

# APPENDIX 1. DIAMOND-DRILL LOGS AND ANALYSES

## COLCHESTER COUNTY

### BEAVER BROOK AREA (BB-1-1, BB-2-1)\*

Hole #	Depth (m)	Depth (ft.)	CaO	MgO	SiO <sub>2</sub>	Na <sub>2</sub> O	K <sub>2</sub> O	Cl	Al <sub>2</sub> O <sub>3</sub>	Fe <sub>2</sub> O <sub>3</sub>	MnO	NaEq
1	11.9-19.5	39-64	53.82	0.30	2.68	0.05	0.07	0.020	0.41	0.37	0.25	0.09
2	11.3-18.9	37-62	48.50	0.40	10.74	0.05	0.23	0.006	1.54	0.76	0.33	0.20
Average			51.16	0.35	6.71	0.05	0.15	0.013	0.98	0.56	0.29	0.15
Standard Deviation			3.76	0.07	5.70	0.00	0.12	0.010	0.80	0.28	0.06	0.08
*after Levaque <i>et al.</i> , 1988												

## COLCHESTER COUNTY

### BLACK ROCK AREA (BR-1-1)\*

Hole #	Depth (m)	Depth (ft.)	CaO	MgO	SiO <sub>2</sub>	Na <sub>2</sub> O	K <sub>2</sub> O	Cl	Al <sub>2</sub> O <sub>3</sub>	Fe <sub>2</sub> O <sub>3</sub>	MnO	NaEq
1	6.4-13.7	21-45	48.48	0.99	6.23	0.05	0.31	0.025	1.30	1.50	0.22	0.25
4	6.1-10.4	20-34	36.14	1.52	22.14	0.21	0.99	0.010	4.60	4.19	0.32	0.86
5	15.2-24.4	50-80	50.58	0.38	6.83	0.05	0.36	0.016	1.53	1.07	0.13	0.29
Average			45.07	0.96	11.73	0.10	0.55	0.017	2.48	2.25	0.22	0.47
Standard Deviation			7.80	0.57	9.02	0.09	0.38	0.008	1.84	1.69	0.10	0.34
*after Levaque <i>et al.</i> , 1988												

## COLCHESTER COUNTY

## HILDEN AREA (IRWINS LAKE) (Hi-1-1) (Hi-1-2)

**Hole Number:** 1 (Hilden)  
**Location:** See Figures 5 and 65 for approximate location  
**Ultimate Depth:** 15.7 m (51'07")  
**Proposed Depth:** Arbitrary  
**Dip:** -90°

Depth m (ft)	Formation	Description
0-0.6 (0'-2')	Overburden	
0.6-11 (2'-36'03")	Dolomite	Multicoloured, hard, dense, massive, very fossiliferous, Windsor Group dolomite, belonging to the B <sub>1</sub> Subzone (Bell, 1929). No bedding is shown. Fossils found include bryozoans, brachiopods, crinoid stems and cephalopods. The crinoid stems have been entirely replaced by black dolomite. Most of the cavities are fossil cavities, and are partially filled by calcite crystals. Contains a few seams of clay. There is a red iron staining throughout, surrounding some of the cavities. Generally, where crinoid stems are very abundant, there are no other fossils present. Becomes more argillaceous near the bottom of the dolomite.
11-15.7 (36'03"-51'07")	Anhydrite	Light grey and hard Windsor Group anhydrite

END OF HOLE

Sample Number	Width m (ft)	SiO <sub>2</sub> %	R <sub>2</sub> O <sub>3</sub> %	CaO %	MgO %	L.O.I. %
Hi-1-1	0.6-1.5 (2-5)	0.70	2.19	33.70	17.50	-
Hi-1-2	1.5-3.1 (5-10)	0.85	2.40	33.70	16.95	-
Hi-1-3	3.1-4.6 (10-15)	0.84	2.11	32.00	18.95	-
Hi-1-4	4.6-6.1 (15-20)	1.30	2.50	33.30	17.50	-
Hi-1-5	6.1-7.6 (20-25)	0.85	2.32	31.10	19.20	-
Average Assay		0.90	2.30	32.76	18.02	-

## COLCHESTER COUNTY

## PEMBROKE RIVER AREA (Pb-6-1)

**Hole Number:** 1 (Pembroke River)  
**Location:** See Figures 11 and 67 for approximate location  
**Ultimate Depth:** 14.6 m (47'09")  
**Proposed Depth:** Arbitrary  
**Dip:** -90°

Depth m (ft)	Formation	Description
0-7.0 (0'-23')	Overburden.	(Limestone boulders).
7.0-7.3 (23'-24')	Limestone	Dark brown, slightly porous, siliceous, dolomitic, Windsor Group limestone. Contains some galena as thin, small veins. Also contains some small, white, thin, calcite veinlets.
7.3-10.7 (24'-35')	Lost core	(Cavity).
10.7-14.6 (35'-47'09")	Gypsum	White, soft, with numerous black, argillaceous bands. Core is dipping approximately 60°. A few thin bands of satin spar at 10.7 m (35').

END OF HOLE

**Hole Number:** 2 (Pembroke River)  
**Location:** Lat.: 45°17'06", Long.: 62°56'24"  
**Ultimate Depth:** 19.3 m (63'05")  
**Proposed Depth:** Arbitrary  
**Dip:** -90°

Depth m (ft)	Formation	Description
0-1.5 (0'-5')	Overburden.	
1.5-16.8 (5'-55'01")	Limestone	Varies from light grey to dark grey in colour, very hard, fossiliferous, massive, Windsor Group limestone belonging to the B <sub>1</sub> Subzone. Limestone is highly fractured and brecciated with much associated galena. There are numerous fossil cavities (mainly brachiopods) and numerous small calcite veins ranging up to 0.64 cm thick. These

veins and stringers of calcite have no definite orientation. Galena is found in small blebs throughout with seams of galena at various sections. Some of the cavities contain conate water along with some small calcite crystals. Some stylolites are present.

16.8-19.3 (55'01"-63'05") Gypsum

Banded, soft gypsum containing some bands of satin spar and some small, rounded fragments of anhydrite. The bands in the gypsum are formed by black carbonaceous gypsum. These bands form an angle of 70° (average) with the horizontal.

END OF HOLE

Special Notes: 5.79-5.81 m (19'-19'01")  
6.6 m (21'07")  
16.3 m (53'05")

Seam of galena.  
Seam of galena.  
Limestone becomes almost black and fine grained with numerous seams of black carbonaceous material.

Lost Core: 10.1-10.5 m (33'01"-34'06")  
11.4-13.3 m (37'05"-43'08")  
13.7-16.3 m (45'-53'05")

Cavities.

Sample Number	Width		SiO <sub>2</sub> %	R <sub>2</sub> O <sub>3</sub> %	CaO %	MgO %	L.O.I. %
	m	(ft)					
Pb-2-1	1.5-3.1	(5-10)	0.97	1.05	53.70	0.78	42.95
Pb-2-2	3.1-4.6	(10-15)	0.98	1.20	54.25	0.40	43.00
Pb-2-3	4.6-6.1	(15-20)	0.80	1.15	53.60	0.78	42.99
Pb-2-4	6.1-7.6	(20-25)	1.15	1.55	53.45	0.58	42.45
Pb-2-5	7.6-9.2	(25-30)	1.45	1.30	54.15	0.40	42.85
Pb-2-6	9.2-10.7	(30-35)	1.46	0.86	53.60	0.64	43.05
Pb-2-7	10.7-12.2	(35-45)	1.76	1.04	53.35	0.80	42.85
Pb-2-8	15.3-16.8	(50-55)	4.10	1.85	51.75	0.43	41.50
Average Assay			1.58	1.25	53.5	0.60	

## COLCHESTER COUNTY

## PENNY MOUNTAIN AREA (PM-2-1)\*

The following is the average of detailed chemical analyses of 78 m of drillcore.

