

Oil Seal Compatibility Test (OSCT) Surveillance Panel Meeting Minutes

May 13, 2020

Don Bell

Participants listed on attachment in Appendix.

An OSCT Surveillance Panel Skype meeting was called to order by D. Bell at 2:08 pm on 5/13/2020, and the agenda was reviewed.

The 12 OSCT Surveillance Panel voting member list was reviewed and deemed well representative of industry members, so no changes were proposed.

A motion made by J. LaBond and 2nd by M. Sangpeal was unanimously approved with 8 votes to approve the OSCT meeting minutes posted to the TMC website for 2/19/2020.

Lab C has 3 baths and Lab G has 1 bath with both labs being able to conduct ASTM D5662 testing with no known stand/bath issues.

The polyacrylate (PA) qualification status and Test Engineering Institute's (TEI) elastomer inventory were reviewed.

- PA365 TEI has 128 approved slabs.
- PA366 TEI has 281 approved slabs.
- PA367 TEI has 259 approved slabs.
- PA368 TEI has 259 unapproved slabs that were sent out for qualification testing.

The fluoroelastomer (FL) qualification status and TEI's elastomer inventory were reviewed.

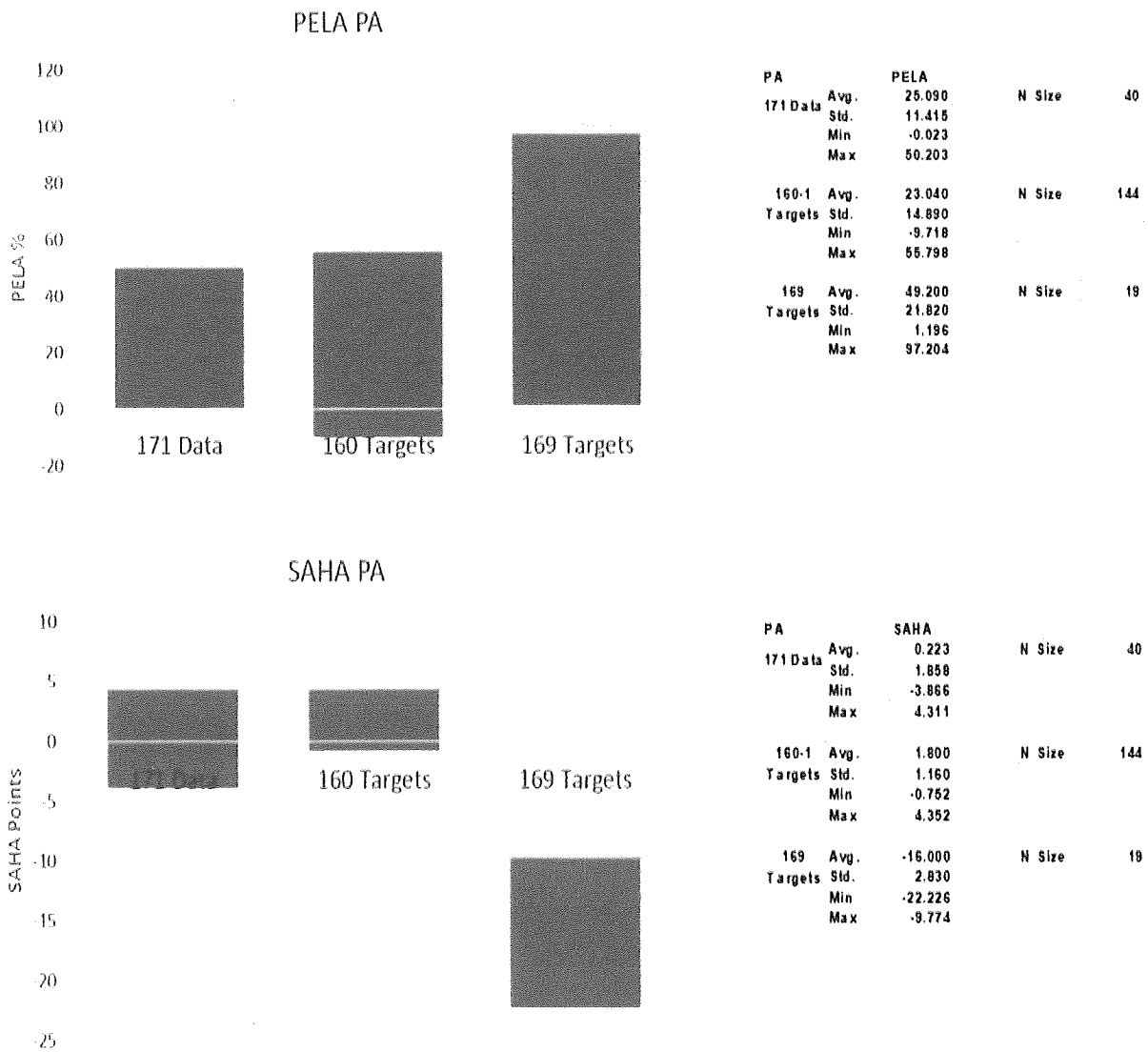
- FL410 TEI has 18 approved slabs.
- FL411 TEI has 78 approved slabs.
- FL412 TEI has 178 unapproved slabs that were sent out for qualification testing.
 - Lab C qualification testing is complete
 - Lab G qualification testing in progress, so Lab G will notify D. Bell when reporting data to TMC to request TMC to compile the data for approval review by the Panel.
- FL413 TEI to place order for this batch to avoid low inventory issues

