, 1-methoxy-2-meth | 14.70 | 6. | J N | Rwa |
| 5. | 1638-16-0 | 2-Propanol, 1,1'-[(1-methyl- | 14.76 | 7. | J N | |
| 6. | 67682-47-7 | 1,5-Heptadiene, 3,3-dimethyl | 31.61 | 7. | J N | 9-28-92 |
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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ERW20

Lab Name: McCoy and McCoy Labs, Inc  Contract: 68D10081

Lab Code: MCCOY  Case No.: 18642  SAS No.:  SDG No.: ERW07

Matrix: (soil/water) WATER  Lab Sample ID: 92-08-471-10

Sample wt/vol: 1000.0 (g/mL) ML  Lab File ID: D1242

Level: (low/med) LOW  Date Received: 08/20/92

% Moisture: _____ decanted: (Y/N)___  Date Extracted: 08/24/92

Concentrated Extract Volume: 1000.0 (uL)  Date Analyzed: 08/27/92

Injection Volume: 1.0 (uL)  Dilution Factor: 1.0

GPC Cleanup: (Y/N) N  pH: 6.9

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 108-95-2 | Phenol | 20. | U |
| 111-44-4 | bis(2-Chloroethyl)ether | 20. | U |
| 95-57-8 | 2-Chlorophenol | 20. | U |
| 541-73-1 | 1,3-Dichlorobenzene | 20. | U |
| 106-46-7 | 1,4-Dichlorobenzene | 20. | U |
| 95-50-1 | 1,2-Dichlorobenzene | 20. | U |
| 95-48-7 | 2-Methylphenol | 20. | U |
| 108-60-1 | 2,2'-oxybis(1-Chloropropane) | 20. | U |
| 106-44-5 | 4-Methylphenol | 20. | U |
| 621-64-7 | N-Nitroso-Di-n-propylamine | 20. | U |
| 67-72-1 | Hexachloroethane | 20. | U |
| 98-95-3 | Nitrobenzene | 20. | U |
| 78-59-1 | Isophorone | 20. | U |
| 88-75-5 | 2-Nitrophenol | 20. | U |
| 105-67-9 | 2,4-Dimethylphenol | 20. | U |
| 111-91-1 | bis(2-Chloroethoxy)methane | 20. | U |
| 120-83-2 | 2,4-Dichlorophenol | 20. | U |
| 120-82-1 | 1,2,4-Trichlorobenzene | 20. | U |
| 91-20-3 | Naphthalene | 20. | U |
| 106-47-8 | 4-Chloroaniline | 20. | U |
| 87-68-3 | Hexachlorobutadiene | 20. | U |
| 59-50-7 | 4-Chloro-3-methylphenol | 20. | U |
| 91-57-6 | 2-Methylnaphthalene | 20. | U |
| 77-47-4 | Hexachlorocyclopentadiene | 20. | U |
| 88-06-2 | 2,4,6-Trichlorophenol | 20. | U |
| 95-95-4 | 2,4,5-Trichlorophenol | 50. | U |
| 91-58-7 | 2-Chloronaphthalene | 20. | U |
| 88-74-4 | 2-Nitroaniline | 50. | U |
| 131-11-3 | Dimethylphthalate | 20. | U |
| 208-96-8 | Acenaphthylene | 20. | U |
| 606-20-2 | 2,6-Dinitrotoluene | 20. | U |
| 99-09-2 | 3-Nitroaniline | 50. | U |
| 83-32-9 | Acenaphthene | 20. | U |

# SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ERW20

Lab Name: McCoy and McCoy Labs, Inc  Contract: 68D10081

Lab Code: MCCOY  Case No.: 18642  SAS No.:  SDG No.: ERW07

Matrix: (soil/water) WATER  Lab Sample ID: 92-08-471-10

Sample wt/vol: 1000.0 (g/mL) ML  Lab File ID: D1242

Level: (low/med) LOW  Date Received: 08/20/92

% Moisture: _____ decanted: (Y/N)___  Date Extracted: 08/24/92

Concentrated Extract Volume: 1000.0 (uL)  Date Analyzed: 08/27/92

Injection Volume: 1.0 (uL)  Dilution Factor: 1.0

GPC Cleanup: (Y/N) N  pH: 6.9

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q | |
|---|---|---|---|---|
| 51-28-5 | 2,4-Dinitrophenol | 50. | U | |
| 100-02-7 | 4-Nitrophenol | 50. | U | |
| 132-64-9 | Dibenzofuran | 20. | U | |
| 121-14-2 | 2,4-Dinitrotoluene | 20. | U | |
| 84-66-2 | Diethylphthalate | 20. | U | |
| 7005-72-3 | 4-Chlorophenyl-phenylether | 20. | U | |
| 86-73-7 | Fluorene | 20. | U | |
| 100-01-6 | 4-Nitroaniline | 50. | U | |
| 534-52-1 | 4,6-Dinitro-2-methylphenol | 50. | U | |
| 86-30-6 | N-Nitrosodiphenylamine | 20. | U | |
| 101-55-3 | 4-Bromophenyl-phenylether | 20. | U | |
| 118-74-1 | Hexachlorobenzene | 20. | U | |
| 87-86-5 | Pentachlorophenol | 50. | U | |
| 85-01-8 | Phenanthrene | 20. | U | |
| 120-12-7 | Anthracene | 20. | U | |
| 86-74-8 | CARBAZOLE | 20. | U | |
| 84-74-2 | Di-n-butylphthalate | 43. | B | U |
| 206-44-0 | Fluoranthene | 20. | U | RNW 9-28-92 |
| 129-00-0 | Pyrene | 20. | U | |
| 85-68-7 | Butylbenzylphthalate | 20. | U | |
| 91-94-1 | 3,3'-Dichlorobenzidine | 20. | U | |
| 56-55-3 | Benzo(a)anthracene | 20. | U | |
| 218-01-9 | Chrysene | 20. | U | |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | 20 ~~16~~. | BJ | U |
| 117-84-0 | Di-n-octylphthalate | 20. | U | |
| 205-99-2 | Benzo(b)fluoranthene | 20. | U | |
| 207-08-9 | Benzo(k)fluoranthene | 20. | U | |
| 50-32-8 | Benzo(a)pyrene | 20. | U | |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 20. | U | |
| 53-70-3 | Dibenz(a,h)anthracene | 20. | U | |
| 191-24-2 | Benzo(g,h,i)perylene | 20. | U | |

(1) - Cannot be separated from diphenylamine

# SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
## TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.: ERW20

Lab Name: McCoy and McCoy Labs, Inc  Contract: 68D10081

Lab Code: MCCOY  Case No.: 18642  SAS No.:  SDG No.: ERW07

Matrix: (soil/water) WATER  Lab Sample ID: 92-08-471-10

Sample wt/vol: 1000.0 (g/mL) ML  Lab File ID: D1242

Level: (low/med) LOW  Date Received: 08/20/92

% Moisture: _____ decanted: (Y/N)___  Date Extracted: 08/24/92

Concentrated Extract Volume: 1000.0 (uL)  Date Analyzed: 08/27/92

Injection Volume: 1.0 (uL)  Dilution Factor: 1.0

GPC Cleanup: (Y/N) N  pH: 6.9

Number TICs found: 7

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

| | CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q | |
|---|---|---|---|---|---|---|
| 1. | 111-76-2 | Ethanol, 2-butoxy- (8CI9CI) | 8.33 | 100. | BJ N | ✓ |
| 2. | 67-63-0 | 2-Propanol (ACN)(9CI) | 8.96 | 30. | J N | |
| 3. | 19686-73-8 | 2-Propanol, 1-bromo- (8CI9CI | 10.46 | 500. | BJ N | ✓ |
| 4. | 106-62-7 | 1-Propanol, 2-(2-hydroxyprop | 10.63 | 20. | J N | |
| 5. | 78-99-9 | Propane, 1,1-dichloro- (8CI9 | 12.36 | 6. | J N | |
| 6. | 2110-78-3 | Propanoic acid, 2-hydroxy-2- | 14.72 | 10. | J N | RWW 9-28 |
| 7. | 3587-64-2 | 2-Propanol, 1-methoxy-2-meth | 14.78 | 10. | J N | |
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# SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ERW21

Lab Name: McCoy and McCoy Labs, Inc  Contract: 68D10081

Lab Code: MCCOY  Case No.: 18642  SAS No.:  SDG No.: ERW07

Matrix: (soil/water) WATER  Lab Sample ID: 92-08-471-11

Sample wt/vol: 1000.0 (g/mL) ML  Lab File ID: D1243

Level: (low/med) LOW  Date Received: 08/20/92

% Moisture: _____ decanted: (Y/N)___  Date Extracted: 08/24/92

Concentrated Extract Volume: 1000.0 (uL)  Date Analyzed: 08/27/92

Injection Volume: 1.0 (uL)  Dilution Factor: 1.0

GPC Cleanup: (Y/N) N  pH: 6.9

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 108-95-2 | Phenol | 20. | U |
| 111-44-4 | bis(2-Chloroethyl)ether | 20. | U |
| 95-57-8 | 2-Chlorophenol | 20. | U |
| 541-73-1 | 1,3-Dichlorobenzene | 20. | U |
| 106-46-7 | 1,4-Dichlorobenzene | 20. | U |
| 95-50-1 | 1,2-Dichlorobenzene | 20. | U |
| 95-48-7 | 2-Methylphenol | 20. | U |
| 108-60-1 | 2,2'-oxybis(1-Chloropropane) | 20. | U |
| 106-44-5 | 4-Methylphenol | 20. | U |
| 621-64-7 | N-Nitroso-Di-n-propylamine | 20. | U |
| 67-72-1 | Hexachloroethane | 20. | U |
| 98-95-3 | Nitrobenzene | 20. | U |
| 78-59-1 | Isophorone | 20. | U |
| 88-75-5 | 2-Nitrophenol | 20. | U |
| 105-67-9 | 2,4-Dimethylphenol | 20. | U |
| 111-91-1 | bis(2-Chloroethoxy)methane | 20. | U |
| 120-83-2 | 2,4-Dichlorophenol | 20. | U |
| 120-82-1 | 1,2,4-Trichlorobenzene | 20. | U |
| 91-20-3 | Naphthalene | 20. | U |
| 106-47-8 | 4-Chloroaniline | 20. | U |
| 87-68-3 | Hexachlorobutadiene | 20. | U |
| 59-50-7 | 4-Chloro-3-methylphenol | 20. | U |
| 91-57-6 | 2-Methylnaphthalene | 20. | U |
| 77-47-4 | Hexachlorocyclopentadiene | 20. | U |
| 88-06-2 | 2,4,6-Trichlorophenol | 20. | U |
| 95-95-4 | 2,4,5-Trichlorophenol | 50. | U |
| 91-58-7 | 2-Chloronaphthalene | 20. | U |
| 88-74-4 | 2-Nitroaniline | 50. | U |
| 131-11-3 | Dimethylphthalate | 20. | U |
| 208-96-8 | Acenaphthylene | 20. | U |
| 606-20-2 | 2,6-Dinitrotoluene | 20. | U |
| 99-09-2 | 3-Nitroaniline | 50. | U |
| 83-32-9 | Acenaphthene | 20. | U |

# SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ERW21

Lab Name: McCoy and McCoy Labs, Inc  Contract: 68D10081

Lab Code: MCCOY  Case No.: 18642  SAS No.:  SDG No.: ERW07

Matrix: (soil/water) WATER  Lab Sample ID: 92-08-471-11

Sample wt/vol: 1000.0 (g/mL) ML  Lab File ID: D1243

Level: (low/med) LOW  Date Received: 08/20/92

% Moisture: _____ decanted: (Y/N)___  Date Extracted: 08/24/92

Concentrated Extract Volume: 1000.0 (uL)  Date Analyzed: 08/27/92

Injection Volume: 1.0 (uL)  Dilution Factor: 1.0

GPC Cleanup: (Y/N) N  pH: 6.9

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | | Q |
|---|---|---|---|---|
| 51-28-5 | 2,4-Dinitrophenol | 50. | U | |
| 100-02-7 | 4-Nitrophenol | 50. | U | |
| 132-64-9 | Dibenzofuran | 20. | U | |
| 121-14-2 | 2,4-Dinitrotoluene | 20. | U | |
| 84-66-2 | Diethylphthalate | 20. | U | |
| 7005-72-3 | 4-Chlorophenyl-phenylether | 20. | U | |
| 86-73-7 | Fluorene | 20. | U | |
| 100-01-6 | 4-Nitroaniline | 50. | U | |
| 534-52-1 | 4,6-Dinitro-2-methylphenol | 50. | U | |
| 86-30-6 | N-Nitrosodiphenylamine | 20. | U | |
| 101-55-3 | 4-Bromophenyl-phenylether | 20. | U | |
| 118-74-1 | Hexachlorobenzene | 20. | U | |
| 87-86-5 | Pentachlorophenol | 50. | U | |
| 85-01-8 | Phenanthrene | 20. | U | |
| 120-12-7 | Anthracene | 20. | U | |
| 86-74-8 | CARBAZOLE | 20. | U | |
| 84-74-2 | Di-n-butylphthalate | 60. | B | J |
| 206-44-0 | Fluoranthene | 20. | U | |
| 129-00-0 | Pyrene | 20. | U | RWW 9-28-92 |
| 85-68-7 | Butylbenzylphthalate | 20. | U | |
| 91-94-1 | 3,3'-Dichlorobenzidine | 20. | U | |
| 56-55-3 | Benzo(a)anthracene | 20. | U | |
| 218-01-9 | Chrysene | 20. | U | |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | ~~20.~~ | BJ | J |
| 117-84-0 | Di-n-octylphthalate | 20. | U | |
| 205-99-2 | Benzo(b)fluoranthene | 20. | U | |
| 207-08-9 | Benzo(k)fluoranthene | 20. | U | |
| 50-32-8 | Benzo(a)pyrene | 20. | U | |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 20. | U | |
| 53-70-3 | Dibenz(a,h)anthracene | 20. | U | |
| 191-24-2 | Benzo(g,h,i)perylene | 20. | U | |

(1) - Cannot be separated from diphenylamine

1F

# SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
## TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

ERW21

Lab Name: McCoy and McCoy Labs, Inc  Contract: 68D10081

Lab Code: MCCOY  Case No.: 18642  SAS No.:  SDG No.: ERW07

Matrix: (soil/water) WATER  Lab Sample ID: 92-08-471-11

Sample wt/vol: 1000.0 (g/mL) ML  Lab File ID: D1243

Level: (low/med) LOW  Date Received: 08/20/92

% Moisture: _____ decanted: (Y/N)___  Date Extracted: 08/24/92

Concentrated Extract Volume: 1000.0 (uL)  Date Analyzed: 08/27/92

Injection Volume: 1.0 (uL)  Dilution Factor: 1.0

GPC Cleanup: (Y/N) N  pH: 6.9

Number TICs found: 4

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

| | CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q | |
|---|---|---|---|---|---|---|
| 1. | 111-76-2 | Ethanol, 2-butoxy- (8CI9CI) | 8.33 | 50. | BJ N | ✓ |
| 2. | 19089-47-5 | 1-Propanol, 2-ethoxy- (8CI9C | 8.97 | 7. | J N | RW 9-2. |
| 3. | 1809-10-5 | Pentane, 3-bromo- (8CI9CI) | 9.16 | 20. | J N | |
| 4. | 19686-73-8 | 2-Propanol, 1-bromo- (8CI9CI | 10.44 | 200. | BJ N | ✓ |
| 5. | | | | | | |
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2E

# WATER PESTICIDE SURROGATE RECOVERY

Lab Name: McCoy and McCoy Labs, Inc  Contract: 68-D1-0081

Lab Code: McCOY  Case No.: 18642  SAS No.:  SDG No.: ERW07

GC Column(1): DB-5  ID: .25 (mm)  GC Column(2): DB-1701  ID: .25 (mm)

| | EPA SAMPLE NO. | TCX 1 %REC | # | TCX 2 %REC | # | DCB 1 %REC | # | DCB 2 %REC | # | OTHER (1) | OTHER (2) | TOT OUT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | PBLK02 | 106 | | 82 | | 106 | | 69 | | | | 0 |
| 2 | ERW18 | 84 | | 79 | | 73 | | 99 | | | | 0 |
| 3 | ERW19 | 86 | | 76 | | 73 | | 80 | | | | 0 |
| 4 | ERW20 | 78 | | 85 | | 65 | | 112 | | | | 0 |
| 5 | ERW21 | 91 | | 70 | | 102 | | 85 | | | | 0 |
| 6 | ERW18MS | 93 | | 104 | | 118 | | 135 | | | | 0 |
| 7 | ERW18MSD | 116 | | 91 | | 111 | | 81 | | | | 0 |
| 8 | PIBLK02 | 123 | | 132 | | 99 | | 187 | * | | | 1 |
| 9 | | | | | | | | | | | | |
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| | ADVISORY QC LIMITS |
|---|---|
| TCX = Tetrachloro-m-xylene | (60-150) |
| DCB = Decachlorobiphenyl | (60-150) |

\# Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out

# SOIL PESTICIDE SURROGATE RECOVERY

Lab Name: McCoy and McCoy Labs, Inc  Contract: 68-D1-0081

Lab Code: McCOY  Case No.: 18642  SAS No.:  SDG No.: ERW07

GC Column(1): DB-5  ID: .25 (mm)  GC Column(2): DB-1701  ID: .25 (mm)

| | EPA SAMPLE NO. | TCX 1 %REC | # | TCX 2 %REC | # | DCB 1 %REC | # | DCB 2 %REC | # | OTHER (1) | OTHER (2) | TOT OUT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | PIBLK01 | 118 | | 116 | | 164 | * | 160 | * | | | 2 |
| 2 | PBLK01 | 74 | | 76 | | 80 | | 93 | | | | 0 |
| 3 | ERW07 | 82 | | 122 | | 78 | | 179 | * | | | 1 |
| 4 | ERW08 | 54 | * | 108 | | 59 | * | 67 | | | | 2 |
| 5 | ERW09 | 97 | | 177 | * | 98 | | 237 | * | | | 2 |
| 6 | ERW10 | 102 | | 145 | | 108 | | 165 | * | | | 1 |
| 7 | ERW09MS | 98 | | 108 | | 93 | | 120 | | | | 0 |
| 8 | ERW09MSD | 89 | | 108 | | 92 | | 118 | | | | 0 |
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| | ADVISORY QC LIMITS |
|---|---|
| TCX = Tetrachloro-m-xylene | (60-150) |
| DCB = Decachlorobiphenyl | (60-150) |

\# Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out

# WATER PESTICIDE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: McCoy and McCoy Labs, Inc  Contract: 68-D1-0081

Lab Code: McCOY  Case No.: 18642  SAS No.:  SDG No.: ERW07

Matrix Spike - EPA Sample No.: ERW18

| COMPOUND | SPIKE ADDED (UG/L ) | SAMPLE CONCENTRATION (UG/L ) | MS CONCENTRATION (UG/L ) | MS % REC # | QC LIMITS REC. |
|---|---|---|---|---|---|
| gamma-BHC | 1.00 | 0. | 1.3 | 130 * | 56-123 |
| Heptachlor | 1.00 | 0. | .94 | 94 | 40-131 |
| Aldrin | 1.00 | 0. | .60 | 60 | 40-120 |
| Dieldrin | 2.00 | .10 | 2.0 | 95 | 52-126 |
| Endrin | 2.00 | 0. | 1.8 | 90 | 56-121 |
| 4,4'-DDT | 2.00 | 0. | 2.1 | 105 | 38-127 |

| COMPOUND | SPIKE ADDED (UG/L ) | MSD CONCENTRATION (UG/L ) | MSD % REC # | % RPD # | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| gamma-BHC | 1.00 | 1.3 | 130 * | 0 | 15 | 56-123 |
| Heptachlor | 1.00 | .95 | 95 | 1 | 20 | 40-131 |
| Aldrin | 1.00 | .60 | 60 | 0 | 22 | 40-120 |
| Dieldrin | 2.00 | 1.8 | 85 | 11 | 18 | 52-126 |
| Endrin | 2.00 | 1.6 | 80 | 12 | 21 | 56-121 |
| 4,4'-DDT | 2.00 | 1.9 | 95 | 10 | 27 | 38-127 |

# Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 6 outside limits
Spike Recovery: 2 out of 12 outside limits

COMMENTS:

3F

# SOIL PESTICIDE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: McCoy and McCoy Labs, Inc  Contract: 68-D1-0081

Lab Code: McCOY  Case No.: 18642  SAS No.:  SDG No.: ERW07

Matrix Spike - EPA Sample No.: ERW09  Level:(low/med)

| COMPOUND | SPIKE ADDED (UG/KG) | SAMPLE CONCENTRATION (UG/KG) | MS CONCENTRATION (UG/KG) | MS % REC | # | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| gamma-BHC | 21.67 | 0. | 30. | 138 | * | 46-127 |
| Heptachlor | 21.67 | 2.2 | 23. | 96 | | 35-130 |
| Aldrin | 21.67 | 0. | 14. | 65 | | 34-132 |
| Dieldrin | 43.34 | 4.4 | 46. | 96 | | 31-134 |
| Endrin | 43.34 | 0. | 40. | 92 | | 42-139 |
| 4,4'-DDT | 43.34 | 0. | 46. | 106 | | 23-134 |

| COMPOUND | SPIKE ADDED (UG/KG) | MSD CONCENTRATION (UG/KG) | MSD % REC | # | % RPD | # | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|---|---|
| gamma-BHC | 21.77 | 32. | 147 | * | 6 | | 50 | 46-127 |
| Heptachlor | 21.77 | 24. | 100 | | 4 | | 31 | 35-130 |
| Aldrin | 21.77 | 16. | 73 | | 12 | | 43 | 34-132 |
| Dieldrin | 43.55 | 49. | 102 | | 6 | | 38 | 31-134 |
| Endrin | 43.55 | 48. | 110 | | 18 | | 45 | 42-139 |
| 4,4'-DDT | 43.55 | 59. | 135 | * | 24 | | 50 | 23-134 |

# Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 6 outside limits
Spike Recovery: 3 out of 12 outside limits

COMMENTS:

4C

# PESTICIDE METHOD BLANK SUMMARY

EPA SAMPLE NO.

PBLK01

Lab Name: McCoy and McCoy Labs, Inc Contract: 68-D1-0081

Lab Code: McCOY Case No.: 18642 SAS No.: SDG No.: ERW07

Lab Sample ID: PBLKA1 Lab File ID: 02368

Matrix: (soil/water) SOIL Extraction: (SepF/Cont/Sonc) SONC

Sulfur Cleanup: (Y/N) N Date Extracted: 08/24/92

Date Analyzed (1): 09/02/92 Date Analyzed (2): 09/02/92

Time Analyzed (1): 01:46 Time Analyzed (2): 00:55

Instrument ID (1): D2DBD2 Instrument ID (2): D1D1D1

GC Column (1): DB-5 ID: .25 (mm) GC Column (2): DB-1701 ID: .25 (mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

| | EPA SAMPLE NO. | LAB SAMPLE ID | DATE ANALYZED 1 | DATE ANALYZED 2 |
|---|---|---|---|---|
| 1 | ERW07 | 92-08-471-01A | 09/02/92 | 09/02/92 |
| 2 | ERW08 | 92-08-471-02A | 09/02/92 | 09/02/92 |
| 3 | ERW09 | 92-08-471-03A | 09/02/92 | 09/02/92 |
| 4 | ERW10 | 92-08-471-04A | 09/02/92 | 09/02/92 |
| 5 | ERW09MS | 92-08-471-12A | 09/02/92 | 09/02/92 |
| 6 | ERW09MSD | 92-08-471-13A | 09/02/92 | 09/02/92 |
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COMMENTS:

4C

# PESTICIDE METHOD BLANK SUMMARY

EPA SAMPLE NO.

PBLK02

Lab Name: McCoy and McCoy Labs, Inc  Contract: 68-D1-0081

Lab Code: McCOY  Case No.: 18642  SAS No.:  SDG No.: ERW07

Lab Sample ID: PBLKA2  Lab File ID: 02375

Matrix: (soil/water) WATER  Extraction: (SepF/Cont/Sonc) SONC

Sulfur Cleanup: (Y/N) N  Date Extracted: 08/21/92

Date Analyzed (1): 09/02/92  Date Analyzed (2): 09/02/92

Time Analyzed (1): 08:06  Time Analyzed (2): 07:16

Instrument ID (1): D2DBD2  Instrument ID (2): D1D1D1

GC Column (1): DB-5  ID: .25 (mm)  GC Column (2): DB-1701  ID: .25 (mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

| | EPA SAMPLE NO. | LAB SAMPLE ID | DATE ANALYZED 1 | DATE ANALYZED 2 |
|---|---|---|---|---|
| 1 | ERW18 | 92-08-471-06A | 09/02/92 | 09/02/92 |
| 2 | ERW19 | 92-08-471-09A | 09/02/92 | 09/02/92 |
| 3 | ERW20 | 92-08-471-10A | 09/02/92 | 09/02/92 |
| 4 | ERW21 | 92-08-471-11A | 09/02/92 | 09/02/92 |
| 5 | ERW18MS | 92-08-471-07A | 09/02/92 | 09/02/92 |
| 6 | ERW18MSD | 92-08-471-08A | 09/02/92 | 09/02/92 |
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COMMENTS:

1D

# PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PBLK01

Lab Name: McCoy and McCoy Labs, Inc  Contract: 68-D1-0081

Lab Code: McCOY  Case No.: 18642  SAS No.:  SDG No.: ERW07

Matrix: (soil/water) SOIL  Lab Sample ID: PBLKA1

Sample wt/vol: 30.0 (g/mL) G  Lab File ID: 02368

% Moisture: 0.  decanted: (Y/N) N  Date Received: 00/00/00

Extraction: (SepF/Cont/Sonc) SONC  Date Extracted: 08/24/92

Concentrated Extract Volume: 5000.0 (uL)  Date Analyzed: 09/02/92

Injection Volume: 2.0 (uL)  Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y  pH: 7.0  Sulfur Cleanup: (Y/N) N

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG | Q |
|---|---|---|---|
| 319-84-6 | alpha-BHC | 1.7 | U |
| 319-85-7 | beta-BHC | 1.7 | U |
| 319-86-8 | delta-BHC | 1.7 | U |
| 58-89-9 | gamma-BHC | 1.7 | U |
| 76-44-8 | Heptachlor | 1.7 | U |
| 309-00-2 | Aldrin | 1.7 | U |
| 1024-57-3 | Heptachlor epoxide | 1.7 | U |
| 959-98-8 | Endosulfan I | 1.7 | U |
| 60-57-1 | Dieldrin | 3.3 | U |
| 72-55-9 | 4,4'-DDE | 3.3 | U |
| 72-20-8 | Endrin | 3.3 | U |
| 33213-65-9 | Endosulfan II | 3.3 | U |
| 72-54-8 | 4,4'-DDD | 3.3 | U |
| 1031-07-8 | Endosulfan Sulfate | .89 | J P |
| 50-29-3 | 4,4'-DDT | 3.3 | U |
| 72-43-5 | Methoxychlor | 17. | U |
| 53494-70-5 | Endrin ketone | 3.3 | U |
| 7421-93-4 | Endrin aldehyde | 3.3 | U |
| 5103-71-9 | alpha-Chlordane | 1.7 | U |
| 5103-74-2 | gamma-Chlordane | 1.7 | U |
| 8001-35-2 | Toxaphene | 170. | U |
| 12674-11-2 | Aroclor-1016 | 33. | U |
| 11104-28-2 | Aroclor-1221 | 67. | U |
| 11141-16-5 | Aroclor-1232 | 33. | U |
| 53469-21-9 | Aroclor-1242 | 33. | U |
| 12672-29-6 | Aroclor-1248 | 33. | U |
| 11097-69-1 | Aroclor-1254 | 33. | U |
| 11096-82-5 | Aroclor-1260 | 33. | U |

1D

# PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PBLK02

Lab Name: McCoy and McCoy Labs, Inc  Contract: 68-D1-0081

Lab Code: McCOY  Case No.: 18642  SAS No.:  SDG No.: ERW07

Matrix: (soil/water) WATER  Lab Sample ID: PBLKA2

Sample wt/vol: 1000.0 (g/mL) ML  Lab File ID: 02375

% Moisture: _____ decanted: (Y/N)___  Date Received: 00/00/00

Extraction: (SepF/Cont/Sonc) SONC  Date Extracted: 08/21/92

Concentrated Extract Volume: 5000.0 (uL)  Date Analyzed: 09/02/92

Injection Volume: 2.0 (uL)  Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y  pH: 7.0  Sulfur Cleanup: (Y/N) N

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 319-84-6 | alpha-BHC | .050 | U |
| 319-85-7 | beta-BHC | .050 | U |
| 319-86-8 | delta-BHC | .050 | U |
| 58-89-9 | gamma-BHC | .050 | U |
| 76-44-8 | Heptachlor | .050 | U |
| 309-00-2 | Aldrin | .050 | U |
| 1024-57-3 | Heptachlor epoxide | .050 | U |
| 959-98-8 | Endosulfan I | .050 | U |
| 60-57-1 | Dieldrin | .10 | U |
| 72-55-9 | 4,4'-DDE | .10 | U |
| 72-20-8 | Endrin | .10 | U |
| 33213-65-9 | Endosulfan II | .10 | U |
| 72-54-8 | 4,4'-DDD | .10 | U |
| 1031-07-8 | Endosulfan Sulfate | .063 | J P |
| 50-29-3 | 4,4'-DDT | .10 | U |
| 72-43-5 | Methoxychlor | .50 | U |
| 53494-70-5 | Endrin ketone | .10 | U |
| 7421-93-4 | Endrin aldehyde | .10 | U |
| 5103-71-9 | alpha-Chlordane | .050 | U |
| 5103-74-2 | gamma-Chlordane | .050 | U |
| 8001-35-2 | Toxaphene | 5.0 | U |
| 12674-11-2 | Aroclor-1016 | 1.0 | U |
| 11104-28-2 | Aroclor-1221 | 2.0 | U |
| 11141-16-5 | Aroclor-1232 | 1.0 | U |
| 53469-21-9 | Aroclor-1242 | 1.0 | U |
| 12672-29-6 | Aroclor-1248 | 1.0 | U |
| 11097-69-1 | Aroclor-1254 | 1.0 | U |
| 11096-82-5 | Aroclor-1260 | 1.0 | U |

1D

# PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ERW07

Lab Name: McCoy and McCoy Labs, Inc  Contract: 68-D1-0081

Lab Code: McCOY  Case No.: 18642  SAS No.:  SDG No.: ERW07

Matrix: (soil/water) SOIL  Lab Sample ID: 92-08-471-01A

Sample wt/vol: 30.3 (g/mL) G  Lab File ID: 02369

% Moisture: 20. decanted: (Y/N) N  Date Received: 08/20/92

Extraction: (SepF/Cont/Sonc) SONC  Date Extracted: 08/24/92

Concentrated Extract Volume: 5000.0 (uL)  Date Analyzed: 09/02/92

Injection Volume: 2.0 (uL)  Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y  pH: 8.2  Sulfur Cleanup: (Y/N) N

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG | Q | |
|---|---|---|---|---|
| 319-84-6 | alpha-BHC | 2.1 | U | |
| 319-85-7 | beta-BHC | 2.1 | U | |
| 319-86-8 | delta-BHC | 2.1 | U | |
| 58-89-9 | gamma-BHC | 2.1 | U | |
| 76-44-8 | Heptachlor | 2.1 | U | |
| 309-00-2 | Aldrin | 2.1 | U | |
| 1024-57-3 | Heptachlor epoxide | 2.1 | U | |
| 959-98-8 | Endosulfan I | 2.1 | U | |
| 60-57-1 | Dieldrin | .45 | J P | |
| 72-55-9 | 4,4'-DDE | 4.1 | U | |
| 72-20-8 | Endrin | 4.1 | U | |
| 33213-65-9 | Endosulfan II | 4.1 | U | |
| 72-54-8 | 4,4'-DDD | 4.1 | U | |
| 1031-07-8 | Endosulfan Sulfate | 4.1 ~~4.5~~ | BJ P U | PDC 11/9/92 |
| 50-29-3 | 4,4'-DDT | 4.1 | U | |
| 72-43-5 | Methoxychlor | 21. | U | |
| 53494-70-5 | Endrin ketone | 4.1 | U | |
| 7421-93-4 | Endrin aldehyde | 4.1 | U | |
| 5103-71-9 | alpha-Chlordane | 2.1 | U | |
| 5103-74-2 | gamma-Chlordane | 2.1 | U | |
| 8001-35-2 | Toxaphene | 210. | U | |
| 12674-11-2 | Aroclor-1016 | 41. | U | |
| 11104-28-2 | Aroclor-1221 | 82. | 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 | 41. | U | |
| 11096-82-5 | Aroclor-1260 | 41. | U | |

1D

# PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ERW08

Lab Name: McCoy and McCoy Labs, Inc  Contract: 68-D1-0081

Lab Code: McCOY  Case No.: 18642  SAS No.:  SDG No.: ERW07

Matrix: (soil/water) SOIL  Lab Sample ID: 92-08-471-02A

Sample wt/vol: 30.9 (g/mL) G  Lab File ID: 02370

% Moisture: 16. decanted: (Y/N) N  Date Received: 08/20/92

Extraction: (SepF/Cont/Sonc) SONC  Date Extracted: 08/24/92

Concentrated Extract Volume: 5000.0 (uL)  Date Analyzed: 09/02/92

Injection Volume: 2.0 (uL)  Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y  pH: 8.1  Sulfur Cleanup: (Y/N) N

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG | Q | |
|---|---|---|---|---|
| 319-84-6 | alpha-BHC | 1.9 | U J | |
| 319-85-7 | beta-BHC | 1.9 | U | |
| 319-86-8 | delta-BHC | 1.9 | U | |
| 58-89-9 | gamma-BHC | 1.9 | U | |
| 76-44-8 | Heptachlor | 1.9 | U | |
| 309-00-2 | Aldrin | 1.9 | U | |
| 1024-57-3 | Heptachlor epoxide | 1.9 | U | |
| 959-98-8 | Endosulfan I | 1.9 | U | |
| 60-57-1 | Dieldrin | 3.9 | U | |
| 72-55-9 | 4,4'-DDE | 3.9 | U | |
| 72-20-8 | Endrin | 3.9 | U | |
| 33213-65-9 | Endosulfan II | 3.9 | U | |
| 72-54-8 | 4,4'-DDD | 3.9 | U | |
| 1031-07-8 | Endosulfan Sulfate | 3.9 ~~67~~ | BJ PU | PDC 11/9/92 |
| 50-29-3 | 4,4'-DDT | 3.9 | U J | |
| 72-43-5 | Methoxychlor | 19. | U | |
| 53494-70-5 | Endrin ketone | 3.9 | U | |
| 7421-93-4 | Endrin aldehyde | 3.9 | U | |
| 5103-71-9 | alpha-Chlordane | 1.9 | U | |
| 5103-74-2 | gamma-Chlordane | 1.9 | U | |
| 8001-35-2 | Toxaphene | 190. | U | |
| 12674-11-2 | Aroclor-1016 | 39. | U | |
| 11104-28-2 | Aroclor-1221 | 77. | 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 | 39. | U | |
| 11096-82-5 | Aroclor-1260 | 39. | U | |

1D

# PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ERW09

Lab Name: McCoy and McCoy Labs, Inc  Contract: 68-D1-0081

Lab Code: McCOY  Case No.: 18642  SAS No.:  SDG No.: ERW07

Matrix: (soil/water) SOIL  Lab Sample ID: 92-08-471-03A

Sample wt/vol: 30.1 (g/mL) G  Lab File ID: 02371

% Moisture: 25. decanted: (Y/N) N  Date Received: 08/20/92

Extraction: (SepF/Cont/Sonc) SONC  Date Extracted: 08/24/92

Concentrated Extract Volume: 5000.0 (uL)  Date Analyzed: 09/02/92

Injection Volume: 2.0 (uL)  Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y  pH: 6.9  Sulfur Cleanup: (Y/N) N

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG | Q | |
|---|---|---|---|---|
| 319-84-6 | alpha-BHC | 2.2 | U | |
| 319-85-7 | beta-BHC | 2.2 | U | |
| 319-86-8 | delta-BHC | 2.2 | U | |
| 58-89-9 | gamma-BHC | 2.2 | UJ | PDC 11/7/92 |
| 76-44-8 | Heptachlor | 2.2 | U | |
| 309-00-2 | Aldrin | 2.2 | U | |
| 1024-57-3 | Heptachlor epoxide | 2.2 | U | |
| 959-98-8 | Endosulfan I | 2.2 | U | |
| 60-57-1 | Dieldrin | 4.4 | U | |
| 72-55-9 | 4,4'-DDE | 4.4 | U | |
| 72-20-8 | Endrin | 4.4 | U | |
| 33213-65-9 | Endosulfan II | 4.4 | U | |
| 72-54-8 | 4,4'-DDD | 4.4 | U | |
| 1031-07-8 | Endosulfan Sulfate | 4.4 ~~4.6~~ | BJ PU | PDC 11/7/92 |
| 50-29-3 | 4,4'-DDT | 4.4 | UJ | |
| 72-43-5 | Methoxychlor | 22. | U | |
| 53494-70-5 | Endrin ketone | 4.4 | U | |
| 7421-93-4 | Endrin aldehyde | 4.4 | U | |
| 5103-71-9 | alpha-Chlordane | 2.2 | U | |
| 5103-74-2 | gamma-Chlordane | 2.2 | U | |
| 8001-35-2 | Toxaphene | 220. | U | |
| 12674-11-2 | Aroclor-1016 | 44. | U | |
| 11104-28-2 | Aroclor-1221 | 88. | U | |
| 11141-16-5 | Aroclor-1232 | 44. | U | |
| 53469-21-9 | Aroclor-1242 | 44. | U | |
| 12672-29-6 | Aroclor-1248 | 44. | U | |
| 11097-69-1 | Aroclor-1254 | 44. | U | |
| 11096-82-5 | Aroclor-1260 | 44. | U | |

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# PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ERW10

Lab Name: McCoy and McCoy Labs, Inc  Contract: 68-D1-0081

Lab Code: McCOY  Case No.: 18642  SAS No.:  SDG No.: ERW07

Matrix: (soil/water) SOIL  Lab Sample ID: 92-08-471-04A

Sample wt/vol: 31.2 (g/mL) G  Lab File ID: 02372

% Moisture: 35. decanted: (Y/N) N  Date Received: 08/20/92

Extraction: (SepF/Cont/Sonc) SONC  Date Extracted: 08/24/92

Concentrated Extract Volume: 5000.0 (uL)  Date Analyzed: 09/02/92

Injection Volume: 2.0 (uL)  Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y  pH: 7.1  Sulfur Cleanup: (Y/N) N

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG | Q | |
|---|---|---|---|---|
| 319-84-6 | alpha-BHC | 2.5 | U | |
| 319-85-7 | beta-BHC | 2.5 | U | |
| 319-86-8 | delta-BHC | 2.5 | U | |
| 58-89-9 | gamma-BHC | 2.5 | U | |
| 76-44-8 | Heptachlor | 2.5 | U | |
| 309-00-2 | Aldrin | 2.5 | U | |
| 1024-57-3 | Heptachlor epoxide | 2.5 | U | |
| 959-98-8 | Endosulfan I | 2.5 | U | |
| 60-57-1 | Dieldrin | 5.0 | U | |
| 72-55-9 | 4,4'-DDE | 5.0 | U | |
| 72-20-8 | Endrin | 5.0 | U | |
| 33213-65-9 | Endosulfan II | 5.0 | U | |
| 72-54-8 | 4,4'-DDD | 5.0 | U | |
| 1031-07-8 | Endosulfan Sulfate | 5.0 ~~1.4~~ | BJ PU | PDC 11/9/92 |
| 50-29-3 | 4,4'-DDT | 5.0 | U | |
| 72-43-5 | Methoxychlor | 25. | U | |
| 53494-70-5 | Endrin ketone | 5.0 | U | |
| 7421-93-4 | Endrin aldehyde | 5.0 | U | |
| 5103-71-9 | alpha-Chlordane | 2.5 | U | |
| 5103-74-2 | gamma-Chlordane | 2.5 | U | |
| 8001-35-2 | Toxaphene | 250. | U | |
| 12674-11-2 | Aroclor-1016 | 50. | U | |
| 11104-28-2 | Aroclor-1221 | 99. | U | |
| 11141-16-5 | Aroclor-1232 | 50. | U | |
| 53469-21-9 | Aroclor-1242 | 50. | U | |
| 12672-29-6 | Aroclor-1248 | 50. | U | |
| 11097-69-1 | Aroclor-1254 | 50. | U | |
| 11096-82-5 | Aroclor-1260 | 50. | U | |

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# PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ERW18

Lab Name: McCoy and McCoy Labs, Inc  Contract: 68-D1-0081

Lab Code: McCOY  Case No.: 18642  SAS No.:  SDG No.: ERW07

Matrix: (soil/water) WATER  Lab Sample ID: 92-08-471-06A

Sample wt/vol: 1000.0 (g/mL) ML  Lab File ID: 02376

% Moisture: _____ decanted: (Y/N)___  Date Received: 08/20/92

Extraction: (SepF/Cont/Sonc) SONC  Date Extracted: 08/21/92

Concentrated Extract Volume: 5000.0 (uL)  Date Analyzed: 09/02/92

Injection Volume: 2.0 (uL)  Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y  pH: 6.8  Sulfur Cleanup: (Y/N) N

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q | |
|---|---|---|---|---|
| 319-84-6 | alpha-BHC | .050 | U | |
| 319-85-7 | beta-BHC | .050 | U | |
| 319-86-8 | delta-BHC | .050 | U | |
| 58-89-9 | gamma-BHC | .050 | UJ | PDX 11/9/92 |
| 76-44-8 | Heptachlor | .050 | U | |
| 309-00-2 | Aldrin | .050 | U | |
| 1024-57-3 | Heptachlor epoxide | .050 | U | |
| 959-98-8 | Endosulfan I | .050 | U | |
| 60-57-1 | Dieldrin | .10 | U | |
| 72-55-9 | 4,4'-DDE | .10 | U | |
| 72-20-8 | Endrin | .10 | U | |
| 33213-65-9 | Endosulfan II | .10 | U | |
| 72-54-8 | 4,4'-DDD | .10 | U | |
| 1031-07-8 | Endosulfan Sulfate | 0.1 ~~.028~~ | BJ PU | PDX 11/9/92 |
| 50-29-3 | 4,4'-DDT | .10 | U | |
| 72-43-5 | Methoxychlor | .50 | U | |
| 53494-70-5 | Endrin ketone | .10 | U | |
| 7421-93-4 | Endrin aldehyde | .10 | U | |
| 5103-71-9 | alpha-Chlordane | .050 | U | |
| 5103-74-2 | gamma-Chlordane | .050 | U | |
| 8001-35-2 | Toxaphene | 5.0 | U | |
| 12674-11-2 | Aroclor-1016 | 1.0 | U | |
| 11104-28-2 | Aroclor-1221 | 2.0 | U | |
| 11141-16-5 | Aroclor-1232 | 1.0 | U | |
| 53469-21-9 | Aroclor-1242 | 1.0 | U | |
| 12672-29-6 | Aroclor-1248 | 1.0 | U | |
| 11097-69-1 | Aroclor-1254 | 1.0 | U | |
| 11096-82-5 | Aroclor-1260 | 1.0 | U | |

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# PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ERW19

Lab Name: McCoy and McCoy Labs, Inc  Contract: 68-D1-0081

Lab Code: McCOY  Case No.: 18642  SAS No.:  SDG No.: ERW07

Matrix: (soil/water) WATER  Lab Sample ID: 92-08-471-09A

Sample wt/vol: 1000.0 (g/mL) ML  Lab File ID: 02377

% Moisture: _____ decanted: (Y/N)___  Date Received: 08/20/92

Extraction: (SepF/Cont/Sonc) SONC  Date Extracted: 08/21/92

Concentrated Extract Volume: 5000.0 (uL)  Date Analyzed: 09/02/92

Injection Volume: 2.0 (uL)  Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y  pH: 6.8  Sulfur Cleanup: (Y/N) N

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 319-84-6 | alpha-BHC | .050 | U |
| 319-85-7 | beta-BHC | .050 | U |
| 319-86-8 | delta-BHC | .018 | J P |
| 58-89-9 | gamma-BHC | .050 | U |
| 76-44-8 | Heptachlor | .050 | U |
| 309-00-2 | Aldrin | .050 | U |
| 1024-57-3 | Heptachlor epoxide | .050 | U |
| 959-98-8 | Endosulfan I | .050 | U |
| 60-57-1 | Dieldrin | .10 | U |
| 72-55-9 | 4,4'-DDE | .10 | U |
| 72-20-8 | Endrin | .10 | U |
| 33213-65-9 | Endosulfan II | .10 | U |
| 72-54-8 | 4,4'-DDD | .10 | U |
| 1031-07-8 | Endosulfan Sulfate | .10 | U |
| 50-29-3 | 4,4'-DDT | .10 | U |
| 72-43-5 | Methoxychlor | .50 | U |
| 53494-70-5 | Endrin ketone | .10 | U |
| 7421-93-4 | Endrin aldehyde | .10 | U |
| 5103-71-9 | alpha-Chlordane | .050 | U |
| 5103-74-2 | gamma-Chlordane | .050 | U |
| 8001-35-2 | Toxaphene | 5.0 | U |
| 12674-11-2 | Aroclor-1016 | 1.0 | U |
| 11104-28-2 | Aroclor-1221 | 2.0 | U |
| 11141-16-5 | Aroclor-1232 | 1.0 | U |
| 53469-21-9 | Aroclor-1242 | 1.0 | U |
| 12672-29-6 | Aroclor-1248 | 1.0 | U |
| 11097-69-1 | Aroclor-1254 | 1.0 | U |
| 11096-82-5 | Aroclor-1260 | 1.0 | U |

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# PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ERW20

Lab Name: McCoy and McCoy Labs, Inc  Contract: 68-D1-0081

Lab Code: McCOY  Case No.: 18642  SAS No.:  SDG No.: ERW07

Matrix: (soil/water) WATER  Lab Sample ID: 92-08-471-10A

Sample wt/vol: 1000.0 (g/mL) ML  Lab File ID: 02378

% Moisture: _____ decanted: (Y/N)___  Date Received: 08/20/92

Extraction: (SepF/Cont/Sonc) SONC  Date Extracted: 08/21/92

Concentrated Extract Volume: 5000.0 (uL)  Date Analyzed: 09/02/92

Injection Volume: 2.0 (uL)  Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y  pH: 6.9  Sulfur Cleanup: (Y/N) N

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q | |
|---|---|---|---|---|
| 319-84-6 | alpha-BHC | .050 | U | |
| 319-85-7 | beta-BHC | .050 | U | |
| 319-86-8 | delta-BHC | .050 | U | |
| 58-89-9 | gamma-BHC | .050 | U | |
| 76-44-8 | Heptachlor | .050 | U | |
| 309-00-2 | Aldrin | .050 | U | |
| 1024-57-3 | Heptachlor epoxide | .050 | U | |
| 959-98-8 | Endosulfan I | .050 | U | |
| 60-57-1 | Dieldrin | .10 | U | |
| 72-55-9 | 4,4'-DDE | .10 | U | |
| 72-20-8 | Endrin | .10 | U | |
| 33213-65-9 | Endosulfan II | .10 | U | |
| 72-54-8 | 4,4'-DDD | .10 | U | |
| 1031-07-8 | Endosulfan Sulfate | 0.1.~~022~~ | BJ PU | PDC 11/9/92 |
| 50-29-3 | 4,4'-DDT | .10 | U | |
| 72-43-5 | Methoxychlor | .50 | U | |
| 53494-70-5 | Endrin ketone | .10 | U | |
| 7421-93-4 | Endrin aldehyde | .10 | U | |
| 5103-71-9 | alpha-Chlordane | .050 | U | |
| 5103-74-2 | gamma-Chlordane | .050 | U | |
| 8001-35-2 | Toxaphene | 5.0 | U | |
| 12674-11-2 | Aroclor-1016 | 1.0 | U | |
| 11104-28-2 | Aroclor-1221 | 2.0 | U | |
| 11141-16-5 | Aroclor-1232 | 1.0 | U | |
| 53469-21-9 | Aroclor-1242 | 1.0 | U | |
| 12672-29-6 | Aroclor-1248 | 1.0 | U | |
| 11097-69-1 | Aroclor-1254 | 1.0 | U | |
| 11096-82-5 | Aroclor-1260 | 1.0 | U | |

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# PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ERW21

Lab Name: McCoy and McCoy Labs, Inc  Contract: 68-D1-0081

Lab Code: McCOY  Case No.: 18642  SAS No.:  SDG No.: ERW07

Matrix: (soil/water) WATER  Lab Sample ID: 92-08-471-11A

Sample wt/vol: 1000.0 (g/mL) ML  Lab File ID: 02379

% Moisture: _____ decanted: (Y/N)___  Date Received: 08/20/92

Extraction: (SepF/Cont/Sonc) SONC  Date Extracted: 08/21/92

Concentrated Extract Volume: 5000.0 (uL)  Date Analyzed: 09/02/92

Injection Volume: 2.0 (uL)  Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y  pH: 6.9  Sulfur Cleanup: (Y/N) N

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q | |
|---|---|---|---|---|
| 319-84-6 | alpha-BHC | .050 | U | |
| 319-85-7 | beta-BHC | .050 | U | |
| 319-86-8 | delta-BHC | .050 | U | |
| 58-89-9 | gamma-BHC | .050 | U | |
| 76-44-8 | Heptachlor | .050 | U | |
| 309-00-2 | Aldrin | .050 | U | |
| 1024-57-3 | Heptachlor epoxide | .050 | U | |
| 959-98-8 | Endosulfan I | .050 | U | |
| 60-57-1 | Dieldrin | .10 | U | |
| 72-55-9 | 4,4'-DDE | .10 | U | |
| 72-20-8 | Endrin | .10 | U | |
| 33213-65-9 | Endosulfan II | .10 | U | |
| 72-54-8 | 4,4'-DDD | .10 | U | |
| 1031-07-8 | Endosulfan Sulfate | 0.1 ~~.026~~ | BJ PU | PDC 11/9/92 |
| 50-29-3 | 4,4'-DDT | .10 | U | |
| 72-43-5 | Methoxychlor | .50 | U | |
| 53494-70-5 | Endrin ketone | .10 | U | |
| 7421-93-4 | Endrin aldehyde | .10 | U | |
| 5103-71-9 | alpha-Chlordane | .050 | U | |
| 5103-74-2 | gamma-Chlordane | .050 | U | |
| 8001-35-2 | Toxaphene | 5.0 | U | |
| 12674-11-2 | Aroclor-1016 | 1.0 | U | |
| 11104-28-2 | Aroclor-1221 | 2.0 | U | |
| 11141-16-5 | Aroclor-1232 | 1.0 | U | |
| 53469-21-9 | Aroclor-1242 | 1.0 | U | |
| 12672-29-6 | Aroclor-1248 | 1.0 | U | |
| 11097-69-1 | Aroclor-1254 | 1.0 | U | |
| 11096-82-5 | Aroclor-1260 | 1.0 | U | |

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

ESD Central Regional Laboratory
Data Tracking Form for Contract Samples

Data Set No._____ CERCLIS No. IN

Case No. 18642 Site Name Location: Mayo

Contractor or EPA Lab: McCoy Data User: Weston

No. of Samples: 9 Date Samples or Data Received: 9-17-92

Have Chain-of-Custody records been received? YES ✓ NO____
Have traffic reports or packing lists been received? YES ✓ NO____
If no, are traffic report or packing list numbers written on the chain-of-custody record? YES ✓ NO_____
If no, which traffic report or packing list numbers are missing?

_____ _____ _____ _____
_____ _____ _____ _____

Are basic data forms in? YES ✓ NO_____
No. of samples claimed: 9 No. of samples received: 9

Received by: Lynette Burnett Date: 9-17-92

Received by LSSS: DMM Date: 9-17-92

Review started: 9/25/92 Reviewer Signature: [signature]

Total time spent on review: 4 Date review completed: 9/28/92

Copied by: Eric Miller Date: 10-7-92

Mailed to user by: [signature] Date: 10-7-92

DATA USERS:
Please fill in the blanks below and return this form to:
Sylvia Griffin, Data Mgmt. Coordinator, Region V, 5SCRL

Data received by:_____ Date:_____

Data review received by:_____ Date:_____
Inorganic Data Complete[ ] Suitable for Intended Purpose[ ] ✓if OK
Organic Data Complete [ ] Suitable for Intended Purpose[ ] list
Dioxin Data Complete [ ] Suitable for Intended Purpose[ ] prblms
SAS Data Complete [ ] Suitable for Intended Purpose[ ] below.
PROBLEMS: Please indicate reasons why data are not suitable for your uses.

_____

_____

Received by Data Mgmt. Coordinator for Files Date:_____

Not validated - qualifiers on other copy POC 11/9/92

4500-45 - AGBE

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

DATE: 10/9/92

SUBJECT: Review of Region V CLP Data Received for Review on Sept 2, 1992

FROM: Charles T. Elly, Director (5SCRL) Central Regional Laboratory
Patrick J. Churilla for C.T. Elly

TO: Data User: Weston

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

SITE NAME: Semyo (IN) SMO Case No. 18642 SAS 670

EPA Data Set No. _____ No. of Samples 4 DU/Activity Numbers 1

CRL No. _____

SMO Traffic No. ELW22 -25 + (PW433, PS657, PR87

CLP Laboratory: S-Cubed Hrs. for Review 6 + 2 = 8 wks

Following are our findings:

THE DATA ARE ACCEPTABLE WITH QUALIFICATIONS NOTED IN THE ATTACHED REVIEW

Patrick J. Churilla
10/9/92

( ) Data are acceptable for use.
(X) Data are acceptable for use with qualifications.
( ) Data are preliminary - pending verification by laboratory.
( ) Data are unacceptable.

cc: Elenor McLean, Sample Mgmt. Office
Edward Kantor, EMSL-Las Vegas

This case consisted of 4 low water samples which were received by the laboratory on August 19,1992. These samples were received in good condition and run without significant problems.

This reviewers comments are contained in the following pages of this narrative.

Reviewed by M. Kaminsky Lockheed/ESAT
September 23,1992

**1. Holding Times:**
This case consisted of 4 low water samples. Sample ERW22 was identified as the trip blank and was analyzed for VOCs only the other 3 samples were analyzed for full organic analysis. They were received on August 19,1992 the VOCs were run and the semivoc and pest/PCBs were extracted and run by the laboratory in time to meet the required holding time criteria.

**2.GC/MS Tuning and GC Instrument Performance:**
Both the tuning and the instrument performance were satisfactory.

**3.Calibration:**
Initial and continuing calibrations of VOC, SemiVoc and Pesticide standards were evaluated for the target compound list(TCL) and outliers were recorded on the outlier forms included as part of this narrative.

**4.Method Blank:**
The volatile blank VBLK01 contained methylene chloride, a common laboratory chemical, and 2 TICs. Volatile blank VBLK02 was free of any TCL compounds. The semivolatile blank SBLK01 was clean. The pesticide blank, PBLK01, was clean. All TICs found in the blank in order to be considered useable in the associated samples, their concentration must be at least 5x the blank. Associated samples are included on form (IV).

**5.Suggogate Recoveries:**
All volatile, semivolatile and pesticide surrogate recoveries met QC criteria.

**6.MS/MSD and Laboratory Control Sample:**
Volatile: The %spike recoveries were within QC limits.
Semivolatile:The %Rec for 2,4-dinitrotoluene was outside QC limits in and therefore, this semivolatile compound in the unspiked samples for both positives and nondetects should be considered as estimated (J).
Pesticide/PCB- The %recoveries were within QC limits.

7.Field blanks and Field Duplicates and other QC:

Sample ERW22 was identified as the trip blank contained 3 volatile TCLs, ERW 24 was identified as the field blank and contained 2 semivolatile TICS and ERW25 contained 9 volatile TCLS was the duplicate of ERW23 which contained 9 volatile TCLs. These were identified on the OTR. There was very good agreement

Reviewed by M. Kaminsky Lockheed/ESAT
September 23,1992

between ERW23 and ERW25 results for both the undiluted as well as the diluted samples.

**8.Internal Standards:**
VOA internal standards met QC requirements.
Semivolatile internal standards met QC requirements.
No problems were encountered in the pesticide fraction.

**9.Compound Quantification and Reported Detection Limits:**
All target compounds and TICs were properly reported; therefore data is acceptable.

**10.Compound Identification:**
Target compounds and TICs were identified by 'best fit' library search method and appear to be correct.

**11.System Performance:**
Base line indicated acceptable performance; therefore data is acceptable.

**12.Performance Evaluation Sample:**
A performance evaluation sample covering all three fractions was run with this data set. In the volatile fraction xylenes were reported high, and 2-chlorotoluene and vinyl acetate were missed. In the semivolatile fraction only benzo(K)fluoranthene was missed. No problems were detected in the pesticide fraction.

**13.Overall Case Assessment:**
In samples ERW32 and ERW25 the results reported for vinyl chloride and trans-1,2-dichloroethene exceeded the calibration range. The samples were diluted and reanalyzed and the results for the two compounds were within the required range. Therefore, results for these two compounds in the diluted samples are to be used for data validation.
This reviewer found no other apparent case problems to be noted at this time.

