Oil Seal Compatibility Test (OSCT) Surveillance Panel Meeting Minutes

August 10, 2022

Don Bell

Participants listed on attachment in Appendix.

An OSCT Surveillance Panel meeting was called to order by D. Bell at 12:01 pm on 8/10/2022.

The list of 12 voting members was reviewed. Since M. Cabaj resigned from Linamar, he was removed as a voting member with no replacement at this time.

A motion made by D. Bell and 2nd by T. Muransky was unanimously approved with 8 votes to approve the two previous OSCT Surveillance Panel minutes from meetings held 2/9/2022 and 6/17/2022.

Labs C and G can conduct PA, FL, and NI testing with 3 baths at Lab C and 1 at Lab G and no stand/bath issues.

The seal inventory at Test Engineering Institute (TEI) was reviewed:

Polyacrylate:

- PA366----21 approved slabs
- PA367----259 approved slabs
- PA368----259 approved slabs

Fluoroelastomer:

- FL410----18 approved slabs
- FL414----179 approved slabs
- FL415----200 approved slabs

Nitrile:

- NI351----Initially expired 2/24/22 but Panel approved expiration date to 8/24/2022 with 41 approved slabs remaining
- NI352----Rejected due to failures in TMC 170
- NI353----260 slabs, and qualification data was reviewed below
- NI354----260 slabs, with some sent to both labs for qualification testing

D. Beck from the Test Monitoring Center (TMC) reviewed the NI353 elastomer qualification data below submitted to them by Labs C and G. Data in both TMC reference oils, TMC 169 and 171 are shown along with the passing %elongation, shore hardness, and %volume change.

NI353 Approval Matrix for Lab C:

	N1353 Elastomer Batch Approval Matrix												
		testkey	ltmslab	val	ind	ltmsdate	PVCA	SAHA	PELA	EBC	PELAYI	SAHAYI	PVCAYI
103	Accompanying Ref	169592-OSCT	С	AC	169	20220425	13.3	-9.6	-16.7	NI351	-0.04677	-0.45872	0.877193
	Approval Run	169593-OSCT	С	NI	169	20220425	13.2	-9.7	-14.5	NI353	0.159027	-0.50459	0.818713
7/11	Approval Run	169598-OSCT	С	NI	170	20220425	27	22	-68.1	NI353	0.857998	-0.36657	1.671309
	Accompanying Ref	169592-OSCT	С	AC	169	20220425	13.3	-9.6	-16.7	NI351	-0.04677	-0.45872	0.877193

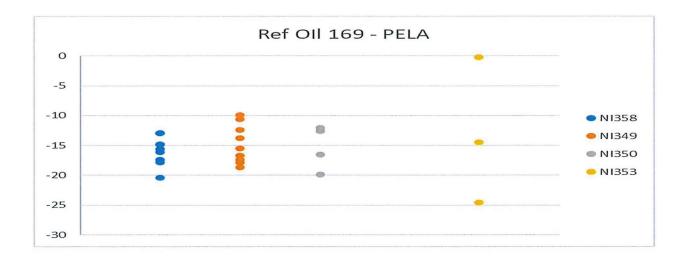
Y(i) limits = +/- 2.200

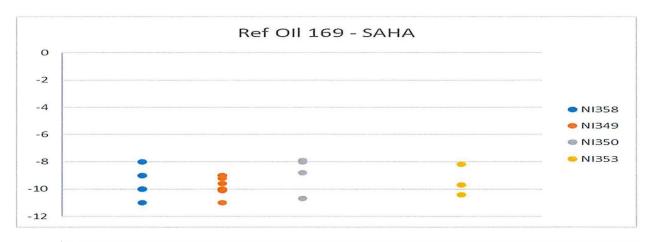
NI353 Approval Matrix for Lab G:

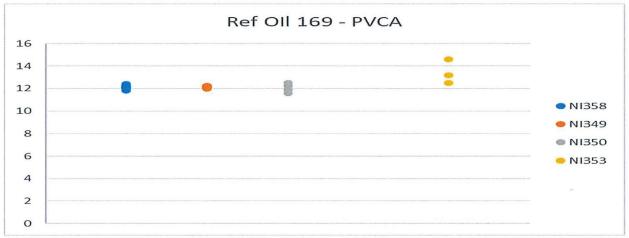
N 1353 E lastomer Batch Approval Matrix													
		testkey	ltmslab	val	ind	Itmsdate	PVCA	SAHA	PELA	EBC	PELAYI	SAHAYI	PVCAYI
1 169	Accompanying Ref	166141-OSCT	G	AC	169	20220718	12.8	-8.8	-19.6	NI351	-0.31805	-0.09174	0.584795
	Approval Run	166142-OSCT	G	NI	169	20220718	12.5	-10.4	-24.6	NI353	-0.78578	-0.82569	0.409357
	Approval Run	166143-OSCT	G	NI	170	20220718	1.3	22	-68.5	NI353	0.724975	-0.36657	-0.27855
170	Accompanying Ref	166141-OSCT	G	AC	169	20220718	12.8	-8.8	-19.6	NI351	-0.31805	-0.09174	0.584795

