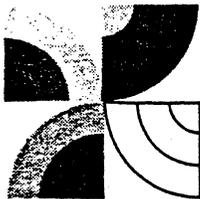


**APPENDIX C**  
**ANALYTICAL LABORATORY REPORTS**



# FREE-COL LABORATORIES, INC.

P.O. BOX 557, COTTON ROAD  
MEADVILLE, PENNSYLVANIA 16335  
PHONE: (814) 724-8242  
FAX: (814) 333-1466

5815 AIRPORT ROAD  
ROANOKE, VIRGINIA 24012  
PHONE: (703) 265-2544  
FAX: (703) 362-1663

09/26/95

TO:

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

P.O. # HH48888

ACCOUNT NO. 01220

## ANALYTICAL REPORT FORM

PAGE 3

PARAMETER	SAMPLE ID : MW-1 09/19/95	MW-2 09/19/95	MW-3 09/19/95	MW-4 09/19/95
	LAB ID 50920412	50920413	50920414	50920415
	DATE RECEIVED: 09/20/95	09/20/95	09/20/95	09/20/95

### VOLATILE COMPOUNDS

UNITS = MG/L

CHLOROMETHANE	<1.0 D	<1.0 D	<1.0 D	<1.0 D
BROMOMETHANE	<1.0 D	<1.0 D	<1.0 D	<1.0 D
VINYL CHLORIDE	<1.0 D	3.5	1.1	<1.0 D
CHLOROETHANE	<1.0 D	<1.0 D	<1.0 D	<1.0 D
METHYLENE CHLORIDE	<0.5 D	<0.5 D	<0.5 D	<0.5 D
ACETONE	<10 D	<10 D	<10 D	<10 D
CARBON DISULFIDE	<0.5 D	<0.5 D	<0.05 D	<0.5 D
1,1,-DICHLOROETHENE	<0.5 D	<0.5 D	<0.05 D	<0.5 D
1,1,-DICHLOROETHANE	<0.5 D	<0.5 D	<0.05 D	<0.5 D
1,2-DICHLORO***	11	93	160	170
CHLOROFORM	<0.5 D	<0.5 D	<0.5 D	<0.5 D
1,2-DICHLOROETHANE	<0.5 D	<0.5 D	<0.5 D	<0.5 D
2-BUTANONE	<10 D	<10 D	<10 D	<0.5 D
1,1,1-TRICHLOROETHA*	<0.5 D	<0.5 D	<0.5 D	<0.5 D
CARBON TETRACHLORIDE	<0.5 D	<0.5 D	<0.5 D	<0.5 D
VINYL ACETATE	<5.0 D	<5.0 D	<5.0 D	<5.0 D
BROMODICHLOROMETHANE	<0.5 D	<0.5 D	<0.5 D	<0.5 D
1,1,2,2-TETRACHLORO*	<0.5 D	<0.5 D	<0.5 D	<0.5 D
1,2-DICHLOROPROPANE	<0.5 D	<0.5 D	<0.5 D	<0.5 D
TRANS-1,3-DICHLOROP*	<0.5 D	<0.5 D	<0.5 D	<0.5 D
TRICHLOROETHENE	6,500	590	0.6	0.6
DIBROMOCHLOROMETHANE	<0.5 D	<0.5 D	<0.5 D	<0.5 D
1,1,2-TRICHLOROETHA*	<0.5 D	<0.5 D	<0.5 D	<0.5 D
BENZENE	<0.5 D	<0.5 D	2.7	2.7
CIS-1,3-DICHLOROPRO*	<0.5 D	<0.5 D	<0.5 D	<0.5 D

\*Some of the above names have been abbreviated. Please reference the enclosed list for their complete names.

#### MEADVILLE DIVISION

I.H.A. Accreditation No. 98  
U.S. Public Health Services Approved Facility  
A 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

#### ROANOKE DIVISION

VA Dept. of Health Laboratory I.D. No. 00143

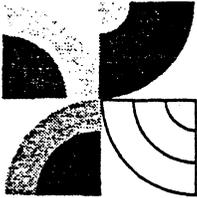
KEY:

< = LESS THAN

> = GREATER THAN

w.f. = WILL FOLLOW

D-52



**FREE-COL LABORATORIES, INC.**

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

5815 AIRPORT ROAD  
ROANOKE, VIRGINIA 24012  
PHONE: (703) 265-2544  
FAX: (703) 362-1663

09/26/95

TO:

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

P.O. # HH48888

ACCOUNT NO. 01220

**ANALYTICAL REPORT FORM**

PAGE 4

PARAMETER	LAB ID	DATE RECEIVED:	MW-1	MW-2	MW-3	MW-4
			09/19/95	09/19/95	09/19/95	09/19/95
	50920412	09/20/95	50920413	50920414	50920415	50920415

VOLATILE COMPOUNDS (Cont.) UNITS = MG/L

2-CHLOR* VINYL ETHER	<1.0 D	<1.0 D	<1.0 D	<1.0 D
BROMOFORM	<0.5 D	<0.5 D	<0.5 D	<0.5 D
2-HEXANONE	<5.0 D	<5.0 D	<5.0 D	<5.0 D
4-METHYL-2-PENTANONE	<5.0 D	<5.0 D	<5.0 D	<5.0 D
TETRACHLOROETHENE	<0.5 D	<0.5 D	<0.5 D	<0.5 D
TOLUENE	<0.5 D	<0.5 D	2.7	2.6
CHLOROBENZENE	<0.5 D	<0.5 D	<0.5 D	<0.5 D
ETHYL BENZENE	<0.5 D	<0.5 D	1.5	1.5
STYRENE	<0.5 D	<0.5 D	<0.5 D	<0.5 D
TOTAL XYLENES	<0.5 D	<0.5 D	2.6	2.8

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

\*Some of the above names have been abbreviated. Please reference the enclosed list for their complete names.

**MEADVILLE DIVISION**

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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NY Dept. of Health Laboratory I.D. No. 10552  
NY Dept. of Env. Conservation Approved Facility

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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

**ROANOKE DIVISION**

VA Dept. of Health Laboratory I.D. No. 00143

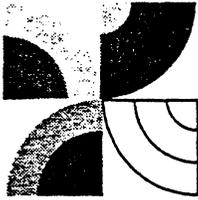
KEY:

< = LESS THAN

> = GREATER THAN

w.f. = WILL FOLLOW

D-53



FREE-COL LABORATORIES, INC.

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

5815 AIRPORT ROAD  
ROANOKE, VIRGINIA 24012  
PHONE: (703) 265-2544  
FAX: (703) 362-1663

09/26/95

TO:

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

P.O. # HH48888

ACCOUNT NO. 01220

ANALYTICAL REPORT FORM

PAGE 5

SAMPLE ID : TRIP BLANK

LAB ID 50920416  
DATE RECEIVED: 09/20/95

PARAMETER	RESULTS	UNITS	DATE AND	ANALYST
<u>VOLATILE COMPOUNDS</u>				
Chloromethane	<0.010	MG/L	09/23/95	MAJOR/ ECKLUND
Bromomethane	<0.010			
Vinyl Chloride	<0.010			
Chloroethane	<0.010			
Methylene Chloride	<0.005			
Acetone	<0.10			
Carbon Disulfide	<0.005			
1,1-Dichloroethene	<0.005			
1,1-Dichloroethane	<0.005			
1,2-Dichloroethenes (Total)***	<0.005			
Chloroform	<0.005			
1,2-Dichloroethane	<0.005			
2-Butanone	<0.10			
1,1,1-Trichloroethane	<0.005			
Carbon Tetrachloride	<0.005			
Vinyl Acetate	<0.050			
Bromodichloromethane	<0.005			
1,1,2,2-Tetrachloroethane	<0.005			
1,2-Dichloropropane	<0.005			
trans-1,3-Dichloropropene	<0.005			
Trichloroethene	<0.005			
Dibromochloromethane	<0.005			
1,1,2-Trichloroethane	<0.005			

\*\*\*EPA Methods 601 and 624 and SW 846 Methods 8010 and 8240 do not differentiate the co-eluting cis and trans-1,2-dichloroethenes. The result reported is the sum of both compounds.

MEADVILLE DIVISION

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U.S. Public Health Services Approved Facility  
PA D.E.R. Laboratory I.D. No. 20-073  
PA Dept. of Agriculture Approved Dairy Laboratory  
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NY Dept. of Env. Conservation Approved Facility

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ROANOKE DIVISION

VA Dept. of Health Laboratory I.D. No. 00143

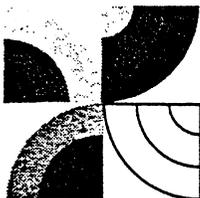
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D-54



# FREE-COL LABORATORIES, INC.

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5815 AIRPORT ROAD  
ROANOKE, VIRGINIA 24012  
PHONE: (703) 265-2544  
FAX: (703) 362-1663

09/26/95

TO:

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

P.O. # HH48888

ACCOUNT NO. 01220

## ANALYTICAL REPORT FORM

PAGE 6

SAMPLE ID : TRIP BLANK

LAB ID 50920416  
DATE RECEIVED: 09/20/95

PARAMETER	RESULTS	UNITS	DATE	AND	ANALYST
<u>VOLATILE COMPOUNDS</u> Continued					
Benzene	<0.005	MG/L	09/23/95		MAJOR/ ECKLUND
cis-1,3-Dichloropropene	<0.005				
2-Chloroethylvinyl ether	<0.010				
Bromoform	<0.005				
2-Hexanone	<0.050				
4-Methyl-2-pentanone	<0.050				
Tetrachloroethene	<0.005				
Toluene	<0.005				
Chlorobenzene	<0.005				
Ethylbenzene	<0.005				
Styrene	<0.005				
Total Xylenes	<0.005				

### Volatle Compounds - Method 8240A

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

*Andrew K. Ecklund*

ASST. LABORATORY DIRECTOR

pc: Mr. Steve Blair, GZA

#### MEADVILLE DIVISION

I.H.A. Accreditation No. 98  
I.S. Public Health Services Approved Facility  
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IY Dept. of Env. Conservation Approved Facility

ND Dept. of Health Cert. No. R-083  
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#### ROANOKE DIVISION

VA Dept. of Health Laboratory I.D. No. 00143

KEY:

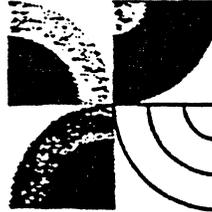
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D-55

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



ENVIRONMENTAL  
OCCUPATIONAL HEALTH  
FOOD SCIENCE  
SPECIALISTS

## Unabbreviated Listing of Hazardous Substance List Compounds

### VOLATILE COMPOUNDS

Chloromethane	Bromodichloromethane
Bromomethane	1,1,2,2-Tetrachloroethane
Vinyl Chloride	1,2-Dichloropropane
Chloroethane	trans-1,3-Dichloropropene
Methylene Chloride	Trichloroethene
Acetone	Dibromochloromethane
Carbon Disulfide	1,1,2-Trichloroethane
1,1-Dichloroethene	Benzene
1,1-Dichloroethane	cis-1,3-Dichloropropene
1,2-Dichloroethylenes (Total)***	2-Chloroethyl Vinyl Ether
Chloroform	Bromoform
1,2-Dichloroethane	2-Hexanone
2-Butanone	4-Methyl-2-pentanone
1,1,1-Trichloroethane	Tetrachloroethene
Carbon Tetrachloride	Toluene
Vinyl Acetate	Chlorobenzene
Ethyl Benzene	
Styrene	
Total Xylenes	

\*\*\*EPA Methods 601 and 624 and SW 846 Methods 8010 and 8240 do not differentiate the co-eluting cis and trans-1,2-dichloroethenes. The result reported to you is the sum of both compounds.



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TO: Results expressed as MG/KG or % are calculated on an as received weight basis, with two exceptions: % volatile solids and % fixed solids (% ash) are expressed on a dry weight basis.

### 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 from the sample 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 but greater than zero.

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MI Dept. of Public Health Approved Facility  
U.S. Office of Surface Mining Approved Facility

#### ROANOKE DIVISION

VA Dept. of Health Laboratory I.D. No. 00143

D-5

Limits in effect as of May 18, 1995

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

Date 9-21-95 Analyst MAJOR / ECKLUND  
 Samples associated with this repeat control:  
509-20-424

509-20-408 → 411

Sample used as repeat control: 909-18-069  
 AD = Absolute Difference RPD = Relative Percent Difference

Parameter ug/L Samp. Value Repeat Value Accept AD Accept RPD Assayd AD/RPD File

Parameter	Samp. Value	Repeat Value	Accept AD	Accept RPD	Assayd AD/RPD	File
Chloromethane	<10	<10			0	820
Bromomethane	↓	↓				819
Vinyl chloride	↓	↓		27		828
Chloroethane	↓	↓				807
Methylene chloride	<5	<5		17		821
Acrolein	-	-				800
Acrylonitrile	-	-				801
1,1-Dichloroethene	<5	<5			0	813
1,1-Dichloroethane	↓	↓		41		811
total trans-1,2-Dichloroethenes	↓	↓		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	↓	↓		32		827
Benzene	2	2		49	0	802
Dibromochloromethane	<5	<5		70	0	806
1,1,2-Trichloroethane	↓	↓				826
cis-1,3-Dichloropropene	↓	↓				816
2-Chloroethyl vinyl ether	<10	<10				808
Bromoform	<5	<5				803
Tetrachloroethene	<5	↓		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	<100	<100		26		836

Limits in effect as of May 18, 1995

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

Date 9-21-95 Analyst Ecklund / MAJOR  
Samples associated with this repeat control:

509-20-424

509-20-468 → 411

Sample used as repeat control: 909-18-069  
AD = Absolute Difference RPD = Relative Percent Difference

Parameter ug/l Samp. Value Repeat Value Accept AD Accept RPD Assayd File AD/RPD

Parameter	Samp. Value	Repeat Value	Accept AD	Accept RPD	Assayd File AD/RPD
3-Chloro-1-propene					
Dichlorodifluoromethane					
Methyl Ethyl Ketone	<100	<100			0
MIBK	<50	<50			0
1,1,1,2-Tetrachloroethane					
Trichlorofluoromethane					
1,2,3-Trichloropropane					
1,2-Dibromomethane					
Cis-1.2-Dichloroethane					
Xylene	41	38			7.8 %
vinyl acetate	<50	<50			0
carbon disulfide	<5	<5			
styrene	<5	<5			
methyl Butyl Ketone	<50	<50			



Limits in effect as of May 18, 1995

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

Date 9-21-95 Analyst Ecklund / Major

Samples associated with this reference control:

509-20-424

509-20-408 → 411

<u>Parameter</u>	<u>Target Value</u> <u>ug/L</u>	<u>Acceptance Limits</u> <u>ug/L</u>	<u>Assaved Value</u> <u>ug/L</u>	<u>File #</u>
Chloromethane	20	5.4-34.5	23.4	223
Bromomethane	20	8.1-39.8	19.4	222
Vinyl chloride	20	1.3-42.4	16.6	232
Chloroethane	20	4.0-36.9	19.9	209
Methylene chloride	20	11.5-31.4	18.3	224
Acrolein	62	4.2-105.4	-	201
Acrylonitrile	58	13.2-116.0	-	202
1,1-Dichloroethene	20	10.9-32.4	17.7	216
1,1-Dichloroethane	20	15.3-28.0	16.8	214
<del>total</del> trans-1,2-Dichloroethene	20	13.6-28.3	17.2	217
Chloroform	20	15.5-26.2	18.1	211
1,2-Dichloroethane	20	7.5-34.5	22.4	215
1,1,1-Trichloroethane	20	13.6-29.8	20.5	228
Carbon tetrachloride	20	7.7-28.1	20.5	206
Bromodichloromethane	20	9.7-30.1	21.7	212
1,2-Dichloropropane	20	15.2-28.0	25.2	218
trans-1,3-Dichloropropene	20	12.7-25.6	18.9	220
Trichloroethene	20	14.0-27.3	23.4	230
Benzene	20	14.2-28.1	21.4	203
Dibromochloromethane	20	4.1-29.5	20.0	208
1,1,2-Trichloroethane	20	14.2-28.5	21.4	229
cis-1,3-Dichloropropene	20	10.1-27.2	19.0	219
2-Chloroethyl vinyl ether	20	9.9-32.5	25.2	210
Bromoform	20	2.3-31.1	20.6	205
Tetrachloroethene	20	13.0-28.7	22.3	226
1,1,2,2-Tetrachloroethane	20	14.7-26.1	19.6	225
Toluene	20	15.1-25.7	21.6	227
Chlorobenzene	20	11.1-28.9	21.1	207
Ethyl benzene	20	13.2-27.7	22.1	221
1,3-Dichlorobenzene	26	18.2-36.9	26.0	234
1,2-Dichlorobenzene	26	11.0-42.2	27.4	233
1,4-Dichlorobenzene	20	3.0-36.1	20.9	235
Diethyl Benzene	44	25.9-62.9	-	237
Ethyl Ether	35	26.9-49.4	-	236
Xylenes	44	21.0-66.7	49.1	238
MEK	20	9.1-39.4	21.2	240
Acetone	20	9.6-38.0	14.5	242



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

Date 9-21-95 Analyst Ecklund / Major

Samples associated with this blank:

509-20-424

509-20-408 → 411

Parameter Blank Value

Units = µg/L

Chloromethane	<10
Bromomethane	↓
Vinyl chloride	↓
Chloroethane	↓
Methylene chloride	<5
Acrolein	-
Acrylonitrile	-
1,1-Dichloroethene	<5
1,1-Dichloroethane	↓
<del>trans-1,2-Dichloroethene</del>	↓
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	<10
Bromoform	<5
Tetrachloroethene	↓
1,1,2,2-Tetrachloroethane	↓
Toluene	↓
Chlorobenzene	↓
Ethyl benzene	↓
1,3-Dichlorobenzene	↓
1,2-Dichlorobenzene	↓
1,4-Dichlorobenzene	↓
Xylene	↓
2-Butanone - MEK	<100
4-Methyl-2-pentanone	<50
Acetone	<100
Syrene	<5

total

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

Date 9-21-95

Analyst Ecklund / Major

Samples associated with this blank:

509-20-424

509-20-468 → 411

Parameter

Blank Value

Units = ug/l

Carbon Disulfide

<5

Vinyl Acetate

<50

2-Hexanone - MBK

<50

Dichlorofluoromethane

1,1,1,2-Tetrachloroethane

Trichlorofluoromethane

1,2,3-Trichloropropane

3-Chloro-1-propene

1,2-Dibromomethane

cis,1,2-Dichloroethene

Limits in effect as of May 18, 1995

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

Date 9-21-95 Analyst Ecklund / Major

Samples associated with this spiked control:

509-20-408 → 411

509-20-424

Sample used as spiked control: 509-18-069

<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	24	<10	28-189	120	520
Bromomethane	20	21		31-212	105	519
Vinyl chloride	20	18	↓	22-185	90	528
Chloroethane	20	26	↓	52-170	130	507
Methylene chloride	20	22	<5	63-148	110	521
Acrolein	62	-	-	22-185	-	500
Acrylonitrile	58	-	-	53-187	-	501
1,1-Dichloroethene	20	19	<5	50-158	95	513
1,1-Dichloroethane	20	16		73-141	80	511
trans-1,2-Dichloroethene	20	16		63-151	80	514
Chloroform	20	17		68-141	85	509
1,2-Dichloroethane	20	24		52-157	120	512
1,1,1-Trichloroethane	20	20		58-155	100	525
Carbon tetrachloride	20	26		40-141	130	504
Bromodichloromethane	20	24		46-150	120	510
1,2-Dichloropropane	20	23		67-145	115	515
trans-1,3-Dichloropropene	20	21		56-141	105	517
Trichloroethene	20	25		64-129	125	527
Benzene	20	22		70-144	110	502
Dibromochloromethane	20	21		27-158	105	506
1,1,2-Trichloroethane	20	22	↓	59-149	110	526
cis-1,3-Dichloropropane	20	20		46-151	100	516
2-Chloroethyl vinyl ether	20	19	<10	4-186	95	508
Bromoform	20	22	<5	6-150	110	503
Tetrachloroethene	20	21		48-163	105	523
1,1,2,2-Tetrachloroethane	20	19		46-164	95	522
Toluene	20	22		72-131	110	524
Chlorobenzene	20	21		70-131	105	505
Ethyl benzene	20	20		61-140	100	518
1,3-Dichlorobenzene	26	22		58-163	110	530
1,2-Dichlorobenzene	26	24	↓	42-159	92	529
1,4-Dichlorobenzene	20	18	↓	33-177	90	531
Diethyl Benzene	44	-	-	71-137	-	533
Ethyl Ether	35	-	-	62-160	-	532
Xylenes	44	84	41	72-130	98	534
MEK	20	17	<100	63-179	85	536





Limits in effect as of May 18, 1995

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

Date 9-23-95 Analyst Ecklund

Samples associated with this reference control:

509-20-406/407

509-21-400 → 407

509-20-412 → 416

509-20-429 → 432

<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	19.8	223
Bromomethane	20	8.1-39.8	20.5	222
Vinyl chloride	20	1.3-42.4	17.7	232
Chloroethane	20	4.0-36.9	22.6	209
Methylene chloride	20	11.5-31.4	17.2	224
Acrolein	62	4.2-105.4	-	201
Acrylonitrile	58	13.2-116.0	-	202
1,1-Dichloroethene	20	10.9-32.4	17.4	216
1,1-Dichloroethane	20	15.3-28.0	19.6	214
<i>total</i> trans-1,2-Dichloroethenes	20	13.6-28.3	17.0	217
Chloroform	20	15.5-26.2	19.6	211
1,2-Dichloroethane	20	7.5-34.5	22.2	215
1,1,1-Trichloroethane	20	13.6-29.8	19.7	228
Carbon tetrachloride	20	7.7-28.1	23.3	206
Bromodichloromethane	20	9.7-30.1	23.6	212
1,2-Dichloropropane	20	15.2-28.0	21.7	218
trans-1,3-Dichloropropene	20	12.7-25.6	20.5	220
Trichloroethene	20	14.0-27.3	22.9	230
Benzene	20	14.2-28.1	20.1	203
Dibromochloromethane	20	4.1-29.5	22.3	208
1,1,2-Trichloroethane	20	14.2-28.5	21.2	229
cis-1,3-Dichloropropene	20	10.1-27.2	20.4	219
2-Chloroethyl vinyl ether	20	9.9-32.5	22.4	210
Bromoform	20	2.3-31.1	23.4	205
Tetrachloroethene	20	13.0-28.7	23.7	226
1,1,2,2-Tetrachloroethane	20	14.7-26.1	17.4	225
Toluene	20	15.1-25.7	20.9	227
Chlorobenzene	20	11.1-28.9	20.6	207
Ethyl benzene	20	13.2-27.7	21.0	221
1,3-Dichlorobenzene	26	18.2-36.9	26.9	234
1,2-Dichlorobenzene	26	11.0-42.2	26.7	233
1,4-Dichlorobenzene	20	3.0-36.1	21.1	235
Diethyl Benzene	44	25.9-62.9	-	237
Ethyl Ether	35	26.9-49.4	-	236
Xylenes	44	21.0-66.7	40.6	238
MEK	20	9.1-39.4	17.9	240
Acetone	20	9.6-38.0	16.0	242



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

Date 9-23-95 Analyst Ecklund

Samples associated with this blank:

509-20-412 → 446

Parameter Blank Value

Units = ug/L

total

Parameter	Blank Value
Chloromethane	<10
Bromomethane	↓
Vinyl chloride	↓
Chloroethane	↓
Methylene chloride	<5
Acrolein	-
Acrylonitrile	-
1,1-Dichloroethene	<5
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	<10
Bromoform	<5
Tetrachloroethene	↓
1,1,2,2-Tetrachloroethane	↓
Toluene	↓
Chlorobenzene	↓
Ethyl benzene	↓
1,3-Dichlorobenzene	↓
1,2-Dichlorobenzene	↓
1,4-Dichlorobenzene	↓
Xylene	↓
2-Butanone - MEK	<100
4-Methyl-2-pentanone	<50
Acetone	<100
Syrene	<5

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

Date 9-23-95

Analyst Ecklund

Samples associated with this blank:

509-20-412 → 416

Parameter

Blank Value

Units = ug/l

Carbon Disulfide

<5

Vinyl Acetate

<50

2-Hexanone - MBK

<50

Dichlorofluoromethane

<2

1,1,1,2-Tetrachloroethane

Trichlorofluoromethane

1,2,3-Trichloropropane

3-Chloro-1-propene

1,2-Dibromomethane

cis,1,2-Dichloroethene

Limits in effect as of May 18, 1995

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

Date 9-23-95 Analyst Erin Lind Imack

Samples associated with this spiked control:

SC9-20-406/407

SC9-20-429 → 432

SC9-20-412 → 416

SC9-21-400 → 407

Sample used as spiked control: SC9-21-403

PARAMETER	SPIKE ADDED UG/L	SPIKED RESULT UG/L	SAMPLE RESULT UG/L	ACCEPT. LIMITS % REC.	ASSYD % REC.	FILE
Chloromethane	20	15	<10	28-189	75	520
Bromomethane	20	20	↓	31-212	100	519
Vinyl chloride	20	18	↓	22-185	90	528
Chloroethane	20	19	↓	52-170	95	507
Methylene chloride	20	16	<5	63-148	80	521
Acrolein	62	-	-	22-185	-	500
Acrylonitrile	58	-	-	53-187	-	501
1,1-Dichloroethene	20	16	<5	50-158	80	513
1,1-Dichloroethane	20	15	↓	73-141	75	511
total trans-1,2-Dichloroethene	20	15	↓	63-151	75	514
Chloroform	20	16	↓	68-141	80	509
1,2-Dichloroethane	20	22	↓	52-157	110	512
1,1,1-Trichloroethane	20	25	↓	58-155	125	525
Carbon tetrachloride	20	20	↓	40-141	100	504
Bromodichloromethane	20	22	↓	46-150	110	510
1,2-Dichloropropane	20	22	↓	67-145	110	515
trans-1,3-Dichloropropene	20	17	↓	56-141	85	517
Trichloroethene	20	30	6	64-129	120	527
Benzene	20	20	<5	70-144	100	502
Dibromochloromethane	20	18	↓	27-158	90	506
1,1,2-Trichloroethane	20	20	↓	59-149	100	526
cis-1,3-Dichloropropene	20	17	↓	46-151	85	516
2-Chloroethyl vinyl ether	20	24	<10	4-186	120	508
Bromoform	20	17	<5	6-150	85	503
Tetrachloroethene	20	32	12	48-163	100	523
1,1,2,2-Tetrachloroethane	20	16	<5	46-164	80	522
Toluene	20	21	↓	72-131	105	524
Chlorobenzene	20	20	↓	70-131	100	505
Ethyl benzene	20	21	↓	61-140	105	518
1,3-Dichlorobenzene	26	24	↓	58-163	92	530
1,2-Dichlorobenzene	26	24	↓	42-159	92	529
1,4-Dichlorobenzene	20	19	↓	33-177	95	531
Diethyl Benzene	44	7	-	71-137	-	533
Ethyl Ether	35	-	-	62-160	-	532
Xylenes	44	47	<10	72-130	107	534
MEK	20	16	<10	63-179	80	536

