

# **Test Monitoring Center**

Carnegie Mellon University 6555 Penn Avenue, Pittsburgh, PA 15206, USA http://astmtmc.cmu.edu 412-365-1000

MEMORANDUM: 10-034

DATE: July 1, 2010

TO: Don Bell, Chairman, OSCT Surveillance Panel

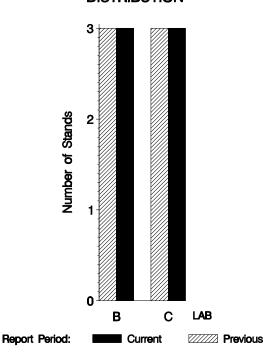
FROM: Scott Parke

SUBJECT: OSCT Testing from October 1, 2009 through March 31, 2010

A total of 44 OSCT tests were reported to the Test Monitoring Center during the period from October 1, 2009 through March 31, 2010. Following is a summary of testing activity this period.

	Reporting Data
Number of Labs	2
Number of Stands	6

# BY-LAB STAND DISTRIBUTION

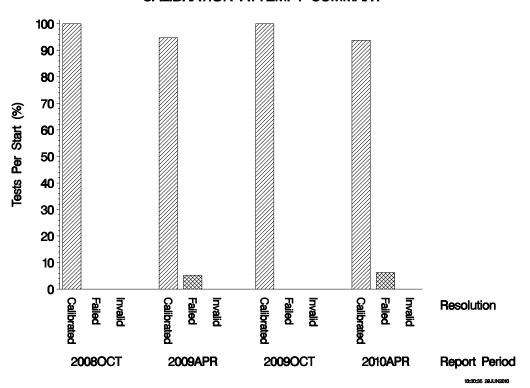


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## **Test Distribution by Oil and Validity**

					Totals		
		$\mathbf{FL}$	NI	PA	Last Period	This Period	
Accepted for calibration	AC	15	14	16	28	45	
Rejected (low result)	OC	1	0	1	0	2	
Rejected (high result)	OC	0	0	1	0	1	
Invalidated calibration	LC	0	0	0	0	0	
Aborted	XC	0	0	0	0	0	
Acceptable elastomer approval run	NI	0	4	3	0	7	
Unacceptable elastomer approval run	MI	0	0	3	16	3	
Total		16	18	24	44	58	

## CALIBRATION ATTEMPT SUMMARY



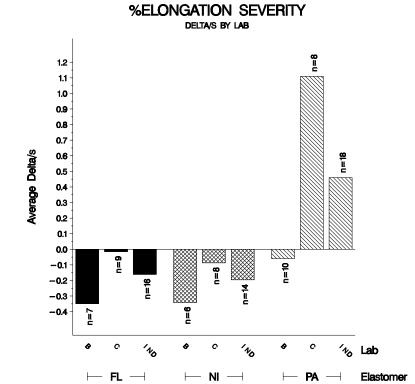
## **CAUSES FOR LOST TESTS:**

			Elastomer		Validity			Loss Rate			
Lab	Cause		FL	NI	PA	RC	LC	XC	Lost	Starts	%
No tests were lost this period.								0	58	0%	
		Lost	0	0	0	0	0	0			
		Starts	16	18	24	58	58	58			
		%	0%	0%	0%	0%	0%	0%			

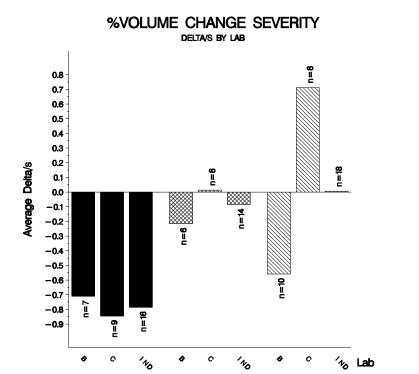
Lost tests are calibration attempts that were either aborted or operationally invalid.

