Unapproved Minutes of the January 29, 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 Richie reiterated his intention to hold Sequence VG Surveillance Panel Meetings each month until the fuel approval matrix is completed, and perhaps beyond that to address VH development issues. Now that the matrix testing is starting, these monthly meetings will be continue to be held on the second Tuesday of each month beginning at 2:00 pm EST.

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

- 1) Review and approval of minutes from December 11, 2012 call
- 2) Status of the new VG fuel batch preparation, Batch No. AK2821NX10
- 3) Timing for conducting the fuel approval matrix
- 4) Old Business.
- 5) New business

Chairman Ritchie asked if there were any corrections to the minutes from the December 11, 2012 VG Panel conference call. There being none, it was moved by Rich Grundza and seconded by Jason Bowden that the minutes be approved. The motion passed unanimously. With regard to previous VG Panel minutes, Rich indicated that he had found an error in the APV results in the presentation he had made on Sequence VG Oil 940 results during the November 13, 2012 VG conference call. Rich indicated he would issue a revised presentation to the Panel, and that a motion to re-approve the November 13 minutes should be made during the next conference call.

Chairman Ritchie asked Mark Overaker to provide an update on the status of development of the new fuel batch. Mark indicated that the blending was completed after a minor adjustment was made to bring the batch closer to current batch analyses. The resulting C of A for the batch AK2821NX10 fuel is attached (Attachment 2). Haltermann is now shipping fuel to the 3 labs so that fuel approval testing can begin. Fuel should be delivered to

Afton by this Friday; fuel has been shipped and should arrive at the SwRI and Intertek labs today. Afton and SwRI indicated they were prepared to start testing immediately upon receiving the fuel; Al Lopez indicated Intertek would start testing the following day after receiving the fuel. All labs indicated that they planned to take fuel samples at the fuel delivery truck, from the holding tank at the lab, and at the stand. Those fuel samples will be sent to Haltermann for comparative analysis so that all analyses are conducted by the same lab.

Some discussion then occurred about the fuel approval matrix test design approved during the last conference call and shown below.

Lab	А		G		D
Stand	1	2	1	2	1
Run 1*	1009	925-3/940	925-3/940	1009	925-3/940
Run 2*	925-3/940	925-3/940	1009	1009	1009
Run 3	1006-2	1009	1006-2	925-3/940	1006-2

It was recalled that during the December 11 call, Al Lopez had suggested first running the 3 Oil 925-3 tests listed for Run 1 in the third row of the matrix, to be certain that this oil is providing sufficient sludge with the new fuel. It was generally agreed at the time that this was a good idea, so that Chairman Ritchie suggested that all labs review their supply of the existing fuel batch, and come to this VG conference call prepared to act on this suggestion. A motion to run the three Oil 925-3 tests first was approved unanimously.

<u>Old Business</u>: No items of old business were brought up.

<u>New Business</u>: Rich Grundza brought up a number of changes he felt were required to update the VG procedure, including removing the practice of polishing cams, updating references to rating manuals, changing test

condition specifications from load to torque, no modification of kit parts, and other issues. Rich's original intent was to move to accept these changes individually, but following several questions as to exactly what was being proposed, Rich proposed preparing a detailed description of each item, and sending the package out for review and e-ballot. If there are any comments or questions after this, they will be discussed during the next conference call. An information letter will be issued following successful resolution of any questions or concerns.

Al Lopez updated the Panel on cylinder head rework that has been going on. This has been an extensive effort to find used cylinder heads that can be reworked for use in VG testing. Approximately 150 heads were obtained, but some had to be scrapped or were found to be not usable. The number of usable heads is not yet certain but should be suitable to sustain the VG for the life of the test. The reworked heads will be distributed to the other labs for use.

<u>Next Meeting</u>: The next regularly scheduled conference call will be Tuesday, February 12, 2013 at 2:00 PM ET.

Attachment 1

Attendees during 1/29/2013 Sequence VG Surveillance Panel Call

Afton – Ed Altman

Ford - Ron Romano

GM –Bruce Mathews

Ashland - Timothy Caudill

BP Castrol - Timothy Miranda

Haltermann – Mark Overaker

Infineum – Andy Ritchie, Mike McMillan, Gordon Farnsworth

Intertek – Al Lopez

Lubrizol – Jerome Brys, Chris Mileti, Jessica Buchanan

OHT – Matthew Bowden, Jason Bowden, Adam Bowden

Oronite- Jo Martinez

SwRI – Raham Kirkwood

TEI – Clayton Knight

TMC – Rich Grundza