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Test Monitoring Center

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ASTM Reference Testing Semi-Annual Report D7216 LDEOC

Fall 2020

LDEOC Test Activity*

Test Status		Ethylene Acrylate	Fluoroelast.	Nitrile	Polyacrylate	Silicone	Total
Acceptable Calibration Test	AC	62	62	68	65	72	329
Failed Calibration Test	OC	1	2	2	1	5	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	0	2	3	1	0	6
Industry Information (ACM1-24 RR) AG, RG		0	0	0	18	0	18
Total		63	66	73	85	77	364

*April 1, 2020 – September 30, 2020

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LDEOC Lost Tests*

Validity	Cause	#
XC	Heating time exceeded	1
XC	Unspecified bath failure	1
XC	Bath temperature off-spec	1
XC	Corrupted data, irretrievable test results	2
XC	Sample loss (broken tube)	1
	Total	6

*Invalid and aborted calibration tests

LDEOC Test Severity

▶ Ethylene Acrylate (AEM1)

Parameter	Period Mean Δ/s	Status
Volume Change	-0.49	Mild
Points Hardness Change	0.05	On-target
Tensile Strength Change	-0.08	On target

LDEOC Test Severity

▶ Fluoroelastomer (FKM1)

Parameter	Period Mean Δ/s	Status
Volume Change	-0.59	Mild
Points Hardness Change	-0.37	Mild
Tensile Strength Change	0.46	Severe

LDEOC Test Severity

▶ Nitrile (NBR1)

Parameter	Period Mean Δ/s	Status
Volume Change	1.23	Severe
Points Hardness Change	-0.62	Mild
Tensile Strength Change	-0.67	Mild

LDEOC Test Severity

▶ Polyacrylate (ACM1)

Parameter	Period Mean Δ/s	Status
Volume Change	-0.26	Mild
Points Hardness Change	-1.01	Mild
Tensile Strength Change	-0.59	Mild

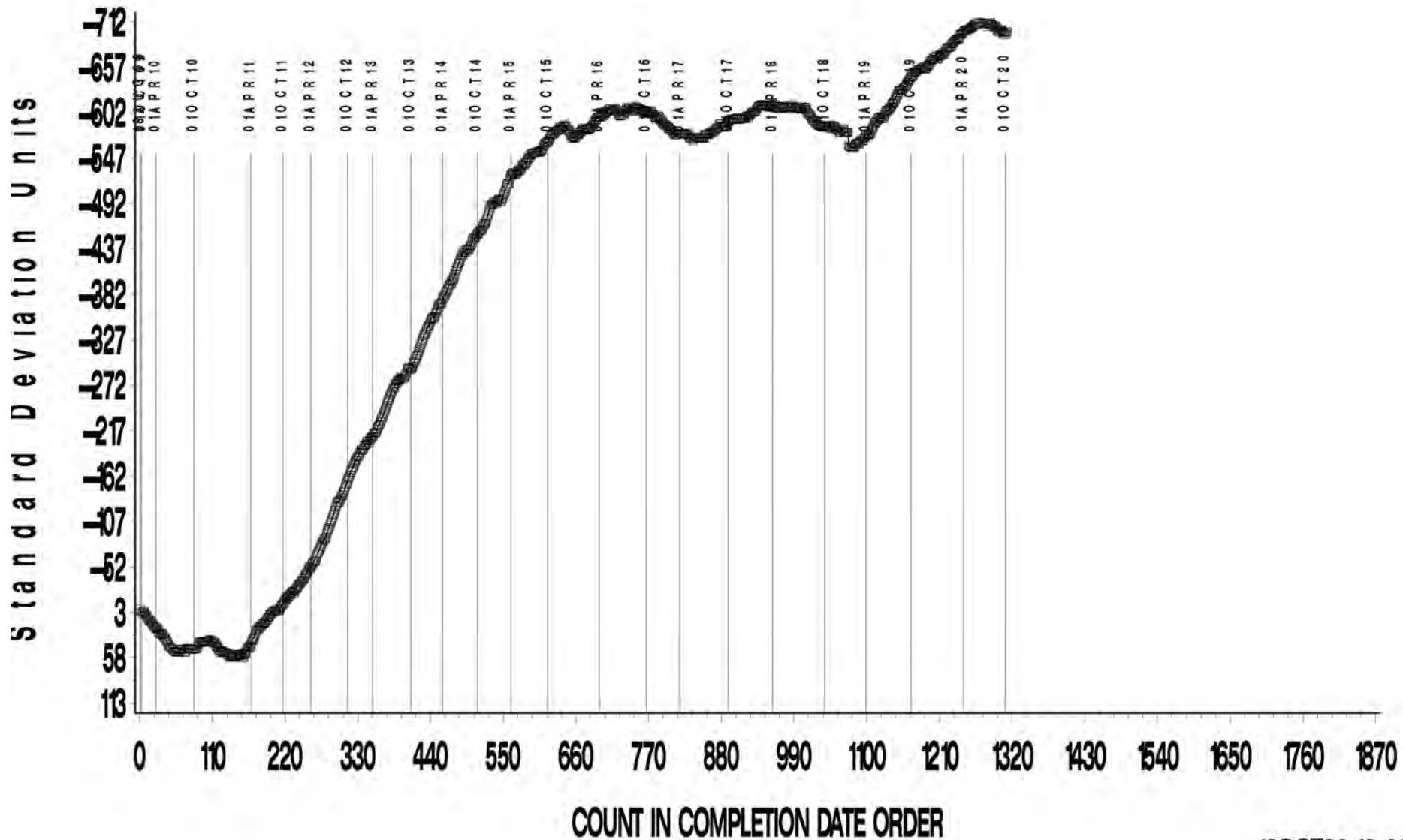
LDEOC Test Severity

▶ Silicone (VMQ1)

Parameter	Period Mean Δ/s	Status
Volume Change	0.46	Severe
Points Hardness Change	-0.51	Mild
Tensile Strength Change	0.98	Severe

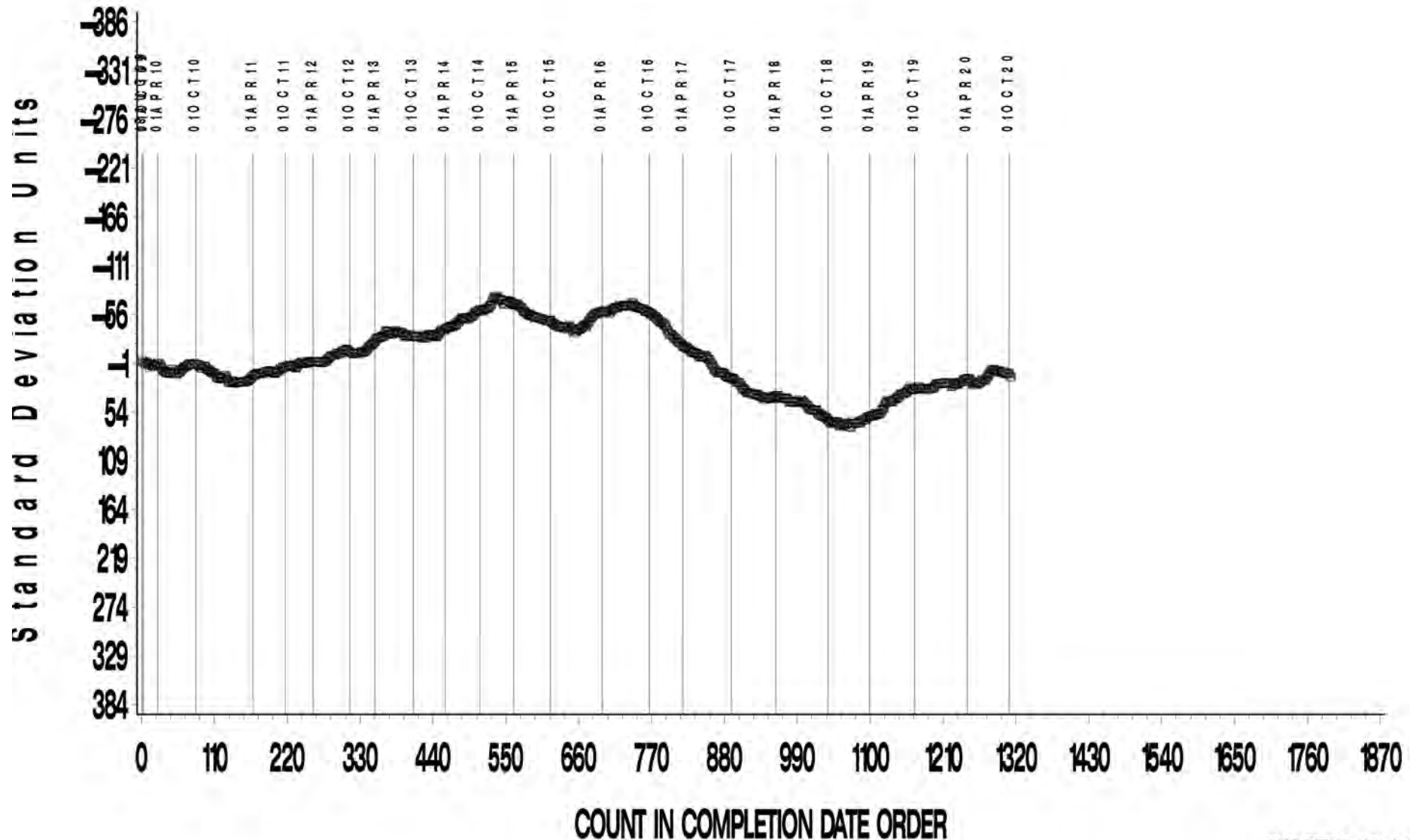
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CUSUM Severity Analysis



