Appendix E

Summary of Groundwater Monitoring Data

Groundwater Sampling Methodology

Groundwater samples are collected from monitoring wells using either dedicated Teflon® well bailers or bladder pumps. Bailers are used in low-yield wells; bladder pumps are used in wells with good water-yielding characteristics. This sampling equipment is dedicated to an individual well to reduce the likelihood of sample contamination from external materials or cross contamination.

To ensure that only representative groundwater is sampled, three well volumes are removed (purged) from the well before the actual samples are collected. In low-yield wells, pumping or bailing to dryness provides sufficient purging. Conductivity and pH are measured before and after sampling to confirm the geochemical stability of the groundwater during sampling.

The bailer, a tube with a check valve at the bottom, is lowered slowly into the well to minimize agitation of the water column. The bailer containing the groundwater is then withdrawn from the well and emptied into a sample container. Bladder pumps use compressed air to gently squeeze a Teflon® bladder that prevents contact with the groundwater as it is pumped into a sample container with a minimum of agitation and mixing. A check valve ensures that the water flows in only one direction.

Groundwater samples are cooled and preserved, with chemicals if required, to minimize chemical and/or biological changes after sample collection. A strict chain-of-custody protocol is followed for all samples collected by the WVDP.

Key to bolding convention:

Tables E-2 CD through E-11 CD contain a bolding convention devised to help the reader, when viewing the data, to quickly see the range of detectable measurements within a data series. A data series is a set of chemical or radionuclide measurements (e.g., gross alpha, gross beta, tritium) from a single location or from similar locations. Note that some tables contain data that should not be technically evaluated under this convention.

Results for each analyte constitute a single data series. If a radiological result is larger than the uncertainty term, the measurement is considered positive. Otherwise, a result is considered nondetectable. Chemical results preceded by "less than" (<) are considered nondetectable. The bolding convention is not applied to data series consisting of less than three values.

If all results in a data series are positive, the lowest and highest values are bolded.
If a data series contains some positive results, the highest value is bolded.
If all values in a data series are nondetectable, no values are bolded.

2005 Groundwater Sampling and Analysis Agenda

Analyte Group	*Description of Parameters*[a]
Contamination Indicator Parameters (I)	pH, specific conductance (field measurements)
Radiological Indicator Parameters (RI)	Gross alpha, gross beta, tritium
Volatile Organic Compounds (V)	6 NYCRR Appendix 33 Volatile Organic Compounds (VOCs) (See Table E-12 CD.)
Semivolatile Organic Compounds (SV)	6 NYCRR Appendix 33 Semivolatile Organic Compounds (SVOCs) and tributyl phosphate (TBP) (See Table E-12 CD.)
6 NYCRR Appendix 33 Metals (M)	Antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, mercury, nickel, selenium, silver, thallium, tin, vanadium, zinc
Special Monitoring Parameters for Early Warning Wells (SM)	Aluminum, iron, manganese
Radioisotopic Analyses: alpha-, beta-, and gamma-emitters (R)	Carbon-14, strontium-90, technetium-99, iodine-129, cesium-137, radium-226, radium-228, uranium-232, uranium-233/234, uranium-235/236, uranium-238, total uranium
Strontium-90 (S)	Strontium-90

2005 Quarterly Monitoring Schedule:
1st Qtr - December 1, 2004 to February 28, 2005
2nd Qtr - March 1, 2005 to May 31, 2005
3rd Qtr - June 1, 2005 to August 31, 2005
4th Qtr - September 1, 2005 to November 30, 2005

[a]*Analysis performed for selected active monitoring locations only. See Table E-1 CD for the analytes assigned to each monitoring location.*

Table E-1
Groundwater Monitoring Network Sorted by Geologic Unit

Sand and Gravel Wells

Well ID	SSWMU	Gradient Position	Analytical Parameters in 2005[a]	Well ID	SSWMU	Gradient Position	Analytical Parameters in 2005[a]
103[b]	1, 3	D	I, RI, V	802	8	D	I, RI, V
104	1	C	I, RI, SV, V	803	8	D	I, RI, SV, V
105	1	C	I, RI, V	804[b]	8	D	I, RI, V
106	1	D	I, RI, V	1302	NA[c]	D	I, RI, M, R, SV, V
111[b]	1	D	I, RI, M, S, SV, V	1304	NA[c]	U	I, RI, M, R, SV, V
116[b]	1, 8	C, U	I, RI, S, V	8603	8	U	I, RI, S
201	2	U	I, RI, V	8604	1	C	I, RI, V
205	2, 3	D	I, RI	8605[b]	1, 2	D	I, RI, M, S, SV, V
301[b]	3	B	I, RI	8607[b]	6, 4	U, D	I, RI, V
401[b]	4, 3	B	I, RI, R	8609[b]	3, 4, 6	D, D, U	I, RI, S, V
403	4	U	I, RI, V	8612[b]	8	D	I, RI, SV, V
406[b]	4, 6	D, U	I, RI, R, V	NB-1S	NA[d]	B	I, RI
408[b]	4, 3	D	I, RI, R, V	WP-A	NA[e]	NA	I, RI
501[b]	5	U	I, RI, S, V	WP-C	NA[e]	NA	I, RI
502[b]	5	D	I, RI, S, SM, V	WP-H	NA[e]	NA	I, RI
602A	6	D	I, RI, S	SP04	NA[f]	D	RI
604	6	D	I, RI	SP06	NA[f]	D	RI
605	6	D	I, RI, S	SP11	NA[f]	D	RI
706[b]	7	B	I, RI, M, R, SV, V	SP12	NA[f]	D	I, RI, V
801[b]	8, 6	U, D	I, RI, S, V	GSEEP	NA[f]	D	I, RI, V

Legend: *Gradient Positions*
B (background)
C (crossgradient)
D (downgradient)
U (upgradient)

NA - Not applicable
[a] *See p. E-3 for a description of codes and analytes.*
[b] *Monitoring for certain parameters is required by the RCRA §3008(h) Order on Consent.*
[c] *Monitor upgradient and downgradient of remote-handled waste facility*
[d] *Former background well*
[e] *Monitor locations north and east of main plant*
[f] *Monitor groundwater emanating from seeps along the edge of the north plateau*

Table E-1 (continued)
Groundwater Monitoring Network Sorted by Geologic Unit

Lavery Till Sand Wells

Well ID	SSWMU	Gradient Position	Analytical Parameters in 2005[a]	Well ID	SSWMU	Gradient Position	Analytical Parameters in 2005[a]
204[b]	2, 3	D	I, RI	302	3	U	I, RI
206	2	C	I, RI	402	4	B	I, RI
208	2	D	I, RI, V				

Weathered Lavery Till Wells

Well ID	SSWMU	Gradient Position	Analytical Parameters in 2005[a]	Well ID	SSWMU	Gradient Position	Analytical Parameters in 2005[a]
906[b]	9	D	I, RI	1005[b]	9, 10	C, U	I, RI
908[b]	9	B	I, RI	1006[b]	9, 10	C, D	I, RI
909[b]	9	D	I, RI, M, R, SV, V	1007	10	D	I, RI
NDATR[b]	9	D	I, RI, M, R, SV, V	1008C[b]	9, 10	U	I, RI

Unweathered Lavery Till Wells

Well ID	SSWMU	Gradient Position	Analytical Parameters in 2005[a]	Well ID	SSWMU	Gradient Position	Analytical Parameters in 2005[a]
107	1	D	I, RI, V	704	7	D	I, RI, V
108	1	D	I, RI, V	910[b]	9	D	I, RI
110[b]	1	D	I, RI, V	1301	NA[c]	D	I, RI, M, R, SV, V
405	4	B	I, RI, M, R, SV, V	1303	NA[c]	U	I, RI, M, R, SV, V
409	4	D	I, RI				

Kent Recessional Sequence Wells

Well ID	SSWMU	Gradient Position	Analytical Parameters in 2005[a]	Well ID	SSWMU	Gradient Position	Analytical Parameters in 2005[a]
901[b]	4	B	I, RI	1008B	10	U	I, RI
902[b]	9	U	I, RI	8610[b]	9	D	I, RI
903[b]	9	D	I, RI	8611[b]	9	D	I, RI

Legend: *Gradient Positions*
B (background)
C (crossgradient)
D (downgradient)
U (upgradient)

NA - Not applicable
[a] *See p. E-3 for a description of codes and analytes.*
[b] *Monitoring for certain parameters is required by the RCRA §3008(h) Order on Consent.*
[c] *Monitor upgradient and downgradient of remote-handled waste facility*

