Appendix E

Summary of Groundwater Monitoring Data

The tables on pages E-7 through E-19 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.

Key to bolding 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 non-detectable. 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.

Table E-1
Groundwater Monitoring Network: Super Solid Waste Management Units

SSWMUS and Constituent SWMUs	Well ID Number[1]		Additional Analytes Measured in 2002[2]	Well ID Number[1]		Additional Analytes Measured in 2002[2]
SSWMU #1 - Low-Level Waste Treatment Facilities:						
• Former Lagoon 1	103*	(S:D)	V	110*	(T:D)	V
• LLWTF Lagoons	104	(S:C)	SV, V	111*	(S:D)	M33, S, SV, V
• LLWTF Building	105	(S:C)	V	114	(T:D)	*p*
• Interceptors	106	(S:D)	V	115	(T:U)	*p*
• Neutralization Pit	107	(T:D)	V	116*	(S:U)	S, V
	108	(T:D)	V	8604	(S:C)	V
	109	(T:D)	*p*	8605*	(S:D)	M33, S, SV, V
SSWMU #2 - Miscellaneous Small Units:						
• Sludge Ponds	201	(S:U)	V	206	(TS:D)	
• Solvent Dike	202	(TS:U)	*p*	207	(S:D)	*p*
• Equalization Mixing Basin	203	(S:D)	*p*	208	(TS:D)	V
• Paper Incinerator	204*	(TS:D)		8606	(S:D)	*p*
	205	(S:D)				
SSWMU #3 - Liquid Waste Treatment System:						
• Liquid Waste Treatment System	301*	(S:B)		307	(S:D)	*p*
• Cement Solidification System	302	(TS:U)				
• Main Process Building (specific areas)	305	(S:D)	*p*			

[1] Hydrogeologic unit monitored and well position in SSWMU follow the well ID in parentheses. Hydrogeologic units monitored are: WT (weathered Lavery till); T (unweathered Lavery till); S (sand and gravel); K (Kent recessional sequence); TS (till-sand). Well position in SSWMU: U (upgradient); D (downgradient); B (background); C (crossgradient). Example: 401 (S:B) monitors background conditions in the sand and gravel unit.*

[2] See Table 4-1 (p. 4-6) for a description of codes and analytes. The parameters listed in this table, Table E-1, are in addition to the contamination indicator parameters (I) and radiological indicator parameters (RI) routinely scheduled at all monitoring locations for 2002. Wells measured for potentiometric (water-level) data only are designated by "p."

** Monitoring for certain parameters is required by the RCRA §3008(h) Order on Consent. (See p. ECS-4.)*

Table E-1 (continued)
Groundwater Monitoring Network: Super Solid Waste Management Units

SSWMUS and Constituent SWMUs	Well ID Number[1]		Additional Analytes Measured in 2002[2]	Well ID Number[1]		Additional Analytes Measured in 2002[2]
SSWMU #4 - HLW Storage and Processing Area:						
• Vitrification Facility	401*	(S:B)	R	407	(K:D)	*p*
• Vitrification Test Tanks	402	(TS:U)		408*	(S:D)	R, V
• HLW Tanks	403	(S:U)	V	409	(T:D)	
• Supernatant Treatment System	404	(TS:U)	*p*	410	(K:U)	*p*
	405	(T:C)		411	(K:U)	*p*
	406*	(S:D)	R, V			
SSWMU #5 - Maintenance Shop Leach Field:						
• Maintenance Shop Leach Field	501*	(S:U)	S, V	502*	(S:D)	S, SM, V
SSWMU #6 - Low-level Waste Storage Area:						
• Hardstands (old and new)	601	(S:D)	*p*	605	(S:D)	S
• Lag Storage	602A	(S:D)	S	8607*	(S:U)	V
• Lag Storage Additions	603	(S:U)	*p*	8608	(S:U)	*p*
(LSAs 1, 2, 3, 4)	604	(S:D)		8609*	(S:U)	S, V
SSWMU #7 - Chemical Process Cell (CPC) Waste Storage Area:						
• CPC Waste Storage Area	701	(TS:U)	*p*	705	(T:C)	*p*
	702	(T:C)	*p*	706*	(S:B)	
	703	(T:D)	*p*	707	(T:D)	
	704	(T:D)	V			

[1] Hydrogeologic unit monitored and well position in SSWMU follow the well ID in parentheses. Hydrogeologic units monitored are: WT (weathered Lavery till); T (unweathered Lavery till); S (sand and gravel); K (Kent recessional sequence); TS (till-sand). Well position in SSWMU: U (upgradient); D (downgradient); B (background); C (crossgradient). Example: 401 (S:B) monitors background conditions in the sand and gravel unit.*

[2] See Table 4-1 (p. 4-6) for a description of codes and analytes. The parameters listed in this table, Table E-1, are in addition to the contamination indicator parameters (I) and radiological indicator parameters (RI) routinely scheduled at all monitoring locations for 2002. Wells measured for potentiometric (water-level) data only are designated by "p."

** Monitoring for certain parameters is required by the RCRA §3008(h) Order on Consent. (See p. ECS-4.)*

Table E-1 (continued)
Groundwater Monitoring Network: Super Solid Waste Management Units

SSWMUS and Constituent SWMUs	Well ID Number[1]		Additional Analytes Measured in 2002[2]	Well ID Number[1]		Additional Analytes Measured in 2002[2]
SSWMU #8 - Construction and Demolition Debris Landfill:						
• Former Construction and Demolition Debris Landfill	801*	(S:U)	S, V	804*	(S:D)	V
	802	(S:D)	V	8603	(S:U)	S
	803	(S:D)	SV, V	8612*	(S:D)	SV, V
SSWMU #9 - NRC-licensed Disposal Area:						
• NRC-licensed Disposal Area	901*	(K:U)		908*	(WT:U)	
• Container Storage Area	902*	(K:U)		909*	(WT:D)	M33, R, SV, V
• Trench Interceptor Project	903*	(K:D)		910*	(T:D)	
	904	(T:D)	*p*	8610*	(K:D)	
	905	(S:D)	*p*	8611*	(K:D)	
	906*	(WT:D)		NDATR*	(Interceptor Trench Manhole Sump: D)	M33, R, SV, V
	907	(WT:D)	*p*			
SSWMU #10 - IRTS Drum Cell:						
• IRTS Drum Cell	1001	(K:U)	*p*	1006*	(WT:D)	
• Background (south plateau)	1002	(K:D)	*p*	1007	(WT:D)	
	1003	(K:D)	*p*	1008B	(K:B)	
	1004	(K:D)	*p*	1008C*	(WT:B)	
	1005*	(WT:U)				

[1] Hydrogeologic unit monitored and well position in SSWMU follow the well ID in parentheses. Hydrogeologic units monitored are: WT (weathered Lavery till); T (unweathered Lavery till); S (sand and gravel); K (Kent recessional sequence); TS (till-sand). Well position in SSWMU: U (upgradient); D (downgradient); B (background); C (crossgradient). Example: 401 (S:B) monitors background conditions in the sand and gravel unit.*

[2] See Table 4-1 (p. 4-6) for a description of codes and analytes. The parameters listed in this table, Table E-1, are in addition to the contamination indicator parameters (I) and radiological indicator parameters (RI) routinely scheduled at all monitoring locations for 2002. Wells measured for potentiometric (water-level) data only are designated by "p."

** Monitoring for certain parameters is required by the RCRA §3008(h) Order on Consent. (See p. ECS-4.)*

Table E-1 (concluded)
Groundwater Monitoring Network: Super Solid Waste Management Units

SSWMUS and Constituent SWMUs	Well ID Number[1]		Additional Analytes Measured in 2002[2]	Well ID Number[1]		Additional Analytes Measured in 2002[2]
Main Plant Area Well Points:						
(Monitor groundwater at various locations north and east of the main plant. Not in a SSWMU.)	WP-A	(S)				
	WP-C	(S)				
	WP-H	(S)				
Former Sand and Gravel Background:						
(Well originally used for background; replaced by a combination of wells 301, 401, and 706. Not in a SSWMU.)	NB1S	(S:B)				
North Plateau Groundwater Seeps:						
(Monitor groundwater emanating from seeps along the north pleateau edge. Not in a SSWMU.)	SP04	(S)	RI	SP12*		I, RI, V
	SP06	(S)	RI	GSEEP*		I, RI, V
	SP11	(S)	RI			

Note: The SDA is sampled by NYSERDA under an independent monitoring program.

SSWMU #11 - State-licensed Disposal Area (SDA)					
• State-licensed Disposal Area (NYSERDA)	1101A	(WT:U)		1105A	(WT:D)
	1101B	(T:U)		1105B	(T:D)
	1101C	(K:U)		1106A	(WT:U)
	1102A	(WT:D)		1106B	(T:U)
	1102B	(T:D)		1107A	(WT:D)
	1103A	(WT:D)		1108A	(WT:U)
	1103B	(T:D)		1109A	(WT:U)
	1103C	(K:D)		1109B	(T:U)
	1104A	(WT:D)		1110A	(WT:D)
	1104B	(T:D)		1111A	(WT:D)
	1104C	(K:D)			

[1] Hydrogeologic unit monitored and well position in SSWMU follow the well ID in parentheses. Hydrogeologic units monitored are: WT (weathered Lavery till); T (unweathered Lavery till); S (sand and gravel); K (Kent recessional sequence); TS (till-sand). Well position in SSWMU: U (upgradient); D (downgradient); B (background); C (crossgradient). Example: 401 (S:B) monitors background conditions in the sand and gravel unit.*

[2] See Table 4-1 (p. 4-6) for a description of codes and analytes. The parameters listed in this table, Table E-1, are in addition to the contamination indicator parameters (I) and radiological indicator parameters (RI) routinely scheduled at all monitoring locations for 2002. Wells measured for potentiometric (water-level) data only are designated by "p."

** Monitoring for certain parameters is required by the RCRA §3008(h) Order on Consent. (See p. ECS-4.)*

Table E-2
2002 Contamination Indicator and Radiological Indicator Results From the Sand and Gravel Unit

Location Code	Hydraulic Position	pH (standard units)	Conductivity (µmhos/cm@25^{0}C)	Gross Alpha (µCi/mL)	Gross Beta (µCi/mL)	Tritium (µCi/mL)
301	UP(1)	6.62	1,732	-0.40±2.70E-09	**1.59±0.45E-08**	**1.17±0.82E-07**
301	UP(2)	**7.07**	1,168	0.31±2.52E-09	1.16±0.41E-08	-2.82±8.40E-08
301	UP(3)	**6.37**	**1,066**	-1.10±2.39E-09	**7.41±2.80E-09**	9.49±7.84E-08
301	UP(4)	6.72	**1,920**	-0.29±4.35E-09	1.33±0.40E-08	8.49±8.18E-08
401	UP(1)	6.65	**2,835**	1.08±5.11E-09	5.42±7.05E-09	6.78±8.15E-08
401	UP(2)	6.70	3,490	-8.46±6.72E-09	4.45±7.23E-09	-9.71±8.24E-08
401	UP(3)	**6.74**	**4,835**	**1.17±0.93E-08**	4.03±7.38E-09	**8.28±7.89E-08**
401	UP(4)	**6.44**	3,660	2.69±8.48E-09	**1.07±0.69E-08**	4.35±5.78E-08
403	UP(1)	**6.95**	922	0.41±1.95E-09	**9.83±3.98E-09**	5.34±8.13E-08
403	UP(2)	6.99	1,054	-0.35±1.81E-09	8.81±2.75E-09	-6.30±8.35E-08
403	UP(3)	**7.48**	**834**	-0.90±1.61E-09	**4.13±2.51E-09**	1.53±0.79E-07
403	UP(4)	7.12	**1,076**	1.48±2.86E-09	6.13±2.83E-09	**1.74±0.79E-07**
706	UP(1)	**6.74**	823	0.36±1.40E-09	1.42±0.28E-08	1.54±0.58E-07
706	UP(2)	6.88	**1,013**	0.84±2.10E-09	**1.53±0.25E-08**	-1.13±0.79E-07
706	UP(3)	**7.28**	950	0.42±2.09E-09	1.29±0.25E-08	**2.63±0.83E-07**
706	UP(4)	6.76	**817**	**2.99±1.64E-09**	**1.22±0.18E-08**	2.85±5.50E-08
NB1S	UP(1)	**6.76**	**846**	0.60±1.42E-09	**6.94±2.07E-09**	**1.93±0.83E-07**
NB1S	UP(2)	7.23	**471**	-0.46±1.02E-09	1.19±1.68E-09	2.67±8.06E-08
NB1S	UP(3)	**7.26**	645	-0.85±1.24E-09	0.44±1.76E-09	-3.81±8.17E-08
NB1S	UP(4)	7.01	714	1.04±1.63E-09	4.73±2.06E-09	1.27±0.56E-07
201	DOWN(1)	6.34	**1,222**	0.82±1.44E-09	**3.56±0.28E-08**	**1.82±0.81E-07**
201	DOWN(2)	**6.27**	**2,670**	0.88±3.28E-09	**7.85±0.58E-08**	-2.28±8.25E-08
201	DOWN(3)	6.32	2,255	-0.36±5.15E-09	6.15±0.77E-08	5.48±8.19E-08
201	DOWN(4)	**6.65**	2,175	-3.44±6.08E-09	4.26±0.66E-08	6.87±8.18E-08
103	DOWN(1)	**8.08**	**3,220**	**6.15±5.26E-09**	**9.75±1.04E-08**	**1.70±0.82E-07**
103	DOWN(2)	7.96	**6,880**	3.55±7.98E-09	**3.06±0.13E-07**	7.08±8.35E-08
103	DOWN(3)	7.92	6,535	0.58±1.11E-08	2.92±0.18E-07	1.52±0.81E-07
103	DOWN(4)	**7.81**	4,585	-0.21±1.03E-08	1.42±0.13E-07	4.92±8.06E-08
104	DOWN(1)	6.89	1,792	-1.01±1.02E-08	6.28±0.02E-05	**4.54±0.86E-07**
104	DOWN(2)	**6.54**	**1,777**	**4.24±2.09E-09**	**5.58±0.01E-05**	4.19±0.63E-07
104	DOWN(3)	6.69	**1,832**	2.34±2.91E-09	**6.35±0.01E-05**	4.42±0.87E-07
104	DOWN(4)	**7.00**	1,814	-1.86±3.19E-09	6.29±0.01E-05	**3.63±0.63E-07**
111	DOWN(1)	6.47	782	0.30±1.00E-08	5.58±0.09E-06	1.93±0.83E-07
111	DOWN(2)	6.66	602	1.98±1.49E-09	3.46±0.04E-06	6.96±8.28E-08
111	DOWN(3)	**6.44**	**567**	**2.56±2.09E-09**	**3.16±0.04E-06**	**2.32±0.84E-07**
111	DOWN(4)	**6.75**	**1,032**	0.19±3.15E-09	**8.26±0.06E-06**	2.22±0.88E-07

