Application:	**Hydrogeology - Mineral Water Well**
Technology:	**Downhole Camera, 3-Arm Caliper/Natural Gamma, Electric Log, Temperature/Conductivity and Cement Bond Log**
Location:	**Decantae Mineral Water, Abergele, Wales**

To conduct a geophysical and camera survey, down to 40m, of two water producing wells for Decantae Mineral Water in the Snowdonia foothills at Trofarth, North Wales. The acquired data would be used to determine the extent, nature and condition of the water well casing with a view to implementing a plan to increase flow rates whilst maintaining the highest water quality.

The geologic target and producing zone was a Silurian mudstone at 40m subsurface. The well site was situated 11 miles SW of Abergele with one borehole in hilly terrain only accessible with a 4WD vehicle.

Result:

The logging of the wells was completed in two visits of one day each. Tools deployed included Downhole Camera, 3-Arm Caliper/Natural Gamma, Electric Log, Temperature/Conductivity and Cement Bond Log.

Following initial set up, the Downhole Camera was run into the borehole and a comprehensive inspection of the borehole and casing was performed in real-time with the results saved for later inspection. A Temperature/Conductivity log was then made which provided information on the inflow depths. The 3-Arm Caliper provided quantitative information on the borehole condition and the Natural Gamma and Electric Log helped define the local lithology. Finally, a Cement Bond Log was run to provide additional information on the casing integrity.

The logging was completed in a timely manner minimising any disruption to water production.

The probes were successfully deployed with 100% reliability, providing invaluable information for future development plans. Following logging operations, the operator replaced casing from the wells as necessary and the wells were brought back into production. The client was pleased with the service and quality of data and appreciated the minimal disruption to operations.