

C235 | Aker BP | Oda tie in to Ula

Oil Metering Package



Project:	Oda tie in to Ula	Contractor:	Aker Solutions AS	End User:	Aker BP
Product:	Oil Metering Package	Location:	North Sea, Norway	Year:	2018

Application

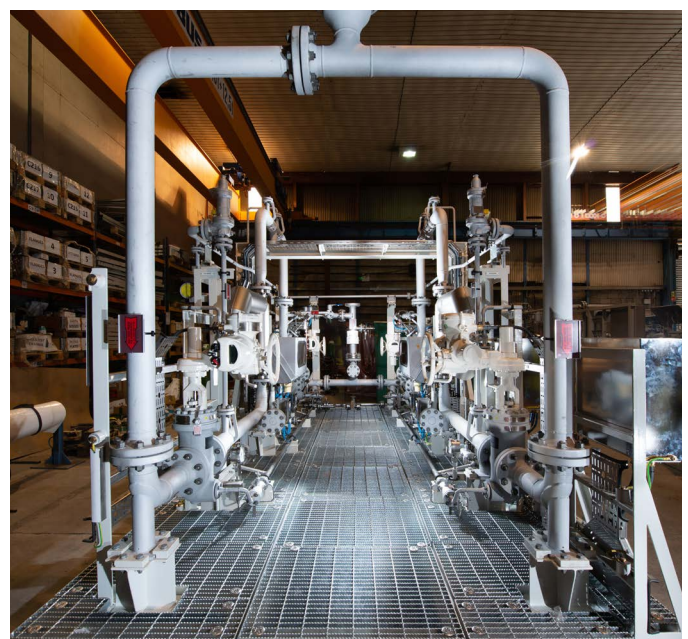
The application was for an oil metering skid along with a fast loop sampling system which was installed onto the Aker BP operated Ula platform. The additional oil is coming from the Centrica owned Oda asset which is tied back via subsea pipeline. This metering system was required to reduce the uncertainty of the overall oil allocation metering when this tie back is completed.

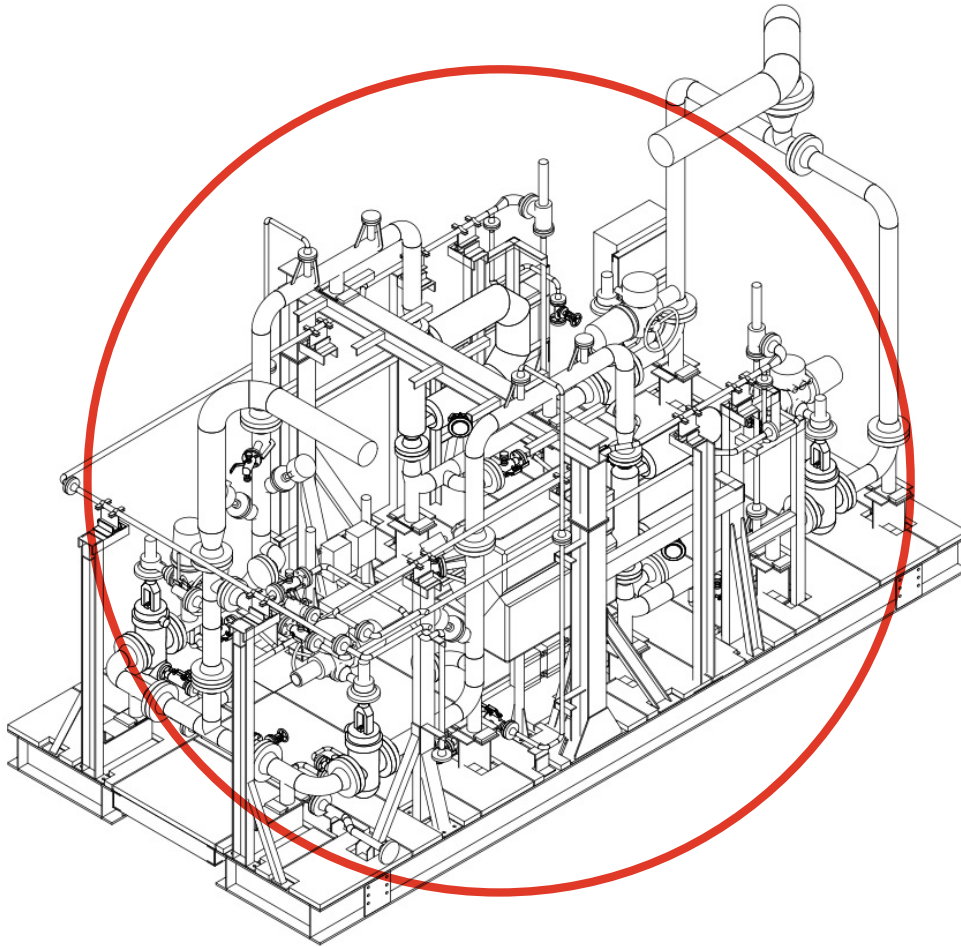
The oil production from Oda will be measured by routing the oil flow from HP separator to this new metering package located upstream of the MP separator. Sampling of the metered oil will be required to provide accurate measurement in accordance with national Allocation Metering standards.

Description

The design of the new Ula oil metering skid was based on 2 x 100% Coriolis meter runs. Dual temperature and pressure instrumentation was included. The metering package was supplied as two separate skids with a meter stream on each. Overall the OGS scope included:

- Two 3" Coriolis flow meter runs
- 4"-300# Inlet and outlet valves (double expanding gate)





- 8" Inlet header termination point with a 4"-300# outlet header termination point
- Field instruments (PT, TT in heated and insulated enclosures) and PI for valve leak detection
- Skid edge junction boxes
- Heat tracing of impulse tubing
- 3"-300# connects for a portable prover
- Static mixer
- Spot manual sampling was installed (sampling probe) in the metering outlet piping
- Oil fast loop sampling system according to NORSOK I-106 including daily and monthly flow proportional grab sampling with Proserv's "Promix" system, water in oil measurement (WCM) and two circulation pumps
- Computer system modification, consisting of one stream S600+ flow computer for each flow measurement/run, and one flow computer for the oil sampling system, which was integrated and installed into the existing Ula Metering Supervisory Computer.

Provisions for a new manual sampling panel will serve both the Oda Hydrocyclone skid and Ula metering skid (not part of this package).

Challenges

Due to space restrictions for transport into the area where the various metering equipment was to be located on the platform, the main metering skid had to be manufactured so that it could be split into two parts. After transporting to the final location the skid was reassembled offshore and the fast loop cabinet was installed alongside it.

Surface protection to NORSOK offshore standards is of the highest quality and required paint inspection to NACE level 3. OGS has extensive experience in providing such protection and therefore the necessary project management expertise for this aspect of the project.

Projects with Aker require detailed inspection from various disciplines (Electrical, Instrument and Mechanical) and the completion of Mechanical Completion certificates. OGS has a very experienced team of multi-discipline engineers capable of completing a project like this.