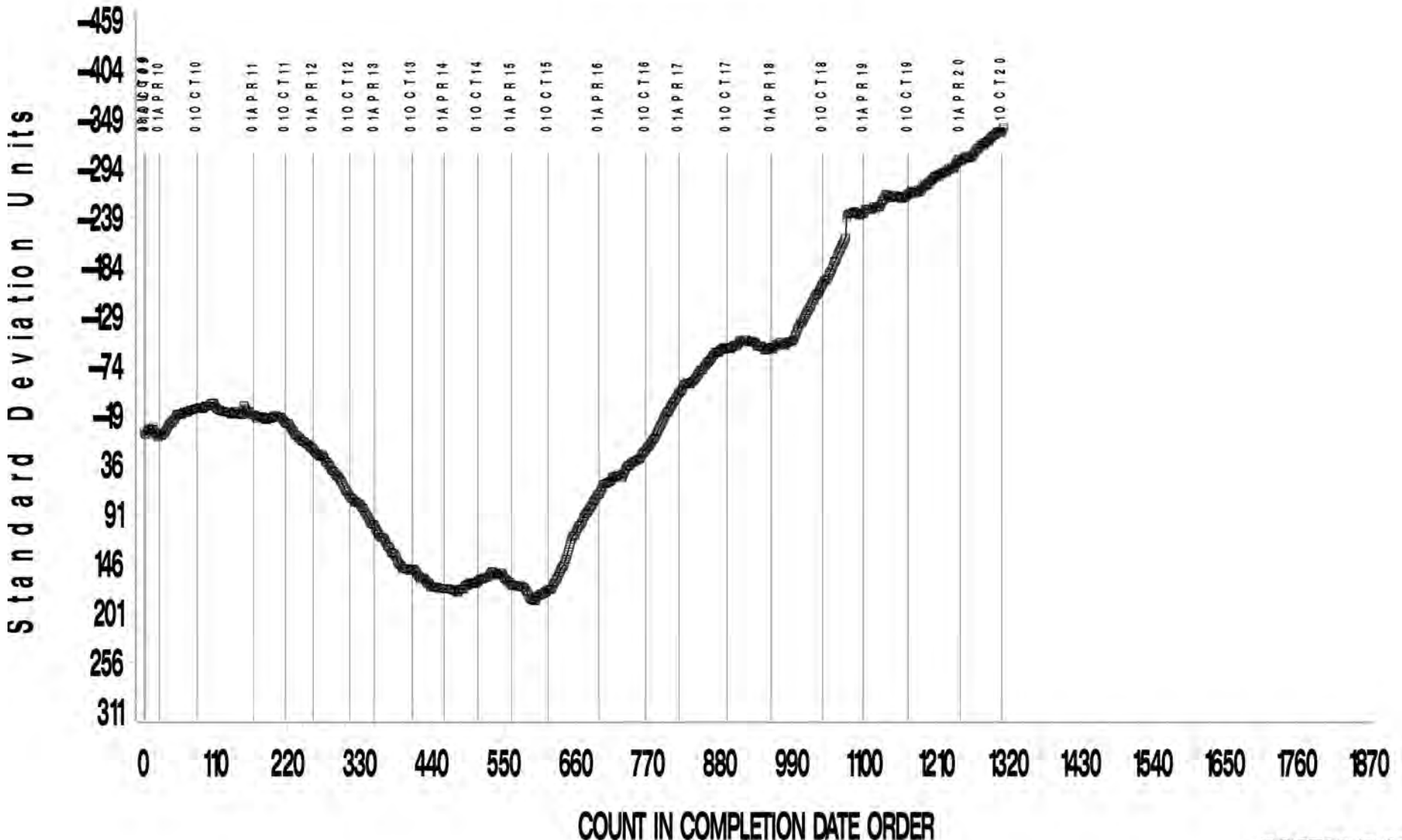
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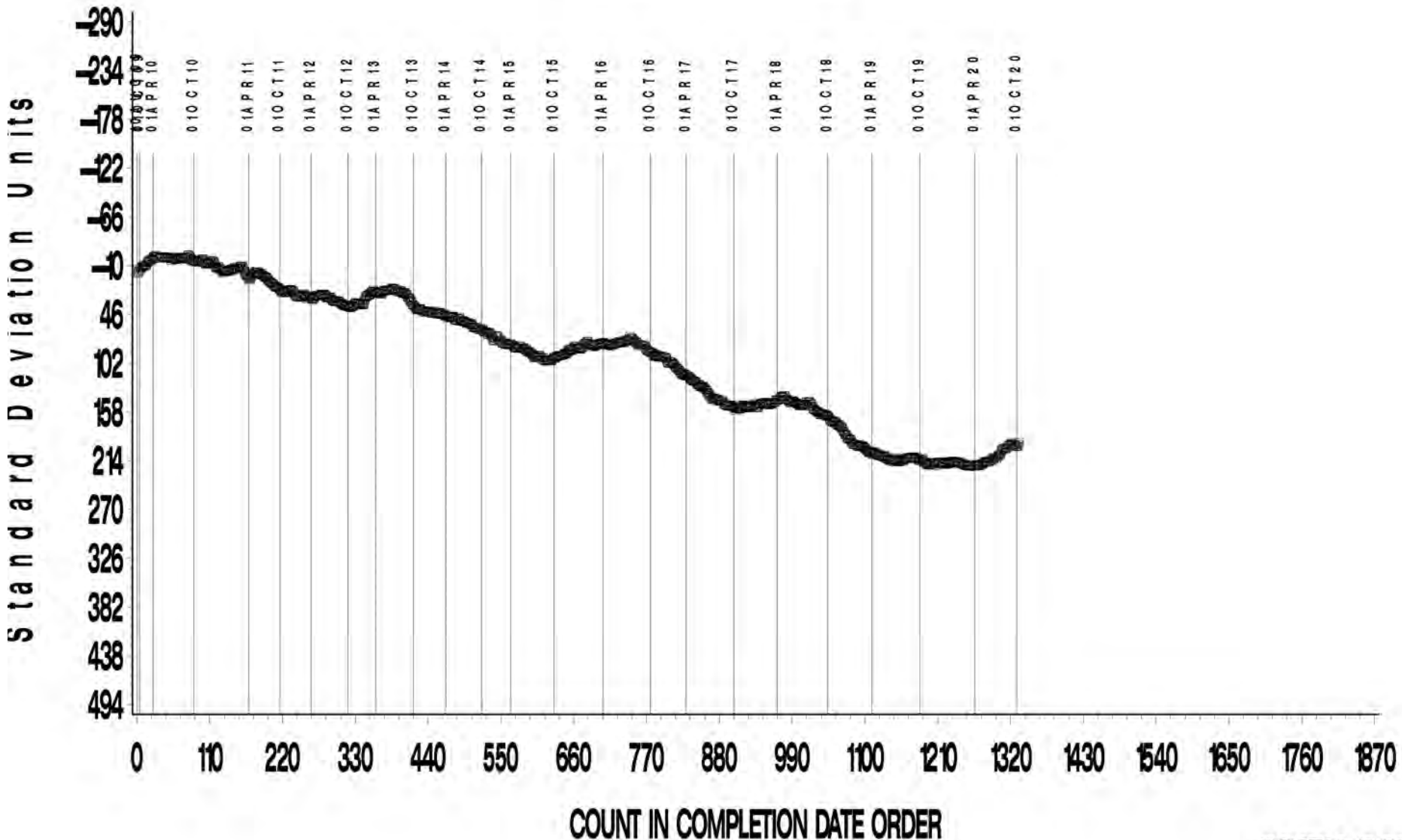
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CUSUM Severity Analysis



