ORGANIC DATA QUALITY ASSURANCE REVIEW

SITE NAME MILES ROAD LAND FILL

SITE CODE TXD980697072

CASE NUMBER 20258

LABORATORY Ross Analytical Services, Inc, Strongsville, OH

| SAMPLE NUMBERS | | | |
|---|---|---|---|
| FA-A31 | FA-A41 | | |
| FA-A32 | FA-A42 | | |
| FA-A33 | | | |
| FA-A34 | | | |
| FA-A35 | | | |
| FA-A36 | | | |
| FA-A37 | | | |
| FA-A38 | | | |
| FA-A39 | | | |
| FA-A40 | | | |

REVIEWER Gordon Gogale

90073486

0 0 1 3 5 4

CASE NO. 20258

# VOA OA CHECKLIST

PAGE 1

| SEQ # | SAMPLE # | MATRIX | ANALYSIS CONC | % SOLIDS | SAMPLE SIZE g/mL | DILUTION | DATE RECEIVED | ANALYSIS DATE | ANALYSIS TIME | INST ID | HOLDING TIME | INITIAL T & C CHECKLIST | DAILY T &C CHECKLIST | WITHIN 12HR TUNING | SURROGATE RECOVERY | SURROGATE IF NO REANALYSIS | SURROGATE REANALYSIS SEQ # | METHOD BLANK CHECKLIST | METHOD BLANK APPROPRIATE | HSL ID | INTERNAL STANDARDS AREA IN LIMITS? | INTERNAL STANDARDS IF NO, REANALYSIS? | INTERNAL STANDARDS REANALYSIS SEQUENCE # | COMMENTS SEE ATTACHED |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | FA-A31 | S | L | 81 | 5.63 | 1.0 | 6/22/93 | 7/1/93 | 00:36 | F500A | Y | 1 | | Y | Y | | | 4 | Y | Y | Y | | | |
| 2 | FA-A32 | S | L | 78 | 4.95 | 1.0 | 6/22/93 | 7/1/93 | 01:14 | F500A | Y | 1 | | Y | Y | | | 4 | Y | Y | Y | | | |
| 3 | FA-A33 | S | L | 79 | 5.08 | 1.0 | 6/22/93 | 7/1/93 | 01:56 | F500A | Y | 1 | | Y | Y | | | 4 | Y | Y | Y | | | |
| 4 | FA-A34 | S | L | 81 | 5.89 | 1.0 | 6/22/93 | 7/1/93 | 02:38 | F500A | Y | 1 | | Y | Y | | | 4 | Y | Y | Y | | | |
| 5 | FA-A35 | S | L | 78 | 5.49 | 1.0 | 6/22/93 | 7/1/93 | 03:20 | F500A | Y | 1 | | Y | Y | | | 4 | Y | Y | Y | | | |
| 6 | FA-A36 | S | L | 78 | 5.04 | 1.0 | 6/22/93 | 7/1/93 | 04:02 | F500A | Y | 1 | | Y | Y | | | 4 | Y | Y | Y | | | |
| 7 | FA-A37 | S | L | 72 | 5.20 | 1.0 | 6/22/93 | 7/1/93 | 04:44 | F500A | Y | 1 | | Y | Y | | | 4 | Y | Y | Y | | | |
| 8 | FA-A38 | S | L | 82 | 4.98 | 1.0 | 6/22/93 | 7/1/93 | 05:26 | F500A | Y | 1 | | Y | Y | | | 4 | Y | Y | Y | | | |
| 9 | FA-A39 | S | L | 78 | 5.07 | 1.0 | 6/22/93 | 7/1/93 | 06:08 | F500A | Y | 1 | | Y | Y | | | 4 | Y | Y | Y | | | |
| 10 | FA-A40 | S | L | 86 | 5.05 | 1.0 | 6/22/93 | 7/1/93 | 08:55 | F500A | Y | 1 | | Y | Y | | | 3 | Y | Y | Y | | | |
| 11 | FA-A41 | S | L | 79 | 5.10 | 1.0 | 6/22/93 | 7/1/93 | 09:33 | F500A | Y | 1 | | Y | Y | | | 3 | Y | Y | Y | | | |
| 12 | FA-A42 | S | L | 75 | 5.37 | 1.0 | 6/22/93 | 7/1/93 | 10:10 | F500A | Y | 1 | | Y | Y | | | 3 | Y | Y | Y | | | |
| 13 | VBLKB5 | | | | | | | 6/30/93 | 23:45 | | | 1 | | Y | Y | | | | Y | Y | Y | | | |
| 14 | VBLKB6 | | | | | | | 7/1/93 | 08:06 | | | 1 | | Y | Y | | | | | Y | Y | | | |
| 15 | FA-A32MS D | | | | | | | 7/1/93 | 11:34 | | | | 2 | Y | Y | | | 3 | Y | Y | Y | | | |
| K | FA-A32MS | | | | | | | 7/1/93 | 14:23 | | | | 2 | Y | Y | | | 3 | Y | Y | Y | | | |

