



City of Rochester

File

FAX (716) 428-6010  
TDD/Voice 232-3260

Department of  
Environmental Services

Office of the Commissioner  
Division of Environmental Quality  
30 Church Street, Rm 300B  
Rochester, New York 14614-1278  
Tel#: (716) 428-6011

September 13, 1999

Todd M. Caffoe, P.E.  
Environmental Engineer II - Division Environmental Remediation  
New York State Department of Environmental Conservation  
6274 East Avon-Lima Road  
Avon, New York 14414-9519

RECEIVED

SEP 14 1999

DER/HAZ WASTE REMED  
REGION 8

Re: Quarterly Monitoring Report - Court Street Garage Soil Vapor Extraction System  
Rochester, New York

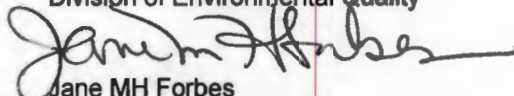
Dear Mr. Caffoe:

Enclosed is the soil vapor extraction system (SVES) air monitoring and sampling data regarding the last quarterly sampling event at the above-referenced property (Site). City of Rochester personnel in cooperation with MARCOR Remediation, Inc. (MARCOR) measured SVES vacuum and vapor effluent concentrations for each individual cell (i.e., loop) and the complete SVES.

In accordance with the approved SVES Operation and Maintenance Plan, air sample of the SVES air effluent was collected on August 17, 1999. The sample was analyzed for volatile organic compounds (VOCs) via NIOSH method T-014. According to the analytical results, a total of twelve (12) VOCs were detected from the sample. Tetrachloroethene (i.e., perchloroethylene or PCE) was detected at the highest concentration (1300 ug/m<sup>3</sup>). Table 2a summarizes the concentrations of each VOC detected, and also presents the calculated annual emission rate, and the calculated maximum annual and maximum short-term impact for each VOC detected. As illustrated in Table 2a, each VOC was detected at a concentration below its respective Air Guide-1 Short-term Guidance Concentration (SGC) and Annual Guidance Concentration (AGC). The enclosed graph illustrates the concentration of PCE and total VOCs detected since start-up of the SVES in 1996. As the graph illustrates, the concentration of contaminants detected in the SVES air effluent samples continues to vary.

Quarterly monitoring and sampling will continue at this Site. If you have any questions or comments regarding this monitoring report, please call me at 428-7892.

