eder associates
consulting engineers, p.c.

HUKILL CHEMICAL CORPORATION
BEDFORD, OHIO

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# SITE INVESTIGATION REPORT
## APPENDIX C
## VOLUME I

4-87

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PROJECT #495-1
APRIL 1987

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EDER ASSOCIATES
CONSULTING ENGINEERS, P.C.
85 Forest Avenue
Locust Valley, New York 11560

# SOIL SURROGATE PERCENT RECOVERY SUMMARY

Case No. Eder Associates Contract Laboratory NUS Contract No. _____

Low X Medium _____

| | VOLATILE | | | SEMI-VOLATILE | | | | | | | | PESTICIDE** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SMO TRAFFIC NO. | TOLUENE-D8 (81-117) | BFB (74-121) | 1,2 DICHLORO-ETHANE-D4 (70-121) | NITRO-BENZENE-D5 (23-120) | 2-FLUORO-BIPHENYL (30-115) | TERPHENYL-D14 (18-137) | | | PHENOL-D6 (24-113) | 2-FLUORO-PHENOL (25-121) | 2,4,6 TRIBROMO-PHENOL (19-122) | DIBUTYL-CHLORENDATE (20-150) |
| Blank S-59 | 95 | 114 | 99 | | | | | | | | | |
| PH-1 | 104 | 92 | 100 | | | | | | | | | |
| PH 2-3 | 101 | 93 | 101 | | | | | | | | | |
| SS-1 | 108 | 88 | 85 | | | | | | | | | |
| SS-55 | 115 | 84 | 93 | | | | | | | | | |
| SS-56 | 102 | 91 | 96 | | | | | | | | | |
| SS-59 | 100 | 116 | 99 | | | | | | | | | |
| SS-59 DUP | 102 | 116 | 100 | | | | | | | | | |
| SS-60 | 108 | 109 | 98 | | | | | | | | | |
| SS-63 | 113 | 93 | 97 | | | | | | | | | |
| EDER0502L | 102 | 101 | 95 | | | | | | | | | |
| EDER0508L | 99 | 103 | 99 | | | | | | | | | |
| EDER0509L | 108 | 118 | 98 | | | | | | | | | |

* VALUES ARE OUTSIDE OF CONTRACT REQUIRED QC LIMITS

**ADVISORY LIMITS ONLY

Volatiles: 0 out of 39 ; outside of QC limits

Semi-Volatiles: _____ out of _____ ; outside of QC limits

Pesticides: _____ out of _____ ; outside of QC limits

7/85

Comments: _____

APRIL site rank n/a

FORM II

# SOIL SURROGATE PERCENT RECOVERY SUMMARY

Case No. Eder Associates Contract Laboratory NUS Contract No. _____

Low _____ Medium X

| | VOLATILE | | | SEMI-VOLATILE | | | | | | | | PESTICIDE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SMO TRAFFIC NO. | TOLUENE-D8 (81-117) | BFB (74-121) | 1,2 DICHLORO-ETHANE-D4 (70-121) | NITRO-BENZENE-D5 (23-120) | 2-FLUORO-BIPHENYL (30-115) | TERPHENYL-D14 (18-137) | | | PHENOL-D5 (24-113) | 2-FLUORO-PHENOL (25-121) | 2,4,6 TRIBROMO-PHENOL (19-122) | DIBUTYL-CHLORENDATE** (20-150) |
| SS-53 | 100 | 112 | 109 | | | | | | | | | |
| SS-53 MS | 87 | 90 | 97 | | | | | | | | | |
| SS-53 MSD | 85 | 91 | 99 | | | | | | | | | |
| EDER0509M | 112 | 109 | 103 | | | | | | | | | |

* VALUES ARE OUTSIDE OF CONTRACT REQUIRED QC LIMITS

** ADVISORY LIMITS ONLY

Volatiles: 0 out of 12 ; outside of QC limits

Semi-Volatiles: _____ out of _____ ; outside of QC limits

Pesticides: _____ out of _____ ; outside of QC limits

7/85

Comments: _____

# SOIL MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Case No. Eder Associates Contractor NUS Contract No. _____

Low Level _____ Medium Level X

| FRACTION | COMPOUND | CONC. SPIKE ADDED (ug) | SAMPLE RESULT | CONC. MS | % REC | CONC. MSD | % REC | RPD | QC LIMITS* RPD | QC LIMITS* RECOVERY |
|---|---|---|---|---|---|---|---|---|---|---|
| VOA SMO SAMPLE NO. SS-53 | 1,1-Dichloroethene | 0.25 | 0 | 0.20 | 80 | 0.19 | 76 | 5 | 22 | 59-172 |
| | Trichloroethene | 0.25 | 0 | 0.20 | 80 | 0.20 | 80 | 0 | 24 | 62-137 |
| | Chlorobenzene | 0.25 | 0 | 0.22 | 88 | 0.21 | 84 | 5 | 21 | 60-133 |
| | Toluene | 0.25 | 0.39 | 0.43 | 16* | 0.59 | 80 | 31* | 21 | 59-139 |
| | Benzene | 0.25 | 0 | 0.21 | 84 | 0.20 | 80 | 5 | 21 | 66-142 |
| B/N SMO SAMPLE NO. _____ | 1,2,4-Trichlorobenzene | | | | | | | | 23 | 38-107 |
| | Acenaphthene | | | | | | | | 19 | 31-137 |
| | 2,4 Dinitrotoluene | | | | | | | | 47 | 28-89 |
| | Pyrene | | | | | | | | 36 | 35-142 |
| | N-Nitrosodi-n-Propylamine | | | | | | | | 38 | 41-126 |
| | 1,4-Dichlorobenzene | | | | | | | | 27 | 28-104 |
| ACID SMO SAMPLE NO. _____ | Pentachlorophenol | | | | | | | | 47 | 17-109 |
| | Phenol | | | | | | | | 35 | 26-90 |
| | 2-Chlorophenol | | | | | | | | 50 | 25-102 |
| | 4-Chloro-3-Methylphenol | | | | | | | | 33 | 26-103 |
| | 4-Nitrophenol | | | | | | | | 50 | 11-114 |
| PEST SMO SAMPLE NO. _____ | Lindane | | | | | | | | 50 | 46-127 |
| | Heptachlor | | | | | | | | 31 | 35-130 |
| | Aldrin | | | | | | | | 43 | 34-132 |
| | Dieldrin | | | | | | | | 38 | 31-134 |
| | Endrin | | | | | | | | 45 | 42-139 |
| | 4,4'-DDT | | | | | | | | 50 | 23-134 |

*ASTERISKED VALUES ARE OUTSIDE QC LIMITS.

RPD: VOAs 1 out of 5 ; outside QC limits
B/N _____ out of _____ ; outside QC limits
ACID _____ out of _____ ; outside QC limits
PEST _____ out of _____ ; outside QC limits

RECOVERY: VOAs 1 out of 10 ; outside QC limits
B/N _____ out of _____ ; outside QC limits
ACID _____ out of _____ ; outside QC limits
PEST _____ out of _____ ; outside QC limits

Comments: _____

# METHOD BLANK SUMMARY

Case No. Eder Associates Region _____ Contractor NUS Contract No. _____

| FILE ID | DATE OF ANALYSIS | FRACTION | MATRIX | CONC. LEVEL | INST. ID | CAS NUMBER | COMPOUND (HSL, TIC OR UNKNOWN) | CONC. | UNITS | CRQL |
|---|---|---|---|---|---|---|---|---|---|---|
| EDER0502L | 5/02/86 | VOA | Soil | low | Finn3200 | 75-09-2 | Methylene Chloride | 6 | ug/kg | 5 |
| | | | | | | 67-64-1 | Acetone | 18 | | 10 |
| | | | | | | 78-93-3 | 2-Butanone | 3 | | 10 |
| | | | | | | 71-55-6 | 1,1,1-Trichloroethane | 2 | | 5 |
| | | | | | | 108-10-1 | 4-methyl-2-pentanone | 2 | | 5 |
| EDER0508L | 5/08/86 | VOA | Soil | low | Finn4000 | 75-09-2 | Methylene Chloride | 8 | | 5 |
| | | | | | | 67-64-1 | Acetone | 19 | | 10 |
| | | | | | | 78-93-3 | 2-Butanone | 2 | | 10 |
| | | | | | | 108-10-1 | 4-methyl-2-pentanone | 2 | | 5 |
| | | | | | | 108-88-3 | Toluene | 1 | | 5 |
| EDER0509L | 5/09/86 | VOA | Soil | low | Finn4000 | 75-09-2 | Methylene Chloride | 15 | | 5 |
| | | | | | | 67-64-1 | Acetone | 17 | | 10 |
| EDER0509M | 5/09/86 | VOA | Soil | med. | Finn4000 | 75-09-2 | Methylene Chloride | 1200 | | 500 |
| | | | | | | 67-64-1 | Acetone | 1100 | | 1000 |
| | | | | | | 78-93-3 | 2-Butanone | 3200 | | 1000 |

Comments:

# WATER SURROGATE PERCENT RECOVERY SUMMARY

Case No. EDER ASSOCIATES Contract Laboratory NUS Contract No. _____

| | VOLATILE | | | SEMI-VOLATILE | | | | | | | | PESTICIDE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SMO TRAFFIC NO. | TOLUENE-D8 (88-110) | BFB (86-115) | 1,2 DICHLORO-ETHANE-D4 (70-114) | NITRO-BENZENE-D5 (36-114) | 2-FLUORO-BIPHENYL (43-116) | TERPHENYL-D14 (33-141) | | | PHENOL-D5 (10-94) | 2-FLUORO-PHENOL (21-100) | 2,4,6 TRIBROMO-PHENOL (10-123) | ** DIBUTYL-CHLORENDATE (24-154) |
| EDER0514W | 105 | 98 | 95 | | | | | | | | | |
| #1 CISTERN | 96 | 98 | 96 | | | | | | | | | |
| #1 CISTERN MS | 100 | 100 | 94 | | | | | | | | | |
| #1 CISTERN MSD | 100 | 102 | 97 | | | | | | | | | |

* VALUES ARE OUTSIDE OF CONTRACT REQUIRED QC LIMITS

** ADVISORY LIMITS ONLY

Volatiles: 0 out of 12 ; outside of QC limits

Semi-Volatiles: _____ out of _____ ; outside of QC limits

Pesticides: _____ out of _____ ; outside of QC limits

Comments: _____

April [illegible] NA

FOR[illegible]

[illegible]5

# SOIL SURROGATE PERCENT RECOVERY SUMMARY

Case No. EDER ASSOCIATES Contract Laboratory NUS Contract No. _____

Low X Medium _____

| | VOLATILE | | | SEMI-VOLATILE | | | | | | | | PESTICIDE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SMO TRAFFIC NO. | TOLUENE-D8 (81-117) | BFB (74-121) | 1,2 DICHLORO-ETHANE-D4 (70-121) | NITRO-BENZENE-D5 (23-120) | 2-FLUORO-BIPHENYL (30-115) | TERPHENYL-D14 (18-137) | | | PHENOL-D6 (24-113) | 2-FLUORO-PHENOL (25-121) | 2,4,6 TRIBROMO-PHENOL (19-122) | DIBUTYL-CHLORENDATE ** (20-150) |
| SS-70 Blk | 90 | 107 | 90 | | | | | | | | | |
| SS-76 | 95 | 104 | 89 | | | | | | | | | |
| SS-79 | 100 | 100 | 92 | | | | | | | | | |
| SS-84 | 90 | 106 | 92 | | | | | | | | | |
| SS-96 Blk | 89 | 109 | 91 | | | | | | | | | |
| SS-106 | 93 | 100 | 88 | | | | | | | | | |
| EDER0516L | 95 | 104 | 93 | | | | | | | | | |

* VALUES ARE OUTSIDE OF CONTRACT REQUIRED QC LIMITS

**ADVISORY LIMITS ONLY

Volatiles: 0 out of 21 ; outside of QC limits

Semi-Volatiles: _____ out of _____ ; outside of QC limits

Pesticides: _____ out of _____ ; outside of QC limits

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Comments: _____

FOR

# SOIL SURROGATE PERCENT RECOVERY SUMMARY

Case No. EDER ASSOCIATES Contract Laboratory NUS Contract No. _____

Low _____ Medium X

| SMO TRAFFIC NO. | VOLATILE: TOLUENE-D8 (81-117) | VOLATILE: BFB (74-121) | VOLATILE: 1,2 DICHLORO-ETHANE-D4 (70-121) | SEMI-VOLATILE: NITRO-BENZENE-D5 (23-120) | SEMI-VOLATILE: 2-FLUORO-BIPHENYL (30-115) | SEMI-VOLATILE: TERPHENYL-D14 (18-137) | SEMI-VOLATILE: | SEMI-VOLATILE: | SEMI-VOLATILE: PHENOL-D5 (24-113) | SEMI-VOLATILE: 2-FLUORO-PHENOL (25-121) | SEMI-VOLATILE: 2,4,6 TRIBROMO-PHENOL (19-122) | PESTICIDE: DIBUTYL-CHLORENDATE (20-150) ** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SS-66 | 108 | 87 | 99 | | | | | | | | | |
| SS-70 | 91 | 91 | 94 | | | | | | | | | |
| SS-70 Dup | 91 | 93 | 92 | | | | | | | | | |
| SS-90 | 94 | 101 | 99 | | | | | | | | | |
| SS-93 | 85 | 63* 1 | 66* 1 | | | | | | | | | |
| SS-96 | 78* | 78 | 94 | | | | | | | | | |
| SS-96 RA 2 | 82 | 75 | 88 | | | | | | | | | |
| SS-96 Dup | 93 | 77 | 86 | | | | | | | | | |
| SS-101 | 82 | 93 | 87 | | | | | | | | | |
| EDER0516M | 96 | 101 | 98 | | | | | | | | | |
| EDER0517M | 84 | 99 | 83 | | | | | | | | | |

* VALUES ARE OUTSIDE OF CONTRACT REQUIRED QC LIMITS

**ADVISORY LIMITS ONLY

Volatiles: 3 out of 33 ; outside of QC limits

Semi-Volatiles: _____ out of _____ ; outside of QC limits

Pesticides: _____ out of _____ ; outside of QC limits

7/85

Comments: 1 Low surrogate recovery due to dilution.

2 Sample re-analyzed (RA) outside the holding time. (Lab holding time = 10 days) Total Holding time = 13 days) OK Naa (Eder)

FORM II

# WATER MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Case No. EDER ASSOCIATES Contractor NUS Contract No. _____

| FRACTION | COMPOUND | CONC. SPIKE ADDED (ug) | SAMPLE RESULT | CONC. MS | % REC | CONC. MSD | % REC | RPD | QC LIMITS* RPD | QC LIMITS* RECOVERY |
|---|---|---|---|---|---|---|---|---|---|---|
| VOA SMO SAMPLE NO. #1 CISTERN | 1,1-Dichloroethene | 0.25 | 0 | 0.14 | 56* | 0.14 | 56* | 0 | 14 | 61-145 |
| | Trichloroethene | 0.25 | 0 | 0.20 | 80 | 0.19 | 76 | 5 | 14 | 71-120 |
| | Chlorobenzene | 0.25 | 0 | 0.23 | 92 | 0.23 | 92 | 0 | 13 | 75-130 |
| | Toluene | 0.25 | 0.02 | 0.22 | 80 | 0.21 | 76 | 5 | 13 | 76-125 |
| | Benzene | 0.25 | 0 | 0.17 | 68* | 0.17 | 68* | 0 | 11 | 76-127 |
| B/N SMO SAMPLE NO. _____ | 1,2,4-Trichlorobenzene | | | | | | | | 28 | 39-98 |
| | Acenaphthene | | | | | | | | 31 | 46-118 |
| | 2,4 Dinitrotoluene | | | | | | | | 38 | 24-96 |
| | Pyrene | | | | | | | | 31 | 26-127 |
| | N-Nitroso-Di-n-Propylamine | | | | | | | | 38 | 41-116 |
| | 1,4-Dichlorobenzene | | | | | | | | 28 | 36-97 |
| ACID SMO SAMPLE NO. _____ | Pentachlorophenol | | | | | | | | 50 | 9-103 |
| | Phenol | | | | | | | | 42 | 12-89 |
| | 2-Chlorophenol | | | | | | | | 40 | 27-123 |
| | 4-Chloro-3-Methylphenol | | | | | | | | 42 | 23-97 |
| | 4-Nitrophenol | | | | | | | | 50 | 10-80 |
| PEST SMO SAMPLE NO. _____ | Lindane | | | | | | | | 15 | 56-123 |
| | Heptachlor | | | | | | | | 20 | 40-131 |
| | Aldrin | | | | | | | | 22 | 40-120 |
| | Dieldrin | | | | | | | | 18 | 52-126 |
| | Endrin | | | | | | | | 21 | 56-121 |
| | 4,4'-DDT | | | | | | | | 27 | 38-127 |

*ASTERISKED VALUES ARE OUTSIDE QC LIMITS.

RPD: VOAs 0 out of 5 ; outside QC limits
B/N _____ out of _____ ; outside QC limits
ACID _____ out of _____ ; outside QC limits
PEST _____ out of _____ ; outside QC limits

RECOVERY: VOAs 4 out of 10 ; outside QC limits
B/N _____ out of _____ ; outside QC limits
ACID _____ out of _____ ; outside QC limits
PEST _____ out of _____ ; outside QC limits

Comments: _____

# METHOD BLANK SUMMARY

Case No. EDER ASSOCIATES Region _____ Contractor NUS Contract No. _____

| FILE ID | DATE OF ANALYSIS | FRACTION | MATRIX | CONC. LEVEL | INST. ID | CAS NUMBER | COMPOUND (NBS, TIC OR UNKNOWN) | CONC. | UNITS | CRQL |
|---|---|---|---|---|---|---|---|---|---|---|
| EDER0514W | 5/14/86 | VOA | Water | low | Finn4000 | 75-09-2 | Methylene Chloride | 4 | ug/l | 5 |
| ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | 67-64-1 | Acetone | 15 | ↓ | 10 |
| EDER0516L | 5/16/86 | VOA | Soil | low | Finn4000 | 75-09-2 | Methylene Chloride | 5 | ug/kg | 5 |
| ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | 67-64-1 | Acetone | 7 | ↓ | 10 |
| ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | 78-93-3 | 2-Butanone | 3 | ↓ | 10 |
| EDER0516M | 5/16/86 | VOA | Soil | med. | Finn4000 | 75-09-2 | Methylene Chloride | 1800 | ug/kg | 500 |
| ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | 67-64-1 | Acetone | 2800 | ↓ | 1000 |
| ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | 78-93-3 | 2-Butanone | 2500 | ↓ | 1000 |
| ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | 108-88-3 | Toluene | 180 | ↓ | 500 |
| ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | 76-13-1 | Ethane,1,1,2-Trichloro-1,2,2-Trifluoro | 2000 | ↓ | NR |
| EDER0517M | 5/17/86 | VOA | Soil | med. | Finn4000 | 75-09-2 | Methylene Chloride | 1600 | ug/kg | 500 |
| ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | 67-64-1 | Acetone | 1300 | ↓ | 1000 |
| ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | 78-93-3 | 2-Butanone | 2500 | ↓ | 1000 |

Comments:

# WATER SURROGATE PERCENT RECOVERY SUMMARY

Case No. EDER ASSOCIATES Contract Laboratory NUS Contract No. _____

| | VOLATILE | | | SEMI-VOLATILE | | | | | | | | PESTICIDE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SMO TRAFFIC NO. | TOLUENE-D8 (88-110) | BFB (86-115) | 1,2 DICHLORO-ETHANE-D4 (76-114) | NITRO-BENZENE-D5 (35-114) | 2-FLUORO-BIPHENYL (43-116) | TERPHENYL-D14 (33-141) | | | PHENOL-D5 (10-94) | 2-FLUORO-PHENOL (21-100) | 2,4,6 TRIBROMO-PHENOL (10-123) | * * DIBUTYL-CHLORENDATE (26-164) |
| EDER0515W | 98 | 101 | 97 | | | | | | | | | |
| CS-6 | 99 | 104 | 100 | | | | | | | | | |

* VALUES ARE OUTSIDE OF CONTRACT REQUIRED QC LIMITS

** ADVISORY LIMITS ONLY

Volatiles: 0 out of 6 ; outside of QC limits

Semi-Volatiles: _____ out of _____ ; outside of QC limits

Pesticides: _____ out of _____ ; outside of QC limits

Comments: _____

IM I

7/8

# SOIL SURROGATE PERCENT RECOVERY SUMMARY

Case No. EDER ASSOCIATES Contract Laboratory NUS Contract No. _____

Low X Medium _____

| SMO TRAFFIC NO. | VOLATILE: TOLUENE-D8 (81-117) | VOLATILE: BFB (74-121) | VOLATILE: 1,2 DICHLORO-ETHANE-D4 (70-121) | SEMI-VOLATILE: NITRO-BENZENE-D5 (23-120) | SEMI-VOLATILE: 2-FLUORO-BIPHENYL (30-115) | SEMI-VOLATILE: TERPHENYL-D14 (18-137) | SEMI-VOLATILE: | SEMI-VOLATILE: | SEMI-VOLATILE: PHENOL-D6 (24-113) | SEMI-VOLATILE: 2-FLUORO-PHENOL (25-121) | SEMI-VOLATILE: 2,4,6 TRIBROMO-PHENOL (19-122) | PESTICIDE: DIBUTYL-CHLORENDATE (20-150) ** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SS-108 | 96 | 86 | 80 | | | | | | | | | |
| SS-108 MS | 103 | 99 | 91 | | | | | | | | | |
| SS-108 MSD | 101 | 100 | 91 | | | | | | | | | |
| SS-110 | 102 | 99 | 106 | | | | | | | | | |
| SS-119 | 103 | 87 | 88 | | | | | | | | | |
| SS-122SB | 87 | 87 | 70 | | | | | | | | | |
| SS-155 | 120* 1 | 67* 1 | 76 | | | | | | | | | |
| SS-155RA | 98 | 64* 1 | 66* 1 | | | | | | | | | |
| EDER0518L | 96 | 98 | 100 | | | | | | | | | |
| EDER0510L | 97 | 96 | 93 | | | | | | | | | |
| EDER0520L | 99 | 104 | 95 | | | | | | | | | |

* VALUES ARE OUTSIDE OF CONTRACT REQUIRED QC LIMITS

** ADVISORY LIMITS ONLY

Volatiles: 4 out of 33 ; outside of QC limits

Semi-Volatiles: _____ out of _____ ; outside of QC limits

Pesticides: _____ out of _____ ; outside of QC limits

7/85

Comments: 1 Surrogate recoveries outside QC limits due to matrix effect.

