ARCADIS GERAGHTY & MILLER

ARCADIS Geraghty & Miller, Inc.
88 Duryea Road
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New York 11747
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ENVIRONMENTAL

Gerald J. Rider, Jr., P.E.
New York Department of Environmental Conservation
Division of Environmental Remediation
Bureau of Hazardous Site Control, Room 252
50 Wolf Road
Albany, NY 12233-7010

Subject:
Northrop Grumman Plant 2 SVE System Termination Report
ARCADIS Geraghty & Miller Project No. NY000008.0152.00002

Melville,
9 December 1998

Contact:
Glenn Netuschil

Extension:
(516) 391-5207

Dear Mr. Rider:

This letter report summarizes the operation results for the Plant 2 Soil Vapor Extraction (SVE) System at the Northrop Grumman Corporation (Northrop Grumman) facility in Bethpage, New York for the period May 1998 through July 1998. In September 1997 the power supply to the shed that houses the Plant 2 SVE system was unintentionally disconnected as part of the new owner's renovations to Plant 2. At the time the power was disconnected the SVE system was in the pulse (shutdown) mode. The system was allowed to remain in the pulse mode until after NYSDEC's response to recommendations for system operation made in the 1997 Third Quarter Monitoring Report were obtained (comments were received on April 6, 1998) and the power was reconnected (May 28, 1998).

Soil Vapor Extraction System Operation and Maintenance

On May 28, 1998, the SVE system was re-started. During start-up, the system was turned on with the dilution valve fully open, thus primarily drawing ambient air through the system. The dilution valve was gradually closed over the course of about 30 minutes. The dilution valve was closed in this manner to allow for uniform development of subsurface soil gas flow and to prevent the possibility of short-circuiting that is often associated with the application of instantaneous high vacuum. During the first day of operation, system monitoring was performed at start-up, and at four hours after start-up.

After start-up, site visits were performed every two weeks during the first month, and monthly thereafter. The site visits consisted of inspecting the overall system, monitoring of the influent and effluent vapor flows, as well as conducting the tasks and collecting the measurements discussed in the following sections of this report. Measurements were recorded on the operation and maintenance (O&M) monitoring data sheets, which are provided in Appendix A. During the operating period (May 28

through July 24, 1998), the remedial system operated continuously and did not experience down time due to mechanical failure. During a site visit on July 24, 1998, the photoionization detector (PID) reading indicated possible contaminant breakthrough in the effluent stream. The system was shut down until a determination of the need to continue operation of the system is made.

Vacuum Measurements

Vacuum and vacuum influence measurements were taken during system operation using a magnehelic gauge. Vacuum measurements were taken from sample ports on the wellhead and the influent side of the blower. Vacuum influence measurements were recorded at monitoring wells at four locations surrounding the vapor extraction well (Figure 1-1). Two locations were lost due to the placement of asphalt pavement during renovation of the former Northrop Grumman Plant 2 facility.

The vacuum influence data obtained from the soil gas monitoring points are summarized in Table 1. The measured vacuum influence ranged from 0.26 to 0.37 inches of water in the points monitored. These results indicate that there is a continuous vacuum influence throughout the impacted area.

Extracted Soil Gas Measurements

The differential pressure of the vapor stream was measured across a pitot tube (located on the horizontal pipe prior to the cyclonic moisture separator). Using a magnehelic gauge, the data was recorded on the O&M monitoring data sheets (see Appendix A). Through use of a mathematical equation, the value measured by the magnehelic gauge was converted to actual cubic feet per minute (acfm) of soil gas being extracted from the subsurface through the extraction well. During system operation, the calculated extracted soil gas flow rates, from the pitot tube data, ranged from approximately 134 to 148 acfm (Table 1).

Water-Level Measurements

Previous water-level measurements in Monitoring Well GM-32S are summarized in Table 2.

Volatile Organic Compound Measurement in the Extracted Soil Gas

Volatile organic compound (VOC) concentrations in the extracted soil gas were monitored during system operation utilizing a PID. In addition to PID monitoring during each site check, soil gas samples were collected during start-up and during each site visit for laboratory analyses. As discussed in previous reports on Plant 2, the concentrations measured using the PID are consistently higher than those reported by the laboratory.

The laboratory samples were analyzed for the compounds listed in Table 3. Laboratory analysis reports are provided in Appendix B. During the operating period, four constituents (i.e., 1,1,1-trichloroethane [TCA]; trichloroethylene [TCE]; tetrachloroethylene [PCE]; and fluorotrichloromethane) were detected in the samples. A summary of the concentrations detected for each of these compounds is presented in Table 4.

Sample results indicate that TCE consistently had the highest concentrations detected. The influent concentrations of TCE were 3.16 parts per million by volume (ppmv) at start-up, and 2.82, 1.47, 1.69, and 1.67 ppmv, during four sampling events from early June to late July, 1998. Based on an average flow rate of 144 acfm and an average influent concentration of 2.16 ppmv from the laboratory reported values, the calculated amount of TCE removed during this operating period was approximately nine pounds. In addition, influent concentrations of the other three VOCs detected fluctuated only slightly around the start up concentrations (see Table 4).

Carbon Effluent Sampling

The analytical results for the effluent samples collected from the discharge of the vapor granular activated carbon are shown in Table 4 and Appendix B.

Conclusions and Recommendations

The system was shut down sometime in September 1997 for approximately eight months and was restarted on May 28, 1998. The samples of the extracted soil gas taken during the initial start-up and the following months indicate that the concentration of TCE has reached a non-zero asymptotic level. This suggests that the pulsing of the system for a period of eight months resulted in no significant increase in the removal of contaminants from the area around the SVE well.

ARCADIS Geraghty & Miller concludes that the area of concern at Plant 2 has been effectively remediated, and recommends that the system be shut down. Since approximately November 1996, the pulsing of the system has resulted in a non-zero asymptotic level of TCE in the extracted gas. A graph of the TCE concentration versus time since the SVE system was started in December 1994 is included as Figure 2. This indicates that continued operation of the system is no longer efficient. The NYSDEC (in their comment letter dated April 6, 1998) requires confirmation soil samples be collected in order to permanently shut down the system. To satisfy this requirement, ARCADIS Geraghty & Miller recommends that two soil borings be drilled in the approximate area of the original borings collected during the Phase I and

II Remedial Investigations in June 1991 and August 1992, and one soil sample from each boring (from the depth of greatest contamination in the original boring) be submitted for analysis of TCE. The analytical results will then be compared to the concentrations in the original borings.

If you have any questions regarding the operation of the remediation system or information presented in this report, please contact us.

Sincerely,

ARCADIS Geraghty & Miller, Inc.

Glenn Netuschil, P.E.
Project Engineer/Task Manager

Carlo San Giovanni
Principal Scientist/Project Manager

GM Consulting Engineers, P.C.

Arnold S. Vernick, P.E.
President

Enclosure

Copies:
Drew B. Bennett, P.E. - Northrop Grumman Corporation
John Cofman - Northrop Grumman Corporation

ARCADIS GERAGHTY & MILLER

DISCLOSURE STATEMENT

The laws of New York State require that corporations which render engineering services in New York be owned by individuals licensed to practice engineering in the State. ARCADIS Geraghty & Miller, Inc. cannot meet that requirement. Therefore, all engineering services rendered to Northrop Grumman Corporation in New York are being performed by GM Consulting Engineers, P.C., a New York professional corporation qualified to render professional engineering services in New York. There is no surcharge or extra expense associated with the rendering of professional services by GM Consulting Engineers, P.C.

ARCADIS Geraghty & Miller, Inc. is performing all those services which do not constitute professional engineering and is providing administrative and personnel support to GM Consulting Engineers, P.C. All matters relating to the administration of the contract with Northrop Grumman Corporation are being performed by ARCADIS Geraghty & Miller, Inc. pursuant to its Amended and Restated Services Agreement with GM Consulting Engineers, P.C. All communications should be referred to the designated project manager at ARCADIS Geraghty & Miller, Inc.

Table 1. Vacuum Influence Monitoring Data for the Soil Vapor Extraction Remediation System at Plant 2 from May 28, 1998, through July 24, 1998, Northrop Grumman Corporation, Bethpage, New York.

	Vacuum Influence (in.w.c.)				
	5/28/98	6/4/98	6/18/98	6/24/98	7/24/98
MP-11	0.3	0.26	0.3	0.28	0.26
MP-10	--	--	--	--	--
MP-9	--	--	--	--	--
MP-8	0.30	0.30	0.35	0.32	0.32
MP-6R	0.32	0.31	0.37	0.35	0.34
MP-7	0.28	0.26	0.3	0.28	0.29
Extracted Soil Gas Flow Rate (ACFM)	148.24	134.85	148.24	139.52	148.24

ACFM Actual cubic feet per minute
in. w.c. Inches of water column (0.05 in. w.c. is considered minimal vacuum influence).
-- Measurement not taken; well not accessible.

Table 2. Water-Level Measurements Collected from December 5, 1994 through May 19, 1997, at Monitoring Well GM32S, Northrop Grumman Corporation, Bethpage, New York.

Date	Depth to water (feet)
12/5/94	46.31
12/7/94	46.32
12/8/94	46.32
12/9/94	46.45
12/10/94	46.44
12/13/94	46.37
12/23/94	46.64
12/28/94	46.65
1/5/95	47.00
1/13/95	46.94
1/17/95	46.92
2/3/95	47.01
2/17/95	47.14
2/28/95	47.06
3/16/95	46.79
3/31/95	47.26
4/12/95	47.19
4/28/95	47.06
5/12/95	47.24
5/24/95	47.53
6/9/95	47.55
6/29/95	47.20
7/14/95	47.72
7/31/95	47.61
8/14/95	47.95
8/30/95	48.38
9/14/95	48.74
9/28/95	48.65
10/13/95	48.87
10/26/95	48.91
11/13/95	48.72
11/28/95	49.09
5/2/96	48.20
5/23/96	47.24
7/18/96	46.50
1/16/97	44.56
5/19/97	44.25

Table 3. List of ompounds analyzed for using USEPA 601/602 List, Northrop Grumman Corporation, Bethpage, New York.

Compound	Blank	Detection Limit [1]
Chloromethane	ND	1
Vinyl chloride	ND	1
Bromomethane/chloroethane*	ND	1
Fluorotrichloromethane	ND	0.005
1,1-Dichloroethylene	ND	0.01
Methylene chlroide	ND	1.00
Trans-1,2-Dichloroethylene	ND	0.10
1,1-Dichloroethane	ND	0.01
Chloroform	ND	0.005
1,1,1-Trichloroethane	ND	0.005
Carbon tetrachloride	ND	0.005
Benzene	ND	0.07
1,2-Dichloroethane	ND	0.01
Trichloroethylene	ND	0.005
1,2-Dichloropropane	ND	0.01
Bromodichloromethane	ND	0.005
cis-1,3-Dichloropropylene	ND	0.01
Toulene	ND	0.07
trans-1,3-Dichloropropylene	ND	0.01
1,1,2-Trichloroethane	ND	0.005
Tetrachloroethylene	ND	0.005
Chlorodibromoethane	ND	0.005
Chlorobenzene	ND	0.07
Ethyl benzene	ND	0.07
Bromoform	ND	0.005
1,1,2,2-Tetrachloroethane	ND	0.005
1,3-Dichlorobenzene	ND	0.07
1,4-Dichlorobenzene	ND	0.07
1,2-Dichlorobenzene	ND	0.07

ND Not detected.