Sincerely,  
Division of Environmental Quality

  
Jane MH Forbes  
Environmental Technician

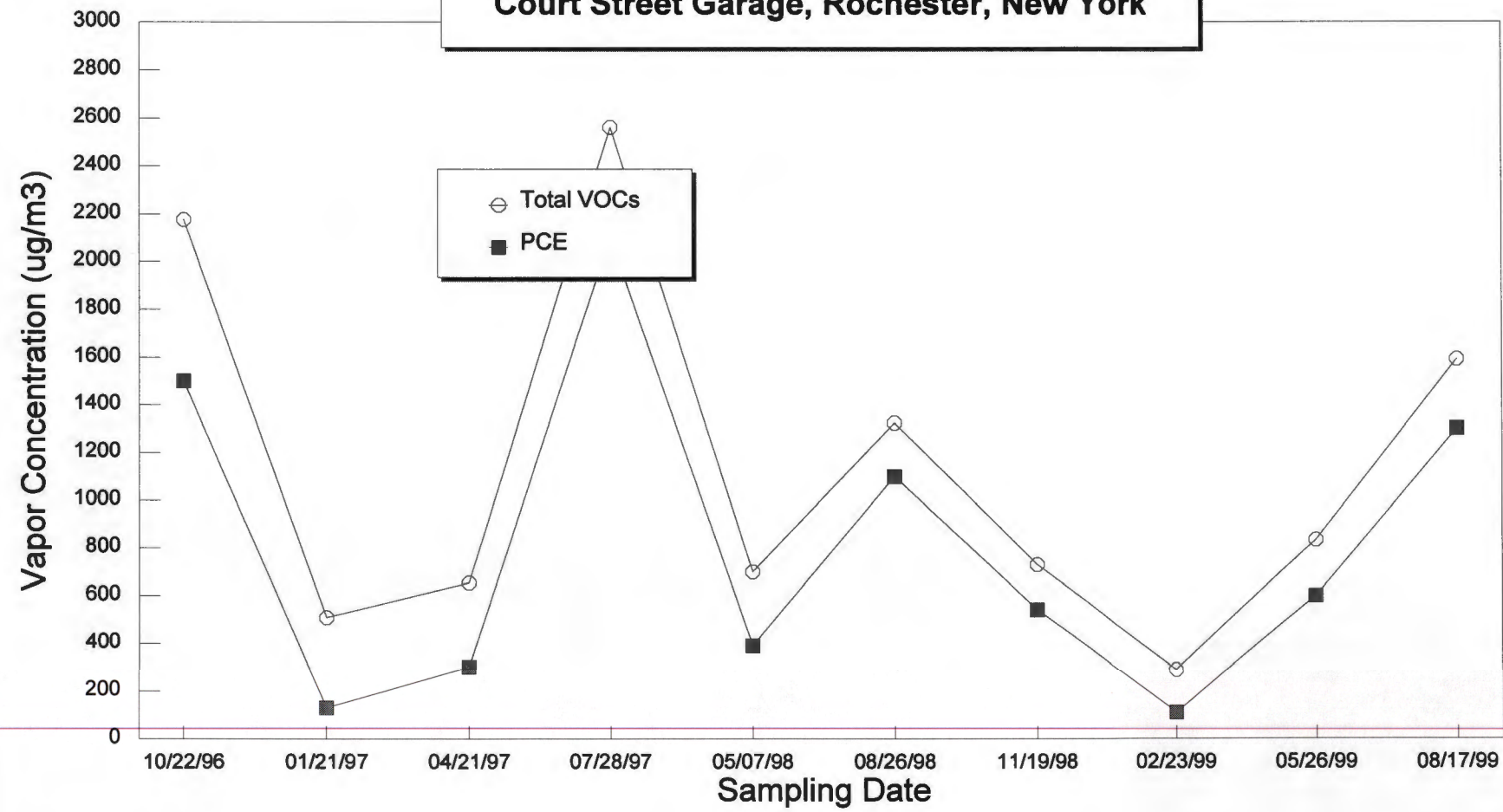
c: Mark Gregor, City of Rochester (w/o enclosures)  
Joseph Albert, MCDOH  
Dave Napier, NYSDOH

EEO Employer/Handicapped



<b>TABLE 2a, Court Street Garage Soil Vent System 94 Air Guide-1 Permit Comparisons</b>										
<b>Today's Date:</b>										
09/13/99										
<b>Sample Date:</b>										
08/17/99										
<b>Sampled by:</b>										
Marcor Remediation, Inc.										
	<b>Effluent Air</b>			<b>Annual</b>	<b>Stack</b>	<b>Max. Act. Annual</b>	<b>Max.Pot. Annual</b>	<b>Max. Short-Term</b>		
<b>Detected</b>	<b>Concentration</b>	<b>Air Flow</b>	<b>Emissions</b>	<b>Emissions</b>	<b>Height</b>	<b>Impact Ca</b>	<b>Impact Cp</b>	<b>Impact Cst</b>	<b>AGC</b>	<b>SGC</b>
<b>Contaminant</b>	<b>mg/m3</b>	<b>cfm</b>	<b>lb/hr</b>	<b>lb/yr</b>	<b>(ft)</b>	<b>ug/m3</b>	<b>ug/m3</b>	<b>ug/m3</b>	<b>ug/m3</b>	<b>ug/m3</b>
Acetone	0.026	75	7.3039E-06	6.3982E-02	81.78	1.91E-05	1.91E-05	1.24E-03	1.40E+04	1.40E+05
Carbon Disulfide	0.027	75	7.5848E-06	6.6443E-02	81.78	1.98E-05	1.98E-05	1.29E-03	7.00E+00	7.10E+02
Carbon Tetrachloride	0.038	75	1.0675E-05	9.3512E-02	81.78	2.79E-05	2.79E-05	1.81E-03	7.00E-02	1.30E+03
Chloroform	0.021	75	5.8993E-06	5.1678E-02	81.78	1.54E-05	1.54E-05	1.00E-03	2.30E+01	9.80E+02
cis-1,2-Dichloroethene	0.026	75	7.3039E-06	6.3982E-02	81.78	1.91E-05	1.91E-05	1.24E-03	1.90E+03	1.90E+05
Ethylbenzene	0.013	75	3.6519E-06	3.1991E-02	81.78	9.54E-06	9.53E-06	6.20E-04	1.00E+03	1.00E+05
Naphthalene	0.016	75	4.4947E-06	3.9374E-02	81.78	1.17E-05	1.17E-05	7.63E-04	1.20E+02	1.20E+04
Tetrachloroethene	1.300	75	3.6519E-04	3.1991E+00	81.78	9.54E-04	9.53E-04	6.20E-02	7.50E-02	8.10E+04
Toluene	0.019	75	5.3375E-06	4.6756E-02	81.78	1.39E-05	1.39E-05	9.06E-04	2.00E+03	8.90E+04
Trichloroethene	0.012	75	3.3710E-06	2.9530E-02	81.78	8.81E-06	8.80E-06	5.72E-04	4.50E-01	3.30E+04
m,p-Xylene	0.039	75	1.0956E-05	9.5973E-02	81.78	2.86E-05	2.86E-05	1.86E-03	3.00E+02	1.00E+05
o-Xylene	0.048	75	1.3484E-05	1.1812E-01	81.78	3.52E-05	3.52E-05	2.29E-03	7.00E+02	1.00E+05

