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Committee D02 on PETROLEUM PRODUCTS AND LUBRICANTS

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Feb. 18th, 2014

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ASTM D02.B0.03 L-42 Surveillance Panel
Members and Guests:

Attached for your review and comment are the unconfirmed minutes of the:

Feb 12th, 2014 Surveillance Panel Meeting (PRI – Warrendale, PA)

Please direct any corrections or comments to my attention.

Very Respectfully,

Thomas Gottwald, Chairman
L-42 Surveillance Panel

L-42 Surveillance Panel Meeting Minutes

PRI – Warrendale, PA

Feb. 12, 2014

Attendees: voting members in **bold**

B. Koehler (SwRI)	J. Gropp (LZ)	J. Dharte (AAM)	R. Warden (SwRI)
D. Smith (Intertek)	A. Trader (Intertek)	B. Bubonic (LZ)	K. Zreik (GM)
S. Parke (TMC)	M. Umerly (LZ)	J. Chalkley (Afton)	
T. Gottwald (Afton/C)	D. Bell (Afton)	J. Clark (TMC)	
	D. Mosher (Eaton)	C. Prengaman (LZ)	

Call to Order

The meeting PowerPoint presentation is attached.

Review of Agenda

The meeting agenda is attached (slide 2 of attached PowerPoint presentation).

Review of Membership

The list of voting members was reviewed (slide 3 of attached PowerPoint presentation). Matt Umerly was identified as the alternate voting member for Lubrizol. Rebecca Warden replaced Brian Koehler as the voting member from Southwest Research Institute.

The sign-in sheet is attached.

Approval of Meeting Minutes

Meeting minutes from the November 6, 2013 L-42 Surveillance Panel meeting, held at Automation Alley in Troy Michigan ("20131106_SP")

MOTION by J. Dharte to approve the meeting minutes as presented. 2nd by D. Smith.
Motion approved unanimously (verbal).

Reference Oil 116-1 Replacement (Oil 1-B → TMC 117)

The TMC advised the SP on the remaining inventory of Oil 116-1:

- 24 cans remaining between the labs and TMC

Two new data points have been generated in TMC 117 matrix since the Nov SP meeting. Updated average ratings and percentage deltas (from 116-1 reference runs) were presented by the TMC (see attached data summary).

Resulting discussion revealed two options moving forward:

1. The SP can establish hard pass/fail criteria, separating the relationship between the reference runs and candidate runs. The references would need to fall within acceptance bands in order to calibrate the stand.
2. The SP can establish a correction factor for runs made on TMC Oil 117, using the offset from the industry matrix. This approach allows for proper/desired correlation to historic data.

MOTION by M. Umerly; 2nd by D. Smith; Effective June 30, 2014, stand calibrations will be conducted using TMC 117. For results generated on TMC Oil 117, a permanent correction factor of +6% coast side scoring is to be used for the pinion rating and a permanent correction factor of +4% coast side scoring is to be used for the ring rating. TMC Oil 116-1 will continue to be used for stand calibrations in the interim.

Motion approved unanimously (verbal).

Further discussion revealed that official changes to the reporting forms will need to be made to reflect the correction factor and original ratings. This will take some time to get right, hence the June 30 implementation date.

Until June 30, the motion from the Nov SP meeting below still stands:

Each lab, for the next three reference periods OR until supplies of TMC 116-1 or hardware are exhausted, shall perform 1 test using TMC 117 after calibrating. The run count on these reference periods will be 21 runs. Reference period timing (i.e. 3 months) shall not change.*

2014 Batch Order

An update of the batch order progress was given by the Chair. Gary Schmalbach (Dana) has been identified as our sales representative. Gabriel Waxemberg (Dana) has been identified as the project manager at Dana's Lugoff production facility.

The test use and hardware have been explained to the Lugoff team. Batch requirements need to be refined by the hardware task force [TF]. Lugoff is working to determine batch production timing and Dana's internal documentation.