# SOIL SURROGATE PERCENT RECOVERY SUMMARY

Case No. EDER ASSOCIATES Contract Laboratory NUS Contract No. _____

Low _____ Medium X

| | VOLATILE | | | SEMI-VOLATILE | | | | | | | | PESTICIDE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SMO TRAFFIC NO. | TOLUENE-D8 (81-117) | BFB (74-121) | 1,2 DICHLORO-ETHANE-D4 (70-121) | NITRO-BENZENE-D5 (23-120) | 2-FLUORO-BIPHENYL (30-115) | TERPHENYL-D14 (18-137) | | | PHENOL-D6 (24-113) | 2-FLUORO-PHENOL (25-121) | 2,4,6 TRIBROMO-PHENOL (19-122) | ** DIBUTYL-CHLORENDATE (20-150) |
| CSS-1 | DL | DL | DL | | | | | | | | | |
| SS-116 | 95 | 85 | 76 | | | | | | | | | |
| SS-122 | 88 | 95 | 87 | | | | | | | | | |
| SS-122 DUP | 93 | 82 | 89 | | | | | | | | | |
| SS-126 | 88 | 94 | 87 | | | | | | | | | |
| SS-128 | 101 | 101 | 96 | | | | | | | | | |
| SS-131 | DL | DL | DL | | | | | | | | | |
| SS-132 | 99 | 108 | 101 | | | | | | | | | |
| SS-133 | DL | DL | DL | | | | | | | | | |
| SS-135 | 96 | 98 | 93 | | | | | | | | | |
| SS-136 | 94 | 92 | 91 | | | | | | | | | |
| SS-137 | DL | DL | DL | | | | | | | | | |
| SS-138 | DL | DL | DL | | | | | | | | | |
| SS-139 | 98 | 102 | 102 | | | | | | | | | |
| SS-140 | 103 | 112 | 105 | | | | | | | | | |
| SS-142 | 103 | 113 | 107 | | | | | | | | | |
| SS-143 | 82 | 93 | 89 | | | | | | | | | |
| SS-144 | DL | DL | DL | | | | | | | | | |
| SS-146 | 82 | 111 | 94 | | | | | | | | | |
| SS-147 | 84 | 76 | 75 | | | | | | | | | |
| SS-148 | 84 | 105 | 103 | | | | | | | | | |
| SS-151 | 83 | 93 | 87 | | | | | | | | | |
| SS-152 | DL | DL | DL | | | | | | | | | |
| EDER0517M | 84 | 99 | 83 | | | | | | | | | |
| EDER0518M | 85 | 111 | 98 | | | | | | | | | |

* VALUES ARE OUTSIDE OF CONTRACT REQUIRED QC LIMITS

**ADVISORY LIMITS ONLY

Volatiles: 0 out of 54 ; outside of QC limits

Semi-Volatiles: _____ out of _____ ; outside of QC limits

Pesticides: _____ out of _____ ; outside of QC limits

7/86

Comments: _____

# SOIL SURROGATE PERCENT RECOVERY SUMMARY

Case No. EDER ASSOCIATES Contract Laboratory NUS Contract No. _____

Low _____ Medium X

| SMO TRAFFIC NO. | VOLATILE: TOLUENE-D8 (81-117) | VOLATILE: BFB (74-121) | VOLATILE: 1,2 DICHLORO-ETHANE-D4 (70-121) | SEMI-VOLATILE: NITRO-BENZENE-D5 (23-120) | SEMI-VOLATILE: 2-FLUORO-BIPHENYL (30-115) | SEMI-VOLATILE: TERPHENYL-D14 (18-137) | | | SEMI-VOLATILE: PHENOL-D6 (24-113) | SEMI-VOLATILE: 2-FLUORO-PHENOL (25-121) | SEMI-VOLATILE: 2,4,6 TRIBROMO-PHENOL (19-122) | PESTICIDE: DIBUTYL-CHLORENDATE (20-150) ** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| EDER0519 | M1 87 | 107 | 93 | | | | | | | | | |
| EDER0519 | M2 95 | 120 | 99 | | | | | | | | | |
| EDER0522 | M 101 | 100 | 99 | | | | | | | | | |

* VALUES ARE OUTSIDE OF CONTRACT REQUIRED QC LIMITS

**ADVISORY LIMITS ONLY

Volatiles: 0 out of 9 ; outside of QC limits

Semi-Volatiles: _____ out of _____ ; outside of QC limits

Pesticides: _____ out of _____ ; outside of QC limits

7/85

Comments: _____

FORM II

# SOIL MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Case No. EDER ASSOCIATES Contractor NUS Contract No. _____

Low Level X Medium Level _____

| FRACTION | COMPOUND | CONC. SPIKE ADDED (ug) | SAMPLE RESULT | CONC. MS | % REC | CONC. MSD | % REC | RPD | QC LIMITS* RPD | QC LIMITS* RECOVERY |
|---|---|---|---|---|---|---|---|---|---|---|
| VOA SMO SAMPLE NO. SS-108 | 1,1-Dicholoroethene | 0.25 | 0 | 0.24 | 96 | 0.23 | 92 | 4 | 22 | 59-172 |
| | Trichloroethene | 0.25 | 0 | 0.24 | 96 | 0.24 | 96 | 0 | 24 | 62-137 |
| | Chlorobenzene | 0.25 | 0 | 0.26 | 104 | 0.25 | 100 | 4 | 21 | 60-133 |
| | Toluene | 0.25 | 0 | 0.25 | 100 | 0.24 | 96 | 4 | 21 | 59-139 |
| | Benzene | 0.25 | 0 | 0.23 | 92 | 0.22 | 88 | 4 | 21 | 66-142 |
| B/N SMO SAMPLE NO. _____ | 1,2,4-Trichlorobenzene | | | | | | | | 23 | 38-107 |
| | Acenaphthene | | | | | | | | 19 | 31-137 |
| | 2,4 Dinitrotoluene | | | | | | | | 47 | 28-89 |
| | Pyrene | | | | | | | | 36 | 35-142 |
| | N-Nitrosodi-n-Propylamine | | | | | | | | 38 | 41-126 |
| | 1,4-Dichlorobenzene | | | | | | | | 27 | 28-104 |
| ACID SMO SAMPLE NO. _____ | Pentachlorophenol | | | | | | | | 47 | 17-109 |
| | Phenol | | | | | | | | 35 | 26-90 |
| | 2-Chlorophenol | | | | | | | | 50 | 25-102 |
| | 4-Chloro-3-Methylphenol | | | | | | | | 33 | 26-103 |
| | 4-Nitrophenol | | | | | | | | 50 | 11-114 |
| PEST SMO SAMPLE NO. _____ | Lindane | | | | | | | | 50 | 46-127 |
| | Heptachlor | | | | | | | | 31 | 35-130 |
| | Aldrin | | | | | | | | 43 | 34-132 |
| | Dieldrin | | | | | | | | 38 | 31-134 |
| | Endrin | | | | | | | | 45 | 42-139 |
| | 4,4'-DDT | | | | | | | | 50 | 23-134 |

*ASTERISKED VALUES ARE OUTSIDE QC LIMITS.

RPD: VOAs 0 out of 5 ; outside QC limits
B/N _____ out of _____ ; outside QC limits
ACID _____ out of _____ ; outside QC limits
PEST _____ out of _____ ; outside QC limits

RECOVERY: VOAs 0 out of 10 ; outside QC limits
B/N _____ out of _____ ; outside QC limits
ACID _____ out of _____ ; outside QC limits
PEST _____ out of _____ ; outside QC limits

Comments: _____

FORM III

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# METHOD BLANK SUMMARY

Case No. EDER ASSOCIATES Region _____ Contractor NUS Contract No. _____

| FILE ID | DATE OF ANALYSIS | FRACTION | MATRIX | CONC. LEVEL | INST. ID | CAS NUMBER | COMPOUND (INSL.,TIC OR UNKNOWN) | CONC. | UNITS | CRDL |
|---|---|---|---|---|---|---|---|---|---|---|
| EDER0515W | 5/15/86 | VOA | Water | low | Finn4000 | 75-09-2 | Methylene Chloride | 9 | ug/l | 5 |
| | | | | | | 67-64-1 | Acetone | 13 | ug/l | 10 |
| | | | | | | 76-13-1 | Ethane,1,1,2-Trichloro-1,2,2-Trifluoro | 20 | ug/l | NR |
| EDER0517M | 5/17/86 | VOA | Soil | med. | Finn4000 | 75-09-2 | Methylene Chloride | 1600 | ug/kg | 500 |
| | | | | | | 67-64-1 | Acetone | 1300 | ug/kg | 1000 |
| | | | | | | 78-93-3 | 2-Butanone | 2500 | ug/kg | 1000 |
| EDER0518M | 5/18/86 | VOA | Soil | med. | Finn4000 | 75-09-2 | Methylene Chloride | 1600 | ug/kg | 500 |
| | | | | | | 67-64-1 | Acetone | 2800 | ug/kg | 1000 |
| | | | | | | 78-93-3 | 2-Butanone | 2700 | ug/kg | 1000 |
| EDER0518L | 5/18/86 | VOA | Soil | low | Finn3200 | 75-09-2 | Methylene Chloride | 10 | ug/kg | 5 |
| | | | | | | 67-64-1 | Acetone | 3 | ug/kg | 10 |
| EDER0519L | 5/19/86 | VOA | Soil | low | Finn3200 | 75-09-2 | Methylene Chloride | 8 | ug/kg | 5 |
| | | | | | | 67-64-1 | Acetone | 21 | ug/kg | 10 |
| EDER0519M1 | 5/19/86 | VOA | Soil | med. | Finn4000 | 75-09-2 | Methylene Chloride | 960 | ug/kg | 500 |
| | | | | | | 67-64-1 | Acetone | 4400 | ug/kg | 1000 |
| | | | | | | 78-93-3 | 2-Butanone | 2700 | ug/kg | 1000 |
| EDER0519M2 | 5/19/86 | VOA | Soil | med. | Finn4000 | 75-09-2 | Methylene Chloride | 790 | ug/kg | 500 |
| | | | | | | 67-64-1 | Acetone | 2100 | ug/kg | 1000 |
| | | | | | | 78-93-3 | 2-Butanone | 2900 | ug/kg | 1000 |

Comments:

# METHOD BLANK SUMMARY

Case No. EDER ASSOCIATES Region _____ Contractor NUS Contract No. _____

| FILE ID | DATE OF ANALYSIS | FRACTION | MATRIX | CONC. LEVEL | INST. ID | CAS NUMBER | COMPOUND (INSL.,TIC OR UNKNOWN) | CONC. | UNITS | CRQL |
|---|---|---|---|---|---|---|---|---|---|---|
| EDER0520L | 5/20/86 | VOA | Soil | low | Finn3200 | 75-09-2 | Methylene Chloride | 7 | ug/kg | 5 |
| | | | | | | 67-64-1 | Acetone | 20 | ug/kg | 10 |
| | | | | | | 108-88-3 | Toluene | 2 | ug/kg | 5 |
| | | | | | | -------- | Total Xylenes | 1 | ug/kg | 5 |
| | | | | | | 76-13-1 | Ethane,1,1,2-Trichloro-1,2,2-Trifluoro- | 6 | ug/kg | NR |
| | | | | | | 1066-40-6 | Silanol, Trimethyl- | 6 | ug/kg | NR |
| EDER0522M | 5/22/86 | VOA | Soil | med. | Finn4000 | 75-09-2 | Methylene Chloride | 870 | ug/kg | 500 |
| | | | | | | 67-64-1 | Acetone | 2900 | ug/kg | 1000 |
| | | | | | | 78-93-3 | 2-Butanone | 4400 | ug/kg | 1000 |

Comments:

# WATER SURROGATE PERCENT RECOVERY SUMMARY

Case No. EDER ASSOCIATES #4 Contract Laboratory NUS Contract No. _____

| | VOLATILE | | | SEMI-VOLATILE | | | | | | | | PESTICIDE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SMO TRAFFIC NO. | TOLUENE-D8 (88-110) | BFB (86-115) | 1,2 DICHLORO-ETHANE-D4 (76-114) | NITRO-BENZENE-D5 (35-114) | 2-FLUORO-BIPHENYL (43-116) | TERPHENYL-D14 (33-141) | | | PHENOL-D5 (10-94) | 2-FLUORO-PHENOL (21-100) | 2,4,6 TRIBROMO-PHENOL (10-123) | ** DIBUTYL-CHLORENDATE (24-164) |
| STR-1 | 90 | 101 | 91 | | | | | | | | | |
| EDER0522W | 89 | 104 | 95 | | | | | | | | | |

* VALUES ARE OUTSIDE OF CONTRACT REQUIRED QC LIMITS

**ADVISORY LIMITS ONLY

Volatiles: 0 out of 6 ; outside of QC limits

Semi-Volatiles: _____ out of _____ ; outside of QC limits

Pesticides: _____ out of _____ ; outside of QC limits

Comments: _____

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FORM II

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# SOIL SURROGATE PERCENT RECOVERY SUMMARY

Case No. EDER ASSOCIATES #4 Contract Laboratory NUS Contract No. _____

Low X Medium _____

| | VOLATILE | | | SEMI-VOLATILE | | | | | | | | PESTICIDE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SMO TRAFFIC NO. | TOLUENE-D8 (81-117) | BFB (74-121) | 1,2 DICHLORO-ETHANE-D4 (70-121) | NITRO-BENZENE-D5 (23-120) | 2-FLUORO-BIPHENYL (30-115) | TERPHENYL-D14 (18-137) | | | PHENOL-D6 (24-113) | 2-FLUORO-PHENOL (25-121) | 2,4,6 TRIBROMO-PHENOL (19-122) | ** DIBUTYL-CHLORENDATE (20-150) |
| SS-156 | 106 | 93 | 97 | | | | | | | | | |
| SS-162 | 108 | 95 | 96 | | | | | | | | | |
| SS-162 Blk | 98 | 105 | 97 | | | | | | | | | |
| SS-162 DUP | 104 | 95 | 97 | | | | | | | | | |
| SS-176 Blk | 98 | 105 | 97 | | | | | | | | | |
| SS-184 | 103 | 93 | 93 | | | | | | | | | |
| EDER0522L1 | 100 | 104 | 91 | | | | | | | | | |
| EDER0522L2 | 99 | 102 | 93 | | | | | | | | | |

* VALUES ARE OUTSIDE OF CONTRACT REQUIRED QC LIMITS

** ADVISORY LIMITS ONLY

Volatiles: 0 out of 24 ; outside of QC limits

Semi-Volatiles: _____ out of _____ ; outside of QC limits

Pesticides: _____ out of _____ ; outside of QC limits

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Comments: _____

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# SOIL SURROGATE PERCENT RECOVERY SUMMARY

Case No. EDER ASSOCIATES #4 Contract Laboratory NUS Contract No. _____

Low _____ Medium X

| | VOLATILE | | | SEMI-VOLATILE | | | | | | | | PESTICIDE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SMO TRAFFIC NO. | TOLUENE-D8 (81-117) | BFB (74-121) | 1,2 DICHLORO-ETHANE-D4 (70-121) | NITRO-BENZENE-D5 (23-120) | 2-FLUORO-BIPHENYL (30-115) | TERPHENYL-D14 (18-137) | | | PHENOL-D5 (24-113) | 2-FLUORO-PHENOL (25-121) | 2,4,6 TRIBROMO-PHENOL (19-122) | ** DIBUTYL-CHLORENDATE (20-150) |
| SS-158 | 101 | 88 | 102 | | | | | | | | | |
| SS-165 | 93 | 83 | 85 | | | | | | | | | |
| SS-167 | DL | DL | DL | | | | | | | | | |
| SS-171 | 98 | 105 | 110 | | | | | | | | | |
| SS-171 MS | 92 | 92 | 88 | | | | | | | | | |
| SS-171 MSD | 96 | 96 | 90 | | | | | | | | | |
| SS-173 | 89 | 101 | 103 | | | | | | | | | |
| SS-176 | 94 | 111 | 112 | | | | | | | | | |
| SS-176 DUP | 96 | 110 | 114 | | | | | | | | | |
| SS-179 | 72* | 69* | 80 | | | | | | | | | |
| SS-179 RA | 74* | 69* | 78 | | | | | | | | | |
| SS-181 | 84 | 80 | 79 | | | | | | | | | |
| EDER0522M | 101 | 100 | 99 | | | | | | | | | |
| EDER0527M | 93 | 93 | 99 | | | | | | | | | |
| EDER0528M | 99 | 97 | 99 | | | | | | | | | |

* VALUES ARE OUTSIDE OF CONTRACT REQUIRED QC LIMITS

**ADVISORY LIMITS ONLY

Volatiles: 4 out of 42 ; outside of QC limits

Semi-Volatiles: _____ out of _____ ; outside of QC limits

Pesticides: _____ out of _____ ; outside of QC limits

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Comments: _____

# SOIL MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Case No. EDER ASSOCIATES #4 Contractor NUS Contract No. _____

Low Level _____ Medium Level X

| FRACTION | COMPOUND | CONC. SPIKE ADDED (ug) | SAMPLE RESULT | CONC. MS | % REC | CONC. MSD | % REC | RPD | QC LIMITS* RPD | QC LIMITS* RECOVERY |
|---|---|---|---|---|---|---|---|---|---|---|
| VOA SMO SAMPLE NO. SS-171 | 1,1-Dichloroethene | 0.25 | 0 | 0.32 | 128 | 0.33 | 132 | 3 | 22 | 59-172 |
| | Trichloroethene | 0.25 | 0 | 0.31 | 124 | 0.31 | 124 | 0 | 24 | 62-137 |
| | Chlorobenzene | 0.25 | 0 | 0.29 | 116 | 0.29 | 116 | 0 | 21 | 60-133 |
| | Toluene | 0.25 | 0 | 0.30 | 120 | 0.31 | 124 | 3 | 21 | 59-139 |
| | Benzene | 0.25 | 0 | 0.28 | 112 | 0.28 | 112 | 0 | 21 | 66-142 |
| B/N SMO SAMPLE NO. | 1,2,4-Trichlorobenzene | | | | | | | | 23 | 38-107 |
| | Acenaphthene | | | | | | | | 19 | 31-137 |
| | 2,4 Dinitrotoluene | | | | | | | | 47 | 28-89 |
| | Pyrene | | | | | | | | 36 | 35-142 |
| | N-Nitrosodi-n-Propylamine | | | | | | | | 38 | 41-126 |
| _____ | 1,4-Dichlorobenzene | | | | | | | | 27 | 28-104 |
| ACID SMO SAMPLE NO. | Pentachlorophenol | | | | | | | | 47 | 17-109 |
| | Phenol | | | | | | | | 35 | 26-90 |
| | 2-Chlorophenol | | | | | | | | 50 | 25-102 |
| | 4-Chloro-3-Methylphenol | | | | | | | | 33 | 26-103 |
| _____ | 4-Nitrophenol | | | | | | | | 50 | 11-114 |
| PEST SMO SAMPLE NO. | Lindane | | | | | | | | 50 | 46-127 |
| | Heptachlor | | | | | | | | 31 | 35-130 |
| | Aldrin | | | | | | | | 43 | 34-132 |
| | Dieldrin | | | | | | | | 38 | 31-134 |
| | Endrin | | | | | | | | 45 | 42-139 |
| _____ | 4,4'-DDT | | | | | | | | 50 | 23-134 |

*ASTERISKED VALUES ARE OUTSIDE QC LIMITS.

