



Test Monitoring Center

203 Armstrong Drive, Freeport, PA 16229, USA

www.astmtmc.org
412-365-1000

MEMORANDUM: 24-018
DATE: May 21, 2024
TO: Don Bell, Chairman, OSCT Surveillance Panel
FROM: Dylan Beck *Dylan Beck*
SUBJECT: OSCT Reference oil testing from October 1, 2023 through March 31, 2024

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

DJB/djb/mem24-018.djb.doc

cc: Jeff Clark

Sean Moyer

OSCT Surveillance Panel

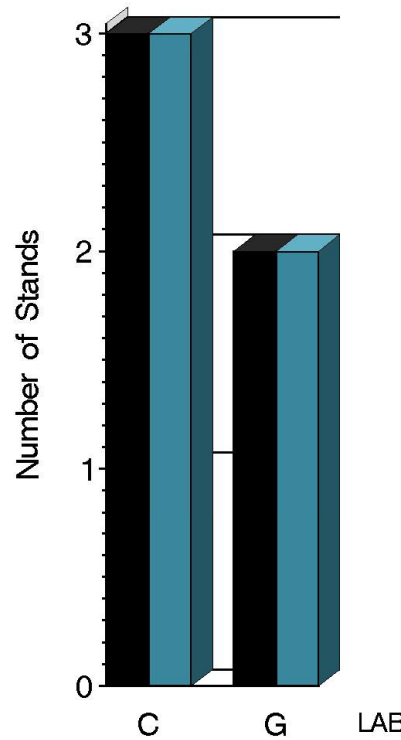
<https://www.astmtmc.org/ftp/docs/gear/osct/semiannualreports/osct-04-2024.pdf>

Distribution: email

OSCT (D5662)

	Reporting Data	Calibrated on 3-31-2024
Number of Labs	2	2
Number of Stands	5	5

BY-LAB STAND
DISTRIBUTION



Report Period: ■ Current ■ Previous

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Test Distribution by Elastomer and Validity

					Totals	
		FL	NI	PA	Last Period	This Period
Accepted for calibration	AC	13	3	13	23	29
Rejected (low result)	OC	0	1	1	3	2
Rejected (high result)	OC	0	0	0	1	0
Rejected (high and low)	OC	0	3	0	0	3
Op. invalid	LC	0	0	0	0	0
Aborted	XC	1	0	1	0	2
Elastomer approval run	NI	1	0	6	12	7
Invalid information run	MI	0	0	3	0	3
Op. invalid approval run	LI	0	0	0	0	0
Total		15	7	24	39	46



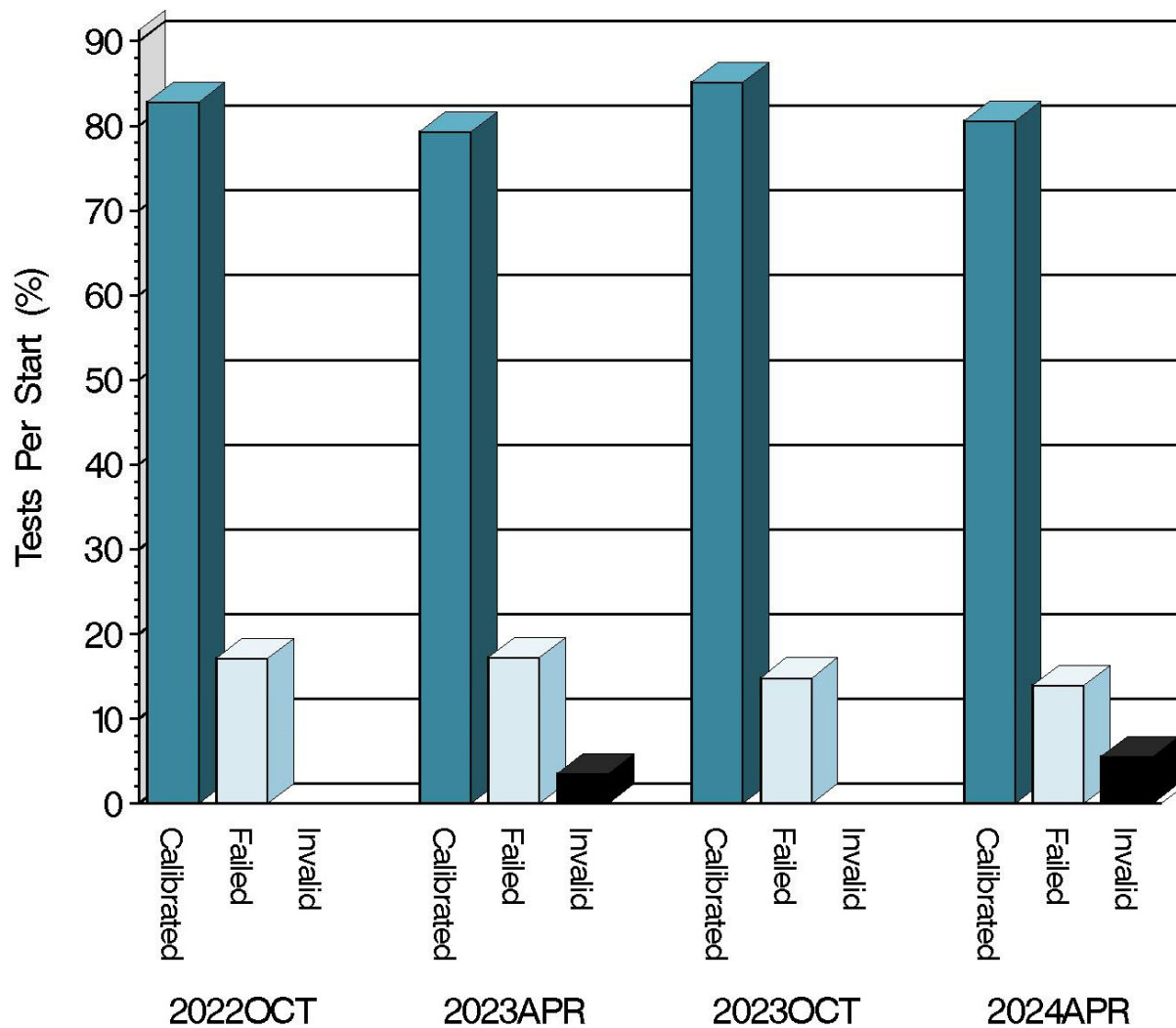
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CALIBRATION ATTEMPT SUMMARY



Resolution

Report Period

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CAUSES FOR LOST TESTS

Lab	Cause	Elastomer			Loss Rate				Lost	Starts	%
		FL	NI	PA	LI	MI	LC	XC			
G	Bath Failure	●		●				●	2	22	9%
	Lost	1	0	1	0	0	0	2			
	Starts	15	7	24	46	46	46	46			
	%	6.7%	0%	4.2%	0%	0%	0%	4.3%			



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Average Δ /s by Lab

Elastomer	Lab	N	PELA	PVCA	SAHA
FL	C	7	0.101	-0.402	-0.648
	G	6	-1.039	0.213	-0.528
	Industry	13	-0.425	-0.118	-0.592
	Shift*	13	-3.248	-0.644	-0.826
NI	C	5	2.362	-0.431	-6.043
	G	2	-0.427	0.741	0.371
	Industry	7	1.565	-0.096	-4.210
	Shift*	7	8.094	-0.051	-4.872
PA	C	8	-1.737	-0.002	0.564
	G	6	0.304	-0.455	0.651
	Industry	14	-0.862	-0.196	0.602
	Shift*	14	-18.139	-0.371	1.530

*computed using historic pooled s



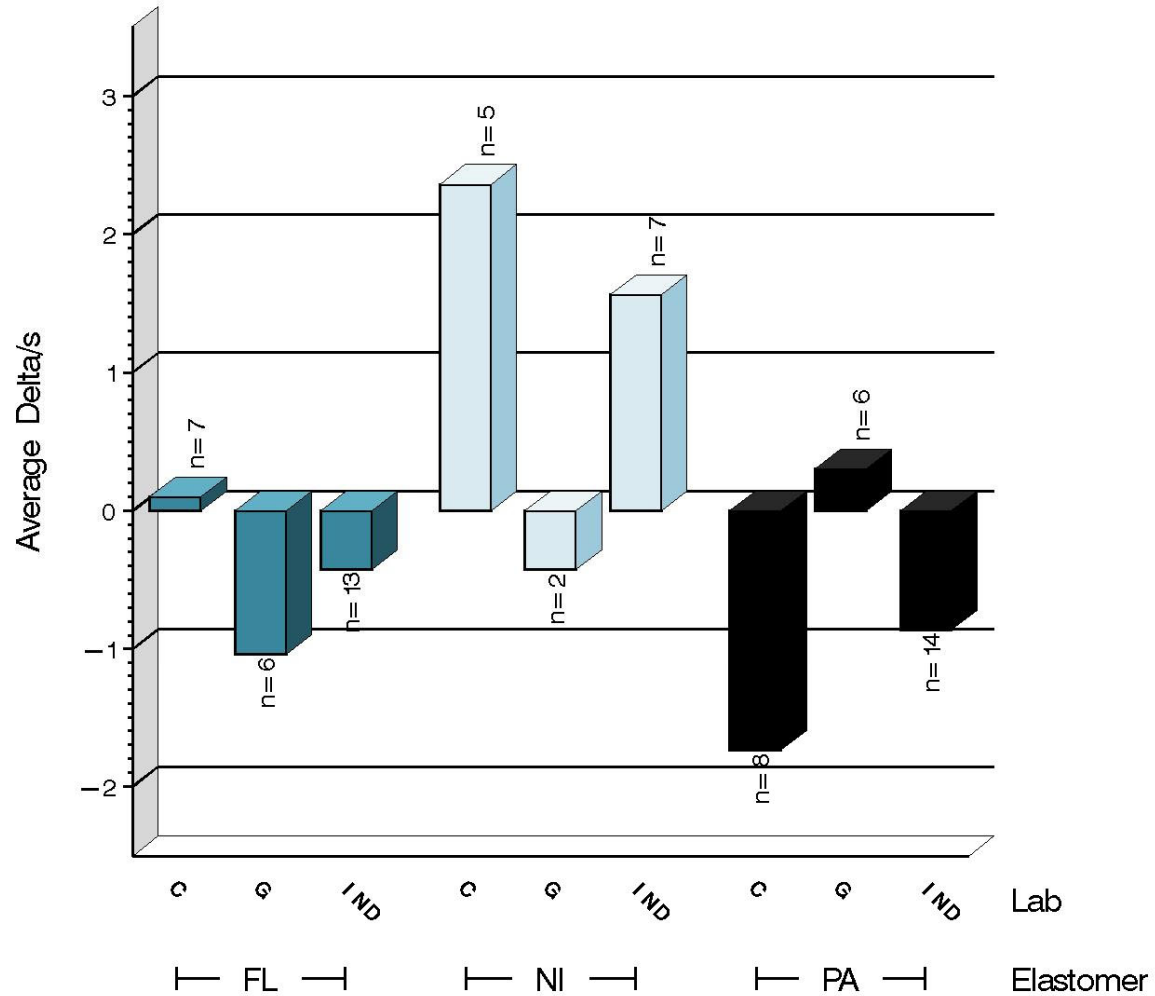
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%ELONGATION SEVERITY
DELTA/S BY LAB