SiO <sub>2</sub>	Al <sub>2</sub> O <sub>3</sub>	TiO <sub>2</sub>	P <sub>2</sub> O <sub>5</sub>	Fe <sub>2</sub> O <sub>3</sub>	CaO	MgO	Na <sub>2</sub> O	K <sub>2</sub> O	SO <sub>3</sub>	SrO	LOI	Cl
6.79	1.70	0.06	0.04	0.53	49.99	0.66	0.06	0.17	0.17	0.04	39.81	0.009
*analyses from Lefrenière and Clark, 1986												

## HALIFAX COUNTY

## DOLLAR LAKE AREA (DL-1-1)

**Hole Number:** 1 (Dollar Lake)  
**Location:** Lat.: 44°56'39", Long.: 63°17'11"  
**Ultimate Depth:** 24.1 m (79'02")  
**Proposed Depth:** Arbitrary  
**Dip:** -90°

Depth m (ft)	Formation	Description
0-2.1 (0'-6'11")	Overburden	
2.1-20.9 (6'11"-68'06")	Dolomite	Brown, hard, dense, massive, Windsor Group dolomite, belonging to the B <sub>1</sub> Subzone (Bell, 1929). Very few fossils. A few brachiopods were found. Numerous small cavities and some calcite filled brachiopod cavities. Contains some secondary calcite, but only in small amounts. The dolomite becomes grey in colour and more calcareous near the bottom. No bedding is shown.
20.9-22.5 (68'06"-73'10")	Limestone	Grey, hard, very argillaceous, with small fragments of the underlying Meguma Group slate. Numerous thin seams of black carbonaceous material throughout, with small rounded white fragments (fossils(?)).
22.5-24.1 (73'10"-79'02")	Slate	Grey, hard, Meguma Group slate with numerous fractures and shears.

END OF HOLE

Sample Number	Width m	(ft)	SiO <sub>2</sub> %	R <sub>2</sub> O <sub>3</sub> %	CaO %	MgO %	L.O.I. %
DL-1-1	2.1-3.1	(6.09-10)	0.40	2.81	31.40	19.40	46.45
DL-1-2	3.1-4.6	(10-15)	0.55	2.27	31.05	19.50	46.40
DL-1-3	4.6-6.1	(15-20)	0.48	2.60	31.15	19.55	46.25
DL-1-4	6.1-7.6	(20-25)	0.98	2.42	31.65	18.95	45.70
DL-1-5	7.6-9.2	(25-30)	1.20	2.77	30.40	19.70	46.05
DL-1-6	9.2-10.7	(30-35)	0.89	2.74	30.50	19.75	46.10
DL-1-7	10.7-12.2	(35-40)	1.60	2.68	31.20	19.00	45.60
DL-1-8	12.2-13.7	(40-45)	0.74	2.01	31.10	19.75	46.30
DL-1-9	13.7-15.3	(45-50)	1.03	2.46	30.60	19.55	45.95
DL-1-10	15.3-16.8	(50-55)	1.44	2.97	30.75	18.85	45.90
DL-1-11	16.8-18.3	(55-60)	3.54	4.64	30.30	17.65	44.05
DL-1-12	18.3-19.8	(60-65)	1.41	3.00	30.50	19.05	45.40
DL-1-13	19.8-21.4	(65-70)	10.10	7.50	26.90	14.95	39.90
DL-1-14	21.4-22.6	(70-74)	31.20	9.80	19.25	11.58	27.60
Average Assay			3.97	3.62	29.76	17.68	

**Hole Number:** 2 (Dollar Lake)  
**Location:** Lat.: 44°56'35", Long.: 63°17'09"  
**Ultimate Depth:** 17.9 m (58'10")  
**Proposed Depth:** Arbitrary  
**Dip:** -90°

Depth m (ft)	Formation	Description
0-1.2 (0'-4')	Overburden	
1.2-10.7 (4'-35')	Dolomite	Brown, hard, massive, slightly porous, B <sub>1</sub> Subzone (Bell, 1929), Windsor Group dolomite. Contains numerous small cavities, some partially filled with calcite. No bedding is shown. Any fossils which may have been present appear to have been destroyed.
10.7-13.4 (35'-43'11")	Dolomite	Grey, hard, dense, medium grained, siliceous, Windsor Group dolomite. The dolomite contains numerous black bands of carbonaceous material. Contains some pyrite and chalcopyrite along these seams.
13.4-17.9 (43'11"-58'10")	Slate	Dark grey, Meguma Group slate alternating at various intervals with a breccia. Numerous shears containing graphitic material. Portions of the slate contain some red hematite material.

END OF HOLE

Sample Number	Width m	(ft)	SiO <sub>2</sub> %	R <sub>2</sub> O <sub>3</sub> %	CaO %	MgO %	L.O.I. %
DL-2-1	1.2-3.1	(4-10)	0.60	3.42	31.40	18.70	45.98
DL-2-2	3.1-4.6	(10-15)	0.60	3.08	31.60	18.55	46.05
DL-2-3	4.6-6.1	(15-20)	0.85	3.51	32.10	17.85	45.95
DL-2-4	6.1-7.6	(20-25)	0.86	3.19	31.90	18.35	45.85
DL-2-5	7.6-9.2	(25-30)	0.96	2.04	31.85	18.65	45.75
DL-2-6	9.2-10.7	(30-35)	1.29	4.25	32.00	17.45	45.40
DL-2-7	10.7-12.2	(35-40)	3.95	5.40	29.95	16.65	43.60
DL-2-8	12.2-13.4	(40-44)	4.65	4.80	29.40	17.20	42.99
Average Assay			1.72	3.71	31.29	17.90	

**Hole Number:** 3 (Dollar Lake)  
**Location:** Lat.: 44°56'31", Long.: 63°17'06"  
**Ultimate Depth:** 10.7 m (35')  
**Proposed Depth:** Arbitrary  
**Dip:** -90°

Depth m (ft)	Formation	Description
0-6.7 (0'-21'11")	Overburden	
6.7-10.7 (21'11"-35')	Slate	(Meguma Group) Dark grey, hard, very micaceous with cleavage dipping 55°. Numerous shears contain dark carbonaceous material with slippage in the horizontal direction. Some red hematite staining.
END OF HOLE		

**Hole Number:** 4 (Dollar Lake)  
**Location:** Lat.: 44°56'41", Long.: 63°17'09"  
**Ultimate Depth:** 15.3 m (50')  
**Proposed Depth:** Arbitrary  
**Dip:** -90°

Depth m (ft)	Formation	Description
0-11 (0'-36')	Overburden	Sand and gravel.
11-15.3 (36'-50')	Slate	(Meguma Group).
END OF HOLE		

## HALIFAX COUNTY

## GAYS RIVER AREA (GR-3-2, GR-3-3) (COOKS BROOK)

**Hole Number:** 1 (Gays River)  
**Location:** Lat.: 45°02'10", Long.: 63°18'52"  
**Ultimate Depth:** 18.6 m (61')  
**Proposed Depth:** Arbitrary  
**Dip:** -90°

Depth m (ft)	Formation	Description
0-2.4 (0'-8')	Overburden	
2.4-15.5 (8'-50'11")	Dolomite	Grey, hard, dense, fossiliferous, massive, B <sub>1</sub> Windsor Group dolomite. Dolomite is slightly porous. Bryozoans are the only abundant fossil type with some brachiopods and one <i>Paraconularia planicostata</i> being found. Two types of bryozoa are found, the stick type and the fenestrate type. Only a few stylolites are in evidence. Very few cavities and secondary calcite.
15.5-15.7 (50'11"-51'08")	Breccia	Small, angular fragment of quartzite in a dolomite matrix. Limestone matrix contains small fossil fragments.
15.7-18.6 (51'08"-61')	Quartzite	Grey, hard, dense, micaceous, Goldenville Formation quartzite.

