



Test Monitoring Center


@ Carnegie Mellon University
6555 Penn Avenue, Pittsburgh, PA 15206, USA

<http://astmtmc.cmu.edu>
412-365-1000

MEMORANDUM: 16-047

DATE: November 16, 2016

TO: Don Bell, Chairman, OSCT Surveillance Panel

FROM: Scott Parke 

SUBJECT: OSCT Reference oil testing from April 1, 2016 through September 30, 2016

Attached is a summary of reference oil testing activity this period.

SDP/sdp/mem16-047.sdp.doc

cc: Frank Farber

Jeff Clark

OSCT Surveillance Panel

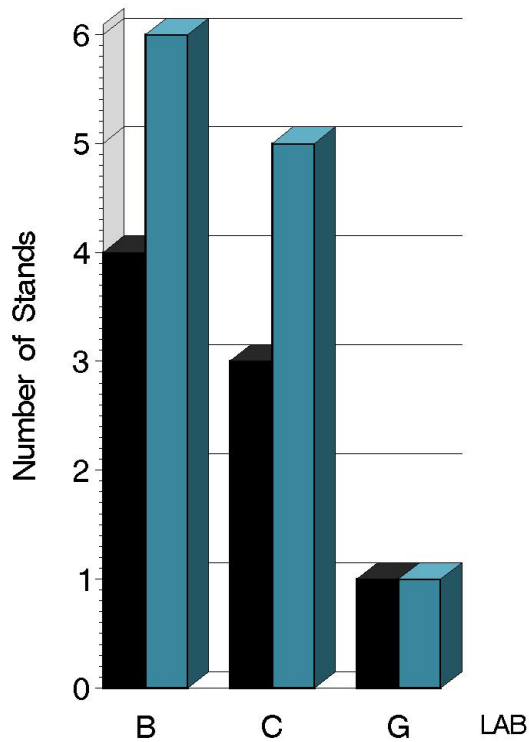
<ftp://ftp.astmtmc.cmu.edu/docs/gear/osct/semiannualreports/osct-10-2016.pdf>

Distribution: email

OSCT (D5662)

	Reporting Data	Calibrated on 9-30-2016
Number of Labs	3	3
Number of Stands	12	12

BY-LAB STAND
DISTRIBUTION



Report Period: ■ Current ■ Previous

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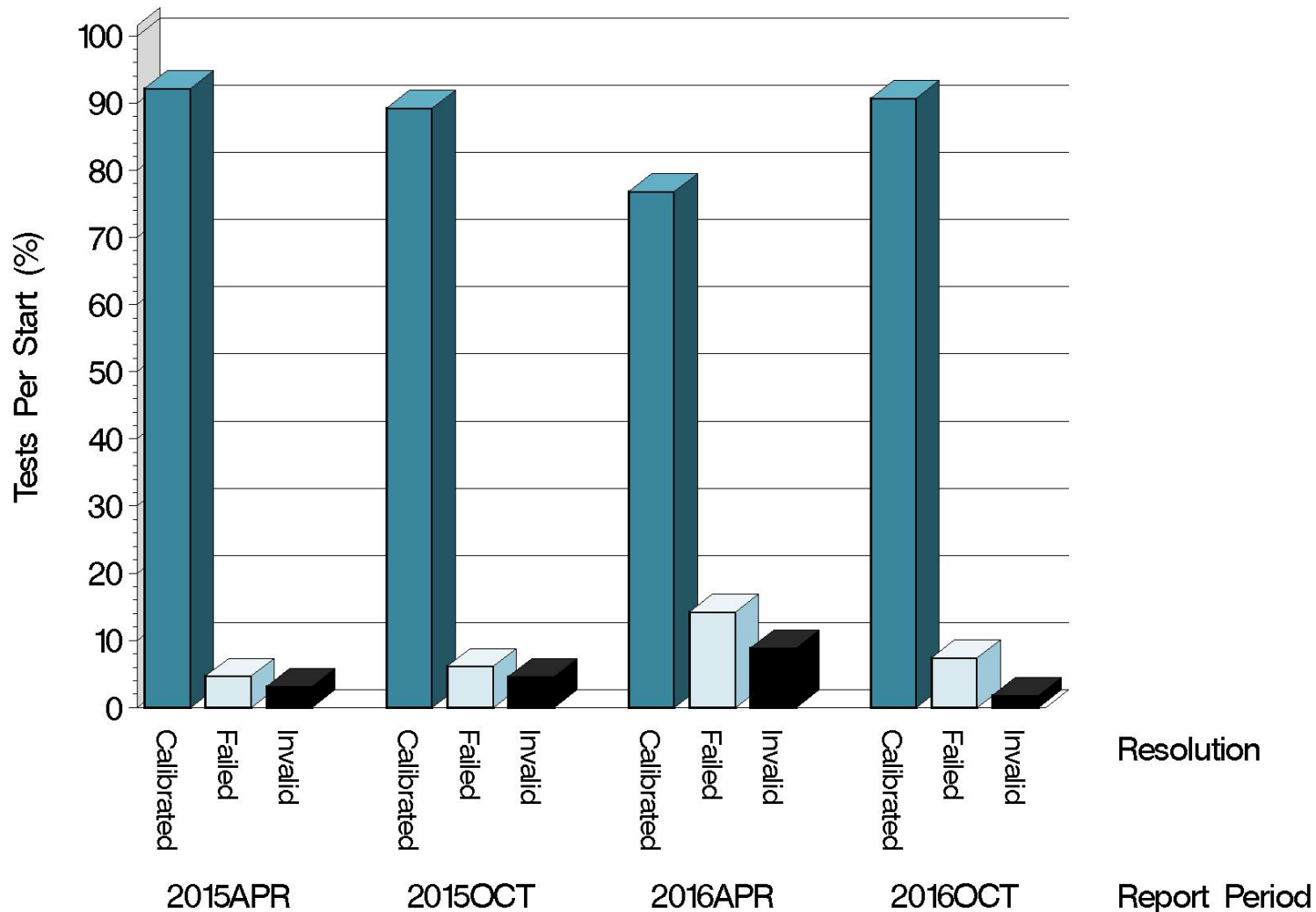
OSCT (D5662)

Test Distribution by Elastomer and Validity

					Totals	
					Last Period	This Period
		FL	NI	PA		
Accepted for calibration	AC	21	10	18	43	49
Rejected (low result)	OC	1	0	2	2	3
Rejected (high result)	OC	0	0	0	3	0
Rejected (combination)	OC	0	0	1	3	1
Invalidated by lab	LC	1	0	0	1	1
Invalidated	RC	0	0	0	2	0
Aborted	XC	0	0	0	2	0
Elastomer approval run	NI	19	8	7	31	34
Unacceptable approval run	MI	5	1	6	20	12
Total		47	19	34	107	100

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CALIBRATION ATTEMPT SUMMARY



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CAUSES FOR LOST TESTS

Lab	Cause	Oil			Validity			Loss Rate		
		FL	NI	PA	LC	RC	XC	Lost	Starts	%
B	Power outage caused low bath temperature.	●			●			1	35	3%
	Lost	1	0	0	1	0	0			
	Starts	47	19	34	100	100	100			
	%	2%	0%	0%	1%	0%	0%			

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Average Δ /s by Lab

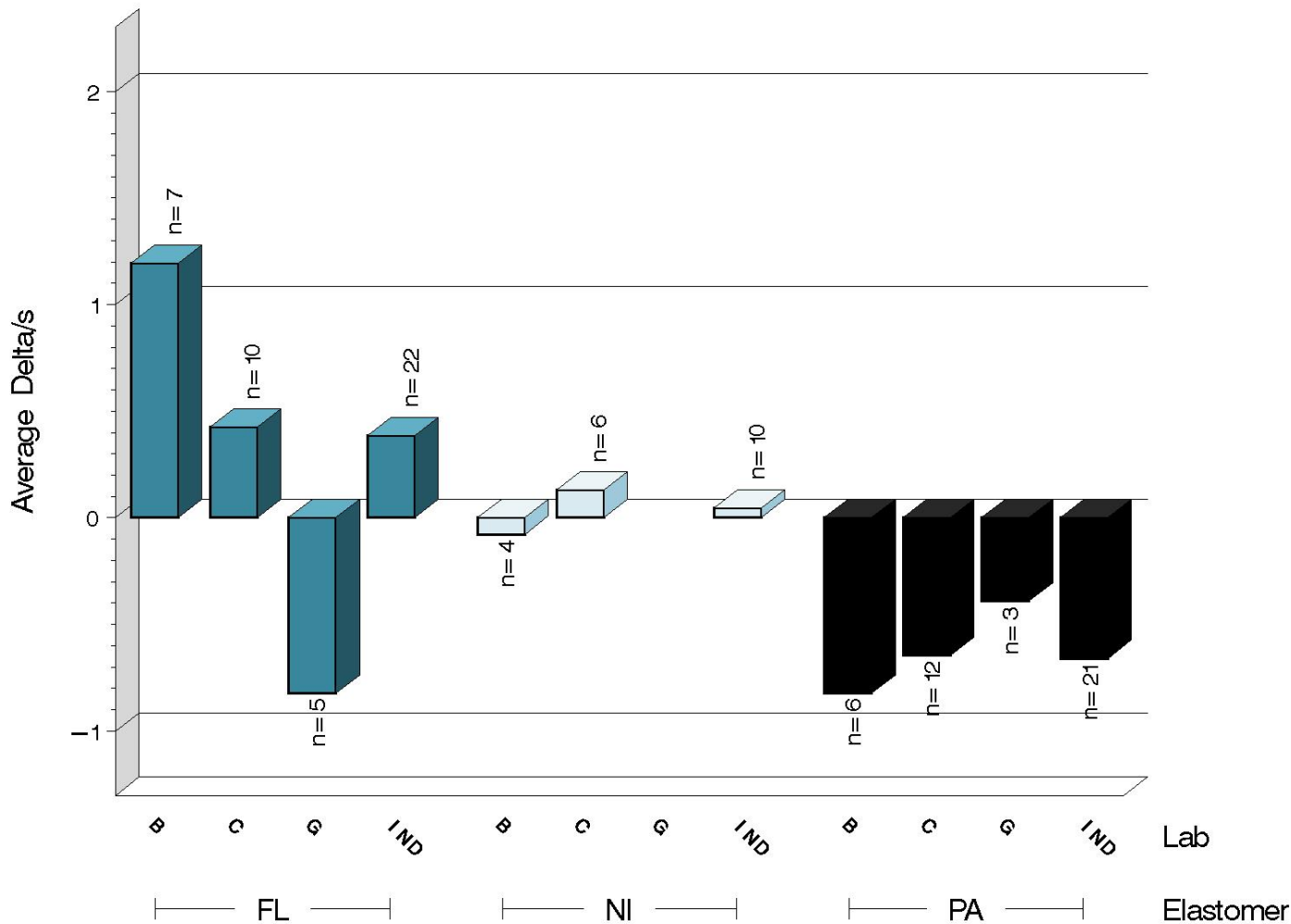
Elastomer	Lab	n	PELA	PVCA	SAHA
FL	B	7	1.196	-0.074	-1.775
	C	10	0.425	-0.023	-0.483
	G	5	-0.824	-1.034	-0.671
	Industry	22	0.386	-0.269	-0.937
	Shift*	22	2.894%	-0.146%	-1.310 pts.
NI	B	4	-0.077	0.278	-0.413
	C	6	0.129	0.185	-0.021
	Industry	10	0.047	0.222	-0.178
	Shift*	10	0.254%	0.120%	-0.220 pts.
PA	B	6	-0.822	0.387	0.958
	C	12	-0.645	0.058	0.417
	G	3	-0.392	-1.707	1.695
	Industry	21	-0.660	-0.100	0.754
	Shift*	21	-14.315%	-0.197%	1.948 pts.