RPD: VOAs 0 out of 5 ; outside QC limits
B/N _____ out of _____ ; outside QC limits
ACID _____ out of _____ ; outside QC limits
PEST _____ out of _____ ; outside QC limits

RECOVERY: VOAs 0 out of 10 ; outside QC limits
B/N _____ out of _____ ; outside QC limits
ACID _____ out of _____ ; outside QC limits
PEST _____ out of _____ ; outside QC limits

Comments: _____

# METHOD BLANK SUMMARY

Case No. EDER ASSOCIATES #4 Region _____ Contractor NUS Contract No. _____

| FILE ID | DATE OF ANALYSIS | FRACTION | MATRIX | CONC. LEVEL | INST. ID | CAS NUMBER | COMPOUND (HSL,TIC OR UNKNOWN) | CONC. | UNITS | CRQL |
|---|---|---|---|---|---|---|---|---|---|---|
| EDER0522W | 5/22/86 | VOA | Water | low | Finn4000 | 75-09-2 | Methylene Chloride | 3 | ug/l | 5 |
| | | | | | | 67-64-1 | Acetone | 12 | ug/l | 10 |
| EDER0522L1 | 5/22/86 | VOA | Soil | low | Finn3200 | 75-09-2 | Methylene Chloride | 5 | ug/kg | 5 |
| | | | | | | 67-64-1 | Acetone | 29 | | 10 |
| | | | | | | 78-93-3 | 2-Butanone | 6 | | 10 |
| | | | | | | 108-88-3 | Toluene | 1 | | 5 |
| | | | | | | 1066-40-6 | Trimethyl, Silanol | 8 | | NR |
| EDER0522L2 | 5/22/86 | VOA | Soil | low | Finn3200 | 75-09-2 | Methylene Chloride | 11 | | 5 |
| | | | | | | 67-64-1 | Acetone | 29 | | 10 |
| | | | | | | 108-88-3 | Toluene | 2 | | 5 |
| | | | | | | 76-13-1 | 1,1,2-Trichloro-1,2,2-Trifluoroethane | 7 | | NR |
| EDER0522M | 5/22/86 | VOA | Soil | med. | Finn4000 | 75-09-2 | Methylene Chloride | 870 | | 500 |
| | | | | | | 67-64-1 | Acetone | 2900 | | 1000 |
| | | | | | | 78-93-3 | 2-Butanone | 4400 | | 1000 |
| EDER0527M | 5/27/86 | VOA | Soil | med. | Finn4000 | 75-09-2 | Methylene Chloride | 1200 | | 500 |
| | | | | | | 67-64-1 | Acetone | 4300 | | 1000 |
| | | | | | | 78-93-3 | 2-Butnaone | 4900 | | 1000 |
| | | | | | | ------- | Unknown | 600 | | NR |
| | | | | | | | | | | |
| | | | | | | | | | | |

Comments:

# METHOD BLANK SUMMARY

Case No. EDER ASSOCIATES #4 Region _____ Contractor NUS Contract No. _____

| FILE ID | DATE OF ANALYSIS | FRACTION | MATRIX | CONC. LEVEL | INST. ID | CAS NUMBER | COMPOUND (NBS, TIC OR UNKNOWN) | CONC. | UNITS | CRQL |
|---|---|---|---|---|---|---|---|---|---|---|
| EDER0528M | 5/28/86 | VOA | Soil | med. | Finn4000 | 75-09-2 | Methylene Chloride | 1100 | ug/kg | 500 |
| | | | | | | 67-64-1 | Acetone | 3700 | | 1000 |
| | | | | | | 78-93-3 | 2-Butanone | 4900 | | 1000 |

Comments:

# WATER SURROGATE PERCENT RECOVERY SUMMARY

Case No. EDER ASSOCIATES Contract Laboratory NUS Contract No. _____

| | VOLATILE | | | SEMI-VOLATILE | | | | | | | | PESTICIDE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SMO TRAFFIC NO. | TOLUENE-D8 (88-110) | BFB (86-115) | 1,2 DICHLORO-ETHANE-D4 (76-114) | NITRO-BENZENE-D5 (36-114) | 2-FLUORO-BIPHENYL (43-116) | TERPHENYL-D14 (63-141) | | | PHENOL-D5 (10-94) | 2-FLUORO-PHENOL (21-100) | 2,4,6 TRIBROMO-PHENOL (10-123) | ** DIBUTYL-CHLORENDATE (24-154) |
| SS-19 | 108 | 92 | 90 | NR | NR | NR | | | NR | NR | NR | NR |
| SS-24 | 97 | 98 | 92 | | | | | | | | | |
| SS-27 | 95 | 93 | 93 | | | | | | | | | |
| GW-1 | 104 | 100 | 93 | | | | | | | | | |
| GW-2 | 102 | 100 | 95 | | | | | | | | | |
| GW-3 | 102 | 97 | 95 | | | | | | | | | |
| GW-4 | 103 | 96 | 92 | | | | | | | | | |
| GW-5 | 107 | 91 | 90 | | | | | | | | | |
| GW-6 | 108 | 93 | 88 | | | | | | | | | |
| EDER0925W | 99 | 99 | 92 | | | | | | | | | |
| EDER1001W | 103 | 102 | 90 | | | | | | | | | |

* VALUES ARE OUTSIDE OF CONTRACT REQUIRED QC LIMITS

**ADVISORY LIMITS ONLY

Volatiles: 0 out of 33 ; outside of QC limits

Semi-Volatiles: - out of -- ; outside of QC limits

Pesticides: - out of -- ; outside of QC limits

Comments:

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FORM II

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# SOIL SURROGATE PERCENT RECOVERY SUMMARY

Case No. EDER ASSOCIATES Contract Laboratory NUS Contract No. _____

Low X Medium _____

| | VOLATILE | | | SEMI-VOLATILE | | | | | | | | PESTICIDE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SMO TRAFFIC NO. | TOLUENE-D8 (81-117) | BFB (74-121) | 1,2 DICHLORO-ETHANE-D4 (70-121) | NITRO-BENZENE-D5 (23-120) | 2-FLUORO-BIPHENYL (30-115) | TERPHENYL-D14 (18-137) | | | PHENOL-D5 (24-113) | 2-FLUORO-PHENOL (25-121) | 2,4,6 TRIBROMO-PHENOL (19-122) | ** DIBUTYL-CHLORENDATE (20-150) |
| SS-6 | 110 | 86 | 95 | NR | NR | NR | | | NR | NR | NR | NR |
| SS-13 | 110 | 85 | 91 | | | | | | | | | |
| SS-17 | 104 | 92 | 94 | | | | | | | | | |
| SS-17MS | 102 | 98 | 96 | | | | | | | | | |
| SS-17MSD | 103 | 99 | 99 | | | | | | | | | |
| SS-22 | 108 | 96 | 94 | | | | | | | | | |
| SS-45 | 109 | 90 | 92 | | | | | | | | | |
| SS-60 | 116 | 78 | 96 | | | | | | | | | |
| SS-66 | 118* | 72* | 91 | | | | | | | | | |
| EDER0924 L | 99 | 103 | 92 | | | | | | | | | |
| EDER0926 L | 95 | 99 | 93 | | | | | | | | | |
| EDER1004 L | 99 | 99 | 88 | | | | | | | | | |
| EDER1005 L | 94 | 96 | 94 | | | | | | | | | |

* VALUES ARE OUTSIDE OF CONTRACT REQUIRED QC LIMITS

** ADVISORY LIMITS ONLY

Volatiles: 0 out of 39 ; outside of QC limits

Semi-Volatiles: - out of -- ; outside of QC limits

Pesticides: - out of -- ; outside of QC limits

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Comments: _____

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# SOIL SURROGATE PERCENT RECOVERY SUMMARY

Case No. EDER ASSOCIATES Contract Laboratory NUS Contract No. _____

Low _____ Medium X

| | VOLATILE | | | SEMI-VOLATILE | | | | | | | | PESTICIDE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SWO TRAFFIC NO. | TOLUENE-D8 (81-117) | BFB (74-121) | 1,2 DICHLORO-ETHANE-D4 (70-121) | NITRO-BENZENE-D5 (23-120) | 2-FLUORO-BIPHENYL (30-115) | TERPHENYL-D14 (18-137) | | | PHENOL-D6 (24-113) | 2-FLUORO-PHENOL (25-121) | 2,4,6 TRIBROMO-PHENOL (19-122) | ** DIBUTYL-CHLORENDATE (20-150) |
| SS-11 | 96 | 102 | 76 | NR | NR | NR | | | NR | NR | NR | NR |
| SS-11MS | 110 | 114 | 90 | | | | | | | | | |
| SS-11MSD | 103 | 105 | 80 | | | | | | | | | |
| SS-41 | 99 | 94 | 78 | | | | | | | | | |
| SS-50 | 109 | 112 | 94 | | | | | | | | | |
| SS-52 | 90 | 87 | 81 | | | | | | | | | |
| SS-63 | 93 | 98 | 87 | | | | | | | | | |
| EDER100 1M | 99 | 97 | 87 | | | | | | | | | |
| EDER100 4M | 94 | 89 | 79 | | | | | | | | | |

* VALUES ARE OUTSIDE OF CONTRACT REQUIRED QC LIMITS

** ADVISORY LIMITS ONLY

Volatiles: 0 out of 27 ; outside of QC limits

Semi-Volatiles: - out of -- ; outside of QC limits

Pesticides: - out of -- ; outside of QC limits

7/85

Comments: _____

FORM

# SOIL MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Case No. EDER ASSOCIATES Contractor NUS Contract No. _____

Low Level X Medium Level _____

| FRACTION | COMPOUND | CONC. SPIKE ADDED (ug) | SAMPLE RESULT | CONC. MS | % REC | CONC. MSD | % REC | RPD | QC LIMITS* RPD | QC LIMITS* RECOVERY |
|---|---|---|---|---|---|---|---|---|---|---|
| VOA SMO SAMPLE NO. SS-17 | 1,1-Dichloroethene | 0.25 | 0 | 0.24 | 96 | 0.24 | 96 | 0 | 22 | 59-172 |
| | Trichloroethene | 0.25 | 0 | 0.21 | 84 | 0.21 | 84 | 0 | 24 | 62-137 |
| | Chlorobenzene | 0.25 | 0 | 0.24 | 96 | 0.23 | 92 | 4 | 21 | 60-133 |
| | Toluene | 0.25 | 0 | 0.24 | 96 | 0.23 | 92 | 4 | 21 | 59-139 |
| | Benzene | 0.25 | 0 | 0.23 | 92 | 0.23 | 92 | 0 | 21 | 66-142 |
| B/N SMO SAMPLE NO. ----- | 1,2,4-Trichlorobenzene | NR | NR | NR | NR | NR | NR | NR | 23 | 38-107 |
| | Acenaphthene | | | | | | | | 19 | 31-137 |
| | 2,4 Dinitrotoluene | | | | | | | | 47 | 28-89 |
| | Pyrene | | | | | | | | 36 | 35-142 |
| | N-Nitrosodi-n-Propylamine | | | | | | | | 38 | 41-126 |
| | 1,4-Dichlorobenzene | | | | | | | | 27 | 28-104 |
| ACID SMO SAMPLE NO. ----- | Pentachlorophenol | | | | | | | | 47 | 17-109 |
| | Phenol | | | | | | | | 35 | 26-90 |
| | 2-Chlorophenol | | | | | | | | 50 | 25-102 |
| | 4-Chloro-3-Methylphenol | | | | | | | | 33 | 26-103 |
| | 4-Nitrophenol | | | | | | | | 50 | 11-114 |
| PEST SMO SAMPLE NO. ----- | Lindane | | | | | | | | 50 | 46-127 |
| | Heptachlor | | | | | | | | 31 | 35-130 |
| | Aldrin | | | | | | | | 43 | 34-132 |
| | Dieldrin | | | | | | | | 38 | 31-134 |
| | Endrin | | | | | | | | 45 | 42-139 |
| | 4,4'-DDT | | | | | | | | 50 | 23-134 |

*ASTERISKED VALUES ARE OUTSIDE QC LIMITS.

RPD: VOAs 0 out of 5 ; outside QC limits
B/N - out of - ; outside QC limits
ACID - out of - ; outside QC limits
PEST - out of - ; outside QC limits

RECOVERY: VOAs 0 out of 10 ; outside QC limits
B/N - out of -- ; outside QC limits
ACID - out of -- ; outside QC limits
PEST - out of -- ; outside QC limits

Comments: _____

FORM III

7/85

# SOIL MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Case No. EDER ASSOCIATES Contractor NUS Contract No. _____

Low Level _____ Medium Level X

| FRACTION | COMPOUND | CONC. SPIKE ADDED (ug) | SAMPLE RESULT | CONC. MS | % REC | CONC. MSD | % REC | RPD | QC LIMITS* RPD | QC LIMITS* RECOVERY |
|---|---|---|---|---|---|---|---|---|---|---|
| VOA SMO SAMPLE NO. SS-11 | 1,1-Dichloroethene | 0.25 | 0 | 0.18 | 72 | 0.15 | 60 | 18 | 22 | 59-172 |
| | Trichloroethene | 0.25 | 0 | 0.21 | 84 | 0.19 | 76 | 10 | 24 | 62-137 |
| | Chlorobenzene | 0.25 | 0 | 0.23 | 92 | 0.22 | 88 | 4 | 21 | 60-133 |
| | Toluene | 0.25 | 0.04 | 0.38 | 136 | 0.36 | 128 | 5 | 21 | 59-139 |
| | Benzene | 0.25 | 0 | 0.23 | 92 | 0.21 | 84 | 9 | 21 | 66-142 |
| B/N SMO SAMPLE NO. ----- | 1,2,4-Trichlorobenzene | NR | NR | NR | NR | NR | NR | NR | 23 | 38-107 |
| | Acenaphthene | | | | | | | | 19 | 31-137 |
| | 2,4 Dinitrotoluene | | | | | | | | 47 | 28-89 |
| | Pyrene | | | | | | | | 36 | 35-142 |
| | N-Nitrosodi-n-Propylamine | | | | | | | | 38 | 41-126 |
| | 1,4-Dichlorobenzene | | | | | | | | 27 | 28-104 |
| ACID SMO SAMPLE NO. ----- | Pentachlorophenol | | | | | | | | 47 | 17-109 |
| | Phenol | | | | | | | | 35 | 26-90 |
| | 2-Chlorophenol | | | | | | | | 50 | 25-102 |
| | 4-Chloro-3-Methylphenol | | | | | | | | 33 | 26-103 |
| | 4-Nitrophenol | | | | | | | | 50 | 11-114 |
| PEST SMO SAMPLE NO. ----- | Lindane | | | | | | | | 50 | 46-127 |
| | Heptachlor | | | | | | | | 31 | 35-130 |
| | Aldrin | | | | | | | | 43 | 34-132 |
| | Dieldrin | | | | | | | | 38 | 31-134 |
| | Endrin | | | | | | | | 45 | 42-139 |
| | 4,4'-DDT | | | | | | | | 50 | 23-134 |

*ASTERISKED VALUES ARE OUTSIDE QC LIMITS.

RPD: VOAs 0 out of 5 ; outside QC limits
B/N - out of - ; outside QC limits
ACID - out of - ; outside QC limits
PEST - out of - ; outside QC limits

RECOVERY: VOAs 0 out of 10 ; outside QC limits
B/N - out of -- ; outside QC limits
ACID - out of -- ; outside QC limits
PEST - out of -- ; outside QC limits

Comments: _____

# METHOD BLANK SUMMARY

Case No. EDER ASSOCIATES Region _____ Contractor NUS Contract No. _____

| FILE ID | DATE OF ANALYSIS | FRACTION | MATRIX | CONC. LEVEL | INST. ID | CAS NUMBER | COMPOUND (INCL. TIC OR UNKNOWN) | CONC. | UNITS | CRQL |
|---|---|---|---|---|---|---|---|---|---|---|
| EDER0925W | 9/25/86 | VOA | Water | Low | Finn3200 | 75-09-2 | Methylene Chloride | 3 | ug/l | 5 |
| | | | | | | 67-64-1 | Acetone | 28 | ug/l | 10 |
| EDER1001W | 10/2/86 | | | | Finn4000 | ------- | None | -- | ug/l | -- |
| EDER0924L | 9/24/86 | | Soil | | Finn3200 | 75-09-2 | Methylene Chloride | 4 | ug/kg | 5 |
| | | | | | | 67-64-1 | Acetone | 15 | | 10 |
| EDER0926L | 9/26/86 | | | | | 75-09-2 | Methylene Chloride | 7 | | 5 |
| | | | | | | 67-64-1 | Acetone | 28 | | 10 |
| | | | | | | 78-93-3 | 2-Butanone | 5 | | 10 |
| | | | | | | 71-55-6 | 1,1,1-Trichloroethane | 3 | | 5 |
| | | | | | | 106-10-1 | 4-Methyl-2-Pentanone | 1 | | 10 |
| | | | | | | 591-78-6 | 2-Hexanone | 2 | | 10 |
| | | | | | | 106-88-3 | Toluene | 1 | | 5 |
| | | | | | | 76-13-1 | Ethane, 1,1,2-Trichloro-1,2,2-Trifluoro- | 8 | | NR |
| EDER1004L | 10/4/86 | | | | Finn4000 | 75-09-2 | Methylene Chloride | 7 | | 5 |
| | | | | | | 67-64-1 | Acetone | 13 | | 10 |
| | | | | | | 106-88-3 | Toluene | 2 | | 5 |
| | | | | | | 1066-40-6 | Silanol, Trimethyl | 6 | | NR |
| EDER1005L | 10/5/86 | | | | | 75-09-2 | Methylene Chloride | 8 | | 5 |
| | | | | | | 67-64-1 | Acetone | 10 | | 10 |
| | | | | | | 1066-40-6 | Silanol, Trimethyl | 6 | | NR |

Comments:

# METHOD BLANK SUMMARY

Case No. EDER ASSOCIATES Region _____ Contractor NUS Contract No. _____

| FILE ID | DATE OF ANALYSIS | FRACTION | MATRIX | CONC. LEVEL | INST. ID | CAS NUMBER | COMPOUND (HSL,TIC OR UNKNOWN) | CONC. | UNITS | CRDL |
|---|---|---|---|---|---|---|---|---|---|---|
| EDER0225W | 2/25/87 | VOA | water | low | Finn4000 | 75-09-2 | Methylene Chloride | 4 | ug/L | 5 |
| ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | 67-64-1 | Acetone | 39 | ↓ | 10 |
| EDER0226W | 2/26/87 | VOA | water | low | Finn4000 | 75-09-2 | Methylene Chloride | 4 | ↓ | 5 |
| ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | 67-64-1 | Acetone | 11 | ↓ | 10 |
| ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | 78-93-3 | 2-Butanone | 7 | ↓ | 10 |

Comments:

# METHOD BLANK SUMMARY

Case No. EDER ASSOCIATES Region _____ Contractor NUS Contract No. _____

| FILE ID | DATE OF ANALYSIS | FRACTION | MATRIX | CONC. LEVEL | INST. ID | CAS NUMBER | COMPOUND (SPECIFIC OR UNKNOWN) | CONC. | UNITS | CRQL |
|---|---|---|---|---|---|---|---|---|---|---|
| EDER1001M | 10/1/86 | VOA | soil | Med | Finn4000 | 75-09-2 | Methylene Chloride | 800 | ug/kg | 500 |
| | | | | | | 67-64-1 | Acetone | 1900 | | 1000 |
| | | | | | | 78-93-3 | 2-Butanone | 3400 | | 1000 |
| EDER1004M | 10/4/86 | | | | | 75-09-2 | Methylene Chloride | 1100 | | 500 |
| | | | | | | 67-64-1 | Acetone | 3700 | | 1000 |
| | | | | | | 78-93-3 | 2-Butanone | 3700 | | 1000 |

Comments:

# WATER SURROGATE PERCENT RECOVERY SUMMARY

Case No. EDER ASSOCIATES Contract Laboratory NUS Contract No. _____

| | VOLATILE | | | SEMI-VOLATILE | | | | | | | | PESTICIDE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SMO TRAFFIC NO. | TOLUENE-D8 (88-110) | BFB (86-115) | 1,2 DICHLORO-ETHANE-D4 (76-114) | NITRO-BENZENE-D5 (35-114) | 2-FLUORO-BIPHENYL (43-116) | TERPHENYL-D14 (33-141) | | | PHENOL-D5 (10-94) | 2-FLUORO-PHENOL (21-100) | 2,4,6 TRIBROMO-PHENOL (10-123) | ** DIBUTYL-CHLORENDATE (24-154) |
| EDER1007W | 100 | 106 | 92 | NR | NR | NR | | | NR | NR | NR | NR |
| SS-124 Blank | 99 | 95 | 92 | NR | NR | NR | | | NR | NR | NR | NR |

* VALUES ARE OUTSIDE OF CONTRACT REQUIRED QC LIMITS

** ADVISORY LIMITS ONLY

Volatiles: 0 out of 6 ; outside of QC limits

Semi-Volatiles: - out of - ; outside of QC limits

Pesticides: - out of - ; outside of QC limits

Comments: _____

RM

7/85

# SOIL SURROGATE PERCENT RECOVERY SUMMARY

Case No. EDER ASSOCIATES Contract Laboratory NUS Contract No. _____

Low X Medium _____

| SMO TRAFFIC NO. | VOLATILE: TOLUENE-D8 (81-117) | VOLATILE: BFB (74-121) | VOLATILE: 1,2 DICHLORO-ETHANE-D4 (70-121) | SEMI-VOLATILE: NITRO-BENZENE-D5 (23-120) | SEMI-VOLATILE: 2-FLUORO-BIPHENYL (30-115) | SEMI-VOLATILE: TERPHENYL-D14 (18-137) | | | SEMI-VOLATILE: PHENOL-D5 (24-113) | SEMI-VOLATILE: 2-FLUORO-PHENOL (25-121) | SEMI-VOLATILE: 2,4,6 TRIBROMO-PHENOL (19-122) | PESTICIDE: DIBUTYL-CHLORENDATE** (20-150) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| EDER1005L | 95 | 96 | 94 | NR | NR | NR | | | NR | NR | NR | NR |
| EDER1006L | 102 | 96 | 88 | | | | | | | | | |
| EDER1012L | 110 | 109 | 115 | | | | | | | | | |
| EDER1013L | 102 | 103 | 92 | | | | | | | | | |
| EDER1013L2 | 102 | 97 | 93 | | | | | | | | | |
| SS-72 | 110 | 80 | 92 | | | | | | | | | |
| SS-77 | 100 | 98 | 89 | | | | | | | | | |
| SS-77MS | 108 | 106 | 116 | | | | | | | | | |
| SS-77MSD | 107 | 107 | 118 | | | | | | | | | |
| SS-77DUP | 101 | 92 | 90 | | | | | | | | | |
| SS-77Blank | 102 | 94 | 88 | | | | | | | | | |
| SS-79 | 114 | 82 | 87 | | | | | | | | | |
| SS-84 | 136* | 66* | 115 | | | | | | | | | |
| SS-84RA | 131* | 73* | 117 | | | | | | | | | |
| SS-85 | 104 | 96 | 90 | | | | | | | | | |
| SS-112 | 113 | 104 | 116 | | | | | | | | | |
| SS-113 | 111 | 69* | 94 | | | | | | | | | |
| SS-113RA | 120* | 60* | 93 | | | | | | | | | |
| SS-114 | 113 | 80 | 86 | | | | | | | | | |
| SS-117 | 100 | 98 | 91 | | | | | | | | | |
| SS-118 | 101 | 99 | 93 | | | | | | | | | |
| SS-119 | 109 | 77 | 94 | | | | | | | | | |
| SS-120 | 103 | 84 | 90 | | | | | | | | | |
| SS-120DUP | 100 | 90 | 90 | | | | | | | | | |
| SS-120Blank | 89 | 100 | 98 | | | | | | | | | |