Limits in effect as of May 18, 1995

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

Date 9-23-95 Analyst Ecklund Major

Samples associated with this spiked control:

509-20-406/407

509-21-400 → 407

Sample used as spiked control: 509-21-403

<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>		
Acetone	20			51-175		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					
Dichlorodifluoromethane	20	26	<2			130
Trichlorofluoromethane	20	15	<2			75
Freon-113	31	142	118			77

Limits in effect as of May 18, 1995

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

Date 9/23/95 Analyst MAJOR  
Samples associated with this repeat control:  
509-20-412 → 416

509-20-424 → 432

Sample used as repeat control: 509-21-405  
AD = Absolute Difference RPD = Relative Percent Difference

Parameter	Samp. Value	Repeat Value	Accept AD	Accept RPD	Assayd AD/RPD	File
Units = <u>mg/L</u>						
Chloromethane	<10	<10			0	820
Bromomethane	↓	↓				819
Vinyl chloride	↓	↓		27		828
Chloroethane	↓	↓				807
Methylene chloride	<5	<5		17	↓	821
Acrolein	-	-				800
Acrylonitrile	-	-				801
1,1-Dichloroethene	<5	<5			0	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	↓	↓		32		827
Benzene	↓	↓		49		802
Dibromochloromethane	↓	↓		70		806
1,1,2-Trichloroethane	↓	↓				826
cis-1,3-Dichloropropene	↓	↓				816
2-Chloroethyl vinyl ether	<10	<10				808
Bromoform	<5	<5				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	<100	<100		26	0	836

Limits in effect as of May 18, 1995

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

Date 9/23/95 Analyst MAJOR  
Samples associated with this repeat control:

509-20-412 → 416  
509-20-429 → 432

Sample used as repeat control: 509-21-405  
AD = Absolute Difference RPD = Relative Percent Difference

Parameter US/L Samp. Repeat Accept Accept Assayd File  
Value Value AD RPD AD/RPD  
Units = US/L

Parameter	Samp. Value	Repeat Value	Accept AD	Accept RPD	Assayd AD/RPD	File
3-Chloro-1-propene						
Dichlorodifluoromethane						
Methyl Ethyl Ketone	400	400			0	
MIBK	250	250			0	
1,1,1,2-Tetrachloroethane						
Trichlorofluoromethane						
1,2,3-Trichloropropane						
1,2-Dibromomethane						
Cis-1.2-Dichloroethane						
Xylene	25	25			0	
Carbon disulfide	25	25				
Vinyl acetate	250	250				
Methyl Butyl Ketone	250	250				
Styrene	25	25				

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

ATTACHMENT #2

ED = 9/8 and 9/14/95

RESULTS REQUIRED BY: \_\_\_\_\_  
 VERBAL RESULTS NEEDED? \_\_\_\_\_

LABORATORY: Free - Col Labs

HARRISON DIVISION, GMC  
 200 UPPER MOUNTAIN ROAD  
 LOCKPORT, NEW YORK 14094  
 PHONE: (716) ~~439~~ - 685-2300  
 CONTACT: Steve Blair

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

DESCRIPTION: Soil - Please note holding time. Samples should be tested as needed to meet holding times

SAMPLE #	LOCATION	TIME	PARAMETERS	SAMPLE BOTTLE LOT # (OPTIONAL)
9/8/95	AP-11 2-3	3 <sup>00</sup> pm	SW 846 Method 8240	
9/14/95	AP-11 5.5-6	2 <sup>00</sup> pm	↓	
9/14/95	AP-12 6-6.5	2 <sup>30</sup> pm		
9/18/95	AP-13 7-8	3 <sup>00</sup> pm	SW 846 Method 8240	
9/19/95	MW-1	11 <sup>00</sup> am	SW 846 Method 8240	
"	MW-2	11 <sup>15</sup> am	↓	
"	MW-3	11 <sup>20</sup> am		
"	MW-4	11 <sup>30</sup> am		

Trip Blank

MINIMUM DETECTION LEVELS REQUIRED? \_\_\_\_\_

POTENTIAL INTERFERENCES: \_\_\_\_\_

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

BOTTLES RECEIVED BY: (DATE/TIME) (HRD PERSONNEL)

Sam [Signature]

BOTTLES RELINQUISHED BY: (DATE/TIME) (HRD PERSONNEL)

BOTTLES RELINQUISHED BY: (DATE/TIME) (HRD PERSONNEL)

BOTTLES RECEIVED BY: (DATE/TIME) (LAB PERSONNEL)

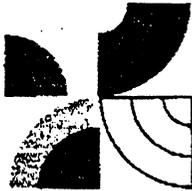
Will F. Scott 9-20-95 11:40

SAMPLE COLLECTED BY:

Gary Klawinski 62A

RECEIVED BY: (DATE, TIME, LAB SIGNATURE)

Joni Watt 9-20-95



FREE-COL LABORATORIES, INC.

P.O. BOX 557, COTTON ROAD  
MEADVILLE, PENNSYLVANIA 16335  
PHONE: (814) 724-8242  
FAX: (814) 333-1486

5815 AIRPORT ROAD  
ROANOKE, VIRGINIA 24012  
PHONE: (703) 285-2544  
FAX: (703) 362-1863

10/19/95

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

P.O. # HH48888

ACCOUNT NO. 01220

ANALYTICAL REPORT FORM

PAGE 1

PARAMETER	LAB ID	DATE RECEIVED:	MW-3 10/11/95	MW-4 10/11/95	MW-2 10/11/95
	51011524	10/11/95			
	51011525	10/11/95			
	51011526	10/11/95			

VOLATILE COMPOUNDS

UNITS = MG/L

CHLOROMETHANE	<1.0 D	<1.0 D	<1.0 D
BROMOMETHANE	<1.0 D	<1.0 D	<1.0 D
VINYL CHLORIDE	1.4	1.7	2.2
CHLOROETHANE	<1.0 D	<1.0 D	<1.0 D
METHYLENE CHLORIDE	<0.5 D	<0.5 D	<0.5 D
ACETONE	<10 D	<10 D	<10 D
CARBON DISULFIDE	<0.5 D	<0.5 D	<0.05 D
1,1,-DICHLOROETHENE	0.5	<0.5 D	<0.05 D
1,1,-DICHLOROETHANE	<0.5 D	<0.5 D	<0.05 D
1,2-DICHLORO***	230	220	77
CHLOROFORM	<0.5 D	<0.5 D	<0.5 D
1,2-DICHLOROETHANE	<0.5 D	<0.5 D	<0.5 D
2-BUTANONE	<10 D	<10 D	<10 D
1,1,1-TRICHLOROETHA*	<0.5 D	<0.5 D	<0.5 D
CARBON TETRACHLORIDE	<0.5 D	<0.5 D	<0.5 D
VINYL ACETATE	<5.0 D	<5.0 D	<5.0 D
BROMODICHLOROMETHANE	<0.5 D	<0.5 D	<0.5 D
1,1,2,2-TETRACHLORO*	<0.5 D	<0.5 D	<0.5 D
1,2-DICHLOROPROPANE	<0.5 D	<0.5 D	<0.5 D
TRANS-1,3-DICHLOROP*	<0.5 D	<0.5 D	<0.5 D
TRICHLOROETHENE	0.7	0.7	450
DIBROMOCHLOROMETHANE	<0.5 D	<0.5 D	<0.5 D
1,1,2-TRICHLOROETHA*	<0.5 D	<0.5 D	<0.5 D
BENZENE	3.2	3.2	<0.5 D
CIS-1,3-DICHLOROPRO*	<0.5 D	<0.5 D	<0.5 D

\*Some of the above names have been abbreviated. Please reference the enclosed list for their complete names.

MEADVILLE DIVISION

A.I.H.A. Accreditation No. 88  
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. 10662  
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

ROANOKE DIVISION

VA Dept. of Health Laboratory I.D. No. 00143

KEY:

<=LESS THAN

>=GREATER THAN

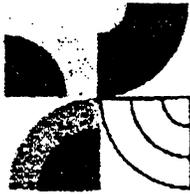
w.f.-WILL FOLLOW

OCT-19-1995 12:28

95%

P.03

D-78



**FREE-COL LABORATORIES, INC.**

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

5815 AIRPORT ROAD  
ROANOKE, VIRGINIA 24012  
PHONE: (703) 265-2544  
FAX: (703) 362-1663

10/19/95

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

P.O. # HH48888

ACCOUNT NO. 01220

**ANALYTICAL REPORT FORM**

PAGE 2

SAMPLE ID	MW-3	MW-4	MW-2
	10/11/95	10/11/95	10/11/95
LAB ID	51011524	51011525	51011526
PARAMETER	DATE RECEIVED: 10/11/95	10/11/95	10/11/95

VOLATILE COMPOUNDS (Cont.) UNITS = MG/L

2-CHLOR* VINYL ETHER	<1.0 D	<1.0 D	<1.0 D
BROMOFORM	<0.5 D	<0.5 D	<0.5 D
2-HEXANONE	<5.0 D	<5.0 D	<5.0 D
4-METHYL-2-PENTANONE	<5.0 D	<5.0 D	<5.0 D
TETRACHLOROETHENE	<0.5 D	<0.5 D	<0.5 D
TOLUENE	3.0	3.0	<0.5 D
CHLOROBENZENE	<0.5 D	<0.5 D	<0.5 D
ETHYL BENZENE	1.6	1.7	<0.5 D
STYRENE	<0.5 D	<0.5 D	<0.5 D
TOTAL XYLENES	2.9	2.9	<0.5 D

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

\*Some of the above names have been abbreviated. Please reference the enclosed list for their complete names.

**MEADVILLE DIVISION**

A.I.H.A. Accreditation No. 88  
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. 10562  
NY Dept. of Env. Conservation Approved Facility

ND Dept. of Health Cert. No. R-063  
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

**ROANOKE DIVISION**

VA Dept. of Health Laboratory I.D. No. 00143

KEY: < = LESS THAN > = GREATER THAN =J. = WILL FOLLOW

OCT-19-1995 12:28

95%

P.04

D-79



**FREE-COL LABORATORIES, INC.**

P.O. BOX 567, COTTON ROAD  
MEADVILLE, PENNSYLVANIA 16335  
PHONE: (814) 724-8242  
FAX: (814) 333-1486

5615 AIRPORT ROAD  
ROANOKE, VIRGINIA 24012  
PHONE: (703) 365-2544  
FAX: (703) 362-1063

10/19/95

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

P.O. # HH48888

ACCOUNT NO. 01220

**ANALYTICAL REPORT FORM**

PAGE 3

PARAMETER	LAB ID	DATE RECEIVED:	MW-5 10/11/95	MW-6 10/11/95	MW-1 10/11/95
	51011527	10/11/95		51011528	51011529
				10/11/95	10/11/95

**VOLATILE COMPOUNDS**

UNITS = MG/L

CHLOROMETHANE	<1.0 D	<1.0 D	<1.0 D
BROMOMETHANE	<1.0 D	<1.0 D	<1.0 D
VINYL CHLORIDE	1.7	1.0	<1.0 D
CHLOROETHANE	<1.0 D	<1.0 D	<1.0 D
METHYLENE CHLORIDE	<0.5 D	<0.5 D	<0.5 D
ACETONE	<10 D	<10 D	<10 D
CARBON DISULFIDE	<0.5 D	<0.5 D	<0.5 D
1,1,-DICHLOROETHENE	<0.5 D	<0.5 D	<0.5 D
1,1,-DICHLOROETHANE	<0.5 D	<0.5 D	<0.5 D
1,2-DICHLORO***	77	21	19
CHLOROFORM	<0.5 D	<0.5 D	<0.5 D
1,2-DICHLOROETHANE	<0.5 D	<0.5 D	<0.5 D
2-BUTANONE	<10 D	<10 D	<10 D
1,1,1-TRICHLOROETHA*	<0.5 D	<0.5 D	<0.5 D
CARBON TETRACHLORIDE	<0.5 D	<0.5 D	<0.5 D
VINYL ACETATE	<5.0 D	<5.0 D	<5.0 D
BROMODICHLOROMETHANE	<0.5 D	<0.5 D	<0.5 D
1,1,2,2-TETRACHLORO*	<0.5 D	<0.5 D	<0.5 D
1,2-DICHLOROPROPANE	<0.5 D	<0.5 D	<0.5 D
TRANS-1,3-DICHLORO*	<0.5 D	<0.5 D	<0.5 D
TRICHLOROETHENE	470	900	870
DIBROMOCHLOROMETHANE	<0.5 D	<0.5 D	<0.5 D
1,1,2-TRICHLOROETHA*	<0.5 D	<0.5 D	<0.5 D
BENZENE	<0.5 D	<0.5 D	<0.5 D
CIS-1,3-DICHLOROPRO*	<0.5 D	<0.5 D	<0.5 D

\*Some of the above names have been abbreviated. Please reference the enclosed list for their complete names.

**MEADVILLE DIVISION**

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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

**ROANOKE DIVISION**

VA Dept. of Health Laboratory I.D. No. 00143

KEY:

<=LESS THAN

>=GREATER THAN

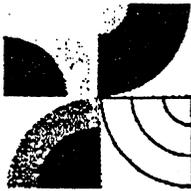
w.f.=WILL FOLLOW

OCT-19-1995 12:29

94%

P. 05

D-80



**FREE-COL LABORATORIES, INC.**

P.O. BOX 557, COTTON ROAD  
MEADVILLE, PENNSYLVANIA 16335  
PHONE: (814) 724-8242  
FAX: (814) 333-1488

5815 AIRPORT ROAD  
ROANOKE, VIRGINIA 24012  
PHONE: (703) 265-2644  
FAX: (703) 382-1663

10/19/95

TO:

DELPHI HARRISON THERM. SYS  
ATTN: MS. CATHY VER  
200 UPPER MOUNTAIN RD.  
LOCKPORT NY 14094

P.O. # HH48888

ACCOUNT NO. 01220

**ANALYTICAL REPORT FORM**

PAGE 4

	SAMPLE ID	MW-5	MW-6	MW-1
		10/11/95	10/11/95	10/11/95
	LAB ID	51011527	51011528	51011529
PARAMETER	DATE RECEIVED:	10/11/95	10/11/95	10/11/95

**VOLATILE COMPOUNDS (Cont.) UNITS = MG/L**

2-CHLOR* VINYL ETHER	<1.0 D	<1.0 D	<1.0 D
BROMOFORM	<0.5 D	<0.5 D	<0.5 D
2-HEXANONE	<5.0 D	<5.0 D	<5.0 D
4-METHYL-2-PENTANONE	<5.0 D	<5.0 D	<5.0 D
TETRACHLOROETHENE	<0.5 D	<0.5 D	<0.5 D
TOLUENE	<0.5 D	<0.5 D	<0.5 D
CHLORO BENZENE	<0.5 D	<0.5 D	<0.5 D
ETHYL BENZENE	<0.5 D	<0.5 D	<0.5 D
STYRENE	<0.5 D	<0.5 D	<0.5 D
TOTAL XYLENES	<0.5 D	<0.5 D	<0.5 D

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

\*Some of the above names have been abbreviated. Please reference the enclosed list for their complete names.

**MEADVILLE DIVISION**

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PA Dept. of Agriculture Approved Dairy Laboratory  
NY Dept. of Health Laboratory I.D. No. 10652  
NY Dept. of Env. Conservation Approved Facility

ND Dept. of Health Cert. No. R-063  
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

**ROANOKE DIVISION**

VA Dept. of Health Laboratory I.D. No. 00143

KEY:

<=LESS THAN

>=GREATER THAN

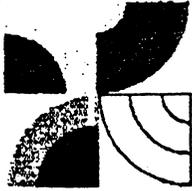
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P. 06

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**FREE-COL LABORATORIES, INC.**

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

5815 AIRPORT ROAD  
ROANOKE, VIRGINIA 24012  
PHONE: (703) 285-2544  
FAX: (703) 382-1663

10/19/95

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

P.O. # HH48888  
ACCOUNT NO. 01220

**ANALYTICAL REPORT FORM**

PAGE 5

SAMPLE ID : TRIP BLANK  
10/11/95

LAB ID 51011530  
DATE RECEIVED: 10/11/95

PARAMETER	RESULTS	UNITS	DATE	ANALYST
<b><u>VOLATILE COMPOUNDS</u></b>				
Chloromethane	<0.010	MG/L	10/17/95	ECKLUND/ MAJOR
Bromomethane	<0.010			
Vinyl Chloride	<0.010			
Chloroethane	<0.010			
Methylene Chloride	<0.005			
Acetone	<0.10			
Carbon Disulfide	<0.005			
1,1-Dichloroethene	<0.005			
1,1-Dichloroethane	<0.005			
1,2-Dichloroethenes (Total)***	<0.005			
Chloroform	<0.005			
1,2-Dichloroethane	<0.005			
2-Butanone	<0.10			
1,1,1-Trichloroethane	<0.005			
Carbon Tetrachloride	<0.005			
Vinyl Acetate	<0.050			
Bromodichloromethane	<0.005			
1,1,2,2-Tetrachloroethane	<0.005			
1,2-Dichloropropane	<0.005			
trans-1,3-Dichloropropene	<0.005			
Trichloroethene	<0.005			
Dibromochloromethane	<0.005			
1,1,2-Trichloroethane	<0.005			

**MEADVILLE DIVISION**

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

**ROANOKE DIVISION**

VA Dept. of Health Laboratory I.D. No. 00143

KEY:

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**FREE-COL LABORATORIES, INC.**

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FAX: (814) 333-1466

5815 AIRPORT ROAD  
ROANOKE, VIRGINIA 24012  
PHONE: (703) 285-2544  
FAX: (703) 362-1863

10/19/95

TO:

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

P.O. # HH48888

ACCOUNT NO. 01220

**ANALYTICAL REPORT FORM**

PAGE 6

SAMPLE ID : TRIP BLANK  
10/11/95

LAB ID 51011530  
DATE RECEIVED: 10/11/95

PARAMETER	RESULTS	UNITS	DATE AND	ANALYST
<b>VOLATILE COMPOUNDS Continued</b>				
Benzene	<0.005	MG/L	10/17/95	ECKLUND/ MAJOR
cis-1,3-Dichloropropene	<0.005			
2-Chloroethylvinyl ether	<0.010			
Bromoform	<0.005			
2-Hexanone	<0.050			
4-Methyl-2-pentanone	<0.050			
Tetrachloroethene	<0.005			
Toluene	<0.005			
Chlorobenzene	<0.005			
Ethylbenzene	<0.005			
Styrene	<0.005			
Total Xylenes	<0.005			

\*\*\*EPA Methods 601 and 624 and SW 846 Methods 8010 and 8240 do not differentiate the co-eluting cis and trans-1,2-dichloroethenes. The result reported is the sum of both compounds.

**Volatile Compounds - Method 8240A**

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

**MEADVILLE DIVISION**

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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. 10662  
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

**ROANOKE DIVISION**

VA Dept. of Health Laboratory I.D. No. 00143

KEY:

< - LESS THAN

> - GREATER THAN

w.f. = WILL FOLLOW

OCT-19-1995 12:30

95%

P.08

D-83

FREE-COL LABORATORIES, INC.  
P.O. Box 557, Cotton Road  
Meadville, Pennsylvania 16335-0557  
Phone: Area Code 814/724-8242  
FAX: Area Code 814/333-1486



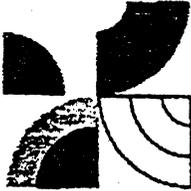
ENVIRONMENTAL  
OCCUPATIONAL HEALTH  
FOOD SCIENCE  
SPECIALISTS

## Unabbreviated Listing of Hazardous Substance List Compounds

### VOLATILE COMPOUNDS

Chloromethane	Bromodichloromethane
Bromomethane	1,1,2,2-Tetrachloroethane
Vinyl Chloride	1,2-Dichloropropane
Chloroethane	trans-1,3-Dichloropropene
Methylene Chloride	Trichloroethene
Acetone	Dibromochloromethane
Carbon Disulfide	1,1,2-Trichloroethane
1,1-Dichloroethene	Benzene
1,1-Dichloroethane	cis-1,3-Dichloropropene
1,2-Dichloroethylenes (Total)***	2-Chloroethyl Vinyl Ether
Chloroform	Bromoform
1,2-Dichloroethane	2-Hexanone
2-Butanone	4-Methyl-2-pentanone
1,1,1-Trichloroethane	Tetrachloroethene
Carbon Tetrachloride	Toluene
Vinyl Acetate	Chlorobenzene
Ethyl Benzene	
Styrene	
Total Xylenes	

\*\*\*EPA Methods 601 and 624 and SW 846 Methods 8010 and 8240 do not differentiate the co-eluting cis and trans-1,2-dichloroethenes. The result reported to you is the sum of both compounds.



# FREE-COL LABORATORIES, INC.

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FAX: (814) 333-1486

5815 AIRPORT ROAD  
ROANOKE, VIRGINIA 24012  
PHONE: (703) 265-2544  
FAX: (703) 362-1663

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

ALHA Accreditation No. 98  
U.S. Public Health Service Approved Facility  
PA D.E.P. Laboratory I.D. No. 20-073  
PA Dept. of Agriculture Approved Dairy Laboratory  
NY Dept. of Health Laboratory I.D. No. 10652  
NY Dept. of Env. Conservation Approved Facility

ND Dept. of Health Cert. No. R-083  
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MI Dept. of Public Health Approved Facility  
U.S. Office of Surface Mining Approved Facility

### ROANOKE DIVISION

VA Dept. of Health Laboratory I.D. No. 00143

OCT-19-1995 12:31

< = LESS THAN

> = GREATER THAN

W.F. = WILL FOLLOW

94%

P. 10

D-85

ENVIRONMENTAL SAMPLE DESCRIPTION  
AND  
CHAIN OF CUSTODY RECORD

ATTACHMENT #2

DATE: 10/11/95

RESULTS REQUIRED BY: \_\_\_\_\_  
VERSAL RESULTS NEEDED? \_\_\_\_\_

HARRISON DIVISION, GMC  
200 UPPER MOUNTAIN ROAD  
LOCKPORT, NEW YORK 14094  
PHONE: (716) 489-685-2300  
CONTACT: Steve Blair

LABORATORY: Free-Co1 Labs

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

DESCRIPTION: Note: Please test samples in the following order:  
MW-3, MW-4, MW-2, MW-5, MW-6 then ~~MW-1~~ MW-1

SAMPLE #	LOCATION	TIME	PARAMETERS	SAMPLE BOTTLE LOT # (OPTIONAL)
<u>10/11/95</u>	<u>MW-3</u>	<u>8:20</u>	<u>SW 896 Method 8240</u>	<u>3</u>
	<u>MW-4</u>	<u>8:25</u>		<u>3</u>
	<u>MW-2</u>	<u>8:30</u>		<u>3</u>
	<u>MW-5</u>	<u>8:35</u>		<u>3</u>
	<u>MW-6</u>	<u>8:40</u>		<u>3</u>
	<u>MW-1</u>	<u>8:45</u>		<u>3</u>
	<u>Trip Blank</u>			<u>2</u>

NUM DETECTION LEVELS REQUIRED? \_\_\_\_\_

VISIBLE INTERFERENCES: \_\_\_\_\_

CON FOR TEST (COMPARISON OF AREAS, BACKGROUND, ETC.) \_\_\_\_\_

FILES RECEIVED BY: (DATE/TIME) [HRD PERSONNEL] <u>Steve Blair 10/11/95</u>	BOTTLES RELINQUISHED BY: (DATE/TIME) [HRD PERSONNEL]
FILES RELINQUISHED BY: (DATE/TIME) [HRD PERSONNEL] <u>Steve Blair 10/11/95</u>	BOTTLES RECEIVED BY: (DATE/TIME) [LAB PERSONNEL] <u>Thomas J. Mulligan</u>
SAMPLE COLLECTED BY: <u>Steve Blair 10/11/95</u>	RECEIVED BY: (DATE, TIME, LAB SIGNATURE) <u>Darlene K. Seeger 10/11/95 19:25</u>



FREE-COL LABORATORIES, INC.

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

01/19/96

TO:

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

NY 14094-1896

P.O. # HH48938

ACCOUNT NO. 01220

ANALYTICAL REPORT FORM

PAGE 1

SAMPLE ID	:	MW-3D	TRIP BLANK
		01/16/96	01/15/96
LAB ID		60117049	60117050
PARAMETER	DATE RECEIVED:	01/17/96	01/17/96

VOLATILE COMPOUNDS	UNITS = MG/L	
CHLOROMETHANE	<0.010	<0.010
BROMOMETHANE	<0.010	<0.010
VINYL CHLORIDE	<0.010	<0.010
CHLOROETHANE	<0.010	<0.010
METHYLENE CHLORIDE	<0.005	<0.005
ACETONE	<0.10	<0.10
CARBON DISULFIDE	<0.005	<0.005
1,1,-DICHLOROETHENE	<0.005	<0.005
1,1,-DICHLOROETHANE	<0.005	<0.005
1,2-DICHLORO***	<0.005	<0.005
CHLOROFORM	<0.005	0.023
1,2-DICHLOROETHANE	<0.005	<0.005
2-BUTANONE	<0.10	<0.10
1,1,1-TRICHLOROETHA*	<0.005	<0.005
CARBON TETRACHLORIDE	<0.005	<0.005
VINYL ACETATE	<0.050	<0.050
BROMODICHLOROMETHANE	<0.005	0.011
1,1,2,2-TETRACHLORO*	<0.005	<0.005
1,2-DICHLOROPROPANE	<0.005	<0.005
TRANS-1,3-DICHLOROP*	<0.005	<0.005
TRICHLOROETHENE	<0.005	<0.005
DIBROMOCHLOROMETHANE	<0.005	<0.005
1,1,2-TRICHLOROETHA*	<0.005	<0.005
BENZENE	<0.005	<0.005
CIS-1,3-DICHLOROPRO*	<0.005	<0.005

\*Some of the above names have been abbreviated. Please reference the enclosed list for their complete names.

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



FREE-COL LABORATORIES, INC.

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

01/19/96

TO:

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

P.O. # HH48938

ACCOUNT NO. 01220

ANALYTICAL REPORT FORM

PAGE 2

SAMPLE ID : MW-3D TRIP BLANK  
01/16/96 01/15/96

PARAMETER LAB ID 60117049 60117050  
DATE RECEIVED: 01/17/96 01/17/96

VOLATILE COMPOUNDS (Cont.) UNITS = MG/L

2-CHLOR* VINYL ETHER	<0.010	<0.010
BROMOFORM	<0.005	<0.005
2-HEXANONE	<0.050	<0.050
4-METHYL-2-PENTANONE	<0.050	<0.050
TETRACHLOROETHENE	<0.005	<0.005
TOLUENE	<0.005	<0.005
CHLOROBENZENE	<0.005	<0.005
ETHYL BENZENE	<0.005	<0.005
STYRENE	<0.005	<0.005
TOTAL XYLENES	<0.005	<0.005

DATE AND ANALYST  
01/18/96 ECKLUND/MAJOR

\*Some of the above names have been abbreviated. Please  
refer to the enclosed list for their complete names.