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

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

Table E-2 (continued)
2002 Contamination Indicator and Radiological Indicator Results From the Sand and Gravel Unit

Location Code	Hydraulic Position	pH (standard units)	Conductivity (µmhos/cm@25°C)	Gross Alpha (µCi/mL)	Gross Beta (µCi/mL)	Tritium (µCi/mL)
205	DOWN(1)	**6.65**	**4,700**	3.88±4.68E-09	**2.86±0.59E-08**	**1.86±0.83E-07**
205	DOWN(2)	**7.39**	3,215	0.00±5.73E-09	**1.07±0.74E-08**	-6.03±8.15E-08
205	DOWN(3)	7.10	**2,340**	3.27±5.31E-09	1.57±0.56E-08	8.56±7.86E-08
205	DOWN(4)	7.00	3,490	4.39±5.82E-09	2.42±0.62E-08	7.47±7.89E-08
406	DOWN(1)	6.74	1,460	-0.91±2.40E-09	**7.31±4.88E-09**	1.77±0.81E-07
406	DOWN(2)	**6.67**	1,563	-0.90±3.05E-09	8.13±2.84E-09	**1.38±0.82E-07**
406	DOWN(3)	6.71	**1,829**	**4.03±3.56E-09**	**1.06±0.32E-08**	**2.05±0.80E-07**
406	DOWN(4)	**6.78**	**1,070**	-1.94±3.02E-09	1.02±0.37E-08	1.42±0.87E-07
408	DOWN(1)	**6.92**	2,330	1.68±2.59E-09	5.43±0.01E-04	1.34±0.87E-07
408	DOWN(2)	6.75	**2,250**	0.44±1.68E-09	**5.72±0.01E-04**	**2.97±1.07E-07**
408	DOWN(3)	**6.59**	**2,540**	2.55±4.12E-09	5.48±0.01E-04	**1.09±1.07E-07**
408	DOWN(4)	6.78	2,400	0.90±4.77E-09	**4.55±0.01E-04**	1.19±1.17E-07
501	DOWN(1)	7.17	2,150	-0.99±1.71E-08	**2.86±0.01E-04**	**1.84±0.81E-07**
501	DOWN(2)	**7.39**	**1,872**	1.13±2.59E-09	**2.48±0.01E-04**	4.90±8.39E-08
501	DOWN(3)	**6.67**	2,040	3.62±4.52E-09	2.58±0.01E-04	9.90±8.32E-08
501	DOWN(4)	6.89	**2,190**	-2.13±4.11E-09	2.61±0.01E-04	1.02±0.86E-07
502	DOWN(1)	7.09	2,025	-0.97±1.67E-08	**2.26±0.01E-04**	**2.52±0.82E-07**
502	DOWN(2)	**7.41**	**1,943**	**3.43±3.07E-09**	2.18±0.01E-04	6.65±8.08E-08
502	DOWN(3)	**6.86**	1,992	0.41±4.02E-09	**2.08±0.01E-04**	1.17±0.82E-07
502	DOWN(4)	6.90	**2,045**	3.92±5.45E-09	2.18±0.01E-04	1.24±0.86E-07
602A	DOWN(1)	**6.80**	**598**	0.76±1.27E-09	1.38±0.25E-08	**4.34±0.86E-07**
602A	DOWN(2)	6.91	580	0.95±1.37E-09	1.33±0.24E-08	6.00±8.35E-08
602A	DOWN(3)	**7.19**	**491**	0.12±1.78E-09	**9.53±2.85E-09**	2.08±0.79E-07
602A	DOWN(4)	6.90	538	0.67±1.69E-09	**3.46±0.39E-08**	3.61±0.79E-07
604	DOWN(1)	6.36	1,032	0.44±1.24E-09	**4.51±1.82E-09**	6.96±7.95E-08
604	DOWN(2)	**6.44**	**786**	-1.46±1.85E-09	5.87±3.58E-09	1.62±8.06E-08
604	DOWN(3)	6.22	915	1.07±1.49E-09	5.53±1.84E-09	**2.07±0.80E-07**
604	DOWN(4)	**6.20**	**1,187**	0.44±3.41E-09	**7.17±2.58E-09**	8.35±8.12E-08
8605	DOWN(1)	**6.82**	1,456	0.70±1.66E-08	**1.24±0.01E-05**	5.28±0.87E-07
8605	DOWN(2)	6.68	**1,044**	**1.35±0.20E-08**	**1.24±0.01E-05**	**6.46±0.88E-07**
8605	DOWN(3)	6.71	1,366	8.07±3.72E-09	1.01±0.01E-05	5.65±0.62E-07
8605	DOWN(4)	**6.50**	**2,310**	9.18±6.05E-09	**7.39±0.06E-06**	**1.17±0.86E-07**
8607	DOWN(1)	**6.33**	**1,026**	1.18±1.95E-09	**2.32±0.45E-08**	**1.71±0.58E-07**
8607	DOWN(2)	6.48	**2,002**	0.89±4.33E-09	**4.44±0.53E-08**	-4.99±8.66E-08
8607	DOWN(3)	**6.70**	1,042	-1.30±1.63E-09	3.14±0.35E-08	1.07±0.80E-07
8607	DOWN(4)	6.65	1,098	1.77±2.54E-09	2.57±0.37E-08	1.53±0.78E-07

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

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

Table E-2 (continued)
2002 Contamination Indicator and Radiological Indicator Results From the Sand and Gravel Unit

Location Code	Hydraulic Position	pH (standard units)	Conductivity (µmhos/cm@25°C)	Gross Alpha (µCi/mL)	Gross Beta (µCi/mL)	Tritium (µCi/mL)
8609	DOWN(1)	7.01	**1,744**	-1.05±1.07E-08	**1.52±0.04E-06**	**5.64±0.87E-07**
8609	DOWN(2)	**6.62**	1,807	**3.84±3.04E-09**	**1.10±0.02E-06**	5.00±0.87E-07
8609	DOWN(3)	6.89	1,840	0.13±2.92E-09	1.30±0.02E-06	4.87±0.87E-07
8609	DOWN(4)	**7.14**	**1,927**	-0.88±4.79E-09	1.50±0.03E-06	**4.77±0.91E-07**
105	DOWN(1)	7.02	**1,852**	-0.30±1.75E-08	**7.11±0.11E-06**	**4.34±0.85E-07**
105	DOWN(2)	6.66	**1,975**	**3.40±2.56E-09**	1.22±0.01E-05	**2.55±0.85E-07**
105	DOWN(3)	**6.54**	1,928	3.57±4.46E-09	2.15±0.01E-05	3.52±0.85E-07
105	DOWN(4)	**7.23**	1,940	-1.78±4.71E-09	**3.26±0.01E-05**	4.24±0.92E-07
106	DOWN(1)	**6.68**	**1,454**	0.46±2.46E-09	**7.40±3.72E-09**	**1.58±0.11E-06**
106	DOWN(2)	**6.76**	**1,743**	0.23±3.70E-09	1.19±0.41E-08	7.39±0.65E-07
106	DOWN(3)	**6.76**	1,562	0.88±2.66E-09	**1.40±0.30E-08**	**6.02±0.85E-07**
106	DOWN(4)	6.72	1,674	1.61±3.12E-09	1.25±0.32E-08	1.09±0.09E-06
116	DOWN(1)	7.12	1,275	3.23±3.61E-09	2.14±0.15E-07	**4.66±0.86E-07**
116	DOWN(2)	7.21	**3,050**	0.32±5.18E-09	3.36±0.13E-07	**9.27±7.05E-08**
116	DOWN(3)	**7.34**	**1,195**	-1.97±3.27E-09	**1.62±0.11E-07**	2.05±0.56E-07
116	DOWN(4)	**6.74**	1,902	-3.93±6.10E-09	**1.05±0.03E-06**	3.70±0.85E-07
605	DOWN(1)	6.86	**932**	1.83±1.85E-09	4.92±0.38E-08	7.68±8.00E-08
605	DOWN(2)	**6.84**	883	-1.64±1.54E-09	**7.26±0.43E-08**	1.61±8.02E-08
605	DOWN(3)	**7.39**	**706**	-1.50±1.58E-09	4.97±0.37E-08	**1.40±0.79E-07**
605	DOWN(4)	6.95	906	-0.28±2.09E-09	**2.76±0.29E-08**	3.98±8.08E-08
801	DOWN(1)	6.66	**1,358**	-0.44±1.23E-08	7.62±0.12E-06	**1.31±0.80E-07**
801	DOWN(2)	**6.20**	**1,839**	**3.23±2.88E-09**	**1.00±0.01E-05**	6.61±8.09E-08
801	DOWN(3)	6.59	1,545	0.00±3.32E-09	**6.72±0.06E-06**	7.78±8.18E-08
801	DOWN(4)	**6.73**	1,490	-1.18±3.77E-09	7.16±0.06E-06	6.28±6.12E-08
802	DOWN(1)	**6.80**	**1,160**	1.27±2.10E-09	1.78±0.33E-08	2.31±0.82E-07
802	DOWN(2)	**6.64**	236	0.41±1.12E-09	**4.63±2.43E-09**	-7.71±7.98E-08
802	DOWN(3)	**6.64**	**232**	-0.37±1.02E-09	5.14±2.36E-09	7.06±7.99E-08
802	DOWN(4)	6.72	1,128	**2.15±1.67E-09**	**1.83±0.24E-08**	**2.41±0.80E-07**
803	DOWN(1)	6.84	1,394	1.76±1.93E-09	1.55±0.31E-08	**2.35±0.82E-07**
803	DOWN(2)	**6.82**	**1,405**	0.91±3.01E-09	**1.33±0.41E-08**	2.15±0.87E-07
803	DOWN(3)	**7.19**	**1,350**	1.41±3.53E-09	**1.92±0.44E-08**	**1.93±0.83E-07**
803	DOWN(4)	7.00	1,401	2.54±3.85E-09	1.64±0.45E-08	2.35±0.81E-07
804	DOWN(1)	6.85	**710**	0.37±1.25E-09	2.53±0.08E-07	6.92±7.05E-08
804	DOWN(2)	**6.73**	**1,764**	0.68±2.24E-09	**5.17±0.11E-07**	1.32±0.83E-07
804	DOWN(3)	6.91	1,092	-1.06±2.40E-09	2.42±0.11E-07	1.66±0.57E-07
804	DOWN(4)	**6.92**	849	1.10±1.71E-09	**1.90±0.07E-07**	**1.91±0.80E-07**

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

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

Table E-2 (concluded)
2002 Contamination Indicator and Radiological Indicator Results From the Sand and Gravel Unit