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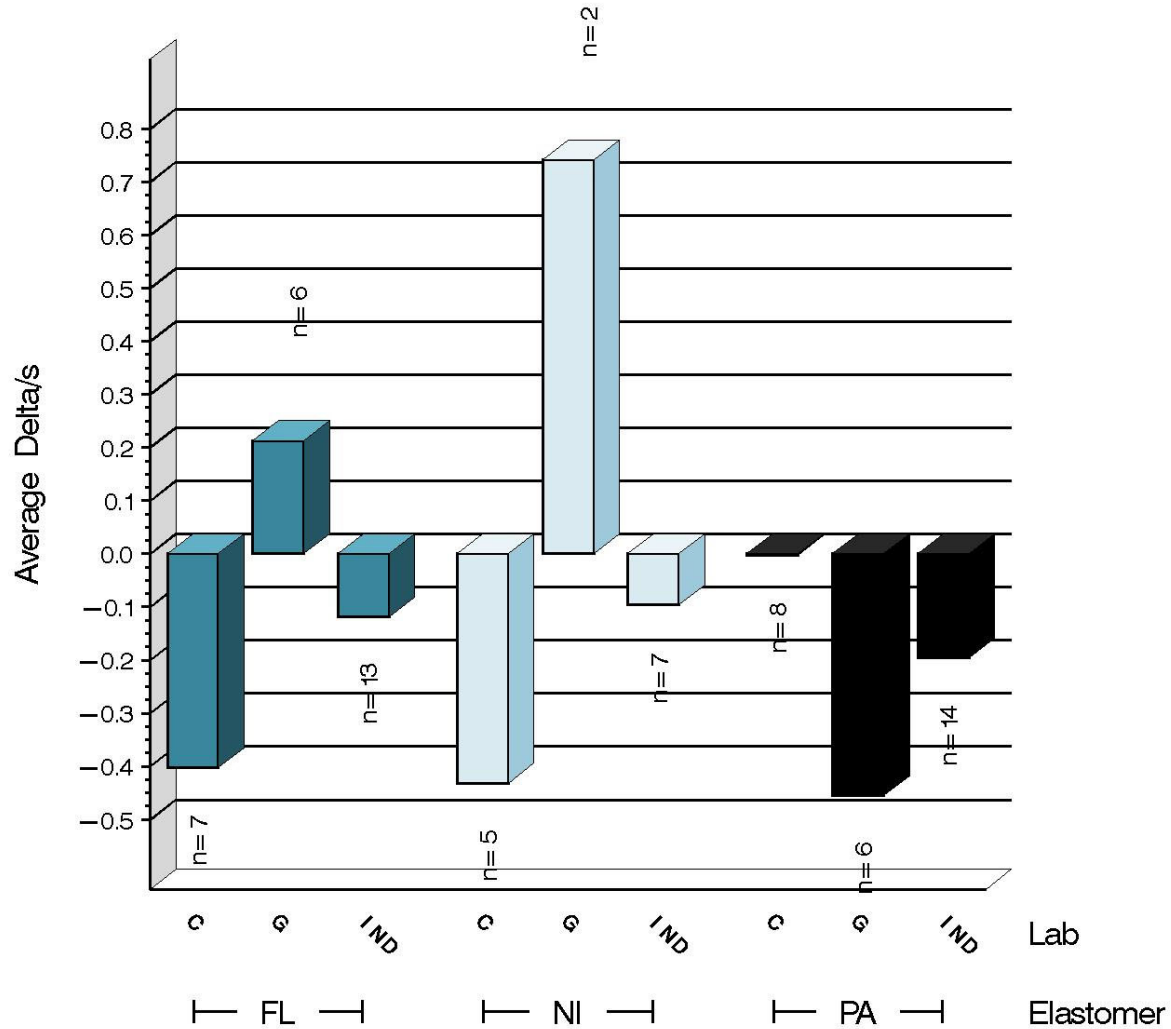
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%VOLUME CHANGE SEVERITY
DELTA/S BY LAB



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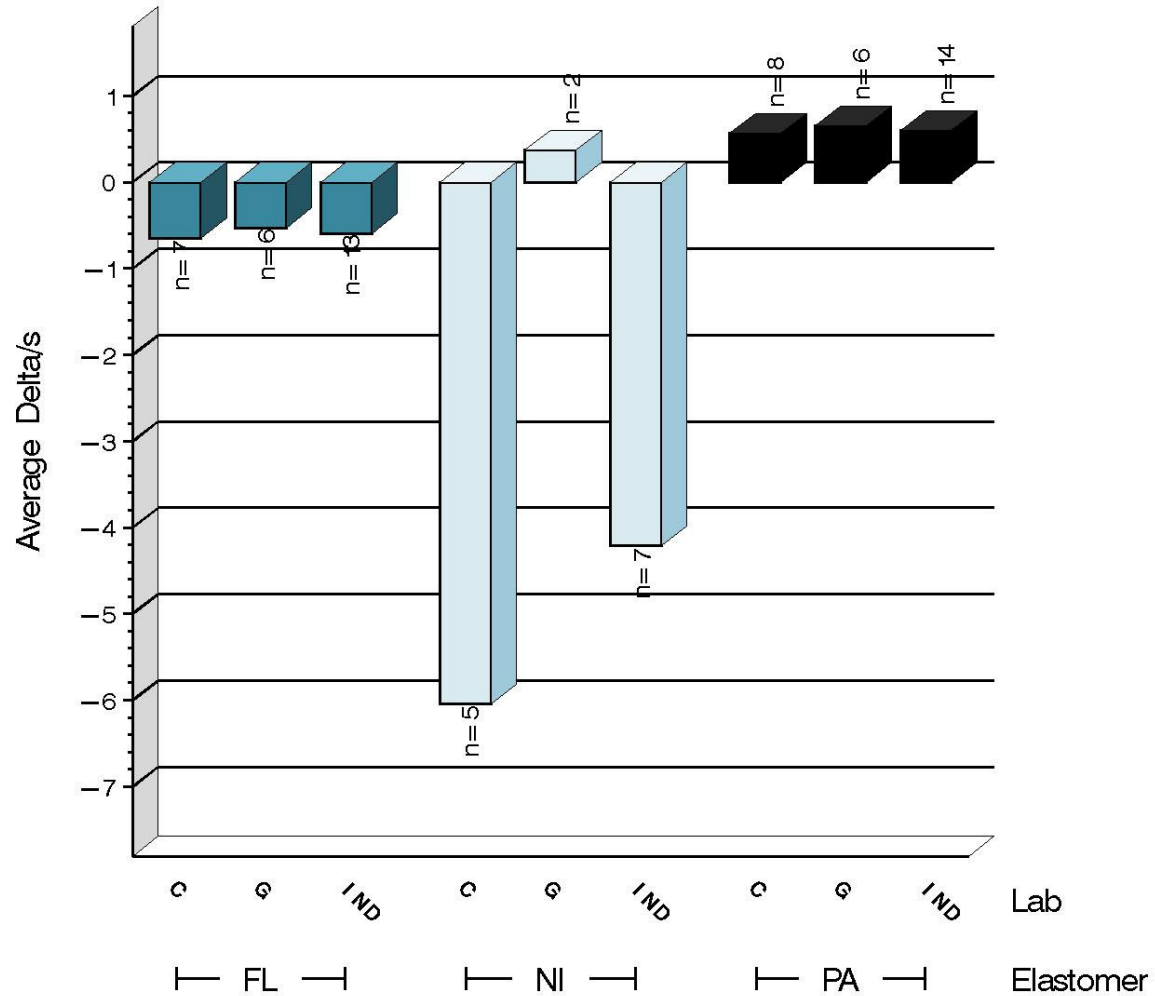
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S.A. HARDNESS SEVERITY
DELTA/S BY LAB



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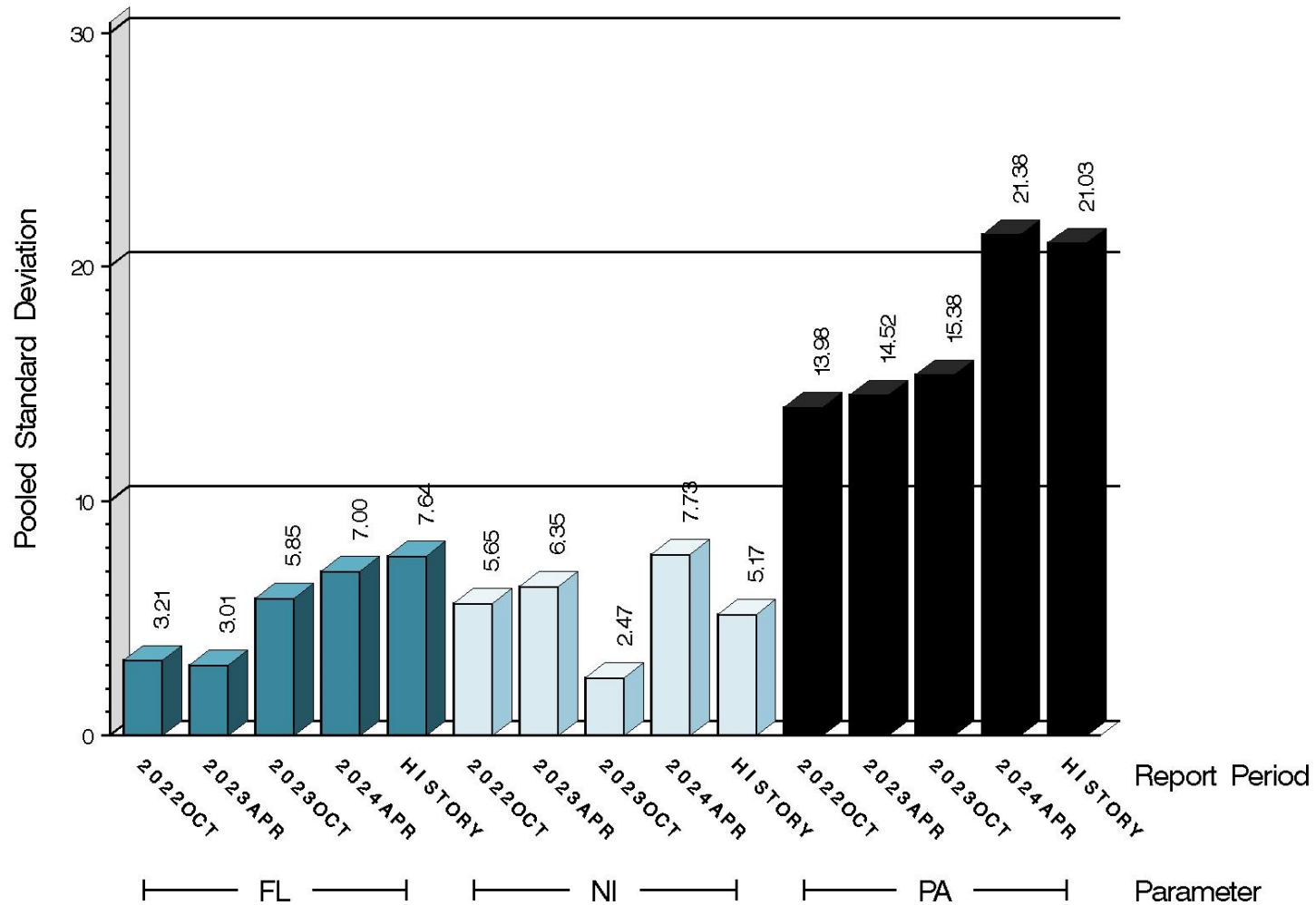
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%ELONGATION PRECISION
POOLED STANDARD DEVIATION
BY SIX-MONTH ASTM REPORT PERIOD



