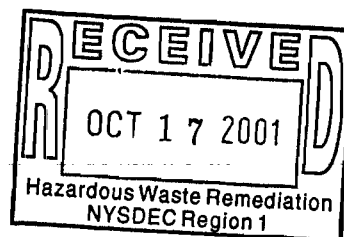


ARCADIS G&M



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Mr. Robert R. Stewart, Environmental Engineer
New York State Department of Environmental Conservation
Region 1 Office
SUNY at Stony Brook
Building 40
Stony Brook, New York 11790-2356

ENVIRONMENTAL

Subject:

Groundwater Sampling Results from August 2001
at the 25 Melville Park Road Site
Melville, New York

ARCADIS Project No.:

NY001332.0001.00002

Melville

15 October 2001

Contact:

Steven M. Feldman

Dear Mr. Stewart:

On behalf of WHCS Melville, LLC, ARCADIS G&M has prepared this letter report to document the results and findings of the groundwater sampling event that was conducted in July/August 2001. The purpose of the groundwater sampling event was to determine the present-day volatile organic compound (VOC) dissolved plume configuration. In addition, groundwater samples were collected from select monitoring wells for biogeochemical parameters in order to assess geochemical conditions in the aquifer. The data will aid in the evaluation of remedial technologies and serve as a baseline event for evaluating future remedial performance.

Extension:

(631) 391-5244

Groundwater Sampling Program

Prior to commencing groundwater sampling, a synoptic round of water-level measurements was collected on July 30, 2001 from all on-site monitoring wells. Groundwater sampling was conducted between July 31 and August 8, 2001. All groundwater samples were collected using low-flow purging and sampling methodologies as outlined in the New York State Department of Environmental Conservation (NYSDEC)-approved letter workplan dated June 29, 2001 from ARCADIS G&M to the NYSDEC. All non-dedicated equipment (i.e., pumps) were decontaminated between monitoring well locations as described in the letter workplan. Groundwater samples were submitted to Severn Trent Laboratories in Shelton, Connecticut for analysis. Thirty (30) groundwater samples were analyzed for Target Compound List (TCL) VOCs using NYSDEC Analytical Services Protocol (ASP) Method 95-1. Sixteen (16) groundwater samples were analyzed for biogeochemical parameters. In addition, quality assurance/quality control (QA/QC)

samples were collected in accordance with the letter workplan. The VOC analytical results are provided in Table 1. The biogeochemical analytical results are provided in Tables 2, 3, and 4. Laboratory data are provided along with this letter report. Figure 1 shows the monitoring well locations.

Non-aqueous phase liquid (NAPL) was detected in monitoring wells IW-1, IW-9, and MW-13. Therefore, these wells were not sampled during the event. Light non-aqueous phase liquid (LNAPL) was detected in IW-9. Dense non-aqueous phase liquid (DNAPL) was detected in IW-1 and MW-13. The NAPL thicknesses for these monitoring wells are provided in Table 5. On September 6, 2001, ARCADIS G&M was on-site to collect NAPL samples from Wells IW-1, IW-9, and MW-13 for chemical and physical analysis. The results of these analyses will be submitted under separate cover letter following evaluation of the data. Beginning in October 2001, fluid-level gauging and NAPL recovery efforts will be implemented on a monthly schedule.

Groundwater Quality Results and Findings

This section summarizes the analytical results and findings of the groundwater sampling event. While analytical data are provided for both VOC and biogeochemical parameters, only VOC data are discussed. The biogeochemical data will be discussed in the Remedial Action Plan (RAP) that will be prepared during the fourth quarter of 2001.

Based upon the water-level measurements collected on July 30, 2001, a water-table contour map of the shallow aquifer zone was prepared (Figure 2). As the figure indicates, groundwater flow is to the south-southeast, with an average horizontal hydraulic gradient across the site of approximately 0.001 ft/ft.

The analytical results indicate that significant dissolved VOC concentrations are present on-site. VOC concentrations ranged from 2 µg/L in MW-20D to 32,000 µg/L in IW-3. The present-day VOC plume configuration will be discussed relative to the shallow (45 to 60 feet below land surface [ft bls]), intermediate (70 to 90 ft bls), and deep (100 to 185 ft bls) aquifer zones.

Figure 3 shows the dissolved VOC plume distribution in the shallow zone. VOC concentrations in the shallow zone ranged from 3.4 µg/L (MW-4) to 32,000 µg/L (IW-3). The most significant concentrations were detected just east of the loading dock area. A second area of significant concentrations exists at MW-8 (15,083 µg/L) and MW-7 (11,900 µg/L). These two areas of significant VOC concentrations appear to be separated by a rectangular grouping of wells (IW-5, MW-12, IW-6, IW-7, IW-10, IW-11, and IW-12) that were used as injection wells during a chemical oxidation pilot study conducted by others in July 1998. The shallow zone VOC

plume is defined to the west by MW-14 (12 µg/L) and MW-4 (3.4 µg/L), and to the east by MW-15 (62 µg/L), MW-17 (83 µg/L), MW-2 (62 µg/L), MW-9 (52 µg/L), and MW-3 (121.4 µg/L). The VOC plume is not defined south of MW-29 (4,238 µg/L) in the shallow zone.

Figure 4 shows the dissolved VOC plume distribution in the intermediate zone. VOC concentrations in the intermediate zone ranged from 52.3 µg/L (MW-16D) to 13,130 µg/L (MW-13D). The most significant concentration was detected just east of the loading dock area. A significantly high concentration was also detected at MW-27D (8,835 µg/L). As appears to be the case in the shallow zone, there exists a discontinuity between the two areas of significant concentrations. The intermediate zone VOC plume is generally defined to the east by MW-25D (478 µg/L), IW-12 (186 µg/L), and MW-28D (185 µg/L), and to the south by MW-16D (52.3 µg/L).

Figure 5 shows the dissolved VOC plume distribution in the deep zone. VOC concentrations in the deep zone ranged from 2 µg/L (MW-20D) to 275 µg/L (MW-18D). These wells are both located in the area just east of the loading dock area where the most significant concentrations were reported in the shallow and intermediate zones. The third deep zone monitoring well (MW-19D) had a reported concentration of 2.5 µg/L.

The significant decrease in concentrations with depth between the shallow and deep zones indicates that the dissolved VOC plume is vertically defined. Furthermore, the most significant VOC concentration in the deep zone was reported in MW-18D (275 µg/L), which is screened from 133 to 143 ft bls. Based on the reported concentrations in the two other wells that comprise the deep zone monitoring network, MW-19D (2.5 µg/L), screened from 160 to 170 ft bls, and MW-20D (2 µg/L), screened from 175 to 185 ft bls, the vertical extent of contamination does not appear to extend below 150 ft bls.

The VOC, biogeochemical, and NAPL data will be evaluated further for selection of the remedial technologies that will be implemented at the site. As previously discussed, this evaluation will be presented in the RAP that will be prepared in the fourth quarter of 2001.

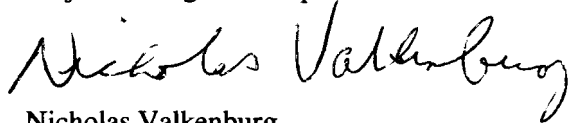
If you have any questions, please do not hesitate to contact me directly at (631) 391-5244.

Sincerely,

ARCADIS G&M, Inc.



Steven M. Feldman
Project Manager/Principal Scientist



Nicholas Valkenburg
Project Director/Vice President

Copies:

Shawn Hardy, ARCHON Group
Steven Scharf, NYSDEC
William Gilday, NYSDOH
Geraldyn Rosser, SCDHS

Table 1. Concentrations of Volatile Organic Compounds in Groundwater Samples Collected from Monitoring Wells, 25 Melville Park Road Site, Melville, New York.

