

KAVIN'S DESIGN FOR Panyu FPSO – Devon Energy

Objective *Design and Engineering of Panyu FPSO Top side Module Phase 1 Development*

Panyu FPSO Topsides

Process Design, Debottlenecking, preparation of commissioning and Operating manual

Kavin Engineering And Services Pvt Ltd (Kavin) has designed 5 major FPSO topsides and more than 50 Packages/Modules within the span of 7 years. As part of Kavin success story, it got an opportunity to work with Devon Energy for debottlenecking of the Panyu FPSO topsides and the Panyu platform modification work.

Engineering team of Kavin involved in complete study of the process systems on panyu FPSO topsides and offered suitable process operating parameters for the successful operation of the process and utility systems.

The topside process systems have been successfully commissioned. Debottlenecking of process facility was carried out by Kavin Engineering And Services to increase the oil production by 50%.

Kavin have also developed Pre-commissioning, Commissioning and Operating manual for Panyu 4-2 and 5-1 topside modification project.

Deliverable →

- Process simulation
- PFD/HMBT
- P&IDS
- Process calculation
- Design basis
- Process Description
- Commissioning procedures
- Operation and Maintenance manual

Customer Profile →

Devon Energy Corporation is one of the world's leading independent oil and gas exploration and production companies, with operations focused primarily in the United States and Canada. The company also explores for and produces oil and natural gas in certain international areas such as China, Brazil and Azerbaijan. It is included in the S&P 500 Index, trades on the New York Stock Exchange, and was listed as a Fortune 500 company in 2002.

Devon is one of North America's larger processors of natural gas liquids and owns natural gas pipelines and treatment facilities in many of the company's producing areas. It is also the corporate sponsor of the Wise Eyes community watch program, begun in 1993 in and named for Wise County, Texas, which is located in the Barnett Shale, where Devon has a large presence. The program is also in at least 20 other mostly rural counties where Devon operates

Project outlay →

The PANYU 4-2/5-1 oil field is located in the south China sea, approximately 200 Km due South of Hong Kong in the Pearl River Basin. Panyu4-2 is located approximately 19 km due west of Panyu5-1. The FPSO is in the middle of two platforms. Water depths in the area range from 97 m at Panyu 4-2 to 110 m at Panyu 5-1.

Top side processing facilities consist of the following subsystems

1. Separation (3 stage)
2. Produced water treatment
3. Cold Vent System
4. Flow metering
5. Chemical injection-Process

Panyu FPSO Production Capacity : 220,000 BFPD

Crude Capacity : 38,000 BOPD / 56000 BOPD

Water Capacity : 183,000 BWPD

Crude Characteristics: Highly Waxy, High Dewpoint

Water Cut : 0-90%

BS&W : <0.5%

Arrival Pressure : 700 kPaa

arrival temperature : 67°C

Duration: 6 months

