ChemTreat
Case History

Asphaltene Control in a Deepwater Gulf of Mexico Well

BACKGROUND

A deepwater oil producer in the Gulf of Mexico was experiencing asphaltene deposition issues in their production train, resulting in monthly platform shut-ins and cleanouts, causing production losses and cleaning expenses totaling $2M per day.

FIELD TEST

ChemTreat was given the opportunity to inject our FL5478 oil conditioner at the well heads on five dry tree wells equipped with downhole chemical injection lines. Only one well (A4) had the injection lines above the asphaltene onset pressure (AOP) at the surface.

The total platform production is 25,000 barrels of oil per day and 8,000 barrels of water per day. We treated each of the wells at 1,500 ppm. The total system oil is at 700 ppm.

The pictures below show the progression of the FL5478 treatment on the produced water over the course of a week. A noticeable improvement in water quality was noted.

FL5478
Oil Conditioner

CH10-107 EN-OG
June 2019

5640 Cox Road / Glen Allen, Virginia 23060
www.chemtreat.com

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LABORATORY TEST RESULTS

Point of Application is Critical for Asphaltene Remittance

The data below shows that injecting chemical at a point above the AOP is critical for proper asphaltene remittance. On the A4 well, the asphaltene content was reduced by 84.8 percent, and the API gravity increased by 1.9 degrees. A small reduction in sulfur content also occurred.

A4 WELL: SAMPLE ANALYSIS RESULTS ***BEFORE*** TREATMENT

TEST	RESULT
Asphaltenes	7.20 weight percent
Sulfur content by x-ray	2.807 weight percent
API gravity at 60°F	25.0
Specific gravity at 60/60°F	0.9040
Density at 60°F	0.9031 g/mL

A4 WELL: SAMPLE ANALYSIS RESULTS ***AFTER*** TREATMENT

TEST	RESULT
Asphaltenes	1.09 weight percent
Sulfur content by x-ray	2.556 weight percent
API gravity at 60°F	26.9
Specific gravity at 60/60°F	0.8933
Density at 60°F	0.8924 g/mL

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