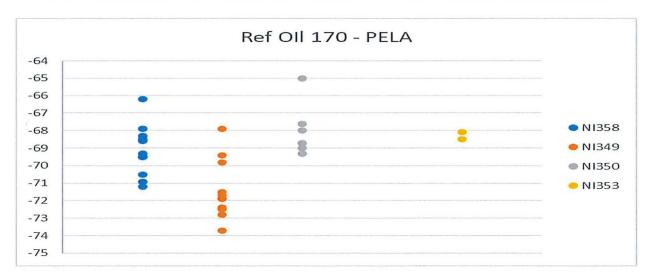
Y(i) limits = +/- 2.200

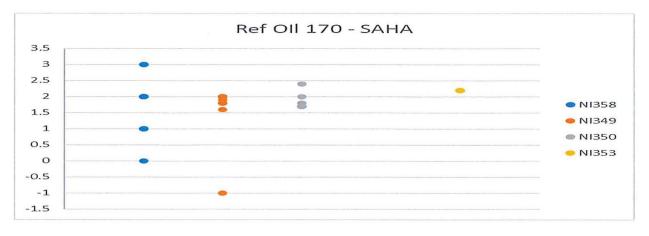
TMC plotted the following data from both labs and both reference oils for NI348 through NI353 to show comparative data. Note that in the graphs NI358 should be labelled NI348.

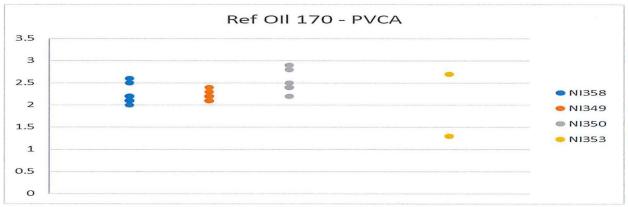












The NI353 data was within the Y(i) acceptable limits for %elongation, shore hardness, and %volume change in both reference oils 169 and 170.

A motion made by D. Bell and 2nd by B. Grinfield was unanimously approved with 8 votes to effectively immediately approve NI353 for ASTM D5662 testing. C. Knight of TEI was instructed to release NI353 for sale as orders are received.

Both labs were reminded to complete their annual testing in TMC 155-1 and the new TMC 155-2 industry reference oils for PA and FL and report data to TMC for plotting and review by the Panel.

Discussions were initiated regarding the industry relevance of the current seals and testing conditions.

A motion made by D. Bell and 2nd by A. Goyal to adjourn the OSCT Panel Webex was unanimously approved with 8 votes to adjourn the meeting at 12:32 pm.

Respectfully submitted,

Donald R. Bell OSCT Chairman

Appendix

OIL SEAL COMPATIBILITY SURVEILLANCE PANEL

Date: August 10, 2022 1 of 3

Initials	V = Voting NV = Non-	Name	Company & Address		
2B	V	Rob Banas	ExxonMobil Lubricants and Specialties 114 Arcadia Park Drive Canton, GA 30114	Phone: e-Mail:	678-493-3930 Rob.a.banas@exxonmobil.com
	NV	Steve Bealko	The Lubrizol Corporation 29400 Lakeland Blvd. Wickliffe, OH 44092	Phone: e-Mail:	440-347-4356 steven.bealko@lubrizol.com
DB	V	Dylan Beck	TMC 203 Armstrong Dr. Freeport, PA	Phone: e-Mail:	412-365-1037 djb@astmtmc.org
DB	V	Don Bell Chairperson	Afton Chemical Corp. 500 Spring Street Richmond, VA 23219	Phone: e-Mail:	804-788-6332 don.bell@aftonchemical.com
	V	Jason Carter	Meritor	e-Mail	Jason.carter@meritor.com
MC	NV	Michael Charron	SWRI	e-Mail	Michael.charron@swri.org
	NV	Jeff Clark	TMC 203 Armstrong Dr. Freeport, PA	Phone: e-Mail:	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	Phone: e-Mail:	586-282-4225 Allen.s.comfort.civ@army.mil
	NV	Brian Foecking	The Lubrizol Corporation 29400 Lakeland Blvd. Wickliffe, OH 44092	Phone: e-Mail:	440-349-2130 bjf@lubrizol.com
gu	NV 1	Arjun Goyal	BASF 500 White Plains Road Tarrytown, NJ 10951	Phone: e-Mail:	914-785-2083 <u>Arjun.goyal@basf.com</u>

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DH	NV	Dan Horvath	Afton Chemical 2000 Town Center Southfield, MI 48075	e-Mail:	dan.horvath@aftonchemical.com
	NV	Brad Jordan	Shell	Phone: e-Mail:	804-516-1238 Brad.jordan@shell.com
CK	V	Clayton Knight	Test Engineering Institute 12718 Cimarron Path San Antonio, TX 78249	Phone: e-Mail:	210-690-1958 cknight@tei-net.com
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0.1	NV	Anthony Lange	Intertek 5404 Bandera Rd. San Antonio, TX 78238	Phone: e-Mail:	210-634-1103 anthony.lange@intertek.com
	V	Mike Lopez	Intertek Automotive Research 5404 Bandera Road San Antonio, TX 78238	e-Mail:	mike.lopez@intertek.com
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CKL	MAN	Caroline Mueller	SWRI	Phone: e-Mail:	210-522-2671 Caroline.louis@swri.org
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MA	NV	Matt Sangpeal	Afton Chemical Ashland Technical Center 11289 Central Drive Ashland, VA 23005	Phone: e-Mail:	804-788-5364 matt.sangpeal@aftonchemical.com
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