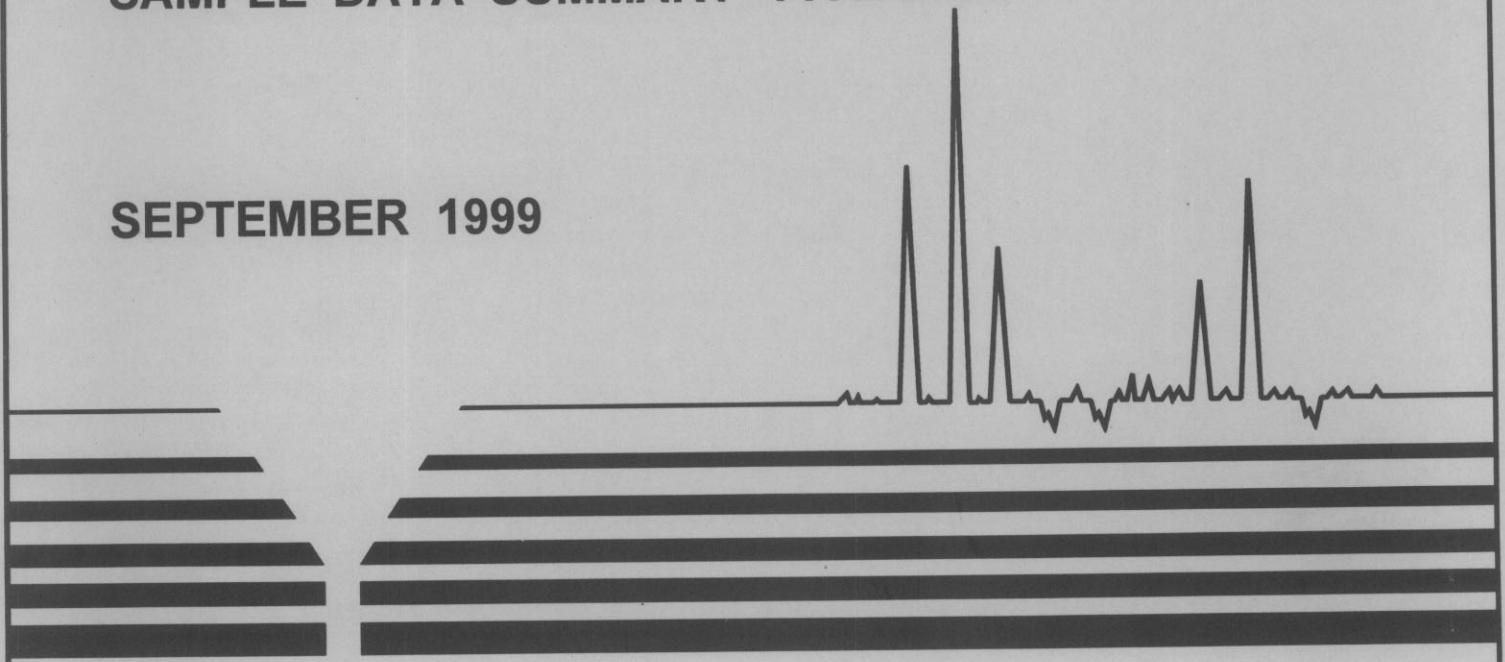
Analytical Data Package For

NEW YORK STATE
DEPARTMENT OF CONSERVATION
REGION 1
CASE NO.: SH199
SDG NO.: 0928A

WATER SAMPLES
SAMPLES RECEIVED: 9/28/99

SAMPLE DATA SUMMARY PACKAGE

SEPTEMBER 1999



H2M LABS, INC.
Environmental Testing Laboratories
575 Broad Hollow Road, Melville, N.Y. 11747

H2M LABS, INC.

SAMPLE DATA SUMMARY PACKAGE

TABLE OF CONTENTS

NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION
REGION 1
CONTRACT #: C003786
CASE: SH199
SDG NO.: 0928A
LAB CODE: 10478
SAMPLES RECEIVED: 9/28/99

H2M LABS, INC.

