

ORCA for OBM: Remedial clean up unlocks well production



"Cleaning up OBM filter cake in these wells was beyond the capabilities of many treatment fluids. When the lab tests showed clearly that ORCA for OBM could remove the drill-in fluid damage it was a major step towards achieving the production rates we wanted. The results were highly satisfactory and we are using ORCA for OBM extensively now."

Operator

ORCA for OBM significantly improved production rates in a series of new wells in Asia. The wells had not previously been treated during completion. Lab tests showed that ORCA for OBM would effectively remove the damage – and it delivered successful remedial treatments. The operator is now using ORCA for OBM to clean new wells drilled with OBM in other fields.

The challenge

The wells were drilled with OBM in a heavy oil reservoir on steam flood, completed with standalone screens set across multiple producing zones, separated by shales. No mud damage clean up treatment had been used before well activation, and production was below expectations. The operator decided to use remedial treatments to improve production, if there was good laboratory evidence of their likely success.

The solution

An ORCA for OBM treatment fluid was formulated to solubilise the OBM used to drill the wells. Tests in the laboratory showed that the formulation was effective against filter cake made from the OBM used to drill the reservoir sections of the wells. The operator decided to use remedial treatments based on displacing ORCA for OBM fluid into the screens spanning the reservoir sections, using coiled tubing.

ORCA for OBM in action

A suitable ORCA for OBM formulation was selected. As well as containing speciality surfactants to solubilize hydrocarbon in the filter cake, the ORCA for OBM fluid contained an acid precursor to dissolve calcium carbonate that was also present in the OBM and filter cake. The fluid was placed in each well using coiled tubing, and left downhole for the required soak period. The wells were then returned to production.

The result

The production rate of several wells increased significantly (see table below).



Well	Oil rate bbl/d		Water rate bbl/d	
	Pre ORCA	Post ORCA	Pre ORCA	Post ORCA
A	600	2000	0	0
B	300	880	40	26
C	180	1200	0	44
D	250	865	10	40
E	196	230	57	84



The results demonstrated the benefits of effective clean up of OBM filter cake using ORCA for OBM. The operator used ORCA for OBM in other wells in the same field, and new wells in other fields also drilled with OBM.

Get in touch

Cleansorb has a team of ORCA for OBM specialists to advise you on the best strategy for your circumstances. Please e-mail contact@cleansorb.com for more information.