Table E-2
2005 Indicator Results From the Sand and Gravel Unit

Location Code	Hydraulic Position	pH (SU)	Conductivity (µmhos/cm@25^{0}C)	Gross Alpha (µCi/mL)	Gross Beta (µCi/mL)	Tritium (µCi/mL)
301	UP(1)	6.62	948	1.52±1.86E-09	7.05±2.63E-09	**1.88±0.80E-07**
301	UP(2)	6.60	**1,023**	-1.76±2.20E-09	5.79±3.86E-09	-0.72±8.05E-08
301	UP(3)	**6.79**	**844**	1.33±2.91E-09	**5.74±3.76E-09**	1.16±0.77E-07
301	UP(4)	**6.35**	1,011	-1.90±2.05E-09	**9.78±3.16E-09**	-0.91±1.20E-07
401	UP(1)	**6.49**	1,965	0.94±4.72E-09	6.53±6.90E-09	**1.85±0.80E-07**
401	UP(2)	6.83	2,056	-1.63±4.91E-09	3.96±7.33E-09	-9.16±7.96E-08
401	UP(3)	**7.17**	**725**	-0.68±3.17E-09	6.26±6.94E-09	1.56±0.55E-07
401	UP(4)	6.59	**3,154**	-6.44±3.88E-09	**1.11±0.81E-08**	-0.84±1.23E-07
403	UP(1)	7.14	**897**	-2.20±2.03E-09	3.49±2.58E-09	**1.92±0.81E-07**
403	UP(2)	**6.92**	1,187	-1.04±2.47E-09	**3.26±2.70E-09**	**1.28±0.58E-07**
403	UP(3)	**7.33**	**1,245**	0.59±3.16E-09	**5.63±2.75E-09**	1.50±0.81E-07
706	UP(1)	**6.30**	**870**	0.41±1.85E-09	**8.12±2.26E-09**	-4.98±7.68E-08
706	UP(2)	6.55	1,001	1.30±1.95E-09	1.03±0.23E-08	4.34±8.11E-08
706	UP(3)	**6.77**	**1,481**	-0.91±2.10E-09	1.00±0.28E-08	3.11±8.17E-08
706	UP(4)	6.74	1,099	**1.74±1.20E-09**	**1.12±0.25E-08**	**1.61±1.29E-07**
1304	UP(1)	7.10	1,860	0.00±4.44E-09	**1.14±0.73E-08**	**1.25±0.79E-07**
1304	UP(2)	**6.91**	**5,031**	2.08±6.83E-09	8.42±7.49E-09	-1.42±7.98E-08
1304	UP(3)	7.11	3,688	-3.46±8.02E-09	6.36±6.68E-09	6.08±7.79E-08
1304	UP(4)	**7.47**	**1,644**	-1.35±1.75E-09	5.67±3.16E-09	0.82±1.27E-07
NB1S	UP(1)	**6.37**	**439**	0.63±1.10E-09	2.07±1.74E-09	-1.44±8.45E-08
NB1S	UP(2)	**6.71**	583	0.47±1.09E-09	**2.59±1.79E-09**	3.54±7.75E-08
NB1S	UP(3)	**6.71**	**742**	-1.47±2.38E-09	1.38±2.38E-09	-1.02±0.55E-07
201	DOWN(1)	**6.21**	**2,681**	-0.34±5.01E-09	**4.10±0.68E-08**	**1.78±0.79E-07**
201	DOWN(2)	**6.41**	3,340	-5.22±5.78E-09	5.44±1.01E-08	-0.27±8.04E-08
201	DOWN(3)	6.25	**4,605**	-2.53±9.60E-09	**7.33±1.08E-08**	1.44±0.78E-07
1302	DOWN(1)	**7.38**	**1,855**	2.14±4.18E-09	5.58±6.30E-09	-2.81±7.73E-08
1302	DOWN(2)	7.06	4,473	2.57±5.71E-09	1.94±9.06E-09	3.63±8.04E-08
1302	DOWN(3)	6.90	4,983	0.34±1.11E-08	0.89±1.35E-08	5.12±7.78E-08
1302	DOWN(4)	**6.73**	**5,092**	-0.02±1.09E-08	6.81±9.74E-09	0.77±1.20E-07
103	DOWN(1)	**8.30**	**1,915**	1.28±3.05E-09	**2.50±0.56E-08**	1.86±8.45E-08
103	DOWN(2)	8.02	**10,967**	0.41±1.08E-08	**4.88±0.25E-07**	3.79±8.00E-08
103	DOWN(3)	7.92	8,650	-0.23±1.20E-08	3.03±0.17E-07	7.57±7.72E-08
103	DOWN(4)	**7.62**	5,156	3.56±6.25E-09	1.20±0.13E-07	0.82±1.26E-07
104	DOWN(1)	**6.71**	1,532	1.28±2.51E-09	5.51±0.01E-05	3.08±0.81E-07
104	DOWN(2)	7.14	1,508	2.33±2.86E-09	**4.93±0.01E-05**	**3.73±0.81E-07**
104	DOWN(3)	**7.18**	**1,685**	3.37±3.46E-09	**6.19±0.01E-05**	3.02±0.81E-07
104	DOWN(4)	7.12	**1,502**	0.41±2.52E-09	5.99±0.01E-05	**2.39±1.26E-07**

Note: Bolding convention applied to these data. (See p. E-2)
Sample collection quarter is noted in parentheses next to hydraulic position. Hydraulic position is relative to other wells within the same hydrogeologic unit.

Table E-2 (continued)
2005 Indicator Results From the Sand and Gravel Unit

Location Code	Hydraulic Position	pH (SU)	Conductivity (µmhos/cm@25^{0}C)	Gross Alpha (µCi/mL)	Gross Beta (µCi/mL)	Tritium (µCi/mL)
111	DOWN(1)	**6.85**	**552**	2.54±2.21E-09	**2.80±0.03E-06**	1.45±0.57E-07
111	DOWN(2)	**6.55**	630	0.89±2.27E-09	4.40±0.04E-06	1.95±0.59E-07
111	DOWN(3)	6.72	668	**4.03±3.02E-09**	5.70±0.05E-06	**2.00±0.80E-07**
111	DOWN(4)	6.65	**1,341**	0.45±3.24E-09	**1.04±0.01E-05**	0.33±1.30E-07
205	DOWN(1)	**6.80**	**2,492**	-5.80±4.44E-09	5.39±7.20E-09	**2.09±0.81E-07**
205	DOWN(2)	**7.02**	4,517	-1.78±7.24E-09	1.97±0.86E-08	2.52±8.03E-08
205	DOWN(3)	6.92	**8,178**	0.68±1.31E-08	**3.11±1.48E-08**	1.26±0.78E-07
406	DOWN(1)	6.94	**904**	0.00±2.12E-09	**5.82±3.89E-09**	3.99±8.45E-08
406	DOWN(2)	**6.52**	**1,500**	2.43±3.46E-09	7.02±4.00E-09	1.44±0.78E-07
406	DOWN(3)	**7.08**	956	1.83±2.79E-09	**7.82±3.63E-09**	**1.84±0.82E-07**
406	DOWN(4)	6.86	1,105	1.62±1.84E-09	7.22±2.45E-09	1.45±1.32E-07
408	DOWN(1)	6.92	1,312	4.73±5.15E-09	1.63±0.01E-04	1.93±1.20E-07
408	DOWN(2)	7.22	1,415	-1.88±1.92E-09	1.84±0.01E-04	**3.04±1.29E-07**
408	DOWN(3)	**7.29**	**1,553**	-1.77±1.31E-09	**2.04±0.01E-04**	1.63±1.15E-07
408	DOWN(4)	**6.90**	**1,248**	-0.78±1.85E-09	**1.21±0.01E-04**	0.10±1.31E-07
501	DOWN(1)	**7.20**	1,126	1.50±2.82E-09	1.01±0.01E-04	**3.15±0.80E-07**
501	DOWN(2)	7.43	1,184	0.17±2.99E-09	9.63±0.02E-05	-0.22±8.20E-08
501	DOWN(3)	**7.60**	**1,266**	1.57±4.10E-09	**1.16±0.01E-04**	1.40±0.79E-07
501	DOWN(4)	7.50	**1,021**	0.00±1.55E-09	**8.95±0.03E-05**	-0.33±1.30E-07
502	DOWN(1)	**7.24**	1,250	1.45±2.87E-09	1.08±0.01E-04	**1.93±0.84E-07**
502	DOWN(2)	7.27	1,275	-1.24±2.88E-09	9.54±0.02E-05	1.31±0.83E-07
502	DOWN(3)	**7.54**	**1,306**	1.47±3.84E-09	**1.11±0.01E-04**	1.61±0.78E-07
502	DOWN(4)	7.52	**1,100**	0.44±2.33E-09	**9.31±0.03E-05**	-0.25±1.31E-07
602A	DOWN(1)	7.02	**434**	-0.21±1.35E-09	**1.02±0.23E-08**	**4.88±0.84E-07**
602A	DOWN(2)	**6.81**	705	**2.51±1.81E-09**	1.15±0.23E-08	3.55±0.85E-07
602A	DOWN(3)	7.00	**857**	0.90±1.98E-09	1.15±0.23E-08	3.11±0.58E-07
602A	DOWN(4)	**7.03**	695	-0.07±1.69E-09	**2.15±0.30E-08**	**2.36±1.37E-07**
604	DOWN(1)	6.06	**1,530**	1.45±3.23E-09	**1.01±0.29E-08**	7.32±7.83E-08
604	DOWN(2)	**6.24**	**1,326**	0.95±2.39E-09	**7.66±2.77E-09**	**1.29±0.78E-07**
604	DOWN(3)	6.23	1,490	-0.92±2.77E-09	8.09±2.89E-09	5.80±7.68E-08
604	DOWN(4)	**5.94**	1,382	**1.75±1.49E-09**	8.33±2.90E-09	-0.35±1.03E-07
8605	DOWN(1)	6.72	1,804	5.50±4.42E-09	**1.12±0.01E-05**	1.98±0.81E-07
8605	DOWN(2)	6.88	**1,114**	2.28±3.49E-09	1.04±0.01E-05	**3.75±0.57E-07**
8605	DOWN(3)	**6.94**	2,006	6.82±6.56E-09	**9.44±0.07E-06**	**1.77±0.81E-07**
8605	DOWN(4)	**6.64**	**2,154**	**7.18±3.75E-09**	1.09±0.01E-05	2.75±1.12E-07

Note: Bolding convention applied to these data. (See p. E-2)
Sample collection quarter is noted in parentheses next to hydraulic position. Hydraulic position is relative to other wells within the same hydrogeologic unit.

