



City of Rochester

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

May 20, 2002

New York State Department of Environmental Conservation
6274 East Avon-Lima Road
Avon, New York 14414-9519
Attn: Mr. Todd M. Caffoe, P.E.

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 April 29, 2002. 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 twelve (12) VOCs were detected from the sample. Toluene was detected at the highest concentration (9.8 ug/m³). 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 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 October 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

G:\ENVQUAL\JANE\JOBS\COURTST\UPDATE7.WPD

EEO Employer/Handicapped



RECEIVED

MAY 22 2002

DER/HAZ. WASTE REMED
REGION 8

RECEIVED

MAY 22 2002

DER/HAZ. WASTE REMED
REGION 8

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

Today's Date:

05/16/2002

Sample Date:

04/29/02

Sampled by:

City of Rochester - DEQ

Detected Contaminant	Effluent Air Concentration mg/m3	Air Flow cfm	Emissions lb/hr	Annual Emissions lb/yr	Stack Height (ft)	Max. Act. Annual Impact Ca ug/m3	Max.Pot. Annual Impact Cp ug/m3	Max. Short-Term Impact Cst ug/m3	AGC ug/m3	SGC ug/m3
Acetone	0.0037	73	1.0117E-06	8.8623E-03	81.78	2.64E-06	2.64E-06	1.72E-04	1.40E+04	1.40E+05
Trichlorofluoromethane	0.00027	73	7.3825E-08	6.4671E-04	81.78	1.93E-07	1.93E-07	1.25E-05	7.00E+02	5.60E+05
Carbon Disulfide	0.00085	73	2.3241E-07	2.0359E-03	81.78	6.07E-07	6.07E-07	3.94E-05	7.00E+00	7.10E+02
cis-1,2-Dichloroethene	0.00100	73	2.7343E-07	2.3952E-03	81.78	7.15E-07	7.14E-07	4.64E-05	1.90E+03	1.90E+05
MethylTert-Butyl Ether (MTB)	0.0016	73	4.3748E-07	3.8324E-03	81.78	1.14E-06	1.14E-06	7.42E-05	4.00E+00	---
Toluene	0.0098	73	2.6796E-06	2.3473E-02	81.78	7.00E-06	6.99E-06	4.55E-04	2.00E+03	8.90E+04
Ethylbenzene	0.00170	73	4.6483E-07	4.0719E-03	81.78	1.21E-06	1.21E-06	7.89E-05	1.00E+03	1.00E+05
m,p-Xylene	0.0062	73	1.6952E-06	1.4850E-02	81.78	4.43E-06	4.43E-06	2.88E-04	3.00E+02	1.00E+05
2-Butanone (MEK)	0.0017	73	4.6483E-07	4.0719E-03	81.78	1.21E-06	1.21E-06	7.89E-05	3.00E+02	1.40E+05
Benzene	0.0028	73	7.6560E-07	6.7066E-03	81.78	2.00E-06	2.00E-06	1.30E-04	1.20E-01	3.00E+01
Naphthalene	0.00026	73	7.1091E-08	6.2276E-04	81.78	1.86E-07	1.86E-07	1.21E-05	1.20E+02	1.20E+04
o-Xylene	0.0023	73	6.2888E-07	5.5090E-03	81.78	1.64E-06	1.64E-06	1.07E-04	7.00E+02	1.00E+05

