



US Army Corps
of Engineers

***LANDFILL 1 COVER
IMPROVEMENTS
at the Former Griffiss Air Force Base
Rome, New York***

***Pump Station Performance Test
Analytical Results***



***Conti Environmental, Inc.
3001 South Clinton Avenue
South Plainfield, NJ 07080***

February 2004



2/24/2004

To: Brett Gorham, COR/NYD/USACE
From: Rich Hamlin, Conti Environmental Project Superintendent

Contract: DACA41-01-D-0004
Former Griffiss Air Force Base

Contractor: Conti Environment & Infrastructure
Subject: Pump Station Performance Test Analytical Results

On 03 November 2003 Conti Environment & Infrastructure along with it's affiliate EA Engineering, conducted a performance test of the pump stations located along the leachate collection trench which is down gradient of Landfill 1 located at the former Griffiss Air Force Base in Rome NY.

Attached please find analytical summaries of the testing that was conducted as well as a brief description of the process for the test.

CC: Joe Wojnas, USACE Project Engineer

Page 1 of 1

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AN EQUAL OPPORTUNITY EMPLOYER



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24 February 2004
EA Project No. 30002.04.0012

MEMORANDUM

TO: Mr. Luis Sejjido, P.E, Conti Environmental, Inc.
FROM: Chris Canonica, P.E., EA Engineering, P.C.
SUBJECT: Pump Station Performance Test Analytical Results

TEST CONDITIONS

The pump station performance test began at 10 AM on 3 November 2003 and was terminated at 9 AM on 4 November 2003 after approximately 250,000 gal of water was pumped at an average flow rate of 180 gpm into the onsite storage tank (Figure 1). Weather conditions were overcast with minor precipitation and temperatures ranging from 40-50° Farenheit.

ANALYTICAL SAMPLING ACTIVITIES

EA Engineering, P.C. performed 3 sampling events during the pump station performance test: at the beginning (10:00 AM; 3 November 2003), at the approximate midpoint (5:00 PM; 3 November 2003), and after the completion of the pump station performance test (10:00 AM, 4 November 2003)¹. Each sampling event lasted approximately 6 hours and included collecting a sample from each of the 7 pump stations and the combined influent to the storage tank. The stations were sampled in the same order during each sampling event. In addition, duplicate, triplicate, and MS/MSD samples were also collected in accordance with the methods outlined in the FSP/SAP and the frequency outlined in the QAPP (EA 2003).

Prior to sample collection, field measurements of temperature, pH, Eh, specific conductivity, turbidity, and dissolved oxygen were collected. Groundwater samples were analyzed in accordance with baseline parameters detailed in NYSDEC NYCRR Part 360-2.11(d)(6), using the analytical test methods detailed in Table 1. Total metals were collected during each of the sampling events. In addition, filtered samples were collected during the second sampling event and analyzed for dissolved metals.

¹ During the third round of sampling, the combined influent sample was collected prior to completion of the pump performance test (5:25 AM).



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ANALYTICAL RESULTS

Table 2A provides a summary of the minimum/maximum concentration of each parameter detected above the New York State Ambient Water Quality Class GA (groundwater) Standards and Guidance Values² at each pumping station. Table 2 B provides a summary of the concentration of each parameter detected above the New York State Ambient Water Quality Class C (surface water) Standards and Guidance Values at each fen sampling location.

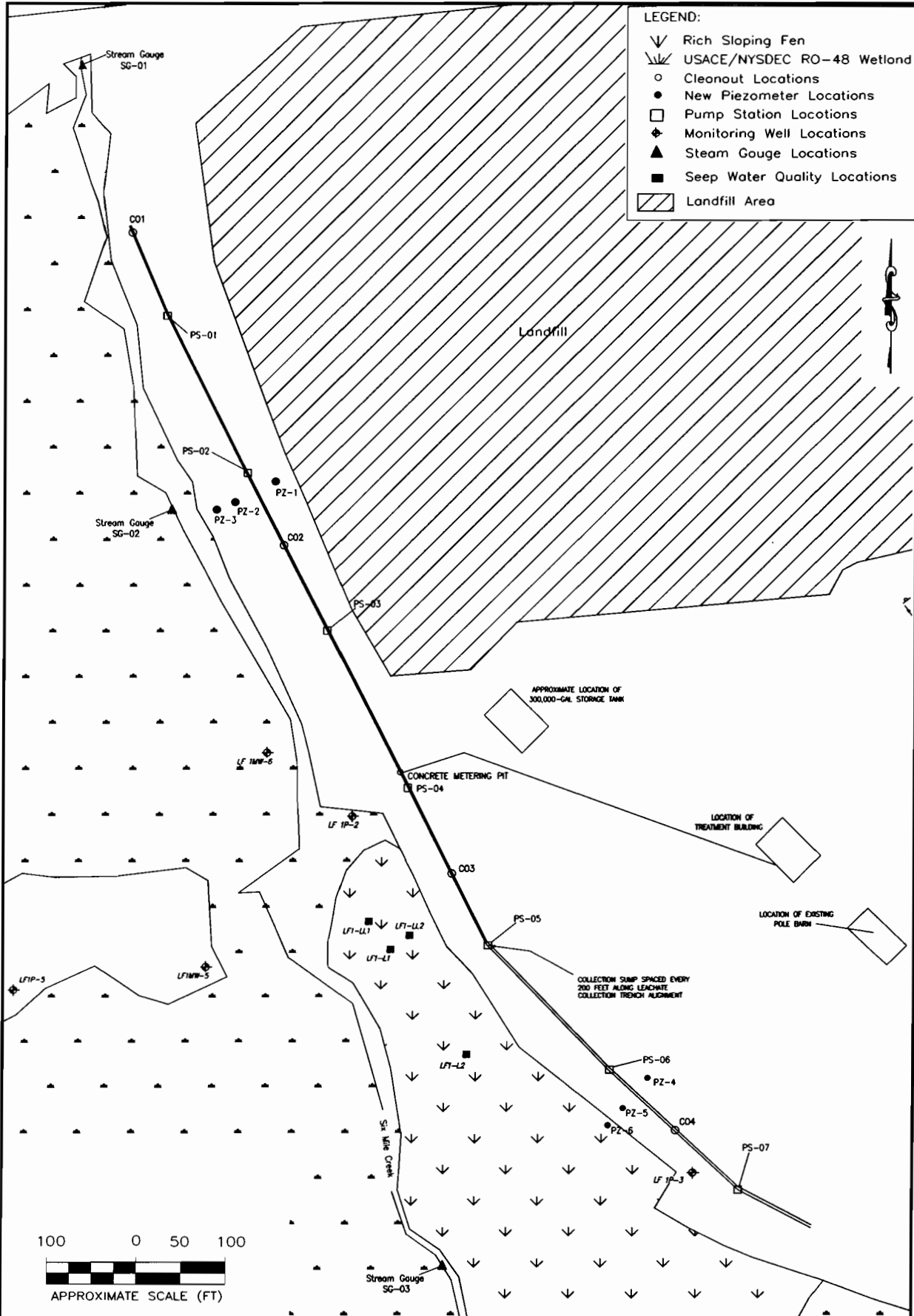
Comprehensive lists of the analytical results for compounds detected at each pumping station, the combined influent samples, and the fen sampling locations³ are provided in Tables 3 and 4. The results have been compared to New York State Ambient Water Quality Class GA (groundwater) and Class C (surface water) Standards and Guidance Values⁴ (NYS AWQS), values provided in the New York State Department of Environmental Conservation, Division of Water permit⁵ (NYSDEC permit limit), and EPA National Primary/Secondary Drinking Water Standards (MCL). Tables 5 and 6 provide reference values for calculated Class C NYS AWQS standards or guidance values. These calculations are based on formulas provided in the reference document and are calculated based on values (i.e., pH and hardness) specific to each location and each event.

² New York State Department of Environmental Conservation. 1998. Division of Water Technical and Operational Guidance Series (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations.

³ Analytical sampling at the fen locations was performed on 31 October 2003.

⁴ New York State Department of Environmental Conservation. 1998. Division of Water Technical and Operational Guidance Series (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations.

⁵ New York State Department of Environmental Conservation, Division of Water, Permit 6-33-006, issued 15 July 2003.



		EA ENGINEERING, P.C. AND ITS AFFILIATE EA ENGINEERING, SCIENCE, AND TECHNOLOGY		FORMER GRIFFISS AFB ROME, NEW YORK		FIGURE 1 PUMP STATION PERFORMANCE TEST MONITORING LOCATIONS	
PROJECT MGR: CM	DESIGNED BY: DC	DRAWN BY: DC	CHECKED BY: PM	SCALE: AS SHOWN	DATE: 05 FEB 2004	PROJECT NO: 30002.04	FILE NO: PUMP TEST

TABLE 1 SUMMARY OF ANALYTICAL SAMPLING PROGRAM
DURING PUMP STATION PERFORMANCE TEST

PARAMETER	TEST METHOD ^(a)
Field Parameters	
Static water level	Water level indicator
Specific conductance	Horiba U-22
Temperature	Horiba U-22
Floater or Sinkers	Interface probe
pH	Horiba U-22
Eh	Horiba U-22
Dissolved Oxygen	Horiba U-22
Turbidity	Horiba U-22
Leachate Indicators	
Total Kjeldahl Nitrogen	EPA 351.1
Total Suspended Solids	EPA 180
Ammonia	EPA 350.1
Nitrate	EPA 9200
Chemical Oxygen Demand	EPA 410.1
Biochemical Oxygen Demand	EPA 405.1
Total Organic Carbon	EPA 9060
Total Dissolved Solids	EPA 160.1
Sulfate	EPA 9035
Alkalinity	EPA 310.1
Phenols	EPA 8040
Chloride	EPA 9250
Bromide	EPA 320.1
Total hardness as CaCO ₃	EPA 130.1
Color	EPA 110.1
Inorganic Parameters	
Aluminum	EPA 7020
Antimony	EPA 6010
Arsenic	EPA 6010
Barium	EPA 6010
Beryllium	EPA 6010
Boron	---
Cadmium	EPA 6010
Calcium	EPA 7140
Chromium	EPA 6010
Hexavalent Chromium	EPA 7195
(a) Suggested method. See NYSDEC NYCRR Part 360-2.11(d)(6) for alternatives.	
NOTE: NA = Not applicable. "---" = Not provided.	