**SVES Effluent Sampling Results  
Court Street Garage, Rochester, New York**





**PARADIGM**  
**Environmental**  
**Services, Inc.**

179 Lake Avenue Rochester, New York 14608 716-647-2530 FAX 716-647-3311


Client: **City of Rochester**  
 Client Job Site: Court Street Garage  
 Rochester, New York  
 Client Job No.: N/A  
 Field Location: VES Effluent  
 Field ID No.: 00021

Lab Project No.: 99-1575  
 Lab Sample No.: 5619  
 Sample Type: Summa Canister  
 Date Sampled: 08/17/1999  
 Date Received: 08/17/1999

Compound	Result ug/m3	Reporting Limit ug/m3	Result ppb	Reporting Limit ppb
Chloromethane	ND	20	ND	9.8
Vinyl Chloride	ND	20	ND	7.9
Chloroethane	ND	20	ND	7.6
Bromomethane	ND	20	ND	5.2
Acetone	26	20	11	8.4
Trichlorofluoromethane	ND	20	ND	3.6
1,1-Dichloroethene	ND	20	ND	5.1
Methylene Chloride	ND	20	ND	5.8
Carbon Disulfide	27	20	8.6	6.4
Trichlorotrifluoroethane	ND	20	ND	2.6
trans-1,2-Dichloroethene	ND	20	ND	5.1
cis-1,2-Dichloroethene	26	20	6.5	5.1
1,1-Dichloroethane	ND	20	ND	5.0
Methyl tert-Butyl Ether	ND	20	ND	5.6
Vinyl Acetate	ND	20	ND	5.7
2-Butanone	ND	20	ND	6.8
Chloroform	21	20	4.3	4.1
1,2-Dichloroethane	ND	20	ND	5.0
1,1,1-Trichloroethane	ND	20	ND	3.7
Benzene	ND	20	ND	6.3
Carbon Tetrachloride	38	20	6.1	3.2
1,2-Dichloropropane	ND	20	ND	4.4
Bromodichloromethane	ND	20	ND	3.0
Trichloroethene	19 TR	20	3.6 TR	3.8
cis-1,3-Dichloropropene	ND	20	ND	4.4
4-Methyl-2-pentanone	ND	20	ND	4.9

ELAP ID No.: 11221

Comments: TR = Detected Below Indicated Reporting Limit  
 ND = Not Detected  
 Date Analyzed: 8/25/99

