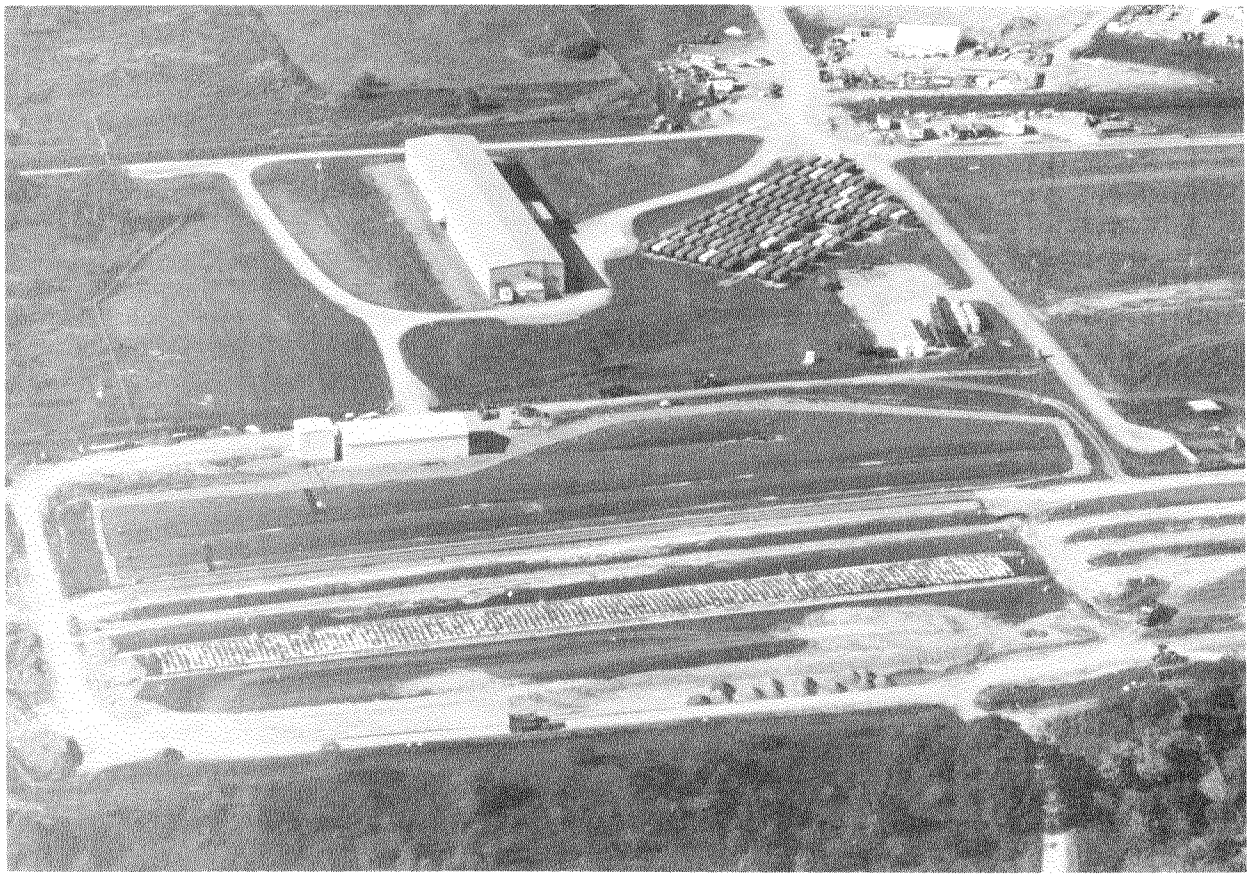
Appendix F

Summary of NYSERDA Groundwater Monitoring Data



An Aerial View of the New York State-licensed Disposal Area

Table F - 1

1995 SDA Contamination Indicator Results for the Unweathered Lavery Till Unit

Location Code	Hydraulic Position	pH	Conductivity *µmhos/cm@25°C*	TOC *mg/L*	TOX *mg/L*	Gross Alpha *µCi/mL*	Gross Beta *µCi/mL*	Tritium *µCi/mL*	Cs-137 *µCi/mL*	Co-60 *µCi/mL*
1101B	DOWN - B(1)	7.13	481	<1.0	<0.005	5.10±2.80E-09	5.30±2.50E-09	0.00±6.97E-08	0.00±1.60E-08	0.00±1.70E-08
1101B	DOWN - B(2)	7.28	734	<1.0	<0.005	3.50±2.60E-09	2.90±2.80E-09	0.00±9.00E-08	0.00±2.00E-08	0.00±2.00E-08
1101B	DOWN - B(3)	7.45	776	<1.0	<0.005	3.00±2.60E-09	0.00±5.00E-09	0.00±1.00E-07	0.00±2.00E-08	0.00±2.00E-08
1101B	DOWN - B(4)	7.15	729	<1.0	<0.005	1.00±0.70E-08	7.70±3.90E-09	0.00±1.00E-07	0.00±2.00E-08	0.00±2.00E-08
1106B	DOWN - B(1)	7.10	1089	<1.0	<0.005	4.70±2.90E-09	4.20±2.50E-09	0.00±6.97E-08	0.00±1.10E-08	0.00±1.30E-08
1106B	DOWN - B(2)	7.28	551	1.9	<0.005	2.50±2.30E-09	2.90±2.60E-09	0.00±1.00E-07	0.00±2.00E-08	0.00±2.00E-08
1106B	DOWN - B(3)	7.54	718	1.6	<0.005	1.40±1.10E-09	1.10±1.00E-09	0.00±1.00E-07	0.00±2.00E-08	0.00±2.00E-08
1106B	DOWN - B(4)	7.15	804	2.2	<0.005	1.40±0.50E-08	8.40±3.90E-09	0.00±1.00E-07	0.00±2.00E-08	0.00±2.00E-08
1109B	DOWN - B(1)	7.43	794	<1.0	<0.005	2.70±2.10E-09	2.80±2.40E-09	5.24±0.98E-07	0.00±9.70E-09	0.00±1.20E-08
1109B	DOWN - B(2)	7.58	619	<1.0	<0.005	2.05±1.40E-09	2.20±3.30E-09	4.30±1.60E-07	0.00±2.00E-08	0.00±2.00E-08
1109B	DOWN - B(3)	7.37	506	<1.0	<0.005	2.60±2.20E-09	0.00±5.00E-09	6.30±1.40E-07	0.00±2.00E-08	0.00±2.00E-08
1109B	DOWN - B(4)	7.25	491	1.1	0.006	6.55±4.36E-09	6.05±3.80E-09	4.85±1.40E-07	0.00±2.00E-08	0.00±2.00E-08
1102B	DOWN - C(1)	7.28	289	<1.0	0.028	0.00±2.00E-09	2.10±1.20E-09	0.00±6.97E-08	0.00±1.60E-08	0.00±1.90E-08
1102B	DOWN - C(2)	7.33	384	<1.0	<0.005	0.00±2.00E-09	1.30±0.40E-08	0.00±9.00E-08	0.00±2.00E-08	0.00±2.00E-08
