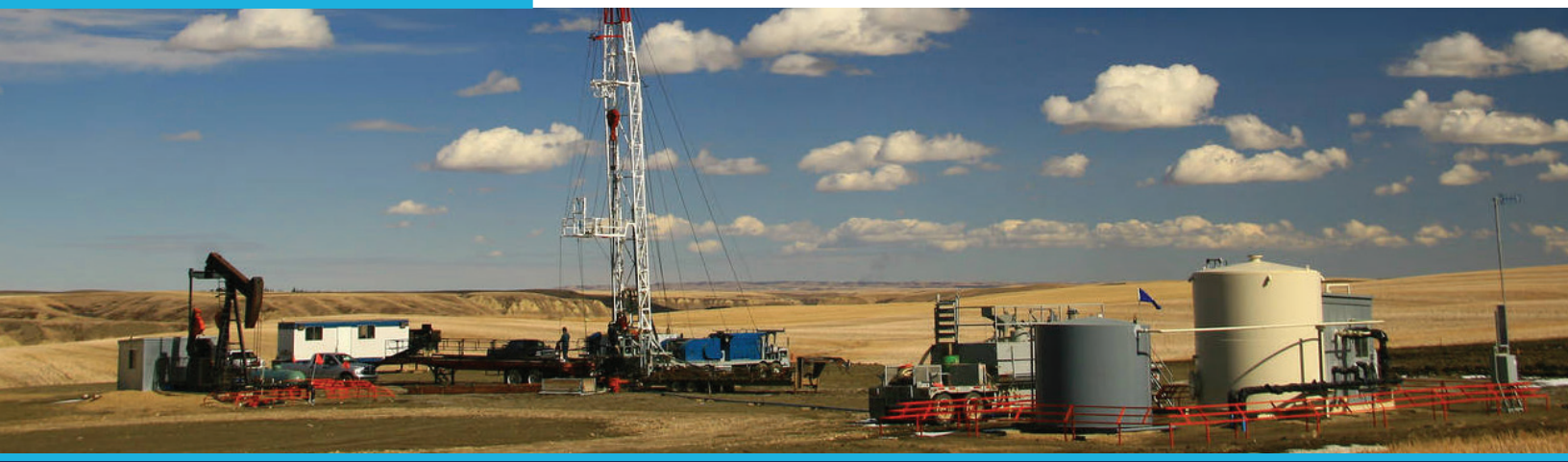
CASE STUDY • OIL & GAS



LEADING OIL PRODUCER IN INDONESIA SEES BENEFITS FROM ROSEMOUNT MAGNETIC FLOW METER FOR WATER INJECTION

Application

Water injection process in onshore oil and gas field using Rosemount 8705 Flanged Magnetic Flow Meter

Customer

Leading oil and gas producer in Indonesia

Challenge

A leading oil and gas producer in Indonesia wanted to maximize the production from one of its mature fields using a water flooding (secondary recovery) process. The project involved construction of water injection facilities and revamping existing production facilities at the site.

The oil and gas company had been using turbine flow meters for several years for water injection applications. However, they were looking for a suitable alternative option because of the problems associated with turbine flow meters. Some of these were returning unreliable flow measurements due to dirty water with sand residue, frequent failure of internal components of the turbine flow meter due to high process pressure, and no bypass line to remove the meter for periodic maintenance.

Solution

Rosemount 8705 Magnetic Flow Meter proved to be an excellent solution for water injection applications due to the following advantages:

- There are no moving parts or mechanical obstructions in the flow path
- Superior PTFE lining to handle sand in the process
- High process pressure handling capability of the magnetic flow meter

Results

- Accurate flow measurement of water at high pressure
- Stable flow measurement unaffected by sand content in the process
- Built-in advanced diagnostics and in-situ verification for complete confidence in measurement
- $28,500 annual savings from replacement of turbine meters with Rosemount 8705 Magnetic Flow Meter
- Safe and reliable solution, and ease of maintenance

Rosemount 8705 Flanged Magnetic Flow Meters provide long-lasting, reliable performance even in the most challenging applications

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LEADING OIL PRODUCER IN INDONESIA SEES BENEFITS FROM ROSEMOUNT™ MAGNETIC FLOW METER FOR WATER INJECTION

The PTFE lining option has been very effective, and it has exhibited continued excellent performance for more than seven years despite the challenging process conditions. Rosemount 8705 Magnetic Flow Meter is available with a variety of flange options and they can handle a maximum pressure of 425.5 bar (-29/38°C) with 2500 # rating flanges.

Initially, two turbine meters were replaced with Rosemount 8705 Magnetic Flow Meter, followed by replacement of all 23 units of turbine meters. This approach resulted in significant annual savings of $28,500 attributed to savings in turbine meter maintenance, such as blade replacement cost, calibration cost, removal of strainer and piping requirements, labor cost involved in replacements, and inventory cost.

Advanced diagnostics and smart meter verification helped the oil and gas company to eliminate calibration and frequent site visits. As a result, the Rosemount 8705 Magnetic Flow Meter helped the customer to eliminate unplanned shutdowns and minimized downtime, and became the preferred supplier of flow measurement technology for water injection application.

The Rosemount Magnetic Flow Meter includes advanced meter verification diagnostics.

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