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Environmental Standards, Inc.

Specialists in Environmental Risk Assessment and Data Validation

The Commons at Valley Forge, Unit 4, 1220 Valley Forge Rd.
P.O. Box 911, Valley Forge, PA 19481 (215) 935-5577

QUALITY ASSURANCE REVIEW

THE DELTA QUARRY PROJECT

November 17, 1989

Prepared for:

CANONIE ENVIRONMENTAL
500 N. Gulph Road
King of Prussia, PA 19406

Prepared by:

ENVIRONMENTAL STANDARDS, INC.
1220 Valley Forge Road
P.O. Box 911
Valley Forge, PA 19481

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Section 1

A. Introduction

This quality assurance review is based upon a review of all data generated from the aqueous samples that were collected August 16-24, 1989. The samples that have undergone a rigorous quality assurance review are listed on Table 1.

This review has been performed in accordance with the "Functional Guidelines for Evaluating Organic and Inorganic Analyses" (U.S. EPA, 1988).

The reported analytical results (Form I's) are presented as a summary of the data in Section 2. Data were examined to determine the usability of the analytical results and also to determine contractual compliance relative to requirements and deliverables under EPA's Contract Laboratory Program (CLP). Qualifier codes have been placed next to results so that the data user can quickly assess the qualitative and/or quantitative reliability of any result. Details of this quality assurance review are presented below in a narrative section of this report. This report was prepared to provide a critical review of the laboratory analyses and reported chemical results. Rigorous reviews of laboratory-generated data routinely identify various problems associated with analytical measurements, even from the most experienced and capable laboratories. The nature and extent of problems identified in this critical review should not be interpreted to mean that those results that do not have qualifier codes are less than valid.

B. Organic Data

The organic analysis of 31 aqueous samples was performed by Canonie Environmental of Stockton, California. The samples were analyzed by CLP protocols for the Target Compound List (TCL) volatile organic compounds, base/neutral/acid compounds and/or pesticides/PCBs. The findings offered in this report are based upon a rigorous review of the holding times, blank analysis results, surrogate and matrix spike recoveries, GC/MS tuning, target compound matching quality, calibrations, internal standard areas, quantitation of positive results, and tentatively identified compounds. The analytical results (Form I's) are provided in Section 2, Parts A, B and C.

Overall, organic data quality was good from a usability standpoint; however, some contractual criteria (CLP) and numerous reporting requirements which were not met for this data set are as follows.

TABLE 1

SAMPLES INCLUDED IN THIS QUALITY ASSURANCE REVIEW

Canonie Environmental Sample Designation	Laboratory Sample Designation	Fractions Analyzed
RW-1	843365	TCL VOA, TCL BNA
RW-2	843366	TCL VOA, TCL BNA
MW-10	843369	TCL VOA, TCL BNA, TCL/Pesticides/PCBs, TAL Inorganics, Alkalinity and Hardness
MW-11	843370	TCL VOA, TCL BNA, TCL/Pesticides/PCBs, TAL Inorganics, Alkalinity and Hardness
MW-12	843418	TCL VOA, TCL BNA, TCL/Pesticides/PCBs, TAL Inorganics, Alkalinity and Hardness
MW-13 (Dup of MW-12)	843419	TCL VOA, TCL BNA, TCL/Pesticides/PCBs, TAL Inorganics, Alkalinity and Hardness
MW-14	843420	TCL VOA, TCL BNA, TCL/Pesticides/PCBs, TAL Inorganics, Alkalinity and Hardness
MW-15 (Field Blank)	843421	TCL VOA, TCL BNA, TCL/Pesticides/PCBs, TAL Inorganics, Alkalinity and Hardness
MW-16 (Trip Blank)	843422	TCL VOA, TCL BNA, TCL/Pesticides/PCBs, TAL Inorganics, Alkalinity and Hardness

TABLE 1 (Cont.)

SAMPLES INCLUDED IN THIS QUALITY ASSURANCE REVIEW

Canonie Environmental Sample Designation	Laboratory Sample Designation	Fractions Analyzed
RW-20	843422	TCL VOA, TCL BNA, TCL/Pesticides/PCBs, TAL Inorganics, Alkalinity and Hardness
MW-17	844085	TCL/Pesticides/PCBs
MW-18	844086	TCL/Pesticides/PCBs
MW-19	844171	TCL/Pesticides/PCBs
MW-20	844172	TCL/Pesticides/PCBs
MW-21	844169	TCL/Pesticides/PCBs
MW-22	844168	TCL/Pesticides/PCBs
MW-23	844166	TCL/Pesticides/PCBs
MW-24	844237	TCL/Pesticides/PCBs
MW-25	844238	TCL/Pesticides/PCBs
MW-1 (Dissolved Inorganics)	843249	TCL Pesticides/PCBs, TAL Inorganics, Alkalinity and Hardness
MW-2 (Dup of MW-1) (Dissolved Inorganics)	843250	TCL Pesticides/PCBs, TAL Inorganics, Alkalinity and Hardness
MW-3 (Dissolved Inorganics)	843251	TCL Pesticides/PCBs, TAL Inorganics, Alkalinity and Hardness

TABLE 1 (Cont.)

SAMPLES INCLUDED IN THIS QUALITY ASSURANCE REVIEW

Canonie Environmental Sample Designation	Laboratory Sample Designation	Fractions Analyzed
MW-4 (Dissolved Inorganics)	843258	TCL Pesticides/PCBs, TAL Inorganics, Alkalinity and Hardness
MW-5 (Dissolved Inorganics)	843259	TCL Pesticides/PCBs, TAL Inorganics, Alkalinity and Hardness
MW-6 (Dissolved Inorganics)	843260	TCL Pesticides/PCBs, TAL Inorganics, Alkalinity and Hardness
MW-7 (Dissolved Inorganics)	843261	TCL Pesticides/PCBs, TAL Inorganics, Alkalinity and Hardness
MW-8 (Filed Blank)	843262	TCL Pesticides/PCBs, TAL Inorganics, Alkalinity and Hardness
MW-9 Trip (Travel)	843363	TCL Pesticides/PCBs, TAL Inorganics, Alkalinity and Hardness
RW-12	843367	TCL Pesticides/PCBs, TAL Inorganics, Alkalinity and Hardness
RW-17	843368	Cyanide
RW-10	843355	TCL VOA

Correctable Deficiencies

1. Mass spectra were not provided for the positive results and tentatively identified compounds reported in the volatile fraction of sample MW-13.

2. Mass spectra was not provided for the tentatively identified compound reported in the volatile fraction of samples MW-14 and MW-15.

3. The sample identifier for the volatile analysis of sample MW-15 was not completed on the Form I for tentatively identified compounds.

4. The header information on almost all of the QC forms, the quantitation reports for the calibration data for the volatile fraction, and the quantitation reports and reconstructed ion chromatograms for the BNA calibration data is barely legible due to poor copy quality.

5. The analytical results for the volatile, semivolatile, and pesticides/PCB matrix spike compounds were reported on the Form I's for the matrix spike and matrix spike duplicate samples. The CLP protocol specifies that only nonspiked analytical results are to be reported on the Form I's (SOW787, E-39).

6. The calibration date listed on the initial and continuing calibration reports for the volatile analyses are incorrect. The same incorrect date and time of analysis appears on each calibration report.

7. The sample identification designated by the firm performing the sample collection were not completed on any of the QA summary forms.

8. The concentration level listed on the volatile Form I's for TICs is incorrect. According to the raw data, the samples were analyzed according to low level protocol, not medium level.

9. The data package for the volatile fraction does not contain the chain-of-custodies for samples RW-10 and RW-2.

10. The volatile and BNA BFB and DFTPP GC/MS tuning and mass calibrations forms (Form V) for the initial calibrations were not included in the data package received.

11. The sample identifier designated by the firm performing sample collection was reported as sample RW-10 in the volatile raw data and as sample RW-1 in the BNA raw data. The reviewer

was unable to determine which sample identifier was correct and so randomly designated this sample as RW-1. Furthermore, the VOA and BNA Form I for the reported sample MW-20 appears to be RW-20 according to the other data received.

12. The BNA surrogate recovery form (Form II) dated 9/18/89 and the BNA GC/MS tuning and mass calibration form (Form V) dated 9/18/89 are totally illegible due to poor copy quality.

13. There are peaks at the following retention times in the BNA fraction of the following samples that appear to require library searching by the reviewer's manual measurement techniques.

Sample	Retention Time(s)
MW-10	7 minutes and 24 minutes
MW-11 (initial and reextraction)	16 minutes and 28 minutes
RW-20	23.5 minutes

14. Information regarding the date of extraction, date of analyzation, pH and dilution factors was not provided on the volatile and BNA result pages for the target compounds as required (SOW787, B-7, B-11).

15. The Form I's for the reanalysis and reextraction of sample MW-11 and reextraction of sample MW-20 appear to be included in the data package received, however, the dates of extraction appear to be those of the initial extraction.

16. The result reported for 4-nitroanaline in sample RW-20 was reported incorrectly. The correct result should read "ND".

17. The laboratory did not provide mass spectra for the three best matches for the tentatively identified compounds (SOW787, B-12).

18. The reported DBC recoveries could not be reproduced. Manual calculations performed by the reviewer could not exactly reproduce results appearing in the raw data.

19. The pesticide 72-hour sequence has a 20-hour time gap between MW-4 and the INDA standard on both columns.

20. Much of the pesticide/PCB raw data, particularly the raw data for the standards, is barely legible due to very poor copy quality.

21. The two BNA tentatively identified compounds reported in sample RW-20 (incorrectly reported as MW-20) are actually surrogate compounds d_5-phenol and 2-fluorophenol.

22. The pesticide/PCB detection limits reported for samples RW-12, RW-20, MW-1, MW-2, MW-3, MW-4, MW-5, MW-6, MW-7, MW-8, MW-10, MW-11, MW-12, MW-13, MW-14, MW-15 and MW-16 should be doubled since, according to the Form I's provided, only 500 mls of sample was extracted for these samples.

23. The BNA Form I's for samples MW-11 and RW-20 should have the appropriate "-RE" suffix next to the Canonie sample identifier to indicate these analyses represent reextractions. Furthermore, the correct dates of reextraction should be reported.

24. Form I-TICs were not provided for any of the BNA and VOA laboratory method blanks for this data set.

25. None of the laboratory method blanks have been designated with unique sample identifiers as required by the CLP protocol (SOW787, B-26).

Noncorrectable Deficiencies

1. All of the volatile chromatograms were normalized to a large air peak which eluted within the first few minutes of the analytical run. Per CLP protocol, the chromatograms must be normalized to the first nonsolvent or nonair component (SOW787, B-16).

2. The calibration check compound (CCC) was outside the 25% difference criteria in the BNA continuing calibration associated with the reextraction/reanalysis of samples MW-11 and RW-20 (9/23 at 12:34). The analysis of these samples based upon this calibration is noncompliant (SOW787, E-35).

Comments

1. The laboratory used a sample from the Delta Quarry project for the matrix spike/matrix spike duplicate analyses in this delivery group, however, the sample was not one of the samples reviewed in this report.

2. According to the case narrative, the percent breakdowns for endrin on the confirmation column for samples MW-17 thorough MW-25 are inaccurate and may be one-third less due to the coelution of endrin aldehyde and 4,4'-DDT.

3. It was noted on the Chain-of-Custody that the custody seal was found broken on sample MW-18.

With regard to data usability, principal areas of concern include surrogate recoveries and holding times. Based upon a rigorous review of the data provided, the following organic data qualifiers are offered.

Organic Data Qualifiers

- The actual detection limits for BNA compounds in sample MW-11 (RE) may be higher than reported and have been flagged "UL" on the data tables. Since the initial extraction of sample MW-11 resulted in a zero percent recovery for the surrogate compound 2,4,6-tribromophenol, the laboratory performed a reextraction and reanalysis consistent with CLP protocol. However, by all dates provided and several assumptions, it appears that this reextraction was performed at least 26 days after the date of sample collection. If the Form I provided for MW-11 is the initial extraction, the detection limits for acid compounds are unreliable and the BN detection limits are acceptable. However, it appears the Form I is intended to represent the reextraction in which all BNA detection limits may be biased low (flagged UL).

- The analysis of acid compounds in sample RW-20 is unreliable and has been flagged "R" on the applicable Form I. Furthermore, the actual detection limits for BNA compounds may be higher than reported and have been flagged "UL". Zero recoveries were obtained for the acid surrogate compounds d_5-phenol and 2-fluorophenol in the initial and reanalysis of sample RW-20. Furthermore, the reextraction of sample RW-20 was apparently performed at least 26 days after the date of sample collection.

- The reported results for beta-BHC in samples MW-18, MW-24 and MW-25 should be used very cautiously. Although an early-eluting peak was present on both GC columns for these samples, there also appears to be larger random interferences in the first few minutes of these analytical runs. If these results are to be used in the decision-making process, additional confirmatory techniques (i.e., GC/MS) may warrant consideration.

- The few tentatively identified compounds (TIC) reported in this data set have been evaluated. The following data qualifiers are offered:

- The presence of methylbenzene (viz., toluene) in sample MW-11 as a BNA TIC at an estimated concentration of 6,000 ug/L is unreliable and has been flagged "R" on the applicable Form I. This compound was not detected at or below the 5 ug/L quantitation limit for the volatile organic analysis of this sample, which is five times more sensitive than the BNA analysis. Furthermore, toluene is sometimes found as an impurity in the methylene chloride used for the BNA sample extractions.

- The two BNA TICs reported in RW-20 (incorrectly reported as MW-20) are actually the surrogate compounds d_5-phenol and 2-fluorophenol. These compounds are not native to this sample.

A complete support documentation on this organic quality assurance review is presented in Section 3 of this report.

C. Inorganic Data

The inorganic analysis of 18 aqueous samples was performed by Canonie Environmental of Stockton, California. The samples were split into two sample delivery groups. The first sample delivery group was comprised of aqueous samples MW-1 through MW-8 and a sample travel blank. The second sample delivery group was comprised of aqueous samples MW-10 through MW-17 and sample RW-20. All samples were analyzed by CLP protocols for the TAL inorganic constituents, alkalinity and total hardness with the exception of sample MW-17, which was analyzed for cyanide only. The findings offered in this report are based upon a rigorous review of the sample holding times, blank analysis results, post digestion matrix spikes, laboratory duplicate analysis, quantitation of positive results, instrument sensitivity, initial and continuing calibrations and graphite furnace duplicate burns. The analytical results (Form I's) are provided in Section 2, Part D.

Overall, inorganic data quality was fair. Contractual criteria and reporting requirements were met for this data set with the exception of the following.

Correctable Deficiencies

1. The initial calibration verification and the initial calibration blanks for ICP analysis for sample delivery group 1 were labelled as the continuing calibration verification and the continuing calibration blank, respectively.

2. The laboratory incorrectly reported negative numbers on the Form I's for sample delivery group 1 (SOW787, 13-18).

3. The laboratory misreported the serial dilution result for sodium in sample delivery group 1. The correct result should be 5675 ug/L.

4. Most of the ICP raw data and graphite furnace raw data are illegible due to poor copy quality.

5. The final concentrations and percent recoveries found for the final CRDL standards in sample delivery group 1 were not reported on the Form II-Bs.

6. The result for selenium in sample MW-6 was not flagged "W" on the Form I. Per CLP protocol, analytical spike recoveries for furnace analyses that exceed 115% or are less than 85% should be flagged with the "W" qualifier code.

7. The percent differences between the serial dilution results and initial sample results were not reported on the Form IX for sample delivery group 1.

8. A distillation log and a preparation log were not included in the data package received for either sample delivery group.

9. None of the results for barium in sample delivery group 2 were flagged with the qualifier code "E" on the Form I's. Per CLP protocol, if the analyte concentration is at least ten times greater than the instrument detection limit, then the serial dilution results must agree within ten percent of the initial sample result after correction for dilution, or all results for that analyte must be flagged with and "E" on the Form I's (SOW 787, E-13).

10. The Chain-of-Custody for sample MW-17 was not provided with the raw data received.

11. Raw data was not provided for the analyses of total cyanide and total hardness.

Noncorrectable Deficiencies

1. A preparation blank was not analyzed for either sample delivery group. Per CLP protocol, at least one preparation blank must be analyzed per sample delivery group (SOW 787, E-7).

2. The initial calibration verification (ICV) for cyanide was not distilled along with the samples analyzed in association with the ICV (SOW787, E-5).

3. None of the samples for either sample delivery group apparently underwent digestion. As such, a pre-digestion spike and sample duplicate analysis were not performed for any of the ICP or graphite furnace metals. Per CLP protocol, a digestion is required prior to analysis. Furthermore, one matrix spike and laboratory duplicate sample analysis must be digested and analyzed for each group of samples of a similar matrix type for each sample delivery group (SOW787, E-9).

4. The analytical spikes performed for the furnace analysis for lead and thallium were spiked with concentrations greater than the required 2 times CRDL concentration (SOW787, E-17).

5. The reported instrument detection limit reported for mercury is greater than the contract required detection limit.

6. The laboratory failed to terminate analysis, recalibrate and reanalyze samples RW-1, RW-2 and RW-3 as required when the concentration of aluminum in a CCB exceeded the CRDL and all samples when the concentration of mercury in an ICB and CCB exceeded the CRDL (SOW787, E-7).

7. The laboratory performed duplicate spikes for cyanide instead of a matrix spike and an unspiked duplicate as required by the CLP protocol.

With regard to data usability, the principal areas of concern include blank contamination, CRDL standards results and ICP serial dilution results.

Based upon a review of the data provided, the following qualifiers are offered.

Inorganic Data Qualifiers

- Due to the trace-level presence of aluminum, barium, cadmium, chromium, cobalt, manganese, silver, sodium and calcium in laboratory and/or trip blanks and field blanks, the presence of the following constituents in the following samples should be considered qualitatively questionable and have been flagged "B" on the Form I's.

Constituent	Applicable Samples
aluminum	MW-4 through MW-7, MW-12, MW-13, MW-14 and RW-20
barium	MW-1 through MW-7, MW-12, MW-13, MW-14 and RW-20

Constituent	Applicable Samples
cadmium	MW-5, MW-11 and MW-12
chromium	MW-7
cobalt	MW-3 through MW-6, MW-10, MW-12,MW-13 and RW-20
lead	MW-4, MW-10 through MW-14, RW-20, MW-2, MW-7, MW-3, MW-5 and MW-6
manganese	MW-7
nickel	MW-12, MW-13 and RW-20
potassium	MW-11, MW-12 and MW-13
silver	MW-3 through MW-7, MW-11 and MW-13
sodium	MW-1 through MW-4, MW-6, MW-7, MW-14 and RW-20
calcium	MW-3

- The analyses of aluminum for samples MW-1, MW-2 and MW-3 and the analyses of mercury for all samples in sample delivery group 1 should be considered unreliable and have been flagged "R" on the Form I's. The concentration of aluminum and mercury obtained in an initial calibration blank and/or continuing calibration blank exceeded the amount allowable under CLP protocol.

- The laboratory misreported the results for the following compounds in the following samples. These results have been corrected on the Form I's.

Sample	Element	Result (ug/L)	Result (ug/L)
MW-5	potassium	2740	2607 U
MW-5	zinc	1140	184
MW-7	potassium	3100 B	2607 U
MW-8	potassium	3170 B	2607 U
Trip Blank	potassium	3720 B	2607 U

Sample	Element	Result (ug/L)	Result (ug/L)
MW-14	sodium	2160	2460
MW-16	calcium	879	87.9

- The reported results for arsenic in sample MW-10 could not be verified due to poor copy quality of the raw data for this sample.

- It should be noted that samples for this project did not undergo digestion for any metals except mercury. Accordingly, the possible presence of complex inorganic compounds (i.e., organic metalics) may not have been measured by the analysis performed.

- The actual detection limits for the following constituents for the following samples may be higher than reported and have been flagged "UL" on the Form I's. Similarly, positive results for the following samples should be considered estimated and have been flagged "J" on the Form I's. The reasons for qualifications are footnoted at the end of the following tables. In addition, wherever possible, a direction (i.e., percent recovery) is presented. The data has been separated into two sample delivery groups as presented on Table 2 and Table 3.

TABLE 2

SAMPLE DELIVERY GROUP 1

Constituent	Samples with Est. Positive Results	Samples with Biased Detection Limits	Outlier % REC or PD
barium[c]	MW-8 and Trip Blank		227% (PD)
beryllium[b]	MW-5		122%
nickel[b]	MW-3 through MW-6		112.7%
potassium[a]		MW-1 through MW-8 and Trip Blank	77% and 79%
selenium[a]		MW-1 through MW-8 and Trip Blank	89.3%
silver[a]	MW-8	MW-1, MW-2, and Trip Blank	33%, 49%
sodium[c]	MW-5		155%

Samples in Sample Delivery Group 1: MW-1 through MW-8, travel blank and RW-17.

TABLE 3

SAMPLE DELIVERY GROUP 1

Constituent	Samples with Est. Positive Results	Samples with Biased Detection Limits	Outlier % REC or PD
aluminum[b]	MW-15 and MW-16		111.7% and 114.2%
barium[c]	MW-10, MW-11, MW-15 and MW-16		44.1% (PD)
nickel[b]	MW-11 and MW-14		112.7%
potassium[a]		MW-10, MW-14, MW-15 and RW-20	80.05 and 70.9%
lver[a]		MW-10, MW-12, MW-14, MW-15, MW-16 and RW-20	49.3% and 70.9%

Samples in Sample Delivery Group 2: MW-10 through MW-17 and RW-20.

NOTES:

a - A low recovery was obtained for this constituent in an associated CRDL standard.

b - A high recovery was obtained for this constituent in an associated CRDL standard.

c - A high percent difference was obtained for this constituent in the associated ICP serial dilution analysis.

- Based upon the raw data received, the results for alkalinity and total hardness appear valid as reported. However, with the exception of laboratory duplicate samples, no other QC samples were analyzed. Furthermore, the raw data for total cyanide and total hardness were not provided with the raw data received.

- Overall, the results of the "blind" duplicates MW-1, MW-2, MW-12 and MW-13 agree very well.

D. Conclusions

This quality assurance review has identified several aspects of the analytical data that have required qualification. Overall, the majority of the organic data represented good quantitative analyses. However, a fair portion of the inorganic data should be considered estimated due to the results of various quality control samples. In order to use any of the data within this set, the data user should understand the qualifications and limitations of the results. A support documentation of this quality assurance review is provided in Section 4.

Report prepared by:

Ruth L. Forman

Ruth L. Forman
Quality Assurance Chemist

Report reviewed and approved by:

Kenneth L. Simms for Rock J. Vitale

Rock J. Vitale
Quality Assurance Specialist/
Principal

ENVIRONMENTAL STANDARDS, INC.
1220 Valley Forge Road
Valley Forge, PA 19481

(215) 935-5577

Date: Nov. 20, 1989

SECTION 2

ANALYTICAL RESULTS (FORM I's)

A. VOLATILE ORGANICS

ent: Delta Quarry
Sample ID: MW-10 A THRU H
Matrix: WATER
Lab ID: 843369-SA-A
Project #: 88-033.03

Date Reported: 10/05/1989
QC Batch # : M082889DG1
Date Sampled : 8/22/1989
Date Received: 8/24/1989
LP #: 7492

Test Description: Volatile Organics, GC/MS

Analyte	Result*	Reporting Limit	Units	Method
Chloromethane	ND	10.	ug/L	SOW 2/88
Bromomethane	ND	10.	ug/L	
Vinyl Chloride	ND	10.	ug/L	
Chloroethane	ND	10.	ug/L	
Methylene Chloride	ND	5.0	ug/L	
Acetone	ND	5.0	ug/L	
Carbon Disulfide	ND	5.0	ug/L	
1,1-Dichloroethene	ND	5.0	ug/L	
1,1-Dichloroethane	36.	5.0	ug/L	
1,2-Dichloroethene (total)	ND	5.0	ug/L	
Chloroform	ND	5.0	ug/L	
1,2-Dichloroethane	ND	5.0	ug/L	
tanone	ND	5.0	ug/L	
1,1,1-Trichloroethane	37.	5.0	ug/L	
Carbon Tetrachloride	ND	5.0	ug/L	
Vinyl Acetate	ND	5.0	ug/L	
Bromodichloromethane	ND	5.0	ug/L	
1,2-Dichloropropane	ND	5.0	ug/L	
cis-1,3-Dichloropropene	ND	5.0	ug/L	
Trichloroethene	ND	5.0	ug/L	
Dibromochloromethane	ND	5.0	ug/L	
1,1,2-Trichloroethane	ND	5.0	ug/L	
Benzene	ND	5.0	ug/L	
trans-1,3-Dichloropropene	ND	5.0	ug/L	
Bromoform	ND	5.0	ug/L	
4-Methyl-2-pentanone	ND	5.0	ug/L	
2-Hexanone	ND	5.0	ug/L	
Tetrachloroethene	ND	5.0	ug/L	
Tolulene	ND	5.0	ug/L	
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L	
Chlorobenzene	ND	5.0	ug/L	
Ethyl Benzene	ND	5.0	ug/L	
Styrene	ND	5.0	ug/L	
Xylenes	ND	5.0	ug/L	

sted By : DEG
alidated By: DLA

AR302347

ND indicates a compound was not detected at a concentration level reater than the reporting limit.

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

MW16A-H

Lab Name: Canonie Environmental Contract: _____

Lab Code: 88-033.03 Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) Water Lab Sample ID: 843369

Sample wt/vol: 5.0 (g/mL) mL Lab File ID: >T3369

Level: (low/med) med Date Received: 8/24/89

% Moisture: not dec. — Date Analyzed: ~~8/25/89~~ 8/28/89

Column: (pack/cap) cap Dilution Factor: 1.0

Number TICs found: 8

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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2.				
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FORM I VOA-TIC AR302348 1/87 Re

Client: Delta Quarry
Sample ID: RW 10F
Matrix: WATER
Lab ID: 843355-SA-A
Project #: 88-033.03

Date Reported: 10/05/1989
QC Batch # : M082589DG1
Date Sampled : 8/22/1989
Date Received: 8/24/1989
LP #: 7492

Test Description: Volatile Organics, GC/MS

Analyte	Result*	Reporting Limit	Units	Method
Chloromethane	ND	10.	ug/L	SOW 2/88
Bromomethane	ND	10.	ug/L	
Vinyl Chloride	ND	10.	ug/L	
Chloroethane	ND	10.	ug/L	
Methylene Chloride	ND	5.0	ug/L	
Acetone	ND	5.0	ug/L	
Carbon Disulfide	ND	5.0	ug/L	
1,1-Dichloroethene	ND	5.0	ug/L	
1,1-Dichloroethane	ND	5.0	ug/L	
1,2-Dichloroethene (total)	ND	5.0	ug/L	
Chloroform	ND	5.0	ug/L	
1,2-Dichloroethane	ND	5.0	ug/L	
2-Butanone	ND	5.0	ug/L	
1,1,1-Trichloroethane	ND	5.0	ug/L	
Carbon Tetrachloride	ND	5.0	ug/L	
Vinyl Acetate	ND	5.0	ug/L	
Bromodichloromethane	ND	5.0	ug/L	
1,2-Dichloropropane	ND	5.0	ug/L	
cis-1,3-Dichloropropene	ND	5.0	ug/L	
Trichloroethene	ND	5.0	ug/L	
Dibromochloromethane	ND	5.0	ug/L	
1,1,2-Trichloroethane	ND	5.0	ug/L	
Benzene	ND	5.0	ug/L	
trans-1,3-Dichloropropene	ND	5.0	ug/L	
Bromoform	ND	5.0	ug/L	
4-Methyl-2-pentanone	ND	5.0	ug/L	
2-Hexanone	ND	5.0	ug/L	
Tetrachloroethene	ND	5.0	ug/L	
Tolulene	ND	5.0	ug/L	
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L	
Chlorobenzene	ND	5.0	ug/L	
Ethyl Benzene	ND	5.0	ug/L	
Styrene	ND	5.0	ug/L	
Xylenes	ND	5.0	ug/L	

Tested By : DEG
Validated By: DLA

* ND indicates a compound was not detected at a concentration level greater than the reporting limit.

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

RW 1ØF

Lab Name: Canonie Environmental Contract: _____

Lab Code: 88-033.03 Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) Water Lab Sample ID: 843355

Sample wt/vol: 5.0 (g/mL) mL Lab File ID: >T3355

Level: (low/med) med Date Received: 8/24/89

% Moisture: not dec. — Date Analyzed: 8/25/89

Column: (pack/cap) cap Dilution Factor: 1.0

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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FORM I VOA-TIC 1/87 Re

AR302350

Client: Delta Quarry
Sample ID: MW-11 A THRU H
Matrix: WATER
Lab ID: 843370-SA-A
Project #: 88-033.03

Date Reported: 10/05/1989
QC Batch # : M082889DG1
Date Sampled : 8/22/1989
Date Received: 8/24/1989
LP #: 7492

Test Description: Volatile Organics, GC/MS

Analyte	Result*	Reporting Limit	Units	Method
Chloromethane	ND	10.	ug/L	SOW 2/88
Bromomethane	ND	10.	ug/L	
Vinyl Chloride	35.	10.	ug/L	
Chloroethane	31.	10.	ug/L	
Methylene Chloride	ND	5.0	ug/L	
Acetone	ND	5.0	ug/L	
Carbon Disulfide	ND	5.0	ug/L	
1,1-Dichloroethene	ND	5.0	ug/L	
1,1-Dichloroethane	47.	5.0	ug/L	
1,2-Dichloroethene (total)	67.	5.0	ug/L	
Chloroform	ND	5.0	ug/L	
1,2-Dichloroethane	ND	5.0	ug/L	
2-Butanone	ND	5.0	ug/L	
1,1,1-Trichloroethane	ND	5.0	ug/L	
Carbon Tetrachloride	ND	5.0	ug/L	
Vinyl Acetate	ND	5.0	ug/L	
Bromodichloromethane	ND	5.0	ug/L	
1,2-Dichloropropane	ND	5.0	ug/L	
cis-1,3-Dichloropropene	ND	5.0	ug/L	
Trichloroethene	13.	5.0	ug/L	
Dibromochloromethane	ND	5.0	ug/L	
1,1,2-Trichloroethane	ND	5.0	ug/L	
Benzene	ND	5.0	ug/L	
trans-1,3-Dichloropropene	ND	5.0	ug/L	
Bromoform	ND	5.0	ug/L	
4-Methyl-2-pentanone	ND	5.0	ug/L	
2-Hexanone	ND	5.0	ug/L	
Tetrachloroethene	6.2	5.0	ug/L	
Tolulene	ND	5.0	ug/L	
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L	
Chlorobenzene	9.2	5.0	ug/L	
Ethyl Benzene	ND	5.0	ug/L	
Styrene	ND	5.0	ug/L	
Xylenes	ND	5.0	ug/L	

Tested By : DEG
Validated By: DLA

* ND indicates a compound was not detected at a concentration greater than the reporting limit.

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

MW11 A-H

Lab Name: Canonie Environmental Contract: _____

Lab Code: 88-033.03 Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) Water Lab Sample ID: 843378

Sample wt/vol: 5.0 (g/mL) mL Lab File ID: >T3378

Level: (low/med) med Date Received: 8/24/89

% Moisture: not dec. — Date Analyzed: ~~8/25/89~~ DA 8/28/89

Column: (pack/cap) cap Dilution Factor: 1.0

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

Number TICs found: 0

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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FORM I VOA-TIC 1/87 Re

AR302352

Client: Delta Quarry
Sample ID: MW-12 A THRU H
Matrix: WATER
Lab ID: 843418-SA-H
Project #: 88-033.03

Date Reported: 10/05/1989
QC Batch # : M090828DG1
Date Sampled : 8/24/1989
Date Received: 8/25/1989
LP #: 7499

Test Description: Volatile Organics, GC/MS

Analyte	Result*	Reporting Limit	Units	Method
Chloromethane	ND	10.	ug/L	SOW 2/88
Bromomethane	ND	10.	ug/L	
Vinyl Chloride	ND	10.	ug/L	
Chloroethane	ND	10.	ug/L	
Methylene Chloride	ND	5.0	ug/L	
Acetone	160.	5.0	ug/L	
Carbon Disulfide	ND	5.0	ug/L	
1,1-Dichloroethene	ND	5.0	ug/L	
1,1-Dichloroethane	ND	5.0	ug/L	
1,2-Dichloroethene (total)	58.	5.0	ug/L	
Chloroform	ND	5.0	ug/L	
1,2-Dichloroethane	13.	5.0	ug/L	
2-Butanone	ND	5.0	ug/L	
1,1,1-Trichloroethane	11.	5.0	ug/L	
Carbon Tetrachloride	ND	5.0	ug/L	
Vinyl Acetate	ND	5.0	ug/L	
Bromodichloromethane	ND	5.0	ug/L	
1,2-Dichloropropane	ND	5.0	ug/L	
cis-1,3-Dichloropropene	ND	5.0	ug/L	
Trichloroethene	47.	5.0	ug/L	
Dibromochloromethane	ND	5.0	ug/L	
1,1,2-Trichloroethane	ND	5.0	ug/L	
Benzene	ND	5.0	ug/L	
trans-1,3-Dichloropropene	ND	5.0	ug/L	
Bromoform	ND	5.0	ug/L	
4-Methyl-2-pentanone	ND	5.0	ug/L	
2-Hexanone	ND	5.0	ug/L	
Tetrachloroethene	5.8	5.0	ug/L	
Tolulene	ND	5.0	ug/L	
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L	
Chlorobenzene	ND	5.0	ug/L	
Ethyl Benzene	ND	5.0	ug/L	
Styrene	ND	5.0	ug/L	
Xylenes	ND	5.0	ug/L	

Tested By : DEG
Validated By: DLA

* ND indicates a compound was not detected at a concentration level greater than the reporting limit.

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

MW12 A-H

Lab Name: Canonie Environmental Contract: _____

Lab Code: 88-033.03 Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) Water Lab Sample ID: 893418

Sample wt/vol: 5.0 (g/mL) mL Lab File ID: >T3418

Level: (low/med) med Date Received: 8/25/89

% Moisture: not dec. — Date Analyzed: 8/28/89

Column: (pack/cap) cap Dilution Factor: 1.0

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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FORM I VOA-TIC

AR302354 1/87 Re

Client: Delta Quarry
Sample ID: MW-13 A THRU H
Matrix: WATER
Lab ID: 843419-SA-H
Project #: 88-033.03

Date Reported: 10/05/1989
QC Batch # : M082889DG1
Date Sampled : 8/24/1989
Date Received: 8/25/1989
LP #: 7499

Test Description: Volatile Organics, GC/MS

Analyte	Result*	Reporting Limit	Units	Method
Chloromethane	ND	10.	ug/L	SOW 2/88
Bromomethane	ND	10.	ug/L	
Vinyl Chloride	ND	10.	ug/L	
Chloroethane	ND	10.	ug/L	
Methylene Chloride	ND	5.0	ug/L	
Acetone	120.	5.0	ug/L	
Carbon Disulfide	ND	5.0	ug/L	
1,1-Dichloroethene	ND	5.0	ug/L	
1,1-Dichloroethane	ND	5.0	ug/L	
1,2-Dichloroethene (total)	50.	5.0	ug/L	
Chloroform	ND	5.0	ug/L	
1,2-Dichloroethane	ND	5.0	ug/L	
2-Butanone	ND	5.0	ug/L	
1,1,1-Trichloroethane	9.6	5.0	ug/L	
Carbon Tetrachloride	ND	5.0	ug/L	
Vinyl Acetate	ND	5.0	ug/L	
Bromodichloromethane	ND	5.0	ug/L	
1,2-Dichloropropane	ND	5.0	ug/L	
cis-1,3-Dichloropropene	ND	5.0	ug/L	
Trichloroethene	41.	5.0	ug/L	
Dibromochloromethane	ND	5.0	ug/L	
1,1,2-Trichloroethane	ND	5.0	ug/L	
Benzene	ND	5.0	ug/L	
trans-1,3-Dichloropropene	ND	5.0	ug/L	
Bromoform	ND	5.0	ug/L	
4-Methyl-2-pentanone	ND	5.0	ug/L	
2-Hexanone	ND	5.0	ug/L	
Tetrachloroethene	ND	5.0	ug/L	
Tolulene	ND	5.0	ug/L	
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L	
Chlorobenzene	ND	5.0	ug/L	
Ethyl Benzene	ND	5.0	ug/L	
Styrene	ND	5.0	ug/L	
Xylenes	ND	5.0	ug/L	

Reviewed By : DEG
Validated By: DLA

AR302355

* ND indicates a compound was not detected at a concentratio greater than the reporting limit.

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

MW131-H

Lab Name: Canonie Environmental Contract: _____

Lab Code: 88-033.03 Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) Water Lab Sample ID: 843419

Sample wt/vol: 5.0 (g/mL) mL Lab File ID: >T3419

Level: (low/med) med Date Received: 8/25/89

% Moisture: not dec. — Date Analyzed: 8/28/89

Column: (pack/cap) cap Dilution Factor: 1.0

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

Number TICs found: 1

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	Dimethyl ethyl methyl phenol	27.31	76	
2.				
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FORM I VOA-TIC

Client: Delta Quarry
Sample ID: MW-14 A THRU H
Matrix: WATER
Lab ID: 843420-SA-H
Project #: 88-033.03

Date Reported: 10/05/1989
QC Batch # : M082889DG1
Date Sampled : 8/24/1989
Date Received: 8/25/1989
LP #: 7499

Test Description: Volatile Organics, GC/MS

Analyte	Result*	Reporting Limit	Units	Method
Chloromethane	ND	10.	ug/L	SOW 2/88
Bromomethane	ND	10.	ug/L	
Vinyl Chloride	ND	10.	ug/L	
Chloroethane	ND	10.	ug/L	
Methylene Chloride	ND	5.0	ug/L	
Acetone	ND	5.0	ug/L	
Carbon Disulfide	ND	5.0	ug/L	
1,1-Dichloroethene	ND	5.0	ug/L	
1,1-Dichloroethane	ND	5.0	ug/L	
1,2-Dichloroethene (total)	ND	5.0	ug/L	
Chloroform	ND	5.0	ug/L	
1,2-Dichloroethane	ND	5.0	ug/L	
2-Butanone	ND	5.0	ug/L	
1,1,1-Trichloroethane	ND	5.0	ug/L	
Carbon Tetrachloride	ND	5.0	ug/L	
Vinyl Acetate	ND	5.0	ug/L	
Bromodichloromethane	ND	5.0	ug/L	
1,2-Dichloropropane	ND	5.0	ug/L	
cis-1,3-Dichloropropene	ND	5.0	ug/L	
Trichloroethene	ND	5.0	ug/L	
Dibromochloromethane	ND	5.0	ug/L	
1,1,2-Trichloroethane	ND	5.0	ug/L	
Benzene	ND	5.0	ug/L	
trans-1,3-Dichloropropene	ND	5.0	ug/L	
Bromoform	ND	5.0	ug/L	
4-Methyl-2-pentanone	ND	5.0	ug/L	
2-Hexanone	ND	5.0	ug/L	
Tetrachloroethene	ND	5.0	ug/L	
Tolulene	ND	5.0	ug/L	
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L	
Chlorobenzene	ND	5.0	ug/L	
Ethyl Benzene	ND	5.0	ug/L	
Styrene	ND	5.0	ug/L	
Xylenes	ND	5.0	ug/L	

Tested By : DEG
Validated By: DLA

* ND indicates a compound was not detected at a concentration level greater than the reporting limit.

