

CASE HISTORY

Application: Geotechnical Investigation for Road and Bridge Development

Technology: Mini Winch, High Resolution Optical Televiwer (Hi-OPTV)®

Location: N22 Road Development, County Cork, Ireland

Robertson Geo Services (RGS) was contracted to conduct a televiwer survey in seventeen boreholes along the planned route of the N22 road in County Cork, Ireland. In addition to the road, more than 20 bridges would be needed to complete the 22km stretch.

Requirement:

The client required televiwer logging on 17 boreholes along the proposed route of the N22, to provide fracture identification data to feed into slope stability analyses. The borehole depths ranged from 9m to 33m, all with an outside diameter of 86mm.

Equipment:

The following equipment was deployed for the project: 4x4 logging vehicle with a 600m Winch, used for mobilisation and accessible boreholes; Portable Mini Winch system for difficult to access boreholes and High Resolution Optical Televiwer (Hi-OPTV)®.

Operations:

Working in remote and boggy areas, often inaccessible by 4x4 vehicles, RGS engineers were able to deploy the portable 150m capacity Mini Winch system, which can be carried to any location. Logging of the 17 boreholes was successfully completed during a single site mobilisation over a period of three days.

Challenges and solutions:

The main challenge for the engineers was the often hilly terrain which prevented vehicular access, especially in muddy conditions. Deploying the lightweight portable equipment solved the issue, with the engineers required to carefully negotiate the slippery slopes while transporting the equipment.

End value to client:

The High Resolution Optical Televiwer (Hi-OPTV)® was successfully deployed with 100% reliability. The resulting high-quality data allowed the mapping of faults and fractures to be easily completed, to the satisfaction of the client.