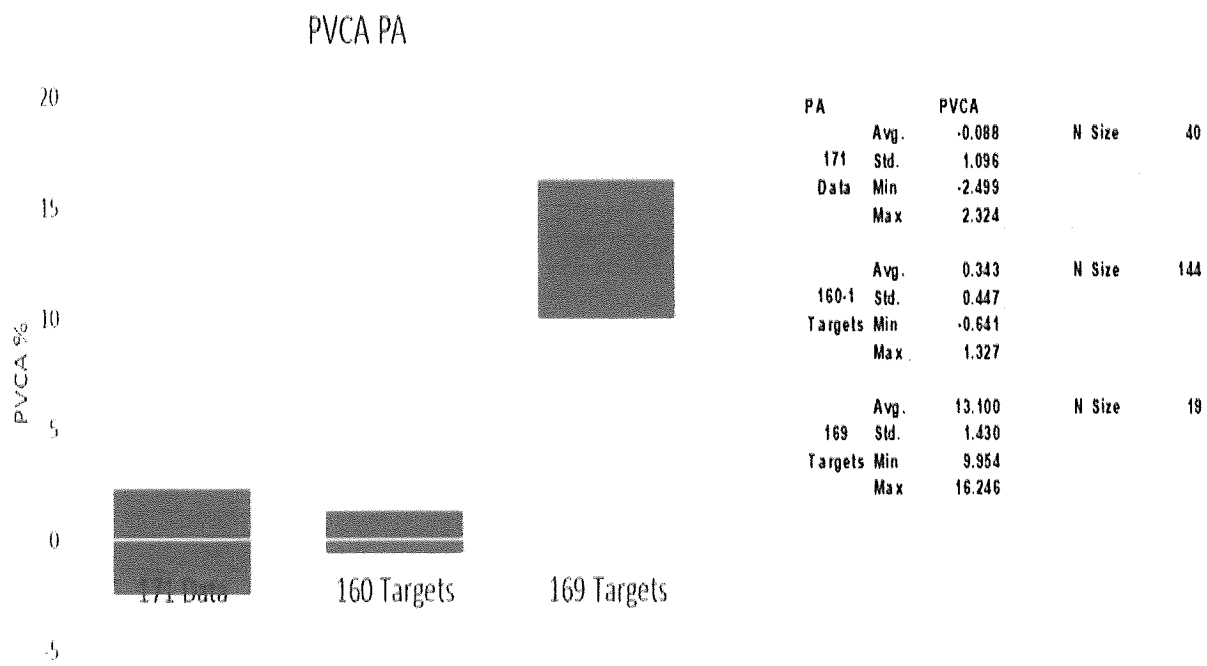
Both labs can discontinue running TMC 171 side-by-side as a non-jeopardy oil in PA and FL since the Panel decided the N size of ~40 for TMC 171 was sufficient to establish new limits as noted toward the end of the minutes.

