

## Cowley Creek YOWN Water Well Borehole Log

Location: Cowley Ck

Coordinates: UTM Zone 8 505010 E / 6717453 N

Elevation: 723 m (from 2019 lidar)

Borehole name: Cowley Creek YOWN

Date drilled: Dec. 30-31, 2019

Drilled by: Northern Sonic (Jake Jacobs and Kyle); supervised by Norbert Botca (WR) and Panya Lipovsky & Justin Emberley (YGS)

Core size/type: sonic, 6-inch core (compressed in 8-inch bags)

Total length: 156 ft (47.5 m)

Core condition: good

Total bags: 45 (approx. 3.5- 4 ft/ bag)

Logged by: P. Lipovsky

Logged date: Jan. 2020

Logging comments: Depths (in feet) estimated at time of drilling - all log depths approximate!

Permafrost encountered? No

start depth (ft)	end depth (ft)	start depth (m)	end depth (m)	Thickness (m)	Top elevation (m)	Bottom elevation (m)	Material	Texture	Colour (damp)	Description	Surficial Geology Unit	Row height
0	4	0.0	1.2	1.2	723	722	glaciofluvial gravel/sand terrace	sand and gravel		core unrecovered; assumed to be sand/gravel with thin (<20 cm) surface organic layer	sgFGt	49
4	15	1.2	4.6	3.4	722	718	glaciofluvial gravel/sand terrace	sand and gravel	olive brown	wet/saturated from 5-15 ft; loose, poorly-sorted glaciofluvial sand and gravel; 40% silty coarse sand matrix; 60% clasts (75% pebbles, 25% cobbles, subangular to subround, max size 15 cm); finer-grained pebble gravel with no cobbles from 13-15 ft	sgFGt	134
15	27	4.6	8.2	3.7	718	715	ablation till	loamy sandy gravel	olive to olive grey	loose; slightly sticky diamict; 60% loamy medium sand matrix; 40% clasts (40% cobbles, 50% pebbles, 10% granules, angular to subround, max size 15 cm); sandier towards bottom of interval.	mgsM	146
27	36	8.2	11.0	2.7	715	712	basal till	loamy gravel	dark greenish grey	extremely dense; 50% sticky clay loam matrix; 50% clasts (80% pebbles, 20% cobbles, striated, subangular-subround, dark volcanics common).	gsmM	110

36	44	11.0	13.4	2.4	712	710	glaciofluvial gravel/sand terrace	silty sandy gravel	olive grey	wet; 30% silty coarse sand; 70% clasts (50% cobbles, 50% pebbles, max size 14 cm); installed screen from 36-40 ft.	sgFG	98
44	135	13.4	41.1	27.7	710	682	glaciolacustrine	fine sand and silt	dark grey	mostly massive sand and silt; coarsens upward (silty fine sand at 50 ft; fine sandy silt below 110 ft); thin clay-rich laminations at 53, 65 and 74 ft; very distorted deformed bedding from 78-80 ft.	cszLG	1109
135	152	41.1	46.3	5.2	682	677	till	loamy sandy gravel	olive grey	moderately dense; 30% sandy loam matrix; 70% clasts (60% pebbles, 40% cobbles, subangular to round, max size 17 cm, striated); clean coarse sand bed from 145-146 ft (screen installed from 140-150 ft). May be two thin tills separated by sand bed (sandier and more olive-coloured above sand bed).	cgsM	207
152	156	46.3	47.5	1.2	677	675	weathered bedrock		pale yellow to white	highly altered/weathered granite; soft (disintegrates to silty sand between fingers)	D\R	49