TABLE 1 (Continued)

PARAMETER	TEST METHOD ^(a)
Cobalt	EPA 6010
Copper	EPA 6010
Cyanide	EPA 9010
Iron	EPA 7380
Lead	EPA 6010
Magnesium	EPA 7450
Manganese	EPA 7460
Mercury	EPA 245.1
Nickel	EPA 6010
Potassium	EPA 7610
Selenium	EPA 6010
Silver	EPA 6010
Sodium	EPA 7770
Thallium	EPA 6010
Tin	EPA 6010
Vanadium	EPA 6010
Zinc	EPA 6010
Organic Parameters	
Acenaphthene	EPA 8270
Acenaphthylene	EPA 8270
Acetone	EPA 8260
Acetonitrile	EPA 8015
Acetophenone	EPA 8270
2-Acetylaminofluorene	EPA 8270
Acrolein	EPA 8260
Acrylonitrile	EPA 8260
Aldrin	EPA 8270
Allyl chloride	EPA 8260
4-Aminobiphenyl	EPA 8270
Anthracene	EPA 8270
Benzene	EPA 8260
Benzo[a]anthracene	EPA 8270
Benzo[b]fluoranthene	EPA 8270
Benzo[k]fluoranthene	EPA 8270
Benzo[ghi]perylene	EPA 8270
Benzo[a]pyrene	EPA 8270
Benzyl alcohol	EPA 8270
alpha-BHC	EPA 8270
beta-BHC	EPA 8270
delta-BHC	EPA 8270
gamma-BHC	EPA 8270

TABLE 1 (Continued)

PARAMETER	TEST METHOD ^(a)
Bis(2-chloroethoxy)methane	EPA 8270
Bis(2-chloroethyl)ether	EPA 8270
Bis(2-chloro-1-methyl-ethyl)ether	EPA 8270
Bis(2-ethylhexyl)phthalate	EPA 8270
Bromochloromethane	EPA 8260
Bromodichloromethane	EPA 8260
Bromoform	EPA 8260
4-Bromophenyl phenyl ether	EPA 8270
Butyl benzyl phthalate	EPA 8270
Carbon disulfide	EPA 8260
Carbon tetrachloride	EPA 8260
Chlordane	EPA 8270
p-Chloroaniline	EPA 8270
Chlorobenzene	EPA 8260
Chlorobenzilate	EPA 8270
p-Chloro-m-cresol	EPA 8270
Chloroethane	EPA 8021
Chloroform	EPA 8260
2-Chloronaphthalene	EPA 8270
2-Chlorophenol	EPA 8270
4-Chlorophenyl phenyl ether	EPA 8270
Chloroprene	EPA 8260
Chrysene	EPA 8270
m-Cresol	EPA 8270
o-Cresol	EPA 8270
p-Cresol	EPA 8270
2-4-D	EPA 8150
4,4-DDD	EPA 8270
4,4-DDE	EPA 8270
4,4-DDT	EPA 8270
Diallate	EPA 8270
Dibenz[a,h]anthracene	EPA 8270
Dibenzofuran	EPA 8270
Dibromochloromethane	EPA 8260
1,2-Dibromo-3-chloropropane	EPA 8260
1,2-Dibromoethane	EPA 8260
Di-n-butyl phthalate	EPA 8270

TABLE 1 (Continued)

PARAMETER	TEST METHOD ^(a)
1,2-Dichlorobenzene	EPA 8260
1,3-Dichlorobenzene	EPA 8260
1,4-Dichlorobenzene	EPA 8260
3,3'-Dichlorobenzene	EPA 8260
trans-1,4-Dichloro-2-butene	EPA 8260
Dichlorodifluoromethane	EPA 8260
1,1-Dichloroethane	EPA 8260
1,2-Dichloroethane	EPA 8260
1,1-Dichloroethylene	EPA 8260
cis-1,2-Dichloroethylene	EPA 8260
trans-1,2-Dichloroethylene	EPA 8260
2,4-Dichlorophenol	EPA 8270
2,6-Dichlorophenol	EPA 8270
1,2-Dichloropropane	EPA 8260
1,3-Dichloropropane	EPA 8260
2,2-Dichloropropane	EPA 8260
1,1-Dichloropropene	EPA 8260
cis-1,3-Dichloropropene	EPA 8260
trans-1,3-Dichloropropene	EPA 8260
Dieldrin	EPA 8270
Diethyl phthalate	EPA 8270
0,0-Diethyl 0-2-pyrazinyl phosphorothioate	EPA 8270
Dimethoate	EPA 8270
p-(Dimethylamino)azo-benzene	EPA 8270
7,12-Dimethylbenz[a]-anthracene	EPA 8270
3,3'-Dimethylbenzidine	EPA 8270
2,4-Dimethylphenol	EPA 8270
Dimethyl phthalate	EPA 8270
m-Dinitrobenzene	EPA 8270
4,6-Dinitro-o-cresol	EPA 8270
2,4-Dinitrophenol	EPA 8270
2,4-Dinitrotoluene	EPA 8270
2,6-Dinitrotoluene	EPA 8270
Dinoseb	EPA 8270
Di-n-octyl phthalate	EPA 8270
Diphenylamine	EPA 8270
Disulfoton	EPA 8270
Endosulfan I	EPA 8270

TABLE 1 (Continued)

PARAMETER	TEST METHOD ^(a)
Endosulfan II	EPA 8270
Endosulfan sulfate	EPA 8270
Endrin	EPA 8270
Endrin aldehyde	EPA 8270
Ethylbenzene	EPA 8260
Ethyl methacrylate	EPA 8270
Ethyl methanesulfonate	EPA 8270
Famphur	EPA 8270
Fluoranthene	EPA 8270
Fluorene	EPA 8270
Heptachlor	EPA 8270
Heptachlor epoxide	EPA 8270
Hexachlorobutadiene	EPA 8270
Hexachlorocyclopentadiene	EPA 8270
Hexachloroethane	EPA 8270
Hexachlorobenzene	EPA 8270
Hexachloropropene	EPA 8270
2-Hexanone	EPA 8260
Indeno(1,2,3-cd)pyrene	EPA 8270
Isobutyl alcohol	EPA 8240
Isodrin	EPA 8260
Isophorone	EPA 8270
Isafrole	EPA 8270
Kepone	EPA 8270
Methacrylonitrile	EPA 8260
Methapyrilene	EPA 8270
Methoxychlor	EPA 8270
Methyl bromide	EPA 8021
Methyl chloride	EPA 8021
3-Methylcholanthrene	EPA 8021
Methyl ethyl ketone	EPA 8260
Methyl iodide	EPA 8260
Methyl methacrylate	EPA 8260
Methyl methanesulfonate	EPA 8270
2-Methylnaphthalene	EPA 8270
Methyl parathion	EPA 8270
4-Methyl-2-pentanone	EPA 8260
Methylene bromide	EPA 8260
Methylene chloride	EPA 8260
Naphthalene	EPA 8270
1,4-Naphthoquinone	EPA 8270
1-Naphthylamine	EPA 8270

TABLE 1 (Continued)

PARAMETER	TEST METHOD ^(a)
2-Naphthylamine	EPA 8270
o-Nitroaniline	EPA 8270
m-Nitroaniline	EPA 8270
p-Nitroaniline	EPA 8270
Nitrobenzene	EPA 8270
o-Nitrophenol	EPA 8270
p-Nitrophenol	EPA 8270
N-Nitrosodi-n-butylamine	EPA 8270
N-Nitrosodiethylamine	EPA 8270
N-Nitrosodimethylamine	EPA 8070
N-Nitrosodiphenylamine	EPA 8070
N-Nitrosodipropylamine	EPA 8070
N-Nitrosomethylethalamine	EPA 8270
N-Nitrosopiperidine	EPA 8270
5-Nitro-o-toluidine	EPA 8270
Parathion	EPA 8270
Pentachlorobenzene	EPA 8270
N-Nitrosopyrrolidine	EPA 8270
Pentachloronitrobenzene	EPA 8270
Pentachlorophenol	EPA 8270
Phenacetin	EPA 8270
Phenanthrene	EPA 8270
Phenol	EPA 8040
p-Phenylenediamine	EPA 8270
Phorate	EPA 8270
Polychlorinated biphenyls	EPA 8082
Polychlorinated dibenzo-p-dioxins	EPA 8280
Polychlorinated dibenzo-furans	EPA 8280
Pronamide	EPA 8270
Propionitrile	EPA 8260
Pyrene	EPA 8270
Safrole	EPA 8270
Silvex	EPA 8150
Styrene	EPA 8260
2,4,5-T	EPA 8150
1,2,4,5-Tetrachlorobenzene	EPA 8270
2,3,8-Tetrachlorodibenzo-p-dioxin	EPA 8270
1,1,1,2-Tetrachloroethane	EPA 8260
1,1,2,2-Tetrachloroethane	EPA 8260

TABLE 1 (Continued)

PARAMETER	TEST METHOD ^(a)
Tetrachloroethylene	EPA 8260
2,3,4,6-Tetrachlorophenol	EPA 8270
Toluene	EPA 8260
o-Toluidine	EPA 8270
Toxaphene	EPA 8080
1,2,4-Trichlorobenzene	EPA 8270
1,1,1-Trichloroethane	EPA 8260
1,1,2-Trichloroethane	EPA 8260
Trichloroethylene	EPA 8260
Trichlorofluoromethane	EPA 8260
2,4,5-Trichlorophenol	EPA 8270
2,4,6-Trichlorophenol	EPA 8270
1,2,3-Trichloropropane	EPA 8260
0,0,0-Triethyl phosphorothioate	EPA 8270
sym-Trinitrobenzene	EPA 8270
Vinyl acetate	EPA 8260
Vinyl chloride	EPA 8260
Xylenes (total)	EPA 8260
P-Cymene	EPA 8260
Isopropylbenzene	EPA 8260
n-propylbenzene	EPA 8260
1,2,4 Triethylbenzene	EPA 8260
1,3,5 TriMethylbenzene	EPA 8260
M,P-Xylene	EPA 8260

TABLE 2A. SUMMARY OF RANGE OF DETECTED PARAMETERS
PUMP STATION PERFORMANCE TEST

HERBICIDES ^(a)																	
LEACHATE INDICATORS (ug/L)																	
Parameter	NYS AWQS Class GA	COMBINED		PS-01		PS-02		PS-03		PS-04		PS-05		PS-06		PS-07	
		Minimum (ug/L)	Maximum (ug/L)	Minimum (ug/L)	Maximum (ug/L)	Minimum (ug/L)	Maximum (ug/L)	Minimum (ug/L)	Maximum (ug/L)	Minimum (ug/L)	Maximum (ug/L)	Minimum (ug/L)	Maximum (ug/L)	Minimum (ug/L)	Maximum (ug/L)	Minimum (ug/L)	Maximum (ug/L)
Phenols (total)	1	--	--	--	--	--	--	--	--	5.5	5.5	7.8	7.8	5.5	5.5	--	--
Iron	300	2,620	10,600	388	626	4,370	14,000	3,760(b)	13,800	7,880(b)	25,500	8,060	9,380	362	1,300	327	1,240
Manganese	300	2,100	2,350	1,540(b)	1,780	2,630	3,100	2,550	2,970	1,510	1,640	1,870(b)	1,990	611	1,420	2,170	2,860
METALS (ug/L)																	
POLYCHLORINATED BIPHENYLS ^(c)																	
PESTICIDES ^(d)																	
SEMIVOLATILE ORGANIC COMPOUNDS (ug/L)																	
Parameter	NYS AWQS Class GA	COMBINED		PS-01		PS-02		PS-03		PS-04		PS-05		PS-06		PS-07	
		Minimum (ug/L)	Maximum (ug/L)	Minimum (ug/L)	Maximum (ug/L)	Minimum (ug/L)	Maximum (ug/L)	Minimum (ug/L)	Maximum (ug/L)	Minimum (ug/L)	Maximum (ug/L)	Minimum (ug/L)	Maximum (ug/L)	Minimum (ug/L)	Maximum (ug/L)	Minimum (ug/L)	Maximum (ug/L)
2,4-Dichlorophenol	1	--	--	--	--	--	--	--	--	5 J	7.4 J	--	--	--	--	--	--
2,4-Dimethylphenol	5	--	--	--	--	--	--	--	--	7.3 J	7.3 J	--	--	--	--	--	--
2-Nitroaniline	5	--	--	--	--	--	--	--	--	7.6 J	7.6 J	--	--	--	--	--	--
4-Nitroaniline	5	--	--	--	--	--	--	--	--	6.6 J	6.6 J	--	--	--	--	--	--
Benzo(b)anthracene	0.002	--	--	--	--	--	--	--	--	6.9 J	6.9 J	--	--	--	--	--	--
Benzo(k)fluoranthene	0.002	--	--	--	--	--	--	--	--	7 J	7 J	--	--	--	--	--	--
Bis(2-Chlorethyl)Ether	1	--	--	--	--	--	--	--	--	3.9 J	3.9 J	--	--	--	--	--	--
bis(2-Ethylhexyl)phthalate	5	--	--	--	--	--	--	--	--	9.1 J	9.1 J	--	--	--	--	--	--
Chrysene	0.002	--	--	--	--	--	--	--	--	7.5 J	7.5 J	--	--	--	--	--	--
Hexachlorobenzene	0.04	--	--	--	--	--	--	--	--	5.4 J	5.4 J	--	--	--	--	--	--
Hexachlorbutadiene	0.5	--	--	--	--	--	--	--	--	2.1 J	2.1 J	--	--	--	--	--	--
Indeno(1,2,3-cd)pyrene	0.002	--	--	--	--	--	--	--	--	6.9 J	6.9 J	--	--	--	--	--	--
Naphthalene	10	--	--	--	--	--	--	--	--	10	10	--	--	--	--	--	--
Nitrobenzene	0.4	--	--	--	--	--	--	--	--	2.3 J	2.3 J	--	--	--	--	--	--
Pentachlorophenol	1	--	--	--	--	--	--	--	--	3.4 J	3.4 J	--	--	--	--	--	--
Phenol	1	--	--	--	--	--	--	--	--	6.5 J	6.5 J	--	--	--	--	--	--
VOLATILE ORGANIC COMPOUNDS (ug/L)																	
Parameter	NYS AWQS Class GA	COMBINED		PS-01		PS-02		PS-03		PS-04		PS-05		PS-06		PS-07	
		Minimum (ug/L)	Maximum (ug/L)	Minimum (ug/L)	Maximum (ug/L)	Minimum (ug/L)	Maximum (ug/L)	Minimum (ug/L)	Maximum (ug/L)	Minimum (ug/L)	Maximum (ug/L)	Minimum (ug/L)	Maximum (ug/L)	Minimum (ug/L)	Maximum (ug/L)	Minimum (ug/L)	Maximum (ug/L)
1,2,4-Trimethylbenzene	5	14	16	--	--	8	8	21	26	78	92	--	--	--	--	--	--
1,3,5-Trimethylbenzene	5	8.9	9.7	--	--	5.3	5.3	13	16	42	48	--	--	--	--	--	--
1,4-Dichlorobenzene	3	6.2	7.2	--	--	3.4	6.7	9.5	11	15	17	--	--	--	--	--	--
4-Isopropyltoluene	5	1.5 J	1.7 J	--	--	1.1 J	1.6 J	2.2 J	2.4 J	2.9 J	3 J	--	--	--	--	--	--
Chlorobenzene	5	5.6	6.9	--	--	6.4	6.4	9.7	10	14	15	--	--	--	--	--	--
Ethylbenzene	5	--	--	--	--	--	--	5.3	6	14	17	--	--	--	--	--	--
Isopropylbenzene	5	--	--	--	--	--	--	15	17	15	17	--	--	--	--	--	--
Methylene chloride	5	--	--	--	--	--	--	--	5.2	6.4	6.4	--	--	--	--	--	--
n-Propylbenzene	5	--	--	--	--	--	--	--	11	13	13	--	--	--	--	--	--
Toluene	5	8.8	11	5.5	5.5	--	--	--	--	7.2	9.8	--	--	--	--	--	--
Xylenes (total)	5	8.8	11	--	--	--	--	9.9	14	64	80	--	--	--	--	--	--