Reviewed by M. Kaminsky Lockheed/ESAT
September 23,1992

# CALIBRATION OUTLIERS
## VOLATILE TCL COMPOUNDS

CASE\SAS#: 18642 SAS 6702 HQ  CONTRACTOR: S3

| Instrument# HP4 | | Initial Cal. | | | Contin. Cal. | | | Contin. Cal. | | | Contin. Cal. | | | Contin. Cal. | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Date/Time: | | 8-15 | | | 823 1854 | | | 824 1525 | | | | | | | | |
| | # | rf | %rsd | * | rf | %d | * | rf | %d | * | rf | %d | * | rf | %d | * |
| Chloromethane | 0.01 | | | | | | | | | | | | | | | |
| Bromomethane | 0.10 | | | | | | | | | | | | | | | |
| Vinyl chloride | 0.10 | | | | | | | | | | | | | | | |
| Chloroethane | 0.01 | | | | | | | | | | | | | | | |
| Methylene chloride | 0.01 | | | | | | | | | | | | | | | |
| Acetone | 0.01 | | | | | | | | | | | | | | | |
| Carbon disulfide | 0.01 | | | | | | | | | | | | | | | |
| 1,1-Dichloroethene | 0.10 | | | | | | | | | | | | | | | |
| 1,1-Dichloroethane | 0.20 | | | | | | | | | | | | | | | |
| 1,2-Dichloroethene (total) | | | | | | | | | | | | | | | | |
| Chloroform | 0.20 | | | | | | | | | | | | | | | |
| 1,2-Dichloroethane | 0.10 | | | | | | | | | | | | | | | |
| 2-Butanone | 0.01 | | | | | | | | | | | | | | | |
| 1,1,1-Trichloroethane | 0.10 | | | | | | | | | | | | | | | |
| Carbon tetrachloride | 0.10 | | | | | | | | | | | | | | | |
| Bromodichloromethane | 0.20 | | | | | | | | | | | | | | | |
| 1,2-Dichloropropane | | | | | | | | | | | | | | | | |
| cis-1,3-Dichloropropene | 0.20 | | | | | | | | | | | | | | | |
| Trichloroethene | 0.30 | | | | | | | | | | | | | | | |
| Dibromochloromethane | 0.10 | | | | | | | | | | | | | | | |
| 1,1,2-Trichloroethane | 0.10 | | | | | | | | | | | | | | | |
| Benzene | 0.50 | | | | | | | | | | | | | | | |
| tran-1,3-Dichloropropene | 0.10 | | | | | | | | | | | | | | | |
| Bromoform | 0.10 | | | | | | | | | | | | | | | |
| 4-Methyl-2-pentanone | 0.01 | | | | | | | | | | | | | | | |
| 2-Hexanone | 0.01 | | | | | | | | | | | | | | | |
| Tetrachloroethene | 0.20 | | | | | | | | | | | | | | | |
| 1,1,2,2-Tetrachloroethane | 0.50 | | | | | | | | | | | | | | | |
| Toluene | 0.40 | | | | | | | | | | | | | | | |
| Chlorobenzene | 0.50 | | | | | | | | | | | | | | | |
| Ethylbenzene | 0.10 | | | | | | | | | | | | | | | |
| Styrene | 0.30 | | | | | | | | | | | | | | | |
| Xylene (total) | 0.30 | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| Toluene-d8 | | | | | | | | | | | | | | | | |
| Bromofluorobenzene | | | | | | | | | | | | | | | | |
| 1,2-Bichloroethane-d4 | | | | | | | | | | | | | | | | |

| Samples affected: | | |
|---|---|---|
| | VBLK01 | VBLK 01 |
| | PW 443 | EWR 24 |
| | EWR 22 | EWR 23D4 |
| | EWR 23 | EWR 25D4 |
| | EWR 25 | |

Reviewer's Init/Date: MK 9-23

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

# Minimum Relative Response Factor

# CALIBRATION OUTLIER
## SEMVOLATILE TCL COMPOUNDS
(Page 1)

CASE\SAS#: 18492 SAS 6702 HQ  CONTRACTOR: S3

| Instrument# | | Initial Cal. | | | Contin. Cal. | | | Contin. Cal. | | | Contin. Cal. | | | Contin. Cal. | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Date/Time: | | 8-24-92 10-56 | | | 8-24-92 2138 | | | | | | | | | | | |
| | # | rf | %rsd | * | rf | %d | * | rf | %d | * | rf | %d | * | rf | %d | * |
| Phenol | 0.80 | | | | | | | | | | | | | | | |
| bis(chloroethyl) Ether | 0.70 | | | | | | | | | | | | | | | |
| 2-Chlorophenol | 0.70 | | | | | | | | | | | | | | | |
| 1,3-Dichlorobenzene | | | | | | | | | | | | | | | | |
| 1,4-Dichlorobenzene | | | | | | | | | | | | | | | | |
| 1,2-Dichlorobenzene | | | | | | | | | | | | | | | | |
| 2-Methylphenol | 0.70 | | | | | | | | | | | | | | | |
| 2,2'-Oxybis(1-chl-propane) | 0.01 | | | | | | | | | | | | | | | |
| 4-Methylphenol | 0.60 | | | | | | | | | | | | | | | |
| N-nitroso-di-n-propylamine | 0.50 | | | | | | | | | | | | | | | |
| Hexachloroethane | 0.30 | | | | | | | | | | | | | | | |
| Nitrobenzene | 0.20 | | | | | | | | | | | | | | | |
| Isophorone | 0.40 | | | | | | | | | | | | | | | |
| 2-Nitrophenol | 0.10 | | | | | | | | | | | | | | | |
| 2,4-Dimethylphenol | 0.20 | | | | | | | | | | | | | | | |
| bis-(2-chloroethoxyl)methane | 0.30 | | | | | | | | | | | | | | | |
| 2,4-Dichlorophenol | 0.20 | | | | | | | | | | | | | | | |
| 1,2,4-Trichlorobenzene | 0.20 | | | | | | | | | | | | | | | |
| Naphthalene | 0.70 | | | | | | | | | | | | | | | |
| 4-Chloroaniline | 0.01 | .295 | 34.0 | 5 | 0.371 | 25.9 | 5 | | | | | | | | | |
| Hexachlorobutadiene | 0.01 | | | | | | | | | | | | | | | |
| 4-Chloro-3-methylphenol | 0.20 | | | | | | | | | | | | | | | |
| 2-Methylnaphthalene | 0.40 | | | | | | | | | | | | | | | |
| Hexachlorocyclopentadiene | 0.01 | | | | | | | | | | | | | | | |
| 2,4,6-Trichlorophenol | 0.20 | | | | | | | | | | | | | | | |
| 2,4,5-Trichlorophenol | 0.20 | | | | | | | | | | | | | | | |
| 2-Chloronaphthalene | 0.80 | | | | | | | | | | | | | | | |
| 2-Nitroaniline | 0.01 | | | | | | | | | | | | | | | |
| Dimethyl phthlate | 0.01 | | | | | | | | | | | | | | | |
| Acenaphthylene | 1.30 | | | | | | | | | | | | | | | |
| 2,6-Dinitrotoluene | 0.20 | | | | | | | | | | | | | | | |
| 3-Nitroaniline | 0.01 | | | | | | | | | | | | | | | |
| Acenaphthene | 0.30 | | | | | | | | | | | | | | | |
| 2,4-Dinitrophenol | 0.01 | .171 | 43.9 | 5 | | | | | | | | | | | | |
| 4-Nitrophenol | 0.01 | .162 | 46.2 | 5 | | | | | | | | | | | | |
| Dibenzofuran | 0.80 | | | | | | | | | | | | | | | |
| 2,4-Dinitrotoluene | 0.20 | | | | | | | | | | | | | | | |

Affected samples:
PS 657
ERW 23
ERW 24
ERW 25
SBLK 01

Reviewer's Init/Date: MK 9-23-92

* These flags should be applied to the analytes on the sample data sheets.
\# Minimum Relative Response Factor

CALIBRATION OUTLIER
SEMVOLATILE TCL COMPOUNDS
(Page 2)

CASE\SAS#: 18647 SAS 6702 HQ

CONTRACTOR: S3

| Instrument# HP1 | | Initial Cal. | | | Contin. Cal. | | | Contin. Cal. | | | Contin. Cal. | | | Contin. Cal. | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Date/Time: | | 8-24-92 1056 | | | 8-24-92 2138 | | | | | | | | | | | |
| | # | rf | %rsd | * | rf | %d | * | rf | %d | * | rf | %d | * | rf | %d | * |
| Diethylphthalate | 0.01 | | | | | | | | | | | | | | | |
| 4-Chlorophenyl-phenylether | 0.40 | | | | | | | | | | | | | | | |
| Fluorene | 0.90 | | | | | | | | | | | | | | | |
| 4-Nitroaniline | 0.01 | .170 | 46.1 | J | 0.098 | 42.3 | J | | | | | | | | | |
| 4,6-Dinitro-2-methylphenol | 0.01 | | | | | | | | | | | | | | | |
| N-nitrosodiphenylamine | 0.01 | | | | | | | | | | | | | | | |
| 4-Bromophenyl-phenylether | 0.10 | | | | | | | | | | | | | | | |
| Hexachlorobenzene | 0.10 | | | | | | | | | | | | | | | |
| Pentachlorophenol | 0.05 | | | | | | | | | | | | | | | |
| Phenanthrene | 0.70 | | | | | | | | | | | | | | | |
| Anthracene | 0.70 | | | | | | | | | | | | | | | |
| Carbazole | | | | | | | | | | | | | | | | |
| Di-n-butylphthalate | 0.01 | | | | | | | | | | | | | | | |
| Fluoranthene | 0.60 | | | | | | | | | | | | | | | |
| Pyrene | 0.60 | | | | | | | | | | | | | | | |
| Butylbenzylphthalate | 0.01 | | | | | | | | | | | | | | | |
| 3,3'-Dichlorobenzidine | 0.01 | .104 | 41.7 | J | | | | | | | | | | | | |
| Benzo(a)anthracene | 0.80 | | | | | | | | | | | | | | | |
| Chrysene | 0.70 | | | | | | | | | | | | | | | |
| bis(2-Ethylhexyl)phthalate | 0.01 | | | | | | | | | | | | | | | |
| Di-n-octyl phthalate | 0.01 | | | | | | | | | | | | | | | |
| Benzo(b)fluoranthene | 0.70 | | | | | | | | | | | | | | | |
| Benzo(k)fluoranthene | 0.70 | | | | | | | | | | | | | | | |
| Benzo(a)pyrene | 0.70 | | | | | | | | | | | | | | | |
| Indeno(1,2,3-cd)pyrene | 0.50 | | | | | | | | | | | | | | | |
| Dibenz(a,h)anthrancene | 0.40 | | | | | | | | | | | | | | | |
| Benzo(g,h,i)perylene | 0.50 | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| Nitrobenzene-d5 | 0.01 | | | | | | | | | | | | | | | |
| 2-Fluorobiphenyl | 0.70 | | | | | | | | | | | | | | | |
| Terphenyl-d14 | 0.50 | | | | | | | | | | | | | | | |
| Phenol-d5 | 0.80 | | | | | | | | | | | | | | | |
| 2-Fluorophenol | 0.60 | | | | | | | | | | | | | | | |
| 2,4,6-Tribromophenol | 0.01 | | | | | | | | | | | | | | | |
| 2-Chlorophenol-d4 | | | | | | | | | | | | | | | | |
| 1,2-Dichlorobenzene-d4 | | | | | | | | | | | | | | | | |

Reviewer's Init/Date: MK 9-23-92

* These flags should be applied to the analytes on the sample data sheets.
# Minimum Relative Response Factor

**CALIBRATION OUTLIERS**
**PEST/PCB TCL COMPOUNDS**

**CASE\SAS#:** 18642SMS6702 HQ **CONTRACTOR:** S3

**Column:** DB 608

| Instrument#: 9 | Init. Cal. | | Cont. Cal. | | Cont. Cal. | | Cont.Cal | |
|---|---|---|---|---|---|---|---|---|
| Date/Time | 8/22/92 | | 8/26 0044 | | | | | |
| | %RSD | * | %RPD | * | %RPD | * | %RPD | * |
| Alpha-BHC | | | | | | | | |
| Beta-BHC | | | | | | | | |
| Delta-BHC | | | | | | | | |
| Gamma-BHC | | | | | | | | |
| Heptachlor | | | | | | | | |
| Aldrin | | | | | | | | |
| Heptachlor epoxide | | | | | | | | |
| Endosulfan I | | | | | | | | |
| Dieldrin | | | | | | | | |
| 4,4'-DDE | | | | | | | | |
| Endrin | | | | | | | | |
| Endosulfan II | | | | | | | | |
| 4,4'-DDD | | | | | | | | |
| Endosulfan sulfate | | | | | | | | |
| 4,4'-DDT | | | | | | | | |
| Methoxychlor | | | | | | | | |
| Endrin ketone | | | | | | | | |
| Endrin aldehyde | | | | | | | | |
| Alpha chlordane | | | | | | | | |
| Gamma chlordane | | | | | | | | |
| Aroclor-1016 | | | | | | | | |
| Aroclor-1221 | | | | | | | | |
| Aroclor-1232 | | | | | | | | |
| Aroclor-1242 | | | | | | | | |
| Aroclor-1248 | | | | | | | | |
| Aroclor-1254 | | | | | | | | |
| Aroclor-1260 | | | | | | | | |
| Toxaphene | | | | | | | | |
| Affected samples: | | | PBLK01 | | | | | |
| | | | PR 376 | | | | | |
| | | | ERW 23 | | | | | |
| | | | ERW 24 | | | | | |
| | | | ERW 25 | | | | | |

**Pest/PCB**

**Reviewer's Initial/Date** MK 9-23-92 **3/90 Rev**

*** These flags should be applied to the analytes on the Sample Data Sheets.**

## CALIBRATION OUTLIERS
## PEST/PCB TCL COMPOUNDS

CASE\SAS#: 18642 SAS 6702 HQ  CONTRACTOR: S3

Column: DB1701

| Instrument#: | Init. Cal. | | Cont. Cal. | | Cont. Cal. | | Cont.Cal | |
|---|---|---|---|---|---|---|---|---|
| Date/Time | 8/22/92 | | 8/26 0044 | | | | | |
| | %RSD | * | %RPD | * | %RPD | * | %RPD | * |
| Alpha-BHC | | | | | | | | |
| Beta-BHC | | | | | | | | |
| Delta-BHC | | | | | | | | |
| Gamma-BHC | | | | | | | | |
| Heptachlor | | | | | | | | |
| Aldrin | | | | | | | | |
| Heptachlor epoxide | | | | | | | | |
| Endosulfan I | | | | | | | | |
| Dieldrin | | | | | | | | |
| 4,4'-DDE | | | | | | | | |
| Endrin | | | | | | | | |
| Endosulfan II | | | | | | | | |
| 4,4'-DDD | | | | | | | | |
| Endosulfan sulfate | | | | | | | | |
| 4,4'-DDT | | | | | | | | |
| Methoxychlor | | | | | | | | |
| Endrin ketone | | | | | | | | |
| Endrin aldehyde | | | | | | | | |
| Alpha chlordane | | | | | | | | |
| Gamma chlordane | | | | | | | | |
| Aroclor-1016 | | | | | | | | |
| Aroclor-1221 | | | | | | | | |
| Aroclor-1232 | | | | | | | | |
| Aroclor-1242 | | | | | | | | |
| Aroclor-1248 | | | | | | | | |
| Aroclor-1254 | | | | | | | | |
| Aroclor-1260 | | | | | | | | |
| Toxaphene | | | | | | | | |

| Affected samples: | |
|---|---|
| | PBLK 01 |
| | PR 376 |
| | ERW 23 |
| | ERW 24 |
| | ERW 25 |

Pest/PCB

Reviewer's Initial/Date MK 9-23-92  3/90 Rev

* These flags should be applied to the analytes on the Sample Data Sheets.

## DATA REPORTING QUALIFIERS
(page 1)

For reporting results to EPA, the following result qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

VALUE-if the results is a value greater than or equal to the Contract Required Quantitation Limit (CRQL), report the value.

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

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

and df = dilution factor

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

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

For soil samples subjected to GPC clean-up procedures, the extract must be concentrated to 0.5 ml, and the sensitivity of the analysis is not compromised by the cleanup procedures. Therefore, the CRQL values will apply to all samples, regardless of cleanup. However, if a sample extract cannot be concentrated to the protocol-specified volume, this fact be accounted for in reporting the Sample Quantitation Limit.

J - Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed, or when the mass spectral data indicate the presence of a compound that meets the identification criteria but the result is less than the sample quantitation limit bur greater than zero. For example, if the sample quantitation limit is 10 ug/L, but a concentration of 3 ug/L is calculated, report it is as 3J. The Sample Quantitation Limit must be adjusted for dilution as discussed for the U flag. The J flag is also applied to pesticide/Aroclor results where the pesticide/Aroclor is confirmed to be present but the concentration is less than the CRQL.

N - Indicates presumptive evidence of a compound. This flag is only used for tentatively identified compounds. Where the identification is based on a mass spectral library search. It is applied to all TIC results.

## DATA REPORTING QUALIFIERS
(page 2)

P - This flag is used for a pesticide/Aroclor target analyte when there is greater than 25% difference for detected concentrations between the two columns (see Form X). The lower of the two values is reported on Form I and flagged with a "P".

C - This flag applies to pesticide results where identification has been confirmed by GC/MS. If GC/MS confirmation was attempted but unsuccessful, do not apply this flag, instead use a laboratory-defined, discussed below.

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

E - This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for the specific analysis. This flag will not apply to pesticide/PCBs analyzed by GC/MS methods. If one or more compounds have a response greater than full scale, the sample or extract must be diluted and re-analyzed according to the specifications. All such compounds with a response greater than full scale should have the concentration flagged with an "E" on the Form I for the original analysis. If the dilution of the extract causes any compounds identified in the first analysis to be below the calibration range in the second analysis, then the results of both analyses shall be reported on separate Form I. The Form I for the diluted sample shall have the "DL" suffix appended to the sample number.

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

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

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

MAXWELL
S-CUBED Division

# *NARRATIVE*

September 1, 1992

**Narrative Project:** 18642 SAS 6720 HQ
**Reference No.:** 32380-08-13
**Client:** US EPA Region V
**SDG No.:** 3226

## VOLATILES

The samples were analyzed according to the organics low concentration SAS protocol. The samples analyzed were characterized by the presence of numerous chlorinated hydrocarbons. Samples ERW23 and ERW25 required a 1:10 dilution to bring 1,2 Trans dichloroethene quantitation within the calibration range.

The quality control results were acceptable. Surrogate, LCS and calibration results were compliant.

No other problems were encountered with these analyses.

## SEMIVOLATILES

The samples were analyzed according to the organics low concentration SAS protocol. All samples analyzed were clean.

The LCS exhibited a slightly low recovery for 2,4 dinitrotoluene.

The quality control results were acceptable. Surrogate and calibration results were with in the QC requirements.

## OGANOCHLORINE PESTICIDE/PCBs

The samples were analyzed according to the organics low concentration SAS protocol. The samples analyzed were clean.

MAXWELL
S-CUBED Division

# *NARRATIVE*

The only problem with these analysis was a high RPD for B-BHC in the PEM on the DB 1701 column. This was detected at final review so no corrective action could be taken due to time constraints.

The quality control results were acceptable. Surrogate and LCS results were compliant.

No other problems were encountered with these analyses.

JoAnn Wilkinson
Project Manager

enclosures

l:\report\narr\n3226

# EPA Organic Traffic Report & Chain of Custody Record

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

(For Organic CLP Analysis)

SAS No. (if applicable): SAS 6702HQ
Case No.: 18642

1. Sample Description (Enter in Column A)
   - Surface Water
   - Ground Water
   - Leachate
   - Rinsate
   - Soil/Sediment
   - Oil (SAS)
   - Waste (SAS)
   - Other (SAS) (Specify)

2. Preservative (Enter in Column D)
   1. HCl
   2. HNO3
   3. NaHSO4
   4. $H_2SO_4$
   5. Other (SAS) (Specify)
   6. Ice only
   7. Not preserved

3. Region No.: V — Sampling Co.: ERT/LESTON
   Sampler (Name): Jeff Watson
   Sampler Signature: Jeff V. Wat

4. Type of Activity: Pre Remedial: SF, PRP, ST, FED; Remedial: PA, SSI, LSI; RIFS, RD, RA, O&M, NPLD; Removal: CLEM, REMA, REM, OIL, UST

5. Date Shipped: 8/18/92 — Carrier: Federal Express
   Airbill Number: # 15839394 2

6. Ship To: SAIC, 3398 Carmel Mountain Rd, San Diego, California 92121, Attn: Blaine Cleckner, (619) 453-2060

7. Date Received -- Received by

Laboratory Contract Number | Unit Price

8. Transfer to | Date Received
   Received by
   Contract Number | Price

| CLP Sample Numbers (from labels) | A Enter # From Box 1 | B Conc. Low Med High | C Sample Type: Comp./ Grab | D Preservative from Box 6 | E RAS Analysis: VOA | BNA | Pest/ PCB | High ARO/ TOX | Regional Specific Tracking Number or Tag Numbers | G Station Location Number | H Mo/Day/ Year/Time Sample Collection | I Sampler Initials | J Corresp. CLP Inorg. Samp. No. | K Sample Condition on Rec. | L High Conc. Phases (Check below): Spike | Water – Ms Liq. | Non Water – Ms Liq. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| EEW 22 | 2 | L | G | 1 | X | | | | 51135(19)(20)(21) | EWB 3 | 8/18/92 956 | | — | | | | |
| EEW 23 | 1 | | G | 1 | X | | | | 51135(1)(2)(3) | EWB 1 MID | | | MEEP 20 | | | | |
| ↓ | ↓ | | C | 6 | X | | | | 51135(4)(5)(6) | ↓ | | | ↓ | | | | |
| EEW 24 | | | G | 1 | X | | | | 51135(7)(8)(9) | EWB 1 FB | | | MEEP 21 | | | | |
| ↓ | ↓ | | C | 6 | X | X | X | | 51135(10)(11)(12) | ↓ | | | ↓ | | | | |
| EEW 25 | | | G | 1 | X | | | | 51135(28)(30) | EWB 1 DP | | | MEEP 22 | | | | |
| ↓ | ↓ | | C | 6 | X | X | X | | 51135(39)(42) | ↓ | | | ↓ | | | | |

HIGH CONCENTRATION EXPECTED

Shipment for Case complete? (Y/N): Y
Page 1 of 1
Sample used for a spike and/or duplicate: EEW 23
Additional Sampler Signatures: Linda Korobka
Chain of Custody Seal Number: 154302 154301 154302

## CHAIN OF CUSTODY RECORD

| Relinquished by: (Signature) | Date / Time | Received by: (Signature) | Relinquished by: (Signature) | Date / Time | Received by: (Signature) |
|---|---|---|---|---|---|
| Jeff V. Wat | 8/18/92 1700 | Linda Korobka | | | |
| Linda Korobka | 8/18/92 1900 | | | | |

| Received by: (Signature) | Date / Time | Received for Laboratory by: (Signature) | Date / Time | Remarks: Is custody seal intact? Y/N/none |
|---|---|---|---|---|
| | | | 8/19/92 0:00 | |

Split Samples: ☐ Accepted (Signature) ☐ Declined

EPA Form 9110-2 (Rev. 5-91) Replaces EPA Form (2075-7), previous edition which may be used

DISTRIBUTION:
Blue - Region Copy  Pink - SMO Copy  White - Lab Copy  Yellow - Lab Copy for Return to SMO

Org-2

O018940

2A

# WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: S-CUBED Contract: 68-D9-0135

Lab Code: S3 Case No.: 18642/SAS SAS No.: 6702HQSDG No.: 3226

| | EPA SAMPLE NO. | SMC1 (BFB)# | OTHER | TOT OUT |
|---|---|---|---|---|
| 01 | PW433 | 108 | | 0 |
| 02 | ERW22 | 95 | | 0 |
| 03 | ERW23 | 90 | | 0 |
| 04 | ERW23DL | 87 | | 0 |
| 05 | ERW24 | 92 | | 0 |
| 06 | ERW25 | 91 | | 0 |
| 07 | ERW25DL | 85 | | 0 |
| 08 | VSBLK01 | 95 | | 0 |
| 09 | VSBLK02 | 88 | | 0 |
| 10 | VLCS01 | 103 | | 0 |
| 11 | VBLK01 | 94 | | 0 |
| 12 | VBLK02 | 93 | | 0 |

QC LIMITS

SMC1 (BFB) = Bromofluorobenzene (80-120)

# Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

3LCA

LOW CONC. WATER VOLATILE LAB CONTROL SAMPLE RECOVERY

EPA SAMPLE NO.

VLCS01

Lab Name: S-CUBED Contract: 68-D9-0135

Lab Code: S3 Case No.: 18642 SAS No.: 6702 HQ SDG No.: 3226

Lab Sample ID: VLCS01 LCS Lot No.: 1768

Lab File ID: LAG23 Date Analyzed: 08/23/92

Purge Volume: 5.0 (mL) Dilution Factor: 1.0

LCS Aliquot: 10 (uL)

| COMPOUND | AMOUNT ADDED (ng) | AMOUNT RECOVERED (ng) | %REC # | QC LIMITS |
|---|---|---|---|---|
| Vinyl chloride | 125 | 149 | 119 | 60-140 |
| 1,2-Dichloroethane | 125 | 132 | 105 | 60-140 |
| Carbon tetrachloride | 125 | 133 | 106 | 60-140 |
| 1,2-Dichloropropane | 125 | 127 | 102 | 60-140 |
| Trichloroethene | 125 | 126 | 101 | 60-140 |
| 1,1,2-Trichloroethane | 125 | 129 | 103 | 60-140 |
| Benzene | 125 | 123 | 98 | 60-140 |
| cis-1,3-Dichloropropene | 125 | 120 | 96 | 60-140 |
| Bromoform | 125 | 142 | 114 | 60-140 |
| Tetrachloroethene | 125 | 123 | 98 | 60-140 |
| 1,2-Dibromoethane | 125 | 121 | 97 | 60-140 |
| 1,4-Dichlorobenzene | 125 | 135 | 108 | 60-140 |

# Column to be used to flag LCS recovery with an asterisk.
* Values outside of QC limits.

LCS Recovery: 0 outside limits out of 12 total.

COMMENTS: _____

4A

EPA SAMPLE NO.

VBLK01

# VOLATILE METHOD BLANK SUMMARY

Lab Name: S-CUBED Contract: 68-D9-0135
Lab Code: S3 Case No.: 18642/SAS SAS No.: 6702HQSDG No.: 3226
Lab File ID: VAG23 Lab Sample ID: VBW3226-1
Date Analyzed: 8-23-92 Time Analyzed: 1929
GC Column: CAP ID: 0.53 (mm) Heated Purge: (Y/N)N
Instrument ID: HP4

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

| | EPA SAMPLE NO. | LAB SAMPLE ID | LAB FILE ID | TIME ANALYZED |
|---|---|---|---|---|
| 01 | VSBLK01 | HBL3226-1 | VCG23 | 2044 |
| 02 | VLCS01 | LCSW3226 | LAG23 | 2122 |
| 03 | PW433 | 3226-01 | PW433 | 2159 |
| 04 | ERW22 | 3230-01 | ERW22 | 2314 |
| 05 | ERW23 | 3230-02 | ERW23 | 2351 |
| 06 | ERW25 | 3230-04 | ERW25 | 0106 |

COMMENTS: _____

4A

EPA SAMPLE NO.

VBLK02

# VOLATILE METHOD BLANK SUMMARY

Lab Name: S-CUBED Contract: 68-D9-0135
Lab Code: S3 Case No.: 18642/SAS SAS No.: 6702HQSDG No.: 3226
Lab File ID: VAG24 Lab Sample ID: VBW3226-2
Date Analyzed: 8-24-92 Time Analyzed: 1640
GC Column: CAP ID: 0.53 (mm) Heated Purge: (Y/N)N
Instrument ID: HP4

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

| | EPA SAMPLE NO. | LAB SAMPLE ID | LAB FILE ID | TIME ANALYZED |
|---|---|---|---|---|
| 01 | ERW24 | 3230-03 | RRW24 | 2004 |
| 02 | ERW23DL | 3230-02DL | DLW23 | 2042 |
| 03 | ERW25DL | 3230-04DL | DLW25 | 2119 |
| 04 | VSBLK02 | HBL3226-2 | HAG24 | 0104 |

COMMENTS: _____

1A

# VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK01

Lab Name: S-CUBED Contract: 68-D9-0135
Lab Code: S3 Case No.: 18642/SAS 6702HQ.: 6702HQ SDG No.: 3226
Matrix: (soil/water) WATER Lab Sample ID: VBW3226-1
Sample wt/vol: 25.00(g/ml) ML Lab File ID: VAG23
Level: (low/med) LOW Date Received:
%Moisture: not dec. 100.00 Date Analyzed: 8/23/92
GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.00
Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 74-87-3 | Chloromethane | 1 | U |
| 74-83-9 | Bromomethane | 1 | U |
| 75-01-4 | Vinyl Chloride | 1 | U |
| 75-00-3 | Chloroethane | 1 | U |
| 75-09-2 | Methylene Chloride | 0.8 | J |
| 67-64-1 | Acetone | 5 | U |
| 75-15-0 | Carbon Disulfide | 1 | U |
| 75-35-4 | 1,1-Dichloroethene | 1 | U |
| 75-34-3 | 1,1-Dichloroethane | 1 | U |
| 156-59-4 | cis-1,2-Dichloroethene | 1 | U |
| 156-60-5 | trans-1,2-Dichloroethene | 1 | U |
| 67-66-3 | Chloroform | 1 | U |
| 107-06-2 | 1,2-Dichloroethane | 1 | U |
| 78-93-3 | 2-Butanone | 5 | U |
| 74-97-5 | Bromochloromethane | 1 | U |
| 71-55-6 | 1,1,1-Trichloroethane | 1 | U |
| 56-23-5 | Carbon Tetrachloride | 1 | U |
| 75-27-4 | Bromodichloromethane | 1 | U |
| 78-87-5 | 1,2-Dichloropropane | 1 | U |
| 10061-01-5 | cis-1,3-Dichloropropene | 1 | U |
| 79-01-6 | Trichloroethene | 1 | U |
| 124-48-1 | Dibromochloromethane | 1 | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 1 | U |
| 79-00-5 | 1,1,2-Trichloroethane | 1 | U |
| 71-43-2 | Benzene | 1 | U |
| 10061-02-6 | trans-1,3-Dichloropropene | 1 | U |
| 75-25-2 | Bromoform | 1 | U |
| 108-10-1 | 4-Methyl-2-pentanone | 5 | U |
| 591-78-6 | 2-Hexanone | 5 | U |
| 127-18-4 | Tetrachloroethene | 1 | U |
| 106-93-4 | 1,2-Dibromoethane | 1 | U |
| 108-88-3 | Toluene | 1 | U |
| 108-90-7 | Chlorobenzene | 1 | U |
| 100-41-4 | Ethyl Benzene | 1 | U |

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK01

Lab Name: S-CUBED Contract: 68-D9-0135
Lab Code: S3 Case No.: 18642/SAS 6702HQ.: 6702HQ SDG No.: 3226
Matrix: (soil/water) WATER Lab Sample ID: VBW3226-1
Sample wt/vol: 25.00 (g/ml) ML Lab File ID: VAG23
Level: (low/med) LOW Date Received:
%Moisture: not dec. 100.00 Date Analyzed: 8/23/92
GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.00
Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 100-42-5 | Styrene | 1 | U |
| 1330-20-7 | Xylene (total) | 1 | U |
| 541-73-1 | 1,3-Dichlorobenzene | 1 | U |
| 106-46-7 | 1,4-Dichlorobenzene | 1 | U |
| 95-50-1 | 1,2-Dichlorobenzene | 1 | U |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | 1 | U |

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P. O. Box 818. Alexandria, Virginia 22313 703/557-2490

Sample Number
VBLK01

# Organics Analysis Data Sheet
(Page 4)

## Tentatively Identified Compounds

| | CAS Number | Compound Name | Fraction | RT or Scan Number | Estimated Concentration (ug/l or ug/kg) |
|---|---|---|---|---|---|
| 1 | 00541-05-9 | CYCLOTRISILOXANE, HEXAMETHYL- | VOA | 14.99 | 5 JN |
| 2 | 00556-67-2 | CYCLOTETRASILOXANE, OCTAMETHYL- | " | 20.48 | 2 JN |
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1A

# VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK02

Lab Name: S-CUBED Contract: 68-D9-0135
Lab Code: S3 Case No.: 18642/SAS 6702HQ.: 6702HQ SDG No.: 3226
Matrix: (soil/water) WATER Lab Sample ID: VBW3226-2
Sample wt/vol: 25.00(g/ml) ML Lab File ID: VAG24
Level: (low/med) LOW Date Received:
%Moisture: not dec. 100.00 Date Analyzed: 8/24/92
GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.00
Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 74-87-3 | Chloromethane | 1 | U |
| 74-83-9 | Bromomethane | 1 | U |
| 75-01-4 | Vinyl Chloride | 1 | U |
| 75-00-3 | Chloroethane | 1 | U |
| 75-09-2 | Methylene Chloride | 2 | U |
| 67-64-1 | Acetone | 5 | U |
| 75-15-0 | Carbon Disulfide | 1 | U |
| 75-35-4 | 1,1-Dichloroethene | 1 | U |
| 75-34-3 | 1,1-Dichloroethane | 1 | U |
| 156-59-4 | cis-1,2-Dichloroethene | 1 | U |
| 156-60-5 | trans-1,2-Dichloroethene | 1 | U |
| 67-66-3 | Chloroform | 1 | U |
| 107-06-2 | 1,2-Dichloroethane | 1 | U |
| 78-93-3 | 2-Butanone | 5 | U |
| 74-97-5 | Bromochloromethane | 1 | U |
| 71-55-6 | 1,1,1-Trichloroethane | 1 | U |
| 56-23-5 | Carbon Tetrachloride | 1 | U |
| 75-27-4 | Bromodichloromethane | 1 | U |
| 78-87-5 | 1,2-Dichloropropane | 1 | U |
| 10061-01-5 | cis-1,3-Dichloropropene | 1 | U |
| 79-01-6 | Trichloroethene | 1 | U |
| 124-48-1 | Dibromochloromethane | 1 | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 1 | U |
| 79-00-5 | 1,1,2-Trichloroethane | 1 | U |
| 71-43-2 | Benzene | 1 | U |
| 10061-02-6 | trans-1,3-Dichloropropene | 1 | U |
| 75-25-2 | Bromoform | 1 | U |
| 108-10-1 | 4-Methyl-2-pentanone | 5 | U |
| 591-78-6 | 2-Hexanone | 5 | U |
| 127-18-4 | Tetrachloroethene | 1 | U |
| 106-93-4 | 1,2-Dibromoethane | 1 | U |
| 108-88-3 | Toluene | 1 | U |
| 108-90-7 | Chlorobenzene | 1 | U |
| 100-41-4 | Ethyl Benzene | 1 | U |

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK02

Lab Name: S-CUBED Contract: 68-D9-0135
Lab Code: S3 Case No.: 18642/SAS 6702HQ.: 6702HQ SDG No.: 3226
Matrix: (soil/water) WATER Lab Sample ID: VBW3226-2
Sample wt/vol: 25.00 (g/ml) ML Lab File ID: VAG24
Level: (low/med) LOW Date Received:
%Moisture: not dec. 100.00 Date Analyzed: 8/24/92
GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.00
Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 100-42-5 | Styrene | 1 | U |
| 1330-20-7 | Xylene (total) | 1 | U |
| 541-73-1 | 1,3-Dichlorobenzene | 1 | U |
| 106-46-7 | 1,4-Dichlorobenzene | 1 | U |
| 95-50-1 | 1,2-Dichlorobenzene | 1 | U |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | 1 | U |

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Sample Number
VBLK02

# Organics Analysis Data Sheet
(Page 4)

## Tentatively Identified Compounds

| | CAS Number | Compound Name | Fraction | RT or Scan Number | Estimated Concentration (ug/l or ug/kg) |
|---|---|---|---|---|---|
| 1. | 00541-05-9 | CYCLOTRISILOXANE, HEXAMETHYL- | VOA | 15.03 | 5 JN |
| 2. | 00556-67-2 | CYCLOTETRASILOXANE, OCTAMETHYL- | " | 20.50 | 3 JN |
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1A

# VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ERW22

Lab Name: S-CUBED Contract: 68-D9-0135
Lab Code: S3 Case No.: 18642/SAS 6702HQ.: 6702HQ SDG No.: 3226
Matrix: (soil/water) WATER Lab Sample ID: 3230-01
Sample wt/vol: 25.00(g/ml) ML Lab File ID: ERW22
Level: (low/med) LOW Date Received: 8/19/92
%Moisture: not dec. 100.00 Date Analyzed: 8/23/92
GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.00
Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 74-87-3 | Chloromethane | 1 | J |
| 74-83-9 | Bromomethane | 1 | U |
| 75-01-4 | Vinyl Chloride | 1 | U |
| 75-00-3 | Chloroethane | 1 | U |
| 75-09-2 | Methylene Chloride | 1 ~~0.5~~ | J BU MK 9-23-92 |
| 67-64-1 | Acetone | 2 | J |
| 75-15-0 | Carbon Disulfide | 1 | U |
| 75-35-4 | 1,1-Dichloroethene | 1 | U |
| 75-34-3 | 1,1-Dichloroethane | 1 | U |
| 156-59-4 | cis-1,2-Dichloroethene | 1 | U |
| 156-60-5 | trans-1,2-Dichloroethene | 1 | U |
| 67-66-3 | Chloroform | 1 | U |
| 107-06-2 | 1,2-Dichloroethane | 2 | |
| 78-93-3 | 2-Butanone | 5 | U |
| 74-97-5 | Bromochloromethane | 1 | U |
| 71-55-6 | 1,1,1-Trichloroethane | 1 | U |
| 56-23-5 | Carbon Tetrachloride | 1 | U |
| 75-27-4 | Bromodichloromethane | 1 | U |
| 78-87-5 | 1,2-Dichloropropane | 1 | U |
| 10061-01-5 | cis-1,3-Dichloropropene | 1 | U |
| 79-01-6 | Trichloroethene | 1 | U |
| 124-48-1 | Dibromochloromethane | 1 | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 1 | U |
| 79-00-5 | 1,1,2-Trichloroethane | 1 | U |
| 71-43-2 | Benzene | 1 | U |
| 10061-02-6 | trans-1,3-Dichloropropene | 1 | U |
| 75-25-2 | Bromoform | 1 | U |
| 108-10-1 | 4-Methyl-2-pentanone | 5 | U |
| 591-78-6 | 2-Hexanone | 5 | U |
| 127-18-4 | Tetrachloroethene | 1 | U |
| 106-93-4 | 1,2-Dibromoethane | 1 | U |
| 108-88-3 | Toluene | 0.4 | J |
| 108-90-7 | Chlorobenzene | 1 | U |
| 100-41-4 | Ethyl Benzene | 1 | U |

1A

# VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ERW22

Lab Name: S-CUBED Contract: 68-D9-0135
Lab Code: S3 Case No.: 18642/SAS 6702HQ.: 6702HQ SDG No.: 3226
Matrix: (soil/water) WATER Lab Sample ID: 3230-01
Sample wt/vol: 25.00 (g/ml) ML Lab File ID: ERW22
Level: (low/med) LOW Date Received: 8/19/92
%Moisture: not dec. 100.00 Date Analyzed: 8/23/92
GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.00
Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 100-42-5 | Styrene | 1 | U |
| 1330-20-7 | Xylene (total) | 1 | U |
| 541-73-1 | 1,3-Dichlorobenzene | 1 | U |
| 106-46-7 | 1,4-Dichlorobenzene | 1 | U |
| 95-50-1 | 1,2-Dichlorobenzene | 1 | U |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | 1 | U |

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Sample Number
ERW22

# Organics Analysis Data Sheet
(Page 4)

## Tentatively Identified Compounds

| | CAS Number | Compound Name | Fraction | RT or Scan Number | Estimated Concentration (ug/l or ug/kg) |
|---|---|---|---|---|---|
| 1 | 00541-05-9 | CYCLOTRISILOXANE, HEXAMETHYL- | VOA | 15.04 | 5 JBNV |
| 2 | 00556-67-2 | CYCLOTETRASILOXANE, OCTAMETHYL- | " | 20.50 | 3 JBNV |
| 3. | | | | | ML 9-23-92 |
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1A

# VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ERW23

Lab Name: S-CUBED Contract: 68-D9-0135
Lab Code: S3 Case No.: 18642/SAS 6702HQ.: 6702HQ SDG No.: 3226
Matrix: (soil/water) WATER Lab Sample ID: 3230-02
Sample wt/vol: 25.00 (g/ml) ML Lab File ID: ERW23
Level: (low/med) LOW Date Received: 8/19/92
%Moisture: not dec. 100.00 Date Analyzed: 8/23/92
GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.00
Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 74-87-3 | Chloromethane | 2 | |
| 74-83-9 | Bromomethane | 1 | U |
| 75-01-4 | Vinyl Chloride | 26 | E |
| 75-00-3 | Chloroethane | 1 | U |
| 75-09-2 | Methylene Chloride | 2 | B0MK9-23-92 |
| 67-64-1 | Acetone | 5 | U |
| 75-15-0 | Carbon Disulfide | 1 | U |
| 75-35-4 | 1,1-Dichloroethene | 0.3 | J |
| 75-34-3 | 1,1-Dichloroethane | 1 | |
| 156-59-4 | cis-1,2-Dichloroethene | 2 | |
| 156-60-5 | trans-1,2-Dichloroethene | 130 | E |
| 67-66-3 | Chloroform | 1 | U |
| 107-06-2 | 1,2-Dichloroethane | 3 | |
| 78-93-3 | 2-Butanone | 5 | U |
| 74-97-5 | Bromochloromethane | 1 | U |
| 71-55-6 | 1,1,1-Trichloroethane | 1 | U |
| 56-23-5 | Carbon Tetrachloride | 1 | U |
| 75-27-4 | Bromodichloromethane | 1 | U |
| 78-87-5 | 1,2-Dichloropropane | 1 | U |
| 10061-01-5 | cis-1,3-Dichloropropene | 1 | U |
| 79-01-6 | Trichloroethene | 5 | |
| 124-48-1 | Dibromochloromethane | 1 | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 1 | U |
| 79-00-5 | 1,1,2-Trichloroethane | 1 | U |
| 71-43-2 | Benzene | 1 | U |
| 10061-02-6 | trans-1,3-Dichloropropene | 1 | U |
| 75-25-2 | Bromoform | 1 | U |
| 108-10-1 | 4-Methyl-2-pentanone | 5 | U |
| 591-78-6 | 2-Hexanone | 5 | U |
| 127-18-4 | Tetrachloroethene | 1 | U |
| 106-93-4 | 1,2-Dibromoethane | 1 | U |
| 108-88-3 | Toluene | 0.6 | J |
| 108-90-7 | Chlorobenzene | 1 | U |
| 100-41-4 | Ethyl Benzene | 1 | U |

1A

# VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ERW23

Lab Name: S-CUBED Contract: 68-D9-0135
Lab Code: S3 Case No.: 18642/SAS 6702HQ.: 6702HQ SDG No.: 3226
Matrix: (soil/water) WATER Lab Sample ID: 3230-02
Sample wt/vol: 25.00 (g/ml) ML Lab File ID: ERW23
Level: (low/med) LOW Date Received: 8/19/92
%Moisture: not dec. 100.00 Date Analyzed: 8/23/92
GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.00
Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 100-42-5 | Styrene | 1 | U |
| 1330-20-7 | Xylene (total) | 1 | U |
| 541-73-1 | 1,3-Dichlorobenzene | 1 | U |
| 106-46-7 | 1,4-Dichlorobenzene | 1 | U |
| 95-50-1 | 1,2-Dichlorobenzene | 1 | U |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | 1 | U |

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Sample Number
ERW23

# Organics Analysis Data Sheet
(Page 4)

## Tentatively Identified Compounds

| | CAS Number | Compound Name | Fraction | RT or Scan Number | Estimated Concentration (ug/l or ug/kg) |
|---|---|---|---|---|---|
| 1. | 00541-05-9 | CYCLOTRISILOXANE, HEXAMETHYL- | VOA | 15.07 | 4JBNV |
| 2. | 00556-67-2 | CYCLOTETRASILOXANE, OCTAMETHYL- | " | 20.54 | 3JBNV |
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ERW23DL

Lab Name: S-CUBED Contract: 68-D9-0135
Lab Code: S3 Case No.: 18642/SAS 6702HQ.: 6702HQ SDG No.: 3226
Matrix: (soil/water) WATER Lab Sample ID: 3230-02DL
Sample wt/vol: 25.00(g/ml) ML Lab File ID: DLW23
Level: (low/med) LOW Date Received: 8/19/92
%Moisture: not dec. 100.00 Date Analyzed: 8/24/92
GC Column: CAP ID: 0.53 (mm) Dilution Factor: 10.00
Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 74-87-3 | Chloromethane | 10 | U |
| 74-83-9 | Bromomethane | 10 | U |
| 75-01-4 | Vinyl Chloride | 22 | D |
| 75-00-3 | Chloroethane | 10 | U |
| 75-09-2 | Methylene Chloride | 18 | JD |
| 67-64-1 | Acetone | 13 | JD |
| 75-15-0 | Carbon Disulfide | 10 | U |
| 75-35-4 | 1,1-Dichloroethene | 10 | U |
| 75-34-3 | 1,1-Dichloroethane | 10 | U |
| 156-59-4 | cis-1,2-Dichloroethene | 10 | U |
| 156-60-5 | trans-1,2-Dichloroethene | 100 | D |
| 67-66-3 | Chloroform | 10 | U |
| 107-06-2 | 1,2-Dichloroethane | 4 | JD |
| 78-93-3 | 2-Butanone | 50 | U |
| 74-97-5 | Bromochloromethane | 10 | U |
| 71-55-6 | 1,1,1-Trichloroethane | 10 | U |
| 56-23-5 | Carbon Tetrachloride | 10 | U |
| 75-27-4 | Bromodichloromethane | 10 | U |
| 78-87-5 | 1,2-Dichloropropane | 10 | U |
| 10061-01-5 | cis-1,3-Dichloropropene | 10 | U |
| 79-01-6 | Trichloroethene | 4 | JD |
| 124-48-1 | Dibromochloromethane | 10 | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 10 | U |
| 79-00-5 | 1,1,2-Trichloroethane | 10 | U |
| 71-43-2 | Benzene | 10 | U |
| 10061-02-6 | trans-1,3-Dichloropropene | 10 | U |
| 75-25-2 | Bromoform | 10 | U |
| 108-10-1 | 4-Methyl-2-pentanone | 50 | U |
| 591-78-6 | 2-Hexanone | 50 | U |
| 127-18-4 | Tetrachloroethene | 10 | U |
| 106-93-4 | 1,2-Dibromoethane | 10 | U |
| 108-88-3 | Toluene | 10 | U |
| 108-90-7 | Chlorobenzene | 10 | U |
| 100-41-4 | Ethyl Benzene | 10 | U |

1A

# VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ERW23DL

Lab Name: S-CUBED Contract: 68-D9-0135
Lab Code: S3 Case No.: 18642/SAS 6702HQ.: 6702HQ SDG No.: 3226
Matrix: (soil/water) WATER Lab Sample ID: 3230-02DL
Sample wt/vol: 25.00(g/ml) ML Lab File ID: DLW23
Level: (low/med) LOW Date Received: 8/19/92
%Moisture: not dec. 100.00 Date Analyzed: 8/24/92
GC Column: CAP ID: 0.53 (mm) Dilution Factor: 10.00
Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 100-42-5 | Styrene | 10 | U |
| 1330-20-7 | Xylene (total) | 10 | U |
| 541-73-1 | 1,3-Dichlorobenzene | 10 | U |
| 106-46-7 | 1,4-Dichlorobenzene | 10 | U |
| 95-50-1 | 1,2-Dichlorobenzene | 10 | U |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | 10 | U |

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Sample Number
ERW23BL

# Organics Analysis Data Sheet
(Page 4)

## Tentatively Identified Compounds

| | CAS Number | Compound Name | Fraction | RT or Scan Number | Estimated Concentration (ug/l or ug/kg) |
|---|---|---|---|---|---|
| 1. | 00541-05-9 | CYCLOTRISILOXANE, HEXAMETHYL- | VOA | 15.10 | 42 JBN |
| 2. | 00556-67-2 | CYCLOTETRASILOXANE, OCTAMETHYL- | " | 20.55 | 27 JBN |
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# VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ERW24

Lab Name: S-CUBED Contract: 68-D9-0135
Lab Code: S3 Case No.: 18642/SAS 6702HQ.: 6702HQ SDG No.: 3226
Matrix: (soil/water) WATER Lab Sample ID: 3230-03
Sample wt/vol: 25.00(g/ml) ML Lab File ID: RRW24
Level: (low/med) LOW Date Received: 8/19/92
%Moisture: not dec. 100.00 Date Analyzed: 8/24/92
GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.00
Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 74-87-3 | Chloromethane | 0.5 | J |
| 74-83-9 | Bromomethane | 1 | U |
| 75-01-4 | Vinyl Chloride | 1 | U |
| 75-00-3 | Chloroethane | 1 | U |
| 75-09-2 | Methylene Chloride | 0.9 | J |
| 67-64-1 | Acetone | 5 | U |
| 75-15-0 | Carbon Disulfide | 1 | U |
| 75-35-4 | 1,1-Dichloroethene | 1 | U |
| 75-34-3 | 1,1-Dichloroethane | 1 | U |
| 156-59-4 | cis-1,2-Dichloroethene | 1 | U |
| 156-60-5 | trans-1,2-Dichloroethene | 1 | U |
| 67-66-3 | Chloroform | 1 | U |
| 107-06-2 | 1,2-Dichloroethane | 1 | |
| 78-93-3 | 2-Butanone | 5 | U |
| 74-97-5 | Bromochloromethane | 1 | U |
| 71-55-6 | 1,1,1-Trichloroethane | 1 | U |
| 56-23-5 | Carbon Tetrachloride | 1 | U |
| 75-27-4 | Bromodichloromethane | 1 | U |
| 78-87-5 | 1,2-Dichloropropane | 1 | U |
| 10061-01-5 | cis-1,3-Dichloropropene | 1 | U |
| 79-01-6 | Trichloroethene | 1 | U |
| 124-48-1 | Dibromochloromethane | 1 | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 1 | U |
| 79-00-5 | 1,1,2-Trichloroethane | 1 | U |
| 71-43-2 | Benzene | 1 | U |
| 10061-02-6 | trans-1,3-Dichloropropene | 1 | U |
| 75-25-2 | Bromoform | 1 | U |
| 108-10-1 | 4-Methyl-2-pentanone | 5 | U |
| 591-78-6 | 2-Hexanone | 5 | U |
| 127-18-4 | Tetrachloroethene | 1 | U |
| 106-93-4 | 1,2-Dibromoethane | 1 | U |
| 108-88-3 | Toluene | 0.3 | J |
| 108-90-7 | Chlorobenzene | 1 | U |
| 100-41-4 | Ethyl Benzene | 1 | U |

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ERW24

Lab Name: S-CUBED Contract: 68-D9-0135
Lab Code: S3 Case No.: 18642/SAS 6702HQ.: 6702HQ SDG No.: 3226
Matrix: (soil/water) WATER Lab Sample ID: 3230-03
Sample wt/vol: 25.00 (g/ml) ML Lab File ID: RRW24
Level: (low/med) LOW Date Received: 8/19/92
%Moisture: not dec. 100.00 Date Analyzed: 8/24/92
GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.00
Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 100-42-5 | Styrene | 1 | U |
| 1330-20-7 | Xylene (total) | 1 | U |
| 541-73-1 | 1,3-Dichlorobenzene | 1 | U |
| 106-46-7 | 1,4-Dichlorobenzene | 1 | U |
| 95-50-1 | 1,2-Dichlorobenzene | 1 | U |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | 1 | U |

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Sample Number
ERN24

# Organics Analysis Data Sheet
(Page 4)

## Tentatively Identified Compounds

| | CAS Number | Compound Name | Fraction | RT or Scan Number | Estimated Concentration (ug/l or ug/kg) |
|---|---|---|---|---|---|
| 1. | 00541-05-9 | CYCLOTRISILOXANE, HEXAMETHYL- | VOA | 15.08 | 4 JBNV |
| 2. | 00556-67-2 | CYCLOTETRASILOXANE, OCTAMETHYL- | " | 20.52 | 2 JBNV |
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# VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ERW25

Lab Name: S-CUBED Contract: 68-D9-0135
Lab Code: S3 Case No.: 18642/SAS 6702HQ.: 6702HQ SDG No.: 3226
Matrix: (soil/water) WATER Lab Sample ID: 3230-04
Sample wt/vol: 25.00 g/ml) ML Lab File ID: ERW25
Level: (low/med) LOW Date Received: 8/19/92
%Moisture: not dec. 100.00 Date Analyzed: 8/24/92
GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.00
Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 74-87-3 | Chloromethane | 1 | U |
| 74-83-9 | Bromomethane | 1 | U |
| 75-01-4 | Vinyl Chloride | 26 | E |
| 75-00-3 | Chloroethane | 1 | U |
| 75-09-2 | Methylene Chloride | ~~0.8~~ 1 | JBU MK 9-23-92 |
| 67-64-1 | Acetone | 5 | U |
| 75-15-0 | Carbon Disulfide | 1 | U |
| 75-35-4 | 1,1-Dichloroethene | 0.3 | J |
| 75-34-3 | 1,1-Dichloroethane | 1 | |
| 156-59-4 | cis-1,2-Dichloroethene | 2 | |
| 156-60-5 | trans-1,2-Dichloroethene | 140 | E |
| 67-66-3 | Chloroform | 1 | U |
| 107-06-2 | 1,2-Dichloroethane | 2 | |
| 78-93-3 | 2-Butanone | 5 | U |
| 74-97-5 | Bromochloromethane | 1 | U |
| 71-55-6 | 1,1,1-Trichloroethane | 0.3 | J |
| 56-23-5 | Carbon Tetrachloride | 1 | U |
| 75-27-4 | Bromodichloromethane | 1 | U |
| 78-87-5 | 1,2-Dichloropropane | 1 | U |
| 10061-01-5 | cis-1,3-Dichloropropene | 1 | U |
| 79-01-6 | Trichloroethene | 5 | |
| 124-48-1 | Dibromochloromethane | 1 | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 1 | U |
| 79-00-5 | 1,1,2-Trichloroethane | 1 | U |
| 71-43-2 | Benzene | 1 | U |
| 10061-02-6 | trans-1,3-Dichloropropene | 1 | U |
| 75-25-2 | Bromoform | 1 | U |
| 108-10-1 | 4-Methyl-2-pentanone | 5 | U |
| 591-78-6 | 2-Hexanone | 5 | U |
| 127-18-4 | Tetrachloroethene | 1 | U |
| 106-93-4 | 1,2-Dibromoethane | 1 | U |
| 108-88-3 | Toluene | 0.5 | J |
| 108-90-7 | Chlorobenzene | 1 | U |
| 100-41-4 | Ethyl Benzene | 1 | U |

1A

# VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ERW25

Lab Name: S-CUBED Contract: 68-D9-0135
Lab Code: S3 Case No.: 18642/SAS 6702HQ.: 6702HQ SDG No.: 3226
Matrix: (soil/water) WATER Lab Sample ID: 3230-04
Sample wt/vol: 25.00 g/ml) ML Lab File ID: ERW25
Level: (low/med) LOW Date Received: 8/19/92
%Moisture: not dec. 100.00 Date Analyzed: 8/24/92
GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.00
Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 100-42-5 | Styrene | 1 | U |
| 1330-20-7 | Xylene (total) | 1 | U |
| 541-73-1 | 1,3-Dichlorobenzene | 1 | U |
| 106-46-7 | 1,4-Dichlorobenzene | 1 | U |
| 95-50-1 | 1,2-Dichlorobenzene | 1 | U |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | 1 | U |

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Sample Number
ERW25

# Organics Analysis Data Sheet
(Page 4)

## Tentatively Identified Compounds

| | CAS Number | Compound Name | Fraction | RT or Scan Number | Estimated Concentration (ug/l or ug/kg) |
|---|---|---|---|---|---|
| 1 | 00541-05-9 | CYCLOTRISILOXANE, HEXAMETHYL- | VOA | 15.10 | 4JBNV |
| 2 | 00556-67-2 | CYCLOTETRASILOXANE, OCTAMETHYL- | " | 20.55 | 3JBNV |
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# VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ERW25DL

Lab Name: S-CUBED Contract: 68-D9-0135
Lab Code: S3 Case No.: 18642/SAS 6702HQ.: 6702HQ SDG No.: 3226
Matrix: (soil/water) WATER Lab Sample ID: 3230-04DL
Sample wt/vol: 25.00(g/ml) ML Lab File ID: DLW25
Level: (low/med) LOW Date Received: 8/19/92
%Moisture: not dec. 100.00 Date Analyzed: 8/24/92
GC Column: CAP ID: 0.53 (mm) Dilution Factor: 10.00
Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 74-87-3 | Chloromethane | 10 | U |
| 74-83-9 | Bromomethane | 10 | U |
| 75-01-4 | Vinyl Chloride | 23 | D |
| 75-00-3 | Chloroethane | 10 | U |
| 75-09-2 | Methylene Chloride | 9 | JD |
| 67-64-1 | Acetone | 50 | U |
| 75-15-0 | Carbon Disulfide | 10 | U |
| 75-35-4 | 1,1-Dichloroethene | 10 | U |
| 75-34-3 | 1,1-Dichloroethane | 10 | U |
| 156-59-4 | cis-1,2-Dichloroethene | 10 | U |
| 156-60-5 | trans-1,2-Dichloroethene | 110 | D |
| 67-66-3 | Chloroform | 10 | U |
| 107-06-2 | 1,2-Dichloroethane | 4 | JD |
| 78-93-3 | 2-Butanone | 50 | U |
| 74-97-5 | Bromochloromethane | 10 | U |
| 71-55-6 | 1,1,1-Trichloroethane | 10 | U |
| 56-23-5 | Carbon Tetrachloride | 10 | U |
| 75-27-4 | Bromodichloromethane | 10 | U |
| 78-87-5 | 1,2-Dichloropropane | 10 | U |
| 10061-01-5 | cis-1,3-Dichloropropene | 10 | U |
| 79-01-6 | Trichloroethene | 4 | JD |
| 124-48-1 | Dibromochloromethane | 10 | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 10 | U |
| 79-00-5 | 1,1,2-Trichloroethane | 10 | U |
| 71-43-2 | Benzene | 10 | U |
| 10061-02-6 | trans-1,3-Dichloropropene | 10 | U |
| 75-25-2 | Bromoform | 10 | U |
| 108-10-1 | 4-Methyl-2-pentanone | 50 | U |
| 591-78-6 | 2-Hexanone | 50 | U |
| 127-18-4 | Tetrachloroethene | 10 | U |
| 106-93-4 | 1,2-Dibromoethane | 10 | U |
| 108-88-3 | Toluene | 10 | U |
| 108-90-7 | Chlorobenzene | 10 | U |
| 100-41-4 | Ethyl Benzene | 10 | U |

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

ERW25DL

Lab Name: S-CUBED Contract: 68-D9-0135
Lab Code: S3 Case No.: 18642/SAS 6702HQ.: 6702HQ SDG No.: 3226
Matrix: (soil/water) WATER Lab Sample ID: 3230-04DL
Sample wt/vol: 25.00(g/ml) ML Lab File ID: DLW25
Level: (low/med) LOW Date Received: 8/19/92
%Moisture: not dec. 100.00 Date Analyzed: 8/24/92
GC Column: CAP ID: 0.53 (mm) Dilution Factor: 10.00
Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 100-42-5 | Styrene | 10 | U |
| 1330-20-7 | Xylene (total) | 10 | U |
| 541-73-1 | 1,3-Dichlorobenzene | 10 | U |
| 106-46-7 | 1,4-Dichlorobenzene | 10 | U |
| 95-50-1 | 1,2-Dichlorobenzene | 10 | U |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | 10 | U |

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Sample Number
ERW 25 DL

# Organics Analysis Data Sheet
(Page 4)

## Tentatively Identified Compounds

| | CAS Number | Compound Name | Fraction | RT or Scan Number | Estimated Concentration (ug/l or ug/kg) |
|---|---|---|---|---|---|
| 1. | 00541-05-9 | CYCLOTRISILOXANE, HEXAMETHYL- | VOA | 15.11 | 32 JBN |
| 2. | 00556-67-2 | CYCLOTETRASILOXANE, OCTAMETHYL- | " | 20.55 | 29 JBN |
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2C
WATER SEMIVOLATILE SURROGATE RECOVERY

Lab Name: S-CUBED Contract: 68-D9-0135

Lab Code: S3 Case No.: 18642 SAS No.: 6702HQSDG No.: 3226

| | EPA SAMPLE NO. | S1 NBZ# | S2 FBP# | S3 TPH# | S4 PHL# | S5 2FP# | S6 TBP# | OTHER | TOT OUT |
|---|---|---|---|---|---|---|---|---|---|
| 01 | PS657 | 65 | 59 | 74 | 67 | 73 | 63 | | 0 |
| 02 | ERW23 | 61 | 57 | 70 | 61 | 69 | 64 | | 0 |
| 03 | ERW24 | 68 | 60 | 70 | 64 | 68 | 62 | | 0 |
| 04 | ERW25 | 68 | 65 | 82 | 69 | 72 | 74 | | 0 |
| 05 | SBLK01 | 76 | 66 | 82 | 73 | 81 | 74 | | 0 |
| 06 | SLCS01 | 82 | 70 | 85 | 82 | 83 | 76 | | 0 |

| | | QC LIMITS |
|---|---|---|
| S1 (NBZ) | = Nitrobenzene-d5 | (40-112) |
| S2 (FBP) | = 2-Fluorobiphenyl | (42-110) |
| S3 (TPH) | = Terphenyl-d14 | (24-140) |
| S4 (PHL) | = Phenol-d5 | (17-113) |
| S5 (2FP) | = 2-Fluorophenol | (16-110) |
| S6 (TBP) | = 2,4,6-Tribromophenol | (18-126) |

# Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogate diluted out

3LCB

LOW CONC. WATER SEMIVOLATILE LAB CONTROL SAMPLE RECOVERY

EPA SAMPLE NO.