			Average Δ/s by Lab				
Elastomer	Lab	n	PELA	PVCA	SAHA		
	В	7	-0.349	-0.711	-0.664		
FL	С	9	-0.015	-0.845	0.304		
$\Gamma \mathbf{L}$	Industry	16	-0.161	-0.786	-0.119		
	Shift*	16	-1.274	-0.442	-0.185		
NI	В	6	-0.341	-0.216	0.235		
	C	8	-0.087	0.013	-0.310		
	Industry	14	-0.196	-0.085	-0.076		
	Shift*	14	-1.186	-0.059	-0.102		
	В	10	-0.059	-0.559	0.263		
PA	C	8	1.110	0.712	-0.196		
	Industry	18	0.460	0.006	0.059		
	Shift*	18	10.324	0.010	0.160		

<sup>\*</sup>as computed using historic pooled s



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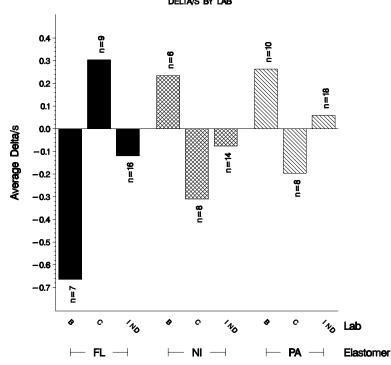
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Elastomer

### S.A. HARDNESS SEVERITY DELTAYS BY LAB

 $NI \longrightarrow$ 

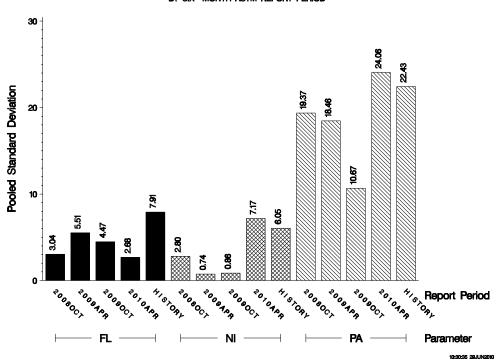
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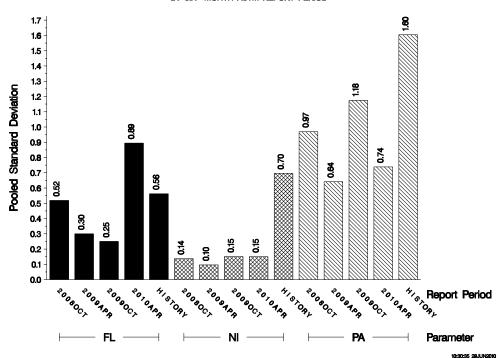
## **%ELONGATION PRECISION**

