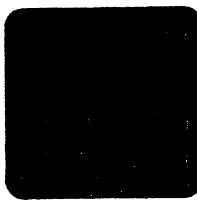


FREE-COL LABORATORIES, LTD.

P.O. Box 557, 11618 Cotton Road
Meadville, Pennsylvania 16335-0557
Phone: Area Code 814/724-8242
FAX: Area Code 814/333-1466

ENVIRONMENTAL
OCCUPATIONAL HEALTH
FOOD SCIENCE
SPECIALISTS




SEP 11 1997

DELPHI HARRISON THRM. SYS.
GENERAL MOTORS CORPORATION

GZA MONITORING WELLS

SAMPLE DATES: 08/28/97
P.O.# HH48988

Report reviewed and approved by:



John Paraska
Quality Assurance Supervisor

METHODS

<u>PARAMETER</u>	<u>METHOD</u>	<u>SOURCE</u>
Volatile Compounds (for MW-12 & MW-11)	524.2	7
Volatile Compounds	8260A	2
BTEX	8260A	2

SOURCE

- 2 - "Test Methods for Evaluating Solid Waste: Physical/Chemical Methods", SW-846, Third Edition, U.S. Environmental Protection Agency. Revised 1986.
- 7 - "Volatile Organic Compounds in Water by Purge and Trap (Capillary) Gas Chromatography/Mass Spectrometry", (Sept. 1986), USEPA, EMSL, Cincinnati, Ohio 45268.



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EMAIL: freecol@toolcity.net

09/11/97

TO:

DELPHI HARRISON THRM.SYS
ATTN: MS. CATHERINE VER
200 UPPER MOUNTAIN RD.
LOCKPORT NY 14094

P.O. # HH48988

ACCOUNT NO. 01220

ANALYTICAL REPORT FORM

PAGE 1

	SAMPLE ID	MW-12	MW-11	MW-13	MW-10
		08/28/97	08/28/97	08/28/97	08/28/97
	LAB ID	70829402	70829403	70829404	70829405
PARAMETER	DATE RECEIVED:	08/29/97	08/29/97	08/29/97	08/29/97

UNITS = MG/L

TRICHLOROETHYLENE	<0.0005	<0.0005	<0.005	0.38
TETRACHLOROETHANE	<0.0005	<0.0005	<0.005	0.16
1,2-DICHLOROETHENE	0.089	0.0045	0.13	1.1
VINYL CHLORIDE	0.11	0.0039	0.19	0.070
VOLATILE SET-UP	COMPLETE	COMPLETE	COMPLETE	COMPLETE

Please reference the following page(s) for date and analyst.

A.I.H.A. Accreditation No. 98
U.S. Public Health Services Approved Facility
PA D.E.R. Laboratory I.D. No. 20-073
PA Dept. of Agriculture Approved Dairy Laboratory
NY Dept. of Health Laboratory I.D. No. 10552

NY Dept. of Env. Conservation Approved Facility
ND Dept. of Health Cert. No. R-083
MD Dept. of Health Cert. No. 130
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P.O. # HH48988

ACCOUNT NO. 01220

ANALYTICAL REPORT FORM

PAGE 2

	SAMPLE ID	:	MW-9	MW-8	MW-6	MW-4
			08/28/97	08/28/97	08/28/97	08/28/97
	LAB ID		70829406	70829407	70829408	70829409
PARAMETER	DATE RECEIVED:		08/29/97	08/29/97	08/29/97	08/29/97

UNITS = MG/L

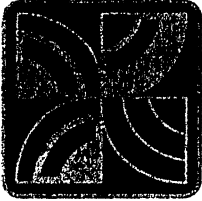
TRICHLOROETHYLENE	1.4	0.30	1.2	29
TETRACHLOROETHANE	0.027	0.028	2.0	<0.2 D
1,2-DICHLOROETHENE	2.5	2.8	10	100
VINYL CHLORIDE	0.056	0.062	5.3	14
VOLATILE SET-UP	COMPLETE	COMPLETE	COMPLETE	COMPLETE

Please reference the following page(s) for date and analyst.

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ACCOUNT NO. 01220

ANALYTICAL REPORT FORM

PAGE 3

SAMPLE ID : MW-3
08/28/97
LAB ID 70829410
DATE RECEIVED: 08/29/97

PARAMETER	RESULTS	UNITS	DATE AND	ANALYST
Trichloroethylene	<0.2 D	MG/L	09/03/97	ECKLUND
Tetrachloroethane	<0.2 D	MG/L	09/03/97	ECKLUND
1,2-Dichloroethene	200	MG/L	09/03/97	ECKLUND
Vinyl Chloride	1.9	MG/L	09/03/97	ECKLUND
Benzene	2.8	MG/L	09/03/97	ECKLUND
Toluene	2.1			
Ethylbenzene	1.9			
Xylene	3.2			

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09/11/97

TO:

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LOCKPORT NY 14094

P.O. # HH48988

ACCOUNT NO. 01220

ANALYTICAL REPORT FORM

PAGE 4

SAMPLE ID : MW-7
08/28/97

LAB ID 70829411
DATE RECEIVED: 08/29/97

PARAMETER	RESULTS	UNITS	DATE	AND	ANALYST
Trichloroethylene	820	MG/L	09/03/97		ECKLUND
Tetrachloroethane	<0.2 D	MG/L	09/03/97		ECKLUND
1,2-Dichloroethene	22	MG/L	09/03/97		ECKLUND
Vinyl Chloride	1.1	MG/L	09/03/97		ECKLUND
Volatile Set-up	COMPLETE				

A.I.H.A. Accreditation No. 98
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09/11/97

TO:

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200 UPPER MOUNTAIN RD.
LOCKPORT NY 14094

P.O. # HH48988

ACCOUNT NO. 01220

ANALYTICAL REPORT FORM

PAGE 5

SAMPLE ID : TRIP BLANK
08/28/97

LAB ID 70829412
DATE RECEIVED: 08/29/97

PARAMETER	RESULTS	UNITS	DATE AND	ANALYST
Trichloroethylene	<0.005	MG/L	09/03/97	ECKLUND
Tetrachloroethane	<0.005	MG/L	09/03/97	ECKLUND
1,2-Dichloroethene	<0.005	MG/L	09/03/97	ECKLUND
Vinyl Chloride	<0.010	MG/L	09/03/97	ECKLUND
Benzene	<0.005	MG/L	09/03/97	ECKLUND
Toluene	<0.005			
Ethylbenzene	<0.005			
Xylene	<0.005			

John R. Paraska
QUALITY ASSURANCE SUPERVISOR

pc: Mr. Steve Blair, GZA

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MEADVILLE, PENNSYLVANIA 16335
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FAX: (814) 333-1466

TO:

ANALYTICAL REPORT FORM

- CODE B: This analyte was detected in the associated blank as well as in the sample. It indicates possible/probable contamination. The data user may subtract the blank value at his/her discretion.
- CODE D: Detection limit change due to a dilution.
- CODE R: The percent recovery on the spiked sample associated with this sample was not within the acceptance limits of 75% - 125%
- CODE S: This result was obtained by Method of Standard Additions.
- CODE NA: Not Applicable
- CODE ND: Not Detectable
- PRC: Preparation Reference Control
- VOID: The sample plus spike concentration exceeded the linear range of the standard curve.
- CODE Q: Values for parameters quantified in this sample have been adjusted for recoveries of the analytical matrix spike. The adjustments have been based on the matrix recoveries from this sample. Adjusted values are not given where sample values were less than the detection limit or where spike recoveries are equal to 100%
- CODE J: This result is an estimated value. It indicates that the compound meets the mass spectral data identification criteria. The result is less than the quantitation limit.

MEADVILLE DIVISION

A.I.H.A. Accreditation No. 98
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PA Dept. of Agriculture Approved Dairy Laboratory

NY Dept. of Health Laboratory I.D. No. 10552
NY Dept. of Env. Conservation Approved Facility
ND Dept. of Health Cert. No. R-083
MD Dept. of Health Cert. No. 130
VA Dept. of Health Laboratory I.D. No. 00145

WV Dept. of Health Certification No. 9907C
NC Dept. of Natural Resources Cert. No. 236
MI Dept. of Public Health Approved Facility
U.S. Office of Surface Mining Approved Facility

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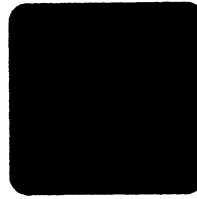
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**QUALITY CONTROL INFORMATION**

Free-Col Laboratories analyzes control samples at specified frequencies during the analyses for the purpose of evaluating and documenting the precision and accuracy of the results. The attached quality control data, prepared at the time of analysis, reflect the results obtained for the various types of controls from the batch of samples described as follows:

<u>General Motors Sample Identification</u>	<u>Free-Col ID</u>
MW-12 08/28/97	70829402
MW-11 08/28/97	70829403
MW-13 08/28/97	70829404
MW-10 08/28/97	70829405
MW-9 08/28/97	70829406
MW-8 08/28/97	70829407
MW-6 08/28/97	70829408
MW-4 08/28/97	70829409
MW-3 08/28/97	70829410
MW-7 08/28/97	70829411
TRIP BLANK 08/28/97	70829412

Limits in effect as of June 2, 1997

FREE-COL LABORATORIES, LTD.
VOA SPIKED CONTROL INFORMATION
(CLP - ANALYTICAL SPIKED SAMPLE LIMITS)

Date 9/4/97 Analyst Ecklund
Samples associated with this spiked control:

Sample used as spiked control: 708-29-115 @ 10X

<u>PARAMETER</u>	<u>SPIKE ADDED UG/L</u>	<u>SPIKED RESULT UG/L</u>	<u>SAMPLE RESULT UG/L</u>	<u>ACCEPT. LIMITS % REC.</u>	<u>ASSYD % REC.</u>	<u>FILE</u>
Chloromethane	20			31-187		520
Bromomethane	20			34-207		519
Vinyl chloride	20	21	<5	26-183	105	528
Chloroethane	20			55-168		507
Methylene chloride	20			63-151		521
Acrolein	62			23-183		500
Acrylonitrile	58			52-186		501
1,1-Dichloroethene	20			52-159		513
1,1-Dichloroethane	20			73-144		511
trans-1,2-Dichloroethene	20	19	<2	64-151	95	514
Chloroform	20			68-142		509
1,2-Dichloroethane	20			54-155		512
1,1,1-Trichloroethane	20			59-158		525
Carbon tetrachloride	20			39-147		504
Bromodichloromethane	20			47-148		510
1,2-Dichloropropane	20			67-144		515
trans-1,3-Dichloropropene	20			56-141		517
Trichloroethene	20	20	<2	64-130	100	527
Benzene	20	22	<2	71-142	110	502
Dibromochloromethane	20			29-155		506
1,1,2-Trichloroethane	20			61-146		526
cis-1,3-Dichloropropene	20			46-149		516
2-Chloroethyl vinyl ether	20			7-183		508
Bromoform	20			10-149		503
Tetrachloroethene	20	18	<2	50-160	90	523
1,1,2,2-Tetrachloroethane	20			44-163		522
Toluene	20	21	<2	73-130	105	524
Chlorobenzene	20			72-131		505
Ethyl benzene	20	21	<2	62-139	105	518
1,3-Dichlorobenzene	26			60-161		530
1,2-Dichlorobenzene	26			45-157		529
1,4-Dichlorobenzene	20			36-174		531
Diethyl Benzene	44			71-137		533
Ethyl Ether	35			62-160		532
Xylenes	44	44	<2	72-130	100	534
MEK	20			63-179		536

Limits in effect as of June 2, 1997

FREE-COL LABORATORIES, LTD.
VOA SPIKED CONTROL INFORMATION
(CLP - ANALYTICAL SPIKED SAMPLE LIMITS)

Date 9/4/97 Analyst Ecklund
Samples associated with this spiked control:

Sample used as spiked control: 708-29-115 @ 10X

<u>PARAMETER</u>	<u>SPIKE ADDED UG/L</u>	<u>SPIKED RESULT UG/L</u>	<u>SAMPLE RESULT UG/L</u>	<u>ACCEPT. LIMITS % REC.</u>	<u>ASSYD % REC.</u>	<u>FILE</u>
Acetone	20			72-154		538
MIBK	20			53-160		539
Ethyl Acetate	45			71-140		535
Tetrahydrofuran	45					
Carbondisulfide	20					
Styrene	20					
Vinyl Acetate	20					
Amyl Acetate	44					
Methyl Butyl Ketone	20					
<u>cis-1,2-dichloroethene</u>	<u>20</u>	<u>22</u>	<u>42</u>			<u>110</u>

FREE-COL LABORATORIES, INC.
VOA BLANK INFORMATION
(CLP - CALIBRATION BLANK LIMITS)

Date 9/4/97 Analyst Ecklund
Samples associated with this blank:

Parameter Blank Value
Units = ug/L

<u>Carbon Disulfide</u>	
<u>Vinyl Acetate</u>	
<u>2-Hexanone - MBK</u>	
<u>Dichlorofluoromethane</u>	
<u>1,1,1,2-Tetrachloroethane</u>	
<u>Trichlorofluoromethane</u>	
<u>1,2,3-Trichloropropane</u>	
<u>3-Chloro-1-propene</u>	
<u>1,2-Dibromomethane</u>	
<u>cis,1,2-Dichloroethene</u>	<u><2</u>

FREE-COL LABORATORIES, INC.
VOA BLANK INFORMATION
(CLP - CALIBRATION BLANK LIMITS)

Date 9/4/97 Analyst Ecklund
Samples associated with this blank:

<u>Parameter</u>	<u>Blank Value</u>
Units = <u>ug/l</u>	
Chloromethane	
Bromomethane	
Vinyl chloride	<5
Chloroethane	
Methylene chloride	
Acrolein	
Acrylonitrile	
1,1-Dichloroethene	
1,1-Dichloroethane	
trans-1,2-Dichloroethene	<2
Chloroform	
1,2-Dichloroethane	
1,1,1-Trichloroethane	
Carbon tetrachloride	
Bromodichloromethane	
1,2-Dichloropropane	
trans-1,3-Dichloropropene	
Trichloroethene	<2
Benzene	<2
Dibromochloromethane	
1,1,2-Trichloroethane	
cis-1,3-Dichloropropene	
2-Chloroethyl vinyl ether	
Bromoform	
Tetrachloroethene	<2
1,1,2,2-Tetrachloroethane	
Toluene	<2
Chlorobenzene	
Ethyl benzene	<2
1,3-Dichlorobenzene	
1,2-Dichlorobenzene	
1,4-Dichlorobenzene	
Xylene	<2
2-Butanone - MEK	
4-Methyl-2-pentanone	
Acetone	
Syrene	

Limits in effect as of June 2, 1997

FREE-COL LABORATORIES, LTD.
VOA REFERENCE CONTROL INFORMATION
(CLP - CALIBRATION VERIFICATION LIMITS)

Date 9/4/97 Analyst Ecklund

Samples associated with this reference control:

<u>Parameter</u>	<u>Target Value</u> ug/L	<u>Acceptance Limits</u> ug/L	<u>Assayed Value</u> ug/L	<u>File#</u>
Chloromethane	20	5.4-34.5		223
Bromomethane	20	7.8-39.4		222
Vinyl chloride	20	1.5-41.7	22.4	232
Chloroethane	20	4.6-36.4		209
Methylene chloride	20	11.8-31.3		224
Acrolein	62	4.5-104.4		201
Acrylonitrile	58	13.2-115.2		202
1,1-Dichloroethene	20	11.3-32.1		216
1,1-Dichloroethane	20	15.5-27.8		214
trans-1,2-Dichloroethene	20	13.6-28.3	22.6	217
Chloroform	20	15.7-26.1		211
1,2-Dichloroethane	20	8.1-34.0		215
1,1,1-Trichloroethane	20	12.8-30.1		228
Carbon tetrachloride	20	8.0-27.8		206
Bromodichloromethane	20	9.8-29.7		212
1,2-Dichloropropane	20	14.7-28.2		218
trans-1,3-Dichloropropene	20	12.7-25.6		220
Trichloroethene	20	14.1-27.1	19.3	230
Benzene	20	14.3-27.8	22.4	203
Dibromochloromethane	20	4.8-29.2		208
1,1,2-Trichloroethane	20	14.3-28.2		229
cis-1,3-Dichloropropene	20	10.3-26.8		219
2-Chloroethyl vinyl ether	20	10.1-32.1		210
Bromoform	20	3.0-30.6		205
Tetrachloroethene	20	13.3-28.4	17.2	226
1,1,2,2-Tetrachloroethane	20	14.7-26.1		225
Toluene	20	15.2-25.6	20.3	227
Chlorobenzene	20	11.5-28.6		207
Ethyl benzene	20	13.4-27.6	18.1	221
1,3-Dichlorobenzene	26	18.5-36.7		234
1,2-Dichlorobenzene	26	11.5-41.9		233
1,4-Dichlorobenzene	20	3.7-35.6		235
Diethyl Benzene	44	25.9-62.9		237
Ethyl Ether	35	26.9-49.5		236
Xylene	44	21.0-66.7	43.0	238
MEK	20	9.1-39.4		240
Acetone	20	9.6-38.0		242

Limits in effect as of June 2, 1997

FREE-COL LABORATORIES, LTD.
VOA REFERENCE CONTROL INFORMATION
(CLP - CALIBRATION VERIFICATION LIMITS)

Date 9/3/97 Analyst Ecklund
Samples associated with this reference control:

<u>Parameter</u>	<u>Target Value</u> ug/L	<u>Acceptance Limits</u> ug/L	<u>Assayed Value</u> ug/L	<u>File#</u>
Chloromethane	20	5.4-34.5		223
Bromomethane	20	7.8-39.4		222
Vinyl chloride	20	1.5-41.7	23.0	232
Chloroethane	20	4.6-36.4		209
Methylene chloride	20	11.8-31.3		224
Acrolein	62	4.5-104.4		201
Acrylonitrile	58	13.2-115.2		202
1,1-Dichloroethene	20	11.3-32.1		216
1,1-Dichloroethane	20	15.5-27.8		214
trans-1,2-Dichloroethene	20	13.6-28.3	22.4	217
Chloroform	20	15.7-26.1		211
1,2-Dichloroethane	20	8.1-34.0		215
1,1,1-Trichloroethane	20	12.8-30.1		228
Carbon tetrachloride	20	8.0-27.8		206
Bromodichloromethane	20	9.8-29.7		212
1,2-Dichloropropane	20	14.7-28.2		218
trans-1,3-Dichloropropene	20	12.7-25.6		220
Trichloroethene	20	14.1-27.1	21.4	230
Benzene	20	14.3-27.8	23.5	203
Dibromochloromethane	20	4.8-29.2		208
1,1,2-Trichloroethane	20	14.3-28.2		229
cis-1,3-Dichloropropene	20	10.3-26.8		219
2-Chloroethyl vinyl ether	20	10.1-32.1		210
Bromoform	20	3.0-30.6		205
Tetrachloroethene	20	13.3-28.4	17.4	226
1,1,2,2-Tetrachloroethane	20	14.7-26.1		225
Toluene	20	15.2-25.6	21.9	227
Chlorobenzene	20	11.5-28.6		207
Ethyl benzene	20	13.4-27.6	21.7	221
1,3-Dichlorobenzene	26	18.5-36.7		234
1,2-Dichlorobenzene	26	11.5-41.9		233
1,4-Dichlorobenzene	20	3.7-35.6		235
Diethyl Benzene	44	25.9-62.9		237
Ethyl Ether	35	26.9-49.5		236
Xylene	44	21.0-66.7	45.3	238
MEK	20	9.1-39.4		240
Acetone	20	9.6-38.0		242

Limits in effect as of June 2, 1997

FREE-COL LABORATORIES, LTD.
VOA REFERENCE CONTROL INFORMATION
(CLP - CALIBRATION VERIFICATION LIMITS)

Date 9/3/97 Analyst Ecklund

Samples associated with this reference control:

<u>Parameter</u>	<u>Target Value</u> ug/L	<u>Acceptance Limits</u> ug/L	<u>Assayed Value</u> ug/L	<u>File#</u>
MIBK	20	14.0-29.7		243
Tetrahydrofuran	45	34.8-60.3		244
Carbondisulfide	20	11.0-30.4		245
Styrene	20	12.4-30.0		246
Vinyl Acetate	20	11.0-27.5		247
Amyl Acetate	44	14.7-64.6		248
Methyl Butyl Ketone	20	10.3-33.9		249
<u>cis-1,2-Dichloroethene</u>	<u>20</u>		<u>20.7</u>	

FREE-COL LABORATORIES, INC.
VOA BLANK INFORMATION
(CLP - CALIBRATION BLANK LIMITS)

Date 9/3/97 Analyst Ecklund
Samples associated with this blank:

Parameter Blank Value

Units = ug/L

<u>Chloromethane</u>	
<u>Bromomethane</u>	
<u>Vinyl chloride</u>	<u><5</u>
<u>Chloroethane</u>	
<u>Methylene chloride</u>	
<u>Acrolein</u>	
<u>Acrylonitrile</u>	
<u>1,1-Dichloroethene</u>	
<u>1,1-Dichloroethane</u>	
<u>trans-1,2-Dichloroethene</u>	<u><2</u>
<u>Chloroform</u>	
<u>1,2-Dichloroethane</u>	
<u>1,1,1-Trichloroethane</u>	
<u>Carbon tetrachloride</u>	
<u>Bromodichloromethane</u>	
<u>1,2-Dichloropropane</u>	
<u>trans-1,3-Dichloropropene</u>	
<u>Trichloroethene</u>	<u><2</u>
<u>Benzene</u>	<u><2</u>
<u>Dibromochloromethane</u>	
<u>1,1,2-Trichloroethane</u>	
<u>cis-1,3-Dichloropropene</u>	
<u>2-Chloroethyl vinyl ether</u>	
<u>Bromoform</u>	
<u>Tetrachloroethene</u>	<u><2</u>
<u>1,1,2,2-Tetrachloroethane</u>	
<u>Toluene</u>	<u><2</u>
<u>Chlorobenzene</u>	
<u>Ethyl benzene</u>	<u><2</u>
<u>1,3-Dichlorobenzene</u>	
<u>1,2-Dichlorobenzene</u>	
<u>1,4-Dichlorobenzene</u>	
<u>Xylene</u>	<u><2</u>
<u>2-Butanone - MEK</u>	
<u>4-Methyl-2-pentanone</u>	
<u>Acetone</u>	
<u>Syrene</u>	

FREE-COL LABORATORIES, INC.
VOA BLANK INFORMATION
(CLP - CALIBRATION BLANK LIMITS)

Date 9/3/97 Analyst Ecklund
Samples associated with this blank:

<u>Parameter</u>	<u>Blank Value</u>
Units = <u>mg/L</u>	
<u>Carbon Disulfide</u>	
<u>Vinyl Acetate</u>	
<u>2-Hexanone - MBK</u>	
<u>Dichlorofluoromethane</u>	
<u>1,1,1,2-Tetrachloroethane</u>	
<u>Trichlorofluoromethane</u>	
<u>1,2,3-Trichloropropane</u>	
<u>3-Chloro-1-propene</u>	
<u>1,2-Dibromomethane</u>	
<u>cis,1,2-Dichloroethene</u>	<u><2</u>

Limits in effect as of June 2, 1997

FREE-COL LABORATORIES, LTD.
VOA REPEAT CONTROL INFORMATION
(CLP - DUPLICATE SAMPLE LIMITS)

Date 9/3/97 Analyst Ecklund
Samples associated with this repeat control:

Sample used as repeat control: 708-27-034
AD = Absolute Difference RPD = Relative Percent Difference

Parameter	Samp. Value	Repeat Value	Accept AD	Accept RPD	Assayd AD/RPD	File
Chloromethane						820
Bromomethane						819
Vinyl chloride	<250	<250		27	0	828
Chloroethane						807
Methylene chloride				17		821
Acrolein						800
Acrylonitrile						801
1,1-Dichloroethene						813
1,1-Dichloroethane				41		811
trans-1,2-Dichloroethene	<100	<100		28	0	814
Chloroform				14		809
1,2-Dichloroethane						812
1,1,1-Trichloroethane				27		825
Carbon tetrachloride						804
Bromodichloromethane				79		810
1,2-Dichloropropane						815
trans-1,3-Dichloropropene						817
Trichloroethene	<100	<100		32	0	827
Benzene	2,300	2,500		49	8.3%	802
Dibromochloromethane				70		806
1,1,2-Trichloroethane						826
cis-1,3-Dichloropropene						816
2-Chloroethyl vinyl ether						808
Bromoform						803
Tetrachloroethene	<100	<100		33	0	823
1,1,2,2-Tetrachloroethane						822
Toluene	950	1,000		38	5.1%	824
Chlorobenzene				24		805
Ethyl benzene	2,000	2,000		5	0	818
1,3-Dichlorobenzene						830
1,2-Dichlorobenzene						829
1,4-Dichlorobenzene				36		831
Acetone				26		836

FREE-COL LABORATORIES, INC.
DRINKING WATER BLANK INFORMATION, VOLATILES

Date 9/8/97 Analyst(s) Erklund

Samples associated with this blank:

PARAMETER

BLANK VALUE

Units = ug/l

Dichlorodifluoromethane	
Chloromethane	
Vinyl Chloride	<0.5
Bromomethane	
Chloroethane	
Trichlorofluoromethane	
1,1-Dichloroethene	
Methylene Chloride	
Trans-1,2-Dichloroethene	<0.5
1,1-Dichloroethane	
Dichloropropane	
Cis-1,2-Dichloroethene	
Bromochloromethane	
Chloroform	
1,1,1-Trichloroethane	
Carbon Tetrachloride	
1,1-Dichloropropene	
Benzene	
1,2-Dichloroethane	
Trichloroethene	<0.5
1,2-Dichloropropane	
Dibromomethane	
Bromodichloromethane	
Trans-1,3-Dichloropropene	
Toluene	
Cis-1,3-Dichloropropene	
1,1,2-Trichloroethane	
Tetrachloroethene	<0.5
1,3-Dichloropropane	
Dibromochloromethane	

DRINKING WATER BLANK INFORMATION, VOLATILES (page 2)

Date 9/8/97 Analyst(s) Ecklund

PARAMETER

BLANK VALUE

units = ug/L

- 1,2-Dibromoethane
- Chlorobenzene
- 1,1,1,2-Tetrachloroethane
- Ethyl benzene
- m,p-Xylenes
- o-Xylene
- Styrene
- Bromoform
- Isopropyl Benzene
- 1,1,2,2-Tetrachloroethane
- Bromobenzene
- 1,2,3-Trichloropropane
- N-propyl Benzene
- 2-Chlorotoluene
- 4-Chlorotoluene
- 1,3,5-Trimethylbenzene
- tert-Butylbenzene
- 1,2,4-Trimethylbenzene
- sec-Butylbenzene
- 1,3-Dichlorobenzene
- p-Isopropyltoluene
- 1,4-Dichlorobenzene
- 1,2-Dichlorobenzene
- N-Butylbenzene
- 1,2,4-Trichlorobenzene.
- Naphthalene
- Hexachlorobutadiene
- 1,2,3-Trichlorobenzene

CIS-1,2-Dichloroethene

<0.5

FREE-COL LABORATORIES, INC.
 DRINKING WATER REFERENCE CONTROL LIMITS, VOLATILES

Date 9/8/97 Analyst(s) Ecklund

Samples associated with this reference control:

Acceptance limits (all compounds): 8.0 to 12.0 ug/L

<u>PARAMETER</u>	<u>TARGET VALUE ug/L</u>	<u>ASSAYED VALUE ug/L</u>
Dichlorodifluoromethane	10	
Chloromethane	10	
Vinyl Chloride	10	10.0
Bromomethane	10	
Chloroethane	10	
Trichlorofluoromethane	10	
1,1-Dichloroethene	10	
Methylene Chloride	10	
Trans-1,2-Dichloroethene	10	9.7
1,1-Dichloroethane	10	
Dichloropropane	10	
Cis-1,2-Dichloroethene	10	
Bromochloromethane	10	
Chloroform	10	
1,1,1-Trichloroethane	10	
Carbon Tetrachloride	10	
1,1-Dichloropropene	10	
Benzene	10	
1,2-Dichloroethane	10	
Trichloroethene	10	9.93
1,2-Dichloropropane	10	
Dibromomethane	10	
Bromodichloromethane	10	
Trans-1,3-Dichloropropene	10	
Toluene	10	
Cis-1,3-Dichloropropene	10	
1,1,2-Trichloroethane	10	
Tetrachloroethene	10	10.1
1,3-Dichloropropane	10	
Dibromochloromethane	10	

DRINKING WATER REFERENCE CONTROL LIMITS, VOLATILES (page 2)

Date 9/8/97 Analyst(s) Ecklund

Acceptance Limits (all compounds) : 8.0 to 12.0 ug/L

<u>PARAMETER</u>	<u>TARGET VALUE ug/L</u>	<u>ASSAYED VALUE ug/L</u>
1,2-Dibromoethane	10	
Chlorobenzene	10	
1,1,1,2-Tetrachloroethane	10	
Ethyl benzene	10	
m,p-Xylenes	20	
o-Xylene	10	
Styrene	10	
Bromoform	10	
Isopropyl Benzene	10	
1,1,2,2-Tetrachloroethane	10	
Bromobenzene	10	
1,2,3-Trichloropropane	10	
N-propyl Benzene	10	
2-Chlorotoluene	10	
4-Chlorotoluene	10	
1,3,5-Trimethylbenzene	10	
tert-Butylbenzene	10	
1,2,4-Trimethylbenzene	10	
sec-Butylbenzene	10	
1,3-Dichlorobenzene	10	
p-Isopropyltoluene	10	
1,4-Dichlorobenzene	10	
1,2-Dichlorobenzene	10	
N-Butylbenzene	10	
1,2,4-Trichlorobenzene	10	
Naphthalene	10	
Hexachlorobutadiene	10	
1,2,3-Trichlorobenzene	10	
CIS-1,2-Dichloroethene	10	10.1

FREE-COL LABORATORIES, INC.
 DRINKING WATER SPIKE SAMPLE LIMITS, VOLATILES

Date 9/8/97 Analyst(s) Ecklund

Samples associated with this spike control:

Sample used as spike control: 708-29-012

Acceptance limits (all compounds): 80 to 120 %

<u>PARAMETER</u>	<u>SPIKE ADDED ug/L</u>	<u>SPIKED RESULT ug/L</u>	<u>SAMPLE RESULT ug/L</u>	<u>ASSAYED % REC.</u>
Dichlorodifluoromethane	10			
Chloromethane	10			
Vinyl Chloride	10	10.0	<0.5	100 %
Bromomethane	10			
Chloroethane	10			
Trichlorofluoromethane	10			
1,1-Dichloroethene	10			
Methylene Chloride	10			
Trans-1,2-Dichloroethene	10	10.3	<0.5	103 %
1,1-Dichloroethane	10			
Dichloropropane	10			
Cis-1,2-Dichloroethene	10			
Bromochloromethane	10			
Chloroform	10			
1,1,1-Trichloroethane	10			
Carbon Tetrachloride	10			
1,1-Dichloropropene	10			
Benzene	10			
1,2-Dichloroethane	10			
Trichloroethene	10	10.1	<0.5	101 %
1,2-Dichloropropane	10			
Dibromomethane	10			
Bromodichloromethane	10			
Trans-1,3-Dichloropropene	10			
Toluene	10			
Cis-1,3-Dichloropropene	10			
1,1,2-Trichloroethane	10			
Tetrachloroethene	10	9.8	<0.5	98 %
1,3-Dichloropropane	10			
Dibromochloromethane	10			

FREE-COL LABORATORIES, INC.
 DRINKING WATER REPEAT SAMPLE LIMITS, VOLATILES

Date 9/8/97 Analyst(s) Ecklund

Samples associated with this repeat control:

Sample used as repeat control: 708-29-403

AD = Absolute Difference
 RPD = Relative Percent Difference

PARAMETER	SAMPLE	REPEAT	ACCEPT	ACCEPT	ASSAYED
	VALUE	VALUE	AD	RPD	AD/RPD

Units = ug/l

Dichlorodifluoromethane					
Chloromethane					
Vinyl Chloride	3.9	4.4			12%
Bromomethane					
Chloroethane					
Trichlorofluoromethane					
1,1-Dichloroethene					
Methylene Chloride					
Trans-1,2-Dichloroethene	<0.5	<0.5			0
1,1-Dichloroethane					
Dichloropropane					
Cis-1,2-Dichloroethene					
Bromochloromethane					
Chloroform					
1,1,1-Trichloroethane					
Carbon Tetrachloride					
1,1-Dichloropropene					
Benzene					
1,2-Dichloroethane					
Trichloroethene	<0.5	<0.5			0
1,2-Dichloropropane					
Dibromomethane					
Bromodichloromethane					
Trans-1,3-Dichloropropene					
Toluene					
Cis-1,3-Dichloropropene					
1,1,2-Trichloroethane					
Tetrachloroethene	<0.5	<0.5			0
1,3-Dichloropropane					
Dibromochloromethane					

DRINKING WATER REPEAT LIMITS, VOLATILES (page 2)

Date 9/8/97 Analyst(s) Ecklund

Sample used as repeat control: 708-29-403

PARAMETER ug/l SAMPLE REPEAT ACCEPT ACCEPT ASSAYED
 units = ug/l VALUE VALUE AD RPD AD/RPD

1,2-Dibromoethane				
Chlorobenzene				
1,1,1,2-Tetrachloroethane				
Ethyl benzene				
m,p-Xylenes				
o-Xylene				
Styrene				
Bromoform				
Isopropyl Benzene				
1,1,2,2-Tetrachloroethane				
Bromobenzene				
1,2,3-Trichloropropane				
N-propyl Benzene				
2-Chlorotoluene				
4-Chlorotoluene				
1,3,5-Trimethylbenzene				
tert-Butylbenzene				
1,2,4-Trimethylbenzene				
sec-Butylbenzene				
1,3-Dichlorobenzene				
p-Isopropyltoluene				
1,4-Dichlorobenzene				
1,2-Dichlorobenzene				
N-Butylbenzene				
1,2,4-Trichlorobenzene				
Naphthalene				
Hexachlorobutadiene				
1,2,3-Trichlorobenzene				
CIS-1,2-Dichloroethenes	4.5	4.9		8.5%

DRINKING WATER SPIKE LIMITS, VOLATILES (page 2)

Date 9/8/97 Analyst(s) Ecklund

Sample used as spike control: 708-29-012

Acceptance Limits (all compounds) : 80 to 120 %

<u>PARAMETER</u>	<u>SPIKE ADDED ug/L</u>	<u>SPIKED RESULT ug/L</u>	<u>SAMPLE RESULT ug/L</u>	<u>ASSAYED % REC.</u>
1,2-Dibromoethane	10			
Chlorobenzene	10			
1,1,1,2-Tetrachloroethane	10			
Ethyl benzene	10			
m,p-Xylenes	20			
o-Xylene	10			
Styrene	10			
Bromoform	10			
Isopropyl Benzene	10			
1,1,2,2-Tetrachloroethane	10			
Bromobenzene	10			
1,2,3-Trichloropropane	10			
N-propyl Benzene	10			
2-Chlorotoluene	10			
4-Chlorotoluene	10			
1,3,5-Trimethylbenzene	10			
tert-Butylbenzene	10			
1,2,4-Trimethylbenzene	10			
sec-Butylbenzene	10			
1,3-Dichlorobenzene	10			
p-Isopropyltoluene	10			
1,4-Dichlorobenzene	10			
1,2-Dichlorobenzene	10			
N-Butylbenzene	10			
1,2,4-Trichlorobenzene	10			
Naphthalene	10			
Hexachlorobutadiene	10			
1,2,3-Trichlorobenzene	10			
CIS-1,2-Dichloroethane	10	9.9	<0.5	99%

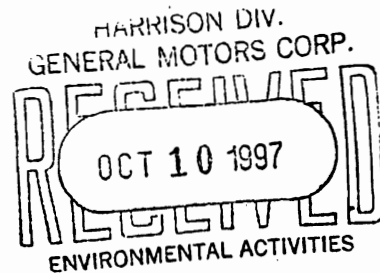
APPENDIX D

NYSDEC Analytical Laboratory Results:

New York State Department of Environmental Conservation
270 Michigan Avenue, Buffalo, New York, 14203-2999
(716) 851-7220



John P. Cahill
Commissioner



October 9, 1997

Ms. Catherine A. Ver
Delphi Harrison Thermal Systems
200 Upper Mountain Road
Lockport, New York 14094

Dear Ms. Ver:

Groundwater Monitoring Results

Please find attached a copy of the analytical results obtained from the split samples collected by the Department on August 28, 1997. The sample numbers with corresponding well designations are as follows:

Sample Number	Well Designation
A60103	MW-3
A60104	MW-4
A60111	MW-11
A60112	MW-12

Should you have any questions regarding these results, please feel free to contact me at 851-7220.

Sincerely yours,

Glenn M. May, CPG
Engineering Geologist I

Attachments

cc: Mr. Daniel King w/o attachments



RECRA
LabNet

a division of Recra Environmental, Inc.

Virtual Laboratories Everywhere

September 25, 1997

Mr. John Ryan
NYSDEC
50 Wolf Road, Room 305
Albany, NY 12233

RE: Analytical Results

Dear Mr. Ryan:

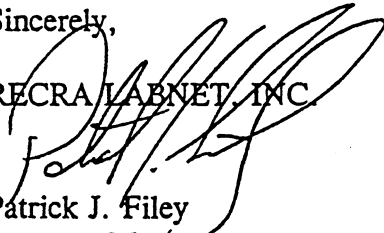
Please find enclosed results concerning the analyses of the samples recently submitted by your agency. The pertinent information regarding these analyses is listed below:

Case #: SH997
SDG #: 0828
Matrix: Aqueous
Samples Received: 08/29/97
Sample Date: 08/28/97

If you have any questions concerning these data, please contact Mr. Patrick J. Filey, Program Manager, at (716) 691-2600 and refer to the I.D. number listed below. It has been our pleasure to provide the New York State Department of Environmental Conservation with Environmental Testing Services. We look forward to serving you in the future.

Sincerely,

RECRA/LABNET, INC.


Patrick J. Filey
Program Manager

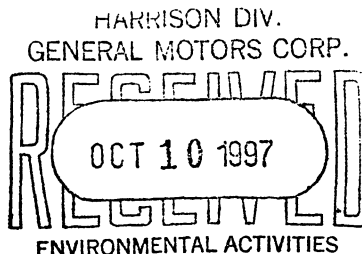

Kenneth E. Kasperek
Laboratory Director

PJF/KEK/amk
Enclosure: Diskette

cc: Mr. Glenn May - NYSDEC Region 9

I.D. #A97-3025
#NY4A5020-9

This report contains 218 pages which are individually numbered



SAMPLE DATA SUMMARY PACKAGE



SDG NARRATIVE

Laboratory Name: Recra Labnet, Inc.

Laboratory Code: RECNY

Case Number: SH997

SDG Number: 0828

Sample Identifications: SH997 0828 A60103
SH997 0828 A60104
SH997 0828 A60111
SH997 0828 A60112

METHODOLOGY

Analyses were performed in accordance with 1991 New York State Analytical Services protocol. (Revised 1993)

COMMENTS

Comments pertain to data on one or all pages of this report.

The enclosed data has been reported utilizing data qualifiers (Q) as defined on the Organic Data Comment Page.

VOLATILE DATA

Volatile sample and standard areas are listed on the corresponding data system printouts.

Volatile data was processed utilizing Teknivent Datasystem and QA Formsmaster software. All compounds determined to be present by the computer-generated autoquantitation were subjected to a manual ion search for secondary and tertiary ions. Unedited quantitation reports have been submitted with this analytical data package.



VOLATILE DATA

Ortho-Xylene and meta & para-Xylene elute separately on a capillary column. They are reported in this data package as Total Xylenes. The concentration is calculated by adding the areas of ortho-Xylene and meta & para-Xylene and using only the response factor from ortho-Xylene to calculate the nanogram amount.

Sample A60103 shows the recovery of surrogate 1,2-Dichloroethane-D4 as being outside of the quality control limits. This sample was re-analyzed utilizing a dilution due to the high concentration of several compounds of interest. The diluted sample shows compliant recoveries for all surrogates.

Sample A60104 shows the recoveries of surrogates 1,2-Dichloroethane-D4 and Toluene-D8 as being outside quality control limits. This sample was re-analyzed utilizing a dilution due to the high concentration of several compounds of interest. The diluted sample shows compliant recoveries for all surrogates.

" 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 and electronic deliverable has been authorized by the Laboratory Manager or his designee, as verified by the following signature."



Kenneth E. Kasperek
Laboratory Director

9/25/97

Date

This data report shall not be reproduced, except in full, without the written authorization of Recra LabNet.



NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATIONSAMPLE IDENTIFICATION
AND
ANALYTICAL REQUEST SUMMARY

LAB NAME: RECRA LABNET, INC.

CUSTOMER SAMPLE ID	LABORATORY SAMPLE ID	ANALYTICAL REQUIREMENTS					
		VOA GC/MS	BNA GC/MS	VOA GC	PEST PCB	METALS	WATER QUALITY
A60103	A7302501	ASP91	-	-	-	-	-
A60104	A7302502	ASP91	-	-	-	-	-
A60111	A7302503	ASP91	-	-	-	-	-
A60112	A7302504	ASP91	-	-	-	-	-

NYSDEC-1



NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATIONSAMPLE PREPARATION AND ANALYSIS SUMMARY
VOLATILE ANALYSIS

LAB NAME: RECRA LABNET, INC.

SAMPLE IDENTIFICATION	MATRIX	DATE COLLECTED	DATE RECEIVED AT LAB	DATE EXTRACTED	DATE ANALYZED
A60103	WATER	08/28/97	08/29/97	-	09/02/97
A60104	WATER	08/28/97	08/29/97	-	09/02/97
A60111	WATER	08/28/97	08/29/97	-	09/03/97
A60112	WATER	08/28/97	08/29/97	-	09/03/97

NYSDEC-2



NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATIONSAMPLE PREPARATION AND ANALYSIS SUMMARY
ORGANIC ANALYSIS

LAB NAME: RECRA LABNET, INC.

SAMPLE IDENTIFICATION	MATRIX	ANALYTICAL PROTOCOL	EXTRACTION METHOD	AUXILARY CLEAN UP	DIL/CONC FACTOR
A60103	WATER	ASP91	-	AS REQUIRED	AS REQUIRED
A60104	WATER	ASP91	-	AS REQUIRED	AS REQUIRED
A60111	WATER	ASP91	-	AS REQUIRED	AS REQUIRED
A60112	WATER	ASP91	-	AS REQUIRED	AS REQUIRED

NYSDEC-6



ORGANIC DATA COMMENT PAGE

Laboratory Name: Recra Labnet, Inc.

USEPA Defined Organic Data Qualifiers:

- U - Indicates compound was analyzed for but not detected.
- J - Indicates an estimate 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 indicate the presence of a compound that meets the identification criteria but the result is less than the sample quantitation limit but greater than zero.
- C - This flag applies to pesticide results where the identification has been confirmed by GC/MS.
- B - This flag is used when the analyte is found in the associated blank as well as in the sample.
- E - This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for that specific analysis.
- D - This flag identifies all compounds identified in an analysis at a secondary dilution factor.
- T - This flag is used when the analyte is found in the associated TCLP extraction blank as well as in the sample.
- 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.
- 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. The lower of the two values is reported on Form I and flagged with a "P".
- A - This flag indicates that a TIC is a suspected aldol-condensation product.



1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
0008

A60103(MW-3)

Lab Name: RECRA ENVIRON Contract: C002989

Lab Code: RECNY Case No.: SH997 SAS No.: _____ SDG No.: 0828

Matrix: (soil/water) WATER Lab Sample ID: A7302501

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: J2948

Level: (low/med) LOW Date Received: 08/29/97

% Moisture: not dec. _____ Date Analyzed: 09/02/97

GC Column: DB-624 ID: 0.530 (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	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/L</u>	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	1800	E
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	220	E
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	33000	E
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	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	8	J
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	2800	E
10061-02-6	trans-1,3-dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	100	
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	1800	E
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	2900	E
100-42-5	Styrene	10	U
1330-20-7	Total Xylenes	3300	E

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

0009
EPA SAMPLE NO.

A60103

Lab Name: RECRA ENVIRON Contract: C002989
 Lab Code: RECNY Case No.: SH997 SAS No.: _____ SDG No.: 0828
 Matrix: (soil/water) WATER Lab Sample ID: A7302501
 Sample wt/vol: 5.0 (g/mL) ML Lab File ID: J2948
 Level: (low/med) LOW Date Received: 08/29/97
 % Moisture: not dec. _____ Date Analyzed: 09/02/97
 GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0
 Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Number TICs found: 2 CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	ALKYL BENZENE DERIVATIVE	25.87	25	J
2.	UNKNOWN	26.83	65	J

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

0010
EPA SAMPLE NO.

A60103DL (11-3)

Lab Name: RECRA ENVIRON Contract: C002989
 Lab Code: RECN Case No.: SH997 SAS No.: _____ SDG No.: 0828
 Matrix: (soil/water) WATER Lab Sample ID: A7302501DL
 Sample wt/vol: 5.0 (g/mL) ML Lab File ID: J2975
 Level: (low/med) LOW Date Received: 08/29/97
 % Moisture: not dec. _____ Date Analyzed: 09/03/97
 GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 2000.0
 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	20000	U
74-83-9	-----Bromomethane	20000	U
75-01-4	-----Vinyl Chloride	20000	U
75-00-3	-----Chloroethane	20000	U
75-09-2	-----Methylene Chloride	20000	U
67-64-1	-----Acetone	20000	U
75-15-0	-----Carbon Disulfide	20000	U
75-35-4	-----1,1-Dichloroethene	20000	U
75-34-3	-----1,1-Dichloroethane	20000	U
540-59-0	-----1,2-Dichloroethene (total)	150000	D
67-66-3	-----Chloroform	20000	U
107-06-2	-----1,2-Dichloroethane	20000	U
78-93-3	-----2-Butanone	20000	U
71-55-6	-----1,1,1-Trichloroethane	20000	U
56-23-5	-----Carbon Tetrachloride	20000	U
75-27-4	-----Bromodichloromethane	20000	U
78-87-5	-----1,2-Dichloropropane	20000	U
10061-01-5	-----cis-1,3-dichloropropene	20000	U
79-01-6	-----Trichloroethene	20000	U
124-48-1	-----Dibromochloromethane	20000	U
79-00-5	-----1,1,2-Trichloroethane	20000	U
71-43-2	-----Benzene	20000	U
10061-02-6	-----trans-1,3-dichloropropene	20000	U
75-25-2	-----Bromoform	20000	U
108-10-1	-----4-Methyl-2-Pentanone	20000	U
591-78-6	-----2-Hexanone	20000	U
127-18-4	-----Tetrachloroethene	20000	U
79-34-5	-----1,1,2,2-Tetrachloroethane	20000	U
108-88-3	-----Toluene	20000	U
108-90-7	-----Chlorobenzene	20000	U
100-41-4	-----Ethylbenzene	20000	U
100-42-5	-----Styrene	20000	U
1330-20-7	-----Total Xylenes	20000	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

0011
EPA SAMPLE NO.

A60103DL

Lab Name: RECRA ENVIRON Contract: C002989
Lab Code: RECNY Case No.: SH997 SAS No.: _____ SDG No.: 0828
Matrix: (soil/water) WATER Lab Sample ID: A7302501DL
Sample wt/vol: 5.0 (g/mL) ML Lab File ID: J2975
Level: (low/med) LOW Date Received: 08/29/97
% Moisture: not dec. _____ Date Analyzed: 09/03/97
GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 2000.0
Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
=====	=====	=====	=====	=====

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

0012

A60104 (NW-1)

Lab Name: RECRA ENVIRON Contract: C002989
 Lab Code: RECNY Case No.: SH997 SAS No.: _____ SDG No.: 0828
 Matrix: (soil/water) WATER Lab Sample ID: A7302502
 Sample wt/vol: 5.0 (g/mL) ML Lab File ID: J2949
 Level: (low/med) LOW Date Received: 08/29/97
 % Moisture: not dec. _____ Date Analyzed: 09/02/97
 GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: _____ 1.0
 Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CAS NO. COMPOUND CONCENTRATION UNITS:
(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	7000	E
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	300	E
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	23000	E
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	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	9400	E
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	7	J
10061-02-6	trans-1,3-dichloropropene	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	8	J
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	2	J
100-42-5	Styrene	10	U
1330-20-7	Total Xylenes	4	J

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

0013

A60104

Lab Name: RECRA ENVIRON Contract: C002989

Lab Code: RECNY Case No.: SH997 SAS No.: _____ SDG No.: 0828

Matrix: (soil/water) WATER Lab Sample ID: A7302502

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: J2949

Level: (low/med) LOW Date Received: 08/29/97

% Moisture: not dec. _____ Date Analyzed: 09/02/97

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

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

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
=====	=====	=====	=====	=====

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

0014
EPA SAMPLE NO.

A60104DL (mw-t)

Lab Name: RECRA ENVIRON Contract: C002989
 Lab Code: RECNY Case No.: SH997 SAS No.: _____ SDG No.: 0828
 Matrix: (soil/water) WATER Lab Sample ID: A7302502DL
 Sample wt/vol: 5.0 (g/mL) ML Lab File ID: J2976
 Level: (low/med) LOW Date Received: 08/29/97
 % Moisture: not dec. _____ Date Analyzed: 09/03/97
 GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1000.0
 Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

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

CAS NO.	COMPOUND	UG/L	Q
74-87-3	Chloromethane	10000	U
74-83-9	Bromomethane	10000	U
75-01-4	Vinyl Chloride	23000	D
75-00-3	Chloroethane	10000	U
75-09-2	Methylene Chloride	10000	U
67-64-1	Acetone	10000	U
75-15-0	Carbon Disulfide	10000	U
75-35-4	1,1-Dichloroethene	10000	U
75-34-3	1,1-Dichloroethane	10000	U
540-59-0	1,2-Dichloroethene (total)	190000	D
67-66-3	Chloroform	10000	U
107-06-2	1,2-Dichloroethane	10000	U
78-93-3	2-Butanone	10000	U
71-55-6	1,1,1-Trichloroethane	10000	U
56-23-5	Carbon Tetrachloride	10000	U
75-27-4	Bromodichloromethane	10000	U
78-87-5	1,2-Dichloropropane	10000	U
10061-01-5	cis-1,3-dichloropropene	10000	U
79-01-6	Trichloroethene	54000	D
124-48-1	Dibromochloromethane	10000	U
79-00-5	1,1,2-Trichloroethane	10000	U
71-43-2	Benzene	10000	U
10061-02-6	trans-1,3-dichloropropene	10000	U
75-25-2	Bromoform	10000	U
108-10-1	4-Methyl-2-Pentanone	10000	U
591-78-6	2-Hexanone	10000	U
127-18-4	Tetrachloroethene	10000	U
79-34-5	1,1,2,2-Tetrachloroethane	10000	U
108-88-3	Toluene	10000	U
108-90-7	Chlorobenzene	10000	U
100-41-4	Ethylbenzene	10000	U
100-42-5	Styrene	10000	U
1330-20-7	Total Xylenes	10000	U

1E
 VOLATILE ORGANICS ANALYSIS DATA SHEET
 TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO. 0015

A60104DL

Lab Name: RECRA ENVIRON Contract: C002989
 Lab Code: RECNY Case No.: SH997 SAS No.: _____ SDG No.: 0828
 Matrix: (soil/water) WATER Lab Sample ID: A7302502DL
 Sample wt/vol: 5.0 (g/mL) ML Lab File ID: J2976
 Level: (low/med) LOW Date Received: 08/29/97
 % Moisture: not dec. _____ Date Analyzed: 09/03/97
 GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1000.0
 Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

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

Number TICs found: 0

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
=====	=====	=====	=====	=====

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

0016
EPA SAMPLE NO.

A60111 (1W-11)

Lab Name: RECRA ENVIRON Contract: C002989

Lab Code: RECNY Case No.: SH997 SAS No.: _____ SDG No.: 0828

Matrix: (soil/water) WATER Lab Sample ID: A7302503

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: J2977

Level: (low/med) LOW Date Received: 08/29/97

% Moisture: not dec. _____ Date Analyzed: 09/03/97

GC Column: DB-624 ID: 0.530 (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	UG/L	Q
74-87-3	-----Chloromethane	10	U
74-83-9	-----Bromomethane	10	U
75-01-4	-----Vinyl Chloride	2	J
75-00-3	-----Chloroethane	10	U
75-09-2	-----Methylene Chloride	10	U
67-64-1	-----Acetone	7	J
75-15-0	-----Carbon Disulfide	10	U
75-35-4	-----1,1-Dichloroethene	10	U
75-34-3	-----1,1-Dichloroethane	10	U
540-59-0	-----1,2-Dichloroethene (total)	2	J
67-66-3	-----Chloroform	10	U
107-06-2	-----1,2-Dichloroethane	10	U
78-93-3	-----2-Butanone	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
124-48-1	-----Dibromochloromethane	10	U
79-00-5	-----1,1,2-Trichloroethane	10	U
71-43-2	-----Benzene	10	U
10061-02-6	-----trans-1,3-dichloropropene	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	-----Total Xylenes	10	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

A60111

Lab Name: RECRA ENVIRON Contract: C002989

Lab Code: RECNY Case No.: SH997 SAS No.: _____ SDG No.: 0828

Matrix: (soil/water) WATER Lab Sample ID: A7302503

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: J2977

Level: (low/med) LOW Date Received: 08/29/97

% Moisture: not dec. _____ Date Analyzed: 09/03/97

GC Column: DB-624 ID: 0.530 (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 NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
=====	=====	=====	=====	=====

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

A60112 (MW-12)

Lab Name: RECRA ENVIRON Contract: C002989

Lab Code: RECNY Case No.: SH997 SAS No.: _____ SDG No.: 0828

Matrix: (soil/water) WATER Lab Sample ID: A7302504

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: J2978

Level: (low/med) LOW Date Received: 08/29/97

% Moisture: not dec. _____ Date Analyzed: 09/03/97

GC Column: DB-624 ID: 0.530 (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	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/L</u>	Q
74-87-3	-----Chloromethane	10	U
74-83-9	-----Bromomethane	10	U
75-01-4	-----Vinyl Chloride	100	
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
75-34-3	-----1,1-Dichloroethane	10	U
540-59-0	-----1,2-Dichloroethene (total)	76	
67-66-3	-----Chloroform	10	U
107-06-2	-----1,2-Dichloroethane	10	U
78-93-3	-----2-Butanone	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
124-48-1	-----Dibromochloromethane	10	U
79-00-5	-----1,1,2-Trichloroethane	10	U
71-43-2	-----Benzene	10	U
10061-02-6	-----trans-1,3-dichloropropene	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	-----Total Xylenes	10	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

0019
EPA SAMPLE NO.

A60112

Lab Name: RECRA ENVIRON Contract: C002989

Lab Code: RECNY Case No.: SH997 SAS No.: _____ SDG No.: 0828

Matrix: (soil/water) WATER Lab Sample ID: A7302504

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: J2978

Level: (low/med) LOW Date Received: 08/29/97

% Moisture: not dec. _____ Date Analyzed: 09/03/97

GC Column: DB-624 ID: 0.530 (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 NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

0023
EPA SAMPLE NO.

VBLK08

Lab Name: RECRA ENVIRON Contract: C002989
 Lab Code: RECNY Case No.: SH997 SAS No.: _____ SDG No.: 0828
 Matrix: (soil/water) WATER Lab Sample ID: VBLK08
 Sample wt/vol: 5.0 (g/mL) ML Lab File ID: J2943
 Level: (low/med) LOW Date Received: _____
 % Moisture: not dec. _____ Date Analyzed: 09/02/97
 GC Column: DB-624 ID: 0.530 (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
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	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
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-dichloropropene	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	Total Xylenes	10	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLK08

Lab Name: RECRA ENVIRON Contract: C002989

Lab Code: RECN Case No.: SH997 SAS No.: _____ SDG No.: 0828

Matrix: (soil/water) WATER Lab Sample ID: VBLK08

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: J2943

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

% Moisture: not dec. _____ Date Analyzed: 09/02/97

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

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

Number TICs found: 2

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	4.03	11	J
2.	UNKNOWN	9.22	6	J

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

VBLK09

Lab Name: RECRA ENVIRON Contract: C002989

Lab Code: RECNY Case No.: SH997 SAS No.: _____ SDG No.: 0828

Matrix: (soil/water) WATER Lab Sample ID: VBLK09

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: J2967

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

% Moisture: not dec. _____ Date Analyzed: 09/03/97

GC Column: DB-624 ID: 0.530 (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
75-34-3-----	1,1-Dichloroethane	10	U
540-59-0-----	1,2-Dichloroethene (total)	10	U
67-66-3-----	Chloroform	10	U
107-06-2-----	1,2-Dichloroethane	10	U
78-93-3-----	2-Butanone	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
124-48-1-----	Dibromochloromethane	10	U
79-00-5-----	1,1,2-Trichloroethane	10	U
71-43-2-----	Benzene	10	U
10061-02-6-----	trans-1,3-dichloropropene	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-----	Total Xylenes	10	U

0027

EPA SAMPLE NO.

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

VBLK09

Lab Name: RECRA ENVIRON Contract: C002989

Lab Code: RECNY Case No.: SH997 SAS No.: _____ SDG No.: 0828

Matrix: (soil/water) WATER Lab Sample ID: VBLK09

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: J2967

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

% Moisture: not dec. _____ Date Analyzed: 09/03/97

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

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

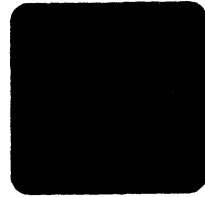
CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
=====	=====	=====	=====	=====

NOV 10 1997

FREE-COL LABORATORIES, LTD.
P.O. Box 557, 11618 Cotton Road
Meadville, Pennsylvania 16335-0557
Phone: Area Code 814/724-8242
FAX: Area Code 814/333-1466



ENVIRONMENTAL
OCCUPATIONAL HEALTH
FOOD SCIENCE
SPECIALISTS

DELPHI HARRISON THRM. SYS.
GENERAL MOTORS CORPORATION

MONITORING WELLS #12,11,13,10,9,8,6,4,3,7

SAMPLE DATES: 10/10/97
P.O.# HH48988

Report reviewed and approved by:

A handwritten signature in cursive script that reads "John Paraska DM".

John Paraska
Quality Assurance Supervisor



FREE-COL LABORATORIES, LTD.

P.O. BOX 557, 11618 COTTON ROAD
MEADVILLE, PENNSYLVANIA 16335
PHONE: (814) 724-6242
FAX: (814) 333-1466
EMAIL: freecol@toolcity.net

10/22/97

TO: DELPHI HARRISON THRM.SYS
ATTN: MS. CATHERINE VER
200 UPPER MOUNTAIN RD.
LOCKPORT NY 14094

P.O. # HH48988
ACCOUNT NO. 01220

ANALYTICAL REPORT FORM

PAGE 1

PARAMETER	SAMPLE ID	MW-12	MW-11	MW-13	TRIP BLANK
		10/10/97	10/10/97	10/10/97	10/10/97
	LAB ID	71013400	71013401	71013402	71013410
	DATE RECEIVED:	10/13/97	10/13/97	10/13/97	10/13/97

UNITS = MG/L

TRICHLOROETHYLENE	<0.0005	<0.0005	<0.0005	<0.0005
TETRACHLOROETHANE	<0.0005	<0.0005	<0.0005	<0.0005
1,2-DICHLOROETHENE	0.16	0.0032	0.0030	<0.0005
VINYL CHLORIDE	0.17	0.0012	0.0010	<0.0005
VOLATILE SET-UP	COMPLETE	COMPLETE	COMPLETE	COMPLETE

Volatile Compounds - Method 524.2

"Volatile Organic Compounds in Water by Purge and Trap (Capillary) Gas Chromatography/
Mass Spectrometry", (Sept. 1986), USEPA, EMSL, Cincinnati, Ohio 45268.

DATE AND ANALYST
10/16/97 ECKLUND

A.I.H.A. Accreditation No. 98
U.S. Public Health Services Approved Facility
PA D.E.R. Laboratory I.D. No. 20-073
PA Dept. of Agriculture Approved Dairy Laboratory
NY Dept. of Health Laboratory I.D. No. 10552

NY Dept. of Env. Conservation Approved Facility
ND Dept. of Health Cert. No. R-083
MD Dept. of Health Cert. No. 130
VA Dept. of Health Laboratory I.D. No. 00145
WV Dept. of Health Certification No. 9907C

U.S. Office of Surface Mining Approved Facility
Ohio Dept. of Health Approved Environmental
Lead Laboratory No. 10016



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ANALYTICAL REPORT FORM

PAGE 2

PARAMETER	SAMPLE ID	MW-10	MW-9	MW-8	MW-6
		10/10/97	10/10/97	10/10/97	10/10/97
	LAB ID	71013403	71013404	71013405	71013406
	DATE RECEIVED:	10/13/97	10/13/97	10/13/97	10/13/97
UNITS = MG/L					
TRICHLOROETHYLENE		0.35	1.6	0.35	12
TETRACHLOROETHANE		0.28	0.047	0.018	44
1,2-DICHLOROETHENE		0.76	2.7	4.3	16
VINYL CHLORIDE		0.047	0.12	0.11	5.5
VOLATILE SET-UP		COMPLETE	COMPLETE	COMPLETE	COMPLETE

DATE AND ANALYST
10/20/97 ECKLUND

Volatile Compounds - Method 8260B
"Test Methods for Evaluating Solid Waste: Physical/Chemical Methods", SW-846,
Third Edition, U.S. Environmental Protection Agency. Revised 1986.

A.I.H.A. Accreditation No. 98
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10/22/97

TO: DELPHI HARRISON THRM.SYS
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P.O. # HH48988
ACCOUNT NO. 01220

ANALYTICAL REPORT FORM

PAGE 3

PARAMETER	SAMPLE ID	MW-4	MW-3	MW-7
		10/10/97	10/10/97	10/10/97
	LAB ID	71013407	71013408	71013409
	DATE RECEIVED:	10/13/97	10/13/97	10/13/97

UNITS = MG/L

TRICHLOROETHYLENE	33	<0.2 D	720
TETRACHLOROETHANE	<0.2 D	<0.2 D	<0.2 D
1,2-DICHLOROETHENE	110	230	43
VINYL CHLORIDE	27	4.7	4.8
VOLATILE SET-UP	COMPLETE	COMPLETE	COMPLETE

DATE AND ANALYST
10/20/97 ECKLUND

Volatile Compounds - Method 8260B
"Test Methods for Evaluating Solid Waste: Physical/Chemical Methods", SW-846,
Third Edition, U.S. Environmental Protection Agency. Revised 1986.

A.I.H.A. Accreditation No. 98
U.S. Public Health Services Approved Facility
PA D.E.R. Laboratory I.D. No. 20-073
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Lead Laboratory No. 10016

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10/22/97

TO: DELPHI HARRISON THRM.SYS
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200 UPPER MOUNTAIN RD.
LOCKPORT NY 14094

P.O. # HH48988

ACCOUNT NO. 01220

ANALYTICAL REPORT FORM

PAGE 4

SAMPLE ID : MW-3 TRIP BLANK
10/10/97 10/10/97

LAB ID 71013408 * 71013410 **
PARAMETER DATE RECEIVED: 10/13/97 10/13/97

UNITS = MG/L

BENZENE	1.7	<0.0005
TOLUENE	1.0	<0.0005
ETHYLBENZENE	<0.2 D	<0.0005
XYLENE	0.8	<0.0005

* BTEX - Method 8260B
"Test Methods for Evaluating Solid Waste: Physical/Chemical Methods", SW-846,
Third Edition, U.S. Environmental Protection Agency. Revised 1986.

DATE AND ANALYST
10/20/97 ECKLUND

** BTEX - Method 524.2
"Volatile Organic Compounds in Water by Purge and Trap (Capillary) Gas Chromatography/
Mass Spectrometry", (Sept. 1986), USEPA, EMSL, Cincinnati, Ohio 45268.

DATE AND ANALYST
10/16/97 ECKLUND

pc: Mr. Steve Blair, G3A

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Lead Laboratory No. 10016



FREE-COL LABORATORIES, INC.

P.O. BOX 557, COTTON ROAD
MEADVILLE, PENNSYLVANIA 16335
PHONE: (814) 724-6242
FAX: (814) 333-1466

TO:

ANALYTICAL REPORT FORM

- CODE B: This analyte was detected in the associated blank as well as in the sample. It indicates possible/probable contamination. The data user may subtract the blank value at his/her discretion.
- CODE D: Detection limit change due to a dilution.
- CODE R: The percent recovery on the spiked sample associated with this sample was not within the acceptance limits of 75% - 125%
- CODE S: This result was obtained by Method of Standard Additions.
- CODE NA: Not Applicable
- CODE ND: Not Detectable
- PRC: Preparation Reference Control
- VOID: The sample plus spike concentration exceeded the linear range of the standard curve.
- CODE Q: Values for parameters quantified in this sample have been adjusted for recoveries of the analytical matrix spike. The adjustments have been based on the matrix recoveries from this sample. Adjusted values are not given where sample values were less than the detection limit or where spike recoveries are equal to 100%
- CODE J: This result is an estimated value. It indicates that the compound meets the mass spectral data identification criteria. The result is less than the quantitation limit.

MEADVILLE DIVISION

J.H.A. Accreditation No. 98
J.S. Public Health Services Approved Facility
PA D.E.R. Laboratory I.D. No. 20-073
PA Dept. of Agriculture Approved Dairy Laboratory

NY Dept. of Health Laboratory I.D. No. 10552
NY Dept. of Env. Conservation Approved Facility
ND Dept. of Health Cert. No. R-083
MD Dept. of Health Cert. No. 130
VA Dept. of Health Laboratory I.D. No. 00145

WV Dept. of Health Certification No. 9907C
NC Dept. of Natural Resources Cert. No. 236
MI Dept. of Public Health Approved Facility
U.S. Office of Surface Mining Approved Facility

KEY:

<=LESS THAN

>=GREATER THAN

w.f.=WILL FOLLOW

FREE-COL LABORATORIES, LTD.

P.O. Box 557, 11818 Cotton Road
Meadville, Pennsylvania 16335-0557
Phone: Area Code 814/724-6242
FAX: Area Code 814/333-1466

ENVIRONMENTAL
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QUALITY CONTROL INFORMATION

Free-Col Laboratories analyzes control samples at specified frequencies during the analyses for the purpose of evaluating and documenting the precision and accuracy of the results. The attached quality control data, prepared at the time of analysis, reflect the results obtained for the various types of controls from the batch of samples described as follows:

<u>General Motors Sample Identification</u>	<u>Free-Col ID</u>
MW-12 10/10/97	71013400
MW-11 10/10/97	71013401
MW-13 10/10/97	71013402
TRIP BLANK 10/10/97	71013410
MW-10 10/10/97	71013403
MW-9 10/10/97	71013404
MW-8 10/10/97	71013405
MW-6 10/10/97	71013406
MW-4 10/10/97	71013407
MW-3 10/10/97	71013408
MW-7 10/10/97	71013409

FREE-COL LABORATORIES, INC.
DRINKING WATER REFERENCE CONTROL LIMITS, VOLATILES

Date 10/16/97 Analyst(s) Ecklund

Samples associated with this reference control:

Acceptance limits (all compounds): 8.0 to 12.0 ug/L

<u>PARAMETER</u>	<u>TARGET VALUE ug/L</u>	<u>ASSAYED VALUE ug/L</u>
Dichlorodifluoromethane	10	
Chloromethane	10	
Vinyl Chloride	10	9.7
Bromomethane	10	
Chloroethane	10	
Trichlorofluoromethane	10	
1,1-Dichloroethene	10	
Methylene Chloride	10	
Trans-1,2-Dichloroethene	10	9.3
1,1-Dichloroethane	10	
Dichloropropane	10	
Cis-1,2-Dichloroethene	10	11.0
Bromochloromethane	10	
Chloroform	10	
1,1,1-Trichloroethane	10	
Carbon Tetrachloride	10	
1,1-Dichloropropene	10	
Benzene	10	9.6
1,2-Dichloroethane	10	
Trichloroethene	10	10.0
1,2-Dichloropropane	10	
Dibromomethane	10	
Bromodichloromethane	10	
Trans-1,3-Dichloropropene	10	
Toluene	10	9.9
Cis-1,3-Dichloropropene	10	
1,1,2-Trichloroethane	10	
Tetrachloroethene	10	10.1
1,3-Dichloropropane	10	
Dibromochloromethane	10	

DRINKING WATER REFERENCE CONTROL LIMITS, VOLATILES (page 2)

Date 10/16/97 Analyst(s) Ecklund

Acceptance Limits (all compounds) : 8.0 to 12.0 ug/L

<u>PARAMETER</u>	<u>TARGET VALUE ug/L</u>	<u>ASSAYED VALUE ug/L</u>
1,2-Dibromoethane	10	
Chlorobenzene	10	
1,1,1,2-Tetrachloroethane	10	
Ethyl benzene	10	9.7
m,p-Xylenes	20	19.2
o-Xylene	10	9.7
Styrene	10	
Bromoform	10	
Isopropyl Benzene	10	
1,1,2,2-Tetrachloroethane	10	
Bromobenzene	10	
1,2,3-Trichloropropane	10	
N-propyl Benzene	10	
2-Chlorotoluene	10	
4-Chlorotoluene	10	
1,3,5-Trimethylbenzene	10	
tert-Butylbenzene	10	
1,2,4-Trimethylbenzene	10	
sec-Butylbenzene	10	
1,3-Dichlorobenzene	10	
p-Isopropyltoluene	10	
1,4-Dichlorobenzene	10	
1,2-Dichlorobenzene	10	
N-Butylbenzene	10	
1,2,4-Trichlorobenzene	10	
Naphthalene	10	
Hexachlorobutadiene	10	
1,2,3-Trichlorobenzene	10	

FREE-COL LABORATORIES, INC.
DRINKING WATER BLANK INFORMATION, VOLATILES

Date 10/16/97 Analyst(s) Ecklund

Samples associated with this blank:

PARAMETER

BLANK VALUE

Units = ug/L

Dichlorodifluoromethane	
Chloromethane	
Vinyl Chloride	<0.5
Bromomethane	
Chloroethane	
Trichlorofluoromethane	
1,1-Dichloroethene	
Methylene Chloride	
Trans-1,2-Dichloroethene	<0.5
1,1-Dichloroethane	
Dichloropropane	
Cis-1,2-Dichloroethene	<0.5
Bromochloromethane	
Chloroform	
1,1,1-Trichloroethane	
Carbon Tetrachloride	
1,1-Dichloropropene	
Benzene	<0.5
1,2-Dichloroethane	
Trichloroethene	<0.5
1,2-Dichloropropane	
Dibromomethane	
Bromodichloromethane	
Trans-1,3-Dichloropropene	
Toluene	<0.5
Cis-1,3-Dichloropropene	
1,1,2-Trichloroethane	
Tetrachloroethene	<0.5
1,3-Dichloropropane	
Dibromochloromethane	

DRINKING WATER BLANK INFORMATION, VOLATILES (page 2)

Date 10/16/97 Analyst(s) Ecklund

PARAMETER	BLANK VALUE
units = <u>ug/L</u>	
1,2-Dibromoethane	
Chlorobenzene	
1,1,1,2-Tetrachloroethane	
Ethyl benzene	<0.5
m,p-Xylenes	<0.5
o-Xylene	<0.5
Styrene	
Bromoform	
Isopropyl Benzene	
1,1,2,2-Tetrachloroethane	
Bromobenzene	
1,2,3-Trichloropropane	
N-propyl Benzene	
2-Chlorotoluene	
4-Chlorotoluene	
1,3,5-Trimethylbenzene	
tert-Butylbenzene	
1,2,4-Trimethylbenzene	
sec-Butylbenzene	
1,3-Dichlorobenzene	
p-Isopropyltoluene	
1,4-Dichlorobenzene	
1,2-Dichlorobenzene	
N-Butylbenzene	
1,2,4-Trichlorobenzene	
Naphthalene	
Hexachlorobutadiene	
1,2,3-Trichlorobenzene	

FREE-COL LABORATORIES, INC.
 DRINKING WATER REPEAT SAMPLE LIMITS, VOLATILES

Date 10/16/97 Analyst(s) Ecklund

Samples associated with this repeat control:

Sample used as repeat control: 710-13-401

AD = Absolute Difference
 RPD = Relative Percent Difference

PARAMETER	SAMPLE REPEAT		ACCEPT	ACCEPT	ASSAYED
	VALUE	VALUE	AD	RPD	AD/RPD

Units = mg/l

PARAMETER	SAMPLE VALUE	REPEAT VALUE	ACCEPT AD	ACCEPT RPD	ASSAYED AD/RPD
Dichlorodifluoromethane					
Chloromethane					
Vinyl Chloride	1.2	1.3			0.1/8%
Bromomethane					
Chloroethane					
Trichlorofluoromethane					
1,1-Dichloroethene					
Methylene Chloride					
Trans-1,2-Dichloroethene	<0.5	<0.5			0
1,1-Dichloroethane					
Dichloropropane					
Cis-1,2-Dichloroethene	3.2	3.0			0.2/6.4%
Bromochloromethane					
Chloroform					
1,1,1-Trichloroethane					
Carbon Tetrachloride					
1,1-Dichloropropene					
Benzene	<0.5	<0.5			0
1,2-Dichloroethane					
Trichloroethene	<0.5	<0.5			0
1,2-Dichloropropane					
Dibromomethane					
Bromodichloromethane					
Trans-1,3-Dichloropropene					
Toluene	<0.5	<0.5			0
Cis-1,3-Dichloropropene					
1,1,2-Trichloroethane					
Tetrachloroethene	<0.5	<0.5			0
1,3-Dichloropropane					
Dibromochloromethane					

DRINKING WATER REPEAT LIMITS, VOLATILES (page 2)

Date 10/16/97 Analyst(s) Ecklund

Sample used as repeat control: 710-13-401

PARAMETER ng/L SAMPLE REPEAT ACCEPT ACCEPT ASSAYED
 units = ng/L VALUE VALUE AD RPD AD/RPD

1,2-Dibromoethane				
Chlorobenzene				
1,1,1,2-Tetrachloroethane				
Ethyl benzene	<0.5	<0.5		0
m,p-Xylenes	<0.5	<0.5		0
o-Xylene	<0.5	<0.5		0
Styrene				
Bromoform				
Isopropyl Benzene				
1,1,2,2-Tetrachloroethane				
Bromobenzene				
1,2,3-Trichloropropane				
N-propyl Benzene				
2-Chlorotoluene				
4-Chlorotoluene				
1,3,5-Trimethylbenzene				
tert-Butylbenzene				
1,2,4-Trimethylbenzene				
sec-Butylbenzene				
1,3-Dichlorobenzene				
p-Isopropyltoluene				
1,4-Dichlorobenzene				
1,2-Dichlorobenzene				
N-Butylbenzene				
1,2,4-Trichlorobenzene				
Naphthalene				
Hexachlorobutadiene				
1,2,3-Trichlorobenzene				

FREE-COL LABORATORIES, INC.
 DRINKING WATER SPIKE SAMPLE LIMITS, VOLATILES

Date 10/16/97 Analyst(s) Ecklund

Samples associated with this spike control:

Sample used as spike control: 710-13-066

Acceptance limits (all compounds): 80 to 120 %

<u>PARAMETER</u>	<u>SPIKE ADDED ug/L</u>	<u>SPIKED RESULT ug/L</u>	<u>SAMPLE RESULT ug/L</u>	<u>ASSAYED % REC.</u>
Dichlorodifluoromethane	10			
Chloromethane	10			
Vinyl Chloride	10	10.4	<0.5	104
Bromomethane	10			
Chloroethane	10			
Trichlorofluoromethane	10			
1,1-Dichloroethene	10			
Methylene Chloride	10			
Trans-1,2-Dichloroethene	10	10.3	<0.5	103
1,1-Dichloroethane	10			
Dichloropropane	10			
Cis-1,2-Dichloroethene	10	10.4	<0.5	104
Bromochloromethane	10			
Chloroform	10			
1,1,1-Trichloroethane	10			
Carbon Tetrachloride	10			
1,1-Dichloropropene	10			
Benzene	10	10.0	<0.5	100
1,2-Dichloroethane	10			
Trichloroethene	10	9.9	<0.5	99
1,2-Dichloropropane	10			
Dibromomethane	10			
Bromodichloromethane	10			
Trans-1,3-Dichloropropene	10			
Toluene	10	9.9	<0.5	99
Cis-1,3-Dichloropropene	10			
1,1,2-Trichloroethane	10			
Tetrachloroethene	10	9.9	<0.5	99
1,3-Dichloropropane	10			
Dibromochloromethane	10			

DRINKING WATER SPIKE LIMITS, VOLATILES (page 2)

Date 10/16/97 Analyst(s) Ecklund

Sample used as spike control: 710-13-066

Acceptance Limits (all compounds) : 80 to 120 %

<u>PARAMETER</u>	<u>SPIKE ADDED ug/L</u>	<u>SPIKED RESULT ug/L</u>	<u>SAMPLE RESULT ug/L</u>	<u>ASSAYED & REC.</u>
1,2-Dibromoethane	10			
Chlorobenzene	10			
1,1,1,2-Tetrachloroethane	10			
Ethyl benzene	10	10.1	<0.5	101
m,p-Xylenes	20	19.7	<0.5	98
o-Xylene	10	10.0	<0.5	100
Styrene	10			
Bromoform	10			
Isopropyl Benzene	10			
1,1,2,2-Tetrachloroethane	10			
Bromobenzene	10			
1,2,3-Trichloropropane	10			
N-propyl Benzene	10			
2-Chlorotoluene	10			
4-Chlorotoluene	10			
1,3,5-Trimethylbenzene	10			
tert-Butylbenzene	10			
1,2,4-Trimethylbenzene	10			
sec-Butylbenzene	10			
1,3-Dichlorobenzene	10			
p-Isopropyltoluene	10			
1,4-Dichlorobenzene	10			
1,2-Dichlorobenzene	10			
N-Butylbenzene	10			
1,2,4-Trichlorobenzene	10			
Naphthalene	10			
Hexachlorobutadiene	10			
1,2,3-Trichlorobenzene	10			

Limits in effect as of June 2, 1997

FREE-COL LABORATORIES, LTD.
VOA REFERENCE CONTROL INFORMATION
(CLP - CALIBRATION VERIFICATION LIMITS)

Date 10/30/97 Analyst Ecklund
Samples associated with this reference control:

<u>Parameter</u>	<u>Target Value</u> <u>ug/L</u>	<u>Acceptance Limits</u> <u>ug/L</u>	<u>Assayed Value</u> <u>ug/L</u>	<u>File#</u>
Chloromethane	20	5.4-34.5		223
Bromomethane	20	7.8-39.4		222
Vinyl chloride	20	1.5-41.7	17.0	232
Chloroethane	20	4.6-36.4		209
Methylene chloride	20	11.8-31.3		224
Acrolein	62	4.5-104.4		201
Acrylonitrile	58	13.2-115.2		202
1,1-Dichloroethene	20	11.3-32.1		216
1,1-Dichloroethane	20	15.5-27.8		214
trans-1,2-Dichloroethene	20	13.6-28.3	17.0	217
Chloroform	20	15.7-26.1		211
1,2-Dichloroethane	20	8.1-34.0		215
1,1,1-Trichloroethane	20	12.8-30.1		228
Carbon tetrachloride	20	8.0-27.8		206
Bromodichloromethane	20	9.8-29.7		212
1,2-Dichloropropane	20	14.7-28.2		218
trans-1,3-Dichloropropene	20	12.7-25.6		220
Trichloroethene	20	14.1-27.1	20.5	230
Benzene	20	14.3-27.8	21.8	203
Dibromochloromethane	20	4.8-29.2		208
1,1,2-Trichloroethane	20	14.3-28.2		229
cis-1,3-Dichloropropene	20	10.3-26.8		219
2-Chloroethyl vinyl ether	20	10.1-32.1		210
Bromoform	20	3.0-30.6		205
Tetrachloroethene	20	13.3-28.4	19.7	226
1,1,2,2-Tetrachloroethane	20	14.7-26.1		225
Toluene	20	15.2-25.6	21.4	227
Chlorobenzene	20	11.5-28.6		207
Ethyl benzene	20	13.4-27.6	21.3	221
1,3-Dichlorobenzene	26	18.5-36.7		234
1,2-Dichlorobenzene	26	11.5-41.9		233
1,4-Dichlorobenzene	20	3.7-35.6		235
Diethyl Benzene	44	25.9-62.9		237
Ethyl Ether	35	26.9-49.5		236
Xylene	44	21.0-66.7	46.5	238
MEK	20	9.1-39.4		240
Acetone	20	9.6-38.0		242

FREE-COL LABORATORIES, INC.
VOA BLANK INFORMATION
(CLP - CALIBRATION BLANK LIMITS)

Date 10/20/97 Analyst Ecklund
Samples associated with this blank:

Parameter Blank Value

Units = ug/l

Chloromethane	
Bromomethane	
Vinyl chloride	<2
Chloroethane	
Methylene chloride	
Acrolein	
Acrylonitrile	
1,1-Dichloroethene	
1,1-Dichloroethane	
trans-1,2-Dichloroethene	<2
Chloroform	
1,2-Dichloroethane	
1,1,1-Trichloroethane	
Carbon tetrachloride	
Bromodichloromethane	
1,2-Dichloropropane	
trans-1,3-Dichloropropene	
Trichloroethene	<2
Benzene	<2
Dibromochloromethane	
1,1,2-Trichloroethane	
cis-1,3-Dichloropropene	
2-Chloroethyl vinyl ether	
Bromoform	
Tetrachloroethene	<2
1,1,2,2-Tetrachloroethane	
Toluene	<2
Chlorobenzene	
Ethyl benzene	
1,3-Dichlorobenzene	
1,2-Dichlorobenzene	
1,4-Dichlorobenzene	
Xylene	<2
2-Butanone - MEK	
4-Methyl-2-pentanone	
Acetone	
Syrene	

FREE-COL LABORATORIES, INC.
VOA BLANK INFORMATION
(CLP - CALIBRATION BLANK LIMITS)

Date 10/20/97 Analyst Ecklund
Samples associated with this blank:

<u>Parameter</u>	<u>Blank Value</u>
Units = <u>ug/L</u>	
<u>Carbon Disulfide</u>	
<u>Vinyl Acetate</u>	
<u>2-Hexanone - MBK</u>	
<u>Dichlorofluoromethane</u>	
<u>1,1,1,2-Tetrachloroethane</u>	
<u>Trichlorofluoromethane</u>	
<u>1,2,3-Trichloropropane</u>	
<u>3-Chloro-1-propene</u>	
<u>1,2-Dibromomethane</u>	
<u>cis,1,2-Dichloroethene</u>	<u><2</u>

Limits in effect as of June 2, 1997

FREE-COL LABORATORIES, LTD.
VOA REPEAT CONTROL INFORMATION
(CLP - DUPLICATE SAMPLE LIMITS)

Date 10/20/97 Analyst Ecklund
Samples associated with this repeat control:

Sample used as repeat control: 710-17-071
AD = Absolute Difference RPD = Relative Percent Difference

<u>Parameter</u>	<u>Samp. Value</u>	<u>Repeat Value</u>	<u>Accept AD</u>	<u>Accept RPD</u>	<u>Assayd AD/RPD</u>	<u>File</u>
Units = <u>mg/L</u>						
Chloromethane						820
Bromomethane						819
Vinyl chloride	<2	<2		27	0	828
Chloroethane						807
Methylene chloride				17		821
Acrolein						800
Acrylonitrile						801
1,1-Dichloroethene						813
1,1-Dichloroethane				41		811
trans-1,2-Dichloroethene	<2	<2		28	0	814
Chloroform				14		809
1,2-Dichloroethane						812
1,1,1-Trichloroethane				27		825
Carbon tetrachloride						804
Bromodichloromethane				79		810
1,2-Dichloropropane						815
trans-1,3-Dichloropropene						817
Trichloroethene	<2	<2		32	0	827
Benzene	<2	<2		49	0	802
Dibromochloromethane				70		806
1,1,2-Trichloroethane						826
cis-1,3-Dichloropropene						816
2-Chloroethyl vinyl ether						808
Bromoform						803
Tetrachloroethene	<2	<2		33	0	823
1,1,2,2-Tetrachloroethane						822
Toluene	<2	<2		38	0	824
Chlorobenzene				24		805
Ethyl benzene	<2	<2		5	0	818
1,3-Dichlorobenzene						830
1,2-Dichlorobenzene						829
1,4-Dichlorobenzene				36		831
Acetone				26		836

Limits in effect as of June 2, 1997

FREE-COL LABORATORIES, LTD.
VOA SPIKED CONTROL INFORMATION
(CLP - ANALYTICAL SPIKED SAMPLE LIMITS)

Date 10/20/97 Analyst Ecklund
Samples associated with this spiked control:

Sample used as spiked control: 710-17-075

<u>PARAMETER</u>	<u>SPIKE</u> <u>ADDED</u> <u>UG/L</u>	<u>SPIKED</u> <u>RESULT</u> <u>UG/L</u>	<u>SAMPLE</u> <u>RESULT</u> <u>UG/L</u>	<u>ACCEPT.</u> <u>LIMITS</u> <u>% REC.</u>	<u>ASSYD</u> <u>% REC.</u>	<u>FILE</u>
Chloromethane	20			31-187		520
Bromomethane	20			34-207		519
Vinyl chloride	20	19	<2	26-183	95	528
Chloroethane	20			55-168		507
Methylene chloride	20			63-151		521
Acrolein	62			23-183		500
Acrylonitrile	58			52-186		501
1,1-Dichloroethene	20			52-159		513
1,1-Dichloroethane	20			73-144		511
trans-1,2-Dichloroethene	20	24	<2	64-151	120	514
Chloroform	20			68-142		509
1,2-Dichloroethane	20			54-155		512
1,1,1-Trichloroethane	20			59-158		525
Carbon tetrachloride	20			39-147		504
Bromodichloromethane	20			47-148		510
1,2-Dichloropropane	20			67-144		515
trans-1,3-Dichloropropene	20			56-141		517
Trichloroethene	20	20	<2	64-130	100	527
Benzene	20	20	<2	71-142	100	502
Dibromochloromethane	20			29-155		506
1,1,2-Trichloroethane	20			61-146		526
cis-1,3-Dichloropropene	20			46-149		516
2-Chloroethyl vinyl ether	20			7-183		508
Bromoform	20			10-149		503
Tetrachloroethene	20	19	<2	50-160	95	523
1,1,2,2-Tetrachloroethane	20			44-163		522
Toluene	20	20	<2	73-130	100	524
Chlorobenzene	20			72-131		505
Ethyl benzene	20	20	<2	62-139	100	518
1,3-Dichlorobenzene	26			60-161		530
1,2-Dichlorobenzene	26			45-157		529
1,4-Dichlorobenzene	20			36-174		531
Diethyl Benzene	44			71-137		533
Ethyl Ether	35			62-160		532
Xylenes	44	43	<2	72-130	98	534
MEK	20			63-179		536

FIGURE E2
ENVIRONMENTAL SAMPLE DESCRIPTION
AND
CHAIN OF CUSTODY RECORD

ATTACHMENT #2

Page 1 of 2

DATE: 10/10/97
 Sampled by
G. Klawinski

RESULTS REQUIRED BY: _____
 VERBAL RESULTS NEEDED? _____
 LABORATORY: Free - Cal

HARRISON DIVISION, GMC
 200 UPPER MOUNTAIN ROAD
 LOCKPORT, NEW YORK 14094
 PHONE: (716) 439-685-230
 CONTACT: Gary Klawinski
62A

- SAMPLE TYPE: (CIRCLE)
 1) WASTEWATER 2) DRINKING WATER 3) MONITORING WELL 4) SOIL
 5) SLUDGE 6) SOLID WASTE 7) OIL 8) INDUSTRIAL HYGIENE
 9) OTHER _____

SAMPLE DESCRIPTION: 1) Please test the following order: MW-12, MW-11, MW-13, MW-10, MW-9, MW-8, MW-6, MW-4, MW-3, MW-7. 2) Method 8240 for Trichloroethenes, Tetrachloroethene, total 1,2-Dichloroethenes, and vinyl chloride only for all samples. 3) Sample MW-3 8240 as noted above and BTEX compounds.

SAMPLE #	LOCATION	TIME	PARAMETERS	SAMPLE BOTTLE LOT # (OPTIONAL)
<u>Cooler 1</u>	<u>MW-12</u>	<u>9⁴⁰</u>	<u>SW-846 Method 8240 (see note 2)</u>	<u>3</u>
	<u>MW-11</u>	<u>9⁰⁰</u>	}	}
<u>N</u>	<u>MW-13</u>	<u>9²⁰</u>		
<u>Cooler 2</u>	<u>MW-10</u>	<u>10⁰⁰</u>		
	<u>MW-9</u>	<u>10¹⁵</u>		
	<u>MW-8</u>	<u>10⁴⁰</u>		
	<u>MW-6</u>	<u>12³⁰</u>		
<u>N</u>	<u>MW-4</u>	<u>1⁰⁰</u>		

DETECTION LEVELS REQUIRED? NYSDEC drinking water level detection limits are required

SAMPLE INTERFERENCES: _____

REASON FOR TEST (COMPARISON OF AREAS, BACKGROUND, ETC.) _____

BOTTLES RECEIVED BY: (DATE/TIME) (HRD PERSONNEL) <u>Ben [Signature] 10/10/97</u>	BOTTLES RELINQUISHED BY: (DATE/TIME) (HRD PERSONNEL) _____
BOTTLES RELINQUISHED BY: (DATE/TIME) (HRD PERSONNEL) _____	BOTTLES RECEIVED BY: (DATE/TIME) (LAB PERSONNEL) <u>William F Slater 10/13/97 1215</u>
SAMPLE COLLECTED BY: _____	RECEIVED BY: (DATE, TIME, LAB SIGNATURE) <u>Suzanne Walsh 10/13/97 18:00</u>

**FIGURE E2
ENVIRONMENTAL SAMPLE DESCRIPTION
AND
CHAIN OF CUSTODY RECORD**

ATTACHMENT #2

page 2 of 2

DATE: 10/10/97
Sampled by G. Klavinshi

RESULTS REQUIRED BY: _____
VERBAL RESULTS NEEDED? _____
LABORATORY: Froo-col

HARRISON DIVISION, GMC
200 UPPER MOUNTAIN ROAD
LOCKPORT, NEW YORK 14094
PHONE: (716) 435-685-2300
CONTACT: Gary Klavinshi

- SAMPLE TYPE: (CIRCLE)
- | | | | |
|----------------|-------------------|-------------------|-----------------------|
| 1) WASTEWATER | 2) DRINKING WATER | ③ MONITORING WELL | 4) SOIL |
| 5) SLUDGE | 6) SOLID WASTE | 7) OIL | 8) INDUSTRIAL HYGIENE |
| 9) OTHER _____ | | | |

SAMPLE DESCRIPTION: See note on page 1

SAMPLE #	LOCATION	TIME	PARAMETERS	SAMPLE BOTTLE LOT # (OPTIONAL)
<u>Good 2</u>	<u>MW-3</u>	<u>1⁴⁵</u>	<u>SW-846 Method 8240 (See note 2 and 3)</u>	<u>3</u>
<u>Coology 1</u>	<u>MW-7</u>	<u>2⁰⁰</u>	<u>↓ (See note 2)</u>	<u>3</u>
			<u>Trip blank prepared by Froo-col</u>	<u>2</u>

DETECTION LEVELS REQUIRED? _____

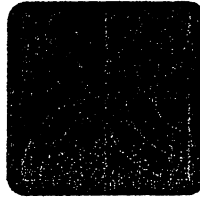
SAMPLE INTERFERENCES: _____

ASON FOR TEST (COMPARISON OF AREAS, BACKGROUND, ETC.) _____

BOTTLES RECEIVED BY: (DATE/TIME) (HRD PERSONNEL) <u>[Signature] 10/10/97</u>	BOTTLES RELINQUISHED BY: (DATE/TIME) (HRD PERSONNEL) <u>[Signature] 10/13/97 1215</u>
BOTTLES RELINQUISHED BY: (DATE/TIME) (HRD PERSONNEL)	BOTTLES RECEIVED BY: (DATE/TIME) (LAB PERSONNEL) <u>Willie F Sletta 10/13/97 18:00</u>
SAMPLE COLLECTED BY:	RECEIVED BY: (DATE, TIME, LAB SIGNATURE) <u>Suzanne Welch 10/13/97 18:00</u>

FREE-COL LABORATORIES, LTD.

P.O. Box 557, 11618 Cotton Road
Meadville, Pennsylvania 16335-0557
Phone: Area Code 814/724-6242
FAX: Area Code 814/333-1466



**ENVIRONMENTAL
OCCUPATIONAL HEALTH
FOOD SCIENCE
SPECIALISTS**

**DELPHI THERMAL SYSTEMS
GENERAL MOTORS CORPORATION**

GROUNDWATER SAMPLES

**SAMPLE DATES: 12/01/98
P.O.# ACARD**

Report reviewed and approved by:

John Paraska
Quality Assurance Supervisor

METHODS

<u>PARAMETER</u>	<u>METHOD</u>	<u>SOURCE</u>
Acid Digestion Prep	3005A	2
Methane	8015	2
Carbon, Total Organic	9060	2
Alkalinity	2320 B	20
Chloride	325.3	1
Nitrogen, Ammonia	350.2	1
Nitrate	353.2	22
Nitrite	353.2	22
Sulfate	9038	2
Sulfide	376.1	1
Calcium	7140	2
Iron ICP	6010 B	2
Magnesium	7450	2
Manganese	7460	2
Sodium ICP	6010 B	2
Potassium ICP	6010 B	2
Volatile Compounds	8260 B	2

SOURCE

- 1 - "Methods for Chemical Analysis of Water & Wastes", U.S. Environmental Protection Agency, EPA-600/4-79-020. Revised 1983.
- 2 - "Test Methods for Evaluating Solid Waste: Physical/Chemical Methods", SW-846, Third Edition, U.S. Environmental Protection Agency. Update III, December, 1996.
- 20 - "Standard Methods for the Examination of Water and Wastewater", 18th Edition.
- 22 - "Methods for Chemical Analysis of Water & Wastes", U.S. Environmental Protection Agency, EPA-600/100. Revised 1993.



FREE-COL LABORATORIES, LTD.

P.O. BOX 557, 11618 COTTON ROAD
MEADVILLE, PENNSYLVANIA 16335
PHONE: (814) 724-6242
FAX: (814) 333-1466
EMAIL: freecol@toolcity.net

12/16/98

TO:

DELPHI HARRISON THRM.SYS
ATTN: MS. CATHERINE VER
200 UPPER MOUNTAIN RD.
LOCKPORT

NY 14094-1896

P.O. # ACARD

ACCOUNT NO. 01220

ANALYTICAL REPORT FORM

PAGE 1

PARAMETER	LAB ID	DATE RECEIVED:	MW-12	MW-11
			12/01/98	12/01/98
	81202414	12/02/98		
	81202415	12/02/98		
1,2-DICHLOROETHENE MG/L			0.047	0.013
VOLATILE SET-UP			COMPLETE	COMPLETE
VINYL CHLORIDE MG/L			0.088	0.0046
METHANE MG/L			0.5	0.01
ACID DIGESTION PREP			COMPLETE	COMPLETE
T.O.C. MG/L			7	17
ALKALINITY MG/L			284	275
NH3-N DISTILLED MG/L			0.94	0.58
CHLORIDE MG/L			294	188
NO3-N MG/L			0.48	0.17
NO2-N MG/L			<0.05	<0.05
SULFATE MG/L			73	110
SULFIDE MG/L			0.2	0.2

Please reference the following page(s) for date and analyst.

A.A. Accreditation No. 98
U.S. Public Health Services Approved Facility
A.C.E.R. Laboratory I.D. No. 20-073
A Dept. of Agriculture Approved Dairy Laboratory
NY Dept. of Health Laboratory I.D. No. 10552

NY Dept. of Env. Conservation Approved Facility
ND Dept. of Health Cert. No. R-083
MD Dept. of Health Cert. No. 130
VA Dept. of Health Laboratory I.D. No. 00145
WV Dept. of Health Certification No. 9907C

U.S. Office of Surface Mining Approved Facility
Ohio Dept. of Health Approved Environmental
Lead Laboratory No. 10016

FREE-COL LABORATORIES, LTD.

P.O. BOX 557, 11618 COTTON ROAD
MEADVILLE, PENNSYLVANIA 16335
PHONE: (814) 724-6242
FAX: (814) 333-1466
EMAIL: freecol@toolcity.net

12/16/98

TO:

DELPHI HARRISON THRM.SYS
ATTN: MS. CATHERINE VER
200 UPPER MOUNTAIN RD.
LOCKPORT

NY 14094-1896

P.O. # ACARD

ACCOUNT NO. 01220

ANALYTICAL REPORT FORM

PAGE 2

	SAMPLE ID	: MW-12	MW-11
		12/01/98	12/01/98
	LAB ID	81202414	81202415
PARAMETER	DATE RECEIVED:	12/02/98	12/02/98

TRICHLOROETHYLENE	MG/L	<0.0005	<0.0005
PERCHLOROETHYLENE	MG/L	<0.0005	<0.0005

Please reference the following page(s) for date and analyst.

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J.S. Public Health Services Approved Facility
PA E.R. Laboratory I.D. No. 20-073
VA Dept. of Agriculture Approved Dairy Laboratory
NY Dept. of Health Laboratory I.D. No. 10552

NY Dept. of Env. Conservation Approved Facility
ND Dept. of Health Cert. No. R-083
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 MEADVILLE, PENNSYLVANIA 16335
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 EMAIL: freecol@toolcity.net

12/16/98

TO:

DELPHI HARRISON THRM.SYS
 ATTN: MS. CATHERINE VER
 200 UPPER MOUNTAIN RD.
 LOCKPORT

NY 14094-1896

P.O. # ACARD

ACCOUNT NO. 01220

ANALYTICAL REPORT FORM

PAGE 3

SAMPLE ID : MW-10
 12/01/98

LAB ID 81202416
 DATE RECEIVED: 12/02/98

PARAMETER	RESULTS	UNITS	DATE	AND	ANALYST
1,2-Dichloroethene	1.3	MG/L	12/08/98		ECKLUND
Volatile Set-up	COMPLETE				
Vinyl Chloride	0.11	MG/L	12/08/98		ECKLUND
Methane	0.23	MG/L	12/08/98		WILLIAMS
Acid Digestion Preparation	COMPLETE		12/03/98		CONLEY
Carbon, Total Organic	11	MG/L	12/08/98		PEARSON
Alkalinity	320	MG/L	12/09/98		ADSIT
Nitrogen, Ammonia (distilled)	0.32	MG/L	12/14/98		L. PARASKA/ J. PARASKA
Chloride	1,220	MG/L	12/07/98		ADSIT/ VROBEL
Nitrogen, Nitrate	0.19	MG/L	12/04/98		PEARSON
Nitrogen, Nitrite	<0.05	MG/L	12/02/98		PEARSON

IAA Accreditation No. 98
 NJ Public Health Services Approved Facility
 AER Laboratory I.D. No. 20-073
 A Dept. of Agriculture Approved Dairy Laboratory
 Y Dept. of Health Laboratory I.D. No. 10552

NY Dept. of Env. Conservation Approved Facility
 ND Dept. of Health Cert. No. R-083
 MD Dept. of Health Cert. No. 130
 VA Dept. of Health Laboratory I.D. No. 00145
 WV Dept. of Health Certification No. 9907C

U.S. Office of Surface Mining Approved Facility
 Ohio Dept. of Health Approved Environmental
 Lead Laboratory No. 10016

KEY:

<=LESS THAN

>=GREATER THAN

w.f.=WILL FOLLOW

FREE-COL LABORATORIES, LTD.

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MEADVILLE, PENNSYLVANIA 16335
PHONE: (814) 724-6242
FAX: (814) 333-1466
EMAIL: freecol@toolcity.net
12/16/98

TO:

DELPHI HARRISON THRM.SYS
ATTN: MS. CATHERINE VER
200 UPPER MOUNTAIN RD.
LOCKPORT NY 14094-1896

P.O. # ACARD

ACCOUNT NO. 01220

ANALYTICAL REPORT FORM

PAGE 4

SAMPLE ID : MW-10
12/01/98

LAB ID 81202416
DATE RECEIVED: 12/02/98

PARAMETER	RESULTS	UNITS	DATE	AND	ANALYST
Sulfate	270	MG/L	12/09/98		KOZAKOVSKY
Sulfide	0.2	MG/L	12/09/98		L. PARASKA/ ADSIT
Trichloroethylene	0.46	MG/L	12/08/98		ECKLUND
Perchloroethylene	0.016	MG/L	12/08/98		ECKLUND

IL A. Accreditation No. 98
J.S. Public Health Services Approved Facility
PA E.R. Laboratory I.D. No. 20-073
VA Dept. of Agriculture Approved Dairy Laboratory
WV Dept. of Health Laboratory I.D. No. 10552

NY Dept. of Env. Conservation Approved Facility
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U.S. Office of Surface Mining Approved Facility
Ohio Dept. of Health Approved Environmental
Lead Laboratory No. 10016

KEY:

<=LESS THAN

>=GREATER THAN

w.f.=WILL FOLLOW

FREE-COL LABORATORIES, LTD.

P.O. BOX 557, 11618 COTTON ROAD
MEADVILLE, PENNSYLVANIA 16335
PHONE: (814) 724-6242
FAX: (814) 333-1466
EMAIL: freecol@toolcity.net

12/16/98

TO:

DELPHI HARRISON THERM.SYS
ATTN: MS. CATHERINE VER
200 UPPER MOUNTAIN RD.
LOCKPORT

NY 14094-1896

P.O. # ACARD

ACCOUNT NO. 01220

ANALYTICAL REPORT FORM

PAGE 5

SAMPLE ID : TRIP BLANK
12/01/98

LAB ID 81202417
DATE RECEIVED: 12/02/98

PARAMETER	RESULTS	UNITS	DATE	AND	ANALYST
1,2-Dichloroethene	<0.0005	MG/L	12/08/98		ECKLUND
Volatile Set-up	COMPLETE				
Vinyl Chloride	<0.0005	MG/L	12/08/98		ECKLUND
Trichloroethylene	<0.0005	MG/L	12/08/98		ECKLUND
Perchloroethylene	<0.0005	MG/L	12/08/98		ECKLUND

J. A. Accreditation No. 98
S. Public Health Services Approved Facility
L. E. R. Laboratory I.D. No. 20-073
Dept. of Agriculture Approved Dairy Laboratory
/ Dept. of Health Laboratory I.D. No. 10552

NY Dept. of Env. Conservation Approved Facility
ND Dept. of Health Cert. No. R-083
MD Dept. of Health Cert. No. 130
VA Dept. of Health Laboratory I.D. No. 00145
WV Dept. of Health Certification No. 9907C

U.S. Office of Surface Mining Approved Facility
Ohio Dept. of Health Approved Environmental
Lead Laboratory No. 10016

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ACCOUNT NO. 01220

ANALYTICAL REPORT FORM

PAGE 6

PARAMETER	SAMPLE ID	LAB ID	DATE RECEIVED:	MW-12	MW-11
				12/01/98	12/01/98
				DIGESTION	DIGESTION
				81202418	81202419
				12/02/98	12/02/98

CALCIUM MG/L	119	122
IRON ICP MG/L	7.48	1.00
MAGNESIUM MG/L	26.8	39.0
MANGANESE MG/L	4.41	0.11
SODIUM ICP MG/L	183	116
POTASSIUM ICP MG/L	4.10	8.88

Please reference the following page(s) for date and analyst.

A.L.S. Accreditation No. 98
 J.S. Public Health Services Approved Facility
 PA L.S.E.R. Laboratory I.D. No. 20-073
 PA Dept. of Agriculture Approved Dairy Laboratory
 NY Dept. of Health Laboratory I.D. No. 10552

NY Dept. of Env. Conservation Approved Facility
 ND Dept. of Health Cert. No. R-083
 MD Dept. of Health Cert. No. 130
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U.S. Office of Surface Mining Approved Facility
 Ohio Dept. of Health Approved Environmental
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MEADVILLE, PENNSYLVANIA 16335
PHONE: (814) 724-6242
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12/16/98

TO:

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200 UPPER MOUNTAIN RD.
LOCKPORT

NY 14094-1896

P.O. # ACARD

ACCOUNT NO. 01220

ANALYTICAL REPORT FORM

PAGE 7

SAMPLE ID : MW-10
12/01/98
DIGESTION
LAB ID 81202420
DATE RECEIVED: 12/02/98

PARAMETER	RESULTS	UNITS	DATE AND	ANALYST
Calcium	310	MG/L	12/09/98	PRUTZMAN
Iron ICP	1.95	MG/L	12/04/98	BAKER
Magnesium	54.6	MG/L	12/10/98	PRUTZMAN
Manganese	2.30	MG/L	12/04/98	PRUTZMAN
Sodium ICP	584	MG/L	12/11/98	PRUTZMAN
Potassium ICP	13.4	MG/L	12/10/98	PRUTZMAN

IL A. Accreditation No. 98
IS Public Health Services Approved Facility
PA E.R. Laboratory I.D. No. 20-073
PA Dept. of Agriculture Approved Dairy Laboratory
NY Dept. of Health Laboratory I.D. No. 10552

NY Dept. of Env. Conservation Approved Facility
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MD Dept. of Health Cert. No. 130
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U.S. Office of Surface Mining Approved Facility
Ohio Dept. of Health Approved Environmental
Lead Laboratory No. 10016

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MEADVILLE, PENNSYLVANIA 16335
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12/16/98

TO:

DELPHI HARRISON THERM.SYS
ATTN: MS. CATHERINE VER
200 UPPER MOUNTAIN RD.
LOCKPORT

NY 14094-1896

P.O. # ACARD

ACCOUNT NO. 01220

ANALYTICAL REPORT FORM

PAGE 8

PARAMETER	SAMPLE ID	LAB ID	DATE RECEIVED	MW-12	MW-11
				12/01/98	12/01/98
				FIELD FILT	FIELD FILT
				81202421	81202422
				12/02/98	12/02/98

CALCIUM (DISS.) MG/L	104	97.3
IRON ICP (DISS.) MG/L	4.01	0.26
MAGNESIUM (DISS.) MG/L	25.3	36.4
MANGANESE (DISS.) MG/L	4.40	0.08
SODIUM ICP DISS.MG/L	197	129
POTASSIUM (DISS)MG/L	3.81	10.1

Please reference the following page(s) for date and analyst.

IL A Accreditation No. 98
S Public Health Services Approved Facility
L.R. Laboratory I.D. No. 20-073
Dept. of Agriculture Approved Dairy Laboratory
Dept. of Health Laboratory I.D. No. 10552

NY Dept. of Env. Conservation Approved Facility
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DELPHI HARRISON THRM.SYS
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200 UPPER MOUNTAIN RD.
LOCKPORT

NY 14094-1896

P.O. # ACARD

ACCOUNT NO. 01220

ANALYTICAL REPORT FORM

PAGE 9

SAMPLE ID : MW-10
12/01/98
FIELD FILT
LAB ID 81202423
DATE RECEIVED: 12/02/98

PARAMETER	RESULTS	UNITS	DATE	AND ANALYST
Calcium (diss.)	305	MG/L	12/03/98	PRUTZMAN
Iron ICP (diss.)	0.76	MG/L	12/04/98	BAKER
Magnesium (diss.)	85.5	MG/L	12/10/98	PRUTZMAN
Manganese (diss.)	2.07	MG/L	12/04/98	PRUTZMAN
Sodium ICP (diss.)	645	MG/L	12/11/98	PRUTZMAN
Potassium (diss.)	13.2	MG/L	12/10/98	PRUTZMAN

Some of the dissolved metal values in this report exceed the digested metal values for the same sample. These variations are within normal analytical limits.

John Paraska
QUALITY ASSURANCE SUPERVISOR

pc: GZA

.I.P. Accreditation No. 98
.S. Public Health Services Approved Facility
A.T. R. Laboratory I.D. No. 20-073
A Dept. of Agriculture Approved Dairy Laboratory
Y Dept. of Health Laboratory I.D. No. 10552

NY Dept. of Env. Conservation Approved Facility
ND Dept. of Health Cert. No. R-083
MD Dept. of Health Cert. No. 130
VA Dept. of Health Laboratory I.D. No. 00145
WV Dept. of Health Certification No. 9907C

U.S. Office of Surface Mining Approved Facility
Ohio Dept. of Health Approved Environmental
Lead Laboratory No. 10016

FREE-COL LABORATORIES, LTD.

P.O. Box 557, 11618 Cotton Road
Meadville, Pennsylvania 16335-0557
Phone: Area Code 814/724-6242
FAX: Area Code 814/333-1468

ENVIRONMENTAL
OCCUPATIONAL HEALTH
FOOD SCIENCE
SPECIALISTS

**QUALITY CONTROL INFORMATION**

Free-Col Laboratories analyzes control samples at specified frequencies during the analyses for the purpose of evaluating and documenting the precision and accuracy of the results. The attached quality control data, prepared at the time of analysis, reflect the results obtained for the various types of controls from the batch of samples described as follows:

<u>Delphi Harrison Thrm. Sys. Sample Identification</u>	<u>Free-Col ID</u>
MW-12 12/01/98	81202414
MW-11 12/01/98	81202415
MW-10 12/01/98	81202416
TRIP BLANK 12/01/98	81202417
MW-12 12/01/98 DIGESTION	81202418
MW-11 12/01/98 DIGESTION	81202419
MW-10 12/01/98 DIGESTION	81202420
MW-12 12/01/98 FIELD FILT	81202421
MW-11 12/01/98 FIELD FILT	81202422
MW-10 12/01/98 FIELD FILT	81202423
MW-6 12/02/98 DIGESTION	81202424

Limits in effect as of June 2, 1997

FREE-COL LABORATORIES, LTD.
VOA REFERENCE CONTROL INFORMATION
(CLP - CALIBRATION VERIFICATION LIMITS)

Date 12/3/98 Analyst Ecklund

Samples associated with this reference control:

<u>Parameter</u>	<u>Target Value</u> ug/L	<u>Acceptance Limits</u> ug/L	<u>Assayed Value</u> ug/L	<u>File#</u>
Chloromethane	20	5.4-34.5		223
Bromomethane	20	7.8-39.4		222
Vinyl chloride	20	1.5-41.7	18.5	232
Chloroethane	20	4.6-36.4		209
Methylene chloride	20	11.8-31.3		224
Acrolein	62	4.5-104.4		201
Acrylonitrile	58	13.2-115.2		202
1,1-Dichloroethene	20	11.3-32.1		216
1,1-Dichloroethane	20	15.5-27.8		214
trans-1,2-Dichloroethene	20	13.6-28.3	20.5	217
Chloroform	20	15.7-26.1		211
1,2-Dichloroethane	20	8.1-34.0		215
1,1,1-Trichloroethane	20	12.8-30.1		228
Carbon tetrachloride	20	8.0-27.8		206
Bromodichloromethane	20	9.8-29.7		212
1,2-Dichloropropane	20	14.7-28.2		218
trans-1,3-Dichloropropene	20	12.7-25.6		220
Trichloroethene	20	14.1-27.1	21.1	230
Benzene	20	14.3-27.8		203
Dibromochloromethane	20	4.8-29.2		208
1,1,2-Trichloroethane	20	14.3-28.2		229
cis-1,3-Dichloropropene	20	10.3-26.8		219
2-Chloroethyl vinyl ether	20	10.1-32.1		210
Bromoform	20	3.0-30.6		205
Tetrachloroethene	20	13.3-28.4	17.5	226
1,1,2,2-Tetrachloroethane	20	14.7-26.1		225
Toluene	20	15.2-25.6		227
Chlorobenzene	20	11.5-28.6		207
Ethyl benzene	20	13.4-27.6		221
1,3-Dichlorobenzene	26	18.5-36.7		234
1,2-Dichlorobenzene	26	11.5-41.9		233
1,4-Dichlorobenzene	20	3.7-35.6		235
Diethyl Benzene	44	25.9-62.9		237
Ethyl Ether	35	26.9-49.5		236
Xylene	44	21.0-66.7		238
MEK	20	9.1-39.4		240
Acetone	20	9.6-38.0		242

FREE-COL LABORATORIES, INC.
VOA BLANK INFORMATION
(CLP - CALIBRATION BLANK LIMITS)

Date 12/8/98 Analyst Ecklund

Samples associated with this blank:

<u>Parameter</u>	<u>Blank Value</u>
Units = <u>ug/L</u>	
<u>Chloromethane</u>	
<u>Bromomethane</u>	
<u>Vinyl chloride</u>	<2
<u>Chloroethane</u>	
<u>Methylene chloride</u>	
<u>Acrolein</u>	
<u>Acrylonitrile</u>	
<u>1,1-Dichloroethene</u>	
<u>1,1-Dichloroethane</u>	
<u>trans-1,2-Dichloroethene</u>	<2
<u>Chloroform</u>	
<u>1,2-Dichloroethane</u>	
<u>1,1,1-Trichloroethane</u>	
<u>Carbon tetrachloride</u>	
<u>Bromodichloromethane</u>	
<u>1,2-Dichloropropane</u>	
<u>trans-1,3-Dichloropropene</u>	
<u>Trichloroethene</u>	<2
<u>Benzene</u>	
<u>Dibromochloromethane</u>	
<u>1,1,2-Trichloroethane</u>	
<u>cis-1,3-Dichloropropene</u>	
<u>2-Chloroethyl vinyl ether</u>	
<u>Bromoform</u>	
<u>Tetrachloroethene</u>	<2
<u>1,1,2,2-Tetrachloroethane</u>	
<u>Toluene</u>	
<u>Chlorobenzene</u>	
<u>Ethyl benzene</u>	
<u>1,3-Dichlorobenzene</u>	
<u>1,2-Dichlorobenzene</u>	
<u>1,4-Dichlorobenzene</u>	
<u>Xylene</u>	
<u>2-Butanone - MEK</u>	
<u>4-Methyl-2-pentanone</u>	
<u>Acetone</u>	
<u>Syrene</u>	

FREE-COL LABORATORIES, INC.
VOA BLANK INFORMATION
(CLP - CALIBRATION BLANK LIMITS)

Date 12/8/98 Analyst Ecklund
Samples associated with this blank:

Parameter Blank Value

Units = ug/L

<u>Carbon Disulfide</u>	
<u>Vinyl Acetate</u>	
<u>2-Hexanone - MBK</u>	
<u>Dichlorofluoromethane</u>	
<u>1,1,1,2-Tetrachloroethane</u>	
<u>Trichlorofluoromethane</u>	
<u>1,2,3-Trichloropropane</u>	
<u>3-Chloro-1-propene</u>	
<u>1,2-Dibromomethane</u>	
<u>cis,1,2-Dichloroethene</u>	<u><2</u>

Limits in effect as of June 2, 1997

FREE-COL LABORATORIES, LTD.
VOA SPIKED CONTROL INFORMATION
(CLP - ANALYTICAL SPIKED SAMPLE LIMITS)

Date 12/2/98 Analyst Ecklund
Samples associated with this spiked control:

Sample used as spiked control: 812-03-110

<u>PARAMETER</u>	<u>SPIKE</u> <u>ADDED</u> <u>UG/L</u>	<u>SPIKED</u> <u>RESULT</u> <u>UG/L</u>	<u>SAMPLE</u> <u>RESULT</u> <u>UG/L</u>	<u>ACCEPT.</u> <u>LIMITS</u> <u>% REC.</u>	<u>ASSYD</u> <u>% REC.</u>	<u>FILE</u>
Chloromethane	20			31-187		520
Bromomethane	20			34-207		519
Vinyl chloride	20	19	<2	26-183	95	528
Chloroethane	20			55-168		507
Methylene chloride	20			63-151		521
Acrolein	62			23-183		500
Acrylonitrile	58			52-186		501
1,1-Dichloroethene	20			52-159		513
1,1-Dichloroethane	20			73-144		511
trans-1,2-Dichloroethene	20	21	<2	64-151	105	514
Chloroform	20			68-142		509
1,2-Dichloroethane	20			54-155		512
1,1,1-Trichloroethane	20			59-158		525
Carbon tetrachloride	20			39-147		504
Bromodichloromethane	20			47-148		510
1,2-Dichloropropane	20			67-144		515
trans-1,3-Dichloropropene	20			56-141		517
Trichloroethene	20	23	<2	64-130	115	527
Benzene	20			71-142		502
Dibromochloromethane	20			29-155		506
1,1,2-Trichloroethane	20			61-146		526
cis-1,3-Dichloropropene	20			46-149		516
2-Chloroethyl vinyl ether	20			7-183		508
Bromoform	20			10-149		503
Tetrachloroethene	20	17	<2	50-160	85	523
1,1,2,2-Tetrachloroethane	20			44-163		522
Toluene	20			73-130		524
Chlorobenzene	20			72-131		505
Ethyl benzene	20			62-139		518
1,3-Dichlorobenzene	26			60-161		530
1,2-Dichlorobenzene	26			45-157		529
1,4-Dichlorobenzene	20			36-174		531
Diethyl Benzene	44			71-137		533
Ethyl Ether	35			62-160		532
Xylenes	44			72-130		534
MEK	20			63-179		536

Limits in effect as of June 2, 1997

FREE-COL LABORATORIES, LTD.
VOA SPIKED CONTROL INFORMATION
(CLP - ANALYTICAL SPIKED SAMPLE LIMITS)

Date 12/8/98 Analyst Ecklund
Samples associated with this spiked control:

Sample used as spiked control: 812-03-110

<u>PARAMETER</u>	<u>SPIKE</u> <u>ADDED</u> <u>UG/L</u>	<u>SPIKED</u> <u>RESULT</u> <u>UG/L</u>	<u>SAMPLE</u> <u>RESULT</u> <u>UG/L</u>	<u>ACCEPT.</u> <u>LIMITS</u> <u>% REC.</u>	<u>ASSYD</u> <u>& REC.</u>	<u>FILE</u>
Acetone	20			72-154		538
MIBK	20			53-160		539
Ethyl Acetate	45			71-140		535
Tetrahydrofuran	45					
Carbondisulfide	20					
Styrene	20					
Vinyl Acetate	20					
Amyl Acetate	44					
Methyl Butyl Ketone	20					
<u>CIS-1,2-DCB</u>	<u>20</u>	<u>23</u>	<u>42</u>			<u>115</u>

Limits in effect as of June 2, 1997

FREE-COL LABORATORIES, LTD.
VOA REPEAT CONTROL INFORMATION
(CLP - DUPLICATE SAMPLE LIMITS)

Date 12/8/98 Analyst Ecklund
Samples associated with this repeat control:

Sample used as repeat control: 812-02-414
AD = Absolute Difference RPD = Relative Percent Difference

Parameter	mg/L	Samp. Value	Repeat Value	Accept AD	Accept RPD	Assayd AD/RPD	File
Chloromethane							820
Bromomethane							819
Vinyl chloride		88	84		27	4.6%	828
Chloroethane							807
Methylene chloride					17		821
Acrolein							800
Acrylonitrile							801
1,1-Dichloroethene							813
1,1-Dichloroethane					41		811
trans-1,2-Dichloroethene		<0.5	<0.5		28	0	814
Chloroform					14		809
1,2-Dichloroethane							812
1,1,1-Trichloroethane					27		825
Carbon tetrachloride							804
Bromodichloromethane					79		810
1,2-Dichloropropane							815
trans-1,3-Dichloropropene							817
Trichloroethene		<0.5	<0.5		32	0	827
Benzene					49		802
Dibromochloromethane					70		806
1,1,2-Trichloroethane							826
cis-1,3-Dichloropropene							816
2-Chloroethyl vinyl ether							808
Bromoform							803
Tetrachloroethene		<0.5	<0.5		33	0	823
1,1,2,2-Tetrachloroethane							822
Toluene					38		824
Chlorobenzene					24		805
Ethyl benzene					5		818
1,3-Dichlorobenzene							830
1,2-Dichlorobenzene							829
1,4-Dichlorobenzene					36		831
Acetone					26		836

FIGURE E2
ENVIRONMENTAL SAMPLE DESCRIPTION
AND
CHAIN OF CUSTODY RECORD

ATTACHMENT #2

page 1 of 2

DATE: 12/1/98

RESULTS REQUIRED BY: _____
 VERBAL RESULTS NEEDED? _____

HARRISON DIVISION, GMC
 200 UPPER MOUNTAIN ROAD
 LOCKPORT, NEW YORK 14094
 PHONE: (716) ~~438~~-685-2300

Samples collected by Tom Seider/Gary Klawinski
 LABORATORY: Free-Col

CONTACT: Gary Klawinski
 (62A)

- TYPE: 1) WASTEWATER 2) DRINKING WATER 3) MONITORING WELL 4) SOIL
 5) SLUDGE 6) SOLID WASTE 7) OIL 8) INDUSTRIAL HYGIENE
 9) OTHER _____

DESCRIPTION: Groundwater Samples

WELL #	LOCATION	TIME	PARAMETERS	SAMPLE BOTTLE LOT# (OPTIONAL)
	MW-12	11 ¹²	See attached table	
	MW-11	13 ⁴⁰	"	
	MW-10	15 ⁵⁰	"	
	Trip Blank		with first cooler, see attached table	

DETECTION LEVELS REQUIRED? NYS DEC Drinking water level detection limits required.

