



## Test Monitoring Center

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Pittsburgh, PA 15206-4489  
(412) 365-1000

MEMORANDUM: 08-028

DATE: April 16, 2008

TO: Don Bell, Chairman, OSCT Surveillance Panel

FROM: Donald Lind

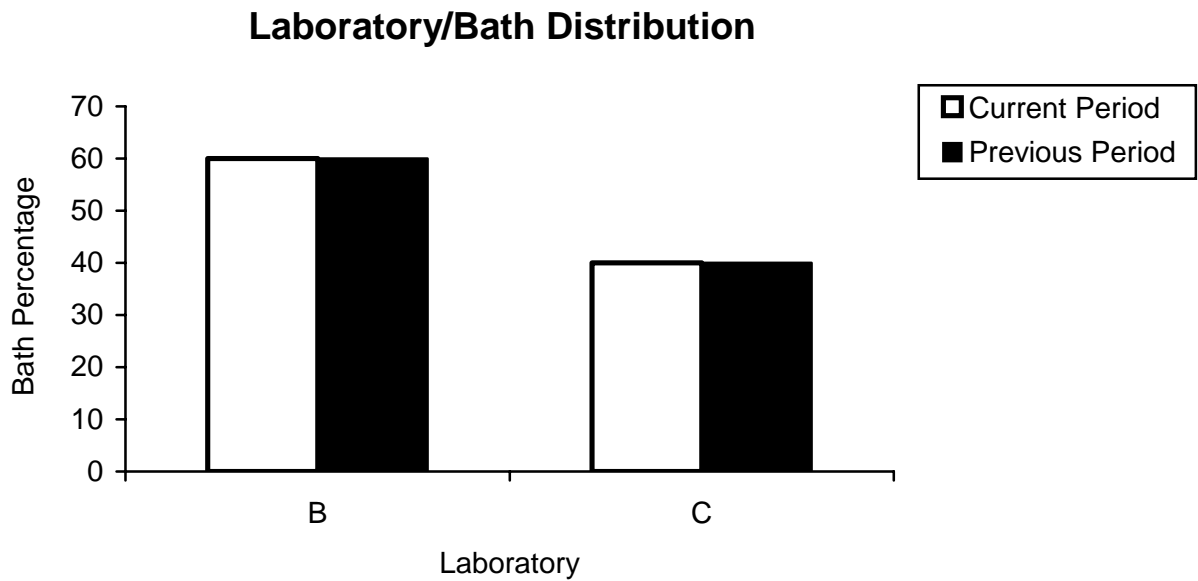
SUBJECT: OSCT Reference Test Status from October 1, 2007 through March 31, 2008

A total of 36 OSCT reference oil results from two laboratories were reported during the period October 1, 2007 through March 31, 2008.

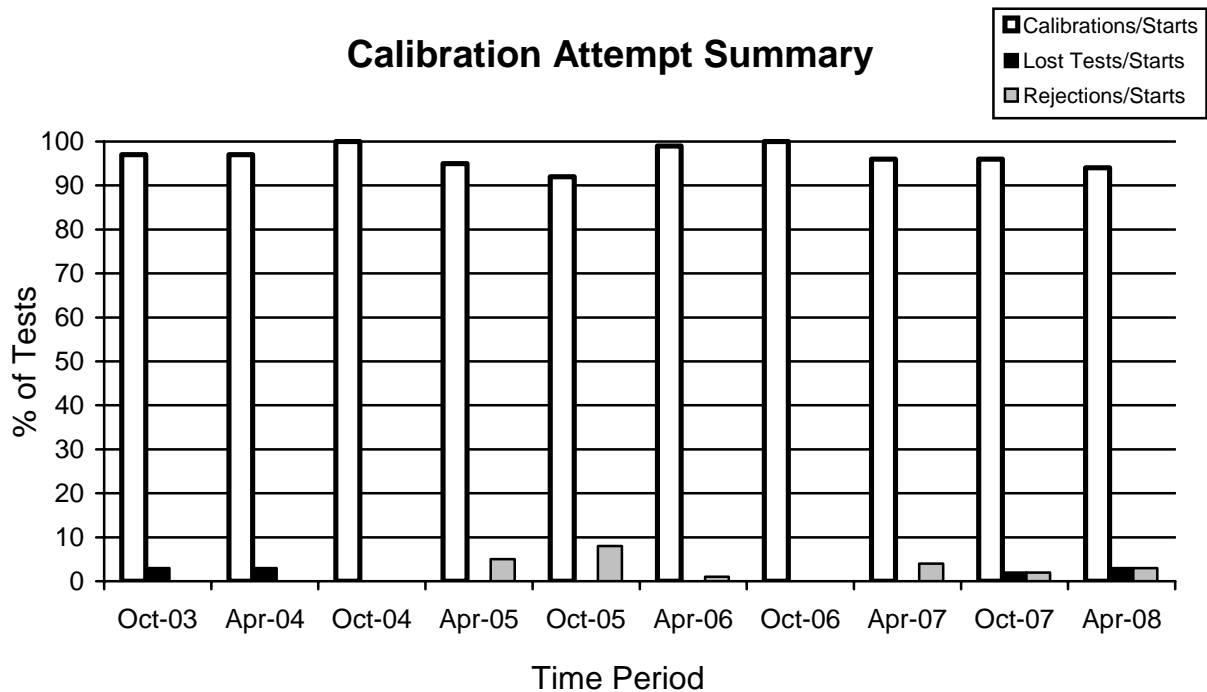
The following table summarizes the status of the reference oil test results reported to the TMC this report period:

Elastomer Type		TMC Validity	No. of Test Oil Results
Fluoroelastomer	Operationally and Statistically Acceptable	AC	10
	Statistically Unacceptable	OC	0
	Operationally Invalid	LC	0
	Aborted	XC	0
	Information Only	NN	0
	Elastomer Batch Approval	AG	3
Polyacrylate	Operationally and Statistically Acceptable	AC	11
	Statistically Unacceptable	OC	0
	Operationally Invalid	LC	0
	Aborted	XC	0
	Information Only	NN	0
	Elastomer Batch Approval	AG	0
Nitrile	Operationally and Statistically Acceptable	AC	10
	Statistically Unacceptable	OC	1
	Operationally Invalid	LC	0
	Aborted	XC	1
	Information Only	NN	0
	Elastomer Batch Approval	AG	0
	TOTAL		36

The following chart shows the laboratory bath distribution for data reported during this report period:



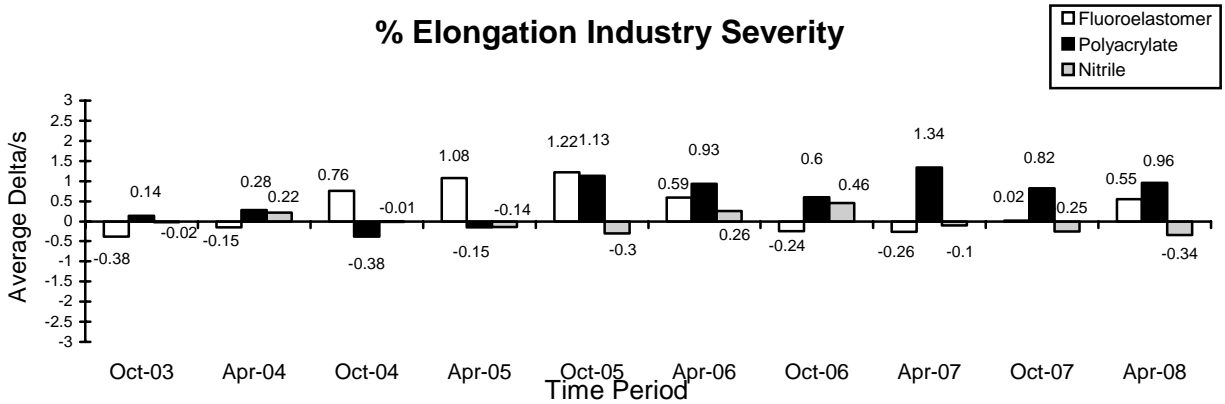
Attempted calibration tests are depicted graphically below by report period:



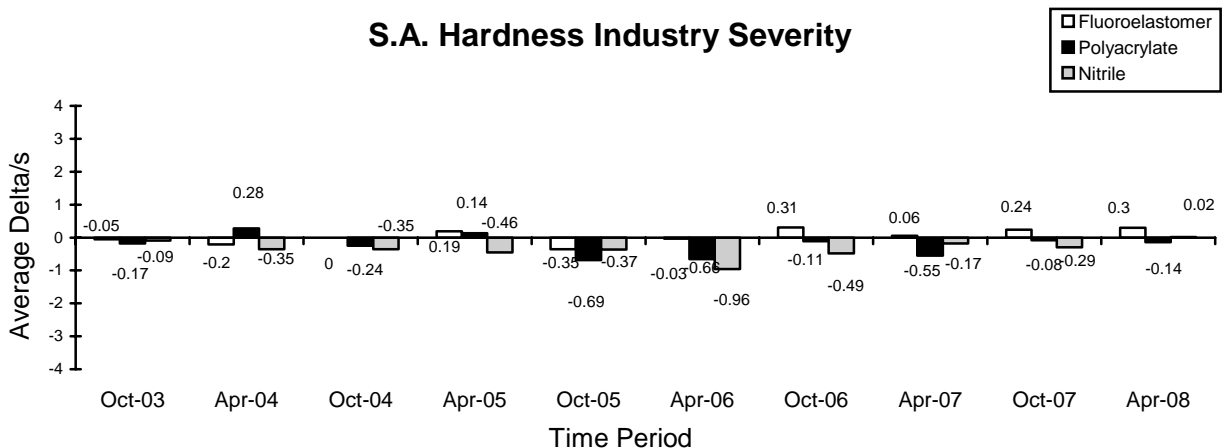
The calibration per start rate decreased slightly when compared to the previous period. The lost test per start and rejected per start rates have increased slightly when compared to the previous report period.

