

**REMEDIAL ACTION WORK PLAN  
FOR THE  
90-30 METROPOLITAN AVENUE SITE  
REGO PARK, NEW YORK  
NYSDEC VOLUNTARY CLEANUP PROGRAM SITE # V00253-2**

**PREPARED FOR  
TITAN MANAGEMENT LP  
AND  
DPSW FOREST HILLS LLC  
FOR SUBMITTAL TO  
NEW YORK STATE  
DEPARTMENT OF ENVIRONMENTAL CONSERVATION**

**PREPARED BY**  
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**NOVEMBER 2005**

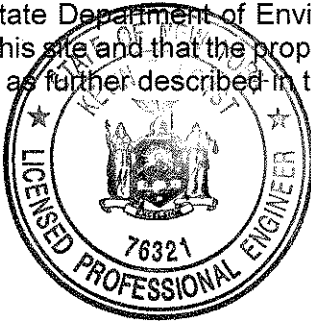
# REMEDIAL ACTION WORK PLAN

## Prepared for

Facility: 90-30 Metropolitan Avenue  
Rego Park, New York  
NYSDEC VCP # V00253-2

FPM File No: 788-05-07

I hereby certify that the remediation activities described herein have been developed in accordance with the New York State Department of Environmental Conservation Voluntary Cleanup Agreement #V00253-2 concerning this site and that the proposed remedy meets each of the evaluation factors listed in 6 NYCRR 375-1.10(c), as further described in this work plan.



A handwritten signature in black ink, appearing to be "J.P.", written over a horizontal line.

\_\_\_\_\_  
New York State Professional Engineer # 76321

\_\_\_\_\_  
Signature

It is a violation of Article 130 of the New York State Education Law for any person to alter this document in any way without the express written verification or adoption by a New York State licensed land surveyor or engineer in accordance with Section 7209(2), Article 130, New York State Education Law.

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## APPENDICES

A Health and Safety Plan

## SECTION 1.0 INTRODUCTION AND PURPOSE

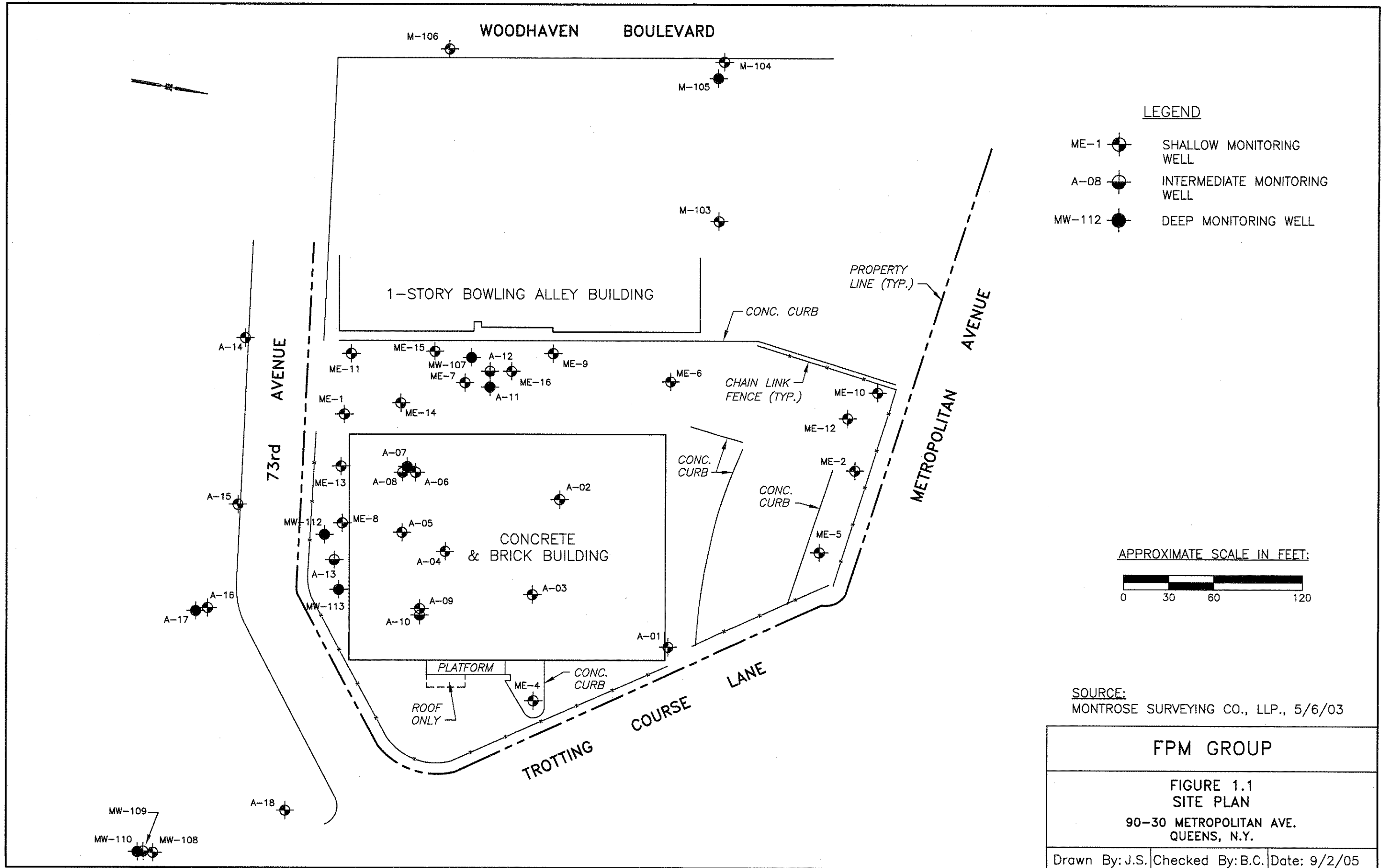
This Remedial Action Work Plan has been prepared by FPM Group (FPM) for the New York State Department of Environmental Conservation (NYSDEC) Voluntary Cleanup Program (VCP) Site # V00253-2, identified as 90-30 Metropolitan Avenue, Rego Park, New York (Site). This Remedial Action Work Plan (RAWP) describes the proposed remediation procedures to address the existing contamination at the Site. These remediation procedures have been developed based on the results of an air sparge/soil vapor extraction (AS/SVE) pilot test conducted in July 2005, as described in the September 2005 Pilot Test Report for the Site. Additional groundwater sampling, described herein, has also been conducted to further define the current extent and magnitude of the existing contamination. Certain deficiencies in the April 2004 Remedial Investigation (RI) Report for this Site have also been addressed, as identified in the December 1, 2004 NYSDEC letter responding to the April 2004 RI Report.

### 1.1 Site Description

The Site is located in the Rego Park section of Queens and is bounded by Metropolitan Avenue on the north, Trotting Course Lane on the east, 73<sup>rd</sup> Avenue on the south, and Woodhaven Lanes Bowling Alley on the west. A site plan is included as Figure 1.1.1. The Site is occupied by a two-story commercial building that is being redeveloped for restricted commercial use (excluding day care, child care, and medical care uses). Paved parking areas are present on the west and north sides of the Site. Small landscaped areas are present on the north and south sides of the Site.

The Woodhaven Lanes Bowling Alley adjoins the west side of the Site. Further west, across Woodhaven Boulevard, is a residential area. To the north of the Site, across Metropolitan Avenue, is a retail and commercial area with several auto-related businesses, including a gas station just north of the bowling alley. To the east of the Site, across Trotting Course Lane, is a car wash and a former railroad embankment. To the south of the Site, across 73<sup>rd</sup> Avenue, is a Sports Authority store and an associated paved parking lot.

C:\Draw\DPSP\Forest Hills\Metropolitan Ave\Remediation System\Figure 1.1.dwg, 11/10/2005 9:18:48 AM, 1:1



**LEGEND**

- ME-1 SHALLOW MONITORING WELL
- A-08 INTERMEDIATE MONITORING WELL
- MW-112 DEEP MONITORING WELL

APPROXIMATE SCALE IN FEET:



SOURCE:  
MONTROSE SURVEYING CO., LLP., 5/6/03

<b>FPM GROUP</b>		
<b>FIGURE 1.1</b> <b>SITE PLAN</b> <b>90-30 METROPOLITAN AVE.</b> <b>QUEENS, N.Y.</b>		
Drawn By: J.S.	Checked By: B.C.	Date: 9/2/05

## **1.2 Site History**

Up to 1950 the Site was occupied by various buildings associated with the residential estates and farming activities of the Vandever family. In the 1930s a paved road, 90<sup>th</sup> Place, was present between the Site and the adjoining bowling alley to the west.

The existing Site building was constructed in 1951 and was operated as a pharmaceutical distribution warehouse by Foremost-McKesson, Inc. until 1976. Between 1977 and 1988 the property was owned by Heidelberg Eastern, Inc., which manufactured and distributed printing presses and parts. The Site building was used primarily for administration, equipment repair, and warehousing rather than manufacturing. Heidelberg Eastern employees reported that kerosene was the only solvent used at the Site. Kerosene was reportedly used in a cleaning booth in the northeastern portion of the building.

In late 1988 the New York City Industrial Development Agency took title to the property, although Heidelberg Eastern continued to operate at the Site. In 1993 Heidelberg Eastern became EAC USA. The Site building became vacant at about that time and has remained vacant. At present the Site building is being redeveloped for commercial (retail) use.

## **1.3 Summary of Previous Investigations**

Tetrachloroethene (PCE) was first detected in the groundwater beneath the Site in December 1992 during an investigation performed by Environmental Science and Engineering (ES&E) for Heidelberg Eastern. PCE was found in groundwater samples from the three wells installed onsite but was not detected in soil samples from above the groundwater surface.

Delineation of PCE impact in groundwater continued in 1995 when 13 additional groundwater monitoring wells were installed by Soil Mechanics. PCE was detected in groundwater throughout the southern portion of the Site and on the west and south sides of the building. However, no source material was located in soil samples. A soil gas survey was also performed on the south side of the Site building. Organic vapors were reported to have been detected in soil gas.

Additional investigations were performed by Roux Associates, Inc. (Roux) in 1995 and 1996 for the purposes of delineating the extent of groundwater impact and to locate any onsite source areas through soil

gas and soil sampling. Soil gas samples were collected from 114 locations in and around the Site building but only trace levels of PCE (up to 4.81 ug/l), consistent with diffusion from the impacted groundwater, were detected. Soil sampling was performed in areas where PCE was detected in soil gas; however, no PCE was detected in these samples.

Roux performed additional soil and groundwater sampling in 1997. The results indicated a southeast direction of groundwater flow. The existing and newly-obtained data failed to identify an onsite source of PCE and, since PCE was present at elevated concentrations on the western (upgradient) side of the Site, it was concluded that the PCE source was located offsite.

IT performed additional soil, soil gas, and groundwater sampling at the Site and adjoining properties in 2000 and 2001. The groundwater flow direction was identified as southwest during this study. No source area was clearly identified, but the southern portion of the Site building was identified as a suspected source area based on elevated PCE levels in groundwater near the south wall of the building, the past use of the building for servicing printing machinery, and the groundwater flow direction.

A Remedial Investigation (RI) was performed at the Site by AKRF, Inc. (AKRF) in 2003 and included soil and groundwater sampling. The results were reported in an April 2004 RI Report. The groundwater flow direction was confirmed to be to the southeast at the eastern end of the Site and to the south at the western end of the Site. Groundwater data indicated the presence of two slightly overlapping plumes of PCE: one associated with the southern portion of the Site and one associated with adjoining bowling alley to the west. The PCE distribution suggests an onsite source in the southern portion of the Site; however, no PCE source area was identified on the basis of the soil data. PCE concentrations in groundwater have decreased over time and appear to reflect dispersion of the plume since breakdown products have not been detected above trace levels and no increase in downgradient concentrations has been observed.

In summary, the RI Report and previous investigations have identified PCE as the primary contaminant of concern for the Site. PCE has been found to exceed NYSDEC Class GA Ambient Water Quality Standards (Standards) in shallow (0 to 10 feet below the water table), intermediate (approximately 30 to 40 feet below the water table) and deep wells (approximately 65 to 80 feet below the water table) at

the Site and is present primarily under the southern portion of the property. The approximate location of the Site plume as of May 2003 is shown on Figure 1.3.1. This plume does not appear to extend significantly offsite and appears to be largely immobile and generally decreasing in concentration.

A PCE source area has not been identified at the Site, although the distribution of groundwater PCE concentrations suggests that the source is/was beneath the southern portion of the property building. The AS/SVE system described herein is designed to address the most significantly impacted groundwater at the Site and the soil in the presumed source area. It is also intended to be protective of indoor air quality in the building.

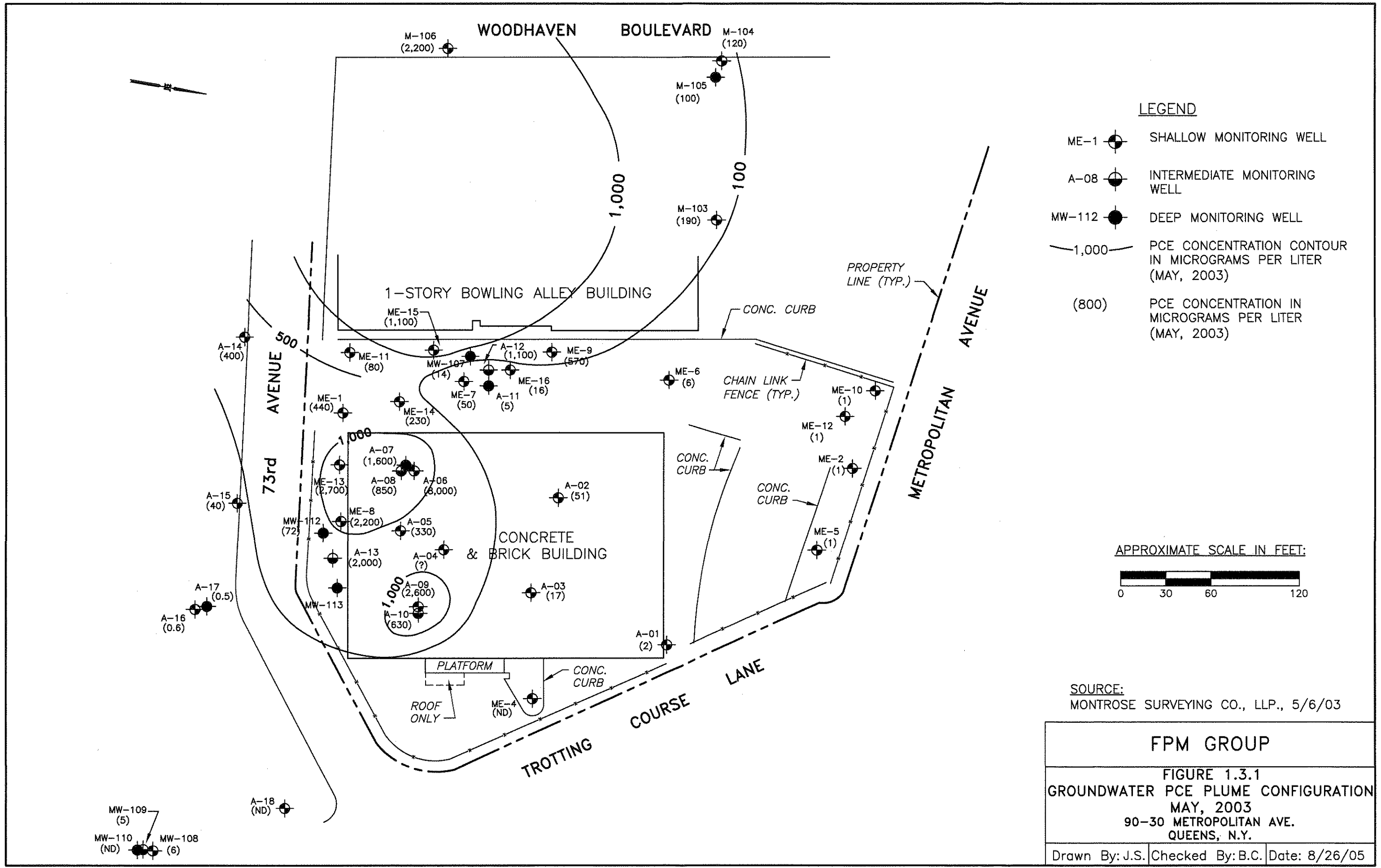
A crossgradient offsite plume of PCE groundwater contamination has been identified and is situated primarily beneath the adjacent bowling alley property. Although the plume of PCE associated with the bowling alley property co-mingles with the Site plume on the western side of the Site, there appears to be an area of lower PCE concentrations delineating the plumes. The approximate configuration of the adjoining PCE plume is shown on Figure 1.3.1. In accordance with the Voluntary Cleanup Agreement (VCA) for the Site, the proposed remediation described herein is intended to address the existing contamination at the Site, which includes the portion of the adjoining PCE plume that is present on the Site as well as the Site plume.

It should also be noted that elevated levels of methyl tert-butyl ether (MTBE) have previously been identified in the Site groundwater. The MTBE originates from an offsite upgradient source. The proposed remediation described herein is not designed to address the MTBE contamination other than as it affects remediation system effluent.

Pilot testing has been performed to evaluate the suitability of AS/SVE to address Site PCE contamination and to obtain necessary performance information to design a full-scale AS/SVE system. Pilot test results were previously described in the September 2005 Pilot Test Report and are summarized herein. Additional Site subsurface information has also been obtained to address some of the identified deficiencies in the RI Report. This RAWP summarizes the pilot test results, presents the results of recent



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groundwater monitoring, describes the proposed remediation procedures to address the existing contamination at the Site, and addresses certain deficiencies in the April 2004 RI Report.

## SECTION 2.0 SUMMARY OF PILOT TEST RESULTS

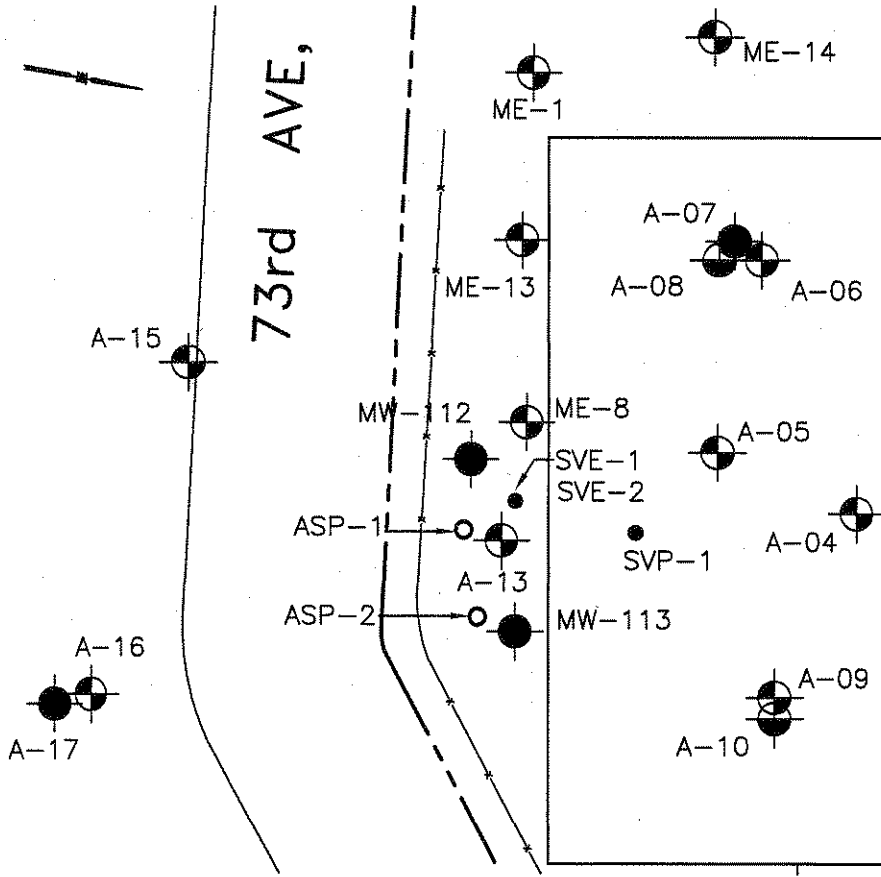
AS/SVE is planned for remediation of PCE-impacted groundwater at the Site. The SVE system is also planned to include design features to address potential PCE-impacted soil and potential soil vapor intrusion issues for the Site building. The pilot test was performed to assess issues associated with these design goals. The pilot test results were documented in FPM's report September 2005 entitled, "Pilot Test Report, 90-30 Metropolitan Avenue Site, Rego Park, NY NYSDEC VCP Site # V00253-2". A summary of these results is presented below.

A site plan showing existing groundwater monitoring wells and the pilot test wells is presented in Figure 2.1. The testing was conducted in the area of known groundwater contamination at the shallow, intermediate, and deep levels in the Upper Glacial Aquifer. The testing also included areas where impacted soil and/or soil vapor may be present.

### **2.1 Soil Vapor Extraction Testing**

SVE testing was conducted for two depth intervals at the Site: 38 to 48 feet below grade (deep unsaturated zone (just above the water table) and 15 to 20 feet below grade (shallow unsaturated zone). The primary purpose of SVE for the deep interval is to capture vapors originating from the water table during air sparging. The primary purpose of the shallow-depth SVE is to induce a vacuum beneath the Site building to provide protection from soil vapor intrusion. In addition, a secondary purpose of both SVE systems is to treat PCE-impacted soil that may be present in the subsurface.

The shallow unsaturated zone SVE test generally indicated that the radius of influence (ROI) increased as the vacuum and the air flow rate, respectively, were increased from 32.5 feet at 60 standard cubic feet per minute (scfm) to approximately 60 feet at 125 scfm. During the test, effluent samples were also collected and appear to indicate that increases in the applied vacuum have no significant effect on the effluent concentrations. Based upon the results, shallow unsaturated zone SVE wells with flow rates of between 105 and 126 scfm and having a induced vacuum of 10 to 14 inches of water will provided a radius of influence between 40 and 60 feet.



APPROXIMATE SCALE IN FEET:  
 0 20 40 80

NOTE: MW-112 & A-13 WERE USED FOR AIR SPARGING AND MONITORING POINTS.

**LEGEND**

- SVE-1 ● SOIL VAPOR MONITORING/EXTRACTION POINT
- ASP-1 ○ AIR SPARGE MONITORING POINT
- ME-1 ● SHALLOW MONITORING WELL
- A-08 ● INTERMEDIATE MONITORING WELL
- MW-112 ● DEEP MONITORING WELL

SOURCE:  
 MONTROSE SURVEYING CO., LLP., 5/6/03

<b>FPM GROUP</b>		
<b>FIGURE 2.1 PILOT TEST LAYOUT 90-30 METROPOLITAN AVE. QUEENS, N.Y.</b>		
Drawn By: H.C	Checked By: B.C.	Date: 9/2/05

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The deep unsaturated zone SVE test indicated that the ROI increased from 13.7 feet at 70 scfm to 51 feet at 100 scfm. No increases in the ROI were noted when the flow rate was increased from 100 to 125 scfm. During the test effluent samples were also collected and indicated a maximum PCE concentration of 300 parts per billion per volume (ppbv) at the 100 scfm interval. Based upon the test results, deep unsaturated zone SVE wells with an induced vacuum of 10 inches of water at a flow rate of 100 scfm will provide an approximate ROI of 50 feet.

## **2.2 Air Sparge Testing**

AS testing was conducted for two depth intervals at the Site: 30 to 40 feet below the water table (intermediate saturated zone) and 75 to 85 feet below the water table (deep saturated zone). No shallow (10 to 20 feet below the water table) AS testing was conducted because it likely that similar ROIs will be obtained due to the similarity in stratigraphy with the two zones tested. The purpose of this testing was to determine if multi-depth AS is suitable to treat PCE contaminated groundwater at varying depths below the Site.

The intermediate zone AS test generally indicated an increase in groundwater mounding and dissolved oxygen concentrations at the 12 scfm and 16 scfm injection rates. No significant mounding or dissolved oxygen concentrations were observed at the 8 scfm injection rate. Effluent sampling was performed during the testing and showed a decrease in PCE emissions from the first step (8 scfm) to the second step (12 scfm), and then a slight increase from the second (12 scfm) to the third step (16 scfm). Based upon the testing results, a sparging rate of between 12 and 16 scfm will provided a ROI of approximately 20 feet.

The deep zone AS test generally indicated an increase in groundwater mounding as the injection air flow rate was increased from 8 to 16 scfm. No significant changes in dissolved oxygen were noted. Effluent sampling was performed during the testing and showed an increase from the first step (8 scfm) to the second step (12 scfm), and then a decrease from the second (12 scfm) to the third step (16 scfm). Based upon the testing results, a sparging rate of 12 scfm provided the best ROI of approximately 40 feet. This

ROI is somewhat greater than expected by FPM and a more conservative ROI estimate of 20 to 25 feet will be utilized for design purposes.

### **2.3 Emissions Evaluation**

To determine if treatment of emissions would be necessary, FPM collected several effluent samples during various stages of both the SVE and combined AS/SVE testing. The data indicated the PCE is the primary contaminant of concern in the effluent air, with minor amounts of petroleum-related VOCs, 1,1,1-trichloroethane and dichloride flouranthene also noted. The maximum PCE concentration detected during the tests (370 ppbv) was evaluated in accordance with the NYSDEC's DAR Program Policy "Guidelines for the Control of Toxic Ambient Air Contaminants", and was noted to be well within the applicable annual and short-term guidelines. Therefore, it is anticipated that effluent treatment will not be required. Additional evaluation of the need for effluent treatment is planned, as discussed below.

## **SECTION 3.0 ADDITIONAL GROUNDWATER SAMPLING RESULTS**

The most recent previous groundwater monitoring at the Site was conducted in May 2003. A review of historic groundwater monitoring data in the Pilot Test Report (FPM, September 2005, see Figures 6.2.1 and 6.2.2) indicated that both onsite and downgradient offsite groundwater conditions have generally improved over time. Groundwater conditions within the adjoining bowling alley plume were also noted to have also generally improved over time. Therefore, current groundwater conditions were anticipated to be somewhat improved relative to the May 2003 data. It was recognized that current groundwater conditions should be assessed prior to preparing the remedial design.

In addition, in their December 1, 2004 correspondence, the NYSDEC indicated that the RI Report was deficient in delineating the horizontal extent of the deeper plume. As discussed in Section 2 of the Pilot Test Report, an additional deep groundwater monitoring well, MW-113, was installed at the southeast corner of the Site to delineate the lateral extent of the deep groundwater plume such that these data could be used in preparing the remedial design. The top of the well casing was surveyed to the nearest 0.01 foot so as to provide a reference point for water level determinations. Well installation and survey procedures were documented in the Pilot Test Report.

Groundwater sampling was performed at select Site wells in June 2005, as discussed in the Pilot Test Report. The wells sampled include all of the onsite and downgradient deep and intermediate-depth wells and select onsite and downgradient shallow wells. The shallow wells to be sampled were selected so as to re-evaluate the most concentrated portions and the edges of the plume. Upgradient wells, crossgradient wells and wells located outside of the boundaries of the plume were not sampled since they would not provide data relevant to system design.

### **3.1 Groundwater Sampling Procedures**

Groundwater sampling was performed in accordance with the procedures utilized during the RI. At each well to be sampled the depth to the static water level and depth of the well were measured to the nearest 0.01 foot with an interface probe. The length of the column of water present in the well casing was

then calculated and the volume was derived. The depth-to-water measurements were also used to evaluate the potentiometric surface elevation within each well. These data were later used to evaluate the site-specific groundwater flow direction, as discussed below.

A decontaminated submersible pump with a polyethylene hose was then used to purge between three and five casing volumes of water from each well. All non-disposable equipment that entered each well was first decontaminated with a low-phosphate detergent and potable water wash and then a potable water rinse followed by a distilled water rinse prior to use. Following the removal of each casing volume, field parameters, including pH, turbidity, specific conductivity, and temperature were monitored. Stability was confirmed when all stability parameters varied less than 10 percent between the removal of two successive casing volumes and after at least three casing volumes had been removed. Upon achievement of stability, sampling was performed using a dedicated disposable bailer for each well.

Each filled sample container was labeled with the Site location, well number, date and time of sampling, and analysis to be performed. The labeled sample containers were placed in laboratory-supplied coolers with ice to depress the temperature. A chain-of-custody form was filled out and kept with the samples in the coolers to document the sequence of sample possession. The sample coolers were delivered by an overnight courier to Severn Trent Labs, which is New York State Department of Health-certified.

The samples were analyzed for Target Compound List (TCL) VOCs. The analyses were performed using the current NYSDEC ASP and the results are included in Appendix A. A Data Usability Summary Report (DUSR) was prepared to verify that the data are of sufficient quality to be used for the intended purpose. The DUSR is included in Appendix A.

### **3.2 Groundwater Flow Direction**

The depth-to-water measurements (Table 3.2.1) were integrated with the top-of-casing elevation measurements to determine the water table or potentiometric surface elevation in each well. The resulting measurements for the shallow water table were contoured to evaluate the groundwater flow direction. These data are shown on Figure 3.2.1.

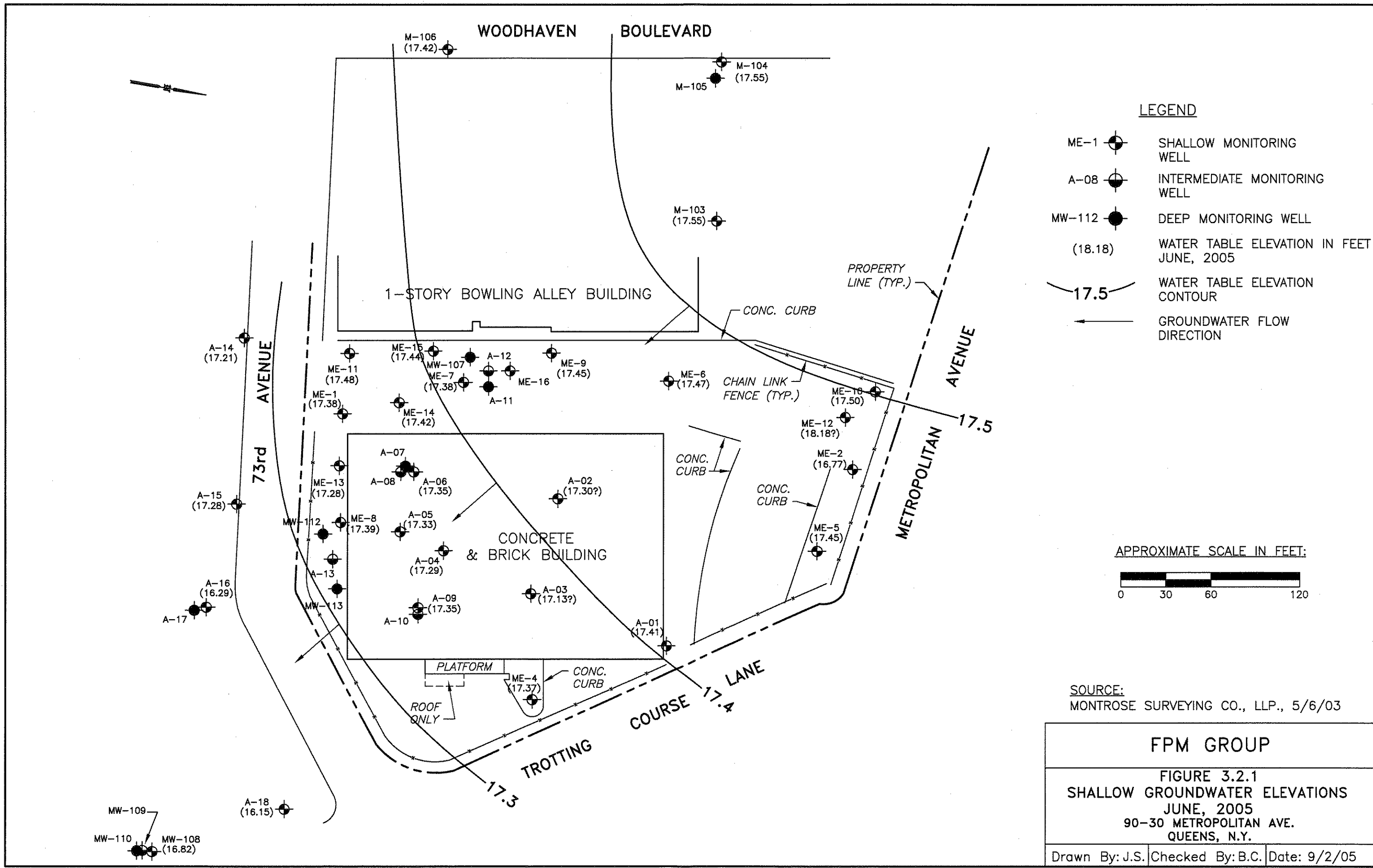


**TABLE 3.2.1  
WELL DATA  
90-30 METROPOLITAN AVENUE  
REGO PARK, NEW YORK**

Well Number	Total Depth (feet)	Top of Casing Elevation (feet)	Wells Sampled for Remedial Design	Depth to Water in feet, June 2005	Water Table Elevation in feet, June 2005
<b>Shallow Wells</b>					
ME-1	49.31	60.18	X	42.80	17.38
ME-2	51.00	57.67		40.90	16.77
ME-4	49.70	58.66		41.29	17.37
ME-5	50.30	57.73		40.28	17.45
ME-6	50.00	58.81		41.34	17.47
ME-7	50.66	59.61	X	42.23	17.38
ME-8	55.00	59.60	X	42.21	17.39
ME-9	54.76	59.03		41.58	17.45
ME-10	54.00	58.28		40.78	17.50
ME-11	54.88	59.64	X	42.16	17.48
ME-12	52.05	58.38		40.20	18.18
ME-13	55.15	59.60	X	42.32	17.28
ME-14	54.70	59.60	X	42.18	17.42
ME-15	54.86	59.55	X	42.11	17.44
ME-16	54.85	59.19		-	-
A-01	53.48	58.05		40.64	17.41
A-02	58.75	61.45		44.15	17.30
A-03	57.40	61.57		44.44	17.13
A-04	60.30	61.29	X	44.00	17.29
A-05	57.60	61.54	X	44.21	17.33
A-06	59.80	61.59	X	44.24	17.35
A-09	58.75	61.29	X	43.94	17.35
A-14	53.20	59.47		42.26	17.21
A-15	52.60	59.46	X	42.18	17.28
A-16	51.80	58.99	X	42.70	16.29
A-18	50.50	58.70	X	42.55	16.15
MW-103	60.70	58.60		41.05	17.55
MW-104	58.90	59.40		41.85	17.55
MW-106	48.30	57.92		40.50	17.42
MW-108	55.00	58.74		41.92	16.82
<b>Intermediate Wells</b>					
A-08	84.35	61.53	X	45.70	15.83
A-10*	85.1	61.16	X	45.40	15.76
A-12	78.17	59.46	X	43.42	16.04
A-13	83.9	59.59	X	43.75	15.84
MW-109	85	59.38		43.42	15.96
<b>Deep Wells</b>					
A-07	115	61.28	X	45.40	15.88
A-11	110	59.64		43.73	15.91
A-17	110	59.11	X	42.86	16.25
MW-105	98.6	59.39		43.38	16.01
MW-107	127	59.46	X	43.52	15.94
MW-110	110	59.38		43.35	16.03
MW-112	129.5	61.94	X	46.08	15.86
MW-113	131	59.71	X	43.85	15.86

\*Well A-10 was confirmed to be an intermediate-depth well by measuring the total depth. The well installation log included in the RI Report is incorrect.

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**TABLE 3.3.1  
GROUNDWATER CHEMICAL ANALYTICAL DATA  
SHALLOW WELLS  
90-30 METROPOLITAN AVENUE, REGO PARK, NEW YORK**

Well Number	ME-1		ME-7		ME-8		ME-11		ME-13		ME-14		ME-15		NYSDEC Class GA Ambient Water Quality Standards
	5/03	6/05	5/03	6/05	5/03	6/05	5/03	6/05	5/03	6/05	5/03	6/05	5/03	6/05	
Target Compound List Volatile Organic Compounds in micrograms per liter															
Acetone	ND	ND	ND	ND	ND	ND	ND	ND	ND	15 J	ND	ND	ND	ND	50
Methylene chloride	ND	1.8 JB	ND	0.51 JB	<b>16 JB</b>	<b>54 JB</b>	ND	<b>17 JB</b>	59 JB	<b>17 JB</b>	ND	0.49 JB	4 JB	<b>16 JB</b>	5
cis-1,2-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	<b>48 J</b>	ND	ND	ND	ND	5
2-Butanone	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	50
Chloroform	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	7
Tetrachloroethene	<b>440</b>	<b>35</b>	<b>50</b>	<b>40</b>	<b>2,200</b>	<b>3,600</b>	<b>810</b>	<b>720</b>	<b>2,700</b>	<b>960</b>	<b>230</b>	<b>57</b>	<b>1,100</b>	<b>580</b>	5
Total VOCs*	440	35	50	40	2,200	3,600	810	720	2,700	1,023	230	57	1,100	580	-

Notes:

ND = Not detected

VOCs = Volatile Organic Compounds

\*Excluding suspected field/lab contamination

**Bold shaded values exceed NYSDEC Class GA Ambient Water Quality Standards**

NYSDEC = New York State Department of Environmental Conservation

J = Estimated concentration below reporting limit

B = Analyte detected in an associated blank sample

- = Not established

**TABLE 3.3.1 (CONTINUED)**  
**GROUNDWATER CHEMICAL ANALYTICAL DATA**  
**SHALLOW WELLS**  
**90-30 METROPOLITAN AVENUE, REGO PARK, NEW YORK**

Well Number	A-04		A-05		A-06		A-09		A-15		A-16		A-18		NYSDEC Class GA Ambient Water Quality Standards
	5/03	6/05	5/03	6/05	5/03	6/05	5/03	6/05	5/03	6/05	5/03	6/05	5/03	6/05	
Target Compound List Volatile Organic Compounds in micrograms per liter															
Acetone	ND	ND	ND	ND	ND	20 JB	ND	2.9 JB	ND	ND	ND	ND	ND	ND	50
Methylene chloride	ND	1.8 JB	ND	2.0 JB	ND	16 JB	15 JB	1.8 JB	ND	ND	ND	ND	ND	0.40 JB	5
cis-1,2-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5
2-Butanone	ND	2.5 JB	ND	ND	ND	21 JB	ND	ND	ND	ND	ND	ND	ND	ND	50
Chloroform	2 J	1.6 J	2 J	ND	ND	ND	ND	ND	1.3 J	ND	0.74 J	ND	ND	ND	7
Tetrachloroethene	310	120	330	150	8,000	730	2,600	200	40	16	0.6 J	ND	ND	ND	5
Total VOCs*	312	121.6	332	150	8,000	730	2,600	200	40	17.3	0.6	0.74	ND	ND	-

Notes:

ND = Not detected

VOCs = Volatile Organic Compounds

\*Excluding suspected field/lab contamination

**Bold shaded values exceed NYSDEC Class GA Ambient Water Quality Standards**

NYSDEC = New York State Department of Environmental Conservation

J = Estimated concentration below reporting limit

B = Analyte detected in an associated blank sample

- = Not established

**TABLE 3.3.2  
GROUNDWATER CHEMICAL ANALYTICAL DATA  
INTERMEDIATE WELLS  
90-30 METROPOLITAN AVENUE, REGO PARK, NEW YORK**

Well Number	A-08		A-10		A-12		A-13		NYSDEC Class GA Ambient Water Quality Standards
Sample Date	5/03	6/05	5/03	6/05	5/03	6/05	5/03	6/05	
<b>Target Compound List Volatile Organic Compounds in micrograms per liter</b>									
Acetone	ND	<b>450 B</b>	ND	3.0 JB	ND	31 J	ND	ND	50
Methylene chloride	ND	<b>57 JB</b>	ND	1.7 JB	<b>9 JB</b>	<b>35 JB</b>	ND	<b>8.0 JB</b>	5
cis-1,2-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	5
2-Butanone	ND	ND	ND	ND	ND	ND	ND	ND	50
Chloroform	ND	ND	ND	ND	ND	ND	ND	ND	7
Tetrachloroethene	<b>8,500</b>	<b>3,300</b>	<b>630</b>	<b>200</b>	<b>1,900</b>	<b>1,900</b>	<b>2,000</b>	<b>470</b>	5
Total VOCs*	8,500	3,300	630	200	1,900	1,931	2,000	470	-

Notes:

ND = Not detected

VOCs = Volatile Organic Compounds

\*Excluding suspected field/lab contamination

**Bold** shaded values exceed NYSDEC Class GA Ambient Water Quality Standards

NYSDEC = New York State Department of Environmental Conservation

J = Estimated concentration below reporting limit

B = Analyte detected in an associated blank sample

- = Not established

**TABLE 3.3.3  
GROUNDWATER CHEMICAL ANALYTICAL DATA  
DEEP WELLS  
90-30 METROPOLITAN AVENUE, REGO PARK, NEW YORK**

Well Number	A-07		A-17		MW-107		MW-112		MW-113	NYSDEC Class GA Ambient Water Quality Standards
	Sample Date	5/03	6/05	5/03	6/05	5/03	6/05	5/03	6/05	
<b>Target Compound List Volatile Organic Compounds in micrograms per liter</b>										
Acetone	ND	3.2 JB	ND	ND	ND	ND	ND	ND	ND	50
Methylene chloride	<b>13 JB</b>	1.8 JB	ND	0.57 JB	ND	1.4 JB	ND	0.75 JB	0.62 JB	5
cis-1,2-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	5
2-Butanone	ND	7.0 JB	43	ND	ND	ND	ND	ND	ND	50
Chloroform	ND	ND	ND	ND	ND	ND	ND	ND	ND	7
Benzene	ND	ND	ND	ND	<b>2 J</b>	ND	ND	ND	ND	1
Toluene	ND	ND	ND	ND	0.7 J	ND	ND	ND	ND	5
Tetrachloroethene	<b>1,600</b>	<b>170</b>	0.5 J	ND	<b>14</b>	1.2 J	<b>72</b>	3.2 J	1.4 J	5
1,1,2,2-Tetrachloroethane	<b>18 J</b>	ND	ND	ND	ND	ND	ND	ND	ND	5
Total VOCs*	1,618	170	43.5	ND	16.7	1.2	72	3.2	1.4	-

Notes:

ND = Not detected

VOCs = Volatile Organic Compounds

\*Excluding suspected field/lab contamination

**Bold shaded values exceed NYSDEC Class GA Ambient Water Quality Standards**

NYSDEC = New York State Department of Environmental Conservation

J = Estimated concentration below reporting limit

B = Analyte detected in an associated blank sample

- = Not established

The groundwater flow direction in the shallow water table is generally to the south and southeast, as shown on Figure 3.2.1. These data are consistent with the distribution of PCE in the groundwater, as previously presented in Figure 1.3.1 and as discussed below.

### **3.3 Groundwater Sampling Results**

The shallow groundwater sampling results are summarized on Table 3.3.1 and indicate that PCE is the primary contaminant of concern at the Site. PCE concentrations in the shallow groundwater ranged from non-detect to 3,600 micrograms per liter (ug/l). Methylene chloride was detected in several samples, but was also detected in an associated blank and is likely related to laboratory contamination. Cis-1,2-dichloroethene was also detected in one sample at an estimated concentration of 48 ug/l. No other VOCs were detected in the shallow groundwater.

