

Oil Seal Compatibility Test (OSCT) Surveillance Panel Meeting Minutes

SAE/PRI Warrendale, PA and Teleconference

2/12/2014

D. Bell

**Attendees:**

B. McGlone (Meritor)	W. Grubbs (PRI)	D. Bell (Afton)	A. Comfort (Army)
B. Dwornik (Army)	T. Gottwald (Afton)	J. Chalkley (Afton)	D. Mosher (Eaton)
S. Parke (TMC)	K. Zriek (GM)	J. Clark (TMC)	C. Prengaman (Lz)
M. Umerley (Lz)	J. Groppe (Lz)	B. Koehler (SWRI)	R. Warden (SWRI)
J. Dharte (AAM)	J. Zakarian (CVX)	B. Bubonic (Lz)	D. Smith (Intertek)
A. Trader (Intertek)	B. Grinfield (SWRI, phone)	C. Knight (TEI, phone)	

The OSCT Surveillance Panel meeting was called to order at 1:01 pm on 2/12/2014.

The OSCT Surveillance Panel voting membership was reviewed and deemed acceptable.

The following motion made by J. Groppe and 2<sup>nd</sup> by B. Grinfield was passed unanimously (8 approved): Approve the November 8, 2013 OSCT Surveillance Panel meeting minutes posted on the TMC website.

There are multiple baths available at both Lz and SWRI with no known related problems or severity issues as agreed upon by both labs.

The elastomer inventory listed below for 2/4/2014 at Test Engineering Institute (TEI) was reviewed, which showed that there is sufficient inventory of all three elastomers available for purchase for ASTM D5662 testing.

- ▲ PA346 TEI has 0 slabs
- ▲ PA347 TEI has 191 approved slabs
- ▲ PA348 TEI has 46 approved slabs
  
- ▲ FL388 TEI has 0 slabs
- ▲ FL389 TEI has 91 approved slabs
- ▲ FL390 TEI has 107 approved slabs
- ▲ FL391 TEI has 180 unapproved slabs  
--Qualification data reviewed, see end of report

 NI340 0 slabs

 NI341 TEI has 220 approved slabs

In 2009, Lz upgraded to the Instron calibration method referred to as the “Bluehill” version that took about 1.5 months for a cost of ~\$33,000. Instron warned that previous versions would be obsolete and not supported. TMC issued an OSCT information letter 09-1 on 9/4/2009 to include the Bluehill method in D5662 Annex to allow Bluehill calibration method to be used with the manual calibration procedure since both methods yield equivalent results. The following motion made by B. Grinfield and 2<sup>nd</sup> by J. Groppe was approved unanimously (8 approved): TMC to issue an information letter to revise ASTM D5662 section 6.1.2 to note that calibration of the tension testing machine must be done in accordance with the manufacturer and thus delete Annex A2.

The Lz and SWRI qualification data compiled by the Test Monitoring Center (TMC) for FL391 in TMC 160-1 and 169 reference oils was reviewed by the Panel. One of the initial data points from Lab C for percent elongation in reference oil TMC 160-1 was high outside of the severity limits, so Lab C repeated the qualification testing and the value fell within the acceptable limits and close to the Lab B value. All other data for percent elongation, percent volume change and shore hardness values for FL391 in both reference oils TMC 160-1 and 169 were within the acceptance bands. The following motion made by B. Grinfield and 2<sup>nd</sup> by J. Groppe was passed unanimously (8 approved): Effective immediately, approve FL391 for ASTM D5662 testing.

A motion to adjourn made by D. Smith and 2<sup>nd</sup> by D. Bell was unanimously (8 approved) approved at 1:24 pm on 2/12/2014.