* VALUES ARE OUTSIDE OF CONTRACT REQUIRED QC LIMITS

**ADVISORY LIMITS ONLY

Volatiles: 7 out of 75 ; outside of QC limits

Semi-Volatiles: -- out of -- ; outside of QC limits

Pesticides: _____ out of _____ ; outside of QC limits

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Comments: _____

FORM II

# SOIL SURROGATE PERCENT RECOVERY SUMMARY

Case No. EDER ASSOCIATES Contract Laboratory NUS Contract No. _____

Low X Medium _____

| | VOLATILE | | | SEMI-VOLATILE | | | | | | | | PESTICIDE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SMO TRAFFIC NO. | TOLUENE-D8 (81-117) | BFB (74-121) | 1,2 DICHLORO-ETHANE-D4 (70-121) | NITRO-BENZENE-D5 (23-120) | 2-FLUORO-BIPHENYL (30-115) | TERPHENYL-D14 (18-137) | | | PHENOL-D5 (24-113) | 2-FLUORO-PHENOL (25-121) | 2,4,6 TRIBROMO-PHENOL (19-122) | DIBUTYL-CHLORENDATE ** (20-150) |
| SS-122 | 116 | 87 | 95 | NR | NR | NR | | | NR | NR | NR | NR |
| SS-123 | 105 | 97 | 94 | ↓ | ↓ | ↓ | | | ↓ | ↓ | ↓ | ↓ |
| SS-124 | 129* | 80 | 99 | ↓ | ↓ | ↓ | | | ↓ | ↓ | ↓ | ↓ |
| SS-124RA | 120* | 86 | 98 | ↓ | ↓ | ↓ | | | ↓ | ↓ | ↓ | ↓ |
| SS-124DUP | 103 | 101 | 93 | ↓ | ↓ | ↓ | | | ↓ | ↓ | ↓ | ↓ |
| SS-124DUPRA | 118* | 88 | 97 | ↓ | ↓ | ↓ | | | ↓ | ↓ | ↓ | ↓ |
| SS-126 | 104 | 99 | 95 | ↓ | ↓ | ↓ | | | ↓ | ↓ | ↓ | ↓ |

* VALUES ARE OUTSIDE OF CONTRACT REQUIRED QC LIMITS

**ADVISORY LIMITS ONLY

Volatiles: 3 out of 21 ; outside of QC limits

Semi-Volatiles: -- out of -- ; outside of QC limits

Pesticides: _____ out of _____ ; outside of QC limits

7/85

Comments: _____

FORM II

# SOIL SURROGATE PERCENT RECOVERY SUMMARY

Case No. EDER ASSOCIATES Contract Laboratory NUS Contract No. _____

Low _____ Medium X

| | VOLATILE | | | SEMI-VOLATILE | | | | | | | | PESTICIDE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SMO TRAFFIC NO. | TOLUENE-D8 (81-117) | BFB (74-121) | 1,2 DICHLORO-ETHANE-D4 (70-121) | NITRO-BENZENE-D5 (23-120) | 2-FLUORO-BIPHENYL (30-115) | TERPHENYL-D14 (18-137) | | | PHENOL-D5 (24-113) | 2-FLUORO-PHENOL (25-121) | 2,4,6 TRIBROMO-PHENOL (19-122) | DIBUTYL-CHLORENDATE ** (20-150) |
| EDER1006 M | 105 | 109 | 101 | NR | NR | NR | | | NR | NR | NR | NR |
| SS-70 | 111 | 132* | 90 | ↓ | ↓ | ↓ | | | ↓ | ↓ | ↓ | ↓ |
| SS-70RA | 109 | 128* | 92 | ↓ | ↓ | ↓ | | | ↓ | ↓ | ↓ | ↓ |

* VALUES ARE OUTSIDE OF CONTRACT REQUIRED QC LIMITS

**ADVISORY LIMITS ONLY

Volatiles: 2 out of 9 ; outside of QC limits

Semi-Volatiles: - out of - ; outside of QC limits

Pesticides: _____ out of _____ ; outside of QC limits

7/85

Comments: _____

FORM II

# SOIL MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Case No. EDER ASSOCIATES Contractor NUS Contract No. _____

Low Level X Medium Level _____

| FRACTION | COMPOUND | CONC. SPIKE ADDED (ug/Kg) | SAMPLE RESULT | CONC. MS | % REC | CONC. MSD | % REC | RPD | QC LIMITS* RPD | QC LIMITS* RECOVERY |
|---|---|---|---|---|---|---|---|---|---|---|
| VOA SMO SAMPLE NO. SS-77 | 1,1-Dicholorethene | 0.25 | 0 | 0.13 | 52* | 0.14 | 56* | 7 | 22 | 59-172 |
| | Trichloroethene | 0.25 | 0 | 0.14 | 56* | 0.14 | 56* | 0 | 24 | 62-137 |
| | Chlorobenzene | 0.25 | 0 | 0.19 | 76 | 0.20 | 80 | 5 | 21 | 60-133 |
| | Toluene | 0.25 | 0.25 | 0.15 | 0* | 0.16 | 0* | 6 | 21 | 59-139 |
| | Benzene | 0.25 | 0 | 0.16 | 64* | 0.15 | 60* | 6 | 21 | 66-142 |
| B/N SMO SAMPLE NO. ----- | 1,2,4-Trichlorobenzene | NR | NR | NR | NR | NR | NR | NR | 23 | 38-107 |
| | Acenaphthene | | | | | | | | 19 | 31-137 |
| | 2,4 Dinitrotoluene | | | | | | | | 47 | 28-89 |
| | Pyrene | | | | | | | | 36 | 35-142 |
| | N-Nitrosodi-n-Propylamine | | | | | | | | 38 | 41-126 |
| | 1,4-Dichlorobenzene | | | | | | | | 27 | 28-104 |
| ACID SMO SAMPLE NO. ----- | Pentachlorophenol | | | | | | | | 47 | 17-109 |
| | Phenol | | | | | | | | 35 | 26-90 |
| | 2-Chlorophenol | | | | | | | | 50 | 25-102 |
| | 4-Chloro-3-Methylphenol | | | | | | | | 33 | 26-103 |
| | 4-Nitrophenol | | | | | | | | 50 | 11-114 |
| PEST SMO SAMPLE NO. ----- | Lindane | | | | | | | | 50 | 46-127 |
| | Heptachlor | | | | | | | | 31 | 35-130 |
| | Aldrin | | | | | | | | 43 | 34-132 |
| | Dieldrin | | | | | | | | 38 | 31-134 |
| | Endrin | | | | | | | | 45 | 42-139 |
| | 4,4'-DDT | | | | | | | | 50 | 23-134 |

*ASTERISKED VALUES ARE OUTSIDE QC LIMITS.

RPD: VOAs 0 out of 5 ; outside QC limits
B/N - out of - ; outside QC limits
ACID - out of - ; outside QC limits
PEST - out of - ; outside QC limits

RECOVERY: VOAs 8 out of 10 ; outside QC limits
B/N - out of -- ; outside QC limits
ACID - out of -- ; outside QC limits
PEST - out of -- ; outside QC limits

Comments: _____

FORM III

7/85

# METHOD BLANK SUMMARY

Case No. EDER ASSOCIATES Region _____ Contractor NUS Contract No. _____

| FILE ID | DATE OF ANALYSIS | FRACTION | MATRIX | CONC. LEVEL | INST. ID | CAS NUMBER | COMPOUND (MDL, TIC OR UNKNOWN) | CONC. | UNITS | CRDL |
|---|---|---|---|---|---|---|---|---|---|---|
| EDER1007W | 10/8/86 | VOA | water | low | Finn4000 | 75-09-2 | Methylene Chloride | 2 | ug/L | 5 |
| | | | | | | 108-10-1 | 4-Methyl-2-Pentanone | 6 | | 10 |
| | | | | | | -------- | Unknown | 5 | | NR |
| EDER1005L | 10/5/86 | | soil | low | | 75-09-2 | Methylene Chloride | 8 | ug/kg | 5 |
| | | | | | | 67-64-1 | Acetone | 10 | ug/kg | 10 |
| | | | | | | 1066-40-6 | Silanol, Trimethyl | 2 | | NR |
| EDER1006L | 10/6/86 | | | | | 75-09-2 | Methylene Chloride | 11 | | 5 |
| | | | | | | 67-64-1 | Acetone | 12 | | 10 |
| | | | | | | 1066-40-6 | Silanol, Trimethyl | 6 | | NR |
| EDER1012L | 10/12/86 | | | | | 75-09-2 | Methylene Chloride | 3 | | 5 |
| | | | | | | 67-64-1 | Acetone | 35 | | 10 |
| | | | | | | 108-88-3 | Toluene | 2 | | 5 |
| | | | | | | 1066-40-6 | Silanol, Trimethyl | 10 | | NR |
| EDER1013L | 10/13/86 | | | | | 75-09-2 | Methylene Chloride | 19 | | 5 |
| | | | | | | 67-64-1 | Acetone | 27 | | 10 |
| | | | | | | 76-13-1 | Ethane,1,1,2-Trichloro-1,2,2-Trifluoro- | 20 | | NR |
| | | | | | | 1066-40-6 | Silanol, Trimethyl | 8 | | NR |
| EDER1013L2 | 10/13/86 | | | | | 75-09-2 | Methylene Chloride | 4 | | 5 |
| | | | | | | 67-64-1 | Acetone | 16 | | 10 |
| | | | | | | 1066-40-6 | Silanonl, Trimethyl | 10 | | NR |
| EDER1013L2 | 10/13/86 | VOA | soil | low | Finn4000 | 78-93-3 | 2-Butanone | 8 | ug/kg | 10 |

# METHOD BLANK SUMMARY

Case No. EDER ASSOCIATES Region _____ Contractor NUS Contract No. _____

| FILE ID | DATE OF ANALYSIS | FRACTION | MATRIX | CONC. LEVEL | INST. ID | CAS NUMBER | COMPOUND (INCL. TIC OR UNKNOWN) | CONC. | UNITS | CRQL |
|---|---|---|---|---|---|---|---|---|---|---|
| EDER1006M | 10/6/86 | VOA | soil | med | Finn4000 | 75-09-2 | Methylene Chloride | 900 | ug/kg | 500 |
| | | | | | | 67-64-1 | Acetone | 2500 | | 1000 |
| | | | | | | 78-93-3 | 2-Butanone | 3400 | | 1000 |
| | | | | | | 108-88-3 | Toluene | 1200 | | 500 |
| | | | | | | -------- | Unknown | 8000 | | NR |
| | | | | | | -------- | Unknown | 700 | | NR |

Comments:

# METHOD BLANK SUMMARY

Case No. EDER ASSOCIATES Region _____ Contractor NUS Contract No. _____

| FILE ID | DATE OF ANALYSIS | FRACTION | MATRIX | CONC. LEVEL | INST. ID | CAS NUMBER | COMPOUND (INSL.FIC OR UNKNOWN) | CONC. | UNITS | CRDL |
|---|---|---|---|---|---|---|---|---|---|---|
| EDER1008W | 10/8/86 | VOA | water | low | Finn4000 | 75-09-2 | Methylene Chloride | 3 | ug/L | 5 |
| | | | | | | 67-64-1 | Acetone | 19 | | 10 |
| EDER1009W | 10/9/86 | | | | | 75-09-2 | Methylene Chloride | 4 | | 5 |
| | | | | | | 78-93-3 | 2-Butanone | 15 | | 10 |
| | | | | | | 108-10-1 | 4-Methyl-2-Pentanone | 8 | | 10 |
| | | | | | | 591-78-6 | 2-Hexanone | 9 | | 10 |
| EDER1009W2 | 10/09/86 | | | | | 75-09-2 | Methylene Chloride | 3 | | 5 |
| EDER1015M | 10/15/86 | | soil | med. | Finn4000 | 75-09-2 | Methylene Chloride | 1400 | ug/kg | 500 |
| | | | | | | 67-64-1 | Acetone | 2900 | | 1000 |
| | | | | | | 78-93-3 | 2-Butanone | 3900 | | 1000 |
| EDER1015M | 10/15/86 | VOA | soil | med. | Finn4000 | ------- | Unknown | 2000 | ug/kg | 1000 |
| | | | | | | ------- | Unknown | 600 | ug/kg | 1000 |

Comments:

FORM IV

7/05

# WATER MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Case No. EDER ASSOCIATES Contractor NUS Contract No. _____

| FRACTION | COMPOUND | CONC. SPIKE ADDED (ug) | SAMPLE RESULT | CONC. MS | % REC | CONC. MSD | % REC | RPD | QC LIMITS* RPD | QC LIMITS* RECOVERY |
|---|---|---|---|---|---|---|---|---|---|---|
| VOA SMO SAMPLE NO. SW-10 | 1,1-Dichloroethene | 0.25 | 0 | 0.16 | 64 | 0.16 | 64 | 0 | 14 | 61-145 |
| | Trichloroethene | 0.25 | 0 | 0.18 | 72 | 0.18 | 72 | 0 | 14 | 71-120 |
| | Chlorobenzene | 0.25 | 0 | 0.22 | 88 | 0.22 | 88 | 0 | 13 | 75-130 |
| | Toluene | 0.25 | 0 | 0.19 | 76 | 0.18 | 72* | 5 | 13 | 76-125 |
| | Benzene | 0.25 | 0 | 0.20 | 80 | 0.18 | 72* | 11 | 11 | 76-127 |
| B/N SMO SAMPLE NO. ----- | 1,2,4-Trichlorobenzene | NR | NR | NR | NR | NR | NR | NR | 28 | 39-98 |
| | Acenaphthene | | | | | | | | 31 | 46-118 |
| | 2,4 Dinitrotoluene | | | | | | | | 38 | 24-96 |
| | Pyrene | | | | | | | | 31 | 26-127 |
| | N-Nitroso-Di-n-Propylamine | | | | | | | | 38 | 41-116 |
| | 1,4-Dichlorobenzene | | | | | | | | 28 | 36-97 |
| ACID SMO SAMPLE NO. ----- | Pentachlorophenol | | | | | | | | 50 | 9-103 |
| | Phenol | | | | | | | | 42 | 12-89 |
| | 2-Chlorophenol | | | | | | | | 40 | 27-123 |
| | 4-Chloro-3-Methylphenol | | | | | | | | 42 | 23-97 |
| | 4-Nitrophenol | | | | | | | | 50 | 10-80 |
| PEST SMO SAMPLE NO. ----- | Lindane | | | | | | | | 15 | 56-123 |
| | Heptachlor | | | | | | | | 20 | 40-131 |
| | Aldrin | | | | | | | | 22 | 40-120 |
| | Dieldrin | | | | | | | | 18 | 52-126 |
| | Endrin | | | | | | | | 21 | 56-121 |
| | 4,4'-DDT | | | | | | | | 27 | 38-127 |

*ASTERISKED VALUES ARE OUTSIDE QC LIMITS.

RPD: VOAs 0 out of 5 ; outside QC limits
B/N - out of - ; outside QC limits
ACID - out of - ; outside QC limits
PEST - out of - ; outside QC limits

RECOVERY: VOAs 2 out of 10 ; outside QC limits
B/N - out of -- ; outside QC limits
ACID - out of -- ; outside QC limits
PEST - out of -- ; outside QC limits

Comments: _____

# WATER SURROGATE PERCENT RECOVERY SUMMARY

Case No. EDER ASSOCIATES Contract Laboratory NUS Contract No. _____

| | VOLATILE | | | SEMI-VOLATILE | | | | | | | | PESTICIDE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SWD TRAFFIC NO. | TOLUENE-D8 (88-110) | BFB (86-115) | 1,2 DICHLORO-ETHANE-D4 (76-114) | NITRO-BENZENE-D5 (35-114) | 2-FLUORO-BIPHENYL (43-116) | TERPHENYL-D14 (33-141) | | | PHENOL-D5 (10-94) | 2-FLUORO-PHENOL (21-100) | 2,4,6 TRIBROMO-PHENOL (10-123) | ** DIBUTYL-CHLORENDATE (24-154) |
| EDER1008W | 98 | 98 | 92 | NR | NR | NR | | | NR | NR | NR | NR |
| EDER1009W | 100 | 99 | 92 | | | | | | | | | |
| EDER1009W2 | 100 | 99 | 94 | | | | | | | | | |
| DW-1 | 101 | 97 | 100 | | | | | | | | | |
| GW-7 | 95 | 99 | 94 | | | | | | | | | |
| GW-7 DUP | 99 | 102 | 92 | | | | | | | | | |
| GW-7 Blank | 99 | 102 | 93 | | | | | | | | | |
| GW-8 | 95 | 98 | 92 | | | | | | | | | |
| GW-9 | 99 | 106 | 96 | | | | | | | | | |
| OP-001 | 99 | 102 | 91 | | | | | | | | | |
| STR-1 | 98 | 96 | 89 | | | | | | | | | |
| STR-1 DUP | 98 | 97 | 91 | | | | | | | | | |
| STR-1 Blank | 97 | 98 | 91 | | | | | | | | | |
| STR-2 | 97 | 99 | 90 | | | | | | | | | |
| SW-10 | 98 | 99 | 92 | | | | | | | | | |
| SW-10 MS | 100 | 100 | 91 | | | | | | | | | |
| SW-10 MSD | 98 | 98 | 92 | | | | | | | | | |

* VALUES ARE OUTSIDE OF CONTRACT REQUIRED QC LIMITS

**ADVISORY LIMITS ONLY

Volatiles: 0 out of 51 ; outside of QC limits

Semi-Volatiles: - out of -- ; outside of QC limits

Pesticides: - out of -- ; outside of QC limits

Comments: _____

# SOIL SURROGATE PERCENT RECOVERY SUMMARY

Case No. EDER ASSOCIATES Contract Laboratory NUS Contract No. _____

Low _____ Medium X

| | VOLATILE | | | SEMI-VOLATILE | | | | | | | | PESTICIDE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SMO TRAFFIC NO. | TOLUENE-D8 (81-117) | BFB (74-121) | 1,2 DICHLORO-ETHANE-D4 (70-121) | NITRO-BENZENE-D5 (23-120) | 2-FLUORO-BIPHENYL (30-116) | TERPHENYL-D14 (18-137) | | | PHENOL-D5 (24-113) | 2-FLUORO-PHENOL (25-121) | 2,4,6 TRIBROMO-PHENOL (19-122) | DIBUTYL-CHLORENDATE ** (20-150) |
| EDER1015 M | 104 | 109 | 101 | NR | NR | NR | | | NR | NR | NR | NR |
| SS-29 | 111 | 100 | 77 | NR | NR | NR | | | NR | NR | NR | NR |

* VALUES ARE OUTSIDE OF CONTRACT REQUIRED QC LIMITS

**ADVISORY LIMITS ONLY

Volatiles: 0 out of 6 ; outside of QC limits

Semi-Volatiles: - out of - ; outside of QC limits

Pesticides: - out of - ; outside of QC limits

7/85

Comments: BFB recovery for SS-29 calculated using secondary ion m/e 174.
See quantitation report for calculation.

FOR

Case No. EDER ASSOCIATES Contract Laboratory NUS Contract No. _____

| | VOLATILE | | | | SEMI-VOLATILE | | | | | | | | PESTICIDE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SMO TRAFFIC NO. | TOLUENE-D8 (86-110) | BFB (86-115) | 1,2 DICHLORO-ETHANE-D4 (76-114) | NITRO-BENZENE-D5 (35-114) | 2-FLUORO-BIPHENYL (43-116) | TERPHENYL-D14 (33-141) | | | PHENOL-D5 (10-94) | 2-FLUORO-PHENOL (21-100) | 2,4,6 TRIBROMO-PHENOL (10-123) | DIBUTYL-CHLORENDATE ** (24-154) |
| W-1 Well | A 98 | 106 | 98 | NR | NR | NR | | | NR | NR | NR | NR |
| W-1A DUP | 94 | 103 | 101 | | | | | | | | | |
| W-1A DUP | MS 94 | 110 | 96 | | | | | | | | | |
| W-1A DUP | MSD 91 | 107 | 100 | | | | | | | | | |
| W-2 SW-3 | 94 | 109 | 103 | | | | | | | | | |
| W-3 SW-4 | 94 | 110 | 103 | | | | | | | | | |
| W-4 Well | G 94 | 108 | 101 | | | | | | | | | |
| EDER0225W | 98 | 105 | 95 | | | | | | | | | |
| EDER0225W | 100 | 102 | 97 | | | | | | | | | |

* VALUES ARE OUTSIDE OF CONTRACT REQUIRED QC LIMITS

**ADVISORY LIMITS ONLY

Volatiles: 0 out of 27 ; outside of QC limits

Semi-Volatiles: — out of — ; outside of QC limits

Pesticides: — out of — ; outside of QC limits

Comments: _____

FORM II

7/85

# WATER MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Case No. EDER ASSOCIATES Contractor NUS Contract No. _____

| FRACTION | COMPOUND | CONC. SPIKE ADDED (ug/L) | SAMPLE RESULT | CONC. MS | % REC | CONC. MSD | % REC | RPD | QC LIMITS* RPD | QC LIMITS* RECOVERY |
|---|---|---|---|---|---|---|---|---|---|---|
| VOA SMO SAMPLE NO. W-1 DUP Well A | 1,1-Dichloroethene | 0.25 | 0 | 0.20 | 80 | 0.22 | 88 | 10 | 14 | 61-145 |
| | Trichloroethene | | | 0.19 | 76 | 0.23 | 92 | 19* | 14 | 71-120 |
| | Chlorobenzene | | | 0.21 | 84 | 0.24 | 96 | 13 | 13 | 75-130 |
| | Toluene | | | 0.19 | 76 | 0.22 | 88 | 15* | 13 | 76-125 |
| | Benzene | | | 0.17 | 68* | 0.21 | 84 | 21* | 11 | 76-127 |
| B/N SMO SAMPLE NO. | 1,2,4-Trichlorobenzene | NR | NR | NR | NR | NR | NR | NR | 28 | 39-98 |
| | Acenaphthene | | | | | | | | 31 | 46-118 |
| | 2,4 Dinitrotoluene | | | | | | | | 38 | 24-96 |
| | Pyrene | | | | | | | | 31 | 26-127 |
| | N-Nitroso-Di-n-Propylamine | | | | | | | | 38 | 41-116 |
| | 1,4-Dichlorobenzene | | | | | | | | 28 | 36-97 |
| ACID SMO SAMPLE NO. | Pentachlorophenol | | | | | | | | 50 | 9-103 |
| | Phenol | | | | | | | | 42 | 12-89 |
| | 2-Chlorophenol | | | | | | | | 40 | 27-123 |
| | 4-Chloro-3-Methylphenol | | | | | | | | 42 | 23-97 |
| | 4-Nitrophenol | | | | | | | | 50 | 10-80 |
| PEST SMO SAMPLE NO. | Lindane | | | | | | | | 15 | 56-123 |
| | Heptachlor | | | | | | | | 20 | 40-131 |
| | Aldrin | | | | | | | | 22 | 40-120 |
| | Dieldrin | | | | | | | | 18 | 52-126 |
| | Endrin | | | | | | | | 21 | 56-121 |
| | 4,4'-DDT | | | | | | | | 27 | 38-127 |

*ASTERISKED VALUES ARE OUTSIDE QC LIMITS.

