

L-42 Surveillance Panel Meeting Minutes

Intertek PSI, Plymouth, MI and Virtual Meeting – Microsoft Teams

August 12, 2026

Attendees: voting members in **bold**, * indicates virtual attendance

D. Beck (TMC)*	J. Janca (Lubrizol)	N. Schaup (LZ)*
D. Bell (Afton)	S. Jetter (Exxon Mobil)	A. Smith (Infineum)
J. Carowick (Cummins)	B. Jordan (Shell)*	A. Stone (Afton)*
H. Catania (Cummins)	T. Kostan (SwRI)*	B. Transue (TMC)
J. Connor (SwRI)	A. Lange (SwRI)	W. Venhoff (TMC)
T. Gibson (Dana)*	T. Muransky (Dauch)	R. Warden (Chevron Oronite)
J. Grewe (LZ)	R. Murray (IAR)	J. Westmoreland (LZ)
H. Hahn (Chevron Oronite)	G. Parker (Lubrizol)	P. Wright (SwRI)
D. Horvath (Afton)	M. Portell (IAR)	
Z. Hunt (VBASE)	M. Sangpeal (Afton/C)	

Call to Order

Review of Agenda

The meeting agenda is attached.

Review of Membership

Changes to voting member list: None

Approval of Meeting Minutes

Meeting minutes for approval:

- ▲ “20260513_SP” → May 13, 2026 – Surveillance Panel Meeting – Plymouth, MI

A motion was made to approve the meeting minutes as presented.

Motion: M. Sangpeal

Second: T. Muransky

All in favor, no objections, no abstentions.

Action Item Review

Action items from November:

- Next-Gen L-42 Test Hardware
 - ▲ T. Gibson to schedule conference call
 - Status: Complete, held on 5.26.26
- Referencing Requirement Clarification
 - ▲ W. Venhoff to finalize changes to Section 9.
 - Status: Complete

- L-42-1 Development
 - ▲ M. Sangpeal to complete L-42-1 procedure draft and distribute via email.
 - Status: Ongoing
- Call for New Reference Oil
 - ▲ M. Sangpeal to send out separate email to D7452 distribution list to request new ref. oil
 - Status: Complete as of 5.15.26

Next-Gen L-42 Test Hardware

A conference call was held on 5.26.26 with Dana, TMC, and lab engineers. New contact at Dana, Zack Heisey, was introduced to the group. Stan Kielar, (Aftermarket Legacy Products) will be the primary contact at Dana (as appointed by Zack) going forward. Stan will set up recurring meetings to keep progress on new gears moving forward.

Key points from the call:

- Equipment in Lugoff, SC is to be transferred to Ft. Wayne, IN
- Rings are available from same supplier
- Pinions need new forging facility
- Nearly ready for prototype manufacturing

Action Item from call:

M. Sangpeal to send L-42 axle assembly instructions to Z. Heisey

Status: Complete

Referencing Requirement Clarification

W. Venhoff shared edits to Section 9 and a table that helps to clarify the complex referencing requirements of D7452.

A motion was made to adopt new wording for Section 9 of D7452 and to add Annex A10, Example Table.

Motion: W. Venhoff

Second: R. Warden

All in favor, no objections, no abstentions.

L-42-1 Development

No progress since last meeting.

Action Item: M. Sangpeal to complete first draft and email to panel for review

Call for New Reference Oil

One lab sent 30 USG of a potential new reference oil to TMC. More oil could not be blended due to supply chain issues.

A second lab reached out to TMC with a second potential new reference oil. More details to follow soon.

Action Item: W. Venhoff to contact both suppliers for updates and more details.

New/Open Business

One lab stated that several L-42 test axles from the most recent batch had backlash measurements below the acceptable range. They are re-building those axles to increase backlash to acceptable tolerance. A comment was made that reported backlash (as written on each axle housing), is often different from measured values. This could be due to the assembly process order of operations. This topic will be specifically addressed before the next order is placed.

Adjournment

A motion was made to adjourn.

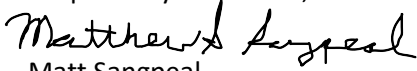
Motion: M. Sangpeal

Second: R. Warden

All in favor, no objections, no abstentions.

Meeting adjourned.

Respectfully submitted,

A handwritten signature in black ink that reads "Matthew Sangpeal". The signature is written in a cursive, flowing style.