* Compounds elute together on Electron Capture Detector. Value represents either or a combination of both.

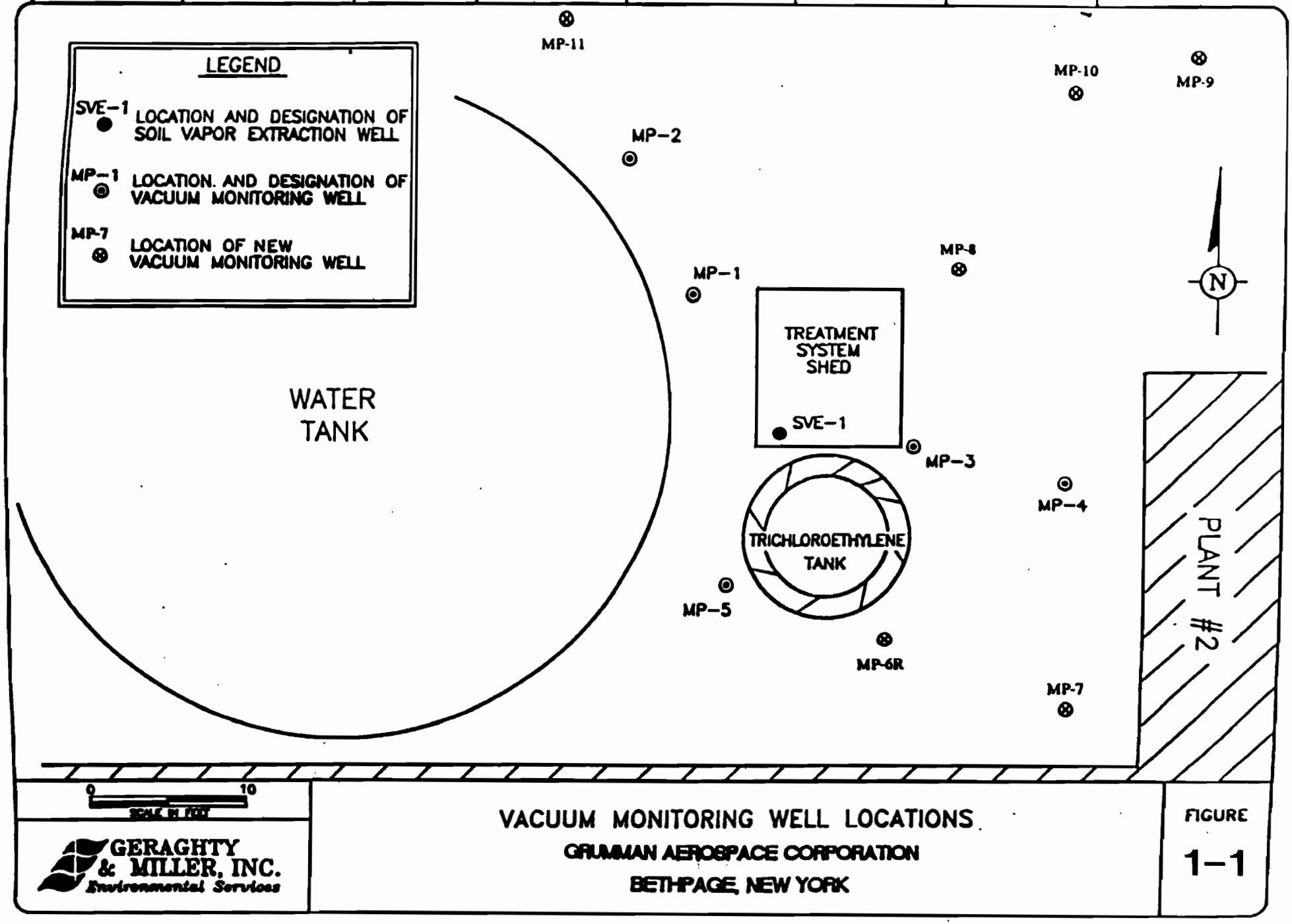
(1) Concentrations in parts per million by volume.

Table 4. Volatile Organic Compounds Detected at the Plant 2 Vapor Extraction System, Northrop Grumman Corporation, Bethpage, New York.

Date Sampled	Sample ID	1,1,1-Trichloroethane	Trichloroethylene	Tetrachloroethylene	Fluorotrichloromethane
5/28/98	Influent	0.021	3.16	ND	ND
	Effluent-1	0.083	0.901	ND	ND
	Effluent-2	ND	0.005	ND	ND
6/4/98	Influent	0.012	2.822	ND	0.005
	Effluent-1	0.069	0.835	ND	ND
	Effluent-2	ND	ND	ND	ND
6/18/98	Influent	0.033	1.471	0.005	0.008
	Effluent-1	0.08	1.108	ND	0.007
	Effluent-2	ND	0.006	ND	ND
6/24/98	Influent	0.036	1.692	0.006	0.006
	Effluent-1	0.046	0.789	ND	ND
	Effluent-2	ND	0.006	ND	0.006
7/24/98	Influent	0.031	1.668	0.006	0.005
	Effluent-1	0.041	1.5	ND	0.005
	Effluent-2	ND	ND	ND	0.007

All concentrations in parts per million by volume.
ND None detected above detection limit.

DATE: FEB. 1994	PROJ. NO.: NY0008041	FILE NO.:	CAD FILE: G191	COMPILER: M. WRIGHT	MGR.: M. WRIGHT	DRAFTER: TAO/FJF



GERAGHTY & MILLER, INC.
Environmental Services

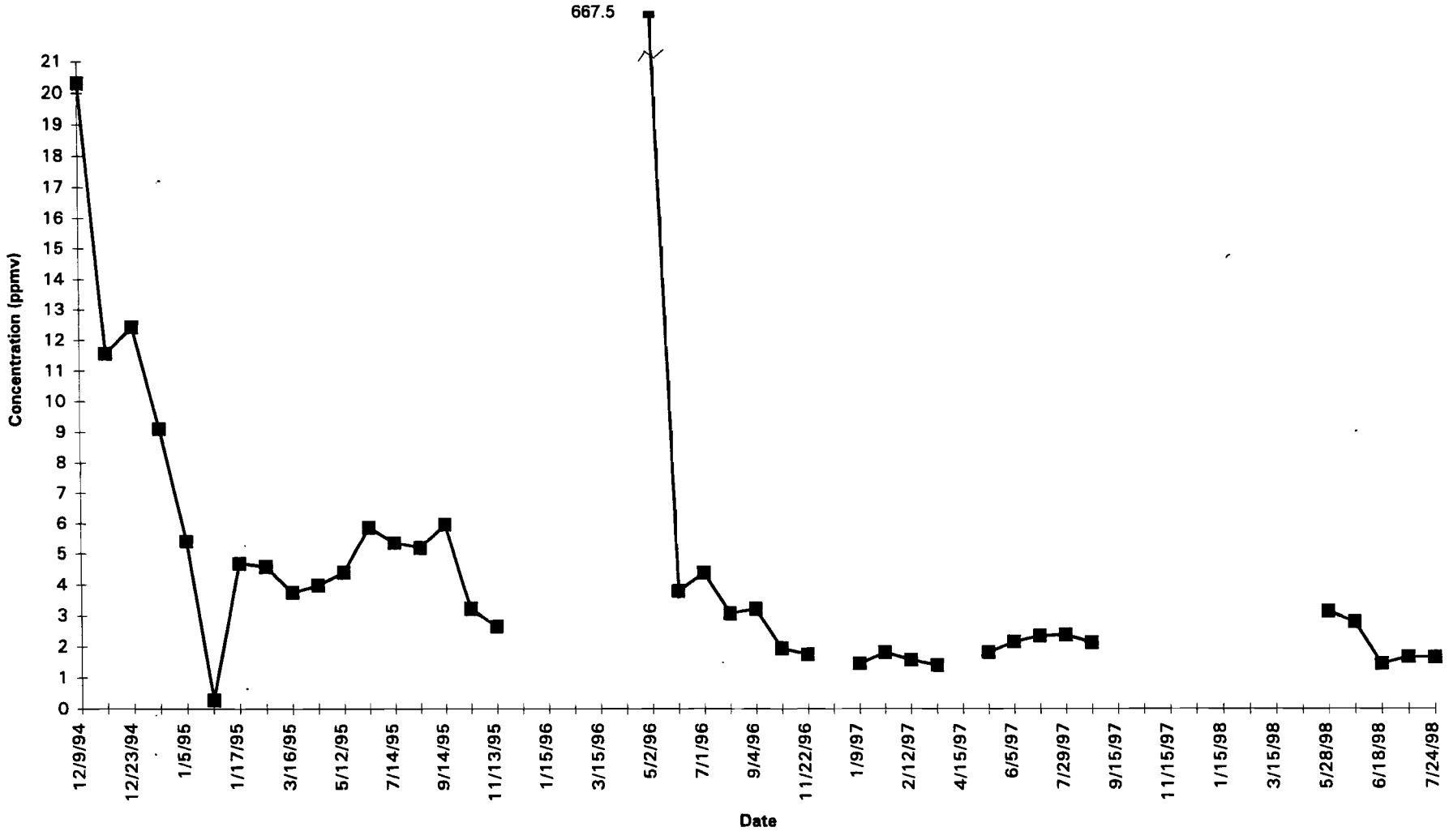
VACUUM MONITORING WELL LOCATIONS

GRUMMAN AEROSPACE CORPORATION

BETHPAGE, NEW YORK

FIGURE 1-1

Figure 2. Concentration of Trichloroethylene vs. Time in Extracted Soil Gas, Northrop Grumman Corporation, Bethpage, New York.



Breaks in graph represent pulses (shut down) in system.

APPENDIX A

MONITORING DATA SHEETS

VAPOR EXTRACTION SYSTEM
Monitoring Data Sheet
NORTHROP GRUMMAN, Bethpage, New York

Date: 5/28/98 Time:
Barometric Pressure: Personnel: M. Soliman
G. Netuschil

Is system operating? (Yes) No

If system is down, for what reason?

Moisture Separator	High	
Overflow Tank	High	
Blower Thermal Overload	Yes	No

Other (Explain)

_____

_____

_____

System Operating Parameters

Well Head Vacuum: 2.7 (IN. W.C.)
System Differential Pressure: .018 (IN. W.C.)
Calculated Air Flow: 148.24 (CFM)
Blower Influent Vacuum: 11 (IN. W.C.)
Air Stream Temperature: 90 (Degrees F)
Total Flow of Transfer Pump — (Gallons)
Carbon Pressure: Drum#1 _____ (IN. W.C.) _____ (PSI)
Drum#2 _____ (IN. W.C.) _____ (PSI)

Influent Process Stream Parameter Concentrations:
VOCs _____ (ppmv) CO2 _____ (%)
LEL _____ (%) O2 _____ (%)
CH4 _____ (%)

Air samples only

Post Carbon #1 Process Stream Parameter Concentrations:
VOCs _____ (ppmv) CO2 _____ (%)
LEL _____ (%) O2 _____ (%)
CH4 _____ (%)

Post Carbon #2 Process Stream Parameter Concentrations:
VOCs _____ (%) CO2 _____ (%)
LEL _____ (%) O2 _____ (%)
CH4 _____ (%)

OBSERVATION WELL VACUUM INFLUENCE

A	0.30 (IN. W.C.)	D	0.3 (IN. W.C.)
~~B~~	~~(IN. W.C.)~~	E	0.32 (IN. W.C.)
~~C~~	~~(IN. W.C.)~~	F	0.28 (IN. W.C.)

