## CASE NARRATIVE

## QUANTERRA INCORPORATED PROJECT NUMBER 130503

All applicable internal quality control analyses including calibrations and calibration verifications, calibration (instrument) and method blanks, laboratory control samples (LCS), matrix spikes (MS) and matrix spike duplicates (MSD), and other QC met project and/or method-specified acceptance criteria. Any matrix-related anomalies are indicated using footnotes within the report. Any other anomalies are reported within the narrative.

There were no anomalies associated with this project.

*Quanterra Environmental Services - Western Region*

# Quality Control Definitions

| QC Parameter | Definition |
|---|---|
| QC Batch | A set of up to 20 field samples plus associated laboratory QC samples that are similar in composition (matrix) and that are processed within the same time period with the same reagent and standard lots. |
| Duplicate Control Sample (DCS) | Consist of a pair of LCSs analyzed within the same QC batch to monitor precision and accuracy independent of sample matrix effects. This QC is performed only if required by client or when insufficient sample is available to perform MS/MSD. |
| Duplicate Sample (DU) | A second aliquot of an environmental sample, taken from the same sample container when possible, that is processed independently with the first sample aliquot. The results are used to assess the effect of the sample matrix on the precision of the analytical process. The precision estimated using this sample is not necessarily representative of the precision for other samples in the batch. |
| Laboratory Control Sample (LCS) | A volume of reagent water for aqueous samples or a contaminant-free solid matrix (Ottawa sand) for soil and sediment samples which is spiked with known amounts of representative target analytes and required surrogates. An LCS is carried through the entire analytical process and is used to monitor the accuracy of the analytical process independent of potential matrix effects. |
| Matrix Spike and Matrix Spike Duplicate (MS/MSD) | A field sample fortified with known quantities of target analytes that are also added to the LCS. Matrix spike duplicate is a second matrix spike sample. MSs/MSDs are carried through the entire analytical process and are used to determine sample matrix effect on accuracy of the measurement system. The accuracy and precision estimated using MS/MSD is only representative of the precision of the sample that was spiked. |
| Method Blank (MB) | A sample composed of all the reagents (in the same quantities) in reagent water carried through the entire analytical process. The method blank is used to monitor the level of contamination introduced during sample preparation steps. |
| Surrogate Spike | Organic constituents not expected to be detected in environmental media and are added to every sample and QC at a known concentration. Surrogates are used to determine the efficiency of the sample preparation and the analytical process. |

Source: Quanterra® Quality Control Program, Policy QA-003, Rev. 0, 8/19/96.

# Chain of Custody Record

Quanterra Environmental Services

QUA-4124-1

| | | | |
|---|---|---|---|
| Client: SCS Engineers | Project Manager: Steve Clements | Date: 1/23/98 | Chain Of Custody Number: 73084 |
| Address: 3711 Long Beach Bl | Telephone Number (Area Code)/Fax Number: (562) 426-9544 | Lab Number: 130390 | Page ____ of ____ |
| City: L.B. State: CA Zip Code: 90807 | Site Contact | Lab Contact | |
| Project Name: LACDPC | Carrier/Waybill Number | | |
| Contract/Purchase Order/Quote No.: 019317.01 | | | |

Analysis (Attach list if more space is needed)

| Sample I.D. No. and Description (Containers for each sample may be combined on one line) | Date | Time | Matrix: Aqueous | Sed. | Soil | | Containers & Preservatives: Unpres. | H2SO4 | HNO3 | HCl | NaOH | ZnAc/NaOH | | 8170 | 8150 | Analyte | QA/QC | Special Instructions/ Conditions of Receipt |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MW1-A | 1/23/98 | | | | | | | | | | | | | | X | | | |
| B | | | | | | | | | | | | | | X | | | | |
| C | | | | | | | | | | | | | | | | | X | |
| D | | | | | | | | | | | | | | | | X | | |
| MW2-A | | | | | | | | | | | | | | | X | | | |
| B | | | | | | | | | | | | | | X | | | | |
| C | | | | | | | | | | | | | | | | X | | |
| ~~B~~ | | | | | | | | | | | | | | | | | | |
| MW3-A | | | | | | | | | | | | | | | X | | | |
| B | | | | | | | | | | | | | | X | | | | |
| C | | | | | | | | | | | | | | | | X | | |

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal: ☐ Return To Client ☐ Disposal By Lab ☐ Archive For ____ Months (A fee may be assessed if samples are retained longer than 3 months)

Turn Around Time Required: ☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☒ 14 Days ☐ 21 Days ☐ Other ____

QC Requirements (Specify)

| | | | | | |
|---|---|---|---|---|---|
| 1. Relinquished By | Date: 1/23/98 | Time: 1310 | 1. Received By | Date: 1/23/98 | Time: 1310 |
| 2. Relinquished By | Date: | Time: | 2. Received By | Date: | Time: |
| 3. Relinquished By | Date: | Time: | 3. Received By | Date: | Time: |

Comments

DISTRIBUTION: WHITE - Stays with the Sample; CANARY - Returned to Client with Report; PINK - Field Copy

# CHAIN-OF-CUSTODY

| | | |
|---|---|---|
| PROJECT NAME: SCS/LACDAC | **QUANTERRA** *ENVIRONMENTAL SERVICES* | DUE: 03 FEB 98 |
| PO NUMBER: 130390 | 1721 South Grand Avenue | TO: QES, SACRAMENTO |
| PROJECT MANAGER: Diane Suzuki | Santa Ana, CA 92705 | 880 Riverside Parkway |
| | Phone #: (714) 258-8610 | West Sacramento, CA 95606 |

| SAMPLE DESCRIPTION | LAB ID | DATE | TIME | MATRIX | CONTAINERS | ANALYSES: 8140 | 8150 | | | | | | | | REMARKS/ SPCL INSTR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MW1 | 130390-0001 SA | 23 JAN 98 | | AQUEOUS | 4-1AGB | X | X | | | | | | | | |
| MW2 | 130390-0002 SA | 23 JAN 98 | | AQUEOUS | 3 | X | X | | | | | | | | |
| MW3 | 130390-0003 SA | 23 JAN 98 | | AQUEOUS | 3 | X | X | | | | | | | | |

| | SIGNATURE | PRINT NAME | COMPANY/TITLE | DATE | TIME |
|---|---|---|---|---|---|
| Relinquished by: | [signature] | K. FREITAG | QUANTERRA | 1/26/98 | 1700 |
| Received by: | [signature] | Marcela E. Garcia | QES-W Sacto | 01/27/98 | 12:00 |
| Relinquished by: | | | | | |
| Received by: | | | | | |

Comments: EXPIRES 1/30/98 ! ! ! Samples rec'd in good condition 01/27/98 m.

QAB/3 4/96 CMD

Quanterra
Environmental Services

SAMPLE DESCRIPTION INFORMATION
for
SCS Engineers

| Lab ID | Client ID | Matrix | Sampled Date | Sampled Time | Received Date |
|---|---|---|---|---|---|
| 130390-0001-SA | MW1 | AQUEOUS | 23 JAN 98 | | 23 JAN 98 |
| 130390-0002-SA | MW2 | AQUEOUS | 23 JAN 98 | | 23 JAN 98 |
| 130390-0003-SA | MW3 | AQUEOUS | 23 JAN 98 | | 23 JAN 98 |

# Organophosphorus Pesticides
# Herbicides

Quanterra
Environmental Services

Organophosphorus Pesticides (export to WSAC)
Method 8140

| | | | |
|---|---|---|---|
| Client Name: | SCS Engineers | | |
| Client ID: | MW1 | | |
| LAB ID: | 130390-0001-SA | | |
| Matrix: | AQUEOUS | Sampled: 23 JAN 98 | Received: 23 JAN 98 |
| Authorized: | 24 JAN 98 | Prepared: 30 JAN 98 | Analyzed: 05 FEB 98 |
| Instrument: | PHOS-PEST | Dilution: 1.0 | |

| Parameter | Result | Qualifier | RL | Units |
|---|---|---|---|---|
| Azinphos-methyl (Guthion) | ND | | 1.0 | ug/L |
| Bolstar | ND | | 1.0 | ug/L |
| Dursban (Chlorpyrifos) | ND | | 1.0 | ug/L |
| Coumaphos | ND | | 1.0 | ug/L |
| Demeton | ND | | 1.0 | ug/L |
| Diazinon | ND | | 1.0 | ug/L |
| Dichlorvos | ND | | 2.0 | ug/L |
| Disyston (Disulfoton) | ND | | 1.0 | ug/L |
| Ethoprop | ND | | 1.0 | ug/L |
| Fensulfothion | ND | | 1.0 | ug/L |
| Baytex (Fenthion) | ND | | 1.0 | ug/L |
| Merphos | ND | | 1.0 | ug/L |
| Phosdrin (Mevinphos) | ND | | 1.0 | ug/L |
| Naled | ND | | 2.0 | ug/L |
| Methyl parathion | ND | | 1.0 | ug/L |
| Phorate (Thimet) | ND | | 1.0 | ug/L |
| Ronnel | ND | | 1.0 | ug/L |
| Tetrachlorvinphos | ND | | 1.0 | ug/L |
| Tokuthion (Prothiophos) | ND | | 1.0 | ug/L |
| Trichloronate | ND | | 1.0 | ug/L |

| Surrogate | Recovery | | Acceptable Range |
|---|---|---|---|
| Ethion | 99 | % | 67 - 117 |

ND = Not Detected

Quanterra Environmental Services

| | | | |
|---|---|---|---|
| Client Name: | SCS Engineers | | |
| Client ID: | MW1 | | |
| LAB ID: | 130390-0001-SA | | |
| Matrix: | AQUEOUS | Sampled: 23 JAN 98 | Received: 23 JAN 98 |
| Authorized: | 24 JAN 98 | Prepared: 29 JAN 98 | Analyzed: 11 FEB 98 |
| Instrument: | ACID | Dilution: 1.0 | |

| Parameter | Result | Qualifier | RL | Units |
|---|---|---|---|---|
| 2,4-D | ND | | 0.25 | ug/L |
| 2,4-DB | ND | | 1.0 | ug/L |
| 2,4,5-TP (Silvex) | ND | | 0.050 | ug/L |
| 2,4,5-T | ND | | 0.050 | ug/L |
| MCPA | ND | | 50 | ug/L |
| MCPP | ND | | 50 | ug/L |
| Dinoseb | ND | | 0.25 | ug/L |
| Dalapon | ND | | 5.0 | ug/L |
| Dichlorprop | ND | | 0.25 | ug/L |
| Dicamba | ND | | 0.10 | ug/L |

| Surrogate | Recovery | | Acceptable Range |
|---|---|---|---|
| 2,4-DCAA | 67 | % | 26 - 132 |

ND = Not Detected

Quanterra
Environmental Services

Organophosphorus Pesticides (export to WSAC)
Method 8140

| | | | |
|---|---|---|---|
| Client Name: | SCS Engineers | | |
| Client ID: | MW2 | | |
| LAB ID: | 130390-0002-SA | | |
| Matrix: | AQUEOUS | Sampled: 23 JAN 98 | Received: 23 JAN 98 |
| Authorized: | 24 JAN 98 | Prepared: 30 JAN 98 | Analyzed: 05 FEB 98 |
| Instrument: | PHOS-PEST | Dilution: 1.0 | |

| Parameter | Result | Qualifier | RL | Units |
|---|---|---|---|---|
| Azinphos-methyl (Guthion) | ND | | 1.0 | ug/L |
| Bolstar | ND | | 1.0 | ug/L |
| Dursban (Chlorpyrifos) | ND | | 1.0 | ug/L |
| Coumaphos | ND | | 1.0 | ug/L |
| Demeton | ND | | 1.0 | ug/L |
| Diazinon | ND | | 1.0 | ug/L |
| Dichlorvos | ND | | 2.0 | ug/L |
| Disyston (Disulfoton) | ND | | 1.0 | ug/L |
| Ethoprop | ND | | 1.0 | ug/L |
| Fensulfothion | ND | | 1.0 | ug/L |
| Baytex (Fenthion) | ND | | 1.0 | ug/L |
| Merphos | ND | | 1.0 | ug/L |
| Phosdrin (Mevinphos) | ND | | 1.0 | ug/L |
| Naled | ND | | 2.0 | ug/L |
| Methyl parathion | ND | | 1.0 | ug/L |
| Phorate (Thimet) | ND | | 1.0 | ug/L |
| Ronnel | ND | | 1.0 | ug/L |
| Tetrachlorvinphos | ND | | 1.0 | ug/L |
| Tokuthion (Prothiophos) | ND | | 1.0 | ug/L |
| Trichloronate | ND | | 1.0 | ug/L |

| Surrogate | Recovery | | Acceptable Range |
|---|---|---|---|
| Ethion | 68 | % | 67 - 117 |