The nitrile (NI) qualification status and TEI's elastomer inventory were reviewed.

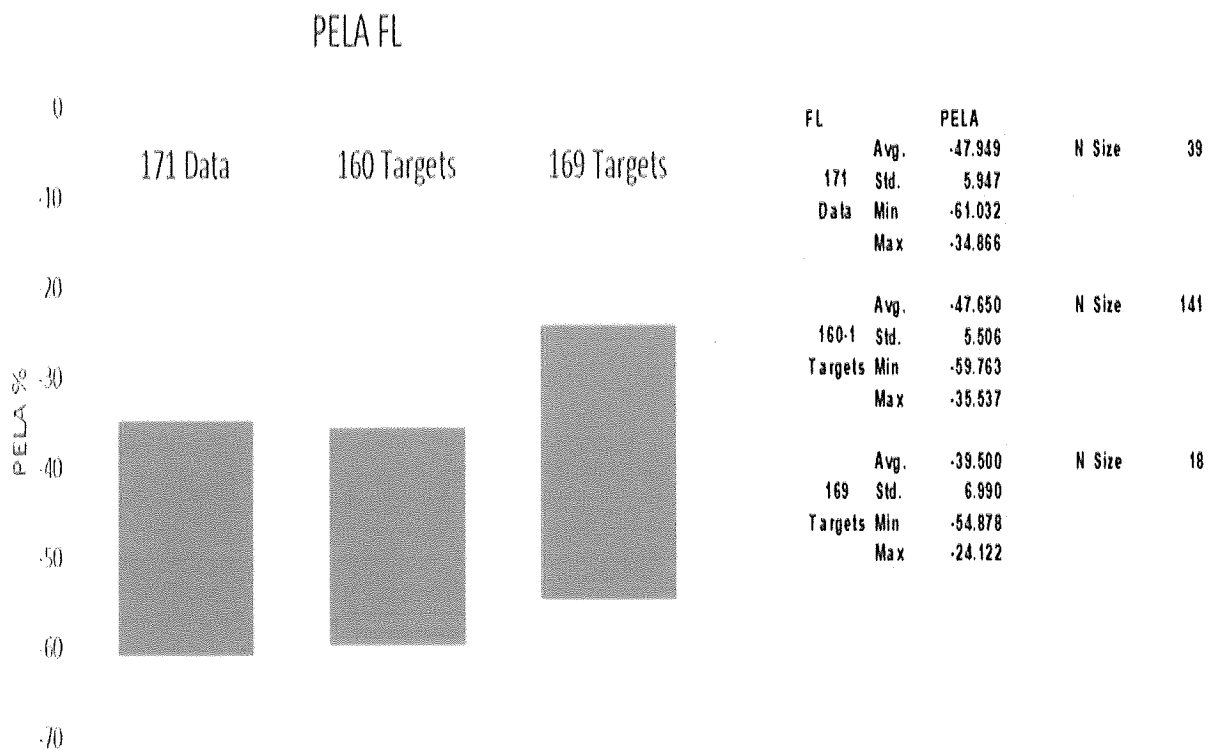
- NI350 TEI has 139 approved slabs.
- NI351 TEI has 278 approved slabs.

TMC also reviewed data from both labs on the relatively new reference oil, TMC 171 that replaced the discontinued TMC 160-1, and compared data to TMC 169 to ensure it discriminated from TMC 171. As shown below for PA, TMC 171 data was relatively comparable to TMC 160 and in most cases discriminated well from TMC 169 as desired.