Monitoring Well Water-Level and Parameter Concentration Data

Water-Levels Collected With: Steel Tape/Chalk Probe

Monitoring Well	Held	Wet	Depth to Water	VOCs	LEL	O_2	CO_2	CH_4
GM32s								

COMMENTS: _____

VAPOR EXTRACTION SYSTEM
Monitoring Data Sheet
NORTHROP GRUMMAN, Bethpage, New York

Date: 6/4/98 Time:
Barometric Pressure: Personnel: H. Soliman

Is system operating? (Yes) No

If system is down, for what reason?

Moisture Separator	High	
Overflow Tank	High	
Blower Thermal Overload	Yes	No

Other (Explain)

_____

_____

_____

System Operating Parameters

Well Head Vacuum: 2.7 (IN. W.C.)
System Differential Pressure: 0.15 (IN. W.C.)
Calculated Air Flow: 134.85 (CFM)
Blower Influent Vacuum: 11 (IN. W.C.)
Air Stream Temperature: 90 (Degrees F)
Total Flow of Transfer Pump — (Gallons)
Carbon Pressure: Drum#1 2.8 (IN. W.C.) ~~(PSI)~~
Drum#2 2.0 (IN. W.C.) ~~(PSI)~~

Influent Process Stream Parameter Concentrations:

VOCs	(ppmv)	CO2	(%)
LEL	(%)	O2	(%)
CH4	(%)		

Air Sample Only

Post Carbon #1 Process Stream Parameter Concentrations:

VOCs	(ppmv)	CO2	(%)
LEL	(%)	O2	(%)
CH4	(%)		

Post Carbon #2 Process Stream Parameter Concentrations:

VOCs	~~(%)~~ (ppmv)	CO2	(%)
LEL	(%)	O2	(%)
CH4	(%)		

OBSERVATION WELL VACUUM INFLUENCE

A	0.20 (IN. W.C.)	D	0.26 (IN. W.C.)
B	_____ (IN. W.C.)	E	0.31 (IN. W.C.)
C	_____ (IN. W.C.)	F	0.26 (IN. W.C.)

Monitoring Well Water-Level and Parameter Concentration Data

Water-Levels Collected With: Steel Tape/Chalk Probe

Monitoring Well	Held	Wet	Depth to Water	VOCs	LEL	O_2	CO_2	CH_4
GM32s								

COMMENTS: _____

VAPOR EXTRACTION SYSTEM
Monitoring Data Sheet
NORTHROP GRUMMAN, Bethpage, New York

Date: 6/18/98 Time: 9:15am
Barometric Pressure: — Personnel: Mark P. Salomon

Is system operating? (Yes) No

If system is down, for what reason?

Moisture Separator	High	
Overflow Tank	High	
Blower Thermal Overload	Yes	No

Other (Explain)

_____

_____

_____

System Operating Parameters

Well Head Vacuum: 3.0 (IN. W.C.)
System Differential Pressure: 0.18 (IN. W.C.)
Calculated Air Flow: 148.24 (CFM)
Blower Influent Vacuum: 5 (IN. W.C.)
Air Stream Temperature: 90 (Degrees F)
Total Flow of Transfer Pump _____ (Gallons)
Carbon Pressure: Drum#1 2.9 (IN. W.C.) ~~(PSI)~~
Drum#2 2 (IN. W.C.) ~~(PSI)~~

Influent Process Stream Parameter Concentrations:
VOCs _____ (ppmv) CO2 _____ (%)
LEL _____ (%) O2 _____ (%)
CH4 _____ (%)

AIR SAMPLES ONLY

Post Carbon #1 Process Stream Parameter Concentrations:
VOCs _____ (ppmv) CO2 _____ (%)
LEL _____ (%) O2 _____ (%)
CH4 _____ (%)

Post Carbon #2 Process Stream Parameter Concentrations:
VOCs _____ ~~(%)~~ (ppmv) CO2 _____ (%)
LEL _____ (%) O2 _____ (%)
CH4 _____ (%)

OBSERVATION WELL VACUUM INFLUENCE

A	~~0.3~~ (IN. W.C.)	D	0.35 (IN. W.C.)
~~B~~	~~(IN. W.C.)~~	E	0.37 (IN. W.C.)
~~C~~	~~(IN. W.C.)~~	F	0.3 (IN. W.C.)

Monitoring Well Water-Level and Parameter Concentration Data

Water-Levels Collected With: Steel Tape/Chalk Probe

Monitoring Well	Held	Wet	Depth to Water	VOCs	LEL	O_2	CO_2	CH_4
GM32s								

COMMENTS: _____

VAPOR EXTRACTION SYSTEM
Monitoring Data Sheet
NORTHROP GRUMMAN, Bethpage, New York

Date: 6/24/98 Time: 3:00 pm
Barometric Pressure: Personnel: M. Soliman

Is system operating? (Yes) No

If system is down, for what reason?

Moisture Separator	High	
Overflow Tank	High	
Blower Thermal Overload	Yes	No

Other (Explain) _____

System Operating Parameters

Well Head Vacuum: 2.8 (IN. W.C.)
System Differential Pressure: 0.16 (IN. W.C.)
Calculated Air Flow: 139.52 (CFM)
Blower Influent Vacuum: 6 (IN. W.C.)
Air Stream Temperature: 92 (Degrees F)
Total Flow of Transfer Pump — (Gallons)
Carbon Pressure: Drum#1 2.85 (IN. W.C.) _____ (PSI)
Drum#2 2.1 (IN. W.C.) _____ (PSI)

Influent Process Stream Parameter Concentrations:
VOCs _____ (ppmv) CO2 _____ (%)
LEL _____ (%) O2 _____ (%)
CH4 _____ (%)
AIR SAMPLES ONLY

Post Carbon #1 Process Stream Parameter Concentrations:
VOCs _____ (ppmv) CO2 _____ (%)
LEL _____ (%) O2 _____ (%)
CH4 _____ (%)

Post Carbon #2 Process Stream Parameter Concentrations:
VOCs _____ ~~(%)~~ (ppmv) CO2 _____ (%)
LEL _____ (%) O2 _____ (%)
CH4 _____ (%)

OBSERVATION WELL VACUUM INFLUENCE

A	0.28 (IN. W.C.)	D	0.32 (IN. W.C.)
B	~~(IN. W.C.)~~	E	0.35 (IN. W.C.)
C	~~(IN. W.C.)~~	F	0.28 (IN. W.C.)

Monitoring Well Water-Level and Parameter Concentration Data

Water-Levels Collected With: Steel Tape/Chalk Probe

Monitoring Well	Held	Wet	Depth to Water	VOCs	LEL	O_2	CO_2	CH_4
GM32s								

COMMENTS: N/A

.28 N .32

B

.35 .28

VAPOR EXTRACTION SYSTEM
Monitoring Data Sheet
NORTHROP GRUMMAN, Bethpage, New York

Date: ~~7-21~~ 7-24-98 Time: 10:20
Barometric Pressure: Personnel: G. WELLER

Is system operating? (Yes) No

If system is down, for what reason?

Moisture Separator	High	
Overflow Tank	High	
Blower Thermal Overload	Yes	No

Other (Explain)

_____

_____

_____

System Operating Parameters

Well Head Vacuum: 2.7 (IN. W.C.)
System Differential Pressure: 0.17 (IN. W.C.)
Calculated Air Flow: 148.24 (CFM)
Blower Influent Vacuum: ~~05~~ 11 (IN. W.C.)
Air Stream Temperature: 95 (Degrees F)
Total Flow of Transfer Pump 0000090 (Gallons)
Carbon Pressure: Drum#1 ~~00~~ 27 (IN. W.C.) ~~(PSI)~~
Drum#2 1.0 (IN. W.C.) ~~(PSI)~~

Influent Process Stream Parameter Concentrations:
VOCs 6.3 (ppmv) CO2 _____ (%)
LEL _____ (%) O2 _____ (%)
CH4 _____ (%)

Post Carbon #1 Process Stream Parameter Concentrations:
VOCs 4.9 (ppmv) CO2 _____ (%)
LEL _____ (%) O2 _____ (%)
CH4 _____ (%)

Post Carbon #2 Process Stream Parameter Concentrations:
VOCs 0.3 (ppmv) CO2 _____ (%)
LEL _____ (%) O2 _____ (%)
CH4 _____ (%)

OBSERVATION WELL VACUUM INFLUENCE

A	0.29 (IN. W.C.)	D	0.31 (IN. W.C.)
B	— (IN. W.C.)	E	0.37 (IN. W.C.)
C	— (IN. W.C.)	F	0.25 (IN. W.C.)

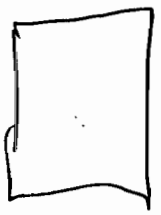
Monitoring Well Water-Level and Parameter Concentration Data

Water-Levels Collected With: Steel Tape/Chalk Probe

Monitoring Well	Held	Wet	Depth to Water	VOCs	LEL	O_2	CO_2	CH_4
GM32s								

COMMENTS: _____

.25 .37



.31 .29

APPENDIX B

LABORATORY REPORTS

MICROSEEPS

University of Pittsburgh Applied Research Center
220 William Pitt Way, Pittsburgh, PA 15238
(412) 826-5245
FAX (412) 826-3433

June 10, 1998

Mr. Glenn Netuschil
Geraghty & Miller, Inc.
88 Duryea Road
Melville, NY 11747

Dear Mr. Netuschil:

Attached is the final data listing for the samples we received on May 29, 1998, your project #NY0000080152.00001.

Please give me a call if you have questions or I can be of further assistance. Thank you for using MICROSEEPS.

Sincerely,

Allan D. Sprayberry

ADS/dld

Attachment: GM2103-982677

MICROSEEPS

ANALYSIS OF VOLATILE ORGANICS IN GAS SAMPLES

Gas samples are received and secured in accordance with Microseeps documented sample receipt procedures. Analyses are performed using Microseeps Analytical Method AM4.03. Analytical method AM4.03 is a modification of USEPA Method 3810 (Headspace) and 8000 (Gas Chromatography). Modifications implemented are to accommodate the gas phase sample type only. All applicable quality control procedures are followed including continuing calibration check standards and laboratory blanks. Microseeps Analytical Method AM4.03 will be supplied upon request.