CASE NO. 20258 | ABN QA CHECKLIST | PAGE 2

| SEQ # | SAMPLE # | MATRIX | ANALYSIS CONCENTRATION | %SOLIDS | SAMPLE SIZE g/mL | GPC ? | DILUTION | DATE OF RECEIPT | DATE EXTRACTED | EXTRACTION HOLDING TIME | ANALYSIS DATE | ANALYSIS TIME | INSTRUMENT ID | ANALYSIS HOLDING TIME | INITIAL T&C CHECKLIST | DAILY T & C CHECKLIST | ANALYSIS WITHIN 12 HOURS | SURROGATES RECOVERY | SURROGATES IF N REANALYSIS | SURROGATES REANALYSIS SEQ # | METHOD BLANK CHECKLIST # | METHOD BLANK APPROPRIATE | HSL ID | INTERNAL STANDARDS AREA IN LIMITS ? | INTERNAL STANDARDS IF NO, REANALYSIS ? | INTERNAL STANDARDS REANALYSIS SEQUENCE # | COMMENTS SEE ATTACHED |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | FA-A31 | S | L | 81 | 29.97 | Y | 1 | 6/22/93 | 6/23/93 | Y | 6/30/93 | 10:36 | F500 D | Y | 5 | 6 | Y | Y | | | 4 | Y | Y | Y | | | |
| 2 | FA-A32 | S | L | 78 | 30.02 | Y | 1 | 6/22/93 | 6/23/93 | Y | 6/30/93 | 11:27 | F500 D | Y | 5 | 6 | Y | Y | | | 4 | Y | Y | Y | | | |
| 3 | FA-A33 | S | L | 79 | 30.02 | Y | 1 | 6/22/93 | 6/23/93 | Y | 6/30/93 | 19:18 | F500 D | Y | 5 | 6 | Y | Y | | | 4 | Y | Y | Y | | | |
| 4 | FA-A34 | S | L | 81 | 30.29 | Y | 1 | 6/22/93 | 6/23/93 | Y | 6/30/93 | 20:10 | F500 D | Y | 5 | 6 | Y | Y | | | 4 | Y | Y | Y | | | |
| 5 | FA-A35 | S | L | 78 | 30.65 | Y | 1 | 6/22/93 | 6/23/93 | Y | 6/30/93 | 15:50 | F500 D | Y | 5 | 6 | Y | Y | | | 4 | Y | Y | Y | | | |
| 6 | FA-A36 | S | L | 78 | 30.37 | Y | 1 | 6/22/93 | 6/23/93 | Y | 6/30/93 | 16:42 | F500 D | Y | 5 | 6 | Y | Y | | | 4 | Y | Y | Y | | | |
| 7 | FA-A37 | S | L | 72 | 30.04 | Y | 1 | 6/22/93 | 6/23/93 | Y | 6/30/93 | 17:33 | F500 D | Y | 5 | 6 | Y | Y | | | 4 | Y | Y | Y | | | |
| 8 | FA-A38 | S | L | 82 | 30.03 | Y | 1 | 6/22/93 | 6/23/93 | Y | 6/30/93 | 18:26 | F500 D | Y | 5 | 6 | Y | Y | | | 4 | Y | N | Y | | | |
| 9 | FA-A39 | S | L | 78 | 30.78 | Y | 1 | 6/22/93 | 6/23/93 | Y | 7/1/93 | 10:09 | F500 D | Y | 5 | 7 | Y | Y | | | 4 | Y | Y | Y | | | |
| 10 | FA-A40 | S | L | 86 | 30.96 | Y | 1 | 6/22/93 | 6/23/93 | Y | 7/1/93 | 11:01 | F500 D | Y | 5 | 7 | Y | Y | | | 4 | Y | Y | Y | | | |
| 11 | FA-A41 | S | L | 79 | 30.33 | Y | 1 | 6/22/93 | 6/23/93 | Y | 7/1/93 | 11:53 | F500 D | Y | 5 | 7 | Y | Y | | | 4 | Y | Y | Y | | | |
| 12 | FA-A42 | S | L | 75 | 30.54 | Y | 1 | 6/22/93 | 6/23/93 | Y | 7/1/93 | 12:46 | F500 D | Y | 5 | 7 | Y | Y | | | 4 | Y | N | Y | | | |
| 13 | SBLKT1 | S | L | — | 30.00 | Y | 1 | . | 6/23/93 | — | 6/30/93 | 9:48 | F500 D | Y | 5 | 6 | Y | Y | | | 4 | Y | | Y | | | |
| 14 | FA-A31 MS | S | L | 78 | 29.77 | Y | 1 | 6/22/93 | 6/23/93 | Y | 6/30/93 | 12:20 | F500 D | Y | 5 | 6 | Y | Y | | | 4 | Y | | Y | | | |
| 15 | FA-A31 MSD | S | L | 78 | 29.83 | Y | 1 | 6/22/93 | 6/23/93 | Y | 6/30/93 | 12:00 | F500 D | Y | 5 | 6 | Y | Y | | | 4 | Y | | Y | | | |