1102B	DOWN - C(3)	7.60	594	1.2	<0.005	2.00±0.90E-09	0.00±3.00E-09	0.00±1.00E-07	0.00±2.00E-08	0.00±2.00E-08
1102B	DOWN - C(4)	7.10	617	<1.0	<0.005	3.30±3.00E-09	5.80±3.60E-09	0.00±1.00E-07	0.00±2.00E-08	0.00±2.00E-08
1103B	DOWN - C(1)	7.12	707	<1.0	<0.005	4.60±2.10E-09	0.00±4.00E-09	0.00±6.97E-08	0.00±1.70E-08	0.00±1.60E-08
1103B	DOWN - C(2)	7.37	734	<1.0	0.006	2.50±2.30E-09	4.60±2.50E-09	0.00±9.00E-08	0.00±1.00E-08	0.00±2.00E-08
1103B	DOWN - C(3)	7.62	662	<1.0	<0.005	3.40±1.60E-09	0.00±5.00E-09	0.00±1.00E-07	0.00±1.00E-08	0.00±2.00E-08
1103B	DOWN - C(4)	7.16	698	<1.0	<0.005	4.90±3.70E-09	4.10±3.60E-09	0.00±1.00E-07	0.00±2.00E-08	0.00±2.00E-08
1104B	DOWN - C(1)	6.90	1001	<1.0	<0.005	6.70±3.50E-09	3.70±2.50E-09	0.00±6.97E-08	0.00±1.70E-08	0.00±1.80E-08
1104B	DOWN - C(2)	7.38	567	<1.0	<0.005	7.20±3.30E-09	8.10±2.70E-09	0.00±1.00E-07	0.00±2.00E-08	0.00±2.00E-08
1104B	DOWN - C(3)	7.21	628	<1.0	<0.005	4.10±2.33E-09	1.95±2.79E-09	0.00±1.00E-07	0.00±1.58E-08	0.00±2.00E-08
1104B	DOWN - C(4)	7.28	599	1.3	<0.005	6.90±3.90E-09	4.20±3.60E-09	0.00±1.00E-07	0.00±1.00E-08	0.00±2.00E-08
1105A	DOWN - C(1)	7.13	829	<1.0	<0.005	5.40±3.10E-09	3.20±2.40E-09	6.00±5.10E-08	0.00±1.60E-08	0.00±1.60E-08
1105A	DOWN - C(2)	7.41	746	<1.0	<0.005	4.20±2.80E-09	0.00±5.00E-09	0.00±9.00E-08	0.00±2.00E-08	0.00±2.00E-08
1105A	DOWN - C(3)	7.33	847	1.7	0.005	2.80±1.50E-09	0.00±3.00E-09	1.60±0.60E-07	0.00±9.00E-09	0.00±2.00E-08
1105A	DOWN - C(4)	7.16	798	6.9	<0.005	1.10±0.50E-08	6.90±3.80E-09	9.70±5.50E-08	0.00±2.00E-08	0.00±2.00E-08
1105B	DOWN - C(1)	7.18	1376	<1.0	<0.005	1.10±0.40E-08	3.00±2.40E-09	0.00±6.97E-08	0.00±1.10E-08	0.00±1.30E-08
1105B	DOWN - C(2)	7.52	954	5.6	<0.005	4.60±2.10E-09	0.00±4.00E-09	0.00±9.00E-08	0.00±1.00E-08	0.00±2.00E-08
1105B	DOWN - C(3)	7.27	917	1.7	<0.005	6.40±1.80E-09	0.00±3.00E-09	0.00±1.00E-07	0.00±2.00E-08	0.00±2.00E-08
1105B	DOWN - C(4)	7.13	883	<1.0	<0.005	1.00±0.50E-08	1.00±0.40E-08	0.00±1.00E-07	0.00±2.00E-08	0.00±2.00E-08

Sample collection period (rep) noted in parenthesis next to hydraulic position.