Table E-2 (continued)
2005 Indicator Results From the Sand and Gravel Unit

Location Code	Hydraulic Position	pH (SU)	Conductivity (µmhos/cm@25^{0}C)	Gross Alpha (µCi/mL)	Gross Beta (µCi/mL)	Tritium (µCi/mL)
8607	DOWN(1)	**6.55**	**654**	**1.87±1.74E-09**	**1.34±0.29E-08**	0.92±6.29E-08
8607	DOWN(2)	**6.14**	**4,493**	2.12±9.29E-09	**7.63±1.12E-08**	-0.78±8.49E-08
8607	DOWN(3)	6.54	2,368	-5.53±7.96E-09	2.57±0.85E-08	**1.30±0.79E-07**
8607	DOWN(4)	6.32	1,516	0.71±1.56E-09	2.54±0.35E-08	0.81±1.26E-07
8609	DOWN(1)	**6.81**	2,166	1.94±3.51E-09	**2.28±0.02E-06**	**2.61±0.82E-07**
8609	DOWN(2)	7.00	2,202	2.75±5.40E-09	1.89±0.03E-06	**3.56±0.81E-07**
8609	DOWN(3)	**7.07**	**2,376**	1.39±3.54E-09	**1.82±0.02E-06**	2.86±0.81E-07
8609	DOWN(4)	6.90	**2,044**	-2.19±2.69E-09	1.86±0.02E-06	2.90±1.37E-07
105	DOWN(1)	**7.08**	**1,734**	-2.47±4.05E-09	**5.75±0.02E-05**	**2.38±0.81E-07**
105	DOWN(2)	7.31	1,732	0.00±4.21E-09	4.98±0.02E-05	**3.61±0.81E-07**
105	DOWN(3)	**7.32**	1,612	3.71±4.72E-09	**4.77±0.01E-05**	2.44±0.81E-07
105	DOWN(4)	7.22	**1,575**	0.51±2.30E-09	5.29±0.01E-05	2.79±1.30E-07
106	DOWN(1)	**6.55**	1,496	2.30±3.65E-09	**3.57±0.53E-08**	**1.03±0.09E-06**
106	DOWN(2)	6.79	1,560	-0.58±2.15E-09	5.31±0.43E-08	**5.41±0.91E-07**
106	DOWN(3)	**6.93**	**1,573**	**9.80±5.88E-09**	9.16±0.73E-08	6.43±0.87E-07
106	DOWN(4)	6.72	**1,460**	0.23±1.30E-09	**9.98±0.50E-08**	8.07±1.48E-07
116	DOWN(1)	**6.58**	**1,275**	1.18±2.81E-09	**2.10±0.03E-06**	4.50±7.78E-08
116	DOWN(2)	**7.22**	**1,862**	1.77±5.24E-09	2.65±0.04E-06	1.91±0.79E-07
116	DOWN(3)	7.01	1,670	0.89±5.30E-09	3.13±0.04E-06	2.13±0.80E-07
116	DOWN(4)	7.08	1,541	-0.68±1.33E-09	**3.69±0.03E-06**	**3.13±1.15E-07**
605	DOWN(1)	**6.92**	**469**	4.11±8.79E-10	**3.37±0.22E-08**	**1.44±0.80E-07**
605	DOWN(2)	7.02	762	0.82±1.62E-09	3.19±0.32E-08	1.80±8.11E-08
605	DOWN(3)	**7.09**	**836**	-1.32±1.62E-09	**2.94±0.22E-08**	6.26±8.13E-08
801	DOWN(1)	6.69	**1,228**	0.63±2.84E-09	**4.88±0.05E-06**	7.63±6.78E-08
801	DOWN(2)	**6.76**	**1,693**	-0.66±3.71E-09	8.46±0.06E-06	1.82±0.79E-07
801	DOWN(3)	**6.53**	1,683	1.42±5.11E-09	9.41±0.07E-06	6.32±8.31E-08
801	DOWN(4)	6.65	1,543	0.91±1.78E-09	**9.50±0.05E-06**	**3.12±1.10E-07**
802	DOWN(1)	**6.50**	448	**2.28±1.92E-09**	2.89±0.46E-08	1.09±0.58E-07
802	DOWN(2)	6.73	**236**	0.11±1.15E-09	**1.64±0.40E-08**	**1.28±0.83E-07**
802	DOWN(3)	**7.10**	335	0.57±1.25E-09	3.16±0.31E-08	-8.12±8.07E-08
802	DOWN(4)	6.81	**1,444**	-2.33±1.76E-09	**1.56±0.06E-07**	0.96±1.30E-07
803	DOWN(1)	7.02	**1,338**	0.47±3.51E-09	1.46±0.42E-08	**1.06±0.82E-07**
803	DOWN(2)	7.04	**1,204**	-1.76±2.91E-09	**1.07±0.42E-08**	2.72±8.81E-08
803	DOWN(3)	**7.11**	1,251	**8.96±4.84E-09**	1.12±0.41E-08	3.58±8.15E-08
803	DOWN(4)	**6.92**	1,300	0.00±1.76E-09	**1.84±0.33E-08**	0.84±1.34E-07

Note: Bolding convention applied to these data. (See p. E-2)
Sample collection quarter is noted in parentheses next to hydraulic position. Hydraulic position is relative to other wells within the same hydrogeologic unit.

Table E-2 (concluded)
2005 Indicator Results From the Sand and Gravel Unit

Location Code	Hydraulic Position	pH (SU)	Conductivity (µmhos/cm@25^{0}C)	Gross Alpha (µCi/mL)	Gross Beta (µCi/mL)	Tritium (µCi/mL)
804	DOWN(1)	6.70	**946**	0.00±2.04E-09	**2.02±0.08E-07**	**2.35±0.83E-07**
804	DOWN(2)	6.66	1,400	-0.38±2.34E-09	**3.14±0.10E-07**	6.58±8.10E-08
804	DOWN(3)	**6.71**	**1,434**	-1.54±2.95E-09	2.67±0.09E-07	3.35±8.17E-08
804	DOWN(4)	**6.50**	1,120	-0.83±1.70E-09	2.35±0.07E-07	-0.58±1.28E-07
8603	DOWN(1)	**6.93**	1,629	1.94±3.65E-09	5.86±0.02E-05	2.99±0.82E-07
8603	DOWN(2)	7.22	**1,697**	-1.47±4.02E-09	**5.12±0.02E-05**	**3.50±0.81E-07**
8603	DOWN(3)	**7.32**	1,670	0.00±4.75E-09	**5.89±0.02E-05**	3.41±0.81E-07
8603	DOWN(4)	7.02	**1,556**	-1.15±2.08E-09	5.47±0.01E-05	**2.99±1.36E-07**
8604	DOWN(1)	**6.95**	1,516	1.10±3.63E-09	5.05±0.02E-05	3.18±0.82E-07
8604	DOWN(2)	**7.47**	**1,495**	0.82±3.60E-09	**4.68±0.01E-05**	**3.46±0.81E-07**
8604	DOWN(3)	7.35	**1,549**	-1.10±4.68E-09	**5.21±0.02E-05**	**2.53±0.80E-07**
8612	DOWN(1)	7.17	1,481	-2.24±3.61E-09	-0.34±3.45E-09	2.85±0.89E-07
8612	DOWN(2)	7.24	**1,387**	-1.66±3.24E-09	-0.58±3.69E-09	3.26±0.59E-07
8612	DOWN(3)	**7.35**	**1,525**	1.24±4.03E-09	**4.89±3.61E-09**	**3.41±0.82E-07**
8612	DOWN(4)	**6.97**	1,500	2.09±2.17E-09	1.59±3.14E-09	**1.52±1.32E-07**
GSEEP	DOWN(1)	6.53	1,010	-1.71±1.85E-09	**4.94±2.57E-09**	**5.49±0.87E-07**
GSEEP	DOWN(2)	**6.70**	983	-0.63±1.89E-09	0.82±2.46E-09	4.84±0.86E-07
GSEEP	DOWN(3)	**6.44**	**1,066**	-0.44±2.53E-09	4.09±2.63E-09	3.97±0.83E-07
GSEEP	DOWN(4)	6.51	**970**	0.00±1.21E-09	4.33±2.46E-09	**1.35±1.30E-07**
SP04	DOWN(1)	NS	NS	1.96±2.85E-09	8.56±3.81E-09	2.39±0.57E-07
SP04	DOWN(3)	NS	NS	1.38±3.64E-09	8.15±3.78E-09	2.70±0.80E-07
SP06	DOWN(1)	NS	NS	0.11±1.65E-09	4.40±1.98E-09	-8.48±8.33E-08
SP06	DOWN(3)	NS	NS	0.00±2.14E-09	4.15±1.93E-09	1.20±0.79E-07
SP11	DOWN(1)	NS	NS	2.11±2.84E-09	7.12±0.51E-08	2.40±8.47E-08
SP11	DOWN(3)	NS	NS	2.60±3.31E-09	7.72±0.53E-08	1.80±0.80E-07
SP12	DOWN(1)	6.51	834	2.74±2.02E-09	2.97±0.26E-08	2.61±0.86E-07
SP12	DOWN(3)	7.50	1,012	2.35±3.34E-09	2.65±2.57E-09	1.60±0.80E-07
WP-A	DOWN(4)	8.20	81	0.75±2.15E-10	1.73±0.10E-08	1.23±0.04E-05
WP-C	DOWN(4)	6.91	176	6.55±7.80E-10	2.41±0.13E-08	5.01±0.08E-05
WP-H	DOWN(4)	6.94	1,154	3.29±1.77E-09	6.02±0.03E-06	1.67±0.19E-06