END OF HOLE

Sample Number	Width m	Width (ft)	SiO <sub>2</sub> %	R <sub>2</sub> O <sub>3</sub> %	CaO %	MgO %	L.O.I. %
CB-1-1	2.4-3.1	(8-10)	1.58	2.30	30.60	19.45	45.55
CB-1-2	3.1-4.6	(10-15)	1.18	1.81	31.20	19.35	46.05
CB-1-3	4.6-6.1	(15-20)	1.37	1.69	32.05	19.05	46.05
CB-1-4	6.1-9.1	(20-30)	7.65	2.28	29.70	17.05	42.50
CB-1-5	9.1-10.7	(30-35)	3.23	1.87	31.10	18.40	45.05
CB-1-6	10.7-12.2	(35-40)	5.18	2.43	30.40	17.85	44.20
CB-1-7	12.2-13.7	(40-45)	5.25	2.27	30.45	18.05	44.05
CB-1-8	13.7-15.2	(45-50)	8.55	3.02	28.75	17.20	40.50
CB-1-9	15.2-15.9	(50-52)	35.25	7.55	18.90	9.85	27.20
Average Assay	2.4-15.2	(8-50)	4.26	2.21	30.53	18.30	44.25

Special Notes: 7.8-15.5 m (25'08"-50'11") Bryozoans are very abundant.  
14.5 m (47'07") 1 *Paraconularia planicostata*.

**Hole Number:** 2 (Gays River)  
**Location:** Long.: 45°02'19", Long.: 63°18'15"  
**Ultimate Depth:** 21.4 m (70')  
**Proposed Depth:** Arbitrary  
**Dip:** -90°

Depth m (ft)	Formation	Description
0-2.4 (0'-8')	Overburden	
2.4-18.5 (8'-60'08")	Dolomite	Dark brown, hard, dense, massive, fossiliferous, Windsor Group dolomite. Bryozoan are abundant along with some brachiopods, pelecypods and gastropods. Both fenestrate and stick bryozoa are present with stick bryozoa being very abundant from 10.5 m (34'04") to the end of the dolomite. Fossils are very abundant, small and not well preserved. Few stylolites are present and are more or less parallel to the horizontal. These seams contain black carbonaceous material. Very few large cavities, but numerous small cavities (some filled with calcite) making the dolomite slightly porous. Few blebs of pyrite and chalcopyrite noticed. Few small fragments of quartzite found at various levels. Dolomite becomes very soft and porous at the quartzite contact.
18.5-20.7 (60'08"-67'11")	Quartzite	Dark grey, hard, fine grained, Goldenville Formation quartzite.

20.7-21.4 (67'11"-70') Breccia Quartzite fragments in a limestone matrix. Some bands of quartzite. Hole ended in this breccia.

END OF HOLE

Special Notes: 2.6 m (8'05") Fenestrate bryozoa.  
 5.28-5.33 m (17'04"-17'06") Quartzite fragment.  
 5.41-5.51 m (17'09"-18'01") Quartzite fragment.  
 8.9 m (29'03") Pyrite.  
 10.5 m (34'04") Stick bryozoa become very abundant from here to the end of the limestone. Bryozoa are filled with white chalk like calcite with a hollow section in the middle.  
 11.25 m (36'11") Chalcopyrite lining some of the very small cavities.  
 16 m (52'08") Fragments of quartzite.  
 17.9 m (58'11") Small quartzite fragments found in the limestone.

Sample Number	Width m	(ft)	SiO <sub>2</sub> %	R <sub>2</sub> O <sub>3</sub> %	CaO %	MgO %	L.O.I. %
CB-2-1	2.4-4.6	(8-15)	1.04	1.95	31.95	18.90	46.45
CB-2-2	4.6-6.1	(15-20)	2.94	2.32	30.50	17.95	45.60
CB-2-3	6.1-7.6	(20-25)	0.82	1.87	31.60	19.35	46.55
CB-2-4	7.6-9.2	(25-30)	2.30	1.34	31.10	19.55	46.05
CB-2-5	9.2-10.7	(30-35)	2.48	1.56	30.50	19.60	45.85
CB-2-6	10.7-12.2	(35-40)	1.65	1.98	30.75	19.15	46.05
CB-2-7	12.2-13.7	(40-45)	3.89	2.33	30.05	17.95	44.95
CB-2-8	13.7-15.3	(45-50)	7.03	2.75	30.40	16.75	43.05
CB-2-9	15.3-16.8	(50-55)	10.70	3.24	29.50	15.15	40.95
CB-2-10	16.8-18.5	(55-60.08)	14.40	4.21	27.30	13.95	38.55
Average Assay 2.4-13.7 m (8-45)			2.16	1.90	30.91	18.91	45.95

**Hole Number:** 3 (Gays River)  
**Location:** Lat.: 45°02'19", Long.: 63°18'46"  
**Ultimate Depth:** 15.7 m (51'08")  
**Proposed Depth:** Arbitrary  
**Dip:** -90°

Depth m (ft)	Formation	Description
0-2.6 (0'-8'08")	Overburden	
2.6-13.6 (8'08"-44'09")	Dolomite	Brown, hard, slightly porous, massive, fossiliferous, B <sub>1</sub> Windsor Group dolomite. Fossils are abundant, but not well preserved. Fossils include gastropods, pelecypods, bryozoa and brachiopods. Contains a few stylolites containing black carbonaceous material along the seam. At 10.7 m (35') bryozoa becomes very abundant. Dolomite makes an angle of 50° with the underlying quartzite at the contact.
13.6-15.7 (44'09"-51'08")	Quartzite	Dark grey, very hard, fine grained, Goldenville Formation quartzite.

END OF HOLE

Lost Core: 3.3-4.0 m (10'09"-13'01")  
6.7-7.3 m (21'11"-24')

Sample Number	Width m	Width (ft)	SiO <sub>2</sub> %	R <sub>2</sub> O <sub>3</sub> %	CaO %	MgO %	L.O.I. %
CB-3-1	2.6-4.6	(8.08-15)	0.81	1.80	31.35	19.55	46.20
CB-3-2	4.6-6.1	(15-20)	1.19	1.75	32.45	18.35	46.65
CB-3-3	6.1-7.6	(20-25)	1.13	1.75	31.20	19.70	46.40
CB-3-4	7.6-9.2	(25-30)	2.41	1.42	31.30	18.81	45.75
CB-3-5	9.2-10.7	(30-35)	1.45	1.83	32.05	18.40	46.25
CB-3-6	10.7-12.2	(35-40)	2.62	1.99	30.90	18.85	45.45
CB-3-7	12.2-13.7	(40-44.10)	5.49	2.38	30.20	17.55	44.05
Average Assay			2.16	1.84	31.30	18.85	45.90

**Hole Number:** 4 (Gays River)  
**Location:** Lat.: 45°02'18", Long.: 63°18'43"  
**Ultimate Depth:** 12.2 m (40')  
**Proposed Depth:** Arbitrary  
**Dip:** -90°

Depth m (ft)	Formation	Description
0-2.6 (0'-8'07")	Overburden	(A cavity was penetrated at 0.6 m (2')).
2.6-10.4 (8'07"-34')	Dolomite	Light brown, hard, dense, massive, fossiliferous, B <sub>1</sub> Windsor Group dolomite. Bryozoa are very abundant throughout (mainly the fenestrate type with some stick type bryozoa). Other fossils found include brachiopods, gastropods, pelecypods and two <i>Paraconularia planicostata</i> . Some very small tension fractures containing clear calcite are found throughout. Very few stylolites are present. Dolomite changes to a slightly siliceous limestone in the latter 0.9 m (3') of the carbonate section.
10.4-12.2 (34'-40')	Quartzite	Hard, dense, dark grey, fine grained, Goldenville Formation quartzite.