*computed using historic pooled s

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%ELONGATION SEVERITY

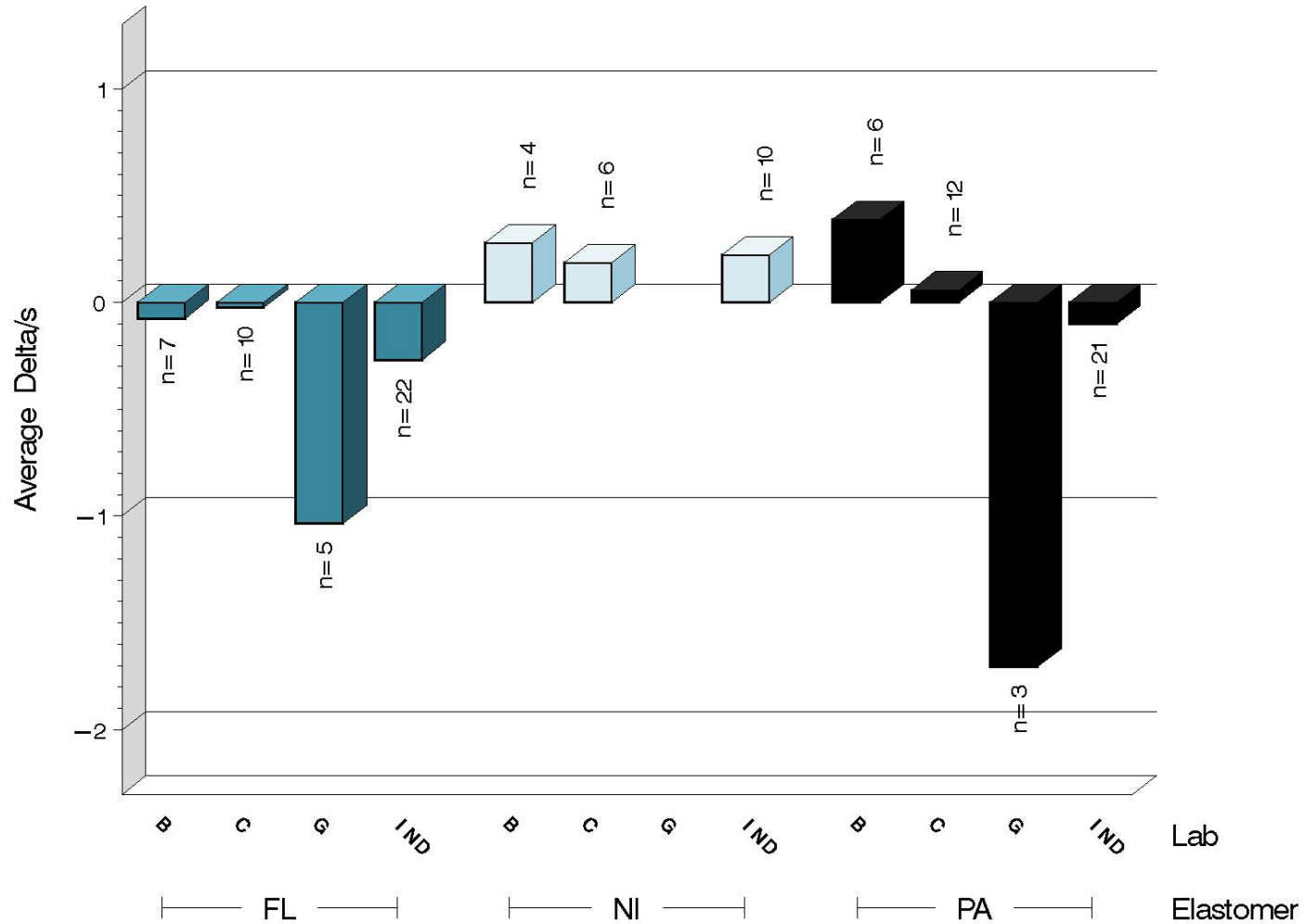
DELTA/S BY LAB



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OSCT (D5662)

%VOLUME CHANGE SEVERITY DELTA/S BY LAB

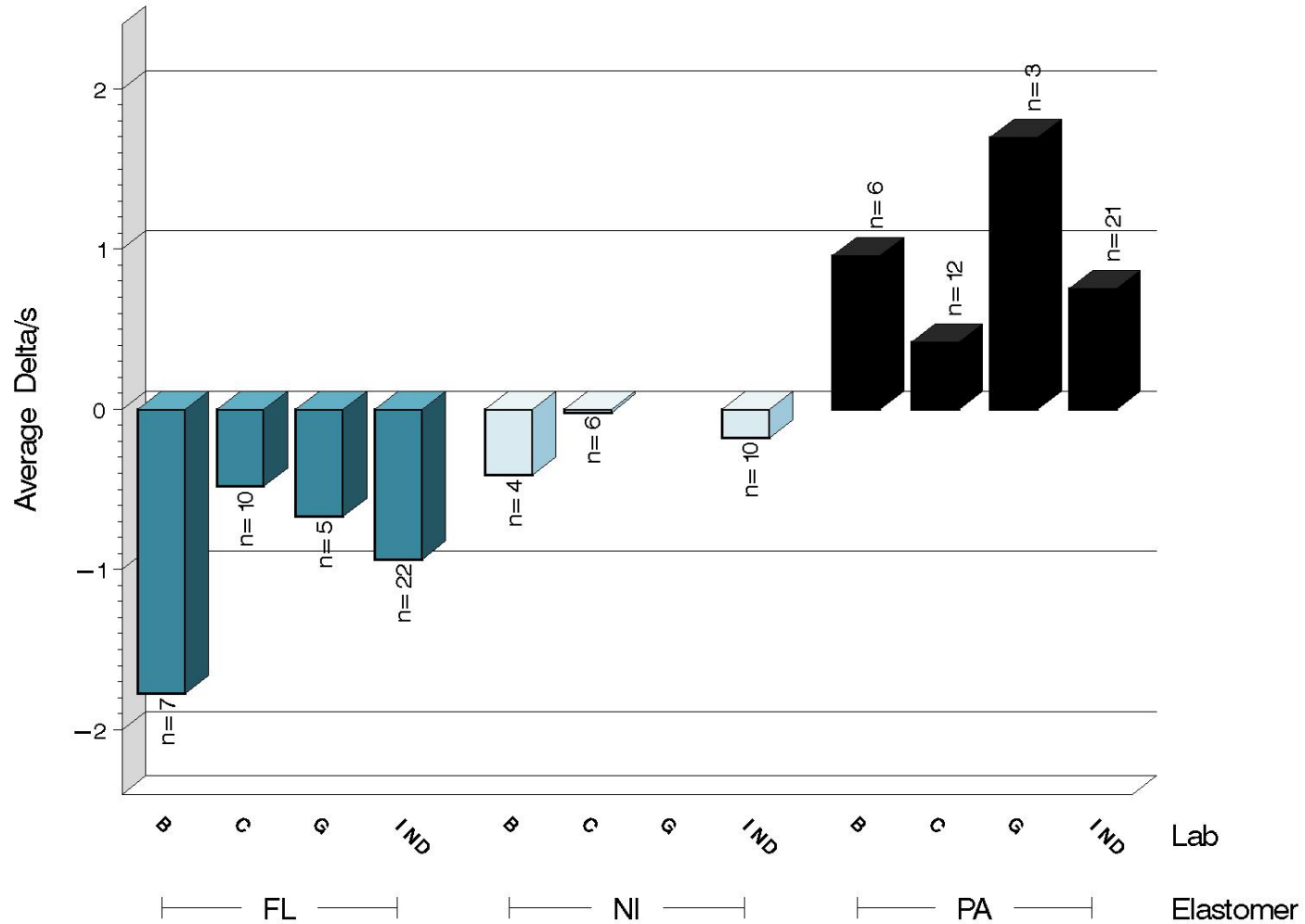


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OSCT (D5662)

S.A. HARDNESS SEVERITY

DELTA/S BY LAB

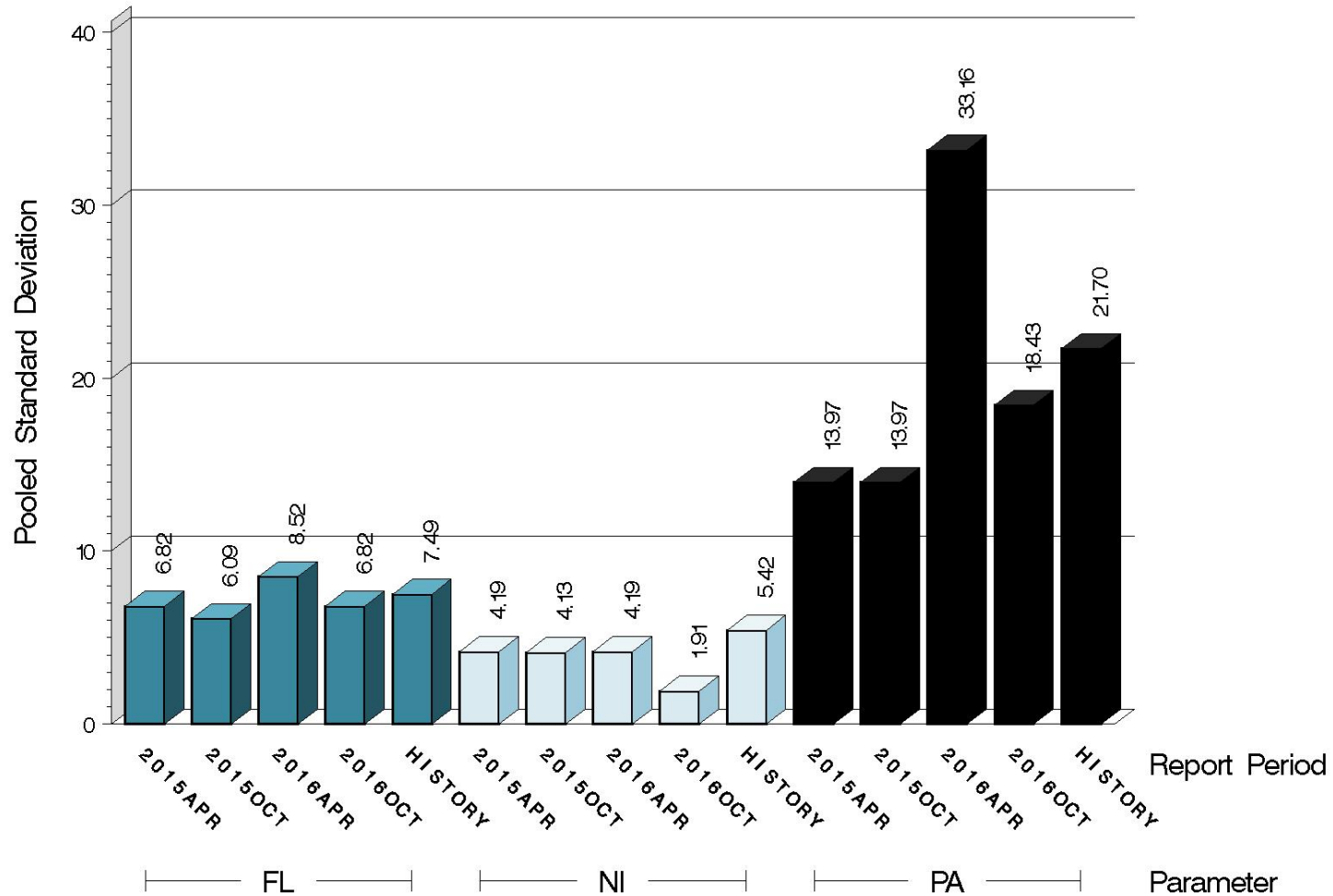


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OSCT (D5662)

%ELONGATION PRECISION

POOLED STANDARD DEVIATION
BY SIX-MONTH ASTM REPORT PERIOD

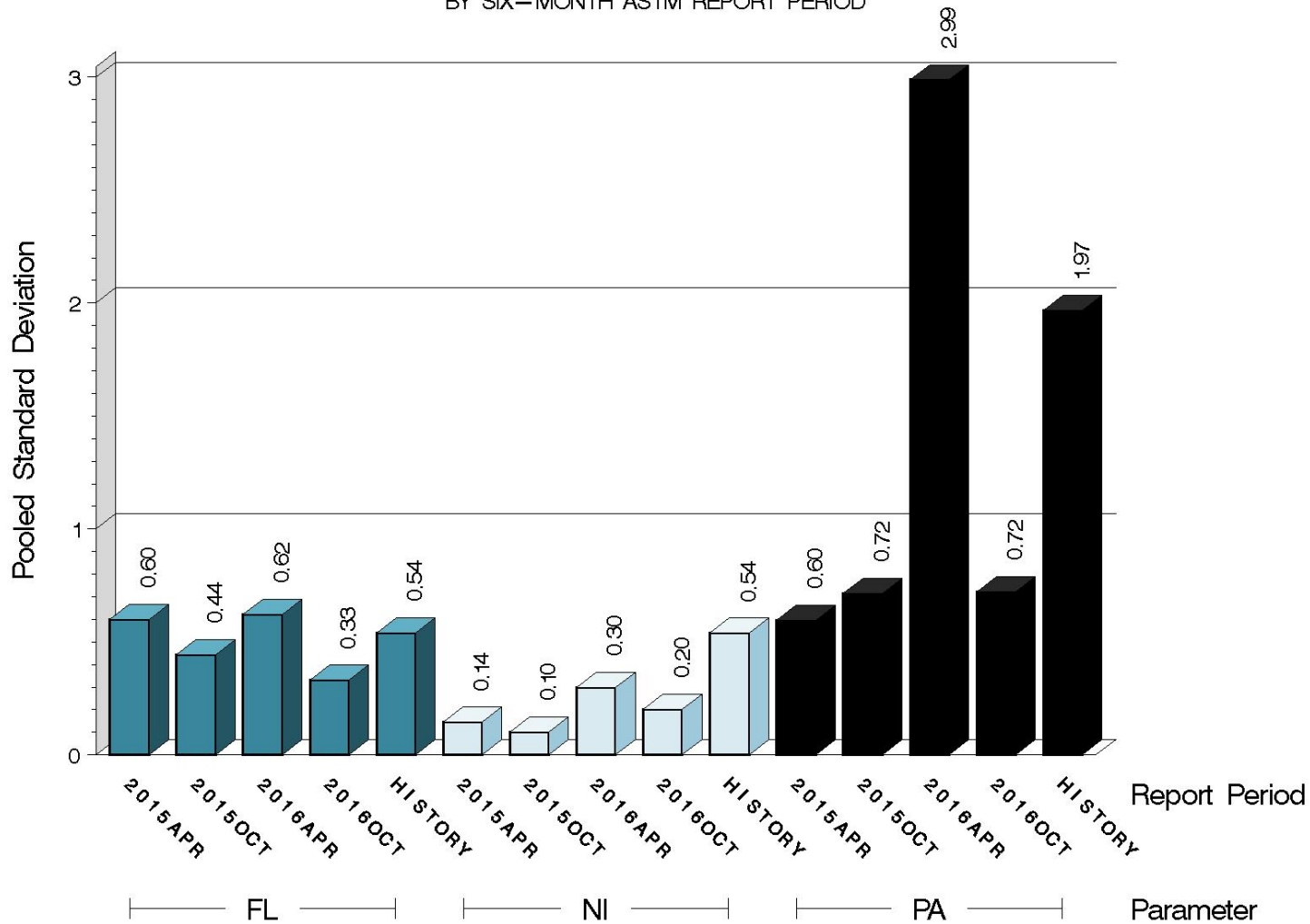


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OSCT (D5662)

