

Caravel & Shamrock Detailed Design

GAS

Shell Exploration & Production (Shell Expro)

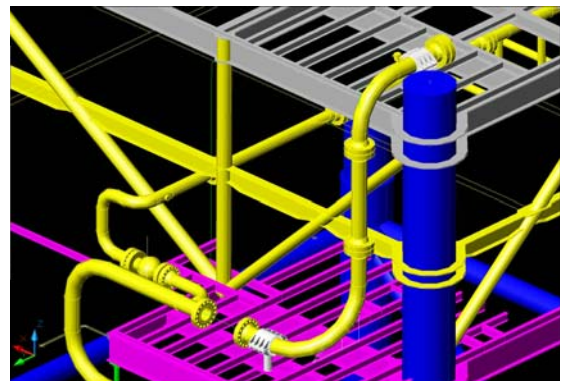
Shell Exploration and Production (Shell Expro) undertook the development of the Caravel Area Cluster which is located in the UK Southern North Sea about 115 km north east of Bacton and 10 km west of the UK-Netherlands border. Both the Caravel and Shamrock Fields were developed using Trident Monotower minimum facilities gas wellhead (4-slot) structures. Shamrock wellstream fluids are exported to Caravel via a 16" diameter 4.91 km pipeline where the fluid is commingled with Caravel fluids at a subsea wye arrangement.

From Caravel, the total wellstream fluids are transported to the Corvette Platform via a 16" diameter 33.3 km pipeline. At the Corvette Platform, the fluid is commingled with production from the Brigantine BG Platform. The Brigantine 20" pipeline and tie-in spoolpiece arrangement were modified to accommodate a 20" x 20" subsea wye. It was necessary to deploy a smart plug isolation tool into the Brigantine 20" pipeline to provide positive isolation from the gas inventory. A temporary pig trap was designed for the main deck of the platform. This required 20" extension pipework to be installed to connect the new temporary pig trap location to the existing ESD valve.

From Corvette the Caravel Area fluids are exported, via the Leman Compression Complex, to the Shell operated Bacton gas plant.

Andrew Palmer & Associates scope of work:

- Corvette and Caravel Subsea Wyes
- Gas Spoolpieces
- MEG/ CI Spoolpieces
- Gas Export Risers (Shamrock and Caravel)
- MEG/ CI Export Risers (Shamrock and Caravel)
- MEG/ CI Flexible Riser (Corvette)
- Pig trap and extension pipe work on Corvette
- Installation engineering support to installation contractor



60066BW

Location: Southern North Sea, UK

Block: 49/20a and 49/20b

Water depth: 30m

Duration: 100 weeks

Contract: Reimbursable

Manhours:

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Penspen Value:

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