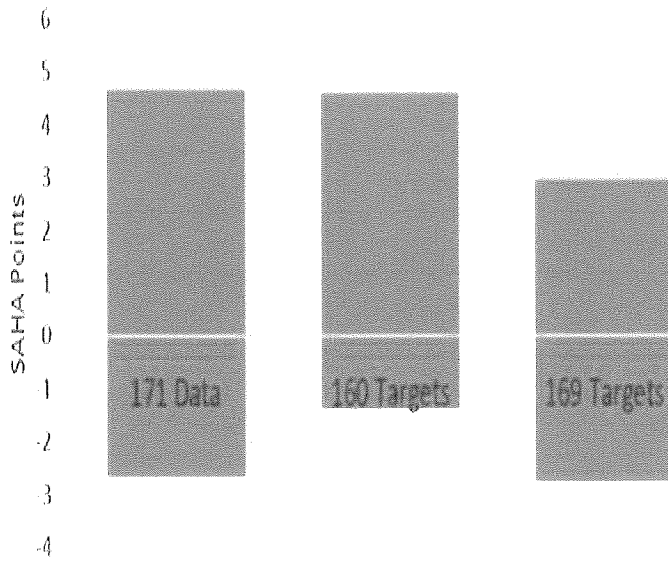




For FL data shown below, TMC 171 and 160 data compared fairly well, and also discriminated fairly well with PELA and PVCA but not as well with SAHA parameter.



SAHA FL



FL	SAHA	N Size
171 Data	Avg.	0.987
	Std.	1.664
	Min	-2.674
	Max	4.648
160-1 Targets	Avg.	1.600
	Std.	1.360
	Min	-1.392
	Max	4.592
169 Targets	Avg.	0.100
	Std.	1.300
	Min	-2.76
	Max	2.96

