
The NEW Dewatering Optimisation Test (DOT)

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Dotty about Dewatering

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Over the past 2 years Aqua Enviro has developed the Dewatering Optimisation Tester (DOT). This simple piece of equipment will determine the **Ultimate Dewaterability** of a sludge or digestate with any given polymer type/dose in order to:

- 🌀 Quantify optimisation potential
- 🌀 Predict achievable cake dry solids for new schemes
- 🌀 Identify optimum polymer type/dose
- 🌀 Implement improved control strategies

Our service is designed to help our clients justify investment decisions for new schemes, save money and meet environmental targets through improved process operation.

Efficient dewatering of sludges and digestates is essential to minimise polymer, energy and transport costs as well as the associated carbon emissions. The dry solids content of the resulting cake is often an important factor for product quality and storage as well as for further treatment such as in thermal processes. Rising transport costs and carbon

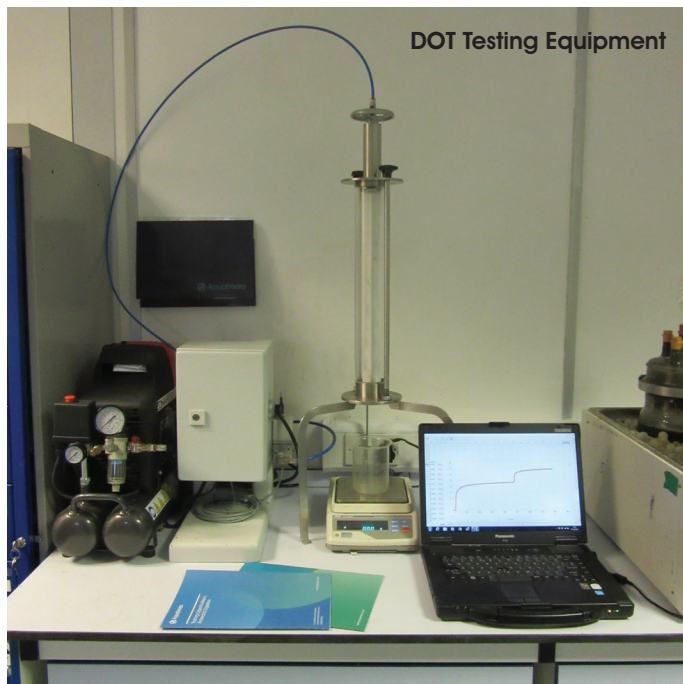
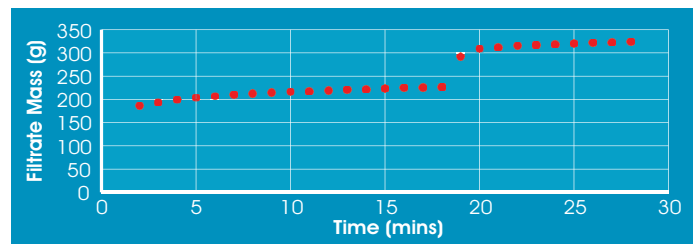
emission targets have led to an increased focus on further efficiency in dewatering.

The dewatering properties of sludges are highly variable and site specific, with a number of influencing factors such as feed stock characteristics, dewatering technology type, polymer (type/dose) and operational variables. As such it can be very difficult to estimate the maximum dewatering efficiency, potential cake dry solids and liquor quality. This will help have confidence in newly installed dewatering equipment, meeting contractual obligations for the required dewatering efficiency.

There are a number of tests that give an indication of optimum polymer dose (i.e. CST or SRF), but these do not predict the maximum dewatering performance. The DOT test will be used to identify the optimum polymer conditions required to achieve maximum cake dry solids and filtrate quality, hence optimum dewatering performance.

Testing can take place at our Wakefield laboratory or our process specialists can go to your site to use the DOT Tester to provide optimisation audits.

The graph below shows the culminative filtrate production.



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