Note: All data in Tables F-1 through F-7 have been provided by NYSERDA.

Table F - 2

1995 SDA Contamination Indicator Results for the Kent Recessional Sequence

Location Code	Hydraulic Position	pH	Conductivity *µmhos/cm@25°C*	TOC *mg/L*	TOX *mg/L*	Gross Alpha *µCi/mL*	Gross Beta *µCi/mL*	Tritium *µCi/mL*	Cs-137 *µCi/mL*	Co-60 *µCi/mL*
1101C	DOWN - B(1)	7.11	857	2.6	0.014	4.70±2.80E-09	3.40±2.40E-09	0.00±6.97E-08	0.00±1.80E-08	0.00±1.80E-08
1101C	DOWN - B(2)	7.55	413	2.6	< 0.005	1.70±1.50E-09	0.00±5.00E-09	0.00±9.00E-08	0.00±2.00E-08	0.00±2.00E-08
1101C	DOWN - B(3)	7.78	412	1.6	< 0.005	3.80±1.50E-09	2.90±2.60E-09	0.00±1.00E-07	0.00±2.00E-08	0.00±2.00E-08
1101C	DOWN - B(4)	7.35	410	4.9	< 0.005	4.20±3.00E-09	4.30±3.50E-09	9.20±5.20E-08	0.00±2.00E-08	0.00±2.00E-08
1103C	DOWN - C(1)	7.60	462	NA	NA	3.90±2.90E-09	1.40±0.30E-08	0.00±6.97E-08	NA	NA
1103C	DOWN - C(2)	NA	NA	NA	NA	0.00±2.00E-09	9.50±5.00E-09	0.00±1.00E-07	NA	NA
1103C	DOWN - C(3)	*Not sampled (dry)*								
1103C	DOWN - C(4)	NA	NA	NA	NA	4.70±4.40E-09	1.50±0.60E-08	0.00±1.00E-07	NA	NA
1104C	DOWN - C(1)	6.98	NA	2.2	< 0.005	9.50±6.60E-09	8.20±4.80E-09	0.00±6.97E-08	NA	NA
1104C	DOWN - C(2)	NA	NA	7.2	NA	8.10±4.00E-09	1.50±0.20E-08	0.00±1.00E-07	NA	NA
1104C	DOWN - C(3)	7.17	1547	5.9	NA	8.00±2.60E-09	9.90±3.60E-09	0.00±1.00E-07	NA	NA
1104C	DOWN - C(4)	6.83	NA	NA	0.012	0.00±2.00E-09	3.70±3.00E-09	0.00±1.00E-07	NA	NA

NA - Not available.
Sample collection period (rep) noted in parenthesis next to hydraulic position.

Note: All data in Tables F-1 through F-7 have been provided by NYSERDA.