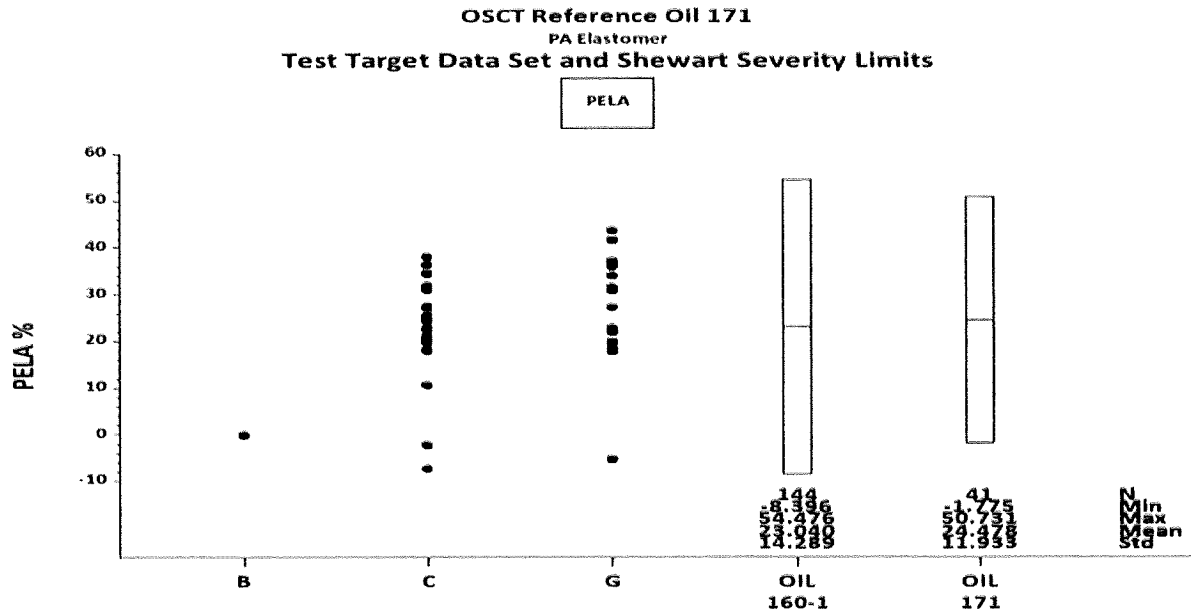
PVCA FL



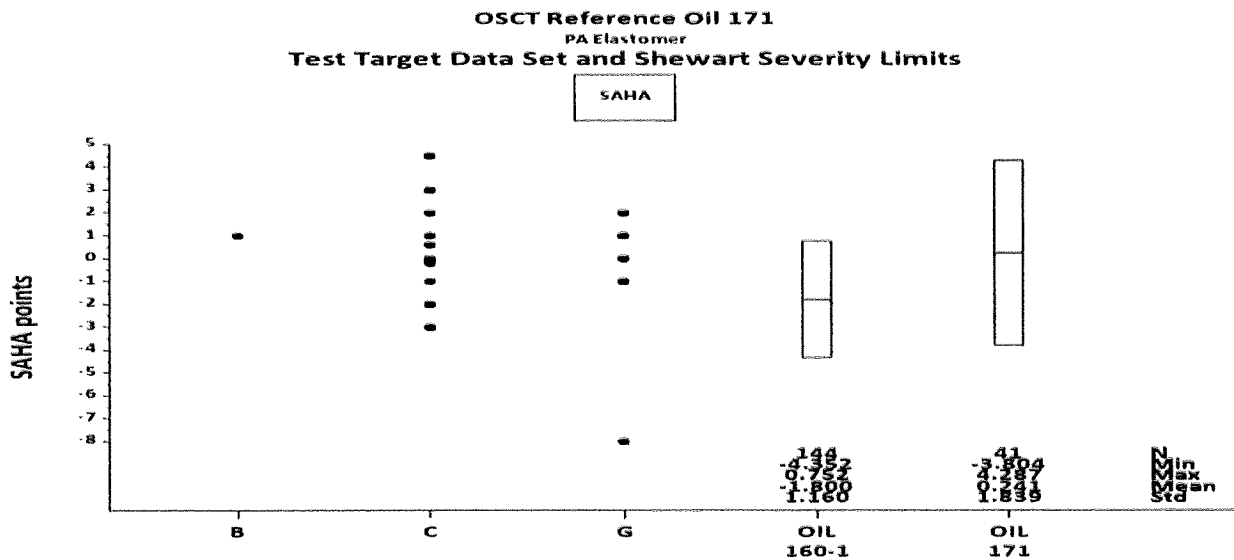
FL	PVCA	N Size
171 Data	Avg.	2.167
	Std.	1.201
	Min	-0.474
	Max	4.808
160-1 Targets	Avg.	2.053
	Std.	0.408
	Min	1.157
	Max	2.950
169 Targets	Avg.	4.400
	Std.	0.710
	Min	2.838
	Max	5.962

TMC also compared TMC 171 results between Labs C and G as shown below.

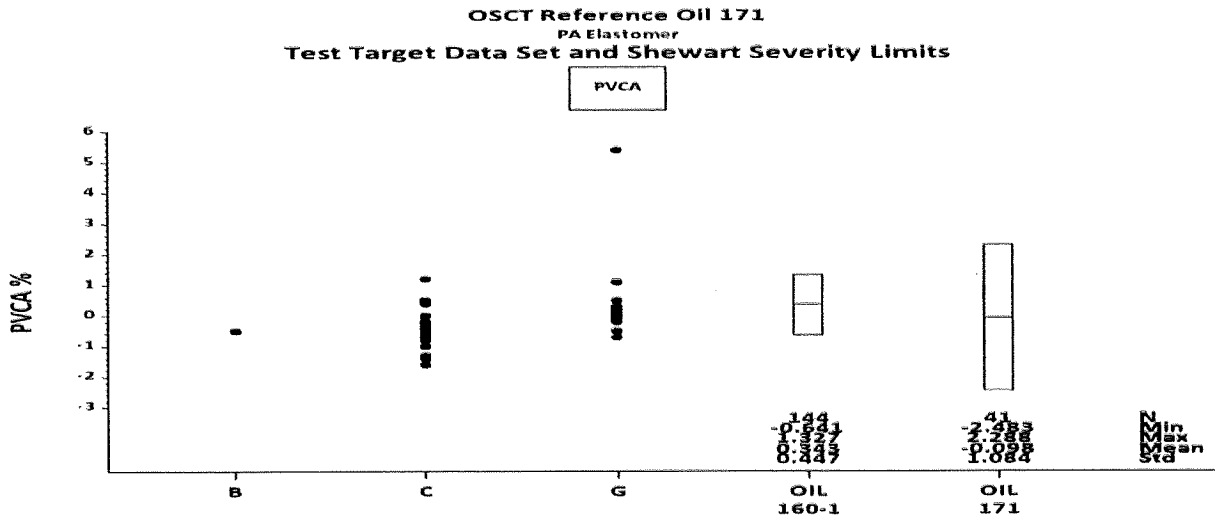
PA PELA results between labs very similar.