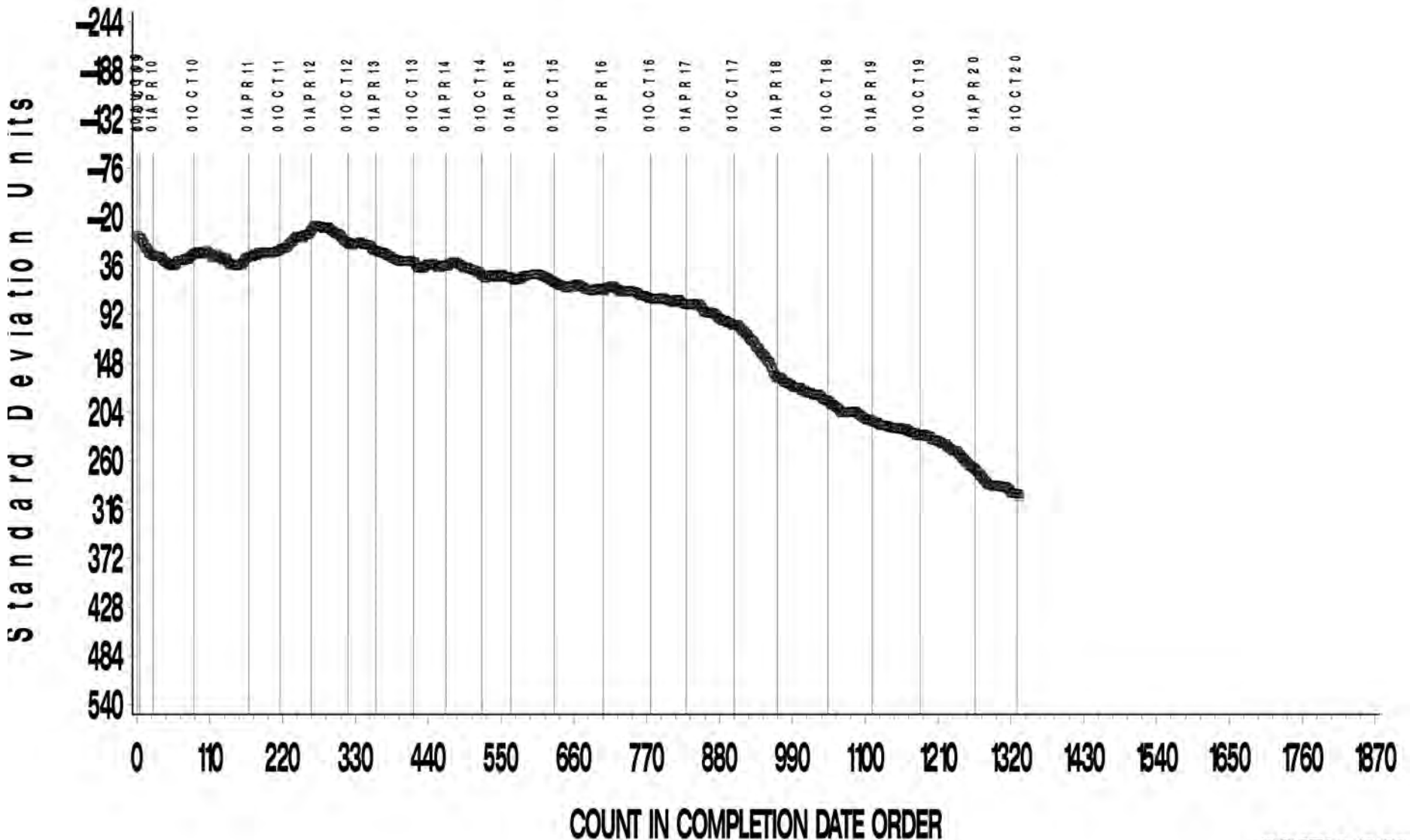
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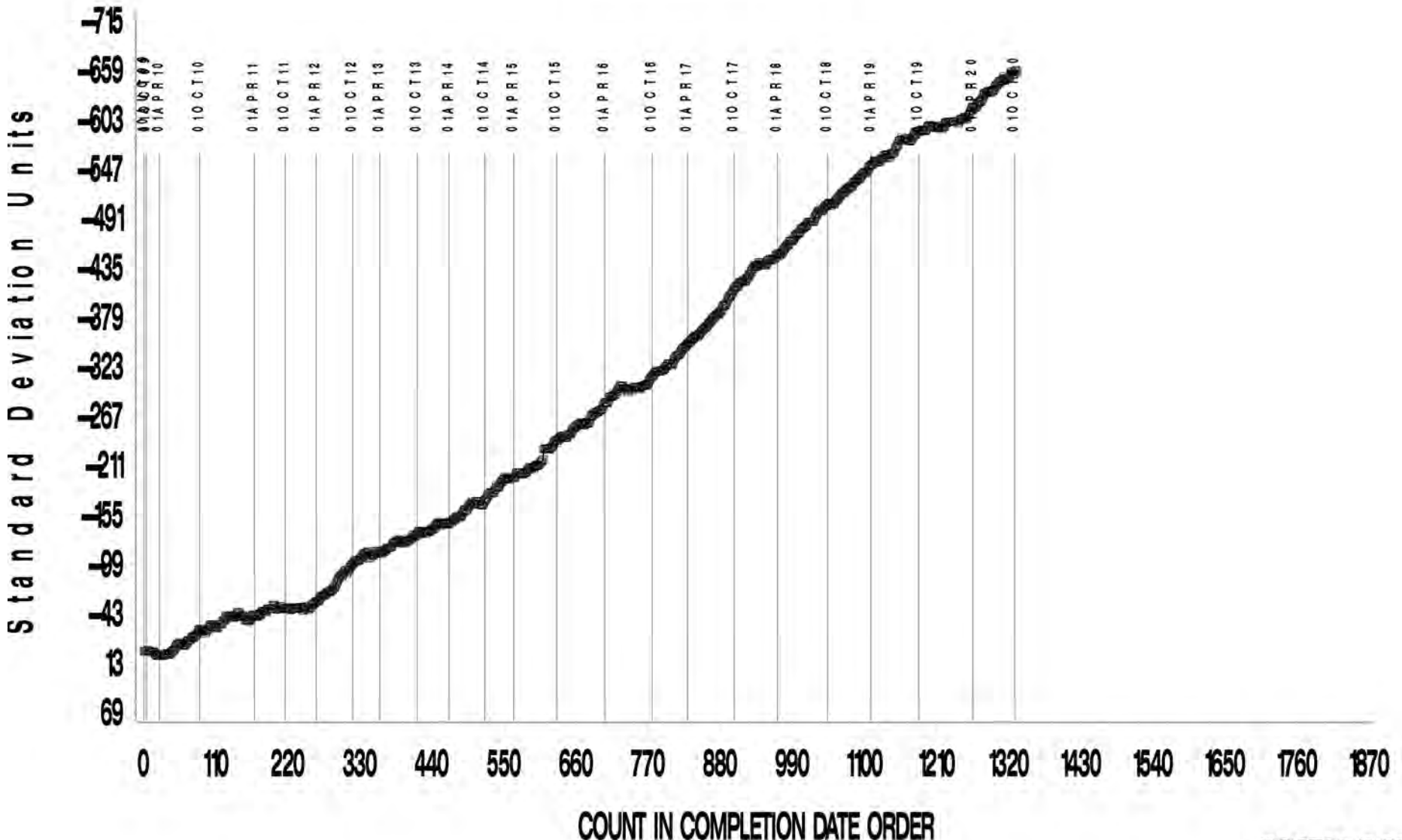
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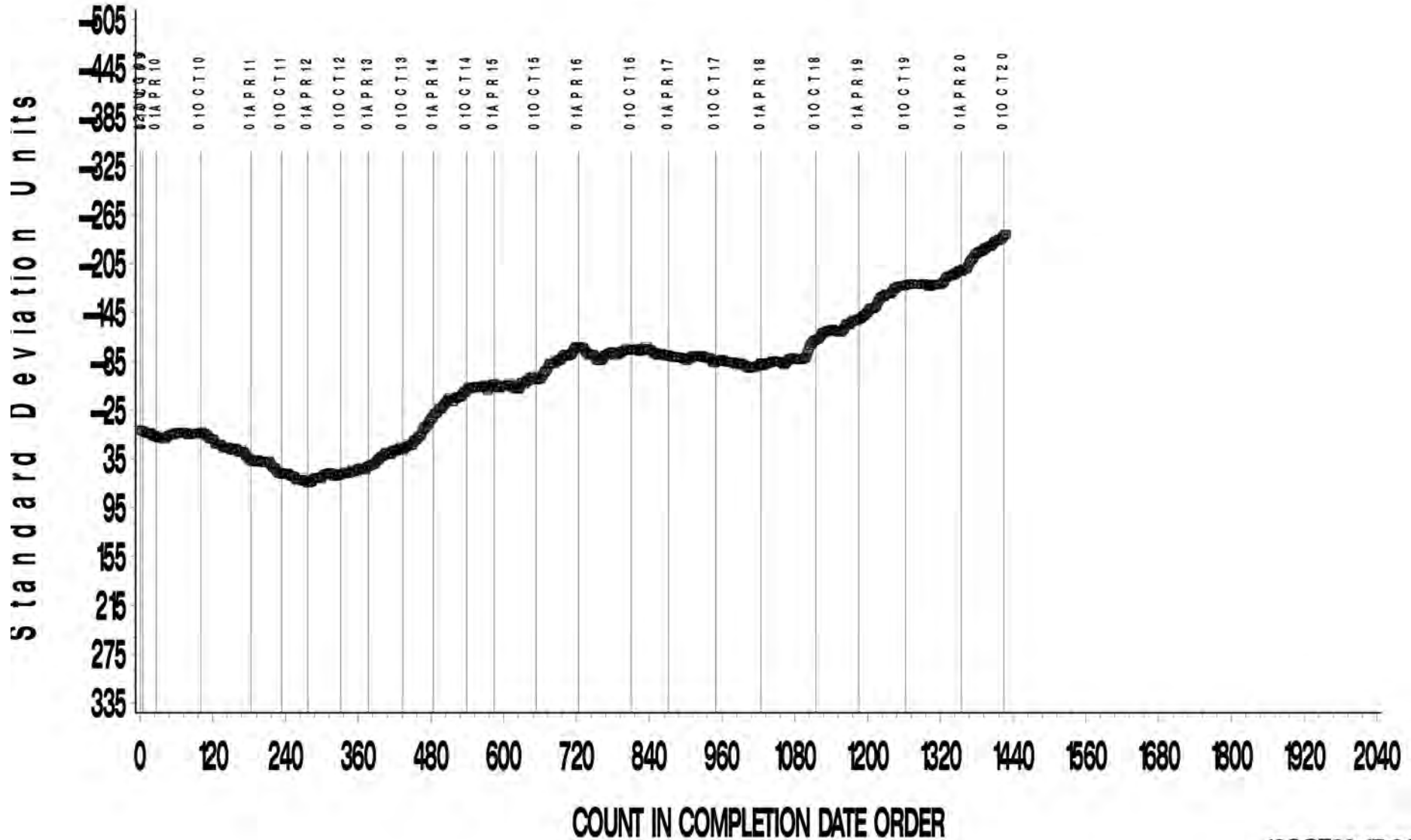
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CUSUM Severity Analysis