RPD: VOAs 3 out of 5 ; outside QC limits
B/N — out of — ; outside QC limits
ACID — out of — ; outside QC limits
PEST — out of — ; outside QC limits

RECOVERY: VOAs 1 out of 10 ; outside QC limits
B/N — out of — ; outside QC limits
ACID — out of — ; outside QC limits
PEST — out of — ; outside QC limits

Comments: _____

7/85

FORM III

# METHOD BLANK SUMMARY

Case No. EDER ASSOCIATES Region _____ Contractor NUS Contract No. _____

| FILE ID | DATE OF ANALYSIS | FRACTION | MATRIX | CONC. LEVEL | INST. ID | CAS NUMBER | COMPOUND (HSL,TIC OR UNKNOWN) | CONC. | UNITS | CRDL |
|---|---|---|---|---|---|---|---|---|---|---|
| EDER0225W | 2/25/87 | VOA | water | low | Finn4000 | 75-09-2 | Methylene Chloride | 4 | ug/L | 5 |
| ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | 67-64-1 | Acetone | 39 | ↓ | 10 |
| EDER0226W | 2/26/87 | VOA | water | low | Finn4000 | 75-09-2 | Methylene Chloride | 4 | ↓ | 5 |
| ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | 67-64-1 | Acetone | 11 | ↓ | 10 |
| ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | 78-93-3 | 2-Butanone | 7 | ↓ | 10 |

Comments:

FORM III A

Q. C. REPORT NO. HUKILL

BLANKS

LAB NAME WILSON LABORATORIES CASE NO. HUKILL

DATE 86/06/09 UNITS UG/L

MATRIX WATER

| COMPOUND | INITIAL CALIBRATION BLANK VALUE | CONTINUING CALIBRATION BLANK VALUE 1 | 2 | 3 | 4 | PREPARATION BLANK MATRIX: 1 29 MAY | MATRIX: 2 |
|---|---|---|---|---|---|---|---|
| METALS: | | | | | | | |
| 1. ALUMINUM | | | | | | | |
| . ANTIMONY | | | | | | | |
| . ARSENIC | 5 U | 5 U | 5 U | | | 5 U | |
| . BARIUM | 60 U | 60 U | 60 U | | | 60 U | |
| . BERYLLIUM | | | | | | | |
| 6. CADMIUM | 5 U | 5 U | 5 U | | | 5 U | |
| . CALCIUM | | | | | | | |
| . CHROMIUM | 10 U | 10 U | 10 U | | | 10 U | |
| 9. COBALT | | | | | | | |
| 1 . COPPER | | | | | | | |
| 11. IRON | | | | | | | |
| 1 . LEAD | 2.5 U | 2.5 U | 2.5 U | | | 2.5 U | |
| 13. MAGNESIUM | | | | | | | |
| 14. MANGANESE | | | | | | | |
| 1 . MERCURY | .2 U | .2 U | .2 U | | | .2 U | |
| 16. NICKEL | | | | | | | |
| 1 . POTASSIUM | | | | | | | |
| 1 . SELENIUM | 2.5 U | 2.5 U | 2.5 U | | | 2.5 U | |
| 1 . SILVER | 10 U | 10 U | 10 U | | | 10 U | |
| 2 . SODIUM | | | | | | | |
| 21. THALLIUM | | | | | | | |
| 2 . TIN | | | | | | | |
| 2 . VANADIUM | | | | | | | |
| 24. ZINC | | | | | | | |
| OTHER: | | | | | | | |
| CYANIDE | | | | | | | |

FORM III B

Q. C. REPORT NO. HUKILL

BLANKS

LAB NAME WILSON LABORATORIES CASE NO. HUKILL

DATE 86/06/09 UNITS UG/L

MATRIX WATER

| COMPOUND | INITIAL CALIBRATION BLANK VALUE | CONTINUING CALIBRATION BLANK VALUE 1 | 2 | 3 | 4 | PREPARATION BLANK MATRIX: 1 | MATRIX: 2 |
|---|---|---|---|---|---|---|---|
| METALS: | I | II | I | I | I | II | I |
| | I | II | I | I | I | II | I |
| 1. ALUMINUM | I | II | I | I | I | I | I |
| 2. ANTIMONY | I | II | I | I | I | I | I |
| 3. ARSENIC | I | II 5 U | I 5 U | I 5 U | I | I | I |
| 4. BARIUM | I | II | I | I | I | I | I |
| 5. BERYLLIUM | I | II | I | I | I | I | I |
| 6. CADMIUM | I | II 5 U | I | I | I | I | I |
| 7. CALCIUM | I | II | I | I | I | I | I |
| 8. CHROMIUM | I | II 10 U | I | I | I | I | I |
| 9. COBALT | I | II | I | I | I | I | I |
| 10. COPPER | I | II | I | I | I | I | I |
| 11. IRON | I | II | I | I | I | I | I |
| 12. LEAD | I | II 2.5 U | I 2.5 U | I 2.5 U | I | I | I |
| 13. MAGNESIUM | I | II | I | I | I | I | I |
| 14. MANGANESE | I | II | I | I | I | I | I |
| 15. MERCURY | I | II | I | I | I | I | I |
| 16. NICKEL | I | II | I | I | I | I | I |
| 17. POTASSIUM | I | II | I | I | I | I | I |
| 18. SELENIUM | I | II 2.5 U | I 2.5 U | I 2.5 U | I | I | I |
| 19. SILVER | I | II | I | I | I | I | I |
| 20. SODIUM | I | II | I | I | I | I | I |
| 21. THALLIUM | I | II | I | I | I | I | I |
| 22. TIN | I | II | I | I | I | I | I |
| 23. VANADIUM | I | II | I | I | I | I | I |
| 24. ZINC | I | II | I | I | I | I | I |
| OTHER: | | | | | | | |
| CYANIDE | I | II | I | I | I | I | |

FORM III A



Q. C. REPORT NO. HUKILL

BLANKS

LAB NAME WILSON LABORATORIES CASE NO. HUKILL

DATE 86/06/17 UNITS UG/L

MATRIX WATER

| COMPOUND | INITIAL CALIBRATION BLANK VALUE | CONTINUING CALIBRATION BLANK VALUE 1 | 2 | 3 | 4 | PREPARATION BLANK MATRIX: 1 10 JUNE | MATRIX: 2 |
|---|---|---|---|---|---|---|---|
| METALS: | I | II | I | I | I | II | I |
| | I | II | I | I | I | II | I |
| 1. ALUMINUM | I | II | I | I | I | I | I |
| 2. ANTIMONY | I | II | I | I | I | I | I |
| 3. ARSENIC | I 5 U | II 5 U | I 5 U | I 5 U | I | II 5 U | I |
| 4. BARIUM | I 60 U | II 60 U | I 60 U | I 60 U | I | II 60 U | I |
| 5. BERYLLIUM | I | II | I | I | I | I | I |
| 6. CADMIUM | I 5 U | II 5 U | I 5 U | I 5 U | I | II 5 U | I |
| 7. CALCIUM | I | II | I | I | I | I | I |
| 8. CHROMIUM | I 10 U | II 10 U | I 10 U | I 10 U | I | II 10 U | I |
| 9. COBALT | I | II | I | I | I | I | I |
| 10. COPPER | I | II | I | I | I | I | I |
| 11. IRON | I | II | I | I | I | I | I |
| 12. LEAD | I 2.5 U | II 2.5 U | I 2.5 U | I 2.5 U | I | II 2.5 U | I |
| 13. MAGNESIUM | I | II | I | I | I | I | I |
| 14. MANGANESE | I | II | I | I | I | I | I |
| 15. MERCURY | I .2 U | II .2 U | I .2 U | I .2 U | I | II .2 U | I |
| 16. NICKEL | I | II | I | I | I | I | I |
| 17. POTASSIUM | I | II | I | I | I | I | I |
| 18. SELENIUM | I 2.5 U | II 2.5 U | I 2.5 U | I 2.5 U | I | II 2.5 U | I |
| 19. SILVER | I 10 U | II 10 U | I 10 U | I 10 U | I | II 10 U | I |
| 20. SODIUM | I | II | I | I | I | I | I |
| 21. THALLIUM | I | II | I | I | I | I | I |
| 22. TIN | I | II | I | I | I | I | I |
| 23. VANADIUM | I | II | I | I | I | I | I |
| 24. ZINC | I | II | I | I | I | I | I |
| OTHER: | | | | | | | |
| CYANIDE | I | II | I | I | I | I | I |

FORM III B

Q. C. REPORT NO. HUKILL

BLANKS

LAB NAME WILSON LABORATORIES CASE NO. HUKILL

DATE 86/06/17 UNITS UG/L

MATRIX WATER

| COMPOUND | INITIAL CALIBRATION BLANK VALUE | CONTINUING CALIBRATION BLANK VALUE 1 | 2 | 3 | 4 | PREPARATION BLANK MATRIX: 1 | MATRIX: 2 |
|---|---|---|---|---|---|---|---|
| METALS: | I II | I | I | I | I II | | |
| | I II | I | I | I | I II | | |
| 1. ALUMINUM | I II | I | I | I | I | | |
| 2. ANTIMONY | I II | I | I | I | I | | |
| 3. ARSENIC | I II 5 U | I 5 U | I 5 U | I 5 U | I | | |
| 4. BARIUM | I II | I | I | I | I | | |
| 5. BERYLLIUM | I II | I | I | I | I | | |
| 6. CADMIUM | I II | I | I | I | I | | |
| 7. CALCIUM | I II | I | I | I | I | | |
| 8. CHROMIUM | I II | I | I | I | I | | |
| 9. COBALT | I II | I | I | I | I | | |
| 10. COPPER | I II | I | I | I | I | | |
| 11. IRON | I II | I | I | I | I | | |
| 12. LEAD | I II 2.5 U | I 2.5 U | I 2.5 U | I 2.5 U | I | | |
| 13. MAGNESIUM | I II | I | I | I | I | | |
| 14. MANGANESE | I II | I | I | I | I | | |
| 15. MERCURY | I II .2 U | I .2 U | I .2 U | I .2 U | I | | |
| 16. NICKEL | I II | I | I | I | I | | |
| 17. POTASSIUM | I II | I | I | I | I | | |
| 18. SELENIUM | I II 2.5 U | I 2.5 U | I 2.5 U | I 2.5 U | I | | |
| 19. SILVER | I II | I | I | I | I | | |
| 20. SODIUM | I II | I | I | I | I | | |
| 21. THALLIUM | I II | I | I | I | I | | |
| 22. TIN | I II | I | I | I | I | | |
| 23. VANADIUM | I II | I | I | I | I | | |
| 24. ZINC | I II | I | I | I | I | | |
| OTHER: | | | | | | | |
| CYANIDE | I II | I | I | I | I | | |

# FORM III A

Q. C. REPORT NO. HUKILL

BLANKS

L B NAME WILSON LABORATORIES CASE NO. HUKILL

DATE 86/06/16 UNITS UG/L

MATRIX WATER

| COMPOUND | INITIAL CALIBRATION BLANK VALUE | CONTINUING CALIBRATION BLANK VALUE 1 | 2 | 3 | 4 | PREPARATION BLANK MATRIX: 1 9 JUNE | MATRIX: 2 |
|---|---|---|---|---|---|---|---|
| METALS: | I | II | I | I | I | II | I |
| | I | II | I | I | I | II | I |
| . ALUMINUM | I | II | I | I | I | I | I |
| . ANTIMONY | I | II | I | I | I | I | I |
| 3. ARSENIC | I 5 U | II 5 U | I 5 U | I 5 U | I | II 5 U | I |
| . BARIUM | I 60 U | II 60 U | I 60 U | I 60 U | I | II 60 U | I |
| . BERYLLIUM | I | II | I | I | I | I | I |
| 6. CADMIUM | I 5 U | II 5 U | I 5 U | I 5 U | I | II 5 U | I |
| . CALCIUM | I | II | I | I | I | I | I |
| 8. CHROMIUM | I 10 U | II 10 U | I 10 U | I 10 U | I | II 10 U | I |
| 9. COBALT | I | II | I | I | I | I | I |
| 10. COPPER | I | II | I | I | I | I | I |
| 11. IRON | I | II | I | I | I | I | I |
| 1 . LEAD | I 2.5 U | II 2.5 U | I 2.5 U | I 2.5 U | I | II 2.5 U | I |
| 13. MAGNESIUM | I | II | I | I | I | I | I |
| 1 . MANGANESE | I | II | I | I | I | I | I |
| 1 . MERCURY | I .2 U | II .2 U | I .2 U | I .2 U | I | II .2 U | I |
| 1 . NICKEL | I | II | I | I | I | I | I |
| 1 . POTASSIUM | I | II | I | I | I | I | I |
| 1 . SELENIUM | I 2.5 U | II 2.5 U | I 2.5 U | I 2.5 U | I | II 2.5 U | I |
| 1 . SILVER | I 10 U | II 10 U | I 10 U | I 10 U | I | II 10 U | I |
| 2 . SODIUM | I | II | I | I | I | I | I |
| 21. THALLIUM | I | II | I | I | I | I | I |
| 2 . TIN | I | II | I | I | I | I | I |
| 23. VANADIUM | I | II | I | I | I | I | I |
| 24. ZINC | I | II | I | I | I | I | I |
| OTHER: | | | | | | | |
| CYANIDE | I | II | I | I | I | I | I |

FORM III B

Q. C. REPORT NO. HUKILL

BLANKS

LAB NAME WILSON LABORATORIES CASE NO. HUKILL

DATE 86/06/16 UNITS UG/L

MATRIX WATER

| COMPOUND | INITIAL CALIBRATION BLANK VALUE | CONTINUING CALIBRATION BLANK VALUE 1 | 2 | 3 | 4 | PREPARATION BLANK MATRIX: 1 | MATRIX: 2 |
|---|---|---|---|---|---|---|---|
| METALS: | I | II I | I | I | I | II I | I |
| | I | II I | I | I | I | II I | I |
| 1. ALUMINUM | I | II I | I | I | I | I I | I |
| 2. ANTIMONY | I | II I | I | I | I | I I | I |
| 3. ARSENIC | I | II 5 U I | 5 U I | 5 U I | I | I I | I |
| 4. BARIUM | I | II I | I | I | I | I I | I |
| 5. BERYLLIUM | I | II I | I | I | I | I I | I |
| 6. CADMIUM | I | II I | I | I | I | I I | I |
| 7. CALCIUM | I | II I | I | I | I | I I | I |
| 8. CHROMIUM | I | II I | I | I | I | I I | I |
| 9. COBALT | I | II I | I | I | I | I I | I |
| 10. COPPER | I | II I | I | I | I | I I | I |
| 11. IRON | I | II I | I | I | I | I I | I |
| 12. LEAD | I | II 2.5 U I | 2.5 U I | 2.5 U I | 2.5 U I | I | I |
| 13. MAGNESIUM | I | II I | I | I | I | I I | I |
| 14. MANGANESE | I | II I | I | I | I | I I | I |
| 15. MERCURY | I | II I | I | I | I | I I | I |
| 16. NICKEL | I | II I | I | I | I | I I | I |
| 17. POTASSIUM | I | II I | I | I | I | I I | I |
| 18. SELENIUM | I | II 2.5 U I | 2.5 U I | 2.5 U I | I | I | I |
| 19. SILVER | I | II I | I | I | I | I I | I |
| 20. SODIUM | I | II I | I | I | I | I I | I |
| 21. THALLIUM | I | II I | I | I | I | I I | I |
| 22. TIN | I | II I | I | I | I | I I | I |
| 23. VANADIUM | I | II I | I | I | I | I I | I |
| 24. ZINC | I | II I | I | I | I | I I | I |
| OTHER: | | | | | | | |
| CYANIDE | I | II I | I | I | I | I I | I |

# FORM III A

Q. C. REPORT NO. HUKILL

BLANKS

LAB NAME WILSON LABORATORIES CASE NO. HUKILL

DATE 86/05/03 UNITS UG/L

MATRIX WATER

| COMPOUND | INITIAL CALIBRATION BLANK VALUE | CONTINUING CALIBRATION BLANK VALUE 1 | 2 | 3 | 4 | PREPARATION BLANK MATRIX: 1 28 APR | MATRIX: 2 |
|---|---|---|---|---|---|---|---|
| METALS: | I | II | I | I | I | II | |
| | I | II | I | I | I | II | |
| 1. ALUMINUM | I | II | I | I | I | I | |
| 2. ANTIMONY | I | II | I | I | I | I | |
| 3. ARSENIC | I 5 U | II 5 U | I 5 U | I 5 U | I | II 5 U | |
| 4. BARIUM | I 60 U | II 60 U | I 60 U | I 60 U | I | II 60 U | |
| 5. BERYLLIUM | I | II | I | I | I | I | |
| 6. CADMIUM | I 5 U | II 5 U | I 5 U | I 5 U | I | II 5 U | |
| 7. CALCIUM | I | II | I | I | I | I | |
| 8. CHROMIUM | I 10 U | II 10 U | I 10 U | I 10 U | I | II 10 U | |
| 9. COBALT | I | II | I | I | I | I | |
| 10. COPPER | I | II | I | I | I | I | |
| 11. IRON | I | II | I | I | I | I | |
| 12. LEAD | I 2.5 U | II 2.5 U | I 2.5 U | I 2.5 U | I | II 2.5 U | |
| 13. MAGNESIUM | I | II | I | I | I | I | |
| 14. MANGANESE | I | II | I | I | I | I | |
| 15. MERCURY | I .2 U | II .2 U | I .2 U | I .2 U | I | II .2 U | |
| 16. NICKEL | I | II | I | I | I | I | |
| 17. POTASSIUM | I | II | I | I | I | I | |
| 18. SELENIUM | I 2.5 U | II 2.5 U | I 2.5 U | I 2.5 U | I | II 2.5 U | |
| 19. SILVER | I 10 U | II 10 U | I 10 U | I 10 U | I | II 10 U | |
| 20. SODIUM | I | II | I | I | I | I | |
| 21. THALLIUM | I | II | I | I | I | I | |
| 22. TIN | I | II | I | I | I | I | |
| 23. VANADIUM | I | II | I | I | I | I | |
| 24. ZINC | I | II | I | I | I | I | |

OTHER:

| | | | | | | |
|---|---|---|---|---|---|---|
| CYANIDE | I | II | I | I | I | I |

FORM III B

Q. C. REPORT NO. HUKILL

BLANKS

AB NAME WILSON LABORATORIES CASE NO. HUKILL

ATE 86/05/03 UNITS UG/L

MATRIX WATER

| COMPOUND | INITIAL CALIBRATION BLANK VALUE | CONTINUING CALIBRATION BLANK VALUE 1 | 2 | 3 | 4 | PREPARATION BLANK MATRIX: 1 | MATRIX: 2 |
|---|---|---|---|---|---|---|---|
| METALS: | I II | I | I | I | II | | |
| | I II | I | I | I | II | | |
| 1. ALUMINUM | I II | I | I | I | I | | |
| 2. ANTIMONY | I II | I | I | I | I | | |
| 3. ARSENIC | I II | I | I | I | I | | |
| 4. BARIUM | I II | I | I | I | I | | |
| 5. BERYLLIUM | I II | I | I | I | I | | |
| 6. CADMIUM | I II | I | I | I | I | | |
| 7. CALCIUM | I II | I | I | I | I | | |
| 8. CHROMIUM | I II | I | I | I | I | | |
| 9. COBALT | I II | I | I | I | I | | |
| 10. COPPER | I II | I | I | I | I | | |
| 1. IRON | I II | I | I | I | I | | |
| 2. LEAD | I II | 2.5 U I | I | I | I | | |
| 3. MAGNESIUM | I II | I | I | I | I | | |
| 4. MANGANESE | I II | I | I | I | I | | |
| 15. MERCURY | I II | I | I | I | I | | |
| 6. NICKEL | I II | I | I | I | I | | |
| 17. POTASSIUM | I II | I | I | I | I | | |
| 18. SELENIUM | I II | 2.5 U I | I | I | I | | |
| 9. SILVER | I II | 10 U I | I | I | I | | |
| 20. SODIUM | I II | I | I | I | I | | |
| 1. THALLIUM | I II | I | I | I | I | | |
| 22. TIN | I II | I | I | I | I | | |
| 23. VANADIUM | I II | I | I | I | I | | |
| 4. ZINC | I II | I | I | I | I | | |
| OTHER: | | | | | | | |
| YANIDE | I II | I | I | I | I | | |

