



FPM Group, Ltd.
FPM Engineering Group, P.C.
formerly Fanning, Phillips and Molnar

CORPORATE HEADQUARTERS 909 Marconi Avenue Ronkonkoma, NY 11779 631/737-6200 Fax 631/737-2410

#### VIA MAIL AND EMAIL

December 5, 2008

Ms. Geralynn Rosser Suffolk County Department of Health Services 15 Horseblock Place Farmingville, NY 11738

Re:

October 2008 Groundwater Sampling Results 1735 Express Drive North, Hauppauge, New York FPM File No. 894-06-01

Dear Geralynn:

FPM Group (FPM) has prepared this report to document groundwater sampling performed at the above-referenced facility in accordance with your recommendations. This is the third of four quarterly monitoring events recommended by the Suffolk County Department of Health Services (SCDHS). Monitoring well MW-1 was installed in January 2008 for the purpose of evaluating groundwater conditions immediately downgradient of former leaching pool LP-4, which was remediated in July 2006 and November 2007, and properly abandoned in November 2007 in accordance with SCDHS requirements. The site features and the location of well MW-1 are shown on the attached site plan.

Well MW-1 was gauged on October 8, 2008 with a water level indicator and the depth to water was measured from the top of the PVC casing and recorded. A decontaminated Proactive five-stage pump with a flow controller was utilized to purge the well of at least three casing volumes of water prior to sampling. A well sampling form documenting the purging and sampling procedures was completed and is attached. The pump flow was then reduced to less than 0.25 gallons per minute and a groundwater sample was obtained from the pump and transferred to laboratory-supplied sample bottles. The sample bottles were labeled and maintained in a cooler with ice to depress the sample temperature until delivery to the laboratory. A chain of custody form was completed and kept with the cooler to document the sequence of sample possession. The samples were transmitted to a New York State Department of Health-certified laboratory and analyzed for SCDHS volatile organic compounds (VOCs).

The groundwater analytical results are shown in Table 1 along with the previous results from January and May 2008 and are compared to the New York State Department of Environmental Conservation Class GA Ambient Water Quality Standards (Standards). The complete laboratory analytical report is attached.

The October 2008 groundwater analytical results indicate that six VOCs were detected. The primary VOCs detected include 1,1,1-trichloroethane (1,1,1-TCA) at 200 micrograms per liter ( $\mu$ g/l), tetrachloroethene (PCE) at 150  $\mu$ g/l, and trichloroethylene (TCE) at 68  $\mu$ g/l. Concentrations of 1,1-dichloroethane, 1,2-dichloroethylene, and xylenes were also detected but at lower levels than the other VOCs.

The October 2008 groundwater results were compared to the previous results from January and May 2008, following the abandonment of LP-4 as shown in Table 1. In general, VOC concentrations have continued to decline, as anticipated. Total VOC concentrations decreased from 1,100 µg/l in January 2008 to 867 µg/l in May 2008 and to 460 µg/l in October 2008.

#### **Conclusions and Recommendations**

Based on the above-described data, the following conclusions and recommendations are noted:

- VOC concentrations in well MW-1 have generally continued to decline since the VOCimpacted source material has been removed and leaching pool LP-4 is no longer in service. VOC concentrations in well MW-1 are anticipated to continue to decline; and
- One additional monitoring event will be performed in January 2009. The SCDHS will be notified in advance of the sampling. Upon receipt of the laboratory results, FPM will evaluate the groundwater monitoring data and prepare a report summarizing groundwater conditions along with our recommendations for the site.

Please provide any comments you may have. If you have any questions, please contact us at 737-6200.

Sincerely,

John S. Bukoski Hydrogeologist

Stephanie O. Davis Senior Hydrogeologist Department Manager

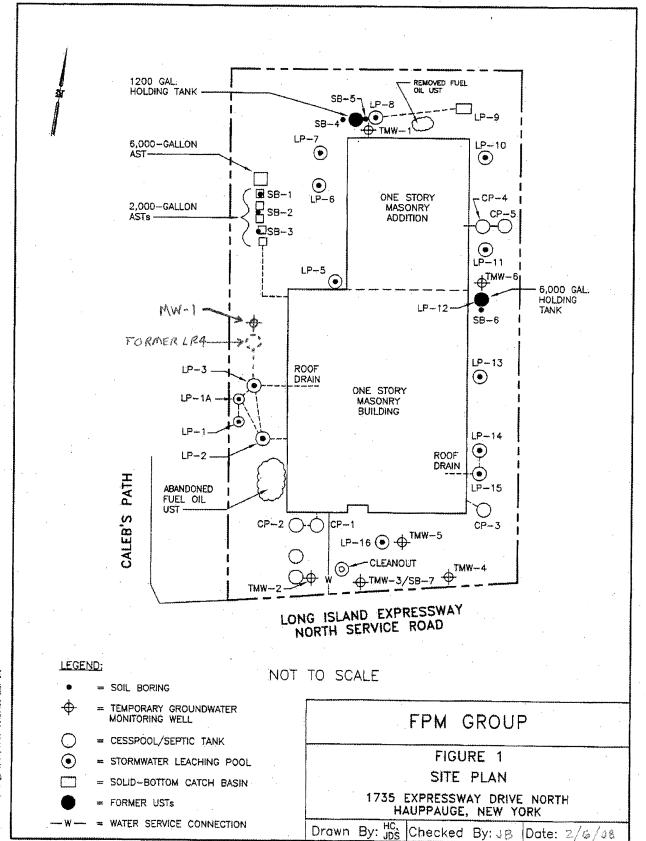
JSB/SOD:tac Attachments

CC:

James Maggio James Ray, Esq.