CASE NO.: 20258

# PESTICIDE/PCB QA CHECKLIST



| SEQ # | SAMPLE # | MATRIX | ANALYSIS CONC | %SOLIDS | SAMPLE SIZE g/mL | GPC ? | DILUTION | DATE OF RECEIPT | DATE EXTRACTED | EXTRACTION HOLDING TIME | ANALYSIS DATE & TIME PRIMARY | ANALYSIS DATE & TIME CONF | HOLDING TIME P | HOLDING TIME C | CAL &PER CHECK # P | CAL &PER CHECK # C | SURROGATE RECOVERY | METHOD BLANK CHECKLIST # | METHOD BLANK APPROPRIATE | HSL ID | COMMENTS SEE ATTACHED |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | FA-A31 | S | L | 81 | 30.1 | Y | 1.0 | 6/22/93 | 6/23/93 | Y | 6/25/93 23:06 | 6/25/93 23:06 | Y | Y | 10 | 11 | Y | 9 | Y | Y | |
| 2 | FA-A32 | S | L | 78 | 29.5 | Y | 1.0 | 6/22/93 | 6/23/93 | Y | 6/25/93 23:42 | 6/25/93 23:42 | Y | Y | 10 | 11 | Y | 9 | Y | Y | |
| 3 | FA-A33 | S | L | 79 | 30.6 | Y | 1.0 | 6/22/93 | 6/23/93 | Y | 6/26/93 01:31 | 6/26/93 01:31 | Y | Y | 10 | 11 | Y | 9 | Y | Y | |
| 4 | FA-A34 | S | L | 81 | 30.2 | Y | 1.0 | 6/22/93 | 6/23/93 | Y | 6/26/93 02:07 | 6/26/93 02:07 | Y | Y | 10 | 11 | Y | 9 | Y | Y | |
| 5 | FA-A35 | S | L | 78 | 30.0 | Y | 1.0 | 6/22/93 | 6/23/93 | Y | 6/26/93 02:43 | 6/26/93 02:43 | Y | Y | 10 | 11 | Y | 9 | Y | Y | |
| 6 | FA-A36 | S | L | 78 | 30.2 | Y | 1.0 | 6/22/93 | 6/23/93 | Y | 6/26/93 03:19 | 6/26/93 03:19 | Y | Y | 10 | 11 | Y | 9 | Y | Y | |
| 7 | FA-A37 | S | L | 72 | 30.9 | Y | 1.0 | 6/22/93 | 6/23/93 | Y | 6/26/93 03:56 | 6/26/93 03:56 | Y | Y | 10 | 11 | Y | 9 | Y | Y | |
| 8 | FA-A38 | S | L | 82 | 30.0 | Y | 1.0 | 6/22/93 | 6/23/93 | Y | 6/26/93 04:32 | 6/26/93 04:32 | Y | Y | 10 | 11 | Y | 9 | Y | Y | |
| 9 | FA-A39 | S | L | 78 | 30.6 | Y | 1.0 | 6/22/93 | 6/23/93 | Y | 6/26/93 05:08 | 6/26/93 05:08 | Y | Y | 10 | 11 | Y | 9 | Y | Y | |
| 10 | FA-A40 | S | L | 86 | 30.2 | Y | 1.0 | 6/22/93 | 6/23/93 | Y | 6/26/93 05:44 | 6/26/93 05:44 | Y | Y | 10 | 11 | Y | 9 | Y | Y | |
| 11 | FA-A41 | S | L | 79 | 30.4 | Y | 1.0 | 6/22/93 | 6/23/93 | Y | 6/26/93 06:20 | 6/26/93 06:20 | Y | Y | 10 | 11 | Y | 9 | Y | Y | |
| 12 | FA-A42 | S | L | 75 | 30.6 | Y | 1.0 | 6/22/93 | 6/23/93 | Y | 6/26/93 06:56 | 6/26/93 06:56 | Y | Y | 10 | 11 | Y | 9 | Y | Y | |
| 13 | PBLKT2 | S | L | | | | | | | | 6/25/93 21:53 | 6/25/93 21:53 | | | 10 | 11 | Y | 9 | Y | Y | |
| 14 | FA-A32MS | S | L | | | | | | | | 6/26/93 00:18 | 6/26/93 00:18 | | | 10 | 11 | Y | 9 | Y | Y | |
| 15 | FA-A32 MSD | S | L | | | | | | | | 6/26/93 00:54 | 6/26/93 00:54 | | | 10 | 11 | Y | 9 | Y | Y | |
| 16 | FA-A37 DL | S | L | 72 | 30.9 | Y | 10.0 | 6/22/93 | 6/23/93 | Y | 6/29/93 22:41 | 6/29/93 22:41 | Y | Y | 10 | 11 | Y | 9 | Y | Y | |

VOA FRACTION MS TUNING (BFB) AND CALIBRATION CHECKLIST # 1

INSTRUMENT ID F 500 A TUNING DATE 6/30/93 TIME 2012

MATRIX SOIL TUNING CRITERIA MET _____ (Y/N)

INITIAL CALIBRATION X CONTINUING CALIBRATION _____

SPCC CRITERIA MET Y (Y/N) CCC CRITERIA MET Y (Y/N)

ALL AVGRF OR RF50 ≥ 0.05 Y (Y/N) (CIRCLE CRITERIA EVALUATED)

ALL %RSD ≤ 30% N (Y/N) (IC ONLY) ALL %D ≤ 25% _____ (Y/N) (CC ONLY)

SAMPLES AFFECTED:

COMMENTS: IF ANY CRITERIA ABOVE WAS ANSWERED N, DETAIL BELOW

| | AVGRF or RF50 | %RSD or %D | | AVGRF or RF50 | %RSD or %D |
|---|---|---|---|---|---|
| CHLOROMETHANE | # | | TRICHLOROETHENE | | |
| BROMOMETHANE | | | DIBROMOCHLOROMETHANE | | |
| VINYL CHLORIDE | | * | 1,1,2-TRICHLOROETHANE | | |
| CHLOROETHANE | | | BENZENE | | |
| METHYLENE CHLORIDE | | | trans-1,2-DICHLOROPROPENE | | |
| ACETONE | | 42.9 | BORMOFORM | # | |
| CARBON DISULFIDE | | | 4-METHYL-2-PENTANONE | | |
| 1,1-DICHLOROETHENE | | * | 2-HEXANONE | | |
| 1,1-DICHLOROETHANE | # | | TETRACHLOROETHENE | | |
| 1,2-DICHLOROETHENE (TOTAL) | | | 1,1,2,2-TETRACHLOROETHANE | # | |
| CHLOROFORM | | * | TOLUENE | | * |
| 1,2-DICHLOROETHANE | | | CHLOROBENZENE | # | |
| 2-BUTANONE | | | ETHYLBENZENE | | * |
| 1,1,1-TRICHLOROETHANE | | | STYRENE | | |
| CARBON TETRACHLORIDE | | | XYLENES (TOTAL) | | |
| VINYL ACETATE | | | TOLUENE d8 | | |
| BROMODICHLOROMETHANE | | | BROMOFLUOROBENZENE | | |
| 1,2-DICHLOROPROPANE | | * | 1,2-DICHLOROETHANE d4 | | |
| cis-1,3-DICHLOROPROPENE | | | | | |

* - CCC # - SPCC

0013588

VOA FRACTION MS TUNING (BFB) AND CALIBRATION CHECKLIST # 2

INSTRUMENT ID F500A TUNING DATE 7/1/93 TIME 0716

MATRIX SOIL TUNING CRITERIA MET _____ (Y/N)

INITIAL CALIBRATION _____ CONTINUING CALIBRATION X

SPCC CRITERIA MET Y (Y/N) CCC CRITERIA MET N (Y/N)

ALL AVGRF OR RF50 ≥ 0.05 Y (Y/N) (CIRCLE CRITERIA EVALUATED)

ALL %RSD ≤ 30% _____ (Y/N) (IC ONLY) ALL %D ≤ 25% N (Y/N) (CC ONLY)

SAMPLES AFFECTED:

COMMENTS: IF ANY CRITERIA ABOVE WAS ANSWERED N, DETAIL BELOW

| | AVGRF or RF50 | %RSD or %D |
|---|---|---|
| CHLOROMETHANE | # | |
| BROMOMETHANE | | |
| VINYL CHLORIDE | | 34.7 |
| CHLOROETHANE | | *26.8 |
| METHYLENE CHLORIDE | | |
| 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 | | |
| VINYL ACETATE | | |
| BROMODICHLOROMETHANE | | |
| 1,2-DICHLOROPROPANE | | |
| cis-1,3-DICHLOROPROPENE | | * |

| | AVGRF or RF50 | %RSD or %D |
|---|---|---|
| TRICHLOROETHENE | | |
| DIBROMOCHLOROMETHANE | | |
| 1,1,2-TRICHLOROETHANE | | |
| BENZENE | | |
| trans-1,2-DICHLOROPROPENE | | |
| BORMOFORM | # | |
| 4-METHYL-2-PENTANONE | | |
| 2-HEXANONE | | |
| TETRACHLOROETHENE | | |
| 1,1,2,2-TETRACHLOROETHANE | # | |
| TOLUENE | | * |
| CHLOROBENZENE | # | |
| ETHYLBENZENE | | * |
| STYRENE | | |
| XYLENES (TOTAL) | | |
| TOLUENE d8 | | |
| BROMOFLUOROBENZENE | | |
| 1,2-DICHLOROETHANE d4 | | |

* - CCC # - SPCC

0 0 1 3 5 9

METHOD BLANK CHECKLIST # 3

FRACTION VOA MATRIX S CONCENTRATION L BLANK ID VBLKB6

EXTRACTION DATE (ABN OR PEST) _____

ANALYSIS DATE AND TIME 7/1/93 0806

VOA BLANK ANALYSIS FREQUENCY CRITERIA MET Y (Y/N)

X ABN AND PEST BLANK PREPARATIN CRITERIA MET _____ (Y/N)

CONCENTRATION OF METHYLENE CHLORIDE, ACETONE, 2-BUTANONE AND TOLUENE ≤ 5X CRQL IN VOA METHOD BLANK Y (Y/N)

ALL OTHER VOA ≤ CRQL Y (Y/N)

X CONCENTRATION OF PHTHALATES ≤ 5X CRQL IN ABN METHOD BLANK _____ (Y/N)

X ALL OTHER ABN ≤ CRQL _____ (Y/N)

X ALL PEST ≤ CRQL _____ (Y/N)

SAMPLES AFFECTED:

COMMENTS: IF ANY CRITERIA ABOVE WAS ANSWERED N, FOOTNOTE AND DETAIL BELOW. NOT THE PRESENCE AND CONCENTRATION OF ANY TCL OR TIC DETECTED.

0 0 1 3 6 0

METHOD BLANK CHECKLIST # 4

FRACTION VOA MATRIX S CONCENTRATION L BLANK ID VBLKB5

EXTRACTION DATE (ABN OR PEST) _____

ANALYSIS DATE AND TIME 6/30/93 2345

VOA BLANK ANALYSIS FREQUENCY CRITERIA MET Y (Y/N)

ABN AND PEST BLANK PREPARATIN CRITERIA MET _____ (Y/N)

CONCENTRATION OF METHYLENE CHLORIDE, ACETONE, 2-BUTANONE AND TOLUENE ≤ 5X CRQL IN VOA METHOD BLANK Y (Y/N)

ALL OTHER VOA ≤ CRQL Y (Y/N)

CONCENTRATION OF PHTHALATES ≤ 5X CRQL IN ABN METHOD BLANK Y (Y/N)

ALL OTHER ABN ≤ CRQL Y (Y/N)

ALL PEST ≤ CRQL _____ (Y/N)

SAMPLES AFFECTED:

COMMENTS: IF ANY CRITERIA ABOVE WAS ANSWERED N, FOOTNOTE AND DETAIL BELOW. NOT THE PRESENCE AND CONCENTRATION OF ANY TCL OR TIC DETECTED.