Location Code	Hydraulic Position	pH (standard units)	Conductivity (µmhos/cm@25^{0}C)	Gross Alpha (µCi/mL)	Gross Beta (µCi/mL)	Tritium (µCi/mL)
8603	DOWN(1)	**6.99**	1,935	-0.60±1.66E-08	**2.59±0.02E-05**	**1.83±0.85E-07**
8603	DOWN(2)	6.91	1,976	1.59±2.32E-09	5.66±0.01E-05	2.52±0.84E-07
8603	DOWN(3)	**6.70**	**1,914**	0.26±3.80E-09	**5.68±0.02E-05**	**4.44±0.86E-07**
8603	DOWN(4)	6.77	**2,005**	1.74±5.02E-09	**5.68±0.02E-05**	3.33±0.89E-07
8604	DOWN(1)	7.08	**1,902**	-0.02±1.86E-08	3.35±0.02E-05	**2.38±0.84E-07**
8604	DOWN(2)	6.66	**1,716**	1.82±2.54E-09	**3.30±0.01E-05**	4.03±0.85E-07
8604	DOWN(3)	**6.61**	1,820	1.16±3.55E-09	3.37±0.01E-05	**5.00±0.87E-07**
8604	DOWN(4)	**7.21**	1,848	-2.39±4.12E-09	**3.61±0.01E-05**	2.86±0.88E-07
8612	DOWN(1)	7.25	**1,278**	0.83±2.35E-09	**5.01±3.66E-09**	5.18±0.88E-07
8612	DOWN(2)	7.07	**1,356**	-1.10±2.54E-09	1.33±3.27E-09	**6.13±0.88E-07**
8612	DOWN(3)	**7.27**	1,310	-1.69±2.81E-09	4.69±3.58E-09	**4.45±0.86E-07**
8612	DOWN(4)	**6.91**	1,312	1.77±3.41E-09	2.22±3.61E-09	5.16±0.85E-07

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

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

Table E-3
2002 Contamination Indicator and Radiological Indicator Results From the Lavery Till-Sand Unit

Location Code	Hydraulic Position	pH (standard units)	Conductivity (µmhos/cm@25°C)	Gross Alpha (µCi/mL)	Gross Beta (µCi/mL)	Tritium (µCi/mL)
302	UP(1)	**6.83**	**2,695**	1.45±4.22E-09	4.49±4.88E-09	**1.49±0.58E-07**
302	UP(2)	**7.05**	2,820	-4.05±4.09E-09	2.33±4.68E-09	4.18±8.38E-08
302	UP(3)	6.89	2,835	-1.70±4.70E-09	7.41±5.10E-09	1.22±0.79E-07
302	UP(4)	7.01	**3,145**	-5.15±6.15E-09	**1.24±0.50E-08**	1.11±8.07E-08
402	UP(1)	**7.13**	2,230	2.21±3.70E-09	1.21±4.56E-09	7.83±8.25E-08
402	UP(2)	7.12	2,175	-5.59±5.26E-09	1.58±4.80E-09	-0.11±5.74E-08
402	UP(3)	**7.13**	**2,010**	0.00±5.00E-09	1.32±6.72E-09	**1.24±0.81E-07**
402	UP(4)	**7.10**	**2,305**	-1.37±6.75E-09	**5.71±4.71E-09**	1.14±0.82E-07
204	DOWN(1)	7.45	1,198	1.14±2.17E-09	-0.55±3.21E-09	**1.55±0.82E-07**
204	DOWN(2)	7.34	1,184	-1.53±2.24E-09	1.50±2.29E-09	-4.77±8.24E-08
204	DOWN(3)	**7.52**	**1,168**	-1.74±2.89E-09	1.34±3.61E-09	8.92±8.14E-08
204	DOWN(4)	**7.18**	**1,223**	0.24±3.44E-09	2.40±3.78E-09	4.28±7.61E-08
206	DOWN(1)	7.46	**1,088**	2.38±2.04E-09	0.77±2.33E-09	6.03±8.16E-08
206	DOWN(2)	7.40	1,122	0.00±2.15E-09	1.79±2.39E-09	0.03±8.35E-08
206	DOWN(3)	**7.52**	1,120	1.72±2.80E-09	1.11±2.45E-09	**6.07±5.53E-08**
206	DOWN(4)	**7.24**	**1,150**	**5.02±2.76E-09**	2.39±2.66E-09	5.37±5.36E-08
208	DOWN(1)	**7.91**	288	**1.19±0.81E-09**	1.43±1.14E-09	**1.18±0.81E-07**
208	DOWN(2)	7.86	287	-4.60±7.46E-10	**2.02±1.21E-09**	-8.79±8.20E-08
208	DOWN(3)	7.86	**284**	1.80±8.90E-10	0.30±1.18E-09	3.70±7.72E-08
208	DOWN(4)	**7.63**	**296**	0.50±1.01E-09	2.00±1.14E-09	5.50±5.71E-08

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

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

Table E-4
2002 Contamination Indicator and Radiological Indicator Results From the Weathered Lavery Till Unit

Location Code	Hydraulic Position	pH (standard units)	Conductivity (µmhos/cm@25°C)	Gross Alpha (µCi/mL)	Gross Beta (µCi/mL)	Tritium (µCi/mL)
908	UP(1)	6.90	2,335	3.04±5.08E-09	2.13±0.78E-08	5.17±8.00E-08
908	UP(3)	6.80	2,950	4.83±6.42E-09	1.23±0.76E-08	1.75±0.81E-07
1005	UP(1)	7.24	856	1.66±1.98E-09	1.20±2.29E-09	1.55±0.82E-07
1005	UP(3)	7.21	824	1.10±2.40E-09	4.76±2.50E-09	2.00±0.82E-07
1008C	UP(1)	7.51	632	0.33±1.29E-09	0.00±1.65E-09	1.05±0.82E-07
1008C	UP(3)	7.69	619	0.36±1.76E-09	3.03±1.85E-09	6.29±8.00E-08
906	DOWN(1)	7.36	445	2.81±1.32E-09	4.79±1.61E-09	4.92±8.24E-08
906	DOWN(3)	7.46	516	2.10±1.63E-09	1.40±0.24E-08	3.56±8.07E-08
1006	DOWN(1)	6.92	2,110	8.20±4.98E-09	9.66±6.42E-09	1.67±0.82E-07
1006	DOWN(3)	6.94	2,030	9.72±6.36E-09	2.92±4.80E-09	1.03±0.81E-07
1007	DOWN(1)	7.11	1,299	5.08±3.32E-09	5.20±4.71E-09	1.73±0.83E-07
1007	DOWN(3)	6.89	1,348	2.65±3.86E-09	0.82±3.57E-09	-1.34±8.24E-08
NDATR	DOWN(1)	7.40	902	**2.98±2.25E-09**	**1.44±0.07E-07**	2.94±0.14E-06
NDATR	DOWN(2)	7.40	**733**	0.19±1.56E-09	**9.65±0.57E-08**	**1.32±0.10E-06**
NDATR	DOWN(3)	**7.47**	941	1.96±1.71E-09	1.05±0.04E-07	4.73±0.14E-06
NDATR	DOWN(4)	**7.38**	**1,071**	3.04±3.44E-09	1.24±0.06E-07	**4.82±0.20E-06**
909	DOWN(1)	6.73	**1,345**	0.00±2.57E-09	**3.92±0.14E-07**	**9.27±0.65E-07**
909	DOWN(2)	**7.12**	**1,313**	-0.59±3.08E-09	**4.58±0.16E-07**	**7.39±0.90E-07**
909	DOWN(3)	**6.53**	1,340	1.31±3.93E-09	4.22±0.16E-07	7.60±1.03E-07

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

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

Table E-5
2002 Contamination Indicator and Radiological Indicator Results From the Unweathered Lavery Till Unit

Location Code	Hydraulic Position	pH (standard units)	Conductivity (µmhos/cm@25°C)	Gross Alpha (µCi/mL)	Gross Beta (µCi/mL)	Tritium (µCi/mL)
405	UP(1)	**6.91**	**2,090**	1.94±3.62E-09	**1.15±0.53E-08**	**9.29±7.94E-08**
405	UP(2)	7.44	1,468	0.26±2.26E-09	5.33±2.68E-09	-2.26±5.65E-08
405	UP(3)	**7.62**	**1,414**	1.45±3.65E-09	**4.78±3.80E-09**	1.30±0.79E-07
405	UP(4)	7.11	1,442	3.44±3.73E-09	8.75±4.14E-09	1.65±0.80E-07
110	DOWN(1)	**7.43**	**578**	1.19±1.39E-09	3.60±1.58E-09	1.31±0.10E-06
110	DOWN(2)	**7.57**	566	-0.32±1.46E-09	0.79±1.72E-09	1.26±0.10E-06
110	DOWN(3)	7.45	**563**	-0.21±1.48E-09	-0.11±1.77E-09	**1.30±0.10E-06**
110	DOWN(4)	**7.57**	574	2.04±2.06E-09	**3.74±1.79E-09**	**1.34±0.10E-06**
704	DOWN(1)	6.64	**1,072**	1.33±1.96E-09	**1.13±0.29E-08**	3.31±7.89E-08
704	DOWN(2)	**6.75**	**875**	-0.53±1.46E-09	**8.83±1.94E-09**	-3.39±8.02E-08
704	DOWN(3)	**6.59**	912	0.57±2.33E-09	9.37±2.86E-09	**2.16±0.80E-07**
704	DOWN(4)	6.61	1,024	-2.40±2.71E-09	1.12±0.28E-08	1.62±8.13E-08
707	DOWN(1)	**6.72**	**836**	0.57±1.35E-09	4.30±1.91E-09	**9.40±8.17E-08**
707	DOWN(2)	**6.46**	578	-1.20±1.03E-09	**4.90±1.92E-09**	-5.74±7.94E-08
707	DOWN(3)	6.51	**481**	-0.09±1.22E-09	4.89±2.01E-09	-3.18±8.19E-08
707	DOWN(4)	6.68	777	0.90±1.34E-09	**3.52±1.34E-09**	0.84±8.16E-08
107	DOWN(1)	**7.21**	733	0.99±1.16E-09	6.07±1.44E-09	**6.50±0.88E-07**
107	DOWN(2)	7.32	**684**	0.07±1.20E-09	6.04±1.45E-09	4.18±0.87E-07
107	DOWN(3)	7.22	706	0.06±1.29E-09	**4.13±1.46E-09**	4.31±0.82E-07
107	DOWN(4)	**7.36**	**792**	1.19±2.41E-09	**7.31±2.03E-09**	**3.75±0.84E-07**
108	DOWN(1)	**7.32**	591	**2.16±1.37E-09**	2.36±1.47E-09	1.45±0.82E-07
108	DOWN(2)	7.49	600	-0.21±1.42E-09	3.48±1.88E-09	-3.72±8.14E-08
108	DOWN(3)	7.53	**587**	-0.29±1.37E-09	1.79±1.87E-09	4.83±8.30E-08
108	DOWN(4)	**7.54**	**624**	2.02±2.04E-09	**5.36±1.89E-09**	**1.63±0.82E-07**
409	DOWN(1)	7.75	**341**	**1.27±0.90E-09**	2.27±1.22E-09	**1.05±0.80E-07**
409	DOWN(2)	**7.74**	348	4.27±9.18E-10	1.04±1.16E-09	-9.94±8.15E-08
409	DOWN(3)	7.93	**350**	-7.74±8.18E-10	1.73±1.26E-09	-0.74±5.57E-08
409	DOWN(4)	**7.97**	348	0.77±1.15E-09	**2.63±1.18E-09**	7.32±8.13E-08
910	DOWN(1)	7.13	1,354	2.01±2.07E-09	1.85±0.44E-08	4.29±7.93E-08
910	DOWN(3)	7.03	1,329	3.37±3.45E-09	2.32±0.46E-08	-4.49±8.04E-08

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

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

Table E-6
2002 Contamination Indicator and Radiological Indicator Results From the Kent Recessional Sequence

Location Code	Hydraulic Position	pH (standard units)	Conductivity (µmhos/cm@25^{0}C)	Gross Alpha (µCi/mL)	Gross Beta (µCi/mL)	Tritium (µCi/mL)
901	UP(1)	7.59	371	1.07±0.91E-09	4.36±1.34E-09	-0.29±7.90E-08
901	UP(3)	7.42	420	1.41±1.19E-09	2.81±1.45E-09	4.53±7.94E-08
902	UP(1)	8.56	447	1.89±0.82E-09	3.85±0.93E-09	-3.41±7.84E-08
902	UP(3)	8.14	415	2.07±1.35E-09	3.31±1.31E-09	-0.03±7.86E-08
1008B	UP(1)	7.89	376	2.93±8.60E-10	2.70±1.24E-09	7.81±5.77E-08
1008B	UP(3)	7.92	452	0.41±1.22E-09	4.66±1.39E-09	3.64±8.01E-08
903	DOWN(1)	7.17	925	0.65±1.89E-09	1.96±2.45E-09	-5.86±7.92E-08
903	DOWN(3)	7.55	874	1.14±2.09E-09	1.90±2.40E-09	5.62±7.96E-08
8610	DOWN(1)	7.93	1,023	1.44±1.74E-09	3.31±2.48E-09	1.46±0.82E-07
8610	DOWN(3)	8.00	1,052	-1.12±2.14E-09	3.41±2.59E-09	3.30±8.00E-08
8611	DOWN(1)	7.56	912	1.81±1.90E-09	2.10±2.44E-09	8.18±8.09E-08
8611	DOWN(3)	7.75	904	-1.77±1.87E-09	1.65±2.46E-09	3.39±7.94E-08

