

APPENDIX 2

CHEMICAL ANALYSES

SALT ROCKS AND SALT BRINES

BEAVER BROOK DEPOSIT, HANTS-COLCHESTER AREA

Chemical analyses* NSDM 4735 (BB-2, SD-2):
Composite samples of 2"-3" whole cores

Sample Footage (ft.)	% Insoluble	% Br	% K	% Ca	% Mg	% SO ₄	% PO ₄ **
Lower Salt							
2067.8-2102.5	4.62	0.0085	0.02	0.76	0.0014	0.38	0.01
2102.5-2162.5	14.38	0.0057	0.05	4.42	0.0001	0.56	0.01
2162.5-2187.5	1.20	0.0070	0.09	1.12	0.0010	0.79	0.01
2187.5-2262.5	33.96	0.0043	0.04	4.70	0.0019	2.43	0.01
2262.5-2322.5	2.70	0.0080	0.02	1.20	0.0070	0.83	0.01
2322.5-2404.0	2.00	0.0047	0.25	4.36	0.0006	2.08	0.01
Upper Salt							
1286.0-1327.5	12.86	0.0048	0.01	2.60	0.0005	1.72	0.01
1327.5-1350.0	4.36	0.0038	0.01	1.60	0.0009	0.99	0.01

Chemical analyses* NSDM 4735 (BB-2; SD-2):
Upper salt 2"-3" full-core samples

Sample Footage (ft.)	% NaCl	% Insolubles	% LOI	% NaCl on Soluble
				100- LOI+ Insoluble Residue
1290	88.80	1.42	0.16	90.33
1295	85.09	7.95	0.16	92.60
1300	77.22	12.66	0.20	88.62
1305	72.39	13.87	0.16	80.46
1310	88.39	8.84	0.12	96.98
1315	82.55	11.63	0.12	93.54
1320	88.90	2.59	0.18	91.43
1325	46.49	41.09	1.14	8.47
1330	88.77	6.47	0.25	95.17
1335	93.09	3.14	0.21	96.32
1340	91.95	3.86	0.22	95.86
1345	95.77	4.07	0.15	99.98
1350	92.97	5.88	0.32	99.12

Sample Footage (ft.)	% Sr	% Soluble NaCl	% Cl	% Na	% CaSO ₄	% CaCl ₂
Lower Salt						
2067.8-2102.5	0.002	97.99	59.73	37.10	0.54	1.66
2102.5-2162.5	0.005	88.04	48.28	29.68	0.79	11.60
2162.5-2187.5	0.002***	96.41	61.32	37.70	1.11	2.21
2187.5-2262.5	0.008	83.07	34.97	21.60	3.43	10.25
2262.5-2322.5	0.002***	94.89	59.82	36.35	1.17	2.38
2322.5-2404.0	0.004	87.36	53.78	33.65	2.93	9.72
Upper Salt						
1286.0-1327.5	0.004	91.68	50.94	31.45	2.43	5.21
1327.5-1350.0	0.002***	92.62	57.69	34.88	1.40	3.30

Quantitative analysis of salt samples

Sample Footage (ft.)	Loss on Ignition	Insoluble Residue	As 100% Soluble Matter					
			NaCl	CaSO ₄	Br	KCl	SiSO ₄	MgCl ₂
1323	0.17	1.32	97.6	1.19	0.0010	0.02	0.034	0.0
1342	0.37	1.28	98.7	0.97	0.0037	0.01	N.I.	N.I.
1368.5	0.18	0.77	96.9	1.01	0.0023	0.02	0.034	0.0
1390.5	2.40	54.00	596.1	1.74	0.0046	0.02	0.20	0.0

*Analysis by Nova Scotia Research Foundation (1968c) **PO₄ less than 0.01 per cent in all analyses ***Sr less than 0.002 per cent

BEAVER BROOK DEPOSIT, HANTS-COLCHESTER AREA

Chemical analyses NSDM 4735 (BB-2, SD-2): Lower salt 2"-3" full core samples*

Sample Footage Depth (ft.)	% NaCl	% Insoluble Residue	% L01	% NaCl on Soluble 100- [L01+ Insoluble Residue]
2070	94.74	2.20	0.01	96.88
2075	96.01	1.37	0.01**	97.34
2080	95.25	0.96	0.03	96.20
2085	93.47	2.51	0.04	95.92
2090	90.93	2.17	0.01	92.96
2095	93.73	1.53	0.01**	95.19
2100	93.45	1.09	0.03	94.51
2105	54.48	26.74	0.01**	74.37
2110	89.15	2.04	0.01**	91.00
2115	43.69	36.36	0.10	68.76
2120	68.32	19.28	0.06	84.76
2125	74.93	15.44	0.06	88.67
2130	50.55	35.56	0.15	78.63
2135	37.60	50.48	0.09	76.07
2140	70.36	14.40	0.02	82.21
2145	85.98	5.46	0.04	90.95
2150	83.06	8.50	0.08	90.86
2155	89.10	2.93	0.10	91.88
2160	76.46	15.25	0.69	90.96
2165	91.95	1.79	0.08	93.70
2170	91.95	1.98	0.10	93.90
2175	93.98	2.03	0.10	96.02
2180	91.96	1.55	0.03	93.44
2185	93.85	1.27	0.08	95.13
2190	94.20	77.76	1.06	43.44
2195	74.80	11.37	0.02	84.41
2200	73.40	13.40	0.28	85.03
2205	95.50	2.62	0.17	98.24
2210	23.62	66.45	0.21	70.86
2215	71.88	19.85	0.33	90.05
2220	71.88	23.04	0.75	93.32
2225	54.35	31.93	0.10	79.96
2230	95.50	1.74	0.01	97.19
2235	65.28	27.16	0.08	89.72
2240	73.66	17.52	0.08	89.39
2245	27.43	62.64	0.14	73.70
2250	21.43	66.29	0.14	63.78
2255	31.24	55.25	0.15	69.92
2260	53.29	41.52	0.09	91.27
2265	83.82	12.60	0.09	96.00
2270	95.50	2.41	0.01	97.87
2275	95.50	2.67	0.07	98.19
2280	95.50	1.93	0.11	97.49
2285	85.85	7.52	0.02	92.85
2290	95.50	2.12	0.38	97.95
2295	97.03	1.63	0.03	98.67
2300	97.03	2.54	0.01	99.57
2305	93.47	3.38	0.25	96.99
2310	95.50	3.17	0.45	99.09
2315	97.03	1.82	0.07	98.90
2320	97.03	0.67	0.30	100.00
2325	80.01	6.01	0.30	85.40
2330	82.80	5.24	0.38	87.73
2335	82.80	1.82	0.16	84.39
2340	82.80	3.60	0.13	86.00
2345	81.28	8.77	0.36	89.43
2350	77.72	8.16	0.41	85.02
2355	80.26	5.58	0.31	85.28
2360	82.80	2.17	0.12	89.31
2365	83.82	2.13	0.13	85.76
2370	81.28	4.53	0.24	85.35
2375	81.28	2.83	0.20	83.82
2380	77.72	7.75	0.35	84.57
2385	82.80	4.53	0.27	86.91
2390	85.09	7.61	0.37	92.17
2395	87.38	2.41	0.16	89.68
2400	85.34	6.43	0.32	91.52
2405	87.38	3.80	0.23	91.05

*Nova Scotia Research Foundation (1968c) **less than 0.01

SHUBENACADIE-STENIACKE DEPOSIT DRILLHOLES 153-1 AND SB-1 CHEMICAL ANALYSIS

Sampling Procedure

Samples submitted for major and trace element analyses were composed of continuous halved diamond-drill core (1.85 inch (NQ) and 1.4 inch (BQ)) over intervals of 10 feet (3 m). A total of 192 intervals was sampled in this manner to give a continuous sequence of analyses through the entire salt sections of drillholes 153-1 and SB-1. Major anhydrite interbeds thicker than approximately one foot were not sampled. Each of the 10 foot intervals, numbered sequentially from top to base, were sampled in two parts each five feet thick and given an a and b subscript (upper and lower subsamples). Analyses were performed upon composites of the subsamples with the individual subsamples retained for further detailed analyses when required.

Samples were placed in plastic bags and sent to Nova Scotia Technical College for sample preparation and analyses.

Sample Preparation

Samples were crushed as received to -10 mesh through a jaw crusher and cone crusher. A sample for analyses was split out with a Jones splitter, dried at 110°C in an oven and crushed to -200 mesh in a shatterbox.

Analytical Methods

One gram of prepared sample was weighed, placed in a 250 ml beaker and 100 ml of distilled water added. The beaker was placed in a magnetic stirrer and stirred for 10 minutes at ambient room temperature. The mixture was filtered through ashless filter paper. The filtrate was saved and the filter paper was washed six times with distilled water to remove the remaining filtrate. The insoluble residue was measured gravimetrically after the filter paper was ashed. The filtrate collected was analyzed for Cl using the method of Volhard, (silver nitrate titration) Scotts Standard Methods of Chemical Analysis, 5th Edition, p. 271.

CaO, MgO, Na₂O, K₂O, Fe₂O₃ were all determined by atomic absorption spectrophotometry using the following procedure. Samples weighing 1/10 of a gram were fused with Shapiro's mix in a graphite crucible at 1050° C, leached with dilute nitric acid and filtered into a volumetric flask. To this solution strontium is added to suppress ionization and chemical interferences. CaO, MgO, Na₂O, K₂O and Fe₂O₃ are determined by atomic absorption spectrophotometry. CaO and MgO require a nitrous oxide-acetylene flame, and Na₂O, K₂O and Fe₂O₃ are analyzed using air-acetylene flame.

Rb was determined by atomic absorption spectrophotometry using the method in Chemical Methods of Rock Analysis V36 by P. G. Jeffery.

Br was determined using the thioaliphate titration method described by Crosby (1975) in New Brunswick Department of Natural Resources, Topical Report 75-18, p. 16-18.

CO₂ was determined using the modified apparatus of Knorr (Fisher, Alkalimeter) described in Scotts Standard Methods of Chemical Analysis 5th Edition, p. 235-236.

SO₄ was determined gravimetrically using the method in Scotts Standard Methods of Chemical Analysis, 5th Edition, p. 908-909.

B and Sr were determined using emission spectrometry.

SHIBENACADIE-STEMIACKE DEPOSIT - HANTS-COLCHESTER AREA Chemical analyses drillholes 153-1 and 58-1

SAMPLE	INTERVAL (FEET)	PERCENTAGE										PARTS PER MILLION				MINERALS		TOTALS	
		NA2O	CL	CAO	SD4	CO2	MGO	K2O	FE2O3	INSOL	BR	SR	RE	E	U2O3	NaCl FROM CL	CaSO4 FROM SO4	WITHOUT INSOL	WITH INSOL
153-1	705.0-716.0	51.8	56.8	2.29	3.84	.16	.06	.04	.02	42	77.	150.	1.	ND	<1.	93.5	5.5	99.0	99.4
153-2	993.0-1003.0	43.5	54.0	1.46	2.65	.23	.28	.10	.33	6.56	85.	190.	1.	140.	4.	89.0	3.8	92.7	99.2
153-3	1003.0-1013.0	48.5	53.0	1.81	3.17	.27	.36	.22	.39	7.84	101.	100.	13.	80.	<1.	87.3	4.5	91.7	99.6
153-4	1013.0-1023.0	41.6	49.0	1.75	2.69	.39	.52	.28	.61	13.89	85.	110.	15.	ND	<1.	80.8	3.8	84.7	98.6
153-5	1023.0-1033.0	49.2	55.0	1.16	1.57	.30	.28	.16	.31	6.43	95.	22.	4.	ND	<1.	90.7	2.2	93.1	99.5
153-6	1033.0-1043.0	44.5	49.6	4.77	7.73	.23	.35	.16	.33	7.61	58.	160.	6.	ND	<1.	81.7	11.0	92.8	100.4
153-7	1043.0-1053.0	49.2	56.4	1.89	2.98	.31	.19	.07	.11	2.14	104.	80.	4.	ND	<1.	93.0	4.2	97.3	99.5
153-8	1053.0-1063.0	48.0	54.5	1.61	2.74	.22	.29	.18	.29	5.78	77.	100.	4.	ND	<1.	89.8	3.9	93.7	99.5
153-9	1063.0-1073.0	52.9	56.6	1.33	1.79	.49	.19	.10	.17	3.52	90.	40.	4.	ND	<1.	93.3	2.5	96.0	99.6
153-10	1073.0-1083.0	46.3	57.0	1.38	1.76	.25	.25	.13	.23	3.34	77.	55.	4.	ND	<1.	93.9	2.5	96.7	100.4
153-11	1083.0-1093.0	39.0	45.0	2.80	4.38	.30	.40	.48	.78	18.95	69.	120.	15.	ND	<1.	74.1	6.2	80.5	99.4
153-12	1093.0-1103.0	45.9	55.4	2.06	2.81	.24	.26	.09	.21	3.98	99.	68.	3.	ND	<1.	91.3	4.0	95.6	99.6
153-13	1103.0-1113.0	41.9	52.5	2.92	4.69	.28	.41	.13	.29	6.13	74.	125.	5.	ND	<1.	86.5	6.7	93.3	99.4
153-14	1113.0-1123.0	47.4	57.8	1.45	2.34	.11	.06	.03	.05	.51	96.	28.	1.	ND	<1.	95.2	3.3	98.6	99.1
153-15	1123.0-1133.0	48.0	58.0	1.29	2.11	.31	.20	.07	.13	1.74	79.	50.	1.	ND	<1.	95.5	3.0	98.5	100.3
153-16	1133.0-1143.0	51.8	58.1	1.21	1.93	.25	.13	.07	.07	1.86	83.	55.	1.	ND	<1.	95.7	2.7	98.5	100.4
153-17	1143.0-1153.0	51.0	57.9	1.31	1.95	.22	.15	.07	.07	1.74	113.	28.	1.	ND	<1.	95.3	2.8	98.2	100.0
153-18	1153.0-1163.0	50.7	57.8	1.18	1.80	.17	.18	.03	.15	2.24	121.	45.	1.	ND	<1.	95.3	2.6	97.9	100.2
153-19	1163.0-1173.0	49.8	55.9	2.50	3.99	.26	.23	.07	.15	2.07	118.	70.	1.	ND	<1.	92.1	5.7	97.9	100.0
153-20	1173.0-1183.0	45.8	51.9	3.08	5.29	.27	.42	.39	.31	6.48	89.	215.	1.	130.	<1.	85.5	7.5	93.0	99.4
153-21	1183.0-1193.0	44.7	55.1	2.12	3.68	.17	.30	.10	.17	4.53	107.	65.	4.	ND	<1.	90.8	5.2	96.0	100.6
153-22	1193.0-1203.0	48.6	57.8	1.71	2.90	.22	.11	.05	.05	.64	91.	50.	1.	ND	<1.	95.3	4.1	99.4	100.0
153-23	1203.0-1213.0	50.8	57.4	1.05	1.67	.20	.22	.21	.10	2.50	94.	43.	1.	ND	<1.	94.6	2.4	97.1	99.6
153-24	1213.0-1223.0	36.1	41.4	10.90	18.35	.53	.35	.11	.25	5.81	83.	340.	1.	95.	<1.	68.2	26.1	94.4	100.2
153-25	1223.0-1233.0	37.8	44.4	9.76	14.63	.50	.24	.07	.19	4.83	81.	180.	3.	85.	<1.	73.2	20.8	94.8	99.7
153-26	1233.0-1243.0	32.2	35.1	17.23	28.32	.52	.19	.05	.10	12.73	70.	395.	1.	86.	<1.	57.8	40.2	98.5	111.2
153-27	1243.0-1253.0	52.2	56.9	2.36	3.24	.20	.09	.05	.08	.95	85.	120.	1.	ND	<1.	93.8	4.6	98.7	99.7
153-28	1253.0-1263.0	51.1	58.4	1.16	1.84	.17	.25	.05	.07	1.71	89.	15.	1.	ND	<1.	96.2	2.6	98.9	100.6
153-29	1263.0-1273.0	42.3	46.5	6.33	11.98	.39	.48	.19	.27	7.35	134.	205.	1.	45.	<1.	76.6	17.0	93.2	100.5
153-30	1273.0-1283.0	52.7	57.4	1.31	2.15	.26	.07	.07	.04	.70	145.	40.	1.	ND	<1.	94.6	3.1	97.7	98.4
153-31	1283.0-1293.0	37.6	44.4	3.98	5.03	.37	1.00	.47	.63	17.86	173.	225.	1.	205.	<1.	73.1	7.1	81.0	98.9
153-32	1293.0-1303.0	48.8	57.2	1.36	1.78	.15	.14	.08	.11	1.65	173.	330.	2.	ND	<1.	94.2	2.5	96.9	98.8
153-33	1303.0-1313.0	47.7	53.6	4.04	6.46	.38	.20	.07	.10	2.14	101.	160.	1.	ND	<1.	88.3	9.2	97.7	99.8
153-34	1313.0-1323.0	50.6	56.4	1.75	2.53	.43	.11	.08	.04	1.14	145.	50.	1.	ND	<1.	93.0	3.6	96.8	97.9
153-35	1323.0-1333.0	46.9	52.5	4.64	7.90	.27	.14	.05	.09	2.16	134.	145.	1.	ND	<1.	86.6	11.2	97.8	100.0

SHUBENACADIE-STEMIACKE DEPOSIT - HANTS-COLCHESTER AREA Chemical analyses drillholes 153-1 and 58-1

