Statfjord C (Norway)

*As part of this project, **Zeta-pdm Ltd** undertook the design, engineering and supply of the separation internals for the revamp & upgrade of the existing horizontal **Degasser CD2011** to convert it from a 2-phase separator to a 3-phase Separator.*

Statfjord was discovered by Mobil in 1974 and Statoil took over the operatorship on 1st January 1987. The field straddles the border between the Norwegian and British sectors in the Tampen area in the North Sea.

The field has been developed with the Statfjord A, B and C production platforms, all having concrete gravity base structures incorporating storage cells and is one of the largest oil discoveries in the North Sea.

Statfjord is one of the oldest producing fields on the Norwegian continental shelf with Statfjord A, beginning production on 24th November 1979; it is also one of the largest oil discoveries in the North Sea.

Photo: Harrald Pettersen / Statoil

General Information;

Zeta-pdm worked closely with the end-user Statoil and engineering contractor; Aker Kvaerner Offshore Partner, providing a detailed Computational Fluid Dynamics (CFD) analysis of the degasser vessel to optimise the operational flexibility, whilst maintaining a short equipment delivery time to allow for the prompt conversion (revamp and upgrade) of the vessel including modification from a central inlet to end inlet design, from a 2-phase to a 3-phase Separator the incorporation of a new weir and the addition of new nozzles (by others).

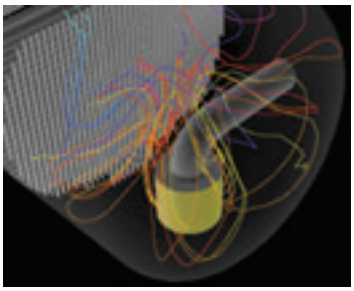
Within the project, we also supplied new sandwash systems for several other process vessels, again working closely with Statoil in developing and testing a new sandwash system for this purpose.

The scope included;
For the Degasser CD2011;

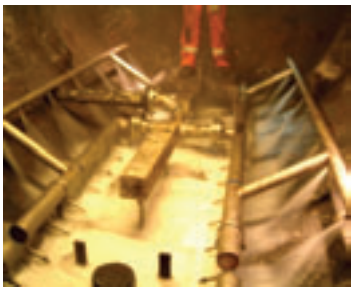
- CFD Optimisation of the Revamp Separation Internals.
- 1 x ZSQ Inlet Device.
- 1 x ZSB / ZPC Straightening Baffle.
- 1 x ZHB® Distribution Baffle.
- 3 x ZVB® Calming Baffles.
- 1 x ZPC Ultra-Skimming Zone.
- 1 x Weir Plate.
- 1 x Sandwash System.
- New Supports.

For the Test Separator - CD 2014, Produced Water Degassing Unit - CD5310 and the Produced Water Flash drum -CD2015;

- 1 x Sandwash System.



CFD detail of Inlet Section



Sandwash System during Offshore Testing

Vessel Principal Dimensions;

4,266 mm ID x 24,385 mm T/T

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