

D-18 Water Injection Facility



LOCATION

East Malaysia – Offshore



PROJECT DESCRIPTION

In July 2015, Petronas started a major development project to enhance the production from D18 oilfield located offshore Sarawak, East Malaysia about 90km northwest of Bintulu Crude Oil Terminal (BCOT). The first phase of development was centered on building the water injection facility on a Mat-type jack-up rig called Marsya, owned and operated by UZMA Group. This jack-up rig was bridge-linked to the existing D18MP-A production platform and new water-injection and gas-lift pipelines connected the central D-18 facility to two existing satellite platforms in the field.

Drakken played a major role in this development by designing and fabricating the heart of the facility i.e. The Process Measurement Control system (PMCS), the Safety Instrumented system (SIS) and Local Control Panels for the three water injection pumps (WIP).

The PMCS provided stable control of the process under all expected normal and upset circumstances,

including start-up while the SIS provided shutdown logic of the process as determined by the Instrument Protection Function IPF and cause and effect. Both the systems were designed to prevent or verify operator commands entered on the Operator Work stations (OWS), supplied by Drakken.

Drakken had people working in Indonesia, Singapore, Thailand, UAE and Canada simultaneously to fast-track Procurement, Engineering and Installation. The engineering and fabrication of the PMCS and SIS control systems were completed in Calgary, Canada. They were then shipped to the vessel, Marsya, in Singapore, for testing and installation. All major instrumentation was purchased out of Calgary, USA and UK. The Instrument Air compressors were purchased out of Germany.

Drakken personnel mobilized in March 2016 to Keppel shipyard in Singapore for installation, pre-commissioning and commissioning which continued onshore till July 2016 when the vessel sailed to offshore Sarawak. Final commissioning was carried out offshore and project was handed over to UZMA Group in August 2016.

This was a major turnkey project for Drakken completed by the end of Aug 2016.

PROJECT HIGHLIGHTS

PROJECT VALUE	\$5,000,000 USD
PROJECT TIMELINE	11 months
TYPE OF EQUIPMENT	Water Injection Facility
INJECTION CAPACITY	66,000 BPD
SCHEDULE	Delivered on schedule
SAFETY	No lost time accidents