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Test Monitoring Center

<http://astmtmc.cmu.edu>

ASTM Reference Testing Semi-Annual Report D7216 LDEOC

Spring 2020

LDEOC Test Activity*

Test Status		Ethylene Acrylate	Fluoroelast.	Nitrile	Polyacrylate	Silicone	Total
Acceptable Calibration Test	AC	77	82	92	88	97	436
Failed Calibration Test	OC	3	1	0	1	6	11
Operationally Invalid, by lab	LC	0	0	0	0	0	0
Operationally Invalid, by TMC	RC	0	0	0	0	0	0
Aborted	XC	2	2	0	3	2	9
Total		82	85	92	92	105	456

*October 1, 2019 – March 31, 2020

LDEOC Lost Tests*

Validity	Cause	#
XC	Data corrupted, could not be retrieved	9
	Total	9

*Invalid and aborted calibration tests

LDEOC Test Severity

▶ Ethylene Acrylate (AEM1)

Parameter	Period Mean Δ/s	Status
Volume Change	-0.46	Mild
Points Hardness Change	-0.70	Mild
Tensile Strength Change	-0.17	Mild

LDEOC Test Severity

▶ Fluoroelastomer (FKM1)

Parameter	Period Mean Δ /s	Status
Volume Change	-0.34	Mild
Points Hardness Change	0.09	On-target
Tensile Strength Change	0.45	Severe

LDEOC Test Severity

▶ Nitrile (NBR1)

Parameter	Period Mean Δ/s	Status
Volume Change	1.35	Severe
Points Hardness Change	-0.19	Mild
Tensile Strength Change	-0.57	Mild

LDEOC Test Severity

▶ Polyacrylate (ACM1)

Parameter	Period Mean Δ/s	Status
Volume Change	-0.35	Mild
Points Hardness Change	-1.02	Mild
Tensile Strength Change	-0.51	Mild

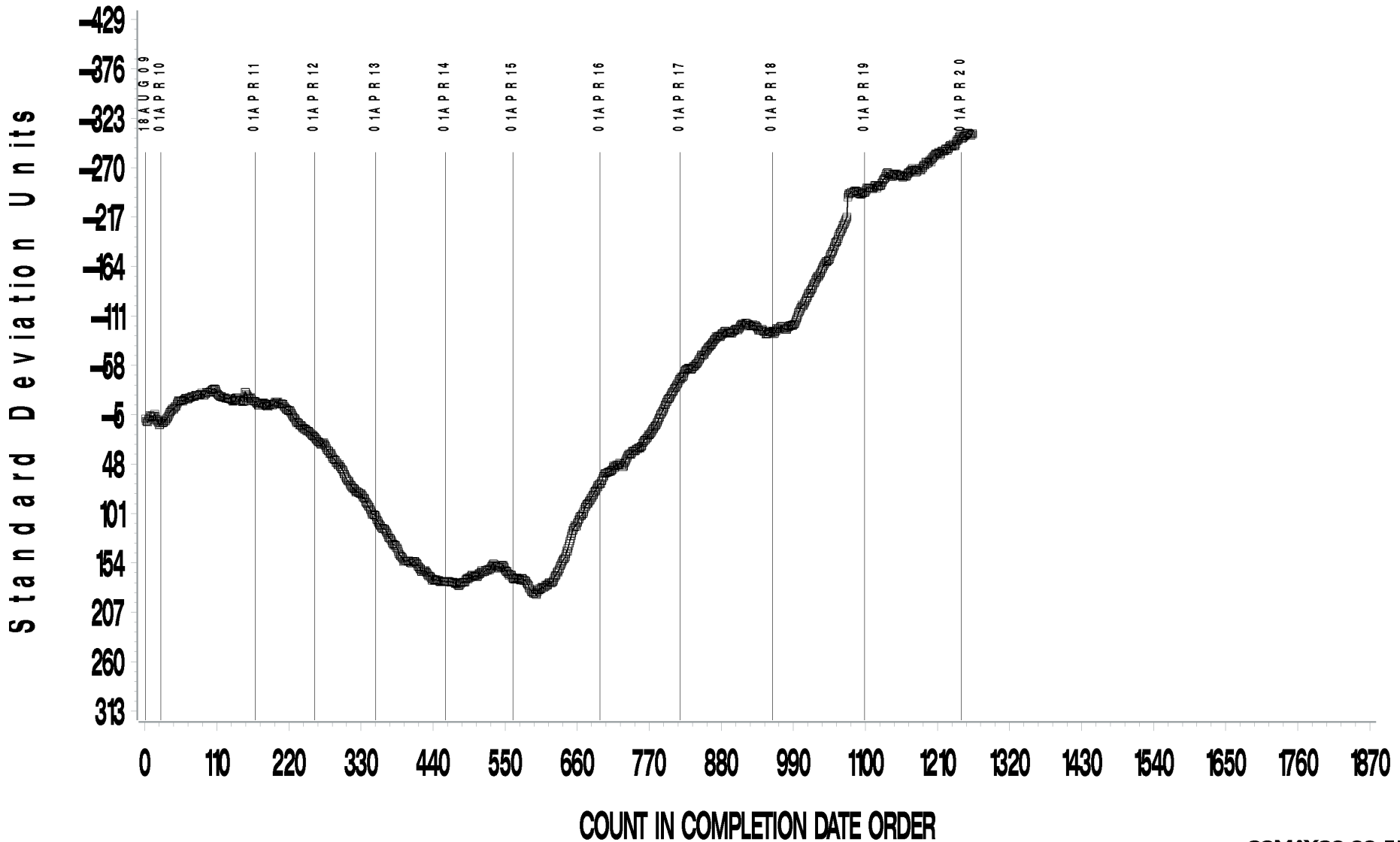
LDEOC Test Severity

▶ Silicone (VMQ1)

Parameter	Period Mean Δ/s	Status
Volume Change	0.36	Severe
Points Hardness Change	-0.83	Mild
Tensile Strength Change	1.75	Severe