%VOLUME CHANGE PRECISION

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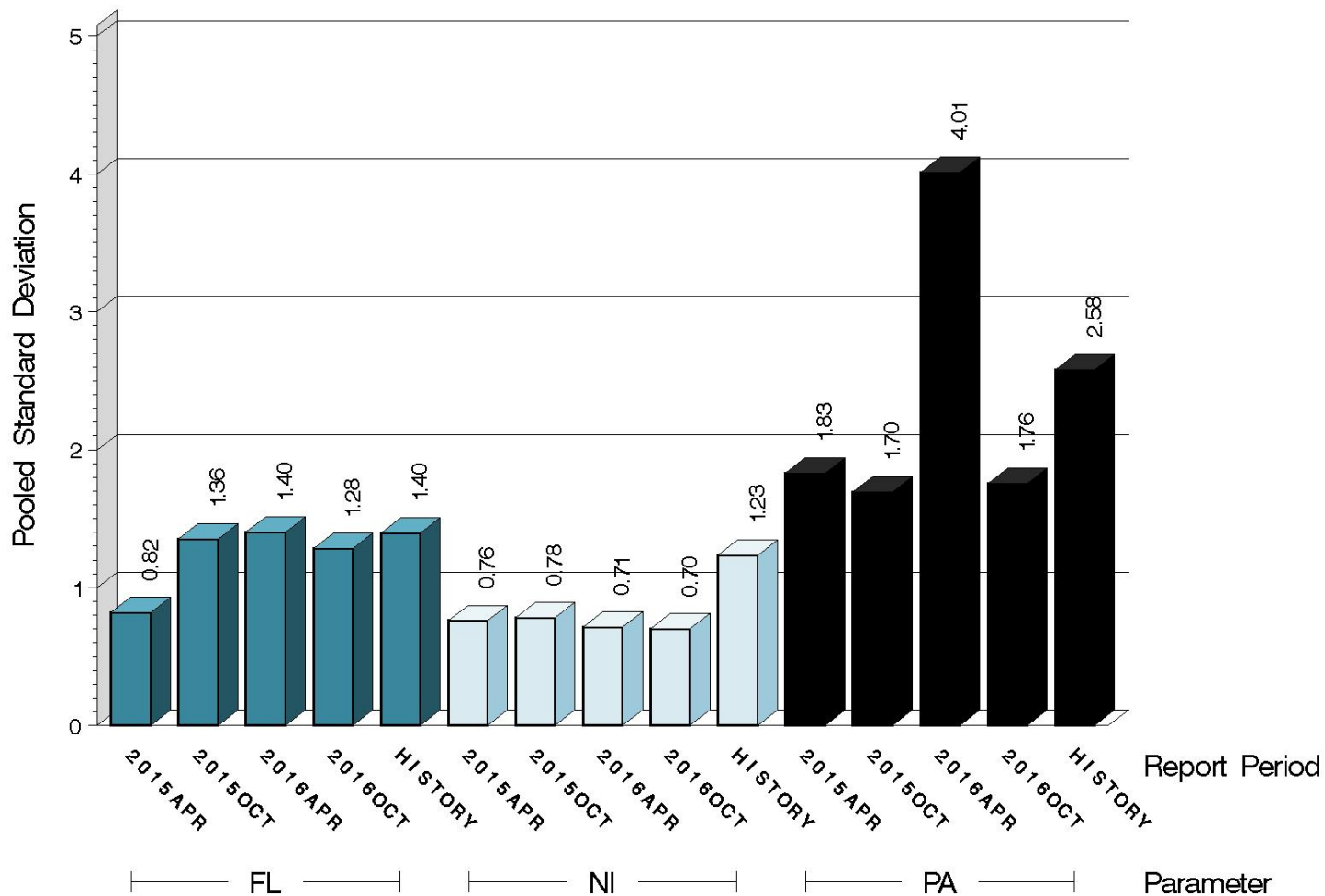


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OSCT (D5662)

S.A. HARDNESS PRECISION

POOLED STANDARD DEVIATION
BY SIX-MONTH ASTM REPORT PERIOD



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OSCT (D5662)

SUMMARY OF SEVERITY & PRECISION

Severity

The combined-elastomer industry charts show severity for all parameters generally remained within limits over this report period.

The by-elastomer charts show that PELA for fluoroelastomer is currently near target after a lengthy period high of target. PELA results for polyacrylate continue to be low of target. SAHA performance on polyacrylate continues to run high of target while running low for fluoroelastomer. Nitrile results for all parameters have remained within control chart limits.

Precision

Both PELA and SAHA produced a number of alarms this period. PVCA remained within limits.

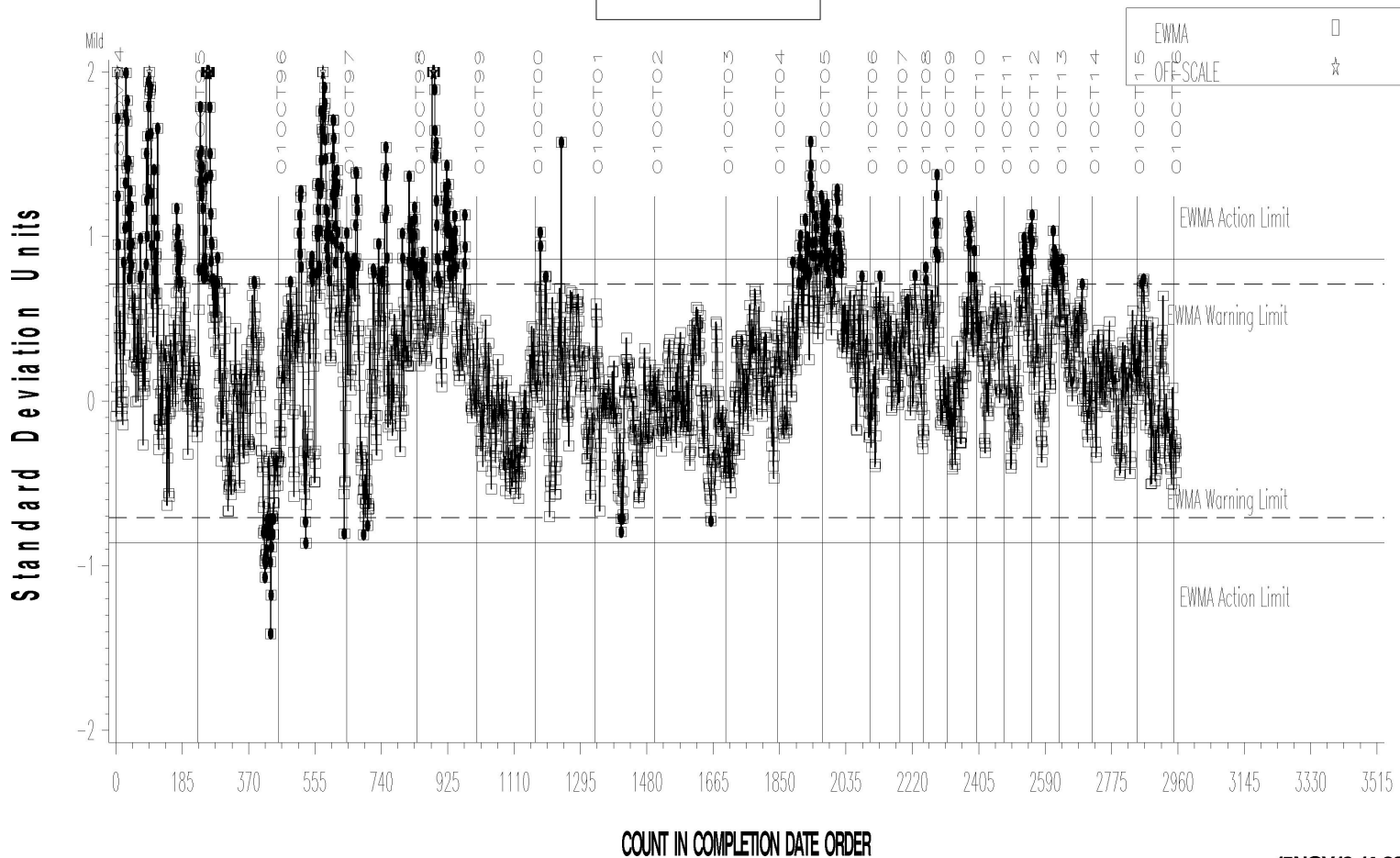
Industry control charts follow.

OSCT (D5662)

OSCT INDUSTRY OPERATIONALLY VALID DATA

REF. ELONGATION CHANGE AVG.

LTMS Severity Analysis



Severp

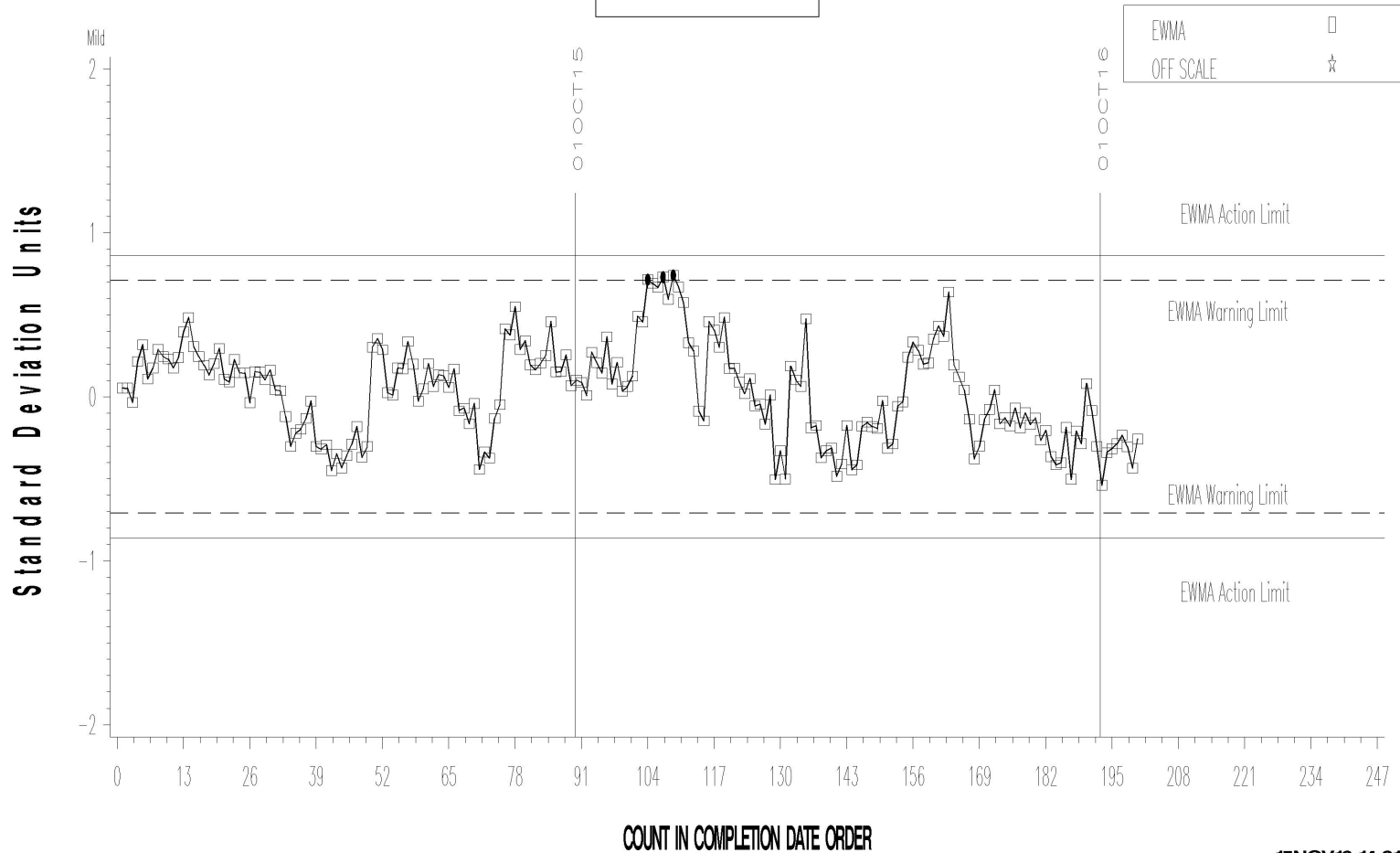
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LTMS Severity Analysis