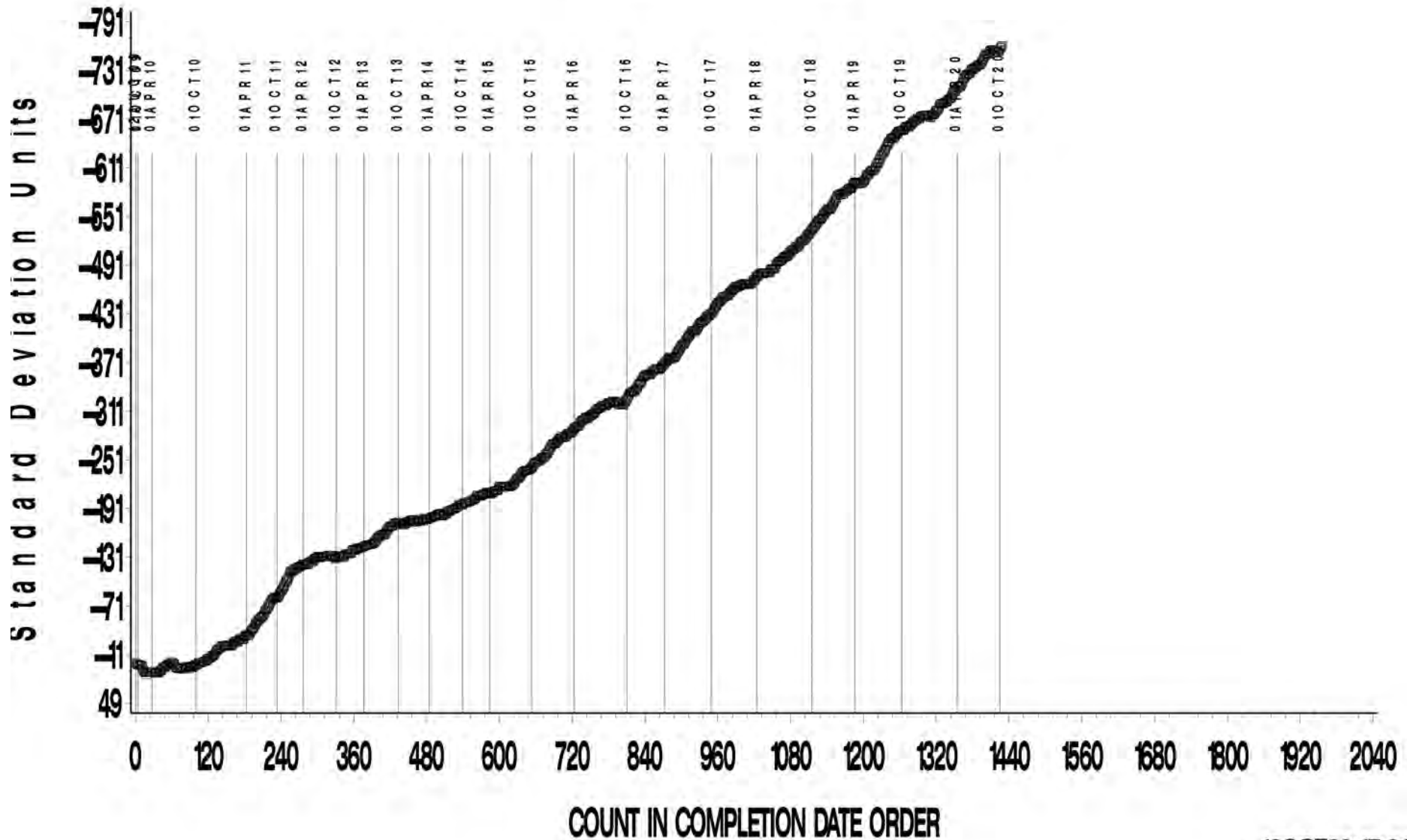
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CUSUM Severity Analysis



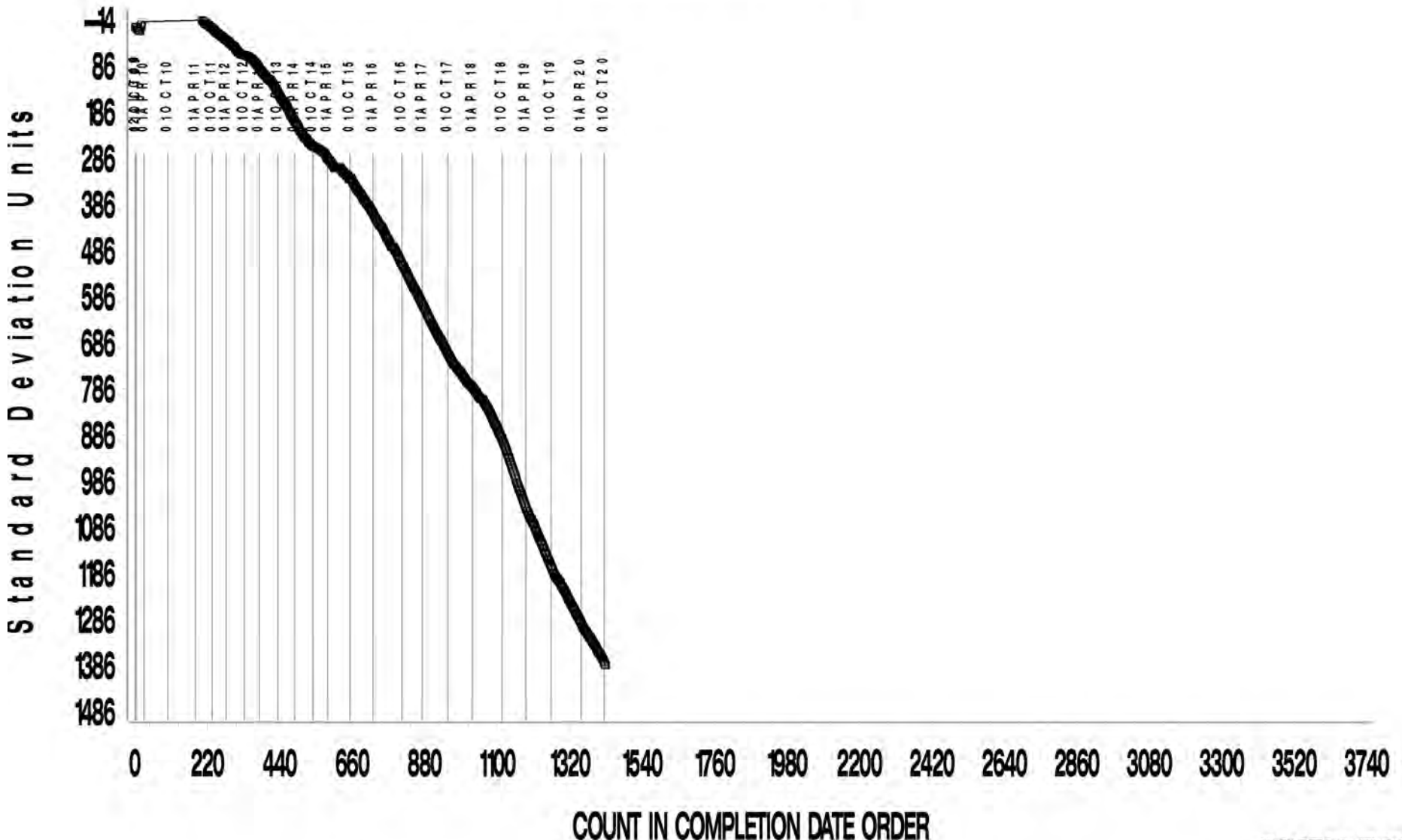
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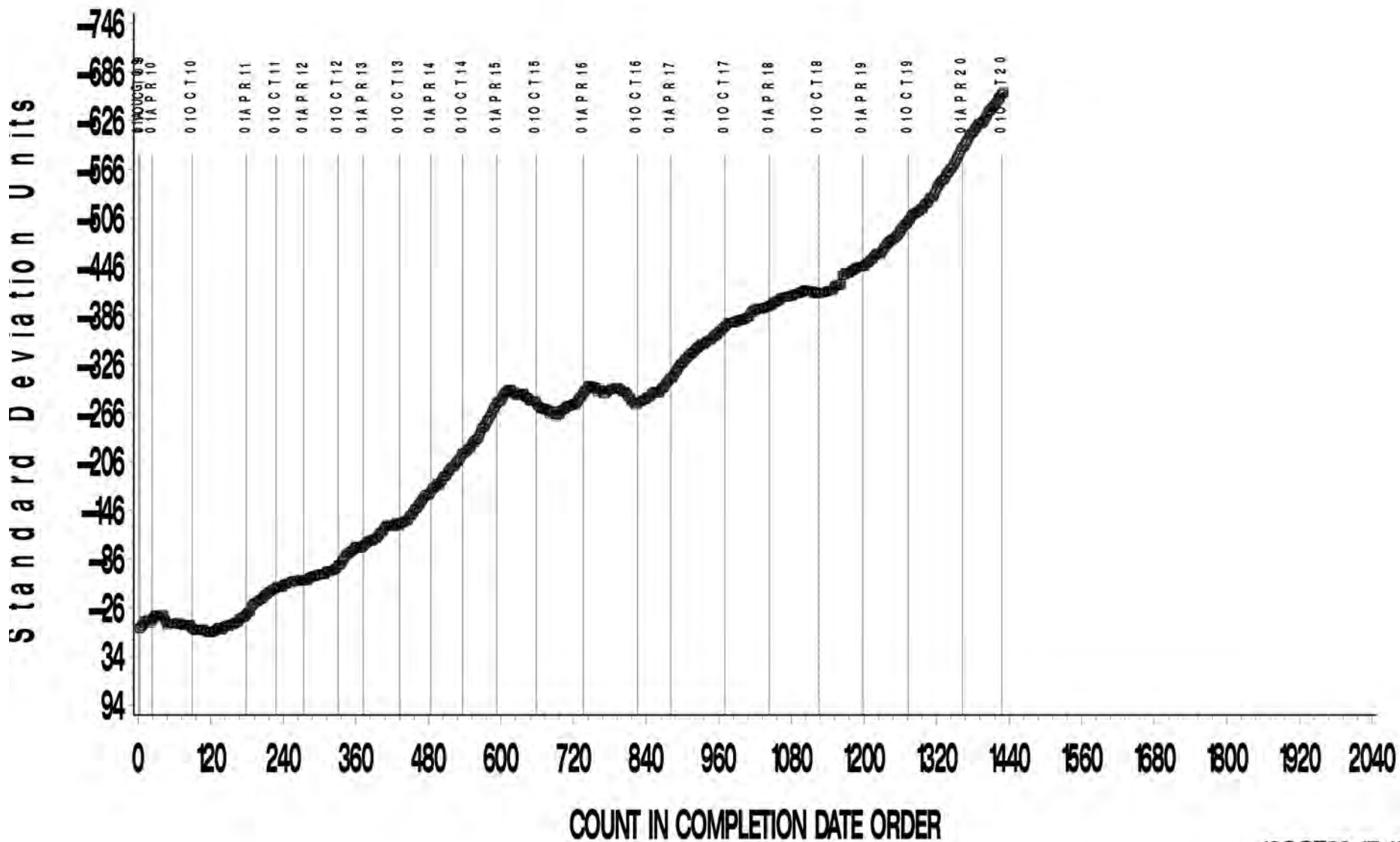
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CUSUM Severity Analysis