Note: Bolding convention applied to these data. (See p. E-2)
NS - Not sampled
Sample collection quarter is noted in parentheses next to hydraulic position. Hydraulic position is relative to other wells within the same hydrogeologic unit.

Table E-3
2005 Indicator Results From the Lavery Till-Sand Unit

Location Code	Hydraulic Position	pH (SU)	Conductivity (µmhos/cm@25°C)	Gross Alpha (µCi/mL)	Gross Beta (µCi/mL)	Tritium (µCi/mL)
302	UP(1)	**6.72**	3,568	-2.40±4.64E-09	-2.60±4.99E-09	**1.37±0.79E-07**
302	UP(2)	6.90	**3,374**	1.16±7.53E-09	-0.23±7.39E-09	-3.65±8.07E-08
302	UP(3)	**6.93**	**4,001**	1.51±5.25E-09	0.48±5.18E-09	8.20±7.69E-08
402	UP(1)	**6.89**	**2,958**	1.77±6.72E-09	2.85±6.49E-09	**1.17±0.81E-07**
402	UP(2)	**7.15**	**2,703**	0.91±5.91E-09	-2.66±7.00E-09	-8.35±8.06E-08
402	UP(3)	7.11	2,759	-0.61±8.73E-09	1.64±7.19E-09	4.66±7.50E-08
204	DOWN(1)	**7.31**	1,128	1.28±2.83E-09	4.50±3.61E-09	**1.76±0.80E-07**
204	DOWN(2)	**7.59**	**1,078**	0.00±2.54E-09	0.11±3.56E-09	0.44±5.71E-08
204	DOWN(3)	7.50	**1,224**	2.14±2.31E-09	**5.93±2.52E-09**	1.02±0.78E-07
204	DOWN(4)	7.50	1,132	1.28±2.15E-09	2.40±2.81E-09	-0.93±1.28E-07
206	DOWN(1)	7.30	**1,240**	-0.39±2.83E-09	3.62±3.60E-09	**2.07±0.80E-07**
206	DOWN(2)	**7.47**	1,256	0.00±2.48E-09	2.40±3.45E-09	2.31±8.07E-08
206	DOWN(3)	**7.29**	**1,542**	-0.23±3.58E-09	**4.18±3.83E-09**	1.48±0.78E-07
208	DOWN(1)	7.88	**264**	-1.65±6.88E-10	-0.50±1.11E-09	7.82±7.87E-08
208	DOWN(2)	**8.08**	**257**	2.25±6.42E-10	**1.69±1.17E-09**	4.18±8.07E-08
208	DOWN(3)	**7.87**	258	0.77±1.09E-09	0.26±1.15E-09	6.25±7.65E-08

Note: Bolding convention applied to these data. (See p. E-2.)
Sample collection quarter is noted in parentheses next to hydraulic position. Hydraulic position is relative to other wells within the same hydrogeologic unit.

Table E-4
2005 Indicator Results From the Weathered Lavery Till Unit

Location Code	Hydraulic Position	pH (SU)	Conductivity (µmhos/cm@25^{0}C)	Gross Alpha (µCi/mL)	Gross Beta (µCi/mL)	Tritium (µCi/mL)
908	UP(1)	7.08	2,683	1.42±0.82E-08	2.33±0.82E-08	3.35±8.17E-08
908	UP(3)	6.77	2,778	1.68±1.09E-08	2.11±0.84E-08	-7.77±7.99E-08
1005	UP(1)	7.05	804	0.33±2.31E-09	5.14±2.57E-09	9.27±8.23E-08
1005	UP(3)	7.08	796	2.40±2.60E-09	2.15±2.46E-09	-6.41±7.95E-08
1008C	UP(1)	7.28	608	0.56±1.60E-09	1.00±1.76E-09	5.20±8.23E-08
1008C	UP(3)	7.47	621	-0.13±1.89E-09	0.23±1.78E-09	4.84±7.66E-08
906	DOWN(1)	7.40	630	1.53±1.74E-09	2.71±1.92E-09	-5.63±8.39E-08
906	DOWN(3)	7.21	612	1.73±2.20E-09	4.74±1.88E-09	9.00±5.84E-08
1006	DOWN(1)	6.89	1,772	6.45±4.71E-09	5.29±4.82E-09	1.91±8.17E-08
1006	DOWN(3)	6.96	1,790	3.29±3.49E-09	3.15±3.43E-09	-0.67±8.07E-08
1007	DOWN(1)	6.88	1,364	1.06±0.53E-08	5.36±3.80E-09	1.06±0.84E-07
1007	DOWN(3)	6.75	1,377	-0.79±4.04E-09	5.22±3.96E-09	-3.75±8.06E-08
NDATR	DOWN(1)	7.98	**221**	0.31±1.20E-09	1.90±0.08E-07	4.60±0.89E-07
NDATR	DOWN(2)	**8.16**	612	**2.62±1.62E-09**	1.76±0.07E-07	1.69±0.11E-06
NDATR	DOWN(3)	7.48	1,054	1.63±3.38E-09	**1.46±0.07E-07**	**5.26±0.15E-06**
NDATR	DOWN(4)	**7.35**	**1,075**	1.43±0.63E-09	**2.58±0.04E-07**	**3.82±1.33E-07**
909	DOWN(1)	6.68	1,349	0.79±2.45E-09	3.65±0.11E-07	8.56±0.89E-07
909	DOWN(3)	6.65	1,396	1.14±0.57E-08	3.21±0.14E-07	6.09±0.89E-07

Note: Bolding convention applied to these data. (See p. E-2.)
Sample collection quarter is noted in parentheses next to hydraulic position. Hydraulic position is relative to other wells within the same hydrogeologic unit.