SAMPLE	INTERVAL (FEET)	PERCENTAGE										PARTS PER MILLION					MINERALS FROM CL		TOTALS	
		NA2O	CL	CAO	SD4	CO2	MGO	K2O	FE2O3	INSOL	BR	SR	RB	B	U2O3	NaCl	FROM SO4	WITHOUT INSOL	WITH INSOL	
153-36	1333.0-1343.0	47.6	56.9	1.74	2.54	.27	.17	.10	.16	2.56	140.	95.	<1.	90.	<1.	93.8	3.6	97.6	100.1	
153-37	1343.0-1353.0	47.6	55.4	2.49	3.34	.45	.19	.08	.12	2.34	132.	70.	<1.	ND	<1.	91.3	4.7	96.4	98.7	
153-38	1353.0-1363.0	48.2	57.5	1.20	2.03	.20	.11	.09	.07	1.25	126.	80.	1.	ND	<1.	94.8	2.9	97.7	98.9	
153-39	1363.0-1373.0	47.6	56.1	2.67	3.87	.32	.15	.07	.04	1.89	148.	85.	1.	ND	<1.	92.5	5.5	98.3	100.2	
153-40	1373.0-1382.0	44.9	53.3	2.85	5.11	.17	.22	.15	.16	3.94	178.	70.	<1.	80.	<1.	87.8	7.3	94.9	98.8	
153-41	1397.0-1410.0	40.3	46.7	7.58	12.81	.40	.47	.08	.16	6.81	107.	410.	1.	65.	<1.	76.9	18.2	95.2	102.0	
153-42	1410.0-1420.0	49.0	54.1	2.77	4.38	.28	.19	.09	.15	2.65	175.	74.	1.	ND	<1.	89.2	6.2	95.6	98.2	
153-43	1420.0-1430.0	50.4	55.7	2.57	4.04	.36	.18	.07	.10	1.84	126.	93.	1.	ND	<1.	91.8	5.7	97.7	99.6	
153-44	1430.0-1440.0	39.4	41.7	9.81	18.31	.68	.50	.11	.19	10.91	134.	430.	2.	135.	<1.	68.7	26.0	94.1	105.0	
153-45	1440.0-1450.0	47.9	54.3	2.00	4.33	.35	.24	.11	.17	3.52	137.	70.	1.	ND	<1.	89.5	6.1	95.3	98.8	
153-46	1450.0-1460.0	33.5	37.2	14.62	25.46	.48	.20	.07	.13	14.75	85.	370.	1.	80.	<1.	61.3	36.2	97.3	112.0	
153-47	1460.0-1470.0	43.9	49.4	6.62	11.40	.19	.11	.05	.07	3.27	93.	425.	2.	80.	<1.	81.4	16.2	97.5	100.8	
153-48	1470.0-1480.0	51.6	58.2	1.12	1.78	.35	.07	.05	.07	1.33	96.	80.	2.	ND	<1.	95.9	2.5	98.5	99.8	
153-49	1480.0-1490.0	48.0	55.0	4.36	5.48	.25	.08	.05	.07	1.50	115.	175.	1.	ND	<1.	90.6	7.8	99.2	100.7	
153-50	1490.0-1500.0	37.2	41.6	11.30	20.93	.33	.02	.07	.11	12.01	85.	370.	1.	100.	<1.	68.5	29.7	97.5	109.5	
153-51	1500.0-1510.0	44.3	50.5	5.01	7.89	.20	.24	.10	.18	7.55	77.	170.	1.	<45.	<1.	83.3	11.2	94.7	102.3	
153-52	1510.0-1520.0	49.6	56.6	2.01	3.92	.17	.07	.04	.05	.99	107.	65.	1.	ND	<1.	93.3	5.6	98.7	99.6	
153-53	1520.0-1530.0	49.6	57.7	2.22	3.45	.36	.03	.04	<.01	.22	112.	33.	1.	ND	<1.	95.1	4.9	100.1	100.4	
153-54	1530.0-1539.7	46.7	57.6	1.84	3.41	.14	.06	.04	<.01	.34	88.	55.	1.	ND	<1.	95.0	4.8	99.7	100.1	
153-55	1539.7-1554.1	31.6	34.1	11.96	19.73	.44	1.33	.56	.69	22.47	69.	455.	23.	155.	<1.	56.3	28.0	84.6	107.0	
153-56	1560.6-1570.6	32.6	37.7	14.44	25.16	.49	.23	.10	.19	13.31	99.	370.	1.	165.	<1.	62.0	35.7	97.6	110.9	
153-57	1570.6-1580.6	44.9	53.2	4.59	7.99	.01	.11	.04	.06	1.62	74.	105.	<1.	ND	<1.	87.7	11.3	99.0	100.6	
153-58	1580.6-1590.6	47.1	52.2	3.96	7.32	.24	.16	.07	.11	2.74	92.	134.	1.	45.	<1.	86.0	10.4	96.2	98.9	
153-59	1590.6-1600.6	34.8	40.8	12.36	20.99	.16	.29	.06	.15	10.96	26.	365.	<1.	80.	<1.	67.3	29.8	97.1	108.1	
153-60	1600.6-1610.6	46.3	54.7	2.89	5.28	.20	.08	.05	.08	1.75	69.	147.	<1.	50.	<1.	90.1	7.5	97.4	99.2	
153-61	1610.6-1620.6	44.7	57.2	1.69	2.46	.01	.11	.06	.04	1.43	69.	50.	1.	ND	<1.	94.2	3.5	97.9	99.3	
153-62	1620.6-1630.6	33.6	40.7	12.63	22.14	.25	.20	.09	.15	11.34	69.	600.	5.	185.	<1.	67.0	31.4	98.2	109.5	
153-63	1630.6-1640.6	33.1	37.6	15.24	25.98	.29	.18	.07	.12	14.80	53.	475.	4.	165.	<1.	62.0	36.9	98.9	113.7	
153-64	1640.6-1649.6	46.0	51.4	5.56	9.84	.20	.09	.04	.06	1.93	74.	155.	2.	ND	<1.	84.7	14.0	98.5	100.5	
153-65	1653.8-1663.8	49.6	57.9	1.45	2.14	.21	.07	.04	.04	3.66	74.	46.	1.	ND	<1.	95.3	3.0	98.5	102.2	
153-66	1663.8-1673.8	47.1	55.7	2.95	5.55	.10	.06	.05	.05	1.03	99.	130.	1.	ND	<1.	91.8	7.9	99.5	100.5	
153-67	1673.8-1683.8	46.6	52.9	4.80	8.38	.04	.07	.05	.07	1.02	99.	205.	<1.	ND	<1.	87.2	11.9	99.0	100.0	
153-68	1683.8-1693.8	49.7	56.1	2.07	3.28	.10	.09	.07	.07	1.52	104.	65.	1.	50.	<1.	92.4	4.7	97.2	98.7	
153-69	1693.8-1703.8	43.6	48.6	6.51	12.45	.20	.10	.08	.08	4.51	82.	338.	<1.	85.	<1.	80.1	17.7	97.3	101.8	
153-70	1703.8-1713.8	48.0	57.9	.87	1.26	.09	.08	.06	.04	1.24	143.	16.	<1.	125.	<1.	95.3	1.8	97.7	98.5	

SHUBENACADIE-STEWIACKE DEPOSIT - HANTS-COLCHESTER AREA Chemical analyses drillholes 153-1 and 58-1

SAMPLE	INTERVAL (FEET)	PERCENTAGE										PARTS PER MILLION					MINERALS FROM 504		TOTALS	
		NA2O	CL	CAO	SO4	CO2	MGO	K2O	FE2O3	INSOL	BR	SR	KB	B	U2O3	NaCl	CaSO4	WITHOUT INSOL	WITH INSOL	
153-71	1713.6-1723.8	46.2	57.2	1.92	2.86	.16	.01	.08	<.01	.18	27.	52.	<1.	<1.	94.2	4.1	98.4	98.6		
153-72	1723.6-1737.0	50.3	57.3	2.06	3.50	.29	.02	.11	<.01	1.35	104.	56.	<1.	<1.	94.3	5.0	99.3	100.7		
153-73	1742.1-1752.0	44.9	49.0	6.22	14.47	.16	.10	.05	.02	9.55	82.	305.	<1.	<1.	80.8	20.5	99.7	109.3		
153-74	1752.0-1762.0	41.2	43.7	9.46	18.23	.45	.16	.07	.09	15.22	93.	355.	<1.	<1.	72.0	25.9	97.1	112.3		
153-75	1762.0-1775.0	53.1	58.2	1.79	1.33	.10	.07	.05	.03	1.17	99.	66.	<1.	<1.	95.9	1.9	97.8	99.0		
153-76	1779.3-1789.3	43.0	49.6	8.71	12.85	.09	.08	.05	.03	8.21	66.	170.	<1.	<1.	81.6	18.2	100.9	109.1		
153-77	1789.3-1795.2	50.1	56.0	2.65	4.60	.09	.08	.07	.07	2.18	79.	89.	<1.	<1.	92.3	6.5	98.8	101.0		
153-78	1799.0-1809.0	50.4	58.1	2.29	2.24	.20	.04	.06	<.01	.63	153.	5.	<1.	<1.	95.8	3.2	99.7	100.3		
153-79	1809.0-1813.8	52.5	57.6	1.87	3.08	.18	.05	.03	<.01	1.02	137.	45.	<1.	<1.	94.9	4.4	99.4	100.4		
153-80	1816.8-1826.8	53.4	59.1	1.61	1.42	.21	.08	.06	.02	.83	112.	18.	<1.	<1.	97.4	2.0	99.2	100.1		
153-81	1826.8-1837.0	45.1	49.5	6.81	12.89	.08	.08	.07	.03	3.62	82.	315.	1.	<1.	81.5	18.3	99.3	102.9		
153-82	1837.0-1847.0	53.3	58.9	1.88	2.40	.25	.07	.04	<.01	.08	88.	65.	1.	<1.	97.1	3.4	100.1	100.2		
153-83	1847.0-1857.0	46.7	53.5	4.65	7.39	.30	.17	.04	<.01	.66	104.	105.	<1.	<1.	88.2	10.5	98.9	99.6		
153-84	1857.0-1867.0	51.5	58.1	1.89	5.10	.30	.04	.02	<.01	.11	101.	54.	<1.	<1.	95.8	7.2	102.3	102.4		
153-85	1867.0-1877.0	46.7	58.7	1.09	2.24	.29	.07	.17	<.01	.77	179.	30.	2.	<1.	96.7	3.2	99.7	100.5		
153-86	1877.0-1888.1	46.9	58.4	2.54	3.21	.14	.03	.04	.06	.18	135.	39.	<1.	<1.	96.2	4.6	101.3	101.4		
153-87	1888.1-1895.6	27.3	30.0	22.50	36.12	.32	.09	.02	.04	29.95	100.	1100.	1.	194.	49.4	51.3	101.7	131.7		
153-88	1908.5-1918.5	50.2	59.1	1.74	1.74	.13	.06	.04	.03	.33	103.	<5.	1.	<1.	97.4	2.5	99.7	100.0		
153-89	1918.5-1928.5	50.8	59.0	1.78	2.63	.30	.04	.02	.03	.26	82.	50.	1.	<1.	97.2	3.7	101.1	101.3		
153-90	1928.5-1938.5	47.3	56.5	2.91	4.51	.16	.09	.02	.03	.55	111.	123.	1.	<1.	93.2	6.4	99.8	100.3		
153-91	1938.5-1948.5	45.1	54.7	4.00	6.88	.19	.08	.02	<.01	1.69	74.	143.	2.	<1.	90.1	9.8	99.8	101.5		
153-92	1948.5-1958.5	48.4	54.0	4.22	7.54	.14	.09	.02	.02	1.50	82.	152.	2.	<1.	88.9	10.7	99.5	101.0		
153-93	1958.5-1968.5	48.1	53.4	4.87	8.01	.11	.06	.06	<.01	2.71	74.	133.	2.	<1.	88.0	11.4	99.6	102.3		
153-94	1968.5-1978.5	48.4	52.9	4.24	7.38	.19	.05	.02	<.01	2.07	70.	154.	2.	<1.	87.2	10.5	97.6	99.7		
153-95	1978.5-1988.5	48.0	51.3	4.30	11.83	.49	.04	.03	<.01	5.03	37.	135.	2.	<1.	84.5	16.8	99.4	104.5		
153-96	1988.5-1998.5	46.7	52.7	4.32	8.88	.52	.04	.03	.03	4.50	8.	285.	2.	<1.	86.9	12.6	98.8	103.3		
153-97	1998.5-2008.5	50.4	55.9	2.90	5.28	.33	.05	.04	<.01	1.91	66.	82.	<1.	<1.	92.1	7.5	99.5	101.4		
153-98	2008.5-2018.5	50.6	56.4	2.43	4.54	.25	.05	.03	<.01	1.07	26.	90.	<1.	<1.	92.9	6.4	99.2	100.2		
153-99	2018.5-2027.2	49.1	55.9	2.76	3.97	.25	.06	.04	<.01	1.48	103.	94.	<1.	<1.	92.1	5.6	98.1	99.6		
153SS1	1825.5- 0.0	51.7	59.3	.80	1.40	.23	.04	.05	<.01	.10	116.	110.	1.	<1.	97.3	1.5	98.7	99.8		
153SS2	1825.6- 0.0	51.0	59.0	.59	1.06	.29	.09	.06	.08	1.01	79.	17.	1.	<1.	59.8	1.1	60.9	98.6		
153SS3	1030.5- 0.0	31.6	36.3	.50	.75	.07	1.21	.43	1.59	37.71	58.	13.	25.	88.	1.1	60.9	98.6			
153SS4	2236.0- 0.0	5.0	0.0	41.10	70.80	.13	.15	.05	.07	93.19	21.	2250.	2.	245.	0.0	100.5	100.3			
153SS5	2040.5- 0.0	52.3	60.5	.35	.19	.20	.04	.03	<.01	.10	102.	5.	1.	<1.	99.7	.3	100.2	100.3		
HC-551	995.0- 0.0	49.4	60.2	.30	.44	.20	.03	.07	.04	.17	71.	455.	1.	115.	99.2	.6	99.8	100.0		

SHUBENACADIE-STEWIACKE DEPOSIT - HANTS-COLCHESTER AREA Chemical analyses drillholes 153-1 and SB-1

