

Expro Excellence

Fast-Track MOPU deployment in the Arabian Gulf

Well Flow Management | Production



Objectives and background

- The operator required a rapid offshore Production Solution to bring the field onstream well ahead of the permanent infrastructure being installed
- The project demanded a MOPU with Production Topsides solution capable of delivering full oil processing, gas utilization and flaring, and water injection under challenging offshore conditions, within an extremely tight schedule
- Strategic goal: monetize reserves quickly by accelerating first oil while deferring the significant CAPEX associated with constructing permanent platforms and infield pipelines
- Location complexities included 30–40 m water depth and a harsh marine environment approximately 120 km offshore Iran, requiring exceptional logistics planning for transportation, installation, and ongoing operational support
- Scope included supply, jack-up rig conversion, marine integration, topsides process facility fabrication, installation, hook-up, commissioning, and full operations and maintenance under a Lease-Operate-Maintain (LOM) model

Expro Excellence

- Executed by Expro Swire Production Limited (ESPL), which was a joint venture between Expro Group and Swire Pacific Offshore
- Involved the complete conversion of the ex-Mansal “Muna” jack-up drilling rig into the ESP 1 Mobile Offshore Production Unit (MOPU) in under 32 weeks, covering full recertification, deck structural upgrades, and zero-houring of marine systems
- Topsides designed and fabricated for: oil/water separation, degassing, produced water treatment, and water injection facilities rated for 60,000 BPD injection support and 10 MMSCFD flare handling
- Integrated a 500-ton power generation package featuring eight 1MW diesel-driven generators and 11 KV switchgear to support Electrical Submersible Pumps (ESP) and essential topside operations
- Installed enhanced safety systems, modern distributed control system (DCS), and emergency shutdown solutions meeting offshore safety compliance requirements
- Delivered a turnkey, fully operational topsides facility with exceptional uptime performance (>98%) during the operating campaign

Value to the client

- Accelerated production start-up by approximately 20 months, enabling substantial early revenue generation and significantly improving project return on investment
- Deferred large-scale infrastructure CAPEX by employing an innovative Production Topsides-on-MOPU lease option, reducing financial exposure and operational risk
- Supported safe simultaneous operations (SIMOPS) during development drilling while maintaining continuous crude processing and water injection services
- Demonstrated a flawless safety record: 1,000,000 man-hours without any Lost Time Incident (LTI) across conversion, mobilization, and operations phases

Fast track



Bespoke solution



Project highlights

Location:
Offshore, Arabian Gulf

Project Type:
Mobile Offshore Production Unit (MOPU) with Integrated Production Topsides

Capacity:
Oil Flowrate: 100,000 BPD
Gas Flowrate: 10 mmscfd
Water Injection: 60,000 BPD

Contract:
Lease-Operate-Maintain (LOM)

Safety:
No Lost Time Incidents (LTI) – Over 1,000,000 safe man-hours