

# Oil Sweetening Field Test In Fuel Oil No.6

## Background

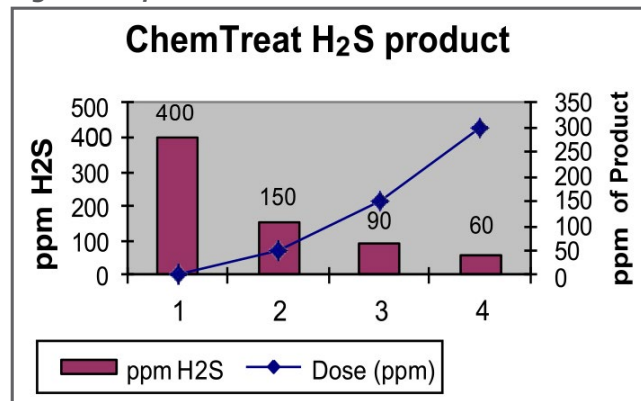
A refinery located in South America invited ChemTreat to participate in laboratory and field tests to select the ideal product for the No. 6, quality 300 SSF Fuel Oil. & 2.0% H<sub>2</sub>S.

## Laboratory Test Results

### Point of Application:

Figure 1 shows that more than 300 ppm of the ChemTreat H<sub>2</sub>S product is needed to reduce the content of H<sub>2</sub>S in fuel oil to 50 ppm.

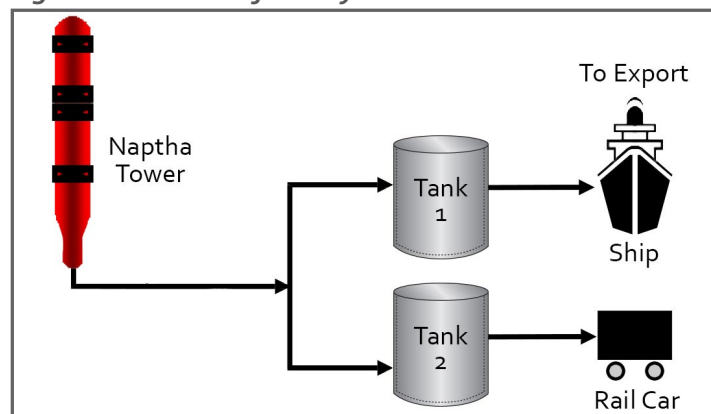
Figure 1: Optimum Product Results



### System Description:

Figure 2 shows the injection point of the H<sub>2</sub>S scavenger to one of the final FO preparation tanks of 150,000 bbl. It also shows the final destination of the tankers and the plant that produces the residual (DA -1) and the viscosity diluent used (cutting oil).

Figure 2: Fuel Oil Ref PLC System

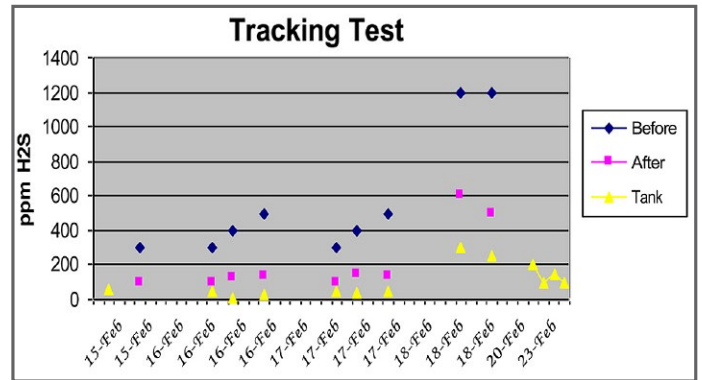


Results are examples only. They are not guaranteed. Actual results may vary.

## Field Test

In figure 3, three series of values are shown. The blue represents the ppm prior to ChemTreat's H<sub>2</sub>S formulation; the pink represents the values of ppm of H<sub>2</sub>S in the pipe after adding the ChemTreat formula; and the yellow represents the ppm of the H<sub>2</sub>S in the final tank (150X 2).

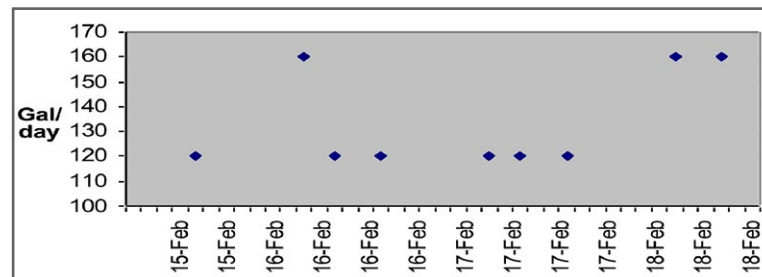
Figure 3: Field Results



## Consumption of ChemTreat Product

Figure 4 shows that at the beginning of the test, the consumption of ChemTreat product was 120 gallons per day, and towards the end it increased to 160 gallons per day. This is because in the residual of the plant DA-1, the H<sub>2</sub>S ppm increased from 400 to 1,200 ppm, which also increased this parameter in the final tank above the maximum of 50 ppm. However, we maintained the consumption of 160 gallons per day at the end, so the tank was in specification.

Figure 4: Consumption ChemTreat H<sub>2</sub>S



## Conclusions and Recommendations

Field results show that for 500 ppm of H<sub>2</sub>S in the DA-1 residual, the average product consumption was 150 gallons per day (95 ppm)(R H<sub>2</sub>S/product: 5/1), demonstrating a high product efficiency and additional removal of H<sub>2</sub>S from open vents in the 150 X 2 tank.



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