SAMPLE	INTERVAL (FEET)	PERCENTAGE										PARTS PER MILLION					MINERALS		TOTALS	
		NA2O	CL	CAO	SO4	CO2	MGO	K2O	FE2O3	INSOL	BR	SR	RE	B	U2O3	NACL FROM CL	CASD4 FROM SO4	WITHOUT INSOL	WITH INSOL	
SE 1AB	1146.0-1156.0	50.0	57.2	2.05	3.20	.16	.53	.04	.71	71.	85.	1.	ND	<1.	94.3	4.5	99.0	99.7		
SE 1CD	1156.0-1167.0	51.1	58.2	1.97	3.51	.22	.04	.05	.42	114.	58.	1.	ND	<1.	95.9	5.0	100.9	101.3		
SE 2AB	1167.0-1177.0	47.5	56.4	2.65	4.50	.34	.04	.01	.26	92.	50.	1.	ND	<1.	93.0	6.4	99.4	99.7		
SE 2CD	1177.0-1187.3	39.0	49.9	5.94	12.28	.41	.03	.03	1.69	132.	205.	1.	ND	<1.	82.2	17.4	98.7	100.4		
SE 3AB	1308.7-1318.7	42.9	56.3	2.86	4.66	.22	.04	.05	.53	137.	155.	1.	ND	<1.	92.7	6.6	99.4	100.0		
SE 3C	1318.7-1325.5	42.4	55.6	3.22	5.77	.43	.05	.20	1.03	53.	123.	1.	ND	<1.	91.5	8.2	99.6	100.7		
SE 4	1328.2-1339.0	42.0	52.9	3.18	7.89	.29	.05	.03	2.04	100.	180.	1.	ND	<1.	87.2	11.2	97.8	99.9		
SE 5AB	1597.5-1608.0	43.2	54.3	2.85	3.73	.23	.28	.36	5.04	103.	75.	3.	ND	<1.	89.5	5.3	94.8	99.8		
SE 5CD	1608.0-1618.0	47.8	54.3	1.55	3.53	.40	.17	.11	4.5	134.	270.	10.	85.	<1.	89.5	5.0	94.2	99.3		
SE 6AB	1618.0-1628.0	48.9	53.5	1.63	2.94	.18	.30	.21	3.5	69.	110.	3.	45.	<1.	88.2	4.2	92.3	99.0		
SE 6CD	1628.0-1638.0	49.8	56.3	2.49	2.49	.23	.14	.10	2.86	105.	100.	2.	ND	<1.	92.7	3.5	98.4	99.2		
SE 7	1638.0-1648.0	43.7	51.2	1.94	2.94	.26	.46	.24	5.1	112.	109.	10.	45.	<1.	84.4	4.2	88.8	99.3		
SE 8	1648.0-1658.0	46.6	54.0	3.16	5.54	.18	.15	.10	1.4	126.	110.	10.	ND	<1.	89.0	7.9	94.8	100.1		
SE 9	1658.0-1668.0	51.4	57.1	1.54	2.74	.50	.11	.13	1.97	112.	95.	1.	ND	<1.	94.0	3.9	97.9	99.9		
SE10	1668.0-1678.0	47.7	54.6	2.51	4.66	.51	.16	.09	1.2	110.	85.	1.	ND	<1.	90.0	6.6	94.5	99.6		
SE11	1678.0-1688.0	46.6	53.4	3.34	5.32	.68	.25	.05	2.85	66.	105.	2.	ND	<1.	88.0	7.6	95.7	98.5		
SE12	1688.0-1698.0	49.5	58.1	.92	1.81	.34	.10	.09	1.1	107.	30.	2.	ND	<1.	95.7	2.6	98.2	99.3		
SE13	1698.0-1708.0	51.4	55.3	2.33	3.71	.34	.14	.09	1.2	129.	480.	1.	ND	<1.	92.0	5.3	97.4	99.6		
SE14	1708.0-1718.0	49.4	56.4	1.76	2.76	.37	.14	.11	2.40	99.	57.	1.	ND	<1.	93.0	3.9	97.0	99.4		
SE15	1718.0-1728.0	46.3	51.4	4.86	9.10	.20	.15	.08	1.4	121.	115.	1.	ND	<1.	84.7	12.9	97.3	100.2		
SE16	1728.0-1738.0	42.5	48.1	8.00	14.52	.46	.12	.04	7.38	102.	240.	1.	ND	<1.	79.3	20.6	99.6	107.0		
SE17	1738.0-1748.0	49.5	55.0	3.09	5.12	.31	.15	.08	1.0	113.	90.	1.	ND	<1.	90.6	7.3	97.9	99.8		
SE18	1748.0-1758.0	49.9	55.4	2.10	2.55	.38	.32	.10	1.4	107.	82.	1.	ND	<1.	91.3	3.6	95.4	99.5		
SE19	1758.0-1768.0	50.9	57.7	1.44	2.39	.22	.10	.05	.07	107.	50.	1.	ND	<1.	95.1	3.4	98.5	99.7		
SE20	1768.0-1778.0	48.2	55.3	2.96	5.16	.22	.11	.08	1.16	107.	100.	1.	ND	<1.	91.1	7.3	98.4	99.6		
SE21	1778.0-1788.0	48.7	54.9	2.55	4.58	.10	.18	.08	1.3	123.	205.	3.	95.	<1.	90.4	6.5	98.8	99.7		
SE22A	1788.0-1795.7	50.5	57.7	1.29	2.13	.11	.10	.09	1.42	121.	44.	2.	ND	<1.	95.1	3.0	98.2	99.6		
SE23	1805.3-1815.3	39.3	46.1	6.77	13.55	.30	.43	.15	2.6	129.	205.	8.	180.	<1.	76.0	19.2	94.4	100.8		
SE24	1815.3-1825.3	48.6	53.9	2.90	5.27	.33	.33	.10	3.69	113.	125.	6.	100.	<1.	88.8	7.5	96.1	99.8		
SE25	1825.3-1835.3	40.6	44.5	9.99	17.00	.41	.21	.05	1.1	102.	270.	3.	45.	<1.	73.3	24.1	97.5	105.5		
SE26	1835.3-1845.3	40.6	45.7	9.76	16.82	.32	.19	.06	4.95	94.	310.	2.	55.	<1.	75.4	23.9	99.2	104.1		
SE27	1845.3-1855.3	44.3	49.4	6.51	12.61	.47	.15	.05	3.09	88.	200.	1.	45.	<1.	81.4	17.9	98.7	101.8		
SE28	1855.3-1865.3	52.6	58.5	1.20	1.94	.19	.05	.08	1.01	96.	40.	1.	ND	<1.	96.4	2.8	99.2	99.6		
SE29	1865.3-1876.6	48.3	55.7	2.62	5.07	.28	.07	.23	.05	85.	80.	1.	ND	<1.	91.8	7.2	98.8	99.8		
SE30	1880.7-1890.7	40.5	46.3	7.14	14.28	.17	.32	.13	6.26	110.	280.	2.	245.	<1.	76.2	20.3	95.6	101.9		

SHUBENACADIE-STEWIACKE DEPOSIT - HANTS-COLCHESTER AREA Chemical analyses drillholes 153-1 and 58-1

SAMPLE	INTERVAL (FEET)	PERCENTAGE										PARTS PER MILLION					MINERALS		TOTALS	
		Na2O	Cl	CaO	SO4	CO2	MgO	K2O	FE2O3	INSOL	BK	SR	RB	B	U2O3	NaCl FROM CL	CaSO4 FROM SO4	WITHOUT INSOL	WITH INSOL	
SE31	1890.7-1900.7	43.5	50.0	5.75	11.04	.24	.22	.10	.16	3.03	115.	225.	2.	85.	<1.	82.4	15.7	97.5	100.6	
SE32	1900.7-1910.7	46.9	54.9	3.16	4.79	.16	.13	.09	.06	1.70	143.	68.	1.	45.	1.	90.4	6.8	97.5	99.2	
SE33	1910.7-1920.7	32.9	37.2	14.77	27.18	.29	.17	.06	.06	9.80	60.	500.	1.	120.	1.	61.3	38.6	99.1	108.9	
SE34	1920.7-1930.7	42.0	48.9	7.38	14.48	.21	.13	.07	.15	1.94	69.	340.	1.	90.	1.	80.5	20.6	100.3	102.2	
SE35	1930.7-1940.7	41.5	48.7	7.67	13.81	.32	.13	.05	.07	1.08	82.	265.	1.	ND	1.	79.4	19.6	98.8	99.8	
SE36	1940.7-1950.7	47.8	56.0	2.44	4.61	.10	.07	.04	.04	.80	79.	100.	1.	ND	1.	92.3	6.5	98.5	99.5	
SE37	1950.7-1960.7	45.5	52.8	4.75	8.27	.26	.07	.03	.03	.29	60.	155.	1.	ND	1.	86.9	11.7	98.6	98.9	
SE38	1960.7-1970.7	48.7	56.5	1.81	3.39	.22	.08	.07	.03	1.07	77.	95.	1.	ND	1.	93.2	4.8	97.9	98.9	
SE39A	1970.7-1976.5	39.6	46.2	9.84	16.96	.08	.08	.03	.01	.78	69.	235.	1.	ND	1.	76.1	24.1	100.1	100.9	
SE40	1982.2-1992.2	46.6	54.1	4.30	7.40	.31	.08	.04	.05	.99	74.	130.	1.	ND	1.	89.2	10.5	99.6	100.6	
SE41	1993.5-2003.5	50.2	57.2	2.18	2.93	.12	.08	.03	.04	.35	90.	160.	1.	70.	1.	94.2	4.2	98.7	99.1	
SE42	2003.5-2013.5	51.5	58.7	.71	1.40	.37	.07	.04	.03	.77	77.	36.	1.	ND	1.	96.7	2.0	98.6	99.4	
SE43	2013.5-2023.5	46.8	57.5	1.95	3.48	.09	.06	.04	.01	.39	88.	115.	1.	ND	1.	94.8	4.9	99.6	100.0	
SE44	2023.5-2033.5	45.5	57.2	2.45	4.05	.22	.05	.04	.03	.36	90.	60.	1.	ND	1.	94.3	5.8	100.1	100.5	
SE45	2033.5-2043.5	41.0	51.6	4.96	9.43	.11	.13	.06	.08	2.42	78.	175.	1.	ND	1.	85.0	13.4	98.0	100.4	
SE46	2043.5-2053.5	47.7	59.1	.58	1.31	.18	.06	.07	.07	.84	102.	30.	1.	ND	1.	97.4	1.9	99.2	100.0	
SE47A	2053.5-2061.5	38.0	49.6	7.50	13.59	.19	.05	.03	.05	3.57	102.	235.	1.	ND	1.	81.7	19.3	100.7	104.3	
SE48	2077.5-2087.5	55.8	59.2	.42	1.53	.26	.04	.05	.03	.43	88.	38.	1.	ND	1.	97.6	2.2	99.5	99.9	
SE49	2087.5-2097.5	54.4	60.0	.40	.97	.08	.03	.04	.03	.33	93.	16.	1.	ND	1.	98.8	1.4	100.0	100.4	
SE50	2107.5-2117.5	44.7	50.2	3.67	11.80	.09	.06	.04	.04	7.55	58.	1000.	1.	ND	1.	82.7	16.8	97.2	104.7	
SE52	2117.5-2127.5	51.2	54.5	3.72	6.79	.20	.04	.03	.03	.29	58.	165.	1.	ND	1.	89.8	9.6	99.3	99.6	
SE53	2127.5-2137.5	52.2	57.6	6.13	3.20	.07	.05	.02	.02	.20	44.	55.	1.	ND	1.	95.0	4.5	102.6	102.8	
SE54	2137.5-2147.5	47.4	51.9	6.08	10.30	.23	.07	.03	.04	.61	44.	215.	1.	ND	1.	85.5	14.6	100.2	101.8	
SE55	2147.5-2157.5	45.6	51.1	6.17	11.15	.12	.05	.03	.04	.97	66.	250.	1.	ND	1.	94.2	15.8	99.8	100.8	
SE56	2157.5-2167.5	45.3	50.4	6.35	9.59	.18	.13	.11	.30	3.98	85.	105.	1.	ND	1.	83.1	13.6	97.2	101.2	
SE57	2167.5-2177.5	40.6	46.7	8.53	13.64	.19	.17	.16	.29	4.60	66.	560.	3.	ND	1.	77.0	19.4	96.8	101.4	
SE58	2177.5-2187.5	24.2	27.9	6.68	10.20	.13	.96	1.16	3.68	36.66	71.	495.	41.	240.	2.	46.0	14.5	61.0	97.7	
SE59	2187.5-2194.7	36.7	41.1	2.66	4.21	.25	.57	.96	1.61	24.23	104.	185.	39.	220.	1.	67.8	6.0	73.9	98.1	
SE60	2194.7-2204.0	40.9	48.3	3.31	6.10	.23	.27	.41	.64	11.13	132.	110.	11.	100.	2.	79.6	8.7	88.1	99.2	
SE61	2214.0-2223.0	32.0	38.9	5.51	7.93	.23	.54	.90	1.65	23.28	129.	290.	37.	300.	1.	64.1	11.3	76.0	99.3	
SE62	2223.0-2235.3	42.1	46.7	7.68	13.50	.13	.18	.17	.29	4.12	148.	400.	3.	60.	1.	76.9	19.2	96.0	100.1	
SE63	2235.3-2245.5	49.9	57.1	2.08	3.45	.23	.05	.05	.05	.59	173.	105.	1.	ND	1.	94.0	4.9	99.0	99.4	
SE64	2245.5-2255.5	42.3	52.0	5.45	8.65	.14	.17	.12	.16	1.98	167.	275.	1.	ND	1.	85.8	12.3	98.3	100.3	
SE65	2255.5-2262.4	43.9	52.0	5.44	9.33	.14	.11	.04	.25	1.19	85.	285.	1.	ND	1.	85.7	13.2	98.9	100.1	

SHUBENACADIE-STEMIACKE DEPOSIT - HANTS-COLCHESTER AREA Chemical analyses drillholes 153-1 and 58-1

SAMPLE	INTERVAL (FEET)	PERCENTAGE										PARTS PER MILLION				MINERALS		TOTALS	
		Na2O	CL	CaO	SD4	CO2	MGO	K2O	FE2O3	INSOL	BR	SR	RB	R	U2O3	NaCl FROM SO4	CaSO4 FROM SO4	WITHOUT INSOL	WITH INSOL
SE66	2271.8-2281.8	48.7	57.6	2.22	2.77	.14	.05	.04	<.01	.79	69.	135.	1.	ND	94.9	3.9	99.3	100.1	
SE67	2281.8-2291.8	49.9	57.7	2.14	3.14	.30	.05	.04	<.01	1.29	60.	54.	1.	ND	95.1	4.5	99.7	101.0	
SE68	2291.8-2301.8	51.5	57.3	1.82	3.14	.32	.05	.03	<.01	.26	66.	40.	1.	ND	94.3	4.5	98.8	99.0	
SE69	2301.8-2311.8	52.8	57.5	1.77	2.81	.64	.05	.03	<.01	.22	47.	100.	1.	ND	94.8	4.0	98.8	99.1	
SE70	2311.8-2321.8	50.7	58.0	2.24	3.09	.26	.13	.03	<.01	.22	41.	90.	1.	ND	95.6	4.4	100.3	100.5	
SE71	2321.8-2331.8	50.2	57.6	1.55	3.21	.07	.06	.02	<.01	.23	36.	95.	1.	ND	94.5	4.6	97.3	94.5	
SE72	2331.8-2341.8	48.6	57.6	2.04	2.37	.37	.04	.02	<.01	.41	47.	92.	1.	ND	94.9	3.4	98.7	99.1	
SE73	2341.8-2351.8	48.5	56.9	2.19	4.36	.34	.03	.03	<.01	.30	44.	103.	1.	ND	93.7	6.2	99.6	99.9	
SE74	2351.8-2361.8	51.0	56.8	2.26	3.68	.82	.04	.02	<.01	.88	49.	120.	1.	ND	93.6	5.2	98.9	99.8	
SE75	2361.8-2371.8	49.8	56.4	1.50	2.22	.48	.04	.02	<.01	.35	36.	60.	1.	ND	96.3	3.2	99.6	99.9	
SE76	2371.8-2381.8	47.0	56.7	2.38	3.50	.40	.04	.03	.01	.72	38.	95.	1.	ND	93.5	5.0	98.7	99.4	
SE77	2381.8-2391.8	49.0	55.4	4.13	4.67	.77	.03	.02	.03	1.22	36.	105.	1.	ND	91.3	6.6	98.9	100.2	
SE78	2391.8-2401.8	49.0	56.6	2.87	4.04	.53	.04	.03	<.01	.90	30.	120.	1.	ND	93.2	5.7	99.3	100.2	
SE79	2401.8-2411.8	49.1	54.3	4.81	7.45	.50	.04	.02	<.01	2.25	38.	135.	1.	ND	89.5	10.6	100.4	102.7	
SE80	2411.8-2421.8	47.7	53.5	4.75	7.64	.52	.03	.03	.03	2.11	47.	185.	1.	ND	88.2	10.8	99.3	101.4	
SE81	2421.8-2422.8	47.2	53.3	3.94	6.14	.69	.03	.01	<.01	1.76	69.	185.	1.	ND	91.1	8.7	100.1	101.9	
SE82	2431.8-2441.8	47.2	54.9	4.75	5.82	.68	.04	.02	<.01	2.44	30.	975.	1.	ND	70.4	8.3	99.7	102.1	
SE83	2441.8-2451.8	47.5	53.8	4.38	6.36	.67	.03	.04	<.01	3.55	27.	275.	1.	ND	88.6	9.0	98.1	101.7	
SE84	2451.8-2461.8	50.0	56.1	3.19	4.06	.57	.04	.03	<.01	1.62	52.	160.	1.	ND	92.4	5.8	98.7	100.3	
SE85	2461.8-2471.8	52.5	57.0	2.42	3.36	.54	.03	.03	<.01	1.09	58.	115.	1.	ND	93.9	4.8	99.0	100.1	
SE86	2471.8-2481.8	47.4	55.7	3.33	4.44	.51	.04	.03	<.01	1.78	52.	125.	1.	ND	91.7	6.3	98.6	100.3	
SE87	2481.8-2490.2	43.8	51.1	6.67	10.33	.50	.09	.03	.02	4.27	77.	160.	1.	ND	84.2	14.7	99.3	103.6	
SE851	2083.0- 0.0	51.6	59.3	.56	1.00	.28	.03	.04	.04	.14	114.	5.	3.	ND	97.7	1.4	99.1	99.2	
SE852	2083.1- 0.0	51.4	58.9	.56	1.18	.41	.08	.06	.07	.77	132.	15.	1.	ND	97.1	1.7	98.6	99.4	
SE853	1855.5- 0.0	51.4	59.1	.37	.61	.32	.11	.06	.07	1.43	211.	5.	3.	ND	97.4	.9	98.3	99.7	
SE854	2495.0- 0.0	.9	1.6	39.79	70.52	.64	.58	.04	<.01	69.65	14.	15.	3.	ND	2.6	99.9	101.5	171.1	

MALACASH DEPOSIT-CUMBERLAND AREA

Table 4-2. Analyses of upper 17 feet of Malacash Mine salt body* (after Ellsworth, 1926)

Component	Samples		
	1 (Per cent)	2 (Per cent)	3 (Per Cent)
A. Part soluble in hot water			
Sodium (Na)	38.57	23.15	37.42
Potassium (K)	0.17	0.16	0.14
Calcium (Ca)	0.18	0.81	0.31
Magnesium (Mg)	0.01	0.06	0.03
Chlorine (Cl)	59.58	35.85	57.85
Sulphuric acid (SO ₄)	0.64	3.05	1.07
Iodine (I)	none	none	none
Bromine (Br)	none	none	none
Subtotal	99.15	63.08	96.82
8. Part insoluble in hot water			
Silica (SiO ₂)	0.61	21.85	1.60
Ferric oxide and alumina (Fe ₂ O ₃ and Al ₂ O ₃)	0.31	7.90	0.77
Lime (CaO)	0.06	0.25	0.06
Magnesia (MgO)	0.07	2.15	0.19
Soda (Na ₂ O)	-	0.93	0.09
Potash (K ₂ O)	-	trace	
Sulphuric anhydrite (SO ₃)	0.10	0.22	
Organic (combustible matter)	0.25	2.06	0.30
Subtotal	1.40	35.36	3.01
Total	100.55	98.44	99.83

Sample 1: 16 feet to 17 feet depth
 Sample 2: 8 feet to 16 feet depth
 Sample 3: top of salt to 8 feet depth

*Sampled by A. O. Hayes (1920). Analyst, S. W. Baridon, Mines Branch, Department of Mines, Ottawa, Ontario **Analyst, H. C. Rickaby ***Analyst, Commercial

Analyses of a sample evidently from the potash zone**

Component	Per cent
Na	33.55
K	4.58
Cl	59.20
CaO	0.21
SO ₃	0.30
Mg	0.08
Insoluble	0.35
Water	0.13