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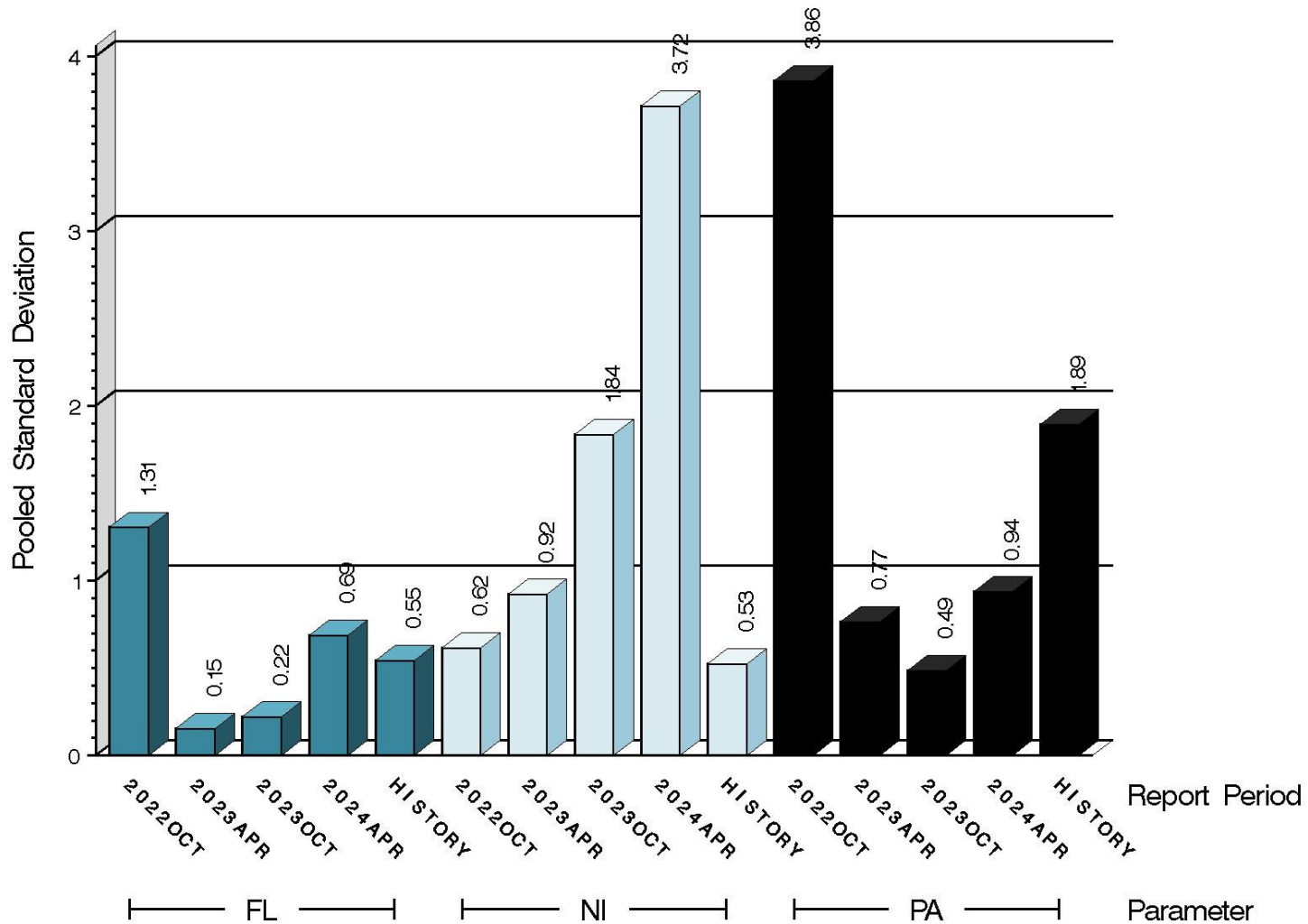
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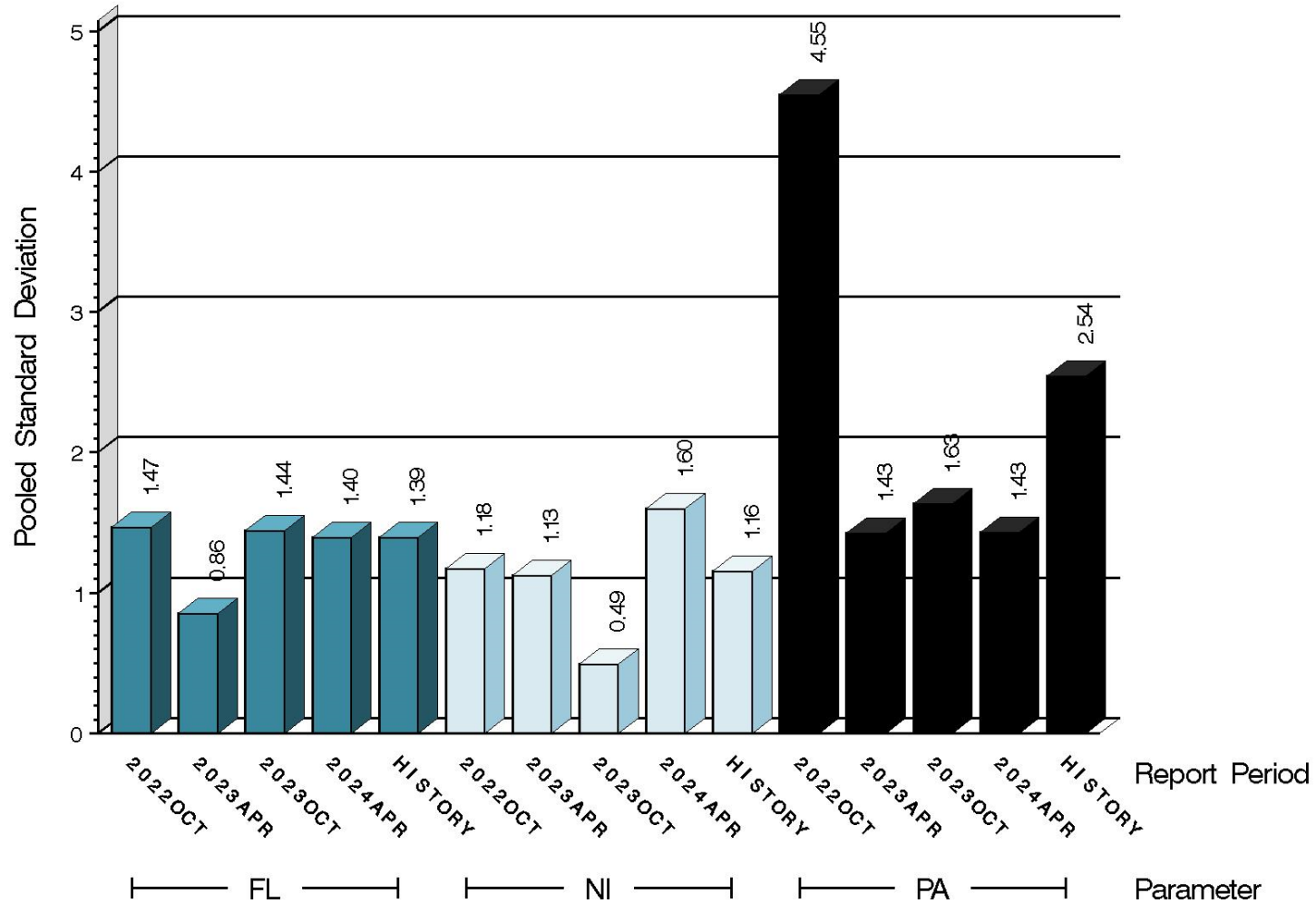
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SUMMARY OF SEVERITY & PRECISION

Severity

The combined-elastomer industry charts show that all parameters remained within the EWMA action limit this period.

FL PELA, NI PELA, PA PELA, NI PVCA, NI SAHA, and PA SAHA all exceeded the limits this period.

Precision

The combined-elastomer industry charts show that SAHA started the period exceeding the action limit but has since returned within the limit. PVCA and PELA both exceeded the limits with multiple tests this period but ended the reporting period within the limits.

Industry control charts follow.



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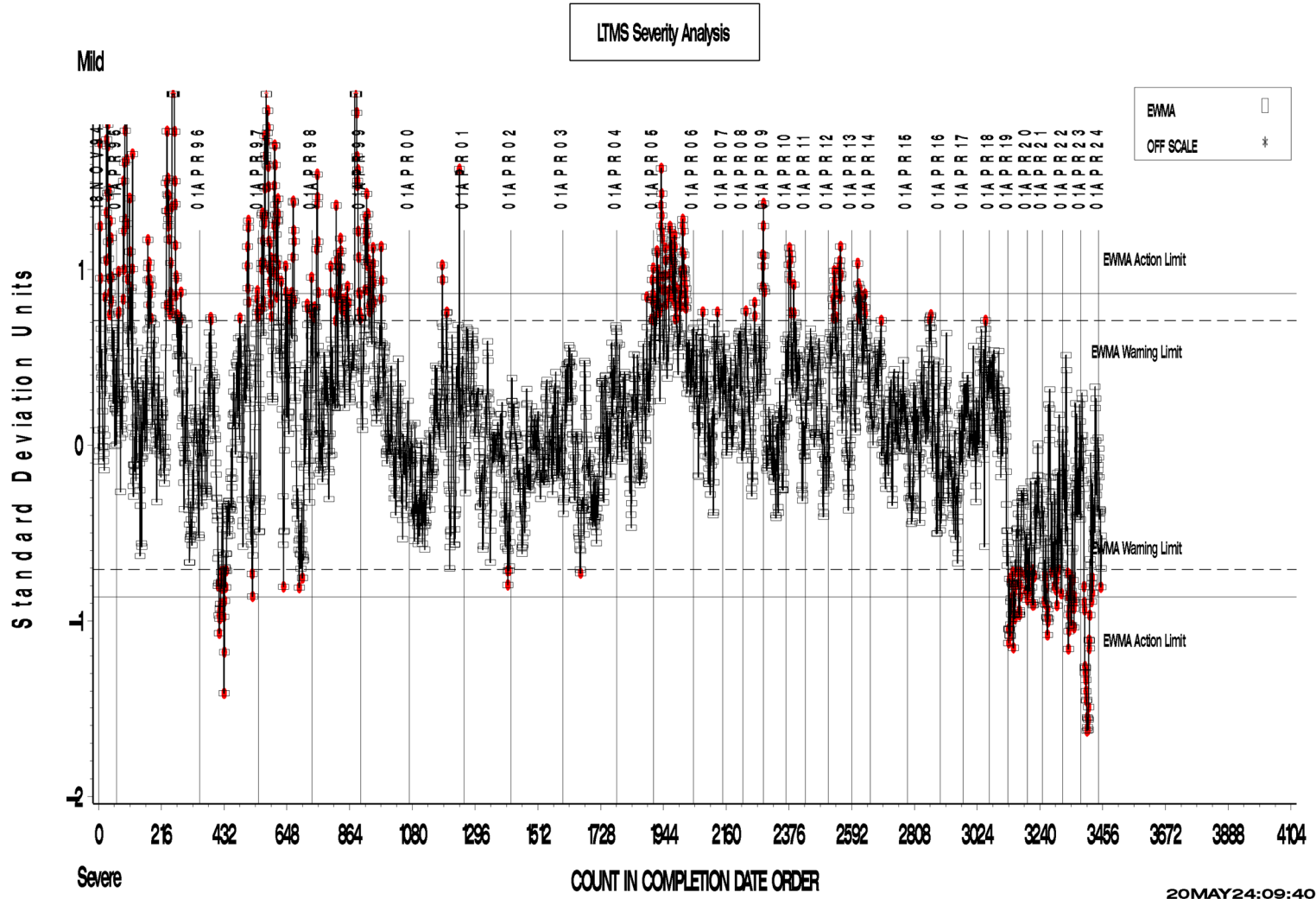
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REF. ELONGATION CHANGE AVG.



