

Case study: United States

# LIFESPAN antifoulant program saved \$333,000 USD

A US refinery's crude unit experienced a steep decline in operational efficiency because of increased fouling of their processing equipment. The operation of this US refinery focuses on the production of asphalt and therefore targets crude selection toward a heavy oil blend for processing. An increase in the rate of fouling in their crude preheat

exchangers and furnace resulted in increased energy consumption and threatened an eventual reduction in crude unit throughput and profitability. Implementing the **LIFESPAN™ antifoulant program** reduced fouling rate, lowered energy costs, and mitigated potential throughput limits toward extended operation.

## Challenges

- Control severe fouling of crude unit hot preheat train and furnace
- Mitigate crude throughput limitations due to process equipment fouling
- Lower operational costs due to increased energy consumption

## Results

- Saved \$333,000 USD in energy costs per year
- Reduced operational costs
  - Increased furnace inlet temperature heat transfer of 45°F (7.22°C)

**Atmospheric furnace inlet temperature Before and after treatment started**