END OF HOLE

Special Notes: 7.7 m; 7.9 m (25'05"; 25'11") *Paraconularia planicostata*.  
8.5 m (27'10") Quartzite fragment.  
9.5-10.4 m (31'-34') Dolomite becomes more calcareous. It is hard, grey, slightly siliceous with very few fossils.

Sample Number	Width m	Width (ft)	SiO <sub>2</sub> %	R <sub>2</sub> O <sub>3</sub> %	CaO %	MgO %	L.O.I. %
CB-4-1	2.6-4.6	(8.06-15)	2.22	1.59	31.40	19.25	45.85
CB-4-2	4.6-6.1	(15-20)	3.22	2.10	30.80	18.75	45.15
CB-4-3	6.1-7.6	(20-25)	1.71	1.67	32.05	18.75	46.10
CB-4-4	7.6-9.2	(25-30)	3.77	1.89	30.95	18.25	44.95
CB-4-5	9.2-10.4	(30-34)	6.16	2.39	30.05	17.95	43.55
Average Assay 2.6-9.2 m (8.06-30)			2.73	1.81	31.30	18.80	45.50

**Hole Number:** 5 (Gays River)  
**Location:** Lat.: 45°02'21", Long.: 63°18'39"  
**Ultimate Depth:** 7.5 m (24'06")  
**Proposed Depth:** Arbitrary  
**Dip:** -90°

<b>Depth m (ft)</b>	<b>Formation</b>	<b>Description</b>
0-3.1 (0'-10')	Overburden	(Broken dolomite from 1.2-3.0 m (4'-10') with no core).
3.1-5.9 (10'-19'03")	Dolomite	Greyish-brown, hard, dense, massive, B <sub>1</sub> Windsor Group dolomite. Contains very few fossils with only a few bryozoa being found. Very few cavities, some containing clear calcite. Stylolites are abundant with dark carbonaceous material along these seams.
5.9-7.5 (19'03"-24'06")	Quartzite	Dark grey, very hard, fine grained, micaceous, Goldenville Formation quartzite. One part of this quartzite is brecciated.

END OF HOLE

Special Notes: 6.81-6.86 m (22'04"-22'06") Breccia - quartzite fragments in a dolomite matrix.

<b>Sample Number</b>	<b>Width</b>		<b>SiO<sub>2</sub></b>	<b>R<sub>2</sub>O<sub>3</sub></b>	<b>CaO</b>	<b>MgO</b>	<b>L.O.I.</b>
	<b>m</b>	<b>(ft)</b>	<b>%</b>	<b>%</b>	<b>%</b>	<b>%</b>	<b>%</b>
CB-5-1	3.1-4.6	(10-15)	3.09	2.11	30.35	19.20	45.45
CB-5-2	4.6-5.9	(15-19.03)	1.86	1.59	31.05	19.35	46.05
Average Assay			2.48	1.85	30.70	19.28	45.75

**Hole Number:** 6 (Gays River)  
**Location:** Lat.: 45°02'22", Long.: 63°18'41"  
**Ultimate Depth:** 22.9 m (75')  
**Proposed Depth:** Arbitrary  
**Dip:** -90°

<b>Depth m (ft)</b>	<b>Formation</b>	<b>Description</b>
0-1.3 (0'-4'04")	Overburden	
1.3-20.7 (4'04"-68')	Dolomite	It is a light brown, hard, slightly porous, granular, massive, fossiliferous, Windsor Group dolomite. The fossils found include gastropods, bryozoans, brachiopods, pelecypods, conularia and some unidentified, small, horn shaped fossils. Also contains some small, rounded, oncolitic type structures from 3.2-3.5 m (10'06"-11'04") giving the dolomite a mottled appearance. No apparent orientation of the fossils except that the gastropods have their apex slanting down the hole or flat lying. Cavities are not very abundant (mainly fossil cavities). Secondary calcite fills most of these cavities. Numerous black carbonaceous seams are present. Some of the dark seams are stylolites. These stylolites are more or less flat lying and are the only indicators of any stratification. At 5.8 m (19') some of the cavities contain some purple crystals (fluorite(?) or calcite(?)). At 13.1 m (42'11") stick bryozoans become very abundant, similar to the other holes at Cooks Brook. Fenestrate bryozoans are also present here. Small quartzite fragments are found in the dolomite near the end of the dolomite section.
20.7-21.4 (68'-70'04")	Quartzite	Dark grey, hard, fine grained, Goldenville Formation quartzite.
21.4-21.7 (70'04"-71'03")	Breccia	Dark grey, quartzite fragments in a grey, hard, dense, limestone matrix.
21.7-21.8 (71'03"-71'08")	Quartzite	Dark grey, hard, fine grained, Goldenville Formation quartzite.
21.8-22.1 (71'08"-72'07")	Breccia	Dark grey, quartzite fragments in a limestone.
22.1-22.3 (72'07"-73'03")	Limestone	Dark grey, hard, dense, Windsor Group limestone.

22.3-22.7 (73'03"-74'06")	Breccia	Dark grey, quartzite fragments in a grey, hard limestone matrix.
22.7-22.9 (74'06"-75')	Quartzite	Dark grey, hard, fine grained, Goldenville Formation quartzite.

## END OF HOLE

Special Notes:	3.2-3.6 m (10'06"-11'04")	Small, rounded, oncolitic type structures giving the dolomite a mottled appearance.
	3.7-3.8 m (12'02"-12'06")	Black carbonaceous seams along with thin calcite veins.
	5.8 m (19')	Purple fluorite(?) or calcite in cavity.
	13.1-20.7 m (42'11"-68')	Stick bryozoans become very abundant.
	15.9 m (52'02")	<i>Paraconularia planicostata</i> .
	15.4-17.3 m (50'05"-56'09")	Very porous, very fossiliferous section composed almost entirely of fossil shells and fragments.
	19.8-20.7 m (65'-68')	Small quartzite fragments found in the dolomite.
Lost Core:	1.5-2.8 m (5'-9'01")	
	12.2-12.6 m (40'-41'05")	