Constituent (Units in ug/L)	Sample ID: Date:	IW-2 08/07/01	IW-3 08/07/01	IW-4 08/03/01	IW-7 08/06/01	IW-8 08/07/01
Chloromethane	<	20	< 2000	< 500	< 10	< 100
Bromomethane	< 20	J	< 2000	< 500	J	< 100
Vinyl Chloride	< 20		< 2000	< 500	< 10	< 100
Chloroethane	< 20	J	< 2000	J	< 10	J
Methylene Chloride	< 20		< 2000	< 500	< 10	< 100
Acetone	< 20		< 2000	< 500	J	< 100
Carbon Disulfide	< 20	J	< 2000	J	< 10	J
1,1-Dichloroethene	< 20		< 2000	< 500	< 10	< 100
1,1-Dichloroethane	1	J	< 2000	< 500	6	J
1,2-Dichloroethene (total)	12	J	5000	1600	110	6
Chloroform	< 20		< 2000	< 500	< 10	< 100
1,2-Dichloroethane	< 20		< 2000	< 500	< 10	< 100
2-Butanone	< 20		< 2000	< 500	< 10	< 100
1,1,1-Trichloroethane	10	J	< 2000	140	J	22
Carbon Tetrachloride	< 20		< 2000	< 500	< 10	< 100
Bromodichloromethane	< 20		< 2000	< 500	< 10	< 100
1,2-Dichloropropane	< 20		< 2000	< 500	< 10	< 100
cis-1,3-Dichloropropene	< 20		< 2000	< 500	< 10	< 100
Trichloroethene	12	J	17000	2100	38	56
Dibromochloromethane	< 20		< 2000	< 500	< 10	< 100
1,1,2-Trichloroethane	< 20		< 2000	< 500	< 10	< 100
Benzene	< 20		< 2000	< 500	< 10	< 100
trans-1,3-Dichloropropene	< 20		< 2000	< 500	< 10	< 100
Bromoform	< 20		< 2000	< 500	< 10	< 100
4-Methyl-2-Pentanone	< 20		< 2000	J	< 10	< 100
2-Hexanone	< 20		< 2000	J	< 10	< 100
Tetrachloroethene	260		10000	6600	100	1000
1,1,2,2-Tetrachloroethane	< 20		< 2000	J	< 10	< 100
Toluene	< 20		< 2000	< 500	< 10	< 100
Chlorobenzene	< 20		< 2000	< 500	< 10	< 100
Ethylbenzene	< 20		< 2000	< 500	< 10	< 100
Styrene	< 20		< 2000	< 500	< 10	< 100
Xylene (total)	< 20		< 2000	< 500	< 10	< 100
Total VOCs		295	32,000	10,440	261	1,084

ug/L Micrograms per liter
J Estimated value
B Detected in associated blank
REP Replicate
FB Field Blank
TB Trip Blank
VOCs Volatile Organic Compounds

Table 1. Concentrations of Volatile Organic Compounds in Groundwater Samples Collected from Monitoring Wells, 25 Melville Park Road Site, Melville, New York.

Constituent (Units in ug/L)	Sample ID:	IW-10	IW-12	MW-2	MW-3	MW-4	
	Date:	08/06/01	08/08/01	08/08/01	07/31/01	07/31/01	
Chloromethane	< 100	< 10	< 10	< 10	< 10	< 10	J
Bromomethane	< 100	J < 10	< 10	< 10	< 10	J < 10	
Vinyl Chloride	< 100	< 10	J < 10	J < 10	< 10	< 10	
Chloroethane	< 100	J < 10	J < 10	J < 10	< 10	< 10	
Methylene Chloride	< 100	< 10	< 10	< 10	< 10	< 10	
Acetone	< 100	< 10	< 10	< 10	< 10	< 10	
Carbon Disulfide	< 100	J < 10	J < 10	J < 10	< 10	< 10	
1,1-Dichloroethene	< 100	< 10	< 10	< 10	.4	J < 10	
1,1-Dichloroethane	< 100		6	J 4	J 21	< 10	
1,2-Dichloroethene (total)	< 100		22	< 10	21	< 10	
Chloroform	< 100	< 10	< 10	< 10	< 10	< 10	
1,2-Dichloroethane	< 100	< 10	< 10	< 10	< 10	< 10	
2-Butanone	< 100	< 10	< 10	< 10	< 10	< 10	
1,1,1-Trichloroethane	< 100		8	J 48	30	< 10	
Carbon Tetrachloride	< 100	< 10	< 10	< 10	< 10	< 10	
Bromodichloromethane	< 100	< 10	< 10	< 10	< 10	< 10	
1,2-Dichloropropane	< 100	< 10	< 10	< 10	< 10	< 10	
cis-1,3-Dichloropropene	< 100	< 10	< 10	< 10	< 10	< 10	
Trichloroethene	9	J	10	< 10	4	J .4	J
Dibromochloromethane	< 100	< 10	< 10	< 10	< 10	< 10	J
1,1,2-Trichloroethane	< 100	< 10	< 10	< 10	< 10	< 10	
Benzene	< 100	< 10	< 10	< 10	< 10	< 10	
trans-1,3-Dichloropropene	< 100	< 10	< 10	< 10	< 10	< 10	
Bromoform	< 100	< 10	< 10	< 10	< 10	< 10	J
4-Methyl-2-Pentanone	< 100	< 10	< 10	< 10	< 10	< 10	
2-Hexanone	< 100	< 10	< 10	< 10	< 10	< 10	
Tetrachloroethene		1000	140	10	45	3	J
1,1,2,2-Tetrachloroethane	< 100	< 10	< 10	< 10	< 10	< 10	
Toluene	< 100	< 10	< 10	< 10	< 10	< 10	
Chlorobenzene	< 100	< 10	< 10	< 10	< 10	< 10	
Ethylbenzene	< 100	< 10	< 10	< 10	< 10	< 10	
Styrene	< 100	< 10	< 10	< 10	< 10	< 10	
Xylene (total)	< 100	< 10	< 10	< 10	< 10	< 10	
Total VOCs		1,009	186	62	121.4	3.4	

ug/L Micrograms per liter
J Estimated value
B Detected in associated blank
REP Replicate
FB Field Blank
TB Trip Blank
VOCs Volatile Organic Compounds

Table 1. Concentrations of Volatile Organic Compounds in Groundwater Samples Collected from Monitoring Wells, 25 Melville Park Road Site, Melville, New York.

Constituent (Units in ug/L)	Sample ID: Date:	MW-7 08/02/01	MW-8 08/02/01	MW-9 07/31/01	MW-10 08/01/01	MW-11 07/31/01								
Chloromethane	<	500	<	500	<	10	<	500	<	20	J			
Bromomethane	<	500	J	<	500	J	<	10	J	<	500	J	<	20
Vinyl Chloride	<	500	<	500	<	10	<	500	<	20				
Chloroethane	<	500	<	500	<	10	<	500	<	20				
Methylene Chloride	<	500	<	500	<	10	<	500	<	20				
Acetone	<	500	<	500	<	10	<	500	<	20				
Carbon Disulfide	<	500	<	500	<	10	<	500	<	20				
1,1-Dichloroethane	<	500	<	500	<	10	<	500	<	20				
1,1-Dichloroethane	<	500	<	500	3	J	<	500	1	J				
1,2-Dichloroethane (total)		1200		1800		17		640		75				
Chloroform	<	500	<	500	<	10	<	500	<	20				
1,2-Dichloroethane	<	500	<	500	<	10	<	500	<	20				
2-Butanone	<	500	<	500	<	10	<	500	<	20				
1,1,1-Trichloroethane	100	J	83	J	2	J	68	J	7	J				
Carbon Tetrachloride	<	500	<	500	<	10	<	500	<	20				
Bromodichloromethane	<	500	<	500	<	10	<	500	<	20				
1,2-Dichloropropane	<	500	<	500	<	10	<	500	<	20				
cis-1,3-Dichloropropene	<	500	<	500	<	10	<	500	<	20				
Trichloroethene	2800		5800		7	J	1700		130					
Dibromochloromethane	<	500	<	500	<	10	<	500	<	20	J			
1,1,2-Trichloroethane	<	500	<	500	<	10	<	500	<	20				
Benzene	<	500	<	500	<	10	<	500	<	20				
trans-1,3-Dichloropropene	<	500	<	500	<	10	<	500	<	20				
Bromoform	<	500	<	500	<	10	<	500	<	20	J			
4-Methyl-2-Pentanone	<	500	<	500	<	10	<	500	<	20				
2-Hexanone	<	500	<	500	<	10	<	500	<	20				
Tetrachloroethene	7800		7400		23		5100		300					
1,1,2,2-Tetrachloroethane	<	500	<	500	<	10	<	500	<	20				
Toluene	<	500	<	500	<	10	<	500	<	20				
Chlorobenzene	<	500	<	500	<	10	<	500	<	20				
Ethylbenzene	<	500	<	500	<	10	<	500	<	20				
Styrene	<	500	<	500	<	10	<	500	<	20				
Xylene (total)	<	500	<	500	<	10	<	500	<	20				
Total VOCs		11,900		15,083		52		7,508		513				

ug/L Micrograms per liter
J Estimated value
B Detected in associated blank
REP Replicate
FB Field Blank
TB Trip Blank
VOCs Volatile Organic Compounds

Table 1. Concentrations of Volatile Organic Compounds in Groundwater Samples Collected from Monitoring Wells, 25 Melville Park Road Site, Melville, New York.