(a) No herbicides were reported above laboratory detection limits during the sampling event.

(b) Reported in filtered sample.

(c) No polychlorinated were reported above laboratory detection limits (0.05 ug/L) during the sampling event.

(d) No pesticides were reported above laboratory detection limits during the sampling event.

TABLE 2B SUMMARY OF RANGE OF DETECTED PARAMETERS
FEN SAMPLING

HERBICIDES ^(a)					
LEACHATE INDICATORS (ug/L)					
Parameter	NYS AWQS Class C	L1	L2	LL1	LL2
Ammonia-Nitrogen	(b)	2,900	1,300	2,700	1,900
METALS (ug/L)					
Parameter	NYS AWQS Class C	L1	L2	LL1	LL2
Aluminum	100	--	--	--	161 B
Copper	(b)	--	58.1	--	--
Iron	300	86,800	120,000	16,500	1,910
Lead	(b)	--	96	--	--
Mercury	0	--	0.29	--	--
Selenium	4.6	6	10.5	--	--
Silver	0.1	--	2.1 B	--	--
Vanadium	14	--	34.2 B	--	--
POLYCHLORINATED BIPHENYLS ^(c)					
PESTICIDES ^(d)					
SEMIVOLATILE ORGANIC COMPOUNDS (ug/L)					
Parameter	NYS AWQS Class C	L1	L2	LL1	LL2
1,4-Dichlorobenzene	5	5.6	--	--	--
VOLATILE ORGANIC COMPOUNDS ^(e)					
(a) No herbicides were reported above laboratory detection limits during the sampling event.					
(b) Calculated standard (see Tables 5 and 6).					
(c) No polychlorinated were reported above laboratory detection limits (0.05 ug/L) during the sampling event.					
(d) No pesticides were reported above laboratory detection limits during the sampling event.					
(e) No volatile organic compounds were reported above laboratory detection limits during the sampling event.					

TABLE 3 LF1 LEACHATE TRENCH ANALYTICAL RESULTS FOR ANALYTES DETECTED
DURING THE NOVEMBER 2003 PUMP TEST.

Parameter	units	NYS AWQS Groundwater	NYSDEC Permit Limit ^(a)	EPA MCL ^(b) or Secondary Drinking Water Standard ^(c)	NYS AWQS Surface Water (Class C)	FIRST	SECOND	SECOND ^(d)	THIRD
COMBINED									
FIELD PARAMETERS									
pH	s.u.	--	6.0 - 9.0	6.0 - 9.0	--	6.89	7.55	--	7.52
HERBICIDES									
DCAA	ug/L	--	--	--	--	9.4	8.9	--	7.6
LEACHATE INDICATOR									
Alkalinity (as CaCO ₃)	ug/L	--	--	--	--	385000	404000	--	411000
Ammonia-Nitrogen	ug/L	--	4000	--	**	2400	2800	--	3000
BOD 5	ug/L	--	10000	--	--	7000	5800	--	7400
Bromide	ug/L	2000	--	--	--	230	200 U	--	400 U
Chemical Oxygen Demand	ug/L	--	--	--	--	25900	20000 U	--	65700
Chloride, Total	ug/L	250000	--	250000	--	8700	8500	--	8500
Color	PCU	--	--	--	--	60	80	--	60
Nitrate-nitrogen	ug/L	--	--	10000	--	200	210	--	140
Nitrite nitrogen	ug/L	--	--	1000	20	4.8 J	9.3 J	--	8.4 J
Nitrite-nitrate nitrogen	ug/L	--	--	--	--	200	220	--	150
Sulfate, Total	ug/L	250000	--	250000	--	18500	13000	--	9300
Total Dissolved Solids	ug/L	--	--	--	--	451000	496000	--	495000
Total Hardness as CaCO ₃	ug/L	--	--	--	--	500000	610000	--	710000
Total Kjeldahl Nitrogen	ug/L	--	--	--	--	2700	3800	--	2700
Total Organic Carbon	ug/L	--	--	--	--	5400	4200	--	5300
Turbidity (NTU)	NTU	--	--	--	--	21.1	32.5	--	31.3
METALS									
Aluminum	ug/L	--	6100	--	100	78.7 B	114 B	30.7 U	364
Arsenic	ug/L	25	--	10	150	4.1 U	3.5 U	3.5 U	4.7 B
Barium	ug/L	1000	--	2000	--	111 B	115 B	102 B	121 B
Calcium	ug/L	--	--	--	--	161000	156000	160000	160000
Chromium	ug/L	50	50	100	**	1.1 U	1.3 U	1.3 U	2.9 B
Cobalt	ug/L	--	--	--	--	3 B	3.4 B	3.2 B	4.2 B
Copper	ug/L	200	--	--	**	6 B	6.6 B	2.5 B	3.6 B
Iron	ug/L	300	2000	300	300	9360	9910	2620	10600
Lead	ug/L	25	300	15	**	2.2 B	2.8 U	2.8 U	2.1 B
Magnesium	ug/L	35000	--	--	--	8420	8320	8560	8790
Manganese	ug/L	300	300	50	--	2100	2250	2340	2350
Nickel	ug/L	100	200	--	**	2.9 B	2.8 U	2.8 U	4 B
Potassium	ug/L	--	--	--	--	2770 B	5490	5800	5660
Sodium	ug/L	20000	--	--	--	7950	7110	7470	7980
Tin	ug/L	--	--	--	--	4.3 U	3.5 U	3.5 U	5.2 B
Zinc	ug/L	2000	3000	--	**	20.3	19.8 B	19.3 B	26.6
PESTICIDES									
Decachlorobiphenyl	ug/L	--	--	--	--	0.19	0.15	--	0.31
Tetrachloro-m-xylene	ug/L	--	--	--	--	0.36	0.31	--	0.36
SVOCS									
2,4,6-Tribromophenol	ug/L	--	--	--	--	63	73	--	73
2-Fluorobiphenyl	ug/L	--	--	--	--	45	47	--	44
2-Fluorophenol	ug/L	--	--	--	--	46	49	--	48
2-Methylnaphthalene	ug/L	--	--	--	4.7	2.1 J	2.1 J	--	2 J
bis(2-Ethylhexyl)phthalate	ug/L	5	--	--	0.6	1 J	10 U	--	10 U
Diethylphthalate	ug/L	50	--	--	--	2.2 J	2.7 J	--	2.8 J
Naphthalene	ug/L	10	10	--	13	2 J	2.2 J	--	2.2 J

Parameter	units	NYS AWQS Groundwater	NYSDEC Permit Limit ^(a)	EPA MCL ^(b) or Secondary Drinking Water Standard ^(c)	NYS AWQS Surface Water (Class C)	FIRST	SECOND	SECOND ^(d)	THIRD
VOCS									
1,2,4-Trimethylbenzene	ug/L	5	10	70	33	14	16	--	16
1,3,5-Trimethylbenzene	ug/L	5	10	--	--	8.9	9.4	--	9.7
1,4-Dichlorobenzene	ug/L	3	10	75	5	6.2	7	--	7.2
4-Isopropyltoluene	ug/L	5	--	--	--	2.2 J	2.2 J	--	2.3 J
Acetone	ug/L	50	--	--	--	5 U	1.2 J	--	5 U
Benzene	ug/L	1	5	5	10	1.5 J	1.6 J	--	1.7 J
Bromofluorobenzene	ug/L	--	--	--	--	53	53	--	52
Chlorobenzene	ug/L	5	10	100	400	5.6	6.4	--	6.9
Ethylbenzene	ug/L	5	5	700	17	2 J	1.9 J	--	2 J
Isopropylbenzene	ug/L	5	10	--	2.6	3.5 J	3.4 J	--	3.5 J
Methyl Methacrylate	ug/L	50	--	--	--	2.8 J	2.9 J	--	2.8 J
Methylene Chloride	ug/L	5	--	--	200	1.9 J	1.7 J	--	1.7 J
n-Propylbenzene	ug/L	5	10	--	--	2.3 J	2.3 J	--	2.4 J
Xylenc (m,p)	ug/L	5	10	--	--	8.8	10	--	11
Xylenes (total)	ug/L	5	10	1000	65	8.8	10	--	11