Sample Number	Width m	(ft)	SiO <sub>2</sub> %	R <sub>2</sub> O <sub>3</sub> %	CaO %	MgO %	L.O.I. %
CB-6-1	1.3-4.6	(4.04-15)	1.01	1.50	31.45	19.40	46.55
CB-6-2	4.6-6.1	(15-20)	1.44	2.24	32.30	18.60	45.99
CB-6-3	6.1-7.6	(20-25)	1.42	2.16	31.40	18.95	45.85
CB-6-4	7.6-9.2	(25-30)	1.25	1.70	30.90	19.55	46.50
CB-6-5	9.2-10.7	(30-35)	1.36	1.82	31.80	19.05	46.35
CB-6-6	10.7-12.2	(35-40)	2.65	1.57	30.55	19.35	45.95
CB-6-7	12.2-13.7	(40-45)	2.28	1.36	31.10	19.05	46.15
CB-6-8	13.7-15.3	(45-50)	1.43	1.87	31.05	18.45	46.50
CB-6-9	15.3-16.8	(50-55)	1.84	2.74	31.05	18.45	45.85
CB-6-10	16.8-18.3	(55-60)	5.32	3.39	29.30	17.95	43.55
CB-6-11	18.3-19.8	(60-65)	9.95	3.80	28.80	15.70	41.15
CB-6-12	19.8-20.7	(65-68)	10.90	3.95	27.50	16.20	40.50
Average Assay	1.3-18.3	(4'04"-60')	2.00	2.04	31.09	18.88	45.92

**Hole Number:** 7 (Gays River)  
**Location:** Lat.: 45°02'24", Long.: 63°18'24"  
**Ultimate Depth:** 19.9 m (65'05")  
**Proposed Depth:** Arbitrary  
**Dip:** -90°

<b>Depth m (ft)</b>	<b>Formation</b>	<b>Description</b>
0-2.2 (0'-7'04")	Overburden	
2.2-8.5 (7'04"-28')	Dolomite	Light brown, hard, slightly porous, fossiliferous, massive, Windsor Group dolomite. The fossils found include brachiopods, bryozoans, gastropods, paraconularia and pelecypods. Fossils are not very abundant as compared with other holes in this area. All cavities are filled or partially filled with calcite. The fossil cavities generally contain drusy, calcite crystals. Contains some black, carbonaceous seams. No stylolites were noted.
8.5-9.2 (28'-30')	Limestone	Light grey, hard, dense, slightly crystalline, fossiliferous, dolomitic Windsor Group limestone. Gastropods are very abundant with a few pelecypods.
9.2-16.9 (30'-55'06")	Dolomite	Light brown, hard, slightly porous, massive, fossiliferous, Windsor Group dolomite. Fossils include brachiopods, paraconularia, gastropods, bryozoans and pelecypods. No apparent orientation. Cavities are not abundant, but most cavities are completely filled with calcite. Some of the fossil cavities are partially filled with calcite crystals. No stylolites present. A few black carbonaceous seams are present and are trending in a vertical direction. Small quartzite fragments are found in the dolomite from 15.5-16.9 (50'11"-55'06").
16.9-17.2 (55'06"-56'05")	Quartzite	Dark grey, hard, dense, fine grained, Goldenville Formation quartzite.
17.2-17.3 (56'05"-56'11")	Breccia	Small, dark grey quartzite fragments in a light brown, dolomite matrix.

17.3-18.0 (56'11"-59'01")	Quartzite	Dark grey, hard, dense, fine grained, Goldenville Formation quartzite containing some thin calcite veins.
18.0-18.3 (59'01"-60')	Breccia	Small, dark grey, quartzite fragments in a light brown dolomite matrix.
18.3-18.8 (60'-61'10")	Quartzite	Dark grey, hard, dense, fine grained, Goldenville quartzite containing some thin calcite veins.
18.8-19.2 (61'10"-63')	Breccia	Small, dark grey, quartzite fragments in a light brown dolomite matrix.
19.2-19.7 (63'-64'09")	Quartzite	Dark grey, hard, dense, fine grained, Goldenville Formation quartzite.
19.7-19.9 (64'09"-65'03")	Breccia	Quartzite fragments in a light brown dolomite matrix.
19.9-19.94 (65'03"-65'05")	Quartzite	Dark grey, hard, dense, fine grained, Goldenville Formation quartzite.

## END OF HOLE

Special Notes:	4.9 m (16'01")	<i>Paraconularia planicostata.</i>
	7.7 m (25'02")	<i>Paraconularia planicostata.</i>
	9.7 m (31'11")	<i>Paraconularia planicostata.</i>
	14.9 m (49')	<i>Paraconularia planicostata.</i>
	15.5-16.9 m (50'11"-55'06")	Small, dark grey, very hard, quartzite fragments are found in the dolomite.
Lost Core:	3.1-3.7 m (10'-12'01")	
	4.0-4.3 m (13'-14'01")	
	6.5-7.5 m (21'05"-24'08")	
	12.3-13.4 m (40'05"-43'10")	
	16.3-16.7 m (53'04"-54'08")	

Sample Number	Width m	(ft)	SiO <sub>2</sub> %	R <sub>2</sub> O <sub>3</sub> %	CaO %	MgO %	L.O.I. %
CB-7-1	2.2-4.6	(7.04-15)	2.51	2.32	31.30	18.65	45.00
CB-7-2	4.6-6.1	(15-20)	0.82	1.85	32.45	18.60	45.60
CB-7-3	6.1-7.6	(20-25)	1.35	1.80	32.45	18.65	45.70
CB-7-4	7.6-9.2	(25-30)	1.45	1.98	36.70	14.35	45.15
CB-7-5	9.2-10.7	(30-35)	1.53	1.70	31.80	18.59	46.20
CB-7-6	10.7-12.2	(35-40)	1.80	1.85	33.45	17.20	45.40
CB-7-7	12.2-15.3	(40-50)	5.45	3.12	34.45	13.35	42.75
CB-7-8	15.3-16.9	(50-55.06)	8.65	3.11	29.90	15.85	41.70
Average Assay 2.2-15.3 (7'04"-50')			2.13	2.07	33.20	17.05	45.20

## HALIFAX COUNTY

### MEAGHERS GRANT AREA (MG-5-1)

**Hole Number:** 1 (Meaghers Grant)  
**Location:** See Figures 46 and 74 for approximate location  
**Ultimate Depth:** 6.1 m (20')  
**Proposed Depth:** Arbitrary  
**Dip:** -90°

Depth m (ft)	Formation	Description
0-1.5 (0'-5')	Overburden	
1.5-3.0 (5'-9'09")	Dolomite	Brownish-grey, hard, dense, medium grained, Windsor Group dolomite. Contains numerous irregular fractures parallel to bedding plane and contains black carbonaceous material. No fossils noted. Contains numerous very small cavities. Very little secondary calcite associated with the dolomite.
3.0-6.1 (9'09"-20')	Quartzite	Greenish-grey, very hard, Goldenville Formation quartzite.

END OF HOLE

## HALIFAX COUNTY

## MIDDLE MUSQUODOBOIT AREA (Mo-2-1)

**Hole Number:** 1 (Middle Musquodoboit Mo-2-1)  
**Location:** Lat.: 45°00'21", Long.: 63°10'29"  
**Ultimate Depth:** 15 m (49'03")  
**Proposed Depth:** Arbitrary  
**Dip:** -90°

Depth m (ft)	Formation	Description
0-1.5 (0'-5')	Overburden	
1.5-4.8 (5'-15'10")	Limestone	Brown, hard, slightly porous, medium grained, dolomitic, Windsor Group limestone. Belongs to the Upper Windsor (Bell, 1929). No fossils were noted in the core; but, in the quarry, bryozoans, corals, crinoid stems and brachiopods ( <i>Giganto productus</i> ) were found. Very few cavities and no secondary calcite.
4.8-13.2 (15'10"-43'03")	Limestone	Grey, hard, dense, medium grained, Windsor Group limestone. Limestone is siliceous with small bands of clayey and arenaceous material throughout. Towards the bottom of the limestone it becomes very compact and fine grained. Few calcite stringers. Beds are flat lying.
13.2-14.7 (43'03"-48'04")	Conglomerate	Pebbles of rounded quartz and greywacke in a calcareous ground mass.
14.7-15 (48'04"-49'03")	Greywacke	Grey, medium grained, hard.

