

Case Study

Client: EnCana (Nexen)
Facility: Buzzard Production Platform
Location: North Sea
Scope: MeterNet Computer System



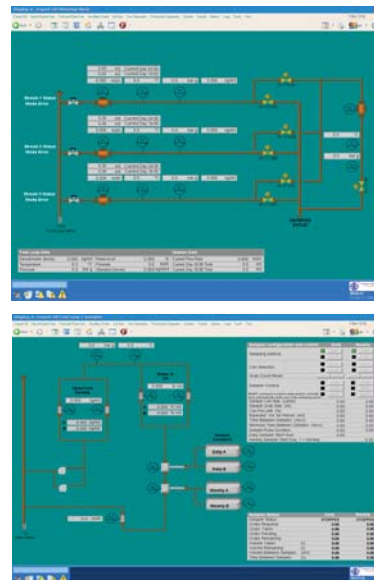
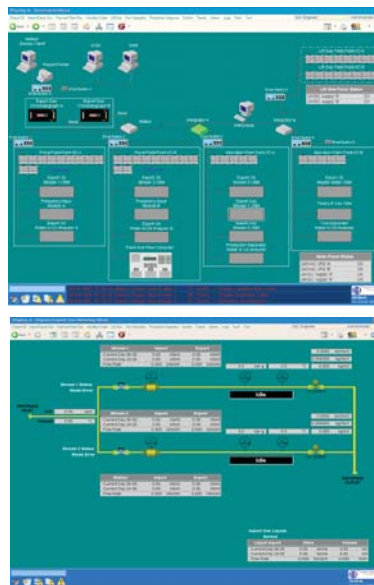
Overview

EnCana were granted consent from the UK government in November 2003 to develop the Buzzard field and initiate the largest offshore development seen in the North sea for over a decade. The Buzzard development consists of three bridge-linked steel platforms supporting facilities for drilling, production, utilities and accommodation.

The metering regime for Buzzard compliments the complex and sophisticated process facilities and encompasses a total of 65 meter streams. Utilising conventional flowcomputers for such a system did not appeal to the platform designers, particularly with respect to the number of panels bays required to house such a system. This, along with the desire to employ 'state of art' technology, lead to the selection of the SGC MeterNet solution.



Front of Panel



Meteor Screen Samples



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The System

The MeterNet solution for Buzzard is provided in two panel assemblies. The main panel (shown above) is located in a local equipment room on the production platform. A remote I/O panel is located on the wellhead platform and houses the I/O interfaces associated with 36 lift gas meters. The main panel houses the Meteor and Integrator computers in the left hand bay, with the I/O interfaces associated for all other meter streams housed in the right hand bay. The comprehensive metering regime consists of the following installations:

- The export oil metering system consists of three ultrasonic flowmeters with a fourth meter provided for mater meter purposes.
- The import/export gas metering system consists of two metering streams with bidirectional ultrasonic flowmeters as the primary elements.
- The import gas is passed through a knock-out drum. The liquid from the knock-out drum is metered by a
- Coriolis meter.
- The fuel gas is measured by a single V-cone flowmeter.
- The HP and LP flare gas are measure by ultrasonic flowmeters.
- Acid flare gas is measure by a pitot tube.
- The water injection is measured at five metering points using ultrasonic flowmeters.
- Water overboard is measured by a single ultrasonic flowmeter.
- The test separator gas metering employs a single V-cone meter.
- The test separator oil metering is employs a single Coriolis meter.
- The test separator water is measured by a single ultrasonic flowmeter.
- The production separator gas metering uses a single V-cone meter.
- The reservoir oil feed and water feed are 'inferred' meter points and are calculated by difference.
- The total lift gas metering determined from a single ultrasonic flowmeter.
- Each of the 36 lift gas wells is provided with a dedicated V-cone flowmeter.

Note: The Buzzard facilities are now owned and operated by Nexen.



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