City of Rochester

Department of Environmental Quality

Court Street Garage SVE Effluent Contaminant Removal Rates

Sample Period

10/24/01 - 04/29/02

Contaminant	Effluent Concentration mg/m3	Specific Gravity	Weight #/ gallon	Period Emissions Rate(lb/hr)	Contaminant Volume Removed This Period (gals)	Total Contaminants Removed to Date (Gallons)
Chloromethane		0.991	8.253	0.000E+00	0.00000	0.00004
Vinyl Chloride		0.908	7.562	0.000E+00	0.00000	0.00007
Chloroethane		0.903	7.520	0.000E+00	0.00000	0.00013
Bromomethane		1.730	14.407	0.000E+00	0.00000	0.00000
Acetone	0.00370	0.791	6.587	9.994E-07	0.00068	0.01580
Trichlorofluoromethane	0.00027	1.494	12.442	7.293E-08	0.00003	0.00110
1,1-Dichloroethene		1.250	10.410	0.000E+00	0.00000	0.00000
Methylene Chloride		1.366	11.376	0.000E+00	0.00000	0.00053
Carbon Disulfide	0.00085	1.263	10.518	2.296E-07	0.00010	0.00535
Trichlorotrifluoroethane		1.560	12.992	0.000E+00	0.00000	0.00030
trans-1,2-Dichloroethene		1.270	10.577	0.000E+00	0.00000	0.00033
cis-1,2-Dichloroethane	0.00100	1.270	10.577	2.701E-07	0.00011	0.05506
1,1-Dichloroethane		1.176	9.794	0.000E+00	0.00000	0.00000
MTBE	0.00160	0.731	6.088	4.322E-07	0.00032	0.00374
Vinyl Acetate		0.932	7.762	0.000E+00	0.00000	0.00000
2-Butanone	0.00170	0.805	6.704	4.592E-07	0.00031	0.00472
Chloroform		1.490	12.409	0.000E+00	0.00000	0.00633
1,2-Dichloroethane		1.253	10.435	0.000E+00	0.00000	0.00000
1,1,1-Trichloroethane		1.346	11.209	0.000E+00	0.00000	0.00151
Benzene	0.00280	0.879	7.318	7.563E-07	0.00046	0.00229
Carbon Tetrachloride		1.594	13.275	0.000E+00	0.00000	0.04626
1,2-Dichloropropane		1.160	9.660	0.000E+00	0.00000	0.00000
Bromodichloromethane		2.006	16.706	0.000E+00	0.00000	0.00000
Trichloroethene		1.466	12.209	0.000E+00	0.00000	0.01762
cis-1,3-Dichloropropene		1.200	9.994	0.000E+00	0.00000	0.00000
4-Methyl-2-pentanone		0.802	6.677	0.000E+00	0.00000	0.00144
trans-1,3-Dichloropropene		1.200	9.994	0.000E+00	0.00000	0.00000
1,1,2-Trichloroethane		1.441	12.001	0.000E+00	0.00000	0.00000
Toluene	0.00980	0.866	7.212	2.647E-06	0.00165	0.01277
Dibromochloromethane		2.380	19.821	0.000E+00	0.00000	0.00000
2-Hexanone		0.815	6.787	0.000E+00	0.00000	0.00104
1,2-Dibromoethane		2.701	22.494	0.000E+00	0.00000	0.00000
Tetrachloroethene		1.631	13.583	0.000E+00	0.00000	0.35323
Chlorobenzene		1.106	9.211	0.000E+00	0.00000	0.00000
Ethylbenzene	0.00170	0.867	7.220	4.592E-07	0.00029	0.00433
Bromoform		2.903	24.176	0.000E+00	0.00000	0.00000
Styrene		0.905	7.533	0.000E+00	0.00000	0.00075
m-&p-Xylene	0.00620	0.864	7.195	1.675E-06	0.00104	0.18595
o-Xylene	0.00230	0.880	7.329	6.212E-07	0.00038	0.01974
1,1,2,2-Tetrachloroethane		1.600	13.325	0.000E+00	0.00000	0.00000
1,3-Dichlorobenzene		1.288	10.726	0.000E+00	0.00000	0.00012
1,4-Dichlorobenzene		1.458	12.142	0.000E+00	0.00000	0.00006
1,2-Dichlorobenzene		1.305	10.868	0.000E+00	0.00000	0.00005
Naphthalene	0.00026	1.145	9.536	7.023E-08	0.00003	0.00323

