

Expro Excellence

Expro carried out conversion of a 90m production barge in a record 20 weeks

Production



Objectives and background

- The Agbani Floating Production Facility (FPF) is currently installed on the Abana Field (OPL 230), offshore Nigeria, located at the mouth of the Calabar River. The barge is moored at the Abana East wellhead platform, which also routes incoming flowlines from the Abana West structure (3.6km away)
- Nine horizontal production wells and two deviated water injection wells were drilled within the 12-Month project schedule. Five in Abana East and four in Abana West
- The barge sailed from Shanghai via Singapore to Great Yarmouth, where the conversion took place and all production equipment was installed
- The production topsides included 6.6MW of power generation, including two gas turbines, and emergency diesel power generation
- A piled Dolphin mooring system was used. The barge is moored in a fixed location via two fixed "Dolphin" jacket structures with barge guide frames. The mooring system was designed and fabricated in Louisiana



Expro Excellence

- Expro was contracted to procure a newly constructed barge and convert it into a moored floating production facility
- During the conversion period, it was decided that the safest method of transporting the floating production facility (FPF) to the Abana location was by dry tow. This was achieved using the AMT transporter
- Associated offsite activities were also carried out including design, procurement and fabrication work for pipework and pipe supports, installation of this equipment, commissioning

Value to the client

- In 1998, Expro carried out the conversion of a 90m long bulk carrier to the Agbani floating production barge in a record 20-weeks, allowing the project to achieve first oil within 12-months of contract award, including all fixed offshore structures.
- The project was completed on-time and on-budget thanks to Expro's knowledge of the production requirements, and access to existing equipment
- The use of batch drilling methods, and conversion of the production barge concurrently with the drilling and permanent fixed facilities installation resulted in an \$11m USD savings to the Customer
- The Agbani FPF is still operated by Expro to this day

Safety



Operational efficiency



Time saving



Project highlights

Location:

Offshore, Nigeria

Project Type:

Production Barge

Capacity:

Oil Flow Rate: 50,000 bbl/d

Export Specification:

< 0.5% BS&W

Produced Water Rate:

40,000 bbl/d

Produced Water

Treatment Specification:

25 ppm(v)

Sea Water Injection:

52,500 bbl/d

Injection Specification:

< 30 ppb O₂

Contract:

Lease-Operate-Maintain (LOM)

Safety:

No Lost Time Incidents (LTI)