MEADVILLE DIVISION

I.H.A. Accreditation No. 98  
S. Public Health Services Approved Facility  
A.D.B.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. 2300  
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, INC.**

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

01/19/96

TO:

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

NY 14094-1896

P.O. # HH48938

ACCOUNT NO. 01220

**ANALYTICAL REPORT FORM**

PAGE 3

SAMPLE ID : MW-3D  
01/16/96

LAB ID 60117049  
DATE RECEIVED: 01/17/96

PARAMETER	RESULTS	UNITS	DATE	AND	ANALYST
Specific Conductance	13,800	UMHOS/CM	01/19/96		ARNETT

pc: GZA GEOENVIRONMENTAL  
STEVE BLAIR

*Andrew K. Ecklund*

ASST. LABORATORY DIRECTOR

**MEADVILLE DIVISION**

I.A. Accreditation No. 98  
Public Health Services Approved Facility  
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  
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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

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



ENVIRONMENTAL  
OCCUPATIONAL HEALTH  
FOOD SCIENCE  
SPECIALISTS

## Unabbreviated Listing of Hazardous Substance List Compounds

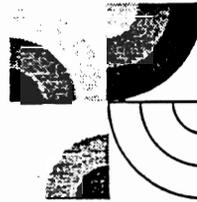
### VOLATILE COMPOUNDS

Chloromethane	Bromodichloromethane
Bromomethane	1,1,2,2-Tetrachloroethane
Vinyl Chloride	1,2-Dichloropropane
Chloroethane	trans-1,3-Dichloropropene
Methylene Chloride	Trichloroethene
Acetone	Dibromochloromethane
Carbon Disulfide	1,1,2-Trichloroethane
1,1-Dichloroethene	Benzene
1,1-Dichloroethane	cis-1,3-Dichloropropene
1,2-Dichloroethylenes (Total)***	2-Chloroethyl Vinyl Ether
Chloroform	Bromoform
1,2-Dichloroethane	2-Hexanone
2-Butanone	4-Methyl-2-pentanone
1,1,1-Trichloroethane	Tetrachloroethene
Carbon Tetrachloride	Toluene
Vinyl Acetate	Chlorobenzene
Ethyl Benzene	
Styrene	
Total Xylenes	

\*\*\*EPA Methods 601 and 624 and SW 846 Methods 8010 and 8240 do not differentiate the co-eluting cis and trans-1,2-dichloroethenes. The result reported to you is the sum of both compounds.

**FREE-COL LABORATORIES, INC.**

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



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:

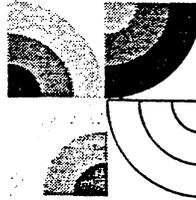
General Motors Sample Identification

Free-Col ID

MW-3D 01/16/96  
TRIP BLANK 01/15/96

60117049  
60117050

**FREE-COL LABORATORIES, INC.**  
P.O. Box 557, 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 HARRISON THRM. SYS.  
GENERAL MOTORS CORPORATION**

**MW-3D**

**SAMPLE DATE: 01/30/96  
P.O.# HH48938**



# FREE-COL LABORATORIES, INC.

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

02/05/96

TO:

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

P.O. # HH48938

ACCOUNT NO. 01220

## ANALYTICAL REPORT FORM

PAGE 1

SAMPLE ID	: MW-3D	TRIP BLANK
	01/30/96	01/15/96
LAB ID	60131409	60131410
PARAMETER	DATE RECEIVED:	01/31/96
	01/31/96	01/31/96

### VOLATILE COMPOUNDS

UNITS = MG/L

CHLOROMETHANE	<0.010	<0.010
BROMOMETHANE	<0.010	<0.010
VINYL CHLORIDE	<0.010	<0.010
CHLOROETHANE	<0.010	<0.010
METHYLENE CHLORIDE	<0.005	<0.005
ACETONE	<0.10	<0.10
CARBON DISULFIDE	<0.005	<0.005
1,1,-DICHLOROETHENE	<0.005	<0.005
1,1,-DICHLOROETHANE	<0.005	<0.005
1,2-DICHLORO***	<0.005	<0.005
CHLOROFORM	<0.005	0.025
1,2-DICHLOROETHANE	<0.005	<0.005
2-BUTANONE	<0.10	<0.10
1,1,1-TRICHLOROETHA*	<0.005	<0.005
CARBON TETRACHLORIDE	<0.005	<0.005
VINYL ACETATE	<0.050	<0.050
BROMODICHLOROMETHANE	<0.005	0.010
1,1,2,2-TETRACHLORO*	<0.005	<0.005
1,2-DICHLOROPROPANE	<0.005	<0.005
TRANS-1,3-DICHLOROP*	<0.005	<0.005
TRICHLOROETHENE	<0.005	<0.005
DIBROMOCHLOROMETHANE	<0.005	<0.005
1,1,2-TRICHLOROETHA*	<0.005	<0.005
BENZENE	<0.005	<0.005
CIS-1,3-DICHLOROPRO*	<0.005	<0.005

\*Some of the above names have been abbreviated. Please reference the enclosed list for their complete names.

#### MEADVILLE DIVISION

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  
NC Dept. of Natural Resources Cert. No. 2  
MI Dept. of Public Health Approved Facility  
U.S. Office of Surface Mining Approved Fa

KEY:

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w.f.=WILL FOLLOW



**FREE-COL LABORATORIES, INC.**

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

02/05/96

TO:

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

NY 14094-1896

P.O. # HH48938

ACCOUNT NO. 01220

**ANALYTICAL REPORT FORM**

PAGE 2

	SAMPLE ID	: MW-3D	TRIP BLANK
		01/30/96	01/15/96
	LAB ID	60131409	60131410
PARAMETER	DATE RECEIVED:	01/31/96	01/31/96

VOLATILE COMPOUNDS (Cont.) UNITS = MG/L

2-CHLOR* VINYL ETHER	<0.010	<0.010
BROMOFORM	<0.005	<0.005
2-HEXANONE	<0.050	<0.050
4-METHYL-2-PENTANONE	<0.050	<0.050
TETRACHLOROETHENE	<0.005	<0.005
TOLUENE	<0.005	<0.005
CHLOROBENZENE	<0.005	<0.005
ETHYL BENZENE	<0.005	<0.005
STYRENE	<0.005	<0.005
TOTAL XYLENES	<0.005	<0.005

Volatile Compounds - Method 8240A

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

DATE AND ANALYST  
02/01/96 MAJOR

*Andrew K. Ecklund*

ASST. LABORATORY DIRECTOR

\*Some of the above names have been abbreviated. Please reference the enclosed list for their complete names.

pc: Mr. Steve Blair, GZA

**MEADVILLE DIVISION**

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MI Dept. of Public Health Approved Facility  
U.S. Office of Surface Mining Approved Facility

KEY:

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# CHAIN OF CUSTODY RECORD

## FREE-COL LABORATORIES, INC.



P.O. BOX 557 800 836 - 4130  
 COTTON ROAD 814 724 - 6242  
 MEADVILLE, PA 814 333 - 1466 Fax  
 16335-0557

CLIENT INFORMATION		2 TYPE		MISC.	
COMPANY	GZA GeoEnvironmental	Wastewater		TCLP SPIKE	
CONTACT	Steve Blair	Monitoring Well	X	YES NO	
ADDRESS	364 Nagel Drive	Drinking Water		SPIKE	
CITY	Buffalo	PWS #		YES NO	
STATE	NY	NPDES / SPDES	14225	METHODS	
PHONE	(716)685-2300	Solid Waste	(716)685-3629	YES NO	
FAX		I. H.		QA/QC	
PURCHASE ORDER NUMBER		Other		YES NO	
CLIENT NUMBER		3 PROJECT NAME / NUMBER			
		DELPHI THERMAL			
		4 SAMPLER'S NAME / DATE			
		BART A. KLETTS 1-30-96			

SAMPLE INFORMATION			ANALYSIS REQUESTED / COMMENTS	
DATE	TIME	SAMPLE ID	TYPE	GRAB/COMP
1 1/30/96	09:45	MW-3D	Water	Grab
2 / / 96	:	Trip Blank	DI Water	
3 / / 96	:			
4 / / 96	:			
5 / / 96	:			
6 / / 96	:			
7 / / 96	:			
8 / / 96	:			
9 / / 96	:			
10 / / 96	:			
11 / / 96	:			
12 / / 96	:			
13 / / 96	:			
14 / / 96	:			

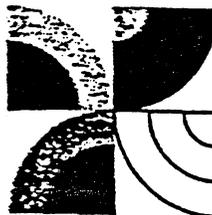
Volatiles 8240 ; 2-40 mil Vials  
 Trip Blank

\* Please Test ASAP

SAMPLE TRACABILITY		ORGANIZATION		USE BY LABORATORY ONLY	
Received	SIGNATURE	ORGANIZATION	Relinquished	Samples rec. at lab	Date
1 1/30/96	Bart A. Kletts	GZA	1 130/96	1 131/96	17:15
2 1/30/96	Thomas Muller	Free-Col	1 131/96		
3 1/31/96	William J. Skelton	Free Col	1 131/96		
4 1/31/96	John West	Free Col	1 131/96		
5 1/196	Andrew Ecklund	Free Col	2 16/96		
6 1/196			1 / 96		
7 1/196			1 / 96		

Means of del. to lab Tech Service  
 Sample cooler temp. upon receipt 5 (deg. C)  
 Sample check in started 1-31-96  
 Sample check in completed  
 Sample refrigerated upon receipt at lab Yes  
 Samples refrigerated upon receipt from client Yes

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



ENVIRONMENTAL  
OCCUPATIONAL HEALTH  
FOOD SCIENCE  
SPECIALISTS

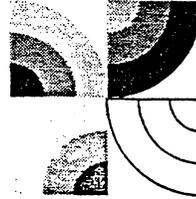
## Unabbreviated Listing of Hazardous Substance List Compounds

### VOLATILE COMPOUNDS

Chloromethane	Bromodichloromethane
Bromomethane	1,1,2,2-Tetrachloroethane
Vinyl Chloride	1,2-Dichloropropane
Chloroethane	trans-1,3-Dichloropropene
Methylene Chloride	Trichloroethene
Acetone	Dibromochloromethane
Carbon Disulfide	1,1,2-Trichloroethane
1,1-Dichloroethene	Benzene
1,1-Dichloroethane	cis-1,3-Dichloropropene
1,2-Dichloroethylenes (Total)***	2-Chloroethyl Vinyl Ether
Chloroform	Bromoform
1,2-Dichloroethane	2-Hexanone
2-Butanone	4-Methyl-2-pentanone
1,1,1-Trichloroethane	Tetrachloroethene
Carbon Tetrachloride	Toluene
Vinyl Acetate	Chlorobenzene
Ethyl Benzene	
Styrene	
Total Xylenes	

\*\*\*EPA Methods 601 and 624 and SW 846 Methods 8010 and 8240 do not differentiate the co-eluting cis and trans-1,2-dichloroethenes. The result reported to you is the sum of both compounds.

**FREE-COL LABORATORIES, INC.**  
P.O. Box 557, Cotton Road  
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Phone: Area Code 814/724-6242  
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**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:

General Motors Sample Identification

Free-Col ID

MW-3D 01/30/96  
TRIP BLANK 01/15/96

60131409  
60131410

Limits in effect as of May 18, 1995

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

Date 2-1-96 Analyst Ehrlund/Majer

Samples associated with this spiked control:

602-01-400  
601-31-409/410  
601-31-074

Sample used as spiked control: 601-31-409

PARAMETER	SPIKE ADDED UG/L	SPIKED RESULT UG/L	SAMPLE RESULT UG/L	ACCEPT. LIMITS % REC.	ASSYD % REC.	FILE
Chloromethane	20	16.1	<10	28-189	80	520
Bromomethane	20	15.4	↓	31-212	77	519
Vinyl chloride	20	14.0	↓	22-185	70	528
Chloroethane	20	17.0	↓	52-170	85	507
Methylene chloride	20	27.0	<5	63-148	135	521
Acrolein	62	-	-	22-185	-	500
Acrylonitrile	58	-	-	53-187	-	501
1,1-Dichloroethene	20	16.2	<5	50-158	81	513
1,1-Dichloroethane	20	17.9	↓	73-141	90	511
trans-1,2-Dichloroethenes	20	18.8	↓	63-151	94	514
Chloroform	20	19.4	↓	68-141	97	509
1,2-Dichloroethane	20	20.0	↓	52-157	100	512
1,1,1-Trichloroethane	20	18.9	↓	58-155	94	525
Carbon tetrachloride	20	21.3	↓	40-141	106	504
Bromodichloromethane	20	18.9	↓	46-150	94	510
1,2-Dichloropropane	20	19.2	↓	67-145	96	515
trans-1,3-Dichloropropene	20	17.4	↓	56-141	87	517
Trichloroethene	20	19.7	↓	64-129	98	527
Benzene	20	21.3	↓	70-144	106	502
Dibromochloromethane	20	17.3	↓	27-158	86	506
1,1,2-Trichloroethane	20	19.4	↓	59-149	97	526
cis-1,3-Dichloropropene	20	18.0	↓	46-151	90	516
2-Chloroethyl vinyl ether	20	16.6	<10	4-186	83	508
Bromoform	20	16.4	<5	6-150	82	503
Tetrachloroethene	20	18.6	↓	48-163	93	523
1,1,2,2-Tetrachloroethane	20	17.4	↓	46-164	87	522
Toluene	20	19.4	↓	72-131	97	524
Chlorobenzene	20	18.9	↓	70-131	94	505
Ethyl benzene	20	18.5	↓	61-140	92	518
1,3-Dichlorobenzene	26	-	-	58-163	-	530
1,2-Dichlorobenzene	26	-	-	42-159	-	529
1,4-Dichlorobenzene	20	-	-	33-177	-	531
Diethyl Benzene	44	-	-	71-137	-	533
Ethyl Ether	35	-	-	62-160	-	532
Xylenes	44	39.8	<5	72-130	90	534
MEK	20	18.9	<100	63-179	94	536



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

Date 2-1-96 Analyst Ecklund/Major  
 Samples associated with this blank:  
602-01-400  
601-31-409/410  
601-31-074

<u>Parameter</u>	<u>Blank Value</u>
Units = <u>ug/L</u>	
Chloromethane	<10
Bromomethane	↓
Vinyl chloride	↓
Chloroethane	↓
Methylene chloride	<5
Acrolein	-
Acrylonitrile	-
1,1-Dichloroethene	<5
1,1-Dichloroethane	↓
<del>trans-1,2-Dichloroethene</del>	↓
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	<10
Bromoform	<5
Tetrachloroethene	↓
1,1,2,2-Tetrachloroethane	↓
Toluene	↓
Chlorobenzene	↓
Ethyl benzene	↓
1,3-Dichlorobenzene	-
1,2-Dichlorobenzene	-
1,4-Dichlorobenzene	-
Xylene	<5
2-Butanone - MEK	<100
4-Methyl-2-pentanone	<50
Acetone	<100
Styrene	<5

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

Date 2-1-96

Analyst Ecklund/Majon

Samples associated with this blank:

602-01-400

601-31-409/410

Parameter

Blank Value

Units = µg/L

Carbon Disulfide

<5

Vinyl Acetate

<50

2-Hexanone - MBK

<50

Dichlorofluoromethane

1,1,1,2-Tetrachloroethane

Trichlorofluoromethane

1,2,3-Trichloropropane

3-Chloro-1-propene

1,2-Dibromomethane

cis,1,2-Dichloroethene

Limits in effect as of May 18, 1995

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

Date 2-1-96 Analyst Ecklund / major  
 Samples associated with this repeat control:  
602-01-400  
601-31-409/410  
601-31-074

Sample used as repeat control: 601-31-409  
 AD = Absolute Difference RPD = Relative Percent Difference

Parameter	Samp. Value	Repeat Value	Accept AD	Accept RPD	Assayd AD/RPD	File
Units = <u>µg/l</u>						
Chloromethane	<10	<10			∅	820
Bromomethane						819
Vinyl chloride				27		828
Chloroethane						807
Methylene chloride	<5	<5		17		821
Acrolein	=	=				800
Acrylonitrile	=	=				801
1,1-Dichloroethene	<5	<5			∅	813
1,1-Dichloroethane				41		811
trans-1,2-Dichloroethenes				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				32		827
Benzene				49		802
Dibromochloromethane				70		806
1,1,2-Trichloroethane						826
cis-1,3-Dichloropropene						816
2-Chloroethyl vinyl ether	<10	<10				808
Bromoform	<5	<5				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	<100	<100		26	∅	836

Limits in effect as of May 18, 1995

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

Date 2-1-96 Analyst Ecklund/Majer  
Samples associated with this repeat control:

602-01-400  
601-31-409/410

Sample used as repeat control: 601-31-409  
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 File AD/RPD</u>
------------------	--------------------	---------------------	------------------	-------------------	---------------------------

Units = ug/l

<u>3-Chloro-1-propene</u>					
<u>Dichlorodifluoromethane</u>					
<u>Methyl Ethyl Ketone</u>	<u>&lt;100</u>	<u>&lt;100</u>			<u>0</u>
<u>MIBK</u>	<u>&lt;50</u>	<u>&lt;50</u>			<u>0</u>
<u>1,1,1,2-Tetrachloroethane</u>					
<u>Trichlorofluoromethane</u>					
<u>1,2,3-Trichloropropane</u>					
<u>1,2-Dibromomethane</u>					
<u>Cis-1,2-Dichloroethane</u>					
<u>Xylene</u>	<u>&lt;5</u>	<u>&lt;5</u>			<u>0</u>
<u>Styrene</u>	<u>&lt;5</u>	<u>&lt;5</u>			<u>0</u>
<u>Carbon Disulfide</u>	<u>&lt;5</u>	<u>&lt;5</u>			<u>0</u>
<u>Methyl Butyl Ketone</u>	<u>&lt;50</u>	<u>&lt;50</u>			<u>0</u>
<u>Vinyl Acetate</u>	<u>&lt;50</u>	<u>&lt;50</u>			<u>0</u>

Limits in effect as of May 18, 1995

FREE-COL LABORATORIES, INC.  
TGA REFERENCE CONTROL INFORMATION  
(CLP - CALIBRATION VERIFICATION LIMITS)

Date 2-1-96 Analyst Ecklund/Major  
Samples associated with this reference control:

601-31-409/410  
601-31-074  
602-01-400

<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>Files</u>
Chloromethane	20	5.4-34.5	22.8	223
Bromomethane	20	8.1-39.8	17.7	222
Vinyl chloride	20	1.3-42.4	16.6	232
Chloroethane	20	4.0-36.9	16.3	209
Methylene chloride	20	11.5-31.4	18.6	224
Acrolein	62	4.2-105.4	-	201
Acrylonitrile	58	13.2-116.0	-	202
1,1-Dichloroethene	20	10.9-32.4	19.6	215
1,1-Dichloroethane	20	15.3-28.0	19.5	214
<del>trans-1,2-Dichloroethenes</del>	20	13.6-28.3	21.2	217
Chloroform	20	15.5-26.2	20.2	211
1,2-Dichloroethane	20	7.5-34.5	17.1	215
1,1,1-Trichloroethane	20	13.6-29.8	20.9	228
Carbon tetrachloride	20	7.7-28.1	20.3	206
Bromodichloromethane	20	9.7-30.1	18.6	212
1,2-Dichloropropane	20	15.2-28.0	19.9	218
trans-1,3-Dichloropropene	20	12.7-25.8	16.6	220
Trichloroethene	20	14.0-27.3	20.6	230
Benzene	20	14.2-28.1	17.0	203
Dibromochloromethane	20	4.1-29.5	17.2	208
1,1,2-Trichloroethane	20	14.2-28.5	19.4	229
cis-1,3-Dichloropropene	20	10.1-27.2	18.4	219
2-Chloroethyl vinyl ether	20	9.9-32.5	20.2	210
Bromoform	20	2.3-31.1	15.3	205
Tetrachloroethene	20	13.0-28.7	20.6	226
1,1,2,2-Tetrachloroethane	20	14.7-26.1	17.0	225
Toluene	20	15.1-25.7	20.3	227
Chlorobenzene	20	11.1-28.9	19.6	207
Ethyl benzene	20	13.2-27.7	20.2	221
1,3-Dichlorobenzene	26	18.2-36.9	-	234
1,2-Dichlorobenzene	26	11.0-42.2	-	233
1,4-Dichlorobenzene	20	3.0-36.1	-	235
Diethyl Benzene	44	25.9-62.9	-	237
Ethyl Ether	35	26.9-49.4	-	236
Xylenes	44	21.0-66.7	41.5	238
MEK	20	9.1-39.4	15.2	240
Acetone	20	9.6-38.0	13.9	242

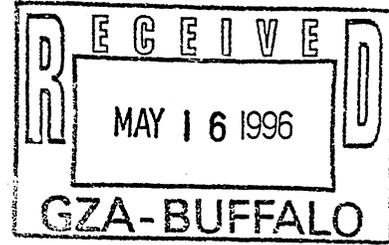




FREE-COL LABORATORIES, INC.  
P.O. Box 557, Cotton Road  
Meadville, Pennsylvania 16335-0557  
Phone: Area Code 814/724-6242  
FAX: Area Code 814/333-1488



ENVIRONMENTAL  
OCCUPATIONAL HEALTH  
FOOD SCIENCE  
SPECIALISTS



DELPHI HARRISON THRM. SYS.  
GENERAL MOTORS CORPORATION

MONITORING WELLS #3-8

SAMPLE DATES: 04/30/96  
P.O.# HH48938

**FREE-COL LABORATORIES, INC.**

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

05/13/96

TO:

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

NY 14094-1896

P.O. # HH48938

ACCOUNT NO. 01220

**ANALYTICAL REPORT FORM**

PAGE 1

SAMPLE ID	: MW-4	MW-5	MW-6	MW-3
	04/30/96	04/30/96	04/30/96	04/30/96
LAB ID	60501416	60501417	60501418	60501419
DATE RECEIVED:	05/01/96	05/01/96	05/01/96	05/01/96

**VOLATILE COMPOUNDS**

UNITS = MG/L

CHLOROMETHANE	<1 D	<1 D	<1 D	<1 D
BROMOMETHANE	<1 D	<1 D	<1 D	<1 D
VINYL CHLORIDE	40	<1 D	3.4	2.6
CHLOROETHANE	<1 D	<1 D	<1 D	<1 D
METHYLENE CHLORIDE	<0.5 D	<0.5 D	<0.5 D	<0.5 D
ACETONE	<10 D	<10 D	<10 D	<10 D
CARBON DISULFIDE	<0.5 D	<0.5 D	<0.5 D	<0.5 D
1,1,-DICHLOROETHENE	<0.5 D	<0.5 D	<0.5 D	<0.5 D
1,1,-DICHLOROETHANE	<0.5 D	<0.5 D	<0.5 D	<0.5 D
1,2-DICHLORO***	170	0.7	5.3	310
CHLOROFORM	<0.5 D	<0.5 D	<0.5 D	<0.5 D
1,2-DICHLOROETHANE	<0.5 D	<0.5 D	<0.5 D	<0.5 D
2-BUTANONE	<10 D	<10 D	<10 D	<10 D
1,1,1-TRICHLOROETHA*	<0.5 D	<0.5 D	<0.5 D	<0.5 D
CARBON TETRACHLORIDE	<0.5 D	<0.5 D	<0.5 D	<0.5 D
VINYL ACETATE	<5 D	<5 D	<5 D	<5 D
BROMODICHLOROMETHANE	<0.5 D	<0.5 D	<0.5 D	<0.5 D
1,1,2,2-TETRACHLORO*	<0.5 D	<0.5 D	<0.5 D	<0.5 D
1,2-DICHLOROPROPANE	<0.5 D	<0.5 D	<0.5 D	<0.5 D
TRANS-1,3-DICHLOROP*	<0.5 D	<0.5 D	<0.5 D	<0.5 D
TRICHLOROETHENE	32	33	6.9	0.6
DIBROMOCHLOROMETHANE	<0.5 D	<0.5 D	<0.5 D	<0.5 D
1,1,2-TRICHLOROETHA*	<0.5 D	<0.5 D	<0.5 D	<0.5 D
BENZENE	<0.5 D	<0.5 D	<0.5 D	3.4
CIS-1,3-DICHLOROPRO*	<0.5 D	<0.5 D	<0.5 D	<0.5 D

\*Some of the above names have been abbreviated. Please reference the enclosed list for their complete names.

**MEADVILLE DIVISION**

L.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  
 NC Dept. of Natural Resources Cert. No. 238  
 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, INC.

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

05/13/96

TO:

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

NY 14094-1896

P.O. # HH48938

ACCOUNT NO. 01220

ANALYTICAL REPORT FORM

PAGE 2

Table with 5 columns: SAMPLE ID, LAB ID, DATE RECEIVED, and two unlabeled columns. Rows include MW-4, MW-5, MW-6, MW-3 with corresponding dates and lab IDs.

VOLATILE COMPOUNDS (Cont.) UNITS = MG/L

Table listing volatile compounds such as 2-CHLOR\* VINYL ETHER, BROMOFORM, 2-HEXANONE, 4-METHYL-2-PENTANONE, TETRACHLOROETHENE, TOLUENE, CHLOROBENZENE, ETHYL BENZENE, STYRENE, and TOTAL XYLENES with their respective measurements.

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

\*Some of the above names have been abbreviated. Please reference the enclosed list for their complete names.

MEADVILLE DIVISION

I.H.A. Accreditation No. 98
U.S. Public Health Services Approved Facility
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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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05/13/96

TO:

DELPHI HARRISON THRM.SYS  
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200 UPPER MOUNTAIN RD.  
LOCKPORT

NY 14094-1896

P.O. # HH48938

ACCOUNT NO. 01220

ANALYTICAL REPORT FORM

PAGE 3

PARAMETER	SAMPLE ID	LAB ID	DATE RECEIVED	MW-7	MW-8	TRIP BLANK
				04/30/96	04/30/96	
		60501420	05/01/96		60501421	60501422
					05/01/96	05/01/96

VOLATILE COMPOUNDS                      UNITS = MG/L

CHLOROMETHANE	<1 D	<1 D	<0.010
BROMOMETHANE	<1 D	<1 D	<0.010
VINYL CHLORIDE	1.8	2.1	<0.010
CHLOROETHANE	<1 D	<1 D	<0.010
METHYLENE CHLORIDE	<0.5 D	<0.5 D	<0.005
ACETONE	<10 D	<10 D	<0.10
CARBON DISULFIDE	<0.5 D	<0.5 D	<0.005
1,1,-DICHLOROETHENE	<0.5 D	<0.5 D	<0.005
1,1,-DICHLOROETHANE	<0.5 D	<0.5 D	<0.005
1,2-DICHLORO***	37	5.8	<0.005
CHLOROFORM	<0.5 D	<0.5 D	<0.005
1,2-DICHLOROETHANE	<0.5 D	<0.5 D	<0.005
2-BUTANONE	<10 D	<10 D	<0.10
1,1,1-TRICHLOROETHA*	<0.5 D	<0.5 D	<0.005
CARBON TETRACHLORIDE	<0.5 D	<0.5 D	<0.005
VINYL ACETATE	<5 D	<5 D	<0.050
BROMODICHLOROMETHANE	<0.5 D	<0.5 D	<0.005
1,1,2,2-TETRACHLORO*	<0.5 D	<0.5 D	<0.005
1,2-DICHLOROPROPANE	<0.5 D	<0.5 D	<0.005
TRANS-1,3-DICHLOROP*	<0.5 D	<0.5 D	<0.005
TRICHLOROETHENE	1,300	5.6	<0.005
DIBROMOCHLOROMETHANE	<0.5 D	<0.5 D	<0.005
1,1,2-TRICHLOROETHA*	<0.5 D	<0.5 D	<0.005
BENZENE	<0.5 D	<0.5 D	<0.005
CIS-1,3-DICHLOROPRO*	<0.5 D	<0.5 D	<0.005

\*Some of the above names have been abbreviated. Please reference the enclosed list for their complete names.