Matt Sangpeal

L-42 Surveillance Panel Chairman



L-42 Surveillance Panel Meeting

ASTM D7452

Intertek PSI

Plymouth Township, MI

August 12, 2026

10:30 AM – 11:00 AM EST

Passion for Solutions™

Agenda

 Call to Order

 Agenda

 Membership Review & Update

 Approval of Meeting Minutes

▲ “20260513 SP” – Intertek PSI, Plymouth, MI

 Action Item Review

 Next-Gen L-42 Test Hardware Update

 Referencing Requirements Clarification

 L-42-1 Development Updates

 Call for New Reference Oil

 New Issues

 Adjournment

L-42 SP Voting Members

▲ Steve Jetter:	Exxon Mobil
▲ Brad Transue:	TMC
▲ Allen Comfort:	US Army
▲ M. Caridi:	BASF
▲ Troy Muransky:	Dauch
▲ Jessica Carowick:	Cummins
▲ Matt Sangpeal:	Afton Chemical (Chair)
▲ Nick Schaup:	Lubrizol
▲ Reagan Murray:	Intertek
▲ Payton Wright:	SwRI
▲ Trevor Gibson:	Dana
▲ Rebecca Warden:	Chevron-Oronite
▲ Andrew Smith:	Infineum
▲ Camden Vander Wal:	Daimler Truck
▲ Addison Schweitzer:	Shell
▲ Clarence McCollum:	Richful

Approval of Meeting Minutes

SP Meeting Minutes

- ▲ “20260513 SP” → May 13, 2026 – Surveillance Panel Meeting - Intertek PSI, Plymouth, MI and Virtual Meeting via Microsoft Teams

Motion to Approve Meeting Minutes as they stand.

Action Item Review

Next-Gen L-42 Test Hardware

- ▲ T. Gibson to schedule conference call.
 - Status: Held on 5.26.26

L-42-1 Development

- ▲ M. Sangpeal to complete L-42-1 procedure draft and distribute via email.
 - Status: On-Going

Referencing Requirements Clarification

- ▲ W. Venhoff to finalize changes to Section 9.
 - Status: Complete

Call for New Reference Oil

- ▲ M. Sangpeal to send out separate email to D7452 distribution list
 - Status: Complete as of 5.15.26

Next-Gen L-42 Hardware Update

Conf. Call 5.26.26

- ▲ Dana, TMC, lab engineers

 Equipment in Lugoff, SC is to be transferred to Ft. Wayne, IN

 Rings are available from same supplier

 Pinions need new forging facility

 Nearly ready for prototype manufacturing

Action Item:

- ▲ M. Sangpeal to send L-42 axle assembly instructions to Z. Heisey
 - Status: Complete

Updates?

Reference Requirement Clarification

 **Section 9 edits**

L-42-1 Development Updates – Procedure Drafting

 **First draft edit meeting held 3/4/26**

 **Rework to create L-42-1 version underway**

- ▲ Imperial to SI units
- ▲ Driveshaft Torque Meter verbiage generalized
- ▲ Load absorber vs. Dyno description generalization
- ▲ Figures to be move to TMC Database

 **No new updates**

Call for New Reference Oil

- ▲ A request is being made to lubricant suppliers to develop a new high reference oil for L-42 testing.
 - ▲ Any interested lubricant supplier can contact the TMC directly
- ▲ The new oil should produce equivalent performance to TMC 117 without the use of any correction factors.
 - ▲ TMC 117 Correction Factors:
 - R: 4 P: 6
 - ▲ TMC 117 Targets:
 - Mean: 23 Std. Dev: 5.49
 - Low: 13 High: 32
- ▲ Any new candidates?

Potential New Reference Oil (from May SP Meeting)

Reference 'Candidate' run at two different labs

▲ Lab 1, Run 1*:

Coast Side % Scoring			Coast Side Torque (lbf-ft)		
EOT Pinion	EOT Ring	Shock Series 1 Ring	Shock Series 1 (Average)	Shock Series 2 (Average)	
15	6	0	-106.4	-419.1	
Average for Passing Reference Oil Tests		16	9	0	-97.3
					-373.5

▲ Lab 2, Run 1:

Coast Side Scoring (%)			Coast Side Torque (lbf-ft)			
EOT Pinion	EOT Ring	Shock Series 1 Ring	Shock Series 1 (Average)	Shock Series 2 (Average)		
24	15	0.0	-86.5	-364.2		
Passing Reference Oil Test Average		20	11	0	-75.3	-363.0

▲ Lab 2, Run 2:

Coast Side Scoring (%)			Coast Side Torque (lbf-ft)			
EOT Pinion	EOT Ring	Shock Series 1 Ring	Shock Series 1 (Average)	Shock Series 2 (Average)		
24	11	0	-65.0	-340.4		
Passing Reference Oil Test Average		22	16	0	-70.3	-354.9

* Invalid for S2 torque too high

Potential New Reference Oil

- Reference 'Candidate' has been sent to TMC
- Requested 3 drums
 - Only 30 USG available due to supply chain issues
- Did TMC receive oil?
- Next steps?

