

Embreak* 2W2027D chosen for better performance in oman oil fields

challenge

A major operator in Oman contacted SUEZ to determine the best emulsion breaker product for use in several different oil fields.

solution

To determine the best emulsion breaker, SUEZ performed screenings of four products at 15, 30 and 60 ppm. With a flow-line temperature of 33°C (91.4°F), the emulsion break was more difficult.

After screening, each product was tested at the minimum (15 ppm) and maximum (30 ppm) dosage rates of the incumbent product. All pictures were taken after 5 minutes.

results

Figures 1a and 1b show that the incumbent emulsion breaker performs best at lower concentrations and degrades with an increase in concentration.



Fig. 1a: 30 slow rolls, emulsion broken in 1-2 minutes



Fig. 1b: 50 vigorous rolls, emulsion broken in 1-2 minutes

Figures 2a and 2b show the results of Embreak 2W2027D. The tests found that this performs best at lower concentrations and degrades when increased to 60 ppm.



Fig. 2a: 30 slow rolls, emulsion broken within 1 minute



Fig. 2b: 50 vigorous rolls, emulsion broken in 1-2 minutes

Figures 3a and 3b show test results for Embreak 2W801 where efficacy improves with increased concentration and a ragged interface is observed at lower concentrations.



Fig. 3a: 30 slow rolls, emulsion broken in 2 minutes

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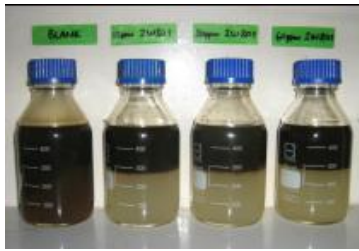


Fig. 3b: 50 vigorous rolls, emulsion broken in 1-2 minutes

Figures 4a and 4b depict the performance of Embreak 2W157D where it performs similarly to Embreak 2W801 and the efficacy improves with increased concentration.



Fig. 4a: 30 slow rolls, emulsion broken within 1 minute



Fig. 4b: 50 vigorous rolls, emulsion broken within 1 to 1½ minutes

Figures 5a and 5b show the combined products at 15 ppm. The results show that the order of fastest emulsion breaking rate is: (1) Embreak 2W2027D; (2) Embreak 2W157D; (3) Incumbent and (4) Embreak 2W801

The water clarity, in order of most clear, is: (1) Embreak 2W801; (2) Incumbent; (3) Embreak 2W2027D and (4) Embreak 2W157D.

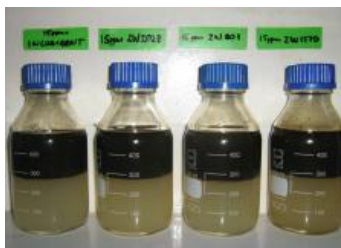


Fig. 5a: 30 slow rolls, emulsion broken within 1 minute

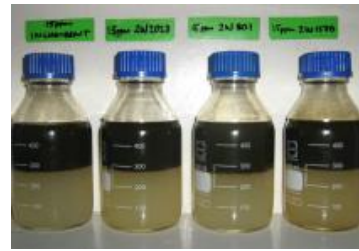


Fig. 5b: 50 vigorous rolls, emulsion broken after 1 to 1½ minutes

Figures 6a and 6b show the combined products at 30 ppm. The results show that the order of fastest emulsion breaking rate is: (1) Embreak 2W2027D; (2) Embreak 2W157D; (3) Incumbent and (4) Embreak 2W801.

The water clarity, in order of most clear, is: (1) Embreak 2W801; (2) Embreak 2W2027D; (3) Incumbent and (4) Embreak 2W157D.



Fig. 6a: 30 slow rolls, emulsion broken within 1 minute



Fig. 6b: 50 vigorous rolls, emulsion broken after 1 to 1½ minutes

Based on the testing, the customer replaced the incumbent product with Embreak 2W2027D as it performs in a similar manner as the incumbent but the rate of its activity is faster and the water clarity was comparable to other products.

If you would like to learn more about how SUEZ can solve your upstream challenges, contact your local SUEZ representative or visit our website.