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

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U.S. Office of Surface Mining Approved Facility



FREE-COL LABORATORIES, INC.

P.O. BOX 557, COTTON ROAD  
MEADVILLE, PENNSYLVANIA 16335  
PHONE: (814) 724-8242  
FAX: (814) 333-1466

05/13/96

TO:

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

P.O. # HH48938

ACCOUNT NO. 01220

ANALYTICAL REPORT FORM

PAGE 4

	SAMPLE ID	: MW-7	MW-8	TRIP BLANK
		04/30/96	04/30/96	
PARAMETER	LAB ID	60501420	60501421	60501422
	DATE RECEIVED:	05/01/96	05/01/96	05/01/96

VOLATILE COMPOUNDS (Cont.) UNITS = MG/L

2-CHLOR* VINYL ETHER	<1 D	<1 D	<0.010
BROMOFORM	<0.5 D	<0.5 D	<0.005
2-HEXANONE	<5 D	<5 D	<0.050
4-METHYL-2-PENTANONE	<5 D	<5 D	<0.050
TETRACHLOROETHENE	<0.5 D	48	<0.005
TOLUENE	<0.5 D	<0.5 D	<0.005
CHLOROBENZENE	<0.5 D	<0.5 D	<0.005
ETHYL BENZENE	<0.5 D	<0.5 D	<0.005
STYRENE	<0.5 D	<0.5 D	<0.005
TOTAL XYLENES	<0.5 D	<0.5 D	<0.005

Volatile Compounds - Method 8240A

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

DATE AND ANALYST  
05/08/96 ECKLUND/MAJOR

*Andrew K. Ecklund*  
ASST. LABORATORY DIRECTOR

\*Some of the above names have been abbreviated. Please reference the enclosed list for their complete names.

pc: Mr. Steve Blair, GZA

MEADVILLE DIVISION  
I.H.A. Accreditation No. 98  
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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**

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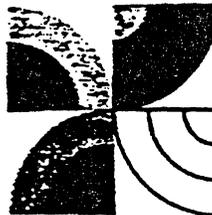
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MI Dept. of Public Health Approved Facility  
U.S. Office of Surface Mining Approved Facility

KEY:

<=LESS THAN

>=GREATER THAN

w.f.=WILL FOLLOW



Unabbreviated Listing of Hazardous Substance List Compounds

VOLATILE COMPOUNDS

Chloromethane	Bromodichloromethane
Bromomethane	1,1,2,2-Tetrachloroethane
Vinyl Chloride	1,2-Dichloropropane
Chloroethane	trans-1,3-Dichloropropene
Methylene Chloride	Trichloroethene
Acetone	Dibromochloromethane
Carbon Disulfide	1,1,2-Trichloroethane
1,1-Dichloroethene	Benzene
1,1-Dichloroethane	cis-1,3-Dichloropropene
1,2-Dichloroethylenes (Total)***	2-Chloroethyl Vinyl Ether
Chloroform	Bromoform
1,2-Dichloroethane	2-Hexanone
2-Butanone	4-Methyl-2-pentanone
1,1,1-Trichloroethane	Tetrachloroethene
Carbon Tetrachloride	Toluene
Vinyl Acetate	Chlorobenzene
Ethyl Benzene	
Styrene	
Total Xylenes	

\*\*\*EPA Methods 601 and 624 and SW 846 Methods 8010 and 8240 do not differentiate the co-eluting cis and trans-1,2-dichloroethenes. The result reported to you is the sum of both compounds.

**FREE-COL LABORATORIES, INC.**

P.O. Box 557, Cotton Road  
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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-4 04/30/96	60501416
MW-5 04/30/96	60501417
MW-6 04/30/96	60501418
MW-3 04/30/96	60501419
MW-7 04/30/96	60501420
MW-8 04/30/96	60501421
TRIP BLANK	60501422

Free-Col Laboratories, Inc.  
 Surrogate Spike Information  
 Method 8250

= 5/8/96  
5/9/96

Analyst: Ecklund

s: % Recovery

e: W = Low/Medium Water

S = Low/Medium Soil/Sediment

Limits:	<u>Dibromofluoromethane</u>	<u>Toluene-d8</u>	<u>4-Bromofluoro- benzene</u>
Water	86-118	88-110	86-115
Soil/Sediment	80-128	81-117	74-121

Free-Col I.D.

W	605-01-430	94	100	112
N	605-01-416	109	110	92
N	605-01-417	114	109	90
N	605-01-418	110	106	94
N	605-01-419	109	106	89
N	605-01-420	97	104	92
N	605-01-421	104	104	94
W	605-01-422	97	103	96

Limits in effect as of May 18, 1995

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

Date 5-16-96 Analyst T. Lata / Ecklund

Samples associated with this spiked control:

605-01-430 605-01-406/407  
605-01-416 → 422  
605-07-406/407  
Sample used as spiked control: 605-07-040

<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	16.5	<2	28-189	82 %	520
Bromomethane	20	22.9		31-212	114	519
Vinyl chloride	20	16.7		22-185	84	528
Chloroethane	20	18.3		52-170	92	507
Methylene chloride	20	24.4	↓	63-148	122	521
Acrolein	62	—	<10	22-185	—	500
Acrylonitrile	58	48.5	<10	53-187	84	501
1,1-Dichloroethene	20	16.2	<2	50-158	81	513
1,1-Dichloroethane	20	20.7		73-141	104	511
trans-1,2-Dichloroethene	20	18.4		63-151	92	514
Chloroform	20	23.6		68-141	118	509
1,2-Dichloroethane	20	23.2		52-157	116	512
1,1,1-Trichloroethane	20	19.9		58-155	100	525
Carbon tetrachloride	20	20.2		40-141	101	504
Bromodichloromethane	20	22.9		46-150	114	510
1,2-Dichloropropane	20	23.7		67-145	118	515
trans-1,3-Dichloropropene	20	21.4		56-141	107	517
Trichloroethene	20	23.9		64-129	120	527
Benzene	20	23.5		70-144	118	502
Dibromochloromethane	20	19.8		27-158	99	506
1,1,2-Trichloroethane	20	21.7		59-149	108	526
cis-1,3-Dichloropropene	20	21.6		46-151	108	516
2-Chloroethyl vinyl ether	20	23.0		4-186	115	508
Bromoform	20	18.6		6-150	93	503
Tetrachloroethene	20	19.1		48-163	96	523
1,1,2,2-Tetrachloroethane	20	24.2		46-164	121	522
Toluene	20	22.6		72-131	113	524
Chlorobenzene	20	21.3		70-131	106	505
Ethyl benzene	20	23.3		61-140	116	518
1,3-Dichlorobenzene	26	28.1		58-163	108	530
1,2-Dichlorobenzene	26	27.7		42-159	106	529
1,4-Dichlorobenzene	20	21.7	↓	33-177	108	531
Diethyl Benzene	44	—	—	71-137	—	533
Ethyl Ether	35	—	—	62-160	—	532
Xylenes	44	51.7	<2	72-130	118	534
MEK	20	23.1	<100	63-179	116	536

Limits in effect as of May 18, 1995

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

Date 5-8-96 Analyst T. Latg / Ecklund

Samples associated with this reference control:

<u>605-06-033</u>	<u>605-01-406/407</u>
<u>605-01-430</u>	
<u>605-08-406/407</u>	<u>605-01-416 → 422</u>

<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	18.1	223
Bromomethane	20	8.1-39.8	21.6	222
Vinyl chloride	20	1.3-42.4	19.2	232
Chloroethane	20	4.0-36.9	19.8	209
Methylene chloride	20	11.5-31.4	20.8	224
Acrolein	62	4.2-105.4	55.3	201
Acrylonitrile	58	13.2-116.0	61.9	202
1,1-Dichloroethene	20	10.9-32.4	20.2	216
1,1-Dichloroethane	20	15.3-28.0	19.8	214
trans-1,2-Dichloroethene	20	13.6-28.3	20.4	217
Chloroform	20	15.5-26.2	20.3	211
1,2-Dichloroethane	20	7.5-34.5	20.3	215
1,1,1-Trichloroethane	20	13.6-29.8	20.9	228
Carbon tetrachloride	20	7.7-28.1	19.4	206
Bromodichloromethane	20	9.7-30.1	19.9	212
1,2-Dichloropropane	20	15.2-28.0	20.6	218
trans-1,3-Dichloropropene	20	12.7-25.6	19.8	220
Trichloroethene	20	14.0-27.3	20.4	230
Benzene	20	14.2-28.1	20.9	203
Dibromochloromethane	20	4.1-29.5	19.8	208
1,1,2-Trichloroethane	20	14.2-28.5	20.3	229
cis-1,3-Dichloropropene	20	10.1-27.2	19.6	219
2-Chloroethyl vinyl ether	20	9.9-32.5	20.4	210
Bromoform	20	2.3-31.1	19.4	205
Tetrachloroethene	20	13.0-28.7	19.9	226
1,1,2,2-Tetrachloroethane	20	14.7-26.1	21.5	225
Toluene	20	15.1-25.7	20.7	227
Chlorobenzene	20	11.1-28.9	20.3	207
Ethyl benzene	20	13.2-27.7	20.0	221
1,3-Dichlorobenzene	26	18.2-36.9	26.1	234
1,2-Dichlorobenzene	26	11.0-42.2	26.2	233
1,4-Dichlorobenzene	20	3.0-36.1	20.2	235
Diethyl Benzene	44	25.9-62.9	—	237
Ethyl Ether	35	26.9-49.4	—	236
Xylene	44	21.0-66.7	44.7	238
MEK	20	9.1-39.4	20.8	240
Acetone	20	9.6-38.0	20.9	242





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

Date 5/8/96 Analyst Ecklund  
Samples associated with this blank:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Parameter Blank Value

Units = ug/l

Carbon Disulfide	<5
Vinyl Acetate	<50
2-Hexanone - MBK	<50
Dichlorofluoromethane	—
1,1,1,2-Tetrachloroethane	—
Trichlorofluoromethane	<2
1,2,3-Trichloropropane	—
3-Chloro-1-propene	—
1,2-Dibromomethane	—
cis,1,2-Dichloroethene	<2
Dichloro Difluoromethane	<2
Frem-113	<5

Limits in effect as of May 18, 1995

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

Date 5/8/96 Analyst Ecklund  
 Samples associated with this repeat control:

<u>605-06-033</u>	<u>605-01-406/407</u>
<u>605-01-416 → 422</u>	<u>605-01-430</u>
<u>605-08-406/407</u>	

Sample used as repeat control: 605-01-430  
 AD = Absolute Difference RPD = Relative Percent Difference

Parameter	Samp. Value	Repeat Value	Accept AD	Accept RPD	Assayd AD/RPD	File
Units = <u>mg/L</u>						
Chloromethane	<0.02	<0.02			0%	820
Bromomethane						819
Vinyl chloride				27		828
Chloroethane						807
Methylene chloride	↓	↓		17		821
Acrolein	<0.1	<0.1				800
Acrylonitrile	<0.1	<0.1				801
1,1-Dichloroethene	<0.02	<0.02				813
1,1-Dichloroethane				41		811
trans-1,2-Dichloroethene				28		814
Chloroform				14		809
1,2-Dichloroethane	↓	↓				812
1,1,1-Trichloroethane	0.06	0.06		27	0%	825
Carbon tetrachloride	<0.02	<0.02			0%	804
Bromodichloromethane				79		810
1,2-Dichloropropane						815
trans-1,3-Dichloropropene						817
Trichloroethene	↓	↓		32		827
Benzene	0.03	0.03		49	0%	802
Dibromochloromethane	<0.02	<0.02		70	0%	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	0.22	0.21		38	46%	824
Chlorobenzene	<0.02	<0.02		24	0%	805
Ethyl benzene	0.02	0.02		5	0%	818
1,3-Dichlorobenzene	<0.02	<0.02			0%	830
1,2-Dichlorobenzene	↓	↓				829
1,4-Dichlorobenzene	↓	↓		36		831
Acetone	<0.1	<0.1		26		836

Limits in effect as of May 18, 1995

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

Date 5/2/96 Analyst Ecklund  
Samples associated with this repeat control:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Sample used as repeat control: 605-01-430  
AD = Absolute Difference RPD = Relative Percent Difference

Parameter	Samp. Value	Repeat Value	Accept AD	Accept RPD	Assayd AD/RPD	File
Units = <u>mg/L</u>						
3-Chloro-1-propene	—	—				
Dichlorodifluoromethane	<0.02	<0.02			0%	
Methyl Ethyl Ketone	<1.0	<1.0			0%	
MIBK	<0.5	<0.5			0%	
1,1,1,2-Tetrachloroethane	—	—				
Trichlorofluoromethane	<0.02	<0.02			0%	
1,2,3-Trichloropropane	—	—				
1,2-Dibromomethane	—	—				
Cis-1,2-Dichloroethane	<0.02	<0.02			0%	
Xylene	0.06	0.07			15%	
STIRENE	0.02	0.02			0%	
Methyl Butyl Ketone	<0.50	<0.50			0%	
Frdom-113	<0.50	<0.50			0%	

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

Date 5/9/96 Analyst T. Lata / A. Ecklund  
 Samples associated with this blank:

605-01-430 605-01-406/407  
605-01-416 → 422  
605-08-406/407

Parameter Blank Value

Units = µg/L

Chloromethane	22	
Bromomethane	↓	
Vinyl chloride		
Chloroethane		
Methylene chloride		
Acrolein		10
Acrylonitrile		10
1,1-Dichloroethene		22
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	22	
2-Butanone - MEK	100	
4-Methyl-2-pentanone	50	
Acetone	100	
Syrene	22	

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

Date

Analyst T. Lata / A. Ecklund

Samples associated with this blank:

Parameter

Blank Value

Units = ug/L

<u>Carbon Disulfide</u>	<u>25</u>
<u>Vinyl Acetate</u>	<u>250</u>
<u>2-Hexanone - MBK</u>	<u>250</u>
<u>Dichlorofluoromethane</u>	<u>—</u>
<u>1,1,1,2-Tetrachloroethane</u>	<u>—</u>
<u>Trichlorofluoromethane</u>	<u>22</u>
<u>1,2,3-Trichloropropane</u>	<u>—</u>
<u>3-Chloro-1-propene</u>	<u>—</u>
<u>1,2-Dibromomethane</u>	<u>—</u>
<u>cis,1,2-Dichloroethene</u>	<u>22</u>
<u>Dichlorodifluoromethane</u>	<u>22</u>
<u>Freon-113</u>	<u>25</u>

Limits in effect as of May 18, 1995

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

Date 5-9-96 Analyst T. Lata / A. Ecklund

Samples associated with this reference control:

<u>605-01-430</u>	<u>605-01-406/407</u>
<u>605-01-416-422</u>	
<u>605-08-406/407</u>	

<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	17.8	223
Bromomethane	20	8.1-39.8	19.9	222
Vinyl chloride	20	1.3-42.4	19.2	232
Chloroethane	20	4.0-36.9	17.9	209
Methylene chloride	20	11.5-31.4	18.5	224
Acrolein	62	4.2-105.4	30.7	201
Acrylonitrile	58	13.2-116.0	49.1	202
1,1-Dichloroethene	20	10.9-32.4	16.8	216
1,1-Dichloroethane	20	15.3-28.0	18.8	214
trans-1,2-Dichloroethene	20	13.6-28.3	18.1	217
Chloroform	20	15.5-26.2	20.1	211
1,2-Dichloroethane	20	7.5-34.5	21.4	215
1,1,1-Trichloroethane	20	13.6-29.8	17.8	228
Carbon tetrachloride	20	7.7-28.1	20.1	206
Bromodichloromethane	20	9.7-30.1	20.1	212
1,2-Dichloropropane	20	15.2-28.0	21.1	218
trans-1,3-Dichloropropene	20	12.7-25.6	19.7	220
Trichloroethene	20	14.0-27.3	20.3	230
Benzene	20	14.2-28.1	23.4	203
Dibromochloromethane	20	4.1-29.5	19.7	208
1,1,2-Trichloroethane	20	14.2-28.5	18.8	229
cis-1,3-Dichloropropene	20	10.1-27.2	19.2	219
2-Chloroethyl vinyl ether	20	9.9-32.5	21.8	210
Bromoform	20	2.3-31.1	17.1	205
Tetrachloroethene	20	13.0-28.7	18.1	226
1,1,2,2-Tetrachloroethane	20	14.7-26.1	20.9	225
Toluene	20	15.1-25.7	20.5	227
Chlorobenzene	20	11.1-28.9	19.8	207
Ethyl benzene	20	13.2-27.7	21.8	221
1,3-Dichlorobenzene	26	18.2-36.9	25.3	234
1,2-Dichlorobenzene	26	11.0-42.2	25.4	233
1,4-Dichlorobenzene	20	3.0-36.1	19.6	235
Diethyl Benzene	44	25.9-62.9	—	237
Ethyl Ether	35	26.9-49.4	—	236
Xylene	44	21.0-66.7	47.0	238
MEK	20	9.1-39.4	18.6	240
Acetone	20	9.6-38.0	18.0	242



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

ATTACHMENT #2

T 4/17/96

RESULTS REQUIRED BY: \_\_\_\_\_  
 VERBAL RESULTS NEEDED? \_\_\_\_\_

HARRISON DIVISION, GMC  
 200 UPPER MOUNTAIN ROAD  
 LOCKPORT, NEW YORK 14094  
 PHONE: (716) ~~439~~ 685-2300  
 CONTACT: Steve Blair

LABORATORY: Free-Col Labs

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

DESCRIPTION: \_\_\_\_\_

WELL #	LOCATION	TIME	PARAMETERS	SAMPLE BOTTLE LOT # (OPTIONAL)
<u>1/30/96</u>	<u>MW-4</u>	<u>1:45</u>	<u>SW-896 Method 8240</u>	
	<u>MW-5</u>	<u>2:00</u>	↓	
	<u>MW-6</u>	<u>2:15</u>		
	<u>MW-3</u>	<u>2:25</u>		
	<u>MW-7</u>	<u>2:35</u>		
	<u>MW-8</u>	<u>2:45</u>		
	<u>Trip Blank</u>			

DETECTION LEVELS REQUIRED? \_\_\_\_\_

INTERFERENCES: \_\_\_\_\_

AREA FOR TEST (COMPARISON OF AREAS, BACKGROUND, ETC.) \_\_\_\_\_

BOTTLES RECEIVED BY: (DATE/TIME) (HRD PERSONNEL)      BOTTLES RELINQUISHED BY: (DATE/TIME) (HRD PERSONNEL)

RELINQUISHED BY: (DATE/TIME) (HRD PERSONNEL)      BOTTLES RECEIVED BY: (DATE/TIME) (LAB PERSONNEL)

SAMPLE COLLECTED BY: \_\_\_\_\_      RECEIVED BY: (DATE, TIME, LAB SIGNATURE)

Steve Blair 5/1/96 11:30  
Will F. Slat 5-1-96 11:35  
Jon Watt 5-1-96  
Andrew Johnson 3-13-96

**FREE-COL LABORATORIES, INC.**

P.O. Box 557, Cotton Road  
Meadville, Pennsylvania 16335-0557  
Phone: Area Code 814/724-6242  
FAX: Area Code 814/333-1486

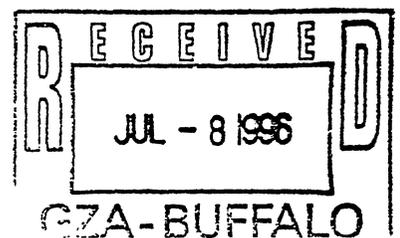


ENVIRONMENTAL  
OCCUPATIONAL HEALTH  
FOOD SCIENCE  
SPECIALISTS

DELPHI HARRISON THRM. SYS.  
GENERAL MOTORS CORPORATION

MW-6  
MW-5  
MW-4  
MW-3  
MW-7  
MW-8

SAMPLE DATES: 06/20/96  
P.O.# HH48938





# FREE-COL LABORATORIES, INC.

P.O. BOX 557, COTTON ROAD  
MEADVILLE, PENNSYLVANIA 16335  
PHONE: (814) 724-8242  
FAX: (814) 333-1466

06/28/96

TO:

DELPHI HARRISON THRM.SYS

P.O. # HH48938

200 UPPER MOUNTAIN RD.

LOCKPORT

NY 14094

ACCOUNT NO. 01220

## ANALYTICAL REPORT FORM

PAGE 1

SAMPLE ID	MW-6	MW-5	MW-4	MW-3
	06/20/96	06/20/96	06/20/96	06/20/96
LAB ID	60626434	60626435	60626436	60626437
PARAMETER	DATE RECEIVED: 06/26/96	06/26/96	06/26/96	06/26/96

### VOLATILE COMPOUNDS

UNITS = MG/L

CHLOROMETHANE	<1 D	<1 D	<1 D	<1 D
BROMOMETHANE	<1 D	<1 D	<1 D	<1 D
VINYL CHLORIDE	2.6	<1 D	19	<1 D
CHLOROETHANE	<1 D	<1 D	<1 D	<1 D
METHYLENE CHLORIDE	<0.5 D	<0.5 D	<0.5 D	<0.5 D
ACETONE	<10 D	<10 D	<10 D	<10 D
CARBON DISULFIDE	<0.5 D	<0.5 D	<0.5 D	<0.5 D
1,1,-DICHOROETHENE	<0.5 D	<0.5 D	<0.5 D	<0.5 D
1,1,-DICHOROETHANE	<0.5 D	<0.5 D	<0.5 D	<0.5 D
1,2-DICHLORO***	7.9	4.3	110	200
CHLOROFORM	<0.5 D	<0.5 D	<0.5 D	<0.5 D
1,2-DICHLOROETHANE	<0.5 D	<0.5 D	<0.5 D	<0.5 D
2-BUTANONE	<10 D	<10 D	<10 D	<10 D
1,1,1-TRICHLOROETHA*	<0.5 D	<0.5 D	<0.5 D	<0.5 D
CARBON TETRACHLORIDE	<0.5 D	<0.5 D	<0.5 D	<0.5 D
VINYL ACETATE	<5 D	<5 D	<5 D	<5 D
BROMODICHLOROMETHANE	<0.5 D	<0.5 D	<0.5 D	<0.5 D
1,1,2,2-TETRACHLORO*	<0.5 D	<0.5 D	<0.5 D	<0.5 D
1,2-DICHLOROPROPANE	<0.5 D	<0.5 D	<0.5 D	<0.5 D
TRANS-1,3-DICHLOROP*	<0.5 D	<0.5 D	<0.5 D	<0.5 D
TRICHLOROETHENE	8.5	*680	19	<0.5 D
DIBROMOCHLOROMETHANE	<0.5 D	<0.5 D	<0.5 D	<0.5 D
1,1,2-TRICHLOROETHA*	<0.5 D	<0.5 D	<0.5 D	<0.5 D
BENZENE	<0.5 D	<0.5 D	<0.5 D	2.0
CIS-1,3-DICHLOROPRO*	<0.5 D	<0.5 D	<0.5 D	<0.5 D

\*Some of the above names have been abbreviated. Please reference the enclosed list for their complete names.

#### MEADVILLE DIVISION

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  
NC Dept. of Natural Resources Cert. No. 238  
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, INC.

P.O. BOX 557, COTTON ROAD  
MEADVILLE, PENNSYLVANIA 16335  
PHONE: (814) 724-8242  
FAX: (814) 333-1466

06/28/96

TO:

DELPHI HARRISON THRM.SYS

P.O. # HH48938

200 UPPER MOUNTAIN RD.

LOCKPORT

NY 14094

ACCOUNT NO. 01220

ANALYTICAL REPORT FORM

PAGE 2

PARAMETER	SAMPLE ID	MW-6	MW-5	MW-4	MW-3
		06/20/96	06/20/96	06/20/96	06/20/96
	LAB ID	60626434	60626435	60626436	60626437
	DATE RECEIVED:	06/26/96	06/26/96	06/26/96	06/26/96

VOLATILE COMPOUNDS (Cont.) UNITS = MG/L

2-CHLOR* VINYL ETHER	<1 D	<1 D	<1 D	<1 D
BROMOFORM	<0.5 D	<0.5 D	<0.5 D	<0.5 D
2-HEXANONE	<5 D	<5 D	<5 D	<5 D
4-METHYL-2-PENTANONE	<5 D	<5 D	<5 D	<5 D
TETRACHLOROETHENE	64	110	<0.5 D	<0.5 D
TOLUENE	<0.5 D	<0.5 D	<0.5 D	1.2
CHLOROBENZENE	<0.5 D	<0.5 D	<0.5 D	<0.5 D
ETHYL BENZENE	<0.5 D	<0.5 D	<0.5 D	<0.5 D
STYRENE	<0.5 D	<0.5 D	<0.5 D	<0.5 D
TOTAL XYLENES	<0.5 D	<0.5 D	<0.5 D	0.7

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

\*Some of the above names have been abbreviated. Please reference the enclosed list for their complete names.

MEADVILLE DIVISION  
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

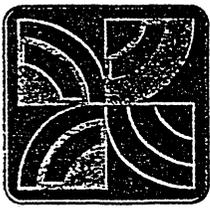
WV Dept. of Health Certification No. 9907C  
NC Dept. of Natural Resources Cert. No. 236  
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U.S. Office of Surface Mining Approved Facility

KEY:

<=LESS THAN

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w.f.=WILL FOLLOW



FREE-COL LABORATORIES, INC.

