



Ashland Consumer Markets
Global Head Office
3499 Blazer Parkway
Lexington, KY 40509
USA

THOMAS R. SMITH
Vice President Lubricant Technology

January 10, 2014

The Petroleum Quality Institute of America
406 Main Street
Metuchen, NJ 08840
Attn.: Thomas F. Glenn

Tom,

You recently published test results on a sample of NextGen Conventional 5W-20. In your data you showed a Noack value of 18.4% and subsequently issued a consumer advisory. Based upon the date code it was packaged April 13, 2011. Data generated at the time of manufacture supported that this material met all the requirements for a 5W-20 API SN/Resource Conserving, ILSAC GF-5 oil.

As you are aware, the ASTM D5800 test results can vary significantly from one piece of test equipment to the next. We have experienced variances between calibrated units in excess of the published reproducibility when testing commercial formulations. We believe that this may explain the extreme difference in test results that we are seeing.

Valvoline has long been concerned that the ASTM D5800 test for volatility is prone to variation that may not appear when calibrating or when testing the oils included in the ASTM round robins and would actually prefer that alternative volatility tests be considered by the industry for future specifications. Given that D5800 is the industry standard today and the differences between our D5800 results we may want to jointly approach the ASTM Volatility Group requesting that they take another look at the published D5800 repeatability and reproducibility values.

As a point of reference, for an oil with a 15 Noack the reproducibility under ASTM D5800 Procedure A (Woods Metal) would be +/- 2.75, under Procedure B (non-Woods Metal) +/- 1.01 and under Procedure C (Savant) +/- 1.62.

ASTM recognizes that there can be differences between how the different test methods within D5800 respond to different types of oils. In D5800 it states that Procedure A gives lower results on finished oils but higher results on base oils than does Procedure B. We suspect similar differences in responses may also occur across test units running the same procedure.

Valvoline appreciates and fully supports the work PQIA does to educate consumers on the importance of lubricant quality. Further, Valvoline would welcome the opportunity to work with PQIA in developing a robust testing protocol to confirm our position and facilitate the lifting of the advisory.

Sincerely,

Thom Smith
Vice President Lubricant Technology
Ashland Consumer Markets

Phone: +001 859.357.2766
Mobile: +001 859.619.3673
e-mail: trsmith@ashland.com