Table E-5
2005 Indicator Results From the Unweathered Lavery Till Unit

Location Code	Hydraulic Position	pH (SU)	Conductivity (µmhos/cm@25°C)	Gross Alpha (µCi/mL)	Gross Beta (µCi/mL)	Tritium (µCi/mL)
405	UP(1)	7.09	**877**	3.72±4.35E-09	7.56±5.01E-09	1.03±8.45E-08
405	UP(2)	**6.80**	1,347	-0.70±2.36E-09	**5.31±4.60E-09**	2.76±8.04E-08
405	UP(3)	6.97	1,640	0.14±1.02E-08	**2.82±1.31E-08**	3.69±7.97E-08
405	UP(4)	**7.20**	**1,851**	**3.40±1.62E-09**	1.29±0.32E-08	1.20±1.26E-07
1303	UP(1)	7.84	300	**1.17±0.88E-09**	1.88±1.20E-09	-5.65±7.77E-08
1303	UP(2)	**7.83**	**259**	8.56±7.11E-10	**1.74±1.18E-09**	2.30±8.02E-08
1303	UP(3)	7.87	315	3.10±8.14E-10	**2.17±1.17E-09**	-2.20±7.65E-08
1303	UP(4)	**7.95**	**336**	9.42±4.95E-10	1.78±0.66E-09	0.82±1.26E-07
110	DOWN(1)	**7.20**	**530**	-1.51±1.57E-09	1.61±1.81E-09	**1.28±0.10E-06**
110	DOWN(2)	**7.47**	**490**	0.63±1.42E-09	0.83±1.84E-09	1.06±0.10E-06
110	DOWN(3)	7.35	515	**2.19±1.77E-09**	**3.30±1.93E-09**	1.26±0.10E-06
110	DOWN(4)	7.38	**490**	0.00±9.51E-10	1.15±1.56E-09	**8.86±1.49E-07**
704	DOWN(1)	**6.42**	798	-0.15±2.02E-09	**6.91±2.66E-09**	2.36±5.84E-08
704	DOWN(2)	**6.58**	**763**	-0.16±1.98E-09	**5.05±2.68E-09**	-1.35±7.97E-08
704	DOWN(3)	6.55	**836**	-1.37±2.90E-09	5.38±2.73E-09	-4.28±8.06E-08
704	DOWN(4)	6.45	810	0.16±1.38E-09	6.38±2.62E-09	0.39±1.19E-07
707	DOWN(1)	**6.38**	**395**	0.00±9.22E-10	5.46±1.64E-09	3.07±8.24E-08
707	DOWN(2)	6.46	466	3.17±9.06E-10	**6.78±1.70E-09**	-3.00±8.02E-08
707	DOWN(3)	6.48	**647**	**2.22±1.96E-09**	**2.45±1.58E-09**	-4.44±8.40E-08
707	DOWN(4)	**6.57**	574	1.13±0.99E-09	3.06±1.44E-09	1.18±1.23E-07
107	DOWN(1)	**7.36**	829	1.11±2.17E-09	1.25±0.30E-08	**3.37±0.82E-07**
107	DOWN(2)	7.29	**793**	1.51±1.87E-09	**1.13±0.29E-08**	**1.33±0.82E-07**
107	DOWN(3)	7.13	893	0.18±2.88E-09	1.26±0.31E-08	2.66±0.80E-07
107	DOWN(4)	**6.81**	**932**	-2.14±3.33E-09	**2.22±0.42E-08**	2.76±1.40E-07
108	DOWN(1)	7.59	526	**1.85±1.52E-09**	0.83±1.81E-09	**2.28±0.80E-07**
108	DOWN(2)	7.76	512	0.96±1.36E-09	**2.47±1.91E-09**	2.00±0.83E-07
108	DOWN(3)	**7.48**	**607**	0.98±1.66E-09	0.28±1.70E-09	2.27±0.56E-07
108	DOWN(4)	**7.81**	**464**	1.59±0.81E-09	1.26±1.21E-09	0.89±1.28E-07
409	DOWN(1)	**7.11**	342	8.06±9.17E-10	1.99±1.25E-09	2.07±0.57E-07
409	DOWN(2)	**7.96**	**326**	8.19±6.71E-10	1.43±0.90E-09	0.00±7.93E-08
409	DOWN(3)	7.80	**378**	0.57±1.18E-09	**2.06±1.26E-09**	3.84±7.90E-08
409	DOWN(4)	7.30	333	**1.01±0.59E-09**	**9.71±8.02E-10**	2.10±1.37E-07
910	DOWN(1)	7.26	1,186	2.78±2.25E-09	2.44±0.33E-08	1.33±8.13E-08
910	DOWN(3)	8.63	823	0.60±2.24E-09	5.04±0.57E-08	-5.48±8.05E-08

Note: Bolding convention applied to these data. (See p. E-2)
Sample collection quarter is noted in parentheses next to hydraulic position. Hydraulic position is relative to other wells within the same hydrogeologic unit.

Table E-6
2005 Indicator Results From the Kent Recessional Sequence

Location Code	Hydraulic Position	pH (SU)	Conductivity (µmhos/cm@25^{0}C)	Gross Alpha (µCi/mL)	Gross Beta (µCi/mL)	Tritium (µCi/mL)
901	UP(1)	7.01	350	4.05±1.37E-09	3.92±1.34E-09	-4.80±8.12E-08
901	UP(3)	7.66	359	1.22±1.18E-09	3.52±1.29E-09	-4.83±8.19E-08
902	UP(1)	8.18	390	0.94±1.19E-09	2.66±1.49E-09	-6.07±8.00E-08
902	UP(3)	7.86	437	3.80±1.74E-09	2.26±1.53E-09	-7.32±8.03E-08
1008B	UP(1)	7.71	454	2.13±1.34E-09	2.14±1.27E-09	8.04±8.31E-08
1008B	UP(3)	7.85	368	1.43±1.18E-09	3.02±1.26E-09	0.85±7.68E-08
903	DOWN(1)	7.50	864	3.84±2.57E-09	0.90±2.33E-09	5.14±8.28E-08
903	DOWN(3)	7.33	940	-1.35±2.85E-09	-0.32±2.39E-09	-8.04±8.08E-08
8610	DOWN(1)	7.67	1,104	6.35±2.98E-09	6.24±2.66E-09	1.20±0.83E-07
8610	DOWN(3)	7.80	755	-1.14±2.83E-09	4.24±2.61E-09	-2.87±5.42E-08
8611	DOWN(1)	7.07	689	2.29±2.37E-09	2.23±2.40E-09	-3.76±8.41E-08
8611	DOWN(3)	7.46	905	1.81±1.70E-09	4.23±1.69E-09	-1.83±7.65E-08

Note: Bolding convention is not applicable to these data.
Sample collection quarter is noted in parentheses next to hydraulic position. Hydraulic position is relative to other wells within the same hydrogeologic unit.

Table E-7
2005 Metals Results for Early Warning Monitoring Wells

Location Code	Sample Quarter	Aluminum Total (µg/L)	Iron Total (µg/L)	Manganese Total (µg/L)
502	(1)	356	17,490	16.5
	(3)	196	4,420	8.0

Note: Bolding convention is not applicable to these data.

Table E-8
2005 Volatile Organic Compound Results at Selected Groundwater Monitoring Locations

Location Code	Sampling Quarter	1,1-DCA (µg/L)	DCDFMeth (µg/L)	1,1-DCE (µg/L)	1,2-DCE (total) (µg/L)	1,2-DCE (trans) (µg/L)	1,1,1-TCA (µg/L)	Vinyl Chloride (µg/L)
SP12	1	<5.0	<1.0	<5.0	NS	<1.0	<5.0	<10.0
	3	<5.0	<1.0	<5.0	NS	<1.0	<5.0	<10.0
803	1	<5.0	<1.0	<5.0	NS	<1.0	<5.0	<10.0
	2	<5.0	<1.0	<5.0	NS	<1.0	<5.0	<10.0
	3	<5.0	<1.0	<5.0	NS	<1.0	<5.0	<10.0
	4	<5.0	<1.0	<5.0	NS	<1.0	<5.0	<10.0
8609	1	<5.0	<5.0	<5.0	NS	<5.0	<5.0	<10.0
8612	1	**10.5**	<5.0[a]	<5.0[a]	**29.0**	<5.0	<5.0[a]	<10.0[a]
	2	8.8	<5.0[a]	<5.0[a]	24.0	<5.0	<5.0[a]	<10.0
	3	**7.5**	<5.0[a]	<5.0[a]	**22.0**	<5.0[a]	<5.0[a]	<10.0[a]
	4	8.5	<5.0[a]	<5.0	23.5	<5.0	<5.0[a]	<10.0

See Table E-12 for compound definition.
Note: Bolding convention applied to these data. (See p. E-2.)
NS - Not sampled.
[a] *Compound was reported at an estimated concentration less than the practical quantitation limit.*

Table E-9
2005 Tributyl Phosphate Results at Selected Groundwater Monitoring Locations

Location Code	Sampling Quarter	Tributyl Phosphate (TBP) (µg/L)
111	*1*	<10.0[a]
	3	<10.0[a]
8605	*1*	220
	3	263

Practical quantitation limit is 10 µg/L.
Note: Bolding convention not applicable to these data.
[a] *Compound was reported at an estimated concentration less than the practical quantitation limit.*

Table E-10
2005 Results for Metals in Groundwater
Title 6 NYCRR Appendix 33 List

Location Code	Hydraulic Position	Antimony (µg/L)	Arsenic (µg/L)	Barium (µg/L)	Beryllium (µg/L)	Cadmium (µg/L)	Chromium (µg/L)	Cobalt (µg/L)	Copper (µg/L)
Sand and Gravel									
706	UP(1)	<10	<10	152	<1	<5	**694**	<50	<25
706	UP(2)	<10	<10	**147**	<1	<5	**60**	<50	<25
706	UP(3)	<10	<10	**184**	<1	<5	221	<50	<25
706	UP(4)	<10	<10	174	<1	<5	435	<50	<25
1304	UP(1)	<10	<10	127	<1	<5	10	<50	<25
1304	UP(2)	<10	11	**240**	<1	<5	15	<50	**27**
1304	UP(3)	<10	**13**	224	<1	<5	**20**	<50	<25
1304	UP(4)	<10	<10	**85**	<1	<5	<5	<50	<25
1302	DOWN(1)	<10	<10	**185**	<1	<5	<5	<50	<25
1302	DOWN(2)	<10	<10	**417**	<1	<5	**13**	<50	<25
1302	DOWN(3)	<10	<10	341	<1	<5	<5	<50	<25
1302	DOWN(4)	<10	<10	308	<1	<5	<5	<50	<25
111	DOWN(1)	<3	4	98	<0.1	<0.3	1	2	2
502	DOWN(1)	NS	12	316	NS	<0.3	1,580	2	12
502	DOWN(3)	NS	<4	252	NS	<0.3	775	2	7
8605	DOWN(1)	<3	5	163	<0.1	<0.3	<1	2	3
Weathered Till									
NDATR	DOWN(1)	<10	<10	**25**	<1	<5	<5	<50	<25
NDATR	DOWN(2)	<10	<10	42	<1	<5	<5	<50	<25
NDATR	DOWN(3)	<10	<10	**47**	<1	<5	<5	<50	<25
NDATR	DOWN(4)	<10	<10	44	<1	<5	<5	<50	<25
909	DOWN(1)	<10	16	179	<1	<5	<5	<50	<25
Unweathered Till									
405	UP(1)	<10	<10	**233**	<1	<5	397	<50	**46**
405	UP(2)	<10	<10	**93**	<1	<5	**171**	<50	<25
405	UP(3)	<10	<10	95	<1	<5	937	<50	<25
405	UP(4)	<10	<10	159	<1	<5	**4,820**	<50	35
1303	UP(1)	<10	**34**	**461**	**2**	<5	**60**	<50	**60**
1303	UP(2)	<10	26	368	**2**	<5	44	<50	39
1303	UP(3)	<10	17	269	1	<5	28	<50	<25
1303	UP(4)	<10	**15**	**256**	<1	<5	**19**	<50	<25