Parameter	units	NYS AWQS Groundwater	NYSDEC Permit Limit ^(a)	EPA MCL ^(b) or Secondary Drinking Water Standard ^(c)	NYS AWQS Surface Water (Class C)	FIRST	SECOND	SECOND ^(d)	THIRD
PS01									
FIELD PARAMETERS									
pH	s.u.	--	6.0 - 9.0	6.0 - 9.0	--	7.19	6.73	--	6.81
HERBICIDES									
DCAA	ug/L	--	--	--	--	9.8	8.7	--	7.8
LEACHATE INDICATOR									
Alkalinity (as CaCO3)	ug/L	--	--	--	--	296000	290000	--	306000
Ammonia-Nitrogen	ug/L	--	4000	--	**	1000	1200	--	1200
Chemical Oxygen Demand	ug/L	--	--	--	--	25900	20000 U	--	20000 U
Chloride, Total	ug/L	250000	--	250000	--	3200	3200	--	3800
Color	PCU	--	--	--	--	10	10	--	10
Nitrate-nitrogen	ug/L	--	--	10000	--	2500	2400	--	2100
Nitrite nitrogen	ug/L	--	--	1000	20	14 J	16 J	--	13 J
Nitrite-nitrate nitrogen	ug/L	--	--	--	--	2500	2400	--	2100
Sulfate, Total	ug/L	250000	--	250000	--	20900	19400	--	18900
Total Dissolved Solids	ug/L	--	--	--	--	377000	381000	--	440000
Total Hardness as CaCO3	ug/L	--	--	--	--	460000	650000	--	490000
Total Kjeldahl Nitrogen	ug/L	--	--	--	--	1300	1400	--	1900
Total Organic Carbon	ug/L	--	--	--	--	5800	7000	--	6000
Turbidity (NTU)	NTU	--	--	--	--	4.2	4.8	--	3.5
METALS									
Aluminum	ug/L	--	6100	--	100	32.5 B	319	30.7 U	167 B
Arsenic	ug/L	25	--	10	150	4.1 U	3.5 U	3.5 U	4.5 B
Barium	ug/L	1000	--	2000	--	62.3 B	63.4 B	56.9 B	61.6 B
Calcium	ug/L	--	--	--	--	132000	134000	123000	128000
Chromium	ug/L	50	50	100	**	1.1 U	2 B	1.3 U	1.2 B
Copper	ug/L	200	--	--	**	2.2 U	2.6 B	2 U	2.2 U
Iron	ug/L	300	2000	300	300	494	626	30 U	388
Lead	ug/L	25	300	15	**	1.4 B	2.8 U	2.8 U	3 B
Magnesium	ug/L	35000	--	--	--	7760	7940	7270	7500
Manganese	ug/L	300	300	50	--	1630	1710	1540	1780
Nickel	ug/L	100	200	--	**	2.4 U	2.8 U	2.8 U	3.4 B
Potassium	ug/L	--	--	--	--	672 B	3680 B	3230 B	3570 B
Sodium	ug/L	20000	--	--	--	3880 B	4060 B	3680 B	4540 B
Zinc	ug/L	2000	3000	--	**	6.2 B	21.3	8.3 B	12.8 B
PESTICIDES									
Dccachlorobiphenyl	ug/L	--	--	--	--	0.29	0.25	--	0.32
Tetrachloro-m-xylene	ug/L	--	--	--	--	0.35	0.33	--	0.32
SVOCs									
2,4,6-Tribromophenol	ug/L	--	--	--	--	56	72	--	75
2-Fluorobiphenyl	ug/L	--	--	--	--	42	42	--	44
2-Fluorophenol	ug/L	--	--	--	--	41	44	--	46
Diethylphthalate	ug/L	50	--	--	--	0.67 J	0.6 J	--	0.94 J
VOCS									
1,2,4-Trimethylbenzene	ug/L	5	10	70	33	2.4 J	5 U	--	1 J
1,3,5-Trimethylbenzene	ug/L	5	10	--	--	2.5 J	5 U	--	0.93 J
1,4-Dichlorobenzene	ug/L	3	10	75	5	2.2 J	2.3 J	--	2.7 J
Acetone	ug/L	50	--	--	--	3 J	1.9 J	--	3.3 J
Bromofluorobenzene	ug/L	--	--	--	--	54	52	--	53
Carbon Disulfide	ug/L	--	--	--	--	0.98 J	2.4 J	--	1.6 J
Methylene Chloride	ug/L	5	--	--	200	1.6 J	5 U	--	5 U
Toluene	ug/L	5	--	1000	6000	2 J	4.9 J	--	5.5
Xylene (m,p)	ug/L	5	10	--	--	1.6 J	5 U	--	0.94 J
Xylenes (total)	ug/L	5	10	1000	65	1.6 J	10 U	--	0.94 J

Parameter	units	NYS AWQS Groundwater	NYSDEC Permit Limit ^(a)	EPA MCL ^(b) or Secondary Drinking Water Standard ^(c)	NYS AWQS Surface Water (Class C)	FIRST	SECOND	SECOND ^(d)	THIRD
PS02									
FIELD PARAMETERS									
pH	s.u.	--	6.0 - 9.0	6.0 - 9.0	--	7.49	7.63	--	7.7
HERBICIDES									
2,4,5-TP (Silvex)	ug/L	0.26	--	50	--	0.16 P	0.14 U	--	0.14 U
DCAA	ug/L	--	--	--	--	9.4	8.6	--	8.5
LEACHATE INDICATOR									
Alkalinity (as CaCO ₃)	ug/L	--	--	--	--	447000	394000	--	338000
Ammonia-Nitrogen	ug/L	--	4000	--	**	2600	2500	--	1600
BOD 5	ug/L	--	10000	--	--	5000 U	6700	--	5000 U
Bromide	ug/L	2000	--	--	--	330	240	--	200 U
Chloride, Total	ug/L	250000	--	250000	--	9900	8400	--	4600
Color	PCU	--	--	--	--	25	45	--	30
Nitrate-nitrogen	ug/L	--	--	10000	--	390	140	--	170
Nitrite nitrogen	ug/L	--	--	1000	20	9.8 J	14 J	--	11 J
Nitrite-nitrate nitrogen	ug/L	--	--	--	--	400	150	--	180
Sulfate, Total	ug/L	250000	--	250000	--	10000	12500	--	19600
Total Dissolved Solids	ug/L	--	--	--	--	507000	471000	--	428000
Total Hardness as CaCO ₃	ug/L	--	--	--	--	630000	740000	--	650000
Total Kjeldahl Nitrogen	ug/L	--	--	--	--	2800	2300	--	2100
Total Organic Carbon	ug/L	--	--	--	--	5800	7400	--	4700
Turbidity (NTU)	NTU	--	--	--	--	15.5	16.3	--	13.4
METALS									
Aluminum	ug/L	--	6100	--	100	27 B	229	30.7 U	4900
Arsenic	ug/L	25	--	10	150	4.1 U	3.5 U	3.5 U	7.8 B
Barium	ug/L	1000	--	2000	--	122 B	112 B	102 B	106 B
Calcium	ug/L	--	--	--	--	176000	169000	165000	146000
Chromium	ug/L	50	50	100	**	1.1 U	1.7 B	1.3 U	6.9 B
Chromium-Hexavalent	ug/L	--	--	--	11	3.2 J	10 U	0	10 U
Cobalt	ug/L	--	--	--	--	4.4 B	3.8 B	3.4 B	5.2 B
Copper	ug/L	200	--	--	**	2.2 U	2.2 B	2 U	128
Iron	ug/L	300	2000	300	300	6590	4370	30 U	14000
Lead	ug/L	25	300	15	**	1.4 U	2.8 U	2.8 U	8.8
Magnesium	ug/L	35000	--	--	--	8880	8850	8590	8910
Manganese	ug/L	300	300	50	--	3100	2740	2700	2630
Nickel	ug/L	100	200	--	**	3 B	2.9 B	2.8 U	8.5 B
Potassium	ug/L	--	--	--	--	2240 B	5140	4880 B	5790
Selenium	ug/L	10	--	50	4.6	5.3	3 U	3 U	3.6 U
Sodium	ug/L	20000	--	--	--	7600	7330	7230	5950
Vanadium	ug/L	--	--	--	14	2.9 U	3.8 U	3.8 U	8.4 B
Zinc	ug/L	2000	3000	--	**	7.4 B	10.6 B	5.7 B	57.8
PESTICIDES									
Decachlorobiphenyl	ug/L	--	--	--	--	0.3	0.21	--	0.27
Endosulfan I	ug/L	--	--	--	0.009	0.052 U	0.05 U	--	0.056
Tetrachloro-m-xylene	ug/L	--	--	--	--	0.35	0.34	--	0.32
SVOCS									
2,4,6-Tribromophenol	ug/L	--	--	--	--	65	77	--	78
2-Fluorobiphenyl	ug/L	--	--	--	--	46	41	--	46
2-Fluorophenol	ug/L	--	--	--	--	46	45	--	47
2-Methylnaphthalene	ug/L	--	--	--	4.7	1.3 J	10 U	--	0.55 J
4-Methylphenol	ug/L	--	--	--	--	10 U	10 U	--	1.1 J
Diethylphthalate	ug/L	50	--	--	--	2.9 J	2.9 J	--	1 J
Naphthalene	ug/L	10	10	--	13	1.5 J	0.79 J	--	0.53 J

Parameter	units	NYS AWQS Groundwater	NYSDEC Permit Limit ^(a)	EPA MCL ^(b) or Secondary Drinking Water Standard ^(c)	NYS AWQS Surface Water (Class C)	FIRST	SECOND	SECOND ^(f)	THIRD
VOCS									
1,2,4-Trimethylbenzene	ug/L	5	10	70	33	8	2.8 J	--	3.9 J
1,3,5-Trimethylbenzene	ug/L	5	10	--	--	5.3	1.9 J	--	2.5 J
1,4-Dichlorobenzene	ug/L	3	10	75	5	6.7	5.1	--	3.4 J
4-Isopropyltoluene	ug/L	5	--	--	--	1 J	5 U	--	5 U
Acetone	ug/L	50	--	--	--	5 U	3 J	--	5 U
Benzene	ug/L	1	5	5	10	1.6 J	1.1 J	--	5 U
Bromofluorobenzene	ug/L	--	--	--	--	52	53	--	53
Chlorobenzene	ug/L	5	10	100	400	6.4	4 J	--	5 U
Dichlorodifluoromethane	ug/L	5	--	--	--	0.76 J	5 U	--	5 U
Isopropylbenzene	ug/L	5	10	--	2.6	2 J	5 U	--	5 U
Methyl Methacrylate	ug/L	50	--	--	--	1.7 J	5 U	--	5 U
Methylene Chloride	ug/L	5	--	--	200	1.6 J	1 J	--	5 U
n-Propylbenzene	ug/L	5	10	--	--	1 J	5 U	--	5 U
Xylene (m,p)	ug/L	5	10	--	--	3.4 J	0.91 J	--	1.7 J
Xylene (total)	ug/L	5	10	1000	65	3.4 J	0.91 J	--	1.7 J