Severp

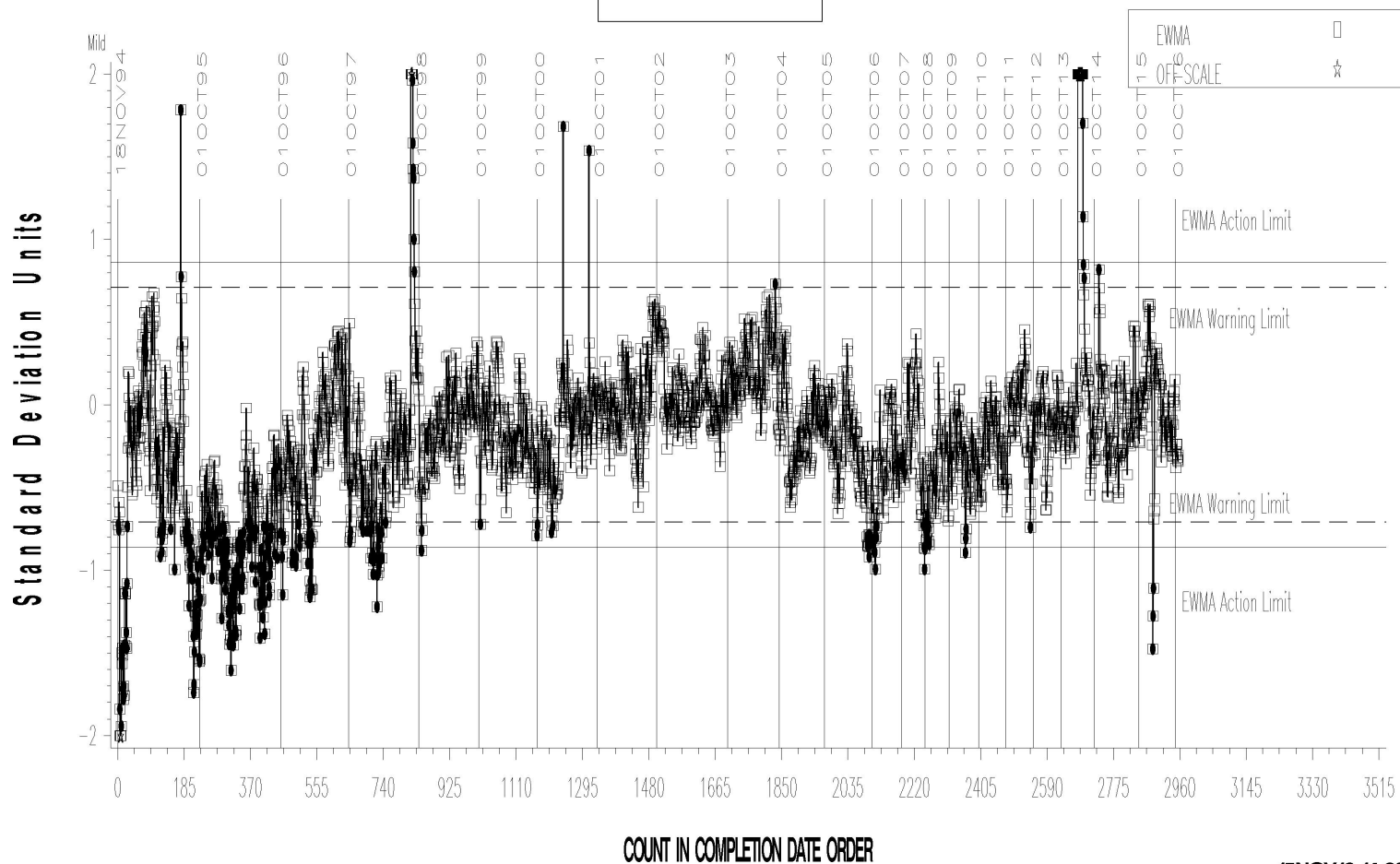
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LTMS Severity Analysis



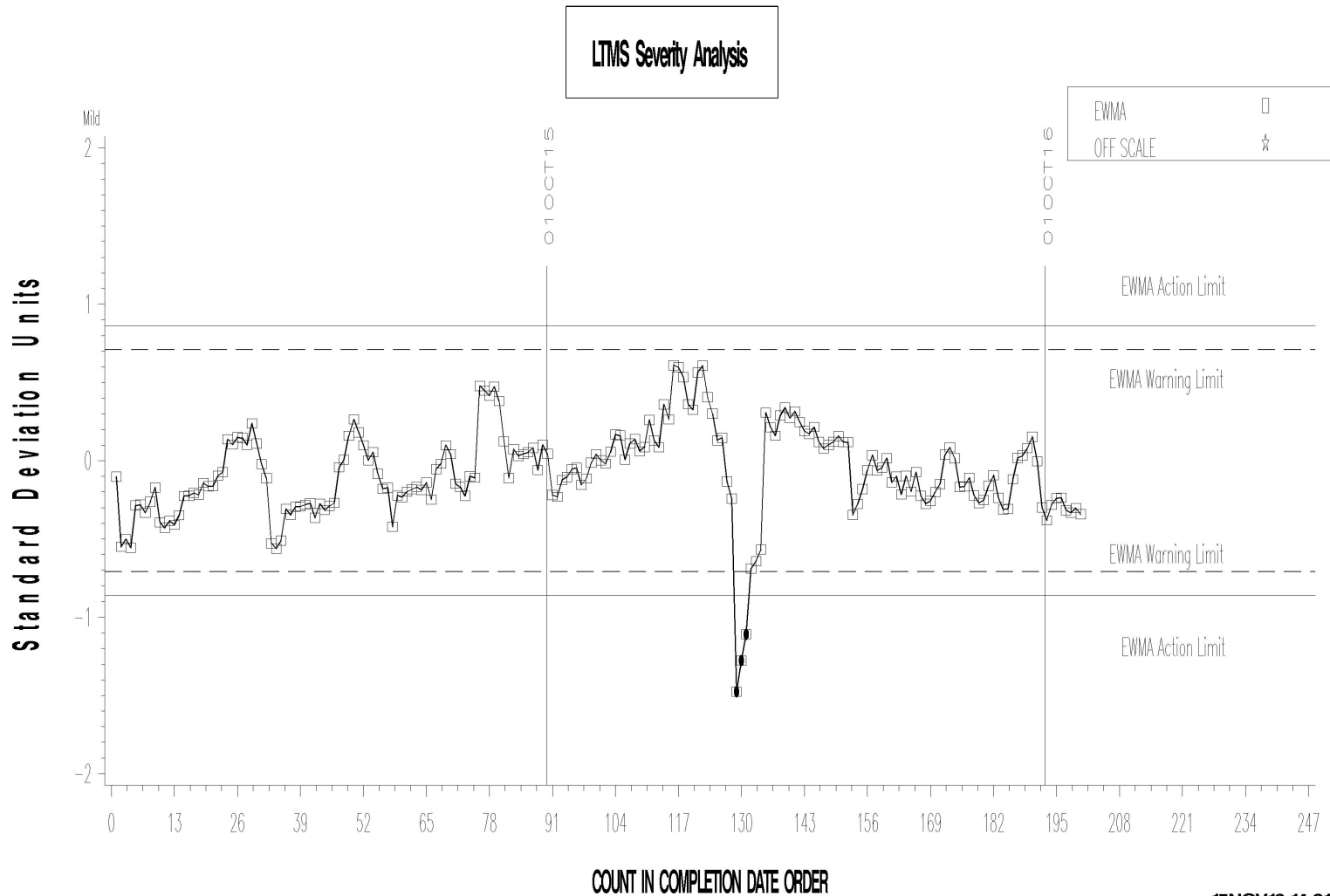
Spvgrp

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Severity

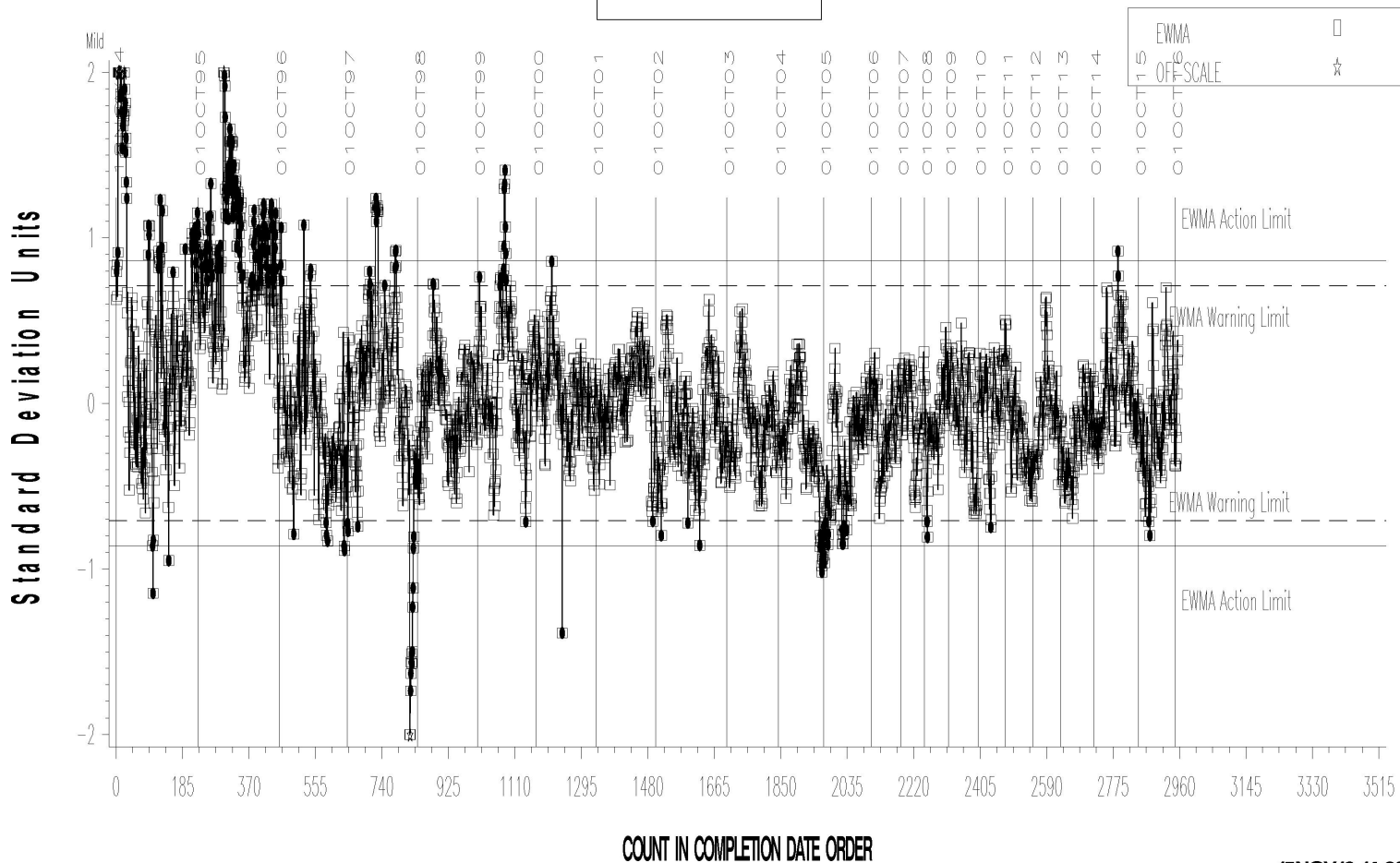
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LTMS Severity Analysis