Constituent (Units in ug/L)	MW-11 REP		MW-12	MW-12 REP		MW-13D	MW-14							
	Sample ID:	REP-1		REP-2	REP-2									
	Date:	07/31/01	08/06/01	08/06/01	08/03/01	08/03/01	08/03/01							
Chloromethane	<	20	J	<	50	<	1000	<	10					
Bromomethane	<	20		<	50	J	<	1000	J	<	10			
Vinyl Chloride	<	20		<	50		<	1000		<	10			
Chloroethane	<	20		<	50	J	<	1000		<	10			
Methylene Chloride	<	20		<	50		<	1000		<	10			
Acetone	<	20		<	50		<	1000		<	10			
Carbon Disulfide	<	20		<	50	J	<	1000		<	10			
1,1-Dichloroethene	<	20		<	50		<	1000	J	<	10			
1,1-Dichloroethane		1	J		3	J		4	J	<	1000	<	10	
1,2-Dichloroethene (total)		75			550			650		<	1000	<	10	
Chloroform	<	20		<	50		<	50		<	1000	<	10	
1,2-Dichloroethane	<	20		<	50		<	50		<	1000	<	10	
2-Butanone	<	20		<	50		<	50		<	1000	<	10	
1,1,1-Trichloroethane		7	J		50		<	50		<	1000		2	J
Carbon Tetrachloride	<	20		<	50		<	50		<	1000	<	10	
Bromodichloromethane	<	20		<	50		<	50		<	1000	<	10	
1,2-Dichloropropane	<	20		<	50		<	50		<	1000	<	10	
cis-1,3-Dichloropropene	<	20		<	50		<	50		<	1000	<	10	
Trichloroethene		130			47	J		56		130	J	<	10	
Dibromochloromethane	<	20	J		50		<	50		<	1000	<	10	
1,1,2-Trichloroethane	<	20		<	50		<	50		<	1000	<	10	
Benzene	<	20		<	50		<	50		<	1000	<	10	
trans-1,3-Dichloropropene	<	20		<	50		<	50		<	1000	<	10	
Bromoform	<	20	J		50		<	50		<	1000	<	10	
4-Methyl-2-Pentanone	<	20		<	50		<	50		<	1000	<	10	
2-Hexanone	<	20		<	50		<	50		<	1000	<	10	
Tetrachloroethene		300			24	J		29	J	13000		10		
1,1,2,2-Tetrachloroethane	<	20		<	50		<	50		<	1000	<	10	
Toluene	<	20		<	50		<	50		<	1000	<	10	
Chlorobenzene	<	20		<	50		<	50		<	1000	<	10	
Ethylbenzene	<	20		<	50		<	50		<	1000	<	10	
Styrene	<	20		<	50		<	50		<	1000	<	10	
Xylene (total)	<	20		<	50		<	50		<	1000	<	10	
Total VOCs		513			624			739		13,130		12		

ug/L Micrograms per liter
J Estimated value
B Detected in associated blank
REP Replicate
FB Field Blank
TB Trip Blank
VOCs Volatile Organic Compounds

Table 1. Concentrations of Volatile Organic Compounds in Groundwater Samples Collected from Monitoring Wells, 25 Melville Park Road Site, Melville, New York.

Constituent (Units in ug/L)	Sample ID: Date:	MW-15 08/07/01	MW-16D 08/01/01	MW-17 08/08/01	MW-18D 08/06/01	MW-19D 08/02/01
Chloromethane		< 10	< 10	J < 10	< 20	< 10
Bromomethane		< 10	< 10	< 10	< 20	J < 10
Vinyl Chloride		< 10	< 10	< 10	J < 20	< 10
Chloroethane		< 10	J < 10	< 10	J < 20	J < 10
Methylene Chloride		< 10	< 10	< 10	< 20	< 10
Acetone		< 10	< 10	< 10	< 20	< 10
Carbon Disulfide		< 10	J < 10	< 10	J < 20	J < 10
1,1-Dichloroethene		< 10	< 10	< 10	< 20	< 10
1,1-Dichloroethane		< 10	< 10	6	J < 20	< 10
1,2-Dichloroethene (total)		< 10	< 10	2	J 6	J < 10
Chloroform		< 10	< 10	< 10	< 20	< 10
1,2-Dichloroethane		< 10	< 10	< 10	< 20	< 10
2-Butanone		< 10	< 10	< 10	< 20	< 10
1,1,1-Trichloroethane		38	< 10	16	< 20	.5
Carbon Tetrachloride		< 10	< 10	< 10	< 20	< 10
Bromodichloromethane		< 10	< 10	< 10	< 20	< 10
1,2-Dichloropropane		< 10	< 10	< 10	< 20	< 10
cis-1,3-Dichloropropene		< 10	< 10	< 10	< 20	< 10
Trichloroethene		< 10	.3	J 4	J 9	J < 10
Dibromochloromethane		< 10	< 10	J < 10	< 20	< 10
1,1,2-Trichloroethane		< 10	< 10	< 10	< 20	< 10
Benzene		< 10	< 10	< 10	< 20	< 10
trans-1,3-Dichloropropene		< 10	< 10	< 10	< 20	< 10
Bromoform		< 10	< 10	J < 10	< 20	< 10
4-Methyl-2-Pentanone		< 10	J < 10	< 10	< 20	< 10
2-Hexanone		< 10	J < 10	< 10	< 20	< 10
Tetrachloroethene		24	52	55	260	2
1,1,2,2-Tetrachloroethane		< 10	J < 10	< 10	< 20	< 10
Toluene		< 10	< 10	< 10	< 20	< 10
Chlorobenzene		< 10	< 10	< 10	< 20	< 10
Ethylbenzene		< 10	< 10	< 10	< 20	< 10
Styrene		< 10	< 10	< 10	< 20	< 10
Xylene (total)		< 10	< 10	< 10	< 20	< 10
Total VOCs		62	52.3	83	275	2.5

ug/L Micrograms per liter
 J Estimated value
 B Detected in associated blank
 REP Replicate
 FB Field Blank
 TB Trip Blank
 VOCs Volatile Organic Compounds

Table 1. Concentrations of Volatile Organic Compounds in Groundwater Samples Collected from Monitoring Wells, 25 Melville Park Road Site, Melville, New York.