Table F - 3

1995 SDA Contamination Indicator Results for the Weathered Lavery Till Unit

Location Code	Hydraulic Position	pH	Conductivity *µmhos/cm@25°C*	TOC *mg/L*	TOX *mg/L*	Gross Alpha *µCi/mL*	Gross Beta *µCi/mL*	Tritium *µCi/mL*	Cs-137 *µCi/mL*	Co-60 *µCi/mL*
1101A	DOWN - B(1)	7.24	335	<1.0	0.007	4.80±3.50E-09	4.00±3.70E-09	0.00±6.97E-08	0.00±1.00E-08	0.00±1.10E-08
1101A	DOWN - B(2)	7.27	637	<1.0	<0.005	3.30±2.40E-09	0.00±4.00E-09	0.00±9.00E-08	0.00±1.00E-08	0.00±2.00E-08
1101A	DOWN - B(3)	7.20	615	<1.0	<0.005	4.00±2.00E-09	0.00±5.00E-09	1.40±0.60E-07	0.00±2.00E-08	0.00±2.00E-08
1101A	DOWN - B(4)	7.16	603	<1.0	<0.005	6.50±3.80E-09	3.70±3.50E-09	0.00±1.00E-07	0.00±2.00E-08	0.00±2.00E-08
1106A	DOWN - B(1)	7.27	938	<1.0	<0.005	6.00±2.80E-09	3.10±2.40E-09	9.30±1.10E-07	0.00±1.60E-08	0.00±1.80E-08
1106A	DOWN - B(2)	7.29	380	<1.0	<0.005	7.30±1.90E-09	6.20±2.40E-09	1.00±0.10E-06	0.00±2.00E-08	0.00±2.00E-08
1106A	DOWN - B(3)	7.68	704	<1.0	0.005	7.20±5.60E-09	0.00±6.00E-09	9.30±1.00E-07	0.00±2.00E-08	0.00±2.00E-08
1106A	DOWN - B(4)	7.15	761	<1.0	<0.005	1.10±0.50E-08	6.10±3.70E-09	7.50±2.00E-07	0.00±2.00E-08	0.00±2.00E-08
1108A	DOWN - B(1)	7.05	992	1.8	<0.005	9.70±5.70E-09	0.00±6.00E-09	0.00±6.97E-08	0.00±1.50E-08	0.00±1.90E-08
1108A	DOWN - B(2)	7.23	1206	1.6	<0.005	7.60±4.00E-09	4.00±2.70E-09	1.30±0.60E-07	0.00±2.00E-08	0.00±2.00E-08
1108A	DOWN - B(3)	6.19	1133	1.4	0.016	1.00±0.20E-08	4.40±1.00E-09	1.50±0.60E-07	0.00±1.00E-08	0.00±2.00E-08
1108A	DOWN - B(4)	6.85	1086	<1.0	<0.005	1.40±0.60E-08	5.70±3.80E-09	1.80±0.60E-07	0.00±2.00E-08	0.00±2.00E-08
1109A	DOWN - B(1)	7.13	842	<1.0	<0.005	8.50±4.50E-09	1.00±0.40E-08	3.60±0.96E-07	0.00±1.10E-08	0.00±1.30E-08
1109A	DOWN - B(2)	7.25	644	<1.0	0.011	5.70±3.20E-09	6.50±2.60E-09	2.80±0.90E-07	0.00±2.00E-08	0.00±2.00E-08
1109A	DOWN - B(3)	7.21	798	<1.0	<0.005	4.40±2.80E-09	0.00±5.00E-09	4.70±1.40E-07	0.00±2.00E-08	0.00±2.00E-08
1109A	DOWN - B(4)	7.06	743	<1.0	<0.005	1.40±0.50E-08	1.10±0.40E-08	4.20±1.30E-07	0.00±2.00E-08	0.00±2.00E-08
1102A	DOWN - C(1)	7.13	730	<1.0	0.007	1.10±0.50E-08	0.00±7.00E-09	1.78±0.14E-07	0.00±1.10E-08	0.00±1.40E-08
1102A	DOWN - C(2)	7.33	341	<1.0	0.007	4.00±2.40E-09	0.00±3.00E-09	3.50±1.60E-07	0.00±2.00E-08	0.00±2.00E-08
1102A	DOWN - C(3)	7.17	782	<1.0	<0.005	2.30±1.60E-09	3.40±1.30E-09	2.80±1.40E-07	0.00±2.00E-08	0.00±2.00E-08
1102A	DOWN - C(4)	7.14	771	<1.0	<0.005	7.90±4.20E-09	3.90±3.60E-09	2.70±1.30E-07	0.00±2.00E-08	0.00±2.00E-08
1103A	DOWN - C(1)	7.03	1162	<1.0	<0.005	1.50±0.60E-08	0.00±7.00E-09	4.56±0.98E-07	0.00±1.70E-08	0.00±1.70E-08
1103A	DOWN - C(2)	7.29	911	<1.0	0.007	9.30±2.80E-09	3.20±2.70E-09	3.70±1.60E-07	0.00±2.00E-08	0.00±2.00E-08
1103A	DOWN - C(3)	7.17	911	1.1	0.012	4.90±1.40E-09	4.50±1.30E-09	4.50±1.40E-07	0.00±2.00E-08	0.00±2.00E-08
1103A	DOWN - C(4)	7.14	878	1.1	0.007	9.60±4.80E-09	5.90±3.70E-09	4.10±0.70E-07	0.00±2.00E-08	0.00±2.00E-08
1104A	DOWN - C(1)	7.01	1094	<1.0	0.015	1.20±0.50E-08	1.60±0.40E-08	1.70±0.14E-07	0.00±1.60E-08	0.00±1.70E-08
1104A	DOWN - C(2)	7.82	674	<1.0	<0.005	6.70±1.60E-09	3.90±2.60E-09	1.40±0.60E-07	0.00±2.00E-08	0.00±2.00E-08
1104A	DOWN - C(3)	7.15	723	1.1	<0.005	2.30±0.70E-09	1.20±1.00E-09	2.60±1.40E-07	0.00±2.00E-08	0.00±2.00E-08
1104A	DOWN - C(4)	7.26	595	5.6	0.008	1.00±0.40E-08	1.80±0.40E-08	0.00±1.00E-07	0.00±2.00E-08	0.00±2.00E-08
1107A	DOWN - C(1)	6.47	895	29.0	0.088	9.05±5.71E-09	1.25±0.35E-08	2.06±0.14E-05	0.00±1.40E-08	0.00±1.76E-08
1107A	DOWN - C(2)	6.95	1703	22.0	0.130	1.10±0.40E-08	1.60±0.30E-08	1.70±0.20E-05	0.00±2.00E-08	0.00±2.00E-08
1107A	DOWN - C(3)	6.72	1488	23.0	0.160	4.60±1.80E-09	1.50±0.20E-08	2.00±0.20E-05	0.00±2.00E-08	0.00±2.00E-08
1107A	DOWN - C(4)	6.74	1359	24.0	0.085	9.40±6.40E-09	1.30±0.40E-08	1.70±0.20E-05	0.00±2.00E-08	0.00±2.00E-08
1110A	DOWN - C(1)	6.93	1325	2.4	<0.005	1.70±0.70E-08	3.80±3.60E-09	6.00±5.10E-08	0.00±9.50E-09	0.00±1.10E-08
1110A	DOWN - C(2)	7.10	1326	1.3	<0.005	1.20±0.30E-08	3.30±2.50E-09	1.20±0.60E-07	0.00±2.00E-08	0.00±2.00E-08
1110A	DOWN - C(3)	6.80	1391	1.4	0.007	1.20±0.50E-08	3.90±3.90E-09	1.40±0.60E-07	0.00±8.00E-09	0.00±2.00E-08
1110A	DOWN - C(4)	6.79	1410	<1.0	<0.005	1.90±0.70E-08	1.00±0.40E-08	1.40±0.50E-07	0.00±2.00E-08	0.00±2.00E-08
1111A	DOWN - C(1)	6.92	994	<1.0	<0.005	8.70±5.10E-09	3.50±2.40E-09	8.50±5.10E-08	0.00±9.30E-09	0.00±1.20E-08
1111A	DOWN - C(2)	7.08	508	<1.0	0.026	6.10±2.70E-09	4.40±2.40E-09	2.60±1.50E-07	0.00±2.00E-08	0.00±2.00E-08
1111A	DOWN - C(3)	7.16	992	2.8	0.006	6.40±1.50E-09	3.00±1.30E-09	3.40±1.40E-07	0.00±2.00E-08	0.00±2.00E-08
1111A	DOWN - C(4)	6.88	959	1.2	0.006	1.10±0.50E-08	7.80±3.80E-09	1.10±0.60E-07	0.00±2.00E-08	0.00±2.00E-08