1. NYS DEC SUMMARY FORMS

H2M LABS, INC.

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE IDENTIFICATION AND
ANALYTICAL REQUIREMENT SUMMARY
NYSDEC
REGION 1
CONTRACT NO.: C003180
CASE NO.: SH199
SDG NO: 0928A
SAMPLES RECEIVED: 9/28/99

Customer Sample Code	Laboratory Sample Code	Analytical Requirements					
		*VOA GC/MS	*BNA GC/MS	*PEST PCBs	* HERB	*METALS	OTHER
D00703	9929187	X					
D00704	9929188	X					
D00705	9929189	X					
D00707	9929190	X					

* Check Appropriate Boxes
* CLP, Non-CLP (Please indicate year of protocol) 10/95 Rev.
* TCL/TAL, HCL,

S 0003

Volatile Sample Analysis Summary

Sample ID	Matrix	Date Collected	Date Received	Level	Date Analyzed
D00703	water	9/28/99	9/28/99	LOW	9/30/99
D00704	water	9/28/99	9/28/99	LOW	9/30/99
D00705	water	9/28/99	9/28/99	LOW	9/30/99
D00705DL	water	9/28/99	9/28/99	LOW	10/1/99
D00707	water	9/28/99	9/28/99	LOW	9/30/99

2. CHAIN OF CUSTODY DOCUMENTATION

H2M LABS, INC.

575 Broad Hollow Rd, Melville, NY 11747-5076
Tel: (516) 694-3040 Fax: (516) 420-8436

0781

EXTERNAL CHAIN OF CUSTODY

CLIENT: NYSDEC

H2M SDG NO:

PROJECT NAME/NUMBER: NYSDEC Jamie Fischer

SAMPLERS: (signature)/Client: NYSDEC Division Environmental Remediation Bldg 40 SUNY Stony Brook NY 11790

DELIVERABLES:

TURNAROUND TIME:

NOTES:

Project Contact:

Phone Number:

DATE	TIME	MATRIX	FIELD I.D.	Total No. of Containers	ANALYSIS REQUESTED: ORGANIC VOA	ORGANIC BNA	ORGANIC Pest/PCB			NO_3	INORG. Metal	INORG. CN	LAB I.D. NO.	REMARKS:
			Sample Container Description →		40ml. vial - HCl		Liter glass			250ml. glass - H_2SO_4	Liter plastic - HNO_3			
9/28/99	1200	GW	SH19990928D00703	2	2		2			1	1		9929187	
9/28/99	1220	GW	SH19990928D00704	2									9929188	
9/28/99	1240	GW	SH19990928D00705	2									9929189	
9/28/99	1300	GW	SH19990928D00707	2									9929190	

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Mark Dey	9/28/99				
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
	9/29/99	1330		9/29/99	1330

LABORATORY USE ONLY

Discrepancies Between Sample Labels and COC Record? Y or N

Explain:

Samples were:
1. Shipped ___ or Hand Delivered ✓ Airbill#
2. Ambient or chilled Y or N (Transferred from cooler)
3. Received in good condition Y or N
4. Properly preserved Y or N
5. Samples returned to lab ___ Hrs from collection.

COC Tape was:
1. Present on outer package: Y or N
2. Unbroken on outer package: Y or N
3. COC record present & complete upon sample receipt: Y or N

WHITE COPY - ORIGINAL YELLOW COPY - CLIENT PINK COPY - LABORATORY

0000

H2M LABS, INC.

