

Ridgistorm-XL Provides the Solution for River Diversion Project

Polypipe Water Management Solutions re-engineers challenging river diversion project at the Ffos-y-fran Land Reclamation Scheme in Merthyr Tydfil, Wales.



72m of
1200mm
Ridgistorm-XL
large diameter
pipe



Operated by Miller Argent, the Ffos-y-fran Land Reclamation project is the third and final phase of the East Merthyr Reclamation Scheme designed to reclaim 367 hectares of derelict land. 10,000,000 tonnes of coal will be mined from the area using surface mining methods as part of the scheme, the proceeds from which will be used to pay for the reclamation and restoration process.

The original project drawings had included concrete pipe as the specified material. However, by working alongside the main contractor, Dawnus Construction and project engineers Peter Brett Associates, Polypipe demonstrated cost efficiencies, improved performance and reduced installation time by designing a solution using its Ridgistorm-XL large diameter pipe.

72 metres of 1200mm diameter Ridgistorm-XL pipe were designed and supplied by Polypipe along two separate pipe runs.

By using Ridgistorm-XL's patented electro-fusion jointing process, Polypipe Civils' skilled installation team were able to achieve quicker and safer installation in comparison with other large diameter pipe solutions.

This method guarantees superior seal integrity and eliminates leakage and joint failure within the pipeline.

The Ridgistorm-XL system was installed in an enclosed concrete structure and then covered with wet-cast concrete. Once installed, the re-routed river could flow through the Ridgistorm-XL pipeline whilst a temporary road was constructed to enable heavy plant and vehicles to travel across the watercourse and access

CASE STUDY

Project

River diversion using Ridgistorm-XL large diameter pipe

Client

Miller Argent

Application

River diversion

Product

Ridgistorm-XL

new areas of the site for the temporary storage of overburden material.

Jonathan Lewis, Procurement Manager for Dawnus Construction felt the benefits offered by the Ridgistorm-XL were clear. "Once we started the installation work on-site it was clear to see how easily the product can be handled and installed. We're very pleased with how quick the two pipe runs were installed ready for us to back-pour with wet concrete."

"Polypipe water management solutions have worked closely with us on this project and having their experience and knowledge on-site during the installation stage was vital."

Jonathan Lewis,
Procurement Manager, Dawnus Construction

Polypipe water management solutions optimised the appropriate solution for the Ffos-y-fran project by utilising Ridgistorm-XL's bespoke design and production capability. By analysing the site conditions and installation parameters set by Dawnus and Peter Brett Associates, Polypipe water management solutions specified the exact stiffness class and profile design of the Ridgistorm-XL pipe to provide a specialist pipeline solution to meet the requirements of the project.

Works began on the Ffos-y-fran phase in June 2007 and has a planned completion date for the end of 2024. Upon completion, the reclaimed derelict land will be naturally landscaped and returned to Urban Common for use of the local community, as well as sustaining a range of wildlife and fauna.