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

MW14A-H

Lab Name: Canonie Environmental Contract: _____

Lab Code: 88-033.03 Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) Water Lab Sample ID: 843426

Sample wt/vol: 5.0 (g/mL) mL Lab File ID: >T3426

Level: (low/med) med Date Received: 8/24/89

% Moisture: not dec. — Date Analyzed: 8/28/89

Column: (pack/cap) Cap Dilution Factor: 1.0

Number TICs found: 1 CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	Dimethylethyl-methylphenol	27.31	52	
2.				
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FORM I VOA-TIC

AR302358

1/87 Re

Client: Delta Quarry
Sample ID: MW-15 A THRU H
Matrix: WATER
Lab ID: 843421-SA-H
Project #: 88-033.03

Date Reported: 10/05/1989
QC Batch # : M082889DG1
Date Sampled : 8/24/1989
Date Received: 8/25/1989
LP #: 7499

Test Description: Volatile Organics, GC/MS

Analyte	Result*	Reporting Limit	Units	Method
Chloromethane	ND	10.	ug/L	SOW 2/88
Bromomethane	ND	10.	ug/L	
Vinyl Chloride	ND	10.	ug/L	
Chloroethane	ND	10.	ug/L	
Methylene Chloride	ND	5.0	ug/L	
Acetone	ND	5.0	ug/L	
Carbon Disulfide	ND	5.0	ug/L	
1,1-Dichloroethene	ND	5.0	ug/L	
1,1-Dichloroethane	ND	5.0	ug/L	
1,2-Dichloroethene (total)	ND	5.0	ug/L	
Chloroform	ND	5.0	ug/L	
1,2-Dichloroethane	ND	5.0	ug/L	
2-Butanone	ND	5.0	ug/L	
1,1,1-Trichloroethane	ND	5.0	ug/L	
Carbon Tetrachloride	ND	5.0	ug/L	
Vinyl Acetate	ND	5.0	ug/L	
Bromodichloromethane	ND	5.0	ug/L	
1,2-Dichloropropane	ND	5.0	ug/L	
cis-1,3-Dichloropropene	ND	5.0	ug/L	
Trichloroethene	ND	5.0	ug/L	
Dibromochloromethane	ND	5.0	ug/L	
1,1,2-Trichloroethane	ND	5.0	ug/L	
Benzene	ND	5.0	ug/L	
trans-1,3-Dichloropropene	ND	5.0	ug/L	
Bromoform	ND	5.0	ug/L	
4-Methyl-2-pentanone	ND	5.0	ug/L	
2-Hexanone	ND	5.0	ug/L	
Tetrachloroethene	ND	5.0	ug/L	
Tolulene	ND	5.0	ug/L	
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L	
Chlorobenzene	ND	5.0	ug/L	
Ethyl Benzene	ND	5.0	ug/L	
Styrene	ND	5.0	ug/L	
Xylenes	ND	5.0	ug/L	

Tested By : DEG
Validated By: DLA

* ND indicates a compound was not detected at a concentration level greater than the reporting limit.

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: Canonie Environmental Contract: _____

b Code: 88-033.03 Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) Water Lab Sample ID: 843421

Sample wt/vol: 5.0 (g/mL) mL Lab File ID: >T3321

Level: (low/med) med Date Received: 8/24/89

% Moisture: not dec. — Date Analyzed: 8/28/89

Column: (pack/cap) cap Dilution Factor: 1.0

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

Number TICs found: 1

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	Dimethyl ethyl methyl phenol	27.24	138	
2.				
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AR302360

1/87 Re

FORM I VOA-TIC

Client: Delta Quarry
Sample ID: MW-16 A THRU H
Matrix: WATER
Lab ID: 843422-SA-H
Project #: 88-033.03

Date Reported: 10/05/1989
QC Batch # : M082889DG1
Date Sampled : 8/24/1989
Date Received: 8/25/1989
LP #: 7499

Test Description: Volatile Organics, GC/MS

Analyte	Result*	Reporting Limit	Units	Method
Chloromethane	ND	10.	ug/L	SOW 2/88
Bromomethane	ND	10.	ug/L	
Vinyl Chloride	ND	10.	ug/L	
Chloroethane	ND	10.	ug/L	
Methylene Chloride	ND	5.0	ug/L	
Acetone	ND	5.0	ug/L	
Carbon Disulfide	ND	5.0	ug/L	
1,1-Dichloroethene	ND	5.0	ug/L	
1,1-Dichloroethane	ND	5.0	ug/L	
1,2-Dichloroethene (total)	ND	5.0	ug/L	
Chloroform	ND	5.0	ug/L	
1,2-Dichloroethane	ND	5.0	ug/L	
2-Butanone	ND	5.0	ug/L	
1,1,1-Trichloroethane	ND	5.0	ug/L	
Carbon Tetrachloride	ND	5.0	ug/L	
Vinyl Acetate	ND	5.0	ug/L	
Bromodichloromethane	ND	5.0	ug/L	
1,2-Dichloropropane	ND	5.0	ug/L	
cis-1,3-Dichloropropene	ND	5.0	ug/L	
Trichloroethene	ND	5.0	ug/L	
Dibromochloromethane	ND	5.0	ug/L	
1,1,2-Trichloroethane	ND	5.0	ug/L	
Benzene	ND	5.0	ug/L	
trans-1,3-Dichloropropene	ND	5.0	ug/L	
Bromoform	ND	5.0	ug/L	
4-Methyl-2-pentanone	ND	5.0	ug/L	
2-Hexanone	ND	5.0	ug/L	
Tetrachloroethene	ND	5.0	ug/L	
Tolulene	ND	5.0	ug/L	
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L	
Chlorobenzene	ND	5.0	ug/L	
Ethyl Benzene	ND	5.0	ug/L	
Styrene	ND	5.0	ug/L	
Xylenes	ND	5.0	ug/L	

Tested By : DEG
Validated By: DLA

* ND indicates a compound was not detected at a concentration level greater than the reporting limit.

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

MW16A-H

Lab Name: Canonie Environmental Contract: _____

Lab Code: 88-033.03 Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) Water Lab Sample ID: 843422

Sample wt/vol: 5.0 (g/mL) mL Lab File ID: >T3422

Level: (low/med) med Date Received: 8/24/89

% Moisture: not dec. — Date Analyzed: 8/28/89

Column: (pack/cap) cap Dilution Factor: 1.0

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				
2.				
3.				
4.				
5.				
6.				
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10.				
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FORM I VOA-TIC

AR302362

RW

ient: Delta Quarry
mple ID: MW-20 A THRU H
trix: WATER
b ID: 843423-SA-H
roject #: 88-033.03

Date Reported: 10/05/1989
QC Batch # : M082889DG1
Date Sampled : 8/23/1989
Date Received: 8/25/1989
LP #: 7499

st Description: Volatile Organics, GC/MS

nalyte	Result*	Reporting Limit	Units	Method
hloromethane	ND	10.	ug/L	SOW 2/88
romomethane	ND	10.	ug/L	
inyl Chloride	ND	10.	ug/L	
hloroethane	ND	10.	ug/L	
ethylene Chloride	ND	5.0	ug/L	
cetone	ND	5.0	ug/L	
Carbon Disulfide	ND	5.0	ug/L	
1,1-Dichloroethene	ND	5.0	ug/L	
1,1-Dichloroethane	ND	5.0	ug/L	
1,2-Dichloroethene (total)	ND	5.0	ug/L	
Chloroform	ND	5.0	ug/L	
1,2-Dichloroethane	ND	5.0	ug/L	
-Butanone	ND	5.0	ug/L	
,1,1-Trichloroethane	ND	5.0	ug/L	
arbon Tetrachloride	ND	5.0	ug/L	
inyl Acetate	ND	5.0	ug/L	
romodichloromethane	ND	5.0	ug/L	
1,2-Dichloropropane	ND	5.0	ug/L	
cis-1,3-Dichloropropene	ND	5.0	ug/L	
richloroethene	ND	5.0	ug/L	
Dibromochloromethane	ND	5.0	ug/L	
1,1,2-Trichloroethane	ND	5.0	ug/L	
Benzene	ND	5.0	ug/L	
trans-1,3-Dichloropropene	ND	5.0	ug/L	
Bromoform	ND	5.0	ug/L	
4-Methyl-2-pentanone	ND	5.0	ug/L	
2-Hexanone	ND	5.0	ug/L	
Tetrachloroethene	ND	5.0	ug/L	
Tolulene	ND	5.0	ug/L	
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L	
Chlorobenzene	ND	5.0	ug/L	
Ethyl Benzene	ND	5.0	ug/L	
Styrene	ND	5.0	ug/L	
Xylenes	ND	5.0	ug/L	

ested By : DEG
lidated By: DLA

ND indicates a compound was not detected at a concentrati
reater than the reporting limit.

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

MW2A1-H

Lab Name: Canonie Environmental Contract: _____

Lab Code: 88-033.03 Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) Water Lab Sample ID: 843423

Sample wt/vol: 5.0 (g/mL) mL Lab File ID: >T3423

Level: (low/med) med Date Received: 8/24/89

% Moisture: not dec. — Date Analyzed: 8/28/89

Column: (pack/cap) cap Dilution Factor: 1.0

Number TICs found: 8

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				
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B. BNA SEMIVOLATILE ORGANICS

Client: Delta Quarry
Sample ID: MW-10 A THRU H
Matrix: WATER
Lab ID: 843369-SA-E
Project #: 88-033.03

Date Reported: 10/05/1989
QC Batch # : M091889AN1
Date Sampled : 8/22/1989
Date Received: 8/24/1989
LP #: 7492

Test Description: Base/Neutrals and Acids, GC/MS

Analyte	Result*	Reporting Limit	Units	Method
Phenol	ND	10.	ug/L	EPA 625
bis(2-Chloroethyl)ether	ND	10.	ug/L	
2-Chlorophenol	ND	10.	ug/L	
1,3-Dichlorobenzene	ND	10.	ug/L	
1,4-Dichlorobenzene	NL	10.	ug/L	
Benzyl alcohol	ND	10.	ug/L	
1,2-Dichlorobenzene	ND	10.	ug/L	
2-Methylphenol	ND	10.	ug/L	
bis(2-Chloroisopropyl)ether	ND	10.	ug/L	
4-Methylphenol	ND	10.	ug/L	
N-Nitroso-di-n-dipropylamine	ND	10.	ug/L	
Hexachloroethane	ND	10.	ug/L	
Nitrobenzene	ND	10.	ug/L	
Isophorone	ND	10.	ug/L	
2-Nitrophenol	ND	10.	ug/L	
2,4-Dimethylphenol	ND	10.	ug/L	
Benzoic acid	ND	50.	ug/L	
bis(2-Chloroethoxy) methane	ND	10.	ug/L	
2,4-Dichlorophenol	ND	10.	ug/L	
1,2,4-Trichlorobenzene	ND	10.	ug/L	
Naphthalene	ND	10.	ug/L	
4-Chloroaniline	ND	10.	ug/L	
Hexachlorobutadiene	ND	10.	ug/L	
4-Chloro-3-methylphenol	ND	10.	ug/L	
2-Methylnaphthalene	ND	10.	ug/L	
Hexachlorocyclopentadiene	ND	10.	ug/L	
2,4,6-Trichlorophenol	ND	10.	ug/L	
2,4,5-Trichlorophenol	ND	50.	ug/L	
2-Chloronaphthalene	ND	10.	ug/L	
2-Nitroaniline	ND	10.	ug/L	
Dimethylphthalate	ND	10.	ug/L	
Acenaphthylene	ND	10.	ug/L	

Tested By : AGN
Validated By: DLA

* ND indicates a compound was not detected at a concentration level greater than the reporting limit.

AR302366

Client: Delta Quarry
Sample ID: MW-10 A THRU H
Matrix: WATER
Lab ID: 843369-SA-E
Project #: 88-033.03

Date Reported: 10/05/1989
QC Batch # : M091889AN1
Date Sampled : 8/22/1989
Date Received: 8/24/1989
LP #: 7492

Test Description: Base/Neutrals and Acids, GC/MS

Analyte	Result*	Reporting Limit	Units	Method
2,6-Dinitrotoluene	ND	10.	ug/L	EPA 625
3-Nitroaniline	ND	10.	ug/L	
Acenaphthene	ND	10.	ug/L	
2,4-Dinitrophenol	ND	50.	ug/L	
4-Nitrophenol	ND	50.	ug/L	
Dibenzofuran	ND	10.	ug/L	
2,4-Dinitrotoluene	ND	10.	ug/L	
Diethylphthalate	ND	10.	ug/L	
4-Chlorophenyl-phenylether	ND	10.	ug/L	
Fluorene	ND	10.	ug/L	
4-Nitroaniline	ND	10.	ug/L	
4,6-Dinitro-2-methylphenol	ND	50.	ug/L	
N-nitrosodiphenylamine	ND	10.	ug/L	
4-Bromophenyl-phenylether	ND	10.	ug/L	
Hexachlorobenzene	ND	10.	ug/L	
Pentachlorophenol	ND	50.	ug/L	
Phenanthrene	ND	10.	ug/L	
Anthracene	ND	10.	ug/L	
Di-n-butylphthalate	ND	10.	ug/L	
Fluoranthene	ND	10.	ug/L	
Pyrene	ND	10.	ug/L	
Butylbenzylphthalate	ND	10.	ug/L	
3,3'-Dichlorobenzidine	ND	10.	ug/L	
Benzo(a)anthracene	ND	10.	ug/L	
Chrysene	ND	10.	ug/L	
bis(2-Ethylhexyl)phthalate	ND	10.	ug/L	
Di-n-octylphthalate	ND	10.	ug/L	
Benzo(b)fluoranthene	ND	10.	ug/L	
Benzo(k)fluoranthene	ND	10.	ug/L	
Benzo(a)pyrene	ND	10.	ug/L	
Indeno(1,2,3-cd)pyrene	ND	10.	ug/L	
Dibenz(a,h)anthracene	ND	10.	ug/L	
Benzo(g,h,i)perylene	ND	10.	ug/L	

Reviewed By : AGN
Validated By: DLA

* ND indicates a compound was not detected at a concentration level greater than the reporting limit.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

E
MW10A-H

Lab Name: CANONIE Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 843369

Sample wt/vol: 1000 (g/mL) mL Lab File ID: >L3369

Level: (low/med) Low Date Received: _____

% Moisture: not dec. — dec. — Date Extracted: 8/24/89

Extraction: (SepF/Cont/Sonc) CONT Date Analyzed: 9/18/89

GPC Cleanup: (Y/N) N pH: — Dilution Factor: —

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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FORM I SV-TIC 1/87 Rev.

AR302368

ient: Delta Quarry
ple ID: MW-11 A THRU H
Matrix: WATER
Lab ID: 843370-SA-E
Project #: 88-033.03

Date Reported: 10/05/1989
QC Batch # : M092389AN1
Date Sampled : 8/22/1989
Date Received: 8/24/1989
LP #: 7492

Test Description: Base/Neutrals and Acids, GC/MS

Analyte	Result*	Reporting Limit	Units	Method
Phenol	ND	10.	ug/L	EPA 625
bis(2-Chloroethyl)ether	ND	10.	ug/L	
2-Chlorophenol	ND	10.	ug/L	
1,3-Dichlorobenzene	ND	10.	ug/L	
1,4-Dichlorobenzene	ND	10.	ug/L	
Benzyl alcohol	ND	10.	ug/L	
1,2-Dichlorobenzene	ND	10.	ug/L	
2-Methylphenol	ND	10.	ug/L	
bis(2-Chloroisopropyl)ether	ND	10.	ug/L	
4-Methylphenol	ND	10.	ug/L	
N-Nitroso-di-n-dipropylamine	ND	10.	ug/L	
Hexachloroethane	ND	10.	ug/L	
robenzene	ND	10.	ug/L	
phorone	ND	10.	ug/L	
2-Nitrophenol	ND	10.	ug/L	
2,4-Dimethylphenol	ND	10.	ug/L	
Benzoic acid	ND	50.	ug/L	
bis(2-Chloroethoxy) methane	ND	10.	ug/L	
2,4-Dichlorophenol	ND	10.	ug/L	
1,2,4-Trichlorobenzene	ND	10.	ug/L	
Naphthalene	ND	10.	ug/L	
4-Chloroaniline	ND	10.	ug/L	
Hexachlorobutadiene	ND	10.	ug/L	
4-Chloro-3-methylphenol	ND	10.	ug/L	
2-Methylnaphthalene	ND	10.	ug/L	
Hexachlorocyclopentadiene	ND	10.	ug/L	
2,4,6-Trichlorophenol	ND	10.	ug/L	
2,4,5-Trichlorophenol	ND	50.	ug/L	
2-Chloronaphthalene	ND	10.	ug/L	
2-Nitroaniline	ND	10.	ug/L	
Dimethylphthalate	ND	10.	ug/L	
Acenaphthylene	ND	10.	ug/L	

ted By : AGN
alidated By: DLA

* ND indicates a compound was not detected at a concentration greater than the reporting limit.

Client: Delta Quarry
Sample ID: MW-11 A THRU H
Matrix: WATER
Lab ID: 843370-SA-E
Project #: 88-033.03

Date Reported: 10/05/1989
QC Batch # : M092389AN
Date Sampled : 8/22/1989
Date Received: 8/24/1989
LP #: 7492

Test Description: Base/Neutrals and Acids, GC/MS

Analyte	Result*	Reporting Limit	Units	Method
2,6-Dinitrotoluene	ND UL	10.	ug/L	EPA 625
3-Nitroaniline	ND	10.	ug/L	
Acenaphthene	ND	10.	ug/L	
2,4-Dinitrophenol	ND	50.	ug/L	
4-Nitrophenol	ND	50.	ug/L	
Dibenzofuran	ND	10.	ug/L	
2,4-Dinitrotoluene	ND	10.	ug/L	
Diethylphthalate	ND	10.	ug/L	
4-Chlorophenyl-phenylether	ND	10.	ug/L	
Fluorene	ND	10.	ug/L	
4-Nitroaniline	ND	10.	ug/L	
4,6-Dinitro-2-methylphenol	ND	50.	ug/L	
N-Nitrosodiphenylamine	ND	10.	ug/L	
4-Bromophenyl-phenylether	ND	10.	ug/L	
Hexachlorobenzene	ND	10.	ug/L	
Pentachlorophenol	ND	50.	ug/L	
Phenanthrene	ND	10.	ug/L	
Anthracene	ND	10.	ug/L	
Di-n-butylphthalate	ND	10.	ug/L	
Fluoranthene	ND	10.	ug/L	
Pyrene	ND	10.	ug/L	
Butylbenzylphthalate	ND	10.	ug/L	
3,3'-Dichlorobenzidine	ND	10.	ug/L	
Benzo(a)anthracene	ND	10.	ug/L	
Chrysene	ND	10.	ug/L	
bis(2-Ethylhexyl)phthalate	ND	10.	ug/L	
Di-n-octylphthalate	ND	10.	ug/L	
Benzo(b)fluoranthene	ND	10.	ug/L	
Benzo(k)fluoranthene	ND	10.	ug/L	
Benzo(a)pyrene	ND	10.	ug/L	
Indeno(1,2,3-cd)pyrene	ND	10.	ug/L	
Dibenz(a,h)anthracene	ND	10.	ug/L	
Benzo(g,h,i)perylene	ND	10.	ug/L	

Tested By : AGN
Validated By: DLA

* ND indicates a compound was not detected at a concentration level greater than the reporting limit.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

IE
MW-11 A-It

Lab Name: CANONIE Contract: _____

Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 843370

Sample wt/vol: 1000 (g/mL) mL Lab File ID: >23370

Level: (low/med) Low Date Received: _____

% Moisture: not dec. — dec. — Date Extracted: 8/24/89 INIT. NO RE

Extraction: (SepF/Cont/Sonc) CONT Date Analyzed: 8/23/89

GPC Cleanup: (Y/N) N pH: ___ Dilution Factor: —

Number TICs found: 1

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	108883	METHYL BENZENE	6.20	6000	
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Client: Delta Quarry
Sample ID: MW-12 A THRU H
Matrix: WATER
Lab ID: 843418-SA-E
Project #: 88-033.03

Date Reported: 10/05/1989
QC Batch # : M091889AN1
Date Sampled : 8/24/1989
Date Received: 8/25/1989
LP #: 7499

Test Description: Base/Neutrals and Acids, GC/MS

Analyte	Result*	Reporting Limit	Units	Method
Phenol	ND	10.	ug/L	EPA 625
bis(2-Chloroethyl)ether	ND	10.	ug/L	
2-Chlorophenol	ND	10.	ug/L	
1,3-Dichlorobenzene	ND	10.	ug/L	
1,4-Dichlorobenzene	ND	10.	ug/L	
Benzyl alcohol	ND	10.	ug/L	
1,2-Dichlorobenzene	ND	10.	ug/L	
2-Methylphenol	ND	10.	ug/L	
bis(2-Chloroisopropyl)ether	ND	10.	ug/L	
4-Methylphenol	ND	10.	ug/L	
N-Nitroso-di-n-dipropylamine	ND	10.	ug/L	
Hexachloroethane	ND	10.	ug/L	
Nitrobenzene	ND	10.	ug/L	
Isophorone	ND	10.	ug/L	
2-Nitrophenol	ND	10.	ug/L	
2,4-Dimethylphenol	ND	10.	ug/L	
Benzoic acid	ND	50.	ug/L	
bis(2-Chloroethoxy) methane	ND	10.	ug/L	
2,4-Dichlorophenol	ND	10.	ug/L	
1,2,4-Trichlorobenzene	ND	10.	ug/L	
Naphthalene	ND	10.	ug/L	
4-Chloroaniline	ND	10.	ug/L	
Hexachlorobutadiene	ND	10.	ug/L	
4-Chloro-3-methylphenol	ND	10.	ug/L	
2-Methylnaphthalene	ND	10.	ug/L	
Hexachlorocyclopentadiene	ND	10.	ug/L	
2,4,6-Trichlorophenol	ND	10.	ug/L	
2,4,5-Trichlorophenol	ND	50.	ug/L	
2-Chloronaphthalene	ND	10.	ug/L	
2-Nitroaniline	ND	10.	ug/L	
Dimethylphthalate	ND	10.	ug/L	
Acenaphthylene	ND	10.	ug/L	

Tested By : AGN
Validated By: DLA

* ND indicates a compound was not detected at a concentration level greater than the reporting limit.

Client: Delta Quarry
Sample ID: MW-12 A THRU H
Matrix: WATER
Lab ID: 843418-SA-E
Project #: 88-033.03

Date Reported: 10/05/1989
QC Batch # : M091889AN1
Date Sampled : 8/24/1989
Date Received: 8/25/1989
LP #: 7499

Test Description: Base/Neutrals and Acids, GC/MS

Analyte	Result*	Reporting Limit	Units	Method
2,6-Dinitrotoluene	ND	10.	ug/L	EPA 625
3-Nitroaniline	ND	10.	ug/L	
Acenaphthene	ND	10.	ug/L	
2,4-Dinitrophenol	ND	50.	ug/L	
4-Nitrophenol	ND	50.	ug/L	
Dibenzofuran	ND	10.	ug/L	
2,4-Dinitrotoluene	ND	10.	ug/L	
Diethylphthalate	ND	10.	ug/L	
4-Chlorophenyl-phenylether	ND	10.	ug/L	
Fluorene	ND	10.	ug/L	
4-Nitroaniline	ND	10.	ug/L	
4,6-Dinitro-2-methylphenol	ND	50.	ug/L	
N-nitrosodiphenylamine	ND	10.	ug/L	
4-Bromophenyl-phenylether	ND	10.	ug/L	
Hexachlorobenzene	ND	10.	ug/L	
Pentachlorophenol	ND	50.	ug/L	
Phenanthrene	ND	10.	ug/L	
Anthracene	ND	10.	ug/L	
Di-n-butylphthalate	ND	10.	ug/L	
Fluoranthene	ND	10.	ug/L	
Pyrene	ND	10.	ug/L	
Butylbenzylphthalate	ND	10.	ug/L	
3,3'-Dichlorobenzidine	ND	10.	ug/L	
Benzo(a)anthracene	ND	10.	ug/L	
Chrysene	ND	10.	ug/L	
bis(2-Ethylhexyl)phthalate	ND	10.	ug/L	
Di-n-octylphthalate	ND	10.	ug/L	
Benzo(b)fluoranthene	ND	10.	ug/L	
Benzo(k)fluoranthene	ND	10.	ug/L	
Benzo(a)pyrene	ND	10.	ug/L	
Indeno(1,2,3-cd)pyrene	ND	10.	ug/L	
Dibenz(a,h)anthracene	ND	10.	ug/L	
Benzo(g,h,i)perylene	ND	10.	ug/L	

Tested By : AGN
Validated By: DLA

* ND indicates a compound was not detected at a concentration level greater than the reporting limit.

TENTATIVELY IDENTIFIED COMPOUNDS

IE
MW-12 A-H

Lab Name: Canonie Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) Water Lab Sample ID: 843418

Sample wt/vol: 1000 (g/mL) ml Lab File ID: 7L3418

Level: (low/med) Low Date Received: _____

% Moisture: not dec. _____ dec. _____ Date Extracted: 8-28-89

Extraction: (SepF/Cont/Sonc) CONT Date Analyzed: 9-18-89

GPC Cleanup: (Y/N) N pH: ____ Dilution Factor: —

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				
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Client: Delta Quarry
Sample ID: MW-13 A THRU H
Matrix: WATER
Lab ID: 843419-SA-E
Project #: 88-033.03

Date Reported: 10/05/1989
QC Batch # : M091889AN
Date Sampled : 8/24/1989
Date Received: 8/25/1989
LP #: 7499

Test Description: Base/Neutrals and Acids, GC/MS

Analyte	Result*	Reporting Limit	Units	Method
Phenol	ND	10.	ug/L	EPA 625
bis(2-Chloroethyl)ether	ND	10.	ug/L	
2-Chlorophenol	ND	10.	ug/L	
1,3-Dichlorobenzene	ND	10.	ug/L	
1,4-Dichlorobenzene	ND	10.	ug/L	
Benzyl alcohol	ND	10.	ug/L	
1,2-Dichlorobenzene	ND	10.	ug/L	
2-Methylphenol	ND	10.	ug/L	
bis(2-Chloroisopropyl)ether	ND	10.	ug/L	
4-Methylphenol	ND	10.	ug/L	
N-Nitroso-di-n-dipropylamine	ND	10.	ug/L	
Hexachloroethane	ND	10.	ug/L	
Nitrobenzene	ND	10.	ug/L	
Isophorone	ND	10.	ug/L	
2-Nitrophenol	ND	10.	ug/L	
2,4-Dimethylphenol	ND	10.	ug/L	
Benzoic acid	ND	50.	ug/L	
bis(2-Chloroethoxy) methane	ND	10.	ug/L	
2,4-Dichlorophenol	ND	10.	ug/L	
1,2,4-Trichlorobenzene	ND	10.	ug/L	
Naphthalene	ND	10.	ug/L	
4-Chloroaniline	ND	10.	ug/L	
Hexachlorobutadiene	ND	10.	ug/L	
4-Chloro-3-methylphenol	ND	10.	ug/L	
2-Methylnaphthalene	ND	10.	ug/L	
Hexachlorocyclopentadiene	ND	10.	ug/L	
2,4,6-Trichlorophenol	ND	10.	ug/L	
2,4,5-Trichlorophenol	ND	50.	ug/L	
2-Chloronaphthalene	ND	10.	ug/L	
2-Nitroaniline	ND	10.	ug/L	
Dimethylphthalate	ND	10.	ug/L	
Acenaphthylene	ND	10.	ug/L	

Reported By : AGN
Validated By: DLA

* ND indicates a compound was not detected at a concentration level greater than the reporting limit.

nt: Delta Quarry
ple ID: MW-13 A THRU H
Matrix: WATER
Lab ID: 843419-SA-E
Project #: 88-033.03

Date Reported: 10/05/1989
QC Batch # : M091889AN1
Date Sampled : 8/24/1989
Date Received: 8/25/1989
LP #: 7499

Test Description: Base/Neutrals and Acids, GC/MS

Analyte	Result*	Reporting Limit	Units	Method
2,6-Dinitrotoluene	ND	10.	ug/L	EPA 625
3-Nitroaniline	ND	10.	ug/L	
Acenaphthene	ND	10.	ug/L	
2,4-Dinitrophenol	ND	50.	ug/L	
4-Nitrophenol	ND	50.	ug/L	
Dibenzofuran	ND	10.	ug/L	
2,4-Dinitrotoluene	ND	10.	ug/L	
Diethylphthalate	ND	10.	ug/L	
4-Chlorophenyl-phenylether	ND	10.	ug/L	
Fluorene	ND	10.	ug/L	
4-Nitroaniline	ND	10.	ug/L	
4,6-Dinitro-2-methylphenol	ND	50.	ug/L	
trosodiphenylamine	ND	10.	ug/L	
omophenyl-phenylether	ND	10.	ug/L	
Hexachlorobenzene	ND	10.	ug/L	
Pentachlorophenol	ND	50.	ug/L	
Phenanthrene	ND	10.	ug/L	
Anthracene	ND	10.	ug/L	
Di-n-butylphthalate	ND	10.	ug/L	
Fluoranthene	ND	10.	ug/L	
Pyrene	ND	10.	ug/L	
Butylbenzylphthalate	ND	10.	ug/L	
3,3'-Dichlorobenzidine	ND	10.	ug/L	
Benzo(a)anthracene	ND	10.	ug/L	
Chrysene	ND	10.	ug/L	
bis(2-Ethylhexyl)phthalate	ND	10.	ug/L	
Di-n-octylphthalate	ND	10.	ug/L	
Benzo(b)fluoranthene	ND	10.	ug/L	
Benzo(k)fluoranthene	ND	10.	ug/L	
Benzo(a)pyrene	ND	10.	ug/L	
Indeno(1,2,3-cd)pyrene	ND	10.	ug/L	
Dibenz(a,h)anthracene	ND	10.	ug/L	
Benzo(g,h,i)perylene	ND	10.	ug/L	

ted By : AGN
alidated By: DLA

* ND indicates a compound was not detected at a concentratic greater than the reporting limit.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

E
MW-13 A-H

Lab Name: Cannonie Contract: _____

Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 843419

Sample wt/vol: 1000 (g/mL) ml Lab File ID: 763419

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

% Moisture: not dec. _____ dec. _____ Date Extracted: 8-29-89

Extraction: (SepF/Cont/Sonc) CONT Date Analyzed: 9-18-89

GPC Cleanup: (Y/N) ___ pH: ___ Dilution Factor: —

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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FORM I SV-TIC 1/87 Rev.

AR302377

Client: Delta Quarry
Sample ID: MW-14 A THRU H
Matrix: WATER
Lab ID: 843420-SA-E
Project #: 88-033.03

Date Reported: 10/05/1989
QC Batch # : M091889AN1
Date Sampled : 8/24/1989
Date Received: 8/25/1989
LP #: 7499

Test Description: Base/Neutrals and Acids, GC/MS

Analyte	Result*	Reporting Limit	Units	Method
Phenol	ND	10.	ug/L	EPA 625
bis(2-Chloroethyl)ether	ND	10.	ug/L	
2-Chlorophenol	ND	10.	ug/L	
1,3-Dichlorobenzene	ND	10.	ug/L	
1,4-Dichlorobenzene	ND	10.	ug/L	
Benzyl alcohol	ND	10.	ug/L	
1,2-Dichlorobenzene	ND	10.	ug/L	
2-Methylphenol	ND	10.	ug/L	
bis(2-Chloroisopropyl)ether	ND	10.	ug/L	
4-Methylphenol	ND	10.	ug/L	
N-Nitroso-di-n-dipropylamine	ND	10.	ug/L	
Hexachloroethane	ND	10.	ug/L	
Nitrobenzene	ND	10.	ug/L	
Isophorone	ND	10.	ug/L	
2-Nitrophenol	ND	10.	ug/L	
2,4-Dimethylphenol	ND	10.	ug/L	
Benzoic acid	ND	50.	ug/L	
bis(2-Chloroethoxy) methane	ND	10.	ug/L	
2,4-Dichlorophenol	ND	10.	ug/L	
1,2,4-Trichlorobenzene	ND	10.	ug/L	
Naphthalene	ND	10.	ug/L	
4-Chloroaniline	ND	10.	ug/L	
Hexachlorobutadiene	ND	10.	ug/L	
4-Chloro-3-methylphenol	ND	10.	ug/L	
2-Methylnaphthalene	ND	10.	ug/L	
Hexachlorocyclopentadiene	ND	10.	ug/L	
2,4,6-Trichlorophenol	ND	10.	ug/L	
2,4,5-Trichlorophenol	ND	50.	ug/L	
2-Chloronaphthalene	ND	10.	ug/L	
2-Nitroaniline	ND	10.	ug/L	
Dimethylphthalate	ND	10.	ug/L	
Acenaphthylene	ND	10.	ug/L	

Reviewed By : AGN
Validated By: DLA

* ND indicates a compound was not detected at a concentration level greater than the reporting limit.

Client: Delta Quarry
Sample ID: MW-14 A THRU H
Matrix: WATER
Lab ID: 843420-SA-E
Project #: 88-033.03

Date Reported: 10/05/1989
QC Batch # : M091889AN
Date Sampled : 8/24/198
Date Received: 8/25/1989
LP #: 7499

Test Description: Base/Neutrals and Acids, GC/MS

Analyte	Result*	Reporting Limit	Units	Method
2,6-Dinitrotoluene	ND	10.	ug/L	EPA 625
3-Nitroaniline	ND	10.	ug/L	
Acenaphthene	ND	10.	ug/L	
2,4-Dinitrophenol	ND	10.	ug/L	
4-Nitrophenol	ND	50.	ug/L	
Dibenzofuran	ND	50.	ug/L	
2,4-Dinitrotoluene	ND	10.	ug/L	
Diethylphthalate	ND	10.	ug/L	
4-Chlorophenyl-phenylether	ND	10.	ug/L	
Fluorene	ND	10.	ug/L	
4-Nitroaniline	ND	10.	ug/L	
4,6-Dinitro-2-methylphenol	ND	50.	ug/L	
N-Nitrosodiphenylamine	ND	10.	ug/L	
Bromophenyl-phenylether	ND	10.	ug/L	
Hexachlorobenzene	ND	10.	ug/L	
Pentachlorophenol	ND	50.	ug/L	
Phenanthrene	ND	10.	ug/L	
Anthracene	ND	10.	ug/L	
Di-n-butylphthalate	ND	10.	ug/L	
Fluoranthene	ND	10.	ug/L	
Pyrene	ND	10.	ug/L	
Butylbenzylphthalate	ND	10.	ug/L	
3,3'-Dichlorobenzidine	ND	10.	ug/L	
Benzo(a)anthracene	ND	10.	ug/L	
Chrysene	ND	10.	ug/L	
bis(2-Ethylhexyl)phthalate	ND	10.	ug/L	
Di-n-octylphthalate	ND	10.	ug/L	
Benzo(b)fluoranthene	ND	10.	ug/L	
Benzo(k)fluoranthene	ND	10.	ug/L	
Benzo(a)pyrene	ND	10.	ug/L	
Indeno(1,2,3-cd)pyrene	ND	10.	ug/L	
Dibenz(a,h)anthracene	ND	10.	ug/L	
Benzo(g,h,i)perylene	ND	10.	ug/L	

Tested By : AGN
Validated By: DLA

AR302279

* ND indicates a compound was not detected at a concentration level greater than the reporting limit.

TENTATIVELY IDENTIFIED COMPOUNDS

E

Lab Name: Cassonil Contract: _____ MW-14 A-H

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 843420

Sample wt/vol: 1000 (g/mL) ml Lab File ID: 7L3420

Level: (low/med) Low Date Received: _____

% Moisture: not dec. _____ dec. _____ Date Extracted: 8-28-89

Extraction: (SepF/Cont/Sonc) CONT Date Analyzed: 9-18-89

GPC Cleanup: (Y/N) N pH: ____ Dilution Factor: —

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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FORM I SV-TIC 1/87 Rev.

AR302380

Client: Delta Quarry
Sample ID: MW-15 A THRU H
Matrix: WATER
Lab ID: 843421-SA-E
Project #: 88-033.03

Date Reported: 10/05/1989
QC Batch # : M091889AN
Date Sampled : 8/24/1989
Date Received: 8/25/1989
LP #: 7499

Test Description: Base/Neutrals and Acids, GC/MS

Analyte	Result*	Reporting Limit	Units	Method
Phenol	ND	10.	ug/L	EPA 625
bis(2-Chloroethyl)ether	ND	10.	ug/L	
2-Chlorophenol	ND	10.	ug/L	
1,3-Dichlorobenzene	ND	10.	ug/L	
1,4-Dichlorobenzene	ND	10.	ug/L	
Benzyl alcohol	ND	10.	ug/L	
1,2-Dichlorobenzene	ND	10.	ug/L	
2-Methylphenol	ND	10.	ug/L	
bis(2-Chloroisopropyl)ether	ND	10.	ug/L	
4-Methylphenol	ND	10.	ug/L	
N-Nitroso-di-n-dipropylamine	ND	10.	ug/L	
Hexachloroethane	ND	10.	ug/L	
Nitrobenzene	ND	10.	ug/L	
Isophorone	ND	10.	ug/L	
2-Nitrophenol	ND	10.	ug/L	
2,4-Dimethylphenol	ND	10.	ug/L	
Benzoic acid	ND	50.	ug/L	
bis(2-Chloroethoxy) methane	ND	10.	ug/L	
2,4-Dichlorophenol	ND	10.	ug/L	
1,2,4-Trichlorobenzene	ND	10.	ug/L	
Naphthalene	ND	10.	ug/L	
4-Chloroaniline	ND	10.	ug/L	
Hexachlorobutadiene	ND	10.	ug/L	
4-Chloro-3-methylphenol	ND	10.	ug/L	
2-Methylnaphthalene	ND	10.	ug/L	
Hexachlorocyclopentadiene	ND	10.	ug/L	
2,4,6-Trichlorophenol	ND	10.	ug/L	
2,4,5-Trichlorophenol	ND	50.	ug/L	
2-Chloronaphthalene	ND	10.	ug/L	
2-Nitroaniline	ND	10.	ug/L	
Dimethylphthalate	ND	10.	ug/L	
Acenaphthylene	ND	10.	ug/L	

Tested By : AGN
Validated By: DLA

* ND indicates a compound was not detected at a concentration greater than the reporting limit.

