

Deep Drilling on the Quamby Quadrangle

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The following bore logs are descriptions of material obtained during the drilling of test holes in the Quamby Quadrangle in search of underground water. A rotary drill was used in the drilling operations and as casing is not used, some contamination of lower samples from upper levels can be expected. There could also be a delay in samples reaching the surface so that the samples might not be entirely representative of the material at the depth indicated.

The descriptions are purely visual descriptions and terms such as "clay" when used, refers to clay-like material. It might only consist of a small proportion of clay minerals together with fine silica.

Bore hole 45

<i>Depth (ft)</i>	<i>Description</i>
0-140	Brown and red clay, much of it in pellets.
140-170	No samples.
170-245	Dark brown clay (one sample of reddish clay) with very little sand.
245-300	Mainly sand.
300-350	Mainly sand.
350-365	Clay.
365-380	Wood fragments.
380-495	Wood, clay and very little sand.
495-512	Wood, sand and clay.

Bore hole 49

<i>Depth (ft)</i>	<i>Description</i>
0- 5	Soil and brown clay.
5- 40	Light brown clay with a few ironstone fragments.
40-100	Dark brown to grey clay.
100-160	Dark brown to grey plastic clay.
160-170	Sand and clay.
170-200	Dark brown grey plastic clay.
200-220	Clay with some wood fragments.
220-240	Black to brown plastic clay and a little sand.
240-270	Grey brown plastic clay and a little sand.
270-320	Grey clay with sand becoming more abundant.
320-335	Sand and some clay.
335-375	Grey clay.
375-425	Sand and clay (some sandstone fragments).
425-460	Clay, a little sand and some wood fragments.
460-465	Grey plastic clay.
465-475	Sand and clay.
475-502	Grey clay, a little sand and some wood fragments.

Bore hole 50

<i>Depth (ft)</i>	<i>Description</i>
0- 5	Clayey sand.
5- 15	Sandy clay.
15- 25	Rounded gravel (up to $\frac{1}{4}$ inch)
25-125	Fine and weathered basalt.

<i>Depth (ft)</i>	<i>Description</i>
125-195	Basalt fragments.
195-210	Core. Fine grained veined basalt. Recovery was 7 ft.
210-235	Basalt fragments.
235-260	Slightly weathered basalt fragments.

Bore hole 51

<i>Depth (ft)</i>	<i>Description</i>
0- 5	Brown clay.
5- 25	Light brown clay.
25- 35	Light brown clayey sand.
35- 40	Light brown sandy clay with large angular iron oxide fragments.
40- 65	Dark grey clay (some plastic).
65-110	Light grey sandy clay, becoming very sandy.
110-120	Coarse sand.
120-160	Light grey sand and clay.
160-175	Light brown clay.
175-250	Brown clay with varying amounts of wood fragments.
250-280	Mainly wood fragments with some wood.
280-360	Brown clay with varying amounts of wood fragments and a little sand.
360-365	Brown clay and wood fragments.
365-375	Clay and sand.
375-480	Clay and wood fragments (very little sand).
480-490	Clay and sand.
490-600	Clay and wood fragments (mainly wood fragments from 530-580), very little sand.
600-655	Clay and wood fragments.
655-730	Mainly wood fragments with some clay.
730-745	Clay, wood fragments and a little sand.
745-800	Mainly wood and some clay.
800-855	Mainly wood fragments, some clay and very little sand.
855-890	Clay and wood fragments, a little sand.
890-920	Mainly wood fragments.
920-925	Clay and wood fragments.
925-1012	Mainly wood fragments, a little clay.

Bore hole 52

<i>Depth (ft)</i>	<i>Description</i>
0- 5	Brown to grey sand.
5- 10	Clayey sand.
10- 50	Light brown sandy clay.
50- 60	Black to dark grey clay (wood causing dark colour).
60-160	Grey clay and sandy clay with some wood fragments.
160-175	Wood fragments.
175-180	Grey clay and wood.
180-205	Grey sandy clay and a little wood fragments.
205-215	Sandy clay and abundant wood fragments.
215-225	Sand and wood fragments with some clay.
225-320	Sandy clay with some wood fragments.
320-430	Grey sandy clay and a little wood.
430-435	Wood fragments.

<i>Depth (ft)</i>	<i>Description</i>
435-460	Sandy clay and abundant wood fragments.
460-502	Grey sandy clay with wood fragments.

Bore hole 53

<i>Depth (ft)</i>	<i>Description</i>
0- 5	Brown soil.
5- 20	Iron stained grey clay and a few iron oxide nodules.
20- 35	Grey and light brown clay.
35- 50	Dark grey plastic clay.
50- 60	Brown clay with a few iron oxide nodules.
60-110	Grey brown clay and green and brown clay.
110-150	Grey sandy clay some solid blue clay fragments with wood fragments towards end.
150-160	Very sandy grey clay.
160-170	Clayey sand with wood fragments.
170-215	Sandy and clay.
215-280	Grey sandy clay.
280-290	Clay, sand and wood fragments.
290-350	Grey clay with a little sand and variable amounts of wood fragments.
350-390	Mainly clay, a little sand and some wood fragments.
390-470	Grey clay, some sand in some zones and some wood fragments.
470-502	Grey clay with a little wood.

Bore hole 54

<i>Depth (ft)</i>	<i>Description</i>
0- 5	Brown clay with iron oxide fragments, grit size and some quartz grit.
5- 10	Dark brown soil (clay).
10- 35	Brown to grey plastic clay.
35- 40	Dark grey and brown plastic clay.
40-135	Clay pellets, weathered basalt fragments.
135-170	Grey and dark brown clay pellets and fine grained basalt fragments.
170-175	Basalt fragments.
175-176	One foot core of basalt, very broken.

Bore hole 55

<i>Depth (ft)</i>	<i>Description</i>
0- 5	Brown soil
5- 30	Light brown to grey clay and a few iron nodules.
30- 45	Medium grey to brown clay.
45- 95	Dark grey brown plastic clay.
95-130	Weathered basalt fragments.
130-134	Fine grained dark unweathered basalt with occasional calcite veins in 2 ft 6 in core.

Bore hole 56

<i>Depth (ft)</i>	<i>Description</i>
0- 5	Red clay soil.
5- 10	Red brown clay.
10- 35	Light grey brown clay.
35- 40	Dark grey clay.
40-100	Basalt fragments.
106-112	Basalt core 2 ft 7 in.

Bore hole 57

<i>Depth (ft)</i>	<i>Description</i>
0- 5	Dark brown clayey soil.
5- 53	Weathered basalt fragments.
53- 57	About 4 ft of unweathered vesicular basalt.

Bore hole 58

<i>Depth (ft)</i>	<i>Description</i>
0- 5	Gravel-limonite nodules.
5- 50	Brown and grey clay with red iron oxide staining.
50-140	Plastic dark grey-brown clay.
140-180	Light brown and cream clay pellets.
180-240	Red and dark brown clay pellets becoming more plastic towards end.
240-250	Brown clay, some sandy material and abundant wood fragments.
250-270	Mainly wood fragments and a little clay.
270-275	Sand and wood fragments.
275-340	Wood fragments mainly but some sand in the same horizons.
340-350	Wood fragments.
350-435	Clay, wood fragments and a little sand in places.
435-460	Clay with occasional wood fragments.
460-470	Clay and wood fragments.
470-490	Sand with wood fragments.
490-502	Clay and wood fragments.

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