



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

November 15, 2001

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

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

Dear Mr. Caffoe:

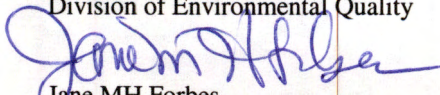
Please find enclosed the soil vapor extraction system (SVES) air monitoring and sampling data recorded during the last sampling event which took place on October 24, 2001. City of Rochester personnel measured SVES vacuum and vapor effluent concentrations for each individual cell (i.e., loop) and the complete SVES.

An effluent air sample was obtained and analyzed for volatile organic compounds (VOCs) via NIOSH method T-014. According to the analytical results, a total of nine (9) VOCs were detected from the sample. Tetrachloroethene was detected at the highest concentration (40 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. 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.

As illustrated in Table 2a, VOCs have not been detected at a concentrations above the respective Air Guide-1 Short-term Guidance Concentration (SGC) and Annual Guidance Concentration (AGC) since system start-up. The next sampling event will take place in April 2002.

If you have any questions or comments regarding this monitoring report, please contact 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

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RECEIVED

NOV 16 2001

DER/HAZ. WASTE REMED  
REGION 8

EEO Employer/Handicapped



**City of Rochester - DEQ  
Court Street Garage  
SVE Operation and Maintenance Log**

Date: 10/24/01

Initial Vacuum at blower (" water): 18" H<sub>2</sub>O

Initial Vacuum at Moisture Separator (" water): —

Volume of water in Separator (gallons): 0.0 gallons

Effluent VOC Concentrations(ppm): 0.5

Moisture Separator Liquid VOC Concentration (ppm): NA

Notes: System Running upon arrival

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NOV 16 2001

DER/HAZ. WASTE REMED  
REGION 8

Condition	Vac @ Blower	Vac @ Separator	Vac @ Cell A	Vac @ Cell B	Vac @ Cell C	Vac @ Cell D	Effluent	% Open
Initial	<u>18</u>						<u>0.5</u>	
Cell A Only	<u>12.6</u>						<u>1.8</u>	<u>100</u>
Cell B Only	<u>10.2</u>						<u>2.9</u>	<u>100</u>
Cell C Only	<u>6.4</u>						<u>2.1</u>	<u>100</u>
Cell D Only	<u>13.0</u>						<u>1.4</u>	<u>100</u>
Maximized	<u>12.1</u>						<u>1.6</u>	