Parameter	units	NYS AWQS Groundwater	NYSDEC Permit Limit ^(a)	EPA MCL ^(b) or Secondary Drinking Water Standard ^(c)	NYS AWQS Surface Water (Class C)	FIRST	SECOND	SECOND ^(d)	THIRD
PS03									
FIELD PARAMETERS									
pH	s.u.	--	6.0 - 9.0	6.0 - 9.0	--	7.4	8.54	--	7.1
HERBICIDES									
2,4,5-TP (Silvex)	ug/L	0.26	--	50	--	0.17	0.14	--	0.14 U
DCAA	ug/L	--	--	--	--	9.6	7.9	--	6
LEACHATE INDICATOR									
Alkalinity (as CaCO ₃)	ug/L	--	--	--	--	483000	494000	--	499000
Ammonia-Nitrogen	ug/L	--	4000	--	**	3900	4900	--	4200
BOD 5	ug/L	--	10000	--	--	9200	6700	--	10000
Bromide	ug/L	2000	--	--	--	320	370	--	400 U
Chemical Oxygen Demand	ug/L	--	--	--	--	32200	20000 U	--	20000 U
Chloride, Total	ug/L	250000	--	250000	--	11700	11700	--	11900
Color	PCU	--	--	--	--	45	60	--	45
Nitrate-nitrogen	ug/L	--	--	10000	--	96	54	--	77
Nitrite nitrogen	ug/L	--	--	1000	20	8.2 J	8.2 J	--	8.4 J
Nitrite-nitrate nitrogen	ug/L	--	--	--	--	100	62	--	85
Sulfate, Total	ug/L	250000	--	250000	--	8900	8700	--	5000 U
Total Dissolved Solids	ug/L	--	--	--	--	557000	579000	--	588000
Total Hardness as CaCO ₃	ug/L	--	--	--	--	710000	610000	--	750000
Total Kjeldahl Nitrogen	ug/L	--	--	--	--	3900	3900	--	4000
Total Organic Carbon	ug/L	--	--	--	--	4800	6600	--	5800
Turbidity (NTU)	NTU	--	--	--	--	33.7	37.7	--	57.7
METALS									
Aluminum	ug/L	--	6100	--	100	22.1 U	55.6 B	30.7 U	289
Arsenic	ug/L	25	--	10	150	4.1 U	3.5 U	3.5 U	5.5 B
Barium	ug/L	1000	--	2000	--	165 B	175 B	141 B	160 B
Calcium	ug/L	--	--	--	--	201000	204000	194000	184000
Chromium	ug/L	50	50	100	**	1.1 U	1.9 B	1.3 U	1.4 B
Cobalt	ug/L	--	--	--	--	5.6 B	5.9 B	5.4 B	5.3 B
Copper	ug/L	200	--	--	**	2.2 U	2.4 B	2 U	2.2 U
Iron	ug/L	300	2000	300	300	11700	13500	3760	13800
Magnesium	ug/L	35000	--	--	--	10400	11000	10500	10000
Manganese	ug/L	300	300	50	--	2900	2970	2830	2550
Nickel	ug/L	100	200	--	**	5.8 B	4.5 B	3.9 B	4.1 B
Potassium	ug/L	--	--	--	--	4110 B	7210	6860	6590
Selenium	ug/L	10	--	50	4.6	3.7 B	3 U	3 U	3.6 U
Sodium	ug/L	20000	--	--	--	10100	10600	9890	9960
Zinc	ug/L	2000	3000	--	**	24.1	26.3	15.1 B	20.9
PESTICIDES									
Decachlorobiphenyl	ug/L	--	--	--	--	0.34	0.18	--	0.31
Tetrachloro-m-xylene	ug/L	--	--	--	--	0.37	0.33	--	0.32
SVOCs									
2,4,6-Tribromophenol	ug/L	--	--	--	--	63	7.3 J	--	56
2-Fluorobiphenyl	ug/L	--	--	--	--	46	39	--	32
2-Fluorophenol	ug/L	--	--	--	--	47	4 J	--	42
2-Methylnaphthalene	ug/L	--	--	--	4.7	3 J	3.2 J	--	2.7 J
Diethylphthalate	ug/L	50	--	--	--	3 J	3.2 J	--	2.7 J
Di-n-butylphthalate	ug/L	50	--	--	--	0.54 J	10 U	--	10 U
Naphthalene	ug/L	10	10	--	13	3.5 J	3.4 J	--	2.8 J

Parameter	units	NYS AWQS Groundwater	NYSDEC Permit Limit ^(a)	EPA MCL ^(b) or Secondary Drinking Water Standard ^(c)	NYS AWQS Surface Water (Class C)	FIRST	SECOND	SECOND ^(d)	THIRD
VOCS									
1,2,4-Trimethylbenzene	ug/L	5	10	70	33	20	21	--	26
1,3,5-Trimethylbenzene	ug/L	5	10	--	--	13	14	--	16
1,4-Dichlorobenzene	ug/L	3	10	75	5	10	9.5	--	11
4-Isopropyltoluene	ug/L	5	--	--	--	3.3 J	3 J	--	3.4 J
Benzene	ug/L	1	5	5	10	2.2 J	2.3 J	--	2.4 J
Bromofluorobenzene	ug/L	--	--	--	--	52	53	--	53
Chlorobenzene	ug/L	5	10	100	400	9.7	9.7	--	10
Dichlorodifluoromethane	ug/L	5	--	--	--	5 U	0.77 J	--	0.82 J
Ethylbenzene	ug/L	5	5	700	17	2.9 J	2.3 J	--	2.6 J
Isopropylbenzene	ug/L	5	10	--	2.6	6	5.3	--	5.6
Methyl Methacrylate	ug/L	50	--	--	--	4.1 J	3.8 J	--	5.2
Methylene Chloride	ug/L	5	--	--	200	3 J	2.9 J	--	2.6 J
n-Propylbenzene	ug/L	5	10	--	--	3.8 J	3.1 J	--	3.6 J
Vinyl Chloride	ug/L	2	--	2	--	1 J	1 J	--	0.91 J
Xylene (m,p)	ug/L	5	10	--	--	9.9	12	--	14
Xylene (total)	ug/L	5	10	1000	65	9.9	12	--	14

Parameter	units	NYS AWQS Groundwater	NYSDEC Permit Limit ^(a)	EPA MCL ^(b) or Secondary Drinking Water Standard ^(c)	NYS AWQS Surface Water (Class C)	FIRST	SECOND	SECOND ^(d)	THIRD
PS04									
FIELD PARAMETERS									
pH	s.u.	--	6.0 - 9.0	6.0 - 9.0	--	6.93	6.8	--	6.83
HERBICIDES									
2,4,5-TP (Silvex)	ug/L	0.26	--	50	--	0.19 P	0.16 P	--	0.14 U
DCAA	ug/L	--	--	--	--	10	8.5	--	5.8
LEACHATE INDICATOR									
Alkalinity (as CaCO ₃)	ug/L	--	--	--	--	513000	541000	--	543000
Ammonia-Nitrogen	ug/L	--	4000	--	**	4400	5700	--	5600
BOD 5	ug/L	--	10000	--	--	8400	8200	--	14000
Bromide	ug/L	2000	--	--	--	460	500	--	460
Chemical Oxygen Demand	ug/L	--	--	--	--	21700	20000 U	--	20000 U
Chloride, Total	ug/L	250000	--	250000	--	21100	21300	--	19800
Color	PCU	--	--	--	--	80	150	--	125
Nitrate-nitrogen	ug/L	--	--	10000	--	130	79	--	78
Nitrite nitrogen	ug/L	--	--	1000	20	16 J	19 J	--	15 J
Nitrite-nitrate nitrogen	ug/L	--	--	--	--	150	98	--	93
Phenols, Total	ug/L	1	--	--	--	5 U	5.5	--	5 U
Sulfate, Total	ug/L	250000	--	250000	--	5000 U	5600	--	5000 U
Total Dissolved Solids	ug/L	--	--	--	--	590000	610000	--	647000
Total Hardness as CaCO ₃	ug/L	--	--	--	--	620000	730000	--	740000
Total Kjeldahl Nitrogen	ug/L	--	--	--	--	4900	4800	--	5500
Total Organic Carbon	ug/L	--	--	--	--	6300	8600	--	7600
Turbidity (NTU)	NTU	--	--	--	--	56.9	72.6	--	74.8
METALS									
Aluminum	ug/L	--	6100	--	100	22.1 U	123 B	30.7 U	86.4 B
Arsenic	ug/L	25	--	10	150	4.1 U	4 B	3.5 U	7 B
Barium	ug/L	1000	--	2000	--	191 B	214	153 B	199 B
Calcium	ug/L	--	--	--	--	197000	209000	205000	198000
Chromium	ug/L	50	50	100	**	1.1 U	1.3 U	1.3 U	1.1 B
Cobalt	ug/L	--	--	--	--	4 B	5.5 B	5.4 B	5.3 B
Copper	ug/L	200	--	--	**	2.2 U	2.7 B	2.2 B	2.2 U
Iron	ug/L	300	2000	300	300	22300	25500	7880	22900
Magnesium	ug/L	35000	--	--	--	10100	11200	11000	10700
Manganesec	ug/L	300	300	50	--	1600	1640	1570	1510
Nickel	ug/L	100	200	--	**	4.9 B	4.3 B	5.2 B	5.1 B
Potassium	ug/L	--	--	--	--	3870 B	7520	7430	7180
Selenium	ug/L	10	--	50	4.6	3.6 U	3.7 B	3 U	3.6 U
Sodium	ug/L	20000	--	--	--	14400	15600	15300	14500
Zinc	ug/L	2000	3000	--	**	12.7 B	13.7 B	14.5 B	12.3 B
PESTICIDES									
Decachlorobiphenyl	ug/L	--	--	--	--	0.3	0.14	--	0.28
Tetrachloro-m-xylene	ug/L	--	--	--	--	0.33	0.33	--	0.3
SVOCS									
2,2'-oxybis(1-Chloropropane)	ug/L	5	--	--	--	10 U	10 U	--	2.6 J
2,4,5-Trichlorophenol	ug/L	--	--	--	--	25 U	25 U	--	5.8 J
2,4,6-Tribromophenol	ug/L	--	--	--	--	58	34	--	81 E
2,4,6-Trichlorophenol	ug/L	--	--	--	--	10 U	10 U	--	5 J
2,4-Dichlorophenol	ug/L	1	--	--	1	10 U	10 U	--	5 J
2,4-Dimethylphenol	ug/L	5	--	--	1000	10 U	1.3 J	--	7.4 J
2,4-Dinitrophenol	ug/L	5	--	--	400	25 U	25 U	--	3.8 J
2,4-Dinitrotoluene	ug/L	5	--	--	--	10 U	10 U	--	1.8 J
2,6-Dinitrotoluene	ug/L	5	--	--	--	10 U	10 U	--	1.8 J
2-Chloronaphthalene	ug/L	10	--	--	--	10 U	10 U	--	1.7 J

Parameter	units	NYS AWQS Groundwater	NYSDEC Permit Limit ^(a)	EPA MCL ^(b) or Secondary Drinking Water Standard ^(c)	NYS AWQS Surface Water (Class C)	FIRST	SECOND	SECOND ^(h)	THIRD
2-Chlorophenol	ug/L	--	--	--	--	10 U	10 U	--	8 J
2-Fluorobiphenyl	ug/L	--	--	--	--	46	41	--	44
2-Fluorophenol	ug/L	--	--	--	--	45	18	--	66
2-Methylnaphthalene	ug/L	--	--	--	4.7	8.7 J	9.6 J	--	12
2-Methylphenol	ug/L	--	--	--	--	10 U	10 U	--	9.2 J
2-Nitroaniline	ug/L	5	--	--	--	25 U	25 U	--	7.3 J
2-Nitrophenol	ug/L	--	--	--	--	10 U	10 U	--	2.5 J
3-Nitroaniline	ug/L	5	--	--	--	25 U	25 U	--	4.5 J
4,6-Dinitro-2-methylphenol	ug/L	--	--	--	--	25 U	25 U	--	3.3 J
4-Bromophenyl-phenylether	ug/L	--	--	--	--	10 U	10 U	--	3.2 J
4-Chloro-3-Methylphenol	ug/L	--	--	--	--	10 U	10 U	--	7.6 J
4-Chlorophenyl-phenylether	ug/L	--	--	--	--	10 U	10 U	--	2.7 J
4-Methylphenol	ug/L	--	--	--	--	10 U	10 U	--	20
4-Nitroaniline	ug/L	5	--	--	--	25 U	25 U	--	7.6 J
4-Nitrophenol	ug/L	--	--	--	--	25 U	25 U	--	12 J
Acenaphthene	ug/L	20	--	--	5.3	10 U	10 U	--	2.5 J
Acenaphthylene	ug/L	--	--	--	--	10 U	10 U	--	2 J
Anthracene	ug/L	50	--	--	3.8	10 U	10 U	--	3 J
Benzo(a)anthracene	ug/L	0.002	--	--	0.03	10 U	10 U	--	6.6 J
Benzo(a)pyrene	ug/L	10	--	0.2	0.0012	10 U	10 U	--	6.7 J
Benzo(b)fluoranthene	ug/L	0.002	--	--	--	10 U	10 U	--	6.9 J
Benzo(g,h,i)perylene	ug/L	--	--	--	--	10 U	10 U	--	7 J
Benzo(k)fluoranthene	ug/L	0.002	--	--	--	10 U	10 U	--	7 J
Benzyl Alcohol	ug/L	--	--	--	--	10 U	10 U	--	8.3 J
bis(2-Chloroethoxy)methane	ug/L	5	--	--	--	10 U	10 U	--	4 J
bis(2-Chloroethyl)Ether	ug/L	1	--	--	--	10 U	10 U	--	3.9 J
bis(2-Ethylhexyl)phthalate	ug/L	5	--	--	0.6	10 U	10 U	--	9.1 J
Butylbenzylphthalate	ug/L	50	--	--	--	10 U	10 U	--	4.8 J
Chrysene	ug/L	0.002	--	--	--	10 U	10 U	--	7.5 J
Dibenz(a,h)anthracene	ug/L	--	--	--	--	10 U	10 U	--	6.7 J
Dibenzofuran	ug/L	--	--	--	--	10 U	10 U	--	2.3 J
Diethylphthalate	ug/L	50	--	--	--	4.3 J	4.9 J	--	7.4 J
Dimethylphthalate	ug/L	50	--	--	--	10 U	10 U	--	2.3 J
Di-n-butylphthalate	ug/L	50	--	--	--	10 U	10 U	--	4.1 J
Di-n-octylphthalate	ug/L	50	--	--	--	10 U	10 U	--	9.6 J
Fluoranthene	ug/L	50	--	--	--	10 U	10 U	--	3.9 J
Fluorene	ug/L	50	--	--	0.54	10 U	10 U	--	2.4 J
Hexachlorobenzene	ug/L	0.04	--	1	0.00003	10 U	10 U	--	5.4 J
Hexachlorobutadiene	ug/L	0.5	--	--	0.01	10 U	10 U	--	2.1 J