Table E-7
2002 Contamination Indicator and Radiological Indicator Results From the North Plateau Seep Monitoring Locations

Location Code	Hydraulic Position	pH (standard units)	Conductivity (µmhos/cm@25^{0}C)	Gross Alpha (µCi/mL)	Gross Beta (µCi/mL)	Tritium (µCi/mL)
GSEEP	DOWN(1)	6.82	1,067	1.62±1.95E-09	5.95±2.58E-09	**7.66±0.91E-07**
GSEEP	DOWN(2)	**7.15**	**973**	-1.57±1.73E-09	5.48±2.59E-09	5.88±0.86E-07
GSEEP	DOWN(3)	6.59	988	0.50±2.02E-09	2.20±2.41E-09	**4.74±0.87E-07**
GSEEP	DOWN(4)	**6.54**	**1,261**	2.26±2.79E-09	**7.32±2.88E-09**	5.58±0.85E-07
SP04	DOWN(1)	NS	NS	0.26±1.86E-09	7.69±2.76E-09	4.37±0.86E-07
SP04	DOWN(3)	NS	NS	-1.20±2.14E-09	3.71±2.55E-09	1.29±0.83E-07
SP06	DOWN(1)	NS	NS	1.19±1.66E-09	3.91±1.92E-09	2.88±0.84E-07
SP06	DOWN(3)	NS	NS	-0.09±1.29E-09	1.11±1.81E-09	-4.06±8.27E-08
SP11	DOWN(1)	NS	NS	1.32±2.19E-09	3.03±0.49E-08	2.73±0.84E-07
SP11	DOWN(2)	NS	NS	NS	3.02±0.43E-08	NS
SP11	DOWN(3)	NS	NS	1.02±2.54E-09	**3.46±0.40E-08**	8.36±8.23E-08
SP12	DOWN(1)	7.07	1,108	1.24±2.06E-09	2.10±2.43E-09	5.10±0.87E-07
SP12	DOWN(3)	7.45	898	-0.87±1.79E-09	3.14±2.09E-09	3.25±0.85E-07

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.

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

Table E-8
2002 Contamination Indicator and Radiological Indicator Results From the North Plateau Well Points

Location Code	Hydraulic Position	pH (standard units)	Conductivity (µmhos/cm@25°C)	Gross Alpha (µCi/mL)	Gross Beta (µCi/mL)	Tritium (µCi/mL)
WP-A	DOWN(4)	9.12	94	0.00±3.05E-10	5.44±0.22E-08	1.21±0.04E-05
WP-C	DOWN(4)	7.53	146	-1.10±3.32E-10	9.29±0.28E-08	6.61±0.20E-05
WP-H	DOWN(4)	6.63	1,068	1.52±0.36E-08	1.25±0.01E-05	3.55±0.16E-06

Table E-9
2002 Detections of Volatile Organic Compounds 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)	TCE (µg/L)
SP12	1	<5.0*	<5.0*	<5.0	NS	<1.0	<5.0	<5.0
	3	<5.0*	<1.0	<5.0	NS	<1.0	<5.0	<5.0
803	1	<5.0*	<5.0*	<5.0	NS	<1.0	<5.0	<5.0
	2	<5.0*	<5.0*	<5.0	NS	<1.0	<5.0	<5.0
	3	<5.0*	<1.0	<5.0	NS	<1.0	<5.0	<5.0
	4	<5.0*	<5.0*	<5.0	NS	<1.0	<5.0	<5.0
8609	1	<5.0	<5.0	<5.0	NS	<5.0	<5.0	<5.0
8612	1	**19.0**	5.1	<5.0*	**37.5**	**1.1**	<5.0*	<5.0
	2	**12.0**	**1.7**	<5.0*	**29.5**	<1.0	<5.0*	<5.0
	3	14.5	3.3	<5.0*	32.5	<1.0	<5.0*	<5.0
	4	15.3	**6.1**	<5.0*	30.5	<1.0	**1.8**	<5.0

NS - Not sampled.

** Compound was reported at an estimated concentration less than the practical quantitation limit.*

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

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

Table E-10
2002 Tributyl Phosphate Sampling Results
From Selected Groundwater Monitoring Locations

Location Code	Sampling Quarter	Tributyl phosphate (TBP) (µg/L)
111	*1*	<10.0
	3	<10.0*
8605	*1*	510
	3	240

Practical quantitation limit is 10 µg/L.

Table E-11
2002 Metals (µg/L) Sampling Results
Title 6 NYCRR Appendix 33 List

Location Code	Hydraulic Position	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Copper
Sand and Gravel									
111	DOWN(1)	<2	4	117	0.1	0.4	38	2	4
502	DOWN(1)	NS	11	533	NS	<0.3	1,450	10	16
502	DOWN(3)	NS	6	482	NS	<0.3	1,320	4	12
8605	DOWN(1)	2	7	132	<0.1	<0.3	<1	2	<0.5
Weathered Till									
NDATR	DOWN(1)	<10	<10	**140**	<1	<5	**10**	<50	**30**
NDATR	DOWN(2)	<10	<10	**37**	<1	<5	<5	<50	<25
NDATR	DOWN(3)	<10	<10	55	<1	<5	<5	<50	<25
NDATR	DOWN(4)	<10	<10	71	<1	<5	<5	<50	<25
909	DOWN(1)	<10	14	226	<1	<5	17	<50	<25
909	DOWN(2)	NS	NS	NS	NS	NS	NS	NS	18

NS - Not sampled.

** Compound was reported at an estimated concentration less than the practical quantitation limit.*

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

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

Table E-11 (concluded)
2002 Metals (µg/L) Sampling Results
Title 6 NYCRR Appendix 33 List

Location Code	Hydraulic Position	Lead	Mercury	Nickel	Selenium	Silver	Thallium	Tin	Vanadium	Zinc
Sand and Gravel										
111	DOWN(1)	<2	<0.1	31	<2	<1	<3	<2	1	12
502	DOWN(1)	<2	<0.1	63	<2	<1	NS	NS	6	13
502	DOWN(3)	2	<0.1	70	<4	<1	NS	NS	4	11
8605	DOWN(1)	<2	<0.1	2	<2	<1	<3	<2	1	3
Weathered Till										
NDATR	DOWN(1)	**20**	<0.2	<40	<5	<10	<10	<3,000	<50	**107**
NDATR	DOWN(2)	**<3**	<0.2	<40	<5	<10	<10	<3,000	<50	**<20**
NDATR	DOWN(3)	5	<0.2	<40	<5	<10	<10	<3,000	<50	60
NDATR	DOWN(4)	**<3**	<0.2	<40	<5	<10	<10	<3,000	<50	27
909	DOWN(1)	12	<0.2	<40	<5	<10	<10	<3,000	<50	57
909	DOWN(2)	5	NS	NS	NS	NS	NS	NS	NS	77

Table E-12
2002 Sampling Parameters for Early Warning Monitoring Wells (µg/L)

Location Code	Sample Quarter	Aluminum Total	Iron Total	Manganese Total
502	(1)	1360	16,900	98.6
	(3)	698	10,200	43.1

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.

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

Table E-13
2002 Alpha-, Beta-, and Gamma-Emitting Radioisotopic Results (µCi/mL) From Selected Groundwater Monitoring Locations

Location Code	Hydraulic Position	C-14	Sr-90	Tc-99
Sand and Gravel				
401	UP(1)	-0.94±1.32E-08	2.46±1.75E-09	-2.90±1.51E-09
111	DOWN(1)	NS	2.70±0.05E-06	NS
406	DOWN(1)	-0.95±1.30E-08	4.57±1.99E-09	-2.27±1.63E-09
408	DOWN(1)	0.19±1.28E-08	2.53±0.01E-04	1.09±0.40E-08
501	DOWN(1)	NS	1.48±0.01E-04	NS
502	DOWN(1)	NS	1.16±0.01E-04	NS
602A	DOWN(1)	NS	5.44±2.23E-09	NS
602A	DOWN(3)	NS	4.52±1.82E-09	NS
8605	DOWN(1)	NS	6.15±0.08E-06	NS
8609	DOWN(1)	NS	7.67±0.28E-07	NS
8609	DOWN(3)	NS	6.76±0.29E-07	NS
116	DOWN(1)	NS	1.04±0.07E-07	NS
116	DOWN(3)	NS	8.23±0.55E-08	NS
605	DOWN(1)	NS	2.21±0.35E-08	NS
605	DOWN(3)	NS	2.55±0.37E-08	NS
801	DOWN(1)	NS	3.91±0.04E-06	NS
801	DOWN(2)	NS	**5.18±0.07E-06**	NS
801	DOWN(3)	NS	3.43±0.04E-06	NS
801	DOWN(4)	NS	**3.22±0.04E-06**	NS
8603	DOWN(1)	NS	1.27±0.01E-05	NS
8603	DOWN(3)	NS	2.81±0.02E-05	NS
Weathered Till				
NDATR	DOWN(1)	0.65±1.39E-08	6.97±0.40E-08	-1.88±1.74E-09
NDATR	DOWN(3)	1.11±1.30E-08	4.46±0.52E-08	-0.15±1.87E-09
909	DOWN(1)	-0.64±1.32E-08	1.78±0.09E-07	-0.61±1.71E-09
North Plateau				
SP11	DOWN(2)	NS	1.59±0.31E-08	NS

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.

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

Table E-13 (concluded)
2002 Alpha-, Beta-, and Gamma-Emitting Radioisotopic Results (µCi/mL) From Selected Groundwater Monitoring Locations

Location Code	Hydraulic Position	I-129	Cs-137	Ra-226	Ra-228	U-232
Sand and Gravel						
401	UP(1)	4.78±9.42E-10	1.20±1.16E-08	5.83±2.86E-10	1.63±0.53E-09	0.26±1.63E-10
406	DOWN(1)	0.80±1.19E-09	-3.19±8.57E-09	1.92±3.42E-10	3.30±0.62E-09	0.15±1.01E-10
408	DOWN(1)	9.46±8.91E-10	0.51±2.54E-09	1.00±0.52E-09	2.47±2.76E-09	1.40±6.43E-11
Weathered Till						
NDATR	DOWN(1)	0.00±8.82E-10	-0.19±7.60E-09	1.58±2.90E-10	2.32±0.64E-09	0.22±1.75E-10
NDATR	DOWN(3)	0.00±2.05E-09	-1.93±7.60E-09	6.09±3.37E-10	4.15±3.46E-10	8.42±3.17E-11
909	DOWN(1)	5.13±2.04E-09	-1.63±4.98E-09	5.19±2.38E-10	3.11±0.67E-09	0.54±1.74E-10

		U-233/234	U-235/236	U-238	Total U (µg/mL)
Sand and Gravel					
401	UP(1)	1.46±0.72E-10	3.39±4.56E-11	1.16±0.62E-10	2.97±0.08E-04
406	DOWN(1)	1.01±0.66E-10	1.62±3.29E-11	5.54±4.32E-11	6.98±0.38E-05
408	DOWN(1)	4.10±1.32E-10	1.46±4.63E-11	2.84±0.98E-10	5.71±0.18E-04
Weathered Till					
NDATR	DOWN(1)	1.34±0.26E-09	2.48±1.03E-10	1.19±0.23E-09	3.01±0.05E-03
NDATR	DOWN(3)	1.67±0.19E-09	7.68±4.03E-11	1.35±0.17E-09	3.78±0.05E-03
909	DOWN(1)	6.32±1.38E-10	9.08±5.59E-11	2.95±0.89E-10	6.31±0.26E-04

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

Note: Bolding convention not applicable to these data.