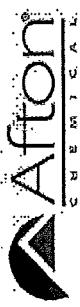
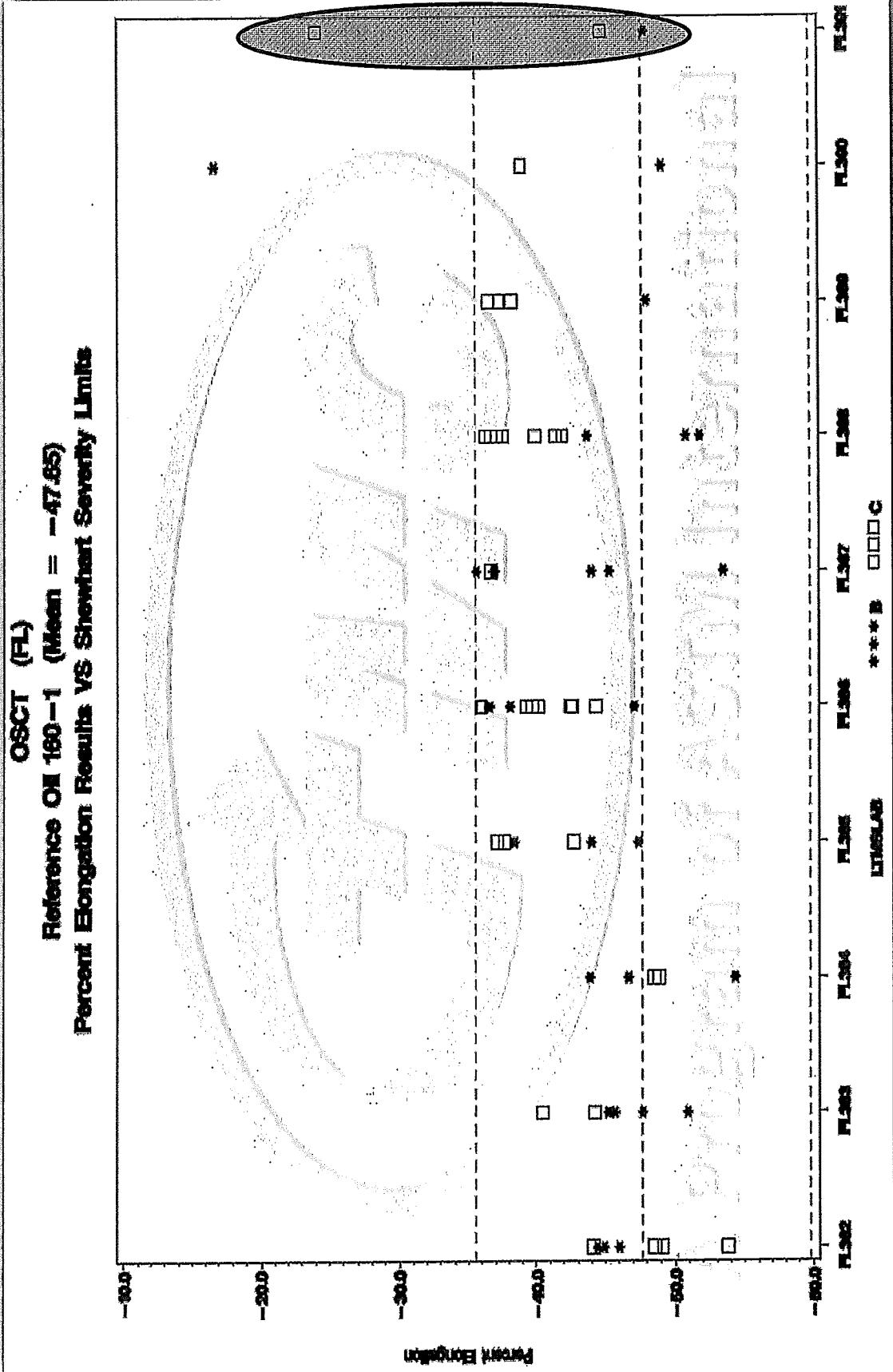
Respectfully Submitted,

