

Links



Challenge of the Caspian

Unique survival vessels are helping BG meet the challenges of the North Caspian Sea.

6-7 BG plc



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Italian mole keeps Scots salmon happy

Some of Scotland's golfers and salmon fisherman have said thank you to a mole - a powermole that is!

Because when Transco was asked to lay a new gas main six metres under the River Deveron at Turriff, it used a powermole to prevent environmental damage.

Conventional wet drilling would not only have used thousands of gallons of water and chemicals, but would have had an environmental impact on the surrounding area, as well as causing significant ground surface disturbance, visual intrusion and noise pollution.

The new pipeline, 44 miles from Aberdeen, was needed to replace an existing cast iron main lying on the river bed which had become vulnerable to erosion and had already fractured near the riverbank.

The old main could have caused serious difficulties, explained

David Morrison,

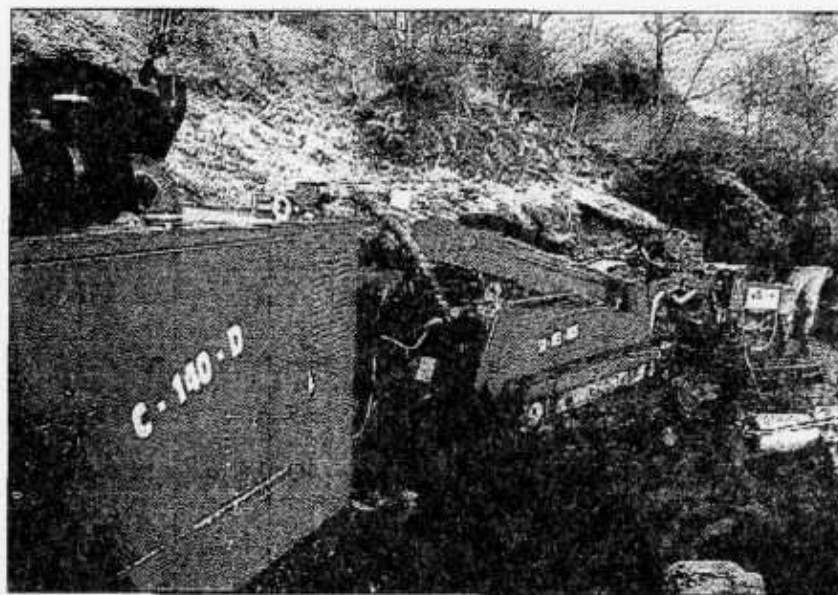
Transco's engineering operations manager.

But the Scottish Environmental Protection Agency and the Turriff Golf Club were concerned that if the new pipeline went ahead the salmon, the river and the golf club could suffer. So the team decided to utilise a new dry drilling operation previously untried by Transco in Scotland.

Known as the Powermole Dry Rock Directional Drilling machine and originally developed for Telecom Italia, the device can drill through hard rock like granite and marble using very little fluid. It also has a steerable head with pneumatic/percussive drill head unit.

This does away with mud mixing and recycling plants, mud motors and the environmental hazards associated with conventional wet drilling systems.

Said David: The



machine was ideal for this project because Turriff's golf course is on one side of the river and we were able to work from the other side without any disruption to the golf club.

Initially sceptical of the machine's ability to bore a small diameter pilot hole directly through the hard bedrock under the river, David's fears were soon put to rest.

Drilling contractors Underground Molding Services of Falkirk

employed Powermole International, which started work last December. The machine was operated by a five strong Anglo-Italian team.

In less than seven working hours, the 180 metre-long bore hole under the river was finished, thanks to the machine drilling and breaking the rock into small fragments.

After six days, several snowstorms and temperatures down to -13°C, the team had completed the enlarged

hole ready for the 180mm high density polyethylene pipe to be pulled through.

Although we had a few small hitches it went very well and was completed in just over two weeks with the minimum of disruption, said David.

The new machine not only had environmental benefits, added David, but was also cost effective with the project proving significantly cheaper than other options.