Groundwater sampling results from the intermediate-depth wells from June 2005 are shown in Table 3.3.2. PCE is the primary VOC detected and ranged from 200 to 3,300 ug/l. Methylene chloride and/or acetone were also detected in several samples and are likely due to laboratory contamination.

Groundwater sampling results from the deep-interval wells, including recently-installed well MW-113, are presented on Table 3.3.3. PCE was detected in nearly all of the deep wells at concentrations ranging from 1.2 to 170 ug/l. Low estimated concentrations of benzene or 1,1,2,2-tetrachloroethane were detected in two wells. Methylene chloride was also detected at low concentrations in several samples and likely resulted from laboratory contamination. It should be noted that the PCE concentration in well MW-113 was 1.4 ug/l. Based on this information, the lateral and downgradient extent of PCE in the deep interval have now been defined, which addresses one of the concerns regarding the RI in the NYSDEC's December 1, 2004 correspondence.

These data were compared to the most recent previous sampling results from these wells and generally indicate continuing significant decreases in VOC concentrations at nearly all of the onsite and offsite wells. The only exception to this trend is shallow well ME-8, where an increase in PCE was noted between 2003 and 2005. Well ME-8 is downgradient of shallow well A-06, where more elevated levels of

PCE have previously been noted. It is likely that the increase PCE observed at well ME-8 has migrated downgradient from the vicinity of well A-06.

It should be noted that no increases in PCE have been observed at any of the offsite downgradient wells. At all of these wells, decreases in PCE concentrations have been noted.

The shallow groundwater PCE concentrations observed in June 2005 have been contoured, as shown in Figure 3.3.1. A comparison of Figures 3.3.1 and 1.3.1 indicates that between May 2003 and June 2005, the groundwater plume in the shallow groundwater at the Site has continued to decrease in both size and magnitude. Similar decreases are observed in the intermediate and deep groundwater at the Site. In addition, the area of separation between the Site plume and the bowling alley plume has become more pronounced. The most recent (June 2005) groundwater PCE concentration data have been used in developing the remedial design discussed in Section 4 of this RAWP.

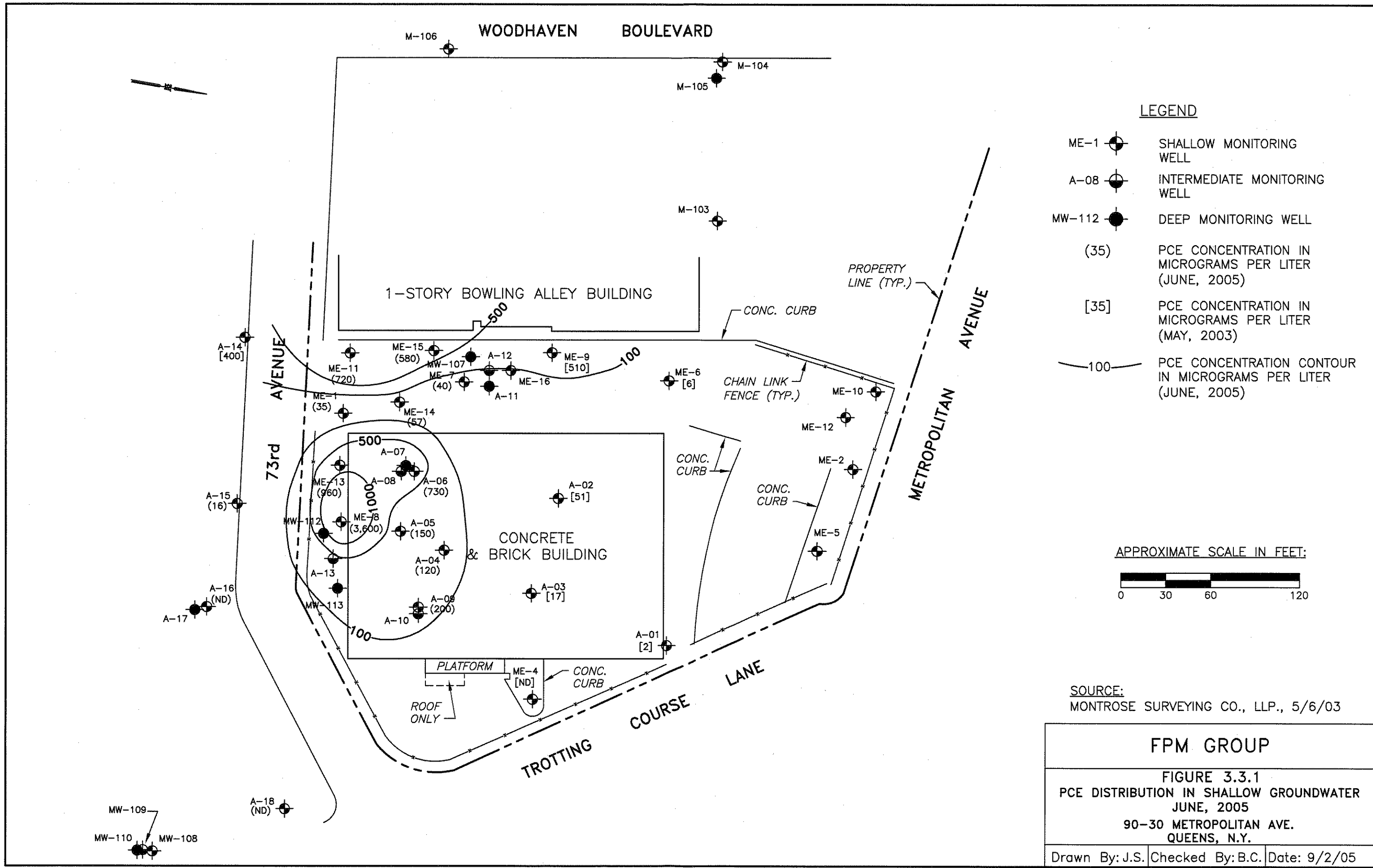
It should be noted that the groundwater samples were not analyzed for MTBE during the June 2005 sampling event. MTBE is not a Site-related contaminant and was not detected in any of the SVE effluent samples during the pilot test. MTBE may be analyzed during future groundwater monitoring events, if warranted.

### **3.4 Resolution of NYSDEC Comments**

As discussed in the Pilot Test Report (September, 2005) and herein, RI Report deficiencies identified by the NYSDEC in their December 1, 2004 correspondence have now been addressed. These issues include information pertaining to the Gardiners Clay (Section 4.1 of Pilot Test Work Plan), delineation of the deeper groundwater plume (Section 3.3 of this work plan), obtaining additional stratigraphic information (Section 2.1 of the Pilot Test Report), and preparation of a revised groundwater flow direction map (Section 3.2 of this work plan). In addition, the new property owner has been added to the VCA for the Site as a co-volunteer such that project activities can be continued.



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We understand that Citizen Participation activities will be undertaken by the NYSDEC in cooperation with the NYSDOH once this RAWP is approvable. These activities will include issuance of a Notice of Availability in the Environmental Notice Bulletin (ENB), issuance of a Notice of Availability to the local municipality, and issuance of a Fact Sheet. We understand that the NYSDEC will undertake these activities, with input from the Volunteer, if requested.

## SECTION 4.0 PROPOSED REMEDIAL MEASURES

The proposed remedial measures described in this section were formulated to address the following remedial action objectives:

- Eliminate or reduce, to the extent practicable, VOC contamination in onsite groundwater;
- Eliminate or reduce, to the extent practicable, offsite migration of contaminants in groundwater;
- Attain, to the extent practicable, ambient groundwater quality standards; and
- Evaluate the potential for vapor intrusion into the Site building and mitigate any impacts.

The existing conditions in each of the media of concern (soil, soil vapor, and groundwater) are described in Section 1.2. The proposed remedial measures to address these conditions are described in Section 4.2. An engineering evaluation of the proposed remedial measures is presented in Section 4.3. A Health and Safety Plan (HASP) to be used during the remedial work is included in Appendix B.

It should also be noted that institutional controls, potentially including a deed restriction, a soil management plan, and/or a restriction on the use of groundwater, may be necessary if contaminants exceeding applicable regulatory standards or guidelines remain present following remediation. The need for and scope of potential institutional controls will be assessed following the completion of remediation. It should also be noted that the Site is presently undergoing redevelopment for retail use.

### **4.1 Existing Subsurface Conditions**

#### Soil Conditions

Previous investigations to identify potentially-impacted soil have been performed at the Site, both inside the Site building and beneath the surrounding property grounds. Trace concentrations of PCE were noted in a soil sample from one boring situated within the vicinity of the southwest corner of the Site building. However, no significant concentrations of VOCs have been identified in any soil samples from the Site. Although no significant source areas have been identified, it is possible that impacted soil is present.

The proposed remedial measures have been designed to address these impacts in the areas where they are most likely to be present, based on the distribution of PCE in groundwater.

#### Soil Gas Conditions

Previous soil gas investigations were performed at the Site, both within the Site building and beneath the surrounding property grounds. The investigation results have been variable and are likely impacted by differences in sampling and analytical methods. The most recent soil gas sampling results indicated that no significant concentrations of PCE were present in the Site subsurface. These results are supported by the shallow SVE pilot test effluent sampling results, which showed a maximum PCE concentration of 140 ppbv in the effluent from the shallow subsurface. The proposed remedial measures are intended to address the potential soil gas impacts.

#### Onsite Groundwater Conditions

Two separate plumes of PCE-impacted groundwater have been identified in the underlying shallow, intermediate, and deep groundwater beneath the Site. The western-most plume extends from beneath the adjacent bowling alley property into the parking area located in the southwestern portion of the Site. The eastern-most plume appears to originate from within the interior of the southern portion of the Site building. This plume appears to be commingling with the western plume and is generally contained onsite. The approximate lateral extent of the plumes in June 2005 are shown on Figure 3.3.1 and tables summarizing the most recent groundwater monitoring results are presented in Section 3 of this report. The onsite PCE-impacted groundwater will be addressed by the proposed remedial measures.

#### Offsite Groundwater Conditions

Current groundwater analytical data indicate the Site-related eastern plume extends to the north side of 73<sup>rd</sup> Street. The detections of PCE in offsite downgradient wells are only slightly above the NYSDEC Class GA Ambient Water Quality Standard and are expected to decline once the proposed remedial measures are implemented. The proposed remedial measures are designed to reduce the potential for further offsite migration.

## 4.2 Proposed Remedial Measures

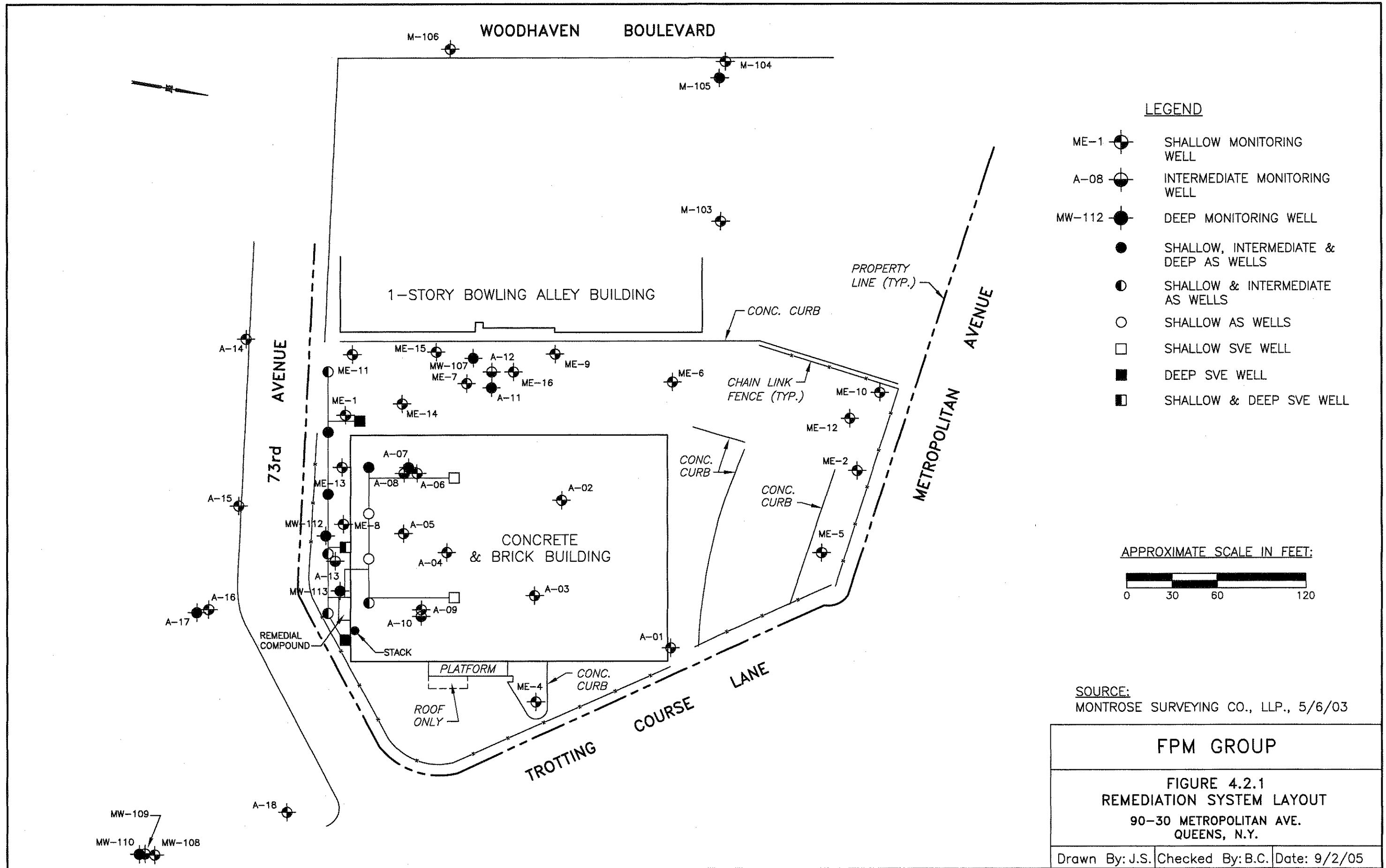
### Onsite Remediation and Evaluation

An AS/SVE system is proposed for the remediation of potential PCE-impacted soil and groundwater along the southern portion of the Site and to address potential soil vapor intrusion issues. AS will be used to treat the PCE-impacted groundwater by volatilization processes and SVE will be used to capture and remove soil vapors. Air will be injected below the water table at three different levels within groundwater plume and the VOCs present in the groundwater will partition from the groundwater into the rising air bubbles and be carried upward to the vadose zone. The air carrying the VOCs will then be removed from the vadose zone by the SVE system. The VOC of concern in the groundwater is PCE, which is volatile and amenable to remediation by AS/SVE. The locations of the proposed AS/SVE system wells and remedial system layout are shown on Figure 4.2.1. The proposed AS/SVE wells with associated ROIs are shown on Figures 4.2.2 through 4.2.6. The generalized equipment setup is shown in Figure 4.2.7.

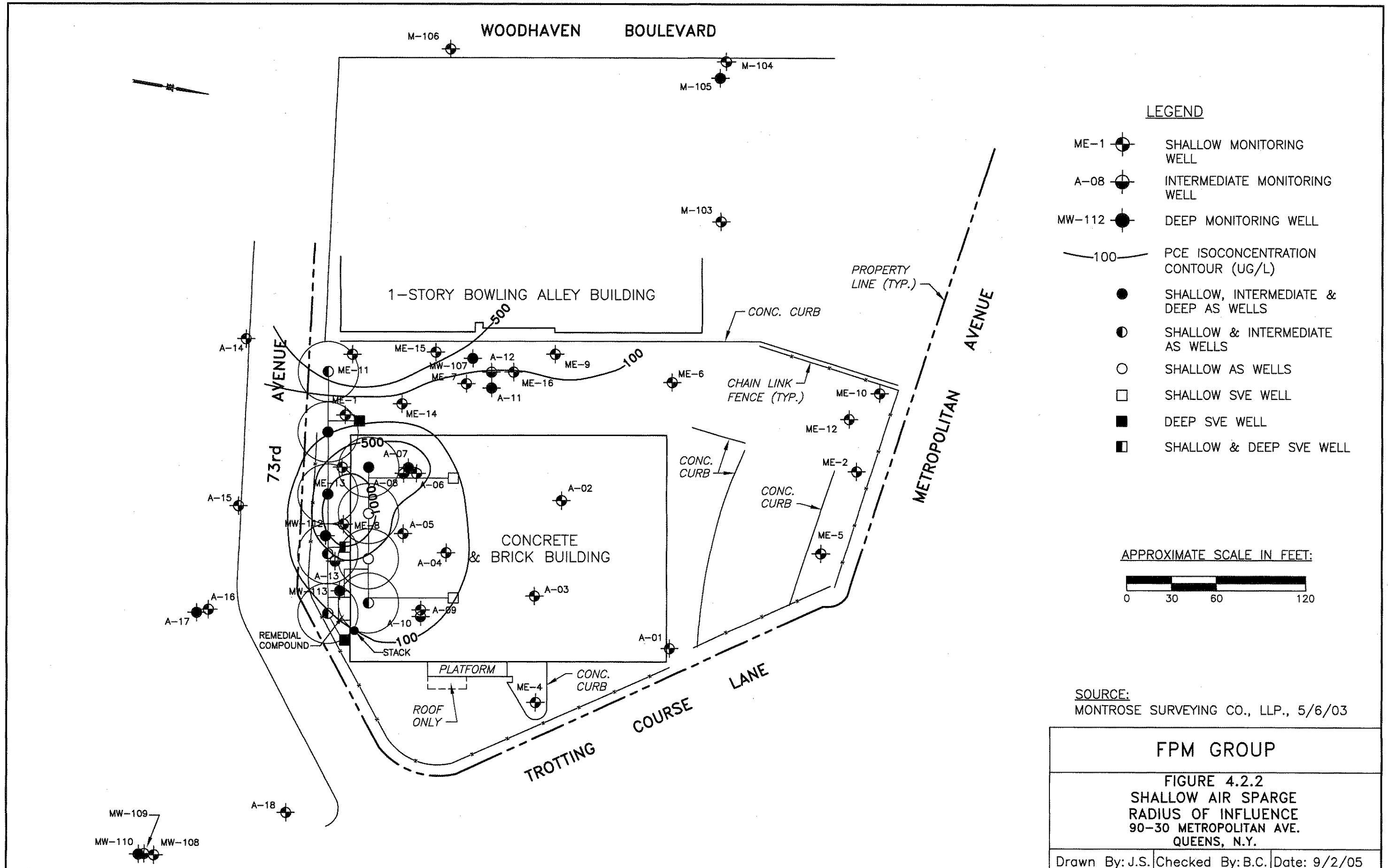
Nineteen AS wells are proposed and are positioned to treat the area of PCE-impacted groundwater beneath the southern end of the Site building and along the Site's southern boundary. The AS wells will be screened at various depths to treat the plume which extends from the water table, (approximately 50 feet below grade) to approximately 70 feet below the water table. The proposed flow rates and pressures for the shallow, intermediate and deep AS points are 12 scfm at 15, 18, and 40 psi, respectively. The ROI of the AS wells will be approximately 20 feet, based upon the pilot test results and FPM's experience with other remediation projects in areas with similar geology. The AS well ROIs are shown on Figures 4.2.2 through 4.2.4.

The AS wells will be constructed of one-inch-diameter Schedule 40 PVC casing and 0.02-inch slotted screen. The screened interval for the shallow, intermediate, and deep AS wells will extend from approximately 10 to 12, 40 to 42 and 68 to 70 feet below the water table, respectively. The well annuli will be backfilled with Morie #2 well gravel to approximately two feet above the top of each screen and the balance of the annuli will be backfilled with bentonite grout to grade. Following system installation, the AS wells will

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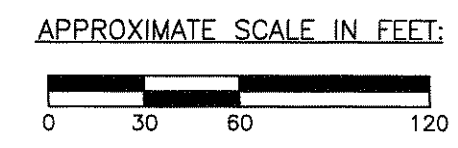


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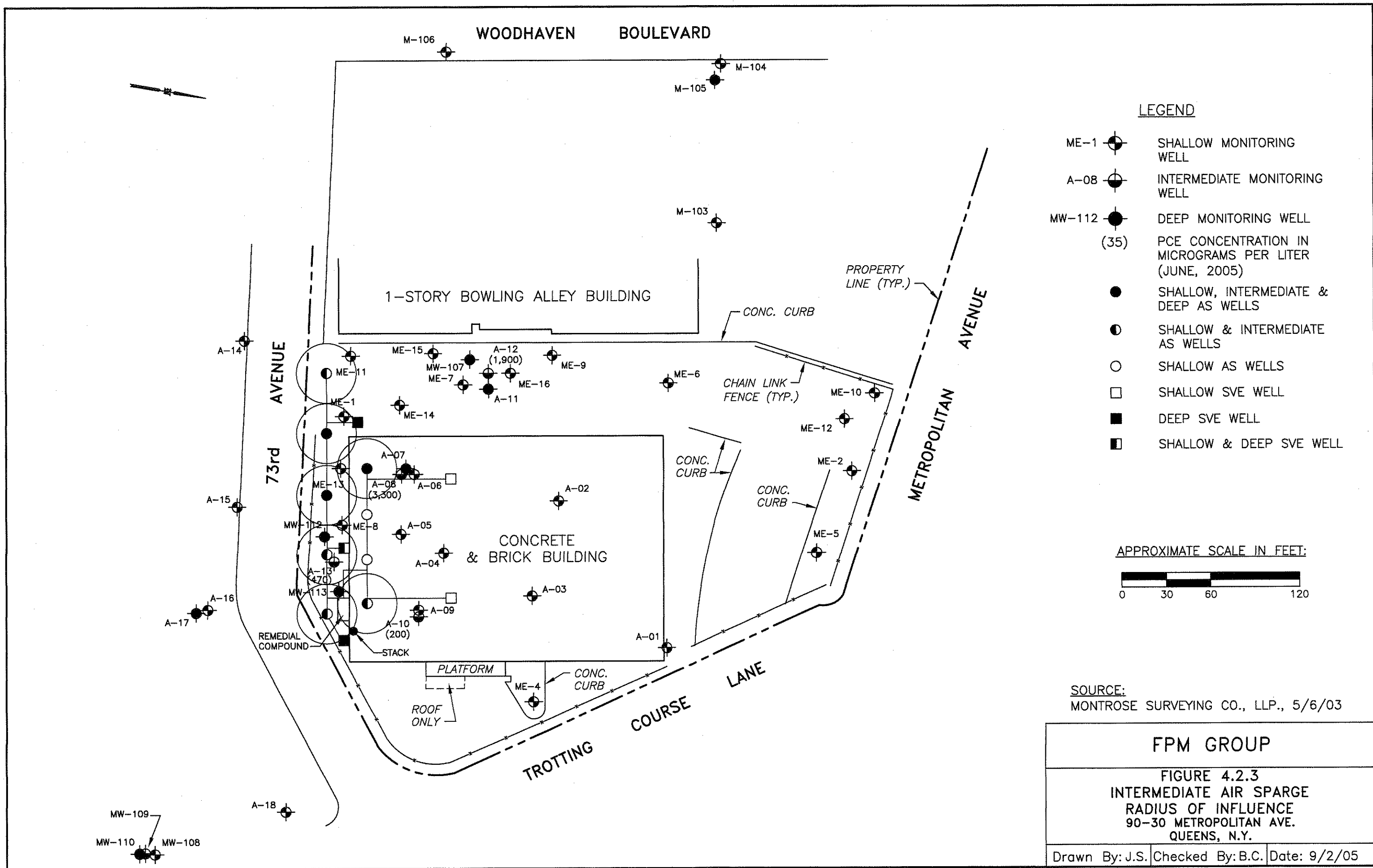
- ME-1 ● SHALLOW MONITORING WELL
- A-08 ● INTERMEDIATE MONITORING WELL
- MW-112 ● DEEP MONITORING WELL
- 100— PCE ISOCONCENTRATION CONTOUR (UG/L)
- SHALLOW, INTERMEDIATE & DEEP AS WELLS
- SHALLOW & INTERMEDIATE AS WELLS
- SHALLOW AS WELLS
- SHALLOW SVE WELL
- DEEP SVE WELL
- ▣ SHALLOW & DEEP SVE WELL



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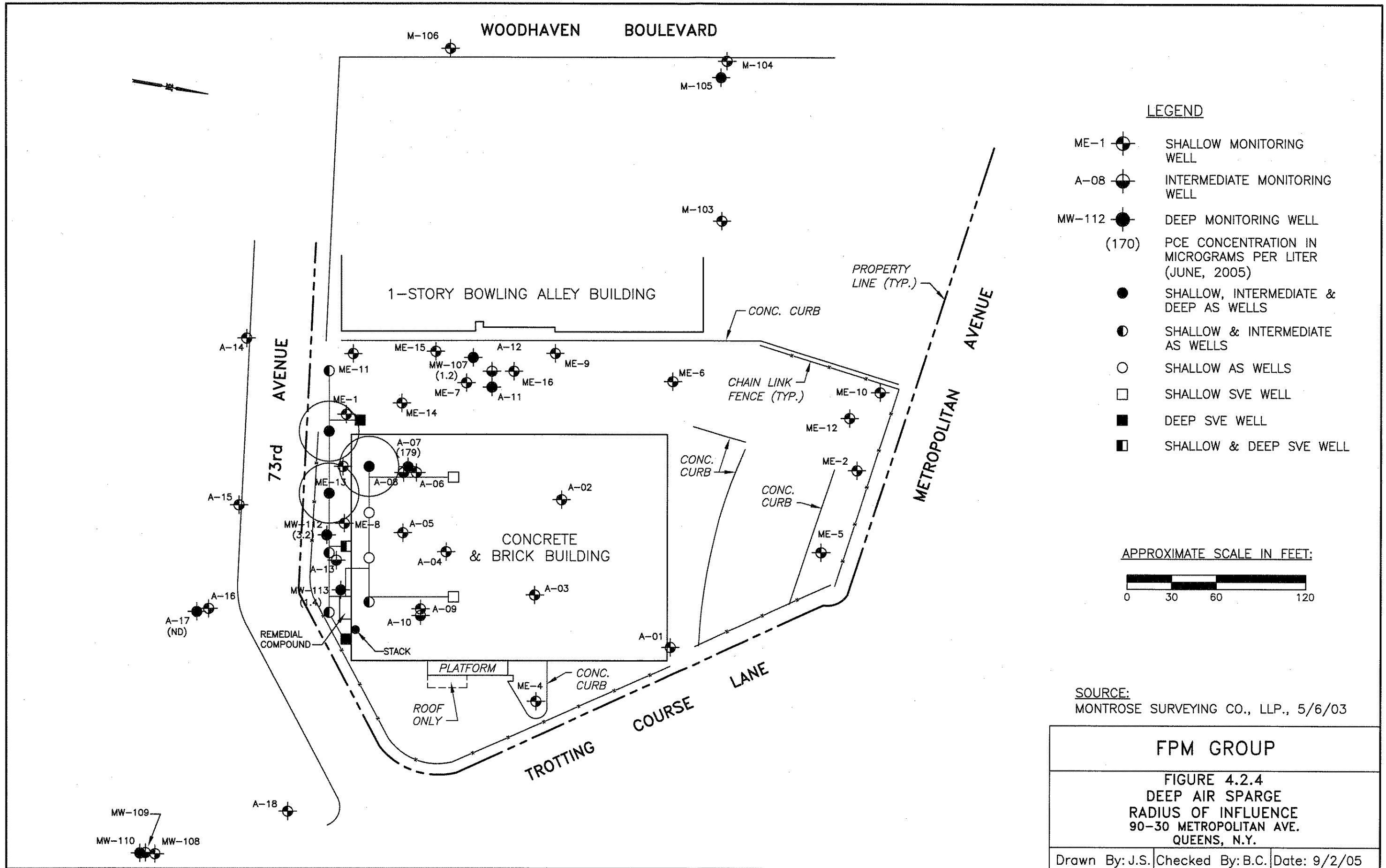
<b>FPM GROUP</b>		
<b>FIGURE 4.2.2 SHALLOW AIR SPARGE RADIUS OF INFLUENCE 90-30 METROPOLITAN AVE. QUEENS, N.Y.</b>		
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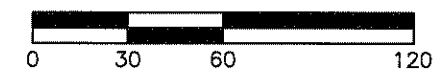
C:\Draw\DTISW\Forest Hill\Metropolitan Ave\Remediation System\Figure 4.2.4.dwg, 11/10/2005 9:06:31 AM, 1:1



**LEGEND**

- ME-1 ● SHALLOW MONITORING WELL
- A-08 ● INTERMEDIATE MONITORING WELL
- MW-112 ● DEEP MONITORING WELL
- (170) ● PCE CONCENTRATION IN MICROGRAMS PER LITER (JUNE, 2005)
- SHALLOW, INTERMEDIATE & DEEP AS WELLS
- SHALLOW & INTERMEDIATE AS WELLS
- SHALLOW AS WELLS
- SHALLOW SVE WELL
- DEEP SVE WELL
- ▣ SHALLOW & DEEP SVE WELL

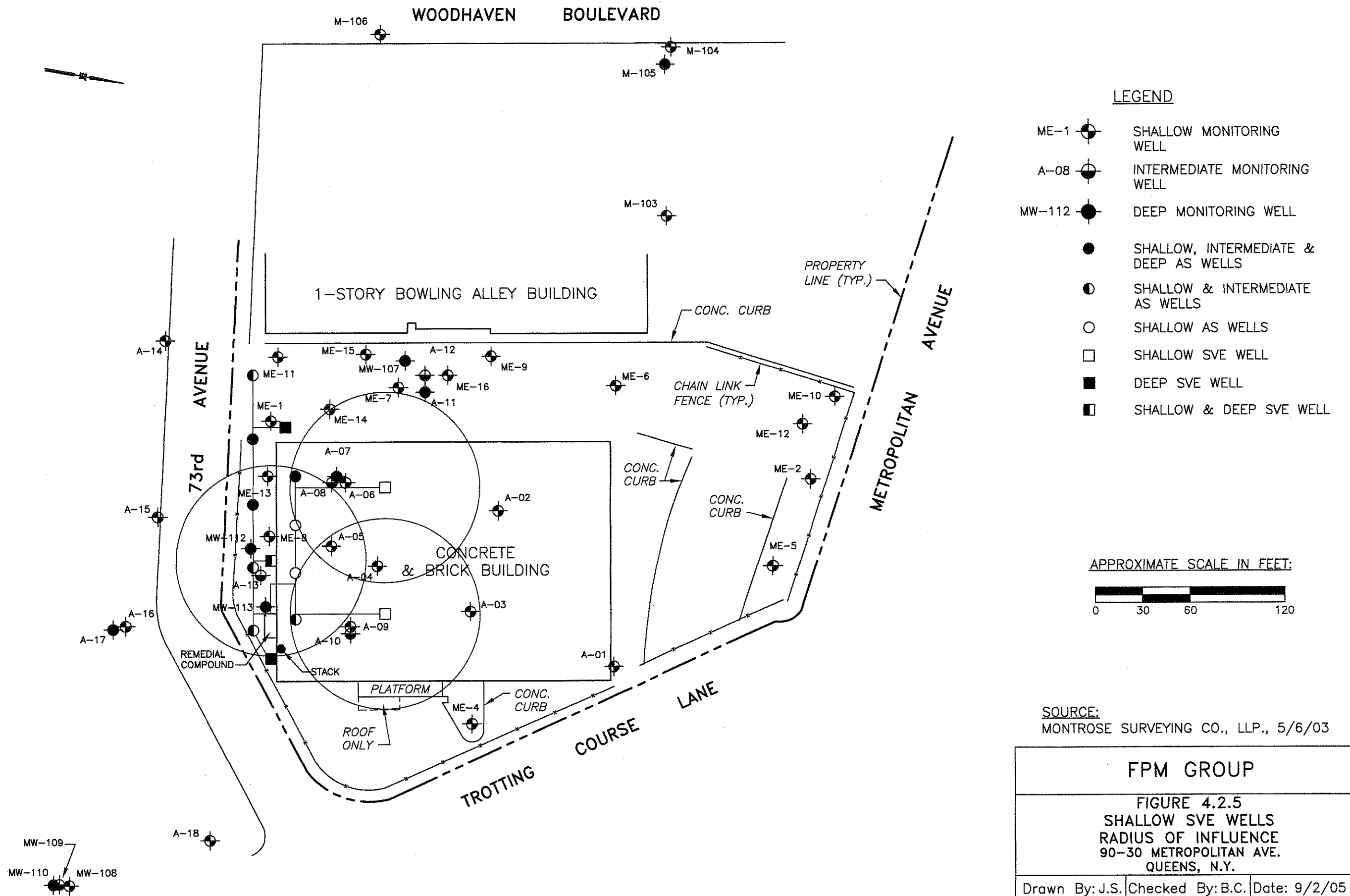
APPROXIMATE SCALE IN FEET:



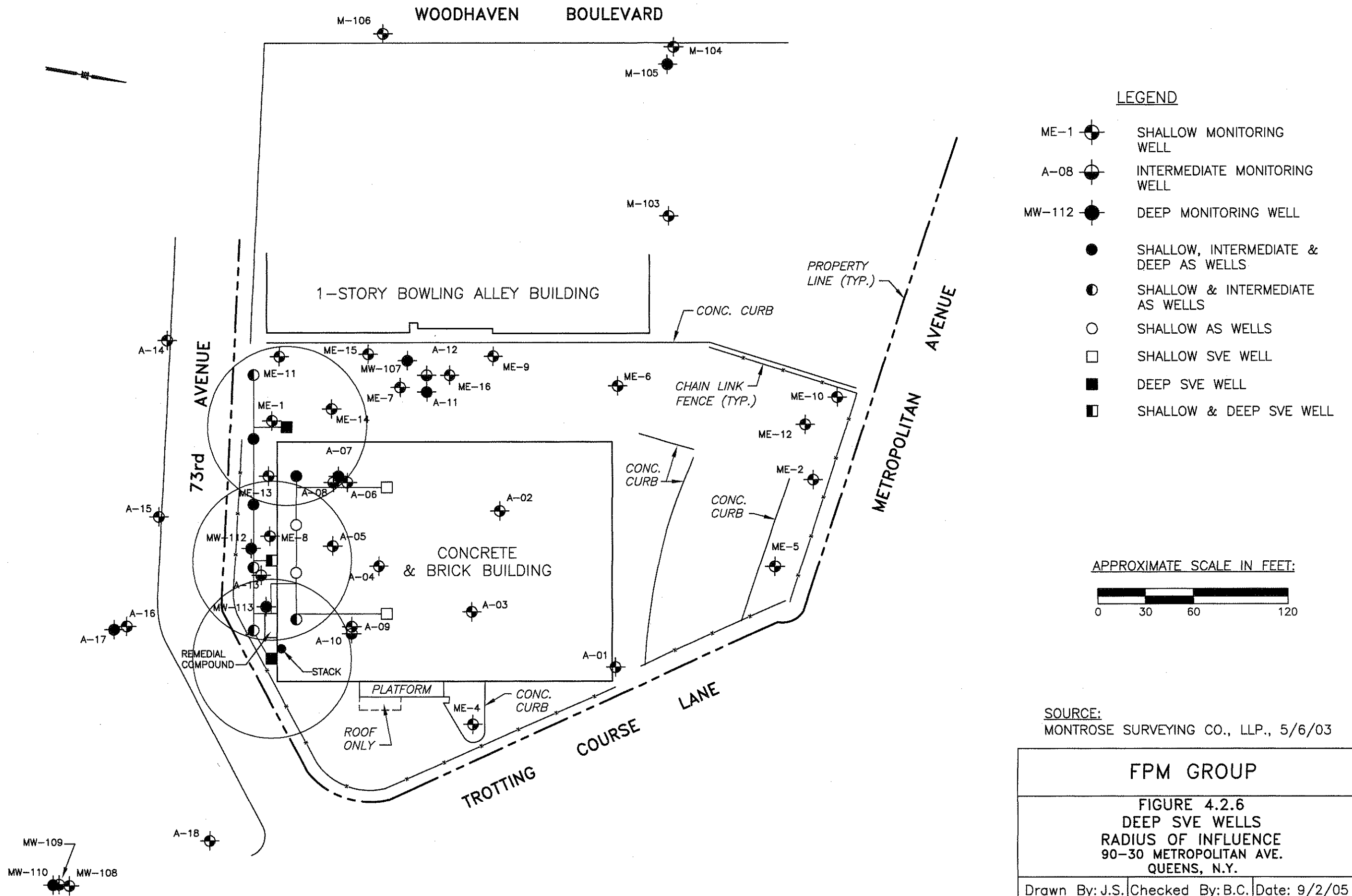
SOURCE:  
MONTROSE SURVEYING CO., LLP., 5/6/03

<b>FPM GROUP</b>		
<b>FIGURE 4.2.4</b> <b>DEEP AIR SPARGE</b> <b>RADIUS OF INFLUENCE</b> <b>90-30 METROPOLITAN AVE.</b> <b>QUEENS, N.Y.</b>		
Drawn By: J.S.	Checked By: B.C.	Date: 9/2/05

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be connected to compressors or air pumps via one to two-inch-diameter steel piping. The compressors or air pumps will be housed in a sheltered enclosure with soundproofing to reduce noise.

An SVE system is proposed for the capture of VOC vapors associated with the AS wells and to treat the PCE-impacted soil that may be present in the subsurface beneath the southern portion of the Site. In addition, SVE will be used to address subsurface soil gas that may be present. SVE will be used to withdraw subsurface air from the open pores in the vadose zone soil. As the air passes through the soil, the vapors migrating from the groundwater to the vadose zone will be captured and removed from the subsurface. In addition, a localized vacuum will be created in the vicinity of the SVE wells, which will address potential vapor intrusion issues for the Site building and potential PCE-impacted soil.

Six SVE wells are proposed; three of these wells will be installed at shallow depths to address potential vapor intrusion issues and three wells will be installed at deeper depths to capture vapors migrating from the water table. The shallow-depth SVE wells will be screened 15 to 20 feet below grade. The proposed flow rate is approximately 126 SCFM under an applied vacuum of 14 inches of water, which will produce a ROI of approximately 60 feet based upon the pilot test results. The deep SVE wells will be screened 25 to 45 feet below grade. The proposed flow rate is 100 scfm under an applied vacuum of 10 inches of water, which will produce an ROI of approximately 50 feet based upon the pilot test results. The SVE well layouts and ROIs are shown on Figures 4.2.5 and 4.2.6.

The SVE well annulus will be gravel-packed to approximately two foot above the top of the screen, a two foot bentonite seal will then be placed and then the balance of the annulus will be filled to just below grade with drill cuttings to allow for connection to the SVE system. The tops of the wells will be protected with a traffic-rated vault or manhole.

#### Sub-Slab Soil Vapor Monitoring

To evaluate the potential for soil vapor intrusion, sub-slab vapor sampling will be conducted. Sub-slab vapor sampling will be conducted utilizing the two existing shallow SVE wells situated within the Site building. Soil vapor samples will be collected in accordance with NYSDOH procedures (NYSDOH, February 2005) and will be analyzed for VOCs using Method TO-15. The resulting data will be evaluated to

determine the potential for impacts to indoor air quality. As discussed above, it is anticipated that soil vapors will be addressed by the implementation of a shallow SVE.

#### Indoor Air Quality Monitoring

Indoor air quality at the Site building will be monitored prior to building redevelopment or implementation of remediation to assess whether indoor air is impacted by PCE. The resulting data should provide a baseline condition under a “worst-case” scenario (prior to establishing a vacuum beneath the building or a positive pressure within the building) against which future indoor air monitoring results can be evaluated.

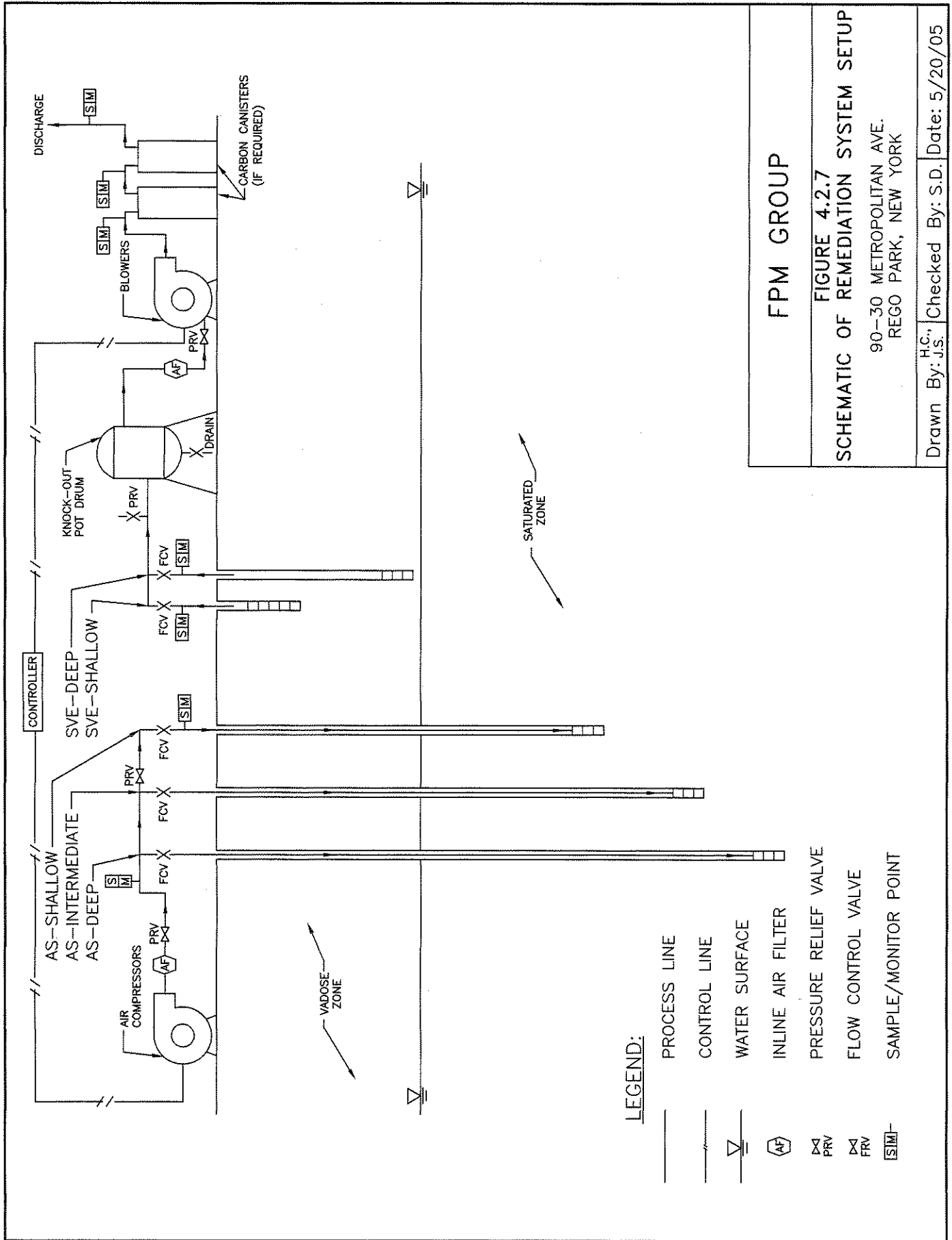
Indoor air quality will also be monitored at the Site building following redevelopment but prior to occupancy. This monitoring will be performed with the remediation system off.