Client: Delta Quarry
Sample ID: MW-15 A THRU H
Matrix: WATER
Lab ID: 843421-SA-E
Project #: 88-033.03

Date Reported: 10/05/1989
QC Batch # : M091889AN1
Date Sampled : 8/24/1989
Date Received: 8/25/1989
LP #: 7499

Test Description: Base/Neutrals and Acids, GC/MS

Analyte	Result*	Reporting Limit	Units	Method
2,6-Dinitrotoluene	ND	10.	ug/L	EPA 625
3-Nitroaniline	ND	10.	ug/L	
Acenaphthene	ND	10.	ug/L	
2,4-Dinitrophenol	ND	50.	ug/L	
4-Nitrophenol	ND	50.	ug/L	
Dibenzofuran	ND	10.	ug/L	
2,4-Dinitrotoluene	ND	10.	ug/L	
Diethylphthalate	ND	10.	ug/L	
4-Chlorophenyl-phenylether	ND	10.	ug/L	
Fluorene	ND	10.	ug/L	
4-Nitroaniline	ND	10.	ug/L	
4,6-Dinitro-2-methylphenol	ND	50.	ug/L	
N-Nitrosodiphenylamine	ND	10.	ug/L	
4-Bromophenyl-phenylether	ND	10.	ug/L	
Hexachlorobenzene	ND	10.	ug/L	
Pentachlorophenol	ND	50.	ug/L	
Phenanthrene	ND	10.	ug/L	
Anthracene	ND	10.	ug/L	
Di-n-butylphthalate	ND	10.	ug/L	
Fluoranthene	ND	10.	ug/L	
Pyrene	ND	10.	ug/L	
Butylbenzylphthalate	ND	10.	ug/L	
3,3'-Dichlorobenzidine	ND	10.	ug/L	
Benzo(a)anthracene	ND	10.	ug/L	
Chrysene	ND	10.	ug/L	
bis(2-Ethylhexyl)phthalate	ND	10.	ug/L	
Di-n-octylphthalate	ND	10.	ug/L	
Benzo(b)fluoranthene	ND	10.	ug/L	
Benzo(k)fluoranthene	ND	10.	ug/L	
Benzo(a)pyrene	ND	10.	ug/L	
Indeno(1,2,3-cd)pyrene	ND	10.	ug/L	
Dibenz(a,h)anthracene	ND	10.	ug/L	
Benzo(g,h,i)perylene	ND	10.	ug/L	

Tested By : AGN
Validated By: DLA

* ND indicates a compound was not detected at a concentration level greater than the reporting limit.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

IE
MW-15 A-H

Lab Name: Canonie Contract: _____

Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 843421

Sample wt/vol: 1000 (g/mL) ml Lab File ID: 7L3421

Level: (low/med) Low Date Received: _____

% Moisture: not dec. _____ dec. _____ Date Extracted: 8-28-89

Extraction: (SepF/Cont/Sonc) CONT Date Analyzed: 9-18-89

GPC Cleanup: (Y/N) N pH: _____ Dilution Factor: —

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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Client: Delta Quarry
Sample ID: MW-16 A THRU H
Matrix: WATER
Lab ID: 843422-SA-E
Project #: 88-033.03

Date Reported: 10/05/1989
QC Batch # : M091989AN1
Date Sampled : 8/24/1989
Date Received: 8/25/1989
LP #: 7499

Test Description: Base/Neutrals and Acids, GC/MS

Analyte	Result*	Reporting Limit	Units	Method
Phenol	ND	10.	ug/L	EPA 625
bis(2-Chloroethyl)ether	ND	10.	ug/L	
2-Chlorophenol	ND	10.	ug/L	
1,3-Dichlorobenzene	ND	10.	ug/L	
1,4-Dichlorobenzene	ND	10.	ug/L	
Benzyl alcohol	ND	10.	ug/L	
1,2-Dichlorobenzene	ND	10.	ug/L	
2-Methylphenol	ND	10.	ug/L	
bis(2-Chloroisopropyl)ether	ND	10.	ug/L	
4-Methylphenol	ND	10.	ug/L	
N-Nitroso-di-n-dipropylamine	ND	10.	ug/L	
Hexachloroethane	ND	10.	ug/L	
Nitrobenzene	ND	10.	ug/L	
Isophorone	ND	10.	ug/L	
2-Nitrophenol	ND	10.	ug/L	
2,4-Dimethylphenol	ND	10.	ug/L	
Benzoic acid	ND	50.	ug/L	
bis(2-Chloroethoxy) methane	ND	10.	ug/L	
2,4-Dichlorophenol	ND	10.	ug/L	
1,2,4-Trichlorobenzene	ND	10.	ug/L	
Naphthalene	ND	10.	ug/L	
4-Chloroaniline	ND	10.	ug/L	
Hexachlorobutadiene	ND	10.	ug/L	
4-Chloro-3-methylphenol	ND	10.	ug/L	
2-Methylnaphthalene	ND	10.	ug/L	
Hexachlorocyclopentadiene	ND	10.	ug/L	
2,4,6-Trichlorophenol	ND	10.	ug/L	
2,4,5-Trichlorophenol	ND	50.	ug/L	
2-Chloronaphthalene	ND	10.	ug/L	
2-Nitroaniline	ND	10.	ug/L	
Dimethylphthalate	ND	10.	ug/L	
Acenaphthylene	ND	10.	ug/L	

Tested By : AGN
Validated By: DLA

* ND indicates a compound was not detected at a concentratic
greater than the reporting limit.

ient: Delta Quarry
Sample ID: MW-16 A THRU H
Matrix: WATER
Lab ID: 843422-SA-E
Project #: 88-033.03

Date Reported: 10/05/19
QC Batch # : M091889A
Date Sampled : 8/24/1989
Date Received: 8/25/1989
LP #: 7499

Test Description: Base/Neutrals and Acids, GC/MS

Analyte	Result*	Reporting Limit	Units	Method
2,6-Dinitrotoluene	ND	10.	ug/L	EPA 625
3-Nitroaniline	ND	10.	ug/L	
Acenaphthene	ND	10.	ug/L	
2,4-Dinitrophenol	ND	50.	ug/L	
4-Nitrophenol	ND	50.	ug/L	
Dibenzofuran	ND	10.	ug/L	
2,4-Dinitrotoluene	ND	10.	ug/L	
Diethylphthalate	ND	10.	ug/L	
4-Chlorophenyl-phenylether	ND	10.	ug/L	
Fluorene	ND	10.	ug/L	
4-Nitroaniline	ND	10.	ug/L	
4,6-Dinitro-2-methylphenol	ND	50.	ug/L	
Nitrosodiphenylamine	ND	10.	ug/L	
Bromophenyl-phenylether	ND	10.	ug/L	
Hexachlorobenzene	ND	10.	ug/L	
Pentachlorophenol	ND	50.	ug/L	
Phenanthrene	ND	10.	ug/L	
Anthracene	ND	10.	ug/L	
Di-n-butylphthalate	ND	10.	ug/L	
Fluoranthene	ND	10.	ug/L	
Pyrene	ND	10.	ug/L	
Butylbenzylphthalate	ND	10.	ug/L	
3,3'-Dichlorobenzidine	ND	10.	ug/L	
Benzo(a)anthracene	ND	10.	ug/L	
Chrysene	ND	10.	ug/L	
bis(2-Ethylhexyl)phthalate	ND	10.	ug/L	
Di-n-octylphthalate	ND	10.	ug/L	
Benzo(b)fluoranthene	ND	10.	ug/L	
Benzo(k)fluoranthene	ND	10.	ug/L	
Benzo(a)pyrene	ND	10.	ug/L	
Indeno(1,2,3-cd)pyrene	ND	10.	ug/L	
Dibenz(a,h)anthracene	ND	10.	ug/L	
Benzo(g,h,i)perylene	ND	10.	ug/L	

Tested By : AGN
Validated By: DLA

* ND indicates a compound was not detected at a concentration level greater than the reporting limit.

Lab Name: Cannonie Contract: OW16 A-H

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 843422

Sample wt/vol: 1000 (g/mL) ml Lab File ID: 7L3422

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

% Moisture: not dec. _____ dec. _____ Date Extracted: 8/28/89

Extraction: (SepF/Cont/Sonc) CONT Date Analyzed: 9/18/89

GPC Cleanup: (Y/N) N pH: ____ Dilution Factor: _____

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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AR302386

Client: Delta Quarry
Sample ID: MW-20 A THRU H
Matrix: WATER
Lab ID: 843423-SA-E
Project #: 88-033.03

Date Reported: 10/05/198[illegible]
QC Batch # : M092389A[illegible]
Date Sampled : 8/23/1989
Date Received: 8/25/1989
LP #: 7499

Test Description: Base/Neutrals and Acids, GC/MS

Analyte	Result*		Reporting Limit	Units	Method
Phenol	ND	R	10.	ug/L	EPA 625
bis(2-Chloroethyl)ether	ND	UL	10.	ug/L	
2-Chlorophenol	ND	R	10.	ug/L	
1,3-Dichlorobenzene	ND	UL	10.	ug/L	
1,4-Dichlorobenzene	ND	UL	10.	ug/L	
Benzyl alcohol	ND	UL	10.	ug/L	
1,2-Dichlorobenzene	ND	UL	10.	ug/L	
2-Methylphenol	ND	R	10.	ug/L	
bis(2-Chloroisopropyl)ether	ND	UL	10.	ug/L	
4-Methylphenol	ND	R	10.	ug/L	
N-Nitroso-di-n-dipropylamine	ND	UL	10.	ug/L	
Hexachloroethane	ND	UL	10.	ug/L	
Nitrobenzene	ND	UL	10.	ug/L	
Isophorone	ND	UL	10.	ug/L	
2-Nitrophenol	ND	R	10.	ug/L	
2,4-Dimethylphenol	ND	R	10.	ug/L	
Benzoic acid	ND	R	50.	ug/L	
bis(2-Chloroethoxy) methane	ND	UL	10.	ug/L	
2,4-Dichlorophenol	ND	R	10.	ug/L	
1,2,4-Trichlorobenzene	ND	UL	10.	ug/L	
Naphthalene	ND	UL	10.	ug/L	
4-Chloroaniline	ND	UL	10.	ug/L	
Hexachlorobutadiene	ND	UL	10.	ug/L	
4-Chloro-3-methylphenol	ND	R	10.	ug/L	
2-Methylnaphthalene	ND	UL	10.	ug/L	
Hexachlorocyclopentadiene	ND	UL	10.	ug/L	
2,4,6-Trichlorophenol	ND	R	10.	ug/L	
2,4,5-Trichlorophenol	ND	R	50.	ug/L	
2-Chloronaphthalene	ND	UL	10.	ug/L	
2-Nitroaniline	ND	UL	10.	ug/L	
Dimethylphthalate	ND	UL	10.	ug/L	
Acenaphthylene	ND	UL	10.	ug/L	

Reviewed By : AGN
Validated By: DLA

* ND indicates a compound was not detected at a concentration level greater than the reporting limit.

Client: Delta Quarry
Sample ID: MW-20 A THRU H
Matrix: WATER
Lab ID: 843423-SA-E
Project #: 88-033.03

Date Reported: 10/05/1989
QC Batch # : M092389AN1
Date Sampled : 8/23/1989
Date Received: 8/25/1989
LP #: 7499

Test Description: Base/Neutrals and Acids, GC/MS

Analyte	Result*		Reporting Limit	Units	Method
2,6-Dinitrotoluene	ND	uc	10.	ug/L	EPA 625
3-Nitroaniline	ND	uc	10.	ug/L	
Acenaphthene	ND	uc	10.	ug/L	
2,4-Dinitrophenol	ND	R	50.	ug/L	
4-Nitrophenol	ND	R	50.	ug/L	
Dibenzofuran	ND	uc	10.	ug/L	
2,4-Dinitrotoluene	ND	uc	10.	ug/L	
Diethylphthalate	ND	uc	10.	ug/L	
4-Chlorophenyl-phenylether	ND	uc	10.	ug/L	
Fluorene	ND	uc	10.	ug/L	
4-Nitroaniline	0.0000	uc		ug/L	
4,6-Dinitro-2-methylphenol	ND	R	50.	ug/L	
N-Nitrosodiphenylamine	ND	uc	10.	ug/L	
4-Bromophenyl-phenylether	ND	uc	10.	ug/L	
Hexachlorobenzene	ND	uc	10.	ug/L	
Pentachlorophenol	ND	R	50.	ug/L	
Phenanthrene	ND	uc	10.	ug/L	
Anthracene	ND		10.	ug/L	
Di-n-butylphthalate	ND		10.	ug/L	
Fluoranthene	ND		10.	ug/L	
Pyrene	ND		10.	ug/L	
Butylbenzylphthalate	ND		10.	ug/L	
3,3'-Dichlorobenzidine	ND		10.	ug/L	
Benzo(a)anthracene	ND		10.	ug/L	
Chrysene	ND		10.	ug/L	
bis(2-Ethylhexyl)phthalate	ND		10.	ug/L	
Di-n-octylphthalate	ND		10.	ug/L	
Benzo(b)fluoranthene	ND		10.	ug/L	
Benzo(k)fluoranthene	ND		10.	ug/L	
Benzo(a)pyrene	ND		10.	ug/L	
Indeno(1,2,3-cd)pyrene	ND		10.	ug/L	
Dibenz(a,h)anthracene	ND		10.	ug/L	
Benzo(g,h,i)perylene	ND		10.	ug/L	

Tested By : AGN
Validated By: DLA

* ND indicates a compound was not detected at a concentration greater than the reporting limit.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

E
MW20 A-H

Lab Name: Cannonie Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 843423

Sample wt/vol: 1000 (g/mL) ml Lab File ID: 223423

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

% Moisture: not dec. — dec. — Date Extracted: 8/29/89

Extraction: (SepF/Cont/Sonc) CONT Date Analyzed: 9/23/89

GPC Cleanup: (Y/N) N pH: ____ Dilution Factor: —

Number TICs found: 2

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	36[illegible]24	Fluorophenol	10.41	520	
2.	8[illegible]04	1-methyl-2-pyrrolidinone	11.81	6000	
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
13.					
14.					
15.					
16.					
17.					
18.					
19.					
20.					
21.					
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					

C. PESTICIDES/PCBs ORGANICS

Lab Name: Canonie Environmental Contract: _____ MW-1G

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 7467 84324

Sample wt/vol: 500 (g/mL) mL Lab File ID: _____

Level: (low/med) low Date Received: 8-18-89

% Moisture: not dec. _____ dec. _____ Date Extracted: 8-19-89

Extraction: (SepF/Cont/Sonc) Sep F Date Analyzed: 9-5-89

GPC Cleanup: (Y/N) N pH: 7 Dilution Factor: 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
319-84-6	alpha-BHC	0.05	U
319-85-7	beta-BHC	0.05	U
319-86-8	delta-BHC	0.05	U
58-89-9	gamma-BHC (Lindane)	0.05	U
76-44-8	Heptachlor	0.05	U
309-00-2	Aldrin	0.05	U
1024-57-3	Heptachlor epoxide	0.05	U
959-98-8	Endosulfan I	0.05	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.5	U
53494-70-5	Endrin ketone	0.10	U
5103-71-9	alpha-Chlordane	0.5	U
5103-74-2	gamma-Chlordane	0.5	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.5	U
11104-28-2	Aroclor-1221	0.5	U
11141-16-5	Aroclor-1232	0.5	U
53469-21-9	Aroclor-1242	0.5	U
12672-29-6	Aroclor-1248	0.5	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

Lab Name: Canonie Environmental Contract: _____ MW-2G

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 7467 843250

Sample wt/vol: 500 (g/mL) mL Lab File ID: _____

Level: (low/med) LOW Date Received: 8-18-89

% Moisture: not dec. _____ dec. _____ Date Extracted: 8-19-89

Extraction: (SepF/Cont/Sonc) SepF Date Analyzed: 9-5-89

GPC Cleanup: (Y/N) N pH: 7 Dilution Factor: 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
319-84-6	alpha-BHC	0.05	U
319-85-7	beta-BHC	0.05	U
319-86-8	delta-BHC	0.05	U
58-89-9	gamma-BHC (Lindane)	0.05	U
76-44-8	Heptachlor	0.05	U
309-00-2	Aldrin	0.05	U
1024-57-3	Heptachlor epoxide	0.05	U
959-98-8	Endosulfan I	0.05	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.5	U
53494-70-5	Endrin ketone	0.10	U
5103-71-9	alpha-Chlordane	0.5	U
5103-74-2	gamma-Chlordane	0.5	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.5	U
11104-28-2	Aroclor-1221	0.5	U
11141-16-5	Aroclor-1232	0.5	U
53469-21-9	Aroclor-1242	0.5	U
12672-29-6	Aroclor-1248	0.5	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

Lab Name: Conoco Environmental Contract: _____ MW-3G

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 7467 8432

Sample wt/vol: 500 (g/mL) mL Lab File ID: _____

Level: (low/med) LOW Date Received: 8-18-89

% Moisture: not dec. _____ dec. _____ Date Extracted: 8-19-89

Extraction: (SepF/Cont/Sonc) SepF Date Analyzed: 9-5-89

GPC Cleanup: (Y/N) N pH: 6.5 Dilution Factor: 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
319-84-6	alpha-BHC	0.05	U
319-85-7	beta-BHC	0.05	U
319-86-8	delta-BHC	0.05	U
58-89-9	gamma-BHC (Lindane)	0.05	U
76-44-8	Heptachlor	0.05	U
309-00-2	Aldrin	0.05	U
1024-57-3	Heptachlor epoxide	0.05	U
959-98-8	Endosulfan I	0.05	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.5	U
53494-70-5	Endrin ketone	0.10	U
5103-71-9	alpha-Chlordane	0.5	U
5103-74-2	gamma-Chlordane	0.5	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.5	U
11104-28-2	Aroclor-1221	0.5	U
11141-16-5	Aroclor-1232	0.5	U
53469-21-9	Aroclor-1242	0.5	U
12672-29-6	Aroclor-1248	0.5	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

Lab Name: Conoco Environmental Contract: _____ MW 4-G

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 7471 843258

Sample wt/vol: 500 (g/mL) mL Lab File ID: _____

Level: (low/med) LOW Date Received: 8-21-89

% Moisture: not dec. _____ dec. _____ Date Extracted: 8-22-89

Extraction: (SepF/Cont/Sonc) Cont Date Analyzed: 9-5-89

GPC Cleanup: (Y/N) N pH: 7 Dilution Factor: 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ~~ug~~/L	Q
319-84-6	alpha-BHC	0.05	U
319-85-7	beta-BHC	0.05	U
319-86-8	delta-BHC	0.05	U
58-89-9	gamma-BHC (Lindane)	0.05	U
76-44-8	Heptachlor	0.05	U
309-00-2	Aldrin	0.05	U
1024-57-3	Heptachlor epoxide	0.05	U
959-98-8	Endosulfan I	0.05	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.5	U
53494-70-5	Endrin ketone	0.10	U
5103-71-9	alpha-Chlordane	0.5	U
5103-74-2	gamma-Chlordane	0.5	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.5	U
11104-28-2	Aroclor-1221	0.5	U
11141-16-5	Aroclor-1232	0.5	U
53469-21-9	Aroclor-1242	0.5	U
12672-29-6	Aroclor-1248	0.5	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

Lab Name: Canonie Environmental Contract: _____ MW 54

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 7471843259

Sample wt/vol: 500 (g/mL) mL Lab File ID: _____

Level: (low/med) low Date Received: 8-21-89

% Moisture: not dec. _____ dec. _____ Date Extracted: 8-22-89

Extraction: (SepF/Cont/Sonc) Cont Date Analyzed: 9-6-89

GPC Cleanup: (Y/N) N pH: 7 Dilution Factor: 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ~~ug~~/L	Q
319-84-6	alpha-BHC	0.05	U
319-85-7	beta-BHC	0.05	U
319-86-8	delta-BHC	0.05	U
58-89-9	gamma-BHC (Lindane)	0.05	U
76-44-8	Heptachlor	0.05	U
309-00-2	Aldrin	0.05	U
1024-57-3	Heptachlor epoxide	0.05	U
959-98-8	Endosulfan I	0.05	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.5	U
53494-70-5	Endrin ketone	0.10	U
5103-71-9	alpha-Chlordane	0.5	U
5103-74-2	gamma-Chlordane	0.5	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.5	U
11104-28-2	Aroclor-1221	0.5	U
11141-16-5	Aroclor-1232	0.5	U
53469-21-9	Aroclor-1242	0.5	U
12672-29-6	Aroclor-1248	0.5	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

Lab Name: Conoco Environmental Contract: | MW 6G

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 7471843260

Sample wt/vol: 500 (g/mL) mL Lab File ID: _____

Level: (low/med) low Date Received: 8-21-89

% Moisture: not dec. _____ dec. _____ Date Extracted: 8-22-89

Extraction: (SepF/Cont/Sonc) Cont Date Analyzed: 9-6-89

GPC Cleanup: (Y/N) N pH: 7 Dilution Factor: 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ~~ug~~/L	Q
319-84-6	alpha-BHC	0.05	U
319-85-7	beta-BHC	0.05	U
319-86-8	delta-BHC	0.05	U
58-89-9	gamma-BHC (Lindane)	0.05	U
76-44-8	Heptachlor	0.05	U
309-00-2	Aldrin	0.05	U
1024-57-3	Heptachlor epoxide	0.05	U
959-98-8	Endosulfan I	0.05	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.5	U
53494-70-5	Endrin ketone	0.10	U
5103-71-9	alpha-Chlordane	0.5	U
5103-74-2	gamma-Chlordane	0.5	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.5	U
11104-28-2	Aroclor-1221	0.5	U
11141-16-5	Aroclor-1232	0.5	U
53469-21-9	Aroclor-1242	0.5	U
12672-29-6	Aroclor-1248	0.5	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

ab Name: Canonie Environmental Contract: MW 7G

ab Code: Case No.: SAS No.: SDG No.:

atrix: (soil/water) WATER Lab Sample ID: 747184326 1

ample wt/vol: 500 (g/mL) mL Lab File ID:

evel: (low/med) low Date Received: 8-21-89

Moisture: not dec. dec. Date Extracted: 8-22-89

xtraction: (SepF/Cont/Sonc) Cont Date Analyzed: 9-6-89

pc Cleanup: (Y/N) N pH: 7 Dilution Factor: 1

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

CAS NO.	COMPOUND		Q
319-84-6	alpha-BHC	0.05	U
319-85-7	beta-BHC	0.05	U
319-86-8	delta-BHC	0.05	U
58-89-9	gamma-BHC (Lindane)	0.05	U
76-44-8	Heptachlor	0.05	U
309-00-2	Aldrin	0.05	U
1024-57-3	Heptachlor epoxide	0.05	U
959-98-8	Endosulfan I	0.05	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.5	U
53494-70-5	Endrin ketone	0.10	U
5103-71-9	alpha-Chlordane	0.5	U
5103-74-2	gamma-Chlordane	0.5	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.5	U
11104-28-2	Aroclor-1221	0.5	U
11141-16-5	Aroclor-1232	0.5	U
53469-21-9	Aroclor-1242	0.5	U
12672-29-6	Aroclor-1248	0.5	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

FORM I PEST 1/87 Rev

AR302397

ab Name: Panone Environmental Contract: _____ MW 8G

ode: _____ Case No.: _____ SAS No.: _____ SDG No.: _____

atrix: (soil/water) WATER Lab Sample ID: 7471843262

ample wt/vol: 500 (g/mL) mL Lab File ID: _____

evel: (low/med) LOW Date Received: 8-21-89

Moisture: not dec. _____ dec. _____ Date Extracted: 8-22-89

xtraction: (SepF/Cont/Sonc) Cont Date Analyzed: 9-6-89

PC Cleanup: (Y/N) N pH: 7 Dilution Factor: 1

CAS NO.	COMPOUND	CONCENTRATION UNITS; (ug/L or ug/Kg) ug/L	Q
319-84-6	alpha-BHC	0.05	U
319-85-7	beta-BHC	0.05	U
319-86-8	delta-BHC	0.05	U
58-89-9	gamma-BHC (Lindane)	0.05	U
76-44-8	Heptachlor	0.05	U
309-00-2	Aldrin	0.05	U
1024-57-3	Heptachlor epoxide	0.05	U
959-98-8	Endosulfan I	0.05	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.5	U
53494-70-5	Endrin ketone	0.10	U
5103-71-9	alpha-Chlordane	0.5	U
5103-74-2	gamma-Chlordane	0.5	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.5	U
11104-28-2	Aroclor-1221	0.5	U
11141-16-5	Aroclor-1232	0.5	U
53469-21-9	Aroclor-1242	0.5	U
12672-29-6	Aroclor-1248	0.5	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

Lab Name: Chronic Environmental Contract: _____ MW-109

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 7492 843369

Sample wt/vol: 500 (g/mL) mL Lab File ID: _____

Level: (low/med) low Date Received: 8-24-89

% Moisture: not dec. _____ dec. _____ Date Extracted: 8-25-89

Extraction: (SepF/Cont/Sonc) Cont Date Analyzed: 9-6-89

GPC Cleanup: (Y/N) N pH: 7 Dilution Factor: 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ~~ug~~/L	Q
319-84-6	alpha-BHC	0.05	U
319-85-7	beta-BHC	0.05	U
319-86-8	delta-BHC	0.05	U
58-89-9	gamma-BHC (Lindane)	0.05	U
76-44-8	Heptachlor	0.05	U
309-00-2	Aldrin	0.05	U
1024-57-3	Heptachlor epoxide	0.05	U
959-98-8	Endosulfan I	0.05	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.5	U
53494-70-5	Endrin ketone	0.10	U
5103-71-9	alpha-Chlordane	0.5	U
5103-74-2	gamma-Chlordane	0.5	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.5	U
11104-28-2	Aroclor-1221	0.5	U
11141-16-5	Aroclor-1232	0.5	U
53469-21-9	Aroclor-1242	0.5	U
12672-29-6	Aroclor-1248	0.5	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

Lab Name: Paragon Environmental Contract: MW-11G

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 7492 843370

Sample wt/vol: 500 (g/mL) mL Lab File ID: _____

Level: (low/med) LOW Date Received: 8-24-89

% Moisture: not dec. _____ dec. _____ Date Extracted: 8-25-89

Extraction: (SepF/Cont/Sonc) Cont Date Analyzed: 9-6-89

GPC Cleanup: (Y/N) N pH: 7 Dilution Factor: 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
319-84-6	alpha-BHC	0.05	U
319-85-7	beta-BHC	0.05	U
319-86-8	delta-BHC	0.05	U
58-89-9	gamma-BHC (Lindane)	0.05	U
76-44-8	Heptachlor	0.05	U
309-00-2	Aldrin	0.05	U
1024-57-3	Heptachlor epoxide	0.05	U
959-98-8	Endosulfan I	0.05	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.5	U
53494-70-5	Endrin ketone	0.10	U
5103-71-9	alpha-Chlordane	0.5	U
5103-74-2	gamma-Chlordane	0.5	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.5	U
11104-28-2	Aroclor-1221	0.5	U
11141-16-5	Aroclor-1232	0.5	U
53469-21-9	Aroclor-1242	0.5	U
12672-29-6	Aroclor-1248	0.5	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

MW-12G

b Name: Canonie Environmental Contract: _____

SAS No.: _____ SDG No.: _____

Case No.: _____

Lab Sample ID: 7499 843413

trix: (soil/water) WATER

Lab File ID: _____

mple wt/vol: 500 (g/mL) mL

Date Received: 8-25-89

vel: (low/med) low

Date Extracted: 8-25-89

Moisture: not dec. _____ dec. _____

Date Analyzed: 9-7-89

traction: (SepF/Cont/Sonc) Cont

Dilution Factor: 1

pc Cleanup: (Y/N) N pH: 7

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

CAS NO.	COMPOUND		Q
319-84-6	alpha-BHC	0.05	U
319-85-7	beta-BHC	0.05	U
319-86-8	delta-BHC	0.05	U
58-89-9	gamma-BHC (Lindane)	0.05	U
76-44-8	Heptachlor	0.05	U
309-00-2	Aldrin	0.05	U
1024-57-3	Heptachlor epoxide	0.05	U
959-98-8	Endosulfan I	0.10	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.5	U
72-43-5	Methoxychlor	0.10	U
53494-70-5	Endrin ketone	0.5	U
5103-71-9	alpha-Chlordane	0.5	U
5103-74-2	gamma-Chlordane	1.0	U
8001-35-2	Toxaphene	0.5	U
12674-11-2	Aroclor-1016	0.5	U
11104-28-2	Aroclor-1221	0.5	U
11141-16-5	Aroclor-1232	0.5	U
53469-21-9	Aroclor-1242	0.5	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260		

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FORM I PEST

Lab Name: Canonie Environmental Contract: _____ MW-13G

Mode: _____ Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 7499 843419

Sample wt/vol: 500 (g/mL) mL Lab File ID: _____

Level: (low/med) low Date Received: 8-25-89

Moisture: not dec. _____ dec. _____ Date Extracted: 8-25-89

Extraction: (SepF/Cont/Sonc) Cont Date Analyzed: 9-7-89

GPC Cleanup: (Y/N) N pH: 7 Dilution Factor: 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ~~ug~~/L	Q
319-84-6	alpha-BHC	0.05	U
319-85-7	beta-BHC	0.05	U
319-86-8	delta-BHC	0.05	U
58-89-9	gamma-BHC (Lindane)	0.05	U
76-44-8	Heptachlor	0.05	U
309-00-2	Aldrin	0.05	U
1024-57-3	Heptachlor epoxide	0.05	U
959-98-8	Endosulfan I	0.05	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.5	U
53494-70-5	Endrin ketone	0.10	U
5103-71-9	alpha-Chlordane	0.5	U
5103-74-2	gamma-Chlordane	0.5	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.5	U
11104-28-2	Aroclor-1221	0.5	U
11141-16-5	Aroclor-1232	0.5	U
53469-21-9	Aroclor-1242	0.5	U
12672-29-6	Aroclor-1248	0.5	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

Lab Name: Chemone Environmental Contract: _____ MW-149

Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____

Lab Sample ID: 7499 843420

Matrix: (soil/water) WATER

Lab File ID: _____

Sample wt/vol: 500 (g/mL) mL

Date Received: 8-25-89

Level: (low/med) low

Date Extracted: 8-25-89

Moisture: not dec. _____ dec. _____

Date Analyzed: 9-7-89

Extraction: (SepF/Cont/Sonc) Cont

Dilution Factor: 1

GPC Cleanup: (Y/N) N pH: 7

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

CAS NO.	COMPOUND		Q
319-84-6	alpha-BHC	0.05	U
319-85-7	beta-BHC	0.05	U
319-86-8	delta-BHC	0.05	U
58-89-9	gamma-BHC (Lindane)	0.05	U
76-44-8	Heptachlor	0.05	U
309-00-2	Aldrin	0.05	U
1024-57-3	Heptachlor epoxide	0.05	U
959-98-8	Endosulfan I	0.10	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.5	U
72-43-5	Methoxychlor	0.10	U
53494-70-5	Endrin ketone	0.5	U
5103-71-9	alpha-Chlordane	0.5	U
5103-74-2	gamma-Chlordane	1.0	U
8001-35-2	Toxaphene	0.5	U
12674-11-2	Aroclor-1016	0.5	U
11104-28-2	Aroclor-1221	0.5	U
11141-16-5	Aroclor-1232	0.5	U
53469-21-9	Aroclor-1242	0.5	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260		

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FORM I PEST

Lab Name: Canonie Environmental Contract: _____ MW-15G

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 7499 843421

Sample wt/vol: 500 (g/mL) mL Lab File ID: _____

Level: (low/med) low Date Received: 8-25-89

% Moisture: not dec. _____ dec. _____ Date Extracted: 8-25-89

Extraction: (SepF/Cont/Sonc) Cont Date Analyzed: 9-7-89

GPC Cleanup: (Y/N) N pH: 7 Dilution Factor: 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
319-84-6	alpha-BHC	0.05	U
319-85-7	beta-BHC	0.05	U
319-86-8	delta-BHC	0.05	U
58-89-9	gamma-BHC (Lindane)	0.05	U
76-44-8	Heptachlor	0.05	U
309-00-2	Aldrin	0.05	U
1024-57-3	Heptachlor epoxide	0.05	U
959-98-8	Endosulfan I	0.05	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.5	U
53494-70-5	Endrin ketone	0.10	U
5103-71-9	alpha-Chlordane	0.5	U
5103-74-2	gamma-Chlordane	0.5	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.5	U
11104-28-2	Aroclor-1221	0.5	U
11141-16-5	Aroclor-1232	0.5	U
53469-21-9	Aroclor-1242	0.5	U
12672-29-6	Aroclor-1248	0.5	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

Lab Name: Canonie Environmental Contract: _____ MW-164

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 7499 84347

Sample wt/vol: 500 (g/mL) mL Lab File ID: _____

Level: (low/med) low Date Received: 8-25-89

% Moisture: not dec. _____ dec. _____ Date Extracted: 8-25-89

Extraction: (SepF/Cont/Sonc) Cont Date Analyzed: 9-6-89

GPC Cleanup: (Y/N) N pH: 7 Dilution Factor: 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ~~ug~~/L	Q
319-84-6	alpha-BHC	0.05	U
319-85-7	beta-BHC	0.05	U
319-86-8	delta-BHC	0.05	U
58-89-9	gamma-BHC (Lindane)	0.05	U
76-44-8	Heptachlor	0.05	U
309-00-2	Aldrin	0.05	U
1024-57-3	Heptachlor epoxide	0.05	U
959-98-8	Endosulfan I	0.05	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.5	U
53494-70-5	Endrin ketone	0.10	U
5103-71-9	alpha-Chlordane	0.5	U
5103-74-2	gamma-Chlordane	0.5	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.5	U
11104-28-2	Aroclor-1221	0.5	U
11141-16-5	Aroclor-1232	0.5	U
53469-21-9	Aroclor-1242	0.5	U
12672-29-6	Aroclor-1248	0.5	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-17G

ab Name: Canonie Environmental Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 7647 844085

Sample wt/vol: 1000 (g/mL) mL Lab File ID: —

Level: (low/med) LOW Date Received: 9-18-89

% Moisture: not dec. — dec. _____ Date Extracted: 9-19-89

Extraction: (SepF/Cont/Sonc) Cont Date Analyzed: 10-6-89

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
319-84-6	alpha-BHC	0.05	U
319-85-7	beta-BHC	0.05	U
319-86-8	delta-BHC	0.05	U
58-89-9	gamma-BHC (Lindane)	0.05	U
76-44-8	Heptachlor	0.05	U
309-00-2	Aldrin	0.05	U
1024-57-3	Heptachlor epoxide	0.05	U
959-98-8	Endosulfan I	0.05	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.5	U
53494-70-5	Endrin ketone	0.10	U
5103-71-9	alpha-Chlordane	0.5	U
5103-74-2	gamma-Chlordane	0.5	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.5	U
11104-28-2	Aroclor-1221	0.5	U
11141-16-5	Aroclor-1232	0.5	U
53469-21-9	Aroclor-1242	0.5	U
12672-29-6	Aroclor-1248	0.5	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U
			U

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-18G

ab Name: Canonie Environmental Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 7647 844086

Sample wt/vol: 1000 (g/mL) mL Lab File ID: —

Level: (low/med) LOW Date Received: 9-18-89

% Moisture: not dec. — dec. _____ Date Extracted: 9-19-89

Extraction: (SepF/Cont/Sonc) Cont Date Analyzed: 10-6-89

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
319-84-6	alpha-BHC	0.05	U
319-85-7	beta-BHC	1.5	
319-86-8	delta-BHC	0.05	U
58-89-9	gamma-BHC (Lindane)	0.05	U
76-44-8	Heptachlor	0.05	U
309-00-2	Aldrin	0.05	U
1024-57-3	Heptachlor epoxide	0.05	U
959-98-8	Endosulfan I	0.05	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.5	U
53494-70-5	Endrin ketone	0.10	U
5103-71-9	alpha-Chlordane	0.5	U
5103-74-2	gamma-Chlordane	0.5	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.5	U
11104-28-2	Aroclor-1221	0.5	U
11141-16-5	Aroclor-1232	0.5	U
53469-21-9	Aroclor-1242	0.5	U
12672-29-6	Aroclor-1248	0.5	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U
			U

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-19G

ab Name: Canonie Environmental Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 7663 844171

Sample wt/vol: 1000 (g/mL) mL Lab File ID: —

Level: (low/med) LOW Date Received: 9-20-89

% Moisture: not dec. — dec. _____ Date Extracted: 9-22-89

Extraction: (SepF/Cont/Sonc) Cont Date Analyzed: 10-6-89

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
319-84-6	alpha-BHC	0.05	U
319-85-7	beta-BHC	0.05	U
319-86-8	delta-BHC	0.05	U
58-89-9	gamma-BHC (Lindane)	0.05	U
76-44-8	Heptachlor	0.05	U
309-00-2	Aldrin	0.05	U
1024-57-3	Heptachlor epoxide	0.05	U
959-98-8	Endosulfan I	0.05	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.5	U
53494-70-5	Endrin ketone	0.10	U
5103-71-9	alpha-Chlordane	0.5	U
5103-74-2	gamma-Chlordane	0.5	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.5	U
11104-28-2	Aroclor-1221	0.5	U
11141-16-5	Aroclor-1232	0.5	U
53469-21-9	Aroclor-1242	0.5	U
12672-29-6	Aroclor-1248	0.5	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U
			U

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO

MW-20C

ab Name: Canonie Environmental Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 7663 844172

Sample wt/vol: 1000 (g/mL) mL Lab File ID: —

Level: (low/med) LOW Date Received: 9-20-89

% Moisture: not dec. — dec. _____ Date Extracted: 9-22-89

Extraction: (SepF/Cont/Sonc) Cont Date Analyzed: 10-6-89

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
319-84-6	alpha-BHC	0.05	U
319-85-7	beta-BHC	1.05	U
319-86-8	delta-BHC	0.05	U
58-89-9	gamma-BHC (Lindane)	0.05	U
76-44-8	Heptachlor	0.05	U
309-00-2	Aldrin	0.05	U
1024-57-3	Heptachlor epoxide	0.05	U
959-98-8	Endosulfan I	0.05	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.5	U
53494-70-5	Endrin ketone	0.10	U
5103-71-9	alpha-Chlordane	0.5	U
5103-74-2	gamma-Chlordane	0.5	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.5	U
11104-28-2	Aroclor-1221	0.5	U
11141-16-5	Aroclor-1232	0.5	U
53469-21-9	Aroclor-1242	0.5	U
12672-29-6	Aroclor-1248	0.5	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U
			U

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO

MW-21G

ab Name: Canonie Environmental Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 7663 844169

Sample wt/vol: 1000 (g/mL) mL Lab File ID: —

Level: (low/med) LOW Date Received: 9-20-89

% Moisture: not dec. — dec. _____ Date Extracted: 9-22-89

Extraction: (SepF/Cont/Sonc) Cont Date Analyzed: 10-6-89

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1

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

CAS NO.	COMPOUND		Q
319-84-6	alpha-BHC	0.05	U
319-85-7	beta-BHC	0.05	U
319-86-8	delta-BHC	0.05	U
58-89-9	gamma-BHC (Lindane)	0.05	U
76-44-8	Heptachlor	0.05	U
309-00-2	Aldrin	0.05	U
1024-57-3	Heptachlor epoxide	0.05	U
959-98-8	Endosulfan I	0.05	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.5	U
53494-70-5	Endrin ketone	0.10	U
5103-71-9	alpha-Chlordane	0.5	U
5103-74-2	gamma-Chlordane	0.5	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.5	U
11104-28-2	Aroclor-1221	0.5	U
11141-16-5	Aroclor-1232	0.5	U
53469-21-9	Aroclor-1242	0.5	U
12672-29-6	Aroclor-1248	0.5	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U
			U

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PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-22G

ab Name: Canonie Environmental Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 7663 844168

Sample wt/vol: 1000 (g/mL) mL Lab File ID: —

Level: (low/med) LOW Date Received: 9-20-89

% Moisture: not dec. — dec. _____ Date Extracted: 9-22-89

Extraction: (SepF/Cont/Sonc) Cont Date Analyzed: 10-6-89

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
319-84-6	alpha-BHC	0.05	U
319-85-7	beta-BHC	0.05	U
319-86-8	delta-BHC	0.05	U
58-89-9	gamma-BHC (Lindane)	0.05	U
76-44-8	Heptachlor	0.05	U
309-00-2	Aldrin	0.05	U
1024-57-3	Heptachlor epoxide	0.05	U
959-98-8	Endosulfan I	0.05	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.5	U
53494-70-5	Endrin ketone	0.10	U
5103-71-9	alpha-Chlordane	0.5	U
5103-74-2	gamma-Chlordane	0.5	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.5	U
11104-28-2	Aroclor-1221	0.5	U
11141-16-5	Aroclor-1232	0.5	U
53469-21-9	Aroclor-1242	0.5	U
12672-29-6	Aroclor-1248	0.5	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U
			U

AA

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-23G

Name: Canonie Environmental Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 7663 844166

Sample wt/vol: 1000 (g/mL) mL Lab File ID: —

Level: (low/med) LOW Date Received: 9-20-89

% Moisture: not dec. — dec. _____ Date Extracted: 9-22-89

Extraction: (SepF/Cont/Sonc) Cont Date Analyzed: 10-6-89

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1

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

CAS NO.	COMPOUND		Q
319-84-6	alpha-BHC	0.05	U
319-85-7	beta-BHC	0.05	U
319-86-8	delta-BHC	0.05	U
58-89-9	gamma-BHC (Lindane)	0.05	U
76-44-8	Heptachlor	0.05	U
309-00-2	Aldrin	0.05	U
1024-57-3	Heptachlor epoxide	0.05	U
959-98-8	Endosulfan I	0.05	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.5	U
53494-70-5	Endrin ketone	0.10	U
5103-71-9	alpha-Chlordane	0.5	U
5103-74-2	gamma-Chlordane	0.5	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.5	U
11104-28-2	Aroclor-1221	0.5	U
11141-16-5	Aroclor-1232	0.5	U
53469-21-9	Aroclor-1242	0.5	U
12672-29-6	Aroclor-1248	0.5	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U
			U

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-24G

ab Name: Canonie Environmental Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 7671 844237

Sample wt/vol: 1000 (g/mL) mL Lab File ID: —

Level: (low/med) LOW Date Received: 9-21-89

% Moisture: not dec. — dec. _____ Date Extracted: 9-22-89

Extraction: (SepF/Cont/Sonc) Cont Date Analyzed: 10-6-89

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1

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

CAS NO.	COMPOUND		Q
319-84-6	alpha-BHC	0.05	U
319-85-7	beta-BHC	0.74	
319-86-8	delta-BHC	0.05	U
58-89-9	gamma-BHC (Lindane)	0.05	U
76-44-8	Heptachlor	0.05	U
309-00-2	Aldrin	0.05	U
1024-57-3	Heptachlor epoxide	0.05	U
959-98-8	Endosulfan I	0.05	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.5	U
53494-70-5	Endrin ketone	0.10	U
5103-71-9	alpha-Chlordane	0.5	U
5103-74-2	gamma-Chlordane	0.5	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.5	U
11104-28-2	Aroclor-1221	0.5	U
11141-16-5	Aroclor-1232	0.5	U
53469-21-9	Aroclor-1242	0.5	U
12672-29-6	Aroclor-1248	0.5	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U
			U

AR302413

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO

MW-25G

ab Name: Canonie Environmental Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 7671 844238

Sample wt/vol: 1000 (g/mL) mL Lab File ID: —

Level: (low/med) LOW Date Received: 9-21-89

% Moisture: not dec. — dec. _____ Date Extracted: 9-22-89

Extraction: (SepF/Cont/Sonc) Cont Date Analyzed: 10-6-89

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
319-84-6	alpha-BHC	0.05	U
319-85-7	beta-BHC	0.10	
319-86-8	delta-BHC	0.05	U
58-89-9	gamma-BHC (Lindane)	0.05	U
76-44-8	Heptachlor	0.05	U
309-00-2	Aldrin	0.05	U
1024-57-3	Heptachlor epoxide	0.05	U
959-98-8	Endosulfan I	0.05	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.5	U
53494-70-5	Endrin ketone	0.10	U
5103-71-9	alpha-Chlordane	0.5	U
5103-74-2	gamma-Chlordane	0.5	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.5	U
11104-28-2	Aroclor-1221	0.5	U
11141-16-5	Aroclor-1232	0.5	U
53469-21-9	Aroclor-1242	0.5	U
12672-29-6	Aroclor-1248	0.5	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U
			U

AR302414

D. INORGANICS

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1

INORGANIC ANALYSES DATA PACKAGE

EPA SAMPLE NO.