Hypothetical composition

Component	Per Cent
NaCl	90.38
KCl	8.80
MgCl ₂	0.19
CaSO ₄	0.49

Average analyses of salt bed worked during 1924***

Component	Per cent
Insoluble in water	0.36
Iron oxide and alumina	traces
Calcium sulphate	0.401
Calcium chloride	0.118
Magnesium chloride	0.026
Sodium chloride	99.095

Analysis of selected pure white salt marketed as table and grocery salt, 1924***

Component	Per cent
Insoluble in water	0.04
Iron oxide and alumina	traces
Calcium sulphate	0.24
Magnesium sulphate	0.30
Sodium sulphate	0.0
Sodium chloride	99.63

MALAGASH DEPOSIT-CUMBERLAND AREA

Table 4-3. Analyses of samples representing channel sampling foot by foot, normal to dip of strata*

Series	KCl	K ₂ O equivalent	H ₂ O insoluble after ignition	Total H ₂ O	KCl on soluble salt basis	K ₂ O on soluble salt basis
	Per cent	Per cent	Per cent	Per cent	Per cent	Per cent
A 1	2.67	1.69	2.94	0.49	2.76	1.75
2	6.31	3.99	2.04	0.31	6.46	4.08
3	2.41	1.52	0.95	0.17	2.44	1.54
4	6.32	4.00	2.10	0.34	6.48	4.10
5	0.85	0.53	10.98	1.20	0.97	0.60
6	1.16	0.73	13.69	1.27	1.36	0.86
Average	3.29	2.08	5.45	0.63	3.41	2.15
D 1	1.01	0.64	15.79	1.94	1.23	0.78
2	0.89	0.56	11.03	1.79	1.02	0.64
3	0.74	0.47	7.53	1.13	0.81	0.51
4	1.22	0.77	10.47	1.98	1.39	0.84
5	0.92	0.58	6.25	1.15	0.98	0.62
6	0.63	0.40	4.65	1.03	0.67	0.42
Average	0.90	0.57	9.29	1.50	1.01	0.63
E 1	0.66	0.42	3.06	0.51	0.68	0.43
2	0.81	0.51	3.71	0.57	0.84	0.53
3	4.32	2.73	2.55	0.27	4.44	2.81
4	3.53	2.23	1.32	0.24	3.58	2.27
5	2.66	1.68	1.29	0.34	2.70	1.71
6	1.21	0.76	11.36	1.74	1.39	0.87
7	11.52	7.28	1.04	0.29	11.67	7.37
Average of 1 to 6	2.19	1.39	3.88	0.61	2.27	1.44

Note: H₂O insoluble weighed after ignition; hence results are appreciably low due to loss of water and combustion of considerable organic matter.

*Analyst, H. V. Ellsworth (1926, Table 1)

Table 4-4 Composite average of series A samples*

Component		Per Cent
Salts readily soluble in water		93.56
Insoluble, washed Cl free, but containing anhydrite		6.44
Part soluble in water	Part insoluble in water	Per cent
Na (diff.)	SiO ₂ (total)	57.11
K	SiO ₂ (combined)	23
K ₂ O	SiO ₂ (uncombined**)	54
KCl	Fe ₂ O ₃	4.75
Ca	FeO	-
Mg	Al ₂ O ₃	13.18
Fe	TiO ₂	0.69
Al	MnO	0.06
Cl	Cr ₂ O ₃ ***	0.08
Br	V ₂ O ₃	ND
I	CaO	3.30
SO ₄	MgO	6.50
CO ₃	K ₂ O	1.83
B ₂ O ₃	Na ₂ O	0.18
H ₂ O	SO ₃	4.15
	CO ₂	1.32
	P ₂ O ₅	0.10
	B ₂ O ₃	ND
	Cl	0.03
	H ₂ S	trace
	Co, Ni	ND
	Carbon	1.09
	H ₂ O(-110°)	0.71
	H ₂ O(+110°)	4.04
Total	Total	99.12

Calculated combinations		Per cent
NaCl	94.91	
KCl	3.16	
CaSO ₄	1.47	
CaCl ₂	0.11	
MgCl ₂	0.08	
NaBr	0.05	
H ₂ O	0.45	
Total	100.23	

Calculated approximate mineral composition of series A samples as a whole		Per cent
NaCl	8.79	
KCl	2.96	
CaSO ₄	1.82	
CaCl ₂	0.09	
MgCl ₂	0.07	
NaBr	0.04	
Quartz and free silica	2.2	
Silicates of Al, Mg, K, Fe, Ti, etc.	2.9	
Carbonates (Mg or other)	0.17	
Hematite	0.25	
Carbon	0.06	
H ₂ O	0.72	
Total	100.07	

Insoluble residue: Calculated approximate mineral composition		Per cent
Quartz crystals and free silica	33-34	
Silicatea	45-46	
Anhydrite	7.06	
Hematite	4	
Carbonates	2.6	
Water	4.75	
Carbon	1.09	

ND = not detected

*Analyst, H. V. Ellsworth (1926); one hundred grams each of the ground series A samples were mixed together and used for a more complete average analyses

**quartz crystals and silica possibly of organic origin

***verified by duplicate determinations; possibly from blasting powder

Average of Series B samples*

Component	Per cent	Per cent
Salts readily soluble in water	97.99	
Insoluble, washed Cl free but containing anhydrite	2.10	
Part soluble in water		
Component	Per cent	Component
Na (diff.)	37.48	SiO ₂ (total)
K	1.85	Al ₂ O ₃
K ₂ O	2.23	Fe ₂ O ₃
KCl	3.51	TiO ₂
Ca	0.21	MnO
Mg	0.006	CaO
Fe	ND	MgO
Al	ND	K ₂ O
Cl	59.64	Na ₂ O
Br	0.0005	SO ₃
SO ₄	0.49	CO ₂
CO ₃	trace	H ₂ O
H ₂ O	0.32	Carbon
Total	100.00	Total
		Per cent
		43.78
		11.78
		2.99
		0.62
		0.06
		10.85
		5.96
		1.68
		0.12
		14.36
		1.28
		4.31
		present
		97.79

Calculated Combinations

Component	Per cent
NaCl	95.57
KCl	3.51
CaSO ₄	0.71
CaCl ₂	trace
MgCl ₂	0.02
NaBr	0.006
H ₂ O	0.45
Total	100.26

Calculated approximate mineral composition of Series B samples as a whole

Component	Per cent
NaCl	93.56
KCl	3.44
CaSO ₄	1.20
CaCl ₂	trace
MgCl ₂	0.02
NaBr	0.006
Quartz crystals and free silica	0.45
Silicates	0.88
Carbonates	0.04
Hematite	0.04
Carbon	0.02
Water	0.54
Total	100.19

Calculated Approximate Mineral Composition

Component	Per cent
Quartz crystals and free silica	20-22
Silicates	41-43
Anhydrite	24-42
Carbonates	2.5
Hematite	2
Carbon	1-2
Water	4.31

*Analyst, H. V. Ellsworth (1926) ND = not detected

Average of Series C samples

Component	Per cent
Salts readily soluble in water	97.23
Insoluble, washed Cl free but containing anhydrite	2.77
Part soluble in water	
Component	Per cent
Na (diff.)	38.60
K	0.27
K ₂ O	0.33
KCl	0.52
Ca	0.27
Mg	0.013
Fe	none
Al	none
Cl	59.98
Br	0.020
I	ND
SO ₄	0.61
CO ₃	trace
H ₂ O	0.23
Total	100.00
Part insoluble in water	
Component	Per cent
SiO ₂	47.43
Al ₂ O ₃	13.04
Fe ₂ O ₃	4.49
TiO ₂	0.66
MnO	0.10
CaO	8.02
MgO	5.98
K ₂ O	2.16
Na ₂ O	0.23
SO ₃	11.17
CO ₂	1.03
H ₂ O	5.20
Carbon	present
Total	99.51

Calculated Combinations

Component	Per cent
NaCl	98.47
KCl	0.52
CaSO ₄	0.86
CaCl ₂	0.06
MgCl ₂	0.05
NaBr	0.02
H ₂ O	0.23
Total	100.21

Calculated approximate mineral composition of Series C samples as a whole

Component	Per cent
NaCl	95.75
KCl	0.50
CaSO ₄	1.39
CaCl ₂	0.05
MgCl ₂	0.05
NaBr	0.02
Quartz crystals and free silica	0.70
Silicates	1.25
Carbonates	0.05
Hematite	0.11
Carbon	0.03
Water	0.37
Total	100.27

Calculated Approximate Mineral Composition

Component	Per cent
Quartz crystals and free silica	24-26
Silicates	45-46
Anhydrite	18.99
Carbonates	2
Hematite	4
Carbon	1-2
Water	5.2

Table 4-4 Average of Series D samples*

Component	Per cent
Water soluble salts	88.89
H ₂ O insoluble	11.11

Part Soluble in Water

Pure-looking bed of rock salt 4 feet thick, 20 feet north of shaft, almost pure white except for a slight brownish tinge, and nonhygroscopic.

Component	Per cent
Na (diff.)	37.97
K	0.49
K ₂ O	0.59
KCl	0.93
Ca	0.65
Mg	0.095
Fe	None
Al	None
Cl	58.93
Br	0.015
I	None
SO ₄	1.39
H ₂ O	0.46
Total	100.00

Component	Per cent
Na(diff.)	38.55
K	0.43
Ca	0.20
Mg	0.001
Fe	None
Al H ₂ O soluble	None
Cl	59.78
Br	0.019
SO ₄	0.47
H ₂ O	0.07
Insoluble	0.48
Total	100.00

Selected Pale Yellowish Sylvite from Lens E7 in Malagash Mine.

Calculated Combinations

Component	Per cent
KCl	92.89
NaCl	6.48
Ca	0.02
Mg	0.008
Fe (H ₂ O soluble)	None
Al (H ₂ O soluble)	None
Br	0.096
I	None
SO ₄	0.03
H ₂ O	0.29
Insoluble	0.12
Total	99.94

Component	Per cent
	97.91
NaCl	0.82
KCl	0.67
CaSO ₄	None
CaCl ₂	0.004
MgCl ₂	0.024
NaBr	0.07
H ₂ O	0.48
Insoluble	
Total	99.97

*Analyst, H. V. Ellesworth, 1926

MALAGASH DEPOSIT - CUMBERLAND AREA
Malagash No. 1 Core samples (1 foot every 5 feet), analyses reported in per cent

Interval (ft.)	Sample Number	Moisture LOI	K (sol.)	K (total)	Insoluble	Na	Cl	Ca	Mg	SO ₄
700-701	5821/1	5.90	0.008		90.9	0.15	0.13	0.18	0.018	0.85
705-706	2	6.35	0.008		91.7	0.16	0.15	0.10	0.009	0.49
710-711	3	7.27	0.006		88.8	0.18	0.20	0.29	0.018	1.01
715-716	4	7.11	0.006		90.7	0.19	0.23	0.11	0.029	0.54
720-721	5	7.75	0.003	1.20	85.4	0.09	0.08	0.58	0.009	1.53
725-726	6	8.49	0.008	3.40	86.7	0.22	0.28	0.30	0.014	1.01
730-731	7	5.80	0.004	2.80	92.5	0.18	0.23	0.07	0.024	0.41
735-736	8	20.71	0.001*	0.06	66.6	0.003	0.02	1.14	0.029	2.79
740-741	9	20.70	0.001*	0.05	75.1	0.005	0.04	1.18	0.009	2.87
745-746	10	20.73	0.001*	0.07	66.1	0.008	0.02	1.17	0.018	2.87
750-751	11	7.85	0.015	2.4	88.9	0.27	0.40	0.21	0.029	0.80
755-756	12	5.01	0.018	2.3	92.4	0.18	0.25	0.13	0.009	0.55
760-761	13	6.48	0.009	2.6	90.5	0.28	0.53	0.10	0.018	0.54
765-766	14	13.34	0.005	0.80	78.5	0.17	0.24	0.94	0.018	2.44
770-771	15	20.76	0.001	0.04	67.1	0.003	0.02	1.19	0.009	2.87
773.5-773.8	16	20.74	0.001	0.05	63.5	0.007	0.02	1.21	0.014	2.93
775-776	17	10.31	0.01	1.30	82.6	0.40	0.63	0.46	0.024	1.33
780-781	18	20.75	0.001*	0.06	66.5	0.009	0.03	1.22	0.018	2.91
785-786	19	20.73	0.001*	0.06	67.2	0.009	0.03	1.20	0.018	2.90
790-791	20	19.40	0.001	0.15	69.1	0.03	0.15	1.22	0.018	2.95
795-796	21	20.49	0.001*	0.05	66.4	0.02	0.04	1.22	0.005	2.94

Malagash No. 1 Selected core sample, analyses reported in per cent

Depth (ft.)	Sample Number	Moisture	LOI	K (sol.)	Insoluble	Na	Cl	Ca	Mg	SO ₄
735	5818/11	14.5	6.10	0.01	66.82	0.015	0.11	1.17	0.039	2.89
774	/10	13.2	7.48	0.01**	68.62	0.015	0.21	1.15	0.019	2.81
777	/9	15.6	5.49	0.01**	66.28	0.020	0.39	1.22	0.019	2.89
786	/8	16.4	4.30	0.01	66.52	0.010	0.28	1.20	0.009	2.93
797	/7	15.7	5.95	0.01**	71.54	0.015	0.35	1.03	0.019	2.48
800	/6	4.8	3.63	0.025	86.62	0.435	1.52	0.42	0.004	1.09
803	/5	0.7	3.83	0.035	87.80	0.620	0.84	0.67	0.015	1.84
825	/4	2.3	3.55	0.030	87.59	0.560	0.78	0.26	0.015	0.81
829	/3	3.9	4.07	0.035	84.42	0.850	1.40	0.42	0.029	1.04
835	/2	15.7	4.99	0.01**	66.58	0.010	0.36	0.61	0.37	2.93
854	5818/1	3.0	4.75	0.38	75.85	1.10	2.25	0.61	0.029	1.60

Malagash No. 1 Selected core sample, analyses reported in per cent***

Depth (ft.)	Sample Number	K (sol.)	Insoluble	NaCl	Ca	Mg	SO ₄
866	5816/8	0.05	8.87	85.7	0.9	trace	0.80
876	/7	0.07	1.14	97.8	0.1	nil	0.50
890	/6	0.08	21.7	79.4	1.5	nil	0.75
961	/5	0.08	2.19	96.5	0.07	nil	0.20
966	/4	0.06	1.21	97.8	0.23	nil	0.40
996	/3	0.18	1.58	95.3	0.08	nil	0.05
1001	/2	0.21	2.41	97.8	0.07	nil	0.05
1002	5816/1	0.28	1.28	96.5	0.06	nil	nil

*less than 0.001

**Nova Scotia Department of Mines (1966a)

***results on oven dried samples

MALAGASH DEPOSIT - CUMBERLAND AREA
Chemical Analyses Wallace No. 1 core samples,* analyses reported in per cent

Interval (ft.)	Sample Number		Moisture	LOI	K (sol.)	K (total)	Insoluble	Br	NaCl	Ca	Mg	SO ₄
	NSDM	Lab										
2870.3-2872	1-1	S1077/6	0.07	0.45	0.07	0.17	3.5	0.0198	94	0.42	.01	1.00
2872-2878	1-2	S1077/4	1.01	2.60	0.14	1.05	35.7	0.0127	54.6	1.44	0.08	3.16
2875-2878	1-3	S1077/5	0.36	1.19	0.05	0.90	13.8	0.0170	82.3	0.77	0.10	1.76
2878-2881	1-4	S1077/2	1.01	3.17	0.07	0.90	37.7	0.0131	53.3	1.31	0.20	2.85
2881-2884	1-5	S1077/3	0.73	2.17	0.12	1.60	27.0	0.0134	65.8	0.94	0.09	2.40
2884-2887	1-6	S1077/1	1.05	2.49	0.08	0.75	28.8	0.0144	64.0	1.28	0.26	2.79
2938-2940.3	1-7	S1077/11	0.02	0.48	1.50	1.60	2.6	0.0213	90.4	0.34	0.06	0.71
2940.3-2942.8	1-8	S1077/9	0.77	1.83	0.20	0.70	18.1	0.0197	74.4	1.02	0.13	2.03
2960.8-2963.3	1-9	S1077/10	0.96	1.92	0.06	0.60	19.8	0.0190	71.4	1.17	0.12	2.36
2965.7-2968.1	1-10	S1077/7	0.81	1.16	0.14	0.55	14.3	0.0185	82.3	0.49	0.14	1.05
3027-3029	1-11	S1077/8	2.84	4.25	0.20	1.10	50.2	0.0190	38.4	1.20	0.25	2.12