ND = Not Detected

Quanterra Environmental Services

| | | | |
|---|---|---|---|
| Client Name: | SCS Engineers | | |
| Client ID: | MW2 | | |
| LAB ID: | 130390-0002-SA | | |
| Matrix: | AQUEOUS | Sampled: 23 JAN 98 | Received: 23 JAN 98 |
| Authorized: | 24 JAN 98 | Prepared: 29 JAN 98 | Analyzed: 11 FEB 98 |
| Instrument: | ACID | Dilution: 1.0 | |

| Parameter | Result | Qualifier | RL | Units |
|---|---|---|---|---|
| 2,4-D | ND | | 0.25 | ug/L |
| 2,4-DB | ND | | 1.0 | ug/L |
| 2,4,5-TP (Silvex) | ND | | 0.050 | ug/L |
| 2,4,5-T | ND | | 0.050 | ug/L |
| MCPA | ND | | 50 | ug/L |
| MCPP | ND | | 50 | ug/L |
| Dinoseb | ND | | 0.25 | ug/L |
| Dalapon | ND | | 5.0 | ug/L |
| Dichlorprop | ND | | 0.25 | ug/L |
| Dicamba | ND | | 0.10 | ug/L |

| Surrogate | Recovery | | Acceptable Range |
|---|---|---|---|
| 2,4-DCAA | 64 | % | 26 - 132 |

ND = Not Detected

Quanterra
Environmental Services

Organophosphorus Pesticides (export to WSAC)
Method 8140

| | | | |
|---|---|---|---|
| Client Name: | SCS Engineers | | |
| Client ID: | MW3 | | |
| LAB ID: | 130390-0003-SA | | |
| Matrix: | AQUEOUS | Sampled: 23 JAN 98 | Received: 23 JAN 98 |
| Authorized: | 24 JAN 98 | Prepared: 30 JAN 98 | Analyzed: 05 FEB 98 |
| Instrument: | PHOS-PEST | Dilution: 1.0 | |

| Parameter | Result | Qualifier | RL | Units |
|---|---|---|---|---|
| Azinphos-methyl (Guthion) | ND | | 1.0 | ug/L |
| Bolstar | ND | | 1.0 | ug/L |
| Dursban (Chlorpyrifos) | ND | | 1.0 | ug/L |
| Coumaphos | ND | | 1.0 | ug/L |
| Demeton | ND | | 1.0 | ug/L |
| Diazinon | ND | | 1.0 | ug/L |
| Dichlorvos | ND | | 2.0 | ug/L |
| Disyston (Disulfoton) | ND | | 1.0 | ug/L |
| Ethoprop | ND | | 1.0 | ug/L |
| Fensulfothion | ND | | 1.0 | ug/L |
| Baytex (Fenthion) | ND | | 1.0 | ug/L |
| Merphos | ND | | 1.0 | ug/L |
| Phosdrin (Mevinphos) | ND | | 1.0 | ug/L |
| Naled | ND | | 2.0 | ug/L |
| Methyl parathion | ND | | 1.0 | ug/L |
| Phorate (Thimet) | ND | | 1.0 | ug/L |
| Ronnel | ND | | 1.0 | ug/L |
| Tetrachlorvinphos | ND | | 1.0 | ug/L |
| Tokuthion (Prothiophos) | ND | | 1.0 | ug/L |
| Trichloronate | ND | | 1.0 | ug/L |

| Surrogate | Recovery | | Acceptable Range |
|---|---|---|---|
| Ethion | 81 | % | 67 - 117 |

ND = Not Detected

Quanterra Environmental Services

| | | | |
|---|---|---|---|
| Client Name: | SCS Engineers | | |
| Client ID: | MW3 | | |
| LAB ID: | 130390-0003-SA | | |
| Matrix: | AQUEOUS | Sampled: 23 JAN 98 | Received: 23 JAN 98 |
| Authorized: | 24 JAN 98 | Prepared: 29 JAN 98 | Analyzed: 12 FEB 98 |
| Instrument: | ACID | Dilution: 1.0 | |

| Parameter | Result | Qualifier | RL | Units |
|---|---|---|---|---|
| 2,4-D | ND | | 0.25 | ug/L |
| 2,4-DB | ND | | 1.0 | ug/L |
| 2,4,5-TP (Silvex) | ND | | 0.050 | ug/L |
| 2,4,5-T | ND | | 0.050 | ug/L |
| MCPA | ND | | 50 | ug/L |
| MCPP | ND | | 50 | ug/L |
| Dinoseb | ND | | 0.25 | ug/L |
| Dalapon | ND | | 5.0 | ug/L |
| Dichlorprop | ND | | 0.25 | ug/L |
| Dicamba | ND | | 0.10 | ug/L |

| Surrogate | Recovery | | Acceptable Range |
|---|---|---|---|
| 2,4-DCAA | 97 | % | 26 - 132 |

ND = Not Detected

Quanterra
Environmental Services

QC LOT ASSIGNMENT REPORT - MS QC
Subcontracted to Quanterra Lab

| Laboratory Sample Number | QC Matrix | QC Category | QC Lot Number (DCS) | QC Run Number (SCS/BLANK/LCS) | MS QC Run Number (SA,MS,SD,DU) |
|---|---|---|---|---|---|
| 130390-0001-SA | AQUEOUS | 615-A | 29 JAN 98-11A | 29 JAN 98-11A | |
| 130390-0002-SA | AQUEOUS | 615-A | 29 JAN 98-11A | 29 JAN 98-11A | |
| 130390-0003-SA | AQUEOUS | 615-A | 29 JAN 98-11A | 29 JAN 98-11A | |
| 130390-0001-SA | AQUEOUS | 8140-SW-A | 30 JAN 98-11A | 30 JAN 98-11A | |
| 130390-0002-SA | AQUEOUS | 8140-SW-A | 30 JAN 98-11A | 30 JAN 98-11A | |
| 130390-0003-SA | AQUEOUS | 8140-SW-A | 30 JAN 98-11A | 30 JAN 98-11A | |

Quanterra Environmental Services

METHOD BLANK REPORT
Subcontracted to Quanterra Lab
Project: 130390

Test: 8150-SW-A Method 8150 - HSL Chlorinated Phenoxyacid Herbicides
Matrix: AQUEOUS
QC Run: 29 JAN 98-11A Date Analyzed: 12 FEB 98

| Analyte | Result | Units | Reporting Limit |
|---|---|---|---|
| 2,4-D | ND | ug/L | 0.25 |
| 2,4-DB | ND | ug/L | 1.0 |
| 2,4,5-TP (Silvex) | ND | ug/L | 0.050 |
| 2,4,5-T | ND | ug/L | 0.050 |
| MCPA | ND | ug/L | 50 |
| MCPP | ND | ug/L | 50 |
| Dinoseb | ND | ug/L | 0.25 |
| Dalapon | ND | ug/L | 5.0 |
| Dichlorprop | ND | ug/L | 0.25 |
| Dicamba | ND | ug/L | 0.10 |

| Surrogate | Recovery | Acceptable Range |
|---|---|---|
| 2,4-DCAA | 63 | 52 -92 |

Test: 8140-SW-A Method 8140 - Organophosphorus Pesticides
Matrix: AQUEOUS
QC Run: 30 JAN 98-11A Date Analyzed: 05 FEB 98

| Analyte | Result | Units | Reporting Limit |
|---|---|---|---|
| Azinphos-methyl (Guthion) | ND | ug/L | 1.0 |
| Bolstar | ND | ug/L | 1.0 |
| Dursban (Chlorpyrifos) | ND | ug/L | 1.0 |
| Coumaphos | ND | ug/L | 1.0 |
| Demeton | ND | ug/L | 1.0 |
| Diazinon | ND | ug/L | 1.0 |
| Dichlorvos | ND | ug/L | 2.0 |
| Disyston (Disulfoton) | ND | ug/L | 1.0 |
| Ethoprop | ND | ug/L | 1.0 |
| Fensulfothion | ND | ug/L | 1.0 |
| Baytex (Fenthion) | ND | ug/L | 1.0 |
| Merphos | ND | ug/L | 1.0 |
| Phosdrin (Mevinphos) | ND | ug/L | 1.0 |
| Naled | ND | ug/L | 2.0 |
| Methyl parathion | ND | ug/L | 1.0 |
| Phorate (Thimet) | ND | ug/L | 1.0 |
| Ronnel | ND | ug/L | 1.0 |
| Tetrachlorvinphos | ND | ug/L | 1.0 |
| Tokuthion (Prothiophos) | ND | ug/L | 1.0 |
| Trichloronate | ND | ug/L | 1.0 |

ND = Not Detected

Quanterra
Environmental Services

METHOD BLANK REPORT (cont.)
Subcontracted to Quanterra Lab
Project: 130390

Test: 8140-SW-A Method 8140 - Organophosphorus Pesticides (cont.)
Matrix: AQUEOUS

| Surrogate | Recovery | Acceptable Range |
|---|---|---|
| Ethion | 82 | 67 -117 |

Quanterra Environmental Services

DUPLICATE CONTROL SAMPLE REPORT
Subcontracted to Quanterra Lab
Project: 130390

Category: 615-A Herbicides
Matrix: AQUEOUS
QC Lot: 29 JAN 98-11A
Date Analyzed: 12 FEB 98
Concentration Units: ug/L

| Analyte | Spiked | Concentration Measured DCS1 | Concentration Measured DCS2 | %Recovery DCS1 | %Recovery DCS2 | RPD | Acceptance Limits Recov. | Acceptance Limits RPD |
|---|---|---|---|---|---|---|---|---|
| 2,4-D | 0.800 | 0.546 | 0.589 | 68 | 74 | 7.6 | 54-104 | 36 |
| 2,4,5-TP (Silvex) | 0.200 | 0.141 | 0.153 | 71 | 77 | 8.3 | 58-106 | 36 |
| 2,4,5-T | 0.200 | 0.153 | 0.170 | 76 | 85 | 11 | 51-123 | 33 |
| Dinoseb | 0.120 | 0.0820 | 0.0955 | 68 | 80 | 15 | 24-84 | 110 |

| Surrogate | Spiked | Concentration Measured DCS1 | Concentration Measured DCS2 | %Recovery DCS1 | %Recovery DCS2 | Acceptance Limits Recovery |
|---|---|---|---|---|---|---|
| 2,4-DCAA | 1.00 | 0.652 | 0.828 | 65 | 83 | 52-92 |

Category: 8140-SW-A Organophosphate Pesticides
Matrix: AQUEOUS
QC Lot: 30 JAN 98-11A
Date Analyzed: 05 FEB 98
Concentration Units: ug/L

| Analyte | Spiked | Concentration Measured DCS1 | Concentration Measured DCS2 | %Recovery DCS1 | %Recovery DCS2 | RPD | Acceptance Limits Recov. | Acceptance Limits RPD |
|---|---|---|---|---|---|---|---|---|
| Dursban (Chlorpyrifos) | 2.5 | 2.0 | 2.1 | 82 | 85 | 3.7 | 60-140 | 40 |
| Diazinon | 2.5 | 2.1 | 2.2 | 84 | 86 | 3.3 | 53-115 | 18 |
| Phosdrin (Mevinphos) | 2.5 | 1.8 | 1.8 | 74 | 71 | 3.8 | 60-140 | 40 |
| Phorate (Thimet) | 2.5 | 2.0 | 2.0 | 80 | 81 | 1.3 | 46-107 | 25 |
| Tetrachlorvinphos | 2.5 | 2.1 | 2.0 | 82 | 78 | 4.8 | 60-140 | 40 |

| Surrogate | Spiked | Concentration Measured DCS1 | Concentration Measured DCS2 | %Recovery DCS1 | %Recovery DCS2 | Acceptance Limits Recovery |
|---|---|---|---|---|---|---|
| Ethion | 2.50 | 2.28 | 2.35 | 91 | 94 | 67-117 |

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE REPORT
Subcontracted to Quanterra Lab
Project: 130390

Calculations are performed before rounding to avoid round-off errors in calculated results.

