March 30, 2009

Mr. Ed Olson and Allan Timm
Minnesota Pollution Control Agency
Voluntary Investigation and Cleanup Program
520 Lafayette Road North
St. Paul, MN 55155-4194

Re: VRAP Addendum
Minnesota Bio Business Center, Rochester, Minnesota
221 First Avenue S.W., Rochester, MN
VP12562

Dear Mr. Olson and Mr. Timm:

On behalf of the City of Rochester (the City), Landmark Environmental, LLC (Landmark) has prepared this letter report as an Addendum to the Voluntary Response Action Plan (VRAP) for the above referenced property (the Property). The purpose of this VRAP Addendum is to propose specific response actions (RAs) related to the installation of groundwater and emissions treatment systems in connection with the dual phase extraction (DPE) system. The proposed RAs are based on previous baseline groundwater analytical results, and DPRA's analytical and operational data from their former DPE system.

As you know, the environmental work at the Property is being funded by a Department of Economic and Employment Development (DEED) contamination cleanup grant. The initial DEED grant did not include costs for installing equipment to treat the groundwater or emissions generated from the new DPE system. Therefore, the City is requesting approval at this time from the MPCA for installation of these systems to meet the May 1, 2009, deadline for submitting a supplemental DEED grant application.

Baseline Groundwater Monitoring Analytical Results

Baseline groundwater sampling of the DPE and monitoring wells was conducted on December 3 and 10, 2008. In addition, a preliminary groundwater sample was collected from DPE-1, the source area well formerly located near B-7, on August 7, 2008. The sample from August 7 was analyzed for total volatile organic compounds (VOCs) using method EPA 8260 and the baseline samples from December 2008 were analyzed for select chlorinated VOCs using method EPA 8260. The concentrations of tetrachloroethene (PCE) at the wells ranged from 2.4 micrograms/liter (ug/L) at MW-19 to 161,000 ug/L at DPE-1. The groundwater analytical results are included in Table 1 and PCE concentrations are shown on Figure 1. The analytical reports are included in Attachment A.

Groundwater Treatment System Requirements

On January 9, 2008, Industrial Discharge Permit No. 30G-12 was issued for the Property by David Lane, the Environmental Coordinator for the City of Rochester's Water Reclamation Plant (See Attachment B). The groundwater discharge limits and monitoring requirements include the following: a flow rate of 20 gallons per minute (gpm) from 6:00 AM to 10:00 PM daily; a flow rate of 100 gpm from 10:00 PM to 6:00 AM daily; a concentration of 2.13 milligrams per liter (mg/L) total toxic organics (TTO) sampled once within 7 days of DPE system startup; a concentration of 2.13 mg/L TTO sampled once within 8 to 14 days of DPE system startup; a concentration of 2.13 mg/L TTO sampled monthly during operation of the DPE system; and the analysis of TTO by method EPA 624.

The groundwater discharge concentration from the DPE system without pretreatment was estimated from the groundwater concentration at DPE-1 on December 10, 2008, (See Attachment A) and the percent reduction of total VOCs from DPRA's former DPE system (Attachment C, Table 8). During startup of DPRA's system the percent removal of VOCs from the groundwater phase to the air phase was 97.74% on April 24, 2006. Because DPE-1 was installed in the source area discovered during redevelopment of the Property, it is assumed the less VOC removal will occur than observed from DPRA's system. Therefore, Landmark assumed 90% removal of VOCs from the groundwater from volatilization while the groundwater is pumped from the well to the DPE system groundwater discharge. Landmark estimated a discharge groundwater concentration of approximately 17.2 mg/L, which is above the sanitary sewer discharge concentration limit of 2.13 mg/L.

The groundwater discharge flow rates from DPRA's DPE system were estimated from Table 5 of DPRA's Status Update letter to the MPCA, dated May 10, 2007 (See Attachment C). The maximum groundwater flow rate observed was 1.32 gpm, which is below the sanitary sewer discharge flow rate limit of 20 gpm from 6:00 AM to 10:00 PM.

Based on the estimated groundwater discharge concentration and flow rate, a groundwater treatment system will be required that can treat a concentration of 17.2 mg/L and flow rate of 1.32 gpm to meet the discharge requirements of the City's Industrial Wastewater Discharge Permit. Calculations for the estimated groundwater discharge parameters are included in Attachment D.

Taking this information into account, Landmark proposes the following RA:

- Installing a groundwater treatment system consisting of an air stripper to treat impacted groundwater generated by the DPE system.

Emissions Treatment System Requirements

The MPCA's screening emissions rate (SER) for tetrachloroethene (PCE) is 7,677 micrograms per second (ug/s). Landmark estimated the emissions rate from DPRA's emissions data provided in Table 7 of DPRA's Status Update letter to the MPCA dated May 10, 2007 (See Attachment C). Landmark calculated the emissions rate from a

maximum flow rate of 70 cubic feet per minute (cfm) and a maximum PCE concentration of 810,000 micrograms per cubic meter (ug/m^3) observed during DPRA's DPE system operation. The estimated emissions rate for the new DPE system is 26,460 ug/s, which is above the MPCA's SER of 7,677 ug/s. Therefore, air emissions treatment will be required in order to reduce the emissions rate to below 7,677 ug/s. Calculations for the estimated groundwater discharge parameter are included in Attachment D.

Taking this information into account, Landmark proposes the following RA:

- Installing air emissions treatment equipment consisting of a booster pump and activated carbon vessels and/or a vapor combustion unit to treat emissions from the DPE system and proposed air stripper.

In conclusion, based on Landmark's estimated groundwater and emissions treatment calculations, pretreatment systems will be required to treat the groundwater and emissions generated by the DPE system. On behalf of the City, Landmark requests that the MPCA review and approve this VRAP Addendum in order for the City to proceed with the design and installation of the groundwater and emissions treatment systems at the Property.

If you have any questions, please call me at (952) 887-9601, ext. 205.

Sincerely,

Jason D. Skramstad, P.E.
Enclosures

Cc: Doug Knott, City of Rochester
David Manns, CPMI
Nancy Quattlebaum Burke, Gray Plant Mooty

Table 1

Groundwater Analytical Results
221 1st Avenue SW
Rochester, Minnesota

Sample ID	Date	Units	PCE	TCE	cis-1,2-DCE	trans-1,2-DCE	1,1-DCE	Vinyl Chloride	1,1,2-Trichlorotriflouroethane
MPCA MCL - MDH HRL			**5 - 5**	**5 - 5**	**70 - 70**	**100 - 100**	**6 - 6**	**2 - 0.2**	**200,000 - 200,000**
MW-14	12/3/2008	ug/L	**30.6**	<1	<1	<1	<1	<.4	NA
MW-15	12/10/2008	ug/L	**104**	<1	<1	<1	<1	<.4	NA
MW-16	12/3/2008	ug/L	**14,100**	**35**	**133**	<1	<1	<.4	NA
MW-17	12/3/2008	ug/L	**363**	<5	<5	<5	<5	<2	NA
MW-18	12/3/2008	ug/L	**257**	<2	<2	<2	<2	<.8	NA
MW-19	12/3/2008	ug/L	**2.4**	<1	<1	<1	<1	<.4	NA
MW20	12/10/2008	ug/L	**599**	<5	<5	<5	<5	<2	NA
DPE-1	8/7/2008	ug/L	**157,000**	**563**	**3,250**	<250	<250	<100	**11,300**
DPE-1	12/10/2008	ug/L	**161,000**	<2000	<2000	<2000	<2000	<800	NA
DPE-2	12/10/2008	ug/L	**38,200**	<500	<500	<500	<500	<200	NA
DPE-3	12/10/2008	ug/L	**152,000**	<500	**1,090**	<500	<500	<200	NA
DPE-4	12/10/2008	ug/L	**35,600**	<500	<500	<500	<500	<200	NA
DPE-5	12/10/2008	ug/L	**1,340**	<10	<10	<10	<10	<4	NA
DPE-6	12/10/2008	ug/L	**188**	<2	<2	<2	<2	<.8	NA
DPE-7	12/10/2008	ug/L	**22.3**	<1	<1	<1	<1	<.4	NA
DPE-8	12/10/2008	ug/L	**14,200**	<100	<100	<100	<100	<40	NA

Notes

PCE: Tetrachloroethene

TCE: Trichloroethene

DCE: Dichloroethene

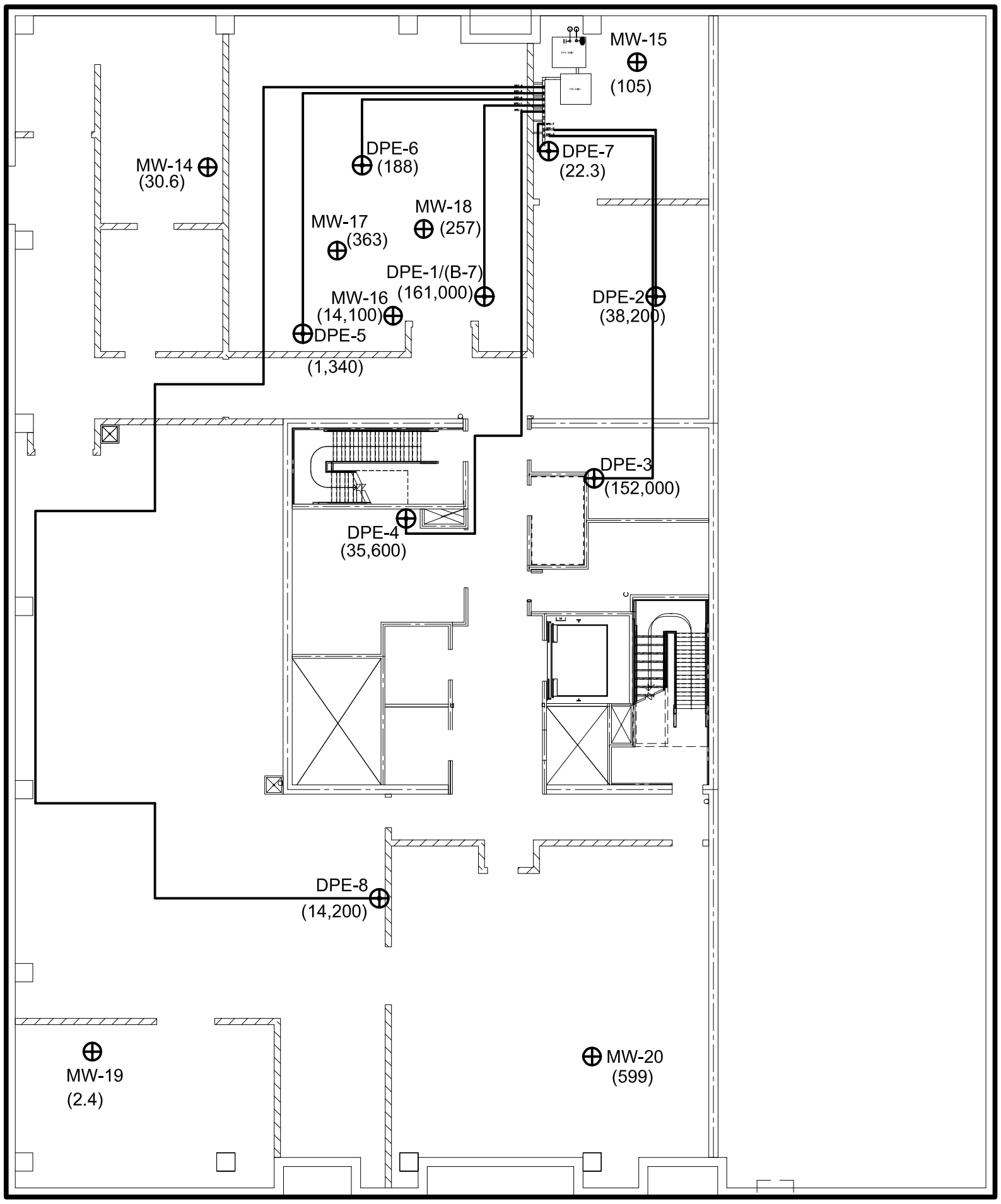
NA: Not Analyzed

MPCA MCL: Minnesota Pollution Control Agency Maximum Contaminant Level

MDH HRL: Minnesota Department of Health Health Risk Limits

2.4 Parameter detected above laboratory reporting limit

14,200 Parameter detected above MPCA/MDH Screening Level Criteria



BASEMENT FLOOR PLAN

LEGEND

⊕ DPE or Monitoring Well Location

(35,600) PCE Concentration in ug/L

DPE Piping Location

Property Boundary

N

20 feet
SCALE

BASEDRAWINGS PROVIDED BY HGA
F:/Projects/CRC/CAD/Groundwater Data/20090128 Well Locations.dwg

Rev	Date	By	Description

LANDMARK ENVIRONMENTAL, LLC
2042 West 98th Street
Bloomington, MN 55431

FIGURE 1

DECEMBER 2008 -
PCE GROUNDWATER CONCENTRATIONS
221 FIRST AVENUE S.W.
ROCHESTER, MINNESOTA

Landmark Project Number: CRC		
Drawn: JDS	Checked: JDS	Designed: JDS
Scale: .	Date: 3/27/2009	Revision:
Drawing Number: .	Sheet . Of .	Sheets .

Attachments

Attachment A

Pace Analytical Services, Inc.
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

August 13, 2008

Mr. Jason Skramstad
Landmark Environmental
2042 W. 98th. St.
Minneapolis, MN 55431

RE: Project: City of Rochester CRC
Pace Project No.: 1078524

Dear Mr. Skramstad:
Enclosed are the analytical results for sample(s) received by the laboratory on August 08, 2008. The results relate only to the samples included in this report. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Carolynne Trout

Carolynne Trout

carolynne.trout@pacelabs.com
Project Manager

Florida (Nelap) Certification #: E87605
Illinois Certification #: 200011
Iowa Certification #: 368
Minnesota Certification #: 027-053-137
Wisconsin Certification #: 999407970

Enclosures

Pace Analytical Services, Inc.
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

SAMPLE SUMMARY

Project: City of Rochester CRC
Pace Project No.: 1078524

Lab ID	Sample ID	Matrix	Date Collected	Date Received
1078524001	DPE-1	Water	08/07/08 17:00	08/08/08 14:14

Pace Analytical Services, Inc.
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

SAMPLE ANALYTE COUNT

Project: City of Rochester CRC
Pace Project No.: 1078524

Lab ID	Sample ID	Method	Analysts	Analytes Reported
1078524001	DPE-1	EPA 8260	CNC	73

Pace Analytical Services, Inc.
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

ANALYTICAL RESULTS

Project: City of Rochester CRC
Pace Project No.: 1078524

Sample: DPE-1 **Lab ID: 1078524001** Collected: 08/07/08 17:00 Received: 08/08/08 14:14 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV MDH VOC	Analytical Method: EPA 8260								
Acetone	ND	ug/L	2500	1250	250		08/13/08 08:02	67-64-1	
Allyl chloride	ND	ug/L	1000	500	250		08/13/08 08:02	107-05-1	
Benzene	ND	ug/L	250	125	250		08/13/08 08:02	71-43-2	
Bromobenzene	ND	ug/L	250	125	250		08/13/08 08:02	108-86-1	
Bromochloromethane	ND	ug/L	250	125	250		08/13/08 08:02	74-97-5	
Bromodichloromethane	ND	ug/L	250	125	250		08/13/08 08:02	75-27-4	
Bromoform	ND	ug/L	2000	1000	250		08/13/08 08:02	75-25-2	
Bromomethane	ND	ug/L	1000	500	250		08/13/08 08:02	74-83-9	
2-Butanone (MEK)	ND	ug/L	1000	500	250		08/13/08 08:02	78-93-3	
n-Butylbenzene	ND	ug/L	250	125	250		08/13/08 08:02	104-51-8	
sec-Butylbenzene	ND	ug/L	250	125	250		08/13/08 08:02	135-98-8	
tert-Butylbenzene	ND	ug/L	250	125	250		08/13/08 08:02	98-06-6	
Carbon tetrachloride	ND	ug/L	250	125	250		08/13/08 08:02	56-23-5	
Chlorobenzene	ND	ug/L	250	125	250		08/13/08 08:02	108-90-7	
Chloroethane	ND	ug/L	250	125	250		08/13/08 08:02	75-00-3	
Chloroform	ND	ug/L	250	125	250		08/13/08 08:02	67-66-3	
Chloromethane	ND	ug/L	250	125	250		08/13/08 08:02	74-87-3	
2-Chlorotoluene	ND	ug/L	250	125	250		08/13/08 08:02	95-49-8	
4-Chlorotoluene	ND	ug/L	250	125	250		08/13/08 08:02	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	1000	500	250		08/13/08 08:02	96-12-8	
Dibromochloromethane	ND	ug/L	250	125	250		08/13/08 08:02	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	250	125	250		08/13/08 08:02	106-93-4	
Dibromomethane	ND	ug/L	250	125	250		08/13/08 08:02	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	250	125	250		08/13/08 08:02	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	250	125	250		08/13/08 08:02	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	250	125	250		08/13/08 08:02	106-46-7	
Dichlorodifluoromethane	ND	ug/L	250	125	250		08/13/08 08:02	75-71-8	
1,1-Dichloroethane	ND	ug/L	250	125	250		08/13/08 08:02	75-34-3	
1,2-Dichloroethane	ND	ug/L	250	125	250		08/13/08 08:02	107-06-2	
1,1-Dichloroethene	ND	ug/L	250	125	250		08/13/08 08:02	75-35-4	
cis-1,2-Dichloroethene	**3250**	ug/L	250	125	250		08/13/08 08:02	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	250	125	250		08/13/08 08:02	156-60-5	
Dichlorofluoromethane	ND	ug/L	250	125	250		08/13/08 08:02	75-43-4	
1,2-Dichloropropane	ND	ug/L	250	125	250		08/13/08 08:02	78-87-5	
1,3-Dichloropropane	ND	ug/L	250	125	250		08/13/08 08:02	142-28-9	
2,2-Dichloropropane	ND	ug/L	250	125	250		08/13/08 08:02	594-20-7	
1,1-Dichloropropene	ND	ug/L	250	125	250		08/13/08 08:02	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1000	500	250		08/13/08 08:02	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1000	500	250		08/13/08 08:02	10061-02-6	
Diethyl ether (Ethyl ether)	ND	ug/L	1000	500	250		08/13/08 08:02	60-29-7	
Ethylbenzene	ND	ug/L	250	125	250		08/13/08 08:02	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1000	500	250		08/13/08 08:02	87-68-3	
Isopropylbenzene (Cumene)	ND	ug/L	250	125	250		08/13/08 08:02	98-82-8	
p-Isopropyltoluene	ND	ug/L	250	125	250		08/13/08 08:02	99-87-6	
Methylene Chloride	ND	ug/L	1000	500	250		08/13/08 08:02	75-09-2	J
4-Methyl-2-pentanone (MIBK)	ND	ug/L	1000	500	250		08/13/08 08:02	108-10-1	

Pace Analytical Services, Inc.
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

ANALYTICAL RESULTS

Project: City of Rochester CRC
Pace Project No.: 1078524

Sample: DPE-1 **Lab ID: 1078524001** Collected: 08/07/08 17:00 Received: 08/08/08 14:14 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV MDH VOC	Analytical Method: EPA 8260								
Methyl-tert-butyl ether	ND	ug/L	250	125	250		08/13/08 08:02	1634-04-4	
Naphthalene	ND	ug/L	1000	500	250		08/13/08 08:02	91-20-3	
n-Propylbenzene	ND	ug/L	250	125	250		08/13/08 08:02	103-65-1	
Styrene	ND	ug/L	250	125	250		08/13/08 08:02	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	250	125	250		08/13/08 08:02	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	250	125	250		08/13/08 08:02	79-34-5	
Tetrachloroethene	**157000**	ug/L	1000	500	1000		08/13/08 09:53	127-18-4	
Tetrahydrofuran	ND	ug/L	2500	1250	250		08/13/08 08:02	109-99-9	
Toluene	ND	ug/L	250	125	250		08/13/08 08:02	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	250	125	250		08/13/08 08:02	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	250	125	250		08/13/08 08:02	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	250	125	250		08/13/08 08:02	71-55-6	J
1,1,2-Trichloroethane	ND	ug/L	250	125	250		08/13/08 08:02	79-00-5	
Trichloroethene	**563**	ug/L	250	125	250		08/13/08 08:02	79-01-6	
Trichlorofluoromethane	ND	ug/L	250	125	250		08/13/08 08:02	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	250	125	250		08/13/08 08:02	96-18-4	
1,1,2-Trichlorotrifluoroethane	**11300**	ug/L	250	125	250		08/13/08 08:02	76-13-1	
1,2,4-Trimethylbenzene	ND	ug/L	250	125	250		08/13/08 08:02	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	250	125	250		08/13/08 08:02	108-67-8	
Vinyl chloride	ND	ug/L	100	50.0	250		08/13/08 08:02	75-01-4	
Xylene (Total)	ND	ug/L	750	375	250		08/13/08 08:02	1330-20-7	
m&p-Xylene	ND	ug/L	500	250	250		08/13/08 08:02	1330-20-7	
o-Xylene	ND	ug/L	250	125	250		08/13/08 08:02	95-47-6	
Dibromofluoromethane (S)	98	%	75-125		250		08/13/08 08:02	1868-53-7	
Toluene-d8 (S)	95	%	75-125		250		08/13/08 08:02	2037-26-5	
4-Bromofluorobenzene (S)	97	%	75-125		250		08/13/08 08:02	460-00-4	
1,2-Dichloroethane-d4 (S)	94	%	75-125		250		08/13/08 08:02	17060-07-0	

Pace Analytical Services, Inc.
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA

Project: City of Rochester CRC
Pace Project No.: 1078524

QC Batch: MSV/10630
QC Batch Method: EPA 8260
Analysis Method: EPA 8260
Analysis Description: 8260 MSV 465 List
Associated Lab Samples: 1078524001