SLCS01

Lab Name: S-CUBED Contract: 68-D9-0135

Lab Code: S3 Case No.: 18642 SAS No.: 6702 HQ SDG No.: 3226

Lab Sample ID: SLCS01 LCS Lot No.: EL4148

Lab File ID: L820A Date Extracted: 8/20/92

LCS Aliquot: 500 (uL) Date Analyzed: 8/25/92

Concentrated Extract Volume: 1000 (uL) Dilution Factor: 1.0

Injection Volume: 1 (uL) pH: NA

| COMPOUND | AMOUNT ADDED (ng) | AMOUNT RECOVERED (ng) | %REC # | QC LIMITS |
|---|---|---|---|---|
| Phenol | 40000 | 35650 | 89 | 94-120 |
| bis(2-Chloroethyl)ether | 20000 | 19130 | 96 | 64-110 |
| 2-Chlorophenol | 40000 | 37240 | 93 | 58-110 |
| N-Nitroso-di-n-propylamine | 20000 | 15020 | 75 | 34-102 |
| Hexachloroethane | 20000 | 9450 | 47 | 32-77 |
| Isophorone | 20000 | 21270 | 106 | 49-110 |
| 1,2,4-Trichlorobenzene | 20000 | 13760 | 69 | 44-96 |
| Naphthalene | 20000 | 15210 | 76 | 56-140 |
| 4-Chloroaniline | 40000 | 23140 | 58 | 35-98 |
| 2,4,6-Trichlorophenol | 40000 | 34380 | 86 | 65-110 |
| 2,4-Dinitrotoluene | 20000 | 11380 | 57* | 61-140 |
| Diethylphthalate | 20000 | 18740 | 94 | 76-104 |
| N-Nitrosodiphenylamine | 20000 | 17570 | 88 | 35-120 |
| Hexachlorobenzene | 20000 | 18410 | 92 | 30-95 |
| Benzo(a)pyrene | 20000 | 16610 | 83 | 55-92 |

# Column to be used to flag LCS recovery with an asterisk.
* Values outside of QC limits.

LCS Recovery: 1 outside limits out of 15 total.

COMMENTS:

4B

# SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

SBLK01

Lab Name: S-CUBED Contract: 68-D9-0135
Lab Code: S3 Case No.: 18642 SAS No.: 6702 HQSDG No.: 3226
Lab File ID: WB820 Lab Sample ID: EBW0820
Instrument ID: HP1 Date Extracted: 8-20-92
Matrix: (soil/water) WATER Date Analyzed: 8-25-92
Level: (low/med) LOW Time Analyzed: 0122

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

| | EPA SAMPLE NO. | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED |
|---|---|---|---|---|
| 01 | PS657 | 3226-02 | PS657 | 8-25-92 |
| 02 | ERW23 | 3230-02 | ERW23 | 8-25-92 |
| 03 | ERW24 | 3230-03 | ERW24 | 8-25-92 |
| 04 | ERW25 | 3230-04 | ERW25 | 8-25-92 |
| 05 | SLCS01 | LCSW0820 | L820A | 8-25-92 |

COMMENTS: _____

1B

# SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK01

Lab Name: S-CUBED Contract: 68-D9-0135
Lab Code: S3 Case No.: 18642 SAS No.: 6702HQ SDG No.: 3226
Matrix: (soil/water) WATER Lab Sample ID: EBW0820
Sample wt/vol: 1000 (g/ml) ML Lab File ID: WB820
Level: (low/med) LOW Date Received:
%Moisture: 100.00 decanted: (Y/N) N Date Extracted: 8/20/92
Concentrated Extract Volume: 1000.00 (uL) Date Analyzed: 8/25/92
Injection Volume: 1.00 (u/L) Dilution Factor: 1.00
GPC Cleanup: (Y/N) N pH: 0.00

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 108-95-2 | Phenol | 5 | U |
| 111-44-4 | bis(2-Chloroethyl)ether | 5 | U |
| 95-57-8 | 2-Chlorophenol | 5 | U |
| 95-48-7 | 2-Methylphenol | 5 | U |
| 108-60-1 | 2,2'-oxybis(1-Chloropropane) | 5 | U |
| 106-44-5 | 4-Methylphenol | 5 | U |
| 621-64-7 | N-Nitroso-di-n-propylamine | 5 | U |
| 67-72-1 | Hexachloroethane | 5 | U |
| 98-95-3 | Nitrobenzene | 5 | U |
| 78-59-1 | Isophorone | 5 | U |
| 88-75-5 | 2-Nitrophenol | 5 | U |
| 105-67-9 | 2,4-Dimethylphenol | 5 | U |
| 111-91-1 | bis(2-Chloroethoxy)methane | 5 | U |
| 120-83-2 | 2,4-Dichlorophenol | 5 | U |
| 120-82-1 | 1,2,4-Trichlorobenzene | 5 | U |
| 91-20-3 | Naphthalene | 5 | U |
| 106-47-8 | 4-Chloroaniline | 5 | U |
| 87-68-3 | Hexachlorobutadiene | 5 | U |
| 59-50-7 | 4-Chloro-3-methylphenol | 5 | U |
| 91-57-6 | 2-Methylnaphthalene | 5 | U |
| 77-47-4 | Hexachlorocyclopentadiene | 5 | U |
| 88-06-2 | 2,4,6-Trichlorophenol | 5 | U |
| 95-95-4 | 2,4,5-Trichlorophenol | 20 | U |
| 91-58-7 | 2-Chloronaphthalene | 5 | U |
| 88-74-4 | 2-Nitroaniline | 20 | U |
| 131-11-3 | Dimethylphthalate | 5 | U |
| 208-96-8 | Acenaphthylene | 5 | U |
| 606-20-2 | 2,6-Dinitrotoluene | 5 | U |
| 99-09-2 | 3-Nitroaniline | 20 | U |
| 83-32-9 | Acenaphthene | 5 | U |
| 51-28-5 | 2,4-Dinitrophenol | 20 | U |
| 100-02-7 | 4-Nitrophenol | 20 | U |
| 132-64-9 | Dibenzofuran | 5 | U |

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK01

Lab Name: S-CUBED Contract: 68-D9-0135
Lab Code: S3 Case No.: 18642 SAS No.: 6702HQ SDG No.: 3226
Matrix: (soil/water) WATER Lab Sample ID: EBW0820
Sample wt/vol: 1000 (g/ml) ML Lab File ID: WB820
Level: (low/med) LOW Date Received:
%Moisture: 100.00 decanted: (Y/N) N Date Extracted: 8/20/92
Concentrated Extract Volume: 1000.00 (uL) Date Analyzed: 8/25/92
Injection Volume: 1.00 (u/L) Dilution Factor: 1.00
GPC Cleanup: (Y/N) N pH: 0.00

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

Environmental Protection Agency. CLP Sample Management Office.
P. O. Box 818. Alexandria, Virginia 22313 703/557-2490

Sample Number
SBLK01

# Organics Analysis Data Sheet
(Page 4)

## Tentatively Identified Compounds

| | CAS Number | Compound Name | Fraction | RT or Scan Number | Estimated Concentration (ug/l or ug/kg) |
|---|---|---|---|---|---|
| 1. | | NO TIC'S FOUND | BNA | | |
| 2. | | | | | |
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1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ERW23

Lab Name: S-CUBED Contract: 68-D9-0135
Lab Code: S3 Case No.: 18642 SAS No.: 6702HQ SDG No.: 3226
Matrix: (soil/water) WATER Lab Sample ID: 3230-02
Sample wt/vol: 1000 (g/ml) ML Lab File ID: ERW23
Level: (low/med) LOW Date Received: 8/19/92
%Moisture: 100.00 decanted: (Y/N) N Date Extracted: 8/20/92
Concentrated Extract Volume: 1000.00 (uL) Date Analyzed: 8/25/92
Injection Volume: 1.00 (u/L) Dilution Factor: 1.00
GPC Cleanup: (Y/N) N pH: 0.00

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 108-95-2 | Phenol | 5 | U |
| 111-44-4 | bis(2-Chloroethyl)ether | 5 | U |
| 95-57-8 | 2-Chlorophenol | 5 | U |
| 95-48-7 | 2-Methylphenol | 5 | U |
| 108-60-1 | 2,2'-oxybis(1-Chloropropane) | 5 | U |
| 106-44-5 | 4-Methylphenol | 5 | U |
| 621-64-7 | N-Nitroso-di-n-propylamine | 5 | U |
| 67-72-1 | Hexachloroethane | 5 | U |
| 98-95-3 | Nitrobenzene | 5 | U |
| 78-59-1 | Isophorone | 5 | U |
| 88-75-5 | 2-Nitrophenol | 5 | U |
| 105-67-9 | 2,4-Dimethylphenol | 5 | U |
| 111-91-1 | bis(2-Chloroethoxy)methane | 5 | U |
| 120-83-2 | 2,4-Dichlorophenol | 5 | U |
| 120-82-1 | 1,2,4-Trichlorobenzene | 5 | U |
| 91-20-3 | Naphthalene | 5 | U |
| 106-47-8 | 4-Chloroaniline | 5 | U |
| 87-68-3 | Hexachlorobutadiene | 5 | U |
| 59-50-7 | 4-Chloro-3-methylphenol | 5 | U |
| 91-57-6 | 2-Methylnaphthalene | 5 | U |
| 77-47-4 | Hexachlorocyclopentadiene | 5 | U |
| 88-06-2 | 2,4,6-Trichlorophenol | 5 | U |
| 95-95-4 | 2,4,5-Trichlorophenol | 20 | U |
| 91-58-7 | 2-Chloronaphthalene | 5 | U |
| 88-74-4 | 2-Nitroaniline | 20 | U |
| 131-11-3 | Dimethylphthalate | 5 | U |
| 208-96-8 | Acenaphthylene | 5 | U |
| 606-20-2 | 2,6-Dinitrotoluene | 5 | U |
| 99-09-2 | 3-Nitroaniline | 20 | U |
| 83-32-9 | Acenaphthene | 5 | U |
| 51-28-5 | 2,4-Dinitrophenol | 20 | U |
| 100-02-7 | 4-Nitrophenol | 20 | U |
| 132-64-9 | Dibenzofuran | 5 | U |

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ERW23

Lab Name: S-CUBED Contract: 68-D9-0135
Lab Code: S3 Case No.: 18642 SAS No.: 6702HQ SDG No.: 3226
Matrix: (soil/water) WATER Lab Sample ID: 3230-02
Sample wt/vol: 1000 (g/ml) ML Lab File ID: ERW23
Level: (low/med) LOW Date Received: 8/19/92
%Moisture: 100.00 decanted: (Y/N) N Date Extracted: 8/20/92
Concentrated Extract Volume:1000.00 (uL) Date Analyzed: 8/25/92
Injection Volume: 1.00 (u/L) Dilution Factor: 1.00
GPC Cleanup: (Y/N) N pH: 0.00

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

Environmental Protection Agency, CLP Sample Management Office,
P. O. Box 818, Alexandria, Virginia 22313 703/557-2490

Sample Number
ERN23

# Organics Analysis Data Sheet
(Page 4)

## Tentatively Identified Compounds

| | CAS Number | Compound Name | Fraction | RT or Scan Number | Estimated Concentration (ug/l or ug/kg) |
|---|---|---|---|---|---|
| 1. | | NO TIC'S FOUND | BNA | | |
| 2. | | | | | |
| 3. | | | | | |
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1B

# SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ERW24

Lab Name: S-CUBED Contract: 68-D9-0135
Lab Code: S3 Case No.: 18642 SAS No.: 6702HQ SDG No.: 3226
Matrix: (soil/water) WATER Lab Sample ID: 3230-03
Sample wt/vol: 1000 (g/ml) ML Lab File ID: ERW24
Level: (low/med) LOW Date Received: 8/19/92
%Moisture: 100.00 decanted: (Y/N) N Date Extracted: 8/20/92
Concentrated Extract Volume: 1000.00 (uL) Date Analyzed: 8/25/92
Injection Volume: 1.00 (u/L) Dilution Factor: 1.00
GPC Cleanup: (Y/N) N pH: 0.00

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 108-95-2 | Phenol | 5 | U |
| 111-44-4 | bis(2-Chloroethyl)ether | 5 | U |
| 95-57-8 | 2-Chlorophenol | 5 | U |
| 95-48-7 | 2-Methylphenol | 5 | U |
| 108-60-1 | 2,2'-oxybis(1-Chloropropane) | 5 | U |
| 106-44-5 | 4-Methylphenol | 5 | U |
| 621-64-7 | N-Nitroso-di-n-propylamine | 5 | U |
| 67-72-1 | Hexachloroethane | 5 | U |
| 98-95-3 | Nitrobenzene | 5 | U |
| 78-59-1 | Isophorone | 5 | U |
| 88-75-5 | 2-Nitrophenol | 5 | U |
| 105-67-9 | 2,4-Dimethylphenol | 5 | U |
| 111-91-1 | bis(2-Chloroethoxy)methane | 5 | U |
| 120-83-2 | 2,4-Dichlorophenol | 5 | U |
| 120-82-1 | 1,2,4-Trichlorobenzene | 5 | U |
| 91-20-3 | Naphthalene | 5 | U |
| 106-47-8 | 4-Chloroaniline | 5 | U |
| 87-68-3 | Hexachlorobutadiene | 5 | U |
| 59-50-7 | 4-Chloro-3-methylphenol | 5 | U |
| 91-57-6 | 2-Methylnaphthalene | 5 | U |
| 77-47-4 | Hexachlorocyclopentadiene | 5 | U |
| 88-06-2 | 2,4,6-Trichlorophenol | 5 | U |
| 95-95-4 | 2,4,5-Trichlorophenol | 20 | U |
| 91-58-7 | 2-Chloronaphthalene | 5 | U |
| 88-74-4 | 2-Nitroaniline | 20 | U |
| 131-11-3 | Dimethylphthalate | 5 | U |
| 208-96-8 | Acenaphthylene | 5 | U |
| 606-20-2 | 2,6-Dinitrotoluene | 5 | U |
| 99-09-2 | 3-Nitroaniline | 20 | U |
| 83-32-9 | Acenaphthene | 5 | U |
| 51-28-5 | 2,4-Dinitrophenol | 20 | U |
| 100-02-7 | 4-Nitrophenol | 20 | U |
| 132-64-9 | Dibenzofuran | 5 | U |

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ERW24

Lab Name: S-CUBED Contract: 68-D9-0135
Lab Code: S3 Case No.: 18642 SAS No.: 6702HQ SDG No.: 3226
Matrix: (soil/water) WATER Lab Sample ID: 3230-03
Sample wt/vol: 1000 (g/ml) ML Lab File ID: ERW24
Level: (low/med) LOW Date Received: 8/19/92
%Moisture: 100.00 decanted: (Y/N) N Date Extracted: 8/20/92
Concentrated Extract Volume: 1000.00 (uL) Date Analyzed: 8/25/92
Injection Volume: 1.00 (u/L) Dilution Factor: 1.00
GPC Cleanup: (Y/N) N pH: 0.00

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

Environmental Protection Agency. CLP Sample Management Office.
P. O. Box 818, Alexandria, Virginia 22313 703/557-2490

Sample Number
ERW24

# Organics Analysis Data Sheet
(Page 4)

## Tentatively Identified Compounds

| | CAS Number | Compound Name | Fraction | RT or Scan Number | Estimated Concentration (ug/l or ug/kg) |
|---|---|---|---|---|---|
| 1. | 000064-17-5 | ETHANOL, 2,2'-[OXYBIS(2,1-ETHANE | BNA | 21,78 | 25JN |
| 2. | 000112-27-6 | TRIETHYLENE GLYCOL | " | 26.05 | 17JN |
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1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ERW25

Lab Name: S-CUBED Contract: 68-D9-0135
Lab Code: S3 Case No.: 18642 SAS No.: 6702HQ SDG No.: 3226
Matrix: (soil/water) WATER Lab Sample ID: 3230-04
Sample wt/vol: 1000 (g/ml) ML Lab File ID: ERW25
Level: (low/med) LOW Date Received: 8/19/92
%Moisture: 100.00 decanted: (Y/N) N Date Extracted: 8/20/92
Concentrated Extract Volume: 1000.00 (uL) Date Analyzed: 8/25/92
Injection Volume: 1.00 (u/L) Dilution Factor: 1.00
GPC Cleanup: (Y/N) N pH: 0.00

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 108-95-2 | Phenol | 5 | U |
| 111-44-4 | bis(2-Chloroethyl)ether | 5 | U |
| 95-57-8 | 2-Chlorophenol | 5 | U |
| 95-48-7 | 2-Methylphenol | 5 | U |
| 108-60-1 | 2,2'-oxybis(1-Chloropropane) | 5 | U |
| 106-44-5 | 4-Methylphenol | 5 | U |
| 621-64-7 | N-Nitroso-di-n-propylamine | 5 | U |
| 67-72-1 | Hexachloroethane | 5 | U |
| 98-95-3 | Nitrobenzene | 5 | U |
| 78-59-1 | Isophorone | 5 | U |
| 88-75-5 | 2-Nitrophenol | 5 | U |
| 105-67-9 | 2,4-Dimethylphenol | 5 | U |
| 111-91-1 | bis(2-Chloroethoxy)methane | 5 | U |
| 120-83-2 | 2,4-Dichlorophenol | 5 | U |
| 120-82-1 | 1,2,4-Trichlorobenzene | 5 | U |
| 91-20-3 | Naphthalene | 5 | U |
| 106-47-8 | 4-Chloroaniline | 5 | U |
| 87-68-3 | Hexachlorobutadiene | 5 | U |
| 59-50-7 | 4-Chloro-3-methylphenol | 5 | U |
| 91-57-6 | 2-Methylnaphthalene | 5 | U |
| 77-47-4 | Hexachlorocyclopentadiene | 5 | U |
| 88-06-2 | 2,4,6-Trichlorophenol | 5 | U |
| 95-95-4 | 2,4,5-Trichlorophenol | 20 | U |
| 91-58-7 | 2-Chloronaphthalene | 5 | U |
| 88-74-4 | 2-Nitroaniline | 20 | U |
| 131-11-3 | Dimethylphthalate | 5 | U |
| 208-96-8 | Acenaphthylene | 5 | U |
| 606-20-2 | 2,6-Dinitrotoluene | 5 | U |
| 99-09-2 | 3-Nitroaniline | 20 | U |
| 83-32-9 | Acenaphthene | 5 | U |
| 51-28-5 | 2,4-Dinitrophenol | 20 | U |
| 100-02-7 | 4-Nitrophenol | 20 | U |
| 132-64-9 | Dibenzofuran | 5 | U |

1C

# SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ERW25

Lab Name: S-CUBED Contract: 68-D9-0135
Lab Code: S3 Case No.: 18642 SAS No.: 6702HQ SDG No.: 3226
Matrix: (soil/water) WATER Lab Sample ID: 3230-04
Sample wt/vol: 1000 (g/ml) ML Lab File ID: ERW25
Level: (low/med) LOW Date Received: 8/19/92
%Moisture: 100.00 decanted: (Y/N) N Date Extracted: 8/20/92
Concentrated Extract Volume: 1000.00 (uL) Date Analyzed: 8/25/92
Injection Volume: 1.00 (u/L) Dilution Factor: 1.00
GPC Cleanup: (Y/N) N pH: 0.00

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

Environmental Protection Agency. CLP Sample Management Office.
P. O. Box 818, Alexandria, Virginia 22313 703/557-2490

Sample Number
EDW25

# Organics Analysis Data Sheet
(Page 4)

## Tentatively Identified Compounds

| | CAS Number | Compound Name | Fraction | RT or Scan Number | Estimated Concentration (ug/l or ug/kg) |
|---|---|---|---|---|---|
| 1. | | NO TIC'S FOUND | BNA | | |
| 2. | | | | | |
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2E

# WATER PESTICIDE SURROGATE RECOVERY

Lab Name: S-CUBED Contract: 68-D9-0135

Lab Code: S3 Case No.: 18642 SAS No.: 6702HQSDG No.: 3226

GC Column(1): DB608 ID: 0.53 (mm) GC Column(2): DB1701 ID: 0.53 (mm)

| | EPA SAMPLE NO. | TCX 1 %REC # | TCX 2 %REC # | DCB 1 %REC # | DCB 2 %REC # | OTHER (1) | OTHER (2) | TOT OUT |
|---|---|---|---|---|---|---|---|---|
| 01 | PR376 | 87.3 | 95.3 | 134 | 115 | | | 0 |
| 02 | ERW23 | 73.8 | 89.3 | 99.1 | 84.0 | | | 0 |
| 03 | ERW24 | 80.2 | 82.6 | 112 | 98.2 | | | 0 |
| 04 | ERW25 | 85.1 | 97.2 | 92.9 | 79.9 | | | 0 |
| 05 | PBLK01 | 65.4 | 70.3 | 103 | 88.4 | | | 0 |
| 06 | PLCS01 | 77.4 | 81.8 | 117 | 99.2 | | | 0 |

| | ADVISORY QC LIMITS |
|---|---|
| TCX = Tetrachloro-m-xylene | (60-150) |
| DCB = Decachlorobiphenyl | (60-150) |

\# Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogate diluted out

3LCC

# LOW CONC. WATER PESTICIDE LAB CONTROL SAMPLE RECOVERY

Lab Name: S-CUBED Contract:68-D9-0135

Lab Code: S3 Case No.:18642 SAS No.:6702HQ SDG No.:3226

Lab Sample ID:LCSW0820 LCS Lot. No.:EL4121

LCS Aliquot:500 (uL) Date Extracted:08/20/92

Concentrated Extract Volume: 2000 (uL) Date Analyzed:08/26/92

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

Sulfur Cleanup: (Y/N) N pH:N/A

Instrument ID(1):9HP5890 GC Column(1): DB608 ID: 0.53 (mm)

| COMPOUND | AMOUNT ADDED (ng) | AMOUNT RECOVERED (ng) | %REC # | QC LIMITS REC. |
|---|---|---|---|---|
| gamma-BHC (Lindane) | 100 | 101 | 101 | 56-123 |
| Heptachlor epoxide | 100 | 105 | 105 | 74-150 |
| Dieldrin | 200 | 232 | 116 | 33-130 |
| 4,4'-DDE | 200 | 224 | 112 | 50-150 |
| Endrin | 200 | 214 | 107 | 56-121 |
| Endosulfan sulfate | 200 | 206 | 103 | 50-100 |
| gamma-Chlordane | 100 | 104 | 104 | 33-130 |

Instrument ID(2):9HP5890 GC Column(2): DB1701 ID: 0.53 (mm)

| COMPOUND | AMOUNT ADDED (ng) | AMOUNT RECOVERED (ng) | %REC # | QC LIMITS REC. |
|---|---|---|---|---|
| gamma-BHC (Lindane) | 100 | 90.2 | 90.2 | 56-123 |
| Heptachlor epoxide | 100 | 96.6 | 96.6 | 74-150 |
| Dieldrin | 200 | 204 | 102 | 33-130 |
| 4,4'-DDE | 200 | 210 | 105 | 50-150 |
| Endrin | 200 | 190 | 95.0 | 56-121 |
| Endosulfan sulfate | 200 | 165 | 82.5 | 50-100 |
| gamma-Chlordane | 100 | 89.6 | 89.6 | 33-130 |

# Column to be used to flag recovery values with an asterisk.
* Values outside of QC limits.
LCS Recovery: 0 outside limits out of 14 total.

4C

# PESTICIDE METHOD BLANK SUMMARY

EPA SAMPLE NO.

PBLK01

Lab Name: S-CUBED Contract: 68-D9-0135
Lab Code: S3 Case No.: 18642 SAS No.: 6702 HQSDG No.: 3226
Lab File ID: EBW0820 Lab Sample ID: R0819-9DB608145
Matrix: (soil/water) WATER Extraction: (SepF/Cont/Sonc) CONT
Sulfur Cleanup: (Y/N) N Date Extracted: 8-20-92
Date Analyzed (1): 8-26-92 Date Analyzed (2): 8-26-92
Time Analyzed (1): 0043 Time Analyzed (2): 0124
Instrument ID (1): 9 Instrument ID (2): 9
GC Column(1): DB608 ID: 0.53 (mm) GC Column(2): DB1701 ID: 0.53 (mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

| | EPA SAMPLE NO. | LAB SAMPLE ID | DATE ANALYZED 1 | DATE ANALYZED 2 |
|---|---|---|---|---|
| 01 | PR376 | 3226-03 | 8-26-92 | 8-26-92 |
| 02 | ERW23 | 3230-02 | 8-26-92 | 8-26-92 |
| 03 | ERW24 | 3230-03 | 8-26-92 | 8-26-92 |
| 04 | ERW25 | 3230-04 | 8-26-92 | 8-26-92 |
| 05 | PLCS01 | LCSW0820 | 8-26-92 | 8-26-92 |

COMMENTS: _____

1D

# PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PBLK01

Lab Name: S-CUBED Contract: 68-D9-0135
Lab Code: S3 Case No.: 18642 SAS No.: 6702HQ SDG No.: 3226
Matrix: (soil/water) WATER Lab Sample ID: EBW0820
Sample wt/vol: 1000 (g/ml) ML Lab File ID: R0819-9DB608145
%Moisture: 0.00 decanted: (Y/N) N Date Received:
Extraction: (SepF/Cont/Sonc) CONT Date Extracted: 8/20/92
Concentrated Extract Volume: 2000 (uL) Date Analyzed: 8-26-92
Injection Volume: 1.00 (uL) Dilution Factor: 1.00
GPC Cleanup: (Y/N) N pH: 0.00 Sulfur Cleanup: (Y/N) N

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 319-84-6 | alpha-BHC | 0.010 | U |
| 319-85-7 | beta-BHC | 0.010 | U |
| 319-86-8 | delta-BHC | 0.010 | U |
| 58-89-9 | gamma-BHC (Lindane) | 0.010 | U |
| 76-44-8 | Heptachlor | 0.010 | U |
| 309-00-2 | Aldrin | 0.010 | U |
| 1024-57-3 | Heptachlor epoxide | 0.010 | U |
| 959-98-8 | Endosulfan I | 0.010 | U |
| 60-57-1 | Dieldrin | 0.020 | U |
| 72-55-9 | 4,4'-DDE | 0.020 | U |
| 72-20-8 | Endrin | 0.020 | U |
| 33213-65-9 | Endosulfan II | 0.020 | U |
| 72-54-8 | 4,4'-DDD | 0.020 | U |
| 1031-07-8 | Endosulfan sulfate | 0.020 | U |
| 50-29-3 | 4,4'-DDT | 0.020 | U |
| 72-43-5 | Methoxychlor | 0.100 | U |
| 53494-70-5 | Endrin ketone | 0.020 | U |
| 7421-36-3 | Endrin Aldehyde | 0.020 | U |
| 5103-71-9 | alpha-Chlordane | 0.010 | U |
| 5103-74-2 | gamma-Chlordane | 0.010 | U |
| 8001-35-2 | Toxaphene | 1.00 | U |
| 12674-11-2 | Aroclor-1016 | 0.200 | U |
| 11104-28-2 | Aroclor-1221 | 0.200 | U |
| 11141-16-5 | Aroclor-1232 | 0.400 | U |
| 53469-21-9 | Aroclor-1242 | 0.200 | U |
| 12672-29-6 | Aroclor-1248 | 0.200 | U |
| 11097-69-1 | Aroclor-1254 | 0.200 | U |
| 11096-82-5 | Aroclor-1260 | 0.200 | U |

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# PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ERW23

Lab Name: S-CUBED Contract: 68-D9-0135
Lab Code: S3 Case No.: 18642 SAS No.: 6702HQ SDG No.: 3226
Matrix: (soil/water) WATER Lab Sample ID: 3230-02
Sample wt/vol: 1000 (g/ml) ML Lab File ID: R0819-9DB608149
%Moisture: 100.00 decanted: (Y/N) N Date Received: 8/19/92
Extraction: (SepF/Cont/Sonc) CONT Date Extracted: 8/20/92
Concentrated Extract Volume: 2000 (uL) Date Analyzed: 8-26-92
Injection Volume: 1.00 (uL) Dilution Factor: 1.00
GPC Cleanup: (Y/N) N pH: 0.00 Sulfur Cleanup: (Y/N) N

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 319-84-6 | alpha-BHC | 0.010 | U |
| 319-85-7 | beta-BHC | 0.010 | U |
| 319-86-8 | delta-BHC | 0.010 | U |
| 58-89-9 | gamma-BHC (Lindane) | 0.010 | U |
| 76-44-8 | Heptachlor | 0.010 | U |
| 309-00-2 | Aldrin | 0.010 | U |
| 1024-57-3 | Heptachlor epoxide | 0.010 | U |
| 959-98-8 | Endosulfan I | 0.010 | U |
| 60-57-1 | Dieldrin | 0.020 | U |
| 72-55-9 | 4,4'-DDE | 0.020 | U |
| 72-20-8 | Endrin | 0.020 | U |
| 33213-65-9 | Endosulfan II | 0.020 | U |
| 72-54-8 | 4,4'-DDD | 0.020 | U |
| 1031-07-8 | Endosulfan sulfate | 0.020 | U |
| 50-29-3 | 4,4'-DDT | 0.020 | U |
| 72-43-5 | Methoxychlor | 0.100 | U |
| 53494-70-5 | Endrin ketone | 0.020 | U |
| 7421-36-3 | Endrin Aldehyde | 0.020 | U |
| 5103-71-9 | alpha-Chlordane | 0.010 | U |
| 5103-74-2 | gamma-Chlordane | 0.010 | U |
| 8001-35-2 | Toxaphene | 1.00 | U |
| 12674-11-2 | Aroclor-1016 | 0.200 | U |
| 11104-28-2 | Aroclor-1221 | 0.200 | U |
| 11141-16-5 | Aroclor-1232 | 0.400 | U |
| 53469-21-9 | Aroclor-1242 | 0.200 | U |
| 12672-29-6 | Aroclor-1248 | 0.200 | U |
| 11097-69-1 | Aroclor-1254 | 0.200 | U |
| 11096-82-5 | Aroclor-1260 | 0.200 | U |

1D

# PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ERW24

Lab Name: S-CUBED Contract: 68-D9-0135
Lab Code: S3 Case No.: 18642 SAS No.: 6702HQ SDG No.: 3226
Matrix: (soil/water) WATER Lab Sample ID: 3230-03
Sample wt/vol: 1000 (g/ml) ML Lab File ID: R0819-9DB608150
%Moisture: 100.00 decanted: (Y/N) N Date Received: 8/19/92
Extraction: (SepF/Cont/Sonc) CONT Date Extracted: 8/20/92
Concentrated Extract Volume: 2000 (uL) Date Analyzed: 8-26-92
Injection Volume: 1.00 (uL) Dilution Factor: 1.00
GPC Cleanup: (Y/N) N pH: 0.00 Sulfur Cleanup: (Y/N) N

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 319-84-6 | alpha-BHC | 0.010 | U |
| 319-85-7 | beta-BHC | 0.010 | U |
| 319-86-8 | delta-BHC | 0.010 | U |
| 58-89-9 | gamma-BHC (Lindane) | 0.010 | U |
| 76-44-8 | Heptachlor | 0.010 | U |
| 309-00-2 | Aldrin | 0.010 | U |
| 1024-57-3 | Heptachlor epoxide | 0.010 | U |
| 959-98-8 | Endosulfan I | 0.010 | U |
| 60-57-1 | Dieldrin | 0.020 | U |
| 72-55-9 | 4,4'-DDE | 0.020 | U |
| 72-20-8 | Endrin | 0.020 | U |
| 33213-65-9 | Endosulfan II | 0.020 | U |
| 72-54-8 | 4,4'-DDD | 0.020 | U |
| 1031-07-8 | Endosulfan sulfate | 0.020 | U |
| 50-29-3 | 4,4'-DDT | 0.020 | U |
| 72-43-5 | Methoxychlor | 0.100 | U |
| 53494-70-5 | Endrin ketone | 0.020 | U |
| 7421-36-3 | Endrin Aldehyde | 0.020 | U |
| 5103-71-9 | alpha-Chlordane | 0.010 | U |
| 5103-74-2 | gamma-Chlordane | 0.010 | U |
| 8001-35-2 | Toxaphene | 1.00 | U |
| 12674-11-2 | Aroclor-1016 | 0.200 | U |
| 11104-28-2 | Aroclor-1221 | 0.200 | U |
| 11141-16-5 | Aroclor-1232 | 0.400 | U |
| 53469-21-9 | Aroclor-1242 | 0.200 | U |
| 12672-29-6 | Aroclor-1248 | 0.200 | U |
| 11097-69-1 | Aroclor-1254 | 0.200 | U |
| 11096-82-5 | Aroclor-1260 | 0.200 | U |

1D

# PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ERW25

Lab Name: S-CUBED Contract: 68-D9-0135
Lab Code: S3 Case No.: 18642 SAS No.: 6702HQ SDG No.: 3226
Matrix: (soil/water) WATER Lab Sample ID: 3230-04
Sample wt/vol: 1000 (g/ml) ML Lab File ID: R0819-9DB608151
%Moisture: 100.00 decanted: (Y/N) N Date Received: 8/19/92
Extraction: (SepF/Cont/Sonc) CONT Date Extracted: 8/20/92
Concentrated Extract Volume: 2000 (uL) Date Analyzed: 8-26-92
Injection Volume: 1.00 (uL) Dilution Factor: 1.00
GPC Cleanup: (Y/N) N pH: 0.00 Sulfur Cleanup: (Y/N) N

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 319-84-6 | alpha-BHC | 0.010 | U |
| 319-85-7 | beta-BHC | 0.010 | U |
| 319-86-8 | delta-BHC | 0.010 | U |
| 58-89-9 | gamma-BHC (Lindane) | 0.010 | U |
| 76-44-8 | Heptachlor | 0.010 | U |
| 309-00-2 | Aldrin | 0.010 | U |
| 1024-57-3 | Heptachlor epoxide | 0.010 | U |
| 959-98-8 | Endosulfan I | 0.010 | U |
| 60-57-1 | Dieldrin | 0.020 | U |
| 72-55-9 | 4,4'-DDE | 0.020 | U |
| 72-20-8 | Endrin | 0.020 | U |
| 33213-65-9 | Endosulfan II | 0.020 | U |
| 72-54-8 | 4,4'-DDD | 0.020 | U |
| 1031-07-8 | Endosulfan sulfate | 0.020 | U |
| 50-29-3 | 4,4'-DDT | 0.020 | U |
| 72-43-5 | Methoxychlor | 0.100 | U |
| 53494-70-5 | Endrin ketone | 0.020 | U |
| 7421-36-3 | Endrin Aldehyde | 0.020 | U |
| 5103-71-9 | alpha-Chlordane | 0.010 | U |
| 5103-74-2 | gamma-Chlordane | 0.010 | U |
| 8001-35-2 | Toxaphene | 1.00 | U |
| 12674-11-2 | Aroclor-1016 | 0.200 | U |
| 11104-28-2 | Aroclor-1221 | 0.200 | U |
| 11141-16-5 | Aroclor-1232 | 0.400 | U |
| 53469-21-9 | Aroclor-1242 | 0.200 | U |
| 12672-29-6 | Aroclor-1248 | 0.200 | U |
| 11097-69-1 | Aroclor-1254 | 0.200 | U |
| 11096-82-5 | Aroclor-1260 | 0.200 | U |

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

ESD Central Regional Laboratory
Data Tracking Form for Contract Samples

Data Set No. _____ CERCLIS No. (IN)

Case No. 186425AS6720H Site Name Location: SAmyo

Contractor or EPA Lab: S-cubed Data User: Weston

No. of Samples: 4 Date Samples or Data Received: Sept 2, 1992

Have Chain-of-Custody records been received? YES ✓ NO ____
Have traffic reports or packing lists been received? YES ✓ NO ____
If no, are traffic report or packing list numbers written on the chain-of-custody record? YES ____ NO ____
If no, which traffic report or packing list numbers are missing?

Are basic data forms in? YES ✓ NO ____
No. of samples claimed: 4 No. of samples received: 4

Received by: A. D. Harris Date: Sept 2, 1992

Received by LSSS: DMM Date: 9-2-92

Review started: 9-23-92 Reviewer Signature: M Kneel

Total time spent on review: 8 Date review completed: 9-24-92

Copied by: Eric Miller Date: 10-13-92

Mailed to user by: Lynette Burnett Date: 10-13-92

DATA USERS:
Please fill in the blanks below and return this form to:
Sylvia Griffin, Data Mgmt. Coordinator, Region V, 5SCRL

Data received by: _____ Date: _____

Data review received by: _____ Date: _____
Inorganic Data Complete[ ] Suitable for Intended Purpose[ ] ✓ if OK
Organic Data Complete [ ] Suitable for Intended Purpose[ ] list
Dioxin Data Complete [ ] Suitable for Intended Purpose[ ] prblms
SAS Data Complete [ ] Suitable for Intended Purpose[ ] below.
PROBLEMS: Please indicate reasons why data are not suitable for your uses.

Received by Data Mgmt. Coordinator for Files Date: _____

DM 1B1 IDEM cuk

DESIGN & MANUFACTURING CORPORATION
QUALITY FIRST- Because We Care

CONNERSVILLE, IND.

INSTRUCTIONS FOR PERSONS HANDLING WASTE HAZARDOUS MATERIAL
F-005 WASTE PAINT RELATED MATERIAL

F-003 WASTE XYLOL

T F 1. USE ORDINARY SAFETY PRECAUTIONS WHEN HANDLING WASTE HAZARDOUS MATERIAL
   A. WEAR SAFETY EQUIPMENT
   B. DO NOT SMOKE OR GENERATE ANY SPARKS IN THE AREA
   C. GROUND DRUMS AND SERVICE CONTAINERS THAT ARE BEING USED

T F 2. IF A LEAK DEVELOPES, YOU SHOULD:
   A. STOP LEAK
   B. NOTIFY A TRAINED SUPERVISOR
   C. CLEAN UP SPILL

T F 3. IN FILLING A DRUM WITH WASTE HAZARDOUS MATERIAL, YOU SHOULD:
   A. USE AN EMPTY DRUM THAT HAS HELD A SIMILAR MATERIAL
   B. CHECK THE DRUM TO SEE THAT IT IS IN A SAFE CONDITION
   C. NOTIFY A TRAINED SUPERVISOR THAT YOU WILL BE FILLING A DRUM. THE TRAINED SUPERVISOR WILL LABEL THE DRUM AT THIS TIME.
   D. OPEN LARGE BUNG AND INSERT THE FUNNEL
   E. PLACE THE WASTE HAZARDOUS MATERIAL INTO THE DRUM AND RESEAL

T F 4. MOVE FILLED DRUMS TO DESIGNATED AREAS WITH THE LABELS TO THE FRONT

T F 5. IF A HAZARDOUS SITUATION IS DEVELOPING, NOTIFY A TRAINED SUPERVISOR.

SIGNED BY PERSONNEL WORKING WITH HAZARDOUS MATERIAL

[signature]

HAZARDOUS WASTE PERSONNEL TRAINING RECORD

TRAINING CONDUCTED DEC. 13, 1984 AT CONNERSVILLE PLANT

INCLUDED THE FOLLOWING PERSONNEL:

WILLIAM HARTMAN, MAINTAINANCE SUPERVISOR RICHMOND PLANT

MIKE ROSENBURGER, PAINT SUPERVISOR RICHMOND PLANT D&M

TRAINING CONDUCTED MARCH 28, 1985 AT THE RICHMOND PLANT D&M INCLUDE THE FOLLOWING:

JACK MITCHELL, PRODUCTION SUPERVISOR D&M RICHMOND

GARRY TEEGARDEN, PLANT MANAGER ABSOCOLD

GENE VECERA, SHIPPING AND RECIEVING SUPERVISOR, ABSOCOLD

Form Approved OMB No 2000-0404. Expires 7-31-88

# UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No: 087032297 IND
Manifest Document No: AAS-05
2. Page 1 of 1
Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
Abbocold Corp
P.O. Box 1545 , Richmond IN 47374
Richmond, IN 317) 935-7501

A. State Manifest Document Number
B. State Generator's ID

4. Transporter 1 Company Name: Chemical Solvents, Inc.
3751 Jennings Rd., Cleveland, OH 44109
6. US EPA ID Number: OHD052937885
C. State Transporter's ID
D. Transporter's Phone: (216) 741-9310

5. Transporter 2 Company Name
8. US EPA ID Number
E. State Transporter's ID
F. Transporter's Phone

9. Designated Facility Name and Site Address
Chemical Solvents, Inc.
1010 Denison Ave.
Cleveland, OH 44109
10. US EPA ID Number: OHD980897656
G. State Facility's ID: 02-18-0358
H. Facility's Phone: (216) 741-9310

| | 11. US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number) | 12. Containers No. | Type | 13. Total Quantity | 14. Unit Wt/Vol | I. Waste No. |
|---|---|---|---|---|---|---|
| a. | F 002 Spent Halogenated UN1593 Solvents, Methylene Chloride ORM-A | 16 | DM | 880 GAL 8800# | 10#1 gal | |
| b | | | | | | |
| c | Unless I am a small quantity generator who has been exempted by statute or regulation from the duty to make a waste minimization certification under Section 3002(b) of RCRA, I also certify that I have a program in place to reduce the volume and toxicity | | | | | |
| d | of waste generated to the degree I have determined to be economically practicable and have selected the method of treatment, storage or disposal currently available to me which minimizes the present and future threat to human health and the environment. | | | | | |

J. Additional Descriptions for Materials Listed Above
K. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information

NONE

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national governmental regulations.

| Printed/Typed Name | Signature | Date Month | Day | Year |
|---|---|---|---|---|
| DAVID RENYER | David K Renyer | 11 | 20 | 85 |

17. Transporter 1 Acknowledgement of Receipt of Materials

| Printed/Typed Name | Signature | Date Month | Day | Year |
|---|---|---|---|---|
| CHESTER McNUTT | Chester McNutt | 11 | 20 | 85 |

18. Transporter 2 Acknowledgement of Receipt of Materials

| Printed/Typed Name | Signature | Date Month | Day | Year |
|---|---|---|---|---|
| | | | | |

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

| Printed/Typed Name | Signature | Date Month | Day | Year |
|---|---|---|---|---|
| BARB LAMPSHIRE | Barb Lampshire | | | |

GENERATOR / TRANSPORTER / FACILITY

Please print or type. (Form designed for use on elite (12 pitch) typewriter.)

Form Approved. OMB No. 2000-0404. Expires 7-31-86

# UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No: [illegible] | Manifest Document No: [illegible]

2. Page 1 of 1

Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address: [illegible] CORP, PO BOX 1[illegible], RICHMOND IN 47374

4. Generator's Phone: (317) 935-7501

A. State Manifest Document Number:

B. State Generator's ID:

5. Transporter 1 Company Name: Chemical Solvents, Inc. 3751 Jennings Rd., Cleveland, OH 44109

6. US EPA ID Number: OHD052937885

C. State Transporter's ID:

D. Transporter's Phone: (216) 741-9310

7. Transporter 2 Company Name:

8. US EPA ID Number:

E. State Transporter's ID:

F. Transporter's Phone:

RECEIVED NOV 25 1985

9. Designated Facility Name and Site Address: Chemical Solvents, Inc. 1010 Denison Ave. Cleveland, OH 44109

10. US EPA ID Number: OHD980897656

G. State Facility's ID: 02-18-0358

H. Facility's Phone: (216) 741-9310

GENERATOR

| 11. US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number) | | 12. Containers No. | Type | 13. Total Quantity | 14. Unit Wt/Vol | I. Waste No. |
|---|---|---|---|---|---|---|
| a. NO 2 | F SPENT HALOGENATED UN1593 SOLVENTS, METHYLENE CHLORIDE CRM-A | 20 | DM | 1100 GALS. | 10#/GAL | |
| b. | | | | | | |
| c. | Unless I am a small quantity generator who has been exempted by statute or regulation from the duty to make a waste minimization certification under Section 3002(b) of RCRA, I also certify that I have a program in place to reduce the volume and toxicity | | | | | |
| d. | of waste generated to the degree I have determined to be economically practicable and have selected the method of treatment, storage or disposal currently available to me which minimizes the present and future threat to human health and the environment. | | | | | |

J. Additional Descriptions for Materials Listed Above

K. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information

NONE

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national governmental regulations.

| Printed/Typed Name | Signature | Date Month | Day | Year |
|---|---|---|---|---|
| DAVE RENYER | X David K Renyer | 11 | 19 | 85 |

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

| Printed/Typed Name | Signature | Date Month | Day | Year |
|---|---|---|---|---|
| PAUL TOLLAR | [signature] | 11 | 19 | 85 |

18. Transporter 2 Acknowledgement of Receipt of Materials

| Printed/Typed Name | Signature | Date Month | Day | Year |
|---|---|---|---|---|
| | | | | |

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

| Printed/Typed Name | Signature | Date Month | Day | Year |
|---|---|---|---|---|
| BARB LAMPSHIRE | Barb Lampshire | | | |

Style F15-6 Labelmaster, Chicago, IL 60646

EPA Form 8700-22 (3-84)

Please print or type (Form designed for use on elite (12) typewriter)

Form Approved. OMB No. 2000-0404 Expires 7-31-86

# UNIFORM HAZARDOUS WASTE MANIFEST

| 21. Generator's US EPA ID No | Manifest Document No | 2. Page 1 of | Information in the shaded areas is not required by Federal law. |
|---|---|---|---|
| IND087032207 | [illegible] | | |

**GENERATOR**

3. Generator's Name and Mailing Address
Design & Manufacturing Co
1757 Sheridan St / Richmond, IN 47374
4. Generator's Phone ( 317 ) 962-4511

A. State Manifest Document Number
B. State Generator's ID

5. Transporter 1 Company Name: Superior Oil Company
6. US EPA ID Number: IND039994975
C. State Transporter's ID
D. Transporter's Phone: 317-783-6681

7. Transporter 2 Company Name
8. US EPA ID Number
E. State Transporter's ID
F. Transporter's Phone

9. Designated Facility Name and Site Address
Reclaimed Energy Co Inc.
1500 Western Avenue
Connersville, Indiana 47331
10. US EPA ID Number: IND000700403
G. State Facility's ID
H. Facility's Phone: 317-825-7101

| 11. US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number) | HM | 12. Containers No. | 12. Containers Type | 13. Total Quantity | 14. Unit Wt/Vol | I. Waste No. |
|---|---|---|---|---|---|---|
| a. Waste Toluene, FLAMMABLE LIQUID, UN1294 | X | | DM | | G | F005 |
| b. [illegible] | | 6 | DM | 330 | G | F005 |
| c. | | | | | | |
| d. | | | | | | |

J. Additional Descriptions for Materials Listed Above

K. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.
Unless I am a small quantity generator who has been exempted by statute or regulation from the duty to make a waste minimization certification under Section 3002(b) of RCRA, I also certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and I have selected the method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment.

| Printed/Typed Name | Signature | Month | Day | Year |
|---|---|---|---|---|
| [illegible] | [illegible] | 1 | [illegible] | 87 |

**TRANSPORTER**

17. Transporter 1 Acknowledgement of Receipt of Materials

| Printed/Typed Name | Signature | Month | Day | Year |
|---|---|---|---|---|
| [illegible] | [illegible] | 1 | 21 | 87 |

18. Transporter 2 Acknowledgement of Receipt of Materials

| Printed/Typed Name | Signature | Month | Day | Year |
|---|---|---|---|---|
| | | | | |

**FACILITY**

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

| Printed/Typed Name | Signature | Month | Day | Year |
|---|---|---|---|---|
| | | | | |

Style F15R-6 Labelmaster, Div. of American Labelmark Co. Inc. 60646

EPA Form 8700-22 (Rev. 4-85) Previous edition is obsolete.

GENERATOR COPY

# MADISON CHEMICAL CO., INC.

# MATERIAL SAFETY DATA SHEET

("Essentially Similar" to Form OSHA-20)

Phone 812 • 273-6000

P.O. Box 125, State Road 62 • Madison, Indiana 47250

DATE PREPARED: 12-3-85

## SECTION I

| CHEMICAL NAME AND SYNONYMS | TRADE NAME AND SYNONYMS |
|---|---|
| N.A. | DART 227 |

| CHEMICAL FAMILY | FORMULA |
|---|---|
| N.A. | N.A. |

## SECTION II - HAZARDOUS INGREDIENTS

| MATERIAL | % | TLV (Units) |
|---|---|---|
| Phosphoric acid | 10 | 1 mg/$M^3$ |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |

N.A. = Not Applicable

## SECTION III - PHYSICAL DATA

| | | | |
|---|---|---|---|
| BOILING POINT (°F.) | 220 | SPECIFIC GRAVITY ($H^2O$=1) | 1.25 |
| VAPOR PRESSURE (mm Hg.) | --- | PERCENT, VOLATILE BY VOLUME (%) | N.A. |
| VAPOR DENSITY (AIR=1) | --- | EVAPORATION RATE ( Water =1) | 1.0 |
| SOLUBILITY IN WATER | Complete | pH (1% by volume) | 2.3-2.5 |

APPEARANCE AND ODOR: Clear, colorless liquid with mild odor.

## SECTION IV - FIRE AND EXPLOSION HAZARD DATA

| FLASH POINT (Method used) | FLAMMABLE LIMITS | Lel | Uel |
|---|---|---|---|
| None | N.A. | | |

EXTINGUISHING MEDIA: N.A.

SPECIAL FIRE FIGHTING PROCEDURES: None

UNUSUAL FIRE AND EXPLOSION HAZARDS: None

EMERGENCY PHONE NUMBERS: Company Offices 812 273-6000 Week Days; Steven Hale 812 265-2703 Evening & Week End

Richard Rettig 606 341-8543 Evening & Week Ends; David R. Goodman, Jr. 812 273-6213 Evening & Week Ends

It is the user's responsibility to determine the safety, toxicity, and suitability for his own use of the product described herein. Since the actual use by others is beyond our control, no guarantee, expressed or implied, is made by Vendor as to the effects of such use, the results to be obtained, or the safety and toxicity of the product. Vendor assumes no responsibility for injury to Vendee or third persons proximately caused by this product if reasonable safety procedures are not adhered to as stipulated in this data sheet. Additionally, Vendor assumes no responsibility for injuries to Vendee or third persons proximately caused by abnormal use of the material even if reasonable safety procedures are followed. Furthermore, Vendee assumes the risk in his use of this material.

## SECTION V - HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE: SEE SECTION II

EFFECTS OF OVEREXPOSURE: May be injurious to eyes and mucous membranes. May be harmful if swallowed.

EMERGENCY AND FIRST AID PROCEDURES

EYE CONTACT: Flush eyes with cool water for at least 15 minutes. Seek medical attention.

SKIN CONTACT: Flush area with water. If irritation persists, seek medical attention.

INGESTION: Give water or milk. Call a physician.

## SECTION VI - REACTIVITY DATA

| | | | |
|---|---|---|---|
| STABILITY | UNSTABLE | | CONDITIONS TO AVOID |
| | STABLE | X | |

INCOMPATABILITY (*Materials to avoid*): Alkaline materials

HAZARDOUS DECOMPOSITION PRODUCTS: None

| | | | |
|---|---|---|---|
| HAZARDOUS POLYMERIZATION | MAY OCCUR | | CONDITIONS TO AVOID |
| | WILL NOT OCCUR | X | |

## SECTION VII - SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

Contain large spills and absorb on soda ash. Dispose with solid wastes. Flush remainder to drain with water.

WASTE DISPOSAL METHOD

Normal for acidic, phosphate containing wastes. May require pH adjustment to 6.0 - 9.0.

## SECTION VIII - SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (*Specify type*): Not necessary at use concentration

| | | |
|---|---|---|
| VENTILATION | LOCAL EXHAUST: As required | SPECIAL |
| | MECHANICAL (*General*): If sufficient | OTHER |

PROTECTIVE GLOVES: Rubber

EYE PROTECTION: Goggles necessary.

OTHER PROTECTIVE EQUIPMENT: N.A.

## SECTION IX - SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING: Normal for acids.

OTHER PRECAUTIONS

FOR INDUSTRIAL USE ONLY

## SECTION X - SOURCE OF INFORMATION

NAME AND TITLE: Steven T. Hale, Chief Chemist

# MADISON

Phone 812 • 273-6000

# MATERIAL SAFETY DATA SHEET

("Essentially Similar" to Form OSHA-20)

## CHEMICAL CO., INC.

P.O. Box 125, State Road 62 • Madison, Indiana 47250

| DATE PREPARED |
|---|
| 11-18-85 |

## SECTION I

| CHEMICAL NAME AND SYNONYMS | TRADE NAME AND SYNONYMS |
|---|---|
| N.A. | COMPOUND Z-12-2 |
| **CHEMICAL FAMILY** | **FORMULA** |
| N.A. | N.A. |

## SECTION II - HAZARDOUS INGREDIENTS

| MATERIAL | % | TLV (Units) |
|---|---|---|
| Phosphoric acid | 15 | 1 mg/M$^3$ |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |

N.A. - Not Applicable

## SECTION III - PHYSICAL DATA

| | | | |
|---|---|---|---|
| BOILING POINT (°F.) | 230 | SPECIFIC GRAVITY (H$_2$O=1) | 1.45 |
| VAPOR PRESSURE (mm Hg.) | --- | PERCENT, VOLATILE BY VOLUME (%) | N.A. |
| VAPOR DENSITY (AIR=1) | --- | EVAPORATION RATE (Water =1) | 1.0 |
| SOLUBILITY IN WATER | Complete | pH (1% by volume) | 2.4-2.6 |

APPEARANCE AND ODOR: Clear, green liquid with mild odor.

## SECTION IV - FIRE AND EXPLOSION HAZARD DATA

| FLASH POINT (Method used) | FLAMMABLE LIMITS | Lel | Uel |
|---|---|---|---|
| None | N.A. | | |

EXTINGUISHING MEDIA: N.A.

SPECIAL FIRE FIGHTING PROCEDURES: Fire fighters should use self-contained breathing apparatus.

Cool drums with water spray.

UNUSUAL FIRE AND EXPLOSION HAZARDS: Emits chlorine dioxide and nitrogen and phosphorus oxides when heated to decomposition. Acids react with most metals to release hydrogen gas.

EMERGENCY PHONE NUMBERS: Company Offices 812 273-6000 Week Days; Steven Hale 812 265-2703 Evening & Week Ends

Richard Rettig 606 341-8543 Evening & Week Ends; David R. Goodman, Jr. 812 273-6213 Evening & Week Ends

It is the user's responsibility to determine the safety, toxicity and suitability for his own use of the Product identified herein. Since the actual use by others is beyond Vendor's control, no guarantee expressed or implied is made by Vendor as to the effects of such use, the results to be obtained or the safety and toxicity of the product. Vendor assumes no responsibility for injury to Vendee or third persons proximately caused by the product if reasonable safety procedures are not adhered to as stipulated in this data sheet. Additionally, Vendor assumes no responsibility for injury to Vendee or third persons proximately caused by abnormal use of the material even if reasonable safety procedures are followed. Furthermore, Vendee assumes the risk in his use of this material.

## SECTION V - HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE: SEE SECTION II

EFFECTS OF OVEREXPOSURE: May be injurious to eyes and mucous membranes. May be harmful if swallowed.

EMERGENCY AND FIRST AID PROCEDURES

EYE CONTACT: Flush eyes with cool water for at least 15 minutes. Seek medical attention.

SKIN CONTACT: Flush area with water. If irritation persists, seek medical attention.

INGESTION: Give water or milk. Call a physician.

## SECTION VI - REACTIVITY DATA

| | | | |
|---|---|---|---|
| STABILITY | UNSTABLE | | CONDITIONS TO AVOID: Uncontrolled contact with organics, metals. |
| | STABLE | X | |

INCOMPATABILITY (*Materials to avoid*): Alkaline materials, organic chemicals and matter.

HAZARDOUS DECOMPOSITION PRODUCTS: Chlorine dioxide, nitrogen and phosphorus oxides.

| | | | |
|---|---|---|---|
| HAZARDOUS POLYMERIZATION | MAY OCCUR | | CONDITIONS TO AVOID |
| | WILL NOT OCCUR | X | |

## SECTION VII - SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

Contain large spills and absorb on soda ash. Dispose with solid wastes. Flush remainder to drain with water.

WASTE DISPOSAL METHOD

Normal for acidic zinc phosphate containing wastes. May require pH adjustment to 6.0 - 9.0.

## SECTION VIII - SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (*Specify type*): Not necessary at use concentration.

| | | |
|---|---|---|
| VENTILATION | LOCAL EXHAUST: As required | SPECIAL |
| | MECHANICAL (*General*): If sufficient | OTHER |

PROTECTIVE GLOVES: Rubber

EYE PROTECTION: Goggles necessary

OTHER PROTECTIVE EQUIPMENT

## SECTION IX - SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

Normal for acids. Avoid prolonged outdoor storage.

OTHER PRECAUTIONS

FOR INDUSTRIAL USE ONLY

## SECTION X - SOURCE OF INFORMATION

NAME AND TITLE: Steven T. Hale, Chief Chemist

MADISON

Phone 812 • 273-6000

# MATERIAL SAFETY DATA SHEET

("Essentially Similar" to Form OSHA-20)

CHEMICAL CO., INC.

P.O. Box 125, State Road 62 • Madison, Indiana 47250

DATE PREPARED
4-16-85

## SECTION I

| CHEMICAL NAME AND SYNONYMS | TRADE NAME AND SYNONYMS |
|---|---|
| | DART 312 |
| **CHEMICAL FAMILY** | **FORMULA** |
| | |

## SECTION II - HAZARDOUS INGREDIENTS

| MATERIAL | % | TLV (Units) |
|---|---|---|
| Potassium hydroxide | 5 | 2 $mg/M^3$ * |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| *Denotes ceiling limit | | |
| | | |

N.A. = Not Applicable

## SECTION III - PHYSICAL DATA

| | | | |
|---|---|---|---|
| BOILING POINT (°F.) | 220 | SPECIFIC GRAVITY ($H^2O$=1) | 1.13 |
| VAPOR PRESSURE (mm Hg.) | --- | PERCENT, VOLATILE BY VOLUME (%) | N.A. |
| VAPOR DENSITY (AIR=1) | --- | EVAPORATION RATE (Water =1) | 1.0 |
| SOLUBILITY IN WATER | Complete | | |

APPEARANCE AND ODOR Clear, off-white liquid with mild odor

## SECTION IV - FIRE AND EXPLOSION HAZARD DATA

| | | | |
|---|---|---|---|
| FLASH POINT (Method used) None | FLAMMABLE LIMITS N.A. | Lel | Uel |

EXTINGUISHING MEDIA N.A.

SPECIAL FIRE FIGHTING PROCEDURES None

UNUSUAL FIRE AND EXPLOSION HAZARDS None

EMERGENCY PHONE NUMBERS Company Offices 812 273-6000 Week Days — Steven Hale 812 265-2703 Evening & Week Ends

Richard Rettig 606 341-8543 Evening & Week Ends — David R. Goodman, Jr. 812 273-6213 Evening & Week Ends

It is the user's responsibility to determine the safety, toxicity, and suitability for his own use of the product described herein. Since the actual use by others is beyond our control, no guarantee, expressed or implied, is made by Vendor as to the effects of such use, the results to be obtained, or the safety and toxicity of the product. Vendor assumes no responsibility for injury to Vendee or third person proximately caused by this product if reasonable safety procedures are not adhered to as stipulated in this data sheet. Additionally, Vendor assumes no responsibility for injury to Vendee or third persons proximately caused by abnormal use of this material even if reasonable safety procedures are followed. Furthermore, Vendee assumes the risk in his use of this material.