Sample collection period (rep) noted in parenthesis next to hydraulic position.

Note: All data in Tables F-1 through F-7 have been provided by NYSERDA.

Table F - 4

1995 SDA Groundwater Quality Results (mg/L) for the Unweathered Lavery Unit

Location Code	Hydraulic Position	Chloride	Sulfate	Nitrate + Nitrite-N	Ammonia	Bicarbonate Alkalinity*	Carbonate Alkalinity*	Phenols	Phosphate	Silica	Sulfide
1101B	DOWN - B(2)	<1.0	140	0.50	<0.05	250	<1.0	<0.005	0.040	4.6	<1.0
1101B	DOWN - B(4)	<1.0	110	0.45	<0.05	260	<1.0	NA	0.033	4.7	<1.0
1106B	DOWN - B(2)	1.1	170	0.04	<0.05	300	<1.0	<0.005	0.25	5.0	1.4
1106B	DOWN - B(4)	<1.0	160	n/a	<0.05	310	<1.0	NA	0.12	5.4	<1.0
1109B	DOWN - B(2)	1.4	62.0	0.04	<0.05	190	<1.0	<0.005	0.034	5.1	1.0
1109B	DOWN - B(4)	1.0	67.0	0.12	<0.05	195	<1.0	NA	0.079	5.4	<1.0
1102B	DOWN - C(2)	<1.0	46.0	0.12	<0.05	280	<1.0	<0.005	0.029	5.6	1.2
1102B	DOWN - C(4)	1.2	98.0	0.10	<0.05	290	<1.0	NA	0.030	5.9	<1.0
1103B	DOWN - C(2)	<1.0	68.0	0.18	<0.05	290	<1.0	<0.005	<0.010	5.4	<1.0
1103B	DOWN - C(4)	<1.0	78.0	0.16	<0.05	300	<1.0	NA	0.036	5.3	<1.0
1104B	DOWN - C(2)	<1.0	100	0.51	<0.05	240	<1.0	<0.005	0.020	4.2	1.0
1104B	DOWN - C(4)	<1.0	98.0	0.19	<0.05	240	<1.0	NA	0.030	3.9	<1.0
1105A	DOWN - C(2)	1.7	220	0.49	<0.05	220	<1.0	NA	0.090	3.4	1.2
1105A	DOWN - C(4)	2.3	390	0.32	<0.05	210	<1.0	NA	0.89	3.7	1.4
1105B	DOWN - C(2)	1.7	280	0.74	<0.05	250	<1.0	NA	0.79	3.6	<1.0
1105B	DOWN - C(4)	1.2	450	0.89	<0.05	240	<1.0	NA	0.16	3.6	1.2

** as $mgCaCO_3/L$*
NA - Not available.
NR - Not reported. These results have not been reported because the data validation process indicated the data were not reliable.
Sample collection period (rep) noted in parenthesis next to hydraulic position.

Note: All data in Tables F-1 through F-7 have been provided by NYSERDA.