INTERNAL CHAIN OF CUSTODY

CLIENT: NDEC DELIVERABLES: C.570 TURN AROUND TIME: ST D

LOG #: 0928A CASE #: SH199 MATRIX: GW pH CHECK Y or N

REMARKS:

RECEIVED BY: LJJ SIGNATURE: Laura Jennings DATE: 9/28/99 TIME: 13:30

CLIENT ID	H2M LAB #	DATE COLLECTED	BOTTLE TYPE	# OF BOTTLES	TESTS REQUESTED
D00703	9928187	9/28/99	D4	2	PUTCL
D00704	188	↓	↓	↓	↓
D00705	189	↓	↓	↓	↓
D00707	190	↓	↓	↓	↓
		LJJ 9/28/99			

P 0067 S 0007

H2M LABS, INC.

CLIENT: NDEC.

SDG #: 0928

INTERNAL CHAIN OF CUSTODY

DATE	TIME	SAMPLE RELINQUISHED BY	SAMPLE RECEIVED BY	BOTTLE TYPE	PURPOSE OF CHANGE OF CUSTODY	INIT
9/29	10:00	SIGN Ilana Jennings	SIGN Brandon Duarz	.DH	analysis	
		SIGN	SIGN			
		SIGN	SIGN			
		SIGN	SIGN			
		SIGN	SIGN			
		SIGN	SIGN			
		SIGN	SIGN			
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		SIGN	SIGN			

3. CASE NARRATIVES

H2M LABS, INC.

SDG NARRATIVE FOR VOLATILES
SAMPLES RECEIVED: 9/28/99
CONTRACT #: C003786
CASE #: SH199
SDG #: 0928A

For Samples:

D00703
D00704
D00705
D00707

The above samples were analyzed according to the requirements of the NYSDEC ASP 10/95 method 95-1 for the TCL volatile organic analytes.

No matrix spike/matrix spike duplicate was submitted.

Due to concentration levels of targeted analytes above the calibration range, sample D00705 was reanalyzed at a dilution. Both sets of data are submitted.

The continuing calibration of 9/30 had two %D's above the QC limit and one Rf that did not meet the minimum Rf requirement. Carbon tetrachloride had a 35.1% recovery (limit 25%), tetrachloroethene had a 28.5% recovery (limit 25%) and trichloroethene had a Rf of 0.280 (minimum Rf 0.300). This was not observed during analysis and was determined during the review procedure.

All other quality control and calibration requirements were met.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Date Reported: August 17, 1999

****
* *
* *
****

Joann M. Slavin
Quality Assurance Manager

H2M LABS, INC.

4. SAMPLE REPORTS
4.1 VOLATILES

QUALIFIERS FOR REPORTING ORGANICS DATA

Value - If the result is a value greater than or equal to the quantification limit, report the value.

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

$$\frac{(300\ U)}{D} \times df \text{ where } D = \frac{100\% moisture}{100}$$

and df - dilution factor

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

$$\frac{(300\ U)}{.76} \times 10 - 4300\ U$$ rounded to the appropriate number of significant figures

For semivolatile soil samples, the extract must be concentrated to 0.5 mL, and the sensitivity of the analysis is not compromised by the cleanup procedures. Similarly, pesticide samples subjected to GPC are concentrated to 5.0 mL. Therefore, the CRQL values in Exhibit C will apply to all samples, regardless of cleanup. However, if a sample extract cannot be concentrated to the protocol-specified volume (see Exhibit C), this fact must be accounted for in reporting the sample quantitation limit.

J - Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the specified quantification limit but greater than zero. (e.g.: If limit of quantification is 10 ug/L and a concentration of 3 ug/L is calculated, report as 3J.) The sample quantitation limit must be adjusted for dilution as discussed for the U flag.

N - Indicates presumptive evidence of a compound. This flag is only used for tentatively identified compounds, where the identification is based on a mass spectral library search. It is applied to all TIC results. For generic characterization of a TIC, such as chlorinated hydrocarbon, the N code is not used.