## SECTION V - HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE: SEE SECTION II

EFFECTS OF OVEREXPOSURE: May cause burns to skin and eyes. Harmful if swallowed.

EMERGENCY AND FIRST AID PROCEDURES

EYE CONTACT: Flush eyes with cool water for at least 15 minutes. Seek medical attention.

SKIN CONTACT: Wash area with water. If irritation persists, seek medical attention.

INGESTION: Give water or milk. Call a physician immediately.

## SECTION VI - REACTIVITY DATA

| | | | |
|---|---|---|---|
| STABILITY | UNSTABLE | | CONDITIONS TO AVOID |
| | STABLE | x | |

INCOMPATABILITY (*Materials to avoid*): Acids

HAZARDOUS DECOMPOSITION PRODUCTS: None

| | | | |
|---|---|---|---|
| HAZARDOUS POLYMERIZATION | MAY OCCUR | | CONDITIONS TO AVOID |
| | WILL NOT OCCUR | X | |

## SECTION VII - SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

Flush away with large quantities of water.

WASTE DISPOSAL METHOD

Normal for alkaline wastes. May require pH adjustment to 6.0 - 9.0.

## SECTION VIII - SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (*Specify type*): Not necessary at use concentration.

| | | |
|---|---|---|
| VENTILATION | LOCAL EXHAUST: As required | SPECIAL |
| | MECHANICAL (*General*): N.A. | OTHER |

PROTECTIVE GLOVES: Rubber

EYE PROTECTION: Necessary

OTHER PROTECTIVE EQUIPMENT

## SECTION IX - SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

Keep from freezing

OTHER PRECAUTIONS

FOR INDUSTRIAL AND INSTITUTIONAL USE ONLY

## SECTION X - SOURCE OF INFORMATION

NAME AND TITLE: Steven T. Hale, Chief Chemist

# Material Safety Data Sheet

QUICK IL IFIER (In Plant Common Name)

Solvent used To clean FOAM equipment

1-800-321-8506 National

| | | | |
|---|---|---|---|
| Manufacturer's Name | Chemical Solvents, Inc. | Emergency Telephone No. | 1-800-362-0693 Ohio |
| Address | 3751 Jennings Rd. Cleveland, Oh. 44109 | Other Information Calls | (216) 741-9310 |
| Signature of Person Responsible for Preparation | | Date Prepared | 10/85 |

## SECTION 1 - IDENTITY

| | | | |
|---|---|---|---|
| Common Name: (used on label) (Trade Name & Synonyms) | SP 711 | Cas No. | N/A |
| Chemical Name | N/A | Chemical Family | Chlorinated hydrocarbons, |
| Formula | N/A | | alcohols |

## SECTION 2 - HAZARDOUS INGREDIENTS

| Principal Hazardous Component(s) (chemical & common name(s)) | CAS registry no. | Threshold Limit Value (units) |
|---|---|---|
| Trichlorethylene | 79-01-6 | 100 ppm |
| Methylene Chloride | 75-09-2 | 100 ppm |
| Methanol | 67-56-1 | 200 ppm |
| Ethyl Alcohol | 64-17-5 | 100 ppm |
| Additive | N/A | *N.E. |

* NOT ESTABLISHED

## SECTION 3 - PHYSICAL & CHEMICAL CHARACTERISTICS (Fire & Explosion Data)

| | | | | | |
|---|---|---|---|---|---|
| Boiling Point | 120 °F | Specific Gravity ($H_2O$=1) | 1.241 | Vapor Pressure (mm Hg) | 343 @ 20 °C |
| Percent Volatile by Volume (%) | 100% | Vapor Density (Air = 1) | 2.62 | Evaporation Rate (Ether = 1) | approx. 1.8 |
| Solubility in Water | Moderate | Reactivity in Water | None | | |
| Appearance and Odor | Clear colorless liquid, mild alcoholic smell. | | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Flash Point | 120 °F closed cup | Flammable Limits in Air % by Volume | Lower unknown | Upper | Extinguisher Media | $CO_2$ dry chemical, foam | Auto-Ignition Temperature unknown |

Special Fire Fighting Procedures: Wear self-contained breathing apparatus.

Unusual Fire and Explosion Hazards: Sealed drums may rupture due to internal pressure. Toxic vapors will be evolved.

## SECTION 4 - PHYSICAL HAZARDS

Stability: Unstable ☐ Stable ☒ Conditions to Avoid: Avoid hot surfaces, open flame, electrical arcs.

Incompatability (Materials to Avoid): Strong oxidizers, alkalies or acids.

Hazardous Decomposition Products: Oxides of carbon, phosgene (small amounts). Hydrogen chloride

Hazardous Polymerization: May Occur ☐ Will Not Occur ☒ Conditions to Avoid: None

## SECTION 5 - HEALTH HAZARDS

Threshold Limit Value: AVG TLV = 100 ppm/8 hrs.

Signs and Symptoms of Exposure: 1. Acute Overexposure: Depresses the central nervous system.

2. Chronic Overexposure: Have caused liver and kidney disease in experimental animals.

Medical Conditions Generally Aggravated by Exposure: Acute and chronic liver and kidney disease, chronic lung disease, anemia, coronary disease or rhythm disorders of the heart

Chemical Listed as Carcinogen or Potential Carcinogen: Methylen Chloride — National Toxicology Program: Yes ☒ No ☐ animal — I.A.R.C. Monographs: Yes ☐ No ☒ — OSHA: Yes ☐ No ☒

OSHA Permissible Exposure Limit: N/A — ACGIH Threshold Limit Value: N/A — Other Exposure Limit Used: AVG TLV = 100 ppm/8 hrs.

Emergency and First Aid Procedures

1. Inhalation: Remove to fresh air. Administer oxygen if necessary.

2. Eyes: Flush with water for 15 minutes. Call a physician.

3. Skin: Remove contaminated clothing. Call a physician.

4. Ingestion: Do not induce vomiting. Call physician immediately.

## SECTION 6 - SPECIAL PROTECTION INFORMATION

Respiratory Protection (Specify Type): None required below PEL (TLV)

Ventilation: Normal use — Local Exhaust: generally unnecessary — Mechanical (General): required — Special: explosion proof — Other:

Protective Gloves: Viton, neoprene gloves — Eye Protection: Chemical safety goggles. No contact lenses.

Other Protective Clothing or Equipment: Apron, boots or headgear if splashing is a problem.

## SECTION 7 - SPECIAL PRECAUTIONS AND SPILL/LEAK PROCEDURES

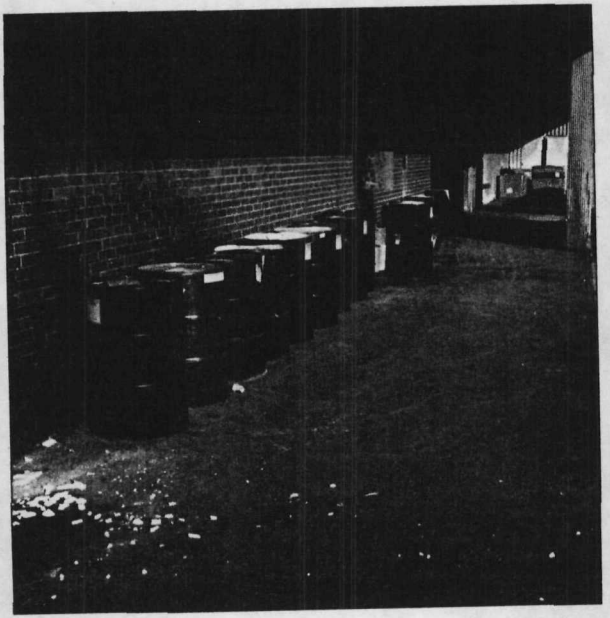
Precautions to be Taken in Handling and Storage: Avoid contact with skin, breathing of vapors. Pipe vents outdoors. Store in cool, dry, ventilated area. Vapors are heavier than air & will collect in low areas.

Other Precautions: Prevent moist air from entering storage. No smoking in pressence of vapors. Contact with aluminum under pressurizable fluid system may cause violent reactions.

Steps to be Taken in Case Material is Released or Spilled: Evacuate area, ventilate, contain spill. Clean area (wear protective gear) by mopping or using absorbent material. Place in sealed container.

Waste Disposal Methods: Use licensed reclaimer, incinerator, or waste management facility. Contact Chemical Solvents, Inc.

**IMPORTANT**
**Do not leave any blank spaces. If required information is unavailable, unknown, or does not apply, so indicate.**



1E IDEM cwk

DIVISION OF LAND POLLUTION CONTROL

ANNUAL REPORT COVER PAGE REF NO. _____

Company Name Sanyo Laser Products EPA ID Number IND 087032207

LABEL DISCREPANCIES: Yes?

Company Name ☐
ID # ☐
Mailing Address ☐

Person Reviewing DA

Q/A Check done by _____

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SEQ NO FOR FORM G & F _____ thru _____ To _____

SEQ NO FOR FORM G & F _____ thru _____ To _____

SBII 66-026 1/84
SF 14005

Office of Solid & Hazardous Waste Ma. ement
INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
105 South Meridian Street
P.O. Box 6015
Indianapolis, IN 46206-6015

ST

TATSUO KATOH V.P.
ENVIRONMENTAL COORDINATOR
INDOSTOR2207
SANYO LASER PRODUCTS INC
1767 SHERIDAN STREET
RICHMOND, IN

FEB 15 9 17 AM '80

OFFICE OF SOLID AND HAZARDOUS WASTE MANAGEMENT

# FORM E:

Installation I

SOLID WASTE MANAGEMENT BOARD

INSTRUCTIONS: Please refer to the specific instructions before completing this form. The information requested herein is required by IC 13-7-8.5--2.

I. TYPE OF HAZARDOUS WASTE REPORT FOR THE YEAR ENDING DEC. 31, 1987

FORM G:
GENERATOR BIENNIAL REPORT [X] DA

FORM F:
FACILITY BIENNIAL REPORT [X] DA

DID NOT GENERATE/TSD HAZARDOUS [ ]

SMALL QUANTITY GENERATOR OF HAZARDOUS WASTE

GENERATE LESS THAN 100 Kg PER MONTH [ ]

GENERATE BETWEEN 100 & 1000 Kg PER MONTH [X]

II. INSTALLATION'S EPA I.D. NUMBER: IND087032207

III. NAME OF INSTALLATION: SANYO LASER PRODUCTS INC

IV. INSTALLATION MAILING ADDRESS

STREET OR P.O. BOX: 1767 SHERIDAN ST

CITY OR TOWN: RICHMOND

STATE: IN ZIP CODE: 47374

V. LOCATION OF INSTALLATION

STREET OR P.O. BOX: 1767 SHERIDAN ST

CITY OR TOWN: RICHMOND

STATE: IN ZIP CODE: 47374 COUNTY: WAYNE

VI. INSTALLATION CONTACT

| Last Name | First Name | Phone (area code & no.) |
|---|---|---|
| Hunt | Michael | 317/935-7574 |

VII. CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

| T. K. WALTER - GENERAL MANAGER | T K Walter | 2-12-88 |
|---|---|---|
| (A.) PRINT OR TYPE NAME AND TITLE | (B.) SIGNATURE | (C.) DATE SIGNED |

Please print or type with ELITE type (12 characters per inch).



State Form 19288R
Revised 10/87

Office of Solid & Hazardous Waste Ma ment
INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
105 South Meridian Street
P.O. Box 6015
Indianapolis, IN 46206-6015

STATE OF INDIANA

# FORM G: GENERATOR BIENNIAL REPORT FOR THE YEAR ENDING DEC. 31, 19 87

SOLID WASTE MANAGEMENT BOARD

(Collected under the authority of IC 13-7-8.5-2 Indiana Environmental Management Act)

VIII. GENERATOR'S EPA ID NUMBER: I N D 0 8 7 0 3 2 2 0 7

IX. TRANSPORTATION SERVICES USED — This information is required only on one copy of Form G.

List the EPA Identification Numbers and Names for all transporters whose services were used during the year.

SUPERIOR OIL COMPANY US EPA ID NUMBER IND039994975

X. FACILITY'S NAME (specify): REC LAIMED ENERGY CO INC — FACILITY'S EPA ID NUMBER: IND 000 780 403

XI. FACILITY'S ADDRESS

STREET OR P.O. BOX: 1500 WESTERN AVENUE

CITY OR TOWN: CONNERSVILLE — STATE: IN — ZIP: 47331

XII. WASTE IDENTIFICATION

| LINE NUMBER | (A.) DESCRIPTION OF WASTE (limit to 45 characters) | (B.) DOT HAZARD CLASS | (C.) EPA HAZARDOUS WASTE (see codes) | (D.) AMOUNT OF WASTE (in Pounds or Tons) | (E.) UNIT OF WEIGHT (circle one) | |
|---|---|---|---|---|---|---|
| 1 | Hazardous Waste Liquid N.O.S. Freon | 08 | F003 | 550 | (P) | T |
| 2 | ORM - A - N.O.S 1-1-1 Trichlorethane/Trichlorethylene | 13 | F002 | 500 | (P) | T |
| 3 | Flammable Liquid N.O.S. (Isopronal) Acetone | 08 | D001 | 550 | (P) | T |
| 4 | | | | | P | T |
| 5 | | | | | P | T |
| 6 | | | | | P | T |
| 7 | | | | | P | T |
| 8 | | | | | P | T |

XIII. COMMENTS (enter information by line number -- see instructions)

PAGE ____ OF ____

State Form 19286R
Revised 10/87

,Office of Solid & Hazardous Waste Ma ement
INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
105 South Meridian Street
P.O. Box 6015
Indianapolis, IN 46206-6015

STATE OF INDIANA

# FORM F: FACILITY ANNUAL REPORT FOR THE YEAR ENDING DEC. 31, 1987

SOLID WASTE MANAGEMENT BOARD

(Collected under the authority of IC 13-7-8.5-2 Indiana Environmental Management Act)

XIV. FACILITY'S EPA ID NUMBER: INDO87032207

XV. COST ESTIMATES FOR FACILITIES This information is required only on one copy of Form F.

A. COST ESTIMATE FOR FACILITY CLOSURE: $ 476.00

B. COST ESTIMATE FOR POST CLOSURE MONITORING AND MAINTENANCE: $ .00

XVI. GENERATOR'S NAME (specify): SANYO LASER PRODUCTS INC

GENERATOR'S EPA ID NUMBER: INDO87032207

XVII. GENERATOR'S ADDRESS

STREET OR P.O. BOX: 1767 SHERIDAN ST

CITY OR TOWN: RICHMOND STATE: IN ZIP: 47374

XII. WASTE IDENTIFICATION

| LINE NUMBER | (A.) DESCRIPTION OF WASTE (Limit to 45 characters) | (B.) EPA HAZARDOUS WASTE (see codes) | (C.) HANDLING METHOD (code)* | (D.) AMOUNT OF WASTE (in Pounds or Tons) | (E.) UNIT OF WEIGHT (circle one) | |
|---|---|---|---|---|---|---|
| 1 | WASTE FLAMMABLE LIQUID | F003 D001 | 08 | 1100 | (P) | T |
| 2 | WASTE ORM - A | F002 | 13 | 550 | (P) | T |
| 3 | WASTE ORM - E | F002 | 15 | 550 | (P) | T |
| 4 | | | | | P | T |
| 5 | | | | | P | T |
| 6 | | | | | P | T |
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| 8 | | | | | P | T |

XIII. COMMENTS (enter information by line number -- see instructions)

* See Section XVIII-C of instructions for wastes handled by more than one method.

PAGE _____ OF _____

WASTE MINIMIZATION STATEMENT
1987 HAZARDOUS WASTE BIENNIAL REPORT

FEB 15 9 17 AM '88
OFFICE OF SOLID AND HAZARDOUS WASTE

This report is for the calendar year ending December 31, 1987.

The Hazardous and Solid Waste Amendments of 1984 and Indiana Rule 320 IAC 4.1-10-2(b) require all generators of hazardous waste to provide information with respect to waste minimization as part of their biennial report. The following information is being required to satisfy that requirement:

Generator's EPA I.D. No. IND087032207

Waste Minimization

Describe in the space below your efforts, undertaken during calendar year 1987, to reduce the volume and toxicity of the hazardous waste which your business generates. Also, describe changes in waste volume and toxicity actually achieved during 1987 in comparison to previous years, to the extent possible.

CHEMICALS ARE PURCHASED IN FIVE (5) GALLON CONTAINERS, AND TRANSFERRED INTO PORTABLE CONTAINERS. THIS MEASURE REDUCES THE AMOUNT OF CHEMICALS USED AND MINIMIZES THE EFFECT A SPILL WOULD HAVE.

Certification

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

| T. K. WALTER | GENERAL MANAGER | T K Walter | 2-12 88 |
|---|---|---|---|
| Print/Type Name | Title | Signature | Date Signed |

DIVISION OF LAND POLLUTION CONTROL

Wayne

ANNUAL REPORT COVER PAGE REF NO. _____

Company Name D & M Corp - Absocold EPA ID Number IND 087032207

LABEL DISCREPANCIES: Yes?

Company Name [✓]
ID # [ ]
Mailing Address [ ]

Person Reviewing B. [illegible]

Q/A Check done by R.A.S

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SBII 66-026 1/84
SF 14005

Division of Land Pollution Control
INDIANA STATE BOARD OF HEALTH
1330 West Michigan Street
P. O. Box 1964
Indianapolis, Indiana 46206

6-01 IND087032207 G
Design & Mfg. Corp. Absolcold Div
1767 Sheridan Ave
Richmond, IN

# FORM E:

Installation Identification Form

ENVIRONMENTAL MANAGEMENT BOARD

JAN 8 1986
DIVISION OF LAND POLLUTION CONTROL
BOARD OF HEALTH

INSTRUCTIONS: Please refer to the specific instructions before completing this form. The information requested herein is required by IC 13-7-8.5-2.

I. TYPE OF HAZARDOUS WASTE REPORT FOR THE YEAR ENDING DEC. 31, 19 85

| | | | |
|---|---|---|---|
| FORM G: GENERATOR ANNUAL REPORT | X | FORM F: FACILITY ANNUAL REPORT | |
| DID NOT GENERATE/TSD HAZARDOUS WASTE | | SMALL QUANTITY GENERATOR OF HAZARDOUS WASTE | X |

II. INSTALLATION'S EPA I.D. NUMBER: IND087032207

III. NAME OF INSTALLATION: DESIGN & MFG CORP ABSOCOLD

IV. INSTALLATION MAILING ADDRESS

Street or P. O. Box: 1767 SHERIDAN STREET

City or Town: RICHMOND

State: IN Zip Code: 47374

V. LOCATION OF INSTALLATION

Street or P. O. Box:

City or Town:

State: Zip Code: County:

VI. INSTALLATION CONTACT

| Last Name | First Name | Phone (area code & no.) |
|---|---|---|
| FULLER | PAUL | 317/962-4511 |

VII. CERTIFICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

| David L. Riehle | David L Riehle | |
|---|---|---|
| (A.) PRINT OR TYPE NAME | (B.) SIGNATURE | (C.) DATE SIGNED |

Please print or type with ELITE type (12 characters per inch).



SBH66401 State Form 19288R
Revised 10/82

Division of Land Pollution Control
INDIANA STATE BOARD OF HEALTH
1330 West Michigan Street
P. O. Box 1964
Indianapolis, Indiana 46206

STATE of INDIANA

# FORM G: GENERATOR ANNUAL REPORT FOR THE YEAR ENDING DEC. 31, 19 85

ENVIRONMENTAL MANAGEMENT BOARD

(Collected under the authority of IC 13-7-8.5-2 Indiana Environmental Management Act)

VIII. GENERATOR'S EPA ID NUMBER: IND 087032207

IX. TRANSPORTATION SERVICES USED This information is required only on one copy of Form G.

List the EPA Identification Numbers for all transporters whose services were used during the year. IND 039994975

X. FACILITY'S NAME (specify) RECLAIMED ENERGY CO. INC. FACILITY'S EPA ID NUMBER: IND 000784031

XI. FACILITY'S ADDRESS

Street or P. O. Box: 1500 WESTERN AVENUE

City or Town: CONNERSVILLE State: IN Zip: 47331

XII. WASTE IDENTIFICATION

| LINE NUMBER | (A.) DESCRIPTION OF WASTE | (B.) DOT HAZARD CLASS | (C.) EPA HAZARDOUS WASTE (see code) | (D.) AMOUNT OF WASTE (in Pounds or Tons) | (E.) UNIT OF WEIGHT (circle one) |
|---|---|---|---|---|---|
| 1 | Waste paint related material | 08 | F005 | 11750 | (P) T |
| 2 | | | | | P T |
| 3 | | | | | P T |
| 4 | | | | | P T |
| 5 | | | | | P T |
| 6 | | | | | P T |
| 7 | | | | | P T |
| 8 | | | | | P T |

XIII. COMMENTS (enter information by line number -- see instructions)



State Form 19286R
SH166-002
Revised 10/82

MAY BE PHOTOCOPIED

Division of Land Pollution Control
INDIANA STATE BOARD OF HEALTH
1330 West Michigan Street
P O Box 1964
Indianapolis, Indiana 46206

STATE of INDIANA

# FORM G: GENERATOR ANNUAL REPORT FOR THE YEAR ENDING DEC. 31, 19 85

ENVIRONMENTAL MANAGEMENT BOARD

(Collected under the authority of IC 13-7-8.5-2 Indiana Environmental Management Act)

VIII. GENERATOR'S EPA ID NUMBER | I N D 0 8 7 0 3 2 2 0 7 |

IX. TRANSPORTATION SERVICES USED This information is required only on one copy of Form G.

List the EPA Identification Numbers for all transporters whose services were used during the year.

OHD 052937885

X. FACILITY'S NAME (specify) | C H E M I C A L S O L V E N T S | FACILITY'S EPA ID NUMBER | O H D 9 8 0 8 9 7 6 5 6 |

XI. FACILITY'S ADDRESS

Street or P. O. Box | 1 0 1 0 D E N I S O N A V E N U E |

City or Town | C L E V E L A N D | State | O H | Zip | 4 4 1 0 9 |

XII. WASTE IDENTIFICATION

| LINE NUMBER | (A.) DESCRIPTION OF WASTE | (B.) DOT HAZARD CLASS | (C.) EPA HAZARDOUS WASTE (see code) | (D.) AMOUNT OF WASTE (in Pounds or Tons) | (E.) UNIT OF WEIGHT (circle one) |
|---|---|---|---|---|---|
| 1 | Spent halogenated solvents Methylene chloride ORM-A | 1 3 | F 0 0 2 | 5 0 6 0 0 | (P) T |
| 2 | | | | | P T |
| 3 | | | | | P T |
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| 8 | | | | | P T |

XIII. COMMENTS (enter information by line number -- see instructions)



State Form 19286R
SB166-002
Revised 10/82

MAY BE PHOTOCOPIED

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[Design & Mfg & Absochld Corp]

STATE OF INDIANA
STREAM POLLUTION CONTROL BOARD

53
eao

Business Name
1. 1767 Sheridan st.
Address
Richmond, Ind.
City State
Wayne 47374
County Zip

# SPC-17 LIQUID WASTE REMOVAL RECORD
## INDUSTRY REPORT

JAN 8 10 23 AM '86

2. For quarterly period ending

| Mo. | Day | Year |
|---|---|---|
| 12 | 31 | 85 |

DIVISION OF LAND
POLLUTION CONTROL
STATE
BOARD OF HEALTH

| 3. DATE HAULED Mo. | Day | Year | 4. HAULING FIRM Name | City | State | 5. QUANTITY | 6. WASTE DESCRIPTION |
|---|---|---|---|---|---|---|---|
| 11 | 19 | 85 | Chemical Solvents | Cleveland | Oh. | 1100 Gal | Spent halogenated solvents-methylene chloride NA 1593 |
| 11 | 20 | 85 | Chemical Solvents | Cleveland | Oh. | 880 Gal | Spent halogenated solvent-methylene chloride NA 1593 |

7. Signature (Authorized Representative) Paul V. Fuller

8. Date 1-3-86

053
E&D

STATE OF INDIANA
STREAM POLLUTION CONTROL BOARD

# SPC-17 LIQUID WASTE REMOVAL RECORD
## INDUSTRY REPORT

Design & Mfg. and Absocold Corp.
Business Name

1. 1767 Sheridan Street
Address

Richmond — Indiana
City — State

Wayne — 47374
County — Zip

2. For quarterly period ending

| Mo. | Day | Year |
|---|---|---|
| 9 | 30 | 85 |

| 3. DATE HAULED Mo. | Day | Year | 4. HAULING FIRM Name | City | State | 5. QUANTITY | 6. WASTE DESCRIPTION |
|---|---|---|---|---|---|---|---|
| 8 | 20 | 85 | Chemical Solvents | Cleveland | OH | 1650 gal. | Spent Halogenated Solvents-Methylene Chloride NA1593 |
| 9 | 26 | 85 | Reclaimed Energy | Connersville | IN | 220 gal. | Waste Toluene UN1294 |
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DIVISION OF LAND POLLUTION CONTROL STATE BOARD OF HEALTH
OCT 10 2 55 PM '85

7. Signature (Authorized Representative) Paul V. Faller

8. Date 10-8-85

Design & Mfg. and Absocold Corp.
Business Name

1. 1767 Sheridan Street
Address

Richmond — Indiana
City — State

Wayne — 47374
County — Zip

STATE OF INDIANA 053
STREAM POLLUTION CONTROL BOARD

JUL 8 9 30 AM '85
DIV. OF LAKE & RIVER POLLUTION CONTROL
STATE BOARD OF HEALTH

SPC-17 LIQUID WASTE REMOVAL RECORD
INDUSTRY REPORT

2. For quarterly period ending

| Mo. | Day | Year |
|---|---|---|
| 06 | 30 | 85 |

| 3. DATE HAULED Mo. | Day | Year | 4. HAULING FIRM Name | City | State | 5. QUANTITY | 6. WASTE DESCRIPTION |
|---|---|---|---|---|---|---|---|
| 04 | 22 | 85 | Chemical Solvents | Cleveland | OH | 440 gal. | Spent Halogenated Solvents - Methylene Chloride NA1593 |
| 06 | 20 | 85 | Reclaimed Energy | Connersville | IN | 770 gal. | Waste Toluene UN1294 |
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7. Signature (Authorized Representative) Paul V. Fallen

8. Date 7-3-85

Design & Mfg. & Absocold Corp.
Business Name

1. 1767 Sheridan St.
Address

Richmond, Indiana
City State

Wayne 47374
County Zip

STATE OF INDIANA
STREAM POLLUTION CONTROL BOARD

# SPC-17 LIQUID WASTE REMOVAL RECORD
## INDUSTRY REPORT

2. For quarterly period ending

| Mo. | Day | Year |
|---|---|---|
| 03 | 31 | 85 |

| 3. DATE HAULED Mo. | Day | Year | 4. HAULING FIRM Name | City | State | 5. QUANTITY | 6. WASTE DESCRIPTION |
|---|---|---|---|---|---|---|---|
| 03 | 08 | 85 | Chemical Solvents | Cleveland | OH | 9,900 lb. | Spent Halogenated Solvents - Methylene Chloride UN1593 |
| 03 | 14 | 85 | Reclaimed Energy Co. | Connersville | IN | 550 gal. | Waste Paint Related Materials NA1593 |
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APR 17 9 30 PM '85
DIV. OF LAND POLLUTION CONTROL
STATE BOARD OF HEALTH

7. Signature (Authorized Representative) Paul V. Faller

8. Date 4-15-85

5 un

Design & Mfg. & Absocold Corp.
Business Name

1. 1767 Sheridan Street
Address

Richmond, Indiana
City

Wayne
County

State 47374
Zip

STATE OF INDIANA
STREAM POLLUTION CONTROL BOARD

SPC-17 LIQUID WASTE REMOVAL RECORD
INDUSTRY REPORT

JAN 7 11 13 AM '85
DIV. OF LAND POLLUTION CONTROL
STATE BOARD OF HEALTH

2. For quarterly period ending

| Mo. | Day | Year |
|---|---|---|
| 12 | 31 | 84 |

| 3. DATE HAULED Mo. | Day | Year | 4. HAULING FIRM Name | City | State | 5. QUANTITY | 6. WASTE DESCRIPTION |
|---|---|---|---|---|---|---|---|
| 11 | 08 | 84 | Chemical Solvents | Cleveland | OH | 495 gallons | Spent halogenated solvents-methylene chloride UN1593 |
| 12 | 20 | 84 | Reclaimed Energy Co. | Connersville | IN | 605 gallons | Waste paint related material NA-1263 |
| 12 | 18 | 84 | Chemical Solvents, Inc. | Cleveland | OH | 440 gallons | Spent halogenated solvents-methylene chloride UN1593 |
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7. Signature (Authorized Representative) Paul V. Fuller

8. Date 1-2-85

AMMENDED REPORT

Design & Manufacturing Corp.
Business Name

1. 1767 Sheridan Street
Address

Richmond IN
City State

Wayne 47374
County Zip

STATE OF INDIANA
STREAM POLLUTION CONTROL BOARD

# SPC-17 LIQUID WASTE REMOVAL RECORD
## INDUSTRY REPORT

Oct 3 10 20 AM '84

2. For quarterly period ending

| Mo. | Day | Year |
|---|---|---|
| 9 | 30 | 84 |

| 3. DATE HAULED | | | 4. HAULING FIRM | | | 5. QUANTITY | 6. WASTE DESCRIPTION |
|---|---|---|---|---|---|---|---|
| Mo. | Day | Year | Name | City | State | | |
| 9 | 20 | 84 | Reclaimed Energy Co. | Connersville | IN | 2938 lbs. | waste Toluene |
| 9 | 25 | 84 | Chemical Solvents | Cleveland | OH | 12,967 lbs. | Spent Halocenated Solvents-Methylene Chloride |
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7. Signature (Authorized Representative) Paul V. Fuller

8. Date 10-2-84

Design & Manufacturing & Absocold
Business Name

1. 1767 Sheridan Street
Address

Richmond — Indiana
City — State

Wayne — 47374
County — Zip

STATE OF INDIANA
STREAM POLLUTION CONTROL BOARD

SEP 20 2 37 PM '84

SPC-17 LIQUID WASTE REMOVAL RECORD
INDUSTRY REPORT

2. For quarterly period ending

| Mo. | Day | Year |
|---|---|---|
| 9 | 30 | 84 |

| 3. DATE HAULED Mo. | Day | Year | 4. HAULING FIRM Name | City | State | 5. QUANTITY | 6. WASTE DESCRIPTION |
|---|---|---|---|---|---|---|---|
| 9 | 20 | 84 | Reclaimed Energy Co. | Connersville | IN | 2938 lbs. | Waste Toluene |
| | | | | | | | |
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7. Signature (Authorized Representative) Paul V. Faller

8. Date 9/26/84

2 Cm

Design & Mfg. & Absocold
Business Name

1. 1767 Sheridan Street
Address

Richmond, IN
City State

Wayne 47374
County Zip

STATE OF INDIANA
STREAM POLLUTION CONTROL BOARD

# SPC-17 LIQUID WASTE REMOVAL RECORD
## INDUSTRY REPORT

2. For quarterly period ending

| Mo. | Day | Year |
|---|---|---|
| 06 | 30 | 84 |

| 3. DATE HAULED Mo. | Day | Year | 4. HAULING FIRM Name | City | State | 5. QUANTITY | 6. WASTE DESCRIPTION |
|---|---|---|---|---|---|---|---|
| 5 | 17 | 84 | Chemical Solvents | Cleveland | OH | 9,584 lbs | Spent Halogenated solvents Methylene Chloride |
| 6 | 28 | 84 | Reclaimed Energy Co. | Connersville | IN | 2,518 lbs | Waste paint related material |
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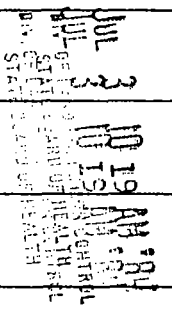

7. Signature (Authorized Representative) Paul V. Fuller

8. Date June 29, 1984

2E2 302

Absocold Corporation
Business Name

1. 1767 Sheridan Street
Address

Richmond, Indiana
City

Wayne
County

State
47374
Zip

STATE OF INDIANA
STREAM POLLUTION CONTROL BOARD

# SPC-17 LIQUID WASTE REMOVAL RECORD
## INDUSTRY REPORT

2. For quarterly period ending

| Mo. | Day | Year |
|---|---|---|
| 12 | 31 | 83 |

| 3. DATE HAULED Mo. | Day | Year | 4. HAULING FIRM Name | City | State | 5. QUANTITY | 6. WASTE DESCRIPTION |
|---|---|---|---|---|---|---|---|
| 5 | 16 | 83 | Chemical Solvents | Cleveland | OH | 23,165 lb. | Spent Methylene Chloride |
| 10 | 7 | 83 | Chemical Solvents | Cleveland | OH | 15,816 lb. | Spent Methylene Chloride |
| 11 | 8 | 83 | Chemical Solvents | Cleveland | OH | 2,818 lb. | Spent Methylene Chloride |
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JAN 17 9 50 AM '84
STATE BOARD OF HEALTH

7. Signature (Authorized Representative) Linda Maggard

8. Date 1-16-84

Design & Manufacturing Corp.
Business Name

1. 1767 Sheridan Street
Address

Richmond, Indiana
City State

Wayne 47374
County Zip

STATE OF INDIANA
STREAM POLLUTION CONTROL BOARD

# SPC-17 LIQUID WASTE REMOVAL RECORD
## INDUSTRY REPORT

2. For quarterly period ending

| Mo. | Day | Year |
|---|---|---|
| 9 | 30 | 83 |

| 3. DATE HAULED Mo. | Day | Year | 4. HAULING FIRM Name | City | State | 5. QUANTITY | 6. WASTE DESCRIPTION |
|---|---|---|---|---|---|---|---|
| 9 | 29 | 83 | Reclaimed Energy Company, Inc. | Connersville | IN | 3,777 lb. | Spent Toluene |
| | | | | | | (9 drums x 55 gal. x 7.63 lb/gal.) | |

OCT 7 3 55 PM '83
DIV. OF LAND POLLUTION CONTROL
STATE BOARD OF HEALTH

7. Signature (Authorized Representative) Paul V. Fallon

8. Date 10-4-83

Design & Manufacturing Corp.
Business Name

1. 1767 Sheridan Street
Address

Richmond, Indiana
City State

Wayne 47374
County Zip

STATE OF INDIANA
STREAM POLLUTION CONTROL BOARD

# SPC-17 LIQUID WASTE REMOVAL RECORD
## INDUSTRY REPORT

2. For quarterly period ending

| Mo. | Day | Year |
|---|---|---|
| 6 | 30 | 83 |

| 3. DATE HAULED | | | 4. HAULING FIRM | | | 5. QUANTITY | 6. WASTE DESCRIPTION |
|---|---|---|---|---|---|---|---|
| Mo. | Day | Year | Name | City | State | | |
| 6 | 22 | 83 | Reclaimed Energy Company, Inc. | Connersville | IN | 483 gal. | Spent Toluene |
| | | | | | | | |
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7. Signature (Authorized Representative) Paul V. Fuller

8. Date 7-6-83

Design & Mfg. Corp.
Business Name

1. 1767 Sheridan Street
Address

Richmond, IN.
City State

Wayne 47374
County Zip

STATE OF INDIANA
STREAM POLLUTION CONTROL BOARD

# SPC-17 LIQUID WASTE REMOVAL RECORD
## INDUSTRY REPORT

2. For quarterly period ending

| Mo. | Day | Year |
|---|---|---|
| 3 | 31 | 83 |

| 3. DATE HAULED Mo. | Day | Year | 4. HAULING FIRM Name | City | State | 5. QUANTITY | 6. WASTE DESCRIPTION |
|---|---|---|---|---|---|---|---|
| 1 | 26 | 83 | Environmental Processing Services | Dayton | OH. | 2646 lbs. | spent Toluene |
| 2 | 21 | 83 | Environmental Processing Services | Dayton | OH. | 8379 lbs. | spent Toluene |
| 3 | 30 | 83 | Environmental Processing Services | Dayton | OH | 13,800 lb. | Paint |
| 3 | 30 | 83 | Environmental Processing Services | Dayton | OH | 2400 lb. | Spent Toluene |
| | | | | | | | 2400 2646 8379 3877 3877 20779 |
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7. Signature (Authorized Representative) Paul V. Faller

8. Date 3-31-83

Dixon

Design & Manufacturing
Business Name

1. 1767 Sheridan St.
Address

Richmond, Ind.
City State

Wayne 47374
County Zip

STATE OF INDIANA
STREAM POLLUTION CONTROL BOARD

# SPC-17 LIQUID WASTE REMOVAL RECORD
## INDUSTRY REPORT

IND 006419410

2. For quarterly period ending

| Mo. | Day | Year |
|---|---|---|
| 3 | 31 | 82 |

| 3. DATE HAULED | | | 4. HAULING FIRM | | | 5. QUANTITY | 6. WASTE DESCRIPTION |
|---|---|---|---|---|---|---|---|
| Mo. | Day | Year | Name | City | State | | |
| 3 | 3 | 82 | Fisher-Calo Chemicals | Indianapolis, | Ind. | 25,536 lbs. | Spent toluene |
| | | | | | | | |
| | | | Carrier # INT 190011940 | | | | |
| | | | Tractor # 55<br>Trailer # T-180 | | | | |
| | | | This was a 3-year [illegible] [illegible] [illegible] on 3/[illegible]/82 [illegible] | | | | |
| | | | or 90 day accum. period. Tom Lingson | | | | |
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7. Signature (Authorized Representative) Paul V. Fuller Chem. Lab

8. Date 3-22-82

DESIGN & MANUFACTURING
Business Name

1. SHERIDAN ST.
Address

RICHMOND, INDIANA
City State

WAYNE 47374
County Zip

STATE OF INDIANA
STREAM POLLUTION CONTROL BOARD

# SPC-17 LIQUID WASTE REMOVAL RECORD
## INDUSTRY REPORT

RECEIVED
STATE OF INDIANA
STREAM POLLUTION CONTROL BOARD

2. For quarterly period ending

| Mo. | Day | Year |
|---|---|---|
| 9 | 30 | 79 |

| 3. DATE HAULED Mo. | Day | Year | 4. HAULING FIRM Name | City | State | 5. QUANTITY | 6. WASTE DESCRIPTION |
|---|---|---|---|---|---|---|---|
| 7 | 5 | 79 | RECYCLING ENGINEERING | P.O. BOX 475 CONNERSVILLE, IND | | 900 GALS | PAINT THINNER & PAINT SCRAP |
| 7 | 6 | 79 | " " " " | " " | " | 1,900 GALS | " " " |
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7. Signature (Authorized Representative) Robert N. Mueller

8. Date 9/26/79

SANYO 2D1 I DEM CWK

SANYO E & E Corporation
Richmond Division
1751 Sheridan Street
Richmond, IN 47374
Telephone (317) 962-1134

FEB 26 2 34 AM '88
OFFICE OF SOLID AND HAZARDOUS WASTE MGT. IDEM

February 22, 1988

George Oliver
Chief of Special Projects
Indiana Department of Evironmental Management

Dear Sir:

Per a phone conversation with Mr. Ron Weiss, I was asked to inform your department that at the present time our facility is producing approximately ( 168 ) tons of coal-fired-ash per year; and permission from your department to send these materials to the landfill is requested.

Any help from your department on these matters would be appreciated.

Attached you will find a specification sheet on the coal that we burn in our boilers.

Thank you for your assistance,

RK

Randy Kincaid
Maintenance Supervisor

ls

Sanyo E&E Corporation
1751 Sheridan Street
Richmond, In. 47374

Specifications of coal now used.

| | |
|---|---|
| Fixed carbon | 50%-52% |
| Ash content | 6.5%-7.5% |
| BTU per pound | 13200 |
| Ash softening temperature | 2800°F |
| Free swelling index | 1-4 |
| Sulfer content | .7% |
| Size | 1½x3/8 |
| Moisture | 7.5% |
| Volatile | 3483 |

This coal is washed stoker coal and cost $51.00 a ton.

Hatfield Coals
P.O. Box 14118
Cincinnati, Ohio.
45214
Phone
1-513-621-4800

SPECIAL WASTE REVIEW
WORKSHEET

Case No. 80129
Evaluator C Jordan

| INITIAL REVIEW | | ADDITIONAL INFORMATION REVIEW | |
|---|---|---|---|
| Date Received | 2/26 | Date Received | |
| Date Assigned | 3/29 | Date Assigned | |
| Response | ASAP | Response | |
| Date | 4/25 | Date | |
| Signature | C. Jordan | Signature | |

SPECIAL WASTE INFORMATION

GENERATOR Sanyo - Richmond Division
ADDRESS E 1751 Sheridan Street
Richmond, In. 47374 (317) 962-1134
Randy Kincaid (contact) COUNTY
WASTE MATERIAL coal fred ash
WASTE VOLUME 168 UNITS tons FREQUENCY per year
DESCRIPTION
DISPOSAL SITE ASAL COUNTY OPP NO

COMMENTS SECTION

Provide the necessary information to document your review of the waste. Record all personal contacts and resources consulted.

es 2093A 10/6/87

201

# STATE BOARD OF HEALTH

INDIANAPOLIS

## OFFICE MEMORANDUM

DATE: November 8, 1985

TO: D & M Design and Manufacturing Corporation
Generator File, Richmond, Indiana

THRU:

FROM: Norman J. Gray NJG
Division of Land Pollution Control

SUBJECT: Special Waste Disposal of Various Industrial Wastes

On November 4, 1985, an inspection/visit was made at the D & M Manufacturing Company, Richmond, Indiana. D & M manufactures 18 inch dishwashers for various vendors. Their plant takes in sheet metal and molds, treats, processes, paints, and packages the dishwashers. Note: Richmond has a sister plant in Connersville, Indiana. Both plants manufacture dishwashers and are very similar in process and operation except that the Connersville Plant manufactures both 18 inch and 24 inch dishwashers.

Per request for disposal, letter dated July 2, 1985, the following wastestreams were noted:

1. Metal Cleaning System Prior to Painting. This process does not include any etching operations and essentially removes drawing and cutting oils from the metal forming area. Most of the cleaning compound is recycled and very little debris (sediment) accumulates for disposal. Estimated volume is approximately three to five gallons per month. These cleaners are very alkaline.

2. Iron and Zinc Phosphate System. Here, etching of the metal occurs and a phosphate coating is deposited on the surface of the metal. Chromium (trivalent) is then added to seal the phosphate coating. This prepares the metal parts for either painting or enameling. Approximately two to three drums per year are generated of the iron phosphate sludge and five to six drums per year of the zinc phosphate sludge. These wastes will need EP Toxicity testing.

3. Alkaline Cleaning System for Porcelain Line. This line is a flow through line consisting once again of an alkaline cleaner to clean drawing compounds. It then goes to a neutralization tank, nickel filter, where a thin layer of nickel is deposited similar to plating, and finally to a lime neutralized pickeling process where approximately 1,000 gallons is generated every two months. Nothing is disposed from the alkaline cleaner bath. The neutralization tank requires approximately five gallons per week and the nickel filter approximately one drum every four weeks.

4. Wet Porcelain Enamel. A variety of raw materials are added here (basically porcelain fritz). The only waste is when some is spilled on the floor and floor sweepings from the general area (approximately four drums per month).

5. PVC Vinyl System. The PVC vinyl powder is fluidized ann the parts (baskets) are dipped in the fluidized PVC vat. Only spillage and floor sweepings need to go to the landfill (one drum per month). There is some concern because of the carcinogenic nature of PVC vinyl.

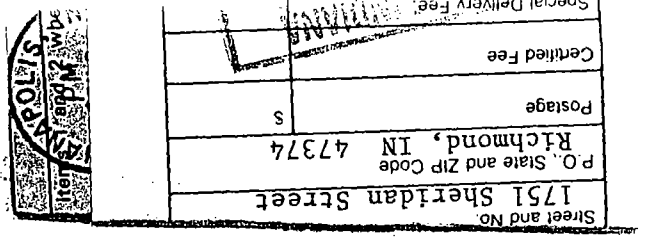
6. Electro-Deposition Primer Paint. This system is a normal paint system with little waste going to the landfill. D & M is to indicate the volumes for disposal.

7. Elctro-Deposition Top Coat Paint. This is once again a normal paint system. Filters will need to be disposed at the landfill. Very little volumes will need approval. D & M is to indicate the volumes for disposal.

8. Paint Strip Tank. A strip tank is used to take old paint off the control panels using methylene chloride. It is a thin layer of paint and therefore disposal volumes will be very low. They treat their waste with methylene chloride as a spent solvent but the paint chips they do not. This is also a spent solvent waste and should be handled as a hazardous waste. Approximately 20 to 25 gallons per year is generated.

9. General House Keeping. Some hydraulic fluids and cutting oils are spilled on the floor in the metal forming area. They dry the material with floor dry. We will need to review material safety data sheets on their various oils.

NJG/sk




It should also be noted that any appeal must be filed under procedures outlined in IC 13-7-10-2.5, IC 4-21.5., and the enclosed Public Notice. The appeal must be initiated by filing with the Commissioner of the Department of Environmental Management a request for an adjudicatory hearing within 15 days of receipt of this letter. Please send a copy of any written appeal to me at the above address.

If you have any questions concerning the permit, please contact Mr. Clarence L. Tharpe at 317/232-8707. Questions concerning appeal procedures should be directed to Mr. Ihor Boyko, Office of Legal Counsel, at 317/232-8515.

Sincerely,

Charles B. Bardonner
Assistant Commissioner
Office of Water Management

CLT/jep

Enclosures

cc: Chief, Permit Section
U.S. EPA, Region V
Wayne County Health Department

WA
Air

TITLE 325 AIR POLLUTION CONTROL BOARD

DIGEST

ESTABLISHES SULFUR DIOXIDE EMISSION LIMITATIONS

ARTICLE 7. SULFUR DIOXIDE REGULATIONS

Rule 1. Sulfur Dioxide Emission Limitations

325 IAC 7-1-1 Applicability
Authority: IC 13-1-1-4; IC 13-7-5-1
Affected: IC 13-1-1-1; IC 13-1-1-4; IC 13-7-1-1; IC 13-7-5-1; IC 13-7-7-2

Sec. 1. Applicability. Sources or facilities specifically listed in Appendix A of this Rule (325 IAC 7-1-8, 325 IAC 7-1-9, and 325 IAC 7-1-10) shall comply with the limitations contained therein and the other requirements of this Rule (325 IAC 7-1). All facilities with a potential to emit 22.3 metric tons per year (25 tons per year) or 4.5 kilograms per hour (10 pounds per hour) of sulfur dioxide shall comply with the limitations in Section 2 and the other requirements of this Rule (325 IAC 7-1).

325 IAC 7-1-2 Emission limitations
Authority: IC 13-1-1-4; IC 13-7-5-1
Affected: IC 13-1-1-1; IC 13-1-1-4; IC 13-7-1-1; IC 13-7-5-1; IC 13-7-7-2

Sec. 2. Emissions Limitations. (a) All emission limitations established pursuant to this section shall ensure:

(1) That the ambient sulfur dioxide air quality standards established by 325 IAC 1.1-2 (formerly known as APC 14) will be attained and/or maintained, and;

(2) That increases in sulfur dioxide ambient air concentrations will not exceed the allowable increments established for Class II areas by Section 163(b)(2) of the Federal Clean Air Act, unless exempted thereunder.

(b) Sulfur dioxide emissions from all fuel combustion facilities not limited by paragraphs (c) through (e) below shall be limited to 10.8 grams per million calories heat input (6.0 pounds per million Btu) unless said facility can demonstrate to the satisfaction of the Board that emissions in excess of 10.8 grams per million calories heat input (6.0 pounds per million Btu) will not cause or contribute to a violation of any of the ambient sulfur dioxide air quality standards established by 325 IAC 1.1-2 (formerly known as Regulation APC 14) or any PSD increments as set forth in 325 IAC Article 2 (formerly known as APC 19). If the facility makes the above demonstration, the emission limitation shall be set forth in accordance with the procedures set forth in 325 IAC Article 2 (formerly known as APC 19).

Promulgated August 27, 1980

(c) Sulfur dioxide emission limitations for: i) facilities having a significant impact on air quality and located in areas where the ambient sulfur dioxide standard either is not attained or will not be maintained without emission limitations in addition to those set forth in paragraph (b) of this section, ii) facilities required to comply with the Prevention of Significant Deterioration (PSD) requirements of Part C of the Federal Clean Air Act, and iii) facilities having made the demonstration detailed in Section (b) above shall be established in construction and operation permits issued in accordance with the procedures set forth in 325 IAC, Article 2 (formerly known as APC 19).

(d) Sulfur dioxide emission limitations may be established by the Board or a designated local agency. However, if the Technical Secretary of the Board determines that a limitation issued in a permit by a local agency will conflict with the attainment or maintenance of an ambient air quality sulfur dioxide standard he shall:

(1) Notify the local agency of said conflict within 30 days and shall give the local agency 60 days within which to resolve this conflict.

(2) If this conflict is not resolved within 60 days the Board shall hold a Hearing for the purpose of resolving said conflict. Upon conclusion of this hearing, and after careful consideration of all testimony and evidence received the Board shall issue permits which assure that the sulfur dioxide ambient air quality standards set forth in 325 IAC 1.1-2 (formerly known as APC 14) will be attained and/or maintained.

(3) Any limitations established by the Board pursuant to this Section shall take precedence over any limitations established by a local agency.

(e) When there is a conflict between emission limitations determined pursuant to Section 2 (b), herein, or 325 IAC, Article 12 (New Source Performance Standards) or any limitations established under the terms of 325 IAC, Article 2 (formerly known as APC 19), the more stringent shall apply.

325 IAC 7-1-3 Test methods to determine compliance
Authority: IC 13-1-1-4; IC 13-7-5-1
Affected: IC 13-1-1-1; IC 13-1-1-4; IC 13-7-1-1; IC 13-7-5-1; IC 13-7-7-2

Sec. 3. Test Methods to Determine Compliance. Determination of sulfur dioxide emissions from sources to which this Rule (325 IAC 7-1) applies shall either be made in accordance with the procedures set forth in Method 6, Appendix A of 40 CFR, Part 60, revised as of August 18, 1977; by specifying the average sulfur content of the fuel used (30-day average); or by other procedures approved by the Board.

325 IAC 7-1-4 Ambient monitoring
Authority: IC 13-1-1-4; IC 13-7-5-1
Affected: IC 13-1-1-1; IC 13-1-1-4; IC 13-7-1-1; IC 13-7-5-1; IC 13-7-7-2

Sec. 4. Ambient Monitoring. (a) All fuel combustion sources of a total plant capacity of greater than 500 million Btu heat input shall install properly located continuous air quality and meteorological monitors. The Board shall not require greater numbers of such monitors than is necessary to indicate that source's contribution to the ambient sulfur dioxide concentration. The Board shall be provided with continuous hourly data on all collected ambient air quality and meteorological data on a quarterly basis from said monitors. Such data shall be reported in the Storage and Retrieval of Aerometric Data (SAROAD) format no later than 90 days after the end of the calendar quarter. Quality assurance tests, to insure proper monitor operation, shall be conducted in accordance with procedures established by the Board.

(b) If the owner or operator of a source subject to the requirements of paragraph (a), above, demonstrates to the Board's satisfaction that any or all of said requirements are not necessary to achieve the purposes of this Rule (325 IAC 7-1), said requirements for said source may be modified or removed completely by the Board.

325 IAC 7-1-5 Control strategies
Authority: IC 13-1-1-4; IC 13-7-5-1
Affected: IC 13-1-1-1; IC 13-1-1-4; IC 13-7-1-1; IC 13-7-5-1; IC 13-7-7-2

Sec. 5. Control Strategies. (a) Emission limitations or strategies established for existing sources pursuant to Section 2(c) of this Rule (325 IAC 7-1-2(c)) shall be identical with corresponding emission limitations or strategies set forth in Indiana's State Implementation Plan, as submitted to the United States Environmental Protection Agency, for approval. Said emission limitations or strategies are set forth in Appendix A of this Rule (325 IAC 7-1-8) and are a part hereof; however, as permits are issued by the Board pursuant to this Rule (325 IAC 7-1) which incorporate the emission limitations or strategies set forth in Appendix A (325 IAC 7-1-8), the emission limitations set forth in the permit shall supersede and replace the corresponding limitations in Appendix A (325 IAC 7-1-8).

(b) New sources whose emission limitations or strategies are more restrictive than those established by Section 2 of this Rule (325 IAC 7-1-2) or the provisions of 325 IAC, Article 12 (New Source Performance Standards) and thus have been established by permit and any revisions to emission limitations or strategies formerly set forth in Appendix A (325 IAC 7-1-8), but replaced pursuant to Subsection (a) above by emission limitations or strategies in a permit issued by the Board, shall be established in permits as conditions thereto and shall not become a part of nor promulgated as a revision to this Rule (325 IAC 7-1).

(c) Upon issuance, pursuant to Subsection (b) herein, the above permits shall be submitted to EPA for review and the emission limitations or strategies set forth therein shall be submitted as a SIP revision,

however, if the limitations or strategies set forth in Appendix A (325 IAC 7-1-8) are determined to be inappropriate and are revised and submitted to EPA as a SIP revision, the permits shall reflect the revised limitations or strategies.

325 IAC 7-1-6 Compliance timetables
Authority: IC 13-1-1-4; IC 13-7-5-1
Affected: IC 13-1-1-1; IC 13-1-1-4; IC 13-7-1-1; IC 13-7-5-1; IC 13-7-7-2

Sec. 6. Compliance Timetables. (a) All sources which are operating on June 19, 1979, and which have been issued new emission limitations pursuant to Section 2(c) (325 IAC 7-1-2(c)) herein shall achieve compliance in accordance with the following schedule:

(1) Submittal of plans and specifications by December 31, 1979;

(2) Initiation of on-site construction or installation by June 30, 1980;

(3) Completion of on-site construction or installation by June 30, 1981;

(4) Achieve compliance by October 31, 1981;

(5) Submit performance results by December 31, 1981.

(b) In cases where an existing facility demonstrates that compliance is not possible by either the interim or final dates specified in (a) above, an extension may be granted by the Board. The facility shall submit a letter of intent which shows compliance with this Rule (325 IAC 7-1) as expeditiously as possible, but in no event later than December 31, 1982, and shall include a schedule of dates for the following:

(1) Submittal of plans

(2) Start construction

(3) Completion of construction

(4) Achieving compliance, and

(5) Submit performance results.

Once the Board has approved a source's compliance plan, the plan shall be incorporated into the facilities' permit and shall be submitted to EPA as a SIP revision. Failure to operate within these conditions shall be considered a violation of this Rule (325 IAC 7-1).

(c) Sources beginning operation after June 19, 1979, shall:

Within 60 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after the initial startup of such facility, the owner or operator of such facility shall submit to the Board the results of a performance test(s) conducted in accordance with Section 3, herein, demonstrating compliance with the emissions limitations established pursuant to this Rule (325 IAC 7-1).