INDUSTRY TEST SEVERITY

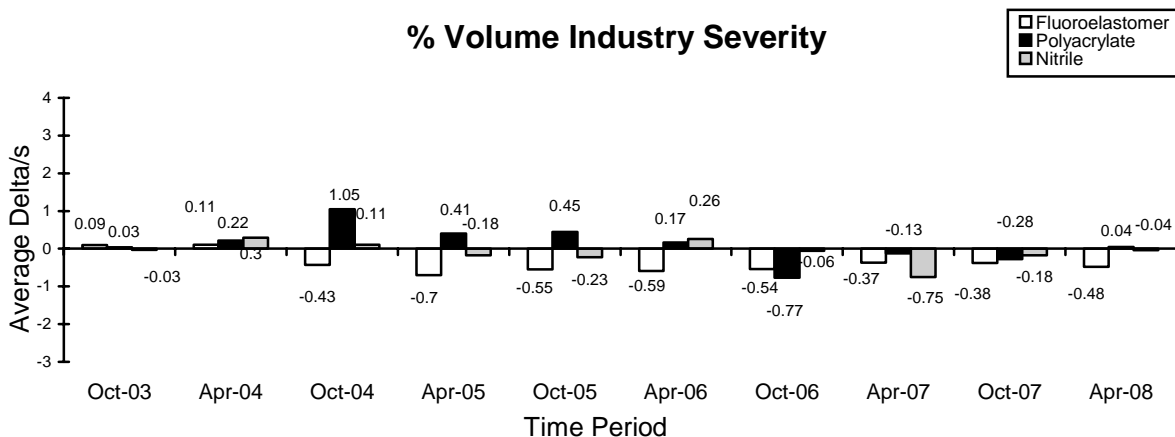
Percent elongation industry mean delta/s bar charts for the last ten report periods, for each elastomer material are shown below. Percent elongation for fluoroelastomer and polyacrylate elastomers trended mild for this report period. Percent elongation for nitrile elastomer trended severe this report period



S.A. hardness industry mean delta/s bar charts for the last ten report periods, for each elastomer material are shown below. S.A. hardness for fluoroelastomer and nitrile elastomers trended mild for this report period. S.A. hardness for polyacrylate elastomer trended severe this report period

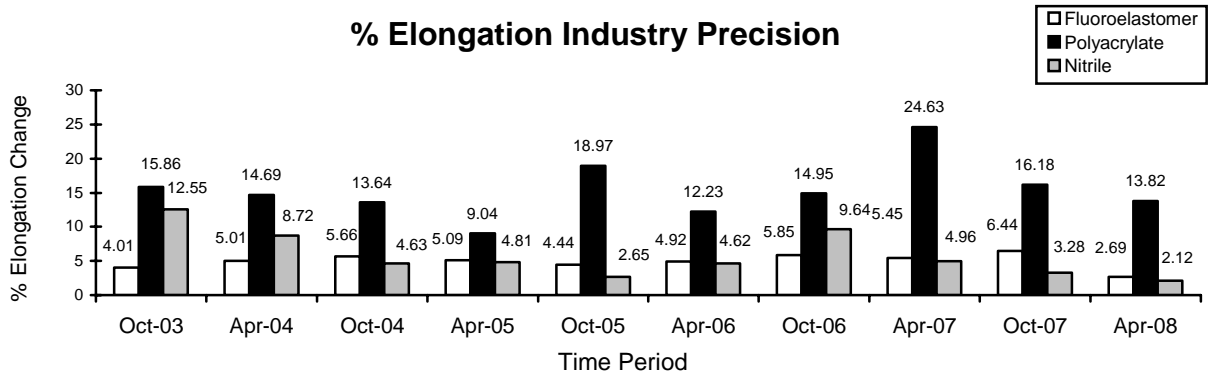


Percent volume industry mean delta/s bar charts for the last ten report periods, for each elastomer material are shown below. Percent volume for the fluoroelastomer and nitrile elastomers trended severe for this report period. Percent volume for polyacrylate elastomer trended severe for this report period.