**TRUESDAIL LABORATORIES, INC.**

CHEMISTS · MICROBIOLOGISTS · ENGINEERS
RESEARCH · DEVELOPMENT · TESTING
ESTABLISHED 1931

14201 FRANKLIN AVENUE
TUSTIN, CALIF. 92680
(714) 730-6239
FAX (714) 730-6462

SCS Engineers
3711 Long Beach Blvd., Suite 131
Long Beach, CA 90807
Attn: Steve Clements

Date: January 28, 1998
Recv'd: January 7, 1998
Lab. No: 600700
P.O. No: LACDAC #0193171.01

Sample: Three (3) water samples labelled:

| | |
|---|---|
| MW 1 | 1/6/98 |
| MW 2 | 1/6/98 |
| MW 3 | 1/6/98 |

Investigation: Analyze for strychnine in water by high performance liquid chromatography (HPLC)-ultra violet (UV) spectroscopic detection; analyze for general minerals by methods designated below.

RESULTS

The results are tabulated on the following page.

Respectfully submitted,
TRUESDAIL LABORATORIES, INC.

Joe Bramblett, Manager
Instrumental Methods

SCS Engineers
Lab. No. 600700
Page 2

## General Minerals

Milligrams per Liter (ppm)

| | MW-1 | MW-2 | MW-3 |
|---|---|---|---|
| **Cations** | | | |
| Ammonium | 0.15 | 0.14 | ND |
| Sodium | 69.3 | 60.9 | 71.8 |
| Potassium | 4.69 | 4.52 | 4.93 |
| Calcium | 121 | 83.7 | 120.2 |
| Magnesium | 24.1 | 18.8 | 23.3 |
| **Anions** | | | |
| Bicarbonate | 298 | 211 | 268 |
| Carbonate | ND | ND | ND |
| Chloride | 54.8 | 70.5 | 62.5 |
| Sulfate | 143 | 114 | 153 |
| Nitrate | 9.0 | 12.9 | 20.7 |
| Fluoride | 0.38 | 0.36 | 0.37 |
| Iron | 0.04 | 0.04 | 0.04 |
| Manganese | ND | ND | ND |
| Alkalinity | 244 | 173 | 220 |
| Hardness | 380 | 250 | 340 |
| Total Dissolved Solids | 707 | 513 | 672 |
| pH | 6.726 | 6.700 | 6.765 |

ND-Not detected.

The HPLC-UV analysis was adapted from NIOSH Method 5016. The sample was analyzed by direct injection of the sample.

| | Milligrams per Liter (ppm) | |
|---|---|---|
| **HPLC-UV** | **Strychnine** | Detection Limit |
| MW-1 | ND | 0.04 |
| MW-2 | ND | 0.04 |
| MW-3 | ND | 0.04 |

ND-Not detected.

**Matrix Spike, MW-2**

| | Milligrams per Liter (ppm) | | |
|---|---|---|---|
| **HPLC-UV** | Amount Spiked | Amount Found | Percent Recovered |
| **Strychnine** | 0.50 | 0.62 | 124 |

*Quanterra Incorporated*
*880 Riverside Parkway*
*West Sacramento, California 95605*

*916 373-5600 Telephone*
*916 372-1059 Fax*

June 3, 1999

QUANTERRA INCORPORATED PROJECT NUMBER: G9D300227
PO/CONTRACT: TBD

Steve Clements
SCS Engineers
3711 Long Beach Boulevard
Ninth Floor
Long Beach, CA 90807

Dear Mr. Clements,

This report contains the analytical results for the six samples received under chain of custody by Quanterra Incorporated on April 30, 1999. These samples are associated with your LACDAC project.

The case narrative is an integral part of this report.

If you have any questions, please feel free to call me at (916)374-4427

Sincerely,

Nilo Ligi
Project Manager

Quanterra

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# CASE NARRATIVE

## QUANTERRA INCORPORATED PROJECT NUMBER G9D300227

### Sample Receipt

Sample MW2-7 was received broken. Sample water wet the labels and most label ID's were nearly illegible. By comparing partial Sample ID's and sampling times, the Identifications of the bottles were determined.

### Chlorinated Pesticides – SW 8081A

The RPD for Aldrin in the LCS was outside the control limit. Since the individual recoveries were within limits, the sample surrogate recoveries (both surrogates) were within limits for all the samples, and there were no sample positives, the higher than normal RPD will have no adverse affect on the data reported.

### Organophosphorus Pesticides – SW 8141A

The RPD for O,O,O-Triethylphosphorothioate in the MSSD was outside the control limit. Since the individual recoveries were within limits, the sample surrogate recoveries (both surrogates) were within limits for all the samples, and there were no sample positives, the higher than normal RPD will have no adverse affect on the data reported.

### Chlorinated Herbicides – SW 8151A

This batch was sent back for Reextraction because all surrogate recoveries but the DCS's were below the 52% limit. G9D300227-3 was not re-extracted because there was no sample left. In the re-extraction only DCS1 and G9D300227-5 had surrogate recoveries within the 52-92% limit. They were all below the limit with the exception of the DCS2 which was above the limit at 94%.All the above recoveries were confirmed by a second analysis.These recoveries are consistent with the results we have seen since starting the 8151 method.
Modifications to the 8151 SOP being tried to bring the surrogate recoveries up while keeping analyte recoveries within limits have thus far been unsuccessful.
When following the SOP the recoveries seen in the above batch are fairly typical. Surrogate recoveries in the middle to high forties, except in spiked samples where the recoveries can reach the middle nineties.
Both sets of data are reported herein.

There were no other anomalies associated with this project.

*Quanterra - Western Region*

# Quality Control Definitions

| QC Parameter | Definition |
|---|---|
| QC Batch | A set of up to 20 field samples plus associated laboratory QC samples that are similar in composition (matrix) and that are processed within the same time period with the same reagent and standard lots. |
| Duplicate Control Sample (DCS) | Consist of a pair of LCSs analyzed within the same QC batch to monitor precision and accuracy independent of sample matrix effects. This QC is performed only if required by client or when insufficient sample is available to perform MS/MSD. |
| Duplicate Sample (DU) | A second aliquot of an environmental sample, taken from the same sample container when possible, that is processed independently with the first sample aliquot. The results are used to assess the effect of the sample matrix on the precision of the analytical process. The precision estimated using this sample is not necessarily representative of the precision for other samples in the batch. |
| Laboratory Control Sample (LCS) | A volume of reagent water for aqueous samples or a contaminant-free solid matrix (Ottawa sand) for soil and sediment samples which is spiked with known amounts of representative target analytes and required surrogates. An LCS is carried through the entire analytical process and is used to monitor the accuracy of the analytical process independent of potential matrix effects. |
| Matrix Spike and Matrix Spike Duplicate (MS/MSD) | A field sample fortified with known quantities of target analytes that are also added to the LCS. Matrix spike duplicate is a second matrix spike sample. MSs/MSDs are carried through the entire analytical process and are used to determine sample matrix effect on accuracy of the measurement system. The accuracy and precision estimated using MS/MSD is only representative of the precision of the sample that was spiked. |
| Method Blank (MB) | A sample composed of all the reagents (in the same quantities) in reagent water carried through the entire analytical process. The method blank is used to monitor the level of contamination introduced during sample preparation steps. |
| Surrogate Spike | Organic constituents not expected to be detected in environmental media and are added to every sample and QC at a known concentration. Surrogates are used to determine the efficiency of the sample preparation and the analytical process. |

Source: Quanterra® Quality Control Program, Policy QA-003, Rev. 0, 8/19/96.

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# SAMPLE SUMMARY

G9D300227

| WO # | SAMPLE# | CLIENT SAMPLE ID | DATE | TI |
|---|---|---|---|---|
| CV9XQ | 001 | MW1 | 04/29/99 | 08 |
| CV9XW | 002 | MW2 | 04/29/99 | 09 |
| CVA0D | 003 | MW2-9 | 04/29/99 | 09 |
| CVA0G | 004 | MW3 | 04/29/99 | 11 |
| CVA0J | 005 | RINSATE | 04/29/99 | 13 |
| CVA0K | 006 | TRIP BLANK | 04/29/99 | 13 |

**NOTE(S):**

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

Quanterra Incorporated
SAMPLE ANALYSIS REQUISITION

LABORATORY: Quanterra Inc - North Canton OH
4101 Shuffel Drive NW
North Canton OH 44720,HYT RE

NEED ANALYTICAL REPORT BY
5/17/99

ATTN:

LAB PURCHASE ORDER: SR015939

CLIENT CODE: 360516 PROJECT MANAGER: Nilo Ligi

NUMBER OF SAMPLES IN LOT: 0002

| SAMPLE I.D. | SAMPLING DATE | ANALYSIS REQUIRED | |
|---|---|---|---|
| G9D300227-001<br>CV9XQ-1-01 | 4/29/99 | Compounds, Organophosphorus (8141A)<br>(GC8141_L) METHOD: 8141A | 2 AGB |
| G9D300227-002<br>CV9XW-1-01 | 4/29/99 | Compounds, Organophosphorus (8141A)<br>(GC8141_L) METHOD: 8141A | 2 AGB |
| G9D300227-004<br>CVA0G-1-01 | 4/29/99 | Compounds, Organophosphorus (8141A)<br>(GC8141_L) METHOD: 8141A | 2 AGB |

NEED DETECTION LIMIT AND ANALYSIS DATE INCLUDED IN REPORT.

SHIPPING METHOD: AIRBORNE DATE: 4/30/99

SEND REPORT TO: NILO LIGI

SAMPLE RECEIVED BY: _____ DATE: _____

PLEASE SEND A SIGNED COPY OF THIS FORM WITH REPORT AT COMPLETION OF ANALYSIS.

THANK YOU.

Quanterra - Sacramento
INT: _____ 4/30/99 16:03:44
Quanterra Inc - North Canton OH
4101 Shuffel Drive NW
North Canton OH 44720,HYT RE

RELINQUISHED BY: Nilo Ligi DATE/TIME: 4/30/99 15:23

RELINQUISHED BY: _____ DATE/TIME: _____

RECEIVED FOR LAB BY: _____ DATE/TIME: _____

PLEASE RETURN ORIGINAL SAMPLE ANALYSIS REQUISITION

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# Chlorinated Pesticides
# Method 8081

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SCS ENGINEERS

Client Sample ID: MW1

GC Semivolatiles

**Lot-Sample #...:** G9D300227-001 **Work Order #...:** CV9XQ103 **Matrix.....:** WATER
**Date Sampled...:** 04/29/99 **Date Received..:** 04/30/99
**Prep Date.....:** 05/04/99 **Analysis Date..:** 05/07/99
**Prep Batch #...:** 9124314
**Dilution Factor:** 1 **Method.....:** SW846 8081A

| PARAMETER | RESULT | REPORTING LIMIT | UNITS |
|---|---|---|---|
| alpha-BHC | ND | 0.050 | ug/L |
| gamma-BHC (Lindane) | ND | 0.050 | ug/L |
| Heptachlor | ND | 0.050 | ug/L |
| Aldrin | ND | 0.050 | ug/L |
| beta-BHC | ND | 0.050 | ug/L |
| delta-BHC | ND | 0.050 | ug/L |
| Heptachlor epoxide | ND | 0.050 | ug/L |
| Endosulfan I | ND | 0.050 | ug/L |
| gamma-Chlordane | ND | 0.050 | ug/L |
| alpha-Chlordane | ND | 0.050 | ug/L |
| 4,4'-DDE | ND | 0.10 | ug/L |
| Dieldrin | ND | 0.10 | ug/L |
| Endrin | ND | 0.10 | ug/L |
| 4,4'-DDD | ND | 0.10 | ug/L |
| Endosulfan II | ND | 0.10 | ug/L |
| 4,4'-DDT | ND | 0.10 | ug/L |
| Endrin aldehyde | ND | 0.10 | ug/L |
| Methoxychlor | ND | 0.50 | ug/L |
| Endosulfan sulfate | ND | 0.10 | ug/L |
| Endrin ketone | ND | 0.10 | ug/L |
| Toxaphene | ND | 2.0 | ug/L |

| SURROGATE | PERCENT RECOVERY | RECOVERY LIMITS |
|---|---|---|
| Tetrachloro-m-xylene | 62 | (47 - 119) |
| Decachlorobiphenyl | 99 | (10 - 146) |