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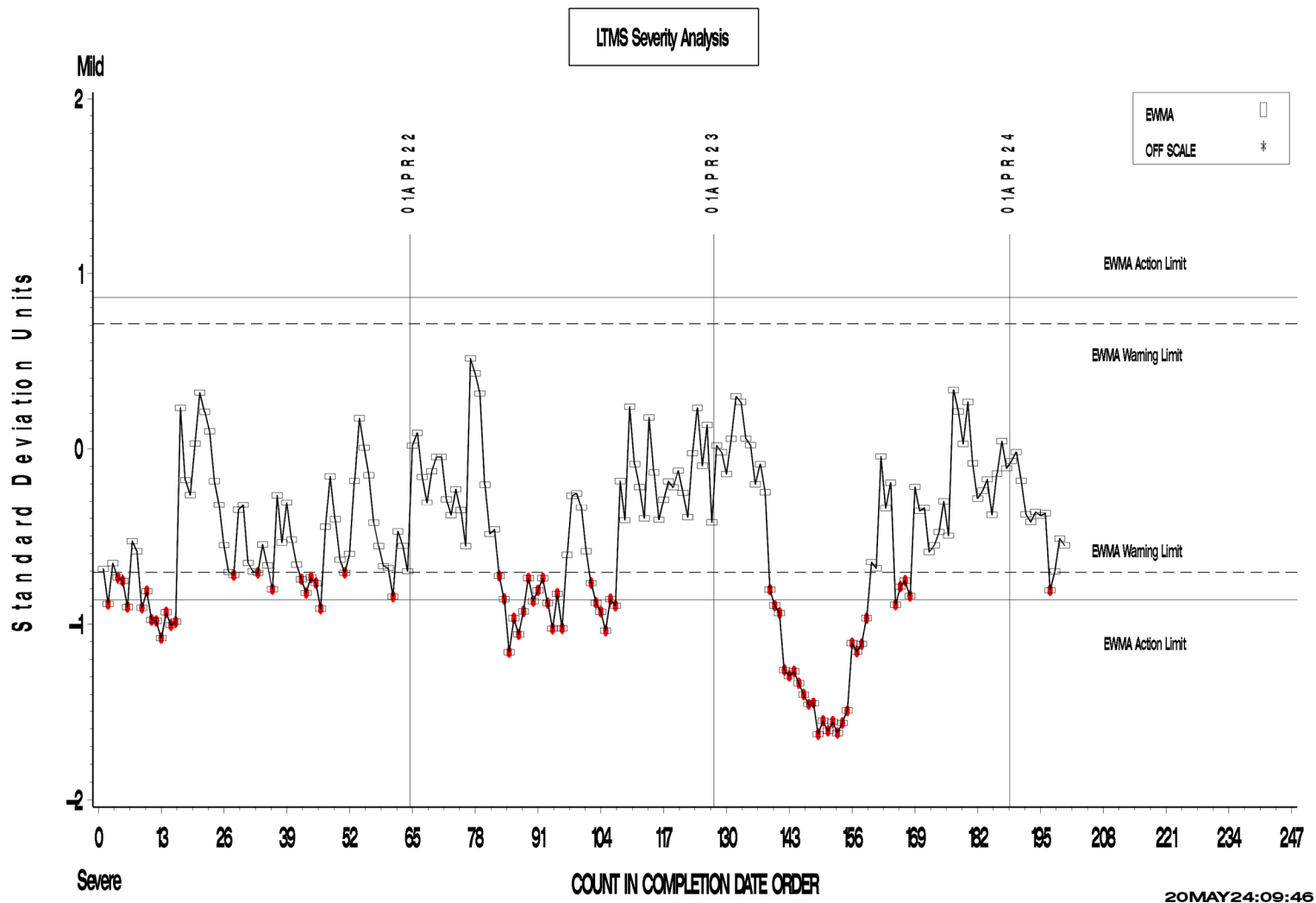
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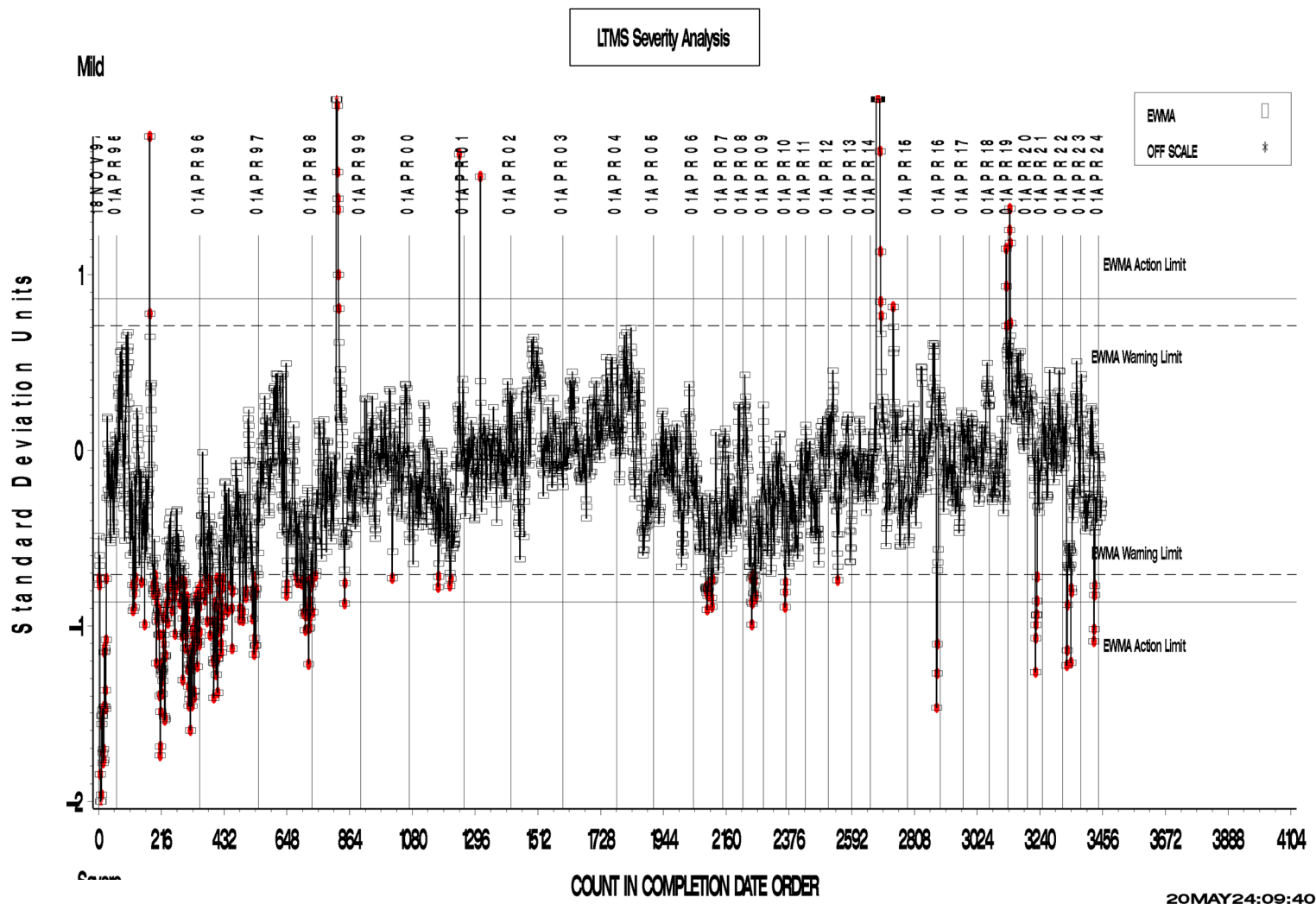
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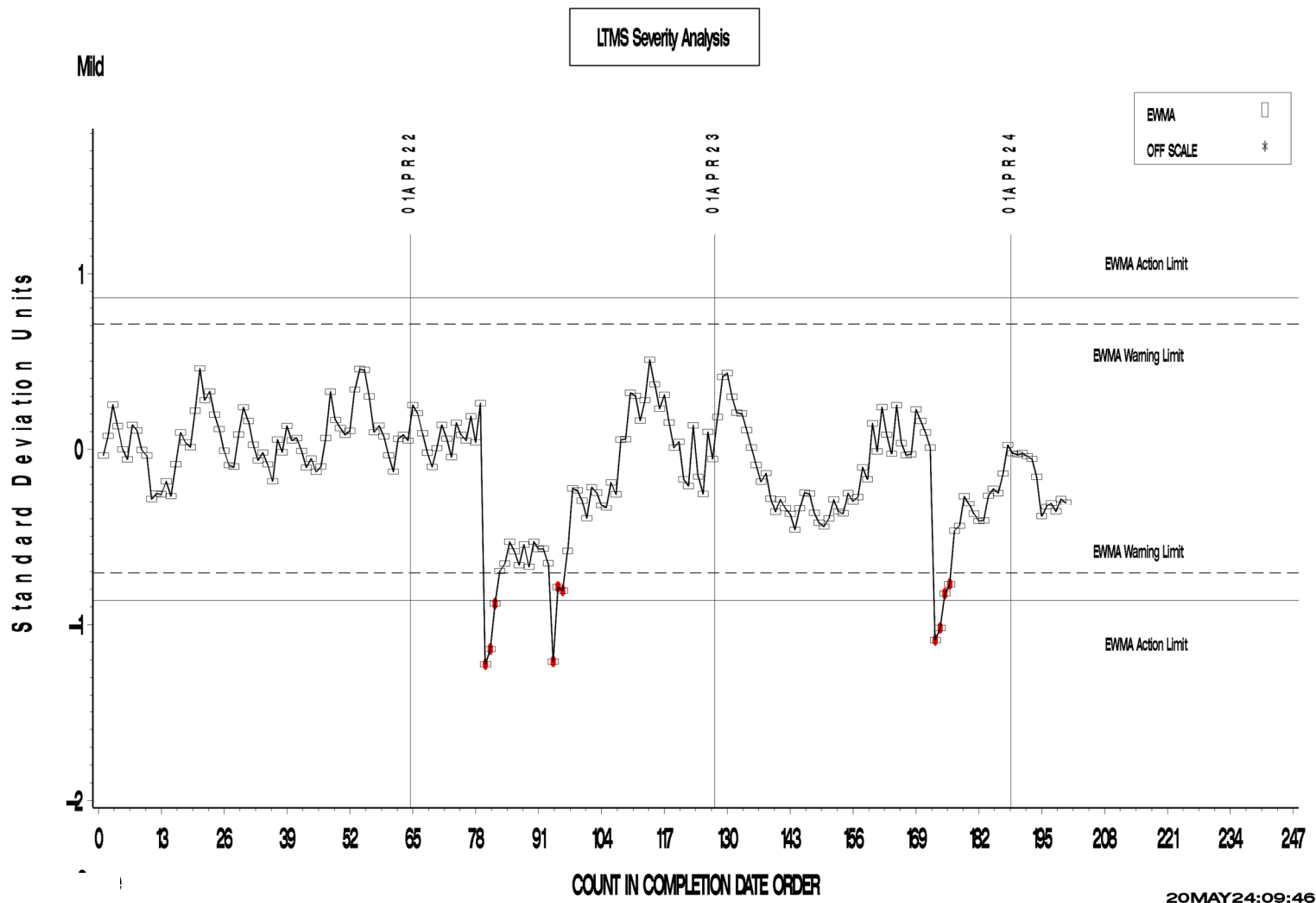
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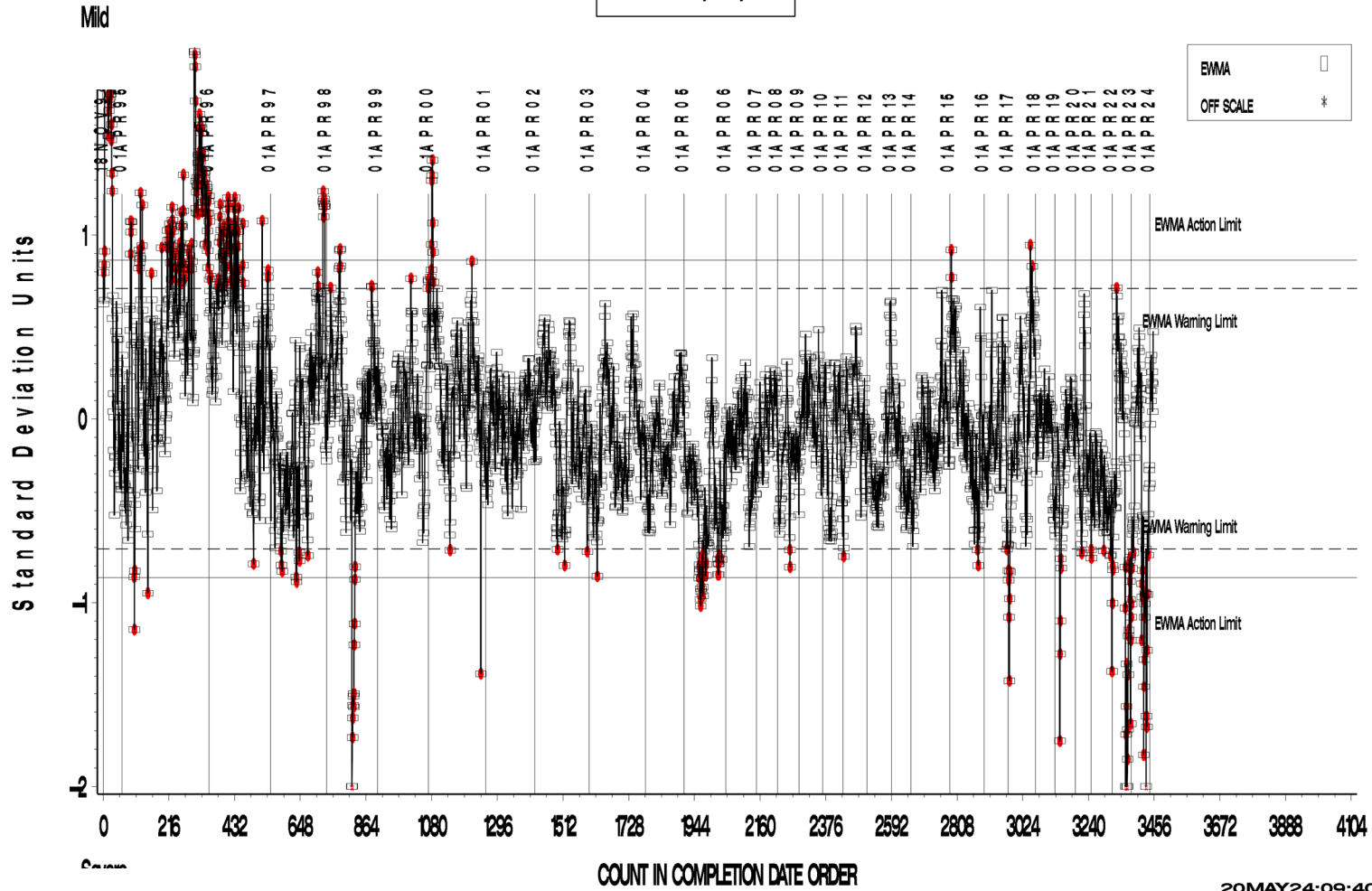
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REF. SHORE A HARDNESS CHANGE AVG.