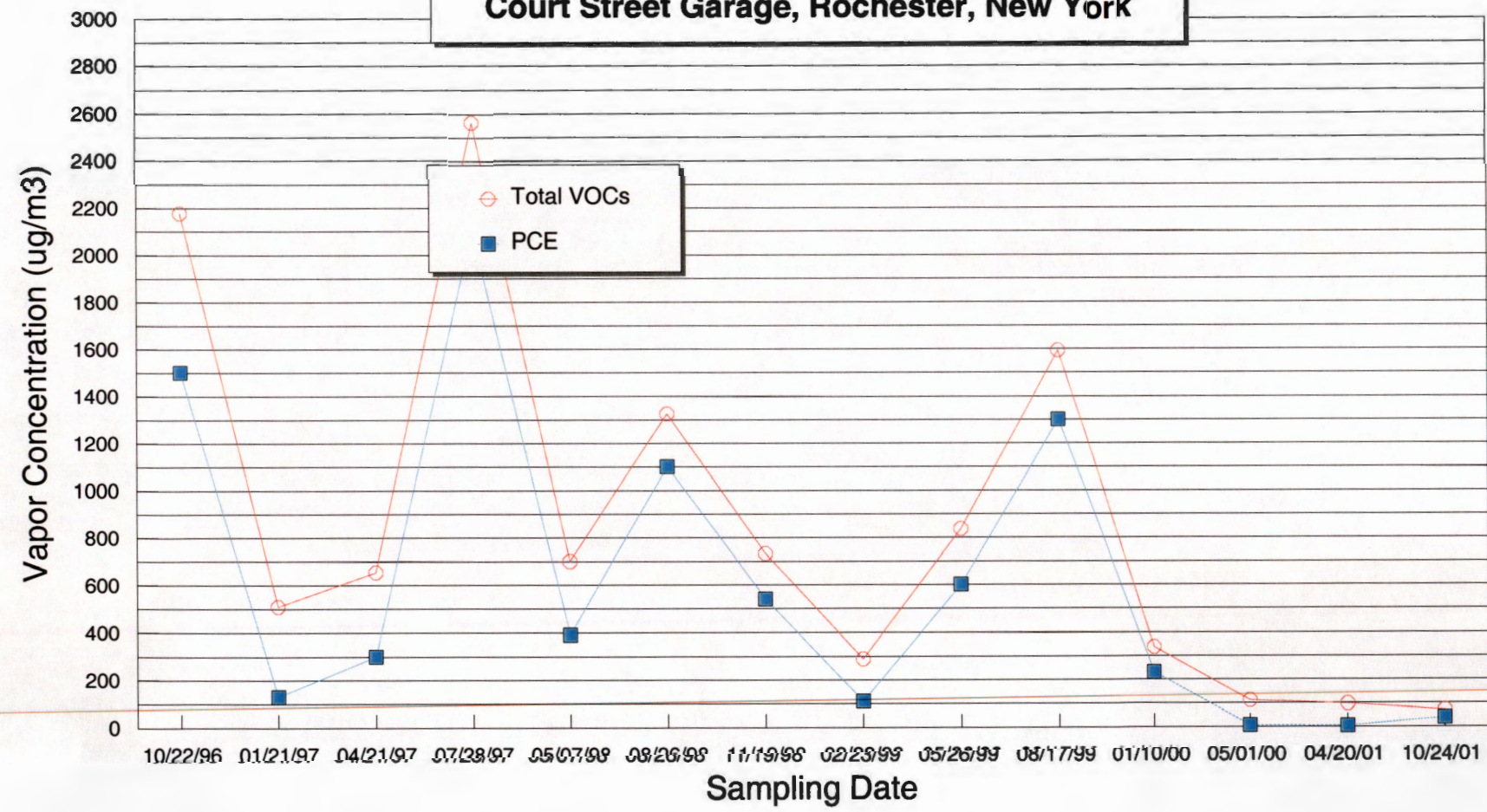
**TABLE 2a, Court Street Garage Soil Vent System 94 Air Guide-1 Permit Comparisons**

<b>Today's Date:</b>										
11/15/2001										
<b>Sample Date:</b>										
10/24/01										
<b>Sampled by:</b>										
City of Rochester - DEQ										
	Effluent Air			Annual	Stack	Max. Act. Annual	Max.Pot. Annual	Max. Short-Term		
Detected	Concentration	Air Flow	Emissions	Emissions	Height	Impact Ca	Impact Cp	Impact Cst	AGC	SGC
Contaminant	mg/m3	cfm	lb/hr	lb/yr	(ft)	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3
Acetone	0.009	71	2.3934E-06	2.0966E-02	81.78	6.25E-06	6.25E-06	4.06E-04	1.40E+04	1.40E+05
Tetrachloroethene	0.040	71	1.0637E-05	9.3184E-02	81.78	2.78E-05	2.78E-05	1.80E-03	7.50E-02	8.10E+04
Toluene	0.0057	71	1.5158E-06	1.3279E-02	81.78	3.96E-06	3.96E-06	2.57E-04	2.00E+03	8.90E+04
m,p-Xylene	0.0046	71	1.2233E-06	1.0716E-02	81.78	3.20E-06	3.19E-06	2.08E-04	3.00E+02	1.00E+05
2-Butanone (MEK)	0.0029	71	7.7121E-07	6.7558E-03	81.78	2.02E-06	2.01E-06	1.31E-04	3.00E+02	1.40E+05
Benzene	0.0013	71	3.4572E-07	3.0285E-03	81.78	9.03E-07	9.02E-07	5.87E-05	1.20E-01	3.00E+01
Carbon Tetrachloride	0.0013	71	3.4572E-07	3.0285E-03	81.78	9.03E-07	9.02E-07	5.87E-05	7.00E-02	1.30E+03
Naphthalene	0.0038	71	1.0106E-06	8.8525E-03	81.78	2.64E-06	2.64E-06	1.71E-04	1.20E+02	1.20E+04
o-Xylene	0.0017	71	4.5209E-07	3.9603E-03	81.78	1.18E-06	1.18E-06	7.67E-05	7.00E+02	1.00E+05