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**SCS ENGINEERS**

**Client Sample ID: MW2**

**GC Semivolatiles**

**Lot-Sample #...:** G9D300227-002 **Work Order #...:** CV9XW103 **Matrix.....:** WATER
**Date Sampled...:** 04/29/99 **Date Received..:** 04/30/99
**Prep Date.....:** 05/04/99 **Analysis Date..:** 05/07/99
**Prep Batch #...:** 9124314
**Dilution Factor:** 1 **Method.....:** SW846 8081A

| PARAMETER | RESULT | REPORTING LIMIT | UNITS |
|---|---|---|---|
| alpha-BHC | ND | 0.050 | ug/L |
| gamma-BHC (Lindane) | ND | 0.050 | ug/L |
| Heptachlor | ND | 0.050 | ug/L |
| Aldrin | ND | 0.050 | ug/L |
| beta-BHC | ND | 0.050 | ug/L |
| delta-BHC | ND | 0.050 | ug/L |
| Heptachlor epoxide | ND | 0.050 | ug/L |
| Endosulfan I | ND | 0.050 | ug/L |
| gamma-Chlordane | ND | 0.050 | ug/L |
| alpha-Chlordane | ND | 0.050 | ug/L |
| 4,4'-DDE | ND | 0.10 | ug/L |
| Dieldrin | ND | 0.10 | ug/L |
| Endrin | ND | 0.10 | ug/L |
| 4,4'-DDD | ND | 0.10 | ug/L |
| Endosulfan II | ND | 0.10 | ug/L |
| 4,4'-DDT | ND | 0.10 | ug/L |
| Endrin aldehyde | ND | 0.10 | ug/L |
| Methoxychlor | ND | 0.50 | ug/L |
| Endosulfan sulfate | ND | 0.10 | ug/L |
| Endrin ketone | ND | 0.10 | ug/L |
| Toxaphene | ND | 2.0 | ug/L |

| SURROGATE | PERCENT RECOVERY | RECOVERY LIMITS |
|---|---|---|
| Tetrachloro-m-xylene | 65 | (47 - 119) |
| Decachlorobiphenyl | 93 | (10 - 146) |

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SCS ENGINEERS

Client Sample ID: MW3

GC Semivolatiles

**Lot-Sample #...:** G9D300227-004 **Work Order #...:** CVA0G103 **Matrix.....:** WATER
**Date Sampled...:** 04/29/99 **Date Received..:** 04/30/99
**Prep Date.....:** 05/04/99 **Analysis Date..:** 05/07/99
**Prep Batch #...:** 9124314
**Dilution Factor:** 1 **Method.....:** SW846 8081A

| PARAMETER | RESULT | REPORTING LIMIT | UNITS |
|---|---|---|---|
| alpha-BHC | ND | 0.050 | ug/L |
| gamma-BHC (Lindane) | ND | 0.050 | ug/L |
| Heptachlor | ND | 0.050 | ug/L |
| Aldrin | ND | 0.050 | ug/L |
| beta-BHC | ND | 0.050 | ug/L |
| delta-BHC | ND | 0.050 | ug/L |
| Heptachlor epoxide | ND | 0.050 | ug/L |
| Endosulfan I | ND | 0.050 | ug/L |
| gamma-Chlordane | ND | 0.050 | ug/L |
| alpha-Chlordane | ND | 0.050 | ug/L |
| 4,4'-DDE | ND | 0.10 | ug/L |
| Dieldrin | ND | 0.10 | ug/L |
| Endrin | ND | 0.10 | ug/L |
| 4,4'-DDD | ND | 0.10 | ug/L |
| Endosulfan II | ND | 0.10 | ug/L |
| 4,4'-DDT | ND | 0.10 | ug/L |
| Endrin aldehyde | ND | 0.10 | ug/L |
| Methoxychlor | ND | 0.50 | ug/L |
| Endosulfan sulfate | ND | 0.10 | ug/L |
| Endrin ketone | ND | 0.10 | ug/L |
| Toxaphene | ND | 2.0 | ug/L |

| SURROGATE | PERCENT RECOVERY | RECOVERY LIMITS |
|---|---|---|
| Tetrachloro-m-xylene | 58 | (47 - 119) |
| Decachlorobiphenyl | 95 | (10 - 146) |

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# METHOD BLANK REPORT

## GC Semivolatiles

**Client Lot #...:** G9D300227 **Work Order #...:** CVDQD101 **Matrix.....:** WATER
**MB Lot-Sample #:** G9E040000-314

**Prep Date.....:** 05/04/99
**Analysis Date..:** 05/07/99 **Prep Batch #...:** 9124314
**Dilution Factor:** 1

| PARAMETER | RESULT | REPORTING LIMIT | UNITS | METHOD |
|---|---|---|---|---|
| alpha-BHC | ND | 0.050 | ug/L | SW846 8081A |
| gamma-BHC (Lindane) | ND | 0.050 | ug/L | SW846 8081A |
| Heptachlor | ND | 0.050 | ug/L | SW846 8081A |
| Aldrin | ND | 0.050 | ug/L | SW846 8081A |
| beta-BHC | ND | 0.050 | ug/L | SW846 8081A |
| delta-BHC | ND | 0.050 | ug/L | SW846 8081A |
| Heptachlor epoxide | ND | 0.050 | ug/L | SW846 8081A |
| Endosulfan I | ND | 0.050 | ug/L | SW846 8081A |
| gamma-Chlordane | ND | 0.050 | ug/L | SW846 8081A |
| alpha-Chlordane | ND | 0.050 | ug/L | SW846 8081A |
| 4,4'-DDE | ND | 0.10 | ug/L | SW846 8081A |
| Dieldrin | ND | 0.10 | ug/L | SW846 8081A |
| Endrin | ND | 0.10 | ug/L | SW846 8081A |
| 4,4'-DDD | ND | 0.10 | ug/L | SW846 8081A |
| Endosulfan II | ND | 0.10 | ug/L | SW846 8081A |
| 4,4'-DDT | ND | 0.10 | ug/L | SW846 8081A |
| Endrin aldehyde | ND | 0.10 | ug/L | SW846 8081A |
| Methoxychlor | ND | 0.50 | ug/L | SW846 8081A |
| Endosulfan sulfate | ND | 0.10 | ug/L | SW846 8081A |
| Endrin ketone | ND | 0.10 | ug/L | SW846 8081A |
| Toxaphene | ND | 2.0 | ug/L | SW846 8081A |

| SURROGATE | PERCENT RECOVERY | RECOVERY LIMITS |
|---|---|---|
| Tetrachloro-m-xylene | 78 | (47 - 119) |
| Decachlorobiphenyl | 106 | (10 - 146) |

**NOTE(S):**

Calculations are performed before rounding to avoid round-off errors in calculated results.

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# LABORATORY CONTROL SAMPLE DATA REPORT

## GC Semivolatiles

**Client Lot #...:** G9D300227 **Work Order #...:** CVDQD102-LCS **Matrix.....:** WATER
**LCS Lot-Sample#:** G9E040000-314 CVDQD103-LCSD
**Prep Date.....:** 05/04/99 **Analysis Date..:** 05/07/99
**Prep Batch #...:** 9124314
**Dilution Factor:** 1

| PARAMETER | SPIKE AMOUNT | MEASURED AMOUNT | UNITS | PERCENT RECOVERY | RPD | METHOD |
|---|---|---|---|---|---|---|
| **Aldrin** | **0.500** | **0.402** | **ug/L** | **80** | | **SW846 8081A** |
| | **0.500** | **0.262 p** | **ug/L** | **52** | **42** | **SW846 8081A** |
| **gamma-BHC (Lindane)** | **0.500** | **0.432** | **ug/L** | **86** | | **SW846 8081A** |
| | **0.500** | **0.431** | **ug/L** | **86** | **0.16** | **SW846 8081A** |
| **4,4'-DDT** | **1.00** | **0.994** | **ug/L** | **99** | | **SW846 8081A** |
| | **1.00** | **0.981** | **ug/L** | **98** | **1.4** | **SW846 8081A** |
| **Dieldrin** | **1.00** | **0.986** | **ug/L** | **99** | | **SW846 8081A** |
| | **1.00** | **0.973** | **ug/L** | **97** | **1.4** | **SW846 8081A** |
| **Endrin** | **1.00** | **1.06** | **ug/L** | **106** | | **SW846 8081A** |
| | **1.00** | **1.07** | **ug/L** | **107** | **0.23** | **SW846 8081A** |
| **Heptachlor** | **0.500** | **0.395** | **ug/L** | **79** | | **SW846 8081A** |
| | **0.500** | **0.310** | **ug/L** | **62** | **24** | **SW846 8081A** |

| SURROGATE | PERCENT RECOVERY | RECOVERY LIMITS |
|---|---|---|
| Decachlorobiphenyl | 114 | (10 - 146) |
| | 97 | (10 - 146) |
| Tetrachloro-m-xylene | 76 | (47 - 119) |
| | 52 | (47 - 119) |

**NOTE(S):**

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

p Relative percent difference (RPD) is outside stated control limits.

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# LABORATORY CONTROL SAMPLE EVALUATION REPORT

## GC Semivolatiles

**Client Lot #...:** G9D300227 **Work Order #...:** CVDQD102-LCS **Matrix.....:** WATER
**LCS Lot-Sample#:** G9E040000-314 CVDQD103-LCSD
**Prep Date.....:** 05/04/99 **Analysis Date..:** 05/07/99
**Prep Batch #...:** 9124314
**Dilution Factor:** 1

| PARAMETER | PERCENT RECOVERY | RECOVERY LIMITS | RPD | RPD LIMITS | METHOD |
|---|---|---|---|---|---|
| **Aldrin** | **80** | **(49 - 121)** | | | **SW846 8081A** |
| | **52 p** | **(49 - 121)** | **42** | **(0-35)** | **SW846 8081A** |
| **gamma-BHC (Lindane)** | **86** | **(39 - 116)** | | | **SW846 8081A** |
| | **86** | **(39 - 116)** | **0.16** | **(0-35)** | **SW846 8081A** |
| **4,4'-DDT** | **99** | **(46 - 130)** | | | **SW846 8081A** |
| | **98** | **(46 - 130)** | **1.4** | **(0-35)** | **SW846 8081A** |
| **Dieldrin** | **99** | **(49 - 146)** | | | **SW846 8081A** |
| | **97** | **(49 - 146)** | **1.4** | **(0-35)** | **SW846 8081A** |
| **Endrin** | **106** | **(50 - 146)** | | | **SW846 8081A** |
| | **107** | **(50 - 146)** | **0.23** | **(0-35)** | **SW846 8081A** |
| **Heptachlor** | **79** | **(47 - 126)** | | | **SW846 8081A** |
| | **62** | **(47 - 126)** | **24** | **(0-35)** | **SW846 8081A** |

| SURROGATE | PERCENT RECOVERY | RECOVERY LIMITS |
|---|---|---|
| Decachlorobiphenyl | 114 | (10 - 146) |
| | 97 | (10 - 146) |
| Tetrachloro-m-xylene | 76 | (47 - 119) |
| | 52 | (47 - 119) |

**NOTE(S):**

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

p Relative percent difference (RPD) is outside stated control limits.