INTERFERENCES: _____

USE FOR TEST (COMPARISON OF AREAS, BACKGROUND, ETC.) _____

RECEIVED BY: (DATE/TIME) (HRD PERSONNEL) <u>[Signature]</u> 12/1/98	BOTTLES RELINQUISHED BY: (DATE/TIME) (HRD PERSONNEL)
RELINQUISHED BY: (DATE/TIME) (HRD PERSONNEL)	BOTTLES RECEIVED BY: (DATE/TIME) (LAB PERSONNEL) Bill Slaton 12/2/98 10:40 AM
COLLECTED BY:	RECEIVED BY: (DATE, TIME, LAB SIGNATURE) <u>[Signature]</u> 12-2-98

FREE-COL LABORATORIES, LTD.

P.O. Box 557, 11618 Cotton Road
Meadville, Pennsylvania 16335-0557
Phone: Area Code 814/724-8242
FAX: Area Code 814/333-1466



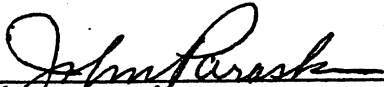
ENVIRONMENTAL
OCCUPATIONAL HEALTH
FOOD SCIENCE
SPECIALISTS

**DELPHI THERMAL SYSTEMS
GENERAL MOTORS CORPORATION**

GROUNDWATER SAMPLES

**SAMPLE DATES: 12/02/98
P.O.# ACARD**

Report reviewed and approved by:



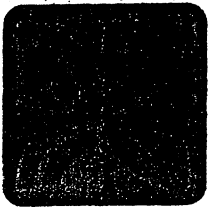
John Paraska
Quality Assurance Supervisor

METHODS

<u>PARAMETER</u>	<u>METHOD</u>	<u>SOURCE</u>
Acid Digestion Prep	3005A	2
Methane	8015	2
Carbon, Total Organic	9060	2
Alkalinity	2320 B	20
Chloride	325.3	1
Nitrogen, Ammonia	350.2	1
Nitrate	353.2	22
Nitrite	353.2	22
Sulfate	9038	2
Sulfide	376.1	1
Calcium	7140	2
Iron ICP	6010 B	2
Magnesium	7450	2
Manganese	7460	2
Sodium ICP	6010 B	2
Potassium ICP	6010 B	2
Volatile Compounds	8260 B	2

SOURCE

- 1 - "Methods for Chemical Analysis of Water & Wastes", U.S. Environmental Protection Agency, EPA-600/4-79-020. Revised 1983.
- 2 - "Test Methods for Evaluating Solid Waste: Physical/Chemical Methods", SW-846, Third Edition, U.S. Environmental Protection Agency. Update III, December, 1996.
- 20 - "Standard Methods for the Examination of Water and Wastewater", 18th Edition.
- 22 - "Methods for Chemical Analysis of Water & Wastes", U.S. Environmental Protection Agency, EPA-600/100. Revised 1993.



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EMAIL: freecol@toolcity.net

12/16/98

TO:

DELPHI HARRISON THRM.SYS
ATTN: MS. CATHERINE VER
200 UPPER MOUNTAIN RD.
LOCKPORT

NY 14094-1896

P.O. # ACARD

ACCOUNT NO. 01220

ANALYTICAL REPORT FORM

PAGE 1

PARAMETER	SAMPLE ID	LAB ID	DATE RECEIVED	MW-3S	MW-4	MW-6
		81203400	12/03/98	12/03/98	12/02/98	12/02/98
		81203401	12/03/98	12/03/98	12/03/98	12/03/98
		81203402	12/03/98	12/03/98	12/03/98	12/03/98

1,2-DICHLOROETHENE MG/L	240	110	16
VOLATILE SET-UP	COMPLETE	COMPLETE	COMPLETE
VINYL CHLORIDE MG/L	2.3	12	0.76
METHANE MG/L	0.1	2.9	0.84
ACID DIGESTION PREP	COMPLETE	COMPLETE	COMPLETE
T.O.C. MG/L	28	19	9
ALKALINITY MG/L	487	354	319
NH3-N DISTILLED MG/L	0.26	1.23	0.45
CHLORIDE MG/L	173	986	897
NO3-N MG/L	0.41	0.30	0.22
NO2-N MG/L	<0.05	<0.05	<0.05
SULFATE MG/L	2	120	160
SULFIDE MG/L	0.3	0.2	0.2

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PARAMETER	LAB ID	DATE RECEIVED:	MW-3S 12/03/98	MW-4 12/02/98	MW-6 12/02/98
	81203400	12/03/98		81203401 12/03/98	81203402 12/03/98

TRICHLOROETHYLENE	MG/L	0.73	21	18
PERCHLOROETHYLENE	MG/L	<0.02 D	<0.2 D	60
BENZENE	MG/L	1.7	<0.2 D	*
TOLUENE	MG/L	1.2	<0.2 D	*
ETHYLBENZENE	MG/L	1.2	<0.2 D	*
XYLENE	MG/L	1.8	<0.2 D	*

*NOT REQUIRED

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PARAMETER	SAMPLE ID	MW-7	MW-8	MW-9
		12/03/98	12/02/98	12/02/98
	LAB ID	81203403	81203404	81203405
	DATE RECEIVED:	12/03/98	12/03/98	12/03/98
1,2-DICHLOROETHENE MG/L		55	1.6	2.5
VOLATILE SET-UP		COMPLETE	COMPLETE	COMPLETE
VINYL CHLORIDE MG/L		4.2	0.062	0.030
METHANE MG/L		0.06	0.09	0.04
ACID DIGESTION PREP		COMPLETE	COMPLETE	COMPLETE
T.O.C. MG/L		36	12	3
ALKALINITY MG/L		376	300	309
NH3-N DISTILLED MG/L		1.43	0.40	0.23
CHLORIDE MG/L		944	138	640
NO3-N MG/L		0.29	<0.05	0.25
NO2-N MG/L		<0.05	<0.05	<0.05
SULFATE MG/L		200	550	680
SULFIDE MG/L		0.4	0.2	<0.1

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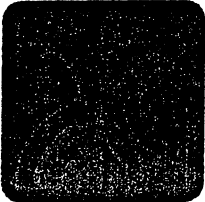
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PARAMETER	SAMPLE ID	LAB ID	DATE RECEIVED:	MW-7	MW-8	MW-9
				12/03/98	12/02/98	12/02/98
		81203403				
			12/03/98		12/03/98	12/03/98

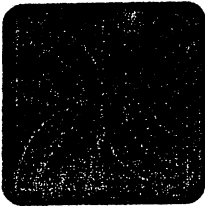
TRICHLOROETHYLENE MG/L	570	0.22	1.9
PERCHLOROETHYLENE MG/L	<0.2 D	0.012	0.066

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ANALYTICAL REPORT FORM

PAGE 5

SAMPLE ID : DUP#1
12/02/98

LAB ID 81203406
DATE RECEIVED: 12/03/98

PARAMETER	RESULTS	UNITS	DATE AND	ANALYST
1,2-Dichloroethene	120	MG/L	12/09/98	ECKLUND
Volatile Set-up	COMPLETE			
Vinyl Chloride	13	MG/L	12/09/98	ECKLUND
Methane	5.5	MG/L	12/08/98	WILLIAMS
Acid Digestion Preparation	COMPLETE		12/04/98	LINZ
Carbon, Total Organic	8	MG/L	12/08/98	PEARSON
Alkalinity	368	MG/L	12/09/98	ADSIT
Nitrogen, Ammonia (distilled)	1.57	MG/L	12/10/98	L. PARASKA
Chloride	971	MG/L	12/07/98	ADSIT/ VROBEL
Nitrogen, Nitrate	0.05	MG/L	12/04/98	PEARSON
Nitrogen, Nitrite	<0.05	MG/L	12/03/98	PEARSON

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ANALYTICAL REPORT FORM

PAGE 6

SAMPLE ID : DUP#1
12/02/98

LAB ID 81203406
DATE RECEIVED: 12/03/98

PARAMETER	RESULTS	UNITS	DATE	AND	ANALYST
Sulfate	120	MG/L	12/09/98		KOZAKOVSKY
Sulfide	0.2	MG/L	12/09/98		L. PARASKA/ ADSIT
Trichloroethylene	20	MG/L	12/09/98		ECKLUND
Perchloroethylene	<0.2 D	MG/L	12/09/98		ECKLUND

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ANALYTICAL REPORT FORM

PAGE 7

SAMPLE ID : TRIP BLANK

LAB ID 81203407
DATE RECEIVED: 12/03/98

PARAMETER	RESULTS	UNITS	DATE	AND	ANALYST
1,2-Dichloroethene	<0.0005	MG/L	12/09/98		ECKLUND
Vinyl Chloride	<0.0005	MG/L	12/09/98		ECKLUND
Trichloroethylene	<0.0005	MG/L	12/09/98		ECKLUND
Perchloroethylene	<0.0005	MG/L	12/09/98		ECKLUND
Benzene	<0.0005	MG/L	12/09/98		ECKLUND
Toluene	<0.0005				
Ethylbenzene	<0.0005				
Xylene	<0.0005				

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ANALYTICAL REPORT FORM

PAGE 8

PARAMETER	SAMPLE ID	LAB ID	DATE RECEIVED:	MW-3S	MW-4	MW-6
				12/03/98	12/02/98	12/02/98
				DIGESTION	DIGESTION	DIGESTION
				81203408	81203409	81203410
				12/03/98	12/03/98	12/03/98

CALCIUM MG/L	238	503	161
IRON ICP MG/L	7.31	0.58	7.98
MAGNESIUM MG/L	35.6	105	35.6
MANGANESE MG/L	1.31	0.40	0.48
SODIUM ICP MG/L	67.1	282	619
POTASSIUM ICP MG/L	5.46	13.3	9.64

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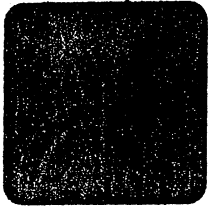
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ANALYTICAL REPORT FORM

PAGE 9

PARAMETER	SAMPLE ID	MW-7	MW-8	MW-9
		12/03/98	12/02/98	12/02/98
	LAB ID	81203411	81203412	81203413
	DATE RECEIVED:	12/03/98	12/03/98	12/03/98
CALCIUM MG/L		382	215	330
IRON ICP MG/L		0.14	0.33	0.33
MAGNESIUM MG/L		118	76	89
MANGANESE MG/L		<0.01	0.31	1.74
SODIUM ICP MG/L		288	102	444
POTASSIUM ICP MG/L		20.5	6.31	5.52

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PAGE 10

SAMPLE ID : DUP.#1
12/02/98
DIGESTION
LAB ID 81203414
DATE RECEIVED: 12/03/98

PARAMETER	RESULTS	UNITS	DATE	AND	ANALYST
Calcium	431	MG/L	12/09/98		PRUTZMAN
Iron ICP	0.59	MG/L	12/09/98		BAKER
Magnesium	107	MG/L	12/10/98		PRUTZMAN
Manganese	0.39	MG/L	12/07/98		PRUTZMAN
Sodium ICP	282	MG/L	12/11/98		PRUTZMAN
Potassium ICP	13.2	MG/L	12/09/98		PRUTZMAN

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ANALYTICAL REPORT FORM

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	SAMPLE ID	:	MW-3S	MW-4	MW-6
			12/03/98	12/02/98	12/02/98
			FLD.FILTER	FLD.FILTER	FLD.FILTER
	LAB ID		81203415	81203416	81203417
PARAMETER	DATE RECEIVED:		12/03/98	12/03/98	12/03/98

CALCIUM (DISS.) MG/L	223	443	156
IRON ICP (DISS.) MG/L	6.84	0.51	1.13
MAGNESIUM (DISS.) MG/L	31.8	106	28.8
MANGANESE (DISS.) MG/L	1.17	0.32	0.29
SODIUM ICP DISS.MG/L	66.5	293	638
POTASSIUM (DISS)MG/L	4.71	12.8	9.51

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PAGE 12

	SAMPLE ID	:	MW-7	MW-8	MW-9
			12/03/98	12/02/98	12/02/98
			FLD.FILTER	FLD.FILTER	FLD.FILTER
	LAB ID		81203418	81203419	81203420
PARAMETER	DATE RECEIVED:		12/03/98	12/03/98	12/03/98

CALCIUM (DISS.) MG/L	375	227	300
IRON ICP (DISS.) MG/L	0.02	0.17	<0.01
MAGNESIUM (DISS.) MG/L	136	78	84.5
MANGANESE (DISS.) MG/L	<0.01	0.32	0.93
SODIUM ICP DISS.MG/L	351	114	445
POTASSIUM (DISS)MG/L	23.0	6.67	5.91

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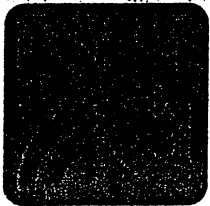
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ACCOUNT NO. 01220

ANALYTICAL REPORT FORM

PAGE 13

SAMPLE ID : DUP.#1
12/02/98
FLD.FILTER
LAB ID 81203421
DATE RECEIVED: 12/03/98

PARAMETER	RESULTS	UNITS	DATE	AND	ANALYST
Calcium (diss.)	335	MG/L	12/09/98		PRUTZMAN
Iron ICP (diss.)	0.52	MG/L	12/04/98		BAKER
Magnesium (diss.)	100	MG/L	12/10/98		PRUTZMAN
Manganese (diss.)	0.34	MG/L	12/04/98		PRUTZMAN
Sodium ICP (diss.)	306	MG/L	12/11/98		PRUTZMAN
Potassium (diss.)	13.5	MG/L	12/09/98		PRUTZMAN

Some of the dissolved metal values in this report exceed the digested metal values for the same sample. These variations are within normal analytical limits.

John Paraska
QUALITY ASSURANCE SUPERVISOR

pc: GZA

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M. Dept. of Health Laboratory I.D. No. 10552

NY Dept. of Env. Conservation Approved Facility
ND Dept. of Health Cert. No. R-083
MD Dept. of Health Cert. No. 130
VA Dept. of Health Laboratory I.D. No. 00145
WV Dept. of Health Certification No. 9907C

U.S. Office of Surface Mining Approved Facility
Ohio Dept. of Health Approved Environmental
Lead Laboratory No. 10016

FIGURE E2
ENVIRONMENTAL SAMPLE DESCRIPTION
AND
CHAIN OF CUSTODY RECORD

ATTACHMENT #2

Page 1 of 2

DATE: 12/2/98

RESULTS REQUIRED BY: _____
 VERBAL RESULTS NEEDED? _____

HARRISON DIVISION, GMC
 200 UPPER MOUNTAIN ROAD
 LOCKPORT, NEW YORK 14094
 PHONE: (716) 499-~~685~~ 2300
 CONTACT: Cary Klawinski

Samples collected by
Tom Seider / Daniel Troy

LABORATORY: Free-Col

- TYPE: 1) WASTEWATER 2) DRINKING WATER 3) MONITORING WELL 4) SOIL (GZA)
 5) SLUDGE 6) SOLID WASTE 7) OIL 8) INDUSTRIAL HYGIENE
 9) OTHER _____

DESCRIPTION: Groundwater Samples

DATE SAMPLED	LOCATION	TIME	PARAMETERS	SAMPLE BOTTLE LOT# (OPTIONAL)
12/2/98	MW-9	0810	See attached table	
12/2/98	MW-4	1010	"	
12/2/98	MW-8	1130	"	
12/2/98	MW-6	1240	"	
12/2/98	Dup #1	-	"	
12/2/98	Trip Blank			
12/3/98	MW-3S	1100	see attached table	
12/3/98	MW-7	1200	"	

DETECTION LEVELS REQUIRED? NYSDEC Drinking Water level detection limits required.

SITE INTERFERENCES: _____

REASON FOR TEST (COMPARISON OF AREAS, BACKGROUND, ETC.) _____

BOTTLES RECEIVED BY: (DATE/TIME) [HRD PERSONNEL] _____	BOTTLES RELINQUISHED BY: (DATE/TIME) [HRD PERSONNEL] _____
BOTTLES RELINQUISHED BY: (DATE/TIME) [HRD PERSONNEL] <u>1. Daniel M. Wetton 12/3/98 1437</u>	BOTTLES RECEIVED BY: (DATE/TIME) [LAB PERSONNEL] <u>Bell Slats 12/3/98 1437</u>
SAMPLE COLLECTED BY: _____	RECEIVED BY: (DATE, TIME, LAB SIGNATURE) <u>Raura Misogon 12/3 17:35</u>

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Meadville, Pennsylvania 16335-0557
Phone: Area Code 814/724-6242
FAX: Area Code 814/333-1466



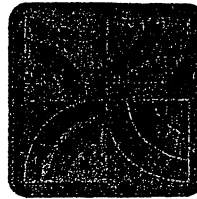
**ENVIRONMENTAL
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CODE KEYS FOR ANALYTICAL REPORT FORMS

- CODE B:** This analyte was detected in the associated blank as well as in the sample. It indicates possible/probable contamination. The data user may subtract the blank value at his/her discretion.
- CODE D:** Detection limit change due to a dilution.
- CODE R:** The percent recovery on the spiked sample associated with this sample was not within the acceptance limits of 75% - 125%.
- CODE S:** This result was obtained by Method of Standard Additions.
- CODE NA:** Not Applicable
- CODE ND:** Not Detectable
- PRC:** Preparation Reference Control
- VOID:** The sample plus spike concentration exceeded the linear range of the standard curve.
- CODE Q:** Values for parameters quantified in this sample have been adjusted for recoveries of the analytical matrix spike. The adjustments have been based on the matrix recoveries from this sample. Adjusted values are not given where sample values were less than the detection limit or where spike recoveries are equal to 100%.
- WF:** Will Follow
- CODE J:** This result is an estimated value. It indicates that the compound meets the mass spectral data identification criteria. The result is less than the quantitation limit but greater than zero.

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QUALITY CONTROL INFORMATION

Free-Col Laboratories analyzes control samples at specified frequencies during the analyses for the purpose of evaluating and documenting the precision and accuracy of the results. The attached quality control data, prepared at the time of analysis, reflect the results obtained for the various types of controls from the batch of samples described as follows:

<u>Delphi Harrison Thrm. Sys. Sample Identification</u>	<u>Free-Col ID</u>
MW-3S 12/03/98	81203400
MW-4 12/02/98	81203401
MW-6 12/02/98	81203402
MW-7 12/03/98	81203403
MW-8 12/02/98	81203404
MW-9 12/02/98	81203405
DUP#1 12/02/98	81203406
TRIP BLANK	81203407
MW-3S 12/03/98 DIGESTION	81203408
MW-4 12/02/98 DIGESTION	81203409
MW-6 12/02/98 DIGESTION	81203410
MW-7 12/03/98 DIGESTION	81203411
MW-8 12/02/98 DIGESTION	81203412
MW-9 12/02/98 DIGESTION	81203413
DUP. #1 12/02/98 DIGESTION	81203414
MW-3S 12/03/98 FLD. FILTER	81203415
MW-4 12/02/98 FLD. FILTER	81203416
MW-6 12/02/98 FLD. FILTER	81203417

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Free-Col Laboratories analyzes control samples at specified frequencies during the analyses for the purpose of evaluating and documenting the precision and accuracy of the results. The attached quality control data, prepared at the time of analysis, reflect the results obtained for the various types of controls from the batch of samples described as follows:

<u>Delphi Harrison Thrm. Sys. Sample Identification</u>	<u>Free-Col ID</u>
MW-7 12/03/98 FLD. FILTER	81203418
MW-8 12/02/98 FLD. FILTER	81203419
MW-9 12/02/98 FLD. FILTER	81203420
DUP. #1 12/02/98 FLD. FILTER	81203421

QUALITY CONTROL DATA I

12/8/98 →

PARAMETER: Alkalinity ANALYST: G. Adsit DATE: 12/10/98

REFERENCE CONTROL Units: mg/L
 Target Acceptance Limits
20 15 to 30 23, 22, 23, 20,
200 191 to 208 198, 200, 1, _____

PREPARATION REFERENCE CONTROL Units: mg/L
 Target Acceptance Limits Assayed Value: _____, _____,
 _____ to _____ Date Prepped: _____, _____,

REPEAT CONTROL AD = Absolute Difference RPD = Relative Percent Difference
 Units: mg/L
 Acceptable AD: 4 Acceptable RPD: 5.6 %

Sample I.D.	Sample Result	Repeat Result	AD	RPD
<u>812-02-014</u>	<u>62</u>	<u>62</u>	<u>0</u>	<u>—</u> %
<u>812-03-049</u>	<u>64</u>	<u>61</u>	<u>3</u>	<u>0</u> %
<u>812-05-002</u>	<u>62</u>	<u>62</u>	<u>0</u>	<u>—</u> %
<u>812-07-027</u>	<u>64</u>	<u>63</u>	<u>1</u>	<u>—</u> %
<u>812-08-026</u>	<u>62</u>	<u>64</u>	<u>2</u>	<u>—</u>

SPIKE CONTROL Units: mg/L
 Acceptable Limits for Percent Recovery: _____ % to _____ %

Sample I.D.	Spike Added	Spike Result	Sample Result	% Recovery
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

BLANK Units: mg/L Lab Blank: 3
 Results: _____, _____, _____, _____, _____ Date Prepped: 12/8/98

DETECTION LIMIT Units: mg/L
 Limit Value: 2 Assayed Value: 3, 3, 3, 2

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QUALITY CONTROL DATA I

PARAMETER: Ammonia Nitrogen ANALYST: LSP DATE: 12/10/98

REFERENCE CONTROL Units: mg/L
 Target 2 Acceptance Limits 1.37 to 2.73
7.28 to 11.74 9.76, 9.85, 11.6

PREPARATION REFERENCE CONTROL Units: mg/L
 Target 10 Acceptance Limits 7.2 to 10.1
 Assayed Value: 9.12
 Date Prepped: 12/8/98

REPEAT CONTROL AD = Absolute Difference RPD = Relative Percent Difference
 Units: mg/L from ISE probe reading
 Acceptable AD: 0.06 Acceptable RPD: 20.1 %

Sample I.D.	Sample Result	Repeat Result	AD	RPD
<u>812-01-400</u>	<u>0.40</u>	<u>0.36</u>	<u>0.04</u>	<u> </u> %
<u>811-23-083</u> (1.67)	<u>0.11</u>	<u>0.11</u>	<u>0</u>	<u> </u> %
<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u> %
<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u> %

SPIKE CONTROL Units: mg/L from I.S.E. probe reading
 Acceptable Limits for Percent Recovery: 72 % to 128 %

Sample I.D.	Spike Added	Spike Result	Sample Result	% Recovery
<u>812-03-400</u>	<u>10</u>	<u>9.92</u>	<u>0.26</u>	<u>97</u> %
<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u> %
<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u> %

BLANK Units: mg/L Lab Blank: 0.05
 Results: Date Prepped: 12/8/98

DETECTION LIMIT Units: mg/L
 Limit Value: 0.03 Assayed Value: 0.03

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QUALITY CONTROL DATA I

PARAMETER: Calcium ANALYST: Whitman DATE: 12-9-98

REFERENCE CONTROL Units: mg/L
 Target Acceptance Limits
1 0.89 to 1.12 1.00, 1.02, _____, _____
10 8.91 to 10.93 9.95, _____, _____, _____

PREPARATION REFERENCE CONTROL Units: mg/L
 Target Acceptance Limits Assayed Value: 9.17, _____, _____
10 6.45 to 10.69 Date Prepped: 12-3-98, _____, _____

REPEAT CONTROL AD = Absolute Difference RPD = Relative Percent Difference
 Units: mg/L
 Acceptable AD: 0.1 Acceptable RPD: 2.5 %

Sample I.D.	Sample Result	Repeat Result	AD	RPD
<u>812-02-418 (5x)</u>	<u>23.77</u>	<u>23.72</u>	<u>0.05</u>	<u>—</u> %
<u>812-04-074 (3x)</u>	<u>23.06</u>	<u>23.36</u>	<u>0.30</u>	<u>1.3</u> %
_____	_____	_____	_____	_____ %
_____	_____	_____	_____	_____ %

SPIKE CONTROL Units: mg/L
 Acceptable Limits for Percent Recovery: 59 % to 121 %

Sample I.D.	Spike Added	Spike Result	Sample Result	% Recovery
<u>812-02-421 (20x)</u>	<u>9.82</u>	<u>23.72</u>	<u>16.75</u>	<u>99</u>
<u>812-03-414 (20x)</u>	<u>9.82</u>	<u>30.46</u>	<u>21.55</u>	<u>91</u>
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

BLANK Units: mg/L Lab Blank: 0.05
 Results: 0.01, 0.00, 0.00, _____, _____ Date Prepped: 12-3-98

DETECTION LIMIT Units: mg/L
 Limit Value: 0.05 Assayed Value: 0.05, _____, _____

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QUALITY CONTROL DATA I

PARAMETER: Chloride ANALYST: G. Adsit / R. V. V. V. DATE: 12-7-98

REFERENCE CONTROL Units: mg/L
 Target 60 Acceptance Limits 56.6 to 61.7
57.7, 57.7, 57.7, /

PREPARATION REFERENCE CONTROL Units: _____
 Target _____ Assayed Value: _____
 _____ to _____ Date Prepped: _____

REPEAT CONTROL AD = Absolute Difference RPD = Relative Percent Difference
 Units: mg/L
 Acceptable AD: 1 Acceptable RPD: 16.4 %

Sample I.D.	Sample Result	Repeat Result	AD	RPD
<u>811-23-083</u>	<u>13.1</u>	<u>13.1</u>	<u>0</u>	<u>—</u> %
<u>811-24-033</u>	<u>22.6</u>	<u>22.6</u>	<u>0</u>	<u>—</u> %
_____	_____	_____	_____	_____ %
_____	_____	_____	_____	_____ %

SPIKE CONTROL Units: mg/L
 Acceptable Limits for Percent Recovery: 84 % to 120 %

Sample I.D.	Spike Added	Spike Result	Sample Result	% Recovery
<u>811-23-083</u>	<u>10</u>	<u>23.6</u>	<u>13.1</u>	<u>105</u> %
_____	_____	_____	_____	_____ %
_____	_____	_____	_____	_____ %

BLANK Units: mg/L Lab Blank: <0.5
 Results: _____ Date Prepped: _____

DETECTION LIMIT Units: mg/L
 Limit Value: 0.5 Assayed Value: 0.5

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QUALITY CONTROL DATA I

PARAMETER: Iron ICP ANALYST: BAKER DATE: 12-4-92

REFERENCE CONTROL Units: mg/L
 Target 5.00 Acceptance Limits 4.75 to 5.25
4.97, 4.78, 5.05, 4.91, 4.84
4.88, _____, _____, _____, _____

PREPARATION REFERENCE CONTROL Units: mg/L
 Target 5.00 Acceptance Limits 4.50 to 5.50
 Assayed Value: 4.93, _____, _____
 Date Prepped: 12-3-92, _____, _____

REPEAT CONTROL AD = Absolute Difference RPD = Relative Percent Difference
 Units: mg/L
 Acceptable AD: 0.02 Acceptable RPD: 17.6 %

Sample I.D.	Sample Result	Repeat Result	AD	RPD
<u>812-01-022</u>	<u>4.66</u>	<u>4.57</u>	<u>0.09</u>	<u>2.0</u> %
<u>812-02-047</u>	<u>1.35</u>	<u>1.37</u>	<u>0.02</u>	<u>—</u> %
<u>812-02-408</u>	<u>0.79</u>	<u>0.74</u>	<u>0.03</u>	<u>3.9</u> %
<u>812-03-021</u>	<u>0.11</u>	<u>0.11</u>	<u>0.00</u>	<u>—</u> %
<u>812-03-415</u>	<u>6.84</u>	<u>6.77</u>	<u>0.07</u>	<u>1.0</u>

SPIKE CONTROL Units: mg/L
 Acceptable Limits for Percent Recovery: 85 % to 109 %

Sample I.D.	Spike Added	Spike Result	Sample Result	% Recovery
<u>812-01-052</u>	<u>4.99</u>	<u>5.87</u>	<u>1.06</u>	<u>116</u>
<u>812-02-082</u>	<u>4.99</u>	<u>5.20</u>	<u>0.422</u>	<u>96</u>
<u>812-02-409</u>	<u>4.99</u>	<u>7.57</u>	<u>2.56</u>	<u>100</u>
<u>812-03-416</u>	<u>4.99</u>	<u>5.33</u>	<u>0.509</u>	<u>97</u>

BLANK Units: mg/L Lab Blank: <0.01
 Results: 0.008, 0.009, 0.010, 0.013, 0.004 Date Prepped: 12-3-92

DETECTION LIMIT Units: mg/L
 Limit Value: 0.01 Assayed Value: 0.010, _____, _____

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QUALITY CONTROL DATA I

PARAMETER: Manganese ANALYST: V. Putz DATE: 12-7-98

REFERENCE CONTROL Units: mg/L
 Target Acceptance Limits
0.2 0.15 to 0.25 0.18, 0.19, 0.18, _____
10 9.29 to 10.83 _____, _____, _____, _____

PREPARATION REFERENCE CONTROL Units: mg/L
 Target Acceptance Limits Assayed Value: 5.61, _____
5 4.56 to 5.81 Date Prepped: 12-4-98, _____

REPEAT CONTROL AD = Absolute Difference RPD = Relative Percent Difference
 Units: mg/L
 Acceptable AD: 0.02 Acceptable RPD: 12.8 %

Sample I.D.	Sample Result	Repeat Result	AD	RPD
<u>812-03-418</u>	<u>1.31</u>	<u>1.33</u>	<u>0.02</u>	<u>—</u> %
<u>812-04-041 (2x)</u>	<u>4.47</u>	<u>4.52</u>	<u>0.05</u>	<u>1.1</u> %
_____	_____	_____	_____	_____ %
_____	_____	_____	_____	_____ %

SPIKE CONTROL Units: mg/L
 Acceptable Limits for Percent Recovery: 89 % to 113 %

Sample I.D.	Spike Added	Spike Result	Sample Result	% Recovery
<u>812-03-068</u>	<u>4.90</u>	<u>4.85</u>	<u>-0.01</u>	<u>99</u>
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

BLANK Units: mg/L Lab Blank: 20.01
 Results: 0.00, 0.00, 0.00, _____, _____ Date Prepped: 12-4-98

DETECTION LIMIT Units: mg/L
 Limit Value: 0.01 Assayed Value: 0.01, _____, _____

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QUALITY CONTROL DATA I

PARAMETER: Magnesium ANALYST: Whitman DATE: 12-10-98

REFERENCE CONTROL Units: mg/L
 Target Acceptance Limits
1 0.90 to 1.11 0.95, 0.97, 0.95, 0.97,
 _____ to _____, _____, _____, _____

PREPARATION REFERENCE CONTROL Units: mg/L
 Target Acceptance Limits Assayed Value: 1.00, 1.02,
1 0.90 to 1.20 Date Prepped: 12/3/98, 12/4/98,
 _____, _____, _____

REPEAT CONTROL AD = Absolute Difference RPD = Relative Percent Difference
 Units: mg/L
 Acceptable AD: 0.06 Acceptable RPD: 4.8 %

Sample I.D.	Sample Result	Repeat Result	AD	RPD
<u>812-02-418 (10x)</u>	<u>2.68</u>	<u>2.62</u>	<u>0.06</u>	<u>-</u> %
<u>812-03-412 (50x)</u>	<u>1.52</u>	<u>1.49</u>	<u>0.03</u>	<u>-</u> %
<u>812-03-424</u>	<u>0.13</u>	<u>0.15</u>	<u>0.02</u>	<u>-</u> %
_____	_____	_____	_____	_____ %

SPIKE CONTROL Units: mg/L
 Acceptable Limits for Percent Recovery: 84 % to 121 %

Sample I.D.	Spike Added	Spike Result	Sample Result	% Recovery
<u>812-03-410</u>	<u>0.96</u>	<u>2.72</u>	<u>1.78</u>	<u>98</u>
<u>812-03-419 (50x)</u>	<u>0.96</u>	<u>2.57</u>	<u>1.56</u>	<u>105</u>
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

BLANK Units: mg/L Lab Blank: 20.03 20.03
 Results: 0.00, 0.00, 0.00, 0.00, _____ Date Prepped: 12/3/98 12/4/98

DETECTION LIMIT Units: mg/L
 Limit Value: 0.03 Assayed Value: 0.03, _____, _____

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QUALITY CONTROL DATA I

PARAMETER: Methane

ANALYST: Oliver Williams

DATE: 12/8/97

REFERENCE CONTROL UNITS: ppm
 Target Acceptance Limits

15.0 12.2 to 18.1 15, 16.6, _____, _____
 _____ to _____, _____, _____, _____
 _____ to _____, _____, _____, _____

PREPARATION REFERENCE CONTROL Units: _____
 Target Acceptance Limits Assayed Value: _____, _____, _____
 _____ to _____ Date Prepped: _____, _____, _____

REPEAT CONTROL AD = Absolute Difference RPD = Relative Percent Difference
 Units: ppm Acceptable AD: 10 Acceptable RPD: 12 %

Sample I.D.	Sample Result	Repeat Result	AD	RPD
<u>812-03-401</u> <u>10x dil</u>	<u>100</u>	<u>100</u>	<u>—</u>	<u>—</u> %
_____	_____	_____	_____	_____ %
_____	_____	_____	_____	_____ %
_____	_____	_____	_____	_____ %
_____	_____	_____	_____	_____ %

SPIKE CONTROL Units: ppm
 Acceptable Limits for Percent Recovery: 25 % to 158 %

Sample I.D.	Spike Added	Spike Result	Sample Result	% Recovery
<u>812-03-117</u> <u>17x dil</u>	<u>5.9</u>	<u>105.1</u> <i>diluted</i>	<u>103.7</u> <i>too much</i>	<u>29%</u> %
_____	_____	_____	_____	_____ %
<u>H₂O spike</u>	<u>5.9</u> <u>14.3</u>	<u>14.3</u>	<u>14.3</u>	<u>100%</u> %
_____	_____	_____	_____	_____ %

BLANK Units: ppm Lab Blank Air
 Results: 15, _____, _____, _____ Date Prepped _____

DTECTION LIMIT Units: ppm
 Limit Value: 5 Assayed Value: 4.7, _____, _____

QUALITY CONTROL DATA I

PARAMETER: Nitrite Nitrogen ANALYST: PEARSON DATE: 12/3/98

REFERENCE CONTROL Units: mg/L
 Target 0.1 Acceptance Limits 0.08 to 0.10
0.09, 0.10, 0.10

PREPARATION REFERENCE CONTROL Units: _____
 Target _____ Assayed Value: _____
 _____ to _____ Date Prepped: _____

REPEAT CONTROL AD = Absolute Difference RPD = Relative Percent Difference
 Units: mg/L
 Acceptable AD: 0.1 Acceptable RPD: 7.2 %

Sample I.D.	Sample Result	Repeat Result	AD	RPD
<u>812-03-402</u>	<u><0.05</u>	<u><0.05</u>	<u>-</u>	<u>_____</u> %
<u>812-03-406</u>	<u><0.05</u>	<u><0.05</u>	<u>-</u>	<u>_____</u> %

SPIKE CONTROL Units: mg/L
 Acceptable Limits for Percent Recovery: 84 % to 124 %

Sample I.D.	Spike Added	Spike Result	Sample Result	% Recovery
<u>812-03-9093</u>	<u>0.50</u>	<u>0.53</u>	<u><0.05</u>	<u>106</u>

BLANK Units: mg/L Lab Blank: <0.05

Results: _____ Date Prepped: _____

DETECTION LIMIT Units: mg/L
 Limit Value: 0.05 Assayed Value: 0.05

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QUALITY CONTROL DATA I

PARAMETER: Nitrate Nitrogen

ANALYST: PEARSON

DATE: 12/4/98

REFERENCE CONTROL Units: mg/L

Target 0.8 Acceptance Limits 0.76 to 0.89

0.82, 0.80, 0.80, 0.80, 0.80

to

0.81, _____, _____, _____, _____

PREPARATION REFERENCE CONTROL

Units: _____

Target _____ Acceptance Limits _____

Assayed Value: _____, _____, _____

to

Date Prepped: _____, _____, _____

REPEAT CONTROL

AD = Absolute Difference RPD = Relative Percent Difference

Units: mg/L

Acceptable AD: 0.1

Acceptable RPD: 9.4 %

Sample I.D.	Sample Result	Repeat Result	AD	RPD
<u>811-19-080(10x)</u>	<u>1.17</u>	<u>1.15</u>	<u>0.02</u>	<u>✓</u> %
<u>811-25-075(10x)</u>	<u>1.12</u>	<u>1.10</u>	<u>0.02</u>	<u>✓</u> %
<u>812-02-416</u>	<u>0.19</u>	<u>0.18</u>	<u>0.01</u>	<u>✓</u> %
<u>812-03-400</u>	<u>0.41</u>	<u>0.37</u>	<u>0.04</u>	<u>✓</u> %

SPIKE CONTROL

Units: mg/L

Acceptable Limits for Percent Recovery: 83 % to 126 %

Sample I.D.	Spike Added	Spike Result	Sample Result	% Recovery
<u>811-23-092</u>	<u>0.50</u>	<u>0.56</u>	<u>0.06</u>	<u>100</u> ✓
<u>812-01-034</u>	<u>0.50</u>	<u>0.57</u>	<u>0.05</u>	<u>114</u>
<u>812-02-415</u>	<u>0.50</u>	<u>0.71</u>	<u>0.17</u>	<u>108</u>

BLANK

Units: mg/L

Lab Blank: 0.05

Results: _____, _____, _____, _____, _____

Date Prepped: _____

DETECTION LIMIT

Units: mg/L

Limit Value: 0.05 Assayed Value: 0.05, _____, _____

$\frac{1.00}{1.00} \times 100 = 100\%$
COLUMN EFFICIENCY

FREE-COL LABORATORIES, LTD.

P.O. BOX 557, 11618 COTTON ROAD

MEADVILLE, PA 16335

(814) 724-6242

QUALITY CONTROL DATA I

PARAMETER: Potassium - ICP

ANALYST: Wutzman

DATE: 12-9-98
12-10-98

REFERENCE CONTROL Units: mg/L

Target Acceptance Limits

5.00 4.75 to 5.25 24.6, 25.0, 24.6, 24.1,
25.0 23.75 to 26.25 _____, _____, _____, _____,

PREPARATION REFERENCE CONTROL

Units: mg/L

Target Acceptance Limits

Assayed Value: 4.50, _____, _____

5.00 4.50 to 5.50

Date Prepped: 12-3-98, _____, _____

REPEAT CONTROL

AD = Absolute Difference RPD = Relative Percent Difference

Units: mg/L

Acceptable AD: 0.2

Acceptable RPD: Not Est. %

Sample I.D.	Sample Result	Repeat Result	AD	RPD
<u>812-02-418</u>	<u>4.1</u>	<u>3.9</u>	<u>0.2</u>	<u>-</u> %
<u>812-03-419</u>	<u>6.7</u>	<u>6.6</u>	<u>0.1</u>	<u>-</u> %
_____	_____	_____	_____	_____ %
_____	_____	_____	_____	_____ %

SPIKE CONTROL

Units: mg/L

Acceptable Limits for Percent Recovery: 85 % to 115 %

Sample I.D.	Spike Added	Spike Result	Sample Result	% Recovery
<u>812-02-419</u>	<u>9.85</u>	<u>18.6</u>	<u>8.88</u>	<u>99</u>
<u>812-03-420</u>	<u>9.85</u>	<u>16.7</u>	<u>5.91</u>	<u>110</u>
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

BLANK

Units: mg/L

Lab Blank: <0.1

Results: 0.036, -0.014, -0.030, -0.083, _____

Date Prepped: 12/3/98

DETECTION LIMIT

Units: mg/L

Limit Value: 0.1

Assayed Value: 0.085, _____, _____

FREE-COL LABORATORIES, LTD.