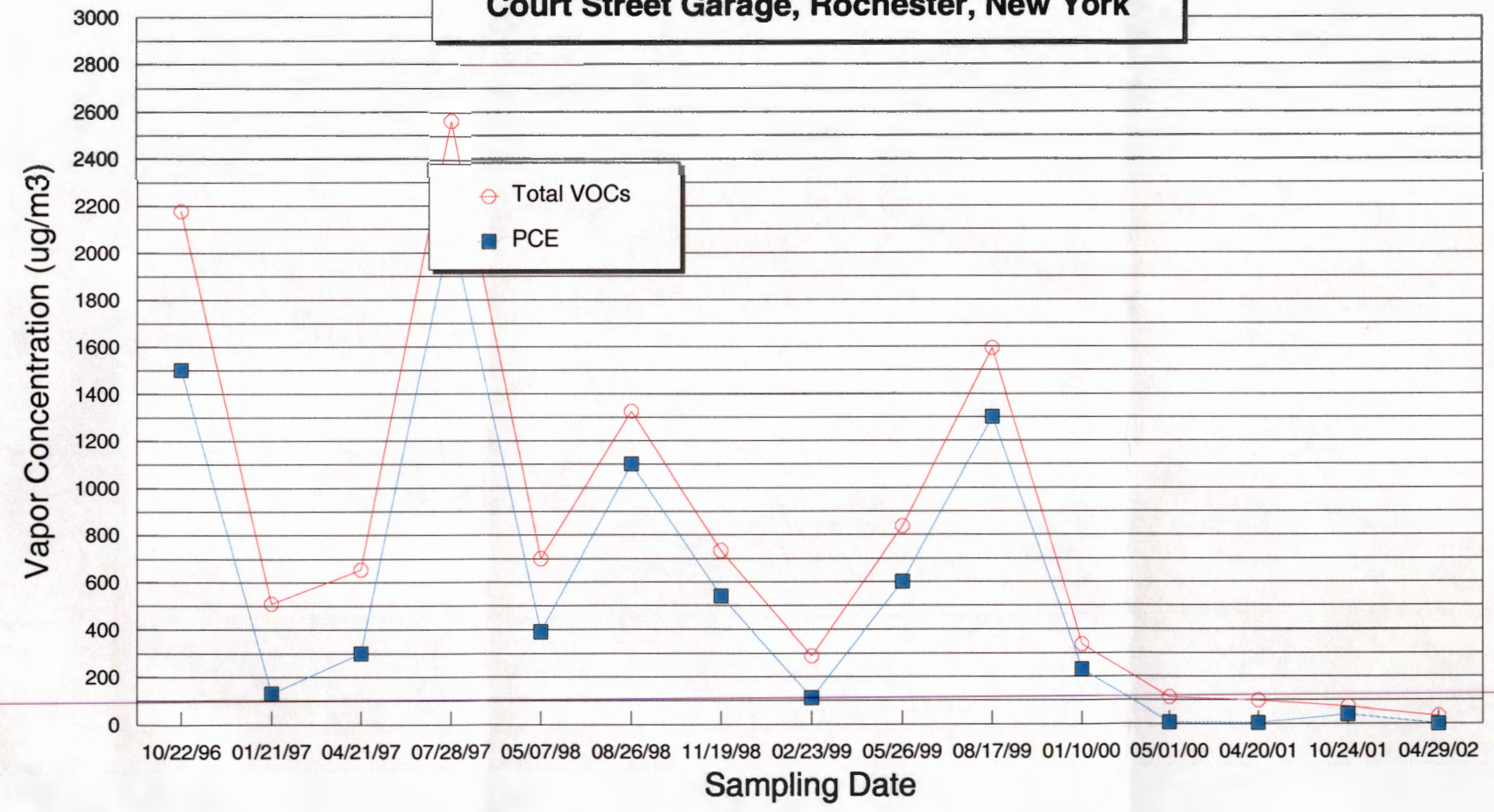
Total (gallons) 0.74389

HAZARDOUS WASTE REGION 8

2002

RECEIVED

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





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

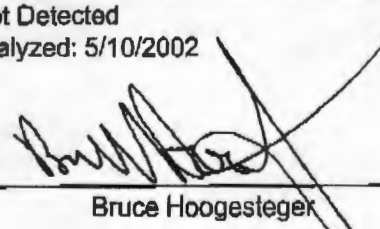
Client: City of Rochester **Lab Project No.:** 02-1047
Client Job Site: Court Street Garage **Lab Sample No.:** 4273
Client Job No.: DEQ-98051 **Sample Type:** Summa Canister
Field Location: Court Street Garage Effluent **Date Sampled:** 04/29/2002
Date Received: 04/29/2002

Compound	Result ug/m ³	Reporting Limit ug/m ³	Result ppbV	Reporting Limit ppbV
Chloromethane	ND	1.0	ND	0.48
Vinyl Chloride	ND	1.0	ND	0.39
Bromomethane	ND	1.0	ND	0.26
Chloroethane	ND	1.0	ND	0.38
Acetone	8.8	1.0	3.7	0.42
Trichlorofluoromethane	1.5	1.0	0.27	0.18
1,1-Dichloroethene	ND	1.0	ND	0.25
Methylene Chloride	ND	1.0	ND	0.29
Trichlorotrifluoroethane	ND	1.0	ND	0.13
Carbon Disulfide	2.7	1.0	0.85	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	5.9	1.0	1.6	0.28
Vinyl Acetate	ND	1.0	ND	0.28
2-Butanone (MEK)	ND	1.0	1.7	0.34
cis-1,2-Dichloroethane	ND	1.0	1.0	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	9.0	1.0	2.8	0.31
Carbon Tetrachloride	ND	1.0	ND	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: 5/10/2002

Approved By Technical Director:

 Bruce Hoogesteger

Chain of Custody provides additional sample information.