Table E-14
Practical Quantitation Limits (PQLs)

COMPOUND	PQL (µg/L)	COMPOUND	PQL (µg/L)
NYCRR Appendix 33 Volatiles		*NYCRR Appendix 33 Volatiles*	
Acetone	10	Isobutyl alcohol	100
Acetonitrile	100	Methacrylonitrile	5
Acrolein	11	Methyl ethyl ketone	10
Acrylonitrile	5	Methyl iodide	5
Allyl chloride	5	Methyl methacrylate	5
Benzene	5	4-Methyl-2-pentanone	10
Bromodichloromethane	5	Methylene bromide	10
Bromoform	5	Methylene chloride	5
Bromomethane	10	Pentachloroethane	5
Carbon disulfide	10	Propionitrile	50
Carbon tetrachloride	5	Styrene	5
Chlorobenzene	5	1,1,1,2-Tetrachloroethane	5
Chloroethane	10	1,1,2,2-Tetrachloroethane	5
Chloroform	5	Tetrachloroethylene	5
Chloromethane	10	Toluene	5
Chloroprene	5	1,1,1-Trichloroethane	5
1,2-Dibromo-3-chloropropane	5	1,1,2-Trichloroethane	5
Dibromochloromethane	5	1,2,3-Trichloropropane	5
1,2-Dibromoethane	5	Vinyl acetate	10
Dichlorodifluoromethane	5	Vinyl chloride	10
1,1-Dichloroethane	5	Xylene (total)	5
1,2-Dichloroethane	5	cis-1,3-Dichloropropene	5
1,1-Dichloroethylene	5	trans-1,2-Dichloroethylene	5
1,2-Dichloropropane	5	trans-1,3-Dichloropropene	5
Ethyl benzene	5	trans-1,4-Dichloro-2-butene	5
Ethyl methacrylate	5	Trichloroethylene	5
2-Hexanone	10	Trichlorofluoromethane	5
NYCRR Appendix 33 Metals		*NYCRR Appendix 33 Metals*	
*Aluminum	200	Lead	3
Antimony	10	*Manganese	15
Arsenic	10	Mercury	0.2
Barium	200	Nickel	40
Beryllium	1	Selenium	5
Cadmium	5	Silver	10
Chromium	10	Thallium	10
Cobalt	50	Tin	3,000
Copper	25	Vanadium	50
*Iron	100	Zinc	20

Note: Specific quantitation limits are highly matrix-dependent and may not always be achievable.

** Not an NYCRR Appendix 33 parameter; sampled for the north plateau early warning program.*

Table E-14 (continued)
Practical Quantitation Limits (PQLs)

COMPOUND	PQL (µg/L)
NYCRR 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	10
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)
NYCRR Appendix 33 Semivolatiles	
2,4-Dinitrotoluene	10
2,6-Dinitrotoluene	10
Diphenylamine	10
Ethyl methanesulfonate	10
Famphur	10
Fluoranthene	10
Fluorene	10
Hexachlorobenzene	10
Hexachlorobutadiene	10
Hexachlorocyclopentadiene	10
Hexachloroethane	10
Hexachlorophene	100
Hexachloropropene	10
Indeno(1,2,3,-cd)pyrene	10
Isodrin	10
Isophorone	10
Isosafrole	10
Kepone	10
Methapyrilene	10
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.

Table E-14 (concluded)
Practical Quantitation Limits (PQLs)

COMPOUND	PQL (µg/L)	COMPOUND	PQL (µg/L)
NYCRR Appendix 33 Semivolatiles		*NYCRR 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	10	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

Note: Specific quantitation limits are highly matrix-dependent and may not always be achievable.

Groundwater Data Graphs

Groundwater data for calendar year 2002 are presented in graphic format on the following pages.

The data point on the nonradiological graphs represents the average for the year and the bracket represents the high and low values for the year.

The graphed data points for the radiological analytes represent the averages for the year and the bracket represents the pooled (i.e., averaged) uncertainty.

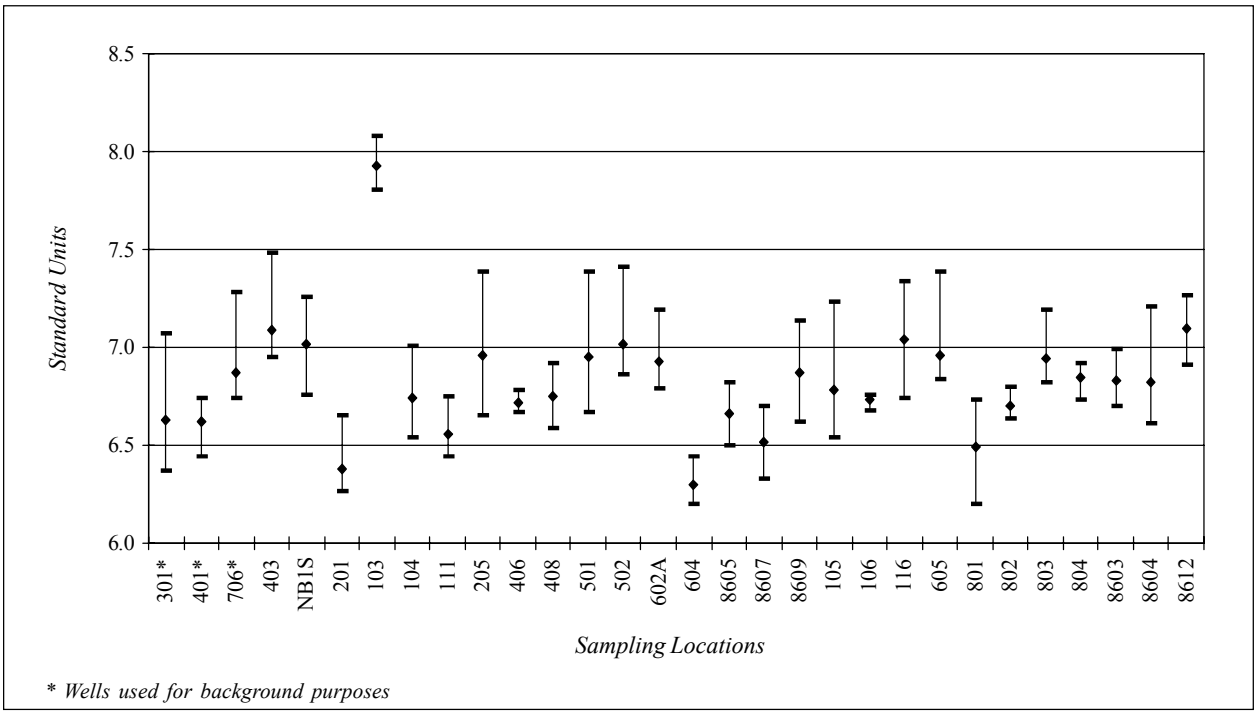

Figure E-1. pH in Groundwater Samples From the Sand and Gravel Unit

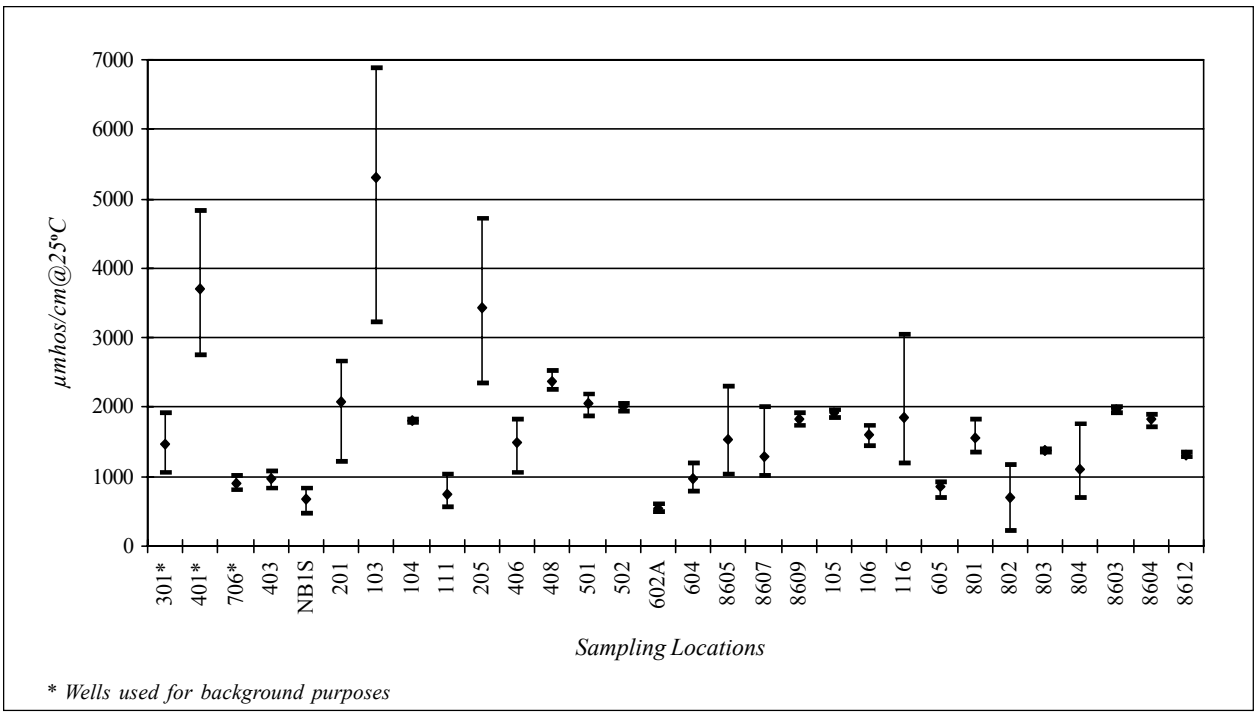

Figure E-2. Conductivity (µmhos/cm@25°C) of Groundwater Samples From the Sand and Gravel Unit

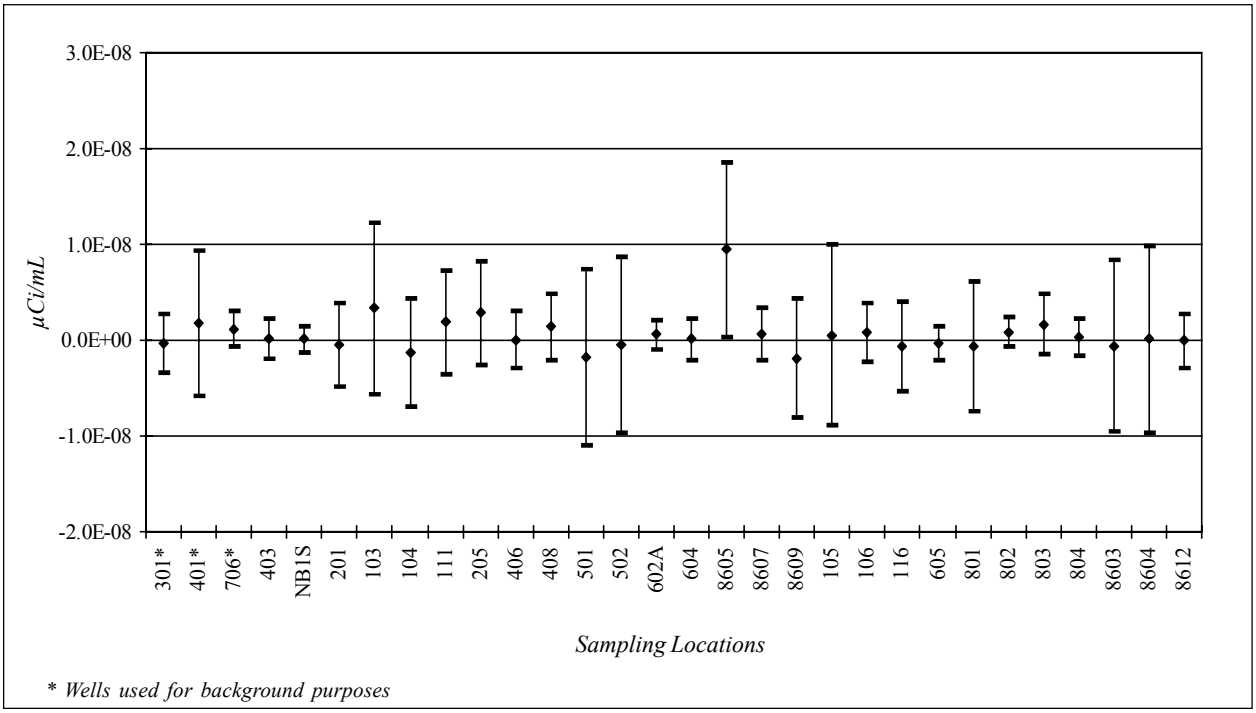

Figure E-3. Gross Alpha (µCi/mL) in Groundwater Samples From the Sand and Gravel Unit