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







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

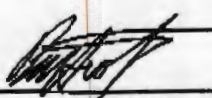
Client: **City of Rochester**  
 Client Job Site: COR-Court Street  
 Client Job No.: N/A  
 Field Location: Effluent

Lab Project No.: 01-2645  
 Lab Sample No.: 9646  
 Sample Type: Summa Canister  
 Date Sampled: 10/24/2001  
 Date Received: 10/24/2001

Compound	Result ug/m <sup>3</sup>	Reporting Limit ug/m <sup>3</sup>	Result ppbV	Reporting Limit ppbV
Chloromethane	ND	1.0	ND	0.48
Vinyl Chloride	ND	1.0	ND	0.39
Bromomethane	ND	2.0	ND	0.52
Chloroethane	ND	1.0	ND	0.38
Acetone	9.0	1.0	3.8	0.42
Trichlorofluoromethane	ND	2.0	ND	0.36
1,1-Dichloroethene	ND	1.0	ND	0.25
Methylene Chloride	ND	1.0	ND	0.29
Trichlorotrifluoroethane	ND	3.0	ND	0.39
Carbon Disulfide	ND	1.0	ND	0.32
trans-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 (MEK)	2.9	1.0	0.98	0.34
cis-1,2-Dichloroethane	ND	1.0	ND	0.25
Chloroform	ND	1.0	ND	0.20
1,2-Dichloroethane	ND	1.0	ND	0.25
1,1,1-Trichloroethane	ND	1.0	ND	0.18
Benzene	1.3	1.0	0.42	0.31
Carbon Tetrachloride	1.3	1.0	0.21	0.16
1,2-Dichloropropane	ND	1.0	ND	0.22

ELAP ID No.:11221

Comments: TR = Detected Below Indicated Reporting Limit  
 ND = Not Detected  
 Date Analyzed: 11/08/2001

Approved By:   
 Laboratory Director

File ID: TO1401-2645.xls



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

Client: City of Rochester  
 Client Job Site: COR-Court Street  
 Client Job No.: N/A  
 Field Location: Effluent  
 Field ID No.: N/A

Lab Project No.: 01-2645  
 Lab Sample No.: 9646  
 Sample Type: Summa Canister  
 Date Sampled: 10/24/2001  
 Date Received: 10/24/2001

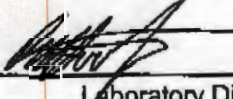
Compound	Result ug/m <sup>3</sup>	Reporting Limit ug/m <sup>3</sup>	Result ppbV	Reporting Limit ppbV
Bromodichloromethane	ND	1.0	ND	0.15
Trichloroethene	ND	1.0	ND	0.19
cis-1,3-Dichloropropene	ND	1.0	ND	0.22
4-Methyl-2-pentanone	ND	1.0	ND	0.24
trans-1,3-Dichloropropene	ND	1.0	ND	0.22
1,1,2-Trichloroethane	ND	1.0	ND	0.18
Toluene	5.7	1.0	1.5	0.27
2-Hexanone	ND	1.0	ND	0.24
Dibromochloromethane	ND	1.0	ND	0.12
1,2-Dibromoethane	ND	1.0	ND	0.13
Tetrachloroethene	40	1.0	6.0	0.15
Chlorobenzene	ND	1.0	ND	0.22
Ethylbenzene	ND	1.0	ND	0.23
m,p-Xylenes	4.6	1.0	1.1	0.23
Bromoform	ND	1.0	ND	0.10
Styrene	ND	1.0	ND	0.23
o-Xylene	1.7	1.0	0.40	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	3.8	1.0	0.73	0.19

ELAP ID No.:11221

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

Client: City of Rochester  
 Client Job Site: COR-Court Street  
 Client Job No.: N/A  
 Field Location: N/A

Lab Project No.: 01-2645  
 Lab Sample No.: Method Blank  
 Sample Type: Summa Canister  
 Date Sampled: 10/24/2001  
 Date Received: 10/24/2001