220 William Pitt Way, Pittsburgh, PA 15238 • Phone (412) 826-5245, Fax (412) 826-3433

MICROSEEPS

GM2103-982677

----- GERAGHTY & MILLER, INC. -----
----- PROJECT LOC. BETHPAGE, NY -----
----- PROJECT NO. NY000008.0152.00001 -----
----- 601/602 SCAN -----
----- CONCENTRATIONS IN PPMV -----

	SAMPLE ID	SAMPLE ID	SAMPLE ID	
COMPOUND NAME	EFFLUENT-1	EFFLUENT-2	INFLUENT	LDLs
CHLOROMETHANE	<1	<1	<1	1
VINYL CHLORIDE	<1	<1	<1	1
BROMOMETHANE/CHLOROETHANE*	<1	<1	<1	1
FLUOROTRICHLOROMETHANE	<.005	<.005	<.005	0.005
1,1 DICHLOROETHYLENE	<.01	<.01	<.01	0.01
METHYLENE CHLORIDE	<1	<1	<1	1.0
TRANS-1,2 DICHLOROETHYLENE	<.1	<.1	<.1	0.1
1,1 DICHLOROETHANE	<.01	<.01	<.01	0.01
CHLOROFORM	<.005	<.005	<.005	0.005
1,1,1 TRICHLOROETHANE	0.083	<.005	0.021	0.005
CARBON TETRACHLORIDE	<.005	<.005	<.005	0.005
BENZENE	<.07	<.07	<.07	0.07
1,2 DICHLOROETHANE	<.01	<.01	<.01	0.01
TRICHLOROETHYLENE	0.901	0.005	3.160	0.005
1,2 DICHLOROPROPANE	<.01	<.01	<.01	0.01
BROMODICHLOROMETHANE	<.005	<.005	<.005	0.005
CIS-1,3 DICHLOROPROPYLENE	<.01	<.01	<.01	0.01
TOLUENE	<.07	<.07	<.07	0.07
TRANS-1,3 DICHLOROPROPYLENE	<.01	<.01	<.01	0.01
1,1,2 TRICHLOROETHANE	<.005	<.005	<.005	0.005
TETRACHLOROETHYLENE	<.005	<.005	<.005	0.005
CHLORODIBROMOMETHANE	<.005	<.005	<.005	0.005
CHLOROBENZENE	<.07	<.07	<.07	0.07
ETHYL BENZENE	<.07	<.07	<.07	0.07
BROMOFORM	<.005	<.005	<.005	0.005
1,1,2,2 TETRACHLOROETHANE	<.005	<.005	<.005	0.005
1,3 DICHLOROBENZENE	<.07	<.07	<.07	0.07
1,4 DICHLOROBENZENE	<.07	<.07	<.07	0.07
1,2 DICHLOROBENZENE	<.07	<.07	<.07	0.07
FILE NAME	W82 87	W82 88	W82 89	
DATE SAMPLED	05/28/98	05/28/98	05/28/98	
DATE RECEIVED	05/29/98	05/29/98	05/29/98	
DATE ANALYZED	05/30/98	05/30/98	05/30/98	

* COMPOUNDS ELUTE TOGETHER ON ECD: VALUES REPRESENT EITHER OR A COMBINATION OF BOTH.

02-Jun-98

ANALYST INITIALS

REVIEW

MICROSEEPS

GM2103-982677

**** QUALITY CONTROL ****

----- GERAGHTY & MILLER, INC. -----
----- PROJECT LOC. BETHPAGE, NY -----
----- PROJECT NO. NY000008.0152.00001 -----
----- 601/602 SCAN -----
----- CONCENTRATIONS IN PPMV -----

CONTINUING CALIBRATION CHECK

STANDARDS:"624"(LEVEL 2), "624"(LEVEL 1), "VC-1000","MS21"R4
REFERENCE: W82A/B86, W82A/B72, W82A73, W82A70

COMPOUND	KNOWN	RESULT	PERCENT DIFFERENCE
CHLOROMETHANE	20.8	20.5	1.68
VINYL CHLORIDE	1000.0	1054.9	5.49
BROMOMETHANE/CHLOROETHANE*	2.7	2.7	0.52
FLUOROTRICHLOROMETHANE	0.778	0.818	5.14
1,1 DICHLOROETHYLENE	1.09	1.11	2.03
METHYLENE CHLORIDE	1.23	1.32	6.99
TRANS-1,2 DICHLOROETHYLENE	1.09	1.11	2.40
1,1 DICHLOROETHANE	1.06	1.14	7.24
CHLOROFORM	0.880	0.964	9.55
1,1,1 TRICHLOROETHANE	0.779	0.840	7.83
CARBON TETRACHLORIDE	0.688	0.736	6.98
BENZENE	1.25	1.19	4.80
1,2 DICHLOROETHANE	1.06	1.01	5.27
TRICHLOROETHYLENE	0.800	0.759	5.13
1,2 DICHLOROPROPANE	0.93	0.86	7.63
BROMODICHLOROMETHANE	0.640	0.674	5.31
CIS-1,3 DICHLOROPROPYLENE	0.95	0.99	4.43
TOLUENE	1.14	1.10	3.68
TRANS-1,3 DICHLOROPROPYLENE	0.95	0.89	6.43
1,1,2 TRICHLOROETHANE	0.788	0.838	6.35
TETRACHLOROETHYLENE	0.630	0.593	5.87
CHLORODIBROMOMETHANE	0.505	0.513	1.58
CHLOROBENZENE	0.93	0.91	2.46
ETHYL BENZENE	0.99	0.98	1.11
BROMOFORM	0.420	0.435	3.57
1,1,2,2 TETRACHLOROETHANE	0.620	0.592	4.52
1,3 DICHLOROBENZENE	0.72	0.66	8.19
1,4 DICHLOROBENZENE	0.72	0.68	5.56
1,2 DICHLOROBENZENE	0.72	0.73	0.83

* COMPOUNDS ELUTE TOGETHER ON ECD - VALUES REPRESENT EITHER OR A COMBINATION OF BOTH.

02-Jun-98

ANALYST INITIALS

REVIEW AS

MICROSEEPS

GM2103-982677

**** QUALITY CONTROL ****

----- GERAGHTY & MILLER, INC. -----
----- PROJECT LOC. BETHPAGE, NY -----
----- PROJECT NO. NY000008.0152.00001 -----
----- 601/602 SCAN -----
----- CONCENTRATIONS IN PPMV -----

LABORATORY BLANK RESULTS

BLANK: N2 IN VIAL
REFERENCE: W82A/B85

COMPOUND	BLANK	LOWER DETECTION LIMIT
CHLOROMETHANE	ND	1.0
VINYL CHLORIDE	ND	1.0
BROMOMETHANE/CHLOROETHANE*	ND	1.0
FLUOROTRICHLOROMETHANE	ND	0.005
1,1 DICHLOROETHYLENE	ND	0.01
METHYLENE CHLORIDE	ND	1.00
TRANS-1,2 DICHLOROETHYLENE	ND	0.1
1,1 DICHLOROETHANE	ND	0.01
CHLOROFORM	ND	0.005
1,1,1 TRICHLOROETHANE	ND	0.005
CARBON TETRACHLORIDE	ND	0.005
BENZENE	ND	0.07
1,2 DICHLOROETHANE	ND	0.01
TRICHLOROETHYLENE	ND	0.005
1,2 DICHLOROPROPANE	ND	0.01
BROMODICHLOROMETHANE	ND	0.005
CIS-1,3 DICHLOROPROPYLENE	ND	0.01
TOLUENE	ND	0.07
TRANS-1,3 DICHLOROPROPYLENE	ND	0.01
1,1,2 TRICHLOROETHANE	ND	0.005
TETRACHLOROETHYLENE	ND	0.005
CHLORODIBROMOMETHANE	ND	0.005
CHLOROBENZENE	ND	0.07
ETHYL BENZENE	ND	0.07
BROMOFORM	ND	0.005
1,1,2,2 TETRACHLOROETHANE	ND	0.005
1,3 DICHLOROBENZENE	ND	0.07
1,4 DICHLOROBENZENE	ND	0.07
1,2 DICHLOROBENZENE	ND	0.07

* COMPOUNDS ELUTE TOGETHER ON ECD - VALUES REPRESENT EITHER OR A COMBINATION OF BOTH.

02-Jun-98

ANALYST INITIALS

REVIEW AS

GM2103-982677

MICROSEEPS, Inc.

220 William Pitt Way, Pittsburgh, PA 15238
Phone: (412) 826-5245 Fax: (412) 826-3433

CHAIN-OF-CUSTODY RECORD

Company Name: ARCADIS GERAGHTY & MILLER
Address: 88 DURYEA RD. MELVILLE, NY 11747
Proj. Manager: GLENN NETUSCHIL
Proj. Location: BETHPAGE, NY
Proj. Number: NY000908.0152.00001
Phone #: 516-391-5207 Fax #: 516-249-7610
Sampler's signature: [signature] (PS)

Note: Enter proper letters in Requested Analyses columns below.

Analysis Options

Note: If analysis D,E,or K is selected, scratch (option) NOT wanted.

* A	C1 -C4	G	Chlorinated HC
* B	Hydrogen & Helium	H	BTEX
* C	Permanent Gases (CH4, CO, CO2, N2, O2)	J	BTEX & C5 - C10
D	Mercury (Soil) or (Air **)	K	TPH (C5 - C10) or (C4 -C12)
E	TO-14 by GC/MS (Ambient) or (Source **)	L	C11 - C18
F	601 & 602 Compounds	Other	Specify below.

* An additional 22 ml vial of sample is required when requested in combination with another analysis.

** Available upon request.

Collection Date	Collection Time	Number of Containers	"Summa" # if Can. used	Sample Type	Sample Identification	Requested Analyses					(Other)	Remarks
5/28/98	1330	2		AIR	INFLUENT	F						
5/28/98	1330	2		AIR	EFFLUENT 1	F						
5/28/98	1330	2		AIR	EFFLUENT 2	F						

Results to: GLENN NETUSCHIL

Invoice to: GLENN NETUSCHIL

Relinquished by	Company	Date	Time	Received by	Company	Date	Time
(PS)	Arcadis G&M	5/28/98	1700	[signature]	MICROSEEPS	5/29/98	1030

WHITE COPY : Laboratory to return. YELLOW COPY : Laboratory PINK COPY : Submitter

MICROSEEPS

University of Pittsburgh Applied Research Center
220 William Pitt Way, Pittsburgh, PA 15238
(412) 826-5245
FAX (412) 826-3433

June 15, 1998

Mr. Glenn Netuschil
Arcadis Geraghty & Miller, Inc.
88 Duryea Road
Melville, NY 11747

Dear Mr. Netuschil:

Attached is the final data listing for the samples we received on June 8, 1998, your project #NY000008.0152.00001.

Please give me a call if you have questions or I can be of further assistance. Thank you for using MICROSEEPS.

Sincerely,

Allan D. Sprayberry

ADS/dld

Attachment: GM2113-982716

MICROSEEPS

ANALYSIS OF VOLATILE ORGANICS IN GAS SAMPLES

Gas samples are received and secured in accordance with Microseeps documented sample receipt procedures. Analyses are performed using Microseeps Analytical Method AM4.03. Analytical method AM4.03 is a modification of USEPA Method 3810 (Headspace) and 8000 (Gas Chromatography). Modifications implemented are to accommodate the gas phase sample type only. All applicable quality control procedures are followed including continuing calibration check standards and laboratory blanks. Microseeps Analytical Method AM4.03 will be supplied upon request.