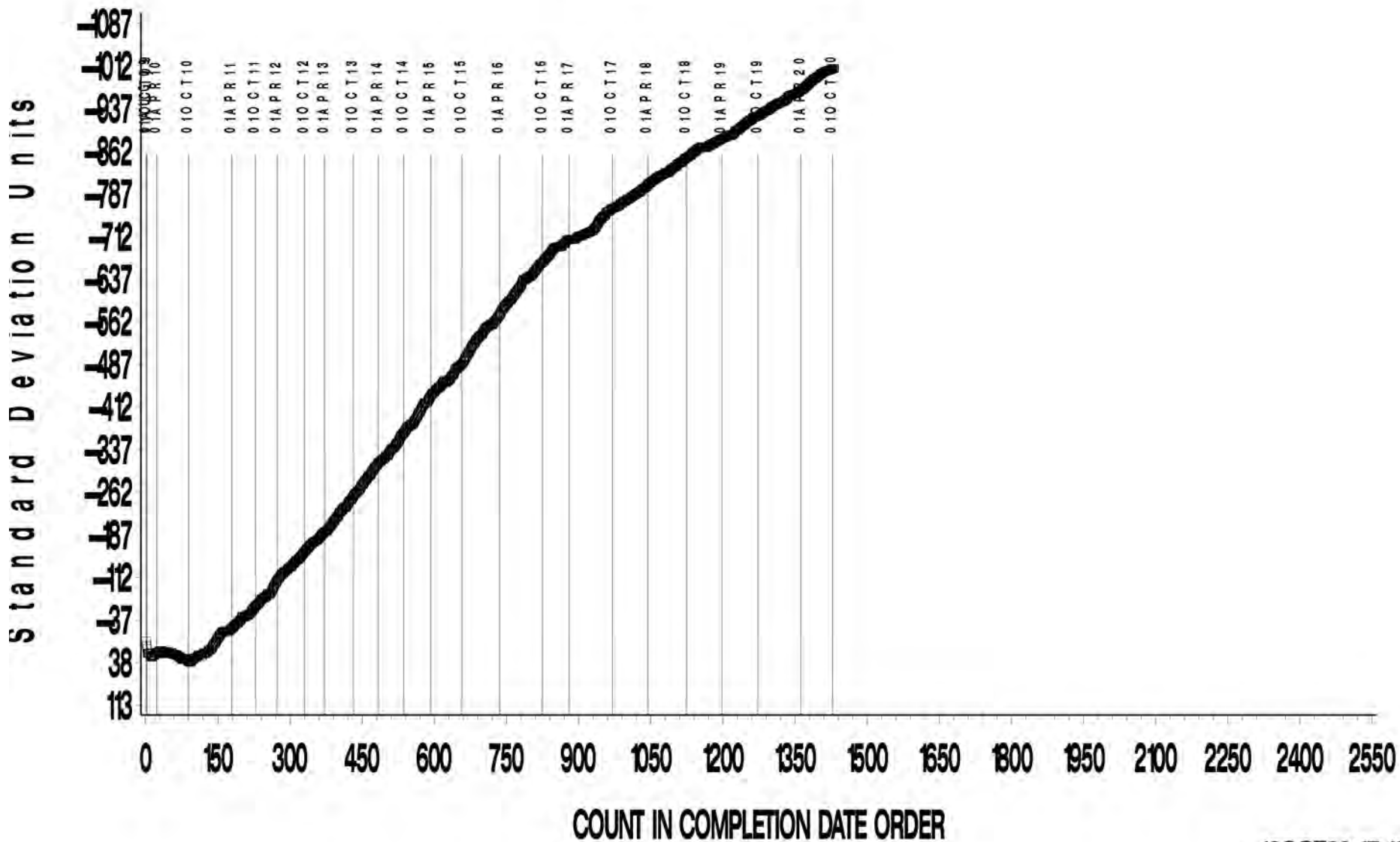
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CUSUM Severity Analysis



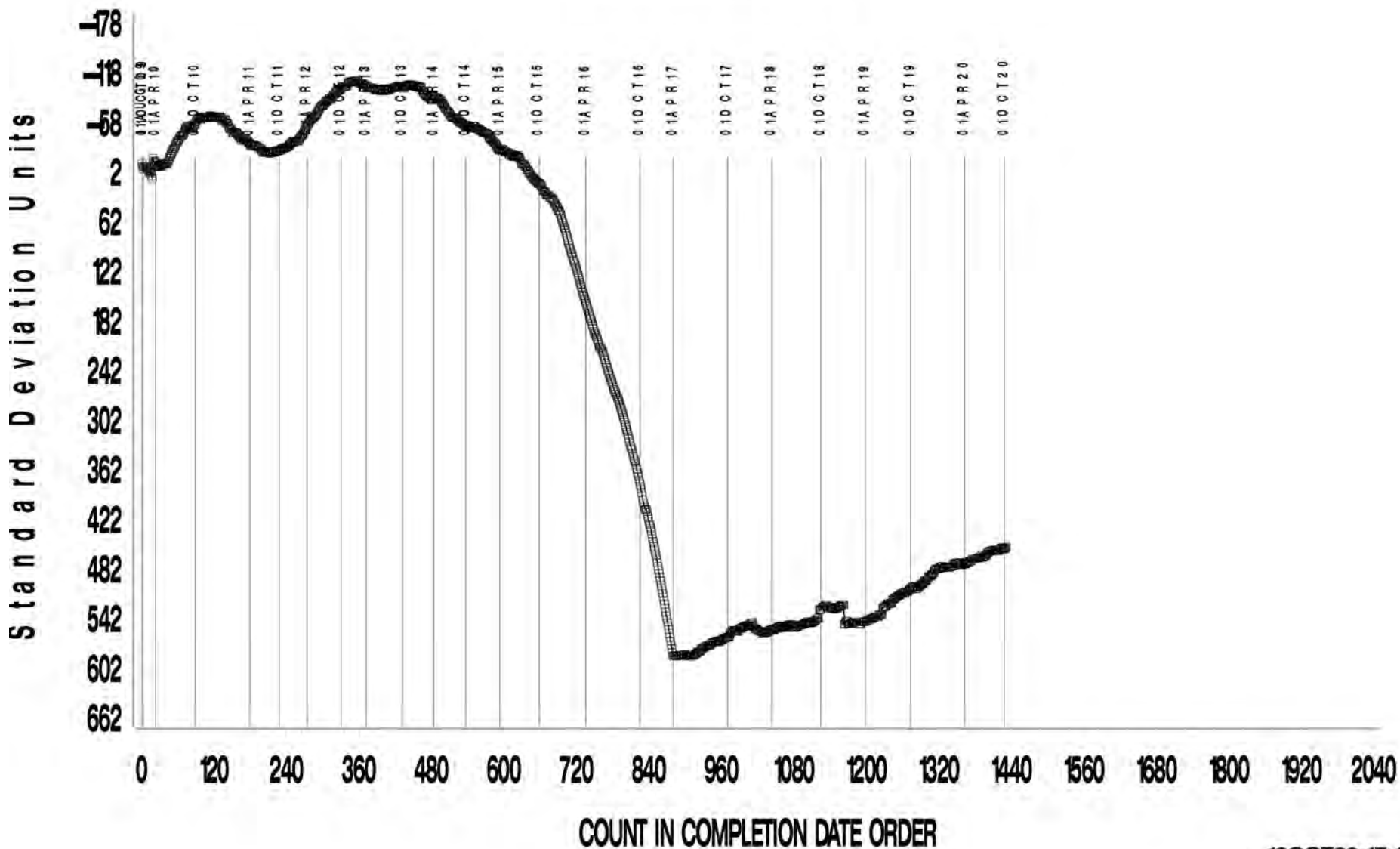
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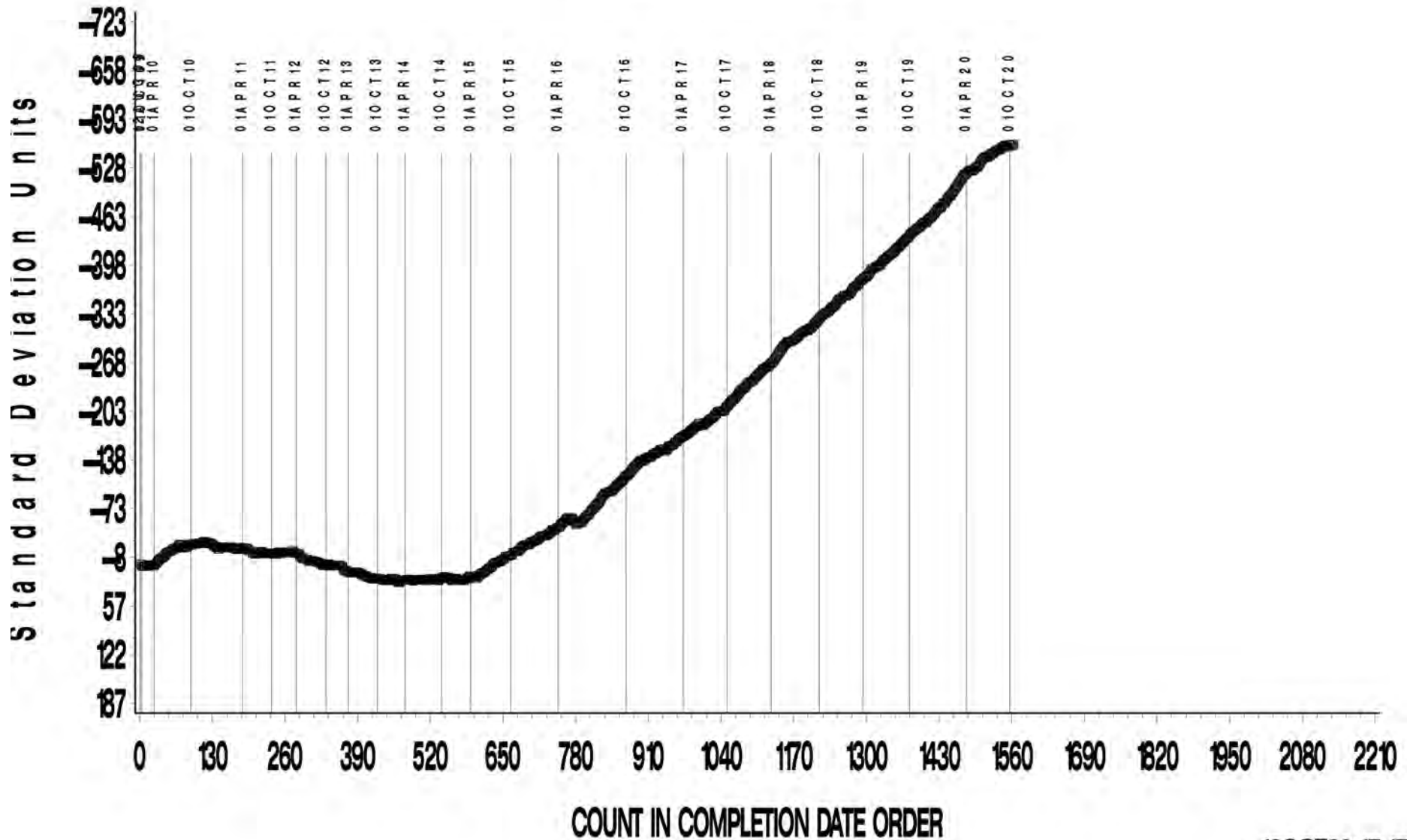
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CUSUM Severity Analysis