P.O. BOX 557, 11618 COTTON ROAD

MEADVILLE, PA 16335

(814) 724-6242

LIMITS IN EFFECT AS OF JULY 1, 1998

QUALITY CONTROL DATA I

PARAMETER: Sodium - ICP ANALYST: J. Puljan DATE: 12-11-98

REFERENCE CONTROL Units: mg/L
 Target Acceptance Limits
50.0 47.5 to 52.5 48.0, 48.9, 51.8, 49.5, 47.5

PREPARATION REFERENCE CONTROL Units: mg/L
 Target Acceptance Limits Assayed Value: 9.96, 9.29
 Date Prepped: 12/3/98, 12/10/98

REPEAT CONTROL AD = Absolute Difference RPD = Relative Percent Difference

Units: mg/L
 Acceptable AD: 0.6 Acceptable RPD: Not Est. %

Sample I.D.	Sample Result	Repeat Result	AD	RPD
<u>812-02-418</u>	<u>183</u>	<u>178</u>	<u>5.0</u>	<u>2.8 %</u>
<u>812-03-419</u>	<u>114</u>	<u>113</u>	<u>1.0</u>	<u>0.9 %</u>
<u>812-08-050</u>	<u>78.1</u>	<u>75.0</u>	<u>3.1</u>	<u>4.0 %</u>
<u>812-02-420(10x)</u>	<u>58.4</u>	<u>55.4</u>	<u>3.0</u>	<u>5.3 %</u>

SPIKE CONTROL Units: mg/L
 Acceptable Limits for Percent Recovery: 85 % to 115 %

Sample I.D.	Spike Added	Spike Result	Sample Result	% Recovery
<u>812-08-051</u>	<u>9.96</u>	<u>23.5</u>	<u>13.2</u>	<u>103</u>
<u>812-09-033</u>	<u>9.96</u>	<u>22.5</u>	<u>13.5</u>	<u>90</u>
<u>812-03-420(10x)</u>	<u>9.96</u>	<u>53.3</u>	<u>44.5</u>	<u>88</u>

BLANK Units: mg/L Lab Blank: <0.3 <0.3

Results: 0.006, 0.025, 0.029, 0.028, 0.098 Date Prepped: 12/3/98, 12/10/98

DETECTION LIMIT Units: mg/L

Limit Value: 0.3 Assayed Value: 0.232

Accuracy Check: 300 mg/L

$\frac{295}{300} \times 100 = 98\%$

FREE-COL LABORATORIES, LTD.

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 MEADVILLE, PA 16335

(814) 724-6242

LIMITS IN EFFECT AS OF JULY 1, 1998

QUALITY CONTROL DATA I

PARAMETER: Sulfate - Spectronic 401 ANALYST: Kozakovsky DATE: 12-9-98

REFERENCE CONTROL Units: mg/L
 Target 25 Acceptance Limits 21.2 to 29.3 27.8, 24.6, 27.6, _____, _____
 _____ to _____, _____, _____, _____

PREPARATION REFERENCE CONTROL Units: _____
 Target _____ Assayed Value: _____, _____, _____
 _____ to _____ Date Prepped: _____, _____, _____

REPEAT CONTROL AD = Absolute Difference RPD = Relative Percent Difference

Units: mg/L
 Acceptable AD: 2 Acceptable RPD: 8.5 %

Sample I.D.	Sample Result	Repeat Result	AD	RPD
<u>812-24-034</u>	<u>25</u>	<u>24</u>	<u>1</u>	<u> </u> %
<u>812-03-406 (5x)</u>	<u>24</u>	<u>24</u>	<u>0</u>	<u> </u> %
_____	_____	_____	_____	_____ %
_____	_____	_____	_____	_____ %

SPIKE CONTROL Units: mg/L
 Acceptable Limits for Percent Recovery: 71 % to 129 %

Sample I.D.	Spike Added	Spike Result	Sample Result	% Recovery
<u>812-04-016 (5x)</u>	<u>10</u>	<u>28</u>	<u>20</u>	<u>80</u>
<u>812-03-403 (10x)</u>	<u>10</u>	<u>28</u>	<u>20</u>	<u>80</u>
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

BLANK Units: mg/L Lab Blank: < 1
 Results: _____, _____, _____, _____ Date Prepped: 12-9-98

DETECTION LIMIT Units: mg/L
 Limit Value: 1 Assayed Value: 1.0, _____, _____

FREE-COL LABORATORIES, LTD.
 P.O. BOX 557, 11618 COTTON ROAD
 MEADVILLE, PA 16335
 (814) 724-6242
 LIMITS IN EFFECT AS OF JUNE 2, 1997

QUALITY CONTROL DATA I

PARAMETER: Sulfide - Direct

ANALYST: Pamela G. Galat DATE: 12/9/98

REFERENCE CONTROL Units: mg/L

Target 10 Acceptance Limits 6.96 to 12.0 10.00, _____, _____, _____, _____
 _____ to _____, _____, _____, _____, _____

PREPARATION REFERENCE CONTROL Units: mg/L

Target 10 Acceptance Limits 0.3 to 9.6 Assayed Value: _____, _____, _____
 Date Prepped: _____, _____, _____

REPEAT CONTROL AD = Absolute Difference RPD = Relative Percent Difference

Units: mg/L
 Acceptable AD: 0.2 Acceptable RPD: 76.2 %

Sample I.D.	Sample Result	Repeat Result	AD	RPD
<u>812-03-405</u>	<u>10.1</u>	<u>10.1</u>	<u>—</u>	<u>—</u> %
_____	_____	_____	_____	_____ %
_____	_____	_____	_____	_____ %
_____	_____	_____	_____	_____ %

SPIKE CONTROL Units: mg/L

Acceptable Limits for Percent Recovery: _____ % to _____ %

Sample I.D.	Spike Added	Spike Result	Sample Result	% Recovery
<u>812-03-404</u>	<u>10</u>	<u>9.2</u>	<u>0.2</u>	<u>90</u> %
_____	_____	_____	_____	_____ %
_____	_____	_____	_____	_____ %
_____	_____	_____	_____	_____ %

BLANK

Units: mg/L

Lab Blank: _____

Results: _____, _____, _____, _____, _____

Date Prepped: _____

DETECTION LIMIT Units: mg/L

Limit Value: 0.1 Assayed Value: 0.08, _____, _____

FREE-COL LABORATORIES, LTD.
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 MEADVILLE, PA 16335
 (814) 724-6242
 LIMITS IN EFFECT AS OF JUNE 2, 1997

QUALITY CONTROL DATA I

PARAMETER: TOC

ANALYST: BILL PEARSON

DATE: 12/8/98

REFERENCE CONTROL UNITS: mg/L
 Target Acceptance Limits

10 8 to 12 9, _____, _____, _____
 _____ 36 to 44 38, 38, _____, _____
 _____ to _____ _____, _____, _____, _____

PREPARATION REFERENCE CONTROL Units: _____
 Target Acceptance Limits Assayed Value: _____, _____, _____
 _____ to _____ Date Prepped: _____, _____, _____

REPEAT CONTROL AD = Absolute Difference RPD = Relative Percent Difference
 Units: mg/L Acceptable AD: 2 Acceptable RPD: 21.7 %

Sample I.D.	Dilution	Sample Result	Repeat Result	AD	RPD
<u>812-03-401</u>		<u>19</u>	<u>19</u>	<u>0</u>	<u>✓</u> %
<u>812-03-406</u>		<u>8</u>	<u>8</u>	<u>0</u>	<u>✓</u> %

SPIKE CONTROL Units: mg/L
 Acceptable Limits for Percent Recovery: 78 % to 121 %

Sample I.D.	Dilution	Spike Added	Spike Result	Sample Result	% Recovery
<u>812-03-402</u>		<u>20</u>	<u>27</u>	<u>9</u>	<u>90</u> % ✓
<u>8b</u>					%

BLANK Units: mg/L Lab Blank <1
 Result: <1, <1, <1, _____ Date Prepped _____

DETECTION LIMIT Units: mg/L
 Limit Value: 1 Assayed Value: 1, _____, _____

Free-Col Laboratories, LTD.
 Surrogate Spike Information
 Method 8260

Date: 12/9/98

Analyst Ecklund

Units: % Recovery

Type: W = Low/Medium Water
 S = Low/Medium Soil/Sediment

Type (S/W)	Free-Col I.D.	Dibromofluoromethane	Toluene-d ₈	4-Bromofluoro- benzene
		Limits: Water Soil/Sediment	86-118 80-128	88-110 81-117
	812-03-400	102	102	101
	812-03-401	100	99	93
	812-03-402	104	98	101
	812-03-403	104	92	97
	812-03-404	108	97	102
	812-03-405	97	90	94
	812-03-406	102	93	94
	812-03-407	100	99	101
	812-04-417	107	97	99
	812-04-418	96	97	99

Limits in effect as of June 2, 1997

FREE-COL LABORATORIES, LTD.
VOA REFERENCE CONTROL INFORMATION
(CLP - CALIBRATION VERIFICATION LIMITS)

Date 12/9/98 Analyst Ecklund
Samples associated with this reference control:

<u>Parameter</u>	<u>Target Value</u> <u>ug/L</u>	<u>Acceptance Limits</u> <u>ug/L</u>	<u>Assayed Value</u> <u>ug/L</u>	<u>File#</u>
Chloromethane	20	5.4-34.5	18.4	223
Bromomethane	20	7.8-39.4	20.9	222
Vinyl chloride	20	1.5-41.7	19.1	232
Chloroethane	20	4.6-36.4	19.0	209
Methylene chloride	20	11.8-31.3	19.4	224
Acrolein	62	4.5-104.4	57.8	201
Acrylonitrile	58	13.2-115.2	55.7	202
1,1-Dichloroethene	20	11.3-32.1	19.7	216
1,1-Dichloroethane	20	15.5-27.8	20.3	214
trans-1,2-Dichloroethene	20	13.6-28.3	20.0	217
Chloroform	20	15.7-26.1	19.8	211
1,2-Dichloroethane	20	8.1-34.0	20.8	215
1,1,1-Trichloroethane	20	12.8-30.1	21.0	228
Carbon tetrachloride	20	8.0-27.8	19.9	206
Bromodichloromethane	20	9.8-29.7	20.2	212
1,2-Dichloropropane	20	14.7-28.2	21.2	218
trans-1,3-Dichloropropene	20	12.7-25.6	20.9	220
Trichloroethene	20	14.1-27.1	21.1	230
Benzene	20	14.3-27.8	21.2	203
Dibromochloromethane	20	4.8-29.2	19.4	208
1,1,2-Trichloroethane	20	14.3-28.2	20.5	229
cis-1,3-Dichloropropene	20	10.3-26.8	20.1	219
2-Chloroethyl vinyl ether	20	10.1-32.1	20.5	210
Bromoform	20	3.0-30.6	19.6	205
Tetrachloroethene	20	13.3-28.4	21.0	226
1,1,2,2-Tetrachloroethane	20	14.7-26.1	21.2	225
Toluene	20	15.2-25.6	21.1	227
Chlorobenzene	20	11.5-28.6	20.3	207
Ethyl benzene	20	13.4-27.6	20.8	221
1,3-Dichlorobenzene	26	18.5-36.7	27.1	234
1,2-Dichlorobenzene	26	11.5-41.9	26.9	233
1,4-Dichlorobenzene	20	3.7-35.6	21.5	235
Diethyl Benzene	44	25.9-62.9	—	237
Ethyl Ether	35	26.9-49.5	—	236
Xylene	44	21.0-66.7	45.1	238
MEK	20	9.1-39.4	19.4	240
Acetone	20	9.6-38.0	19.6	242

FREE-COL LABORATORIES, INC.
 VOA BLANK INFORMATION
 (CLP - CALIBRATION BLANK LIMITS)

Date 12/9/98 Analyst Ecklund
 Samples associated with this blank:

Parameter _____ Blank Value _____
 Units = ng/L

Parameter	Blank Value
Chloromethane	<2
Bromomethane	
Vinyl chloride	
Chloroethane	
Methylene chloride	
Acrolein	<10
Acrylonitrile	<10
1,1-Dichloroethene	<2
1,1-Dichloroethane	
trans-1,2-Dichloroethene	
Chloroform	
1,2-Dichloroethane	
1,1,1-Trichloroethane	
Carbon tetrachloride	
Bromodichloromethane	
1,2-Dichloropropane	
trans-1,3-Dichloropropene	
Trichloroethene	
Benzene	
Dibromochloromethane	
1,1,2-Trichloroethane	
cis-1,3-Dichloropropene	
2-Chloroethyl vinyl ether	
Bromoform	
Tetrachloroethene	
1,1,2,2-Tetrachloroethane	
Toluene	
Chlorobenzene	
Ethyl benzene	
1,3-Dichlorobenzene	
1,2-Dichlorobenzene	
1,4-Dichlorobenzene	
Xylene	
2-Butanone - MEK	<10
4-Methyl-2-pentanone	<10
Acetone	<10
Syrene	<2

FREE-COL LABORATORIES, INC.
VOA BLANK INFORMATION
(CLP - CALIBRATION BLANK LIMITS)

Date 12/9/98 Analyst Ecklund
Samples associated with this blank:

Parameter Blank Value

Units = ug/L

<u>Carbon Disulfide</u>	<u><5</u>
<u>Vinyl Acetate</u>	<u><10</u>
<u>2-Hexanone - MBK</u>	<u><10</u>
<u>Dichlorofluoromethane</u>	
<u>1,1,1,2-Tetrachloroethane</u>	
<u>Trichlorofluoromethane</u>	<u><2</u>
<u>1,2,3-Trichloropropane</u>	
<u>3-Chloro-1-propene</u>	
<u>1,2-Dibromomethane</u>	
<u>cis,1,2-Dichloroethene</u>	<u><2</u>
<u>Dichlorodifluoromethane</u>	<u><2</u>

Limits in effect as of June 2, 1997

FREE-COL LABORATORIES, LTD.
VOA REPEAT CONTROL INFORMATION
(CLP - DUPLICATE SAMPLE LIMITS)

Date 12/9/98 Analyst Ecklund
Samples associated with this repeat control:

Sample used as repeat control: 812-08-406
AD = Absolute Difference RPD = Relative Percent Difference

Parameter	Samp. Value	Repeat Value	Accept AD	Accept RPD	Assayd AD/RPD	File
Units = <u>ug/L</u>						
Chloromethane	<2	<2			0	820
Bromomethane						819
Vinyl chloride				27		828
Chloroethane						807
Methylene chloride				17		821
Acrolein	<10	<10				800
Acrylonitrile	<10	<10				801
1,1-Dichloroethene	<2	<2				813
1,1-Dichloroethane				41		811
trans-1,2-Dichloroethene				28		814
Chloroform				14		809
1,2-Dichloroethane						812
1,1,1-Trichloroethane				27		825
Carbon tetrachloride						804
Bromodichloromethane				79		810
1,2-Dichloropropane						815
trans-1,3-Dichloropropene						817
Trichloroethene	3	3		32	0	827
Benzene	<2	<2		49	0	802
Dibromochloromethane				70		806
1,1,2-Trichloroethane						826
cis-1,3-Dichloropropene						816
2-Chloroethyl vinyl ether						808
Bromoform						803
Tetrachloroethene				33		823
1,1,2,2-Tetrachloroethane						822
Toluene				38		824
Chlorobenzene				24		805
Ethyl benzene				5		818
1,3-Dichlorobenzene						830
1,2-Dichlorobenzene						829
1,4-Dichlorobenzene				36		831
Acetone	-	-		26	-	836

Limits in effect as of June 2, 1997

FREE-COL LABORATORIES, LTD.
VOA SPIKED CONTROL INFORMATION
(CLP - ANALYTICAL SPIKED SAMPLE LIMITS)

Date 12/9/98 Analyst Ecklund
Samples associated with this spiked control:

Sample used as spiked control: 812-08-406

<u>PARAMETER</u>	<u>SPIKE ADDED</u> UG/L	<u>SPIKED RESULT</u> UG/L	<u>SAMPLE RESULT</u> UG/L	<u>ACCEPT. LIMITS</u> % REC.	<u>ASSYD & REC.</u>	<u>FILE</u>
Chloromethane	20	21	<2	31-187	105	520
Bromomethane	20	22		34-207	110	519
Vinyl chloride	20	18		26-183	90	528
Chloroethane	20	18		55-168	90	507
Methylene chloride	20	17	↓	63-151	85	521
Acrolein	62	39	<10	23-183	63	500
Acrylonitrile	58	58	<10	52-186	100	501
1,1-Dichloroethene	20	20	<2	52-159	100	513
1,1-Dichloroethane	20	21		73-144	105	511
trans-1,2-Dichloroethene	20	20		64-151	100	514
Chloroform	20	20		68-142	100	509
1,2-Dichloroethane	20	20		54-155	100	512
1,1,1-Trichloroethane	20	24		59-158	120	525
Carbon tetrachloride	20	16		39-147	80	504
Bromodichloromethane	20	20		47-148	100	510
1,2-Dichloropropane	20	23		67-144	115	515
trans-1,3-Dichloropropene	20	21	↓	56-141	105	517
Trichloroethene	20	22	3	64-130	95	527
Benzene	20	21	<2	71-142	105	502
Dibromochloromethane	20	16		29-155	80	506
1,1,2-Trichloroethane	20	21		61-146	105	526
cis-1,3-Dichloropropene	20	20		46-149	100	516
2-Chloroethyl vinyl ether	20	23		7-183	115	508
Bromoform	20	19		10-149	95	503
Tetrachloroethene	20	17		50-160	85	523
1,1,2,2-Tetrachloroethane	20	22		44-163	110	522
Toluene	20	21		73-130	105	524
Chlorobenzene	20	22		72-131	110	505
Ethyl benzene	20	23		62-139	115	518
1,3-Dichlorobenzene	26	26		60-161	100	530
1,2-Dichlorobenzene	26	26		45-157	100	529
1,4-Dichlorobenzene	20	22		36-174	110	531
Diethyl Benzene	44	-		71-137	-	533
Ethyl Ether	35	-		62-160	-	532
Xylenes	44	48	↓	72-130	109	534
MEK	20	-	-	63-179	-	536

Limits in effect as of June 2, 1997

FREE-COL LABORATORIES, LTD.
VOA SPIKED CONTROL INFORMATION
(CLP - ANALYTICAL SPIKED SAMPLE LIMITS)

Date 12/9/98 Analyst Ecklund
Samples associated with this spiked control:

Sample used as spiked control: 812-08-406

<u>PARAMETER</u>	<u>SPIKE ADDED</u> <u>UG/L</u>	<u>SPIKED RESULT</u> <u>UG/L</u>	<u>SAMPLE RESULT</u> <u>UG/L</u>	<u>ACCEPT. LIMITS</u> <u>% REC.</u>	<u>ASSYD % REC.</u>	<u>FILE</u>
Acetone	20			72-154		538
MIBK	20			53-160		539
Ethyl Acetate	45			71-140		535
Tetrahydrofuran	45					
Carbendisulfide	20					
Styrene	20					
Vinyl Acetate	20					
Amyl Acetate	44					
Methyl Butyl Ketone	20					
CIS-1,2-DCE	20	26	7			95
Dichlorodifluoromethane	20	20	<2			100
Trichlorofluoromethane	20	20	<2			100

FIGURE E2
 ENVIRONMENTAL SAMPLE DESCRIPTION
 AND
 CHAIN OF CUSTODY RECORD

ATTACHMENT #2

Page 1 of 2

DATE: 12/2/98

RESULTS REQUIRED BY: _____
 VERBAL RESULTS NEEDED? _____

HARRISON DIVISION, GMC
 200 UPPER MOUNTAIN ROAD
 LOCKPORT, NEW YORK 14094
 PHONE: (716) ~~435~~ 685-2300
 CONTACT: Cary Klawinski
(GZA)

Samples collected by
Tom Seider / Daniel Troy

LABORATORY: Free-Col

- TYPE: (CIRCLE)
- 1) WASTEWATER
 - 2) DRINKING WATER
 - 3) MONITORING WELL
 - 4) SOIL
 - 5) SLUDGE
 - 6) SOLID WASTE
 - 7) OIL
 - 8) INDUSTRIAL HYGIENE
 - 9) OTHER _____

DESCRIPTION: Groundwater Samples

SAMPLE #	LOCATION	TIME	PARAMETERS	SAMPLE BOTTLE LOT# (OPTIONAL)
1/2/98	MW-9	0810	See attached table	
2/2/98	MW-4	1010	"	
2/2/98	MW-8	1130	"	
2/2/98	MW-6	1240	"	
12/2/98	Dup #1	-	"	
1/98	Trip Blank			
2/3/98	MW-35	1100	see attached table	
2/3/98	MW-7	1200	"	

DETECTION LEVELS REQUIRED? NYSDEC Drinking Water level detection limits required.

INTERFERENCES: _____

COMPARISON FOR TEST (COMPARISON OF AREAS, BACKGROUND, ETC.) _____

SAMPLES RECEIVED BY: (DATE/TIME) (HRD PERSONNEL) SAMPLES RELINQUISHED BY: (DATE/TIME) (HRD PERSONNEL) <u>Michael M. Wetton 12/13/98 1437</u>	BOTTLES RELINQUISHED BY: (DATE/TIME) (HRD PERSONNEL) BOTTLES RECEIVED BY: (DATE/TIME) (LAB PERSONNEL) <u>Bill Slats 12/3/98 1437</u>
SAMPLE COLLECTED BY: _____	RECEIVED BY: (DATE, TIME, LAB SIGNATURE)

DELPHI HARRISON THERMAL SYSTEMS
GENERAL MOTORS CORPORATION

GROUNDWATER SAMPLES
DAY 1
MW9, MW10, MW11,
MW12, MW13

10/05-06/99

P.O.# ACARD

Report reviewed and approved by:



John Paraska
Quality Assurance Supervisor

FREE-COL LABORATORIES, LTD.

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 MEADVILLE, PENNSYLVANIA 16335
 PHONE: (814) 724-6242
 FAX: (814) 333-1466
 EMAIL: freecol@toolcity.net

10/26/99

TO:

DELPHI HARRISON THRM.SYS
 ATTN: MS. CATHERINE VER
 200 UPPER MOUNTAIN RD.
 LOCKPORT NY 14094

P.O. # ACARD

ACCOUNT NO. 01220

ANALYTICAL REPORT FORM

PAGE 1

PARAMETER	LAB ID	MW9	MW10	MW11	MW12
	DATE RECEIVED:	10/06/99	10/06/99	10/05/99	10/06/99
	LAB ID	91006400	91006401	91006402	91006403
	DATE RECEIVED:	10/06/99	10/06/99	10/06/99	10/06/99
PERCHLOROETHYLENE	MG/L	0.062	0.24	<0.0005	<0.0005
1,2-DICHLOROETHENE	MG/L	1.5	0.72	0.010	0.027
VINYL CHLORIDE	MG/L	0.091	0.20	0.0019	0.032
TRANS-1,2-DICHLOROE*	MG/L	0.008	0.002	<0.0005	<0.0005
METHANE	MG/L	0.02	0.14	0.05	0.36
ACID DIGESTION PREP		COMPLETE	COMPLETE	COMPLETE	COMPLETE
BENZENE	MG/L	<0.002 D	<0.002 D	<0.0005	<0.0005
TOLUENE	MG/L	<0.002 D	<0.002 D	<0.0005	<0.0005
ETHYLBENZENE	MG/L	<0.002 D	<0.002 D	<0.0005	<0.0005
XYLENE	MG/L	<0.002 D	<0.002 D	<0.0005	<0.0005
T.O.C. MG/L		24	24	20	30
ALKALINITY MG/L		330	280	270	300
NH3-N DISTILLED MG/L		0.20	0.29	0.76	0.90
CHLORIDE MG/L		963	1,010	192	342
NO3-N MG/L		0.46	0.15	0.05	0.27

*TRANS-1,2-DICHLOROETHENE

Please reference the following page(s) for date and analyst.

A.I.H.A. Accreditation No. 98
 U.S. Public Health Services Approved Facility
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 Pa. Dept. of Agriculture Approved Dairy Laboratory
 NY Dept. of Health Laboratory I.D. No. 10552

NY Dept. of Env. Conservation Approved Facility
 ND Dept. of Health Cert. No. R-083
 MD Dept. of Health Cert. No. 130
 VA Dept. of Health Laboratory I.D. No. 00145
 WV Dept. of Health Certification No. 9907C

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 Lead Laboratory No. 10016

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P.O. # ACARD

ACCOUNT NO. 01220

ANALYTICAL REPORT FORM

PAGE 2

PARAMETER	LAB ID	DATE RECEIVED:	MW9 10/06/99	MW10 10/06/99	MW11 10/05/99	MW12 10/06/99
NO2-N MG/L			<0.05	0.10	<0.05	<0.05
SULFATE MG/L			520	240	210	66
SULFIDE MG/L			<0.1	<0.1	0.5	0.2
CIS-1,2-DICHLOROETH* MG/L			1.5	0.72	0.010	0.027
TRICHLOROETHYLENE MG/L			1.2	0.23	<0.0005	<0.0005

*CIS-1,2-DICHLOROETHENE

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KEY: <=LESS THAN >=GREATER THAN w.f.=WILL FOLLOW

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TO:

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200 UPPER MOUNTAIN RD.
LOCKPORT NY 14094

P.O. # ACARD

ACCOUNT NO. 01220

ANALYTICAL REPORT FORM

PAGE 3

SAMPLE ID : MW13
10/06/99
LAB ID 91006404
DATE RECEIVED: 10/06/99

PARAMETER	RESULTS	UNITS	DATE	AND	ANALYST
Perchloroethylene	0.058	MG/L	10/18/99		ECKLUND
1,2-Dichloroethene	1.6	MG/L	10/18/99		ECKLUND
Vinyl Chloride	0.11	MG/L	10/18/99		ECKLUND
Trans-1,2-Dichloroethene	0.008	MG/L	10/18/99		ECKLUND
Methane	0.02	MG/L	10/12/99		WILLIAMS
Acid Digestion Preparation	COMPLETE		10/08/99		LINZ
Benzene	<0.002 D	MG/L	10/18/99		ECKLUND
Toluene	<0.002 D				
Ethylbenzene	<0.002 D				
Xylene	<0.002 D				
Carbon, Total Organic	27	MG/L	10/12/99		PEARSON
Alkalinity	340	MG/L	10/12/99		HAYES
Nitrogen, Ammonia (distilled)	0.14	MG/L	10/13/99		HAYES

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WV Dept. of Health Laboratory I.D. No. 10552

NY Dept. of Env. Conservation Approved Facility
ND Dept. of Health Cert. No. R-083
MD Dept. of Health Cert. No. 130
VA Dept. of Health Laboratory I.D. No. 00145
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FAX: (814) 333-1466
EMAIL: freecol@toolcity.net
10/26/99

TO:

DELPHI HARRISON THRM.SYS
ATTN: MS. CATHERINE VER
200 UPPER MOUNTAIN RD.
LOCKPORT NY 14094

P.O. # ACARD

ACCOUNT NO. 01220

ANALYTICAL REPORT FORM

PAGE 4

SAMPLE ID : MW13
10/06/99

LAB ID 91006404
DATE RECEIVED: 10/06/99

PARAMETER	RESULTS	UNITS	DATE	AND ANALYST
Chloride	833	MG/L	10/22/99	ADSIT
Nitrogen, Nitrate	0.63	MG/L	10/06/99	PEARSON
Nitrogen, Nitrite	<0.05	MG/L	10/06/99	PEARSON
Sulfate	490	MG/L	10/22/99	KOZAKOVSKY
Sulfide	<0.1	MG/L	10/11/99	HAYES
CIS-1,2-DICHLOROETHENE	1.6	MG/L	10/18/99	ECKLUND
Trichloroethylene	1.4	MG/L	10/18/99	ECKLUND

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10/26/99

TO:

DELPHI HARRISON THRM.SYS
 ATTN: MS. CATHERINE VER
 200 UPPER MOUNTAIN RD.
 LOCKPORT NY 14094

P.O. # ACARD

ACCOUNT NO. 01220

ANALYTICAL REPORT FORM

PAGE 5

SAMPLE ID : TRIP BLANK
 10/05/99
 LAB ID 91006405
 DATE RECEIVED: 10/06/99

PARAMETER	RESULTS	UNITS	DATE	AND	ANALYST
Perchloroethylene	<0.0005	MG/L	10/18/99		ECKLUND
1,2-Dichloroethene	<0.0005	MG/L	10/18/99		ECKLUND
Vinyl Chloride	<0.0005	MG/L	10/18/99		ECKLUND
Trans-1,2-Dichloroethene	<0.0005	MG/L	10/18/99		ECKLUND
Benzene	<0.0005	MG/L	10/18/99		ECKLUND
Toluene	<0.0005				
Ethylbenzene	<0.0005				
Xylene	<0.0005				
CIS-1,2-DICHLOROETHENE	<0.0005	MG/L	10/18/99		ECKLUND
Trichloroethylene	<0.0005	MG/L	10/18/99		ECKLUND

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10/26/99

TO:

DELPHI HARRISON THRM.SYS
ATTN: MS. CATHERINE VER
200 UPPER MOUNTAIN RD.
LOCKPORT NY 14094

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ACCOUNT NO. 01220

ANALYTICAL REPORT FORM

PAGE 6

PARAMETER	LAB ID	DATE RECEIVED:	MW9 10/06/99 DIGESTION 91006406	MW10 10/06/99 DIGESTION 91006407	MW11 10/05/99 DIGESTION 91006408	MW12 10/06/99 DIGESTION 91006409
-----------	--------	----------------	--	---	---	---

CALCIUM MG/L ICP			250	39.8	93.4	104
IRON ICP MG/L			0.20	0.73	0.34	<0.01
MAGNESIUM ICP MG/L			63.8	9.94	46.4	27.8
MANGANESE ICP MG/L			1.36	0.99	0.06	<0.01
SODIUM ICP MG/L			476	33.2	180	166
POTASSIUM ICP MG/L			4.6	18.8	10.9	4.9

Please reference the following page(s) for date and analyst.

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Ohio Dept. of Health Approved Environmental
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10/26/99

TO:

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200 UPPER MOUNTAIN RD.
LOCKPORT NY 14094

P.O. # ACARD

ACCOUNT NO. 01220

ANALYTICAL REPORT FORM

PAGE 7

SAMPLE ID : MW13
10/06/99
DIGESTION
LAB ID 91006410
DATE RECEIVED: 10/06/99

PARAMETER	RESULTS	UNITS	DATE	AND	ANALYST
Calcium ICP	252	MG/L	10/12/99		BAKER
Iron ICP	0.20	MG/L	10/08/99		BAKER
Magnesium ICP	72	MG/L	10/12/99		BAKER
Manganese ICP	1.46	MG/L	10/08/99		BAKER
Sodium ICP	478	MG/L	10/12/99		BAKER
Potassium ICP	5.0	MG/L	10/12/99		BAKER

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 EMAIL: freecol@toolcity.net

10/26/99

TO:

DELPHI HARRISON THRM.SYS
 ATTN: MS. CATHERINE VER
 200 UPPER MOUNTAIN RD.
 LOCKPORT NY 14094

P.O. # ACARD

ACCOUNT NO. 01220

ANALYTICAL REPORT FORM

PAGE 8

PARAMETER	SAMPLE ID	MW9	MW10	MW11	MW12
		10/06/99	10/06/99	10/05/99	10/06/99
		FIELD FILT	FIELD FILT	FIELD FILT	FIELD FILT
	LAB ID	91006411	91006412	91006413	91006414
	DATE RECEIVED:	10/06/99	10/06/99	10/06/99	10/06/99

IRON ICP (DISS.)	MG/L	0.02	0.04	0.30	3.66
MAGNESIUM ICP (DISS)	MG/L	89	102	103	31.6
MANGANESE ICP (DISS)	MG/L	0.99	1.12	0.08	4.90
SODIUM ICP (DISS.)	MG/L	535	635	695	226
POTASSIUM (DISS.) ICP	MG/L	26.5	10.1	27	5.3
CALCIUM ICP (DISS.)	MG/L	283	254	150	126

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ANALYTICAL REPORT FORM

PAGE 9

SAMPLE ID : MW13
10/06/99
FIELD FILT
LAB ID 91006415
DATE RECEIVED: 10/06/99

PARAMETER	RESULTS	UNITS	DATE	AND ANALYST
Iron ICP (Diss.) MG/L	0.02	MG/L	10/08/99	BAKER
Magnesium ICP (Diss.) MG/L	86	MG/L	10/12/99	BAKER
Manganese ICP (Diss.) MG/L	0.94	MG/L	10/08/99	BAKER
Sodium ICP (Diss.) MG/L	560	MG/L	10/12/99	BAKER
Potassium ICP (Diss.) MG/L	5.6	MG/L	10/12/99	BAKER
Calcium ICP (Diss.) MG/L	284	MG/L	10/12/99	BAKER

Some of the dissolved metal values in this report exceed the digested metal values for the same sample. These variations are within normal analytical limits.

John R Paraska
QUALITY ASSURANCE SUPERVISOR

PC: GZA

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METHODS

<u>PARAMETER</u>	<u>METHOD</u>	<u>SOURCE</u>
ACID DIGESTION PREP	3005A	2
ALKALINITY	2320 B	20
CALCIUM ICP	7140	2
CARBON, TOTAL ORGANIC	9060	2
CHLORIDE	325.3 mod.	1
IRON ICP	6010B	2
MAGNESIUM ICP	6010B	2
MANGANESE ICP	6010B	2
METHANE	8015 mod.	2
NITROGEN, AMMONIA (DISTILLED)	350.2 mod.	1
NITROGEN, NITRATE	353.2	1
NITROGEN, NITRITE	353.2	1
POTASSIUM ICP	6010B	2
SODIUM ICP	6010B	2
SULFATE	9038	2
SULFIDE	376.1	1
VOLATILE COMPOUNDS	8260	2

SOURCE

- 1 - "Methods for Chemical Analysis of Water & Wastes", U.S. Environmental Protection Agency, EPA-600/4-79-020. Revised 1983.
- 2 - "Test Methods for Evaluating Solid Waste: Physical/Chemical Methods", SW-846, Third Edition, U.S. Environmental Protection Agency. Update III, December, 1996.
- 20 - "Standard Methods for the Examination of Water and Wastewater", 18th Edition.

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FAX: Area Code 814/333-1468

ENVIRONMENTAL
OCCUPATIONAL HEALTH
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CODE KEYS FOR ANALYTICAL REPORT FORMS

- CODE B:** This analyte was detected in the associated blank as well as in the sample. It indicates possible/probable contamination. The data user may subtract the blank value at his/her discretion.
- CODE D:** Detection limit change due to a dilution.
- CODE R:** The percent recovery on the spiked sample associated with this sample was not within the acceptance limits of 75% - 125%.
- CODE S:** This result was obtained by Method of Standard Additions.
- CODE NA:** Not Applicable
- CODE ND:** Not Detectable
- PRC:** Preparation Reference Control
- VOID:** The sample plus spike concentration exceeded the linear range of the standard curve.
- CODE Q:** Values for parameters quantified in this sample have been adjusted for recoveries of the analytical matrix spike. The adjustments have been based on the matrix recoveries from this sample. Adjusted values are not given where sample values were less than the detection limit or where spike recoveries are equal to 100%.
- WF:** Will Follow
- CODE J:** This result is an estimated value. It indicates that the compound meets the mass spectral data identification criteria. The result is less than the quantitation limit but greater than zero.

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QUALITY CONTROL INFORMATION

Free-Col Laboratories analyzes control samples at specified frequencies during the analyses for the purpose of evaluating and documenting the precision and accuracy of the results. The attached quality control data, prepared at the time of analysis, reflect the results obtained for the various types of controls from the batch of samples described as follows:

<u>Delphi Harrison Thrm. Sys. Sample Identification</u>	<u>Free-Col ID</u>
MW9 10/06/99	91006400
MW10 10/06/99	91006401
MW11 10/05/99	91006402
MW12 10/06/99	91006403
MW13 10/06/99	91006404
TRIP BLANK 10/05/99	91006405
MW9 10/06/99 DIGESTION	91006406
MW10 10/06/99 DIGESTION	91006407
MW11 10/05/99 DIGESTION	91006408
MW12 10/06/99 DIGESTION	91006409
MW13 10/06/99 DIGESTION	91006410
MW9 10/06/99 FIELD FILT.	91006411
MW10 10/06/99 FIELD FILT.	91006412
MW11 10/05/99 FIELD FILT.	91006413
MW12 10/06/99 FIELD FILT.	91006414
MW13 10/06/99 FIELD FILT.	91006415

QUALITY CONTROL DATA I

PARAMETER: Alkalinity ANALYST: K. Hayes DATE: 10-11-99 10/13

REFERENCE CONTROL Units: mg/L

Target	Acceptance Limits	23	24	25	23	25	24	24
<u>20</u>	<u>15 to 30</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>23</u>	<u>25</u>	<u>24</u>	<u>24</u>
<u>200</u>	<u>191 to 208</u>	<u>197</u>	<u>202</u>					

PREPARATION REFERENCE CONTROL Units: mg/L

Target: _____ Acceptance Limits: _____ Assayed Value: _____

_____ to _____ Date Prepped: _____

REPEAT CONTROL AD = Absolute Difference RPD = Relative Percent Difference

Units: mg/L

Acceptable AD: 4 Acceptable RPD: 5.6 %

Sample I.D.	Sample Result	Repeat Result	AD	RPD
<u>910-05-032</u>	<u>58</u>	<u>59</u>	<u>1</u>	<u>---</u>
<u>910-02-017</u>	<u>58</u>	<u>59</u>	<u>1</u>	<u>---</u>
<u>910-02-031</u>	<u>59</u>	<u>59</u>	<u>0</u>	<u>---</u> %
<u>910-10-023</u>	<u>80</u>	<u>80</u>	<u>0</u>	<u>---</u> %
<u>910-04-033</u>	<u>59</u>	<u>58</u>	<u>1</u>	<u>---</u> %
<u>910-06-136</u>	<u>59</u>	<u>59</u>	<u>0</u>	<u>---</u> %
<u>910-06-047</u>	<u>57</u>	<u>58</u>	<u>1</u>	<u>---</u> %
<u>910-09-007</u>	<u>80</u>	<u>82</u>	<u>2</u>	<u>---</u>
<u>910-08-129</u>	<u>59</u>	<u>58</u>	<u>1</u>	<u>---</u>

SPIKE CONTROL Units: mg/L

Acceptable Limits for Percent Recovery: _____ % to _____ %

Sample I.D.	Spike Added	Spike Result	Sample Result	% Recovery
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

BLANK Units: mg/L Lab Blank: 3

Results: _____ Date Prepped: _____

DETECTION LIMIT Units: mg/L

Limit Value: 2 Assayed Value: 2.4, 2.8, 3.0

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 LIMITS IN EFFECT AS OF JUNE 2, 1997

QUALITY CONTROL DATA I

PARAMETER: Ammonia Nitrogen ANALYST: L. Hayes DATE: 10/13/99

REFERENCE CONTROL Units: mg/L
 Target Acceptance Limits
2 1.37 to 2.73
10 7.28 to 11.74 9.45, 8.65, 7.95

PREPARATION REFERENCE CONTROL Units: mg/L
 Target Acceptance Limits Assayed Value: 9.00
10 7.2 to 10.1 Date Prepped: 10/12/99

REPEAT CONTROL AD = Absolute Difference RPD = Relative Percent Difference
 Units: mg/L from ISE probe reading
 Acceptable AD: 0.06 Acceptable RPD: 20.1 %

Sample I.D.	Sample Result	Repeat Result	AD	RPD
<u>910-06-109 (1.68x)</u>	<u>0.07</u>	<u>0.06</u>	<u>0.01</u>	<u>—</u> %
<u>910-06-430</u>	<u><0.03</u>	<u><0.03</u>	<u>0</u>	<u>—</u> %
_____	_____	_____	_____	_____ %
_____	_____	_____	_____	_____ %

SPIKE CONTROL Units: mg/L from I.S.E. probe reading
 Acceptable Limits for Percent Recovery: 72 % to 128 %

Sample I.D.	Spike Added	Spike Result	Sample Result	% Recovery
<u>910-06-109</u>	<u>10</u>	<u>9.29</u>	<u>0.13</u>	<u>92</u>
<u>910-08-051</u>	<u>10</u>	<u>10.05</u>	<u>0.24</u>	<u>98</u>
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

BLANK Units: mg/L Lab Blank: 0.06

Results: _____ Date Prepped: 10/12/99

DETECTION LIMIT Units: mg/L
 Limit Value: 0.03 Assayed Value: 0.028

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 LIMITS IN EFFECT AS OF JUNE 2, 1997

QUALITY CONTROL DATA I

PARAMETER: CALCIUM ICP ANALYST: BAKER DATE: 10-12-79

REFERENCE CONTROL UNITS: mg/l
 Target Acceptance Limits
25.0 23.7 to 26.3
50.0 47.5 to 52.5 49.7, 49.8, 47.7, 48.7
 to 49.6

PREPARATION REFERENCE CONTROL Units: mg/l
 Target Acceptance Limits Assayed Value: 5.50
5.00 4.50 to 5.50 Date Prepped: 10-8-79

REPEAT CONTROL AD = Absolute Difference RPD = Relative Percent Difference
 Units: mg/l Acceptable AD: 0.02 Acceptable RPD: %

Sample I.D.	Dilution	Sample Result	Repeat Result	AD	RPD
<u>10-04-022</u>		<u>22.6</u>	<u>23.6</u>	<u>0.1</u>	<u>4.3 %</u>
<u>10-07-002</u>		<u>29.3</u>	<u>29.0</u>	<u>0.3</u>	<u>1.0 %</u>
<u>10-07-407</u>		<u>39.8</u>	<u>38.9</u>	<u>0.9</u>	<u>2.3 %</u>
<u>10-07-148</u>		<u>21.6</u>	<u>21.5</u>	<u>0.1</u>	<u>0.5 %</u>