TF determined that labs should order enough hardware to last through Jan 2019 (at least 4 years' worth).

No quote has been issued yet.

ACTION: Chair to distribute a copy of the Dana process map (to labs only).

ACTION: Chair to set up full TF teleconference with Lugoff team.

L-42-1 Discussions

SP briefly discussed options for moving forward with L-42-1 development. It was stated that the objective of the L-42-1 is to determine a replacement which maintains severity and historical performance with TMC reference oils and commercial fluids. It is yet to be determined whether this replacement will be in the form of a full test with new hardware or only new hardware. Types of new stands were discussed, although not in detail.

ACTION: Chair to set up TF teleconferences to discuss L-42-1 development and ideas.

New/Open Issues

None reported.

Adjournment

MOTION by D. Smith to adjourn. 2nd by R. Warden.

Motion passed unanimously (verbal).

Respectfully submitted,



Thomas Gottwald

L-42 Surveillance Panel Chairman



L-42 Surveillance Panel Meeting

PRI

Warrendale, PA

Feb 12, 2014

10:30am-12pm

Passion for Solutions™

Agenda

- ▲ **Call to Order**
- ▲ **Membership Review & Update/Agenda**
- ▲ **Approval of Meeting Minutes**
- ▲ **Reference oil 116-1 replacement**
 - ▲ TMC 117 data review/Testing progress
- ▲ **Batch Order Update**
- ▲ **L-42-1**
- ▲ **New/Open Issues**
- ▲ **Adjournment**

Membership Review

Voting Members (10 on record)

- ▲ Allison Athey – Volvo
- ▲ Allen Comfort – US Army
- ▲ John Dharte – AAM
- ▲ Thomas Gottwald - Afton
- ▲ Galen Greene – BASF
- ▲ Larry Hamilton – LZ
- ▲ Brian Koehler – SwRI
- ▲ Bruce McGlone – Meritor
- ▲ Scott Parke – TMC
- ▲ Dale Smith – Intertek

Anyone seeking to become a voting member?

Approval of Meeting Minutes

SP Meeting Minutes

- ▲ “20131106_SP” → Nov 6, 2013 – Troy, MI

Reference Oil 116-1 Replacement (TMC Oil 117)

Current test target for the pinion: 23% scoring

- ▲ No target for the ring

Average ratings for the Fall 117 matrix:

- ▲ Pinion: 17.2% scoring
- ▲ Ring: 10.2 % scoring

Comparing rating averages for 116-1 & 117

- ▲ Delta of ~6% pinion
- ▲ Delta of ~4% ring
- ▲ Considered acceptable by SP in Nov.

Further Data Desired (Updates?)

2014 Batch Order

- ▲ **Contact made with Dana sales (Gary Schmalbach)**
- ▲ **Discussions started for Lugoff production (Gabriel Waxemberg, project lead)**
 - ▲ Explained hardware/test use
 - ▲ Batch requirements need flushing out by hardware TF
 - Copy of process map to be reviewed by labs only
 - ▲ Gabriel to determine:
 - Timing
 - Internal documentation (“lessons learned” discussions)
- ▲ **1st full TF call next week (determine date)**
- ▲ **No full quote yet/hold ups**

L-42-1

▲ TF will start discussions in 2 weeks (set call date)

▲ Preliminary items/thoughts needed now

- ▲ L-42-1 Objective
- ▲ Type of stand
 - Fired w/ dynos
 - Electric motor w/ dynos
 - Bench test
- ▲ Hardware
 - Changes needed?

New/Open Issues

 Anything?