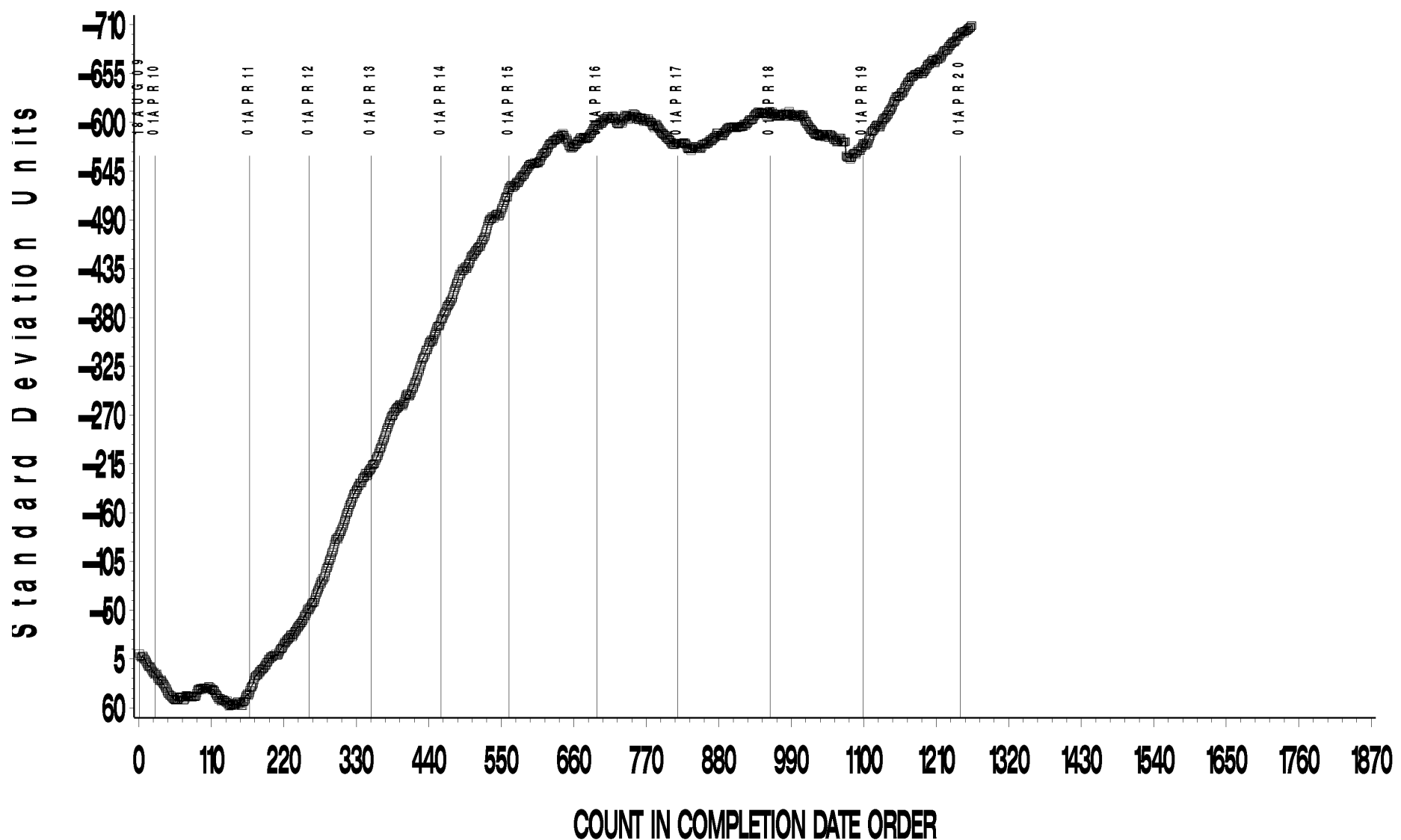
REF ETH ACRYLATE VOLUME CHANGE AVERAGE

CUSUM Severity Analysis



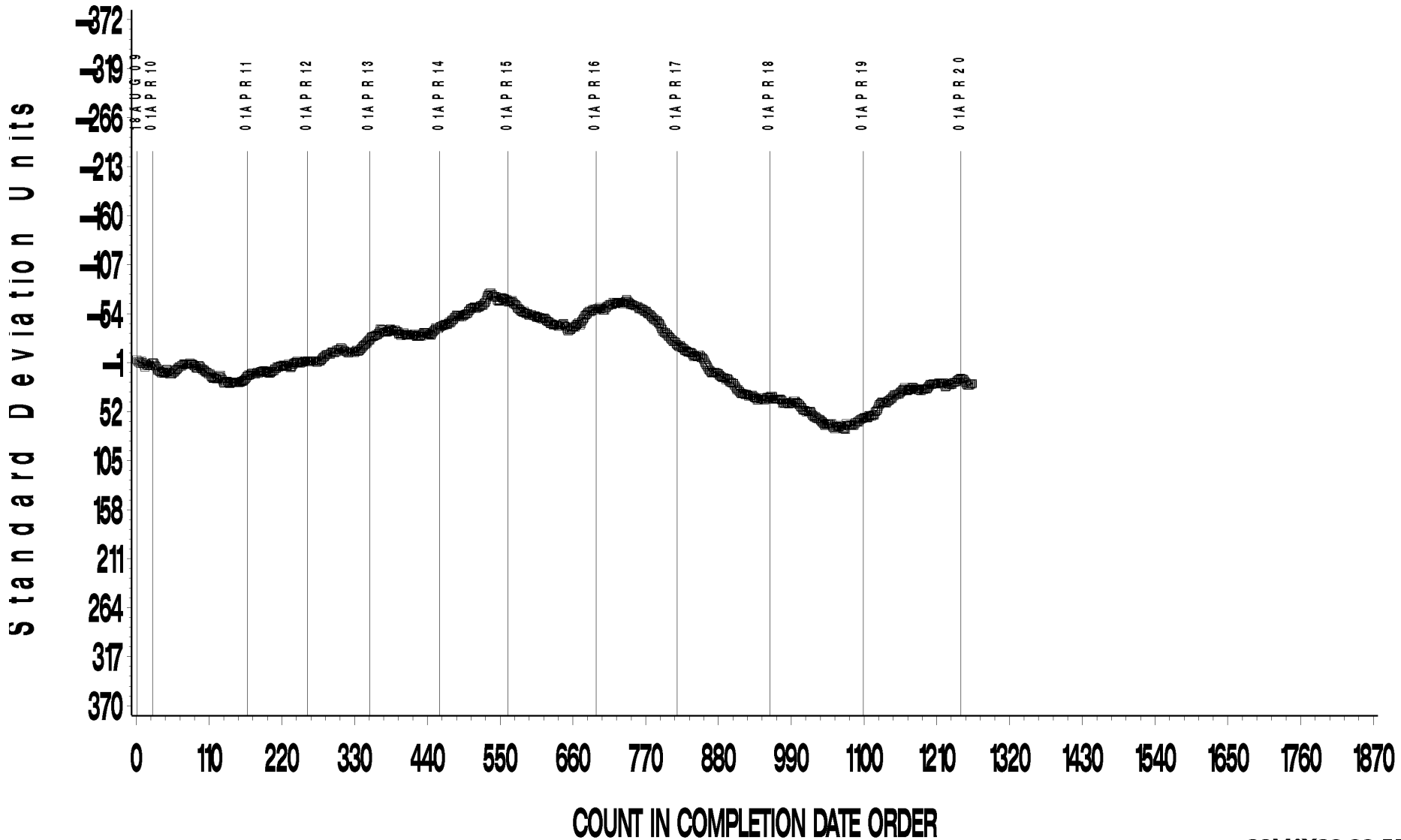
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CUSUM Severity Analysis



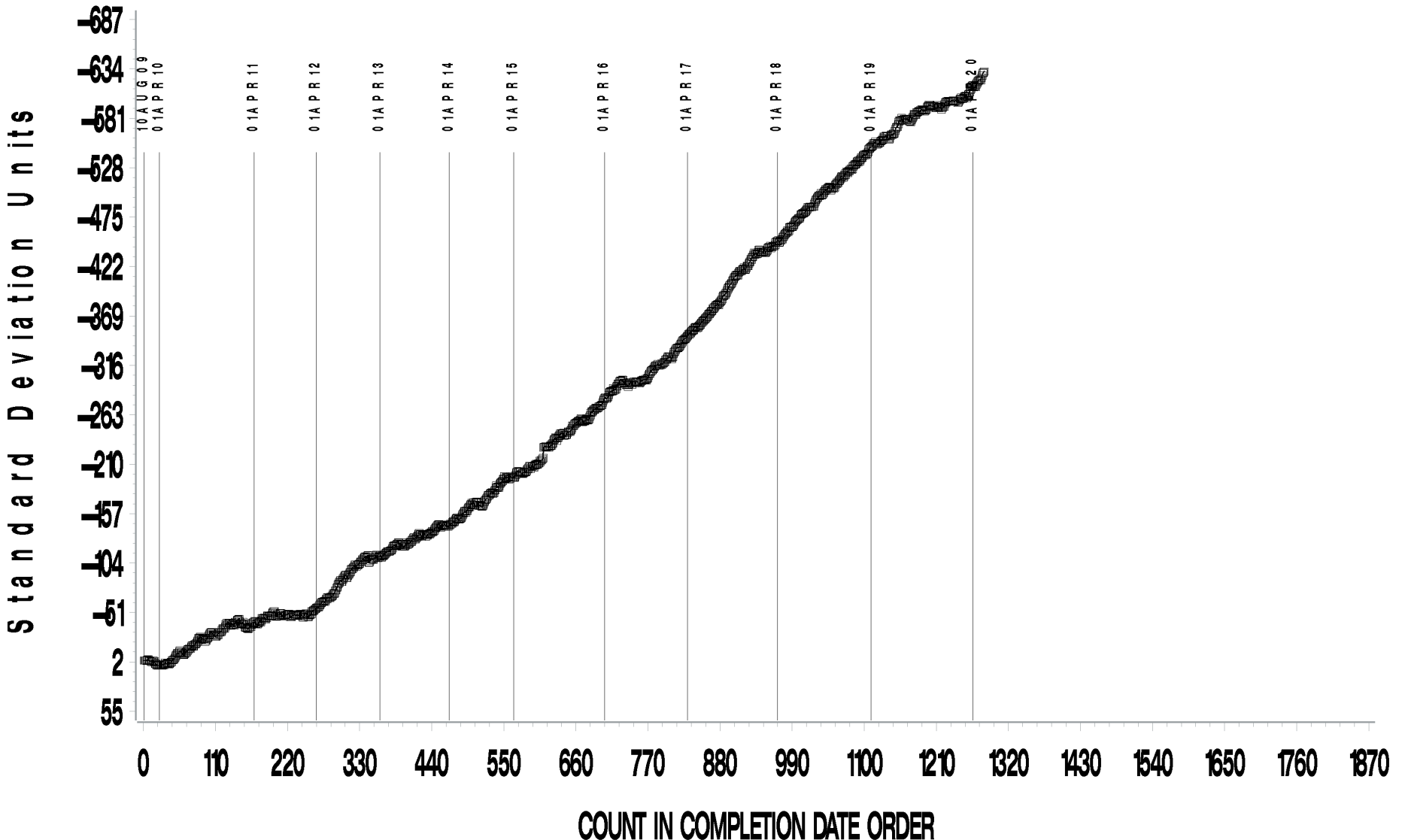
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CUSUM Severity Analysis



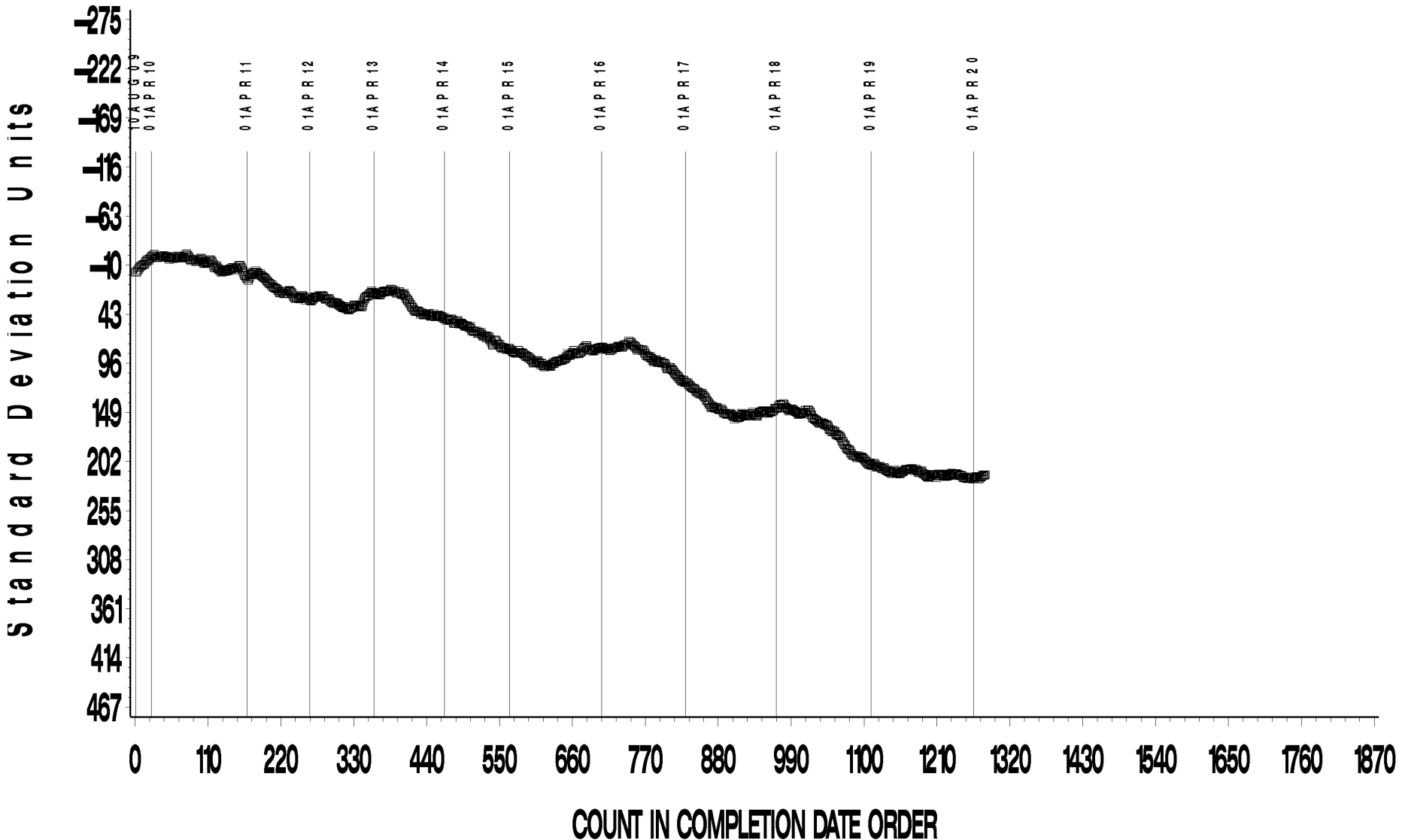
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CUSUM Severity Analysis



