

Table RMT 1 - Reach Geology

Reach		Bedrock				Surficial
Label	Name	Formation	Age	Primary Lithology	Secondary Lithology	
Extra	Pelham Pond	Metamorphosed mafic to felsic flow, and volcanoclastic and hypabyssal intrusive rocks	Proterozoic Z	metavolcanic	none	Strike-parallel in block below thrust
1st	Sudbury Meadow or Meandering	Metamorphosed mafic to felsic flow, and volcanoclastic and hypabyssal intrusive rocks	Proterozoic Z	metavolcanic	mixed volcanic/clastic	Zig-zag of two strike parallel and strike discordant bends at thrust faults. Central segment parallel to Hill-Lake
2d	Fair Haven or Hill Lake	Andover Granite	Silurian or Ordovician	Granite	Pegmatite	Follows brittle fault parallel to glacial flow (trough) in resistant granite
3d	Rapid	Straw Hollow Diorite and Assabet Quartz Diorite undifferentiated	Silurian	Diorite	Quartz diorite.	Strike-parallel in non-resistant, younger rock
4th	Carlisle or Deep Lake	Shawsheen Gneiss, Fish Brook Gneiss, and Nashoba Formation	Ordovician or Proterozoic Z	Gneiss, Granitic gneiss, Amphibolite	Amphibolite, (no secondary), Biotite	Follows brittle fault oblique to glacial flow .
5th	Billerica or Shallow	Andover Granite	Silurian or Ordovician	Granite	Pegmatite	quasi-parallel to glacial flow in resistant granite. Nye channel?

Note:

1. Refer to Thoreau's Reach Summary for Descriptions.
2. Bedrock Geology from Zen et al, Bedrock Geologic Map of Massachusetts.
3. Surficial from Stone et al., Surficial Geology.

Boatman reference, pages 180-184