



*Address 100 Barr Harbor Drive
PO Box C700
W. Conshohocken, PA
19428-2959 | USA*

*Phone 610.832.9500
Fax 610.832.9666
Web www.astm.org*

COMMITTEE D02 ON PETROLEUM PRODUCTS, LIQUID FUELS, AND LUBRICANTS

CHAIRMAN: RANDY F JENNINGS, TENNESSEE DEPT OF AGRIC, P O BOX 40627, NASHVILLE, TN 37204, UNITED STATES (615) 837-5327, FAX: (615) 837-5335, E-MAIL: RANDY.JENNINGS@TN.GOV
FIRST VICE CHAIRMAN: JAMES J SIMNICK, BP AMERICA, 150 W WARRENVILLE RD, NAPERVILLE, IL 60563, UNITED STATES (630) 420-5936, FAX: (630) 420-4831, E-MAIL: SIMNICJJ@BP.COM
SECOND VICE CHAIRMAN: MICHAEL A COLLIER, PETROLEUM ANALYZER Co LP, 21114 HWY 113, CUSTER PARK, IL 60481, UNITED STATES (815) 458-0216, FAX: (815) 458-0217, E-MAIL: MICHAEL.COLLIER@PACLP.COM
SECOND SECRETARY: HIND M ABI-AKAR, CATERPILLAR INC, BLDG H3000, OLD GALENA ROAD, MOSSVILLE, IL 61552, UNITED STATES (309) 578-9553, E-MAIL: ABI-AKAR_HIND@CAT.COM
SECRETARY: SCOTT FENWICK, NATIONAL BIODIESEL BOARD, PO BOX 104848, JEFFERSON CITY, MO 65110-4898, UNITED STATES (800) 841-5849, FAX: (537) 635-7913, E-MAIL: SFENWICK@BIODIESEL.ORG
STAFF MANAGER: ALYSON FICK, (610) 832-9681, FAX: (610) 832-9668, E-MAIL: AFICK@ASTM.ORG

Issued: July 21, 2016
Reply to: Dan Worcester
Southwest Research Institute
6220 Culebra Rd.
San Antonio, TX 78238
Phone: 210.522.2405
Email: dworcester@swri.org

These are the unapproved minutes of the 07.19.2016 Sequence VI Conference Call.

This document is not an ASTM standard; it is under consideration within an ASTM technical committee but has not received all approvals required to become an ASTM standard. It shall not be reproduced or circulated or quoted, in whole or in part, outside of ASTM committee activities except with the approval of the chairman of the committee having jurisdiction and the president of the society. Copyright ASTM, 100 Barr Harbor Drive, West Conshohocken, PA 19428-2959.

The meeting was called to order at 8:05 AM Central Time by Nathan Moles.

Agenda

The Agenda is the included as **Attachment 1**.

1.0 Roll Call

The Attendance list is **Attachment 2**.

2.0 Approval of minutes

- 2.1 Approval of the minutes of the 07.12.2016 conference call.

<ftp://ftp.astmtmc.cmu.edu/docs/gas/sequencevi/minutes/VIMinutes201600712ConferenceCall.pdf>

MOTION: Approve the minutes from the 07.12.2016 conference call.

Nathan Moles, Dan Worcester second. The motion was unanimous.

3.0 Action Item Review

- 3.1 OHT to provide update on current VIE inventory –OHT
136 -002 version engines remain.
- 3.2 Update of VID engine inventory and expected depletion date of VID engines.
-Expected depletion of VID engines 2016 Q3
~70 test starts at independent labs remain
IAR has about 25 tests remaining, SwRI has about 18 tests left.
- 3.2 Send out acceptance limit spread sheet –Stats Group
This is complete.
- 3.3 What does Zi look like for VIE precision matrix vs 1st reference period for VIE –Rich Grundza See [Attachment 3](#). This Excel will allow changes to see effects on reference pass rate and severity adjustment changes. There will be further review at the face to face.

ACTION: All labs review the LTMS sheet and provide input for the meeting in San Antonio.

- 3.5 Redo full analysis for VIE precision matrix for N=29
Initial discussion was on engine life. There was discussion on a cap or severity adjust values should other tests show a high sigma result similar to engine 128. There is no fast start to generate those adjustments with a single reference on a stand. See [Attachment 4](#) for engine life analysis. Labs might choose not to continue with an engine that fails the first reference if there are 4 or 5 runs per engine. Different review options were considered. All 3 indicated the 4-5 tests per engine. This will be a decision for the Surveillance Panel. More data on RO 1010-1 for runs 5, 6 and 7 not included from the Precision Matrix will help with this decision. The drop in P values indicates reducing the number of runs per engine. The consensus was to make engine life the same for the VIE and VIF testing.

MOTION: Move forward with the VIF test allowing up to 4 full length tests with the 4th test starting with an engine hour of 900 or less. Y = 13, W = 1, N = 0. The motion passed.

4.0 Old Business

- 4.1 Update on precision matrix analysis. –Stats Group
~~Do we really need to run three RO tests to establish the new engine for LTMS?~~
~~Discussion of reducing the new reference requirement to two oils, then a third oil run after a defined number of candidates.~~
~~Discussion of using FEI 2 and FEI Sum for references to match candidate pass/fail criteria.~~
~~Discussion of evaluating 80/20 ratio of BL before to after for FEI 1 and 10/90 for FEI 2. Consider evaluating FEI 1 vs 100% BLB2 (or 3) and evaluating FEI 2 vs 100% BLA.~~
~~-Discussion of changing BLB1 to BLB2 delta acceptable limits.~~
~~-Determine engine calibration status of matrix engines and date of calibration~~
- Review impact of variable oil pressure of FEI (review prove out data to determine if it is stand or engine related)
-Should the acceptance bands value of 1.96 be rounded up? Due to the rounding on FEI 1 and 2 the actual pass limit is 1.91 and 1.92.
- Investigate what is needed to establish VID equivalent limits for VIE
-Review and Finalize LTMS Requirements
- Appendix K Template review –Todd Dvorak
[These are on-going issues.](#)
- 4.2 Update from task force, to investigate alternative test procedure Sequence “VIF” that would improve 0W-16. – Dan Worcester/Satoshi Hirano [The matrix is complete. The Stat Group has begun review and this will be discussed along with the VIE Precision Matrix at the next Face to Face meeting.](#)
- 4.3 Update from task force to investigate option to use short blocks to supplement engine inventory. –Adrian Alfonso/Bill Buscher [GM will be able to supply more engines, but there are not enough right cylinder heads for the desired number of short blocks. All labs were asked to respond to the survey from TMC on the quantity of additional engine kits they would order. There are now about 950 requested. Rich will send an update before the next Build Task Force call on 07.21.2016. **There are about 400 engines with both heads, so about 550 heads would need rebuild.** Labs are to remove and save their cylinder heads for later rebuild.](#)
- 4.4 Update from task force, to investigate engine cleaning procedure. –Dan Worcester [The matrix continues at SwRI. A second engine has been Ultra Sonic cleaned and additional measurements taken. IAR will also perform these measurements. Additional new engines available will lower the urgency for this method.](#)

5.0 New Business

5.1 TBD

6.0 Next Meetings.

Upcoming schedule:

- 7/26 – 7/28 (noon) face to face meeting at IAR

The meetings adjourned at 10:13 AM.