Approved By:   
 Laboratory Director

File ID: TO14-99-1575-5619

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Services, Inc.**

179 Lake Avenue Rochester, New York 14608 716-647-2530 FAX 716-647-3311

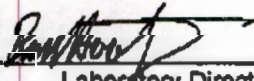
**Client:** City of Rochester  
**Client Job Site:** Court Street Garage  
Rochester, New York  
**Client Job No.:** N/A  
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Compound	Result ug/m3	Reporting Limit ug/m3	Result ppb	Reporting Limit ppb
trans-1,3-Dichloropropene	ND	20	ND	4.4
1,1,2-Trichloroethane	ND	20	ND	3.7
Toluene	19 TR	20	5.1 TR	5.3
Dibromochloromethane	ND	20	ND	2.4
2-Hexanone	ND	20	ND	4.9
1,2-Dibromoethane	ND	20	ND	2.8
Tetrachloroethene	1,300	20	200	3.0
Chlorobenzene	ND	20	ND	4.4
Ethylbenzene	13 TR	20	3.0 TR	4.6
Bromoform	ND	20	ND	2.0
Styrene	ND	20	ND	4.7
m-&p-Xylenes	39	20	9.0	4.6
o-Xylene	48	20	11	4.6
1,1,2,2-Tetrachloroethane	ND	20	ND	2.9
1,3-Dichlorobenzene	ND	20	ND	3.4
1,4-Dichlorobenzene	ND	20	ND	3.4
1,2-Dichlorobenzene	ND	20	ND	3.4
Naphthalene	16 TR	20	3.1 TR	3.8

ELAP ID No.:11221

Comments: TR = Detected Below Indicated Reporting Limit  
ND = Not Detected  
Date Analyzed: 8/25/99

Approved By:   
Laboratory Director

File ID: TO14-99-1575-5619

**PARADIGM**  
**Environmental**  
**Services, Inc.**

179 Lake Avenue Rochester, New York 14608 716-647-2530 FAX 716-647-3311

Client: City of Rochester

Lab Project No.: 99-1575

Lab Sample No.: N/A

Client Job Site: N/A

Sample Type: Method Blank

Client Job No.: N/A

Date Sampled: N/A

Field Location: N/A

Date Received: N/A

Field ID No.: N/A

Compound	Result ug/m3	Reporting Limit ug/m3	Result ppb	Reporting Limit ppb
Chloromethane	ND	1.0	ND	0.49
Vinyl Chloride	ND	1.0	ND	0.39
Chloroethane	ND	1.0	ND	0.38
Bromomethane	ND	1.0	ND	0.28
Acetone	ND	1.0	ND	0.42
Trichlorofluoromethane	ND	1.0	ND	0.18
1,1-Dichloroethene	ND	1.0	ND	0.25
Methylene Chloride	ND	1.0	ND	0.29
Carbon Disulfide	ND	1.0	ND	0.32
Trichlorotrifluoroethane	ND	1.0	ND	0.13
trans-1,2-Dichloroethene	ND	1.0	ND	0.25
cis-1,2-Dichloroethene	ND	1.0	ND	0.25
1,1-Dichloroethane	ND	1.0	ND	0.25
Methyl tert-Butyl Ether	ND	1.0	ND	0.28
Vinyl Acetate	ND	1.0	ND	0.28
2-Butanone	ND	1.0	ND	0.34
Chloroform	ND	1.0	ND	0.21
1,2-Dichloroethane	ND	1.0	ND	0.25
1,1,1-Trichloroethane	ND	1.0	ND	0.19
Benzene	ND	1.0	ND	0.31
Carbon Tetrachloride	ND	1.0	ND	0.16
1,2-Dichloropropane	ND	1.0	ND	0.22
Bromodichloromethane	ND	1.0	ND	0.15
Trichloroethene	ND	1.0	ND	0.19
cis-1,3-Dichloropropene	ND	1.0	ND	0.22
4-Methyl-2-pentanone	ND	1.0	ND	0.24

ELAP ID No.:11221

Comments: TR = Detected Below Indicated Reporting Limit  
 ND = Not Detected  
 Date Analyzed: 8/25/99

Approved By: \_\_\_\_\_

Laboratory Director

File ID: TO14-99-1575-MBLK

**PARADIGM  
Environmental  
Services, Inc.**

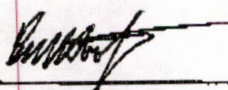
179 Lake Avenue Rochester, New York 14608 716-647-2530 FAX 716- 647-3911

Client: **City of Rochester** Lab Project No.: 99-1575  
 Client Job Site: N/A Lab Sample No.: N/A  
 Client Job No.: N/A Sample Type: Method Blank  
 Field Location: N/A Date Sampled: N/A  
 Field ID No.: N/A Date Received: N/A