Parameter	units	NYS AWQS Groundwater	NYSDEC Permit Limit ^(a)	EPA MCL ^(b) or Secondary Drinking Water Standard ^(c)	NYS AWQS Surface Water (Class C)	FIRST	SECOND	SECOND ^(d)	THIRD
Hexachlorocyclopentadiene	ug/L	5	--	50	0.45	10 U	10 U	--	4.7 J
Hexachloroethane	ug/L	5	--	--	0.6	10 U	10 U	--	1.9 J
Indeno(1,2,3-cd)pyrene	ug/L	0.002	--	--	--	10 U	10 U	--	6.9 J
Isophorone	ug/L	50	--	--	--	10 U	10 U	--	2.5 J
Naphthalene	ug/L	10	10	--	13	6.8 J	7.3 J	--	10
Nitrobenzene	ug/L	0.4	--	--	--	10 U	10 U	--	2.3 J
N-Nitrosodimethylamine	ug/L	--	--	--	--	10 U	10 U	--	3.7 J
N-Nitroso-di-n-propylamine	ug/L	--	--	--	--	10 U	10 U	--	2.6 J
N-nitrosodiphenylamine	ug/L	50	--	--	--	10 U	10 U	--	1.9 J
*Pentachlorophenol	ug/L	1	--	1	6 (First) 5 (Second) 6 (Third)	25 U	25 U	--	3.4 J
Phenanthrene	ug/L	50	--	--	5	10 U	10 U	--	2.7 J
Phenol	ug/L	1	--	--	1	10 U	10 U	--	6.5 J
Pyrene	ug/L	50	--	--	4.6	10 U	10 U	--	4.4 J
VOCS									
1,2,4-Trimethylbenzene	ug/L	5	10	70	33	78	85	--	92
1,3,5-Trimethylbenzene	ug/L	5	10	--	--	42	46	--	48
1,4-Dichlorobenzene	ug/L	3	10	75	5	15	16	--	17
4-Isopropyltoluene	ug/L	5	--	--	--	11	12	--	12
Benzene	ug/L	1	5	5	10	2.9 J	3 J	--	2.9 J
Bromofluorobenzene	ug/L	--	--	--	--	51	53	--	53
Chlorobenzene	ug/L	5	10	100	400	14	15	--	15
Ethylbenzene	ug/L	5	5	700	17	14	14	--	17
Isopropylbenzene	ug/L	5	10	--	2.6	15	16	--	17
Methyl Methacrylate	ug/L	50	--	--	--	15	14	--	16
Methylene Chloride	ug/L	5	--	--	200	6.4	6.3	--	5.2
n-Propylbenzene	ug/L	5	10	--	--	11	12	--	13
Vinyl Chloride	ug/L	2	--	2	--	1.4 J	1.6 J	--	1.6 J
Xylene (m,p)	ug/L	5	10	--	--	64	69	--	80
Xylene (o)	ug/L	5	--	--	--	1 J	5 U	--	1.4 J
Xylene (total)	ug/L	5	10	1000	65	64	69	--	80

Parameter	units	NYS AWQS Groundwater	NYSDEC Permit Limit ^(a)	EPA MCL ^(b) or Secondary Drinking Water Standard ^(c)	NYS AWQS Surface Water (Class C)	FIRST	SECOND	SECOND ^(d)	THIRD
PS05									
FIELD PARAMETERS									
pH	s.u.	--	6.0 - 9.0	6.0 - 9.0	--	7.07	7.11	--	7.06
HERBICIDES									
DCAA	ug/L	--	--	--	--	9.7	9.3	--	8.5
LEACHATE INDICATOR									
Alkalinity (as CaCO3)	ug/L	--	--	--	--	323000	323000	--	324000
Ammonia-Nitrogen	ug/L	--	4000	--	**	2300	2600	--	2600
Chemical Oxygen Demand	ug/L	--	--	--	--	21700	20000 U	--	20000 U
Chloride, Total	ug/L	250000	--	250000	--	4800	4900	--	4700
Color	PCU	--	--	--	--	15	20	--	40
Nitrate-nitrogen	ug/L	--	--	10000	--	74	59	--	53
Nitrite nitrogen	ug/L	--	--	1000	20	9.8 J	5.4 J	--	9 J
Nitrite-nitrate nitrogen	ug/L	--	--	--	--	84	64	--	62
Phenols, Total	ug/L	1	--	--	--	5 U	7.8	--	5 U
Sulfate, Total	ug/L	250000	--	250000	--	17600	13500	--	18100
Total Dissolved Solids	ug/L	--	--	--	--	358000	386000	--	392000
Total Hardness as CaCO3	ug/L	--	--	--	--	520000	850000	--	490000
Total Kjeldahl Nitrogen	ug/L	--	--	--	--	1200	2700	--	2500
Total Organic Carbon	ug/L	--	--	--	--	5000	3600	--	5100
Turbidity (NTU)	NTU	--	--	--	--	27.1	47.1	--	44.4
METALS									
Aluminum	ug/L	--	6100	--	100	36.8 B	131 B	30.7 U	121 B
Arsenic	ug/L	25	--	10	150	4.1 U	3.5 U	3.5 U	8 B
Barium	ug/L	1000	--	2000	--	92.4 B	102 B	85.7 B	96.9 B
Calcium	ug/L	--	--	--	--	124000	132000	129000	130000
Copper	ug/L	200	--	--	**	2.8 B	8.8 B	2.5 B	3.9 B
Iron	ug/L	300	2000	300	300	9380	8930	30 U	8060
Lead	ug/L	25	300	15	**	15.6	11	2.8 U	7.3
Magnesium	ug/L	35000	--	--	--	7890	8430	8200	8280
Manganese	ug/L	300	300	50	--	1930	1990	1870	1950
Nickel	ug/L	100	200	--	**	9.1 B	3.1 B	2.8 U	2.8 B
Potassium	ug/L	--	--	--	--	3610 B	7080	6750	6940
Selenium	ug/L	10	--	50	4.6	4 B	3.3 B	3 U	3.6 U
Sodium	ug/L	20000	--	--	--	5060	5630	5540	5710
Zinc	ug/L	2000	3000	--	**	65.6	72.5	48.5	67.8
PESTICIDES									
Decachlorobiphenyl	ug/L	--	--	--	--	0.28	0.14	--	0.23
Tetrachloro-m-xylenc	ug/L	--	--	--	--	0.33	0.32	--	0.31
SVOCs									
2,4,6-Tribromophenol	ug/L	--	--	--	--	62	76	--	82 E
2-Fluorobiphenyl	ug/L	--	--	--	--	51	42	--	47
2-Fluorophenol	ug/L	--	--	--	--	46	42	--	47
Diethylphthalate	ug/L	50	--	--	--	0.73 J	0.77 J	--	0.81 J
Di-n-butylphthalate	ug/L	50	--	--	--	10 U	0.49 J	--	0.45 J
VOCS									
1,2,4-Trichlorobenzene	ug/L	5	--	70	5	1.5 JB	1.6 JB	--	1.5 JB
1,2,4-Trimethylbenzene	ug/L	5	10	70	33	3.4 J	1.4 J	--	2.9 J
1,2-Dibromo-3-Chloropropane	ug/L	0.04	--	0.2	--	5 U	1.4 JB	--	5 U
1,3,5-Trimethylbenzene	ug/L	5	10	--	--	2.1 J	5 U	--	1.8 J
1,4-Dichlorobenzene	ug/L	3	10	75	5	5 U	2.7 J	--	5 U
2-Butanone	ug/L	50	--	--	--	28	6.1	--	16
Acetone	ug/L	50	--	--	--	4.3 J	3.9 J	--	6.1
Benzene	ug/L	1	5	5	10	5 U	0.98 J	--	5 U
Bromofluorobenzene	ug/L	--	--	--	--	53	53	--	53
Carbon Disulfide	ug/L	--	--	--	--	10	2.8 J	--	7.8
Chloroform	ug/L	7	10	--	--	1.6 J	5 U	--	1.5 J
Isobutyl Alcohol	ug/L	--	--	--	--	250 U	64 J	--	250 U
Toluene	ug/L	5	--	1000	6000	7.2	2.3 J	--	9.8
Xylene (m,p)	ug/L	5	10	--	--	3 J	1.1 J	--	2.6 J
Xylene (total)	ug/L	5	10	1000	65	3 J	1.1 J	--	2.6 J

Parameter	units	NYS AWQS Groundwater	NYSDEC Permit Limit ^(a)	EPA MCL ^(b) or Secondary Drinking Water Standard ^(c)	NYS AWQS Surface Water (Class C)	FIRST	SECOND	SECOND ^(d)	THIRD
PS06									
FIELD PARAMETERS									
pH	s.u.	--	6.0 - 9.0	6.0 - 9.0	--	7.6	7	--	7
HERBICIDES									
DCAA	ug/L	--	--	--	--	10	8.8	--	8.6
LEACHATE INDICATOR									
Alkalinity (as CaCO ₃)	ug/L	--	--	--	--	226000	235000	--	243000
Ammonia-Nitrogen	ug/L	--	4000	--	**	240	330	--	460
Chloride, Total	ug/L	250000	--	250000	--	2200	2500	--	2600
Color	PCU	--	--	--	--	10	10	--	10
Nitrate-nitrogen	ug/L	--	--	10000	--	280	360	--	260
Nitrite nitrogen	ug/L	--	--	1000	20	5.7 J	6.8 J	--	4.3 J
Nitrite-nitrate nitrogen	ug/L	--	--	--	--	290	360	--	270
Phenols, Total	ug/L	1	--	--	--	5 U	5.5	--	5 U
Sulfate, Total	ug/L	250000	--	250000	--	32000	13600	--	28900
Total Dissolved Solids	ug/L	--	--	--	--	297000	328000	--	327000
Total Hardness as CaCO ₃	ug/L	--	--	--	--	510000	590000	--	480000
Total Kjeldahl Nitrogen	ug/L	--	--	--	--	360	620	--	780
Total Organic Carbon	ug/L	--	--	--	--	3000	2100	--	2000
Turbidity (NTU)	NTU	--	--	--	--	2.6	8.2	--	13.2
METALS									
Aluminum	ug/L	--	6100	--	100	22.1 U	256	30.7 U	520
Barium	ug/L	1000	--	2000	--	21.6 B	25.2 B	21.4 B	24.9 B
Calcium	ug/L	--	--	--	--	104000	112000	102000	104000
Chromium	ug/L	50	50	100	**	1.1 U	1.5 B	1.3 U	1.4 B
Copper	ug/L	200	--	--	**	2.2 U	3.3 B	2 U	2.9 B
Iron	ug/L	300	2000	300	300	362	841	30 U	1300
Lead	ug/L	25	300	15	**	1.4 U	2.8 U	2.8 U	5.9
Magnesium	ug/L	35000	--	--	--	4340 B	4650 B	4160 B	4510 B
Manganese	ug/L	300	300	50	--	611	1120	1040	1420
Potassium	ug/L	--	--	--	--	318 U	2760 B	2350 B	2980 B
Sodium	ug/L	20000	--	--	--	3500 B	3470 B	3230 B	3960 B
Zinc	ug/L	2000	3000	--	**	2.3 U	3.5 B	3.5 B	15.8 B
PESTICIDES									
Decachlorobiphenyl	ug/L	--	--	--	--	0.32	0.28	--	0.33
Tetrachloro-m-xylene	ug/L	--	--	--	--	0.33	0.35	--	0.35
SVOCS									
2,4,6-Tribromophenol	ug/L	--	--	--	--	57	73	--	80
2-Fluorobiphenyl	ug/L	--	--	--	--	49	50	--	49
2-Fluorophenol	ug/L	--	--	--	--	47	49	--	50
4-Methylphenol	ug/L	--	--	--	--	0.53 J	10 U	--	10 U
VOCS									
Bromofluorobenzene	ug/L	--	--	--	--	53	54	--	52
Toluene	ug/L	5	--	1000	6000	5 U	5 U	--	1.3 J
Trichloroethene	ug/L	5	--	5	40	1.6 J	2.2 J	--	2.4 J