Wallace No. 1, analyses reported in per cent

Interval (ft.)	Sample Number		Moisture	LOI	K (sol.)	K (total)	Insoluble	Br	NaCl	Ca	Mg	SO ₄
	NSDM	Lab										
2812-2816	1-12	S1081/1	0.23	0.31	0.05	0.50	2.92	0.0185	35.5	0.37	0.021	0.84
2816-2820	1-13	S1081/2	0.24	0.29	0.04	0.50	2.33	0.0175	96.6	0.41	0.018	0.92
2820-2827	1-14	S1081/3	0.16	0.28	0.04	0.50	1.77	0.0169	96.0	0.45	0.018	1.03
2887-2892	1-15	S1081/4	0.67	0.51	0.05	0.55	4.65	0.0203	23.9	0.41	0.070	0.87
2927.5-2932.5	1-16	S1081/5	0.28	0.63	0.04	0.80	9.72	0.0175	87.9	0.49	0.030	1.08
2932.5-2938	1-17	S1081/6	0.15	0.60	0.03	0.60	7.16	0.0180	90.8	0.42	0.018	0.92
2943-2947	1-18	S1081/7	0.72	1.77	0.10	1.00	22.01	0.0179	73.5	0.84	0.070	1.75
2955-2961	1-19	S1081/8	2.26	3.28	0.80	1.75	36.87	0.0192	54.5	0.74	0.076	1.18
2963.5-2966	1-20	S1081/9	1.38	2.55	0.10	1.25	37.66	0.0146	54.5	1.05	0.203	2.07
2971-2975	1-21	S1081/10	0.30	0.35	0.05	0.40	40.08	0.0202	96.0	0.48	0.073	1.10
2975-2980	1-22	S1081/11	1.38	2.88	1.0	1.40	21.91	0.0228	69.4	0.81	0.197	1.44
3382-3387	1-23	S1081/12	1.20	2.02	0.40	1.00	17.60	0.0192	76.1	0.89	0.048	1.45
3387-3391	1-24	S1081/13	0.59	1.28	0.20	0.70	8.89	0.0198	87.9	0.48	0.048	0.90
3391-3394	1-25	S1081/14	0.74	0.64	0.32	0.65	6.40	0.0175	92.5	0.36	0.055	0.73
2980-2984	1-26	S1081/15	0.22	0.33	0.70	0.85	2.82	0.0217	95.0	0.30	0.015	0.69
2991-2994.5	1-27	S1084/1	1.87	3.18	0.10	1.35	37.02	0.0205	55.4	0.84	0.20	1.50
2994-2997	1-28	S1084/2	0.39	1.21	0.08	0.55	12.17	0.0218	86.2	0.47	0.12	0.99
3006-3010	1-29	S1084/3	1.28	3.09	0.12	1.10	38.78	0.0187	54.5	0.92	0.13	1.68
3020-3023	1-30	S1084/4	0.10	0.67	0.06	0.35	5.76	0.0198	92.5	0.46	0.07	1.07
3023-3027	1-31	S1084/5	0.11	0.59	0.06	0.40	3.37	0.0197	94.5	0.45	0.05	0.97
3029-3031	1-32	S1084/6	0.10	0.43	0.06	0.35	2.63	0.0190	96.1	0.39	0.02	0.81
3110-3114	1-33	S1084/7	0.83	1.56	0.08	0.75	12.78	0.0184	82.7	0.48	0.15	0.88
3114-3118	1-34	S1084/8	0.13	0.22	0.05	0.15	2.27	0.0184	96.1	0.36	0.02	0.83
3120-3125	1-35	S1084/9	0.47	1.28	0.04	0.55	13.63	0.0202	82.4	0.57	0.06	1.11
3125-3130	1-36	S1084/10	0.35	1.46	0.04	0.60	14.65	0.0205	82.7	0.47	0.04	0.87
3900-3903	1-37	S1084/11	4.25	9.42	5.20	6.00	28.89	0.0416	40.6	0.88	1.89	0.65
3903-3906	1-38	S1084/12	3.92	14.29	5.76	5.75	36.41	0.0618	22.8	0.88	2.82	0.57
3806-3908	1-39	S1084/13	3.49	9.75	3.42	3.50	24.67	0.0390	50.3	0.80	1.70	0.74
3908-3914	1-40	S1084/14	5.20	12.68	4.50	6.00	33.17	0.0409	32.3	0.88	2.48	0.59

Interval (ft.)	Sample Number		K**	K*** (total)	K*** (sol.)	Na
	NSDM	Lab				
3900-3903	1-37	S1084/11	5.52	5.09		5.9
3903-3906	1-38	S1084/12	5.75			8.9
3906-3908	1-39	S1084/14	3.15	3.45	3.18	19.8
3908-3914	1-40	S1084/14	4.30			12.7

*Analyses by Nova Scotia Research Foundation (Nova Scotia Department of Mines, 1966a).

**Analysis by flame photometry

***Analysis by another lab

Wallace No. 1, analyses reported in per cent

Interval (ft.)	Sample Number		Moisture	LOI	K (sol.)	K (total)	Insoluble	Br	NaCl	Ca	Mg	SO ₄
	NSDM	Lab										
3919-3921	1-41	S1092/1	3.64	7.99	4.30	4.74	43.15	0.0496	20.3	1.04	2.43	0.47
3923-3928	1-42	/2	3.35	10.0	2.70	2.75	41.58	0.0542	25.4	1.08	1.58	0.52
3928-3933	1-43	/3	3.81	10.9	4.30	4.70	41.36	0.0433	27.9	1.00	2.50	0.49
3933-3937	1-44	/4	2.96	12.9	2.12	2.33	39.49	0.0360	33.0	1.20	1.31	0.57
3937-3942.5	1-45	/5	3.29	17.4	1.33	1.50	36.51	0.0264	44.4	1.04	0.73	0.63
3942.5-3946	1-46	/6	3.08	15.5	3.20	4.60	35.98	0.0291	39.4	1.80	0.48	0.64
3950-3954	1-47	S1100/1	3.15	6.53	3.70	3.70	40.07	0.0263	40.64	1.08	1.19	0.58
3954-3957	1-48	/2	2.91	5.42	4.70	5.15	34.71	0.0261	44.45	0.98	0.57	0.67
3957-3959	1-49	/3	2.90	5.70	5.60	6.00	34.21	0.0266	42.55	0.90	0.70	0.64
3959-3962	1-50	/4	1.64	4.57	4.05	5.40	27.84	0.0226	53.34	0.96	0.39	0.77
3962-3964	1-51	/5	1.21	3.89	1.00	1.26	27.04	0.0181	48.89	0.88	0.29	0.74
3964-3967	1-52	/6	2.63	5.47	3.80	4.25	34.36	0.0243	47.63	0.92	0.63	0.62
3967-3968.5	1-53	/7	3.65	6.75	6.80	6.80	38.02	0.0309	35.56	0.98	1.00	0.57
3968.5-3971.5	1-54	/8	3.79	7.08	3.00	3.00	40.61	0.0322	29.21	1.10	0.97	0.55
3971.5-3973.5	1-55	/9	0.70	2.33	1.06	1.05	12.53	0.0177	78.10	0.62	0.30	0.76
3973.5-3978	1-56	/10	0.17	0.80	0.38	0.80	4.37	0.0151	86.95	0.46	0.14	0.77
3978-3983	1-57	/11	0.15	1.22	0.53	0.63	5.81	0.0154	90.17	0.64	0.08	0.91
3983-3986	1-58	/12	0.44	1.87	0.60	0.78	10.56	0.0154	78.10	1.06	0.33	1.21
3986-3988	1-59	/13	0.90	3.08	0.96	1.00	20.49	0.0174	69.22	0.96	0.30	0.91
3988-3990	1-60	S1104/1	0.39	1.73	0.59	0.65	8.06	0.0164	83.19	0.68	0.17	0.90
3990-3992	1-61	/2	1.61	4.48	1.24	1.60	29.03	0.0210	58.12	1.24	0.35	0.86
3992-3994	1-62	/3	1.84	4.58	1.12	1.36	28.47	0.0200	58.12	1.20	0.45	0.90
3994-3997	1-63	/4	0.41	1.92	0.58	0.56	10.04	0.0162	80.01	0.64	0.18	0.88
3997-3998.5	1-64	/5	2.33	4.77	1.60	1.55	30.71	0.0231	54.61	1.24	0.61	0.83
3998.5-4001	1-65	/6	2.83	5.48	2.35	2.80	32.46	0.0256	50.80	1.04	0.64	0.65
4001-4003	1-66	/7	2.84	7.00	3.30	3.75	41.02	0.0345	35.56	1.40	0.70	0.60
4003-4005	1-67	/8	2.92	5.52	2.46	2.95	22.08	0.0272	58.56	0.84	0.56	0.83
4005-4008	1-68	/9	1.41	3.17	1.42	2.05	13.25	0.0217	73.03	0.76	0.50	0.80
4008-4010	1-69	/10	0.42	1.91	0.91	1.20	7.79	0.0164	81.28	0.40	0.28	0.66

Interval (ft.)	Sample Number		K*	K** (total)	K*** (sol.)	Na
	NSDM	Lab				
3919-3921	1-41	S1092/11	4.14	4.84	3.43	7.99
3923-3928	1-42	/12	2.84	4.06		10.00
3928-3933	1-43	/13	4.44			10.9
3933-3937	1-44	/14	2.98	2.68		12.9
3937-3942.5	1-45	/15	1.84			17.4
3942.5-3946	1-46	/16	4.30	4.14		15.5

*Analysis by flame photometry
 **Analysis by another lab

Interval (ft.)	Sample Number		K (avg.)	NaCl	Mg
	NSDM	Lab			
1-118	S1126/49		2.82	71.1	28.0
-119	/50		4.32	64.1	25.25
-120	/51		6.75	63.5	25.0
-121	S1128/1		3.96	73.0	28.75
-122	/2		3.98	71.1	28.0
-123	/3		2.64	74.3	29.25
-124	/4		5.66	55.9	22.0
-125	/5		2.24	83.8	33.0
-126	/6		1.76	87.6	34.5
-127	/7		1.22	85.7	33.75
-128	/8		1.89	78.1	30.75
-129	/9		1.44	74.9	29.5
-130	/10		2.00	72.4	28.5

MALAGASH DEPOSIT-CUMBERLAND AREA
Wallace No. 2, analyses in per cent

Interval (ft.)	Sample Number		Moisture	LOI	K (sol.)	K (total)	Insoluble	Br	NaCl	Ce	Mg	SO ₄
	NSDM	Lab										
1303-1305	2-70	S1107/1	0.14	0.67	0.22	0.36	8.05	0.0072	86.36	0.44	0.14	1.04
1305-1307	2-71	/2	0.22	0.81	0.69	0.80	11.59	0.0085	82.55	0.46	0.06	0.85
1307-1310	2-72	/3	0.14	0.93	0.74	0.82	11.78	0.0078	83.82	0.54	0.08	0.88
1310-1312	2-73	/4	0.36	0.92	1.30	1.57	12.58	0.0092	81.53	0.48	0.07	0.80
1312-1314	2-74	/5	0.04	0.67	0.27	0.42	8.66	0.0082	86.36	0.36	0.02	0.61
1322-1325	2-75	/6	0.37	1.72	4.93	5.40	16.04	0.0139	70.49	0.40	0.11	0.63
1335-1337	2-76	/7	1.42	3.92	1.44	2.37	25.67	0.0167	64.77	0.76	0.38	0.96
1339-1341	2-77	/8	0.19	1.09	1.84	2.16	7.61	0.0136	87.00	0.36	0.12	0.73
1344-1346	2-78	/9	0.51	2.10	3.18	3.90	13.13	0.0173	74.93	0.56	0.14	0.72
1350-1352	2-79	/10	1.25	3.73	2.63	2.85	16.64	0.0292	69.85	0.60	0.41	0.76
1365-1367	2-80	/11	0.59	2.18	1.02	1.34	14.82	0.0177	77.47	0.76	0.13	0.95
1372-1376	2-81	/12	1.59	3.91	1.47	1.70	10.95	0.0252	76.84	0.60	0.55	0.69
1379-1381	2-82	/13	1.88	3.85	1.58	1.60	10.39	0.0278	78.11	0.48	0.78	0.72
1384-1386	2-83	/14	1.10	2.56	1.01	1.00	2.22	0.0255	89.15	0.40	0.53	0.74
1386-1388	2-84	/15	1.99	4.04	1.23	1.26	20.17	0.0236	69.23	0.90	0.50	1.01
1390-1393	2-85	/16	0.64	2.39	1.03	1.25	15.86	0.0206	74.93	0.82	0.12	1.06
1421-1423	2-86	/17	1.09	2.73	1.18	1.20	5.91	0.0263	83.82	0.56	0.51	0.90
1428-1430	2-87	/18	2.52	4.24	1.48	1.75	9.69	0.0393	76.20	0.48	0.80	0.78
1436-1438	2-88	/19	2.23	3.91	0.92	1.30	14.61	0.0326	74.30	0.76	0.61	1.11
1442-1446	2-89	/20	4.16	5.84	2.15	2.15	2.24	0.0609	68.58	0.24	1.38	0.49
1446-1449	2-90	/21	6.71	7.63	3.19	4.07	8.72	0.0729	71.12	0.40	1.87	0.71
1456-1459	2-91	/22	3.09	4.54	2.48	2.70	1.63	0.0481	81.25	0.60	1.00	0.63
1459-1462	2-92	/23	1.94	3.11	1.49	1.70	5.35	0.0333	83.82	0.44	0.64	0.78
1473-1475	2-93	/24	1.02	3.85	1.27	1.65	21.24	0.0265	68.58	0.72	0.38	1.04
1488-1491	2-94	/25	0.01	0.77	0.33	0.48	3.36	0.0181	94.62	0.24	0.12	0.50
1491-1493	2-95	/26	0.56	2.29	0.85	1.00	15.88	0.0213	78.11	0.28	0.32	0.47
1509-1513	2-96	/27	2.46	3.99	1.44	1.80	1.54	0.0366	85.09	0.32	0.95	0.74
1518-1521	2-97	/28	1.91	3.14	0.55	1.12	23.22	0.0285	68.58	0.68	0.44	1.12
1527-1530	2-98	/29	5.43	7.67	3.72	4.00	1.65	0.0734	68.58	0.22	1.91	0.57
1530-1532	2-99	/30	5.51	7.72	3.26	4.90	1.85	0.0706	72.39	0.26	1.88	0.57
1534-1536	2-100	/31	3.02	4.84	1.24	2.00	18.89	0.0416	64.77	0.52	0.80	0.87
1538-1541	2-101	S1107/32	3.12	5.47	1.90	2.15	15.90	0.0389	67.51	0.40	1.06	0.56
1550-1552	2-102	/33	3.40	5.73	2.34	2.45	6.55	0.0446	74.93	0.50	1.19	0.95
1572-1574	2-103	/34	6.76	9.44	2.88	3.80	3.39	0.0689	64.77	0.30	2.22	0.50
1614-1617	2-104	/35	1.53	3.48	1.19	1.22	3.59	0.0399	84.46	0.40	0.80	0.84
1628-1632	2-105	S1114/1	4.06	5.20	3.20	2.62	2.62	0.0513	80.65	0.32	1.46	0.70
1632-1634	2-106	/2	7.28	8.41	4.00	3.16	3.16	0.0716	69.22	0.36	2.19	0.78
1634-1636	2-107	/3	5.11	6.44	3.00	2.70	2.70	0.0569	77.47	0.40	1.63	0.68
1659-1661	2-108	/4	0.15	0.51	0.08	0.08	3.11	0.0176	92.71	0.36	0.12	0.68
1666-1670	2-109	/5	3.86	4.55	3.20	2.00	1.45	0.0331	81.28	0.24	1.09	0.52
1706-1710	2-110	/6	2.10	2.82	2.00	2.00	1.56	0.0333	88.90	0.24	0.67	0.44
1710-1715	2-111	/7	2.53	3.10	2.40	2.40	1.96	0.0353	88.90	0.36	0.72	0.54
2509-2513	2-112	/8	0.70	2.08	2.00	2.00	12.09	0.0156	82.92	0.48	0.22	0.87
2513-2516	2-113	/9	1.20	2.95	2.00	2.00	20.17	0.0123	71.25	0.84	0.32	1.29
2516-2520	2-114	/10	1.32	4.84	3.20	3.20	39.00	0.0173	47.63	0.80	0.42	1.28
2520-2523	2-115	/11	1.73	3.74	2.00	2.00	28.48	0.0137	61.59	1.02	0.38	1.46
2523-2526	2-116	/12	1.14	3.23	1.20	1.20	25.05	0.0120	66.68	0.84	0.30	1.17
2526-2529	2-117	/13	1.11	3.24	1.60	1.60	21.91	0.0156	68.58	0.68	0.38	1.07
2529-2532	2-118	/14	1.50	3.52	3.20	3.20	25.64	0.0156	62.23	0.96	0.32	1.41
2532-2536	2-119	/15	1.01	2.66	0.80	0.80	20.03	0.0110	73.03	0.86	0.26	1.27
2536-2539	2-120	/16	0.87	2.33	1.40	1.40	18.18	0.0120	74.92	0.90	0.30	1.34
2556-2559	2-121	/17	1.15	3.25	3.20	3.20	21.19	0.0147	69.22	1.08	0.24	1.52
2591-2594	2-122	/18	1.22	3.12	2.40	2.40	25.79	0.0143	64.77	0.80	0.24	1.21
2594-2598	2-123	S1115/1	1.68	3.41	2.88	2.88	24.72	0.0169	64.77	0.80	0.46	1.05
2598-2600	2-124	/2	1.27	2.67	1.60	1.60	24.41	0.0123	66.68	0.90	0.21	1.20
2600-2603	2-125	/3	1.55	3.10	1.92	1.92	27.66	0.0136	60.96	0.78	0.25	1.07
2603-2605	2-126	/4	1.53	2.85	2.40	2.40	22.10	0.0147	69.85	0.84	0.24	1.42

PUGWASH DEPOSIT, CUMBERLAND AREA

Table 4-8. Chemical analyses, potash sections in Pugwash Mine*

Sample Locality (see Fig. 4-32)	Sample Number	Sampled Interval (Feet)	% K
B ₂	0	Composite, 5 feet	6.60
B ₂	1	1	6.50
B ₂	2	1	4.80
B ₂	3	1	5.55
B ₂	4	1	1.85
B ₂	5	1	0.90
B _{3A}	0	Composite, 2 feet	10.93
B _{3A}	1	1	3.83
B _{3A}	2	1	6.38
B ₄	0	Composite, 4 feet	5.15
B ₄	2	1	10.00
B ₄	3	1	9.60
B ₄	4	1	10.48
B ₄	5	1	7.80
B ₅	0	Composite, 3 feet	9.95
B ₅	1	1	11.20
B ₅	2	1	14.23
B ₅	3	1	6.48
B ₆	0		7.94

*Data after J. E. Meilke, Nova Scotia Research Foundation (1962).