325 IAC 7-1-7 SIP revision
Authority: IC 13-1-1-4; IC 13-7-5-1
Affected: IC 13-1-1-1; IC 13-1-1-4; IC 13-7-1-1; IC 13-7-5-1; IC 13-7-7-2

Sec. 7. SIP Revision. Any exemptions, modifications, alternate limitations or extensions granted by the Board pursuant to Section 2(b), (c) or (d), Section 3 or Section 5 of this Rule (325 IAC 7-1), shall be submitted to the U.S. EPA as revisions to the State Implementation Plan (SIP).

| Source | Facility Description | Emission Limits: Short Term Limit | Emission Limits: Additional Limits+ |
|---|---|---|---|
| AMOCO (Cont.)[1] | Number 2 Ultraformer: F-7 Furnace | | 0.0348 lb/MMBtu |
| | Number 3 Ultraformer: H-1 Feed Heater Furnace | | 0.0026 lb/MMBtu |
| | Number 3 Ultraformer: H-2 Feed Heater Furnace | | 0.0032 lb/MMBtu |
| | Number 3 Ultraformer: F-7 Furnace | | 0.0348 lb/MMBtu |
| | Number 3 Ultraformer: Whru Gas Firing | | 0.0294 lb/MMBtu |
| | Number 4 Ultraformer: F-1 Ultrafiner Furnace | | 0.0471 lb/MMBtu |
| | Number 4 Ultraformer: F-8A and F-8B Hot Oil Reboilers (2 identical units) | | 0.0485 lb/MMBtu* |
| | Number 4 Ultraformer: F-2 Preheater Furnace | | 0.0472 lb/MMBtu |
| | Number 4 Ultraformer: F-3 Number 1 Reheat Furnace | | 0.0492 lb/MMBtu |
| | Number 4 Ultraformer: F-4 Number 2 Reheat Furnace | | 0.0474 lb/MMBtu |
| | Number 4 Ultraformer: F-5 Number 3 Reheat Furnace | | 0.0475 lb/MMBtu |
| | Number 4 Ultraformer: F-6 Number 4 Reheat Furnace | | 0.0469 lb/MMBtu |
| | Number 4 Ultraformer: F-7 Furnace | | 0.0558 lb/MMBtu |
| | Aromatics Recovery Unit: F-200A and F-200B furnaces (2 identical units) | | 0.6172 lb/MMBtu * |
| | Blending Oil Desulphurization Furnace F-401 | | 0.0457 lb/MMBtu |
| | Number 1 CRU: F-101 Feed Preheat | | 0.0181 lb/MMBtu |
| | Number 1 CRU: F-102 Stripper Reboiler | | 0.0183 lb/MMBtu |
| | Number 1 CRU: F-201 Steam Superheater | | 0.1400 lb/MMBtu |
| | Number 1 CRU: F-202 Butamer Superheater | | 0.1250 lb/MMBtu |
| | FCU 500 | | 50 lb/ton coke burned |
| | FCU 600 | | 34.7 lb/ton coke burn |
| | Number 37 Pipe Still: B-1 Feed Preheater | | 0.2230 lb/MMBtu |
| | Number 37 Pipe Still: B-2 Wax Fractionator | | 0.1875 lb/MMBtu |
| | Phenol Extraction Unit: B-105 Extract Furnace | | 0.7135 lb/MMBtu |
| | Phenol Extraction Unit: B-106 Raffinate Furnace | | 0.7484 lb/MMBtu |
| | Wastewater Sludge Fluid Bed Incinerator | | 0.0452 lb/ton |
| | Wax and Oil Hydrotreating Unit | | 0.0125 lb/MMBtu |
| | Asphalt Oxidizer No. 1 | | 0.0019 lb/ton |
| | Asphalt Oxidizer No. 2 | | 0.1604 lb/ton |
| | Asphalt Oxidizer No. 3 | | 0.1600 lb/ton |
| | Cat Feed Hydrotreating Unit | | 0.0301 lb/MMBtu |
| | Tail Gas Unit-New | | 1.6 lb/hr |
| | Heavy Oils Unit H-101, H-201, H-202 | | 0.0125 lb/MMBtu |
| Blaw-Knox Foundry and Mill Machinery Inc. | Boiler Number 2639 | 0.01 lb/hr | 0.0006 lb/MMBtu |
| | Boiler Number 2640 | 0.01 lb/hr | 0.0006 lb/MMBtu |
| | Boilers Number 567 and 570 (2 identical units) | 0.003 lb/hr* | 0.0006 lb/MMBtu* |
| | Number 1 and 2 Open Hearths (2 identical units) (collectively, 20 hours/day/operation) | 41.8 lb/hr | 6.9667 lb/ton |
| Certified Concrete | Boiler | 15.7 lb/hr | 1.1214 lb/MMBtu |
| Commonwealth Edison Co. | Boiler Number 1-3 | 2556.0 lb/hr | 1.2 lb/MMBtu |
| | Boiler Number 1-4 | 4281.6 lb/hr | 1.2 lb/MMBtu |
| | Emergency Backup Boilers Number 2-1 & 2-2 (Boilers No. 2-1 and 2-2 will operate only when Boilers No. 1-3 and 1-4 are not operating) | 1.2 lb/MMBtu | 200 T/Day Coal Combustion |
| Dupont deNemours & Co., Inc. | Powerhouse | 0.1 lb/hr | 0.0029 lb/MMBtu |
| | Sulfuric Acid | 525.0 lb/hr | 13.2576 lb/ton |
| East Chicago Sanitary Dist. | Incinerator | 45.0 lb/hr | 2.5 lb/ton |

+Rated Capacity
*Applicable to each emission unit

[1] All AMOCO sources collectively limited to 67.6 tons per day

| Source | Facility Description | Emission Limits: Short Term Limit | Additional Limit |
|---|---|---|---|
| land Steel (Cont.) | Number 7 Coke Battery, Underfire Stack | 396.2 lb/hr | 2.2981 lb/MMBtu |
| | Number 8 Coke Battery, Underfire Stack | 396.2 lb/hr | 2.2981 lb/MMBtu |
| | Number 9 Coke Battery, Underfire Stack | 396.2 lb/hr | 2.2981 lb/MMBtu |
| | Number 10 Coke Battery, Underfire Stack | 483.6 lb/hr | 2.2963 lb/MMBtu |
| | Number 11 Coke Battery, Underfire Stack | 353.0 lb/hr | 0.9121 lb/MMBtu* |
| | Number 11 Coke Battery, Preheaters (2 identical units) | 55.0 lb/hr* | 0.4583 lb/MMBtu |
| | "C" Coke Battery, Underfire Stack | 90.0 lb/hr | 0.2727 lb/MMBtu |
| | "C" Coke Battery, Preheaters (2 identical units, collectively restricted to limit) | 48.0 lb/hr | 0.2400 lb/ton |
| | Number 12 Coke Battery, Underfire Stack | 144.0 lb/hr | 0.3429 lb/MMBtu |
| | Number 12 Coke Battery, Preheaters (2 identical units) | 28.0 lb/hr* | 0.2333 lb/ton* |
| | "C" Coke Battery Ammonia Destruct | 386.0 lb/hr | 2.4430 lb/ton |
| | Number 5 Boilerhouse (3 identical units, collectively restricted to limit) | 140.0 lb/hr | 0.1044 lb/MMBtu |
| | 2AC Station: Boilers Number 207, 208, 209, 210 (4 identical units, collectively restricted to limit) | 113.6 lb/hr<br>148.0 lb/hr° | 0.1115 lb/MMBtu<br>0.1452 lb/MMBtu° |
| | 2AC Station: Boilers Number 211, 212, and 213 (3 identical units, collectively restricted to limit) | 114.0 lb/hr<br>150.0 lb/hr° | 0.1086 lb/MMBtu<br>0.1429 lb/MMBtu° |
| | 3AC Station: Boilers Number 301, 302, 303, 304 and 305 (collectively restricted to limit) | 655.0 lb/hr<br>370.0 lb/hr° | 0.4859 lb/MMBtu<br>0.2745 lb/MMBtu° |
| | 4AC Station: Boilers Number 401, 402, 403, and 404 (collectively restricted to limit) | 1820.0 lb/hr | 1.0000 lb/MMBtu |
| | 4AC Station: Boiler Number 405 | 680.0 lb/hr | 1.0000 lb/MMBtu |
| | Number 3 Open Hearth Precipitator | 673.0 lb/hr | 1.9229 lb/MMBtu |
| | Number 4 Slabber: Soaking Pits, Number 1 thru 18 (18 identical units, collectively restricted to limit) | 291.0 lb/hr | 1.2247 lb/MMBtu |
| | Number 4 Slabber: Soaking Pits, Number 19 thru 45 (27 identical units, collectively restricted to limit) | 436.5 lb/hr | 1.2247 lb/MMBtu |
| | Number 3 Bloom Mill: "A" Soaking Pits, Number 1 thru 14 (14 units, collectively restricted to limit) | 205.9 lb/hr | 0.7003 lb/MMBtu |
| | Number 3 Bloom Mill: "B" Soaking Pits, Number 16 thru 21 (6 identical units, collectively restricted to limit) | 201.5 lb/hr | 1.4926 lb/MMBtu |
| | Number 3 Bloom Mill: "C" Soaking Pits, Number 22 thru 27 (6 identical units, collectively restricted to limit) | 201.5 lb/hr | 1.4926 lb/MMBtu |
| | Number 2 Bloom Mill, Soaking Pits Number 1 thru 4 (collectively restricted to limit) | 32.0 lb/hr | 0.6957 lb/MMBtu |
| | Number 2 Bloom Mill, Soaking Pits Number 5 thru 16 (12 identical units, collectively restricted to limit) | 96.0 lb/hr | 0.6957 lb/MMBtu |
| | Number 2 Bloom Mill: Soaking Pits Number 17 thru 20 (8 identical units, collectively restricted to limit) | 32.0 lb/hr | 0.6957 lb/MMBtu |
| | 100-Inch Plate Mill Furnace | 214.0 lb/hr | 0.8880 lb/MMBtu |
| | 10-Inch Mill Reheat Furnace | 92.0 lb/hr | 0.7002 lb/MMBtu |

+Rated Capacity
*Applicable to each emission unit

°These limits apply together as an alternate set of $SO_2$ emission limits on No. 2 and No. 3 AC Stations

325 IAC 7-1-10, Appendix A, Vigo County Sulfur Dioxide Limitations

Authority: IC 13-1-1-4; IC 13-7-5-1
Affected: IC 13-1-1-1; IC 13-1-1-4; IC 13-1-1-5; IC 13-7-5-1; IC 13-7-101; IC 13-7-7-5; IC 13-7-7-2; IC 13-7-16-6; and IC 13-7-16-7

| SOURCE | gms/sec | HEATING INPUT RATING mmBTU/HR. | EMISSION LIMIT LB. $SO_2$/mmBTU |
|---|---|---|---|
| General Housewares | | | |
| Boilers 1A and 2A | 56.12 | 83.00 Tot. | 6.00 |
| #5 Enamel Oven | 1.15 | 15.00 | .51 |
| #6 Enamel Oven | 1.15 | 19.00 | .51 |
| Jadcore/Plastics | | | |
| 3 Boilers | 32.76 | 168.75 Tot | 1.54 |
| Indiana Gas and Chemicals | | | |
| 2 Oil Boilers | 23.07 | 102.0 Tot. | 1.79 |
| #1 Oven Battery | 5.90 | -- | .63 |
| #2 Oven Battery | 5.90 | -- | .63 |
| Indiana State University | | | |
| Boilers #2, #3, and #5 | 243.80 | 381.13 Tot. | 5.64 |
| Boiler #4 | 4.03 | 87.50 | .37 |
| Midland Glass | | | |
| A-Furnace | 1.88 | 50.00 | .36 |
| B-Furnace | 1.88 | 21.00 | .36 |
| C-Furnace | 1.88 | 42.00 | .36 |
| Hercules | | | |
| Boiler A | 1.13 | 25.00 | .51 |
| Boiler B | 1.13 | 25.00 | .51 |
| Boiler C | 1.34 | 22.50 | .51 |

Section 4. 325 IAC 7-1-8 is repealed.

Section 2. 325 IAC 7-1 is amended by adding a new Section 7-1-9 as follows:

325 IAC 7-1-9; Appendix A, Marion County Sulfur Dioxide Limitations

Authority: IC 13-1-1-4; IC 13-7-5-1
Affected: IC 13-1-1-1; IC 13-1-1-4; IC 13-1-1-5; IC 13-7-5-1; IC 13-7-10; IC 13-7-7-5; IC 13-7-7-7; IC 13-7-16-6; and IC 13-7-16-7

| Source | Point ID | Emission Limits gms/sec | lbs/MMBTU |
|---|---|---|---|
| IPALCO-Stout Generating Station | 01-08 | 148.0 | 0.35 |
| | 09 | 21.35 | 0.35 |
| | 10 | 21.35 | 0.35 |
| | 11-12 | 1286.00 | 5.3 |
| | 13 | 2603.00 | 5.3 |
| | 14 | 11.00 | 0.35 |
| | 15 | 11.00 | 0.35 |
| | 16 | 11.00 | 0.35 |
| Reilly Tar and Chemical | 2710P | 1.10 | 1.16 |
| | Reilly | 7.57 | 1.07 |
| | B&W | 5.74 | 1.16 |
| | 2724W | 3.07 | 1.12 |
| | 2714V | 2.19 | 1.25 |
| | 732714 | 3.50 | 0.99 |
| | 2726S | 4.59 | 0.94 |
| | 2728S | 0.88 | 1.16 |
| | 2740Q | 0.88 | 1.16 |
| Detroit Diesel Allison Plt. #8 | 01 | 252.12 | 1.4 |
| Detroit Diesel Allison Plt. #5 | 01-04 | 108.88 | 2.45 |
| Detroit Diesel Allison Plt. #3 | 01 | 9.0 | 1.98 |
| | 02 | 9.0 | 1.98 |
| | 03 | 12.01 | 1.98 |
| | 05 | 18.01 | 1.98 |
| | 06 | 24.02 | 1.98 |
| National Starch and Chemicals | 02-04 | 113.51 | 3.99 |
| | 01 | 98.24 | 3.99 |
| Bridgeport Brass | 01 | 17.20 | 2.76 |
| | 02 | 17.20 | 2.76 |
| | 03 | 17.20 | 2.76 |

Section 3. 325 IAC 7-1 is amended by adding a new Section 7-1-10 as follows:

325 IAC 7-1 is amended by adding a new Section 7-1-11 as follows:

325 IAC 7-1-11, Appendix A, Wayne County Sulfur Dioxide Emission Limitations

Authority: IC 13-1-1-4; IC 13-7-5-1
affected: IC 13-1-1-1; IC 13-1-1-4; IC 13-1-1-5: IC 13-7-5-1; IC 13-7-10; IC 13-7-7-5; IC 13-7-7-2; IC 13-7-16-6: and IC 13-7-16-7

| | | Emission Limits | |
|---|---|---|---|
| Source | Facility Description | Short Term Limit* | Annual Limit* |
| Belden Corp. | Boilers 3,4,5,6 (oil) (common stack) | 1.6 | 1.6 |
| Earlham College | Boilers 1 & 2 (oil/gas) (common stack) | 1.6 | 1.6 |
| Johns-Manville Co. | Boiler B-2 (oil/gas) | 1.6 | 1.6 |
| | Glass furnaces SX-2,SX-3 (common stack) | 9 lb/ton | 9 lb/ton |
| Joseph Hill (plt A) | Boilers 1,2,4 (oil) (common stack) | 1.6 | 1.6 |
| | Boiler 3 (oil) | 1.6 | 1.6 |
| Joseph Hill (plt B) | Boilers 1,2,3 (oil/gas) (common stack) | 1.6 | 1.6 |
| Kemper | Boiler 1 (coal) | 2.3 | 1.3 |
| | Boiler 2 (wood/coal) | 2.1 | 1.3 |
| | Boiler 3 (wood/sawdust) | 1.2 | 1.2 |
| NATCO | Boiler 1 (coal) | 4.9 | 3.7 |
| Ralston Purina Co. | Boilers 1 & 2 (oil/gas) (common stack) | 1.6 | 1.6 |
| Richmond P&L | Boiler 1 & 2 (coal) (common stack)** | 6.0 | 6.0 |
| Richmond St. Hosp. | Boilers 1,2,3,4 (coal) (common stack) | 6.0 | 6.0 |
| Sanyo E&E | Boiler 2 (coal) | 4.9 | 3.9 |
| | Boiler 3 (coal) | 4.9 | 3.9 |
| Wallace Metals | Boiler 1 (oil/gas) | 1.6 | 1.6 |

* All emission rates are in lbs/MMBtu unless otherwise stated.
** A new good engineering practice stack with height of at least 325 feet must be constructed by December 31, 1987.

IDEM
3B cwk


*E.C.I. Environmental Services*

P.O. BOX 327
CAMBRIDGE CITY, IN 47327


Richmond Sanitary District
2380 Liberty Ave.
Richmond, IN 47374
ATTN: Jackie Makela

3/27/87

Jackie,

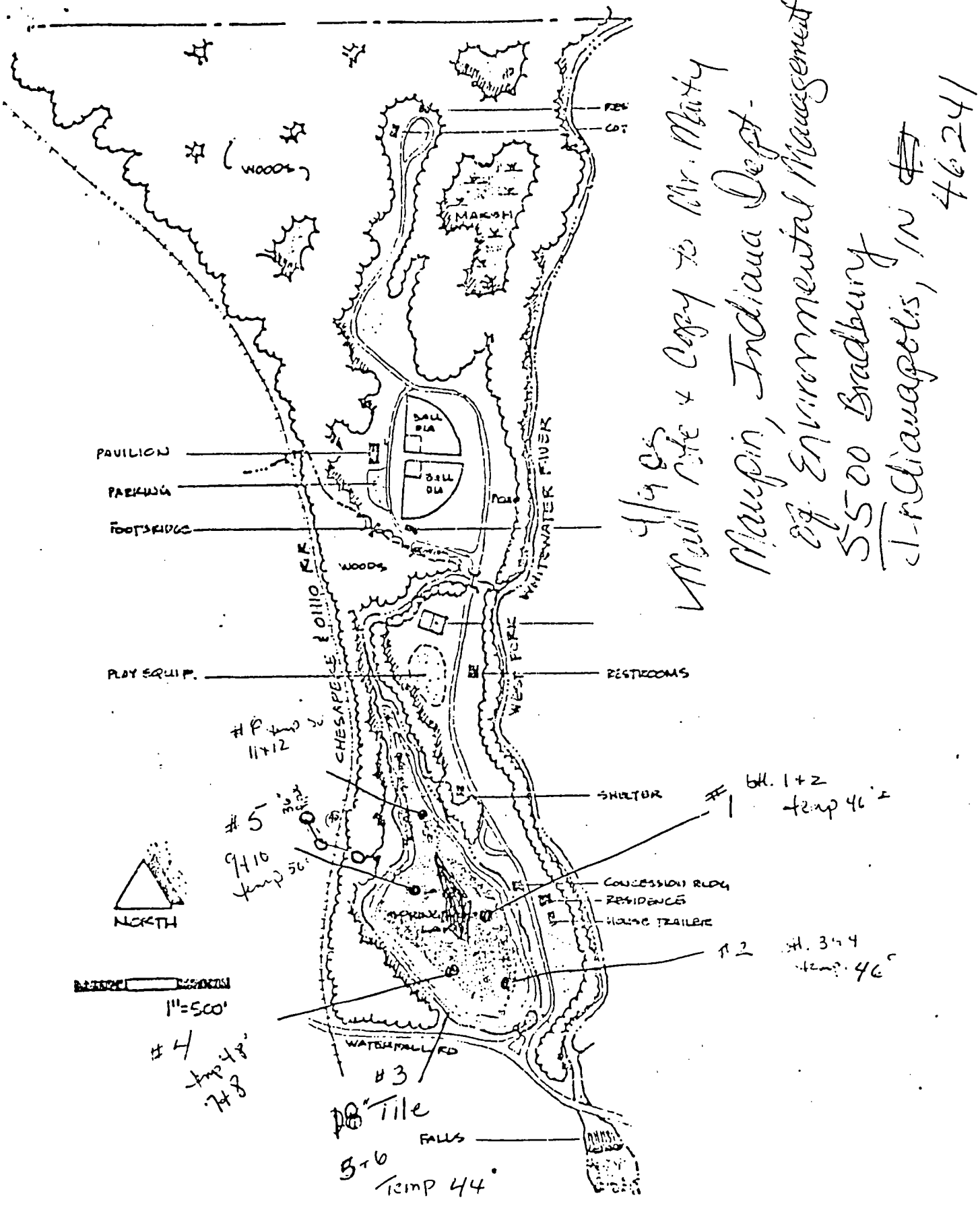
Enclosed are reference sheets which will allow you to compare heavy metal concentrations in the four sediment samples to common concentrations found in various soils on a dry basis. This is not a comparison to the heavy metal concentration contained in soils or non-contamimated sediment in the Springwood Lake area. Further analysis would be required for a background comparison.

An EP Extract test would define actual toxicity in suspect samples on a wet basis. It would be advisable to analyse only those samples currently showing elevated levels of heavy metals in order to curtail analytical costs.

I have contacted the Indiana Dept. of Envir. Mngt. concerning obtaining a copy of a draft regulation on total cyanides. Although I do not have a copy to enclose for you, it lists that any industrial waste containing > 250 mg/kg is to be considered reactive. Even though the lake sediment is not considered an industrial waste, I feel the threshold level for reactivity is important (samples #2 & #4). If you have any further questions please call.

Regards,

Paul Gordon




# ④ Springwood Park

*E.C.I. Environmental Services*

P.O. BOX 327
CAMBRIDGE CITY, IN 47327

BROOKSIDE FARMS LABORATORY ASSN. INC.
Environmental & Industrial Division
New Knoxville, Ohio 45871
(419) 753-2448
** ANALYSIS REPORT **

City of Richmond Parks Dept.
Park Office
Richmond, IN 47374
Submitted By: Paul W. Gordon

File Number: 60445
Date Recv'd: 03/04/87
Date Rept'd: 03/10/87

| Lab Number / Sample Description | | VE70711 LAKE SEDIMENT #1 2/3/87 | VE70712 LAKE SEDIMENT #2 2/3/87 | VE70713 LAKE SEDIMENT #3 2/3/87 |
|---|---|---|---|---|
| CADMIUM | mg/kg | .6 | 12.5 | < .5 |
| CHROMIUM - TOTAL | mg/kg | 13 | 60 | 8 |
| COPPER | mg/kg | 202 | 220 | 58 |
| LEAD | mg/kg | 18 | 293 | < 10 |
| NICKEL | mg/kg | 8 | 35 | 13 |
| ZINC | mg/kg | 86 | 682 | 49 |
| ARSENIC | mg/kg | 15.9 | 12.6 | 9.4 |
| MERCURY (Cold Vapor) | mg/kg | .018 | .080 | .008 |
| SELENIUM | mg/kg | .15 | .72 | .13 |
| CYANIDES - TOTAL | mg/kg | 12.3 | 252 | < .04 |
| EXTRACT.ORG.HALIDES | mg/kg | < 3 | < 3 | < 3 |

* Results are on dry basis.

*E.C.I. Environmental Services*

P.O. BOX 327
CAMBRIDGE CITY, IN 47327

BROOKSIDE FARMS LABORATORY ASSN. INC.
Environmental & Industrial Division
New Knoxville, Ohio 45871
(419) 753-2448
** ANALYSIS REPORT **

ity of Richmond Parks Dept.
ark Office
ichmond, IN 47374
ubmitted By: Paul W. Gordon

File Number: 60445
Date Recv'd: 03/04/87
Date Rept'd: 03/10/87

| Lab Number / Sample Description | | VE70714 LAKE SEDIMENT #4 2/3/87 |
|---|---|---|
| CADMIUM | mg/kg | 13.2 |
| CHROMIUM - TOTAL | mg/kg | 50 |
| COPPER | mg/kg | 190 |
| LEAD | mg/kg | 260 |
| NICKEL | mg/kg | 16 |
| ZINC | mg/kg | 616 |
| ARSENIC | mg/kg | 10.7 |
| MERCURY (Cold Vapor) | mg/kg | .071 |
| SELENIUM | mg/kg | .68 |
| CYANIDES - TOTAL | mg/kg | 221 |
| CHLORIN. ORG. HALIDES | mg/kg | < 3 |

Results are on dry basis.

*E.C.I. Environmental Services*

P.O. BOX 327
CAMBRIDGE CITY, IN 47327

Springwood Lake Sediment Analysis. 3/10/87

sample #1 >3 feet of water, sediment sampled 1-3 foot depth.
sample #2 >3 feet of water, sediment sampled 0-1 foot depth.
sample #3 <3 feet of water, sediment sampled 1-3 foot depth.
sample #4 <3 feet of water, sediment sampled 0-1 foot depth.

samples taken 3/3/87

CONCLUSIONS:

| | | Max. Conc. (ppm) for toxicity |
|---|---|---|
| Samples #2 & #4 show high levels of | 1) Cadmium | 1.0 |
| | 2) Lead | 5.0 |
| | 3) Arsenic | 5.0 |
| | 4) Cyanide | 250.0 |
| | 5) Copper | 100.0 |
| | 6) Zinc | 300.0 |

E.O.X. Extractable Organic Halides <3 mg/kg (none-detectable)*

* Dr. Lam Ho, Director of the environmental lab at Brookside, has informed me that although the sediment tested does not show a presence of Organic Halides on a dry basis, the water does. Since water analysis was not required at this time further testing is needed to determine Organic Halide levels present.

Also, If sediment is removed and disposed of at a landfill further analysis would be required (RCRA Tests) for ignitability, corrosivity, reactivity and toxicity before disposal occurs.

Paul Gordon-Envir. Consultant
E.C.I. Environmental Services

Possible dischargers to Brown's Ditch : Springwood Lake

Dana Corp - makes piston rings, camshafts
Alcoa - makes aluminium closures
Deutz Corp - makes air cooled diesel engines
Sanyo - makes refrigerators
In Sanyo Bldg were O+M - make dishwashers and porcelain fixtures
Avco - did some military contracts

Belden - makes cabled electrical wire. Their stormwater discharges directly into Springwood Lake

Contacts: City Chemist, Jackie Makela
317/962-2828
City Engineer, Ralph Willis
317/983-7200

Absocold Corporation
Business Name
1. 1767 Sheridan Street
Address
Richmond, Indiana
City State
Wayne 47374
County Zip

STATE OF INDIANA
STREAM POLLUTION CONTROL BOAR

SPC-17 LIQUID WASTE REMOVAL RE
INDUSTRY REPORT

2. For quarterly period ending

| 3. DATE HAULED Mo. | Day | Year | 4. HAULING FIRM Name | City | State | 5. QUANTITY | 6. WAST |
|---|---|---|---|---|---|---|---|
| 5 | 16 | 83 | Chemical Solvents | Cleveland | OH | 23,165 lb. | Spent Chlor |
| 10 | 7 | 83 | Chemical Solvents | Cleveland | OH | 15,816 lb. | Spen Chlo |
| 11 | 8 | 83 | Chemical Solvents | Cleveland | OH | 2,818 lb. | Spen Chlo |
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7. Signature (Authorized Representative) Linda Maggard 8. Date

TABLE V-2

Total concentrations of trace elements typically found in soils and plants*

| Element | Conc. in Soils (mg/kg) | | Conc. in Plants (mg/kg) | |
|---|---|---|---|---|
| | Common | Range | Normal | Toxic† |
| As | 6 | 0.1-40 | 0.1-5 | - |
| B | 10 | 2-100 | 30-75 | >75 |
| Cd | 0.06 | 0.01-7 | 0.2-0.8 | - |
| Cr | 100 | 5-3000 | 0.2-1.0 | - |
| Co | 8 | 1-40 | 0.05-0.5 | - |
| Cu | 20 | 2-100 | 4-15 | >20 |
| Pb | 10 | 2-200 | 0.1-10 | - |
| Mn | 850 | 100-4000 | 15-100 | - |
| Mo | 2 | 0.2-5 | 1-100 | - |
| Ni | 40 | 10-1000 | 1 | >50 |
| Se | 0.5 | 0.1-2.0 | 0.02-2.0 | 50-100 |
| V | 100 | 20-500 | 0.1-10 | >10 |
| Zn | 50 | 10-300 | 15-200 | >200 |
| Hg | 50 | | | |

* From Allaway (1968).

† Toxicities listed do not apply to certain accumulator plant species.

S. C. I. ENVIRONMENTAL SERVICES
P. O. Box 327
Corydon, New City, IN 47327
Tel. 317-478-4801
Off. Brookside Labs

TABLE V-3

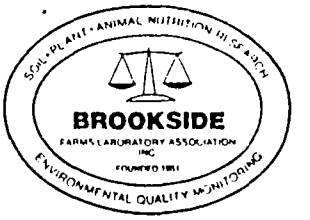
Estimates of Background Levels of Mercury in Samples Not Known to be Contaminated. Compiled from Various Sources

| Sample | Concentration (ppb) |
|---|---|
| Air | 0.002 |
| River and ground water | 0.05 |
| Sea water | 0.1 |
| Rain water | 0.15 |
| Raw Sewage | 2 |
| Crustal rocks | 50 |
| Soils and sediments | 50 |
| Coal | 200 |
| Fish | 100 |
| Man | 100 |

E. C. I. ENVIRONMENTAL SERVICES
P. O. Box 327
Cambridge City, IN 47327
Tel. 317-478-4601
Aff. Brookside Labs

*E.C.I. Environmental Services*

P.O. BOX 327
CAMBRIDGE CITY, IN 47327

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Richmond, IN 47374
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3/27/87

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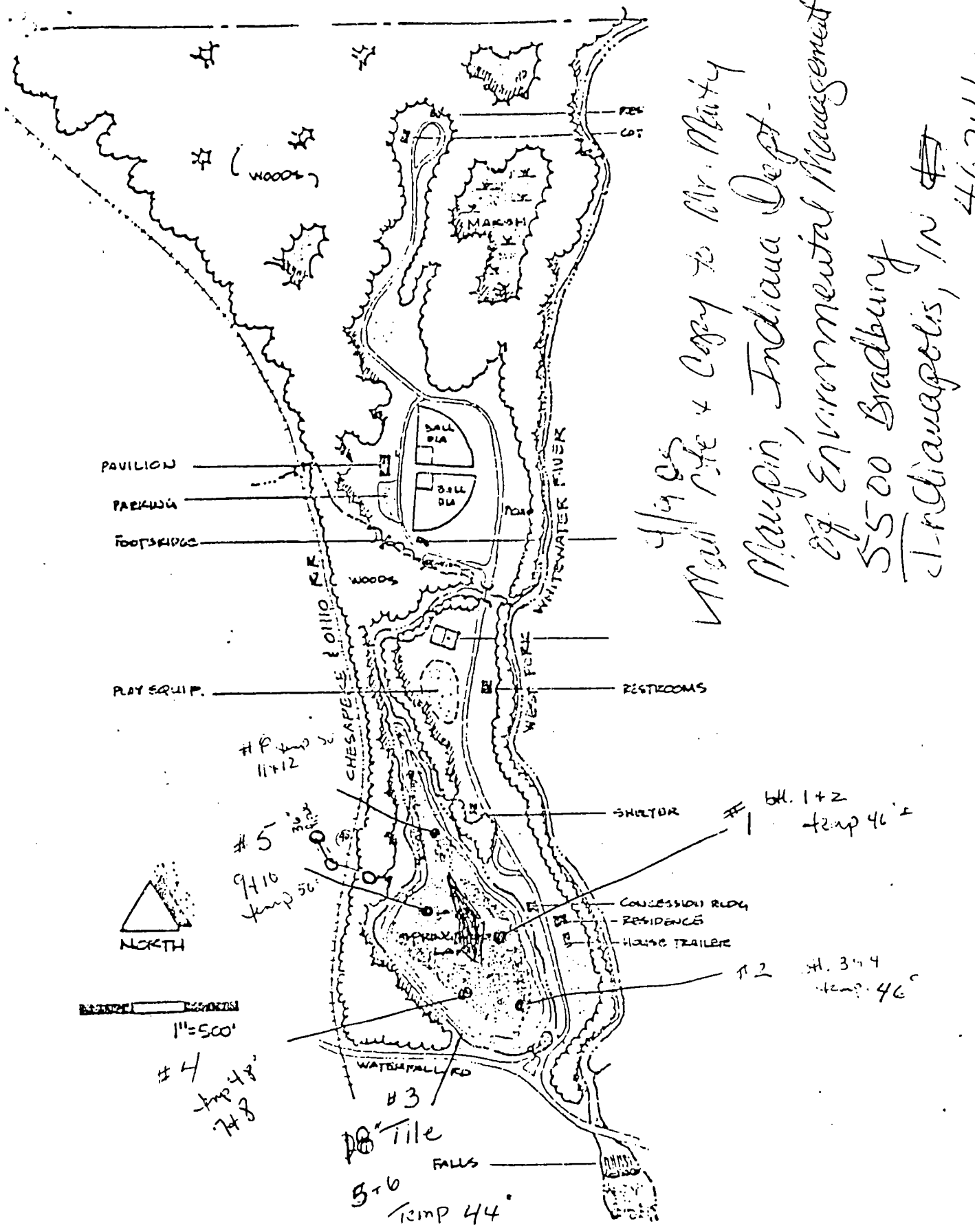
Regards,

Paul Gordon




Mail site + copy to Mr. Mintz
Marion, Indiana Dept.
of Environmental Management
5500 Bradbury
Indianapolis, IN 46241

# ④ Springwood Park

*E.C.I. Environmental Services*

P.O. BOX 327
CAMBRIDGE CITY, IN 47327

BROOKSIDE FARMS LABORATORY ASSN. INC.
Environmental & Industrial Division
New Knoxville, Ohio 45871
(419) 753-2448
** ANALYSIS REPORT **

City of Richmond Parks Dept.
Park Office
Richmond, IN 47374
Submitted By: Paul W. Gordon

File Number: 60445
Date Recv'd: 03/04/87
Date Rept'd: 03/10/87

| Lab Number / Sample Description | | VE70711 LAKE SEDIMENT #1 2/3/87 | VE70712 LAKE SEDIMENT #2 2/3/87 | VE70713 LAKE SEDIMENT #3 2/3/87 |
|---|---|---|---|---|
| CADMIUM | mg/kg | .6 | 12.5 | < .5 |
| CHROMIUM - TOTAL | mg/kg | 13 | 60 | 8 |
| COPPER | mg/kg | 202 | 220 | 58 |
| LEAD | mg/kg | 18 | 293 | < 10 |
| NICKEL | mg/kg | 8 | 35 | 13 |
| ZINC | mg/kg | 86 | 682 | 49 |
| ARSENIC | mg/kg | 15.9 | 12.6 | 9.4 |
| MERCURY (Cold Vapor) | mg/kg | .018 | .080 | .008 |
| SELENIUM | mg/kg | .15 | .72 | .13 |
| CYANIDES - TOTAL | mg/kg | 12.2 | 252 | < .04 |
| EXTRACT.ORG.HALIDES | mg/kg | < 3 | < 3 | < 3 |

* Results are on dry basis.

*E.C.I. Environmental Services*

P.O. BOX 327
CAMBRIDGE CITY, IN 47327

BROOKSIDE FARMS LABORATORY ASSN. INC.
Environmental & Industrial Division
New Knoxville, Ohio 45871
(419) 753-2448
** ANALYSIS REPORT **

ity of Richmond Parks Dept.
ark Office
Richmond, IN 47374
Submitted By: Paul W. Gordon

File Number: 60445
Date Recv'd: 03/04/87
Date Rept'd: 03/10/87

| Lab Number | | VE70714 |
|---|---|---|
| Sample Description | | LAKE SEDIMENT #4 2/3/87 |
| CADMIUM | mg/kg | 13.2 |
| CHROMIUM - TOTAL | mg/kg | 50 |
| COPPER | mg/kg | 190 |
| LEAD | mg/kg | 260 |
| NICKEL | mg/kg | 16 |
| ZINC | mg/kg | 616 |
| ARSENIC | mg/kg | 10.7 |
| MERCURY (Cold Vapor) | mg/kg | .071 |
| SELENIUM | mg/kg | .68 |
| CYANIDES - TOTAL | mg/kg | 221 |
| HALOGENATED ORG. HALIDES | mg/kg | < 3 |

Results are on dry basis.

*E.C.I. Environmental Services*

P.O. BOX 327
CAMBRIDGE CITY, IN 47327

Springwood Lake Sediment Analysis. 3/10/87

sample #1 >3 feet of water, sediment sampled 1-3 foot depth.
sample #2 >3 feet of water, sediment sampled 0-1 foot depth.
sample #3 <3 feet of water, sediment sampled 1-3 foot depth.
sample #4 <3 feet of water, sediment sampled 0-1 foot depth.

samples taken 3/3/87

CONCLUSIONS:

| | | Max. Conc. (ppm) for toxicity |
|---|---|---|
| Samples #2 & #4 show high levels of | 1) Cadmium | 1.0 |
| | 2) Lead | 5.0 |
| | 3) Arsenic | 5.0 |
| | 4) Cyanide | 250.0 |
| | 5) Copper | 100.0 |
| | 6) Zinc | 300.0 |

E.O.X. Extractable Organic Halides <3 mg/kg (none-detectable)*

* Dr. Lam Ho, Director of the environmental lab at Brookside, has informed me that although the sediment tested does not show a presence of Organic Halides on a dry basis, the water does. Since water analysis was not required at this time further testing is needed to determine Organic Halide levels present.

Also, If sediment is removed and disposed of at a landfill further analysis would be required (RCRA Tests) for ignitability, corrosivity, reactivity and toxicity before disposal occurs.

Paul Gordon-Envir. Consultant
E.C.I. Environmental Services

Possible dischargers to Brown's Ditch : Springwood Lake

Dana Corp - makes piston rings, camshafts
Alcoa - makes aluminium closures
Deutz Corp - makes air cooled diesel engines
Sanyo - makes refrigerators
In Sanyo Bldg were O + M - made dishwashers and porcelain fixtures
Avco - did some military contracts

Belden - makes cabled electrical wire Their stormwater discharges directly into Springwood Lake

Contacts: City Chemist, Jackie Makela
317/962-2828
City Engineer, Ralph Willis
317/983-7200

TELEPHONE CALL REPORT

Date 1/20/88 Time _____

From: MaryAnne Hunter To: Sampo 3B

Site Investigation Wayne Co.

Subject Discussed Sampo

Summary Randy Kincaid 317-962-1134

Didnt know about dumping on north + east side of the plant.

Ash from boilers dumped out here now.

Action Required Fe sludge from plating placed there.

Details D+M has paperwork regarding manifests

File in County _____

State Form 4177

SBH61-075

11/78

TELEPHONE CALL REPORT

Date 1/13/88 Time _____

From: Mary Anne Burks To: Sanyo 3B Wayne
Site Investigation Co file

Subject Discussed Sanyo

Summary Sanyo Env. Engineer
Randy Kincaid 317-962-1134
Plant Built in 1939. Plants has built autos, refrigerators, guidance, tv, gun sites, munitions now dishwashers, etc.

Action Required
3 outfalls from Sanyo.

Details

1/18/88 Richmond Fire Dept 983-7264 Belden 3B file
Waters to the lake used to smell.
Belden had a small fire involving chemicals recently.
Numerous small fires involving machines.

File in County _____

State Form 4177
SBH61-075
11/78

Leaking Underground Storage Tanks (LUST)
Cleanup Tracking System

Name of Site: SANYO CORP
Incident Number: 9 0 0 4 5 0 6 _ _
UST Facility ID Number: _ _ _ _ _ _
City: Richmond County: Wayne

1751 sheridan Ave (NR)

Site Manager Initials: _ _ _
Section Code (LST): L S T

Funds Allocated - Federal: $_ _ _ _ _ _ _
State: $_ _ _ _ _ _ _
Program Grant Code: _ _ - _ _ _ _ - _ _ _

Media Contaminated: Soil: ✓ Groundwater: _ Surface Water: _ Air: _
Material Released ("P" = petroleum, "H" = hazardous): P
Remediation (I = "innovative")

Cleanup Initiated By ("V" = Voluntary; "E" = enforcement;
"S" = state lead): V
Priority ("H" = high; "M" = medium; "L" = low): _

Final Disposition ("NFA" = no further action; "DIS" = discontinued): _ _ _
Date of Final Disposition (MMDDYY): _ _ / _ _ / _ _

Comments: _____

## A C T I O N S

| Code | Seq. Nr. | Description | Schedule Date | Actual Date | Responsible Sect/Staff | |
|---|---|---|---|---|---|---|
| | | **LUST Corrective Action** | | | | |
| 9000 | ____ | Incident report received | 1 1 | 4 15 90 | LST | KKM |
| 9010 | ____ | Corrective action case assigned | / / | / / | ___ | ___ |
| 9020 | ____ | Corrective action case reviewed | / / | / / | ___ | ___ |
| 9030 | ____ | Site visit performed | / / | / / | ___ | ___ |
| 9040 | ____ | LUST PRP search completed | / / | / / | ___ | ___ |
| 9050 | ____ | ISC (Initial Site Char.) letter sent | / / | / / | ___ | ___ |
| 9060 | ____ | ISC letter received by PRP | / / | / / | ___ | ___ |
| 9070 | ____ | ISC response received from PRP | / / | / / | ___ | ___ |
| 9080 | ____ | ISC response reviewed | / / | / / | ___ | ___ |
| 9090 | ____ | FPR (Free Product Removal) letter sent | / / | / / | ___ | ___ |
| 9100 | ____ | FPR letter received by PRP | / / | / / | ___ | ___ |
| 9110 | ____ | FPR response received from PRP | / / | / / | ___ | ___ |
| 9120 | ____ | FPR response reviewed | / / | / / | ___ | ___ |

# INITIAL INCIDENT REPORT LOG
## Emergency Response Branch
State Form 13490 (R/ 8-89)

Indiana Dept. of Environmental Management
P. O. Box 6015
Indianapolis, Indiana 46206
24 Hr Emergency Reporting Number
317/241-4336

T

☒ 1 SPILL ☐ 4 AIR
☐ 2 FISH KILL ☐ 5 HAZ/MAT
☐ 3 RADIATION ☐ OTHER

INCIDENT NO. 9004506

MINOR ☒ SIGNIFICANT ☐ SEVERE ☐
Initial Only ☐ Yes ☐ No

CITY Richmond

COUNTY Wayne

INVESTIGATOR

TITLE III REPORT? ☐ Yes ☐ No

## REPORTING INFORMATION

| Incident Date | Incident Time | Notification Date | Notification Time |
|---|---|---|---|
| 4 / 5 / 90 | AM PM | 4 / 5 / 90 | AM 2:30 PM |

| Suspected Responsible Party | Reported By / Title |
|---|---|
| SANYO CORP | BILL BARROW |
| Contact / Title: BILL BARROW | Organization: ETSS of OHIO |
| Address: 1751 Sheridan Ave | Address: PO Box 31 |
| City / State / Zip Code: Richmond IN 47374 — Phone #: / | City / State / Zip Code: Tipp City OH 45371 — Phone #: 513/845-3912 |

## REPORTED BY

☒ 1 Responsible Pty ☐ 5 County Health Department
☐ 2 Fed Gov't Agency ☐ 6 DNR/ Conservation Officer
☐ 3 State Gov't Agency ☐ 7 State or Local Police
☐ 4 Local Gov't Agency ☐ 8 Private Citizen ☐ 9 Other

## INVESTIGATION PERFORMED BY

☐ 1 DEM - Emer Resp Branch ☐ 5 US EPA
☐ 2 Other DEM Personnel ☐ 6 Other (_____)
☐ 3 DNR/ Conservation Officer ☐ 7 DEM-ERB Field Resp
☐ 4 County Health Department ☒ 8 LUST

## SOURCE

☐ 1 Transportation RR ☐ 4 Transportation Barge ☐ 7 Commercial ☐ 10 Unknown ☒ 13 LUST
☐ 2 Transportation Truck ☐ 5 Industrial ☐ 8 Semi-Public ☐ 11 Other (_____)
☐ 3 Transportation Pipeline ☐ 6 Agricultural ☐ 9 Municipal ☐ 12 Individual

## SPILL LOCATION INFORMATION

Location (Address or Directions) — NOT NOTIFIED
1751 Sheridan Ave Richmond IN 47374

| Area Sq Ft / Miles | Site / Area Description |
|---|---|
| | |

| Water Involved ? / Name | Downstream Water Users |
|---|---|
| ☐ Yes ☐ No | |

## MATERIAL INFORMATION

☒ 1 Petroleum Product ☐ 3 Misc Chemical ☐ 5 Agricultural Related Product ☐ 7 Other
☐ 2 Acid/Base ☐ 4 Misc Material ☐ 6 Food Related Product ☐ 8 Unknown

| Material Name(s): | Phase G _ S | Quantity | Lb / Gal |
|---|---|---|---|
| 1 (Gasoline) | | | |
| 2 | | | |

| CHEMICAL AND PHYSICAL CHARACTERISTICS | TLV | STEL | IDLH |
|---|---|---|---|
| | | | |

| Specific Gravity | Flash Point F° | LEL | UEL | Color | Odor |
|---|---|---|---|---|---|
| | | | | | |

| Reportable Quantity Lb | Other Information |
|---|---|
| | |

## CIRCUMSTANCES

☐ 1 Equipment Failure ☐ 5 Intentional Discharge
☐ 2 Transportation Accident ☐ 6 Miscellaneous
☐ 3 Employee Error ☐ 7 Unknown
☐ 4 Vandalism

## ENVIRONMENTAL CONSEQUENCES

☐ 1 Water Quality Violation ☐ 5 Undetermined
☐ 2 No Water Quality Violation ☐ 6 Air Release
☐ 3 Fish Kill ☐ 7 Minimal - LOG ONLY
☐ 4 FK & WQ Violation

## NOTIFICATION / CONTACTS

| INDIANA STATE POLICE (District # ) | | AGENCY: | |
|---|---|---|---|
| Representitive/Title | | Representitive/Title | |
| Date/Time | Phone # / | Date/Time | Phone # / |
| HEALTH DEPARTMENT ( ) | | AGENCY: | |
| Representitive/Title | | Representitive/Title | |
| Date/Time | Phone # / | Date/Time | Phone # / |
| DEPARTMENT OF NATURAL RESOURCES (District # ) | | AGENCY: | |
| Representitive/Title | | Representitive/Title | |
| Date/Time | Phone # / | Date/Time | Phone # / |
| LOCAL AUTHORITIES ( ) | | AGENCY: | |
| Representitive/Title | | Representitive/Title | |
| Date/Time | Phone # / | Date/Time | Phone # / |

## IDEM PERSONNEL

| Name/Section | Date/Time | Phone # / |
|---|---|---|
| Remarks: | | |
| Name/Section | Date/Time | Phone # / |
| Remarks: | | |
| Name/Section | Date/Time | Phone # / |
| Remarks: | | |

## NOTES

during removal of ~~tan~~ a gasoline tank soil cont was found. 70ppm + 80ppm soil results Mr Barrow is sending in lab results. He feels that the site is clean

Submitted By: K. McDonald

Reviewed By:

**ETSS of OHIO, Inc.**

SPECIALTY ENVIRONMENTAL SERVICES
P.O. BOX 31
TIPP CITY, OHIO 45371
513-845-3912

RECEIVED
APR 9 1990
UST Section

April 5, 1990

Karla McDonald
Indiana Dept. of Environmental Mgmt.
105 S. Meridan Street
P. O. Box 6015
Indianapolis, IN 46206-6015

RE: Sanyo Corporation
Richmond, Indiana
Tank Closure

As per our discussion on April 5, find enclosed analytical on one (1) gasoline tank excavation soil analysis. We wish to close the excavation at this time if the soil contaminant levels are acceptable to your office.

Should you have any further questions, please feel free to contact me at this office.

Sincerely,

ETSS of Ohio, Inc.

Bill Barrow
Manager

BB:rc
Enc.
cc: Carla McNab, Sanyo Corp.

# BOWSER-MORNER, INC.

CORPORATE: 4518 Taylorsville Rd. • P. O. Box 51 • Dayton, Ohio 45401 • 513/236-8805


## *LABORATORY REPORT*

To: ETSS of Ohio, Inc.
Attn: Bill Borrow
P.O. Box 31
Tipp City, OH 45371

Date: 03/30/90
Lab. No.: 9003422 004
Sample No.: 39088
Authorization:

On: One (1) Soil Sample Submitted for Chemical Analysis.

Sample Identification: #4 E End Gas Tank Exc

| ANALYTE | RESULT | UNITS |
|---|---|---|
| Benzene | <2 | ug/Kg |
| Toluene | <2 | ug/Kg |
| Ethylbenzene | <2 | ug/Kg |
| Xylene | <2 | ug/Kg |
| Total Petroleum Hydrocarbons | 76 | mg/Kg |

Respectfully Submitted,
BOWSER-MORNER, INC.
Analytical Sciences Division

Eric C. Wiegert, Chemist
Analytical Chemistry Laboratory

ECW/DGD
1 -Client
2 -File


*The above analysis was performed in accordance with procedures listed in Title 40 of the Code of Federal Regulations, Parts 136.3 and 261-Appendices II and III. In lieu of other arrangements, all samples recovered for this project will be retained at this laboratory for a period of 30 days. All reports remain the confidential property of BOWSER-MORNER, INC. and no publication or distribution may be made without our expressed written consent, except as authorized by contract.*

BOWSER-MORNER, INC.
CORPORATE: 4518 Taylorsville Rd. • P. O. Box 51 • Dayton, Ohio 45401 • 513/236-8805

## LABORATORY REPORT



To: ETSS of Ohio, Inc.
Attn: Bill Borrow
P.O. Box 31
Tipp City, OH 45371

Date: 03/30/90
Lab. No.: 9003422 005
Sample No.: 39089
Authorization:

On: One (1) Soil Sample Submitted for Chemical Analysis.

Sample Identification: #5 W End Gas Tank Exc

| ANALYTE | RESULT | UNITS |
|---|---|---|
| Benzene | <2 | ug/Kg |
| Toluene | <2 | ug/Kg |
| Ethylbenzene | <2 | ug/Kg |
| Xylene | <2 | ug/Kg |
| Total Petroleum Hydrocarbons | 83 | mg/Kg |

Respectfully Submitted,
BOWSER-MORNER, INC.
Analytical Sciences Division

E. C. Wiegert

Eric C. Wiegert, Chemist
Analytical Chemistry Laboratory

ECW/DGD
1 -Client
2 -File

*The above analysis was performed in accordance with procedures listed in Title 40 of the Code of Federal Regulations, Parts 136.3 and 261-Appendices II and III. In lieu of other arrangements, all samples recovered for this project will be retained at this laboratory for a period of 30 days. All reports remain the confidential property of BOWSER-MORNER, INC. and no publication or distribution may be made without our expressed written consent, except as authorized by contract.*

0.3

WESTON
MANAGERS DESIGNERS/CONSULTANTS

# Personnel Protective and Safety Equipment Request Form

For Melody (waiting on Copy of Sanyo HASP) 8/12

Client: USEPA/SSI

Project: SSI - Sanyo

W.O.#: 4500-45-22-5030

WESTON Work Location: Vernon Hills, Illinois

Task: Sampling Site Inspection

Equipment Requested by: Linda Korobka (Name)

Requested by Telephone: Linda Korobka (Name)

Requested by Telephone: 8/12/92 (Date)

Equipment Required by: 8/17/92 (Date)

Equipment to be Returned by: 8/22/92 (Date)

Ship Equipment to:

Site Safety Coordinator: Jeff Watson (Name)

Site Level of Protection: D, contingency C (A,B,C,D)

Site Safety Plan:

( ) Submitted to HSD on (Date)

(✓) Approved by HSD on 7/7/92 (Date)

(✓) Submitted to DSO/RSO on 7/7/92 (Date)

(✓) Approved by DSO/RSO on 7/7/92 (Date)

( ) Other

( ) Note Required

Project Manager Approval by: Date:

Health & Safety Approval by: Melody Sullivan for D. Wilk Date: 8-12-92

Equipment Manager or Supervisor: Date:

Signature of Person Receiving the Equipment: Jeffrey V. Watson

*Pink - Health and Safety* *Yellow - Requestor* *White - Central Equipment Stores*

RFW 04-05-002/A-6/90

Sanyo, Richmond, Indiana / Richmond Sanitary LF, Richmond, IN

8/11/92

# EQUIPMENT REQUEST LIST



WO#/DEPT : _____ Contact : Linda KOROBKA

Client name : U.S. EPA SSI Sampling PM Signature : _____

Site phone : _____ H&S Signature : _____

| Qty | Catalog code | Description / Size |
|---|---|---|
| 1 | | 35 mm Camera |
| 30 | | Latex Booties (XL); quantity based on # of sites & samplers/ minimum 10pr. per site |
| 12 | | Tyvek (XL); minimum 10 per site |
| 60 pr. | | Nitrile Gloves; dependent on # of samples, one pair per sampler per sample location |
| 2 boxes | | Surgical Gloves; 2 boxes per 3 sites |
| 3 | | Hardhats; 1 per field person / Safety Glasses; 1 per field person |
| 2 | | Hip Waders; 2 pair if surface water/sediment sampling |
| 2 | | Flotation Vests (U.S.C.G approved); 2 if surface water/sediment sampling |
| 3 | | Rainsuits; 1 per field person |
| 3 | (2 small + 1 medium) | Ultratwin Respirators; 1 per field person, specify size |
| 6 | | GMC-H Cartridges; 2-4 per field person dependant on sampling & sites |
| 1 | | CGI + Calibration Kit; if required by HASP |
| 1 | | GM Survey Meter (Rad Meter); if required by HASP |
| 1 | | HNu with 11.7 eV probe + Calibration Kit; most HASP's will require 11.7 probe, but may need 10.2 or OVA. |
| 1 | | 2" Hand Auger; if shallow soil boring sampling |
| 4 | | Stainless Steel Bowls; if soil boring or sediment sampling |
| 20 | | Scoopulas + Scoopula Handles; 1 scoopula per soil boring/sediment sample collected using hand auger |
| 5 | | Stainless Steel Scoops; if soil boring or sediment sampling |
| 1 | | Alconox |
| 3 | | Scrub Brushes; for decon |
| 3 | | Stainless Steel Buckets |
| 4 - 5 GAL BOXES | | Reagent Grade Water; at least one 5-gallon box per site (may need more if $H_2O$ source unavailable) |
| 1 | | Aluminum Foil; for decon (1 roll per site) |
| 3 | | Spray Bottles; for decon |
| 2 rolls | | Duct Tape |
| 1 roll | | "This End Up" Labels; for cooler shipment |
| — | | Isopropanol; for decon (4 litres should be sufficient, may need more if oily wastes) |
| 1 | | Hydrochloric Acid Preservative; 16 oz. container) |
| 10 | | Pipettes; for use with HCl preservative |
| 28 | | $HNO_3$ preservative ampules; dependent on # of samples to be preserved |

Please enter CATALOG codes and DESCRIPTIONS/SIZES for clarity.

Sanyo, Richmond, Indiana / Richmond Sanitary Landfill, Richmond, Indiana

8/11/92

# EQUIPMENT REQUEST LIST



WO#/DEPT : _____ Contact : Linda KOEOBLA

Client name : U.S. EPA SSI Sampling PM Signature : _____

Site phone : _____ H&S Signature : _____

| Qty | Catalog code | Description / Size |
|---|---|---|
| 25 | | NaOH preservative ampules; dependent on # of samples to be preserved |
| 1 box | | pH Paper; make sure pH container is full |
| 112 | Liters | High Purity Brand Water; dependent on # of field blank/trip blank samples. ≈ 7-8 liters required for each res well/monitor well/surf. H2O field blank |
| 2 | | Variable Volume Dispenser; for Potassium Dichromate/H2SO4 preservative |
| 18 | | Field Filtration Units; for monitor well metals filtering (1 per monitor well sample + 50% extra for breakage, malfunction, etc.) |
| 6 | | Hand Vacuum Pumps; for use with Field Filtration Units |
| 6 | | Teflon Bailers; 1 per monitor well sample location |
| 1 | | Water Level Indicator; if monitor well sampling to be performed |
| 1 | | pH Meter \ For field parameter testing, make sure that buffer/conductivity |
| 1 | | Conductivity Meter / solutions are fresh. Make sure that buffer 4 & 7 solutions are correct |
| 1 | | First Aid Kit |
| 1 | | Fire Extinguisher |
| 1 | | Portable Eyewash Kit |
| 1 | | ARCS Toolbox |
| 1 | | Kemmerer Sampler; for surface water sampling, if necessary |
| * | | Sample Jars; See Mona S. for proper bottle types and # of cans. |
| * | | Coolers; See Mona S. for # of coolers |
| | 23 | Paint Cans, Limited Quantity, Danger, Flammable Solid N.O.S. stickers; specify these items if medium/high hazard samples are possible |
| | | |
| | | |
| 1 | | Dodge Maxi Van |
| 1 | | Rental Truck (12'-14') |
| 1 | | Potassium Dichromate Solution (500 mLs) |
| 4 | | Plastic Carboys (5-GAL) |
| 1 | | Power Auger |
| | | |
| | | |
| | | |

* See attached Sheet

Please enter CATALOG codes and DESCRIPTIONS/SIZES for clarity.

Sanyo, Richmond, Indiana Sampling Activity 8/17/92-8/21/92

WESTON MANAGERS DESIGNERS/CONSULTANTS

SHEET ____ of ____

CLIENT/SUBJECT _____ W.O. NO. _____

TASK DESCRIPTION _____ TASK NO. _____

PREPARED BY L Kosobka DEPT _____ DATE 8/12/92

MATH CHECK BY _____ DEPT _____ DATE _____

METHOD REV. BY _____ DEPT _____ DATE _____

APPROVED BY

DEPT _____ DATE _____

# CLP Sample Jars required for Sanyo, Richmond, Indiana Richmond Sanitary Landfill, Richmond, IN

| | | | |
|---|---|---|---|
| 76 ea – | 40 mL glass vial for VOAs = | 72/case | = 2 cases |
| 24 ea – | 1 L amber (Extractables) | 12/case | 3 cases |
| 42 | 80 oz amber (Extractables) | 6/case | 8 cases |
| 40 ea | 120 mL glass | 24/case | 2 cases |
| 40 ea | 8 oz glass | 24/case | 2 cases |
| 65 ea | 1 L poly | 12/case | 7 cases |

RFW 10-05-003/A-5/85
512-5643

# SITE HEALTH AND SAFETY PLAN (HASP) FORM

Prepared By C.W. Krumm/M. Sullivan Date 11/6/91 W.O. # 4500-45-22-4010

I. General Information

A. Project Identification

1. Division C535 SANYO E&E CORPORATION 2. Department/Office Vernon Hills, Illinois

4. Site Name Screening Site Inspection 5. Client U.S. EPA Region V

6. Work Location Address 1767 Sheridan Rd. Richmond, Indiana 47374
(Street Address) (City) (State) (Zip)

B. Site History

1. Describe briefly Sanyo is currently a multitenant warehouse, but previously manufactured refrigerators. Previous owners include AVCO, which produced munitions.

C. Scope of Work

1. Describe briefly Initial reconnaissance visit which will consist of a walk-through inspection, and a second visit for sampling. (Maximum of 12 samples.)

**( ) Site Visit only, Site HASP not necessary, list personnel here & sign-off below:**

_____, _____, _____, _____

D. Hazard Assessment and Regulatory Status

1. Indicate Yes (Y)/No (N) to types of hazards anticipated. ( Y ) Physio-chemical; Toxic Chemical - Levels ( Y ) >TLV-TWA, ( Y ) >TLV-STEL, ( N ) >IDLH; ( Y ) Bio-Hazards; ( N ) Radiation; ( Y ) Physical; ( N ) Construction type; ( N ) Industrial type; ( N ) Nuclear Industry type

2. Site Regulatory Status: CERCLA/SARA - ( Y ) U.S. EPA, ( Y ) State, ( N ) NPL Site; RCRA - ( N ) U.S. EPA, ( N ) State; OSHA - ( Y ) 1910, ( Y ) 1926, ( Y ) State; NRC - ( N ) 10 CFR 20; Other Fed. Agency - ( N ) DOE, ( N ) USATHAMA, ( N ) Air Force;

Based on the Hazard Assessment and Regulatory Status, determine the Standard HASP(s) applicable to this project. Indicate below which Standard Hasp will be used and append the appropriate pages of this Form along with the Standard Plan.

3. Standard Plan to be used: ( N ) Stack Test ( N ) Air Emissions ( N ) Asbestos ( N ) Industrial Hygiene ( N ) Life Systems ( N ) Hazardous Mat. ( N ) Construction ( N ) NRC/DOE ( N ) USATHAMA ( N ) Air Force

D. Review and Approval Documentation

1. Reviewed By: a. P.M. [signature] S. Patel Date 7/6/92
b. P.D. [signature] Date 7/6/92
c. DSO/RSO [signature] Date 7/6/92
d. SHSC [signature] Date 8/14/92

2. Approved BY: [signature] Date 7/7/92
( ) a. Corporate Health and Safety Director (CHSD)
(X) b. DSO/RSO (Only with specific delegation by CHSD)

Project Start Date 7-8-92 ;End Date 11-1-92. This Site HASP must be Reissued/Reapproved for any activities conducted after: Date 11-1-92
Amendment Date(s) 1. 8/13/92 2._____ 3._____ 4._____ 5._____
(updated pages 2, 23) DEW

Note: Pages 11, 15, 16, 17, 18, 19, 32-40, are not applicable in this SSI HASP but included for convienence purposes.

1.0 Key Personnel (Continued)

WESTON Representatives

| Organization/Branch | Name/Title | Address | Telephone |
|---|---|---|---|
| DATD | Om Patel/PTI | 3 Hawthorn Parkway, Suite 400 Vernon Hills, Illinois 60061 | 708-918-4051 |
| DATD | Melody Sullivan/PTI | Vernon Hills, Illinois 60061 | 708-918-4146 |
| DATD | Dr. P. Krishnan Site Manager | Vernon Hills, Illinois 60061 | 708-918-4104 |
| DATD | John Thorsen Program Manager | Vernon Hills, Illinois 60061 | 708-918-4102 |

**Roles and Responsibilities:** Om Patel and Melody Sullivan are Principal Technical Investigators for the SSI. Dr. P. Krishnan is the overall Site Manager and principal contact with the U.S. EPA WAM. Jack Thorsen, Program Manager, will provide overall coordination and QA/QC of deliverables. (Amy Steele Linda Koeler) Jeff Watson WILL BE FIELDTEAM LEADER DURING THE SAMPLE COLLECTION VISIT. 2 Qualified B-T personnel (Weston) WILL BE FIELD TEAM MEMBERS. THE FIELD TEAM WILL BE RESPONSIBLE FOR CLP SAMPLE PAPERWORK, SAMPLE COLLECTION, SAMPLE SHIPMENT AND DOCUMENTATION OF SITE ACTIVITIES. GLENN BROOKS WILL PERFORM THE GEOPHYSICAL SURVEY AND INTERPRET GEOPHYSICAL DATA and act as SHSC for Task #6.

(WESTON Subcontractors)

| Organization/Branch | Name/Title | Address | Telephone |
|---|---|---|---|
| NONE | | | |

**Roles and Responsibilities:** Subcontractor will be used to install monitoring wells and remove investigative derived waste (IDW) generated during monitoring well construction and development.

## 2.2 Site Specific Health and Safety Personnel

The SHSC for activities to be conducted at this Site is Jeff Watson / Glenn Brooks

The Site Health and Safety Coordinator (SHSC) has total responsibility for ensuring that the provisions of this Site HASP are adequate and implemented in the field. Changing field conditions may require decisions to be made concerning adequate protection programs. Therefore, the personnel assigned as SHSC's are experienced and meet the additional training requirements specified by OSHA in 29 CFR 1910.120

Qualifications: Forty hours initial training, eight hour refresher training, eight hour H&S coordinator training, first aid, CPR, fit test and annual physical up-to-date.
GLENN BROOKS - 40HR, EIGHT HOUR REFRESHER, SHSC COURSE, CURRENT FIRST AID/CPR

Designated alternatives include: Melody Sullivan and John Goin.