Don Bell



TM  
AFTON  
Chemical  
Data

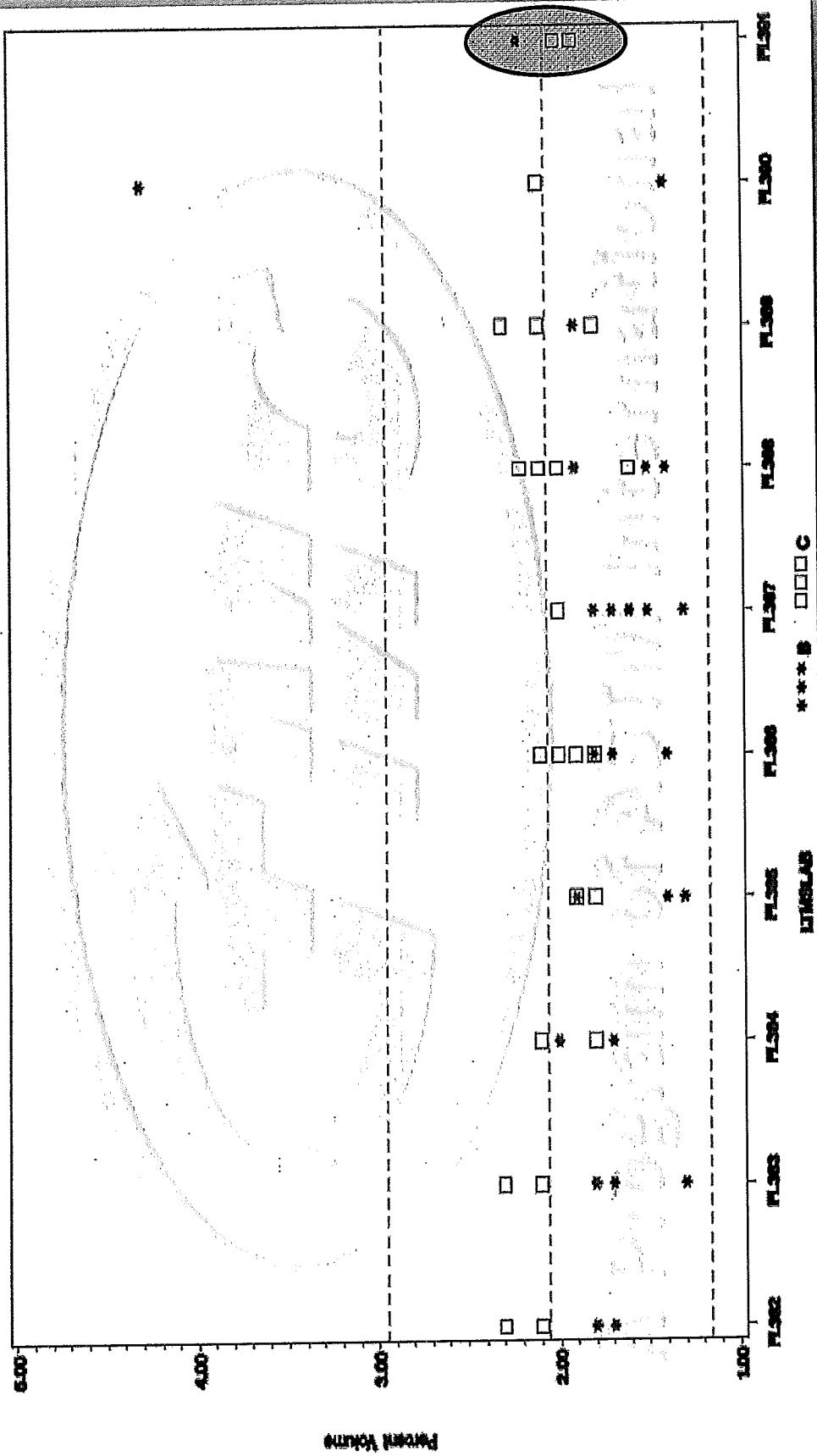
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OSCT SP Meeting

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**OSCT (FL)**  
**Reference Oil 160-1 (Mean = 2.053)**  
**Percent Volume Results VS Shewhart Severity Limits**