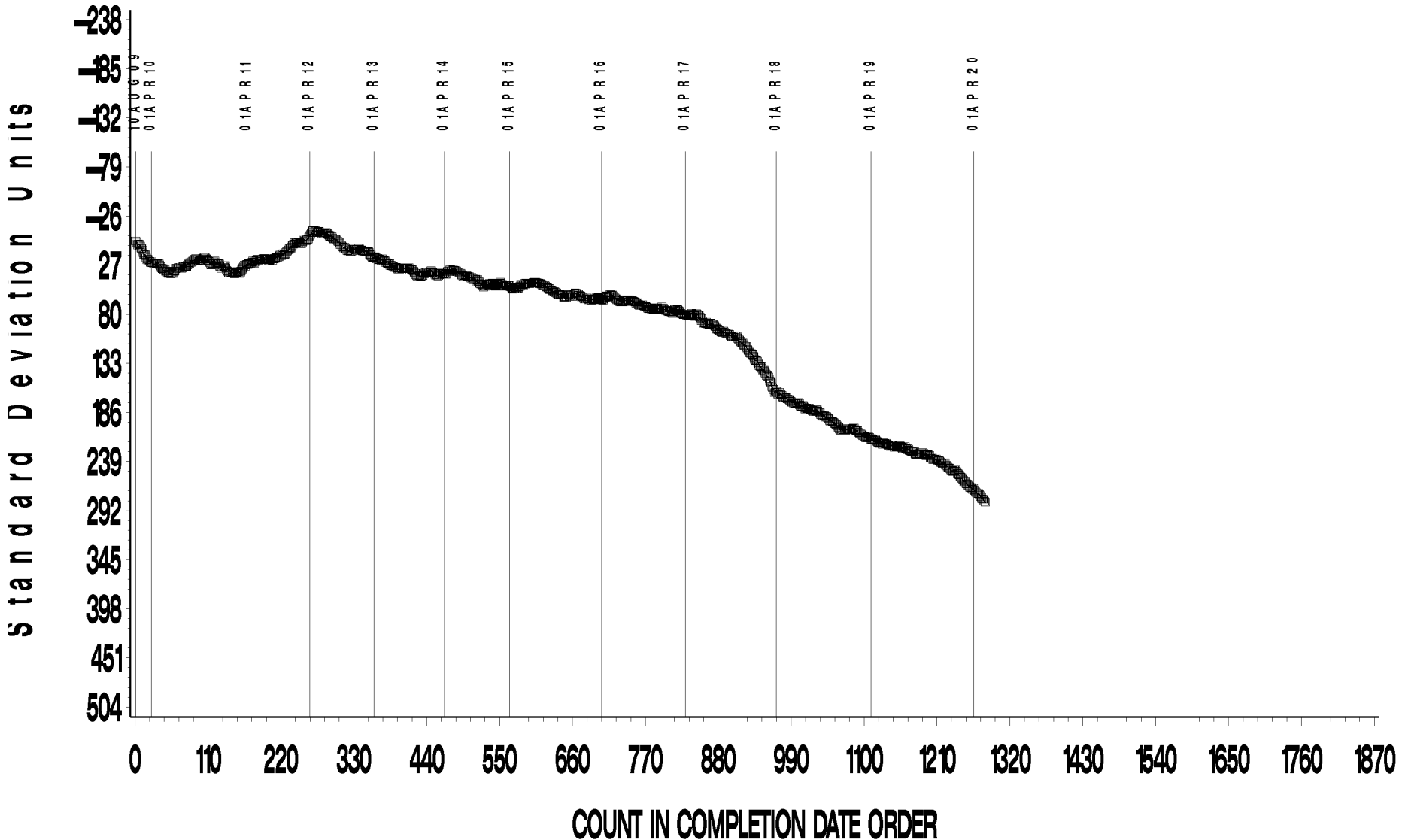
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CUSUM Severity Analysis



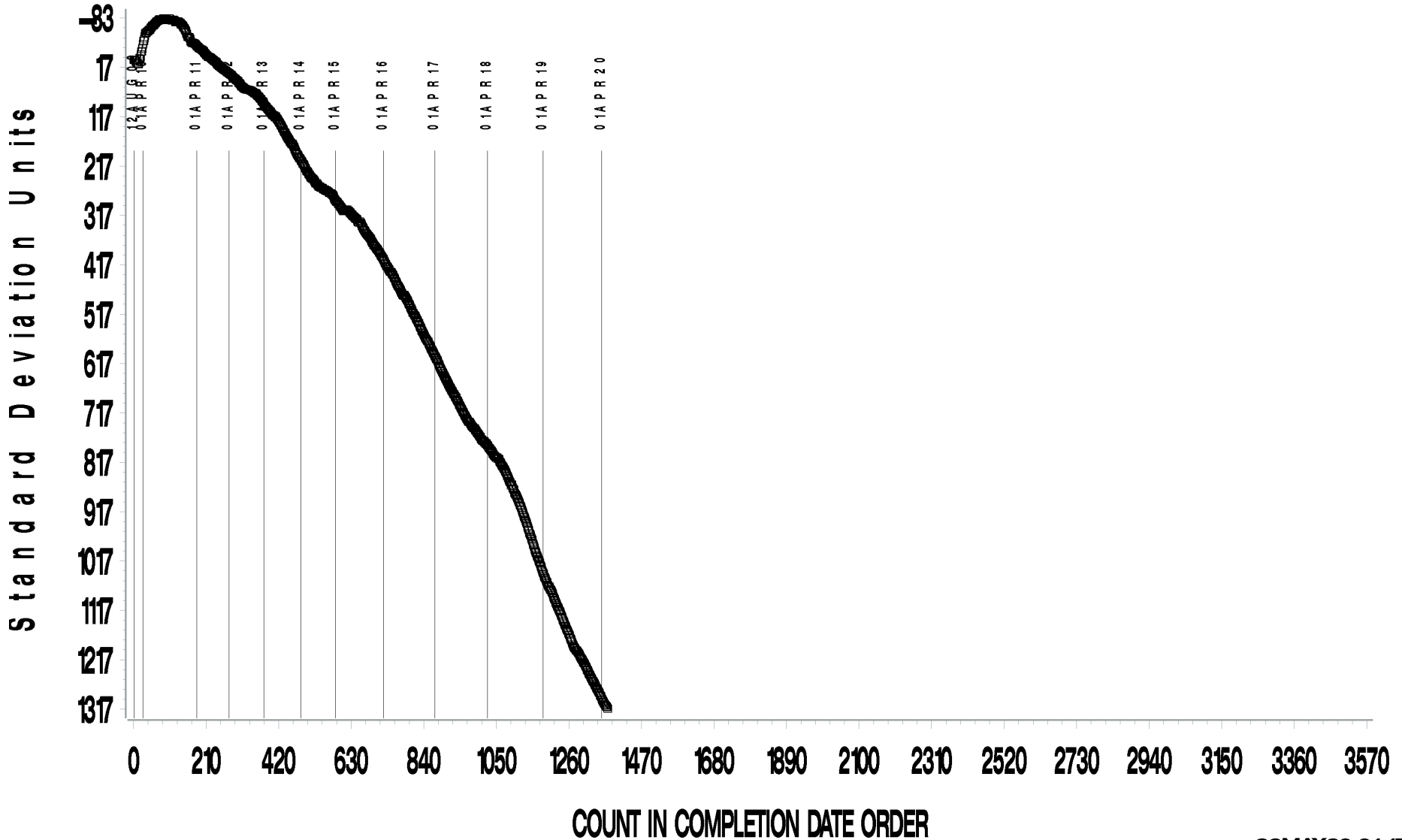
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CUSUM Severity Analysis