220 William Pitt Way, Pittsburgh, PA 15238 • Phone (412) 826-5245, Fax (412) 826-3433

MICROSEEPS

GM2113-982716

----- GERAGHTY & MILLER, INC. -----
----- PROJECT LOC. BETHPAGE, NY -----
----- PROJECT NO. NY000008.0152.00001 -----
----- 601/602 SCAN -----
----- CONCENTRATIONS IN PPMV -----

COMPOUND NAME	SAMPLE ID EFFLUENT-1	SAMPLE ID EFFLUENT-2	SAMPLE ID INFLUENT	LDLs
CHLOROMETHANE	<1	<1	<1	1
VINYL CHLORIDE	<1	<1	<1	1
BROMOMETHANE/CHLOROETHANE*	<1	<1	<1	1
FLUOROTRICHLOROMETHANE	<.005	<.005	0.005	0.005
1,1 DICHLOROETHYLENE	<.01	<.01	<.01	0.01
METHYLENE CHLORIDE	<1	<1	<1	1.0
TRANS-1,2 DICHLOROETHYLENE	<.1	<.1	<.1	0.1
1,1 DICHLOROETHANE	<.01	<.01	<.01	0.01
CHLOROFORM	<.005	<.005	<.005	0.005
1,1,1 TRICHLOROETHANE	0.069	<.005	0.012	0.005
CARBON TETRACHLORIDE	<.005	<.005	<.005	0.005
BENZENE	<.07	<.07	<.07	0.07
1,2 DICHLOROETHANE	<.01	<.01	<.01	0.01
TRICHLOROETHYLENE	0.835	<.005	2.822	0.005
1,2 DICHLOROPROPANE	<.01	<.01	<.01	0.01
BROMODICHLOROMETHANE	<.005	<.005	<.005	0.005
CIS-1,3 DICHLOROPROPYLENE	<.01	<.01	<.01	0.01
TOLUENE	<.07	<.07	<.07	0.07
TRANS-1,3 DICHLOROPROPYLENE	<.01	<.01	<.01	0.01
1,1,2 TRICHLOROETHANE	<.005	<.005	<.005	0.005
TETRACHLOROETHYLENE	<.005	<.005	<.005	0.005
CHLORODIBROMOMETHANE	<.005	<.005	<.005	0.005
CHLOROBENZENE	<.07	<.07	<.07	0.07
ETHYL BENZENE	<.07	<.07	<.07	0.07
BROMOFORM	<.005	<.005	<.005	0.005
1,1,2,2 TETRACHLOROETHANE	<.005	<.005	<.005	0.005
1,3 DICHLOROBENZENE	<.07	<.07	<.07	0.07
1,4 DICHLOROBENZENE	<.07	<.07	<.07	0.07
1,2 DICHLOROBENZENE	<.07	<.07	<.07	0.07
FILE NAME	W82 226	W82 227	W82 228	
DATE SAMPLED	06/04/98	06/04/98	06/04/98	
DATE RECEIVED	06/08/98	06/08/98	06/08/98	
DATE ANALYZED	06/08/98	06/08/98	06/08/98	

* COMPOUNDS ELUTE TOGETHER ON ECD: VALUES REPRESENT EITHER OR A COMBINATION OF BOTH.

10-Jun-98

ANALYST INITIALS JW

REVIEW AS

MICROSEEPS

GM2113-982716

**** QUALITY CONTROL ****

----- GERAGHTY & MILLER, INC. -----
----- PROJECT LOC. BETHPAGE, NY -----
----- PROJECT NO. NY000008.0152.00001 -----
----- 601/602 SCAN -----
----- CONCENTRATIONS IN PPMV -----

CONTINUING CALIBRATION CHECK

STANDARDS:"624"(LEVEL 2), "624"(LEVEL 1), "VC-1000","MS21"R4
REFERENCE: W82A/B223, W82A/B224, W82A225, W82A222

COMPOUND	KNOWN	RESULT	PERCENT DIFFERENCE
CHLOROMETHANE	20.8	22.3	7.07
VINYL CHLORIDE	1000.0	1055.8	5.58
BROMOMETHANE/CHLOROETHANE*	2.7	2.9	6.30
FLUOROTRICHLOROMETHANE	0.778	0.827	6.30
1,1 DICHLOROETHYLENE	1.09	1.21	11.43
METHYLENE CHLORIDE	1.23	1.31	6.42
TRANS-1,2 DICHLOROETHYLENE	1.09	1.13	4.06
1,1 DICHLOROETHANE	1.06	1.11	4.80
CHLOROFORM	0.880	0.897	1.93
1,1,1 TRICHLOROETHANE	0.779	0.820	5.26
CARBON TETRACHLORIDE	0.688	0.682	0.87
BENZENE	1.25	1.27	1.44
1,2 DICHLOROETHANE	1.06	1.17	10.25
TRICHLOROETHYLENE	0.800	0.887	10.87
1,2 DICHLOROPROPANE	0.93	0.96	3.44
BROMODICHLOROMETHANE	0.640	0.708	10.62
CIS-1,3 DICHLOROPROPYLENE	0.95	1.00	5.38
TOLUENE	1.14	1.07	6.31
TRANS-1,3 DICHLOROPROPYLENE	0.95	0.95	0.11
1,1,2 TRICHLOROETHANE	0.788	0.801	1.65
TETRACHLOROETHYLENE	0.630	0.645	2.38
CHLORODIBROMOMETHANE	0.505	0.504	0.20
CHLOROBENZENE	0.93	0.93	0.21
ETHYL BENZENE	0.99	0.99	0.51
BROMOFORM	0.420	0.427	1.67
1,1,2,2 TETRACHLOROETHANE	0.620	0.629	1.45
1,3 DICHLOROBENZENE	0.72	0.70	3.33
1,4 DICHLOROBENZENE	0.72	0.67	6.67
1,2 DICHLOROBENZENE	0.72	0.71	1.25

* COMPOUNDS ELUTE TOGETHER ON ECD - VALUES REPRESENT EITHER OR A COMBINATION OF BOTH.

10-Jun-98

ANALYST INITIALS 

REVIEW 

MICROSEEPS

GM2113-982716

**** QUALITY CONTROL ****

----- GERAGHTY & MILLER, INC. -----
----- PROJECT LOC. BETHPAGE, NY -----
----- PROJECT NO. NY000008.0152.00001 -----
----- 601/602 SCAN -----
----- CONCENTRATIONS IN PPMV -----

LABORATORY BLANK RESULTS

BLANK: N2 IN VIAL
REFERENCE: W82A/B221

COMPOUND	BLANK	LOWER DETECTION LIMIT
CHLOROMETHANE	ND	1.0
VINYL CHLORIDE	ND	1.0
BROMOMETHANE/CHLOROETHANE*	ND	1.0
FLUOROTRICHLOROMETHANE	ND	0.005
1,1 DICHLOROETHYLENE	ND	0.01
METHYLENE CHLORIDE	ND	1.00
TRANS-1,2 DICHLOROETHYLENE	ND	0.1
1,1 DICHLOROETHANE	ND	0.01
CHLOROFORM	ND	0.005
1,1,1 TRICHLOROETHANE	ND	0.005
CARBON TETRACHLORIDE	ND	0.005
BENZENE	ND	0.07
1,2 DICHLOROETHANE	ND	0.01
TRICHLOROETHYLENE	ND	0.005
1,2 DICHLOROPROPANE	ND	0.01
BROMODICHLOROMETHANE	ND	0.005
CIS-1,3 DICHLOROPROPYLENE	ND	0.01
TOLUENE	ND	0.07
TRANS-1,3 DICHLOROPROPYLENE	ND	0.01
1,1,2 TRICHLOROETHANE	ND	0.005
TETRACHLOROETHYLENE	ND	0.005
CHLORODIBROMOMETHANE	ND	0.005
CHLOROBENZENE	ND	0.07
ETHYL BENZENE	ND	0.07
BROMOFORM	ND	0.005
1,1,2,2 TETRACHLOROETHANE	ND	0.005
1,3 DICHLOROBENZENE	ND	0.07
1,4 DICHLOROBENZENE	ND	0.07
1,2 DICHLOROBENZENE	ND	0.07

* COMPOUNDS ELUTE TOGETHER ON ECD - VALUES REPRESENT EITHER OR A COMBINATION OF BOTH.

10-Jun-98

ANALYST INITIALS JM

REVIEW AS

982716 - GM2113

MICROSEEPS, Inc.

220 William Pitt Way, Pittsburgh, PA 15238

Phone: (412) 826-5245 Fax: (412) 826-3433

CHAIN-OF-CUSTODY RECORD

Company Name: ARCADIS GERAGHTY & MILLER

Address: 88 DURYEA RD. MELVILLE, NY 11747

Proj. Manager: GLENN NETUSCHIL

Proj. Location: BETHPAGE, NY

Proj. Number: NY000008.0152.00001

Phone # : (516) 391-5207 Fax # : 619 249-7610

Sampler's signature :

Note: Enter proper letters in Requested Analyses columns below.

Note: If analysis D,E,or K is selected, scratch (option) NOT wanted.

Analysis Options

*A	C1 -C4	G	Chlorinated HC
*B	Hydrogen & Helium	H	BTEX
*C	Permanent Gases (CH4, CO, CO2, N2, O2)	J	BTEX & C5 - C10
D	Mercury (Soil) or (Air **)	K	TPH (C5 - C10) or (C4 -C12)
E	TO-14 by GC/MS (Ambient) or (Source **)	L	C11 - C18
F	601 & 602 Compounds	Other	Specify below.

* An additional 22 ml vial of sample is required when requested in combination with another analysis.

** Available upon request.

Collection Date	Collection Time	Number of Containers	"Summa" # if Can. used	Sample Type	Sample Identification	Requested Analyses					(Other)	Remarks
6/4/98	~2:30pm	2		AIR	INFLUENT	F						
6/4/98	~3pm	2		AIR	EFFLUENT 1	F						
6/4/98	~3pm	2		AIR	EFFLUENT 2	F						

Results to : GLENN NETUSCHIL

Invoice to : GLENN NETUSCHIL

Relinquished by :	Company :	Date :	Time :	Received by :	Company :	Date :	Time :
	ARCADIS G&M	6/5/98	10:00am		MICROSEEPS	6/8/98	1000
Relinquished by :	Company :	Date :	Time :	Received by :	Company :	Date :	Time :
Relinquished by :	Company :	Date :	Time :	Received by :	Company :	Date :	Time :

WHITE COPY : Laboratory to return. YELLOW COPY : Laboratory PINK COPY : Submitter

MICROSEEPS

University of Pittsburgh Applied Research Center
220 William Pitt Way, Pittsburgh, PA 15238
(412) 826-5245
FAX (412) 826-3433

June 24, 1998

Mr. Glenn Netuschil
Arcadis Geraghty & Miller, Inc.
88 Duryea Road
Melville, NY 11747

Dear Mr. Netuschil:

Attached is the final data listing for the samples we received on June 19, 1998, your project #NY000008.0152.00001.

Please give me a call if you have questions or I can be of further assistance. Thank you for using MICROSEEPS.

Sincerely,

Allan D. Sprayberry

ADS/dld

Attachment: GM2126-982773

MICROSEEPS

ANALYSIS OF VOLATILE ORGANICS IN GAS SAMPLES

Gas samples are received and secured in accordance with Microseeps documented sample receipt procedures. Analyses are performed using Microseeps Analytical Method AM4.03. Analytical method AM4.03 is a modification of USEPA Method 3810 (Headspace) and 8000 (Gas Chromatography). Modifications implemented are to accommodate the gas phase sample type only. All applicable quality control procedures are followed including continuing calibration check standards and laboratory blanks. Microseeps Analytical Method AM4.03 will be supplied upon request.