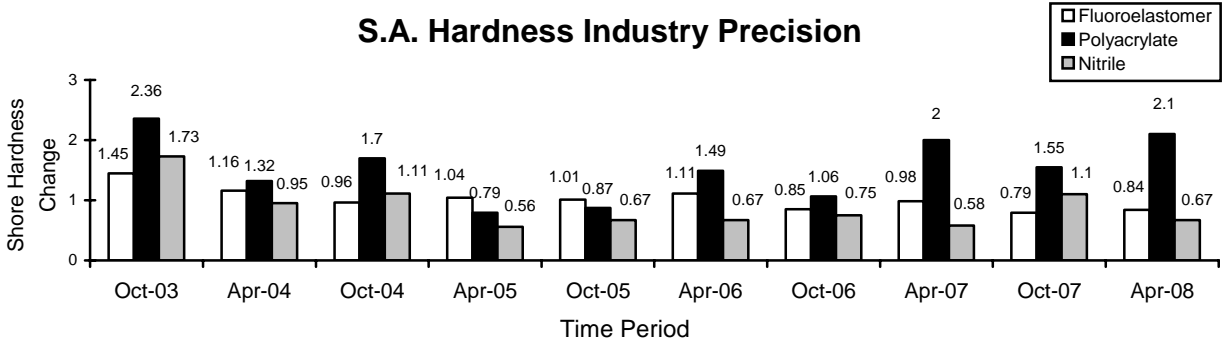


INDUSTRY TEST PRECISION

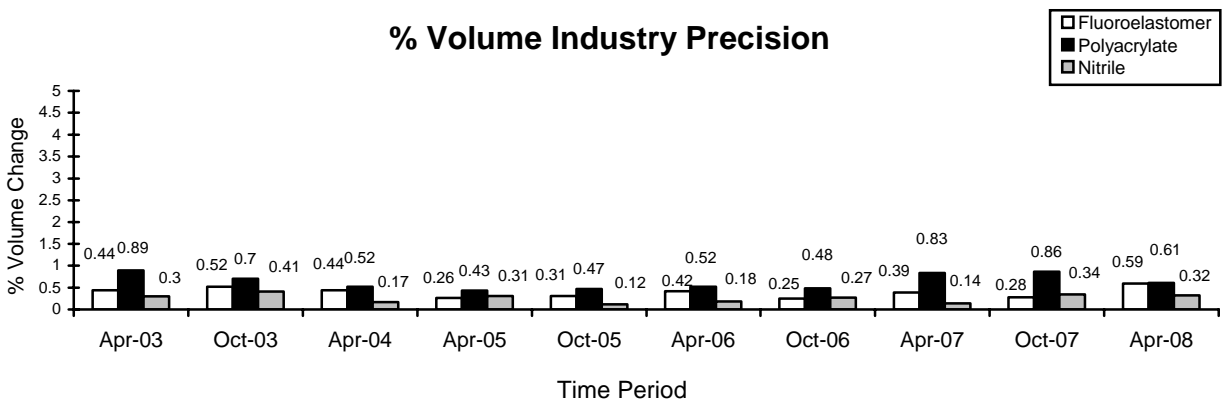
Percent elongation industry precision estimates for elastomer material, for the last ten report periods are shown below. Precision for the fluoroelastomer, polyacrylate, and nitrile elastomer have improved with respect to the previous period. Precision for all three elastomers compares well with historical levels.



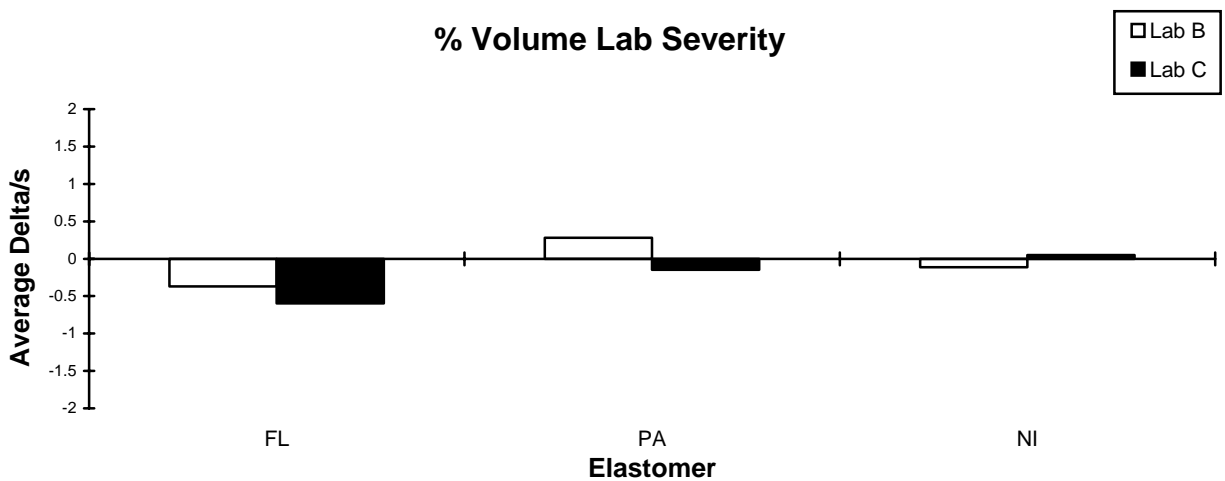
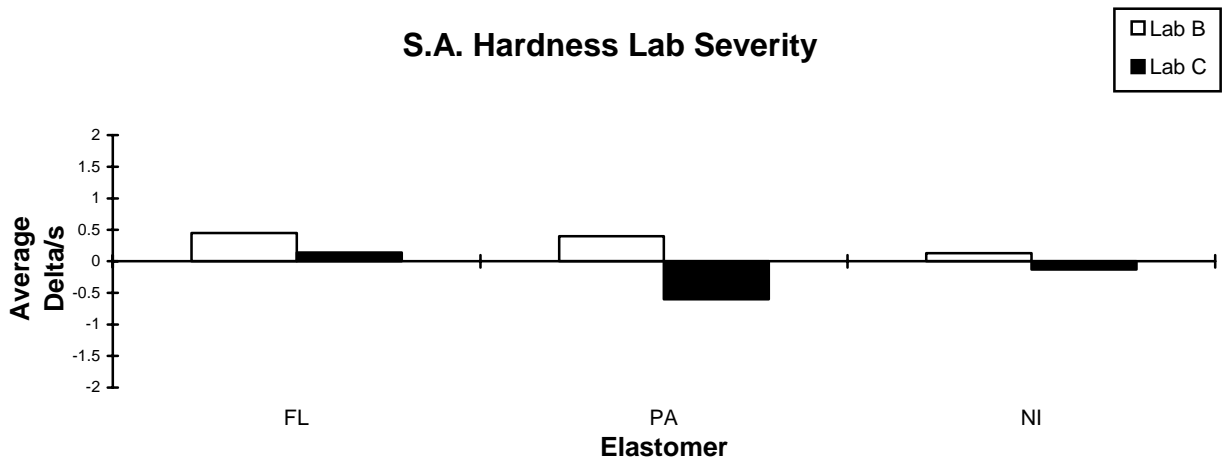
Shore hardness industry precision estimates for elastomer material, for the last ten report periods are shown below. Precision for the polyacrylate and fluoroelastomer elastomers have degraded with respect to the previous period. Precision for the nitrile elastomer has improved with respect to the previous period. Precision for all three elastomers compares well with respect to historical levels.