FORM III C

Q. C. REPORT NO. HUKILL

BLANKS

AB NAME WILSON LABORATORIES CASE NO. HUKILL

ATE 86/05/03 UNITS UG/L

MATRIX WATER

| OMPOUND | INITIAL CALIBRATION BLANK VALUE | CONTINUING CALIBRATION BLANK VALUE 1 | 2 | 3 | 4 | PREPARATION BLANK MATRIX: 1 | MATRIX: 2 |
|---|---|---|---|---|---|---|---|
| METALS: | I | II | I | I | I | II | |
| | I | II | I | I | I | II | |
| 1. ALUMINUM | I | II | I | I | I | II | |
| 2. ANTIMONY | I | II | I | I | I | II | |
| 3. ARSENIC | I 5 U | II 5 U | I 5 U | I 5 U | I | II | |
| 4. BARIUM | I | II | I | I | I | II | |
| 5. BERYLLIUM | I | II | I | I | I | II | |
| 6. CADMIUM | I | II | I | I | I | II | |
| 7. CALCIUM | I | II | I | I | I | II | |
| 8. CHROMIUM | I 10 U | II 10 U | I | I | I | II | |
| 9. COBALT | I | II | I | I | I | II | |
| 10. COPPER | I | II | I | I | I | II | |
| 1. IRON | I | II | I | I | I | II | |
| 2. LEAD | I 2.5 U | II 2.5 U | I 2.5 U | I 2.5 U | I | II | |
| 3. MAGNESIUM | I | II | I | I | I | II | |
| 4. MANGANESE | I | II | I | I | I | II | |
| 15. MERCURY | I .2 U | II .2 U | I | I | I | II | |
| 6. NICKEL | I | II | I | I | I | II | |
| 7. POTASSIUM | I | II | I | I | I | II | |
| 18. SELENIUM | I 2.5 U | II 2.5 U | I | I | I | II | |
| 9. SILVER | I | II | I | I | I | II | |
| 20. SODIUM | I | II | I | I | I | II | |
| 21. THALLIUM | I | II | I | I | I | II | |
| 22. TIN | I | II | I | I | I | II | |
| 23. VANADIUM | I | II | I | I | I | II | |
| 4. ZINC | I | II | I | I | I | II | |
| OTHER: | | | | | | | |
| YANIDE | I | II | I | I | I | II | |

FORM III D

Q. C. REPORT NO. HUKILL

BLANKS

LAB NAME WILSON LABORATORIES CASE NO. HUKILL

DATE 86/05/03 UNITS UG/L

MATRIX WATER

| COMPOUND | INITIAL CALIBRATION BLANK VALUE | CONTINUING CALIBRATION BLANK VALUE 1 | 2 | 3 | 4 | PREPARATION BLANK MATRIX: 1 | MATRIX: 2 |
|---|---|---|---|---|---|---|---|
| METALS: | I | II | I | I | I | II | |
| | I | II | I | I | I | II | |
| 1. ALUMINUM | I | II | I | I | I | II | |
| 2. ANTIMONY | I | II | I | I | I | II | |
| 3. ARSENIC | I 5 U | II 5 U | I 5 U | I 5 U | I | II | |
| 4. BARIUM | I | II | I | I | I | II | |
| 5. BERYLLIUM | I | II | I | I | I | II | |
| 6. CADMIUM | I | II | I | I | I | II | |
| 7. CALCIUM | I | II | I | I | I | II | |
| 8. CHROMIUM | I | II | I | I | I | II | |
| 9. COBALT | I | II | I | I | I | II | |
| 10. COPPER | I | II | I | I | I | II | |
| 1. IRON | I | II | I | I | I | II | |
| 2. LEAD | I 2.5 U | II 2.5 U | I | I | I | II | |
| 3. MAGNESIUM | I | II | I | I | I | II | |
| 4. MANGANESE | I | II | I | I | I | II | |
| 15. MERCURY | I | II | I | I | I | II | |
| 6. NICKEL | I | II | I | I | I | II | |
| 7. POTASSIUM | I | II | I | I | I | II | |
| 18. SELENIUM | I | II | I | I | I | II | |
| 9. SILVER | I | II | I | I | I | II | |
| 20. SODIUM | I | II | I | I | I | II | |
| 21. THALLIUM | I | II | I | I | I | II | |
| 22. TIN | I | II | I | I | I | II | |
| 23. VANADIUM | I | II | I | I | I | II | |
| 24. ZINC | I | II | I | I | I | II | |
| OTHER: | | | | | | | |
| CYANIDE | I | II | I | I | I | II | |

FORM III A

Q. C. REPORT NO. HUKILL

BLANKS

LAB NAME WILSON LABORATORIES CASE NO. HUKILL

DATE 86/05/05 UNITS UG/L

MATRIX WATER

| COMPOUND | INITIAL CALIBRATION BLANK VALUE | CONTINUING CALIBRATION BLANK VALUE 1 | 2 | 3 | 4 | PREPARATION BLANK MATRIX: 1 | MATRIX: 2 |
|---|---|---|---|---|---|---|---|
| METALS: | I | II | I | I | I | II | |
| | I | II | I | I | I | II | |
| 1. ALUMINUM | I | II | I | I | I | I | |
| 2. ANTIMONY | I | II | I | I | I | I | |
| 3. ARSENIC | I 5 U | II 5 U | I 5 U | I | I | I | |
| 4. BARIUM | I 60 U | II 60 U | I 60 U | I | I | I | |
| 5. BERYLLIUM | I | II | I | I | I | I | |
| 6. CADMIUM | I 5 U | II 5 U | I 5 U | I | I | I | |
| 7. CALCIUM | I | II | I | I | I | I | |
| 8. CHROMIUM | I 10 U | II 10 U | I 10 U | I | I | I | |
| 9. COBALT | I | II | I | I | I | I | |
| 10. COPPER | I | II | I | I | I | I | |
| 11. IRON | I | II | I | I | I | I | |
| 12. LEAD | I 2.5 U | II 2.5 U | I 2.5 U | I | I | I | |
| 13. MAGNESIUM | I | II | I | I | I | I | |
| 14. MANGANESE | I | II | I | I | I | I | |
| 15. MERCURY | I .2 U | II .2 U | I .2 U | I | I | I | |
| 16. NICKEL | I | II | I | I | I | I | |
| 17. POTASSIUM | I | II | I | I | I | I | |
| 18. SELENIUM | I 2.5 U | II 2.5 U | I 2.5 U | I | I | I | |
| 19. SILVER | I 10 U | II 10 U | I 10 U | I | I | I | |
| 20. SODIUM | I | II | I | I | I | I | |
| 21. THALLIUM | I | II | I | I | I | I | |
| 22. TIN | I | II | I | I | I | I | |
| 23. VANADIUM | I | II | I | I | I | I | |
| 24. ZINC | I | II | I | I | I | I | |
| OTHER: | | | | | | | |
| CYANIDE | I | II | I | I | I | I | |

FORM III B

Q. C. REPORT NO. HUKILL

BLANKS

LAB NAME WILSON LABORATORIES CASE NO. HUKILL

DATE 86/05/05 UNITS UG/L

MATRIX WATER

| COMPOUND | INITIAL CALIBRATION BLANK VALUE | CONTINUING CALIBRATION BLANK VALUE 1 | 2 | 3 | 4 | PREPARATION BLANK MATRIX: 1 | MATRIX: 2 |
|---|---|---|---|---|---|---|---|
| METALS: | I | II | I | I | I | II | I |
| | I | II | I | I | I | II | I |
| 1. ALUMINUM | I | II | I | I | I | I | I |
| 2. ANTIMONY | I | II | I | I | I | I | I |
| 3. ARSENIC | I | II 5 U | I 5 U | I | I | I | I |
| 4. BARIUM | I | II | I | I | I | I | I |
| 5. BERYLLIUM | I | II | I | I | I | I | I |
| 6. CADMIUM | I | II | I | I | I | I | I |
| 7. CALCIUM | I | II | I | I | I | I | I |
| 8. CHROMIUM | I | II | I | I | I | I | I |
| 9. COBALT | I | II | I | I | I | I | I |
| 10. COPPER | I | II | I | I | I | I | I |
| 11. IRON | I | II | I | I | I | I | I |
| 12. LEAD | I | II 2.5 U | I | I | I | I | I |
| 13. MAGNESIUM | I | II | I | I | I | I | I |
| 14. MANGANESE | I | II | I | I | I | I | I |
| 15. MERCURY | I | II .2 U | I .2 U | I .2 U | I .2 U | I | I |
| 16. NICKEL | I | II | I | I | I | I | I |
| 17. POTASSIUM | I | II | I | I | I | I | I |
| 18. SELENIUM | I | II 2.5 U | I | I | I | I | I |
| 19. SILVER | I | II | I | I | I | I | I |
| 20. SODIUM | I | II | I | I | I | I | I |
| 21. THALLIUM | I | II | I | I | I | I | I |
| 22. TIN | I | II | I | I | I | I | I |
| 23. VANADIUM | I | II | I | I | I | I | I |
| 24. ZINC | I | II | I | I | I | I | I |
| OTHER: | | | | | | | |
| CYANIDE | I | II | I | I | I | I | I |

FORM III C

Q. C. REPORT NO. HUKILL

BLANKS

AB NAME WILSON LABORATORIES CASE NO. HUKILL

ATE 86/05/05 UNITS UG/L

MATRIX WATER

| COMPOUND | INITIAL CALIBRATION BLANK VALUE | CONTINUING CALIBRATION BLANK VALUE 1 | 2 | 3 | 4 | PREPARATION BLANK MATRIX: 1 | MATRIX: 2 |
|---|---|---|---|---|---|---|---|
| METALS: | I | II | I | I | I | II | |
| | I | II | I | I | I | II | |
| 1. ALUMINUM | I | II | I | I | I | II | |
| 2. ANTIMONY | I | II | I | I | I | II | |
| 3. ARSENIC | I | II | I | I | I | II | |
| 4. BARIUM | I | II | I | I | I | II | |
| 5. BERYLLIUM | I | II | I | I | I | II | |
| 6. CADMIUM | I | II | I | I | I | II | |
| 7. CALCIUM | I | II | I | I | I | II | |
| 8. CHROMIUM | I | II | I | I | I | II | |
| 9. COBALT | I | II | I | I | I | II | |
| 10. COPPER | I | II | I | I | I | II | |
| 11. IRON | I | II | I | I | I | II | |
| 12. LEAD | I 2.5 U | II 2.5 U | I | I | I | II | |
| 13. MAGNESIUM | I | II | I | I | I | II | |
| 14. MANGANESE | I | II | I | I | I | II | |
| 15. MERCURY | I | II | I | I | I | II | |
| 16. NICKEL | I | II | I | I | I | II | |
| 17. POTASSIUM | I | II | I | I | I | II | |
| 18. SELENIUM | I | II | I | I | I | II | |
| 19. SILVER | I | II | I | I | I | II | |
| 20. SODIUM | I | II | I | I | I | II | |
| 21. THALLIUM | I | II | I | I | I | II | |
| 22. TIN | I | II | I | I | I | II | |
| 23. VANADIUM | I | II | I | I | I | II | |
| 24. ZINC | I | II | I | I | I | II | |
| OTHER: | | | | | | | |
| YANIDE | I | II | I | I | I | II | |

FORM III D

Q. C. REPORT NO. HUKILL

BLANKS

LAB NAME WILSON LABORATORIES CASE NO. HUKILL

DATE 86/05/05 UNITS UG/L

MATRIX WATER

| COMPOUND | INITIAL CALIBRATION BLANK VALUE | CONTINUING CALIBRATION BLANK VALUE 1 | 2 | 3 | 4 | PREPARATION BLANK MATRIX: 1 | MATRIX: 2 |
|---|---|---|---|---|---|---|---|
| METALS: | I | II | I | I | I | II | |
| | I | II | I | I | I | II | |
| 1. ALUMINUM | I | II | I | I | I | II | |
| 2. ANTIMONY | I | II | I | I | I | II | |
| 3. ARSENIC | I | II | I | I | I | II | |
| 4. BARIUM | I | II | I | I | I | II | |
| 5. BERYLLIUM | I | II | I | I | I | II | |
| 6. CADMIUM | I | II | I | I | I | II | |
| 7. CALCIUM | I | II | I | I | I | II | |
| 8. CHROMIUM | I | II | I | I | I | II | |
| 9. COBALT | I | II | I | I | I | II | |
| 10. COPPER | I | II | I | I | I | II | |
| 1. IRON | I | II | I | I | I | II | |
| 2. LEAD | I 2.5 U | II 2.5 U | I 2.5 U | I | I | II | |
| 3. MAGNESIUM | I | II | I | I | I | II | |
| 4. MANGANESE | I | II | I | I | I | II | |
| 15. MERCURY | I | II | I | I | I | II | |
| 6. NICKEL | I | II | I | I | I | II | |
| 7. POTASSIUM | I | II | I | I | I | II | |
| 18. SELENIUM | I | II | I | I | I | II | |
| 9. SILVER | I | II | I | I | I | II | |
| 20. SODIUM | I | II | I | I | I | II | |
| 21. THALLIUM | I | II | I | I | I | II | |
| 22. TIN | I | II | I | I | I | II | |
| 23. VANADIUM | I | II | I | I | I | II | |
| 24. ZINC | I | II | I | I | I | II | |
| OTHER: | | | | | | | |
| CYANIDE | I | II | I | I | I | II | |

FORM III E

Q. C. REPORT NO. HUKILL

BLANKS

AB NAME WILSON LABORATORIES CASE NO. HUKILL

DATE 86/05/05 UNITS UG/L

MATRIX WATER

| COMPOUND | INITIAL CALIBRATION BLANK VALUE | CONTINUING CALIBRATION BLANK VALUE 1 | 2 | 3 | 4 | PREPARATION BLANK MATRIX: 1 | MATRIX: 2 |
|---|---|---|---|---|---|---|---|
| METALS: | I | II | I | I | I | II | |
| | I | II | I | I | I | II | |
| 1. ALUMINUM | I | II | I | I | I | II | |
| 2. ANTIMONY | I | II | I | I | I | II | |
| 3. ARSENIC | I | II | I | I | I | II | |
| 4. BARIUM | I | II | I | I | I | II | |
| 5. BERYLLIUM | I | II | I | I | I | II | |
| 6. CADMIUM | I | II | I | I | I | II | |
| 7. CALCIUM | I | II | I | I | I | II | |
| 8. CHROMIUM | I | II | I | I | I | II | |
| 9. COBALT | I | II | I | I | I | II | |
| 10. COPPER | I | II | I | I | I | II | |
| 1. IRON | I | II | I | I | I | II | |
| 2. LEAD | I 2.5 U | II 2.5 U | I 2.5 U | I | I | II | |
| 3. MAGNESIUM | I | II | I | I | I | II | |
| 4. MANGANESE | I | II | I | I | I | II | |
| 15. MERCURY | I | II | I | I | I | II | |
| 6. NICKEL | I | II | I | I | I | II | |
| 17. POTASSIUM | I | II | I | I | I | II | |
| 18. SELENIUM | I | II | I | I | I | II | |
| 9. SILVER | I | II | I | I | I | II | |
| 20. SODIUM | I | II | I | I | I | II | |
| 21. THALLIUM | I | II | I | I | I | II | |
| 22. TIN | I | II | I | I | I | II | |
| 23. VANADIUM | I | II | I | I | I | II | |
| 4. ZINC | I | II | I | I | I | II | |
| OTHER: | | | | | | | |
| YANIDE | I | II | I | I | I | II | |

FORM III A

Q. C. REPORT NO. HUKILL

BLANKS

LAB NAME WILSON LABORATORIES CASE NO. HUKILL

DATE 86/05/03 UNITS UG/L

MATRIX WATER

| COMPOUND | INITIAL CALIBRATION BLANK VALUE | CONTINUING CALIBRATION BLANK VALUE 1 | 2 | 3 | 4 | PREPARATION BLANK MATRIX: 1 28 APR | MATRIX: 2 |
|---|---|---|---|---|---|---|---|
| METALS: | I | II | I | I | I | II | |
| | I | II | I | I | I | II | |
| 1. ALUMINUM | I | II | I | I | I | I | |
| 2. ANTIMONY | I | II | I | I | I | I | |
| 3. ARSENIC | I 5 U | II 5 U | I 5 U | I 5 U | I | II 5 U | |
| 4. BARIUM | I 60 U | II 60 U | I 60 U | I 60 U | I | II 60 U | |
| 5. BERYLLIUM | I | II | I | I | I | I | |
| 6. CADMIUM | I 5 U | II 5 U | I 5 U | I 5 U | I | II 5 U | |
| 7. CALCIUM | I | II | I | I | I | I | |
| 8. CHROMIUM | I 10 U | II 10 U | I 10 U | I 10 U | I | II 10 U | |
| 9. COBALT | I | II | I | I | I | I | |
| 10. COPPER | I | II | I | I | I | I | |
| 11. IRON | I | II | I | I | I | I | |
| 12. LEAD | I 2.5 U | II 2.5 U | I 2.5 U | I 2.5 U | I | II 2.5 U | |
| 13. MAGNESIUM | I | II | I | I | I | I | |
| 14. MANGANESE | I | II | I | I | I | I | |
| 15. MERCURY | I .2 U | II .2 U | I .2 U | I .2 U | I | II .2 U | |
| 16. NICKEL | I | II | I | I | I | I | |
| 17. POTASSIUM | I | II | I | I | I | I | |
| 18. SELENIUM | I 2.5 U | II 2.5 U | I 2.5 U | I 2.5 U | I | II 2.5 U | |
| 19. SILVER | I 10 U | II 10 U | I 10 U | I 10 U | I | II 10 U | |
| 20. SODIUM | I | II | I | I | I | I | |
| 21. THALLIUM | I | II | I | I | I | I | |
| 22. TIN | I | II | I | I | I | I | |
| 23. VANADIUM | I | II | I | I | I | I | |
| 24. ZINC | I | II | I | I | I | I | |
| OTHER: | | | | | | | |
| CYANIDE | I | II | I | I | I | I | |

FORM III B

Q. C. REPORT NO. HUKILL

BLANKS

AB NAME WILSON LABORATORIES CASE NO. HUKILL

ATE 86/05/03 UNITS UG/L

MATRIX WATER

| COMPOUND | INITIAL CALIBRATION BLANK VALUE | CONTINUING CALIBRATION BLANK VALUE 1 | 2 | 3 | 4 | PREPARATION BLANK MATRIX: 1 | MATRIX: 2 |
|---|---|---|---|---|---|---|---|
| METALS: | I | II | I | I | I | II | |
| | I | II | I | I | I | II | |
| 1. ALUMINUM | I | II | I | I | I | I | |
| 2. ANTIMONY | I | II | I | I | I | I | |
| 3. ARSENIC | I | II | I | I | I | I | |
| 4. BARIUM | I | II | I | I | I | I | |
| 5. BERYLLIUM | I | II | I | I | I | I | |
| 6. CADMIUM | I | II | I | I | I | I | |
| 7. CALCIUM | I | II | I | I | I | I | |
| 8. CHROMIUM | I | II | I | I | I | I | |
| 9. COBALT | I | II | I | I | I | I | |
| 10. COPPER | I | II | I | I | I | I | |
| 1. IRON | I | II | I | I | I | I | |
| 2. LEAD | I | II | 2.5 U I | I | I | I | |
| 3. MAGNESIUM | I | II | I | I | I | I | |
| 4. MANGANESE | I | II | I | I | I | I | |
| 15. MERCURY | I | II | I | I | I | I | |
| 6. NICKEL | I | II | I | I | I | I | |
| 17. POTASSIUM | I | II | I | I | I | I | |
| 18. SELENIUM | I | II | 2.5 U I | I | I | I | |
| 9. SILVER | I | II | 10 U I | I | I | I | |
| 20. SODIUM | I | II | I | I | I | I | |
| 1. THALLIUM | I | II | I | I | I | I | |
| 22. TIN | I | II | I | I | I | I | |
| 23. VANADIUM | I | II | I | I | I | I | |
| 4. ZINC | I | II | I | I | I | I | |
| OTHER: | | | | | | | |
| YANIDE | I | II | I | I | I | I | |

FORM III C

Q. C. REPORT NO. HUKILL

BLANKS

LAB NAME WILSON LABORATORIES CASE NO. HUKILL

DATE 86/05/03 UNITS UG/L

MATRIX WATER

| COMPOUND | INITIAL CALIBRATION BLANK VALUE | CONTINUING CALIBRATION BLANK VALUE 1 | 2 | 3 | 4 | PREPARATION BLANK MATRIX: 1 | MATRIX: 2 |
|---|---|---|---|---|---|---|---|
| METALS: | I | II | I | I | I | II | |
| | I | II | I | I | I | II | |
| 1. ALUMINUM | I | II | I | I | I | II | |
| 2. ANTIMONY | I | II | I | I | I | II | |
| 3. ARSENIC | I 5 U | II 5 U | I 5 U | I 5 U | I | II | |
| 4. BARIUM | I | II | I | I | I | II | |
| 5. BERYLLIUM | I | II | I | I | I | II | |
| 6. CADMIUM | I | II | I | I | I | II | |
| 7. CALCIUM | I | II | I | I | I | II | |
| 8. CHROMIUM | I 10 U | II 10 U | I | I | I | II | |
| 9. COBALT | I | II | I | I | I | II | |
| 10. COPPER | I | II | I | I | I | II | |
| 11. IRON | I | II | I | I | I | II | |
| 12. LEAD | I 2.5 U | II 2.5 U | I 2.5 U | I 2.5 U | I | II | |
| 13. MAGNESIUM | I | II | I | I | I | II | |
| 14. MANGANESE | I | II | I | I | I | II | |
| 15. MERCURY | I .2 U | II .2 U | I | I | I | II | |
| 16. NICKEL | I | II | I | I | I | II | |
| 17. POTASSIUM | I | II | I | I | I | II | |
| 18. SELENIUM | I 2.5 U | II 2.5 U | I | I | I | II | |
| 19. SILVER | I | II | I | I | I | II | |
| 20. SODIUM | I | II | I | I | I | II | |
| 21. THALLIUM | I | II | I | I | I | II | |
| 22. TIN | I | II | I | I | I | II | |
| 23. VANADIUM | I | II | I | I | I | II | |
| 24. ZINC | I | II | I | I | I | II | |
| OTHER: | | | | | | | |
| CYANIDE | I | II | I | I | I | II | |

