



Department of Environment and Conservation  
Department of Natural Resources

Map No. 3a  
**HYDROGEOLOGY**  
Western Newfoundland

**Bedrock Hydrostratigraphic Units**

Hydrostratigraphic Unit	Lithology	No. of Wells	Well Yield Characteristics (L/min)			Well Depth Characteristics (m)	
			No. of zero values	Average	Median	Average	Median
<b>Unit 1</b> Moderate Yield Granitic and Gneissic Rocks	granite, granodiorite, gabbro, gneiss	70	9	27.3	9	45.4	37.8
<b>Unit 2</b> Moderate Yield Clastic Sedimentary Rocks	sandstone, shale, phyllite, quartzite, conglomerate, limestone, dolostone	467	56	33.4	10.0	53.75	40
<b>Unit 3</b> Moderate Yield Carbonate Sedimentary Rocks	limestone, breccia, conglomerate, dolomite	557	126	37.0	9.0	41.56	36.15
<b>Unit 4</b> Moderate Yield Carboniferous Sedimentary Rocks	sandstone, conglomerate, siltstone, mudstone	577	71	64.0	27.3	40.8	37.6
<b>Unit 5</b> Low Yield Ophiolite Complexes	ultramafic gabbro, sheeted diabase	45	5	19.7	7	61.5	56
<b>Unit 6</b> Low Yield Metavolcanic and Metasedimentary Rocks	schist, felsic-mafic volcanic flows, tuffs	39		18.4	8.2	56.2	50.3

Surficial deposits - Unconsolidated sediments

**Surficial Hydrostratigraphic Units**

**Unit A - Till Deposits**  
Well yields range from 0 litres per minute (L/min) to 232 L/min and average 48 L/min. Well depths range from 9 meters (m) to 40 m and average 21 m. The available data indicates that on average, wells drilled within Unit 1 have a moderate potential yield.

**Unit B - Sand and Gravel Deposits**  
Well yields range from 0 L/min to 1,793 L/min and averaged 74 L/min. Well depths range from 5 m to 121 m and averaged 29 m. The available data indicates that wells drilled within Unit B have a high potential yield.

Number of Wells Listed Per Community

- 1 - 3
- 4 - 9
- 10 - 15
- 16 - 20
- > 20

Note: See Appendix II for well descriptions  
Elevation in feet above mean sea level. Contour interval approximately 100 feet.

**REFERENCE:**

Government of Newfoundland and Labrador, Department of Environment, Water Resources Division, Water Resources Management Division, Water Well Data for Newfoundland and Labrador, unpublished, 2005.  
Colman-Sadd, S. P., and Crisby-Whittle, L. V. J. (compilers) 2005. Partial bedrock geology dataset for the Island of Newfoundland (NTS 02E, 02F, 02L, 02M, 11O, 11P, 12A, 12B, 12G, 12H, 12I, 12P and parts of 01M, 02D). Newfoundland and Labrador Department of Natural Resources, Geological Survey, Open File NFD/2616 version 6.0.