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

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

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

E - This flag identified compounds whose concentrations exceed the calibration range of the GC/MS instrument for that specific analysis. If one or more compounds have a response greater than full scale, except as noted in Exhibit D, the sample or extract must be diluted and re-analyzed according to the specifications in Exhibit D. All such compounds with a response greater than full scale should have the concentration flagged with an "E" on the Form I for the original analysis. If the dilution of the extract causes any compounds identified in the first analysis to be below the calibration ranges in the second analysis, then the results of both analyses shall be reported on separate copies of Form I. The Form I for the diluted sample shall have the "DL" suffix appended to the sample number. NOTE: For total xylenes, where three isomers are quantified as two peaks, the calibration range of each peak should be considered separately, e.g. a diluted analysis is not required for total xylenes unless the concentration of the peak representing the single isomer exceed 200 ug/L or the peak representing the two coeluting isomers on that GC column exceed 400 ug/L. Similarly, if the two 1,2-Dichloroethene isomers coelute, a diluted analysis is not required unless the concentration exceed 400 ug/L.

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

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

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

The combination of flags "BU' or "UB" is expressly prohibited. Blank contaminants are flagged "B" only when they are detected in the sample.

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

D00703

Lab Name: H2M LABS INC. Contract: _____

Lab Code: _____ Case No.: SH199 SAS No.: _____ SDG No.: 0928

Matrix: (soil/water) WATER Lab Sample ID: 9929187

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: F1921.D

Level: (low/med) LOW Date Received: 09/28/99

% Moisture: not dec. _____ Date Analyzed: 09/30/99

GC Column: RTX-624 ID: 0.25 (mm) Dilution Factor: 1.0

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

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/L

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

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

D00703

Lab Name: H2M LABS INC. Contract: _____

Lab Code: _____ Case No.: SH199 SAS No.: _____ SDG No.: 0928

Matrix: (soil/water) WATER Lab Sample ID: 9929187

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: F1921.D

Level: (low/med) LOW Date Received: 09/28/99

% Moisture: not dec. _____ Date Analyzed: 09/30/99

GC Column: RTX-624 ID: 0.25 (mm) Dilution Factor: 1.0

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

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

Number TICs found: 0

CAS NO.	COMPOUND	RT	EST. CONC.	Q

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

D00704

Lab Name: H2M LABS INC. Contract: _____

Lab Code: _____ Case No.: SH199 SAS No.: _____ SDG No.: 0928

Matrix: (soil/water) WATER Lab Sample ID: 9929188

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: F1922.D

Level: (low/med) LOW Date Received: 09/28/99

% Moisture: not dec. _____ Date Analyzed: 09/30/99

GC Column: RTX-624 ID: 0.25 (mm) Dilution Factor: 1.0

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

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND		Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	10	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-4	1,1-Dichloroethane	1	J
540-59-0	1,2-Dichloroethene (total)	16	
78-93-3	2-Butanone	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
71-55-6	1,1,1-Trichloroethane	7	J
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	14	
71-43-2	Benzene	10	U
124-48-1	Dibromochloromethane	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
79-00-5	1,1,2-Trichloroethane	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	190	
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

D00704

Lab Name: H2M LABS INC. Contract: _____

Lab Code: _____ Case No.: SH199 SAS No.: _____ SDG No.: 0928

Matrix: (soil/water) WATER Lab Sample ID: 9929188

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: F1922.D

Level: (low/med) LOW Date Received: 09/28/99

% Moisture: not dec. _____ Date Analyzed: 09/30/99

GC Column: RTX-624 ID: 0.25 (mm) Dilution Factor: 1.0

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

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

Number TICs found: 1

CAS NO.	COMPOUND	RT	EST. CONC.	Q
1. 000064-17-5	Ethanol	2.53	5	JN

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

D00705

Lab Name: H2M LABS INC. Contract: _____

Lab Code: _____ Case No.: SH199 SAS No.: _____ SDG No.: 0928

Matrix: (soil/water) WATER Lab Sample ID: 9929189

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: F1923.D

Level: (low/med) LOW Date Received: 09/28/99

% Moisture: not dec. _____ Date Analyzed: 09/30/99

GC Column: RTX-624 ID: 0.25 (mm) Dilution Factor: 1.0

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

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	10	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-4	1,1-Dichloroethane	1	J
540-59-0	1,2-Dichloroethene (total)	11	
78-93-3	2-Butanone	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
71-55-6	1,1,1-Trichloroethane	6	J
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	15	
71-43-2	Benzene	10	U
124-48-1	Dibromochloromethane	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
79-00-5	1,1,2-Trichloroethane	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	290	E
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	3	J
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	4	J

