ASTM Section D02.B07
Engine Oil Volatility Test Surveillance Panel

Minutes of the Volatility Test Surveillance Panel Telecon
11:00-12:00 EDT September 17, 2013

Attendees for the telecon are listed below

Dennis Gaal (Chair)	ExxonMobil Research and Engineering
Tom Schofield	ASTM TMC
Carrie Sims	Chevron Oronite
John Griffin	ExxonMobil Refining and Supply
Kristen Breen	ExxonMobil Research and Engineering
Stacy O' Brien	Imperial Oil Limited
Matthew Schlaff	Intertek Automotive Research
Ted Selby	Savant Incorporated
Maggie Smerdon	
Mike Birke	Southwest Research Institute
Jeff Winfield	The Lubrizol Corporation
Grant Hutchinson	
Rick Hartman	
Danielle Ivancic	
Kurt Barto	
Greg Lentz	
Richard Ochenkowski	The Valvoline Company

The agenda for the telecon was

- Discussion of RR results for potential D5800 reference oils
- Discussion and selection of new D5800 reference oils
- Additional topics
    - Use of new D5800 reference oils as new reference oils in D6417
    - Others

Following roll call, Dennis Gaal reviewed the agenda in Attachment 1. Dennis Gaal thanked Tom Schofield for sending out the results from the D5800 round robin prior to the telecon, which are included as Attachment 2.

Dennis Gaal reviewed the reason for the round robin, the replacement of D5800 reference oils 52 and 55, as well as the details of the study and the results on the candidate oils (VOL12B to E). For clarification, the values for Oils 52, 55, and 58 on page 5 of Attachment 1 are the targets for those oils, not values measured as part of the round robin.

Prior to selection of new reference oils, Dennis Gaal discussed additional statistical analysis which showed that oil identity was the only statistically significant variable in the study, as the other variables (test lab, method, model, etc.) monitored as part of the round robin were not statistically relevant to the results. Consequently, an unexpected bias is not seen in this study, and the confidence limits determined by the round robin are applicable to both methods B and C.

Dennis Gaal discussed the voting procedure, where each voting interest, not person, would receive a vote. Based on attendance, there were eight voting interests in the selection of the new reference oils – ExxonMobil Research and Engineering, ASTM TMC, Chevron Oronite, Intertek Automotive Research, Savant Incorporated, Southwest Research Institute, The Lubrizol Corporation, and The Valvoline Company. ExxonMobil Refining and Supply did not vote as the member left the telecon prior to the vote and Imperial Oil Ltd did not vote due to oversight by the chair.

After setting the background, Dennis Gaal opened the discussion on the new reference oils to the membership. One option discussed was to select Oil C or D as a replacement for Oil 52 with Oil E or B as a replacement for Oil 55. Additionally, as the performance of Oil C is very similar to that of Oil 58, another option is to replace all three reference oils from the four candidates. One rationale to support the replacement of all three reference oils is that the confidence limits for Oils D, C, and E/B have minimal to no overlap, providing a separation between the good/borderline/poor reference oils which did not exist previously.

There was much discussion on these options, including that the most significant reason to maintain Oil 58 would be for historical reasons. Prior to taking a motion on the selection of new reference oils, Dennis Gaal discussed the reason for the larger confidence limits for Oil B (slide 14 of Attachment 1). There was negligible interest in using VOL12B due to its typical Noack value being higher than relevant for test monitoring as well as its larger confidence limits compared to the other candidate reference oils. Additionally, Jeff Winfield from Lubrizol provided an analysis of the candidate reference oils, looking for bias in the performance of the candidate oils as a function of the result for the daily control sample. While there were some minor trends, there was no significant bias seen in the data, meaning that there was no issue with any of the four candidate oils being selected.

Following further discussion, a motion was made by Tom Schofield to replace Oil 52 with VOL12D, Oil 58 with Oil VOL12C, and Oil 55 with VOL 12E. Motion was seconded by Matt Schlaff and passed unanimously. (Following the telecon, Dennis Gaal confirmed that Imperial Oil would have voted in agreement with the motion.) With this vote, the confidence limits for

these oils listed in Attachments 1 and 2 were also accepted and are essentially final, as these candidates have 27 results and the limits are generally finalized after 30 results.

Tom Schofield indicated that it will take about a month to transition to these new reference oils, which will be labeled under a different code in the future. Also, the change to the new reference oils will be at the same time for all samples.

Other topics

New reference oils for D6417 – Given the change in the D5800 reference oils and that D6417 test monitoring uses the previous D5800 reference oils, Tom Schofield suggested that the candidate reference oils (B to E) be evaluated in D6417 as possible replacement reference oils. Tom will request D6417 runs for the candidate oils at the various labs to develop an estimate of their performance in the test. Once those tests are completed, the SP will have a future telecon to discuss whether a RR should be performed for selecting new D6417 reference oils.

D5800 round robin under D02.06B – Mike Birke, chair of D02.06B, provided an update on the D5800 RR being conducted by that subcommittee, which will include many instruments not monitored by TMC. There will be ten samples and 35 labs participating in the RR, which is expected to begin shortly as the samples are to be shipped to the labs in the near future.

The telecon closed at 12:05 with Dennis Gaal thanking everyone for their participation and looking forward to seeing everyone in Tampa.

Respectfully submitted on September 30, 2013,

Dennis Gaal


Attachment 1 - Volatility SP presenta


Attachment 2 - D5800_201305RR_Fi