Spvgrp

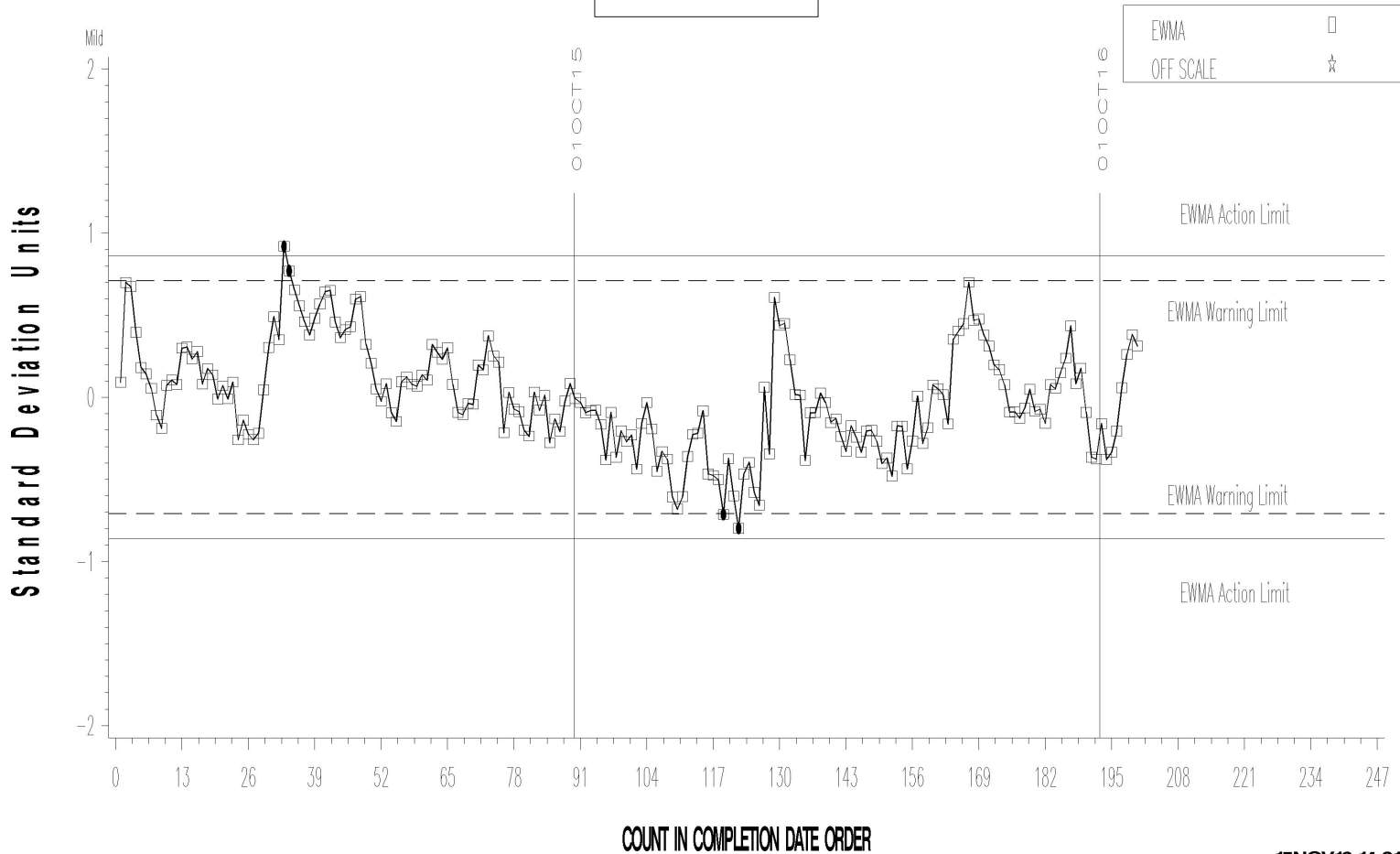
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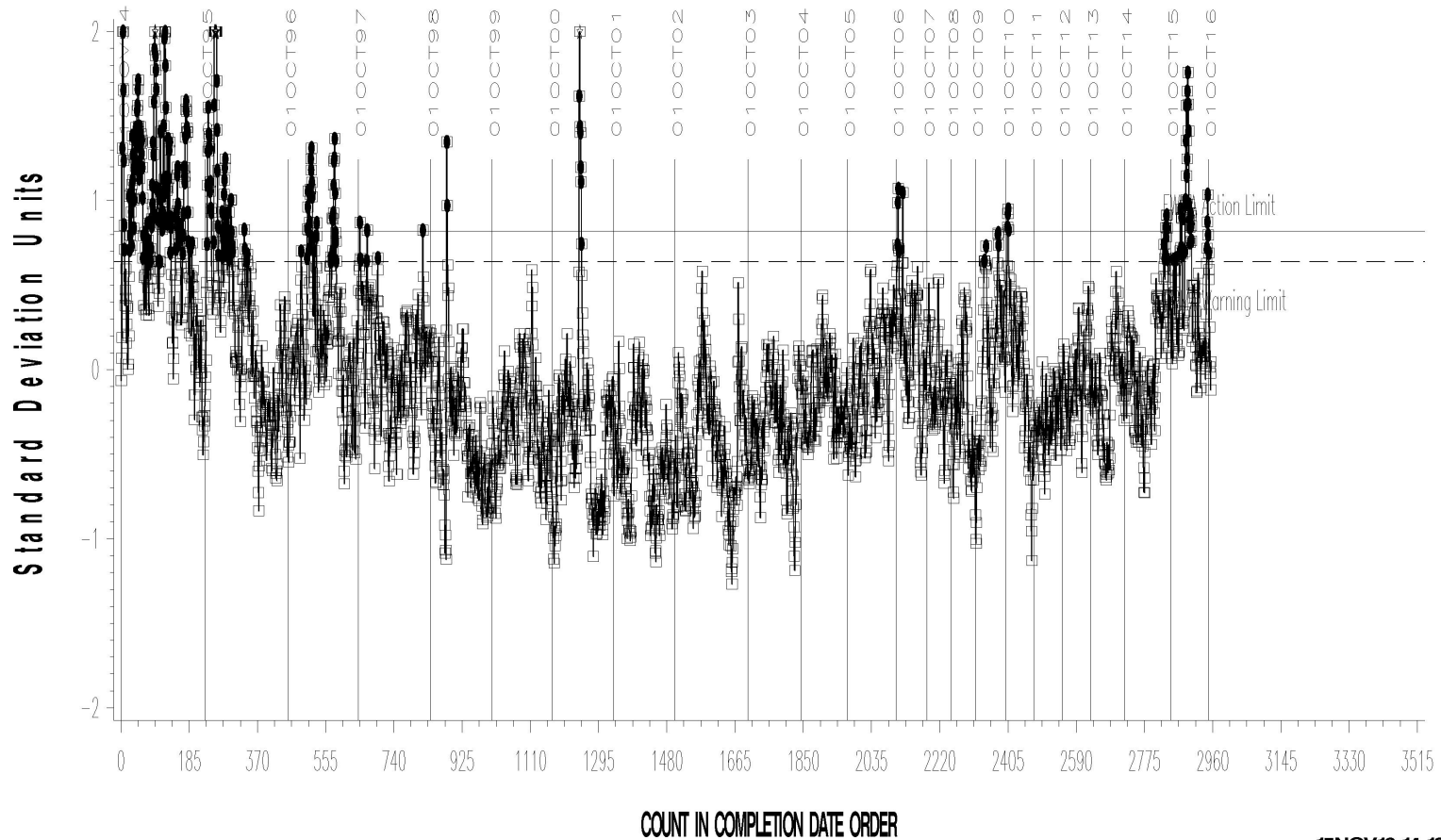
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LTMS Precision Analysis



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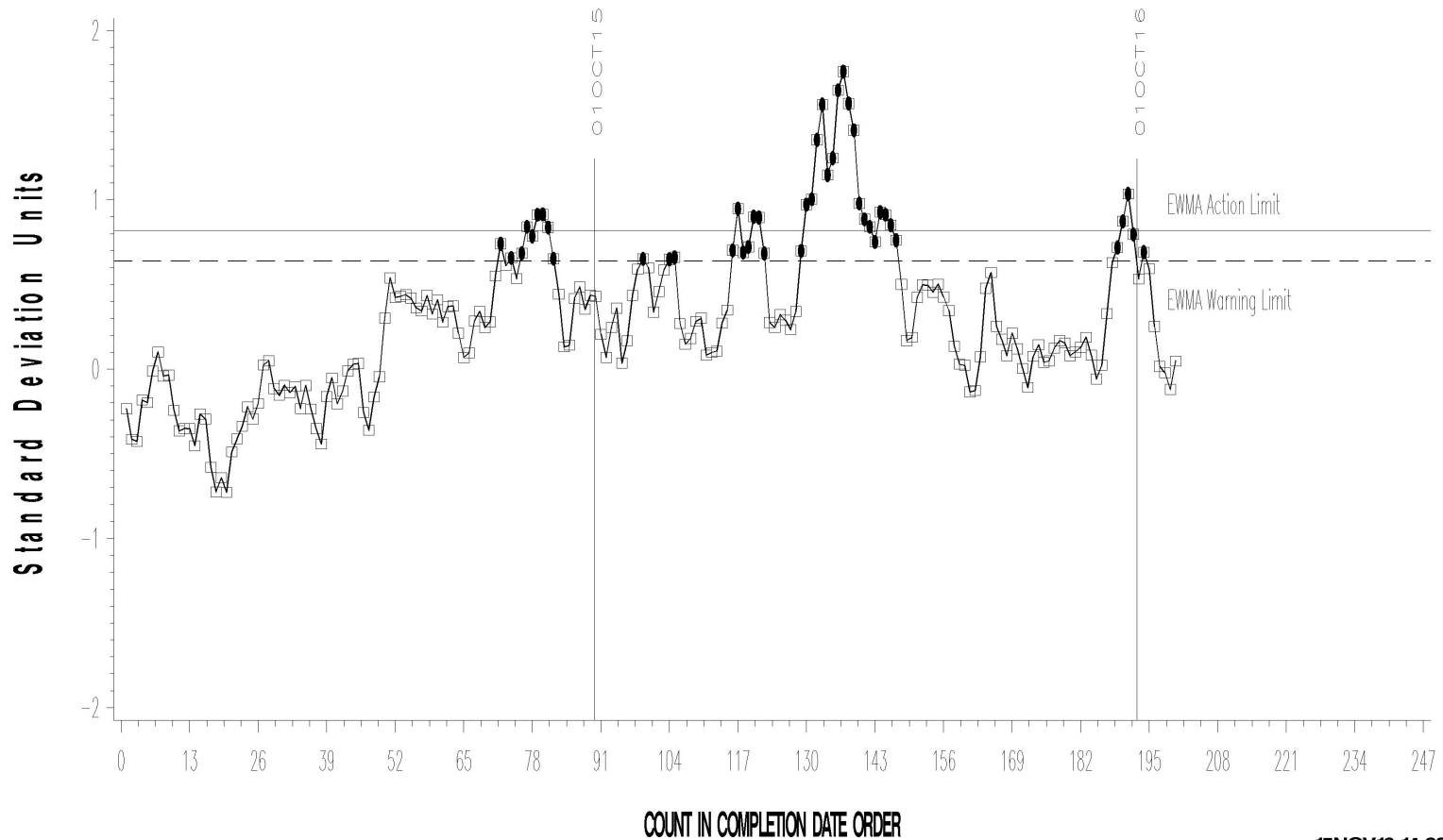


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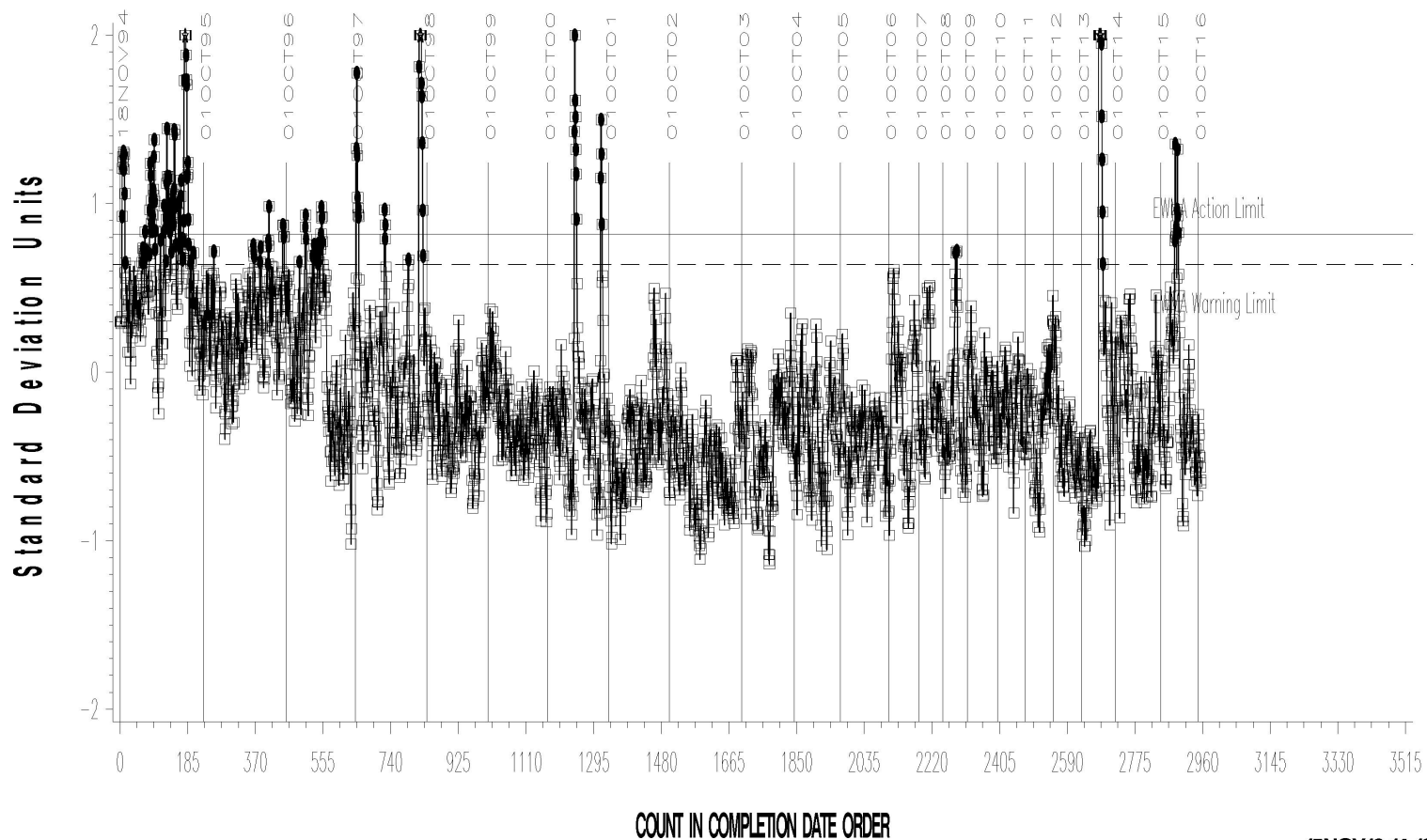
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LTMS Precision Analysis