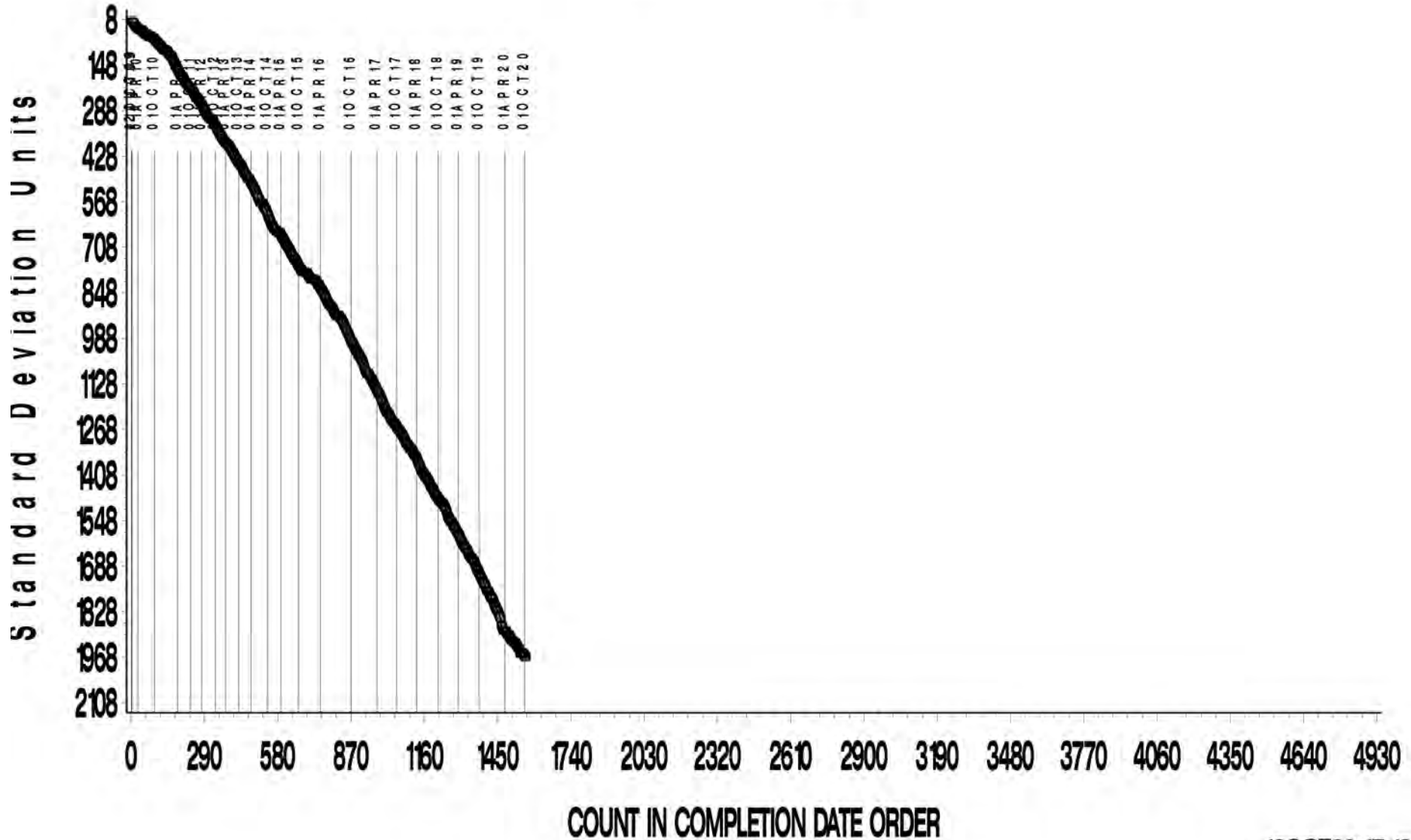
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CUSUM Severity Analysis



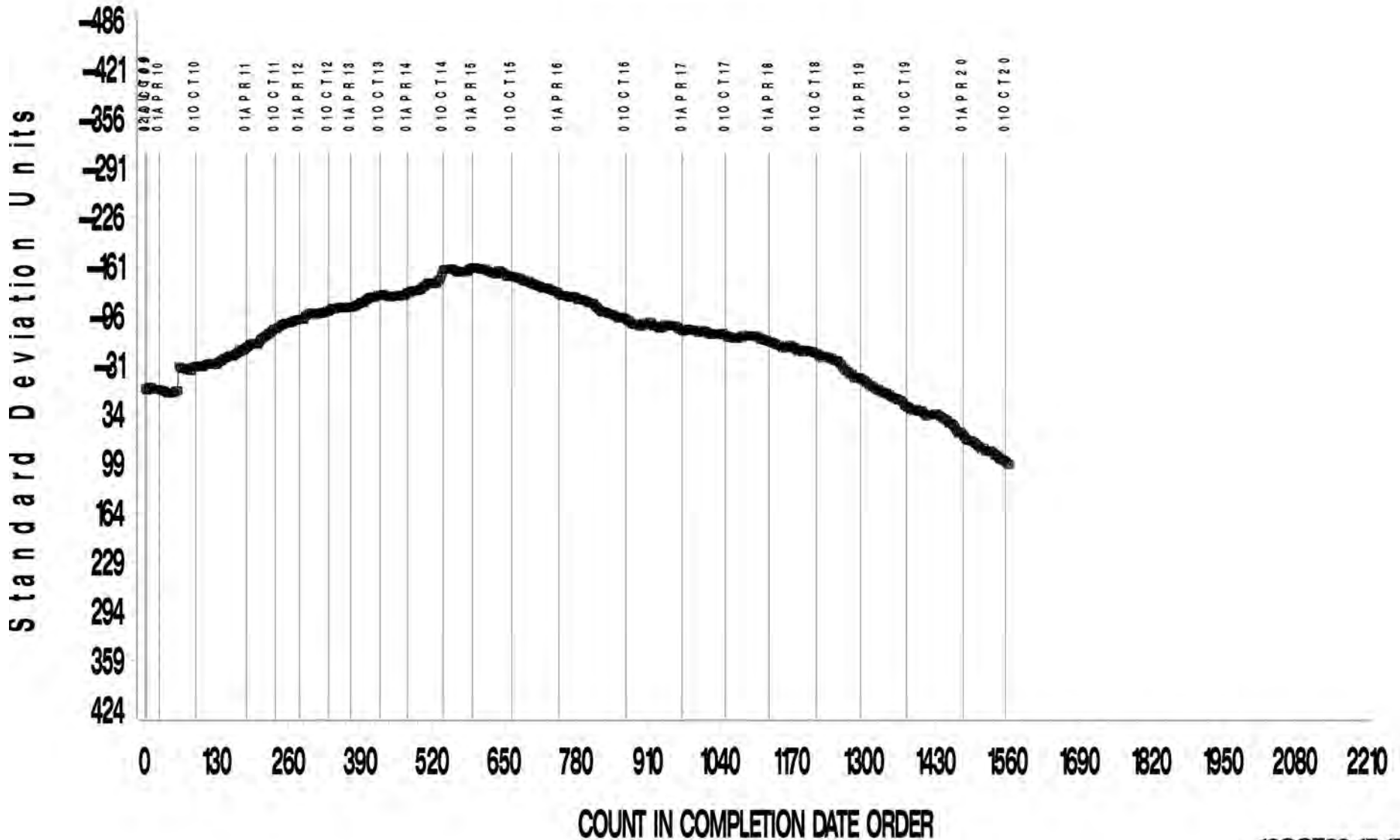
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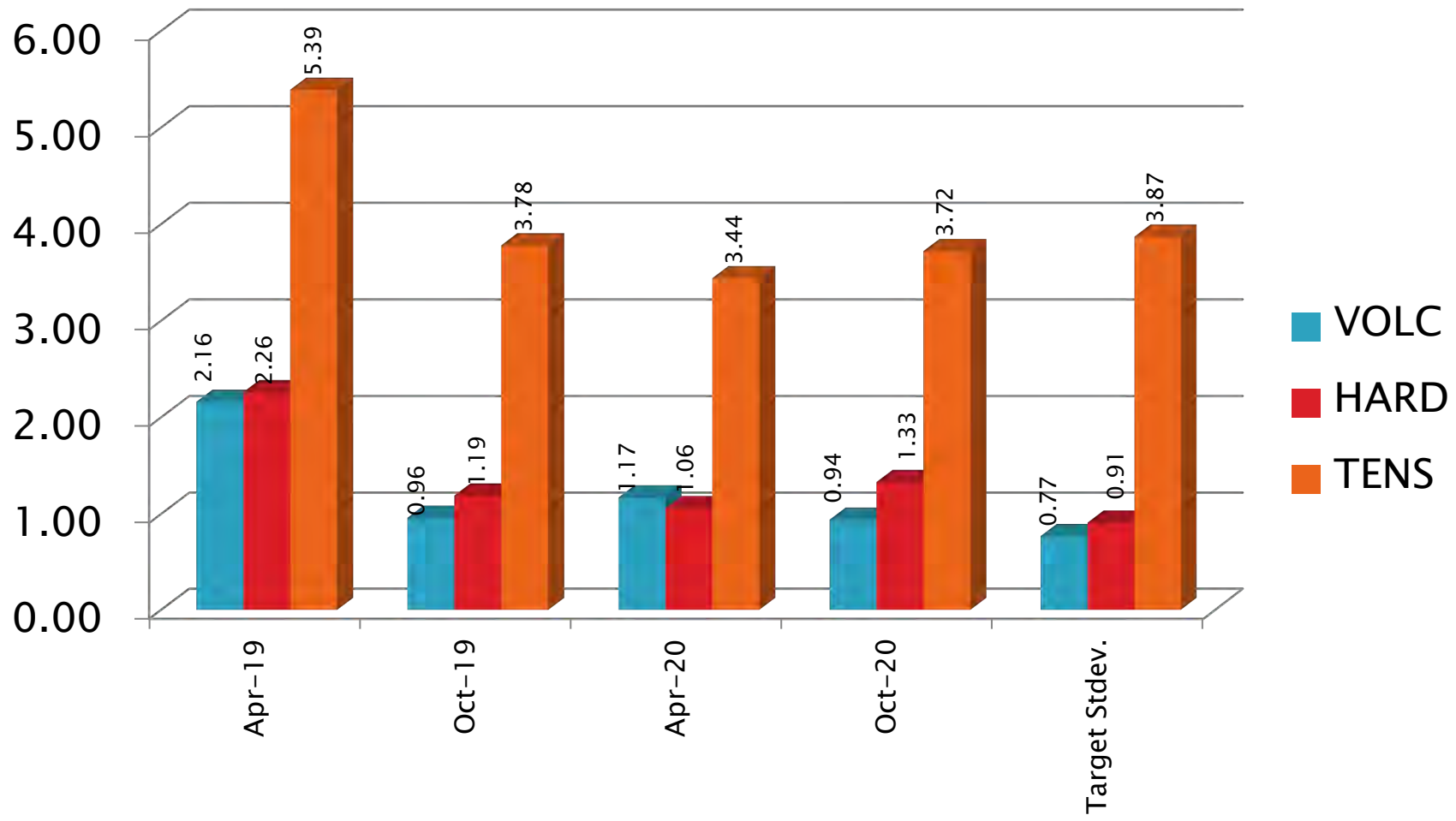