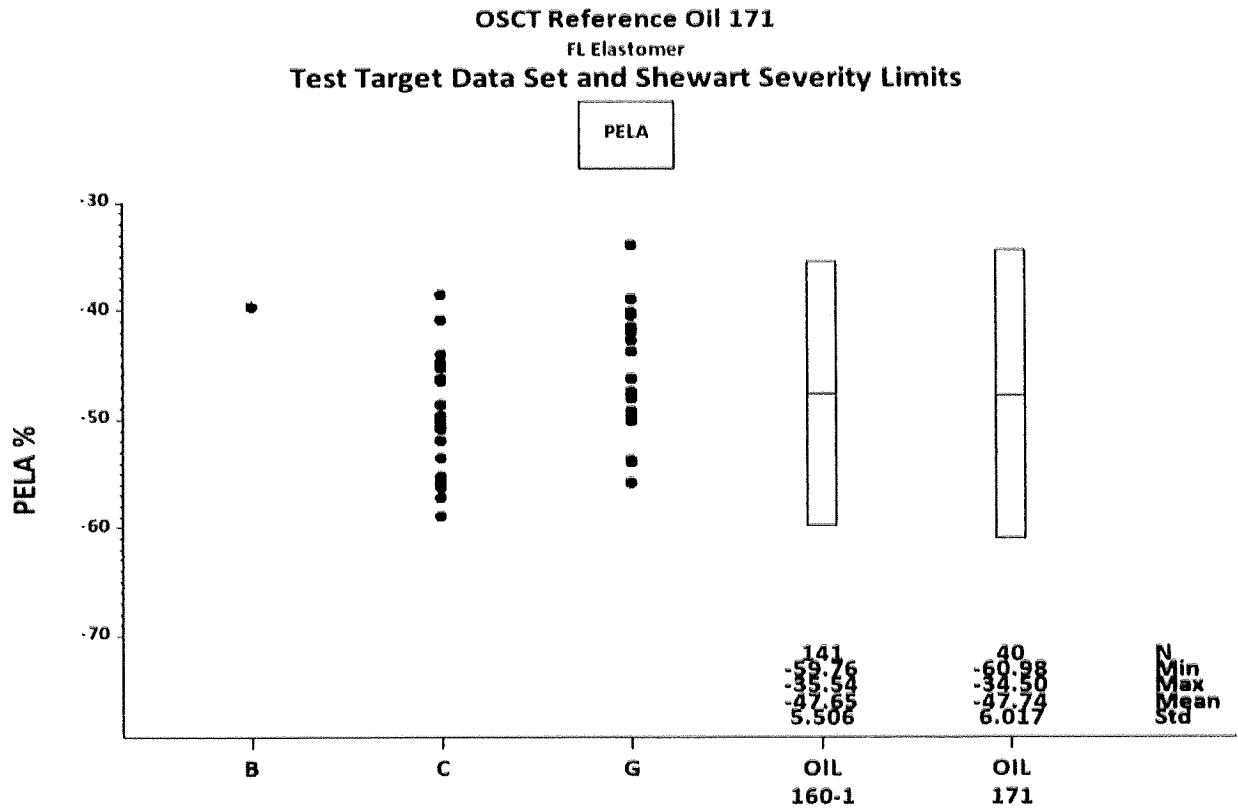
Lab C has a broader data set for PA SAHA for Lab C vs. Lab G with a tighter data set with ignoring the very low outlier.