220 William Pitt Way, Pittsburgh, PA 15238 • Phone (412) 826-5245, Fax (412) 826-3433

MICROSEEPS

GM2126-982773

----- GERAGHTY & MILLER, INC. -----
----- PROJECT LOC. BETHPAGE, NY -----
----- PROJECT NO. NY000008.0152.00001 -----
----- 601/602 SCAN -----
----- CONCENTRATIONS IN PPMV -----

	SAMPLE ID	SAMPLE ID	SAMPLE ID	
COMPOUND NAME	EFFLUENT-1	EFFLUENT-2	INFLUENT-1	LDLs
CHLOROMETHANE	<1	<1	<1	1
VINYL CHLORIDE	<1	<1	<1	1
BROMOMETHANE/CHLOROETHANE*	<1	<1	<1	1
FLUOROTRICHLOROMETHANE	0.007	<.005	0.008	0.005
1,1 DICHLOROETHYLENE	<.01	<.01	<.01	0.01
METHYLENE CHLORIDE	<1	<1	<1	1.0
TRANS-1,2 DICHLOROETHYLENE	<.1	<.1	<.1	0.1
1,1 DICHLOROETHANE	<.01	<.01	<.01	0.01
CHLOROFORM	<.005	<.005	<.005	0.005
1,1,1 TRICHLOROETHANE	0.080	<.005	0.033	0.005
CARBON TETRACHLORIDE	<.005	<.005	<.005	0.005
BENZENE	<.07	<.07	<.07	0.07
1,2 DICHLOROETHANE	<.01	<.01	<.01	0.01
TRICHLOROETHYLENE	1.108	0.006	1.471	0.005
1,2 DICHLOROPROPANE	<.01	<.01	<.01	0.01
BROMODICHLOROMETHANE	<.005	<.005	<.005	0.005
CIS-1,3 DICHLOROPROPYLENE	<.01	<.01	<.01	0.01
TOLUENE	<.07	<.07	<.07	0.07
TRANS-1,3 DICHLOROPROPYLENE	<.01	<.01	<.01	0.01
1,1,2 TRICHLOROETHANE	<.005	<.005	<.005	0.005
TETRACHLOROETHYLENE	<.005	<.005	0.005	0.005
CHLORODIBROMOMETHANE	<.005	<.005	<.005	0.005
CHLOROBENZENE	<.07	<.07	<.07	0.07
ETHYL BENZENE	<.07	<.07	<.07	0.07
BROMOFORM	<.005	<.005	<.005	0.005
1,1,2,2 TETRACHLOROETHANE	<.005	<.005	<.005	0.005
1,3 DICHLOROBENZENE	<.07	<.07	<.07	0.07
1,4 DICHLOROBENZENE	<.07	<.07	<.07	0.07
1,2 DICHLOROBENZENE	<.07	<.07	<.07	0.07
FILE NAME	W82 361	W82 362	W82 363	
DATE SAMPLED	06/18/98	06/18/98	06/18/98	
DATE RECEIVED	06/19/98	06/19/98	06/19/98	
DATE ANALYZED	06/20/98	06/20/98	06/20/98	

* COMPOUNDS ELUTE TOGETHER ON ECD: VALUES REPRESENT EITHER OR A COMBINATION OF BOTH.

22-Jun-98

ANALYST INITIALS JCH

REVIEW AS

MICROSEEPS

GM2126-982773

**** QUALITY CONTROL ****

----- GERAGHTY & MILLER, INC. -----
----- PROJECT LOC. BETHPAGE, NY -----
----- PROJECT NO. NY000008.0152.00001 -----
----- 601/602 SCAN -----
----- CONCENTRATIONS IN PPMV -----

CONTINUING CALIBRATION CHECK

STANDARDS: "624P"(LEVEL 2), "624P"(LEVEL 1), "VC-996", "MS21"(R4)
REFERENCE: W82A/B352, W82A/B333, W82A353, W82A331

COMPOUND	KNOWN	RESULT	PERCENT DIFFERENCE
CHLOROMETHANE	20.8	21.3	2.15
VINYL CHLORIDE	1000.0	1044.2	4.23
BROMOMETHANE/CHLOROETHANE*	2.7	2.8	4.09
FLUOROTRICHLOROMETHANE	0.770	0.787	2.16
1,1 DICHLOROETHYLENE	1.09	1.16	6.47
METHYLENE CHLORIDE	1.24	1.34	7.61
TRANS-1,2 DICHLOROETHYLENE	1.09	1.17	7.26
1,1 DICHLOROETHANE	1.06	1.16	8.36
CHLOROFORM	0.881	0.928	5.06
1,1,1 TRICHLOROETHANE	0.788	0.825	4.48
CARBON TETRACHLORIDE	0.684	0.733	6.68
BENZENE	1.25	1.26	0.71
1,2 DICHLOROETHANE	1.06	1.10	3.45
TRICHLOROETHYLENE	0.800	0.828	3.38
1,2 DICHLOROPROPANE	0.93	0.96	3.02
BROMODICHLOROMETHANE	0.642	0.684	6.14
CIS-1,3 DICHLOROPROPYLENE	0.95	1.01	6.51
TOLUENE	1.14	1.09	4.30
TRANS-1,3 DICHLOROPROPYLENE	0.95	0.96	1.35
1,1,2 TRICHLOROETHANE	0.788	0.827	4.72
TETRACHLOROETHYLENE	0.630	0.650	3.08
CHLORODIBROMOMETHANE	0.505	0.535	5.61
CHLOROBENZENE	0.93	0.91	2.98
ETHYL BENZENE	0.99	0.93	6.91
BROMOFORM	0.416	0.439	5.24
1,1,2,2 TETRACHLOROETHANE	0.626	0.646	3.10
1,3 DICHLOROBENZENE	0.72	0.76	5.42
1,4 DICHLOROBENZENE	0.72	0.76	5.42
1,2 DICHLOROBENZENE	0.72	0.78	9.51

* COMPOUNDS ELUTE TOGETHER ON ECD: VALUES REPRESENT EITHER OR A COMBINATION OF BOTH.

22-Jun-98

ANALYST INITIALS JCW

REVIEW AS

MICROSEEPS

GM2126-982773

**** QUALITY CONTROL ****

----- GERAGHTY & MILLER, INC. -----
----- PROJECT LOC. BETHPAGE, NY -----
----- PROJECT NO. NY000008.0152.00001 -----
----- 601/602 SCAN -----
----- CONCENTRATIONS IN PPMV -----

LABORATORY BLANK RESULTS

BLANK: N2 IN VIAL
REFERENCE: W82A/B360

COMPOUND	BLANK	LOWER DETECTION LIMIT
CHLOROMETHANE	ND	1.0
VINYL CHLORIDE	ND	1.0
BROMOMETHANE/CHLOROETHANE*	ND	1.0
FLUOROTRICHLOROMETHANE	ND	0.005
1,1 DICHLOROETHYLENE	ND	0.01
METHYLENE CHLORIDE	ND	1.00
TRANS-1,2 DICHLOROETHYLENE	ND	0.1
1,1 DICHLOROETHANE	ND	0.01
CHLOROFORM	ND	0.005
1,1,1 TRICHLOROETHANE	ND	0.005
CARBON TETRACHLORIDE	ND	0.005
BENZENE	ND	0.07
1,2 DICHLOROETHANE	ND	0.01
TRICHLOROETHYLENE	ND	0.005
1,2 DICHLOROPROPANE	ND	0.01
BROMODICHLOROMETHANE	ND	0.005
CIS-1,3 DICHLOROPROPYLENE	ND	0.01
TOLUENE	ND	0.07
TRANS-1,3 DICHLOROPROPYLENE	ND	0.01
1,1,2 TRICHLOROETHANE	ND	0.005
TETRACHLOROETHYLENE	ND	0.005
CHLORODIBROMOMETHANE	ND	0.005
CHLOROBENZENE	ND	0.07
ETHYL BENZENE	ND	0.07
BROMOFORM	ND	0.005
1,1,2,2 TETRACHLOROETHANE	ND	0.005
1,3 DICHLOROBENZENE	ND	0.07
1,4 DICHLOROBENZENE	ND	0.07
1,2 DICHLOROBENZENE	ND	0.07

* COMPOUNDS ELUTE TOGETHER ON ECD - VALUES REPRESENT EITHER OR A COMBINATION OF BOTH.

22-Jun-98

ANALYST INITIALS 

REVIEW AS

GM2126-982773

MICROSEEPS, Inc.

220 William Pitt Way, Pittsburgh, PA 15238

Phone: (412) 826-5245 Fax: (412) 826-3433

CHAIN-OF-CUSTODY RECORD

Company Name: ARCADIS GERAGHTY & MILLER
Address: 88 DUREA RD. MELVILLE, NY 11747
Proj. Manager: GLENN NETUSCHIL
Proj. Location: BETHPAGE, NY
Proj. Number: NY000005.0152.00001
Phone # : (516) 391-5207 Fax # : (516) 249-7610

Sampler's signature :

Note: Enter proper letters in Requested Analyses columns below.

Note: If analysis D,E,or K is selected, scratch (option) NOT wanted.

Analysis Options

*A	C1 -C4	G	Chlorinated HC
*B	Hydrogen & Helium	H	BTEX
*C	Permanent Gases (CH4, CO, CO2, N2, O2)	J	BTEX & C5 - C10
D	Mercury (Soil) or (Air **)	K	TPH (C5 - C10) or (C4 -C12)
E	TO-14 by GC/MS (Ambient) or (Source **)	L	C11 - C18
F	601 & 602 Compounds	Other	Specify below.

* An additional 22 ml vial of sample is required when requested in combination with another analysis.

** Available upon request.

Collection Date	Collection Time	Number of Containers	"Summa" # if Can. used	Sample Type	Sample Identification	Requested Analyses					(Other)	Remarks
6/18/98	8:45am	2		AIR	INFLUENT 1	F						
6/18/98	9:00am	2		AIR	EFFLUENT 1	F						
6/18/98	9:15am	2		AIR	EFFLUENT 2	F						

Results to : GLENN NETUSCHIL

Invoice to : GLENN NETUSCHIL

Relinquished by :	Company :	Date :	Time :	Received by :	Company :	Date :	Time :
Mark A. Sullivan	AGM	6/18/98	11:00am		Microseeps	6/19/98	~~0815~~ 1030
Relinquished by :	Company :	Date :	Time :	Received by :	Company :	Date :	Time :
Relinquished by :	Company :	Date :	Time :	Received by :	Company :	Date :	Time :

WHITE COPY : Laboratory to return. YELLOW COPY : Laboratory PINK COPY : Submitter

MICROSEEPS

University of Pittsburgh Applied Research Center
220 William Pitt Way, Pittsburgh, PA 15238
(412) 826-5245
FAX (412) 826-3433

July 7, 1998

Mr. Glenn Netuschil
Arcadis Geraghty & Miller, Inc.
88 Duryea Road
Melville, NY 11747

Dear Mr. Netuschil:

Attached is the final data listing and sample log for the samples we received on June 25, 1998, your project #NY000008.0152.00001.

Please give me a call if you have questions or I can be of further assistance. Thank you for using MICROSEEPS.

Sincerely,

Allan D. Sprayberry

ADS/dld

Attachment: GM2130-982805

MICROSEEPS

ANALYSIS OF VOLATILE ORGANICS IN GAS SAMPLES

Gas samples are received and secured in accordance with Microseeps documented sample receipt procedures. Analyses are performed using Microseeps Analytical Method AM4.03. Analytical method AM4.03 is a modification of USEPA Method 3810 (Headspace) and 8000 (Gas Chromatography). Modifications implemented are to accommodate the gas phase sample type only. All applicable quality control procedures are followed including continuing calibration check standards and laboratory blanks. Microseeps Analytical Method AM4.03 will be supplied upon request.