II. Health and Safety Evaluation

A. Hazard Assessment

1. Background Review: Complete ( ) Partial (X) If partial, why? _____

A background search is being completed at each site and a reconnaissance visit will be completed at each site. ADDITIONAL INFORMATION MAY BECOME AVAILABLE AT THE SAMPLE COLLECTION VISIT.

2. Activities Covered Under this Plan

| No. | Task/Subtask | Description | Schedule |
|---|---|---|---|
| 1 | Reconnaissance Visit | Walkover of location and local records check. | COMPLETED |
| 2 | Soil Sampling | Shallow soil sampling using hand tools. | 1 DAY |
| 3 | SURFACE WATER AND SEDIMENT SAMPLING | SURFACE WATER BODY SAMPLING (PONDS, STREAMS, LAKES, RIVERS) FROM SHORELINES | 1 DAY |
| 4 | GROUNDWATER SAMPLING | SAMPLING OF PREVIOUSLY INSTALLED MONITORING WELLS | 1 DAY |
| 4A | GROUNDWATER SAMPLING | SAMPLING OF RESIDENTIAL WELLS (TAPS) | 1 DAY |
| N/A 5 | ~~MONITORING WELL CONSTRUCTION~~ | ~~CONSTRUCTION OF MONITORING WELLS / SOIL BORINGS~~ | N/A |
| 6 | GEOPHYSICAL SURVEY | USE OF GEOPHYSICAL MONITORING INSTRUMENTS TO SCREEN FOR BURIED MUNITIONS | 1 DAY |

3. Types of Hazards: (Place a Y/N in each ( ) to indicate presence/absence of hazard)

a. PhysioChemical (Y) Flammable (Y) Explosive (Y) Corrosive (Y) Reactive
(N) $O_2$ Rich (N) $O_2$ Deficient [1]*

Chemically Toxic (Y) Inhal. (Y) Ingest. (Y) Cont. (Y) Absorb.
(Y) Carcin. (N) Mutagen (N) Terat.
(Y) OSHA 1910.1000 Substance
(Y) OSHA Specific Hazard. Sub. Standard, Describe Benzene, Lead

b. Biological (N) Etiol. Agent (Y) Other - Plant, insect, animal, [2]*

c. Radiation Ionizing - (N) Internal Exposure (N) External exposure [3]*
Non-ionizing - (N) UV; (N) IR; (N) RF; (N) MicroW; (N) LASER

d. Physical Hazards (Y) [4]* e. Construction Activities (Y) [5]*

* The number in the [ ] refers to one of the following hazard evaluation forms. Complete hazard evaluation forms for each appropriate Hazard Class.

B. Source/Location of Contaminants and Hazardous Substances

1. Directly Related to Tasks

(X) Air _____; (X) Soil and sediments _____;
( ) Other Surface _____; (X) S. Water _____;
(X) G. Water From existing and newly constructed monitoring wells; ( ) Other _____.

2. Indirectly Related to Work - Nearby Process(s) which could affect team members:

(X) Client Facility; ( ) Nearby Non-client Facility. Describe Sanyo was at one time, a munitions plant & it is unknown what is buried on-site. A screening for UXOs must be performed before tasks
( ) Client briefing arranged. 2+5 can be performed.

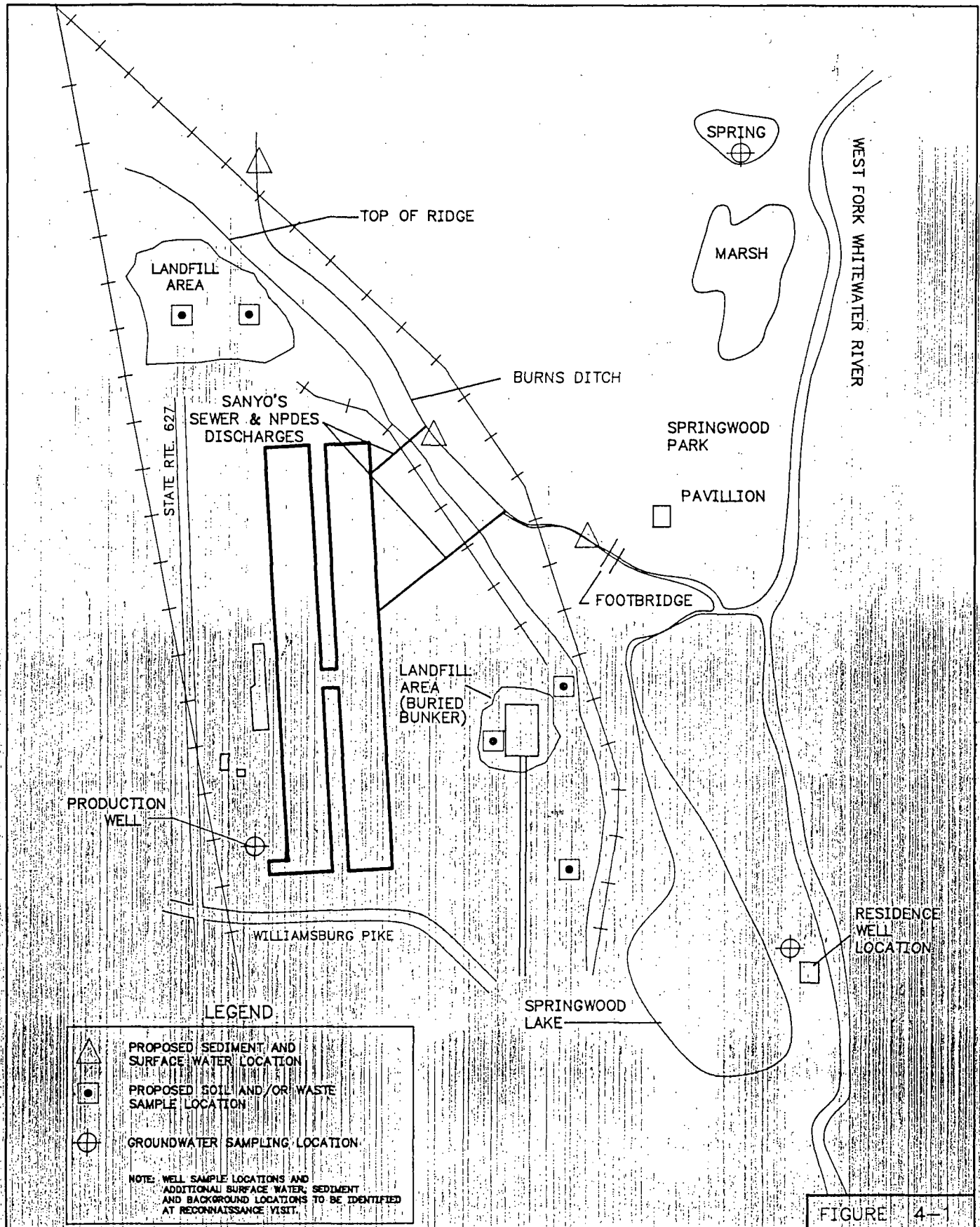



FIGURE 4-1

ALTERNATIVE REMEDIAL CONTRACTING STRATEGY
U.S. EPA CONTRACT No. 68-W8-0089
WORK ASSIGNMENT No. 45-5JZZ
DOCUMENT CONTROL No. 4500-45-AEVK

PROPOSED SAMPLE LOCATION MAP
SANYO E & E CORPORATION
Richmond, Indiana

77591 A

[1] Chemical Hazards

[a] Identify and attach Material Safety Data Sheets for all reagent type chemicals, solutions or other materials identified as or which in normal use could produce hazardous substances used in performing tasks related to tasks related to this project. ( ) N/A

[b] Chemical Contaminants of Concern ( ) N/A If present, provide following data.

| Hazardous Substance/ Tasks | Physical Properties and Characteristics* | Exposure Limits PEL/TLV** | Route(s) of Exposure***/ Symptoms | Monitoring Instruments/IP+ % Response |
|---|---|---|---|---|
| | (* ) State_____<br>pH___FP_____LEL_____UEL_____<br>Auto.Ig_____BP _____MP_____<br>Incompatible with -<br>_____<br>_____<br>_____<br>Sp.Gr_____Vap.D_____<br>Vap.P_____H20 Sol._____<br>Oth._____,_____ | | SEE ATTACHED MSDS FOR PRESERVATIVES (AND POSSIBLE DECONTAMINATION FLUIDS) WHICH INCLUDE HYDROCHLORIC ACID NITRIC ACID, SODIUM HYDROXIDE POTASSIUM DICHROMATE AND ISOPROPYL ALCOHOL. | |
| | (* ) State_____<br>pH___FP_____LEL_____UEL_____<br>Auto.Ig_____BP _____MP_____<br>Incompatible with -<br>_____<br>_____<br>_____<br>Sp.Gr_____Vap.D_____<br>Vap.P_____H20 Sol._____<br>Oth._____,_____ | | | |

* E = Explosive, F = Flammable, C = Corrosive, R = Reactive, W = Water reactive, O = Oxidi Ra = Radioactive. State = Normal physical state at site/proj. temp.

** Use lowest of two, if no TLV/PEL, use Toxicity data in following order: Lowest Toxic Co humans (LTC-HMN), Lowest Lethal Conc. in humans (LLC-HMN), Lowest Toxic Dose in humans (LT Lowest Lethal Dose in humans (LLD-HMN), $LC_{50}$ or $LD_{50}$ in humans, the Lowest Toxic Concentra Lowest Toxic Dose in animals, the lowest $LC_{50}$ or $LD_{50}$ in animals.

*** I = Inhalation, G = Ingestion, S = Skin Absorption, C= Contact, D - Direct Penetratio

+ IP = Ionization Potential

Note: Information on several target compounds is attached representing compounds that might be encountered at these sites.

[1] Chemical Hazards

[a] Identify and attach Material Safety Data Sheets for all reagent type chemicals, solutions or other materials identified as or which in normal use could produce hazardous substances used in performing tasks related to tasks related to this project. ( ) N/A

[b] Chemical Contaminants of Concern ( ) N/A If present, provide following data.

| Hazardous Substance/ Tasks | Physical Properties and Characteristics* | Exposure Limits PEL/TLV** | Route(s) of Exposure***/ Symptoms | Monitoring Instruments/IP+ % Response |
|---|---|---|---|---|
| ~~Xylenes~~ | (* F ) State Liquid<br>pH FP 81°F LEL 1% UEL 7%<br>Auto.Ig BP 281°F MP -55°F<br>Incompatible with -<br>Strong oxidizers<br>Sp.Gr 5.73 Vap.D<br>Vap.P H20 Sol.<br>Oth. , | 100 ppm<br>Ca | I,S,G,C<br>Dizz; excitement; drowsiness; staggering gait; irritate eyes, nose, throat; corneal vacuolization; anorexia; nausea; vomit; abdom. pain; dermatitis | OVA-113% response<br>HNu-10.2 eV 113% response<br>IP = 8.5 eV |
| Methylene Chloride | (* F ) State Liquid<br>pH FP LEL 12% UEL 19%<br>Auto.Ig 1,139°F BP 104°F MP -142°F<br>Incompatible with -<br>Strong oxidizers and caustics, chemically active metals; sodium; potassium<br>Sp.Gr 1.33 Vap.D 2.93<br>Vap.P 350 mm H20 Sol.<br>Oth. , | TLV = 50 ppm<br>Ca | I,G,C<br>Fatigue, weakness, sleepiness, lightheaded; limbs numb, tingle; nausea; irritate eyes, skin; vertigo; worsen angina; [carc] | OVA-90% response<br>HNu-11.7 eV 94% response<br>IP = 11.25 eV |
| ~~1,1,1-Trichloroethane~~ | (* ) State Liquid<br>pH FP None LEL 7% UEL 16%<br>Auto.Ig BP 74°C MP -36°F<br>Incompatible with -<br>Strong caustics and oxidizers, chemically active metals<br>Sp.Gr 1.34 Vap.D<br>Vap.P 100 mm H20 Sol. 0.07% @ 20°C<br>Oth. , | (TLV)<br>350 ppm | I,G,C<br>Headache; lassitude; CNS depress; poor equil; irritate eyes; dermatitis; cardiac arrhythmias | OVA-105% response<br>HNu-11.7 eV 90% response<br>IP=11.25 eV |

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** Use lowest of two, if no TLV/PEL, use Toxicity data in following order: Lowest Toxic Conc. in humans (LTC-HMN), Lowest Lethal Conc. in humans (LLC-HMN), Lowest Toxic Dose in humans (LTD-HMN), Lowest Lethal Dose in humans (LLD-HMN), $LC_{50}$ or $LD_{50}$ in humans, the Lowest Toxic Concentration or Lowest Toxic Dose in animals, the lowest $LC_{50}$ or $LD_{50}$ in animals.

*** I = Inhalation, G = Ingestion, S = Skin Absorption, C= Contact, D - Direct Penetration

+ IP = Ionization Potential

[1] Chemical Hazards

[a] Identify and attach Material Safety Data Sheets for all reagent type chemicals, solutions or other materials identified as or which in normal use could produce hazardous substances used in performing tasks related to tasks related to this project. ( ) N/A

[b] Chemical Contaminants of Concern ( ) N/A If present, provide following data.

| Hazardous Substance/ Tasks | Physical Properties and Characteristics* | Exposure Limits PEL/TLV** | Route(s) of Exposure***/ Symptoms | Monitoring Instruments/IP+ % Response |
|---|---|---|---|---|
| Benzene | (*F ) State Liquid<br>pH FP 120° LEL 1.3% UEL 7.1%<br>Auto.Ig BP 176°F MP 1420°F<br><br>Incompatible with -<br>Strong oxydizers, chlorine, bromine with iron<br><br>Sp.Gr 0.88 Vap.D<br>Vap.P 75 mm H20 Sol. 0.18%<br><br>Oth. | 1 ppm<br>Ca | I,S,G,C<br>Irritate eyes, nose throat; irritate resp. sys; head-ache; giddy, nausea; fatigue; lassitude; abdominal pain; bone marrow depression | OVA-150% response<br>HNu-10.2 eV 100% response<br>IP = 9.24 eV |
| √ Toluene | (* R, ) State Liquid<br>pH FP 40°F LEL 1.3% UEL 7.1%<br>Auto.Ig BP 231°F MP -13°F<br><br>Incompatible with -<br>Strong oxidizers<br><br>Sp.Gr 0.87 Vap.D<br>Vap.P 22 mm H20 Sol. 0.05%<br>Oth. | 100 ppm | I,S,G,C<br>Fatigue; weakness confusion; euphoria; dizziness; headache muscle fatigue; insomnia; dermatitis | OVA-110% response<br>HNu-10.2 eV 100% response<br>IP = 8.82 eV |

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** Use lowest of two, if no TLV/PEL, use Toxicity data in following order: Lowest Toxic Conc. in humans (LTC-HMN), Lowest Lethal Conc. in humans (LLC-HMN), Lowest Toxic Dose in humans (LTD-HMN), Lowest Lethal Dose in humans (LLD-HMN), $LC_{50}$ or $LD_{50}$ in humans, the Lowest Toxic Concentration or Lowest Toxic Dose in animals, the lowest $LC_{50}$ or $LD_{50}$ in animals.

*** I = Inhalation, G = Ingestion, S = Skin Absorption, C= Contact, D - Direct Penetration

+ IP = Ionization Potential

[1] Chemical Hazards

[a] Identify and attach Material Safety Data Sheets for all reagent type chemicals, solutions or other materials identified as or which in normal use could produce hazardous substances used in performing tasks related to tasks related to this project. ( ) N/A

[b] Chemical Contaminants of Concern ( ) N/A If present, provide following data.

| Hazardous Substance/ Tasks | Physical Properties and Characteristics* | Exposure Limits PEL/TLV** | Route(s) of Exposure***/ Symptoms | Monitoring Instruments/IP+ % Response |
|---|---|---|---|---|
| Arsenic | (* ) State Solid<br>pH FP LEL UEL<br>Auto.Ig BP MP<br>Incompatible with -<br>Not applicable<br>Sp.Gr 5.73 Vap.D<br>Vap.P H20 Sol.<br>Oth. , | 10 ug/m³<br>Ca | I,G,S,C<br>Ulceration of nasal septum, dermititis, GI disturbances, perient, resp. irrit, hyperpig of skin | |
| Nickel | (* ) State Solid<br>pH FP LEL UEL<br>Auto.Ig BP MP<br>Incompatible with -<br>Strong acids, sulfur, Ni $(NO_3)_2$;wood, other combustibles<br>Sp.Gr 8.65 Vap.D<br>Vap.P H20 Sol.<br>Oth. , | 1 mg/m³<br>Ca | I,G,C<br>Sens derm; allergic asth; nasal cavities; pneumonitis | |
| Zinc (dust) | (* ) State Solid<br>pH FP LEL UEL<br>Auto.Ig BP 908°C MP 419°C<br>Incompatible with -<br>Sp.Gr Vap.D<br>Vap.P H20 Sol.<br>Oth. , | 10 mg/m³ | | |

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** Use lowest of two, if no TLV/PEL, use Toxicity data in following order: Lowest Toxic Conc. in humans (LTC-HMN), Lowest Lethal Conc. in humans (LLC-HMN), Lowest Toxic Dose in humans (LTD-HMN), Lowest Lethal Dose in humans (LLD-HMN), $LC_{50}$ or $LD_{50}$ in humans, the Lowest Toxic Concentration or Lowest Toxic Dose in animals, the lowest $LC_{50}$ or $LD_{50}$ in animals.
*** I = Inhalation, G = Ingestion, S = Skin Absorption, C= Contact, D - Direct Penetration

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[1] Chemical Hazards

[a] Identify and attach Material Safety Data Sheets for all reagent type chemicals, solutions or other materials identified as or which in normal use could produce hazardous substances used in performing tasks related to tasks related to this project. ( ) N/A

[b] Chemical Contaminants of Concern ( ) N/A If present, provide following data.

| Hazardous Substance/ Tasks | Physical Properties and Characteristics* | Exposure Limits PEL/TLV** | Route(s) of Exposure***/ Symptoms | Monitoring Instruments/IP+ % Response |
|---|---|---|---|---|
| Selenium | (* ) State Solid<br>pH FP LEL UEL<br>Auto.Ig BP MP<br>Incompatible with - Acids, strong oxidizing agents<br>Sp.Gr 4.28 Vap.D<br>Vap.P H20 Sol.<br>Oth. , | 0.2 ug/m³ | I,G,S,C<br>Irrit. eyes, nouse, throat; disturb vis; headache; chill, fvr; dysp, bron; metal taste, garlic breath, GI; dermatitis; blur eyes; skin | |
| Copper | (* ) State Solid<br>pH FP LEL UEL<br>Auto.Ig BP MP<br>Incompatible with - Acetylene gas, magnesium metal<br>Sp.Gr 8.94 Vap.D<br>Vap.P H20 Sol.<br>Oth. , | 1 mg/m³ | I,G,C<br>Irrit. muc memb pharynix; has perforation; eye irrit; metal taste; dermatitis | |
| Chromium | (* ) State Solid<br>pH FP LEL UEL<br>Auto.Ig BP MP<br>Incompatible with - Strong oxidizers<br>Sp.Gr Vap.D<br>Vap.P H20 Sol.<br>Oth. , | 0.5 mg/m³<br>Ca | I,G<br>Histologic fibrosis of lungs; chromium (VI) | |

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** Use lowest of two, if no TLV/PEL, use Toxicity data in following order: Lowest Toxic Conc. in humans (LTC-HMN), Lowest Lethal Conc. in humans (LLC-HMN), Lowest Toxic Dose in humans (LTD-HMN), Lowest Lethal Dose in humans (LLD-HMN), $LC_{50}$ or $LD_{50}$ in humans, the Lowest Toxic Concentration or Lowest Toxic Dose in animals, the lowest $LC_{50}$ or $LD_{50}$ in animals.

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[1] Chemical Hazards

[a] Identify and attach Material Safety Data Sheets for all reagent type chemicals, solutions or other materials identified as or which in normal use could produce hazardous substances used in performing tasks related to tasks related to this project. ( ) N/A

[b] Chemical Contaminants of Concern ( ) N/A If present, provide following data.

| Hazardous Substance/ Tasks | Physical Properties and Characteristics* | Exposure Limits PEL/TLV** | Route(s) of Exposure***/ Symptoms | Monitoring Instruments/IP+ % Response |
|---|---|---|---|---|
| Phosphorus Trichloride | (*_____) State Liquid<br>pH FP LEL UEL<br>Auto.Ig BP 168°F MP -169°F<br>Incompatible with - Water, alcohol; combustible organics, chemically active metals, K, Al, nitric acid<br>Sp.Gr 1.58 Vap.D<br>Vap.P 100 mm H20 Sol.Reacts<br>Oth. | 0.2 ppm TLV<br>IDLH<br>50 ppm | I,C,G<br>Irritation eyes, nose, throat; pulm. edema, burn eyes, skin | HNu<br>IP = 991 |
| Hydrogen Peroxide | (*_____) State Liquid<br>pH FP NA LEL UEL<br>Auto.Ig BP 286° MP 12°<br>Incompatible with - Most RCRA metals; oxidizer materials, catalytic metals, Mg, Silver<br>Sp.Gr 1.39 Vap.D<br>Vap.P 5 mm H20 Sol.Miscible<br>Oth. | 1 ppm<br>IDLH<br>75 | I,C,G<br>Irrit. of eyes, throat and nose; corneal ulcer, erythema reside on skin; beaching hair [not combust. but strong oxidizer] | CGI<br>IP = 11 eV |
| Phosphoric Acid | (* C,R ) State Liquid<br>pH FP LEL NA UEL NA<br>Auto.Ig BP 500°C MP 10°C<br>Incompatible with - Strong caustics; most metals<br>Sp.Gr 1.87 Vap.D<br>Vap.P 0.03 mmH20 Sol.Miscible<br>Oth. | 1 mg/m³<br>IDLH<br>ND | I,G,C<br>Irritated upper resp. tract, eyes, skin; burns skin; eyes, derm | None, pH paper |

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** Use lowest of two, if no TLV/PEL, use Toxicity data in following order: Lowest Toxic Conc. in humans (LTC-HMN), Lowest Lethal Conc. in humans (LLC-HMN), Lowest Toxic Dose in humans (LTD-HMN), Lowest Lethal Dose in humans (LLD-HMN), $LC_{50}$ or $LD_{50}$ in humans, the Lowest Toxic Concentration or Lowest Toxic Dose in animals, the lowest $LC_{50}$ or $LD_{50}$ in animals.
*** I = Inhalation, G = Ingestion, S = Skin Absorption, C= Contact, D - Direct Penetration

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[1] Chemical Hazards

[a] Identify and attach Material Safety Data Sheets for all reagent type chemicals, solutions or other materials identified as or which in normal use could produce hazardous substances used in performing tasks related to tasks related to this project. ( ) N/A

[b] Chemical Contaminants of Concern ( ) N/A If present, provide following data.

| Hazardous Substance/ Tasks | Physical Properties and Characteristics* | Exposure Limits | Route(s) of Exposure***/ PEL/TLV** | Monitoring Instruments/IP+ Symptoms | % Response |
|---|---|---|---|---|---|
| Hydrochloric Acid | (* C,R, ) State Liquid<br>pH FP LEL UEL<br>Auto.Ig BP -121°F MP-173°F<br>Incompatible with -<br>Most metals, alkali and active metals<br>Sp.Gr 1.187 Vap.D<br>Vap.P >1 at m H20 Sol. 62%<br>Oth. | | PEL<br>5 PPM ceiling<br>100 ppm<br>IDLH | I,G,C<br>Inflam. ulcerated nose, throat, laranex; cough, choking, burn eyes; skin; pungent odor | None, pH paper |
| Sulfuric Acid | (* R,C ) State Liquid<br>pH FP NA LEL UEL<br>Auto.Ig BP 518° MP 37°<br>Incompatible with -<br>Organics; metals, chlorates carbides, fulminates, pirrates<br>Sp.Gr 1.84 Vap.D<br>Vap.P<0.001 mmH20 Sol.Miscible<br>Oth. | | 1 mg/m³<br>PEL<br>IDLH<br>80 mg/m³ | I,C,G<br>Odorless; eye, nose, throat irrit; pulm edema; bronchial emphasema tracheobronchitis; derm. dent. eros stomatitis; skin, eye burn | None |
| Sodium Hydroxide | (* R,C ) State Solid<br>pH FP LEL UEL<br>Auto.Ig BP 2534° MP590°F<br>Incompatible with -<br>Water, acids, flammable materials; metals; nitric compound; halogens<br>Sp.Gr 2.13 Vap.D ~0 mm<br>Vap.P H20 Sol. 50%<br>Oth. | | 2 mg/m³ ceil<br>TEL | I,C,G<br>Odorless; irit nose; pneumonti burn eye skin; temp. loss of hair | None |

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[1] Chemical Hazards

[a] Identify and attach Material Safety Data Sheets for all reagent type chemicals, solutions or other materials identified as or which in normal use could produce hazardous substances used in performing tasks related to tasks related to this project. ( ) N/A

[b] Chemical Contaminants of Concern ( ) N/A If present, provide following data.

| Hazardous Substance/ Tasks | Physical Properties and Characteristics* | Exposure Limits PEL/TLV** | Route(s) of Exposure***/ Symptoms | Monitoring Instruments/IP+ % Response |
|---|---|---|---|---|
| Cyanides ✓ | (*_____) State Solid<br>pH___FP_____LEL_____UEL_____<br>Auto.Ig_____BP 2732°F MP1040°F<br>Incompatible with - Strong oxidizers such as nitrates, chlorates, acids, acid salts<br>Sp.Gr_____Vap.D_____<br>Vap.P~0 mm H20 Sol. 72%<br>Oth. _____ | 5 mg/m³ | I,G,S,C<br>Asphyxia and death can occur; weakness; headache; confusion; nausea; vomitting, incorrd; rate resp; slow gasping resp; eye, skin irritation | |

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** Use lowest of two, if no TLV/PEL, use Toxicity data in following order: Lowest Toxic Conc. in humans (LTC-HMN), Lowest Lethal Conc. in humans (LLC-HMN), Lowest Toxic Dose in humans (LTD-HMN), Lowest Lethal Dose in humans (LLD-HMN), $LC_{50}$ or $LD_{50}$ in humans, the Lowest Toxic Concentration or Lowest Toxic Dose in animals, the lowest $LC_{50}$ or $LD_{50}$ in animals.
*** I = Inhalation, G = Ingestion, S = Skin Absorption, C= Contact, D - Direct Penetration

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[1] Chemical Hazards

[a] Identify and attach Material Safety Data Sheets for all reagent type chemicals, solutions or other materials identified as or which in normal use could produce hazardous substances used in performing tasks related to tasks related to this project. ( ) N/A

[b] Chemical Contaminants of Concern ( ) N/A If present, provide following data.

| Hazardous Substance/ Tasks | Physical Properties and Characteristics* | Exposure Limits PEL/TLV** | Route(s) of Exposure***/ Symptoms | Monitoring Instruments/IP+ % Response |
|---|---|---|---|---|
| Chlordane | (*Not comb. ) State Liquid<br>pH FP LEL UEL<br>Auto.Ig BP Decomp MP<br>Incompatible with -<br>Strong oxidizers<br>Sp.Gr Vap.D<br>Vap.P 0.00001mmH20 Sol. Insol.<br>Oth. | PEL/TLV =<br>0.5 mg/m³ | I,G,S,C<br>Blur vision; confusion atax; delerium; cough; abdom. pain, nau, vomit, diarr; irrity; tremor, convuls; anuria | |
| PCBs | (* ) State Liquid<br>pH FP 400°F LEL UEL<br>Auto.Ig BP 700°F MP 50°F<br>Incompatible with -<br>Strong oxidizers<br>Sp.Gr Vap.D<br>Vap.P 0.01mmH20 Sol. Insol.<br>Oth. | 0.5 mg/m³<br>Ca | I,G,S,C<br>Irritat eyes; skin; chloracne; acne-form dermatitis; jaun, dark urine | |

* E = Explosive, F = Flammable, C = Corrosive, R = Reactive, W = Water reactive, O = Oxidizer, Ra = Radioactive. State = Normal physical state at site/proj. temp.

** Use lowest of two, if no TLV/PEL, use Toxicity data in following order: Lowest Toxic Conc. in humans (LTC-HMN), Lowest Lethal Conc. in humans (LLC-HMN), Lowest Toxic Dose in humans (LTD-HMN), Lowest Lethal Dose in humans (LLD-HMN), $LC_{50}$ or $LD_{50}$ in humans, the Lowest Toxic Concentration or Lowest Toxic Dose in animals, the lowest $LC_{50}$ or $LD_{50}$ in animals.

*** I = Inhalation, G = Ingestion, S = Skin Absorption, C= Contact, D - Direct Penetration

+ IP = Ionization Potential

[1] Chemical Hazards

[a] Identify and attach Material Safety Data Sheets for all reagent type chemicals, solutions or other materials identified as or which in normal use could produce hazardous substances used in performing tasks related to tasks related to this project. ( ) N/A

[b] Chemical Contaminants of Concern ( ) N/A If present, provide following data.

| Hazardous Substance/ Tasks | Physical Properties and Characteristics* | Exposure Limits PEL/TLV** | Route(s) of Exposure***/ Symptoms | Monitoring Instruments/IP+ % Response |
|---|---|---|---|---|
| Barium | (* ) State Solid<br>pH FP LEL UEL<br>Auto.Ig BP MP<br>Incompatible with - vary depending upon specific compound<br>Sp.Gr 3.24 Vap.D<br>Vap.P H20 Sol.<br>Oth. , | 0.5 mg/m³ | I,G,C,<br>Upper resp. irrit; GI; musc spas; slow pulse, extra-stolos; hypoka-lemia; irrit eyes; skin burns | |
| Cadmium (dust) | (* ) State Solid<br>pH FP LEL UEL<br>Auto.Ig BP MP<br>Incompatible with - Strong oxidizers, elemental sulfur, selenium, tellurium<br>Sp.Gr 8.65 Vap.D<br>Vap.P H20 Sol.<br>Oth. , | 0.05 mg/m³<br>Ca | I,G<br>Pulm edema, dysp, cough, tight chest, subs pain; headache; chills, muscle aches; nausea, diarr; anos, emphy; prot; anemia | |
| Lead | (* ) State Solid<br>pH FP LEL UEL<br>Auto.Ig BP MP<br>Incompatible with - Strong oxidizers, hydrogen peroxide, active metals; sodium, potassium<br>Sp.Gr 11.34 Vap.D<br>Vap.P H20 Sol.<br>Oth. , | 0.05 mg/m³ | I,G,C<br>Lassitude; insomnia; pallor, eye, anorexia; low-wgt, malnut; consti,, abdom. pain; colic; hypo-tense; anemia; gingival lead line; tram, paralysis wrist | |

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[1] Chemical Hazards

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[b] Chemical Contaminants of Concern ( ) N/A If present, provide following data.

| Hazardous Substance/ Tasks | Physical Properties and Characteristics* | Exposure Limits PEL/TLV** | Route(s) of Exposure***/ Symptoms | Monitoring Instruments/IP+ % Response |
|---|---|---|---|---|
| ✓ Benzene | (*F ) State Liquid<br>pH FP 120° LEL1.3% UEL7.1%<br>Auto.Ig BP 176°FMP 1420°F<br><br>Incompatible with -<br>Strong oxydizers,chlorine, bromine with iron<br><br>Sp.Gr 0.88 Vap.D<br>Vap.P 75 mm H20 Sol. 0.18%<br><br>Oth. , | 1 ppm<br>Ca | I,S,G,C<br>Irritate eyes, nose throat; irritate resp. sys; head-ache; giddy, nausea; fatigue; lassitude; abdominal pain; bone marrow depression | OVA-150% response<br>HNu-10.2 eV 100% response<br>IP = 9.24 eV |
| Toluene | (* R, ) State Liquid<br>pH FP 40°F LEL 1.3%UEL7.1%<br>Auto.Ig BP 231°FMP-13°F<br><br>Incompatible with -<br>Strong oxidizers<br><br>Sp.Gr 0.87 Vap.D<br>Vap.P 22 mm H20 Sol. 0.05%<br>Oth. | 100 ppm | I,S,G,C<br>Fatigue; weakness confusion; euphoria; dizziness; headache muscle fatigue; insomnia; dermatitis | OVA-110% response<br>HNu-10.2 eV 100% response<br>IP = 8.82 eV |

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[1] Chemical Hazards

[a] Identify and attach Material Safety Data Sheets for all reagent type chemicals, solutions or other materials identified as or which in normal use could produce hazardous substances used in performing tasks related to tasks related to this project. ( ) N/A

[b] Chemical Contaminants of Concern ( ) N/A If present, provide following data.

| Hazardous Substance/ Tasks | Physical Properties and Characteristics* | Exposure Limits PEL/TLV** | Route(s) of Exposure***/ Symptoms | Monitoring Instruments/IP+ % Response |
|---|---|---|---|---|
| Xylenes | (* F ) State Liquid<br>pH FP 81°F LEL 1% UEL 7%<br>Auto.Ig BP 281°F MP 55°F<br>Incompatible with -<br>Strong oxidizers<br>Sp.Gr 5.73 Vap.D<br>Vap.P H20 Sol.<br>Oth. , | 100 ppm<br>Ca | I,S,G,C<br>Dizz; excitement; drowsiness; staggering gait; irritate eyes, nose, throat; corneal vacuolization; anorexia; nausea; vomit; abdom. pain; dermatitis | OVA-113% response<br>HNu-10.2 eV 113% response<br>IP = 8.5 eV |
| Methylene Chloride | (* F ) State Liquid<br>pH FP LEL 12% UEL 19%<br>Auto.Ig 1,139°F BP 104°F M-142°F<br>Incompatible with -<br>Strong oxidizers and caustics, chemically active metals; sodium; potassium<br>Sp.Gr 1.33 Vap.D 2.93<br>Vap.P 350 mm H20 Sol.<br>Oth. , | TLV = 50 ppm<br>Ca | I,G,C<br>Fatigue, weakness, sleepiness, lightheadedness; limbs numb, tingle; nausea; irritate eyes, skin; vertigo; worsen angina; [carc] | OVA-90% response<br>HNu-11.7 eV 94% response<br>IP = 11.25 eV |
| 1,1,1-Trichloroethane | (* ) State Liquid<br>pH FP None LEL 7% UEL 16%<br>Auto.Ig BP 74°C MP -36°F<br>Incompatible with -<br>Strong caustics and oxidizers, chemically active metals<br>Sp.Gr 1.34 Vap.D<br>Vap.P 100 mm H20 Sol. 0.07% @ 20°C<br>Oth. , | (TLV)<br>350 ppm | I,G,C<br>Headache; lassitude; CNS depress; poor equil; irritate eyes; dermatitis; cardiac arrhythmias | OVA-105% response<br>HNu-11.7 eV 90% response<br>IP=11.25 eV |

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** Use lowest of two, if no TLV/PEL, use Toxicity data in following order: Lowest Toxic Conc. in humans (LTC-HMN), Lowest Lethal Conc. in humans (LLC-HMN), Lowest Toxic Dose in humans (LTD-HMN), Lowest Lethal Dose in humans (LLD-HMN), $LC_{50}$ or $LD_{50}$ in humans, the Lowest Toxic Concentration or Lowest Toxic Dose in animals, the lowest $LC_{50}$ or $LD_{50}$ in animals.

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+ IP = Ionization Potential

[1] Chemical Hazards

[a] Identify and attach Material Safety Data Sheets for all reagent type chemicals, solutions or other materials identified as or which in normal use could produce hazardous substances used in performing tasks related to tasks related to this project. ( ) N/A

[b] Chemical Contaminants of Concern ( ) N/A If present, provide following data.

| Hazardous Substance/ Tasks | Physical Properties and Characteristics* | Exposure Limits PEL/TLV** | Route(s) of Exposure***/ Symptoms | Monitoring Instruments/IP+ % Response |
|---|---|---|---|---|
| 1,2-Dichloro-ethane | (* F ) State Liquid<br>pH FP 55°F LEL 6.2%UEL 16%<br>Auto.Ig BP 183°FMP -32°F<br>Incompatible with -<br>Strong oxidizers and caustics, chemically active metals<br>Sp.Gr 1.24 Vap.D<br>Vap.P 62 mm H20 Sol. 0.8%<br>Oth. , | (TLV) 10 ppm<br>Ca | I,G,S,C<br>CNS depression; nausea; vomit; dermatitis; irritate eyes; corneal opacity; [carc] | OVA - % response<br>HNu - % response<br>IP = |
| t-1,2-Dichloro-ethene | (* F ) State Liquid<br>pH FP 36°F LEL 5.6 UEL 16%<br>Auto.Ig BP 113°FMP -56°F<br>Incompatible with -<br>Strong oxidizers<br>Sp.Gr 1.27 Vap.D 2.1 @ 100°F<br>Vap.P180-265 mm H20 Sol. 0.35-0.63%<br>Oth. , | 200 ppm<br>(TLV) | I,G,C<br>Irritate eyes, resp. system; CNS depression<br>IP = 11.04 eV | OVA-50% response<br>HNu-no response |
| Ethylbenzene | (* F ) State Liquid<br>pH FP 59°FLEL 1.0%UEL 6.7%<br>Auto.Ig 810°F BP 277°FMP -139°F<br>Incompatible with -<br>Strong oxidizers<br>Sp.Gr 0.87 Vap.D<br>Vap.P 7.1mm H20 Sol. 0.015%<br>Oth. , | (TLV) 100 ppm | I,G,C<br>Irritate eyes, muc. memb; headache; dermatitis; narcosis; coma<br>IP = 8.76 eV | OVA-100% response<br>HNu-10.2 eV assume 75% response |

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*** I = Inhalation, G = Ingestion, S = Skin Absorption, C= Contact, D - Direct Penetration

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[1] Chemical Hazards

[a] Identify and attach Material Safety Data Sheets for all reagent type chemicals, solutions or other materials identified as or which in normal use could produce hazardous substances used in performing tasks related to tasks related to this project. ( ) N/A

[b] Chemical Contaminants of Concern ( ) N/A If present, provide following data.

| Hazardous Substance/ Tasks | Physical Properties and Characteristics* | Exposure Limits PEL/TLV** | Route(s) of Exposure***/ Symptoms | Monitoring Instruments/IP+ % Response |
|---|---|---|---|---|
| 1,4-dichloro phenol | (* ) State Solid<br>pH FP 237°F LEL UEL<br>Auto.Ig BP 210°F MP 45°F<br>Incompatible with - Oxidizing materials<br>Sp.Gr Vap.D 5.62<br>Vap.P 1 mm at H20 Sol.<br>Oth. 53zu°C | Orl-rat TDLo: 20 mg/kg (1-20D preg): TER | I,G,C<br>Poison by intra-paritonal route; moderately toxic by ingestion, skin contact | |
| Cyclo-hexanone | (* F ) State L19<br>pH FP 111°F LEL 1.1% UEL ?<br>Auto.Ig BP 3144 MP -53°F<br>Incompatible with - Strong oxidizers; nitric acid<br>Sp.Gr 0.95 Vap.D<br>Vap.P 2 mm 20 Sol. 15 %<br>Oth. | TLV - 25 skin<br>Irrit. eyes, muc. memb<br>CNS, narcosis; skin<br>Peppermint odor | I,C,G | IP = 9.14 eV<br>IP = 9.99 eV |
| PNAs PAHs | (* ) State<br>pH FP LEL UEL<br>Auto.Ig BP MP<br>Incompatible with -<br>Sp.Gr Vap.D<br>Vap.P H20 Sol.<br>Oth. | Polycyclic aromatic hydrocarbons HR: 3<br>PAHs<br>MAK: suspected carcinogen<br>THR: Burning organics in limited O produces PAHs many of which are exper and susp CARC. These are associated with soots, tar violatiles, coke oven emissions, exhaust fumes, used motor oils, curing smoke, cutting oils. These concurrently contain CARC, cancer promoters, cancer inhibitors, i.e., indeno(1,2,3-cd)-pyrene; benzo(a)pyrene; dibenz(a,h)anthracene. Statistical analysis has shown that these materials can produce hmn as well as exper cancers in exposed workers. | |

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** Use lowest of two, if no TLV/PEL, use Toxicity data in following order: Lowest Toxic Conc. in humans (LTC-HMN), Lowest Lethal Conc. in humans (LLC-HMN), Lowest Toxic Dose in humans (LTD-HMN), Lowest Lethal Dose in humans (LLD-HMN), $LC_{50}$ or $LD_{50}$ in humans, the Lowest Toxic Concentration or Lowest Toxic Dose in animals, the lowest $LC_{50}$ or $LD_{50}$ in animals.

*** I = Inhalation, G = Ingestion, S = Skin Absorption, C= Contact, D - Direct Penetration

+ IP = Ionization Potential

[2] Biological Hazards Of Concern

| No. | Hazard | (Y/N) | Task No.(s)* | Location/ Source (K,S)** | Route of Exposure (I,G,C,D)+ | Team Member(s) Allergic? | Immunization Required? |
|---|---|---|---|---|---|---|---|
| 1. | Poisonous Plants | (Y) | 1, 2, 3, 4, ~~5~~ 6 | S | I, G, C | | |
| 2. | Insects | (Y) | 1, 2, 3, 4, ~~5~~ 6 | S | D | | |
| 3. | Snakes, Reptiles | (Y) | 1, 2, 3, 4, ~~5~~ 6 | S | D | | |
| 4. | Animals | (Y) | 1, 2, 3, 4, ~~5~~ 6 | S | D | | |
| 5. | Sewage | (N) | | | | | |
| 6. | Etiologic Agents | (~~N~~) (List) | 2, 3, ~~5~~ | S | I, G, C | | |

* List all task Nos. which would involve potential exposure to these hazard(s).
** K = Known, S = Suspect. + I = Inhalation, G = Ingestion, C = Contact, D = Direct Penetration (Bite, Inject., Open wound or sore)

[3] Radiation Hazards of Concern

**TYPE** RADIATION IS NOT EXPECTED TO BE FOUND AT THE SITE BUT AS A PRECAUTION, A RADIATION SURVEY WILL BE PERFORMED AT THE SITE during Tasks 2, 3, 4, and 6.

1. Ionizing

| | Location/ Source | TYPE EMITER | TASK NO.(S) | EXPOSURE LIMITS | Protection Protocol REFERENCE |
|---|---|---|---|---|---|
| RadioNuclide | NONE | | | | |

2. Non-ionizing

| | Location/ Source | TASK NO.(S) | EXPOSURE LIMITS | Protection Protocol REFERENCE |
|---|---|---|---|---|
| Ultra violet | NONE | | | |
| Infra Red | | | | |
| Microwave | | | | |
| Radio-Freq. | | | | |
| LASER | | | | |

[4] Physical Hazards of Concern

| | | Hazard (Y/N) | TASK No(s). | Protection OP(s) Attached |
|---|---|---|---|---|
| 1. | Noise | (N) | | |
| 2. | Heat - ambient air | (N) | 1, 2, 3, 4, 5 6 | Fld 05 |
| | - Hot Process - Steam | (N) | | |
| | - Hot Process - LT[3] | (N) | | |
| | - Hot Process - Incin. | (N) | | |
| 3. | Cold | (Y) | 1, 2, 3, 4, 5 6 | Fld 02, 06 |
| 4. | Rain | (Y) | 1, 2, 3, 4, 5 6 | Fld 02 |
| 5. | Snow | (Y) | 1, 2, 3, 4, 5 6 | Fld 02, 06 |
| 6. | Electric Storms | (Y) | 1, 2, 3, 4, 5 6 | Fld 02 |
| 7. | Confined Space Entry | (N) | | |
| 8. | "Hot Work" | (N) | | |
| 9. | Heavy Manual Lifting/Moving | (N) | | |
| 10. | Rough Terrain | (Y) | 1, 2, 3, 4, 5 6 | |
| 11. | Housekeeping | (Y) | 1, 2, 3, 4, 5 6 | |
| 12. | Structural Integrety | (N) | | |
| 13. | Neighborhood | (Y) | 1, 2, 3, 4, 5 6 | |
| 14. | Remote Area | (N) | | |
| 15. | Compressed Gases | (N) | | |
| 16. | Diving | (N) | | |
| 17. | Using Boats | (N) | | |
| 18. | Working over Water | (N) | | |
| 19. | Traffic | (Y) | 1, 2, 3, 4, 5 6 | |
| 20. | Explosives | (N) | | |
| 21. | Heavy Equipment Operation | (N) | | |
| 22. | Lifting Equipment Operation. - Cranes, | (N) | | |
| | - Manlifts | (N) | | |
| 23. | Working at Elevation | (N) | | |
| 24. | Using Ladders | (N) | | |
| 25. | Using Scaffolding | (N) | | |
| 26. | Excavating/Trenching | (N) | | |
| 27. | Materials Handling | (N) | | |
| 28. | Haz. Mat. Use/Storage - flam.liq./gases | (N) | | |
| | - oxidizers | (N) | | |
| | - corrosives | (N) | | |
| 29. | Fire Prevent/Reponse plan required | (N) | | |
| 30. | Fire Extinguishers required | (Y) | 2, 3, 4, 5 6 | Fld 32 |
| 31. | Demolition | (N) | | |
| 32. | Utilities - Underground | (Y) | 2 | Fld 34 |
| | - Overhead | (N) | | |
| 33. | Electrical - General | (N) | | |
| | - High Voltage | (N) | | |
| 34. | Welding/cutting/burning | (N) | | |
| 35. | Hand tools | (Y) | 2, 3, 4, 5 6 | Fld 38 |
| 36. | Power Hand Tools | (Y) | 2, 5 | Fld 38 |
| 37. | High Pressure Water | (N) | | |
| 38. | Other _____ | (N) | | |
| 39. | Other _____ | (N) | | |
| 40. | Other _____ | (N) | | |

TASK BY TASK RISK ANALYSIS

The preceding Tables identify the hazards known or suspected to be present in accomplishing the tasks involved in this project.

Section II A. 2. of this HASP describes the background of this site/project and identifies the tasks involved.

Below briefly describe each task and the likelihood of exposure to the hazards identified and the protective protocols to be used.

1. Reconnaissance Inspection
   a. Cold, rain, snow: Wear appropriate clothing, watch for symptoms of frostbite, avoid caffeine. Take cover during severe electrical storms.
   b. Traffic: Keep distance from roadways whenever possible. If working beside heavy traffic area, use safety vests or cones and "Men Working" signs as necessary.
   c. Biological: Wear protective clothing (overalls, steel-toed boots, etc.) to avoid contact with insects, poisonous plants, and other flora and fauna.
2. Soil Sampling
   a. Cold, rain, snow (see above).
   b. Traffic (see above).
   c. Hand tools and power tools: During operation, wear hard hat, safety glasses, and steel-toed shoes. Make sure power tools are properly grounded and guards are in place.
   d. Biological: Wear protective clothing (overalls, steel-toed boots, etc.) to avoid contact with insects, poisonous plants, and other flora and fauna.
   e. Physiochemical: Depends on nature of site.
3. Surface Water and Sediment Sampling
   a. Cold, rain, snow (see above).
   b. Traffic (see above).
   c. Biological (see above).
   d. Physiochemical (see above).
   e. CREEK/OUTFALL SAMPLING SAMPLE COLLECTORS WILL WEAR HIP WADERS AND LIFEPRESERVERS AS NECESSARY. A SAFETY WATCH WILL BE LOCATED ON SHORE.
4. Groundwater Sampling
   a. Cold, rain, snow (see above).
   b. Traffic (see above).
   c. Biological (see above).
   d. Physiochemical (see above).

4A. GROUNDWATER SAMPLING (RESIDENTIAL WELLS - TARS)
   a. COLD, RAIN, SNOW (SEE ABOVE)
   b. TRAFFIC (SEE ABOVE)
   C. BIOLOGICAL (SEE ABOVE)

THE FIELD TEAM WILL BE ENTERING PRIVATE RESIDENCES TO SAMPLE WATER FROM TARS - TO PREVENT ANY UNNECESSARY DISTURBANCES OF THE RESIDENTS, NO AIR MONITORING EQUIPMENT WILL BE TAKEN INTO THE HOMES AND MODIFIED LEVEL D WILL BE USED. NO POTENTIAL FOR EXPOSURE IS EXPECTED.

N/A ~~5. Monitoring Well Construction~~
   ~~a. Cold, rain, snow (see above).~~
   ~~b. Traffic (see above).~~
   ~~c. Biological (see above).~~
   ~~d. Physiochemical (see above).~~
   ~~e. Heavy equipment: During operation, wear hard hat, safety glasses, hearing protection, steel-toed boots. Keep distance from machinery whenever possible.~~

6. GEOPHYSICAL SURVEY - A Survey of the 5 Soil Sample locations will be conducted using a V-92 Magnetometer to designate Clear areas of approx. 10 feet in diameter for 0-3' Hand anger Samples. The V-92 Magnetometer does not set up an Electromagnetic field and therefore will not inadvertently detonate possible buried munitions present. Glenn Brooks is experienced in this type of Geophysical work. As a precaution, work area will be monitored with a Rad meter prior to start of activities.
   a. COLD, RAIN, SNOW (SEE ABOVE)
   b. Traffic (SEE ABOVE)
   C. Biological (SEE ABOVE)
   D. Chemical Hazards are not anticipated.

EXPOSURE TO PHYSIOCHEMICAL HAZARDS POSSIBLE IN TASKS 2, 3, 4 and 6 BY CONTACT WITH CONTAMINATED SOIL, SEDIMENT, SURFACE WATER, GROUNDWATER OR INHALATION OF VAPORS. PROTECTIVE CLOTHING WILL MINIMIZE CONTACT EXPOSURE RISKS AND RESPIRATORY PROTECTION (AS NEEDED) WILL MINIMIZE INHALATION RISKS. AIR MONITORING WITH PID, HCN Monitox & DRAEGER TUBES WILL INDICATE IF INHALATION RISK IS PRESENT AND ACTION LEVELS WILL DETERMINE IF RESPIRATORY PROTECTION IS REQUIRED. CGI MONITORING WILL ALSO BE PERFORMED DURING TASK 2 (FOR OTHER TASKS, ONLY AS WARRANTED). UNDERGROUND UTILITIES WILL BE 7 of 40 CLEARED PRIOR TO TASK 2.

for Tasks 2, 3, and 4.

## III. Personnel Protection Plan

### A. Engineering Controls

1. Describe Engineering Controls used as part of Personnel Protection Plan:

| Task(s) | |
|---|---|
| 2, | Dust suppression. If excessive dust, area will be wetted. |
| | |

### B. Administrative Controls

1. Describe Administrative controls used as part of Personnel Protection Plan:

| Task(s) | |
|---|---|
| 2,3,4,6 | MAINTAIN A SAFE DISTANCE FROM TRAFFIC WHENEVER POSSIBLE OR OTHERWISE ADDRESS |

### C. Personnel Protective Equipment *

1. Action Levels for Changing Levels of Protection

| (1) Task No.(s) | Define Action Levels for up or down grade for each task |
|---|---|
| 1 | MODIFIED LEVEL D |
| 2,3,4,6 | WORK WILL BE PERFORMED IN LEVEL D. IF HNu READINGS REACH 1-5 UNITS ABOVE BACKGROUND THEN LEVEL C WILL BE REQUIRED. IF HNu READINGS REACH GREATER THAN 5 UNITS ABOVE BACKGROUND, LEVEL B WILL BE REQUIRED. IF LEVEL B BECOMES NECESSARY, WORK WILL BE HALTED UNTIL A QUALIFIED B.S SHSC AND PROPER EQUIPMENT IS MOBILIZED TO THE SITE. |
| 2 | IF DUST IS VISIBLE, LEVEL C WILL BE USED AND SUPPRESSION METHODS IMPLEMENTED. IF SUPPRESSION METHODS DO NOT WORK, WORK WILL BE HALTED AND CONDITIONS REEVALUATED. |
| 4A | MODIFIED LEVEL D - RESIDENTIAL WELLS - TAPS - HOMES |
| 2,3,4 | HCN MONITOX ORHON DRAEGERS WILL BE USED. IF LEVELS REACH 5MG/M3 TEAM WILL LEAVE AREA. CONDITIONS AND LEVEL OF PROTECTION WILL BE REEVALUATED. |

c. Description of Levels

| Task(s) | 1, 4A [TASK 4A-EQUIPMENT TO BE USED MARKED WITH ASTERISK *] | | 2, 3, 4 | |
|---|---|---|---|---|
| | Modified **Level D** | | **Level D** | |
| **Head** | [b] (X) Hard Hat[(a)] | ( ) | (X) Hard Hat[(a)] | ( ) |
| **Eye & Face** | (X) Safety Glasses | ( ) | (X) Safety Glasses | ( ) |
| **Hearing** (as necessary) | (X) Ear Plugs | ( ) | (X) Ear Plugs | ( ) |
| **Arms & Legs only** | ( ) | ( ) | ( ) | (X) PFDs and H:P waders as necessary |
| **Whole Body** | [b] (X)* Coveralls | ( ) | (X) Tyvek or | (X) Saranex |
| **Apron** | ( ) | ( ) | ( ) | ( ) |
| **Hand - gloves** | (X) Work | ( ) | (X) Surgical | ( ) |
| (as necessary) **- gloves** (outer) | (X)* Surgical | ( ) | (X) Cold Weather Gloves | |
| (as necessary) **- gloves** (inner) | (X) Nitriles | ( ) | (X) Nitriles | (X) Silver shields (for PCB sites) |
| **Foot - Boots** | (X) *Steel-toed boots | ( ) | (X) Steel-toed boots | ( ) |
| (as necessary) **- Boots** | [b] (X) Booties (latex) | ( ) | (X) Booties (latex) | ( ) |
| **- Boots** | [b] (X) Work Boots | ( ) | ( ) | ( ) |

(a) HARDHAT WILL BE WORN WHEN OVERHEAD or Bump HAZARDS EXIST AT SITE

(b) These items will be utilized for Task #6 (Geophysical survey). Latex Booties or Overboots will be included as appropriate to keep clean and/or avoid contact with potentially contaminated surfaces.

c. Description of Levels of Protection. (Cont.) Levels C and B

| Task(s) | 2,3,4 | | 2,3,4 | |
|---|---|---|---|---|
| | Level C | | Level B | |
| Head | (X) Hard Hat | ( ) | (X) Hard Hat | ( ) |
| Eye & Face | (X) Full Face Resp | ( ) | (X) Full Face Mask | ( ) |
| Hearing (as necessary) | (X) Ear Plugs | ( ) | (X) Ear Plugs | ( ) |
| Arms & Legs only | ( ) | ( ) | ( ) | ( ) |
| Whole Body | (X) Tyvek or | (X) Saranex | (X) Tyvek or | (X) Saranex |
| Apron | ( ) | ( ) | ( ) | ( ) |
| Hand - gloves (inner) | (X) Surgical | ( ) | (X) Surgical | ( ) |
| - gloves (outer) | (X) Nitrile | (X) Silver Shields | (X) Nitrile | (X) Silver Shields |
| - gloves | ( ) | ( ) (for PCB sites) | ( ) | ( ) (for PCB sites) |
| Foot - Boots | (X) Steel-toed boots | ( ) | (X) Steel-toed boots | ( ) |
| - Boots | (X) Latex booties | ( ) | (X) Latex booties | ( ) |
| - Boots | ( ) | ( ) | ( ) | ( ) |
| APR - Neg. Pres. Half Face Cart./Canister | ( ) | ( ) | ( ) | ( ) |
| Full Face | (X) MSA Ultratwin Respirator | ( ) | ( ) | ( ) |
| Cart./Canister | (X) GMC-H | ( ) | ( ) | ( ) |
| PAPR | ( ) | ( ) | ( ) | ( ) |
| Cart./Canister Type C | ( ) | ( ) | ( ) | ( ) |
| SAR - Airline | ( ) | ( ) | ( ) | ( ) |
| SCBA | ( ) | ( ) | (X) MSA | ( ) |
| Comb.Airline/SCBA | ( ) | ( ) | ( ) | ( ) |
| Cascade Syst. | ( ) | ( ) | ( ) | ( ) |
| Compressor | ( ) | ( ) | ( ) | ( ) |
| Fall Protection | ( ) | ( ) | ( ) | ( ) |
| Floatation | ( ) | ( ) | (X) PFD and | (X) Hip Waders as necessary |
| | ( ) | ( ) | ( ) | ( ) |

IV. Site or Project Hazard Monitoring Program

A. Direct Reading Air Monitoring Instruments

1. Instrument Selection & Initial Check Record

| | No. | Task No.(s) | Instrument checked upon receipt | Initials |
|---|---|---|---|---|
| CGI- | ( X ) | 2 | ( ) | |
| $O_2$ - | ( ) | | ( ) | |
| CGI/$O_2$- | ( ) | | ( ) | |
| CGI/$O_2$/tox-PPM,$H_2S$,$H_2S$/CO | ( ) | | ( ) | |
| RAD-GM, | ( ) | | ( ) | |
| -NaI | ( X ) | 2,3,4,6 | ( ) | |
| -ZnS | ( ) | | ( ) | |
| -OTHER | ( ) | | ( ) | |
| PID -HNU 10.2 (as appropriate) | ( ) | | ( ) | |
| -HNU 11.7 | ( X ) | 2,3,4 | ( ) | |
| -HNU 9.5, | ( ) | | ( ) | |
| -PHOTOVAC,TMA,OTHER | ( ) | | ( ) | |
| FID -FOX-128 | ( ) | | ( ) | |
| -FOX 128GC | ( ) | | ( ) | |
| -HEATH,AID,OTHER | ( ) | | ( ) | |
| RAM, Mini-RAM, Other | ( ) | | ( ) | |
| MONITOX-HCN | ( ) | 2,3,4 | ( ) | |
| $H_2S$ | ( ) | | ( ) | |
| COCL, | ( ) | | ( ) | |
| $SO_2$, | ( ) | | ( ) | |
| OTHER | ( ) | | ( ) | |
| Bio-Aerosol Monitor | ( ) | | ( ) | |
| Detector Tubes (as necessary) | | | | |
| Pump - MSA,Draeger,Sensidyne | ( X ) | HCN | ( ) | |
| - Tubes(No.)/type | ( ) | | ( ) | ( ) |
| - Tubes(No.)/type | ( ) | | ( ) | ( ) |

OR

Reporting Format __X__ 1.Field notebook. ____2.Field data sheets. ____3.Air monitoring log.____4.Trip report.__X__5.Other: Well Logs

*Reconnaissance visit and background search will determine Physiochemical hazards of concern and determine which PID probe to use (11.7 or 10.2).