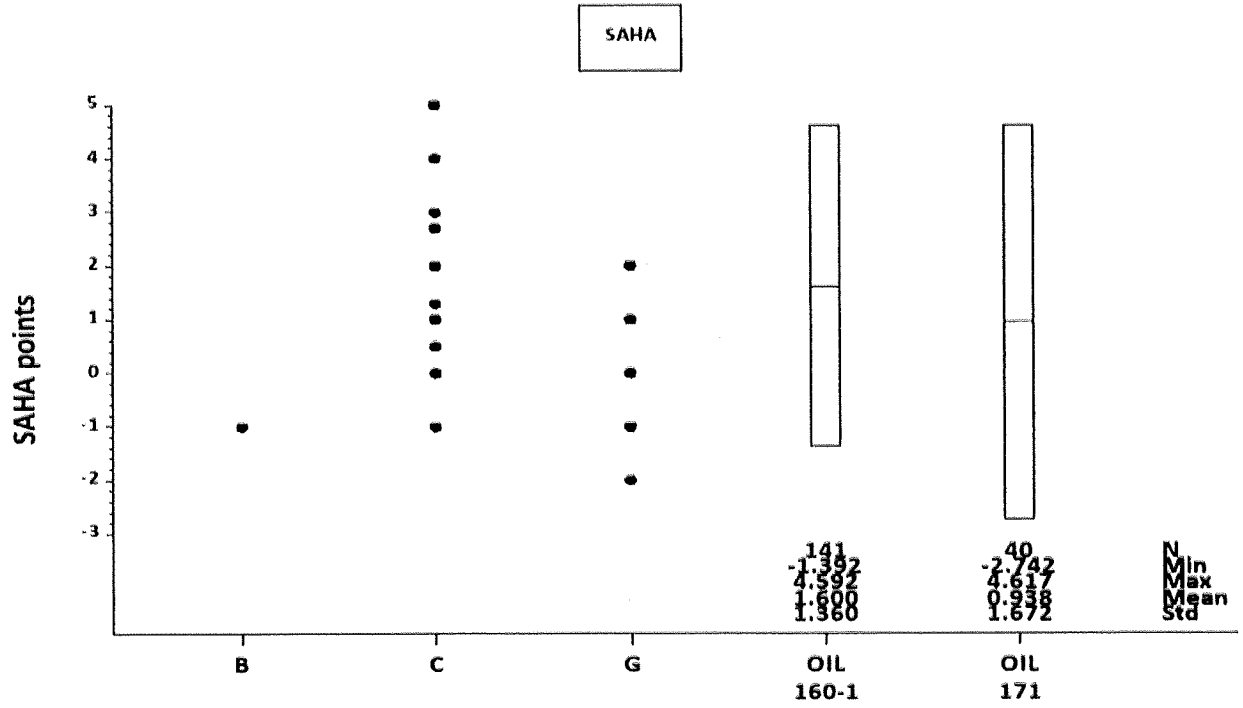
Lab C and G have very similar PA PVCA results with ignoring the high outlier for Lab G.



Both labs show very similar FL PELA and SAHA data on the following two graphs.