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# Organophosphorus Pesticides – Method 8141

Quanterra

SCS ENGINEERS

Client Sample ID: MW1

GC Semivolatiles

**Lot-Sample #...:** G9D300227-001 **Work Order #...:** CV9XQ101 **Matrix.....:** WATER
**Date Sampled...:** 04/29/99 **Date Received..:** 04/30/99
**Prep Date.....:** 05/04/99 **Analysis Date..:** 05/12/99
**Prep Batch #...:** 9123361
**Dilution Factor:** 1 **Method.....:** SW846 8141A

| PARAMETER | RESULT | REPORTING LIMIT | UNITS |
|---|---|---|---|
| Azinphos-methyl | ND | 1.0 | ug/L |
| Bolstar | ND | 1.0 | ug/L |
| Chlorpyrifos | ND | 1.0 | ug/L |
| Coumaphos | ND | 1.0 | ug/L |
| Demeton (total) | ND | 1.0 | ug/L |
| Diazinon | ND | 1.0 | ug/L |
| Dichlorvos | ND | 1.0 | ug/L |
| Disulfoton | ND | 1.0 | ug/L |
| Ethoprop | ND | 1.0 | ug/L |
| Fensulfothion | ND | 1.0 | ug/L |
| Fenthion | ND | 1.0 | ug/L |
| Merphos | ND | 1.0 | ug/L |
| Methyl parathion | ND | 1.0 | ug/L |
| Mevinphos | ND | 1.0 | ug/L |
| Naled | ND | 1.0 | ug/L |
| Phorate | ND | 1.0 | ug/L |
| Ronnel | ND | 1.0 | ug/L |
| Stirophos | ND | 1.0 | ug/L |
| Tokuthion | ND | 1.0 | ug/L |
| Trichloronate | ND | 1.0 | ug/L |

| SURROGATE | PERCENT RECOVERY | RECOVERY LIMITS |
|---|---|---|
| Triphenyl phosphate | 89 | (38 - 146) |

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**SCS ENGINEERS**

**Client Sample ID: MW2**

**GC Semivolatiles**

**Lot-Sample #...:** G9D300227-002 **Work Order #...:** CV9XW101 **Matrix.....:** WATER
**Date Sampled...:** 04/29/99 **Date Received..:** 04/30/99
**Prep Date.....:** 05/04/99 **Analysis Date..:** 05/13/99
**Prep Batch #...:** 9123361
**Dilution Factor:** 1 **Method.....:** SW846 8141A

| PARAMETER | RESULT | REPORTING LIMIT | UNITS |
|---|---|---|---|
| Azinphos-methyl | ND | 1.0 | ug/L |
| Bolstar | ND | 1.0 | ug/L |
| Chlorpyrifos | ND | 1.0 | ug/L |
| Coumaphos | ND | 1.0 | ug/L |
| Demeton (total) | ND | 1.0 | ug/L |
| Diazinon | ND | 1.0 | ug/L |
| Dichlorvos | ND | 1.0 | ug/L |
| Disulfoton | ND | 1.0 | ug/L |
| Ethoprop | ND | 1.0 | ug/L |
| Fensulfothion | ND | 1.0 | ug/L |
| Fenthion | ND | 1.0 | ug/L |
| Merphos | ND | 1.0 | ug/L |
| Methyl parathion | ND | 1.0 | ug/L |
| Mevinphos | ND | 1.0 | ug/L |
| Naled | ND | 1.0 | ug/L |
| Phorate | ND | 1.0 | ug/L |
| Ronnel | ND | 1.0 | ug/L |
| Stirophos | ND | 1.0 | ug/L |
| Tokuthion | ND | 1.0 | ug/L |
| Trichloronate | ND | 1.0 | ug/L |

| SURROGATE | PERCENT RECOVERY | RECOVERY LIMITS |
|---|---|---|
| Triphenyl phosphate | 92 | (38 - 146) |

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**SCS ENGINEERS**

**Client Sample ID: MW3**

**GC Semivolatiles**

**Lot-Sample #...:** G9D300227-004 **Work Order #...:** CVA0G101 **Matrix.....:** WATER
**Date Sampled...:** 04/29/99 **Date Received..:** 04/30/99
**Prep Date.....:** 05/04/99 **Analysis Date..:** 05/13/99
**Prep Batch #...:** 9123361
**Dilution Factor:** 1 **Method.....:** SW846 8141A

| PARAMETER | RESULT | REPORTING LIMIT | UNITS |
|---|---|---|---|
| Azinphos-methyl | ND | 1.0 | ug/L |
| Bolstar | ND | 1.0 | ug/L |
| Chlorpyrifos | ND | 1.0 | ug/L |
| Coumaphos | ND | 1.0 | ug/L |
| Demeton (total) | ND | 1.0 | ug/L |
| Diazinon | ND | 1.0 | ug/L |
| Dichlorvos | ND | 1.0 | ug/L |
| Disulfoton | ND | 1.0 | ug/L |
| Ethoprop | ND | 1.0 | ug/L |
| Fensulfothion | ND | 1.0 | ug/L |
| Fenthion | ND | 1.0 | ug/L |
| Merphos | ND | 1.0 | ug/L |
| Methyl parathion | ND | 1.0 | ug/L |
| Mevinphos | ND | 1.0 | ug/L |
| Naled | ND | 1.0 | ug/L |
| Phorate | ND | 1.0 | ug/L |
| Ronnel | ND | 1.0 | ug/L |
| Stirophos | ND | 1.0 | ug/L |
| Tokuthion | ND | 1.0 | ug/L |
| Trichloronate | ND | 1.0 | ug/L |

| SURROGATE | PERCENT RECOVERY | RECOVERY LIMITS |
|---|---|---|
| Triphenyl phosphate | 92 | (38 - 146) |

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# QC DATA ASSOCIATION SUMMARY

**G9D300227**

Sample Preparation and Analysis Control Numbers

| SAMPLE# | MATRIX | ANALYTICAL METHOD | LEACH BATCH # | PREP BATCH # | MS RUN# |
|---|---|---|---|---|---|
| 001 | WATER | SW846 7470A | | 9137270 | 9137104 |
| | WATER | SW846 8141A | | 9123361 | 9123179 |
| | WATER | SW846 8081A | | 9124314 | |
| | WATER | SW846 6010B | | 9125322 | 9125136 |
| | WATER | SW846 8151A | | 9123269 | |
| | WATER | SW846 8151A | | 9137345 | |
| 002 | WATER | SW846 7470A | | 9137270 | 9137104 |
| | WATER | SW846 8141A | | 9123361 | 9123179 |
| | WATER | SW846 8081A | | 9124314 | |
| | WATER | SW846 6010B | | 9125322 | 9125136 |
| | WATER | SW846 8151A | | 9123269 | |
| | WATER | SW846 8151A | | 9137345 | |
| 003 | WATER | SW846 8151A | | 9123269 | |
| 004 | WATER | SW846 7470A | | 9137270 | 9137104 |
| | WATER | SW846 8141A | | 9123361 | 9123179 |
| | WATER | SW846 8081A | | 9124314 | |
| | WATER | SW846 6010B | | 9125322 | 9125136 |
| | WATER | SW846 8151A | | 9123269 | |
| | WATER | SW846 8151A | | 9137345 | |
| 005 | WATER | SW846 8151A | | 9123269 | |
| | WATER | SW846 8151A | | 9137345 | |
| 006 | WATER | SW846 8151A | | 9123269 | |
| | WATER | SW846 8151A | | 9137345 | |

Quanterra

# METHOD BLANK REPORT

## GC Semivolatiles

**Client Lot #...:** G9D300227 **Work Order #...:** CVCJ7101 **Matrix.....:** WATER
**MB Lot-Sample #:** A9E030000-361

**Prep Date.....:** 05/04/99
**Analysis Date..:** 05/12/99 **Prep Batch #...:** 9123361
**Dilution Factor:** 1

| PARAMETER | RESULT | REPORTING LIMIT | UNITS | METHOD |
|---|---|---|---|---|
| Azinphos-methyl | ND | 1.0 | ug/L | SW846 8141A |
| Bolstar | ND | 1.0 | ug/L | SW846 8141A |
| Chlorpyrifos | ND | 1.0 | ug/L | SW846 8141A |
| Coumaphos | ND | 1.0 | ug/L | SW846 8141A |
| Demeton (total) | ND | 1.0 | ug/L | SW846 8141A |
| Diazinon | ND | 1.0 | ug/L | SW846 8141A |
| Dichlorvos | ND | 1.0 | ug/L | SW846 8141A |
| Disulfoton | ND | 1.0 | ug/L | SW846 8141A |
| Ethoprop | ND | 1.0 | ug/L | SW846 8141A |
| Fensulfothion | ND | 1.0 | ug/L | SW846 8141A |
| Fenthion | ND | 1.0 | ug/L | SW846 8141A |
| Merphos | ND | 1.0 | ug/L | SW846 8141A |
| Methyl parathion | ND | 1.0 | ug/L | SW846 8141A |
| Mevinphos | ND | 1.0 | ug/L | SW846 8141A |
| Naled | ND | 1.0 | ug/L | SW846 8141A |
| Phorate | ND | 1.0 | ug/L | SW846 8141A |
| Ronnel | ND | 1.0 | ug/L | SW846 8141A |
| Stirophos | ND | 1.0 | ug/L | SW846 8141A |
| Tokuthion | ND | 1.0 | ug/L | SW846 8141A |
| Trichloronate | ND | 1.0 | ug/L | SW846 8141A |

| SURROGATE | PERCENT RECOVERY | RECOVERY LIMITS |
|---|---|---|
| Triphenyl phosphate | 84 | (38 - 146) |

**NOTE(S):**

Calculations are performed before rounding to avoid round-off errors in calculated results.

Quanterra

# LABORATORY CONTROL SAMPLE DATA REPORT

## GC Semivolatiles

**Client Lot #...:** G9D300227 **Work Order #...:** CVCJ7102 **Matrix.....:** WATER
**LCS Lot-Sample#:** A9E030000-361
**Prep Date.....:** 05/04/99 **Analysis Date..:** 05/12/99
**Prep Batch #...:** 9123361
**Dilution Factor:** 1

| PARAMETER | SPIKE AMOUNT | MEASURED AMOUNT | UNITS | PERCENT RECOVERY | METHOD |
|---|---|---|---|---|---|
| **Phorate** | **20.0** | **18.8** | **ug/L** | **94** | **SW846 8141L** |
| **Disulfoton** | **20.0** | **17.7** | **ug/L** | **88** | **SW846 8141L** |
| **Methyl parathion** | **20.0** | **17.2** | **ug/L** | **86** | **SW846 8141L** |
| **Thionazin** | **20.0** | **18.7** | **ug/L** | **94** | **SW846 8141L** |
| **Tetraethyldithiopyro-phosphate** | **20.0** | **18.3** | **ug/L** | **92** | **SW846 8141L** |
| **Parathion** | **20.0** | **18.2** | **ug/L** | **91** | **SW846 8141L** |
| **Famphur** | **20.0** | **18.6** | **ug/L** | **93** | **SW846 8141L** |
| **O,O,O-Triethylphosphoro-thioate** | **20.0** | **16.9** | **ug/L** | **84** | **SW846 8141L** |
| **Dimethoate** | **20.0** | **18.0** | **ug/L** | **90** | **SW846 8141L** |

| SURROGATE | PERCENT RECOVERY | RECOVERY LIMITS |
|---|---|---|
| Triphenyl phosphate | 97 | (38 - 146) |

**NOTE(S):**

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

Quanterra

# LABORATORY CONTROL SAMPLE EVALUATION REPORT

## GC Semivolatiles

**Client Lot #...:** G9D300227 **Work Order #...:** CVCJ7102 **Matrix.....:** WATER
**LCS Lot-Sample#:** A9E030000-361
**Prep Date.....:** 05/04/99 **Analysis Date..:** 05/12/99
**Prep Batch #...:** 9123361
**Dilution Factor:** 1

| PARAMETER | PERCENT RECOVERY | RECOVERY LIMITS | METHOD |
|---|---|---|---|
| **Phorate** | **94** | **(29 - 110)** | **SW846 8141A** |
| **Disulfoton** | **88** | **(18 - 113)** | **SW846 8141A** |
| **Methyl parathion** | **86** | **(25 - 117)** | **SW846 8141A** |
| **Thionazin** | **94** | **(53 - 125)** | **SW846 8141A** |
| **Tetraethyldithiopyro-phosphate** | **92** | **(53 - 123)** | **SW846 8141A** |
| **Parathion** | **91** | **(28 - 122)** | **SW846 8141A** |
| **Famphur** | **93** | **(46 - 133)** | **SW846 8141A** |
| **O,O,O-Triethylphosphoro-thioate** | **84** | **(42 - 120)** | **SW846 8141A** |
| **Dimethoate** | **90** | **(32 - 137)** | **SW846 8141A** |

| SURROGATE | PERCENT RECOVERY | RECOVERY LIMITS |
|---|---|---|
| Triphenyl phosphate | 97 | (38 - 146) |