Percent volume industry precision estimates for elastomer materials, for the last ten report periods are shown below. Precision for polyacrylate and nitrile elastomers has improved slightly with respect to the previous period. Precision for fluoroelastomer elastomers has degraded slightly with respect to the previous period. Precision for all three elastomers compares well with respect to historical levels.



Shown below is a summary of the average Percent Elongation, S.A. Hardness, and Percent Volume  $\Delta$ /s by elastomer for all laboratories reporting data this report period.



INDUSTRY CONTROL CHARTS

Figures 1 through 3 are industry control charts for elongation change, shore hardness change, and percent volume change, respectively. Figures 4 through 6 are industry control charts of the last 120 test results for elongation change, shore hardness change, and percent volume change, respectively. Severity and precision EWMA charts for elongation change, shore hardness change, and percent volume change were all in control this period.

REFERENCE OILS

The following table quantifies each reference oil by the number of reference oil containers remaining at the TMC and each laboratory. Each reference oil container has 750 ml (0.2 gallons) of oil.

LAB	160-1	161-1	168
B	6	4	5
C	7	6	5
TMC	590	145	215

INFORMATION LETTERS

There was one information letter issued this report period. Information Letter 07-02, Sequence Number 11 was issued on December 13, 2007. Items changed with this information letter are documented in the OSCT timeline (Table 1).

TMC LAB VISITS

There was one lab visit conducted this report period with no discrepancies noted.

DML/dml

Attachments

c: OSCT Surveillance Panel

J. L. Zalar, TMC

F. M. Farber, TMC

<ftp://ftp.astmtmc.cmu.edu/docs/gear/osct/semiannualreports/osct-04-2008.pdf>

Distribution: Email

Table 1

Effective Date	OSCT Timeline	IL#
	Topic	
19961001	Test Report Forms and Data Dictionary	96-1
19970324	Elastomer Requirements For Testing a Non-reference Oil	97-1
19970701	Specimen Cleaning Procedure	97-2
19971201	Revised Test Report Forms and Data Dictionary	97-3
19980504	Seal Elastomer Shelf Life	98-1
19980504	Revised Reference Oil and Non-reference Oil Requirements	98-1
19980504	Addition of Calibration Requirements for Hardness Durometer, Balance, and Tension Testing Machine	98-1
19980817	Revised Test Report Forms and Data Dictionary	98-1
20050815	Updated Test Precision	05-1
20050815	Rounding Test Results Using ASTM E 29	05-1
20051102	Initial and Final Volume Measurements	05-2
20060327	Addition of a Calibration Procedure for the Tension Testing Machine	06-1
20060327	New Reference Oil Testing Section	06-1
20060327	Editorial Changes	06-1
20060331	Specimen Spacer Width Revision	06-2
20071001	Test Oil Temperature Data Logging and Tolerance	07-1
20080114	Percent Deviation Calculation for Test Oil Temperature Data Logging	07-2