220 William Pitt Way, Pittsburgh, PA 15238 • Phone (412) 826-5245, Fax (412) 826-3433

***** MICROSEEPS, INC *****

***** LABORATORY SAMPLE LOG *****

LABORATORY LOCATION: U PARC

MICROSEEPS PROJECT #: GM2130-982805

CLIENT: Arcadis G+M

RECEIVER NAME: J C Williams

SAMPLE ORIGIN: Bethpage NY

DATE: 6/25/98 TIME: 1040

PROJECT #: NY000006.0152.00001

CHAIN OF CUSTODY ? X

SAMPLE NAME	SAMPLE TYPE G	S	W	SIZE	PSIG	COMMENTS
effluent 1	X			22	1.5	DF=2
effluent 2	X				12	
" 2	X				12	
Influent 1	X				12	
"	X			↓	12	

MICROSEEPS

GM2130-982805

----- GERAGHTY & MILLER, INC. -----
----- PROJECT LOC. BETHPAGE, NY -----
----- PROJECT NO. NY000008.0152.00001 -----
----- 601/602 SCAN -----
----- CONCENTRATIONS IN PPMV -----

	SAMPLE ID	SAMPLE ID	SAMPLE ID	
COMPOUND NAME	** EFFLUENT-1	EFFLUENT-2	INFLUENT-1	LDLs
CHLOROMETHANE	<2	<1	<1	1
VINYL CHLORIDE	<2	<1	<1	1
BROMOMETHANE/CHLOROETHANE*	<2	<1	<1	1
FLUOROTRICHLOROMETHANE	<.010	0.006	0.006	0.005
1,1 DICHLOROETHYLENE	<.02	<.01	<.01	0.01
METHYLENE CHLORIDE	<2	<1	<1	1.0
TRANS-1,2 DICHLOROETHYLENE	<.2	<.1	<.1	0.1
1,1 DICHLOROETHANE	<.02	<.01	<.01	0.01
CHLOROFORM	<.010	<.005	<.005	0.005
1,1,1 TRICHLOROETHANE	0.046	<.005	0.036	0.005
CARBON TETRACHLORIDE	<.010	<.005	<.005	0.005
BENZENE	<.14	<.07	<.07	0.07
1,2 DICHLOROETHANE	<.02	<.01	<.01	0.01
TRICHLOROETHYLENE	0.789	0.006	1.692	0.005
1,2 DICHLOROPROPANE	<.02	<.01	<.01	0.01
BROMODICHLOROMETHANE	<.010	<.005	<.005	0.005
CIS-1,3 DICHLOROPROPYLENE	<.02	<.01	<.01	0.01
TOLUENE	0.86	<.07	<.07	0.07
TRANS-1,3 DICHLOROPROPYLENE	<.02	<.01	<.01	0.01
1,1,2 TRICHLOROETHANE	<.010	<.005	<.005	0.005
TETRACHLOROETHYLENE	<.010	<.005	0.006	0.005
CHLORODIBROMOMETHANE	<.010	<.005	<.005	0.005
CHLOROBENZENE	<.14	<.07	<.07	0.07
ETHYL BENZENE	<.14	<.07	<.07	0.07
BROMOFORM	<.010	<.005	<.005	0.005
1,1,2,2 TETRACHLOROETHANE	<.010	<.005	<.005	0.005
1,3 DICHLOROBENZENE	<.14	<.07	<.07	0.07
1,4 DICHLOROBENZENE	<.14	<.07	<.07	0.07
1,2 DICHLOROBENZENE	<.14	<.07	<.07	0.07
FILE NAME	W82 467	W82 468	W82 469	
DATE SAMPLED	06/24/98	06/24/98	06/24/98	
DATE RECEIVED	06/25/98	06/25/98	06/25/98	
DATE ANALYZED	06/25/98	06/25/98	06/25/98	

* COMPOUNDS ELUTE TOGETHER ON ECD: VALUES REPRESENT EITHER OR A COMBINATION OF BOTH.

** SAMPLE VIAL RECEIVED CONTAINING <3.0 PSI. PRESSURIZED WITH PURE NITROGEN. DILUTION FACTOR = 2. DATA CORRECTED

03-Jul-98

ANALYST INITIALS_____

REVIEW AS

MICROSEEPS

GM2130-982805

**** QUALITY CONTROL ****

----- GERAGHTY & MILLER, INC. -----
----- PROJECT LOC. BETHPAGE, NY -----
----- PROJECT NO. NY000008.0152.00001 -----
----- 601/602 SCAN -----
----- CONCENTRATIONS IN PPMV -----

LABORATORY BLANK RESULTS

BLANK: N2 IN VIAL
REFERENCE: W82A/B462

COMPOUND	BLANK	LOWER DETECTION LIMIT
CHLOROMETHANE	ND	1.0
VINYL CHLORIDE	ND	1.0
BROMOMETHANE/CHLOROETHANE*	ND	1.0
FLUOROTRICHLOROMETHANE	ND	0.005
1,1 DICHLOROETHYLENE	ND	0.01
METHYLENE CHLORIDE	ND	1.00
TRANS-1,2 DICHLOROETHYLENE	ND	0.1
1,1 DICHLOROETHANE	ND	0.01
CHLOROFORM	ND	0.005
1,1,1 TRICHLOROETHANE	ND	0.005
CARBON TETRACHLORIDE	ND	0.005
BENZENE	ND	0.07
1,2 DICHLOROETHANE	ND	0.01
TRICHLOROETHYLENE	ND	0.005
1,2 DICHLOROPROPANE	ND	0.01
BROMODICHLOROMETHANE	ND	0.005
CIS-1,3 DICHLOROPROPYLENE	ND	0.01
TOLUENE	ND	0.07
TRANS-1,3 DICHLOROPROPYLENE	ND	0.01
1,1,2 TRICHLOROETHANE	ND	0.005
TETRACHLOROETHYLENE	ND	0.005
CHLORODIBROMOMETHANE	ND	0.005
CHLOROBENZENE	ND	0.07
ETHYL BENZENE	ND	0.07
BROMOFORM	ND	0.005
1,1,2,2 TETRACHLOROETHANE	ND	0.005
1,3 DICHLOROBENZENE	ND	0.07
1,4 DICHLOROBENZENE	ND	0.07
1,2 DICHLOROBENZENE	ND	0.07

* COMPOUNDS ELUTE TOGETHER ON ECD - VALUES REPRESENT EITHER OR A COMBINATION OF BOTH.

01-Jul-98

ANALYST INITIALS JC

REVIEW AS

MICROSEEPS

GM2130-982805

**** QUALITY CONTROL ****

----- GERAGHTY & MILLER, INC. -----
----- PROJECT LOC. BETHPAGE, NY -----
----- PROJECT NO. NY000008.0152.00001 -----
----- 601/602 SCAN -----
----- CONCENTRATIONS IN PPMV -----

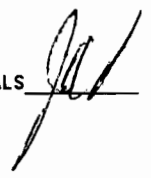
CONTINUING CALIBRATION CHECK

STANDARDS:"624"(LEVEL 2), "624"(LEVEL 1), "VC-1000","MS21"R4
REFERENCE: W82A/B464, W82A/B465, W82A466, W82A463

COMPOUND	KNOWN	RESULT	PERCENT DIFFERENCE
CHLOROMETHANE	20.8	21.1	1.58
VINYL CHLORIDE	1000.0	1046.8	4.68
BROMOMETHANE/CHLOROETHANE*	2.7	2.8	2.74
FLUOROTRICHLOROMETHANE	0.778	0.768	1.29
1,1 DICHLOROETHYLENE	1.09	1.18	8.66
METHYLENE CHLORIDE	1.23	1.34	9.02
TRANS-1,2 DICHLOROETHYLENE	1.09	1.18	8.66
1,1 DICHLOROETHANE	1.06	1.16	9.13
CHLOROFORM	0.880	0.929	5.57
1,1,1 TRICHLOROETHANE	0.779	0.825	5.91
CARBON TETRACHLORIDE	0.688	0.738	7.27
BENZENE	1.25	1.21	3.20
1,2 DICHLOROETHANE	1.06	1.10	3.86
TRICHLOROETHYLENE	0.800	0.831	3.87
1,2 DICHLOROPROPANE	0.93	0.95	1.93
BROMODICHLOROMETHANE	0.640	0.692	8.12
CIS-1,3 DICHLOROPROPYLENE	0.95	1.03	8.65
TOLUENE	1.14	1.10	3.24
TRANS-1,3 DICHLOROPROPYLENE	0.95	0.96	1.27
1,1,2 TRICHLOROETHANE	0.788	0.834	5.84
TETRACHLOROETHYLENE	0.630	0.657	4.29
CHLORODIBROMOMETHANE	0.505	0.545	7.92
CHLOROBENZENE	0.93	0.91	2.25
ETHYL BENZENE	0.99	0.92	7.27
BROMOFORM	0.420	0.450	7.14
1,1,2,2 TETRACHLOROETHANE	0.620	0.658	6.13
1,3 DICHLOROBENZENE	0.72	0.77	6.25
1,4 DICHLOROBENZENE	0.72	0.77	6.67
1,2 DICHLOROBENZENE	0.72	0.79	10.00

* COMPOUNDS ELUTE TOGETHER ON ECD - VALUES REPRESENT EITHER OR A COMBINATION OF BOTH.

01-Jul-98

ANALYST INITIALS 

REVIEW_____

GM2130-982805

MICROSEEPS, Inc.

220 William Pitt Way, Pittsburgh, PA 15238

Phone: (412) 826-5245 Fax: (412) 826-3433

CHAIN-OF-CUSTODY RECORD

Company Name: ARCADIS GERAGHTY & MILLER

Address: 88 DURYEA RD. MELVILLE, NY 11747

Proj. Manager: GLENN NETUSCHIL

Proj. Location: BETHPAGE, NY

Proj. Number: NY000008.0152.00001

Phone # : (516) 391-5207 Fax # : (516) 249-7610

Sampler's signature : _____

Note: Enter proper letters in Requested Analyses columns below.

Analysis Options Note: If analysis D,E,or K is selected, scratch (option) NOT wanted.

* A	C1 -C4	G	Chlorinated HC
* B	Hydrogen & Helium	H	BTEX
* C	Permanent Gases (CH4, CO, CO2, N2, O2)	J	BTEX & C5 - C10
D	Mercury (Soil) or (Air **)	K	TPH (C5 - C10) or (C4 -C12)
E	TO-14 by GC/MS (Ambient) or (Source **)	L	C11 - C18
F	601 & 602 Compounds	Other	Specify below.

* An additional 22 ml vial of sample is required when requested in combination with another analysis.

** Available upon request.

Collection Date	Collection Time	Number of Containers	"Summa" # if Can. used	Sample Type	Sample Identification	Requested Analyses					(Other)	Remarks
6/24/98	3:00pm	2		AIR	INFLUENT 1	F						
6/24/98	3:10pm	1 (2)		AIR	EFFLUENT 1	F						Had Pressure/Resistance
6/24/98	3:20pm	2		AIR	EFFLUENT 2	F						

Results to : GLENN NETUSCHIL

Invoice to : GLENN NETUSCHIL

Relinquished by :	Company :	Date :	Time :	Received by :	Company :	Date :	Time :
Mark P. Sliman	ARCADIS G&M	6/24/98	3:50pm	[signature]	MICROSEEPS	6/25/98	1040
Relinquished by :	Company :	Date :	Time :	Received by :	Company :	Date :	Time :
Relinquished by :	Company :	Date :	Time :	Received by :	Company :	Date :	Time :

WHITE COPY : Laboratory to return. YELLOW COPY : Laboratory PINK COPY : Submitter

MICROSEEPS

University of Pittsburgh Applied Research Center
220 William Pitt Way, Pittsburgh, PA 15238
(412) 826-5245
FAX (412) 826-3433

August 10, 1998

Mr. Glenn Netuschil
Geraghty & Miller, Inc.
88 Duryea Road
Melville, NY 11747

Dear Mr. Netuschil:

Attached is the final data listing for the samples we received on July 25, 1998, your reference NY000008.0152.00001.