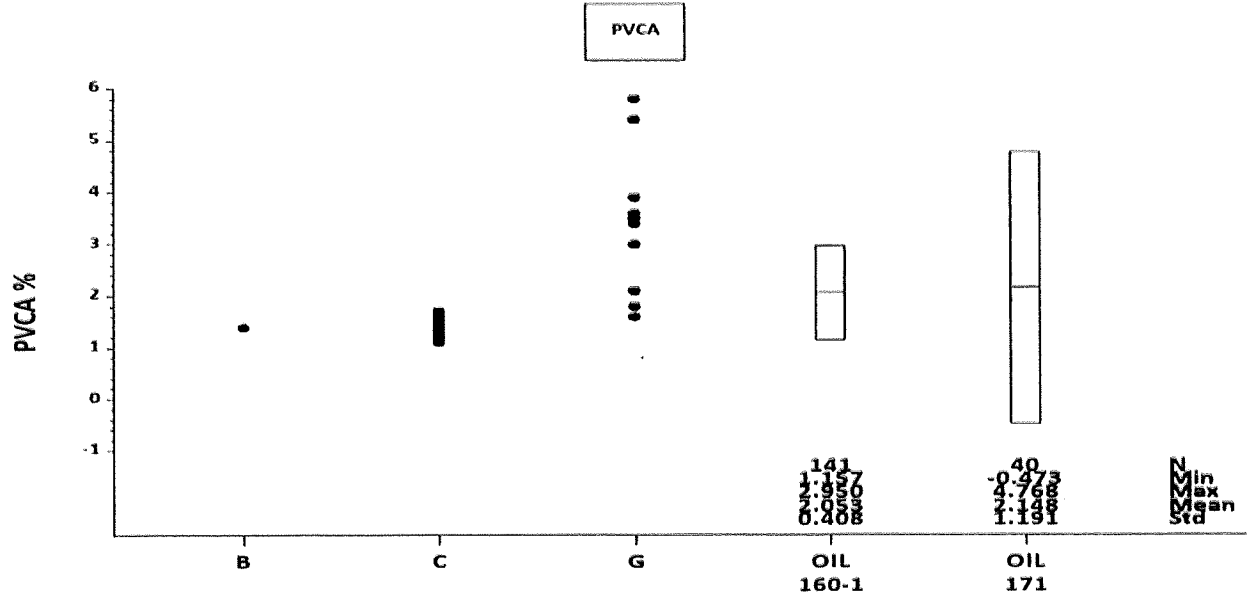


OSCT Reference Oil 171
 FL Elastomer
 Test Target Data Set and Shewart Severity Limits



The Labs differ most in the data for FL PVCA in which Lab C is very tight, while Lab G shows a much broader range of data.

OSCT Reference Oil 171
 FL Elastomer
 Test Target Data Set and Shewart Severity Limits



The Panel concluded that a sample size for TMC 171 of ~40 was sufficient for a good statistical analysis of the data, and most of it did show the desired similarity of TMC 171 to the data of the oil, TMC 160, that it replaced, as well as discriminated for most parameters with TMC 169 as desired.

A motion made by D. Bell and 2nd by B. Grinfield was unanimously approved with 8 votes to have TMC establish TMC 171 reference oil limits to be effective and implemented on 5/27/2020 for all PA and FL elastomer testing based on the available data, which will also include several TMC 171 data points submitted at the end of April and currently in progress.

A motion made by D. Bell and 2nd by B. Grinfield was unanimously approved with 8 votes to adjourn the OSCT Panel meeting at 2:31 pm on 5/13/2020.

Respectfully Submitted,

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

Donald Bell/OSCT Chairman

Appendix

OIL SEAL COMPATIBILITY SURVEILLANCE PANEL

Date: May 13, 2020

Initials	V = Voting NV = Non-voting	Name	Company & Address	Phone / FAX / e-Mail
	NV	Nancy Aguirre	Intertek Automotive Research 5404 Bandera Road San Antonio, TX 78238	Phone: 210-647-9428 e-Mail: Nancy.AGUIRRE@Intertek.com
RB	V	Rob Banas	ExxonMobil Lubricants and Specialties 114 Arcadia Park Drive Canton, GA 30114	Phone: 678-493-3930 e-Mail: Rob.a.banas@exxonmobil.com
DB	V	Dylan Beck	TMC 6555 Penn Ave. Pittsburgh, PA 15206	Phone: 412-365-1037 e-Mail: djb@astmtmc.cmu.edu
DCB	V	Don Bell <i>Chairperson</i>	Afton Chemical Corp. 500 Spring Street Richmond, VA 23219	Phone: 804-788-6332 e-Mail: don.bell@aftonchemical.com
	NV	Jon Bolaney	The Lubrizol Corporation 29400 Lakeland Blvd. Wickliffe, OH 44092	Phone: 440-347-7742 e-Mail: joby@lubrizol.com
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AC	V	Allen Comfort	US Army CCDC-GVSC RDTA-DP/MS110 6501 E. 11 Mile Road Warren, MI 48307-5000	Phone: 586-282-4225 e-Mail: Allen.s.comfort.civ@mail.mil
	V	Vince Donndelinger	The Lubrizol Corporation 29400 Lakeland Blvd. Wickliffe, OH 44092	Phone: 440-347-6589 e-Mail: Vince.donndelinger@lubrizol.com
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Initials	V = Voting NV = Non-voting	Name	Company & Address	Phone / FAX / e-Mail
	NV	Arjun Goyal	BASF 500 White Plains Road Tarrytown, NJ 10951	Phone: 914-785-2083 e-Mail: Arjun.goyal@basf.com
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Initials	V = Voting NV = Non-voting	Name	Company & Address	Phone / FAX / e-Mail
	V	Donna Mosher	BASF 100 Park Ave. Florham Park, NJ	Phone: 269-217-1715 e-Mail: Donna.mosher@basf.com
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DV NV *Darlene Uy*
 JC NV *Jason Carter*