Parameter	units	NYS AWQS Groundwater	NYSDEC Permit Limit ^(a)	EPA MCL ^(b) or Secondary Drinking Water Standard ^(c)	NYS AWQS Surface Water (Class C)	FIRST	SECOND	SECOND ^(f)	THIRD
PS07									
FIELD PARAMETERS									
pH	s.u.	--	6.0 - 9.0	6.0 - 9.0	--	6.99	6.88	--	6.53
HERBICIDES									
DCAA	ug/L	--	--	--	--	9.6	7.8	--	7.5
LEACHATE INDICATOR									
Alkalinity (as CaCO ₃)	ug/L	--	--	--	--	214000	216000	--	213000
Ammonia-Nitrogen	ug/L	--	4000	--	**	210	110	--	140
Chemical Oxygen Demand	ug/L	--	--	--	--	20000 U	44800	--	20000 U
Chloride, Total	ug/L	250000	--	250000	--	3300	3400	--	3700
Color	PCU	--	--	--	--	15	15	--	10
Nitrate-nitrogen	ug/L	--	--	10000	--	330	290	--	340
Nitrite nitrogen	ug/L	--	--	1000	20	6.2 J	5.9 J	--	6.5 J
Nitrite-nitrate nitrogen	ug/L	--	--	--	--	340	300	--	340
Sulfate, Total	ug/L	250000	--	250000	--	27200	26800	--	33100
Total Dissolved Solids	ug/L	--	--	--	--	279000	311000	--	303000
Total Hardness as CaCO ₃	ug/L	--	--	--	--	540000	650000	--	470000
Total Kjeldahl Nitrogen	ug/L	--	--	--	--	240 U	580	--	400
Total Organic Carbon	ug/L	--	--	--	--	2600	3400	--	2100
Turbidity (NTU)	NTU	--	--	--	--	10.7	6.4	--	3.6
METALS									
Aluminum	ug/L	--	6100	--	100	175 B	1120	30.7 U	146 B
Arsenic	ug/L	25	--	10	150	4.1 U	3.5 U	3.5 U	4.3 B
Barium	ug/L	1000	--	2000	--	23 B	24.3 B	22 B	22 B
Calcium	ug/L	--	--	--	--	104000	93200	100000	96400
Chromium	ug/L	50	50	100	**	1.1 U	2 B	1.3 U	1.4 B
Copper	ug/L	200	--	--	**	2.2 U	10.1 B	2.5 B	13.1 B
Iron	ug/L	300	2000	300	300	327	1240	30 U	299
Lead	ug/L	25	300	15	**	2.6 B	2.8 U	2.8 U	3.8
Magnesium	ug/L	35000	--	--	--	4650 B	4420 B	4560 B	4680 B
Manganese	ug/L	300	300	50	--	2170	2240	2340	2860
Potassium	ug/L	--	--	--	--	318 U	1980 B	1980 B	2200 B
Selenium	ug/L	10	--	50	4.6	4.5 B	3.1 B	3 U	3.6 U
Sodium	ug/L	20000	--	--	--	4660 B	4320 B	4490 B	5200
Zinc	ug/L	2000	3000	--	**	10.2 B	10.1 B	7.3 B	15.9 B
PESTICIDES									
Decachlorobiphenyl	ug/L	--	--	--	--	0.32	0.29	--	0.36
Tetrachloro-m-xylene	ug/L	--	--	--	--	0.36	0.34	--	0.35
SVOCs									
2,4,6-Tribromophenol	ug/L	--	--	--	--	64	74	--	75
2-Fluorobiphenyl	ug/L	--	--	--	--	52	48	--	46
2-Fluorophenol	ug/L	--	--	--	--	50	49	--	50
VOCS									
Bromofluorobenzene	ug/L	--	--	--	--	51	53	--	53
Toluene	ug/L	5	--	1000	6000	5 U	3.2 J	--	2.4 J
Trichloroethene	ug/L	5	--	5	40	3.3 J	2.7 J	--	1.8 J
NOTE:									
(a) NYSDEC, Division of Water, Permit 6-33-006, issued 15 July 2002.									
(b) EPA National Primary Drinking Water Standards (MCL).									
(c) EPA National Secondary Drinking Water Standards.									
(f) Filtered results for second round sampling.									
Dashes (--) = No value established or not applicable.									
Bold = Analyte was detected above the NYS AWQS or guidance value.									
U = Analyte was Not detected.									
B; J = Analyte was detected, but concentration was below the laboratory reporting limit.									
E = Indicates an estimated value because of the presence of interference.									
P = This flag is used for a pesticide/Arcolor target analyte when there is greater than 25% difference for detected concentration between the two GC columns. The lower of the two values is reported on Form I and flagged with an "P".									
* = Standard is a calculated value.									
** = Standard is a calculated value (see tables 4 and 5 for specific analyte).									

TABLE 4 LFI FEN DETECTED ANALYTICAL RESULTS
OCTOBER 2003

Parameter	units	NYS AWQS Groundwater	NYSDEC Permit Limit ^(a)	EPA MCL ^(b) or Secondary Drinking Water Standard ^(c)	NYS AWQS Surface Water (Class C)	FEN
L1						
HERBICIDES						
DCAA	ug/L	--	--	--	--	9.4
LEACHATE INDICATOR						
Alkalinity (as CaCO ₃)	ug/L	--	--	--	--	432000
Ammonia-Nitrogen	ug/L	--	4000	--	**	2900
BOD 5	ug/L	--	10000	--	--	17000
Chemical Oxygen Demand	ug/L	--	--	--	--	53100
Chloride, Total	ug/L	250000	--	250000	--	5100
Color	PCU	--	--	--	--	10000
Nitrate-nitrogen	ug/L	--	--	10000	--	210
Nitrite nitrogen	ug/L	--	--	1000	20	16 J
Nitrite-nitrate nitrogen	ug/L	--	--	--	--	230
Sulfate, Total	ug/L	250000	--	250000	--	146000
Total Dissolved Solids	ug/L	--	--	--	--	686000
Total Hardness as CaCO ₃	ug/L	--	--	--	--	620000
Total Kjeldahl Nitrogen	ug/L	--	--	--	--	3300
Total Organic Carbon	ug/L	--	--	--	--	5700
Turbidity (NTU)	NTU	--	--	--	--	5.9
METALS						
Aluminum	ug/L	--	6100	--	100	84.2 B
Arsenic	ug/L	25	--	10	150	96.8
Barium	ug/L	1000	--	2000	--	269
Calcium	ug/L	--	--	--	--	214000
Cobalt	ug/L	--	--	--	--	14.3 B
Copper	ug/L	200	--	--	**	2.4 B
Iron	ug/L	300	2000	300	300	86800
Magnesium	ug/L	35000	--	--	--	10900
Manganese	ug/L	300	300	50	--	576
Nickel	ug/L	100	200	--	**	20.7 B
Potassium	ug/L	--	--	--	--	10500
Selenium	ug/L	10	--	50	4.6	5.7
Sodium	ug/L	20000	--	--	--	10300
Tin	ug/L	--	--	--	--	4.7 B
Zinc	ug/L	2000	3000	--	**	14.5 B
PESTICIDES						
Decachlorobiphenyl	ug/L	--	--	--	--	0.19
Tetrachloro-m-xylene	ug/L	--	--	--	--	0.33
SVOCS						
2,4,6-Tribromophenol	ug/L	--	--	--	--	61
2-Fluorobiphenyl	ug/L	--	--	--	--	56
2-Fluorophenol	ug/L	--	--	--	--	51
Diethylphthalate	ug/L	50	--	--	--	0.5 J
1,4-Dichlorobenzene	ug/L	3	10	75	5	5.6
Acetone	ug/L	50	--	--	--	2.9 J
Bromofluorobenzene	ug/L	--	--	--	--	53

Parameter	units	NYS AWQS Groundwater	NYSDEC Permit Limit ^(a)	EPA MCL ^(b) or Secondary Drinking Water Standard ^(c)	NYS AWQS Surface Water (Class C)	FEN
L2						
HERBICIDES						
DCAA	ug/L	--	--	--	--	9.6
LEACHATE INDICATOR						
Alkalinity (as CaCO3)	ug/L	--	--	--	--	240000
Ammonia-Nitrogen	ug/L	--	4000	--	**	1300
BOD 5	ug/L	--	10000	--	--	6300
Chemical Oxygen Demand	ug/L	--	--	--	--	518000
Chloride, Total	ug/L	250000	--	250000	--	9100
Color	PCU	--	--	--	--	1300
Nitrate-nitrogen	ug/L	--	--	10000	--	240
Nitrite nitrogen	ug/L	--	--	1000	20	20 J
Nitrite-nitrate nitrogen	ug/L	--	--	--	--	260
Sulfate, Total	ug/L	250000	--	250000	--	278000
Total Dissolved Solids	ug/L	--	--	--	--	640000
Total Hardness as CaCO3	ug/L	--	--	--	--	630000
Total Kjeldahl Nitrogen	ug/L	--	--	--	--	6700
Total Organic Carbon	ug/L	--	--	--	--	6900
Turbidity (NTU)	NTU	--	--	--	--	11.8
METALS						
Aluminum	ug/L	--	6100	--	100	14100
Arsenic	ug/L	25	--	10	150	43.1
Barium	ug/L	1000	--	2000	--	223
Beryllium	ug/L	3	--	4	--	0.77 B
Calcium	ug/L	--	--	--	--	229000
Chromium	ug/L	50	50	100	**	18.6
Cobalt	ug/L	--	--	--	--	43.4 B
Copper	ug/L	200	--	--	**	58.1
Iron	ug/L	300	2000	300	300	120000
Lead	ug/L	25	300	15	**	96
Magnesium	ug/L	35000	--	--	--	10300
Manganese	ug/L	300	300	50	--	5700
Mercury	ug/L	0.7	0.8	2	0.0007	0.29
Nickel	ug/L	100	200	--	**	30.3 B
Potassium	ug/L	--	--	--	--	6400
Selenium	ug/L	10	--	50	4.6	10.5
Silver	ug/L	50	--	100	0.1	2.1 B
Sodium	ug/L	20000	--	--	--	3920 B
Tin	ug/L	--	--	--	--	10.7 B
Vanadium	ug/L	--	--	--	14	34.2 B
Zinc	ug/L	2000	3000	--	**	281
PESTICIDES						
Decachlorobiphenyl	ug/L	--	--	--	--	0.24
Tetrachloro-m-xylene	ug/L	--	--	--	--	0.31
SVOCS						
2,4,6-Tribromophenol	ug/L	--	--	--	--	55
2-Fluorobiphenyl	ug/L	--	--	--	--	55
2-Fluorophenol	ug/L	--	--	--	--	50
1,4-Dichlorobenzene	ug/L	3	10	75	5	1.9 J
Acetone	ug/L	50	--	--	--	2.9 J
Bromofluorobenzene	ug/L	--	--	--	--	52