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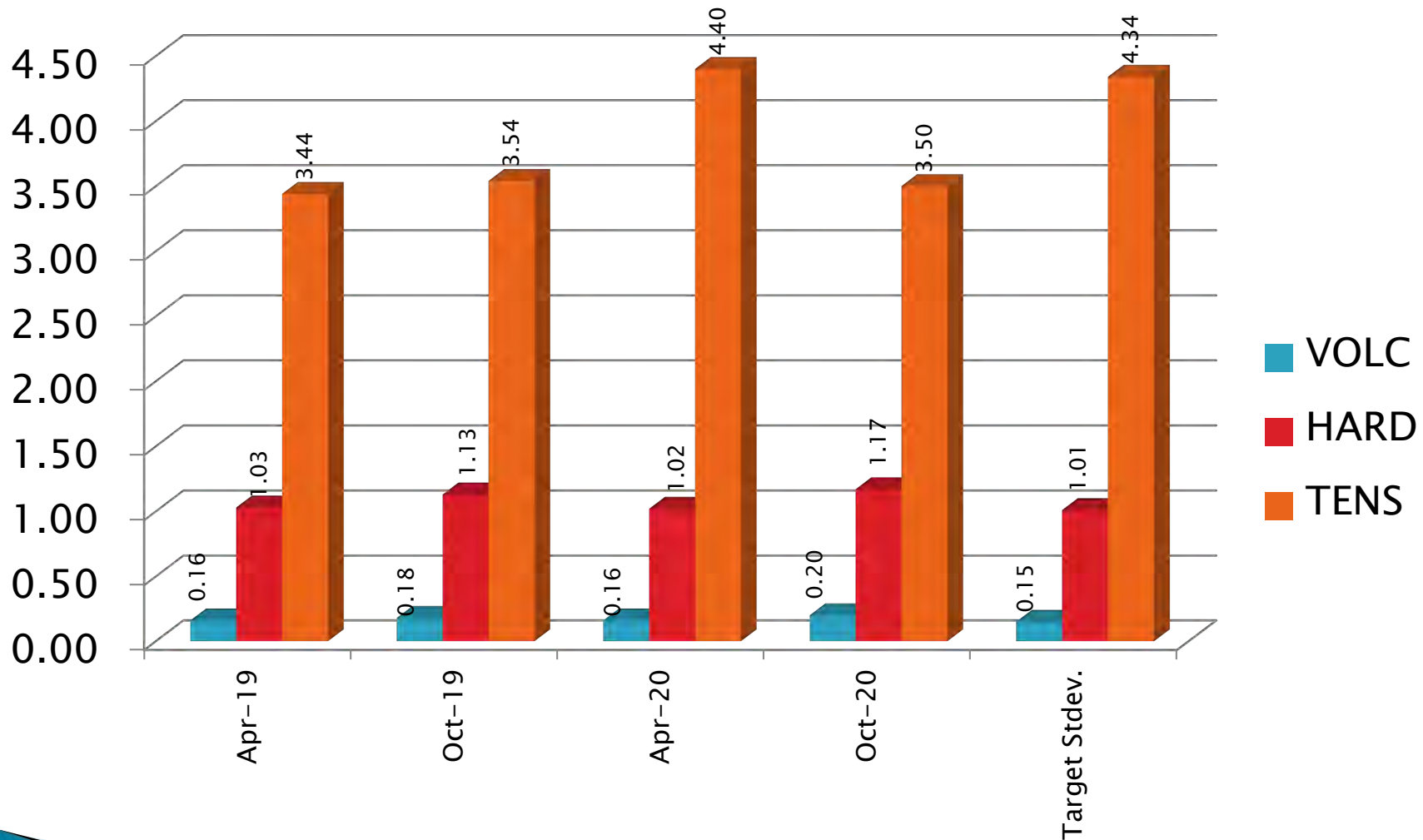
CUSUM Severity Analysis



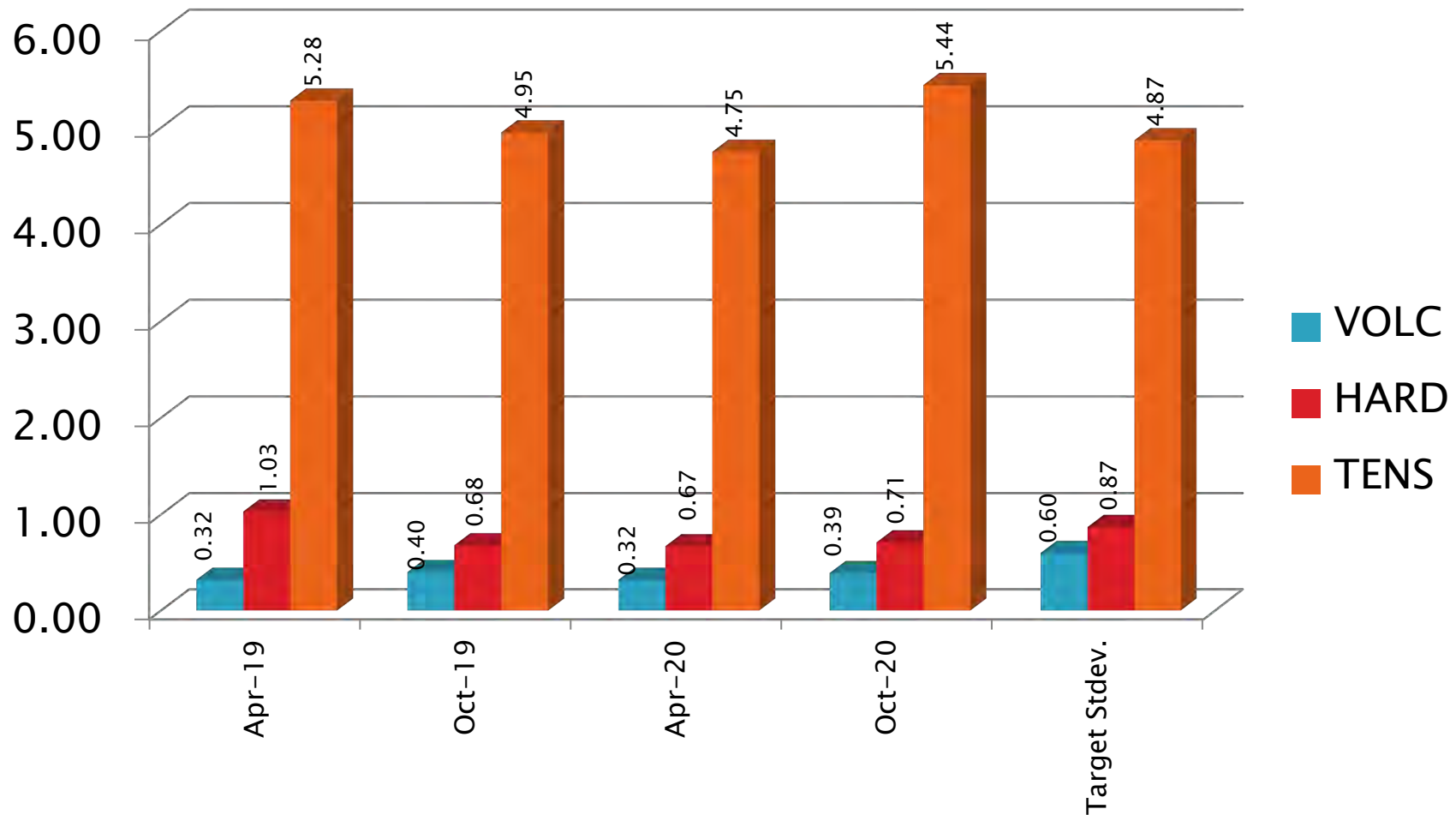
LDEOC Precision Estimates - Ethylene Acrylate