2. Direct Reading Air Monitoring Instruments Calibration Record

| Instrument, Mfg., Model, Eqp.ID. No. | Date | Time | Calib, Material | Calib. Method Mfg.'s | Other | Initial Setting& Reading | Final Setting& Reading | Calibs. Initials |
|---|---|---|---|---|---|---|---|---|
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## Site Air Monitoring Program

Air Monitoring Instrument HNu (11.7 eV) / HCN Monitox (or Draeger Tubes)

| | Air Monitoring Frequency | | Tasks |
|---|---|---|---|
| X | 1. Periodically | Around boreholes, sample areas | 2, 3, 4, ~~5~~ NA |
| X | 2. Periodically | Ambient air/breathing zone | 2, 3, 4, ~~5~~ NA |
| | 3. Continuous | | |
| | 4. Other: | | |

| | Monitoring Locations | Tasks |
|---|---|---|
| X | 1. Upwind/downwind of site activities. | 2, 3, 4, ~~5~~ NA |
| | 2. Near residents, etc. | |
| | 3. Key site activity locations: | |
| | decon area | |
| | staging area | |
| | excavation area | |
| | field lab area | |
| | storage tanks | |
| | lagoons | |
| | drums | |
| | 4. Fixed stations | |
| X | 5. Other: Monitoring around boreholes and sample areas ~~will be~~ conducted periodically and whenever potentially contaminated zones are encountered. Draeger tubes will be used as required. Screen when well caps are open. | |

Air Monitoring Instrument CGI

| | Air Monitoring Frequency | | Tasks |
|---|---|---|---|
| X | 1. Periodically | Around boreholes | 2 ~~and 5~~ N/A |
| X | 2. Periodically | Ambient air in work zone | 2 ~~and 5~~ N/A |
| | 3. Continuous | | |
| | 4. Other: | | |

| | Monitoring Locations | Tasks |
|---|---|---|
| | 1. Upwind/downwind of site activities. | |
| | 2. Near residents, etc. | |
| | 3. Key site activity locations: | |
| | decon area | |
| | staging area | |
| | excavation area | |
| | field lab area | |
| | storage tanks | |
| | lagoons | |
| | Drums | |
| | 4. Fixed stations | |
| | 5. Other: Monitoring in and around borehole will be conducted periodically and whenever potentially contaminated zone is penetrated. | |

*Note: "periodically" indicates as frequently as practical.

D. Action Levels

X 1. Explosive atmosphere: Tasks 2, ~~5~~ NA

| Action Level | Action |
|---|---|
| <10% LEL | Continue investigation |
| 10%-25% LEL | Continue on-site monitoring with extreme caution as higher levels are encountered. |
| >25% LEL | Explosion hazard. **Withdraw from area immediately.** |

___ 2. Oxygen: Tasks _____

| Action Level | Action |
|---|---|
| <19.5% | Monitor wearing SCBA. NOTE: Combustible gas readings may not be valid in atmospheres with <19.5% oxygen. |
| 19.5%-25% | Continue investigation with caution, as Oxygen levels > 21% require extreme caution. Other than normal level may be due to presence of other substances. |
| >25% | Fire hazard potential. Stop work and **Consult a fire safety specialist.** |

X 3. Radiation: Tasks 2,3,4,6

| Action Level | Action |
|---|---|
| 3 x Bkg - < 1mR/hr | Radiation above background levels (normally 0.01-0.02 mR/hr) signifies possible source(s) radiation present. Continue investigation with caution. Perform thorough monitoring. **Consult with a health physicist.** |
| >1 mrem/hr | Potential radiation hazard. Evacuate site. Continue investigation only upon the advice of a health physicist. |

X 4. Organic gases and vapors: Tasks 2, 3, 4, ~~5~~ NA, see Page 8 of 40

X 5. Inorganic gases and vapors: HCN Monitox – See page 8 of 40. (Tasks 2, 3, 4)

| Action Level | Action |
|---|---|
| Depends on chemical | Consult standard reference manuals for air concentration/ toxicity data. Action level depends on PEL/REL/TLV. |

These Action Levels, if not defined by regulation, is some percent (usually 50%) of the applicable PEL/REL/TLV. That number must also be adjusted to account for instrument response factors.

Ambient Air Sampling - Decision Logic and action levels to institute Air Sampling

_X_ No air sampling is required on this site.*

____ An air sampling plan is incorporated in this HASP.

Check situations which will require or action levels which will apply to deciding to institute or increase scope of planned air sampling.

**Meteorological conditions:**

___ a. Dry weather for _____ days. ___ b. ambient temperature above ___ F°.

___ c. Wind increasing potential of more contaminant dispersion in or migration out of controlled area.

Activities which will require instituting or increasing scope of air sampling:

___ a. major spills

___ b. new site activity resulting in potential presence of new chemical hazards.

_X_ c. site activity increases airborne contaminants possibilities.*

__ d. Air sampling documentation required for:
___ Downgrading from stipulated level of protection.
___ Documenting no migration of contaminants off site through air

Applicable Action Levels for instituting Air Sampling: (Check as Appropriate)

____ a. Visible vapor/gas clouds or vapors levels, or ____ b. Visible dust or particulate levels measured with Direct Reading Instrument, two - three times background or above action level, sustained over 10-15 minute period.

1) Sampling Matrix/
air interface - Monitor matrix/air interface and breathing zone periodically with DRI, if Vapor levels > 2-3 times background, monitor continuously, follow No. 4.

2) Container opening - Monitor opening and breathing zone periodically with DRI, if Vapor levels > 2-3 times background, monitor opening and breathing zone continuously, follow No. 4.

3) Excavation/Drilling/
Intrusive work - Monitor at ground level and breathing zone periodically with DRI, if Vapor levels > 2-3 times background, monitor opening and breathing zone continuously, follow No. 4.

4) Breathing zone - Ensure level of protection specified in HASP is being used. Consult HASP or Corporate Health and Safety relative to instituting personnel, area or perimeter Sampling.

Other: _____

*Air sampling not anticipated for this site, however if continuous high readings are encountered on direct reading instruments, then WESTON industrial hygienist will be consulted to determine if air sampling is required. (corporate H+S Director)

B. Sample Location

____ 1. Ambient background - Locations: Substances Sampled for

a._____ _____
b._____ _____

____ 2. Personal samples, onsite - Locations

a._____ _____
b._____ _____
c._____ _____
d._____ _____
e._____ _____
f._____ _____

____ 3. Personal samples, offsite - Locations

a._____ _____
b._____ _____
c._____ _____
d._____ _____

____ 4. Fixed onsite samples - Locations:

a._____ _____
b._____ _____
c._____ _____
d._____ _____
e._____ _____
f._____ _____

____ 5. Fixed offsite samples - Locations:

a._____ _____
b._____ _____
c._____ _____
d._____ _____
e._____ _____

____ 6. Mobile offsite samples - Locations:

a._____ _____
b._____ _____
c._____ _____

____ 7. Mobile onsite samples - Locations:

a._____ _____
b._____ _____
c._____ _____

____ 8. Background sample stations - Locations

a._____ _____
b._____ _____
c._____ _____

B. Air Sampling

1. Personal Sampling Pumps - Gilian,SKC,MSA No. ( ) _____

Sampling Media - Sorbent Tubes

| Task(s) | Location | Duration | Frequency | Type | Anal. Meth |
|---|---|---|---|---|---|
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Sampling Media - Filter

| Task(s) | Location | Duration | Frequency | Type | Anal. Meth |
|---|---|---|---|---|---|
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Sampling Media - Impinger

| Task(s) | Location | Duration | Frequency | Type | Anal. Meth |
|---|---|---|---|---|---|
| | | | | | |
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Sampling Media - Air Bag

| Task(s) | Location | Duration | Frequency | Type | Anal. Meth |
|---|---|---|---|---|---|
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B. Air Sampling

2. Hi-Volume Pumps

| | | | | Sampling Media - Filter | |
|---|---|---|---|---|---|
| Task(s) | Location | Duration | Frequency | Type | Anal. Meth |
| | | | | | |
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3. PORTABLE GAS CHROMATOGRAPH Task(S) _____ Type _____

Portable GC Analytical Plan: _____

4. Passive Dosimeters

| | | TASK(S) | TYPE | LOCATION | FREQUENCY | DURATION |
|---|---|---|---|---|---|---|
| Organic Vapor | ( ) | | | | | |
| Mercury Vapor | ( ) | | | | | |
| Paper Color Change | ( ) | | | | | |
| TLD | ( ) | | | | | |
| Film Badge | ( ) | | | | | |
| Liquid Media | ( ) | | | | | |

5. WIPE SAMPLING

1. Wipe Sampling Plan _____

C. Physical Hazard and Miscellanous Monitors and Detectors

| | | TASK(S) | CALIBRATION RQD? | METHOD | Location | Frequency |
|---|---|---|---|---|---|---|
| SOUND LEVEL METER | ( ) | _____ | ( ) | _____ | _____ | _____ |
| NOISE DOSIMETER(s) | ( ) | _____ | ( ) | _____ | _____ | _____ |
| OCTAVE BAND ANALYER | ( ) | _____ | ( ) | _____ | _____ | _____ |
| LIGHT METER | ( ) | _____ | ( ) | _____ | _____ | _____ |
| ELECTRIC CIRC. DETECTOR | ( ) | _____ | ( ) | _____ | _____ | _____ |
| Thermometer | ( ) | _____ | ( ) | _____ | _____ | _____ |
| Wind Speed Indic. | ( ) | _____ | ( ) | _____ | _____ | _____ |
| Barometer | ( ) | _____ | ( ) | _____ | _____ | _____ |
| Psychrometer | ( ) | _____ | ( ) | _____ | _____ | _____ |
| Infra Red Thermom. | ( ) | _____ | ( ) | _____ | _____ | _____ |
| Micro Wave Detector | ( ) | _____ | ( ) | _____ | _____ | _____ |
| pH METER | ( ) | _____ | ( ) | _____ | _____ | _____ |

D. Indicator Kits

| | | TASK(S) | LOCATION | FREQUENCY |
|---|---|---|---|---|
| pH PAPER | ( ) | _____ | _____ | _____ |
| PEROXIDE PAPER | ( ) | _____ | _____ | _____ |
| CHLOR-N-OIL KIT | ( ) | _____ | _____ | _____ |
| HAZARD CATAGORIZING KIT | ( ) | _____ | _____ | _____ |
| ASBESTOS TEST KIT | ( ) | _____ | _____ | _____ |

G. Work Location Instrument Readings

Location_____

% LEL ____,____,____,____; % $O_2$ ____,____,____,____; PID ppm ____,____,____

FID ppm ____ ____ ____ Aerosol Monitor mg/$M^3$ ____,____,____

GM: Shield Probe/Thin Window - mR/hr____,____,____;cpm____,____,____

NaI____,____,____,____uR/hr; ZnS____,____,____,____cpm

(Monitox)ppm: ( )____,____,____,____; ( )____,____,____,____,____;

( )____,____,____,____,____; ( )____,____,____,____,____;

(Detector Tube)(s): ( )____,____,____,____; ( )____,____,____,____;

( )____,____,____,____; ( )____,____,____,____; ( )____,____,____

Sound Levels ____dBA; ____dBA; ____dBA; ____dBA; ____dBA; ____dBA; ____dBA; __

Illumination ____ pH ____ Other____ ____ Other____ ____ Other ____

Location_____

% LEL ____,____,____,____; % $O_2$ ____,____,____,____; PID ppm ____,____,____

FID ppm ____ ____ ____ Aerosol Monitor mg/$M^3$ ____,____,____

GM: Shield Probe/Thin Window - mR/hr____,____,____;cpm____,____,____

NaI____,____,____,____uR/hr; ZnS____,____,____,____cpm

(Monitox)ppm: ( )____,____,____,____; ( )____,____,____,____,____;

( )____,____,____,____,____; ( )____,____,____,____,____;

(Detector Tube)(s): ( )____,____,____,____; ( )____,____,____,____;

( )____,____,____,____; ( )____,____,____,____; ( )____,____,____

Sound Levels ____dBA; ____dBA; ____dBA; ____dBA; ____dBA; ____dBA; ____dBA; __

Illumination ____ pH ____ Other____ ____ Other____ ____ Other ____

IV. DECONTAMINATION PLAN

1. Personnel Decontamination

Section III C. lists the tasks and specific levels of protection required for each. Consistent with the levels of protection required, step by step procedures for personnel decontamination for each Level of Protection are attached.

2. Levels of Protection Required for Decontamination Personnel

The levels of protection required for personnel assisting with decontamination will be [___ Level B, ___ Level C, _X_ Level D].
( CHECK) Modifications include: Levels of protection required for decontamination personnel will be determined for each site depending on hazards potentially encountered.

4. Equipment Decontamination

A procedure for decontamination steps required for non-sampling equipment and heavy machinery folllows: N/A

5. Sampling Equipment Decontamination

Sampling equipment will be decontaminated in accordance with the following procedure: 1. Wash with an alconox solution and potable water. 2. Rinse with potable water. 3. Rinse with distilled water. 4. Allow to air dry.

3. Disposition of Decontamination Wastes

(Provide a description of waste disposition including identification of storage area, hauler, and final disposal site if applicable.)
All Investigative Derived Waste (IDW) generated will be left at site, or if owner does not permit, after they are containerized they will be removed and properly disposed of in a local waste disposal receptacle

V. Contingencies

A. Emergency Contacts and Phone Numbers (To be prepared for each site HASP)

| Agency | Contact | Phone Number |
|---|---|---|
| Local Medical Emergency Facility | Emergency Room | 317-983-3000 |
| WESTON Medical Emergency Contact | AGATHA | (513) 421-3063 |
| WESTON Health and Safety | George Crawford | (215) 430-7406 |
| Fire Department - Richmond area | 317-983-7264 | 911 - Emergency |
| Police Department - Richmond Dispatcher | 317-983-7247 | 911 - Emergency |
| On Site Coordinator - Property Manager | Carla Maurer | (317) 966-6237 |
| Site Telephone | N/A | N/A |
| Nearest Telephone - to be determined on site | (Location) | |

B. LOCAL MEDICAL EMERGENCY FACILITY(S) ~~(To be prepared for each site HASP)~~

1. Primary

Name of Hospital Reide Memorial Hospital

Address: 401 Chester Blvd, Richmond, IN Phone No. (317) 983-3000

Name of Contact Emergency Room - Becky Phone No. (317) 983-3000

Type of Service - Physical Trauma only ( ) Chemical Exposure only( )
Physical Trauma & Chemical Exposure (X) Available 24 Hours (X)

Route to Hospital: (Attach Map) take Sheridan Rd. E to Waterfall Rd - continue East to Chester Blvd (state Rd 27) go South to hospital - hospital on E side of Rd.

Travel Time From Site (Minutes) 5 Distance to Hospital (Miles) ~2 Name/No. of 24 Hr. Ambulance Service 911 - local service

2. Secondary or Specialty Services Provider

Name of Hospital _____

Address: _____ Phone No. _____

Name of Contact _____ Phone No. _____

Type of Service - Physical Trauma only ( ) Chemical Exposure only( )
Physical Trauma & Chemical Exposure ( ) Available 24 Hours ( )

Route to Hospital: (Attach Map) _____

Travel Time From Site (Minutes) _____ Distance to Hospital (Miles) _____ Name/No. of 24 Hr. Ambulance Service _____

WESTON
MANAGERS DESIGNERS/CONSULTANTS

SHEET ____ of ____

CLIENT/SUBJECT _____ W.O. NO. _____

TASK DESCRIPTION _____ TASK NO. _____

PREPARED BY _____ DEPT _____ DATE _____

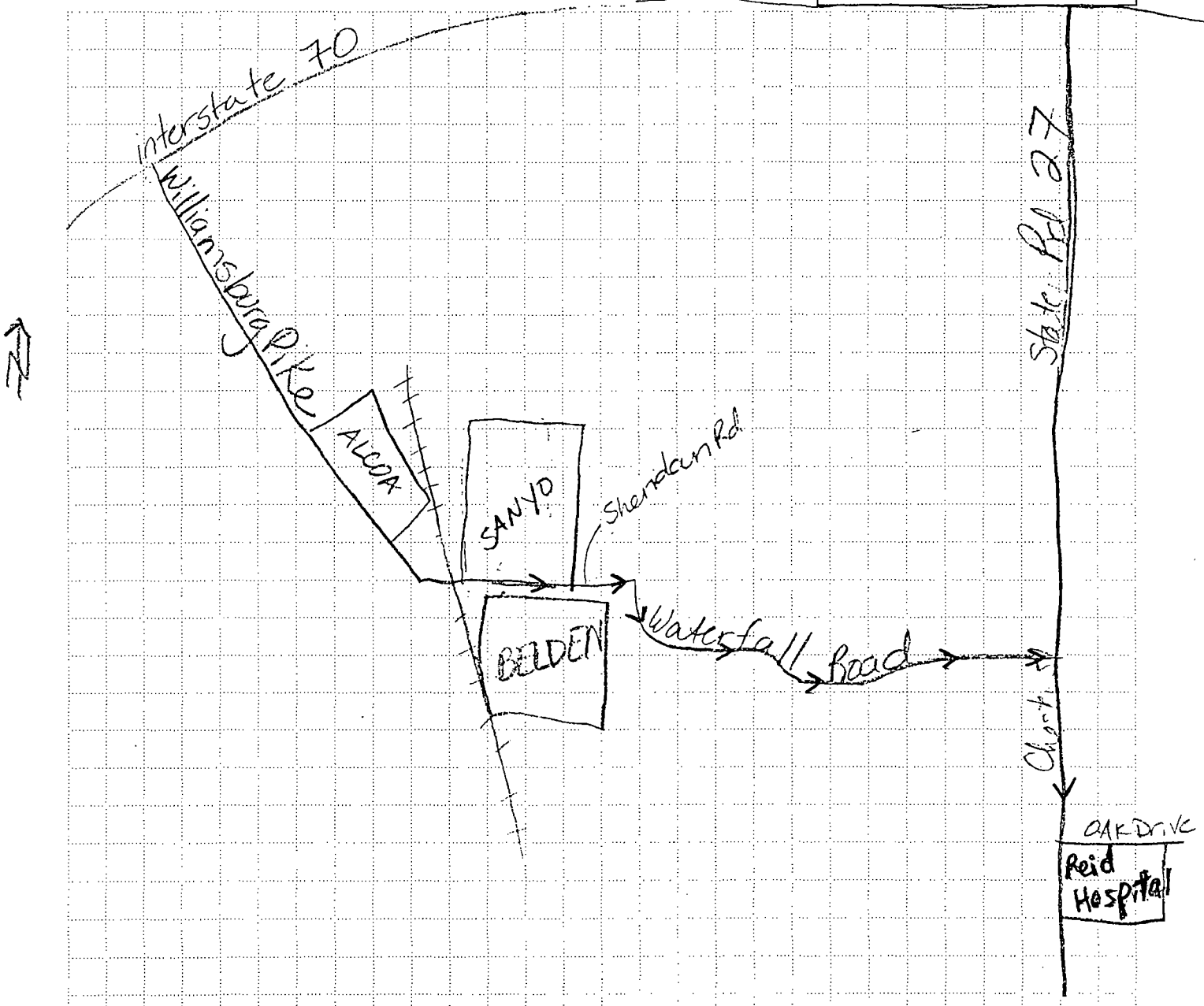
MATH CHECK BY _____ DEPT _____ DATE _____

METHOD REV. BY _____ DEPT _____ DATE _____

APPROVED BY

_____

DEPT _____ DATE _____



V. Contingencies (Continued)

C. Response Plans

1. Medical - General

Apply First Aid and/or CPR, transport to hospital as necessary.

a. First Aid Kit - Type: Field Kit; Location: To be located in field vehicle

b. Eyewash required (Y)Y/N

| Location | Location |
|---|---|
| Work Vehicle | with First Aid Kit |

c. Safety Shower N/A

| Location | Location |
|---|---|

2. Special First Aid Procedures

Hydrofluide on site (N)Y/N

a. Attach HF procedure and ensure solution is on site.

Cyanides on site (Y)Y/N

b. Confirm that Local Med. Emerg. Facility has antidote kit. YES

c.

3. Plan for Response to Fire/Explosion

Stop work
Evacuate area
Evacuate injured, if possible
Account for all personnel
Contact fire department
Contact WESTON

4. Fire extinguisher

| a. Type | b. Location |
|---|---|
| ABC | Drill rig or field vehicle |

5. Plan for Response to Spill/Release

N/A

6. Spill Response Gear

| Description | Location |
|---|---|
| N/A | |

6. Plan for Response to Security Problems None anticipated.

VI. Site Personnel and Certification Status (To be supplemented for each special site.)

A. WESTON

| Name | Title | Task(s) | Medical Current a. | Fit Test Current Qual. b. | Fit Test Current Quant. b. | Training Current c. | Certification Level or Description |
|---|---|---|---|---|---|---|---|
| 1. Chris Krumm | Sr. Proj. Geol. | 1, 2, 3, 4 | ( Y ) | ( Y ) | ( ) | ( Y ) | ( C-S/B-T ) |
| 2. Melody Sullivan | Proj. Scientist | 1, 2, 3, 4 | ( Y ) | ( Y ) | ( ) | ( Y ) | ( B-S ) |
| 3. John Goin | Assoc. Geol. | 1, 2, 3, 4 | ( Y ) | ( Y ) | ( ) | ( Y ) | ( D-S/B-T ) |
| 4. Glenn Brooks | Project Geologist | Geophysicist & SHSC-6 | ( Y ) | ( Y ) | ( ) | ( Y ) | ( D-S/B-T ) |
| 5. Linda Korobka | Project Scientist | 1,2,3,4 | ( Y ) | ( Y ) | ( ) | ( Y ) | ( B-T ) |
| 6. Amy Steele | Assistant Project Geologist | 1,2,3,4 | ( Y ) | ( Y ) | ( ) | ( Y ) | ( B-T ) |
| 7. | | | ( ) | ( ) | ( ) | ( ) | ( ) |
| 8. | | | ( ) | ( ) | ( ) | ( ) | ( ) |
| 9. | | | ( ) | ( ) | ( ) | ( ) | ( ) |
| 10. | | | ( ) | ( ) | ( ) | ( ) | ( ) |
| 11. | | | ( ) | ( ) | ( ) | ( ) | ( ) |
| 12. | | | ( ) | ( ) | ( ) | ( ) | ( ) |
| Site Health and Safety Coordinator (SHSC) | | | | | | | |
| 14. Jeff Watson | Project Scientist | 1,2,3,4 | ( Y ) | ( Y ) | ( ) | ( Y ) | ( C-S/B-T ) |

(a) Training - All personnel, including visitors, entering the exclusion or contamination reduction zones must have certifications of completion of training in accordance with OSHA 29 CFR 1910 29, CFR 1926/1910 or 29 CFR 1910.120.

(b) Respirator Fit Testing - All persons, including visitors, entering any area requiring the use or potential use of any negative pressure respirator must have had as a minimum, a qualitative fit test, administered in accordance with OSHA 29 CFR 1910.134 or ANSI within the last 12 months. If site conditions require the use of a full face negative pressure, air purifying respirator for protection from Asbestos or lead, employees must have had a Quantitative fit test, administered according to OSHA 29 CFR 1910.1002 or 1025 within the last 6 months.

(c) Medical Monitoring Requirements - All personnel, including visitors, entering the exclusion or contamination reduction zones must be certified as medically fit to work, and to wear a respirator, if appropriate, in accordance with 29 CFR 1910, 29 CFR 1926/1910 or 29 CFR 1910.120.

The Site Health and Safety Coordinator is responsible for verifying all certifications and fit tests.

* Additional personnel for Sampling Tasks will be included Prior to start of such work and will be at least B-T Certified.

B. Subcontractor's Health and Safety Program Evaluation N/A (To be included in site-specific HASP.)

Name and address of subcontractor: _____

_____

Activities to be conducted by subcontractor: _____

_____

EVALUATION CRITERIA

| Item | Acceptable | Unacceptable | Comments |
|---|---|---|---|
| Medical Program meets OSHA/WESTON Criteria | ( ) | ( ) | _____ |
| Personal Protective Equipment Available: | | | |
| a. meets OSHA criteria, | ( ) | ( ) | _____ |
| b. is as specified in WLHASP | ( ) | ( ) | _____ |
| On-Site Monitoring Equipment Available, Calibrated and Operated Properly | ( ) | ( ) | _____ |
| Safe Working Procedures Clearly Specified | ( ) | ( ) | _____ |
| Training meets OSHA/WESTON Criteria | ( ) | ( ) | _____ |
| Emergency Procedures | ( ) | ( ) | _____ |
| Decontamination Procedures | ( ) | ( ) | _____ |
| General Health and Safety Program Evaluation | ( ) | ( ) | _____ |

Additional Comments: _____

_____

Evaluation conducted by: _____ Date: _____

C. Subcontractor

| Name | Title | Task(s) | Medical Current a. | Fit Test Current Qual. b. | Fit Test Current Quant. b. | Training Current c. | Certification Level or Description |
|---|---|---|---|---|---|---|---|
| 1. | | | ( ) | ( ) | ( ) | ( ) | ( ) |
| 2. | | | ( ) | ( ) | ( ) | ( ) | ( ) |
| 3. | | | ( ) | ( ) | ( ) | ( ) | ( ) |
| 4. | | | ( ) | ( ) | ( ) | ( ) | ( ) |
| 5. | | | ( ) | ( ) | ( ) | ( ) | ( ) |
| 6. | | | ( ) | ( ) | ( ) | ( ) | ( ) |
| 7. | | | ( ) | ( ) | ( ) | ( ) | ( ) |

## VII. HEALTH AND SAFETY PLAN APPROVAL/SIGN OFF FORMAT

1. Site Name SANYO E+E CORPORATION 2. WO# 4500-45-22-4010

Work Location Address 1767 SHERIDAN RD, RICHMOND, IN 47374
(Street Address) (City) (State) (Zip)

I have read, understood, and agreed with the information set forth in this Health and Safety Plan (and attachments) and discussed in the Personnel Health and Safety briefing.

| Name | Signature | Date |
|---|---|---|
| Jeff Watson<br>Site Safety Co-ordinator | Jeff W. Watson | 8-17-92 |
| Amy C. Stede | Amy C. Stede | 8-17-92 |
| Linda Kordoska | Linda Kordoska | 8/17/92 |
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VIII. Training and Briefing Topics

The following items will be covered at the site specific training meeting, daily or periodically.

| Site Specific Training Meeting | Daily | Periodically | |
|---|---|---|---|
| X | | X | Site characterization and analysis, Sec. 3.0; 29 CFR 1910.120 i. |
| X | X | X | Physical hazards, Table 3.2. |
| X | | X | Chemical hazards, Table 3.1. |
| X | | X | Animal bites, stings and poisonous plants. |
| X | | X | Etiologic (Infectious) Agents. |
| X | | X | (as necessary) Site control, Sec. 8.0; 29 CFR 1910.120 d. |
| X | X | X | Engineering controls and work practices, Sec. 8.5; 29 CFR 1910.120 g. |
| X | | X | Heavy Machinery. (as necessary) |
| | | | Forklift |
| X | | X | Backhoe |
| X | | X | Equipment |
| X | | X | Tools |
| X | | X | Ladder 29 CFR 1910.27 d. |
| X | | X | Overhead and Underground Utilities |
| | | | Scaffolds |
| | | | Structural Integrity |
| | | | Unguarded Openings-wall, Floor, Ceilings (?). |
| X | X | X | Pressurized Air Cyclinders (as necessary) |
| X | X | X | Personnel Protective Equipment, Sec. 5.0; 29 CFR 1910.120 g; 29 CFR 1910.134 |

| Site Specific Training Meeting | Daily | Periodically | |
|---|---|---|---|
| X | | X | Respiratory Protection Sec. 5.8; 29 CFR 1910.120g; Z88.2-1980. |
| | | | Level A |
| X | | X | Level B (as necessary) |
| X | | X | Level C |
| X | | X | Level D |
| X | | X | Monitoring, Sec. 7.0; 29 CFR 1910.120 h. |
| X | X | | Decontamination, Sec. 9.0; 29 CFR 1910.120 k. |
| X | | X | Emergency Response, Sec. 10.0; 29 CFR 1910.120 l. |
| | | | Elements of an Emergency Response, Sec. 100; 29 CFR 1910.120 l. |
| X | | X | Procedures for Handling Site Emergency Incidents, Sec. 10.0; 29 CFR 1910.120 l. |
| | | | Off Site Emergency Response, 29 CFR 1910.120 l. |
| X | | X | Handling Drums and Containers, 29 CFR 1910.120 j. (as necessary) |
| | | | Opening Drums and Containers |
| | | | Electrical Material Handling Equipment. |
| X | | X | Radioactive Waste. (as necessary) |
| | | | Shock Sensitive Waste. |
| | | | Laboratory Waste Packs. |
| | | | Sampling Drums and Containers. |
| | | | Shipping and Transport, 49 CFR 172.101 |
| | | | Tank and Vault Procedures. |
| | | | Illumination, 29 CFR 1910.120 m. |
| X | | X | Sanitation, 29 CFR 1910.120 n. |

Attachment 1. Level D/Modified Level D Decontamination
[Check indicated Functions or add steps as necessary]

| STEP | FUNCTION | DESCRIPTION OF PROCESS, SOLUTION AND CONTAINER |
|---|---|---|
| ( 1 ) | Segregated equipment drop | HNu/CGI and sampling equipment followed by equipment decon. |
| ( ) | Boot cover and glove wash | |
| ( ) | Boot cover and glove rinse | |
| ( ) | Tape removal - outer glove and boot | |
| ( 2) | Boot cover removal | Place in garbage bag or drum. |
| ( 3) | Outer glove removal | Place in garbage bag or drum. |
| | HOT-LINE | |
| ( ) | Suit/safety boot wash | |
| ( ) | Suit/boot/glove rinse | |
| ( ) | Safety boot removal | |
| ( 4 ) | Suit Removal | Place in garbage bag or drum. |
| ( ) | Inner glove wash | |
| ( ) | Inner glove rinse | |
| ( 5 ) | Inner glove removal | Place in garbage bag or drum. |
| ( ) | Inner clothing removal | |
| | CRC/SAFE ZONE BOUNDARY | |
| ( 6 ) | Field wash | Soap and potable water |
| ( ) | Redress | |

DISPOSAL PLAN:
END OF DAY: Collect all disposable P.P.E. and place in a garbage bag.

END OF WEEK:

END OF PROJECT: To be determined. If owner of site will not permit IDW to be disposed on site then it will be disposed of in a local waste disposal receptacle

Attachment 2. LEVEL C DECONTAMINATION
[Check indicated Functions or add steps as necessary]

| STEP | FUNCTION | DESCRIPTION OF PROCESS, SOLUTION AND CONTAINER |
|---|---|---|
| ( 1 ) | Segregated equipment drop | HNu/CGI and sampling equipment followed by equipment decon. |
| ( ) | Boot cover and glove wash | |
| ( ) | Boot cover and glove rinse | |
| ( 2 ) | Tape removal - outer glove/boot | Place in garbage bag or drum. |
| ( 3) | Boot cover removal | Place in garbage bag or drum. |
| ( 4) | Outer glove removal | Place in garbage bag or drum. |
| | HOT-LINE | |
| ( ) | Suit/safety boot wash | |
| ( ) | Suit/boot/glove rinse | |
| ( ) | Safety boot removal | |
| ( 5) | Suit Removal | Place in garbage bag or drum. |
| ( ) | Inner glove wash | |
| ( ) | Inner glove rinse | |
| ( 6) | Face piece removal | Set aside for decon per WESTON respirator SOP. |
| ( 7) | Inner glove removal | Place in garbage or drum. |
| ( ) | Inner clothing removal | |
| | CRC/SAFE ZONE BOUNDARY | |
| ( 8 ) | Field wash | Soap and potable water |
| ( ) | Redress | |

DISPOSAL PLAN:
END OF DAY: Collect all disposable P.P.E. in garbage bags or drum.

END OF WEEK:

END OF PROJECT: To be determined. If owner of site will not permit IDW to be disposed on site then it will be disposed of in a local waste disposal receptacle

Attachment 3. LEVEL B DECONTAMINATION
[Check indicated Functions or add steps as necessary]

| STEP | FUNCTION | DESCRIPTION OF PROCESS, SOLUTION AND CONTAINER |
|---|---|---|
| ( 1 ) | Segregated equipment drop | HNu/CGI and sampling equipment followed by equipment decon. |
| ( ) | Boot cover and glove wash | |
| ( ) | Boot cover and glove rinse | |
| ( 2) | Tape removal - outer glove/boot | Place in garbage bag or drum. |
| ( 3) | Boot cover removal | Place in garbage bag or drum. |
| ( 4 ) | Outer glove removal | Place in garbage bag or drum. |
| ---------- | HOT-LINE ---------- | |
| ( ) | Suit/safety boot wash | |
| ( ) | Suit/SCBA/boot/glove rinse | |
| ( ) | Safety boot removal | |
| ( 5 ) | Remove SCBA backpack w/o disconnecting | Set aside for decon per WESTON respirator SOP (after disconnecting). |
| ( 6 ) | Splash suit removal | Place in garbage bag or drum. |
| ( ) | Inner glove wash | |
| ( ) | Inner glove rinse | |
| ( 7 ) | SCBA Disconnect & Face piece removal | Set aside for decon per WESTON respirator SOP. |
| ( 8 ) | Inner glove removal | Place in garbage bag or drum. |
| ( ) | Inner clothing removal | |
| ---------- | CRC/SAFE ZONE BOUNDARY ---------- | |
| ( 9 ) | Field wash | Soap and potable water |
| ( ) | Redress | |

DISPOSAL PLAN:
END OF DAY: Collect all disposable P.P.E. in garbage bags or drum.

END OF WEEK:

END OF PROJECT: To be determined. If owner of site will not permit IDW to be disposed on site then IT WILL BE DISPOSED OF IN A LOCAL WASTE DISPOSAL RECEPTACLE

## E. KEY PERSONNEL/IDENTIFICATION OF HEALTH AND SAFETY PERSONNEL

### 1.0 Key Personnel

The following personnel and organizations are key to the activities at this site.

EPA Representatives

| Organization/Branch | Name/Title | Address | Telephone |
|---|---|---|---|
| U.S. EPA | Colleen Hart/SSI | Work Assignment Manager | 312-886-3009 |
| U.S. EPA | Steve Nathan/ARCS | Project Officer<br>230 South Dearborn Street<br>Chicago, IL 60604 | 312-886-5496 |

**Roles and Responsibilities:** Project Administration for the U.S. EPA.

Other EPA Contractors & Subcontractors

| Organization/Branch | Name/Title | Address | Telephone |
|---|---|---|---|
| | | | |
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**Roles and Responsibilities:**

Other Regulatory Agency Representatives

| Organization/Branch | Name/Title | Address | Telephone |
|---|---|---|---|
| IDEM | Harry Atkinson | 105 South Meridian | 317-232-8928 |
| IDEM | Rich Molmi | Cheasapeake Building<br>Indianapolis, Indiana | 317-232-8932 |
| IDEM | Dana Reed Wise | | 317-232-8930 |
| | | | |

**Roles and Responsibilities:** State Contacts for the Indiana Department of Environmental Management.

[1] Chemical Hazards N/A

[a] Identify and attach Material Safety Data Sheets for all reagent type chemicals, solutions or other materials identified as or which in normal use could produce hazardous substances used in performing tasks related to tasks related to this project. ( ) N/A

[b] Chemical Contaminants of Concern ( ) N/A If present, provide following data.

| Hazardous Substance/ Tasks | Physical Properties and Characteristics* | Exposure Limits PEL/TLV** | Route(s) of Exposure***/ Symptoms | Monitoring Instruments/IP+ % Response |
|---|---|---|---|---|
| | (* ) State_____<br>pH___FP_____LEL_____UEL_____<br>Auto.Ig_____BP _____MP_____<br>Incompatible with -<br>_____<br>_____<br>_____<br>Sp.Gr_____Vap.D_____<br>Vap.P_____H20 Sol._____<br>Oth._____,_____ | | | |
| | (* ) State_____<br>pH___FP_____LEL_____UEL_____<br>Auto.Ig_____BP _____MP_____<br>Incompatible with -<br>_____<br>_____<br>_____<br>Sp.Gr_____Vap.D_____<br>Vap.P_____H20 Sol._____<br>Oth._____,_____ | | | |

* E = Explosive, F = Flammable, C = Corrosive, R = Reactive, W = Water reactive, O = Oxidi
Ra = Radioactive. State = Normal physical state at site/proj. temp.

** Use lowest of two, if no TLV/PEL, use Toxicity data in following order: Lowest Toxic Co humans (LTC-HMN), Lowest Lethal Conc. in humans (LLC-HMN), Lowest Toxic Dose in humans (LT Lowest Lethal Dose in humans (LLD-HMN), $LC_{50}$ or $LD_{50}$ in humans, the Lowest Toxic Concentra Lowest Toxic Dose in animals, the lowest $LC_{50}$ or $LD_{50}$ in animals.

*** I = Inhalation, G = Ingestion, S = Skin Absorption, C= Contact, D - Direct Penetratio

+ IP = Ionization Potential

c. Description of Levels of Protection. (Cont.) Levels C and B N/A

| Task(s) | _____ | _____ | _____ | _____ |
|---|---|---|---|---|
| | Level __ | | Level __ | |
| Head | ( )_____ | ( )_____ | ( )_____ | ( )_____ |
| Eye & Face | ( )_____ | ( )_____ | ( )_____ | ( )_____ |
| Hearing | ( )_____ | ( )_____ | ( )_____ | ( )_____ |
| Arms & Legs only | ( )_____ | ( )_____ | ( )_____ | ( )_____ |
| Whole Body | ( )_____ | ( )_____ | ( )_____ | ( )_____ |
| Apron | ( )_____ | ( )_____ | ( )_____ | ( )_____ |
| Hand - gloves | ( )_____ | ( )_____ | ( )_____ | ( )_____ |
| - gloves | ( )_____ | ( )_____ | ( )_____ | ( )_____ |
| - gloves | ( )_____ | ( )_____ | ( )_____ | ( )_____ |
| Foot - Boots | ( )_____ | ( )_____ | ( )_____ | ( )_____ |
| - Boots | ( )_____ | ( )_____ | ( )_____ | ( )_____ |
| - Boots | ( )_____ | ( )_____ | ( )_____ | ( )_____ |
| APR - Neg. Pres. Half Face Cart./Canister | ( )_____ | ( )_____ | ( )_____ | ( )_____ |
| Full Face | ( )_____ | ( )_____ | ( )_____ | ( )_____ |
| Cart./Canister | ( )_____ | ( )_____ | ( )_____ | ( )_____ |
| PAPR | ( )_____ | ( )_____ | ( )_____ | ( )_____ |
| Cart./Canister Type C | ( )_____ | ( )_____ | ( )_____ | ( )_____ |
| SAR - Airline | ( )_____ | ( )_____ | ( )_____ | ( )_____ |
| SCBA | ( )_____ | ( )_____ | ( )_____ | ( )_____ |
| Comb.Airline/SCBA | ( )_____ | ( )_____ | ( )_____ | ( )_____ |
| Cascade Syst. | ( )_____ | ( )_____ | ( )_____ | ( )_____ |
| Compressor | ( )_____ | ( )_____ | ( )_____ | ( )_____ |
| Fall Protection | ( )_____ | ( )_____ | ( )_____ | ( )_____ |
| Floatation | ( )_____ | ( )_____ | ( )_____ | ( )_____ |
| _____ | ( )_____ | ( )_____ | ( )_____ | ( )_____ |

2. Direct Reading Air Monitoring Instruments Calibration Record N/A

| Instrument, Mfg., Model, Eqp.ID. No. | Date | Time | Calib, Material | Calib. Method Mfg.'s | Other | Initial Setting& Reading | Final Setting& Reading | Calibs. Initials |
|---|---|---|---|---|---|---|---|---|
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Site Air Monitoring Program N/A

Air Monitoring Instrument _____

| Air Monitoring Frequency | Tasks |
|---|---|
| ____ 1. Periodically _____ | _____ |
| ____ 2. Periodically _____ | _____ |
| ____ 3. Continuous | |
| ____ 4. Other: _____ | |

| Monitoring Locations | Tasks |
|---|---|
| ____ 1. Upwind/downwind of site activities. | _____ |
| ____ 2. Near residents, etc. | _____ |
| ____ 3. Key site activity locations: | |
| ____ decon area | _____ |
| ____ staging area | _____ |
| ____ excavation area | _____ |
| ____ field lab area | _____ |
| ____ storage tanks | _____ |
| ____ lagoons | _____ |
| ____ drums | _____ |
| ____ 4. Fixed stations | _____ |
| ____ 5. Other: _____ | |

Air Monitoring Instrument _____

| Air Monitoring Frequency | Tasks |
|---|---|
| ____ 1. Periodically _____ | _____ |
| ____ 2. Periodically _____ | _____ |
| ____ 3. Continuous | |
| ____ 4. Other: _____ | |

| Monitoring Locations | Tasks |
|---|---|
| ____ 1. Upwind/downwind of site activities. | _____ |
| ____ 2. Near residents, etc. | _____ |
| ____ 3. Key site activity locations: | |
| ____ decon area | _____ |
| ____ staging area | _____ |
| ____ excavation area | _____ |
| ____ field lab area | _____ |
| ____ storage tanks | _____ |
| ____ lagoons | _____ |
| ____ Drums | _____ |
| ____ 4. Fixed stations | _____ |
| ____ 5. Other: _____ | |

B. Sample Location N/A

____ 1. Ambient background - Locations: Substances Sampled for

a. _____ _____
b. _____ _____

____ 2. Personal samples, onsite - Locations

a. _____ _____
b. _____ _____
c. _____ _____
d. _____ _____
e. _____ _____
f. _____ _____

____ 3. Personal samples, offsite - Locations

a. _____ _____
b. _____ _____
c. _____ _____
d. _____ _____

____ 4. Fixed onsite samples - Locations:

a. _____ _____
b. _____ _____
c. _____ _____
d. _____ _____
e. _____ _____
f. _____ _____

____ 5. Fixed offsite samples - Locations:

a. _____ _____
b. _____ _____
c. _____ _____
d. _____ _____
e. _____ _____

____ 6. Mobile offsite samples - Locations:

a. _____ _____
b. _____ _____
c. _____ _____

____ 7. Mobile onsite samples - Locations:

a. _____ _____
b. _____ _____
c. _____ _____

____ 8. Background sample stations - Locations

a. _____ _____
b. _____ _____
c. _____ _____

B. Air Sampling N/A

1. Personal Sampling Pumps - Gilian,SKC,MSA No. ( ) _____

Sampling Media - Sorbent Tubes

| Task(s) | Location | Duration | Frequency | Type | Anal. | Meth |
|---|---|---|---|---|---|---|
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Sampling Media - Filter

| Task(s) | Location | Duration | Frequency | Type | Anal. | Meth |
|---|---|---|---|---|---|---|
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Sampling Media - Impinger

| Task(s) | Location | Duration | Frequency | Type | Anal. | Meth |
|---|---|---|---|---|---|---|
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Sampling Media - Air Bag

| Task(s) | Location | Duration | Frequency | Type | Anal. | Meth |
|---|---|---|---|---|---|---|
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G. Work Location Instrument Readings N/A

Location_____

% LEL ____,____,____,____; % $O_2$ ____,____,____,____; PID ppm ____,____,____

FID ppm ____ ____ ____ Aerosol Monitor mg/$M^3$ ____,____,____

GM: Shield Probe/Thin Window - mR/hr____,____,____;cpm____,____,____

NaI____,____,____,____uR/hr; ZnS____,____,____,____cpm

(Monitox)ppm: ( )____,____,____,____; ( )____,____,____,____,____;

( )____,____,____,____,____; ( )____,____,____,____,____;

(Detector Tube)(s): ( )____,____,____,____; ( )____,____,____,____;

( )____,____,____,____; ( )____,____,____,____; ( )____,____,____

Sound Levels ____dBA; ____dBA; ____dBA; ____dBA; ____dBA; ____dBA; ____dBA; __

Illumination ____ pH ____ Other____ ____ Other____ ____ Other ____

Location_____

% LEL ____,____,____,____; % $O_2$ ____,____,____,____; PID ppm ____,____,____

FID ppm ____ ____ ____ Aerosol Monitor mg/$M^3$ ____,____,____

GM: Shield Probe/Thin Window - mR/hr____,____,____;cpm____,____,____

NaI____,____,____,____uR/hr; ZnS____,____,____,____cpm

(Monitox)ppm: ( )____,____,____,____; ( )____,____,____,____,____;

( )____,____,____,____,____; ( )____,____,____,____,____;

(Detector Tube)(s): ( )____,____,____,____; ( )____,____,____,____;

( )____,____,____,____; ( )____,____,____,____; ( )____,____,____

Sound Levels ____dBA; ____dBA; ____dBA; ____dBA; ____dBA; ____dBA; ____dBA; __

Illumination ____ pH ____ Other____ ____ Other____ ____ Other ____

VII. HEALTH AND SAFETY PLAN APPROVAL/SIGN OFF FORMAT N/A

1. Site Name _____ 2. WO# _____

Work Location Address _____
(Street Address) (City) (State) (Zip)

I have read, understood, and agreed with the information set forth in this Health and Safety Plan (and attachments) and discussed in the Personnel Health and Safety briefing.

| | | |
|---|---|---|
| Site Safety Co-ordinator | Signature | Date |
| Name | Signature | Date |
| Name | Signature | Date |
| Name | Signature | Date |
| Name | Signature | Date |
| Name | Signature | Date |
| Name | Signature | Date |
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| Name | Signature | Date |
| Name | Signature | Date |
| Name | Signature | Date |
| Name | Signature | Date |

Attachment 4. LEVEL A DECONTAMINATION N/A

| STEP | FUNCTION | DESCRIPTION OF PROCESS, SOLUTION AND CONTAINERS |
|---|---|---|
| ( ) | Segregated equipment drop | |
| ( ) | Boot cover and glove wash | |
| ( ) | Boot cover and glove rinse | |
| ( ) | Tape removal - outer glove and boot | |
| ( ) | Boot cover removal | |
| ( ) | Outer glove removal | |
| | HOT-LINE | |
| ( ) | Suit/safety boot wash | |
| ( ) | Suit/safety boot rinse | |
| ( ) | Safety boot removal | |
| ( ) | Fully encapsulating suit/hard hat remove | |
| ( ) | SCBA backpack removal | |
| ( ) | Inner glove wash | |
| ( ) | Inner glove rinse | |
| ( ) | Face piece removal | |
| ( ) | Inner glove removal | |
| ( ) | Inner clothing removal | |
| | CRC/SAFE ZONE BOUNDARY | |
| ( ) | Field wash | |
| ( ) | Redress | |

DISPOSAL PLAN:
END OF DAY: _____

END OF WEEK: _____

END OF PROJECT: _____

Health and Safety Plan Operating Procedures

Field Operating Procedure - Fld02 - INCLEMENT WEATHER

HAZARD

Hot weather (ambient temperatures over 70° F), cold Weather (ambient temperature levels below 40° F), rain, snow, ice and lightning are examples of inclement weather which may be hazardous or add risk to WESTON work activities. Heat Stress and cold stress are covered under separate Standard Procedures. Heat and cold stress must be identified as hazards in pre-project evaluations, listed as such in site specific HASP's with the Standard Procedures incorporated.

Heat, rain, cold, snow, ice and lightning are also inclement weather conditions which represent hazards and increased risk of performing WESTON work activities.

Extremes of heat, cold and humidity as well as rain, snow and ice affects monitoring instrument response and reliability, respiratory protection performance, and chemical protective clothing materials.

Heat

Heat stress is addressed in separate WESTON Standard Procedures. Heat represents additional hazards and increased risks. Hot dry weather increases risk of soil drying, erosion and dust dispersion which may represent or increase risk of exposure and environmental impact of a toxic hazards. Hot weather will increase pressure on closed containers and rate of volatization, potentially increasing risk of toxic exposure or flammable/explosive atmospheres.

Rain, Wet Weather and High Humidity

Rain and wet conditions increase slipping and tripping hazards, braking distances of vehicles and chance of slippage of other braking devices on augurs, drills, etc. Rain fills holes and obscures trip and fall hazards and increases risk of electrical shock when working with electrical equipment. Rain changes soil conditions in trenching and excavating activities forming quicksand, weakening walls and increasing risk of cave-in. Vehicles become stuck in mud and tools slip on wet surfaces.

Cold, Snow and Ice

In addition to cold stress, which is covered in a separate Standard Procedure, cold weather affects vehicle operation by causing window frosting, increased difficulty of starting and braking. Ice and snow accumulates on windows and obscures vision.

Cold weather causes icing of roadways, driveways, parking areas, general work places, ladders, stairs and platforms which are wet.

Ice is not always as obvious as snow or rain and requires special attention.

Snow increases risk of slipping when walking, climbing steps and ladders, working at elevation and of accidents when driving vehicles or operating heavy equipment. Heavy snow may cause electric lines to sag or break and use of electric equipment in snow increases risk of electric shock. Snow hides pot holes and mud, which can result in vehicles getting stuck or persons falling when stepping onto or into hidden holes. Snow also may cover water, drums or containers sharp metal or sticks which can cause falls or punctures.

Lightning

Lightning represents a hazard of electrical shock which is increased when working in flat open spaces, elevated work places ore working near tall structures or equipment such as stacks, radio towers and drill rigs. Lightning has caused of chemical storage tank fires.

RECOGNITION AND RISK ASSESSMENT

There are few actual OSHA rules to apply to the conditions covered in this procedure, however, under the "General Duty Clause", they must be addressed in safety programs.

Heat, rain, cold, snow, ice and lightning are natural phenomena which complicate work activities and add or increase risk. In the planning stages of a project and safety plan, these elements must be considered as physical hazards. Risk assessment can be accomplished in part in the development stages of a project, by listing as possible the most likely conditions i.e. rain and lightning in late spring, summer and early fall or in lightning prone areas, cold snow and ice in winter, etc. but the true determination of risk must often be made on site by the Site Health and Safety Coordinator. It is important that the SHSC is alert to these hazards, does not take them simply as a matter of fact and has time to notice them.

The few OSHA regulations which apply to inclement weather conditions include:

- Monitoring equipment and PPE must be maintained in proper working order and used according to manufacturers instructions.
- Walkways, stairs, ladders, elevated workplaces and scaffold platforms must be kept free of mud, ice and snow,
- Vehicles used in rain or cold weather must have windshield wipers and defrosters with windows kept clear of obstruction,
- Equipment requiring Roll-Over Protection must have seat belts,
- Containers of hazardous substance must be remotely opened if pressure is suspected.
- Employees must be protected from airborne contaminants using Engineering Controls such as wetting dry soil to prevent particle dispersion and providing local ventilation to reduce volatile air contaminants to safe levels, or if engineering controls are infeasible, using prescribed PPE

Additional procedures for protection during inclement weather, include:

- Required conformance with traffic laws, including maintaining speed within limits safe for weather conditions and wearing seat belts at all times.

- Using a walking stick or probe to test footing ahead of persons walking where there is standing water or snow to protect the walker against stepping into pot holes or onto puncture hazards or buried containers or other potentially structurally unsound surfaces.

- Prior to using vehicles or equipment in off-road work, walking the work area or intended travel way when puddles or snow may obscure pot holes, puncture hazards or buried containers or other potentially structurally unsound surfaces.

- Arrange to have winches, come-alongs or other mechanical assistance available when vehicles work in areas where there is increased risk of getting stuck. Cable or rope and mechanical equipment used for pulling stuck vehicles must be designed for the purpose, of sufficient capacity for the load and be inspected regularly and before use to ensure safety. **Manually pushing stuck vehicles is to be avoided.**

- Prior to working in areas or beginning projects in times when there is an increased likelihood of lightning or which increase the potential for lightning striking personnel, steps must be taken to predict the occurrence of lightning strikes, including:

- Checking with Client Management to determine if there is any pattern or noted conditions which predict lightning or if there are structures which are prone to lightning strikes. Arrange for client notification when there is increased potential for lightning activities. Ensure that clients include WESTON workers in lightning contingency plans.

- Monitoring Weather Reports.

- Noting Weather Changes and conditions which produce lightning

- Stopping work in open areas, around drill rigs or other structures which may attract lightning, on or in water and in elevated work places when lightning strikes are sighted or thunder is heard near a work site.

Much of the responsibility for protection from inclement weather hazards falls upon the SHSC. The SHSC must recognize the inclement weather hazards affecting site for which he is responsible and complete the pre site activity risk assessment when inclement weather occurs. The SHSC must recognize which weather conditions affect instrument and PPE function and constantly remind site workers of the effects and need for more careful attention to check-out, donning and Doffing and monitoring of function and integrity. The SHSC must make decisions on the proper safety procedures to use if work must continue or to stop work if the risk is too great. **Corporate Health and Safety must be notified of all instances of need to stop work for safety reasons including inclement weather.**

Health and Safety Plan Operating Procedures

Field Operating Procedure - Fld05 - Heat Stress Prevention and Monitoring

Heat stress may occur at any time work is being performed at elevated temperatures. Wearing of chemical protective clothing, which may result in decreasing natural body ventilation, increases the risk of heat stress.

If the body's physiological processes fail to maintain a normal body temperature because of excessive heat, a number of physical reactions can occur, ranging from mild (such as fatigue, irritability, anxiety, and decreased concentration, dexterity, or movement) to fatal. Because heat stress is one of the most common and potentially serious illnesses at hazardous waste sites, regular monitoring and other preventative measures are vital.

Site workers must learn to recognize and treat the various forms of heat stress. The best approach is preventative heat stress management. In general:

- Have workers drink 16 ounces of water before beginning work, such as in the morning or after lunch. Provide disposable 4-ounce cups, and water that is maintained at 50 - 60°F. Urge workers to drink 1 to 2 of these cups of water every 20 minutes for a total of 1 to 2 gallons per day. Provide a cool area for rest breaks. Discourage the intake of coffee during working hours. Monitor for signs of heat stress.
- Acclimate workers to site work conditions by slowly increasing workloads, i.e., do not begin site work activities with extremely demanding activities.
- Provide cooling devices to aid natural body ventilation. These devices, however, add weight and their use should be balanced against worker efficiency. An example of a cooling aid is long cotton underwear which acts as a wick to absorb moisture and protect the skin from direct contact with heat-absorbing protective clothing.
- In extremely hot weather, conduct field activities in the early morning and evening.
- Ensure that adequate shelter is available to protect personnel against heat as well as cold, rain, snow, etc. which can decrease physical efficiency and increase the probability of both heat and cold stress. If possible, set up the command post in the shade.
- In hot weather, rotate shifts of workers wearing impervious clothing.
- Good hygienic standards must be maintained by frequent changes of clothing and showering. Clothing should be permitted to dry during rest periods. Persons who notice skin problems should immediately consult medical personnel.

The following is a discussion of specific results of heat stress:

## 1.0 Heat Stroke

Heat stroke is an acute and dangerous reaction to heat stress caused by a failure of heat regulating mechanisms of the body; the individual's temperature control system that causes sweating stops working correctly. Body temperature rises so high that brain damage and death will result if the person is not cooled quickly.

- Symptoms - Red, hot, dry skin, although person may have been sweating earlier; nausea; dizziness; confusion; extremely high body temperature; rapid respiratory and pulse rate; unconsciousness or coma.

- Treatment - Cool the victim quickly. If the body temperature is not brought down fast, permanent brain damage or death will result. Soak the victim in cool, but not cold water; sponge the body with cool water or pour water on the body to reduce the temperature to a safe level (102°F). Observe the victim and obtain medical help. Do not give coffee, tea, or alcoholic beverages.

## 2.0 Heat Exhaustion

Heat exhaustion is a state of very definite weakness or exhaustion caused by the loss of fluids from the body. The condition is much less dangerous than heat stroke, but it nonetheless must be treated.

- Symptoms - Pale, clammy, moist skin; profuse perspiration and extreme weakness. Body temperature is normal, pulse is weak and rapid, breathing is shallow. The person may have a headache, may vomit, and may be dizzy.

- Treatment - Remove the person to a cool, air conditioned place, loosen clothing, place in a head-low position and provide bed rest. Consult physician, especially in severe cases. The normal thirst mechanism is not sensitive enough to ensure body fluid replacement. Have patient drink 1 to 2 cups of water immediately, and every 20 minutes thereafter until symptoms subside. Total water consumption should be about 1 to 2 gallons per day.

## 3.0 Heat Cramps

Heat cramps are caused by perspiration that is not balanced by adequate fluid intake. Heat cramps are often the first sign of a condition that can lead to heat stroke.

- o Symptoms - Acute painful spasms of voluntary muscles, e.g., abdomen and extremities.

- o Treatment - Remove victim to a cool area and loosen clothing. Have patient drink 1 to 2 cups of water immediately, and every 20 minutes thereafter until symptoms subside. Total water consumption should be 1 to 2 gallons per day.

4.0 Heat Rash

Heat Rash is caused by continuous exposure to heat and humid air and aggravated chafing clothes. The condition decreases ability to tolerate heat.

- o Symptoms - Mild red rash, especially in areas of the body that come into contact with protective gear.

- o Treatment - Decrease amount of time in protective gear and provide powder to help absorb moisture and decrease chafing.

5.0 Heat Stress Monitoring and Work Cycle Management

For strenuous field activities that are part of on-going site work activities in hot weather, the following procedures shall be used to monitor the body's physiological response to heat, and to manage the work cycle, even if workers are not wearing impervious clothing. These procedures are to be instituted when the temperature exceeds 70°F.

- o Measure Heart Rate - Heart rate should be measured by the radial pulse for 30 seconds as early as possible in the resting period. The HR at the beginning of the rest period should not exceed 110 beats/minute. If the HR is higher, the next work period should be shortened by 33%, while the length of the rest period stays the same. If the pulse rate still exceeds 110 beat/minute at the beginning of the next rest period, the following work cycle should be further shortened by 33%. The procedure is continued until the rate is maintained below 110 beats/minute.

- o Measure Body Temperature - When ambient temperatures over 90°, body temperatures should be measured with a clinical thermometer as early as possible in the resting period. Oral temperature (OT) at the beginning of the rest period should be shortened by 33%, while the length of the rest period stays the same. If the OT exceeds 99.6°F at the beginning of the next rest period, the following work cycle should be further shortened by 33%. The procedure is continued until the body temperature is maintained below 99.6°F.

o Physiological Monitoring Schedule - The following Suggested Frequency of Physiological Monitoring Schedule for Fit and Acclimated Workers shall be used as a guideline:

| Temperature | (Level D) | (Level C) |
|---|---|---|
| 90°F (32.2°C) or above | After each 45 minutes of work | After each 15 minutes of work |
| 87.5°F (30.8°-32.2°C) | After each 60 minutes of work | After each 30 minutes of work |
| 82.5°-87.5°F (28.1°-32.2°C) | After each 90 minutes of work | After each 60 minutes of work |
| 77.5°-82.5°F (25.3°-28.1°C) | After each 120 minutes of work | After each 90 minutes of work |
| 72.5°-77.5°F (22.5°-25.3°C) | After each 150 minutes of work | After each 120 minutes of work |

Measure the air temperature with a standard thermometer. Esti fraction of sunshine by judging what percent the sun is out.

| | | | | |
|---|---|---|---|---|
| 100% sunshine | = | no cloud cover | = | 1.0 |
| 50% sunshine | = | 50% cloud cover | = | 0.5 |
| 0% sunshine | = | full cloud cover | = | 0.0 |

Adjusted temp. = actual temp. + 13 X (% sunshine factor).

The length of work period is governed by Frequency of Physiolog Monitoring. The length of the rest period is governed physiological parameters (heart rate and oral temperature). example, if an individual's heart rate exceeds 110 beats/minute at beginning of the rest period, that individual will remain on rest-t until his/her heart rate drops well below 110 beats/minute and t next work period (=duration of time before suggested physiolog monitoring) is decreased by 33%.

Health and Safety Plan Operating Procedures

Field Operating Procedure - Fld06 -Cold Stress

Persons working outdoors in low temperatures, especially at or below freezing are subject to cold stress. Exposure to extreme cold for a short time causes severe injury to the surface of the body, or results in profound generalized cooling, causing death. Areas of the body which have high surface area-to-volume ratio such as fingers, toes, and ears, are the most susceptible.

Chemical protective clothing generally does not afford protection against cold stress. In many instances, it increases susceptibility. Chemical hazard site workers must learn to dress carefully to provide chemical protection and thermal insulation while not dressing so warmly that exercise or strenuous activity will result in heat stress.

Provisions must also be made for the fact that after physical activity and accumulation of body heat, sudden chilling during decontamination and rest breaks may increase susceptibility to colds, etc.