Monitoring and analytical procedures shall be in accordance with NYSDOH guidance concerning soil vapor intrusion (NYSDOH, February 2005). Each monitoring event is anticipated to include at least two indoor air samples from the ground floor area on the south side of the Site building, one ambient air sample from an onsite exterior location, and associated QA/QC samples, as further discussed in Section 5 of this work plan. Additional samples may be collected if Site conditions suggest that additional data may be needed to characterize indoor air quality. The resulting data shall be evaluated relative to NYSDOH guidance and published background data.

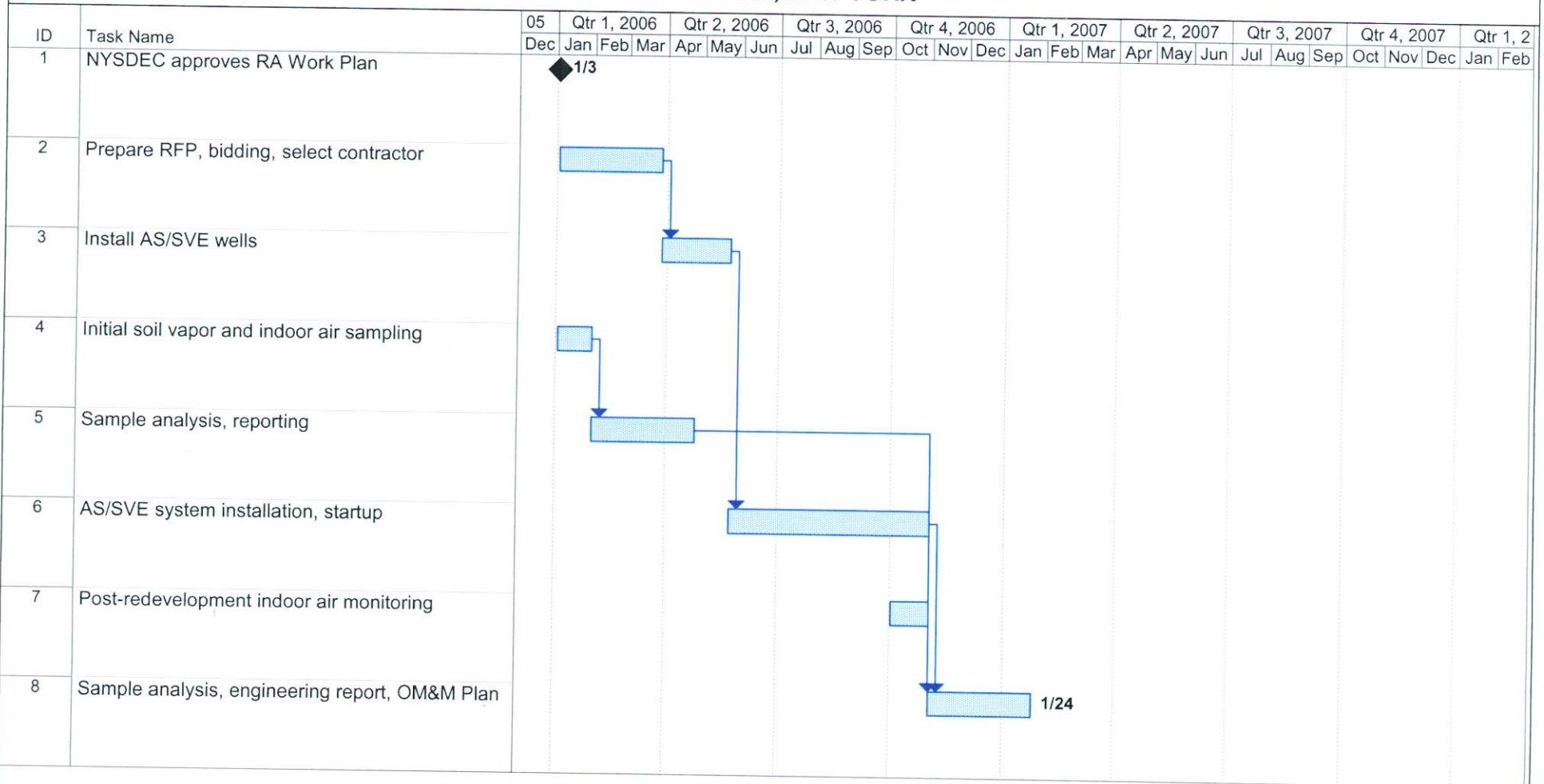
#### Short-Term Monitoring Program










The proposed short-term monitoring program includes monitoring of the operation of the SVE and AS systems following initial system startup. Long-term monitoring procedures for the AS/SVE system and groundwater will be provided in an Operations, Maintenance and Monitoring (OM&M) Plan to be prepared following system startup.

Short-term monitoring of the operation of the SVE system will be performed on a bi-weekly basis and will include checking to confirm the proper mechanical operation of the system components. SVE effluent monitoring will also be performed and will include sampling the system effluent (and influent if vapor treatment is used) to confirm that emissions are within acceptable limits. Short-term monitoring of the



**FIGURE 4.2.8  
PROPOSED REMEDIAL MEASURES SCHEDULE  
90-30 METROPOLITAN AVENUE SITE  
REGO PARK, NEW YORK**



Project: RemedMeasuresSchedule Date: Wed 11/9/05	Task		Milestone		External Tasks	
	Split		Summary		External Milestone	
	Progress		Project Summary		Deadline	

operation of the AS system will also be performed on a bi-weekly basis and will include checking to confirm the proper mechanical operation of the system components.

### Reporting and Schedule

Following completion of the remediation system construction, and soil vapor and indoor air sampling, an Engineering Report will be prepared documenting the implementation of the remedial measures and all sampling procedures and results. An OM&M Plan shall also be prepared. These documents will be prepared in accordance with the NYSDEC's VCP Guide.

A project schedule for implementing the proposed remedial measures is included on Figure 4.2.8. It should be noted that NYSDEC review and approval are required at one intermediate step in this schedule, which will be following the initial soil vapor and indoor air monitoring (Tasks 4 and 5). This schedule assumes NYSDEC review and approval without delay. Any delay in receiving NYSDEC review and approval will delay subsequent steps of this project.

## **4.3 Engineering Evaluations**

The proposed remedial measures have been evaluated with respect to achievement of each of the identified remedial action objectives and also with respect to the factors listed in 6 NYCRR 375-1.10 (c), as discussed in the NYSDEC VCP Guide. These evaluations are further discussed below.

### **4.3.1 Remedial Action Objectives**

The first identified remedial action objective is to eliminate or reduce, to the extent practicable, VOC contamination in onsite groundwater. An AS/SVE system is proposed to address the onsite impacted groundwater. This technology has been demonstrated to be effective in treating dissolved VOCs in groundwater. It is anticipated that the remedial design, as currently envisioned, will be effective in significantly reducing or eliminating onsite groundwater contamination that originates from the Site. It should be noted that an offsite plume of impacted groundwater is impacting the western portion of the Site. The proposed remedial action will address the onsite portion of this plume but will not address the offsite (bowling alley) presumed source area.



The second identified remedial action objective is to eliminate or reduce, to the extent practicable, offsite migration of contaminants in groundwater. Based on the most recent (June 2005) groundwater monitoring event, it appears that offsite migration of contaminated groundwater is not occurring to any significant extent. However, groundwater impacted by PCE is still present near the downgradient edge of the Site and the AS/SVE system is, therefore, designed to address potential offsite migration. Offsite groundwater will be monitored using the existing offsite monitoring wells to confirm that offsite migration remains reduced or eliminated.

The third identified remedial action objective is to attain, to the extent practicable, ambient groundwater quality standards. With respect to the onsite groundwater plume, the AS/SVE system is designed to treat the remaining source material as well as the impacted groundwater. The impacts beneath and to the south of the Site building are anticipated to be reduced to at or near the Standards following implementation of the AS/SVE system. However, continued migration of PCE from the bowling alley property to the west will continue to impact the western portion of the Site until the source of this plume is remediated by others. It should be noted that historic groundwater monitoring data indicate that this offsite plume is decreasing in concentration and is not migrating beneath the Site building. This plume will be treated by the Site remediation systems on the downgradient edge of the Site. Therefore, it is anticipated that the onsite impact from this offsite source will decrease over time and is unlikely to impact the Site building.

The fourth identified remedial action objective is to evaluate the potential for vapor intrusion into the Site building and to mitigate identified impacts. Indoor air quality sampling will be performed prior to and upon completion of building redevelopment to evaluate the potential for vapor intrusion. If impacts are identified, then operation of the SVE system is anticipated to mitigate the impacts, which will be confirmed through further monitoring.

#### 4.3.2 Evaluation Factors

##### Protection of Human Health and the Environment

The proposed remedy is protective of human health and the environment. Remedial measures are planned and designed to treat the identified onsite impacted groundwater and potential impacted soil and soil vapor. While direct human exposure to these media is not anticipated, application of these remedial methods is anticipated to improve environmental conditions and reduce the potential for impacts on human health. Onsite soil vapor intrusion issues will also be assessed and, if identified, will be addressed by the remediation system. Therefore, implementation of the proposed remedy is considered to be a protective action.

##### Standards, Criteria and Guidance

The following Standards, Criteria and Guidance (SCGs) have been identified for impacted media at the Site: NYSDEC Recommended Soil Cleanup Objectives (TAGM #HWR-94-4046, 1995) used to evaluate soil sample chemical analytical results; NYSDEC Class GA Ambient Water Quality Standards (1998) used to evaluate the groundwater chemical analytical results; and NYSDOH Draft Guidance for Evaluating Soil Vapor Intrusion in the State of New York (February 2005), which will be used to evaluate the soil vapor and indoor air quality results. In addition, NYSDEC Air Guide I guidelines are applicable to the emissions from the proposed SVE system and will be used to confirm that the system is operated in compliance with applicable regulations.

The proposed remedy is intended to comply with the SGCs to the extent practicable. Soil slightly exceeding the NYSDEC Objectives has been identified in one location adjoining the south side of the Site building. Implementation of the SVE system in this area is anticipated to reduce soil contaminant concentrations to at or near the NYSDEC Objectives. Groundwater exceeding the NYSDEC Standards is present onsite and slightly elevated concentrations extend to the street on the downgradient side of the Site. Application of AS/SVE to the onsite groundwater plume is intended to reduce groundwater contaminant concentrations to at or near the NYSDEC Standards. Further downgradient, ongoing attenuation processes have already reduced contaminant concentrations to at or near the NYSDEC Standards. Soil vapors

beneath the Site building will be evaluated and, if elevated vapors are detected, then operation of the SVE system will be adjusted as necessary to reduce these concentrations directly (through removal of soil vapors) and indirectly (through reducing soil contaminant concentrations).

#### Short-Term Effectiveness and Impacts

The proposed remedial measures will require time to become completely effective. Initial reductions in contaminant concentrations will occur over several months to a year. However, achieving the SGCs may require long-term (several years) operation of the remediation systems.

Few impacts would be expected during the remedial and investigation activities. The remedial construction activities and investigation activities will occur during short time intervals and the risk to workers would be minimal. A Health and Safety Plan (HASP) will be used to provide for safe working procedures and personal protective equipment will protect workers from potential exposures. The HASP also includes provisions for community monitoring to confirm that the nearby workers and residents are not impacted. Equipment will be decontaminated regularly to avoid spreading contamination. Monitoring of system emissions will be conducted and steps taken to address emissions if they exceed applicable regulatory guidance. The surrounding community and the facility workers would be at little or no risk from investigation or remedial activities.

#### Long-Term Effectiveness and Permanence

Upon completion, the proposed remedy will be permanent. Removal of potential source material will be accomplished and future releases of potential source materials are not envisioned. Treatment of the residual dissolved contamination is anticipated to reduce groundwater contaminant concentrations to at or near the SGCs. Containment of source materials or contaminants is not a part of the proposed remedy. Upon completion, there should be no risk to the public or the environment from onsite sources since the source will be removed and residual contamination treated to a de minimis level.

#### Reduction of Toxicity, Mobility, or Volume

The proposed remedy is anticipated to result in an active reduction of suspected sorbed, dissolved and volatilized contaminants to at or near the SGCs. The treatment processes are not reversible and,

therefore, the reduction of volume will be permanent. The proposed remedy does not affect contaminant mobility. However, a reduction in contaminant concentrations will result in a reduction in toxicity.

#### Implementability

The proposed remedial measures are readily implementable and each aspect of investigation and remediation will involve standard industry practices. Coordination with facility redevelopment and proposed operations would be required to identify areas for staging of equipment and supplies, and for locating the remediation system.

## SECTION 5.0 QUALITY ASSURANCE PROJECT PLAN

### 5.1 Data Quality Objectives

The Data Quality Objectives (DQOs) will be applicable to all data-gathering activities at the Site. DQOs will be incorporated into sampling, analysis, and quality assurance tasks associated with remediation and the associated investigation activities.

The primary data user for this project is FPM. NYSDEC and NYSDOH will also be provided with the data. No other data users are anticipated.

The collected data are intended to assess the current nature and extent of soil vapor and indoor air impacts at the Site, background soil vapor concentrations, and to assess the performance of the AS/SVE system. These data will allow for the evaluation and possible modification of the proposed remedial measures.

For this project, field screening will be performed during drilling activities. Field screening includes monitoring for organic vapors in the soil cuttings as they are generated by a drill rig and in the air in the work zone using a Photovac MicroTIP PID and visual observations of soil or groundwater characteristics. All readings and observations will be recorded by the FPM hydrogeologist in his or her field notebook.

The following applicable or relevant and appropriate requirements for the Site have been identified:

- The NYSDEC Recommended Soil Cleanup Objectives (TAGM #HWR-94-4046, 1995) which are used to evaluate soil sample chemical analytical results;
- The NYSDEC Class GA Ambient Water Quality Standards (1998), which are used to evaluate the groundwater chemical analytical results;
- The NYSDOH Draft Guidance for Evaluating Soil Vapor Intrusion in State of New York (February 2005), which is used to evaluate the soil vapor and indoor air results; and
- The NYSDEC Air Guide 1 Guidance (2000), which is used to evaluate SVE system emissions.

## 5.2 Quality Assurance/Quality Control Procedures

Quality Assurance/Quality Control (QA/QC) procedures will be utilized during the performance of the investigation field work to ensure that the resulting chemical analytical data accurately represent subsurface conditions at the Site. The following sections include descriptions of the QA/QC procedures to be utilized.

### Equipment Decontamination Procedures

All non-disposable downhole equipment (i.e., Geoprobe rods, drilling augers or rods, split-spoon samplers, submersible pump) used during the well installation and sampling activities will be decontaminated by washing in a potable water and Alconox solution and rinsing in potable water prior to use at each location to reduce the potential for cross contamination. All sampling equipment will be either dedicated disposable equipment or will be decontaminated prior to use at each location. For indoor air sampling, laboratory-decontaminated Summa canisters will be used to obtain samples. For the soil vapor sampling, dedicated disposable tubing and laboratory-decontaminated Summa canisters shall be used to obtain samples. For effluent sampling, dedicated Tedlar bags shall be used to obtain samples. The decontamination procedures utilized for all non-disposable equipment sampling equipment will be as follows:

1. The equipment will be scrubbed in a bath of potable water and low-phosphate detergent followed by a potable water rinse;
2. The equipment will be rinsed with distilled water; and
3. The equipment will be allowed to air dry, if feasible, and wrapped in aluminum foil (shiny side out) for storage and transportation.

### QA/QC Samples

QA/QC samples will be collected and utilized to evaluate the potential for field or laboratory contamination and to evaluate the laboratory's analytical precision and accuracy. A sampling chart showing the number and types of primary samples analytical methods, and QA/QC samples is shown on Table 5.2.1. The specific types of QA/QC samples to be collected are described below.

**TABLE 5.2.1  
SAMPLING MATRIX  
90-30 METROPOLITAN AVENUE SITE  
REGO PARK, NEW YORK**

Sample Location/Type	Matrix	Number/Frequency	Analysis	Sample Bottles Preservation	Holding Time
Soil vapor locations, indoor air, SVE emissions	Air	Soil vapor: 2 once Indoor air: 3 twice Emissions: 2 to 4 during startup	TO-15 VOCs	SUMMA canisters for soil gas and indoor air. Tedler bags for emissions	7 days
Trip blanks	Lab air	One per canister group (none for emissions)	TO-15 VOCs	SUMMA canisters	7 days
Blind duplicates	Soil vapor/indoor air	One per 10 environmental samples (none for emissions)	TO-15 VOCs	SUMMA canisters	7 days

Notes:

VOCs = Volatile organic compounds

Trip blank samples will be utilized to evaluate the potential for VOC cross-contamination between Summa canisters in the same shipping group. Trip blank samples associated with soil vapor samples or indoor air consist of laboratory-provided, filled SUMMA canisters that are transported to and in the field with the other SUMMA canisters. A trip blank will be shipped with each group of Summa canisters and will be managed in the field and analyzed in the laboratory in the same manner as the primary environmental samples.

Blind duplicate samples will be obtained at a frequency of at least one per every 10 environmental samples (10 percent) and will be used to attest to the precision of the laboratory. A blind duplicate consists of a separate aliquot of sample collected at the same time, in the same manner, and analyzed for the same parameters as the primary environmental sample. The blind duplicate samples are labeled in a manner such that they cannot be identified by the laboratory. The sample results are compared to those of the primary environmental sample to evaluate if the results are similar.

#### Chain-of-Custody Procedures

For each day of sampling, chain-of-custody (COC) sheets will be completed and submitted to the laboratory with the samples collected that day. A copy of each COC sheet will be retained by FPM for sample tracking purposes. Each COC sheet will include the project name, the sampler's signature, the sampling locations and intervals, and the analytical parameters requested.

#### Data Usability Evaluation

All chemical analytical results will be evaluated using the sample data packages, sample data summary packages, and case narratives provided by the analytical laboratory. The data evaluation will be performed to verify that the analytical results are of sufficient quality to be relied upon to assess the performance of the AS/SVE system and potential contamination in the soil, soil vapor and indoor air samples.



### **5.3 Sample Analysis**

All soil vapor and indoor air samples will be submitted to a New York State Department of Health ELAP-certified laboratory. The proposed subcontractor laboratory is Severn-Trent Laboratories of Connecticut.

SVE system vapor samples, soil vapor and indoor air samples will be analyzed for VOCs using Method TO-15. Table 5.2.1 shows the number of samples to be collected, holding time, analytical protocols, and estimated number of QA/QC samples.

### **5.4 Data Evaluation**

The data collected will be assembled, reviewed, and evaluated following each sampling round. The soil vapor samples will be used to assess whether soil vapor intrusion may affect the Site building. The indoor air sample results will be used to assess indoor air quality within the Site building. The SVE system emissions data will be reviewed to confirm that the emissions remain within acceptable limits.

### **5.5 Project Organization**

The project manager for this project will be Stephanie Davis, Senior Hydrogeologist. The FPM field supervisor will be Ben Cancemi, Senior Hydrogeologist. Subcontracted services will include drilling services, laboratory services, and remediation system construction services.

**APPENDIX A**

**LABORATORY DATA**

**DATA USABILITY SUMMARY REPORT**

# ANALYTICAL REPORT

JOB NUMBER: 209925

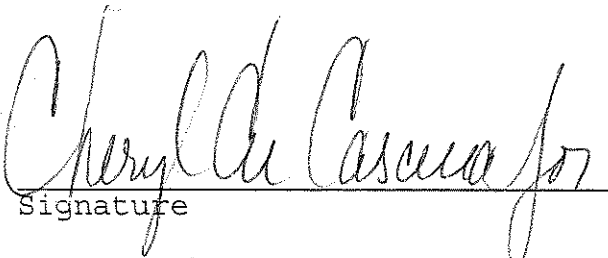
Prepared For:

FANNING, PHILLIPS AND MOLNAR  
909 Marconi Avenue  
Ronkonkoma, NY 11779

Project: DPSW WOODHAVEN BLVD.

Attention: Ben Cancemi

Date: 07/08/2005

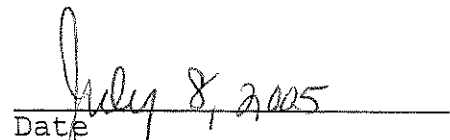


Signature

Name: Johanna L. Dubauskas

Title: Project Manager

E-Mail: jdubauskas@stl-inc.com



Date

STL Connecticut  
128 Long Hill Cross Road  
Shelton, CT 06484

This Report Contains (421) Pages

**STL Report : 209925**  
**FANNING, PHILLIPS AND MOLNAR**

**Case Narrative**

**Sample Receipt** – All samples were received in good condition and at the proper temperature. Sample A-8 vial labels were mislabeled as A-6 but STL was able to identify the vials by the collection time marked on the labels.

**Volatile Organics** – Volatile organics were determined by purge and trap GC/MS using guidance provided in Method 5030B/8260B.

The spike compound percent recoveries were within the laboratory generated guidelines in the independent source quality control samples except for methylene chloride in 50581-2LCS and 50911-2LCS and methylene chloride and styrene in 50921-2LCS.

The RPD for tetrachloroethene was above QC criteria in ME-11MS/MSD.

Sample Calculation:

Sample ID-A-7  
Compound- Methylene Chloride

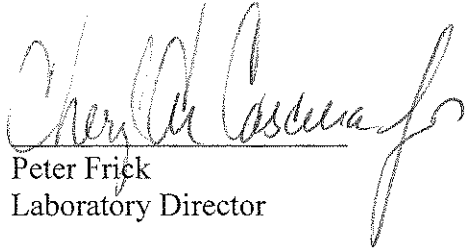
$$\frac{(15059 \text{ area})(125\text{ng})(2)}{(1368372 \text{ area})(.307 \text{ area/ng})(5\text{ml})} = 1.79 = 1.8 \text{ ug/L.}$$

The following samples were analyzed at dilutions for high targets:

Sample ID	Dilution
A-7	1:2
A-6	1:10
A-4	1:2
A-5	1:2
A-10	1:2
A-9	1:2
A-13	1:5
ME-1S	1:10
A-12	1:20
ME-11	1:10
ME-13	1:10
ME-8	1:40
A-8	1:40

**The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in the case narrative.**

I certify that this data package is in compliance with the terms and conditions of this contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

  
Peter Frick  
Laboratory Director

  
Date



STL

SAMPLE INFORMATION

Date: 07/08/2005

Job Number.: 209925
Customer....: FANNING, PHILLIPS AND MOLNAR
Attn.....: Ben Cancemi

Project Number.....: 20001543
Customer Project ID....: DPSW WOODHAVEN BLVD.
Project Description....: DPSW Woodhaven Blvd.

Table with 7 columns: Laboratory Sample ID, Customer Sample ID, Sample Matrix, Date Sampled, Time Sampled, Date Received, Time Received. Contains 24 rows of sample data.

LABORATORY TEST RESULTS												
Job Number: 209925					Date: 07/07/2005							
CUSTOMER: FANNING, PHILLIPS AND MOLNAR PROJECT: DFW WOODHAVEN BLVD. ATRN: Ben Cancemi												
Laboratory Sample ID: 209925-1 Date Received: 06/22/2005 Time Received: 09:30												
Customer Sample ID: A-7 Date Sampled: 06/16/2005 Time Sampled: 09:00 Sample Matrix: Water												
TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q FLAGS	NDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH	
8260B	Volatle Organics (5mL Purge)											
	Chloromethane	ND	U	1.0	10	2.00000	ug/L	51002		06/24/05 1343	pam	
	Vinyl chloride	ND	U	1.6	10	2.00000	ug/L	51002		06/24/05 1343	pam	
	Bromomethane	ND	U	2.4	10	2.00000	ug/L	51002		06/24/05 1343	pam	
	Chloroethane	ND	U	1.6	10	2.00000	ug/L	51002		06/24/05 1343	pam	
	1,1-Dichloroethane	ND	U	1.4	10	2.00000	ug/L	51002		06/24/05 1343	pam	
	Carbon disulfide	ND	U	1.8	10	2.00000	ug/L	51002		06/24/05 1343	pam	
	Acetone		3.2	J	2.8	20	2.00000	ug/L	51002		06/24/05 1343	pam
	Methylene chloride		1.8	J	0.80	10	2.00000	ug/L	51002		06/24/05 1343	pam
	trans-1,2-Dichloroethene	ND	U		1.0	10	2.00000	ug/L	51002		06/24/05 1343	pam
	1,1-Dichloroethane	ND	U		1.2	10	2.00000	ug/L	51002		06/24/05 1343	pam
	cis-1,2-Dichloroethane	ND	U		1.2	10	2.00000	ug/L	51002		06/24/05 1343	pam
	2-Butanone (MEK)		7.0	J	2.4	20	2.00000	ug/L	51002		06/24/05 1343	pam
	Chloroform	ND	U		1.4	10	2.00000	ug/L	51002		06/24/05 1343	pam
	1,1,1-Trichloroethane	ND	U		0.80	10	2.00000	ug/L	51002		06/24/05 1343	pam
	Carbon tetrachloride	ND	U		2.0	10	2.00000	ug/L	51002		06/24/05 1343	pam
	Benzene	ND	U		0.80	10	2.00000	ug/L	51002		06/24/05 1343	pam
	1,2-Dichloroethane	ND	U		1.2	10	2.00000	ug/L	51002		06/24/05 1343	pam
	Trichloroethene	ND	U		1.4	10	2.00000	ug/L	51002		06/24/05 1343	pam
	1,2-Dichloropropane	ND	U		1.8	10	2.00000	ug/L	51002		06/24/05 1343	pam
Bromodichloromethane	ND	U		0.80	10	2.00000	ug/L	51002		06/24/05 1343	pam	
cis-1,3-Dichloropropene	ND	U		1.0	10	2.00000	ug/L	51002		06/24/05 1343	pam	
4-Methyl-2-pentanone (MIBK)	ND	U		1.4	20	2.00000	ug/L	51002		06/24/05 1343	pam	
Toluene	ND	U		0.60	10	2.00000	ug/L	51002		06/24/05 1343	pam	
trans-1,3-Dichloropropene	ND	U		1.6	10	2.00000	ug/L	51002		06/24/05 1343	pam	
1,1,2-Trichloroethane	ND	U		1.2	10	2.00000	ug/L	51002		06/24/05 1343	pam	
Tetrachloroethene	ND	U		1.0	10	2.00000	ug/L	51002		06/24/05 1343	pam	
2-Hexanone	ND	U		1.6	20	2.00000	ug/L	51002		06/24/05 1343	pam	
Dibromochloromethane	ND	U		1.0	10	2.00000	ug/L	51002		06/24/05 1343	pam	

LABORATORY TEST RESULTS											
Job Number: 209925					Date: 07/07/2005						
CUSTOMER: FANNING, PHILLIPS AND MOLNAR					PROJECT: DPSH WOODHAVEN BLYD.						
Customer Sample ID: A-7 Date Sampled: 06/16/2005 Time Sampled: 09:00 Sample Matrix: Water					Laboratory Sample ID: 209925-1 Date Received: 06/22/2005 Time Received: 09:30						
TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
	Chlorobenzene	ND	U	0.80	10	2.00000	ug/L	51002		06/24/05 1343	pam
	Ethylbenzene	ND	U	2.0	10	2.00000	ug/L	51002		06/24/05 1343	pam
	Styrene	ND	U	1.0	10	2.00000	ug/L	51002		06/24/05 1343	pam
	Bromoform	ND	U	1.6	10	2.00000	ug/L	51002		06/24/05 1343	pam
	1,1,2,2-Tetrachloroethane	ND	U	0.80	10	2.00000	ug/L	51002		06/24/05 1343	pam
	Xylenes (total)	ND	U	2.0	10	2.00000	ug/L	51002		06/24/05 1343	pam



LABORATORY TEST RESULTS											
Job Number: 209925						Date: 07/07/2005					
CUSTOMER: FANNING, PHILLIPS AND MOLNAR											
PROJECT: DPSW WOODHAVEN BLVD.											
ATTN: Ben Canem											
Customer Sample ID: A-6											
Laboratory Sample ID: 209925-2											
Date Sampled: 06/16/2005											
Date Received: 06/22/2005											
Time Sampled: 09:30											
Time Received: 09:30											
Sample Matrix: Water											
TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q FLAGS	NDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
8260B	Volatile Organics (5mL Purge)										
	Chloromethane	ND	U	5.0	50	10.00000	ug/L	51002		06/24/05 1313	pam
	Vinyl chloride	ND	U	8.0	50	10.00000	ug/L	51002		06/24/05 1313	pam
	Bromomethane	ND	U	12	50	10.00000	ug/L	51002		06/24/05 1313	pam
	Chloroethane	ND	U	8.0	50	10.00000	ug/L	51002		06/24/05 1313	pam
	1,1-Dichloroethene	ND	U	7.0	50	10.00000	ug/L	51002		06/24/05 1313	pam
	Carbon disulfide	ND	U	9.0	50	10.00000	ug/L	51002		06/24/05 1313	pam
	Acetone	20	J	14	100	10.00000	ug/L	51002		06/24/05 1313	pam
	Methylene chloride	16	J	4.0	50	10.00000	ug/L	51002		06/24/05 1313	pam
	trans-1,2-Dichloroethene	ND	U	5.0	50	10.00000	ug/L	51002		06/24/05 1313	pam
	1,1-Dichloroethane	ND	U	6.0	50	10.00000	ug/L	51002		06/24/05 1313	pam
	cis-1,2-Dichloroethene	ND	U	6.0	50	10.00000	ug/L	51002		06/24/05 1313	pam
	2-Butanone (HEK)	21	J	12	100	10.00000	ug/L	51002		06/24/05 1313	pam
	Chloroform	ND	U	7.0	50	10.00000	ug/L	51002		06/24/05 1313	pam
	1,1,1-Trichloroethane	ND	U	4.0	50	10.00000	ug/L	51002		06/24/05 1313	pam
	Carbon tetrachloride	ND	U	10	50	10.00000	ug/L	51002		06/24/05 1313	pam
	Benzene	ND	U	4.0	50	10.00000	ug/L	51002		06/24/05 1313	pam
	1,2-Dichloroethane	ND	U	6.0	50	10.00000	ug/L	51002		06/24/05 1313	pam
	Trichloroethene	ND	U	7.0	50	10.00000	ug/L	51002		06/24/05 1313	pam
	1,2-Dichloropropane	ND	U	9.0	50	10.00000	ug/L	51002		06/24/05 1313	pam
	Bromodichloromethane	ND	U	4.0	50	10.00000	ug/L	51002		06/24/05 1313	pam
cis-1,3-Dichloropropene	ND	U	5.0	50	10.00000	ug/L	51002		06/24/05 1313	pam	
4-Methyl-2-pentanone (MIBK)	ND	U	7.0	100	10.00000	ug/L	51002		06/24/05 1313	pam	
Toluene	ND	U	3.0	50	10.00000	ug/L	51002		06/24/05 1313	pam	
trans-1,3-Dichloropropene	ND	U	8.0	50	10.00000	ug/L	51002		06/24/05 1313	pam	
1,1,2-Trichloroethane	ND	U	6.0	50	10.00000	ug/L	51002		06/24/05 1313	pam	
Tetrachloroethene	ND	U	5.0	50	10.00000	ug/L	51002		06/24/05 1313	pam	
2-Hexanone	ND	U	8.0	100	10.00000	ug/L	51002		06/24/05 1313	pam	
Dibromochloromethane	ND	U	5.0	50	10.00000	ug/L	51002		06/24/05 1313	pam	

LABORATORY TEST RESULTS

Job Number: 209925

Date: 07/07/2005

CUSTOMER: FANNING, PHILLIPS AND MOLNAR

PROJECT: DPSH WOODHAVEN BLVD.

ATTN: Ben Canem

Customer Sample ID: A-6  
 Date Sampled: 06/16/2005  
 Time Sampled: 09:30  
 Sample Matrix: Water

Laboratory Sample ID: 209925-2  
 Date Received: 06/22/2005  
 Time Received: 09:30

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
	Chlorobenzene	ND	U	4.0	50	10.00000	ug/L	51002		06/24/05 1313	pam
	Ethylbenzene	ND	U	10	50	10.00000	ug/L	51002		06/24/05 1313	pam
	Styrene	ND	U	5.0	50	10.00000	ug/L	51002		06/24/05 1313	pam
	Bromoform	ND	U	8.0	50	10.00000	ug/L	51002		06/24/05 1313	pam
	1,1,2,2-Tetrachloroethane	ND	U	4.0	50	10.00000	ug/L	51002		06/24/05 1313	pam
	Xylenes (total)	ND	U	10	50	10.00000	ug/L	51002		06/24/05 1313	pam

\* In Description = Dry Wgt.

LABORATORY TEST RESULTS

Job Number: 209925

Date: 07/07/2005

CUSTOMER: FANNING, PHILLIPS AND MOLNAR

PROJECT: DPSW WOODHAVEN BLYD.

ATTN: Ben Cancem

Customer Sample ID: A-4  
 Date Sampled: 06/16/2005  
 Time Sampled: 10:00  
 Sample Matrix: Water

Laboratory Sample ID: 209925-3  
 Date Received: 06/22/2005  
 Time Received: 09:30

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
82608	Volatile Organics (5mL Purge)										
	Chloromethane	ND	U	1.0	10	2.00000	ug/L	51002		06/24/05 14:12	paia
	Vinyl chloride	ND	U	1.6	10	2.00000	ug/L	51002		06/24/05 14:12	paia
	Bromomethane	ND	U	2.4	10	2.00000	ug/L	51002		06/24/05 14:12	paia
	Chloroethane	ND	U	1.6	10	2.00000	ug/L	51002		06/24/05 14:12	paia
	1,1-Dichloroethene	ND	U	1.4	10	2.00000	ug/L	51002		06/24/05 14:12	paia
	Carbon disulfide	ND	U	1.8	10	2.00000	ug/L	51002		06/24/05 14:12	paia
	Acetone	ND	U	2.8	20	2.00000	ug/L	51002		06/24/05 14:12	paia
	Methylene chloride	ND	J	0.80	10	2.00000	ug/L	51002		06/24/05 14:12	paia
	trans-1,2-Dichloroethene	ND	U	1.0	10	2.00000	ug/L	51002		06/24/05 14:12	paia
	1,1-Dichloroethane	ND	U	1.2	10	2.00000	ug/L	51002		06/24/05 14:12	paia
	cis-1,2-Dichloroethene	ND	U	1.2	10	2.00000	ug/L	51002		06/24/05 14:12	paia
	2-Butanone (MEK)	ND	J	2.4	20	2.00000	ug/L	51002		06/24/05 14:12	paia
	Chloroform	ND	J	1.4	10	2.00000	ug/L	51002		06/24/05 14:12	paia
	1,1,1-Trichloroethane	ND	U	0.80	10	2.00000	ug/L	51002		06/24/05 14:12	paia
	Carbon tetrachloride	ND	U	2.0	10	2.00000	ug/L	51002		06/24/05 14:12	paia
	Benzene	ND	U	0.80	10	2.00000	ug/L	51002		06/24/05 14:12	paia
	1,2-Dichloroethane	ND	U	1.2	10	2.00000	ug/L	51002		06/24/05 14:12	paia
	Trichloroethene	ND	U	1.4	10	2.00000	ug/L	51002		06/24/05 14:12	paia
	1,2-Dichloropropane	ND	U	1.8	10	2.00000	ug/L	51002		06/24/05 14:12	paia
Bromodichloromethane	ND	U	0.80	10	2.00000	ug/L	51002		06/24/05 14:12	paia	
cis-1,3-Dichloropropene	ND	U	1.0	10	2.00000	ug/L	51002		06/24/05 14:12	paia	
4-Methyl-2-pentanone (MIBK)	ND	U	1.4	10	2.00000	ug/L	51002		06/24/05 14:12	paia	
Toluene	ND	U	0.60	10	2.00000	ug/L	51002		06/24/05 14:12	paia	
trans-1,3-Dichloropropene	ND	U	1.6	10	2.00000	ug/L	51002		06/24/05 14:12	paia	
1,1,2-Trichloroethane	ND	U	1.2	10	2.00000	ug/L	51002		06/24/05 14:12	paia	
Tetrachloroethene	ND	U	1.0	10	2.00000	ug/L	51002		06/24/05 14:12	paia	
2-Hexanone	ND	U	1.6	20	2.00000	ug/L	51002		06/24/05 14:12	paia	
Dibromochloromethane	ND	U	1.0	10	2.00000	ug/L	51002		06/24/05 14:12	paia	

\* In Description = Dry Wgt.

LABORATORY TEST RESULTS											
Job Number: 209925					Date: 07/07/2005						
CUSTOMER: FANNING, PHILLIPS AND MOLNAR					PROJECT: DPSM WOODHAVEN BLVD.						
ATTN: Ben Cancian											
Customer Sample ID: A-4					Laboratory Sample ID: 209925-3						
Date Sampled: 06/16/2005					Date Received: 06/22/2005						
Time Sampled: 10:00					Time Received: 09:30						
Sample Matrix: Water											
TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
	Chlorobenzene	ND	U	0.80	10	2.00000	ug/L	51002		06/24/05 14:12	pam
	Ethylbenzene	ND	U	2.0	10	2.00000	ug/L	51002		06/24/05 14:12	pam
	Styrene	ND	U	1.0	10	2.00000	ug/L	51002		06/24/05 14:12	pam
	Bromoform	ND	U	1.6	10	2.00000	ug/L	51002		06/24/05 14:12	pam
	1,1,2,2-Tetrachloroethane	ND	U	0.80	10	2.00000	ug/L	51002		06/24/05 14:12	pam
	Xylenes (total)	ND	U	2.0	10	2.00000	ug/L	51002		06/24/05 14:12	pam

LABORATORY TEST RESULTS

Job Number: 209925

Date: 07/07/2005

CUSTOMER: FANNING, PHILLIPS AND MOLNAR

PROJECT: DPSW WOODHAVEN BLVD.

ATTN: Ben Cenci

Customer Sample ID: A-5  
 Date Sampled: 06/16/2005  
 Time Sampled: 10:30  
 Sample Matrix: Water

Laboratory Sample ID: 209925-4  
 Date Received: 06/22/2005  
 Time Received: 09:30

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
8260B	Volatile Organics (5mL Purge)											
	Chloromethane	ND	U		1.0	10	2.00000	ug/L	51002		06/24/05 1441	pam
	Vinyl chloride	ND	U		1.6	10	2.00000	ug/L	51002		06/24/05 1441	pam
	Bromomethane	ND	U		2.4	10	2.00000	ug/L	51002		06/24/05 1441	pam
	Chloroethane	ND	U		1.6	10	2.00000	ug/L	51002		06/24/05 1441	pam
	1,1-Dichloroethane	ND	U		1.4	10	2.00000	ug/L	51002		06/24/05 1441	pam
	Carbon disulfide	ND	U		1.8	10	2.00000	ug/L	51002		06/24/05 1441	pam
	Acetone	ND	U		2.8	20	2.00000	ug/L	51002		06/24/05 1441	pam
	Methylene chloride	2.0	J	B	0.80	10	2.00000	ug/L	51002		06/24/05 1441	pam
	trans-1,2-Dichloroethene	ND	U		1.0	10	2.00000	ug/L	51002		06/24/05 1441	pam
	1,1-Dichloroethane	ND	U		1.2	10	2.00000	ug/L	51002		06/24/05 1441	pam
	cis-1,2-Dichloroethane	ND	U		1.2	10	2.00000	ug/L	51002		06/24/05 1441	pam
	2-Butanone (MEK)	ND	U		2.4	20	2.00000	ug/L	51002		06/24/05 1441	pam
	Chloroform	ND	U		1.4	10	2.00000	ug/L	51002		06/24/05 1441	pam
	1,1,1-Trichloroethane	ND	U		0.80	10	2.00000	ug/L	51002		06/24/05 1441	pam
	Carbon tetrachloride	ND	U		2.0	10	2.00000	ug/L	51002		06/24/05 1441	pam
	Benzene	ND	U		0.80	10	2.00000	ug/L	51002		06/24/05 1441	pam
	1,2-Dichloroethane	ND	U		1.2	10	2.00000	ug/L	51002		06/24/05 1441	pam
	Trichloroethene	ND	U		1.4	10	2.00000	ug/L	51002		06/24/05 1441	pam
	1,2-Dichloropropane	ND	U		1.8	10	2.00000	ug/L	51002		06/24/05 1441	pam
Bromodichloromethane	ND	U		0.80	10	2.00000	ug/L	51002		06/24/05 1441	pam	
cis-1,3-Dichloropropene	ND	U		1.0	10	2.00000	ug/L	51002		06/24/05 1441	pam	
4-Methyl-2-pentanone (MIBK)	ND	U		1.4	20	2.00000	ug/L	51002		06/24/05 1441	pam	
Toluene	ND	U		0.60	10	2.00000	ug/L	51002		06/24/05 1441	pam	
trans-1,3-Dichloropropene	ND	U		1.6	10	2.00000	ug/L	51002		06/24/05 1441	pam	
1,1,2-Trichloroethane	ND	U		1.2	10	2.00000	ug/L	51002		06/24/05 1441	pam	
Tetrachloroethane	150	U		1.0	10	2.00000	ug/L	51002		06/24/05 1441	pam	
2-Hexanone	ND	U		1.6	20	2.00000	ug/L	51002		06/24/05 1441	pam	
Dibromochloromethane	ND	U		1.0	10	2.00000	ug/L	51002		06/24/05 1441	pam	

\* In Description = Dry Wgt.