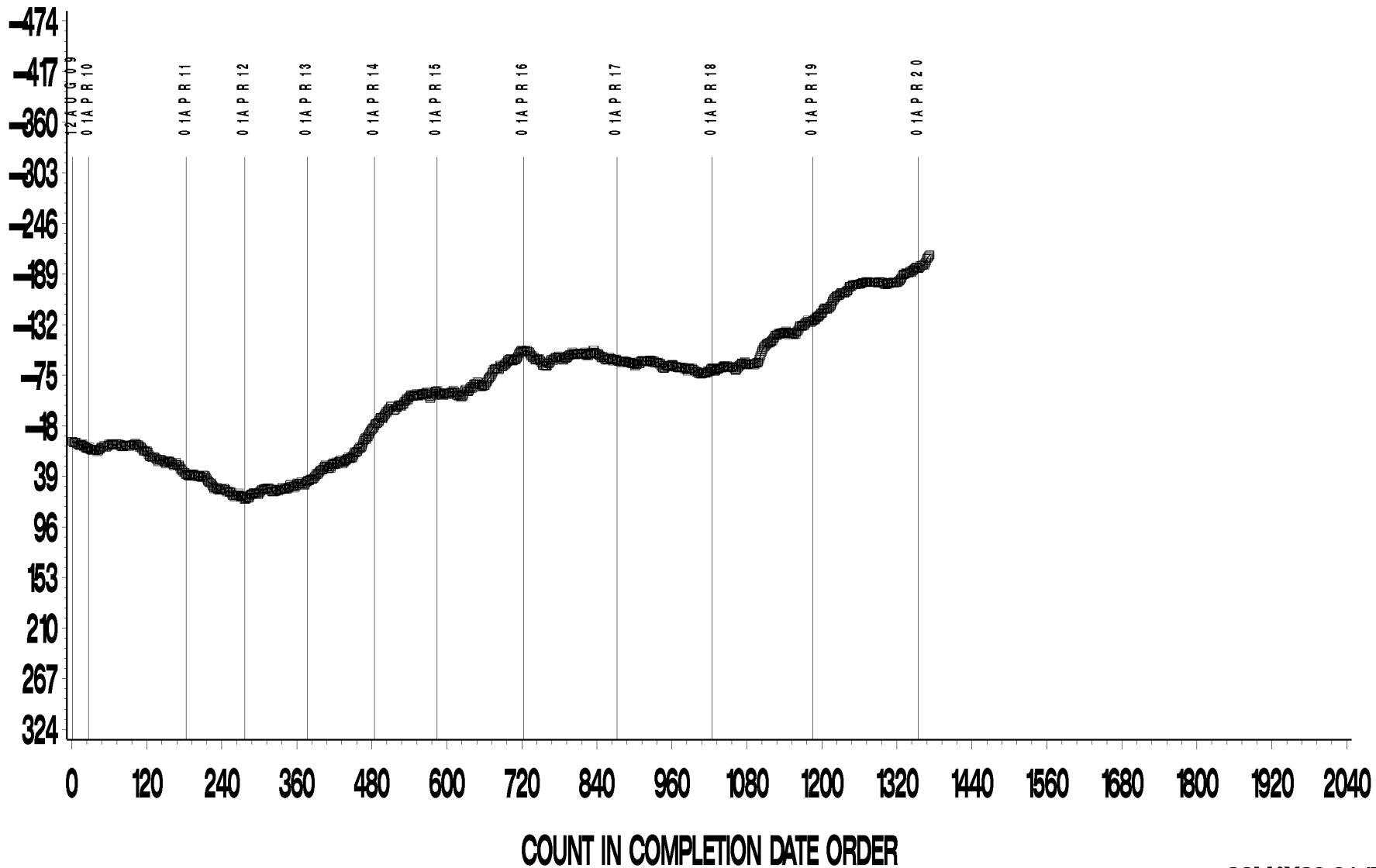
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CUSUM Severity Analysis



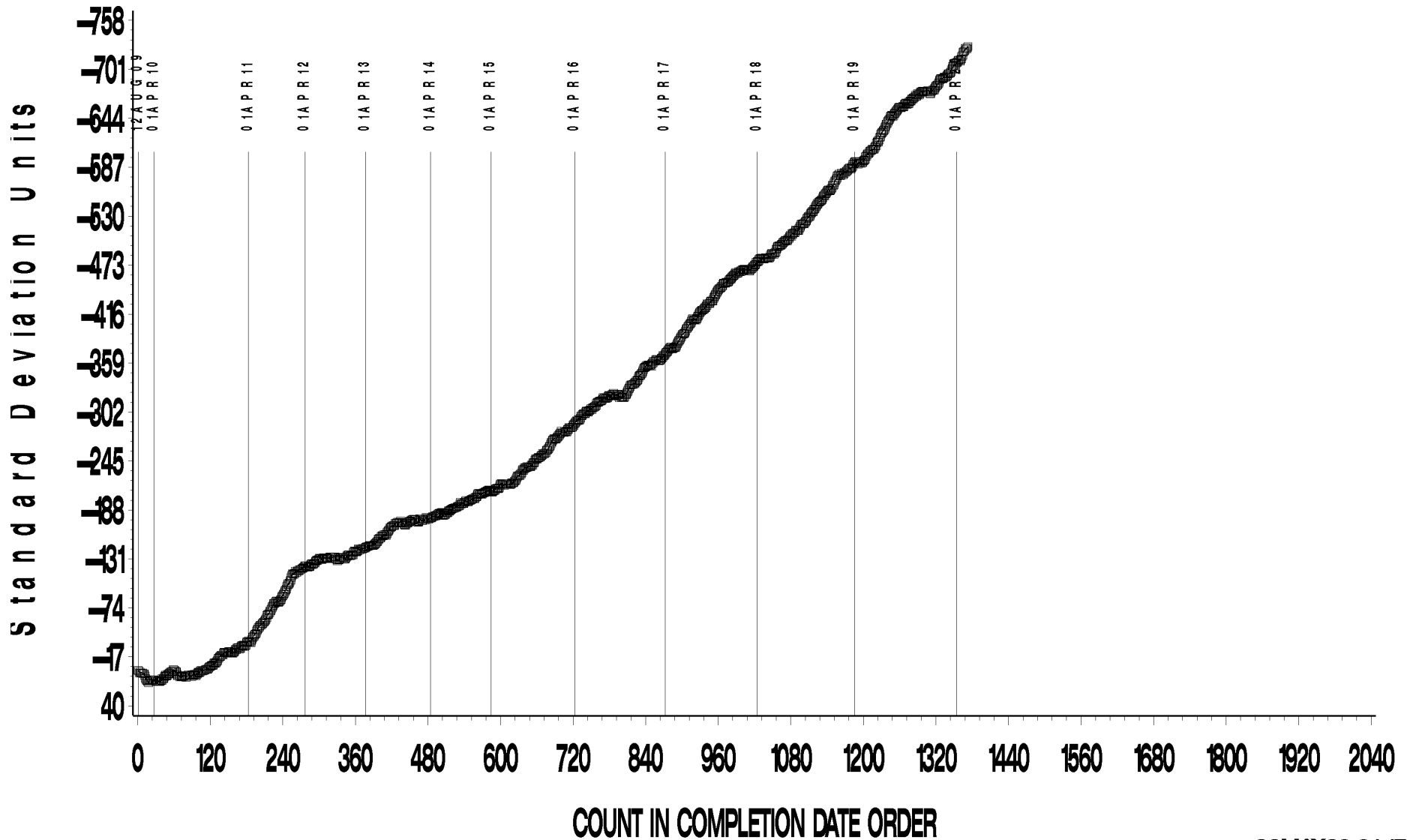
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CUSUM Severity Analysis



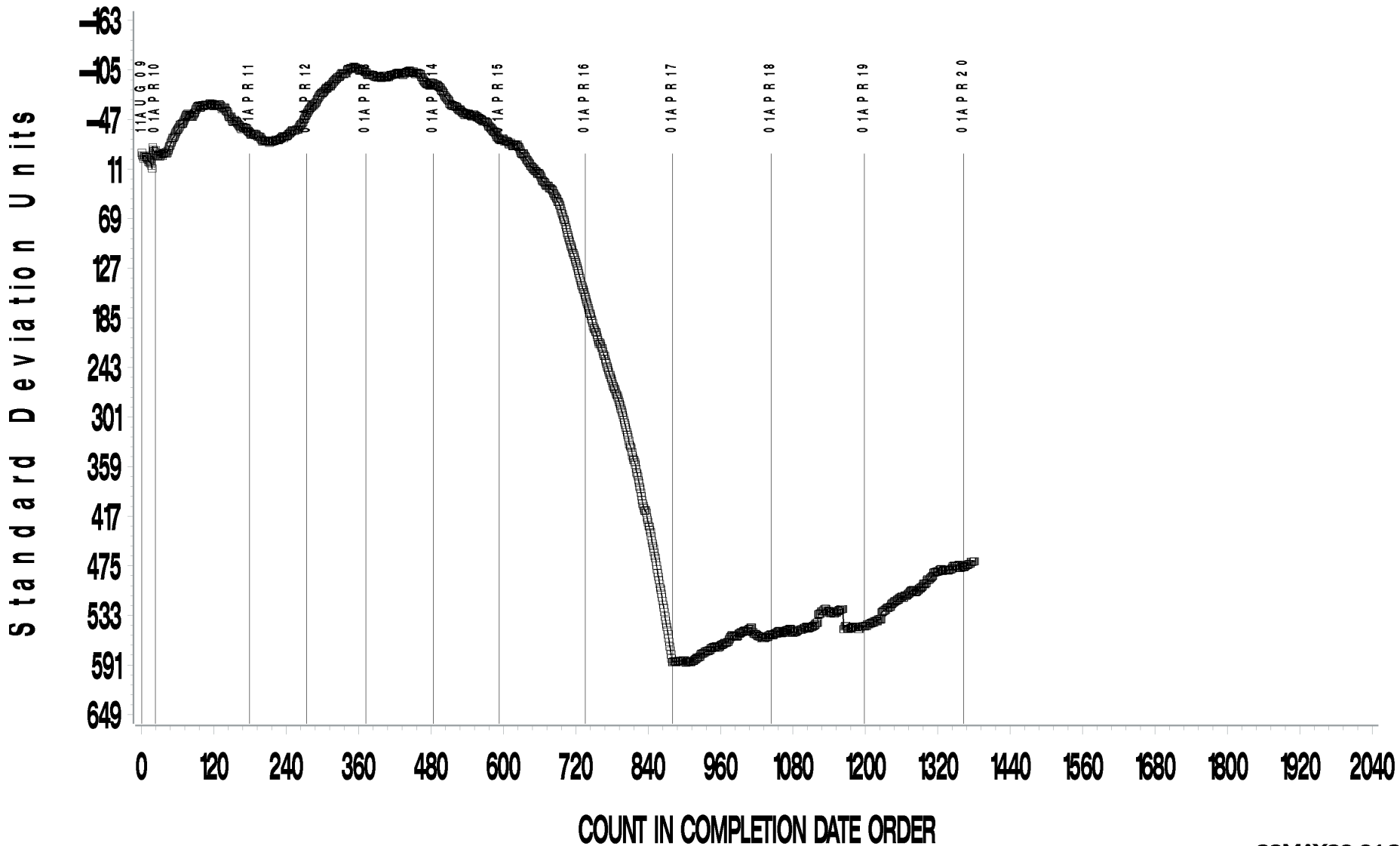
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CUSUM Severity Analysis