METHOD BLANK: 512492
Associated Lab Samples: 1078524001

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	1.0	
1,1,1-Trichloroethane	ug/L	ND	1.0	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	
1,1,2-Trichloroethane	ug/L	ND	1.0	
1,1,2-Trichlorotrifluoroethane	ug/L	ND	1.0	
1,1-Dichloroethane	ug/L	ND	1.0	
1,1-Dichloroethene	ug/L	ND	1.0	
1,1-Dichloropropene	ug/L	ND	1.0	
1,2,3-Trichlorobenzene	ug/L	ND	1.0	
1,2,3-Trichloropropane	ug/L	ND	1.0	
1,2,4-Trichlorobenzene	ug/L	ND	1.0	
1,2,4-Trimethylbenzene	ug/L	ND	1.0	
1,2-Dibromo-3-chloropropane	ug/L	ND	4.0	
1,2-Dibromoethane (EDB)	ug/L	ND	1.0	
1,2-Dichlorobenzene	ug/L	ND	1.0	
1,2-Dichloroethane	ug/L	ND	1.0	
1,2-Dichloropropane	ug/L	ND	1.0	
1,3,5-Trimethylbenzene	ug/L	ND	1.0	
1,3-Dichlorobenzene	ug/L	ND	1.0	
1,3-Dichloropropane	ug/L	ND	1.0	
1,4-Dichlorobenzene	ug/L	ND	1.0	
2,2-Dichloropropane	ug/L	ND	1.0	
2-Butanone (MEK)	ug/L	ND	4.0	
2-Chlorotoluene	ug/L	ND	1.0	
4-Chlorotoluene	ug/L	ND	1.0	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	4.0	
Acetone	ug/L	ND	10.0	
Allyl chloride	ug/L	ND	4.0	
Benzene	ug/L	ND	1.0	
Bromobenzene	ug/L	ND	1.0	
Bromochloromethane	ug/L	ND	1.0	
Bromodichloromethane	ug/L	ND	1.0	
Bromoform	ug/L	ND	8.0	
Bromomethane	ug/L	ND	4.0	
Carbon tetrachloride	ug/L	ND	1.0	
Chlorobenzene	ug/L	ND	1.0	
Chloroethane	ug/L	ND	1.0	
Chloroform	ug/L	ND	1.0	
Chloromethane	ug/L	ND	1.0	
cis-1,2-Dichloroethene	ug/L	ND	1.0	
cis-1,3-Dichloropropene	ug/L	ND	4.0	
Dibromochloromethane	ug/L	ND	1.0	
Dibromomethane	ug/L	ND	1.0	

Pace Analytical Services, Inc.
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA

Project: City of Rochester CRC
Pace Project No.: 1078524

METHOD BLANK: 512492
Associated Lab Samples: 1078524001

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Dichlorodifluoromethane	ug/L	ND	1.0	
Dichlorofluoromethane	ug/L	ND	1.0	
Diethyl ether (Ethyl ether)	ug/L	ND	4.0	
Ethylbenzene	ug/L	ND	1.0	
Hexachloro-1,3-butadiene	ug/L	ND	4.0	
Isopropylbenzene (Cumene)	ug/L	ND	1.0	
m&p-Xylene	ug/L	ND	2.0	
Methyl-tert-butyl ether	ug/L	ND	1.0	
Methylene Chloride	ug/L	ND	4.0	
n-Butylbenzene	ug/L	ND	1.0	
n-Propylbenzene	ug/L	ND	1.0	
Naphthalene	ug/L	ND	4.0	
o-Xylene	ug/L	ND	1.0	
p-Isopropyltoluene	ug/L	ND	1.0	
sec-Butylbenzene	ug/L	ND	1.0	
Styrene	ug/L	ND	1.0	
tert-Butylbenzene	ug/L	ND	1.0	
Tetrachloroethene	ug/L	ND	1.0	
Tetrahydrofuran	ug/L	ND	10.0	
Toluene	ug/L	ND	1.0	
trans-1,2-Dichloroethene	ug/L	ND	1.0	
trans-1,3-Dichloropropene	ug/L	ND	4.0	
Trichloroethene	ug/L	ND	1.0	
Trichlorofluoromethane	ug/L	ND	1.0	
Vinyl chloride	ug/L	ND	0.40	
Xylene (Total)	ug/L	ND	3.0	
1,2-Dichloroethane-d4 (S)	%	96	75-125	
4-Bromofluorobenzene (S)	%	96	75-125	
Dibromofluoromethane (S)	%	98	75-125	
Toluene-d8 (S)	%	95	75-125	

LABORATORY CONTROL SAMPLE: 512493

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	20	20.2	101	75-135	
1,1,1-Trichloroethane	ug/L	20	20.6	103	75-132	
1,1,2,2-Tetrachloroethane	ug/L	20	19.7	98	75-125	
1,1,2-Trichloroethane	ug/L	20	21.7	108	75-125	
1,1,2-Trichlorotrifluoroethane	ug/L	20	22.7	114	73-141	
1,1-Dichloroethane	ug/L	20	21.1	106	75-125	
1,1-Dichloroethene	ug/L	20	20.8	104	75-127	
1,1-Dichloropropene	ug/L	20	21.7	108	75-126	
1,2,3-Trichlorobenzene	ug/L	20	21.9	110	75-125	
1,2,3-Trichloropropane	ug/L	20	21.9	110	75-125	
1,2,4-Trichlorobenzene	ug/L	20	21.3	107	75-125	

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QUALITY CONTROL DATA

Project: City of Rochester CRC
Pace Project No.: 1078524

LABORATORY CONTROL SAMPLE: 512493

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2,4-Trimethylbenzene	ug/L	20	22.4	112	75-125	
1,2-Dibromo-3-chloropropane	ug/L	20	21.7	108	67-125	
1,2-Dibromoethane (EDB)	ug/L	20	21.6	108	75-125	
1,2-Dichlorobenzene	ug/L	20	21.5	107	75-125	
1,2-Dichloroethane	ug/L	20	21.3	106	75-125	
1,2-Dichloropropane	ug/L	20	21.6	108	75-125	
1,3,5-Trimethylbenzene	ug/L	20	22.2	111	75-125	
1,3-Dichlorobenzene	ug/L	20	21.3	107	75-125	
1,3-Dichloropropane	ug/L	20	21.8	109	75-125	
1,4-Dichlorobenzene	ug/L	20	21.6	108	75-125	
2,2-Dichloropropane	ug/L	20	18.8	94	50-150	
2-Butanone (MEK)	ug/L	20	21.3	107	68-127	
2-Chlorotoluene	ug/L	20	21.9	109	75-125	
4-Chlorotoluene	ug/L	20	22.1	110	75-125	
4-Methyl-2-pentanone (MIBK)	ug/L	20	21.7	108	68-133	
Acetone	ug/L	50	56.4	113	65-139	
Allyl chloride	ug/L	20	22.3	111	55-145	
Benzene	ug/L	20	21.8	109	75-125	
Bromobenzene	ug/L	20	22.2	111	75-125	
Bromochloromethane	ug/L	20	20.6	103	75-127	
Bromodichloromethane	ug/L	20	20.0	100	75-125	
Bromoform	ug/L	40	40.7	102	67-125	
Bromomethane	ug/L	20	18.6	93	65-150	
Carbon tetrachloride	ug/L	20	20.1	100	67-133	
Chlorobenzene	ug/L	20	21.4	107	75-125	
Chloroethane	ug/L	20	20.0	100	75-129	
Chloroform	ug/L	20	20.8	104	75-125	
Chloromethane	ug/L	20	20.1	100	67-135	
cis-1,2-Dichloroethene	ug/L	20	21.6	108	75-125	
cis-1,3-Dichloropropene	ug/L	20	19.4	97	75-125	
Dibromochloromethane	ug/L	20	20.7	103	73-125	
Dibromomethane	ug/L	20	20.9	104	75-125	
Dichlorodifluoromethane	ug/L	20	20.0	100	55-150	
Dichlorofluoromethane	ug/L	20	21.2	106	75-129	
Diethyl ether (Ethyl ether)	ug/L	20	21.9	109	75-125	
Ethylbenzene	ug/L	20	21.6	108	75-125	
Hexachloro-1,3-butadiene	ug/L	20	21.1	105	75-132	
Isopropylbenzene (Cumene)	ug/L	20	21.7	108	75-125	
m&p-Xylene	ug/L	40	42.2	105	75-125	
Methyl-tert-butyl ether	ug/L	20	22.2	111	65-140	
Methylene Chloride	ug/L	20	22.4	112	63-125	
n-Butylbenzene	ug/L	20	21.7	108	75-125	
n-Propylbenzene	ug/L	20	22.0	110	75-125	
Naphthalene	ug/L	20	23.8	119	72-128	
o-Xylene	ug/L	20	22.1	110	75-125	
p-Isopropyltoluene	ug/L	20	22.1	111	75-125	
sec-Butylbenzene	ug/L	20	22.0	110	75-125	
Styrene	ug/L	20	22.2	111	75-125	

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QUALITY CONTROL DATA

Project: City of Rochester CRC
Pace Project No.: 1078524

LABORATORY CONTROL SAMPLE: 512493

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
tert-Butylbenzene	ug/L	20	21.7	109	75-125	
Tetrachloroethene	ug/L	20	20.7	103	75-125	
Tetrahydrofuran	ug/L	200	243	121	60-147	
Toluene	ug/L	20	21.2	106	75-125	
trans-1,2-Dichloroethene	ug/L	20	20.4	102	75-125	
trans-1,3-Dichloropropene	ug/L	20	21.1	105	69-125	
Trichloroethene	ug/L	20	21.6	108	75-125	
Trichlorofluoromethane	ug/L	20	20.9	105	75-135	
Vinyl chloride	ug/L	20	20.2	101	71-133	
Xylene (Total)	ug/L	60	64.2	107	75-125	
1,2-Dichloroethane-d4 (S)	%			106	75-125	
4-Bromofluorobenzene (S)	%			111	75-125	
Dibromofluoromethane (S)	%			93	75-125	
Toluene-d8 (S)	%			103	75-125	

MATRIX SPIKE SAMPLE: 512610

Parameter	Units	1078615004 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	20	19.2	96	75-135	
1,1,1-Trichloroethane	ug/L	ND	20	21.3	107	75-140	
1,1,2,2-Tetrachloroethane	ug/L	ND	20	18.3	91	75-130	
1,1,2-Trichloroethane	ug/L	ND	20	19.6	98	75-125	
1,1,2-Trichlorotrifluoroethane	ug/L	ND	20	28.2	141	69-150	
1,1-Dichloroethane	ug/L	ND	20	20.8	104	70-140	
1,1-Dichloroethene	ug/L	ND	20	21.8	109	75-141	
1,1-Dichloropropene	ug/L	ND	20	21.3	106	75-144	
1,2,3-Trichlorobenzene	ug/L	ND	20	18.5	92	68-125	
1,2,3-Trichloropropane	ug/L	ND	20	17.9	89	74-126	
1,2,4-Trichlorobenzene	ug/L	ND	20	18.7	93	70-125	
1,2,4-Trimethylbenzene	ug/L	ND	20	18.1	90	61-136	
1,2-Dibromo-3-chloropropane	ug/L	ND	20	16.9	84	67-125	
1,2-Dibromoethane (EDB)	ug/L	ND	20	18.7	93	75-125	
1,2-Dichlorobenzene	ug/L	ND	20	18.5	92	75-125	
1,2-Dichloroethane	ug/L	ND	20	19.7	98	75-130	
1,2-Dichloropropane	ug/L	ND	20	20.0	100	75-126	
1,3,5-Trimethylbenzene	ug/L	ND	20	18.4	92	66-135	
1,3-Dichlorobenzene	ug/L	ND	20	18.9	94	75-125	
1,3-Dichloropropane	ug/L	ND	20	19.0	95	75-125	
1,4-Dichlorobenzene	ug/L	ND	20	19.2	96	75-125	
2,2-Dichloropropane	ug/L	ND	20	19.5	98	50-150	
2-Butanone (MEK)	ug/L	ND	20	18.1	91	68-127	
2-Chlorotoluene	ug/L	ND	20	20.1	101	66-148	
4-Chlorotoluene	ug/L	ND	20	19.0	95	68-136	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	20	19.0	95	68-133	
Acetone	ug/L	ND	50	46.1	92	50-150	
Allyl chloride	ug/L	ND	20	17.1	85	50-147	
Benzene	ug/L	ND	20	20.6	103	75-126	

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QUALITY CONTROL DATA

Project: City of Rochester CRC
Pace Project No.: 1078524

MATRIX SPIKE SAMPLE: 512610

Parameter	Units	1078615004 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Bromobenzene	ug/L	ND	20	19.0	95	75-125	
Bromochloromethane	ug/L	ND	20	18.0	90	75-127	
Bromodichloromethane	ug/L	ND	20	18.1	90	72-130	
Bromoform	ug/L	ND	40	30.4	76	56-125	
Bromomethane	ug/L	ND	20	18.3	92	50-150	
Carbon tetrachloride	ug/L	ND	20	21.0	105	68-144	
Chlorobenzene	ug/L	ND	20	19.9	99	75-125	
Chloroethane	ug/L	ND	20	20.6	103	75-142	
Chloroform	ug/L	1.5	20	21.3	99	75-134	
Chloromethane	ug/L	3.4	20	29.4	130	61-148	
cis-1,2-Dichloroethene	ug/L	ND	20	20.5	103	65-148	
cis-1,3-Dichloropropene	ug/L	ND	20	17.8	89	59-132	
Dibromochloromethane	ug/L	ND	20	17.1	86	63-125	
Dibromomethane	ug/L	ND	20	18.6	93	75-125	
Dichlorodifluoromethane	ug/L	ND	20	25.7	128	50-150	
Dichlorofluoromethane	ug/L	ND	20	21.2	106	75-138	
Diethyl ether (Ethyl ether)	ug/L	ND	20	19.4	97	74-128	
Ethylbenzene	ug/L	ND	20	20.8	104	75-126	
Hexachloro-1,3-butadiene	ug/L	ND	20	21.0	105	63-146	
Isopropylbenzene (Cumene)	ug/L	ND	20	21.0	105	75-131	
m&p-Xylene	ug/L	ND	40	39.2	98	67-137	
Methyl-tert-butyl ether	ug/L	ND	20	19.9	100	59-140	
Methylene Chloride	ug/L	ND	20	19.5	98	62-133	
n-Butylbenzene	ug/L	ND	20	20.8	104	62-141	
n-Propylbenzene	ug/L	ND	20	20.9	105	73-139	
Naphthalene	ug/L	ND	20	19.1	96	69-129	
o-Xylene	ug/L	ND	20	20.7	103	75-126	
p-Isopropyltoluene	ug/L	ND	20	20.7	103	70-137	
sec-Butylbenzene	ug/L	ND	20	21.3	107	73-140	
Styrene	ug/L	ND	20	17.1	85	50-144	
tert-Butylbenzene	ug/L	ND	20	20.3	101	73-136	
Tetrachloroethene	ug/L	ND	20	20.1	101	75-133	
Tetrahydrofuran	ug/L	ND	200	195	98	67-135	
Toluene	ug/L	ND	20	20.3	102	75-125	
trans-1,2-Dichloroethene	ug/L	ND	20	20.5	102	75-138	
trans-1,3-Dichloropropene	ug/L	ND	20	18.0	90	59-125	
Trichloroethene	ug/L	ND	20	20.2	101	75-130	
Trichlorofluoromethane	ug/L	ND	20	24.2	121	71-150	
Vinyl chloride	ug/L	ND	20	22.2	111	64-150	
Xylene (Total)	ug/L	ND	60	59.8	100	75-125	
1,2-Dichloroethane-d4 (S)	%				98	75-125	
4-Bromofluorobenzene (S)	%				91	75-125	
Dibromofluoromethane (S)	%				103	75-125	
Toluene-d8 (S)	%				98	75-125	

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QUALITY CONTROL DATA

Project: City of Rochester CRC
Pace Project No.: 1078524

SAMPLE DUPLICATE: 512611

Parameter	Units	1078615005 Result	Dup Result	RPD	Max RPD	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	ND	0	30	
1,1,1-Trichloroethane	ug/L	ND	ND	0	30	
1,1,2,2-Tetrachloroethane	ug/L	ND	ND	0	30	
1,1,2-Trichloroethane	ug/L	ND	ND	0	30	
1,1,2-Trichlorotrifluoroethane	ug/L	ND	ND	0	30	
1,1-Dichloroethane	ug/L	ND	ND	0	30	
1,1-Dichloroethene	ug/L	ND	ND	0	30	
1,1-Dichloropropene	ug/L	ND	ND	0	30	
1,2,3-Trichlorobenzene	ug/L	ND	ND	0	30	
1,2,3-Trichloropropane	ug/L	ND	ND	0	30	
1,2,4-Trichlorobenzene	ug/L	ND	ND	0	30	
1,2,4-Trimethylbenzene	ug/L	ND	ND	0	30	
1,2-Dibromo-3-chloropropane	ug/L	ND	ND	0	30	
1,2-Dibromoethane (EDB)	ug/L	ND	ND	0	30	
1,2-Dichlorobenzene	ug/L	ND	ND	0	30	
1,2-Dichloroethane	ug/L	ND	ND	0	30	
1,2-Dichloropropane	ug/L	ND	ND	0	30	
1,3,5-Trimethylbenzene	ug/L	ND	ND	0	30	
1,3-Dichlorobenzene	ug/L	ND	ND	0	30	
1,3-Dichloropropane	ug/L	ND	ND	0	30	
1,4-Dichlorobenzene	ug/L	ND	ND	0	30	
2,2-Dichloropropane	ug/L	ND	ND	0	30	
2-Butanone (MEK)	ug/L	ND	ND	0	30	
2-Chlorotoluene	ug/L	ND	ND	0	30	
4-Chlorotoluene	ug/L	ND	ND	0	30	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	ND	0	30	
Acetone	ug/L	ND	ND	0	30	
Allyl chloride	ug/L	ND	ND	0	30	
Benzene	ug/L	ND	ND	0	30	
Bromobenzene	ug/L	ND	ND	0	30	
Bromochloromethane	ug/L	ND	ND	0	30	
Bromodichloromethane	ug/L	ND	ND	0	30	
Bromoform	ug/L	ND	ND	0	30	
Bromomethane	ug/L	ND	ND	0	30	
Carbon tetrachloride	ug/L	ND	ND	0	30	
Chlorobenzene	ug/L	ND	ND	0	30	
Chloroethane	ug/L	ND	ND	0	30	
Chloroform	ug/L	ND	ND	0	30	
Chloromethane	ug/L	6.1	6.1	.8	30	
cis-1,2-Dichloroethene	ug/L	ND	ND	0	30	
cis-1,3-Dichloropropene	ug/L	ND	ND	0	30	
Dibromochloromethane	ug/L	ND	ND	0	30	
Dibromomethane	ug/L	ND	ND	0	30	
Dichlorodifluoromethane	ug/L	ND	ND	0	30	
Dichlorofluoromethane	ug/L	ND	ND	0	30	
Diethyl ether (Ethyl ether)	ug/L	ND	ND	0	30	
Ethylbenzene	ug/L	ND	ND	0	30	
Hexachloro-1,3-butadiene	ug/L	ND	ND	0	30	

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QUALITY CONTROL DATA

Project: City of Rochester CRC
Pace Project No.: 1078524

SAMPLE DUPLICATE: 512611

Parameter	Units	1078615005 Result	Dup Result	RPD	Max RPD	Qualifiers
Isopropylbenzene (Cumene)	ug/L	ND	ND	0	30	
m&p-Xylene	ug/L	ND	ND	0	30	
Methyl-tert-butyl ether	ug/L	ND	ND	0	30	
Methylene Chloride	ug/L	ND	ND	0	30	
n-Butylbenzene	ug/L	ND	ND	0	30	
n-Propylbenzene	ug/L	ND	ND	0	30	
Naphthalene	ug/L	ND	ND	0	30	
o-Xylene	ug/L	ND	ND	0	30	
p-Isopropyltoluene	ug/L	ND	ND	0	30	
sec-Butylbenzene	ug/L	ND	ND	0	30	
Styrene	ug/L	ND	ND	0	30	
tert-Butylbenzene	ug/L	ND	ND	0	30	
Tetrachloroethene	ug/L	ND	ND	0	30	
Tetrahydrofuran	ug/L	ND	ND	0	30	
Toluene	ug/L	ND	ND	0	30	
trans-1,2-Dichloroethene	ug/L	ND	ND	0	30	
trans-1,3-Dichloropropene	ug/L	ND	ND	0	30	
Trichloroethene	ug/L	ND	ND	0	30	
Trichlorofluoromethane	ug/L	ND	ND	0	30	
Vinyl chloride	ug/L	ND	ND	0	30	
Xylene (Total)	ug/L	ND	ND	0	30	
1,2-Dichloroethane-d4 (S)	%	94	99	5		
4-Bromofluorobenzene (S)	%	95	100	5		
Dibromofluoromethane (S)	%	97	95	3		
Toluene-d8 (S)	%	94	94	.7		

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QUALIFIERS

Project: City of Rochester CRC
Pace Project No.: 1078524

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

Pace Analytical is NELAP accredited. Contact your Pace PM for the current list of accredited analytes.