LABORATORY TEST RESULTS											
Job Number: 209925					Date: 07/07/2005						
CUSTOMER: FANNING, PHILLIPS AND MOLNAR					ATTN: Ben Concani						
PROJECT: DPSW WOODHAVEN BLYD.											
Customer Sample ID: A-5					Laboratory Sample ID: 209925-4						
Date Sampled: 06/16/2005					Date Received: 06/22/2005						
Time Sampled: 10:30					Time Received: 09:30						
Sample Matrix: Water											
TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
	Chlorobenzene	ND	U	0.80	10	2.00000	ug/L	51002		06/24/05 1441	pam
	Ethylbenzene	ND	U	2.0	10	2.00000	ug/L	51002		06/24/05 1441	pam
	Styrene	ND	U	1.0	10	2.00000	ug/L	51002		06/24/05 1441	pam
	Bromoform	ND	U	1.6	10	2.00000	ug/L	51002		06/24/05 1441	pam
	1,1,2,2-Tetrachloroethane	ND	U	0.80	10	2.00000	ug/L	51002		06/24/05 1441	pam
	Xylenes (total)	ND	U	2.0	10	2.00000	ug/L	51002		06/24/05 1441	pam

LABORATORY TEST RESULTS											
Job Number: 209925					Date: 07/07/2005						
CUSTOMER: FANNING, PHILLIPS AND MOLNAR											
PROJECT: DPSW WOODHAVEN BLVD. ATTN: Ben Cancemi											
Customer Sample ID: A-10											
Date Sampled: 06/16/2005											
Time Sampled: 11:00											
Sample Matrix: Water											
Laboratory Sample ID: 209925-5											
Date Received: 06/22/2005											
Time Received: 09:30											
TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
82608	Volatiles Organics (5mL Purge)										
	Chloromethane	ND	U	1.0	10	2.00000	ug/L	51002		06/24/05 1510	pam
	Vinyl chloride	ND	U	1.6	10	2.00000	ug/L	51002		06/24/05 1510	pam
	Bromomethane	ND	U	2.4	10	2.00000	ug/L	51002		06/24/05 1510	pam
	Chloroethane	ND	U	1.5	10	2.00000	ug/L	51002		06/24/05 1510	pam
	1,1-Dichloroethane	ND	U	1.4	10	2.00000	ug/L	51002		06/24/05 1510	pam
	Carbon disulfide	ND	U	1.8	10	2.00000	ug/L	51002		06/24/05 1510	pam
	Acetone	3.0	J	2.8	20	2.00000	ug/L	51002		06/24/05 1510	pam
	Methylene chloride	1.7	J	0.80	10	2.00000	ug/L	51002		06/24/05 1510	pam
	trans-1,2-Dichloroethene	ND	U	1.0	10	2.00000	ug/L	51002		06/24/05 1510	pam
	1,1-Dichloroethane	ND	U	1.2	10	2.00000	ug/L	51002		06/24/05 1510	pam
	cis-1,2-Dichloroethane	ND	U	1.2	10	2.00000	ug/L	51002		06/24/05 1510	pam
	2-Butanone (MEK)	ND	U	2.4	20	2.00000	ug/L	51002		06/24/05 1510	pam
	Chloroform	ND	U	1.4	10	2.00000	ug/L	51002		06/24/05 1510	pam
	1,1,1-Trichloroethane	ND	U	0.80	10	2.00000	ug/L	51002		06/24/05 1510	pam
	Carbon tetrachloride	ND	U	2.0	10	2.00000	ug/L	51002		06/24/05 1510	pam
	Benzene	ND	U	0.80	10	2.00000	ug/L	51002		06/24/05 1510	pam
	1,2-Dichloroethane	ND	U	1.2	10	2.00000	ug/L	51002		06/24/05 1510	pam
	Trichloroethene	ND	U	1.4	10	2.00000	ug/L	51002		06/24/05 1510	pam
	1,2-Dichloropropane	ND	U	1.8	10	2.00000	ug/L	51002		06/24/05 1510	pam
Bromodichloromethane	ND	U	0.80	10	2.00000	ug/L	51002		06/24/05 1510	pam	
cis-1,3-Dichloropropene	ND	U	1.0	10	2.00000	ug/L	51002		06/24/05 1510	pam	
4-Methyl-2-pentanone (MIBK)	ND	U	1.4	20	2.00000	ug/L	51002		06/24/05 1510	pam	
Toluene	ND	U	0.60	10	2.00000	ug/L	51002		06/24/05 1510	pam	
trans-1,3-Dichloropropene	ND	U	1.6	10	2.00000	ug/L	51002		06/24/05 1510	pam	
1,1,2-Trichloroethane	ND	U	1.2	10	2.00000	ug/L	51002		06/24/05 1510	pam	
Tetrachloroethene	ND	U	1.0	10	2.00000	ug/L	51002		06/24/05 1510	pam	
2-Hexanone	200	U	1.6	20	2.00000	ug/L	51002		06/24/05 1510	pam	
Dibromochloromethane	ND	U	1.0	10	2.00000	ug/L	51002		06/24/05 1510	pam	

\* In Description = Dry Wgt.

LABORATORY TEST RESULTS

Job Number: 209925 Date: 07/07/2005

CUSTOMER: FANNING, PHILLIPS AND MOLNAR ATTN: Ben Cenciari

PROJECT: DPSW WOODHAVEN BLVD.

Customer Sample ID: A-10  
 Date Sampled: 06/16/2005  
 Time Sampled: 11:00  
 Sample Matrix: Water

Laboratory Sample ID: 209925-5  
 Date Received: 06/22/2005  
 Time Received: 09:30

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
	Chlorobenzene	ND	U		0.80	10	2.00000	ug/L	51002		06/24/05 1510	pam
	Ethylbenzene	ND	U		2.0	10	2.00000	ug/L	51002		06/24/05 1510	pam
	Styrene	ND	U		1.0	10	2.00000	ug/L	51002		06/24/05 1510	pam
	Bromoform	ND	U		1.6	10	2.00000	ug/L	51002		06/24/05 1510	pam
	1,1,2,2-Tetrachloroethane	ND	U		0.80	10	2.00000	ug/L	51002		06/24/05 1510	pam
	Xylenes (total)	ND	U		2.0	10	2.00000	ug/L	51002		06/24/05 1510	pam

\* In Description = Dry Wgt.



LABORATORY TEST RESULTS											
Job Number: 209925					Date: 07/07/2005						
CUSTOMER: FANNING, PHILLIPS AND MOLNAR											
PROJECT: DPSW WOODHAVEN BLVD.											
ATTN: Ben Cancemi											
Laboratory Sample ID: 209925-6											
Date Sampled: 06/16/2005											
Date Received: 06/22/2005											
Time Sampled: 11:30											
Time Received: 09:30											
Sample Matrix: Water											
TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q FLAGS	NDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
8260B	Volatile Organics (5mL Purge)										
	Chloromethane	ND	U	1.0	10	2.00000	ug/L	51002		06/24/05 1542	pam
	Vinyl chloride	ND	U	1.6	10	2.00000	ug/L	51002		06/24/05 1542	pam
	Bromomethane	ND	U	2.4	10	2.00000	ug/L	51002		06/24/05 1542	pam
	Chloroethane	ND	U	1.6	10	2.00000	ug/L	51002		06/24/05 1542	pam
	1,1-Dichloroethene	ND	U	1.4	10	2.00000	ug/L	51002		06/24/05 1542	pam
	Carbon disulfide	ND	U	1.8	10	2.00000	ug/L	51002		06/24/05 1542	pam
	Acetone	2.9	J	2.8	20	2.00000	ug/L	51002		06/24/05 1542	pam
	Methylene chloride	1.8	J	0.80	10	2.00000	ug/L	51002		06/24/05 1542	pam
	trans-1,2-Dichloroethene	ND	U	1.0	10	2.00000	ug/L	51002		06/24/05 1542	pam
	1,1-Dichloroethane	ND	U	1.2	10	2.00000	ug/L	51002		06/24/05 1542	pam
	cis-1,2-Dichloroethene	ND	U	1.2	10	2.00000	ug/L	51002		06/24/05 1542	pam
	2-Butanone (HEX)	ND	U	2.4	20	2.00000	ug/L	51002		06/24/05 1542	pam
	Chloroform	ND	U	1.4	10	2.00000	ug/L	51002		06/24/05 1542	pam
	1,1,1-Trichloroethane	ND	U	0.80	10	2.00000	ug/L	51002		06/24/05 1542	pam
	Carbon tetrachloride	ND	U	2.0	10	2.00000	ug/L	51002		06/24/05 1542	pam
	Benzene	ND	U	0.80	10	2.00000	ug/L	51002		06/24/05 1542	pam
	1,2-Dichloroethane	ND	U	1.2	10	2.00000	ug/L	51002		06/24/05 1542	pam
	Trichloroethene	ND	U	1.4	10	2.00000	ug/L	51002		06/24/05 1542	pam
	1,2-Dichloropropane	ND	U	1.8	10	2.00000	ug/L	51002		06/24/05 1542	pam
	Bromodichloromethane	ND	U	0.80	10	2.00000	ug/L	51002		06/24/05 1542	pam
	cis-1,3-Dichloropropene	ND	U	1.0	10	2.00000	ug/L	51002		06/24/05 1542	pam
	4-Methyl-2-pentanone (MIBK)	ND	U	1.4	20	2.00000	ug/L	51002		06/24/05 1542	pam
	Toluene	ND	U	0.60	10	2.00000	ug/L	51002		06/24/05 1542	pam
	trans-1,3-Dichloropropene	ND	U	1.6	10	2.00000	ug/L	51002		06/24/05 1542	pam
	1,1,2-Trichloroethane	ND	U	1.2	10	2.00000	ug/L	51002		06/24/05 1542	pam
	Tetrachloroethene	ND	U	1.0	10	2.00000	ug/L	51002		06/24/05 1542	pam
	2-Hexanone	ND	U	1.6	20	2.00000	ug/L	51002		06/24/05 1542	pam
	Dibromochloromethane	ND	U	1.0	10	2.00000	ug/L	51002		06/24/05 1542	pam

L A B O R A T O R Y T E S T R E S U L T S

Job Number: 209925

date:07/07/2005

CUSTOMER: FANNING, PHILLIPS AND MOLNAR

PROJECT: DPSW WOODHAVEN BLVD.

ATTN: Ben Cancemi

Customer Sample ID: A-9  
 Date Sampled.....: 06/16/2005  
 Time Sampled.....: 11:30  
 Sample Matrix.....: Water

Laboratory Sample ID: 209925-6  
 Date Received.....: 06/22/2005  
 Time Received.....: 09:30

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	NDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
	Chlorobenzene	ND	U		0.80	10	2.00000	ug/L	51002		06/24/05 15:42	pam
	Ethylbenzene	ND	U		2.0	10	2.00000	ug/L	51002		06/24/05 15:42	pam
	Styrene	ND	U		1.0	10	2.00000	ug/L	51002		06/24/05 15:42	pam
	Bromoform	ND	U		1.6	10	2.00000	ug/L	51002		06/24/05 15:42	pam
	1,1,2,2-Tetrachloroethane	ND	U		0.80	10	2.00000	ug/L	51002		06/24/05 15:42	pam
	Xylenes (total)	ND	U		2.0	10	2.00000	ug/L	51002		06/24/05 15:42	pam

\* In Description = Dry Wgt.

LABORATORY TEST RESULTS

Job Number: 209925

Date: 07/07/2005

CUSTOMER: FANNING, PHILLIPS AND MOLNAR

PROJECT: DPM WOODHAVEN BLVD.

ATTN: Ben Canemi

Customer Sample ID: A-13  
 Date Sampled: 06/16/2005  
 Time Sampled: 14:00  
 Sample Matrix: Water  
 Laboratory Sample ID: 209925-7  
 Date Received: 06/22/2005  
 Time Received: 09:30

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
8260B	Volatiles Organics (5mL Purge)										
	Chloromethane	ND	U	2.5	25	5.00000	ug/L	51003		06/28/05 1128	pam
	Vinyl chloride	ND	U	4.0	25	5.00000	ug/L	51003		06/28/05 1128	pam
	Bromomethane	ND	U	6.0	25	5.00000	ug/L	51003		06/28/05 1128	pam
	Chloroethane	ND	U	4.0	25	5.00000	ug/L	51003		06/28/05 1128	pam
	1,1-Dichloroethene	ND	U	3.5	25	5.00000	ug/L	51003		06/28/05 1128	pam
	Carbon disulfide	ND	U	4.5	25	5.00000	ug/L	51003		06/28/05 1128	pam
	Acetone	ND	U	7.0	50	5.00000	ug/L	51003		06/28/05 1128	pam
	Methylene chloride	8.0	J	2.0	25	5.00000	ug/L	51003		06/28/05 1128	pam
	trans-1,2-Dichloroethene	ND	U	2.5	25	5.00000	ug/L	51003		06/28/05 1128	pam
	1,1-Dichloroethane	ND	U	3.0	25	5.00000	ug/L	51003		06/28/05 1128	pam
	cis-1,2-Dichloroethene	ND	U	3.0	25	5.00000	ug/L	51003		06/28/05 1128	pam
	2-Butanone (MEK)	ND	U	6.0	50	5.00000	ug/L	51003		06/28/05 1128	pam
	Chloroform	ND	U	3.5	25	5.00000	ug/L	51003		06/28/05 1128	pam
	1,1,1-Trichloroethane	ND	U	2.0	25	5.00000	ug/L	51003		06/28/05 1128	pam
	Carbon tetrachloride	ND	U	5.0	25	5.00000	ug/L	51003		06/28/05 1128	pam
	Benzene	ND	U	2.0	25	5.00000	ug/L	51003		06/28/05 1128	pam
	1,2-Dichloroethane	ND	U	3.0	25	5.00000	ug/L	51003		06/28/05 1128	pam
	Trichloroethene	ND	U	3.5	25	5.00000	ug/L	51003		06/28/05 1128	pam
	1,2-Dichloropropane	ND	U	4.5	25	5.00000	ug/L	51003		06/28/05 1128	pam
Bromodichloromethane	ND	U	2.0	25	5.00000	ug/L	51003		06/28/05 1128	pam	
cis-1,3-Dichloropropene	ND	U	2.5	25	5.00000	ug/L	51003		06/28/05 1128	pam	
4-Methyl-2-pentanone (MIBK)	ND	U	3.5	50	5.00000	ug/L	51003		06/28/05 1128	pam	
Toluene	ND	U	1.5	25	5.00000	ug/L	51003		06/28/05 1128	pam	
trans-1,3-Dichloropropene	ND	U	4.0	25	5.00000	ug/L	51003		06/28/05 1128	pam	
1,1,2-Trichloroethane	ND	U	3.0	25	5.00000	ug/L	51003		06/28/05 1128	pam	
Tetrachloroethene	ND	U	2.5	25	5.00000	ug/L	51003		06/28/05 1128	pam	
2-Hexanone	ND	U	4.0	50	5.00000	ug/L	51003		06/28/05 1128	pam	
Dibromochloromethane	ND	U	2.5	25	5.00000	ug/L	51003		06/28/05 1128	pam	

Job Number: 209925      LABORATORY TEST RESULTS      Date: 07/07/2005

CUSTOMER: FANNING, PHILLIPS AND MOLNAR      PROJECT: DPSW WOODHAVEN BLVD.      ATTN: Ben Canceani

Customer Sample ID: A-13  
 Date Sampled: 06/16/2005  
 Time Sampled: 14:00  
 Sample Matrix: Water

Laboratory Sample ID: 209925-7  
 Date Received: 06/22/2005  
 Time Received: 09:30

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
	Chlorobenzene	ND	U	2.0	25	5.00000	ug/L	51003		06/28/05 1128	pam
	Ethylbenzene	ND	U	5.0	25	5.00000	ug/L	51003		06/28/05 1128	pam
	Styrene	ND	U	2.5	25	5.00000	ug/L	51003		06/28/05 1128	pam
	Bromoform	ND	U	4.0	25	5.00000	ug/L	51003		06/28/05 1128	pam
	1,1,2,2-Tetrachloroethane	ND	U	2.0	25	5.00000	ug/L	51003		06/28/05 1128	pam
	Xylenes (total)	ND	U	5.0	25	5.00000	ug/L	51003		06/28/05 1128	pam

\* In Description = Dry Hgt.

LABORATORY TEST RESULTS

Job Number: 209925

Date: 07/07/2005

CUSTOMER: FANNING, PHILLIPS AND MOLNAR

PROJECT: DPSK WOODHAVEN BLVD.

ATTN: Ben Cancemi

Customer Sample ID: TRIP BLANK  
 Date Sampled: 06/16/2005  
 Time Sampled: 00:00  
 Sample Matrix: Water

Laboratory Sample ID: 209925-8  
 Date Received: 06/22/2005  
 Time Received: 09:30

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q FLAGS	NDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
8260B	Volatile Organics (5mL Purge)										
	Chloromethane	ND	U	0.50	5.0	1.00000	ug/L	51002		06/24/05 1221	pam
	Vinyl chloride	ND	U	0.80	5.0	1.00000	ug/L	51002		06/24/05 1221	pam
	Bromomethane	ND	U	1.2	5.0	1.00000	ug/L	51002		06/24/05 1221	pam
	Chloroethane	ND	U	0.80	5.0	1.00000	ug/L	51002		06/24/05 1221	pam
	1,1-Dichloroethane	ND	U	0.70	5.0	1.00000	ug/L	51002		06/24/05 1221	pam
	Carbon disulfide	ND	U	0.90	5.0	1.00000	ug/L	51002		06/24/05 1221	pam
	Acetone	3.9	J	1.4	10	1.00000	ug/L	51002		06/24/05 1221	pam
	Methylene chloride	2.5	J	0.40	5.0	1.00000	ug/L	51002		06/24/05 1221	pam
	trans-1,2-Dichloroethene		U	0.50	5.0	1.00000	ug/L	51002		06/24/05 1221	pam
	1,1-Dichloroethane		U	0.60	5.0	1.00000	ug/L	51002		06/24/05 1221	pam
	cis-1,2-Dichloroethene		U	0.60	5.0	1.00000	ug/L	51002		06/24/05 1221	pam
	2-Butanone (MEK)	2.5	J	1.2	10	1.00000	ug/L	51002		06/24/05 1221	pam
	Chloroform		U	0.70	5.0	1.00000	ug/L	51002		06/24/05 1221	pam
	1,1,1-Trichloroethane		U	0.40	5.0	1.00000	ug/L	51002		06/24/05 1221	pam
	Carbon tetrachloride		U	1.0	5.0	1.00000	ug/L	51002		06/24/05 1221	pam
	Benzene		U	0.40	5.0	1.00000	ug/L	51002		06/24/05 1221	pam
	1,2-Dichloroethane		U	0.60	5.0	1.00000	ug/L	51002		06/24/05 1221	pam
	Trichloroethene		U	0.70	5.0	1.00000	ug/L	51002		06/24/05 1221	pam
	1,2-Dichloropropane		U	0.90	5.0	1.00000	ug/L	51002		06/24/05 1221	pam
Bromodichloromethane		U	0.40	5.0	1.00000	ug/L	51002		06/24/05 1221	pam	
cis-1,3-Dichloropropene		U	0.50	5.0	1.00000	ug/L	51002		06/24/05 1221	pam	
4-Methyl-2-pentanone (MIBK)		U	0.70	10	1.00000	ug/L	51002		06/24/05 1221	pam	
Toluene		U	0.30	5.0	1.00000	ug/L	51002		06/24/05 1221	pam	
trans-1,3-Dichloropropene		U	0.80	5.0	1.00000	ug/L	51002		06/24/05 1221	pam	
1,1,2-Trichloroethane		U	0.60	5.0	1.00000	ug/L	51002		06/24/05 1221	pam	
Tetrachloroethene		U	0.60	5.0	1.00000	ug/L	51002		06/24/05 1221	pam	
2-Hexanone		U	0.50	5.0	1.00000	ug/L	51002		06/24/05 1221	pam	
Dibromochloromethane		U	0.80	10	1.00000	ug/L	51002		06/24/05 1221	pam	
		ND		0.50	5.0	1.00000	ug/L	51002		06/24/05 1221	pam

\* In Description = Dry Wgt.

LABORATORY TEST RESULTS											
Job Number: 209925					Date: 07/07/2005						
CUSTOMER: FANNING, PHILLIPS AND ROLMAR					PROJECT: DPSM WOODHAVEN BLVD.						
ATTN: Ben Cancemi											
Customer Sample ID: TRIP BLANK					Laboratory Sample ID: 209925-8						
Date Sampled: 06/16/2005					Date Received: 06/22/2005						
Time Sampled: 00:00					Time Received: 09:30						
Sample Matrix: Water											
TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
	Chlorobenzene	ND	U	0.40	5.0	1.00000	ug/L	51002		06/24/05 1221	paia
	Ethylbenzene	ND	U	1.0	5.0	1.00000	ug/L	51002		06/24/05 1221	paia
	Styrene	ND	U	0.50	5.0	1.00000	ug/L	51002		06/24/05 1221	paia
	Bromoforn	ND	U	0.80	5.0	1.00000	ug/L	51002		06/24/05 1221	paia
	1,1,2,2-Tetrachloroethane	ND	U	0.40	5.0	1.00000	ug/L	51002		06/24/05 1221	paia
	Xylenes (total)	ND	U	1.0	5.0	1.00000	ug/L	51002		06/24/05 1221	paia

\* In Description = Dry Wgt.

LABORATORY TEST RESULTS											
Job Number: 209925					Date: 07/07/2005						
CUSTOMER: FANNING, PHILLIPS, AND MOLNAR											
PROJECT: DPSW WOODHAVEN BLVD											
ATTN: Ben Cancefi											
Customer Sample ID: A-17											
Laboratory Sample ID: 209925-9											
Date Sampled: 06/17/2005											
Date Received: 06/22/2005											
Time Sampled: 08:30											
Time Received: 09:30											
Sample Matrix: Water											
TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
8260B	Volatile Organics (5mL Purge)										
	Chloromethane	ND	U	0.50	5.0	1.00000	ug/L	51003		06/28/05 1735	pam
	Vinyl chloride	ND	U	0.80	5.0	1.00000	ug/L	51003		06/28/05 1735	pam
	Bromomethane	ND	U	1.2	5.0	1.00000	ug/L	51003		06/28/05 1735	pam
	Chloroethane	ND	U	0.80	5.0	1.00000	ug/L	51003		06/28/05 1735	pam
	1,1-Dichloroethene	ND	U	0.70	5.0	1.00000	ug/L	51003		06/28/05 1735	pam
	Carbon disulfide	ND	U	0.90	5.0	1.00000	ug/L	51003		06/28/05 1735	pam
	Acetone	ND	U	1.4	10	1.00000	ug/L	51003		06/28/05 1735	pam
	Methylene chloride	ND	U	0.40	5.0	1.00000	ug/L	51003		06/28/05 1735	pam
	trans-1,2-Dichloroethene	ND	U	0.50	5.0	1.00000	ug/L	51003		06/28/05 1735	pam
	1,1-Dichloroethane	ND	U	0.60	5.0	1.00000	ug/L	51003		06/28/05 1735	pam
	cis-1,2-Dichloroethane	ND	U	0.60	5.0	1.00000	ug/L	51003		06/28/05 1735	pam
	2-Butanone (MEK)	ND	U	1.2	10	1.00000	ug/L	51003		06/28/05 1735	pam
	Chloroform	ND	U	0.70	5.0	1.00000	ug/L	51003		06/28/05 1735	pam
	1,1,1-Trichloroethane	ND	U	0.40	5.0	1.00000	ug/L	51003		06/28/05 1735	pam
	Carbon tetrachloride	ND	U	1.0	5.0	1.00000	ug/L	51003		06/28/05 1735	pam
	Benzene	ND	U	0.40	5.0	1.00000	ug/L	51003		06/28/05 1735	pam
	1,2-Dichloroethane	ND	U	0.60	5.0	1.00000	ug/L	51003		06/28/05 1735	pam
	Trichloroethene	ND	U	0.70	5.0	1.00000	ug/L	51003		06/28/05 1735	pam
	1,2-Dichloropropane	ND	U	0.90	5.0	1.00000	ug/L	51003		06/28/05 1735	pam
	Bromodichloromethane	ND	U	0.40	5.0	1.00000	ug/L	51003		06/28/05 1735	pam
	cis-1,3-Dichloropropene	ND	U	0.50	5.0	1.00000	ug/L	51003		06/28/05 1735	pam
	4-Methyl-2-pentanone (MIBK)	ND	U	0.70	10	1.00000	ug/L	51003		06/28/05 1735	pam
	Toluene	ND	U	0.30	5.0	1.00000	ug/L	51003		06/28/05 1735	pam
	trans-1,3-Dichloropropene	ND	U	0.80	5.0	1.00000	ug/L	51003		06/28/05 1735	pam
	1,1,2-Trichloroethane	ND	U	0.60	5.0	1.00000	ug/L	51003		06/28/05 1735	pam
	Tetrachloroethene	ND	U	0.50	5.0	1.00000	ug/L	51003		06/28/05 1735	pam
	2-Hexanone	ND	U	0.80	10	1.00000	ug/L	51003		06/28/05 1735	pam
	Dibromochloromethane	ND	U	0.50	5.0	1.00000	ug/L	51003		06/28/05 1735	pam

\* In Description = Dry Wgt.

LABORATORY TEST RESULTS												
Job Number: 209925					Date: 07/07/2005							
CUSTOMER: FANNING, PHILLIPS AND MOLNAR					PROJECT: DPSH WOODHAVEN BLVD.							
Laboratory Sample ID: 209925-9 Date Sampled: 06/17/2005 Time Sampled: 08:30 Sample Matrix: Water					Laboratory Sample ID: 209925-9 Date Received: 06/22/2005 Time Received: 09:30							
TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
	Chlorobenzene	ND	U		0.40	5.0	1.00000	ug/L	51003		06/28/05 1735	pam
	Ethylbenzene	ND	U		1.0	5.0	1.00000	ug/L	51003		06/28/05 1735	pam
	Styrene	ND	U		0.50	5.0	1.00000	ug/L	51003		06/28/05 1735	pam
	Bromoform	ND	U		0.80	5.0	1.00000	ug/L	51003		06/28/05 1735	pam
	1,1,2,2-Tetrachloroethane	ND	U		0.40	5.0	1.00000	ug/L	51003		06/28/05 1735	pam
	Xylenes (total)	ND	U		1.0	5.0	1.00000	ug/L	51003		06/28/05 1735	pam



LABORATORY TEST RESULTS

Job Number: 209925

Date: 07/07/2005

CUSTOMER: FANNING, PHILLIPS AND MOLNAR

PROJECT: DP5W WOODHAVEN BLVD.

ATTN: Ben Caricemi

Customer Sample ID: A-16  
 Date Sampled.....: 06/17/2005  
 Time Sampled.....: 09:00  
 Sample Matrix.....: Water

Laboratory Sample ID: 209925-10  
 Date Received.....: 06/22/2005  
 Time Received.....: 09:30

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
8260B	Volatile Organics (5mL Purge)										
	Chloromethane	ND	U	0.50	5.0	1.00000	ug/L	51003		06/28/05 1802	pam
	Vinyl chloride	ND	U	0.80	5.0	1.00000	ug/L	51003		06/28/05 1802	pam
	Bromomethane	ND	U	1.2	5.0	1.00000	ug/L	51003		06/28/05 1802	pam
	Chloroethane	ND	U	0.80	5.0	1.00000	ug/L	51003		06/28/05 1802	pam
	1,1-Dichloroethane	ND	U	0.70	5.0	1.00000	ug/L	51003		06/28/05 1802	pam
	Carbon disulfide	ND	U	0.90	5.0	1.00000	ug/L	51003		06/28/05 1802	pam
	Acetone	ND	U	1.4	10	1.00000	ug/L	51003		06/28/05 1802	pam
	Methylene chloride	ND	U	0.40	5.0	1.00000	ug/L	51003		06/28/05 1802	pam
	trans-1,2-Dichloroethene	ND	U	0.50	5.0	1.00000	ug/L	51003		06/28/05 1802	pam
	1,1-Dichloroethane	ND	U	0.60	5.0	1.00000	ug/L	51003		06/28/05 1802	pam
	cis-1,2-Dichloroethene	ND	U	0.60	5.0	1.00000	ug/L	51003		06/28/05 1802	pam
	2-Butanone (NEK)	ND	U	1.2	10	1.00000	ug/L	51003		06/28/05 1802	pam
	Chloroform	ND	U	0.70	5.0	1.00000	ug/L	51003		06/28/05 1802	pam
	1,1,1-Trichloroethane	ND	U	0.40	5.0	1.00000	ug/L	51003		06/28/05 1802	pam
	Carbon tetrachloride	ND	U	1.0	5.0	1.00000	ug/L	51003		06/28/05 1802	pam
	Benzene	ND	U	0.40	5.0	1.00000	ug/L	51003		06/28/05 1802	pam
	1,2-Dichloroethane	ND	U	0.60	5.0	1.00000	ug/L	51003		06/28/05 1802	pam
	Trichloroethene	ND	U	0.70	5.0	1.00000	ug/L	51003		06/28/05 1802	pam
	1,2-Dichloropropane	ND	U	0.90	5.0	1.00000	ug/L	51003		06/28/05 1802	pam
	Bromodichloromethane	ND	U	0.40	5.0	1.00000	ug/L	51003		06/28/05 1802	pam
	cis-1,3-Dichloropropene	ND	U	0.50	5.0	1.00000	ug/L	51003		06/28/05 1802	pam
	4-Methyl-2-pentanone (MIBK)	ND	U	0.70	10	1.00000	ug/L	51003		06/28/05 1802	pam
Toluene	ND	U	0.30	5.0	1.00000	ug/L	51003		06/28/05 1802	pam	
trans-1,3-Dichloropropene	ND	U	0.80	5.0	1.00000	ug/L	51003		06/28/05 1802	pam	
1,1,2-Trichloroethane	ND	U	0.60	5.0	1.00000	ug/L	51003		06/28/05 1802	pam	
Tetrachloroethene	ND	J	0.50	5.0	1.00000	ug/L	51003		06/28/05 1802	pam	
2-Hexanone	ND	U	0.80	10	1.00000	ug/L	51003		06/28/05 1802	pam	
Dibromochloromethane	ND	U	0.50	5.0	1.00000	ug/L	51003		06/28/05 1802	pam	

\* In Description = Dry Wgt.

LABORATORY TEST RESULTS

Job Number: 209925 Date: 07/07/2005

CUSTOMER: FANLING, PHILLIPS AND MOLNAR PROJECT: DPSW WOODHAVEN BLVD. AITN: Ben Cancemi

Customer Sample ID: A-16  
 Date Sampled: 06/17/2005  
 Time Sampled: 09:00  
 Sample Matrix: Water

Laboratory Sample ID: 209925-10  
 Date Received: 06/22/2005  
 Time Received: 09:30

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
	Chlorobenzene	ND	U		0.40	5.0	1.00000	ug/L	51003		06/28/05 1802	pam
	Ethylbenzene	ND	U		1.0	5.0	1.00000	ug/L	51003		06/28/05 1802	pam
	Styrene	ND	U		0.50	5.0	1.00000	ug/L	51003		06/28/05 1802	pam
	Bromoform	ND	U		0.80	5.0	1.00000	ug/L	51003		06/28/05 1802	pam
	1,1,2,2-Tetrachloroethane	ND	U		0.40	5.0	1.00000	ug/L	51003		06/28/05 1802	pam
	Xylenes (total)	ND	U		1.0	5.0	1.00000	ug/L	51003		06/28/05 1802	pam

\* In Description = Dry Wgt.

LABORATORY TEST RESULTS

Job Number: 209925

Date: 07/07/2005

CUSTOMER: FANNING, PHILLIPS AND MOLNAR

PROJECT: DPSW WOODHAVEN BLVD.

ATTN: Ben. Cancemi

Customer Sample ID: A-1s  
 Laboratory Sample ID: 209925-11  
 Date Sampled: 06/17/2005  
 Date Received: 06/22/2005  
 Time Sampled: 09:30  
 Time Received: 09:30  
 Sample Matrix: Water

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
8260B	Volatile Organics (5mL Purge)										
	Chloromethane	ND	U	0.50	5.0	1.00000	ug/L	51003		06/28/05 1855	pam
	Vinyl chloride	ND	U	0.80	5.0	1.00000	ug/L	51003		06/28/05 1855	pam
	Bromomethane	ND	U	1.2	5.0	1.00000	ug/L	51003		06/28/05 1855	pam
	Chloroethane	ND	U	0.80	5.0	1.00000	ug/L	51003		06/28/05 1855	pam
	1,1-Dichloroethene	ND	U	0.70	5.0	1.00000	ug/L	51003		06/28/05 1855	pam
	Carbon disulfide	ND	U	0.90	5.0	1.00000	ug/L	51003		06/28/05 1855	pam
	Acetone	ND	U	1.4	10	1.00000	ug/L	51003		06/28/05 1855	pam
	Methylene chloride	ND	U	0.40	5.0	1.00000	ug/L	51003		06/28/05 1855	pam
	trans-1,2-Dichloroethene	ND	U	0.50	5.0	1.00000	ug/L	51003		06/28/05 1855	pam
	1,1-Dichloroethane	ND	U	0.60	5.0	1.00000	ug/L	51003		06/28/05 1855	pam
	cis-1,2-Dichloroethane	ND	U	0.60	5.0	1.00000	ug/L	51003		06/28/05 1855	pam
	2-Butanone (MEK)	ND	U	1.2	10	1.00000	ug/L	51003		06/28/05 1855	pam
	Chloroform	ND	J	0.70	5.0	1.00000	ug/L	51003		06/28/05 1855	pam
	1,1,1-Trichloroethane	ND	U	0.40	5.0	1.00000	ug/L	51003		06/28/05 1855	pam
	Carbon tetrachloride	ND	U	1.0	5.0	1.00000	ug/L	51003		06/28/05 1855	pam
	Benzene	ND	U	0.40	5.0	1.00000	ug/L	51003		06/28/05 1855	pam
	1,2-Dichloroethane	ND	U	0.60	5.0	1.00000	ug/L	51003		06/28/05 1855	pam
	Trichloroethene	ND	U	0.70	5.0	1.00000	ug/L	51003		06/28/05 1855	pam
	1,2-Dichloropropane	ND	U	0.90	5.0	1.00000	ug/L	51003		06/28/05 1855	pam
Bromodichloromethane	ND	U	0.40	5.0	1.00000	ug/L	51003		06/28/05 1855	pam	
cis-1,3-Dichloropropene	ND	U	0.50	5.0	1.00000	ug/L	51003		06/28/05 1855	pam	
4-Methyl-2-pentanone (MIBK)	ND	U	0.70	10	1.00000	ug/L	51003		06/28/05 1855	pam	
Toluene	ND	U	0.30	5.0	1.00000	ug/L	51003		06/28/05 1855	pam	
trans-1,3-Dichloropropene	ND	U	0.80	5.0	1.00000	ug/L	51003		06/28/05 1855	pam	
1,1,2-Trichloroethane	ND	U	0.60	5.0	1.00000	ug/L	51003		06/28/05 1855	pam	
Tetrachloroethene	ND	U	0.50	5.0	1.00000	ug/L	51003		06/28/05 1855	pam	
2-Hexanone	ND	U	0.80	10	1.00000	ug/L	51003		06/28/05 1855	pam	
Dibromochloromethane	ND	U	0.50	5.0	1.00000	ug/L	51003		06/28/05 1855	pam	

\* In Description = Dry Wgt.

LABORATORY TEST RESULTS											
Job Number: 209925					Date: 07/07/2005						
CUSTOMER: FANNING, PHILLIPS AND MOLNAR					PROJECT: DRSH WOODHAVEN BLVD.						
ATTN: Ben. Carcemi											
Customer Sample ID: A-1S					Laboratory Sample ID: 209925-11						
Date Sampled: 06/17/2005					Date Received: 06/22/2005						
Time Sampled: 09:30					Time Received: 09:30						
Sample Matrix: Water											
TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
	Chlorobenzene	ND	U	0.40	5.0	1.00000	ug/L	51003		06/28/05	1855 pam
	Ethylbenzene	ND	U	1.0	5.0	1.00000	ug/L	51003		06/28/05	1855 pam
	Styrene	ND	U	0.50	5.0	1.00000	ug/L	51003		06/28/05	1855 pam
	Bromoform	ND	U	0.80	5.0	1.00000	ug/L	51003		06/28/05	1855 pam
	1,1,2,2-Tetrachloroethane	ND	U	0.40	5.0	1.00000	ug/L	51003		06/28/05	1855 pam
	Xylenes (total)	ND	U	1.0	5.0	1.00000	ug/L	51003		06/28/05	1855 pam

LABORATORY TEST RESULTS

Job Number: 209925

Date: 07/07/2005

CUSTOMER: FANLING, PHILLIPS AND MOLNAR

PROJECT: DPSH WOODHAVEN BLVD.

ATTN: Ben. Cencem

Customer Sample ID: A-18  
 Date Sampled: 06/17/2005  
 Time Sampled: 10:15  
 Sample Matrix: Water

Laboratory Sample ID: 209925-12  
 Date Received: 06/22/2005  
 Time Received: 09:30

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
8260B	Volatile Organics (5mL Purge)											
	Chloromethane	ND	U		0.50	5.0	1.00000	ug/L	51003		06/28/05 1921	pam
	Vinyl chloride	ND	U		0.80	5.0	1.00000	ug/L	51003		06/28/05 1921	pam
	Bromomethane	ND	U		1.2	5.0	1.00000	ug/L	51003		06/28/05 1921	pam
	Chloroethane	ND	U		0.80	5.0	1.00000	ug/L	51003		06/28/05 1921	pam
	1,1-Dichloroethane	ND	U		0.70	5.0	1.00000	ug/L	51003		06/28/05 1921	pam
	Carbon disulfide	ND	U		0.50	5.0	1.00000	ug/L	51003		06/28/05 1921	pam
	Acetone	ND	U		1.4	10	1.00000	ug/L	51003		06/28/05 1921	pam
	Methylene chloride	ND	U		0.40	5.0	1.00000	ug/L	51003		06/28/05 1921	pam
	trans-1,2-Dichloroethene	ND	U		0.50	5.0	1.00000	ug/L	51003		06/28/05 1921	pam
	1,1-Dichloroethane	ND	U		0.60	5.0	1.00000	ug/L	51003		06/28/05 1921	pam
	cis-1,2-Dichloroethene	ND	U		0.60	5.0	1.00000	ug/L	51003		06/28/05 1921	pam
	2-Butanone (MEK)	ND	U		1.2	10	1.00000	ug/L	51003		06/28/05 1921	pam
	Chloroform	ND	U		0.70	5.0	1.00000	ug/L	51003		06/28/05 1921	pam
	1,1,1-Trichloroethane	ND	U		0.40	5.0	1.00000	ug/L	51003		06/28/05 1921	pam
	Carbon tetrachloride	ND	U		1.0	5.0	1.00000	ug/L	51003		06/28/05 1921	pam
	Benzene	ND	U		0.40	5.0	1.00000	ug/L	51003		06/28/05 1921	pam
	1,2-Dichloroethane	ND	U		0.60	5.0	1.00000	ug/L	51003		06/28/05 1921	pam
	Trichloroethene	ND	U		0.70	5.0	1.00000	ug/L	51003		06/28/05 1921	pam
	1,2-Dichloropropane	ND	U		0.90	5.0	1.00000	ug/L	51003		06/28/05 1921	pam
Bromodichloromethane	ND	U		0.40	5.0	1.00000	ug/L	51003		06/28/05 1921	pam	
cis-1,3-Dichloropropene	ND	U		0.50	5.0	1.00000	ug/L	51003		06/28/05 1921	pam	
4-Methyl-2-pentanone (MIBK)	ND	U		0.70	10	1.00000	ug/L	51003		06/28/05 1921	pam	
Toluene	ND	U		0.30	5.0	1.00000	ug/L	51003		06/28/05 1921	pam	
trans-1,3-Dichloropropene	ND	U		0.80	5.0	1.00000	ug/L	51003		06/28/05 1921	pam	
1,1,2-Trichloroethane	ND	U		0.60	5.0	1.00000	ug/L	51003		06/28/05 1921	pam	
Tetrachloroethene	ND	U		0.50	5.0	1.00000	ug/L	51003		06/28/05 1921	pam	
2-Hexanone	ND	U		0.80	10	1.00000	ug/L	51003		06/28/05 1921	pam	
Dibromochloromethane	ND	U		0.50	5.0	1.00000	ug/L	51003		06/28/05 1921	pam	

\* In Description = Dry Wgt.

LABORATORY TEST RESULTS

Date: 07/07/2005

Job Number: 209925

ATTN: Bev. Ciancetti

PROJECT: DFW WOODHAVEN BLVD.

CUSTOMER: FANNING, PHILLIPS AND MOLNAR

Laboratory Sample ID: 209925-12  
 Date Received: 06/22/2005  
 Time Received: 09:30

Customer Sample ID: A-18  
 Date Sampled: 06/17/2005  
 Time Sampled: 10:15  
 Sample Matrix: Water

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
	Chlorobenzene	ND	U	0.40	5.0	1.00000	ug/L	51003		06/28/05 1921	pam
	Ethylbenzene	ND	U	1.0	5.0	1.00000	ug/L	51003		06/28/05 1921	pam
	Styrene	ND	U	0.50	5.0	1.00000	ug/L	51003		06/28/05 1921	pam
	Bromoform	ND	U	0.80	5.0	1.00000	ug/L	51003		06/28/05 1921	pam
	1,1,2,2-Tetrachloroethane	ND	U	0.40	5.0	1.00000	ug/L	51003		06/28/05 1921	pam
	Xylenes (total)	ND	U	1.0	5.0	1.00000	ug/L	51003		06/28/05 1921	pam

\* In Description = Dry Wgt.

LABORATORY TEST RESULTS											
Job Number: 209925					Date: 07/07/2005						
CUSTOMER: FANNING, PHILLIPS AND MOLNAR					PROJECT: DPSM WOODHAVEN BLVD.						
ATTN: Ben Cancemi											
Customer Sample ID: ME-1S Date Sampled: 06/17/2005 Time Sampled: 11:00 Sample Matrix: Water											
Laboratory Sample ID: 209925-13 Date Received: 06/22/2005 Time Received: 09:30											
TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
82608	Volatile Organics (5mL Purge)										
	Chloromethane	ND	U	5.0	50	10.00000	ug/L	51003		06/28/05 1230	pam
	Vinyl chloride	ND	U	8.0	50	10.00000	ug/L	51003		06/28/05 1230	pam
	Bromomethane	ND	U	12	50	10.00000	ug/L	51003		06/28/05 1230	pam
	Chloroethane	ND	U	8.0	50	10.00000	ug/L	51003		06/28/05 1230	pam
	1,1-Dichloroethene	ND	U	7.0	50	10.00000	ug/L	51003		06/28/05 1230	pam
	Carbon disulfide	ND	U	9.0	50	10.00000	ug/L	51003		06/28/05 1230	pam
	Acetone	ND	U	14	100	10.00000	ug/L	51003		06/28/05 1230	pam
	Methylene chloride	16	J	4.0	50	10.00000	ug/L	51003		06/28/05 1230	pam
	trans-1,2-Dichloroethene	ND	U	5.0	50	10.00000	ug/L	51003		06/28/05 1230	pam
	1,1-Dichloroethane	ND	U	6.0	50	10.00000	ug/L	51003		06/28/05 1230	pam
	cis-1,2-Dichloroethene	ND	U	6.0	50	10.00000	ug/L	51003		06/28/05 1230	pam
	2-Butanone (MEK)	ND	U	12	100	10.00000	ug/L	51003		06/28/05 1230	pam
	Chloroform	ND	U	7.0	50	10.00000	ug/L	51003		06/28/05 1230	pam
	1,1,1-Trichloroethane	ND	U	4.0	50	10.00000	ug/L	51003		06/28/05 1230	pam
	Carbon tetrachloride	ND	U	10	50	10.00000	ug/L	51003		06/28/05 1230	pam
	Benzene	ND	U	4.0	50	10.00000	ug/L	51003		06/28/05 1230	pam
	1,2-Dichloroethane	ND	U	6.0	50	10.00000	ug/L	51003		06/28/05 1230	pam
	Trichloroethene	ND	U	7.0	50	10.00000	ug/L	51003		06/28/05 1230	pam
	1,2-Dichloropropane	ND	U	9.0	50	10.00000	ug/L	51003		06/28/05 1230	pam
	Bromodichloromethane	ND	U	4.0	50	10.00000	ug/L	51003		06/28/05 1230	pam
	cis-1,3-Dichloropropene	ND	U	5.0	50	10.00000	ug/L	51003		06/28/05 1230	pam
	4-Methyl-2-pentanone (MIBK)	ND	U	7.0	100	10.00000	ug/L	51003		06/28/05 1230	pam
	Toluene	ND	U	3.0	50	10.00000	ug/L	51003		06/28/05 1230	pam
	trans-1,3-Dichloropropene	ND	U	8.0	50	10.00000	ug/L	51003		06/28/05 1230	pam
	1,1,2-Trichloroethane	ND	U	6.0	50	10.00000	ug/L	51003		06/28/05 1230	pam
	Tetrachloroethene	ND	U	5.0	50	10.00000	ug/L	51003		06/28/05 1230	pam
	2-Hexanone	ND	U	8.0	100	10.00000	ug/L	51003		06/28/05 1230	pam
	Dibromochloromethane	ND	U	5.0	50	10.00000	ug/L	51003		06/28/05 1230	pam

\* In Description = Dry Wgt.