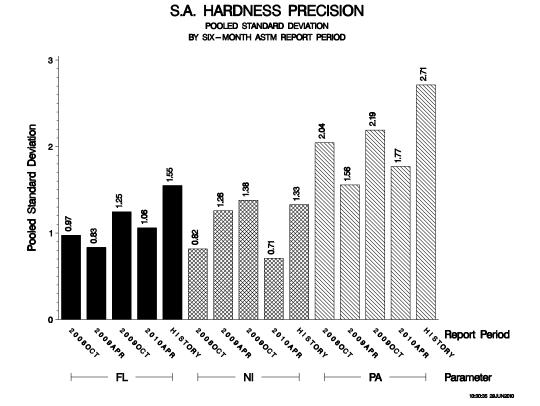
POOLED STANDARD DEVIATION
BY SIX-MONTH ASTM REPORT PERIOD



## **%VOLUME CHANGE PRECISION**

POOLED STANDARD DEVIATION
BY SIX-MONTH ASTM REPORT PERIOD





## **INDUSTRY CONTROL CHARTS:**

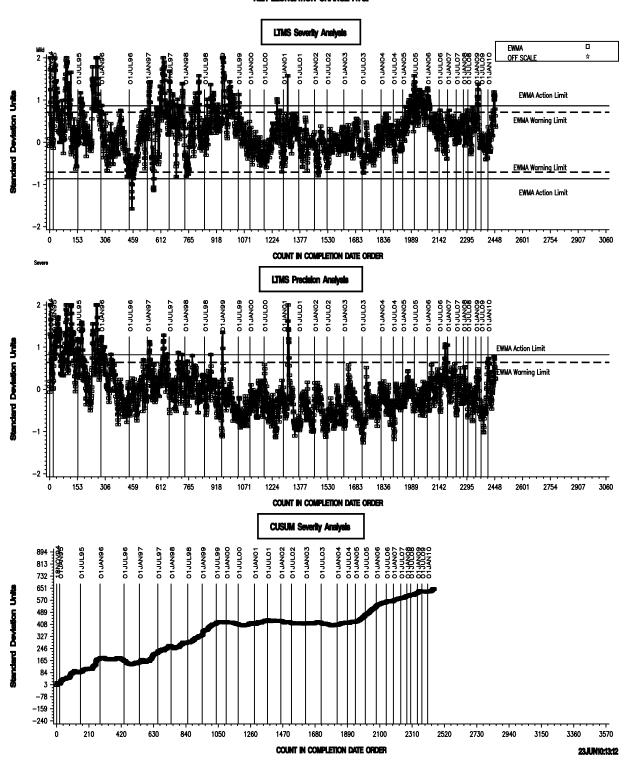
The industry control charts are shown beginning on the following page.

During this report period, PVCA exceeded the severity action limit once (result below target) and ended the period just over the severity warning limit (result below target). Both PELA and SAHA remained with in severity limits throughout the period.

PELA exceeded the precision warning limit on three occasions in December/January; PVCA and SAHA remained within limits throughout the period.

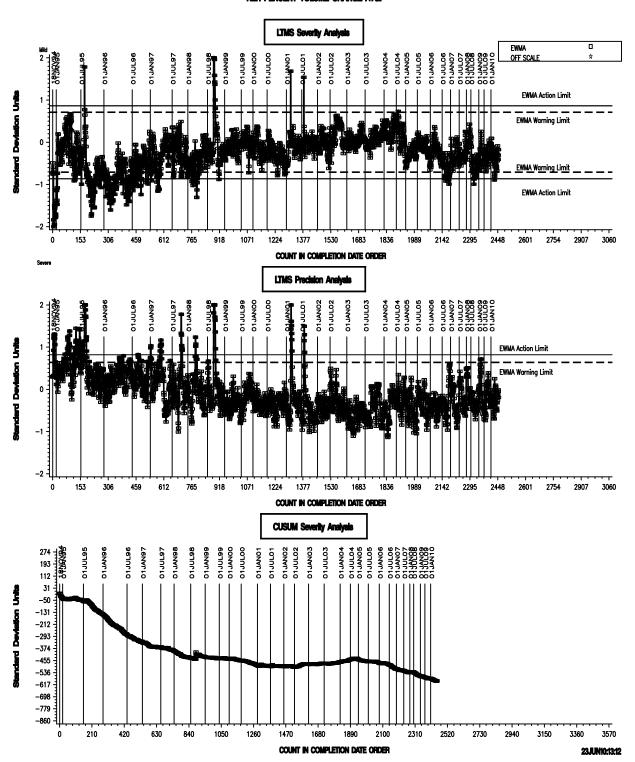
#### OSCT INDUSTRY OPERATIONALLY VALID DATA

