

*IASH 2007, the 10th International Conference on
Stability, Handling and Use of Liquid Fuels
Tucson, Arizona
October 7-11, 2007*

B10 AND JET A-1 IN MULTIPRODUCT PIPELINES – TRAPIL TRIAL

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The content of FAME in diesel fuels is planned to increase in a future in France, as in many other countries. A working group bringing together French Administration, French National Oil Industry Association, Oil Companies and Pipeline Operators was set up in 2006 with the scope to establish the protocol of a trial on the multiproduct pipeline Le Havre Paris, to evaluate the impact of Biodiesel on Jet Fuel. The trial was carried out in April 2007. A 1000 m³ cargo of Jet Fuel pushed a 6500 m³ cargo of Biodiesel containing 10% of FAME through a 20 inch 150 km pipeline. Samples were taken every 25 m³ in the interface and 50 m³ in the Jet Fuel cargo. After the interface, FAME has been identified by 2 independent laboratories at ppm levels in the first 400 m³ of the Jet Fuel cargo by using GCxGC method. No measurable variations of the Check List properties of Jet Fuel were noted, between the samples taken at the entry into the pipeline and the arrival, after the 150 km transfer behind the cargo of Biodiesel. The JFTOT Break Point was found unaffected by the pipeline transfer.

The Industry needs to find a way to accommodate Biodiesel transport and Jet Fuel transport in multiproduct pipelines. To discard Jet Fuel which contains trace levels of FAME by increasing the interface volume, is not a cost saving option and might not prove to be practical. It will also reduce the available quantities of Jet Fuel as more Jet Fuel will be downgraded.

The way forward is

- to determine the level of FAME up to which there is absolutely no impact on the suitability for use of Jet Fuel
- For pipeline operators to implement Quality Assurance procedures to guarantee the Jet Fuel delivered does not exceed this concentration in the receiving tank.