

## Case Study:

# Filtrex Thru Tubing Conformable Sand Control regains sand free production in three well campaign

First slickline deployment of Filtrex results in sand free production in two Indonesian oil and gas fields.

### Well Data

**Location:** Tunu & Handil, Indonesia

**Well Type:** Gas & Oil Producers

**Installation Date:** April/May 2022

**Tubing Size:** 3½"

**Deviation:** From 13 to 58 degrees



## Background

The Handil and Tunu Oil and Gas fields require sand control after being completed as cased and perforated. This is classed as primary sand control as it was a newly perforated section of the reservoir and other methods such as standalone screens are unlikely to work. The zones are depleted quickly resulting in the need to re-perforate at different depths of the reservoir which also require sand control.

## The Challenge

The operator was using a variety of sand control solutions, including Resin, stand alone screen and gravel packs but each solution came with their own challenges and risks. Improper screen micron and/or gravel sizing can cause sand control failure through plugging and/or produced sand and the operator was looking for a sand control solution that covered all scenarios.

## TAQA Solution

TAQA designed a slickline compatible Filtrex solution of 2.5m length to have a standardised product to cover all customer wells in the campaign.

Filtrex Thru Tubing Conformable Sand Control System provides the flexibility to be installed thru-tubing, beyond tight restrictions, whilst offering compliance to the damaged section once set. This results in controlled sand production and improved well performance in reservoirs up to 100°C.

The control mechanism employed by Filtrex is a multilayer sand filter, comprised of a porous open cell matrix polymer (OCMP), encasing a length of perforated tubing. This multilayer expandable filter medium ensures full expansion and compliance within the damaged section regaining sand

control in existing completions and filling the annulus. The system was designed following sand retention testing using customer supplied reservoir sands to minimise pressure drop whilst ensuring appropriate retention of sand.



Fig 1 Filtrex Assembly ready for deployment

## Project Results

All wells online showing zero sand production whilst maintaining required production rates.

### Well 1

- 1 x Oil Well 3.5" Monobore
- 1.5m Perforated Interval
- 700bbls/d
- Slickline deployment 13° deviation
- 58°C

### Well 2

- 1 x Gas Well 3.5" Monobore
- 1.0m Perforated Interval
- 2.5mmscf/d
- Slickline deployment 33° deviation
- 80°C

### Well 3

- 1 x Gas Well 3.5" Monobore
- 1.0m Perforated Interval
- 2.5mmscf/d
- Slickline deployment 58° deviation
- 74°C



Fig 2 Filtrex Deployment