

# Baker Hughes compressor treatment halves efficiency loss

## CHALLENGES

- A European integrated ethylene cracker was experiencing fouling in the main compressor, and the interstage coolers despite ongoing chemical treatment by another vendor
- This fouling was affecting operations badly enough to cause a potential shutdown at the midway point of a 6-year run
- Ethylene plant personnel were searching for a way to save the run, recover efficiency and reduce their steam usage to improve OPEX

## SOLUTION

- Customer switched the compressor treatment to Baker Hughes Polyfree® antifoulants with careful monitoring. Programs were developed for both the oil and water washed compressors.
- The treatments both mitigated polymerization as well as gently dispersed existing foulant.

## RESULTS

3M

cost savings, €/year

11%

steam usage reduction

47,740

energy savings, MWh/hr

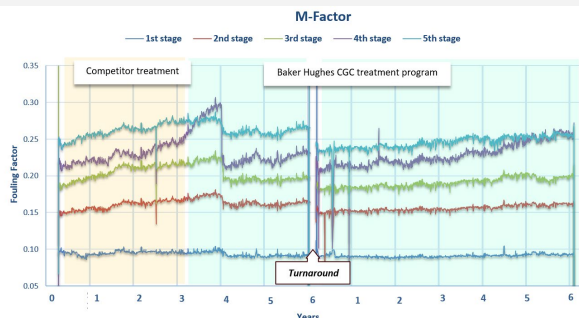
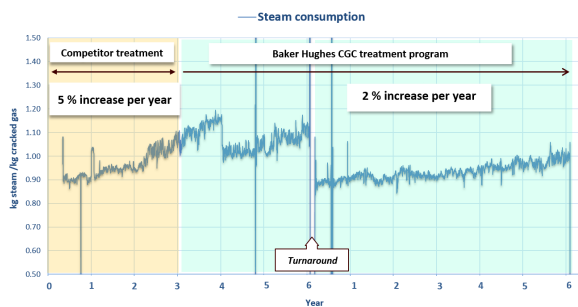
Enough energy to power 7,864 European homes per year

9%

emission reduction, tons CO<sub>2</sub> eq/year

**"Baker Hughes recovered efficiency to near "Year-One" levels and maintained it for the remaining 2.5 years of the customer's run length, and in the subsequent 6-year run, reduced the customer's steam usage by 11%."**

– Petrochemical Downstream Team



Left graph – Steam consumption; Right graph – compressor efficiency measured as M-Factor

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