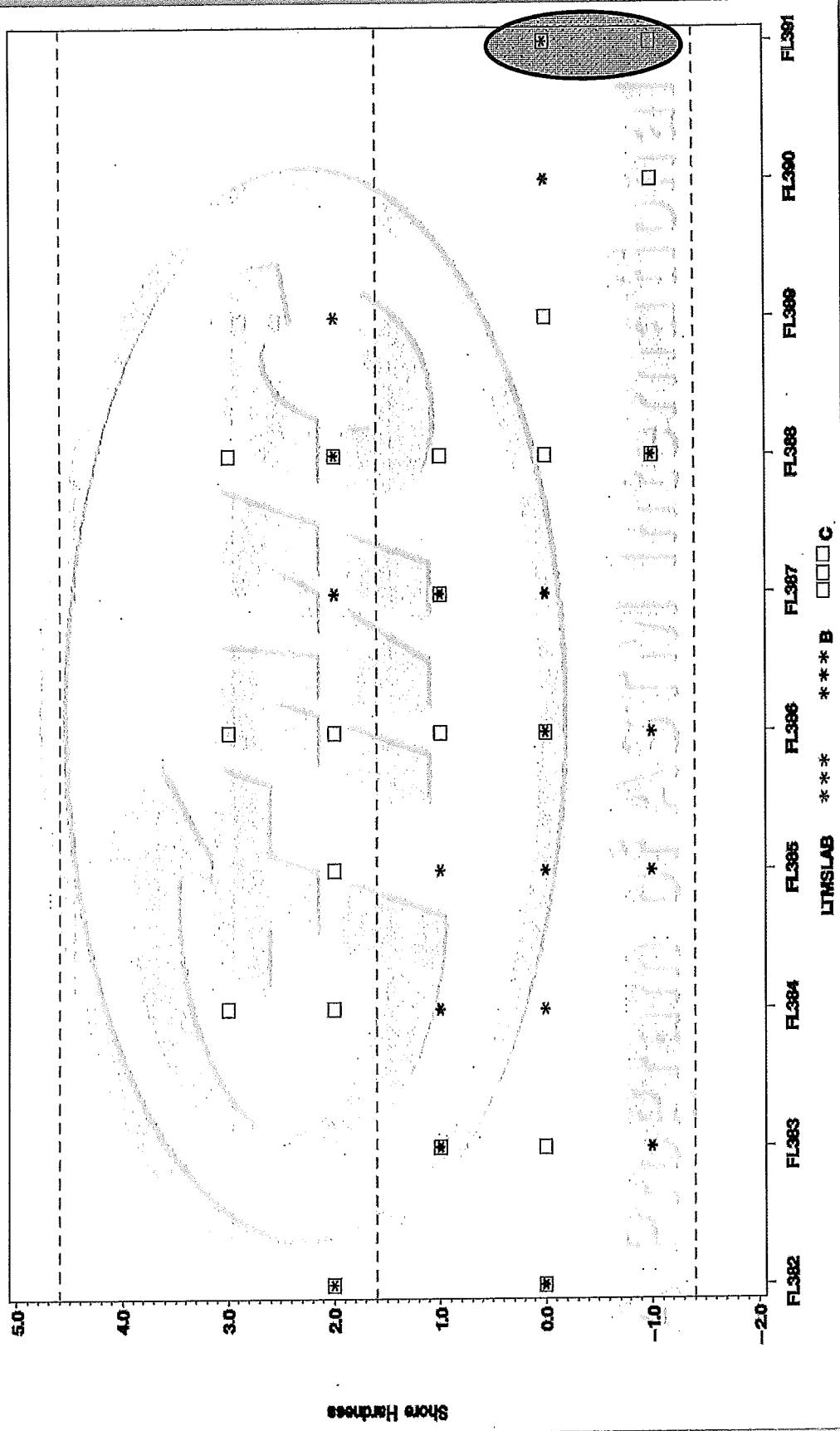


Afton  
CHEMICAL

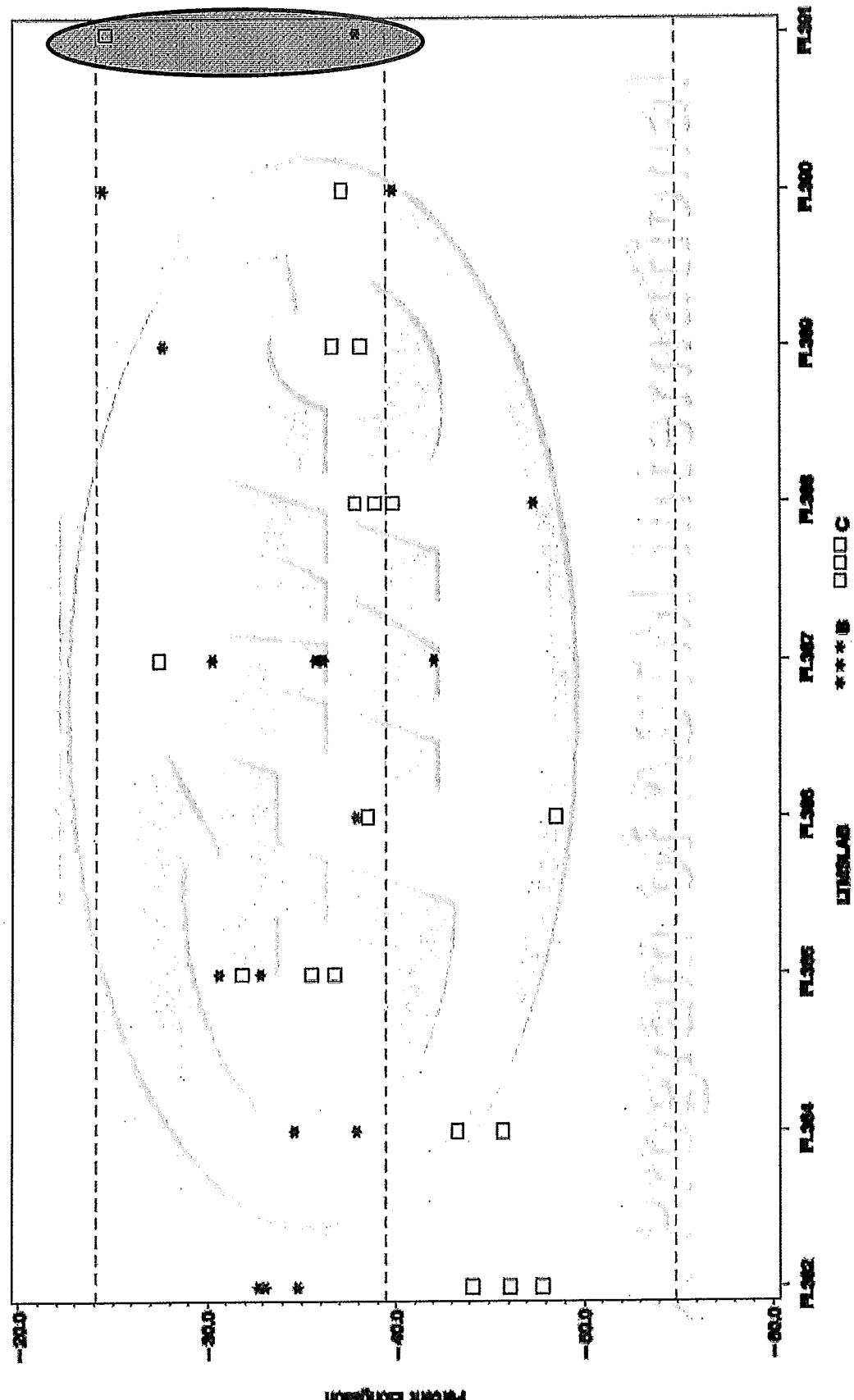
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**OSCT (FL)**  
**Reference Oil 160-1 (Mean = 1.6)**  
**Shore Hardness Results vs Shewhart Severity Limits**