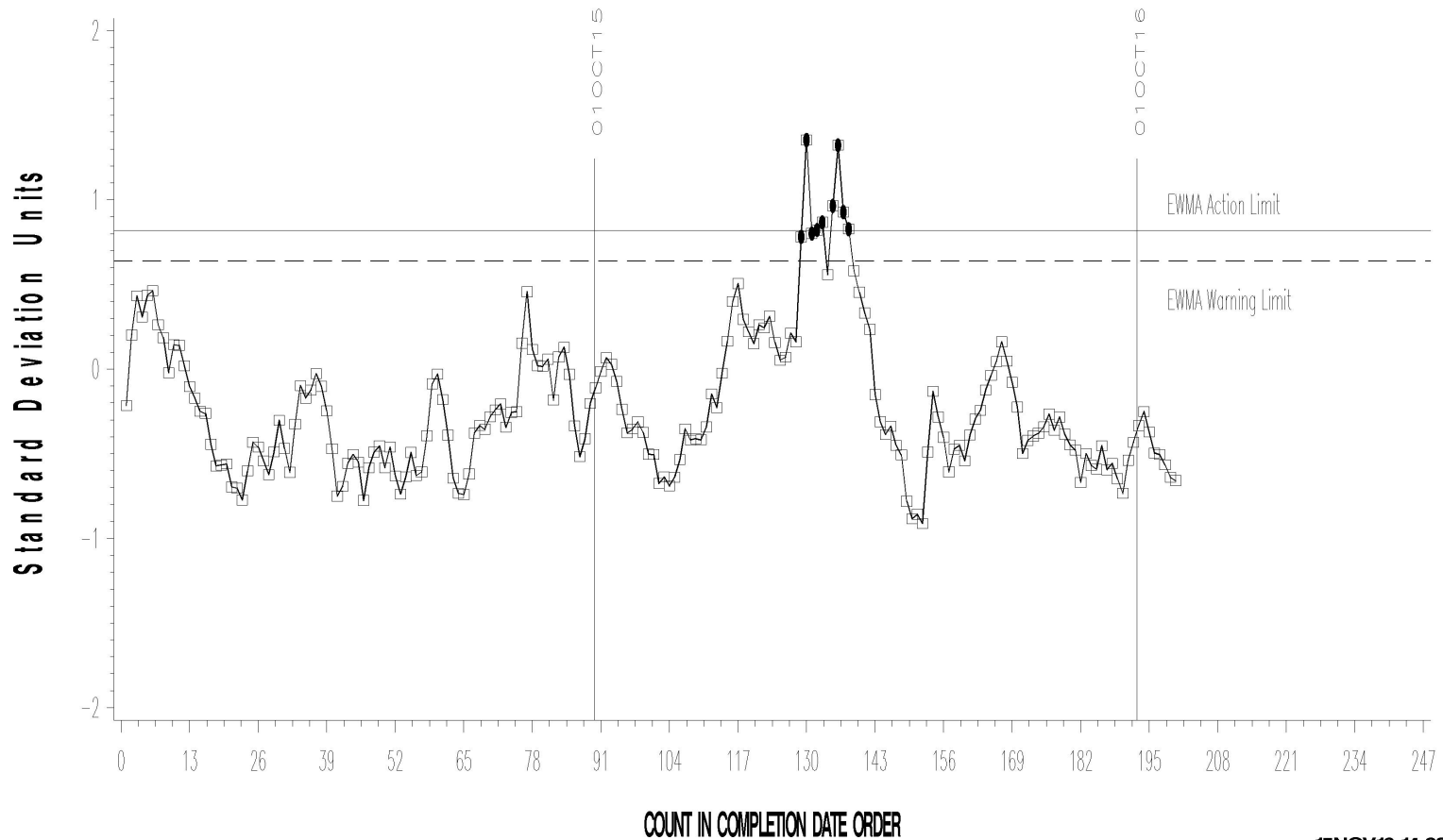
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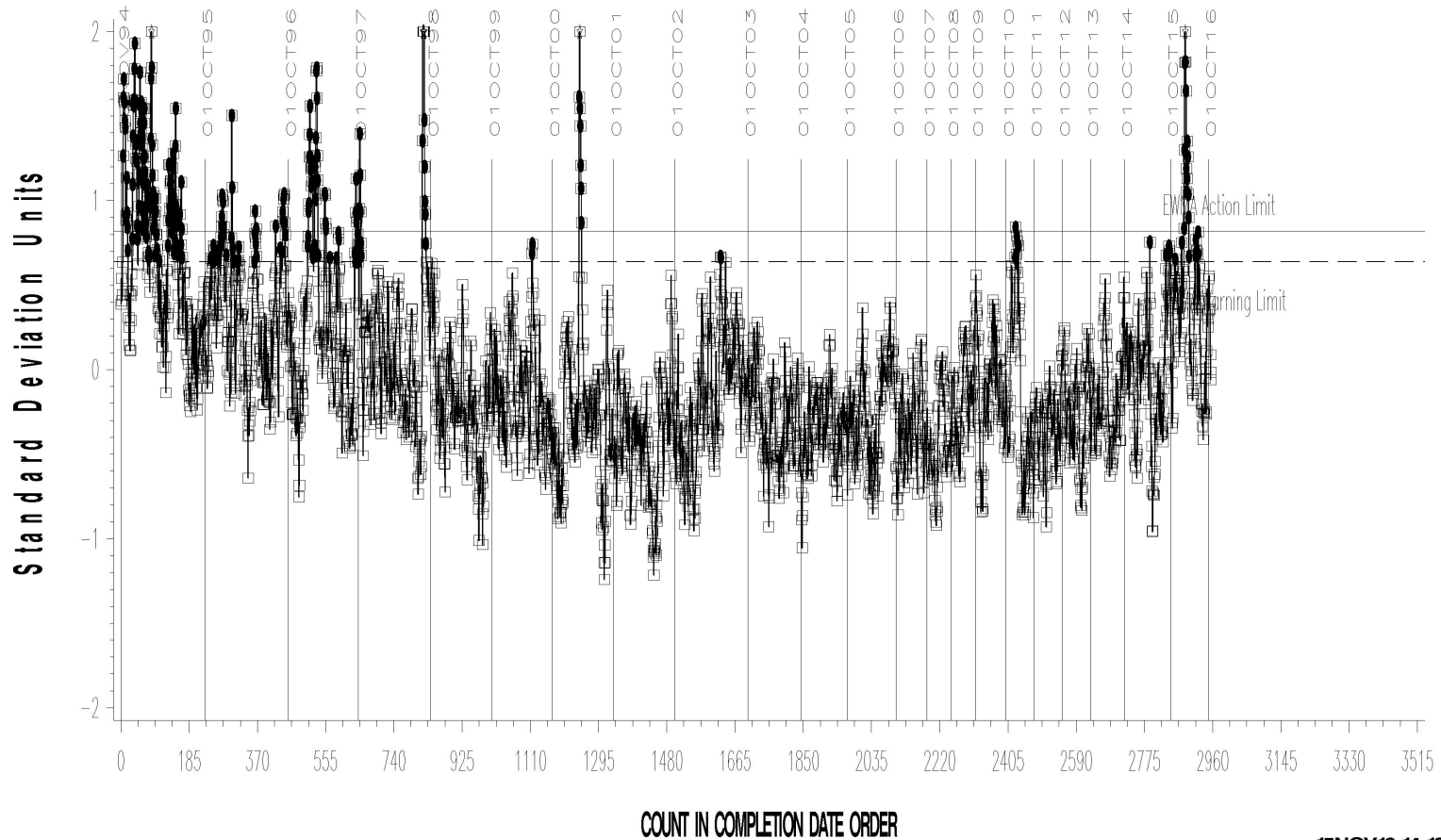
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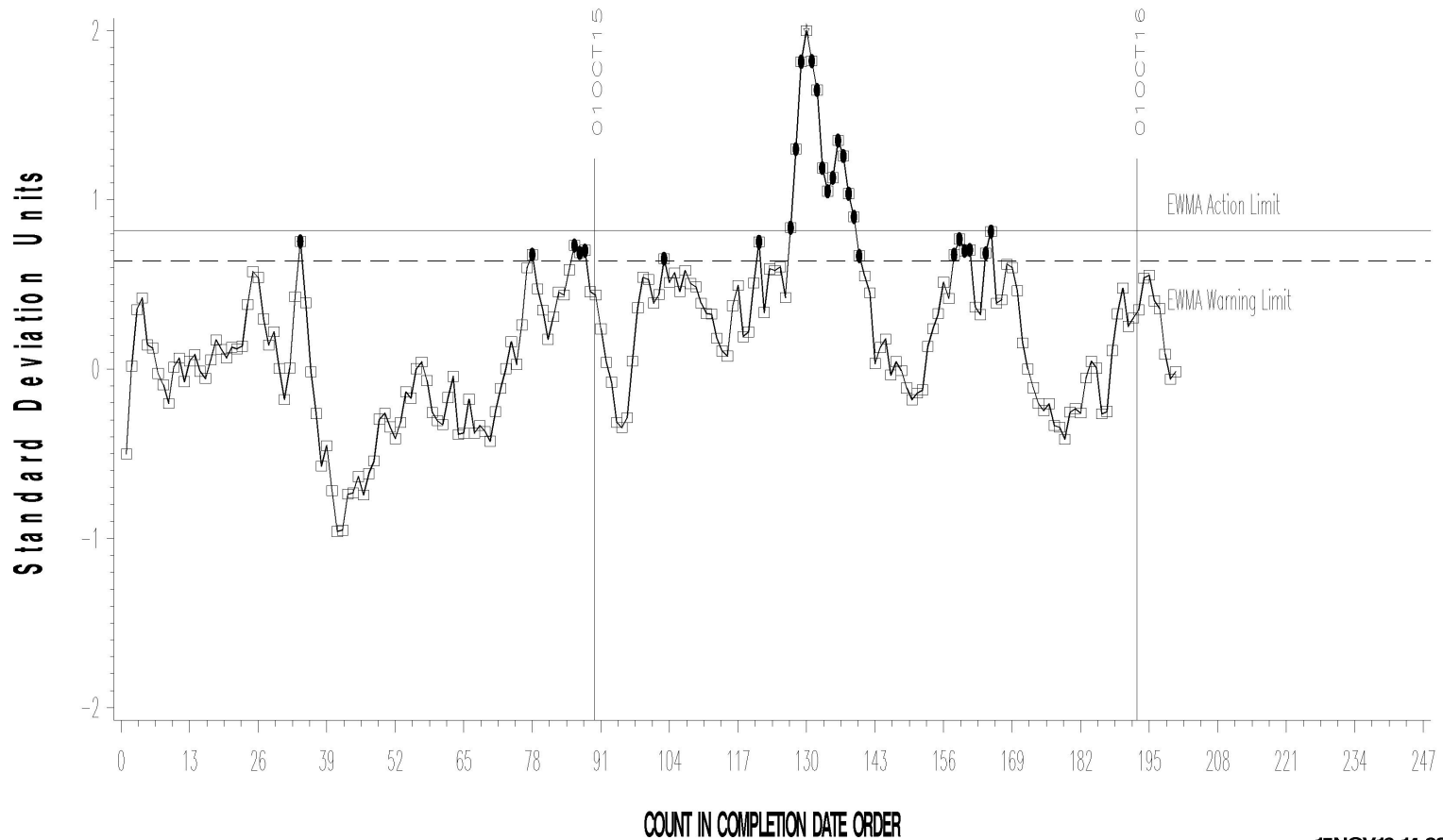
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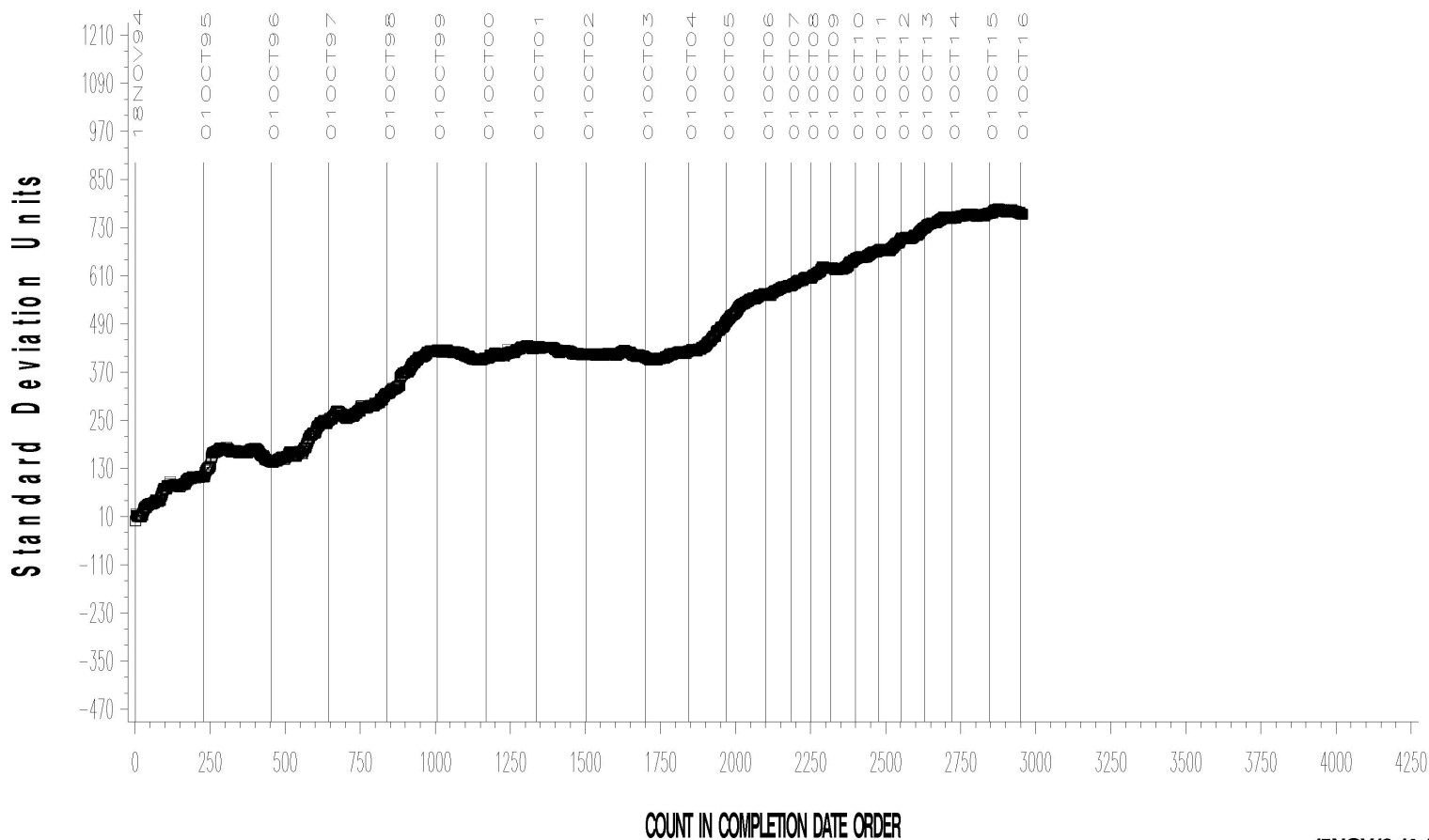
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CUSUM Severity Analysis