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

06/28/96

TO:

DELPHI HARRISON THRM.SYS

P.O. # HH48938

200 UPPER MOUNTAIN RD.  
LOCKPORT

NY 14094

ACCOUNT NO. 01220

ANALYTICAL REPORT FORM

PAGE 3

PARAMETER	SAMPLE ID	LAB ID	DATE RECEIVED	MW-7	MW-8	TRIP BLANK
				06/20/96	06/20/96	06/19/96
		60626438	06/26/96		60626439	60626440
				06/26/96	06/26/96	06/26/96

VOLATILE COMPOUNDS

UNITS = MG/L

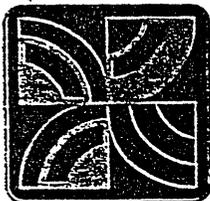
CHLOROMETHANE	<1 D	<1 D	<0.010
BROMOMETHANE	<1 D	<1 D	<0.010
VINYL CHLORIDE	2.4	20	<0.010
CHLOROETHANE	<1 D	<1 D	<0.010
METHYLENE CHLORIDE	<0.5 D	<0.5 D	<0.005
ACETONE	<10 D	<10 D	<0.10
CARBON DISULFIDE	<0.5 D	<0.5 D	<0.005
1,1,-DICHLOROETHENE	<0.5 D	<0.5 D	<0.005
1,1,-DICHLOROETHANE	<0.5 D	<0.5 D	<0.005
1,2-DICHLORO***	24	120	<0.005
CHLOROFORM	<0.5 D	<0.5 D	<0.005
1,2-DICHLOROETHANE	<0.5 D	<0.5 D	<0.005
2-BUTANONE	<10 D	<10 D	<0.10
1,1,1-TRICHLOROETHA*	<0.5 D	<0.5 D	<0.005
CARBON TETRACHLORIDE	<0.5 D	<0.5 D	<0.005
VINYL ACETATE	<5 D	<5 D	<0.050
BROMODICHLOROMETHANE	<0.5 D	<0.5 D	<0.005
1,1,2,2-TETRACHLORO*	<0.5 D	<0.5 D	<0.005
1,2-DICHLOROPROPANE	<0.5 D	<0.5 D	<0.005
TRANS-1,3-DICHLOROP*	<0.5 D	<0.5 D	<0.005
TRICHLOROETHENE	1,100	19	<0.005
DIBROMOCHLOROMETHANE	<0.5 D	<0.5 D	<0.005
1,1,2-TRICHLOROETHA*	<0.5 D	<0.5 D	<0.005
BENZENE	<0.5 D	<0.5 D	<0.005
CIS-1,3-DICHLOROPRO*	<0.5 D	<0.5 D	<0.005

\*Some of the above names have been abbreviated. Please reference the enclosed list for their complete names.

MEADVILLE DIVISION  
A. H.A. Accreditation No. 98  
U.S. Public Health Services Approved Facility  
PA D.E.R. Laboratory I.D. No. 20-073  
F. 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. 238  
MI Dept. of Public Health Approved Facility  
U.S. Office of Surface Mining Approved Facility



FREE-COL LABORATORIES, INC.

P.O. BOX 557, COTTON ROAD  
MEADVILLE, PENNSYLVANIA 16335  
PHONE: (814) 724-8242  
FAX: (814) 333-1486

06/28/96

TO:

DELPHI HARRISON THRM.SYS

P.O. # HH48938

200 UPPER MOUNTAIN RD.

LOCKPORT

NY 14094

ACCOUNT NO. 01220

ANALYTICAL REPORT FORM

PAGE 4

PARAMETER	SAMPLE ID	MW-7	MW-8	TRIP BLANK
		06/20/96	06/20/96	06/19/96
	LAB ID	60626438	60626439	60626440
	DATE RECEIVED:	06/26/96	06/26/96	06/26/96

VOLATILE COMPOUNDS (Cont.) UNITS = MG/L

2-CHLOR* VINYL ETHER	<1 D	<1 D	<0.010
BROMOFORM	<0.5 D	<0.5 D	<0.005
2-HEXANONE	<5 D	<5 D	<0.050
4-METHYL-2-PENTANONE	<5 D	<5 D	<0.050
TETRACHLOROETHENE	<0.5 D	<0.5 D	<0.005
TOLUENE	<0.5 D	<0.5 D	<0.005
CHLOROBENZENE	<0.5 D	<0.5 D	<0.005
ETHYL BENZENE	<0.5 D	<0.5 D	<0.005
STYRENE	<0.5 D	<0.5 D	<0.005
TOTAL XYLENES	<0.5 D	<0.5 D	<0.005

Volatile Compounds - Method 8240A

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

DATE AND ANALYST  
06/28/96 ECKLUND

ASST. LABORATORY DIRECTOR

\*Some of the above names have been abbreviated. Please reference the enclosed list for their complete names.

pc: Mr. Steve Blair, GZA

MEADVILLE DIVISION  
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  
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VA Dept. of Health Laboratory I.D. No. 00145

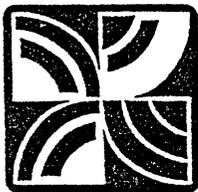
WV Dept. of Health Certification No. 9907C  
NC Dept. of Natural Resources Cert. No. 238  
MI Dept. of Public Health Approved Facility  
U.S. Office of Surface Mining Approved Facility

KEY:

<=LESS THAN

>=GREATER THAN

w.f.=WILL FOLLOW



FREE-COL LABORATORIES, 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

PA Dept. of Health 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  
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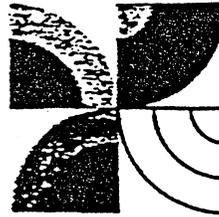
WV Dept. of Health Certification No. 9907C  
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MI Dept. of Public Health Approved Facility  
U.S. Office of Surface Mining Approved Facility

KEY:

<=LESS THAN

>=GREATER THAN

w.f.=WILL FOLLOW



Unabbreviated Listing of Hazardous Substance List Compounds

VOLATILE COMPOUNDS

Chloromethane	Bromodichloromethane
Bromomethane	1,1,2,2-Tetrachloroethane
Vinyl Chloride	1,2-Dichloropropane
Chloroethane	trans-1,3-Dichloropropene
Methylene Chloride	Trichloroethene
Acetone	Dibromochloromethane
Carbon Disulfide	1,1,2-Trichloroethane
1,1-Dichloroethene	Benzene
1,1-Dichloroethane	cis-1,3-Dichloropropene
1,2-Dichloroethylenes (Total)***	2-Chloroethyl Vinyl Ether
Chloroform	Bromoform
1,2-Dichloroethane	2-Hexanone
2-Butanone	4-Methyl-2-pentanone
1,1,1-Trichloroethane	Tetrachloroethene
Carbon Tetrachloride	Toluene
Vinyl Acetate	Chlorobenzene
Ethyl Benzene	
Styrene	
Total Xylenes	

\*\*\*EPA Methods 601 and 624 and SW 846 Methods 8010 and 8240 do not differentiate the co-eluting cis and trans-1,2-dichloroethenes. The result reported to you is the sum of both compounds.

**FREE-COL LABORATORIES, INC.**

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



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>General Motors Sample Identification</u>	<u>Free-Col ID</u>
MW-6 06/20/96	60626434
MW-5 06/20/96	60626435
MW-4 06/20/96	60626436
MW-3 06/20/96	60626437
MW-7 06/20/96	60626438
MW-8 06/20/96	60626439
TRIP BLANK 06/19/96	60626440

Free-Col Laboratories, Inc.  
Surrogate Spike Information  
Method 8240

6/28/96

Analyst: Ecklund

§ Recovery

W = Low/Medium Water

S = Low/Medium Soil/Sediment

Limits:	<u>1,2-Dichloro- ethane-d<sub>4</sub></u>	<u>Toluene-d<sub>8</sub></u>	<u>4-Bromofluoro- benzene</u>
Water	76-114	88-110	86-115
Soil/Sediment	70-121	81-117	74-121

Free-Col I.D.

606-26-434	107	98	108
606-26-435	100	108	106
606-26-436	98	102	106
606-26-437	96	98	105
606-26-438	96	99	102
606-26-439	97	102	103
606-26-440	94	97	96

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

Date 6/28/96 Analyst Ekluvil

Samples associated with this blank:

606-26-434 → 440

Parameter Blank Value

Units = ug/L

Chloromethane	<10
Bromomethane	<10
Vinyl chloride	<10
Chloroethane	<10
Methylene chloride	<5
Acrolein	-
Acrylonitrile	-
1,1-Dichloroethene	<5
1,1-Dichloroethane	<5
trans-1,2-Dichloroethene	<5
Chloroform	<5
1,2-Dichloroethane	<5
1,1,1-Trichloroethane	<5
Carbon tetrachloride	<5
Bromodichloromethane	<5
1,2-Dichloropropane	<5
trans-1,3-Dichloropropene	<5
Trichloroethene	<5
Benzene	<5
Dibromochloromethane	<5
1,1,2-Trichloroethane	<5
cis-1,3-Dichloropropene	<5
2-Chloroethyl vinyl ether	<10
Bromoform	<5
Tetrachloroethene	<5
1,1,2,2-Tetrachloroethane	<5
Toluene	<5
Chlorobenzene	<5
Ethyl benzene	<5
1,3-Dichlorobenzene	-
1,2-Dichlorobenzene	-
1,4-Dichlorobenzene	-
Xylene	<5
2-Butanone - MEK	<100
4-Methyl-2-pentanone	<50
Acetone	<100
Styrene	<5

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

Date 6/28/96 Analyst Esklund  
Samples associated with this blank:

606-26-434 → 440

Parameter Blank Value

Units = µg/l

<u>Carbon Disulfide</u>	<u>&lt;5</u>
<u>Vinyl Acetate</u>	<u>&lt;50</u>
<u>2-Hexanone - MBK</u>	<u>&lt;50</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>	

Limits in effect as of May 18, 1995

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

Date 6/28/96 Analyst Ecklund

Samples associated with this reference control:

606-26-434-440

<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	20.6	223
Bromomethane	20	8.1-39.8	22.4	222
Vinyl chloride	20	1.3-42.4	19.0	232
Chloroethane	20	4.0-36.9	22.5	209
Methylene chloride	20	11.5-31.4	19.0	224
Acrolein	62	4.2-105.4	-	201
Acrylonitrile	58	13.2-116.0	-	202
1,1-Dichloroethene	20	10.9-32.4	20.3	216
1,1-Dichloroethane	20	15.3-28.0	21.5	214
trans-1,2-Dichloroethenes	20	13.6-28.3	20.0	217
Chloroform	20	15.5-26.2	22.8	211
1,2-Dichloroethane	20	7.5-34.5	18.8	215
1,1,1-Trichloroethane	20	13.6-29.8	23.6	228
Carbon tetrachloride	20	7.7-28.1	19.6	206
Bromodichloromethane	20	9.7-30.1	21.0	212
1,2-Dichloropropane	20	15.2-28.0	22.3	218
trans-1,3-Dichloropropene	20	12.7-25.6	18.2	220
Trichloroethene	20	14.0-27.3	21.6	230
Benzene	20	14.2-28.1	20.2	203
Dibromochloromethane	20	4.1-29.5	17.8	208
1,1,2-Trichloroethane	20	14.2-28.5	17.7	229
cis-1,3-Dichloropropene	20	10.1-27.2	17.6	219
2-Chloroethyl vinyl ether	20	9.9-32.5	16.3	210
Bromoform	20	2.3-31.1	21.2	205
Tetrachloroethene	20	13.0-28.7	19.1	226
1,1,2,2-Tetrachloroethane	20	14.7-26.1	21.7	225
Toluene	20	15.1-25.7	17.5	227
Chlorobenzene	20	11.1-28.9	20.0	207
Ethyl benzene	20	13.2-27.7	21.9	221
1,3-Dichlorobenzene	26	18.2-36.9	-	234
1,2-Dichlorobenzene	26	11.0-42.2	-	233
1,4-Dichlorobenzene	20	3.0-36.1	-	235
Diethyl Benzene	44	25.9-62.9	-	237
Ethyl Ether	35	26.9-49.4	-	236
Xylene	44	21.0-66.7	50.8	238
MEK	20	9.1-39.4	22.1	240
Acetone	20	9.6-38.0	21.4	242

Limits in effect as of May 18, 1995

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

Date 6/28/96 Analyst Ecklund  
Samples associated with this reference control:

606-26-434 → 440

<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	17.2	243
Tetrahydrofuran	45	34.8-60.3	—	244
Carbondisulfide	20	11.0-30.4	20.6	245
Styrene	20	12.4-30.0	19.5	245
Vinyl Acetate	20	11.0-27.5	23.3	247
Amyl Acetate	44	14.7-64.6	—	248
Methyl Butyl Ketone	20	10.3-33.9	12.6	249

Limits in effect as of May 18, 1995

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

Date 6/28/96 Analyst Ecklund  
Samples associated with this repeat control:  
606-26-434 → 440

Sample used as repeat control: 606-28-025  
AD = Absolute Difference RPD = Relative Percent Difference

Parameter	Samp. Value	Repeat Value	Accept AD	Accept RPD	Assayd AD/RPD	File
Chloromethane	<10	<10			0	820
Bromomethane	↓	↓				819
Vinyl chloride	↓	↓		27		828
Chloroethane	↓	↓				807
Methylene chloride	<5	<5		17	↓	821
Acrolein	-	-			-	800
Acrylonitrile	-	-			-	801
1,1-Dichloroethene	<5	<5			0	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				32		827
Benzene				49		802
Dibromochloromethane				70		806
1,1,2-Trichloroethane						826
cis-1,3-Dichloropropene	↓	↓				816
2-Chloroethyl vinyl ether	<10	<10				808
Bromoform	<5	<5				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	<100	<100		26	0	836

Limits in effect as of May 18, 1995

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

Date 6/28/96 Analyst Ecklund  
Samples associated with this repeat control:

606-26-434 → 440

Sample used as repeat control: 606-28-025  
AD = Absolute Difference RPD = Relative Percent Difference

Parameter mg/L Samp. Value Repeat Value Accept AD Accept RPD Assayd File AD/RPD

Parameter	Samp. Value	Repeat Value	Accept AD	Accept RPD	Assayd File AD/RPD
3-Chloro-1-propene					
Dichlorodifluoromethane					
Methyl Ethyl Ketone	<100	<100			0
MIBK	<50	<50			0
1,1,1,2-Tetrachloroethane					
Trichlorofluoromethane					
1,2,3-Trichloropropane					
1,2-Dibromomethane					
Cis-1.2-Dichloroethane					
Xylene	<5	<5			0
Vinyl Acetate	<50	<50			↓
Carbon disulfide	<5	<5			
Methyl Butyl Ketone	<50	<50			
Styrene	<5	<5			

Limits in effect as of May 18, 1995

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

Date 6/28/96 Analyst Ecklund

Samples associated with this spiked control:

606-26-434-440

Sample used as spiked control: 606-28027

<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	23	<10	28-189	115	520
Bromomethane	20	19	<10	31-212	95	519
Vinyl chloride	20	22	<10	22-185	110	528
Chloroethane	20	17	<10	52-170	85	507
Methylene chloride	20	24	<5	63-148	120	521
Acrolein	62	-	-	22-185	-	500
Acrylonitrile	58	-	-	53-187	-	501
1,1-Dichloroethene	20	22	<5	50-158	110	513
1,1-Dichloroethane	20	21	<5	73-141	105	511
trans-1,2-Dichloroethene	20	20	<5	63-151	100	514
Chloroform	20	22	<5	68-141	110	509
1,2-Dichloroethane	20	21	<5	52-157	105	512
1,1,1-Trichloroethane	20	21	<5	58-155	105	525
Carbon tetrachloride	20	24	<5	40-141	120	504
Bromodichloromethane	20	18	<5	46-150	90	510
1,2-Dichloropropane	20	17	<5	67-145	85	515
trans-1,3-Dichloropropene	20	16	<5	56-141	80	517
Trichloroethene	20	17	<5	64-129	85	527
Benzene	20	23	<5	70-144	115	502
Dibromochloromethane	20	18	<5	27-158	90	506
1,1,2-Trichloroethane	20	12	<5	59-149	90	526
cis-1,3-Dichloropropene	20	16	<5	46-151	80	516
2-Chloroethyl vinyl ether	20	20	<10	4-186	100	508
Bromoform	20	19	<5	6-150	95	503
Tetrachloroethene	20	20	<5	48-163	100	523
1,1,2,2-Tetrachloroethane	20	20	<5	46-164	100	522
Toluene	20	19	<5	72-131	95	524
Chlorobenzene	20	21	<5	70-131	105	505
Ethyl benzene	20	23	<5	61-140	115	518
1,3-Dichlorobenzene	26	-	-	58-163	-	530
1,2-Dichlorobenzene	26	-	-	42-159	-	529
1,4-Dichlorobenzene	20	-	-	33-177	-	531
Diethyl Benzene	44	-	-	71-137	-	533
Ethyl Ether	35	-	-	62-160	-	532
Xylenes	44	50.4	<5	72-130	115	534
MEK	20	18	<100	63-179	90	536



FIGURE E2  
 ENVIRONMENTAL SAMPLE DESCRIPTION  
 AND  
 CHAIN OF CUSTODY RECORD

ATTACHMENT #2

6/20/96

RESULTS REQUIRED BY: \_\_\_\_\_  
 VERBAL RESULTS NEEDED? \_\_\_\_\_

HARRISON DIVISION, GMC  
 200 UPPER MOUNTAIN ROAD  
 LOCKPORT, NEW YORK 14094  
 PHONE: (716) 433-685-2300  
 CONTACT: Steve Blair

LABORATORY: Free-Col Labs

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

DESCRIPTION: Please test in the following order: MW-6, MW-5, MW-4, MW-3, MW-7, MW-8

DATE	LOCATION	TIME	PARAMETERS	SAMPLE BOTTLE LOT # (OPTIONAL)
6/20/96	MW-5		SW-846 Method 8240	
15	MW-4		"	
40	MW-6		"	
70	MW-3		"	
5	MW-7		"	
	MW-8		"	
	Trip Bank	✓	"	

DETECTION LEVELS REQUIRED? \_\_\_\_\_

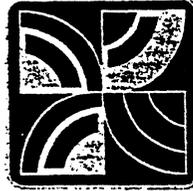
INTERFERENCES: \_\_\_\_\_

FOR TEST (COMPARISON OF AREAS, BACKGROUND, ETC.) \_\_\_\_\_

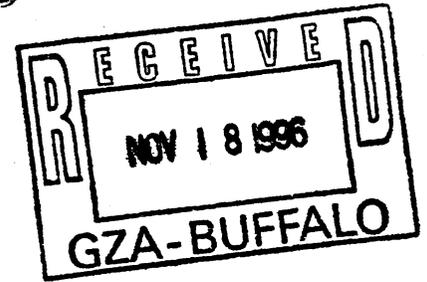
RECEIVED BY: (DATE/TIME) (HRD PERSONNEL) <u>[Signature]</u>	BOTTLES RELINQUISHED BY: (DATE/TIME) (HRD PERSONNEL)
RELINQUISHED BY: (DATE/TIME) (HRD PERSONNEL)	BOTTLES RECEIVED BY: (DATE/TIME) (LAB PERSONNEL) <u>Will F. Slat</u> 6-26-96 1:35
COLLECTED BY:	RECEIVED BY: (DATE, TIME, LAB SIGNATURE) <u>Conc. Watt</u> 6-26-96

**FREE-COL LABORATORIES, INC.**

P.O. Box 557, Cotton Road  
Meadville, Pennsylvania 16335-0557  
Phone: Area Code 814/724-8242  
FAX: Area Code 814/333-1468



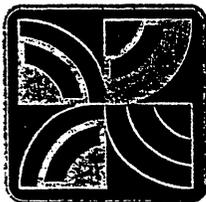
ENVIRONMENTAL  
OCCUPATIONAL HEALTH  
FOOD SCIENCE  
SPECIALISTS



DELPHI HARRISON THRM. SYS.  
GENERAL MOTORS CORPORATION

MONITORING WELLS #'s 10,9,8,6,4,3,7,11

SAMPLE DATES: 10/30/96  
P.O.# HH48938



# FREE-COL LABORATORIES, INC.

P.O. BOX 557, COTTON ROAD  
MEADVILLE, PENNSYLVANIA 16335  
PHONE: (814) 724-8242  
FAX: (814) 333-1468

11/11/96

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

P.O. # HH48938

ACCOUNT NO. 01220

## ANALYTICAL REPORT FORM

PAGE 1

PARAMETER	LAB ID	DATE RECEIVED:	MW-10 10/30/96	MW-9 10/30/96	MW-8 10/30/96	MW-6 10/30/96
	61101408	11/01/96				
	61101409	11/01/96				
	61101410	11/01/96				
	61101411	11/01/96				

### VOLATILE COMPOUNDS

UNITS = MG/L

CHLOROMETHANE	<0.1 D	<0.1 D	<0.010	<0.1 D
BROMOMETHANE	<0.1 D	<0.1 D	<0.010	<0.1 D
VINYL CHLORIDE	0.11	0.1	0.047	1.9
CHLOROETHANE	<0.1 D	<0.1 D	<0.010	<0.1 D
METHYLENE CHLORIDE	<0.05 D	<0.05 D	<0.005	<0.05 D
ACETONE	<1 D	<1 D	<0.10	<1 D
CARBON DISULFIDE	<0.05 D	<0.05 D	<0.005	<0.05 D
1,1,-DICHLOROETHENE	<0.05 D	<0.05 D	<0.005	<0.05 D
1,1,-DICHLOROETHANE	<0.05 D	<0.05 D	<0.005	<0.05 D
1,2-DICHLORO***	1.8	3.3	1.5	3.9
CHLOROFORM	<0.05 D	<0.05 D	<0.005	<0.05 D
1,2-DICHLOROETHANE	<0.05 D	<0.05 D	<0.005	<0.05 D
2-BUTANONE	<1 D	<1 D	<0.10	<1 D
1,1,1-TRICHLOROETHA*	<0.05 D	<0.05 D	<0.005	<0.05 D
CARBON TETRACHLORIDE	<0.05 D	<0.05 D	<0.005	<0.05 D
VINYL ACETATE	<0.5 D	<0.5 D	<0.050	<0.05 D
BROMODICHLOROMETHANE	<0.05 D	<0.05 D	<0.005	<0.05 D
1,1,2,2-TETRACHLORO*	<0.05 D	<0.05 D	<0.005	<0.05 D
1,2-DICHLOROPROPANE	<0.05 D	<0.05 D	<0.005	<0.05 D
TRANS-1,3-DICHLOROP*	<0.05 D	<0.05 D	<0.005	<0.05 D
TRICHLOROETHENE	0.98	2.2	0.20	1.8
DIBROMOCHLOROMETHANE	<0.05 D	<0.05 D	<0.005	<0.05 D
1,1,2-TRICHLOROETHA*	<0.05 D	<0.05 D	<0.005	<0.05 D
BENZENE	<0.05 D	<0.05 D	<0.005	<0.05 D
CIS-1,3-DICHLOROPRO*	<0.05 D	<0.05 D	<0.005	<0.05 D

\*Some of the above names have been abbreviated. Please reference the enclosed list for their complete names.

#### MEADVILLE DIVISION

A.L.H.A. Accreditation No. 98  
U.S. Public Health Services Approved Facility  
D.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

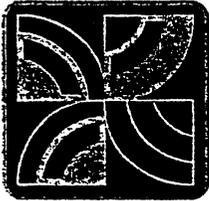
WV Dept. of Health Certification No. 8907C  
NC Dept. of Natural Resources Cert. No. 23E  
MI Dept. of Public Health Approved Facility  
U.S. Office of Surface Mining Approved Facility

KEY:

<=LESS THAN

>=GREATER THAN

w.f.=WILL FOLLOW



**FREE-COL LABORATORIES, INC.**

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

11/11/96

TO:

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

P.O. # HH48938

ACCOUNT NO. 01220

**ANALYTICAL REPORT FORM**

PAGE 2

PARAMETER	SAMPLE ID	MW-10	MW-9	MW-8	MW-6
		10/30/96	10/30/96	10/30/96	10/30/96
	LAB ID	61101408	61101409	61101410	61101411
	DATE RECEIVED:	11/01/96	11/01/96	11/01/96	11/01/96

**VOLATILE COMPOUNDS (Cont.) UNITS = MG/L**

2-CHLOR* VINYL ETHER	<0.1 D	<0.1 D	<0.010	<0.1 D
BROMOFORM	<0.05 D	<0.05 D	<0.005	<0.05 D
2-HEXANONE	<0.5 D	<0.5 D	<0.050	<0.5 D
4-METHYL-2-PENTANONE	<0.5 D	<0.5 D	<0.050	<0.5 D
TETRACHLOROETHENE	0.12	0.21	0.024	8.4
TOLUENE	<0.05 D	<0.05 D	<0.005	<0.05 D
CHLOROBENZENE	<0.05 D	<0.05 D	<0.005	<0.05 D
ETHYL BENZENE	<0.05 D	<0.05 D	<0.005	<0.05 D
STYRENE	<0.05 D	<0.05 D	<0.005	<0.05 D
TOTAL XYLENES	<0.05 D	<0.05 D	<0.005	<0.05 D

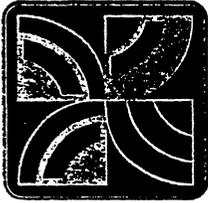
Please reference the following page(s) for date and analyst.

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MEADVILLE DIVISION  
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MD Dept. of Health Cert. No. 130  
VA Dept. of Health Laboratory I.D. No. 00145

WV Dept. of Health Certification No. 8907C  
NC Dept. of Natural Resources Cert. No. 236  
MI Dept. of Public Health Approved Facility  
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P.O. # HH48938

ACCOUNT NO. 01220

**ANALYTICAL REPORT FORM**

PAGE 3

	SAMPLE ID	MW-4	MW-3	MW-7	MW-11
		10/30/96	10/30/96	10/30/96	10/30/96
	LAB ID	61101412	61101413	61101414	61101415
PARAMETER	DATE RECEIVED:	11/01/96	11/01/96	11/01/96	11/01/96

VOLATILE COMPOUNDS

UNITS = MG/L

CHLOROMETHANE	<1 D	<1 D	<1 D	<1 D
BROMOMETHANE	<1 D	<1 D	<1 D	<1 D
VINYL CHLORIDE	14	1.3	2.3	13
CHLOROETHANE	<1 D	<1 D	<1 D	<1 D
METHYLENE CHLORIDE	<0.5 D	<0.5 D	<0.5 D	<0.5 D
ACETONE	<10 D	<10 D	<10 D	<10 D
CARBON DISULFIDE	<0.5 D	<0.5 D	<0.5 D	<0.5 D
1,1,-DICHOROETHENE	<0.5 D	<0.5 D	<0.5 D	<0.5 D
1,1,-DICHOROETHANE	<0.5 D	<0.5 D	<0.5 D	<0.5 D
1,2-DICHORO***	120	210	32	120
CHLOROFORM	<0.5 D	<0.5 D	<0.5 D	<0.5 D
1,2-DICHOROETHANE	<0.5 D	<0.5 D	<0.5 D	<0.5 D
2-BUTANONE	<10 D	<10 D	<10 D	<10 D
1,1,1-TRICHLOROETHA*	<0.5 D	<0.5 D	<0.5 D	<0.5 D
CARBON TETRACHLORIDE	<0.5 D	<0.5 D	<0.5 D	<0.5 D
VINYL ACETATE	<5 D	<5 D	<5 D	<5 D
BROMODICHLOROMETHANE	<0.5 D	<0.5 D	<0.5 D	<0.5 D
1,1,2,2-TETRACHLORO*	<0.5 D	<0.5 D	<0.5 D	<0.5 D
1,2-DICHLOROPROPANE	<0.5 D	<0.5 D	<0.5 D	<0.5 D
TRANS-1,3-DICHLOROP*	<0.5 D	<0.5 D	<0.5 D	<0.5 D
TRICHLOROETHENE	34	<0.5	790	36
DIBROMOCHLOROMETHANE	<0.5 D	<0.5 D	<0.5 D	<0.5 D
1,1,2-TRICHLOROETHA*	<0.5 D	<0.5 D	<0.5 D	<0.5 D
BENZENE	<0.5 D	2.3	<0.5 D	<0.5 D
CIS-1,3-DICHLOROPRO*	<0.5 D	<0.5 D	<0.5 D	<0.5 D

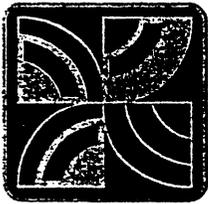
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VA Dept. of Agriculture Approved Dairy Laboratory

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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. 23C  
MI Dept. of Public Health Approved Facility  
U.S. Office of Surface Mining Approved Facility



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MEADVILLE, PENNSYLVANIA 16335  
PHONE: (814) 724-6242  
FAX: (814) 333-1466

11/11/96

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

P.O. # HH48938

ACCOUNT NO. 01220

**ANALYTICAL REPORT FORM**

PAGE 4

PARAMETER	SAMPLE ID	MW-4	MW-3	MW-7	MW-11
		10/30/96	10/30/96	10/30/96	10/30/96
	LAB ID	61101412	61101413	61101414	61101415
	DATE RECEIVED:	11/01/96	11/01/96	11/01/96	11/01/96

VOLATILE COMPOUNDS (Cont.) UNITS = MG/L

2-CHLOR* VINYL ETHER	<1 D	<1 D	<1 D	<1 D
BROMOFORM	<0.5 D	<0.5 D	<0.5 D	<0.5 D
2-HEXANONE	<5 D	<5 D	<5 D	<5 D
4-METHYL-2-PENTANONE	<5 D	<0.5 D	<5 D	<5 D
TETRACHLOROETHENE	<0.5 D	<0.5 D	<0.5 D	<0.5 D
TOLUENE	<0.5 D	2.3	<0.5 D	<0.5 D
CHLOROBENZENE	<0.5 D	<0.5 D	<0.5 D	<0.5 D
ETHYL BENZENE	<0.5 D	1.5	<0.5 D	<0.5 D
STYRENE	<0.5 D	<0.5 D	<0.5 D	<0.5 D
TOTAL XYLENES	<0.5 D	2.8	<0.5 D	<0.5 D

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

\*Some of the above names have been abbreviated. Please reference the enclosed list for their complete names.

