

Blue ROV technically adapted for confined space marine pipeline internal inspection

A UK industrial plant was experiencing difficulties in their marine pipeline intake and asked the James Fisher Subtech (JF Subtech) civils team to investigate. Several ROV campaigns, utilising JF Subtech's Blue ROV, were conducted to explore best pipeline access points. Innovative approaches were made to successfully deliver on the clients request.

Location UK

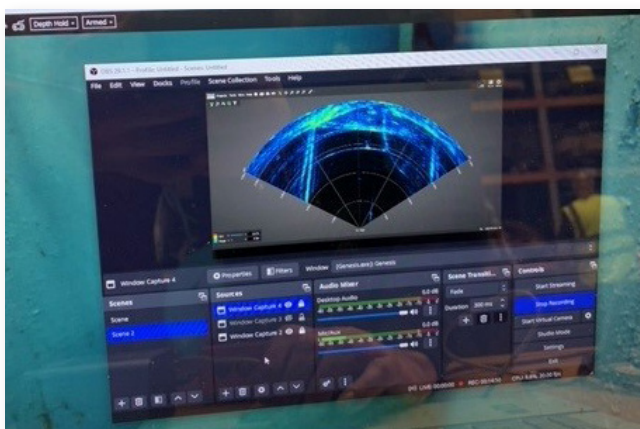
Timeframe March 2023/ongoing

The challenge

- The marine pipeline was situated in a very tidally-challenging estuary
- Access to the internal pipeline was via disused and heavily rusted access points
- There was zero visibility within the pipeline
- The site was an SSSI environmentally regulated area

The solution

- Marine operations were carefully planned around neap tides to provide access to the marine pipeline culverts and access points
- The team used innovative techniques and explored several options, such as access from main pump to access from the marine estuary using a daughter craft, until a workable solution was found
- Specialist access hatch removal techniques, brought across from our oil and gas works expertise, were used to safely open old hatches
- Our Blue ROV was adapted to manoeuvre effectively within the narrow and heavily silted internal pipeline which provided better sonar and visual imagery. Modifications included: a heavy lift kit, Blueview M900 sonar and low light camera
- Small jockey wheels were positioned on the ROV to aid smooth running down the inside of the pipeline and the buoyancy was adjusted to slightly positive which ensured our camera and sonar were best placed for scanning ahead
- Close liaison with the client was maintained at all times to ensure that our teams operated within the regulations for working in a SSSI



The results and benefits

- The team successfully delivered on the client's need to work swiftly and assist them with investigating their partially blocked pipeline to bring their operations back online
- The client's marine pipeline was internally surveyed and data shared instantly so that they were able to make critical decisions quickly and support their business output
- Close liaison throughout the planning, delivery and analysis phase