ANALYTE QUALIFIERS

J Analyte detected below reporting limit, therefore result is an estimate.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: City of Rochester CRC
Pace Project No.: 1078524

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
1078524001	DPE-1	EPA 8260	MSV/10630		

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CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

1078524

Page: of

Section A Required Client Information:	Section B Required Project Information:	Section C Invoice Information:
Company: Landmark Environmental	Report To: Jason Skramstad	Attention: Jason Skramstad
Address: 2042 W. 98th Street	Copy To:	Company Name: Landmark Environmental, LLC
Bloomington, MN 55431		Address: 2042 W. 98th St., Bloomington, MN 55431
Email To: jskramstad@landmarkenv.com	Purchase Order No.:	Pace Quote Reference:
Phone: 952-887-9601, ext 205 Fax: 952-887-9605	Project Name: City of Rochester	Pace Project Manager: Carolynne Trout
Requested Due Date/TAT: 2 day	Project Number: CRC	Pace Profile #:

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER

☐ UST ☐ RCRA ☐ OTHER_____

SITE LOCATION ☐ GA ☐ IL ☐ IN ☐ MI ☐ NC ☐ OH ☐ SC ☐ WI ☐ OTHER____

Section D Required Client Information

SAMPLE ID

One Character per box.
(A-Z, 0-9 / ,-)
Samples IDs MUST BE UNIQUE

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

ITEM #	Section D: SAMPLE ID	MATRIX CODE	SAMPLE TYPE G=GRAB C=COMP	COLLECTED COMPOSITE START DATE	COLLECTED COMPOSITE START TIME	COLLECTED COMPOSITE END/GRAB DATE	COLLECTED COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	#OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Filtered (Y/N)	Requested Analysis: VOCs	Pace Project Number / Lab I.D.
1	DPE-1	W	G	8/7/08	17:00														X	001
2																				
3																				
4																				
5																				
6																				
7																				
8																				
5																				
6																				
7																				
8																				

Additional Comments:

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME

SAMPLE CONDITIONS

Temp in °C	Received on Ice	Custody Sealed Cooler	Samples Intact
18.5	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Eric Cabarrus

SIGNATURE of SAMPLER: [signature] DATE Signed (MM / DD / YY): 8/8/08

Sample Condition Upon Receipt

Pace Analytical

Client Name: Landmark Project # 1078524

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☑ Commercial ☐ Pace Other _____

Tracking #: _____

Optional: Proj. Due Date: Proj. Name:

Custody Seal on Cooler/Box Present: ☐ yes ☑ no Seals intact: ☐ yes ☐ no

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☑ None ☐ Other _____ Temp Blank: Yes ____ No ✓

Thermometer Used: 80344042, (79425) Type of Ice: (Wet) Blue None ☐ Samples on Ice, cooling process has begun

Cooler Temperature: 18.5 Biological Tissue is Frozen: Yes No

Date and Initials of person examining contents: ec 8-8-08

Temp should be above freezing to 6°C

Comments:

Chain of Custody Present:	☑Yes ☐No ☐N/A	1.
Chain of Custody Filled Out:	☑Yes ☐No ☐N/A	2.
Chain of Custody Relinquished:	☑Yes ☐No ☐N/A	3.
Sampler Name & Signature on COC:	☑Yes ☐No ☐N/A	4.
Samples Arrived within Hold Time:	☑Yes ☐No ☐N/A	5.
Short Hold Time Analysis (<72hr):	☐Yes ☑No ☐N/A	6.
Rush Turn Around Time Requested:	☑Yes ☐No ☐N/A	7. 2 Day
Sufficient Volume:	☑Yes ☐No ☐N/A	8.
Correct Containers Used:	☑Yes ☐No ☐N/A	9.
-Pace Containers Used:	☐Yes ☑No ☐N/A	
Containers Intact:	☑Yes ☐No ☐N/A	10.
Filtered volume received for Dissolved tests	☐Yes ☐No ☑N/A	11.
Sample Labels match COC:	☑Yes ☐No ☐N/A	12.
-Includes date/time/ID/Analysis Matrix: WT		
All containers needing acid/base preservation have been checked. Noncompliance are noted in 13.	☐Yes ☐No ☑N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	☐Yes ☐No ☑N/A	
Exceptions: VOA, Coliform, TOC, Oil and Grease, WI-DRO (water)	☑Yes ☐No	Initial when completed / Lot # of added preservative
Samples checked for dechlorination:	☐Yes ☐No ☑N/A	14.
Headspace in VOA Vials (>6mm):	☐Yes ☑No ☐N/A	15.
Trip Blank Present:	☐Yes ☑No ☐N/A	16.
Trip Blank Custody Seals Present	☐Yes ☑No ☐N/A	
Pace Trip Blank Lot # (if purchased):		

Client Notification/ Resolution: Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/Resolution: Cool down process

Project Manager Review: Diane Anderson Date: 8/8/08

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)

Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
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(612)607-1700

December 12, 2008

Eric Gabrielson
Landmark Environmental
2042 West 98th St.
Minneapolis, MN 55431

RE: Project: CRC City Of Rochester
Pace Project No.: 1085550

Dear Eric Gabrielson:
Enclosed are the analytical results for sample(s) received by the laboratory on December 04, 2008. The results relate only to the samples included in this report. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Carolynne Trout

Carolynne Trout

carolynne.trout@pacelabs.com
Project Manager

Enclosures

Pace Analytical Services, Inc.
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CERTIFICATIONS

Project: CRC City Of Rochester
Pace Project No.: 1085550

Minnesota Certification IDs
Tennessee Certification #: 02818
Wisconsin Certification #: 999407970
Washington Certification #: C754
Pennsylvania Certification #: 68-00563
Oregon Certification #: MN200001
North Dakota Certification #: R-036
North Carolina Certification #: 530
New York Certification #: 11647
New Jersey Certification #: MN-002
Montana Certification #: MT CERT0092
Minnesota Certification #: 027-053-137
Maine Certification #: 2007029
Louisiana Certification #: LA080009
Louisiana Certification #: 03086
Kansas Certification #: E-10167
Iowa Certification #: 368
Illinois Certification #: 200011
Florida (Nelap) Certification #: E87605
California Certification #: 01155CA
Arizona Certification #: AZ-0014
Alaska Certification #: UST-078

Green Bay Certification IDs
Louisiana Certification #: 04169
Louisiana Certification #: 04168
Kentucky Certification #: 83
Kentucky Certification #: 82
Wisconsin DATCP Certification #: 105-444
Wisconsin DATCP Certification #: 105-444
Wisconsin Certification #: 405132750
Wisconsin Certification #: 405132750
South Carolina Certification #: 83006001
South Carolina Certification #: 83006001
Minnesota Certification #: 055-999-334
Minnesota Certification #: 055-999-334
North Carolina Certification #: 503
North Carolina Certification #: 503
North Dakota Certification #: R-200
North Dakota Certification #: R-150
New York Certification #: 11888
New York Certification #: 11887
Illinois Certification #: 200051
Illinois Certification #: 200050
Florida (NELAP) Certification #: E87951
Florida (NELAP) Certification #: E87948

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SAMPLE SUMMARY

Project: CRC City Of Rochester
Pace Project No.: 1085550

Lab ID	Sample ID	Matrix	Date Collected	Date Received
1085550001	MW-14	Water	12/03/08 16:20	12/04/08 09:48
1085550002	MW-16	Water	12/03/08 12:35	12/04/08 09:48
1085550003	MW-17	Water	12/03/08 13:10	12/04/08 09:48
1085550004	MW-18	Water	12/03/08 14:26	12/04/08 09:48
1085550005	MW-19	Water	12/03/08 16:59	12/04/08 09:48

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SAMPLE ANALYTE COUNT

Project: CRC City Of Rochester
Pace Project No.: 1085550

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
1085550001	MW-14	EPA 353.1	NMH	1	PASI-M
		EPA 375.4	NMH	1	PASI-M
		EPA 6010	IP	3	PASI-M
		EPA 8260	CNC	10	PASI-M
		RSK 175	LCW	1	PASI-M
		SM 4500-S F (2000)	DEY	1	PASI-G
		SM 5310C	AMT	1	PASI-G
1085550002	MW-16	EPA 375.4	NMH	1	PASI-M
		EPA 6010	IP	3	PASI-M
		EPA 8260	CNC	10	PASI-M
		RSK 175	LCW	1	PASI-M
		SM 4500-S F (2000)	DEY	1	PASI-G
		SM 5310C	AMT	1	PASI-G
1085550003	MW-17	EPA 375.4	NMH	1	PASI-M
		EPA 6010	IP	3	PASI-M
		EPA 8260	CNC	10	PASI-M
		RSK 175	LCW	1	PASI-M
		SM 4500-S F (2000)	DEY	1	PASI-G
		SM 5310C	AMT	1	PASI-G
1085550004	MW-18	EPA 375.4	NMH	1	PASI-M
		EPA 6010	IP	3	PASI-M
		EPA 8260	CNC	10	PASI-M
		RSK 175	LCW	1	PASI-M
		SM 4500-S F (2000)	DEY	1	PASI-G
		SM 5310C	AMT	1	PASI-G
1085550005	MW-19	EPA 375.4	NMH	1	PASI-M
		EPA 6010	IP	3	PASI-M
		EPA 8260	CNC	10	PASI-M
		RSK 175	LCW	1	PASI-M
		SM 4500-S F (2000)	DEY	1	PASI-G
		SM 5310C	AMT	1	PASI-G

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ANALYTICAL RESULTS

Project: CRC City Of Rochester
Pace Project No.: 1085550

Sample: MW-14 **Lab ID: 1085550001** Collected: 12/03/08 16:20 Received: 12/04/08 09:48 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
RSK 175 AIR Headspace	Analytical Method: RSK 175							
Methane	ND	ug/L	10.0	1		12/08/08 15:10	74-82-8	
6010 MET ICP, Lab Filtered	Analytical Method: EPA 6010 Preparation Method: EPA 3010							
Calcium, Dissolved	**114000**	ug/L	500	1	12/09/08 10:47	12/09/08 15:38	7440-70-2	P6
Iron, Dissolved	ND	ug/L	50.0	1	12/09/08 10:47	12/09/08 15:38	7439-89-6	
Magnesium, Dissolved	**30400**	ug/L	500	1	12/09/08 10:47	12/09/08 15:38	7439-95-4	M0
8260 VOC	Analytical Method: EPA 8260							
1,1-Dichloroethene	ND	ug/L	1.0	1		12/08/08 17:32	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		12/08/08 17:32	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		12/08/08 17:32	156-60-5	
Tetrachloroethene	**30.6**	ug/L	1.0	1		12/08/08 17:32	127-18-4	
Trichloroethene	ND	ug/L	1.0	1		12/08/08 17:32	79-01-6	
Vinyl chloride	ND	ug/L	0.40	1		12/08/08 17:32	75-01-4	
Dibromofluoromethane (S)	99	%	75-125	1		12/08/08 17:32	1868-53-7	pH
1,2-Dichloroethane-d4 (S)	97	%	75-125	1		12/08/08 17:32	17060-07-0	
Toluene-d8 (S)	96	%	75-125	1		12/08/08 17:32	2037-26-5	
4-Bromofluorobenzene (S)	95	%	75-125	1		12/08/08 17:32	460-00-4	
4500S2F Sulfide, Iodometric	Analytical Method: SM 4500-S F (2000)							
Sulfide	ND	mg/L	5.0	1		12/05/08 13:30		
353.1 Nitrate, unpreserved	Analytical Method: EPA 353.1							
Nitrate as N	**3.7**	mg/L	0.50	5		12/05/08 11:04	14797-55-8	M0
375.4 Sulfate, Turbidimetric	Analytical Method: EPA 375.4							
Sulfate	**131**	mg/L	25.0	10		12/09/08 16:14	14808-79-8	
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C							
Dissolved Organic Carbon	**2.4**	mg/L	2.0	1		12/10/08 08:50		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: CRC City Of Rochester
Pace Project No.: 1085550

Sample: MW-16 **Lab ID: 1085550002** Collected: 12/03/08 12:35 Received: 12/04/08 09:48 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
RSK 175 AIR Headspace	Analytical Method: RSK 175							
Methane	ND	ug/L	10.0	1		12/08/08 15:35	74-82-8	
6010 MET ICP, Lab Filtered	Analytical Method: EPA 6010 Preparation Method: EPA 3010							
Calcium, Dissolved	**194000**	ug/L	500	1	12/09/08 10:47	12/09/08 15:55	7440-70-2	
Iron, Dissolved	ND	ug/L	50.0	1	12/09/08 10:47	12/09/08 15:55	7439-89-6	
Magnesium, Dissolved	**70200**	ug/L	500	1	12/09/08 10:47	12/09/08 15:55	7439-95-4	
8260 VOC	Analytical Method: EPA 8260							
1,1-Dichloroethene	ND	ug/L	1.0	1		12/08/08 20:10	75-35-4	
cis-1,2-Dichloroethene	**133**	ug/L	1.0	1		12/08/08 20:10	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		12/08/08 20:10	156-60-5	
Tetrachloroethene	**14100**	ug/L	100	100		12/09/08 19:51	127-18-4	
Trichloroethene	**35.0**	ug/L	1.0	1		12/08/08 20:10	79-01-6	
Vinyl chloride	ND	ug/L	0.40	1		12/08/08 20:10	75-01-4	
Dibromofluoromethane (S)	93	%	75-125	1		12/08/08 20:10	1868-53-7	pH
1,2-Dichloroethane-d4 (S)	91	%	75-125	1		12/08/08 20:10	17060-07-0	
Toluene-d8 (S)	97	%	75-125	1		12/08/08 20:10	2037-26-5	
4-Bromofluorobenzene (S)	92	%	75-125	1		12/08/08 20:10	460-00-4	
4500S2F Sulfide, Iodometric	Analytical Method: SM 4500-S F (2000)							
Sulfide	ND	mg/L	5.0	1		12/05/08 13:30		
375.4 Sulfate, Turbidimetric	Analytical Method: EPA 375.4							
Sulfate	**253**	mg/L	62.5	25		12/09/08 15:03	14808-79-8	
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C							
Dissolved Organic Carbon	**3.5**	mg/L	2.0	1		12/10/08 08:50		

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ANALYTICAL RESULTS

Project: CRC City Of Rochester
Pace Project No.: 1085550

Sample: MW-17 **Lab ID: 1085550003** Collected: 12/03/08 13:10 Received: 12/04/08 09:48 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
RSK 175 AIR Headspace	Analytical Method: RSK 175							
Methane	ND	ug/L	10.0	1		12/08/08 16:01	74-82-8	
6010 MET ICP, Lab Filtered	Analytical Method: EPA 6010 Preparation Method: EPA 3010							
Calcium, Dissolved	**76300**	ug/L	500	1	12/09/08 10:47	12/09/08 16:01	7440-70-2	
Iron, Dissolved	**50.1**	ug/L	50.0	1	12/09/08 10:47	12/09/08 16:01	7439-89-6	
Magnesium, Dissolved	**29100**	ug/L	500	1	12/09/08 10:47	12/09/08 16:01	7439-95-4	
8260 VOC	Analytical Method: EPA 8260							
1,1-Dichloroethene	ND	ug/L	5.0	5		12/09/08 18:44	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	5.0	5		12/09/08 18:44	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	5		12/09/08 18:44	156-60-5	
Tetrachloroethene	**363**	ug/L	5.0	5		12/09/08 18:44	127-18-4	
Trichloroethene	ND	ug/L	5.0	5		12/09/08 18:44	79-01-6	
Vinyl chloride	ND	ug/L	2.0	5		12/09/08 18:44	75-01-4	
Dibromofluoromethane (S)	115	%	75-125	5		12/09/08 18:44	1868-53-7	
1,2-Dichloroethane-d4 (S)	105	%	75-125	5		12/09/08 18:44	17060-07-0	
Toluene-d8 (S)	103	%	75-125	5		12/09/08 18:44	2037-26-5	
4-Bromofluorobenzene (S)	98	%	75-125	5		12/09/08 18:44	460-00-4	
4500S2F Sulfide, Iodometric	Analytical Method: SM 4500-S F (2000)							
Sulfide	ND	mg/L	5.0	1		12/05/08 13:30		
375.4 Sulfate, Turbidimetric	Analytical Method: EPA 375.4							
Sulfate	**199**	mg/L	25.0	10		12/09/08 15:25	14808-79-8	
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C							
Dissolved Organic Carbon	**7.5**	mg/L	2.0	1		12/10/08 08:50		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: CRC City Of Rochester
Pace Project No.: 1085550

Sample: MW-18 **Lab ID: 1085550004** Collected: 12/03/08 14:26 Received: 12/04/08 09:48 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
RSK 175 AIR Headspace	Analytical Method: RSK 175							
Methane	ND	ug/L	10.0	1		12/08/08 16:26	74-82-8	
6010 MET ICP, Lab Filtered	Analytical Method: EPA 6010 Preparation Method: EPA 3010							
Calcium, Dissolved	**99000**	ug/L	500	1	12/09/08 10:47	12/09/08 16:08	7440-70-2	
Iron, Dissolved	**4190**	ug/L	50.0	1	12/09/08 10:47	12/09/08 16:08	7439-89-6	
Magnesium, Dissolved	**52600**	ug/L	500	1	12/09/08 10:47	12/09/08 16:08	7439-95-4	
8260 VOC	Analytical Method: EPA 8260							
1,1-Dichloroethene	ND	ug/L	2.0	2		12/09/08 17:59	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	2.0	2		12/09/08 17:59	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	2.0	2		12/09/08 17:59	156-60-5	
Tetrachloroethene	**257**	ug/L	2.0	2		12/09/08 17:59	127-18-4	
Trichloroethene	ND	ug/L	2.0	2		12/09/08 17:59	79-01-6	
Vinyl chloride	ND	ug/L	0.80	2		12/09/08 17:59	75-01-4	
Dibromofluoromethane (S)	104	%	75-125	2		12/09/08 17:59	1868-53-7	
1,2-Dichloroethane-d4 (S)	93	%	75-125	2		12/09/08 17:59	17060-07-0	
Toluene-d8 (S)	87	%	75-125	2		12/09/08 17:59	2037-26-5	
4-Bromofluorobenzene (S)	99	%	75-125	2		12/09/08 17:59	460-00-4	
4500S2F Sulfide, Iodometric	Analytical Method: SM 4500-S F (2000)							
Sulfide	ND	mg/L	5.0	1		12/05/08 13:30		
375.4 Sulfate, Turbidimetric	Analytical Method: EPA 375.4							
Sulfate	**115**	mg/L	25.0	10		12/09/08 15:28	14808-79-8	
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C							
Dissolved Organic Carbon	**8.5**	mg/L	2.0	1		12/10/08 08:50		

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ANALYTICAL RESULTS

Project: CRC City Of Rochester
Pace Project No.: 1085550

Sample: MW-19 **Lab ID: 1085550005** Collected: 12/03/08 16:59 Received: 12/04/08 09:48 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
RSK 175 AIR Headspace	Analytical Method: RSK 175							
Methane	ND	ug/L	10.0	1		12/08/08 16:52	74-82-8	
6010 MET ICP, Lab Filtered	Analytical Method: EPA 6010 Preparation Method: EPA 3010							
Calcium, Dissolved	**245000**	ug/L	500	1	12/09/08 10:47	12/09/08 16:14	7440-70-2	
Iron, Dissolved	ND	ug/L	50.0	1	12/09/08 10:47	12/09/08 16:14	7439-89-6	
Magnesium, Dissolved	**71100**	ug/L	500	1	12/09/08 10:47	12/09/08 16:14	7439-95-4	
8260 VOC	Analytical Method: EPA 8260							
1,1-Dichloroethene	ND	ug/L	1.0	1		12/09/08 17:29	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		12/09/08 17:29	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		12/09/08 17:29	156-60-5	
Tetrachloroethene	**2.4**	ug/L	1.0	1		12/09/08 17:29	127-18-4	
Trichloroethene	ND	ug/L	1.0	1		12/09/08 17:29	79-01-6	
Vinyl chloride	ND	ug/L	0.40	1		12/09/08 17:29	75-01-4	
Dibromofluoromethane (S)	108	%	75-125	1		12/09/08 17:29	1868-53-7	pH
1,2-Dichloroethane-d4 (S)	94	%	75-125	1		12/09/08 17:29	17060-07-0	
Toluene-d8 (S)	92	%	75-125	1		12/09/08 17:29	2037-26-5	
4-Bromofluorobenzene (S)	94	%	75-125	1		12/09/08 17:29	460-00-4	
4500S2F Sulfide, Iodometric	Analytical Method: SM 4500-S F (2000)							
Sulfide	ND	mg/L	5.0	1		12/05/08 13:30		
375.4 Sulfate, Turbidimetric	Analytical Method: EPA 375.4							
Sulfate	**187**	mg/L	25.0	10		12/09/08 15:38	14808-79-8	
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C							
Dissolved Organic Carbon	**3.1**	mg/L	2.0	1		12/10/08 08:50		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
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QUALITY CONTROL DATA

Project: CRC City Of Rochester
Pace Project No.: 1085550

QC Batch: WET/2741 Analysis Method: SM 4500-S F (2000)
QC Batch Method: SM 4500-S F (2000) Analysis Description: 4500S2F Sulfide, Iodometric
Associated Lab Samples: 1085550001, 1085550002, 1085550003, 1085550004, 1085550005

METHOD BLANK: 109048 Matrix: Water
Associated Lab Samples: 1085550001, 1085550002, 1085550003, 1085550004, 1085550005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Sulfide	mg/L	ND	5.0	12/05/08 08:45	

LABORATORY CONTROL SAMPLE: 109049

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	43.2	43.6	101	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 109050 109051

Parameter	Units	1085557001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide	mg/L	ND	43.2	43.2	46.8	48.4	107	111	80-120	3	20	

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QUALITY CONTROL DATA

Project: CRC City Of Rochester
Pace Project No.: 1085550

QC Batch: WETA/2920 Analysis Method: SM 5310C
QC Batch Method: SM 5310C Analysis Description: 5310C Dissolved Organic Carbon
Associated Lab Samples: 1085550001, 1085550002, 1085550003, 1085550004, 1085550005

METHOD BLANK: 109392 Matrix: Water
Associated Lab Samples: 1085550001, 1085550002, 1085550003, 1085550004, 1085550005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Dissolved Organic Carbon	mg/L	ND	2.0	12/10/08 08:50	

LABORATORY CONTROL SAMPLE: 109393

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	100	100	100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 109394 109395

Parameter	Units	1085550001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Dissolved Organic Carbon	mg/L	2.4	100	100	113	113	110	111	80-120	.2	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 109487 109488

Parameter	Units	4012179002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Dissolved Organic Carbon	mg/L	2.3	100	100	111	112	109	110	80-120	.9	20	

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QUALITY CONTROL DATA

Project: CRC City Of Rochester
Pace Project No.: 1085550

QC Batch: WETA/7542
QC Batch Method: EPA 353.1
Analysis Method: EPA 353.1
Analysis Description: 353.1 Nitrate, unpreserved
Associated Lab Samples: 1085550001

METHOD BLANK: 559289 Matrix: Water
Associated Lab Samples: 1085550001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrate as N	mg/L	ND	0.10	12/05/08 10:49	

LABORATORY CONTROL SAMPLE: 559290

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrate as N	mg/L	1	0.93	93	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 559291 559292

Parameter	Units	1085557001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrate as N	mg/L		1	1	0.97	0.96	97	96	80-120	.7	30	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 559293 559294

Parameter	Units	1085550001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrate as N	mg/L	3.7	1	1	4.2	4.5	51	82	80-120	7	30	M0

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA

Project: CRC City Of Rochester
Pace Project No.: 1085550

QC Batch: AIR/7808
QC Batch Method: RSK 175
Analysis Method: RSK 175
Analysis Description: RSK 175 AIR HEADSPACE
Associated Lab Samples: 1085550001, 1085550002, 1085550003, 1085550004, 1085550005

METHOD BLANK: 560460
Matrix: Water
Associated Lab Samples: 1085550001, 1085550002, 1085550003, 1085550004, 1085550005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Methane	ug/L	ND	10.0	12/08/08 12:37	

LABORATORY CONTROL SAMPLE & LCSD: 560461 560462

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Methane	ug/L	60.7	60.3	53.4	99	88	70-130	12	30	

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QUALITY CONTROL DATA

Project: CRC City Of Rochester
Pace Project No.: 1085550

QC Batch: MSV/11458
QC Batch Method: EPA 8260
Analysis Method: EPA 8260
Analysis Description: 8260 MSV 465 W
Associated Lab Samples: 1085550001, 1085550002

METHOD BLANK: 560576 Matrix: Water
Associated Lab Samples: 1085550001, 1085550002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1-Dichloroethene	ug/L	ND	1.0	12/08/08 13:24	
cis-1,2-Dichloroethene	ug/L	ND	1.0	12/08/08 13:24	
Tetrachloroethene	ug/L	ND	1.0	12/08/08 13:24	
trans-1,2-Dichloroethene	ug/L	ND	1.0	12/08/08 13:24	
Trichloroethene	ug/L	ND	1.0	12/08/08 13:24	
Vinyl chloride	ug/L	ND	0.40	12/08/08 13:24	
1,2-Dichloroethane-d4 (S)	%	99	75-125	12/08/08 13:24	
4-Bromofluorobenzene (S)	%	94	75-125	12/08/08 13:24	
Dibromofluoromethane (S)	%	112	75-125	12/08/08 13:24	
Toluene-d8 (S)	%	99	75-125	12/08/08 13:24	

LABORATORY CONTROL SAMPLE: 560577

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1-Dichloroethene	ug/L	20	18.1	90	75-127	
cis-1,2-Dichloroethene	ug/L	20	19.6	98	75-125	
Tetrachloroethene	ug/L	20	19.3	97	75-125	
trans-1,2-Dichloroethene	ug/L	20	17.1	86	75-125	
Trichloroethene	ug/L	20	19.0	95	75-125	
Vinyl chloride	ug/L	20	18.9	94	71-133	
1,2-Dichloroethane-d4 (S)	%			92	75-125	
4-Bromofluorobenzene (S)	%			95	75-125	
Dibromofluoromethane (S)	%			97	75-125	
Toluene-d8 (S)	%			98	75-125	