**NOTE(S):**

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

Quanterra

# MATRIX SPIKE SAMPLE DATA REPORT

## GC Semivolatiles

**Client Lot #...:** G9D300227 **Work Order #...:** CVAKQ104-MS **Matrix.....:** WATER
**MS Lot-Sample #:** A9E010151-001 CVAKQ105-MSD
**Date Sampled...:** 04/28/99 **Date Received..:** 05/01/99
**Prep Date.....:** 05/04/99 **Analysis Date..:** 05/13/99
**Prep Batch #...:** 9123361
**Dilution Factor:** 1

| PARAMETER | SAMPLE AMOUNT | SPIKE AMT | MEASRD AMOUNT | UNITS | PERCENT RECOVERY | RPD | METHOD |
|---|---|---|---|---|---|---|---|
| **Phorate** | **ND** | **20.0** | **18.9** | **ug/L** | **94** | | **SW846 8141A** |
| | **ND** | **20.0** | **16.3** | **ug/L** | **82** | **14** | **SW846 8141A** |
| **Disulfoton** | **ND** | **20.0** | **17.8** | **ug/L** | **89** | | **SW846 8141A** |
| | **ND** | **20.0** | **15.9** | **ug/L** | **80** | **11** | **SW846 8141A** |
| **Methyl parathion** | **ND** | **20.0** | **17.6** | **ug/L** | **88** | | **SW846 8141A** |
| | **ND** | **20.0** | **15.9** | **ug/L** | **80** | **9.8** | **SW846 8141A** |
| **Thionazin** | **ND** | **20.0** | **18.7** | **ug/L** | **94** | | **SW846 8141A** |
| | **ND** | **20.0** | **16.4** | **ug/L** | **82** | **13** | **SW846 8141A** |
| **Tetraethyldithiopyro-phosphate** | **ND** | **20.0** | **18.5** | **ug/L** | **92** | | **SW846 8141A** |
| | **ND** | **20.0** | **15.8** | **ug/L** | **79** | **15** | **SW846 8141A** |
| **Parathion** | **ND** | **20.0** | **19.7** | **ug/L** | **98** | | **SW846 8141A** |
| | **ND** | **20.0** | **17.2** | **ug/L** | **86** | **14** | **SW846 8141A** |
| **Famphur** | **ND** | **20.0** | **23.6** | **ug/L** | **118** | | **SW846 8141A** |
| | **ND** | **20.0** | **20.4** | **ug/L** | **102** | **14** | **SW846 8141A** |
| **O,O,O-Triethylphosphoro-thioate** | **ND** | **20.0** | **15.3** | **ug/L** | **76** | | **SW846 8141A** |
| | **ND** | **20.0** | **11.9 p** | **ug/L** | **60** | **25** | **SW846 8141A** |
| **Dimethoate** | **ND** | **20.0** | **20.3** | **ug/L** | **101** | | **SW846 8141A** |
| | **ND** | **20.0** | **17.8** | **ug/L** | **89** | **13** | **SW846 8141A** |

| SURROGATE | PERCENT RECOVERY | RECOVERY LIMITS |
|---|---|---|
| Triphenyl phosphate | 107 | (38 - 146) |
| | 94 | (38 - 146) |

**NOTE(S):**

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

p Relative percent difference (RPD) is outside stated control limits.

Quanterra

# MATRIX SPIKE SAMPLE EVALUATION REPORT

## GC Semivolatiles

**Client Lot #...:** G9D300227 **Work Order #...:** CVAKQ104-MS **Matrix.....:** WATER
**MS Lot-Sample #:** A9E010151-001 CVAKQ105-MSD
**Date Sampled...:** 04/28/99 **Date Received..:** 05/01/99
**Prep Date.....:** 05/04/99 **Analysis Date..:** 05/13/99
**Prep Batch #...:** 9123361
**Dilution Factor:** 1

| PARAMETER | PERCENT RECOVERY | RECOVERY LIMITS | RPD | RPD LIMITS | METHOD |
|---|---|---|---|---|---|
| **Phorate** | **94** | **(24 - 115)** | | | **SW846 8141A** |
| | **82** | **(24 - 115)** | **14** | **(0-36)** | **SW846 8141A** |
| **Disulfoton** | **89** | **(18 - 120)** | | | **SW846 8141A** |
| | **80** | **(18 - 120)** | **11** | **(0-43)** | **SW846 8141A** |
| **Methyl parathion** | **88** | **(27 - 111)** | | | **SW846 8141A** |
| | **80** | **(27 - 111)** | **9.8** | **(0-28)** | **SW846 8141A** |
| **Thionazin** | **94** | **(57 - 123)** | | | **SW846 8141A** |
| | **82** | **(57 - 123)** | **13** | **(0-14)** | **SW846 8141A** |
| Tetraethyldithiopyro-phosphate | **92** | **(41 - 137)** | | | **SW846 8141A** |
| | **79** | **(41 - 137)** | **15** | **(0-30)** | **SW846 8141A** |
| **Parathion** | **98** | **(19 - 110)** | | | **SW846 8141A** |
| | **86** | **(19 - 110)** | **14** | **(0-54)** | **SW846 8141A** |
| **Famphur** | **118** | **(43 - 144)** | | | **SW846 8141A** |
| | **102** | **(43 - 144)** | **14** | **(0-42)** | **SW846 8141A** |
| O,O,O-Triethylphosphoro-thioate | **76** | **(41 - 128)** | | | **SW846 8141A** |
| | **60 p** | **(41 - 128)** | **25** | **(0-24)** | **SW846 8141A** |
| **Dimethoate** | **101** | **(55 - 123)** | | | **SW846 8141A** |
| | **89** | **(55 - 123)** | **13** | **(0-34)** | **SW846 8141A** |

| SURROGATE | PERCENT RECOVERY | RECOVERY LIMITS |
|---|---|---|
| Triphenyl phosphate | 107 | (38 - 146) |
| | 94 | (38 - 146) |

**NOTE(S):**

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

p Relative percent difference (RPD) is outside stated control limits.

Quanterra

# Chlorinated Herbicides
# Method 8151A

Quanterra

SCS ENGINEERS

Client Sample ID: MW1

GC Semivolatiles

**Lot-Sample #...:** G9D300227-001 **Work Order #...:** CV9XQ102 **Matrix.....:** WATER
**Date Sampled...:** 04/29/99 **Date Received..:** 04/30/99
**Prep Date.....:** 05/03/99 **Analysis Date..:** 05/08/99
**Prep Batch #...:** 9123269
**Dilution Factor:** 1 **Method.....:** SW846 8151A

| PARAMETER | RESULT | REPORTING LIMIT | UNITS |
|---|---|---|---|
| 2,4-D | ND | 4.0 | ug/L |
| 2,4-DB | ND | 4.0 | ug/L |
| 2,4,5-TP (Silvex) | ND | 1.0 | ug/L |
| 2,4,5-T | ND | 1.0 | ug/L |
| Dalapon | ND | 2.0 | ug/L |
| Dicamba | ND | 2.0 | ug/L |
| Dichlorprop | ND | 4.0 | ug/L |
| Dinoseb | ND | 0.60 | ug/L |
| MCPA | ND | 400 | ug/L |
| MCPP | ND | 400 | ug/L |

| SURROGATE | PERCENT RECOVERY | RECOVERY LIMITS |
|---|---|---|
| DCAA | 50 * | (52 - 92 ) |

**NOTE(S):**

* Surrogate recovery is outside stated control limits.

Quanterra

SCS ENGINEERS

Client Sample ID: MW1

GC Semivolatiles

**Lot-Sample #...:** G9D300227-001 **Work Order #...:** CV9XQ202 **Matrix.....:** WATER
**Date Sampled...:** 04/29/99 **Date Received..:** 04/30/99
**Prep Date.....:** 05/17/99 **Analysis Date..:** 05/20/99
**Prep Batch #...:** 9137345
**Dilution Factor:** 1 **Method.....:** SW846 8151A

| PARAMETER | RESULT | REPORTING LIMIT | UNITS |
|---|---|---|---|
| 2,4-D | ND | 4.0 | ug/L |
| 2,4-DB | ND | 4.0 | ug/L |
| 2,4,5-TP (Silvex) | ND | 1.0 | ug/L |
| 2,4,5-T | ND | 1.0 | ug/L |
| Dalapon | ND | 2.0 | ug/L |
| Dicamba | ND | 2.0 | ug/L |
| Dichlorprop | ND | 4.0 | ug/L |
| Dinoseb | ND | 0.60 | ug/L |
| MCPA | ND | 400 | ug/L |
| MCPP | ND | 400 | ug/L |

| SURROGATE | PERCENT RECOVERY | RECOVERY LIMITS |
|---|---|---|
| DCAA | 49 * | (52 - 92 ) |

**NOTE(S):**

* Surrogate recovery is outside stated control limits.

Quanterra

SCS ENGINEERS

Client Sample ID: MW2

GC Semivolatiles

**Lot-Sample #...:** G9D300227-002 **Work Order #...:** CV9XW102 **Matrix.....:** WATER
**Date Sampled...:** 04/29/99 **Date Received..:** 04/30/99
**Prep Date.....:** 05/03/99 **Analysis Date..:** 05/08/99
**Prep Batch #...:** 9123269
**Dilution Factor:** 1 **Method.....:** SW846 8151A

| PARAMETER | RESULT | REPORTING LIMIT | UNITS |
|---|---|---|---|
| 2,4-D | ND | 4.0 | ug/L |
| 2,4-DB | ND | 4.0 | ug/L |
| 2,4,5-TP (Silvex) | ND | 1.0 | ug/L |
| 2,4,5-T | ND | 1.0 | ug/L |
| Dalapon | ND | 2.0 | ug/L |
| Dicamba | ND | 2.0 | ug/L |
| Dichlorprop | ND | 4.0 | ug/L |
| Dinoseb | ND | 0.60 | ug/L |
| MCPA | ND | 400 | ug/L |
| MCPP | ND | 400 | ug/L |

| SURROGATE | PERCENT RECOVERY | RECOVERY LIMITS |
|---|---|---|
| DCAA | 46 * | (52 - 92 ) |

**NOTE(S):**

* Surrogate recovery is outside stated control limits.

Quanterra

SCS ENGINEERS

Client Sample ID: MW2

GC Semivolatiles

**Lot-Sample #...:** G9D300227-002 **Work Order #...:** CV9XW202 **Matrix.....:** WATER
**Date Sampled...:** 04/29/99 **Date Received..:** 04/30/99
**Prep Date.....:** 05/17/99 **Analysis Date..:** 05/20/99
**Prep Batch #...:** 9137345
**Dilution Factor:** 1 **Method.....:** SW846 8151A

| PARAMETER | RESULT | REPORTING LIMIT | UNITS |
|---|---|---|---|
| 2,4-D | ND | 4.0 | ug/L |
| 2,4-DB | ND | 4.0 | ug/L |
| 2,4,5-TP (Silvex) | ND | 1.0 | ug/L |
| 2,4,5-T | ND | 1.0 | ug/L |
| Dalapon | ND | 2.0 | ug/L |
| Dicamba | ND | 2.0 | ug/L |
| Dichlorprop | ND | 4.0 | ug/L |
| Dinoseb | ND | 0.60 | ug/L |
| MCPA | ND | 400 | ug/L |
| MCPP | ND | 400 | ug/L |

| SURROGATE | PERCENT RECOVERY | RECOVERY LIMITS |
|---|---|---|
| DCAA | 46 * | (52 - 92 ) |

**NOTE(S):**

* Surrogate recovery is outside stated control limits.

Quanterra

SCS ENGINEERS

Client Sample ID: MW2-9

GC Semivolatiles

**Lot-Sample #...:** G9D300227-003 **Work Order #...:** CVA0D102 **Matrix.....:** WATER
**Date Sampled...:** 04/29/99 **Date Received..:** 04/30/99
**Prep Date.....:** 05/03/99 **Analysis Date..:** 05/08/99
**Prep Batch #...:** 9123269
**Dilution Factor:** 1 **Method.....:** SW846 8151A

| PARAMETER | RESULT | REPORTING LIMIT | UNITS |
|---|---|---|---|
| 2,4-D | ND | 4.0 | ug/L |
| 2,4-DB | ND | 4.0 | ug/L |
| 2,4,5-TP (Silvex) | ND | 1.0 | ug/L |
| 2,4,5-T | ND | 1.0 | ug/L |
| Dalapon | ND | 2.0 | ug/L |
| Dicamba | ND | 2.0 | ug/L |
| Dichlorprop | ND | 4.0 | ug/L |
| Dinoseb | ND | 0.60 | ug/L |
| MCPA | ND | 400 | ug/L |
| MCPP | ND | 400 | ug/L |

| SURROGATE | PERCENT RECOVERY | RECOVERY LIMITS |
|---|---|---|
| DCAA | 49 * | (52 - 92 ) |

**NOTE(S):**

* Surrogate recovery is outside stated control limits.