SPIKE CONTROL Units: mg/l
 Acceptable Limits for Percent Recovery: 85 % to 115 %

Sample I.D.	Dilution	Spike Added	Spike Result	Sample Result	% Recovery
<u>10-06-444</u>		<u>21.8</u>	<u>39.9</u>	<u>20.1</u>	<u>91 %</u>
<u>10-07-403</u>		<u>21.8</u>	<u>45.2</u>	<u>22.6</u>	<u>104 %</u>
<u>10-07-147</u>		<u>21.8</u>	<u>29.7</u>	<u>11.5</u>	<u>86 %</u>
<u>10-07-149</u>		<u>21.8</u>	<u>33.4</u>	<u>14.0</u>	<u>91 %</u>

BLANK Units: mg/l Lab Blank 50.02

Result: 0.000, 0.024, 0.011, 0.013, 0.015 Date Prepped 10-8-79

DETECTION LIMIT Units: mg/l
 Limit Value: 0.02 Assayed Value: 0.029

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QUALITY CONTROL DATA I

PARAMETER: Chloride ANALYST: G. Adsit DATE: 10/22/99

CALIBRATION CHECK Units: mg/L
Target 60 Acceptance Limits 55.9 to 61.6
56.9, 59.5, 59.0

LABORATORY CONTROL SAMPLE Units: _____
Target _____ Assayed Value: _____
_____ to _____ Date Prepped: _____

DUPLICATE/REPEAT CONTROL AD = Absolute Difference RPD = Relative Percent Difference
Units: mg/L
Acceptable AD: 1 Acceptable RPD: 8.3 %

Sample I.D.	Sample Result	Repeat Result	AD	RPD
<u>910-07-416 (2x)</u>	<u>71.9</u>	<u>71.9</u>	<u>-</u>	<u>-</u> %
<u>910-07-420</u>	<u>20.2</u>	<u>20.2</u>	<u>-</u>	<u>-</u> %
_____	_____	_____	_____	_____ %
_____	_____	_____	_____	_____ %

SPIKE CONTROL Units: mg/L
Acceptable Limits for Percent Recovery: 94 % to 115 %

Sample I.D.	Spike Added	Spike Result	Sample Result	% Recovery
<u>910-07-416 (2x)</u>	<u>10</u>	<u>81.8</u>	<u>71.9</u>	<u>99</u> %
_____	_____	_____	_____	_____ %
_____	_____	_____	_____	_____ %

BLANK Units: mg/L Method Blank: <05
Results: _____ Date Prepped: 10/21/99
10/22/99 1500

REPORTING LIMIT Units: mg/L
Limit Value: 0.5 Assayed Value: 1.0

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LIMITS IN EFFECT AS OF OCTOBER 22, 1999

QUALITY CONTROL DATA I

PARAMETER: IRON ICP ANALYST: BAKER DATE: 10-8-99

REFERENCE CONTROL UNITS: mg/l
 Target Acceptance Limits
25.0 23.7 to 26.3 _____, _____, _____
5.00 4.75 to 5.25 4.89, 4.87, 5.05, 5.02
 _____ to _____ 4.93, _____, _____

PREPARATION REFERENCE CONTROL Units: mg/l
 Target Acceptance Limits Assayed Value: 4.92, _____, _____
5.00 4.50 to 5.50 Date Prepped: 10-7-99, _____, _____

REPEAT CONTROL AD = Absolute Difference RPD = Relative Percent Difference
 Units: mg/l Acceptable AD: 0.02 Acceptable RPD: _____ %

Sample I.D.	Dilution	Sample Result	Repeat Result	AD	RPD
<u>909-16-066</u>	_____	<u>0.13</u>	<u>0.14</u>	<u>0.01</u>	_____
<u>910-05-092</u>	_____	<u>12.6</u>	<u>12.2</u>	<u>0.4</u>	_____
<u>910-06-161</u>	_____	<u>0.14</u>	<u>0.13</u>	<u>0.01</u>	_____
<u>910-06-106</u>	_____	<u>0.06</u>	<u>0.06</u>	<u>0.00</u>	_____

PIKE CONTROL Units: mg/l
 Acceptable Limits for Percent Recovery: 85 % to 109 %

Sample I.D.	Dilution	Spike Added	Spike Result	Sample Result	% Recovery
<u>910-05-095</u>	<u>1</u>	<u>4.87</u>	<u>5.05</u>	<u>0.155</u>	<u>101</u> %
<u>910-06-028</u>	_____	<u>4.87</u>	<u>5.30</u>	<u>0.848</u>	<u>91</u> %
<u>10-06-415</u>	_____	<u>4.87</u>	<u>4.93</u>	<u>0.015</u>	<u>101</u> %
<u>910-07-060</u>	_____	<u>4.87</u>	<u>5.13</u>	<u>-0.264</u>	<u>105</u> %

BLANK Units: mg/l Lab Blank 0.01

Result: 0.001, 0.006, 0.005, 0.005, 0.000 Date Prepped 10-7-99

DETECTION LIMIT Units: mg/l
 Limit Value: 0.01 Assayed Value: 0.014, _____, _____

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QUALITY CONTROL DATA I

PARAMETER: MAGNESIUM ICP ANALYST: BAKER DATE: 10-12-99

REFERENCE CONTROL UNITS: mg/l
 Target Acceptance Limits
25.0 23.7 to 26.3 25.4, 25.4, 24.0, 25.4
5.00 4.75 to 5.25 25.2, _____, _____, _____
 _____ to _____ _____, _____, _____, _____

PREPARATION REFERENCE CONTROL Units: mg/l
 Target Acceptance Limits Assayed Value: 4.98, _____, _____
5.00 4.50 to 5.50 Date Prepped: 10-8-99, _____, _____

REPEAT CONTROL AD = Absolute Difference RPD = Relative Percent Difference
 Units: mg/l Acceptable AD: 0.06 Acceptable RPD: _____ %

Sample I.D.	Dilution	Sample Result	Repeat Result	AD	RPD
<u>10-04-022</u>		<u>5.00</u>	<u>5.27</u>	<u>0.27</u>	<u>5.3</u> %
<u>10-07-002</u>		<u>6.05</u>	<u>6.12</u>	<u>0.07</u>	<u>1.2</u> %
<u>10-07-407</u>		<u>9.94</u>	<u>9.24</u>	<u>0.7</u>	<u>7.3</u> %
<u>10-07-148</u>		<u>4.81</u>	<u>4.79</u>	<u>0.02</u>	<u>—</u> %

SPIKE CONTROL Units: mg/l
 Acceptable Limits for Percent Recovery: 85 % to 115 %

Sample I.D.	Dilution	Spike Added	Spike Result	Sample Result	% Recovery
<u>10-06-444</u>		<u>20.3</u>	<u>24.8</u>	<u>6.98</u>	<u>88</u> %
<u>10-07-403</u>		<u>20.3</u>	<u>26.6</u>	<u>7.05</u>	<u>96</u> %
<u>10-07-147</u>		<u>20.3</u>	<u>24.0</u>	<u>4.36</u>	<u>97</u> %
<u>10-07-149</u>		<u>20.3</u>	<u>28.4</u>	<u>7.92</u>	<u>101</u> %

BLANK Units: mg/l Lab Blank <0.03

Result: 0.000, 0.007, 0.004, 0.003, 0.004 Date Prepped 10-8-99

DETECTION LIMIT Units: mg/l
 Limit Value: 0.03 Assayed Value: 0.033, _____, _____

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QUALITY CONTROL DATA I

PARAMETER: MANGANESE ICP ANALYST: BAKER DATE: 10-7-99

REFERENCE CONTROL UNITS: mg/l
 Target Acceptance Limits
25.0 23.7 to 26.3 _____, _____, _____, _____
5.00 4.75 to 5.25 4.94, 4.90, 4.99, 5.05
 _____ to _____ 4.96, _____, _____, _____

PREPARATION REFERENCE CONTROL Units: mg/l
 Target Acceptance Limits Assayed Value: 4.95, _____, _____
5.00 4.50 to 5.50 Date Prepped: 10-7-99, _____, _____

REPEAT CONTROL AD = Absolute Difference RPD = Relative Percent Difference
 Units: mg/l Acceptable AD: 0.02 Acceptable RPD: _____ %

Sample I.D.	Dilution	Sample Result	Repeat Result	AD	RPD
<u>909-16-066</u>	_____	<u><0.01</u>	<u><0.01</u>	_____	_____
<u>910-05-098</u>	_____	<u>0.51</u>	<u>0.50</u>	<u>0.01</u>	_____
<u>10-06-161</u>	_____	<u>0.03</u>	<u>0.03</u>	<u>0.00</u>	_____
<u>910-06-106</u>	_____	<u>0.02</u>	<u>0.02</u>	<u>0.00</u>	_____

SPIKE CONTROL Units: mg/l
 Acceptable Limits for Percent Recovery: 88 % to 112 %

Sample I.D.	Dilution	Spike Added	Spike Result	Sample Result	% Recovery
<u>910-05-095</u>	_____	<u>4.94</u>	<u>4.98</u>	<u>0.025</u>	<u>100</u> %
<u>910-06-028</u>	_____	<u>4.94</u>	<u>4.90</u>	<u>0.198</u>	<u>95</u> %
<u>910-06-415</u>	_____	<u>4.94</u>	<u>5.58</u>	<u>0.936</u>	<u>94</u> %
<u>910-07-060</u>	_____	<u>4.94</u>	<u>5.16</u>	<u>0.002</u>	<u>104</u> %

BLANK Units: mg/l Lab Blank <0.01

Result: 0.000, 0.000, -0.001, 0.001, 0.000 Date Prepped 10-7-99

DETECTION LIMIT Units: mg/l

Limit Value: 0.01 Assayed Value: 0.012, _____, _____

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QUALITY CONTROL DATA I

PARAMETER: Methane ANALYST: Alic Williams DATE: 10-11-99

REFERENCE CONTROL UNITS: mg/L ppm
 Target Acceptance Limits
15.0 12.2 to 18.1 14.2, _____, _____, _____
 _____ to _____ 13.1, 15.2, _____, _____
 _____ to _____ _____, _____, _____, _____

PREPARATION REFERENCE CONTROL Units: _____
 Target Acceptance Limits Assayed Value: _____, _____, _____
 _____ to _____ Date Prepped: _____, _____, _____

REPEAT CONTROL AD = Absolute Difference RPD = Relative Percent Difference
 Units: mg/L ppm Acceptable AD: 10 Acceptable RPD: 12 %

Sample I.D.	Sample Result	Repeat Result	AD	RPD
<u>95-06-403</u> <u>10x</u>	<u>85</u>	<u>75</u>	_____	_____ %
<u>0-06-404</u>	<u>53</u>	<u>55</u> <i>attn: used</i>	_____	_____ %
<u>95-07-417</u> <u>10x</u>	<u>103</u>	<u>116</u>	_____	_____ %

SPIKE CONTROL Units: ppm
 Acceptable Limits for Percent Recovery: 25 % to 158 %

Sample I.D.	Spike Added	Spike Result	Sample Result	% Recovery
<u>95-06-404</u>	<u>19.6</u>	<u>56.5</u>	<u>53</u>	<u>189</u> <i>attn</i> %
<u>95-11-127</u>	<u>16.8</u>	<u>13.1</u>	<u>25</u>	<u>789</u> %

BLANK Units: mg/L ppm Lab Blank _____

Results: 25, _____, _____, _____ Date Prepped _____

DETECTION LIMIT Units: mg/L ppm
 Limit Value: 5 Assayed Value: 6.2, _____, 5.8-5.4

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 LIMITS IN EFFECT AS OF JUNE 2, 1997

QUALITY CONTROL DATA I

PARAMETER: Nitrate/Nitrite Nitrogen ANALYST: BILL PEARSON DATE: 10/6/99

REFERENCE CONTROL Units: mg/L

Target 0.8 Acceptance Limits 0.72 to 0.89
0.82, 0.80, 0.81, 0.80, 0.79
0.73

PREPARATION REFERENCE CONTROL

Units: mg/L
 Target 1.00 Acceptance Limits _____ Assayed Value: 1.53 - 0.83 = 0.70
 Date Prepped: _____, 10/6/99

REPEAT CONTROL

AD = Absolute Difference RPD = Relative Percent Difference

Units: mg/L

Acceptable AD: 0.1 Acceptable RPD: 13.1 %

Sample I.D.	Sample Result	Repeat Result	AD	RPD
<u>909-30-138 (10x)</u>	<u>1.05</u>	<u>1.00</u>	<u>0.05</u>	_____ %
<u>910-06-030</u>	<u>1.43</u>	<u>1.37</u>	<u>0.06</u>	_____ %
<u>910-05-011 (5x)</u>	<u>0.66</u>	<u>0.68</u>	<u>0.02</u>	_____ %
<u>910-05-039 (10x)</u>	<u>0.85</u>	<u>0.83</u>	<u>0.02</u>	_____ %

SPIKE CONTROL

Units: mg/L

Acceptable Limits for Percent Recovery: 79 % to 126 %

Sample I.D.	Spike Added	Spike Result	Sample Result	% Recovery
<u>910-04-026</u>	<u>0.50</u>	<u>0.72</u>	<u>0.17</u>	<u>110</u> %
<u>909-30-180</u>	<u>0.50</u>	<u>0.82</u>	<u>0.35</u>	<u>94</u> %

BLANK

Units: mg/L

Lab Blank: 0.05

Results: _____ Date Prepped: _____

DETECTION LIMIT

Units: mg/L

Limit Value: 0.05 Assayed Value: 0.08, 0.07

$\frac{1.02}{1.00} \times 100 = 98\%$
 COLUMN EFFICIENCY

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 LIMITS IN EFFECT AS OF JUNE 2, 1997

PARAMETER: Nitrite Nitrogen

ANALYST: BILL PEARSON

DATE: 10/6/9

REFERENCE CONTROL Units: mg/L

Target Acceptance Limits

0.1

0.08 to 0.10

0.10

0.11

to

PREPARATION REFERENCE CONTROL

Target Acceptance Limits

Units: _____

Assayed Value: _____

to

Date Prepped: _____

REPEAT CONTROL

AD = Absolute Difference

RPD = Relative Percent Difference

Units: mg/L

Acceptable AD: 0.1

Acceptable RPD: 7.2 %

Sample I.D.

Sample Result

Repeat Result

AD

RPD

%

%

%

%

910-06-439

40.05

40.05

SPIKE CONTROL

Units: mg/L

Acceptable Limits for Percent Recovery: 84 % to 124 %

Sample I.D.

Spike Added

Spike Result

Sample Result

% Recovery

710-06-030

0.50

0.50

40.05

100

BLANK

Units: mg/L

Lab Blank: 40.05

Results: _____

Date Prepped: _____

DETECTION LIMIT

Units: mg/L

Limit Value: 0.05

Assayed Value: 0.05

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LIMITS IN EFFECT AS OF JUNE 2, 1997

QUALITY CONTROL DATA I

PARAMETER: BOTASSIUM ANALYST: BAKER DATE: 10-12-9

REFERENCE CONTROL UNITS: mg/l
 Target Acceptance Limits
25.0 23.7 to 26.3 25.2, 24.9, 24.0, 25.7
 _____ to _____ 25.1, _____, _____, _____
 _____ to _____ _____, _____, _____, _____

PREPARATION REFERENCE CONTROL Units: mg/l
 Target Acceptance Limits Assayed Value: 4.51, _____, _____
5.00 4.50 to 5.50 Date Prepped: 10-8-99, _____, _____

REPEAT CONTROL AD = Absolute Difference RPD = Relative Percent Difference
 Units: mg/l Acceptable AD: 0.4 Acceptable RPD: _____ %

Sample I.D.	Dilution	Sample Result	Repeat Result	AD	RPD
<u>10-04-022</u>		<u>1.3</u>	<u>1.5</u>	<u>0.2</u>	<u>—</u> %
<u>0-07-002</u>		<u>18.8</u>	<u>18.7</u>	<u>0.1</u>	<u>—</u> %
<u>010-07-407</u>		<u>18.8</u>	<u>18.4</u>	<u>0.4</u>	<u>—</u> %
<u>99-07-148</u>		<u>4.8</u>	<u>4.7</u>	<u>0.1</u>	<u>—</u> %

SPIKE CONTROL Units: mg/l
 Acceptable Limits for Percent Recovery: 85 % to 115 %

Sample I.D.	Dilution	Spike Added	Spike Result	Sample Result	% Recovery
<u>10-06-444</u>		<u>19.7</u>	<u>20.6</u>	<u>1.55</u>	<u>97</u> %
<u>710-07-403</u>		<u>19.7</u>	<u>21.5</u>	<u>13.2</u>	<u>93</u> %
<u>10-07-147</u>		<u>19.7</u>	<u>20.4</u>	<u>0.809</u>	<u>102</u> %
<u>10-07-149</u>		<u>19.7</u>	<u>20.0</u>	<u>6.39</u>	<u>100</u> %

BLANK Units: mg/l Lab Blank 0.2

Salt: 0.049, 0.063, 0.101, 0.120, 0.022 Date Prepped 10-8-99

DETECTION LIMIT Units: mg/l
 Value: 0.2 Assayed Value: 0.196, _____, _____

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QUALITY CONTROL DATA I

PARAMETER: SODIUM ICP ANALYST: BAKER DATE: 10-12-99

REFERENCE CONTROL UNITS: mg/l
 Target Acceptance Limits
100.0 95.0 to 105.0 100.0, 99.3, 96.2, 102
50.0 47.5 to 52.5 101, _____, _____, _____
 _____ to _____ _____, _____, _____, _____

PREPARATION REFERENCE CONTROL Units: mg/l
 Target Acceptance Limits Assayed Value: 9.59, _____, _____
10.0 9.0 to 11.0 Date Prepped: 10-8-99, _____, _____

REPEAT CONTROL AD = Absolute Difference RPD = Relative Percent Difference
 Units: mg/l Acceptable AD: 0.6 Acceptable RPD: _____ %

Sample I.D.	Dilution	Sample Result	Repeat Result	AD	RPD
<u>10-04-022</u>	_____	<u>7.3</u>	<u>7.7</u>	<u>0.4</u>	<u>—</u> %
<u>10-07-002</u>	_____	<u>42.6</u>	<u>42.3</u>	<u>0.3</u>	<u>—</u> %
<u>0-07-407</u>	_____	<u>33.2</u>	<u>34.4</u>	<u>1.2</u>	<u>3.6</u> %
<u>0-07-148</u>	_____	<u>8.02</u>	<u>7.95</u>	<u>0.07</u>	<u>—</u> %

SPIKE CONTROL Units: mg/l
 Acceptable Limits for Percent Recovery: 85 % to 115 %

Sample I.D.	Dilution	Spike Added	Spike Result	Sample Result	% Recovery
<u>10-06-444</u>	_____	<u>19.5</u>	<u>31.6</u>	<u>14.8</u>	<u>86</u> %
<u>0-07-147</u>	_____	<u>19.5</u>	<u>23.5</u>	<u>40.9</u>	<u>115</u> %
<u>0-07-149</u>	_____	<u>19.5</u>	<u>25.4</u>	<u>5.27</u>	<u>103</u> %
<u>10-07-144</u>	_____	<u>19.5</u>	<u>23.2</u>	<u>3.32</u>	<u>102</u> %

LAB BLANK Units: mg/l Lab Blank 50.3

SLT: 0.009, 0.145, 0.076, 0.073, 0.119 Date Prepped 10-8-99

DETECTION LIMIT Units: mg/l
 Value: 0.3 Assayed Value: 0.333, _____, _____

FREE-COL LABORATORIES, LTD.
 P.O. BOX 557, 11618 COTTON ROAD
 MEADVILLE, PA 16335
 (814) 724-6242

QUALITY CONTROL DATA I

PARAMETER: Sulfate - Spectronic 401 ANALYST: Kozakowsky DATE: 10-22-99

REFERENCE CONTROL Units: mg/L ✓
 Target 25 Acceptance Limits 21.2 to 29.3
25.1, 22.4, 25.5, 24.7, 21.6,
25.2 ^{0.56}/_{10.35}

PREPARATION REFERENCE CONTROL Units: _____
 Target _____ Assayed Value: _____
 _____ to _____ Date Prepped: _____

REPEAT CONTROL AD = Absolute Difference RPD = Relative Percent Difference
 Units: mg/L
 Acceptable AD: 2 Acceptable RPD: 8.5 %

Sample I.D.	Sample Result	Repeat Result	AD	RPD
<u>910-07-418</u>	<u>14</u> ✓	<u>14</u> ✓	<u>0</u>	<u> </u> %
<u>910-20-021</u> (2x)	<u>26</u>	<u>25</u>	<u>1</u>	<u> </u> %
<u>910-13-429</u>	<u>28</u>	<u>27</u>	<u>1</u>	<u> </u> %
<u>910-17-008</u> (2x)	<u>31</u>	<u>31</u>	<u>0</u>	<u> </u> %
<u>910-17-018</u>	<u>12</u>	<u>12</u>	<u>0</u>	<u> </u> %

SPIKE CONTROL Units: mg/L
 Acceptable Limits for Percent Recovery: 71 % to 129 %

Sample I.D.	Spike Added	Spike Result	Sample Result	% Recovery
<u>910-07-418</u>	<u>10</u>	<u>24</u> ✓	<u>14</u> ✓	<u>100</u>
<u>910-13-436</u>	<u>10</u>	<u>26</u>	<u>16</u>	<u>100</u>
<u>910-17-008</u> (2x)	<u>10</u>	<u>40</u>	<u>31</u>	<u>90</u>

BLANK Units: mg/L Lab Blank: <1
 Results: <1 ✓, <1, <1, <1, <1, _____ Date Prepped: 10-22-99

DETECTION LIMIT Units: mg/L
 Limit Value: 1 Assayed Value: 1 ✓

FREE-COL LABORATORIES, LTD.
 P.O. BOX 557, 11618 COTTON ROAD
 MEADVILLE, PA 16335
 (814) 724-6242
 LIMITS IN EFFECT AS OF JUNE 2, 1997

QUALITY CONTROL DATA I

PARAMETER: Sulfide - Direct ANALYST: K. Lays DATE: 10/11/99

REFERENCE CONTROL Units: mg/L
 Target 10 Acceptance Limits 6.96 to 12.0
9.8 ✓, 9.5 ✓, 9.4 ✓

PREPARATION REFERENCE CONTROL Units: mg/L
 Target 10 Acceptance Limits 0.3 to 9.6
 Assayed Value: _____ Date Prepped: _____

REPEAT CONTROL AD = Absolute Difference RPD = Relative Percent Difference
 Units: mg/L
 Acceptable AD: 0.2 Acceptable RPD: 76.2 %

Sample I.D.	Sample Result	Repeat Result	AD	RPD
<u>910-06-401</u>	<u><0.1</u> ✓	<u>0.2</u> ✓	<u>0.2</u> ✓	<u>—</u> %
<u>910-07-415</u>	<u>0.3</u>	<u>0.3</u>	<u>0</u>	<u>—</u> %
_____	_____	_____	_____	_____ %
_____	_____	_____	_____	_____ %

SPIKE CONTROL Units: mg/L
 Acceptable Limits for Percent Recovery: _____ % to _____ %

Sample I.D.	Spike Added	Spike Result	Sample Result	% Recovery
<u>910-06-400</u>	<u>10</u> ✓	<u>8.5</u> ✓	<u><0.1</u> ✓	<u>85</u> ✓
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

BLANK Units: mg/L Lab Blank: 0.1
 Results: _____ Date Prepped: _____

DETECTION LIMIT Units: mg/L
 Limit Value: 0.1 Assayed Value: 0.14 ✓

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 P.O. BOX 557, 11618 COTTON ROAD
 MEADVILLE, PA 16335
 (814) 724-6242
 LIMITS IN EFFECT AS OF JUNE 2, 1997

QUALITY CONTROL DATA I

PARAMETER: TOC

ANALYST: BILL PEARSON

DATE: 10/12/97

REFERENCE CONTROL UNITS: mg/L
 Target Acceptance Limits

<u>10</u>	<u>8</u>	to	<u>12</u>	<u>9</u>	'	'	'	'
	<u>36</u>	to	<u>44</u>	<u>42</u>	'	<u>42</u>	'	'
		to			'		'	

PREPARATION REFERENCE CONTROL Units: _____
 Target Acceptance Limits Assayed Value: _____
 _____ to _____ Date Prepped: _____

REPEAT CONTROL AD = Absolute Difference RPD = Relative Percent Difference
 Units: mg/L Acceptable AD: 2 Acceptable RPD: 21.7 %

Sample I.D.	Dilution	Sample Result	Repeat Result	AD	RPD
<u>10-06-403</u>		<u>30</u>	<u>29</u>	<u>1</u>	
<u>10-08-003</u>		<u>10</u>	<u>10</u>	<u>0</u>	

SPIKE CONTROL Units: mg/L
 Acceptable Limits for Percent Recovery: 78 % to 121 %

Sample I.D.	Dilution	Spike Added	Spike Result	Sample Result	% Recovery
<u>10-08-005</u>		<u>20</u>	<u>27</u>	<u>5</u>	<u>110 %</u>

BLANK Units: mg/L Lab Blank <1
 Result: <1, <1, <1, _____ Date Prepped _____

DETECTION LIMIT Units: mg/L
 Limit Value: 1 Assayed Value: 1, _____

FREE-COL LABORATORIES, LTD.
 P.O. BOX 557, 11618 COTTON ROAD
 MEADVILLE, PA 16335
 (814) 724-6242

LIMITS IN EFFECT AS OF JUNE 2, 1997

Limits in effect as of June 2, 1997

FREE-COL LABORATORIES, LTD.
VOA REFERENCE CONTROL INFORMATION
(CLP - CALIBRATION VERIFICATION LIMITS)

Date 10/18/99 Analyst Ekklund

Samples associated with this reference control:

<u>Parameter</u>	<u>Target Value</u> <u>ug/L</u>	<u>Acceptance Limits</u> <u>ug/L</u>	<u>Assayed Value</u> <u>ug/L</u>	<u>File#</u>
Chloromethane	20	5.4-34.5		223
Bromomethane	20	7.8-39.4		222
Vinyl chloride	20	1.5-41.7	21.5	232
Chloroethane	20	4.6-36.4		209
Methylene chloride	20	11.8-31.3		224
Acrolein	62	4.5-104.4		201
Acrylonitrile	58	13.2-115.2		202
1,1-Dichloroethene	20	11.3-32.1		216
1,1-Dichloroethane	20	15.5-27.8		214
trans-1,2-Dichloroethene	20	13.6-28.3	20.2	217
Chloroform	20	15.7-26.1		211
1,2-Dichloroethane	20	8.1-34.0		215
1,1,1-Trichloroethane	20	12.8-30.1		228
Carbon tetrachloride	20	8.0-27.8		206
Bromodichloromethane	20	9.8-29.7		212
1,2-Dichloropropane	20	14.7-28.2		218
trans-1,3-Dichloropropene	20	12.7-25.6		220
Trichloroethene	20	14.1-27.1	19.1	230
Benzene	20	14.3-27.8	16.0	203
Dibromochloromethane	20	4.8-29.2		208
1,1,2-Trichloroethane	20	14.3-28.2		229
cis-1,3-Dichloropropene	20	10.3-26.8		219
2-Chloroethyl vinyl ether	20	10.1-32.1		210
Bromoform	20	3.0-30.6		205
Tetrachloroethene	20	13.3-28.4	18.3	226
1,1,2,2-Tetrachloroethane	20	14.7-26.1		225
Toluene	20	15.2-25.6	20.8	227
Chlorobenzene	20	11.5-28.6		207
Ethyl benzene	20	13.4-27.6	21.3	221
1,3-Dichlorobenzene	26	18.5-36.7		234
1,2-Dichlorobenzene	26	11.5-41.9		233
1,4-Dichlorobenzene	20	3.7-35.6		235
Diethyl Benzene	44	25.9-62.9		237
Ethyl Ether	35	26.9-49.5		236
Xylene	44	21.0-66.7	44.9	238
MEK	20	9.1-39.4		240
Acetone	20	9.6-38.0		242

Limits in effect as of June 2, 1997

FREE-COL LABORATORIES, LTD.
VOA REFERENCE CONTROL INFORMATION
(CLP - CALIBRATION VERIFICATION LIMITS)

Date 10/18/99 Analyst Ecklund
Samples associated with this reference control:

<u>Parameter</u>	<u>Target Value</u> <u>ug/L</u>	<u>Acceptance Limits</u> <u>ug/L</u>	<u>Assayed Value</u> <u>ug/L</u>	<u>File#</u>
MIBK	20	14.0-29.7		243
Tetrahydrofuran	45	34.8-60.3		244
Carbondisulfide	20	11.0-30.4		245
Styrene	20	12.4-30.0		246
Vinyl Acetate	20	11.0-27.5		247
Amyl Acetate	44	14.7-64.6		248
Methyl Butyl Ketone	20	10.3-33.9		249
CIS-1,2-DCE	20		22.5	

FREE-COL LABORATORIES, INC.
VOA BLANK INFORMATION
(CLP - CALIBRATION BLANK LIMITS)

Date 10/18/49 Analyst Ecklund
Samples associated with this blank:

Parameter Blank Value

Units = ug/L

Chloromethane	
Bromomethane	
Vinyl chloride	<0.5
Chloroethane	
Methylene chloride	
Acrolein	
Acrylonitrile	
1,1-Dichloroethene	
1,1-Dichloroethane	
trans-1,2-Dichloroethene	<0.5
Chloroform	
1,2-Dichloroethane	
1,1,1-Trichloroethane	
Carbon tetrachloride	
Bromodichloromethane	
1,2-Dichloropropane	
trans-1,3-Dichloropropene	
Trichloroethene	<0.5
Benzene	<0.5
Dibromochloromethane	
1,1,2-Trichloroethane	
cis-1,3-Dichloropropene	
2-Chloroethyl vinyl ether	
Bromoform	
Tetrachloroethene	<0.5
1,1,2,2-Tetrachloroethane	
Toluene	<0.5
Chlorobenzene	
Ethyl benzene	<0.5
1,3-Dichlorobenzene	
1,2-Dichlorobenzene	
1,4-Dichlorobenzene	
Xylene	<0.5
2-Butanone - MEK	
4-Methyl-2-pentanone	
Acetone	
Syrene	

FREE-COL LABORATORIES, INC.
VOA BLANK INFORMATION
(CLP - CALIBRATION BLANK LIMITS)

Date 10/18/99 Analyst Ecklund
Samples associated with this blank:

Parameter

Blank Value

Units = ug/l

Carbon Disulfide

Vinyl Acetate

2-Hexanone - MBK

Dichlorofluoromethane

1,1,1,2-Tetrachloroethane

Trichlorofluoromethane

1,2,3-Trichloropropane

3-Chloro-1-propene

1,2-Dibromomethane

cis,1,2-Dichloroethene

<0.5

Limits in effect as of June 2, 1997

FREE-COL LABORATORIES, LTD.
VOA REPEAT CONTROL INFORMATION
(CLP - DUPLICATE SAMPLE LIMITS)

Date 10/18/99 Analyst Ecklund
Samples associated with this repeat control:

Sample used as repeat control: 910-06-403
AD = Absolute Difference RPD = Relative Percent Difference

Parameter	Samp. Value	Repeat Value	Accept AD	Accept RPD	Assayd AD/RPD	File
Chloromethane						820
Bromomethane						819
Vinyl chloride	32	31		27	3.2%	828
Chloroethane						807
Methylene chloride				17		821
Acrolein						800
Acrylonitrile						801
1,1-Dichloroethene						813
1,1-Dichloroethane				41		811
trans-1,2-Dichloroethene	<0.5	<0.5		28	♠	814
Chloroform				14		809
1,2-Dichloroethane						812
1,1,1-Trichloroethane				27		825
Carbon tetrachloride						804
Bromodichloromethane				79		810
1,2-Dichloropropane						815
trans-1,3-Dichloropropene						817
Trichloroethene	<0.5	<0.5		32	♠	827
Benzene	<0.5	<0.5		49	♠	802
Dibromochloromethane				70		806
1,1,2-Trichloroethane						826
cis-1,3-Dichloropropene						816
2-Chloroethyl vinyl ether						808
Bromoform						803
Tetrachloroethene	<0.5	<0.5		33	♠	823
1,1,2,2-Tetrachloroethane						822
Toluene	<0.5	<0.5		38	♠	824
Chlorobenzene				24		805
Ethyl benzene	<0.5	<0.5		5	♠	818
1,3-Dichlorobenzene						830
1,2-Dichlorobenzene						829
1,4-Dichlorobenzene				36		831
Acetone				26		836

Limits in effect as of June 2, 1997

FREE-COL LABORATORIES, LTD.
VOA SPIKED CONTROL INFORMATION
(CLP - ANALYTICAL SPIKED SAMPLE LIMITS)

Date 10/18/97 Analyst Ecklund
Samples associated with this spiked control:

Sample used as spiked control: 910-13-027

<u>PARAMETER</u>	<u>SPIKE</u>	<u>SPIKED</u>	<u>SAMPLE</u>	<u>ACCEPT.</u>	<u>ASSYD</u>	<u>FILE</u>
	<u>ADDED</u>	<u>RESULT</u>	<u>RESULT</u>	<u>LIMITS</u>	<u>% REC.</u>	
	<u>UG/L</u>	<u>UG/L</u>	<u>UG/L</u>	<u>% REC.</u>		
Chloromethane	20			31-187		520
Bromomethane	20			34-207		519
Vinyl chloride	20	16	<2	26-183	20%	528
Chloroethane	20			55-168		507
Methylene chloride	20			63-151		521
Acrolein	62			23-183		500
Acrylonitrile	58			52-186		501
1,1-Dichloroethene	20			52-159		513
1,1-Dichloroethane	20			73-144		511
trans-1,2-Dichloroethene	20	21	<2	64-151	105%	514
Chloroform	20			68-142		509
1,2-Dichloroethane	20			54-155		512
1,1,1-Trichloroethane	20			59-158		525
Carbon tetrachloride	20			39-147		504
Bromodichloromethane	20			47-148		510
1,2-Dichloropropane	20			67-144		515
trans-1,3-Dichloropropene	20			56-141		517
Trichloroethene	20	19	<2	64-130	95%	527
Benzene	20	17	<2	71-142	85%	502
Dibromochloromethane	20			29-155		506
1,1,2-Trichloroethane	20			61-146		526
cis-1,3-Dichloropropene	20			46-149		516
2-Chloroethyl vinyl ether	20			7-183		508
Bromoform	20			10-149		503
Tetrachloroethene	20	18	<2	50-160	90%	523
1,1,2,2-Tetrachloroethane	20			44-163		522
Toluene	20	20	<2	73-130	100%	524
Chlorobenzene	20			72-131		505
Ethyl benzene	20	20	<2	62-139	100%	518
1,3-Dichlorobenzene	26			60-161		530
1,2-Dichlorobenzene	26			45-157		529
1,4-Dichlorobenzene	20			36-174		531
Diethyl Benzene	44	ae 44		71-137		533
Ethyl Ether	35			62-160		532
Xylenes	44	44	<2	72-130	100%	534
MEK	20			63-179		536

CHAIN-OF-CUSTODY RECORD

DATE Event Number	Time (24 hr.)	Container ID	Sampler ID	Location Description	Sample Type	ANALYSES REQUIRED	Total # of Cont.	Note #	
10-5-99		MW-11			GW				SEE NOTE ↓ ↓ ↓ ↓
10-6-99		MW-12			GW				
10-6-99		MW-10			GW				
10-6-99		MW-9			GW				
10-6-99		MW-13			GW				
TOTAL NUMBER OF CONTAINERS									

NOTES: I will fax the Test Parameters for the samples tonight.

- Cooler contains Nitrate samples with a 48HR hold time
- Sample VOC for both Tran and CIS DCE.
- Upon receiving this C.O.C. please fax a copy to us at 716-685-3629.

GZA FILE NO. 55309.2 PO. NO. _____

PROJECT DELPHI

LOCATION LOCKPORT, NY

COLLECTOR Chris Brown / Lisa Visco

DATE OF COLLECTION 10-5-99 / 10-6-99 SHEET 1 OF 1

RELINQUISHED BY: (Signature) [Signature] DATE/TIME 10-6-99 15:07 RECEIVED BY: (Signature) Bill Sklar

RELINQUISHED BY: (Signature) Bill Sklar DATE/TIME 10-6-99 18:00 RECEIVED BY: (Signature) [Signature]

RELINQUISHED BY: (Signature) [Signature] DATE/TIME 10-6-99 RECEIVED BY: (Signature) _____

RELINQUISHED BY: (Signature) [Signature] DATE/TIME 10-29-99 9:45 RECEIVED BY: (Signature) _____

RELINQUISHED BY: (Signature) _____ DATE/TIME _____ RECEIVED BY: (Signature) _____

ANALYTICAL LABORATORY: Freeze-Col

LABORATORY CONTACT: _____

GZA CONTACT: Gary Klawinski

GZA GEOENVIRONMENTAL OF NEW YORK
 364 Nagel Drive
 BUFFALO, NY 14225
 (716) 685-2300

DELPHI HARRISON THERMAL SYSTEMS
GENERAL MOTORS CORPORATION

GROUNDWATER SAMPLES

DAY 2

MW-4, MW-8, MW-6,
MW-3S, MW-7, TK-2

10/06-07/99

P.O.# ACARD

Report reviewed and approved by:



John Paraska
Quality Assurance Supervisor

FREE-COL LABORATORIES, LTD.

P.O. BOX 557, 11618 COTTON ROAD
 MEADVILLE, PENNSYLVANIA 16335
 PHONE: (814) 724-6242
 FAX: (814) 333-1466
 EMAIL: freecol@toolcity.net

10/29/99

TO:

DELPHI HARRISON THRM.SYS
 ATTN: MS. CATHERINE VER
 200 UPPER MOUNTAIN RD.
 LOCKPORT NY 14094

P.O. # ACARD

ACCOUNT NO. 01220

ANALYTICAL REPORT FORM

PAGE 1

PARAMETER	LAB ID	MW-4	MW-8	MW-6	MW-3S
	DATE RECEIVED:	10/07/99	10/07/99	10/07/99	10/07/99
PERCHLOROETHYLENE	MG/L	<0.05 D	0.011	44	<0.02 D
1,2-DICHLOROETHENE	MG/L	100	2.8	14	270
VINYL CHLORIDE	MG/L	14	0.18	1.6	2.9
TRANS-1,2-DICHLOROE*	MG/L	0.14	0.002	<0.05 D	0.09
METHANE	MG/L	4.2	0.04	0.34	0.007
ACID DIGESTION PREP		COMPLETE	COMPLETE	COMPLETE	COMPLETE
BENZENE	MG/L	<0.05 D	<0.002 D	<0.05 D	1.9
TOLUENE	MG/L	<0.05 D	<0.002 D	<0.05 D	1.5
ETHYLBENZENE	MG/L	<0.05 D	<0.002 D	<0.05 D	1.5
XYLENE	MG/L	<0.05 D	<0.002 D	<0.05 D	2.1
T.O.C.	MG/L	47	19	30	51
ALKALINITY	MG/L	360	280	260	480
NH3-N DISTILLED	MG/L	1.03	0.33	0.32	0.16
CHLORIDE	MG/L	1,010	144	476	233
NO2-NO3-N	MG/L	0.08	0.10	0.09	0.07

*TRANS-1,2-DICHLOROETHENE

Please reference the following page(s) for date and analyst.

IA. Accreditation No. 98
 U.S. Public Health Services Approved Facility
 P. D.E.R. Laboratory I.D. No. 20-073
 PA Dept. of Agriculture Approved Dairy Laboratory
 NY Dept. of Health Laboratory I.D. No. 10552

NY Dept. of Env. Conservation Approved Facility
 ND Dept. of Health Cert. No. R-083
 MD Dept. of Health Cert. No. 130
 VA Dept. of Health Laboratory I.D. No. 00145
 WV Dept. of Health Certification No. 9907C

U.S. Office of Surface Mining Approved Facility
 Ohio Dept. of Health Approved Environmental
 Lead Laboratory No. 10016

FREE-COL LABORATORIES, LTD.