MW1

Lab Name: CANONIE ENVIR. SYC Contract: -

Lab Code: - Case No.: -7457 7471 SAS No.: - SDG No.: MW1

Matrix (soil/water): WATER Lab Sample ID: 843249

Level (low/med): LOW Date Received: 08/18/89

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M	
7429-90-5	Aluminum	37	B		P	R
7440-36-0	Antimony	20	U		P	
7440-38-2	Arsenic	1.1	U		F	
7440-39-3	Barium	75	B		P	B
7440-41-7	Beryllium	1.3	U		P	
7440-43-9	Cadmium	1.6	U		P	
7440-70-2	Calcium	55100			P	
7440-47-3	Chromium	2.2	U		P	
7440-48-4	Cobalt	2	U		P	
7440-50-8	Copper	4.2	U		P	
7439-89-6	Iron	57	U		P	
7439-92-1	Lead	0.2	U		F	
7439-95-4	Magnesium	3580	B		P	
7439-96-5	Manganese	1.4	U		P	
7439-97-6	Mercury	0.92		*	CV	R
7440-02-0	Nickel	3.5	U		P	
7440-09-7	Potassium	2607	U		P	UL
7782-49-2	Selenium	1.3	U		F	UL
7440-22-4	Silver	6.2	U		P	UL
7440-23-5	Sodium	2220	B		P	B
7440-28-0	Thallium	2.2	U		F	
7440-62-2	Vanadium	2.3	U		P	
7440-66-6	Zinc	7.6	U		P	
	Cyanide	7.5	U		C	

Color Before: COLORLESS Clarity Before: CLEAR Texture: -

Color After: *N/A Clarity After: *N/A Artifacts: -

Comments: - Dissolved Metals.

THE FLAG *NA MEANS NOT APPLICABLE

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AR302416

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1

INORGANIC ANALYSES DATA PACKAGE

EPA SAMPLE NO.

MW2

Lab Name: CANONIE ENVIR. SVC Contract: -

Lab Code: - Case No.: -7467 7471 SAS No.: - SDG No.: - MW1

Matrix (soil/water): WATER Lab Sample ID: 843250

Level (low/med): LOW Date Received: 08/18/89

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M	
7429-90-5	Aluminum	27	U		P	R
7440-36-0	Antimony	20	U		P	
7440-38-2	Arsenic	1.1	U		F	
7440-39-3	Barium	61	B		P	B
7440-41-7	Beryllium	1.3	U		P	
7440-43-9	Cadmium	1.6	U		P	
7440-70-2	Calcium	54500			P	
7440-47-3	Chromium	2.2	U		P	
7440-48-4	Cobalt	2	U		P	
7440-50-8	Copper	4.2	U		P	
7439-89-6	Iron	57	U		P	
7439-92-1	Lead	0.3	B		F	B
7439-95-4	Magnesium	3500	B		P	
7439-96-5	Manganese	1.4	U		P	
7439-97-6	Mercury	0.68		*	CV	R
7440-02-0	Nickel	3.5	U		P	
7440-09-7	Potassium	2607	U		P	UL
7782-49-2	Selenium	1.3	U		F	UL
7440-22-4	Silver	6.2	U		P	UL
7440-23-5	Sodium	2030	B		P	B
7440-28-0	Thallium	2.2	U		F	
7440-62-2	Vanadium	2.3	U		P	
7440-66-6	Zinc	7.6	U		P	
	Cyanide	7.5	u		C	

Color Before: COLORLESS Clarity Before: CLEAR Texture: -

Color After: *N/A Clarity After: *N/A Artifacts: -

Comments:

DISSOLVED METALS

THE FLAG *NA MEANS NOT APPLICABLE

CLP IN. VER 1.0 10/1/89

AR302417

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1

INORGANIC ANALYSES DATA PACKAGE

EPA SAMPLE NO.

MW3

Lab Name: CANONIE ENVIR. SVC Contract: -

Lab Code: - Case No.: - 7467 7471 SAS No.: - SDG No. - MW1

Matrix (soil/water): WATER Lab Sample ID: 843251

Level (low/med): LOW Date Received: 08/18/89

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M	
7429-90-5	Aluminum	162	B		P	R
7440-36-0	Antimony	20	U		P	
7440-38-2	Arsenic	1.1	U		F	
7440-39-3	Barium	126	B		P	B
7440-41-7	Beryllium	1.3	U		P	
7440-43-9	Cadmium	1.6	U		P	
7440-70-2	Calcium	1520	B		P	B
7440-47-3	Chromium	2.2	U		P	
7440-48-4	Cobalt	9.8	B		P	B
7440-50-8	Copper	4.2	U		P	
7439-89-6	Iron	1160			P	
7439-92-1	Lead	0.8	B		F	B
7439-95-4	Magnesium	1200	B		P	
7439-96-5	Manganese	173			P	
7439-97-6	Mercury	0.53		*	CV	R
7440-02-0	Nickel	38	B		P	J
7440-09-7	Potassium	2607	U		P	UL
7782-49-2	Selenium	1.3	U		F	UL
7440-22-4	Silver	8.1	B		P	B
7440-23-5	Sodium	1630	B		P	B
7440-28-0	Thallium	2.2	U		F	
7440-62-2	Vanadium	2.3	U		P	
7440-66-6	Zinc	85			P	
	Cyanide	7.5	U		C	

Color Before: COLORLESS Clarity Before: CLEAR Texture: -

Color After: *N/A Clarity After: *N/A Artifacts: -

Comments: - DISSOLVED METALS

THE FLAG *NA MEANS NOT APPLICABLE

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1

INORGANIC ANALYSES DATA PACKAGE

EPA SAMPLE NO.

MW4

Contract: -

Lab Name: CANONIE ENVIR. SVC

Case No.: - 7462 2421

SAS No.: -

SDG No. - MW1

Lab Code: -

Lab Sample ID: 843258

Matrix (soil/water): WATER

Date Received: 08/18/89

Level (low/med): LOW

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	88	B		P
7440-36-0	Antimony	20	U		P
7440-38-2	Arsenic	1.1	U		F
7440-39-3	Barium	80	B		P
7440-41-7	Beryllium	1.3	U		P
7440-43-9	Cadmium	1.6	U		P
7440-70-2	Calcium	3410	B		P
7440-47-3	Chromium	2.2	U		P
7440-48-4	Cobalt	5	B		P
7440-50-8	Copper	4.2	U		P
7439-89-6	Iron	9190			P
7439-92-1	Lead	2.4	B		F
7439-95-4	Magnesium	1260	B		P
7439-96-5	Manganese	281			P
7439-97-6	Mercury	0.32		*	CV
7440-02-0	Nickel	5.3	B		P
7440-09-7	Potassium	2607	U		P
7782-49-2	Selenium	1.3	U		F
7440-22-4	Silver	8.9	B		P
7440-23-5	Sodium	3310	B		P
7440-28-0	Thallium	2.2	U		F
7440-62-2	Vanadium	2.3	U		P
7440-66-6	Zinc	11	B		P
	Cyanide	7.5	U		C

B B B B R J UL UL B B

Color Before: COLORLESS Clarity Before: CLEAR Texture: -

Color After: *N/A Clarity After: *N/A Artifacts: -

Comments: - DISSOLVED METALS

THE FLAG *NA MEANS NOT APPLICABLE

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U.S. EPA - CLP

1

INORGANIC ANALYSES DATA PACKAGE

EPA SAMPLE NO.

MW5

Lab Name: CANONIE ENVIR. SVC Contract: -

Lab Code: - Case No.: - 7462, 7471 SAS No.: - SDG No. - MW1

Matrix (soil/water): WATER Lab Sample ID: 843259

Level (low/med): LOW Date Received: 08/18/89

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M	
7429-90-5	Aluminum	687			P	B
7440-36-0	Antimony	20	U		P	
7440-38-2	Arsenic	1.1	U		F	
7440-39-3	Barium	185	B		P	B
7440-41-7	Beryllium	2.1	B		P	J
7440-43-9	Cadmium	4.4	B		P	B
7440-70-2	Calcium	7450			P	
7440-47-3	Chromium	2.2	U		P	
7440-48-4	Cobalt	14	B		P	B
7440-50-8	Copper	7.3	B		P	
7439-89-6	Iron	151			P	
7439-92-1	Lead	1.4	B		F	B
7439-95-4	Magnesium	2820	B		P	
7439-96-5	Manganese	190			P	
7439-97-6	Mercury	0.57		↓	CV	R
7440-02-0	Nickel	91			P	J
7440-09-7	Potassium	2740	B		P	2507 U - UL
7782-49-2	Selenium	1.3	U		F	UL
7440-22-4	Silver	13			P	B
7440-23-5	Sodium	13300			P	J
7440-28-0	Thallium	2.2	U		F	
7440-62-2	Vanadium	2.3	U		P	
7440-66-6	Zinc	~~1140~~			P	184
	Cyanide	7.5	U		C	

Color Before: COLORLESS Clarity Before: CLEAR Texture: -

Color After: *N/A Clarity After: *N/A Artifacts: -

Comments: - DISSOLVED METALS

THE FLAG *NA MEANS NOT APPLICABLE

CLP IN. VER 1.0 10/1/89

AR302420

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1

INORGANIC ANALYSES DATA PACKAGE

EPA SAMPLE NO.

MW6

Lab Name: CANONIE ENVIR. SVC Contract: -

Lab Code: - Case No.: - 7462047/ SAS No.: - SDG No. - MW1

Matrix (soil/water): WATER Lab Sample ID: 843260

Level (low/med): LOW Date Received: 08/18/89

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M	
7429-90-5	Aluminum	48	B		P	B
7440-36-0	Antimony	20	U		P	
7440-38-2	Arsenic	1.1	U		F	
7440-39-3	Barium	135	B		P	B
7440-41-7	Beryllium	1.3	U		P	
7440-43-9	Cadmium	1.6	U		P	
7440-70-2	Calcium	60500			P	
7440-47-3	Chromium	2.2	U		P	
7440-48-4	Cobalt	5.9	B		P	B
7440-50-8	Copper	4.2	U		P	
7439-89-6	Iron	135			P	
7439-92-1	Lead	0.3	B		F	B
7439-95-4	Magnesium	7770			P	
7439-96-5	Manganese	51			P	
7439-97-6	Mercury	0.53	U	*	CV	R
7440-02-0	Nickel	15	B		P	J
7440-09-7	Potassium	2607	U		P	UL
7782-49-2	Selenium	1.3	U	W	F	UL
7440-22-4	Silver	8	B		P	B
7440-23-5	Sodium	2150	B		P	B
7440-28-0	Thallium	2.2	U		F	
7440-62-2	Vanadium	2.3	U		P	
7440-66-6	Zinc	24			P	
	Cyanide	7.5	U		C	

Color Before: COLORLESS Clarity Before: CLEAR Texture: -

Color After: *N/A Clarity After: *N/A Artifacts: -

Comments: - DISSOLVED METALS

THE FLAG *NA MEANS NOT APPLICABLE

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1

INORGANIC ANALYSES DATA PACKAGE

EPA SAMPLE NO.

MW7

Lab Name: CANONIE ENVIR. SYC Contract: -

Lab Code: - Case No.: -7467 7471 SAS No.: - SDG No.: - MW1

Matrix (soil/water): WATER Lab Sample ID: 843261

Level (low/med): LOW Date Received: 08/18/89

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M	
7429-90-5	Aluminum	47	B		P	B
7440-36-0	Antimony	20	U		P	
7440-38-2	Arsenic	1.1	U		F	
7440-39-3	Barium	69	B		P	B
7440-41-7	Beryllium	1.3	U		P	
7440-43-9	Cadmium	1.6	U		P	
7440-70-2	Calcium	27800			P	
7440-47-3	Chromium	3.5	B		P	B
7440-48-4	Cobalt	2	U		P	
7440-50-8	Copper	16	B		P	
7439-89-6	Iron	57	U		P	
7439-92-1	Lead	0.2	B		F	B
7439-95-4	Magnesium	5010			P	
7439-96-5	Manganese	1.8	B		P	B
7439-97-6	Mercury	0.52		*	CV	R
7440-02-0	Nickel	3.5	U		P	
7440-09-7	Potassium	~~3180~~	~~B~~	2607U	P	UL
7782-49-2	Selenium	1.3	U		F	UL
7440-22-4	Silver	8.6	B		P	B
7440-23-5	Sodium	2860	B		P	B
7440-28-0	Thallium	2.2	U		F	
7440-62-2	Vanadium	8.4	B		P	
7440-66-6	Zinc	7.6	U		P	
	Cyanide	7.5	U		C	

Color Before: COLORLESS Clarity Before: CLEAR Texture: -

Color After: *N/A Clarity After: *N/A Artifacts: -

Comments: - DISSOLVED METALS

THE FLAG *NA MEANS NOT APPLICABLE

CLP IN. YER 1.0 10/1/89

AR302422

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INORGANIC ANALYSES DATA PACKAGE

EPA SAMPLE NO.

MW8

Lab Name: CANONIE ENVIR. SVC Contract: -

Lab Code: - Case No.: - 94672471 SAS No.: - SDG No. - MW1

Matrix (soil/water): WATER Lab Sample ID: 843262

Level (low/med): LOW Date Received: 08/18/89

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M	
7429-90-5	Aluminum	61	B		P	
7440-36-0	Antimony	20	U		P	
7440-38-2	Arsenic	1.1	U		F	
7440-39-3	Barium	46	B		P	J
7440-41-7	Beryllium	1.3	U		P	
7440-43-9	Cadmium	1.6	U		P	
7440-70-2	Calcium	211	B		P	
7440-47-3	Chromium	2.2	U		P	
7440-48-4	Cobalt	2	U		P	
7440-50-8	Copper	4.2	U		P	
7439-89-6	Iron	57	U		P	
7439-92-1	Lead	0.3	B		F	
7439-95-4	Magnesium	100	B		P	
7439-96-5	Manganese	1.4	U		P	
7439-97-6	Mercury	0.47		*	CV	R
7440-02-0	Nickel	3.5	U		P	
7440-09-7	Potassium	~~3170~~	~~B~~	2607 U	P	UL
7782-49-2	Selenium	1.3	U		F	UL
7440-22-4	Silver	7.7	B		P	+J
7440-23-5	Sodium	1230	B		P	
7440-28-0	Thallium	2.2	U		F	
7440-62-2	Vanadium	2.3	U		P	
7440-66-6	Zinc	7.6	U		P	
	Cyanide	7.5	u		C	

Color Before: COLORLESS Clarity Before: CLEAR Texture: -

Color After: *N/A Clarity After: *N/A Artifacts: -

Comments: - DISSOLVED METALS

THE FLAG *NA MEANS NOT APPLICABLE

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AR302423

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1

INORGANIC ANALYSES DATA PACKAGE

EPA SAMPLE NO.

TRIP BLK

Lab Name: CANONIE ENVIR. SVC Contract: -

Lab Code: - Case No.: - 7467 7471 SAS No.: - SDG No. - 001

Matrix (soil/water): WATER Lab Sample ID: 843263

Level (low/med): LOW Date Received: 08/18/89

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	34	B		P
7440-36-0	Antimony	20	U		P
7440-38-2	Arsenic	1.1	U		F
7440-39-3	Barium	42	B		P
7440-41-7	Beryllium	1.3	U		P
7440-43-9	Cadmium	1.6	U		P
7440-70-2	Calcium	99	B		P
7440-47-3	Chromium	2.2	U		P
7440-48-4	Cobalt	2	U		P
7440-50-8	Copper	4.2	U		P
7439-89-6	Iron	57	U		P
7439-92-1	Lead	0.4	B		F
7439-95-4	Magnesium	53	U		P
7439-96-5	Manganese	1.4	U		P
7439-97-6	Mercury	0.51		*	CV
7440-02-0	Nickel	3.5	U		P
7440-09-7	Potassium	~~3728~~	~~B~~	2607U	P
7782-49-2	Selenium	1.3	U		F
7440-22-4	Silver	6.2	U		P
7440-23-5	Sodium	1052	U		P
7440-28-0	Thallium	2.2	U		F
7440-62-2	Vanadium	2.3	U		P
7440-66-6	Zinc	7.6	U		P
	Cyanide	7.5	U		C

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Color Before: COLORLESS Clarity Before: CLEAR Texture: -

Color After: *N/A Clarity After: *N/A Artifacts: -

Comments: - DISSOLVED METALS

THE FLAG *NA MEANS NOT APPLICABLE

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AR302424

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1

INORGANIC ANALYSES DATA PACKAGE

EPA SAMPLE NO.

MW-10

Lab Name: CANONIE ENVIR. SVC Contract: DELTA QUARRY

Lab Code: - Case No.: 7492/9 SAS No.: - SDG No.: MW10

Matrix (soil/water): WATER Lab Sample ID: 843369

Level (low/med): LOW Date Received: 08/24/89

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M	
7429-90-5	Aluminum	27	U		P	
7440-36-0	Antimony	20	U		P	
7440-38-2	Arsenic	6	B		F	
7440-39-3	Barium	424			P	J
7440-41-7	Beryllium	1.3	U		P	
7440-43-9	Cadmium	1.6	U		P	
7440-70-2	Calcium	196000			P	
7440-47-3	Chromium	2.2	U		P	
7440-48-4	Cobalt	6.3	B		P	B
7440-50-8	Copper	4.2	U		P	
7439-89-6	Iron	6080			P	
7439-92-1	Lead	0.3	B	W	F	B
7439-95-4	Magnesium	19000			P	
7439-96-5	Manganese	1670			P	
7439-97-6	Mercury	0.24	U		CV	
7440-02-0	Nickel	3.5	U		P	
7440-09-7	Potassium	2607	U		P	UL
7782-49-2	Selenium	1.3	U	W	F	
7440-22-4	Silver	6.2	U		P	UL
7440-23-5	Sodium	16200			P	
7440-28-0	Thallium	2.2	U		F	
7440-62-2	Vanadium	2.3	U		P	
7440-66-6	Zinc	13	B		P	
	Cyanide	7.5	U		C	

Color Before: COLORLESS Clarity Before: CLEAR Texture: -

Color After: *N/A Clarity After: *N/A Artifacts: -

Comments: -

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1

INORGANIC ANALYSES DATA PACKAGE

EPA SAMPLE NO.

MW-11

Lab Name: CANONIE ENVIR. SVC Contract: DELTA QUARRY

Lab Code: - Case No.: 7492/9 SAS No.: - SDG No.: MW10

Matrix (soil/water): WATER Lab Sample ID: 843370

Level (low/med): LOW Date Received: 08/24/89

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M	
7429-90-5	Aluminum	27	U		P	
7440-36-0	Antimony	20	U		P	
7440-38-2	Arsenic	4.1	B		F	
7440-39-3	Barium	491			P	J
7440-41-7	Beryllium	1.3	U		P	
7440-43-9	Cadmium	2.5	B		P	B
7440-70-2	Calcium	185000			P	
7440-47-3	Chromium	2.2	U		P	
7440-48-4	Cobalt	26	B		P	
7440-50-8	Copper	4.2	U		P	
7439-89-6	Iron	649			P	
7439-92-1	Lead	0.2	B	W	F	B
7439-95-4	Magnesium	16100			P	
7439-96-5	Manganese	4540			P	
7439-97-6	Mercury	0.24	U		CV	
7440-02-0	Nickel	29	B		P	J
7440-09-7	Potassium	6430			P	B
7782-49-2	Selenium	1.5	B	W	F	
7440-22-4	Silver	14			P	B
7440-23-5	Sodium	180000			P	
7440-28-0	Thallium	2.2	U	W	F	
7440-62-2	Vanadium	2.3	U		P	
7440-66-6	Zinc	22			P	
	Cyanide	7.5	U		C	

Color Before: COLORLESS Clarity Before: CLEAR Texture: -

Color After: *N/A Clarity After: *N/A Artifacts: -

Comments: -

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INORGANIC ANALYSES DATA PACKAGE

EPA SAMPLE NO.

MW-12

Lab Name: CANONIE ENVIR. SVC Contract: DELTA QUARRY

Lab Code: - Case No.: 7492/9 SAS No.: - SDG No.: MW10

Matrix (soil/water): WATER Lab Sample ID: 843418

Level (low/med): LOW Date Received: 08/25/89

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M	
7429-90-5	Aluminum	46	B		P	B
7440-36-0	Antimony	20	U		P	
7440-38-2	Arsenic	1.1	U		F	
7440-39-3	Barium	135	B		P	B
7440-41-7	Beryllium	1.3	U		P	
7440-43-9	Cadmium	2.7	B		P	B
7440-70-2	Calcium	69700			P	
7440-47-3	Chromium	2.2	U		P	
7440-48-4	Cobalt	11	B		P	B
7440-50-8	Copper	4.2	U		P	
7439-89-6	Iron	57	U		P	
7439-92-1	Lead	0.4	B	W	F	B
7439-95-4	Magnesium	2120	B		P	
7439-96-5	Manganese	69			P	
7439-97-6	Mercury	0.24	U		CV	
7440-02-0	Nickel	23	B		P	B
7440-09-7	Potassium	2790	B		P	B
7782-49-2	Selenium	1.3	U	W	F	
7440-22-4	Silver	6.2	U		P	UL
7440-23-5	Sodium	8420			P	
7440-28-0	Thallium	2.2	U		F	
7440-62-2	Vanadium	2.3	U		P	
7440-66-6	Zinc	21			P	
	Cyanide	7.5	U		C	

Color Before: COLORLESS Clarity Before: CLEAR Texture: -

Color After: *N/A Clarity After: *N/A Artifacts: -

Comments: -

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INORGANIC ANALYSES DATA PACKAGE

EPA SAMPLE NO.

MW-13

Lab Name: CANONIE ENVIR. SVC Contract: DELTA QUARRY

Lab Code: - Case No.: 7492/9 SAS No.: - SDG No.: MW10

Matrix (soil/water): WATER Lab Sample ID: 843419

Level (low/med): LOW Date Received: 08/25/89

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M	
7429-90-5	Aluminum	61	B		P	B
7440-36-0	Antimony	20	U		P	
7440-38-2	Arsenic	1.1	U		F	
7440-39-3	Barium	157	B		P	B
7440-41-7	Beryllium	1.3	U		P	
7440-43-9	Cadmium	1.6	U		P	
7440-70-2	Calcium	71300			P	
7440-47-3	Chromium	2.2	U		P	
7440-48-4	Cobalt	12	B		P	B
7440-50-8	Copper	4.2	U		P	
7439-89-6	Iron	57	U		P	
7439-92-1	Lead	0.38	B		F	B
7439-95-4	Magnesium	2140	B		P	
7439-96-5	Manganese	70			P	
7439-97-6	Mercury	0.24	U		CY	
7440-02-0	Nickel	23	B		P	B
7440-09-7	Potassium	2700	B		P	B
7782-49-2	Selenium	1.3	U	W	F	
7440-22-4	Silver	8.6	B		P	B
7440-23-5	Sodium	9050			P	
7440-28-0	Thallium	2.2	U		F	
7440-62-2	Vanadium	2.3	U		P	
7440-66-6	Zinc	21			P	
	Cyanide	25	U		C	

Color Before: COLORLESS Clarity Before: CLEAR Texture: -

Color After: *N/A Clarity After: *N/A Artifacts: -

Comments: -

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INORGANIC ANALYSES DATA PACKAGE

EPA SAMPLE NO.

MW-14

Lab Name: CANONIE ENVIR. SYC Contract: DELTA QUARRY

Lab Code: - Case No.: 7492/9 SAS No.: - SDG No.: MW10

Matrix (soil/water): WATER Lab Sample ID: 843420

Level (low/med): LOW Date Received: 08/25/89

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M	
7429-90-5	Aluminum	40	B		P	B
7440-36-0	Antimony	20	U		P	
7440-38-2	Arsenic	1.6	B		F	
7440-39-3	Barium	181	B		P	B
7440-41-7	Beryllium	1.3	U		P	
7440-43-9	Cadmium	1.6	U		P	
7440-70-2	Calcium	28000			P	
7440-47-3	Chromium	2.2	U		P	
7440-48-4	Cobalt	20	B		P	
7440-50-8	Copper	4.2	U		P	
7439-89-6	Iron	229			P	
7439-92-1	Lead	0.4	B	W	F	B
7439-95-4	Magnesium	1790	B		P	
7439-96-5	Manganese	79			P	
7439-97-6	Mercury	0.24	U		CV	
7440-02-0	Nickel	42			P	J
7440-09-7	Potassium	2607	U		P	UL
7782-49-2	Selenium	3.5	B		F	
7440-22-4	Silver	6.2	U		P	UL
7440-23-5	Sodium	~~2160~~	~~B~~	2460	P	B
7440-28-0	Thallium	2.2	U		F	
7440-62-2	Vanadium	2.3	U		P	
7440-66-6	Zinc	89			P	
	Cyanide	75	U		C	

Color Before: COLORLESS Clarity Before: CLEAR Texture: -

Color After: *N/A Clarity After: *N/A Artifacts: -

Comments: -

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1

INORGANIC ANALYSES DATA PACKAGE

EPA SAMPLE NO.

MW-15

Lab Name: CANONIE ENVIR. SYC Contract: DELTA QUARRY

Lab Code: - Case No.: 7492/9 SAS No.: - SDG No. - MW10

Matrix (soil/water): WATER Lab Sample ID: 843421

Level (low/med): LOW Date Received: 08/25/89

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M	
7429-90-5	Aluminum	53	B		P	J
7440-36-0	Antimony	20	U		P	
7440-38-2	Arsenic	1.1	U		F	
7440-39-3	Barium	50	B		P	J
7440-41-7	Beryllium	1.3	U		P	
7440-43-9	Cadmium	1.6	U		P	
7440-70-2	Calcium	442	B		P	
7440-47-3	Chromium	2.2	U		P	
7440-48-4	Cobalt	2.8	B		P	
7440-50-8	Copper	4.2	U		P	
7439-89-6	Iron	57	U		P	
7439-92-1	Lead	0.5	B		F	
7439-95-4	Magnesium	122	B		P	
7439-96-5	Manganese	1.4	U		P	
7439-97-6	Mercury	0.24	U		CV	
7440-02-0	Nickel	3.5	U		P	
7440-09-7	Potassium	2607	U		P	UL
7782-49-2	Selenium	1.3	U		F	
7440-22-4	Silver	6.2	U		P	UL
7440-23-5	Sodium	1250	B		P	
7440-28-0	Thallium	2.2	U		F	
7440-62-2	Vanadium	2.3	U		P	
7440-66-6	Zinc	7.6	U		P	
	Cyanide	7.5	u		C	

Color Before: COLORLESS Clarity Before: CLEAR Texture: -

Color After: *N/A Clarity After: *N/A Artifacts: -

Comments: -

THE FLAG *NA MEANS NOT APPLICABLE

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INORGANIC ANALYSES DATA PACKAGE

EPA SAMPLE NO.
MW-16

Lab Name: CANONIE ENVIR. SVC
Contract: DELTA QUARRY
Lab Code: - Case No.: 7492/9 SAS No.: - SDG No.: MW10
Matrix (soil/water): WATER
Lab Sample ID: 843422
Level (low/med): LOW
Date Received: 08/25/89
% Solids: 0.0
Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M	
7429-90-5	Aluminum	42	B		P	J
7440-36-0	Antimony	20	U		P	
7440-38-2	Arsenic	1.1	U		F	
7440-39-3	Barium	42	B		P	J
7440-41-7	Beryllium	1.3	U		P	
7440-43-9	Cadmium	1.6	U		P	
7440-70-2	Calcium	~~879~~ ~~B~~		87.9	P	
7440-47-3	Chromium	2.2	U		P	
7440-48-4	Cobalt	2	U		P	
7440-50-8	Copper	4.2	U		P	
7439-89-6	Iron	57	U		P	
7439-92-1	Lead	0.5	B		F	
7439-95-4	Magnesium	53	U		P	
7439-96-5	Manganese	1.4	U		P	
7439-97-6	Mercury	0.24	U		CV	
7440-02-0	Nickel	3.5	U		P	
7440-09-7	Potassium	2607	U		P	UL
7782-49-2	Selenium	1.3	U		F	
7440-22-4	Silver	6.2	U		P	UL
7440-23-5	Sodium	1060	B		P	
7440-28-0	Thallium	2.2	U		F	
7440-62-2	Vanadium	2.3	U		P	
7440-66-6	Zinc	7.6	U		P	
	Cyanide	7.5	U		C	

Color Before: COLORLESS Clarity Before: CLEAR Texture: -
Color After: *N/A Clarity After: *N/A Artifacts: -
Comments: -

THE FLAG *NA MEANS NOT APPLICABLE

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AR302431

19

SECTION 3

ORGANIC DATA SUPPORT DOCUMENTATION

PROJECT NAME: Canonic - Delta Quarry

SUPPORT DOCUMENTATION FOR THE REVIEW OF ORGANIC ANALYSIS LAB DATA PACKAGE

TYPE OF ANALYSIS: Organic

CONTRACT LABORATORY: Canonic Environmental

REVIEWER: Ruth Forman

REVIEW DATE: 11/7/89

APPLICABLE SAMPLE NO's.: MW-1 through MW-8, Travel Blank, MW-9 through MW-25, RW-1, RW-2, RW-20, and RW-12

THE FOLLOWING TABLE INDICATES AREAS WHICH WERE EXAMINED IN DETAIL, THE IDENTIFIED PROBLEM AREAS, AND SUPPORT DOCUMENTATION ATTACHMENTS:

	AREAS EXAMINED IN DETAIL (CHECK (✓) IF YES OR FOOTNOTE LETTER FOR COMMENTS BELOW)				PROBLEM AREAS IDENTIFIED (CHECK (✓) IF YES OR FOOTNOTE NUMBER FOR COMMENTS BELOW)				SUPPORT DOCUMENTATION ATTACHMENTS (CHECK (✓) IF YES — OR IDENTIFY ATTACHMENT NO.)			
	ALL APPLICABLE ANALYSES	VOA	BNA	PEST/PCB	ALL APPLICABLE ANALYSES	VOA	BNA	PEST/PCB	ALL APPLICABLE ANALYSES	VOA	BNA	PEST/PCB
HOLDING TIMES	✓						✓		✓			
BLANK ANALYSIS RESULTS: TARGET COMPOUNDS	✓								✓			
BLANK ANALYSIS RESULTS: TENTATIVE I.D.s	✓								✓			
SURROGATE SPIKE RESULTS	✓						✓		✓			
MATRIX SPIKE RESULTS	✓								✓			
DUPLICATE ANALYSIS RESULTS	✓								✓			
TARGET COMPOUND MATCHING QUALITY	✓								✓			
TENTATIVELY IDENTIFIED COMPOUNDs	✓								✓			
DFTPP & BFB SPECTRUM TUNE RESULTS	✓								✓			
GC INSTRUMENT PERFORMANCE	✓								✓			
INITIAL CALIBRATIONS	✓								✓			
CONTINUING CALIBRATIONS	✓								✓			
QUANTITATION OF RESULTS	✓											
OTHERS												

COMMENTS:

BLANK ANALYSIS RESULTS FOR TARGET COMPOUNDS

...ION	TYPE/ MATRIX	SAMPLE #	SOURCE	CONTAMINANT (CONCENTRATION)
VOA	Method / Aq	50825	Canonie	None reported
VOA	Method / Aq	50828	Canonie	None reported
VOA	Field / Aq	MW-15	unknown	None reported
VOA	Trip / Aq	MW-16	unknown	None reported
BNA	Method / Aq	K7492	Canonie	None reported
BNA	Method / Aq	K7499	Canonie	None reported
BNA	Field / Aq	MW-15	unknown	None reported
...A	Trip / Aq	MW-16	unknown	None reported
Pest/PCB	Method / Aq	PBLK1	Canonie	None reported
Pest/PCB	Method / Aq	PBLK2	Canonie	None reported
Pest / PCB	Method / Aq	PBLK1 9/15/89	Canonie	None reported
Pest / PCB	Method / Aq	PBLK2 9/15/89	Canonie	None reported
Pest / PCB	Method / Aq	PBLK3 9/16/89	Canonie	None reported
Pest / PCB	Method / Aq	PBLK4 9/16/89	Canonie	None reported

LABORATORY REPORTED FIELD BLANK IS COMPARED WITH THE SAMPLE DATA IN A TABULATION FORM WITHIN THE SAMPLE ANALYTICAL DATA SUMMARY. TICs IN BLANKS ARE LISTED ON A SEPERATE FORM.

COMMENTS:

(1) RESULT REPORTED BY THE LABORATORY AND CONFIRMED BY REVIEWER

(2) RESULT INFERED FROM QUANTITATION LIST, CHROMATOGRAM AND/OR SPECTRUM

BLANK ANALYSIS RESULTS FOR TARGET COMPOUNDS

ION	TYPE/ MATRIX	SAMPLE #	SOURCE	CONTAMINANT (CONCENTRATION)
Pest/PCB	Method / Aq	PBLK5	Canonie	None reported
Pest/PCB	Trip / Aq	Travel Blank	unknown	None reported
Pest/PCB	Field / Aq	MW-15	unknown	None reported
Pest/PCB	Trip / Aq	MW-16	unknown	None reported
Pest/PCB	Field / Aq	MW-8	unknown	None reported
Pest/PCB	Trip / Aq	MW-9	unknown	None reported

LABORATORY REPORTED FIELD BLANK IS COMPARED WITH THE SAMPLE DATA IN A TABULATION FORM WITHIN THE SAMPLE ANALYTICAL DATA SUMMARY. TICs IN BLANKS ARE LISTED ON A SEPERATE FORM.

COMMENTS :

(1) RESULT REPORTED BY THE LABORATORY AND CONFIRMED BY REVIEWER

(2) RESULT INFERED FROM QUANTITATION LIST, CHROMATOGRAM AND/OR SPECTRUM

CANONIE ENVIRONMENTAL SERVICES CORP.
CLP/VOLATILES ANALYSES
CASE NARRATIVE

Date: [illegible]

Chemist: _____

Canonie Project Name: Little Quarries

Case Number: N/A

Contract Number: N/A

Canonie Project Number: _____

SOW Date: 2/88

SDG Number: PT1A

LP Number(s): 7492

7499

EPA Sample ID	Canonie Sample ID	EPA Sample ID	Canonie Sample ID
1. PT 1A	1. 843345	16. MW-13A-H	16. 843419
2. PT 1B	2. 843346	17. MW-14A-H	17. 843420
3. PT 2A	3. 843347	18. MW-15A-H	18. 843421
4. PT 2B	4. 843348	19. MW-16A-H	19. 843422
5. PT 3A	5. 843349	20. ~~MW-20A-H~~ RW-20A PAG 10/05/89	20. 843423
6. PT 3B	6. 843350	21. VBLK-1	21. _____
7. PT 4A	7. 843351	22. VBLK-2	22. _____
8. PT 4B	8. 843352	23. PT 1AMS	23. 843345-MS
9. PT 5A	9. 843353	24. PT 1AMSD	24. 843345-MSD
10. PT 5B	10. 843354	25. MW-11A-HMS	25. 843370-MS
11. RW10F	11. 843355	26. MW-11A-HMSD	26. 843370-MSD
12. RW2F	12. 843356	27. _____	27. _____
13. MW-10A-H	13. 843369	28. _____	28. _____
14. MW-11A-H	14. 843370	29. _____	29. _____
15. MW-12A-H	15. 843418	30. _____	30. _____

Non-CLP PAG [illegible]/89

AR302437

CanonieEnvironmental

CASE NARRATIVE ANALYTICAL DOCUMENTATION

All samples were analyzed by accepted protocols. As per attached letter, Canonie final reports were substituted for Form I's.