LABORATORY TEST RESULTS												
Job Number: 209925					Date: 07/07/2005							
CUSTOMER: FANNING, PHILLIPS AND MOLINAR PROJECT: DPSH WOODHAVEN BLVD. ATTN: Ben Canicemi												
Laboratory Sample ID: 209925-13 Date Received: 06/22/2005 Time Received: 09:30												
Customer Sample ID: HE-1S Date Sampled: 06/17/2005 Time Sampled: 11:00 Sample Matrix: Water												
TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
	Chlorobenzene	ND	U		4.0	50	10.00000	ug/L	51003		06/28/05 1230	pam
	Ethylbenzene	ND	U		10	50	10.00000	ug/L	51003		06/28/05 1230	pam
	Styrene	ND	U		5.0	50	10.00000	ug/L	51003		06/28/05 1230	pam
	Bromoform	ND	U		8.0	50	10.00000	ug/L	51003		06/28/05 1230	pam
	1,1,2,2-Tetrachloroethane	ND	U		4.0	50	10.00000	ug/L	51003		06/28/05 1230	pam
	Xylenes (total)	ND	U		10	50	10.00000	ug/L	51003		06/28/05 1230	pam



LABORATORY TEST RESULTS

Job Number: 209925

Date: 07/07/2005

CUSTOMER: FANNING, PHILLIPS AND MOLNAR

PROJECT: DPSH WOODHAVEN BLVD.

ATTN: Ben-Cancer

Customer Sample ID: ME-7  
 Date Sampled: 06/17/2005  
 Time Sampled: 11:40  
 Sample Matrix: Water

Laboratory Sample ID: 209925-14  
 Date Received: 06/22/2005  
 Time Received: 09:30

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q FLAGS	MOL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
8260B	Volatile Organics (5mL Purge)										
	Chloromethane	ND	U	0.50	5.0	1.00000	ug/L	51003		06/28/05 1828	pam
	Vinyl chloride	ND	U	0.80	5.0	1.00000	ug/L	51003		06/28/05 1828	pam
	Bromomethane	ND	U	1.2	5.0	1.00000	ug/L	51003		06/28/05 1828	pam
	Chloroethane	ND	U	0.80	5.0	1.00000	ug/L	51003		06/28/05 1828	pam
	1,1-Dichloroethene	ND	U	0.70	5.0	1.00000	ug/L	51003		06/28/05 1828	pam
	Carbon disulfide	ND	U	0.90	5.0	1.00000	ug/L	51003		06/28/05 1828	pam
	Acetone	ND	U	1.4	10	1.00000	ug/L	51003		06/28/05 1828	pam
	Methylene chloride	0.51	J	0.40	5.0	1.00000	ug/L	51003		06/28/05 1828	pam
	trans-1,2-Dichloroethene	ND	U	0.50	5.0	1.00000	ug/L	51003		06/28/05 1828	pam
	1,1-Dichloroethane	ND	U	0.60	5.0	1.00000	ug/L	51003		06/28/05 1828	pam
	cis-1,2-Dichloroethene	ND	U	0.60	5.0	1.00000	ug/L	51003		06/28/05 1828	pam
	2-Butanone (MEK)	ND	U	1.2	10	1.00000	ug/L	51003		06/28/05 1828	pam
	Chloroform	ND	U	0.70	5.0	1.00000	ug/L	51003		06/28/05 1828	pam
	1,1,1-Trichloroethane	ND	U	0.40	5.0	1.00000	ug/L	51003		06/28/05 1828	pam
	Carbon tetrachloride	ND	U	1.0	5.0	1.00000	ug/L	51003		06/28/05 1828	pam
	Benzene	ND	U	0.40	5.0	1.00000	ug/L	51003		06/28/05 1828	pam
	1,2-Dichloroethane	ND	U	0.60	5.0	1.00000	ug/L	51003		06/28/05 1828	pam
	Trichloroethene	ND	U	0.70	5.0	1.00000	ug/L	51003		06/28/05 1828	pam
	1,2-Dichloropropane	ND	U	0.90	5.0	1.00000	ug/L	51003		06/28/05 1828	pam
	Bromodichloromethane	ND	U	0.40	5.0	1.00000	ug/L	51003		06/28/05 1828	pam
	cis-1,3-Dichloropropene	ND	U	0.50	5.0	1.00000	ug/L	51003		06/28/05 1828	pam
	4-Methyl-2-pentanone (MIBK)	ND	U	0.70	10	1.00000	ug/L	51003		06/28/05 1828	pam
	Toluene	ND	U	0.30	5.0	1.00000	ug/L	51003		06/28/05 1828	pam
	trans-1,3-Dichloropropene	ND	U	0.80	5.0	1.00000	ug/L	51003		06/28/05 1828	pam
	1,1,2-Trichloroethane	ND	U	0.60	5.0	1.00000	ug/L	51003		06/28/05 1828	pam
	Tetrachloroethene	ND	U	0.50	5.0	1.00000	ug/L	51003		06/28/05 1828	pam
	2-Hexanone	ND	U	0.80	10	1.00000	ug/L	51003		06/28/05 1828	pam
	Dibromochloromethane	ND	U	0.50	5.0	1.00000	ug/L	51003		06/28/05 1828	pam

LABORATORY TEST RESULTS											
Job Number: 209925					Date: 07/07/2005						
CUSTOMER: FANNING, PHILLIPS AND MOLNAR											
PROJECT: DPSW WOODHAVEN BLVD.											
ATTN: Ben Cancian											
Customer Sample ID: ME-7											
Laboratory Sample ID: 209925-14											
Date Sampled: 06/17/2005											
Date Received: 06/22/2005											
Time Sampled: 11:40											
Time Received: 09:30											
Sample Matrix: Water											
TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
	Chlorobenzene	ND	U	0.40	5.0	1.00000	ug/L	51003		06/28/05 1828	pam
	Ethylbenzene	ND	U	1.0	5.0	1.00000	ug/L	51003		06/28/05 1828	pam
	Styrene	ND	U	0.50	5.0	1.00000	ug/L	51003		06/28/05 1828	pam
	Bromoform	ND	U	0.80	5.0	1.00000	ug/L	51003		06/28/05 1828	pam
	1,1,2,2-Tetrachloroethane	ND	U	0.40	5.0	1.00000	ug/L	51003		06/28/05 1828	pam
	Xylenes (total)	ND	U	1.0	5.0	1.00000	ug/L	51003		06/28/05 1828	pam

Job Number: 209925 LABORATORY TEST RESULTS Date: 07/07/2005

CUSTOMER: FANNING, PHILLIPS AND MOLNAR PROJECT: DPSW WOODHAVEN BLVD. ATTN: Ben Concani

Customer Sample ID: A-12 Laboratory Sample ID: 209925-15  
 Date Sampled: 06/17/2005 Date Received: 06/22/2005  
 Time Sampled: 12:20 Time Received: 09:30  
 Sample Matrix: Water

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
8260B	Volatile Organics (5mL Purge)											
	Chloromethane	ND	U		10	100	20.00000	ug/L	51003		06/28/05 1200	pam
	Vinyl chloride	ND	U		16	100	20.00000	ug/L	51003		06/28/05 1200	pam
	Bromomethane	ND	U		24	100	20.00000	ug/L	51003		06/28/05 1200	pam
	Chloroethane	ND	U		16	100	20.00000	ug/L	51003		06/28/05 1200	pam
	1,1-Dichloroethene	ND	U		14	100	20.00000	ug/L	51003		06/28/05 1200	pam
	Carbon disulfide	ND	U		18	100	20.00000	ug/L	51003		06/28/05 1200	pam
	Acetone	31	J		28	200	20.00000	ug/L	51003		06/28/05 1200	pam
	Methylene chloride	35	J	B	8.0	100	20.00000	ug/L	51003		06/28/05 1200	pam
	trans-1,2-Dichloroethene	ND	U		10	100	20.00000	ug/L	51003		06/28/05 1200	pam
	1,1-Dichloroethane	ND	U		12	100	20.00000	ug/L	51003		06/28/05 1200	pam
	cis-1,2-Dichloroethene	ND	U		12	200	20.00000	ug/L	51003		06/28/05 1200	pam
	2-Butanone (MEK)	ND	U		24	100	20.00000	ug/L	51003		06/28/05 1200	pam
	Chloroform	ND	U		14	100	20.00000	ug/L	51003		06/28/05 1200	pam
	1,1,1-Trichloroethane	ND	U		8.0	100	20.00000	ug/L	51003		06/28/05 1200	pam
	Carbon tetrachloride	ND	U		20	100	20.00000	ug/L	51003		06/28/05 1200	pam
	Benzene	ND	U		8.0	100	20.00000	ug/L	51003		06/28/05 1200	pam
	1,2-Dichloroethane	ND	U		12	100	20.00000	ug/L	51003		06/28/05 1200	pam
	Trichloroethene	ND	U		14	100	20.00000	ug/L	51003		06/28/05 1200	pam
	1,2-Dichloropropane	ND	U		18	100	20.00000	ug/L	51003		06/28/05 1200	pam
	Bromodichloromethane	ND	U		8.0	100	20.00000	ug/L	51003		06/28/05 1200	pam
	cis-1,3-Dichloropropene	ND	U		10	100	20.00000	ug/L	51003		06/28/05 1200	pam
	4-Methyl-2-pentanone (MIBK)	ND	U		14	200	20.00000	ug/L	51003		06/28/05 1200	pam
	Toluene	ND	U		6.0	100	20.00000	ug/L	51003		06/28/05 1200	pam
	trans-1,3-Dichloropropene	ND	U		16	100	20.00000	ug/L	51003		06/28/05 1200	pam
	1,1,2-Trichloroethane	ND	U		12	100	20.00000	ug/L	51003		06/28/05 1200	pam
	Tetrachloroethene	ND	U		10	100	20.00000	ug/L	51003		06/28/05 1200	pam
	2-Hexanone	ND	U		16	200	20.00000	ug/L	51003		06/28/05 1200	pam
	Dibromochloromethane	ND	U		10	100	20.00000	ug/L	51003		06/28/05 1200	pam

\* In Description = Dry Wgt. Page 30

LABORATORY TEST RESULTS											
Job Number: 209925					Date: 07/07/2005						
CUSTOMER: FANNING, PHILLIPS AND MOLNAR											
PROJECT: DPSH WOODHAVEN BLYD											
ATTN: Ben Cancent											
Laboratory Sample ID: 209925-15											
Date Received: 06/22/2005											
Time Received: 09:30											
Customer Sample ID: A-12											
Date Sampled: 06/17/2005											
Time Sampled: 12:20											
Sample Matrix: Water											
TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q FLAGS	MDL	µL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
	Chlorobenzene	ND	U	8.0	100	20.00000	ug/L	51003		06/28/05 1200	pam
	Ethylbenzene	ND	U	20	100	20.00000	ug/L	51003		06/28/05 1200	pam
	Styrene	ND	U	10	100	20.00000	ug/L	51003		06/28/05 1200	pam
	Bromoform	ND	U	16	100	20.00000	ug/L	51003		06/28/05 1200	pam
	1,1,2,2-Tetrachloroethane	ND	U	8.0	100	20.00000	ug/L	51003		06/28/05 1200	pam
	Xylenes (total)	ND	U	20	100	20.00000	ug/L	51003		06/28/05 1200	pam

LABORATORY TEST RESULTS											
Job Number: 209925					Date: 07/07/2005						
CUSTOMER: FANNING, PHILLIPS AND MOLNAR											
PROJECT: DPSW WOODHAVEN BLVD. ATTN: Ben Cancemi											
Customer Sample ID: ME-14											
Date Sampled: 06/17/2005											
Time Sampled: 13:45											
Sample Matrix: Water											
Laboratory Sample ID: 209925-16											
Date Received: 06/22/2005											
Time Received: 09:30											
TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
8260B	Volatile Organics (5mL Purge)	ND	U	0.50	5.0	1.00000	ug/L	51004		06/29/05 0042	pam
	Chloromethane	ND	U	0.80	5.0	1.00000	ug/L	51004		06/29/05 0042	pam
	Vinyl chloride	ND	U	1.2	5.0	1.00000	ug/L	51004		06/29/05 0042	pam
	Bromomethane	ND	U	0.80	5.0	1.00000	ug/L	51004		06/29/05 0042	pam
	Chloroethane	ND	U	0.70	5.0	1.00000	ug/L	51004		06/29/05 0042	pam
	1,1-Dichloroethene	ND	U	0.90	5.0	1.00000	ug/L	51004		06/29/05 0042	pam
	Carbon disulfide	ND	U	1.4	10	1.00000	ug/L	51004		06/29/05 0042	pam
	Acetone	ND	U	0.40	5.0	1.00000	ug/L	51004		06/29/05 0042	pam
	Methylene chloride	0.49	J	0.50	5.0	1.00000	ug/L	51004		06/29/05 0042	pam
	trans-1,2-Dichloroethene	ND	U	0.60	5.0	1.00000	ug/L	51004		06/29/05 0042	pam
	1,1-Dichloroethane	ND	U	0.60	5.0	1.00000	ug/L	51004		06/29/05 0042	pam
	cis-1,2-Dichloroethene	ND	U	1.2	10	1.00000	ug/L	51004		06/29/05 0042	pam
	2-Butanone (MEK)	ND	U	0.70	5.0	1.00000	ug/L	51004		06/29/05 0042	pam
	Chloroform	ND	U	0.40	5.0	1.00000	ug/L	51004		06/29/05 0042	pam
	1,1,1-Trichloroethane	ND	U	1.0	5.0	1.00000	ug/L	51004		06/29/05 0042	pam
	Carbon tetrachloride	ND	U	0.40	5.0	1.00000	ug/L	51004		06/29/05 0042	pam
	Benzene	ND	U	0.60	5.0	1.00000	ug/L	51004		06/29/05 0042	pam
	1,2-Dichloroethane	ND	U	0.70	5.0	1.00000	ug/L	51004		06/29/05 0042	pam
	Trichloroethene	ND	U	0.90	5.0	1.00000	ug/L	51004		06/29/05 0042	pam
	1,2-Dichloropropane	ND	U	0.40	5.0	1.00000	ug/L	51004		06/29/05 0042	pam
Bromodichloromethane	ND	U	0.50	5.0	1.00000	ug/L	51004		06/29/05 0042	pam	
cis-1,3-Dichloropropene	ND	U	0.70	10	1.00000	ug/L	51004		06/29/05 0042	pam	
4-Methyl-2-pentanone (MIBK)	ND	U	0.30	5.0	1.00000	ug/L	51004		06/29/05 0042	pam	
Toluene	ND	U	0.80	5.0	1.00000	ug/L	51004		06/29/05 0042	pam	
trans-1,3-Dichloropropene	ND	U	0.60	5.0	1.00000	ug/L	51004		06/29/05 0042	pam	
1,1,2-Trichloroethane	ND	U	0.50	5.0	1.00000	ug/L	51004		06/29/05 0042	pam	
Tetrachloroethene	ND	U	0.50	5.0	1.00000	ug/L	51004		06/29/05 0042	pam	
2-Hexanone	ND	U	0.80	10	1.00000	ug/L	51004		06/29/05 0042	pam	
Dibromochloromethane	ND	U	0.50	5.0	1.00000	ug/L	51004		06/29/05 0042	pam	

LABORATORY TEST RESULTS

Job Number: 209925

Date: 07/07/2005

CUSTOMER: FARMING, PHILLIPS AND MOLNAR

PROJECT: DPSM WOODHAVEN BLYD.

ATTN: Ben Cansem

Customer Sample ID: HE-14  
 Date Sampled: 06/17/2005  
 Time Sampled: 13:45  
 Sample Matrix: Water

Laboratory Sample ID: 209925-16  
 Date Received: 06/22/2005  
 Time Received: 09:30

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	NDL	REL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
	Chlorobenzene	ND	U		0.40	5.0	1.00000	ug/L	51004		06/29/05 0042	pam
	Ethylbenzene	ND	U		1.0	5.0	1.00000	ug/L	51004		06/29/05 0042	pam
	Styrene	ND	U		0.50	5.0	1.00000	ug/L	51004		06/29/05 0042	pam
	Bromoform	ND	U		0.80	5.0	1.00000	ug/L	51004		06/29/05 0042	pam
	1,1,2,2-Tetrachloroethane	ND	U		0.40	5.0	1.00000	ug/L	51004		06/29/05 0042	pam
	Xylenes (total)	ND	U		1.0	5.0	1.00000	ug/L	51004		06/29/05 0042	pam

\* In Description = Dry Wgt.

LABORATORY TEST RESULTS											
Job Number: 209925					Date: 07/07/2005						
CUSTOMER: FANNING, PHILLIPS AND MOLNAR											
PROJECT: DP5H WOODHAVEN BLVD.											
ATTN: Ben Cancem											
Laboratory Sample ID: 209925-17											
Date Received: 06/22/2005											
Time Received: 09:30											
Sample Matrix: Water											
TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q FLAGS	MPL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
82608	Volatile Organics (5mL Purge)										
	Chloromethane	ND	U	0.50	5.0	1.00000	ug/L	51006		06/29/05 1409	pan
	Vinyl chloride	ND	U	0.80	5.0	1.00000	ug/L	51006		06/29/05 1409	pan
	Bromomethane	ND	U	1.2	5.0	1.00000	ug/L	51006		06/29/05 1409	pan
	Chloroethane	ND	U	0.60	5.0	1.00000	ug/L	51006		06/29/05 1409	pan
	1,1-Dichloroethane	ND	U	0.70	5.0	1.00000	ug/L	51006		06/29/05 1409	pan
	Carbon disulfide	ND	U	0.90	5.0	1.00000	ug/L	51006		06/29/05 1409	pan
	Acetone	ND	U	1.4	10	1.00000	ug/L	51006		06/29/05 1409	pan
	Methylene chloride	ND	J	0.40	5.0	1.00000	ug/L	51006		06/29/05 1409	pan
	trans-1,2-Dichloroethene	ND	U	0.50	5.0	1.00000	ug/L	51006		06/29/05 1409	pan
	1,1-Dichloroethane	ND	U	0.60	5.0	1.00000	ug/L	51006		06/29/05 1409	pan
	cis-1,2-Dichloroethene	ND	U	0.60	5.0	1.00000	ug/L	51006		06/29/05 1409	pan
	2-Butanone (MEK)	ND	U	1.2	10	1.00000	ug/L	51006		06/29/05 1409	pan
	Chloroform	ND	U	0.70	5.0	1.00000	ug/L	51006		06/29/05 1409	pan
	1,1,1-Trichloroethane	ND	U	0.40	5.0	1.00000	ug/L	51006		06/29/05 1409	pan
	Carbon tetrachloride	ND	U	1.0	5.0	1.00000	ug/L	51006		06/29/05 1409	pan
	Benzene	ND	U	0.40	5.0	1.00000	ug/L	51006		06/29/05 1409	pan
	1,2-Dichloroethane	ND	U	0.60	5.0	1.00000	ug/L	51006		06/29/05 1409	pan
	Trichloroethene	ND	U	0.70	5.0	1.00000	ug/L	51006		06/29/05 1409	pan
	1,2-Dichloropropane	ND	U	0.90	5.0	1.00000	ug/L	51006		06/29/05 1409	pan
	Bromodichloromethane	ND	U	0.40	5.0	1.00000	ug/L	51006		06/29/05 1409	pan
	cis-1,3-Dichloropropene	ND	U	0.50	5.0	1.00000	ug/L	51006		06/29/05 1409	pan
	4-Methyl-2-pentanone (MIBK)	ND	U	0.70	10	1.00000	ug/L	51006		06/29/05 1409	pan
	Toluene	ND	U	0.30	5.0	1.00000	ug/L	51006		06/29/05 1409	pan
	trans-1,3-Dichloropropene	ND	U	0.80	5.0	1.00000	ug/L	51006		06/29/05 1409	pan
	1,1,2-Trichloroethane	ND	U	0.60	5.0	1.00000	ug/L	51006		06/29/05 1409	pan
	Tetrachloroethene	ND	U	0.50	5.0	1.00000	ug/L	51006		06/29/05 1409	pan
	2-Hexanone	ND	U	0.80	10	1.00000	ug/L	51006		06/29/05 1409	pan
	Dibromochloromethane	ND	U	0.50	5.0	1.00000	ug/L	51006		06/29/05 1409	pan

\* In Description = Dry Wgt.

LABORATORY TEST RESULTS											
Job Number: 209925					Date: 07/07/2005						
CUSTOMER: FANNING, PHILLIPS AND MOLNAR											
PROJECT: DPSW WOODHAVEN BLVD.											
ATTN: Ben Concaney											
Customer Sample ID: ME-1					Laboratory Sample ID: 209925-17						
Date Sampled: 06/20/2005					Date Received: 06/22/2005						
Time Sampled: 08:30					Time Received: 09:30						
Sample Matrix: Water											
TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
	Chlorobenzene	ND	U	0.40	5.0	1.00000	ug/L	51006		06/29/05 1409	pa
	Ethylbenzene	ND	U	1.0	5.0	1.00000	ug/L	51006		06/29/05 1409	pa
	Styrene	ND	U	0.50	5.0	1.00000	ug/L	51006		06/29/05 1409	pa
	Bromoform	ND	U	0.80	5.0	1.00000	ug/L	51006		06/29/05 1409	pa
	1,1,2,2-Tetrachloroethane	ND	U	0.40	5.0	1.00000	ug/L	51006		06/29/05 1409	pa
	Xylenes (total)	ND	U	1.0	5.0	1.00000	ug/L	51006		06/29/05 1409	pa



LABORATORY TEST RESULTS

Job Number: 209925

Date: 07/07/2005

CUSTOMER: FANNING, PHILLIPS AND MOLNAR

PROJECT: DRSM WOODHAVEN BLVD

ATTN: Ben Cansem

Customer Sample ID: ME-11  
 Date Sampled: 06/20/2005  
 Time Sampled: 09:15  
 Sample Matrix: Water

Laboratory Sample ID: 209925-18  
 Date Received: 06/22/2005  
 Time Received: 09:30

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
8260B	Volatile Organics (5mL Purge)										
	Chloromethane	ND	U	5.0	50	10.00000	ug/L	51003		06/28/05 1259	pan
	Vinyl chloride	ND	U	8.0	50	10.00000	ug/L	51003		06/28/05 1259	pan
	Bromomethane	ND	U	12	50	10.00000	ug/L	51003		06/28/05 1259	pan
	Chloroethane	ND	U	8.0	50	10.00000	ug/L	51003		06/28/05 1259	pan
	1,1-Dichloroethane	ND	U	7.0	50	10.00000	ug/L	51003		06/28/05 1259	pan
	Carbon disulfide	ND	U	9.0	50	10.00000	ug/L	51003		06/28/05 1259	pan
	Acetone	ND	U	14	100	10.00000	ug/L	51003		06/28/05 1259	pan
	Methylene chloride			4.0	50	10.00000	ug/L	51003		06/28/05 1259	pan
	trans-1,2-Dichloroethene	17	J	5.0	50	10.00000	ug/L	51003		06/28/05 1259	pan
	1,1-Dichloroethane	ND	U	6.0	50	10.00000	ug/L	51003		06/28/05 1259	pan
	cis-1,2-Dichloroethene	ND	U	6.0	50	10.00000	ug/L	51003		06/28/05 1259	pan
	2-Butanone (NEQ)	ND	U	12	100	10.00000	ug/L	51003		06/28/05 1259	pan
	Chloroform	ND	U	7.0	50	10.00000	ug/L	51003		06/28/05 1259	pan
	1,1,1-Trichloroethane	ND	U	4.0	50	10.00000	ug/L	51003		06/28/05 1259	pan
	Carbon tetrachloride	ND	U	10	50	10.00000	ug/L	51003		06/28/05 1259	pan
	Benzene	ND	U	4.0	50	10.00000	ug/L	51003		06/28/05 1259	pan
	1,2-Dichloroethane	ND	U	6.0	50	10.00000	ug/L	51003		06/28/05 1259	pan
	Trichloroethene	ND	U	7.0	50	10.00000	ug/L	51003		06/28/05 1259	pan
	1,2-Dichloropropane	ND	U	9.0	50	10.00000	ug/L	51003		06/28/05 1259	pan
	Bromodichloromethane	ND	U	4.0	50	10.00000	ug/L	51003		06/28/05 1259	pan
	cis-1,3-Dichloropropene	ND	U	5.0	50	10.00000	ug/L	51003		06/28/05 1259	pan
	4-Methyl-2-pentanone (MIBK)	ND	U	7.0	100	10.00000	ug/L	51003		06/28/05 1259	pan
	Toluene	ND	U	3.0	50	10.00000	ug/L	51003		06/28/05 1259	pan
	trans-1,3-Dichloropropene	ND	U	8.0	50	10.00000	ug/L	51003		06/28/05 1259	pan
	1,1,2-Trichloroethane	ND	U	6.0	50	10.00000	ug/L	51003		06/28/05 1259	pan
	Tetrachloroethene	ND	U	6.0	50	10.00000	ug/L	51003		06/28/05 1259	pan
	2-Hexanone	720	U	5.0	100	10.00000	ug/L	51003		06/28/05 1259	pan
	Dibromochloromethane	ND	U	8.0	50	10.00000	ug/L	51003		06/28/05 1259	pan
		ND	U	5.0	50	10.00000	ug/L	51003		06/28/05 1259	pan

\* In Description = Dry Wgt.

LABORATORY TEST RESULTS											
Job Number: 209925					Date: 07/07/2005						
CUSTOMER: FANNING, PHILLIPS AND MOLNAR											
PROJECT: OPSM WOODHAVEN BLVD.											
ATTN: Ben Cancent											
Laboratory Sample ID: 209925-18											
Date Sampled: 06/20/2005											
Date Received: 06/22/2005											
Time Sampled: 09:15											
Time Received: 09:30											
Sample Matrix: Water											
TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
	Chlorobenzene	ND	U	4.0	50	10.00000	ug/L	51003		06/28/05 12:59	pan
	Ethylbenzene	ND	U	10	50	10.00000	ug/L	51003		06/28/05 12:59	pan
	Styrene	ND	U	5.0	50	10.00000	ug/L	51003		06/28/05 12:59	pan
	Bromoform	ND	U	8.0	50	10.00000	ug/L	51003		06/28/05 12:59	pan
	1,1,2,2-Tetrachloroethane	ND	U	4.0	50	10.00000	ug/L	51003		06/28/05 12:59	pan
	Xylenes (total)	ND	U	10	50	10.00000	ug/L	51003		06/28/05 12:59	pan

LABORATORY TEST RESULTS

Job Number: 209925

Date: 07/07/2005

CUSTOMER: FANNING, PHILLIPS AND MOLINAR

PROJECT: DFSW WOODHAVEN BLVD.

ATTN: Ben Cancemi

Customer Sample ID: MW-107  
 Laboratory Sample ID: 209925-19  
 Date Sampled: 06/20/2005 Date Received: 06/22/2005  
 Time Sampled: 11:00 Time Received: 09:30  
 Sample Matrix: Water

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q-FLAGS	NDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
8260B	Volatile Organics (5mL Purge)										
	Chloromethane	ND	U	0.50	5.0	1.00000	ug/L	51006		06/29/05 1435	pam
	Vinyl chloride	ND	U	0.80	5.0	1.00000	ug/L	51006		06/29/05 1435	pam
	Bromomethane	ND	U	1.2	5.0	1.00000	ug/L	51006		06/29/05 1435	pam
	Chloroethane	ND	U	0.80	5.0	1.00000	ug/L	51006		06/29/05 1435	pam
	1,1-Dichloroethane	ND	U	0.70	5.0	1.00000	ug/L	51006		06/29/05 1435	pam
	Carbon disulfide	ND	U	0.90	5.0	1.00000	ug/L	51006		06/29/05 1435	pam
	Acetone	ND	U	1.4	10	1.00000	ug/L	51006		06/29/05 1435	pam
	Methylene chloride	ND	U	0.60	5.0	1.00000	ug/L	51006		06/29/05 1435	pam
	trans-1,2-Dichloroethene	1.4	J	0.50	5.0	1.00000	ug/L	51006		06/29/05 1435	pam
	1,1-Dichloroethane	ND	U	0.60	5.0	1.00000	ug/L	51006		06/29/05 1435	pam
	cis-1,2-Dichloroethane	ND	U	0.60	5.0	1.00000	ug/L	51006		06/29/05 1435	pam
	2-Butanone (MEK)	ND	U	1.2	10	1.00000	ug/L	51006		06/29/05 1435	pam
	Chloroform	ND	U	0.70	5.0	1.00000	ug/L	51006		06/29/05 1435	pam
	1,1,1-Trichloroethane	ND	U	0.40	5.0	1.00000	ug/L	51006		06/29/05 1435	pam
	Carbon tetrachloride	ND	U	1.0	5.0	1.00000	ug/L	51006		06/29/05 1435	pam
	Benzene	ND	U	0.40	5.0	1.00000	ug/L	51006		06/29/05 1435	pam
	1,2-Dichloroethane	ND	U	0.60	5.0	1.00000	ug/L	51006		06/29/05 1435	pam
	Trichloroethene	ND	U	0.70	5.0	1.00000	ug/L	51006		06/29/05 1435	pam
	1,2-Dichloropropane	ND	U	0.90	5.0	1.00000	ug/L	51006		06/29/05 1435	pam
	Bromodichloromethane	ND	U	0.40	5.0	1.00000	ug/L	51006		06/29/05 1435	pam
	cis-1,3-Dichloropropene	ND	U	0.50	5.0	1.00000	ug/L	51006		06/29/05 1435	pam
	4-Methyl-2-pentanone (MIBK)	ND	U	0.70	10	1.00000	ug/L	51006		06/29/05 1435	pam
	Toluene	ND	U	0.30	5.0	1.00000	ug/L	51006		06/29/05 1435	pam
	trans-1,3-Dichloropropene	ND	U	0.80	5.0	1.00000	ug/L	51006		06/29/05 1435	pam
	1,1,2-Trichloroethane	ND	U	0.60	5.0	1.00000	ug/L	51006		06/29/05 1435	pam
	Tetrachloroethene	ND	U	0.50	5.0	1.00000	ug/L	51006		06/29/05 1435	pam
	2-Hexanone	ND	J	0.50	5.0	1.00000	ug/L	51006		06/29/05 1435	pam
	Dibromochloromethane	ND	U	0.80	10	1.00000	ug/L	51006		06/29/05 1435	pam
		ND	U	0.50	5.0	1.00000	ug/L	51006		06/29/05 1435	pam

\* In Description = Dry Wgt.

LABORATORY TEST RESULTS

Job Number: 209925

Date: 07/07/2005

CUSTOMER: FANNING, PHILLIPS AND MOLNAR

ATTN: Ben Cantem

PROJECT: BPSK WOODHAVEN BLVD

Customer Sample ID: MH-107  
 Date Sampled: 06/20/2005  
 Time Sampled: 11:00  
 Sample Matrix: Water

Laboratory Sample ID: 209925-19  
 Date Received: 06/22/2005  
 Time Received: 09:30

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
	Chlorobenzene	ND	U	0.40	5.0	1.00000	ug/L	51006		06/29/05 1435	pan
	Ethylbenzene	ND	U	1.0	5.0	1.00000	ug/L	51006		06/29/05 1435	pan
	Styrene	ND	U	0.50	5.0	1.00000	ug/L	51006		06/29/05 1435	pan
	Bromoform	ND	U	0.80	5.0	1.00000	ug/L	51006		06/29/05 1435	pan
	1,1,2,2-Tetrachloroethane	ND	U	0.40	5.0	1.00000	ug/L	51006		06/29/05 1435	pan
	Xylenes (total)	ND	U	1.0	5.0	1.00000	ug/L	51006		06/29/05 1435	pan

LABORATORY TEST RESULTS

Job Number: 209925

Date: 07/07/2005

CUSTOMER: FANNING, PHILLIPS AND MOLNAR

PROJECT: DPSK WOODHAVEN BLVD.

ATTN: Ben Cencenti

Customer Sample ID: ME-13  
 Date Sampled: 06/20/2005  
 Time Sampled: 11:30  
 Sample Matrix: Water

Laboratory Sample ID: 209925-20  
 Date Received: 06/22/2005  
 Time Received: 09:50

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
8260B	Volatile Organics (5mL Purge)										
	Chloromethane	ND	U	5.0	50	10.00000	ug/L	51003		06/28/05 1329	pam
	Vinyl chloride	ND	U	8.0	50	10.00000	ug/L	51003		06/28/05 1329	pam
	Bromomethane	ND	U	12	50	10.00000	ug/L	51003		06/28/05 1329	pam
	Chloroethane	ND	U	8.0	50	10.00000	ug/L	51003		06/28/05 1329	pam
	1,1-Dichloroethene	ND	U	7.0	50	10.00000	ug/L	51003		06/28/05 1329	pam
	Carbon disulfide	ND	U	9.0	50	10.00000	ug/L	51003		06/28/05 1329	pam
	Acetone	15	J	14	100	10.00000	ug/L	51003		06/28/05 1329	pam
	Methylene chloride	17	J	4.0	50	10.00000	ug/L	51003		06/28/05 1329	pam
	trans-1,2-Dichloroethene	ND	U	5.0	50	10.00000	ug/L	51003		06/28/05 1329	pam
	1,1-Dichloroethane	ND	U	6.0	50	10.00000	ug/L	51003		06/28/05 1329	pam
	cis-1,2-Dichloroethene	ND	U	6.0	50	10.00000	ug/L	51003		06/28/05 1329	pam
	2-Butanone (MEK)	48	J	12	100	10.00000	ug/L	51003		06/28/05 1329	pam
	Chloroform	ND	U	7.0	50	10.00000	ug/L	51003		06/28/05 1329	pam
	1,1,1-Trichloroethane	ND	U	4.0	50	10.00000	ug/L	51003		06/28/05 1329	pam
	Carbon tetrachloride	ND	U	10	50	10.00000	ug/L	51003		06/28/05 1329	pam
	Benzene	ND	U	4.0	50	10.00000	ug/L	51003		06/28/05 1329	pam
	1,2-Dichloroethane	ND	U	6.0	50	10.00000	ug/L	51003		06/28/05 1329	pam
	Trichloroethene	ND	U	7.0	50	10.00000	ug/L	51003		06/28/05 1329	pam
	1,2-Dichloropropane	ND	U	9.0	50	10.00000	ug/L	51003		06/28/05 1329	pam
Bromodichloromethane	ND	U	4.0	50	10.00000	ug/L	51003		06/28/05 1329	pam	
cis-1,3-Dichloropropene	ND	U	5.0	50	10.00000	ug/L	51003		06/28/05 1329	pam	
4-Methyl-2-pentanone (MIBK)	ND	U	7.0	100	10.00000	ug/L	51003		06/28/05 1329	pam	
Toluene	ND	U	3.0	50	10.00000	ug/L	51003		06/28/05 1329	pam	
trans-1,3-Dichloropropene	ND	U	8.0	50	10.00000	ug/L	51003		06/28/05 1329	pam	
1,1,2-Trichloroethane	ND	U	6.0	50	10.00000	ug/L	51003		06/28/05 1329	pam	
Tetrachloroethene	ND	U	5.0	50	10.00000	ug/L	51003		06/28/05 1329	pam	
2-Hexanone	960	U	8.0	100	10.00000	ug/L	51003		06/28/05 1329	pam	
Dibromochloromethane	ND	U	5.0	50	10.00000	ug/L	51003		06/28/05 1329	pam	

\* In Description = Dry Wgt.

LABORATORY TEST RESULTS											
Job Number: 209925					Date: 07/07/2005						
CUSTOMER: FANKING, PHILLIPS AND MOLNAR					PROJECT: DPSM WOODHAVEN BLVD.						
ATTN: Ben Cancem											
Customer Sample ID: ME-13					Laboratory Sample ID: 209925-20						
Date Sampled: 06/20/2005					Date Received: 06/22/2005						
Time Sampled: 11:30					Time Received: 09:30						
Sample Matrix: Water											
TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q FLAGS	NDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
	Chlorobenzene	ND	U	4.0	50	10.00000	ug/L	51003		06/28/05 1329	pam
	Ethylbenzene	ND	U	10	50	10.00000	ug/L	51003		06/28/05 1329	pam
	Styrene	ND	U	5.0	50	10.00000	ug/L	51003		06/28/05 1329	pam
	Bromoform	ND	U	8.0	50	10.00000	ug/L	51003		06/28/05 1329	pam
	1,1,2,2-Tetrachloroethane	ND	U	4.0	50	10.00000	ug/L	51003		06/28/05 1329	pam
	Xylenes (total)	ND	U	10	50	10.00000	ug/L	51003		06/28/05 1329	pam

LABORATORY TEST RESULTS

Job Number: 209925

Date: 07/07/2005

CUSTOMER: FANNING, PHILLIPS AND MOLNAR

PROJECT: DPSW WOODHAVEN BLVD.

ATTN: Ben Conant

Customer Sample ID: MW-112  
 Date Sampled: 06/20/2005  
 Time Sampled: 12:15  
 Sample Matrix: Water

Laboratory Sample ID: 209925-21  
 Date Received: 06/22/2005  
 Time Received: 09:30

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
8260B	Volatile Organics (5ml Purge)										
	Chloromethane	ND	U	0.50	5.0	1.00000	ug/L	51004		06/29/05 0534	paia
	Vinyl chloride	ND	U	0.80	5.0	1.00000	ug/L	51004		06/29/05 0534	paia
	Bromomethane	ND	U	1.2	5.0	1.00000	ug/L	51004		06/29/05 0534	paia
	Chloroethane	ND	U	0.80	5.0	1.00000	ug/L	51004		06/29/05 0534	paia
	1,1-Dichloroethene	ND	U	0.70	5.0	1.00000	ug/L	51004		06/29/05 0534	paia
	Carbon disulfide	ND	U	0.90	5.0	1.00000	ug/L	51004		06/29/05 0534	paia
	Acetone	ND	U	1.4	10	1.00000	ug/L	51004		06/29/05 0534	paia
	Methylene chloride	0.75	J	0.40	5.0	1.00000	ug/L	51004		06/29/05 0534	paia
	trans-1,2-Dichloroethene	ND	U	0.50	5.0	1.00000	ug/L	51004		06/29/05 0534	paia
	1,1-Dichloroethane	ND	U	0.60	5.0	1.00000	ug/L	51004		06/29/05 0534	paia
	cis-1,2-Dichloroethene	ND	U	0.60	5.0	1.00000	ug/L	51004		06/29/05 0534	paia
	2-Butanone (MEK)	ND	U	1.2	10	1.00000	ug/L	51004		06/29/05 0534	paia
	Chloroform	ND	U	0.70	5.0	1.00000	ug/L	51004		06/29/05 0534	paia
	1,1,1-Trichloroethane	ND	U	0.40	5.0	1.00000	ug/L	51004		06/29/05 0534	paia
	Carbon tetrachloride	ND	U	1.0	5.0	1.00000	ug/L	51004		06/29/05 0534	paia
	Benzene	ND	U	0.40	5.0	1.00000	ug/L	51004		06/29/05 0534	paia
	1,2-Dichloroethane	ND	U	0.60	5.0	1.00000	ug/L	51004		06/29/05 0534	paia
	Trichloroethene	ND	U	0.70	5.0	1.00000	ug/L	51004		06/29/05 0534	paia
	1,2-Dichloropropane	ND	U	0.90	5.0	1.00000	ug/L	51004		06/29/05 0534	paia
	Bromodichloromethane	ND	U	0.40	5.0	1.00000	ug/L	51004		06/29/05 0534	paia
	cis-1,3-Dichloropropene	ND	U	0.50	5.0	1.00000	ug/L	51004		06/29/05 0534	paia
	4-Methyl-2-pentanone (MIBK)	ND	U	0.70	10	1.00000	ug/L	51004		06/29/05 0534	paia
	Toluene	ND	U	0.30	5.0	1.00000	ug/L	51004		06/29/05 0534	paia
	trans-1,3-Dichloropropene	ND	U	0.90	5.0	1.00000	ug/L	51004		06/29/05 0534	paia
	1,1,2-Trichloroethane	ND	U	0.60	5.0	1.00000	ug/L	51004		06/29/05 0534	paia
	Tetrachloroethene	ND	U	0.50	5.0	1.00000	ug/L	51004		06/29/05 0534	paia
	2-Hexanone	ND	J	0.80	10	1.00000	ug/L	51004		06/29/05 0534	paia
	Dibromochloromethane	ND	U	0.50	5.0	1.00000	ug/L	51004		06/29/05 0534	paia

\* In Description = Dry Wgt.

LABORATORY TEST RESULTS												
Job Number: 209925					Date: 07/07/2005							
CUSTOMER: FANNING, PHILLIPS AND MOLNAR					PROJECT: DPSM WOODHAVEN BLVD.							
Customer Sample ID: MW-112					ATTN: Ben Carcemi							
Date Sampled: 06/20/2005					Laboratory Sample ID: 209925-21							
Time Sampled: 12:15					Date Received: 06/22/2005							
Sample Matrix: Water					Time Received: 09:30							
TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MOL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
	Chlorobenzene	ND	U		0.40	5.0	1.00000	ug/L	51004		06/29/05 0534	pam
	Ethylbenzene	ND	U		1.0	5.0	1.00000	ug/L	51004		06/29/05 0534	pam
	styrene	ND	U		0.50	5.0	1.00000	ug/L	51004		06/29/05 0534	pam
	Bromoform	ND	U		0.80	5.0	1.00000	ug/L	51004		06/29/05 0534	pam
	1,1,2,2-Tetrachloroethane	ND	U		0.40	5.0	1.00000	ug/L	51004		06/29/05 0534	pam
	Xylenes (total)	ND	U		1.0	5.0	1.00000	ug/L	51004		06/29/05 0534	pam



LABORATORY TEST RESULTS

Job Number: 209925

Date: 07/07/2005

CUSTOMER: FANNING, PHILLIPS AND MOLNAR

PROJECT: DPSP WOODHAVEN BLVD.