END OF HOLE

Sample Number	Width m	(ft)	SiO <sub>2</sub> %	R <sub>2</sub> O <sub>3</sub> %	CaO %	MgO %	L.O.I. %
Mo-1-1	1.5-3.1	(5-10)	11.70	4.39	27.75	15.50	40.50
Mo-1-2	3.1-4.6	(10-15)	16.85	8.72	25.80	11.25	37.70
Mo-1-3	4.6-6.1	(15-20)	13.30	5.99	28.80	12.50	38.80
Mo-1-4	6.1-7.6	(20-25)	28.90	6.35	24.60	9.00	30.10
Mo-1-5	7.6-9.2	(25-30)	20.50	5.70	30.80	7.95	33.60
Mo-1-6	9.2-11.0	(30-36)	36.20	8.68	27.75	1.25	24.20
Average Assay			21.24	6.63	27.58	9.57	34.15

### HALIFAX COUNTY

#### MIDDLE MUSQUODOBOIT AREA (MURCHYVILLE) (Mo-10-1)

**Hole Number:** 1 (Murchyville)  
**Location:** Lat.: 44°59'34", Long.: 63°08'19"  
**Ultimate Depth:** 13.2 m (43'04")  
**Proposed Depth:** Arbitrary  
**Dip:** -90°

Depth m (ft)	Formation	Description
0-0.6 (0'-1'10")	Overburden	
0.6-3.8 (1'10"-12'06")	Dolomite	Brown, hard, dense, massive, slightly fossiliferous, Windsor Group dolomite. A few stylolites are present and appear to be horizontal. The brown colouring is a rusty iron coating which is found throughout this section. Contains numerous cavities, some containing drusy calcite, but most contain no calcite. Only a few of these cavities are fossil cavities. Contains some gastropods with one brachiopod being found. The fossils are poorly preserved.
3.8-12.9 (12'06"-42'06")	Dolomite	Dark grey, hard, dense, siliceous, massive, slightly fossiliferous, Windsor Group dolomite. Secondary calcite is very abundant, filling cavities and veins. Stylolites are abundant throughout. Contains numerous fractures with black, soft, graphite like carbonaceous material along the seams. Contains a few brachiopods. Contains pyrite and chalcopyrite along fractures throughout. Contains a few shaly layers.

12.9-13.2 (42'06"-43'04") Slate

Dark grey, hard, Meguma Group slate. Slate is dipping almost vertically.

END OF HOLE

Special Notes: 3.2 m (10'05")

Four gastropods are found (small and not well preserved).

4.3 m (14'03")

Fracture zone.

4.5 m; 5.4 m; 6.2 m; 12.9 m  
(14'08"; 17'10"; 20'03";  
42'04")

Chalcopyrite.

7.4 m (24'02")

Vertical fractures with pyrite along the seam with some chalcopyrite.

7.6-7.7 m; 8.1-8.3 m;  
9.1-9.2 m (25'-25'02";  
26'11"-27'02"; 29'09"-30')

Pyrite and chalcopyrite.

11.7-11.9 m (38'04"-39')

Dark grey, shaly limestone.

Sample Number	Width m	(ft)	SiO <sub>2</sub> %	R <sub>2</sub> O <sub>3</sub> %	CaO %	MgO %	L.O.I. %
Mv-1-1	0.6-1.5	(1.8-5)	1.35	4.45	30.40	18.50	45.20
Mv-1-2	1.5-3.1	(5-10)	1.35	4.80	31.90	17.05	44.95
Mv-1-3	3.1-4.6	(10-15)	1.39	5.40	32.20	16.30	45.20
Mv-1-4	4.6-6.1	(15-20)	2.48	5.50	30.10	17.35	44.01
Mv-1-5	6.1-7.6	(20-25)	2.20	5.40	29.70	18.00	43.50
Mv-1-6	7.6-9.2	(25-30)	2.30	5.52	29.05	17.32	43.25
Mv-1-7	9.2-10.7	(30-35)	3.85	6.11	28.05	17.40	42.55
Mv-1-8	10.7-12.2	(35-40)	4.01	7.22	28.80	16.85	42.95
Mv-1-9	12.2-13	(40-42.4)	6.20	8.80	27.95	15.80	41.15
Average Assay	0.6-12.2	(1.8-40)	2.36	5.55	30.02	17.40	44.00

**Hole Number: 2 (Murchyville)**

Location: Lat.: 44°59'34", Long.: 63°00'15"

Ultimate Depth: 17.8 m (58'06")

Proposed Depth: Arbitrary

Dip: -90°

<b>Depth m (ft)</b>	<b>Formation</b>	<b>Description</b>
0-2.2 (0'-7'03")	Overburden	
2.2-6.3 (7'03"-20'08")	Dolomite	Grey, hard, dense, massive, slightly siliceous, Windsor Group dolomite. No fossils were found. Contains numerous cavities containing various amounts of calcite crystals. Shows no bedding. Very few stylolites. Few very small fracture zones.
6.3-7.1 (20'08"-23'02")	Dolomite	Dark grey, hard, dense, banded, argillaceous, siliceous, Windsor Group dolomite. Banding is almost horizontal. Limestone is shaly and siliceous.
7.1-16.8 (23'02"-55')	Dolomite	Dark grey, hard, dense, massive, slightly fossiliferous, Windsor Group dolomite. Contains numerous cavities (some fossil cavities) which are filled or partially filled with white or clear calcite crystals. Contains numerous small fractures containing black carbonaceous material along the seams. Fossils are very poorly preserved and scarce and only brachiopods are present. Near the end of this section some cavities have the appearance of being gastropod cavities. Pyrite and/or chalcopyrite can be seen throughout this section along fracture seams and is much more abundant than is normally found in limestones. Near the end of the dolomite section there appears to be rounded, algal structures, but these are not well defined. Very few stylolites are present.
16.8-17.8 (55'-58'06")	Breccia	Dolomite breccia containing numerous large and small sharp fragments of the underlying Meguma slate. These fragments are set in a dolomite matrix.

END OF HOLE

Special Notes:	7.6 m (25'01")	Chalcopyrite and pyrite.
	7.9 m (25'10")	Pyrite and chalcopyrite.
	8.3 m (27'03")	Fossil cavities, filled or partially filled with calcite.
	10.3 m (34'01")	1.3 cm (1/2") band of pyrite.
	10.4 m (34'03")	Large brachiopod.

10.5 m (34'04")	Stylolite (60° to horizontal may indicate steeply dipping bedding).
10.6 m (34'10")	Pyrite and chalcopyrite.
10.7-11.3 m (35'-37')	Pyrite abundant along seams and fractures, also small amounts of chalcopyrite.
12.4-12.5 m (40'10"-41'02")	Fracture zone.
12.7 m (41'09")	Band of pyrite.
15.2 m (49'10")	Chalcopyrite.