SECTION 4

2A

8/25/89

5970 #3

	EPA SAMPLE NO.	S1 (TOL)#	S2 BFB #	S3 (DCE)#	OTHER	TOT OUT
01	MATRIX BLK	98	102	102		0
02	843345 WTR	100	102	96		0
03	843345 MS	101	104	102		0
04	843345 MSD	99	103	98		0
05	843346 WTR	100	101	93		0
06	843347 WTR	96	100	97		0
07	843348 WTR	99	103	100		0
08	843349 WTR	100	102	100		0
09	843350 WTR	101	105	98		0
10	843351 WTR	98	105	95		0
11	843352 WTR	99	106	98		0
12	843353 WTR	98	106	95		0
13	843354 WTR	96	102	99		0
14	843355 WTR ✓	99	105	97		0
15	843356 WTR ✓	97	102	101		0
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		QC LIMITS
S1 (TOL)	= Toluene-d8	(88-110)
S2 (BFB)	= Bromofluorobenzene	(86-115)
S3 (DCE)	= 1,2-Dichloroethane-d4	(76-114)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D Surrogates diluted out

AR302439

WATER VOLATILE SURROGATE RECOVERY

QC Name: Laramie Environmental Date: 8/28/89

Lab Code SDID: G-0899-08 Instrument ID: 5970 B

	EPA SAMPLE NO.	S1 (TOL)#	S2 (BFB)#	S3 (DCE)#	OTHER	TOT OUT
01	MATRIX BLK	97	94	94		0
02	843370 WTR ✓	99	91	88		0
03	843370 MS ✓	99	94	93		0
04	843370 MSD ✓	99	95	96		0
05	843369 WTR ✓	98	95	96		0
06	843418 WTR ✓	96	94	93		0
07	843419 WTR ✓	97	92	93		0
08	843420 WTR ✓	100	93	91		0
09	843421 WTR ✓	97	97	93		0
10	843422 WTR ✓	96	93	90		0
11	843423 WTR ✓	95	95	100		0
12	843448 WTR	94	100	88		0
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	QC LIMITS
S1 (TOL) = Toluene-d8	(88-110)
S2 (BFB) = Bromofluorobenzene	(86-115)
S3 (DCE) = 1,2-Dichloroethane-d4	(76-114)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D Surrogates diluted out

AR302440

WATER VOLATILE MATRIX SPIKE MATRIX SPIKE DUPLICATE RECOVERY

8/28/89

Lab Name: Laboratory Environmental Date: [illegible]

Lab Code Spike: G-0889-0P Instrument ID: 5970 #3

Matrix Spike - EPA Sample No.: 843370 WTR

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC LIMITS REC.
1,1-Dichloroethene	50.00	0.00	54.00	107	61-145
Trichloroethene	50.00	13.00	58.00	90	71-120
Benzene	50.00	1.10	46.00	89	76-127
Toluene	50.00	0.00	50.00	100	76-125
Chlorobenzene	50.00	9.20	62.00	106	75-130

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,1-Dichloroethene	50.00	48.00	96	10	14	61-145
Trichloroethene	50.00	56.00	86	4	14	71-120
Benzene	50.00	43.00	83	6	11	76-127
Toluene	50.00	47.00	93	7	13	76-125
Chlorobenzene	50.00	59.00	98	7	13	75-130

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

Values outside of qc limits

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

COMMENTS: _____

AR302441

5A

VOLATILE ORGANIC GC/MS TUNING AND MASS CALIBRATION - BROMOFLUOROBENZENE (BFB)

Lab Name: Canonie Environmental — Lab Code BFB: G-0789-17

Lab File ID: :QQ825 — BFB Injection Date: 8/25/89

Instrument ID: 5970 #3 — BFB Injection Time: 8/25/89 11:17

Matrix:(soil/water) WATER Level:(low/med) MED Column:(pack/cap) CAP

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% OF MASS 95	18.8
75	30.0 - 60.0% OF MASS 95	41.9
95	Base peak, 100% relative abundance	85.
96	5.0 - 9.0% of mass 95	8.5
173	Less than 2.0% of mass 174	0.0 0.0)1
174	Greater than 50.0% of mass 95	92.4
175	5.0 - 9.0% of mass 174	7.3 7.9)1
176	Greater than 95.0%, but less than 101.0% of mass 174	93.1 100.7)1
177	5.0 - 9.0% of mass 176	6.7(7.2)2

1-Value is % mass 174 2-Value is % mass 176

THIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	LAB SAMPLE ID.	CLIENT LP NO.	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	50 PPB 624	DAILY CAL.	>R0825	8/25/89	11:36
02	MATRIX BLK	.....	>S0825	8/25/89	12:38
03	843345 WTR	DELTA Q.7492	>T3345	8/25/89	13:21
04	843345 MS	DELTA Q.7492	>U3345	8/25/89	14:02
05	843345 MSD	DELTA Q.7492	>W3345	8/25/89	14:43
06	843346 WTR	DELTA Q.7492	>T3346	8/25/89	15:59
07	843347 WTR	DELTA Q.7492	>T3347	8/25/89	17:04
08	843348 WTR	DELTA Q.7492	>T3348	8/25/89	17:47
09	843349 WTR	DELTA Q.7492	>T3349	8/25/89	18:28
10	843350 WTR	DELTA Q.7492	>T3350	8/25/89	19:10
11	843351 WTR	DELTA Q.7492	>T3351	8/25/89	19:51
12	843352 WTR	DELTA Q.7492	>T3352	8/25/89	20:32
13	843353 WTR	DELTA Q.7492	>T3353	8/25/89	21:14
14	843354 WTR	DELTA Q.7492	>T3354	8/25/89	21:56
15	843355 WTR	DELTA Q.7492	>T3355	8/25/89	22:38
16	843356 WTR	DELTA Q.7492	>T3356	8/25/89	23:20
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AR302442

FORM II VOA 1/87 Rev.

5F

VOLATILE ORGANIC GC/MS TUNING AND MASS CALIBRATION - BROMOFLUOROBENZENE (BFB)

Name: Canonie Environmental Lab Code B-E: G-0789-17

File ID: .DQ8.8 BFB Injection Date: 8 28 89

Instrument ID: 5970 #3 BFB Injection Time: 8 28 89 13:30

Matrix:(soil/water) WATER Level:(low/med) MED Column:(pack/cap) CAP

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0% OF MASS 95	20.9	
75	30.0 - 60.0% OF MASS 95	47.9	
95	Base peak, 100% relative abundance	100.	
96	5.0 - 9.0% of mass 95	7.8	
173	Less than 2.0% of mass 174	0.0	0.0)1
174	Greater than 50.0% of mass 95	77.2	
175	5.0 - 9.0% of mass 174	5.6	7.2)1
176	Greater than 95.0%, but less than 101.0% of mass 174	77.3	100.1)1
177	5.0 - 9.0% of mass 176	5.2	(6.8)2

1-Value is % mass 174 2-Value is % mass 176

THE TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	LAB SAMPLE ID.	CLIENT LP NO.	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	50 PPB 624	DAILY CAL.	>RR828	8/28/89	13:46
02	MATRIX BLK	.....	>S0828	8/28/89	14:54
03	843370 WTR	DELTA Q.7492	>T3370	8/28/89	15:55
04	843370 MS	DELTA Q.7492	>U3370	8/28/89	16:35
05	843370 MSD	DELTA Q.7492	>W3370	8/28/89	17:15
06	843369 WTR	DELTA Q.7492	>T3369	8/28/89	17:55
07	843418 WTR	DELTA Q.7499	>T3418	8/28/89	18:35
08	843419 WTR	DELTA Q.7499	>T3419	8/28/89	19:15
09	843420 WTR	DELTA Q.7499	>T3420	8/28/89	19:55
10	843421 WTR	DELTA Q.7499	>T3421	8/28/89	20.34
11	843422 WTR	DELTA Q.7499	>T3422	8/28/89	21:14
12	843423 WTR	DELTA Q.7499	>T3423	8/28/89	21:54
13	843448 WTR	SP FMT LP7509	>T3448	8/28/89	22:34
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26					

FORM V VOA AR302443 1/87 Rev.

8A

[illegible] Environmental

[illegible] 8/25/89

Lab File ID: [illegible] 7R0825 Date Analyzed: [illegible]

Instrument ID: 5970 #3 Time Analyzed: 8 25 '89 11:3[illegible]

Matrix:(soil/water) WATER Level:(low/med) LOW Column:(pack/cap) CAP

		IS1(BCM) AREA #	RT	IS2(DFB) AREA #	RT	IS3(CBZ) AREA #	RT
	EPA SAMPLE 12 HOUR STD	14329.	12.35	66865.	14.03	59543.	18.58
	UPPER LIMIT	28658.		133730.		119086.	
	LOWER LIMIT NO.	7165.		33433.		29771.	
01	MATRIX BLK	13974.	12.30	64410.	13.98	56611.	18.55
	843345 WTR	13325.	12.30	68685.	13.98	56895.	18.55
03	843345 MS	13189.	12.35	69507.	14.00	54936.	18.55
04	843345 MSD	14189.	12.36	74731.	14.02	57981.	18.57
05	843346 WTR	15497.	12.30	65564.	14.00	60658.	18.58
06	843347 WTR	14545.	12.33	71293.	14.00	61515.	18.56
07	843348 WTR	13714.	12.35	71706.	14.02	58089.	18.60
08	843349 WTR	14688.	12.35	76350.	14.02	61920.	18.55
09	843350 WTR	13908.	12.35	71295.	14.00	57011.	18.55
10	843351 WTR	11768.	12.35	59925.	14.00	48752.	18.55
11	843352 WTR	13872.	12.32	72187.	14.00	57733.	18.55
12	843353 WTR	13682.	12.32	71759.	14.00	57279.	18.53
13	843354 WTR	14525.	12.32	74054.	13.98	61384.	18.53
14	843355 WTR	14511.	12.32	74038.	13.98	59434.	18.53
15	843356 WTR	14032.	12.30	73807.	13.98	59269.	18.53
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25zz							
26zz							

IS1 (BCM) = Bromochloromethane
IS2 (DFB) = 1,4-Difluorobenzene
IS3 (CBZ) = Chlorobenzene-d5

UPPER LIMIT = + 100% of internal standard area.
LOWER LIMIT = - 50% of internal standard area.

Column used to flag internal standard area values with an asterisk

AR302444

FORM VIII VOA 1/87 Rev.

8A

VOLATILE INTERNAL STANDARD AREA SUMMARY

Lab Name: Canonie Environmental

Lab Code IS: [illegible] Lab Code Std: [illegible]

Lab File ID (Standard): [illegible]PR823 Date Analyzed: 8/28/89

Instrument ID: 5970 #3 Time Analyzed: 8/28/89 13:46

Matrix:(soil/water) WATER Level:(low/med) MED Column:(pack/cap) CAP

		IS1(BCM) AREA #	RT	IS2(DFB) AREA #	RT	IS3(CBZ) AREA #	RT
	EPA SAMPLE 12 HOUR STD	13753.	12.42	72714.	14.08	57025.	18.60
	UPPER LIMIT	27506.		145428.		114050.	
	LOWER LIMIT	6877.		36357.		28513.	
	NO.						
01	MATRIX BLK	12621.	12.33	57927.	14.01	52642.	18.58
02	1843370 WTR	10907.	12.34	59962.	14.01	48043.	18.59
03	1843370 MS	12318.	12.38	62454.	14.06	49452.	18.61
04	1843370 MSD	12949.	12.37	66681.	14.05	53121.	18.60
05	1843369 WTR	12341.	12.37	62432.	14.05	50301.	18.60
06	1843418 WTR	11625.	12.37	60686.	14.05	48169.	18.60
07	1843419 WTR	13587.	12.37	70055.	14.05	55939.	18.60
08	1843420 WTR	13565.	12.40	68570.	14.05	54214.	18.60
09	1842421 WTR	12635.	12.35	67162.	14.03	52682.	18.57
10	1843422 WTR	10977.	12.35	54503.	14.02	44548.	18.57
11	1843423 WTR	12857.	12.35	71037.	14.02	55733.	18.58
12	1843448 WTR	11095.	12.35	52311.	14.00	45281.	18.55
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25zz							
26zz							

IS1 (BCM) = Bromochloromethane
IS2 (DFB) = 1,4-Difluorobenzene
IS3 (CBZ) = Chlorobenzene-d5

UPPER LIMIT = + 100% of internal standard area.
LOWER LIMIT = - 50% of internal standard area.

Column used to flag internal standard area values with an asterisk.

AR302449

FORM VIII VOA 1/87 Rev

Calibration Report

Title: 624 CLP 5-POINT CALIBRATION
Calibrated: 890816 11:01

Compound	Files: >25020 RF 20.00	>25050 RF 50.00	>25100 RF 100.00	>25150 RF 150.00	>25200 RF 200.00	$\overline{RF}$	% RSD	
Chloromethane	1.27527	1.30858	1.21842	1.23200	1.41759	1.29037	6.167	
Bromomethane	1.85041	1.75933	1.69027	1.75768	1.90434	1.79241	4.720	
Vinyl Chloride	1.45879	1.65558	1.56085	1.55893	1.76272	1.59776	7.340	
Chloroethane	.95897	1.06174	1.02863	1.02736	1.20072	1.05548	8.469	
Methylene Chloride	1.99931	1.95753	1.82276	1.84984	1.89059	1.90545	3.855	
Acetone	.42338	.35461	.34291	.38436	.43829	.38711	10.169	
Carbon Disulfide	4.61482	5.18173	4.92637	5.06646	5.72699	5.10327	7.998	
1,1-Dichloroethene	3.24886	3.35925	3.32949	3.34040	3.64342	3.38429	4.458	
1,1-Dichloroethane	3.37339	3.77561	3.62359	3.63981	3.86412	3.65531	5.896	
trans-1,2-Dichloroethene	3.06852	3.46309	3.33575	3.30423	3.72989	3.38029	7.156	
cis-1,2-Dichloroethene	2.65416	2.93699	2.81849	2.82922	3.05484	2.85874	5.216	
Chloroform	3.20524	3.62905	3.41172	3.41805	3.50511	3.43383	4.516	
1,2-Dichloroethane-d4	1.38076	1.51243	1.62855	1.63092	1.65905	1.56234	7.430	(Conc=50.0,50.0,50.0,50.0,50.0)
1,2-Dichloroethane	1.62488	1.80823	1.73938	1.67542	1.69277	1.70812	4.061	
2-Butanone	.14677	.11833	.12336	.13387	.14279	.13302	9.165	
1,1,1-Trichloroethane	.56708	.51827	.54145	.56993	.60531	.56053	5.846	
Carbon Tetrachloride	.49371	.41787	.46756	.49383	.51503	.47768	7.829	
Vinyl acetate	.15242	.09561	.10978	.13002	.11711	.12099	17.795	
Bromodichloromethane	.68487	.60108	.65991	.67489	.67269	.64253	5.748	
1,2-Dichloropropane	.50015	.48676	.51052	.51265	.51206	.50763	2.411	
cis-1,3-Dichloropropene	.24802	.23584	.26952	.27148	.26978	.25717	7.818	
trans-1,3-Dichloropropene	.64787	.64274	.71298	.70867	.70516	.68108	4.947	
Trichloroethene	.57641	.50936	.55866	.55419	.56214	.55855	4.552	
Benzene	1.23595	.95468	1.01894	1.02078	1.05611	1.05809	9.905	
Dibromochloromethane	.43754	.44267	.49038	.49867	.48091	.47164	6.302	
1,1,2-Trichloroethane	.29195	.27593	.29432	.28478	.26733	.28246	4.105	
Bromoform	.29653	.30874	.35822	.36525	.34871	.33389	8.857	
4-Methyl-2-Pentanone	.33838	.26702	.28932	.30882	.30318	.30149	8.687	
2-Hexanone	.27854	.24221	.23834	.28129	.30197	.26847	10.177	
1,1,2,2-Tetrachloroethane	.45579	.44269	.43341	.44605	.41108	.43708	3.871	
Tetrachloroethene	.75694	.75283	.70917	.72072	.72468	.73271	2.832	
Toluene-d8	1.24084	1.27847	1.29813	1.30511	1.34291	1.29133	2.918	(Conc=50.0,50.0,50.0,50.0,50.0)
Toluene	1.61846	1.53434	1.43187	1.47174	1.53629	1.51854	4.685	
Chlorobenzene	1.16623	1.06198	1.00584	1.01684	1.02310	1.05478	6.237	
Ethylbenzene	1.98766	1.98917	1.78747	1.83670	1.90604	1.88541	4.058	
Bromofluorobenzene	.85368	.84945	.84518	.85342	.87239	.85482	1.218	(Conc=50.0,50.0,50.0,50.0,50.0)
Xylene (total)	1.63856	1.60548	1.48136	1.50839	1.57884	1.56893	4.281	
Styrene	1.04481	1.03721	.98222	.97039	.99584	1.00593	3.280	

RF - Response Factor (Subscript is amount in ug/L)

$\overline{RF}$ - Average Response Factor

RSD - Percent Relative Standard Deviation

AR302446

Calibration Check Report

Title: 624 CLP 5-POINT CALIBRATION
Calibrated: 890816 11:01

#7 .3RF
#2 2506

Check Standard Data File: [illegible]
Injection Time: 890829 11:36

Compound	$\overline{RF}$	RF	%Diff	Calib Meth
Chloromethane	1.29037	1.15793	10.26	Average #
Bromomethane	1.79241	1.77193	1.14	Average
Vinyl Chloride	1.59776	1.49606	6.37	Average *
Chloroethane	1.05548	1.04864	.65	Average
Methylene Chloride	1.90545	1.80368	5.34	Average
Acetone	.38711	.30204	21.97	Average
Carbon Disulfide	5.10327	5.07286	.60	Average
1,1-Dichloroethene	3.38429	3.31754	1.97	Average *
1,1-Dichloroethane	3.65531	3.55670	2.70	Average #
trans-1,2-Dichloroethene	3.38029	3.42292	1.26	Average
cis-1,2-Dichloroethene	2.85874	2.87892	.71	Average
Chloroform	3.43383	3.59292	4.63	Average *
1,2-Dichloroethane-d4	1.56234	1.48063	5.23	Average
1,2-Dichloroethane	1.70812	1.78442	4.47	Average
2-Butanone	.13302	.11484	13.67	Average
1,1,1-Trichloroethane	.56053	.63190	12.73	Average
Carbon Tetrachloride	.47760	.49911	4.50	Average
[illegible] acetate	.12099	.09293	23.19	Average
Bromodichloromethane	.64253	.63627	.97	Average
1,2-Dichloropropane	.50763	.44503	12.33	Average *
cis-1,3-Dichloropropene	.25717	.23893	7.09	Average
trans-1,3-Dichloropropene	.68188	.64751	5.04	Average
Trichloroethene	.55055	.50566	8.15	Average
Benzene	1.05889	1.02859	2.86	Average
Dibromochloromethane	.47164	.43592	7.57	Average
1,1,2-Trichloroethane	.28246	.25375	10.17	Average
Bromoform	.33389	.31994	4.18	Average #
4-Methyl-2-Pentanone	.30149	.25556	15.23	Average
2-Hexanone	.26847	.22288	16.98	Average
1,1,2,2-Tetrachloroethane	.43780	.40352	7.83	Average #
Tetrachloroethene	.73271	.73673	.55	Average
Toluene-d8	1.29133	1.27001	1.65	Average
Toluene	1.51854	1.53840	1.31	Average *
Chlorobenzene	1.05478	1.02643	2.69	Average #
Ethylbenzene	1.88541	1.95833	3.87	Average *
Bromofluorobenzene	.85482	.78961	7.63	Average
Xylene (total)	1.56093	1.67633	7.39	Average
Styrene	1.00593	1.02103	1.50	Average

[illegible] - Response Factor from daily standard file at 50.00 ug/L

$\overline{RF}$ - Average Response Factor from Initial Calibration

%Diff - % Difference from original average or curve

AR302447

Calibration Check Report

Title: 624 CLP 5-POINT CALIBRATION
Calibrated: 890816 11:01

Check Standard Data File: :RR928
Injection Time: 890828 13:46

>.3 RF
* <25%

Compound	$\overline{RF}$	RF	%Diff	Calib Meth
Chloromethane	1.29037	1.03556	19.75	Average #
Bromomethane	1.79241	1.65651	7.58	Average
Vinyl Chloride	1.59776	1.32248	17.23	Average *
Chloroethane	1.05548	.92467	12.39	Average
Methylene Chloride	1.90545	1.80070	5.50	Average
Acetone	.38711	.33898	12.43	Average
Carbon Disulfide	5.10327	4.91507	3.69	Average
1,1-Dichloroethene	3.38429	3.14622	7.03	Average *
1,1-Dichloroethane	3.65531	3.50556	4.10	Average #
trans-1,2-Dichloroethene	3.38029	3.23224	4.38	Average
cis-1,2-Dichloroethene	2.85874	2.81270	1.61	Average
Chloroform	3.43383	3.62074	5.44	Average *
1,2-Dichloroethane-d4	1.56234	1.57806	1.01	Average
1,2-Dichloroethane	1.70012	1.85400	8.54	Average
2-Butanone	.13302	.09903	25.55	Average
1,1,1-Trichloroethane	.56053	.56163	.20	Average
Carbon Tetrachloride	.47768	.44302	7.24	Average
Vinyl acetate	.12899	.07971	34.12	Average
Bromodichloromethane	.64253	.56887	11.46	Average
1,2-Dichloropropane	.58763	.39196	22.79	Average *
cis-1,3-Dichloropropene	.25717	.21194	17.59	Average
trans-1,3-Dichloropropene	.68188	.56528	17.10	Average
Trichloroethene	.55055	.46038	16.39	Average
Benzene	1.05889	.88056	16.84	Average
Dibromochloromethane	.47164	.40938	13.22	Average
1,1,2-Trichloroethane	.28246	.22936	18.80	Average
Bromoform	.33389	.28813	13.71	Average #
4-Methyl-2-Pentanone	.30149	.21433	28.91	Average
2-Hexanone	.26847	.23053	14.13	Average
1,1,2,2-Tetrachloroethane	.43788	.40681	7.26	Average #
Tetrachloroethene	.73271	.75809	2.37	Average
Toluene-d8	1.29133	1.25561	2.77	Average
Toluene	1.51854	1.50592	.83	Average *
Chlorobenzene	1.05478	1.03816	1.58	Average #
Ethylbenzene	1.88541	1.91802	1.73	Average *
Bromofluorobenzene	.85482	.77726	9.07	Average
Xylene (total)	1.56093	1.64286	5.25	Average
Styrene	1.80593	1.82544	1.94	Average

RF - Response Factor from daily standard file at 50.00 ug/L

$\overline{RF}$ - Average Response Factor from Initial Calibration

%Diff - % Difference from original average or curve

AR302448

Client: Delta Quarry
Sample ID:
Matrix: WATER
Lab ID: S0825 -IB-A
Project #: 88-033.03

Date Reported: 10/06/1989
QC Batch # : M082589DG1
Date Sampled :
Date Received: ~~10/06/1989~~
LP #: 7492

Test Description: Volatile Organics, GC/MS

Analyte	Result*	Reporting Limit	Units	Method
Chloromethane	ND	10.	ug/L	8240
Bromomethane	ND	10.	ug/L	
Vinyl Chloride	ND	10.	ug/L	
Chloroethane	ND	10.	ug/L	
Methylene Chloride	ND	5.0	ug/L	
Acetone	ND	5.0	ug/L	
Carbon Disulfide	ND	5.0	ug/L	
1,1-Dichloroethene	ND	5.0	ug/L	
1,1-Dichloroethane	ND	5.0	ug/L	
1,2-Dichloroethene (total)	ND	5.0	ug/L	
Chloroform	ND	5.0	ug/L	
1,2-Dichloroethane	ND	5.0	ug/L	
2-Butanone	ND	5.0	ug/L	
1,1,1-Trichloroethane	ND	5.0	ug/L	
Carbon Tetrachloride	ND	5.0	ug/L	
Vinyl Acetate	ND	5.0	ug/L	
Bromodichloromethane	ND	5.0	ug/L	
1,2-Dichloropropane	ND	5.0	ug/L	
cis-1,3-Dichloropropene	ND	5.0	ug/L	
Trichloroethene	ND	5.0	ug/L	
Dibromochloromethane	ND	5.0	ug/L	
1,1,2-Trichloroethane	ND	5.0	ug/L	
Benzene	ND	5.0	ug/L	
trans-1,3-Dichloropropene	ND	5.0	ug/L	
Bromoform	ND	5.0	ug/L	
4-Methyl-2-pentanone	ND	5.0	ug/L	
2-Hexanone	ND	5.0	ug/L	
Tetrachloroethene	ND	5.0	ug/L	
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L	
Toluene	ND	5.0	ug/L	
Chlorobenzene	ND	5.0	ug/L	
Ethyl Benzene	ND	5.0	ug/L	
Styrene	ND	5.0	ug/L	
Xylene (total)	ND	5.0	ug/L	

Tested By : JLB
Validated By: DLA

* ND indicates a compound was not detected at a concentration level greater than the reporting limit.

Final Report

Client: Delta Quarry
Sample ID:
Matrix: WATER
Lab ID: S0828 -IB-A
Project #: 88-033.03

Date Reported: 10/06/198
QC Batch # : M08288
Date Sampled :
Date Received: ~~10/06/198~~
LP #: 7499

Test Description: Volatile Organics, GC/MS

Analyte	Result*	Reporting Limit	Units	Method
Chloromethane	ND	10.	ug/L	8240
Bromomethane	ND	10.	ug/L	
Vinyl Chloride	ND	10.	ug/L	
Chloroethane	ND	10.	ug/L	
Methylene Chloride	ND	5.0	ug/L	
Acetone	ND	5.0	ug/L	
Carbon Disulfide	ND	5.0	ug/L	
1,1-Dichloroethene	ND	5.0	ug/L	
1,1-Dichloroethane	ND	5.0	ug/L	
1,2-Dichloroethene (total)	ND	5.0	ug/L	
Chloroform	ND	5.0	ug/L	
1,2-Dichloroethane	ND	5.0	ug/L	
2-Butanone	ND	5.0	ug/L	
1,1,1-Trichloroethane	ND	5.0	ug/L	
Carbon Tetrachloride	ND	5.0	ug/L	
Vinyl Acetate	ND	5.0	ug/L	
Bromodichloromethane	ND	5.0	ug/L	
1,2-Dichloropropane	ND	5.0	ug/L	
cis-1,3-Dichloropropene	ND	5.0	ug/L	
Trichloroethene	ND	5.0	ug/L	
Dibromochloromethane	ND	5.0	ug/L	
1,1,2-Trichloroethane	ND	5.0	ug/L	
Benzene	ND	5.0	ug/L	
trans-1,3-Dichloropropene	ND	5.0	ug/L	
Bromoform	ND	5.0	ug/L	
4-Methyl-2-pentanone	ND	5.0	ug/L	
2-Hexanone	ND	5.0	ug/L	
Tetrachloroethene	ND	5.0	ug/L	
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L	
Toluene	ND	5.0	ug/L	
Chlorobenzene	ND	5.0	ug/L	
Ethyl Benzene	ND	5.0	ug/L	
Styrene	ND	5.0	ug/L	
Xylene (total)	ND	5.0	ug/L	

Tested By : JLB
alidated By: DLA

* ND indicates a compound was not detected at a concentration leve'
greater than the reporting limit.

Client: Delta Quarry
Sample ID:
Matrix: WATER
Lab ID: V3370 -MS-A
Project #: 88-033.03

Date Reported: 10/06/1989
QC Batch # : M082889DG1
Date Sampled :
Date Received: ~~10/06/1989~~
LP #: 7499

Test Description: Volatile Organics, GC/MS

Analyte	Result*	Reporting Limit	Units	Method
Chloromethane	ND	10.	ug/L	8240
Bromomethane	ND	10.	ug/L	
Vinyl Chloride	29.	10.	ug/L	
Chloroethane	ND	10.	ug/L	
Methylene Chloride	ND	5.0	ug/L	
Acetone	ND	5.0	ug/L	
Carbon Disulfide	ND	5.0	ug/L	
1,1-Dichloroethene	54.	5.0	ug/L	
1,1-Dichloroethane	42.	5.0	ug/L	
1,2-Dichloroethene (total)	62.	5.0	ug/L	
Chloroform	ND	5.0	ug/L	
1,2-Dichloroethane	ND	5.0	ug/L	
2-Butanone	ND	5.0	ug/L	
1,1,1-Trichloroethane	ND	5.0	ug/L	
Carbon Tetrachloride	ND	5.0	ug/L	
Vinyl Acetate	ND	5.0	ug/L	
Bromodichloromethane	ND	5.0	ug/L	
1,2-Dichloropropane	ND	5.0	ug/L	
cis-1,3-Dichloropropene	ND	5.0	ug/L	
Trichloroethene	58.	5.0	ug/L	
Dibromochloromethane	ND	5.0	ug/L	
1,1,2-Trichloroethane	ND	5.0	ug/L	
Benzene	46.	5.0	ug/L	
trans-1,3-Dichloropropene	ND	5.0	ug/L	
Bromoform	ND	5.0	ug/L	
4-Methyl-2-pentanone	ND	5.0	ug/L	
2-Hexanone	ND	5.0	ug/L	
Tetrachloroethene	6.0	5.0	ug/L	
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L	
Toluene	50.	5.0	ug/L	
Chlorobenzene	62.	5.0	ug/L	
Ethyl Benzene	ND	5.0	ug/L	
Styrene	ND	5.0	ug/L	
Xylene (total)	ND	5.0	ug/L	

Tested By : JLB
Validated By: DLA

* ND indicates a compound was not detected at a concentration level greater than the reporting limit.

Client: Delta Quarry
Sample ID:
Matrix: WATER
Lab ID: W3370 -MD-A
Project #: 88-033.03

Date Reported: 10/06/1989
QC Batch # : M082889DG1
Date Sampled :
Date Received: ~~10/06/1~~
LP #: 7499

Test Description: Volatile Organics, GC/MS

Analyte	Result*	Reporting Limit	Units	Method
Chloromethane	ND	10.	ug/L	8240
Bromomethane	ND	10.	ug/L	
Vinyl Chloride	27.	10.	ug/L	
Chloroethane	26.	10.	ug/L	
Methylene Chloride	ND	5.0	ug/L	
Acetone	ND	5.0	ug/L	
Carbon Disulfide	ND	5.0	ug/L	
1,1-Dichloroethene	48.	5.0	ug/L	
1,1-Dichloroethane	42.	5.0	ug/L	
1,2-Dichloroethene (total)	60.	5.0	ug/L	
Chloroform	ND	5.0	ug/L	
1,2-Dichloroethane	ND	5.0	ug/L	
2-Butanone	ND	5.0	ug/L	
',1,1-Trichloroethane	ND	5.0	ug/L	
Carbon Tetrachloride	ND	5.0	ug/L	
Vinyl Acetate	ND	5.0	ug/L	
Bromodichloromethane	ND	5.0	ug/L	
1,2-Dichloropropane	ND	5.0	ug/L	
cis-1,3-Dichloropropene	ND	5.0	ug/L	
Trichloroethene	56.	5.0	ug/L	
Dibromochloromethane	ND	5.0	ug/L	
1,1,2-Trichloroethane	ND	5.0	ug/L	
Benzene	43.	5.0	ug/L	
trans-1,3-Dichloropropene	ND	5.0	ug/L	
Bromoform	ND	5.0	ug/L	
4-Methyl-2-pentanone	ND	5.0	ug/L	
2-Hexanone	ND	5.0	ug/L	
Tetrachloroethene	6.0	5.0	ug/L	
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L	
Toluene	47.	5.0	ug/L	
Chlorobenzene	59.	5.0	ug/L	
Ethyl Benzene	ND	5.0	ug/L	
Styrene	ND	5.0	ug/L	
Xylene (total)	ND	5.0	ug/L	

Tested By : JLB
Validated By: DLA

* ND indicates a compound was not detected at a concentration level greater than the reporting limit.

2C

WATER SEMIVOLATILE SURROGATE RECOVERY

Name: Canonie Environmental Date: 9/18/89

Lab Code SSTD: G-1188-06 Instrument ID: 5995 #1

	EPA SAMPLE NO.	S1 (NBZ)	S2 (FBP)	S3 (TPH)	S4 (PHL)	S5 (2FP)	S6 (2FB)	OTHER	TOT OUT
01	MATRIX BLK	41	43	48	34	36	39		1
02	843365	47	46	47	38	38	38		0
03	843369	48	48	46	38	35	34		0
04	843370	53	[illegible]	51	28	19	[illegible]	RERUN	2
05	843366	36	31	50	33	29	44		1
06	MATRIX BLK	41	39	42	34	29	47		1
07	843418	43	42	42	34	31	50		1
08	843419	39	36	42	33	28	49		1
09	843420	38	40	41	31	30	43		1
10	843421	40	38	41	31	29	41		1
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QC LIMITS

S1 (NBZ) = Nitrobenzene-d5 (35-114)
S2 (FBP) = 2-Fluorobiphenyl (43-116)
S3 (TPH) = Terphenyl-d14 (33-141)
S4 (PHL) = Phenol-d5 (10-94)
S5 (2FP) = 2-Fluorophenol (21-100)
S6 (2FB) = 2-Fluorobenzene (35-114)

AR302453

WATER SEMIVOLATILE SURROGATE RECOVERY

Lab Name: Canonie Environmental Date: 9/19/89

Lab Code SSTD: E-0889-01S Instrument ID: 5970 #2

	EPA SAMPLE NO.	S1 (NBZ)#	S2 (FBP)#	S3 (TPH)#	S4 (PHL)#	S5 (2FP)#	S6 (TBP)#	OTHER	TOT OUT
01	MATRIX BLK	63	50	77	48	44	64		0
02	843448	112	93	63	59	49	129 *	QC	1
03	843452	58	54	76	16	3 *	10	R	1
04	843452 MS	59	55	66	26	1 *	26		1
05	843452 MSD	66	57	71	27	9 *	20	R	1
06	843370 RB	55	48	52	26	19 *	7 *	R, EX	2
07	843422	58	53	74	48	44	62		0
08	843423	77	61	66	0 *	0 *	76	R, EX	2
09	843433	75	54	63	81	65	66		0
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	QC LIMITS
S1 (NBZ) = Nitrobenzene-d5	(35-114)
S2 (FBP) = 2-Fluorobiphenyl	(43-116)
S3 (TPH) = Terphenyl-d14	(33-141)
S4 (PHL) = Phenol-d5	(10-94)
S5 (2FP) = 2-Fluorophenol	(21-100)
S6 (TBP) = 2,4,6-Tribromophenol	(10-123)

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

FORM II SV-1 1/87 Rev.

AR302454

Water ~~SOIL~~ SEMIVOLATILE SURROGATE RECOVERY

Lab Name: Canonie Environmental Date: 9/23/89

Lab Code SSTD: E-0889-01S Instrument ID: 5970 #2

Level:(low/med) LOW

	EPA SAMPLE NO.	S1 (NBZ)#	S2 (FBP)#	S3 (TPH)#	S4 (PHL)#	S5 (2FP)#	S6 (TBP)#	OTHER	TOT OUT
01	MATRIX BLK	65	67	60	61	56	48		0
02	843411	55	68	60	46	39	41		0
03	843415	40	55	76	36	27	44		0
04	~~843423~~ 843623	60	71	58	49	46	61		0
05	~~843424~~ 843624	55	68	72	45	34	51		0
06	~~843425~~ 843625	57	67	60	48	43	67		0
07	MATRIX BLK	53	58	68	40	33	53		0
08	843370 REX	64	74	67	48	42	64		0
09	843423 REX	64	72	71	0 *	8 *	28		2
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	QC LIMITS
S1 (NBZ) = Nitrobenzene-d5	(~~23-120~~) 35-114
S2 (FBP) = 2-Fluorobiphenyl	(~~30-115~~) 43-116
S3 (TPH) = Terphenyl-d14	(~~18-137~~) 33-141
S4 (PHL) = Phenol-d6	(~~24-113~~) 10-94
S5 (2FP) = 2-Fluorophenol	(~~25-121~~) 21-100
S6 (TBP) = 2,4,6-Tribromophenol	(~~19-122~~) 10-123

[illegible]

AR302455

FORM II SVL-2 1/87 Rev.

