

May 10, 2019

Caterpillar Surveillance Panel Teleconference Minutes

Conference Attendees:

Hind Abi-Akar, Mark Jarrett – Caterpillar
Jim Gutzwiller (Chairman), Elisa Santos, Bob Salgueiro, Gang Hu – Infineum
Josh Ward (Secretary), Tim Griffin – Intertek
Jim McCord, Bob Warden - SwRI
Christian Porter - Afton
Mark Cooper – Chevron
Demetrius Lytle, Alex Ebner – Lubrizol
Sean Moyer – TMC
Dan Lanctot – TEI
Greg Birky – Volvo
Mesfin Belay – Daimler

Agenda Items:

- Approve TGC Fuel Task Force Recommendation for measuring Aromatics using ASTM D5186 mass% in place of ASTM D1319 volume% for fuel batch approvals for PC-9-HS and PC-10 fuels for the appropriate Caterpillar tests
- COAT:
 - Improvements to:
 - Aeration Measurement System
 - Calibration/Verification MicroMotion System with Decane and EF411E
 - Engine Lubrication System
 - 2018 Matrix Test results - review and Proposed:
 - ICF – Industry Correction Factor
 - Lab SA's - Lab Severity Adjustments
 - Targets for 832-1 and 833-1 (New blends introduced during 2018)
 - LTMS charting
- Alternate Fuel Supplier Request - Prasad Tumati from Haltermann Solutions is interested in becoming a possible alternate supplier for PC-9-HS and PC-10 test fuels. CAT SP needs to start discussion on what engine testing would be required

Discussion:

- Discussed fuels update for D5186 outlined in agenda.
 - Jim Gutzwiller motioned to accept the measurement of aromatics using ASTM D5186 mass% in place of ASTM D1319 volume% for fuel batch approvals for PC-9-HS and PC-10 fuels for all CAT tests and that the

procedure would be updated to reference the external documents concerning fuel specifications. Sean Moyer 2nd the motion, none opposed, none waived.

-
- Elisa Santos presented analysis of COAT matrix data:
 - Proposed CF = .9606
 - Presented list of test changes/updates
 - Presented LTMS options and proposed -1 oil targets and standard deviation
 - Backwards compatibility with 1005-5 oil was discussed
 - Hind Abi-Akar motioned to accept the proposed CF=.9606, Jim McCord 2nd the motion, none opposed, none waived.
 - Hind Abi-Akar motioned keep the target for 833-1 oil of 11.94%, change the target for 832-1 oil to 10.23%, and apply a common standard deviation RMSE = 0.2774. Jim McCord 2nd the motion, none opposed, none waived.
 - Jim Gutzwiller motioned the following:
 - The COAT LTMS will be reset using only test run on -1 oils started on or after 10/01/2018 with a CF=0.9606 applied. Calibration periods will start on 05/13/19 with a calibration period of 6 months or 9 tests.
 - Tim Griffin 2nd the motion, none opposed, none waived.
- Group discussed what would be required to approve an alternate fuel supplier on CAT tests. More discussion will be needed to determine what will be required.

Actions:

- Jim Gutzwiller will send letter to ASTM to have the test declared available.
- Labs will resubmit results with new CF applied
- Sean Moyer will update LTMS charts
- Updates to ASTM procedure needs to be completed