Lost Core: 3.4-3.7 m (11'00"-12'01")  
16.5-16.8 m (54'03"-55')

Sample Number	Width m	(ft)	SiO <sub>2</sub> %	R <sub>2</sub> O <sub>3</sub> %	CaO %	MgO %	L.O.I. %
Mv-2-1	2.2-3.1	(7.3-10)	1.55	6.05	29.30	17.45	44.60
Mv-2-2	3.1-4.6	(10-15)	2.55	6.30	29.55	16.95	44.05
Mv-2-3	4.6-6.1	(15-20)	1.75	5.80	29.50	17.80	44.10
Mv-2-4	6.1-7.6	(20-25)	6.22	8.40	26.30	16.15	41.20
Mv-2-5	7.6-9.2	(25-30)	4.15	7.10	28.25	17.05	42.50
Mv-2-6	9.2-10.7	(30-35)	2.05	6.45	29.80	16.95	43.35
Mv-2-7	10.7-12.2	(35-40)	2.55	7.20	28.40	17.10	42.80
Mv-2-8	12.2-13.7	(40-45)	5.95	10.20	26.25	15.70	39.60
Mv-2-9	13.7-15.3	(45-50)	4.55	5.85	28.25	17.25	42.65
Mv-2-10	15.3-16.8	(50-55)	3.75	5.95	28.70	17.45	43.30
Average Assay			3.50	6.93	28.43	16.98	42.82

**Hole Number:** 3 (Murchyville)  
**Location:** See Figures 45 and 78 for approximate location  
**Ultimate Depth:** 12.6 m (41'06")  
**Proposed Depth:** Arbitrary  
**Dip:** -90°

Depth m (ft)	Formation	Description
0-11.5 (0'-37'09")	Overburden	
11.5-12.6 (37'09"-41'06")	Slate	Grey, hard, arenaceous, banded, Meguma Group slate.

END OF HOLE

## HALIFAX COUNTY

## MIDDLE MUSQUODOBOIT AREA (BROOKVALE) (Mo-11-1) (Mo-21-1) (Mo-12-1)

**Hole Number:** 1 (Brookvale)  
**Location:** Lat.: 45°01'06", Long.: 63°05'55"  
**Ultimate Depth:** 18 m (59')  
**Proposed Depth:** Arbitrary  
**Dip:** -90°

<b>Depth m (ft)</b>	<b>Formation</b>	<b>Description</b>
0-2.7 (0'-9')	Overburden	
2.7-3.4 (9'-14'04")	Dolomite	Brown, hard, dense, slightly fossiliferous, massive, Windsor Group dolomite or dolomitic limestone. Contains small amounts of small calcite crystals. Contains a few small cavities, some being brachiopod cavities. Few stylolites parallel to the bedding.
3.4-6.4 (14'04"-21'01")	Dolomite	Dark grey, hard, dense, massive, Windsor Group dolomite. Contains a few stylolites with black carbonaceous material along the seams. These stylolites are parallel to the bedding and are horizontal. Contains numerous very small cavities, none of which are fossil cavities. Some of these cavities are filled or partially filled with calcite. Some very thin calcite veins.
6.4-8.6 (21'01"-28'01")	Dolomite	Dark grey, hard, dense, medium grained, argillaceous, siliceous, Windsor Group dolomite. Very impure with thin layers of shale being found at 7.1 m; 7.3-7.4 m (23'04"; 24'01"-24'03"). No cavities, but contains a few very thin calcite stringers with no apparent orientation. Has well developed bedding.
8.6-16.2 (28'01"-53')	Dolomite	Grey, hard, dense, massive, fossiliferous, Windsor Group dolomite. Contains numerous large and small cavities, many being fossil cavities. Gastropods are large and numerous and appear to be oriented with their long direction parallel to the horizontal bedding. Brachiopod cavities are also found. Very little calcite is found in the cavities.

16.2-18 (53'-59')                      Slate                      Dark grey, hard, Meguma Group slate. Contains some thin red bands of hematite. Shows slaty cleavage.

END OF HOLE

Special Notes: 9.6-9.8 m (31'07"-32')                      Black, graphitic material along fractures.  
 15.4 m (50'08")                      1.3 cm (½") calcite vein.  
 15.9 and 16.2 m                      Pyrite and chalcopyrite.  
 (52'04" and 53')  
 16.2 m (53')                      Pieces of slate in limestone.

Lost Core: 10.4-10.8 m (34'01"-35'06")  
 11.1-11.6 m (36'05"-38'01")  
 16.1-16.9 m (53'01"-55'04")  
 17.1-17.4 m (56'02"-57'01")

Sample Number	Width m	(ft)	SiO <sub>2</sub> %	R <sub>2</sub> O <sub>3</sub> %	CaO %	MgO %	L.O.I. %
Bv-1-1	3.1-4.6	(10-15)	1.28	3.44	30.50	18.30	45.50
Bv-1-2	4.6-6.1	(15-20)	0.90	3.71	30.20	19.20	45.60
Bv-1-3	6.1-7.6	(20-25)	5.50	6.80	28.05	16.50	42.05
Bv-1-4	7.6-9.2	(25-30)	4.07	5.40	28.40	18.05	43.60
Bv-1-5	9.2-10.7	(30-35)	3.65	4.65	28.70	18.05	44.20
Bv-1-6	10.7-12.2	(35-40)	2.64	3.44	29.80	19.10	45.60
Bv-1-7	12.2-13.7	(40-45)	0.80	3.10	30.50	19.50	45.95
Bv-1-8	13.7-15.3	(45-50)	1.35	3.80	30.20	19.10	45.50
Bv-1-9	15.3-16.8	(50-55)	2.30	4.35	30.40	17.20	44.50
Average Assay			2.49	4.29	29.63	18.33	44.72

**Hole Number:** 2 (Brookvale)  
**Location:** Lat.: 45°01'10", Long.: 63°05'46"  
**Ultimate Depth:** 24.4 m (80')  
**Proposed Depth:** Arbitrary  
**Dip:** -90°

<b>Depth m (ft)</b>	<b>Formation</b>	<b>Description</b>
0-2.4 (0'-8')	Overburden	
2.4-20.1 (8'-65'11")	Dolomite	Brown, hard, porous, massive, slightly fossiliferous, Windsor Group dolomite. Stylolites are found throughout, but are not overly abundant. These stylolites are dipping at an angle of 20° to the horizontal. Dip of the bedding is probably also 20°, but no evidence other than the stylolites is available. Small cavities are quite numerous throughout (very few are fossil cavities). Calcite fills some of the cavities. A few calcite stringers are present and are almost vertical (80°). Fossils found include gastropods, bryozoans, pelecypods and brachiopods, with gastropods being the most abundant. Dolomite becomes dolomitic limestone at 8.8 m (29') with fewer cavities, and being less porous and more compact.
20.1-22.8 (65'11"-74'08")	Limestone	Grey, hard, dense, dolomitic massive, Windsor Group limestone. Fossils become more abundant with most cavities being fossil cavities.
22.8-24.4 (74'08"-80')	Shale	Dark grey and black brecciated shale. Most of the banding is almost horizontal.
END OF HOLE		
Special Notes:	2.7 m (8'10") 5.8 and 20.9 m (19' and 68'07") 8.9 m (29'04")  14.8 m; 15.9 m; 21.8 m (48'07"; 52'; 71'05") 12.7 m (41'07")  18.4 m (60'04")	Black carbonaceous material along seams. Pyrite filling some of the cavities.  Fossils are noticed from here to the bottom of the limestone (mainly gastropods). Bryozoans are found (stick bryozoans).  Large, well preserved gastropod is found ( <i>Murchisonia</i> (Stegocoelia) <i>abrupta</i> ). This is common to the B Subzone. Well preserved pelecypod is found ( <i>Aviculopecten lyelli</i> ) which is very abundant in the B Subzone and is not found in the other subzones.
Lost Core:	6.4-6.8 m (21'01"-22'04") 7.3-8.1 m (24'-26'05") 9.2-9.9 m (30'-32'06") 10.4-10.8 m (34'01"-35'07")	