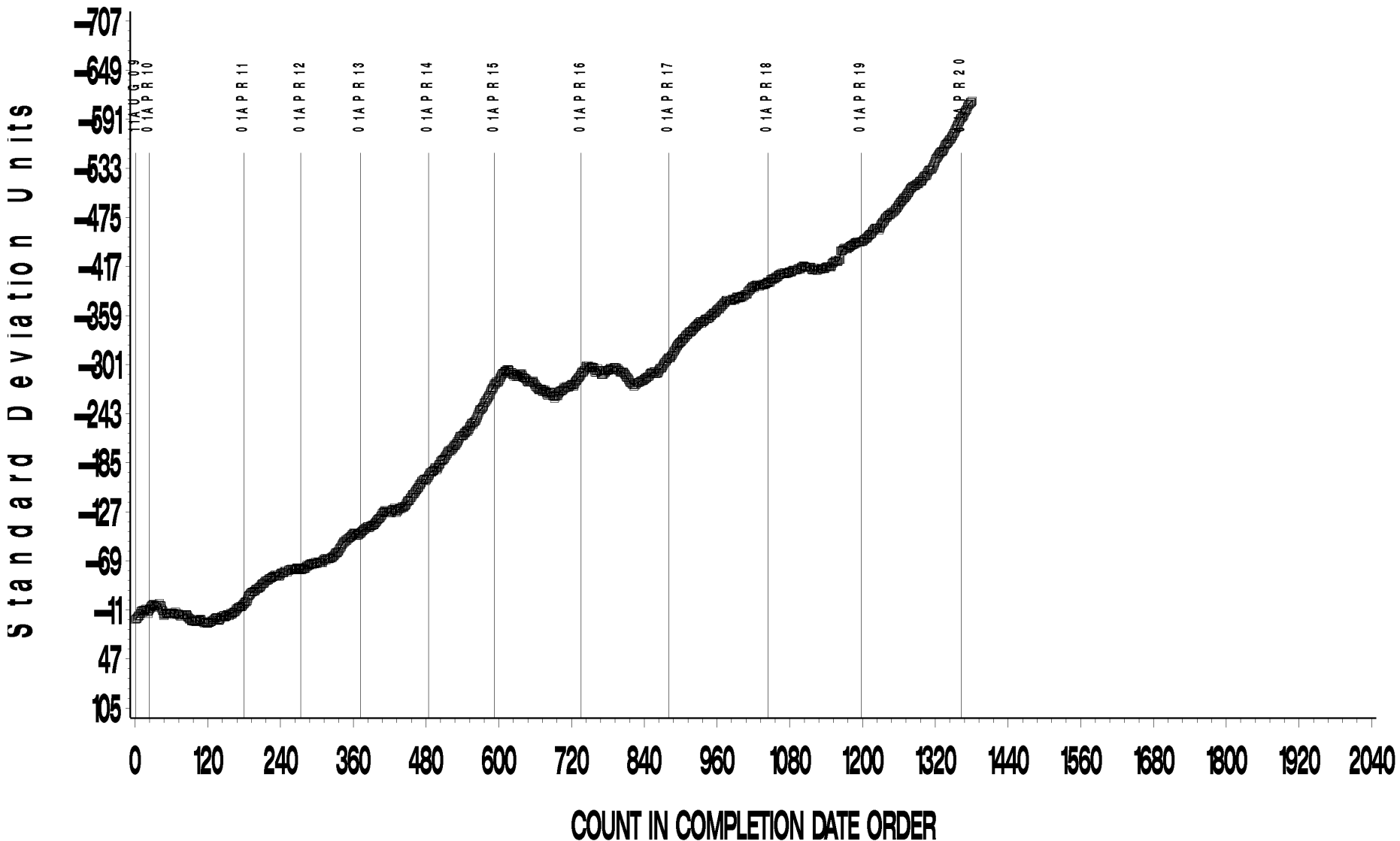
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CUSUM Severity Analysis



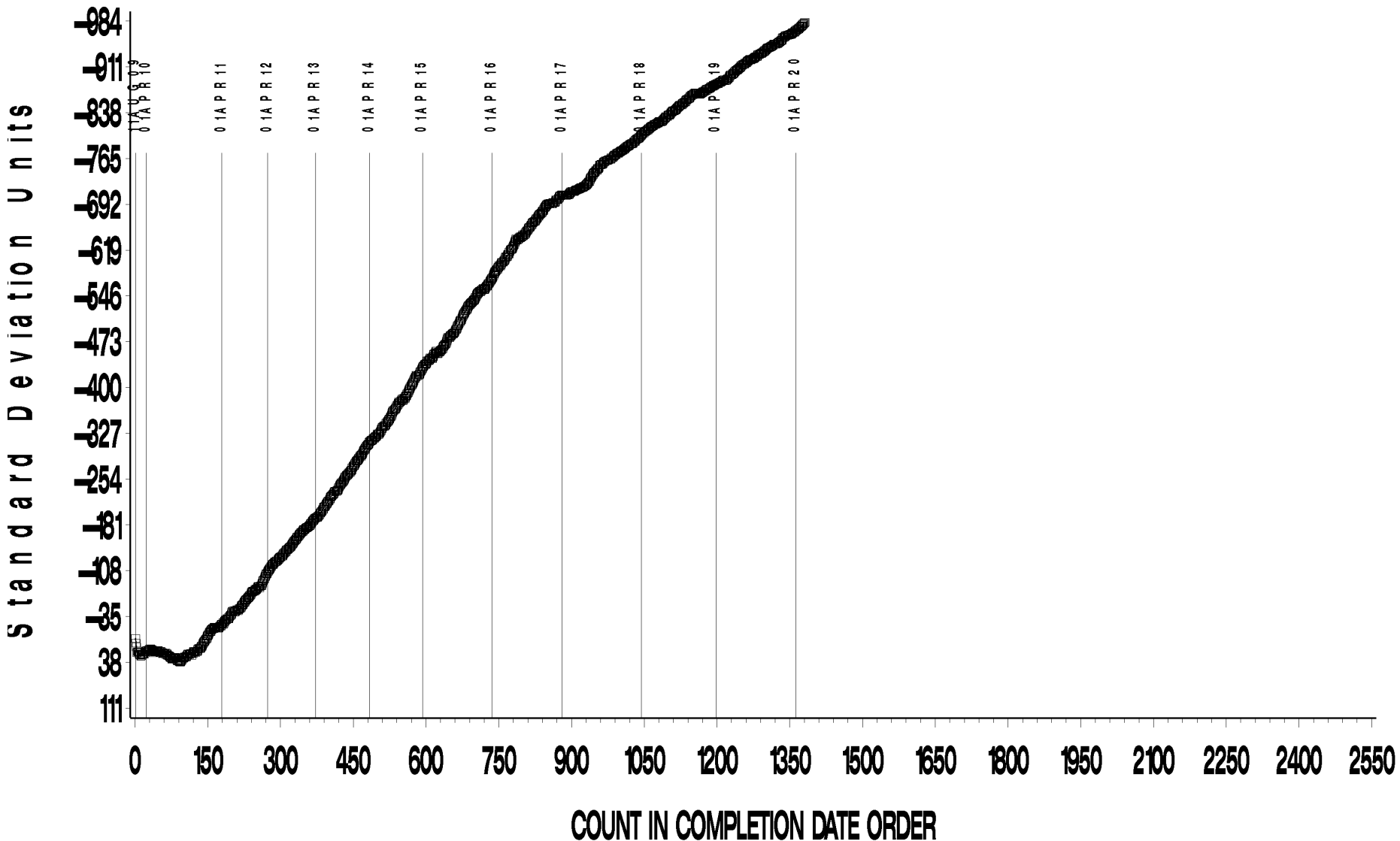
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CUSUM Severity Analysis