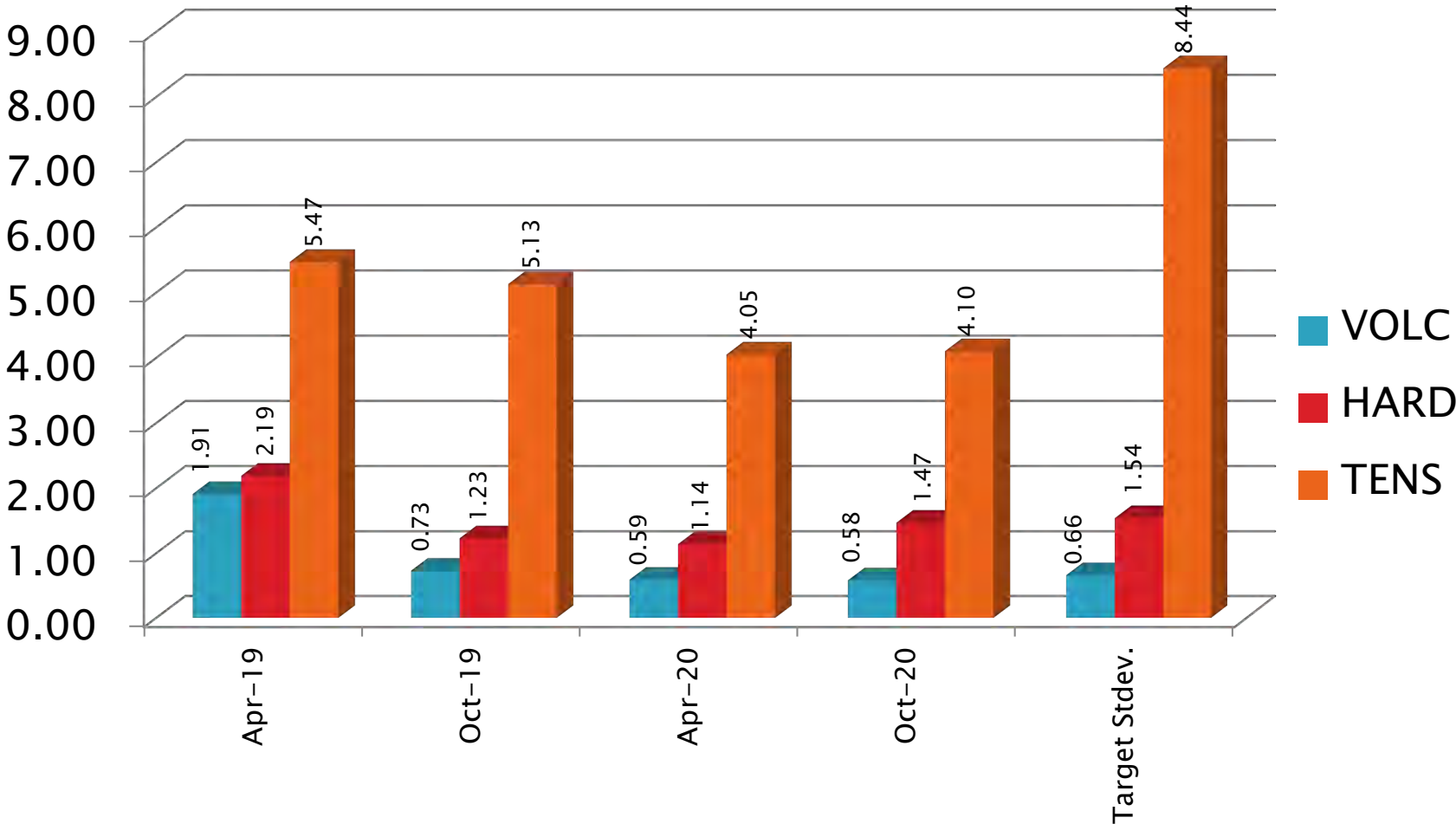
LDEOC Precision Estimates - Fluoroelastomer



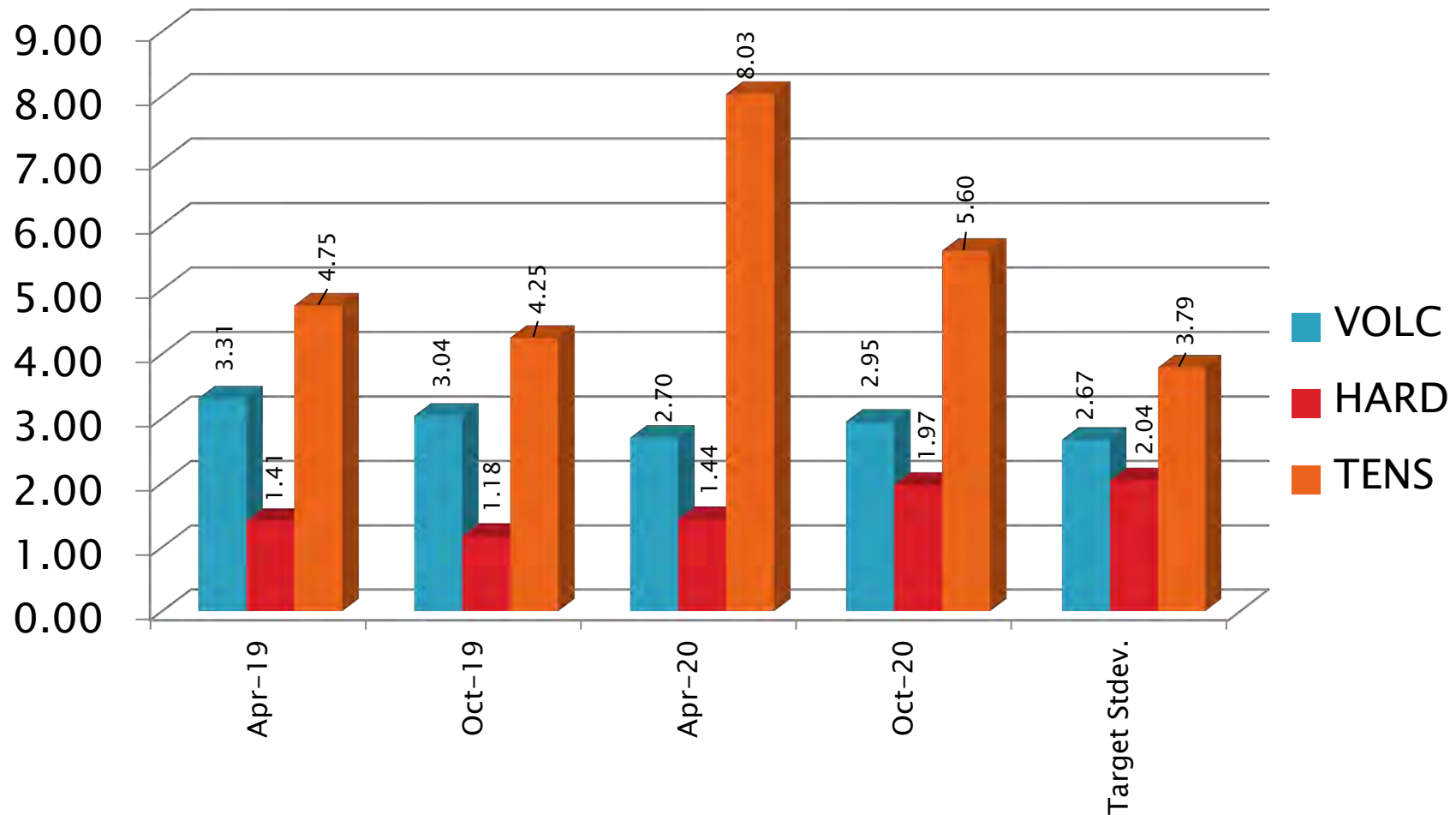
LDEOC Precision Estimates - Nitrile



LDEOC Precision Estimates – Polyacrylate



LDEOC Precision Estimates - Silicone



Information Letters & Technical Updates*

Test	Date	IL or Memo Number	Topic
LDEOC		None	Nothing issued this report period

*Available from TMC Website

Reference Oil Inventory Estimated Life

Oil	TMC Inventory Gallons	Gallons Shipped Past 12 Months	Estimated Life
SL107 ^{A, B}	3348	418	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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