

**CASE HISTORY****US refinery uses FQE® Solvent-H+ to improve safety while reducing outage time and eliminating mechanical cleaning costs****Results Achieved**

**Reduced Hydroblasting  
Mitigates Personnel Risk**

**Over 50% Reduction in  
Outage Time**

**Eliminated Mechanical  
Cleaning Costs**

**Chemicals Utilized**

**FQE® Solvent-H+**  
PATENTED

**Simple Chemical Application**

Performed by refinery personnel;  
no outside contractor support  
required

A refinery located in the Midwestern area of the United States was looking to improve upon the efficiency and safety of their crude unit exchanger cleaning program.

The refinery typically ran a Heavy Canadian Crude and saw consistent issues associated with heavy organics and asphaltenes. Prior to the vapor phase application, the refinery had utilized hydroblasting as their sole and preferred method to clean exchangers.

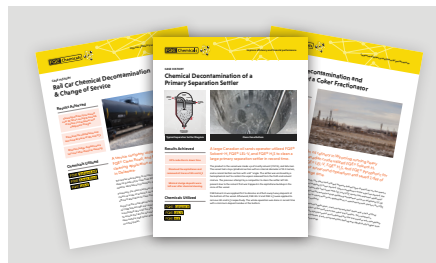
Due to consistent heavy fouling, these exchangers would typically take between 12 – 15 ten-hour shifts to complete. Furthermore, hydroblasting posed numerous safety challenges associated with handling high-pressure water. These shortfalls led the refinery to investigate pre-treatment options to reduce the hydroblasting duration and costs.

As a test comparison, the refinery elected to compare the parallel set of exchangers; one with no pre-treatment prior to hydroblasting and the other treated with the patent pending FQE Solvent-H+ product. The Solvent-H+ treated bundle was vapor phase cleaned over a 4 – 6 hour period.

Following the cleaning process, the refinery compared the two parallel sets and found that their hydroblasting man-hours were eliminated, making this a significantly safer and quicker process.



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### Case Histories

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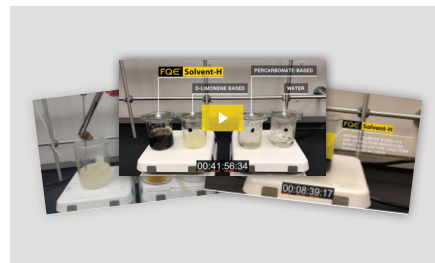
[fqechemicals.com/case-histories](http://fqechemicals.com/case-histories)



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