Constituent (Units in ug/L)	Sample ID: Date:	MW-20D 08/08/01	MW-23 08/02/01	MW-25D 08/03/01	MW-26D 08/03/01	MW-27D 08/01/01	
Chloromethane	< 10	< 250	< 50	< 50	< 250	J	
Bromomethane	< 10	< 250	J	< 50	J	< 50	J
Vinyl Chloride	< 10	J	< 250	< 50	< 50	< 250	
Chloroethane	< 10	J	< 250	< 50	J	< 50	J
Methylene Chloride	< 10	< 250	< 50	< 50	< 250		
Acetone	< 10	< 250	< 50	< 50	< 250		
Carbon Disulfide	< 10	J	< 250	< 50	J	< 50	J
1,1-Dichloroethene	< 10	< 250	< 50	< 50	< 250		
1,1,1-Trichloroethane	< 10	< 250	3	J	9	J	< 250
1,2-Dichloroethene (total)	< 10	53	J	33	J	520	1600
Chloroform	< 10	< 250	< 50	< 50	< 250		
1,2-Dichloroethane	< 10	< 250	< 50	< 50	< 250		
2-Butanone	< 10	< 250	< 50	< 50	< 250		
1,1,1-Trichloroethane	< 10	< 250	13	J	7	J	35
Carbon Tetrachloride	< 10	< 250	< 50	< 50	< 250		
Bromodichloromethane	< 10	< 250	< 50	< 50	< 250		
1,2-Dichloropropane	< 10	< 250	< 50	< 50	< 250		
cis-1,3-Dichloropropene	< 10	< 250	< 50	< 50	< 250		
Trichloroethene	< 10	26	J	29	J	150	3300
Dibromochloromethane	< 10	< 250	< 50	< 50	< 250		J
1,1,2-Trichloroethane	< 10	< 250	< 50	< 50	< 250		
Benzene	< 10	< 250	< 50	< 50	< 250		
trans-1,3-Dichloropropene	< 10	< 250	< 50	< 50	< 250		
Bromoform	< 10	< 250	< 50	< 50	< 250		J
4-Methyl-2-Pentanone	< 10	< 250	< 50	< 50	< 250		
2-Hexanone	< 10	< 250	< 50	< 50	< 250		
Tetrachloroethene	2	J	670	400	75	3900	
1,1,2,2-Tetrachloroethane	< 10	< 250	< 50	< 50	< 250		
Toluene	< 10	< 250	< 50	< 50	< 250		
Chlorobenzene	< 10	< 250	< 50	< 50	< 250		
Ethylbenzene	< 10	< 250	< 50	< 50	< 250		
Styrene	< 10	< 250	< 50	< 50	< 250		
Xylene (total)	< 10	< 250	< 50	< 50	< 250		
Total VOCs	2	749	478	761	8,835		

ug/L Micrograms per liter
 J Estimated value
 B Detected in associated blank
 REP Replicate
 FB Field Blank
 TB Trip Blank
 VOCs Volatile Organic Compounds

Table 1. Concentrations of Volatile Organic Compounds in Groundwater Samples Collected from Monitoring Wells, 25 Melville Park Road Site, Melville, New York.

Constituent (Units in ug/L)	Sample ID: MW-28D		MW-29		FB073101		FB080101		FB080201		
	Date:	07/31/01	08/01/01	07/31/01	08/01/01	07/31/01	08/01/01	08/02/01			
Chloromethane	<	10	<	200	J	<	10	<	10	<	10
Bromomethane	<	10	J	<	200	<	10	J	<	10	J
Vinyl Chloride	<	10	<	200	<	10	<	10	<	10	
Chloroethane	<	10	<	200	<	10	<	10	<	10	
Methylene Chloride	<	10	<	200		.7	JB	5	JB	5	JB
Acetone	<	10	<	200	<	10	J	4	JB	4	JB
Carbon Disulfide	<	10	<	200	<	10	<	10	<	10	
1,1-Dichloroethene	<	10	<	200	<	10	<	10	<	10	
1,1-Dichloroethane		7	J	<	200	<	10	<	10	<	10
1,2-Dichloroethene (total)		80		300	<	10	<	10	<	10	
Chloroform	<	10	<	200	<	10		1	J	1	J
1,2-Dichloroethane	<	10	<	200	<	10	<	10	<	10	
2-Butanone	<	10	<	200		2	JB	2	JB	2	JB
1,1,1-Trichloroethane		4	J	58	J	<	10	<	10	<	10
Carbon Tetrachloride	<	10	<	200	<	10	<	10	<	10	
Bromodichloromethane	<	10	<	200	<	10	<	10	<	10	
1,2-Dichloropropane	<	10	<	200	<	10	<	10	<	10	
cis-1,3-Dichloropropene	<	10	<	200	<	10	<	10	<	10	
Trichloroethene		24		780	<	10	<	10	<	10	
Dibromochloromethane	<	10	<	200	J	<	10	<	10	<	10
1,1,2-Trichloroethane	<	10	<	200	<	10	<	10	<	10	
Benzene	<	10	<	200	<	10	<	10	<	10	
trans-1,3-Dichloropropene	<	10	<	200	<	10	<	10	<	10	
Bromoform	<	10	<	200	J	<	10	J	<	10	J
4-Methyl-2-Pentanone	<	10	<	200	<	10	<	10	<	10	
2-Hexanone	<	10	<	200	<	10	J	<	10	J	J
Tetrachloroethene		70		3100	<	10	<	10	<	10	
1,1,2,2-Tetrachloroethane	<	10	<	200	<	10	<	10	<	10	
Toluene	<	10	<	200	<	10	<	10	<	10	
Chlorobenzene	<	10	<	200	<	10	<	10	<	10	
Ethylbenzene	<	10	<	200	<	10	<	10	<	10	
Styrene	<	10	<	200	<	10	<	10	<	10	
Xylene (total)	<	10	<	200	<	10	<	10	<	10	
Total VOCs		185		4,238		2.7		12		12	

ug/L Micrograms per liter
 J Estimated value
 B Detected in associated blank
 REP Replicate
 FB Field Blank
 TB Trip Blank
 VOCs Volatile Organic Compounds

Table 1. Concentrations of Volatile Organic Compounds in Groundwater Samples Collected from Monitoring Wells, 25 Melville Park Road Site, Melville, New York.

Constituent (Units in ug/L)	Sample ID: Date:	FB080301 08/03/01	FB080601 08/06/01	FB080701 08/07/01	FB080801 08/08/01	TB073101 07/31/01					
Chloromethane	<	10	<	10	<	10	<	10			
Bromomethane	<	10	J	<	10	<	10	<	10	J	
Vinyl Chloride	<	10	<	10	<	10	<	10	<	10	
Chloroethane	<	10	<	10	J	<	10	J	<	10	
Methylene Chloride		4	JB	5	JB	2	JB	4	JB	3	JB
Acetone	<	10	<	10	<	10	<	10	JB	3	JB
Carbon Disulfide	<	10	<	10	J	<	10	J	<	10	
1,1-Dichloroethene	<	10	J	<	10	<	10	<	10	<	10
1,1-Dichloroethane	<	10	<	10	<	10	<	10	<	10	
1,2-Dichloroethene (total)	<	10	<	10	<	10	<	10	<	10	
Chloroform	<	10	<	1	J	<	10	1	J	<	10
1,2-Dichloroethane	<	10	<	10	<	10	<	10	<	10	
2-Butanone	<	10	<	10	<	10	<	10		3	JB
1,1,1-Trichloroethane	<	10	<	10	<	10	<	10	<	10	
Carbon Tetrachloride	<	10	<	10	<	10	<	10	<	10	
Bromodichloromethane	<	10	<	10	<	10	<	10	<	10	
1,2-Dichloropropane	<	10	<	10	<	10	<	10	<	10	
cis-1,3-Dichloropropene	<	10	<	10	<	10	<	10	<	10	
Trichloroethene	<	10	<	10	<	10	<	10	<	10	
Dibromochloromethane	<	10	<	10	<	10	<	10	<	10	
1,1,2-Trichloroethane	<	10	<	10	<	10	<	10	<	10	
Benzene	<	10	<	10	<	10	<	10	<	10	
trans-1,3-Dichloropropene	<	10	<	10	<	10	<	10	<	10	
Bromoform	<	10	<	10	<	10	<	10	<	10	
4-Methyl-2-Pentanone	<	10	<	10	J	<	10	J	<	10	
2-Hexanone	<	10	<	10	J	<	10	J	<	10	
Tetrachloroethene	<	10	<	10	<	10	<	10	<	10	
1,1,2,2-Tetrachloroethane	<	10	<	10	J	<	10	J	<	10	
Toluene	<	10	<	10	<	10	<	10		.4	J
Chlorobenzene	<	10	<	10	<	10	<	10	<	10	
Ethylbenzene	<	10	<	10	<	10	<	10	<	10	
Styrene	<	10	<	10	<	10	<	10	<	10	
Xylene (total)	<	10	<	10	<	10	<	10	<	10	
Total VOCs		4		6		2		11		9.4	

ug/L Micrograms per liter
 J Estimated value
 B Detected in associated blank
 REP Replicate
 FB Field Blank
 TB Trip Blank
 VOCs Volatile Organic Compounds

Table 1. Concentrations of Volatile Organic Compounds in Groundwater Samples Collected from Monitoring Wells, 25 Melville Park Road Site, Melville, New York.