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

D00705

Lab Name: H2M LABS INC. Contract: _____

Lab Code: _____ Case No.: SH199 SAS No.: _____ SDG No.: 0928

Matrix: (soil/water) WATER Lab Sample ID: 9929189

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: F1923.D

Level: (low/med) LOW Date Received: 09/28/99

% Moisture: not dec. _____ Date Analyzed: 09/30/99

GC Column: RTX-624 ID: 0.25 (mm) Dilution Factor: 1.0

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

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

Number TICs found: 1

CAS NO.	COMPOUND	RT	EST. CONC.	Q
1. 001634-04-4	Propane, 2-methoxy-2-methyl-	3.13	10	JN

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

D00705DL

Lab Name: H2M LABS INC. Contract: _____

Lab Code: _____ Case No.: SH199 SAS No.: _____ SDG No.: 0928

Matrix: (soil/water) WATER Lab Sample ID: 9929189DL

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: F1933.D

Level: (low/med) LOW Date Received: 09/28/99

% Moisture: not dec. _____ Date Analyzed: 10/01/99

GC Column: RTX-624 ID: 0.25 (mm) Dilution Factor: 4.0

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

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) UG/L Q

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	40	U
74-83-9	Bromomethane	40	U
75-01-4	Vinyl Chloride	40	U
75-00-3	Chloroethane	40	U
75-09-2	Methylene Chloride	40	U
67-64-1	Acetone	40	U
75-15-0	Carbon Disulfide	40	U
75-35-4	1,1-Dichloroethene	40	U
75-34-4	1,1-Dichloroethane	40	U
540-59-0	1,2-Dichloroethene (total)	13	JD
78-93-3	2-Butanone	40	U
67-66-3	Chloroform	40	U
107-06-2	1,2-Dichloroethane	40	U
71-55-6	1,1,1-Trichloroethane	7	JD
56-23-5	Carbon Tetrachloride	40	U
75-27-4	Bromodichloromethane	40	U
78-87-5	1,2-Dichloropropane	40	U
10061-01-5	cis-1,3-Dichloropropene	40	U
79-01-6	Trichloroethene	19	JD
71-43-2	Benzene	40	U
124-48-1	Dibromochloromethane	40	U
10061-02-6	trans-1,3-Dichloropropene	40	U
79-00-5	1,1,2-Trichloroethane	40	U
75-25-2	Bromoform	40	U
108-10-1	4-Methyl-2-Pentanone	40	U
591-78-6	2-Hexanone	40	U
127-18-4	Tetrachloroethene	280	D
79-34-5	1,1,2,2-Tetrachloroethane	40	U
108-88-3	Toluene	5	JD
108-90-7	Chlorobenzene	40	U
100-41-4	Ethylbenzene	40	U
100-42-5	Styrene	40	U
1330-20-7	Xylene (total)	40	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

D00705DL

Lab Name: H2M LABS INC. Contract: _____

Lab Code: _____ Case No.: SH199 SAS No.: _____ SDG No.: 0928

Matrix: (soil/water) WATER

Sample wt/vol: 5.0 (g/ml) ML

Level: (low/med) LOW

% Moisture: not dec. _____

GC Column: RTX-624 ID: 0.25 (mm)

Soil Extract Volume: _____ (uL)

Lab Sample ID: 9929189DL

Lab File ID: F1933.D

Date Received: 09/28/99

Date Analyzed: 10/01/99

Dilution Factor: 4.0

Soil Aliquot Volume: _____ (uL)