Parameter	units	NYS AWQS Groundwater	NYSDEC Permit Limit ^(a)	EPA MCL ^(b) or Secondary Drinking Water Standard ^(c)	NYS AWQS Surface Water (Class C)	FEN
LL1						
HERBICIDES						
DCAA	ug/L	--	--	--	--	10
LEACHATE INDICATOR						
Alkalinity (as CaCO3)	ug/L	--	--	--	--	436000
Ammonia-Nitrogen	ug/L	--	4000	--	**	2700
BOD 5	ug/L	--	10000	--	--	10000
Bromide	ug/L	2000	--	--	--	300
Chemical Oxygen Demand	ug/L	--	--	--	--	42700
Chloride, Total	ug/L	250000	--	250000	--	12900
Color	PCU	--	--	--	--	1000
Nitrate-nitrogen	ug/L	--	--	10000	--	280
Nitrite nitrogen	ug/L	--	--	1000	20	41 J
Nitrite-nitrate nitrogen	ug/L	--	--	--	--	320
Sulfate, Total	ug/L	250000	--	250000	--	114000
Total Dissolved Solids	ug/L	--	--	--	--	586000
Total Hardness as CaCO3	ug/L	--	--	--	--	600000
Total Kjeldahl Nitrogen	ug/L	--	--	--	--	3200
Total Organic Carbon	ug/L	--	--	--	--	6100
Turbidity (NTU)	NTU	--	--	--	--	5.5
METALS						
Aluminum	ug/L	--	6100	--	100	145 B
Arsenic	ug/L	25	--	10	150	14.2
Barium	ug/L	1000	--	2000	--	208
Calcium	ug/L	--	--	--	--	178000
Cobalt	ug/L	--	--	--	--	3.6 B
Copper	ug/L	200	--	--	**	3.2 B
Iron	ug/L	300	2000	300	300	16500
Magnesium	ug/L	35000	--	--	--	10300
Manganese	ug/L	300	300	50	--	500
Potassium	ug/L	--	--	--	--	9610
Selenium	ug/L	10	--	50	4.6	3.6 B
Sodium	ug/L	20000	--	--	--	19700
Zinc	ug/L	2000	3000	--	**	43.1
PESTICIDES						
Decachlorobiphenyl	ug/L	--	--	--	--	0.28
Tetrachloro-m-xylene	ug/L	--	--	--	--	0.34
SVOCS						
2,4,6-Tribromophenol	ug/L	--	--	--	--	60
2-Fluorobiphenyl	ug/L	--	--	--	--	50
2-Fluorophenol	ug/L	--	--	--	--	47
1,2,4-Trichlorobenzene	ug/L	5	--	70	5	1.8 JB
1,2,4-Trimethylbenzene	ug/L	5	10	70	33	1 J
1,4-Dichlorobenzene	ug/L	3	10	75	5	3 J
Acetone	ug/L	50	--	--	--	2.5 J
Bromofluorobenzene	ug/L	--	--	--	--	52
Chlorobenzene	ug/L	5	10	100	400	2.8 J
Isobutyl Alcohol	ug/L	--	--	--	--	42 J

Parameter	units	NYS AWQS Groundwater	NYSDEC Permit Limit ^(a)	EPA MCL ^(b) or Secondary Drinking Water Standard ^(c)	NYS AWQS Surface Water (Class C)	FEN
LL2						
HERBICIDES						
2,4,5-TP (Silvex)	ug/L	0.26	--	50	--	0.17 P
DCAA	ug/L	--	--	--	--	9.7
LEACHATE INDICATOR						
Alkalinity (as CaCO ₃)	ug/L	--	--	--	--	447000
Ammonia-Nitrogen	ug/L	--	4000	--	**	1900
Bromide	ug/L	2000	--	--	--	240
Chemical Oxygen Demand	ug/L	--	--	--	--	32200
Chloride, Total	ug/L	250000	--	250000	--	4300
Color	PCU	--	--	--	--	50
Nitrate-nitrogen	ug/L	--	--	10000	--	790
Nitrite nitrogen	ug/L	--	--	1000	20	33 J
Nitrite-nitrate nitrogen	ug/L	--	--	--	--	820
Sulfate, Total	ug/L	250000	--	250000	--	127000
Total Dissolved Solids	ug/L	--	--	--	--	670000
Total Hardness as CaCO ₃	ug/L	--	--	--	--	1000000
Total Kjeldahl Nitrogen	ug/L	--	--	--	--	3200
Total Organic Carbon	ug/L	--	--	--	--	6200
Turbidity (NTU)	NTU	--	--	--	--	1
METALS						
Aluminum	ug/L	--	6100	--	100	161 B
Arsenic	ug/L	25	--	10	150	4.6 B
Barium	ug/L	1000	--	2000	--	140 B
Calcium	ug/L	--	--	--	--	235000
Chromium	ug/L	50	50	100	**	2.4 B
Cobalt	ug/L	--	--	--	--	16.8 B
Copper	ug/L	200	--	--	**	2.8 B
Iron	ug/L	300	2000	300	300	1910
Magnesium	ug/L	35000	--	--	--	9620
Manganese	ug/L	300	300	50	--	588
Nickel	ug/L	100	200	--	**	57.1
Potassium	ug/L	--	--	--	--	10300
Sodium	ug/L	20000	--	--	--	8390
Zinc	ug/L	2000	3000	--	**	14.5 B
PESTICIDES						
Decachlorobiphenyl	ug/L	--	--	--	--	0.31
Tetrachloro-m-xylene	ug/L	--	--	--	--	0.32
SVOCS						
2,4,6-Tribromophenol	ug/L	--	--	--	--	56
2-Fluorobiphenyl	ug/L	--	--	--	--	49
2-Fluorophenol	ug/L	--	--	--	--	42
VOCS						
1,4-Dichlorobenzene	ug/L	3	10	75	5	2 J
Acetone	ug/L	50	--	--	--	2.3 J
Bromofluorobenzene	ug/L	--	--	--	--	48
NOTE:						
(a) NYSDEC, Division of Water, Permit 6-33-006, issued 15 July 2002.						
(b) EPA National Primary Drinking Water Standards (MCL).						
(c) EPA National Secondary Drinking Water Standards.						
Bold = Analyte was detected above the NYS AWQS or guidance value.						
Dashes (--) = No value established or not applicable						
B; J = Analyte was detected, but concentration was below the laboratory reporting limit. for detected concentration between the two GC columns. The lower of the two values is reported on Form 1 and flagged with an "P"						
* = Standard is a calculated value.						
** = Standard is a calculated value (see tables 5 and 6 for specific analyte).						

TABLE 5 AMMONIA-NITROGEN CLASS C STANDARDS FOR FEN AND PUMP TEST SAMPLING EVENTS
OCTOBER - NOVEMBER 2003

Station	FIRST			SECOND			THIRD			FEN		
	pH	Temp	Standard (ug/L)	pH	Temp	Standard (ug/L)	pH	Temp	Standard (ug/L)	pH	Temp	Standard (ug/L)
L1	--	--	--	--	--	--	--	--	--	7.98	12.10	22.0
L2	--	--	--	--	--	--	--	--	--	6.83	12.70	2.3
LL1	--	--	--	--	--	--	--	--	--	7.36	12.26	7.4
LL2	--	--	--	--	--	--	--	--	--	6.86	14.41	2.3
PS-01	7.19	11.79	4.2	6.73	11.26	1.3	6.81	9.98	1.7	--	--	--
PS-02	7.49	11.93	7.4	7.63	11.12	13.0	7.70	9.87	9.3	--	--	--
PS-03	7.40	11.74	4.2	8.54	11.06	25.0	7.10	10.31	4.2	--	--	--
PS-04	6.93	13.31	2.3	6.80	11.25	2.3	6.83	10.57	2.3	--	--	--
PS-05	7.07	12.00	2.3	7.11	11.06	4.2	7.06	10.37	4.2	--	--	--
PS-06	7.60	11.26	13.0	7.00	11.13	4.2	7.00	10.16	4.2	--	--	--
PS-07	6.99	11.06	2.3	6.88	10.60	2.3	6.53	10.60	1.3	--	--	--
combined	6.89	11.78	2.3	7.55	11.02	13.0	7.52	11.19	13.0	--	--	--

Note: Calculated standard based on closest (conservatively) pH and temperature reading from standard table for Class C non (T) or (TS) steams.

TABLE 6 METAL CLASS C STANDARD CALCULATIONS FOR FEN AND PUMP TEST SAMPLING EVENTS
OCTOBER - NOVEMBER 2003

Station	Total Hardness as CaCO ₃ (ug/L)			Beryllium (ug/L)			Chromium (ug/L)					
	FIRST	SECOND	THIRD	FEN	FIRST	SECOND	THIRD	FEN	FIRST	SECOND	THIRD	FEN
L1	--	--	--	620	--	--	--	1,100	--	--	--	330
L2	--	--	--	630	--	--	--	1,100	--	--	--	335
LL1	--	--	--	600	--	--	--	1,100	--	--	--	322
LL2	--	--	--	1000	--	--	--	1,100	--	--	--	489
PS01	460	650	490	--	1,100	1,100	1,100	--	259	343	272	--
PS02	630	740	650	--	1,100	1,100	1,100	--	335	382	343	--
PS03	710	610	750	--	1,100	1,100	1,100	--	369	326	386	--
PS04	620	730	740	--	1,100	1,100	1,100	--	330	378	382	--
PS05	520	850	490	--	1,100	1,100	1,100	--	286	428	272	--
PS06	510	590	480	--	1,100	1,100	1,100	--	281	317	268	--
PS07	540	650	470	--	1,100	1,100	1,100	--	295	343	263	--
COMBINED	500	610	710	--	1,100	1,100	1,100	--	277	326	369	--
Station	Copper (ug/L)			Lead (ug/L)			Nickel (ug/L)					
	FIRST	SECOND	THIRD	FEN	FIRST	SECOND	THIRD	FEN	FIRST	SECOND	THIRD	FEN
L1	--	--	--	43	--	--	--	26	--	--	--	243
L2	--	--	--	43	--	--	--	26	--	--	--	247
LL1	--	--	--	41	--	--	--	25	--	--	--	237
LL2	--	--	--	64	--	--	--	41	--	--	--	365
PS01	33	44	35	--	19	27	20	--	189	253	200	--
PS02	43	50	44	--	26	31	27	--	247	283	253	--
PS03	48	42	50	--	29	25	31	--	273	240	286	--
PS04	43	49	50	--	26	30	31	--	243	280	283	--
PS05	37	56	35	--	21	35	20	--	210	318	200	--
PS06	36	41	34	--	21	24	20	--	206	233	196	--
PS07	38	44	34	--	22	27	19	--	217	253	193	--
COMBINED	35	42	48	--	21	25	29	--	203	240	273	--
Station	Zinc (ug/L)			FEN								
	FIRST	SECOND	THIRD	FEN	FIRST	SECOND	THIRD	FEN				
L1	--	--	--	390	--	--	--	--				
L2	--	--	--	395	--	--	--	--				
LL1	--	--	--	379	--	--	--	--				
LL2	--	--	--	585	--	--	--	--				
PS01	302	406	319	--	--	--	--	--				
PS02	395	453	406	--	--	--	--	--				
PS03	437	384	458	--	--	--	--	--				
PS04	390	448	453	--	--	--	--	--				
PS05	336	510	319	--	--	--	--	--				
PS06	330	374	313	--	--	--	--	--				
PS07	346	406	308	--	--	--	--	--				
COMBINED	325	384	437	--	--	--	--	--				

Note: Standard values for metals listed were calculated as described in TOGS 1.1.1, based on total hardness values for each station and each sampling event.