

CASE STUDY: ENERGY SOLUTIONS

DELIVERING COMPLEX OFFSHORE PRE-COMMISSIONING WITH CONFIDENCE

Executing high-pressure dewatering and testing operations across multiple scopes in the Gulf of Mexico.



CLIENT
Shell

YEAR
2018 - 2019

BUSINESS LINE
Energy Solutions

The Challenge

Shell's Appomattox development in the Gulf of Mexico required a large-scale pre-commissioning campaign, including pigging, hydro-testing, and dewatering of critical subsea pipelines.

The project involved a 55-mile gas export pipeline and multiple infield flowlines and risers.

The offshore environment, technical complexity, and coordination across multiple stakeholders, including Shell, Williams, and BP, demanded precise planning, robust engineering, and safe execution over a seven-month campaign.

The Solution

Our teams provided full project management and engineering services for the pre-commissioning scope, including pigging, hydro-testing, and high-pressure dewatering.

A 10,000 scfm nitrogen spread - the largest ever deployed in the Gulf of Mexico, was mobilized aboard a 310-class supply vessel. The team also used a Remote Flooding Console to free-flood export pipelines at high flowrates and pressures.

EnerMech's engineering team developed a detailed project schedule with daily updates and collaborated closely with all stakeholders to ensure safe, efficient operations.

A multi-disciplined team of 36 personnel worked across five offshore locations, delivering 19 operations and over 18,000 man-hours without incident.

The Outcome

EnerMech's delivery enabled Shell and its partners to safely and efficiently complete pre-commissioning of the Appomattox export pipelines.

The project demonstrated EnerMech's ability to manage large-scale, multi-scope offshore campaigns with precision and safety.

The use of advanced engineering tools, real-time scheduling, and a single-source team approach helped reduce costs, shorten timelines, and ensure operational readiness.

We Delivered...

- 10,000 scfm high-pressure nitrogen dewatering spread
- 19 operations completed across five offshore locations
- 18,000+ man-hours delivered incident-free
- 36 personnel deployed simultaneously across four unique scopes
- 3D engineering design to reduce cost and accelerate planning

Record Nitrogen-Spread

Deployed the largest nitrogen spread in Gulf of Mexico history to support high-pressure dewatering.

Workforce Upskilling

19 operations and 18,000+ man-hours completed incident-free across five offshore locations.