New Issues



Motion to Adjourn

Thanks!

L-42 Surveillance Panel Membership/Attendance
Intertek PSI, Plymouth, MI and Microsoft Teams Virtual Meeting
August 12, 2026

Present	Name	Voting Non-Voting	Company Name Company Address	Contact information	
	Aguirre, Nancy	NV	Intertek Automotive Research	Phone:	
			5404 Bandera Rd. San Antonio, TX 78238	E-mail:	nancy.aguirre@intertek.com
	Arnold, Alex	NV	Lubrizol	Phone:	630-561-0634
				E-mail:	alexander.arnold@lubrizol.com
	Baldrica, Anthony	NW	Chrysan Industries	Phone:	248-720-9503
			14707 Keel St, Plymouth MI	E-mail:	abaldrica@chrysanindustries.com
Online	Beck, Dylan	NV	ASTM Test Monitoring Center	Phone:	724-355-1854
			203 Armstrong Drive Freeport, PA 16229	E-mail:	djb@astmtmc.org
DB	Bell, Don	NV	Afton Chemical	Phone:	804-788-6332
			500 Spring St. Richmond, VA 23219	E-mail:	don.bell@aftonchemical.com

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Present	Name	Voting Non-Voting	Company Name Company Address	Contact information	
IAC	Catania, Hailey	NV	Cummins-Meritor	Phone:	248-435-1544 248-821-9862
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	Cereghino, Brian	NV	IPAC Inc.	Phone:	
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	Charron, Michael	NV	Southwest Research Institute	Phone:	832-444-2180
			6220 Culebra Rd. San Antonio, TX 78238	E-mail:	michael.charron@swri.org
	Clark, Jeff	NV	ASTM Test Monitoring Center	Phone:	412-365-1032
			203 Armstrong Drive Freeport, PA 16229	E-mail:	jac@astmtmc.org
	Comfort, Allen	V	US Army DEVCOM	Phone:	586-282-4225
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Present	Name	Voting Non-Voting	Company Name Company Address	Contact information	
	Goyal, Arjun	NV	BASF	Phone:	914-785-2083
			500 White Plains Rd Tarrytown, NY 10591	E-mail:	arjungoyal1946@gmail.com
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	Haynes, Troy	NV	IPAC Inc.	Phone:	
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	Horvath, Dan	NV	Afton Chemical	Phone:	248-514-2551
			2000 Town Center, Suite 1160 Southfield, MI 48075	E-mail:	dan.horvath@aftonchemical.com
ZH	Hunt, Zach	NW	VBASE Oil Company	Phone:	864-502-2321 x 226
			657 S. Mechanic St Pendleton, SC 29670	E-mail:	hunt@vbaseoil.com

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	Lange, Anthony	NV	Southwest Research Institute	Phone:	210.522.2671
			6220 Culebra Rd. San Antonio, TX 78238	E-mail:	anthony.lange@swri.org
	McCollum, Clarence	V	Richful	Phone:	313.378.8643
			Xinxiang, China	E-mail:	clarence.mccollum@richful.com
	Morris, Jeanelle	NV	International Motors, LLC	Phone:	331-332-1661
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	Mosher, Donna	NV	BASF	Phone:	269-217-1715
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Present	Name	Voting Non-Voting	Company Name Company Address	Contact information	
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	Streck, Kevin	NW	BP Castrol	Phone:	440-424-1751
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	Thrash, Steven	NV	US Army	Phone:	
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Bx	Transue, Brad	NV	ASTM Test Monitoring Center	Phone:	
			203 Armstrong Drive Freeport, PA 16229	E-mail:	bpt@astmtmc.org

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Present	Name	Voting Non-Voting	Company Name Company Address	Contact information	
PW	Wright, Payton	V	Southwest Research Institute	Phone:	210-522-2895
			6220 Culebra Rd San Antonio, TX 78238	E-mail:	Payton.Wright@swri.org
	Yucebilgic, Fatih	NV	Fuchs Lubricants	Phone:	708-539-0252
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	Zarins, George	NV	Dauch	Phone:	586-854-8810
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	Zreik, Khaled	NV	General Motors	Phone:	248-977-9214
			823 Joslyn Ave Pontiac, MI 48340-2925	E-mail:	khaled.zreik@gm.com
SC	Conner, Joshua	NV	SWRI	Phone:	210-522-6556
				E-mail:	joshua.conner@swri.org