Table F - 4 (concluded)

1995 SDA Groundwater Quality Results (mg/L) for the Unweathered Lavery Unit

Location Code	Hydraulic Position	Calcium		Magnesium		Sodium		Potassium		Iron		Manganese		Aluminum	
		Total	Diss.	Total	Diss.	Total	Diss.	Total	Diss.	Total	Diss.	Total	Diss.	Total	Diss.
1101B	DOWN - B(2)	100	100	30.0	30.0	23.0	24.0	2.30	2.30	0.540	0.160	0.021	<0.010	0.240	0.110
1101B	DOWN - B(4)	91.0	78.0	28.0	23.0	30.0	12.0	2.80	1.60	0.240	0.036	0.012	<0.010	0.210	<0.100
1106B	DOWN - B(2)	97.0	100	37.0	38.0	23.0	24.0	2.50	2.00	4.20	<0.030	0.059	0.010	2.20	<0.100
1106B	DOWN - B(4)	86.0	89.0	34.0	36.0	27.0	29.0	3.70	2.30	4.00	0.096	0.054	<0.010	3.80	<0.100
1109B	DOWN - B(2)	68.0	65.5	19.5	18.0	8.95	8.60	1.70	1.45	1.20	0.057	0.042	0.017	0.620	<0.100
1109B	DOWN - B(4)	57.5	59.0	16.5	17.0	10.0	10.0	1.45	1.25	0.870	0.058	0.022	<0.010	0.645	<0.100
1102B	DOWN - C(2)	71.0	74.0	28.0	30.0	13.0	13.0	2.00	1.80	1.10	<0.030	0.028	<0.010	0.510	<0.100
1102B	DOWN - C(4)	60.0	62.0	26.0	27.0	18.0	18.0	1.90	1.70	0.780	0.060	0.017	<0.010	0.540	<0.100
1103B	DOWN - C(2)	75.0	75.0	31.0	31.0	23.0	22.0	2.00	1.90	0.170	<0.030	0.018	0.011	<0.100	<0.100
1103B	DOWN - C(4)	67.0	67.0	30.0	30.0	29.0	29.0	2.10	2.00	0.450	0.140	0.022	<0.010	0.420	<0.100
1104B	DOWN - C(2)	77.0	78.0	24.0	24.0	23.0	22.0	1.50	1.70	0.045	<0.030	<0.010	<0.010	<0.100	<0.100
1104B	DOWN - C(4)	67.0	70.0	22.0	23.0	26.0	27.0	1.60	1.70	0.085	<0.030	<0.010	<0.010	<0.100	<0.100
1105A	DOWN - C(2)	140	120	38.0	24.0	20.0	20.0	6.20	1.80	54.0	<0.030	1.40	0.012	26.0	<0.100
1105A	DOWN - C(4)	150	110	43.0	23.0	26.0	25.0	13.0	1.70	61.0	<0.030	1.40	0.070	37.0	<0.100
1105B	DOWN - C(2)	200	120	55.0	28.0	29.0	28.0	7.50	2.10	77.0	<0.030	1.90	0.033	35.0	<0.100
1105B	DOWN - C(4)	170	120	45.0	28.0	40.0	38.0	13.0	2.10	48.0	<0.030	0.840	0.028	32.0	<0.100

** as mg$CaCO_3$/L*
NA - Not available.
NR - Not reported. These results have not been reported because the data validation process indicated the data were not reliable.
Sample collection period (rep) noted in parenthesis next to hydraulic position.

Note: All data in Tables F-1 through F-7 have been provided by NYSERDA.

Table F - 5

1995 SDA Groundwater Quality Results (mg/L) for the Kent Recessional Sequence

Location Code	Hydraulic Position	Chloride	Sulfate	Nitrate + Nitrite-N	Ammonia	Bicarbonate Alkalinity*	Carbonate Alkalinity*	Phenols	Phosphate	Silica	Sulfide
1101C	DOWN - B(2)	5.6	33.0	0.08	<0.05	180	<1.0	<0.005	2.4	5.1	3.1
1101C	DOWN - B(4)	1.2	61.0	0.09	<0.05	180	<1.0	NA	0.68	3.6	<1.0

Location Code	Hydraulic Position	Calcium		Magnesium		Sodium		Potassium		Iron		Manganese		Aluminum	
		Total	Diss.	Total	Diss.	Total	Diss.	Total	Diss.	Total	Diss.	Total	Diss.	Total	Diss.
1101C	DOWN - B(2)	400	100	120	34.0	25.0	6.80	9.00	2.10	150	0.400	4.20	0.024	50.0	0.250
1101C	DOWN - B(4)	220	47.0	78.0	8.40	33.0	28.0	16.0	2.30	200	0.031	2.80	0.076	70.0	<0.100

** as $mgCaCO_3/L$*
NA - Not available.
Sample collection period (rep) noted in parenthesis next to hydraulic position.

Note: All data in Tables F-1 through F-7 have been provided by NYSERDA.

