

Oil Seal Compatibility Test (OSCT) Surveillance Panel Meeting Minutes

August 24, 2022

Don Bell

Participants listed on attachment in Appendix.

An OSCT Surveillance Panel meeting was called to order by D. Bell at 2 pm on 8/24/2022.

A motion made by D. Bell and 2nd by B. Grinfield was unanimously approved with 6 votes to approve the previous OSCT Surveillance Panel minutes from meeting held 8/10/2022.

The background of the ASTM D471 1000 hour/100°C test was discussed. The 1000 hour results in 100 hour increments were required to be presented for PA, FL and NI seals when presenting the J2360 field trial results, thus only for new gear oil additives/chemistry not yet approved for J2360. During a 8/12/2010 LRI Opening Meeting 1000 hour PA, FL, and NI data was presented on two passing J2360 gear oils, along with data from a gear oil known to have seal leakage issues in the field. For the most part, the data showed that the oil with the issues fell within the results of the two passing gear oils, suggesting the test may not correlate to seal field issues. A question of relevancy of D471 1000 hour test was then questioned, along with other issues with the test that included:

- insufficient data to set limits with the D5662 seal materials that were used in place of the obsoleted seals
- test not monitored by the TMC
- no elastomer batch approvals out to 1000 hrs
- D5662 seals passed

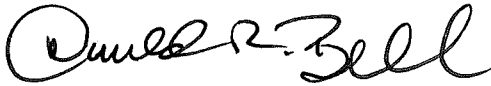
Shortly thereafter ~9/2010 the 1000 hour seal test was removed from the PD4000 and thus no longer required.

D. Bell shared the historical data and limits for the PA, FL and NI seals conducted via D471. Discussions highlighted the need for a seal test with extended times since OEMs prefer to see seal data well beyond the D5662 240 hours. Some suggestions were made to run D471 on current seals similar to Daimler requirements of 72/168/336/504/1008 hours. A concern was raised regarding the ability to run too many test tubes with seals in a single bath with both references and candidate oils since typically one tube is used per hourly sample since some of the testing is destructive. Conducting D471 to 1000 hours at the elevated temperature of 150°C was also suggested. Since time was running out, it was decided to end the meeting so that the

Panel could digest the information and consider other alternative D471 test conditions prior to D. Bell setting a follow-up OSCT Webex in September 2022 to discuss in more detail.

A motion made by D. Bell and 2nd by B. Grinfield to adjourn the OSCT Panel Webex at 2:40 pm was unanimously approved with 6 votes.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Donald R. Bell". The signature is written in a cursive style with a large initial "D" and "B".

Donald R. Bell

OSCT Chairman

Appendix

OIL SEAL COMPATIBILITY SURVEILLANCE PANEL

Date: August 24, 2023 of 3

Initials	V = Voting NV = Non-	Name	Company & Address	Phone:	
RB	V	Rob Banas	ExxonMobil Technology and Engineering Co. 535 Thomas Lane Waleska GA 30183	770-833-5920	Rob.a.banas@exxonmobil.com
	NV	Steve Bealko	The Lubrizol Corporation 29400 Lakeland Blvd. Wickliffe, OH 44092	440-347-4356	steven.bealko@lubrizol.com
	V	Dylan Beck	TMC 203 Armstrong Dr. Freeport, PA	412-365-1037	djb@astmtmc.org
	V	Don Bell <i>Chairperson</i>	Afton Chemical Corp. 500 Spring Street Richmond, VA 23219	804-788-6332	don.bell@aftonchemical.com
	NV	Margaret Caridi	BASF 500 White Plains Road Tarrytown, NJ 10951	845-216-5535	margaret.caridi@basf.com
	V	Jason Carter	Meritor		Jason.carter@meritor.com
	NV	Michael Charron	SWRI		Michael.charron@swri.org
	NV	Jeff Clark	TMC 203 Armstrong Dr. Freeport, PA	412-365-1032	jac@astmtmc.org
	V	Allen Comfort	US Army CCDC-GVSC RDTA-DP/MS110 6501 E. 11 Mile Road Warren, MI 48307-5000	586-282-4225	Allen.s.comfort.civ@army.mil
AG	NV	Arjun Goyal	BASF 500 White Plains Road Tarrytown, NJ 10951	914-785-2083	Arjun.goyal@basf.com

BG	V	Becky Grinfield	SWRI	e-Mail:	Becky.grinfield@SWRI.org
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	NV	Brad Jordan	Shell	Phone: e-Mail:	804-516-1238 Brad.jordan@shell.com
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	NV	Caroline Mueller	SWRI	Phone: e-Mail:	210-522-2671 Caroline.louis@swri.org
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