MATRIX SPIKE SAMPLE: 560971

Parameter	Units	1085759001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,1-Dichloroethene	ug/L	ND	20	21.2	106	75-141	
cis-1,2-Dichloroethene	ug/L	ND	20	21.2	106	65-148	
Tetrachloroethene	ug/L	ND	20	21.8	109	75-133	
trans-1,2-Dichloroethene	ug/L	ND	20	20.8	104	75-138	
Trichloroethene	ug/L	ND	20	21.0	105	75-130	
Vinyl chloride	ug/L	ND	20	22.4	112	64-150	
1,2-Dichloroethane-d4 (S)	%				94	75-125	
4-Bromofluorobenzene (S)	%				102	75-125	
Dibromofluoromethane (S)	%				92	75-125	
Toluene-d8 (S)	%				96	75-125	

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QUALITY CONTROL DATA

Project: CRC City Of Rochester
Pace Project No.: 1085550

SAMPLE DUPLICATE: 560970

Parameter	Units	301677008 Result	Dup Result	RPD	Max RPD	Qualifiers
1,1-Dichloroethene	ug/L	ND	ND		30	
cis-1,2-Dichloroethene	ug/L	172	143	18	30	
Tetrachloroethene	ug/L	ND	ND		30	
trans-1,2-Dichloroethene	ug/L	ND	1.4J		30	
Trichloroethene	ug/L	118	99.3	17	30	
Vinyl chloride	ug/L	ND	ND		30	
1,2-Dichloroethane-d4 (S)	%	103	92	11		
4-Bromofluorobenzene (S)	%	95	92	3		
Dibromofluoromethane (S)	%	102	98	3		
Toluene-d8 (S)	%	97	90	7		

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QUALITY CONTROL DATA

Project: CRC City Of Rochester
Pace Project No.: 1085550

QC Batch: MPRP/14108
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET Dissolved
Associated Lab Samples: 1085550001, 1085550002, 1085550003, 1085550004, 1085550005

METHOD BLANK: 560656 Matrix: Water
Associated Lab Samples: 1085550001, 1085550002, 1085550003, 1085550004, 1085550005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Calcium, Dissolved	ug/L	ND	500	12/09/08 15:31	
Iron, Dissolved	ug/L	ND	50.0	12/09/08 15:31	
Magnesium, Dissolved	ug/L	ND	500	12/09/08 15:31	

LABORATORY CONTROL SAMPLE: 560657

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Calcium, Dissolved	ug/L	10000	10400	104	80-120	
Iron, Dissolved	ug/L	10000	10200	102	80-120	
Magnesium, Dissolved	ug/L	10000	10400	104	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 560658 560659

Parameter	Units	1085550001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Calcium, Dissolved	ug/L	114000	10000	10000	119000	122000	50	80	80-120	2	30	P6
Iron, Dissolved	ug/L	ND	10000	10000	9200	9630	92	96	80-120	5	30	
Magnesium, Dissolved	ug/L	30400	10000	10000	38000	38600	76	82	80-120	2	30	M0

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QUALITY CONTROL DATA

Project: CRC City Of Rochester
Pace Project No.: 1085550

QC Batch: WETA/7558 Analysis Method: EPA 375.4
QC Batch Method: EPA 375.4 Analysis Description: Sulfate, Turbidimetric
Associated Lab Samples: 1085550001, 1085550002, 1085550003, 1085550004, 1085550005

METHOD BLANK: 560920 Matrix: Water
Associated Lab Samples: 1085550001, 1085550002, 1085550003, 1085550004, 1085550005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Sulfate	mg/L	ND	2.5	12/09/08 13:10	

LABORATORY CONTROL SAMPLE: 560921

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfate	mg/L	7.5	7.0	93	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 560922 560923

Parameter	Units	1085550001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfate	mg/L	131	20	20	139	142	40	54	80-120	2	30	M0

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 560924 560925

Parameter	Units	1085557007 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfate	mg/L		20	20	39.4	32.0	94	57	80-120	21	30	M0

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QUALITY CONTROL DATA

Project: CRC City Of Rochester
Pace Project No.: 1085550

QC Batch: MSV/11470 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV 465 W
Associated Lab Samples: 1085550003, 1085550004, 1085550005

METHOD BLANK: 561113 Matrix: Water
Associated Lab Samples: 1085550003, 1085550004, 1085550005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1-Dichloroethene	ug/L	ND	1.0	12/09/08 13:23	
cis-1,2-Dichloroethene	ug/L	ND	1.0	12/09/08 13:23	
Tetrachloroethene	ug/L	ND	1.0	12/09/08 13:23	
trans-1,2-Dichloroethene	ug/L	ND	1.0	12/09/08 13:23	
Trichloroethene	ug/L	ND	1.0	12/09/08 13:23	
Vinyl chloride	ug/L	ND	0.40	12/09/08 13:23	
1,2-Dichloroethane-d4 (S)	%	99	75-125	12/09/08 13:23	
4-Bromofluorobenzene (S)	%	92	75-125	12/09/08 13:23	
Dibromofluoromethane (S)	%	103	75-125	12/09/08 13:23	
Toluene-d8 (S)	%	97	75-125	12/09/08 13:23	

LABORATORY CONTROL SAMPLE: 561114

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1-Dichloroethene	ug/L	20	19.3	97	75-127	
cis-1,2-Dichloroethene	ug/L	20	20.2	101	75-125	
Tetrachloroethene	ug/L	20	19.6	98	75-125	
trans-1,2-Dichloroethene	ug/L	20	18.7	94	75-125	
Trichloroethene	ug/L	20	20.0	100	75-125	
Vinyl chloride	ug/L	20	19.2	96	71-133	
1,2-Dichloroethane-d4 (S)	%			85	75-125	
4-Bromofluorobenzene (S)	%			100	75-125	
Dibromofluoromethane (S)	%			101	75-125	
Toluene-d8 (S)	%			105	75-125	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 561474 561475

Parameter	Units	1085759010 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,1-Dichloroethene	ug/L	ND	1000	1000	887	870	89	87	75-141	2	30	
cis-1,2-Dichloroethene	ug/L	ND	1000	1000	978	967	98	97	65-148	1	30	
Tetrachloroethene	ug/L	ND	1000	1000	904	866	90	87	75-133	4	30	
trans-1,2-Dichloroethene	ug/L	ND	1000	1000	896	901	90	90	75-138	.5	30	
Trichloroethene	ug/L	3450	1000	1000	3580	3350	13	-10	75-130	6	30	M0
Vinyl chloride	ug/L	ND	1000	1000	929	875	93	87	64-150	6	30	
1,2-Dichloroethane-d4 (S)	%						87	92	75-125			
4-Bromofluorobenzene (S)	%						93	95	75-125			
Dibromofluoromethane (S)	%						98	101	75-125			
Toluene-d8 (S)	%						93	100	75-125			

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QUALIFIERS

Project: CRC City Of Rochester
Pace Project No.: 1085550

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

Pace Analytical is NELAP accredited. Contact your Pace PM for the current list of accredited analytes.

LABORATORIES

PASI-G	Pace Analytical Services - Green Bay
PASI-M	Pace Analytical Services - Minneapolis

ANALYTE QUALIFIERS

M0	Matrix spike recovery was outside laboratory control limits.
P6	Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.
pH	Post-analysis pH measurement indicates insufficient VOA sample preservation.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: CRC City Of Rochester
Pace Project No.: 1085550

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
1085550001	MW-14	SM 4500-S F (2000)	WET/2741		
1085550002	MW-16	SM 4500-S F (2000)	WET/2741		
1085550003	MW-17	SM 4500-S F (2000)	WET/2741		
1085550004	MW-18	SM 4500-S F (2000)	WET/2741		
1085550005	MW-19	SM 4500-S F (2000)	WET/2741		
1085550001	MW-14	SM 5310C	WETA/2920		
1085550002	MW-16	SM 5310C	WETA/2920		
1085550003	MW-17	SM 5310C	WETA/2920		
1085550004	MW-18	SM 5310C	WETA/2920		
1085550005	MW-19	SM 5310C	WETA/2920		
1085550001	MW-14	EPA 353.1	WETA/7542		
1085550001	MW-14	RSK 175	AIR/7808		
1085550002	MW-16	RSK 175	AIR/7808		
1085550003	MW-17	RSK 175	AIR/7808		
1085550004	MW-18	RSK 175	AIR/7808		
1085550005	MW-19	RSK 175	AIR/7808		
1085550001	MW-14	EPA 8260	MSV/11458		
1085550002	MW-16	EPA 8260	MSV/11458		
1085550001	MW-14	EPA 3010	MPRP/14108	EPA 6010	ICP/6656
1085550002	MW-16	EPA 3010	MPRP/14108	EPA 6010	ICP/6656
1085550003	MW-17	EPA 3010	MPRP/14108	EPA 6010	ICP/6656
1085550004	MW-18	EPA 3010	MPRP/14108	EPA 6010	ICP/6656
1085550005	MW-19	EPA 3010	MPRP/14108	EPA 6010	ICP/6656
1085550001	MW-14	EPA 375.4	WETA/7558		
1085550002	MW-16	EPA 375.4	WETA/7558		
1085550003	MW-17	EPA 375.4	WETA/7558		
1085550004	MW-18	EPA 375.4	WETA/7558		
1085550005	MW-19	EPA 375.4	WETA/7558		
1085550003	MW-17	EPA 8260	MSV/11470		
1085550004	MW-18	EPA 8260	MSV/11470		
1085550005	MW-19	EPA 8260	MSV/11470		

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1157, 1158

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

1085556

Page: of

Section A Required Client Information:	Section B Required Project Information:	Section C Invoice Information:
Company: Landmark Environmental	Report To: Jason Skramstad	Attention: Jason Skramstad
Address: 2042 W. 98th Street	Copy To:	Company Name: Landmark Environmental, LLC
Bloomington, MN 55431		Address: 2042 W. 98th St., Bloomington, MN 55431
Email To: jskramstad@landmarkenv.com	Purchase Order No.:	Pace Quote Reference:
Phone: 952-887-9601, ext 205 / Fax: 952-887-9605	Project Name: City of Rochester	Pace Project Manager: Carolynne Trout
Requested Due Date/TAT: Normal	Project Number: CRC	Pace Profile #:

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER_____

SITE LOCATION: ☐ GA ☐ IL ☐ IN ☐ MI ☐ NC ☐ OH ☐ SC ☐ WI ☐ OTHER____

Section D Required Client Information

SAMPLE ID

One Character per box.
(A-Z, 0-9 / ,-)
Samples IDs MUST BE UNIQUE

Valid Matrix Codes

MATRIX	CODE
Drinking WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE G=GRAB C=COMP	COLLECTED COMPOSITE START DATE	COLLECTED COMPOSITE START TIME	COLLECTED COMPOSITE END/GRAB DATE	COLLECTED COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	#OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Requested Analysis: dissolved Fe Ca Mg	Sulfide	Nitrate	Sulfate	DOC	Methane	PCE TCE VC	cis + trans + 1,1 DCE	Pace Project Number / Lab I.D.
1	MW14	W	G	12/3/08	16:20													X	X	X	X	X	X	X	X	001
2	MW15	W	G	12/3/08	12:35													X	X	X	X	X	X	X	X	002
3	MW17	W	G	12/3/08	13:10													X	X	X	X	X	X	X	X	003
4	MW18	W	G	12/3/08	14:26													X	X	X	X	X	X	X	X	004
5	MW19	W	G	12/3/08	16:59													X	X	X	X	X	X	X	X	005
6																										
7																										
8																										

Additional Comments:

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
			K. Hunter / Pace	12/4/08	9:48

SAMPLE CONDITIONS

Temp in °C	Received on Ice	Custody Sealed Cooler	Samples Intact
4.2	(Y) N	(Y) N	(Y) N
	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Erik Gabrielson

SIGNATURE of SAMPLER: [signature] DATE Signed (MM / DD / YY)

Sample Condition Upon Receipt

Pace Analytical

Client Name: Landmark Project # 1085556

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace ☑ Other Courier

Optional
Proj. Due Date:
Proj. Name:

Tracking #:

Custody Seal on Cooler/Box Present: ☐ yes ☑ no Seals intact: ☐ yes ☐ no

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☐ None ☐ Other ____ Temp Blank: Yes ✓ No ____

Thermometer Used 80344042, 179425 Type of Ice: Wet Blue None ☐ Samples on ice, cooling process has begun

Cooler Temperature 4.2 Biological Tissue is Frozen: Yes No

Date and Initials of person examining contents: 12/4/08 SM

Temp should be above freezing to 6°C

		Comments:
Chain of Custody Present:	☑Yes ☐No ☐N/A	1.
Chain of Custody Filled Out:	☑Yes ☐No ☐N/A	2.
Chain of Custody Relinquished:	☐Yes ☑No ☐N/A	3.
Sampler Name & Signature on COC:	☑Yes ☐No ☐N/A	4.
Samples Arrived within Hold Time:	☑Yes ☐No ☐N/A	5.
Short Hold Time Analysis (<72hr):	☑Yes ☐No ☐N/A	6. Nitrate
Rush Turn Around Time Requested:	☐Yes ☑No ☐N/A	7.
Sufficient Volume:	☑Yes ☐No ☐N/A	8.
Correct Containers Used:	☑Yes ☐No ☐N/A	9.
-Pace Containers Used:	☑Yes ☐No ☐N/A	
Containers Intact:	☑Yes ☐No ☐N/A	10.
Filtered volume received for Dissolved tests	☐Yes ☑No ☐N/A	11. 12/4/08 SM
Sample Labels match COC:	☑Yes ☐No ☐N/A	12.
-Includes date/time/ID/Analysis Matrix: WT		
All containers needing acid/base preservation have been checked. Noncompliance are noted in 13.	☑Yes ☐No ☐N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	☑Yes ☐No ☐N/A	
Exceptions: VOA,Coliform, TOC, Oil and Grease, WI-DRO (water)	☑Yes ☐No	Initial when completed SM Lot # of added preservative
Samples checked for dechlorination:	☐Yes ☐No ☐N/A	14.
Headspace in VOA Vials (>6mm):	☐Yes ☑No ☐N/A	15.
Trip Blank Present:	☐Yes ☑No ☐N/A	16.
Trip Blank Custody Seals Present	☐Yes ☑No ☐N/A	
Pace Trip Blank Lot # (if purchased):		

Client Notification/ Resolution: Field Data Required? Y / N

Person Contacted: Date/Time:

Comments/ Resolution: Reviewed by [signature] 12/4/08

Project Manager Review: [signature] Date: 12/4/08

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)

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1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

January 06, 2009

Eric Gabrielson
Landmark Environmental
2042 West 98th St.
Minneapolis, MN 55431

RE: Project: CRC CITY OF ROCHESTER
Pace Project No.: 1086028

Dear Eric Gabrielson:
Enclosed are the analytical results for sample(s) received by the laboratory on December 11, 2008. The results relate only to the samples included in this report. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Carolynne Trout

Carolynne Trout

carolynne.trout@pacelabs.com
Project Manager

Enclosures

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1700 Elm Street - Suite 200
Minneapolis, MN 55414
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CERTIFICATIONS

Project: CRC CITY OF ROCHESTER
Pace Project No.: 1086028

Minnesota Certification IDs
Tennessee Certification #: 02818
Wisconsin Certification #: 999407970
Washington Certification #: C754
Pennsylvania Certification #: 68-00563
Oregon Certification #: MN200001
North Dakota Certification #: R-036
North Carolina Certification #: 530
New York Certification #: 11647
New Jersey Certification #: MN-002
Montana Certification #: MT CERT0092
Minnesota Certification #: 027-053-137
Maine Certification #: 2007029
Louisiana Certification #: LA080009
Louisiana Certification #: 03086
Kansas Certification #: E-10167
Iowa Certification #: 368
Illinois Certification #: 200011
Florida/NELAP Certification #: E87605
California Certification #: 01155CA
Arizona Certification #: AZ-0014
Alaska Certification #: UST-078

Green Bay Certification IDs
Wisconsin DATCP Certification #: 105-444
Wisconsin DATCP Certification #: 105-444
Wisconsin Certification #: 405132750
Wisconsin Certification #: 405132750
South Carolina Certification #: 83006001
South Carolina Certification #: 83006001
North Dakota Certification #: R-200
North Dakota Certification #: R-150
North Carolina Certification #: 503
North Carolina Certification #: 503
New York Certification #: 11888
New York Certification #: 11887
Minnesota Certification #: 055-999-334
Minnesota Certification #: 055-999-334
Louisiana Certification #: 04169
Louisiana Certification #: 04168
Kentucky Certification #: 83
Kentucky Certification #: 82
Illinois Certification #: 200051
Illinois Certification #: 200050
Florida/NELAP Certification #: E87951
Florida/NELAP Certification #: E87948

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SAMPLE SUMMARY

Project: CRC CITY OF ROCHESTER
Pace Project No.: 1086028

Lab ID	Sample ID	Matrix	Date Collected	Date Received
1086028001	DPE-8	Water	12/10/08 09:30	12/11/08 09:03
1086028002	MW20	Water	12/10/08 10:30	12/11/08 09:03
1086028003	DPE-3	Water	12/10/08 10:57	12/11/08 09:03
1086028004	DPE-4	Water	12/10/08 11:20	12/11/08 09:03
1086028005	DPE-2	Water	12/10/08 11:45	12/11/08 09:03
1086028006	MW15	Water	12/10/08 12:15	12/11/08 09:03
1086028007	DPE-7	Water	12/10/08 13:15	12/11/08 09:03
1086028008	DPE-1	Water	12/10/08 13:50	12/11/08 09:03
1086028009	DPE-6	Water	12/10/08 14:29	12/11/08 09:03
1086028010	DPE-5	Water	12/10/08 16:45	12/11/08 09:03

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SAMPLE ANALYTE COUNT

Project: CRC CITY OF ROCHESTER
Pace Project No.: 1086028

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
1086028001	DPE-8	EPA 353.1	NMH	1	PASI-M
		EPA 6010	TEM	3	PASI-M
		EPA 8260	CNC	10	PASI-M
		RSK 175	LCW	1	PASI-M
		SM 4500-S F (2000)	DEY	1	PASI-G
		SM 4500-SO4 E	NMH	1	PASI-M
		SM 5310C	AMT	1	PASI-G
1086028002	MW20	EPA 353.1	NMH	1	PASI-M
		EPA 6010	TEM	3	PASI-M
		EPA 8260	CNC	10	PASI-M
		RSK 175	LCW	1	PASI-M
		SM 4500-S F (2000)	DEY	1	PASI-G
		SM 4500-SO4 E	NMH	1	PASI-M
		SM 5310C	AMT	1	PASI-G
1086028003	DPE-3	EPA 353.1	NMH	1	PASI-M
		EPA 6010	TEM	3	PASI-M
		EPA 8260	CNC	10	PASI-M
		RSK 175	LCW	1	PASI-M
		SM 4500-S F (2000)	DEY	1	PASI-G
		SM 4500-SO4 E	NMH	1	PASI-M
		SM 5310C	AMT	1	PASI-G
1086028004	DPE-4	EPA 353.1	NMH	1	PASI-M
		EPA 6010	TEM	3	PASI-M
		EPA 8260	CNC	10	PASI-M
		RSK 175	LCW	1	PASI-M
		SM 4500-S F (2000)	DEY	1	PASI-G
		SM 4500-SO4 E	NMH	1	PASI-M
		SM 5310C	AMT	1	PASI-G
1086028005	DPE-2	EPA 353.1	NMH	1	PASI-M
		EPA 6010	TEM	3	PASI-M
		EPA 8260	CNC	10	PASI-M
		RSK 175	LCW	1	PASI-M
		SM 4500-S F (2000)	DEY	1	PASI-G
		SM 4500-SO4 E	NMH	1	PASI-M
		SM 5310C	AMT	1	PASI-G
1086028006	MW15	EPA 353.1	NMH	1	PASI-M
		EPA 6010	TEM	3	PASI-M

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SAMPLE ANALYTE COUNT

Project: CRC CITY OF ROCHESTER
Pace Project No.: 1086028

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
1086028007	DPE-7	EPA 8260	CNC	10	PASI-M
		RSK 175	LCW	1	PASI-M
		SM 4500-S F (2000)	DEY	1	PASI-G
		SM 4500-SO4 E	NMH	1	PASI-M
		SM 5310C	AMT	1	PASI-G
		EPA 353.1	NMH	1	PASI-M
		EPA 6010	TEM	3	PASI-M
1086028008	DPE-1	EPA 8260	CNC	10	PASI-M
		RSK 175	LCW	1	PASI-M
		SM 4500-S F (2000)	DEY	1	PASI-G
		SM 4500-SO4 E	NMH	1	PASI-M
		SM 5310C	AMT	1	PASI-G
		EPA 353.1	NMH	1	PASI-M
		EPA 6010	TEM	3	PASI-M
1086028009	DPE-6	EPA 8260	CNC	10	PASI-M
		RSK 175	LCW	1	PASI-M
		SM 4500-S F (2000)	DEY	1	PASI-G
		SM 4500-SO4 E	NMH	1	PASI-M
		SM 5310C	AMT	1	PASI-G
		EPA 353.1	NMH	1	PASI-M
		EPA 6010	TEM	3	PASI-M
1086028010	DPE-5	EPA 8260	CNC	10	PASI-M
		RSK 175	LCW	1	PASI-M
		SM 4500-S F (2000)	DEY	1	PASI-G
		SM 4500-SO4 E	NMH	1	PASI-M
		SM 5310C	AMT	1	PASI-G