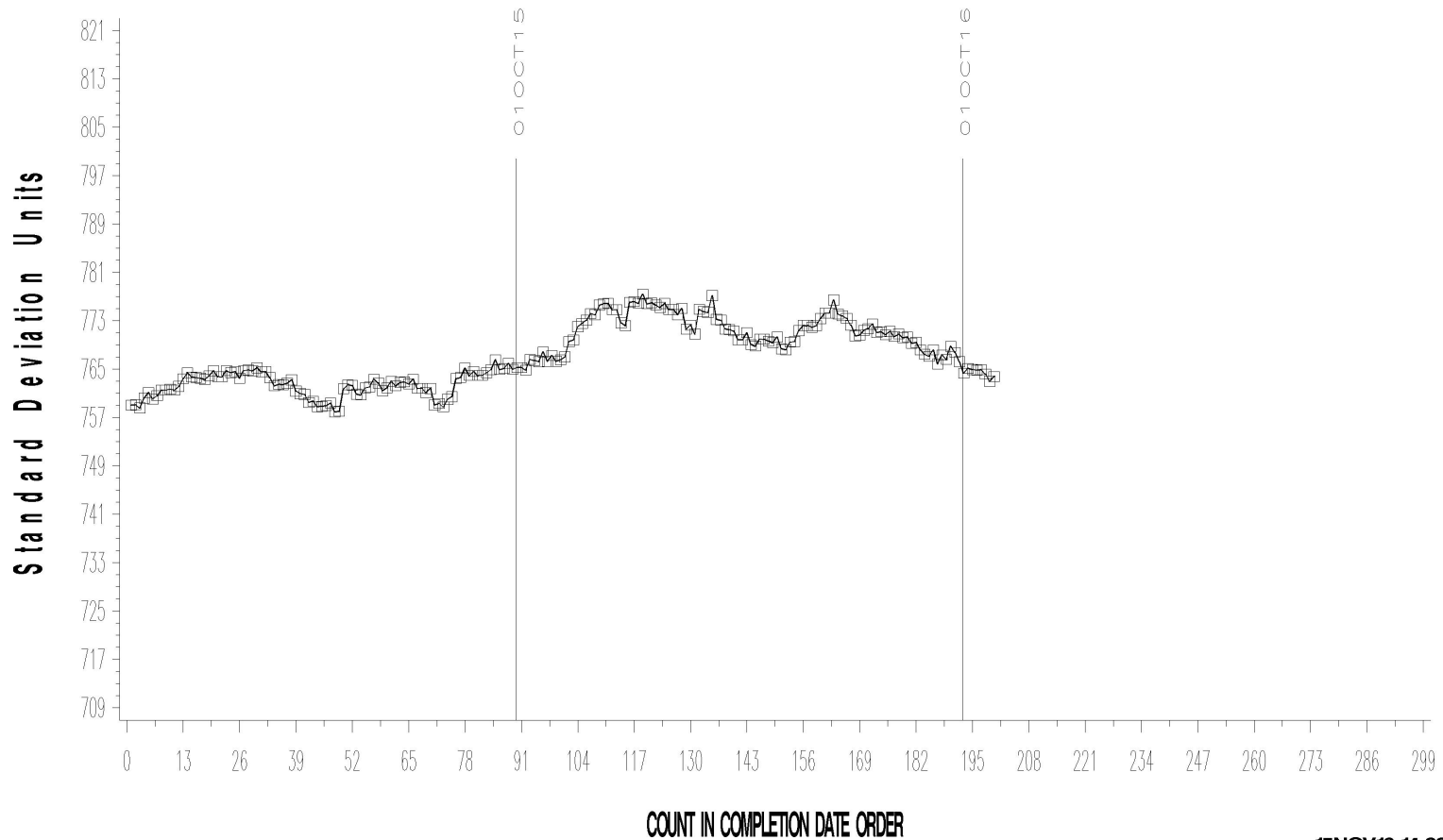
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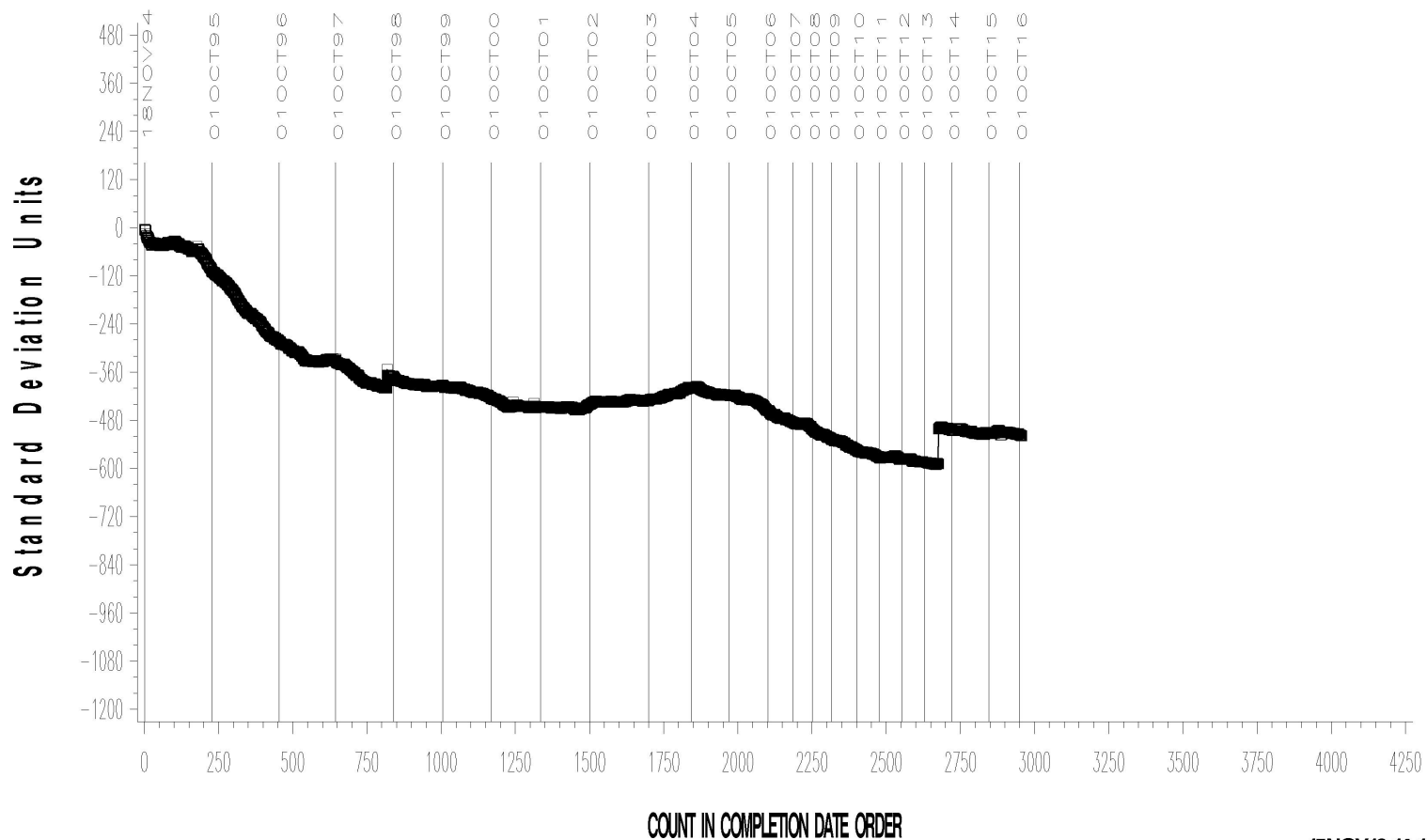
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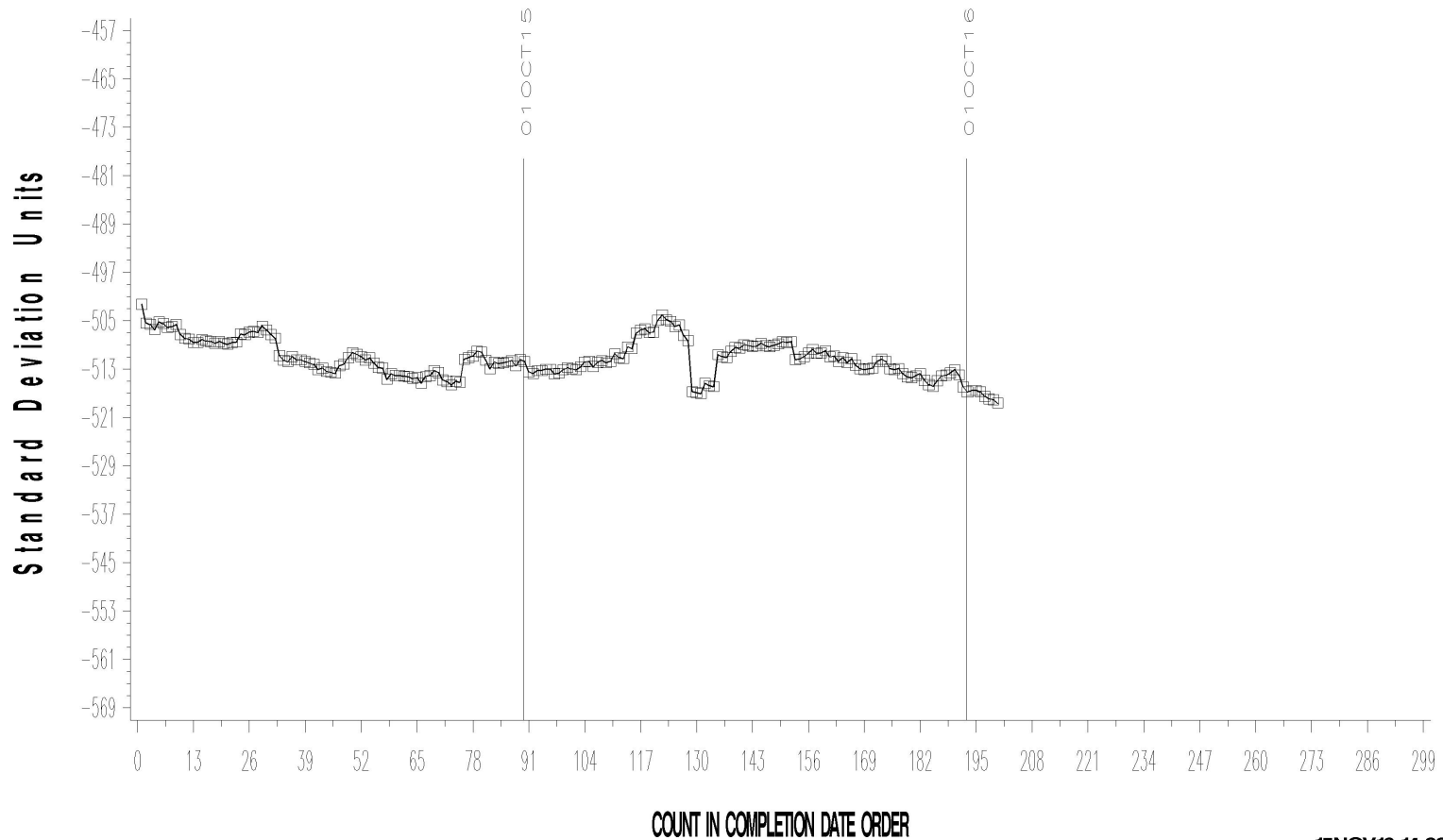
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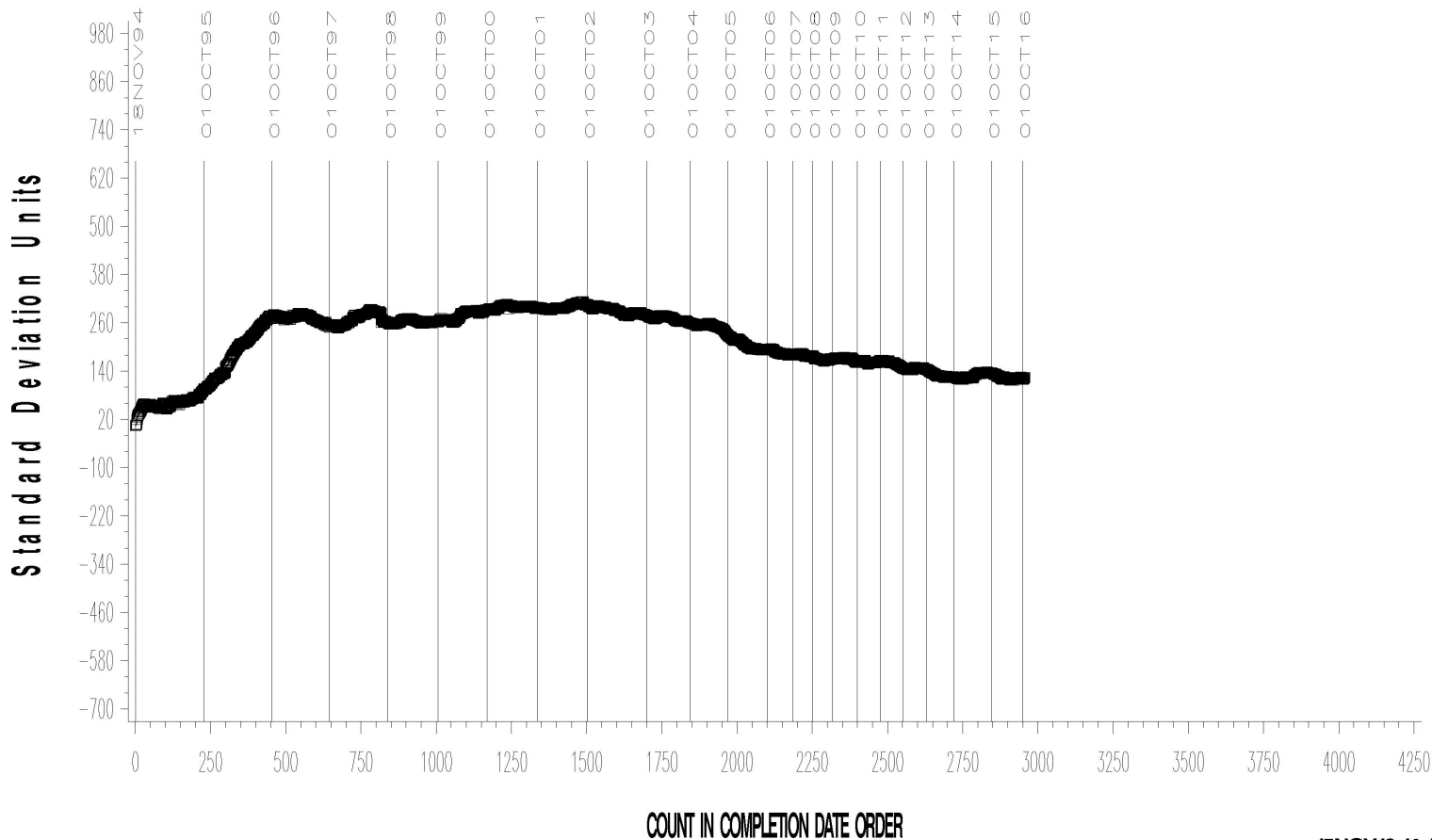
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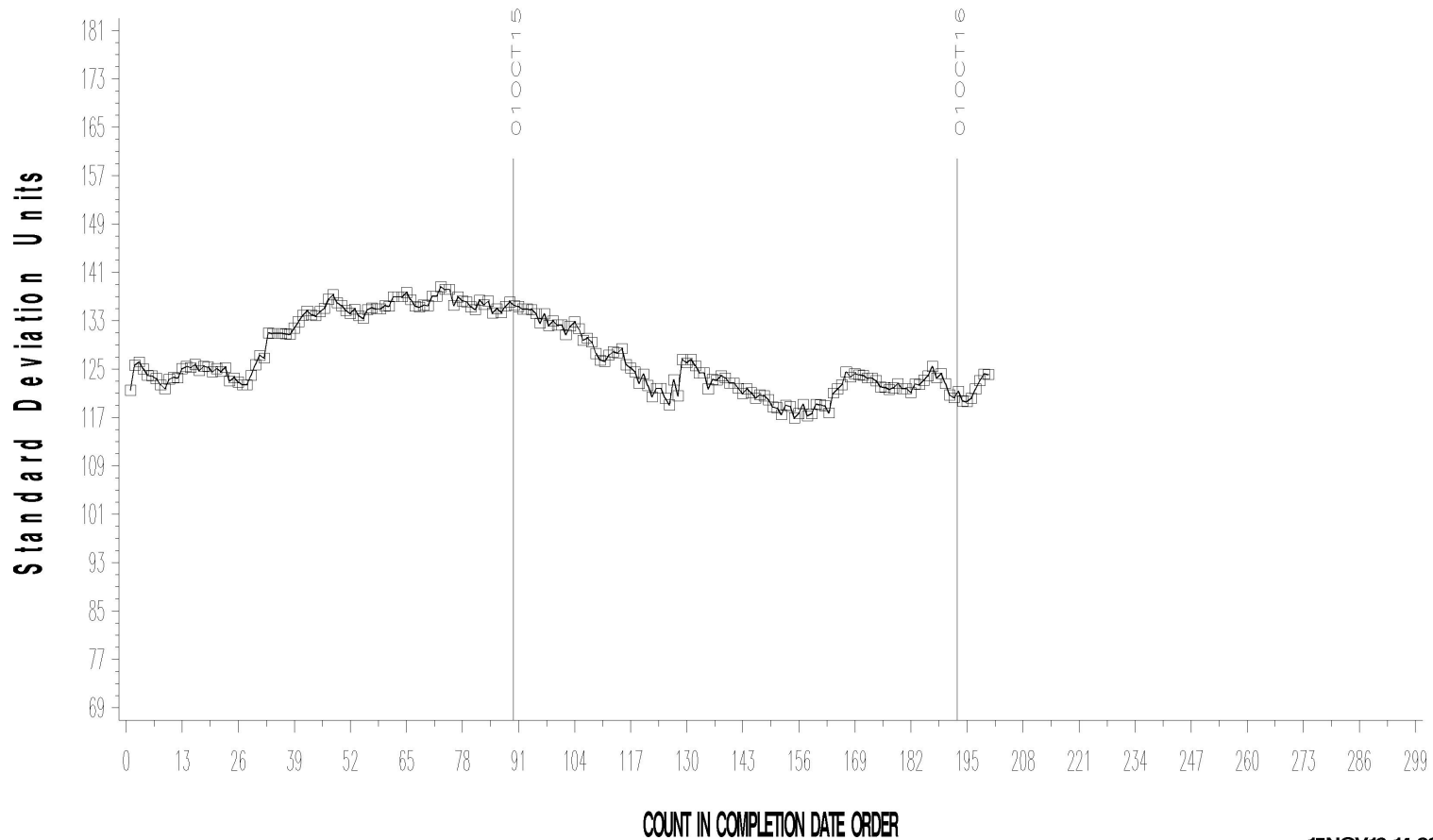
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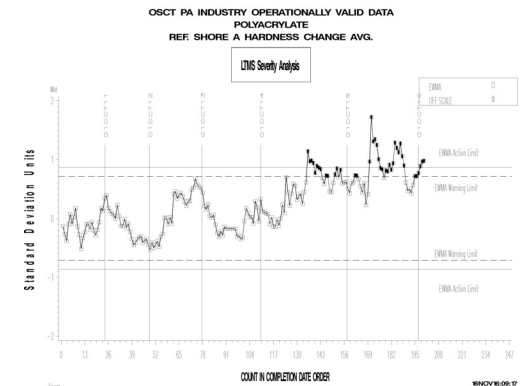
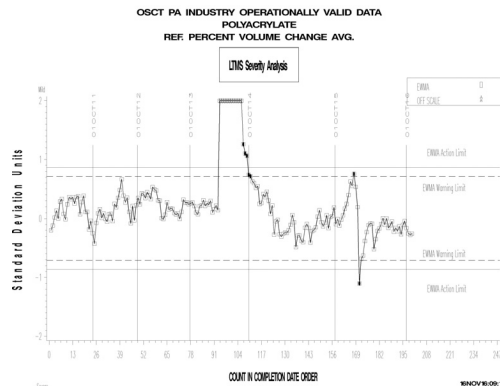
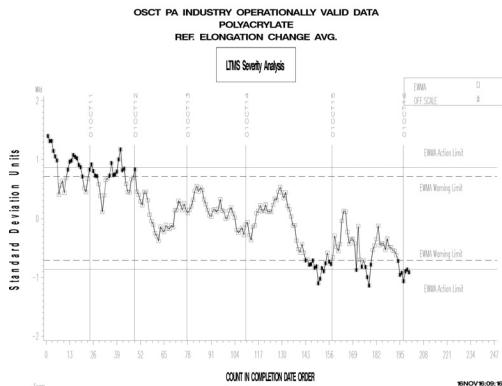
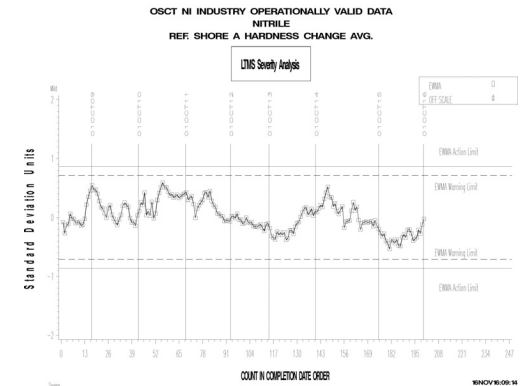
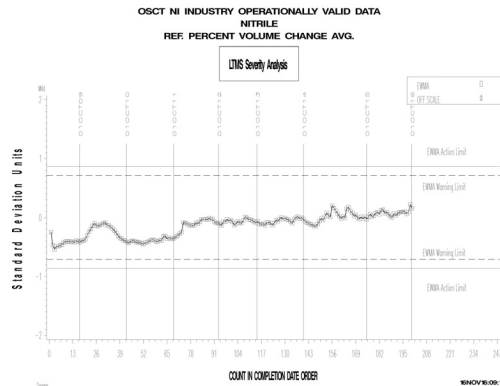
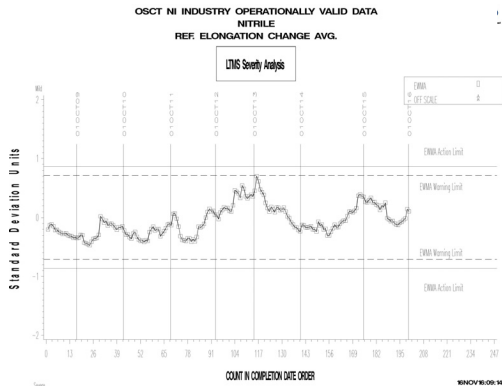
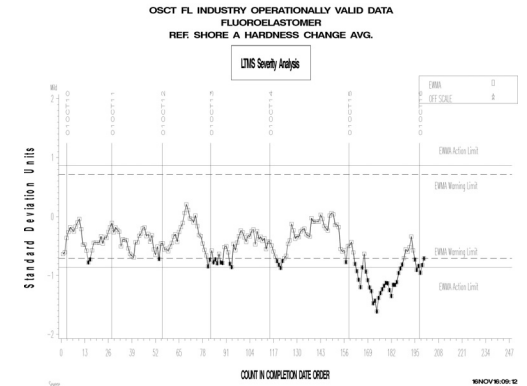
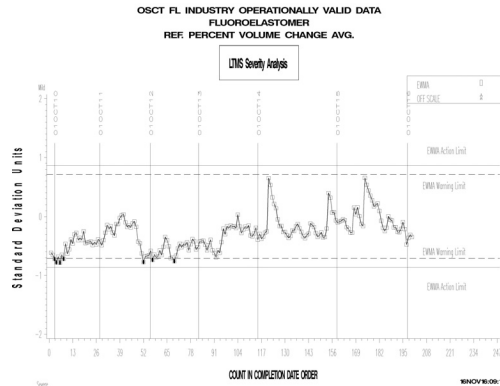
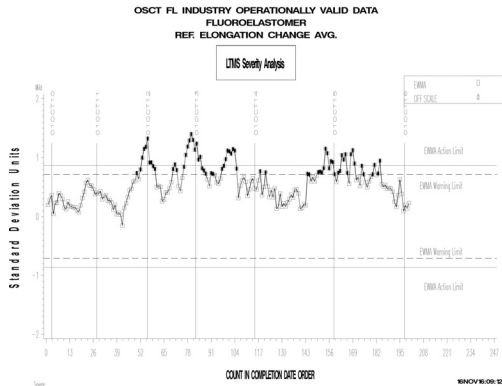
CUSUM Severity Analysis



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BY-ELASTOMER SEVERITY

OSCT (D5662)



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TIMELINE ADDITIONS

Effective Date	Information Letter	Event
20160824	16-1	Revised elastomer slab thickness specification for hardness measuring

OSCT (D5662)

LAB VISITS

Two OSCT lab visits were conducted during this period. A number of lab-to-lab differences were noted and brought to the attention of the surveillance panel for resolution. A teleconference is scheduled to address these items.

INFORMATION LETTERS

Information Letter 16-1 was issued 20160824 to revise the required total stack thickness for hardness testing.

OSCT (D5662)

STATUS OF REFERENCE OIL SUPPLY

Oil	Cans @ Labs	@ TMC	
		Cans	Gallons
160-1	27	94	18.7
161-1	0	0	0.0
168	17	0	0.0
169	63	1103	187.4
170	9	238	47.3
Total	116	1435	253.4

Oil 161-1 has been depleted from TMC inventory. A reblend is not available. Oil 169 has been introduced as a replacement. Oil 168 is nearing depletion and is not re-blendable. The OSCT Surveillance Panel has introduced oil 170 as a replacement oil.