3C

WATER SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Canonie Environmental Date: 9/15/89

Lab Code Spike: E-0889-01A/01B Instrument ID: 5970 #2

Matrix Spike - EPA Sample No.: 843263

N3263 O3263

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC LIMITS REC.
Phenol	100.00	.30	30.00	29	12- 89
2-Chlorophenol	100.00	0.00	60.00	60	27-123
1,4-Dichlorobenzene	50.00	0.00	33.00	66	36- 97
N-Nitroso-di-n-prop.(1)	50.00	0.00	32.00	64	41-116
1,2,4-Trichlorobenzene	50.00	0.00	35.00	69	39- 98
4-Chloro-3-methylphenol	100.00	0.00	64.00	64	23- 97
Acenaphthene	50.00	0.00	43.00	86	46-118
4-Nitrophenol	100.00	0.00	45.00	45	10- 80
2,4-Dinitrotoluene	50.00	0.00	48.00	95	24- 96
Pentachlorophenol	100.00	0.00	12.00	12	9-103
Pyrene	50.00	0.00	61.00	122	26-127

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	RPD #	QC LIMITS RPD	QC LIMITS REC.
Phenol	100.00	28.00	27	7	42	[illegible]
2-Chlorophenol	100.00	54.00	54	10	[illegible]	27-123
1,4-Dichlorobenzene	50.00	33.00	65	1	[illegible]	36- 97
N-Nitroso-di-n-prop.(1)	50.00	32.00	63	1	[illegible]	41-116
1,2,4-Trichlorobenzene	50.00	34.00	68	1	28	39- 98
4-Chloro-3-methylphenol	100.00	65.00	64	0	42	23- 97
Acenaphthene	50.00	42.00	84	2	31	46-118
4-Nitrophenol	100.00	7.00	6 *	152 *	50	10- 80
2,4-Dinitrotoluene	50.00	43.00	86	11	38	24- 96
Pentachlorophenol	100.00	2.90	2 *	142 *	50	9-103
Pyrene	50.00	64.00	127	4	31	26-127

Other case

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

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

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

COMMENTS:

AR 302456

SEMIVOLATILE METHOD BLANK SUMMARY

Lab Name: Canonie Environmental

Lab File ID: >K7492 Lab Sample ID: MATRIX BLK

Date Analyzed: 9/18/89 Time Analyzed: 9/18/89 14:23

Matrix: (soil/water) WATER Level:(low/med) LOW

Instrument ID: 9978 42

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

	LAB SAMPLE ID.	CLIENT LP NO.	LAB FILE ID	DATE ANALYZED
01	843365	DELTA LP7492	>L3365	9/18/89
02	843369	DELTA LP7492	>L3369	9/18/89
03	843370	DELTA LP7492	>L3370	9/18/89
04	843366	DELTA LP7492	>L3366	9/18/89
05	MATRIX BLK	DELTA LP7492	>K7492	9/18/89
06	843418	DELTA LP7492	>L3418	9/18/89
07	843419	DELTA LP7492	>L3419	9/18/89
08	843420	DELTA LP7492	>L3420	9/18/89
09	843421	DELTA LP7492	>L3421	9/18/89
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COMMENTS:

AR 302457

58

SEMIVOLATILE ORGANIC GC/MS TUNING AND MASS CALIBRATION - DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CANONIE ENVIRONMENTAL — Lab Code DFTPP: G-0289-01

Lab File ID: >I0915 — DFTPP Injection Date: 9/15/89

Instrument ID: 5970 #2 — DFTPP Injection Time: 9/15/89 11:01

m/e	ION ABUNDANCE CRITERIA	VE ABUNDANCE
51	30.0 - 60.0% of mass 198	59.5
68	Less than 2.0% of mass 69	0.0 0.0)1
69	Mass 69 relative abundance	88.
70	Less than 2.0% of mass 69	0.0(0.0)1
127	40.0 - 60.0% of mass 198	42.5
197	Less than 1.0% of mass 198	0.0(
198	Base Peak, 100% relative abundance	100.
199	5.0 - 9.0% of mass 198	6.8
275	10.0 - 30.0% of mass 198	17.6
365	Greater than 1.00% of mass 198	1.69
441	Present, but less than mass 443	7.6
442	Greater than 40.0% of mass 198	54.0
443	17.0 - 23.0% of mass 442	9.5 17.6)2

1-Value is % mass 69 — 2-Value is % mass 442

THIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	LAB SAMPLE ID.	CLIENT LP ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	50 PPM	BNA/CLP STD	>J0915	9/15/89	13:09
02	MATRIX BLK	DELTA LP7471	>K7471	9/15/89	14:16
03	843258	DELTA LP7471	>L3258	9/15/89	15:24
04	843259	DELTA LP7471	>L3259	9/15/89	16:30
05	843260	DELTA LP7471	>L3260	9/15/89	17:36
06	843261	DELTA LP7471	>L3261	9/15/89	18:41
07	843262	DELTA LP7471	>L3262	9/15/89	19:48
08	843263	DELTA LP7471	>L3263	9/15/89	20:54
09	843263 MS	DELTA LP7471	>N3263	9/15/89	21:59
10	843263 MSD	DELTA LP7471	>O3263	9/15/89	23:06
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AR 302458

SEMIVOLATILE ORGANIC GC/MS TUNING AND MASS CALIBRATION - DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CANONIE ENVIRONMENTAL — Lab Code DFTPP: G-0289-01 Can't read.

Lab File ID: >I0918 — DFTPP Injection Date: 9/18/89

Instrument ID: 5970 #2 — DFTPP Injection Time: 9/18/89 12:30

m/e	ION ABUNDANCE CRITERIA	VERIFICATION ABUNDANCE
51	30.0 - 60.0% of mass 198	
68	Less than 2.0% of mass 69	
69	Mass 69 relative abundance	
70	Less than 2.0% of mass 69	
127	40.0 - 60.0% of mass 198	
197	Less than 1.0% of mass 198	
198	Base Peak, 100% relative abundance	
199	5.0 - 9.0% of mass 198	
275	10.0 - 30.0% of mass 198	
365	Greater than 1.00% of mass 198	
441	Present but less than mass 443	
442	Greater than 40.0% of mass 198	
443	17.0 - 23.0% of mass 442	

1-Value [illegible]

THIS TUNE APPL[illegible] THE FOLLOW[illegible]

	LAB SAMPLE ID	CLIENT SAMPLE NO.			
01	50 PPB	BNA CLP STD			
02	MATRIX	DELTA LP7492			
03	843345	DELTA LP7492			
04	843346	DELTA LP7492			
05	843347	DELTA LP7492			
06	843348	DELTA LP7492			
07	MATRIX	DELTA LP7499			
08	843418	DELTA LP7499	>L3418	[illegible]	[illegible]
09	843419	DELTA LP7499	>L3419	9/18/89	[illegible]
10	843420	DELTA LP7499	>L3420	9/18/89	[illegible]
11	843421	DELTA LP7499	>L3421	9/18/89	[illegible]
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AR302459

SEMIVOLATILE ORGANIC GC/MS TUNING AND MASS CALIBRATION -- DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CANONIE ENVIRONMENTAL Lab Code DFTPP: G-0289-01

Lab File ID: >I0919 DFTPP Injection Date: 9/19/89

Instrument ID: 5970 #2 DFTPP Injection Time: 9/19/89 9:42

m/e	ION ABUNDANCE CRITERIA	VE ABUNDANCE
51	30.0 - 60.0% of mass 198	51.9
68	Less than 2.0% of mass 69	0.0 0.0)1
69	Mass 69 relative abundance	56.
70	Less than 2.0% of mass 69	.4(.7)1
127	40.0 - 60.0% of mass 198	41.3
197	Less than 1.0% of mass 198	0.0(
198	Base Peak, 100% relative abundance	100.
199	5.0 - 9.0% of mass 198	6.3
275	10.0 - 30.0% of mass 198	17.6
365	Greater than 1.00% of mass 198	1.44
441	Present, but less than mass 443	6.1
442	Greater than 40.0% of mass 198	47.0
443	17.0 - 23.0% of mass 442	8.7 18.4)2

1-Value is % mass 69 2-Value is % mass 442

THIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	LAB SAMPLE ID.	CLIENT LP NO.	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	50 PPM	BNA/CLP STD	>J0919	9/19/89	10:00
02	MATRIX BLK		>K7510	9/19/89	11:18
03	843448	S.P.F. LP7509	>L3448	9/19/89	12:44
04	843452	S.P.F. LP7510	>L3452	9/19/89	13:50
05	843452 MS	S.P.F. LP7510	>N3452	9/19/89	15:32
06	843452 MSD	S.P.F. LP7510	>O3452	9/19/89	16:54
07	843370 RR	DELTA LP7492	>M3370	9/19/89	18:14
08	843422	DELTA LP7499	>L3422	9/19/89	19:20
09	843423	DELTA LP7499	>L3423	9/19/89	20:26
10	843433	TRACY LP7502	>L3433	9/19/89	21:32
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FORM V SV 01/83 Rev.

5B

SEMIVOLATILE ORGANIC GC/MS TUNING AND MASS CALIBRATION - DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

ab Name: CANONIE ENVIRONMENTAL — Lab Code DFTPP: G-0289-01

ab File ID: >I0923 — DFTPP Injection Date: 9/23/89

nstrument ID: 5970 #2 — DFTPP Injection Time: 9/23/89 10:29

m/e	ION ABUNDANCE CRITERIA	VE ABUNDANCE
51	30.0 - 60.0% of mass 198	55.5
68	Less than 2.0% of mass 69	0.0 0.0)1
69	Mass 69 relative abundance	65
70	Less than 2.0% of mass 69	0.0 0.0)1
127	40.0 - 60.0% of mass 198	46.5
197	Less than 1.0% of mass 198	0.8
198	Base Peak, 100% relative abundance	100
199	5.0 - 9.0% of mass 198	6.6
275	10.0 - 30.0% of mass 198	19.2
365	Greater than 1.00% of mass 198	1.8
441	Present, but less than mass 443	6.9
442	Greater than 40.0% of mass 198	45.[illegible]
443	17.0 - 23.0% of mass 442	[illegible]

1-Value is % mass 69 — 2-Value is % mass 442

HIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS

	LAB SAMPLE ID.	CLIENT LP NO.	LAB FILE ID.	DATE ANALYZED	TIME ANALYZED
01	50 PPM	BNA/CLP STD	[illegible]	9/23/89	[illegible]
02	MATRIX BLK		>Z7491	9/23/89	14:0[illegible]
03	843411	UNION LP7498	>L3411	9/23/89	15:0[illegible]
04	843412	UNION LP7498	>L3412	9/23/89	16:0[illegible]
05	843423	UNION LP7552	>L3623	9/23/89	[illegible]
06	843424	UNION LP7552	>L3624	9/23/89	[illegible]
07	843425	UNION LP7552	>L3625	9/23/89	19:14
08	MATRIX BLK		>Z7492	9/23/89	20:16
09	843370 REX	DELTA LP7492	>Z3370	9/23/89	21:18
10	843423 REX	DELTA LP7499	>Z3423	9/23/89	22:19
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AR 302461

8B

SEMIVOLATILE INTERNAL STANDARD AREA SUMMARY

Lab Name: Canonie Environmental

Lab Code IS: G-2060 | Lab Code STD: G-0589-03

Lab File ID (Standard): >J0915 | Date Analyzed: 9/15/89

Instrument ID: 5970 #2 | Time Analyzed: 9/15/89 13:09

	IS1(DCB)		IS2(NPT)		IS3(ANT)	
	AREA #	RT	AREA #	RT	AREA #	RT
12 HOUR STD	31639.	11.22	134373.	14.46	84360.	19.14
UPPER LIMIT	63278.		268746.		168720.	
LOWER LIMIT	15819.		67186.		42180.	
01 MATRIX BLK	35714.	11.23	135588.	14.45	88834.	19.15
02 [illegible]	33681.	11.31	131640.	14.52	80641.	19.1[illegible]
03 [illegible]	33567.	11.22	134487.	14.[illegible]	[illegible]	[illegible]
04 [illegible]	33950.	11.22	136372.	14.[illegible]	[illegible]	[illegible]
05 [illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
06 [illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
07 [illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
08 [illegible] MS	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
09 [illegible] MSD	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
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IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d8

UPPER LIMIT = + 100% of internal standard area.
LOWER LIMIT = - 50% of internal standard area.

# of compounds in this internal standard [illegible]

FORM VIII SV-1

AR 302462

8C

SEMIVOLATILE INTERNAL STANDARD AREA SUMMARY

Lab Name: Canonie Environmental

Lab Code IS:6-2060 | Lab Code STD: 6-0589-03

Lab File ID (Standard): >J0915 | Date Analyzed: 9/15/89

Instrument ID: 5970 #2 | Time Analyzed: 9/15/89 13:09

		IS4(PHN) AREA #	RT	IS5(CRY) AREA #	RT	IS3(PRY) AREA #	RT
	EPA SAMPLE NO.						
	12 HOUR STD	154939.	23.10	118557.	30.62	61600.	37.[illegible]
	UPPER LIMIT	309878.		237113.		123200.	
	LOWER LIMIT	77470.		59279.		30800.	
01	MATRIX BLK	139283.	23.09	75833.	30.60	3941.	37.[illegible]
02	843258	138006.	23.17	78516.	30.3[illegible]	4194.	38.[illegible]
03	843259	135126.	23.07	82899.	30.[illegible]	4231.	37.[illegible]
04	843260	143405.	23.09	83788.	30.[illegible]	[illegible]	[illegible]
05	843261	131130.	23.07	76584.	30.[illegible]	[illegible]	[illegible]
06	843262	140804.	23.07	78387.	30.[illegible]	[illegible]	[illegible]
07	843263	133569.	23.07	84586.	30.[illegible]	[illegible]	[illegible]
08	843263 MS	134628.	23.06	78797.	[illegible]	[illegible]	[illegible]
09	843263 MSD	144025.	23.08	77277.	[illegible]	[illegible]	[illegible]
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IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

UPPER LIMIT = + 100%
of internal standard area.
LOWER LIMIT = [illegible]
of internal standard area.

Column used to flag internal standard area values with an asterisk

FORM VIII SV-2

AR 302463

PB

SEMIVOLATILE INTERNAL STANDARD AREA SUMMARY

Lab Name: Caronie Environmental

Lab Code IS: 6-2060 | Lab Code STD: 6-0589-03

Lab File ID (Standard): >J0918 | Date Analyzed: 9/18/89

Instrument ID: 5970 #2 | Time Analyzed: 9/18/89 12:58

	IS1(DCB) AREA #	RT	IS2(NPT) AREA #	RT	IS3(ANT) AREA #	RT
EPA SAMPLE 12 HOUR STD	25964.	10.90	100445.	14.10	71572.	18.79
UPPER LIMIT	51928.		200890.		143144.	
LOWER LIMIT	12982.		50223.		35786.	
NO.						
01 MATRIX BLK	24838.	10.91	100068.	14.10	[illegible]	18.78
02 843365	24282.	10.91	92699.	14.10	65568.	18.78
03 843369	23927.	10.90	[illegible]805.	14.09	62465.	18.76
04 843370	25813.	10.90	98205.	14.10	65555.	18.77
05 843366	24037.	10.90	97965.	14.09	66781.	18.76
06 MATRIX BLK	27186.	10.90	103943.	14.09	69126.	18.76
07 843418	27273.	10.88	106648.	14.08	70372.	18.74
08 843419	28384.	10.90	108436.	14.08	75897.	18.74
09 843420	29912.	10.88	113777.	14.08	76636.	18.74
10 843421	30676.	10.88	116979.	14.08	77250.	18.74
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Comments

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d8

UPPER LIMIT = + 100% of internal standard area.
LOWER LIMIT = - 50% of internal standard area.

Column used to flag internal standard area values with an asterisk

FORM VIII SV-1

ab Name: Canonie Environmental

ab Code 13:o-2060 Lab Code STD: G 0589-03

File ID (Standard): 30918 Date Analyzed: 9/18/89

nstrument ID: 5970 #2 Time Analyzed: 9/18/89 12:59

	IS4(PHN) AREA #	RT	IS5(CRY) AREA #	RT	IS6(PRY) AREA #	RT
EPA SAMPLE NO.						
12 HOUR STD	140725.	22.74	102805.	30.22	59479.	37.26
UPPER LIMIT	281450.		205610.		118958.	
LOWER LIMIT	70363.		51403.		29739	
01 MATRIX BLK	127048.	22.73	115991.	30.17	[illegible]	37.20
02 1843365	127272.	22.73	115104.	30.14	[illegible]	37.20
03 1843369	138397.	22.71	[illegible]	30.15	77161.	37.14
04 1843370	127796.	[illegible]	112296.	30.15	47369.	37.14
05 1843366	133837.	22.70	122531.	30.14	[illegible]	37.17
06 MATRIX BLK	142573.	22.70	131997.	30.12	71035.	37.12
07 1843418	137090.	22.69	144316.	30.11	[illegible]	37.07
08 1843419	154236.	[illegible]	150837.	30.11	[illegible]	37.07
09 1843420	150613.	22.67	149687.	30.13	[illegible]	37.06
10 1843421	160905.	[illegible]	158094.	30.10	[illegible]	37.04
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IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

UPPER LIMIT = + 100%
of internal standard area.
LOWER LIMIT = - 50%
of internal standard area.

Column used to flag internal standard area values with an asterisk

FORM VIII SV-2 1/87 Rev.

AR302465

SEMIVOLATILE INTERNAL STANDARD AREA SUMMARY

Lab Name: Canonie Environmental

Lab Code IS: 6-2060 | Lab Code STD: G-0589-03

Lab File ID (Standard): >J0919 | Date Analyzed: 9/19/89

Instrument ID: 5970 #2 | Time Analyzed: 9/19/89 10:00

	IS1(DCB) AREA	#	RT	IS2(NPT) AREA	#	RT	IS3(ANT) AREA	#	RT
EPA SAMPLE 12 HOUR STD	28312.		11.06	110259.		14.28	70520.		18.95
UPPER LIMIT	56624.			220518.			141040.		
LOWER LIMIT	14156.			55130.			35260.		
NO.									
01 MATRIX BLK	22475.		11.07	79228.		14.27	53376.		18.93
02 843448	20286.		11.07	52360.	*	14.28	27873.	*	18.96
03 843452	20788.		11.07	81265.		14.26	50777.		18.93
04 843452 MS	21456.		11.07	83538.		14.26	55453.		18.94
05 843452 MSD	22421.		11.07	85097.		14.27	55479.		18.93
06 843370 RR	29381.		11.07	116662.		14.26	75052.		18.95
07 843422	21212.		11.06	83363.		14.26	52301.		18.94
08 843423	23523.		11.08	89229.		14.30	56632.		18.93
09 843433	19104.		11.07	74198.		14.29	49194.		18.94
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std requires reinjection!

MAT. INTERFERENCE

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d8

UPPER LIMIT = + 100%
of internal standard area.
LOWER LIMIT = - 50%
of internal standard area.

* Column used to flag internal standard area values with an asterisk

FORM VIII SV-1 1/87 Rev.

8C

SEMIVOLATILE INTERNAL STANDARD AREA SUMMARY

Lab Name: Canonie Environmental

Lab Code IS:G-2060 Lab Code STD: G-0589-03

Lab File ID (Standard): >J0919 Date Analyzed: 9/19/89

Instrument ID: 5970 #2 Time Analyzed: 9/19/89 10:00

		IS4(PHN) AREA #	RT	IS5(CRY) AREA #	RT	IS3(PRY) AREA #	RT
	EPA SAMPLE NO.						
	12 HOUR STD	129561.	22.87	84934.	30.29	46742.	37.31
	UPPER LIMIT	259122.		169868.		93484.	
	LOWER LIMIT	64780.		42467.		23371.	
01	MATRIX BLK	99895.	22.88	62923.	30.26	37777.	37.29
02	843448	58794.*	22.90	76397.	30.28	42690.	37.31
03	843452	93360.	22.86	61428.	30.27	34249.	37.30
04	843452 MS	98068.	22.86	75994.	30.27	49142.	37.31
05	843252 MSD	100450.	22.87	69616.	30.27	35456.	37.31
06	843370 RR	139058.	22.87	95743.	30.28	44009.	37.32
07	843422	97546.	22.87	66684.	30.25	36002.	37.29
08	843423	102655.	22.86	80075.	30.25	54039.	37.29
09	843433	85895.	22.87	38069.*	30.28	22867.*	37.33 MAT. INTERFERENCE
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IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

UPPER LIMIT = + 100%
of internal standard area.
LOWER LIMIT = - 50%
of internal standard area.

Column used to flag internal standard area values with an asterisk

FORM VIII SV-2 1/87 Rev.

AR302467

8B

SEMIVOLATILE INTERNAL STANDARD AREA SUMMARY

b Name: Canonie Environmental

b Code IS: 6-2060 Lab Code STD: G-0589-03

b File ID (Standard): >J0923 Date Analyzed: 9/23/89

strument ID: 5970 #2 Time Analyzed: 9/23/89 12:34

		IS1(DCB) AREA #	RT	IS2(NPT) AREA #	RT	IS3(ANT) AREA #	RT
	EPA SAMPLE 12 HOUR STD	11197.	11.09	50725.	14.29	33054.	18.96
	UPPER LIMIT	22394.		101450.		66108.	
	LOWER LIMIT NO.	5599.		25363.		16527.	
01	MATRIX BLK	12209.	11.08	52190.	14.29	32451.	18.97
02	843411	12962.	11.10	52627.	14.29	32541.	18.97
[illegible]	843415	12875.	11.09	53232.	14.29	32961.	18.97
[illegible]	843623	12906.	11.10	51391.	14.29	31896.	18.97
05	843624	13717.	11.08	55116.	14.29	32994.	18.97
06	843625	13077.	11.08	53854.	14.29	[illegible]	18.96
07	MATRIX BLK	14417.	11.08	54892.	14.29	[illegible]	18.95
08	843370	14028.	11.08	55546.	14.29	[illegible]	18.96
09	843423	14436.	11.08	55992.	14.31	[illegible]	18.96
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IS1 (DCB) = 1,4-Dichlorobenzene-d4 UPPER LIMIT = 100%
IS2 (NPT) = Naphthalene-d8 of internal standard area.
IS3 (ANT) = Acenaphthene-d10 [illegible]

Column used to flag internal standard [illegible]

FORM VIII SV-[illegible]

8L

SEMIVOLATILE INTERNAL STANDARD AREA SUMMARY

Lab Name: Canonie Environmental

Lab Code IS:6-2060 | Lab Code STD: G-0589-03

Lab File ID (Standard): J0923 | Date Analyzed: 9/23/89

Instrument ID: 5970 #2 | Time Analyzed: 9/23/89 12:34

	IS4(PHN) AREA #	RT	IS5(CRY) AREA #	RT	IS3(PRY) AREA #	RT
EPA SAMPLE NO.						
12 HOUR STD	59127.	22.91	24042.	30.33	8311.	37.44
UPPER LIMIT	118254.		48084.		16622.	
LOWER LIMIT	29564.		12021.		4156.	
01 MATRIX BLK	53274.	22.90	19901.	30.33	9480.	37.44
02 843411	53989.	22.90	25524.	30.34	12679.	37.45
03 843415	53988.	22.90	21219.	30.33	8760.	37.45
04 843623	55768.	22.90	29740.	30.34	14883.	37.47
05 843624	54458.	22.90	22252.	30.33	8084.	37.45
06 843625	53082.	22.90	26299.	30.33	12341.	37.43
07 MATRIX BLK	52815.	22.90	18089.	30.33	7475.	37.46
08 843370	59383.	22.89	23966.	30.31	10338.	37.43
09 843423	55637.	22.89	18079.	30.32	7823.	37.4[illegible]
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IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS3 (PRY) = Perylene-d12

UPPER LIMIT = [illegible] of internal standard area
LOWER LIMIT = [illegible] of internal standard area

Column used to flag internal standard area values with an asteri[illegible]

AR 302469

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CANONIE Contract:NA

Lab Code: HP001 Case No.: NA SAS No.: NA SDG No.: NA

Instrument ID: 5970 # 2 Calibration Date(s):09/10/89 09/10/89

Min $\overline{RRF}$ for SPCC(#) = 0.050 Max %RSD for CCC(*) = 30.0%

LAB FILE ID: RRF20 =>J9020 RRF50 =>J9050
RRF80 =>J9080 RRF120=>J9120 RRF160=>J9160

COMPOUND	RRF20	RRF50	RRF80	RRF120	RRF160	$\overline{RRF}$	% RSD
Phenol *	1.868	1.820	1.501	1.342	1.163	1.539	19.7*
bis(2-Chloroethyl)ether	2.458	2.340	2.035	1.900	1.815	2.109	13.2
2-Chlorophenol	1.468	1.425	1.213	1.082	.980	1.234	17.2
1,3-Dichlorobenzene	1.563	1.463	1.226	1.070	.900	1.244	21.9
1,4-Dichlorobenzene *	1.686	1.539	1.237	1.064	.877	1.280	26.0*
Benzyl alcohol	.838	.793	.768	.742	.709	.770	6.4
1,2-Dichlorobenzene	1.549	1.449	1.241	1.068	.927	1.247	20.7
2-Methylphenol	1.378	1.270	1.071	.946	.855	1.104	19.8
bis(2-chloroisopropyl)ether	3.163	2.634	3.220	3.149	3.089	3.051	7.8
4-Methylphenol	1.446	1.370	1.196	1.068	1.057	1.231	13.9
N-Nitroso-di-n-propylamine #	1.499	1.341	1.430	1.335	1.266	1.374	6.6#
Hexachloroethane	.699	.674	.586	.508	.455	.584	17.9
Nitrobenzene	.461	.433	.389	.347	.323	.391	14.7
Isophorone	.901	.836	.788	.747	.730	.800	8.7
2-Nitrophenol *	.186	.190	.172	.154	.141	.169	12.4*
2,4-Dimethylphenol	.368	.328	.301	.291	.261	.310	13.1
Benzoic acid	.311	.281	.244	.233	.211	.256	15.5
bis(2-Chloroethoxy)methane	.550	.486	.441	.382	.348	.441	18.2
2,4-Dichlorophenol *	.341	.327	.291	.253	.229	.288	16.5*
1,2,4-Trichlorobenzene	.386	.347	.300	.265	.227	.305	20.7
Naphthalene	1.026	.925	.751	.648	.555	.781	24.9
4-Chloroaniline	.488	.450	.402	.360	.319	.404	16.8
Hexachlorobutadiene *	.214	.193	.180	.153	.134	.175	18.1*
4-Chloro-3-methylphenol *	.384	.354	.359	.326	.297	.344	9.7*
2-Methylnaphthalene	.648	.556	.491	.413	.358	.493	23.3
Hexachlorocyclopentadiene #	.333	.367	.355	.320	.288	.333	9.4#
2,4,6-Trichlorophenol *	.465	.493	.462	.401	.354	.435	13.0*
2,4,5-Trichlorophenol	.382	.353	.326	.292	.281	.327	12.8
2-Chloronaphthalene	1.272	1.159	.978	.814	.700	.985	24.0
2-Nitroaniline	.481	.467	.477	.478	.447	.470	2.9
Dimethylphthalate	1.663	1.430	1.295	1.085	.967	1.288	21.4
Acenaphthylene	1.785	1.638	1.389	1.192	1.034	1.408	22.0
2,6-Dinitrotoluene	.386	.365	.353	.316	.292	.342	11.0
3-Nitroaniline	.474	.476	.454	.424	.395	.445	7.8
Acenaphthene *	1.218	1.048	.862	.689	.573	.878	29.8*
2,4-Dinitrophenol #	0.000	.124	.121	.126	.122	.123	1.9#
4-Nitrophenol #	0.000	.114	.114	.118	.120	.117	2.5#

FORM VI SV-1

6C

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name:New CANONIE Contract:NA

Lab Code: HP001 Case No.: NA SAS No.: NA SDG No.: NA

Instrument ID: 5970 # 2 Calibration Date(s):09/10/89 09/10/89

NP- no positives no impact

Min $\overline{RRF}$ for SPCC(#) = 0.050 Max %RSD for CCC(*) = 30.0%

LAB FILE ID: RRF20 =>J9020 RRF50 =>J9050
RRF80 =>J9080 RRF120=>J9120 RRF160=>J9160

COMPOUND	RRF20	RRF50	RRF80	RRF120	RRF160	$\overline{RRF}$	% RSD	
Dibenzofuran	1.752	1.474	1.148	.941	.788	1.221	32.2	NP
2,4-Dinitrotoluene	.474	.446	.363	.303	.260	.369	24.8	
Diethylphthalate	1.740	1.522	1.380	1.166	.980	1.358	21.9	
4-Chlorophenyl-phenylether	.822	.654	.555	.453	.363	.569	31.3	NP
Fluorene	1.351	1.158	.938	.766	.671	.977	28.6	
4-Nitroaniline	.234	.280	.295	.292	.288	.278	9.0	
4,6-Dinitro-2-methylphenol	.113	.159	.166	.158	.140	.147	14.5	
N-Nitrosodiphenylamine (1) *	.624	.564	.474	.375	.297	.467	28.6*	
4-Bromophenyl-phenylether	.312	.245	.238	.188	.153	.227	26.6	
Hexachlorobenzene	.414	.296	.308	.270	.219	.301	23.8	
Pentachlorophenol *	0.000	.086	.124	.143	.146	.125	22.1*	
Phenanthrene	1.201	1.038	.883	.726	.613	.892	26.4	
Anthracene	.978	.892	.774	.663	.547	.771	22.4	
Di-n-butylphthalate	1.770	1.478	1.246	1.000	.837	1.266	29.4	
Fluoranthene *	1.121	.962	.855	.751	.668	.871	20.4*	
Pyrene	2.016	1.806	1.337	1.149	1.080	1.478	28.0	
Butylbenzylphthalate	.965	.958	.737	.596	.568	.765	25.0	
3,3'-Dichlorobenzidine	.192	.260	.307	.307	.312	.275	18.5	
Benzo(a)anthracene	1.077	1.083	.894	.770	.703	.905	19.2	
Chrysene	1.013	1.022	.930	.835	.797	.919	11.1	
bis(2-Ethylhexyl)phthalate	1.395	1.283	.850	.666	.586	.956	38.1	NP
Di-n-octylphthalate *	3.955	3.968	3.092	2.733	2.523	3.254	20.8*	
Benzo(b)fluoranthene	1.608	1.547	1.412	1.306	1.282	1.431	10.1	
Benzo(k)fluoranthene	1.608	1.547	1.412	1.306	1.282	1.431	10.1	
Benzo(a)pyrene *	1.244	1.280	1.289	1.218	1.215	1.249	2.8*	
Indeno(1,2,3-cd)pyrene	1.071	1.022	1.052	1.078	1.055	1.056	2.1	
Dibenzo(a,h)anthracene	.744	.773	.788	.814	.808	.786	3.6	
Benzo(g,h,i)perylene	.834	.840	.809	.823	.841	.829	1.6	
Nitrobenzene-d5	.455	.423	.378	.357	.343	.391	11.9	
2-Fluorobiphenyl	1.560	1.258	1.021	.852	.730	1.084	30.6	
Terphenyl-d14	1.457	1.195	.957	.845	.789	1.049	26.3	
Phenol-d5	1.907	1.885	1.593	1.454	1.300	1.628	16.3	
2-Fluorophenol	1.422	1.443	1.146	1.045	.864	1.184	21.0	
2,4,6-Tribromophenol	.287	.251	.334	.298	.273	.289	10.7	

(1) Cannot be separated from Diphenylamine

AR302471

Calibration Check Report

Title: EPA 5 POINT CALIBRATION
Calibrated: 890911 08:19

Check Standard Data File: X10910
Injection Time: 890910 12:58

Compound	$\overline{RF}$	RF	%Diff	Calib Meth
Phenol	1.53863	1.50430	2.23	Average
bis(2-Chloroethyl)Ether	2.10937	1.93184	8.42	Average
2-Chlorophenol	1.23366	1.34278	8.85	Average
1,3-Dichlorobenzene	1.24427	1.41873	14.02	Average
1,4-Dichlorobenzene	1.28052	1.40314	9.58	Average
1,2-Dichlorobenzene	1.24683	1.38419	11.02	Average
Benzyl Alcohol	.77806	.75689	3.48	Average
2-Methylphenol	1.18394	1.13397	2.72	Average
bis(2-chloroisopropyl)Ether	3.85121	3.68758	18.23	Average
4-Methylphenol	1.23124	1.26848	2.37	Average
N-Nitroso-di-N-propylamine	1.37423	1.37258	.12	Average
Hexachloroethane	.58425	.65999	12.94	Average
N-Nitrosodimethylamine	1.16431	.92897	20.90	Average
2-Fluorophenol	1.18378	1.10861	6.35	Average
Phenol-d6	1.62774	1.63386	.33	Average
Nitrobenzene-d5	.39123	.39024	.25	Average
Nitrobenzene	.39069	.39343	.70	Average
Isophorone	.80840	.77977	2.58	Average
2-Nitrophenol	.16865	.20987	24.44	Average
2,4-Dimethylphenol	.30972	.32714	5.62	Average
Benzoic Acid	.25896	.27166	6.13	Average
bis(2-Chloroethoxy)methane	.44026	.46613	5.64	Average
2,4-Dichlorophenol	.28888	.34526	19.44	Average
1,2,4-Trichlorobenzene	.30678	.38322	25.00	Average
Naphthalene	.78888	.87301	11.09	Average
4-Chloroaniline	.94207	.99206	5.66	Average
Hexachlorobutadiene	.17955	.21394	22.44	Average
4-Chloro-3-Methylphenol	.34985	.32178	8.06	Average
2-Methylnaphthalene	.45882	.55882	21.76	Average
Hexachlorocyclopentadiene	.32250	.38500	18.75	Average
2,4,5-Trichlorophenol	.32659	.36284	11.25	Average
2,4,6-Trichlorophenol	.93610	.98148	6.06	Average
2-Fluorobiphenyl	1.00420	1.19200	9.50	Average
2-Chloronaphthalene	.90462	1.05583	5.19	Average
2-Nitroaniline	.47040	.48004	2.09	Average
Dimethylphthalate	1.28799	1.42430	10.58	Average
Acenaphthylene	1.40763	1.57231	11.70	Average
3-Nitroaniline	.44472	.49043	10.28	Average
2,6-Dinitrotoluene	.34245	.39468	15.25	Average
Acenaphthene	.87795	.98530	12.24	Average

RF - Response factor from daily standard file at 50.00 ug/L

$\overline{RF}$ - Average Response Factor from Initial Calibration

%Diff - % Difference from original average or curve

612

AR302472

Calibration Check Report

Title: EPA 5 POINT CALIBRATION
Calibrated: 890911 08:19

Check Standard Data File:)J0918
Injection Time: 890918 12:58

Compound	$\overline{RF}$	RF	%Diff	Calib Meth
2,4-Dinitrophenol	.12324	.19529	58.47	Average
4-Nitrophenol	.11658	.11204	3.83	Average
Dibenzofuran	1.22885	1.41933	16.26	Average
2,4-Dinitrotoluene	.36898	.43979	19.19	Average
Diethylphthalate	1.35761	1.46651	8.02	Average
4-Chlorophenyl-phenylether	.56947	.67519	18.57	Average
Fluorene	.97682	1.04177	6.65	Average
4-Nitroaniline	.27778	.39737	43.18	Average
2,4,6-Tribromophenol	.28062	.30796	6.78	Average
4,6-Dinitro-2-Methylphenol	.14720	.18412	25.07	Average
N-Nitrosodiphenylamine	.46658	.48213	3.33	Average
4-Bromophenyl-phenylether	.22723	.23644	4.06	Average
Hexachlorobenzene	.38129	.38914	2.61	Average
Pentachlorophenol	.12478	.13088	4.89	Average
Phenanthrene	.85231	.53982	5.24	Average
Anthracene	.77067	.83511	8.38	Average
Di-N-Butylphthalate	1.26618	1.28634	1.60	Average
Fluoranthene	.87124	1.03798	19.13	Average
Pyrene	1.47775	1.47528	.17	Average
Terphenyl-d14	1.04057	1.12341	7.14	Average
Butylbenzylphthalate	.76464	.72885	5.44	Average
3,3'-Dichlorobenzidine	.27596	.38071	38.21	Average
Benzo(a)Anthracene	.90538	1.07686	18.86	Average
Bis(2-ethylhexyl)phthalate	.55680	.64805	16.39	Average
Chrysene	.91988	1.06887	16.26	Average
Di-n-octylphthalate	2.25988	2.58714	14.48	Average
Benzo(b)Fluoranthene	1.43888	1.45626	1.20	Average
Benzo(k)Fluoranthene	1.43888	1.45625	1.20	Average
Benzo(a)Pyrene	1.24534	1.25749	3.85	Average
Indeno(1,2,3-cd)Pyrene	1.05588	.99314	5.94	Average
Dibenzo(a,h)Anthracene	.76669	.31986	93.83	Average
Benzo(g,h,i)Perylene	.82561	.76827	7.38	Average

RF - Response Factor from daily standard file at 50.00 ug/L

$\overline{RF}$ - Average Response Factor from Initial Calibration

%Diff - % Difference from original average or curve

Calibration Check Report

Title: EPA 5 POINT CALIBRATION
Calibrated: 890911 08:19

Check Standard Data File: >J0919
Injection Time: 890919 18:00

Compound	$\overline{RF}$	RF	%Diff	Calib Meth
Phenol	1.53863	1.55699	1.19	Average *
bis(2-Chloroethyl)Ether	2.10937	1.94117	7.97	Average
2-Chlorophenol	1.23366	1.35920	10.18	Average
1,3-Dichlorobenzene	1.24427	1.41040	13.35	Average
1,4-Dichlorobenzene	1.28052	1.44462	12.81	Average *
1,2-Dichlorobenzene	1.24683	1.43911	15.42	Average
Benzyl Alcohol	.77806	.92275	19.83	Average
2-Methylphenol	1.18391	1.18966	7.77	Average
bis(2-chloroisopropyl)Ether	3.05121	3.45694	13.30	Average
4-Methylphenol	1.23124	1.26061	2.39	Average
N-Nitroso-di-N-propylamine	1.37423	1.32529	3.56	Average **
Hexachloroethane	.58439	.64258	9.96	Average
N-Nitrosodimethylamine	1.16431	.99384	14.64	Average
2-Fluorophenol	1.18378	1.16991	1.17	Average
Phenol-d5	1.62774	1.63752	.60	Average
Nitrobenzene-d5	.39123	.37742	3.53	Average
Nitrobenzene	.39069	.38088	2.53	Average
Isophorone	.80040	.76458	4.49	Average
2-Nitrophenol	.16065	.20308	20.85	Average *
2,4-Dimethylphenol	.30972	.33432	7.94	Average
Benzoic Acid	.25596	.28801	12.52	Average
bis(2-Chloroethoxy)methane	.44125	.44593	1.06	Average
2,4-Dichlorophenol	.28833	.34487	19.61	Average *
1,2,4-Trichlorobenzene	.30518	.37774	23.78	Average
Naphthalene	.78053	.87539	12.18	Average
4-Chloroaniline	.40307	.45663	13.87	Average
Hexachlorobutadiene	.17473	.20184	15.52	Average *
4-Chloro-3-Methylphenol	.34405	.35183	2.26	Average *
2-Methylnaphthalene	.45382	.58697	19.06	Average
Hexachlorocyclopentadiene	.33253	.38467	15.66	Average **
2,4,5-Trichlorophenol	.32679	.37898	15.95	Average
2,4,6-Trichlorophenol	.43518	.47573	9.34	Average *
2-Fluorobiphenyl	1.08538	1.21195	11.76	Average
2-Chloronaphthalene	.90453	1.04068	6.52	Average
2-Nitroaniline	.47818	.43257	7.98	Average
Dimethylphthalate	1.28799	1.41291	9.70	Average
Acenaphthylene	1.40763	1.59401	13.24	Average
3-Nitroaniline	.44472	.48769	9.66	Average
2,6-Dinitrotoluene	.34245	.40625	18.63	Average
Acenaphthene	.87795	.96948	10.42	Average *

RF - Response Factor from daily standard file at 50.00 ug/L

$\overline{RF}$ - Average Response Factor from Initial Calibration

%Diff - % Difference from original average or curve

AR302474

Title: EPA 5 POINT CALIBRATION
Calibrated: 890911 00:19

Check Standard Data File: >J0919
Injection Time: 890919 10:00

Compound	$\overline{RF}$	RF	%Diff	Calib Meth
2,4-Dinitrophenol	.12324	.18801	52.56	Average
4-Nitrophenol	.11650	.10973	5.81	Average
Dibenzofuran	1.22085	1.33859	9.64	Average
2,4-Dinitrotoluene	.36898	.42463	15.08	Average
Diethylphthalate	1.35761	1.43183	5.47	Average
4-Chlorophenyl-phenylether	.56947	.65839	15.61	Average
Fluorene	.97682	1.07147	9.69	Average
4-Nitroaniline	.27770	.35712	28.60	Average
2,4,6-Tribromophenol	.20062	.26853	6.96	Average
4,6-Dinitro-2-Methylphenol	.14720	.18962	28.81	Average
N-Nitrosodiphenylamine	.46650	.52806	13.18	Average
4-Bromophenyl-phenylether	.22723	.23350	2.80	Average
Hexachlorobenzene	.30129	.29939	.63	Average
Pentachlorophenol	.12470	.13557	8.72	Average
Phenanthrene	.89231	.96035	7.63	Average
Anthracene	.77057	.85414	10.85	Average
Di-N-Butylphthalate	1.26610	1.29963	2.65	Average
Fluoranthene	.87124	1.00644	15.52	Average
Pyrene	1.47775	1.57370	6.49	Average
Terphenyl-d14	1.04057	1.19780	14.24	Average
Butylbenzylphthalate	.76464	.81392	6.45	Average
3,3'-Dichlorobenzidine	.27546	.37720	36.93	Average
Benzo(a)Anthracene	.98530	1.03335	14.14	Average
Bis(2-ethylhexyl)phthalate	.95680	.99012	3.56	Average
Chrysene	.91930	1.12247	22.09	Average
Di-n-octylphthalate	3.25402	3.30050	1.43	Average
Benzo(b)Fluoranthene	1.43000	1.54796	8.18	Average
Benzo(k)Fluoranthene	1.43000	1.54796	8.18	Average
Benzo(a)Pyrene	1.24934	1.33252	6.66	Average
Indeno(1,2,3-cd)Pyrene	1.05501	1.19840	13.51	Average
Dibenzo(a,h)Anthracene	.78559	.98130	30.72	Average
Benzo(g,h,i)Perylene	.82951	.93700	12.97	Average