Table F - 6

1995 SDA Groundwater Quality Results (mg/L) for the Weathered Lavery Till Unit

Location Code	Hydraulic Position	Chloride	Sulfate	Nitrate + Nitrite-N	Ammonia	Bicarbonate Alkalinity*	Carbonate Alkalinity*	Phenols	Phosphate	Silica	Sulfide
1101A	DOWN - B(2)	1.6	80.0	0.14	< 0.05	240	< 1.0	< 0.005	0.010	4.5	< 1.0
1101A	DOWN - B(4)	1.8	80.0	0.14	< 0.05	250	< 1.0	NA	0.020	3.9	< 1.0
1106A	DOWN - B(2)	3.0	120	0.02	< 0.05	280	< 1.0	< 0.005	0.010	5.2	1.0
1106A	DOWN - B(4)	2.9	120	n/a	< 0.05	300	< 1.0	NA	0.029	5.2	< 1.0
1108A	DOWN - B(2)	1.4	340	0.17	0.22	310	< 1.0	< 0.005	0.26	3.4	< 1.0
1108A	DOWN - B(4)	1.3	380	0.05	< 0.05	300	< 1.0	NA	0.77	4.2	1.3
1109A	DOWN - B(2)	1.6	140	0.19	0.07	220	< 1.0	< 0.005	0.012	3.3	1.6
1109A	DOWN - B(4)	1.7	160	0.12	< 0.05	240	< 1.0	NA	0.020	3.7	< 1.0
1102A	DOWN - C(2)	1.3	150	0.12	< 0.05	260	< 1.0	< 0.005	0.023	4.4	< 1.0
1102A	DOWN - C(4)	1.4	110	0.12	< 0.05	260	< 1.0	NA	0.030	5.0	< 1.0
1103A	DOWN - C(2)	1.3	150	0.04	< 0.05	340	< 1.0	NA	0.038	5.9	< 1.0
1103A	DOWN - C(4)	1.5	250	< 0.01	< 0.05	340	< 1.0	NA	0.44	6.0	< 1.0
1104A	DOWN - C(2)	2.2	150	0.10	< 0.05	260	< 1.0	< 0.005	0.010	7.0	< 1.0
1104A	DOWN - C(4)	2.2	120	0.08	< 0.05	230	< 1.0	NA	0.024	6.8	< 1.0
1107A	DOWN - C(2)	6.9	580	0.03	< 0.05	540	< 1.0	< 0.005	0.020	5.6	< 1.0
1107A	DOWN - C(4)	7.4	220	< 0.01	< 0.05	640	< 1.0	NA	0.019	7.2	< 1.0
1110A	DOWN - C(2)	3.9	320	0.20	< 0.05	460	< 1.0	< 0.005	0.26	5.1	2.6
1110A	DOWN - C(4)	2.9	400	0.22	< 0.05	450	< 1.0	NA	0.090	5.4	< 1.0
1111A	DOWN - C(2)	< 1.0	130	0.02	< 0.05	410	< 1.0	< 0.005	0.014	6.1	1.6
1111A	DOWN - C(4)	1.2	100	0.02	< 0.05	420	< 1.0	NA	0.020	6.2	< 1.0

** as $mgCaCO_3/L$*
NA - Not available.
Sample collection period (rep) noted in parenthesis next to hydraulic position.

Note: All data in Tables F-1 through F-7 have been provided by NYSERDA.

Table F - 6 (concluded)

1995 SDA Groundwater Quality Results (mg/L) for the Weathered Lavery Till Unit

Location Code	Hydraulic Position	Calcium		Magnesium		Sodium		Potassium		Iron		Manganese		Aluminum	
		Total	Diss.	Total	Diss.	Total	Diss.	Total	Diss.	Total	Diss.	Total	Diss.	Total	Diss.
1101A	DOWN - B(2)	89.0	90.0	24.0	24.0	9.60	10.0	1.60	1.60	0.110	<0.030	0.014	0.011	<0.100	<0.100
1101A	DOWN - B(4)	80.0	86.0	23.0	27.0	12.0	29.0	1.60	2.60	0.058	<0.030	<0.010	<0.010	<0.100	<0.100
1106A	DOWN - B(2)	94.0	96.0	36.0	36.0	10.0	9.50	2.00	2.10	0.630	0.070	0.019	0.013	0.110	<0.100
1106A	DOWN - B(4)	95.0	93.0	36.0	35.0	12.0	12.0	2.40	2.40	0.037	<0.030	0.055	0.016	<0.100	<0.100
1108A	DOWN - B(2)	150	160	52.0	53.0	17.0	18.0	3.80	3.40	7.00	<0.030	0.290	<0.010	3.30	<0.100
1108A	DOWN - B(4)	160	150	54.0	52.0	20.0	20.0	4.50	3.60	3.90	0.076	0.160	<0.010	2.40	<0.100
1109A	DOWN - B(2)	100	100	24.0	24.0	8.50	8.20	2.00	1.90	<0.030	<0.030	0.011	0.013	<0.100	<0.100
1109A	DOWN - B(4)	110	110	25.0	25.0	10.0	11.0	2.10	2.10	0.087	<0.030	<0.010	<0.010	<0.100	<0.100
1102A	DOWN - C(2)	52.0	100	8.60	34.0	23.0	6.00	3.10	2.20	<0.030	<0.030	0.066	<0.010	<0.100	<0.100
1102A	DOWN - C(4)	93.0	89.0	33.0	32.0	9.30	9.50	2.40	2.20	0.150	<0.030	<0.010	<0.010	0.140	<0.100
1103A	DOWN - C(2)	130	130	48.0	48.0	10.0	9.80	2.20	2.10	0.400	<0.030	0.038	0.014	0.260	<0.100
1103A	DOWN - C(4)	130	110	48.0	42.0	14.0	13.0	5.80	2.40	15.0	0.180	0.490	0.012	10.0	0.240
1104A	DOWN - C(2)	110	110	31.0	31.0	8.30	8.30	1.70	1.80	<0.030	<0.030	<0.010	<0.010	<0.100	<0.100
1104A	DOWN - C(4)	82.0	82.0	24.0	24.0	9.50	9.50	1.70	1.70	<0.030	<0.030	<0.010	<0.010	<0.100	<0.100
1107A	DOWN - C(2)	260	270	90.0	89.0	15.0	16.0	2.40	2.60	0.650	<0.030	9.70	6.80	0.240	0.140
1107A	DOWN - C(4)	210	220	74.0	74.0	13.0	13.0	2.40	2.50	0.130	<0.030	20.0	13.0	<0.100	<0.100
1110A	DOWN - C(2)	140	140	84.0	87.0	25.0	26.0	3.60	3.40	5.00	<0.030	0.400	0.014	2.30	<0.100
1110A	DOWN - C(4)	140	140	85.0	89.0	31.0	33.0	5.00	4.10	3.20	<0.030	0.180	<0.010	2.60	<0.100
1111A	DOWN - C(2)	120	130	53.0	54.0	13.0	13.0	2.40	2.50	0.220	<0.030	0.017	<0.010	0.150	<0.100
1111A	DOWN - C(4)	120	120	53.0	53.0	19.0	18.0	3.10	2.90	0.380	<0.030	0.015	0.024	0.360	<0.100