ATTN: Bert Cancemi

Customer Sample ID: MW-113  
 Date Sampled: 06/20/2005  
 Time Sampled: 14:20  
 Sample Matrix: Water

Laboratory Sample ID: 209925-22  
 Date Received: 06/22/2005  
 Time Received: 09:30

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
8260B	Volatile Organics (5mL Purge)										
	Chloromethane	ND	U	0.50	5.0	1.00000	ug/L	51004		06/29/05 0600	pam
	Vinyl chloride	ND	U	0.80	5.0	1.00000	ug/L	51004		06/29/05 0600	pam
	Bromomethane	ND	U	1.2	5.0	1.00000	ug/L	51004		06/29/05 0600	pam
	Chloroethane	ND	U	0.80	5.0	1.00000	ug/L	51004		06/29/05 0600	pam
	1,1-Dichloroethene	ND	U	0.70	5.0	1.00000	ug/L	51004		06/29/05 0600	pam
	Carbon disulfide	ND	U	0.90	5.0	1.00000	ug/L	51004		06/29/05 0600	pam
	Acetone	ND	U	1.4	10	1.00000	ug/L	51004		06/29/05 0600	pam
	Methylene chloride	0.62	J	0.40	5.0	1.00000	ug/L	51004		06/29/05 0600	pam
	trans-1,2-Dichloroethene	ND	U	0.50	5.0	1.00000	ug/L	51004		06/29/05 0600	pam
	1,1-Dichloroethane	ND	U	0.60	5.0	1.00000	ug/L	51004		06/29/05 0600	pam
	cis-1,2-Dichloroethene	ND	U	0.60	5.0	1.00000	ug/L	51004		06/29/05 0600	pam
	2-Butanone (MEK)	ND	U	1.2	10	1.00000	ug/L	51004		06/29/05 0600	pam
	Chloroform	ND	U	0.70	5.0	1.00000	ug/L	51004		06/29/05 0600	pam
	1,1,1-Trichloroethane	ND	U	0.40	5.0	1.00000	ug/L	51004		06/29/05 0600	pam
	Carbon tetrachloride	ND	U	1.0	5.0	1.00000	ug/L	51004		06/29/05 0600	pam
	Benzene	ND	U	0.40	5.0	1.00000	ug/L	51004		06/29/05 0600	pam
	1,2-Dichloroethane	ND	U	0.60	5.0	1.00000	ug/L	51004		06/29/05 0600	pam
	Trichloroethene	ND	U	0.70	5.0	1.00000	ug/L	51004		06/29/05 0600	pam
	1,2-Dichloropropane	ND	U	0.90	5.0	1.00000	ug/L	51004		06/29/05 0600	pam
Bromodichloromethane	ND	U	0.40	5.0	1.00000	ug/L	51004		06/29/05 0600	pam	
cis-1,3-Dichloropropene	ND	U	0.50	5.0	1.00000	ug/L	51004		06/29/05 0600	pam	
4-Methyl-2-pentanone (MIBK)	ND	U	0.70	10	1.00000	ug/L	51004		06/29/05 0600	pam	
Toluene	ND	U	0.30	5.0	1.00000	ug/L	51004		06/29/05 0600	pam	
trans-1,3-Dichloropropene	ND	U	0.80	5.0	1.00000	ug/L	51004		06/29/05 0600	pam	
1,1,2-Trichloroethane	ND	U	0.60	5.0	1.00000	ug/L	51004		06/29/05 0600	pam	
Tetrachloroethene	ND	U	0.50	5.0	1.00000	ug/L	51004		06/29/05 0600	pam	
2-Hexanone	ND	J	0.50	10	1.00000	ug/L	51004		06/29/05 0600	pam	
Dibromochloromethane	ND	U	0.80	5.0	1.00000	ug/L	51004		06/29/05 0600	pam	
		ND		0.50	5.0	1.00000	ug/L	51004		06/29/05 0600	pam

\* In Description = Dry Wgt.

LABORATORY TEST RESULTS											
Job Number: 209925					Date: 07/07/2005						
CUSTOMER: FANNING, PHILLIPS AND MOLNAR					PROJECT: DPSW WOODHAVEN BLVD.						
ATTN: Bert Canem?											
Customer Sample ID: MW-113					Laboratory Sample ID: 209925-22						
Date Sampled: 06/20/2005					Date Received: 06/22/2005						
Time Sampled: 14:20					Time Received: 09:30						
Sample Matrix: Water											
TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
	Chlorobenzene	ND	U	0.40	5.0	1.00000	ug/L	51004		06/29/05 0600	pam
	Ethylbenzene	ND	U	1.0	5.0	1.00000	ug/L	51004		06/29/05 0600	pam
	Styrene	ND	U	0.50	5.0	1.00000	ug/L	51004		06/29/05 0600	pam
	Bromoform	ND	U	0.80	5.0	1.00000	ug/L	51004		06/29/05 0600	pam
	1,1,2,2-Tetrachloroethane	ND	U	0.40	5.0	1.00000	ug/L	51004		06/29/05 0600	pam
	Xylenes (total)	ND	U	1.0	5.0	1.00000	ug/L	51004		06/29/05 0600	pam

LABORATORY TEST RESULTS

Job Number: 209925

Date: 07/07/2005

CUSTOMER: FANING, PHILLIPS AND MOLNAR

PROJECT: DPSW WOODHAVEN BLVD. ATTN: Ben Canem

Customer Sample ID: ME-8  
 Date Sampled: 06/20/2005  
 Time Sampled: 13:30  
 Sample Matrix: Water

Laboratory Sample ID: 209925-23  
 Date Received: 06/22/2005  
 Time Received: 09:30

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	NL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH	
8260B	Volatiles Organics (5mL Purge)												
	Chloromethane	ND		U	20	200	40.00000	ug/L	51006		06/29/05 1501	pam	
	Vinyl chloride	ND		U	32	200	40.00000	ug/L	51006		06/29/05 1501	pam	
	Bromomethane	ND		U	48	200	40.00000	ug/L	51006		06/29/05 1501	pam	
	Chloroethane	ND		U	32	200	40.00000	ug/L	51006		06/29/05 1501	pam	
	1,1-Dichloroethane	ND		U	28	200	40.00000	ug/L	51006		06/29/05 1501	pam	
	Carbon disulfide	ND		U	36	200	40.00000	ug/L	51006		06/29/05 1501	pam	
	Acetone	ND		U	56	400	40.00000	ug/L	51006		06/29/05 1501	pam	
	Methylene chloride	ND		U	16	200	40.00000	ug/L	51006		06/29/05 1501	pam	
	trans-1,2-Dichloroethene	ND	54		J	20	200	40.00000	ug/L	51006		06/29/05 1501	pam
	1,1-Dichloroethane	ND		U	24	200	40.00000	ug/L	51006		06/29/05 1501	pam	
	cis-1,2-Dichloroethene	ND		U	24	200	40.00000	ug/L	51006		06/29/05 1501	pam	
	2-Butanone (MEK)	ND		U	48	400	40.00000	ug/L	51006		06/29/05 1501	pam	
	Chloroform	ND		U	28	200	40.00000	ug/L	51006		06/29/05 1501	pam	
	1,1,1-Trichloroethane	ND		U	16	200	40.00000	ug/L	51006		06/29/05 1501	pam	
	Carbon tetrachloride	ND		U	40	200	40.00000	ug/L	51006		06/29/05 1501	pam	
	Benzene	ND		U	16	200	40.00000	ug/L	51006		06/29/05 1501	pam	
	1,2-Dichloroethane	ND		U	24	200	40.00000	ug/L	51006		06/29/05 1501	pam	
	Trichloroethene	ND		U	28	200	40.00000	ug/L	51006		06/29/05 1501	pam	
	1,2-Dichloropropane	ND		U	36	200	40.00000	ug/L	51006		06/29/05 1501	pam	
Bromodichloromethane	ND		U	16	200	40.00000	ug/L	51006		06/29/05 1501	pam		
cis-1,3-Dichloropropene	ND		U	20	200	40.00000	ug/L	51006		06/29/05 1501	pam		
4-Methyl-2-pentanone (MIBK)	ND		U	28	200	40.00000	ug/L	51006		06/29/05 1501	pam		
Toluene	ND		U	12	200	40.00000	ug/L	51006		06/29/05 1501	pam		
trans-1,3-Dichloropropene	ND		U	32	200	40.00000	ug/L	51006		06/29/05 1501	pam		
1,1,2-Trichloroethane	ND		U	24	200	40.00000	ug/L	51006		06/29/05 1501	pam		
Tetrachloroethene	ND	3600		U	20	200	40.00000	ug/L	51006		06/29/05 1501	pam	
2-Hexanone	ND		U	32	400	40.00000	ug/L	51006		06/29/05 1501	pam		
Dibromochloromethane	ND		U	20	200	40.00000	ug/L	51006		06/29/05 1501	pam		

\* In Description = Dry Wgt.

LABORATORY TEST RESULTS

Job Number: 209925

Date: 07/07/2005

CUSTOMER: PANNING, PHILLIPS AND MOLNAR

PROJECT: DPSH WOODHAVEN BLVD.

ATTN: Ben. Cancemi

Customer Sample ID: ME-8  
 Date Sampled: 06/20/2005  
 Time Sampled: 13:30  
 Sample Matrix: Water

Laboratory Sample ID: 209925-23  
 Date Received: 06/22/2005  
 Time Received: 09:30

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
	Chlorobenzene	ND	U	16	200	40.00000	ug/L	51006		06/29/05 1501	pam
	Ethylbenzene	ND	U	40	200	40.00000	ug/L	51006		06/29/05 1501	pam
	Styrene	ND	U	20	200	40.00000	ug/L	51006		06/29/05 1501	pam
	Bromoform	ND	U	32	200	40.00000	ug/L	51006		06/29/05 1501	pam
	1,1,2,2-Tetrachloroethane	ND	U	16	200	40.00000	ug/L	51006		06/29/05 1501	pam
	Xylenes (total)	ND	U	40	200	40.00000	ug/L	51006		06/29/05 1501	pam

\* In Description = Dry Wgt.

LABORATORY TEST RESULTS											
Job Number: 209925					Date: 07/07/2005						
CUSTOMER: FANKLING, PHILLIPS AND MOLNAR											
PROJECT: DPSH WOODHAVEN BLVD. ATTN: Ben Cancemi											
Customer Sample ID: A-8											
Date Sampled: 06/16/2005											
Time Sampled: 08:00											
Sample Matrix: Water											
Laboratory Sample ID: 209925-24											
Date Received: 06/22/2005											
Time Received: 09:30											
TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
8260B	Volatile Organics (5mL Purge)	ND		20	200	40.00000	ug/L	51006		06/29/05	pam
	Chloromethane	ND		32	200	40.00000	ug/L	51006		06/29/05	pam
	Vinyl chloride	ND		48	200	40.00000	ug/L	51006		06/29/05	pam
	Bromomethane	ND		32	200	40.00000	ug/L	51006		06/29/05	pam
	Chloroethane	ND		28	200	40.00000	ug/L	51006		06/29/05	pam
	1,1-Dichloroethene	ND		36	200	40.00000	ug/L	51006		06/29/05	pam
	Carbon disulfide										
	Acetone										
	Methylene chloride										
	trans-1,2-Dichloroethene										
	1,1-Dichloroethane										
	cis-1,2-Dichloroethene										
	2-Butanone (MEK)										
	Chloroform										
	1,1,1-Trichloroethane										
	Carbon tetrachloride										
	Benzene										
	1,2-Dichloroethane										
	Trichloroethene										
	1,2-Dichloropropane										
	Bromodichloromethane										
	cis-1,3-Dichloropropene										
	4-Methyl-2-pentanone (MIBK)										
	Toluene										
trans-1,3-Dichloropropene											
1,1,2-Trichloroethane											
Tetrachloroethene											
2-Hexanone		3300		20	200	40.00000	ug/L	51006		06/29/05	pam
Dibromochloromethane		ND		32	400	40.00000	ug/L	51006		06/29/05	pam
		ND		20	200	40.00000	ug/L	51006		06/29/05	pam

LABORATORY TEST RESULTS											
Job Number: 209925					Date: 07/07/2005						
CUSTOMER: FANNING, PHILLIPS AND MOLNAR					PROJECT: DESA WOODHAVEN BLVD. ATTN: Ben Concemi						
Customer Sample ID: A-8					Laboratory Sample ID: 209925-24						
Date Sampled: 06/16/2005					Date Received: 06/22/2005						
Time Sampled: 08:00					Time Received: 09:30						
Sample Matrix: Water											
TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
	Chlorobenzene	ND	U	16	200	40.00000	ug/L	51006		06/29/05 1528	pam
	Ethylbenzene	ND	U	40	200	40.00000	ug/L	51006		06/29/05 1528	pam
	Styrene	ND	U	20	200	40.00000	ug/L	51006		06/29/05 1528	pam
	Bromoform	ND	U	32	200	40.00000	ug/L	51006		06/29/05 1528	pam
	1,1,2,2-Tetrachloroethane	ND	U	16	200	40.00000	ug/L	51006		06/29/05 1528	pam
	Xylenes (total)	ND	U	40	200	40.00000	ug/L	51006		06/29/05 1528	pam



STL

LABORATORY CHRONICLE

Job Number: 209925

Date: 07/08/2005

CUSTOMER: FANNING, PHILLIPS AND MOLNAR

PROJECT: DPSW WOODHAVEN BLVD.

ATTN: Ben Cancemi

Lab ID	Client ID	Date Recvd	Sample Date	METHOD	DESCRIPTION	RUN#	BATCH#	PREP BT	#(S)	DATE/TIME ANALYZED	DILUTION
209925-1	A-7	06/22/2005	06/16/2005	5030A	5030 5 mL Purge Prep	1	50581				
8260B	Volatile Organics (5mL Purge)					1	51002	50581		06/24/2005 1343	2.00000
209925-2	A-6	06/22/2005	06/16/2005	5030A	5030 5 mL Purge Prep	1	50581				
8260B	Volatile Organics (5mL Purge)					1	51002	50581		06/24/2005 1313	10.0000
209925-3	A-4	06/22/2005	06/16/2005	5030A	5030 5 mL Purge Prep	1	50581				
8260B	Volatile Organics (5mL Purge)					1	51002	50581		06/24/2005 1412	2.00000
209925-4	A-5	06/22/2005	06/16/2005	5030A	5030 5 mL Purge Prep	1	50581				
8260B	Volatile Organics (5mL Purge)					1	51002	50581		06/24/2005 1441	2.00000
209925-5	A-10	06/22/2005	06/16/2005	5030A	5030 5 mL Purge Prep	1	50581				
8260B	Volatile Organics (5mL Purge)					1	51002	50581		06/24/2005 1510	2.00000
209925-6	A-9	06/22/2005	06/16/2005	5030A	5030 5 mL Purge Prep	1	50581				
8260B	Volatile Organics (5mL Purge)					1	51002	50581		06/24/2005 1542	2.00000
209925-7	A-13	06/22/2005	06/16/2005	5030A	5030 5 mL Purge Prep	1	50921				
8260B	Volatile Organics (5mL Purge)					1	51003	50921		06/28/2005 1128	5.00000
209925-8	TRIP BLANK	06/22/2005	06/16/2005	5030A	5030 5 mL Purge Prep	1	50581				
8260B	Volatile Organics (5mL Purge)					1	51002	50581		06/24/2005 1221	1.00000
209925-9	A-17	06/22/2005	06/17/2005	5030A	5030 5 mL Purge Prep	1	50921				
8260B	Volatile Organics (5mL Purge)					1	51003	50921		06/28/2005 1735	1.00000
209925-10	A-16	06/22/2005	06/17/2005	5030A	5030 5 mL Purge Prep	1	50921				
8260B	Volatile Organics (5mL Purge)					1	51003	50921		06/28/2005 1802	1.00000
209925-11	A-1S	06/22/2005	06/17/2005	5030A	5030 5 mL Purge Prep	1	50921				
8260B	Volatile Organics (5mL Purge)					1	51003	50921		06/28/2005 1855	1.00000
209925-12	A-18	06/22/2005	06/17/2005	5030A	5030 5 mL Purge Prep	1	50921				



STL

LABORATORY CHRONICLE

Job Number: 209925

Date: 07/08/2005

CUSTOMER: FANNING, PHILLIPS AND MOLNAR

PROJECT: DPSW WOODHAVEN BLVD.

ATTN: Ben Cancemi

Lab ID	Client ID	Date Recvd	Sample Date	METHOD	DESCRIPTION	RUN#	BATCH#	PREP BT	#(S)	DATE/TIME ANALYZED	DILUTION
209925-12	A-18	06/22/2005	06/17/2005	8260B	Volatile Organics (5mL Purge)	1	51003	50921		06/28/2005 1921	1.00000
209925-13	ME-1S	06/22/2005	06/17/2005	5030A	5030 5 mL Purge Prep	1	50921				
				8260B	Volatile Organics (5mL Purge)	1	51003	50921		06/28/2005 1230	10.0000
209925-14	ME-7	06/22/2005	06/17/2005	5030A	5030 5 mL Purge Prep	1	50921				
				8260B	Volatile Organics (5mL Purge)	1	51003	50921		06/28/2005 1828	1.00000
209925-15	A-12	06/22/2005	06/17/2005	5030A	5030 5 mL Purge Prep	1	50921				
				8260B	Volatile Organics (5mL Purge)	1	51003	50921		06/28/2005 1200	20.0000
209925-16	ME-14	06/22/2005	06/17/2005	5030A	5030 5 mL Purge Prep	1	50783				
				8260B	Volatile Organics (5mL Purge)	1	51004	50783		06/29/2005 0042	1.00000
209925-17	ME-1	06/22/2005	06/20/2005	5030A	5030 5 mL Purge Prep	1	50911				
				8260B	Volatile Organics (5mL Purge)	1	51006	50911		06/29/2005 1409	1.00000
209925-18	ME-11	06/22/2005	06/20/2005	5030A	5030 5 mL Purge Prep	1	50921				
				8260B	Volatile Organics (5mL Purge)	1	51003	50921		06/28/2005 1259	10.0000
209925-19	MW-107	06/22/2005	06/20/2005	5030A	5030 5 mL Purge Prep	1	50911				
				8260B	Volatile Organics (5mL Purge)	1	51006	50911		06/29/2005 1435	1.00000
209925-20	ME-13	06/22/2005	06/20/2005	5030A	5030 5 mL Purge Prep	1	50921				
				8260B	Volatile Organics (5mL Purge)	1	51003	50921		06/28/2005 1329	10.0000
209925-21	MW-112	06/22/2005	06/20/2005	5030A	5030 5 mL Purge Prep	1	50783				
				8260B	Volatile Organics (5mL Purge)	1	51004	50783		06/29/2005 0534	1.00000
209925-22	MW-113	06/22/2005	06/20/2005	5030A	5030 5 mL Purge Prep	1	50783				
				8260B	Volatile Organics (5mL Purge)	1	51004	50783		06/29/2005 0600	1.00000
209925-23	ME-8	06/22/2005	06/20/2005	5030A	5030 5 mL Purge Prep	1	50911				





STL

LABORATORY CHRONICLE

Job Number: 209925

Date: 07/08/2005

CUSTOMER: FANNING, PHILLIPS AND MOLNAR

PROJECT: DPSW WOODHAVEN BLVD.

ATTN: Ben Cancemi

Lab ID:	Client ID:	Date Recvd:	Sample Date:				
METHOD	DESCRIPTION	RUN#	BATCH#	PREP BT	#(S)	DATE/TIME ANALYZED	DILUTION
209925-23	ME-8	06/22/2005	06/20/2005				
8260B	Volatile Organics (5mL Purge)	1	51006	50911		06/29/2005 1501	40.0000
209925-24	A-8	06/22/2005	06/16/2005				
5030A	5030 5 mL Purge Prep	1	50911				
8260B	Volatile Organics (5mL Purge)	1	51006	50911		06/29/2005 1528	40.0000

SURROGATE RECOVERIES REPORT

Job Number.: 209925

Report Date.: 07/06/2005

CUSTOMER: FANNING, PHILLIPS AND MOLNAR

PROJECT: DPSW WOODHAVEN BLVD.

ATTN: Ben Cancemi

Method.....: Volatile Organics (5mL Purge)  
Batch(s).....: 51002

Method Code...: 8260.5  
Test Matrix...: Water

Prep Batch....: 50581  
Equipment Code: MSW

Lab ID	DT	Sample ID	Date	12DCED	BRFLBE	DERFLM	TOLDS
LCS-50581-2			06/24/2005	93	92	91	89
MB-50581-1			06/24/2005	89	94	87	89
209925- 1	A-7		06/24/2005	93	92	87	89
209925- 2	A-6		06/24/2005	92	94	89	87
209925- 3	A-4		06/24/2005	94	91	89	88
209925- 4	A-5		06/24/2005	93	94	90	87
209925- 5	A-10		06/24/2005	93	94	89	87
209925- 6	A-9		06/24/2005	93	94	91	87
209925- 8		TRIP BLANK	06/24/2005	89	93	87	89

Test	Test Description	Limits
12DCED	1,2-Dichloroethane-d4 (surr)	53 - 125
BRFLBE	4-Bromofluorobenzene (surr)	73 - 127
DERFLM	Dibromofluoromethane (surr)	54 - 137
TOLDS	Toluene-d8 (surr)	63 - 121

Method.....: Volatile Organics (5mL Purge)  
Batch(s).....: 51004

Method Code...: 8260.5  
Test Matrix...: Water

Prep Batch....: 50783  
Equipment Code: MSW

Lab ID	DT	Sample ID	Date	12DCED	BRFLBE	DERFLM	TOLDS
LCS-50783-2			06/28/2005	86	91	84	82
MB-50783-1			06/28/2005	87	94	83	82
209925- 16	ME-14		06/29/2005	93	96	86	81
209925- 21	MW-112		06/29/2005	98	97	89	82
209925- 22	MW-113		06/29/2005	98	98	89	81

Test	Test Description	Limits
12DCED	1,2-Dichloroethane-d4 (surr)	53 - 125
BRFLBE	4-Bromofluorobenzene (surr)	73 - 127
DERFLM	Dibromofluoromethane (surr)	54 - 137
TOLDS	Toluene-d8 (surr)	63 - 121

Method.....: Volatile Organics (5mL Purge)  
Batch(s).....: 51006

Method Code...: 8260.5  
Test Matrix...: Water

Prep Batch....: 50901  
Equipment Code: MSW

Lab ID	DT	Sample ID	Date	12DCED	BRFLBE	DERFLM	TOLDS
LCS-50901-2			06/30/2005	82	96	81	79
MB-50901-1			06/30/2005	83	100	81	78
209925- 18 MSD	ME-11		06/30/2005	86	94	81	77

Test	Test Description	Limits
12DCED	1,2-Dichloroethane-d4 (surr)	53 - 125
BRFLBE	4-Bromofluorobenzene (surr)	73 - 127
DERFLM	Dibromofluoromethane (surr)	54 - 137
TOLDS	Toluene-d8 (surr)	63 - 121

SURROGATE RECOVERIES REPORT

Job Number.: 209925

Report Date.: 07/06/2005

CUSTOMER: FANNING, PHILLIPS AND MOLNAR

PROJECT: DPSW WOODHAVEN BLVD

ATTN: Ben Caccaro

Method.....: Volatile Organics (5mL Purge)  
Batch(s).....: 51006

Method Code...: 8260.5  
Test Matrix...: Water

Prep Batch....: 50911  
Equipment Code: MSW

Lab ID	DT	Sample ID	Date	12DCED	BRFLBE	DERFLM	TOLD8
LCS-50911-2			06/29/2005	93	92	86	82
MB-50911-1			06/29/2005	94	95	86	81
209925- 17		ME-1	06/29/2005	91	96	85	81
209925- 18 MS		ME-11	06/29/2005	93	93	88	80
209925- 18 MSB		ME-11	06/29/2005	89	91	85	82
209925- 19		MW-107	06/29/2005	92	97	87	81
209925- 23		ME-8	06/29/2005	93	99	87	79
209925- 24		A-8	06/29/2005	97	99	86	81

Test	Test Description	Limits
12DCED	1,2-Dichloroethane-d4 (surr)	53 - 125
BRFLBE	4-Bromofluorobenzene (surr)	73 - 127
DERFLM	Dibromofluoroethane (surr)	54 - 137
TOLD8	Toluene-d8 (surr)	63 - 121

Method.....: Volatile Organics (5mL Purge)  
Batch(s).....: 51003

Method Code...: 8260.5  
Test Matrix...: Water

Prep Batch....: 50921  
Equipment Code: MSW

Lab ID	DT	Sample ID	Date	12DCED	BRFLBE	DERFLM	TOLD8
LCS-50921-2			06/28/2005	82	92	82	83
MB-50921-1			06/28/2005	85	97	82	82
209925- 7		A-13	06/28/2005	84	95	82	83
209925- 9		A-17	06/28/2005	91	94	85	84
209925- 10		A-16	06/28/2005	92	96	87	83
209925- 11		A-15	06/28/2005	95	98	87	84
209925- 12		A-18	06/28/2005	94	97	86	83
209925- 13		ME-15	06/28/2005	85	94	82	83
209925- 14		ME-7	06/28/2005	94	97	86	83
209925- 15		A-12	06/28/2005	85	95	82	83
209925- 18		ME-11	06/28/2005	88	95	84	83
209925- 20		ME-13	06/28/2005	89	96	83	83

Test	Test Description	Limits
12DCED	1,2-Dichloroethane-d4 (surr)	53 - 125
BRFLBE	4-Bromofluorobenzene (surr)	73 - 127
DERFLM	Dibromofluoroethane (surr)	54 - 137
TOLD8	Toluene-d8 (surr)	63 - 121

QUALITY CONTROL RESULTS

Job Number.: 209925

Report Date.: 07/06/2005

CUSTOMER: FANNING, PHILLIPS AND MOLNAR

PROJECT: DPSW WOODHAVEN BLVD.

ATTN: Ben Camb

QC Type	Description	Reag. Code	Lab ID	Dilution Factor	Date	Time
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Test Method.....: 8260B

Equipment Code....: MSW

Analyst....: pam

Method Description.: Volatile Organics (5mL Purge)

Batch.....: S1006

MSB	Matrix Spike Blank	V05FWRK006	209925-1B		06/29/2005	1647
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Parameter/Test Description	Units	QC Result	QC Result	True Value	Orig. Value	QC Calc.	* Limits	P
Chloromethane	ug/L	19.523		20.000	0.500	U 98	43-134	
Vinyl chloride	ug/L	18.728		20.000	0.800	U 94	51-139	
Bromomethane	ug/L	19.541		20.000	1.200	U 98	27-171	
Chloroethane	ug/L	19.495		20.000	0.800	U 97	53-167	
1,1-Dichloroethene	ug/L	19.454		20.000	0.700	U 97	57-137	
Carbon disulfide	ug/L	16.688		20.000	0.900	U 83	44-142	
Acetone	ug/L	15.630		20.000	1.402	J 71	18-263	
Methylene chloride	ug/L	19.420		20.000	1.392	J 90	61-129	
trans-1,2-Dichloroethene	ug/L	18.635		20.000	0.500	U 93	57-129	
1,1-Dichloroethane	ug/L	20.328		20.000	0.600	U 102	67-121	
cis-1,2-Dichloroethane	ug/L	19.227		20.000	0.600	U 96	65-120	
2-Butanone (MEK)	ug/L	13.221		20.000	1.200	U 66	30-222	
Chloroform	ug/L	20.532		20.000	0.700	U 103	70-124	
1,1,1-Trichloroethane	ug/L	21.612		20.000	0.400	U 108	60-128	
Carbon tetrachloride	ug/L	21.205		20.000	1.000	U 106	56-131	
Benzene	ug/L	18.821		20.000	0.400	U 94	68-126	
1,2-Dichloroethane	ug/L	21.832		20.000	0.600	U 109	68-124	
Trichloroethene	ug/L	19.378		20.000	0.700	U 97	58-125	
1,2-Dichloropropane	ug/L	19.596		20.000	0.900	U 98	69-122	
Bromodichloromethane	ug/L	20.639		20.000	0.400	U 103	67-118	
cis-1,3-Dichloropropene	ug/L	19.966		20.000	0.500	U 100	60-122	
4-Methyl-2-pentanone (MIBK)	ug/L	20.871		20.000	0.700	U 104	61-140	
Toluene	ug/L	18.468		20.000	0.300	U 92	70-116	
trans-1,3-Dichloropropene	ug/L	21.582		20.000	0.800	U 108	55-126	
1,1,2-Trichloroethane	ug/L	20.265		20.000	0.600	U 101	70-119	
Tetrachloroethene	ug/L	18.237		20.000	0.500	U 91	62-118	
2-Hexanone	ug/L	19.908		20.000	0.800	U 100	54-179	
Dibromochloromethane	ug/L	20.413		20.000	0.500	U 102	65-114	
Chlorobenzene	ug/L	18.971		20.000	0.400	U 95	71-114	
Ethylbenzene	ug/L	19.014		20.000	1.000	U 95	71-115	
Styrene	ug/L	20.055		20.000	0.500	U 100	69-112	
Bromoform	ug/L	20.888		20.000	0.800	U 104	63-115	
1,1,2,2-Tetrachloroethane	ug/L	19.489		20.000	0.400	U 97	66-129	
Xylenes (total)	ug/L	57.506		60.000	1.000	U 96	66-118	

Job Number.: 209925		QUALITY CONTROL RESULTS		Report Date.: 07/06/2005	
CUSTOMER: FANNING, PHILLIPS AND MOLNAR		PROJECT: DEGW WOODHAVEN BLVD		ATTN: Ben Conner	
QC Type	Description	Reag. Code	Lab ID	Dilution Factor	Date Time
Test Method.....: 8260B		Equipment Code.....: MSW		Analyst.....: pam	
Method Description.: Volatile Organics (5mL Purge)		Batch.....: 51006			

MS	Matrix Spike	V05PWRK006	209925-18	10.00000	06/29/2005	1554		
Parameter/Test Description	Units	QC Result	QC Result	True Value	Orig. Value	QC Calc.	* Limits	F
Chloromethane	ug/L	194.671	200	2000.000	5.000	U 97	43-134	
Vinyl chloride	ug/L	182.870		2000.000	8.000	U 91	51-139	
Bromomethane	ug/L	183.359		2000.000	12.000	U 92	27-171	
Chloroethane	ug/L	192.981		2000.000	8.000	U 96	53-167	
1,1-Dichloroethane	ug/L	192.656		2000.000	7.000	U 96	57-137	
Carbon disulfide	ug/L	166.013		2000.000	9.000	U 83	44-142	
Acetone	ug/L	157.115		2000.000	14.000	U 72	18-263	
Methylene chloride	ug/L	193.629		2000.000	17.408	J 88	61-129	
trans-1,2-Dichloroethane	ug/L	184.877		2000.000	5.000	U 92	57-129	
1,1-Dichloroethane	ug/L	201.720		2000.000	6.000	U 101	67-121	
cis-1,2-Dichloroethane	ug/L	186.663		2000.000	6.000	U 93	65-120	
2-Butanone (MEK)	ug/L	124.475		2000.000	12.000	U 59	30-222	
Chloroform	ug/L	207.582		2000.000	7.000	U 104	70-124	
1,1,1-Trichloroethane	ug/L	220.244		2000.000	4.000	U 110	60-128	
Carbon tetrachloride	ug/L	216.770		2000.000	10.000	U 108	56-131	
Benzene	ug/L	189.336		2000.000	4.000	U 95	68-126	
1,2-Dichloroethane	ug/L	219.618		2000.000	6.000	U 110	68-124	
Trichloroethane	ug/L	196.469		2000.000	7.000	U 98	58-125	
1,2-Dichloropropane	ug/L	186.491		2000.000	9.000	U 93	69-122	
Bromodichloromethane	ug/L	212.001		2000.000	4.000	U 106	67-118	
cis-1,3-Dichloropropene	ug/L	193.378		2000.000	5.000	U 97	60-122	
4-Methyl-2-pentanone (MIBK)	ug/L	192.053		2000.000	7.000	U 96	61-140	
Toluene	ug/L	176.748		2000.000	3.000	U 88	70-116	
trans-1,3-Dichloropropene	ug/L	214.086		2000.000	8.000	U 107	55-126	
1,1,2-Trichloroethane	ug/L	204.268		2000.000	6.000	U 102	70-119	
Tetrachloroethane	ug/L	444.293		2000.000	717.395	-137	62-118	
2-Hexanone	ug/L	177.794		2000.000	8.000	U 89	54-179	
Dibromochloromethane	ug/L	202.432		2000.000	5.000	U 101	65-114	
Chlorobenzene	ug/L	186.156		2000.000	4.000	U 93	71-114	
Ethylbenzene	ug/L	185.364		2000.000	10.000	U 93	71-115	
Styrene	ug/L	194.694		2000.000	5.000	U 97	69-112	
Bromoform	ug/L	210.355		2000.000	8.000	U 105	63-115	
1,1,2,2-Tetrachloroethane	ug/L	192.877		2000.000	4.000	U 96	66-129	
Xylenes (total)	ug/L	560.394		6000.000	10.000	U 93	66-118	

600  
 Pam  
 7/6/05

QUALITY CONTROL RESULTS

Job Number.: 209925

Report Date.: 07/06/2005

CUSTOMER: FANNING, PHILLIPS AND MOLNAR

PROJECT: DEBW WOODHAVEN BLVD

ATTN: Ben Concern

QC Type	Description	Reag. Code	Lab ID	Dilution Factor	Date	Time
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Test Method.....: 8260B

Equipment Code....: MSW

Analyst...: pam

Method Description.: Volatile Organics (5mL Purge)

Batch.....: 51006

MSD	Matrix Spike Duplicate	VPSFWK006	209925-18	10.00000	06/30/2005	1623
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Parameter/Test Description	Units	QC Result	QC Result	True Value	Orig. Value	QC Calc.	* Limits	F
Chloromethane	ug/L	189.921	194.671	2000.000	5.000	U 95 2	43-134 20	
Vinyl chloride	ug/L	188.283	182.870	2000.000	8.000	U 94 3	51-139 20	
Bromomethane	ug/L	176.493	183.359	2000.000	12.000	U 88 4	27-171 20	
Chloroethane	ug/L	193.254	192.981	2000.000	8.000	U 97 0	53-167 20	
1,1-Dichloroethane	ug/L	194.803	192.856	2000.000	7.000	U 97 1	57-137 20	
Carbon disulfide	ug/L	162.210	166.013	2000.000	9.000	U 81 2	44-142 20	
Acetone	ug/L	144.131	157.115	2000.000	14.000	U 66 9	18-263 20	
Methylene chloride	ug/L	195.029	193.629	2000.000	17.408	J 89 1	61-129 20	
trans-1,2-Dichloroethane	ug/L	186.072	184.677	2000.000	5.000	U 93 1	57-129 20	
1,1-Dichloroethane	ug/L	203.816	201.720	2000.000	6.000	U 102 1	67-121 20	
cis-1,2-Dichloroethane	ug/L	185.009	186.663	2000.000	6.000	U 93 1	65-120 20	
2-Butanone (MEK)	ug/L	122.165	124.475	2000.000	12.000	U 57 2	30-222 20	
Chloroform	ug/L	207.884	207.582	2000.000	7.000	U 104 0	70-124 20	
1,1,1-Trichloroethane	ug/L	222.731	220.244	2000.000	4.000	U 111 1	60-128 20	
Carbon tetrachloride	ug/L	218.760	216.770	2000.000	10.000	U 109 1	56-131 20	
Benzene	ug/L	189.378	189.336	2000.000	4.000	U 95 0	68-126 20	
1,2-Dichloroethane	ug/L	219.678	219.618	2000.000	6.000	U 110 0	68-124 20	
Trichloroethane	ug/L	191.899	196.469	2000.000	7.000	U 96 2	58-125 20	
1,2-Dichloropropane	ug/L	192.984	186.491	2000.000	9.000	U 96 3	69-122 20	
Bromodichloromethane	ug/L	210.482	212.001	2000.000	4.000	U 105 1	67-118 20	
cis-1,3-Dichloropropene	ug/L	197.434	193.378	2000.000	5.000	U 99 2	60-122 20	
4-Methyl-2-pentanone (MIBK)	ug/L	184.321	192.053	2000.000	7.000	U 92 4	61-140 20	
Toluene	ug/L	176.259	176.748	2000.000	3.000	U 88 0	70-116 20	
trans-1,3-Dichloropropene	ug/L	216.490	214.086	2000.000	8.000	U 108 1	55-126 20	
1,1,2-Trichloroethane	ug/L	199.659	204.268	2000.000	6.000	U 100 2	70-119 20	

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QUALITY CONTROL RESULTS						
Job Number.: 209925			Report Date.: 07/06/2005			
CUSTOMER: FANNING, PHILLIPS AND MOLNAR		PROJECT: DEFW WOODHAVEN BMD		ATTN: Ben Carceri		
QC Type	Description	Reag. Code	Lab ID	Dilution Factor	Date	Time
MSD	Matrix Spike Duplicate	VD52WRK005	209925-18	10.00000	06/30/2005	1623

Parameter/Test Description	Units	QC Result	QC Result	True Value	Orig. Value	QC Calc.	* Limits	F
Tetrachloroethene	ug/L	314.619	444.293	2000.000	717.395	-201 34	62-118 20	*
2-Hexanone	ug/L	174.942	177.794	2000.000	8.000	U 87 2	54-179 20	
Dibromochloromethane	ug/L	198.612	202.432	2000.000	5.000	U 99 2	65-114 20	
Chlorobenzene	ug/L	183.454	186.156	2000.000	4.000	U 92 1	71-114 20	
Ethylbenzene	ug/L	184.870	185.364	2000.000	10.000	U 92 0	71-115 20	
Styrene	ug/L	190.398	194.694	2000.000	5.000	U 95 2	69-112 20	
Bromoform	ug/L	203.226	210.355	2000.000	8.000	U 102 3	63-115 20	
1,1,2,2-Tetrachloroethane	ug/L	187.657	192.877	2000.000	4.000	U 94 3	66-129 20	
Xylenes (total)	ug/L	551.778	560.394	6000.000	10.000	U 92 2	66-116 20	

*Pass  
7/6/05*

QUALITY CONTROL RESULTS					
Job Number.: 209925			Report Date.: 07/06/2005		
CUSTOMER: FANNING, PHILLIPS AND MOLNAR		PROJECT: DEPW WOODHAVEN BLVD		ATTN: Ben Carceni	
QC Type	Description	Reag. Code	Lab ID	Dilution Factor	Date Time

Test Method.....: 8260B  
 Method Description.: Volatile Organics (5mL Purge)  
 Equipment Code....: MSW  
 Batch.....: S1002  
 Analyst....: pam

LCS	Laboratory Control Sample	V05FWR006	S05B1-002		06/24/2005 1057
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Parameter/Test Description	Units	QC Result	QC Result	True Value	Orig. Value	QC Calc.	* Limits	F
Chloromethane	ug/L	3.853	J	5.000		77	43-134	
Vinyl chloride	ug/L	3.878	J	5.000		78	51-139	
Bromomethane	ug/L	3.607	J	5.000		72	27-171	
Chloroethane	ug/L	4.252	J	5.000		85	53-167	
1,1-Dichloroethane	ug/L	4.155	J	5.000		83	57-137	
Carbon disulfide	ug/L	2.592	J	5.000		52	44-142	
Acetone	ug/L	6.710	J	5.000		134	18-263	
Methylene chloride	ug/L	12.314	J	5.000		246	61-129	*
trans-1,2-Dichloroethane	ug/L	3.716	J	5.000		74	57-129	
1,1-Dichloroethane	ug/L	4.194	J	5.000		84	67-121	
cis-1,2-Dichloroethane	ug/L	4.124	J	5.000		82	65-120	
2-Butanone (MEK)	ug/L	4.267	J	5.000		85	30-222	
Chloroform	ug/L	4.166	J	5.000		83	70-124	
1,1,1-Trichloroethane	ug/L	4.406	J	5.000		88	60-128	
Carbon tetrachloride	ug/L	4.133	J	5.000		83	56-131	
Benzene	ug/L	4.122	J	5.000		82	68-126	
1,2-Dichloroethane	ug/L	4.379	J	5.000		88	68-124	
Trichloroethane	ug/L	4.179	J	5.000		84	58-125	
1,2-Dichloropropane	ug/L	4.496	J	5.000		90	69-122	
Bromodichloromethane	ug/L	4.280	J	5.000		86	67-118	
cis-1,3-Dichloropropene	ug/L	3.937	J	5.000		79	60-122	
4-Methyl-2-pentanone (MIBK)	ug/L	4.410	J	5.000		88	61-140	
Toluene	ug/L	4.130	J	5.000		83	70-116	
trans-1,3-Dichloropropene	ug/L	4.122	J	5.000		82	55-126	
1,1,2-Trichloroethane	ug/L	4.156	J	5.000		83	70-119	
Tetrachloroethane	ug/L	3.826	J	5.000		77	62-118	
2-Hexanone	ug/L	4.727	J	5.000		95	54-179	
Dibromochloromethane	ug/L	3.963	J	5.000		79	65-114	
Chlorobenzene	ug/L	4.268	J	5.000		85	71-114	
Ethylbenzene	ug/L	4.188	J	5.000		84	71-115	
Styrene	ug/L	3.568	J	5.000		71	69-112	
Bromoform	ug/L	4.180	J	5.000		84	63-115	
1,1,2,2-Tetrachloroethane	ug/L	4.548	J	5.000		91	66-129	
Xylenes (total)	ug/L	11.816		15.000		79	66-118	



QUALITY CONTROL RESULTS

Job Number.: 209925 Report Date.: 07/06/2005

CUSTOMER: PANNING, PHILLIPS AND MELNAR PROJECT: DP5W WOODHAVEN BLVD ATTN: Ben Concern

QC Type	Description	Reag. Code	Lab ID	Dilution Factor	Date	Time
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Test Method.....: 8260B Equipment Code.....: MSW Analyst....: pam  
 Method Description.: Volatile Organics (5mL Purge) Batch.....: 51004

LCS	Laboratory Control Sample	VOSFWRK006	50783-002		06/28/2005	2226
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Parameter/Test Description	Units	QC Result	QC Result	True Value	Orig. Value	QC Calc.	* Limits	F
Chloromethane	ug/L	9.945		10.000		99	% 43-134	
Vinyl chloride	ug/L	9.118		10.000		91	% 51-139	
Bromomethane	ug/L	7.933		10.000		79	% 27-171	
Chloroethane	ug/L	8.280		10.000		93	% 53-167	
1,1-Dichloroethane	ug/L	8.355		10.000		84	% 57-137	
Carbon disulfide	ug/L	5.652		10.000		57	% 44-142	
Acetone	ug/L	10.153		10.000		102	% 18-263	
Methylene chloride	ug/L	8.521		10.000		85	% 61-129	
trans-1,2-Dichloroethane	ug/L	7.381		10.000		74	% 57-129	
1,1-Dichloroethane	ug/L	8.254		10.000		83	% 67-121	
cis-1,2-Dichloroethane	ug/L	7.904		10.000		79	% 65-120	
2-Butanone (MEK)	ug/L	6.519	J	10.000		65	% 30-222	
Chloroform	ug/L	8.151		10.000		82	% 70-124	
1,1,1-Trichloroethane	ug/L	8.433		10.000		84	% 60-128	
Carbon tetrachloride	ug/L	8.526		10.000		85	% 56-131	
Benzene	ug/L	7.958		10.000		80	% 68-126	
1,2-Dichloroethane	ug/L	8.466		10.000		85	% 68-124	
Trichloroethane	ug/L	7.752		10.000		78	% 58-125	
1,2-Dichloropropane	ug/L	8.232		10.000		82	% 69-122	
Bromodichloromethane	ug/L	8.128		10.000		81	% 67-118	
cis-1,3-Dichloropropene	ug/L	7.709		10.000		77	% 60-122	
4-Methyl-2-pentanone (MIBK)	ug/L	7.634	J	10.000		76	% 61-140	
Toluene	ug/L	7.590		10.000		76	% 70-116	
trans-1,3-Dichloropropane	ug/L	8.114		10.000		81	% 55-126	
1,1,2-Trichloroethane	ug/L	8.201		10.000		82	% 70-119	
Tetrachloroethene	ug/L	7.288		10.000		73	% 62-118	
2-Hexanone	ug/L	8.617	J	10.000		86	% 54-179	
Dibromochloromethane	ug/L	7.509		10.000		75	% 65-114	
Chlorobenzene	ug/L	7.731		10.000		77	% 71-114	
Ethylbenzene	ug/L	7.791		10.000		78	% 71-115	
Styrene	ug/L	7.055		10.000		71	% 69-112	
Bromoform	ug/L	7.821		10.000		78	% 63-115	
1,1,2,2-Tetrachloroethane	ug/L	7.798		10.000		78	% 66-129	
Xylenes (total)	ug/L	22.448		30.000		75	% 66-118	

Job Number.: 209925		QUALITY CONTROL RESULTS			Report Date.: 07/06/2005	
CUSTOMER: FANNING, PHILLIPS AND MOLNAR		PROJECT: DPSW WOODHAVEN BLVD		ATTN: Ben Cencem		
QC Type	Description	Reag. Code	Lab ID	Dilution Factor	Date	Time