#### REF. ELONGATION CHANGE AVG.



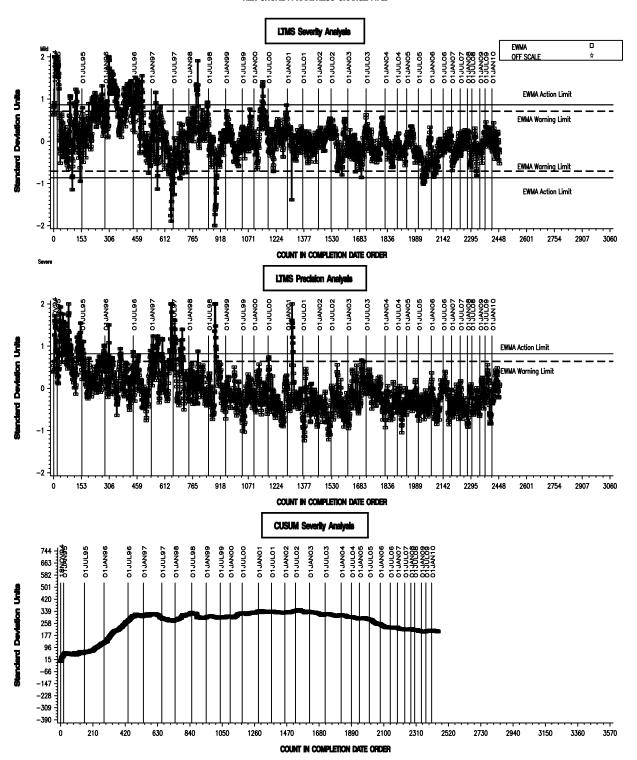
#### OSCT INDUSTRY OPERATIONALLY VALID DATA

#### REF. PERCENT VOLUME CHANGE AVG.



#### OSCT INDUSTRY OPERATIONALLY VALID DATA

#### REF. SHORE A HARDNESS CHANGE AVG.



## TIMELINE OF SIGNIFICANT EVENTS IN THE HISTORY OF THE OSCT TEST:

Effective Date	Information Letter	Event
	98-3	Section 5.2.4 Editorial Correction
19970324	97-1	Elastomer requirements for testing a non-reference oil.
19970701	97-2	Specimen cleaning procedure
19971201	97-3	Data dictionary and report forms revision
19980122	98-2	Backlash Settings Clarification
19980504	98-1	Seal Elastomer Shelf Life
19980504	98-1	Revised Reference Oil and Non-reference Oil Requirements
19980504	98-1	Addition of Calibration Requirements for Hardness Durometer, Balance,
		and Tension Testing Machine
20040930		Implemented LTMS Reference Oil Targets
20050815	05-1	Updated Test Precision
20050815	05-1	Rounding Test Results Using ASTM E 29
20051102	05-2	Initial and Final Volume Measurements
20060327	06-1	Addition of a Calibration Procedure for the Tension Testing Machine
20060327	06-1	New Reference Oil Testing Section
20060327	06-1	Editorial Changes
20060331	06-2	Specimen Spacer Width Revision
20071001	07-1	Test Temperature Data Logging an Tolerance
20080114	07-2	Percent Deviation Calculation for Test Oil Temperature Data Logging
20081007		Extend Nitrile elastomer batch NI332 shelf life from 10/10/2008 to
		12/31/2008
20081007	08-1	Clarification of allowable oil temperature variations
20081007	08-2	Allow elastomer shelf life to extend beyond two years
20090904	09-1	Revised Extensometer Calibration Procedure

## TMC LAB VISITS:

No OSCT lab visits were conducted during this report period.

## **INFORMATION LETTERS:**

No information letters were issued this period.

## STATUS OF REFERENCE OIL SUPPLY:

At the end of this report period, the testing oil supply stood as outlined in the table below:

		@ TMC			
Oil	Cans @ Labs	Cans	Gallons		
160-1	18	500	99.1		
161-1	21	47	9.4		
161-2	0	1387	275.0		
168	22	156	31.1		
Total	61	2090	414.6		

SDP/sdp/astm0410.doc/mem10-034.sdp.doc

c: Frank Farber

Jeff Clark

Don Lind

Mike Kasimirsky

HTCT Surveillance Panel

ftp://ftp.astmtmc.cmu.edu/docs/gears/osct/semiannualreports/osct-04-2010.pdf

Distribution: email