Constituent (Units in ug/L)	Sample ID: Date:	TB080101 08/01/01	TB080201 08/02/01	TB080301 08/03/01	TB080601 08/06/01	TB080701 08/07/01					
Chloromethane	<	10	<	10	<	10					
Bromomethane	<	10	J	<	10	J					
Vinyl Chloride	<	10	<	10	<	10					
Chloroethane	<	10	<	10	<	10	J				
Methylene Chloride	4	JB	4	JB	2	JB	3	JB	2	JB	
Acetone	3	JB	3	JB	<	10	<	10	<	10	
Carbon Disulfide	<	10	<	10	<	10	<	10	J	<	10
1,1-Dichloroethene	<	10	<	10	<	10	J	<	10	<	10
1,1-Dichloroethane	<	10	<	10	<	10	<	10	<	10	
1,2-Dichloroethene (total)	<	10	<	10	<	10	<	10	<	10	
Chloroform	.5	J	.6	J	<	10	<	10	<	10	
1,2-Dichloroethane	<	10	<	10	<	10	<	10	<	10	
2-Butanone	2	JB	2	JB	<	10	<	10	<	10	
1,1,1-Trichloroethane	<	10	<	10	<	10	<	10	<	10	
Carbon Tetrachloride	<	10	<	10	<	10	<	10	<	10	
Bromodichloromethane	<	10	<	10	<	10	<	10	<	10	
1,2-Dichloropropane	<	10	<	10	<	10	<	10	<	10	
cis-1,3-Dichloropropene	<	10	<	10	<	10	<	10	<	10	
Trichloroethene	<	10	<	10	<	10	<	10	<	10	
Dibromochloromethane	<	10	<	10	<	10	<	10	<	10	
1,1,2-Trichloroethane	<	10	<	10	<	10	<	10	<	10	
Benzene	<	10	<	10	<	10	<	10	<	10	
trans-1,3-Dichloropropene	<	10	<	10	<	10	<	10	<	10	
Bromoform	<	10	J	<	10	J	<	10	<	10	
4-Methyl-2-Pentanone	<	10	<	10	<	10	<	10	J	<	10
2-Hexanone	<	10	J	<	10	J	<	10	J	<	10
Tetrachloroethene	<	10	<	10	<	10	<	10	<	10	
1,1,2,2-Tetrachloroethane	<	10	<	10	<	10	<	10	J	<	10
Toluene	<	10	<	10	<	10	<	10	<	10	
Chlorobenzene	<	10	<	10	<	10	<	10	<	10	
Ethylbenzene	<	10	<	10	<	10	<	10	<	10	
Styrene	<	10	<	10	<	10	<	10	<	10	
Xylene (total)	<	10	<	10	<	10	<	10	<	10	
Total VOCs		9.5		9.6		2		3		2	

ug/L Micrograms per liter
J Estimated value
B Detected in associated blank
REP Replicate
FB Field Blank
TB Trip Blank
VOCs Volatile Organic Compounds

Table 1. Concentrations of Volatile Organic Compounds in Groundwater Samples Collected from Monitoring Wells, 25 Melville Park Road Site, Melville, New York.

Constituent (Units in ug/L)	Sample ID: Date:	TB080801 08/08/01	
Chloromethane	<	10	
Bromomethane	<	10	
Vinyl Chloride	<	10	
Chloroethane	<	10	J
Methylene Chloride	2		JB
Acetone	<	10	
Carbon Disulfide	<	10	J
1,1-Dichloroethene	<	10	
1,1-Dichloroethane	<	10	
1,2-Dichloroethene (total)	<	10	
Chloroform	<	10	
1,2-Dichloroethane	<	10	
2-Butanone	<	10	
1,1,1-Trichloroethane	<	10	
Carbon Tetrachloride	<	10	
Bromodichloromethane	<	10	
1,2-Dichloropropane	<	10	
cis-1,3-Dichloropropene	<	10	
Trichloroethene	<	10	
Dibromochloromethane	<	10	
1,1,2-Trichloroethane	<	10	
Benzene	<	10	
trans-1,3-Dichloropropene	<	10	
Bromoform	<	10	
4-Methyl-2-Pentanone	<	10	J
2-Hexanone	<	10	J
Tetrachloroethene	<	10	
1,1,2,2-Tetrachloroethane	<	10	J
Toluene	<	10	
Chlorobenzene	<	10	
Ethylbenzene	<	10	
Styrene	<	10	
Xylene (total)	<	10	
Total VOCs		2	

ug/L Micrograms per liter
 J Estimated value
 B Detected in associated blank
 REP Replicate
 FB Field Blank
 TB Trip Blank
 VOCs Volatile Organic Compounds

Table 2. Concentrations of Total and Dissolved Metals in Groundwater Samples Collected from Monitoring Wells, 25 Melville Park Road Site, Melville, New York.

Constituent: (Units in ug/L)	Sample ID: Date:	IW-2 08/07/01	IW-3 08/07/01	IW-7 08/06/01	IW-8 08/07/01	IW-10 08/06/01
Iron (total)		694	8990	4670	526	1980
Manganese (total)		11.3 B	228	78.6	24.2	36.2
Iron (dissolved)		< 19.9	8700	3280	< 19.9	< 19.9
Manganese (dissolved)		8.8 B	258	83.8	25.3	36.3

ug/L Micrograms per liter
 -- Not analyzed
 B Detected in associated blank
 REP Replicate
 FB Field Blank

Table 2. Concentrations of Total and Dissolved Metals in Groundwater Samples Collected from Monitoring Wells, 25 Melville Park Road Site, Melville, New York.

Constituent: (Units in ug/L)	Sample ID:	MW-7	MW-8	MW-10	MW-12	MW-12 REP
	Date:	08/02/01	08/02/01	08/01/01	08/06/01	REP-2 08/06/01
Iron (total)		14200	12400	10400	12300	12400
Manganese (total)		569	610	451	159	159
Iron (dissolved)		11700	13100	8540	12900	13100
Manganese (dissolved)		599	651	432	168	170

ug/L Micrograms per liter
 -- Not analyzed
 B Detected in associated blank
 REP Replicate
 FB Field Blank

Table 2. Concentrations of Total and Dissolved Metals in Groundwater Samples Collected from Monitoring Wells, 25 Melville Park Road Site, Melville, New York.

Constituent: (Units in ug/L)	Sample ID: Date:	MW-15 08/07/01	MW-16D 08/01/01	MW-18D 08/06/01	MW-19D 08/02/01	MW-23 08/02/01
Iron (total)		72.9 B	1340	181	282	6070
Manganese (total)		15.8	35.7	141	15.2	118
Iron (dissolved)		< 19.9	24.2 B	< 19.9	< 19.9	70.8 B
Manganese (dissolved)		14.5 B	2.9 B	127	11.4 B	49.0

ug/L Micrograms per liter
 -- Not analyzed
 B Detected in associated blank
 REP Replicate
 FB Field Blank

Table 2. Concentrations of Total and Dissolved Metals in Groundwater Samples Collected from Monitoring Wells, 25 Melville Park Road Site, Melville, New York.

Constituent: (Units in ug/L)	Sample ID: Date:	MW-27D 08/01/01	MW-29 08/01/01	FB080101 08/01/01	FB080201 08/02/01	FB080601 08/06/01
Iron (total)		17800	1910	15.5 B	< 19.9	< 19.9
Manganese (total)		366	15.6	< 1.5	< 1.0	< 1.0
Iron (dissolved)		13600	22.4 B	--	< 19.9	--
Manganese (dissolved)		359	3.5 B	--	< 1.0	--

ug/L Micrograms per liter
 -- Not analyzed
 B Detected in associated blank
 REP Replicate
 FB Field Blank

Table 2. Concentrations of Total and Dissolved Metals in Groundwater Samples Collected from Monitoring Wells, 25 Melville Park Road Site, Melville, New York.

Constituent:	Sample ID:	FB080701
(Units in ug/L)	Date:	08/07/01

Iron (total)	25.8	B
Manganese (total)	< 1.0	
Iron (dissolved)	--	
Manganese (dissolved)	--	

ug/L	Micrograms per liter
--	Not analyzed
B	Detected in associated blank
REP	Replicate
FB	Field Blank

Table 3. Concentrations of Classical Chemistry Analytes in Groundwater Samples Collected from Monitoring Wells, 25 Melville Park Road Site, Melville, New York.