LTMS Severity Analysis



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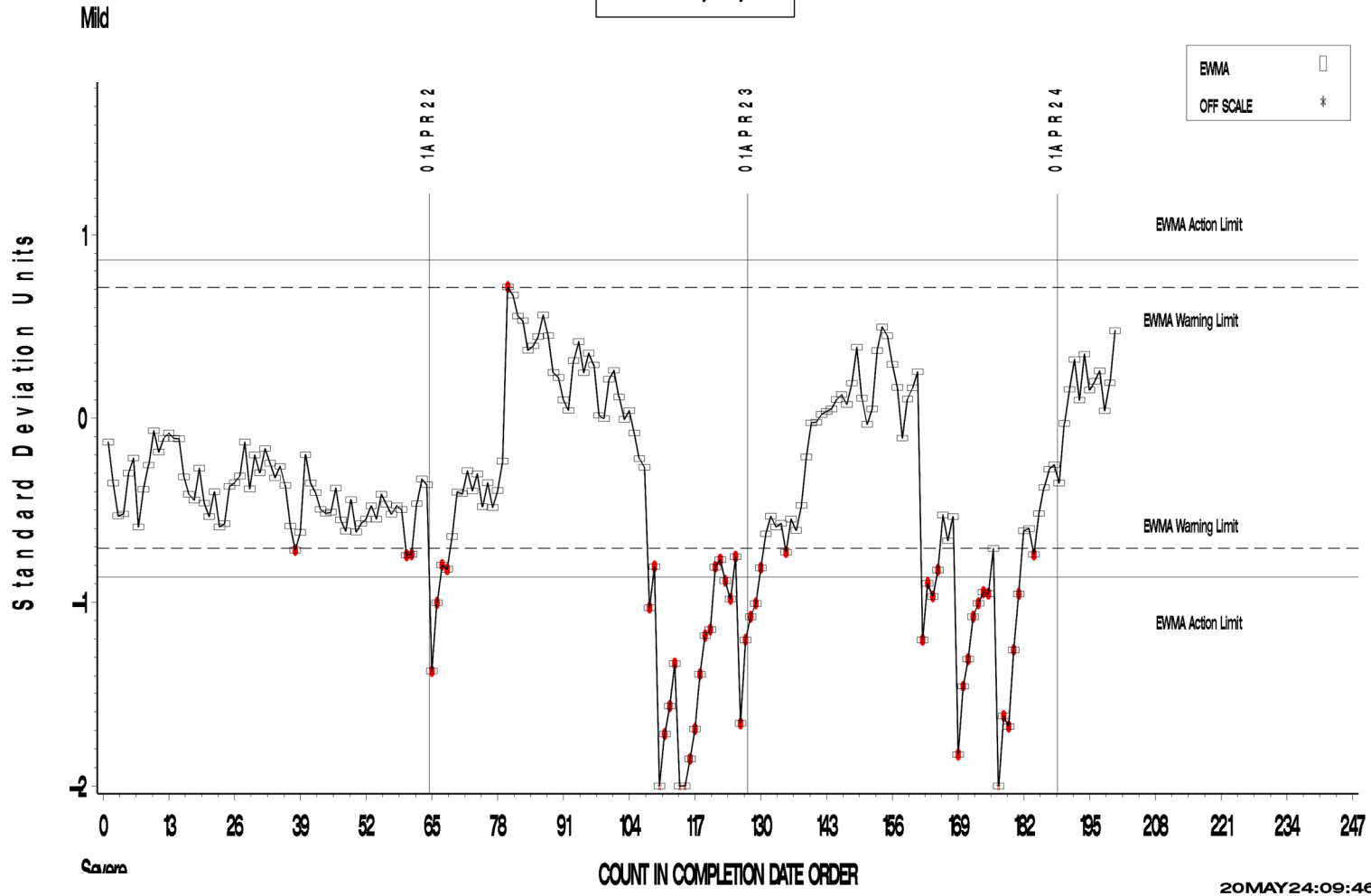
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LTMS Severity Analysis



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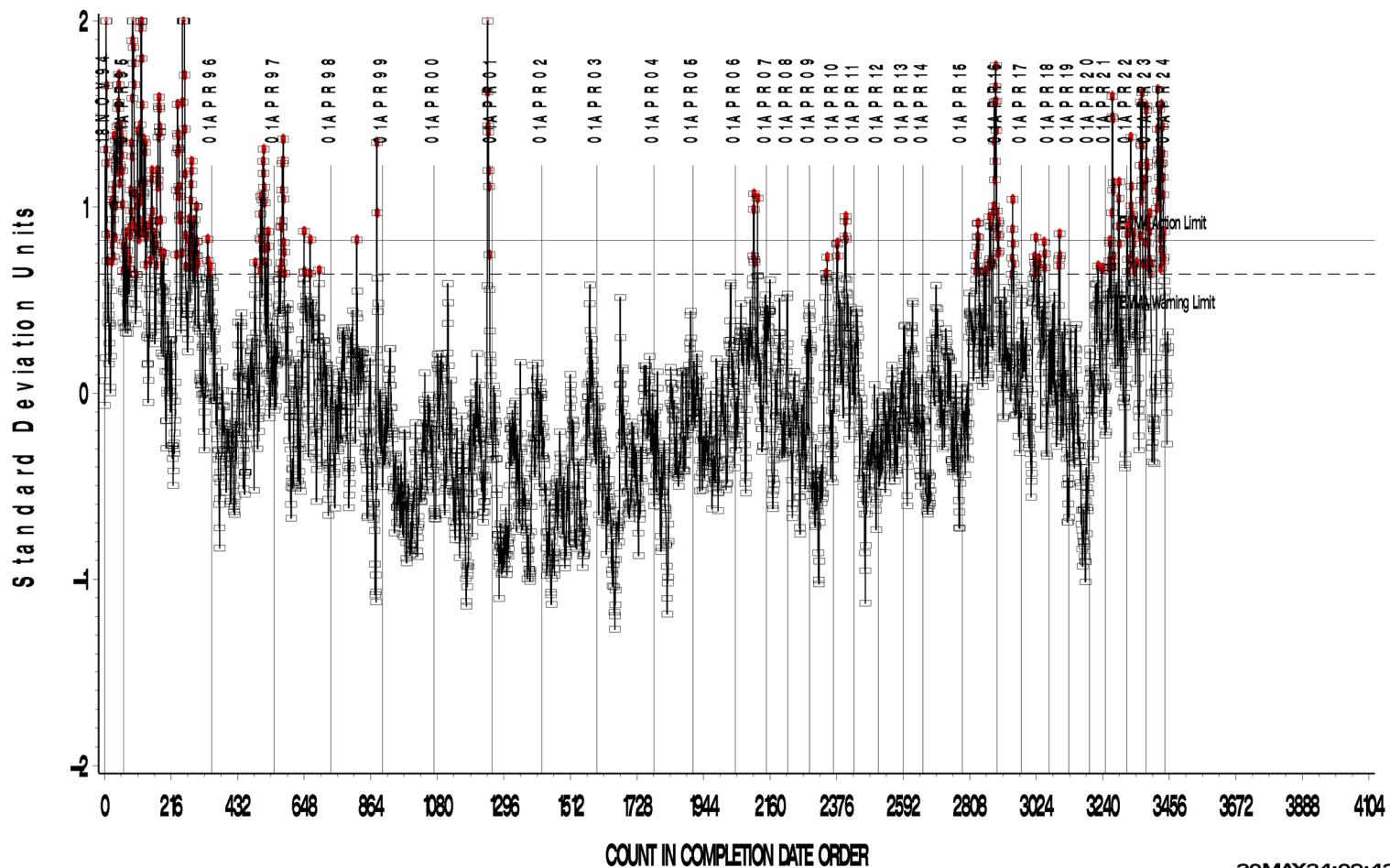
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LTMS Precision Analysis



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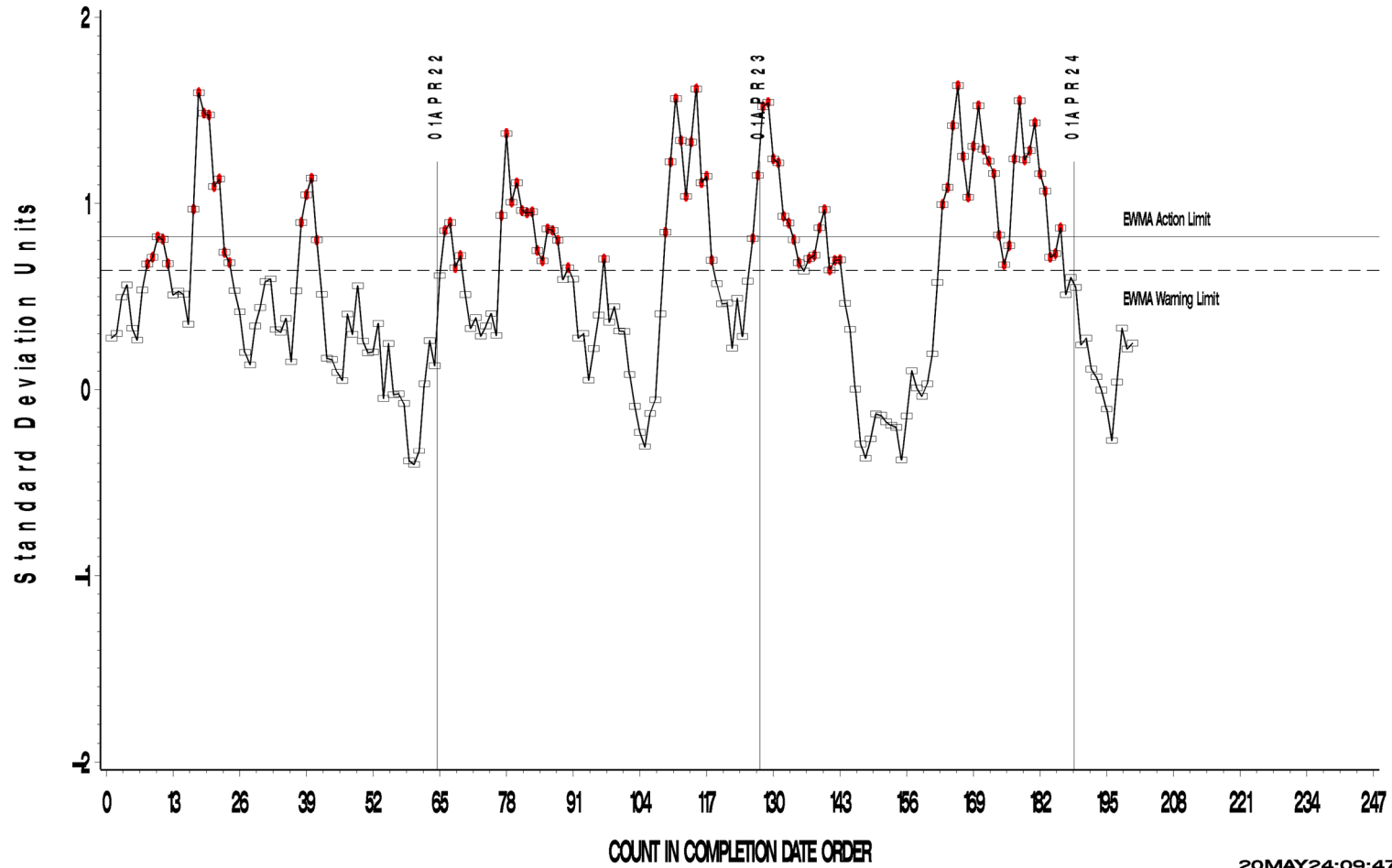
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LIMS Precision Analysis