P.O. BOX 557, 11618 COTTON ROAD
 MEADVILLE, PENNSYLVANIA 16335
 PHONE: (814) 724-6242
 FAX: (814) 333-1466
 EMAIL: freecol@toolcity.net

10/29/99

TO:

DELPHI HARRISON THRM.SYS
 ATTN: MS. CATHERINE VER
 200 UPPER MOUNTAIN RD.
 LOCKPORT NY 14094

P.O. # ACARD

ACCOUNT NO. 01220

ANALYTICAL REPORT FORM

PAGE 2

PARAMETER	SAMPLE ID	MW-4	MW-8	MW-6	MW-3S
		10/07/99	10/07/99	10/07/99	10/07/99
	LAB ID	91007415	91007416	91007417	91007418
	DATE RECEIVED:	10/07/99	10/07/99	10/07/99	10/07/99

SULFATE MG/L	110	570	140	14
SULFIDE MG/L	0.3	0.3	0.4	0.3
CIS-1,2-DICHLOROETH* MG/L	100	2.8	14	270
TRICHLOROETHYLENE MG/L	20	0.20	19	0.04

*CIS-1,2-DICHLOROETHENE

Please reference the following page(s) for date and analyst.

Accreditation No. 98
 Public Health Services Approved Facility
 E.R. Laboratory I.D. No. 20-073
 Dept. of Agriculture Approved Dairy Laboratory
 NY Dept. of Health Laboratory I.D. No. 10552

NY Dept. of Env. Conservation Approved Facility
 ND Dept. of Health Cert. No. R-083
 MD Dept. of Health Cert. No. 130
 VA Dept. of Health Laboratory I.D. No. 00145
 WV Dept. of Health Certification No. 9907C

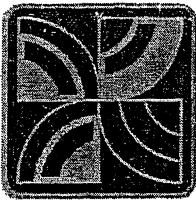
U.S. Office of Surface Mining Approved Facility
 Ohio Dept. of Health Approved Environmental
 Lead Laboratory No. 10016

KEY:

<=LESS THAN

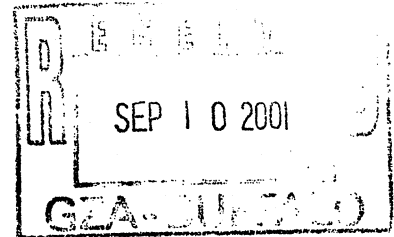
>=GREATER THAN

w.f.=WILL FOLLOW



FREE-COL LABORATORIES

P.O. BOX 557
MEADVILLE, PENNSYLVANIA 16335
PHONE: (814) 724-6242
FAX: (814) 333-1466
EMAIL: service@free-col.com



Certificate Of Analysis

Delivery Group ID: 2001:0008445

6 Sample(s) are included in this Delivery Group.

Company Name: Delphi Automotive Systems
Contact Name: Mr. Greg Kulka
Delphi Harrison Thermal System
200 Upper Mountain Road
Lockport, NY 14094-1896

Date Received 8/8/01
Time Received: 19:45
Delivered By: Field Services

ACARD

Project Name: Delphi FRI/FFS 55039.2

Printed on 09/04/2001 at 04:28PM

Sample ID: 2001:0008445-1 Client's Sample ID: MW-13 Grab
Date Sampled: 8/8/01 Time Sampled: 09:45 Date Received: 8/8/01

Analyte	Result	Units Analyzed	Date	Start Time	Analyst	Method Source
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Prep Group

Prep: 3005A Met Total Rec			08/16/01	08:00	Davis	SW-846 3005A
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Organics

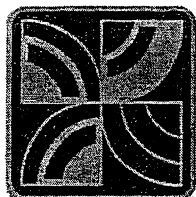
trans-1,2-Dichloroethylene	<0.002	mg/L	08/15/01	21:08	Henry	SW-846 8260B
cis-1,2-Dichloroethylene	<0.002	mg/L	08/15/01	21:08	Henry	SW-846 8260B
Methane	0.08	mg/L	08/16/01	08:29	Williams	SW-846 8015B Mod
Tetrachloroethylene	<0.002	mg/L	08/15/01	21:08	Henry	SW-846 8260B
Trichloroethylene	<0.002	mg/L	08/15/01	21:08	Henry	SW-846 8260B
Vinyl chloride	<0.002	mg/L	08/15/01	21:08	Henry	SW-846 8260B

Metals

Calcium (Ca)	209	mg/L	08/17/01	14:30	Kozakovsky	SW-846 6010B
Iron (Fe)	2.59	mg/L	08/17/01	08:00	Prutzman	SW-846 6010B
Magnesium (Mg)	49.6	mg/L	08/17/01	14:30	Kozakovsky	SW-846 6010B
Manganese (Mn)	2.67	mg/L	08/17/01	08:00	Prutzman	SW-846 6010B
Potassium (K)	12.1	mg/L	08/31/01	09:30	Kozakovsky	SW-846 6010B
Sodium (Na)	1200	mg/L	08/17/01	14:30	Kozakovsky	SW-846 6010B

General Chemistry

Alkalinity (as CaCO3)	255	mg/L	08/13/01	09:20	Hayes	SM 2320 B
Total Organic Carbon	15.2	mg/L	08/13/01	15:00	Pearson	SW-846 9060
Fluoride	1900	mg/L	08/13/01	12:00	Hayes	EPA 325.3
Nitrogen, Ammonia	1.45	mg/L	08/15/01	08:00	Hayes	EPA 350.2
Nitrogen, Nitrate	0.05	mg/L	08/08/01	14:30	Pearson	EPA 353.2
Nitrogen, Nitrite	<0.05	mg/L	08/08/01	14:30	Pearson	EPA 353.2
Sulfate	160	mg/L	08/15/01	17:00	Hopkins	SW-846 9038
Sulfide, Direct	<0.1	mg/L	08/10/01	10:00	Hayes	EPA 376.1



FREE-COL LABORATORIES

P.O. BOX 557
MEADVILLE, PENNSYLVANIA 16335
PHONE: (814) 724-6242
FAX: (814) 333-1466
EMAIL: service@free-col.com

Certificate Of Analysis

Delivery Group ID: 2001:0008445

6 Sample(s) are included in this Delivery Group.

Company Name: Delphi Automotive Systems
Contact Name: Mr. Greg Kulka
Delphi Harrison Thermal System
200 Upper Mountain Road
Lockport, NY 14094-1896

Date Received 8/8/01
Time Received: 19:45
Delivered By: Field Services

ACARD

Project Name: Delphi FRI/FFS 55039.2

Printed on 09/04/2001 at 04:28PM

Sample ID: 2001:0008445-2 Client's Sample ID: MW-15 Grab
Date Sampled: 8/8/01 Time Sampled: 11:40 Date Received: 8/8/01

Analyte	Result	Units Analyzed	Date	Start Time	Analyst	Method Source
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Prep Group

Rep: 3005A Met Total Rec			08/16/01	08:00	Davis	SW-846 3005A
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Organics

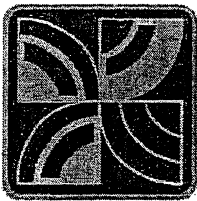
trans-1,2-Dichloroethylene	<0.002	mg/L	08/15/01	21:08	Henry	SW-846 8260B
cis-1,2-Dichloroethylene	<0.002	mg/L	08/15/01	21:08	Henry	SW-846 8260B
Methane	<0.002	mg/L	08/16/01	08:29	Williams	SW-846 8015B Mod
tetrachloroethylene	0.013	mg/L	08/15/01	21:08	Henry	SW-846 8260B
trichloroethylene	<0.002	mg/L	08/15/01	21:08	Henry	SW-846 8260B
Vinyl chloride	<0.002	mg/L	08/15/01	21:08	Henry	SW-846 8260B

Metals

Calcium (Ca)	281	mg/L	08/17/01	14:30	Kozakovsky	SW-846 6010B
Iron (Fe)	2.33	mg/L	08/17/01	08:00	Prutzman	SW-846 6010B
Magnesium (Mg)	70.4	mg/L	08/17/01	14:30	Kozakovsky	SW-846 6010B
Manganese (Mn)	0.46	mg/L	08/17/01	08:00	Prutzman	SW-846 6010B
Potassium (K)	4.9	mg/L	08/31/01	09:30	Kozakovsky	SW-846 6010B
Sodium (Na)	204	mg/L	08/17/01	14:30	Kozakovsky	SW-846 6010B

General Chemistry

Alkalinity (as CaCO3)	410	mg/L	08/13/01	09:20	Hayes	SM 2320 B
Total Organic Carbon	11.7	mg/L	08/10/01	15:30	Pearson	SW-846 9060
Chloride	600	mg/L	08/13/01	12:00	Hayes	EPA 325.3
Nitrogen, Ammonia	0.08	mg/L	08/15/01	08:00	Hayes	EPA 350.2
Nitrogen, Nitrate	1.34	mg/L	08/08/01	14:30	Pearson	EPA 353.2
Nitrogen, Nitrite	<0.05	mg/L	08/08/01	14:30	Pearson	EPA 353.2
Sulfate	160	mg/L	08/15/01	17:00	Hopkins	SW-846 9038
Sulfide, Direct	0.1	mg/L	08/10/01	10:00	Hayes	EPA 376.1



FREE-COL LABORATORIES

P.O. BOX 557
MEADVILLE, PENNSYLVANIA 16335
PHONE: (814) 724-6242
FAX: (814) 333-1466
EMAIL: service@free-col.com

Certificate Of Analysis

Delivery Group ID: 2001:0008445

6 Sample(s) are included in this Delivery Group.

Company Name: Delphi Automotive Systems
Contact Name: Mr. Greg Kulka
Delphi Harrison Thermal System
200 Upper Mountain Road
Lockport, NY 14094-1896

Date Received 8/8/01
Time Received: 19:45
Delivered By: Field Services

ACARD

Project Name: Delphi FRI/FFS 55039.2

Printed on 09/04/2001 at 04:28PM

Sample ID: 2001:0008445-3 Client's Sample ID: MW-11 Grab
Date Sampled: 8/8/01 Time Sampled: 14:55 Date Received: 8/8/01

Analyte	Result	Units Analyzed	Date	Start Time	Analyst	Method Source
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Prep Group

Sample: 3005A Met Total Rec			08/16/01	08:00	Davis	SW-846 3005A
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Organics

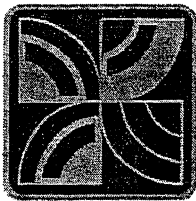
trans-1,2-Dichloroethylene	0.009	mg/L	08/15/01	21:08	Henry	SW-846 8260B
cis-1,2-Dichloroethylene	<0.002	mg/L	08/15/01	21:08	Henry	SW-846 8260B
Methane	<0.002	mg/L	08/16/01	08:29	Williams	SW-846 8015B Mod
tetrachloroethylene	<0.002	mg/L	08/15/01	21:08	Henry	SW-846 8260B
trichloroethylene	<0.002	mg/L	08/15/01	21:08	Henry	SW-846 8260B
Vinyl chloride	0.008	mg/L	08/15/01	21:08	Henry	SW-846 8260B

Metals

Calcium (Ca)	111	mg/L	08/17/01	14:30	Kozakovsky	SW-846 6010B
Iron (Fe)	0.14	mg/L	08/17/01	08:00	Prutzman	SW-846 6010B
Magnesium (Mg)	43.2	mg/L	08/17/01	14:30	Kozakovsky	SW-846 6010B
Manganese (Mn)	0.12	mg/L	08/17/01	08:00	Prutzman	SW-846 6010B
Potassium (K)	8.0	mg/L	08/31/01	09:30	Kozakovsky	SW-846 6010B
Sodium (Na)	130	mg/L	08/17/01	14:30	Kozakovsky	SW-846 6010B

General Chemistry

Alkalinity (as CaCO3)	285	mg/L	08/13/01	09:20	Hayes	SM 2320 B
Total Organic Carbon	12.0	mg/L	08/10/01	15:30	Pearson	SW-846 9060
Chloride	250	mg/L	08/13/01	12:00	Hayes	EPA 325.3
Nitrogen, Ammonia	0.46	mg/L	08/15/01	08:00	Hayes	EPA 350.2
Nitrogen, Nitrate	<0.05	mg/L	08/08/01	14:30	Pearson	EPA 353.2
Nitrogen, Nitrite	<0.05	mg/L	08/08/01	14:30	Pearson	EPA 353.2
Sulfate	140	mg/L	08/15/01	17:00	Hopkins	SW-846 9038
Sulfide, Direct	0.1	mg/L	08/10/01	10:00	Hayes	EPA 376.1



FREE-COL LABORATORIES

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PHONE: (814) 724-6242
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EMAIL: service@free-col.com

Certificate Of Analysis

Delivery Group ID: 2001:0008445

6 Sample(s) are included in this Delivery Group.

Company Name: Delphi Automotive Systems
Contact Name: Mr. Greg Kulka
Delphi Harrison Thermal System
200 Upper Mountain Road
Lockport, NY 14094-1896

Date Received 8/8/01
Time Received: 19:45
Delivered By: Field Services

ACARD

Project Name: Delphi FRI/FFS 55039.2

Printed on 09/04/2001 at 04:28PM

Sample ID: 2001:0008445-4 Client's Sample ID: MW-12 Grab
Date Sampled: 8/8/01 Time Sampled: 16:00 Date Received: 8/8/01

Analyte	Result	Units Analyzed	Date	Start Time	Analyst	Method Source
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Prep Group

Sample: 3005A Met Total Rec			08/16/01	08:00	Davis	SW-846 3005A
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Organics

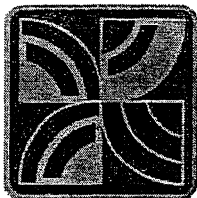
trans-1,2-Dichloroethylene	0.14	mg/L	08/15/01	21:08	Henry	SW-846 8260B
cis-1,2-Dichloroethylene	<0.002	mg/L	08/15/01	21:08	Henry	SW-846 8260B
Methane	0.50	mg/L	08/16/01	08:29	Williams	SW-846 8015B Mod
tetrachloroethylene	<0.002	mg/L	08/15/01	21:08	Henry	SW-846 8260B
trichloroethylene	<0.002	mg/L	08/15/01	21:08	Henry	SW-846 8260B
Vinyl chloride	0.13	mg/L	08/15/01	21:08	Henry	SW-846 8260B

Metals

Calcium (Ca)	217	mg/L	08/17/01	14:30	Kozakovsky	SW-846 6010B
Iron (Fe)	16.9	mg/L	08/17/01	08:00	Prutzman	SW-846 6010B
Magnesium (Mg)	57.5	mg/L	08/17/01	14:30	Kozakovsky	SW-846 6010B
Manganese (Mn)	8.41	mg/L	08/17/01	08:00	Prutzman	SW-846 6010B
Potassium (K)	6.3	mg/L	08/31/01	09:30	Kozakovsky	SW-846 6010B
Sodium (Na)	427	mg/L	08/17/01	14:30	Kozakovsky	SW-846 6010B

General Chemistry

Alkalinity (as CaCO3)	336	mg/L	08/13/01	09:20	Hayes	SM 2320 B
Total Organic Carbon	13.9	mg/L	08/10/01	15:30	Pearson	SW-846 9060
Chloride	920	mg/L	08/13/01	12:00	Hayes	EPA 325.3
Nitrogen, Ammonia	1.77	mg/L	08/15/01	08:00	Hayes	EPA 350.2
Nitrogen, Nitrate	<0.05	mg/L	08/08/01	14:30	Pearson	EPA 353.2
Nitrogen, Nitrite	<0.05	mg/L	08/08/01	14:30	Pearson	EPA 353.2
Sulfate	160	mg/L	08/15/01	17:00	Hopkins	SW-846 9038
Sulfide, Direct	<0.1	mg/L	08/10/01	10:00	Hayes	EPA 376.1



FREE-COL LABORATORIES

P.O. BOX 557
MEADVILLE, PENNSYLVANIA 16335
PHONE: (814) 724-6242
FAX: (814) 333-1466
EMAIL: service@free-col.com

Certificate Of Analysis

Delivery Group ID: 2001:0008445

6 Sample(s) are included in this Delivery Group.

Company Name: Delphi Automotive Systems
Contact Name: Mr. Greg Kulka
Delphi Harrison Thermal System
200 Upper Mountain Road
Lockport, NY 14094-1896

Date Received 8/8/01
Time Received: 19:45
Delivered By: Field Services

ACARD

Project Name: Delphi FRI/FFS 55039.2

Printed on 09/04/2001 at 04:28PM

Sample ID: 2001:0008445-5 Client's Sample ID: MW-Dup Grab
Date Sampled: 8/8/01 Time Sampled: 12:00 Date Received: 8/8/01

Analyte	Result	Units Analyzed	Date	Start Time	Analyst	Method Source
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Prep Group

ep: 3005A Met Total Rec			08/16/01	08:00	Davis	SW-846 3005A
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Organics

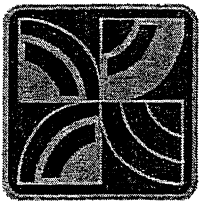
1,2-Dichloroethylene	0.13	mg/L	08/15/01	21:08	Henry	SW-846 8260B
trans-1,2-Dichloroethylene	<0.002	mg/L	08/15/01	21:08	Henry	SW-846 8260B
Methane	0.74	mg/L	08/16/01	08:29	Williams	SW-846 8015B Mod
tetrachloroethylene	<0.002	mg/L	08/15/01	21:08	Henry	SW-846 8260B
trichloroethylene	<0.002	mg/L	08/15/01	21:08	Henry	SW-846 8260B
Vinyl chloride	0.12	mg/L	08/15/01	21:08	Henry	SW-846 8260B

Metals

Calcium (Ca)	217	mg/L	08/17/01	14:30	Kozakovsky	SW-846 6010B
Iron (Fe)	14.8	mg/L	08/17/01	08:00	Prutzman	SW-846 6010B
Magnesium (Mg)	56.2	mg/L	08/17/01	14:30	Kozakovsky	SW-846 6010B
Manganese (Mn)	8.14	mg/L	08/17/01	08:00	Prutzman	SW-846 6010B
Potassium (K)	6.0	mg/L	08/31/01	09:30	Kozakovsky	SW-846 6010B
Sodium (Na)	433	mg/L	08/17/01	14:30	Kozakovsky	SW-846 6010B

General Chemistry

Alkalinity (as CaCO3)	338	mg/L	08/13/01	09:20	Hayes	SM 2320 B
Total Organic Carbon	14.9	mg/L	08/10/01	15:30	Pearson	SW-846 9060
Chloride	930	mg/L	08/13/01	12:00	Hayes	EPA 325.3
Nitrogen, Ammonia	1.85	mg/L	08/15/01	08:00	Hayes	EPA 350.2
Nitrogen, Nitrate	<0.05	mg/L	08/08/01	14:30	Pearson	EPA 353.2
Nitrogen, Nitrite	<0.05	mg/L	08/08/01	14:30	Pearson	EPA 353.2
Sulfate	160	mg/L	08/15/01	17:00	Hopkins	SW-846 9038
Sulfide, Direct	<0.1	mg/L	08/10/01	10:00	Hayes	EPA 376.1



FREE-COL LABORATORIES

P.O. BOX 557
MEADVILLE, PENNSYLVANIA 16335
PHONE: (814) 724-6242
FAX: (814) 333-1466
EMAIL: service@free-col.com

Certificate Of Analysis

Delivery Group ID: 2001:0008445

6 Sample(s) are included in this Delivery Group.

Company Name: Delphi Automotive Systems
Contact Name: Mr. Greg Kulka
Delphi Harrison Thermal System
200 Upper Mountain Road
Lockport, NY 14094-1896

Date Received 8/8/01
Time Received: 19:45
Delivered By: Field Services

ACARD

Project Name: Delphi FRI/FFS 55039.2

Printed on 09/04/2001 at 04:28PM

Sample ID: 2001:0008445-6 Client's Sample ID: Trip Blank
Date Sampled: 8/8/01 Time Sampled: Date Received: 8/8/01

Analyte Result Units Analyzed Date Start Analyst Method Source
Time

Organics

cis-1,2-Dichloroethylene	<0.002	mg/L	08/15/01	21:08	Henry	SW-846 8260B
trans-1,2-Dichloroethylene	<0.002	mg/L	08/15/01	21:08	Henry	SW-846 8260B
Tetrachloroethylene	<0.002	mg/L	08/15/01	21:08	Henry	SW-846 8260B
Trichloroethylene	<0.002	mg/L	08/15/01	21:08	Henry	SW-846 8260B
Methylene chloride	<0.002	mg/L	08/15/01	21:08	Henry	SW-846 8260B

PC: GZA

Supplemental Revision on 09/04/01 to Report 2001:0008445 printed on 08/24/01.

John R. Paraska
QUALITY ASSURANCE SUPERVISOR

QUALITY CONTROL DATA I

PARAMETER: Potassium ICP ANALYST: Kozakowsky DATE: 8-31-01

CALIBRATION CHECK Units: mg/L

<u>Target</u>	<u>Acceptance Limits</u>				
<u>5.00</u>	<u>4.75 to 5.25</u>				
<u>25.00</u>	<u>23.8 to 26.2</u>	<u>25.5</u>	<u>24.4</u>	<u>24.0</u>	<u>24.1</u> , <u>24.4</u>

LABORATORY CONTROL SAMPLE

Units: mg/L
 Assayed Value: 25.8, 25.9

PW, WW 25.0 23.8 to 26.2
 GW/MW, SW 25.0 22.5 to 27.5

Date Prepped: _____
 Date Prepped: 8-20-01, 8-28-01

DUPLICATE/REPEAT CONTROL

AD = Absolute Difference RPD = Relative Percent Difference

Units: mg/L
 Acceptable AD: 0.4 Acceptable RPD: 21.3 %

Sample I.D.	Sample Result	Repeat Result	AD	RPD
<u>201-8957-1</u>	<u>1.5</u>	<u>1.6</u>	<u>0.1</u>	<u>—</u> %
<u>201-9378-4</u>	<u>0.8</u>	<u>0.7</u>	<u>0.1</u>	<u>—</u> %
<u>201-9028-1 (2x01)</u>	<u>2.0</u>	<u>2.0</u>	<u>0.0</u>	<u>—</u> %
<u>201-8897-1</u>	<u>0.7</u>	<u>0.9</u>	<u>0.2</u>	<u>—</u> %

SPIKE CONTROL Units: mg/L

Acceptable Limits for Percent Recovery: 85 % to 115 %

Sample I.D.	Spike Added	Spike Result	Sample Result	% Recovery
<u>201-8957-2</u>	<u>19.1</u>	<u>21.1</u>	<u>1.21</u>	<u>104</u>
<u>201-9378-5</u>	<u>19.1</u>	<u>20.2</u>	<u>0.689</u>	<u>102</u>
<u>201-9028-1 (2x01)</u>	<u>19.1</u>	<u>20.8</u>	<u>2.01</u>	<u>98</u>

BLANK

Units: mg/L

Results: 0.045, 0.032, -0.010, -0.113, -0.115

Method Blank: 0.2, 0.2

Date Prepped: 8-20-01, 8-28-01

REPORTING LIMIT

Units: mg/L

Limit Value: 0.2

Assayed Value: 0.172

FREE-COL LABORATORIES
 A Division of Modern Industries, Inc.
 P.O. BOX 557, 11618 COTTON ROAD
 MEADVILLE, PA 16335
 (814) 724-6242
 LIMITS IN EFFECT AS OF OCTOBER 9, 2000

CHAIN OF CUSTODY RECORD
 COMPANY: GZA GeoEnvironmental
 CONTACT: Gary Krawinski
 ADDRESS: 31A Page Drive
 CITY: Buffalo NY
 STATE: NY
 PHONE: 716 685 2300
 ZIP CODE: 14225
 FAX: 716 685 3629

11618 COTTON ROAD
 MEADVILLE, PA
 814 724-6044
 814 333-1466
 Website: www.free-col.com

PROJECT NAME: Delphi FRIFFS SSOE1
 SAMPLE NAME: Chris Baron 8/8/01
 ANALYSIS DATE: 8/8/01

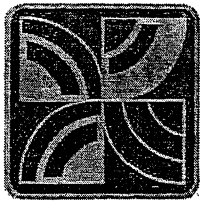
DRINKING WATER:
 PWSID #: 16335-0557
 Location: Delphi Friffs SSOE1
 Entry Point #: Chris Baron 8/8/01
 Sampling Frequency (Circle One):
 Quarterly/Monthly/Annual
 Check Sampler: Yes / No

ANALYSIS REQUESTED/COMMENTS (If composite, please use inclusive dates and times):
TOC, Alkalinity, Ammonia Chloride, Nitrate, Nitrite, Sulfate, Sulfide, Methane, Total Metals, ND
See MW-13
See MW-13
See MW-13
See MW-13
8860

DATE	TIME	SAMPLE IDENTIFICATION	FOR FREE-COL USE ONLY	DATE RELINQUISHED
8/8/01	945	MW-13	GA	8/8/01
8/8/01	1140	MW-15	GA	8/8/01
8/8/01	1455	MW-11	GA	8/8/01
8/8/01	1600	MW-12	GA	8/27/07
8/8/01	1700	MW-DUP	GA	8/8/01
		T.B.		

DATE RECEIVED	SAMPLE IDENTIFICATION	SIGNATURE	ORGANIZATION
8/8/01		<i>[Signature]</i>	GZA
8/8/01		<i>[Signature]</i>	F.C.C.
8/8/01		<i>[Signature]</i>	PLC
8/8/01		<i>[Signature]</i>	FEA

10 ml 12 vial 5706 586666 per 2007 SPH 50000



FREE-COL LABORATORIES

P.O. BOX 557
MEADVILLE, PENNSYLVANIA 16335
PHONE: (814) 724-6242
FAX: (814) 333-1466
EMAIL: service@free-col.com

Certificate Of Analysis

Delivery Group ID: 2001:0008515

4 Sample(s) are included in this Delivery Group.

Company Name: Delphi Automotive Systems
Contact Name: Mr. Greg Kulka
Delphi Harrison Thermal System
200 Upper Mountain Road
Lockport, NY 14094-1896

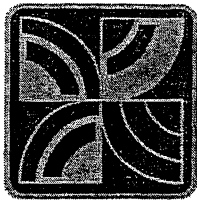
Date Received 8/9/01
Time Received: 16:40
Delivered By: Field Services

ACARD

Printed on 09/04/2001 at 04:34PM

Sample ID: 2001:0008515-1 Client's Sample ID: MW-10 Grab
Date Sampled: 8/9/01 Time Sampled: 09:55 Date Received: 8/9/01

Analyte	Result	Units Analyzed	Date	Start Time	Analyst	Method Source
Prep Group						
Rep: 3005A Met Total Rec			08/16/01	08:00	Davis	SW-846 3005A
filtration of Sample	Completed		08/17/01	08:00	Davis	In House
Organics						
trans-1,2-Dichloroethylene	0.51	mg/L	08/15/01	18:14	Henry	SW-846 8260B
trans-1,2-Dichloroethylene	0.004	mg/L	08/15/01	18:14	Henry	SW-846 8260B
Methane	0.018	mg/L	08/16/01	08:29	Williams	SW-846 8015B Mod
tetrachloroethylene	0.21	mg/L	08/15/01	18:14	Henry	SW-846 8260B
Trichloroethylene	0.21	mg/L	08/15/01	18:14	Henry	SW-846 8260B
Vinyl chloride	0.057	mg/L	08/15/01	18:14	Henry	SW-846 8260B
Metals						
Calcium (Ca)	330	mg/L	08/17/01	14:30	Kozakovsky	SW-846 6010B
Iron (Fe)	0.14	mg/L	08/17/01	08:00	Prutzman	SW-846 6010B
Magnesium (Mg)	98.9	mg/L	08/17/01	14:30	Kozakovsky	SW-846 6010B
Manganese (Mn)	1.66	mg/L	08/17/01	08:00	Prutzman	SW-846 6010B
Potassium (K)	9.2	mg/L	08/31/01	09:30	Kozakovsky	SW-846 6010B
Sodium (Na)	857	mg/L	08/17/01	14:30	Kozakovsky	SW-846 6010B
General Chemistry						
Alkalinity (as CaCO3)	334	mg/L	08/14/01	09:46	Hayes	SM 2320 B
Total Organic Carbon	10.0	mg/L	08/21/01	15:30	Pearson	SW-846 9060
Chloride	1700	mg/L	08/13/01	12:00	Hayes	EPA 325.3
Nitrogen, Ammonia	0.16	mg/L	08/15/01	08:00	Hayes	EPA 350.2
Nitrogen, Nitrate	0.08	mg/L	08/16/01	14:30	Pearson	EPA 353.2
Nitrogen, Nitrite	<0.05	mg/L	08/10/01	22:00	Pearson	EPA 353.2
Sulfate	330	mg/L	08/15/01	17:00	Hopkins	SW-846 9038
Fluoride, Direct	0.1	mg/L	08/15/01	14:00	Hayes	EPA 376.1



FREE-COL LABORATORIES

P.O. BOX 557
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PHONE: (814) 724-6242
FAX: (814) 333-1466
EMAIL: service@free-col.com

Certificate Of Analysis

Delivery Group ID: 2001:0008515

4 Sample(s) are included in this Delivery Group.

Company Name: Delphi Automotive Systems
Contact Name: Mr. Greg Kulka
Delphi Harrison Thermal System
200 Upper Mountain Road
Lockport, NY 14094-1896

Date Received 8/9/01
Time Received: 16:40
Delivered By: Field Services

ACARD

Printed on 09/04/2001 at 04:34PM

Sample ID: 2001:0008515-2 Client's Sample ID: MW-10 Filtrate of DG-8515-1
Date Sampled: 8/9/01 Time Sampled: 09:55 Date Received: 8/9/01

Analyte	Result	Units Analyzed	Date	Start Time	Analyst	Method Source
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Metals

Magnesium (Mg)	99.6	mg/L	08/17/01	14:30	Kozakovsky	SW-846 6010B
Sodium (Na)	845	mg/L	08/17/01	14:30	Kozakovsky	SW-846 6010B

Sample ID: 2001:0008515-3 Client's Sample ID: MW-4 Grab
Date Sampled: 8/9/01 Time Sampled: 13:20 Date Received: 8/9/01

Analyte	Result	Units Analyzed	Date	Start Time	Analyst	Method Source
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Prep Group

Rep: 3005A Met Total Rec			08/16/01	08:00	Davis	SW-846 3005A
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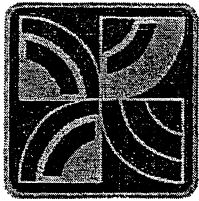
Organics

cis-1,2-Dichloroethylene	93	mg/L	08/15/01	18:14	Henry	SW-846 8260B
trans-1,2-Dichloroethylene	0.28	mg/L	08/15/01	18:14	Henry	SW-846 8260B
Methane	0.12	mg/L	08/16/01	08:29	Williams	SW-846 8015B Mod
tetrachloroethylene	0.003	mg/L	08/15/01	18:14	Henry	SW-846 8260B
trichloroethylene	30	mg/L	08/15/01	18:14	Henry	SW-846 8260B
Vinyl chloride	18	mg/L	08/15/01	18:14	Henry	SW-846 8260B

Metals

Calcium (Ca)	371	mg/L	08/17/01	14:30	Kozakovsky	SW-846 6010B
Iron (Fe)	1.01	mg/L	08/17/01	08:00	Prutzman	SW-846 6010B
Magnesium (Mg)	107	mg/L	08/17/01	14:30	Kozakovsky	SW-846 6010B
Manganese (Mn)	0.54	mg/L	08/17/01	08:00	Prutzman	SW-846 6010B
Potassium (K)	12.7	mg/L	08/31/01	09:30	Kozakovsky	SW-846 6010B
Sodium (Na)	384	mg/L	08/17/01	14:30	Kozakovsky	SW-846 6010B

General Chemistry



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Certificate Of Analysis

Delivery Group ID: 2001:0008515

4 Sample(s) are included in this Delivery Group.

Company Name: Delphi Automotive Systems
Contact Name: Mr. Greg Kulka
Delphi Harrison Thermal System
200 Upper Mountain Road
Lockport, NY 14094-1896

Date Received 8/9/01
Time Received: 16:40
Delivered By: Field Services

ACARD

Printed on 09/04/2001 at 04:34PM

Sample ID: 2001:0008515-3 Client's Sample ID: MW-4 Grab
Date Sampled: 8/9/01 Time Sampled: 13:20 Date Received: 8/9/01

Analyte	Result	Units Analyzed	Date	Start Time	Analyst	Method Source
General Chemistry (Continued)						
Alkalinity (as CaCO ₃)	366	mg/L	08/14/01	09:46	Hayes	SM 2320 B
Total Organic Carbon	20.2	mg/L	08/21/01	15:30	Pearson	SW-846 9060
Chloride	1300	mg/L	08/13/01	12:00	Hayes	EPA 325.3
Nitrogen, Ammonia	1.20	mg/L	08/15/01	08:00	Hayes	EPA 350.2
Nitrogen, Nitrate	0.11	mg/L	08/16/01	14:30	Pearson	EPA 353.2
Nitrogen, Nitrite	<0.05	mg/L	08/10/01	22:00	Pearson	EPA 353.2
Sulfate	190	mg/L	08/15/01	17:00	Hopkins	SW-846 9038
Phosphate, Direct	0.2	mg/L	08/15/01	14:00	Hayes	EPA 376.1

Sample ID: 2001:0008515-4 Client's Sample ID: Trip Blank
Date Sampled: 8/9/01 Time Sampled: Date Received: 8/9/01

Analyte	Result	Units Analyzed	Date	Start Time	Analyst	Method Source
Organics						
1,2-Dichloroethylene	<0.002	mg/L	08/15/01	18:14	Henry	SW-846 8260B
trans-1,2-Dichloroethylene	<0.002	mg/L	08/15/01	18:14	Henry	SW-846 8260B
Tetrachloroethylene	<0.002	mg/L	08/15/01	18:14	Henry	SW-846 8260B
Trichloroethylene	<0.002	mg/L	08/15/01	18:14	Henry	SW-846 8260B
Vinyl chloride	<0.002	mg/L	08/15/01	18:14	Henry	SW-846 8260B
PC: GZA						

Supplemental Revision on 09/04/01 to Report 2001:0008515 printed on 08/26/01.

John R. Paraska
QUALITY ASSURANCE SUPERVISOR

QUALITY CONTROL DATA I

PARAMETER: Potassium ICP

ANALYST: Kozakowsky

DATE: 8-31-01

CALIBRATION CHECK Units: mg/L

Target Acceptance Limits

5.00 4.75 to 5.25
25.00 23.8 to 26.2 25.5 , 24.4 , 24.0 , 24.1 , 24.4

LABORATORY CONTROL SAMPLE Units: mg/L

Target Acceptance Limits

Assayed Value: 25.8 , 25.9 , _____

PW, WW 25.0 23.8 to 26.2

Date Prepped: _____

GW/MW, SW 25.0 22.5 to 27.5

Date Prepped: 8-20-01 , 8-28-01 , _____

DUPLICATE/REPEAT CONTROL

AD = Absolute Difference RPD = Relative Percent Difference

Units: mg/L

Acceptable AD: 0.4

Acceptable RPD: 21.3 %

Sample I.D.	Sample Result	Repeat Result	AD	RPD
<u>2001-8957-1</u>	<u>1.5</u>	<u>1.6</u>	<u>0.1</u>	<u>—</u> %
<u>2001-9378-4</u>	<u>0.8</u>	<u>0.7</u>	<u>0.1</u>	<u>—</u> %
<u>2001-9028-1 (2x dil)</u>	<u>2.0</u>	<u>2.0</u>	<u>0.0</u>	<u>—</u> %
<u>2001-8897-1</u>	<u>0.7</u>	<u>0.9</u>	<u>0.2</u>	<u>—</u> %

SPIKE CONTROL

Units: mg/L

Acceptable Limits for Percent Recovery: 85 % to 115 %

Sample I.D.	Spike Added	Spike Result	Sample Result	% Recovery
<u>2001-8957-2</u>	<u>19.1</u>	<u>21.1</u>	<u>1.21</u>	<u>104</u>
<u>2001-9378-5</u>	<u>19.1</u>	<u>20.2</u>	<u>0.689</u>	<u>102</u>
<u>2001-9028-1 (2x dil)</u>	<u>19.1</u>	<u>20.8</u>	<u>2.01</u>	<u>98</u>

BLANK

Units: mg/L

Results: 0.045 , 0.032 , 0.010 , 0.113 , 0.115

Method Blank: 0.2 , 0.2

Date Prepped: 8-20-01 , 8-28-01

REPORTING LIMIT

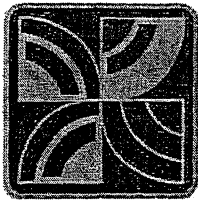
Units: mg/L

Limit Value: 0.2

Assayed Value: 0.172 , _____

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 MEADVILLE, PA 16335
 (814) 724-6242

LIMITS IN EFFECT AS OF OCTOBER 9, 2000



FREE-COL LABORATORIES

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PHONE: (814) 724-6242
FAX: (814) 333-1466
EMAIL: service@free-col.com

Certificate Of Analysis

Delivery Group ID: 2001:0008583

4 Sample(s) are included in this Delivery Group.

Company Name: Delphi Automotive Systems
Contact Name: Mr. Greg Kulka
Delphi Harrison Thermal System
200 Upper Mountain Road
Lockport, NY 14094-1896

Date Received 8/11/01
Time Received: 12:00
Delivered By: Fed Ex

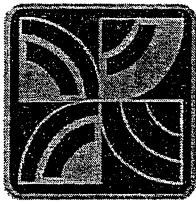
ACARD

Project Name: Delphi FRI/FFS 55039.2

Printed on 09/04/2001 at 04:34PM

Sample ID: 2001:0008583-1 Client's Sample ID: MW-14 Grab
Date Sampled: 8/10/01 Time Sampled: 08:15 Date Received: 8/11/01

Analyte	Result	Units Analyzed	Date	Start Time	Analyst	Method Source
Prep Group						
Rep: 3005A Met Total Rec			08/20/01	08:00	Davis	SW-846 3005A
Organics						
trans-1,2-Dichloroethylene	0.005	mg/L	08/16/01	00:36	Henry	SW-846 8260B
cis-1,2-Dichloroethylene	<0.002	mg/L	08/16/01	00:36	Henry	SW-846 8260B
Methane	<0.002	mg/L	08/18/01	08:00	Williams	SW-846 8015B Mod
tetrachloroethylene	<0.002	mg/L	08/16/01	00:36	Henry	SW-846 8260B
trichloroethylene	<0.002	mg/L	08/16/01	00:36	Henry	SW-846 8260B
Vinyl chloride	<0.002	mg/L	08/16/01	00:36	Henry	SW-846 8260B
Metals						
Calcium (Ca)	144	mg/L	08/21/01	18:30	Kozakovsky	SW-846 6010B
Iron (Fe)	0.18	mg/L	08/22/01	08:00	Prutzman	SW-846 6010B
Magnesium (Mg)	64.1	mg/L	08/21/01	18:30	Kozakovsky	SW-846 6010B
Manganese (Mn)	0.04	mg/L	08/22/01	08:00	Prutzman	SW-846 6010B
Potassium (K)	6.4	mg/L	08/31/01	09:30	Kozakovsky	SW-846 6010B
Sodium (Na)	394	mg/L	08/21/01	18:30	Kozakovsky	SW-846 6010B
General Chemistry						
Alkalinity (as CaCO3)	328	mg/L	08/14/01	09:46	Hayes	SM 2320 B
Total Organic Carbon	14.1	mg/L	08/21/01	15:30	Pearson	SW-846 9060
Chloride	680	mg/L	08/13/01	12:00	Hayes	EPA 325.3
Nitrogen, Ammonia	0.19	mg/L	08/15/01	08:00	Hayes	EPA 350.2
Nitrogen, Nitrate	0.08	mg/L	08/16/01	14:30	Pearson	EPA 353.2
Nitrogen, Nitrite	<0.05	mg/L	08/11/01	12:30	Pearson	EPA 353.2
Sulfate	130	mg/L	08/15/01	17:00	Hopkins	SW-846 9038
Sulfide, Direct	<0.1	mg/L	08/15/01	14:00	Hayes	EPA 376.1



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Certificate Of Analysis

Delivery Group ID: 2001:0008583

4 Sample(s) are included in this Delivery Group.

Company Name: Delphi Automotive Systems
Contact Name: Mr. Greg Kulka
Delphi Harrison Thermal System
200 Upper Mountain Road
Lockport, NY 14094-1896

Date Received 8/11/01
Time Received: 12:00
Delivered By: Fed Ex

ACARD

Project Name: Delphi FRI/FFS 55039.2

Printed on 09/04/2001 at 04:34PM

Sample ID: 2001:0008583-2 Client's Sample ID: MW-3D Grab
Date Sampled: 8/10/01 Time Sampled: 11:10 Date Received: 8/11/01

Analyte	Result	Units Analyzed	Date	Start Time	Analyst	Method Source
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Organics

cis-1,2-Dichloroethylene	<0.002	mg/L	08/16/01	00:36	Henry	SW-846 8260B
trans-1,2-Dichloroethylene	<0.002	mg/L	08/16/01	00:36	Henry	SW-846 8260B
Tetrachloroethylene	<0.002	mg/L	08/16/01	00:36	Henry	SW-846 8260B
Dichloroethylene	<0.002	mg/L	08/16/01	00:36	Henry	SW-846 8260B
Methyl chloride	<0.002	mg/L	08/16/01	00:36	Henry	SW-846 8260B

Sample ID: 2001:0008583-3 Client's Sample ID: MW-3S Grab
Date Sampled: 8/10/01 Time Sampled: 11:15 Date Received: 8/11/01

Analyte	Result	Units Analyzed	Date	Start Time	Analyst	Method Source
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Organics

Volatile Organics (BTEX)

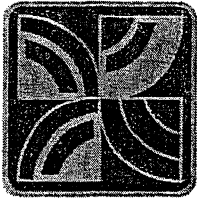
Benzene	1.5	mg/L	08/16/01	00:36	Henry	SW-846 8260B
Toluene	1.1	mg/L	08/16/01	00:36	Henry	SW-846 8260B
Ethylbenzene	1.2	mg/L	08/16/01	00:36	Henry	SW-846 8260B
Xylene	1.5	mg/L	08/16/01	00:36	Henry	SW-846 8260B

Sample ID: 2001:0008583-4 Client's Sample ID: Trip Blank Grab
Date Sampled: 8/10/01 Time Sampled: Date Received: 8/11/01

Analyte	Result	Units Analyzed	Date	Start Time	Analyst	Method Source
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Organics

cis-1,2-Dichloroethylene	<0.002	mg/L	08/16/01	00:36	Henry	SW-846 8260B
trans-1,2-Dichloroethylene	<0.002	mg/L	08/16/01	00:36	Henry	SW-846 8260B



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EMAIL: service@free-col.com

Certificate Of Analysis

Delivery Group ID: 2001:0008583

4 Sample(s) are included in this Delivery Group.

Company Name: Delphi Automotive Systems
Contact Name: Mr. Greg Kulka
Delphi Harrison Thermal System
200 Upper Mountain Road
Lockport, NY 14094-1896

Date Received 8/11/01
Time Received: 12:00
Delivered By: Fed Ex

ACARD

Project Name: Delphi FRI/FFS 55039.2

Printed on 09/04/2001 at 04:34PM

Sample ID:	2001:0008583-4	Client's Sample ID:	Trip Blank Grab			
Date Sampled:	8/10/01	Time Sampled:	Date Received:			
Analyte	Result	Units Analyzed	Date	Start Time	Analyst	Method Source

Organics (Continued)

Trichloroethylene	<0.002	mg/L	08/16/01	00:36	Henry	SW-846 8260B
Trichloroethylene	<0.002	mg/L	08/16/01	00:36	Henry	SW-846 8260B
Vinyl chloride	<0.002	mg/L	08/16/01	00:36	Henry	SW-846 8260B
Volatile Organics (BTEX)						
Benzene	<0.002	mg/L	08/16/01	00:36	Henry	SW-846 8260B
Toluene	<0.002	mg/L	08/16/01	00:36	Henry	SW-846 8260B
o-xylbenzene	<0.002	mg/L	08/16/01	00:36	Henry	SW-846 8260B
p-xylene	<0.002	mg/L	08/16/01	00:36	Henry	SW-846 8260B
PC: GZA						

Supplemental Revision on 09/04/01 to Report 2001:0008583 printed on 08/26/01.