Test Method.....: 8260B  
 Method Description.: Volatile Organics (SnL Purge)  
 Equipment Code.....: MSW  
 Batch.....: 51006  
 Analyst....: pam

LCS Laboratory Control Sample: V05FWRK006 50911-002 06/29/2005 0959

Parameter/Test Description	Units	QC Result	QC Result	True Value	Orig. Value	QC Calc.	* Limits	P
Chloromethane	ug/L	12.707		10.000		127	% 42-134	
Vinyl chloride	ug/L	11.799		10.000		118	% 51-139	
Bromomethane	ug/L	10.630		10.000		106	% 27-171	
Chloroethane	ug/L	11.648		10.000		116	% 53-167	
1,1-Dichloroethane	ug/L	10.363		10.000		104	% 57-137	
Carbon disulfide	ug/L	7.200		10.000		72	% 44-142	
Acetone	ug/L	14.707		10.000		147	% 18-263	
Methylene chloride	ug/L	17.398		10.000		174	% 61-129	
trans-1,2-Dichloroethane	ug/L	9.550		10.000		95	% 57-129	
1,1-Dichloroethane	ug/L	10.583		10.000		106	% 67-121	
cis-1,2-Dichloroethane	ug/L	10.050		10.000		100	% 65-120	
2-Butanone (MEK)	ug/L	9.468	J	10.000		95	% 30-222	
Chloroform	ug/L	10.896		10.000		109	% 70-124	
1,1,1-Trichloroethane	ug/L	11.510		10.000		115	% 60-128	
Carbon tetrachloride	ug/L	11.713		10.000		117	% 56-131	
Benzene	ug/L	9.994		10.000		100	% 68-126	
1,2-Dichloroethane	ug/L	11.598		10.000		116	% 68-124	
Trichloroethene	ug/L	9.993		10.000		100	% 58-125	
1,2-Dichloropropane	ug/L	10.568		10.000		106	% 69-122	
Bromodichloromethane	ug/L	11.118		10.000		111	% 67-118	
cis-1,3-Dichloropropene	ug/L	10.014		10.000		100	% 60-122	
4-Methyl-2-pentanone (MTBK)	ug/L	10.550		10.000		106	% 61-140	
Toluene	ug/L	9.340		10.000		93	% 70-116	
trans-1,3-Dichloropropene	ug/L	10.980		10.000		110	% 55-126	
1,1,2-Trichloroethane	ug/L	10.890		10.000		109	% 70-119	
Tetrachloroethene	ug/L	9.713		10.000		97	% 62-118	
2-Hexanone	ug/L	11.842		10.000		118	% 54-179	
Dibromochloromethane	ug/L	10.195		10.000		102	% 65-114	
Chlorobenzene	ug/L	9.703		10.000		97	% 71-114	
Ethylbenzene	ug/L	9.456		10.000		95	% 71-115	
Styrene	ug/L	8.797		10.000		88	% 69-112	
Bromoform	ug/L	10.452		10.000		105	% 63-115	
1,1,2,2-Tetrachloroethane	ug/L	10.190		10.000		102	% 66-129	
Xylenes (total)	ug/L	27.945		30.000		93	% 66-118	

Job Number.: 209925

QUALITY CONTROL RESULTS

Report Date.: 07/06/2005

CUSTOMER: FANNING, PHILLIPS AND MOLNAR		PROJECT: DEBR WOODLAVERN BLVD		ATTN: Ben Candem	
QC Type	Description	Reag. Code	Lab ID	Dilution Factor	Date Time

Test Method.....: 8260E	Equipment Code.....: MSW	Analyst....: pam
Method Description.: Volatile Organics (5mL Purge)	Batch.....: 51006	

LCS	Laboratory Control Sample	V05FWR006	S0901-002	06/30/2005 1111
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Parameter/Test Description	Units	QC Result	QC Result	True Value	Orig. Value	QC Calc.	* Limits	F
Chloromethane	ug/L	9.861		10.000		99	% 43-134	
Vinyl chloride	ug/L	9.024		10.000		90	% 51-139	
Bromomethane	ug/L	8.152		10.000		82	% 27-171	
Chloroethane	ug/L	8.963		10.000		90	% 53-167	
1,1-Dichloroethene	ug/L	8.495		10.000		85	% 57-137	
Carbon disulfide	ug/L	5.504		10.000		55	% 44-142	
Acetone	ug/L	10.028		10.000		100	% 18-263	
Methylene chloride	ug/L	10.424		10.000		104	% 61-139	
trans-1,2-Dichloroethene	ug/L	7.522		10.000		75	% 57-119	
1,1-Dichloroethane	ug/L	8.257		10.000		83	% 67-121	
cis-1,2-Dichloroethene	ug/L	7.404		10.000		74	% 65-120	
2-Butanone (MEK)	ug/L	5.741	J	10.000		57	% 30-222	
Chloroform	ug/L	8.386		10.000		84	% 70-124	
1,1,1-Trichloroethane	ug/L	8.806		10.000		88	% 60-128	
Carbon tetrachloride	ug/L	8.851		10.000		89	% 56-131	
Benzene	ug/L	7.877		10.000		79	% 68-126	
1,2-Dichloroethane	ug/L	8.789		10.000		88	% 68-124	
Trichloroethene	ug/L	7.928		10.000		79	% 58-125	
1,2-Dichloropropane	ug/L	8.124		10.000		81	% 69-122	
Bromodichloromethane	ug/L	8.598		10.000		86	% 67-118	
cis-1,3-Dichloropropene	ug/L	7.512		10.000		75	% 60-122	
4-Methyl-2-pentanone (MIBK)	ug/L	7.587	J	10.000		76	% 61-140	
Toluene	ug/L	7.415		10.000		74	% 70-116	
trans-1,3-Dichloropropene	ug/L	8.243		10.000		82	% 55-126	
1,1,1-Trichloroethane	ug/L	8.176		10.000		82	% 70-119	
Tetrachloroethene	ug/L	7.350		10.000		74	% 62-118	
2-Hexanone	ug/L	7.256	J	10.000		73	% 54-179	
Dibromochloromethane	ug/L	7.618		10.000		76	% 65-114	
Chlorobenzene	ug/L	7.648		10.000		76	% 71-114	
Ethylbenzene	ug/L	7.634		10.000		76	% 71-115	
Styrene	ug/L	6.993		10.000		70	% 69-112	
Bromoform	ug/L	7.671		10.000		77	% 63-115	
1,1,2,2-Tetrachloroethane	ug/L	7.956		10.000		80	% 66-129	
Xylenes (total)	ug/L	21.954		30.000		73	% 66-118	

Page 58 \* t=t REC, R=RPD, A=ABS Diff., D= Diff.

Job Number.: 209925

QUALITY CONTROL RESULTS

Report Date.: 07/06/2005

CUSTOMER: FANNING, PHILLIPS AND MOLNAR

PROJECT: DEPW WOODHAVEN BLVD.

ATTN: Ben Carami

QC Type	Description	Reag. Code	Lab ID	Dilution Factor	Date	Time
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Test Method.....: 8260B

Equipment Code.....: MSW

Analyst....: pam

Method Description.: Volatile Organics (5mL Purge)

Batch.....: S1003

LCS	Laboratory Control Sample	VOSPWRK006	50921-002	06/28/2005	1004
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Parameter/Test Description	Units	QC Result	QC Result	True Value	Orig. Value	QC Calc.	* Limits	P
Chloromethane	ug/L	9.430		10.000		94	% 43-134	
Vinyl chloride	ug/L	8.822		10.000		88	% 51-139	
Bromomethane	ug/L	7.983		10.000		80	% 27-171	
Chloroethane	ug/L	8.493		10.000		85	% 53-167	
1,1-Dichloroethane	ug/L	7.855		10.000		79	% 57-137	
Carbon disulfide	ug/L	5.250		10.000		53	% 44-142	
Acetone	ug/L	15.926		10.000		159	% 18-263	
Methylene chloride	ug/L	19.574		10.000		196	% 61-129	
trans-1,2-Dichloroethane	ug/L	7.155		10.000		72	% 57-129	
1,1-Dichloroethane	ug/L	7.545		10.000		75	% 67-121	
cis-1,2-Dichloroethane	ug/L	7.287		10.000		73	% 65-120	
2-Butanone (MEK)	ug/L	10.442		10.000		104	% 30-222	
Chloroform	ug/L	7.625		10.000		76	% 70-124	
1,1,1-Trichloroethane	ug/L	7.651		10.000		77	% 60-128	
Carbon tetrachloride	ug/L	7.602		10.000		76	% 56-131	
Benzene	ug/L	7.383		10.000		74	% 68-126	
1,2-Dichloroethane	ug/L	7.632		10.000		76	% 68-124	
Trichloroethane	ug/L	7.443		10.000		74	% 58-125	
1,2-Dichloropropane	ug/L	7.687		10.000		77	% 69-122	
Bromodichloromethane	ug/L	7.475		10.000		75	% 67-118	
cis-1,3-Dichloropropene	ug/L	7.038		10.000		70	% 60-122	
4-methyl-2-pentanone (MIBK)	ug/L	8.413	J	10.000		84	% 61-140	
Toluene	ug/L	7.046		10.000		70	% 70-116	
trans-1,3-Dichloropropene	ug/L	7.586		10.000		76	% 55-126	
1,1,2-Trichloroethane	ug/L	7.809		10.000		78	% 70-119	
Tetrachloroethane	ug/L	6.640		10.000		66	% 62-118	
2-Hexanone	ug/L	11.989		10.000		120	% 54-179	
Dibromochloromethane	ug/L	7.341		10.000		73	% 65-114	
Chlorobenzene	ug/L	7.262		10.000		73	% 71-114	
Ethylbenzene	ug/L	7.271		10.000		73	% 71-115	
Styrene	ug/L	6.612		10.000		66	% 69-112	*
Bromoform	ug/L	7.494		10.000		75	% 63-115	
1,1,2,2-Tetrachloroethane	ug/L	7.812		10.000		78	% 66-129	
Xylenes (total)	ug/L	21.259		30.000		71	% 66-118	

4A  
VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

50581-1MB

Lab Name: STL-CT

Contract:

Lab Code: STL-CT

Case No.: 209925

SAS No.:

SDG No.: 209925

Lab File ID: W0647

Lab Sample ID: 50581-1MB

Date Analyzed: 06/24/05

Time Analyzed: 1139

GC Column: RTX-624 ID: 0.53 (mm)

Heated Purge: (Y/N) N

Instrument ID: MSW

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	50581-2LCS	50581-2LCS	W0646	1057
02	TRIP BLANK	209925-8	W0648	1221
03	A-6	209925-2	W0649	1313
04	A-7	209925-1	W0650	1343
05	A-4	209925-3	W0651	1412
06	A-5	209925-4	W0652	1441
07	A-10	209925-5	W0653	1510
08	A-9	209925-6	W0654	1542
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COMMENTS:

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Job Number.: 209925		QUALITY CONTROL RESULTS			Report Date.: 07/07/2005	
CUSTOMER: FANNING, PHILLIPS AND MOLNAR		PROJECT: DPSW WOODHAVEN BLVD.		ATTN: Ben Cancemi		
QC Type	Description	Reag. Code	Lab ID	Dilution Factor	Date	Time
Test Method.....: 8260B		Equipment Code.....: MSW		Analyst....: pam		
Method Description.: Volatile Organics (5mL Purge)		Batch.....: 51002				

MB	Method Blank		50581 -001		06/24/2005	1139
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Parameter/Test Description	Units	QC Result	QC Result	True Value	Orig. Value	QC Calc.	* Limits	F
Chloromethane	ug/L	0.500	U					
Vinyl chloride	ug/L	0.800	U					
Bromomethane	ug/L	1.200	U					
Chloroethane	ug/L	0.800	U					
1,1-Dichloroethene	ug/L	0.700	U					
Carbon disulfide	ug/L	0.900	U					
Acetone	ug/L	1.644	J					B
Methylene chloride	ug/L	2.925	J					B
trans-1,2-Dichloroethene	ug/L	0.500	U					
1,1-Dichloroethane	ug/L	0.600	U					
cis-1,2-Dichloroethene	ug/L	0.600	U					
2-Butanone (MEK)	ug/L	2.370	J					B
Chloroform	ug/L	0.700	U					
1,1,1-Trichloroethane	ug/L	0.400	U					
Carbon tetrachloride	ug/L	1.000	U					
Benzene	ug/L	0.400	U					
1,2-Dichloroethane	ug/L	0.600	U					
Trichloroethene	ug/L	0.700	U					
1,2-Dichloropropane	ug/L	0.900	U					
Bromodichloromethane	ug/L	0.400	U					
cis-1,3-Dichloropropene	ug/L	0.500	U					
4-Methyl-2-pentanone (MIBK)	ug/L	0.700	U					
Toluene	ug/L	0.300	U					
trans-1,3-Dichloropropene	ug/L	0.800	U					
1,1,2-Trichloroethane	ug/L	0.600	U					
Tetrachloroethene	ug/L	0.500	U					
2-Hexanone	ug/L	0.800	U					
Dibromochloromethane	ug/L	0.500	U					
Chlorobenzene	ug/L	0.400	U					
Ethylbenzene	ug/L	1.000	U					
Styrene	ug/L	0.500	U					
Bromoform	ug/L	0.800	U					
1,1,2,2-Tetrachloroethane	ug/L	0.400	U					
Xylenes (total)	ug/L	1.000	U					

4A  
VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

50783-1MB

Lab Name: STL-CT

Contract:

Lab Code: STL-CT

Case No.: 209925

SAS No.:

SDG No.: 209925

Lab File ID: W0718

Lab Sample ID: 50783-1MB

Date Analyzed: 06/28/05

Time Analyzed: 2308

GC Column: RTX-624 ID: 0.53 (mm)

Heated Purge: (Y/N) N

Instrument ID: MSW

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	50783-2LCS	50783-2LCS	W0717	2226
02	ME-14	209925-16	W0721	0042
03	MW-112	209925-21	W0732	0534
04	MW-113	209925-22	W0733	0600
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COMMENTS:

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Job Number.: 209925		QUALITY CONTROL RESULTS			Report Date.: 07/06/2005	
CUSTOMER: FANNING, PHILLIPS AND MOLNAR			PROJECT: DPSW WOODHAVEN ELVD.		ATTN: Ben Cancemi	
QC Type	Description	Reag. Code	Lab ID	Dilution Factor	Date	Time

Test Method.....: 8260B	Equipment Code.....: MSW	Analyst....: pam
Method Description.: Volatile Organics (5mL Purge)	Batch.....: 51004	

MB	Method Blank		5D783 -001		06/28/2005	2308
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Parameter/Test Description	Units	QC Result	QC Result	True Value	Orig. Value	QC Calc.	* Limits	F
Chloromethane	ug/L	0.500	U					
Vinyl chloride	ug/L	0.800	U					
Bromomethane	ug/L	1.200	U					
Chloroethane	ug/L	0.800	U					
1,1-Dichloroethane	ug/L	0.700	U					
Carbon disulfide	ug/L	0.900	U					
Acetone	ug/L	1.529	J					B
Methylene chloride	ug/L	1.219	J					B
trans-1,2-Dichloroethene	ug/L	0.500	U					
1,1-Dichloroethane	ug/L	0.600	U					
cis-1,2-Dichloroethene	ug/L	0.600	U					
2-Butanone (MEK)	ug/L	1.200	U					
Chloroform	ug/L	0.700	U					
1,1,1-Trichloroethane	ug/L	0.400	U					
Carbon tetrachloride	ug/L	1.000	U					
Benzene	ug/L	0.400	U					
1,2-Dichloroethane	ug/L	0.600	U					
Trichloroethene	ug/L	0.700	U					
1,2-Dichloropropane	ug/L	0.900	U					
Bromodichloromethane	ug/L	0.400	U					
cis-1,3-Dichloropropene	ug/L	0.500	U					
4-Methyl-2-pentanone (MIBK)	ug/L	0.700	U					
Toluene	ug/L	0.300	U					
trans-1,3-Dichloropropene	ug/L	0.800	U					
1,1,2-Trichloroethane	ug/L	0.600	U					
Tetrachloroethene	ug/L	0.500	U					
2-Hexanone	ug/L	0.800	U					
Dibromochloromethane	ug/L	0.500	U					
Chlorobenzene	ug/L	0.400	U					
Ethylbenzene	ug/L	1.000	U					
Styrene	ug/L	0.500	U					
Bromoform	ug/L	0.800	U					
1,1,2,2-Tetrachloroethane	ug/L	0.400	U					
Xylenes (total)	ug/L	1.000	U					

Page 56 \* % = % REC, R=RED, A=ABS Diff., D=% Diff.



4A  
VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

50901-1MB

Lab Name: STL-CT

Contract:

Lab Code: STL-CT

Case No.: 209925

SAS No.:

SDG No.: 209925

Lab File ID: W0770

Lab Sample ID: 50901-1MB

Date Analyzed: 06/30/05

Time Analyzed: 1234

GC Column: RTX-624 ID: 0.53 (mm)

Heated Purge: (Y/N) N

Instrument ID: MSW

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	50901-2LCS	50901-2LCS	W0768	1111
02	ME-11MSD	209925-18MSD	W0778	1623
03				
04				
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COMMENTS:

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QUALITY CONTROL RESULTS					
Job Number.: 209925			Report Date.: 07/06/2005		
CUSTOMER: FANNING, PHILLIPS AND MOLNAR		PROJECT: DPSW WOODHAVEN BLVD.		ATTN: Ben Cancemi	
QC Type	Description	Reag. Code	Lab ID	Dilution Factor	Date Time

Test Method.....: 8260B	Equipment Code....: MSW	Analyst....: pam
Method Description.: Volatile Organics (5mL Purge)	Batch.....: 51006	

MB	Method Blank		50901 -001		06/30/2005 1234
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Parameter/Test Description	Units	QC Result	QC Result	True Value	Orig. Value	QC Calc.	* Limits	F
Chloromethane	ug/L	0.500	U					
Vinyl chloride	ug/L	0.800	U					
Bromomethane	ug/L	1.200	U					
Chloroethane	ug/L	0.800	U					
1,1-Dichloroethene	ug/L	0.700	U					
Carbon disulfide	ug/L	0.900	U					
Acetone	ug/L	1.400	U					
Methylene chloride	ug/L	1.536	J					B
trans-1,2-Dichloroethene	ug/L	0.500	U					
1,1-Dichloroethane	ug/L	0.600	U					
cis-1,2-Dichloroethene	ug/L	0.600	U					
2-Butanone (MEK)	ug/L	1.200	U					
Chloroform	ug/L	0.700	U					
1,1,1-Trichloroethane	ug/L	0.400	U					
Carbon tetrachloride	ug/L	1.000	U					
Benzene	ug/L	0.400	U					
1,2-Dichloroethane	ug/L	0.600	U					
Trichloroethene	ug/L	0.700	U					
1,2-Dichloropropane	ug/L	0.900	U					
Bromodichloromethane	ug/L	0.400	U					
cis-1,3-Dichloropropene	ug/L	0.500	U					
4-Methyl-2-pentanone (MIBK)	ug/L	0.700	U					
Toluene	ug/L	0.300	U					
trans-1,3-Dichloropropene	ug/L	0.800	U					
1,1,2-Trichloroethane	ug/L	0.600	U					
Tetrachloroethene	ug/L	0.500	U					
2-Hexanone	ug/L	0.800	U					
Dibromochloromethane	ug/L	0.500	U					
Chlorobenzene	ug/L	0.400	U					
Ethylbenzene	ug/L	1.000	U					
Styrene	ug/L	0.500	U					
Bromoform	ug/L	0.800	U					
1,1,2,2-Tetrachloroethane	ug/L	0.400	U					
Xylenes (total)	ug/L	1.000	U					

4A  
VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

50911-1MB

Lab Name: STL-CT

Contract:

Lab Code: STL-CT

Case No.: 209925

SAS No.:

SDG No.: 209925

Lab File ID: W0744

Lab Sample ID: 50911-1MB

Date Analyzed: 06/29/05

Time Analyzed: 1322

GC Column: RTX-624 ID: 0.53 (mm)

Heated Purge: (Y/N) N

Instrument ID: MSW

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	50911-2LCS	50911-2LCS	W0740	0959
02	ME-1	209925-17	W0745	1409
03	MW-107	209925-19	W0746	1435
04	ME-8	209925-23	W0747	1501
05	SA-8	209925-24	W0748	1528
06	ME-11MS	209925-18MS	W0749	1554
07	ME-11	209925-18MSB	W0751	1647
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COMMENTS:

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QUALITY CONTROL RESULTS

Job Number.: 209925 Report Date.: 07/06/2005

CUSTOMER: PANNING, PHILLIPS AND MOLNAR PROJECT: DPSW WOODHAVEN BLVD. ATTN: Ben Cacerri

QC Type	Description	Reag. Code	Lab ID	Dilution Factor	Date	Time
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Test Method.....: 8260B	Equipment Code.....: MSW	Analyst....: pam
Method Description.: Volatile Organics (5mL Purge)	Batch.....: 51006	

MB	Method Blank	50911 -001	06/29/2005 1322
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Parameter/Test Description	Units	QC Result	QC Result	True Value	Orig. Value	QC Calc.	* Limits	F
Chloromethane	ug/L	0.500	U					
Vinyl chloride	ug/L	0.800	U					
Bromomethane	ug/L	1.200	U					
Chloroethane	ug/L	0.800	U					
1,1-Dichloroethene	ug/L	0.700	U					
Carbon disulfide	ug/L	0.900	U					
Acetone	ug/L	1.402	J					B
Methylene chloride	ug/L	1.392	J					B
trans-1,2-Dichloroethene	ug/L	0.500	U					
1,1-Dichloroethane	ug/L	0.600	U					
cis-1,2-Dichloroethene	ug/L	0.600	U					
2-Butanone (MEK)	ug/L	1.200	U					
Chloroform	ug/L	0.700	U					
1,1,1-Trichloroethane	ug/L	0.400	U					
Carbon tetrachloride	ug/L	1.000	U					
Benzene	ug/L	0.400	U					
1,2-Dichloroethane	ug/L	0.600	U					
Trichloroethene	ug/L	0.700	U					
1,2-Dichloropropane	ug/L	0.900	U					
Bromodichloromethane	ug/L	0.400	U					
cis-1,3-Dichloropropene	ug/L	0.500	U					
4-Methyl-2-pentanone (MTBK)	ug/L	0.700	U					
Toluene	ug/L	0.300	U					
trans-1,3-Dichloropropene	ug/L	0.800	U					
1,1,2-Trichloroethane	ug/L	0.600	U					
Tetrachloroethene	ug/L	0.500	U					
2-Hexanone	ug/L	0.800	U					
Dibromochloromethane	ug/L	0.500	U					
Chlorobenzene	ug/L	0.400	U					
Ethylbenzene	ug/L	1.000	U					
Styrene	ug/L	0.500	U					
Bromoform	ug/L	0.800	U					
1,1,2,2-Tetrachloroethane	ug/L	0.400	U					
Xylenes (total)	ug/L	1.000	U					

Page 59 \* % = REC, R=RPD, A=ABS Diff., D=% Diff.

4A  
VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

50921-1MB

Lab Name: STL-CT

Contract:

Lab Code: STL-CT

Case No.: 209925

SAS No.:

SDG No.: 209925

Lab File ID: W0696

Lab Sample ID: 50921-1MB

Date Analyzed: 06/28/05

Time Analyzed: 1045

GC Column: RTX-624 ID: 0.53 (mm)

Heated Purge: (Y/N) N

Instrument ID: MSW

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	50921-2LCS	50921-2LCS	W0695	1004
02	A-13	209925-7	W0697	1128
03	A-12	209925-15	W0698	1200
04	ME-1S	209925-13	W0699	1230
05	ME-11	209925-18	W0700	1259
06	ME-13	209925-20	W0701	1329
07	A-17	209925-9	W0708	1735
08	A-16	209925-10	W0709	1802
09	ME-7	209925-14	W0710	1828
10	A-1S	209925-11	W0711	1855
11	A-18	209925-12	W0712	1921
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COMMENTS:

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QUALITY CONTROL RESULTS

Job Number.: 209925 Report Date.: 07/06/2005

CUSTOMER: FANNING, PHILLIPS AND MOLNAR PROJECT: DPSW WOODHAVEN BLVD. ATTN: Ben Cancemi

QC Type	Description	Reag. Code	Lab ID	Dilution Factor	Date	Time
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Test Method.....: 8260B Equipment Code.....: MSW Analyst....: pam  
 Method Description.: Volatile Organics (SnL Purge) Batch.....: 51003

MB	Method Blank		50921 -001		06/28/2005	1045
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Parameter/Test Description	Units	QC Result	QC Result	True Value	Orig. Value	QC Calc.	* Limits	P
Chloromethane	ug/L	0.500	U					
Vinyl chloride	ug/L	0.800	U					
Bromomethane	ug/L	1.200	U					
Chloroethane	ug/L	0.800	U					
1,1-Dichloroethene	ug/L	0.700	U					
Carbon disulfide	ug/L	0.900	U					
Acetone	ug/L	1.400	U					
Methylene chloride	ug/L	1.039	J					B
trans-1,2-Dichloroethene	ug/L	0.500	U					
1,1-Dichloroethane	ug/L	0.600	U					
cis-1,2-Dichloroethene	ug/L	0.600	U					
2-Butanone (MEK)	ug/L	1.200	U					
Chloroform	ug/L	0.700	U					
1,1,1-Trichloroethane	ug/L	0.400	U					
Carbon tetrachloride	ug/L	1.000	U					
Benzene	ug/L	0.400	U					
1,2-Dichloroethane	ug/L	0.600	U					
Trichloroethene	ug/L	0.700	U					
1,2-Dichloropropane	ug/L	0.900	U					
Bromodichloromethane	ug/L	0.400	U					
cis-1,3-Dichloropropene	ug/L	0.500	U					
4-Methyl-2-pentanone (MIBK)	ug/L	0.700	U					
Toluene	ug/L	0.300	U					
trans-1,3-Dichloropropene	ug/L	0.800	U					
1,1,2-Trichloroethane	ug/L	0.600	U					
Tetrachloroethene	ug/L	0.500	U					
2-Hexanone	ug/L	0.800	U					
Dibromochloromethane	ug/L	0.500	U					
Chlorobenzene	ug/L	0.400	U					
Ethylbenzene	ug/L	1.000	U					
Styrene	ug/L	0.500	U					
Bromoform	ug/L	0.800	U					
1,1,2,2-Tetrachloroethane	ug/L	0.400	U					
Xylenes (total)	ug/L	1.000	U					

Page 54 \* %=REC, R=RPD, A=ABS Diff., D=% Diff.

QUALITY ASSURANCE METHODS

REFERENCES AND NOTES

REPORT COMMENTS

- 1) All pages of this report are integral parts of the analytical data. Therefore, this report should be reproduced only in its entirety.
- 2) Soil, sediment and sludge sample results are reported on a "dry weight" basis except when analyzed for landfill disposal or incineration parameters. All other solid matrix samples are reported on an "as received" basis unless noted differently.
- 3) Reporting limits are adjusted for sample size used, dilutions and moisture content if applicable.
- 4) The test results for the noted analytical method(s) meet the requirements of NELAC. Lab Cert. ID# 10604
- 5) According to 40CFR Part 136.3, pH, Chlorine Residual and Dissolved Oxygen analyses are to be performed immediately after aqueous sample collection. When these parameters are not indicated as field (e.g. pH Field) they were not analyzed immediately, but as soon as possible on laboratory receipt.

Glossary of flags, qualifiers and abbreviation

Inorganic Qualifiers (Q-Column)

- U Analyte was not detected at or above the reporting limit.
- < Not detected at or above the reporting limit.
- J Result is less than the RL, but greater than or equal to the method detection limit.
- B Result is less than the CRDL/RL, but greater than or equal to the IDL/MDL.
- S Result was determined by the Method of Standard Additions.

Inorganic Flags (Flag Column)

- ICV,CCV,ICB,CCB,ISA,ISB,CRI,CRA,MRL: Instrument related QC exceed th upper or lower control limits.
- \* LCS, LCD, MD: Batch QC exceeds the upper or lower control limits.
- + MSA correlation coefficient is less than 0.995.
- 4 MS, MSD: The analyte present in the original sample is 4 times greater than the matrix spike concentration; therefore, control limits are not applicable.
- E SD: Serial dilution exceeds the control limits.
- H MB, EB: Batch QC is greater than reporting limit or had a negative instrument reading lower than the absolute value of the reporting limit.
- N MS, MSD: Spike recovery exceeds the upper or lower control limits.
- W PS: Post-digestion spike was outside 85-115% control limits.

Organic Qualifiers (Q - Column)

- U Analyte was not detected at or above the reporting limit.
- ND Compound not detected.
- J Result is an estimated value below the reporting limit or a tentatively identified compound (TIC).
- Q Result was qualitatively confirmed, but not quantified.
- C Pesticide identification was confirmed by GC/MS.
- Y The chromatographic response resembles a typical fuel pattern.
- Z The chromatographic response does not resemble a typical fuel pattern.
- E Result exceeded calibration range, secondary dilution required.

Organic Flags (Flags Column)

- MB,EB, MLE: Batch QC is greater than reporting limit.
- \* LCS, LCD, CCV, MS, MSD, Surrogate, RS:Batch QC exceeds the upper or lower control limits.
- A Concentration exceeds the instrument calibration range or below the reporting limit.
- B Compound was found in the blank.
- D Surrogate or matrix spike recoveries were not obtained because the extract was diluted for analysis; also compounds analyzed at a dilution will be flagged with a D.
- H Alternate peak selection upon analytical review
- I Indicates the presence of an interference, recovery is not calculated.
- M Manually integrated compound.
- P The lower of the two values is reported when the % difference between the results of two GC columns is greater than 25%.

QUALITY ASSURANCE METHODS

REFERENCES AND NOTES

Abbreviations

Batch	Designation given to identify a specific extraction, digestion, preparation set, or analysis set
CAP	Capillary Column
CCB	Continuing Calibration Blank
CCV	Continuing Calibration Verification
CF	Confirmation Analysis
CRA	Low Level Standard Check - GFAA; Mercury
CRI	Low Level Standard Check - ICP
Dil Fac	Dilution Factor
DL	Secondary dilution and analysis
DLFac	Detection Limit Factor
DSH	Distilled Standard - High Level
BSL	Distilled Standard - Low Level
DSM	Distilled Standard - Medium Level
EB	Extraction Blank
ICB	Initial Calibration Blank
ICV	Initial Calibration Verification
IDL	Instrument Detection Limit
ISA	Interference Check Sample A
ISB	Interference Check Sample B
Job No.	The first six digits of the sample ID which refers to a specific client, project and sample group
Lab ID	An 8 number unique laboratory identification
LCD	Laboratory Control Standard Duplicate
LCS	Laboratory Control Standard with reagent grade water or a matrix free from the analyte of interest
MB	Method Blank or (PB) Preparation Blank
MD	Method Duplicate
MDL	Method Detection Limit
MLE	Medium Level Extraction Blank
MRL	Method Reporting Limit Standard
MSA	Method of Standard Additions
MS	Matrix Spike
MSD	Matrix Spike Duplicate
ND	Not Detected
PACK	Packed Column
PREPF	Preparation factor used by the Laboratory's Information Management System (LIMS)
PS	Post Spike
PSD	Post Spike Duplicate
RA	Re-analysis
RE	Re-extraction and analysis
RL	Reporting Limit
RPD	Relative Percent Difference of duplicate (unrounded) analyses
RRF	Relative Response Factor
RS	Reference Standard
RT	Retention Time
RTW	Retention Time Window
SampleID	A 9 digit number unique for each sample, the first six digits are referred as the job number
SCB	Seeded Control Blank
SD	Serial Dilution
UCB	Unseeded Control Blank

One or a combination of these data qualifiers and abbreviations may appear in the analytical report.



**STL-Connecticut  
Certification Summary (as of May 2005)**

The laboratory identification numbers for the STL-Connecticut laboratory are provided in the following table. Many states certify laboratories for specific parameters or tests within a category (i.e. method 325.2 for wastewater). The information in the following table indicates the lab is certified in a general category of testing such as drinking water or wastewater analysis. The laboratory should be contacted directly if parameter-specific certification information is required.

State	Responsible Agency	Certification	Expiration Date	Lab Number
Connecticut	Department of Health Services	Drinking Water, Wastewater	12/31/06	PH-0497
Maine	Department of Health and Environmental Services	Drinking Water, Wastewater/Solid, Hazardous Waste	04/18/06	CT023
Massachusetts	Department of Environmental Protection	Potable/Non-Potable Water	06/30/05	CT023
New Hampshire	Department of Environmental Services	Drinking Water, Wastewater	08/29/05	2528
New Jersey	Department of Environmental Protection	Drinking Water, Wastewater	06/30/05	CT410
New York	Department of Health	CLP, Drinking Water, Wastewater, Solid/ Hazardous Waste NELAC	04/01/06	10602
Rhode Island	Department of Health	Chemistry...Non-Potable Water and Wastewater	12/30/05	A43
Utah	Department of Health	RCRA	05/31/05	2032614458

STL Connecticut  
 128 Long Hill Cross Road  
 Shelton, CT 06484  
 Tel: 203-929-8140

**Chain of Custody Record**

Client: **FLM Group** Project Manager: **Ben Cancemi** Date: **6/16/05** Chain of Custody Number: **02702**  
 Address: **909 MARCONI AVENUE** Telephone Number (Area Code): **631-737-2410** Lab Number: **8**  
 City: **ROCKY HILL** State: **NY** Zip Code: **11771** Site Contact: **J. HARVA D** Analysis (Attach list if more space is needed):

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix					Containers & Preservatives					Special Instructions/Conditions of Receipt		
			Air	Aqueous	Sed	Soil	Unpres	H2SO4	HNO3	HCl	NaOH	Other			
A-8	6/16/05	800	X												
A-7		900													
A-6		930													
A-4		1000													
A-5		1030													
A-10		1100													
A-9		1130													
A-13		1400													
TRP BLACK CAT B	6/16/05														
A-17	6/17/05	830													
A-16		900													
A-15		930													

Possible Hazard Identification:  Non-Hazard  Flammable  Skin Irritant  Poison B  Unknown  Return To Client  Disposal By Lab  Archive For \_\_\_\_\_ Months  GC Requirements (Specify):

Turn Around Time Required:  24 Hours  48 Hours  7 Days  14 Days  21 Days  Other: **STANDARD**

Received By: **Ben Cancemi** Date: **6/16/05** Time: **9:30**  
 Received By: **Ben Cancemi** Date: **6/16/05** Time: **9:30**  
 Received By: **Ben Cancemi** Date: **6/16/05** Time: **9:30**

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**Chain of Custody Record**

STL Connecticut  
128 Long Hill Cross Road  
Shelton, CT 06484  
Tel: 203-929-8140



**SEVERN TRENT**  
Severn Trent Laboratories, Inc.  
PASSED RAD SCREEN  
1.600c

STL-Connecticut

Client: **FPM Group** Project Manager: **BOB CARPENT** Date: **6/17/05** Chain of Custody Number: **02703**

Address: **909 MARCINI AVE** Telephone Number (Area Code): **631-737-6700** Fax Number: **631-737-6700** Page: **2** of **2**

City/State/Zip: **ROUENKOTA NY 11779** Site Contact: **J. H. KURTZ D** Lab Contact: **J. H. KURTZ D** Lab Number: **02703**

Contract/Purchase Order/Quote No.: **DP500 NY** Carrier/Waybill Number: **J. H. KURTZ D**

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix					Containers & Preservatives					Special Instructions/ Conditions of Receipt		
			Air	Aqueous	Sed	Soil	Unpres	H2SO4	HNO3	HCl	HNO2	H2O2			
A-18 (16) (13)	6/17/05	1015	X												
ME 15 (13) (16)		1100													
ME 7 (14) (16)		1140													
A-12 (15) (16)		1320 1345													
ME-14 (16) (16)		1345													
ME-1 ME-1 (17) (16)	6/20/05	830													
ME-11 (18) (16)		915													
ME-107 (19) (16)		1100													
ME-13 (20) (16)		1130													
ME-112 (21) (16)		1315													
ME-113 (22) (16)		1420													
ME-8 (23) (16)		1330													

Possible Hazard Identification:  
 Non-Hazard  
 Flammable  
 Skin Irritant  
 Poison B  
 Unknown  
 Return To Client  
 Disposal By Lab  
 Archive For \_\_\_\_\_ Months  
 QC Requirements (S, R, P, T)

Sample Disposal:  
 24 Hours  
 48 Hours  
 7 Days  
 14 Days  
 21 Days  
 Other: **STANDARD**

Received By: **Bob Carpent** Date: **6/21/05** Time: **9:30**

Received By: **Bob Carpent** Date: **6/22/05** Time: **0930**

Received By: **Bob Carpent** Date: **6/22/05** Time: **0930**

Comments: **209925**  
**FANNING, PHILLIPS AND MOLNAR**  
**BEN CANCERNI**  
**DPSW WOODHAVEN BLVD.**

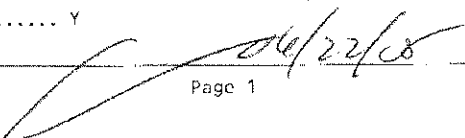
Requester: **209925** Date: **07/04/2005**

DISTRIBUTION: **PINK - Field Copy**

Job Number.: 209925    Location.: 57207    Check List Number.: 1    Description.:  
 Customer Job ID.....:                      Job Check List Date.: 06/22/2005                      Date of the Report...: 06/22/2005  
 Project Number.: 20001543    Project Description.: DPSW Woodhaven Blvd.                      Project Manager.....: jid  
 Customer.....: FANNING, PHILLIPS AND MOLNAR                      Contact.: Ben Cancemi

Questions ?	(Y/N)	Comments
-------------	-------	----------

Chain-of-Custody Present?.....	Y	
...If "yes", completed properly?.....	Y	
Custody seal on shipping container?.....	Y	
...If "yes", custody seal intact?.....	Y	
Custody seals on sample containers?.....	N	
...If "yes", custody seal intact?.....		
Samples iced?.....	Y	
Temperature of cooler acceptable? (4 deg C +/- 2). Y	Y	1.6C
Samples received intact (good condition)?.....	Y	
Volatile samples acceptable? (no headspace).....	Y	
Correct containers used?.....	Y	
Adequate sample volume provided?.....	Y	
Samples preserved correctly?.....		
Samples received within holding-time?.....	Y	
Agreement between COC and sample labels?.....	Y	
Radioactivity at or below background levels?.....	Y	
A Sample Discrepancy Report (SDR) was needed?.....	N	
Comments.....		
If samples were shipped was there an air bill #?.. Y	Y	FE 7911 1133 5588
Sample Custodian Signature/Date.....	Y	



STL - Connecticut  
Internal Chain-of-Custody

209925

07/04/2005

FANNING, PHILLIPS AND MOLNAR  
BENT CANCER  
DPSW WOODHAVEN BLVD.

Trip Blank: 09

STL-Connecticut

QC: —

Air: —

FB: —

Soil: —

Date Received: 09/22/05

Sample #s: 01-24

Locations: 35U

Water: 01-24

Laboratory Sample #	Relinquished by	Accepted by	Date	Time	Reason	Relinquished by	Accepted by	Date	Time
1-24	CC	M. Giam	9/23/05	11:00	VOA	WACO			
79, 10-24	CC	BA	6/28/05	11:00	VOA				
17/19	CC	BU	9/29	11:00	VOA	WACO			

**DATA USABILITY SUMMARY REPORT**  
**GROUNDWATER SAMPLING**  
**JUNE 2005**

The groundwater samples were analyzed in one sample delivery group (job number 209925), which included 23 primary environmental samples, a trip blank, one set of matrix spike/matrix spike duplicate/matrix spike blank (MS/MSD/MSB) samples, five laboratory control samples (LCS), and five method blank (MB) samples. The groundwater samples were extracted and analyzed for Target Compound List (TCL) volatile organic compounds (VOCs) by purge and trap GC/MS using guidance provided in Method 5030B/8260B.

The samples were all received by the lab in good condition and at proper temperature. One sample was found to have been mislabeled in the field but was properly identified based on sample collection times. The extractions and analyses were all reported to have been performed within the required holding times. The laboratory QC data, including blanks, instrument tunings, calibration standards, calibration verifications, surrogate recoveries, spike recoveries, replicate analyses, and laboratory controls were reported to have been within the protocol-required limits and specifications with the following exceptions:

- Methylene chloride, acetone and/or 2-butanone (MEK) were found in all of the MB samples and may result from laboratory contamination. All detections for these compounds in the associated primary environmental samples were, therefore, labeled as "B"-qualified.
- Methylene chloride was found to exceed laboratory guidelines in three LCS (#50581, #50911 and #50921). Therefore, the methylene chloride results for the associated samples may be biased high. This should not present a concern as methylene chloride is not a contaminant of concern at this Site.
- Styrene was found to be below laboratory guidelines in LCS #50921. Therefore, the styrene results in the associated primary samples may be biased low. Styrene does not appear to be a

contaminant of concern at this site and, therefore, the low recovery does not appear to present a significant concern.

- The relative percent difference (RPD) for tetrachloroethylene was above QC criteria in the MSD, indicating that the results for this compound may vary out of the acceptable range. However, the percent recovery (%R) for the MS sample was within acceptable limits, indicating that results should not be biased high or low.

The raw data were spot-checked against the results provided on the data summary sheets and on the quality control verification forms and no discrepancies were noted. The data flagging was also checked and it was found that the correct data qualifiers have been applied.

Based on this evaluation of the laboratory QA/QC data, the associated analytical data for the environmental samples may be generally relied upon to assess the groundwater conditions at the site for remedial design purposes.

**APPENDIX B**  
**HEALTH AND SAFETY PLAN**



**HEALTH AND SAFETY PLAN**  
**FOR**  
**90-30 METROPOLITAN AVENUE SITE**  
**REGO PARK, NEW YORK**

**NOVEMBER 2005**

***FPM***

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**SITE WORKER  
HEALTH AND SAFETY STATEMENT**

I have read this Health and Safety Plan (HASP) for the remediation project at the 90-30 Metropolitan Avenue (Site), Queens, New York and I have reviewed and understand the potential hazards and the precautions/contingencies to be taken for each potential hazard.

I agree to abide by the stipulations of this HASP.

Name: \_\_\_\_\_ Representing: \_\_\_\_\_  
\_\_\_\_\_  
Signature Date: \_\_\_\_\_

Name: \_\_\_\_\_ Representing: \_\_\_\_\_  
\_\_\_\_\_  
Signature Date: \_\_\_\_\_

Name: \_\_\_\_\_ Representing: \_\_\_\_\_  
\_\_\_\_\_  
Signature Date: \_\_\_\_\_

Name: \_\_\_\_\_ Representing: \_\_\_\_\_  
\_\_\_\_\_  
Signature Date: \_\_\_\_\_

## **SECTION 1.0 INTRODUCTION**

This Health and Safety Plan (HASP) has been written for compliance with "OSHA Hazardous Waste Operations Standards (29 CFR 1910.120)", the guidance documents, "Standard Operating Safety Guidelines (Office of Solid Waste and Emergency Response, 1988)" and the "Occupational Safety and Health Guidance Manual for Hazardous Waste Activities" (U.S. Department of Health and Human Services, 1985).