FORM III D

Q. C. REPORT NO. HUKILL

BLANKS

AB NAME WILSON LABORATORIES CASE NO. HUKILL

ATE 86/05/03 UNITS UG/L

MATRIX WATER

| COMPOUND | INITIAL CALIBRATION BLANK VALUE | CONTINUING CALIBRATION BLANK VALUE 1 | 2 | 3 | 4 | PREPARATION BLANK MATRIX: 1 | MATRIX: 2 |
|---|---|---|---|---|---|---|---|
| METALS: | I | II | I | I | I | II | |
| | I | II | I | I | I | II | |
| 1. ALUMINUM | I | II | I | I | I | II | |
| 2. ANTIMONY | I | II | I | I | I | II | |
| 3. ARSENIC | I 5 U | II 5 U | I 5 U | I 5 U | I | II | |
| 4. BARIUM | I | II | I | I | I | II | |
| 5. BERYLLIUM | I | II | I | I | I | II | |
| 6. CADMIUM | I | II | I | I | I | II | |
| 7. CALCIUM | I | II | I | I | I | II | |
| 8. CHROMIUM | I | II | I | I | I | II | |
| 9. COBALT | I | II | I | I | I | II | |
| 10. COPPER | I | II | I | I | I | II | |
| 1. IRON | I | II | I | I | I | II | |
| 2. LEAD | I 2.5 U | II 2.5 U | I | I | I | II | |
| 3. MAGNESIUM | I | II | I | I | I | II | |
| 4. MANGANESE | I | II | I | I | I | II | |
| 15. MERCURY | I | II | I | I | I | II | |
| 6. NICKEL | I | II | I | I | I | II | |
| 17. POTASSIUM | I | II | I | I | I | II | |
| 18. SELENIUM | I | II | I | I | I | II | |
| 9. SILVER | I | II | I | I | I | II | |
| 20. SODIUM | I | II | I | I | I | II | |
| 21. THALLIUM | I | II | I | I | I | II | |
| 22. TIN | I | II | I | I | I | II | |
| 23. VANADIUM | I | II | I | I | I | II | |
| 4. ZINC | I | II | I | I | I | II | |
| OTHER: | | | | | | | |
| YANIDE | I | II | I | I | I | II | |

FORM III A

Q. C. REPORT NO. HUKILL

BLANKS

LAB NAME WILSON LABORATORIES CASE NO. HUKILL

DATE 86/05/05 UNITS UG/L

MATRIX WATER

| COMPOUND | INITIAL CALIBRATION BLANK VALUE | CONTINUING CALIBRATION BLANK VALUE 1 | 2 | 3 | 4 | PREPARATION BLANK MATRIX: 1 | MATRIX: 2 |
|---|---|---|---|---|---|---|---|
| METALS: | I II | I | I | I | | II | |
| | I II | I | I | I | | II | |
| 1. ALUMINUM | I II | I | I | I | | I | |
| 2. ANTIMONY | I II | I | I | I | | I | |
| 3. ARSENIC | I 5 U II | 5 U I | 5 U I | I | | I | |
| 4. BARIUM | I 60 U II | 60 U I | 60 U I | I | | I | |
| 5. BERYLLIUM | I II | I | I | I | | I | |
| 6. CADMIUM | I 5 U II | 5 U I | 5 U I | I | | I | |
| 7. CALCIUM | I II | I | I | I | | I | |
| 8. CHROMIUM | I 10 U II | 10 U I | 10 U I | I | | I | |
| 9. COBALT | I II | I | I | I | | I | |
| 10. COPPER | I II | I | I | I | | I | |
| 11. IRON | I II | I | I | I | | I | |
| 12. LEAD | I 2.5 U II | 2.5 U I | 2.5 U I | I | | I | |
| 13. MAGNESIUM | I II | I | I | I | | I | |
| 14. MANGANESE | I II | I | I | I | | I | |
| 15. MERCURY | I .2 U II | .2 U I | .2 U I | I | | I | |
| 16. NICKEL | I II | I | I | I | | I | |
| 17. POTASSIUM | I II | I | I | I | | I | |
| 18. SELENIUM | I 2.5 U II | 2.5 U I | 2.5 U I | I | | I | |
| 19. SILVER | I 10 U II | 10 U I | 10 U I | I | | I | |
| 20. SODIUM | I II | I | I | I | | I | |
| 21. THALLIUM | I II | I | I | I | | I | |
| 22. TIN | I II | I | I | I | | I | |
| 23. VANADIUM | I II | I | I | I | | I | |
| 24. ZINC | I II | I | I | I | | I | |
| OTHER: | | | | | | | |
| CYANIDE | I II | I | I | I | | I | |

FORM III B

Q. C. REPORT NO. HUKILL

BLANKS

AB NAME WILSON LABORATORIES CASE NO. HUKILL

DATE 86/05/05 UNITS UG/L

MATRIX WATER

| COMPOUND | INITIAL CALIBRATION BLANK VALUE | CONTINUING CALIBRATION BLANK VALUE 1 | 2 | 3 | 4 | PREPARATION BLANK MATRIX: 1 | MATRIX: 2 |
|---|---|---|---|---|---|---|---|
| METALS: | I | II | I | I | I | II | |
| | I | II | I | I | I | II | |
| 1. ALUMINUM | I | II | I | I | I | I | |
| 2. ANTIMONY | I | II | I | I | I | I | |
| 3. ARSENIC | I | II 5 U | I 5 U | I | I | I | |
| 4. BARIUM | I | II | I | I | I | I | |
| 5. BERYLLIUM | I | II | I | I | I | I | |
| 6. CADMIUM | I | II | I | I | I | I | |
| 7. CALCIUM | I | II | I | I | I | I | |
| 8. CHROMIUM | I | II | I | I | I | I | |
| 9. COBALT | I | II | I | I | I | I | |
| 10. COPPER | I | II | I | I | I | I | |
| 1. IRON | I | II | I | I | I | I | |
| 2. LEAD | I | II 2.5 U | I | I | I | I | |
| 3. MAGNESIUM | I | II | I | I | I | I | |
| 4. MANGANESE | I | II | I | I | I | I | |
| 15. MERCURY | I | II .2 U | I .2 U | I .2 U | I .2 U | I | |
| 6. NICKEL | I | II | I | I | I | I | |
| 17. POTASSIUM | I | II | I | I | I | I | |
| 18. SELENIUM | I | II 2.5 U | I | I | I | I | |
| 9. SILVER | I | II | I | I | I | I | |
| 20. SODIUM | I | II | I | I | I | I | |
| 21. THALLIUM | I | II | I | I | I | I | |
| 22. TIN | I | II | I | I | I | I | |
| 23. VANADIUM | I | II | I | I | I | I | |
| 24. ZINC | I | II | I | I | I | I | |
| OTHER: | | | | | | | |
| CYANIDE | I | II | I | I | I | I | |

FORM III C

Q. C. REPORT NO. HUKILL

BLANKS

AB NAME WILSON LABORATORIES CASE NO. HUKILL

DATE 86/05/05 UNITS UG/L

MATRIX WATER

| COMPOUND | INITIAL CALIBRATION BLANK VALUE | CONTINUING CALIBRATION BLANK VALUE 1 | 2 | 3 | 4 | PREPARATION BLANK MATRIX: 1 | MATRIX: 2 |
|---|---|---|---|---|---|---|---|
| METALS: | I | II | I | I | I | II | |
| | I | II | I | I | I | II | |
| 1. ALUMINUM | I | II | I | I | I | II | |
| 2. ANTIMONY | I | II | I | I | I | II | |
| 3. ARSENIC | I | II | I | I | I | II | |
| 4. BARIUM | I | II | I | I | I | II | |
| 5. BERYLLIUM | I | II | I | I | I | II | |
| 6. CADMIUM | I | II | I | I | I | II | |
| 7. CALCIUM | I | II | I | I | I | II | |
| 8. CHROMIUM | I | II | I | I | I | II | |
| 9. COBALT | I | II | I | I | I | II | |
| 10. COPPER | I | II | I | I | I | II | |
| 1. IRON | I | II | I | I | I | II | |
| 2. LEAD | I 2.5 U | II 2.5 U | I | I | I | II | |
| 3. MAGNESIUM | I | II | I | I | I | II | |
| 4. MANGANESE | I | II | I | I | I | II | |
| 15. MERCURY | I | II | I | I | I | II | |
| 6. NICKEL | I | II | I | I | I | II | |
| 7. POTASSIUM | I | II | I | I | I | II | |
| 18. SELENIUM | I | II | I | I | I | II | |
| 9. SILVER | I | II | I | I | I | II | |
| 20. SODIUM | I | II | I | I | I | II | |
| 21. THALLIUM | I | II | I | I | I | II | |
| 22. TIN | I | II | I | I | I | II | |
| 23. VANADIUM | I | II | I | I | I | II | |
| 4. ZINC | I | II | I | I | I | II | |
| OTHER: | | | | | | | |
| YANIDE | I | II | I | I | I | II | |

FORM III D

Q. C. REPORT NO. HUKILL

BLANKS

LAB NAME WILSON LABORATORIES CASE NO. HUKILL

DATE 86/05/05 UNITS UG/L

MATRIX WATER

| COMPOUND | INITIAL CALIBRATION BLANK VALUE | CONTINUING CALIBRATION BLANK VALUE 1 | 2 | 3 | 4 | PREPARATION BLANK MATRIX: 1 | MATRIX: 2 |
|---|---|---|---|---|---|---|---|
| METALS: | I | II | I | I | I | II | I |
| | I | II | I | I | I | II | I |
| 1. ALUMINUM | I | II | I | I | I | II | I |
| 2. ANTIMONY | I | II | I | I | I | II | I |
| 3. ARSENIC | I | II | I | I | I | II | I |
| 4. BARIUM | I | II | I | I | I | II | I |
| 5. BERYLLIUM | I | II | I | I | I | II | I |
| 6. CADMIUM | I | II | I | I | I | II | I |
| 7. CALCIUM | I | II | I | I | I | II | I |
| 8. CHROMIUM | I | II | I | I | I | II | I |
| 9. COBALT | I | II | I | I | I | II | I |
| 10. COPPER | I | II | I | I | I | II | I |
| 11. IRON | I | II | I | I | I | II | I |
| 12. LEAD | I 2.5 U | II 2.5 U | I 2.5 U | I | I | II | I |
| 13. MAGNESIUM | I | II | I | I | I | II | I |
| 14. MANGANESE | I | II | I | I | I | II | I |
| 15. MERCURY | I | II | I | I | I | II | I |
| 16. NICKEL | I | II | I | I | I | II | I |
| 17. POTASSIUM | I | II | I | I | I | II | I |
| 18. SELENIUM | I | II | I | I | I | II | I |
| 19. SILVER | I | II | I | I | I | II | I |
| 20. SODIUM | I | II | I | I | I | II | I |
| 21. THALLIUM | I | II | I | I | I | II | I |
| 22. TIN | I | II | I | I | I | II | I |
| 23. VANADIUM | I | II | I | I | I | II | I |
| 24. ZINC | I | II | I | I | I | II | I |
| OTHER: | | | | | | | |
| CYANIDE | I | II | I | I | I | II | I |

FORM III E

Q. C. REPORT NO. HUKILL

BLANKS

LAB NAME WILSON LABORATORIES CASE NO. HUKILL

DATE 86/05/05 UNITS UG/L

MATRIX WATER

| COMPOUND | INITIAL CALIBRATION BLANK VALUE | CONTINUING CALIBRATION BLANK VALUE 1 | 2 | 3 | 4 | PREPARATION BLANK MATRIX: 1 | MATRIX: 2 |
|---|---|---|---|---|---|---|---|
| METALS: | I | II | I | I | I | II | |
| | I | II | I | I | I | II | |
| 1. ALUMINUM | I | II | I | I | I | II | |
| 2. ANTIMONY | I | II | I | I | I | II | |
| 3. ARSENIC | I | II | I | I | I | II | |
| 4. BARIUM | I | II | I | I | I | II | |
| 5. BERYLLIUM | I | II | I | I | I | II | |
| 6. CADMIUM | I | II | I | I | I | II | |
| 7. CALCIUM | I | II | I | I | I | II | |
| 8. CHROMIUM | I | II | I | I | I | II | |
| 9. COBALT | I | II | I | I | I | II | |
| 10. COPPER | I | II | I | I | I | II | |
| 11. IRON | I | II | I | I | I | II | |
| 12. LEAD | I 2.5 U | II 2.5 U | I 2.5 U | I | I | II | |
| 13. MAGNESIUM | I | II | I | I | I | II | |
| 14. MANGANESE | I | II | I | I | I | II | |
| 15. MERCURY | I | II | I | I | I | II | |
| 16. NICKEL | I | II | I | I | I | II | |
| 17. POTASSIUM | I | II | I | I | I | II | |
| 18. SELENIUM | I | II | I | I | I | II | |
| 19. SILVER | I | II | I | I | I | II | |
| 20. SODIUM | I | II | I | I | I | II | |
| 21. THALLIUM | I | II | I | I | I | II | |
| 22. TIN | I | II | I | I | I | II | |
| 23. VANADIUM | I | II | I | I | I | II | |
| 24. ZINC | I | II | I | I | I | II | |
| OTHER: | | | | | | | |
| CYANIDE | I | II | I | I | I | II | |

FORM III A



Q. C. REPORT NO. HUKILL

BLANKS

LAB NAME WILSON LABORATORIES CASE NO. HUKILL

DATE 86/05/31 UNITS UG/L

MATRIX WATER

| COMPOUND | INITIAL CALIBRATION BLANK VALUE | CONTINUING CALIBRATION BLANK VALUE 1 | 2 | 3 | 4 | PREPARATION BLANK MATRIX: 1 16 MAY | MATRIX: 2 |
|---|---|---|---|---|---|---|---|
| METALS: | I | II | I | I | I | II | |
| | I | II | I | I | I | II | |
| 1. ALUMINUM | I | II | I | I | I | I | |
| 2. ANTIMONY | I | II | I | I | I | I | |
| 3. ARSENIC | I 5 U | II 5 U | I 5 U | I | I | II 5 U | |
| 4. BARIUM | I 60 U | II 60 U | I 60 U | I | I | II 60 U | |
| 5. BERYLLIUM | I | II | I | I | I | I | |
| 6. CADMIUM | I 5 U | II 5 U | I 5 U | I | I | II 5 U | |
| 7. CALCIUM | I | II | I | I | I | I | |
| 8. CHROMIUM | I 10 U | II 10 U | I 10 U | I | I | II 10 U | |
| 9. COBALT | I | II | I | I | I | I | |
| 10. COPPER | I | II | I | I | I | I | |
| 11. IRON | I | II | I | I | I | I | |
| 12. LEAD | I 2.5 U | II 2.5 U | I 2.5 U | I | I | II 2.5 U | |
| 13. MAGNESIUM | I | II | I | I | I | I | |
| 14. MANGANESE | I | II | I | I | I | I | |
| 15. MERCURY | I .2 U | II .2 U | I .2 U | I | I | II .2 U | |
| 16. NICKEL | I | II | I | I | I | I | |
| 17. POTASSIUM | I | II | I | I | I | I | |
| 18. SELENIUM | I 2.5 U | II 2.5 U | I 2.5 U | I | I | II 2.5 U | |
| 19. SILVER | I 10 U | II 10 U | I 10 U | I | I | II 10 U | |
| 20. SODIUM | I | II | I | I | I | I | |
| 21. THALLIUM | I | II | I | I | I | I | |
| 22. TIN | I | II | I | I | I | I | |
| 23. VANADIUM | I | II | I | I | I | I | |
| 24. ZINC | I | II | I | I | I | I | |
| OTHER: | | | | | | | |
| CYANIDE | I | II | I | I | I | I | |

FORM III B

Q. C. REPORT NO. HUKILL

BLANKS

LAB NAME WILSON LABORATORIES CASE NO. HUKILL

DATE 86/05/31 UNITS UG/L

MATRIX WATER

| COMPOUND | INITIAL CALIBRATION BLANK VALUE | CONTINUING CALIBRATION BLANK VALUE 1 | 2 | 3 | 4 | PREPARATION BLANK MATRIX: 1 | MATRIX: 2 |
|---|---|---|---|---|---|---|---|
| METALS: | | | | | | | |
| 1. ALUMINUM | | | | | | | |
| . ANTIMONY | | | | | | | |
| . ARSENIC | | 5 U | 5 U | | | | |
| . BARIUM | | | | | | | |
| . BERYLLIUM | | | | | | | |
| 6. CADMIUM | | | | | | | |
| . CALCIUM | | | | | | | |
| . CHROMIUM | | | | | | | |
| 9. COBALT | | | | | | | |
| 1 . COPPER | | | | | | | |
| 11. IRON | | | | | | | |
| 1 . LEAD | | 2.5 U | | | | | |
| 13. MAGNESIUM | | | | | | | |
| 14. MANGANESE | | | | | | | |
| 1 . MERCURY | | | | | | | |
| 16. NICKEL | | | | | | | |
| 1 . POTASSIUM | | | | | | | |
| 1 . SELENIUM | | 2.5 U | | | | | |
| 1 . SILVER | | | | | | | |
| 2 . SODIUM | | | | | | | |
| 21. THALLIUM | | | | | | | |
| 2 . TIN | | | | | | | |
| 2 . VANADIUM | | | | | | | |
| 24. ZINC | | | | | | | |
| OTHER: | | | | | | | |
| CYANIDE | | | | | | | |

FORM III A

Q. C. REPORT NO. HUKILL

BLANKS

LAB NAME WILSON LABORATORIES CASE NO. HUKILL

DATE 86/05/28 UNITS UG/L

MATRIX WATER

| COMPOUND | INITIAL CALIBRATION BLANK VALUE | CONTINUING CALIBRATION BLANK VALUE 1 | 2 | 3 | 4 | PREPARATION BLANK MATRIX: 1 15 MAY | MATRIX: 2 |
|---|---|---|---|---|---|---|---|
| METALS: | | | | | | | |
| 1. ALUMINUM | | | | | | | |
| 2. ANTIMONY | | | | | | | |
| 3. ARSENIC | 5 U | 5 U | 5 U | 5 U | | 5 U | |
| 4. BARIUM | 60 U | 60 U | 60 U | 60 U | | 60 U | |
| 5. BERYLLIUM | | | | | | | |
| 6. CADMIUM | 5 U | 5 U | 5 U | 5 U | | 5 U | |
| 7. CALCIUM | | | | | | | |
| 8. CHROMIUM | 10 U | 10 U | 10 U | 10 U | | 10 U | |
| 9. COBALT | | | | | | | |
| 10. COPPER | | | | | | | |
| 11. IRON | | | | | | | |
| 12. LEAD | 2.5 U | 2.5 U | 2.5 U | 2.5 U | | 2.5 U | |
| 13. MAGNESIUM | | | | | | | |
| 14. MANGANESE | | | | | | | |
| 15. MERCURY | .2 U | .2 U | .2 U | .2 U | | .2 U | |
| 16. NICKEL | | | | | | | |
| 17. POTASSIUM | | | | | | | |
| 18. SELENIUM | 2.5 U | 5 U | 5 U | 5 U | | 2.5 U | |
| 19. SILVER | 10 U | 10 U | 10 U | 10 U | | 10 U | |
| 20. SODIUM | | | | | | | |
| 21. THALLIUM | | | | | | | |
| 22. TIN | | | | | | | |
| 23. VANADIUM | | | | | | | |
| 24. ZINC | | | | | | | |
| OTHER: | | | | | | | |
| CYANIDE | | | | | | | |

FORM III B

Q. C. REPORT NO. HUKILL

BLANKS

AB NAME WILSON LABORATORIES CASE NO. HUKILL

DATE 86/05/28 UNITS UG/L

MATRIX WATER

| OMPOUND | INITIAL CALIBRATION BLANK VALUE | CONTINUING CALIBRATION BLANK VALUE 1 | 2 | 3 | 4 | PREPARATION BLANK MATRIX: 1 | MATRIX: 2 |
|---|---|---|---|---|---|---|---|
| ETALS: | I | II | I | I | I | II | |
| | I | II | I | I | I | II | |
| 1. ALUMINUM | I | II | I | I | I | I | |
| 2. ANTIMONY | I | II | I | I | I | I | |
| 3. ARSENIC | I | II 5 U | I 5 U | I 5 U | I | I | |
| 4. BARIUM | I | II | I | I | I | I | |
| 5. BERYLLIUM | I | II | I | I | I | I | |
| 6. CADMIUM | I | II | I | I | I | I | |
| 7. CALCIUM | I | II | I | I | I | I | |
| 8. CHROMIUM | I | II | I | I | I | I | |
| 9. COBALT | I | II | I | I | I | I | |
| 10. COPPER | I | II | I | I | I | I | |
| 11. IRON | I | II | I | I | I | I | |
| 12. LEAD | I | II | I | I | I | I | |
| 13. MAGNESIUM | I | II | I | I | I | I | |
| 14. MANGANESE | I | II | I | I | I | I | |
| 15. MERCURY | I | II .2 U | I .2 U | I .2 U | I | I | |
| 16. NICKEL | I | II | I | I | I | I | |
| 17. POTASSIUM | I | II | I | I | I | I | |
| 18. SELENIUM | I | II | I | I | I | I | |
| 19. SILVER | I | II | I | I | I | I | |
| 20. SODIUM | I | II | I | I | I | I | |
| 21. THALLIUM | I | II | I | I | I | I | |
| 22. TIN | I | II | I | I | I | I | |
| 23. VANADIUM | I | II | I | I | I | I | |
| 24. ZINC | I | II | I | I | I | I | |
| THER: | | | | | | | |
| IDE | I | II | I | I | I | I | |