File ID: TO1402-1047.xls

RECEIVED

MAY 22 2002

DER/HAZ. WASTE REMED
REGION 8



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

Client: City of Rochester **Lab Project No.:** 02-1047
Client Job Site: Court Street Garage **Lab Sample No.:** 4273
Client Job No.: DEQ-98051 **Sample Type:** Summa Canister
Field Location: Court Street Garage Effluent **Date Sampled:** 04/29/2002
Date Received: 04/29/2002

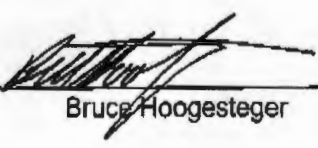
Compound	Result ug/m ³	Reporting Limit ug/m ³	Result ppbV	Reporting Limit ppbV
Bromodichloromethane	ND	1.0	ND	0.15
Trichloroethene	ND	1.0	ND	0.19
cis-1,3-Dichloropropene	ND	1.0	ND	0.22
4-Methyl-2-pentanone	ND	1.0	ND	0.24
trans-1,3-Dichloropropene	ND	1.0	ND	0.22
1,1,2-Trichloroethane	ND	1.0	ND	0.18
Toluene	37	1.0	9.8	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	7.5	1.0	1.7	0.23
m,p-Xylenes	27	1.0	6.2	0.23
Bromoform	ND	1.0	ND	0.097
Styrene	ND	1.0	ND	0.23
o-Xylene	9.9	1.0	2.3	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	1.3	1.0	0.26	0.19

ELAP ID No.:11221

Comments:

TR = Detected Below Indicated Reporting Limit
 ND = Not Detected
 Date Analyzed: 5/10/2002

Approved By Technical Director:


 Bruce Hoogesteger

Chain of Custody provides additional sample information.

File ID: TO1402-1047.xls



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

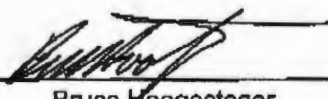
Client: City of Rochester Lab Project No.: 02-1047
 Client Job Site: 911 Center/Court Street Garage Lab Sample No.: Method Blank
 Client Job No.: DEQ-98050/DEQ-98051 Sample Type: Summa Canister
 Field Location: N/A Date Sampled: 04/29/2002
 Date Received: 04/29/2002

Compound	Result ug/m ³	Reporting Limit ug/m ³	Result ppbV	Reporting Limit ppbV
Chloromethane	ND	1.0	ND	0.48
Vinyl Chloride	ND	1.0	ND	0.39
Bromomethane	ND	1.0	ND	0.26
Chloroethane	ND	1.0	ND	0.38
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
Trichlorotrifluoroethane	ND	1.0	ND	0.13
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: TR = Detected Below Indicated Reporting Limit
 ND = Not Detected
 Date Analyzed: 05/10/2002

Approved By Technical Director:


 Bruce Hoogesteger

Chain of Custody provides additional sample information.

RECEIVED
 MAY 22 2002

DER/HAZ. WASTE REMED
 REGION 8

File ID: TO1402-1047.xls

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



Client: **City of Rochester**
 Client Job Site: **911 Center/Court Street Garage**
 Client Job No.: **DEQ-98050/DEQ-98051**
 Field Location: **N/A**

Lab Project No.: **02-1047**
 Lab Sample No.: **Method Blank**
 Sample Type: **Summa Canister**
 Date Sampled: **04/29/2002**
 Date Received: **04/29/2002**

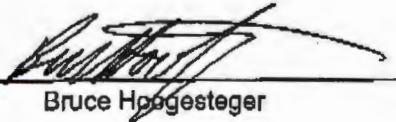
Compound	Result ug/m ³	Reporting Limit ug/m ³	Result ppbV	Reporting Limit ppbV
Bromodichloromethane	ND	1.0	ND	0.15
Trichloroethene	ND	1.0	ND	0.19
cis-1,3-Dichloropropene	ND	1.0	ND	0.22
4-Methyl-2-pentanone	ND	1.0	ND	0.24
trans-1,3-Dichloropropene	ND	1.0	ND	0.22
1,1,2-Trichloroethane	ND	1.0	ND	0.18
Tolulene	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	0.097
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: 05/10/2002

Approved By Technical Director:


 Bruce Hoogesteger

Chain of Custody provides additional sample information.

RECEIVED

MAY 22 2002

DER/HAZ. WASTE REMED
REGION 8

File ID: TO1402-1047.xls

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

Date: 4/29/02

Initial Vacuum at blower (" water): 25.5" H₂O

Initial Vacuum at Moisture Separator (" water): N/A

Volume of water in Separator (gallons): ~ 5 gallons

Effluent VOC Concentrations(ppm): 0.0 ppm

Moisture Separator Liquid VOC Concentration (ppm): 0.0 ppm

Notes: * System on upon arrival
* PID tested + calibrated prior to
maximizing system.

Condition	Vac @ Blower	Vac @ Separator	Vac @ Cell A	Vac @ Cell B	Vac @ Cell C	Vac @ Cell D	Effluent	% Open
Initial	25.5	—	X				0.0	50
Cell A Only	26.0	—					0.0	50
Cell B Only	26.0	—					0.0	50
Cell C Only	25.5	—					0.0	50
Cell D Only	26.00	—					0.0	50
Maximized								

maximized

RECEIVED

MAY 2 2002

DER/HAZ. WASTE REMED
REGION 8