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ANALYTICAL RESULTS

Project: CRC CITY OF ROCHESTER
Pace Project No.: 1086028

Sample: DPE-8 **Lab ID: 1086028001** Collected: 12/10/08 09:30 Received: 12/11/08 09:03 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
RSK 175 AIR Headspace	Analytical Method: RSK 175							
Methane	ND	ug/L	10.0	1		12/16/08 06:02	74-82-8	
6010 MET ICP, Lab Filtered	Analytical Method: EPA 6010 Preparation Method: EPA 3010							
Calcium, Dissolved	**189000**	ug/L	500	1	12/15/08 15:13	12/16/08 10:07	7440-70-2	
Iron, Dissolved	ND	ug/L	50.0	1	12/15/08 15:13	12/16/08 10:07	7439-89-6	
Magnesium, Dissolved	**36800**	ug/L	500	1	12/15/08 15:13	12/16/08 10:07	7439-95-4	
8260 VOC	Analytical Method: EPA 8260							
1,1-Dichloroethene	ND	ug/L	100	100		12/12/08 20:54	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	100	100		12/12/08 20:54	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	100	100		12/12/08 20:54	156-60-5	
Tetrachloroethene	**14200**	ug/L	100	100		12/12/08 20:54	127-18-4	
Trichloroethene	ND	ug/L	100	100		12/12/08 20:54	79-01-6	
Vinyl chloride	ND	ug/L	40.0	100		12/12/08 20:54	75-01-4	
Dibromofluoromethane (S)	107	%	75-125	100		12/12/08 20:54	1868-53-7	
1,2-Dichloroethane-d4 (S)	95	%	75-125	100		12/12/08 20:54	17060-07-0	
Toluene-d8 (S)	105	%	75-125	100		12/12/08 20:54	2037-26-5	
4-Bromofluorobenzene (S)	90	%	75-125	100		12/12/08 20:54	460-00-4	
4500S2F Sulfide, Iodometric	Analytical Method: SM 4500-S F (2000)							
Sulfide	ND	mg/L	5.0	1		12/15/08 09:30		
353.1 Nitrate, unpreserved	Analytical Method: EPA 353.1							
Nitrate as N	**9.8**	mg/L	1.0	10		12/11/08 13:44	14797-55-8	
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C							
Dissolved Organic Carbon	**4.0**	mg/L	2.0	1		12/15/08 13:10		M0
SM4500SO4-E, Sulfate	Analytical Method: SM 4500-SO4 E							
Sulfate	**262**	mg/L	25.0	10		12/15/08 10:15	14808-79-8	P6

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ANALYTICAL RESULTS

Project: CRC CITY OF ROCHESTER
Pace Project No.: 1086028

Sample: MW20 **Lab ID: 1086028002** Collected: 12/10/08 10:30 Received: 12/11/08 09:03 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
RSK 175 AIR Headspace	Analytical Method: RSK 175							
Methane	**17.0**	ug/L	10.0	1		12/16/08 07:18	74-82-8	
6010 MET ICP, Lab Filtered	Analytical Method: EPA 6010 Preparation Method: EPA 3010							
Calcium, Dissolved	**260000**	ug/L	500	1	12/15/08 15:13	12/16/08 10:25	7440-70-2	
Iron, Dissolved	ND	ug/L	50.0	1	12/15/08 15:13	12/16/08 10:25	7439-89-6	
Magnesium, Dissolved	**65900**	ug/L	500	1	12/15/08 15:13	12/16/08 10:25	7439-95-4	
8260 VOC	Analytical Method: EPA 8260							
1,1-Dichloroethene	ND	ug/L	5.0	5		12/15/08 19:57	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	5.0	5		12/15/08 19:57	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	5		12/15/08 19:57	156-60-5	
Tetrachloroethene	**599**	ug/L	5.0	5		12/15/08 19:57	127-18-4	P6
Trichloroethene	ND	ug/L	5.0	5		12/15/08 19:57	79-01-6	
Vinyl chloride	ND	ug/L	2.0	5		12/15/08 19:57	75-01-4	
Dibromofluoromethane (S)	109	%	75-125	5		12/15/08 19:57	1868-53-7	pH
1,2-Dichloroethane-d4 (S)	99	%	75-125	5		12/15/08 19:57	17060-07-0	
Toluene-d8 (S)	105	%	75-125	5		12/15/08 19:57	2037-26-5	
4-Bromofluorobenzene (S)	95	%	75-125	5		12/15/08 19:57	460-00-4	
4500S2F Sulfide, Iodometric	Analytical Method: SM 4500-S F (2000)							
Sulfide	ND	mg/L	5.0	1		12/15/08 09:30		
353.1 Nitrate, unpreserved	Analytical Method: EPA 353.1							
Nitrate as N	**10.9**	mg/L	1.0	10		12/11/08 13:44	14797-55-8	
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C							
Dissolved Organic Carbon	**2.7**	mg/L	2.0	1		12/15/08 13:29		
SM4500SO4-E, Sulfate	Analytical Method: SM 4500-SO4 E							
Sulfate	**203**	mg/L	25.0	10		12/15/08 10:22	14808-79-8	

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ANALYTICAL RESULTS

Project: CRC CITY OF ROCHESTER
Pace Project No.: 1086028

Sample: DPE-3 **Lab ID: 1086028003** Collected: 12/10/08 10:57 Received: 12/11/08 09:03 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
RSK 175 AIR Headspace	Analytical Method: RSK 175							
Methane	ND	ug/L	10.0	1		12/16/08 07:44	74-82-8	
6010 MET ICP, Lab Filtered	Analytical Method: EPA 6010 Preparation Method: EPA 3010							
Calcium, Dissolved	**556000**	ug/L	500	1	12/15/08 15:13	12/16/08 10:41	7440-70-2	
Iron, Dissolved	ND	ug/L	50.0	1	12/15/08 15:13	12/16/08 10:41	7439-89-6	
Magnesium, Dissolved	**103000**	ug/L	500	1	12/15/08 15:13	12/16/08 10:41	7439-95-4	
8260 VOC	Analytical Method: EPA 8260							
1,1-Dichloroethene	ND	ug/L	500	500		12/15/08 20:42	75-35-4	
cis-1,2-Dichloroethene	**1090**	ug/L	500	500		12/15/08 20:42	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	500	500		12/15/08 20:42	156-60-5	
Tetrachloroethene	**152000**	ug/L	1000	1000		12/18/08 08:10	127-18-4	
Trichloroethene	ND	ug/L	500	500		12/15/08 20:42	79-01-6	
Vinyl chloride	ND	ug/L	200	500		12/15/08 20:42	75-01-4	
Dibromofluoromethane (S)	110	%	75-125	500		12/15/08 20:42	1868-53-7	pH
1,2-Dichloroethane-d4 (S)	103	%	75-125	500		12/15/08 20:42	17060-07-0	
Toluene-d8 (S)	109	%	75-125	500		12/15/08 20:42	2037-26-5	
4-Bromofluorobenzene (S)	92	%	75-125	500		12/15/08 20:42	460-00-4	
4500S2F Sulfide, Iodometric	Analytical Method: SM 4500-S F (2000)							
Sulfide	ND	mg/L	5.0	1		12/15/08 09:30		
353.1 Nitrate, unpreserved	Analytical Method: EPA 353.1							
Nitrate as N	**9.8**	mg/L	1.0	10		12/11/08 13:44	14797-55-8	
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C							
Dissolved Organic Carbon	**6.9**	mg/L	2.0	1		12/15/08 13:35		
SM4500SO4-E, Sulfate	Analytical Method: SM 4500-SO4 E							
Sulfate	**436**	mg/L	62.5	25		12/15/08 10:36	14808-79-8	

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ANALYTICAL RESULTS

Project: CRC CITY OF ROCHESTER
Pace Project No.: 1086028

Sample: DPE-4 **Lab ID: 1086028004** Collected: 12/10/08 11:20 Received: 12/11/08 09:03 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
RSK 175 AIR Headspace	Analytical Method: RSK 175							
Methane	ND	ug/L	10.0	1		12/16/08 08:09	74-82-8	
6010 MET ICP, Lab Filtered	Analytical Method: EPA 6010 Preparation Method: EPA 3010							
Calcium, Dissolved	**258000**	ug/L	500	1	12/15/08 15:13	12/16/08 10:47	7440-70-2	
Iron, Dissolved	ND	ug/L	50.0	1	12/15/08 15:13	12/16/08 10:47	7439-89-6	
Magnesium, Dissolved	**73400**	ug/L	500	1	12/15/08 15:13	12/16/08 10:47	7439-95-4	
8260 VOC	Analytical Method: EPA 8260							
1,1-Dichloroethene	ND	ug/L	500	500		12/15/08 21:04	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	500	500		12/15/08 21:04	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	500	500		12/15/08 21:04	156-60-5	
Tetrachloroethene	**35600**	ug/L	500	500		12/15/08 21:04	127-18-4	
Trichloroethene	ND	ug/L	500	500		12/15/08 21:04	79-01-6	
Vinyl chloride	ND	ug/L	200	500		12/15/08 21:04	75-01-4	
Dibromofluoromethane (S)	115	%	75-125	500		12/15/08 21:04	1868-53-7	
1,2-Dichloroethane-d4 (S)	94	%	75-125	500		12/15/08 21:04	17060-07-0	
Toluene-d8 (S)	109	%	75-125	500		12/15/08 21:04	2037-26-5	
4-Bromofluorobenzene (S)	97	%	75-125	500		12/15/08 21:04	460-00-4	
4500S2F Sulfide, Iodometric	Analytical Method: SM 4500-S F (2000)							
Sulfide	ND	mg/L	5.0	1		12/15/08 09:30		
353.1 Nitrate, unpreserved	Analytical Method: EPA 353.1							
Nitrate as N	**26.8**	mg/L	2.5	25		12/11/08 13:44	14797-55-8	
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C							
Dissolved Organic Carbon	**2.7**	mg/L	2.0	1		12/15/08 13:41		
SM4500SO4-E, Sulfate	Analytical Method: SM 4500-SO4 E							
Sulfate	**235**	mg/L	25.0	10		12/15/08 10:25	14808-79-8	

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ANALYTICAL RESULTS

Project: CRC CITY OF ROCHESTER
Pace Project No.: 1086028

Sample: DPE-2 **Lab ID: 1086028005** Collected: 12/10/08 11:45 Received: 12/11/08 09:03 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
RSK 175 AIR Headspace	Analytical Method: RSK 175							
Methane	ND	ug/L	10.0	1		12/16/08 08:35	74-82-8	
6010 MET ICP, Lab Filtered	Analytical Method: EPA 6010 Preparation Method: EPA 3010							
Calcium, Dissolved	**181000**	ug/L	500	1	12/15/08 15:13	12/16/08 10:54	7440-70-2	
Iron, Dissolved	ND	ug/L	50.0	1	12/15/08 15:13	12/16/08 10:54	7439-89-6	
Magnesium, Dissolved	**47600**	ug/L	500	1	12/15/08 15:13	12/16/08 10:54	7439-95-4	
8260 VOC	Analytical Method: EPA 8260							
1,1-Dichloroethene	ND	ug/L	500	500		12/15/08 21:27	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	500	500		12/15/08 21:27	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	500	500		12/15/08 21:27	156-60-5	
Tetrachloroethene	**38200**	ug/L	500	500		12/15/08 21:27	127-18-4	
Trichloroethene	ND	ug/L	500	500		12/15/08 21:27	79-01-6	
Vinyl chloride	ND	ug/L	200	500		12/15/08 21:27	75-01-4	
Dibromofluoromethane (S)	122	%	75-125	500		12/15/08 21:27	1868-53-7	pH
1,2-Dichloroethane-d4 (S)	112	%	75-125	500		12/15/08 21:27	17060-07-0	
Toluene-d8 (S)	113	%	75-125	500		12/15/08 21:27	2037-26-5	
4-Bromofluorobenzene (S)	98	%	75-125	500		12/15/08 21:27	460-00-4	
4500S2F Sulfide, Iodometric	Analytical Method: SM 4500-S F (2000)							
Sulfide	ND	mg/L	5.0	1		12/15/08 09:30		
353.1 Nitrate, unpreserved	Analytical Method: EPA 353.1							
Nitrate as N	**7.8**	mg/L	1.0	10		12/11/08 13:44	14797-55-8	
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C							
Dissolved Organic Carbon	**2.8**	mg/L	2.0	1		12/15/08 13:45		
SM4500SO4-E, Sulfate	Analytical Method: SM 4500-SO4 E							
Sulfate	**182**	mg/L	25.0	10		12/15/08 10:25	14808-79-8	

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ANALYTICAL RESULTS

Project: CRC CITY OF ROCHESTER
Pace Project No.: 1086028

Sample: MW15 **Lab ID: 1086028006** Collected: 12/10/08 12:15 Received: 12/11/08 09:03 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
RSK 175 AIR Headspace	Analytical Method: RSK 175							
Methane	ND	ug/L	10.0	1		12/16/08 09:01	74-82-8	
6010 MET ICP, Lab Filtered	Analytical Method: EPA 6010 Preparation Method: EPA 3010							
Calcium, Dissolved	**67700**	ug/L	500	1	12/15/08 15:13	12/16/08 11:01	7440-70-2	
Iron, Dissolved	ND	ug/L	50.0	1	12/15/08 15:13	12/16/08 11:01	7439-89-6	
Magnesium, Dissolved	**18700**	ug/L	500	1	12/15/08 15:13	12/16/08 11:01	7439-95-4	
8260 VOC	Analytical Method: EPA 8260							
1,1-Dichloroethene	ND	ug/L	1.0	1		12/15/08 17:43	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		12/15/08 17:43	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		12/15/08 17:43	156-60-5	
Tetrachloroethene	**104**	ug/L	1.0	1		12/15/08 17:43	127-18-4	
Trichloroethene	ND	ug/L	1.0	1		12/15/08 17:43	79-01-6	
Vinyl chloride	ND	ug/L	0.40	1		12/15/08 17:43	75-01-4	
Dibromofluoromethane (S)	112	%	75-125	1		12/15/08 17:43	1868-53-7	pH
1,2-Dichloroethane-d4 (S)	95	%	75-125	1		12/15/08 17:43	17060-07-0	
Toluene-d8 (S)	105	%	75-125	1		12/15/08 17:43	2037-26-5	
4-Bromofluorobenzene (S)	97	%	75-125	1		12/15/08 17:43	460-00-4	
4500S2F Sulfide, Iodometric	Analytical Method: SM 4500-S F (2000)							
Sulfide	ND	mg/L	5.0	1		12/15/08 09:30		
353.1 Nitrate, unpreserved	Analytical Method: EPA 353.1							
Nitrate as N	**2.2**	mg/L	0.20	2		12/11/08 13:44	14797-55-8	
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C							
Dissolved Organic Carbon	ND	mg/L	2.0	1		12/15/08 13:49		
SM4500SO4-E, Sulfate	Analytical Method: SM 4500-SO4 E							
Sulfate	**87.5**	mg/L	25.0	10		12/15/08 10:28	14808-79-8	

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ANALYTICAL RESULTS

Project: CRC CITY OF ROCHESTER
Pace Project No.: 1086028

Sample: DPE-7 **Lab ID: 1086028007** Collected: 12/10/08 13:15 Received: 12/11/08 09:03 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
RSK 175 AIR Headspace	Analytical Method: RSK 175							
Methane	ND	ug/L	10.0	1		12/16/08 09:26	74-82-8	
6010 MET ICP, Lab Filtered	Analytical Method: EPA 6010 Preparation Method: EPA 3010							
Calcium, Dissolved	**123000**	ug/L	500	1	12/15/08 15:13	12/16/08 11:08	7440-70-2	
Iron, Dissolved	ND	ug/L	50.0	1	12/15/08 15:13	12/16/08 11:08	7439-89-6	
Magnesium, Dissolved	**23400**	ug/L	500	1	12/15/08 15:13	12/16/08 11:08	7439-95-4	
8260 VOC	Analytical Method: EPA 8260							
1,1-Dichloroethene	ND	ug/L	1.0	1		12/15/08 18:05	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		12/15/08 18:05	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		12/15/08 18:05	156-60-5	
Tetrachloroethene	**22.3**	ug/L	1.0	1		12/15/08 18:05	127-18-4	
Trichloroethene	ND	ug/L	1.0	1		12/15/08 18:05	79-01-6	
Vinyl chloride	ND	ug/L	0.40	1		12/15/08 18:05	75-01-4	
Dibromofluoromethane (S)	110	%	75-125	1		12/15/08 18:05	1868-53-7	
1,2-Dichloroethane-d4 (S)	90	%	75-125	1		12/15/08 18:05	17060-07-0	
Toluene-d8 (S)	98	%	75-125	1		12/15/08 18:05	2037-26-5	
4-Bromofluorobenzene (S)	101	%	75-125	1		12/15/08 18:05	460-00-4	
4500S2F Sulfide, Iodometric	Analytical Method: SM 4500-S F (2000)							
Sulfide	ND	mg/L	5.0	1		12/15/08 09:30		
353.1 Nitrate, unpreserved	Analytical Method: EPA 353.1							
Nitrate as N	**7.9**	mg/L	1.0	10		12/11/08 13:44	14797-55-8	
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C							
Dissolved Organic Carbon	**3.3**	mg/L	2.0	1		12/15/08 14:01		
SM4500SO4-E, Sulfate	Analytical Method: SM 4500-SO4 E							
Sulfate	**275**	mg/L	25.0	10		12/15/08 10:28	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: CRC CITY OF ROCHESTER
Pace Project No.: 1086028

Sample: DPE-1 **Lab ID: 1086028008** Collected: 12/10/08 13:50 Received: 12/11/08 09:03 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
RSK 175 AIR Headspace	Analytical Method: RSK 175							
Methane	ND	ug/L	10.0	1		12/16/08 09:52	74-82-8	
6010 MET ICP, Lab Filtered	Analytical Method: EPA 6010 Preparation Method: EPA 3010							
Calcium, Dissolved	**149000**	ug/L	500	1	12/15/08 15:13	12/16/08 11:23	7440-70-2	
Iron, Dissolved	ND	ug/L	50.0	1	12/15/08 15:13	12/16/08 11:23	7439-89-6	
Magnesium, Dissolved	**33400**	ug/L	500	1	12/15/08 15:13	12/16/08 11:23	7439-95-4	
8260 VOC	Analytical Method: EPA 8260							
1,1-Dichloroethene	ND	ug/L	2000	2000		12/15/08 21:49	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	2000	2000		12/15/08 21:49	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	2000	2000		12/15/08 21:49	156-60-5	
Tetrachloroethene	**161000**	ug/L	2000	2000		12/15/08 21:49	127-18-4	
Trichloroethene	ND	ug/L	2000	2000		12/15/08 21:49	79-01-6	
Vinyl chloride	ND	ug/L	800	2000		12/15/08 21:49	75-01-4	
Dibromofluoromethane (S)	116	%	75-125	2000		12/15/08 21:49	1868-53-7	
1,2-Dichloroethane-d4 (S)	104	%	75-125	2000		12/15/08 21:49	17060-07-0	
Toluene-d8 (S)	99	%	75-125	2000		12/15/08 21:49	2037-26-5	
4-Bromofluorobenzene (S)	95	%	75-125	2000		12/15/08 21:49	460-00-4	
4500S2F Sulfide, Iodometric	Analytical Method: SM 4500-S F (2000)							
Sulfide	ND	mg/L	5.0	1		12/15/08 09:30		
353.1 Nitrate, unpreserved	Analytical Method: EPA 353.1							
Nitrate as N	**6.4**	mg/L	1.0	10		12/11/08 13:44	14797-55-8	
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C							
Dissolved Organic Carbon	**4.8**	mg/L	2.0	1		12/15/08 14:06		
SM4500SO4-E, Sulfate	Analytical Method: SM 4500-SO4 E							
Sulfate	**250**	mg/L	25.0	10		12/15/08 10:31	14808-79-8	

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ANALYTICAL RESULTS

Project: CRC CITY OF ROCHESTER
Pace Project No.: 1086028

Sample: DPE-6 **Lab ID: 1086028009** Collected: 12/10/08 14:29 Received: 12/11/08 09:03 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
RSK 175 AIR Headspace	Analytical Method: RSK 175							
Methane	ND	ug/L	10.0	1		12/16/08 10:17	74-82-8	
6010 MET ICP, Lab Filtered	Analytical Method: EPA 6010 Preparation Method: EPA 3010							
Calcium, Dissolved	**70800**	ug/L	500	1	12/15/08 15:13	12/16/08 11:29	7440-70-2	
Iron, Dissolved	ND	ug/L	50.0	1	12/15/08 15:13	12/16/08 11:29	7439-89-6	
Magnesium, Dissolved	**17700**	ug/L	500	1	12/15/08 15:13	12/16/08 11:29	7439-95-4	
8260 VOC	Analytical Method: EPA 8260							
1,1-Dichloroethene	ND	ug/L	2.0	2		12/15/08 19:13	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	2.0	2		12/15/08 19:13	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	2.0	2		12/15/08 19:13	156-60-5	
Tetrachloroethene	**188**	ug/L	2.0	2		12/15/08 19:13	127-18-4	
Trichloroethene	ND	ug/L	2.0	2		12/15/08 19:13	79-01-6	
Vinyl chloride	ND	ug/L	0.80	2		12/15/08 19:13	75-01-4	
Dibromofluoromethane (S)	116	%	75-125	2		12/15/08 19:13	1868-53-7	
1,2-Dichloroethane-d4 (S)	103	%	75-125	2		12/15/08 19:13	17060-07-0	
Toluene-d8 (S)	99	%	75-125	2		12/15/08 19:13	2037-26-5	
4-Bromofluorobenzene (S)	101	%	75-125	2		12/15/08 19:13	460-00-4	
4500S2F Sulfide, Iodometric	Analytical Method: SM 4500-S F (2000)							
Sulfide	ND	mg/L	5.0	1		12/15/08 09:30		
353.1 Nitrate, unpreserved	Analytical Method: EPA 353.1							
Nitrate as N	**3.0**	mg/L	0.20	2		12/11/08 13:44	14797-55-8	
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C							
Dissolved Organic Carbon	**2.5**	mg/L	2.0	1		12/15/08 14:10		
SM4500SO4-E, Sulfate	Analytical Method: SM 4500-SO4 E							
Sulfate	**159**	mg/L	25.0	10		12/15/08 10:34	14808-79-8	

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ANALYTICAL RESULTS

Project: CRC CITY OF ROCHESTER
Pace Project No.: 1086028

Sample: DPE-5 **Lab ID: 1086028010** Collected: 12/10/08 16:45 Received: 12/11/08 09:03 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
RSK 175 AIR Headspace	Analytical Method: RSK 175							
Methane	ND	ug/L	10.0	1		12/16/08 10:43	74-82-8	
6010 MET ICP, Lab Filtered	Analytical Method: EPA 6010 Preparation Method: EPA 3010							
Calcium, Dissolved	**75400**	ug/L	500	1	12/15/08 15:13	12/16/08 11:36	7440-70-2	
Iron, Dissolved	ND	ug/L	50.0	1	12/15/08 15:13	12/16/08 11:36	7439-89-6	
Magnesium, Dissolved	**86200**	ug/L	500	1	12/15/08 15:13	12/16/08 11:36	7439-95-4	
8260 VOC	Analytical Method: EPA 8260							
1,1-Dichloroethene	ND	ug/L	10.0	10		12/15/08 20:20	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	10.0	10		12/15/08 20:20	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	10.0	10		12/15/08 20:20	156-60-5	
Tetrachloroethene	**1340**	ug/L	10.0	10		12/15/08 20:20	127-18-4	
Trichloroethene	ND	ug/L	10.0	10		12/15/08 20:20	79-01-6	
Vinyl chloride	ND	ug/L	4.0	10		12/15/08 20:20	75-01-4	
Dibromofluoromethane (S)	116	%	75-125	10		12/15/08 20:20	1868-53-7	
1,2-Dichloroethane-d4 (S)	100	%	75-125	10		12/15/08 20:20	17060-07-0	
Toluene-d8 (S)	112	%	75-125	10		12/15/08 20:20	2037-26-5	
4-Bromofluorobenzene (S)	101	%	75-125	10		12/15/08 20:20	460-00-4	
4500S2F Sulfide, Iodometric	Analytical Method: SM 4500-S F (2000)							
Sulfide	ND	mg/L	5.0	1		12/15/08 09:30		
353.1 Nitrate, unpreserved	Analytical Method: EPA 353.1							
Nitrate as N	**5.5**	mg/L	1.0	10		12/11/08 13:44	14797-55-8	
5310C Dissolved Organic Carbon	Analytical Method: SM 5310C							
Dissolved Organic Carbon	**4.7**	mg/L	2.0	1		12/15/08 14:14		
SM4500SO4-E, Sulfate	Analytical Method: SM 4500-SO4 E							
Sulfate	**468**	mg/L	62.5	25		12/15/08 10:57	14808-79-8	

