

Unapproved Minutes of the February 26, 2013
Sequence VG Surveillance Panel
Conference Call

The meeting was called to order by Chairman Andy Ritchie at 2:00 PM EST.

A list of the attendees on the call is included as Attachment 1.

Chairman Ritchie listed the agenda items he would like to cover in this call:

- 1) Review and approval of minutes from February 12, 2013 call
- 2) Discussion of the three 925-3 results reported on the new VG fuel Batch No. AK2821NX10
- 3) Old Business.
- 4) New business

Chairman Ritchie asked if there were any corrections to the minutes from the February 12, 2013 VG Panel conference call. There being none, it was moved by Ed Altman and seconded by Jason Bowden that the minutes be approved. The motion passed unanimously.

Chairman Ritchie then asked for reports from the 3 test labs who had conducted tests on Oil 925-3 listed for Run 1 in the third row of the fuel approval matrix. The results for the 3 runs are summarized in the attached table (Attachment 2). Ed Altman indicated that Afton's (Lab D) run had been normal with no problems. The result for Average Engine Sludge (AES) was 7.97, mild of the target. Al Lopez reported Intertek's (Lab G) result for AES was 8.08, also mild of the target. Raham Kirkwood reported that SwRI's (Lab A) AES result from their test was 6.05, which is severe of the target for Oil 925-3 by about 0.8 standard deviations, although the rest of the test parameters were more in line with expectations. However, this run also experienced 11 cold stuck rings, possibly due to a coolant leak into the intake manifold. Raham indicated their result was not what they expected, and that they had never experienced a stuck ring with this oil before.

With two test results mild and one test result severe (but with operational problems), there was much discussion about how to proceed. The general sentiment seemed to be that it would be better to have a fuel that produced more sludge than expected based on the target for Oil 925-3 than a fuel that

produced less sludge. Based on that sentiment, Chairman Ritchie suggested that the best path forward was for Haltermann to provide a plan of action to make the fuel batch more severe. Mark Overaker indicated he had already considered this possibility, but would need a few more days to put such a plan together. Chairman Ritchie asked if one week was enough time, and Mark indicated that it was.

Jo Martinez asked about the supply of Oil 925-3, and whether there was sufficient oil to run an approval matrix with a fuel reblend. Rich Grundza indicated that all of the Oil 925-3 used in matrix testing of this batch so far has come from retains of the oil returned to TMC from the various labs. TMC still has enough of 925-3 for probably 12 additional tests, which should cover testing required to approve the reblend of the current Batch No. AK2821NX10. Two of the labs also indicated they were close to the end of their calibration periods – it was agreed to defer discussion of this until the next conference call.

Old Business : There was no Old Business to discuss at this meeting.

New Business: None

Next Meeting: The next regularly scheduled conference call will be Tuesday, March 5, 2013, at 2:00 PM ET.

Attachment 1

Attendees during 2/26/2013 Sequence VG Surveillance Panel Call

Ashland - Timothy Caudill

BP Castrol - Timothy Miranda

Afton – Ed Altman, Christian Porter

Ford - Ron Romano

GM –Bruce Mathews

Haltermann – Mark Overaker, Jim Carter, Tracey King

Infineum – Andy Ritchie, Mike McMillan, Doyle Boese

Intertek – Al Lopez

Lubrizol – Jerome Brys, Jessica Buchanan, Chris Mileti

OHT – Matthew Bowden, Jason Bowden

Oronite– Jo Martinez

SwRI – Raham Kirkwood

TEI – Clayton Knight, Zack Bishop

TMC – Rich Grundza