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BLAIR WATER

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Mr Steve Dobie
Loxley Construction Ltd
Loxley Construction Ltd
Manor St
Audenshaw
Manchester
M34 5JG

5 June 2018

Dear Mr Dobie

Ref: Condition 19 of Planning application for development at Bankwood Mill

I refer to your request for an opinion on the avialabilty and likely quality of a borehole water supply at the Bankwood Mill Site.

In response we commissioned an short hydrogeological borehole prognosis report from Prof Rick Brassington - Consultant Hydro Geologist. A copy is attached.

The report has examined the published British Geological Survey data for the site and existing licensed abstractions and other records. In addition, we have maintenance records and water quality data of two additional boreholes located within some 150m and 250m of the proposed drilling site.

The Borehole Prognosis report references a borehole at Tiviot print works which is used for fabric dying and printing. Both of the other boreholes known to us have a water quality that meets the requirements of the Private Water Supply Regulations 2016 after some minor treatment to raise the pH to comply with the lastest regulatory standards. Both these boreholes are used for domestic supply only but have in the past been pumped tested at 60,000 and 72,000 liters per day respectively.

I would expect the water quality from the proposed borehole to be similar with some treatment to raise the pH. Niether of the deep boreholes adjacent to th site have any record of iron or manganese excess.

Our actual experience and testing from 2001 to the present day at the site is in agreement with the borehole prognosis report and there are no forseeable problems with yield. The proposed abstraction is small and falls below the Environment Agency de-regulated limit of 20,000 ltrs per day and is therefore not subject to any regulatory permissions or licensing requirements.

The location and build of the borehole and any water treatment will be designed to meet the requirements of the Private Water Supply Regulations 2016 and compliant with the requirements of the DWI risk assessment process.

If you require any further information please let me know.

Yours sincerely,

Richard Taylor

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Our Ref: 1891/3
Your Ref: Bankwood Mill

16 May 2018

Richard Taylor
Blair Drilling Ltd
Unit 20, The Old Potteries Estate
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Pott Shrigley
Macclesfield
Cheshire

Dear Richard,

Proposed Borehole – Bankwood Mill, Broadbottom near Hyde

I refer to your recent email regarding the prospects of a new borehole at Bankwood Mill, Broadbottom near Hyde for a water supply of about 20 m^3/day.

Bankwood Mill is located about 1.3 km to the east-northeast of Broadbotton railway station at an elevation of about 120 mOD and with the grid reference of SK 0006 9416. The site lies close to the River Ethrow, a tributary of the River Goyt.

The geology of the area is complicated by faulting in three sets; the main ones are to the northwest and to the north with a lesser one that trends in an east-west direction. The area around Bankwood Mill is underlain by rocks at the base of the Pennine Lower Coal Measures Formation that has been cut though by the river to expose a narrow band of the Rough Rock of Namurian age. As a result, the borehole will penetrate solid rocks of the Namurian sequence.

The solid rocks are overlain by drift deposits that consist of river alluvium overlying boulder clay that includes interbedded sand and gravel with the thickness estimated to be some 15 - 40 m in total. These estimates are taken from borehole records in the area which accounts for the wide range.

The Namurian Group consists predominantly of interbedded grey mudstone, siltstone and sandstone beds some of which are gritstones and have a thickness around 15 m shown in local boreholes.

It is likely that the borehole will be artesian as was found in a borehole drilled at Tiviot Prints Ltd some 700 m to the southwest of the site and close to the River Ethrow. That borehole penetrated some 15 m of drift deposits including 10 m of gravels and boulders before penetrating some 48 m of shales to a total depth of 63 m.

It is estimated that a borehole up to a depth of some 60 m will stand a better than 95 % chance of obtaining the required 20 m^3/hour.

The anticipated rest water level is above ground level and could be 1.5 – 2.0 m above ground.

There is a chance that the water may contain sufficient dissolved iron to require treatment although if the shales in the sequence are cased out there should be no dissolved iron.

Please let me know if you require any further detail on any aspect.

Yours sincerely,

Rick Brassington