ABN FRACTION MS TUNING (DFTPP) AND CALIBRATION CHECKLIST # 5

INSTRUMENT ID F500D TUNING DATE 6/24/93 TIME 1405 to 1856

TUNING CRITERIA MET _____ (Y/N)

INITIAL CALIBRATION X CONTINUING CALIBRATION _____

SPCC CRITERIA MET Y (Y/N) CCC CRITERIA MET Y (Y/N)

ALL AVGRF OR RF50 ≥ 0.05 Y (Y/N) (CIRCLE CRITERIA EVALUATED)

ALL %RSD ≤ 30% Y (Y/N) (IC ONLY) ALL %D ≤ 25% _____ (Y/N) (CC ONLY)

SAMPLES AFFECTED:

COMMENTS: IF ANY CRITERIA ABOVE WAS ANSWERED N, DETAIL BELOW.

| | AVGRF or RF50 | %RSD or %D |
|---|---|---|
| PHENOL | # | |
| BIS (2-CHLOROETHYL) ETHER | | |
| 2-CHLOROPHENOL | | |
| 1,3-DICHLOROBENZENE | | |
| 1,4-DICHLOROBENZENE | | * |
| BENZYL ALCOHOL | | |
| 1,2-DICHLOROBENZENE | | |
| 2-METHYLPHENOL | | |
| BIS (2-CHLOROISOPROPYL) ETHER | | |
| 4-METHYLPHENOL | | |
| N-NITROSO-DI-n-PROPYLAMINE | # | |
| HEXACHLOROETHANE | | |
| NITROBENZENE | | |
| ISOPHORONE | | |
| 2-NITROPHENOL | | * |
| 2,4-DIMETHYLPHENOL | | |
| BENZOIC ACID | | |
| BIS(2-CHLOROETHOXY)METHANE | | |
| 2,4-DICHLOROPHENOL | | * |
| 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 | | |
| 3-NITROANILINE | | |
| ACENAPHTHENE | | * |
| 2,4-DINITROPHENOL | # | |
| 4-NITROPHENOL | # | |

| | AVGRF or RF50 | %RSD or %D |
|---|---|---|
| DIBENZOFURAN | | |
| 2,4-DINITROTOLUENE | | |
| 2,6-DINITROTOLUENE | | |
| DIETHYLPHTHALATE | | |
| 4-CHLOROPHENYL-PHENYLETHER | | |
| FLUORENE | | |
| 4-NITROANILINE | | |
| 4,6-DINITRO-2-METHYLPHENOL | | |
| N-NITROSODIPHENYL AMINE | | * |
| 4-BROMOPHENYL-PHENYLETHER | | |
| HEXACHLOROBENZENE | | |
| PENTACHLOROPHENOL | | * |
| PHENANTHRENE | | |
| ANTHRACENE | | |
| DI-n-BUTYLPHTHALATE | | |
| FLUORANTHENE | # | |
| PYRENE | | |
| BUTYLBENZYLPHTHALATE | | |
| 3,3'-DICHLOROBENZIDINE | | |
| BENZO (A) ANTHRACENE | | |
| BIS(2-ETHYLHEXYL)PHTHALATE | | |
| CHRYSENE | | |
| DI-n-OCTYL PHTHALATE | | * |
| BENZO (b) FLUORANTHENE | | |
| BENZO (k) FLUORANTHENE | | |
| BENZO (a) PYRENE | | * |
| INDENO (1,2,3-cd) PYRENE | | |
| DIBENZ (a,h) ANTHRACENE | | |
| BENZO (g,h,i) PERYLENE | | |
| NITROBENZENE d5 | | |
| 2-FLUOROBIPHENYL | | |
| TERPHENYL d14 | | |
| PHENOL d6 | | |
| 2-FLUOROPHENOL | | |
| 2,4,5-TRIBROMOPHENOL | | |

* - CCC # - SPCC

ABN FRACTION MS TUNING (DFTPP) AND CALIBRATION CHECKLIST # 6

INSTRUMENT ID F500D TUNING DATE 6/30/93 TIME 0846

TUNING CRITERIA MET _____ (Y/N)

INITIAL CALIBRATION _____ CONTINUING CALIBRATION X

SPCC CRITERIA MET N (Y/N) CCC CRITERIA MET Y (Y/N)

ALL AVGRF OF (RF50) ≥ 0.05 Y (Y/N) (CIRCLE CRITERIA EVALUATED)

ALL %RSD ≤ 30% _____ (Y/N) (IC ONLY) ALL %D ≤ 25% N (Y/N) (CC ONLY)

SAMPLES AFFECTED:

COMMENTS: IF ANY CRITERIA ABOVE WAS ANSWERED N, DETAIL BELOW.

