**Introduction**

Demand for energy continues to rise along with pressures on producers to streamline and speed production, increase yield and operate more efficiently. Atmospheric Distillation is one of the most critical measures of product quality for virtually every refinery product. New developments in distillation measurement are enabling refineries significant improvements in production quality, reduce giveaway by cut point optimization and achieve blending to specification.

**Distillation Applications**

- Cut point Optimization
- Cetane Index
- Drivability Index
- Density
- Blending to Specification

**Key Applications**

- Cut point Optimization
- Cetane Index
- Drivability Index
- Density
- Blending to Specification

**Key Benefits**

- Correlation to primary test method ASTM D86
- Robust technology
- Fast response time

**Contamination Detection**

Kerosene-Gasoline

**Ethanol Blending**

**Gasoline Samples without Ethanol**

Reproducibility for five gasoline samples using PMD-110 compared to ASTM D86

**Gasoline With Ethanol**

Repeatability for a single gasoline with 10% Ethanol using MicroDist compared to ASTM D86

**ASTM D86 Alternative**


**Economic Impact**

- HDT Diesel Capacity: 22,000 bpd
- 1°C Optimization impact:
  - 0.5% - 1.0% volume
  - 110 – 220 bpd
- Residual Fuel to ULSD upgrade:
  - $0.69 per gal.

Over $1M yearly benefits from tightening T90% target by 1°C

**Conclusions**

- Maximize production reducing product downgrade due to poor cut point optimization
- Prevent product giveaway by measuring online “real” distillation curve on your final product
- Optimize product blends to improve quality with a fast analytical technique
- MicroDist provides the means for this optimization at the same time that specs are met