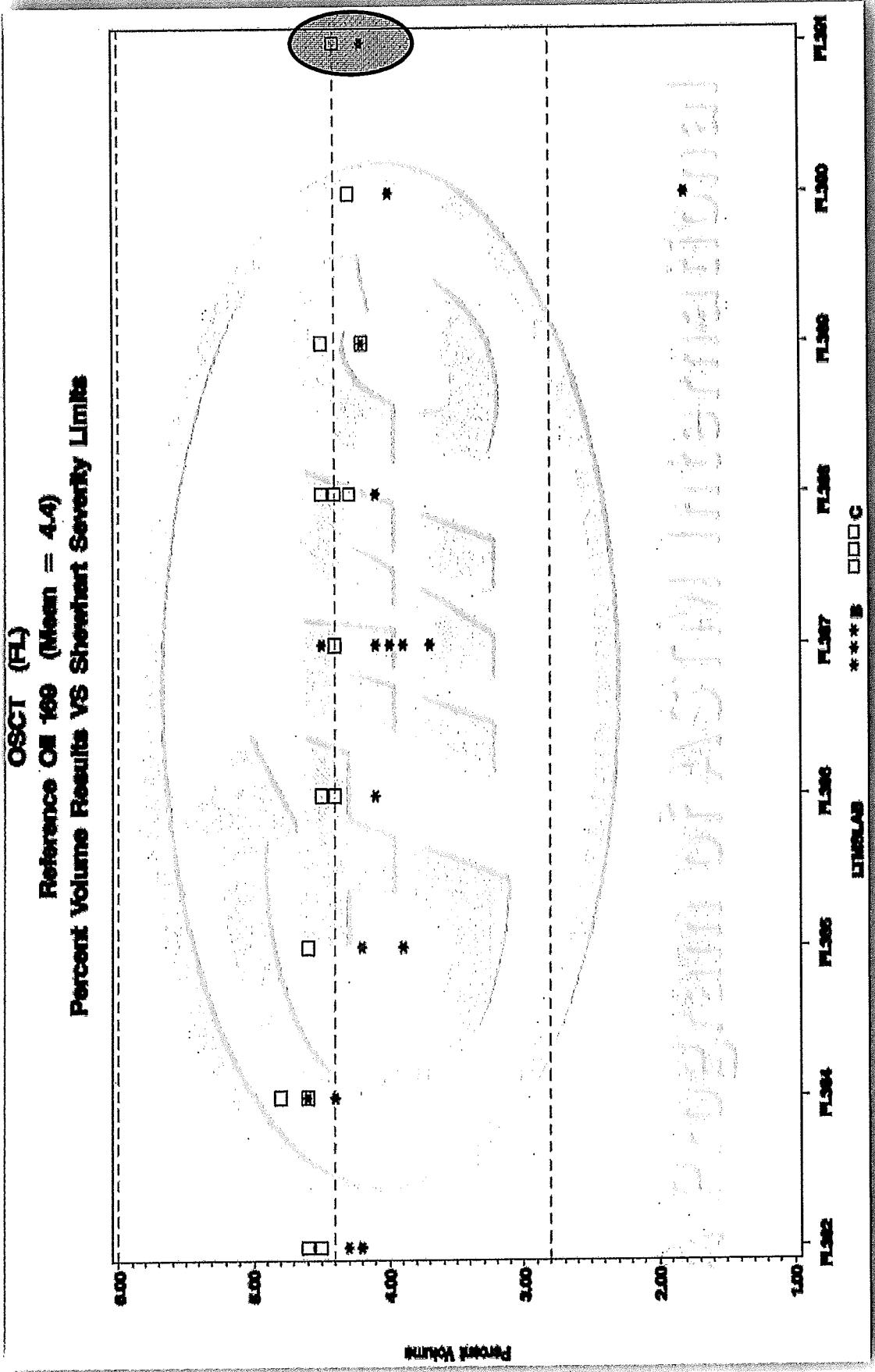
**OSCT (FL)**  
**Reference OI 100 (Mean = -39.5)**  
**Percent Engagement Results vs Shewhart Severity Limits**