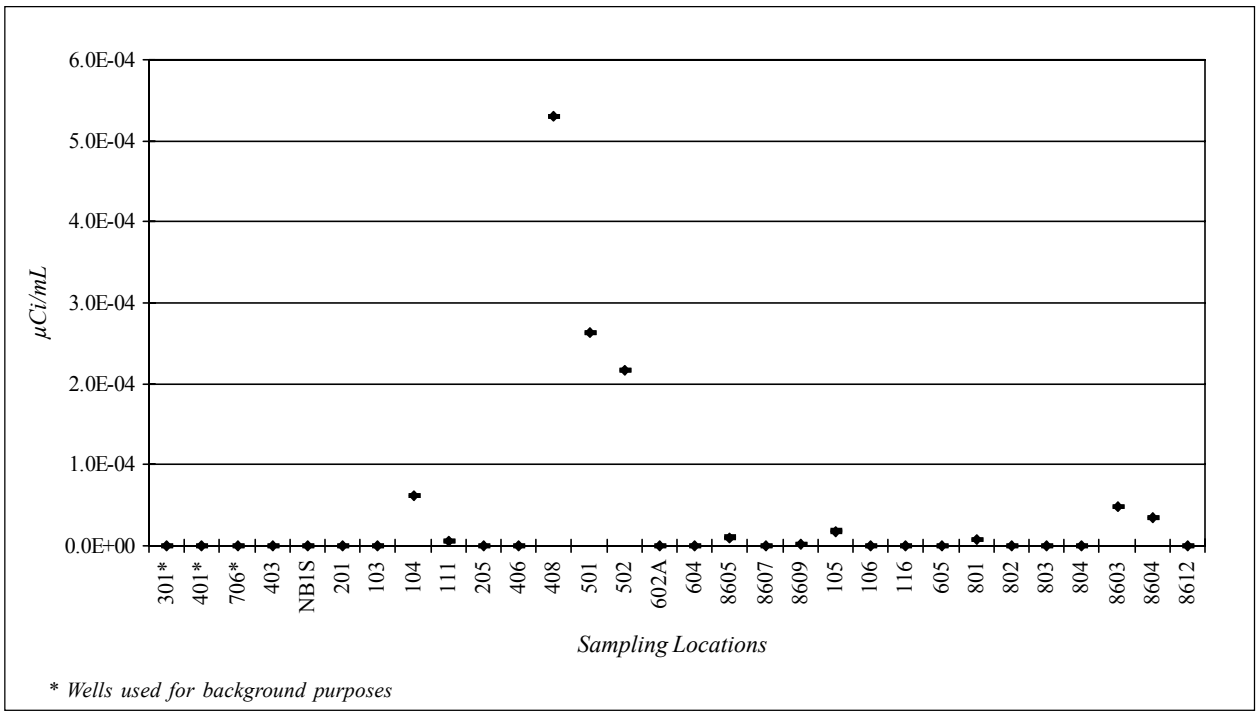

Figure E-4. Gross Beta (µCi/mL) in Groundwater Samples From the Sand and Gravel Unit

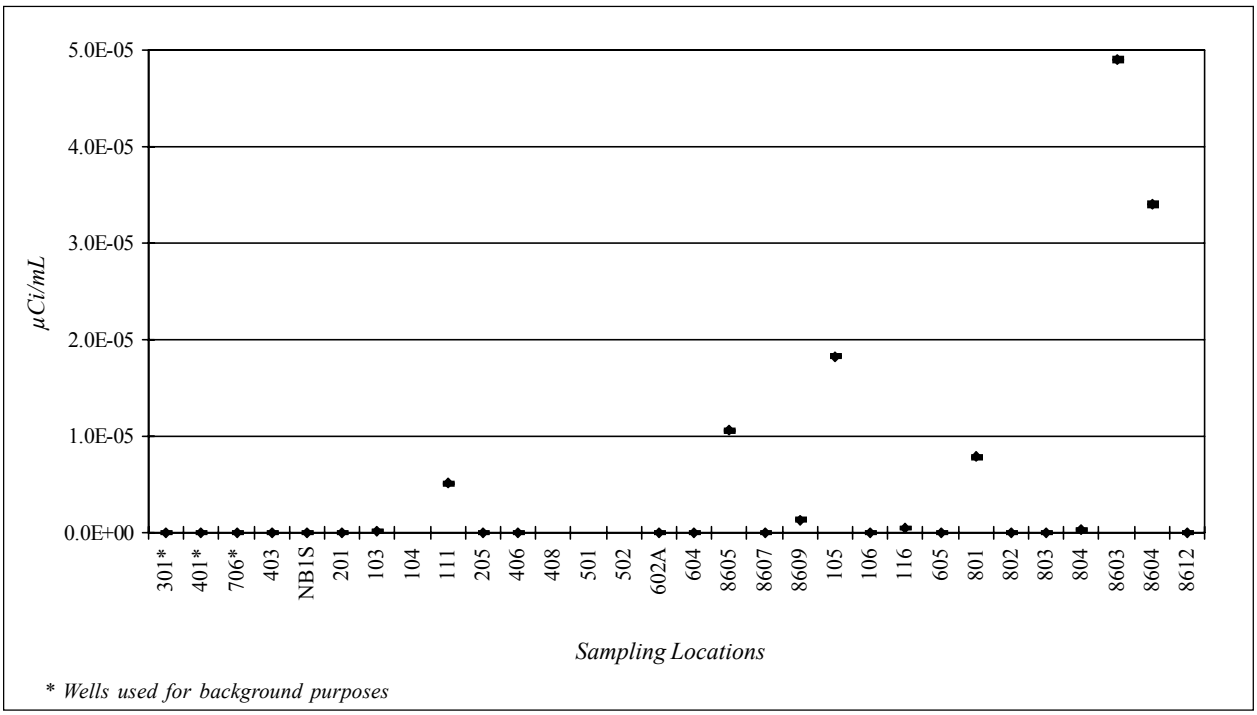

Figure E-4a. Gross Beta (µCi/mL) in Groundwater Samples From the Sand and Gravel Unit (Magnified Scale of Figure E-4)

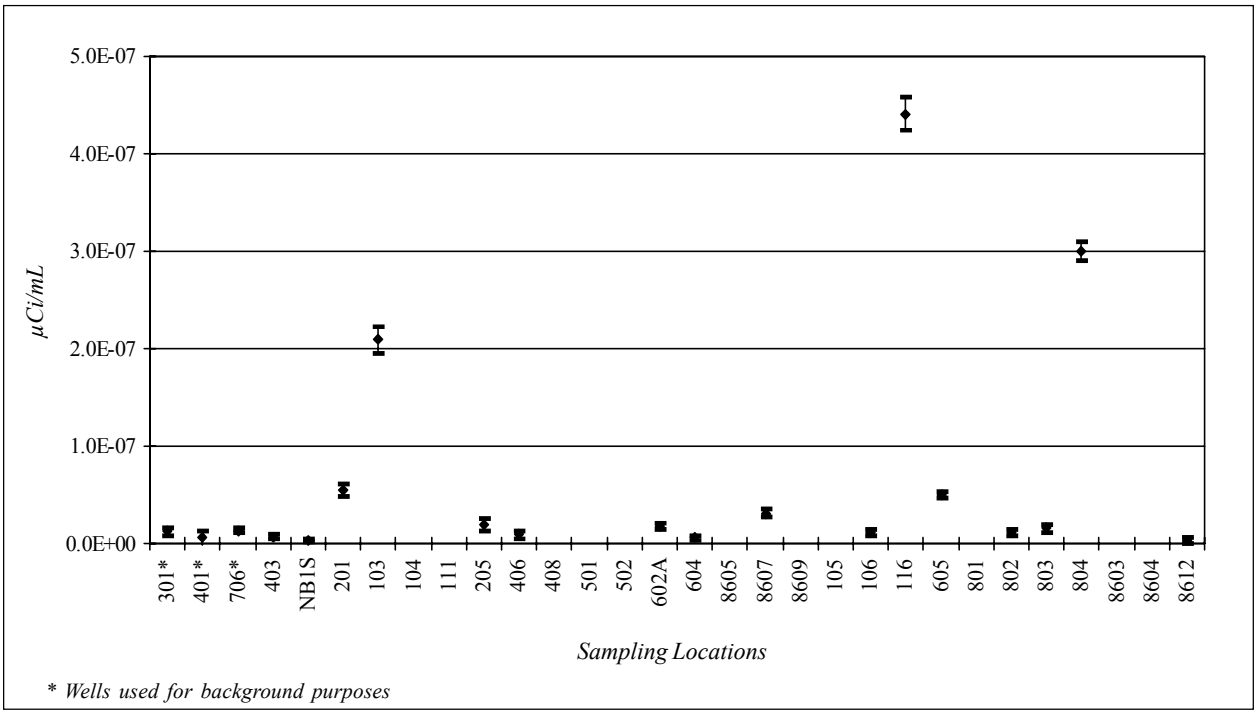

Figure E-4b. Gross Beta (µCi/mL) in Groundwater Samples From the Sand and Gravel Unit (Magnified Scale of Figure E-4a)

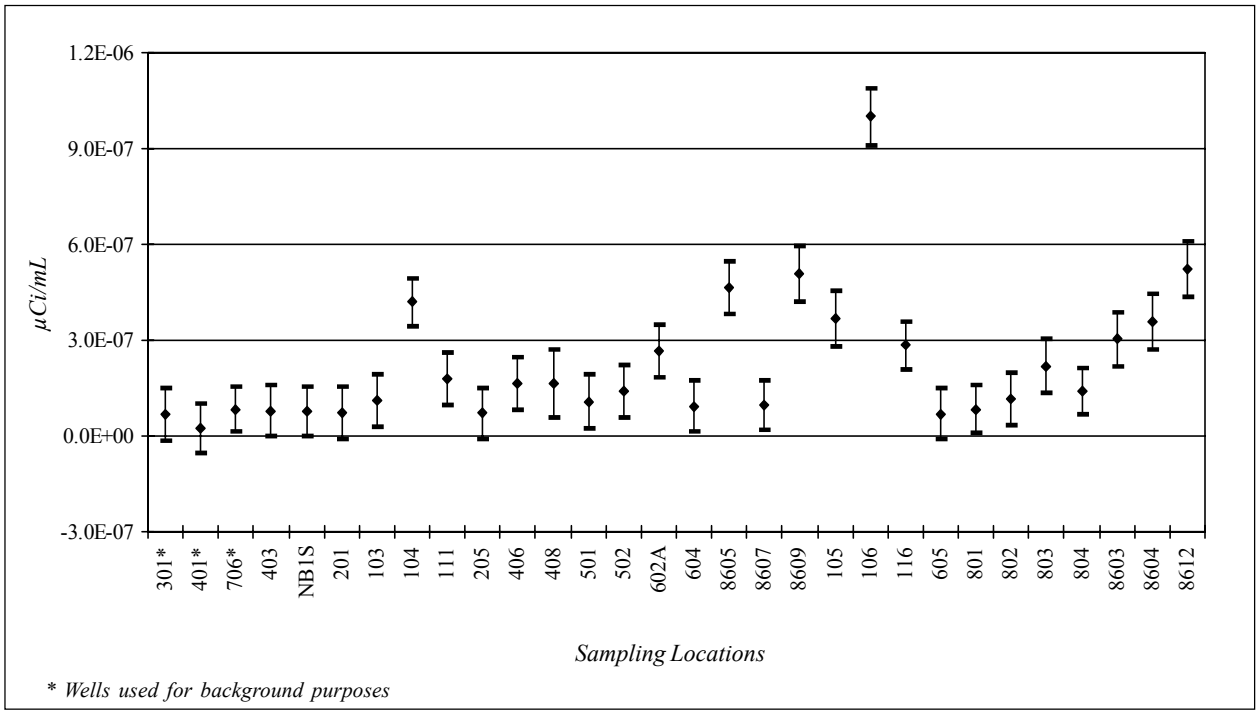

Figure E-5. Tritium (µCi/mL) in Groundwater Samples From the Sand and Gravel Unit

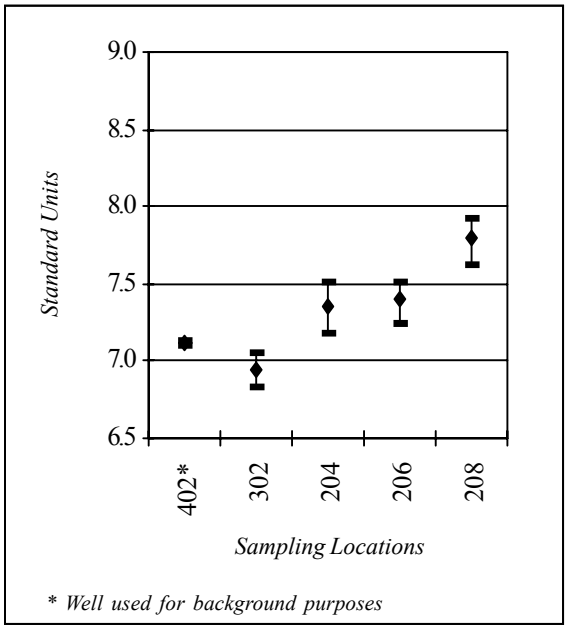

Figure E-6. pH of Groundwater Samples From the Till-Sand Unit

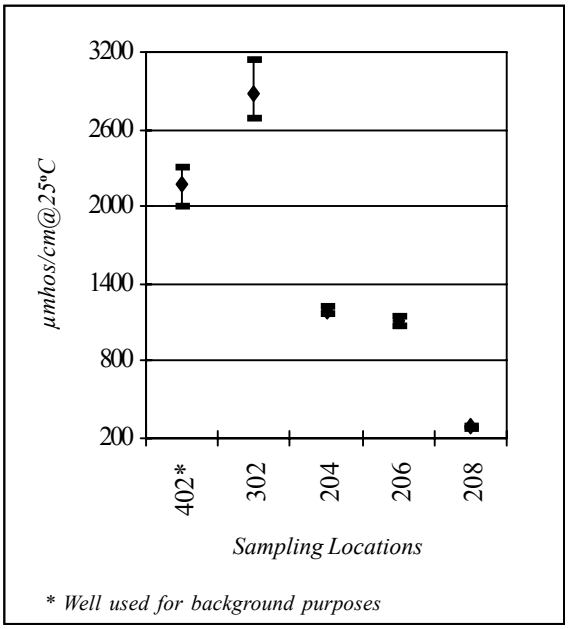

Figure E-7. Conductivity (µmhos/cm@25°C) of Groundwater Samples From the Till-Sand Unit