Figure 1

# OSCT INDUSTRY OPERATIONALLY VALID DATA

## REFERENCE ELONGATION CHANGE AVERAGE

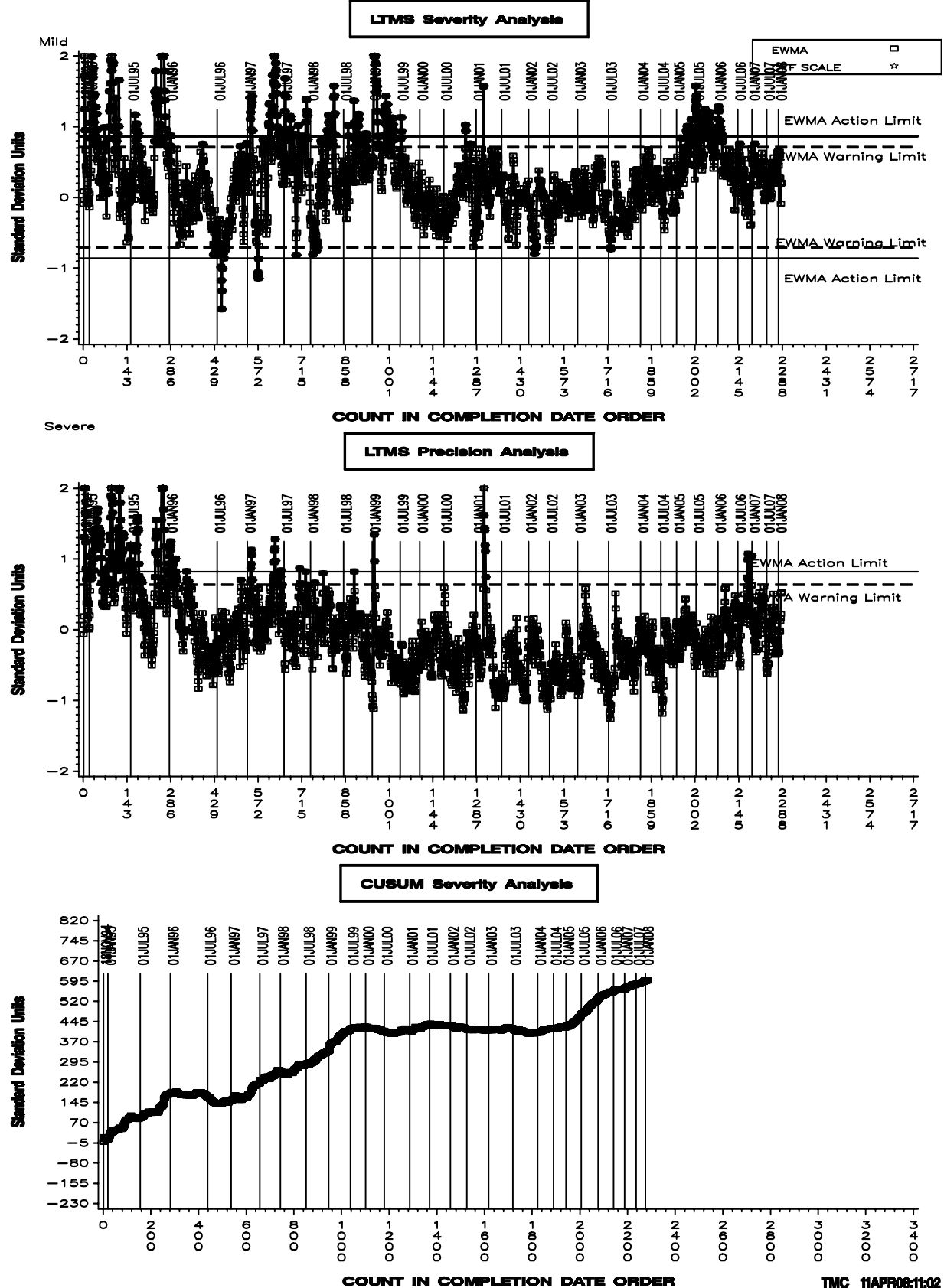




Figure 2