| | AVGRF or RF50 | %RSD or %D |
|---|---|---|
| PHENOL | # | |
| BIS (2-CHLOROETHYL) ETHER | | |
| 2-CHLOROPHENOL | | |
| 1,3-DICHLOROBENZENE | | |
| 1,4-DICHLOROBENZENE | | * |
| BENZYL ALCOHOL | | |
| 1,2-DICHLOROBENZENE | | |
| 2-METHYLPHENOL | | |
| BIS (2-CHLOROISOPROPYL) ETHER | | |
| 4-METHYLPHENOL | | |
| N-NITROSO-DI-n-PROPYLAMINE | # | |
| HEXACHLOROETHANE | | |
| NITROBENZENE | | |
| ISOPHORONE | | |
| 2-NITROPHENOL | | * |
| 2,4-DIMETHYLPHENOL | | |
| BENZOIC ACID | | |
| BIS(2-CHLOROETHOXY)METHANE | | |
| 2,4-DICHLOROPHENOL | | * |
| 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 | | |
| 3-NITROANILINE | | |
| ACENAPHTHENE | | * |
| 2,4-DINITROPHENOL | # | 30.4 |
| 4-NITROPHENOL | # | |

| | AVGRF or RF50 | %RSD or %D |
|---|---|---|
| DIBENZOFURAN | | |
| 2,4-DINITROTOLUENE | | |
| 2,6-DINITROTOLUENE | | |
| DIETHYLPHTHALATE | | |
| 4-CHLOROPHENYL-PHENYLETHER | | |
| FLUORENE | | |
| 4-NITROANILINE | | 42.2 |
| 4,6-DINITRO-2-METHYLPHENOL | | |
| N-NITROSODIPHENYL AMINE | | * |
| 4-BROMOPHENYL-PHENYLETHER | | |
| HEXACHLOROBENZENE | | |
| PENTACHLOROPHENOL | | * |
| PHENANTHRENE | | |
| ANTHRACENE | | |
| DI-n-BUTYLPHTHALATE | | |
| FLUORANTHENE | # | |
| PYRENE | | |
| BUTYLBENZYLPHTHALATE | | |
| 3,3'-DICHLOROBENZIDINE | | |
| BENZO (A) ANTHRACENE | | |
| BIS(2-ETHYLHEXYL)PHTHALATE | | |
| CHRYSENE | | |
| DI-n-OCTYL PHTHALATE | | * |
| BENZO (b) FLUORANTHENE | | |
| BENZO (k) FLUORANTHENE | | |
| BENZO (a) PYRENE | | * |
| INDENO (1,2,3-cd) PYRENE | | |
| DIBENZ (a,h) ANTHRACENE | | |
| BENZO (g,h,i) PERYLENE | | |
| NITROBENZENE d5 | | |
| 2-FLUOROBIPHENYL | | |
| TERPHENYL d14 | | |
| PHENOL d6 | | |
| 2-FLUOROPHENOL | | |
| 2,4,5-TRIBROMOPHENOL | | |

* - CCC # - SPCC

0001363

ABN FRACTION MS TUNING (DFTPP) AND CALIBRATION CHECKLIST # 7

INSTRUMENT ID F500D TUNING DATE 7/1/93 TIME 0920

TUNING CRITERIA MET _____ (Y/N)

INITIAL CALIBRATION _____ CONTINUING CALIBRATION X

SPCC CRITERIA MET N (Y/N) CCC CRITERIA MET Y (Y/N)

ALL AVGRF OF (RF50 ≥ 0.05 Y (Y/N) (CIRCLE CRITERIA EVALUATED)

ALL %RSD ≤ 30% _____ (Y/N) (IC ONLY) ALL %D ≤ 25% N (Y/N) (CC ONLY)

SAMPLES AFFECTED:

COMMENTS: IF ANY CRITERIA ABOVE WAS ANSWERED N, DETAIL BELOW.

| | AVGRF or RF50 | %RSD or %D |
|---|---|---|
| PHENOL | # | |
| BIS (2-CHLOROETHYL) ETHER | | |
| 2-CHLOROPHENOL | | |
| 1,3-DICHLOROBENZENE | | |
| 1,4-DICHLOROBENZENE | | * |
| BENZYL ALCOHOL | | |
| 1,2-DICHLOROBENZENE | | |
| 2-METHYLPHENOL | | |
| BIS (2-CHLOROISOPROPYL) ETHER | | |
| 4-METHYLPHENOL | | 32.4 |
| N-NITROSO-DI-n-PROPYLAMINE | # | |
| HEXACHLOROETHANE | | |
| NITROBENZENE | | |
| ISOPHORONE | | |
| 2-NITROPHENOL | | |
| 2,4-DIMETHYLPHENOL | | * |
| BENZOIC ACID | | 25.1 |
| BIS(2-CHLOROETHOXY)METHANE | | |
| 2,4-DICHLOROPHENOL | | * |
| 1,2,4-TRICHLOROBENZENE | | |
| NAPHTHALENE | | |
| 4-CHLOROANILINE | | 26.7 |
| HEXACHLOROBUTADIENE | | * |
| 4-CHLORO-3-METHYLPHENOL | | * |
| 2-METHYLNAPHTHALENE | | |
| HEXACHLOROCYCLOPENTADIENE | # | |
| 2,4,6-TRICHLOROPHENOL | | * |
| 2,4,5-TRICHLOROPHENOL | | |
| 2-CHLORONAPHTHALENE | | |
| 2-NITROANILINE | | 25.8 |
| DIMETHYLPHTHALATE | | |
| ACENAPHTHYLENE | | |
| 3-NITROANILINE | | 31.4 |
| ACENAPHTHENE | | * |
| 2,4-DINITROPHENOL | # | |
| 4-NITROPHENOL | # | 34.5 |