**MEADVILLE DIVISION**

A.I.H.A. Accreditation No. 98  
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D.E.R. Laboratory I.D. No. 20-073  
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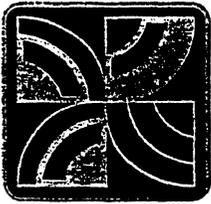
WV Dept. of Health Certification No. 9907C  
NC Dept. of Natural Resources Cert. No. 236  
MI Dept. of Public Health Approved Facility  
U.S. Office of Surface Mining Approved Facility

KEY:

<=LESS THAN

>=GREATER THAN

w.f.=WILL FOLLOW



**FREE-COL LABORATORIES, INC.**

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MEADVILLE, PENNSYLVANIA 16335  
PHONE: (814) 724-8242  
FAX: (814) 333-1466

11/11/96

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

P.O. # HH48938  
ACCOUNT NO. 01220

**ANALYTICAL REPORT FORM** PAGE 5

SAMPLE ID : TRIP BLK.  
10/25/96  
LAB ID 61101416  
DATE RECEIVED: 11/01/96

PARAMETER	RESULTS	UNITS	DATE	AND	ANALYST
<u>VOLATILE COMPOUNDS</u>					
Chloromethane	<0.010	MG/L	11/07/96		ECKLUND
Bromomethane	<0.010				
Vinyl Chloride	<0.010				
Chloroethane	<0.010				
Methylene Chloride	<0.005				
Acetone	<0.10				
Carbon Disulfide	<0.005				
1,1-Dichloroethene	<0.005				
1,1-Dichloroethane	<0.005				
1,2-Dichloroethenes (Total)***	<0.005				
Chloroform	0.030				
1,2-Dichloroethane	<0.005				
2-Butanone	<0.10				
1,1,1-Trichloroethane	<0.005				
Carbon Tetrachloride	<0.005				
Vinyl Acetate	<0.050				
Bromodichloromethane	0.011				
1,1,2,2-Tetrachloroethane	<0.005				
1,2-Dichloropropane	<0.005				
trans-1,3-Dichloropropene	<0.005				
Trichloroethene	<0.005				
Dibromochloromethane	<0.005				
1,1,2-Trichloroethane	<0.005				

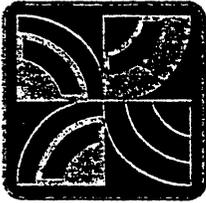
\*\*\*EPA Methods 601 and 624 and SW 846 Methods 8010 and 8240 do not differentiate the co-eluting cis and trans-1,2-dichloroethenes. The result reported is the sum of both compounds.

**MEADVILLE DIVISION**

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

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NY Dept. of Env. Conservation Approved Facility  
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MD Dept. of Health Cert. No. 130  
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WV Dept. of Health Certification No. 9907C  
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**FREE-COL LABORATORIES, INC.**

P.O. BOX 557, COTTON ROAD  
MEADVILLE, PENNSYLVANIA 16335  
PHONE: (814) 724-6242  
FAX: (814) 333-1488  
11/11/96

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

P.O. # HH48938

ACCOUNT NO. 01220

**ANALYTICAL REPORT FORM**

PAGE 6

SAMPLE ID : TRIP BLK.  
10/25/96

LAB ID 61101416  
DATE RECEIVED: 11/01/96

PARAMETER	RESULTS	UNITS	DATE	AND	ANALYST
<u>VOLATILE COMPOUNDS</u> Continued					
Benzene	<0.005	MG/L	11/07/96		ECKLUND
cis-1,3-Dichloropropene	<0.005				
2-Chloroethylvinyl ether	<0.010				
Bromoform	<0.005				
2-Hexanone	<0.050				
4-Methyl-2-pentanone	<0.050				
Tetrachloroethene	<0.005				
Toluene	<0.005				
Chlorobenzene	<0.005				
Ethylbenzene	<0.005				
Styrene	<0.005				
Total Xylenes	<0.005				

Volatile Compounds - Method 8240A

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

*John R. Paraska*  
QUALITY ASSURANCE SUPERVISOR  
FREE-COL LABORATORIES

pc: Mr. Steve Blair, GZA

**MEADVILLE DIVISION**

A.I.H.A. Accreditation No. 98  
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**FREE-COL LABORATORIES, INC.**

P.O. Box 557, Cotton Road  
Meadville, Pennsylvania 16335-0557  
Phone: Area Code 814/724-8242  
FAX: Area Code 814/333-1486

ENVIRONMENTAL  
OCCUPATIONAL HEALTH  
FOOD SCIENCE  
SPECIALISTS

**Unabbreviated Listing of Hazardous Substance List Compounds**

**VOLATILE COMPOUNDS**

Chloromethane	Bromodichloromethane
Bromomethane	1,1,2,2-Tetrachloroethane
Vinyl Chloride	1,2-Dichloropropane
Chloroethane	trans-1,3-Dichloropropene
Methylene Chloride	Trichloroethene
Acetone	Dibromochloromethane
Carbon Disulfide	1,1,2-Trichloroethane
1,1-Dichloroethene	Benzene
1,1-Dichloroethane	cis-1,3-Dichloropropene
1,2-Dichloroethylenes (Total)***	2-Chloroethyl Vinyl Ether
Chloroform	Bromoform
1,2-Dichloroethane	2-Hexanone
2-Butanone	4-Methyl-2-pentanone
1,1,1-Trichloroethane	Tetrachloroethene
Carbon Tetrachloride	Toluene
Vinyl Acetate	Chlorobenzene
Ethyl Benzene	
Styrene	
Total Xylenes	

\*\*\*EPA Methods 601 and 624 and SW 846 Methods 8010 and 8240 do not differentiate the co-eluting cis and trans-1,2-dichloroethenes. The result reported to you is the sum of both compounds.



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P.O. BOX 557, COTTON ROAD  
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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

A. Accreditation No. 98

J.S. Public Health Services Approved Facility

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KEY:

<=LESS THAN

>=GREATER THAN

w.f.=WILL FOLLOW

FIGURE E2  
ENVIRONMENTAL SAMPLE DESCRIPTION  
AND  
CHAIN OF CUSTODY RECORD

ATTACHMENT #2

DATE: 10/30/96

RESULTS REQUIRED BY: \_\_\_\_\_  
VERBAL RESULTS NEEDED? \_\_\_\_\_

LABORATORY: Free-61

HARRISON DIVISION, GMC  
200 UPPER MOUNTAIN ROAD  
LOCKPORT, NEW YORK 14094  
PHONE: (716) 439-685-2300  
CONTACT: Steve Blair  
CO2A

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

DESCRIPTION: Please test in the following order  
MW-10, MW-9, MW-8, MW-6, MW-4, MW-3, MW-7, MW-1

SAMPLE #	LOCATION	TIME	PARAMETERS	SAMPLE BOTTLE LOT # (OPTIONAL)
	MW-6	10 <sup>30</sup>	SW 846 - Method 8290	
	MW-7	11 <sup>43</sup>	"	
	MW-3	11 <sup>50</sup>	"	
	MW-8	12 <sup>48</sup>	"	
	MW-4	1 <sup>30</sup>	"	
	MW-10	2 <sup>09</sup>	"	
	MW-4	3 <sup>15</sup>	"	
	MW-11	3 <sup>30</sup>	"	
	<u>TRIP BLANK</u>		"	

DETECTION LEVELS REQUIRED? \_\_\_\_\_

INTERFERENCES: \_\_\_\_\_

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

BOTTLES RECEIVED BY: (DATE/TIME) (HRD PERSONNEL)	BOTTLES RELINQUISHED BY: (DATE/TIME) (HRD PERSONNEL)
	<u>Steve Blair 11/1/96</u>
BOTTLES RELINQUISHED BY: (DATE/TIME) (HRD PERSONNEL)	BOTTLES RECEIVED BY: (DATE/TIME) (LAB PERSONNEL)
	<u>Will F. Scott 11-1-96 1220</u>

SAMPLE COLLECTED BY: \_\_\_\_\_ RECEIVED BY: (DATE, TIME, LAB SIGNATURE)

Jim West 11-1-96

**FREE-COL LABORATORIES, INC.**

P.O. Box 557, 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 HARRISON THRM. SYS.  
GENERAL MOTORS CORPORATION

MW-5

SAMPLE DATES: 10/31/96  
P.O.# HH48938



**FREE-COL LABORATORIES, INC.**

P.O. BOX 557, COTTON ROAD  
MEADVILLE, PENNSYLVANIA 16335  
PHONE: (814) 724-8242  
FAX: (814) 333-1466

11/14/96

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

P.O. # HH48938

ACCOUNT NO. 01220

**ANALYTICAL REPORT FORM**

PAGE 1

SAMPLE ID : MW-5  
10/31/96

LAB ID 61101417  
DATE RECEIVED: 11/01/96

PARAMETER	RESULTS	UNITS	DATE	AND	ANALYST
<u>VOLATILE COMPOUNDS</u>					
Chloromethane	<1 D	MG/L	11/07/96		ECKLUND
Bromomethane	<1 D				
Vinyl Chloride	<1 D				
Chloroethane	<1 D				
Methylene Chloride	<0.5 D				
Acetone	<10 D				
Carbon Disulfide	<0.5 D				
1,1-Dichloroethene	<0.5 D				
1,1-Dichloroethane	<0.5 D				
1,2-Dichloroethenes (Total)***	3.4				
Chloroform	<0.5 D				
1,2-Dichloroethane	<0.5 D				
2-Butanone	<10 D				
1,1,1-Trichloroethane	<0.5 D				
Carbon Tetrachloride	<0.5 D				
Vinyl Acetate	<5 D				
Bromodichloromethane	<0.5 D				
1,1,2,2-Tetrachloroethane	<0.5 D				
1,2-Dichloropropane	<0.5 D				
trans-1,3-Dichloropropene	<0.5 D				
Trichloroethene	390				
Dibromochloromethane	<0.5 D				
1,1,2-Trichloroethane	<0.5 D				

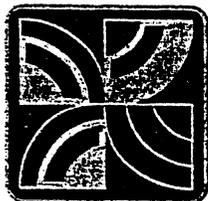
\*\*\*EPA Methods 601 and 624 and SW 846 Methods 8010 and 8240 do not differentiate the co-eluting cis and trans-1,2-dichloroethenes. The result reported is the sum of both compounds.

**MEADVILLE DIVISION**

A.I.H.A. Accreditation No. 98  
U.S. Public Health Services Approved Facility  
D.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  
NC Dept. of Natural Resources Cert. No. 236  
MI Dept. of Public Health Approved Facility  
U.S. Office of Surface Mining Approved Facility



**FREE-COL LABORATORIES, INC.**

P.O. BOX 557, COTTON ROAD  
MEADVILLE, PENNSYLVANIA 16335  
PHONE: (814) 724-6242  
FAX: (814) 833-1466  
11/14/96

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

P.O. # HH48938

ACCOUNT NO. 01220

**ANALYTICAL REPORT FORM** PAGE 2

SAMPLE ID : MW-5  
10/31/96

LAB ID 61101417  
DATE RECEIVED: 11/01/96

PARAMETER	RESULTS	UNITS	DATE	AND ANALYST
<u>VOLATILE COMPOUNDS</u> Continued				
Benzene	<0.5 D	MG/L	11/07/96	ECKLUND
cis-1,3-Dichloropropene	<0.5 D			
2-Chloroethylvinyl ether	<1 D			
Bromoform	<0.5 D			
2-Hexanone	<5 D			
4-Methyl-2-pentanone	<5 D			
Tetrachloroethene	89			
Toluene	<0.5 D			
Chlorobenzene	<0.5 D			
Ethylbenzene	<0.5 D			
Styrene	<0.5 D			
Total Xylenes	<0.5 D			

Volatile Compounds - Method 8240A

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

*John R. Parash*  
QUALITY ASSURANCE SUPERVISOR  
FREE-COL LABORATORIES

pc: Mr. Steve Blair, GZA

**MEADVILLE DIVISION**

A.I.H.A. Accreditation No. 98  
U.S. Public Health Services Approved Facility  
D.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  
NC Dept. of Natural Resources Cert. No. 238  
MI Dept. of Public Health Approved Facility  
U.S. Office of Surface Mining Approved Facility



**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**

H.A. Accreditation No. 98  
U.S. Public Health Services Approved Facility  
PA D.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  
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, INC.**

P.O. Box 557, 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:

General Motors Sample Identification

Free-Col ID

MW-5 10/31/96

61101417

Free-Col Laboratories, Inc.  
 Surrogate Spike Information  
 Method 8250

11-6-96

Analyst: Soklund

11-7-96

Recovery

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

Limits:	<u>Dibromofluoromethane</u>	<u>Toluene-dg</u>	<u>4-Bromofluorobenzene</u>
Water	86-118	88-110	86-115
Soil/Sediment	80-128	81-117	74-121

Free-Col I.D.

	611-01-408	100	97	109
	611-01-409	106	92	103
W	611-01-410	105	88	102
W	611-01-411	96	94	102
W	611-01-412	98	97	106
W	611-01-413	97	95	106
W	611-01-414	104	97	104
W	611-01-416	102	92	104
W	611-01-415	103	104	106
W	611-01-417	104	101	110

Limits in effect as of August 5, 1996

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

Date 11-6-96 Analyst Ecklund  
Samples associated with this reference control:

611-01-408 → 417

<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	18.7	223
Bromomethane	20	7.8-39.4	18.8	222
Vinyl chloride	20	1.5-41.7	17.3	232
Chloroethane	20	4.6-36.4	18.1	209
Methylene chloride	20	11.8-31.3	19.6	224
Acrolein	62	4.5-104.4	—	201
Acrylonitrile	58	13.2-115.2	—	202
1,1-Dichloroethene	20	11.3-32.1	19.7	216
1,1-Dichloroethane	20	15.5-27.8	17.7	214
trans-1,2-Dichloroethene	20	13.6-28.3	20.4	217
Chloroform	20	15.7-26.1	17.8	211
1,2-Dichloroethane	20	8.1-34.0	19.6	215
1,1,1-Trichloroethane	20	12.8-30.1	16.8	228
Carbon tetrachloride	20	8.0-27.8	17.9	206
Bromodichloromethane	20	9.8-29.7	19.8	212
1,2-Dichloropropane	20	14.7-28.2	26.8	218
trans-1,3-Dichloropropene	20	12.7-25.6	19.1	220
Trichloroethene	20	14.1-27.1	17.2	230
Benzene	20	14.3-27.8	18.9	203
Dibromochloromethane	20	4.8-29.2	22.7	208
1,1,2-Trichloroethane	20	14.3-28.2	19.5	229
cis-1,3-Dichloropropene	20	10.3-26.8	18.2	219
2-Chloroethyl vinyl ether	20	10.1-32.1	21.7	210
Bromoform	20	3.0-30.6	21.6	205
Tetrachloroethene	20	13.3-28.4	22.7	226
1,1,2,2-Tetrachloroethane	20	14.7-26.1	20.1	225
Toluene	20	15.2-25.6	20.1	227
Chlorobenzene	20	11.5-28.6	19.5	207
Ethyl benzene	20	13.4-27.6	17.3	221
1,3-Dichlorobenzene	26	18.5-36.7	24.9	234
1,2-Dichlorobenzene	26	11.5-41.9	24.4	233
1,4-Dichlorobenzene	20	3.7-35.6	19.3	235
Diethyl Benzene	44	25.9-62.9	—	237
Ethyl Ether	35	26.9-49.5	—	236
Xylene	44	21.0-66.7	40.6	238
MEK	20	9.1-39.4	22.0	240
Acetone	20	9.6-38.0	21.7	242

Limits in effect as of August 5, 1996

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

Date 11-6-96 Analyst Ecklund  
Samples associated with this reference control:

611-01-408 → 417

<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	21.7	243
Tetrahydrofuran	45	34.8-60.3	-	244
Carbondisulfide	20	11.0-30.4	17.6	245
Styrene	20	12.4-30.0	18.8	246
Vinyl Acetate	20	11.0-27.5	22.3	247
Amyl Acetate	44	14.7-64.6	-	248
Methyl Butyl Ketone	20	10.3-33.9	22.0	249

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

Date 11-6-96 Analyst Ecklund  
Samples associated with this blank:

6-11-08  
6-11-01-408 → 417

<u>Parameter</u>	<u>Blank Value</u>
Units = <u>mg/L</u>	
Chloromethane	<10
Bromomethane	<10
Vinyl chloride	<10
Chloroethane	<10
Methylene chloride	<5
Acrolein	-
Acrylonitrile	-
1,1-Dichloroethene	<5
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	<10
Bromoform	<5
Tetrachloroethene	
1,1,2,2-Tetrachloroethane	
Toluene	
Chlorobenzene	
Ethyl benzene	
1,3-Dichlorobenzene	
1,2-Dichlorobenzene	
1,4-Dichlorobenzene	↓
Xylene	<5
2-Butanone - MEK	<100
4-Methyl-2-pentanone	<50
Acetone	<100
Syrene	<5

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

Date 11-6-96 Analyst Ecklund  
Samples associated with this blank:

611-01-408 → 417

<u>Parameter</u>	<u>Blank Value</u>
Units = <u>    mg/l    </u>	
<u>Carbon Disulfide</u>	<u>&lt;5</u>
<u>Vinyl Acetate</u>	<u>&lt;50</u>
<u>2-Hexanone - MBK</u>	<u>&lt;50</u>
<u>Dichlorofluoromethane</u>	<u>-</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>	

Limits in effect as of August 5, 1996

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

Date 11/7/96 Analyst Ecklund

Samples associated with this reference control:

6-11-01-408 → 417

<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	17.0	223
Bromomethane	20	7.8-39.4	18.4	222
Vinyl chloride	20	1.5-41.7	17.5	232
Chloroethane	20	4.6-36.4	17.6	209
Methylene chloride	20	11.8-31.3	18.3	224
Acrolein	62	4.5-104.4	—	201
Acrylonitrile	58	13.2-115.2	—	202
1,1-Dichloroethene	20	11.3-32.1	19.4	216
1,1-Dichloroethane	20	15.5-27.8	17.5	214
trans-1,2-Dichloroethenes	20	13.6-28.3	20.4	217
Chloroform	20	15.7-26.1	18.6	211
1,2-Dichloroethane	20	8.1-34.0	20.4	215
1,1,1-Trichloroethane	20	12.8-30.1	18.2	228
Carbon tetrachloride	20	8.0-27.8	18.6	206
Bromodichloromethane	20	9.8-29.7	19.1	212
1,2-Dichloropropane	20	14.7-28.2	16.5	218
trans-1,3-Dichloropropene	20	12.7-25.6	17.4	220
Trichloroethene	20	14.1-27.1	18.3	230
Benzene	20	14.3-27.8	19.3	203
Dibromochloromethane	20	4.8-29.2	19.6	208
1,1,2-Trichloroethane	20	14.3-28.2	17.2	229
cis-1,3-Dichloropropene	20	10.3-26.8	16.4	219
2-Chloroethyl vinyl ether	20	10.1-32.1	20.1	210
Bromoform	20	3.0-30.6	20.8	205
Tetrachloroethene	20	13.3-28.4	17.0	226
1,1,2,2-Tetrachloroethane	20	14.7-26.1	22.0	225
Toluene	20	15.2-25.6	17.8	227
Chlorobenzene	20	11.5-28.6	19.2	207
Ethyl benzene	20	13.4-27.6	17.8	221
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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	41.8	238
MEK	20	9.1-39.4	23.2	240
Acetone	20	9.6-38.0	21.3	242



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

Date 11/7/96 Analyst Ecklund  
 Samples associated with this blank:

611-01-408 → 417

Parameter	Blank Value
Units = <u>mg/l</u>	
Chloromethane	<10
Bromomethane	↓
Vinyl chloride	↓
Chloroethane	↓
Methylene chloride	<5
Acrolein	-
Acrylonitrile	-
1,1-Dichloroethene	<5
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	<10
Bromoform	<5
Tetrachloroethene	↓
1,1,2,2-Tetrachloroethane	↓
Toluene	↓
Chlorobenzene	↓
Ethyl benzene	↓
1,3-Dichlorobenzene	↓
1,2-Dichlorobenzene	↓
1,4-Dichlorobenzene	↓
Xylene	↓
2-Butanone - MEK	<100
4-Methyl-2-pentanone	<50
Acetone	<100
Syrene	<5

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

Date 11/7/96 Analyst Ecklund  
Samples associated with this blank:

611-01-402 → 417

Parameter Blank Value

Units = ug/L

<u>Carbon Disulfide</u>	<u>&lt;5</u>
<u>Vinyl Acetate</u>	<u>&lt;50</u>
<u>2-Hexanone - MBK</u>	<u>&lt;50</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>	

Limits in effect as of August 5, 1996

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

Date 11/7/96 Analyst Ecklund  
Samples associated with this repeat control:

611-01-417 → 417

Sample used as repeat control: 611-05-079  
AD = Absolute Difference RPD = Relative Percent Difference

Parameter	Samp. Value	Repeat Value	Accept AD	Accept RPD	Assayd AD/RPD	File
Chloromethane	<10	<10			⊗	820
Bromomethane	↓	↓				819
Vinyl chloride	↓	↓		27		828
Chloroethane	↓	↓				807
Methylene chloride	<5	<5		17	↓	821
Acrolein	-	-			-	800
Acrylonitrile	-	-			-	801
1,1-Dichloroethene	<5	<5			⊗	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				32		827
Benzene				49		802
Dibromochloromethane				70		806
1,1,2-Trichloroethane						826
cis-1,3-Dichloropropene	↓	↓				816
2-Chloroethyl vinyl ether	<10	<10				808
Bromoform	<5	<5			⊗	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	<100	<100		26	↓	836

Limits in effect as of August 5, 1996

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

Date 11/7/96 Analyst Ecklund  
Samples associated with this repeat control:

611-01-408 → 417

Sample used as repeat control: 611-05-079  
AD = Absolute Difference RPD = Relative Percent Difference

Parameter	Samp. Value	Repeat Value	Accept AD	Accept RPD	Assayd AD/RPD	File
-----------	-------------	--------------	-----------	------------	---------------	------

Units = ug/L

3-Chloro-1-propene						
Dichlorodifluoromethane						
Methyl Ethyl Ketone	<100	<100				P
MIBK	<50	<50				P
1,1,1,2-Tetrachloroethane						
Trichlorofluoromethane						
1,2,3-Trichloropropane						
1,2-Dibromomethane						
Cis-1,2-Dichloroethane						
Xylene	<5	<5				P
METHY BUTYL KETONE	<50	<50				
STYRENE	<5	<5				
CARBON DISULFIDE	<5	<5				
VINYL ACETATE	<50	<50				↓

Limits in effect as of August 5, 1996

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

Date 11/7/96 Analyst Ecklund  
Samples associated with this spiked control:

611-01-408 → 417

Sample used as spiked control: 611-05-083

<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	19	<10	31-187	90	520
Bromomethane	20	18		34-207	90	519
Vinyl chloride	20	16		26-183	80	528
Chloroethane	20	17	↓	55-168	85	507
Methylene chloride	20	22	<5	63-151	110	521
Acrolein	62	-	-	23-183	-	500
Acrylonitrile	58	-	-	52-186	-	501
1,1-Dichloroethene	20	20	<5	52-159	100	513
1,1-Dichloroethane	20	17		73-144	85	511
trans-1,2-Dichloroethene	20	18		64-151	90	514
Chloroform	20	17		68-142	85	509
1,2-Dichloroethane	20	20		54-155	100	512
1,1,1-Trichloroethane	20	18		59-158	90	525
Carbon tetrachloride	20	16		39-147	80	504
Bromodichloromethane	20	16		47-148	80	510
1,2-Dichloropropane	20	16		67-144	80	515
trans-1,3-Dichloropropene	20	19		56-141	85	517
Trichloroethene	20	18		64-130	90	527
Benzene	20	20		71-142	100	502
Dibromochloromethane	20	16		29-155	80	506
1,1,2-Trichloroethane	20	16		61-146	80	526
cis-1,3-Dichloropropene	20	17	✓	46-149	85	516
2-Chloroethyl vinyl ether	20	16	<10	7-183	80	508
Bromoform	20	16	<5	10-149	80	503
Tetrachloroethene	20	16		50-160	80	523
1,1,2,2-Tetrachloroethane	20	22		44-163	110	522
Toluene	20	16		73-130	80	524
Chlorobenzene	20	18		72-131	90	505
Ethyl benzene	20	18	✓	62-139	90	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	44.1	<5	72-130	93	534
MEK	20	22	<100	63-179	110	536



FIGURE B2  
 ENVIRONMENTAL SAMPLE DESCRIPTION  
 AND  
 CHAIN OF CUSTODY RECORD

ATTACHMENT #2

DATE: 10/31/96

RESULTS REQUIRED BY: \_\_\_\_\_  
 VERBAL RESULTS NEEDED? \_\_\_\_\_

LABORATORY: Free - 61

HARRISON DIVISION, GMC  
 200 UPPER MOUNTAIN ROAD  
 LOCKPORT, NEW YORK 14094  
 PHONE: (716) 489-~~685~~-230x  
 CONTACT: Steve Blair

- TYPE: (CIRCLE)
- |                |                   |   |                       |
|----------------|-------------------|---|-----------------------|
| 1) WASTEWATER  | 2) DRINKING WATER | <input checked="" type="radio"/> 3) MONITORING WELL | 4) SOIL               |
| 5) SLUDGE      | 6) SOLID WASTE    | 7) OIL  | 8) INDUSTRIAL HYGIENE |
| 9) OTHER _____ |                   |   |                       |

DESCRIPTION: Please test these after those collected on 10/30/96  
Please call to discuss how to test MW-5P

SAMPLE #	LOCATION	TIME	PARAMETERS	SAMPLE BOTTLE LOT # (OPTIONAL)
	MW-5B		SW-846 - Method 8240	
	MW-5P		SW-846 - Method 8240	

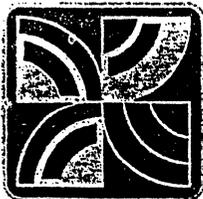
DETECTION LEVELS REQUIRED? \_\_\_\_\_

INTERFERENCES: \_\_\_\_\_

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

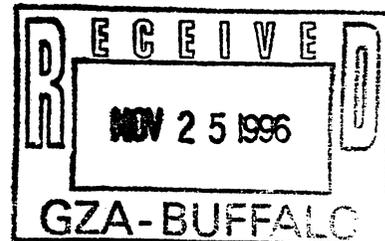
RELINQUISHED BY: (DATE/TIME) (HRD PERSONNEL) <u>Steve Blair 11/1/96</u>	RECEIVED BY: (DATE/TIME) (HRD PERSONNEL) <u>Will F. Slat 11-1-96 1220</u>
--	--

SAMPLE COLLECTED BY: _____	RECEIVED BY: (DATE, TIME, LAB SIGNATURE) <u>Jim Watt 11-1-96</u> <u>Steve Blair 11/1/96 - 11/14/96</u>
----------------------------	--



FREE-COL LABORATORIES, INC.