### **1.1 Scope and Applicability of the HASP**

This HASP is designed to be applicable to locations where activities associated with the installation of a soil vapor extraction (SVE) and air sparging (AS) remediation system and sampling of soil vapor and indoor air are performed at the Site. This HASP may also be modified or amended to meet specific needs of the work proposed. This HASP will detail the Site safety procedures, Site background, and safety monitoring. Contractors will be required to adopt this HASP in full.

The Health and Safety Officer (HSO) will be present at the Site to inspect the implementation of the HASP, however, it is the sole responsibility of the contractor(s) to comply with the HASP.

The HASP has been formulated as a guide to complement professional judgment and experience. The appropriateness of the information presented should always be evaluated with respect to unforeseen Site conditions which may arise.

### **1.2 Site Work Zone and Visitors**

The Site work zone (a.k.a. exclusion zone) during remediation system installation and soil vapor and indoor air sampling activities will be a 30-foot radius about the work location. This work zone may be extended if, in the judgment of the health and safety officer (HSO), Site conditions warrant a larger work zone.

No visitors will be permitted within the work zone without the consent of the HSO. All visitors will be required to be familiar with, and comply with, the HASP. The HSO will deny access to those whose

presence within the work zone is unnecessary or those who are deemed by the HSO to be in non-compliance with the HASP.

All Site workers including the contractors will be required to have 40-hour hazardous material training (eight-hour refresher courses annually), respirator fit test certification, and medical surveillance as stated in 29 CFR 1910.120.

The HSO will also give an on-Site health and safety discussion to all Site personnel, including the contractors, prior to initiating the Site work. Workers not in attendance during the health and safety talk will be required to have the discussion with the HSO prior to entering the work zone.

Emergency telephone numbers and directions to the nearest hospital are found in Table 1.2.1.

**TABLE 1.2.1  
EMERGENCY TELEPHONE NUMBERS**

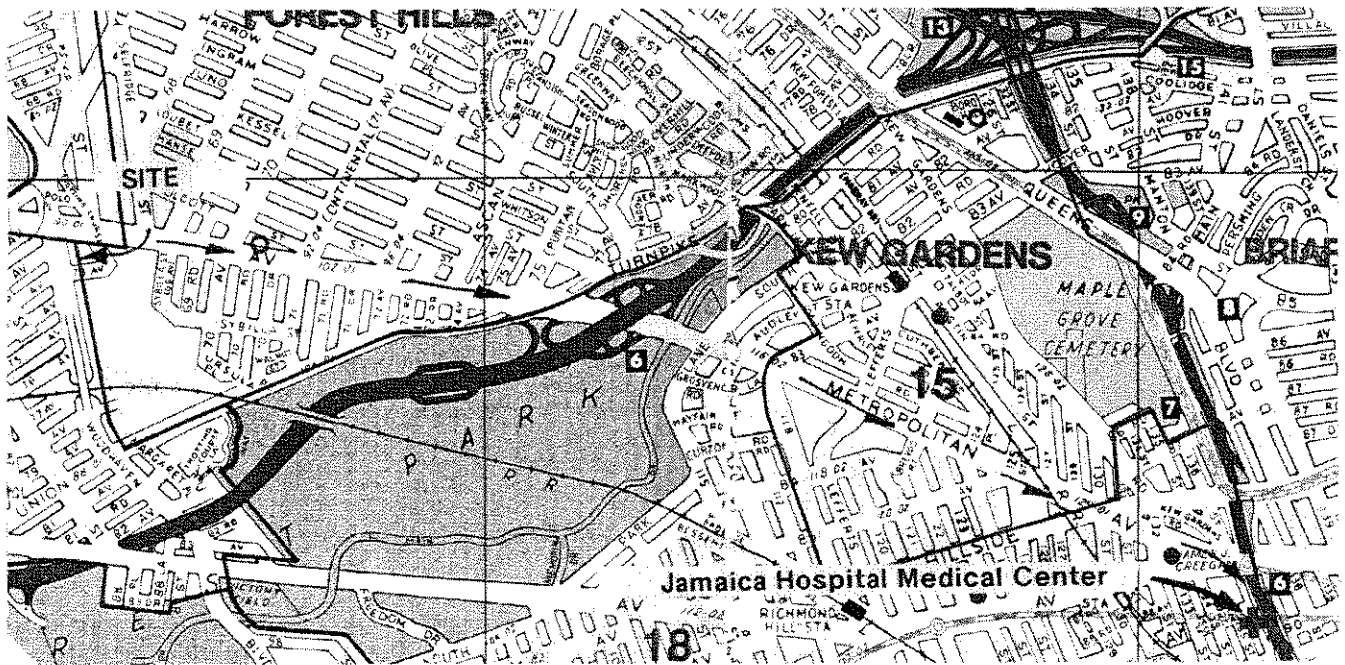
Police	911
Ambulance	911
Poison Control Center	516-542-2323
N.Y.S. Department of Environmental Conservation (Region 2)	718-482-6452
Jamaica Hospital Medical Center	718-206-6000

FPM Contact Personnel (631-737-6200)

Dr. Kevin J. Phillips, P.E.  
Stephanie Davis, Project Manager  
Ben Cancemi or John Bukoski, Health & Safety Officer

Directions to Jamaica Hospital Medical Center (718-206-6000)

Head east on Metropolitan Avenue towards the Van Wyck Expressway. Make a right turn on to the Van Wyck Service Road and the hospital entrance is located on right at the corner of the Van Wyck Expressway Service Road and 89<sup>th</sup> Avenue.



## SECTION 2.0 KEY PERSONNEL AND RESPONSIBILITIES

The project manager for this project will be Stephanie Davis. The project field staff may include Stephanie Davis, Ben Cancemi, and John Bukoski and/or Jessica Bluth. Contractor personnel may also be on Site. The senior FPM staff member on Site will act as HSO and will report to the project manager. Contractor personnel will be provided with health and safety information by the HSO.



## SECTION 3.0 SITE BACKGROUND

### 3.1 Site History and Known Chemical Constituents at the Site

The Site is comprised of a vacant inactive two-story industrial building located at 90-30 Metropolitan Avenue in Queens, New York. The Site is approximately 0.9 acres in size. Groundwater, soil, and soil vapor at the Site may be impacted with chemicals related to the previous industrial use at the Site and to off-Site sources. The primary chemicals known to be present at the Site are presented in Table 3.1.1.

**TABLE 3.1.1  
PRIMARY CHEMICALS WITH THRESHOLD LIMIT VALUES  
90-30 METROPOLITAN AVENUE, REGO PARK, NEW YORK**

<b>Contaminant</b>	<b>Short Term Exposure Limit (STEL) 15 Minutes</b>	<b>Time-Weighted Average Eight-Hour Exposure Limit</b>
Perchloroethylene (PCE)	200 ppm 1,357 mg/m <sup>3</sup>	50 ppm 339 mg/m <sup>3</sup>
Trichloroethylene (TCE)	200 ppm 1,070 mg/m <sup>3</sup>	50 ppm 269 mg/m <sup>3</sup>
Trichloroethane (TCA)	450 ppm 2,460 mg/m <sup>3</sup>	350 ppm 1,910 mg/m <sup>3</sup>
cis-1,2-dichloroethene	-	200 ppm 793 mg/m <sup>3</sup>
Methyl Tertiary Butyl Ether (MTBE)	-	50 ppm 180 mg/m <sup>3</sup>

## SECTION 4.0 TASK/OPERATION HEALTH AND SAFETY ANALYSIS

This section will present health and safety analyses for the SVE/AS remediation system and soil vapor and indoor air sampling.

### 4.1 Safety Analysis

Remediation construction activities will generally be performed by contractors. FPM personnel are not anticipated to install remediation equipment. Remediation will involve the use of heavy equipment. Safety concerns will include risk of injury due to being struck by equipment, being trapped between moving equipment parts, being struck by dropped materials, and hearing damage due to equipment noise. Site personnel will take precautions against these risks when working in the vicinity of heavy equipment by being aware of equipment locations and movement, by wearing steel-toed boots and hard hats, and by using hearing protection, if necessary. Site personnel who have not previously worked in the vicinity of heavy equipment will be paired with an experienced person for at least one day to familiarize themselves with heavy equipment operations and safety procedures.

Remediation construction will likely result in open excavations at the Site. To minimize risks associated with open excavations, an effort will be made to minimize the number of open excavations. Any excavations not undergoing active remediation construction will either be closed or will be barricaded with construction fencing or other devices so as to minimize their hazards. At the close of each working day, any excavations which are not closed will also be secured. Excavations will not be left open during weekends or following the completion of remediation construction.

A calibrated photoionization detector (PID) will be used to monitor VOCs in the worker's breathing zone during drilling and installation of piping. Steady-state PID readings greater than 10 ppm in the worker's breathing zone will require upgrading to Level C personal protective equipment. Steady-state readings, for this purpose, will be defined as readings between 10 and 20 parts per million (ppm) above background for a minimum of ten seconds. Readings will be obtained at points approximately one foot above and then around the borehole. These points will define the worker's breathing zone. Level C

personal protection will be implemented including full-face air-purifying respirators with dust and organic vapor cartridges (personal protective equipment will be described in greater detail in Section 7.0). All FPM personnel and contractors must be properly trained and fit tested prior to donning respirators.

Upon encountering PID levels greater than 20 ppm above background in the worker's breathing zone, work will stop until the source of vapors is abated and readings are less than 20 ppm above background. If, at any time, PID readings exceed steady-state levels greater than 50 ppm above background, or any conditions exist which the HSO determines will require Level B personal protective equipment, all work at the Site will cease immediately and all personnel will evacuate the work zone. Evacuation will occur in the upwind direction if discernable. Level B conditions are not anticipated to be encountered; however, if level B conditions arise, no Site work will be performed by FPM or contractors and a complete evaluation of the operation will be performed and this HASP will be modified.

All personnel who may directly contact soil or groundwater will be required to wear chemical-resistant gloves (such as butyl or nitrile) when the potential for dermal contact with the soil or groundwater is possible. Dermal contact with excavated soils or Site groundwater will be avoided.

Hard hats and steel-toe, steel-shank safety boots will be required when work is performed in the vicinity of heavy equipment (drill rigs, backhoes, etc.).

## **4.2 Other Safety Considerations**

### **4.2.1 Noise**

During AS/SVE remediation system installation activities, operation of generators, or any other operation which may generate potentially harmful levels of noise, the HSO will monitor noise levels with a Realistic™ hand-held sound level meter. Noise levels will be monitored in decibels (dBs) in the A-weighted, slow-response mode. Noise level readings that exceed the 29 CFR 1910.95 permissible noise exposure limits will require hearing protection (see Table 4.2.1.1 for permissible noise exposures).

Hearing protection will be available to all Site workers. The hearing protection will consist of foam, expansion-fit earplugs (or other approvable hearing protection) with an Environmental Protection Agency noise reduction rating of at least 29 dB. Hearing protection must alleviate worker exposure to noise to an

**TABLE 4.2.1.1  
PERMISSIBLE NOISE EXPOSURES\***

<u>Duration Per Day Hours</u>	<u>Sound Level dBA Slow Response</u>
8	90
6	92
4	95
3	97
2	100
1.5	102
1	105
0.5	110
0.25	115

Notes:

When the daily noise exposure is composed of two or more periods of noise exposure of different levels, their combined effect should be considered, rather than the individual effect of each. If the sum of the following fractions:  $C_1/T_1 + C_2/T_2 + C_6/T_6$  exceeds unity, then, the mixed exposure should be considered to exceed the limit value.  $C_n$  indicates the total time of exposure at a specified noise level, and  $T_n$  indicates the total time of exposure permitted at that level.

Exposure to impulsive or impact noise should not exceed 140 dB peak sound pressure level.

\*Standards derived from 29 CFR 1910.95

eight-hour time-weighted average of 85 dB or below. In the event that the hearing protection is inadequate, work will cease until a higher level of hearing protection can be incorporated.

#### 4.2.2 Slip/Trip/Fall Preventative Measures

To reduce the potential for slipping, tripping, or falling, the work zone will be kept clear of unnecessary equipment. All Site workers will be required to wear work boots with adequate tread to reduce the potential for slipping (work boots must be leather or chemical-resistant and contain steel toes and steel shanks).

#### 4.2.3 Insects and Ticks

Insect and tick problems are expected to be minimal. Potential insect problems include, but are not limited to, bees, wasps, and hornets. Prior to commencement of work, each work area will be surveyed for nests and hives to reduce the possibility of disturbing these insects. In addition, each Site worker will be asked to disclose any allergies related to insect stings or bites. The worker will be requested to keep his or her anti-allergy medicine on Site.

Tick species native to Long Island consist of the pinhead-sized deer tick and the much-larger dog tick. All Site workers will be advised to avoid walking through tall grassy areas where possible and will be advised to check for ticks on clothing periodically.

#### 4.2.4 Heat/Cold Stress

Heat stress may become a concern, especially if protective clothing is donned which will decrease natural ventilation. To assist in reducing heat stress the following measures will be taken:

- An adequate supply of water or other liquids will be brought on Site. To prevent dehydration, personnel will be encouraged to drink generous amounts of water even if not thirsty.
- A shady rest area will be designated (such as beneath the trees in the northeast corner of the property) to provide shelter during sunny days.
- In hot weather, workers wearing protective clothing may be rotated.

When the temperature is over 70 degrees Fahrenheit and personnel are wearing protective clothing, heat stress monitoring may be implemented as follows:

- Heart rate may be measured by counting the radial pulse for 30 seconds at the beginning of the rest period. The heart rate should not exceed 110 beats per minute. If the rate is higher, the next work period will be shortened by ten minutes (or 33%). If the pulse rate is 100 beats per minute at the beginning of the next rest period, the following work cycle will be shortened by 33%. The HSO will decide on the length of work periods and rest periods based on Site conditions.
- Body temperature may be measured, if deemed necessary, at the beginning of the rest period. Oral temperature should not exceed 99 degrees Fahrenheit. If it does, the next work period will be shortened by ten minutes (or 33%). However, if the oral temperature exceeds 99.7 degrees Fahrenheit at the beginning of the next period, the following work cycle will be further shortened by 33%. Work will not re-commence until by temperature has dropped below 99 degrees Fahrenheit.

Indications of heat stress range from mild (fatigue, irritability, anxiety, decreased concentration, dexterity or movement) to fatal. Medical help will be obtained for serious conditions. Heat-related problems are:

- Heat rash: caused by continuous exposure to heat and humid air and aggravated by chafing clothes. Decreases ability to tolerate heat as well as being a nuisance.
- Heat cramps: caused by profuse perspiration with inadequate fluid intake and chemical replacement (especially salts). Signs: muscle spasm and pain in the extremities and abdomen.
- Heat exhaustion: caused by increased stress on various organs to meet increased demands to cool the body. Signs: shallow breathing; pale, cool, moist skin; profuse sweating; dizziness and lassitude.
- Heat stroke: the most severe form of heat stress. Can be fatal. Medical help must be obtained immediately. Body must be cooled immediately to prevent severe injury and/or death. Signs: red, hot, dry skin; no perspiration; nausea; dizziness and confusion; strong, rapid pulse; coma.

Cold exposure is a concern if work is conducted during cold weather or marginally cold weather during precipitation periods or moderate to high wind velocity periods. To assist in reducing cold exposure the following measures will be taken:

- All personnel will be required to wear adequate and appropriate clothing. This will include head gear to prevent the high percentage loss of heat that occurs in this area (thermal liners for hard hats if hard hats are required).
- Provide a readily available warm shelter near each work zone.
- Carefully schedule work and rest periods to account for the current temperature and wind velocity conditions.
- Monitor work patterns and physical condition of workers and rotate personnel, as necessary.

Indications of cold exposure range from shivering, dizziness, numbness, confusion, weakness, impaired judgement, impaired vision to drowsiness. Medical help will be obtained for serious conditions if they occur. Cold exposure-related problems are:

- Frost bite: Ice crystal formation in body tissues. The restricted blood flow to the injured part results in local tissue destruction.
- Hypothermia: Severe exposure to cold temperature resulting in the body losing heat at a rate faster than the body can generate heat. The stages of hypothermia are shivering, apathy, loss of consciousness, decreasing pulse rate and breathing rate and death.

#### 4.2.5 Potential Electrical Hazards

Potential electric hazards consist primarily of underground and overhead power lines. Potential underground electrical hazards will be minimized by having a utility markout performed for the Site. In addition, available as-built Site blueprints will be used to avoid contact with subsurface utility lines or structures. Overhead electrical hazards will be evaluated by visually observing the work location prior to raising the drill rig mast or performing other operations which have the potential to contact overhead utilities. No work shall be performed in close proximity to overhead utilities.



There is also the potential for electrical hazard associated with the installation of the AS/SVE system. To avoid these potential electrical hazards, all AS/SVE system electrical work will be performed by a licensed electrician. The electrician shall utilize standard industry procedures and practices for avoiding electrical hazards.

#### 4.2.6 The Buddy System

All activities in contaminated or potentially contaminated areas will be conducted by pairing off the Site workers in groups of two (or three if necessary). Each person (buddy) will be able to:

- Provide his or her partner with assistance.
- Observe his or her partner for signs of chemical or heat exposure.
- Periodically check the integrity of his or her partner's protective clothing.
- Notify the HSO or others if emergency help is needed.

The buddy system will be instituted at the beginning of each workday. If new workers arrive on Site, a buddy will be chosen prior to the new worker entering the work zone.

#### 4.2.7 Site Communications

Two sets of communication systems will be established at the Site: internal communication among personnel on-Site, and external communication between on-Site and off-Site personnel.

Internal communication will be used to:

- Alert team members to emergencies.
- Pass along safety information such as heat stress check, protective clothing check, etc.
- Communicate changes in the work to be accomplished.
- Maintain Site control.

Due to ambient noise, verbal communications may be difficult at times. The HSO will carry a whistle (and compressed air horn if respirators are donned) to signal Site workers. A single whistle blast will be the signal to immediately evacuate the work zone through the access control point. This signal will be discussed with all Site workers prior to commencement of work.

An external communication system between on-Site and off-Site personnel will be established to:

- Coordinate emergency response
- Report to the Project Manager
- Maintain contact with essential off-Site personnel

A field telephone will be available at all times in the HSO's vehicle. In addition, the nearest stationary phone will be identified prior to the commencement of Site operations and this location will be relayed to all Site workers.

#### 4.2.8 General Safe Work Practices

Standing orders applicable during Site operations are as follows:

- No smoking, eating, drinking, or application of cosmetics in the work zone.
- No matches or lighters in the work zone.
- All Site workers will enter/exit work zone through the Site access point.
- Any signs of unusual conditions will require reporting the information to the HSO, who will take appropriate action.
- Loose fitting clothing or loose long hair will be prohibited in the work zone during drilling operations.
- A signal person will direct the backing of work vehicles.
- Equipment operators will be instructed to check equipment for abnormalities such as oozing liquids, frayed cables, unusual odors, etc.

## **SECTION 5.0 PERSONNEL TRAINING REQUIREMENTS**

All FPM personnel and contractor personnel will receive adequate training prior to entering the Site. FPM and contractor's personnel will, at a minimum, have completed OSHA-approved, 40-hour hazardous materials Site safety training and OSHA-approved, eight-hour safety refresher course within one year prior to commencing field work. The HSO will have received the OSHA-approved, eight-hour course on managing hazardous waste operations. In addition, each worker must have a minimum of three days field experience under the direct supervision of a trained, experienced supervisor.

Prior to Site fieldwork, the HSO will conduct an in-house review of the project with respect to health and safety with all FPM personnel who will be involved with fieldwork at the Site. The review will include discussions of signs and symptoms of chemical exposure and heat stress that indicate potential medical emergencies presented in Table 5.1. In addition, review of personal protective equipment will be conducted to include the proper use of air-purifying respirators.

**TABLE 5.1  
SIGNS AND SYMPTOMS OF EXPOSURE TO CHEMICALS**

Type of Hazard	Signs and Symptoms
Chemical Hazard	Behavioral changes Breathing difficulties Changes in complexion of skin color Confusion Coordination difficulties Coughing Depression Dermatitis Dilated Pupils Dizziness Euphoria Fatigue and/or weakness Flushed face and/or neck Insomnia Irregular heartbeat Irritability Irritation of eyes, nose, respiratory tract, skin or throat Headache Lacrimation Light-Headedness Muscle Fatigue Nausea Nervousness Numbness in limbs Paresthesia Sleepiness Tingling Tremors Vertigo Visual disturbance Vomiting

**TABLE 5.1 - CONTINUED**  
**SIGNS AND SYMPTOMS OF EXPOSURE TO CHEMICALS**

Type of Hazard	Signs and Symptoms
Heat Exhaustion	Clammy skin Confusion Dizziness Fainting Fatigue Heat rash Light-headedness Nausea Profuse sweating Slurred speech Weak pulse
Heat Stroke (may be fatal)	Confusion Convulsions Hot skin, high temperature (yet may feel chilled) Incoherent speech Staggering gait Sweating stops (yet residual sweat may be present) Unconsciousness

## SECTION 6.0 MEDICAL SURVEILLANCE PROGRAM

All workers at the Site must participate in a medical surveillance program in accordance with 29 CFR 1910.120. A medical examination and consultation must have been performed within the last twelve months to be eligible for fieldwork.

The content of the examination and consultation will include a medical and work history with special emphasis on symptoms related to the handling of hazardous substances, health hazards, and fitness for duty including the ability to wear required personal protective equipment under conditions (i.e., temperature extremes) that may be expected at the work Site. All medical examinations and procedures shall be performed by, or under the supervision of, a licensed physician.

The physician shall furnish a written opinion containing:

- The results of the medical examination and tests.
- The physician's opinion as to whether the employee has any detected medical conditions that would place the worker at increased risk of material impairment of the employee's health from work in hazardous waste operations.
- The physician's recommended limitations upon the worker assigned to the work.
- A statement that the worker has been informed by the physician of the results of the medical examination and any further examination or treatment.

An accurate record of the medical surveillance will be retained. The record will consist of at least the following information:

- The name and social security number of the employee.
- Physician's written opinions, recommended limitations, and results of examinations and tests.
- Any worker medical complaints related to exposure to hazardous substances.

## SECTION 7.0 PERSONAL PROTECTIVE EQUIPMENT

### 7.1 General Considerations

The two basic objectives of the personal protective equipment (PPE) are to protect the wearer from safety and health hazards, and to prevent the wearer from incorrect use and/or malfunction of the PPE.

Potential Site hazards were discussed previously in Section 4.0. The duration of Site activities is estimated to be several months. All work is expected to be performed during daylight hours and workdays, in general, are expected to be eight to ten hours in duration. Any work performed beyond daylight hours will require the permission of the HSO. This decision will be based on the adequacy of artificial illumination and the type and necessity of the task being performed.

Personal protection levels for the Site activities, based on past investigations, are anticipated to be Level D with the possibility of upgrading to Level C. The equipment included for each level of protection is provided as follows:

#### Level C Protection

Personnel protective equipment:

- Air-purifying respirator, full-face
- Chemical-resistant clothing includes: Tyvek<sup>™</sup> (spunbonded olefin fibers) for particulate and limited splash protection or Saranex<sup>™</sup> (plastic film-laminated Tyvek) for permeation resistance to solvents.
- Coveralls\*, or
- Long cotton underwear\*
- Gloves (outer), chemical-resistant
- Gloves (inner), chemical-resistant
- Boots (outer), leather or chemical-resistant, steel toe and shank.
- Boot covers (outer), chemical-resistant (disposable)\*
- Hard hat (face shield)\*

- Escape mask\*
- 2-way radio communications (intrinsically safe)\*

(\* optional)

#### Criteria for Selection of Level C Protection

Meeting all of these criteria permits use of Level C Protection:

- Oxygen concentrations are not less than 19.5% by volume.
- Measured air concentrations of identified substances will be reduced by the respirator below the substance's threshold limit value (TLV).
- Atmospheric contaminants, liquid splashes, or other direct contact will not adversely affect any body area left unprotected by chemical-resistant clothing.
- Job functions do not require self-contained breathing apparatus.
- Direct readings are below 50 ppm on the PID.

#### Level D Protection

Personnel protective equipment:

- Coveralls
- Gloves\*
- Boots/shoes, leather or chemical-resistant, steel toe and shank.
- Safety glasses or chemical splash goggles\*
- Hard hat (face shield\*)
- Escape mask\*

(\* optional)

#### Criteria for Selection of Level D Protection

Meeting any of these criteria allows use of Level D Protection:

- No contaminant levels above 5 ppm organic vapors or dusty conditions are present.
- Work functions preclude splashes, immersion, or the reasonable potential for unexpected inhalation of any chemicals above the TLV.



## Additional Considerations for Selecting Levels of Protection

Other factors which will be considered in selecting the appropriate level of protection are heat and physical stress. The use of protective clothing and respirators increases physical stress, in particular, heat stress on the wearer. Chemical protective clothing greatly reduces natural ventilation and diminishes the body's ability to regulate its temperature. Even in moderate ambient temperatures, the diminished capacity of the body to dissipate heat can result in one or more heat-related problems.

All chemical protective garments can be a contributing factor to heat stress. Greater susceptibility to heat stress occurs when protective clothing requires the use of a tightly fitted hood against the respirator face piece, or when gloves or boots are taped to the suit. As more body area is covered, less cooling takes place, increasing the probability of heat stress.

Wearing protective equipment also increases the risk of accidents. It is heavy, cumbersome, decreases dexterity, agility, interferes with vision, and is fatiguing to wear. These factors all increase physical stress and the potential for accidents. In particular, the necessity of selecting a level of protection will be balanced against the increased probability of heat stress and accidents.

## **7.2 Donning and Doffing Ensembles**

### Donning an Ensemble

A routine will be established and practiced periodically for donning a Level C ensemble. Assistance may be provided for donning and doffing since these operations are difficult to perform alone.

Table 7.2.1 lists sample procedures for donning a Level C ensemble. These procedures should be modified depending on the particular type of suit and/or when extra gloves and/or boots are used.

### Doffing an Ensemble

Exact procedures for removing Level C ensembles must be established and followed to prevent contaminant migration from the work area and transfer of contaminants to the wearer's body, the doffing assistant, and others.

**TABLE 7.2.1  
SAMPLE DONNING PROCEDURES**

---

1. Inspect the clothing and respiratory equipment before donning (see Inspection in subsection 7.4).
2. Adjust hard hat or headpiece if worn, to fit user's head.
3. Standing or sitting, step into the legs of the suit; ensure proper placement of the feet within the suit; then gather the suit around the waist.
4. Put on chemical-resistant safety boots over the feet of the suit. Tape the leg cuff over the tops of the boots.
5. Don the respirator and adjust it to be secure, but comfortable.
6. Perform negative and positive respirator facepiece seal test procedures.
  - To conduct a negative-pressure test, close the inlet part with the palm of the hand or squeeze the breathing tube so it does not pass air, and gently inhale for about 10 seconds. Any inward rushing of air indicates a poor fit. Note that a leaking facepiece may be drawn tightly to the face to form a good seal, giving a false indication of adequate fit.
  - To conduct a positive-pressure test, gently exhale while covering the exhalation valve to ensure that a positive pressure can be built up. Failure to build a positive pressure indicates a poor fit.
7. Depending on type of suit:
  - Put on inner gloves (surgical gloves).
  - Additional overgloves, worn over attached suit gloves, may be donned later.
8. Put on hard hat
9. Have assistant observe the wearer for a period of time to ensure that the wearer is comfortable, psychologically stable, and that the equipment is functioning properly.

Doffing procedures are provided in Table 7.2.2. These procedures should be performed only after decontamination of the suited worker. They require a suitably attired assistant. Throughout the procedures, both worker and assistant should avoid any direct contact with the outside surface of the suit.

### **7.3 Respirator Fit Testing**

The fit or integrity of the facepiece-to-face seal of a respirator affects its performance. Most facepieces fit only a certain percentage of the population; thus each facepiece must be tested on the potential wearer in order to ensure a tight seal. Facial features such as scars, hollow temples, very prominent cheekbones, deep skin creases, dentures or missing teeth, and the chewing of gum and tobacco may interfere with the respirator-to-face seal. A respirator shall not be worn when such conditions prevent a good seal. The worker's diligence in observing these factors shall be evaluated by periodic checks. Fit testing will comply with 29 CFR 1910.1025 regulations.

### **7.4 Inspection**

The PPE inspection program will entail five different inspections:

- Inspection and operational testing of equipment received from the factory or distributor.
- Inspection of equipment as it is issued to workers.
- Inspection after use.
- Periodic inspection of stored equipment.
- Periodic inspection when a question arises concerning the appropriateness of the selected equipment, or when problems with similar equipment arise.

The inspection checklist is provided in Table 7.4.1. Records will be kept of all inspection procedures. Individual identification numbers will be assigned to all reusable pieces of equipment and records should be maintained by that number. At a minimum, each inspection should record the ID number, date, inspector, and any unusual conditions or findings. Periodic review of these records may indicate an item or type of item with excessive maintenance costs or a particularly high level of down-time.

**TABLE 7.2.2  
DOFFING PROCEDURES**

---

1. Remove any extraneous or disposable clothing, boot covers, outer gloves, and tape.
2. Remove respirator by loosening straps and pulling straps over the top of the head and move mask away from head. Do not pull mask over the top of the head.
3. Remove arms, one at a time, from suit, avoiding any contact between the outside surface of the suit and wearer's body and lay the suit out flat behind the wearer. Leave internal gloves on, if any.
4. Sitting, if possible, remove both legs from the suit.
5. After suit is removed, remove internal gloves by rolling them off the hand, inside out.

**TABLE 7.4.1  
PPE INSPECTION CHECKLIST**

---

CLOTHING

Before use:

- Determine that the clothing material is correct for the specified task at hand.
- Visually inspect for:
  - imperfect seams
  - non-uniform coatings
  - tears
  - malfunctioning closures
- Hold up to light and check for pinholes.
- Flex product:
  - Observe for cracks
  - Observe for other signs of shelf deterioration
- If the product has been used previously, inspect inside and out for signs of chemical attack:
  - discoloration
  - swelling
  - stiffness

During the work task, periodically inspect for:

- Evidence of chemical attack such as discoloration, swelling, stiffening, and softening. Keep in mind, however, that chemical permeation can occur without any visible effects.
- Closure failure
- Tears
- Punctures
- Seam discontinuities

**TABLE 7.4.1 - CONTINUED  
PPE INSPECTION CHECKLIST**

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GLOVES

Before use:

- Pressurize glove to check for pinholes. Either blow into glove, then roll gauntlet toward fingers or inflate glove and hold under water. In either case, no air should escape.

AIR-PURIFYING RESPIRATORS

- Inspect air-purifying respirators:
  - before each use to be sure they have been adequately cleaned
- Check material conditions for:
  - signs of pliability
  - signs of deterioration
  - signs of distortion
- Examine cartridges to ensure that:
  - they are the proper type for the intended use
  - the expiration date has not been passed
  - they have not been opened or used previously
- Check faceshields and lenses for:
  - cracks
  - crazing
  - fogginess
- Air purifying respirators will be stored individually in resealable plastic bags.

## 7.5 Storage

Clothing and respirators will be stored properly to prevent damage or malfunction due to exposure to dust, moisture, sunlight, damaging chemicals, extreme temperatures, and impact. Storage procedures are as follows:

### Clothing:

- Potentially contaminated clothing will be stored in an area separate from street clothing.
- Potentially contaminated clothing will be stored in a well-ventilated area, with good air flow around each item, if possible.
- Different types and material of clothing and gloves will be stored separately to prevent issuing the wrong material by mistake.
- Protective clothing will be folded or hung in accordance with manufacturer's recommendations.

### Respirators:

- Air-purifying respirators should be dismantled, washed, and placed in sealed plastic bags.

## 7.6 Maintenance

Specialized maintenance will be performed only by the factory or an authorized repair person. Routine maintenance, such as cleaning, will be performed by the personnel to whom the equipment is assigned. Respirators will be cleaned at the end of each day with alcohol pads or, preferably, by washing with warm soapy water.

## 7.7 Decontamination Methods

All personnel, clothing, equipment, and samples leaving the contaminated (work zone) area of the Site must be decontaminated to remove any harmful chemicals or infectious organisms that may have adhered to them. Decontamination methods either (1) physically remove contaminants (2) inactivate contaminants by chemical detoxification or disinfection/sterilization, or (3) remove contaminants by a combination of both physical and chemical means. In many cases, gross contamination can be removed by physical means involving dislodging/displacement, rinsing, wiping off, and evaporation. Contaminants that can be removed by physical means include dust, vapors, and volatile liquids. All reusable equipment

will be decontaminated by rinsing in a bath of detergent and water (respirators, gloves to be reused). Monitoring equipment will be decontaminated by wiping with paper towels and water.

The effectiveness of the decontamination will be evaluated near the beginning of Site activities and will be modified if determined to be ineffective. Visual observation will be used for this purpose. The HSO will inspect decontaminated materials for discoloration, stains, corrosive effects, visible dirt, or other signs of possible residual contamination.

All disposable PPE will be discarded following use. All used PPE to be discarded will be placed in an appropriate receptacle for disposal.



**SECTION 8.0  
DECONTAMINATION PROCEDURES FOR  
SAMPLING AND DRILLING EQUIPMENT**

All non-dedicated sampling equipment shall be decontaminated prior to, and following, use at each sampling location. Decontamination procedures shall consist of the following:

1. Scrub equipment in a bath of low-phosphate detergent and potable water.
2. Potable water rinse.
3. Methanol followed by hexane rinse.
4. Distilled water rinse, air dry.
5. Aluminum foil wrap, shiny side out, for transport.

Personal protective equipment decontamination has been discussed in Subsection 7.7.

All drilling equipment and other equipment which has contacted Site soil or groundwater will be decontaminated prior to leaving the Site. Decontamination of this equipment will consist of physically removing adhering soil using hand tools followed by rinsing the equipment with potable water. Decontamination will be performed in the immediate vicinity of the work area so that the removed soil and rinseate will be discharged in the area from which it originated.

## SECTION 9.0 CALIBRATION PROCEDURES, FREQUENCIES, AND MAINTENANCE

This section will present the calibration procedures, frequencies, and maintenance for the health and safety field monitoring instruments. The use of the monitoring equipment is presented as follows (the manufacturer's owner's manuals for all equipment used will be present at the Site):

1. Photovac MicroTIP - this instrument is a photoionization detector (PID) that measures the concentration of airborne ionizable gases and vapors. The MicroTIP does not distinguish between individual compounds and will not read methane. The calibration will be performed using ambient air to "zero" the instrument and a 95 ppm cylinder of isobutylene to calibrate the span. The calibration will be performed as follows:
  - a. Connect the supplied regulator to the Span Gas cylinder. Hand-tighten the fittings.
  - b. Open the valve on the gas bag by turning the valve stem fully counter clockwise.
  - c. Attach the gas bag adapter nut to the regulator. Hand-tighten the fittings.
  - d. Turn the regulator knob counter clockwise about half turn to start the flow of gas.
  - e. Fill the gas bag about half full and then close the regulator fully clockwise to turn off the flow of gas.
  - f. Disconnect the bag from the adapter and empty it. Flush the bag a few times with the Span Gas and then fill it.
  - g. Close the gas bag by turning the valve clockwise.
  - h. Press SETUP and select the desired Cal Memory with arrow keys and press ENTER. Press EXIT to leave Setup.
  - i. Press CAL and expose MicroTIP to ambient air. Press ENTER and MicroTIP sets its zero point.
  - j. MicroTIP then asks for the Span Gas concentration. Enter the Known Span Gas concentration and then connect the Span Gas bag adapter to the inlet.

- k. Press ENTER and MicroTIP sets its sensitivity.
- l. When MicroTIP's display reverts to normal, MicroTIP is calibrated and ready for use.  
Remove the Span Gas bag from the inlet.

The instrument will be calibrated prior to the commencement of each day's work. The instrument will be charged overnight prior to each day's work.

## SECTION 10.0 EMERGENCY RESPONSE PLAN

This section will present the Emergency Response Plan (ERP) for the Site. Pre-emergency planning will consist of reviewing the ERP with all workers at the Site prior to initiation of work.

### Personnel Roles

It is anticipated that during AS/SVE remediation system installation activities and sampling activities at the Site, in general, several persons will be on the Site: the HSO and contractors. Should an emergency situation arise at the Site, the HSO will assume control and decision-making. The HSO will also resolve all disputes concerning health and safety requirements and precautions. The HSO will also:

- Be authorized to seek and purchase supplies as necessary.
- Have control over activities of everyone entering the Site.

The HSO will communicate, by field telephone or other, with off-Site personnel to include the Project Manager to evaluate data and assist in the decision-making process. Phone numbers for the fire department, police, ambulance, poison control center, NYS Department of Environmental Conservation Spill Response Department, are listed in Table 1.2.1 of this document. The hospital which will be utilized during an emergency will be Jamaica Hospital Medical Center. The directions to the hospital, along with the hospital's emergency room phone number are presented in Table 1.2.1. Copies of Table 1.2.1 will be available at the Site and will be placed in all vehicles of personnel involved in activities at the Site.

Internal communications will consist of a single whistle (or compressed air horn if Level C is donned) blast. This blast will signal all workers to evacuate the work zone by the nearest exit.

### Response Follow-Up

Following an emergency, or incident, a detailed report will be generated by the HSO. All equipment will be restored to pre-emergency conditions. The HASP will be reviewed following an emergency to determine if it provides adequate information to assist in dealing with the emergency. The HASP may be revised to incorporate additional information as needed.

### Emergency Recognition and Prevention

Before daily work assignments begin, each day a brief on-Site meeting will be held by the HSO which will address health and safety issues related to the day's work. Prior to initiation of work, a detailed on-Site health and safety meeting will be held to review all potential hazards, contingencies, and safety measures.

### Safe Distances and Places of Refuge

The main potential cause of work zone evacuation is a significant vapor release. Vapor release evacuation will be discussed prior to subsurface activities at the Site and in general will be in the upwind direction. Wind direction will be monitored at each work location and all workers will be notified of the direction of evacuation prior to commencement of work. Safe distances will be discussed at each location and determined by the HSO. The PID will be used to determine if workers have evacuated a sufficient distance.

At all times, vehicles which may be utilized in an emergency for transport to the hospital (or other destination) will have clear access to leave the Site. The HSO will assure that an emergency vehicle does not become blocked-in by other vehicles.

### Site Security and Control

The HSO will control entry of personnel into the work zone. No unnecessary persons shall be permitted in the work zone.

### Decontamination Procedures During Emergencies

In the event of a medical emergency, decontamination will be performed if it does not interfere with essential treatment. Decontamination will be performed by washing, rinsing, and/or cutting off protective clothing and equipment.

If decontamination cannot be performed, the victim will be wrapped in plastic to reduce contamination to other personnel. Emergency and off-Site medical personnel will be alerted to the potential contamination.

### Emergency Medical Treatment and First Aid

Medical emergencies will be treated, in general, by medical experts by transporting the victim to the nearby hospital. A first aid kit will be present on Site for minor medical treatment.

## SECTION 11.0 COMMUNITY HEALTH AND SAFETY

This section includes procedures to address potential community health and safety issues associated with pilot test activities at the Site.

### 11.1 Community Air Monitoring

A community air monitoring plan will be implemented at the Site by FPM during intrusive excavation and testing activities that have the potential to affect the surrounding community. These activities will include soil boring and sampling, well installation, and remediation system installation activities. Due to the nature of the activities, there is the potential for organic vapor and/or dust emissions to occur as these activities are conducted. In addition, there is the potential for organic vapors and/or dust to be associated with the exhaust from the drilling and remediation system equipment. To address these concerns, organic vapor and dust monitoring will be performed.

#### 11.1.1 Organic Vapor Monitoring

Under the community air monitoring plan, organic vapor concentrations will be monitored at the downwind perimeter of the work area while intrusive or testing activities are occurring. To monitor organic vapors, a PID will be used and maintained in good operating condition. Calibration of the PID will be performed according to manufacturer's instructions. Background levels of organic vapors will be measured at the Site prior to beginning work and upwind of the work area periodically using a PID. Organic vapors will be monitored at the downwind perimeter of the work area while intrusive activities are occurring and will be averaged on a 15-minute basis. PID readings will be recorded in the field logbook and will include the time, location, and PID readings observed. The action levels and required responses are as follows:

Organic Vapor Readings	
Action Level	Response Action
Less than 5 ppm above background.	Continue work.
More than 5 ppm but less than 25 ppm above background.	Implement Vapor Emission Response Plan.
More than 25 ppm above background.	Stop work. Perform downwind monitoring in accordance with Vapor Emission Response Plan.

### Vapor Emission Response Plan

The Vapor Emission Response Plan includes the following trigger levels and responses:

- In the event the level of organic vapors exceeds 5 ppm above the background at the downwind perimeter of the work area on a 15-minute average basis, activities will be halted and monitoring continued. Work may resume if the organic vapor level then decreases to below 5 ppm above background, or concentrations measured 200 feet downwind or at half of the distance to the nearest residential or commercial building, whichever is less, are below 5 ppm over background.
- If the level of organic vapors measured 200 feet downwind or at half of the distance to the nearest residential or commercial structure, whichever is less, is greater than 5 ppm above background then all work will be halted, the vapor source will be identified, and corrective actions taken. If the level at the downwind location persists above 5 ppm over background after work stops and corrective actions are taken, then monitoring will be performed within 20 feet of the nearest downward residential or commercial structure (20-foot zone).
- If efforts to abate the emission source are unsuccessful and the vapor levels are greater than 25 ppm above background in the 20-foot zone, then work will be halted.

#### 11.1.2 Particulate Monitoring

Particulate (dust) monitoring will be performed with a Miniram personal monitor (or equivalent) calibrated according to the manufacturer's instructions. Monitoring will be performed within, upwind and



downwind of the work area during activities involving soil movement. The HSO will record the readings in the field logbook.

If the downwind particulate level integrated over 15 minutes exceeds the upwind level by more than 100 micrograms per cubic meter ( $\text{ug}/\text{m}^3$ ) or if airborne dust is observed leaving the work area, then dust suppression techniques will be employed. Dust suppression techniques are anticipated to include reducing moving equipment rates and/or application of water to dry surfaces. Work may continue with dust suppression techniques providing that the downwind particulate level does not exceed the upwind particulate level by more than  $150 \text{ ug}/\text{m}^3$ .

If, after implementation of dust suppression techniques, downwind particulate levels are greater than  $150 \text{ ug}/\text{m}^3$  above upwind levels, then work will stop and activities will be reevaluated. Work may resume providing that dust suppression techniques and other controls are successful in reducing the downwind particulate level to within  $150 \text{ ug}/\text{m}^3$  of the upwind level and in preventing visible dust migration.

#### 11.1.3 Noise Monitoring

Due to the use of drilling or testing equipment at the Site during remediation system installation activities, there is the potential for noise to impact the surrounding community. However, since work will be performed only during normal working hours when ambient noise levels are elevated due to ongoing traffic on the adjoining Metropolitan Avenue and commercial activities in the community, the potential for noise impacts on the surrounding community is low.

The HSO will monitor ambient noise levels at the property boundary prior to starting work each day. During activities that produce noise, the HSO will periodically monitor noise levels at the closest property boundary with a Realistic<sup>tm</sup> hand-held sound level meter. Noise levels will be monitored in dBs in the A-weighted, slow-response mode. If noise level readings during work activities significantly exceed ambient noise levels at the closest property boundary, the HSO will take appropriate measures to reduce noise exposure beyond these boundaries. These measures may include relocation of equipment that generates noise, reducing equipment operations, or other measures, as appropriate. In the event that the noise

exposure measures are inadequate, work will cease until noise levels can be reduced to within a reasonable level of ambient conditions at the closest Site boundary.