(cont'd) 12.8-13.7 m (41'11"-45')  
 17.4-17.7 m (57'03"-58'01")  
 18.5-19.2 m (60'10"-62'10")  
 21.8-22 m (71'08"-72'03")

Sample Number	Width m (ft)	SiO <sub>2</sub> %	R <sub>2</sub> O <sub>3</sub> %	CaO %	MgO %	L.O.I. %
Bv-2-1	2.3-3.1 (7'8"-10)	0.65	3.80	31.70	18.40	45.95
Bv-2-2	3.1-4.6 (10-15)	1.50	3.01	30.60	19.40	45.10
Bv-2-3	4.6-6.1 (15-20)	1.10	3.05	30.40	19.70	45.95
Bv-2-4	6.1-7.6 (20-25)	1.02	2.90	30.30	19.85	45.95
Bv-2-5	7.6-9.2 (25-30)	0.72	2.60	31.60	19.35	46.25
Bv-2-6	9.2-12.2 (30-40)	1.40	2.70	31.20	19.15	46.10
Bv-2-7	12.2-15.3 (40-50)	1.30	2.70	31.20	19.10	46.25
Bv-2-8	15.3-16.8 (50-55)	0.87	2.90	31.05	19.40	46.20
Bv-2-9	16.8-18.3 (55-60)	0.78	2.80	30.90	19.70	46.30
Bv-2-10	18.3-19.8 (60-65)	0.77	2.87	30.60	19.75	46.30
Bv-2-11	19.8-21.4 (65-70)	1.50	3.60	31.30	18.40	45.60
Bv-2-12	21.4-22.8 (70-74'8")	1.20	3.20	30.70	19.10	45.70
Average Assay 2.34-20.42 (7'8"-67)		1.05	3.01	31.00	19.29	46.00

**Hole Number:** 3 (Brookvale)  
**Location:** See Figures 56 and 80 for approximate location  
**Ultimate Depth:** 12.8 m (42')  
**Proposed Depth:** Arbitrary  
**Dip:** -90°

Depth m (ft)	Formation	Description
0-6.1 (0'-20')	Overburden	
6.1-6.9 (20'-22'06")	Siltstone	Grey, very hard, calcareous and fine grained.
6.9-7.0 (22'06"-23')	Limestone	Greyish-brown, hard, dense, siliceous, dolomitic, Windsor Group limestone.
7.0-7.3 (23'-23'10")	Greywacke	Grey, hard, compact, fine grained and slightly calcareous.
7.3-7.8 (23'10"-25'06")	Limestone	Greyish-brown, hard, dense, siliceous, dolomitic, Windsor Group limestone.

7.8-12.8 (25'06"-42')      Greywacke      Grey, hard, dense, fine grained, highly siliceous and slightly calcareous. Contains a few thin limestone bands and a few carbonaceous seams.

END OF HOLE

**Hole Number:**      **4 (Brookvale)**  
**Location:**      Lat.: 45°01'02", Long.: 63°05'50"  
**Ultimate Depth:**      14.1 m (46'05")  
**Proposed Depth:**      Arbitrary  
**Dip:**      -90°

<b>Depth m (ft)</b>	<b>Formation</b>	<b>Description</b>
0-3.1 (0'-10')	Overburden.	
3.1-12.5 (10'-41'01")	Limestone	Brownish-grey, hard, dense, massive, dolomitic, Windsor Group limestone. Slightly fossiliferous containing a few <i>Paraconularia planicostata</i> , brachiopods and gastropods. The brachiopods are not well preserved. Numerous irregular fractures are found containing black, soft carbonaceous material along the seams. Some stylolites present, but not too abundant (appear to be more or less horizontal). Cavities are quite numerous throughout (no fossil cavities) containing drusy calcite. Cavities become much more numerous near the end of the limestone section.
12.5-14.1 (41'01"-46'05")	Greywacke	Grey, banded, fine grained and hard. Slightly calcareous with some very thin calcite veins.
		END OF HOLE
Special Notes:	3.1 m (10'03") 4.9 m (16'03")  5.9-6.1 m (19'06"-20')	Black mineral associated with pyrite and calcite. Small <i>Paraconularia planicostata</i> (indicative of the B Subzone).  Numerous vertical calcite veins with some yellow limonite and reddish hematite staining.
Lost Core:	3.8-4.2 m (12'05"-13'09") 5.4-5.5 m (17'09"-18'02") 7.2-7.8 m (23'06"-25'06")	(Cavity).

Sample Number	Width m	(ft)	SiO <sub>2</sub> %	R <sub>2</sub> O <sub>3</sub> %	CaO %	MgO %	L.O.I. %
Bv-4-1	3.1-4.6	(10-15)	1.15	4.05	32.10	17.60	45.40
Bv-4-2	4.6-6.1	(15-20)	0.45	3.30	32.35	17.95	46.05
Bv-4-3	6.1-7.6	(20-25)	0.50	3.60	32.40	18.10	45.60
Bv-4-4	7.6-9.2	(25-30)	0.48	3.40	33.10	16.70	45.95
Bv-4-5	9.2-10.7	(30-35)	0.46	3.50	30.70	19.15	45.99
Bv-4-6	10.7-13.5	(35-44.02)	0.95	4.00	30.90	18.50	45.20
Average Assay			0.66	3.64	31.92	18.00	45.70

**Hole Number:** 5 (Brookvale)  
**Location:** See Figures 56 and 80 for approximate location  
**Ultimate Depth:** 6.4 m (21')  
**Proposed Depth:** Arbitrary  
**Dip:** -90°

Depth m (ft)	Formation	Description
0-2.7 (0'-9')	Overburden	
2.7-4.0 (9'-13'03")	Limestone	Brownish-grey, hard, dense, medium grained, oolitic, dolomitic Windsor Group limestone. Slightly porous with no cavities. A few calcite veins along fractures. Limestone is very siliceous.
4.0-6.4 m (13'03"-21')	Quartzite	Grey, very hard, fine grained, containing some mica flakes. Few darker bands of quartzite with some irregular fractures. Very calcareous near the limestone contact (not a sharp contact).

END OF HOLE

**Hole Number:** 6 (Brookvale)  
**Location:** See Figures 56 and 80 for approximate location  
**Ultimate Depth:** 10.7 m (35')  
**Proposed Depth:** Arbitrary  
**Dip:** -90°

Depth m (ft)	Formation	Description
0-9.2 (0'-30')	Overburden	
9.2-10.7 (30'-35')	Quartzite	Grey, hard and medium grained. Contains some thin bands of fine grained, dark grey shale.

END OF HOLE

**Hole Number:** 7 (Brookvale)  
**Location:** See Figures 56 and 80 for approximate location  
**Ultimate Depth:** 9.1 m (30')  
**Proposed Depth:** Arbitrary  
**Dip:** -90°

<b>Depth m (ft)</b>	<b>Formation</b>	<b>Description</b>
0-6.4 (0'-21')	Overburden	
6.4-9.1 (21'-30')	Greywacke	Grey, hard, fine grained, calcareous with thin, dark grey, shaly bands throughout.

END OF HOLE