| | AVGRF or RF50 | %RSD or %D |
|---|---|---|
| DIBENZOFURAN | | |
| 2,4-DINITROTOLUENE | | |
| 2,6-DINITROTOLUENE | | |
| DIETHYLPHTHALATE | | |
| 4-CHLOROPHENYL-PHENYLETHER | | |
| FLUORENE | | |
| 4-NITROANILINE | | |
| 4,6-DINITRO-2-METHYLPHENOL | | 29.9 |
| N-NITROSODIPHENYL AMINE | | |
| 4-BROMOPHENYL-PHENYLETHER | | * |
| HEXACHLOROBENZENE | | |
| PENTACHLOROPHENOL | | |
| PHENANTHRENE | | * |
| ANTHRACENE | | |
| DI-n-BUTYLPHTHALATE | | |
| FLUORANTHENE | # | |
| PYRENE | | |
| BUTYLBENZYLPHTHALATE | | |
| 3,3'-DICHLOROBENZIDINE | | |
| BENZO (A) ANTHRACENE | | |
| BIS(2-ETHYLHEXYL)PHTHALATE | | |
| CHRYSENE | | |
| DI-n-OCTYL PHTHALATE | | |
| BENZO (b) FLUORANTHENE | | * |
| BENZO (k) FLUORANTHENE | | |
| BENZO (a) PYRENE | | |
| INDENO (1,2,3-cd) PYRENE | | * |
| DIBENZ (a,h) ANTHRACENE | | |
| BENZO (g,h,i) PERYLENE | | |
| NITROBENZENE d5 | | |
| 2-FLUOROBIPHENYL | | |
| TERPHENYL d14 | | |
| PHENOL d6 | | |
| 2-FLUOROPHENOL | | |
| 2,4,5-TRIBROMOPHENOL | | |

* - CCC # - SPCC

0 0 1 3 6 4

MATRIX SPIKE AND MATRIX SPIKE DUPLICATE CHECKLIST # 8

SAMPLE # FA-A31 MATRIX S CONCENTRATION L.

| SPIKE RECOVERY | MS | MSD | # <10% | EVALUATION |
|---|---|---|---|---|
| VOA RECOVERY | 0 OF 5 | 0 OF 5 | 0 | Acceptable |
| ACID RECOVERY | 1 OF 5 | 0 OF 5 | 0 | Acceptable |
| B/N RECOVERY | 1 OF 6 | 0 OF 6 | 0 | Acceptable |
| PEST RECOVERY | 0 OF 6 | 0 OF 6 | 0 | Acceptable |

| DUPLICATE RPD | | EVALUATION |
|---|---|---|
| VOA DUPLICATE | 0 OF 5 | ACCEPTABLE |
| ACID DUPLICATE | 1 OF 5 | ACCEPTABLE |
| B/N DUPLICATE | 0 OF 6 | Acceptable |
| PEST DUPLICATE | 0 OF 6 | Acceptable |

WAS A MS/MSD ANALYZED FOR EACH MATRIX/CONCENTRATION ANALYZED? Y (Y/N)

WAS A MS/MSD ANLAYZED FOR EACH 20 SAMPLES OF A MATRIX/CONCENTRATION? Y (Y/N)

COMMENTS: DETAIL ALL RECOVERIES OR RPDS OUT OF LIMITS BELOW.

| | MS REC | MSD REC | %RPD |
|---|---|---|---|
| VOA | | | |
| 1,1-DICHLOROETHANE | | | |
| TRICHLOROETHANE | | | |
| BENZENE | | | |
| TOLUENE | | | |
| CHLOROBENZENE | | | |
| ACID | | | |
| PHENOL | | | |
| 2-CHLOROPHENOL | | | |
| 4-CHLORO-3-METHYLPHENOL | | | |
| 4-NITROPHENOL | | | |
| PENTACHLOROPHENOL | 15 | | 57 |
| BASE/NEUTRAL | | | |
| 1,4-DICHLOROBENZENE | | | |
| N-NITROSO-di-n-PROPYLAMINE | | | |
| 1,2,4-TRICHLOROBENZENE | | | |
| ACENAPHTHENE | | | |
| 2,4-DINITROTOLUENE | 120 | | |
| PYRENE | | | |
| PEST/PCB | | | |
| gamma-BHC (LINDANE) | | | |
| HEPTACHLOR | | | |
| ALDRIN | | | |
| DIELDRIN | | | |
| ENDRIN | | | |
| 4,4'-DDT | | | |

0 0 1 3 6 5

METHOD BLANK CHECKLIST # 9

FRACTION Pest/PCB MATRIX S. CONCENTRATION L BLANK ID PBLKT 2

EXTRACTION DATE (ABN OR PEST) 6/23/93

ANALYSIS DATE AND TIME 6/25/93 21:53

VOA BLANK ANALYSIS FREQUENCY CRITERIA MET _____ (Y/N)

ABN AND PEST BLANK PREPARATIN CRITERIA MET Y (Y/N)

CONCENTRATION OF METHYLENE CHLORIDE, ACETONE, 2-BUTANONE AND TOLUENE ≤ 5X CRQL IN VOA METHOD BLANK _____ (Y/N)

ALL OTHER VOA ≤ CRQL _____ (Y/N)

CONCENTRATION OF PHTHALATES ≤ 5X CRQL IN ABN METHOD BLANK _____ (Y/N)

ALL OTHER ABN ≤ CRQL _____ (Y/N)

ALL PEST ≤ CRQL Y (Y/N)

SAMPLES AFFECTED:

COMMENTS: IF ANY CRITERIA ABOVE WAS ANSWERED N, FOOTNOTE AND DETAIL BELOW. NOT THE PRESENCE AND CONCENTRATION OF ANY TCL OR TIC DETECTED.