Analyte: (Units in mg/L)	Sample ID: Date:	IW-2 08/07/01	IW-3 08/07/01	IW-7 08/06/01	IW-8 08/07/01	IW-10 08/06/01
Alkalinity		51	75	64.5	21	4.5
Ammonia		< .04	< .04	.098	< .04	< .04
Chloride		66.9	43.3	57.1	22.9	13.8
Nitrate		1.84	< .1	.236	2.15	1.27
Nitrite		< .1	< .1	< .1	< .1	< .1
Sulfate		24.2	3.96	21.5	28.5	25.3
TOC		1.56	8.34	4.08	< 1	< 1

mg/L Milligrams per liter
 -- Not analyzed
 REP Replicate
 FB Field Blank

Table 3. Concentrations of Classical Chemistry Analytes in Groundwater Samples Collected from Monitoring Wells, 25 Melville Park Road Site, Melville, New York.

Analyte: (Units in mg/L)	Sample ID: Date:	MW-7 08/02/01	MW-8 08/02/01	MW-10 08/01/01	MW-12 08/06/01	MW-12 REP REP-2 08/06/01
Alkalinity		51	70	45	81	82.5
Ammonia		.37	.443	.217	.178	.18
Chloride		41.8	50.1	36.7	44.8	43.8
Nitrate	<	.1	< .1	< .1	< .1	< .1
Nitrite	<	.1	< .1	< .1	< .1	< .1
Sulfate		11.8	8.42	17.3	8.69	8.28
TOC		6.07	8.93	4.42	3.87	< 1

mg/L Milligrams per liter
 -- Not analyzed
 REP Replicate
 FB Field Blank

Table 3. Concentrations of Classical Chemistry Analytes in Groundwater Samples Collected from Monitoring Wells, 25 Melville Park Road Site, Melville, New York.

Analyte: (Units in mg/L)	Sample ID: Date:	MW-15 08/07/01	MW-16D 08/01/01	MW-18D 08/06/01	MW-19D 08/02/01	MW-23 08/02/01
Alkalinity		17	6.5	120	7	14.5
Ammonia	<	.04	.053	< .04	.04	< .04
Chloride		25.5	8.03	47.5	87.7	20.9
Nitrate		1.3	.987	1.78	3.74	1.13
Nitrite	<	.1	< .1	< .1	< .1	< .1
Sulfate		16.9	14	17.2	18.1	23.5
TOC		1.83	< 1	2.09	1.88	3.45

mg/L Milligrams per liter
 -- Not analyzed
 REP Replicate
 FB Field Blank

Table 3. Concentrations of Classical Chemistry Analytes in Groundwater Samples Collected from Monitoring Wells, 25 Melville Park Road Site, Melville, New York.

Analyte: (Units in mg/L)	Sample ID: Date:	MW-27D 08/01/01	MW-29 08/01/01	FB080101 08/01/01	FB080201 08/02/01	FB080601 08/06/01
Alkalinity		58	32.5	< 2	< 2	< 2
Ammonia		.392	< .04	--	--	--
Chloride		47.8	46.8	< 1	< 1	< 1
Nitrate	< .1	.1	.765	< .1	< .1	< .1
Nitrite	< .1	.1	.1	< .1	< .1	< .1
Sulfate		15.8	24.5	< 1	< 1	< 1
TOC		6.32	2.24	< 1	1.43	< 1

mg/L Milligrams per liter
 -- Not analyzed
 REP Replicate
 FB Field Blank

Table 3. Concentrations of Classical Chemistry Analytes in Groundwater Samples Collected from Monitoring Wells, 25 Melville Park Road Site, Melville, New York.

Analyte: Sample ID: FB080701
(Units in mg/L) Date: 08/07/01

Alkalinity	<	2
Ammonia		--
Chloride	<	1
Nitrate	<	.1
Nitrite	<	.1
Sulfate	<	1
TOC	<	1

mg/L	Milligrams per liter
--	Not analyzed
REP	Replicate
FB	Field Blank

Table 4. Concentrations of Permanent Gases and Light Hydrocarbons in Groundwater Samples Collected from Monitoring Wells, 25 Melville Park Road Site, Melville, New York.

Analyte:	Sample ID:	IW-2	IW-3	IW-7	IW-8	IW-10
	Date:	08/07/01	08/07/01	08/06/01	08/07/01	08/06/01
Carbon Dioxide (mg/L)		40.8	58.9	83.0	24.4	20.1
Oxygen (mg/L)		3.23	0.22	1.05	2.71	3.28
Nitrogen (mg/L)		8.3	10.3	10.1	8.9	7.4
Methane (ug/L)		< 0.2	244.1	9.3	0.3	< 0.2
Ethane (ug/L)		< 0.01	0.02	< 0.01	< 0.01	< 0.01
Ethene (ug/L)		< 0.01	0.05	0.02	< 0.01	0.01

ug/L Micrograms per liter
mg/L Milligrams per liter
REP Replicate

Table 4. Concentrations of Permanent Gases and Light Hydrocarbons in Groundwater Samples Collected from Monitoring Wells, 25 Melville Park Road Site, Melville, New York.

Analyte:	Sample ID:	MW-7	MW-8	MW-10	MW-12	MW-12 REP
	Date:	08/02/01	08/02/01	08/01/01	08/06/01	REP-2 08/06/01
Carbon Dioxide (mg/L)		57.2	49.4	59.2	54.3	56.1
Oxygen (mg/L)	<	0.15	< 0.15	0.56	< 0.15	< 0.15
Nitrogen (mg/L)		10.8	5.8	11.6	7.8	9.1
Methane (ug/L)		46.4	48.5	35.8	297.8	414.9
Ethane (ug/L)		0.01	0.01	0.02	0.02	0.02
Ethene (ug/L)		0.07	0.05	0.07	0.02	0.03

ug/L Micrograms per liter
mg/L Milligrams per liter
REP Replicate

Table 4. Concentrations of Permanent Gases and Light Hydrocarbons in Groundwater Samples Collected from Monitoring Wells, 25 Melville Park Road Site, Melville, New York.

Analyte:	Sample ID:	MW-15	MW-16D	MW-18D	MW-19D	MW-23
	Date:	08/07/01	08/01/01	08/06/01	08/02/01	08/02/01
Carbon Dioxide (mg/L)		43.1	16.2	< 0.4	33.4	33.9
Oxygen (mg/L)		3.21	5.54	1.36	2.50	1.89
Nitrogen (mg/L)		8.2	12.0	8.5	5.8	7.7
Methane (ug/L)	<	0.2	< 0.2	< 0.2	< 0.2	1.5
Ethane (ug/L)	<	0.01	< 0.01	0.02	0.01	< 0.01
Ethene (ug/L)		0.01	< 0.01	0.08	0.02	0.02

ug/L Micrograms per liter
mg/L Milligrams per liter
REP Replicate

Table 4. Concentrations of Permanent Gases and Light Hydrocarbons in Groundwater Samples Collected from Monitoring Wells, 25 Melville Park Road Site, Melville, New York.

Analyte:	Sample ID:	MW-27D	MW-29
	Date:	08/01/01	08/01/01

Carbon Dioxide (mg/L)		53.8	52.6
Oxygen (mg/L)		0.64	1.11
Nitrogen (mg/L)		12.6	12.4
Methane (ug/L)		98.9	1.5
Ethane (ug/L)	<	0.01	0.10
Ethene (ug/L)		0.06	0.03

ug/L Micrograms per liter
mg/L Milligrams per liter
REP Replicate

Table 5. Non-Aqueous Phase Liquid Thicknesses Detected in Monitoring Wells, 25 Melville Park Road Site, Melville, New York.