PUGWASH DEPOSIT-CUMBERLAND AREA
 Table 4-9. Chemical analyses, potash in CRSC-58 and CRSC-59, Pugwash, Nova Scotia.

Drillhole CRSC-58*						Drillhole CRSC-59**					
Interval (ft.)	Equivalent		Interval (ft.)	Equivalent		Interval (ft.)	Equivalent		Interval (ft.)	Equivalent	
	% K ₂ O	% K		% K ₂ O	% K		% K ₂ O	% K		% K ₂ O	% K
203 - 210	0.26	0.22	540 - 545	0.28	0.23	810 - 815	0.60	0.50	132 - 135	0.022	0.018
210 - 215	0.28	0.23	545 - 550	0.16	0.13	815 - 820	0.79	0.66	135 - 140	0.014	0.012
215 - 220	0.26	0.22	550 - 555	0.31	0.26	820 - 825	0.71	0.59	140 - 145	0.010	0.008
220 - 225	0.25	0.21	555 - 560	-	-	825 - 830	0.42	0.35	145 - 148	0.020	0.016
230 - 235	0.26	0.22	560 - 565	0.40	0.33	830 - 835	0.64	0.53	172 - 175	0.025	0.021
240 - 245	0.47	0.39	565 - 570	0.41	0.34	835 - 840	0.74	0.62	175 - 180	0.041	0.034
245 - 250	0.31	0.26	570 - 575	0.31	0.26	840 - 845	0.50	0.42	180 - 185	0.007	0.006
250 - 255	0.23	0.19	575 - 580	0.37	0.31	845 - 850	1.12	0.93	185 - 190	0.012	0.010
255 - 260	0.28	0.23	580 - 585	0.38	0.32	850 - 855	1.13	0.94	190 - 192	0.012	0.010
260 - 265	0.25	0.21	585 - 590	0.44	0.37	855 - 860	3.42	2.85	280 - 285	0.012	0.010
265 - 270	0.22	0.18	590 - 595	0.35	0.29	860 - 865	2.16	1.80	285 - 288	0.010	0.008
270 - 275	0.22	0.18	595 - 600	0.36	0.30	865 - 870	1.00	0.83	290 - 295	0.022	0.018
280 - 285	0.28	0.23	600 - 605	0.30	0.25	870 - 875	0.90	0.75	296 - 301	0.046	0.038
285 - 290	0.20	0.17	605 - 610	0.35	0.29	875 - 880	0.70	0.58	305 - 310	0.014	0.012
290 - 295	0.24	0.20	610 - 615	0.56	0.47	880 - 885	0.40	0.33	310 - 315	0.024	0.020
295 - 300	0.23	0.19	615 - 620	0.49	0.41	885 - 890	1.32	1.10	320 - 325	0.010	0.008
300 - 305	0.24	0.20	620 - 625	0.68	0.57	890 - 895	3.06	2.55	535 - 540	0.010	0.008
305 - 310	0.24	0.20	625 - 630	0.34	0.29	895 - 900	1.03	0.86	540 - 545	0.026	0.022
310 - 315	0.28	0.23	630 - 635	0.22	0.18	900 - 905	0.66	0.55	545 - 550	0.010	0.008
315 - 320	0.25	0.21	635 - 640	0.24	0.20	905 - 910	1.07	0.89	1180 - 1185	0.11	0.090
320 - 325	0.29	0.24	640 - 645	0.26	0.22	910 - 915	1.05	0.87	1185 - 1190	0.09	0.078
325 - 330	0.25	0.21	645 - 650	0.77	0.64	915 - 920	0.83	0.69	1190 - 1195	0.17	0.141
330 - 335	0.20	0.17	650 - 655	0.40	0.33	920 - 925	0.89	0.74	1195 - 1200	0.23	0.188
340 - 345	0.22	0.18	655 - 660	-	-	925 - 930	0.89	0.74	1200 - 1205	0.83	0.690
350 - 355	0.22	0.18	660 - 665	0.61	0.51	930 - 935	0.49	0.41	1205 - 1207	4.32	3.60
355 - 360	0.24	0.20	665 - 670	0.71	0.59	935 - 940	0.64	0.53	1210 - 1212	4.69	3.91
360 - 365	0.31	0.26	670 - 675	0.70	0.58	940 - 945	1.14	0.95	1230 - 1234	0.24	1.97
370 - 375	0.17	0.14	675 - 680	0.76	0.63	950 - 955	0.83	0.69	1240 - 1244	0.74	0.620
375 - 380	0.19	0.16	680 - 685	0.49	0.41	955 - 960	0.94	0.78	1330 - 1333	0.37	0.310
380 - 385	0.20	0.17	685 - 690	0.49	0.41	960 - 965	0.58	0.48	1349 - 1351	0.44	0.363
395 - 400	0.24	0.20	690 - 695	0.28	0.23	965 - 970	0.64	0.53	1390 - 1395	0.28	0.233
400 - 405	0.23	0.19	695 - 700	0.35	0.29	970 - 975	0.52	0.43	1395 - 1400	0.38	0.318
410 - 415	0.20	0.17	700 - 705	0.18	0.15	975 - 980	0.58	0.48	1405 - 1410	0.66	0.450
415 - 420	0.19	0.16	705 - 710	0.35	0.29	980 - 985	0.40	0.33	1410 - 1415	1.03	0.863
420 - 425	0.19	0.16	710 - 715	0.47	0.39	985 - 990	0.79	0.66	1415 - 1420	1.05	0.875
430 - 435	0.24	0.20	715 - 720	0.60	0.50	990 - 995	1.14	0.95	1420 - 1425	0.93	0.775
440 - 445	0.19	0.16	720 - 725	0.62	0.52	1995 - 1000	1.32	1.10	1425 - 1430	0.21	0.178
450 - 455	0.23	0.19	725 - 730	0.91	0.76	1000 - 1005	0.48	0.40	1430 - 1435	0.78	0.652
460 - 465	0.14	0.12	730 - 735	0.50	0.42	1005 - 1010	0.43	0.36	1435 - 1440	0.62	0.520
465 - 470	0.18	0.15	735 - 740	0.74	0.62	1010 - 1015	0.41	0.34			
470 - 475	0.29	0.24	740 - 745	0.64	0.53	1015 - 1020	0.46	0.38			
475 - 480	0.34	0.28	745 - 750	0.68	0.57	1020 - 1025	0.39	0.32			
480 - 485	0.31	0.26	750 - 755	0.64	0.53	1025 - 1030	0.97	0.81			
485 - 490	0.36	0.30	755 - 760	0.67	0.56	1030 - 1035	0.92	0.77			
490 - 495	0.19	0.16	760 - 765	0.72	0.60	1035 - 1040	1.08	0.90			
495 - 500	0.24	0.20	765 - 770	0.66	0.55	1040 - 1045	0.70	0.58			
500 - 505	0.23	0.19	770 - 775	0.54	0.45	1045 - 1050	0.66	0.55			
505 - 510	0.18	0.15	775 - 780	0.71	0.59	1050 - 1052	1.50	1.25			
510 - 515	0.17	0.14	780 - 785	1.25	1.59						
515 - 520	0.25	0.21	785 - 790	1.19	0.99						
520 - 525	0.37	0.31	790 - 795	1.35	1.12						
525 - 530	0.23	0.19	795 - 800	0.60	0.50						
530 - 535	0.36	0.30	800 - 805	0.60	0.50						
535 - 540	0.43	0.36	805 - 810	0.48	0.40						

*Analyst W. M. Langille, Nova Scotia Research Foundation (1962)

**Nova Scotia Research Foundation (1962)

ROSLIN OCCURRENCE-CUMBERLAND AREA
Roslin No. 1 core samples, analyses in per cent*

Depth (ft.)	Sample Lab No.	K (total)	Moisture	K (sol.)	Br	Insoluble	Na	Cl**	Ca	Mg	SO ₄
375	5839/1		5.51	0.025		87.60	1.88	2.02	0.82	0.02	2.06
378	2		4.71	0.050		45.87	16.00	26.16	1.86	0.02	4.47
381	3		3.54	0.023		47.56	17.50	29.21	0.88	0.01	2.15
385	4		3.17	0.040		39.76	19.63	34.50	1.26	nil	3.03
387	5		5.25	0.060		60.05	11.25	19.66	1.80	0.015	4.33
390	6		3.57	0.040		66.62	11.13	17.46	0.40	0.03	0.95
395	7		6.09	0.050		52.19	12.50	20.37	2.00	0.03	4.77
398	8		3.79	0.040		22.45	24.63	41.75	1.70	0.02	4.10
404	5856/1		4.22	0.072		51.05	17.00	27.90	0.82	0.03	1.90
406	2		4.05	0.050	0.0034	32.73	22.25	36.92	1.42	0.03	3.27
413	3		4.25	0.044		52.87	16.00	28.04	0.93	0.03	2.09
422	4		3.37	0.050	0.0032	53.84	16.00	25.63	1.10	0.03	2.38
436	5		8.50	0.064		56.97	12.75	20.80	1.26	0.06	2.44
444	6		4.48	0.060	0.0034	49.96	16.50	27.47	1.36	0.05	2.81
457	7		1.79	0.020		23.65	27.00	44.20	1.65	0.02	3.74
472	8		2.77	0.050	0.0034	47.10	19.50	31.95	0.43	0.03	0.87
479	9		2.24	0.032		22.85	27.50	44.80	1.22	0.06	2.77
490	10		3.12	0.040	0.0032	53.85	15.50	26.84	0.34	0.05	0.61
503	11		4.03	0.038		41.15	20.50	33.01	1.26	0.04	2.88
513	12		3.05	0.035	0.0041	34.89	24.00	39.76	0.29	0.04	0.66
522	13	1.00	3.88	0.055		35.11	22.50	38.12	1.20	0.03	2.51
526	14	1.30	4.93	0.040	0.0033	50.29	17.00	30.31	0.77	0.04	1.67
535	15	1.30	5.57	0.040		51.02	16.25	27.19	1.18	0.04	2.54
539	16	0.90	3.72	0.080	0.0047	29.05	26.00	43.09	0.80	0.04	1.88
543	17	0.90	4.28	0.025		35.94	19.25	37.27	0.82	0.04	1.87
547	18	0.70	3.81	0.038	0.0047	37.51	22.50	36.95	0.78	0.03	1.68
553	19	1.35	4.25	0.080		49.08	18.25	28.61	1.15	0.04	2.44
557	20	0.60	2.94	0.055	0.0041	30.41	25.00	41.18	1.18	0.04	2.81
562	21	0.75	3.90	0.065		44.01	20.75	29.96	0.91	0.05	2.00
573	22		3.32	0.050	0.0038	47.21	19.25	30.53	0.72	0.04	1.54
577	23		3.60	0.050		52.85	16.50	29.82	0.88	0.03	1.89
590	24		3.51	0.050	0.0032	42.29	21.50	34.65	0.64	0.06	1.36
596	25		2.76	0.038		43.28	21.00	34.29	0.66	0.03	1.43
609	5890/1	3.04		0.20	0.0047	36.86	21.75	33.50	0.81	0.063	2.00
623	2	3.74		0.016		60.20	13.25	20.40	0.58	0.087	1.20
645	3	3.68		0.016		49.46	16.75	25.80	0.57	0.034	1.20
663	4	2.74		0.012		34.04	21.50	33.11	0.77	0.029	1.60
689	5	1.61		0.020	0.0047	26.58	24.25	37.34	0.75	0.019	1.60
709	6	2.66		0.032		30.01	23.50	36.19	1.12	0.058	2.49
727	7	3.36		0.076		52.49	14.75	22.71	0.96	0.058	2.20
754	8	5.33		0.072		59.68	11.00	16.94	1.22	0.087	2.40
775	9	1.91		0.012	0.0053	41.13	20.00	30.80	0.58	0.009	1.00
797	10	3.05		0.012		34.02	22.00	33.88	1.02	0.075	2.20
815	11	3.98		0.024		66.79	10.75	16.55	0.35	0.048	0.60
834	12	2.29		0.028		26.37	24.50	37.73	0.75	0.024	1.60
844	13	2.23		0.036	0.0043	40.20	20.75	31.95	0.42	0.034	0.60
854	14	1.02		0.032		19.66	28.50	43.89	0.56	0.048	1.20
868	15	3.00		0.036		59.90	13.50	20.79	0.35	0.039	0.40
889	16	2.70		0.064		53.53	15.50	23.87	0.37	0.029	0.60
905	17	2.51		0.060	0.0050	32.02	23.00	35.42	0.67	0.034	1.40
925	18	2.58		0.032		40.52	20.00	30.80	0.61	0.044	1.20
936	19	2.54		0.072		54.29	15.25	23.45	0.43	0.068	0.60
952	20	1.84		0.064		44.11	19.25	29.64	0.58	0.048	1.00
965	21	3.34		0.072	0.0063	42.67	17.75	27.33	1.09	0.034	2.20
975	22	2.38		0.012		37.66	21.25	32.72	0.72	0.029	1.40
990	23	2.81		0.036		34.76	21.00	32.34	0.90	0.078	1.80
1005	24	2.23		0.072		40.80	21.00	32.34	0.26	0.116	0.20

*Nova Scotia Department of Mines (1966a)

**Analyst reports the chloride determination of high NaCl concentrations appears to run about two per cent higher than that calculated from the sodium determination; this would make the total mineral content closer to 100 per cent

MCINTYRE LAKE DEPOSIT-CANSO-BRAS D'OR AREA**CANSO STRAT NO. 2 SALT ANALYSES METHODS****Sample Preparation**

Received samples were crushed to -10 mesh through a jaw crusher and cone crusher. A sample for analysis was split out with a Jones splitter, dried at 110°C in an oven and crushed to -200 mesh in a shatterbox.

Analytical Method

Ten grams of sample were weighed into a 100 ml beaker and 25 ml of distilled water added. The beaker was placed in a magnetic stirrer, stirred for 15 minutes and filtered through a weighed medium porosity filter crucible. The brine solution was saved in a plastic bottle for further analysis, while the residue on the filter crucible was washed free of chloride with distilled water, dried at 110°C for 1 hour and reweighed to give the per cent water insoluble.

The chloride content of the brine solution was determined on an aliquot portion using the method of Volhard, p. 271, 5th edition, Scott's Standard Methods of Chemical Analysis.

SO₄ was determined on a 10 ml aliquot by precipitation as barium sulphate.

Ca, Mg and K were determined on a suitable aliquot by atomic absorption spectrophotometry using standards matching the NaCl content of the sample and maintaining a 1% lanthanum chloride content in both the samples and standards to suppress interferences from SO₂.

The specific gravity of the brine solution was determined on a 10 ml portion using a pycnometer.

The NaCl content was calculated from the chloride content as follows: total chloride - chloride from KCl = chloride from NaCl, chloride from NaCl x 1.65 = NaCl content. NaCl, K, Ca, Mg and SO₄ were reported % w/w from the % w/v using the specific gravity of the brine solution.

Notes: (after Hale, 1974)

The Percentage Water Insoluble column is the total insoluble of the original sample at room temperature (20°C or 68°F).

The Specific Gravity column is the specific gravity of the brine solution at room temperature (20°C or 68°F).

For saturated salt water the specific gravity is 1.20254 at 50°F (1.20104 at 20°C calculated). Any increase in specific gravity above 1.20104 can be attributed to other soluble materials (such as potash salts).

The Sodium Chloride Percentage is the percentage of NaCl in a saturated aqueous solution. At 20°C room temperature 26 per cent will be the maximum percentage obtainable, i.e. grams of salt (NaCl) in 100 gm of brine solution.

Whenever the insolubles are about 10%, the sodium chloride percentage of 26% will never be reached.

The Parts per Million (1/1 000 000) column represents the amount of each element (Ca, SO₄, or Mg) dissolved out of the original sample, which is in solution as a brine solution. All materials are related to the brine solution as grams of material to 100 gm of brine solution (600 ppm = 0.06%).

The analytical procedure starts in volumes (grams of sample in 100 cc or ml of solution), specific gravity is taken and a conversion is made to grams of soluble material in 100 cc of brine solution. This is converted to grams of soluble material in 100 grams of brine solution (by using the specific gravity). The percentage NaCl is calculated by reducing the equivalent Cl for the amount of K. In the case of carnallite (KMgCl₃ · 6H₂O or KCl · MgCl₂ · 6H₂O - K = 14.1%), there will be a slight excess of Cl attributable to the Na.

This analytical procedure and presentation of results is the same as that requested and provided for Dow Chemical of Canada Limited for their Port Richmond core samples.