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QUALITY CONTROL DATA

Project: CRC CITY OF ROCHESTER
Pace Project No.: 1086028

QC Batch: WETA/2965 Analysis Method: SM 5310C
QC Batch Method: SM 5310C Analysis Description: 5310C Dissolved Organic Carbon
Associated Lab Samples: 1086028001, 1086028002, 1086028003, 1086028004, 1086028005, 1086028006, 1086028007, 1086028008, 1086028009, 1086028010

METHOD BLANK: 112262 Matrix: Water
Associated Lab Samples: 1086028001, 1086028002, 1086028003, 1086028004, 1086028005, 1086028006, 1086028007, 1086028008, 1086028009, 1086028010

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Dissolved Organic Carbon	mg/L	ND	2.0	12/15/08 12:58	

LABORATORY CONTROL SAMPLE: 112263

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	100	108	108	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 112264 112265

Parameter	Units	1086028001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Dissolved Organic Carbon	mg/L	4.0	100	100	121	126	117	122	80-120	4	20	M0

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 112266 112267

Parameter	Units	4012449001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Dissolved Organic Carbon	mg/L	2.4	100	100	123	125	121	122	80-120	1	20	M0

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QUALITY CONTROL DATA

Project: CRC CITY OF ROCHESTER
Pace Project No.: 1086028

QC Batch: WET/2788
QC Batch Method: SM 4500-S F (2000)
Analysis Method: SM 4500-S F (2000)
Analysis Description: 4500S2F Sulfide, Iodometric
Associated Lab Samples: 1086028001, 1086028002, 1086028003, 1086028004, 1086028005, 1086028006, 1086028007, 1086028008, 1086028009, 1086028010

METHOD BLANK: 112490 Matrix: Water
Associated Lab Samples: 1086028001, 1086028002, 1086028003, 1086028004, 1086028005, 1086028006, 1086028007, 1086028008, 1086028009, 1086028010

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Sulfide	mg/L	ND	5.0	12/15/08 09:30	

LABORATORY CONTROL SAMPLE: 112491

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	50	45.6	91	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 112492 112493

Parameter	Units	1086028001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide	mg/L	ND	50	50	44.4	47.6	89	95	80-120	7	20	

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QUALITY CONTROL DATA

Project: CRC CITY OF ROCHESTER
Pace Project No.: 1086028

QC Batch: WETA/7574
QC Batch Method: EPA 353.1
Analysis Method: EPA 353.1
Analysis Description: 353.1 Nitrate, unpreserved
Associated Lab Samples: 1086028001, 1086028002, 1086028003, 1086028004, 1086028005, 1086028006, 1086028007, 1086028008, 1086028009, 1086028010

METHOD BLANK: 562050 Matrix: Water
Associated Lab Samples: 1086028001, 1086028002, 1086028003, 1086028004, 1086028005, 1086028006, 1086028007, 1086028008, 1086028009, 1086028010

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrate as N	mg/L	ND	0.10	12/11/08 13:00	

LABORATORY CONTROL SAMPLE: 562051

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrate as N	mg/L	1	1.0	101	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 562052 562053

Parameter	Units	1086028001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrate as N	mg/L	9.8	1	1	10.9	10.9	109	110	80-120	.1	30	

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QUALITY CONTROL DATA

Project: CRC CITY OF ROCHESTER
Pace Project No.: 1086028

QC Batch: MPRP/14157
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET Dissolved
Associated Lab Samples: 1086028001, 1086028002, 1086028003, 1086028004, 1086028005, 1086028006, 1086028007, 1086028008, 1086028009, 1086028010

METHOD BLANK: 562343
Matrix: Water
Associated Lab Samples: 1086028001, 1086028002, 1086028003, 1086028004, 1086028005, 1086028006, 1086028007, 1086028008, 1086028009, 1086028010

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Calcium, Dissolved	ug/L	ND	500	12/16/08 09:59	
Iron, Dissolved	ug/L	ND	50.0	12/16/08 09:59	
Magnesium, Dissolved	ug/L	ND	500	12/16/08 09:59	

LABORATORY CONTROL SAMPLE: 562344

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Calcium, Dissolved	ug/L	10000	8430	84	80-120	
Iron, Dissolved	ug/L	10000	8440	84	80-120	
Magnesium, Dissolved	ug/L	10000	8500	85	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 562345 562346

Parameter	Units	1086028001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Calcium, Dissolved	ug/L	189000	10000	10000	198000	199000	90	100	80-120	.5	30	
Iron, Dissolved	ug/L	ND	10000	10000	9170	9010	92	90	80-120	2	30	
Magnesium, Dissolved	ug/L	36800	10000	10000	46100	45300	93	85	80-120	2	30	

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QUALITY CONTROL DATA

Project: CRC CITY OF ROCHESTER
Pace Project No.: 1086028

QC Batch: AIR/7842
Analysis Method: RSK 175
QC Batch Method: RSK 175
Analysis Description: RSK 175 AIR HEADSPACE
Associated Lab Samples: 1086028001, 1086028002, 1086028003, 1086028004, 1086028005, 1086028006, 1086028007, 1086028008, 1086028009, 1086028010

METHOD BLANK: 562527
Matrix: Water
Associated Lab Samples: 1086028001, 1086028002, 1086028003, 1086028004, 1086028005, 1086028006, 1086028007, 1086028008, 1086028009, 1086028010

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Methane	ug/L	ND	10.0	12/16/08 01:47	

LABORATORY CONTROL SAMPLE & LCSD: 562528 562529

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Methane	ug/L	60.7	44.9	46.1	74	76	70-130	3	30	

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QUALITY CONTROL DATA

Project: CRC CITY OF ROCHESTER
Pace Project No.: 1086028

QC Batch: MSV/11495
QC Batch Method: EPA 8260
Analysis Method: EPA 8260
Analysis Description: 8260 MSV 465 W
Associated Lab Samples: 1086028001

METHOD BLANK: 562672 Matrix: Water
Associated Lab Samples: 1086028001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1-Dichloroethene	ug/L	ND	1.0	12/12/08 13:03	
cis-1,2-Dichloroethene	ug/L	ND	1.0	12/12/08 13:03	
Tetrachloroethene	ug/L	ND	1.0	12/12/08 13:03	
trans-1,2-Dichloroethene	ug/L	ND	1.0	12/12/08 13:03	
Trichloroethene	ug/L	ND	1.0	12/12/08 13:03	
Vinyl chloride	ug/L	ND	0.40	12/12/08 13:03	
1,2-Dichloroethane-d4 (S)	%	102	75-125	12/12/08 13:03	
4-Bromofluorobenzene (S)	%	94	75-125	12/12/08 13:03	
Dibromofluoromethane (S)	%	118	75-125	12/12/08 13:03	
Toluene-d8 (S)	%	111	75-125	12/12/08 13:03	

LABORATORY CONTROL SAMPLE: 562673

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1-Dichloroethene	ug/L	20	21.0	105	75-127	
cis-1,2-Dichloroethene	ug/L	20	22.5	113	75-125	
Tetrachloroethene	ug/L	20	19.8	99	75-125	
trans-1,2-Dichloroethene	ug/L	20	23.2	116	75-125	
Trichloroethene	ug/L	20	19.8	99	75-125	
Vinyl chloride	ug/L	20	22.3	112	71-133	
1,2-Dichloroethane-d4 (S)	%			86	75-125	
4-Bromofluorobenzene (S)	%			91	75-125	
Dibromofluoromethane (S)	%			101	75-125	
Toluene-d8 (S)	%			115	75-125	

MATRIX SPIKE SAMPLE: 563531

Parameter	Units	1086017003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,1-Dichloroethene	ug/L	ND	20	25.8	129	75-141	
cis-1,2-Dichloroethene	ug/L	ND	20	24.4	122	65-148	
Tetrachloroethene	ug/L	ND	20	21.5	107	75-133	
trans-1,2-Dichloroethene	ug/L	ND	20	24.5	122	75-138	
Trichloroethene	ug/L	ND	20	21.4	107	75-130	
Vinyl chloride	ug/L	ND	20	25.7	129	64-150	
1,2-Dichloroethane-d4 (S)	%				86	75-125	
4-Bromofluorobenzene (S)	%				103	75-125	
Dibromofluoromethane (S)	%				101	75-125	
Toluene-d8 (S)	%				114	75-125	

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QUALITY CONTROL DATA

Project: CRC CITY OF ROCHESTER
Pace Project No.: 1086028

SAMPLE DUPLICATE: 563530

Parameter	Units	1086017001 Result	Dup Result	RPD	Max RPD	Qualifiers
1,1-Dichloroethene	ug/L	ND	ND		30	
cis-1,2-Dichloroethene	ug/L	ND	ND		30	
Tetrachloroethene	ug/L	ND	ND		30	
trans-1,2-Dichloroethene	ug/L	ND	ND		30	
Trichloroethene	ug/L	ND	ND		30	
Vinyl chloride	ug/L	ND	ND		30	
1,2-Dichloroethane-d4 (S)	%	94	98	4		
4-Bromofluorobenzene (S)	%	92	95	3		
Dibromofluoromethane (S)	%	104	116	11		
Toluene-d8 (S)	%	104	121	15		

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QUALITY CONTROL DATA

Project: CRC CITY OF ROCHESTER
Pace Project No.: 1086028

QC Batch: WETA/7584 Analysis Method: SM 4500-SO4 E
QC Batch Method: SM 4500-SO4 E Analysis Description: SM4500SO4-E, Sulfate
Associated Lab Samples: 1086028001, 1086028002, 1086028003, 1086028004, 1086028005, 1086028006, 1086028007, 1086028008, 1086028009, 1086028010

METHOD BLANK: 563270 Matrix: Water
Associated Lab Samples: 1086028001, 1086028002, 1086028003, 1086028004, 1086028005, 1086028006, 1086028007, 1086028008, 1086028009, 1086028010

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Sulfate	mg/L	ND	2.5	12/15/08 09:29	

LABORATORY CONTROL SAMPLE: 563271

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfate	mg/L	7.5	7.5	100	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 563272 563273

Parameter	Units	1086028001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfate	mg/L	262	20	20	265	263	15	7	80-120	.6	30	P6

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 563274 563275

Parameter	Units	1086103001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfate	mg/L	17.3	20	20	28.4	28.3	55	55	80-120	.3	30	M0

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QUALITY CONTROL DATA

Project: CRC CITY OF ROCHESTER
Pace Project No.: 1086028

QC Batch: MSV/11503 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV 465 W
Associated Lab Samples: 1086028002, 1086028003, 1086028004, 1086028005, 1086028006, 1086028007, 1086028008, 1086028009, 1086028010

METHOD BLANK: 563624 Matrix: Water
Associated Lab Samples: 1086028002, 1086028003, 1086028004, 1086028005, 1086028006, 1086028007, 1086028008, 1086028009, 1086028010

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1-Dichloroethene	ug/L	ND	1.0	12/15/08 14:16	
cis-1,2-Dichloroethene	ug/L	ND	1.0	12/15/08 14:16	
Tetrachloroethene	ug/L	ND	1.0	12/15/08 14:16	
trans-1,2-Dichloroethene	ug/L	ND	1.0	12/15/08 14:16	
Trichloroethene	ug/L	ND	1.0	12/15/08 14:16	
Vinyl chloride	ug/L	ND	0.40	12/15/08 14:16	
1,2-Dichloroethane-d4 (S)	%	105	75-125	12/15/08 14:16	
4-Bromofluorobenzene (S)	%	89	75-125	12/15/08 14:16	
Dibromofluoromethane (S)	%	114	75-125	12/15/08 14:16	
Toluene-d8 (S)	%	108	75-125	12/15/08 14:16	

LABORATORY CONTROL SAMPLE: 563625

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1-Dichloroethene	ug/L	20	22.4	112	75-127	
cis-1,2-Dichloroethene	ug/L	20	23.4	117	75-125	
Tetrachloroethene	ug/L	20	20.8	104	75-125	
trans-1,2-Dichloroethene	ug/L	20	23.1	115	75-125	
Trichloroethene	ug/L	20	19.9	100	75-125	
Vinyl chloride	ug/L	20	22.4	112	71-133	
1,2-Dichloroethane-d4 (S)	%			91	75-125	
4-Bromofluorobenzene (S)	%			107	75-125	
Dibromofluoromethane (S)	%			100	75-125	
Toluene-d8 (S)	%			116	75-125	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 563667 563668

Parameter	Units	1086028002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,1-Dichloroethene	ug/L	ND	100	100	111	109	111	109	75-141	2	30	
cis-1,2-Dichloroethene	ug/L	ND	100	100	122	108	122	108	65-148	12	30	
Tetrachloroethene	ug/L	599	100	100	646	625	48	26	75-133	3	30	P6
trans-1,2-Dichloroethene	ug/L	ND	100	100	116	114	116	114	75-138	2	30	
Trichloroethene	ug/L	ND	100	100	97.9	93.8	98	94	75-130	4	30	
Vinyl chloride	ug/L	ND	100	100	113	110	113	110	64-150	3	30	
1,2-Dichloroethane-d4 (S)	%						82	85	75-125			
4-Bromofluorobenzene (S)	%						93	96	75-125			
Dibromofluoromethane (S)	%						101	103	75-125			pH

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QUALITY CONTROL DATA

Project: CRC CITY OF ROCHESTER
Pace Project No.: 1086028

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 563667 563668

Parameter	Units	1086028002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Toluene-d8 (S)	%						110	110	75-125			

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QUALIFIERS

Project: CRC CITY OF ROCHESTER
Pace Project No.: 1086028

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

Pace Analytical is NELAP accredited. Contact your Pace PM for the current list of accredited analytes.

LABORATORIES

PASI-G	Pace Analytical Services - Green Bay
PASI-M	Pace Analytical Services - Minneapolis

ANALYTE QUALIFIERS

M0	Matrix spike recovery was outside laboratory control limits.
P6	Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.
pH	Post-analysis pH measurement indicates insufficient VOA sample preservation.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: CRC CITY OF ROCHESTER
Pace Project No.: 1086028

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
1086028001	DPE-8	SM 5310C	WETA/2965		
1086028002	MW20	SM 5310C	WETA/2965		
1086028003	DPE-3	SM 5310C	WETA/2965		
1086028004	DPE-4	SM 5310C	WETA/2965		
1086028005	DPE-2	SM 5310C	WETA/2965		
1086028006	MW15	SM 5310C	WETA/2965		
1086028007	DPE-7	SM 5310C	WETA/2965		
1086028008	DPE-1	SM 5310C	WETA/2965		
1086028009	DPE-6	SM 5310C	WETA/2965		
1086028010	DPE-5	SM 5310C	WETA/2965		
1086028001	DPE-8	SM 4500-S F (2000)	WET/2788		
1086028002	MW20	SM 4500-S F (2000)	WET/2788		
1086028003	DPE-3	SM 4500-S F (2000)	WET/2788		
1086028004	DPE-4	SM 4500-S F (2000)	WET/2788		
1086028005	DPE-2	SM 4500-S F (2000)	WET/2788		
1086028006	MW15	SM 4500-S F (2000)	WET/2788		
1086028007	DPE-7	SM 4500-S F (2000)	WET/2788		
1086028008	DPE-1	SM 4500-S F (2000)	WET/2788		
1086028009	DPE-6	SM 4500-S F (2000)	WET/2788		
1086028010	DPE-5	SM 4500-S F (2000)	WET/2788		
1086028001	DPE-8	EPA 353.1	WETA/7574		
1086028002	MW20	EPA 353.1	WETA/7574		
1086028003	DPE-3	EPA 353.1	WETA/7574		
1086028004	DPE-4	EPA 353.1	WETA/7574		
1086028005	DPE-2	EPA 353.1	WETA/7574		
1086028006	MW15	EPA 353.1	WETA/7574		
1086028007	DPE-7	EPA 353.1	WETA/7574		
1086028008	DPE-1	EPA 353.1	WETA/7574		
1086028009	DPE-6	EPA 353.1	WETA/7574		
1086028010	DPE-5	EPA 353.1	WETA/7574		
1086028001	DPE-8	EPA 3010	MPRP/14157	EPA 6010	ICP/6678
1086028002	MW20	EPA 3010	MPRP/14157	EPA 6010	ICP/6678
1086028003	DPE-3	EPA 3010	MPRP/14157	EPA 6010	ICP/6678
1086028004	DPE-4	EPA 3010	MPRP/14157	EPA 6010	ICP/6678
1086028005	DPE-2	EPA 3010	MPRP/14157	EPA 6010	ICP/6678
1086028006	MW15	EPA 3010	MPRP/14157	EPA 6010	ICP/6678
1086028007	DPE-7	EPA 3010	MPRP/14157	EPA 6010	ICP/6678
1086028008	DPE-1	EPA 3010	MPRP/14157	EPA 6010	ICP/6678
1086028009	DPE-6	EPA 3010	MPRP/14157	EPA 6010	ICP/6678
1086028010	DPE-5	EPA 3010	MPRP/14157	EPA 6010	ICP/6678
1086028001	DPE-8	RSK 175	AIR/7842		
1086028002	MW20	RSK 175	AIR/7842		
1086028003	DPE-3	RSK 175	AIR/7842		
1086028004	DPE-4	RSK 175	AIR/7842		
1086028005	DPE-2	RSK 175	AIR/7842		
1086028006	MW15	RSK 175	AIR/7842		
1086028007	DPE-7	RSK 175	AIR/7842		

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: CRC CITY OF ROCHESTER
Pace Project No.: 1086028

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
1086028008	DPE-1	RSK 175	AIR/7842		
1086028009	DPE-6	RSK 175	AIR/7842		
1086028010	DPE-5	RSK 175	AIR/7842		
1086028001	DPE-8	EPA 8260	MSV/11495		
1086028001	DPE-8	SM 4500-SO4 E	WETA/7584		
1086028002	MW20	SM 4500-SO4 E	WETA/7584		
1086028003	DPE-3	SM 4500-SO4 E	WETA/7584		
1086028004	DPE-4	SM 4500-SO4 E	WETA/7584		
1086028005	DPE-2	SM 4500-SO4 E	WETA/7584		
1086028006	MW15	SM 4500-SO4 E	WETA/7584		
1086028007	DPE-7	SM 4500-SO4 E	WETA/7584		
1086028008	DPE-1	SM 4500-SO4 E	WETA/7584		
1086028009	DPE-6	SM 4500-SO4 E	WETA/7584		
1086028010	DPE-5	SM 4500-SO4 E	WETA/7584		
1086028002	MW20	EPA 8260	MSV/11503		
1086028003	DPE-3	EPA 8260	MSV/11503		
1086028004	DPE-4	EPA 8260	MSV/11503		
1086028005	DPE-2	EPA 8260	MSV/11503		
1086028006	MW15	EPA 8260	MSV/11503		
1086028007	DPE-7	EPA 8260	MSV/11503		
1086028008	DPE-1	EPA 8260	MSV/11503		
1086028009	DPE-6	EPA 8260	MSV/11503		
1086028010	DPE-5	EPA 8260	MSV/11503		

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CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

1086028

Page: of

Section A	Section B	Section C
Required Client Information:	**Required** Project Information:	Invoice Information:
Company: Landmark Environmental	Report To: Jason Skramstad	Attention: Jason Skramstad
Address: 2042 W. 98th Street	Copy To:	Company Name: Landmark Environmental, LLC
Bloomington, MN 55431		Address: 2042 W. 98th St, Bloomington, MN 55431
Email To: jskramstad@landmarkenv.com	Purchase Order No.:	Pace Quote Reference:
Phone: 952-887-9601, ext 205 Fax: 952-887-9605	Project Name: City of Rochester	Pace Project Manager: Carolynne Trout
Requested Due Date/TAT: Normal	Project Number: CRC	Pace Profile #:

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER____

SITE LOCATION ☐ MA ☐ IL ☐ MN ☐ NJ ☐ NY ☐ OH ☐ SC ☐ VI ☐ OTHER____

Section D **Required** Client Information

SAMPLE ID
One Character per box.
(A-Z, 0-9 / ,-)
IDs MUST BE UNIQUE

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

ITEM #	Samples	MATRIX CODE	SAMPLE TYPE G=GRAB C=COMP	COLLECTED COMPOSITE START DATE	COLLECTED COMPOSITE START TIME	COLLECTED COMPOSITE END/GRAB DATE	COLLECTED COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Filtered (Y/N)	Requested Analysis: Dissolved Fe-Ca-Mg	Sulfide	Nitrate	Sulfate	DOC	Methane	PCE/TCE/VC	cis + trans-1,1DCE	Pace Project Number / Lab I.D.
1	DPE-8			12/10	0950																							001
2	MW20				10:30																							002
3	DPE-3				10:37																							003
4	DPE-4				11:20																							004
5	DPE-2				11:45																							005
6	MW15				12:15																							006
7	DPE-7				13:15																							007
8	DPE-1				13:50																							008
9	DPE-6				14:29																							009
10	DPE-5				16:45																							010

Other: Fisher Lab

Additional Comments:

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
			PACE	12/11/08	0905

SAMPLE CONDITIONS

Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
4.4	Y/N	Y/N	Y/N
5.9	Y/N	Y/N	Y/N
5.4	Y/N	Y/N	Y/N

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Eric Edmundson

SIGNATURE of SAMPLER: [signature] DATE Signed (MM / DD / YY): 12/10/08

Sample Condition Upon Receipt

Pace Analytical

Client Name: LAND MARK Project # 1086028

Courier: [X] Fed Ex [ ] UPS [ ] USPS [ ] Client [ ] Commercial [ ] Pace Other ____

Tracking #: 8582 0749 1242/1231/1264

Optional: Proj. Due Date: Proj. Name:

Custody Seal on Cooler/Box Present: [ ] yes [X] no Seals intact: [ ] yes [ ] no

Packing Material: [ ] Bubble Wrap [X] Bubble Bags [ ] None [ ] Other ____ Temp Blank: Yes K No ____

Thermometer Used ~~080344842~~, 179425 Type of Ice: (Wet) Blue None [ ] Samples on ice, cooling process has begun

Cooler Temperature 4.4/5.9/5.4 Biological Tissue is Frozen: Yes No

Date and Initials of person examining contents: 12/11/08 AP

Temp should be above freezing to 6°C Comments:

Chain of Custody Present:	[X] Yes [ ] No [ ] N/A	1.
Chain of Custody Filled Out:	[X] Yes [ ] No [ ] N/A	2.
Chain of Custody Relinquished:	[X] Yes [X] No [ ] N/A	3.
Sampler Name & Signature on COC:	[X] Yes [ ] No [ ] N/A	4.
Samples Arrived within Hold Time:	[X] Yes [ ] No [ ] N/A	5.
Short Hold Time Analysis (<72hr):	[X] Yes [ ] No [ ] N/A	6. NITRATE
Rush Turn Around Time Requested:	[ ] Yes [X] No [ ] N/A	7.
Sufficient Volume:	[X] Yes [ ] No [ ] N/A	8.
Correct Containers Used:	[X] Yes [ ] No [ ] N/A	9.
-Pace Containers Used:	[X] Yes [ ] No [ ] N/A	
Containers Intact:	[X] Yes [ ] No [ ] N/A	10.
Filtered volume received for Dissolved tests	[ ] Yes [X] No [ ] N/A	11.
Sample Labels match COC: -Includes date/time/ID/Analysis Matrix: WT	[X] Yes [ ] No [ ] N/A	12.
All containers needing acid/base preservation have been checked. Noncompliance are noted in 13.	[ ] Yes [ ] No [X] N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	[ ] Yes [ ] No [X] N/A	
Exceptions: VOA, Coliform, TOC, Oil and Grease, WI-DRO (water)	[X] Yes [ ] No	Initial when completed: AP Lot # of added preservative:
Samples checked for dechlorination:	[ ] Yes [ ] No [X] N/A	14.
Headspace in VOA Vials (>6mm):	[ ] Yes [X] No [ ] N/A	15.
Trip Blank Present:	[X] Yes [ ] No [ ] N/A	16.
Trip Blank Custody Seals Present	[X] Yes [ ] No [ ] N/A	
Pace Trip Blank Lot # (if purchased): 102006-3		TRIP BLANKS NOT ON COC

Client Notification/ Resolution: Field Data Required? Y / N

Person Contacted: ____ Date/Time: ____

Comments/ Resolution: ____

Project Manager Review: C. Dust Date: 12/11/08

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)

12/11/08 CT

Attachment B

ALL-AMERICA CITY 1986

ROCHESTER

Minnesota

CITY OF ROCHESTER MINNESOTA INCORPORATED AUGUST 5 A.D. 1858

January 9, 2008

WATER RECLAMATION PLANT
301 37th St. N.W.
Rochester, MN 55901
(507) 281-6190
FAX #(507) 287-1389

Mr. Doug Knott
City of Rochester
201-4th St. SE
Rochester, MN 55904

RE: Industrial Discharge Permit- MN Bio-Business Center

Dear Mr. Knott;

Enclosed please find a modified Industrial Discharge Permit for the MN Bio-Business Center. Please note that the limits specified in table 2.0 include restriction on flow because of the sanitary sewer capacity in this location. Reports are due quarterly according to schedule in section 3.6. If there is enough flow, the WRP will issue a journal voucher quarterly for the quantity charges. Otherwise the quantity will be accumulated until there is enough flow to justify a voucher.