Two factors influence the development of a cold injury: ambient temperature and the velocity of the wind. Wind Chill Indices describe the chilling effect of moving air in combination with low temperature.

As a general rule, the greatest incremental increase in wind chill occurs when a wind of 5 mph increases to 10 mph. Additionally, water conducts heat 240 times faster than air; thus, the body cools suddenly when chemical-protective equipment is removed if the clothing underneath is perspiration-soaked.

1.0 Frostbite

Local injury resulting from cold is included in the generic term frostbite. Frostbite of the extremities can be categorized into:

- Frost nip or incipient frostbite is characterized by sudden blanching or whitening of skin.
- Superficial frostbite is characterized by skin with a waxy or white appearance and is firm to the touch, but tissue beneath is resilient.
- Deep frostbite is characterized by tissues that are cold, pale, and solid.

**To administer first aid for frostbite:**

- Take the victim indoors and rewarm the areas quickly in water that is between 39°C and 41°C (102°F-105°F).
- Give a warm drink - water, or juices **not** coffee, tea or alcohol. The victim must not smoke.
- Keep the frozen parts in warm water or covered with warm clothes for 30 minutes, even though the tissue will be very painful as it thaws.
- Then elevate the injured area and protect it from injury.

- o Do not allow blisters to be broken.
- o Use sterile, soft, dry material to cover the injured areas.
- o Keep victim warm and get immediate medical care.

After thawing, the victim should try to move the injured areas a little, but no more than can be done alone, without help. Seek medical attention as soon as possible.

NOTE:

- o Do **not** rub the frostbitten part (this may cause gangrene).
- o Do **not** use ice, snow, gasoline or anything cold on the frostbitten area.
- o Do **not** use heat lamps or hot water bottles to rewarm the part.
- o Do **not** place the part near a hot stove.

2.0 Hypothermia

Systemic hypothermia is caused by exposure to freezing or rapidly dropping temperature. Its symptoms are usually exhibited in five stages:

- o Shivering
- o Apathy, listlessness, sleepiness, and
- o (sometimes) rapid cooling of the body to less than 95°F.
- o Unconsciousness, glassy stare, slow pulse, slow respiration
- o Death

If hypothermia is suspected in any field personnel, move person to a warmer location until symptoms recede.

Health and Safety Plan Operating Procedures

Field Operating Procedure - FLD32 - Fire Extinguishers Required and requirements

Related SPOPSFLDs - FLD09 - Hot Work (Permits)
FLD21 - Explosives
FLD22 - Heavy Equipment Operation
FLD30 - Hazardous Materials Use and Storage
FLD31 - Fire Prevention/Protection/Response Plans
FLD36 - Welding, Cuting and Burning

Related SPOPSPRGs - PRG05B - Contingency Plans Fires and Explosions

## FIRE EXTINGUISHERS REQUIRED AND REQUIREMENTS

Fire extinguishers appropriate in size and classification shall be present, readily accessible and ready for use in all areas where there is potential for fires.

Fire extinguishers must be used in conjunction with an emergency response or contingency plan.

Health and Safety Plans must identify number, type and location of all fire extinguishers related to a specific project

Health and Safety Plan Operating Procedures

Field Operating Procedure - FLD34 - Utilities

Related SPOPSFLDs - FLD02 - Excavating and Trenching
FLD03 - Hot Processes - Steam
FLD22a - Heavy Equipment Operation - General
FLD22b - Heavy Equipment Operation - Drill Rigs
FLD23 - Lifting Equipment Operation
FLD35a - Electrical Safety - General
FLD35b - Electrical Safety - High Voltage

A. Survey for and Identification of Utilities

Prior to beginning work on site or in or around facilities, or buildings or other structures which could be served by or connected to utilities, a search must be conducted by the SHSC, ideally in association with someone familiar with the facility to identify any overhead, underground and in-workplace utilities such as:

- o electrical lines and appliances,
- o gas lines,
- o pipelines,
- o steam lines,
- o water lines,
- o sewer lines, and
- o pressured air lines.

The location of any utility which could pose a risk to workers must be communicated to all workers during site safety indoctrination. Utilites should be marked or access otherwise restricted to avoid chance of accidental contact.

Utilities shall be considered "live" or active until a reliable source has documented them to be otherwise.

A. Overhead Utilities

1.0 Operations Adjacent To Overhead Power Lines

- o Overhead transmission and distribution lines will be carried on towers and poles which provide safe clearance over roadways and structures.
- o Clearances will be adequate for the movement of vehicles and for the operation of construction equipment.

Overhead or above ground electric lines shall be considered "live" or active until a reliable source has documented them to be otherwise.

Elevated work platforms, ladders, scaffolding, man-lifts, drill or vehicle superstructures shall be erected a minimum of 20 feet (The actual distance is dependant upon the voltage of the line) from overhead electrical lines until the line is de-energized, grounded or shielded and a competent electrician has certified that arcing can not occur between the work place or superstructure.

2.0 Other Overhead or In-Workplace Utilities

Workers must be instructed to use care in working under or around utilities to avoid hot surfaces, loud noises, pressured gases or air, leaking of pipelines, discharge of steam or hot liquids and must work to prevent accidental contact with or breakage.

B. Underground Utility Searches

No excavating, drilling, or boring shall be done until a thorough underground utility survey, conducted by knowledgeable persons or agencies has been made and it is found safe to begin.

Even when a search is completed, drilling, boring and excavation should commence carefully until past the depth at which such utilities are usually located.

All underground utilities shall be considered "live" or active until reliable sources demonstrate otherwise.

The SHSC is responsible for ensuring underground utility searches are performed and procedures are conformed with.

## 2.4.45 Hand and Power Hand Tools - FLD38

Health and Safety Plan Operating Procedures

Field Operating Procedure - FLD38 - Hand and Power Hand Tools

Related SPOPS:

| | | |
|---|---|---|
| FLD01 | - | Noise Protection |
| FLD02 | - | Inclement Weather |
| FLD08 | - | Confined Spaces Entry |
| FLD09 | - | Hot Work |
| FLD10 | - | Manual Lifting and Handling of Heavy Objects |
| FLD11 | - | Housekeeping |
| FLD16 | - | Compressed Gases |
| FLD22A | - | Heavy Equipment Operation - General |
| FLD24 | - | Aerial Lifts/Manlifts |
| FLD29 | - | Materials Handling |
| FLD30 | - | Hazardous Materials Use and Storage |
| FLD31 | - | Fire Prevention/Protection/ Response Plans |
| FLD32 | - | Fire Extinguishers Required and Requirements |
| FLD34 | - | Utilities |
| FLD35A | - | Electrical Safety - General |
| FLD35B | - | Electrical Safety - High Voltage |

Work with other than the simplest non-powered hand tool shall be performed only by those persons competent by reason of formal training or documented experience.

In addition to the above-related Physical Hazard Safety Procedures, the following procedures must be followed.

Unsafe hand tools shall not be issued or used. All hand tools will be kept in good repair and used only for the purposes for which they were designed. Wrenches with sprung jaws, where slippage could occur, impact tools with mushroomed heads, and wooden handled tools with cracks or splinters are examples of unsafe hand tools.

Tools having defects that will impair their strength or render them unsafe will be tagged or made inoperable and removed from service.

Guards must be in place during operation on all power tools designed to accommodate them. Guards and safety devices must remain in place on power tools unless removed according to manufacturer's instruction for maintenance by a competent person and must be replaced before use. Belts, gears, shafts, drums, fly wheels, chains or other rotating, reciprocating or moving parts exposed to employee contact or representing other hazard must be guarded.

Proper PPE must be used when operating power tools or hand tools that may produce projectiles, cuts or abrasions, dusts, fume, mists or light, or which pose a risk of harm to arms, legs, or feet if dropped.

Throwing tools or materials from one location to another, from one person to another, or dropping them to lower levels is not permitted.

Only nonsparking tools will be used in locations where sources of ignition may cause a fire or explosion.

Power tools will be inspected, tested, and determined to be safe for operation prior to use. Continued periodic inspections will be made to ensure safe operating condition and proper maintenance.

Electric powered tools must be approved double insulated or grounded in accordance with 1926.404.

Rotating or reciprocating portable power tools will have a constant pressure switch that will shut off the power when the tool is released by the operator. A portable power tool may have a lock-on control provided turn-off can be accomplished by a single motion of the same finger or fingers that turned it on.

Hydraulic fluid used in powered tools will retain its operating characteristics at the most extreme temperatures to which it will be exposed.

Manufacturer's safe operating pressures for hydraulic hoses, valves, pipes, filters, and other fitting will not be exceeded.

All hydraulic or pneumatic tools that are used on or around energized lines or equipment will have nonconducting hoses having adequate strength for the normal operating pressures.

Loose and frayed clothing, loose long hair, dangling jewelry, rings, chains, and wrist watches will not be worn while working with any power tool or machine.

All woodworking tools and machinery will meet applicable requirements of ANSI 01.1, Safety Code for Woodworking Machinery.

Extension cords:

- Must meet UL or other rating criteria according to OSHA.
- Use will be limited to essential tasks.
- Must be tested for continuity before each use and must be connected to grounded outlets or ground fault current interrupters must be used.
- Must be inspected daily for loose insulation, broken or missing plugs, bared wires, etc.
- Grounding of outlets used for portable tools must be confirmed before use.

- Must not be allowed to become tripping or slipping hazards.
- Must not be used for lifting, tying off, and shall be disconnected by pulling on the plug.

Any piece of equipment used for lifting materials or personnel shall be used and maintained in strict accordance with manufacturer's directions and applicable OSHA regulations.

Load limits will be visibly posted on all lifting devices.

Only operators with demonstrated competence shall be permitted to operate lifting devices.

Lifting machinery and all elements of equipment involved in lifting or supporting loads must be inspected prior to use and at a minimum monthly. Inspections must be performed by a competent person and must be documented.

EM SCIENCE
111 Woodcrest Road, P.O. Box 5012, Cherry Hill, N.J. 08034-0395, Phone (609) 354-9300

# MATERIAL SAFETY DATA SHEET

Essentially Similar to U.S. Department of Labor Form OSHA-20

## SECTION 1 NAME & PRODUCT

| | | |
|---|---|---|
| Chemical Name: Hydrochloric Acid (various dilutions) | 0.01 N 9974<br>0.02 N 64348<br>0.2 MX0604E<br>0.4 64349 | Catalog Number: MX0604A, 0.1 N 326, 1248A, 9973, 15081 |
| Trade Name & Synonyms: Hydrogen Chloride in aqueous solution | Chemical Family: Inorganic Acid | See Section 9 for add'l item numbers |
| Formula: HCl | | Formula Weight: 36.46 |

## SECTION 2 PHYSICAL DATA

| | | | |
|---|---|---|---|
| Boiling Point, 760 mm Hg (°C) | varies with | Specific Gravity ($H_2O$ = 1) | varies |
| Melting Point (°C) | concentration | Solubility in $H_2O$, % by wt. at 20°C | Miscible |
| Vapor Pressure at 20°C | see | Appearance and Odor clear liquid | |
| Vapor Density (air = 1) | chemical | irritating, pungent odor | |
| Percent Volatiles by Volume | handbook | Evaporation Rate (Butyl Acetate = 1) | N/A |

## SECTION 3 FIRE AND EXPLOSION HAZARD DATA

| | | | | | |
|---|---|---|---|---|---|
| Flash Point (test method) | Nonflammable | Flammable Limits | Lel N/A | Uel N/A |

Extinguishing Media: Water spray

Special Hazards and Procedures: Wear self-contained breathing apparatus
Wear full protective clothing

Unusual Fire and Explosion Hazards: Contact with metals may produce hydrogen which forms explosive mixtures with air

## SECTION 4 REACTIVITY DATA

| | |
|---|---|
| Stable X | Conditions to Avoid: None |
| Unstable | |

Materials to Avoid

( ) Water ( ) Acids (XX) Bases ( ) Corrosives ( ) Oxidizers

(XX) Other (specify) Metals, metal oxides, amines, carbonates, alkalies

Hazardous Decomposition Products: toxic hydrogen chloride gas

## SECTION 5 SPILL OR LEAK PROCEDURES AND DISPOSAL

Steps to be Taken in Case Material is Released or Spilled: Neutralize with soda ash/slaked lime mixture
Flush area with water

Waste Disposal Method: To be performed in compliance with all current local, state, and federal regulations

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Hydrochloric Acid (various dilutions)

## SECTION 6 HEALTH HAZARD DATA

**Threshold Limit Value**

5 ppm (as HCl) TXDS: ihl-hmn LCLo: 1000 ppm/1M

**Effects of Overexposure**

Highly corrosive by liquid or fume contact
Causes burns; harmful if swallowed
Inhalation may cause severe pulmonary edema

**First Aid Procedures**

GET IMMEDIATE MEDICAL ATTENTION FOR ALL CASES OF OVEREXPOSURE

Skin: flush with large amounts of water
Eyes: flush thoroughly with water 15 minutes holding lids apart
Inhalation: remove to fresh air
Ingestion: do not induce vomiting; drink milk or water if conscious

## SECTION 7 SPECIAL PROTECTION INFORMATION

**Ventilation, Respiratory Protection, Protective Clothing, Eye Protection**

Provide adequate general mechanical and local exhaust ventilation
Protect eyes and skin with safety goggles and gloves
Wear face shield and impervious clothing
Do not breathe vapor
Do not get in eyes, on skin, or on clothing

## SECTION 8 SPECIAL HANDLING AND STORING PRECAUTIONS

Keep container closed and protected against physical damage
Store in a cool, well-ventilated area separated from incompatible materials
Store separate from oxidizers
Wear vapor-proof goggles
Wash thoroughly after handling
Handle empty containers with caution

## SECTION 9 HAZARDOUS INGREDIENTS

(refer to section 3 through 8)

0.5 N 1248C, 9971, HX0604C
1 N 1248D, 3864, 9970, HX0604D
5 N 9911
6 N 1253
10 N 12535

## SECTION 10 OTHER INFORMATION

DOT - Corrosive Liquid

NFPA 704: 3 0 0
Health Flammability Reactivity

EMERGENCY PHONE NUMBER (609) 423-8300

AUTHORIZED SIGNATURE _____

DATE ISSUED: 12/81
DATE REVISED: 3/84

EM00147A

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A Division of EM Industries, Inc.

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UPDATED

# MATERIAL SAFETY DATA SHEET

Essentially Similar to U.S. Department of Labor Form OSHA-20

## SECTION 1 NAME & PRODUCT

| Chemical Name: | Catalog Number: |
|---|---|
| Hydrochloric Acid | 314, 315, 317, 321, HX603 |

| Trade Name & Synonyms: | | Chemical Family: |
|---|---|---|
| Muriatic Acid, 23° Be | CAS #7647-01-0 | Acid |

| Formula: | Formula Weight: |
|---|---|
| HCl (approx. 37% in water) | 36.46 |

## SECTION 2 PHYSICAL DATA

| | | | |
|---|---|---|---|
| Boiling Point, 760 mm Hg | 110°C (20.24% constant boiling mixture) | Specific Gravity ($H_2O$ = 1) $^{20}/_{20°C}$ | 1.1885 |
| Melting Point (°C) | | Solubility in $H_2O$, % by wt. at 20°C | Miscible |
| Vapor Pressure at 20°C | approx. 160 mm Hg | Appearance and Odor | clear, colorless liquid; acrid odor |
| Vapor Density (air = 1) | 1.25 | | |
| Percent Volatiles by Volume | 37 | Evaporation Rate (Butyl Acetate = 1) | 10 |

## SECTION 3 FIRE AND EXPLOSION HAZARD DATA

| Flash Point (test method) | Flammable Limits | Lel | Uel |
|---|---|---|---|
| Nonflammable | | N/A | N/A |

Extinguishing Media: Water spray

Special Hazards and Procedures: Wear self-contained breathing apparatus
Wear full protective clothing

Unusual Fire and Explosion Hazards: Contact with metals produces hydrogen which may form explosive mixtures with air

## SECTION 4 REACTIVITY DATA

| | | |
|---|---|---|
| Stable | X | Conditions to Avoid |
| Unstable | | None |

Materials to Avoid

( ) Water ( ) Acids (X) Bases ( ) Corrosives ( ) Oxidizers

(X) Other (specify) Alkalies and amines; contact with metals produces hydrogen

Hazardous Decomposition Products: toxic hydrogen chloride gas

## SECTION 5 SPILL OR LEAK PROCEDURES AND DISPOSAL

Steps to be Taken in Case Material is Released or Spilled: Neutralize with soda ash/slaked lime mixture
Flush area with water

Waste Disposal Method: To be performed in compliance with all current local, state and federal regulations

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314, 315, 317, 321, HX0603

## SECTION 6 HEALTH HAZARD DATA

Threshold Limit Value

5 ppm

TXDS: ihl-hmn LDLo: 1000 ppm/1M
orl-rbt LD50: 900 mg/kg

Effects of Overexposure

Causes severe irritation of respiratory passages, dermatitis, severe and rapid eye damage, chest pain, choking cough. May cause severe burns, pulmonary edema, circulatory collapse and death.

First Aid Procedures

GET IMMEDIATE MEDICAL ATTENTION FOR ALL CASES OF OVEREXPOSURE

Skin: flush with large amounts of water
Eyes: flush with water 15 minutes holding lids open
Inhalation: remove to fresh air
Ingestion: do not induce vomiting; give water of milk if conscious

## SECTION 7 SPECIAL PROTECTION INFORMATION

Ventilation, Respiratory Protection, Protective Clothing, Eye Protection

Provide adequate general mechanical and local exhaust ventilation
Protect eyes and skin with safety goggles and gloves
Wear face shield and impervious clothing including apron and long sleeves
Do not breathe vapor
Do not get in eyes, on skin, or on clothing

## SECTION 8 SPECIAL HANDLING AND STORING PRECAUTIONS

Keep container closed and protected against physical damage
Store in a cool, well-ventilated area separated from incompatible materials
Store separate from oxidizers
Wear vapor-proof goggles
Wash thoroughly after handling
Handle empty containers with caution

## SECTION 9 HAZARDOUS INGREDIENTS

(refer to section 3 through 8)

DOT - Corrosive Liquid

## SECTION 10 OTHER INFORMATION

| NFPA 704: | 3 | 0 | 0 |
|---|---|---|---|
| | Health | Flammability | Reactivity |

THORIZED SIGNATURE [signature]

DATE ISSUED: 3/84
DATE REVISED: 11/84

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REVISED

# MATERIAL SAFETY DATA SHEET

Essentially Similar to U.S. Department of Labor Form OSHA-20

## SECTION 1 NAME & PRODUCT

| Chemical Name: | Catalog Number: |
|---|---|
| Potassium Dichromate | PX1445, PX1450, #4865 |
| **Trade Name & Synonyms:** | **Chemical Family:** |
| Dichromic Acid Dipotassium Salt | Inorganic Salt |
| **Formula:** | **Formula Weight:** |
| $K_2Cr_2O_7$ CAS #7778-50-9 | 294.19 |

## SECTION 2 PHYSICAL DATA

| | | | |
|---|---|---|---|
| Boiling Point, 760 mm Hg (°C) | 500° decomp. | Specific Gravity ($H_2O$ = 1) | 2.676 |
| Melting Point (°C) | 398° | Solubility in $H_2O$, % by wt. at 20°C | 11.7% |
| Vapor Pressure at 20°C | N/A | Appearance and Odor | Orange crystals |
| Vapor Density (air = 1) | N/A | | |
| Percent Volatiles by Volume | N/A | Evaporation Rate (Butyl Acetate = 1) | N/A |

## SECTION 3 FIRE AND EXPLOSION HAZARD DATA

| | | | | | |
|---|---|---|---|---|---|
| Flash Point (test method) | Noncombustible | Flammable Limits | Lel | N/A | Uel N/A |

Extinguishing Media: Use media appropriate for surrounding material

Special Hazards and Procedures: Wear self-contained breathing apparatus and protective clothing.

Unusual Fire and Explosion Hazards: Contact with finely divided oxidizable substances may cause explosion.

## SECTION 4 REACTIVITY DATA

| | |
|---|---|
| Stable X | Conditions to Avoid |
| Unstable | Material is strong oxidizer. Avoid contact with combustible material and reducing agents. |

Materials to Avoid

( ) Water ( ) Acids ( ) Bases ( ) Corrosives ( ) Oxidizers

(X) Other (specify) combustibles, organic materials, reducing agents.

Hazardous Decomposition Products: Chromium oxides, $K_2O$

## SECTION 5 SPILL OR LEAK PROCEDURES AND DISPOSAL

Steps to be Taken in Case Material is Released or Spilled: Take up and containerize for proper disposal.

Waste Disposal Method: To be performed in compliance with all current local, state, and federal regulations

The statements contained herein are offered for informational purposes only and are intended to be followed only by persons having related technical skills and at their own discretion and risk. Since conditions and manner of use are outside our control, we make no warranties, express or implied, and assume no liability in connection with any use of this information.

NFPA

PX1445, PX1450, #4865

## SECTION 6 HEALTH HAZARD DATA

Threshold Limit Value, ACGIH: 0.05 mg/m³ (TWA) (as Cr)
OSHA-PEL: 0.1 mg/cu. m. (CL) (as $CrO_3$)

TXDS: ori-chd LDLo: 26 mg/kg
ori-gpg LDLo: 163 mg/kg

**Effects of Overexposure**

Toxic by ingestion and inhalation. Contact may cause rash or external ulcers. Dust or solution spray inhalation may cause perforation of nasal septum. Ingestion causes stomach and kidney disorders. May be toxic by skin absorption. See also Section 10.

**First Aid Procedures** GET MEDICAL ASSISTANCE FOR ALL CASES OF OVEREXPOSURE.

Skin: Wash thoroughly with soap and water.
Eyes: Flush thoroughly with water for at least 15 minutes.
Inhalation: Remove to fresh air.
Ingestion: Induce vomiting if patient is conscious.

## SECTION 7 SPECIAL PROTECTION INFORMATION

**Ventilation, Respiratory Protection, Protective Clothing, Eye Protection**

Material must be handled or transferred in an approved fume hood or with equivalent ventilation.

Protective gloves (Neoprene, PVC, or equivalent) must be worn to prevent skin contact.

Safety glasses with side shields must be worn at all times.

NIOSH-approved respirator should be worn in the absence of adequate ventilation.

## SECTION 8 SPECIAL HANDLING AND STORING PRECAUTIONS

Keep container closed when not in use. Do not store near, and avoid contact with, combustible materials. Store in a cool, well-ventilated area. Do not breathe dust. Do not get in eyes, on skin, or on clothing. Do not take internally. Wash thoroughly after handling.

## SECTION 9 HAZARDOUS INGREDIENTS

(refer to section 3 through 8)

None other than specified product.

## SECTION 10 OTHER INFORMATION

Chromium compounds are classed as known human carcinogens by IARC and NTP.

Tests on laboratory animals indicate material may produce adverse mutagenic and reproductive effects.

EMERGENCY PHONE NUMBER (609) 354-9200

DATE ISSUED: 7/84
DATE REVISED: 9/27/86

EM SCIENCE
111 Woodcrest Road, Cherry Hill, New Jersey 08034-0396, Phone (609) 354-9200

REVISED

# MATERIAL SAFETY DATA SHEET

Essentially Similar to U.S. Department of Labor Form OSHA-20

## SECTION 1 NAME & PRODUCT

**Chemical Name:** Nitric Acid

**Catalog Number:** NX0409, NX0409I, NX0411, NX0412, #441

**Trade Name & Synonyms:** Aqua Fortis; Hydrogen Nitrate

**Chemical Family:** Inorganic Acid

**Formula:** $HNO_3$ (approx. 70% in $H_2O$)

**CAS #7697-37-2**

**Formula Weight:** 63.01

## SECTION 2 PHYSICAL DATA

| | | | |
|---|---|---|---|
| Boiling Point, 760 mm Hg (°C) | 122° | Specific Gravity ($H_2O$ = 1) | 1.41 |
| Melting Point (°C) | -34° | Solubility in $H_2O$, % by wt. at 20°C | Miscible |
| Vapor Pressure at 20°C | 62 mm Hg | Appearance and Odor | Colorless liquid with acrid odor |
| Vapor Density (air = 1) | approx. 2.5 | | |
| Percent Volatiles by Volume | indeterminate | Evaporation Rate (Butyl Acetate = 1) | Unavailable |

## SECTION 3 FIRE AND EXPLOSION HAZARD DATA

| | | | | | |
|---|---|---|---|---|---|
| Flash Point (test method) | Noncombustible | Flammable Limits | Lel | N/A | Uel N/A |

**Extinguishing Media** Water spray, dry chemcial

**Special Hazards and Procedures** Wear self-contained breathing apparatus and protective clothing.

**Unusual Fire and Explosion Hazards** Can react explosively with certain reducing agents and combustibles; such as, metal powders, carbides, $H_2S$, turpentine.

## SECTION 4 REACTIVITY DATA

Stable X

Unstable

**Conditions to Avoid**

Strong oxidizer! Avoid contact with all combustible matter.

**Materials to Avoid**

(X) Steam ( ) Acids (X) Bases ( ) Corrosives ( ) Oxidizers

(X) Other (specify) Reducing agents, organic materials, combustible matter

**Hazardous Decomposition Products** $NO_x$

## SECTION 5 SPILL OR LEAK PROCEDURES AND DISPOSAL

**Steps to be Taken in Case Material is Released or Spilled** Dike spill with sand & soda ash, dilute with water and take up for proper disposal.

**Waste Disposal Method** To be performed in compliance with all current local, state, and federal regulations

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NX0409, NX0409I, NX0411,
NX0412, #441

NFPA

## SECTION 6 HEALTH HAZARD DATA

Threshold Limit Value /PEL: 2 ppm (TWA)

TXDS: unr-man LDLo: 110 mg/kg
(RTECS, 1986)

**Effects of Overexposure**

Causes severe burns on contact with any body tissue. Inhalation of vapors or mists can cause severe burns to respiratory passages, pneumonia and pulmonary edema. Can be fatal if inhaled or swallowed. Symptoms of lung injury may be delayed.

**First Aid Procedures** GET MEDICAL ASSISTANCE FOR ALL CASES OF OVEREXPOSURE.

Skin: Immediately flush thoroughly with large amounts of water - remove contaminated clothing at once.
Eyes: Immediately flush thoroughly with water for at least 15 minutes.
Inhalation: Remove to fresh air; give artificial respiration if breathing has stopped.
Ingestion: Do not induce vomiting; if conscious, give water freely and get medical attention.

## SECTION 7 SPECIAL PROTECTION INFORMATION

**Ventilation, Respiratory Protection, Protective Clothing, Eye Protection**

Material must be handled or transferred in an approved fume hood or with equivalent ventilation.
Protective gloves (Natural Rubber, Neoprene, PVC, or equivalent) must be worn to prevent skin contact.
Protective clothing (Natural Rubber, Neoprene, PVC, or equivalent) should be worn when handling this material.
Safety glasses with side shields must be worn at all times.
NIOSH-approved respirator should be worn in the absence of adequate ventilation.

## SECTION 8 SPECIAL HANDLING AND STORING PRECAUTIONS

Keep container tightly closed. Store in a cool, dry area away from combustible or reducing materials. Do not breathe vapor or mist. Do not get in eyes, on skin, or on clothing. Do not take internally. Empty containers may be hazardous due to retained residue; use caution! Protect from physical damage.

## SECTION 9 HAZARDOUS INGREDIENTS

*(refer to section 3 through 8)*

None other than specified product.

## SECTION 10 OTHER INFORMATION

Tests on laboratory animals indicate material may produce adverse reproductive effects.

EM SCIENCE
111 Woodcrest Road, Cherry Hill, New Jersey 08034-0396, Phone (609) 354-9200

REVISED

# MATERIAL SAFETY DATA SHEET

Essentially Similar to U.S. Department of Labor Form OSHA-20

## SECTION 1 NAME & PRODUCT

| Chemical Name: | Catalog Number: |
|---|---|
| Nitric Acid, 90% | NX0404 |
| **Trade Name & Synonyms:** | **Chemical Family:** |
| Aqua Fortis; Hydrogen Nitrate | Inorganic Acid |
| **Formula:** | **Formula Weight:** |
| $HNO_3$ (90% min. in $H_2O$) CAS #7697-37-2 | 63.01 |

## SECTION 2 PHYSICAL DATA

| | | | |
|---|---|---|---|
| Boiling Point, 760 mm Hg (°C) | approx. 83° | Specific Gravity ($H_2O$ = 1) | 1.49 |
| Melting Point (°C) | -30° | Solubility in $H_2O$, % by wt. at 20°C | Miscible |
| Vapor Pressure at 20°C | Unavailable | Appearance and Odor | Colorless to reddish-yellow liquid - acrid odor |
| Vapor Density (air = 1) | approx. 2.5 | | |
| Percent Volatiles by Volume | Indeterminate | Evaporation Rate (Butyl Acetate = 1) | Unavailable |

## SECTION 3 FIRE AND EXPLOSION HAZARD DATA

| | | | | | |
|---|---|---|---|---|---|
| Flash Point (test method) | Noncombustible | Flammable Limits | Lel | N/A | Uel N/A |

Extinguishing Media: Water spray, dry chemical

Special Hazards and Procedures: Wear self-contained breathing apparatus and protective clothing.

Unusual Fire and Explosion Hazards: Can react explosively with certain reducing agents and combustibles, such as; metal powders, carbides, $H_2S$, turpentine.

## SECTION 4 REACTIVITY DATA

| | |
|---|---|
| Stable X | Conditions to Avoid |
| Unstable | Powerful oxidizer! Avoid contact with all combustible matter. |

Materials to Avoid

(X) Steam ( ) Acids (X) Bases ( ) Corrosives ( ) Oxidizers

(X) Other (specify) Reducing agents, organic materials, combustible matter

Hazardous Decomposition Products: $NO_x$

## SECTION 5 SPILL OR LEAK PROCEDURES AND DISPOSAL

Steps to be Taken in Case Material is Released or Spilled: Dike spill with sand and soda ash, dilute with water and take up for proper disposal.

Waste Disposal Method: To be performed in compliance with all current local, state, and federal regulations

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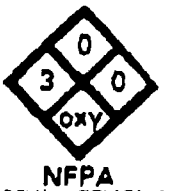


NFPA

NX0404

## SECTION 6 HEALTH HAZARD DATA

Threshold Limit Value /PEL: 2 ppm (TWA)

TXDS: ihl-rat LC50: 67 ppm ($NO_2$)/4H

**Effects of Overexposure**

Causes severe burns on contact with any body tissue. Inhalation of vapors or mists can cause severe burns to respiratory passages, pneumonia and pulmonary edema. Can be fatal if inhaled or swallowed. Symptoms of lung injury may be delayed.

**First Aid Procedures** GET MEDICAL ASSISTANCE FOR ALL CASES OF OVEREXPOSURE.

Skin: Immediately flush thoroughly with large amounts of water - remove contaminated clothing at once.
Eyes: Immediatley flush thoroughly with water for at least 15 minutes.
Inhalation: Remove to fresh air; give artificial respiration if breathing has stopped.
Ingestion: Do not induce vomiting; if conscious, give water freely and get medical attention.

## SECTION 7 SPECIAL PROTECTION INFORMATION

Ventilation, Respiratory Protection, Protective Clothing, Eye Protection

Material must be handled or transferred in an approved fume hood or with equivalent ventilation.
Protective gloves (Natural Rubber, Neoprene, PVC, or equivalent) must be worn to prevent skin contact.
Protective clothing (Natural Rubber, Neoprene, PVC, or equivalent) should be worn when handling this material.
Safety glasses with side shields must be worn at all times.
NIOSH-approved respirator should be worn in the absence of adequate ventilation.

## SECTION 8 SPECIAL HANDLING AND STORING PRECAUTIONS

Keep container tightly closed. Store in a cool, dry area away from combustible or reducing materials. Do not breathe vapor or mist. Do not get in eyes, on skin, or on clothing. Do not take internally. Empty containers may be hazardous due to retained residue - use caution! Protect from physical damage.

## SECTION 9 HAZARDOUS INGREDIENTS

(refer to section 3 through 8)

None other than specified product.

## SECTION 10 OTHER INFORMATION

Tests on laboratory animals indicate material may produce adverse reproductive effects.

EM SCIENCE
111 Woodcrest Road, P.O. Box 5018, Cherry Hill, N.J. 08034-0395, Phone (609) 354-9200

# MATERIAL SAFETY DATA SHEET

(Approved by U.S. Department of Labor "Essentially Similar to Form OSHA-20")

## SECTION 1 NAME & PRODUCT

| Chemical Name: | Catalog Number: |
|---|---|
| Sodium Hydroxide Solution 5N * | SX0606L |
| **Trade Name & Synonyms:** | **Chemical Family:** |
| Soda Lye CA #1310-73-2 | Base |
| **Formula:** | **Formula Weight:** |
| NaOH in $H_2O$ | 58.01 (NaOH) |

## SECTION 2 PHYSICAL DATA

| | | | |
|---|---|---|---|
| Boiling Point, 760 mm Hg (°C) | | Specific Gravity ($H_2O$ = 1) | ——— |
| Melting Point (°C) | | Solubility in $H_2O$, % by wt. at 20°C | Solution |
| Vapor Pressure at 20°C | ——— | Appearance and Odor | Clear solution |
| Vapor Density (air = 1) | ——— | | |
| Percent Volatiles by Volume | ——— | Evaporation Rate (Butyl Acetate = 1) | ——— |

## SECTION 3 FIRE AND EXPLOSION HAZARD DATA

| | | | |
|---|---|---|---|
| Flash Point (test method) Non Combustible | Flammable Limits | Lel ——— | Uel ——— |

Extinguishing Media N/A

Special Hazards and Procedures N/A

Unusual Fire and Explosion Hazards N/A

## SECTION 4 REACTIVITY DATA

| | |
|---|---|
| Stable X | Conditions to Avoid |
| Unstable | |

Materials to Avoid

( ) Water (X) Acids ( ) Bases ( ) Corrosives ( ) Oxidizers
(X) Other (specify) Metals, organic halogens, nitro compounds, Al, Sn, Zn

Hazardous Decomposition Products ———

## SECTION 5 SPILL OR LEAK PROCEDURES AND DISPOSAL

Steps to be Taken in Case Material is Released or Spilled: Neutralize with 6M HCl, dilute with large volume of water.

Waste Disposal Method: To be performed in compliance with all current local, state and federal regulations.

We believe the data contained herein is factual, however, it is offered solely for your consideration, investigation, and verification. Do not take as a warranty.

* SIMILAR CHARACTERISTICS TO 6N.

## SECTION 3 — HEALTH HAZARD DATA

Threshold Limit Value: 2mg/$m^3$/15m ceil (NIOSH)

Effects of Overexposure

Can irritate or burn eyes, skin and nose. Cause pneumonitis and temporary loss of hair.

First Aid Procedures

Skin: wash with soap/water, get medical assistance.
Eyes: wash with water, get medical assistance.
Inhalation: remove to fresh air, get medical assistance.
Ingestion: get medical attention.

## SECTION 4 — SPECIAL PROTECTION INFORMATION

Ventilation, Respiratory Protection, Protective Clothing, Eye Protection

Provide adequate general and exhaust ventilation.
Protect eyes and skin with safety goggles and gloves.

## SECTION 5 — SPECIAL HANDLING AND STORING PRECAUTIONS

Store in cool area away from acids and other incompatible material (section 4)

DOT-Corrosive Liquid

## SECTION 6 — HAZARDOUS INGREDIENTS

(refer to section 3 through 8)

## SECTION 7 — OTHER INFORMATION

EMERGENCY PHONE NUMBER (513) 631-0445

AUTHORIZED SIGNATURE Bruce Crane

DATE ISSUED: 3/82

DATE REVISED:

MC/S 1191

J.T.BAKER INC. 222 RED SCHOOL LANE, PHILLIPSBURG, NJ 08865
M A T E R I A L S A F E T Y D A T A S H E E T
24-HOUR EMERGENCY TELEPHONE -- (201) 859-2151
CHEMTREC # (800) 424-9300 -- NATIONAL RESPONSE CENTER # (800) 424-8802


EFFECTIVE: 05/01/89 ISSUED: 05/16/89

J.T.BAKER INC., 222 RED SCHOOL LANE, PHILLIPSBURG, NJ 08865

## SECTION I - PRODUCT IDENTIFICATION

PRODUCT NAME: ISOPROPYL ALCOHOL
COMMON SYNONYMS: 2-PROPANOL; ISOPROPANOL; SEC-PROPYL ALCOHOL; IPA; DIMETHYLCARBINOL
CHEMICAL FAMILY: ALCOHOLS
FORMULA: CH3CHOHCH3
FORMULA WT.: 60.10
CAS NO.: 67-63-0
NIOSH/RTECS NO.: NT805000
PRODUCT USE: LABORATORY REAGENT
PRODUCT CODES: U298,9080,5082

## PRECAUTIONARY LABELING

BAKER SAF-T-DATA* SYSTEM

| | | | |
|---|---|---|---|
| HEALTH | - | 1 | SLIGHT |
| FLAMMABILITY | - | 3 | SEVERE (FLAMMABLE) |
| REACTIVITY | - | 1 | SLIGHT |
| CONTACT | - | 1 | SLIGHT |

LABORATORY PROTECTIVE EQUIPMENT

GOGGLES; LAB COAT; VENT HOOD; PROPER GLOVES; CLASS B EXTINGUISHER

### U.S. PRECAUTIONARY LABELING

WARNING
FLAMMABLE. CAUSES IRRITATION. HARMFUL IF SWALLOWED OR INHALED. KEEP AWAY FROM HEAT, SPARKS, FLAME. AVOID CONTACT WITH EYES, SKIN, CLOTHING. AVOID BREATHING VAPOR. KEEP IN TIGHTLY CLOSED CONTAINER. USE WITH ADEQUATE VENTILATION. WASH THOROUGHLY AFTER HANDLING. IN CASE OF FIRE, USE ALCOHOL FOAM, DRY CHEMICAL, CARBON DIOXIDE - WATER MAY BE INEFFECTIVE. FLUSH SPILL AREA WITH WATER SPRAY.

### INTERNATIONAL LABELING

HIGHLY FLAMMABLE.

CONTINUED ON PAGE: 2

## PRECAUTIONARY LABELING (CONTINUED)

KEEP CONTAINER TIGHTLY CLOSED. KEEP AWAY FROM SOURCES OF IGNITION - NO SMOKING.

SAF-T-DATA* STORAGE COLOR CODE: RED (FLAMMABLE)

## SECTION II - COMPONENTS

| COMPONENT | CAS NO. | WEIGHT % | OSHA/PEL | ACGIH/TLV |
|---|---|---|---|---|
| 2-PROPANOL | 67-63-0 | 90-100 | 400 PPM | 400 PPM |

## SECTION III - PHYSICAL DATA

BOILING POINT: 82 C (179 F) (AT 760 MM HG)

VAPOR PRESSURE (MMHG): 33 (20 C)

MELTING POINT: -89 C (-128 F) (AT 760 MM HG)

VAPOR DENSITY (AIR=1): 2.1

SPECIFIC GRAVITY: 0.79 (H2O=1)

EVAPORATION RATE: 2.83 (BUTYL ACETATE = 1)

SOLUBILITY(H2O)# COMPLETE (100%)

% VOLATILES BY VOLUME: 100 (21 C)

PH: N/A

ODOR THRESHOLD (P.P.M.): N/A

PHYSICAL STATE: LIQUID

COEFFICIENT WATER/OIL DISTRIBUTION: N/A

APPEARANCE & ODOR: COLORLESS LIQUID. ALCOHOL ODOR.

## SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (CLOSED CUP): 11 C (53 F)

NFPA 704M RATING: 1-3-0

AUTOIGNITION TEMPERATURE: 398 C (750 F)

CONTINUED ON PAGE: 3

## SECTION IV - FIRE AND EXPLOSION HAZARD DATA (CONTINUED)

FLAMMABLE LIMITS: UPPER - 12.0 % LOWER - 2.0 %

FIRE EXTINQUISHING MEDIA
USE ALCOHOL FOAM, DRY CHEMICAL OR CARBON DIOXIDE. (WATER MAY BE INEFFECTIVE.)

SPECIAL FIRE-FIGHTING PROCEDURES
FIREFIGHTERS SHOULD WEAR PROPER PROTECTIVE EQUIPMENT AND SELF-CONTAINED BREATHING ARPARATUS WITH FULL FACEPIECE OPERATED IN POSITIVE PRESSURE MODE. MOVE CONTAINERS FROM FIRE AREA IF IT CAN BE DONE WITHOUT RISK. USE WATER TO KEEP FIRE-EXPOSED CONTAINERS COOL.

UNUSUAL FIRE & EXPLOSION HAZARDS
VAPORS MAY FLOW ALONG SURFACES TO DISTANT IGNITION SOURCES AND FLASH BACK. CLOSED CONTAINERS EXPOSED TO HEAT MAY EXPLODE. CONTACT WITH STRONG OXIDIZERS MAY CAUSE FIRE.

XIC GASES PRODUCED
CARBON MONOXIDE, CARBON DIOXIDE

EXPLOSION DATA-SENSITIVITY TO MECHANICAL IMPACT
NONE IDENTIFIED.

EXPLOSION DATA-SENSITIVITY TO STATIC DISCHARGE
NONE IDENTIFIED.

## SECTION V - HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE (TLV/TWA): 980 MG/M3 (400 PPM)

SHORT-TERM EXPOSURE LIMIT (STEL): 1225 MG/M3 (500 PPM)

PERMISSIBLE EXPOSURE LIMIT (PEL): 980 MG/M3 (400 PPM)

TOXICITY OF COMPONENTS

| | |
|---|---|
| ORAL RAT LD50 FOR 2-PROPANOL | 5840 MG/KG |
| INTRAPERITONEAL MOUSE LD50 FOR 2-PROPANOL | 933 MG/KG |
| ORAL DOG LD50 FOR 2-PROPANOL | 6150 MG/KG |

CONTINUED ON PAGE: 4

SECTION V - HEALTH HAZARD DATA (CONTINUED)

SKIN RABBIT LD50 FOR 2-PROPANOL 13 G/KG
CARCINOGENICITY: NTP: NO IARC: NO Z LIST: NO OSHA REG: NO

CARCINOGENICITY
NONE IDENTIFIED.

REPRODUCTIVE EFFECTS
NONE IDENTIFIED.

EFFECTS OF OVEREXPOSURE

INHALATION: HEADACHE, NAUSEA, VOMITING, DIZZINESS, DROWSINESS, IRRITATION OF UPPER RESPIRATORY TRACT, UNCONSCIOUSNESS, MAY CAUSE PULMONARY EDEMA

SKIN CONTACT: IRRITATION, PROLONGED CONTACT MAY CAUSE DERMATITIS

EYE CONTACT: IRRITATION, MAY CAUSE TEMPORARY CORNEAL DAMAGE

SKIN ABSORPTION: NONE IDENTIFIED

INGESTION: HEADACHE, NAUSEA, VOMITING, DIZZINESS, GASTROINTESTINAL IRRITATION, CENTRAL NERVOUS SYSTEM DEPRESSION

CHRONIC EFFECTS: NONE IDENTIFIED

TARGET ORGANS
EYES, SKIN, RESPIRATORY SYSTEM, CENTRAL NERVOUS SYSTEM, LUNGS

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE
NONE IDENTIFIED

PRIMARY ROUTES OF ENTRY
INHALATION, INGESTION, EYE CONTACT, SKIN CONTACT

EMERGENCY AND FIRST AID PROCEDURES

INGESTION: CALL A PHYSICIAN. IF SWALLOWED, DO NOT INDUCE VOMITING.

INHALATION: IF INHALED, REMOVE TO FRESH AIR. IF NOT BREATHING, GIVE ARTIFICIAL RESPIRATION. IF BREATHING IS DIFFICULT, GIVE OXYGEN.

CONTINUED ON PAGE: 5

## SECTION V - HEALTH HAZARD DATA (CONTINUED)

SKIN CONTACT: IN CASE OF CONTACT, FLUSH SKIN WITH WATER.

EYE CONTACT: IN CASE OF EYE CONTACT, IMMEDIATELY FLUSH WITH PLENTY OF WATER FOR AT LEAST 15 MINUTES.

### SARA/TITLE III HAZARD CATEGORIES AND LISTS

ACUTE: YES CHRONIC: YES FLAMMABILITY: YES PRESSURE: NO REACTIVITY: NO

| | | |
|---|---|---|
| EXTREMELY HAZARDOUS SUBSTANCE: | NO | |
| CERCLA HAZARDOUS SUBSTANCE: | NO | |
| TOXIC CHEMICALS: | YES | CONTAINS ISOPROPYL ALCOHOL |
| GENERIC CLASS: | | C05 |
| TSCA INVENTORY: | YES | |

## SECTION VI - REACTIVITY DATA

STABILITY: STABLE HAZARDOUS POLYMERIZATION: WILL NOT OCCUR

CONDITIONS TO AVOID: HEAT, FLAME, OTHER SOURCES OF IGNITION

INCOMPATIBLES: STRONG OXIDIZING AGENTS, ALUMINUM, NITRIC ACID, SULFURIC ACID, AMINES AND AMMONIA, HALOGEN ACIDS AND HALOGEN COMPOUNDS, ALDEHYDES

DECOMPOSITION PRODUCTS: CARBON MONOXIDE, CARBON DIOXIDE

## SECTION VII - SPILL & DISPOSAL PROCEDURES

STEPS TO BE TAKEN IN THE EVENT OF A SPILL OR DISCHARGE
WEAR SUITABLE PROTECTIVE CLOTHING. SHUT OFF IGNITION SOURCES; NO FLARES, SMOKING, OR FLAMES IN AREA. STOP LEAK IF YOU CAN DO SO WITHOUT RISK. USE WATER SPRAY TO REDUCE VAPORS. TAKE UP WITH SAND OR OTHER NON-COMBUSTIBLE ABSORBENT MATERIAL AND PLACE INTO CONTAINER FOR LATER DISPOSAL. FLUSH AREA WITH WATER.

J. T. BAKER SOLVSORB(R) SOLVENT ADSORBENT IS RECOMMENDED FOR SPILLS OF THIS PRODUCT.

CONTINUED ON PAGE: 6

## SECTION VII - SPILL & DISPOSAL PROCEDURES (CONTINUED)

DISPOSAL PROCEDURE
DISPOSE IN ACCORDANCE WITH ALL APPLICABLE FEDERAL, STATE, AND LOCAL ENVIRONMENTAL REGULATIONS.

EPA HAZARDOUS WASTE NUMBER: D001 (IGNITABLE WASTE)

## SECTION VIII - INDUSTRIAL PROTECTIVE EQUIPMENT

VENTILATION: USE GENERAL OR LOCAL EXHAUST VENTILATION TO MEET TLV REQUIREMENTS.

RESPIRATORY PROTECTION: RESPIRATORY PROTECTION REQUIRED IF AIRBORNE CONCENTRATION EXCEEDS TLV. AT CONCENTRATIONS UP TO 1000 PPM, A CHEMICAL CARTRIDGE RESPIRATOR WITH ORGANIC VAPOR CARTRIDGE IS RECOMMENDED. ABOVE THIS LEVEL, A SELF-CONTAINED BREATHING APPARATUS IS RECOMMENDED.

EYE/SKIN PROTECTION: SAFETY GOGGLES, UNIFORM, APRON, NEOPRENE GLOVES ARE RECOMMENDED.

## SECTION IX - STORAGE AND HANDLING PRECAUTIONS

SAF-T-DATA* STORAGE COLOR CODE: RED (FLAMMABLE)

STORAGE REQUIREMENTS
KEEP CONTAINER TIGHTLY CLOSED. STORE IN A COOL, DRY, WELL-VENTILATED, FLAMMABLE LIQUID STORAGE AREA.

SPECIAL PRECAUTIONS
BOND AND GROUND CONTAINERS WHEN TRANSFERRING LIQUID.

## SECTION X - TRANSPORTATION DATA AND ADDITIONAL INFORMATION

CONTINUED ON PAGE: 7

## SECTION X - TRANSPORTATION DATA AND ADDITIONAL INFORMATION (CONTINUED)

DOMESTIC (D.O.T.)

PROPER SHIPPING NAME: ISOPROPANOL
HAZARD CLASS: FLAMMABLE LIQUID
UN/NA: UN1219
LABELS: FLAMMABLE LIQUID
REGULATORY REFERENCES: 49CFR 172.101; 173.125

INTERNATIONAL (I.M.O.)

PROPER SHIPPING NAME: ISOPROPANOL
HAZARD CLASS: 3.2 I.M.O. PAGE: 3100
UN: UN1219 MARINE POLLUTANTS: NO PACKAGING GROUP: II
LABELS: FLAMMABLE LIQUID
REGULATORY REFERENCES: 49CFR 172.102; PART 176; IMO

(I.C.A.O.)

PROPER SHIPPING NAME: ISOPROPANOL
HAZARD CLASS: 3.2
UN: UN1219 PACKAGING GROUP: II
LABELS: FLAMMABLE LIQUID
REGULATORY REFERENCES: 49CFR 172.101; 173.6; PART 175; ICAO/IATA

U.S. CUSTOMS HARMONIZATION NUMBER: 2905120050?

N/A = NOT APPLICABLE OR NOT AVAILABLE
N/E = NOT ESTABLISHED
---
THE INFORMATION IN THIS MATERIAL SAFETY DATA SHEET MEETS THE REQUIREMENTS OF THE UNITED STATES OCCUPATIONAL SAFETY AND HEALTH ACT AND REGULATIONS PROMULGATED THEREUNDER (29 CFR 1910.1200 ET. SEQ.) AND THE CANADIAN WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM. THIS DOCUMENT IS INTENDED ONLY AS A GUIDE TO THE APPROPRIATE PRECAUTIONARY HANDLING OF THE MATERIAL BY A PERSON TRAINED IN, OR SUPERVISED BY A PERSON TRAINED IN, CHEMICAL HANDLING. THE USER IS RESPONSIBLE FOR DETERMINING THE PRECAUTIONS AND DANGERS OF THIS CHEMICAL FOR HIS OR HER PARTICULAR APPLICATION. DEPENDING ON USAGE, PROTECTIVE CLOTHING INCLUDING EYE AND FACE GUARDS AND RESPIRATORS MUST BE USED TO AVOID CONTACT WITH MATERIAL OR BREATHING CHEMICAL VAPORS/FUMES.
OVEREXPOSURE TO THIS PRODUCT MAY HAVE SERIOUS ADVERSE HEALTH EFFECTS. THIS

CONTINUED ON PAGE: 8

CHEMICAL MAY INTERACT WITH OTHER SUBSTANCES. SINCE THE POTENTIAL USES ARE SO VARIED, BAKER CANNOT WARN OF ALL OF THE POTENTIAL DANGERS OF USE OR INTERACTION WITH OTHER CHEMICALS OR MATERIALS. BAKER WARRANTS THAT THE CHEMICAL MEETS THE SPECIFICATIONS SET FORTH ON THE LABEL. BAKER DISCLAIMS ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED WITH REGARD TO THE PRODUCT SUPPLIED HEREUNDER, ITS MERCHANTABILITY OR ITS FITNESS FOR A PARTICULAR PURPOSE.
THE USER SHOULD RECOGNIZE THAT THIS PRODUCT CAN CAUSE SEVERE INJURY AND EVEN DEATH, ESPECIALLY IF IMPROPERLY HANDLED OR THE KNOWN DANGERS OF USE ARE NOT HEEDED. READ ALL PRECAUTIONARY INFORMATION. AS NEW DOCUMENTED GENERAL SAFETY INFORMATION BECOMES AVAILABLE, BAKER WILL PERIODICALLY REVISE THIS MATERIAL SAFETY DATA SHEET. IF YOU HAVE ANY QUESTIONS, PLEASE CALL CUSTOMER SERVICE (1-800-JTBAKER) FOR ASSISTANCE.

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APPROVED BY QUALITY ASSURANCE DEPARTMENT.

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Please print or type in the unshaded areas only.

EPA I.D. NUMBER (copy from Item 1 of Form 1): IND 087032207

OMB No. 2040-0086
Approval expires 7-31-88

FORM 2C NPDES

U.S. ENVIRONMENTAL PROTECTION AGENCY
APPLICATION FOR PERMIT TO DISCHARGE WASTEWATER
# EXISTING MANUFACTURING, COMMERCIAL, MINING AND SILVICULTURAL OPERATIONS
*Consolidated Permits Program*

## I. OUTFALL LOCATION

For each outfall, list the latitude and longitude of its location to the nearest 15 seconds and the name of the receiving water.

| A. OUTFALL NUMBER (list) | B. LATITUDE | | | C. LONGITUDE | | | D. RECEIVING WATER (name) |
|---|---|---|---|---|---|---|---|
| | 1. DEG. | 2. MIN. | 3. SEC. | 1. DEG. | 2. MIN. | 3. SEC. | |
| 1 | | | | | | | CREEK TO WEST FORK WHITEWATER RIVER |
| 2 | | | | | | | CREEK TO WEST FORK WHITEWATER RIVER |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

## II. FLOWS, SOURCES OF POLLUTION, AND TREATMENT TECHNOLOGIES

A. Attach a line drawing showing the water flow through the facility. Indicate sources of intake water, operations contributing wastewater to the effluent, and treatment units labeled to correspond to the more detailed descriptions in Item B. Construct a water balance on the line drawing by showing average flows between intakes, operations, treatment units, and outfalls. If a water balance cannot be determined *(e.g., for certain mining activities)*, provide a pictorial description of the nature and amount of any sources of water and any collection or treatment measures.

B. For each outfall, provide a description of: (1) All operations contributing wastewater to the effluent, including process wastewater, sanitary wastewater, cooling water, and storm water runoff; (2) The average flow contributed by each operation; and (3) The treatment received by the wastewater. Continue on additional sheets if necessary.

| 1. OUTFALL NO. (list) | 2. OPERATION(S) CONTRIBUTING FLOW | | 3. TREATMENT | | |
|---|---|---|---|---|---|
| | a. OPERATION (list) | b. AVERAGE FLOW (include units) | a. DESCRIPTION | b. LIST CODES FROM TABLE 2C-1 | |
| 1 | cooling water non-contact | 30,000 GPD | No treatment | 4-A | |
| | storm water run-off | * | No treatment | 4-A | |
| | | | | | |
| | | | | | |
| | cooling water non-contact | 15,000 GPD | No treatment | 4-A | |
| | storm water run-off | * | No treatment | 4-A | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| * | NOTE: We have approx. 800,000 square feet under roof. | | | | |
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OFFICIAL USE ONLY *(effluent guidelines sub-categories)*

CONTINUED FROM THE FRONT

C. Except for storm runoff, leaks, or spills, are any of the discharges described in Items II-A or B intermittent or seasonal?

☐ YES *(complete the following table)* ☐ NO *(go to Section III)*

| 1. OUTFALL NUMBER *(list)* | 2. OPERATION(s) CONTRIBUTING FLOW *(list)* | 3. FREQUENCY a. DAYS PER WEEK *(specify average)* | 3. FREQUENCY b. MONTHS PER YEAR *(specify average)* | 4. FLOW a. FLOW RATE *(in mgd)* 1. LONG TERM AVERAGE | 4. FLOW a. FLOW RATE *(in mgd)* 2. MAXIMUM DAILY | 4. FLOW b. TOTAL VOLUME *(specify with units)* 1. LONG TERM AVERAGE | 4. FLOW b. TOTAL VOLUME *(specify with units)* 2. MAXIMUM DAILY | 4. FLOW c. DURATION *(in days)* |
|---|---|---|---|---|---|---|---|---|
| 1 | Welders and press cooling water (non-contact) | 5 | 12 | 0.03 | | 30,000 GPD | | 5 days/wk |
| 2 | Welders, press, mold cooling water (non-contact) | 5 | 12 | 0.015 | | 15,000 GPD | | 5 days/wk |

## III. PRODUCTION

A. Does an effluent guideline limitation promulgated by EPA under Section 304 of the Clean Water Act apply to your facility?

☐ YES *(complete Item III-B)* ☒ NO *(to to Section IV)*

B. Are the limitations in the applicable effluent guideline expressed in terms of production *(or other measure of operation)*?

☐ YES *(complete Item III-C)* ☐ NO *(go to Section IV)*

C. If you answered "yes" to Item III-B, list the quantity which represents an actual measurement of your level of production, expressed in the terms and units used in the applicable effluent guideline, and indicate the affected outfalls.

| 1. AVERAGE DAILY PRODUCTION a. QUANTITY PER DAY | b. UNITS OF MEASURE | c. OPERATION, PRODUCT, MATERIAL, ETC. *(specify)* | 2. AFFECTED OUTFALLS *(list outfall numbers)* |
|---|---|---|---|
| | | Clorine + Flouride present in discharge | |

## IV. IMPROVEMENTS

A. Are you now required by any Federal, State or local authority to meet any implementation schedule for the construction, upgrading or operation of wastewater treatment equipment or practices or any other environmental programs which may affect the discharges described in this application? This includes, but is not limited to, permit conditions, administrative or enforcement orders, enforcement compliance schedule letters, stipulations, court orders, and grant or loan conditions.

☒ YES *(complete the following table)* ☐ NO *(go to Item IV-B)*

| 1. IDENTIFICATION OF CONDITION, AGREEMENT, ETC. | 2. AFFECTED OUTFALLS a. NO. | 2. AFFECTED OUTFALLS b. SOURCE OF DISCHARGE | 3. BRIEF DESCRIPTION OF PROJECT | 4. FINAL COMPLIANCE DATE a. REQUIRED | 4. FINAL COMPLIANCE DATE b. PROJECTED |
|---|---|---|---|---|---|
| RICHMOND CITY SEWER USE ORDINANCE | 1 | NON-POLLUTANT WATER | UNPOLLUTED WATERS SHALL NOT BE DISCHARGED INTO THE SANITARY SEWER | | |
| | 2 | NON-CONTACT COOLING WATER | | | |

B. OPTIONAL: You may attach additional sheets describing any additional water pollution control programs *(or other environmental projects which may affect your discharges)* you now have underway or which you plan. Indicate whether each program is now underway or planned, and indicate your actual or planned schedules for construction. ☐ MARK "X" IF DESCRIPTION OF ADDITIONAL CONTROL PROGRAMS IS ATTACHED

RECEIVED
OCT 28 1992
ROY F. WESTON
VERNON HILLS, IL

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

DATE: 10/23/92

SUBJECT: Review of Region V CLP Data Received for Review on Sept 29, 1992

FROM: Charles T. Elly, Director (SL-10C) Central Regional Laboratory
Patrick J. Churilla for C.T. Elly

TO: Data User: Weston

We have reviewed the data for the following case.

SITE NAME: Sanyo (IN)

CASE and/or SAS NUMBER: 18642 SDG NUMBER: ERW01

Number and Type of Samples: 11 (Soils and Water)

CLP Sample Numbers: ERW 01-05 ERW 11-16

CLP Laboratory: WRI Hrs. for Review ~~16~~ 18 CL 10-21-92
2
20 [illegible]

Following are our findings:

SAMPLES ERW01 AND ERW03 HAD VERY LARGE HITS FOR PCBs WHICH PREVENTS IDENTIFICATION OF PESTICIDES IN THESE SAMPLES. THE OTHER DATA ARE ACCEPTABLE WITH QUALIFICATIONS NOTED IN THE ATTACHED REVIEW. — Patrick J. Churilla 10/23/92

PDC
11/9/92

( ) Data are acceptable for use.
(X) Data are acceptable for use with qualification.
( ) Data are preliminary, pending verification by laboratory.
( ) Data are unacceptable.

cc: Edward Kantor, EMSL-Las Vegas
Julie Frankel, VIAR & Co. (SMO)