# OSCT INDUSTRY OPERATIONALLY VALID DATA

## REFERENCE SHORE A HARDNESS CHANGE AVERAGE

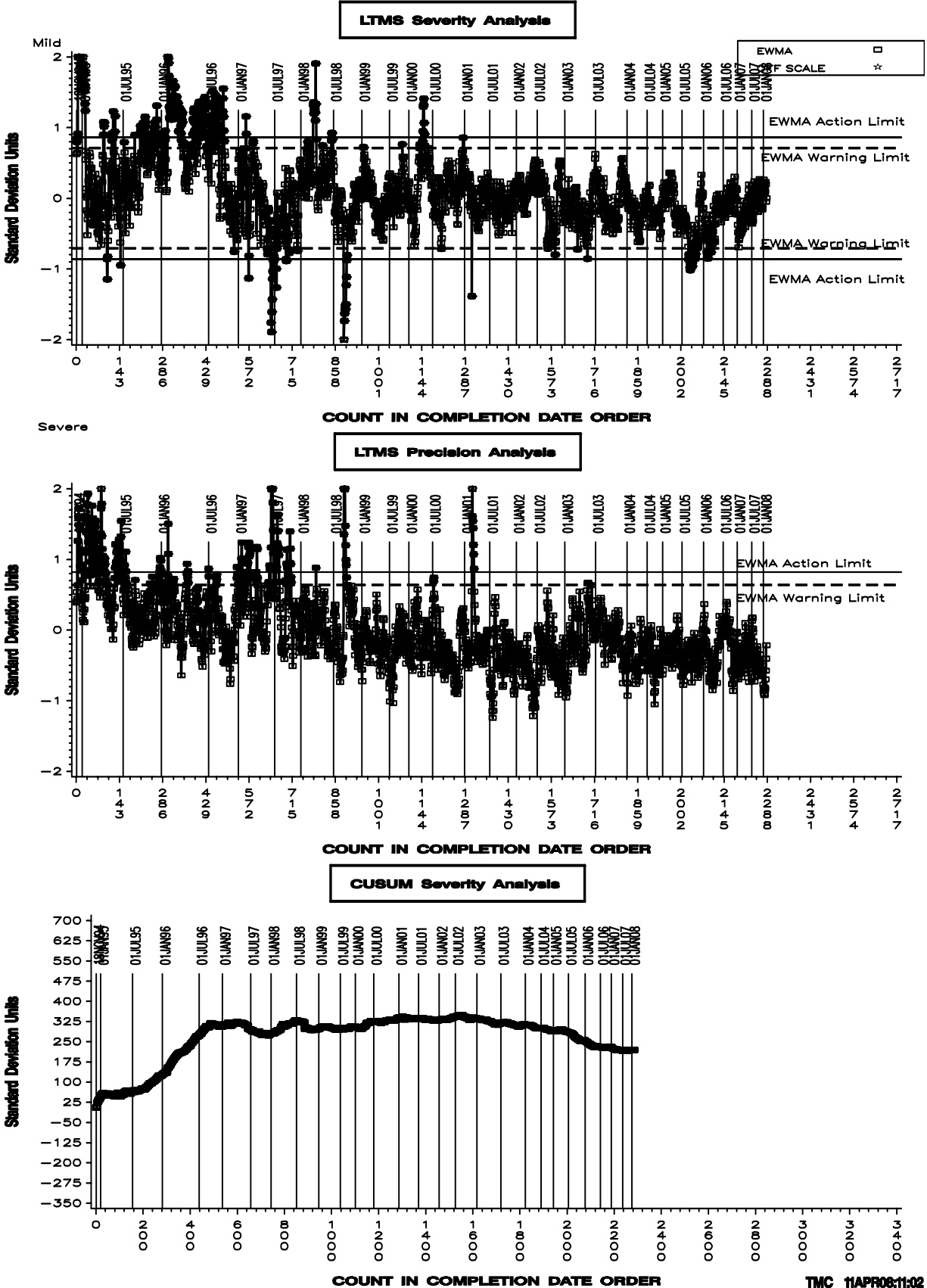
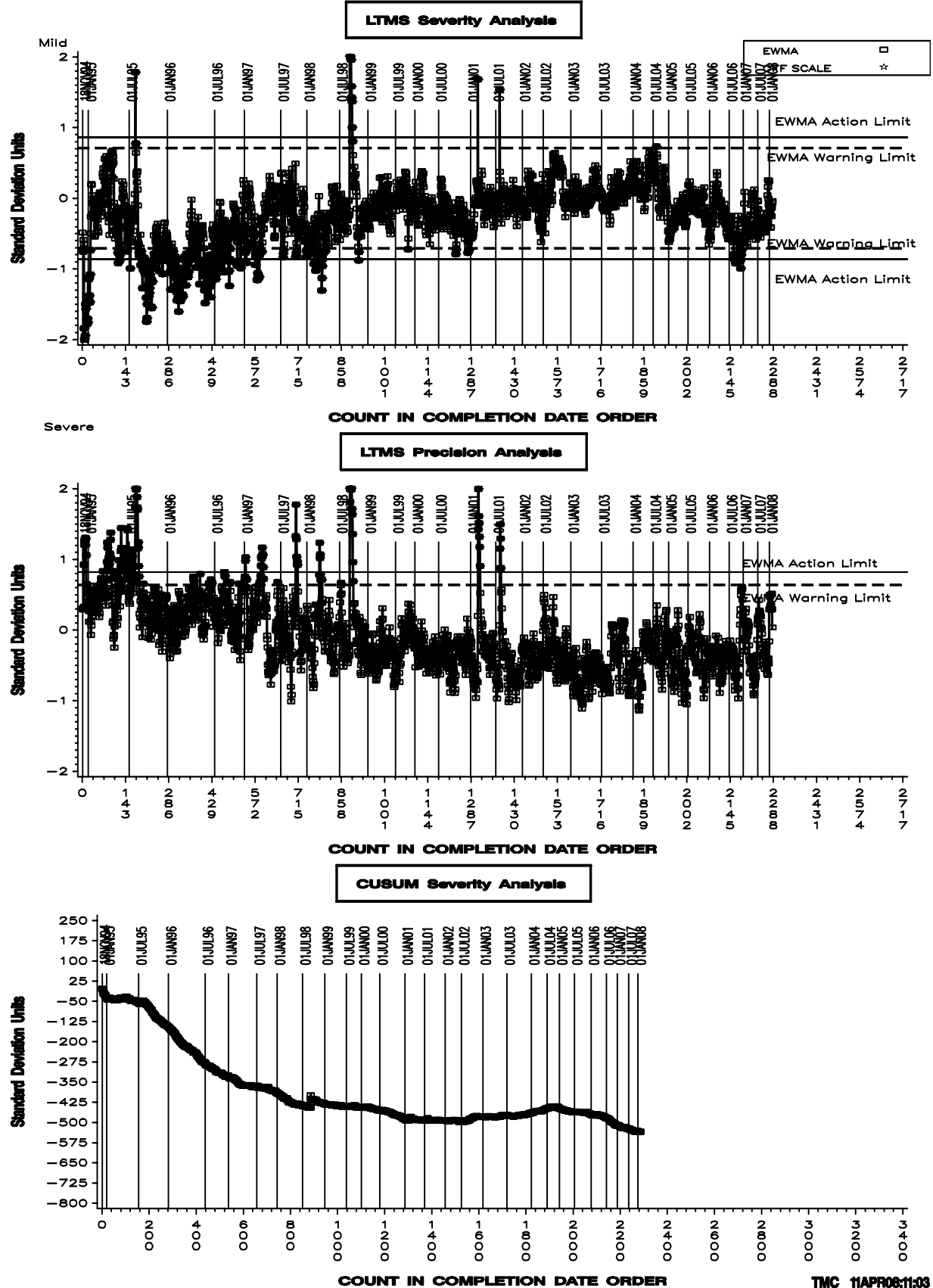