RF - Response factor from daily standard file at 50.00 ug/L

$\overline{RF}$ - Average Response Factor from Initial Calibration

%Diff - % Difference from original average or curve

AR302475

Calibration Check Report

Title: EPA 5 POINT CALIBRATION
Calibrated: 890922 14:55

Check Standard Data File: DJ0923
Injection Time: 890923 12:34

Compound	$\overline{RF}$	RF	%Diff	Calib Meth
Phenol	1.56202	2.15501	37.96	Average
bis(2-Chloroethyl)Ether	1.90587	2.82240	48.09	Average
2-Chlorophenol	1.25818	1.60850	27.84	Average
1,3-Dichlorobenzene	1.27095	1.56956	23.50	Average
1,4-Dichlorobenzene	1.30838	1.57957	20.73	Average
1,2-Dichlorobenzene	1.28112	1.63800	27.92	Average
Benzyl Alcohol	.78749	.54415	30.90	Average
2-Methylphenol	1.15867	1.56949	36.40	Average
bis(2-chloroisopropyl)Ether	2.95801	4.15868	40.66	Average
4-Methylphenol	1.23635	1.78962	44.75	Average
N-Nitroso-di-N-propylamine	1.22011	1.73305	41.18	Average
Hexachloroethane	.68558	.88952	46.91	Average
N-Nitrosodimethylamine	1.01404	1.40873	38.82	Average
2-Fluorophenol	1.15403	1.59471	38.09	Average
Phenol-d5	1.59844	2.37752	49.51	Average
Nitrobenzene-d5	.34629	.46522	34.35	Average
Nitrobenzene	.33839	.46775	41.57	Average
Isophorone	.71149	.52898	38.56	Average
2-Nitrophenol	.17678	.18948	7.23	Average
2,4-Dimethylphenol	.29653	.37868	27.53	Average
Benzoic Acid	.26236	.31683	20.96	Average
bis(2-Chloroethoxy)methane	.41888	.54652	30.22	Average
2,4-Dichlorophenol	.28679	.30651	6.91	Average
1,2,4-Trichlorobenzene	.29873	.31482	5.22	Average
Naphthalene	.77219	.99163	28.41	Average
4-Chloroaniline	.40171	.49148	22.35	Average
Hexachlorobutadiene	.16148	.16748	3.71	Average
4-Chloro-3-Methylphenol	.32158	.39487	22.67	Average
2-Methylnaphthalene	.51157	.64748	26.55	Average
Hexachlorocyclopentadiene	.25879	.28464	10.44	Average
2,4,5-Trichlorophenol	.29849	.29708	.47	Average
2,4,6-Trichlorophenol	.30619	.41889	8.39	Average
2-Fluorobiphenyl	1.00883	1.17852	16.33	Average
2-Chloronaphthalene	.93258	1.09825	17.73	Average
2-Nitroaniline	.39278	.49266	28.36	Average
Dimethylphthalate	1.27573	1.45481	14.04	Average
Acenaphthylene	1.37569	1.69989	23.53	Average
3-Nitroaniline	.44359	.47873	7.92	Average
2,6-Dinitrotoluene	.34541	.37882	9.44	Average
Acenaphthene	.95545	1.15438	20.81	Average

370 MW-11
423 RW-20

$\overline{RF}$ - Response factor from daily standard file at 50.00 ug/L

$\overline{RF}$ - Average Response Factor from Initial Calibration

%Diff - % Difference from original average or curve

AR302476

Calibration Check Report

Title: EPA 5 POINT CALIBRATION
Calibrated: 890922 14:55

Check Standard Data File: XJ0923
Injection Time: 890923 12:34

Compound	$\overline{RF}$	RF	%Diff	Calib Meth
2,4-Dinitrophenol	.13722	.10211	25.58	Average
4-Nitrophenol	.09145	.08377	8.40	Average
Dibenzofuran	1.20010	1.52025	25.84	Average
2,4-Dinitrotoluene	.37619	.45349	20.55	Average
Diethylphthalate	1.30483	1.58056	21.13	Average
4-Chlorophenyl-phenylether	.54942	.66940	21.84	Average
Fluorene	.96537	1.25095	29.58	Average
4-Nitroaniline	.31774	.32124	1.10	Average
2,4,6-Tribromophenol	.21693	.23866	10.02	Average
4,6-Dinitro-2-Methylphenol	.13106	.13279	1.32	Average
N-Nitrosodiphenylamine	.44828	.55257	23.29	Average
4-Bromophenyl-phenylether	.21805	.25186	15.51	Average
Hexachlorobenzene	.25267	.29425	16.46	Average
Pentachlorophenol	.09701	.07485	24.29	Average
Phenanthrene	.89395	1.12464	25.81	Average
Anthracene	.70522	.56982	23.51	Average
Di-N-Butylphthalate	1.24439	1.57983	26.89	Average
Fluoranthene	.96041	1.05043	9.37	Average
Pyrene	1.70131	2.57406	51.30	Average
Terphenyl-d14	1.21562	1.82777	50.36	Average
Butylbenzylphthalate	.80883	1.06587	31.78	Average
3,3'-Dichlorobenzidine	.28740	.28673	.58	Average
Benzo(a)Anthracene	.96346	1.18057	21.77	Average
Bis(2-ethylhexyl)phthalate	.87730	1.20706	37.58	Average
Chrysene	1.00700	1.15150	14.40	Average
Di-n-octylphthalate	4.86527	4.33740	6.70	Average
Benzo(b)Fluoranthene	1.62134	1.88406	16.20	Average
Benzo(k)Fluoranthene	1.62134	1.88406	16.20	Average
Benzo(a)Pyrene	1.34030	1.54030	14.71	Average
Indeno(1,2,3-cd)Pyrene	1.00011	1.19475	19.46	Average
Dibenzo(a,h)Anthracene	.75456	.90223	19.57	Average
Benzo(g,h,i)Perylene	.77831	.90020	16.06	Average

RF - Response factor from daily standard file at 50.00 ug/L

$\overline{RF}$ - Average Response Factor from Initial Calibration

%Diff - % Difference from original average or curve

AR302477

ient: Delta Quarry
Sample ID:
Matrix: WATER
Lab ID: K7492 -BL-A
Project #: 88-033.03

Date Reported: 10/06/1989
QC Batch # : M091889AN
Date Sampled :
Date Received: ~~10/06/1989~~
LP #: 7492

Test Description: Base/Neutrals and Acids, GC/MS

Analyte	Result*	Reporting Limit	Units	Method
Phenol	ND	10.	ug/L	EPA 625
bis(2-Chloroethyl)ether	ND	10.	ug/L	
2-Chlorophenol	ND	10.	ug/L	
1,3-Dichlorobenzene	ND	10.	ug/L	
1,4-Dichlorobenzene	ND	10.	ug/L	
Benzyl alcohol	ND	20.	ug/L	
1,2-Dichlorobenzene	ND	10.	ug/L	
2-Methylphenol	ND	10.	ug/L	
bis(2-Chloroisopropyl)ether	ND	10.	ug/L	
4-Methylphenol	ND	10.	ug/L	
N-Nitroso-di-n-dipropylamine	ND	10.	ug/L	
Hexachloroethane	ND	10.	ug/L	
Nitrobenzene	ND	10.	ug/L	
Isophorone	ND	10.	ug/L	
2-Nitrophenol	ND	10.	ug/L	
2,4-Dimethylphenol	ND	10.	ug/L	
Benzoic acid	ND	50.	ug/L	
bis(2-Chloroethoxy) methane	ND	10.	ug/L	
2,4-Dichlorophenol	ND	10.	ug/L	
1,2,4-Trichlorobenzene	ND	10.	ug/L	
Naphthalene	ND	10.	ug/L	
4-Chloroaniline	ND	20.	ug/L	
Hexachlorobutadiene	ND	10.	ug/L	
4-Chloro-3-methylphenol	ND	10.	ug/L	
2-Methylnaphthalene	ND	10.	ug/L	
Hexachlorocyclopentadiene	ND	10.	ug/L	
2,4,6-Trichlorophenol	ND	10.	ug/L	
2,4,5-Trichlorophenol	ND	50.	ug/L	
2-Chloronaphthalene	ND	10.	ug/L	
2-Nitroaniline	ND	10.	ug/L	
Dimethylphthalate	ND	10.	ug/L	
Acenaphthylene	ND	10.	ug/L	

Reported By : DLA
Validated By: DLA

* ND indicates a compound was not detected at a concentration level greater than the reporting limit.

Client: Delta Quarry
Sample ID:
Matrix: WATER
Lab ID: K7492 -BL-A
Project #: 88-033.03

Date Reported: 10/06/1989
QC Batch # : M091889AN1
Date Sampled :
Date Received: ~~10/06/1989~~
LP #: 7492

Test Description: Base/Neutrals and Acids, GC/MS

Analyte	Result*	Reporting Limit	Units	Method
2,6-Dinitrotoluene	ND	10.	ug/L	EPA 625
3-Nitroaniline	ND	10.	ug/L	
Acenaphthene	ND	10.	ug/L	
2,4-Dinitrophenol	ND	50.	ug/L	
4-Nitrophenol	ND	50.	ug/L	
Dibenzofuran	ND	10.	ug/L	
2,4-Dinitrotoluene	ND	10.	ug/L	
Diethylphthalate	ND	10.	ug/L	
4-Chlorophenyl-phenylether	ND	10.	ug/L	
Fluorene	ND	10.	ug/L	
4-Nitroaniline	ND	10.	ug/L	
4,6-Dinitro-2-methylphenol	ND	50.	ug/L	
N-Nitrosodiphenylamine	ND	10.	ug/L	
4-Bromophenyl-phenylether	ND	10.	ug/L	
Hexachlorobenzene	ND	10.	ug/L	
Pentachlorophenol	ND	50.	ug/L	
Phenanthrene	ND	10.	ug/L	
Anthracene	ND	10.	ug/L	
Di-n-butylphthalate	ND	10.	ug/L	
Fluoranthene	ND	10.	ug/L	
Pyrene	ND	10.	ug/L	
Butylbenzylphthalate	ND	10.	ug/L	
3,3'-Dichlorobenzidine	ND	10.	ug/L	
Benzo(a)anthracene	ND	10.	ug/L	
Chrysene	ND	10.	ug/L	
bis(2-Ethylhexyl)phthalate	ND	10.	ug/L	
Di-n-octylphthalate	ND	10.	ug/L	
Benzo(b)fluoranthene	ND	10.	ug/L	
Benzo(k)fluoranthene	ND	10.	ug/L	
Benzo(a)pyrene	ND	10.	ug/L	
Indeno(1,2,3-cd)pyrene	ND	10.	ug/L	
Dibenz(a,h)anthracene	ND	10.	ug/L	
Benzo(g,h,i)perylene	ND	10.	ug/L	

Tested By : DLA
Validated By: DLA

AR302479

* ND indicates a compound was not detected at a concentration level greater than the reporting limit.

ient: Delta Quarry
Sample ID:
Matrix: WATER
Lab ID: K7499 -BL-A
Project #: 88-033.03

Date Reported: 10/06/1989
QC Batch # : M091889AN
Date Sampled :
Date Received: ~~10/06/1989~~
LP #: 7499

Test Description: Base/Neutrals and Acids, GC/MS

Analyte	Result*	Reporting Limit	Units	Method
Phenol	ND	10.	ug/L	EPA 625
bis(2-Chloroethyl)ether	ND	10.	ug/L	
2-Chlorophenol	ND	10.	ug/L	
1,3-Dichlorobenzene	ND	10.	ug/L	
1,4-Dichlorobenzene	ND	10.	ug/L	
Benzyl alcohol	ND	20.	ug/L	
1,2-Dichlorobenzene	ND	10.	ug/L	
2-Methylphenol	ND	10.	ug/L	
bis(2-Chloroisopropyl)ether	ND	10.	ug/L	
4-Methylphenol	ND	10.	ug/L	
N-Nitroso-di-n-dipropylamine	ND	10.	ug/L	
Hexachloroethane	ND	10.	ug/L	
trobenzene	ND	10.	ug/L	
ophorone	ND	10.	ug/L	
2-Nitrophenol	ND	10.	ug/L	
2,4-Dimethylphenol	ND	10.	ug/L	
Benzoic acid	ND	50.	ug/L	
bis(2-Chloroethoxy) methane	ND	10.	ug/L	
2,4-Dichlorophenol	ND	10.	ug/L	
1,2,4-Trichlorobenzene	ND	10.	ug/L	
Naphthalene	ND	10.	ug/L	
4-Chloroaniline	ND	20.	ug/L	
Hexachlorobutadiene	ND	10.	ug/L	
4-Chloro-3-methylphenol	ND	10.	ug/L	
2-Methylnaphthalene	ND	10.	ug/L	
Hexachlorocyclopentadiene	ND	10.	ug/L	
2,4,6-Trichlorophenol	ND	10.	ug/L	
2,4,5-Trichlorophenol	ND	50.	ug/L	
2-Chloronaphthalene	ND	10.	ug/L	
2-Nitroaniline	ND	10.	ug/L	
Dimethylphthalate	ND	10.	ug/L	
Acenaphthylene	ND	10.	ug/L	

sted By : DLA
Validated By:

* ND indicates a compound was not detected at a concentration level greater than the reporting limit.

Client: Delta Quarry
Sample ID:
Matrix: WATER
Lab ID: K7499 -BL-B
Project #: 88-033.03

Date Reported: 10/06/1989
QC Batch # : M091889AN1
Date Sampled :
Date Received: ~~10/06/1989~~
LP #: 7499

Test Description: Base/Neutrals and Acids, GC/MS

Analyte	Result*	Reporting Limit	Units	Method
2,6-Dinitrotoluene	ND	10.	ug/L	EPA 625
3-Nitroaniline	ND	10.	ug/L	
Acenaphthene	ND	10.	ug/L	
2,4-Dinitrophenol	ND	50.	ug/L	
4-Nitrophenol	ND	50.	ug/L	
Dibenzofuran	ND	10.	ug/L	
2,4-Dinitrotoluene	ND	10.	ug/L	
Diethylphthalate	ND	10.	ug/L	
4-Chlorophenyl-phenylether	ND	10.	ug/L	
Fluorene	ND	10.	ug/L	
4-Nitroaniline	ND	10.	ug/L	
4,6-Dinitro-2-methylphenol	ND	50.	ug/L	
N-Nitrosodiphenylamine	ND	10.	ug/L	
4-Bromophenyl-phenylether	ND	10.	ug/L	
Hexachlorobenzene	ND	10.	ug/L	
Pentachlorophenol	ND	50.	ug/L	
Phenanthrene	ND	10.	ug/L	
Anthracene	ND	10.	ug/L	
Di-n-butylphthalate	ND	10.	ug/L	
Fluoranthene	ND	10.	ug/L	
Pyrene	ND	10.	ug/L	
Butylbenzylphthalate	ND	10.	ug/L	
3,3'-Dichlorobenzidine	ND	10.	ug/L	
Benzo(a)anthracene	ND	10.	ug/L	
Chrysene	ND	10.	ug/L	
bis(2-Ethylhexyl)phthalate	ND	10.	ug/L	
Di-n-octylphthalate	ND	10.	ug/L	
Benzo(b)fluoranthene	ND	10.	ug/L	
Benzo(k)fluoranthene	ND	10.	ug/L	
Benzo(a)pyrene	ND	10.	ug/L	
Indeno(1,2,3-cd)pyrene	ND	10.	ug/L	
Dibenz(a,h)anthracene	ND	10.	ug/L	
Benzo(g,h,i)perylene	ND	10.	ug/L	

Reported By : DLA
Validated By:

* ND indicates a compound was not detected at a concentration level greater than the reporting limit.

Client: Delta Quarry
Sample ID:
Matrix: WATER
Lab ID: N3263 -MS-A
Project #: 88-033.03

Date Reported: 10/06/1989
QC Batch # : M091589AN1
Date Sampled :
Date Received: 10/06/1989
LP #: 7471

Test Description: Base/Neutrals and Acids, GC/MS

Analyte	Result*	Reporting Limit	Units	Method
Phenol	30.	10.	ug/L	EPA 625
bis(2-Chloroethyl)ether	ND	10.	ug/L	
2-Chlorophenol	60.	10.	ug/L	
1,3-Dichlorobenzene	ND	10.	ug/L	
1,4-Dichlorobenzene	33.	10.	ug/L	
Benzyl alcohol	ND	20.	ug/L	
1,2-Dichlorobenzene	ND	10.	ug/L	
2-Methylphenol	ND	10.	ug/L	
bis(2-Chloroisopropyl)ether	ND	10.	ug/L	
4-Methylphenol	ND	10.	ug/L	
N-Nitroso-di-n-dipropylamine	32.	10.	ug/L	
Hexachloroethane	ND	10.	ug/L	
Nitrobenzene	ND	10.	ug/L	
Isophorone	ND	10.	ug/L	
2-Nitrophenol	ND	10.	ug/L	
2,4-Dimethylphenol	ND	10.	ug/L	
Benzoic acid	ND	50.	ug/L	
bis(2-Chloroethoxy) methane	ND	10.	ug/L	
2,4-Dichlorophenol	ND	10.	ug/L	
1,2,4-Trichlorobenzene	35.	10.	ug/L	
Naphthalene	ND	10.	ug/L	
4-Chloroaniline	ND	20.	ug/L	
Hexachlorobutadiene	ND	10.	ug/L	
4-Chloro-3-methylphenol	64.	10.	ug/L	
2-Methylnaphthalene	ND	10.	ug/L	
Hexachlorocyclopentadiene	ND	10.	ug/L	
2,4,6-Trichlorophenol	ND	10.	ug/L	
2,4,5-Trichlorophenol	ND	50.	ug/L	
2-Chloronaphthalene	ND	10.	ug/L	
2-Nitroaniline	ND	10.	ug/L	
Dimethylphthalate	ND	10.	ug/L	
Acenaphthylene	ND	10.	ug/L	

Tested By : DLA
Validated By: DLA

* ND indicates a compound was not detected at a concentration level greater than the reporting limit.

Client: Delta Quarry
Sample ID:
Matrix: WATER
Lab ID: N3263 -MS-A
Project #: 88-033.03

Date Reported: 10/06/1989
QC Batch # : M091589AN1
Date Sampled :
Date Received: 10/06/1989
LP #: 7471

Test Description: Base/Neutrals and Acids, GC/MS

Analyte	Result*	Reporting Limit	Units	Method
2,6-Dinitrotoluene	ND	10.	ug/L	EPA 625
3-Nitroaniline	ND	10.	ug/L	
Acenaphthene	ND	10.	ug/L	
2,4-Dinitrophenol	ND	50.	ug/L	
4-Nitrophenol	ND	50.	ug/L	
Dibenzofuran	ND	10.	ug/L	
2,4-Dinitrotoluene	47.	10.	ug/L	
Diethylphthalate	ND	10.	ug/L	
4-Chlorophenyl-phenylether	ND	10.	ug/L	
Fluorene	ND	10.	ug/L	
4-Nitroaniline	ND	10.	ug/L	
4,6-Dinitro-2-methylphenol	ND	50.	ug/L	
N-Nitrosodiphenylamine	ND	10.	ug/L	
4-Bromophenyl-phenylether	ND	10.	ug/L	
Hexachlorobenzene	ND	10.	ug/L	
Pentachlorophenol	ND	50.	ug/L	
Phenanthrene	ND	10.	ug/L	
Anthracene	ND	10.	ug/L	
Di-n-butylphthalate	ND	10.	ug/L	
Fluoranthene	ND	10.	ug/L	
Pyrene	61.	10.	ug/L	
Butylbenzylphthalate	ND	10.	ug/L	
3,3'-Dichlorobenzidine	ND	10.	ug/L	
Benzo(a)anthracene	ND	10.	ug/L	
Chrysene	ND	10.	ug/L	
bis(2-Ethylhexyl)phthalate	ND	10.	ug/L	
Di-n-octylphthalate	ND	10.	ug/L	
Benzo(b)fluoranthene	ND	10.	ug/L	
Benzo(k)fluoranthene	ND	10.	ug/L	
Benzo(a)pyrene	ND	10.	ug/L	
Indeno(1,2,3-cd)pyrene	ND	10.	ug/L	
Dibenz(a,h)anthracene	ND	10.	ug/L	
Benzo(g,h,i)perylene	ND	10.	ug/L	

Tested By : DLA
Validated By: DLA

AR302483

* ND indicates a compound was not detected at a concentration level greater than the reporting limit.

lient: Delta Quarry
ample ID:
Matrix: WATER
Lab ID: 03263 -MD-A
Project #: 88-033.03

Date Reported: 10/06/1989
QC Batch # : M091589A
Date Sampled :
Date Received: 10/06/1989
LP #: 7471

Test Description: Base/Neutrals and Acids, GC/MS

Analyte	Result*	Reporting Limit	Units	Method
Phenol	28.	10.	ug/L	EPA 625
bis(2-Chloroethyl)ether	ND	10.	ug/L	
2-Chlorophenol	54.	10.	ug/L	
1,3-Dichlorobenzene	ND	10.	ug/L	
1,4-Dichlorobenzene	33.	10.	ug/L	
Benzyl alcohol	ND	20.	ug/L	
1,2-Dichlorobenzene	ND	10.	ug/L	
2-Methylphenol	ND	10.	ug/L	
bis(2-Chloroisopropyl)ether	ND	10.	ug/L	
4-Methylphenol	ND	10.	ug/L	
N-Nitroso-di-n-dipropylamine	32.	10.	ug/L	
Hexachloroethane	ND	10.	ug/L	
itrobenzene	ND	10.	ug/L	
sophorone	ND	10.	ug/L	
2-Nitrophenol	ND	10.	ug/L	
2,4-Dimethylphenol	ND	10.	ug/L	
Benzoic acid	ND	50.	ug/L	
bis(2-Chloroethoxy) methane	ND	10.	ug/L	
2,4-Dichlorophenol	ND	10.	ug/L	
1,2,4-Trichlorobenzene	34.	10.	ug/L	
Naphthalene	ND	10.	ug/L	
4-Chloroaniline	ND	20.	ug/L	
Hexachlorobutadiene	ND	10.	ug/L	
4-Chloro-3-methylphenol	64.	10.	ug/L	
2-Methylnaphthalene	ND	10.	ug/L	
Hexachlorocyclopentadiene	ND	10.	ug/L	
2,4,6-Trichlorophenol	ND	10.	ug/L	
2,4,5-Trichlorophenol	ND	50.	ug/L	
2-Chloronaphthalene	ND	10.	ug/L	
2-Nitroaniline	ND	10.	ug/L	
Dimethylphthalate	ND	10.	ug/L	
Acenaphthylene	ND	10.	ug/L	

ested By : DLA
Validated By: DLA

* ND indicates a compound was not detected at a concentration level greater than the reporting limit.

Client: Delta Quarry
Sample ID:
Matrix: WATER
Lab ID: 03263 -MD-A
Project #: 88-033.03

Date Reported: 10/06/1989
QC Batch # : M091589AN1
Date Sampled :
Date Received: 10/06/1989
LP #: 7471

Test Description: Base/Neutrals and Acids, GC/MS

Analyte	Result*	Reporting Limit	Units	Method
2,6-Dinitrotoluene	ND	10.	ug/L	EPA 625
3-Nitroaniline	ND	10.	ug/L	
Acenaphthene	42.	10.	ug/L	
2,4-Dinitrophenol	ND	50.	ug/L	
4-Nitrophenol	ND	50.	ug/L	
Dibenzofuran	ND	10.	ug/L	
2,4-Dinitrotoluene	43.	10.	ug/L	
Diethylphthalate	ND	10.	ug/L	
4-Chlorophenyl-phenylether	ND	10.	ug/L	
Fluorene	ND	10.	ug/L	
4-Nitroaniline	ND	10.	ug/L	
4,6-Dinitro-2-methylphenol	ND	50.	ug/L	
N-Nitrosodiphenylamine	ND	10.	ug/L	
4-Bromophenyl-phenylether	ND	10.	ug/L	
Hexachlorobenzene	ND	10.	ug/L	
Pentachlorophenol	ND	50.	ug/L	
Phenanthrene	ND	10.	ug/L	
Anthracene	ND	10.	ug/L	
Di-n-butylphthalate	ND	10.	ug/L	
Fluoranthene	ND	10.	ug/L	
Pyrene	64.	10.	ug/L	
Butylbenzylphthalate	ND	10.	ug/L	
3,3'-Dichlorobenzidine	ND	10.	ug/L	
Benzo(a)anthracene	ND	10.	ug/L	
Chrysene	ND	10.	ug/L	
bis(2-Ethylhexyl)phthalate	ND	10.	ug/L	
Di-n-octylphthalate	ND	10.	ug/L	
Benzo(b)fluoranthene	ND	10.	ug/L	
Benzo(k)fluoranthene	ND	10.	ug/L	
Benzo(a)pyrene	ND	10.	ug/L	
Indeno(1,2,3-cd)pyrene	ND	10.	ug/L	
Dibenz(a,h)anthracene	ND	10.	ug/L	
Benzo(g,h,i)perylene	ND	10.	ug/L	

Tested By : DLA
Validated By: DLA

AR302485

* ND indicates a compound was not detected at a concentration level greater than the reporting limit.

CANONIE ENVIRONMENTAL SERVICES CORP.
CLP/PESTICIDES ANALYSES
CASE NARRATIVE

Date: 10-12-89

Chemist: Tim J Santelice

Canonie Project Name: Delta Quarries

Case Number:

Contract Number:

Canonie Project Number: 88-033.03

SOW Date: 2/88

SDG Number: MW-1G

LP Number(s): 7467, 7471, 7492, 7499

EPA Sample ID	Canonie Sample ID	EPA Sample ID	Canonie Sample ID
1. MW-1G	1. 843249	16. MW-16G	16. 843422
2. MW-2G	2. 843250	17. RW-20G	17. 843423
3. MW-3G	3. 843251	18. Travel Blank	18. 843263
4. MW4-G	4. 843258	19.	19.
5. MW 5G	5. 843259	20.	20.
6. MW6G	6. 843260	21.	21.
7. MW 7G	7. 843261	22.	22.
8. MW 8G	8. 843262	23.	23.
9. MW-10G	9. 843369	24.	24.
10. MW-11G	10. 843370	25.	25.
11. RW 12G	11. 843367	26.	26.
12. MW-12G	12. 843418	27.	27.
13. MW-13G	13. 843419	28.	28.
14. MW-14G	14. 843420	29.	29.
15. MW-15G	15. 843421	30.	30.

CASE NARRATIVE ANALYTICAL DOCUMENTATION

Endrin had slightly high recovery in the spiked sample MW4-G probably due to a degredation fall throughout the run. Some of the samples had high surrogate recovery but they were not that far out of the limits.

Some of the samples had multi-peak response but none of the response patterns fill any of the Aroclor patterns.

Name: Cannie Environmental Contract: _____

Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____

	EPA SAMPLE NO.	S1 (DBC) #	OTHER
01	PBLK1	166	*
02	MW-1G MS	108	
03	MW-1G MSD	100	
04	MW-1G	171	*
05	MW-2G	164	*
06	MW-3G	159	*
07	PBLK2	89	
08	MW4-G MS	102	
09	MW4-G MSD	108	
10	MW4-G	78	
11	MW5G	108	
12	MW6G	61	
13	MW7G	76	
14	MW 8G	104	
15	TRAVEL BLANK	96	
16	PBLK3	109	
17	PBLK4	100	
18	PBLK5	94	
19	RW12G	99	
20	MW-10G	101	
21	MW-11G	26	
22	MW-12G	95	
23	MW-13G	103	
24	MW-14G	101	
25	MW-15G	101	
26	MW-16G	100	
27	RW-20G	97	
28			
29			
30			

no impact
no positives

ADVISORY QC LIMITS (24-154)

S1 (DBC) = Dibutylchlorendate

Column to be used to flag recovery values

* Values outside of QC limits

D Surrogates diluted out

SECTION IV

FORM II PEST-1

1/87 Rev.

WATER PESTICIDE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

ɔ Name: Canonie Environmental Contract: _____

de: _____ Case No.: _____ SAS No.: _____ SDG No.: _____

:rix Spike - EPA Sample No.: MW4-G

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC. LIMITS REC.
amma-BHC (Lindane)	0.2	0	0.214	107	56-123
eptachlor	0.2	0	0.178	89	40-131
ldrin	0.2	0	0.153	77	40-120
ieldrin	0.5	0	0.550	110	52-126
ıdrin	0.5	0	0.619	124 *	56-121
4'-DDT	0.5	0	0.506	101	38-127

OMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
nma-BHC (Lindane)	0.2	0.217	108	1.4	15	56-123
ɔtachlor	0.2	0.182	91	2.2	20	40-131
irin	0.2	0.157	78	1.6	22	40-120
·ldrin	0.5	0.562	112	2.2	18	52-126
rin	0.5	0.640	128 *	3.3	21	56-121
'-DDT	0.5	0.528	106	4.3	27	38-127

ımn to be used to flag recovery and RPD values with an asterisk

ues outside of QC limits

0 out of 6 outside limits
Recovery: 2 out of 12 outside limits

ITS: _____

FORM III PEST-1 8/87 Rev.

AR302489

WATER PESTICIDE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Name: Cunonie Environmental Contract: _____

Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____

Spike - EPA Sample No.: MW-16

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC. LIMITS REC.
mma-BHC (Lindane)	0.2	0	0.222	111	56-123
ptachlor	0.2	0	0.227	114	40-131
drin	0.2	0	0.196	98	40-120
eldrin	0.5	0	0.546	109	52-126
drin	0.5	0	0.489	98	56-121
4'-DDT	0.5	0	0.518	104	38-127

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
mma-BHC (Lindane)	0.2	0.221	111	0	15	56-123
ptachlor	0.2	0.210	105	7.8	20	40-131
drin	0.2	0.185	93	5.8	22	40-120
ldrin	0.5	0.536	107	1.8	18	52-126
rin	0.5	0.452	90	7.9	21	56-121
'-DDT	0.5	0.488	98	6.0	27	38-127

umn to be used to flag recovery and RPD values with an asterisk

ues outside of QC limits

0 out of 6 outside limits
Recovery: 0 out of 12 outside limits

NTS: _____

FORM III PEST-1 8/87 Rev.

AR302490

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8D
PESTICIDE EVALUATION STANDARDS SUMMARY

ab Name: Canonie Environmental Contract: _____

de: _____ Case No.: _____ SAS No.: _____ SDG No.: _____

strument ID: 32 GC Column ID: RTx-5

tes of Analyses: 9-5-89 to 9-7-89

Evaluation Check for Linearity

PESTICIDE	CALIBRATION FACTOR EVAL MIX A	CALIBRATION FACTOR EVAL MIX B	CALIBRATION FACTOR EVAL MIX C	%RSD (</= 10.0%)	
Aldrin	19700	19860	19040	2.2	
Endrin	11900	10640	10280	7.8	
4,4'-DDT	10400	9460	9400	5.8	(1)
DBC	8824	8800	7990	9.1	

(1) If > 10.0% RSD, plot a standard curve and determine the ng for each sample in that set from the curve.

Evaluation Check for 4,4'-DDT/Endrin Breakdown
(percent breakdown expressed as total degradation)

		DATE ANALYZED	TIME ANALYZED	ENDRIN	4,4'-DDT	COMBINED (2)
	INITIAL	9-5-89	13:03	16.4	4.2	
01	EVAL MIX B	9-5-89	20:40	15.4	4.1	
02	EVAL MIX B	9-6-89	20:46	17.2	3.5	
03	EVAL MIX B	9-7-89	01:41	14.6	3.4	
04	EVAL MIX B					
05	EVAL MIX B					
06	EVAL MIX B					
07	EVAL MIX B					
08	EVAL MIX B					
09	EVAL MIX B					
10	EVAL MIX B					
11	EVAL MIX B					
12	EVAL MIX B					
13	EVAL MIX B					
14	EVAL MIX B					

(2) See Form instructions.

PESTICIDE EVALUATION STANDARDS SUMMARY

e: Canonie Environmental Contract: _____

o: _____ Case No.: _____ SAS No.: _____ SDG No.: _____

ument ID: 32 GC Column ID: RTX-35

of Analyses: 9-5-89 to 9-7-89

Evaluation Check for Linearity

PESTICIDE	CALIBRATION FACTOR EVAL MIX A	CALIBRATION FACTOR EVAL MIX B	CALIBRATION FACTOR EVAL MIX C	%RSD (</= 10.0%)	
Aldrin	21100	21540	23825	6.6	
Endrin	11100	10420	11185	3.8	
4,4'-DDT	10800	10420	11435	4.7	(1)
DBC	8000	8140	8570	3.6	

(1) If > 10.0% RSD, plot a standard curve and determine the ng for each sample in that set from the curve.

Evaluation Check for 4,4'-DDT/Endrin Breakdown
(percent breakdown expressed as total degradation)

		DATE ANALYZED	TIME ANALYZED	ENDRIN	4,4'-DDT	COMBINED (2)
	INITIAL	9-5-89	13:03	16.9	2.8	
01	EVAL MIX B	9-5-89	20:40	15.8	2.9	
02	EVAL MIX B	9-6-89	20:46	18.0	3.6	
03	EVAL MIX B	9-6-89	01:41	14.6	3.6	
04	EVAL MIX B					
05	EVAL MIX B					
06	EVAL MIX B					
07	EVAL MIX B					
08	EVAL MIX B					
09	EVAL MIX B					
10	EVAL MIX B					
11	EVAL MIX B					
12	EVAL MIX B					
13	EVAL MIX B					
14	EVAL MIX B					

(2) See Form instructions.

Evaluation of Retention Time Shift for Dibutylchlorendate

Name: Canonie Environmental Contract: _____

Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____

Instrument ID: 32 GC Column ID: RTX-5

Dates of Analyses: 9-5-89 to 9-7-89

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	% D (12.46)	*
01	EVAL A	EVAL A	9-5-89	12:39	—	
02	EVAL B	EVAL B		13:03	0.16	
03	EVAL C	EVAL C		13:28	0.24	
04	IND A	IND A		13:52	0.24	
05	IND B	IND B		14:16	0.32	
06	TOXAPH	TOXAPH		15:20	0.16	
07	AR1016	AR 1016		15:45	0.24	
08	AR1221	AR 1221		16:09	0.16	
09	AR1232	AR 1232		16:34	0.16	
10	AR 1242	AR 1242		16:58	0.16	
11	AR1248	AR 1248		17:23	0.32	
12	AR1254	AR 1254		17:48	0.16	
13	AR1260	AR 1260		18:12	0.16	
14	PBLK1	7467 Blank		18:37	0.08	
15	MW-1G MS	7467 843249 MS		19:01	0	
16	MW-1G MSD	7467 843249 MSD		19:26	0.08	
17	MW-1G	7467 843249		19:50	0	
18	MW-2G	7467 843250		20:15	0.08	
19	EVAL B.	EVAL B		20:40	0	
20	MW-3G	7467 843251		21:04	0	
21	PBLK2	7471 Blank		21:29	0.08	
22	MW4-G MS	7471 843258 MS		21:54	0.16	
23	MW4-G MSD	7471 843258 MSD		22:18	0	
24	MW4-G	7471 843258		22:43	0.16	
25	IND A.	IND A	9-6-89	18:05	0.32	
26	MW5G	7471 843259		18:43	0.24	
27	MW6G	7471 843260		19:08	0.32	
28	MW7G	7471 843261		19:32	0.24	
29	MW8G	7471 843262		19:57	0.32	
30	Travel Blank	7471 843263		20:22	0.32	
31	EVAL B	EVAL B		20:46	0.24	
32	PBLK 3	7471 Blank 2		21:11	0.16	
33	PBLK 4	7492 Blank		21:35	0.32	
34	PBLK 5	7499 Blank		22:00	0.16	
35	RW12G	7492 843367		22:25	0.32	
36	MW-10G	7492 843369		22:49	0.16	
37	IND B	IND B		23:13	0.16	
38	MW-11G	7492 843370		23:38	0.40	

* Values outside of QC limits (2.0% for packed columns, 0.3% for capillary columns)

FORM VIII PEST-2 AR302493 1/87 Rev.

Evaluation of Retention Time Shift for Dibutylchlorendate

Lab Name: Canonie Environmental Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____

Instrument ID: 32 GC Column ID: Rtx-5

Dates of Analyses: 9-5-89 to 9-7-89

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	% D	*
01	MW-12G	7499 843418	9-7-89	0:03	0.16	
02	MW-13G	7499 843419		0:27	0.16	
03	MW-14G	7499 843420		0:53	0.16	
04	MW-15G	7499 843421		1:17	0.16	
05	EVAL B	EVAL B		1:41	0.48	
06	MW-16G	7499 843422		2:06	0.32	
07	RW-20G	7499 843423		2:30	0.40	
08	IND A	IND A		2:55	0.16	
09	IND B	IND B		3:19	0.24	
10						
11						
12						
13						
14						
15						
16						
17						
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34						
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36						
37						
38						

* Values outside of QC limits (2.0% for packed columns, 0.3% for capillary columns)

FORM VIII PEST-2 1/87 Rev.

AR302494

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Evaluation of Retention Time Shift for Dibutylchlorendate

Name: Canonie Environmental Contract: _____

(e: _____ Case No.: _____ SAS No.: _____ SDG No.: _____

trument ID: 32 GC Column ID: RTX-35

es of Analyses: 9-5-89 to 9-7-89

13 31

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	% D	*
01	EVALA	EVALA	9-5-89	12:39	—	
02	EVALB	EVALB		13:03	0.08	
03	EVALC	EVALC		13:28	0.08	
04	IND A	IND A		13:52	0.15	
05	IND B	IND B		14:16	0.23	
06	TOXAPH	TOXAPH		15:20	0.15	
07	AR1016	AR 1016		15:45	0.15	
08	AR1221	AR1221		16:09	0.08	
09	AR1232	AR1232		16:34	0.08	
10	AR 1242	AR 1242		16:58	0.08	
11	AR1248	AR 1248		17:23	0.23	
12	AR1254	AR 1254		17:48	0.15	
13	AR1260	AR1260		18:12	0.08	
14	PBLK1	7467 Blank		18:37	0.08	
15	MW-1G MS	7467 843249 MS		19:01	0.08	
16	MW-1G MSD	7467 843249 MSD		19:26	0.08	
17	MW-1G	7467 843249		19:50	0.08	
18	MW-2G	7467 843250		20:15	0	
19	EVALB	EVALB		20:40	0.08	
20	MW-3G	7467 843251		21:04	0.08	
21	PBLK2	7471 Blank		21:29	0.08	
22	MW 4-G MS	7471 843258 MS		21:54	0.23	
23	MW4-G MSD	7471 843258 MSD		22:18	0.23	
24	MW4-G	7471 843258		22:43	0.23	
25	IND A	IND A	9-6-89	18:05	0.30	
26	MW5G	7471 843259		18:43	0.23	
27	MW6G	7471 843260		19:08	0.45	
28	MW7G	7471 843261		19:32	0.30	
29	MW8G	7471 843262		19:57	0.45	
30	Travel Blank	7471 843263		20:22	0.53	
31	EVALB	EVALB		20:46	0.38	
32	PBLK3	7471 Blank 2		21:11	0.38	
33	PBLK4	7492 Blank		21:35	0.45	
34	PBLK5	7499 Blank		22:00	0.45	
35	RW12G	7492 843367		22:25	0.45	
36	MW-10G	7492 843369		22:49	0.30	
37	IND B	IND B		23:13	0.45	
38	MW-11G	7492 843370		23:38	0.45	

* Values outside of QC limits (2.0% for packed columns, 0.3% for capillary columns)

FORM VIII PEST-2 1/87 Rev.