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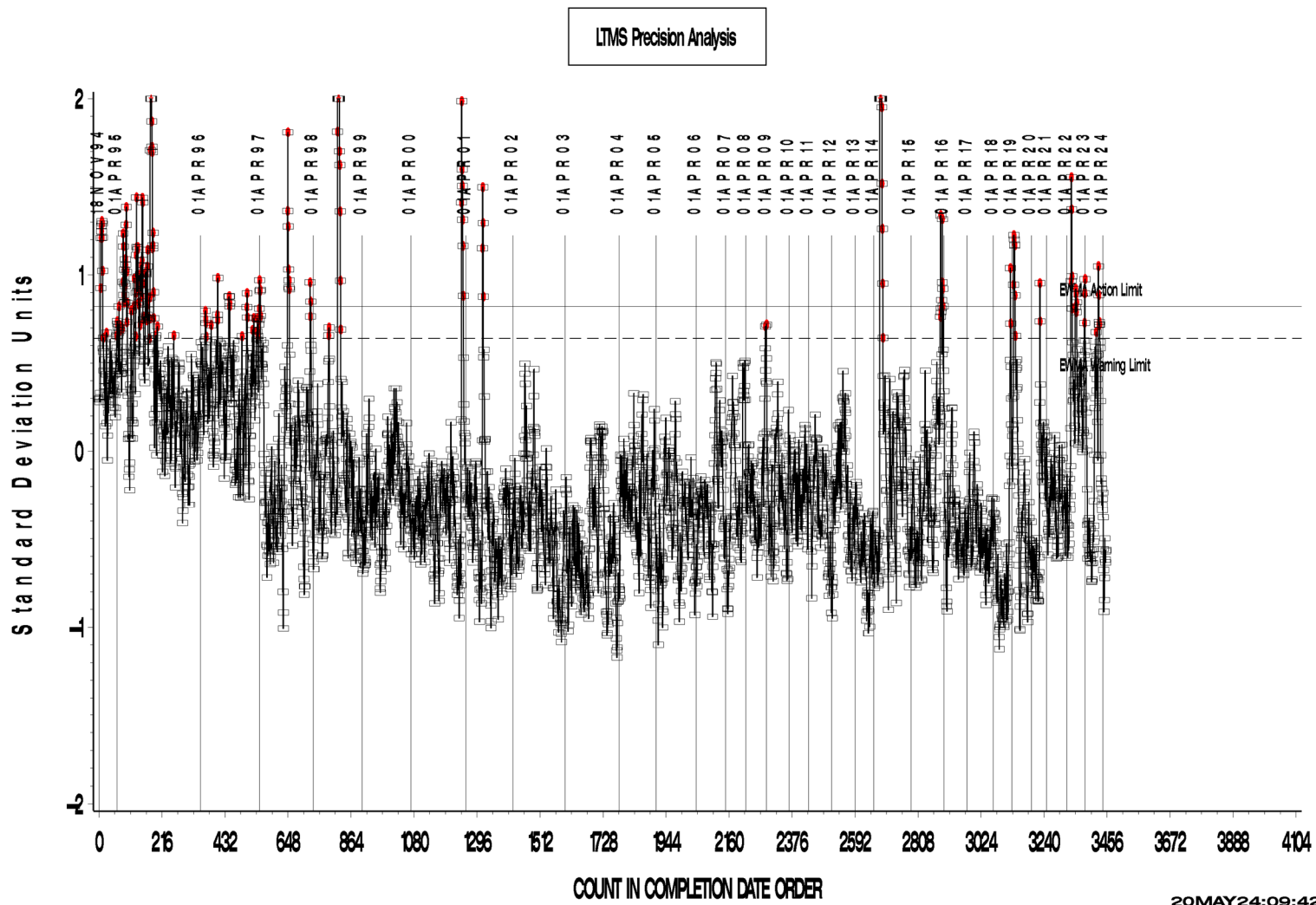
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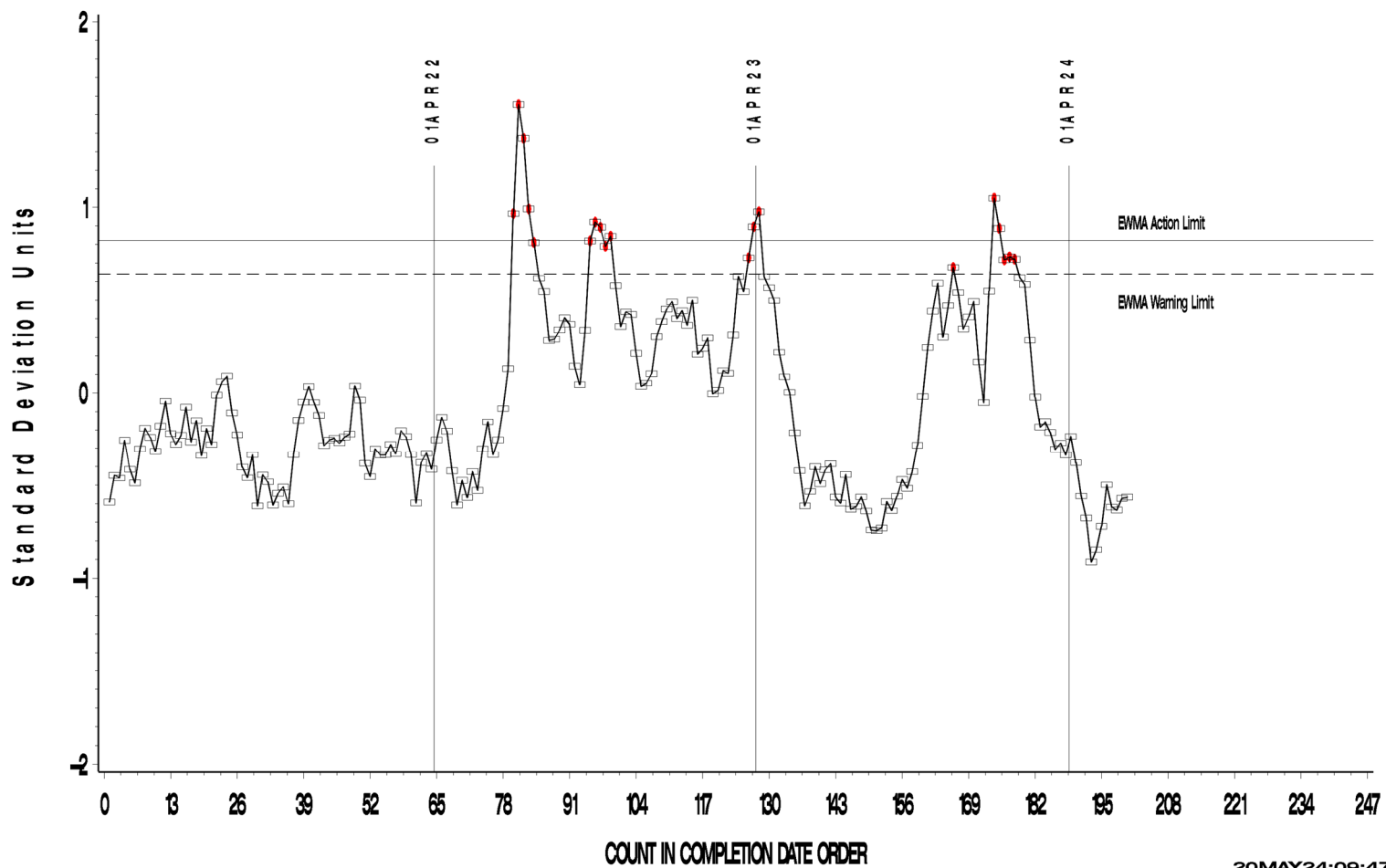
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LTMS Precision Analysis



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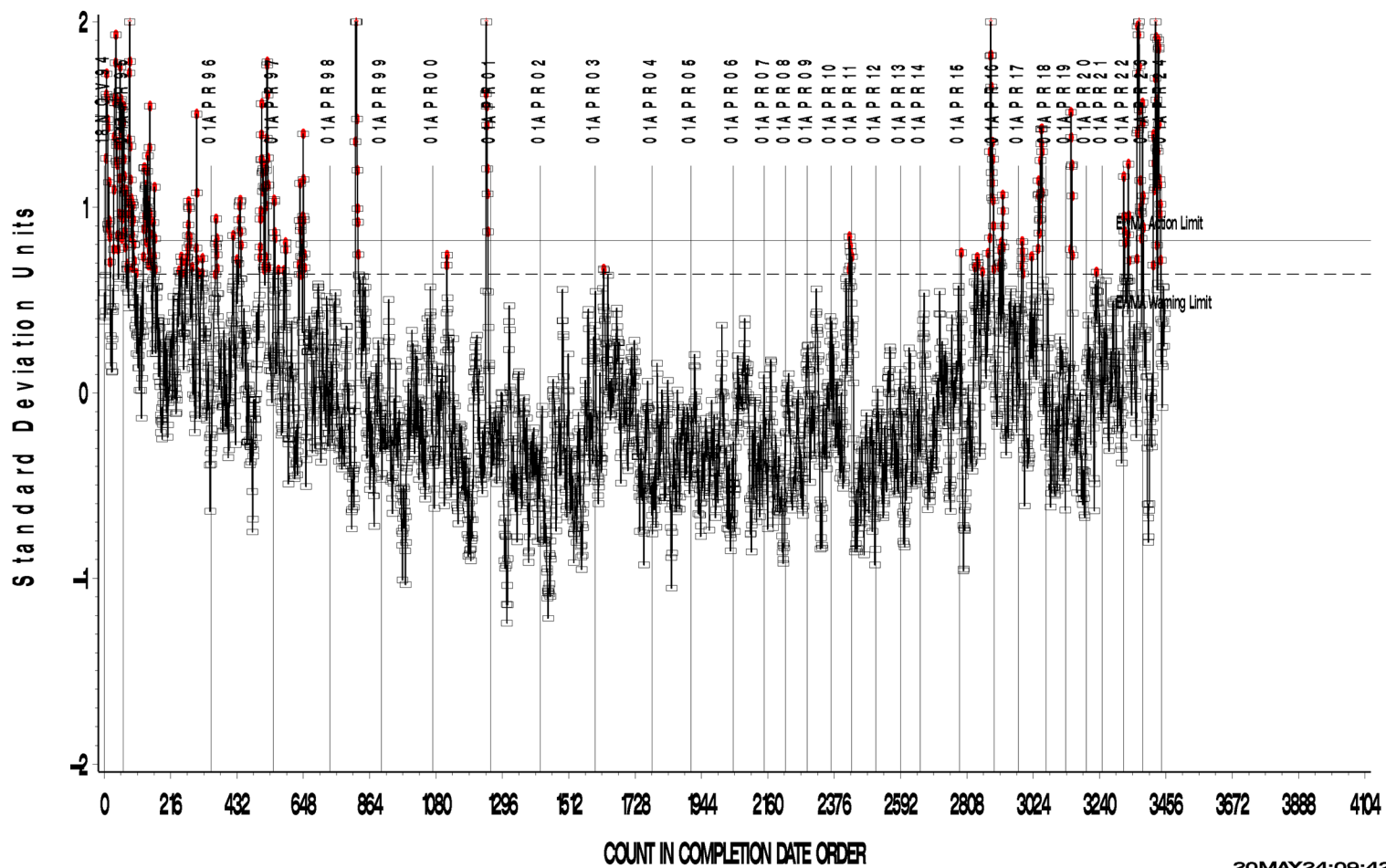
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LTMS Precision Analysis