Thanks!

						pinion	Reference results (pinion)				pindelta	ring	Reference results (ring)				ringdelta
96624-L42	117	C1L680	D	20131008	2A 1101	14	26	28	28	27	13	6	12	15	18	15	9
96626-L42	117	C1L680	D	20131010	2A 1107	19	26	28	28	27	8	10	12	15	18	15	5
96630-L42	117	C1L680	B	20131004	286 762	23	21	28	20	23	0	16	13	15	13	14	-2
96631-L42	117	C1L680	B	20131004	286 763	16	21	28	20	23	7	8	13	15	13	14	6
96618-L42	117	C1L680	A	20131029	03A 0164	15	18	14	14	15	0	10	9	8	8	8	-2
96619-L42	117	C1L680	A	20131029	03A 0165	16	18	14	14	15	-1	11	9	8	8	8	-3
96636-L42	117	B6L544	G	20131127	TB1 0217	18	26	23	21	23	5	13	23	16	11	17	4
96637-L42	117	B6L544	G	20131127	TB1 0218	9	26	23	21	23	14	5	23	16	11	17	12
117 Average						16.3					6	9.9					4

B6L544 116-1 Target **25.1**

n/a

C1L680 116-1 Target **23.0**

n/a

Actual C1L680 Average (n=44) **20.9**

12.4

Average pinion delta (ref avg - 117 result) 6.0

4.0

C1L680 116-1 target - 117 avg 6.7

n/a

Actual C1L680 avg - 117 avg 4.6

n/a

Avg (ref target - 117 result) 7.3

n/a

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Initials	Name	Voting Non-Voting	Company Name Company Address	Contact information	
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	Comfort, Allen	V	US Army TARDEC	Phone: E-mail:	586-282-4225 allen.s.comfort.civ@mail.mil
<i>JD</i>	Dharte, John	V	AAM 1 Dauch Drive Detroit, MI 48212	Phone: E-mail:	313-758-4687 dhartej@aam.com
<i>TG</i>	Gottwald, Thomas	V/Chair	Afton Chemical 500 Spring St. Richmond, VA 23219	Phone: E-mail:	804-788-5230 thomas.gottwald@aftonchemical.com
	Greene, Galen	V	BASF	Phone: E-mail:	973-245-5509 galen.greene@basf.com
	Hamilton, Larry	V	The Lubrizol Corporation 29400 Lakeland Boulevard Wickliffe, OH 44092	Phone: E-mail:	440-347-2326 larry.hamilton@lubrizol.com
<i>[Signature]</i>	Koehler, Brian	<i>NV</i>	Southwest Research Institute P.O. Drawer 28510 San Antonio, TX 78228-0510	Phone: E-mail:	210-522-3588 Bkoehler@swri.org
	McGlone, Bruce	V	Meritor	Phone: E-mail:	248-435-9929 bruce.mcglone@meritor.com

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Initials	Name	Voting / Non-Voting	Company Name Company Address	Contact information	
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			6555 Penn Ave Pittsburg, PA 15206	E-mail:	sdp@astmtmc.cmu.edu
DS	Smith, Dale	V	Intertek Automotive Research	Phone:	412-855-6854
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	Banas, Rob	NV	ExxonMobil Fuels, Lubricants & Specialties	Phone:	678-493-3930
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DRB	Bell, Don	NV	Afton Chemical	Phone:	804-788-6332
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✓	Bubonic, Brad	NV	The Lubrizol Corporation	Phone:	440-347-5325
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JG	Gropp, Jerry	NV	The Lubrizol Corporation	Phone:	440-347-1223
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	Hobson, Kevin	NV	Afton Chemical	Phone:	804-788-5307
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Initials	Name	Voting Non-Voting	Company Name Company Address	Contact information	
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	Muransky, Troy	NV (ALT)	Meritor	Phone:	248-435-1409
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GH	Prengaman, Chris	NV	The Lubrizol Corporation	Phone:	440-347-4225
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	Schwenk, Daniel	NV	Afton Chemical	Phone:	804-788-6326
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	Thorpe, Ryan	NV	Southwest Research Institute	Phone:	210-522-6409
				E-mail:	
AW	Trader, Angela	NV	Intertek Automotive Research	Phone:	210-706-1533
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ML	Umerley, Matt	NV V (CA)	The Lubrizol Corporation	Phone:	440-347-4589
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