If you have any questions or comments regarding this permit, please feel free to contact me at 281-6190 ext. 3006.

Sincerely,

David C Lane

David C. Lane
Environmental Coordinator

Enc.

CC: Jason Skramstad, Landmark Environmental

DRAFT PERMIT
FOR
INDUSTRIAL USER DISCHARGE TO THE
ROCHESTER, MINNESOTA MUNICIPAL SANITARY SEWER SYSTEM

Permit No: 30G-12

This permit is issued to:

City of Rochester.

and permits the discharge of industrial wastes to the Rochester, Minnesota Municipal Sanitary Sewer System from the address and facilities described herein. This permit contains the following sections:

1.0 Background Data
2.0 Discharge limits
3.0 Specific Conditions
4.0 General Conditions

This permit is issued in accordance with Chapter 76A.11 of the Rochester Code of Ordinances.

This permit supersedes any previous permit.

Effective Date: 1st day of January, 2008

Expiration Date: 31st day of December, 2012

Issued By: Richard Freese Date: 1/2/08
Richard Freese, City Engineer

ROCHESTER MINNESOTA DRAFT INDUSTRIAL DISCHARGE PERMIT

1.0. BACKGROUND DATA.

Company Name:	City of Rochester
Mailing Address:	201 4th St. SE Rm 266 Rochester, MN 55904
Address of Premises:	219 first Avenue SW Rochester, MN
Contact Name:	Doug Knott
Title:	Development Administrator
Address:	201 4th St. SE Rm 266 Rochester, MN 55904
Phone:	(507) 328-2900
FAX:	(507) 328-2901
e-mail	dknott@ci.rochester.mn.us
Contact Name:	Jason Skramstad
Title:	Consultant
Address:	Landmark Environmental 2042 W. 98th Street Bloomington, MN 55431
Phone:	(952)887 - 9601
FAX:	(952)887 - 9605
e-mail	jskramstad@landmarkenv.com

1.1. SIC CODE:

1.2. **DESCRIPTION OF PREMISES:** Tetrachloroethylene (PCE) contaminated groundwater from the sight of the former Textile Care Building.

1.3. **DESCRIPTION OF PROCESS FLOW:** Construction dewatering and contaminated groundwater remediation.

1.4. DESCRIPTION OF PRETREATMENT PROVIDED: Construction dewatering will be treated with activated carbon to remove VOC's. Groundwater remediation will separate VOC's with the use of a dual phase extraction system discharged through a condensate tank.

2.0. LIMITS AND MONITORING REQUIREMENTS.

SPECIFIC LIMITS AND MONITORING REQUIRED BY THIS PERMIT					
PARAMETER	DAILY LIMIT	MONTHLY LIMIT	SAMPLING FREQUENCY	METHOD	SAMPLE TYPE
Flow			Continuous	Totalizer	
Flow 6am-10pm	20gpm		Continuous	Display	
Flow 10pm-6am	100gpm		Continuous	Display	
TTO mg/l	2.13		Once within 7 Days of start up of duel phase extraction.	EPA 624 7 day turn around.	Grab
TTO mg/l	2.13		Once within 8-14 days of start up of duel phase extraction	EPA 624 7 day turn around	Grab
TTO mg/l	2.13		Weekly during construction dewatering	EPA 624	Grab
TTO mg/l	2.13		Monthly during operation of duel phase extractio.n	EPA 624	Grab

Abbreviation of terms that may be found in table 2.0

TTO Total Toxic Organics

3.0. SPECIFIC CONDITION

3.1. AUTHORIZATION: The permittee is authorized to discharge process wastewater in compliance with the limits and monitoring requirements specified in Section 2.0. of this permit beginning January 1, 2008 and lasting through December 31, 2012. No discharge may take place under this permit after the above expiration date unless the user receives written authorization. In order to receive authorization to discharge after the above expiration date the user shall file a permit application, including any appropriate fees, with the City Engineer or designated representative. Applications will be made in accordance with Rochester Code of Ordinances, Section 76A.11, § 5.

3.2. SURROGATE MONITORING: NA

3.3. SAMPLING LOCATION: Samples collected in compliance with the monitoring requirements specified in Section 2.0. shall be taken at the following location(s): Prior to discharge into the sanitary sewer.

3.4. MONTHLY AVERAGES: NA

3.5. COMBINED WASTE STREAM FORMULA: NA

3.6. REPORTS: A self-monitoring report shall be submitted quarterly according to the following schedule:

Frequency	Period	Due Date
Quarterly	January 1 - March 31	April 30
	April 1 - June 30	July 31
	July 1 - September 30	October 31
	October 1 - December 31	January 31

Reports shall include all required and any other self monitoring of discharges.

3.7 REQUIRED PRETREATMENT: Construction dewatering will be treated with activated carbon to remove VOC's.

4.0. GENERAL CONDITIONS

4.1. NOTIFICATION The permittee, upon detection of any violations of the limits or monitoring requirements specified in Section 2.0., shall notify the Rochester Water Reclamation Plant. The permittee, upon detection of any violations of the Supplemental Limitations specified in Section 4.5, shall notify the Rochester Water Reclamation Plant. Notification shall be made within 24 hours of detection. The permittee shall also resample for the violated parameter within 30 days. Detection shall include all required and any other self-monitoring.

4.2. COMPOSITE SAMPLES For the purposes of the monitoring requirements specified in 2.0., a composite sample shall consist of a series of discrete samples collected in either:

a. A volume consistently proportional to the flow rate at the time of collection.

b. A fixed volume taken at equal time intervals within the compositing period.

All composite samples shall consist of a number of discrete samples equal to one per hour for the compositing period. All samples will be analyzed by a laboratory certified by the Minnesota Department of Health. Analytical methods and sample holding times shall conform to Section 304(h) of the Clean Water Act. All self-monitoring conducted by the user shall include the following: The date and time of the sampling. The name of the person conducting the sampling. The dates and times of all analyses. The name of the analyst.

4.3. DISCHARGE PROHIBITIONS: In addition the permittee shall comply with General Discharge Prohibitions as stated in the Rochester Code of Ordinances, Section 76A.03.

4.4. HAZARDOUS WASTES: The permittee shall also notify the Rochester Water Reclamation Plant, in writing, of any discharge of a substance that would, if otherwise disposed of, be considered a hazardous waste under 40 CFR Part 261. Notification shall take place at least 30 days before the date of discharge and conform to 40 CFR Section 403.12(p). No discharge of any hazardous wastes may take place without prior approval of the Rochester Water Reclamation Plant.

4.5. SUPPLEMENTAL LIMITATIONS: Industrial wastewater discharges from the permittee shall not exceed the supplemental limitations as stated in section 76A.07 nor the specific limits as specified in section 2.0. of this permit whichever is lesser.

4.6. FALSIFICATION: The permittee shall not knowingly make a false statement, representation or certification in any record, report, or plan required to be submitted to the Rochester Water Reclamation Plant under the provisions of Chapter 76A of the Rochester Code of Ordinances, or this Permit.

4.7. TRANSFERABILITY: This Permit is non-transferable.

4.8. RECORD KEEPING: The permittee shall maintain and retain plant records relating to wastewater discharge as specified by the City for a minimum of three years.

4.9. ACCIDENTAL DISCHARGE: The permittee shall notify the Rochester Water Reclamation Plant immediately of any slug or accidental discharge of a substance or wastewater in violation of Chapter 76A of the Rochester Code of Ordinances or this Permit.

4.10. SAMPLING AND MONITORING DEVICES: The permittee shall install, operate, and maintain sampling and monitoring devices in proper working order at the permittee's own expense, if required by this Permit.

4.11. INSPECTION: The permittee shall allow the City of Rochester personnel to enter upon the permittee's premise to inspect the monitoring point, collect samples, and determine compliance with Chapter 76A of the Rochester Code of Ordinances, the Federal Pretreatment Regulations, and this permit.

4.13. REVOCATION: The City of Rochester may revoke this permit if the permittee fails to comply with the conditions of this permit, Chapter 76A of the Rochester Code of Ordinances, or applicable State and Federal Regulations.

4.14. PENALTY: In the event of an industrial users noncompliance the user shall be subject to penalty in accordance with Rochester Code of Ordinances 76A.18 through 76A.28.

4.15. WASTEWATER CHANGES: Any significant change in volume or characteristics of industrial wastewater introduced into the Rochester Water Reclamation Plant system shall be immediately reported to the Manager of the Water Reclamation Plant. In such cases this permit may be subject to modification. Notice of any anticipated increase in pollutants contributed shall be given to the City 30 days in advance of such increase, in the form of a new permit application.

4.16. MODIFICATION: The terms and conditions of the permit may be subject to modifications by the City of Rochester during the term of the permit as limitations or requirements are modified or other just cause exists. The user shall be informed of any proposed changes in his permit at least 30 days prior to the effective date of change.

Attachment C

May 10, 2007

DPRA
Creative People. Smart Solutions.

Ed Olson
MPCA
520 Lafayette Road
St Paul, MN 55155-4194

RE: Status Update
Former Dry Cleaners
219 First Avenue Southwest
Rochester, Minnesota

Dear Mr. Olson:

N 44 DEG 56 MIN 45 SEC
W 93 DEG 05 MIN 27 SEC

332 Minnesota Street
Suite E-1500
St. Paul, MN 55101-1323

651.227.6500 Voice
651.227.5522 Fax

www.dpra.com

The purpose of this letter is to present a status update for the site activities completed since the previous Status Update and Work Plan was submitted to the Minnesota Pollution Control Agency (MPCA) on February 4, 2007.

Introduction

Since the previous report, DPRA measured water levels, collected groundwater samples from the on-site monitoring wells, monitored system operating parameters, and collected discharge water and air emission samples from the system. Figure 1 is a site location map and Figure 2 is a site map.

Groundwater Results

On March 13, 2007, DPRA collected groundwater elevations and samples from the existing monitoring wells and vapor ports at the site. The samples were submitted to a laboratory for analysis of volatile organic compounds (VOCs) by EPA method 8260, dissolved organic carbon, methane, and sulfate. Samples were not collected from vapor points VP-4 and VP-7, because they were dry, or from vapor point VP-1, as it was obstructed by a vehicle. Samples were not collected from monitoring well MW-4 as it is buried and not accessible. On April 20, 2007, DPRA collected samples from vapor ports VP-4 and VP-7. Figure 3 presents the water table contour map for March 13, 2007. These samples represent the results after one year of system operation.
Tetrachloroethene (PCE) was detected in monitoring well MW-6 at a concentration of 21 microgram per liter (µg/l) and ranged from 1,200 ug/l to 1,500 ug/l in monitoring wells MW-1, MW-2, MW-3, and MW-5. PCE was detected in vapor port VP-3 at a concentration of 130,000 ug/l, VP-7 at a concentration of 4,100 ug/l, and ranged from 1.5

ug/l to 460 ug/l in vapor ports VP-2, VP-4, VP- 5, VP- 6, and VP-8. PCE was detected in recovery well RW-1 at a concentration of 1,200 ug/l, which is the lowest concentration detected in RW-1 throughout the history of the well. The aqueous analytical results for the monitoring wells and vapor ports show an increase in PCE and trichloroethene (TCE) concentrations as well as degradation byproducts such as cis-1, 2 dichloroethylene since the previous sampling event; however the overall trend is a decreasing one. Figure 4 presents a PCE concentration contour map for March 13, 2007. Table 1 is a monitoring well construction summary; Table 2 summarizes the groundwater elevations; Table 3 summarizes the aqueous analytical results, and Table 4 summarizes the natural attenuation parameters. Copies of the laboratory reports are included in Appendix A. DPRA's Field methods and Procedures are included in Appendix B.

System Operating Results

Air emission samples were collected from the dual-phase extraction (DPE) system on January 22, 2007, February 21, 2007, March 13, 2007, and April 20, 2007. PCE was detected in the air emissions at concentrations of 31,000 micrograms per cubic meter ($\mu g/m^3$), 24,000 ug/m^3, 17,000 ug/m^3, and 12,000 ug/m^3,respectively. Table 5 summarizes system operation data and Table 6 summarizes the air emission analytical results.

During the one year of DPE operation, the system has removed over 147 pounds of PCE and approximately 145,000 gallons of impacted groundwater from the subsurface. Figure 5 is a graph showing cumulative PCE removal over time. The system continues to operate and is efficiently removing PCE from the groundwater and bedrock fractures. Table 7 summarizes the air emission removal calculations and Table 8 summarizes the aqueous analytical results from the groundwater recovery system.

Soil Gas Sampling

On December 29, 2006, Landmark Environmental collected six soil-gas samples from around the site, as part of the upcoming property transaction. The soil sample locations are shown on Figure 2 and the laboratory results are included in Appendix C.

Future Activities

DPRA proposes to continue collecting groundwater discharge and air emission samples from the DPE system on a monthly basis. The air emission samples will be analyzed for VOCs by EPA method TO-15 and the groundwater discharge samples will be analyzed for total toxic organics (TTO) by EPA method 624, as required by the City of Rochester.

Groundwater samples from all existing monitoring wells and vapor ports will be collected during June 2007. The groundwater samples will be analyzed for VOCs by EPA method

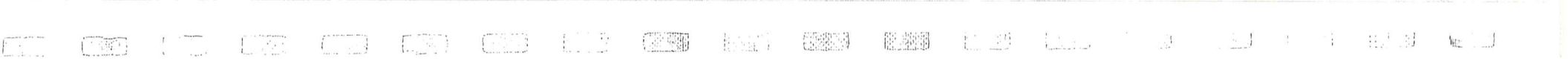
8260. DPRA will also record natural attenuation parameters including dissolved oxygen, redox potential, and pH.

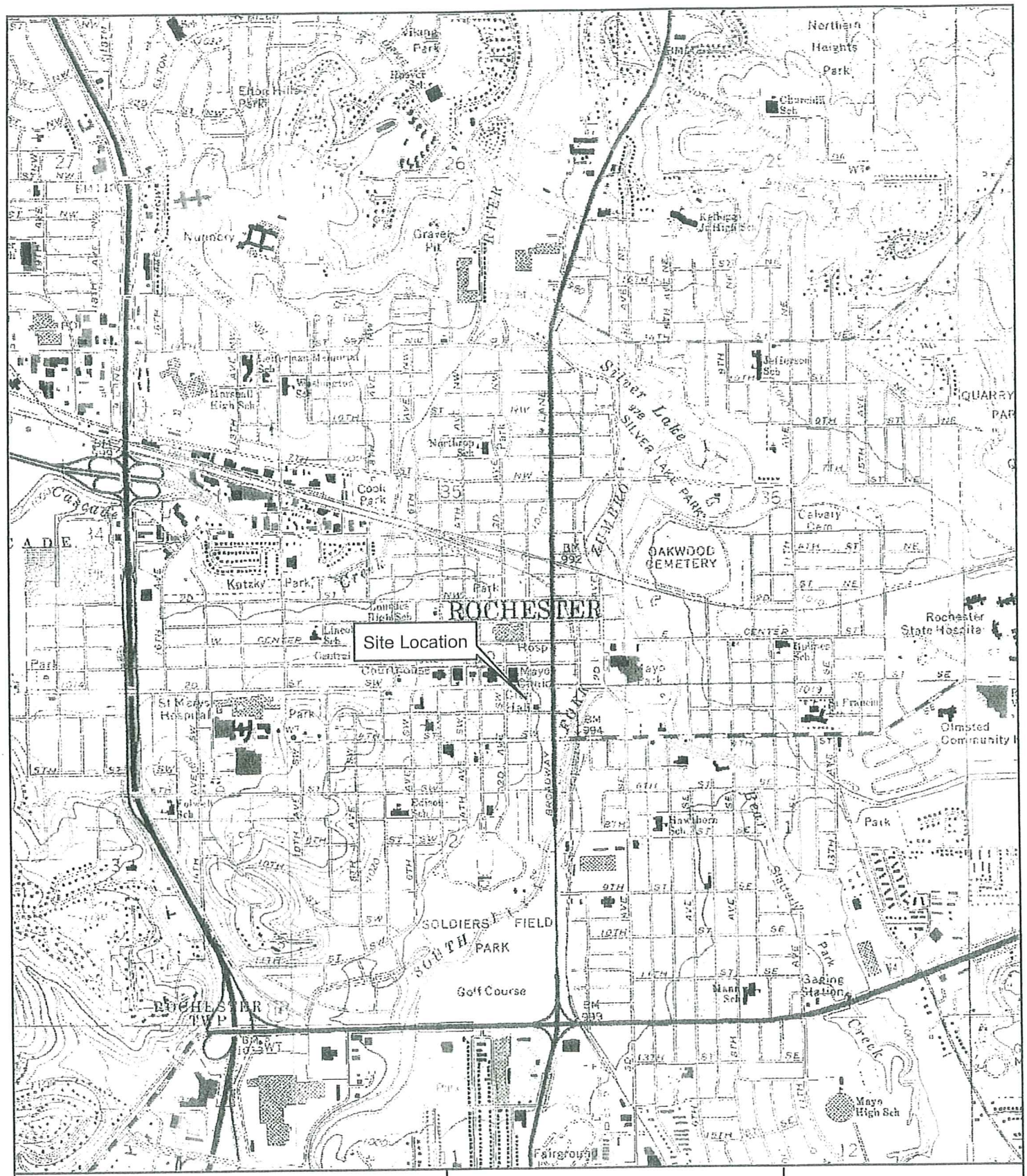
If you have any questions regarding this project, please contact me at 651-215-4234 or at matt.schemmel@dpra.com.

Sincerely,

Matt Schemmel, P.G.
Hydrogeologist

cc: Gary Stougaard - Sunstone Hotel Investors, Inc.
DPRA File 5727.0001.0007





N

Quadrangle Location

ROCHESTER QUADRANGLE
OLMSTED COUNTY, MINNESOTA
7.5 MINUTE SERIES (TOPOGRAPHIC)

1,000 0 1,000 2,000 Feet

FIGURE 1
SITE LOCATION MAP

SUNSTONE PROPERTY
219 FIRST AVENUE SW
ROCHESTER, MINNESOTA

DPRA
Creative People, Smart Solutions.