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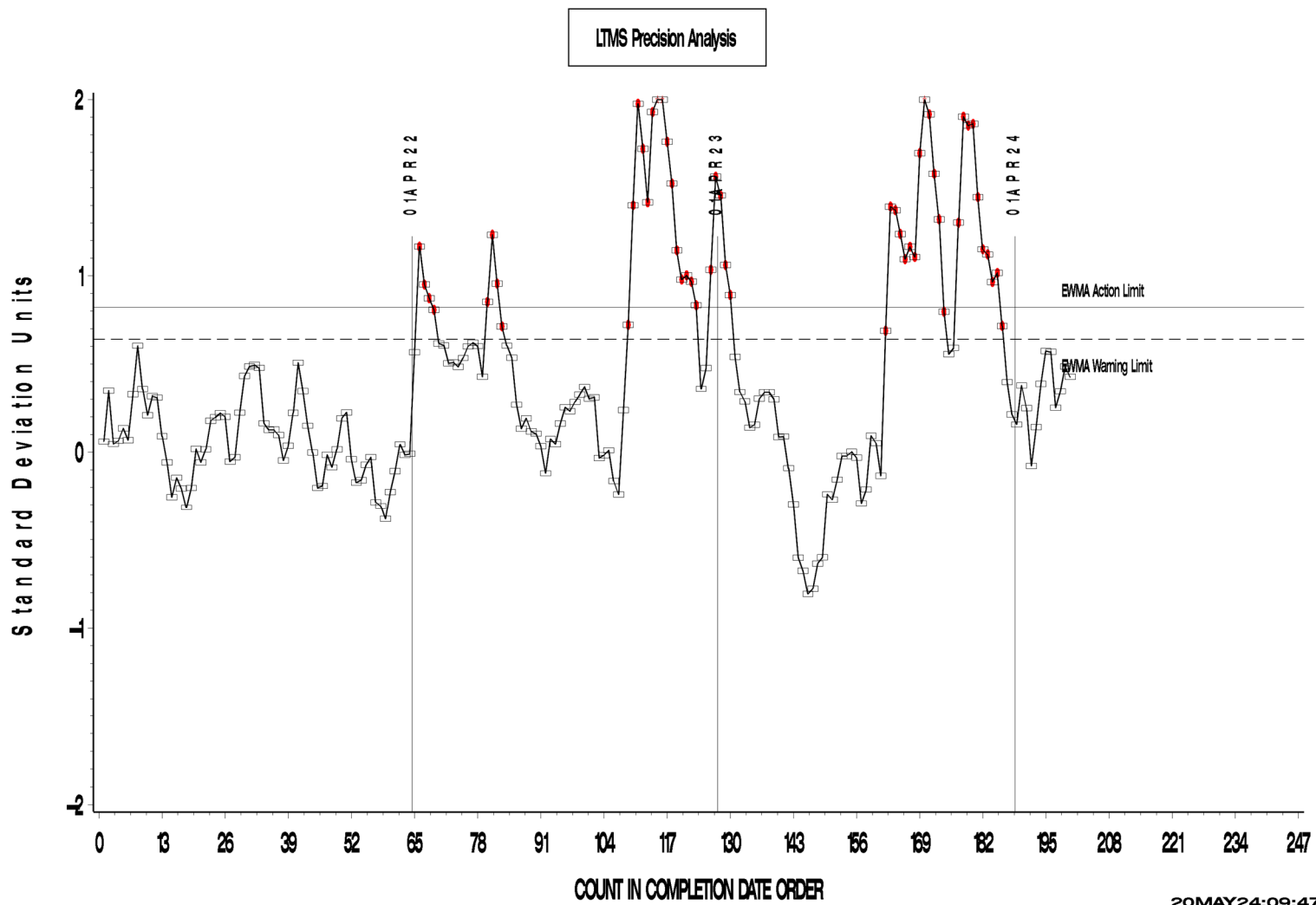
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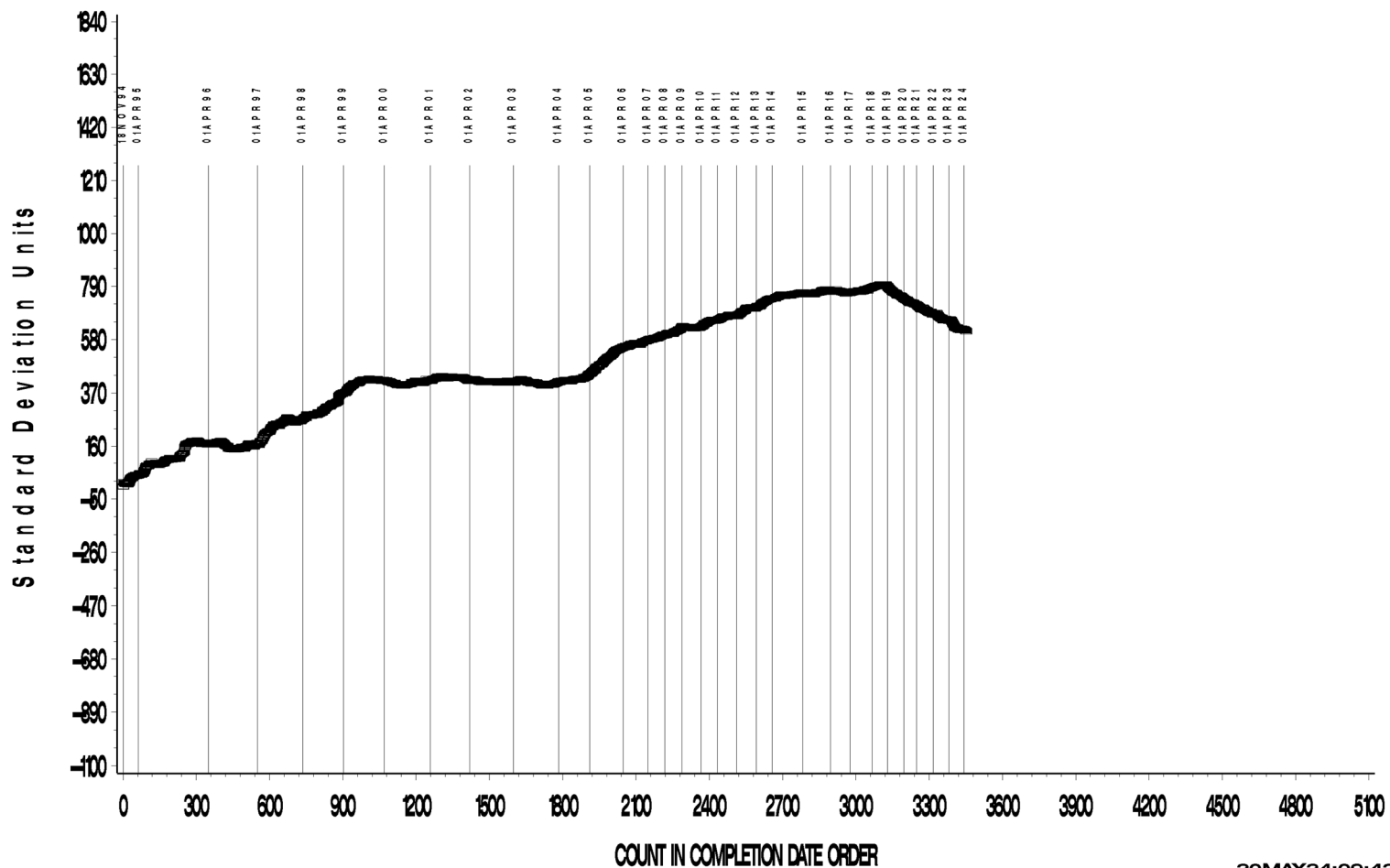
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CUSUM Severity Analysis



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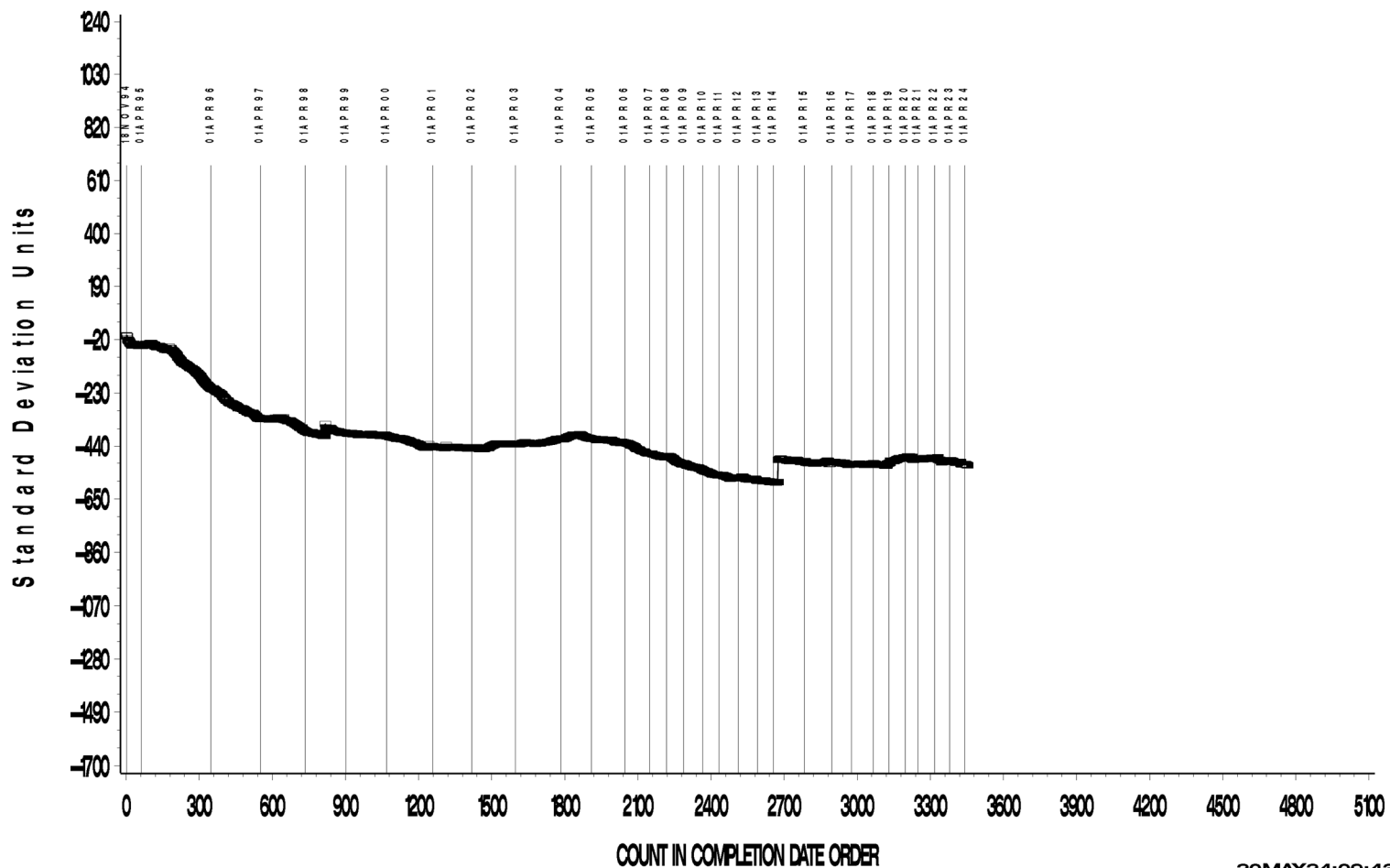
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CUSUM Severity Analysis