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# TABLE 1 GROUNDWATER MONITORING RESULTS 1735 EXPRESS DRIVE NORTH, HAUPPAUGE, NEW YORK

Sample Location		MW-1	NYSDEC Class GA						
Sample Date	1/17/08	5/9/08	10/8/08	<ul><li>Ambient Water Qualit</li><li>Standards</li></ul>					
Volatile Organic Compounds in μg/l									
1,1,1-Trichloroethane	ND	170	200	5					
1,2,4-Trimethylbenzene	ND	17	ND	5					
1,1-Dichloroethane	ND	ND	16	5					
1,2-Dichloroethylene (total)	ND	230(cis-)	6 (trans-)	5					
Ethylbenzene	ND	22	ND	5					
Xylene (total)	ND	81	20	5					
Tetrachloroethene	1,100	130	150	5					
Toluene	ND	7	ND	5					
Trichloroethylene	ND	210	68	5					
Total VOCs	1,100	867	460	-					

#### Notes:

ND = Not Detected

NYSDEC = New York State Department of Environmental Conservation **Bold** and shaded values exceed NYSDEC Class GA Ambient Water Quality Standards

 $\mu$ g/I = micrograms per liter



#### **WELL SAMPLING DATA FORM**

Project: Maggio Printing								
Location: 1735 Express 1	Drive North							
Well No.: Well Diameter: inch								
Date:								
Weather: Overcast 55°F Finish Time: 1030								
Sampled By: <u>JB</u>	-							
Depth to Bottom of Well:	Feet.							
Depth to Water: 83.4	5 Feet.							
Height of Water Column: 24.3	55Feet.							
Water Volume in Casing:3.93								
Water Volume to be Purged: 11.8								
Water Volume Actually Purged: 12 Gallons.								
Purge Method: Low flow submers, pump								
Physical Appearance/Comments: Clear, no odor								

#### FIELD MEASUREMENTS:

Time	Gallons	рН	Cond. (uS)	Temp. (°F)	Turbidity (NTU)
	4	6.80	160	55.6	101
	8	6.70	150	54.1	41
	12	6.68	150	54.0	30

Sampling and Analytical Methods:	Low flow submers pump/VOCs	
Laboratory Name and Location:	York labs - CT	

S:\Hydro Dept Forms\wellsampform.wpd





## **Technical Report**

prepared for:

**FPM** Group 909 Marconi Avenue Ronkonkoma, New York 11779 Attention: John Bukoski

Report Date: 10/21/2008 Re: Client Project ID: 894-06-01 / Maggio York Project No.: 08100458

CT License No. PH-0723

New Jersey License No. CT-005

New York License No. 10854





Report Date: 10/21/2008 Client Project ID: 894-06-01 / Maggio York Project No.: 08100458

#### **FPM Group**

909 Marconi Avenue Ronkonkoma, New York 11779 Attention: John Bukoski

#### **Purpose and Results**

This report contains the analytical data for the sample(s) identified on the attached chain-of-custody received in our laboratory on 10/10/08. The project was identified as your project "894-06-01 / Maggio".

The analyses were conducted utilizing appropriate EPA, Standard Methods, and ASTM methods as detailed in the data summary tables.

All samples were received in proper condition meeting the NELAC acceptance requirements for environmental samples except those indicated under the Notes section of this report.

All the analyses met the method and laboratory standard operating procedure requirements except as indicated under the Notes section of this report, or as indicated by any data flags, the meaning of which is explained in the attachment to this report, if applicable.

The results of the analyses, which are all reported on an as-received basis unless otherwise noted, are summarized in the following table(s).

### Analysis Results

Client Sample ID			MW-1	
York Sample ID			08100458-01	
Matrix			WATER	
Parameter	Method	Units	Results	MDL
Volatiles, Suff. Co. App. A DHS List	SW846-8260	ug/L		
1,1,1,2-Tetrachloroethane			Not detected	5.0
1,1,1-Trichloroethane			200	5.0
1,1,2,2-Tetrachloroethane			Not detected	5.0
1,1,2-Trichloroethane			Not detected	5.0
1,1-Dichloroethane			16	5.0
1,1-Dichloroethene			Not detected	5.0
1,1-Dichloropropene			Not detected	5.0
1,2,3-Trichlorobenzene			Not detected	5.0
1,2,3-Trichloropropane			Not detected	5.0
1,2,4,5-Tetramethylbenzene			Not detected	5.0
1,2,4-Trichlorobenzene			Not detected	5.0
1,2,4-Trimethylbenzene			Not detected	5.0
1,2-Dibromo-3-chloropropane			Not detected	5.0
1,2-Dibromoethane			Not detected	5.0
1,2-Dichlorobenzene			Not detected	5.0
1,2-Dichloroethane			Not detected	5.0