**Afton**  
C H E M I C A L

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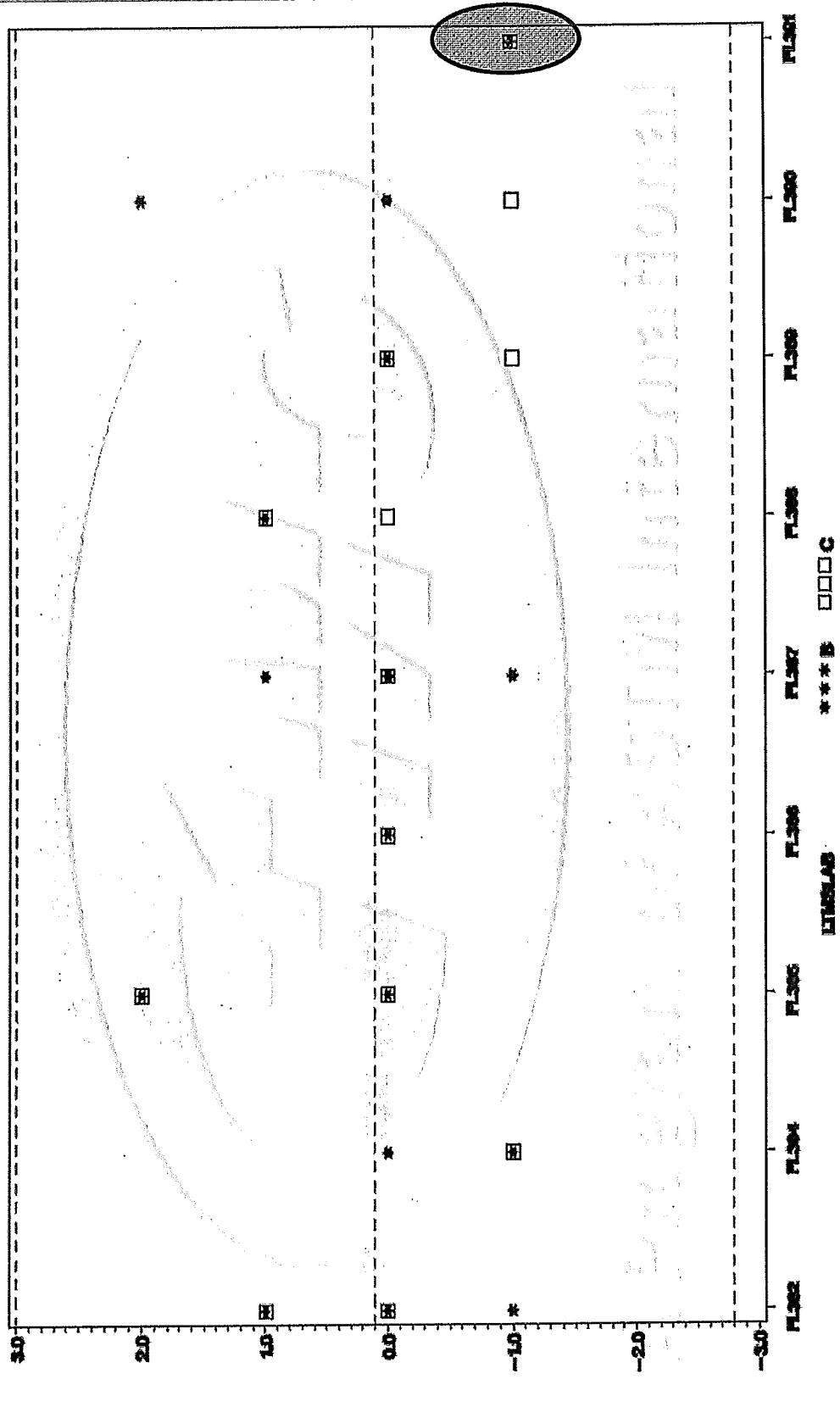


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**OSCT (FL)**  
**Reference OI 189 (Mean = 0.1)**  
**Shore Hardness Results VS Shorehart Severity Limits**