P.O. BOX 557, COTTON ROAD  
MEADVILLE, PENNSYLVANIA 16335  
PHONE: (814) 724-8242  
FAX: (814) 333-1466



11/19/96

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

P.O. # HH48938

ACCOUNT NO. 01220

ANALYTICAL REPORT FORM

PAGE 2

SAMPLE ID : MW-5P  
10/31/96

LAB ID 61101418  
DATE RECEIVED: 11/01/96

PARAMETER	RESULTS	UNITS	DATE	AND	ANALYST
<u>VOLATILE COMPOUNDS</u>					
Chloromethane	<3,000 D	MG/KG	11/15/96		ECKLUND
Bromomethane	<3,000 D				
Vinyl Chloride	<3,000 D				
Chloroethane	<3,000 D				
Methylene Chloride	<1,500 D				
Acetone	<30,000 D				
Carbon Disulfide	<1,500 D				
1,1-Dichloroethene	<1,500 D				
1,1-Dichloroethane	<1,500 D				
1,2-Dichloroethenes (Total)***	<1,500 D				
Chloroform	<1,500 D				
1,2-Dichloroethane	<1,500 D				
2-Butanone	<30,000 D				
1,1,1-Trichloroethane	<1,500 D				
Carbon Tetrachloride	<1,500 D				
Vinyl Acetate	<15,000 D				
Bromodichloromethane	<1,500 D				
1,1,2,2-Tetrachloroethane	<1,500 D				
1,2-Dichloropropane	<1,500 D				
trans-1,3-Dichloropropene	<1,500 D				
Trichloroethene	430,000				
Dibromochloromethane	<1,500 D				
1,1,2-Trichloroethane	<1,500 D				

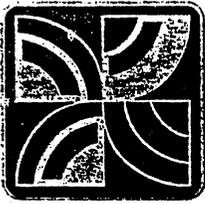
\*\*\*EPA Methods 601 and 624 and SW 846 Methods 8010 and 8240 do not differentiate the co-eluting cis and trans-1,2-dichloroethenes. The result reported is the sum of both compounds.

MEADVILLE DIVISION

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



**FREE-COL LABORATORIES, INC.**

P.O. BOX 557, COTTON ROAD  
MEADVILLE, PENNSYLVANIA 16335  
PHONE: (814) 724-6242  
FAX: (814) 333-1466  
11/19/96

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

P.O. # HH48938

ACCOUNT NO. 01220

**ANALYTICAL REPORT FORM**

PAGE 3

SAMPLE ID : MW-5P  
10/31/96

LAB ID 61101418  
DATE RECEIVED: 11/01/96

PARAMETER	RESULTS	UNITS	DATE	AND	ANALYST
<u>VOLATILE COMPOUNDS</u> Continued					
Benzene	<1,500 D	MG/KG	11/15/96		ECKLUND
cis-1,3-Dichloropropene	<1,500 D				
2-Chloroethylvinyl ether	<3,000 D				
Bromoform	<1,500 D				
2-Hexanone	<15,000 D				
4-Methyl-2-pentanone	<15,000 D				
Tetrachloroethene	640,000				
Toluene	<1,500 D				
Chlorobenzene	<1,500 D				
Ethylbenzene	<1,500 D				
Styrene	<1,500 D				
Total Xylenes	<1,500 D				

**Volatile Compounds - Method 8240A**

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

*John R. Rust*  
QUALITY ASSURANCE SUPERVISOR  
FREE-COL LABORATORIES

pc: Mr. Steve Blair, GZA

**MEADVILLE DIVISION**

I.H.A. Accreditation No. 98  
U.S. Public Health Services Approved Facility  
PA D.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  
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



**FREE-COL LABORATORIES, INC.**

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

**TO:** Results expressed as MG/KG or % are calculated on an as received weight basis, with two exceptions: % volatile solids and % fixed solids (% ash) are expressed on a dry weight basis.

**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 from the sample 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 but greater than zero.

**MEADVILLE DIVISION**  
A.L.H.A. Accreditation No. 98  
U.S. Public Health Services Approved Facility  
P.A.C. J.E.R. Laboratory I.D. No. 20-073  
P.A.C. 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

**FREE-COL LABORATORIES, INC.**

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



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:

General Motors Sample Identification

Free-Col ID

MW-5P 10/31/96

61101418

**Special Notes:**

1. The results on the analytical report may be given as mg/kg and related control value results may be given on the quality control data sheet as mg/L. The reason for this difference is that many control values are expressed in terms of the final concentration of the solvent or acid extract of a solid waste or oil sample.

Free-Col Laboratories, Inc.  
 Semiquantitative Spike Information  
 Method 8250

11/15/96

Analyst: Ecklund

Recovery

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

Limits:	<u>Dibromofluoromethane</u>	<u>Toluene-d<sub>8</sub></u>	<u>4-Bromofluorobenzene</u>
Water	86-118	88-110	86-115
Soil/Sediment	80-128	81-117	74-121

Free-Col I.D.

611-13-096	108	99	104
611-13-112	98	92	102
611-14-086	94	94	106
611-13-126	95	94	104
611-14-118	96	90	105
611-14-119	96	98	104
611-14-120	97	91	98
611-14-121	95	92	97
611-14-122	95	91	102
611-02-415	96	96	103
611-02-416	97	96	104
611-01-418	103	99	101

Limits in effect as of August 5, 1996

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

Date 11/15/96 Analyst Ecklund  
Samples associated with this reference control:

611-08-415/416  
611-01-418

<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	21.4	223
Bromomethane	20	7.8-39.4	20.2	222
Vinyl chloride	20	1.5-41.7	13.0	232
Chloroethane	20	4.6-36.4	16.6	209
Methylene chloride	20	11.8-31.3	13.2	224
Acrolein	62	4.5-104.4	36.0	201
Acrylonitrile	58	13.2-115.2	54.3	202
1,1-Dichloroethene	20	11.3-32.1	17.1	216
1,1-Dichloroethane	20	15.5-27.8	Ac 26.2 17.0	214
trans-1,2-Dichloroethene	20	13.6-28.3	17.2 20.2	217
Chloroform	20	15.7-26.1	17.9	211
1,2-Dichloroethane	20	8.1-34.0	20.0	215
1,1,1-Trichloroethane	20	12.8-30.1	18.7	228
Carbon tetrachloride	20	8.0-27.8	19.4	206
Bromodichloromethane	20	9.8-29.7	12.0	212
1,2-Dichloropropane	20	14.7-28.2	13.6	218
trans-1,3-Dichloropropene	20	12.7-25.6	21.4	220
Trichloroethene	20	14.1-27.1	19.3	230
Benzene	20	14.3-27.8	12.7	203
Dibromochloromethane	20	4.8-29.2	20.9	208
1,1,2-Trichloroethane	20	14.3-28.2	21.8	229
cis-1,3-Dichloropropene	20	10.3-26.8	22.5	219
2-Chloroethyl vinyl ether	20	10.1-32.1	20.2	210
Bromoform	20	3.0-30.6	23.0	205
Tetrachloroethene	20	13.3-28.4	22.0	226
1,1,2,2-Tetrachloroethane	20	14.7-26.1	16.2	225
Toluene	20	15.2-25.6	20.9	227
Chlorobenzene	20	11.5-28.6	20.5	207
Ethyl benzene	20	13.4-27.6	18.6	221
1,3-Dichlorobenzene	26	18.5-36.7	25.7	234
1,2-Dichlorobenzene	26	11.5-41.9	25.4	233
1,4-Dichlorobenzene	20	3.7-35.6	19.9	235
Diethyl Benzene	44	25.9-62.9	-	237
Ethyl Ether	35	26.9-49.5	-	236
Xylene	44	21.0-66.7	42.7	238
MEK	20	9.1-39.4	12.1	240
Acetone	20	9.6-38.0	17.6	242

Limits in effect as of August 5, 1996

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

Date 11/15/96 Analyst E. Sklund  
Samples associated with this repeat control:  
611-08-415/416

611-01-412  
Sample used as repeat control: 611-08-415  
AD = Absolute Difference RPD = Relative Percent Difference

Parameter mg/L Samp. Value Repeat Value Accept AD Accept RPD Assayd File AD/RPD  
Units = mg/L

Parameter	Samp. Value	Repeat Value	Accept AD	Accept RPD	Assayd File
Chloromethane	<5	<5			820
Bromomethane					819
Vinyl chloride				27	828
Chloroethane					807
Methylene chloride	<2	<2		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				32	827
Benzene				49	802
Dibromochloromethane				70	806
1,1,2-Trichloroethane					826
cis-1,3-Dichloropropene					816
2-Chloroethyl vinyl ether	<5	<5			808
Bromoform	<2	<2			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	<100	<100		26	836

Limits in effect as of August 5, 1996

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

Date 11/15/96 Analyst Eckhouse  
Samples associated with this repeat control:

Sample used as repeat control: 611-08-415  
AD = Absolute Difference RPD = Relative Percent Difference

Parameter MS/L Samp. Value Repeat Value Accept AD Accept RPD Assayd File AD/RPD

Parameter	Samp. Value	Repeat Value	Accept AD	Accept RPD	Assayd File AD/RPD
3-Chloro-1-propene					
Dichlorodifluoromethane					
Methyl Ethyl Ketone	<100	<100			0
MIBK	<50	<50			0
1,1,1,2-Tetrachloroethane					
Trichlorofluoromethane					
1,2,3-Trichloropropane					
1,2-Dibromomethane					
Cis-1,2-Dichloroethane	<2	<2			0
Xylene	<2	<2			
Methyl Butyl Ketone	<50	<50			
Styrene	<2	<2			
Carbon disulfide	<5	<5			
Vinyl Acetate	<50	<50			

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

Date 11/15/96 Analyst Ecklund  
 Samples associated with this blank:

611-08-415/416  
611-01-418

Parameter	Blank Value
Units = <u>ug/L</u>	
Chloromethane	<5
Bromomethane	↓
Vinyl chloride	↓
Chloroethane	↓
Methylene chloride	<2
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	<5
Bromoform	<2
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 11/15/96 Analyst Ecklund  
Samples associated with this blank:

<u>Parameter</u>	<u>Blank Value</u>
Units = <u>ug/l</u>	
<u>Carbon Disulfide</u>	<u>&lt;5</u>
<u>Vinyl Acetate</u>	<u>&lt;10</u>
<u>2-Hexanone - MBK</u>	<u>&lt;10</u>
<u>Dichlorofluoromethane</u>	<u>-</u>
<u>1,1,1,2-Tetrachloroethane</u>	
<u>Trichlorofluoromethane</u>	
<u>1,2,3-Trichloropropane</u>	<u>&lt;5</u>
<u>3-Chloro-1-propene</u>	<u>-</u>
<u>1,2-Dibromomethane</u>	<u>&lt;2</u>
<u>cis,1,2-Dichloroethene</u>	<u>&lt;2</u>
<u>THF</u>	<u>&lt;5</u>

Limits in effect as of August 5, 1996

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

Date 11/15/96 Analyst Ecklund  
Samples associated with this spiked control:

611-08-415/416  
611-01-418  
Sample used as spiked control: 611-08-012

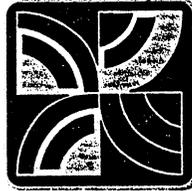
<u>PARAMETER</u>	<u>SPIKE ADDED UG/L</u>	<u>SPIKED RESULT UG/L</u>	<u>SAMPLE RESULT UG/L</u>	<u>ACCEPT. LIMITS % REC.</u>	<u>ASSYD % REC.</u>	<u>FILE</u>
Chloromethane	20	22	<5	31-187	110	520
Bromomethane	20	20		34-207	100	519
Vinyl chloride	20	18		26-183	90	528
Chloroethane	20	18	↓	55-168	90	507
Methylene chloride	20	22	<2	63-151	120	521
Acrolein	62	42	<10	23-183	68	500
Acrylonitrile	58	50	<10	52-186	86	501
1,1-Dichloroethene	20	21	<2	52-159	105	513
1,1-Dichloroethane	20	18		73-144	90	511
trans-1,2-Dichloroethene	20	19		64-151	95	514
Chloroform	20	18		68-142	90	509
1,2-Dichloroethane	20	23		54-155	115	512
1,1,1-Trichloroethane	20	17		59-158	85	525
Carbon tetrachloride	20	22		39-147	110	504
Bromodichloromethane	20	19		47-148	95	510
1,2-Dichloropropane	20	20		67-144	100	515
trans-1,3-Dichloropropene	20	22	↓	56-141	110	517
Trichloroethene	20	122	100	64-130	110	527
Benzene	20	20	<2	71-142	100	502
Dibromochloromethane	20	24		29-155	120	506
1,1,2-Trichloroethane	20	22		61-146	110	526
cis-1,3-Dichloropropene	20	23	↓	46-149	115	516
2-Chloroethyl vinyl ether	20	19	<5	7-183	95	508
Bromoform	20	21	<2	10-149	105	503
Tetrachloroethene	20	22		50-160	110	523
1,1,2,2-Tetrachloroethane	20	18		44-163	90	522
Toluene	20	24		73-130	120	524
Chlorobenzene	20	21		72-131	105	505
Ethyl benzene	20	20		62-139	100	518
1,3-Dichlorobenzene	26	26		60-161	100	530
1,2-Dichlorobenzene	26	26		45-157	100	529
1,4-Dichlorobenzene	20	20	↓	36-174	100	531
Diethyl Benzene	44	-	-	71-137	-	533
Ethyl Ether	35	-	-	62-160	-	532
Xylenes	44	45	<2	72-130	102	534
MEK	20	18	<12	63-179	90	536





**FREE-COL LABORATORIES, INC.**

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

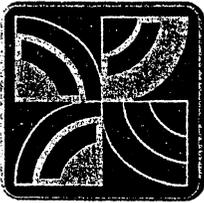


ENVIRONMENTAL  
OCCUPATIONAL HEALTH  
FOOD SCIENCE  
SPECIALISTS

DELPHI HARRISON THRM. SYS.  
GENERAL MOTORS CORPORATION

MONITORING WELLS #'S 10,9,8,6,4,3S,7,5,11

SAMPLE DATES: 11/21/96  
P.O.# HH48938



# FREE-COL LABORATORIES, INC.

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

12/03/96

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

P.O. # HH48938

ACCOUNT NO. 01220

## ANALYTICAL REPORT FORM

PAGE 1

PARAMETER	LAB ID	MW 10 11/21/96	MW 9 11/21/96	MW 8 11/21/96
	DATE RECEIVED:	11/22/96	11/22/96	11/22/96

### VOLATILE COMPOUNDS

UNITS = MG/L

CHLOROMETHANE	<0.1 D	<0.1 D	<0.010
BROMOMETHANE	<0.1 D	<0.1 D	<0.010
VINYL CHLORIDE	<0.1 D	0.16	0.049
CHLOROETHANE	<0.1 D	<0.1 D	<0.010
METHYLENE CHLORIDE	<0.05 D	<0.05 D	<0.005
ACETONE	<1 D	<1 D	<0.10
CARBON DISULFIDE	<0.05 D	<0.05 D	<0.005
1,1,-DICHLOROETHENE	<0.05 D	<0.05 D	0.005
1,1,-DICHLOROETHANE	<0.05 D	<0.05 D	<0.005
1,2-DICHLORO***	1.7	3.2	2.6
CHLOROFORM	<0.05 D	<0.05 D	<0.005
1,2-DICHLOROETHANE	<0.05 D	<0.05 D	<0.005
2-BUTANONE	<1 D	<1 D	<0.10
1,1,1-TRICHLOROETHA*	<0.05 D	<0.05 D	<0.005
CARBON TETRACHLORIDE	<0.05 D	<0.05 D	<0.005
VINYL ACETATE	<0.5 D	<0.5 D	<0.050
BROMODICHLOROMETHANE	<0.05 D	<0.05 D	<0.005
1,1,2,2-TETRACHLORO*	<0.05 D	<0.05 D	<0.005
1,2-DICHLOROPROPANE	<0.05 D	<0.05 D	<0.005
TRANS-1,3-DICHLOROP*	<0.05 D	<0.05 D	<0.005
TRICHLOROETHENE	0.87	2.0	0.22
DIBROMOCHLOROMETHANE	<0.05 D	<0.05 D	<0.005
1,1,2-TRICHLOROETHA*	<0.05 D	<0.05 D	<0.005
BENZENE	<0.05 D	<0.05 D	<0.005
CIS-1,3-DICHLOROPRO*	<0.05 D	<0.05 D	<0.005

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

### MEADVILLE DIVISION

N.I.H.A. Accreditation No. 98  
U.S. Public Health Services Approved Facility  
PA D.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

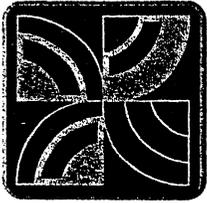
WV Dept. of Health Certification No. 9907C  
NC Dept. of Natural Resources Cert. No. 236  
MI Dept. of Public Health Approved Facility  
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w.f.=WILL FOLLOW



**FREE-COL LABORATORIES, INC.**

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

12/03/96

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

P.O. # HH48938

ACCOUNT NO. 01220

**ANALYTICAL REPORT FORM**

PAGE 2

	SAMPLE ID	MW 10	MW 9	MW 8
		11/21/96	11/21/96	11/21/96
	LAB ID	61122412	61122413	61122414
PARAMETER	DATE RECEIVED:	11/22/96	11/22/96	11/22/96

VOLATILE COMPOUNDS (Cont.)	UNITS = MG/L		
2-CHLOR* VINYL ETHER	<0.1 D	<0.1 D	<0.010
BROMOFORM	<0.05 D	<0.05 D	<0.005
2-HEXANONE	<0.5 D	<0.5 D	<0.050
4-METHYL-2-PENTANONE	<0.5 D	<0.5 D	<0.050
TETRACHLOROETHENE	0.22	0.06	0.022
TOLUENE	<0.05 D	<0.05 D	<0.005
CHLOROBENZENE	<0.05 D	<0.05 D	<0.005
ETHYL BENZENE	<0.05 D	<0.05 D	<0.005
STYRENE	<0.05 D	<0.05 D	<0.005
TOTAL XYLENES	<0.05 D	<0.05 D	<0.005

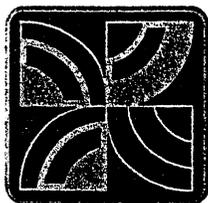
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I.H.A. Accreditation No. 98  
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PA D.E.R. Laboratory I.D. No. 20-073  
A Dept. of Agriculture Approved Dairy Laboratory

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



# FREE-COL LABORATORIES, INC.

P.O. BOX 557, COTTON ROAD  
MEADVILLE, PENNSYLVANIA 16335  
PHONE: (814) 724-8242  
FAX: (814) 333-1466

12/03/96

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

P.O. # HH48938

ACCOUNT NO. 01220

## ANALYTICAL REPORT FORM

PAGE 3

SAMPLE ID	: MW 6	MW 4	MW 3S
	11/21/96	11/21/96	11/21/96
LAB ID	61122415	61122416	61122417
PARAMETER	DATE RECEIVED: 11/22/96	11/22/96	11/22/96

### VOLATILE COMPOUNDS

UNITS = MG/L

CHLOROMETHANE	<0.1 D	<1 D	<1 D
BROMOMETHANE	<0.1 D	<1 D	<1 D
VINYL CHLORIDE	3.1	18	1.6
CHLOROETHANE	<0.1 D	<1 D	<1 D
METHYLENE CHLORIDE	0.05 D	<0.5 D	<0.5 D
ACETONE	<1 D	<10 D	<10 D
CARBON DISULFIDE	<0.05 D	<0.5 D	<0.5 D
1,1,-DICHLOROETHENE	<0.05 D	<0.5 D	<0.5 D
1,1,-DICHLOROETHANE	<0.05 D	<0.5 D	<0.5 D
1,2-DICHLORO***	8.2	120	190
CHLOROFORM	<0.05 D	<0.5 D	<0.5 D
1,2-DICHLOROETHANE	<0.05 D	<0.5 D	<0.5 D
2-BUTANONE	<1 D	<10 D	<10 D
1,1,1-TRICHLOROETHA*	<0.05 D	<0.5 D	<0.5 D
CARBON TETRACHLORIDE	<0.05 D	<0.5 D	<0.5 D
VINYL ACETATE	<0.5 D	<5 D	<5 D
BROMODICHLOROMETHANE	<0.05 D	<0.5 D	<0.5 D
1,1,2,2-TETRACHLORO*	<0.05 D	<0.5 D	<0.5 D
1,2-DICHLOROPROPANE	<0.05 D	<0.5 D	<0.5 D
TRANS-1,3-DICHLOROP*	<0.05 D	<0.5 D	<0.5 D
TRICHLOROETHENE	11	37	<0.5 D
DIBROMOCHLOROMETHANE	<0.05 D	<0.5 D	<0.5 D
1,1,2-TRICHLOROETHA*	<0.05 D	<0.5 D	<0.5 D
BENZENE	<0.05 D	<0.5 D	2.4
CIS-1,3-DICHLOROPRO*	<0.05 D	<0.5 D	<0.5 D

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### MEADVILLE DIVISION

A.I.H.A. Accreditation No. 88  
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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

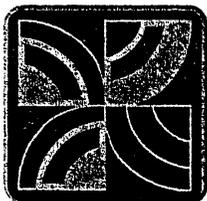
WV Dept. of Health Certification No. 8907C  
NC Dept. of Natural Resources Cert. No. 236  
MI Dept. of Public Health Approved Facility  
U.S. Office of Surface Mining Approved Facility

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# FREE-COL LABORATORIES, INC.

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

12/03/96

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

P.O. # HH48938

ACCOUNT NO. 01220

## ANALYTICAL REPORT FORM

PAGE 4

SAMPLE ID	:	MW 6	MW 4	MW 3S
		11/21/96	11/21/96	11/21/96
LAB ID		61122415	61122416	61122417
PARAMETER	DATE RECEIVED:	11/22/96	11/22/96	11/22/96

### VOLATILE COMPOUNDS (Cont.) UNITS = MG/L

2-CHLOR* VINYL ETHER	<0.1 D	<1 D	<1 D
BROMOFORM	<0.05 D	<0.5 D	<0.5 D
2-HEXANONE	<0.5 D	<5 D	<5 D
4-METHYL-2-PENTANONE	<0.5 D	<5 D	<5 D
TETRACHLOROETHENE	57	<0.5 D	<0.5 D
TOLUENE	<0.05 D	<0.5 D	2.3
CHLOROBENZENE	<0.05 D	<0.5 D	<0.5 D
ETHYL BENZENE	<0.05 D	<0.5 D	1.8
STYRENE	<0.05 D	<0.5 D	0.5 D
TOTAL XYLENES	<0.05 D	<0.5 D	3.3

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reference the enclosed list for their complete names.  
Please reference the following page(s) for date and analyst.