FORM III C

Q. C. REPORT NO. HUKILL

BLANKS

LAB NAME WILSON LABORATORIES CASE NO. HUKILL

DATE 86/05/28 UNITS UG/L

MATRIX WATER

| COMPOUND | INITIAL CALIBRATION BLANK VALUE | CONTINUING CALIBRATION BLANK VALUE 1 | 2 | 3 | 4 | PREPARATION BLANK MATRIX: 1 | MATRIX: 2 |
|---|---|---|---|---|---|---|---|
| METALS: | I | II | I | I | I | II | I |
| | I | II | I | I | I | II | I |
| 1. ALUMINUM | I | II | I | I | I | II | I |
| 2. ANTIMONY | I | II | I | I | I | II | I |
| 3. ARSENIC | I | II | I | I | I | II | I |
| 4. BARIUM | I | II | I | I | I | II | I |
| 5. BERYLLIUM | I | II | I | I | I | II | I |
| 6. CADMIUM | I 5 U | II 5 U | I | I | I | II | I |
| 7. CALCIUM | I | II | I | I | I | II | I |
| 8. CHROMIUM | I 10 U | II 10 U | I | I | I | II | I |
| 9. COBALT | I | II | I | I | I | II | I |
| 10. COPPER | I | II | I | I | I | II | I |
| 11. IRON | I | II | I | I | I | II | I |
| 12. LEAD | I 2.5 U | II 2.5 U | I 2.5 U | I 2.5 U | I 2.5 U | II | I |
| 13. MAGNESIUM | I | II | I | I | I | II | I |
| 14. MANGANESE | I | II | I | I | I | II | I |
| 15. MERCURY | I | II | I | I | I | II | I |
| 16. NICKEL | I | II | I | I | I | II | I |
| 17. POTASSIUM | I | II | I | I | I | II | I |
| 18. SELENIUM | I | II | I | I | I | II | I |
| 19. SILVER | I | II | I | I | I | II | I |
| 20. SODIUM | I | II | I | I | I | II | I |
| 21. THALLIUM | I | II | I | I | I | II | I |
| 22. TIN | I | II | I | I | I | II | I |
| 23. VANADIUM | I | II | I | I | I | II | I |
| 24. ZINC | I | II | I | I | I | II | I |
| OTHER: | | | | | | | |
| CYANIDE | I | II | I | I | I | II | I |

FORM III A

Q. C. REPORT NO. HUK-I

BLANKS

LAB NAME WILSON LABORATORIES CASE NO. HUK-I

DATE 86/10/27 UNITS UG/L

MATRIX WATER

| COMPOUND | INITIAL CALIBRATION BLANK VALUE | CONTINUING CALIBRATION BLANK VALUE 1 | 2 | 3 | 4 | PREPARATION BLA MATRIX: 1 9 OCT | MATRI 2 |
|---|---|---|---|---|---|---|---|
| METALS: | | | | | | | |
| 1. ALUMINUM | | | | | | | |
| 2. ANTIMONY | | | | | | | |
| 3. ARSENIC | 10 U | 10 U | 10 U | 10 U | | 10 U | |
| 4. BARIUM | 60 U | 60 U | 60 U | 60 U | | 60 U | |
| 5. BERYLLIUM | | | | | | | |
| 6. CADMIUM | 5 U | 5 U | 5 U | 5 U | | 5 U | |
| 7. CALCIUM | 4500 U | | | 4500 U | | 4500 U | |
| 8. CHROMIUM | 10 U | 10 U | 10 U | 10 U | | 10 U | |
| 9. COBALT | | | | | | | |
| 10. COPPER | 17 U | | 17 U | 17 U | | 17 U | |
| 11. IRON | 80 U | | 80 U | 80 U | | 80 U | |
| 12. LEAD | 5 U | 5 U | 5 U ~~10 U~~ | 5 U | | 5 U | |
| 13. MAGNESIUM | | | | | | | |
| 14. MANGANESE | 11 U | | 11 U | 11 U | | 11 U | |
| 15. MERCURY | .2 U | .2 U | .2 U | .2 U | | .2 U | |
| 16. NICKEL | 31 U | | 31 U | 31 U | | 31 U | |
| 17. POTASSIUM | | | | | | | |
| 18. SELENIUM | 5 U | 5 U | 5 U | 5 U | | 5 U | |
| 19. SILVER | 10 U | 10 U | 10 U | 10 U | | 10 U | |
| 20. SODIUM | | | | | | | |
| 21. THALLIUM | | | | | | | |
| 22. TIN | | | | | | | |
| 23. VANADIUM | | | | | | | |
| 24. ZINC | 17 U | | | 17 U | | 17 U | |
| OTHER: | | | | | | | |
| CYANIDE | | | | | | | |

FORM III B

Q. C. REPORT NO. HUK-I

BLANKS

LAB NAME WILSON LABORATORIES CASE NO. HUK-I

DATE 86/10/27 UNITS UG/L

MATRIX WATER

| COMPOUND | INITIAL CALIBRATION BLANK VALUE | CONTINUING CALIBRATION BLANK VALUE 1 | 2 | 3 | 4 | PREPARATION BLA MATRIX: 1 | MATRI 2 |
|---|---|---|---|---|---|---|---|
| METALS: | | | | | | | |
| 1. ALUMINUM | | | | | | | |
| 2. ANTIMONY | | | | | | | |
| 3. ARSENIC | | | | | | | |
| 4. BARIUM | | | | | | | |
| 5. BERYLLIUM | | | | | | | |
| 6. CADMIUM | | | | | | | |
| 7. CALCIUM | | | | | | | |
| 8. CHROMIUM | | | | | | | |
| 9. COBALT | | | | | | | |
| 10. COPPER | | 17 U | | | | | |
| 11. IRON | | 80 U | | | | | |
| 12. LEAD | | | | | | | |
| 13. MAGNESIUM | | | | | | | |
| 14. MANGANESE | | | | | | | |
| 15. MERCURY | | | | | | | |
| 16. NICKEL | | 31 U | | | | | |
| 17. POTASSIUM | | | | | | | |
| 18. SELENIUM | | | | | | | |
| 19. SILVER | | | | | | | |
| 20. SODIUM | | | | | | | |
| 21. THALLIUM | | | | | | | |
| 22. TIN | | | | | | | |
| 23. VANADIUM | | | | | | | |
| 24. ZINC | | 17 U | | | | | |
| OTHER: | | | | | | | |
| CYANIDE | | | | | | | |

FORM III C

Q. C. REPORT NO. HUK-I

BLANKS

LAB NAME WILSON LABORATORIES CASE NO. HUK-I

DATE 86/10/27 UNITS UG/L

MATRIX WATER

| COMPOUND | INITIAL CALIBRATION BLANK VALUE | CONTINUING CALIBRATION BLANK VALUE 1 | 2 | 3 | 4 | PREPARATION BLA MATRIX: 1 | MATRI 2 |
|---|---|---|---|---|---|---|---|
| METALS: | | | | | | | |
| 1. ALUMINUM | | | | | | | |
| 2. ANTIMONY | | | | | | | |
| 3. ARSENIC | 10 U | 10 U | 10 U | 10 U | 10 U | | |
| 4. BARIUM | | | | | | | |
| 5. BERYLLIUM | | | | | | | |
| 6. CADMIUM | | | | | | | |
| 7. CALCIUM | | | | | | | |
| 8. CHROMIUM | 10 U | 10 U | | | | | |
| 9. COBALT | | | | | | | |
| 10. COPPER | 17 U | 17 U | | | | | |
| 11. IRON | 80 U | 80 U | | | | | |
| 12. LEAD | 5 U | 5 U | | | | | |
| 13. MAGNESIUM | | | | | | | |
| 14. MANGANESE | 11 U | 11 U | | | | | |
| 15. MERCURY | | | | | | | |
| 16. NICKEL | | | | | | | |
| 17. POTASSIUM | | | | | | | |
| 18. SELENIUM | 5 U | 5 U | 5 U | | | | |
| 19. SILVER | | | | | | | |
| 20. SODIUM | | | | | | | |
| 21. THALLIUM | | | | | | | |
| 22. TIN | | | | | | | |
| 23. VANADIUM | | | | | | | |
| 24. ZINC | | | | | | | |
| OTHER: | | | | | | | |
| CYANIDE | | | | | | | |

FORM III D

Q. C. REPORT NO. ___HUK-I___

BLANKS

LAB NAME ___WILSON_LABORATORIES___ CASE NO. _____HUK-I_____

DATE _____86/10/27_____ UNITS _____UG/L_____

MATRIX ____WATER____

| COMPOUND | INITIAL CALIBRATION BLANK VALUE | CONTINUING CALIBRATION BLANK VALUE 1 | 2 | 3 | 4 | PREPARATION BLA MATRIX: 1 | MATRI 2 |
|---|---|---|---|---|---|---|---|
| METALS: | I | II | I | I | I | II | |
| | I | II | I | I | I | II | |
| 1. ALUMINUM | I | II | I | I | I | II | |
| 2. ANTIMONY | I | II | I | I | I | II | |
| 3. ARSENIC | I | II | I | I | I | II | |
| 4. BARIUM | I | II | I | I | I | II | |
| 5. BERYLLIUM | I | II | I | I | I | II | |
| 6. CADMIUM | I | II | I | I | I | II | |
| 7. CALCIUM | I | II | I | I | I | II | |
| 8. CHROMIUM | I | II | I | I | I | II | |
| 9. COBALT | I | II | I | I | I | II | |
| 10. COPPER | I | II | I | I | I | II | |
| 11. IRON | I | II | I | I | I | II | |
| 12. LEAD | I 5 U | II 5 U | I 5 U | I | I | II | |
| 13. MAGNESIUM | I | II | I | I | I | II | |
| 14. MANGANESE | I | II | I | I | I | II | |
| 15. MERCURY | I | II | I | I | I | II | |
| 16. NICKEL | I | II | I | I | I | II | |
| 17. POTASSIUM | I | II | I | I | I | II | |
| 18. SELENIUM | I | II | I | I | I | II | |
| 19. SILVER | I | II | I | I | I | II | |
| 20. SODIUM | I | II | I | I | I | II | |
| 21. THALLIUM | I | II | I | I | I | II | |
| 22. TIN | I | II | I | I | I | II | |
| 23. VANADIUM | I | II | I | I | I | II | |
| 24. ZINC | I | II | I | I | I | II | |

OTHER: _____

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| CYANIDE | I | II | I | I | I | II | |

FORM III E

Q. C. REPORT NO. HUK-I

BLANKS

LAB NAME WILSON LABORATORIES CASE NO. HUK-I

DATE 86/10/27 UNITS UG/L

MATRIX WATER

| COMPOUND | INITIAL CALIBRATION BLANK VALUE | CONTINUING CALIBRATION BLANK VALUE 1 | 2 | 3 | 4 | PREPARATION BLANK MATRIX: 1 | MATRIX 2 |
|---|---|---|---|---|---|---|---|
| METALS: | | | | | | | |
| 1. ALUMINUM | | | | | | | |
| 2. ANTIMONY | | | | | | | |
| 3. ARSENIC | | | | | | | |
| 4. BARIUM | | | | | | | |
| 5. BERYLLIUM | | | | | | | |
| 6. CADMIUM | | | | | | | |
| 7. CALCIUM | | | | | | | |
| 8. CHROMIUM | | | | | | | |
| 9. COBALT | | | | | | | |
| 10. COPPER | | | | | | | |
| 11. IRON | | | | | | | |
| 12. LEAD | 5 U | 5 U | | | | | |
| 13. MAGNESIUM | | | | | | | |
| 14. MANGANESE | | | | | | | |
| 15. MERCURY | | | | | | | |
| 16. NICKEL | | | | | | | |
| 17. POTASSIUM | | | | | | | |
| 18. SELENIUM | | | | | | | |
| 19. SILVER | | | | | | | |
| 20. SODIUM | | | | | | | |
| 21. THALLIUM | | | | | | | |
| 22. TIN | | | | | | | |
| 23. VANADIUM | | | | | | | |
| 24. ZINC | | | | | | | |
| OTHER: | | | | | | | |
| CYANIDE | | | | | | | |

FORM III F

Q. C. REPORT NO. HUK-I

BLANKS

LAB NAME WILSON LABORATORIES CASE NO. HUK-I

DATE 86/10/27 UNITS UG/L

MATRIX WATER

| COMPOUND | INITIAL CALIBRATION BLANK VALUE | CONTINUING CALIBRATION BLANK VALUE 1 | 2 | 3 | 4 | PREPARATION BLA MATRIX: 1 | MATRI 2 |
|---|---|---|---|---|---|---|---|
| METALS: | | | | | | | |
| 1. ALUMINUM | | | | | | | |
| 2. ANTIMONY | | | | | | | |
| 3. ARSENIC | | | | | | | |
| 4. BARIUM | | | | | | | |
| 5. BERYLLIUM | | | | | | | |
| 6. CADMIUM | | | | | | | |
| 7. CALCIUM | | | | | | | |
| 8. CHROMIUM | | | | | | | |
| 9. COBALT | | | | | | | |
| 10. COPPER | | | | | | | |
| 11. IRON | | | | | | | |
| 12. LEAD | 100U ~~200 U~~ | 100 U | 100 U | 100 U | | | |
| 13. MAGNESIUM | | | | | | | |
| 14. MANGANESE | | | | | | | |
| 15. MERCURY | | | | | | | |
| 16. NICKEL | | | | | | | |
| 17. POTASSIUM | | | | | | | |
| 18. SELENIUM | | | | | | | |
| 19. SILVER | | | | | | | |
| 20. SODIUM | | | | | | | |
| 21. THALLIUM | | | | | | | |
| 22. TIN | | | | | | | |
| 23. VANADIUM | | | | | | | |
| 24. ZINC | | | | | | | |
| OTHER: | | | | | | | |
| CYANIDE | | | | | | | |

Q. C. REPORT NO. HUK-II

BLANKS

LAB NAME WILSON LABORATORIES CASE NO. HUK-II

DATE 86/10/21 UNITS UG/L

MATRIX WATER

| COMPOUND | INITIAL CALIBRATION BLANK VALUE | CONTINUING CALIBRATION BLANK VALUE 1 | 2 | 3 | 4 | PREPARATION BLANK MATRIX: 1 10 OCT | MATRIX: 2 |
|---|---|---|---|---|---|---|---|
| METALS: | I | II | I | I | I | II | |
| | I | II | I | I | I | II | |
| 1. ALUMINUM | I | II | I | I | I | I | |
| 2. ANTIMONY | I | II | I | I | I | I | |
| 3. ARSENIC | I 5 U | II 5 U | I 5 U | I | I | II 5 U | |
| 4. BARIUM | I 60 U | II 60 U | I 60 U | I | I | II 60 U | |
| 5. BERYLLIUM | I | II | I | I | I | I | |
| 6. CADMIUM | I 5 U | II 5 U | I 5 U | I | I | II 5 U | |
| 7. CALCIUM | I 4500 U | II 4500 U | I 4500 U | I | I | II 4500 U | |
| 8. CHROMIUM | I 10 U | II 10 U | I 10 U | I | I | II 10 U | |
| 9. COBALT | I | II | I | I | I | I | |
| 10. COPPER | I 17 U | II 17 U | I 17 U | I | I | II 17 U | |
| 11. IRON | I 80 U | II 80 U | I 80 U | I | I | II 80 U | |
| 12. LEAD | I 2.5 U | II 2.5 U | I 2.5 U | I | I | II 2.5 U | |
| 13. MAGNESIUM | I | II | I | I | I | I | |
| 14. MANGANESE | I 11 U | II | I 11 U | I | I | II 11 U | |
| 15. MERCURY | I .2 U | II .2 U | I .2 U | I | I | II .2 U | |
| 16. NICKEL | I 31 U | II 31 U | I 31 U | I | I | II 31 U | |
| 17. POTASSIUM | I | II | I | I | I | I | |
| 18. SELENIUM | I 2.5 U | II 2.5 U | I 2.5 U | I | I | II 2.5 U | |
| 19. SILVER | I 10 U | II 10 U | I 10 U | I | I | II 10 U | |
| 20. SODIUM | I | II | I | I | I | I | |
| 21. THALLIUM | I | II | I | I | I | I | |
| 22. TIN | I | II | I | I | I | I | |
| 23. VANADIUM | I | II | I | I | I | I | |
| 24. ZINC | I 17 U | II 17 U | I 17 U | I | I | II 17 U | |
| OTHER: | | | | | | | |
| CYANIDE | I | II | I | I | I | I | |

FORM III B

Q. C. REPORT NO. HUK-II

BLANKS

L B NAME WILSON LABORATORIES CASE NO. HUK-II

DATE 86/10/21 UNITS UG/L

MATRIX WATER

| C MPOUND | INITIAL CALIBRATION BLANK VALUE | CONTINUING CALIBRATION BLANK VALUE 1 | 2 | 3 | 4 | PREPARATION BLANK MATRIX: 1 | MATRIX: 2 |
|---|---|---|---|---|---|---|---|
| M TALS: | I | II | I | I | I | II | I |
| | I | II | I | I | I | II | I |
| . ALUMINUM | I | II | I | I | I | I | I |
| . ANTIMONY | I | II | I | I | I | I | I |
| 3. ARSENIC | I | II | I | I | I | I | I |
| . BARIUM | I | II | I | I | I | I | I |
| 5. BERYLLIUM | I | II | I | I | I | I | I |
| 6. CADMIUM | I | II | I | I | I | I | I |
| . CALCIUM | I | II | I | I | I | I | I |
| 8. CHROMIUM | I | II | I | I | I | I | I |
| . COBALT | I | II | I | I | I | I | I |
| 10. COPPER | I | II | I | I | I | I | I |
| 11. IRON | I 80 U | II 80 U | I | I | I | I | I |
| 1 . LEAD | I | II 2.5 U | I | I | I | I | I |
| 13. MAGNESIUM | I | II | I | I | I | I | I |
| 1 . MANGANESE | I | II | I | I | I | I | I |
| 1 . MERCURY | I | II | I | I | I | I | I |
| 1 . NICKEL | I | II | I | I | I | I | I |
| 1 . POTASSIUM | I | II | I | I | I | I | I |
| 18. SELENIUM | I | II 2.5 U | I | I | I | I | I |
| 1 . SILVER | I | II | I | I | I | I | I |
| 2 . SODIUM | I | II | I | I | I | I | I |
| 21. THALLIUM | I | II | I | I | I | I | I |
| 2 . TIN | I | II | I | I | I | I | I |
| 23. VANADIUM | I | II | I | I | I | I | I |
| 24. ZINC | I | II | I | I | I | I | I |
| OTHER: | | | | | | | |
| C ANIDE | I | II | I | I | I | I | I |

FORM III C

Q. C. REPORT NO. HUK-II

BLANKS

LAB NAME WILSON LABORATORIES CASE NO. HUK-II

DATE 86/10/21 UNITS UG/L

MATRIX WATER

| COMPOUND | INITIAL CALIBRATION BLANK VALUE | CONTINUING CALIBRATION BLANK VALUE 1 | 2 | 3 | 4 | PREPARATION BLANK MATRIX: 1 | MATRIX: 2 |
|---|---|---|---|---|---|---|---|
| METALS: | I | II | I | I | I | II | I |
| | I | II | I | I | I | II | I |
| 1. ALUMINUM | I | II | I | I | I | II | I |
| 2. ANTIMONY | I | II | I | I | I | II | I |
| 3. ARSENIC | I 5 U | II 5 U | I 5 U | I | I | II | I |
| 4. BARIUM | I | II | I | I | I | II | I |
| 5. BERYLLIUM | I | II | I | I | I | II | I |
| 6. CADMIUM | I | II | I | I | I | II | I |
| 7. CALCIUM | I | II | I | I | I | II | I |
| 8. CHROMIUM | I | II | I | I | I | II | I |
| 9. COBALT | I | II | I | I | I | II | I |
| 10. COPPER | I | II | I | I | I | II | I |
| 11. IRON | I | II | I | I | I | II | I |
| 12. LEAD | I 2.5 U | II 2.5 U | I | I | I | II | I |
| 13. MAGNESIUM | I | II | I | I | I | II | I |
| 14. MANGANESE | I | II | I | I | I | II | I |
| 15. MERCURY | I | II | I | I | I | II | I |
| 16. NICKEL | I | II | I | I | I | II | I |
| 17. POTASSIUM | I | II | I | I | I | II | I |
| 18. SELENIUM | I 2.5 U | II 2.5 U | I | I | I | II | I |
| 19. SILVER | I | II | I | I | I | II | I |
| 20. SODIUM | I | II | I | I | I | II | I |
| 21. THALLIUM | I | II | I | I | I | II | I |
| 22. TIN | I | II | I | I | I | II | I |
| 23. VANADIUM | I | II | I | I | I | II | I |
| 24. ZINC | I | II | I | I | I | II | I |
| OTHER: | | | | | | | |
| CYANIDE | I | II | I | I | I | II | I |

FORM III D

Q. C. REPORT NO. HUK-II

BLANKS

LAB NAME WILSON LABORATORIES CASE NO. HUK-II

DATE 86/10/21 UNITS UG/L

MATRIX WATER

| COMPOUND | INITIAL CALIBRATION BLANK VALUE | CONTINUING CALIBRATION BLANK VALUE 1 | 2 | 3 | 4 | PREPARATION BLANK MATRIX: 1 | MATRIX: 2 |
|---|---|---|---|---|---|---|---|
| METALS: | I | II | I | I | I | II | |
| | I | II | I | I | I | II | |
| 1. ALUMINUM | I | II | I | I | I | II | |
| 2. ANTIMONY | I | II | I | I | I | II | |
| 3. ARSENIC | I | II | I | I | I | II | |
| 4. BARIUM | I | II | I | I | I | II | |
| 5. BERYLLIUM | I | II | I | I | I | II | |
| 6. CADMIUM | I | II | I | I | I | II | |
| 7. CALCIUM | I | II | I | I | I | II | |
| 8. CHROMIUM | I | II | I | I | I | II | |
| 9. COBALT | I | II | I | I | I | II | |
| 10. COPPER | I | II | I | I | I | II | |
| 11. IRON | I | II | I | I | I | II | |
| 12. LEAD | I | II | I | I | I | II | |
| 13. MAGNESIUM | I | II | I | I | I | II | |
| 14. MANGANESE | I | II | I | I | I | II | |
| 15. MERCURY | I | II | I | I | I | II | |
| 16. NICKEL | I | II | I | I | I | II | |
| 17. POTASSIUM | I | II | I | I | I | II | |
| 18. SELENIUM | I 2.5 U | II 2.5 U | I | I | I | II | |
| 19. SILVER | I | II | I | I | I | II | |
| 20. SODIUM | I | II | I | I | I | II | |
| 21. THALLIUM | I | II | I | I | I | II | |
| 22. TIN | I | II | I | I | I | II | |
| 23. VANADIUM | I | II | I | I | I | II | |
| 24. ZINC | I | II | I | I | I | II | |
| OTHER: | | | | | | | |
| CYANIDE | I | II | I | I | I | II | |