Quanterra

SCS ENGINEERS

Client Sample ID: MW3

GC Semivolatiles

**Lot-Sample #...:** G9D300227-004 **Work Order #...:** CVA0G102 **Matrix.....:** WATER
**Date Sampled...:** 04/29/99 **Date Received..:** 04/30/99
**Prep Date.....:** 05/03/99 **Analysis Date..:** 05/08/99
**Prep Batch #...:** 9123269
**Dilution Factor:** 1 **Method.....:** SW846 8151A

| PARAMETER | RESULT | REPORTING LIMIT | UNITS |
|---|---|---|---|
| 2,4-D | ND | 4.0 | ug/L |
| 2,4-DB | ND | 4.0 | ug/L |
| 2,4,5-TP (Silvex) | ND | 1.0 | ug/L |
| 2,4,5-T | ND | 1.0 | ug/L |
| Dalapon | ND | 2.0 | ug/L |
| Dicamba | ND | 2.0 | ug/L |
| Dichlorprop | ND | 4.0 | ug/L |
| Dinoseb | ND | 0.60 | ug/L |
| MCPA | ND | 400 | ug/L |
| MCPP | ND | 400 | ug/L |

| SURROGATE | PERCENT RECOVERY | RECOVERY LIMITS |
|---|---|---|
| DCAA | 49 * | (52 - 92 ) |

**NOTE(S):**

* Surrogate recovery is outside stated control limits.

Quanterra

SCS ENGINEERS

Client Sample ID: MW3

GC Semivolatiles

**Lot-Sample #...:** G9D300227-004 **Work Order #...:** CVA0G202 **Matrix.....:** WATER
**Date Sampled...:** 04/29/99 **Date Received..:** 04/30/99
**Prep Date.....:** 05/17/99 **Analysis Date..:** 05/20/99
**Prep Batch #...:** 9137345
**Dilution Factor:** 1 **Method.....:** SW846 8151A

| PARAMETER | RESULT | REPORTING LIMIT | UNITS |
|---|---|---|---|
| 2,4-D | ND | 4.0 | ug/L |
| 2,4-DB | ND | 4.0 | ug/L |
| 2,4,5-TP (Silvex) | ND | 1.0 | ug/L |
| 2,4,5-T | ND | 1.0 | ug/L |
| Dalapon | ND | 2.0 | ug/L |
| Dicamba | ND | 2.0 | ug/L |
| Dichlorprop | ND | 4.0 | ug/L |
| Dinoseb | ND | 0.60 | ug/L |
| MCPA | ND | 400 | ug/L |
| MCPP | ND | 400 | ug/L |

| SURROGATE | PERCENT RECOVERY | RECOVERY LIMITS |
|---|---|---|
| DCAA | 51 * | (52 - 92 ) |

**NOTE(S):**

* Surrogate recovery is outside stated control limits.

Quanterra

SCS ENGINEERS

Client Sample ID: RINSATE

GC Semivolatiles

**Lot-Sample #...:** G9D300227-005 **Work Order #...:** CVA0J101 **Matrix.....:** WATER
**Date Sampled...:** 04/29/99 **Date Received..:** 04/30/99
**Prep Date.....:** 05/03/99 **Analysis Date..:** 05/08/99
**Prep Batch #...:** 9123269
**Dilution Factor:** 1 **Method.....:** SW846 8151A

| PARAMETER | RESULT | REPORTING LIMIT | UNITS |
|---|---|---|---|
| 2,4-D | ND | 4.0 | ug/L |
| 2,4-DB | ND | 4.0 | ug/L |
| 2,4,5-TP (Silvex) | ND | 1.0 | ug/L |
| 2,4,5-T | ND | 1.0 | ug/L |
| Dalapon | ND | 2.0 | ug/L |
| Dicamba | ND | 2.0 | ug/L |
| Dichlorprop | ND | 4.0 | ug/L |
| Dinoseb | ND | 0.60 | ug/L |
| MCPA | ND | 400 | ug/L |
| MCPP | ND | 400 | ug/L |

| SURROGATE | PERCENT RECOVERY | RECOVERY LIMITS |
|---|---|---|
| DCAA | 50 * | (52 - 92 ) |

**NOTE(S):**

* Surrogate recovery is outside stated control limits.

Quanterra

SCS ENGINEERS

Client Sample ID: RINSATE

GC Semivolatiles

**Lot-Sample #...:** G9D300227-005 **Work Order #...:** CVA0J201 **Matrix.....:** WATER
**Date Sampled...:** 04/29/99 **Date Received..:** 04/30/99
**Prep Date.....:** 05/17/99 **Analysis Date..:** 05/20/99
**Prep Batch #...:** 9137345
**Dilution Factor:** 1 **Method.....:** SW846 8151A

| PARAMETER | RESULT | REPORTING LIMIT | UNITS |
|---|---|---|---|
| 2,4-D | ND | 4.0 | ug/L |
| 2,4-DB | ND | 4.0 | ug/L |
| 2,4,5-TP (Silvex) | ND | 1.0 | ug/L |
| 2,4,5-T | ND | 1.0 | ug/L |
| Dalapon | ND | 2.0 | ug/L |
| Dicamba | ND | 2.0 | ug/L |
| Dichlorprop | ND | 4.0 | ug/L |
| Dinoseb | ND | 0.60 | ug/L |
| MCPA | ND | 400 | ug/L |
| MCPP | ND | 400 | ug/L |

| SURROGATE | PERCENT RECOVERY | RECOVERY LIMITS |
|---|---|---|
| DCAA | 53 | (52 - 92 ) |

Quanterra

SCS ENGINEERS

Client Sample ID: TRIP BLANK

GC Semivolatiles

**Lot-Sample #...:** G9D300227-006 **Work Order #...:** CVA0K101 **Matrix.....:** WATER
**Date Sampled...:** 04/29/99 **Date Received..:** 04/30/99
**Prep Date.....:** 05/03/99 **Analysis Date..:** 05/08/99
**Prep Batch #...:** 9123269
**Dilution Factor:** 1 **Method.....:** SW846 8151A

| PARAMETER | RESULT | REPORTING LIMIT | UNITS |
|---|---|---|---|
| 2,4-D | ND | 4.0 | ug/L |
| 2,4-DB | ND | 4.0 | ug/L |
| 2,4,5-TP (Silvex) | ND | 1.0 | ug/L |
| 2,4,5-T | ND | 1.0 | ug/L |
| Dalapon | ND | 2.0 | ug/L |
| Dicamba | ND | 2.0 | ug/L |
| Dichlorprop | ND | 4.0 | ug/L |
| Dinoseb | ND | 0.60 | ug/L |
| MCPA | ND | 400 | ug/L |
| MCPP | ND | 400 | ug/L |

| SURROGATE | PERCENT RECOVERY | RECOVERY LIMITS |
|---|---|---|
| DCAA | 46 * | (52 - 92 ) |

**NOTE(S):**

* Surrogate recovery is outside stated control limits.

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SCS ENGINEERS

Client Sample ID: TRIP BLANK

GC Semivolatiles

**Lot-Sample #...:** G9D300227-006 **Work Order #...:** CVA0K201 **Matrix.....:** WATER
**Date Sampled...:** 04/29/99 **Date Received..:** 04/30/99
**Prep Date.....:** 05/17/99 **Analysis Date..:** 05/20/99
**Prep Batch #...:** 9137345
**Dilution Factor:** 1 **Method.....:** SW846 8151A

| PARAMETER | RESULT | REPORTING LIMIT | UNITS |
|---|---|---|---|
| 2,4-D | ND | 4.0 | ug/L |
| 2,4-DB | ND | 4.0 | ug/L |
| 2,4,5-TP (Silvex) | ND | 1.0 | ug/L |
| 2,4,5-T | ND | 1.0 | ug/L |
| Dalapon | ND | 2.0 | ug/L |
| Dicamba | ND | 2.0 | ug/L |
| Dichlorprop | ND | 4.0 | ug/L |
| Dinoseb | ND | 0.60 | ug/L |
| MCPA | ND | 400 | ug/L |
| MCPP | ND | 400 | ug/L |

| SURROGATE | PERCENT RECOVERY | RECOVERY LIMITS |
|---|---|---|
| DCAA | 46 * | (52 - 92 ) |

**NOTE(S):**

* Surrogate recovery is outside stated control limits.

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# QC DATA ASSOCIATION SUMMARY

G9D300227

Sample Preparation and Analysis Control Numbers

| SAMPLE# | MATRIX | ANALYTICAL METHOD | LEACH BATCH # | PREP BATCH # | MS RUN# |
|---|---|---|---|---|---|
| 001 | WATER | SW846 7470A | | 9137270 | 9137104 |
| | WATER | SW846 8141A | | 9123361 | 9123179 |
| | WATER | SW846 8081A | | 9124314 | |
| | WATER | SW846 6010B | | 9125322 | 9125136 |
| | WATER | SW846 8151A | | 9123269 | |
| | WATER | SW846 8151A | | 9137345 | |
| 002 | WATER | SW846 7470A | | 9137270 | 9137104 |
| | WATER | SW846 8141A | | 9123361 | 9123179 |
| | WATER | SW846 8081A | | 9124314 | |
| | WATER | SW846 6010B | | 9125322 | 9125136 |
| | WATER | SW846 8151A | | 9123269 | |
| | WATER | SW846 8151A | | 9137345 | |
| 003 | WATER | SW846 8151A | | 9123269 | |
| 004 | WATER | SW846 7470A | | 9137270 | 9137104 |
| | WATER | SW846 8141A | | 9123361 | 9123179 |
| | WATER | SW846 8081A | | 9124314 | |
| | WATER | SW846 6010B | | 9125322 | 9125136 |
| | WATER | SW846 8151A | | 9123269 | |
| | WATER | SW846 8151A | | 9137345 | |
| 005 | WATER | SW846 8151A | | 9123269 | |
| | WATER | SW846 8151A | | 9137345 | |
| 006 | WATER | SW846 8151A | | 9123269 | |
| | WATER | SW846 8151A | | 9137345 | |

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# METHOD BLANK REPORT

## GC Semivolatiles

**Client Lot #...:** G9D300227 **Work Order #...:** CVC82101 **Matrix.....:** WATER
**MB Lot-Sample #:** G9E030000-269

**Prep Date.....:** 05/03/99
**Analysis Date..:** 05/07/99 **Prep Batch #...:** 9123269
**Dilution Factor:** 1

| PARAMETER | RESULT | REPORTING LIMIT | UNITS | METHOD |
|---|---|---|---|---|
| 2,4-D | ND | 4.0 | ug/L | SW846 8151A |
| 2,4-DB | ND | 4.0 | ug/L | SW846 8151A |
| 2,4,5-TP (Silvex) | ND | 1.0 | ug/L | SW846 8151A |
| 2,4,5-T | ND | 1.0 | ug/L | SW846 8151A |
| Dalapon | ND | 2.0 | ug/L | SW846 8151A |
| Dicamba | ND | 2.0 | ug/L | SW846 8151A |
| Dichlorprop | ND | 4.0 | ug/L | SW846 8151A |
| Dinoseb | ND | 0.60 | ug/L | SW846 8151A |
| MCPA | ND | 400 | ug/L | SW846 8151A |
| MCPP | ND | 400 | ug/L | SW846 8151A |

| SURROGATE | PERCENT RECOVERY | RECOVERY LIMITS |
|---|---|---|
| DCAA | 49 * | (52 - 92) |

**NOTE(S):**

Calculations are performed before rounding to avoid round-off errors in calculated results.

* Surrogate recovery is outside stated control limits.

Quanterra

# METHOD BLANK REPORT

## GC Semivolatiles

**Client Lot #...:** G9D300227 **Work Order #...:** CVVN6101 **Matrix.....:** WATER
**MB Lot-Sample #:** G9E170000-345

**Prep Date.....:** 05/17/99
**Analysis Date..:** 05/20/99 **Prep Batch #...:** 9137345
**Dilution Factor:** 1

| PARAMETER | RESULT | REPORTING LIMIT | UNITS | METHOD |
|---|---|---|---|---|
| 2,4-D | ND | 4.0 | ug/L | SW846 8151A |
| 2,4-DB | ND | 4.0 | ug/L | SW846 8151A |
| 2,4,5-TP (Silvex) | ND | 1.0 | ug/L | SW846 8151A |
| 2,4,5-T | ND | 1.0 | ug/L | SW846 8151A |
| Dalapon | ND | 2.0 | ug/L | SW846 8151A |
| Dicamba | ND | 2.0 | ug/L | SW846 8151A |
| Dichlorprop | ND | 4.0 | ug/L | SW846 8151A |
| Dinoseb | ND | 0.60 | ug/L | SW846 8151A |
| MCPA | ND | 400 | ug/L | SW846 8151A |
| MCPP | ND | 400 | ug/L | SW846 8151A |

| SURROGATE | PERCENT RECOVERY | RECOVERY LIMITS |
|---|---|---|
| DCAA | 48 * | (52 - 92) |

**NOTE(S):**

Calculations are performed before rounding to avoid round-off errors in calculated results.

