## **Application Highlight — Refinery**

# MicroDist measures the boiling point on a hydrocracker



### RESULTS

- Reliable and repeatable results
  used for the optimization of the
  hydrocracker
- Innovative technology that enables measurement of the 5% and 95% boiling points
- Results every 10 minutes provides
  a window into the process
- Correlation to ASTM D86 with a naphtha product

#### APPLICATION

Boiling point analysis conducted on a hydrocracker to measure the 5% and 95% points of a heavy naphtha stream with a boiling range of 80-160 °C.

#### CHALLENGE

The refinery planned to implement the analyzer into the advanced process control environment of the unit. At 150,000 bpd, the refinery is relatively small. However, it has been fully updated, and is an important asset for the company, as it provides flexibility in feedstock intake and product output. They wanted an analyzer that would work in a complex process environment to measure at the fractionation column after the cracker, as well as the overall cracking process.

#### SOLUTION

The refinery selected PAC's MicroDist analyzer because of its compact design, innovative technology design, and performance. It was an ideal solution because it can determine boiling point characteristics throughout the process plant.

Because the refinery produced many end-products, it needed a boiling point analyzer that had a wide range of measurement capabilities. The MicroDist measures products in Group I to IV with perfect results, even for unknown samples. The analyzer provides robust results for petroleum products including jet fuel, diesel, gasoline, and naphtha (Group 1-4 fuel types) within 10 minutes, with the smallest sample volume requirements. With results



MicroDist provides excellent system performance. It directly correlates with ASTM D86 with equivalent or better precision and excellent repeatability (+/- 1.5 °C).

three times faster than the previously installed distillation analyzer, the refinery was able to track the process much closer, discover process variations that were previously undetected, and identify areas for optimization.

For more information about the MicroDist, visit us online at www.paclp.com.

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