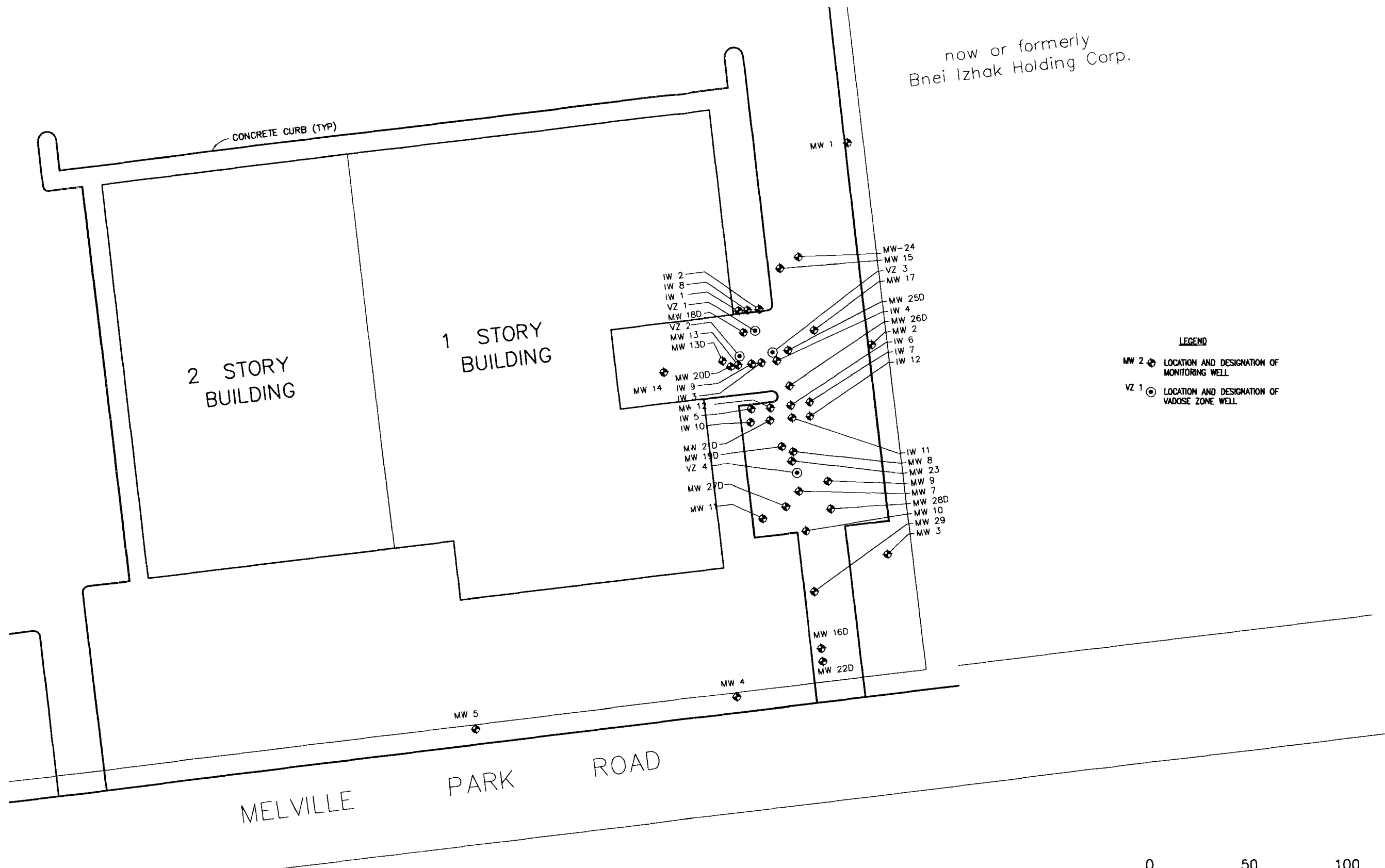
Date:	Well ID:	IW-1 DNAPL/LNAPL (feet)	IW-9 DNAPL/LNAPL (feet)	MW-13 DNAPL/LNAPL (feet)
7/30/01		0.40/0.00	0.00/1.32	<0.01*/0.00
8/6/01		0.40/0.00	0.00/1.99	<0.01*/0.00
10/9/01		0.15/0.00	0.00/1.16	0.00/0.00

DNAPL Dense Non-Aqueous Phase Liquid

LNAPL Light Non-Aqueous Phase Liquid

*DNAPL was detected in MW-13. However, the amount of product in the well is less than 0.01-feet thick. Upon withdrawing a bailer from the well, DNAPL was visually apparent.

FILE: G:\PROJECT\WHCS MELVILLE\CADD\MONITORING WELL LOCATION MAP_REV.DWG, DATE: 10/10/2001 03:09:12PM



LEGEND
 MW 2 LOCATION AND DESIGNATION OF MONITORING WELL
 VZ 1 LOCATION AND DESIGNATION OF VADOSE ZONE WELL



NO.	DATE	REVISION DESCRIPTION	BY
			CKD

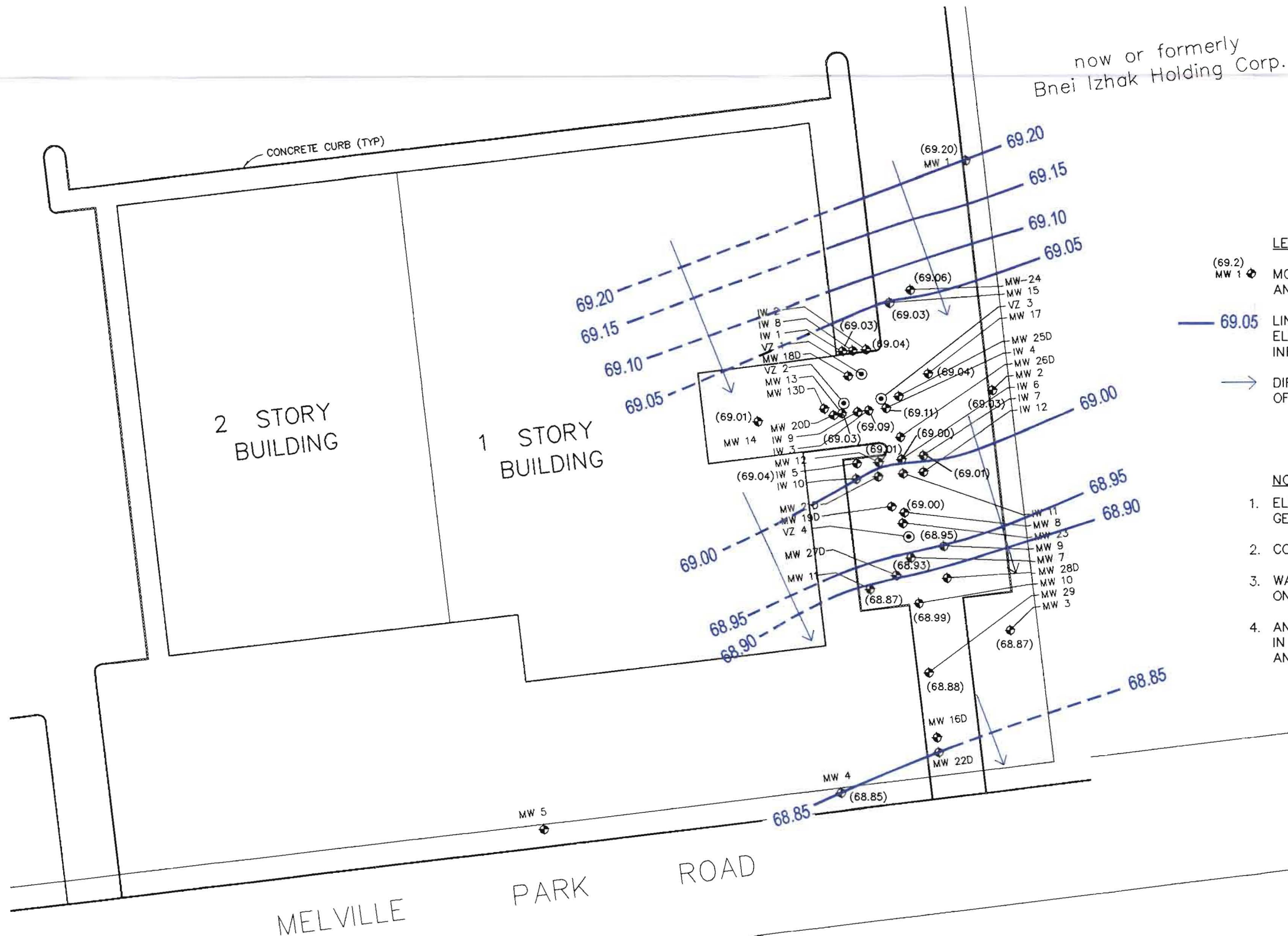
ARCADIS G&M
 88 Duryea Road
 Melville, NY 11747
 Tel: (631) 249-7600 Fax: (631) 249-7610