Note: Bolding convention applied to these data. (See p. E-2)

NS - Not sampled.

Sample collection quarter is noted in parentheses next to hydraulic position. Hydraulic position is relative to other wells within the same hydrogeologic unit.

Table E-10 (concluded)
2005 Results for Metals in Groundwater
Title 6 NYCRR Appendix 33 List

Location Code	Hydraulic Position	Lead (µg/L)	Mercury (µg/L)	Nickel (µg/L)	Selenium (µg/L)	Silver (µg/L)	Thallium (µg/L)	Tin (µg/L)	Vanadium (µg/L)	Zinc (µg/L)
Sand and Gravel										
706	UP(1)	<3	<0.2	**1,055**	<5	<10	<10	<3,000	<50	<20
706	UP(2)	<3	<0.2	**528**	<5	<10	<10	<3,000	<50	<20
706	UP(3)	<3	<0.2	690	<5	<10	<10	<3,000	<50	<20
706	UP(4)	<3	<0.2	904	<5	<10	<10	<3,000	<50	<20
1304	UP(1)	7	<0.2	<40	<5	<10	<10	<3,000	<50	38
1304	UP(2)	9	<0.2	<40	<5	<10	<10	<3,000	<50	55
1304	UP(3)	**13**	<0.2	<40	<5	<10	<10	<3,000	<50	**68**
1304	UP(4)	<3	<0.2	<40	<5	<10	<10	<3,000	<50	<20
1302	DOWN(1)	3	<0.2	<40	<5	<10	<10	<3,000	<50	<20
1302	DOWN(2)	**5**	<0.2	<40	<5	<10	<10	<3,000	<50	**53**
1302	DOWN(3)	<3	<0.2	<40	<5	<10	<10	<3,000	<50	<20
1302	DOWN(4)	<3	<0.2	<40	<5	<10	<10	<3,000	<50	<20
111	DOWN(1)	<2	<0.1	2	<4	<1	<5	<3	<1	7
502	DOWN(1)	<2	<0.1	50	<4	<1	NS	NS	6	12
502	DOWN(3)	<2	<0.1	29	<5	<1	NS	NS	2	44
8605	DOWN(1)	<2	<0.1	2	<4	<1	<5	<3	<1	7
Weathered Till										
NDATR	DOWN(1)	<3	<0.2	<40	<5	<10	<10	<3,000	<50	<20
NDATR	DOWN(2)	<3	<0.2	<40	<5	<10	<10	<3,000	<50	<20
NDATR	DOWN(3)	<3	<0.2	<40	<5	<10	<10	<3,000	<50	<20
NDATR	DOWN(4)	<3	<0.2	<40	<5	<10	<10	<3,000	<50	<20
909	DOWN(1)	6	<0.2	<40	<5	<10	<10	<3,000	<50	<20
Unweathered Till										
405	UP(1)	**15**	<0.2	**1,690**	<5	<10	<10	<3,000	<50	**35**
405	UP(2)	<3	<0.2	1,620	<5	<10	<10	<3,000	<50	<20
405	UP(3)	<3	<0.2	**1,185**	<5	<10	<10	<3,000	<50	<20
405	UP(4)	4	<0.2	1,420	<5	<10	<10	<3,000	<50	<20
1303	UP(1)	**32**	<0.2	**94**	<5	<10	<10	<3,000	**75**	**196**
1303	UP(2)	13	<0.2	66	<5	<10	<10	<3,000	53	136
1303	UP(3)	16	<0.2	41	<5	<10	<10	<3,000	<50	82
1303	UP(4)	**12**	<0.2	<40	<5	<10	<10	<3,000	<50	**60**

Note: Bolding convention applied to these data. (See p. E-2)

NS - Not sampled.

Sample collection quarter is noted in parentheses next to hydraulic position. Hydraulic position is relative to other wells within the same hydrogeologic unit.

Table E-11
2005 Radioactivity in Groundwater From Selected Monitoring Locations

Location Code	Hydraulic Position	C-14 (µCi/mL)	Sr-90 (µCi/mL)	Tc-99 (µCi/mL)
Sand and Gravel				
401	UP(1)	-1.04±2.44E-08	2.55±1.73E-09	-0.06±1.90E-09
706	UP(1)	0.34±2.57E-08	5.09±1.81E-09	0.79±1.96E-09
706	UP(2)	0.18±3.86E-08	5.30±1.74E-09	0.99±1.51E-09
706	UP(3)	0.54±3.11E-08	**6.40±2.08E-09**	0.94±1.45E-09
706	UP(4)	-0.76±3.10E-08	**2.18±0.61E-09**	-1.21±1.55E-09
1304	UP(1)	-1.87±2.59E-08	2.50±1.68E-09	1.66±1.90E-09
1304	UP(2)	-0.88±3.08E-08	**3.83±1.43E-09**	0.30±1.25E-09
1304	UP(3)	1.42±3.14E-08	1.62±1.59E-09	**2.15±1.63E-09**
1304	UP(4)	-1.34±2.97E-08	**9.89±5.70E-10**	-1.26±1.54E-09
1302	DOWN(1)	0.25±2.53E-08	0.83±1.28E-09	1.45±1.93E-09
1302	DOWN(2)	-3.33±3.03E-08	**1.23±0.89E-09**	1.10±1.32E-09
1302	DOWN(3)	0.66±3.12E-08	1.33±1.56E-09	0.70±1.96E-09
1302	DOWN(4)	1.51±3.04E-08	5.13±4.03E-10	-1.18±1.52E-09
111	DOWN(1)	NS	1.35±0.03E-06	NS
406	DOWN(1)	-0.56±2.71E-08	1.61±1.42E-09	-0.76±1.95E-09
408	DOWN(1)	-0.96±1.93E-08	8.79±0.01E-05	1.66±0.26E-08
501	DOWN(1)	NS	5.23±0.02E-05	NS
502	DOWN(1)	NS	5.21±0.02E-05	NS
602A	DOWN(1)	NS	4.12±1.73E-09	NS
8605	DOWN(1)	NS	5.28±0.06E-06	NS
8609	DOWN(1)	NS	1.12±0.03E-06	NS
8609	DOWN(3)	NS	9.27±0.25E-07	NS
116	DOWN(1)	NS	1.01±0.02E-06	NS
116	DOWN(3)	NS	1.56±0.03E-06	NS
605	DOWN(1)	NS	1.46±0.26E-08	NS

Note: Bolding convention applied to these data. (See p. E-2)

Note: Strontium-90 (Sr-90) analysis in water was performed by a non-NYSDOH ELAP-certified analytical method. See Chapter 5.

NS - Not sampled.

Sample collection quarter is noted in parentheses next to hydraulic position. Hydraulic position is relative to other wells within the same hydrogeologic unit.

Table E-11 (continued)
2005 Radioactivity in Groundwater From Selected Monitoring Locations

Location Code	Hydraulic Position	C-14 (µCi/mL)	Sr-90 (µCi/mL)	Tc-99 (µCi/mL)
Sand and Gravel *(concluded)*				
801	DOWN(1)	NS	**2.42±0.04E-06**	NS
801	DOWN(2)	NS	4.20±0.05E-06	NS
801	DOWN(3)	NS	**4.26±0.05E-06**	NS
801	DOWN(4)	NS	4.06±0.02E-06	NS
8603	DOWN(1)	NS	2.87±0.01E-05	NS
8603	DOWN(3)	NS	2.67±0.01E-05	NS
Weathered Till				
NDATR	DOWN(1)	-2.50±2.27E-08	9.02±0.59E-08	-1.71±1.88E-09
NDATR	DOWN(3)	-0.73±3.49E-08	6.92±0.48E-08	5.12±2.84E-09
909	DOWN(1)	-1.41±2.48E-08	1.70±0.08E-07	2.08±1.99E-09
Unweathered Till				
405	UP(1)	-1.71±2.26E-08	2.21±1.52E-09	1.41±1.96E-09
405	UP(2)	-1.57±3.78E-08	2.65±1.45E-09	-1.79±1.26E-09
405	UP(3)	0.28±3.10E-08	**6.66±2.09E-09**	1.14±1.46E-09
405	UP(4)	2.80±3.17E-08	**1.78±0.54E-09**	-1.07±1.50E-09
1303	UP(1)	-1.27±2.38E-08	5.28±9.13E-10	**2.21±1.94E-09**
1303	UP(2)	-1.65±2.85E-08	0.46±1.37E-09	-0.67±1.33E-09
1303	UP(3)	1.05±3.10E-08	0.29±1.45E-09	1.93±1.43E-09
1303	UP(4)	-0.10±3.00E-08	0.04±3.32E-10	0.14±1.59E-09

Note: Bolding convention applied to these data. (See p. E-2.)