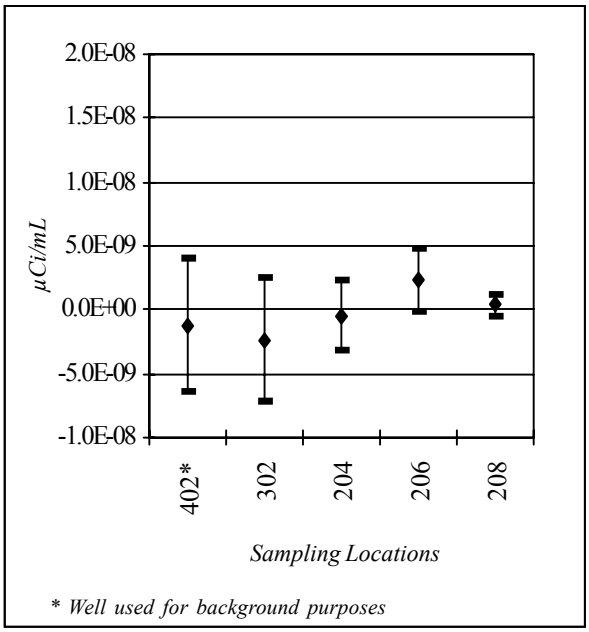

Figure E-8. Gross Alpha (µCi/mL) in Groundwater Samples From the Till-Sand Unit

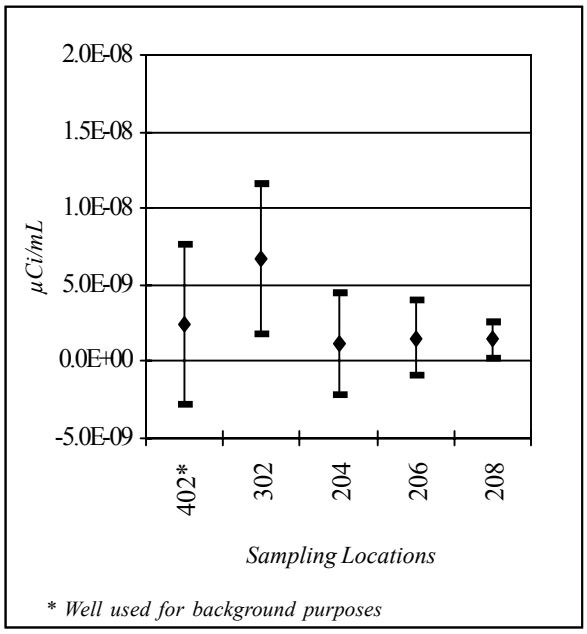

Figure E-9. Gross Beta (µCi/mL) in Groundwater Samples From the Till-Sand Unit

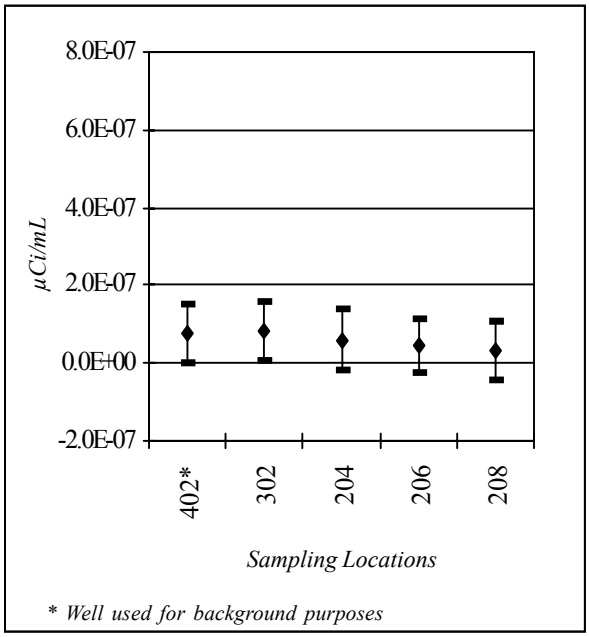

Figure E-10. Tritium (µCi/mL) in Groundwater Samples From the Till-Sand Unit

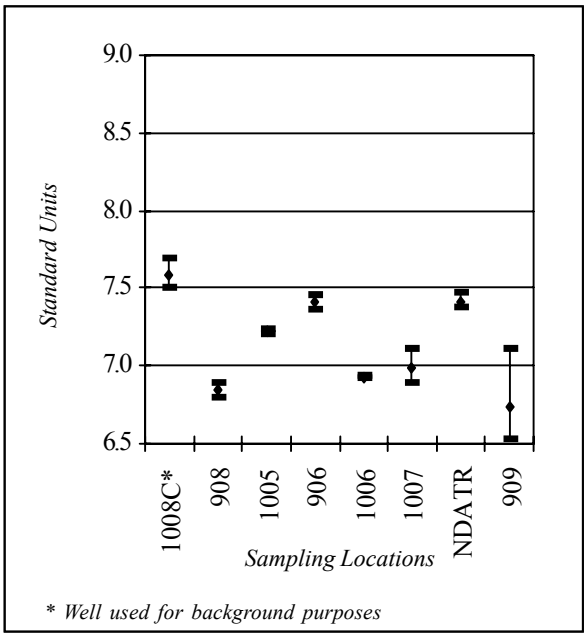

Figure E-11. pH of Groundwater Samples From the Weathered Lavery Till Unit

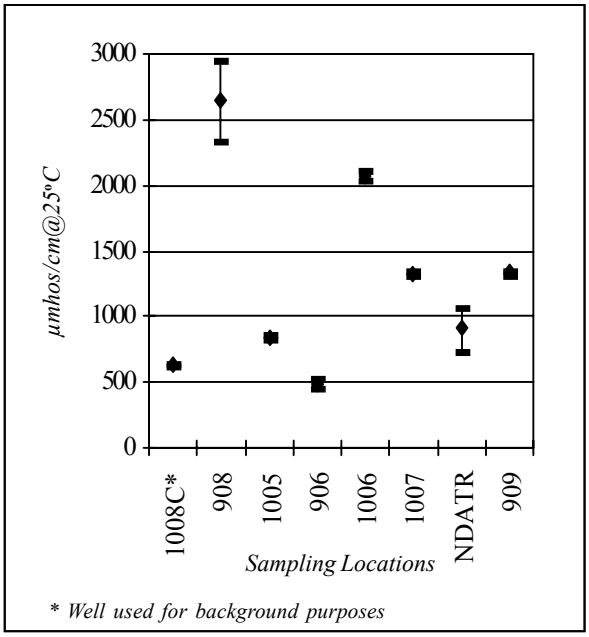

Figure E-12. Conductivity (µmhos/cm@25°C) of Groundwater Samples From the Weathered Lavery Till Unit

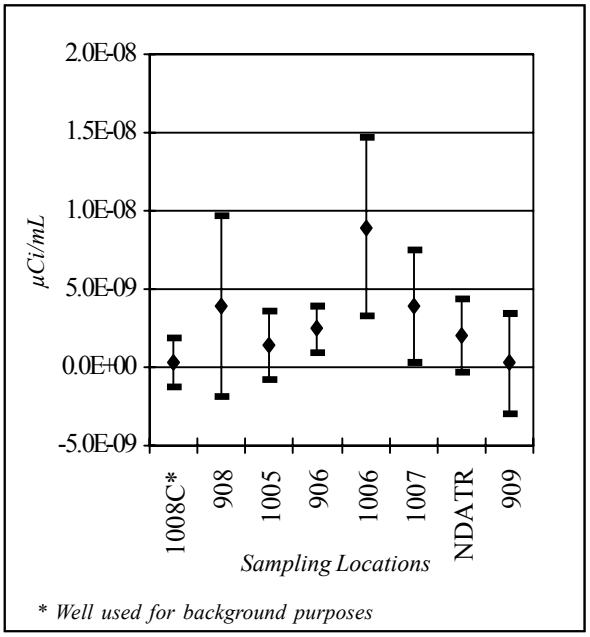

Figure E-13. Gross Alpha (µCi/mL) in Groundwater Samples From the Weathered Lavery Till Unit

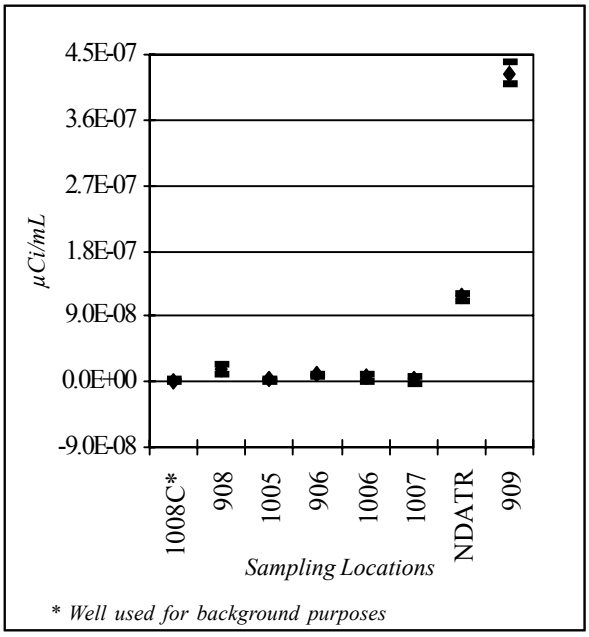

Figure E-14. Gross Beta (µCi/mL) in Groundwater Samples From the Weathered Lavery Till Unit

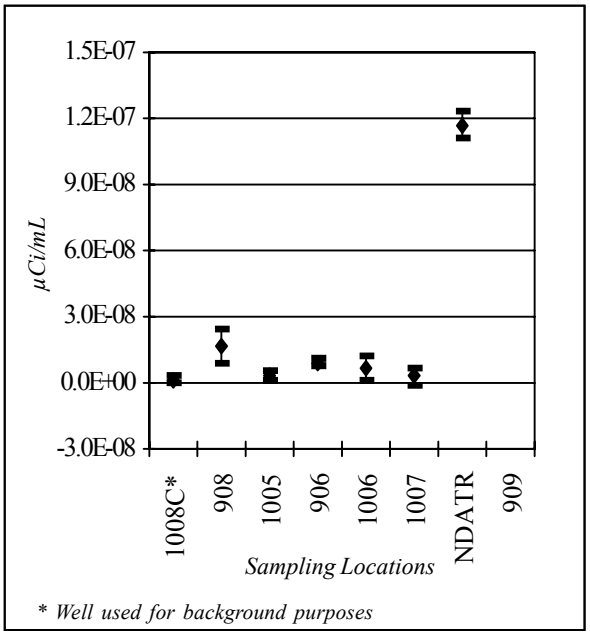

Figure E-14a. Gross Beta (µCi/mL) in Groundwater Samples From the Weathered Lavery Till Unit (Magnified Scale of Figure E-14)

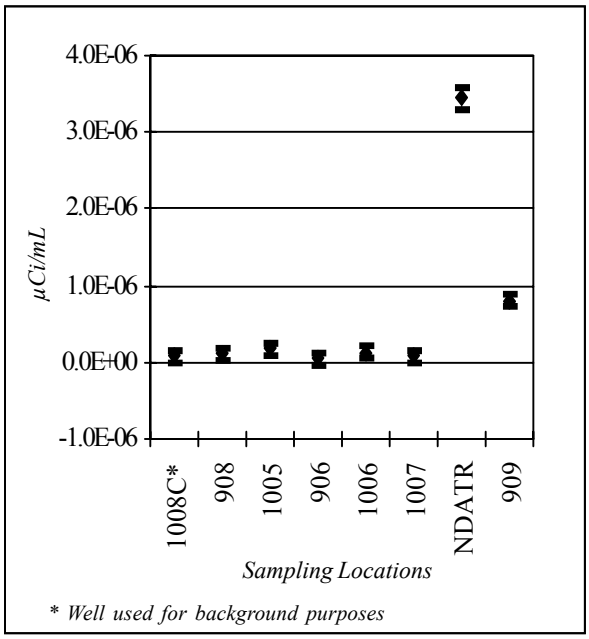

Figure E-15. Tritium (µCi/mL) in Groundwater Samples From the Weathered Lavery Till Unit

