

Mator News

1/2009

Mator AS – the separation specialist

Baseline evaluation - a valuable tool

Periodic evaluation of the separation equipment is a useful tool for monitoring changes with time. For example, it is important to get early warning about potential clogging or fouling of internals in order to plan operations and maintenance activities with minimum production loss.

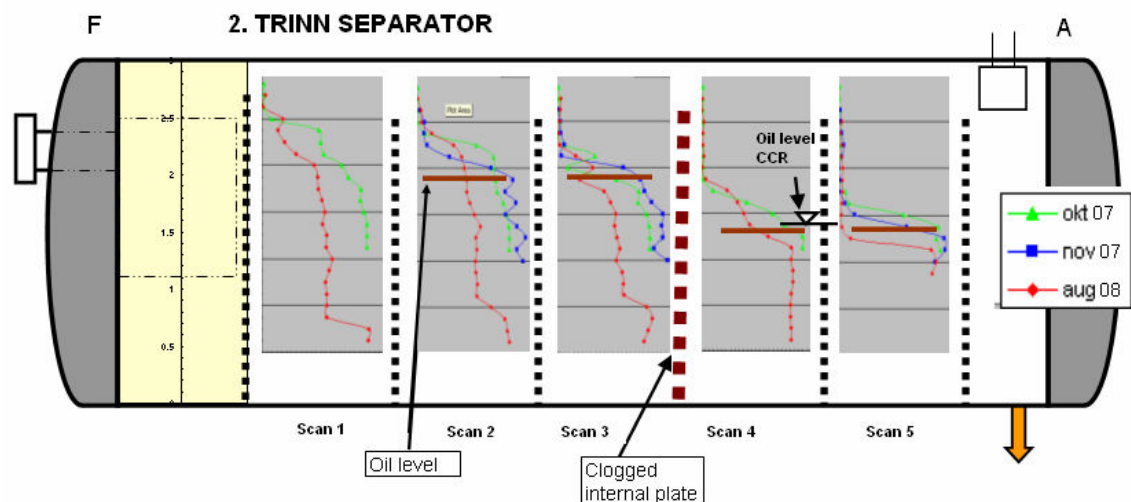
Several operators have established the Neutron Backscatter scanning method to monitor the oil train process. This involves establishing a “fingerprint” for a clean and fresh oil train, as is the case shortly after a maintenance workover period, followed by conducting backscatter scans periodically.

The illustration below shows a baseline scan of a 2-phase separator to verify the oil level and the thickness of the foam layer. The Neutron Backscatter technology was used for this purpose.

The scan revealed a worsening of the conditions compared to results obtained 8 months earlier. From the inlet position and a further 6 meter downstream, the readings indicated “chaotic” flow or gas dispersions in the oil phase down to 1 meter below the reported oil level. The cause of the changes observed was not obvious, but one suspicion was damage of the separator (internal) geometry.

The separator was inspected during the scheduled maintenance workover. The findings were large amounts of deposits on the internal plates resulting in close to total blocking of the plates.

A “fingerprint” baseline scan from a clean separator together with historical process data greatly improves the possibility of making correct interpretation of the result. Obviously, this is required in order to make the right corrective actions.



Recent Mator projects:

- ◆ StatoilHydro Gullfaks C: Well screening and produced water mapping
- ◆ StatoilHydro Snorre B: Test of defoamer and produced water mapping
- ◆ StatoilHydro Bressay: Extended well test heavy oil
- ◆ StatoilHydro Troll C: Produced water Troubleshooting
- ◆ StatoilHydro Snorre A/Vigdis: Verification of liquid carry-over by radioactive tracers.
- ◆ ConocoPhillips Ekofisk 2/4 J: Verification of three-phase separators.

