



# HIGH SPEED 2 GREATWORTH

**In-situ borehole permeability tests in accordance with BS EN ISO 22282-2:2012 as part of ground investigation works for HS2**

Tel: 01953 454540  
enquiries@stuartwells.co.uk  
www.stuartwells.co.uk

**Stuart Wells Limited**

# Geohydraulic testing in soil and rock to BS EN ISO 2282-2:2012

As part of our scope of works we undertook constant, rising and falling head tests:

*Constant head testing* was undertaken whereby water was pumped into the borehole. Three 90-minute step tests ensured the water level remained steady in the borehole.

Increasing the pumping flow rate after each step maintained a higher water level. Once pumping was stopped the falling head 'recovery' response was observed.

*Falling head testing* was undertaken whereby water was pumped into the borehole until it reached the top of casing level. When pumping stopped, the head 'recovery' response was observed.

*Rising head testing* was undertaken whereby groundwater was pumped from the borehole. Upon secession of pumping, the groundwater 'recovery' response was observed.



## Objective

Stuart Wells was employed as a subcontractor to undertake a series of in-situ borehole permeability tests in accordance with BS EN ISO 22282-2:2012 as part of ground investigation works for HS2.



## Solution

Constant, rising and falling head tests were conducted with total injected and abstracted water volume and inflow rates measured using 2no x propeller flowmeters. In undertaking these tests in accordance with BS EN ISO 22282-2: 2012 we were able to provide the client with accurate permeability values for each well to aid design.

<b>Services</b>	<u>Permeability Testing</u>
<b>Location</b>	Greatworth, Northamptonshire
<b>Industry</b>	Infrastructure