Note: Strontium-90 (Sr-90) analysis in water was performed by a non-NYSDOH ELAP-certified analytical method. See Chapter 5.

NS - Not sampled.

Sample collection quarter is noted in parentheses next to hydraulic position. Hydraulic position is relative to other wells within the same hydrogeologic unit.

Table E-11 (continued)
2005 Radioactivity in Groundwater From Selected Monitoring Locations

Location Code	Hydraulic Position	I-129 (µCi/mL)	Cs-137 (µCi/mL)	Ra-226 (µCi/mL)	Ra-228 (µCi/mL)	U-232 (µCi/mL)
Sand and Gravel						
401	UP(1)	6.49±7.51E-10	0.64±6.44E-09	2.74±1.95E-10	1.01±0.58E-09	9.24±9.27E-11
706	UP(1)	0.38±5.29E-10	1.04±6.92E-09	1.99±1.99E-10	0.92±4.99E-10	0.44±3.42E-11
706	UP(2)	**1.57±1.22E-09**	2.58±7.25E-09	3.03±2.59E-10	1.00±5.41E-10	-6.64±5.55E-11
706	UP(3)	0.84±5.52E-10	-1.24±6.37E-09	-0.56±2.04E-10	**9.30±5.32E-10**	-1.03±5.12E-11
706	UP(4)	5.57±5.51E-10	**2.29±2.10E-09**	**5.92±4.09E-10**	4.22±3.51E-10	-1.96±2.34E-11
1304	UP(1)	-0.68±9.82E-10	1.31±6.37E-09	1.86±1.86E-10	6.65±4.22E-10	-2.36±3.49E-11
1304	UP(2)	0.36±1.37E-09	5.10±6.15E-09	2.99±2.20E-10	**6.70±3.42E-10**	-2.70±8.65E-11
1304	UP(3)	-2.43±4.03E-10	5.42±7.35E-09	**6.60±3.62E-10**	-0.70±7.60E-10	0.74±2.86E-11
1304	UP(4)	-3.34±6.75E-10	1.92±1.94E-09	4.63±4.17E-10	3.36±3.60E-10	-1.69±2.93E-11
1302	DOWN(1)	2.05±9.33E-10	-1.43±6.96E-09	**2.57±1.84E-10**	1.71±4.27E-10	-1.32±4.01E-11
1302	DOWN(2)	0.87±2.14E-09	-3.10±5.95E-09	3.60±2.49E-10	**4.59±3.94E-10**	0.71±1.24E-10
1302	DOWN(3)	-3.46±7.89E-10	-1.74±4.64E-09	**6.44±3.44E-10**	5.22±6.46E-10	2.04±5.23E-11
1302	DOWN(4)	0.14±8.87E-10	**3.69±3.42E-09**	6.07±4.21E-10	3.63±3.58E-10	-0.93±3.31E-11
406	DOWN(1)	-2.25±7.93E-10	1.99±6.70E-09	2.87±1.79E-10	4.76±4.69E-10	-3.60±2.48E-11
408	DOWN(1)	0.23±1.03E-09	0.74±1.74E-09	4.40±2.50E-10	5.88±5.34E-09	2.54±6.20E-11
408	DOWN(2)	NS	NS	NS	6.99±8.81E-09	NS
Weathered Till						
NDATR	DOWN(1)	0.00±4.58E-10	-0.75±6.82E-09	2.23±1.78E-10	9.07±5.77E-10	-1.11±3.52E-11
NDATR	DOWN(3)	8.28±7.37E-10	1.69±5.40E-09	8.23±3.26E-10	3.75±3.15E-10	1.88±1.00E-10
909	DOWN(1)	6.77±1.27E-09	3.18±6.44E-09	1.93±1.78E-10	2.18±3.80E-10	-3.95±3.11E-11
Unweathered Till						
405	UP(1)	-1.38±4.06E-10	3.17±5.90E-09	4.11±2.61E-10	0.21±4.74E-10	-4.06±2.95E-11
405	UP(2)	-0.31±6.89E-10	-3.89±5.75E-09	1.36±1.93E-10	-0.90±5.14E-10	-1.09±3.90E-11
405	UP(3)	2.62±6.09E-10	3.28±8.77E-09	0.68±2.22E-10	**1.52±0.76E-09**	-1.13±4.70E-11
405	UP(4)	-7.51±8.58E-10	0.44±2.16E-09	**6.86±3.95E-10**	4.14±3.23E-10	2.35±3.72E-11
1303	UP(1)	2.45±6.23E-10	-3.07±5.64E-09	1.63±1.87E-10	2.12±3.98E-10	6.41±7.14E-11
1303	UP(2)	0.40±1.08E-09	2.88±7.14E-09	-0.27±2.04E-10	6.35±3.57E-10	-7.81±6.78E-11
1303	UP(3)	2.00±3.57E-10	-0.75±4.54E-09	1.52±2.14E-10	**1.41±0.76E-09**	1.34±4.93E-11
1303	UP(4)	**7.60±4.72E-10**	0.51±1.51E-09	**6.60±4.43E-10**	3.27±3.47E-10	2.10±4.00E-11

Note: Bolding convention applied to these data. (See p. E-2)
NS - Not sampled.
Sample collection quarter is noted in parentheses next to hydraulic position. Hydraulic position is relative to other wells within the same hydrogeologic unit.

Table E-11 (concluded)
2005 Radioactivity in Groundwater From Selected Monitoring Locations

Location Code	Hydraulic Position	U-233/234 (µCi/mL)	U-235/236 (µCi/mL)	U-238 (µCi/mL)	Total U (µg/mL)
Sand and Gravel					
401	UP(1)	9.96±8.33E-11	1.39±0.94E-10	1.03±0.83E-10	-1.67±0.30E-05
706	UP(1)	9.18±9.41E-11	**9.47±7.93E-11**	**7.41±7.27E-11**	**4.75±0.77E-05**
706	UP(2)	1.10±1.13E-10	-1.66±1.88E-11	0.64±4.89E-11	2.70±0.09E-04
706	UP(3)	2.85±5.63E-11	3.18±4.41E-11	4.37±5.43E-11	**4.09±0.37E-04**
706	UP(4)	**9.88±5.38E-11**	2.48±2.81E-11	7.40±4.60E-11	1.77±0.08E-04
1304	UP(1)	**3.80±1.54E-10**	**1.77±1.02E-10**	1.96±1.11E-10	**1.33±0.04E-03**
1304	UP(2)	2.81±1.61E-10	8.36±8.85E-11	1.90±1.32E-10	**4.56±0.13E-04**
1304	UP(3)	**1.67±1.03E-10**	4.17±4.72E-11	**9.70±7.19E-11**	7.11±0.46E-04
1304	UP(4)	2.41±1.00E-10	2.81±3.49E-11	**2.79±1.05E-10**	4.80±0.14E-04
1302	DOWN(1)	2.23±1.24E-10	**1.35±1.00E-10**	**1.22±0.94E-10**	**7.27±0.23E-04**
1302	DOWN(2)	2.90±1.61E-10	4.48±7.73E-11	**1.54±1.23E-10**	**1.85±0.11E-04**
1302	DOWN(3)	**1.99±1.13E-10**	4.06±5.04E-11	1.43±0.91E-10	4.53±0.31E-04
1302	DOWN(4)	**2.91±0.97E-10**	3.88±3.59E-11	1.22±0.64E-10	4.55±0.14E-04
406	DOWN(1)	1.50±1.01E-10	6.92±6.79E-11	2.69±4.29E-11	1.28±0.04E-04
408	DOWN(1)	2.78±1.38E-10	1.90±1.15E-10	1.94±1.14E-10	5.27±0.07E-04
Weathered Till					
NDATR	DOWN(1)	4.98±1.69E-10	2.37±1.16E-10	4.54±1.61E-10	1.25±0.12E-03
NDATR	DOWN(3)	2.11±0.28E-09	2.80±1.08E-10	1.73±0.25E-09	4.76±0.14E-03
909	DOWN(1)	7.37±2.29E-10	2.48±1.32E-10	5.89±2.06E-10	9.00±0.22E-04
Unweathered Till					
405	UP(1)	**5.07±1.77E-10**	**1.93±1.12E-10**	**4.95±1.74E-10**	7.97±0.16E-04
405	UP(2)	**1.59±1.10E-10**	4.03±6.17E-11	2.52±1.35E-10	**4.99±0.07E-04**
405	UP(3)	2.18±1.25E-10	1.38±4.93E-11	**1.78±1.12E-10**	**1.08±0.06E-03**
405	UP(4)	3.51±1.16E-10	6.65±5.31E-11	2.00±0.87E-10	6.47±0.17E-04
1303	UP(1)	**5.98±2.01E-10**	**1.48±1.03E-10**	2.86±1.36E-10	7.00±0.12E-04
1303	UP(2)	3.89±1.69E-10	6.29±7.11E-11	**2.32±1.26E-10**	**3.73±0.15E-04**
1303	UP(3)	**3.21±1.49E-10**	2.57±4.82E-11	**3.16±1.44E-10**	**9.50±0.38E-04**
1303	UP(4)	3.89±1.18E-10	3.79±3.94E-11	2.74±0.98E-10	5.70±0.17E-04

Note: Bolding convention applied to these data. (See p. E-2)
Sample collection quarter is noted in parentheses next to hydraulic position. Hydraulic position is relative to other wells within the same hydrogeologic unit.