Figure 3

# OSCT INDUSTRY OPERATIONALLY VALID DATA

## REFERENCE PERCENT VOLUME CHANGE AVERAGE



TMC 11APR08:11:06

Figure 5

# OSCT INDUSTRY OPERATIONALLY VALID DATA

Last 120 Test Results

REFERENCE SHORE A HARDNESS CHANGE AVERAGE

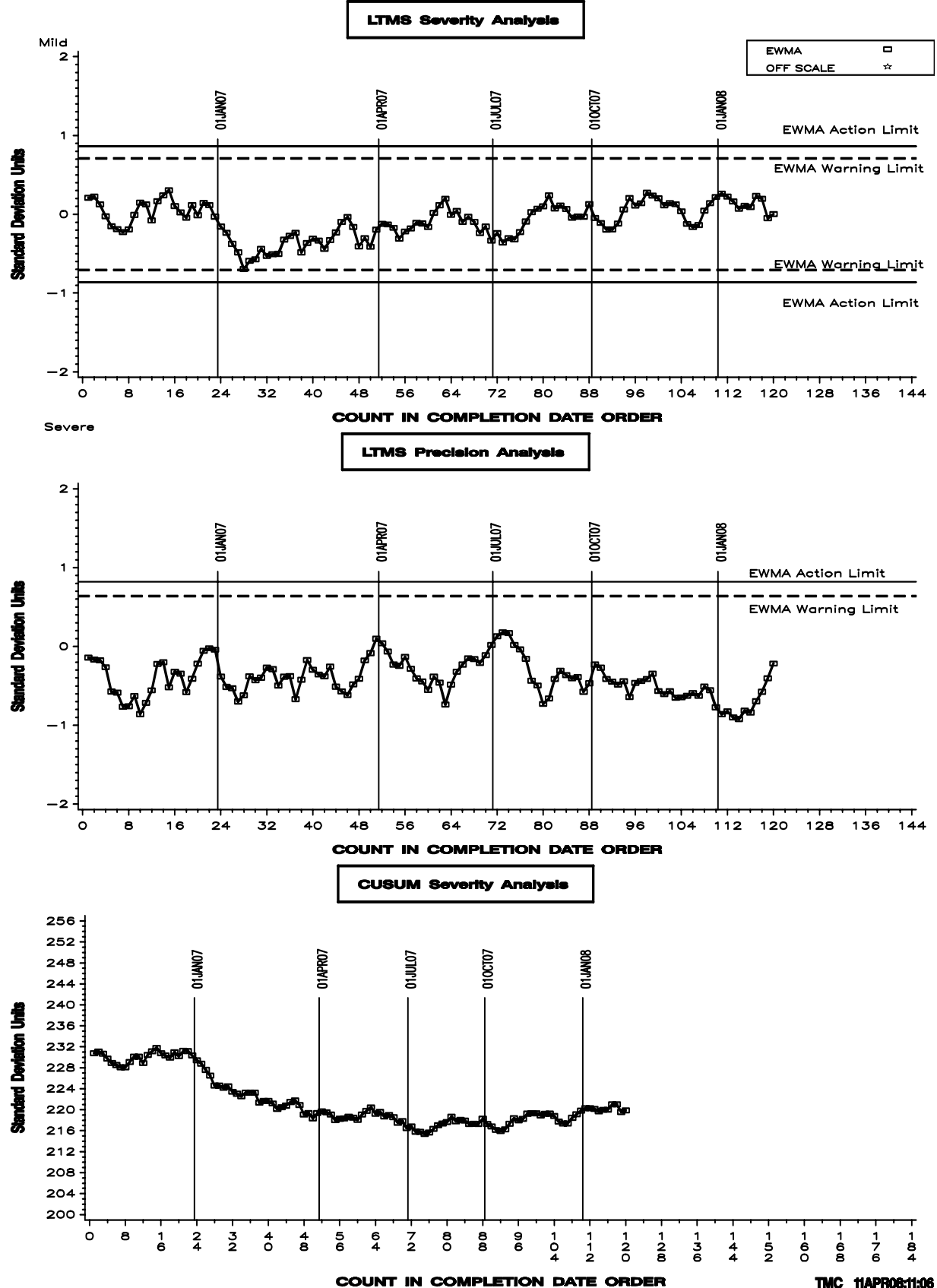


Figure 6

# OSCT INDUSTRY OPERATIONALLY VALID DATA

Last 120 Test Results

REFERENCE PERCENT VOLUME CHANGE AVERAGE