* Surrogate recovery is outside stated control limits.

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# LABORATORY CONTROL SAMPLE DATA REPORT

## GC Semivolatiles

**Client Lot #...:** G9D300227 **Work Order #...:** CVC82102-LCS **Matrix.....:** WATER
**LCS Lot-Sample#:** G9E030000-269 CVC82103-LCSD
**Prep Date.....:** 05/03/99 **Analysis Date..:** 05/07/99
**Prep Batch #...:** 9123269
**Dilution Factor:** 1

| PARAMETER | SPIKE AMOUNT | MEASURED AMOUNT | UNITS | PERCENT RECOVERY | RPD | METHOD |
|---|---|---|---|---|---|---|
| **2,4-D** | **16.0** | **14.9** | **ug/L** | **93** | | **SW846 8151A** |
| | **16.0** | **14.4** | **ug/L** | **90** | **3.1** | **SW846 8151A** |
| **Dalapon** | **8.00** | **5.22** | **ug/L** | **65** | | **SW846 8151A** |
| | **8.00** | **5.24** | **ug/L** | **65** | **0.30** | **SW846 8151A** |
| **2,4-DB** | **16.0** | **16.5** | **ug/L** | **103** | | **SW846 8151A** |
| | **16.0** | **16.2** | **ug/L** | **101** | **1.9** | **SW846 8151A** |
| **2,4,5-T** | **4.00** | **3.52** | **ug/L** | **88** | | **SW846 8151A** |
| | **4.00** | **3.52** | **ug/L** | **88** | **0.17** | **SW846 8151A** |
| **2,4,5-TP (Silvex)** | **4.00** | **3.56** | **ug/L** | **89** | | **SW846 8151A** |
| | **4.00** | **3.57** | **ug/L** | **89** | **0.29** | **SW846 8151A** |

| SURROGATE | PERCENT RECOVERY | RECOVERY LIMITS |
|---|---|---|
| DCAA | 89 | (52 - 92) |
| | 88 | (52 - 92) |

**NOTE(S):**

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

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# LABORATORY CONTROL SAMPLE DATA REPORT

## GC Semivolatiles

**Client Lot #...:** G9D300227 **Work Order #...:** CVVN6102-LCS **Matrix.....:** WATER
**LCS Lot-Sample#:** G9E170000-345 CVVN6103-LCSD
**Prep Date.....:** 05/17/99 **Analysis Date..:** 05/20/99
**Prep Batch #...:** 9137345
**Dilution Factor:** 1

| PARAMETER | SPIKE AMOUNT | MEASURED AMOUNT | UNITS | PERCENT RECOVERY | RPD | METHOD |
|---|---|---|---|---|---|---|
| **2,4-D** | **16.0** | **15.4** | **ug/L** | **96** | | **SW846 8151A** |
| | **16.0** | **16.0** | **ug/L** | **100** | **3.3** | **SW846 8151A** |
| **Dalapon** | **8.00** | **5.32** | **ug/L** | **67** | | **SW846 8151A** |
| | **8.00** | **5.34** | **ug/L** | **67** | **0.33** | **SW846 8151A** |
| **2,4-DB** | **16.0** | **16.6** | **ug/L** | **104** | | **SW846 8151A** |
| | **16.0** | **16.2** | **ug/L** | **101** | **2.5** | **SW846 8151A** |
| **2,4,5-T** | **4.00** | **3.59** | **ug/L** | **90** | | **SW846 8151A** |
| | **4.00** | **3.63** | **ug/L** | **91** | **1.1** | **SW846 8151A** |
| **2,4,5-TP (Silvex)** | **4.00** | **3.58** | **ug/L** | **89** | | **SW846 8151A** |
| | **4.00** | **3.77** | **ug/L** | **94** | **5.3** | **SW846 8151A** |

| SURROGATE | PERCENT RECOVERY | RECOVERY LIMITS |
|---|---|---|
| DCAA | 91 | (52 - 92) |
| | 94 * | (52 - 92) |

**NOTE(S):**

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

* Surrogate recovery is outside stated control limits.

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# LABORATORY CONTROL SAMPLE EVALUATION REPORT

## GC Semivolatiles

**Client Lot #...:** G9D300227 **Work Order #...:** CVC82102-LCS **Matrix.....:** WATER
**LCS Lot-Sample#:** G9E030000-269 CVC82103-LCSD
**Prep Date.....:** 05/03/99 **Analysis Date..:** 05/07/99
**Prep Batch #...:** 9123269
**Dilution Factor:** 1

| PARAMETER | PERCENT RECOVERY | RECOVERY LIMITS | RPD | RPD LIMITS | METHOD |
|---|---|---|---|---|---|
| **2,4-D** | **93** | **(54 - 104)** | | | **SW846 8151A** |
| | **90** | **(54 - 104)** | **3.1** | **(0-50)** | **SW846 8151A** |
| **Dalapon** | **65** | **(50 - 150)** | | | **SW846 8151A** |
| | **65** | **(50 - 150)** | **0.30** | **(0-50)** | **SW846 8151A** |
| **2,4-DB** | **103** | **(50 - 150)** | | | **SW846 8151A** |
| | **101** | **(50 - 150)** | **1.9** | **(0-50)** | **SW846 8151A** |
| **2,4,5-T** | **88** | **(58 - 106)** | | | **SW846 8151A** |
| | **88** | **(58 - 106)** | **0.17** | **(0-50)** | **SW846 8151A** |
| **2,4,5-TP (Silvex)** | **89** | **(58 - 106)** | | | **SW846 8151A** |
| | **89** | **(58 - 106)** | **0.29** | **(0-50)** | **SW846 8151A** |

| SURROGATE | PERCENT RECOVERY | RECOVERY LIMITS |
|---|---|---|
| DCAA | 89 | (52 - 92) |
| | 88 | (52 - 92) |

**NOTE(S):**

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

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# LABORATORY CONTROL SAMPLE EVALUATION REPORT

## GC Semivolatiles

**Client Lot #...:** G9D300227 **Work Order #...:** CVVN6102-LCS **Matrix.....:** WATER
**LCS Lot-Sample#:** G9E170000-345 CVVN6103-LCSD
**Prep Date.....:** 05/17/99 **Analysis Date..:** 05/20/99
**Prep Batch #...:** 9137345
**Dilution Factor:** 1

| PARAMETER | PERCENT RECOVERY | RECOVERY LIMITS | RPD | RPD LIMITS | METHOD |
|---|---|---|---|---|---|
| **2,4-D** | **96** | **(54 - 104)** | | | **SW846 8151A** |
| | **100** | **(54 - 104)** | **3.3** | **(0-50)** | **SW846 8151A** |
| **Dalapon** | **67** | **(50 - 150)** | | | **SW846 8151A** |
| | **67** | **(50 - 150)** | **0.33** | **(0-50)** | **SW846 8151A** |
| **2,4-DB** | **104** | **(50 - 150)** | | | **SW846 8151A** |
| | **101** | **(50 - 150)** | **2.5** | **(0-50)** | **SW846 8151A** |
| **2,4,5-T** | **90** | **(58 - 106)** | | | **SW846 8151A** |
| | **91** | **(58 - 106)** | **1.1** | **(0-50)** | **SW846 8151A** |
| **2,4,5-TP (Silvex)** | **89** | **(58 - 106)** | | | **SW846 8151A** |
| | **94** | **(58 - 106)** | **5.3** | **(0-50)** | **SW846 8151A** |

| SURROGATE | PERCENT RECOVERY | RECOVERY LIMITS |
|---|---|---|
| DCAA | 91 | (52 - 92) |
| | 94 * | (52 - 92) |

**NOTE(S):**

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

* Surrogate recovery is outside stated control limits.

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# Selected Metals
# Various Methods

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Client Sample ID: MW1

DISSOLVED Metals

**Lot-Sample #...:** G9D300227-001 **Matrix.....:** WATER
**Date Sampled...:** 04/29/99 **Date Received..:** 04/30/99

| PARAMETER | RESULT | REPORTING LIMIT | UNITS | METHOD | PREPARATION-ANALYSIS DATE | WORK ORDER |
|---|---|---|---|---|---|---|
| **Prep Batch #...:** 9125322 | | | | | | |
| Arsenic | ND | 0.010 | mg/L | SW846 6010B | 05/05/99 | CV9XQ1 |
| Cadmium | ND | 0.0050 | mg/L | SW846 6010B | 05/05/99 | CV9XQ1 |
| Copper | ND | 0.025 | mg/L | SW846 6010B | 05/05/99 | CV9XQ1 |
| Lead | ND | 0.0050 | mg/L | SW846 6010B | 05/05/99 | CV9XQ1 |
| Thallium | ND | 0.010 | mg/L | SW846 6010B | 05/05/99 | CV9XQ1 |
| **Zinc** | **0.042** | **0.020** | **mg/L** | **SW846 6010B** | **05/05/99** | **CV9XQ1** |
| **Prep Batch #...:** 9137270 | | | | | | |
| Mercury | ND | 0.00020 | mg/L | SW846 7470A | 05/16-05/17/99 | CV9XQ1 |

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SCS ENGINEERS

Client Sample ID: MW2

DISSOLVED Metals

**Lot-Sample #...:** G9D300227-002 **Matrix.....:** WATER
**Date Sampled...:** 04/29/99 **Date Received..:** 04/30/99

| PARAMETER | RESULT | REPORTING LIMIT | UNITS | METHOD | PREPARATION-ANALYSIS DATE | WORK ORDER # |
|---|---|---|---|---|---|---|
| **Prep Batch #...:** 9125322 | | | | | | |
| Arsenic | ND | 0.010 | mg/L | SW846 6010B | 05/05/99 | CV9XW1( |
| Cadmium | ND | 0.0050 | mg/L | SW846 6010B | 05/05/99 | CV9XW1( |
| Copper | ND | 0.025 | mg/L | SW846 6010B | 05/05/99 | CV9XW1( |
| Lead | ND | 0.0050 | mg/L | SW846 6010B | 05/05/99 | CV9XW1( |
| Thallium | ND | 0.010 | mg/L | SW846 6010B | 05/05/99 | CV9XW1( |
| Zinc | ND | 0.020 | mg/L | SW846 6010B | 05/05/99 | CV9XW1( |
| **Prep Batch #...:** 9137270 | | | | | | |
| Mercury | ND | 0.00020 | mg/L | SW846 7470A | 05/16-05/17/99 | CV9XW1( |

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SCS ENGINEERS

Client Sample ID: MW3

DISSOLVED Metals

**Lot-Sample #...:** G9D300227-004 **Matrix.....:** WATER
**Date Sampled...:** 04/29/99 **Date Received..:** 04/30/99

| PARAMETER | RESULT | REPORTING LIMIT | UNITS | METHOD | PREPARATION-ANALYSIS DATE | WORK ORDER # |
|---|---|---|---|---|---|---|
| **Prep Batch #...:** 9125322 | | | | | | |
| Arsenic | ND | 0.010 | mg/L | SW846 6010B | 05/05/99 | CVA0G1C |
| Cadmium | ND | 0.0050 | mg/L | SW846 6010B | 05/05/99 | CVA0G1C |
| Copper | ND | 0.025 | mg/L | SW846 6010B | 05/05/99 | CVA0G1C |
| Lead | ND | 0.0050 | mg/L | SW846 6010B | 05/05/99 | CVA0G1C |
| Thallium | ND | 0.010 | mg/L | SW846 6010B | 05/05/99 | CVA0G1C |
| Zinc | ND | 0.020 | mg/L | SW846 6010B | 05/05/99 | CVA0G1C |
| **Prep Batch #...:** 9137270 | | | | | | |
| Mercury | ND | 0.00020 | mg/L | SW846 7470A | 05/16-05/17/99 | CVA0G1C |