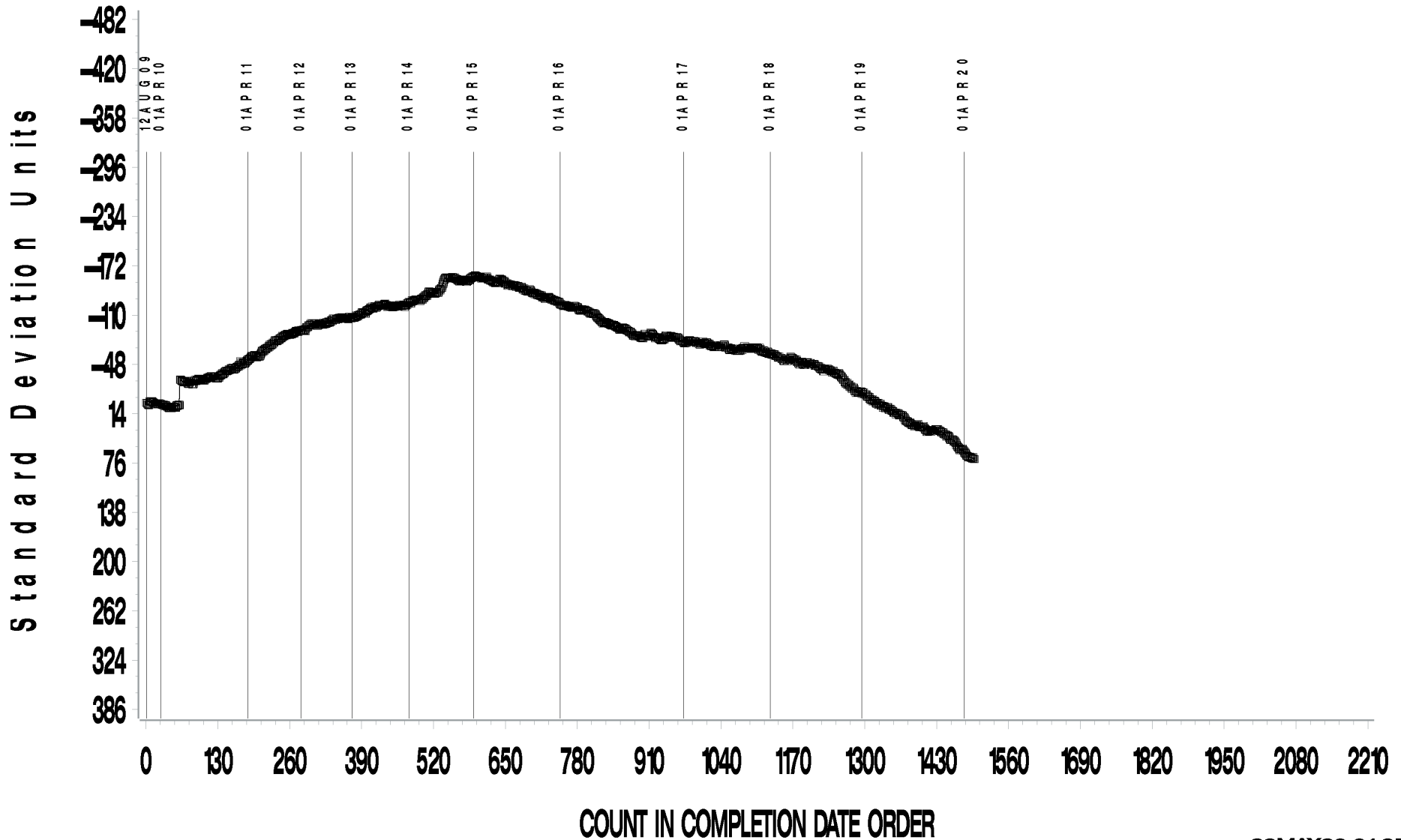
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CUSUM Severity Analysis



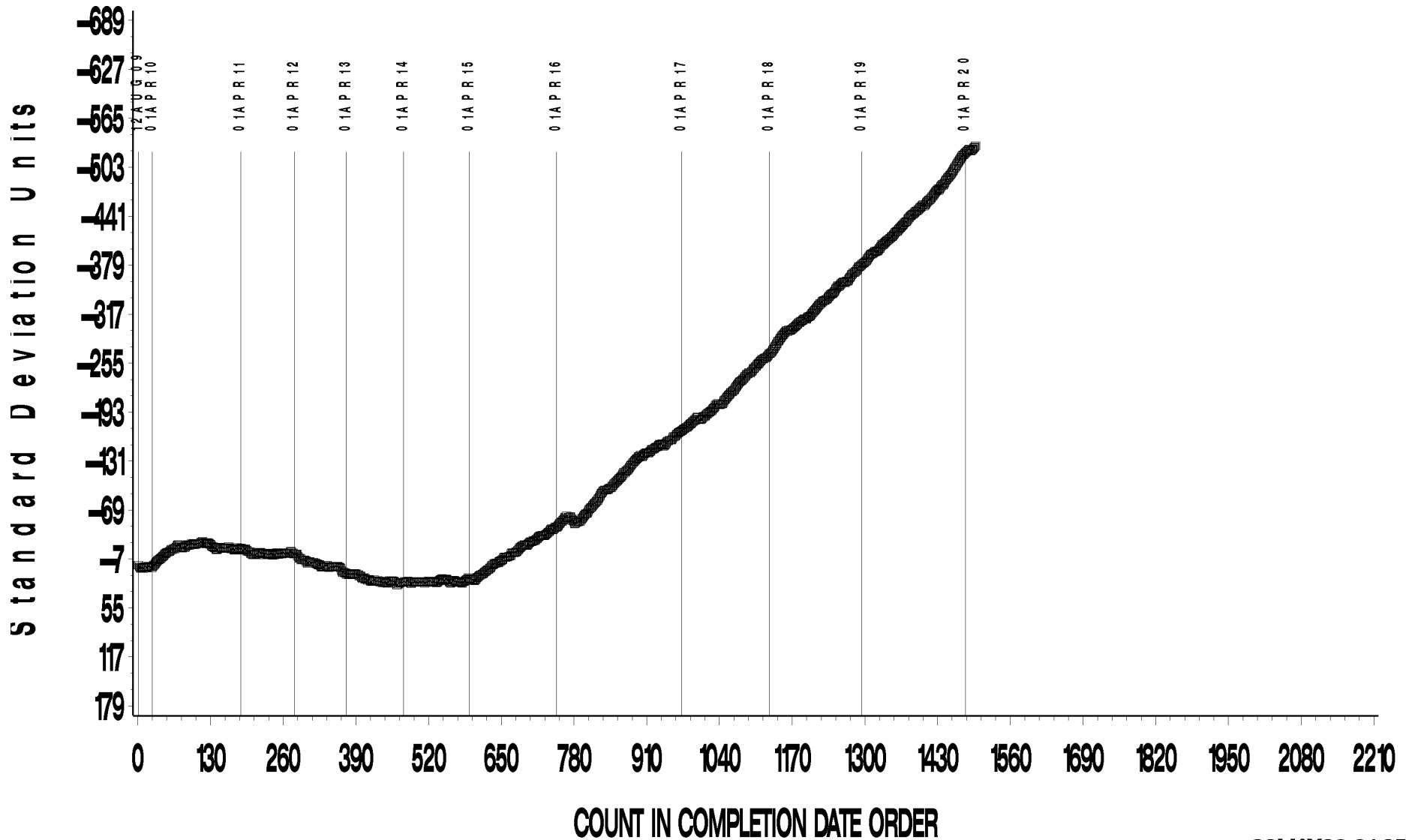
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CUSUM Severity Analysis



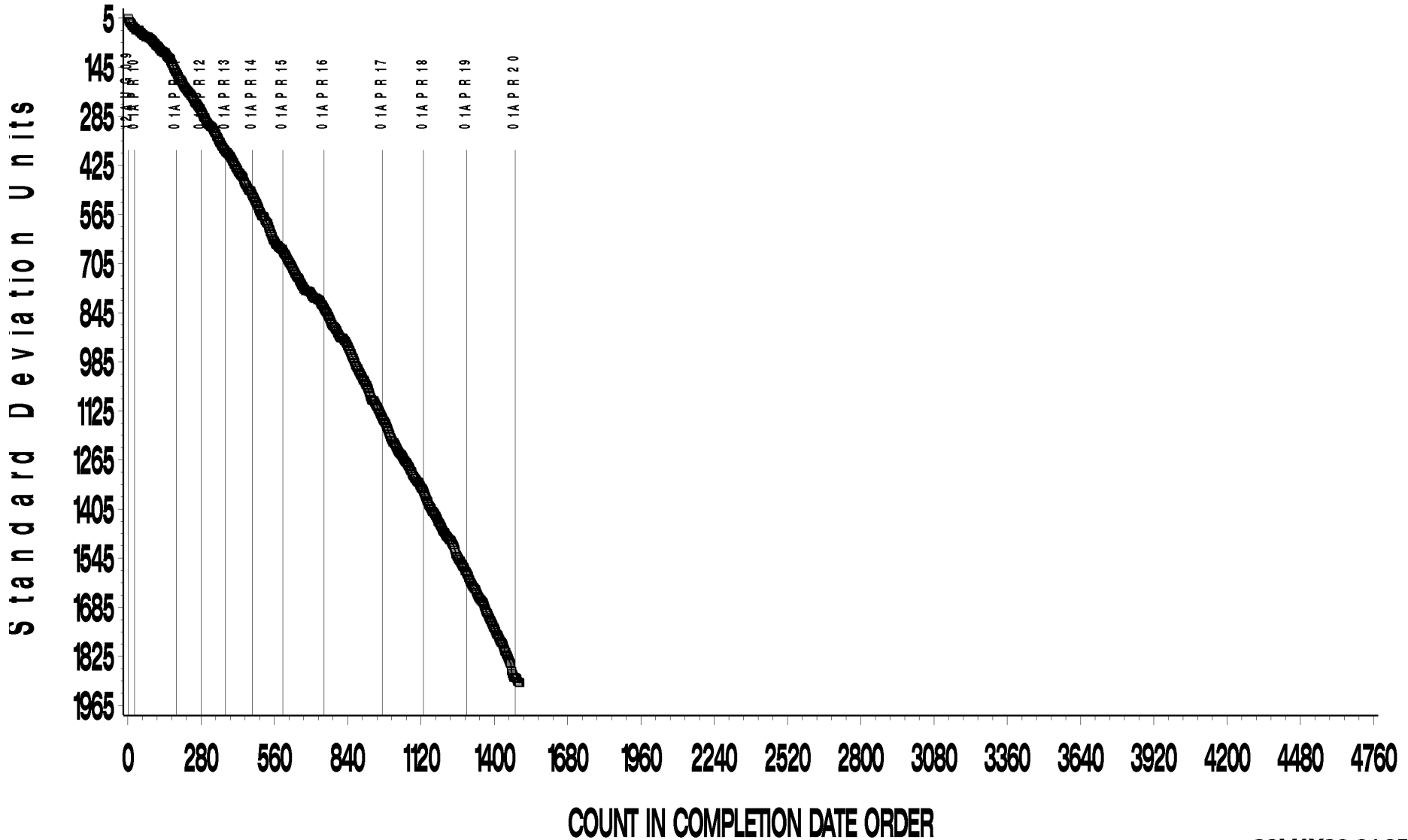
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CUSUM Severity Analysis