Compound	Result ug/m3	Reporting Limit ug/m3	Result ppb	Reporting Limit ppb
trans-1,3-Dichloropropene	ND	1.0	ND	0.22
1,1,2-Trichloroethane	ND	1.0	ND	0.19
Toluene	ND	1.0	ND	0.27
Dibromochloromethane	ND	1.0	ND	0.12
2-Hexanone	ND	1.0	ND	0.24
1,2-Dibromoethane	ND	1.0	ND	0.13
Tetrachloroethene	ND	1.0	ND	0.15
Chlorobenzene	ND	1.0	ND	0.22
Ethylbenzene	ND	1.0	ND	0.23
Bromoform	ND	1.0	ND	0.10
Styrene	ND	1.0	ND	0.24
m-&p-Xylenes	ND	1.0	ND	0.23
o-Xylene	ND	1.0	ND	0.23
1,1,2,2-Tetrachloroethane	ND	1.0	ND	0.15
1,3-Dichlorobenzene	ND	1.0	ND	0.17
1,4-Dichlorobenzene	ND	1.0	ND	0.17
1,2-Dichlorobenzene	ND	1.0	ND	0.17
Naphthalene	ND	1.0	ND	0.19

ELAP ID No.:11221

Comments: TR = Detected Below Indicated Reporting Limit  
 ND = Not Detected  
 Date Analyzed: 8/25/99

Approved By:   
 Laboratory Director

File ID: TO14-99-1575-MBLK





# Performance Analytical Inc.

Air Quality Laboratory  
A Division of Columbia Analytical Services, Inc.  
An Employee Owned Company

2665 Park Center Drive, Suite D  
Simi Valley, California 93065  
Phone (805) 526-7161  
Fax (805) 526-7270

99-1575

## Chain of Custody Record Analytical Services Request

Client / Address City of Rochester 30 Church St. 300B Rochester NY 14614				Phone 716 4287892		Fax 4286010		ANALYSES		PAI Project No.	
Client Project Name / Location Court St Garage / 911 Bldg				Client Project No.							
Contact Jane mit folbes				Sampler (Signature) <i>[Signature]</i>				P. O. No.			
Client Sample ID	Date Collected	Time Collected	Lab Sample No.	Type of Sample	Container ID (Serial#)	Regulator ID (Serial#)	T-014		Expected Turnaround Time	Remarks	
Court St. Garage SUE	8/14/99	2:00 P		AIR	00021				X	# 5019	
911 Bldg SUE	8/17/99	11:30 A		AIR	00061		X	# 5020			
Relinquished by: (Signature) <i>[Signature]</i>				Date 8/17/99	Time 4:00 P	Received by: (Signature) <i>[Signature]</i>				Date 8/17/99	Time 4:00 P
Relinquished by: (Signature)				Date	Time	Received by: (Signature)				Date	Time
Relinquished by: (Signature)				Date	Time	Received by: (Signature) <i>[Signature]</i>				Date 8/18/99	Time 0930

White Copy: Accompanies Sampler

Yellow Copy: Computer

09/09/99 12:01

718 847 3311

PARADIGM

008/008

SVE Operation and Maintenance Log  
 City of Rochester - Court St. Garage  
 Marcor Job Number RO-00950-034

Date: 8/16/99

- Vacuum (inches of water) @ blower: 7.7" H<sub>2</sub>O
- Vacuum (inches of water) @ Moisture Separator: \_\_\_\_\_
- Volume of water drained from Moisture Separator: no H<sub>2</sub>O
- Effluent VOC Concentration (ppm): 7.2" H<sub>2</sub>O
- Moisture Separator VOC Concentration: -

Notes: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

\* A, B, D open 100% / C open 50%

Condition	Vacuum @ Blower	Vacuum @ Separator	Vacuum @ Cell A	Vacuum @ Cell B	Vacuum @ Cell C	Vacuum @ Cell D	Effluent	% Open
*As Was	7.7						7.2	*
Cell A Only	8.2-10 <sup>+</sup>	sucked H <sub>2</sub> O					8.3	75 max
Cell B Only	8.2+10 <sup>+</sup>	sucked H <sub>2</sub> O					73.6	100 max
Cell C Only	7.4						4.5	50 max
Cell D Only	7.8						4.2	50 max
Maximized	7.5						32.8	

233-1326