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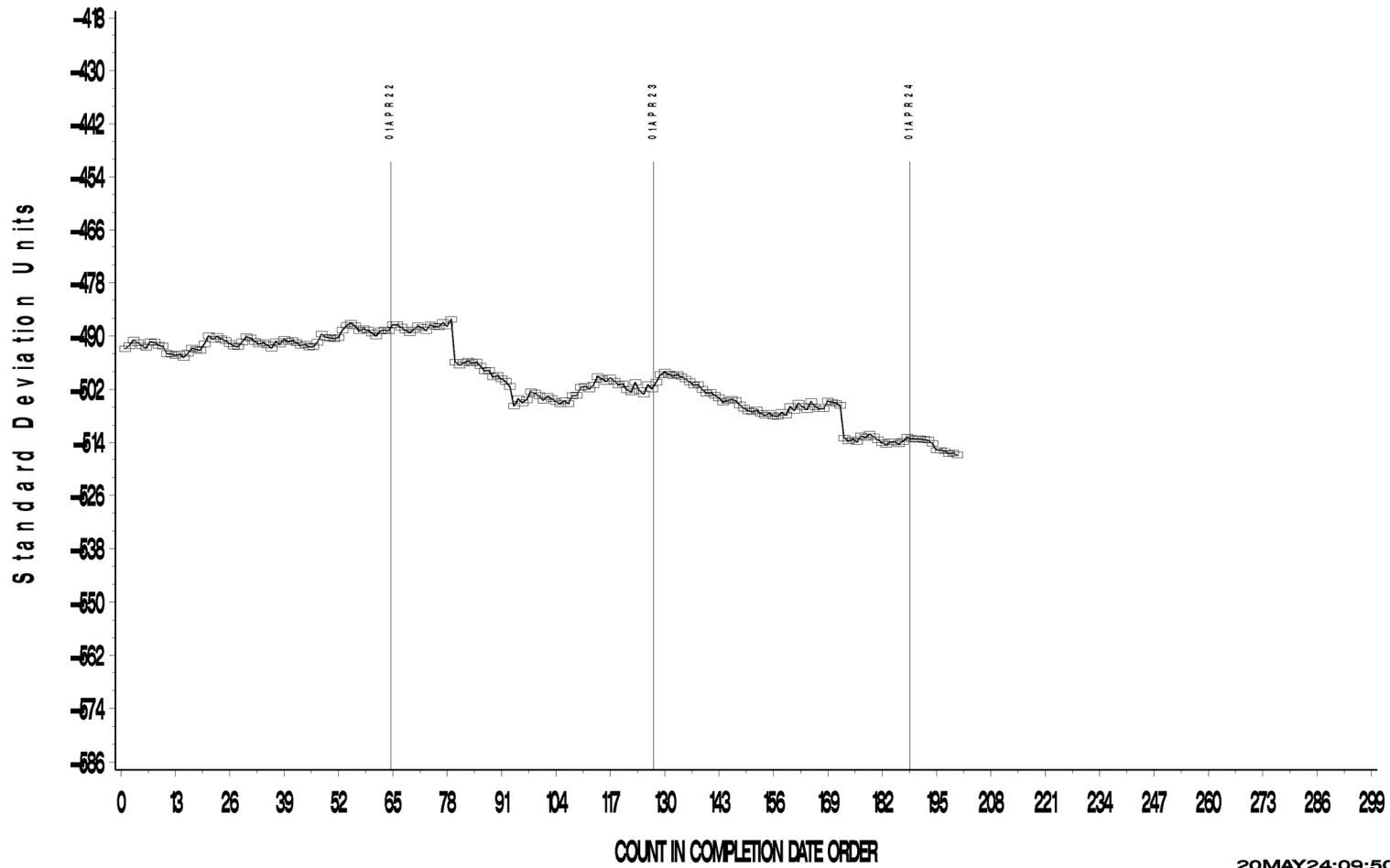
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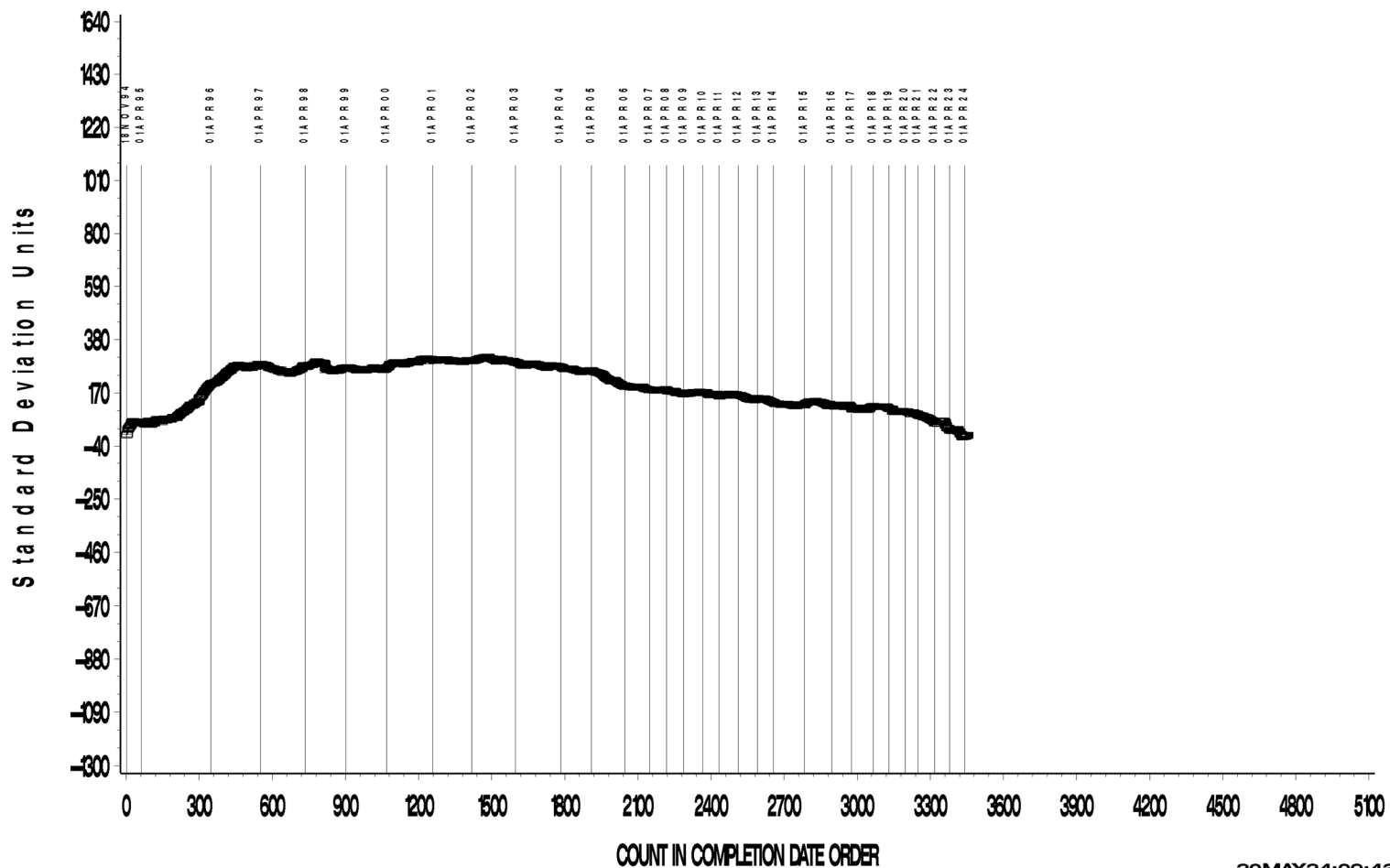
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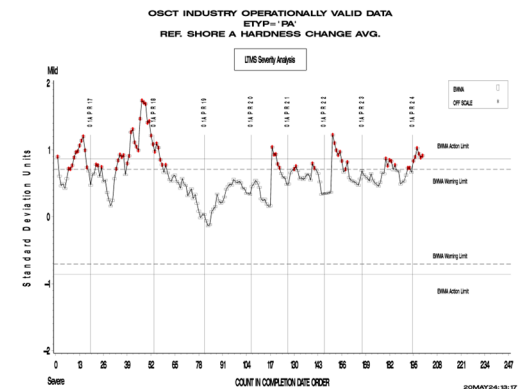
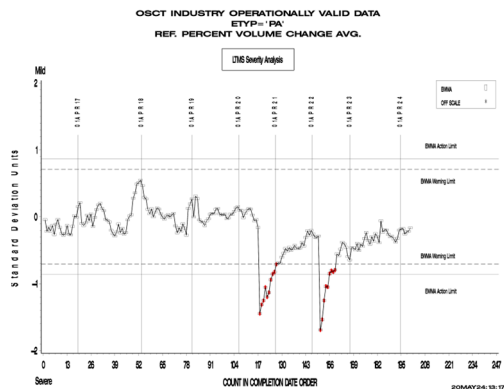
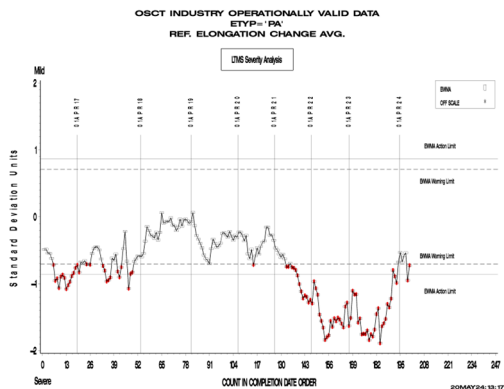
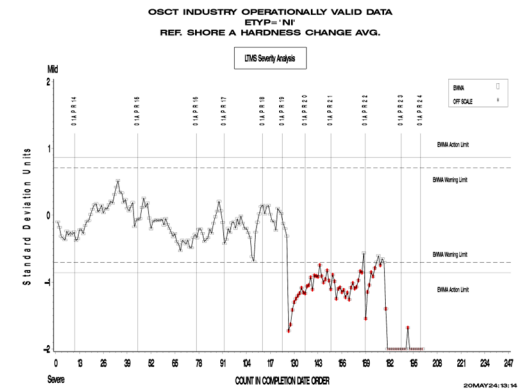
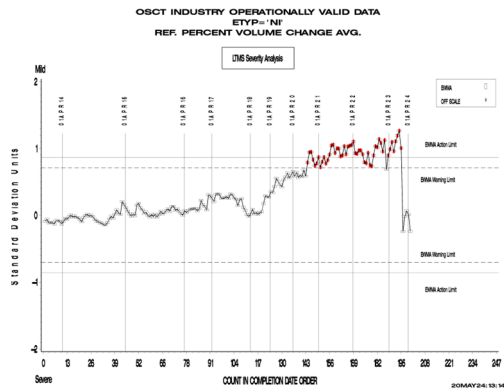
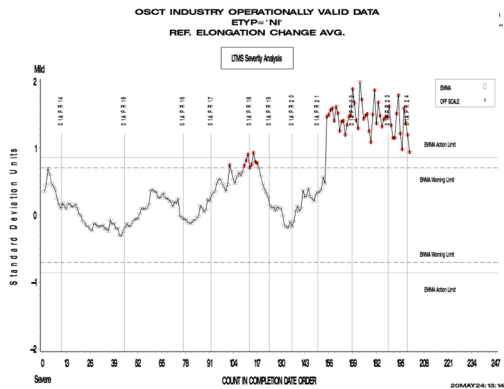
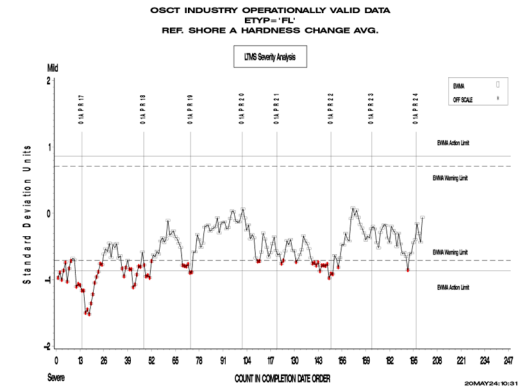
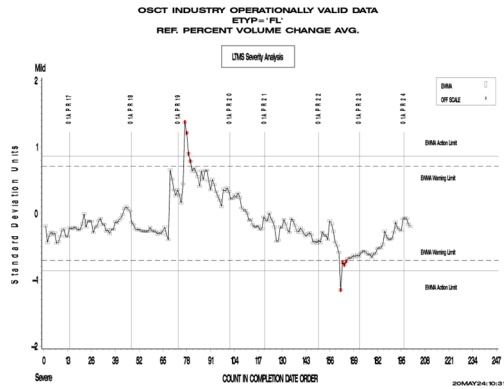
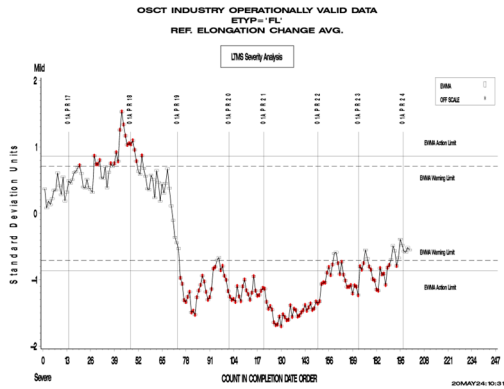
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BY-ELASTOMER SEVERITY

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TIMELINE ADDITIONS

Effective Date	Information Letter	Event
		No information letters issued during this reporting period.



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LAB VISITS

One lab visit was conducting during this reporting period. All observed aspects of the lab were found to be in accordance with the test method.

INFORMATION LETTERS

No information letters were issued during this reporting period.



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STATUS OF REFERENCE OIL SUPPLY

Oil	Tests	Year	Blend Quantit	TMC Inventory	Estimated Life	Comment
160-1	OSCT	1996	276	0	0	Replaced by 171
168	OSCT	2005	55	0	0	Replaced by 170
169	OSCT	2010	275	116	7 years	
170	OSCT	2015	52	19.6	3 years	
171	OSCT	2017	53	5.34	4 years	

The surveillance panel has asked that each of the three OSCT reference oils be updated. Suppliers are currently working on reblends for 170 and 171. The supplier for 169 is not able to provide a reblend, but is working to blend a close replacement.