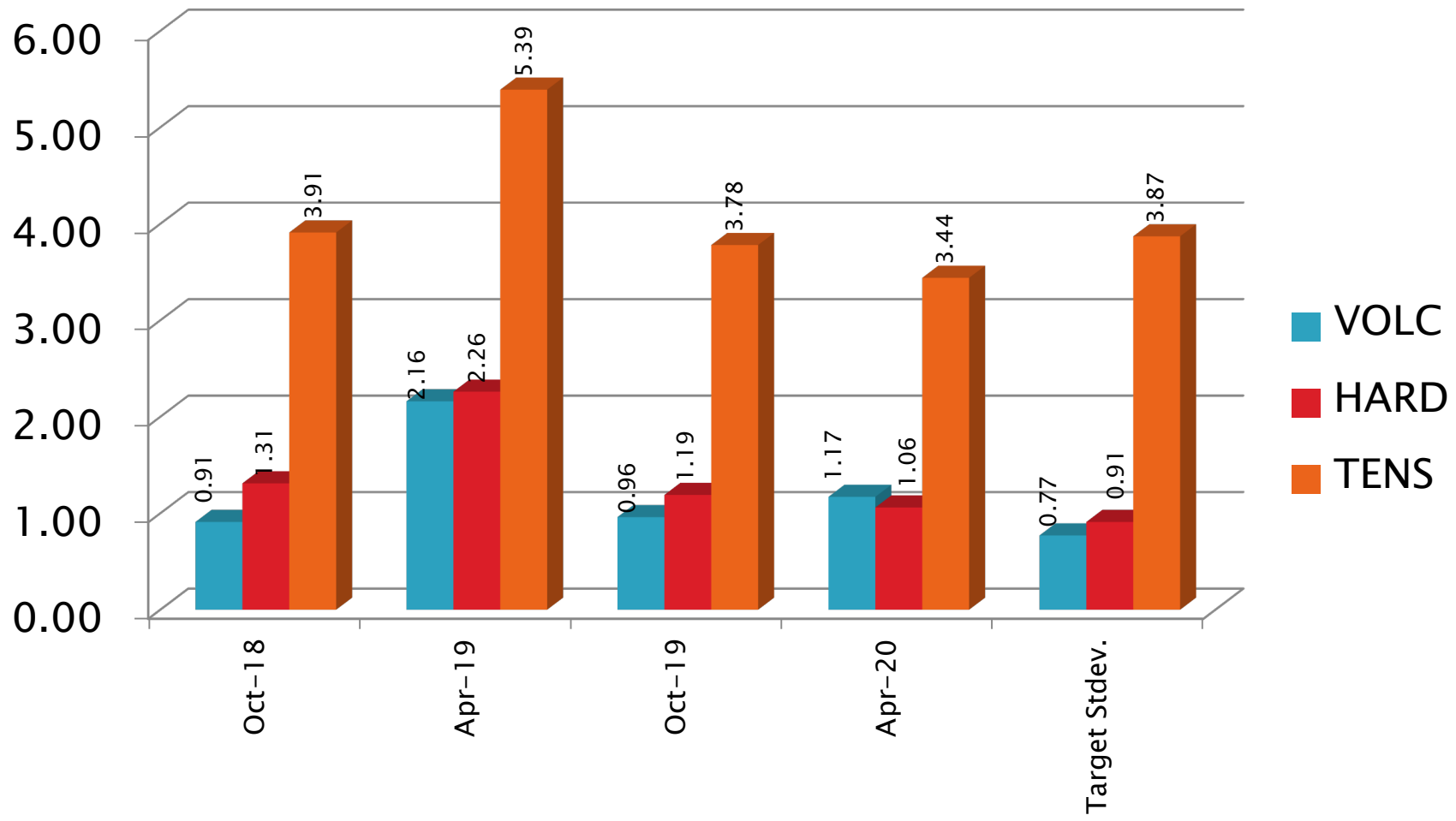


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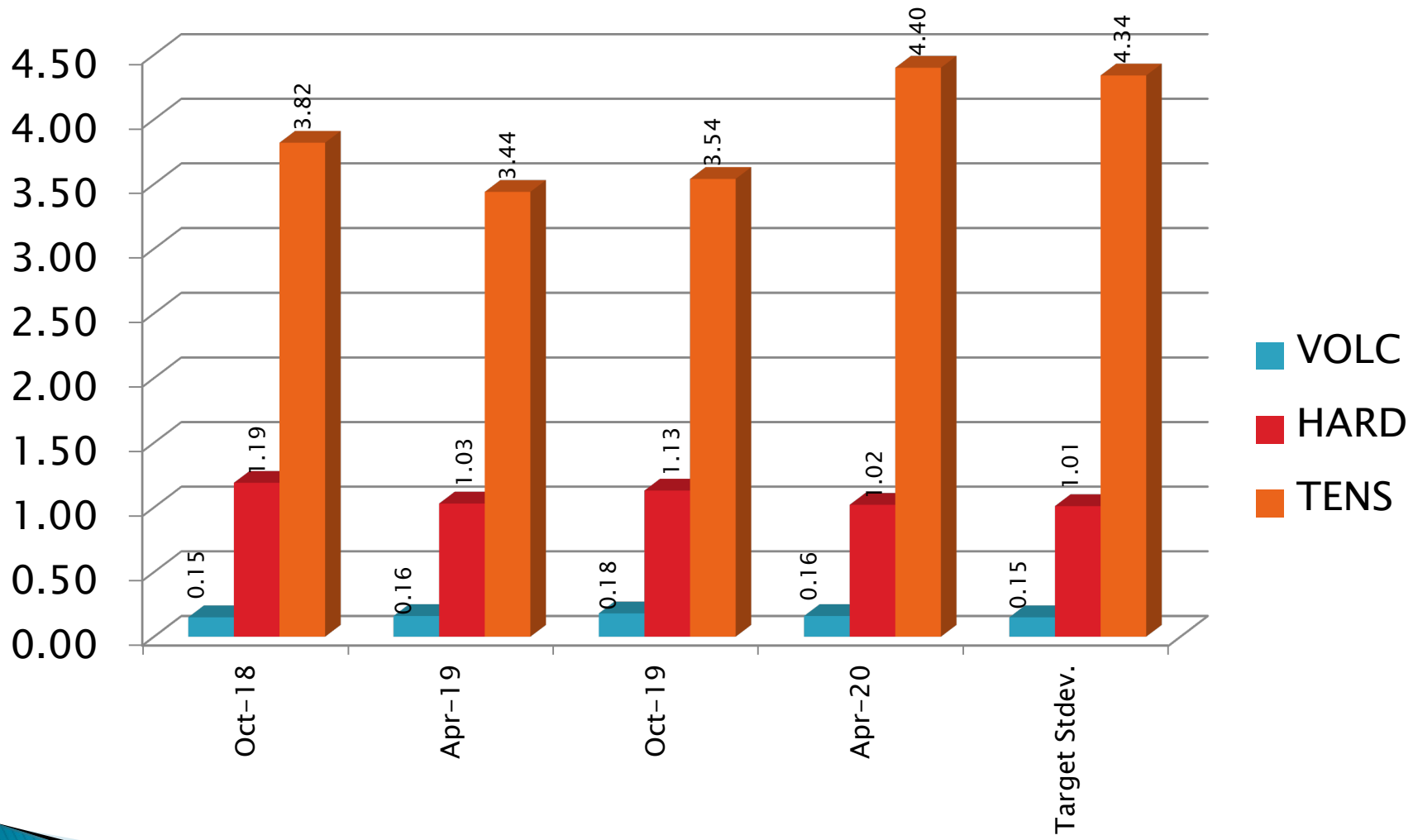
CUSUM Severity Analysis



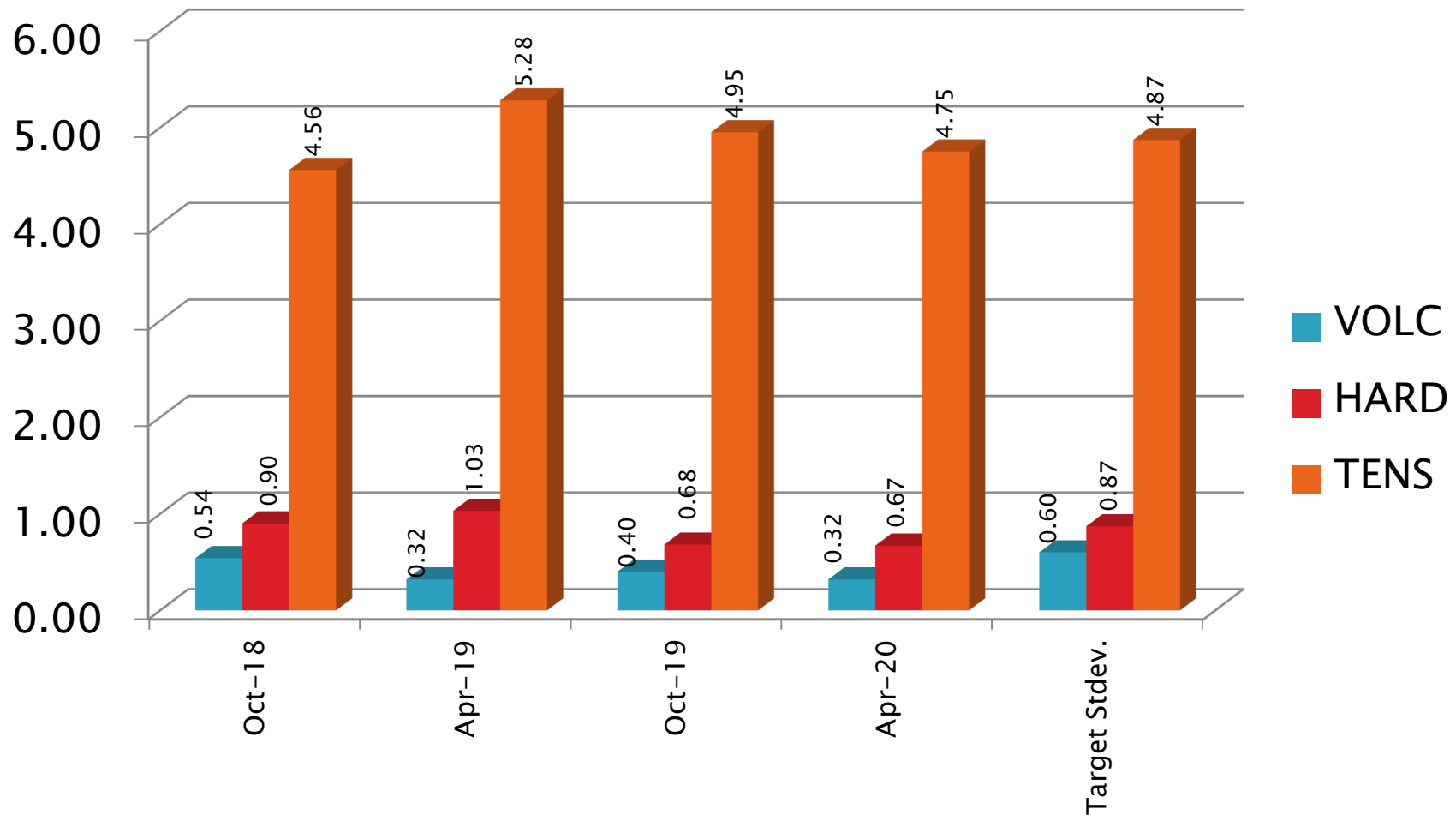
LDEOC Precision Estimates - Ethylene Acrylate