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Evaluation of Retention Time Shift for Dibutylchlorendate

Lab Name: Canonie Environmental Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____

Instrument ID: 32 GC Column ID: Rtx-35

Dates of Analyses: 9-5-89 to 9-7-89

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	% D	*
01	MW-12G	7499 843418	9-7-89	0:03	0.30	
02	MW-13G	7499 843419		0:27	0.38	
03	MW-14G	7499 843420		0:53	0.38	
04	MW-15G	7499 843421		1:17	0.38	
05	EVAL B	EVAL B		1:41	0.60	
06	MW-16G	7499 843422		2:06	0.53	
07	RW-20G	7499 843423		2:30	0.53	
08	INDA	INDA		2:55	0.30	
09	INDB	INDB		3:19	0.38	
10						
11						
12						
13						
14						
15						
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19						
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* Values outside of QC limits (2.0% for packed columns, 0.3% for capillary columns)

FORM VIII PEST-2 1/87 Rev.

AR302496

PESTICIDE/PCB STANDARDS SUMMARY

ıb Name: Cumulie Environmental Contract: _____

ı_l ɔde: _____ Case No.: _____ SAS No.: _____ SDG No.: _____

ıstrument ID: 32 GC Column ID: RTX-5

DATE(S) OF ANALYSIS	FROM: 9-5-89	DATE OF ANALYSIS	9-6-89
	TO: 9-5-89	TIME OF ANALYSIS	18:05
TIME(S) OF ANALYSIS	FROM: 13:52	EPA SAMPLE NO. (STANDARD)	INDA
	TO: 18:12		

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALIBRATION FACTOR	RT	CALIBRATION FACTOR	QNT Y/N	%D
ılpha-BHC	4.73	4.63	4.83	24400				
ɔeta-BHC	5.01	4.91	5.11	8800				
lelta-BHC	5.43	5.33	5.53	19300				
ɣamma-BHC	5.16	5.06	5.26	19750	5.13	20850	Y	5.6
ſeptachlor	6.28	6.18	6.38	16550	6.25	17050	Y	3.0
ıldrin	6.41	6.31	7.01	18600	6.81	19050	Y	2.4
ſept. epoxide	7.61	7.51	7.71	16250	7.56	16650	Y	2.5
ɪndosulfan I	8.34	8.24	8.44	15200	8.30	16350	Y	7.6
ɔieldrin	8.86	8.76	8.96	14600	8.82	15200	Y	4.1
,4'-DDE	8.65	8.55	8.75	14200				
ɪndrin	9.34	9.24	9.44	11650				
] ·ulfan II	9.50	9.40	9.60	12200	9.46	12975	Y	6.4
, ·DDD	9.53	9.43	9.63	10800				
ɪndo. sulfate	10.40	10.30	10.50	9875				
,4'-DDT	10.34	10.24	10.44	10350	10.30	10375	Y	0.2
ſethoxychlor	11.61	11.51	11.71	4020	11.56	4235	Y	5.3
ɪndrin ketone	11.54	11.44	11.64	12925				
. Chlordane	8.36	8.30	8.42	16900				
. Chlordane	8.06	8.00	8.12	18100				
oxaphene	11.24	11.14	11.34	678				
roclor-1016	5.92	5.82	6.02	958				
roclor-1221	4.68	4.58	4.78	372				
roclor-1232	5.92	5.82	6.02	424				
roclor-1242	5.92	5.82	6.02	918				
roclor-1248	5.93	5.83	6.03	731				
roclor-1254	10.46	10.36	10.56	623				
roclor-1260	12.06	12.00	12.12	852				

der QNT Y/N: enter Y if quantitation was performed, N if not performed.
must be less than or equal to 15.0% for quantitation, and less than
equal to 20.0% for confirmation.

te: Determining that no compounds were found above the CRQL is a form of
antitation, and therefore at least one column must meet the 15.0% criteria.

r multicomponent analytes, the single largest peak that is characteristic
t component should be used to establish retention time and %D.
ıtification of such analytes is based primarily on pattern recognition.

ge __ of __

FORM IX PEST 8/87 Rev.

AR302497

PESTICIDE/PCB STANDARDS SUMMARY

Name: Cancorie Environmental Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____

Instrument ID: 32 GC Column ID: RTX-5

DATE(S) OF ANALYSIS	FROM: 9-5-89	DATE OF ANALYSIS	9-6-89
	TO: 9-5-89	TIME OF ANALYSIS	23:13
TIME(S) OF ANALYSIS	FROM: 13:52	EPA SAMPLE NO. (STANDARD)	INDB
	TO: 18:12		

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALIBRATION FACTOR	RT	CALIBRATION FACTOR	QNT Y/N	%D
alpha-BHC	4.73	4.63	4.83	24400	4.70	22750	Y	6.8
beta-BHC	5.01	4.91	5.11	8800	4.99	8200	Y	6.8
delta-BHC	5.43	5.33	5.53	14300	5.40	17900	Y	7.2
gamma-BHC	5.16	5.06	5.26	19750				
heptachlor	6.28	6.18	6.38	16550				
aldrin	6.91	6.81	7.01	18600	6.87	17250	Y	7.2
heptachlor epoxide	7.61	7.51	7.71	16250				
endosulfan I	8.34	8.24	8.44	15200				
dieldrin	8.86	8.76	8.96	14600				
4,4'-DDE	8.65	8.55	8.75	14200	8.60	13650	Y	3.4
endrin	9.34	9.24	9.44	11650	9.29	11300	Y	3.0
endosulfan II	9.50	9.40	9.60	12200				
4,4'-DDD	9.53	9.43	9.63	10800	9.48	9675	Y	10
endosulfan sulfate	10.40	10.30	10.50	9875	10.35	8950	Y	9.4
4,4'-DDT	10.34	10.24	10.44	10350				
methoxychlor	11.61	11.51	11.71	4020				
endrin ketone	11.54	11.44	11.64	12925	11.48	11850	Y	8.3
gamma Chlordane	8.36	8.30	8.42	16900	8.31	15950	Y	5.6
alpha Chlordane	8.06	8.00	8.12	18100	8.02	16700	Y	7.7
toxaphene	11.24	11.14	11.34	678				
Aroclor-1016	5.92	5.82	6.02	958				
Aroclor-1221	4.68	4.58	4.78	372				
Aroclor-1232	5.92	5.82	6.02	424				
Aroclor-1242	5.92	5.82	6.02	918				
Aroclor-1248	5.93	5.83	6.03	731				
Aroclor-1254	10.46	10.36	10.56	623				
Aroclor-1260	12.06	12.00	12.12	852				

Enter QNT Y/N: enter Y if quantitation was performed, N if not performed. %D must be less than or equal to 15.0% for quantitation, and less than or equal to 20.0% for confirmation.

Note: Determining that no compounds were found above the CRQL is a form of quantitation, and therefore at least one column must meet the 15.0% criteria.

For multicomponent analytes, the single largest peak that is characteristic of the component should be used to establish retention time and %D. Identification of such analytes is based primarily on pattern recognition.

Page ___ of ___

FORM IX PEST 8/87 Rev.

AR302498

PESTICIDE/PCB STANDARDS SUMMARY

Lab Name: Cuneville Environmental Contract: _____

Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____

Instrument ID: 32 GC Column ID: Rtx-5

DATE(S) OF ANALYSIS	FROM: 9-5-89	DATE OF ANALYSIS	9-7-89
	TO: 9-5-89	TIME OF ANALYSIS	02:55
TIME(S) OF ANALYSIS	FROM: 13:52	EPA SAMPLE NO. (STANDARD)	INDA
	TO: 18:12		

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALIBRATION FACTOR	RT	CALIBRATION FACTOR	QNT Y/N	%D
alpha-BHC	4.73	4.63	4.83	24400				
beta-BHC	5.01	4.91	5.11	8800				
delta-BHC	5.43	5.33	5.53	19300				
gamma-BHC	5.16	5.06	5.26	19750	5.12	19600	Y	0.8
Heptachlor	6.28	6.18	6.38	16550	6.24	15950	Y	3.6
Aldrin	6.41 A	6.81	7.01	18600	6.87	17300	Y	7.0
Hept. epoxide	7.61	7.51	7.71	16250	7.56	15300	Y	5.8
Endosulfan I	8.34	8.24	8.44	15200	8.29	15000	Y	1.3
Dieldrin	8.86	8.76	8.96	14600	8.80	13900	Y	4.8
4,4'-DDE	8.65	8.55	8.75	14200				
Endrin	9.34	9.24	9.44	11650				
Endosulfan II	9.50	9.40	9.60	12200	9.46	11895	Y	2.5
4,4'-DDD	9.53	9.43	9.63	10800				
Endo. sulfate	10.40	10.30	10.50	9975				
4,4'-DDT	10.34	10.24	10.44	10350	10.30	9150	Y	12.
Methoxychlor	11.61	11.51	11.71	4020	11.56	3625	Y	9.8
Endrin ketone	11.54	11.44	11.64	12925				
a. Chlordane	8.36	8.30	8.42	16900				
g. Chlordane	8.06	8.00	8.12	18100				
Toxaphene	11.24	11.14	11.34	678				
Aroclor-1016	5.92	5.82	6.02	958				
Aroclor-1221	4.68	4.58	4.78	372				
Aroclor-1232	5.92	5.82	6.02	424				
Aroclor-1242	5.92	5.82	6.02	918				
Aroclor-1248	5.93	5.83	6.03	731				
Aroclor-1254	10.46	10.36	10.56	623				
Aroclor-1260	12.06	12.00	12.12	852				

der QNT Y/N: enter Y if quantitation was performed, N if not performed.
' must be less than or equal to 15.0% for quantitation, and less than equal to 20.0% for confirmation.

te: Determining that no compounds were found above the CRQL is a form of antitation, and therefore at least one column must meet the 15.0% criteria.

r multicomponent analytes, the single largest peak that is characteristic th component should be used to establish retention time and %D. . fication of such analytes is based primarily on pattern recognition.

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AR302499

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PESTICIDE/PCB STANDARDS SUMMARY

Lab Name: Cascade Environmental Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____

Instrument ID: 32 GC Column ID: Rtx-5

DATE(S) OF ANALYSIS	FROM: 9-5-89	DATE OF ANALYSIS	9-7-89
	TO: 9-5-89	TIME OF ANALYSIS	03:19
TIME(S) OF ANALYSIS	FROM: 13:52	EPA SAMPLE NO. (STANDARD)	INDB
	TO: 18:12		

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALIBRATION FACTOR	RT	CALIBRATION FACTOR	QNT Y/N	%D
alpha-BHC	4.73	4.63	4.83	24400	4.70	24200	Y	0.8
beta-BHC	5.01	4.91	5.11	8800	4.99	9450	Y	7.4
delta-BHC	5.43	5.33	5.53	19300	5.40	18100	Y	6.2
gamma-BHC	5.16	5.06	5.26	19750				
Heptachlor	6.28	6.18	6.38	16550				
Aldrin	6.91 A	6.81	7.01	18600	6.87	17200	Y	7.5
Hept. epoxide	7.61	7.51	7.71	16250				
Endosulfan I	8.34	8.24	8.44	15200				
Dieldrin	8.86	8.76	8.96	14600				
4,4'-DDE	8.65	8.55	8.75	14200	8.60	13500	Y	4.9
Endrin	9.34	9.24	9.44	11650	9.29	11000	Y	5.6
Endosulfan II	9.50	9.40	9.60	12200				
4,4'-DDD	9.53	9.43	9.63	10800	9.48	9725	Y	10.
sulfate	10.40	10.30	10.50	9875	10.35	8975	Y	9.1
4,4'-DDT	10.34	10.24	10.44	10350				
Methoxychlor	11.61	11.51	11.71	4020				
Endrin ketone	11.54	11.44	11.64	12925	11.48	12075	Y	6.6
. Chlordane	8.36	8.30	8.42	16900	8.31	15750	Y	6.8
. Chlordane	8.06	8.00	8.12	18100	8.02	16700	Y	7.7
Toxaphene	11.24	11.14	11.34	678				
Aroclor-1016	5.92	5.82	6.02	958				
Aroclor-1221	4.68	4.58	4.78	372				
Aroclor-1232	5.92	5.82	6.02	424				
Aroclor-1242	5.92	5.82	6.02	918				
Aroclor-1248	5.93	5.83	6.03	731				
Aroclor-1254	10.46	10.36	10.56	623				
Aroclor-1260	12.06	12.00	12.12	852				

er QNT Y/N: enter Y if quantitation was performed, N if not performed.
must be less than or equal to 15.0% for quantitation, and less than
equal to 20.0% for confirmation.

: Determining that no compounds were found above the CRQL is a form of
titation, and therefore at least one column must meet the 15.0% criteria.

multicomponent analytes, the single largest peak that is characteristic
he component should be used to establish retention time and %D.
tification of such analytes is based primarily on pattern recognition.

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AR302500

PESTICIDE/PCB STANDARDS SUMMARY

ab Name: Cascade Environmental Contract: _____

.. Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____

nstrument ID: 32 GC Column ID: RTX-35

DATE(S) OF ANALYSIS	FROM: 9-5-89	DATE OF ANALYSIS	9-6-89
	TO: 9-5-89	TIME OF ANALYSIS	18:05
TIME(S) OF ANALYSIS	FROM: 13.52	EPA SAMPLE NO. (STANDARD)	INDA
	TO: 18.12		

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALIBRATION FACTOR	RT	CALIBRATION FACTOR	QNT Y/N	%D
lpha-BHC	5.09	4.99	5.19	24150				
eta-BHC	5.82	5.72	5.92	8200				
elta-BHC	6.52	6.42	6.62	19300				
amma-BHC	5.75	5.65	5.85	19650	5.72	20500	Y	4.3
eptachlor	6.55	6.45	6.65	17050	6.55	17550	Y	2.9
ldrin	7.24	7.14	7.34	19200	7.21	19600	Y	2.1
ept. epoxide	8.35	8.25	8.45	16800	8.30	17250	Y	2.7
ndosulfan I	9.18	9.10	9.26	15350	9.14	15800	Y	2.9
ieldrin	9.84	9.74	9.94	15250	9.80	15850	Y	3.9
,4'-DDE	9.53	9.43	9.63	14550				
ndrin	10.65	10.55	10.75	10650				
ndosulfan II	11.06	10.99	11.13	12500	11.00	13400	Y	7.2
,'-DDD	10.80	10.70	10.90	10975				
sulfate	12.28	12.18	12.38	9725				
,4'-DDT	11.01	11.51	11.71	10525	11.55	11050	Y	5.0
ethoxychlor	13.93	13.83	14.03	4430	13.86	4785	Y	8.0
ndrin ketone	14.53	14.42	14.62	13400				
Chlordane	9.11	9.01	9.21	16450				
Chlordane	8.77	8.67	8.87	17750				
oxaphene	11.24	11.14	11.34	668				
oclor-1016	6.40	6.30	6.50	1036				
oclor-1221	4.96	4.86	5.06	347				
oclor-1232	6.41	6.31	6.51	415				
oclor-1242	6.48	6.30	6.50	901				
oclor-1248	6.42	6.32	6.52	758				
oclor-1254	9.90	9.80	10.00	787				
oclor-1260	14.81	14.71	14.91	562				

er QNT Y/N: enter Y if quantitation was performed, N if not performed.
nust be less than or equal to 15.0% for quantitation, and less than
equal to 20.0% for confirmation.

: Determining that no compounds were found above the CRQL is a form of
ntitation, and therefore at least one column must meet the 15.0% criteria.

multicomponent analytes, the single largest peak that is characteristic
the component should be used to establish retention time and %D.
ntification of such analytes is based primarily on pattern recognition.

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AR302501

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PESTICIDE/PCB STANDARDS SUMMARY

Lab Name: Cosmic Environmental Contract: _____

Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____

Instrument ID: 32 GC Column ID: RTX-35

DATE(S) OF ANALYSIS	FROM: 9-5-89	DATE OF ANALYSIS	9-6-89
	TO: 9-5-89	TIME OF ANALYSIS	23:13
TIME(S) OF ANALYSIS	FROM: 13.52	EPA SAMPLE NO. (STANDARD)	IH0B
	TO: 18.12		

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALIBRATION FACTOR	RT	CALIBRATION FACTOR	QNT Y/N	%D
alpha-BHC	5.09	4.99	5.19	24150	5.06	21650	Y	10.
beta-BHC	5.82	5.72	5.92	8200	5.78	7200	Y	12.
delta-BHC	6.52	6.42	6.62	19300	6.47	17550	Y	9.1
gamma-BHC	5.75	5.65	5.85	19650				
Heptachlor	6.55	6.45	6.65	17050				
Aldrin	7.24 A	7.14	7.34	19200	7.19	16900	Y	12.
Hept. epoxide	8.35	8.25	8.45	16800				
Endosulfan I	9.18	9.10	9.26	15350				
Dieldrin	9.84	9.74	9.94	15250				
4,4'-DDE	9.53	9.43	9.63	14550	9.47	12800	Y	12.
Endrin	10.65	10.55	10.75	10650	10.59	10350	Y	2.8
Endosulfan II	11.06	10.99	11.13	12500				
4,4'-DDD	10.80	10.70	10.90	10975	10.74	9775	Y	11.
Endosulfan sulfate	12.28	12.18	12.38	9725	12.20	8775	Y	9.8
4,4'-DDT	11.61	11.51	11.71	10525				
Methoxychlor	13.93	13.83	14.03	4430				
Endrin ketone	14.53	14.42	14.64	13400	14.43	12450	Y	7.1
Chlordane	9.11	9.01	9.21	16450	9.05	15400	Y	6.4
Chlordane	8.77	8.67	8.87	17750	8.72	16700	Y	5.9
Toxaphene	11.24	11.14	11.34	668				
Aroclor-1016	6.40	6.30	6.50	1036				
Aroclor-1221	4.96	4.86	5.06	347				
Aroclor-1232	6.41	6.31	6.51	415				
Aroclor-1242	6.48	6.30	6.50	961				
Aroclor-1248	6.42	6.32	6.52	758				
Aroclor-1254	9.90	9.80	10.00	787				
Aroclor-1260	14.81	14.71	14.91	562				

Enter QNT Y/N: enter Y if quantitation was performed, N if not performed. %D must be less than or equal to 15.0% for quantitation, and less than or equal to 20.0% for confirmation.

NOTE: Determining that no compounds were found above the CRQL is a form of quantitation, and therefore at least one column must meet the 15.0% criteria.

For multicomponent analytes, the single largest peak that is characteristic of the component should be used to establish retention time and %D. Identification of such analytes is based primarily on pattern recognition.

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AR302502

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PESTICIDE/PCB STANDARDS SUMMARY

Lab Name: Cangnic Environmental Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____

Instrument ID: 32 GC Column ID: RTX-35

DATE(S) OF ANALYSIS	FROM: 9-5-89	DATE OF ANALYSIS	9-7-89
	TO: 9-5-89	TIME OF ANALYSIS	02:55
TIME(S) OF ANALYSIS	FROM: 13.52	EPA SAMPLE NO. (STANDARD)	INDA
	TO: 18.12		

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALIBRATION FACTOR	RT	CALIBRATION FACTOR	QNT Y/N	%D
alpha-BHC	5.09	4.99	5.19	24150				
beta-BHC	5.82	5.72	5.92	8200				
delta-BHC	6.52	6.42	6.62	19300				
gamma-BHC	5.75	5.65	5.85	19650	5.71	18300	Y	6.9
Heptachlor	6.55	6.45	6.65	17050	6.51	15950	Y	6.4
Aldrin	7.24	7.14	7.34	19200	7.20	17450	Y	9.1
Hept. epoxide	8.35	8.25	8.45	16800	8.29	15450	Y	8.0
Endosulfan I	9.18	9.10	9.26	15350	9.13	15100	Y	1.6
Dieldrin	9.84	9.74	9.94	15250	9.80	14400	Y	5.6
4,4'-DDE	9.53	9.43	9.63	14550				
ndrin	10.65	10.55	10.75	10650				
ndosulfan II	11.06	10.99	11.13	12500	11.00	11800	Y	5.6
'-DDD	10.80	10.70	10.90	10975				
. sulfate	12.28	12.18	12.38	9725				
4,4'-DDT	11.61	11.51	11.71	10525	11.56	9280	Y	12.
Methoxychlor	13.93	13.83	14.03	4430	13.85	3960	Y	11.
Endrin k tone	14.53	14.42	14.68	13400				
a. Chlor ane	9.11	9.01	9.21	16450				
y. Chlor ane	8.77	8.67	8.87	17750				
oxaphene	11.24	11.14	11.34	668				
roclor-1016	6.40	6.30	6.50	1036				
roclor-1221	4.96	4.86	5.06	347				
roclor-1232	6.41	6.31	6.51	415				
roclor-1242	6.48	6.30	6.50	961				
roclor-1248	6.42	6.32	6.52	758				
roclor-1254	9.90	9.80	10.00	787				
roclor-1260	14.81	14.71	14.91	562				

der QNT Y/N: enter Y if quantitation was performed, N if not performed. must be less than or equal to 15.0% for quantitation, and less than equal to 20.0% for confirmation.

te: Determining that no compounds were found above the CRQL is a form of antitation, and therefore at least one column must meet the 15.0% criteria.

r multicomponent analytes, the single largest peak that is characteristic the component should be used to establish retention time and %D. ant ication of such analytes is based primarily on pattern recognition.

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AR302503

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PESTICIDE/PCB STANDARDS SUMMARY

Lab Name: Chemical Environmental Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____

Instrument ID: 32 GC Column ID: RTX-35

DATE(S) OF ANALYSIS	FROM: 9-5-89	DATE OF ANALYSIS	9-7-89
	TO: 9-5-89	TIME OF ANALYSIS	03:19
TIME(S) OF ANALYSIS	FROM: 13:52	EPA SAMPLE NO. (STANDARD)	INDB
	TO: 18:12		

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALIBRATION FACTOR	RT	CALIBRATION FACTOR	QNT Y/N	%D
alpha-BHC	5.09	4.99	5.19	24050	5.06	21700	Y	9.8
beta-BHC	5.82	5.72	5.92	8200	5.78	7400	Y	9.8
delta-BHC	6.52	6.42	6.62	19300	6.48	17650	Y	8.5
gamma-BHC	5.75	5.65	5.85	19650				
Heptachlor	6.55	6.45	6.65	17050				
Aldrin	7.24	7.14	7.34	19200	7.20	17100	Y	11.
Hept. epoxide	8.35	8.25	8.45	16800				
Endosulfan I	9.18	9.10	9.26	15350				
Dieldrin	9.84	9.74	9.94	15250				
4,4'-DDE	9.53	9.43	9.63	14550	9.48	13050	Y	10.
Endrin	10.65	10.55	10.75	10650	10.59	10200	Y	4.2
Endosulfan II	11.06	10.99	11.13	12500				
4,4'-DDD	10.80	10.70	10.90	10975	10.74	10075	Y	8.2
Endo. sulfate	12.28	12.18	12.38	9725	12.20	8925	Y	8.2
4,4'-DDT	11.01	11.51	11.71	10525				
Methoxychlor	13.43	13.83	14.03	4430				
Endrin ketone	14.53	14.42	14.64	13400	14.42	12525	Y	6.5
a. Chlordane	9.11	9.01	9.21	16450	9.06	14500	Y	12.
g. Chlordane	8.77	8.67	8.87	17750	8.72	16000	Y	9.8
Toxaphene	11.24	11.14	11.34	668				
Aroclor-1016	6.40	6.30	6.50	1036				
Aroclor-1221	4.96	4.86	5.06	347				
Aroclor-1232	6.41	6.31	6.51	415				
Aroclor-1242	6.40	6.30	6.50	961				
Aroclor-1248	6.42	6.32	6.52	758				
Aroclor-1254	9.90	9.80	10.00	787				
Aroclor-1260	14.81	14.71	14.91	562				

Under QNT Y/N: enter Y if quantitation was performed, N if not performed. %D must be less than or equal to 15.0% for quantitation, and less than or equal to 20.0% for confirmation.

Note: Determining that no compounds were found above the CRQL is a form of quantitation, and therefore at least one column must meet the 15.0% criteria.

For multicomponent analytes, the single largest peak that is characteristic of the component should be used to establish retention time and %D. Identification of such analytes is based primarily on pattern recognition.

Lab Name: Chronic Environmental Contract: PBLK1

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 7467 Blank

Sample wt/vol: 500 (g/mL) mL Lab File ID: _____

Level: (low/med) low Date Received: 8-18-89

% Moisture: not dec. _____ dec. _____ Date Extracted: 8-19-89

Extraction: (SepF/Cont/Sonc) SepF Date Analyzed: 9-5-89

GPC Cleanup: (Y/N) N pH: 7 Dilution Factor: 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
319-84-6	alpha-BHC	0.05	U
319-85-7	beta-BHC	0.05	U
319-86-8	delta-BHC	0.05	U
58-89-9	gamma-BHC (Lindane)	0.05	U
76-44-8	Heptachlor	0.05	U
309-00-2	Aldrin	0.05	U
1024-57-3	Heptachlor epoxide	0.05	U
959-98-8	Endosulfan I	0.05	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.5	U
53494-70-5	Endrin ketone	0.10	U
5103-71-9	alpha-Chlordane	0.5	U
5103-74-2	gamma-Chlordane	0.5	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.5	U
11104-28-2	Aroclor-1221	0.5	U
11141-16-5	Aroclor-1232	0.5	U
53469-21-9	Aroclor-1242	0.5	U
12672-29-6	Aroclor-1248	0.5	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U
			U

Lab Name: Canonie Environmental Contract: PBIK2

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 7471 Blank

Sample wt/vol: 500 (g/mL) mL Lab File ID: _____

Level: (low/med) LOW Date Received: 8-21-89

% Moisture: not dec. _____ dec. _____ Date Extracted: 8-22-89

Extraction: (SepF/Cont/Sonc) Cont Date Analyzed: 9-5-89

GPC Cleanup: (Y/N) N pH: 7 Dilution Factor: 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
319-84-6	alpha-BHC	0.05	U
319-85-7	beta-BHC	0.05	U
319-86-8	delta-BHC	0.05	U
58-89-9	gamma-BHC (Lindane)	0.05	U
76-44-8	Heptachlor	0.05	U
309-00-2	Aldrin	0.05	U
1024-57-3	Heptachlor epoxide	0.05	U
959-98-8	Endosulfan I	0.05	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.5	U
53494-70-5	Endrin ketone	0.10	U
5103-71-9	alpha-Chlordane	0.5	U
5103-74-2	gamma-Chlordane	0.5	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.5	U
11104-28-2	Aroclor-1221	0.5	U
11141-16-5	Aroclor-1232	0.5	U
53469-21-9	Aroclor-1242	0.5	U
12672-29-6	Aroclor-1248	0.5	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

Lab Name: Canonie Environmental Contract: PBLK 3

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 7471 Blank

Sample wt/vol: 500 (g/mL) mL Lab File ID: _____

Level: (low/med) low Date Received: 8-21-89

% Moisture: not dec. _____ dec. _____ Date Extracted: 8-22-89

Extraction: (SepF/Cont/Sonc) Cont Date Analyzed: 9-6-89

GPC Cleanup: (Y/N) N pH: 7 Dilution Factor: 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
319-84-6	alpha-BHC	0.05	U
319-85-7	beta-BHC	0.05	U
319-86-8	delta-BHC	0.05	U
58-89-9	gamma-BHC (Lindane)	0.05	U
76-44-8	Heptachlor	0.05	U
309-00-2	Aldrin	0.05	U
1024-57-3	Heptachlor epoxide	0.05	U
959-98-8	Endosulfan I	0.05	U
60-57-1	Dieldrin	0.05	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.5	U
53494-70-5	Endrin ketone	0.10	U
5103-71-9	alpha-Chlordane	0.5	U
5103-74-2	gamma-Chlordane	0.5	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.5	U
11104-28-2	Aroclor-1221	0.5	U
11141-16-5	Aroclor-1232	0.5	U
53469-21-9	Aroclor-1242	0.5	U
12672-29-6	Aroclor-1248	0.5	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

Lab Name: Canon e Environmental Contract: _____ | PBLK 4

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 7492 Blank

Sample wt/vol: 500 (g/mL) mL Lab File ID: _____

Level: (low/med) low Date Received: 8-24-89

% Moisture: not dec. _____ dec. _____ Date Extracted: 8-25-89

Extraction: (SepF/Cont/Sonc) Cont Date Analyzed: 9-6-89

GPC Cleanup: (Y/N) N pH: 7 Dilution Factor: 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
319-84-6	alpha-BHC	0.05	U
319-85-7	beta-BHC	0.05	U
319-86-8	delta-BHC	0.05	U
58-89-9	gamma-BHC (Lindane)	0.05	U
76-44-8	Heptachlor	0.05	U
309-00-2	Aldrin	0.05	U
1024-57-3	Heptachlor epoxide	0.05	U
959-98-8	Endosulfan I	0.05	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.5	U
53494-70-5	Endrin ketone	0.10	U
5103-71-9	alpha-Chlordane	0.5	U
5103-74-2	gamma-Chlordane	0.5	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.5	U
11104-28-2	Aroclor-1221	0.5	U
11141-16-5	Aroclor-1232	0.5	U
53469-21-9	Aroclor-1242	0.5	U
12672-29-6	Aroclor-1248	0.5	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

Lab Name: Canon Environmental Contract: PBIK 5

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 7499 Blank

Sample wt/vol: 500 (g/mL) mL Lab File ID: _____

Level: (low/med) low Date Received: 8-25-89

% Moisture: not dec. _____ dec. _____ Date Extracted: 8-25-89

Extraction: (SepF/Cont/Sonc) Cont Date Analyzed: 9-6-89

GPC Cleanup: (Y/N) N pH: 7 Dilution Factor: 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
319-84-6	alpha-BHC	0.05	U
319-85-7	beta-BHC	0.05	U
319-86-8	delta-BHC	0.05	U
58-89-9	gamma-BHC (Lindane)	0.05	U
76-44-8	Heptachlor	0.05	U
309-00-2	Aldrin	0.05	U
1024-57-3	Heptachlor epoxide	0.05	U
959-98-8	Endosulfan I	0.05	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.5	U
53494-70-5	Endrin ketone	0.10	U
5103-71-9	alpha-Chlordane	0.5	U
5103-74-2	gamma-Chlordane	0.5	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.5	U
11104-28-2	Aroclor-1221	0.5	U
11141-16-5	Aroclor-1232	0.5	U
53469-21-9	Aroclor-1242	0.5	U
12672-29-6	Aroclor-1248	0.5	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

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AR302509

Lab Name: Canonie Environmental Contract: _____ TRAVEL BLANK

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 7471843263

Sample wt/vol: 500 (g/mL) mL Lab File ID: _____

Level: (low/med) LOW Date Received: 8-21-89

% Moisture: not dec. _____ dec. _____ Date Extracted: 8-22-89

Extraction: (SepF/Cont/Sonc) Cont Date Analyzed: 9-6-89

GPC Cleanup: (Y/N) N pH: 7 Dilution Factor: 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
319-84-6	alpha-BHC	0.05	U
319-85-7	beta-BHC	0.05	U
319-86-8	delta-BHC	0.05	U
58-89-9	gamma-BHC (Lindane)	0.05	U
76-44-8	Heptachlor	0.05	U
309-00-2	Aldrin	0.05	U
1024-57-3	Heptachlor epoxide	0.05	U
959-98-8	Endosulfan I	0.05	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.5	U
53494-70-5	Endrin ketone	0.10	U
5103-71-9	alpha-Chlordane	0.5	U
5103-74-2	gamma-Chlordane	0.5	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.5	U
11104-28-2	Aroclor-1221	0.5	U
11141-16-5	Aroclor-1232	0.5	U
53469-21-9	Aroclor-1242	0.5	U
12672-29-6	Aroclor-1248	0.5	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

Lab Name: Canonie Environmental Contract: _____ MW-1G MS

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 7467 84324

Sample wt/vol: 500 (g/mL) mL Lab File ID: _____

Level: (low/med) LOW Date Received: 8-18-89

% Moisture: not dec. _____ dec. _____ Date Extracted: 8-19-89

Extraction: (SepF/Cont/Sonc) Sep F Date Analyzed: 9-5-89

GPC Cleanup: (Y/N) N pH: 7 Dilution Factor: 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
319-84-6	alpha-BHC	0.05	U
319-85-7	beta-BHC	0.05	U
319-86-8	delta-BHC	0.05	U
58-89-9	gamma-BHC (Lindane)	0.222	
76-44-8	Heptachlor	0.227	
309-00-2	Aldrin	0.196	
1024-57-3	Heptachlor epoxide	0.05	U
959-98-8	Endosulfan I	0.05	U
60-57-1	Dieldrin	0.546	
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.489	
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.518	
72-43-5	Methoxychlor	0.5	U
53494-70-5	Endrin ketone	0.10	U
5103-71-9	alpha-Chlordane	0.5	U
5103-74-2	gamma-Chlordane	0.5	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.5	U
11104-28-2	Aroclor-1221	0.5	U
11141-16-5	Aroclor-1232	0.5	U
53469-21-9	Aroclor-1242	0.5	U
12672-29-6	Aroclor-1248	0.5	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

Lab Name: Conco Environmental Contract: MW-1G MSD

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 7467 843249 M

Sample wt/vol: 500 (g/mL) mL Lab File ID: _____

Level: (low/med) low Date Received: 8-18-89

% Moisture: not dec. _____ dec. _____ Date Extracted: 8-19-89

Extraction: (SepF/Cont/Sonc) Sep F Date Analyzed: 9-5-89

GPC Cleanup: (Y/N) N pH: 7 Dilution Factor: 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
319-84-6	alpha-BHC	0.05	U
319-85-7	beta-BHC	0.05	U
319-86-8	delta-BHC	0.05	U
58-89-9	gamma-BHC (Lindane)	0.221	
76-44-8	Heptachlor	0.210	
309-00-2	Aldrin	0.185	
1024-57-3	Heptachlor epoxide	0.05	U
959-98-8	Endosulfan I	0.05	U
60-57-1	Dieldrin	0.536	
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.452	
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.488	
72-43-5	Methoxychlor	0.5	U
53494-70-5	Endrin ketone	0.10	U
5103-71-9	alpha-Chlordane	0.5	U
5103-74-2	gamma-Chlordane	0.5	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.5	U
11104-28-2	Aroclor-1221	0.5	U
11141-16-5	Aroclor-1232	0.5	U
53469-21-9	Aroclor-1242	0.5	U
12672-29-6	Aroclor-1248	0.5	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

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Lab Name: Canonie Environmental Contract: _____ MW 4-G MS

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 747184325[illegible]

Sample wt/vol: 500 (g/mL) mL Lab File ID: _____

Level: (low/med) low Date Received: 8-21-89

% Moisture: not dec. _____ dec. _____ Date Extracted: 8-22-89

Extraction: (SepF/Cont/Sonc) Cont Date Analyzed: 9-5-89

GPC Cleanup: (Y/N) N pH: 7 Dilution Factor: 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ~~ug~~/L	Q
319-84-6	alpha-BHC	0.05	U
319-85-7	beta-BHC	0.05	U
319-86-8	delta-BHC	0.05	U
58-89-9	gamma-BHC (Lindane)	0.214	
76-44-8	Heptachlor	0.178	
309-00-2	Aldrin	0.153	
1024-57-3	Heptachlor epoxide	0.05	U
959-98-8	Endosulfan I	0.05	U
60-57-1	Dieldrin	0.550	
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.619	
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.506	
72-43-5	Methoxychlor	0.5	U
53494-70-5	Endrin ketone	0.10	U
5103-71-9	alpha-Chlordane	0.5	U
5103-74-2	gamma-Chlordane	0.5	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.5	U
11104-28-2	Aroclor-1221	0.5	U
11141-16-5	Aroclor-1232	0.5	U
53469-21-9	Aroclor-1242	0.5	U
12672-29-6	Aroclor-1248	0.5	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

Lab Name: Canale Environmental Contract: _____ MW 4-G MSD

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 7471843253 MSD

Sample wt/vol: 500 (g/mL) mL Lab File ID: _____

Level: (low/med) low Date Received: 8-21-89

% Moisture: not dec. _____ dec. _____ Date Extracted: 8-22-89

Extraction: (SepF/Cont/Sonc) Cont Date Analyzed: 9-5-89

GPC Cleanup: (Y/N) N pH: 7 Dilution Factor: 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
319-84-6	alpha-BHC	0.05	U
319-85-7	beta-BHC	0.05	U
319-86-8	delta-BHC	0.05	U
58-89-9	gamma-BHC (Lindane)	0.217	
76-44-8	Heptachlor	0.182	
309-00-2	Aldrin	0.157	
1024-57-3	Heptachlor epoxide	0.05	U
959-98-8	Endosulfan I	0.05	U
60-57-1	Dieldrin	0.562	
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.640	
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.528	
72-43-5	Methoxychlor	0.5	U
53494-70-5	Endrin ketone	0.10	U
5103-71-9	alpha-Chlordane	0.5	U
5103-74-2	gamma-Chlordane	0.5	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.5	U
11104-28-2	Aroclor-1221	0.5	U
11141-16-5	Aroclor-1232	0.5	U
53469-21-9	Aroclor-1242	0.5	U
12672-29-6	Aroclor-1248	0.5	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

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CANONIE ENVIRONMENTAL SERVICES CORP.

CLP/PESTICIDES ANALYSES

CASE NARRATIVE

Date: 10-10-89

Chemist: Tim J. Santelice

Canonie Project Name:

Case Number:

Contract Number:

Canonie Project Number:

SOW Date: 2-88

SDG Number: 3

LP Number(s):

7647

7663

7671

EPA Sample ID	Canonie Sample ID	EPA Sample ID	Canonie Sample ID
1. MW-17G	1. 7647/844085	11.	11.
2. MW-18G	2. 7647/844086	12.	12.
3. MW-23G	3. 7663/844166	13.	13.
4. MW-22G	4. 7663/844168	14.	14.
5. MW-21G	5. 7663/844169	15.	15.
6. MW-19G	6. 7663/844171	16.	16.
7. MW-20G	7. 7663/844172	17.	17.
8. MW-24G	8. 7671/844237	18.	18.
9. MW-25G	9. 7671/844238	19.	19.
10.	10.	20.	20.