Please give me a call if you have questions or I can be of further assistance. Thank you for using MICROSEEPS.

Sincerely,

Allan D. Sprayberry

ADS/lsp

Attachment: GM2164-982944

MICROSEEPS

ANALYSIS OF VOLATILE ORGANICS IN GAS SAMPLES

Gas samples are received and secured in accordance with Microseeps documented sample receipt procedures. Analyses are performed using Microseeps Analytical Method AM4.03. Analytical method AM4.03 is a modification of USEPA Method 3810 (Headspace) and 8000 (Gas Chromatography). Modifications implemented are to accommodate the gas phase sample type only. All applicable quality control procedures are followed including continuing calibration check standards and laboratory blanks. Microseeps Analytical Method AM4.03 will be supplied upon request.

220 William Pitt Way, Pittsburgh, PA 15238 • Phone (412) 826-5245, Fax (412) 826-3433

MICROSEEPS

GM2164-982944

----- GERAGHTY & MILLER, INC. -----
----- PROJECT LOC. BETHPAGE, NY -----
----- PROJECT NO. NY000008.0152.00001 -----
----- 601/602 SCAN -----
----- CONCENTRATIONS IN PPMV -----

COMPOUND NAME	SAMPLE ID EFFLUENT-1	SAMPLE ID EFFLUENT-2	SAMPLE ID INFLUENT-1	LDLs
CHLOROMETHANE	<1	<1	<1	1
VINYL CHLORIDE	<1	<1	<1	1
BROMOMETHANE/CHLOROETHANE*	<1	<1	<1	1
FLUOROTRICHLOROMETHANE	0.005	0.007	0.005	0.005
1,1 DICHLOROETHYLENE	<.01	<.01	<.01	0.01
METHYLENE CHLORIDE	<1	<1	<1	1.0
TRANS-1,2 DICHLOROETHYLENE	<.1	<.1	<.1	0.1
1,1 DICHLOROETHANE	<.01	<.01	<.01	0.01
CHLOROFORM	<.005	<.005	<.005	0.005
1,1,1 TRICHLOROETHANE	0.041	<.005	0.031	0.005
CARBON TETRACHLORIDE	<.005	<.005	<.005	0.005
BENZENE	<.07	<.07	<.07	0.07
1,2 DICHLOROETHANE	<.01	<.01	<.01	0.01
TRICHLOROETHYLENE	1.500	<.005	1.668	0.005
1,2 DICHLOROPROPANE	<.01	<.01	<.01	0.01
BROMODICHLOROMETHANE	<.005	<.005	<.005	0.005
CIS-1,3 DICHLOROPROPYLENE	<.01	<.01	<.01	0.01
TOLUENE	<.07	<.07	<.07	0.07
TRANS-1,3 DICHLOROPROPYLENE	<.01	<.01	<.01	0.01
1,1,2 TRICHLOROETHANE	<.005	<.005	<.005	0.005
TETRACHLOROETHYLENE	<.005	<.005	0.006	0.005
CHLORODIBROMOMETHANE	<.005	<.005	<.005	0.005
CHLOROBENZENE	<.07	<.07	<.07	0.07
ETHYL BENZENE	<.07	<.07	<.07	0.07
BROMOFORM	<.005	<.005	<.005	0.005
1,1,2,2 TETRACHLOROETHANE	<.005	<.005	<.005	0.005
1,3 DICHLOROBENZENE	<.07	<.07	<.07	0.07
1,4 DICHLOROBENZENE	<.07	<.07	<.07	0.07
1,2 DICHLOROBENZENE	<.07	<.07	<.07	0.07
FILE NAME	W83 469	W83 470	W83 471	
DATE SAMPLED	07/24/98	07/24/98	07/24/98	
DATE RECEIVED	07/25/98	07/25/98	07/25/98	
DATE ANALYZED	07/28/98	07/28/98	07/28/98	

* COMPOUNDS ELUTE TOGETHER ON ECD: VALUES REPRESENT EITHER OR A COMBINATION OF BOTH.

04-Aug-98

ANALYST INITIALS JHH

REVIEW AS

MICROSEEPS

GM2164-982944

**** QUALITY CONTROL ****

----- GERAGHTY & MILLER, INC. -----
----- PROJECT LOC. BETHPAGE, NY -----
----- PROJECT NO. NY000008.0152.00001 -----
----- 601/602 SCAN -----
----- CONCENTRATIONS IN PPMV -----

CONTINUING CALIBRATION CHECK

STANDARDS: "624"(LEVEL 2), "624"(LEVEL 1), "VC-996", "MS21"(R4)
REFERENCE: W83A/B465, W83A/B466, W83A467, W83A457

COMPOUND	KNOWN	RESULT	PERCENT DIFFERENCE
CHLOROMETHANE	20.8	22.7	8.37
VINYL CHLORIDE	1000.0	1035.1	3.39
BROMOMETHANE/CHLOROETHANE*	2.7	3.1	12.90
FLUOROTRICHLOROMETHANE	0.770	0.806	4.47
1,1 DICHLOROETHYLENE	1.09	1.22	11.14
METHYLENE CHLORIDE	1.24	1.41	11.89
TRANS-1,2 DICHLOROETHYLENE	1.09	1.19	9.05
1,1 DICHLOROETHANE	1.06	1.21	12.44
CHLOROFORM	0.881	0.940	6.28
1,1,1 TRICHLOROETHANE	0.788	0.841	6.30
CARBON TETRACHLORIDE	0.684	0.737	7.19
BENZENE	1.25	1.14	10.04
1,2 DICHLOROETHANE	1.06	1.10	2.92
TRICHLOROETHYLENE	0.800	0.845	5.33
1,2 DICHLOROPROPANE	0.93	0.96	2.92
BROMODICHLOROMETHANE	0.642	0.673	4.61
CIS-1,3 DICHLOROPROPYLENE	0.95	0.98	3.66
TOLUENE	1.14	1.06	7.64
TRANS-1,3 DICHLOROPROPYLENE	0.95	0.93	2.49
1,1,2 TRICHLOROETHANE	0.788	0.817	3.55
TETRACHLOROETHYLENE	0.630	0.634	0.63
CHLORODIBROMOMETHANE	0.505	0.523	3.44
CHLOROBENZENE	0.93	0.86	8.73
ETHYL BENZENE	0.99	0.92	7.14
BROMOFORM	0.416	0.423	1.65
1,1,2,2 TETRACHLOROETHANE	0.626	0.608	2.96
1,3 DICHLOROBENZENE	0.72	0.67	6.24
1,4 DICHLOROBENZENE	0.72	0.67	7.52
1,2 DICHLOROBENZENE	0.72	0.68	5.03

* COMPOUNDS ELUTE TOGETHER ON ECD: VALUES REPRESENT EITHER OR A COMBINATION OF BOTH.

04-Aug-98

ANALYST INITIALS

REVIEW AS

MICROSEEPS

GM2164-982944

**** QUALITY CONTROL ****

----- GERAGHTY & MILLER, INC. -----
----- PROJECT LOC. BETHPAGE, NY -----
----- PROJECT NO. NY000008.0152.00001 -----
----- 601/602 SCAN -----
----- CONCENTRATIONS IN PPMV -----

LABORATORY BLANK RESULTS

BLANK: N2 IN VIAL
REFERENCE: W83A/B468

COMPOUND	BLANK	LOWER DETECTION LIMIT
CHLOROMETHANE	ND	1.0
VINYL CHLORIDE	ND	1.0
BROMOMETHANE/CHLOROETHANE*	ND	1.0
FLUOROTRICHLOROMETHANE	ND	0.005
1,1 DICHLOROETHYLENE	ND	0.01
METHYLENE CHLORIDE	ND	1.00
TRANS-1,2 DICHLOROETHYLENE	ND	0.1
1,1 DICHLOROETHANE	ND	0.01
CHLOROFORM	ND	0.005
1,1,1 TRICHLOROETHANE	ND	0.005
CARBON TETRACHLORIDE	ND	0.005
BENZENE	ND	0.07
1,2 DICHLOROETHANE	ND	0.01
TRICHLOROETHYLENE	ND	0.005
1,2 DICHLOROPROPANE	ND	0.01
BROMODICHLOROMETHANE	ND	0.005
CIS-1,3 DICHLOROPROPYLENE	ND	0.01
TOLUENE	ND	0.07
TRANS-1,3 DICHLOROPROPYLENE	ND	0.01
1,1,2 TRICHLOROETHANE	ND	0.005
TETRACHLOROETHYLENE	ND	0.005
CHLORODIBROMOMETHANE	ND	0.005
CHLOROBENZENE	ND	0.07
ETHYL BENZENE	ND	0.07
BROMOFORM	ND	0.005
1,1,2,2 TETRACHLOROETHANE	ND	0.005
1,3 DICHLOROBENZENE	ND	0.07
1,4 DICHLOROBENZENE	ND	0.07
1,2 DICHLOROBENZENE	ND	0.07

* COMPOUNDS ELUTE TOGETHER ON ECD - VALUES REPRESENT EITHER OR A COMBINATION OF BOTH.

04-Aug-98

ANALYST INITIALS

REVIEW AS

982944-GM2164

MICROSEEPS, Inc.

220 William Pitt Way, Pittsburgh, PA 15238

Phone: (412) 826-5245 Fax: (412) 826-3433

CHAIN-OF-CUSTODY RECORD

Company Name: ARCADIS GERAGHTY & MILLER

Address: 88 DURYEA ROAD. MELVILLE N.Y. 11747

Proj. Manager: GLENN NETUSCHIL

Proj. Location: BETHPAGE, NY

Proj. Number: NY000008.0152-00001

Phone # : (516) 391-5207 Fax # : (516) 249-7610

Sampler's signature :

Note: Enter proper letters in Requested Analyses columns below.

Analysis Options Note: If analysis D,E,or K is selected, scratch (option) NOT wanted.

* A	C1 -C4	G	Chlorinated HC
* B	Hydrogen & Helium	H	BTEX
* C	Permanent Gases (CH4, CO, CO2, N2, O2)	J	BTEX & C5 - C10
D	Mercury (Soil) or (Air **)	K	TPH (C5 - C10) or (C4 -C12)
E	TO-14 by GC/MS (Ambient) or (Source **)	L	C11 - C18
F	601 & 602 Compounds	Other	Specify below.

* An additional 22 ml vial of sample is required when requested in combination with another analysis.

** Available upon request.

Collection Date	Collection Time	Number of Containers	"Summa" # if Can. used	Sample Type	Sample Identification	Requested Analyses					(Other)	Remarks
7/24/98		2		AIR	INFLUENT	F						
7/24/98		2		AIR	EFFLUENT 2	F						
7/24/98		2		AIR	EFFLUENT 1	F						

Results to : GLENN NETUSCHIL

Invoice to : GLENN NETUSCHIL

Relinquished by :	Company :	Date :	Time :	Received by :	Company :	Date :	Time :
	A G+M	7-24-98	1:30		Microseeps	7-25-98	1000
Relinquished by :	Company :	Date :	Time :	Received by :	Company :	Date :	Time :
Relinquished by :	Company :	Date :	Time :	Received by :	Company :	Date :	Time :

WHITE COPY : Laboratory to return. YELLOW COPY : Laboratory PINK COPY : Submitter