NA - Not available.
NR - Not reported. These results have not been reported because the data validation process indicated the data were not reliable.
Sample collection period (rep) noted in parenthesis next to hydraulic position.

Note: All data in Tables F-1 through F-7 have been provided by NYSERDA.

Table F - 7

1995 SDA Expanded Characterization Radioisotopic Results (μCi/mL)

Location Code	Hydraulic Position	Pb-212	Pb-214	Bi-214	Th-227
Kent Recessional Deposits					
1101C	B	9.00±5.00E-09	2.70±1.40E-08		
1101C	B	9.00±4.30E-09			
Unweathered Till					
1106B	B	7.50±3.90E-09			
1102B	C	1.40±0.60E-08	4.30±1.70E-08		
1103B	C	6.20±3.80E-09			
1105A	C	1.30±0.80E-08	3.90±2.20E-08		
Weathered Till					
1107A	C		6.50±1.02E-08	6.95±1.36E-08	
1107A	C		1.90±0.90E-08		
1111A	C	1.20±0.60E-08			3.50±1.70E-08

Location Code	Hydraulic Position	Th-234	U-235	Ra-224	Ra-226
Kent Recessional Deposits					
1101C	B	2.00±0.40E-07			
1101C	B	3.20±0.31E-07	1.70±0.41E-08	1.10±0.52E-07	2.70±0.68E-07
Unweathered Till					
1101B	B	3.10±0.33E-07	1.20±0.39E-08		1.90±0.64E-07
1106B	B	3.50±0.36E-07	2.00±0.39E-08	9.10±7.20E-08	
1109B	B	2.10±0.36E-07	9.10±5.98E-09		1.55±1.00E-07
1102B	C	2.90±0.31E-07	1.90±0.35E-08		3.20±0.57E-07
1103B	C	3.00±0.32E-07	2.10±0.36E-08	7.50±4.60E-08	
1104B	C	3.00±0.32E-07	1.60±0.37E-08		2.70±0.62E-07
1105A	C	2.90±0.45E-07	1.70±0.58E-08		2.70±0.95E-07
1105B	C	2.70±0.34E-07	1.60±0.36E-08		2.70±0.59E-07
Weathered Till					
1101A	B	2.50±0.47E-07	2.00±0.54E-08	3.30±0.89E-07	
1106A	B	3.00±0.33E-07	1.30±0.43E-08	2.10±0.70E-07	
1109A	B	2.50±0.44E-07	1.00±0.66E-08	1.70±1.10E-07	
1102A	C	2.30±0.44E-07	1.50±0.51E-08	2.50±0.84E-07	
1103A	C	2.60±0.47E-07	1.80±0.54E-08	3.00±0.89E-07	
1104A	C	2.30±0.48E-07	1.40±0.63E-08	2.20±1.00E-07	
1107A	C	2.10±0.50E-07	1.10±0.55E-08	1.80±0.91E-07	
1111A	C	2.50±0.47E-07	1.40±0.54E-08	2.40±0.88E-07	

Note: The concentrations reported above are near the detection limits for analyzing these radionuclides by gamma spectroscopy. Upon reanalyzing 25% of the December 1995 samples for gamma emitters, the radionuclides reported above were not detected. Thus, the presence of these nuclides during the initial December 1995 analysis could not be confirmed.