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

Number TICs found: 1

CAS NO.	COMPOUND	RT	EST. CONC.	Q
1. 001634-04-4	Propane, 2-methoxy-2-methyl-	3.13	29	JND

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

D00707

Lab Name: H2M LABS INC. Contract: _____

Lab Code: _____ Case No.: SH199 SAS No.: _____ SDG No.: 0928

Matrix: (soil/water) WATER Lab Sample ID: 9929190

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: F1924.D

Level: (low/med) LOW Date Received: 09/28/99

% Moisture: not dec. _____ Date Analyzed: 09/30/99

GC Column: RTX-624 ID: 0.25 (mm) Dilution Factor: 1.0

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

CONCENTRATION UNITS:

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

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

D00707

Lab Name: H2M LABS INC. Contract: _____

Lab Code: _____ Case No.: SH199 SAS No.: _____ SDG No.: 0928

Matrix: (soil/water) WATER Lab Sample ID: 9929190

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: F1924.D

Level: (low/med) LOW Date Received: 09/28/99

% Moisture: not dec. _____ Date Analyzed: 09/30/99

GC Column: RTX-624 ID: 0.25 (mm) Dilution Factor: 1.0

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

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

Number TICs found: 0

CAS NO.	COMPOUND	RT	EST. CONC.	Q

5. SURROGATE SPIKE ANALYSIS RESULTS

5.1 VOLATILES

2A

WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: H2M LABS INC. Contract: _____

Lab Code: _____ Case No.: SH199 SAS No.: _____ SDG No.: 0928

	EPA SAMPLE NO.	SMC1 (DCE) #	SMC2 (TOL) #	SMC3 (BFB) #	TOT OUT
01	VBLK9/30	89	99	91	0
02	D00703	93	97	94	0
03	D00704	90	98	94	0
04	D00705	92	98	95	0
05	D00707	95	98	95	0
06	VBLK10/1	84	97	92	0
07	D00705DL	82	98	92	0

				QC LIMITS
SMC1	(DCE)	=	1,2-Dichloroethane-d4	(76-114)
SMC2	(TOL)	=	Toluene-d8	(88-110)
SMC3	(BFB)	=	Bromofluorobenzene	(86-115)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

6. BLANK SUMMARY DATA AND RESULTS

6.1 VOLATILES

4A

VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLK9/30

Lab Name: H2M LABS INC. Contract: _____

Lab Code: _____ Case No.: SH199 SAS No.: _____ SDG No.: 0928

Lab File ID: F1906.D Lab Sample ID: VBLK9/30/99

Date Analyzed: 09/30/99 Time Analyzed: 10:40

GC Column: RTX-624 ID: 0.25 (mm) Heated Purge: (Y/N) N

Instrument ID: 5973

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	D00703	9929187	F1921.D	17:25
02	D00704	9929188	F1922.D	17:50
03	D00705	9929189	F1923.D	18:15
04	D00707	9929190	F1924.D	18:41

COMMENTS

S 0327

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

VBLK9/30

Lab Name: H2M LABS INC. Contract: _____

Lab Code: _____ Case No.: SH199 SAS No.: _____ SDG No.: 0928

Matrix: (soil/water) WATER Lab Sample ID: VBLK9/30/99

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: F1906.D

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

% Moisture: not dec. _____ Date Analyzed: 09/30/99

GC Column: RTX-624 ID: 0.25 (mm) Dilution Factor: 1.0

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

CONCENTRATION UNITS:

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

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLK9/30

Lab Name: H2M LABS INC. Contract: _____

Lab Code: _____ Case No.: SH199 SAS No.: _____ SDG No.: 0928

Matrix: (soil/water) WATER Lab Sample ID: VBLK9/30/99

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: F1906.D

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

% Moisture: not dec. _____ Date Analyzed: 09/30/99

GC Column: RTX-624 ID: 0.25 (mm) Dilution Factor: 1.0

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

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

Number TICs found: 0

CAS NO.	COMPOUND	RT	EST. CONC.	Q

4A

VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLK10/1

Lab Name: H2M LABS INC. Contract:

Lab Code: Case No.: SH199 SAS No.: SDG No.: 0928

Lab File ID: F1930.D Lab Sample ID: VBLK10/01/99

Date Analyzed: 10/01/99 Time Analyzed: 09:22

GC Column: RTX-624 ID: 0.25 (mm) Heated Purge: (Y/N) N

Instrument ID: 5973

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	D00705DL	9929189DL	F1933.D	10:39

COMMENTS

S 0030

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK10/1

Lab Name: H2M LABS INC. Contract: _____

Lab Code: _____ Case No.: SH199 SAS No.: _____ SDG No.: 0928

Matrix: (soil/water) WATER Lab Sample ID: VBLK10/01/99

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: F1930.D

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

% Moisture: not dec. _____ Date Analyzed: 10/01/99

GC Column: RTX-624 ID: 0.25 (mm) Dilution Factor: 1.0

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

CONCENTRATION UNITS:

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

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLK10/1

Lab Name: H2M LABS INC. Contract: _____

Lab Code: _____ Case No.: SH199 SAS No.: _____ SDG No.: 0928

Matrix: (soil/water) WATER Lab Sample ID: VBLK10/01/99

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: F1930.D

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

% Moisture: not dec. _____ Date Analyzed: 10/01/99

GC Column: RTX-624 ID: 0.25 (mm) Dilution Factor: 1.0

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

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

Number TICs found: 0

CAS NO.	COMPOUND	RT	EST. CONC.	Q

H2M LABS, INC.

7. INTERNAL STANDARD AREA DATA

7.1 VOLATILES

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: H2M LABS INC. Contract:

Lab Code: Case No.: SH199 SAS No.: SDG No.: 0928

Lab File ID (Standard): F1929.D Date Analyzed: 10/01/99

Instrument ID: 5973 Time Analyzed: 08:45

GC Column: RTX-624 ID: 0.25 (mm) Heated Purge: (Y/N) N

		IS1(BCM) AREA #	RT #	IS2(DFB) AREA #	RT #	IS3(CBZ) AREA #	RT #
	12 HOUR STD	16137	3.93	115111	4.50	99226	6.38
	UPPER LIMIT	32274	3.43	230222	4.00	198452	5.88
	LOWER LIMIT	8069	4.43	57556	5.00	49613	6.88
	EPA SAMPLE NO.						
01	VBLK10/1	16695	3.94	112121	4.50	90689	6.38
02	D00705DL	17097	3.94	113288	4.50	91086	6.39

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

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column to be used to flag values outside QC limit with an asterisk.
* Values outside of contract required QC limits

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: H2M LABS INC. Contract:

Lab Code: Case No.: SH199 SAS No.: SDG No.: 0928

Lab File ID (Standard): F1905.D Date Analyzed: 09/30/99

Instrument ID: 5973 Time Analyzed: 10:11

GC Column: RTX-624 ID: 0.25 (mm) Heated Purge: (Y/N) N

		IS1(BCM) AREA #	RT #	IS2(DFB) AREA #	RT #	IS3(CBZ) AREA #	RT #
	12 HOUR STD	17916	3.93	127924	4.50	107159	6.38
	UPPER LIMIT	35832	3.43	255848	4.00	214318	5.88
	LOWER LIMIT	8958	4.43	63962	5.00	53580	6.88
	EPA SAMPLE NO.						
01	VBLK9/30	18232	3.93	120294	4.49	97129	6.38
02	D00703	15311	3.94	102884	4.50	85015	6.38
03	D00704	15749	3.94	104931	4.50	84600	6.39
04	D00705	16041	3.92	107689	4.49	88604	6.38
05	D00707	15188	3.93	106215	4.49	84817	6.38

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

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column to be used to flag values outside QC limit with an asterisk.
* Values outside of contract required QC limits

S 0035