25 MELVILLE PARK ROAD
 MELVILLE, NEW YORK
 WHCS MELVILLE, L.L.C.

DRAWN M.W.	DATE 6/22/01	PROJECT MANAGER S. FELDMAN	DEPARTMENT MANAGER N. VALKENBURG
MONITORING WELL LOCATION MAP		LEAD DESIGN PROF.	CHECKED C. KEEN
		PROJECT NUMBER NY01332.01.02	DRAWING NUMBER 1

FILE: C:\PROJECT\WHCS_MELVILLE\CADD\WHCS_CONTOURS.DWG, DATE: 10/10/2001 03:09:35PM
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LEGEND

- (69.2)
MW 1
 - 69.05
 -
- MONITORING WELL LOCATION AND WATER-LEVEL ELEVATION
- LINE OF EQUAL WATER-LEVEL ELEVATION IN FEET (DASHED WHERE INFERRED)
- DIRECTION OF HORIZONTAL COMPONENT OF GROUNDWATER FLOW

NOTES


1. ELEVATIONS ARE RELATIVE TO THE NATIONAL GEODETIC VERTICAL DATUM (NGVD) OF 1929.
2. CONTOUR INTERVAL IS 0.05 FEET
3. WATER-LEVEL ELEVATIONS MEASURED ON JULY 30, 2001.
4. ANOMALOUS WATER-LEVEL ELEVATIONS IN MONITORING WELLS IW 3, IW 4, MW 8, AND MW 10 PRESENTED BUT NOT CONTOURED.



NO.	DATE	REVISION DESCRIPTION	BY
			CKD

ARCADIS G&M

88 Duryea Road
 Melville, NY 11747
 Tel: (631) 249-7600 Fax: (631) 249-7610



25 MELVILLE PARK ROAD
 MELVILLE, NEW YORK
 WHCS MELVILLE, L.L.C.

DRAWN A.G.	DATE 9/28/01	PROJECT MANAGER S. FELDMAN	DEPARTMENT MANAGER N. VALKENBURG
WATER TABLE CONTOUR MAP		LEAD DESIGN PROF.	CHECKED C. KEEN
		PROJECT NUMBER NY01332.01.02	DRAWING NUMBER 2



1 STORY BUILDING

IW 2
IW 8
IW 1
VZ 1
MW 18D
VZ 2
MW 15
MW 13D

MW 24
MW 15
VZ 3
MW 17
MW 25D
IW 4
MW 26D
MW 2
IW 6
IW 7
IW 12

(.012) MW 14

MW 20D
IW 9
IW 3

MW 12
IW 5
IW 10

MW 21D
MW 19D
VZ 4

MW 27D
MW 1

MW 4
(.003)

(.062)

(.295)

(.083)

(.062)

(32)
(10.44)

(.624)

(15.08)

(.052)

(11.9)

(7.51)

(.121)

(4.24)

MW 16D

MW 22D

IW 11
MW 8
MW 23
MW 9
MW 7
MW 28D
MW 10
MW 29
MW 3

LEGEND

MW 8 (15.08) LOCATION AND DESIGNATION OF MONITORING WELL AND ASSOCIATED TVOC CONCENTRATION (IN mg/L)

VZ 1 LOCATION AND DESIGNATION OF VADOSE ZONE WELL

0.1 LINE OF EQUAL CONCENTRATION OF TOTAL VOLATILE ORGANIC COMPOUNDS (TVOC) IN mg/L (DASHED WHERE INFERRED)

MW 4
(.003)

MELVILLE PARK ROAD



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DRAWN A.G.

DATE 9/28/01

PROJECT MANAGER S. FELDMAN

DEPARTMENT MANAGER N. VALKENBURG

TVOC CONCENTRATION DISTRIBUTION IN THE SHALLOW AQUIFER ZONE (45-60 FT BLS) AUGUST 2001
25 MELVILLE PARK ROAD
MELVILLE, NEW YORK
WHCS MELVILLE, L.L.C.

LEAD DESIGN PROF.

CHECKED C.K.

PROJECT NUMBER NY01332.01.02

DRAWING NUMBER

3



1 STORY BUILDING

IW 2
IW 8
IW 1
VZ 1
MW 18D

MW 24
MW 15
VZ 3
MW 17

MW 25D
IW 4
MW 26D
MW 2
IW 6
IW 7
IW 12

MW 14
MW 20D
IW 9
IW 3
MW 12
IW 5
IW 10

MW 2D
MW 19D
VZ 4
MW 2D
MW 11

IW 11
MW 8
MW 23
MW 9
MW 7
MW 28D
MW 10
MW 29
MW 3

MW 4

MW 16D
MW 22D

MELVILLE PARK ROAD



SCALE IN FEET

LEGEND

MW 23 (.749) LOCATION AND DESIGNATION OF MONITORING WELL AND ASSOCIATED TVOC CONCENTRATION (IN mg/L)

VZ 1 LOCATION AND DESIGNATION OF VADOSE ZONE WELL

0.1 LINE OF EQUAL CONCENTRATION OF TOTAL VOLATILE ORGANIC COMPOUNDS (TVOC) IN mg/L (DASHED WHERE INFERRER)



DRAWN A.G.	DATE 9/28/01	PROJECT MANAGER S. FELDMAN	DEPARTMENT MANAGER N. VALKENBURG
TVOC CONCENTRATION DISTRIBUTION IN THE INTERMEDIATE AQUIFER ZONE (70-90 FT BLS) AUGUST 2001 25 MELVILLE PARK ROAD MELVILLE, NEW YORK WHCS MELVILLE, L.L.C.		LEAD DESIGN PROF.	CHECKED C.K.
		PROJECT NUMBER NY01332.01.02	DRAWING NUMBER 4

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1 STORY BUILDING

IW 2
IW 8
IW 1
VZ 1
MW 18D
VZ 2
MW 13
MW 13D

MW 24
MW 15
VZ 3
MW 17

MW 25D
IW 4
MW 26D
MW 2
IW 6
IW 7
IW 12

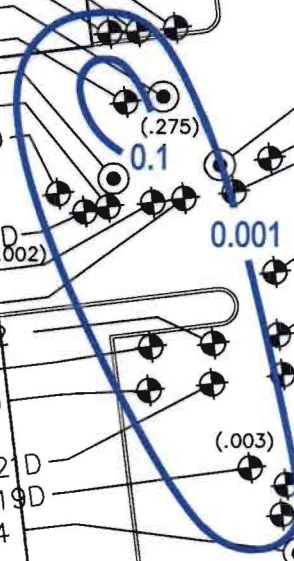
MW 14
MW 20D (.002)
IW 9
IW 3

MW 12
IW 5
IW 10

MW 21D
MW 19D
VZ 4

MW 27D
MW 11

IW 11
MW 8
MW 23
MW 9
MW 7
MW 28D
MW 10
MW 29
MW 3



LEGEND

- MW 19D (.003) LOCATION AND DESIGNATION OF MONITORING WELL AND ASSOCIATED TVOC CONCENTRATION (IN mg/L)
- VZ 1 LOCATION AND DESIGNATION OF VAPOSE ZONE WELL
- 0.1 — LINE OF EQUAL CONCENTRATION OF TOTAL VOLATILE ORGANIC COMPOUNDS (TVOC) IN mg/L (DASHED WHERE INFERRED)

MELVILLE PARK ROAD



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DRAWN A.G.	DATE 9/28/01	PROJECT MANAGER S. FELDMAN	DEPARTMENT MANAGER N. VALKENBURG
TVOC CONCENTRATION DISTRIBUTION IN THE DEEP AQUIFER ZONE (100-185 FT BLS) AUGUST 2001 25 MELVILLE PARK ROAD MELVILLE, NEW YORK WHCS MELVILLE, L.L.C.		LEAD DESIGN PROF.	CHECKED C.K.
		PROJECT NUMBER NY01332.01.02	DRAWING NUMBER 5