## OIL SEAL COMPATIBILITY SURVEILLANCE PANEL

Date: Feb. 12, 2014

1 of 5

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: FAX: e-Mail:	210-647-9428  Nancy.AGUILERE@intertek.com
V	Allison Athey	Volvo Powertrain N.A. 13302 Pennsylvania Ave. Hagerstown, MD 21742-2675	Phone: FAX: e-Mail:	301-790-5400 x3109 301-790-5815 Allison.athey@volvo.com
V	Rob Banas	ExxonMobil Lubricants and Specialties 114 Arcadia Park Drive Canton, GA 30114	Phone: FAX: e-Mail:	678-493-3930  Rob.a.banas@exxonmobil.com
NV	Tony Barrera	Intertek Automotive Research 5404 Bandera Road San Antonio, TX 78238	Phone: FAX: e-Mail:	  Tony.barrera@intertek.com
V	Don Bell <i>Chairperson</i>	Afton Chemical Corp. 500 Spring Street Richmond, VA 23219	Phone: FAX: e-Mail:	804-788-6332 804-788-6243 don.bell@aftonchemical.com
NV	Zack Bishop	TEI	email:	<u>zbishop@tei-net.com</u>
NV	Tom Boschert	Afton Chemical Corp. 500 Spring St. Richmond, VA 23219	Phone: FAX: e-Mail:	804-788-5202 804-788-6243 Tom.boschert@aftonchemical.com
NV	Harold Chambers	Linamar Driveline Systems Travelers Tower 1 26555 Evergreen Rd. Ste. 900 Southfield, MI 48076	Phone: FAX: e-Mail:	248-358-6038 248-355-3558 hchambers@Linamar.com
NV	Angelina Chan	The Lubrizol Corporation 29400 Lakeland Blvd. Wickliffe, OH 44092	Phone: FAX: e-Mail:	440-347- 440-347- Angelina.Chan@lubrizol.com

**OIL SEAL COMPATIBILITY SURVEILLANCE PANEL****Date:** \_\_\_\_\_

2 of 5

Initials	V = Voting NV = Non-voting	Name	Company & Address	Phone / FAX / e-Mail
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<i>ALG</i>	V	Allen Comfort	US Army TACOM RDTA-DP/MS110 6501 E. 11 Mile Road Warren, MI 48307-5000	Phone: 586-282-4225 FAX: 586-282-4244 e-Mail: Allen.s.comfort@us.army.mil
<i>JLH</i>	V	John Dharte	American Axle 1 Dauch Drive Detroit, MI 48211	Phone: 313-758-4687 FAX: 313-758-4237 e-Mail: dhartej@aam.com
	NV	Bridget Dwornick	US Army RDECOM/TARDEC RDTA-DP/210 MS 110 6501 E 11 Mile Road Warren, MI 48397-5000	Phone: 586-282-4221 FAX: 586-282-4244 e-Mail: Bridget.dwornick@us.army.mil
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<i>RG</i>	V	Rebecca Grinfield	Southwest Research Institute P.O. Drawer 28510 San Antonio, TX 78228-0510	Phone: 210-522-3652 FAX: 210-522-5907 e-Mail: bgrinfield@swri.org
<i>JG</i>	V	Jerry Groppe	The Lubrizol Corporation 29400 Lakeland Blvd. Wickliffe, OH 44092	Phone: 440-347-1223 FAX: 440-347-5337 e-Mail: jlg@lubrizol.com
	NV	Larry Hamilton	Lubrizol 29400 Lakeland Blvd. Wickliffe, OH 44092	Phone: 440-347-2326 FAX: e-Mail: Larry.hamilton@lubrizol.com

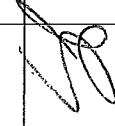
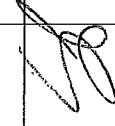
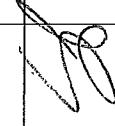
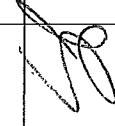
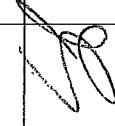
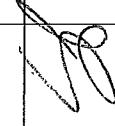
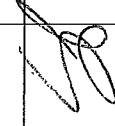
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	NV	Marc Keisler	Afton Chemical Corp. 500 Spring Street Richmond, VA 23219	Phone: 804-788-5617 FAX: e-Mail: Marc.keisler@aftonchemical.com
X	V	Clayton Knight	Test Engineering Institute 12718 Cimarron Path San Antonio, TX 78249	Phone: 210-690-1958 FAX: 210-877-0228 e-Mail: cknights@tei-net.com
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	NV	Chintan Ved	Ford 35500 Plymouth Road Livonia, MI 48150	Phone: 313-805-9495 FAX: cved@ford.com
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**OIL SEAL COMPATIBILITY SURVEILLANCE PANEL**

Date:

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Initials	V = Voting NV = Non-voting	Name	Company & Address	Phone / FAX / e-Mail
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Jill. NV TM Charley Anton