Client Sample ID			MW-1	
York Sample ID			08100458-01	
Matrix			WATER	
Parameter	Method	Units	Results	MDL
1,2-Dichloropropane			Not detected	5.0
1,3,5-Trimethylbenzene			Not detected	5.0
1,3-Dichlorobenzene			Not detected	5.0
1,3-Dichloropropane			Not detected	5.0
1,4-Dichlorobenzene			Not detected	5.0
2,2-Dichloropropane			Not detected	5.0
Acetone			Not detected	5.0
Benzene			Not detected	5.0
Bromobenzene			Not detected	5.0
Bromochloromethane			Not detected	5.0
Bromodichloromethane			Not detected	5.0
Bromoform			Not detected	5.0
Carbon Tetrachloride			Not detected	5.0
Chlorobenzene			Not detected	5.0
Chloroethane			Not detected	5.0
Chloroform			Not detected	5.0
Chlorotoluenes, total			Not detected	5.0
cis-1,2-Dichloroethene			Not detected	5.0
cis-1,3-Dichloropropene			Not detected	5.0
Dibromochloromethane			Not detected	5.0
Dibromomethane			Not detected	5.0
Dichlorodifluoromethane			Not detected	5.0
Ethylbenzene			Not detected	5.0
Freon-113			Not detected	5.0
Hexachlorobutadiene			Not detected	5.0
Isopropylbenzene			Not detected	5.0
Methyl ethyl ketone			Not detected	5.0
Methyl isobutyl ketone			Not detected	5.0
Methylene Chloride			Not detected	5.0
MTBE (methyl tert-butyl ether)			Not detected	5.0
Naphthalene			Not detected	5.0
n-Butylbenzene			Not detected	5.0
n-Propylbenzene			Not detected	5.0
p-Diethylbenzene			Not detected	5.0
p-Ethyltoluene			Not detected	5.0
p-Isopropyltoluene			Not detected	5.0
sec-Butylbenzene			Not detected	5.0
Styrene			Not detected	5.0
tert-Butylbenzene			Not detected	5.0
Tetrachloroethene			150	5.0
Toluene			Not detected	5.0
trans-1,2-Dichloroethene			6	5.0
trans-1,3-Dichloropropene			Not detected	5.0
Trichloroethene			68	5.0
Trichlorofluoromethane			Not detected	5.0
Vinyl Chloride			Not detected	5.0
Xylenes, total			20	5.0

Units Key:

For Waters/Liquids: mg/L = ppm; ug/L = ppb

For Soils/Solids: mg/kg = ppm; ug/kg = ppb



Report Date: 10/21/2008 Client Project ID: 894-06-01 / Maggio York Project No.: 08100458

#### Notes for York Project No. 08100458

- 1. The MDL (Minimum Detectable Limit) reported is adjusted for any dilution necessary due to the levels of target and/or non-target analytes and matrix interference. This MDL is the <u>REPORTING LIMIT</u> and is based upon the lowest standard utilized for calibration where applicable.
- 2. Samples are retained for a period of thirty days after submittal of report, unless other arrangements are made.
- 3. York's liability for the above data is limited to the dollar value paid to York for the referenced project.
- 4. This report shall not be reproduced without the written approval of York Analytical Laboratories, Inc.
- 5. All samples were received in proper condition for analysis with proper documentation.
- 6. All analyses conducted met method or Laboratory SOP requirements.
- 7. It is noted that no analyses reported herein were subcontracted to another laboratory.

Approved By:

Robert Q. Bradley

Managing Director

Date: 10/21/2008



### QA/QC Summary Report

Associated Samples: AD95168

Client: FPM Group

21-Oct-08

Analysis Name: VOA QC WATERS Unit of Measure: ug/L

Batch Name: \$VOAW-30510

QA Sample #: AD95168 York's Sample ID: 08100458-01

Parameter	Unspiked				Matrix Spil	(e	Spike Duplicate			
Parameter	LCS(%)	Result	Blank	Amount	Result	Recovery, %	Duplicate	Recovery,%	Precision, RPD	
Trichloroethylene	104	Not detected	Not detected	50	52	104.0	54	108.0	3.8	
Toluene	102	Not detected	Not detected	50	51	102.0	53	106.0	3.8	
Chlorobenzene	110	Not detected	Not detected	50	53	106.0	55	110.0	3.7	
Benzene	94	Not detected	Not detected	50	49	98.0	47	94.0	4.2	
1,1-Dichloroethylene	100	Not detected	Not detected	50	50	100.0	48	96.0	4.1	

Field Chain-of-Custody Record

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120 RESEARCH DRIVE STRATFORD, CT 06615

08100458

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