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Committee D02 on PETROLEUM PRODUCTS AND LUBRICANTS

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Minutes of ASTM ROBO Surveillance Panel

Draft Issued November 4, 2016 for Teleconference October 5, 2016

Call to order: The meeting, via teleconference, was called to order by the chair, Alan Flamberg, at 10:07 AM EDT, Wednesday, October 5, 2016. 11 members and guests were in attendance. The meeting was held via teleconference and WebEx.

Review of Membership:

*in attendance

Ace Glass	John Ross
Afton	Shelia Thompson*, Jeff Yang*
ASTM TMC	Tom Schofield*
BASF	Mary Dery, Bridgett Rakestraw
BP	Betsy Kaplan
Chevron Oronite	Kaustav Sinha, Robert Stockwell
ExxonMobil	Dennis Gaal
Infineum	Andy Richie, Sapna Eticala
Intertek	Joe Franklin, Matt Schlaff
Koehler Instruments	Raj Shah, Vincent Colantuini
Kuwait Petroleum	Leen Poot
Lubrizol	Mike Faile*, Aimee Shinhearl*, Rick Hartman
PetroChina	Li Shaohui , Sun Ruihua, Peng Wang, Xiaogang Li, Xu Li
Evonik Oil Additives	Alan Flamberg*, Justin Mills*, Bruce Zweitzig, Joan Souchik*
RT Vanderbilt	Al Filho, Ron Hiza, Simon Tung

SwRI	Becky Grinfield, for Joe De La Cruz, Mike Birke*, Young-Li McFarland
Ashland Inc. / Valvoline	Amol Savant, Kevin Figgatt, Steve Lazzara

Also in attendance from Evonik:

Vivian Clayton*

Andre Dawson*

Need to add John Ross of Ace glass to the email invitation list.

Raj Shah and Vincent Colantuini of Koehler Instruments added to the membership list.

Test Oil Inventory: ROBO currently uses TMC 438, 434-1 and 435-1. 434-1 is down to 0.6 gallons at the TMC, about seven ROBO certification runs. 20 gallons of 434-2 are available for ROBO use. A 434-3 re-blend is in progress however, the availability date is unknown. A consensus was reached on the following plan:

- Tom – send one sample of 434-2 to each registered ROBO lab. The sample will be sent blind for shipping convenience, but then Tom will reveal the oil identity.
 - Timing – by the end of October.
- Labs – donate a run of 434-2. Use a certified cell. Try to use the lab's 'best' cell, if there is one (i.e. one that consistently falls nearest the center of the calibration windows). Report results back to the TMC using the normal reporting forms.
 - Timing – as soon as possible.
- Surveillance Panel (SP) – review results. If consistent with current 434-1 limits, put into service. This is necessary given the available supply of 434-1. TMC will then send out 434-2 instead of 434-1 in the normal rotation of certification oils. After ~10 certification runs on 434-2 the SP will determine if new limits are justified. If not consistent with current 434-1 limits, the SP decide what to do next (either continue collecting baseline data or switch to another blend).
 - Timing – November Surveillance Panel or December ASTM meeting.

Revision to ASTM D7528 (ROBO) Ballot results:

A revision to ASTM D7528 was issued by Information Letter 16-1 by this panel. That Information Letter was balloted at Subcommittee D02.B ballot 16-05 item 6 which closed June 16, 2016. The ballot passed: 60 Affirmative – 0 Negative - 82 Abstain with no comments.

Item	Sub	Action	Committee	AFF	NEG	ABST	PCNT
006	B0	ROBO Information Letter 16-1, Sequence No. 1	D02.B0	60.00	0.00	82.00	100.00
		TECHNICAL CONTACT: Frank M Farber					

The revision then was submitted for ballot D02 (16-04) which closed on September 21, 2016. This ballot received one negative vote.

Item	Sub	Action	Committee	AFF	NEG	ABST	PCNT
059	B007	REVISION D7528-2013	D02	138.00	1.00	499.00	99.28
		TECHNICAL CONTACT: Lyle O Bowman					
		WORK ITEM: WK55349					
		Annexes A1 through A4 are now A1					

Negative Voters:

Alan Flamberg

The negative vote was discussed. The voter noted that many formatting and wording changes were made between the passing B ballot and the D02 main ballot. Those changes, for the most part, were editorial in nature and improved the clarity of the ballot. However, changes in the introduction significantly changed the intent of the Surveillance Panel. That intent was to make the use of TMC services, specifically the reference oils, mandatory. The balloted D02 revision made two objectionable changes:

It changed: "This test method is written for use by laboratories that make use of ASTM Test Monitoring Center ..."

To: "Portions of this test method are written for use by laboratories that make use of ASTM Test Monitoring Center ..."

And, it added a sentence:

"Laboratories that choose not to use the TMC services may simply disregard these portions."

Members of the Surveillance Panel present at this meeting agreed with the intent expressed in the Subcommittee B ballot, support the Negative vote, and encourage the editor to revert to the original language and intent. The editor will be contacted and we will work with him to resolve this ballot.

Method Bias and Precision

The current data (downloaded Aug 1, 2016):

Parameter	Period	N-size	Degrees of Freedom	Pooled Average Yi	s
MRV	2008OCT	10	7	-0.3595	0.2769
MRV	2009APR	12	9	-0.5696	0.2229
MRV	2009OCT	25	22	-0.6238	0.1855
MRV	2010APR	61	58	-0.2386	0.3941
MRV	2010OCT	115	111	-0.2630	0.5113
MRV	2011APR	120	117	0.2044	0.6888
MRV	2011OCT	97	93	-0.6775	0.2587
MRV	2012APR	93	90	-0.3892	0.2068
MRV	2012OCT	86	83	-0.2933	0.2975
MRV	2013APR	109	106	-0.5789	0.2684
MRV	2013OCT	90	87	-0.9423	0.2368
MRV	2014APR	85	82	-0.4308	0.2715
MRV	2014OCT	83	80	-0.7778	0.2535
MRV	2015APR	96	93	-0.7245	0.3004
MRV	2015OCT	85	82	-0.8995	0.2363
MRV	2016APR	92	89	-0.0995	0.4115
MRV	2016OCT	46	43	-0.4445	0.2814

Statistics show a dramatic improvement in average Yi immediately after our October 2015 Workshop in San Antonio. This was attributed to labs making a concerted effort to adjust severity. Unfortunately, this led to an increase in variability (s). That variability is now coming back down to historic levels, but the consistent mild bias is once again increasing.

Tom talked about a new severity factor being introduced to the TMC monitored NOACK test. This will be implemented on October 19, 2016. The ROBO group will look at this approach and

see if it might be applicable to our test. Tom and Alan will run some preliminary statistical analysis.

Other Topics

Discussion of other proposed agenda topics were postponed to future meetings. These included:

- Guidelines for setting up a new rig
- Tuning vs confirming calibration
- Workshop follow-up items

Next meeting

Thursday, November 17, 2016. By Teleconference and Webex. 10:00AM – 12 Noon EST.

Topics for discussion:

- Ballot follow-up and any actions needed for December ASTM meeting
- 434-2 data
- Deferred 'other topics'
- Initial NOACK experience and ROBO statistics if available