

CASE STUDY: PRE COMMISSIONING SERVICES

LONG-DISTANCE LOW-PRESSURE PIGGING

Delivering a cross-border pig run with precision, safety, and engineering excellence.



CLIENT

bp

YEAR

2018

BUSINESS LINE

Infrastructure and Industrial

The Challenge

EnerMech was engaged to support a critical pigging operation on a major pipeline expansion, spanning from MX53 in Azerbaijan to MX40 in Georgia.

The task involved launching two 42" bi-directional pigs with a 20km nitrogen slug to ensure the integrity of the newly installed pipeline section.

The operation had to be executed across international borders, under tight schedule constraints, and with zero tolerance for error.

The complexity of the route, combined with the need for precise coordination and real-time monitoring, made this a technically demanding and high-stakes project.

The Solution

EnerMech engineered a detailed pigging procedure and mobilised a specialist team equipped to handle the scale and complexity of the operation.

Over 340,000 cubic metres of nitrogen were pumped to drive the pigs safely through the pipeline. A dedicated EnerMech engineer was embedded full-time in the client's office, providing continuous support across logistics, engineering, and troubleshooting.

Pigs were tracked using electromagnetic signallers, and composite samples were taken at each valve station to verify progress and maintain quality control.

This hands-on, integrated approach ensured seamless execution across all phases of the operation.

The Outcome

EnerMech successfully delivered the region's longest recorded low-pressure pig run, with the pigs received in Georgia without any damage to the gauge plates - confirming the integrity of the pipeline.

The project was completed safely, on time, and within budget, with over 5,900 man-hours worked without a single safety incident.

The client praised EnerMech's professionalism, technical capability, and ability to adapt to the demands of a complex, cross-border operation. This successful delivery reinforced EnerMech's reputation as a trusted partner for high-risk, high-value pipeline services.

We Delivered...

- Over 340,000m³ of nitrogen pumped for pigging operations
- Two 42" gauge plate pigs launched and received without damage
- 24/7 embedded engineering support throughout planning and execution
- Real-time pig tracking and composite sampling at valve stations
- 5,900+ man-hours completed with zero safety incidents

Nitrogen Pumping Operations

Mobilised equipment and personnel to safely pump over 340,000 cubic metres of nitrogen for pig propulsion.

Pig Tracking and Sampling

Utilised electromagnetic signallers and composite sampling at valve stations to monitor pig movement and pipeline condition.