

Thermal Response Testing (TRT) & Pump Testing

BAKER ASSOCIATES

Hydro Solutions

Providing Effective Surface and Groundwater Solutions

Baker Associates Hydro Solutions (BAHS) complete a variety of tests and site investigations to measure or derive site specific ground conditions. Parameters generated by the different techniques are used to support applications, within modelling work and to develop designs for systems such as ground source heating or pumping systems.

Thermal Response Testing (TRT):

TRTs enable the direct measurement of site specific thermal properties of the ground into which closed loop ground source heating and cooling systems are being developed. Testing is often completed whilst new boreholes are being drilled to quickly confirm desk study design calculations and to enable refinement of the total number of boreholes necessary.

BAHS operate a portable and trailer mounted rig enabling rapid mobilisation to site. Test durations vary depending on borehole depth, ground conditions and the test objectives. Data is recorded at up to twice every second with an accuracy of one hundredth of a degree.



Data is constantly analysed during the test to enable reporting of provisional results on completion. Detailed analysis and reporting can normally be completed within 48 hours of test completion.

Pump Testing:

Boreholes and wells are pump tested for different durations, sometimes with multiple monitoring points. BAHS carry a range of pumps and risers to equip groundwater sources for testing purposes. BAHS have a large stock of automatic loggers for water level, temperature and quality monitoring purposes. All tests are completed in line with British Standards.



Tests may be designed by BAHS (to BS ISO 14686:2003) or completed in accordance with Environment Agency conditions. Pump tests are generally undertaken to prove the sustainable yield of a groundwater abstraction, to measure the performance of a well or borehole, determine the deployable output and in connection with dewatering projects.

BAHS hydrogeologists are trained and qualified to assess, interpret, and report pump test data to determine sustainable yields, borehole / well efficiency, deployable outputs, estimate aquifer parameters, develop dewatering strategies and to design operational management systems.