MCINTYRE LAKE DEPOSIT - CANSO BRAS D'OR AREA

Chemical analyses Canso Strat No. 2, McIntyre Lake deposit

SAMPLE DEPTH FEET	WATER INSOL %	SPECIFIC GRAVITY	SODIUM CHLORIDE %	PARTS PER MILLION			
				CA	SO4	K	MG
837- 840	5.1	1.200	26.0	600	1766	72	3
840- 850	4.5	1.203	25.9	600	1777	65	2
850- 860	4.9	1.203	25.9	541	1277	33	2
860- 870	1.7	1.204	26.0	1029	2397	23	3
870- 880	1.0	1.204	26.0	1262	2997	3	2
880- 890	1.4	1.204	25.9	1196	2870	38	4
890- 900	3.5	1.204	25.9	7	1911	49	6
900- 910	8.8	1.202	26.0	915	2206	43	4
910- 920	7.3	1.203	25.9	833	2111	33	1
920- 930	3.2	1.203	26.0	420	937	50	1
930- 940	1.9	1.203	26.0	500	1525	147	2
940- 950	19.1	1.180	23.5	1183	2865	325	550
950- 960	29.0	1.165	21.0	1390	2945	729	521
960- 970	27.2	1.175	21.2	1868	3549	882	349
970- 980	19.3	1.176	22.5	1513	2735	680	18
980- 990	19.4	1.181	23.4	1343	2687	609	375
990-1000	39.0	1.139	18.0	1910	3670	830	553
1000-1010	46.6	1.121	15.5	2109	3457	400	479
1010-1020	1.7	1.204	26.0	482	1374	392	5
1020-1030	1.1	1.201	25.9	332	1374	116	4
1030-1040	1.8	1.204	26.0	802	1956	56	4
1040-1050	11.4	1.201	26.0	448	1178	30	4
1050-1060	1.0	1.203	26.0	914	2285	36	2
1060-1070	.5	1.204	26.0	1145	1591	525	6
1070-1080	.4	1.203	26.0	266	586	665	7
1080-1090	1.1	1.204	26.0	797	1914	119	4
1090-1100	15.9	1.189	24.0	1261	2851	303	187
1100-1110	15.0	1.192	24.3	872	1714	406	151
1110-1120	26.8	1.169	24.2	1026	1470	256	211
1120-1130	40.1	1.139	18.3	1421	1824	316	333
1130-1140	50.3	1.114	15.3	915	258	262	344
1140-1150	27.3	1.168	21.9	1061	1570	157	155
1150-1160	8.4	1.204	25.9	1096	2207	176	79
1160-1170	36.8	1.148	18.9	1655	4101	45	12
1170-1180	47.8	1.125	15.9	2080	4852	42	7
1180-1190	13.0	1.190	24.3	1109	2576	32	3
1190-1200	53.6	1.124	14.3	2064	4928	46	10
1200-1210	35.8	1.153	19.7	1630	4079	41	3
1210-1220	17.7	1.188	24.0	1616	2854	255	64
1220-1230	19.7	1.184	23.3	1414	3283	40	10
1230-1240	67.8	1.076	9.5	1719	4491	37	14
1240-1250	52.4	1.136	14.2	2482	4332	91	309
1250-1260	50.2	1.118	15.0	2540	3004	175	85
1260-1270	42.1	1.138	18.2	422	233	189	35
1270-1280	82.9	1.035	4.0	1816	4419	34	19
1280-1290	61.4	1.095	12.0	2283	5191	43	18
1290-1300	57.2	1.096	12.1	2883	3888	182	91
1300-1310	44.5	1.130	16.8	2213	2870	219	12
1310-1320	73.7	1.050	6.8	2876	1102	300	224
1320-1330	71.1	1.071	9.8	466	82	75	41
1330-1340	40.1	1.143	19.3	315	62	221	28
1340-1350	95.3	1.000	1.0	1000	1695	280	33
1350-1360	37.2	1.147	18.7	1569	5049	69	3
1360-1370	14.3	1.195	24.5	702	2140	133	3
1370-1380	16.5	1.190	24.0	1176	3077	12	11

MCINTYRE LAKE DEPOSIT - CANSO BRAS D'OR AREA

Chemical analyses Canso Strat No. 2, McIntyre Lake deposit

SAMPLE DEPTH FEET	WATER INSOL %	SPECIFIC GRAVITY	SODIUM CHLORIDE %	PARTS PER MILLION			
				CA	SO4	K	MG
1380-1390	47.3	1.126	16.3	1848	5125	40	16
1390-1400	27.3	1.166	21.3	1372	4114	61	17
1400-1410	6.5	1.204	25.9	913	2942	43	59
1410-1420	2.2	1.203	25.9	1014	3431	66	3
1420-1430	17.2	1.188	23.5	1430	4147	33	4
1430-1440	24.4	1.190	23.9	1210	2383	47	5
1440-1450	24.5	1.174	22.6	1100	2135	61	17
1450-1460	21.6	1.178	22.6	1690	3200	67	17
1460-1470	25.5	1.175	22.4	1872	2818	102	17
1470-1780	15.7	1.192	24.4	1442	3129	654	6
1480-1490	19.7	1.183	23.3	1487	3091	53	6
1490-1500	24.0	1.173	22.0	1656	3663	53	6
1500-1510	39.4	1.162	20.7	1738	3715	54	7
1510-1520	17.3	1.187	23.9	1179	2255	53	6
1520-1530	24.2	1.174	22.2	1500	2572	70	9
1530-1540	17.0	1.187	23.9	1600	3093	71	10
1540-1550	44.5	1.129	16.4	2214	4331	75	10
1550-1560	41.7	1.136	17.1	2112	4123	73	9
1560-1570	22.5	1.175	22.6	1550	2966	140	23
1570-1580	51.9	1.112	14.3	2430	3763	107	18
1580-1590	9.2	1.193	25.5	1260	2746	67	10
1590-1600	8.2	1.203	25.6	1400	3073	46	6
1600-1610	11.6	1.197	25.0	1269	3252	46	6
1610-1620	6.8	1.201	25.9	1165	2867	45	6
1620-1630	13.1	1.193	24.6	1320	3274	47	5
1630-1640	13.1	1.195	24.7	1523	3582	46	5
1640-1650	28.1	1.164	20.8	1800	3600	72	22
1650-1660	30.4	1.160	20.5	1750	3229	69	24
1660-1670	22.0	1.177	22.3	1540	3590	47	10
1670-1680	18.5	1.184	23.4	1520	3240	57	13
1680-1690	54.1	1.108	14.0	2436	4123	111	36
1690-1700	14.3	1.192	24.4	1442	3376	46	10
1700-1710	22.7	1.178	22.9	1120	2136	57	16
1710-1720	11.7	1.200	25.1	1280	3377	43	5
1720-1730	13.3	1.192	25.0	1325	3193	41	50
1730-1740	20.1	1.182	23.3	1522	3077	50	15
1740-1750	22.6	1.176	22.5	1666	3577	61	15
1750-1760	8.1	1.205	26.0	1261	2917	46	6
1760-1770	5.4	1.205	26.0	1260	2897	46	6
1770-1780	29.7	1.161	20.6	1620	4033	24	8
1780-1790	96.1	1.001	1.0	1150	2745	24	12
1790-1800	75.2	1.062	7.7	2070	5750	37	7
1800-1810	80.6	1.037	4.4	1697	4243	42	27
1810-1820	62.9	1.082	10.9	440	467	50	18
1820-1830	81.0	1.032	4.3	1647	2037	124	68
1830-1840	93.6	1.010	1.3	1366	2310	63	27
1840-1850	60.4	1.094	12.0	2260	4035	91	58
1850-1860	68.5	1.071	8.9	2370	4518	112	56
1860-1870	68.4	1.071	8.8	2330	4814	111	52
1870-1880	67.5	1.072	9.0	2330	4337	111	59
1880-1890	75.5	1.051	6.4	2640	3891	133	83
1890-1900	80.3	1.039	4.8	2290	3318	120	80
1900-1910	67.4	1.070	8.9	2355	4307	112	67
1910-1920	55.4	1.093	11.8	2470	3807	132	102
1920-1930	54.2	1.107	13.7	2059	4160	108	83

MCINTYRE LAKE DEPOSIT - CANSO BRAS D'OR AREA

Chemical analyses Canso Strat No. 2, McIntyre Lake deposit

SAMPLE DEPTH FEET	WATER INSOL %	SPECIFIC GRAVITY	SODIUM CHLORIDE %	PARTS PER MILLION			
				CA	SO4	K	MG
1930-1940	59.9	1.089	11.0	2020	4355	91	77
1940-1950	74.5	1.062	7.8	2110	4340	94	86
1950-1960	63.1	1.090	11.4	1926	5096	58	40
1960-1970	42.8	1.135	17.2	1750	4709	57	21
1970-1980	6.5	1.204	25.9	1079	2901	43	59
1980-1990	21.9	1.178	22.6	1477	3315	44	61
1990-2000	14.1	1.193	24.6	1257	2979	43	53
2000-2010	50.9	1.093	13.4	2086	3636	80	40
2010-2020	44.2	1.134	17.1	1975	4044	53	24
2020-2030	46.0	1.131	16.8	1980	4046	46	24
2030-2040	33.5	1.156	19.9	1591	3508	51	17
2040-2050	17.4	1.184	23.4	1266	3208	38	10
2050-2060	38.9	1.144	18.1	1850	3637	91	30
2060-2070	26.0	1.173	22.2	1483	3622	38	6
2070-2080	34.6	1.155	19.7	1731	3656	44	6
2080-2090	31.9	1.161	20.5	1533	3306	51	10
2090-2100	11.5	1.200	25.4	1100	2899	36	6
2100-2110	51.2	1.117	15.1	1969	4985	53	10
2110-2120	48.9	1.078	9.1	2050	5153	37	7
2120-2130	94.3	1.013	1.4	1283	3638	39	7
2130-2140	51.2	1.119	14.9	1876	5289	39	7
2140-2150	1.4	1.204	26.0	980	2760	36	6
2150-2160	4.7	1.204	25.9	1063	2850	36	6
2160-2170	1.1	1.204	25.9	665	1264	43	5
2170-2180	29.2	1.164	20.9	1838	3680	68	20
2180-2190	14.4	1.196	24.7	1170	2572	63	10
2190-2200	32.7	1.157	19.9	1815	3455	96	20
2200-2210	26.0	1.170	21.3	1692	3644	68	15
2210-2220	21.3	1.183	23.1	1606	3165	64	15
2220-2230	28.1	1.167	21.0	1714	3753	103	15
2230-2240	7.7	1.204	26.0	1226	3230	40	15
2240-2250	1.2	1.204	26.0	913	1756	51	8
2250-2260	.4	1.203	26.0	432	1089	51	4
2260-2270	1.8	1.205	26.0	836	2301	43	9
2270-2280	1.5	1.204	26.0	830	1921	29	8
2280-2290	17.6	1.190	23.7	1411	3361	20	18
2290-2300	34.4	1.155	20.1	1662	3259	69	41
2300-2310	55.0	1.111	14.0	2322	4935	72	36
2310-2320	87.6	1.033	3.5	2032	4885	24	6
2320-2330	47.7	1.128	16.1	2021	4908	46	17
2330-2340	54.8	1.109	13.8	2596	4896	86	55
2340-2350	32.4	1.158	19.8	1813	4279	44	20
2350-2360	83.1	1.045	5.3	2375	5579	23	15
2360 2370		NOT SAMPLED	ANHYDRITE (NIL SALT)				
2370 2380		NOT SAMPLED	ANHYDRITE (NIL SALT)				
2380 2390		NOT SAMPLED	ANHYDRITE (NIL SALT)				
2390 2400		NOT SAMPLED	ANHYDRITE (NIL SALT)				
2400 2410		NOT SAMPLED	ANHYDRITE (NIL SALT)				
2410 2420		NOT SAMPLED	ANHYDRITE (NIL SALT)				
2420 2430		NOT SAMPLED	ANHYDRITE AND LIMESTONE (NIL SALT)				
2430 2440		NOT SAMPLED	LIMESTONE (NIL SALT)				
2440 2450		NOT SAMPLED	LIMESTONE (NIL SALT)				
2450 2460		NOT SAMPLED	LIMESTONE (NIL SALT)				
2460 2470		NOT SAMPLED	ANHYDRITE AND LIMESTONE (NIL SALT)				
2470 2480		NOT SAMPLED	ANHYDRITE AND LIMESTONE (NIL SALT)				

MCINTYRE LAKE DEPOSIT - CANSO BRAS D'OR AREA

Chemical analyses Canso Strat No. 2, McIntyre Lake deposit

SAMPLE DEPTH FEET	WATER INSOL %	SPECIFIC GRAVITY	SODIUM CHLORIDE %	PARTS PER MILLION			
				CA	SO4	K	MG
2480-2490				NOT SAMPLED ANHYDRITE (NIL SALT)			
2490-2500				NOT SAMPLED ANHYDRITE (NIL SALT)			
2500-2510	13.0	1.195	24.8	1272	2896	60	56
2510-2520	14.5	1.195	25.0	1405	3364	26	13
2520-2530	14.7	1.191	24.4	1444	3371	47	6
2530-2540	50.8	1.114	14.4	2603	4740	79	43
2540-2550	30.1	1.162	20.5	1480	2750	68	31
2550-2560	26.9	1.169	21.2	1622	3289	51	27
2560-2570	29.6	1.162	20.5	1652	3397	51	17
2570-2580	23.9	1.174	21.8	1635	3588	51	13
2580-2590	31.2	1.160	20.5	1275	2245	51	17
2590-2600	6.9	1.205	25.9	1195	2690	48	6
2600-2610	39.0	1.144	18.6	1503	2504	52	21
2610-2620	41.1	1.138	17.9	1318	2152	66	21
2620-2630	25.7	1.171	22.0	1280	2364	17	17
2630-2640	22.3	1.179	22.3	610	419	54	13
2640-2650	33.7	1.155	19.9	1714	3110	55	20
2650-2660	21.3	1.181	22.9	1456	3184	55	13
2660-2670	7.0	1.204	25.9	1212	2673	33	6
2670-2680	17.3	1.188	24.0	1435	3055	47	10
2680-2690	12.8	1.198	24.9	1400	3249	46	6
2690-2700	11.8	1.200	25.5	1250	2743	46	10
2700-2710	38.8	1.162	20.6	1483	4080	77	26
2710-2720	29.7	1.143	29.7	2099	4215	80	24
2720-2730	24.8	1.173	22.0	1688	3466	58	17
2730-2740	45.6	1.129	16.5	2409	4743	134	24
2740-2750	17.7	1.187	23.6	1331	3032	77	16
2750-2760	27.5	1.166	21.1	1698	3630	61	20
2760-2770	10.0	1.202	25.9	1247	3026	76	9
2770-2780	5.6	1.205	26.0	1212	2770	112	9
2780-2790	2.7	1.205	26.0	1095	2671	26	6
2790-2800	3.6	1.205	26.0	995	2431	26	5
2800-2810	2.5	1.205	26.0	995	2490	36	6
2810-2820	1.9	1.203	26.0	831	1877	56	9
2820-2830	7.7	1.202	25.7	1247	2910	43	8
2830-2840	9.4	1.201	25.6	1265	3062	46	10
2840-2850	8.8	1.202	25.7	1289	2976	33	10
2850-2860	6.4	1.204	25.8	1295	3000	33	6
2860-2870	5.3	1.204	26.0	1086	2614	33	8
2870-2880	28.8	1.162	20.8	1755	3829	58	20
2880-2890	26.6	1.168	21.2	1455	2357	68	20
2890-2900	46.5	1.126	15.9	1119	4752	58	24
2900-3000	50.7	1.118	14.7	1036	4898	53	16
2910-2920	38.7	1.142	18.1	928	4062	56	15
2920-2930	2.8	1.203	26.0	690	1501	34	6
2930-2940	20.3	1.183	23.3	676	3274	37	6
2940-2950	43.2	1.142	18.8	2679	2633	127	56
2950-2960	13.0	1.197	24.8	1002	2341	53	9
2960-2970	33.5	1.154	19.5	1802	3573	83	24
2970-2980	30.0	1.161	20.5	1739	4023	37	10
2980-2990	14.9	1.193	24.5	1257	2888	37	10
2990-3000	24.9	1.174	22.2	1384	1788	47	8
3000-3007	39.7	1.140	17.7	2000	4155	73	24

PORT RICHMOND DEPOSIT - CANSO-BRAS D'OR AREA
 Table 7-5. Analyses of composite salt samples, drillhole DCPR-1, Port Richmond deposit (Rowe, 1967)

Interval (ft.)	Na (%)	Cl (%)	Ca (%)	SO ₄ (%)	K (ppm)	Mg (ppm)	Fe*** (ppm)	Sc (ppm)	Br (ppm)	Water* Insoluble (%)	Acid** Insoluble (%)
1695.5-1782.5	31.1	47.8	2.4	6.6	70	20	-	130	35	11.0	40.9
1782.5-1792.5	32.6	47.2	0.9	2.3	260	55	-	55	35	17.2	80.5
1792.5-1810.5	20.2	31.8	2.2	5.6	250	90	15	90	35	38.6	37.9
1825-1832.5	29.5	41.9	2.1	5.4	240	45	-	90	25	21.8	53.8
1832.5-1807.5	33.8	48.5	1.6	3.8	310	15	-	80	40	9.9	62.5
1887.5-2015	34.2	52.2	1.3	2.9	250	25	-	65	50	7.6	54.1
2015-2115	28.7	42.8	1.9	4.7	60	10	-	100	35	21.3	57.4
2115-2195	31.6	49.3	1.6	3.8	80	20	-	95	45	12.0	58.0
2195-2295	33.2	50.8	1.6	4.0	70	15	-	80	75	8.9	54.9
2295-2375	33.8	50.6	1.5	3.4	70	20	-	70	45	9.1	57.8
2375-2435	31.4	48.2	1.5	1.1	60	10	-	80	35	12.6	56.7
2435-2495	31.3	46.6	1.8	4.6	60	20	-	95	40	14.2	58.4

*100% - % water insoluble = % NaCl ** In 20% HCl at 80° for 30 minutes *** - Fe less than 10 ppm
 NOTE: 5 g sample in 250 ml H₂O at 80°F, analysis are of water soluble fraction; I less than 1 ppm in all samples.