John R. Paraska
QUALITY ASSURANCE SUPERVISOR

QUALITY CONTROL DATA I

PARAMETER: Potassium ICP ANALYST: Kozakowsky DATE: 8-31-01

CALIBRATION CHECK Units: mg/L

Target: 5.00 Acceptance Limits: 4.75 to 5.25
25.00 23.8 to 26.2 25.5, 24.4, 24.0, 24.1, 24.4

LABORATORY CONTROL SAMPLE Units: mg/L

Target: 25.0 Acceptance Limits: 23.8 to 26.2 Assayed Value: 25.8, 25.9
 Date Prepped: _____
 Date Prepped: 8-20-01, 8-28-01

DUPLICATE/REPEAT CONTROL

AD = Absolute Difference RPD = Relative Percent Difference

Units: mg/L
 Acceptable AD: 0.4 Acceptable RPD: 21.3 %

Sample I.D.	Sample Result	Repeat Result	AD	RPD
<u>2001-8957-1</u>	<u>1.5</u>	<u>1.6</u>	<u>0.1</u>	<u>—</u> %
<u>2001-9378-4</u>	<u>0.8</u>	<u>0.7</u>	<u>0.1</u>	<u>—</u> %
<u>2001-9028-1 (2x0.1)</u>	<u>2.0</u>	<u>2.0</u>	<u>0.0</u>	<u>—</u> %
<u>2001-8897-1</u>	<u>0.7</u>	<u>0.9</u>	<u>0.2</u>	<u>—</u> %

SPIKE CONTROL Units: mg/L

Acceptable Limits for Percent Recovery: 85 % to 115 %

Sample I.D.	Spike Added	Spike Result	Sample Result	% Recovery
<u>2001-8957-2</u>	<u>19.1</u>	<u>21.1</u>	<u>1.21</u>	<u>104</u>
<u>2001-9378-5</u>	<u>19.1</u>	<u>20.2</u>	<u>0.689</u>	<u>102</u>
<u>2001-9028-1 (2x0.1)</u>	<u>19.1</u>	<u>20.8</u>	<u>2.01</u>	<u>98</u>

BLANK Units: mg/L

Results: 0.045, 0.032, -0.010, -0.113, -0.115 Method Blank: 0.2, 0.2
 Date Prepped: 8-20-01, 8-28-01

REPORTING LIMIT Units: mg/L

Limit Value: 0.2 Assayed Value: 0.172

FREE-COL LABORATORIES
 A Division of Modern Industries, Inc.
 P.O. BOX 557, 11618 COTTON ROAD
 MEADVILLE, PA 16335
 (814) 724-6242
 LIMITS IN EFFECT AS OF OCTOBER 9, 2000

FRANCIS DRA
 P.O. BOX 557 800 836-4111
 11618 COTTON ROAD 814 724 - 6242
 MEADVILLE, PA 814 333 - 1466 Fax
 16335-0557
 Website: www.free-col.com

PROJECT NAME: NOVAPAK
 SAMPLE NAME: Dipki FZIFFS SS039.7
 SAMPLE DATE: Chris Brown 8/10/01
 SAMPLE RANGE:

CLIENT INFORMATION
 COMPANY: GIZA
 CONTACT: Gary Klawinski
 ADDRESS: 344 Bagel Drive
 CITY: Buffalo
 STATE: NY ZIP CODE: 14225
 PHONE: 605-2300 FAX: 605-3629
 PURCHASE ORDER NUMBER:
 CLIENT #:

DATE	TIME	SAMPLE IDENTIFICATION	FOR FREE-COL USE ONLY	GRAB/COMP	ANALYSIS REQUESTED/COMMENTS (if composite, please use inclusive dates and times.)
8/10/01	815	MW-14	85831	G	Total Alkalinity, Ammonia, Chloride, Nitrate, Nitrite, Sulfate, Methane, Total Metals, Trichloroethene Trichloroethene, Tetrachloroethene, Trans 1,2 Dichloroethene, Cis 1,2 Dichloroethene, Vinyl Chloride
8/10/01	1110	MW-3D		G	Trichloroethene, Tetrachloroethene, Trans 1,2 Dichloroethene, Cis 1,2 Dichloroethene, Vinyl Chloride
8/10/01	1115	MW-3S		G	Benzene, Toluene, Ethylbenzene, Total Xylene

DATE RECEIVED: 8/10/01
 SIGNATURE: Chris Brown
 ORGANIZATION: GIZA
 DATE RELINQUISHED: 8/10/01

DATE RECEIVED: 8/10/01
 SIGNATURE: FED Ex Pick-up
 ORGANIZATION: FED ex Drop off
 DATE RELINQUISHED: 8/10/01

DATE RECEIVED: 8/10/01
 SIGNATURE: [Signature]
 ORGANIZATION: [Signature]
 DATE RELINQUISHED: 8/15/01

14... Ind. Dist. 1 PA ...



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PHONE: (814) 724-6242
FAX: (814) 333-1466
EMAIL: service@free-col.com

RECEIVED

DEC - 3 2001

GZA-BUFFALO

Certificate Of Analysis

Delivery Group ID: 2001:0011963

2 Sample(s) are included in this Delivery Group.

Company Name: Delphi Energy & Engine
Contact Name: Mr. Rick Eisenmen

Date Received 10/30/01
Time Received: 10:00
Delivered By: Fed Ex

P.O. Box 92700
Rochester, NY 14692

P.O. RPB00999

Project Name: 55039.2 Delphi FRI/FFS

Printed on 11/29/2001 at 02:39PM

Sample ID: 2001:0011963-1 Client's Sample ID: MW-13 Grab
Date Sampled: 10/29/01 Time Sampled: 15:30 Date Received: 10/30/01

Analyte	Result	Units Analyzed	Date	Start Time	Analyst	Method Source
Prep Group						
rep: 3005A Met Total Rec			11/01/01	12:30	Davis	SW-846 3005A
Organics						
is-1,2-Dichloroethylene	<0.002	mg/L	11/09/01	13:26	Henry	SW-846 8260B
rans-1,2-Dichloroethylene	<0.002	mg/L	11/09/01	13:26	Henry	SW-846 8260B
Methane	0.07	mg/L	11/01/01	10:55	Williams	SW-846 8015B Mod
tetrachloroethylene	<0.002	mg/L	11/09/01	13:26	Henry	SW-846 8260B
richloroethylene	<0.002	mg/L	11/09/01	13:26	Henry	SW-846 8260B
vinyl chloride	<0.002	mg/L	11/09/01	13:26	Henry	SW-846 8260B
Metals						
Iron (Fe)	3.75	mg/L	11/13/01	08:00	Prutzman	SW-846 6010B
Magnesium (Mg)	40.9	mg/L	11/05/01	17:00	Prutzman	SW-846 6010B
Manganese (Mn)	2.96	mg/L	11/13/01	08:00	Prutzman	SW-846 6010B
Potassium (K)	8.2	mg/L	11/05/01	17:00	Prutzman	SW-846 6010B
Sodium (Na)	1160	mg/L	11/05/01	17:00	Prutzman	SW-846 6010B
General Chemistry						
Alkalinity (as CaCO3)	426	mg/L	11/05/01	13:00	Adsit	SM 2320 B
Total Organic Carbon	9.9	mg/L	11/08/01	14:30	Pearson	SW-846 9060
Chloride	1700	mg/L	11/01/01	14:00	Buttray	EPA 325.3
Nitrogen, Ammonia	1.29	mg/L	11/05/01	14:00	Hayes	EPA 350.2
Nitrogen, Nitrate	0.61	mg/L	10/31/01	13:30	Pearson	EPA 353.2
Nitrogen, Nitrite	0.08	mg/L	10/30/01	21:00	Pearson	EPA 353.2
Sulfate	120	mg/L	11/06/01	13:30	Hayes	SW-846 9038
Sulfide, Direct	2.2	mg/L	11/01/01	14:30	Adsit	EPA 376.1



FREE-COL LABORATORIES

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Certificate Of Analysis

Delivery Group ID: 2001:0011963

2 Sample(s) are included in this Delivery Group.

Company Name: Delphi Energy & Engine
Contact Name: Mr. Rick Eisenmen

Date Received 10/30/01
Time Received: 10:00
Delivered By: Fed Ex

P.O. Box 92700
Rochester, NY 14692

P.O. RPB00999

Project Name: 55039.2 Delphi FRI/FFS

Printed on 11/29/2001 at 02:39PM

Sample ID: 2001:0011963-2 Client's Sample ID: Trip Blank
Date Sampled: 10/29/01 Time Sampled: Date Received: 10/30/01

Analyte	Result	Units Analyzed	Date	Start Time	Analyst	Method Source
<u>Organics</u>						
cis-1,2-Dichloroethylene	<0.002	mg/L	11/09/01	13:26	Henry	SW-846 8260B
trans-1,2-Dichloroethylene	<0.002	mg/L	11/09/01	13:26	Henry	SW-846 8260B
Tetrachloroethylene	<0.002	mg/L	11/09/01	13:26	Henry	SW-846 8260B
Trichloroethylene	<0.002	mg/L	11/09/01	13:26	Henry	SW-846 8260B
Vinyl chloride	<0.002	mg/L	11/09/01	13:26	Henry	SW-846 8260B
PC: GZA						

Supplemental Revision on 11/29/01 to Report 2001:0011963 printed on 11/15/01.

John R. Paraska
QUALITY ASSURANCE SUPERVISOR



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Certificate Of Analysis

Delivery Group ID: 2001:0011989

7 Sample(s) are included in this Delivery Group.

Company Name: Delphi Energy & Engine
Contact Name: Mr. Rick Eisenmen

Date Received 10/30/01
Time Received: 20:00
Delivered By: Field Services

P.O. Box 92700
Rochester, NY 14692

P.O. RPB00999

Project Name: 55039.2 Delphi FRI/FFS

Printed on 11/29/2001 at 02:37PM

Sample ID: 2001:0011989-1 Client's Sample ID: MW-15 Grab
Date Sampled: 10/30/01 Time Sampled: 10:30 Date Received: 10/30/01

analyte	Result	Units Analyzed	Date	Start Time	Analyst	Method Source
Prep Group						
rep: 3005A Met Total Rec			11/01/01	12:30	Davis	SW-846 3005A
Organics						
is-1,2-Dichloroethylene	<0.002	mg/L	11/09/01	14:36	Henry	SW-846 8260B
rans-1,2-Dichloroethylene	<0.002	mg/L	11/09/01	14:36	Henry	SW-846 8260B
Methane	<0.002	mg/L	11/01/01	10:55	Williams	SW-846 8015B Mod
etrachloroethylene	0.018	mg/L	11/09/01	14:36	Henry	SW-846 8260B
richloroethylene	<0.002	mg/L	11/09/01	14:36	Henry	SW-846 8260B
vinyl chloride	<0.002	mg/L	11/09/01	14:36	Henry	SW-846 8260B
Metals						
ron (Fe)	0.02	mg/L	11/13/01	08:00	Prutzman	SW-846 6010B
Magnesium (Mg)	47.5	mg/L	11/05/01	17:00	Prutzman	SW-846 6010B
Manganese (Mn)	0.40	mg/L	11/13/01	08:00	Prutzman	SW-846 6010B
otassium (K)	3.8	mg/L	11/05/01	17:00	Prutzman	SW-846 6010B
odium (Na)	196	mg/L	11/05/01	17:00	Prutzman	SW-846 6010B
General Chemistry						
Alkalinity (as CaCO3)	395	mg/L	11/05/01	13:00	Adsit	SM 2320 B
Total Organic Carbon	4.1	mg/L	11/08/01	14:30	Pearson	SW-846 9060
chloride	410	mg/L	11/01/01	14:00	Buttray	EPA 325.3
nitrogen, Ammonia	0.07	mg/L	11/05/01	14:00	Hayes	EPA 350.2
nitrogen, Nitrate	0.85	mg/L	10/31/01	13:30	Pearson	EPA 353.2
nitrogen, Nitrite	<0.05	mg/L	10/30/01	21:00	Pearson	EPA 353.2
sulfate	110	mg/L	11/06/01	13:30	Hayes	SW-846 9038
sulfide, Direct	1.4	mg/L	11/01/01	14:30	Adsit	EPA 376.1



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Certificate Of Analysis

Delivery Group ID: 2001:0011989

7 Sample(s) are included in this Delivery Group.

Company Name: Delphi Energy & Engine
Contact Name: Mr. Rick Eisenmen

Date Received 10/30/01
Time Received: 20:00
Delivered By: Field Services

P.O. Box 92700
Rochester, NY 14692

P.O. RPB00999

Project Name: 55039.2 Delphi FRI/FFS

Printed on 11/29/2001 at 02:37PM

Sample ID: 2001:0011989-2 Client's Sample ID: MW-11 Grab
Date Sampled: 10/30/01 Time Sampled: 12:15 Date Received: 10/30/01

Analyte	Result	Units Analyzed	Date	Start Time	Analyst	Method Source
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Prep Group

Prep: 3005A Met Total Rec 11/01/01 12:30 Davis SW-846 3005A

Organics

cis-1,2-Dichloroethylene	0.008	mg/L	11/09/01	14:36	Henry	SW-846 8260B
trans-1,2-Dichloroethylene	<0.002	mg/L	11/09/01	14:36	Henry	SW-846 8260B
Methane	<0.002	mg/L	11/01/01	10:55	Williams	SW-846 8015B Mod
tetrachloroethylene	<0.002	mg/L	11/09/01	14:36	Henry	SW-846 8260B
trichloroethylene	<0.002	mg/L	11/09/01	14:36	Henry	SW-846 8260B
Vinyl chloride	0.006	mg/L	11/09/01	14:36	Henry	SW-846 8260B

Metals

Iron (Fe)	0.02	mg/L	11/13/01	08:00	Prutzman	SW-846 6010B
Magnesium (Mg)	38.7	mg/L	11/05/01	17:00	Prutzman	SW-846 6010B
Manganese (Mn)	0.41	mg/L	11/13/01	08:00	Prutzman	SW-846 6010B
Potassium (K)	9.1	mg/L	11/05/01	17:00	Prutzman	SW-846 6010B
Sodium (Na)	120	mg/L	11/05/01	17:00	Prutzman	SW-846 6010B

General Chemistry

Alkalinity (as CaCO3)	265	mg/L	11/05/01	13:00	Adsit	SM 2320 B
Total Organic Carbon	3.1	mg/L	11/08/01	14:30	Pearson	SW-846 9060
Chloride	230	mg/L	11/01/01	14:00	Buttray	EPA 325.3
Nitrogen, Ammonia	0.46	mg/L	11/05/01	14:00	Hayes	EPA 350.2
Nitrogen, Nitrate	<0.05	mg/L	10/31/01	13:30	Pearson	EPA 353.2
Nitrogen, Nitrite	<0.05	mg/L	10/30/01	21:00	Pearson	EPA 353.2
Sulfate	110	mg/L	11/06/01	13:30	Hayes	SW-846 9038
Sulfide, Direct	2.8	mg/L	11/01/01	14:30	Adsit	EPA 376.1



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Certificate Of Analysis

Delivery Group ID: 2001:0011989

7 Sample(s) are included in this Delivery Group.

Company Name: Delphi Energy & Engine
Contact Name: Mr. Rick Eisenmen

Date Received 10/30/01
Time Received: 20:00
Delivered By: Field Services

P.O. Box 92700
Rochester, NY 14692

P.O. RPB00999

Project Name: 55039.2 Delphi FRI/FFS

Printed on 11/29/2001 at 02:37PM

Sample ID: 2001:0011989-3 Client's Sample ID: MW-12 Grab
Date Sampled: 10/30/01 Time Sampled: 13:30 Date Received: 10/30/01

Analyte	Result	Units Analyzed	Date	Start Time	Analyst	Method Source
Prep Group						
rep: 3005A Met Total Rec			11/01/01	12:30	Davis	SW-846 3005A
Organics						
trans-1,2-Dichloroethylene	0.032	mg/L	11/09/01	14:36	Henry	SW-846 8260B
cis-1,2-Dichloroethylene	<0.002	mg/L	11/09/01	14:36	Henry	SW-846 8260B
Methane	0.57	mg/L	11/01/01	10:55	Williams	SW-846 8015B Mod
tetrachloroethylene	<0.002	mg/L	11/09/01	14:36	Henry	SW-846 8260B
trichloroethylene	<0.002	mg/L	11/09/01	14:36	Henry	SW-846 8260B
vinyl chloride	0.011	mg/L	11/09/01	14:36	Henry	SW-846 8260B

Metals						
Iron (Fe)	4.73	mg/L	11/13/01	08:00	Prutzman	SW-846 6010B
Magnesium (Mg)	37.0	mg/L	11/05/01	17:00	Prutzman	SW-846 6010B
Manganese (Mn)	4.69	mg/L	11/13/01	08:00	Prutzman	SW-846 6010B
Potassium (K)	5.0	mg/L	11/05/01	17:00	Prutzman	SW-846 6010B
Sodium (Na)	342	mg/L	11/05/01	17:00	Prutzman	SW-846 6010B

General Chemistry						
Alkalinity (as CaCO3)	309	mg/L	11/05/01	13:00	Adsit	SM 2320 B
Total Organic Carbon	5.7	mg/L	11/08/01	14:30	Pearson	SW-846 9060
Chloride	590	mg/L	11/01/01	14:00	Buttray	EPA 325.3
Nitrogen, Ammonia	1.35	mg/L	11/05/01	14:00	Hayes	EPA 350.2
Nitrogen, Nitrate	0.18	mg/L	10/31/01	13:30	Pearson	EPA 353.2
Nitrogen, Nitrite	<0.05	mg/L	10/30/01	21:00	Pearson	EPA 353.2
Sulfate	110	mg/L	11/06/01	13:30	Hayes	SW-846 9038
Sulfide, Direct	3.5	mg/L	11/01/01	14:30	Adsit	EPA 376.1



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Certificate Of Analysis

Delivery Group ID: 2001:0011989

7 Sample(s) are included in this Delivery Group.

Company Name: Delphi Energy & Engine
Contact Name: Mr. Rick Eisenmen

Date Received 10/30/01
Time Received: 20:00
Delivered By: Field Services

P.O. Box 92700
Rochester, NY 14692

P.O. RPB00999

Project Name: 55039.2 Delphi FRI/FFS

Printed on 11/29/2001 at 02:37PM

Sample ID: 2001:0011989-4 Client's Sample ID: MW-14 Grab
Date Sampled: 10/30/01 Time Sampled: 14:45 Date Received: 10/30/01

Analyte	Result	Units Analyzed	Date	Start Time	Analyst	Method Source
Prep Group						
rep: 3005A Met Total Rec			11/01/01	12:30	Davis	SW-846 3005A
Organics						
trans-1,2-Dichloroethylene	0.004	mg/L	11/09/01	14:36	Henry	SW-846 8260B
trans-1,2-Dichloroethylene	<0.002	mg/L	11/09/01	14:36	Henry	SW-846 8260B
Methane	0.013	mg/L	11/01/01	10:55	Williams	SW-846 8015B Mod
tetrachloroethylene	<0.002	mg/L	11/09/01	14:36	Henry	SW-846 8260B
trichloroethylene	<0.002	mg/L	11/09/01	14:36	Henry	SW-846 8260B
Vinyl chloride	<0.002	mg/L	11/09/01	14:36	Henry	SW-846 8260B
Metals						
Iron (Fe)	0.06	mg/L	11/13/01	08:00	Prutzman	SW-846 6010B
Magnesium (Mg)	64.8	mg/L	11/05/01	17:00	Prutzman	SW-846 6010B
Manganese (Mn)	0.06	mg/L	11/13/01	08:00	Prutzman	SW-846 6010B
Potassium (K)	7.3	mg/L	11/05/01	17:00	Prutzman	SW-846 6010B
Sodium (Na)	466	mg/L	11/05/01	17:00	Prutzman	SW-846 6010B
General Chemistry						
Alkalinity (as CaCO3)	334	mg/L	11/05/01	13:00	Adsit	SM 2320 B
Total Organic Carbon	4.3	mg/L	11/08/01	14:30	Pearson	SW-846 9060
Chloride	770	mg/L	11/01/01	14:00	Buttray	EPA 325.3
Nitrogen, Ammonia	0.31	mg/L	11/05/01	14:00	Hayes	EPA 350.2
Nitrogen, Nitrate	<0.05	mg/L	10/31/01	13:30	Pearson	EPA 353.2
Nitrogen, Nitrite	<0.05	mg/L	10/30/01	21:00	Pearson	EPA 353.2
Sulfate	120	mg/L	11/06/01	13:30	Hayes	SW-846 9038
Sulfide, Direct	2.5	mg/L	11/01/01	14:30	Adsit	EPA 376.1



FREE-COL LABORATORIES

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Certificate Of Analysis

Delivery Group ID: 2001:0011989

7 Sample(s) are included in this Delivery Group.

Company Name: Delphi Energy & Engine
 Contact Name: Mr. Rick Eisenmen

Date Received 10/30/01
 Time Received: 20:00
 Delivered By: Field Services

P.O. Box 92700
 Rochester, NY 14692

P.O. RPB00999

Project Name: 55039.2 Delphi FRI/FFS

Printed on 11/29/2001 at 02:37PM

Sample ID: 2001:0011989-5 Client's Sample ID: MW-DUP Grab
 Date Sampled: 10/30/01 Time Sampled: 12:00 Date Received: 10/30/01

Analyte	Result	Units Analyzed	Date	Start Time	Analyst	Method Source
Prep Group						
Prep: 3005A Met Total Rec			11/01/01	12:30	Davis	SW-846 3005A
Organics						
trans-1,2-Dichloroethylene	<0.002	mg/L	11/09/01	14:36	Henry	SW-846 8260B
cis-1,2-Dichloroethylene	<0.002	mg/L	11/09/01	14:36	Henry	SW-846 8260B
Methane	<0.002	mg/L	11/01/01	10:55	Williams	SW-846 8015B Mod
tetrachloroethylene	0.020	mg/L	11/09/01	14:36	Henry	SW-846 8260B
trichloroethylene	<0.002	mg/L	11/09/01	14:36	Henry	SW-846 8260B
vinyl chloride	<0.002	mg/L	11/09/01	14:36	Henry	SW-846 8260B
Metals						
Iron (Fe)	0.03	mg/L	11/13/01	08:00	Prutzman	SW-846 6010B
Magnesium (Mg)	47.6	mg/L	11/05/01	17:00	Prutzman	SW-846 6010B
Manganese (Mn)	0.39	mg/L	11/13/01	08:00	Prutzman	SW-846 6010B
Potassium (K)	4.0	mg/L	11/05/01	17:00	Prutzman	SW-846 6010B
Sodium (Na)	198	mg/L	11/05/01	17:00	Prutzman	SW-846 6010B
General Chemistry						
Alkalinity (as CaCO3)	386	mg/L	11/05/01	13:00	Adsit	SM 2320 B
Total Organic Carbon	3.7	mg/L	11/08/01	14:30	Pearson	SW-846 9060
Chloride	450	mg/L	11/01/01	14:00	Buttray	EPA 325.3
Nitrogen, Ammonia	0.05	mg/L	11/05/01	14:00	Hayes	EPA 350.2
Nitrogen, Nitrate	0.91	mg/L	10/31/01	13:30	Pearson	EPA 353.2
Nitrogen, Nitrite	<0.05	mg/L	10/30/01	21:00	Pearson	EPA 353.2
Sulfate	110	mg/L	11/06/01	13:30	Hayes	SW-846 9038
Sulfide, Direct	1.5	mg/L	11/01/01	14:30	Adsit	EPA 376.1



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Certificate Of Analysis

Delivery Group ID: 2001:0011989

7 Sample(s) are included in this Delivery Group.

Company Name: Delphi Energy & Engine
Contact Name: Mr. Rick Eisenmen

Date Received 10/30/01
Time Received: 20:00
Delivered By: Field Services

P.O. Box 92700
Rochester, NY 14692

P.O. RPB00999

Project Name: 55039.2 Delphi FRI/FFS

Printed on 11/29/2001 at 02:37PM

Sample ID: 2001:0011989-6 Client's Sample ID: MW-3S Grab
Date Sampled: 10/30/01 Time Sampled: 16:00 Date Received: 10/30/01

Analyte	Result	Units Analyzed	Date	Start Time	Analyst	Method Source
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Organics

Volatile Organics (BTEX)

Benzene	1.5	mg/L	11/09/01	14:36	Henry	SW-846 8260B
Toluene	1.0	mg/L	11/09/01	14:36	Henry	SW-846 8260B
Ethylbenzene	1.1	mg/L	11/09/01	14:36	Henry	SW-846 8260B
Xylene	1.7	mg/L	11/09/01	14:36	Henry	SW-846 8260B

Sample ID: 2001:0011989-7 Client's Sample ID: Trip Blank
Date Sampled: 10/30/01 Time Sampled: Date Received: 10/30/01

Analyte	Result	Units Analyzed	Date	Start Time	Analyst	Method Source
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Organics

cis-1,2-Dichloroethylene	<0.002	mg/L	11/09/01	14:36	Henry	SW-846 8260B
trans-1,2-Dichloroethylene	<0.002	mg/L	11/09/01	14:36	Henry	SW-846 8260B
Tetrachloroethylene	<0.002	mg/L	11/09/01	14:36	Henry	SW-846 8260B
Trichloroethylene	<0.002	mg/L	11/09/01	14:36	Henry	SW-846 8260B
Vinyl chloride	<0.002	mg/L	11/09/01	14:36	Henry	SW-846 8260B

Volatile Organics (BTEX)

Benzene	<0.002	mg/L	11/09/01	14:36	Henry	SW-846 8260B
Toluene	<0.002	mg/L	11/09/01	14:36	Henry	SW-846 8260B
Ethylbenzene	<0.002	mg/L	11/09/01	14:36	Henry	SW-846 8260B
Xylene	<0.002	mg/L	11/09/01	14:36	Henry	SW-846 8260B

PC: GZA

Supplemental Revision on 11/29/01 to Report 2001:0011989 printed on 11/15/01.

John Karaska
QUALITY ASSURANCE SUPERVISOR



FREE-COL LABORATORIES

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Certificate Of Analysis

Delivery Group ID: 2001:0012054

2 Sample(s) are included in this Delivery Group.

Company Name: Delphi Energy & Engine
Contact Name: Mr. Rick Eisenmen

Date Received 11/1/01
Time Received: 10:00
Delivered By: Fed Ex

P.O. Box 92700
Rochester, NY 14692

P.O. RPB00999

Project Name: Delphi FRI/FFS 55039.2

Printed on 11/29/2001 at 02:29PM

Sample ID:	2001:0012054-1	Client's Sample ID:	MW-10 Grab	Date Sampled:	10/31/01	Time Sampled:	09:15	Date Received:	11/1/01
Analyte	Result	Units Analyzed	Date	Start Time	Analyst	Method Source			
Prep Group									
rep: 3005A Met Total Rec			11/01/01	14:30	Davis	SW-846 3005A			
Organics									
is-1,2-Dichloroethylene	0.47	mg/L	11/09/01	18:41	Henry	SW-846 8260B			
ans-1,2-Dichloroethylene	0.003	mg/L	11/09/01	18:41	Henry	SW-846 8260B			
Methane	0.20	mg/L	11/01/01	10:55	Williams	SW-846 8015B Mod			
tetrachloroethylene	0.023	mg/L	11/09/01	18:41	Henry	SW-846 8260B			
richloroethylene	0.25	mg/L	11/09/01	18:41	Henry	SW-846 8260B			
inyl chloride	0.053	mg/L	11/09/01	18:41	Henry	SW-846 8260B			
Metals									
on (Fe)	0.05	mg/L	11/13/01	08:00	Prutzman	SW-846 6010B			
agnesium (Mg)	92.1	mg/L	11/05/01	17:00	Prutzman	SW-846 6010B			
anganese (Mn)	0.91	mg/L	11/13/01	08:00	Prutzman	SW-846 6010B			
otassium (K)	7.6	mg/L	11/05/01	17:00	Prutzman	SW-846 6010B			
odium (Na)	720	mg/L	11/05/01	17:00	Prutzman	SW-846 6010B			
General Chemistry									
alkalinity (as CaCO3)	336	mg/L	11/05/01	13:00	Adsit	SM 2320 B			
otal Organic Carbon	3.6	mg/L	11/13/01	14:30	Pearson	SW-846 9060			
hloride	2800	mg/L	11/05/01	13:00	Buttray	EPA 325.3			
itrogen, Ammonia	0.12	mg/L	11/05/01	14:00	Hayes	EPA 350.2			
itrogen, Nitrate	0.17	mg/L	11/06/01	14:30	Pearson	EPA 353.2			
itrogen, Nitrite	<0.05	mg/L	11/01/01	22:00	Pearson	EPA 353.2			
ulfate	280	mg/L	11/06/01	13:30	Hayes	SW-846 9038			
ulfide, Direct	1.6	mg/L	11/01/01	14:30	Adsit	EPA 376.1			



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PHONE: (814) 724-6242
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Certificate Of Analysis

Delivery Group ID: 2001:0012054

2 Sample(s) are included in this Delivery Group.

Company Name: Delphi Energy & Engine
Contact Name: Mr. Rick Eisenmen

Date Received 11/1/01
Time Received: 10:00
Delivered By: Fed Ex

P.O. Box 92700
Rochester, NY 14692

P.O. RPB00999

Project Name: Delphi FRI/FFS 55039.2

Printed on 11/29/2001 at 02:29PM

Sample ID: 2001:0012054-2 Client's Sample ID: MW-4 Grab
Date Sampled: 10/31/01 Time Sampled: 11:25 Date Received: 11/1/01

Analyte	Result	Units	Date Analyzed	Start Time	Analyst	Method Source
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Prep Group

rep: 3005A Met Total Rec 11/01/01 14:30 Davis SW-846 3005A

Organics

is-1,2-Dichloroethylene	84	mg/L	11/09/01	18:41	Henry	SW-846 8260B
trans-1,2-Dichloroethylene	0.25	mg/L	11/09/01	18:41	Henry	SW-846 8260B
Methane	3.3	mg/L	11/01/01	10:55	Williams	SW-846 8015B Mod
tetrachloroethylene	<0.002	mg/L	11/09/01	18:41	Henry	SW-846 8260B
Trichloroethylene	22	mg/L	11/09/01	18:41	Henry	SW-846 8260B
Vinyl chloride	18	mg/L	11/09/01	18:41	Henry	SW-846 8260B

Metals

Iron (Fe)	0.77	mg/L	11/13/01	08:00	Prutzman	SW-846 6010B
Magnesium (Mg)	102	mg/L	11/05/01	17:00	Prutzman	SW-846 6010B
Manganese (Mn)	0.46	mg/L	11/13/01	08:00	Prutzman	SW-846 6010B
Potassium (K)	12.3	mg/L	11/05/01	17:00	Prutzman	SW-846 6010B
Sodium (Na)	358	mg/L	11/05/01	17:00	Prutzman	SW-846 6010B

General Chemistry

Alkalinity (as CaCO3)	366	mg/L	11/05/01	13:00	Adsit	SM 2320 B
Total Organic Carbon	10.8	mg/L	11/13/01	14:30	Pearson	SW-846 9060
Chloride	1100	mg/L	11/05/01	13:00	Buttray	EPA 325.3
Nitrogen, Ammonia	1.17	mg/L	11/05/01	14:00	Hayes	EPA 350.2
Nitrogen, Nitrate	<0.05	mg/L	11/06/01	14:30	Pearson	EPA 353.2
Nitrogen, Nitrite	<0.05	mg/L	11/01/01	22:00	Pearson	EPA 353.2
Sulfate	160	mg/L	11/06/01	13:30	Hayes	SW-846 9038
Sulfide, Direct	1.2	mg/L	11/01/01	14:30	Adsit	EPA 376.1

PC: GZA

Supplemental Revision on 11/29/01 to Report 2001:0012054 printed on 11/26/01.

John R. Paraska
QUALITY ASSURANCE SUPERVISOR

FREE-COL LABORATORIES, Division of Modern Ind.
 800 836-4130
 P.O. BOX 557
 11618 COTTON ROAD
 MRADVILLE, PA
 16335-0557
 Website: www.free-col.com

SAFETY DATA SHEET
 DRINKING WATER
 PWSID #:
 Location:
 Entry Point #:
 Sampling Frequency (Circle One):
 Quarterly/Monthly/Annual
 Check Sample: Yes / No
 SS089.2 Delphi Falls
 Chris Soron 10/30/01

ANALYSIS REQUESTED/COMMENTS (If composite, please use inclusive dates and times.)
 G IX, Alkalinity, Ammonium Chloride, Nitrate, Nitrite
 Sulfate, Sulfide, Methane, Potassium (total), Iron (total)
 Magnesium (total), Manganese (total), Sodium (total)
 Trichloroethene, Tetra chloroethene, Trans 1,2 Dichloroethene
 Cis 1,2 Dichloroethene, Vinyl Chloride
 G Same as MW-15
 G Same as MW-15
 G Same as MW-15
 G Same as MW-15
 G Benzene, Toluene, Ethylbenzene, Total Xylene.

DATE	TIME	SAMPLE IDENTIFICATION	FOR FREE-COL USE ONLY	COMPLIANCE	GC/MS	ANALYSIS REQUESTED/COMMENTS
10/30/01	1030	MW-15	1999-1	Compliance	G	IX, Alkalinity, Ammonium Chloride, Nitrate, Nitrite, Sulfate, Sulfide, Methane, Potassium (total), Iron (total), Magnesium (total), Manganese (total), Sodium (total), Trichloroethene, Tetra chloroethene, Trans 1,2 Dichloroethene, Cis 1,2 Dichloroethene, Vinyl Chloride
10/30/01	1715	MW-11	1999-2	Compliance	G	Same as MW-15
10/30/01	1330	MW-12	1999-3	Compliance	G	Same as MW-15
10/30/01	1200	MW-DUP	1999-4	Compliance	G	Same as MW-15
10/30/01	1445	MW-14	1999-5	Compliance	G	Same as MW-15
10/30/01	1600	MW-35	1999-6	Compliance	G	Benzene, Toluene, Ethylbenzene, Total Xylene.
10/30/01		Triob blank	1999-7	Compliance	G	

DATE RECEIVED: 10/30/01
 SIGNATURE: Chris Soron
 ORGANIZATION: GZA
 DATE DELIVERED: 10/30/01
 ORGANIZATION: Erie Col. Labs
 DATE RECEIVED: 10/30/01
 SIGNATURE: Goni West
 ORGANIZATION: Goni West
 USE IN LABORATORY ONLY
 SAMPLE RECEIVED AT: 10/30/01
 TIME: 7:15
 ANALYST: [Signature]
 DATE: 10/30/01
 CHECKED BY: [Signature]
 DATE: 10/30/01
 APPROVED BY: [Signature]
 DATE: 10/30/01

10/30/01 10:30 AM MW-15 Side 5 Sampled 10/30/01

FREE-COL LABORATORIES, Division of Modern Ind.
 P.O. BOX 557 800 836-4130
 11618 COTTON ROAD 814 724-6242
 MEADVILLE, PA 814 333-1466 Fax
 16335-0557
 Website: www.free-col.com

CLIENT INFORMATION
 COMPANY: GIZA
 CONTACT: Gary Klawnski
 ADDRESS: 324 Nagel Drive
 CITY: Buffalo
 STATE: NY
 ZIP CODE: 14225
 PHONE: 716 685-2800
 FAX: 716 685-3629
 PURCHASE ORDER NUMBER: 170544
 CLIENT #

DRINKING WATER:
 FWSID #:
 Location:
 Entry Point #:
 Sampling Frequency (Circle One):
 Quarterly/Monthly/Annual
 Check Sample: Yes / No

ANALYSIS REQUESTED/COMMENTS (If composite, please use inclusive dates and times.)
 GI TOC, Alkalinity, Ammonia, Chloride, Nitrate, Nitrite, Sulfate, Sulfide, Methane, Phosporus (total), Iron (total), Magnesium (total), Manganese (total), Sodium (total), Trichloroethene, Tetrachloroethene, Trans 1,2 Dichloroethene, Cis 1,2 Dichloroethene, Vinyl Chloride
 Same as MW-10

DATE	TIME	SAMPLE IDENTIFICATION	FOR FREE-COL USE ONLY	COMP	CRAB	ANALYSIS REQUESTED/COMMENTS
11/16/01	915	MW-10	170544			GI TOC, Alkalinity, Ammonia, Chloride, Nitrate, Nitrite, Sulfate, Sulfide, Methane, Phosporus (total), Iron (total), Magnesium (total), Manganese (total), Sodium (total), Trichloroethene, Tetrachloroethene, Trans 1,2 Dichloroethene, Cis 1,2 Dichloroethene, Vinyl Chloride
11/16/01	1125	MW-4				Same as MW-10

DATE RECEIVED: 11/16/01
 SIGNATURE: Gary Klawnski
 ORGANIZATION: GIZA
 DATE RELINQUISHED: 11/27-01
 SIGNATURE: Gary Klawnski
 ORGANIZATION: GIZA

USE IN LABORATORY ONLY
 Samples received at lab: 11-16-01 YES NO
 Means of delivery to lab: Fed Ex
 Sample cooler termination result: (Yes/No)
 Sample sheet to station: 11-16-01 Completed 11-16-01
 Analyst: [Signature]
 Date: 11-27-01
 Releaser by: [Signature]
 Date: 11-27-01
 Worksheet Number: [Blank]

11-16-01 915 MW-10 170544
 11-16-01 1125 MW-4
 11-27-01