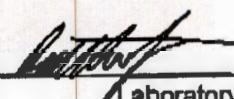
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Vinyl Chloride	ND	1.0	ND	0.39
Bromomethane	ND	2.0	ND	0.52
Chloroethane	ND	1.0	ND	0.38
Acetone	ND	1.0	ND	0.42
Trichlorofluoromethane	ND	2.0	ND	0.36
1,1-Dichloroethene	ND	1.0	ND	0.25
Methylene Chloride	ND	1.0	ND	0.29
Trichlorotrifluoroethane	ND	3.0	ND	0.39
Carbon Disulfide	ND	1.0	ND	0.32
trans-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 (MEK)	ND	1.0	ND	0.34
cis-1,2-Dichloroethane	ND	1.0	ND	0.25
Chloroform	ND	1.0	ND	0.20
1,2-Dichloroethane	ND	1.0	ND	0.25
1,1,1-Trichloroethane	ND	1.0	ND	0.18
Benzene	ND	1.0	ND	0.31
Carbon Tetrachloride	ND	1.0	ND	0.16
1,2-Dichloropropane	ND	1.0	ND	0.22

ELAP ID No.:11221

## Comments:

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

Client: City of Rochester  
 Client Job Site: COR-Court Street  
 Client Job No.: N/A  
 Field Location: N/A  
 Field ID No.: N/A

Lab Project No.: 01-2645  
 Lab Sample No.: Method Blank  
 Sample Type: Summa Canister  
 Date Sampled: 10/24/2001  
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Compound	Result ug/m <sup>3</sup>	Reporting Limit ug/m <sup>3</sup>	Result ppbV	Reporting Limit ppbV
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
trans-1,3-Dichloropropene	ND	1.0	ND	0.22
1,1,2-Trichloroethane	ND	1.0	ND	0.18
Toluene	ND	1.0	ND	0.27
2-Hexanone	ND	1.0	ND	0.24
Dibromochloromethane	ND	1.0	ND	0.12
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
m,p-Xylenes	ND	1.0	ND	0.23
Bromoform	ND	1.0	ND	0.10
Styrene	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: 11/07/2001

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

Laboratory Director

File ID: TO1401-2645.xs

**PARADIGM ENVIRONMENTAL SERVICES, INC.**

179 Lake Avenue  
Rochester, NY 14608  
(716) 647-2530 • (800) 724-1997  
FAX: (716) 647-3311

**CHAIN OF CUSTODY**

REPORT TO:

INVOICE TO:

COMPANY: <i>City of Roch</i>	COMPANY:	LAB PROJECT #:	CLIENT PROJECT #:
ADDRESS: <i>30 Church St. Rm 300B</i>	ADDRESS:	<i>01-2645</i>	
CITY: <i>Rochester NY</i> STATE: <i>NY</i> ZIP: <i>14614</i>	CITY: STATE: ZIP:	TURNAROUND TIME: (WORKING DAYS)	
PHONE: <i>428-7892</i> FAX: <i>428-6010</i>	PHONE: FAX:	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input checked="" type="checkbox"/> 5 <input type="checkbox"/> OTHER	
PROJECT NAME/SITE NAME: <i>CR - Court St.</i>	ATTN: <i>Jane Folber</i>	COMMENTS:	

REQUESTED ANALYSIS:

DATE	TIME	COMPOSITE	GRAB	SAMPLE LOCATION/FIELD ID	MATRIX	CONTAMINANTS	REMARKS	PARADIGM LAB SAMPLE NUMBER
<i>11/24/01</i>	<i>1230</i>		<i>x</i>	<i>Effluent</i>	<i>Air</i>	<i>TDLY</i>		<i>9646</i>
2								
3								
4								
5								
6								
7								
8								
9								
10								

**\*\*LAB USE ONLY\*\***

SAMPLE CONDITION: Check box if acceptable or note deviation:  CONTAINER TYPE:  PRESERVATIONS:  HOLDING TIME:  TEMPERATURE:

Sampled By: <i>Jane M.H. Folber</i>	Date/Time: <i>10/24/01 1230</i>	Relinquished By:	Date/Time:	Total Cost:
Relinquished By: <i>Jane M.H. Folber</i>	Date/Time: <i>10/24/01</i>	Received By:	Date/Time:	
Received By: <i>Jane M.H. Folber</i>	Date/Time: <i>10/24/01 13:00</i>	Received @ Lab By: <i>Jane J. Galvin</i>	Date/Time: <i>10/24/01 1420</i>	P.I.F.:

008/006

PARADIGM

716 647 3311

09:56

11/09/01