Table 7-6. Analyses of composite salt samples (salt core basis) drillhole DCPR-2, Port Richmond deposit* (Rowe, 1968a)

Interval (ft.)	Na (%)	Cl (%)	Ca (%)	SO ₄ (%)	K (ppm)	Mg (ppm)	Fe (ppm)	Sr (ppm)	CO ₃ (ppm)	I** (ppm)	Br (ppm)	Water Insoluble (ppm)	Acid Insoluble (%)
1802-1853	35.4	54.4	0.52	1.12	0.010	12	0.007	31	153	-	34	8.32	4.41
1861-1891	32.8	50.5	0.59	1.18	0.040	47	0.007	38	129	-	44	13.9	11.1
1891-1946	30.7	47.2	0.68	1.34	0.034	56	0.008	49	216	-	37	19.3	15.2
1946-1956	13.0	21.0	0.86	1.50	0.071	200	0.026	100	135	-	32	61.8	46.3
1956-1986	33.2	50.9	0.58	1.18	0.060	97	0.016	41	128	-	39	13.3	8.11
1986-2001	32.2	50.5	0.65	1.32	0.29	190	0.032	38	130	-	55	13.2	9.72
2001-2015	27.0	43.0	0.65	1.18	1.05	400	0.020	52	181	-	89	25.9	22.2
2015-2036	27.7	44.4	0.69	1.42	0.26	300	0.057	28	130	-	52	23.8	19.4
2036-2051	24.5	37.9	0.74	1.54	0.18	240	0.012	34	166	-	37	33.7	26.5
2051-2066	30.1	42.5	1.39	2.60	0.24	260	0.057	25	129	-	47	18.5	14.2
2066-2081	29.8	46.1	0.69	1.49	0.086	170	0.085	27	153	-	37	21.0	16.7
2081-2110	32.0	50.7	0.58	1.35	0.029	86	0.057	23	128	-	22	16.4	12.7

*Analyst, R. A. Bredeweg, Analytical Laboratories
 **less than 5 ppm

PORT RICHMOND DEPOSIT - CUMBERLAND AREA

Table 7-7. Analyses of composite salt samples (salt brine basis) drillhole DCPR-2, Port Richmond deposit* (Rowe, 1968a)

Interval (ft.)	Na (%)	Cl (%)	Ca (%)	SO ₄ (%)	K (%)	Mg (%)	Fe (ppm)	Se (ppm)	CO ₃ (ppm)	I** (ppm)	Br (ppm)	Sample (gm)	Water (gm)
1802-1853	8.70	13.3	0.13	0.27	0.0025	3	0.002	7.8	37.5	-	8.3	50.00	157.91
1861-1891	8.09	12.4	0.15	0.29	0.0099	12	0.002	9.4	31.7	-	11.0	50.02	160.10
1891-1946	7.59	11.7	0.17	0.33	0.0084	14	0.003	12.0	54.0	-	9.1	50.02	162.01
1946-1956	3.75	6.06	0.25	0.43	0.021	57	0.008	29.0	39.0	-	11.0	50.08	154.43
1956-1986	8.25	12.7	0.14	0.29	0.015	24	0.006	10.0	31.9	-	9.7	50.01	157.79
1986-2001	7.71	12.2	0.16	0.32	0.070	47	0.009	9.2	34.0	-	13.0	49.99	163.21
2001-2015	7.09	11.3	0.17	0.31	0.28	110	0.006	14.0	47.6	-	23.0	49.99	153.32
2015-2036	7.11	11.4	0.18	0.37	0.066	76	0.014	7.2	33.5	-	13.0	50.00	156.00
2036-2051	6.24	9.69	0.19	0.39	0.046	61	0.004	8.6	42.5	-	9.5	50.03	162.77
2051-2066	7.64	12.0	0.16	0.35	0.060	65	0.014	6.2	32.6	-	12.0	50.02	156.63
2066-2081	7.45	11.5	0.17	0.37	0.022	43	0.021	6.7	38.3	-	9.3	50.01	160.45
2081-2110	8.21	13.0	0.15	0.35	0.0074	22	0.014	5.8	32.8	-	5.5	50.11	153.41

*Analyst, R. A. Bredeweg, Analytical Laboratories
 **less than 1 ppm.

Chemical analyses, salt core samples, DCPR-2, analyses in per cent (Rowe 1968a).

Sample Interval (ft.)	Lab No.	NSDM Sample	Br	K	NaCl	Insoluble	LOI
2029.5-2036.0 (chips)	S1660/1	DCPR 2-1	0.0053	0.16	82.80	18.62	0.49
2050.3-2057.5 (chips)	2	-2	0.0040	0.44	65.79	23.90	1.69
2057.5-2064.7 (6" sample)	3	-3	0.0057	4.10	56.13	28.01	2.32
2072.0-2079.2 (6" sample)	4	-4	0.0047	0.19	68.58	21.77	1.92
2079.2-2086.4 (6" sample)	5	-5	0.0050	0.53	69.09	21.77	1.52
2086.4-2093.6 (6" sample)	6	-6	0.0050	0.16	75.44	17.54	1.26
2093.6-2100.8 (6" sample)	7	-7	0.0030	0.08	45.47	39.61	1.32
2114.8-2122.0 (6" sample)	8	-8	0.0033	0.09	73.15	18.34	1.56

*Analyses by Nova Scotia Research Foundation; K. S. MacLean, analyst (Rowe, 1968a).

PORT RICHMOND DEPOSIT-CANSO-BRAS D'OR AREA
Table 7-8. Analyses* of composite samples DCPR-3, calculated on salt core basis, Port Richmond Deposit (Rowe, 1968a).

Interval (ft.)	Na (%)	Cl (%)	Ca (%)	SO ₄ (%)	K (%)	Mg (ppm)	Fe** (ppm)	Sr (ppm)	CO ₃ (ppm)	I*** (ppm)	Br (ppm)	Water Insoluble (%)	Acid Insoluble (%)
1742-1841	35.7	54.5	0.68	1.45	0.066	105	0.88	51	150	6.3	46	7.81	5.57
1841-1939	14.9	23.1	0.76	1.72	0.038	95	0.14	74	204	-	20	62.0	46.7
1939-2040	31.2	48.2	0.72	1.58	0.082	105	-	53	112	8.5	48	17.1	9.86
2040-2156	30.4	46.5	0.75	1.60	0.10	95	-	65	95	8.7	48	20.0	13.5
2156-2200	16.7	27.1	1.01	1.44	0.21	290	1.46	154	205	-	74	51.5	41.4
2200-2246	33.4	51.7	0.71	1.63	0.081	65	-	44	205	5.8	38	11.8	7.62
2246-2336	30.9	47.6	0.76	1.68	0.12	190	1.46	73	160	-	57	18.2	14.2
2336-2462	31.3	47.9	0.73	1.61	0.14	205	0.17	74	160	-	68	17.7	13.3
2462-2480	19.0	30.1	0.88	1.03	0.17	265	0.40	350	180	8.5	64	46.4	39.4
2480-2606	32.0	49.9	0.71	1.61	0.19	215	-	40	150	-	96	14.8	9.77
2606-2693	10.4	16.8	0.78	1.16	0.18	905	0.17	144	150	-	62	69.3	62.4
2693-2779	36.3	55.7	0.53	1.20	0.13	105	1.56	29	94	-	39	5.7	5.03
2779-2826	13.5	21.8	0.58	1.00	0.13	690	0.10	132	120	6.1	55	61.3	57.2
2826-3053	28.5	43.4	0.75	1.71	0.047	125	-	54	239	4.6	53	25.0	18.0
3053-3167	26.6	40.0	0.77	1.75	0.026	95	-	60	170	5.1	36	30.6	20.1
3167-3224	10.9	16.7	0.51	0.85	0.043	225	-	96	250	-	30	70.3	57.9
3224-3355	12.3	18.9	0.40	0.49	0.053	185	-	59	290	4.2	32	66.3	50.7
3355-3614	25.5	38.4	0.74	1.64	0.042	223	-	63	298	-	39	33.2	25.6
3667-3705	11.3	17.2	0.24	0.15	0.063	313	-	98	242	4.7	23	70.8	54.9
3846-4104	24.9	37.4	0.66	1.55	0.035	145	-	72	260	4.2	27	35.6	25.9
4104-4205	11.0	16.7	0.26	0.34	0.049	225	-	71	270	6.3	22	71.1	51.3
4205-4324	26.5	40.6	0.73	1.67	0.026	104	-	72	256	4.2	24	30.1	20.7
4324-4356	13.5	20.7	0.56	1.22	0.031	115	0.12	74	160	4.2	18	63.8	52.9
4356-4519	29.4	44.6	0.72	1.67	0.019	80	-	72	220	5.5	23	23.2	15.5
4519-4562	11.4	19.0	0.12	0.15	0.028	105	0.10	33	249	4.2	19	68.5	52.5
4562-4642	34.1	50.3	0.68	1.68	0.044	130	-	40	170	4.6	36	13.9	9.8
4642-4726	33.0	49.8	0.65	1.63	0.083	79	-	51	158	5.4	34	14.2	8.64
4726-4813	29.7	44.7	0.72	1.72	0.18	165	-	49	195	5.9	42	23.0	16.60
4813-4929	28.8	43.6	0.72	1.76	0.060	125	-	50	195	4.6	43	24.8	16.7

*Analyt, Penn Schloemann, Analytical Laboratories

**Fe less than 0.05 ppm

***I less than 4 ppm

PORT RICHMOND DEPOSIT-CANSO-BRAS D'OR AREA
Table 7-9. Analyses* of composite samples, calculated on brine basis, from drillhole DCPR-3, Port Richmond deposit (Rowe, 1968b).

Interval (ft.)	Na (%)	Cl (%)	Ca (%)	SO ₄ (%)	K (%)	Mg (ppm)	Fe** (ppm)	Sr (ppm)	CO ₃ (ppm)	I*** (ppm)	Br (ppm)	Sample (g)	Water (g)
1742-1841	8.86	13.5	0.17	0.36	0.016	26	0.22	13	37	1.7	11	50.02	155.37
1841-1939	4.06	6.56	0.22	0.49	0.011	27	0.040	21	58	-	5.7	50.11	157.22
1939-2040	7.92	12.2	0.18	0.40	0.021	27	-	13	30	2.1	13	50.00	155.41
2040-2156	7.76	11.9	0.19	0.41	0.026	24	-	17	24	2.2	13	50.02	155.93
2156-2200	4.52	7.33	0.27	0.39	0.056	77	0.40	42	56	-	20	25.00	80.11
2200-2246	8.12	12.6	0.17	0.40	0.020	16	-	11	36	1.5	9.1	50.01	161.66
2246-2336	7.68	11.8	0.19	0.42	0.030	47	0.36	18	40	-	14	25.00	80.02
2336-2462	7.77	11.9	0.18	0.40	0.035	51	0.043	18	40	-	17	50.01	160.33
2462-2480	5.09	8.06	0.24	0.28	0.047	71	0.11	94	48	2.3	17	50.02	160.00
2480-2606	7.85	12.2	0.18	0.39	0.047	53	-	10	37	-	24	50.00	161.25
2606-2693	2.95	4.77	0.22	0.33	0.050	258	0.049	41	43	-	18	50.00	160.29
2693-2779	8.76	13.4	0.13	0.29	0.031	25	0.38	6.9	23	-	9.4	25.00	80.10
2779-2826	3.76	6.06	0.16	0.28	0.036	192	0.027	37	33	1.7	15	50.00	160.25
2826-3053	7.19	11.0	0.19	0.43	0.012	31	-	14	60	1.2	13	50.13	160.83
3053-3167	6.82	10.3	0.20	0.45	0.007	24	-	15	44	1.3	9.1	50.02	160.19
3167-3224	3.11	4.77	0.15	0.24	0.012	64	-	28	71	-	8.7	50.05	160.38
3224-3355	3.46	5.32	0.11	0.14	0.015	52	-	17	82	1.2	9.0	50.03	161.05
3355-3614	6.63	10.0	0.19	0.43	0.011	58	-	16	78	-	10	50.36	159.76
3667-3705	3.16	4.82	0.07	0.04	0.018	88	-	28	68	1.3	6.4	49.48	176.64
3846-4104	6.47	9.71	0.17	0.40	0.009	38	-	19	67	1.1	7.1	50.02	160.23
4104-4205	3.16	4.79	0.07	0.10	0.014	64	-	20	77	1.8	6.4	50.03	160.37
4205-4324	6.90	10.5	0.19	0.43	0.007	27	-	19	67	1.1	6.2	50.66	159.52
4324-4356	3.80	5.82	0.16	0.34	0.009	32	0.030	21	45	1.2	5.1	50.04	159.97
4356-4519	7.41	11.2	0.18	0.42	0.005	20	-	18	55	1.4	5.7	50.03	160.37
4519-4562	3.24	5.41	0.04	0.04	0.008	30	0.030	9.4	71	1.2	5.3	50.09	160.33
4562-4642	8.38	12.4	0.17	0.41	0.011	32	-	9.8	42	1.1	8.9	50.05	160.29
4642-4726	8.20	12.4	0.16	0.40	0.021	20	-	13	39	1.4	8.3	50.50	160.11
4726-4813	7.46	11.3	0.18	0.43	0.045	42	-	12	49	1.5	12	50.00	160.23
4813-4929	7.28	11.0	0.18	0.44	0.015	32	-	13	49	1.2	10	50.08	160.61

*Penn Schloemann, Analytical Laboratories

**Fe less than 0.01 ppm

***I less than 1 ppm

PORT RICHMOND DEPOSIT-CANSO-BRAS D'OR AREA

Table 7-10. Analyses of salt core samples, drillhole PM-1, Port Richmond deposit (Rowe, 1966).

Sample Interval (feet)	Water Insoluble (%)	Specific Gravity (%)	Sodium Chloride (%)	Calcium (ppm)	Sulfate (ppm)	Potassium (ppm)	Magnesium (ppm)
926.5 - 939.5	3.54	1.203	25.85	830	2050	36	2.5
1038.5 -1045.5	50.22	1.118	15.10	1870	5070	26	5.1
1056.5 -1065.5	31.48	1.155	20.05	1520	4100	38	1.9
1065.5 -1074.5	34.83	1.152	19.47	1562	4100	38.5	1.9
1074.5 -1083.5	58.60	1.090	11.68	2290	5704	25	1.2
1083.5 -1092.5	61.96	1.065	8.07	2050	5470	19	1.9
1092.5 -1101.5	57.88	1.097	12.56	2051	5400	30	1.9
1101.5 -1105.5	36.31	1.146	18.90	2000	4490	46.5	2.7
1105.5 -1115.5	40.50	1.137	17.56	1950	4950	50	2.3
1115.5 -1125.5	39.18	1.140	18.20	2070	4800	58	4.0
1125.5 -1135.5	32.90	1.151	19.48	1650	4510	52	5.2
1135.5 -1145.5	36.68	1.146	18.60	2070	4700	56	1.0
1145.5 -1155.5	38.80	1.141	18.35	1800	4780	34	1.8
1370 -1381	9.17	1.200	25.75	959	2547	5.5	6.2
1381 -1392	2.72	1.202	25.90	850	2450	71	17
1392 -1403	5.28	1.202	25.98	960	2750	60	2.5
1451.5 -1461.5	5.35	1.202	25.89	981	2676	22	1.5
1461.5 -1471.5	6.83	1.202	25.95	1000	2600	44	1.0
1471.5 -1481.5	9.57	1.202	25.90	1167	2950	22	1.9
1481.5 -1493	24.85	1.165	22.15	1500	3650	13	6.2
1507.25-1513	12.75	1.195	25.30	1300	2860	36	5.0
1514 -1524	10.60	1.197	25.60	960	2600	21	2.5
1524 -1534	3.36	1.202	25.97	790	2150	22	1.3
1534 -1543.5	8.70	1.201	25.85	982	2736	21	2.5
1547 -1556.2	27.00	1.170	22.68	1530	3390	49	8.6
1637 -1647	34.25	1.164	20.90	1632	3661	70.5	16
1647 -1657	10.36	1.201	25.95	849	2338	34	4.6
1657 -1667	20.35	1.189	24.47	883	2290	53	9.5
1667 -1677	4.63	1.203	25.95	939	2453	41	2.5
1677 -1687	4.56	1.203	25.98	835	2200	34	2.1
1687 -1697	2.69	1.203	25.97	750	2200	29	2.0
1697 -1707	2.45	1.203	25.97	790	2450	28	6.7
1707 -1717	6.78	1.201	25.93	870	2080	35	5.0
1717 -1729	18.91	1.189	24.80	1051	2386	19	13.5
1729 -1740.5	19.18	1.184	24.28	1050	2358	46	12
1815 -1818.75	9.37	1.202	25.92	998	2650	29.8	2.5
1822.3 -1818.3	18.34	1.186	24.2	1265	3150	33	5.1
1838.2 -1851	7.34	1.202	25.95	875	2400	21	2.5
1851 -1863.9	17.88	1.187	24.20	1160	2822	29	2.9
1968.8 -1977.8	2.48	1.202	25.91	956	2734	28	2.1
1977.8 -1986.8	1.57	1.201	25.98	791	2220	41	2.1
1986.8 -1995.8	9.25	1.201	25.93	1000	2847	42	3.8
1995.8 -2005.5	3.02	1.203	25.92	946	2437	29	1.7