DATE: 07/05/2006

PROJECT #5727.001.007

Colonial Inn

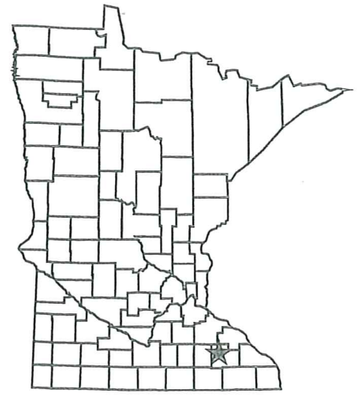
Bank

Franklin Heating

The Irridescent House

FIRST AVENUE

LSG-4
LSG-5
SG-2
LSG-3
GB-1
MW-2
Sewer Cleanout
MW-4
GB-2
LGB-1
VP-8
LGB-2
VP-4
VP-3
RW-1
VP-7
LGB-3
GB-4
Sump Cleanout
VP-6
SG-3
MW-6
VP-1
MW-1
MW-5
SG-4
VP-5
MW-3
VP-2
GB-3
LSG-6
GB-5
SG-1
GB-6
LSG-1
LSG-2



Site Location

Legend

- Monitoring Well
- Recovery Well
- DPRA Soil Gas Probe
- Vapor Port
- Cleanout
- Utility Box
- Manhole

Utility

- Electric
- Fiber Optic / TV
- Gas
- Sanitary
- Steam
- Storm

Landmark Environmental Borings

- Geotechnical Boring
- Soil Gas Probe
- Soil Probe

- Lateral Piping
- Remediation Building

N

10 0 10 20 Feet

FIGURE 2
SITE MAP
SUNSTONE PROPERTY
219 FIRST AVENUE SW
ROCHESTER, MINNESOTA

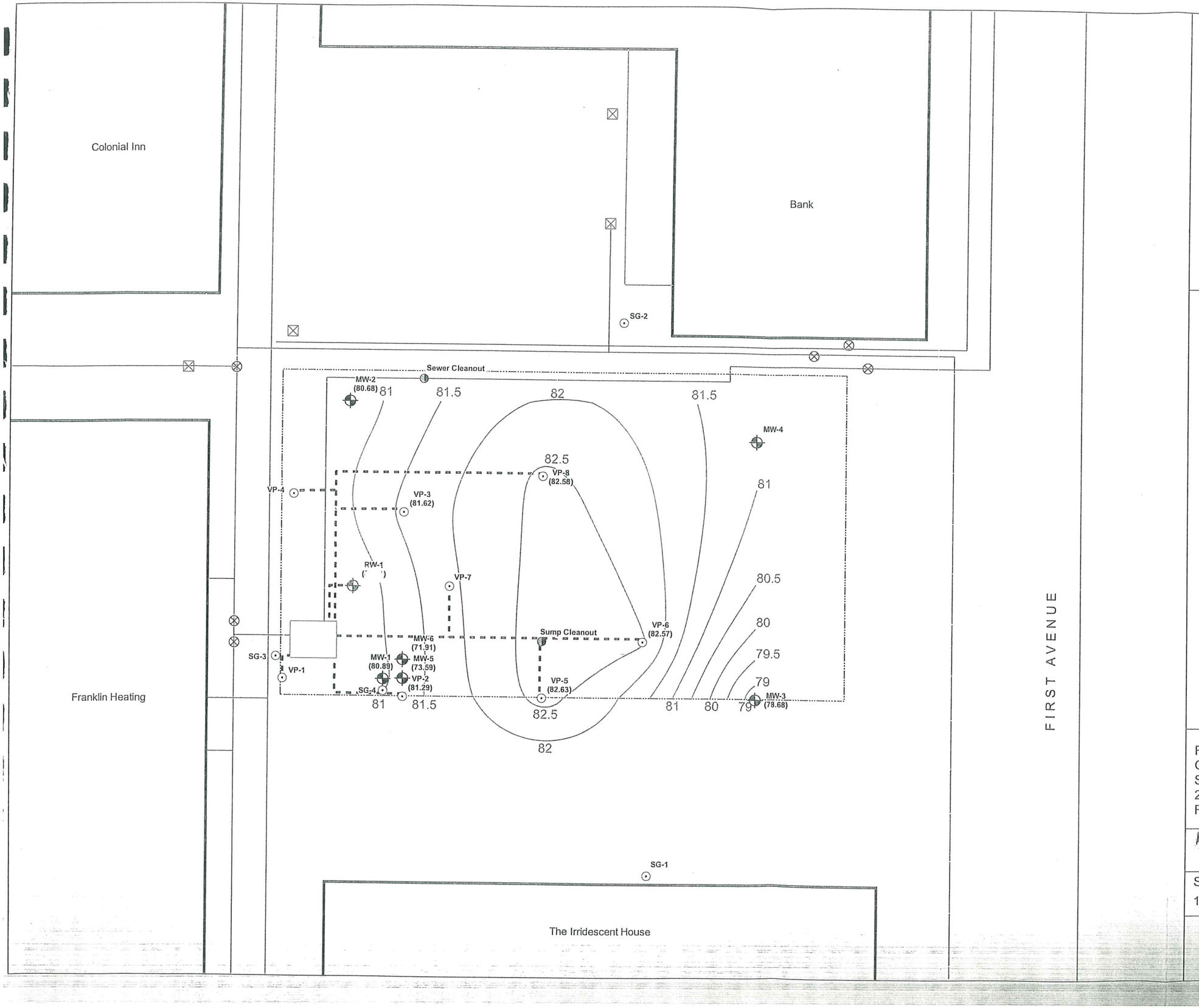
DPRA Creative People. Smart Solutions.

Date:10/31/2005
Revision: 03/09/2006

Scale: 1:240
1 inch equals 20.0 feet

Project Number: 5727.0001.0007

Drawn By: MKB



Site Location

Legend

- Monitoring Well
- Recovery Well
- Vapor Port
- Cleanout
- Utility Box
- Manhole
- Property Boundary
- Remediation Building

Utilities

- Electric
- Fiber Optic / TV
- Gas
- Sanitary
- Steam
- Storm
- Lateral Piping
- Groundwater Elevation Contour (in feet)

N

10 0 10 20 Feet

FIGURE 3
GROUNDWATER CONTOUR MAP (03/13/2007)
SUNSTONE PROPERTY
219 FIRST AVENUE SW
ROCHESTER, MINNESOTA

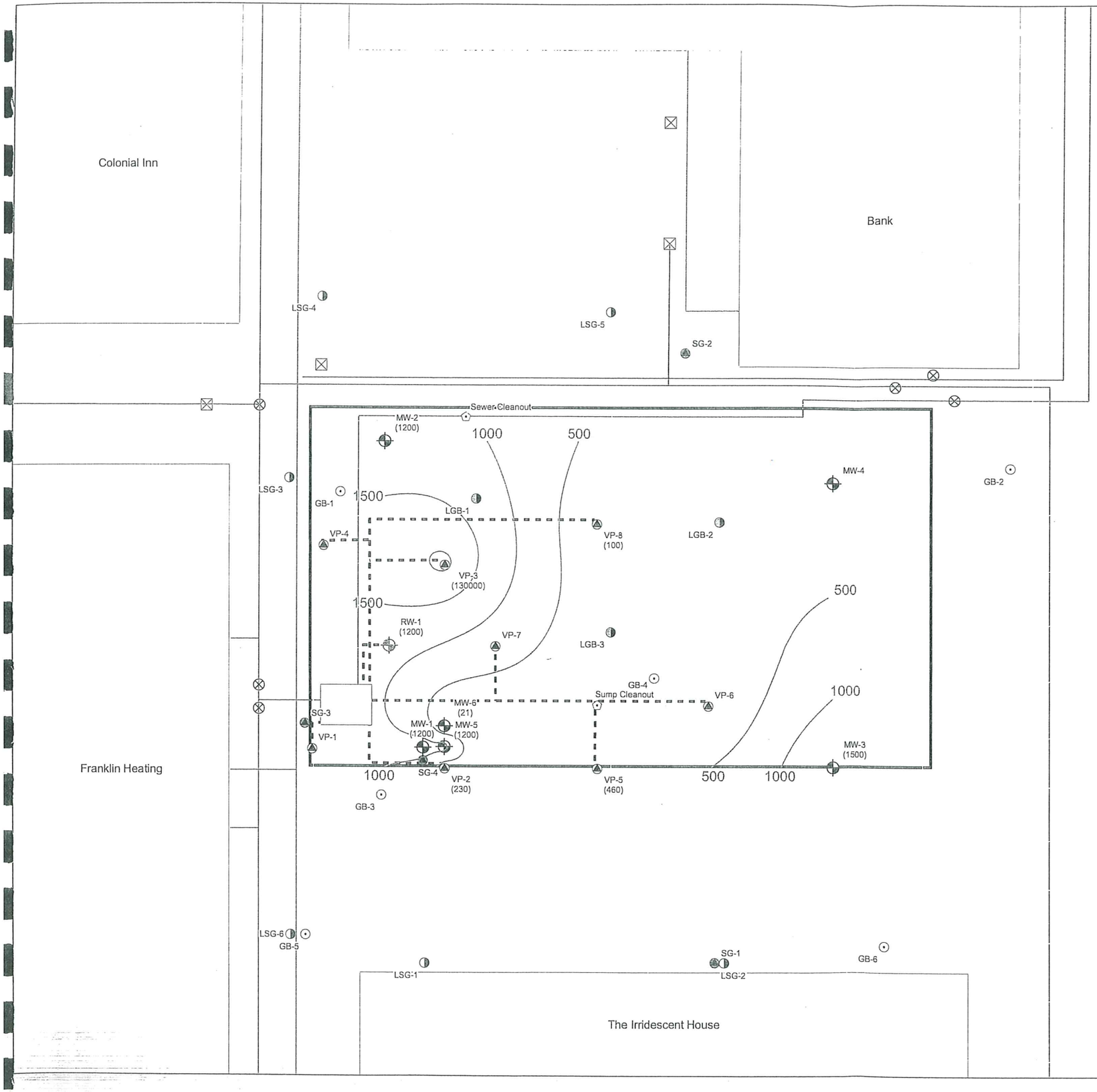
DPRA
Creative People, Smart Solutions.

Date:10/31/2005
Revision: 04/04/2007

Scale: 1:240
1 inch equals 20 feet

Project Number: 5727.0001.0008

Drawn By: MKB



Site Location

Legend

- Monitoring Well
- Recovery Well
- DPRA Soil Gas Probe
- Vapor Port
- Cleanout

Landmark Environmental Borings

- Geotechnical Boring
- Soil Gas Probe
- Soil Probe
- Utility Box
- Manhole

Utility

- Electric
- Fiber Optic / TV
- Gas
- Sanitary
- Steam
- Storm
- Lateral Piping
- PCE Level Contours
- Remediation Building

N

10 0 10 20 Feet

FIGURE 4
TETRACHLOROETHENE ANALYTICAL RESULTS
03/13/2007
SUNSTONE PROPERTY
219 FIRST AVENUE SW
ROCHESTER, MINNESOTA

DPRA Creative People. Smart Solutions.

Date:10/31/2005
Revision: 03/09/2006

Scale: 1:240
1 inch equals 20 feet

Project Number: 5727.0001.0007

Note: PCE units are in µg/l

PCE - Tetrachloroethene

Drawn By: MKB

DPRA
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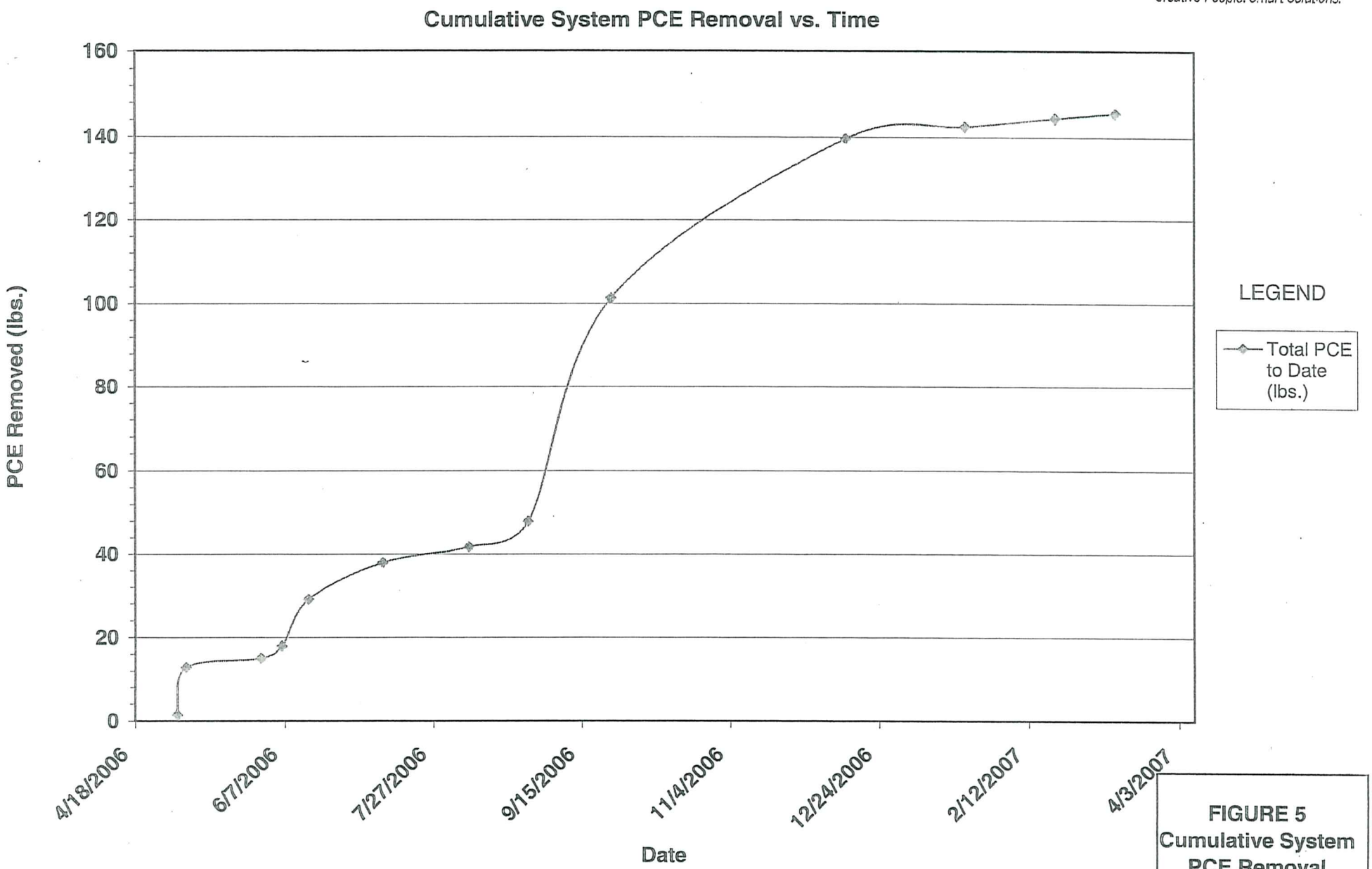
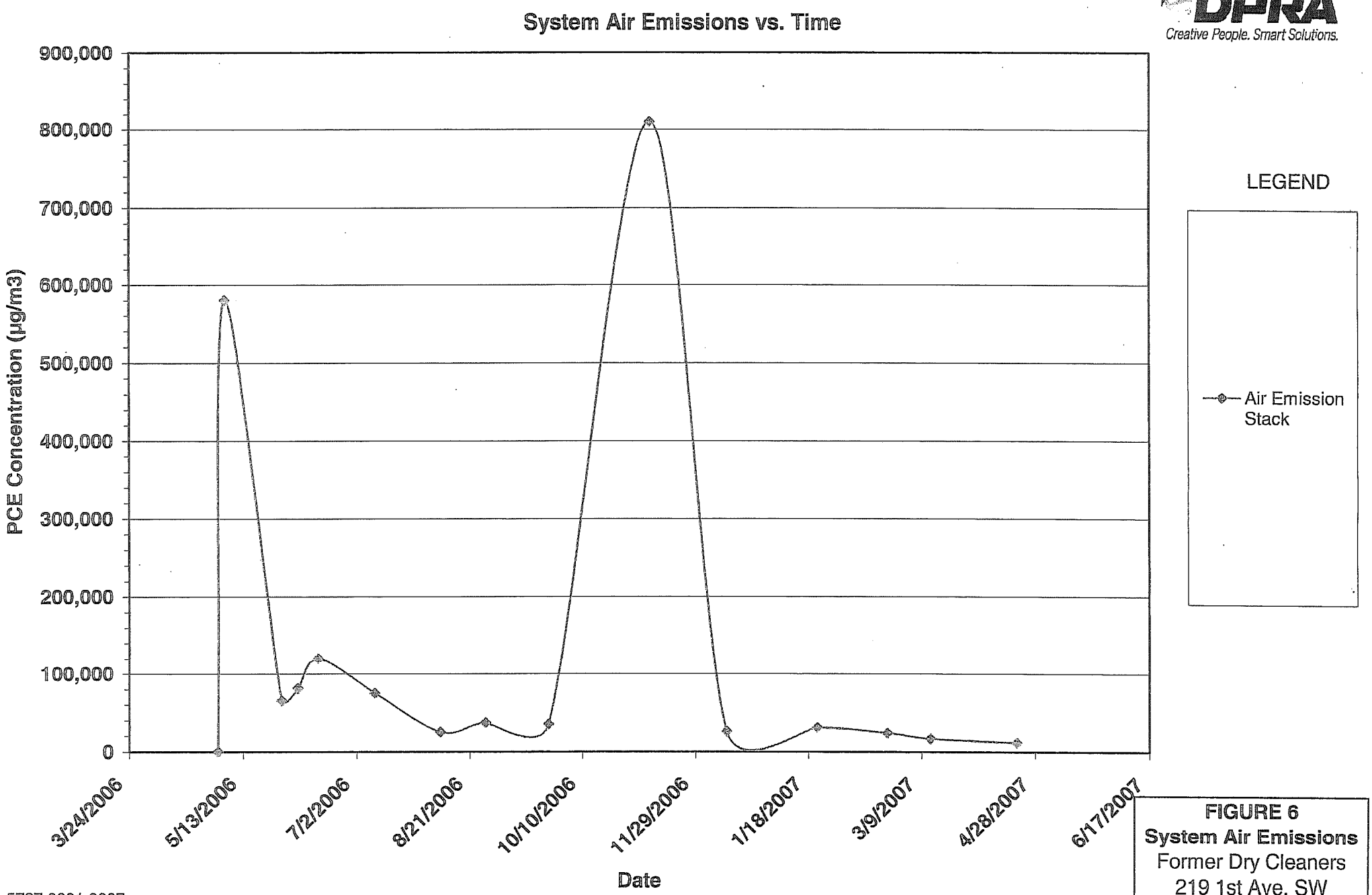


FIGURE 5
Cumulative System PCE Removal
Former Dry Cleaners
219 1st Ave. SW
Rochester, MN

5727.0001.0007
April 2007

DPRA
Creative People. Smart Solutions.



5727.0001.0007
December 2006

FIGURE 6
System Air Emissions
Former Dry Cleaners
219 1st Ave. SW
Rochester, MN

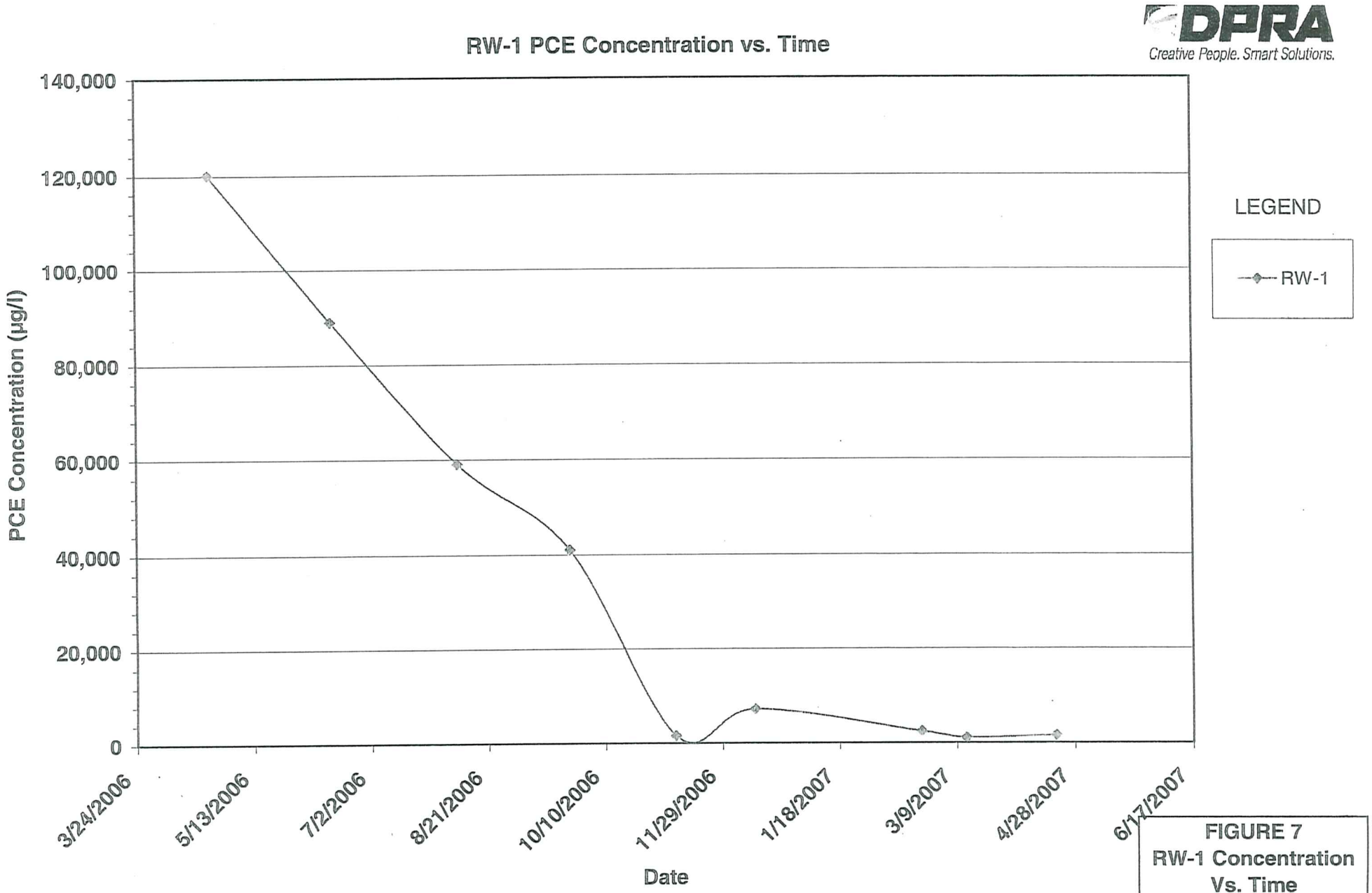


FIGURE 7
RW-1 Concentration Vs. Time
Former Dry Cleaners
219 1st Ave. SW
Rochester, MN

5727.0001.0007
December 2006

Attachment D

SUBJECT: GWTS & EMISSIONS TRTMT DES.

DATE: 3/26/09

JDS

DPE-1 = 161,000 µg/L TOTAL VOCs on 12/10/08
DPE-1 = 172,113 µg/L TOTAL VOCs on 8/8/08
DPRA TABLE 8 - GW TREATMENT & RECOVERY - AQUEOUS ANALYTICAL RESULTS
4/24/06 - 95.7% Reduction in GW VOCs From RW-1 to System GW discharge
- 2 months to REACH 99% Removal

CALC #1 - GROUND WATER Discharge Conc @ Startup
Assume 172,113 µg/L total VOCs
Assume 90% Removal from Groundwater to VAPOR Phase

17,211.3 µg/L TOTAL VOCs IN GROUNDWATER Discharge

≈ 20,000 µg/L Total VOCs

CALC #2 - GROUNDWATER REMOVAL FROM System
DPRA TABLE 8 - 0.03 gpm minimum
0.33 gpm average
1.32 gpm max

1.32 gpm max @ Startup

SUBJECT: GWTS & Emissions

DATE: 3/30/09

JDS

CALC 3 - Emissions Concentration @ Startup

810,000 $\mu g/m^3$ PCE ON 11/9/06
- MAX CONC. FROM DPRA Report TABLE 7

42 cfm - AVE FLOW RATE - DPRA TABLE 7
70 cfm - MAX FLOW RATE - DPRA TABLE 7

$$810{,}000 \frac{\mu g}{m^3} * 70 \frac{ft^3}{min} \left(\frac{0.028\ m^3}{1\ ft^3}\right) \frac{1\ min}{60\ sec}$$

$$= 26{,}460\ \mu g/s > 7{,}677\ \mu g/s \text{ DPRA SER}$$

∴ AIR TREATMENT REQUIRED