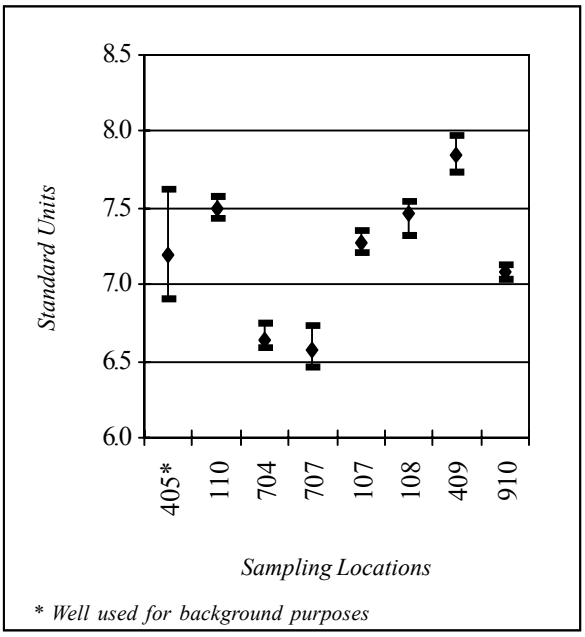

Figure E-16. pH of Groundwater Samples From the Unweathered Lavery Till Unit

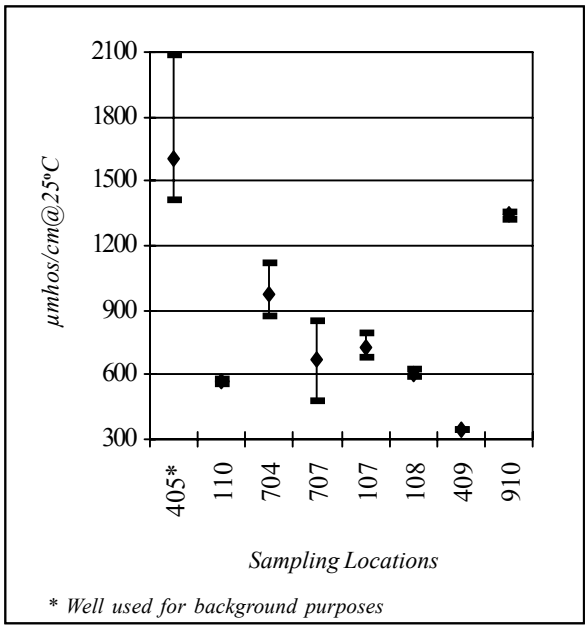

Figure E-17. Conductivity (µmhos/cm@25°C) of Groundwater Samples From the Unweathered Lavery Till Unit

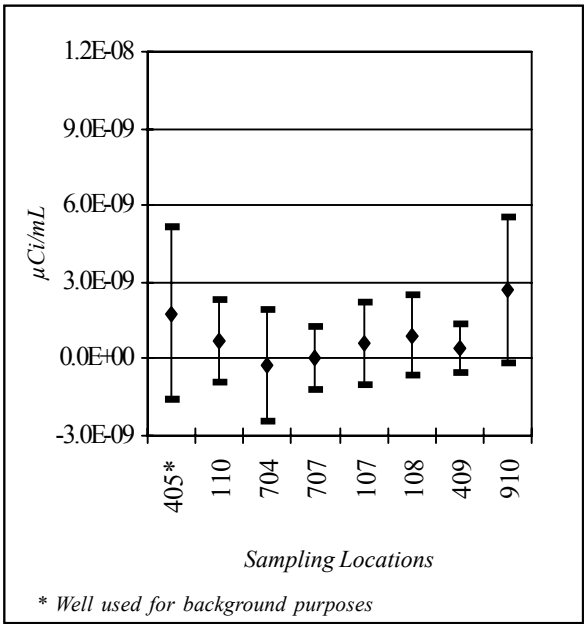

Figure E-18. Gross Alpha (µCi/mL) in Groundwater Samples From the Unweathered Lavery Till Unit

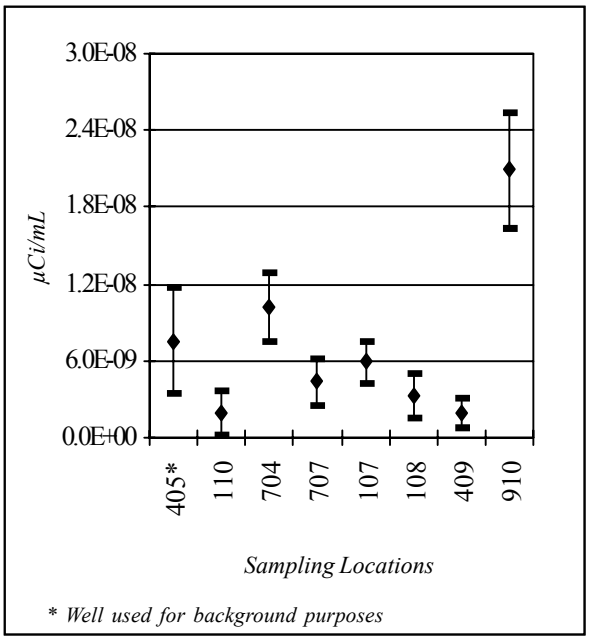

Figure E-19. Gross Beta (µCi/mL) in Groundwater Samples From the Unweathered Lavery Till Unit

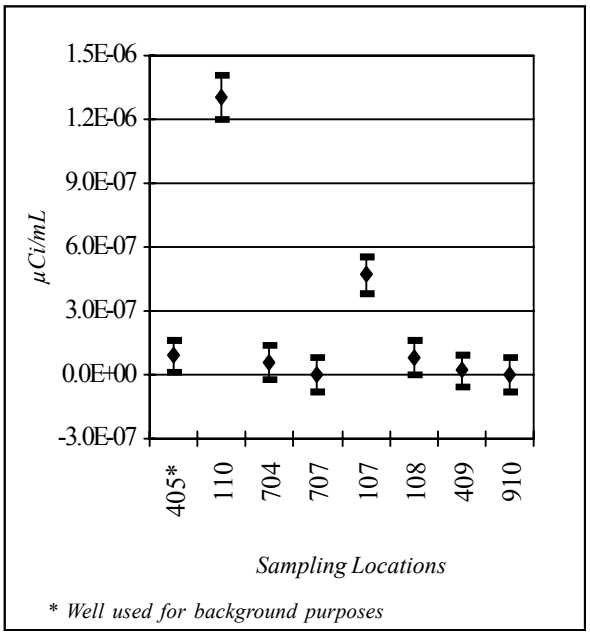

Figure E-20. Tritium (µCi/mL) in Groundwater Samples From the Unweathered Lavery Till Unit

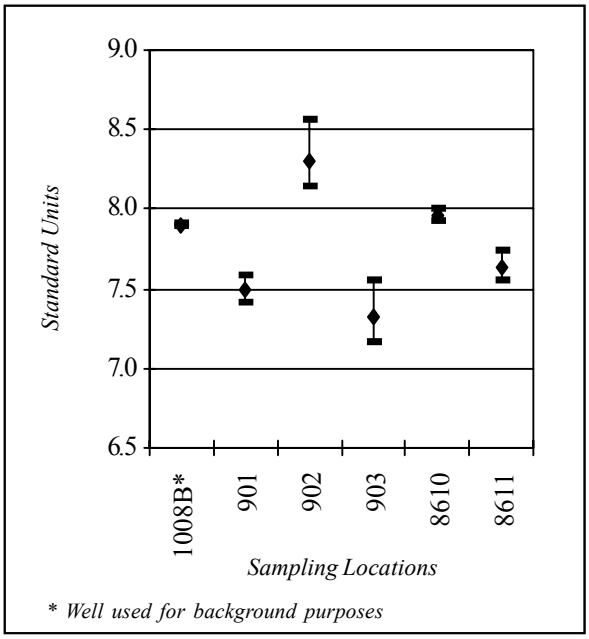

Figure E-21. pH of Groundwater Samples From the Kent Recessional Sequence

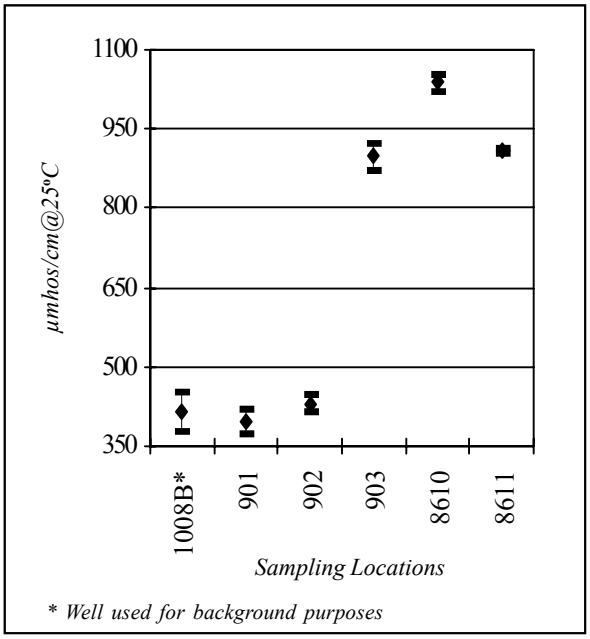

Figure E-22. Conductivity (µmhos/cm@25°C) of Groundwater Samples From the Kent Recessional Sequence

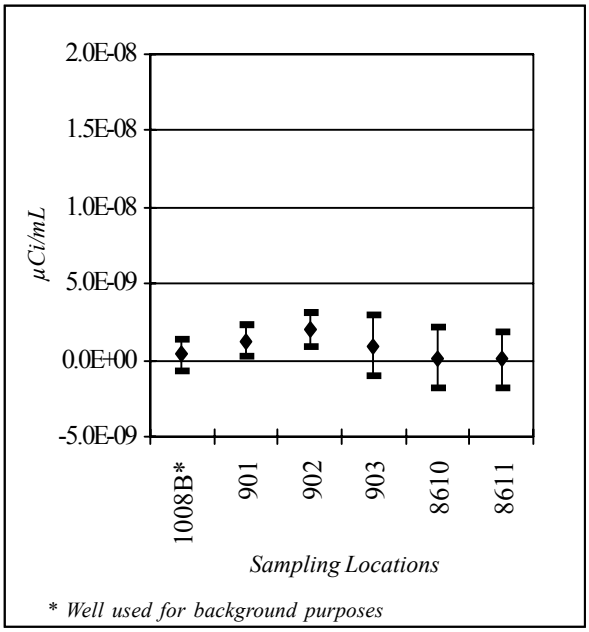

Figure E-23. Gross Alpha (µCi/mL) in Groundwater Samples From the Kent Recessional Sequence

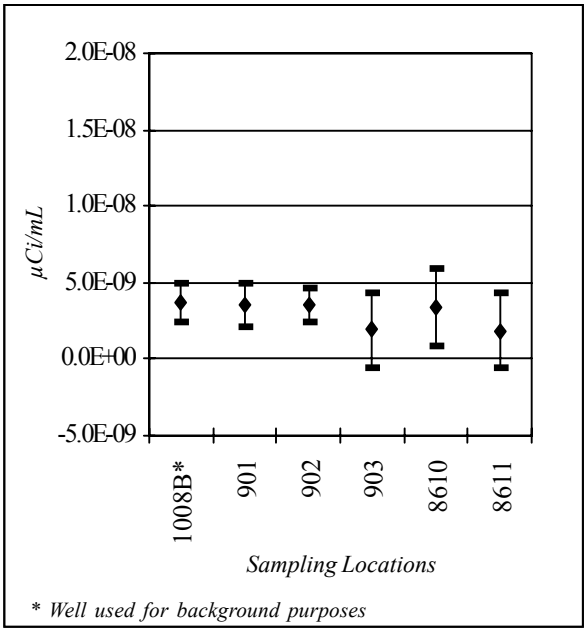

Figure E-24. Gross Beta (µCi/mL) in Groundwater Samples From the Kent Recessional Sequence

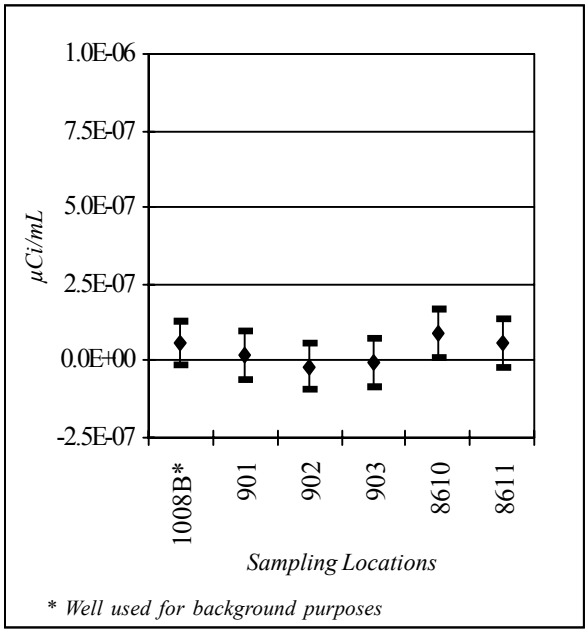

Figure E-25. Tritium (µCi/mL) in Groundwater Samples From the Kent Recessional Sequence