PESTICIDES/PCB CALIBRATION AND PERFORMANCE CHECKLIST # 10

COLUMN ID RTX-1701 PRIMARY X CONF ___ QUANT ___ PACK/CAP/MEGBORE MICRO BORE

DATE AND TIME OF START OF ANALYSIS SEQUENCE 6/18/93 21:24

DATE AND TIME OF END OF ANALYSIS SEQUENCE 6/30/93 00:25

ANALYSIS SEQUENCE ACCEPTABLE N (Y/N)

% RSD ≤ 10 FOR LINEARITY CHECK COMPOUNDS (QUANT ONLY ) ____ (Y/N)

DDT BREAKDOWN ≤ 20% Y (Y/N) ENDRIN BREAKDOWN ≤ 20% Y (Y/N)

COMBINED DDT AND ENDRIN BREAKDOWN ≤ 20% Y (Y/N)

DBC RETENTION TIME CRITERIA MET ___ (Y/N)

DDT PACKED COLUMN RT > 12 MIN. Y (Y/N)

RETENTION TIME WINDOWS REPORTED ___ (Y/N)

%D ≤ 15% OF STANDARDS (QUANT COLUMN) ___ (Y/N)

IF N, WERE SAMLES RE-ANALYZED ___ (Y/N)

%D ≤ 20% OF STANDARDS (CONF COLUMN ) ___ (Y/N)

SAMPLES AFFECTED:

COMMENTS: IF ANY CRITERIA ABOVE WAS ANSWERED N, DETAIL BELOW.

| | %RSD | %D | | %RSD | %D |
|---|---|---|---|---|---|
| alpha-BHC | | ____ | 4,4'-DDT | ____ | ____ |
| beta-BHC | | ____ | METHOXYCHLOR | | ____ |
| delta-BHC | | ____ | ENDRIN KETONE | | ____ |
| gamma-BHC (LINDANE) | | ____ | alpha-CHLORDANE | | ____ |
| HEPTACHLOR | | ____ | gamma-CHLORDANE | | ____ |
| ALDRIN | ____ | ____ | TOXAPHENE | | ____ |
| HEPTACHLOR EPOXIDE | | ____ | AROCLOR-1016 | | ____ |
| ENDOSULFAN I | | ____ | AROCLOR-1221 | | ____ |
| DIELDRIN | | ____ | AROCLOR-1232 | | ____ |
| 4,4'-DDE | | ____ | AROCLOR-1242 | | ____ |
| ENDRIN | ____ | ____ | AROCLOR-1248 | | ____ |
| ENDOSULFAN II | | ____ | AROCLOR-1254 | | ____ |
| 4,4'-DDD | | ____ | AROCLOR-1260 | | ____ |
| ENDOSULFAN SULFATE | | ____ | DBC | ____ | |

PESTICIDES/PCB CALIBRATION AND PERFORMANCE CHECKLIST # 11

COLUMN ID RTX-1701 PRIMARY X CONF ___ QUANT ___ PACK/CAP/MEGBORE MICRO BORE

DATE AND TIME OF START OF ANALYSIS SEQUENCE 6/18/93 21:24

DATE AND TIME OF END OF ANALYSIS SEQUENCE 6/30/93 00:29

ANALYSIS SEQUENCE ACCEPTABLE N (Y/N)

% RSD ≤ 10 FOR LINEARITY CHECK COMPOUNDS (QUANT ONLY ) _____ (Y/N)

DDT BREAKDOWN ≤ 20% ____ (Y/N) ENDRIN BREAKDOWN ≤ 20% ____ (Y/N)

COMBINED DDT AND ENDRIN BREAKDOWN ≤ 20% ____ (Y/N)

DBC RETENTION TIME CRITERIA MET ____ (Y/N)

DDT PACKED COLUMN RT > 12 MIN. ____ (Y/N)

RETENTION TIME WINDOWS REPORTED ____ (Y/N)

%D ≤ 15% OF STANDARDS (QUANT COLUMN) ____ (Y/N)

IF N, WERE SAMLES RE-ANALYZED ____ (Y/N)

%D ≤ 20% OF STANDARDS (CONF COLUMN ) ____ (Y/N)

SAMPLES AFFECTED:

COMMENTS: IF ANY CRITERIA ABOVE WAS ANSWERED N, DETAIL BELOW.

| | %RSD | %D | | %RSD | %D |
|---|---|---|---|---|---|
| alpha-BHC | | | 4,4'-DDT | | |
| beta-BHC | | | METHOXYCHLOR | | |
| delta-BHC | | | ENDRIN KETONE | | |
| gamma-BHC (LINDANE) | | | alpha-CHLORDANE | | |
| HEPTACHLOR | | | gamma-CHLORDANE | | |
| ALDRIN | | | TOXAPHENE | | |
| HEPTACHLOR EPOXIDE | | | AROCLOR-1016 | | |
| ENDOSULFAN I | | | AROCLOR-1221 | | |
| DIELDRIN | | | AROCLOR-1232 | | |
| 4,4'-DDE | | | AROCLOR-1242 | | |
| ENDRIN | | | AROCLOR-1248 | | |
| ENDOSULFAN II | | | AROCLOR-1254 | | |
| 4,4'-DDD | | | AROCLOR-1260 | | |
| ENDOSULFAN SULFATE | | | DBC | | |