Table E-12
Practical Quantitation Limits (PQLs)

COMPOUND	PQL (µg/L)
6 NYCRR[a] Appendix 33 Volatiles	
Acetone	10
Acetonitrile	100
Acrolein	11
Acrylonitrile	7.2
Allyl chloride	5
Benzene	5
Bromodichloromethane	5
Bromoform	5
Bromomethane	10
Carbon disulfide	10
Carbon tetrachloride	5
Chlorobenzene	5
Chloroethane	10
Chloroform	5
Chloromethane	10
Chloroprene	5
1,2-Dibromo-3-chloropropane	5
Dibromochloromethane	5
1,2-Dibromoethane	5
Dichlorodifluoromethane (DCDFMeth)	5
1,1-Dichloroethane (1,1-DCA)	5
1,2-Dichloroethane (1,2-DCA)	5
1,1-Dichloroethylene (1,1-DCE)	5
1,2-Dichloropropane	5
Ethyl benzene	5
Ethyl methacrylate	5
2-Hexanone	10
6 NYCRR[a] Appendix 33 Metals	
Aluminum[b]	200
Antimony	10
Arsenic	10
Barium	200
Beryllium	1
Cadmium	5
Chromium	10
Cobalt	50

COMPOUND	PQL (µg/L)
6 NYCRR[a] Appendix 33 Volatiles	
Isobutyl alcohol	100
Methacrylonitrile	5
Methyl ethyl ketone	10
Methyl iodide	5
Methyl methacrylate	5
4-Methyl-2-pentanone	10
Methylene bromide	10
Methylene chloride	5
Pentachloroethane	5
Propionitrile	50
Styrene	5
1,1,1,2-Tetrachloroethane	5
1,1,2,2-Tetrachloroethane	5
Tetrachloroethylene	5
Toluene	5
1,1,1-Trichloroethane (1,1,1-TCA)	5
1,1,2-Trichloroethane	5
1,2,3-Trichloropropane	5
Vinyl acetate	10
Vinyl chloride	10
Xylene (total)	5
cis-1,3-Dichloropropene	5
trans-1,2-Dichloroethylene (1,2-DCE[trans])	5
trans-1,3-Dichloropropene	5
trans-1,4-Dichloro-2-butene	5
Trichloroethylene (TCE)	5
Trichlorofluoromethane	5
6 NYCRR[a] Appendix 33 Metals	
Lead	3
Manganese[b]	15
Mercury	0.2
Nickel	40
Selenium	5
Silver	10
Thallium	10
Tin	3,000

Note: Specific quantitation limits are highly matrix dependent and may not always be achievable.
[a] Title 6 of the Official Compilation of Codes, Rules, and Regulations of the State of New York.
[b] Not a 6 NYCRR Appendix 33 parameter; sampled for the north plateau early warning program.

Table E-12 (continued)
Practical Quantitation Limits (PQLs)

COMPOUND	PQL (µg/L)
6 NYCRR[a] Appendix 33 Semivolatiles	
Acenaphthene	10
Acenaphthylene	10
Acetophenone	10
2-Acetylaminofluorene	10
4-Aminobiphenyl	10
Aniline	10
Anthracene	10
Aramite	10
Benzo[a]anthracene	10
Benzo[a]pyrene	10
Benzo[b]fluoranthene	10
Benzo[ghi]perylene	10
Benzo[k]fluoranthene	10
Benzyl alcohol	10
Bis(2-chlorethyl)ether	10
Bis(2-chloroethoxy)methane	10
Bis(2-chloroisopropyl)ether	10
Bis(2-ethylhexyl)phthalate	10
4-Bromophenyl phenyl ether	10
Butyl benzyl phthalate	10
Chlorobenzilate	10
2-Chloronaphthalene	10
2-Chlorophenol	10
4-Chlorophenyl phenyl ether	10
Chrysene	10
Di-n-butyl phthalate	10
Di-n-octyl phthalate	10
Diallate	10
Dibenz[a,h]anthracene	10
Dibenzofuran	10
3,3-Dichlorobenzidine	10
2,4-Dichlorophenol	25
2,6-Dichlorophenol	10
Diethyl phthalate	10
Dimethoate	10
7, 12-Dimethylbenz[a]anthracene	10
3,3-Dimethylbenzidine	20
2,4-Dimethylphenol	10
Dimethyl phthalate	10
4,6-Dinitro-o-cresol	25
2,4-Dinitrophenol	25

COMPOUND	PQL (µg/L)
6 NYCRR[a] Appendix 33 Semivolatiles	
2,4-Dinitrotoluene	10
2,6-Dinitrotoluene	10
Diphenylamine	10
Ethyl methanesulfonate	10
Famphur	15
Fluoranthene	10
Fluorene	10
Hexachlorobenzene	10
Hexachlorobutadiene	10
Hexachlorocyclopentadiene	24
Hexachloroethane	10
Hexachlorophene	50
Hexachloropropene	10
Indeno(1,2,3,-cd)pyrene	10
Isodrin	10
Isophorone	10
Isosafrole	10
Kepone	50
Methapyrilene	40
Methyl methanesulfonate	10
3-Methylcholanthrene	10
2-Methylnaphthalene	10
1,4-Naphthoquinone	10
1-Naphthylamine	10
2-Naphthylamine	10
Nitrobenzene	10
5-Nitro-o-toluidine	10
4-Nitroquinoline 1-oxide	40
N-Nitrosodi-n-butylamine	10
N-Nitrosodiethylamine	10
N-Nitrosodimethylamine	10
N-Nitrosodipropylamine	10
N-Nitrosodiphenylamine	10
N-Nitrosomethylethylamine	10
N-Nitrosomorpholine	10
N-Nitrosopiperidine	10
N-Nitrosopyrrolidine	10
Naphthalene	10
0,0,0-Triethyl phosphorothioate	10
0,0-Diethyl 0-2-pyrazinyl- phosphorothioate	10

Note: Specific quantitation limits are highly matrix dependent and may not always be achievable.
[a] Title 6 of the Official Compilation of Codes, Rules, and Regulations of the State of New York.

Table E-12 (*concluded*)
Practical Quantitation Limits (PQLs)

COMPOUND	PQL (µg/L)	COMPOUND	PQL (µg/L)
6 NYCRR[a] Appendix 33 Semivolatiles		*6 NYCRR[a] Appendix 33 Semivolatiles*	
p-(Dimethylamino)azobenzene	10	2,3,4,6-Tetrachlorophenol	10
p-Chloroaniline	10	Tetraethyl dithiopyrophosphate	10
p-Chloro-m-cresol	10	1,2,4-Trichlorobenzene	10
p-Cresol	10	2,4,5-Trichlorophenol	25
p-Dichlorobenzene	10	2,4,6-Trichlorophenol	10
p-Nitroaniline	25	alpha,alpha-Dimethylphenethylamine	50
p-Nitrophenol	25	m-Cresol	10
p-Phenylenediamine	35	m-Dichlorobenzene	10
Parathion	10	m-Dinitrobenzene	10
Pentachlorobenzene	10	m-Nitroaniline	25
Pentachloronitrobenzene	10	o-Cresol	10
Pentachlorophenol	25	o-Dichlorobenzene	10
Phenacetin	10	o-Nitroaniline	25
Phenanthrene	10	o-Nitrophenol	10
Phenol	10	o-Toluidine	10
Pronamide	10	sym-Trinitrobenzene	10
Pyrene	10	2-Picoline	10
Safrole	10	Pyridine	10
1,2,4,5-Tetrachlorobenzene	10	1,4-Dioxane	10
Other Organic Compounds			
1,2-Dichloroethelyne (Total)	5		
Tributyl phosphate	10		

Note: Specific quantitation limits are highly matrix dependent and may not always be achievable.
[a] *Title 6 of the Official Compilation of Codes, Rules, and Regulations of the State of New York.*

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