#### MEADVILLE DIVISION

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  
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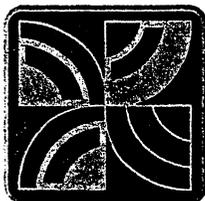
WV Dept. of Health Certification No. 9907C  
NC Dept. of Natural Resources Cert. No. 23  
MI Dept. of Public Health Approved Facility  
U.S. Office of Surface Mining Approved Fac

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

12/03/96

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LOCKPORT NY 14094

P.O. # HH48938

ACCOUNT NO. 01220

## ANALYTICAL REPORT FORM

PAGE 5

PARAMETER	LAB ID	DATE RECEIVED:	MW 7 11/21/96	MW 5 11/21/96	MW 11 11/21/96
	61122418	11/22/96		61122419	61122420
				11/22/96	11/22/96

### VOLATILE COMPOUNDS

UNITS = MG/L

CHLOROMETHANE	<1 D	<1 D	<0.1 D
BROMOMETHANE	<1 D	<1 D	<0.1 D
VINYL CHLORIDE	3.1	<1 D	0.15
CHLOROETHANE	<1 D	<1 D	<0.1 D
METHYLENE CHLORIDE	<0.5 D	<0.5 D	<0.05 D
ACETONE	<10 D	<10 D	<1 D
CARBON DISULFIDE	<0.5 D	<0.5 D	<0.05 D
1,1,-DICHLOROETHENE	<0.5 D	<0.5 D	<0.05 D
1,1,-DICHLOROETHANE	<0.5 D	<0.5 D	<0.05 D
1,2-DICHLORO***	35	1.8	2.9
CHLOROFORM	<0.5 D	<0.5 D	<0.05 D
1,2-DICHLOROETHANE	<0.5 D	<0.5 D	<0.05 D
2-BUTANONE	<10 D	<10 D	<1 D
1,1,1-TRICHLOROETHA*	<0.5 D	<0.5 D	<0.05 D
CARBON TETRACHLORIDE	<0.5 D	<0.5 D	<0.05 D
VINYL ACETATE	<5 D	<5 D	<0.5 D
BROMODICHLOROMETHANE	<0.5 D	<0.5 D	<0.05 D
1,1,2,2-TETRACHLORO*	<0.5 D	<0.5 D	<0.05 D
1,2-DICHLOROPROPANE	<0.5 D	<0.5 D	<0.05 D
TRANS-1,3-DICHLOROP*	<0.5 D	<0.5 D	<0.05 D
TRICHLOROETHENE	850	260	1.9
DIBROMOCHLOROMETHANE	<0.5 D	<0.5 D	<0.05 D
1,1,2-TRICHLOROETHA*	<0.5 D	<0.5 D	<0.05 D
BENZENE	<0.5 D	<0.5 D	<0.05 D
CIS-1,3-DICHLOROPRO*	<0.5 D	<0.5 D	<0.05 D

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### MEADVILLE DIVISION

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U.S. Public Health Services Approved Facility  
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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

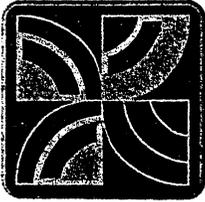
WV Dept. of Health Certification No. 9907C  
NC Dept. of Natural Resources Cert. No. 236  
MI Dept. of Public Health Approved Facility  
U.S. Office of Surface Mining Approved Facility

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**FREE-COL LABORATORIES, INC.**

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

12/03/96

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

P.O. # HH48938

ACCOUNT NO. 01220

**ANALYTICAL REPORT FORM**

PAGE 6

SAMPLE ID	MW 7	MW 5	MW 11
	11/21/96	11/21/96	11/21/96
LAB ID	61122418	61122419	61122420
PARAMETER	DATE RECEIVED: 11/22/96	11/22/96	11/22/96

**VOLATILE COMPOUNDS (Cont.) UNITS = MG/L**

2-CHLOR* VINYL ETHER	<1 D	<1 D	<0.1 D
BROMOFORM	<0.5 D	<0.5 D	<0.05 D
2-HEXANONE	<5 D	<5 D	<0.5 D
4-METHYL-2-PENTANONE	<5 D	<5 D	<0.5 D
TETRACHLOROETHENE	<0.5 D	120	0.07
TOLUENE	<0.5 D	<0.5 D	<0.05 D
CHLOROBENZENE	<0.5 D	<0.5 D	<0.05 D
ETHYL BENZENE	<0.5 D	<0.5 D	<0.05 D
STYRENE	<0.5 D	<0.5 D	<0.05 D
TOTAL XYLENES	<0.5 D	<0.5 D	<0.05 D

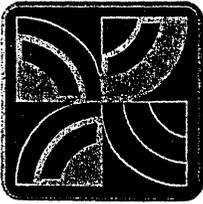
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LOCKPORT NY 14094

P.O. # HH48938

ACCOUNT NO. 01220

**ANALYTICAL REPORT FORM**

PAGE 7

SAMPLE ID : TRIP BLANK  
11/21/96

LAB ID 61122421  
DATE RECEIVED: 11/22/96

PARAMETER	RESULTS	UNITS	DATE AND	ANALYST
<b><u>VOLATILE COMPOUNDS</u></b>				
Chloromethane	<0.010	MG/L	11/27/96	ECKLUND
Bromomethane	<0.010			
Vinyl Chloride	<0.010			
Chloroethane	<0.010			
Methylene Chloride	<0.005			
Acetone	<0.1			
Carbon Disulfide	<0.005			
1,1-Dichloroethene	<0.005			
1,1-Dichloroethane	<0.005			
1,2-Dichloroethenes (Total)***	<0.005			
Chloroform	<0.005			
1,2-Dichloroethane	<0.005			
2-Butanone	<0.1			
1,1,1-Trichloroethane	<0.005			
Carbon Tetrachloride	<0.005			
Vinyl Acetate	<0.050			
Bromodichloromethane	<0.005			
1,1,2,2-Tetrachloroethane	<0.005			
1,2-Dichloropropane	<0.005			
trans-1,3-Dichloropropene	<0.005			
Trichloroethene	<0.005			
Dibromochloromethane	<0.005			
1,1,2-Trichloroethane	<0.005			

\*\*\*EPA Methods 601 and 624 and SW 846 Methods 8010 and 8240 do not differentiate the co-eluting cis and trans-1,2-dichloroethenes. The result reported is the sum of both compounds.

**MEADVILLE DIVISION**

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PA Dept. of Agriculture Approved Dairy Laboratory

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NY Dept. of Env. Conservation Approved Facility  
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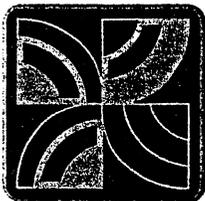
WV Dept. of Health Certification No. 9907C  
NC Dept. of Natural Resources Cert. No. 23E  
MI Dept. of Public Health Approved Facility  
U.S. Office of Surface Mining Approved Facility

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MEADVILLE, PENNSYLVANIA 16335  
PHONE: (814) 724-6242  
FAX: (814) 833-1466  
12/03/96

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

P.O. # HH48938

ACCOUNT NO. 01220

**ANALYTICAL REPORT FORM**

PAGE 8

SAMPLE ID : TRIP BLANK  
11/21/96

LAB ID 61122421  
DATE RECEIVED: 11/22/96

PARAMETER	RESULTS	UNITS	DATE AND	ANALYST
<u>VOLATILE COMPOUNDS</u> Continued				
Benzene	<0.005	MG/L	11/27/96	ECKLUND
cis-1,3-Dichloropropene	<0.005			
2-Chloroethylvinyl ether	<0.010			
Bromoform	<0.005			
2-Hexanone	<0.050			
4-Methyl-2-pentanone	<0.050			
Tetrachloroethene	<0.005			
Toluene	<0.005			
Chlorobenzene	<0.005			
Ethylbenzene	<0.005			
Styrene	<0.005			
Total Xylenes	<0.005			

Volatile Compounds - Method 8240A

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

*John R. Paraska*  
**QUALITY ASSURANCE SUPERVISOR**

pc: Mr. Steve Blair, GZA

**MEADVILLE DIVISION**

J.H.A. Accreditation No. 98  
U.S. Public Health Services Approved Facility  
PA D.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  
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, 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**

H.A. Accreditation No. 98  
3. 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  
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**FREE-COL LABORATORIES, INC.**

P.O. Box 557, Cotton Road  
Meadville, Pennsylvania 16335-0557  
Phone: Area Code 814/724-8242  
FAX: Area Code 814/333-1468

ENVIRONMENTAL  
OCCUPATIONAL HEALTH  
FOOD SCIENCE  
SPECIALISTS

Unabbreviated Listing of Hazardous Substance List Compounds

VOLATILE COMPOUNDS

Chloromethane	Bromodichloromethane
Bromomethane	1,1,2,2-Tetrachloroethane
Vinyl Chloride	1,2-Dichloropropane
Chloroethane	trans-1,3-Dichloropropene
Methylene Chloride	Trichloroethene
Acetone	Dibromochloromethane
Carbon Disulfide	1,1,2-Trichloroethane
1,1-Dichloroethene	Benzene
1,1-Dichloroethane	cis-1,3-Dichloropropene
1,2-Dichloroethylenes (Total)***	2-Chloroethyl Vinyl Ether
Chloroform	Bromoform
1,2-Dichloroethane	2-Hexanone
2-Butanone	4-Methyl-2-pentanone
1,1,1-Trichloroethane	Tetrachloroethene
Carbon Tetrachloride	Toluene
Vinyl Acetate	Chlorobenzene
Ethyl Benzene	
Styrene	
Total Xylenes	

\*\*\*EPA Methods 601 and 624 and SW 846 Methods 8010 and 8240 do not differentiate the co-eluting cis and trans-1,2-dichloroethenes. The result reported to you is the sum of both compounds.

**FREE-COL LABORATORIES, INC.**

P.O. Box 557, Cotton Road  
Meadville, Pennsylvania 16335-0557  
Phone: Area Code 814/724-8242  
FAX: Area Code 814/333-1488



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:

**General Motors Sample Identification****Free-Col ID**

MW 10	11/21/96	61122412
MW 9	11/21/96	61122413
MW 8	11/21/96	61122414
MW 6	11/21/96	61122415
MW 4	11/21/96	61122416
MW 3S	11/21/96	61122417
MW 7	11/21/96	61122418
MW 5	11/21/96	61122419
MW 11	11/21/96	61122420
TRIP BLANK	11/21/96	61122421



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

Date 11/27/96 Analyst Ecklund  
 Samples associated with this blank:

<u>Parameter</u>	<u>Blank Value</u>
Units = <u>ug/L</u>	
Chloromethane	<10
Bromomethane	↓
Vinyl chloride	↓
Chloroethane	↓
Methylene chloride	<5
Acrolein	<10
Acrylonitrile	<10
1,1-Dichloroethene	<5
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	<10
Bromoform	<5
Tetrachloroethene	↓
1,1,2,2-Tetrachloroethane	↓
Toluene	↓
Chlorobenzene	↓
Ethyl benzene	↓
1,3-Dichlorobenzene	↓
1,2-Dichlorobenzene	↓
1,4-Dichlorobenzene	↓
Xylene	<5
2-Butanone - MEK	<100
4-Methyl-2-pentanone	<50
Acetone	<100
Syrene	<5

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

Date 11/27/96 Analyst Ecklund  
Samples associated with this blank:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Parameter Blank Value

Units = ug/l

<u>Carbon Disulfide</u>	<u>&lt;5</u>
<u>Vinyl Acetate</u>	<u>&lt;50</u>
<u>2-Hexanone - MBK</u>	<u>&lt;50</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>&lt;5</u>
_____	
_____	
_____	

Limits in effect as of August 5, 1996

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

Date 11/27/96 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	18.9	223
Bromomethane	20	7.8-39.4	17.5	222
Vinyl chloride	20	1.5-41.7	16.4	232
Chloroethane	20	4.6-36.4	17.0	209
Methylene chloride	20	11.8-31.3	19.5	224
Acrolein	62	4.5-104.4	-	201
Acrylonitrile	58	13.2-115.2	-	202
1,1-Dichloroethene	20	11.3-32.1	18.1	216
1,1-Dichloroethane	20	15.5-27.8	19.9	214
trans-1,2-Dichloroethene	20	13.6-28.3	23.7	217
Chloroform	20	15.7-26.1	19.4	211
1,2-Dichloroethane	20	8.1-34.0	21.7	215
1,1,1-Trichloroethane	20	12.8-30.1	16.8	228
Carbon tetrachloride	20	8.0-27.8	18.2	206
Bromodichloromethane	20	9.8-29.7	19.4	212
1,2-Dichloropropane	20	14.7-28.2	17.1	218
trans-1,3-Dichloropropene	20	12.7-25.6	12.8	220
Trichloroethene	20	14.1-27.1	19.4	230
Benzene	20	14.3-27.8	22.3	203
Dibromochloromethane	20	4.8-29.2	18.2	208
1,1,2-Trichloroethane	20	14.3-28.2	18.7	229
cis-1,3-Dichloropropene	20	10.3-26.8	19.3	219
2-Chloroethyl vinyl ether	20	10.1-32.1	17.0	210
Bromoform	20	3.0-30.6	20.9	205
Tetrachloroethene	20	13.3-28.4	19.5	226
1,1,2,2-Tetrachloroethane	20	14.7-26.1	20.2	225
Toluene	20	15.2-25.6	19.9	227
Chlorobenzene	20	11.5-28.6	19.7	207
Ethyl benzene	20	13.4-27.6	20.8	221
1,3-Dichlorobenzene	26	18.5-36.7	25.1	234
1,2-Dichlorobenzene	26	11.5-41.9	25.6	233
1,4-Dichlorobenzene	20	3.7-35.6	19.6	235
Diethyl Benzene	44	25.9-62.9	-	237
Ethyl Ether	35	26.9-49.5	-	236
Xylene	44	21.0-66.7	45.8	238
MEK	20	9.1-39.4	23.0	240
Acetone	20	9.6-38.0	17.5	242

Limits in effect as of August 5, 1996

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

Date 11/27/96 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	18.0	243
Tetrahydrofuran	45	34.8-60.3	-	244
Carbondisulfide	20	11.0-30.4	19.9	245
Styrene	20	12.4-30.0	20.3	246
Vinyl Acetate	20	11.0-27.5	19.8	247
Amyl Acetate	44	14.7-64.6	-	248
Methyl Butyl Ketone	20	10.3-33.9	20.2	249

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Limits in effect as of August 5, 1996

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

Date 11/27/96 Analyst Ecklund  
 Samples associated with this repeat control:

Sample used as repeat control: 611-22-417  
 AD = Absolute Difference RPD = Relative Percent Difference

Parameter	Samp. Value	Repeat Value	Accept AD	Accept RPD	Assayd AD/RPD	File
Units = <u>mg/L</u>						
Chloromethane	<1	<1			0	820
Bromomethane	<1	<1			0	819
Vinyl chloride	1.6	1.7		27	6.1%	828
Chloroethane	<1	<1			0	807
Methylene chloride	<0.5	<0.5		17	0	821
Acrolein	-	-			-	800
Acrylonitrile	-	-			-	801
1,1-Dichloroethene	<0.5	<0.5			0	813
1,1-Dichloroethane	<0.5	<0.5		41	0	811
trans-1,2-Dichloroethenes	190	190		28	0	814
Chloroform	<0.5	<0.5		14	0	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				32		827
Benzene	2.4	2.5		49	4.1%	802
Dibromochloromethane	<0.5	<0.5		70	0	806
1,1,2-Trichloroethane						826
cis-1,3-Dichloropropene						816
2-Chloroethyl vinyl ether	<1	<1				808
Bromoform	<0.5	<0.5				803
Tetrachloroethene				33		823
1,1,2,2-Tetrachloroethane						822
Toluene	2.3	2.2		38	4.4%	824
Chlorobenzene	<0.5	<0.5		24	0	805
Ethyl benzene	1.8	1.8		5	0	818
1,3-Dichlorobenzene	-	-			-	830
1,2-Dichlorobenzene	-	-			-	829
1,4-Dichlorobenzene	-	-		36	-	831
Acetone	<10	<10		26	0	836

Limits in effect as of August 5, 1996

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

Date 11/27/96 Analyst Ecklund  
Samples associated with this repeat control:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Sample used as repeat control: 611-22-417  
AD = Absolute Difference RPD = Relative Percent Difference

Parameter mg/L Samp. Value Repeat Value Accept AD Accept RPD Assayd File AD/RPD

Parameter	Samp. Value	Repeat Value	Accept AD	Accept RPD	Assayd File AD/RPD
3-Chloro-1-propene					
Dichlorodifluoromethane					
Methyl Ethyl Ketone	<10	<10			0
MIBK	<5	<5			0
1,1,1,2-Tetrachloroethane					
Trichlorofluoromethane					
1,2,3-Trichloropropane					
1,2-Dibromomethane					
Cis-1,2-Dichloroethane					
Xylene	3.3	3.3			0
Carbon disulfide	<0.5	<0.5			0
Vinyl Acetate	<5	<5			0
Styrene	<0.5	<0.5			0
MBK	<5	<5			0

Limits in effect as of August 5, 1996

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

Date 11/27/96 Analyst Ecklund  
Samples associated with this spiked control:

Sample used as spiked control: 611-22-411

<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	19	<10	31-187	95	520
Bromomethane	20	18		34-207	90	519
Vinyl chloride	20	16		26-183	80	528
Chloroethane	20	17	∨	55-168	85	507
Methylene chloride	20	20	<5	63-151	100	521
Acrolein	62	-	-	23-183	-	500
Acrylonitrile	58	-	-	52-186	-	501
1,1-Dichloroethene	20	18	<5	52-159	90	513
1,1-Dichloroethane	20	20		73-144	100	511
trans-1,2-Dichloroethene	20	24		64-151	120	514
Chloroform	20	17		68-142	85	509
1,2-Dichloroethane	20	22		54-155	110	512
1,1,1-Trichloroethane	20	19		59-158	85	525
Carbon tetrachloride	20	18		39-147	90	504
Bromodichloromethane	20	18		47-148	90	510
1,2-Dichloropropane	20	22		67-144	110	515
trans-1,3-Dichloropropene	20	19		56-141	95	517
Trichloroethene	20	19		64-130	95	527
Benzene	20	22		71-142	110	502
Dibromochloromethane	20	19		29-155	95	506
1,1,2-Trichloroethane	20	19		61-146	95	526
cis-1,3-Dichloropropene	20	19	∨	46-149	95	516
2-Chloroethyl vinyl ether	20	17	<10	7-183	85	508
Bromoform	20	21	<5	10-149	105	503
Tetrachloroethene	20	20		50-160	100	523
1,1,2,2-Tetrachloroethane	20	20		44-163	100	522
Toluene	20	20		73-130	100	524
Chlorobenzene	20	20		72-131	100	505
Ethyl benzene	20	21		62-139	105	518
1,3-Dichlorobenzene	26	25		60-161	96	530
1,2-Dichlorobenzene	26	26		45-157	100	529
1,4-Dichlorobenzene	20	20	∨	36-174	100	531
Diethyl Benzene	44	-	-	71-137	-	533
Ethyl Ether	35	-	-	62-160	-	532
Xylenes	44	46	<5	72-130	104	534
MEK	20	23	<100	63-179	115	536



GZ1122417.TI  
2/96 14:17:00  
Sample: 5 ML PURGE

Method:  
Injection: Instrument: 5100 Weight: 0.000  
Submitted by: - Analyst: AE/GB/BH Acct. No.:

INT=AREA \* REF AMNT/(REF AREA \* RESP FACT) \* \*1000.0  
Sp. fac. from average of whole .RL

- 0 Name
- 1 PENTAFLUOROBENZENE (INT. STD.)
- 2 DIBROMOFLUOROMETHANE (SURR. STD.)
- 3 CHLOROMETHANE
- 4 BROMOMETHANE
- 5 VINYL CHLORIDE
- 6 CHLOROETHANE
- 7 ACRYLONITRILE
- 8 CARBON DISULFIDE
- 9 ACETONE
- 10 METHYLENE CHLORIDE
- 11 TRANS-1,2-DICHLOROETHENE
- 12 1,1-DICHLOROETHANE
- 13 VINYL ACETATE
- 14 CIS-1,2-DICHLOROETHENE
- 15 METHYL ETHYL KETONE(2-BUTANONE
- 16 CHLOROFORM
- 17 1,1,1-TRICHLOROETHANE
- 18 TRICHLOROFLUOROMETHANE
- 19 DICHLORODIFLUOROMETHANE
- 20 1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE
- 21 TETRAHYDROFURAN
- 22 METHYL-TERT-BUTYL ETHER
- 23 ETHYL ETHER
- 24 1,4-DIFLUOROBENZENE(INT STD)
- 25 TOLUENE D-8(SUR. STD.)
- 26 CARBON TETRACHLORIDE
- 27 BENZENE
- 28 1,2-DICHLOROETHANE
- 29 TRICHLOROETHENE
- 30 1,2-DICHLOROPROPANE
- 31 BROMODICHLOROMETHANE
- 32 DIBROMOMETHANE
- 33 2-CHLOROETHYL VINYL ETHER
- 34 TRANS-1,3-DICHLOROPROPENE
- 35 METHYL ISOBUTYL KETONE
- 36 TOLUENE
- 37 CIS-1,3-DICHLOROPROPENE
- 38 1,1,2-TRICHLOROETHANE
- 39 CHLOROBENZENE-D5(INT STD)
- 40 BROMOFLUOROBENZENE(SURR STD)
- 41 TETRACHLOROETHENE
- 42 METHYL BUTYL KETONE
- 43 DIBROMOCHLOROMETHANE
- 44 1,2-DIBROMOETHANE
- 45 CHLOROBENZENE
- 46 ETHYL BENZENE
- 47 O-XYLENE

48 M, P-XYLENE  
 49 STYRENE  
 50 BROMOFORM

No	m/z	Scan	Time	Ref	RRT	Meth	Area (Hght)	Amount	%Tot
1	168	370	5:52	1	1.000	A BB	37522.	50.000 MG/L	1.68
2	113	394	6:15	1	1.065	A BB	27046.	50.237 MG/L	1.68
3	NOT FOUND								
4	NOT FOUND								
5	62	176	2:47	1	0.476	A BB	27939.	16.703 MG/L	0.56
6	NOT FOUND								
7	NOT FOUND								
8	NOT FOUND								
9	NOT FOUND								
10	NOT FOUND								
11	NOT FOUND								
12	NOT FOUND								
13	43	301	4:46	1	0.814	A BB	570.	0.410 MG/L	0.01
14	61	354	5:37	1	0.957	A BB	1643480.	1924.500 MG/L	64.51
15	NOT FOUND								
16	NOT FOUND								
17	NOT FOUND								
18	NOT FOUND								
19	NOT FOUND								
20	85	219	3:28	1	0.592	A BB	4182.	20.703 MG/L	0.69
21	NOT FOUND								
22	NOT FOUND								
23	NOT FOUND								
24	114	497	7:53	24	1.000	A BB	51183.	50.000 MG/L	1.68
25	98	713	11:18	24	1.435	A BB	581629.	440.208 MG/L	14.76
26	NOT FOUND								
27	78	465	7:22	24	0.936	A BB	33668.	<u>24.972</u> MG/L	0.84
28	NOT FOUND								
29	95	543	8:37	24	1.093	A BB	1311.	<del>3.290</del> MG/L	0.11
30	NOT FOUND								
31	NOT FOUND								
32	NOT FOUND								
33	NOT FOUND								
34	NOT FOUND								
35	NOT FOUND								
36	91	725	11:30	24	1.459	A BB	327206.	<del>199.695</del> MG/L	6.66
37	NOT FOUND								
38	NOT FOUND								
39	117	946	15:00	39	1.000	A BB	494572.	50.000 MG/L	1.68
40	95	1146	18:10	39	1.211	A BB	275823.	52.155 MG/L	1.75
41	NOT FOUND								
42	NOT FOUND								
43	NOT FOUND								
44	NOT FOUND								
45	NOT FOUND								
46	91	961	15:14	39	1.016	A BV	276915.	18.236 MG/L	0.61
47	91	1043	16:32	39	1.103	A BB	40863.	3.256 MG/L	0.11
48	91	972	15:25	39	1.027	A VB	348808.	<u>29.778</u> MG/L	1.00
49	104	1051	16:40	39	1.111	A BB	193.	0.018 MG/L	0.00
50	NOT FOUND								

$\times 100 = 1,670.$

$\times 100 = 192,450.$

$\times 100 = 2,497.$

$22.5 \times 100 = 2,250.$

$\times 100 = 1,823$

$\times 100 = 3,300.$

Date: 511122417.T1  
11/27/96 14:17:00  
Sample: 5 ML PURGE  
Conds.:

Formula:  
Submitted by: -

Instrument: 5100  
Analyst: AE/GB/BH

Weight: C  
Acct. No.:

AMOUNT=AREA \* REF AMNT/(REF AREA \* RESP FACT) \* \*1000.0  
Resp. fac. from average of whole .RL

No	Name
51	1,2,3-TRICHLOROPROPANE
52	1,4-DICHLOROBENZENE-D4 (INT. STD.)
53	1,1,2,2-TETRACHLOROETHANE
54	1,3-DICHLOROBENZENE
55	1,2-DICHLOROBENZENE
56	1,4-DICHLOROBENZENE
57	ISOPROPYL BENZENE
58	NAPHTHALENE

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount
51	NOT FOUND							
52	152	1338	21:13	52	1.000	A BB	241096.	50.000 MG/L
53	NOT FOUND							
54	NOT FOUND							
55	NOT FOUND							
56	NOT FOUND							
57	105	1103	17:27	52	0.624	A BB	9639.	0.642 MG/L
58	NOT FOUND							

FIGURE E2  
 ENVIRONMENTAL SAMPLE DESCRIPTION  
 AND  
 CHAIN OF CUSTODY RECORD

page ---  
 ATTACHMENT #2

DATE: 11/21/96

RESULTS REQUIRED BY: \_\_\_\_\_  
 VERBAL RESULTS NEEDED? \_\_\_\_\_

HARRISON DIVISION, GMC  
 200 UPPER MOUNTAIN ROAD  
 LOCKPORT, NEW YORK 14094  
 PHONE: (716) 439-6852

LABORATORY: Free-Co1

CONTACT: Steve Bair  
02A

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

PLEASE DESCRIBE: Please test in the following order - MW-10,  
MW-9, MW-8, MW-6, MW-4, MW-3, MW-7, MW-5,  
MW-11

SAMPLE #	LOCATION	TIME	PARAMETERS	SAMPLE BOTTLE LOT # (OPTIONAL)
✓	MW-10	11 <sup>52</sup>	SW-846 Method 8240	
✓	MW-9	12 <sup>16</sup>		
✓	MW-4	13 <sup>07</sup>		
✓	MW-6	14 <sup>05</sup>		
✓	MW-8	14 <sup>38</sup>		
✓	MW-5	15 <sup>06</sup>		
✓	MW-7	15 <sup>30</sup>		
✓	MW-35	15 <sup>35</sup>		

DETECTION LEVELS REQUIRED? \_\_\_\_\_

INTERFERENCES: \_\_\_\_\_

SON FOR TEST (COMPARISON OF AREAS, BACKGROUND, ETC.) \_\_\_\_\_

BOTTLES RECEIVED BY: (DATE/TIME) (HRD PERSONNEL) <u>Thomas J. Mulligan</u> 11/22/96 11:45	BOTTLES RELINQUISHED BY: (DATE/TIME) (HRD PERSONNEL) <u>Steve Bair</u> 11/22/96 11:45
BOTTLES RELINQUISHED BY: (DATE/TIME) (HRD PERSONNEL) <u>Thomas J. Mulligan</u> 11/22/96 13:13	BOTTLES RECEIVED BY: (DATE/TIME) (LAB PERSONNEL) <u>Bill Slato</u> 13:13 11-22-96
SAMPLE COLLECTED BY: _____	RECEIVED BY: (DATE, TIME, LAB SIGNATURE) <u>Darlene K. Swogger</u> 11-22-96 14:25 <u>POP, received by Steve Bair 12/04/96 16:36</u>

FIGURE E2  
 ENVIRONMENTAL SAMPLE DESCRIPTION  
 AND  
 CHAIN OF CUSTODY RECORD

DATE: 11/21/96

RESULTS REQUIRED BY: \_\_\_\_\_  
 VERBAL RESULTS NEEDED? \_\_\_\_\_

LABORATORY: Free - 61

HARRISON DIVISION, GMC  
 200 UPPER MOUNTAIN ROAD  
 LOCKPORT, NEW YORK 14094  
 PHONE: (716) 433-~~685~~-2300

CONTACT: Steve Blair  
62A

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

SAMPLE DESCRIPTION: See sampling order on page 1 of 2

SAMPLE #	LOCATION	TIME	PARAMETERS	SAMPLE BOTTLE LOT # (OPTIONAL)
✓	MW-11	16 <sup>00</sup>	SW 846 Method-8290	
✓	Trip Blank		"	

DETECTION LEVELS REQUIRED? \_\_\_\_\_

INTERFERENCES: \_\_\_\_\_

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

TITLES RECEIVED BY: (DATE/TIME) (HRO PERSONNEL) <u>Thomas Mulligan 11/22/96 11:45</u> Lab	BOTTLES RELINQUISHED BY: (DATE/TIME) (HRO PERSONNEL) <u>Stephen Blair 11/22/96 11:45</u>
TITLES RELINQUISHED BY: (DATE/TIME) (HRO PERSONNEL) <u>Thomas Mulligan 11/22/96 13:13</u> Lab	BOTTLES RECEIVED BY: (DATE/TIME) (LAB PERSONNEL) <u>Bill Slater 11-22-96 13:13</u>
SAMPLE COLLECTED BY: <u>Thomas Mulligan</u>	RECEIVED BY: (DATE, TIME, LAB SIGNATURE) <u>Darlene K Swigger 11-22-96 14:2</u> <u>Richard L. Swigger - 12/04/96 16:30</u>