

System Optimisation - MPFM integration

Client:

Chevron

Location:

Jack and St Malo, Gulf of Mexico

Equipment:

Multiphase Flow Meter Unit (MFDU) supporting 4off MPM multiphase flowmeters

Project Background

Chevron had a requirement for the provision of a standalone Subsea Power and Communication System (SPCS) dedicated for the operation of clusters of MPM subsea multiphase / wet-gas flowmeters. It was required to supply sufficient power for a given number of meters on the same power line in addition to high speed communications between the subsea meter electronics modules and the topside located control system.

Solution

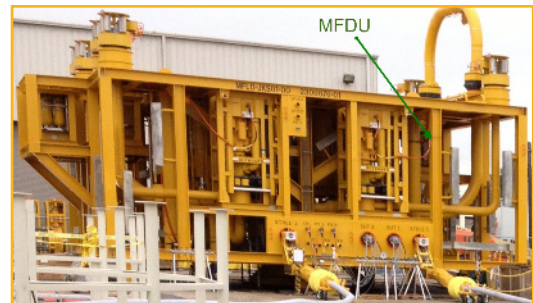
Proserv delivered a flexible Multiphase Flowmeter Distribution Unit (MFDU) solution providing electrical power and both primary 100Mb fibre and secondary 57kb powerline communications to support up to 4off MPM subsea multiphase / wet-gas flowmeters. The topside control system incorporated the Proserv TIACs data management software to seamlessly provide monitoring and control for the complete phased system solution.

Scope

The provision of a flexible high bandwidth FO/Powerline communications technology with auto channel select and monitoring to assure the optimum data gathering and control performance for the subsea metering system. The MFDU was designed and installed into the production manifold structures (supplied by others).

Benefits

In addition to the required high communication bandwidth and flexibility to enable the phased expansion, the solution provides extensive diagnostics and performance functionality. Whilst primarily implemented for the standalone metering system, the solution can potentially offer alternative instrument / device support owing to the use of industry standard interfaces in conjunction with transparent communications capability.



MFDU manifold location



MFDU + 4off MPM flowmeters