

Minutes from 3/29/2011 Sequence VG Surveillance Panel Conference Call

Attendees:

Andrew Ritchie, Gordon Farnsworth, Mike McMillan – Infineum

Jo Martinez – Chevron

Tom Wingfield – ChevronPhillips

Ron Romano – Ford

Jim Linden - Toyota

Raham Kirkwood, Bill Buscher – SwRI

Al Lopez – Intertek

Ed Altman – Afton

Rich Grundza – TMC

Jerry Brys, George Szappanos, Alison Rajakumar – Lubrizol

Mark Overaker, Wayne Petersen – Haltermann

Timothy Caudill – Ashland

Timothy Miranda – BP Castrol

Jason Bowden, Adam Bowden, Mathew Bowden – OHT

Clayton Knight – TEI

- 1) The minutes from the March 22, 2011 conference call were approved with no additions or corrections. Motion made by Jason Bowden and seconded by Ed Altman.
- 2) Chairman Ritchie summarized the agenda for today's meeting. The main items to be discussed are the following:

- a. Engineers VG Precision Task Force report and recommendations
  - b. Inventory review for Reference Oil 925-3
  - c. Haltermann report on timeline for blending and testing of revised fuel blend
- 3) Chairman Ritchie went through the inventory for Oil 925-3. There are currently ~25 gallons on hand at TMC. The test laboratories also have a total of about 25-30 gallons which they will ship back to TMC. Since much of this is in opened containers, TMC will analyze, repackage and keep all of the returned oil (approximately 25 to 30 gallons) for VH development, etc. The 4 test labs also have 12 gallons of 925-3 on hand which will be used for matrix testing of the revised fuel blend.
- 4) Rich Grundza asked whether we want to solicit industry for another failing VG reference oil. Chairman Ritchie indicated that Infineum could not provide additional quantities of Oil 925-3. Ron Romano indicated he would like a failing oil for Sequence VH development. It was agreed that the TMC Administrator should solicit industry for a new failing VG reference oil.
- 5) Mark Overaker updated the Panel on the status of reblending the revised batch of VG fuel to be tested. As indicated in the updated timeline (see Attachment 1), the reblended fuel is scheduled to be shipped to the labs this week. Mark indicated that this will be done later this week, and that fuel should be available for testing to start perhaps as early as this Friday. It was agreed that one fuel sample should be taken at each lab from the truck when the fuel is delivered, a second from the fuel storage tank at the lab, and a third from the fuel as supplied to the engine. These samples will be analyzed for use later.
- 6) Chairman Ritchie indicated he will put together a presentation for updating ASTM on the progress made so far in securing a new VG approved fuel batch, and the timeline for approving the new VG test fuel batch.
- 7) The next face-to-face VG Panel meeting was discussed. The Panel members agreed we should wait until we have all of the VG data in hand, including the data from the final approval matrix, before having a meeting. Based on testing projections, VG approval matrix testing will probably be completed around the end of May, so that a meeting could be scheduled sometime in June in Detroit. This is contingent upon the first reblend being deemed acceptable. If a second reblend is necessary, completion of the fuel approval matrix would be delayed further.
- 8) George Szappanos continued with the presentation of the report (see Attachment 2) generated by the VG Precision Task Force, which was interrupted during the March 22 VG conference call. He began on slide 6

with a discussion of blowby measurement. Five areas were investigated by the Task Force, including the accuracy of the blowby test rig, manometer accuracy, orifice size, calculation consistency, and the time at which the blowby measurement is taken. Recommendations for each of these areas were developed; these are included in slide 6 of the presentation. George also discussed 7 additional items which are covered in Appendix slides 7-13 of the presentation. Based on the findings of the Task Force members as a result of the laboratory visits, 5 main recommendations, all of which were unanimously approved by the Task Force members from 7 different organizations, were made. These 5 recommendations, which are recommended by the Task Force for incorporation in the procedure to be used in conducting the next fuel matrix, are as follows:

- a. Labs to install cam sensor failure detection sensor
- b. Install either a spark meter, or validate that spark timing is correct at each oil check with a timing light.
- c. Standardize blowby orifice size at 5/16", and 4" incline manometer.
- d. Insure that labs are measuring blowby at 45 minutes +/- 5 minutes before the end of stage 2
- e. Standardize the calculation for blowby

It was noted that these recommendations will need to be incorporated formally into the VG procedure. This will be deferred until the full Panel convenes, although the recommendations will be incorporated into the procedures to be used in the fuel approval and matrix testing to be conducted over the next 3 months or so.

- 9) The next conference call will be Tuesday, April 5, at 2:00 pm EST.