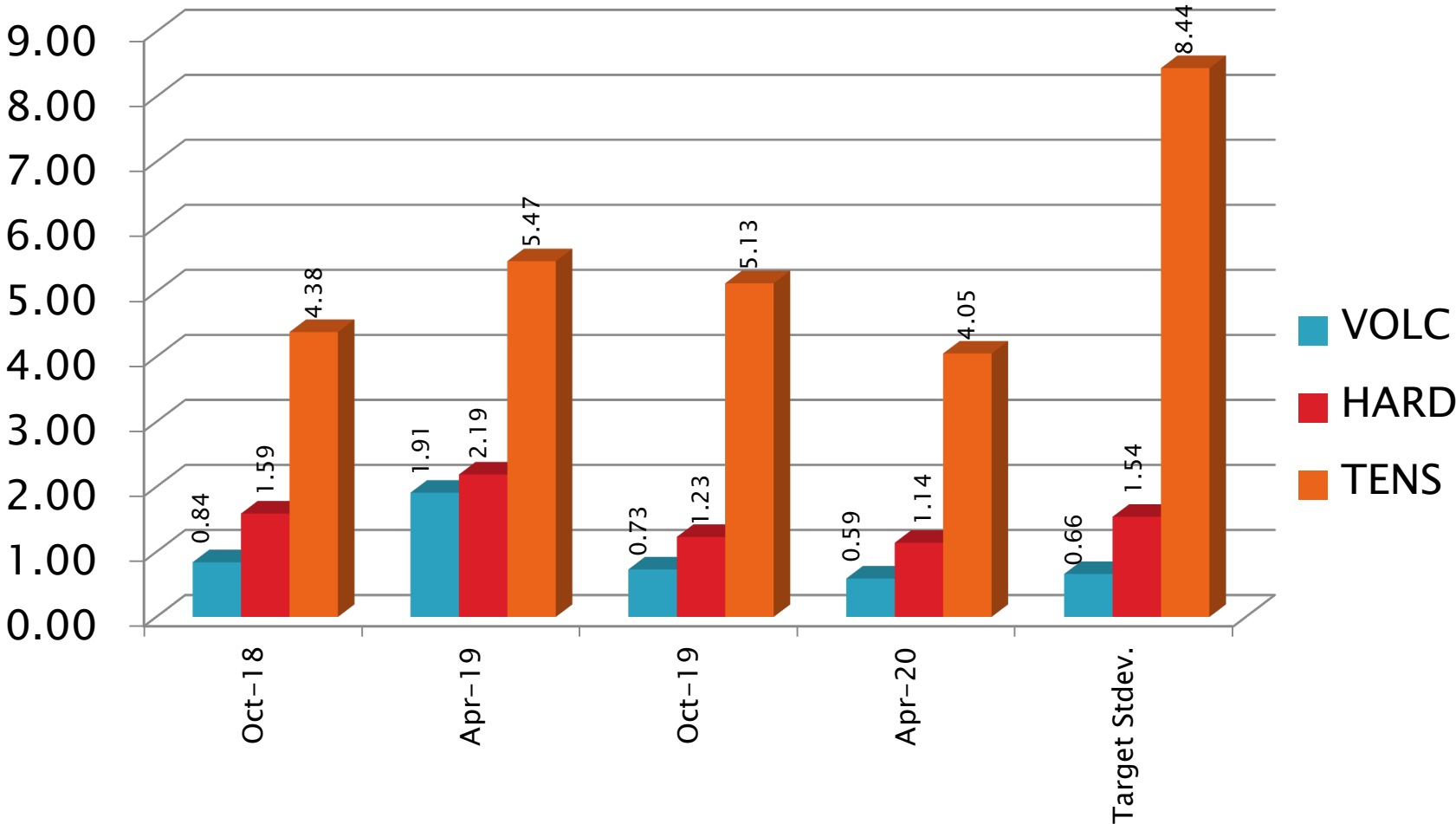
LDEOC Precision Estimates - Fluoroelastomer



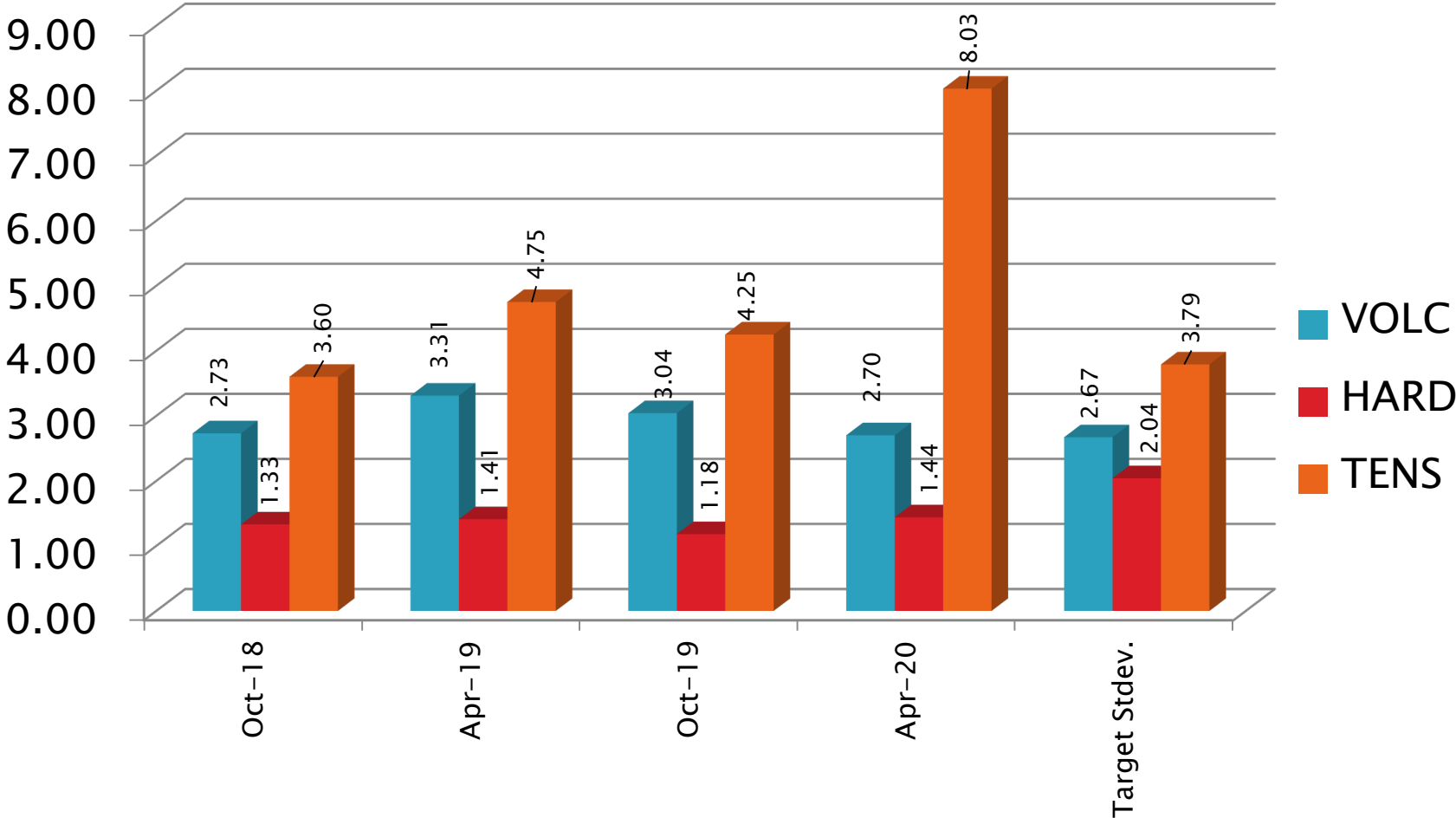
LDEOC Precision Estimates - Nitrile



LDEOC Precision Estimates – Polyacrylate



LDEOC Precision Estimates - Silicone



Information Letters & Technical Updates*

Test	Date	IL or Memo Number	Topic
LDEOC	20200109	Mem 20-001	Replacement Reference Oil SL107 Performance Targets

*Available from TMC Website

Reference Oil Inventory Estimated Life

Oil	TMC Inventory Gallons	Gallons Shipped Past 12 Months	Estimated Life
SL107 ^{A, B}	3532	341	5+ years

^ATMC Inventory is used across several test methods

^BSL107 replaces oil 1006; still assigning existing lab inventories of 1006 batches where available.

Test Monitoring Center

<http://astmtmc.cmu.edu>



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Miscellaneous Information

- ▶ Available on TMC Website:
 - Oil Assignment Request and Test File Upload
 - Live Reference Test Data Bases
 - Surveillance Panel Meeting Minutes
- ▶ www.astmtmc.cmu.edu



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