



A Program of ASTM International

Test Monitoring Center

<https://www.astmtmc.org>

ASTM Reference Testing Semi-Annual Report ASTM D6594 – HTCBT

October 2022

HTCBT Test Activity*

Test Status	Validity Code	Number of Tests
Acceptable Calibration Test	AC	289
Failed Calibration Test	OC	16**
Operationally Invalid, by lab	LC	1
Aborted Calibration Test	XC	4
Acceptable Shakedown Run	NN	3
Unacceptable Shakedown Run	MN	2
Invalid Shakedown Run	LN	1
Total		316

- 10 labs reported data

** Two results significantly deviating from the expected targets are impacting the plot summaries.

*April 1, 2022 – September 30, 2022

HTCBT Failed Tests

Failed Parameter	Number of Tests
Severe Lead Concentration	3
Mild Copper Concentration	8
Severe Copper Concentration	5
Total	16

HTCBT Failed Tests by Lab

Failed Parameter	LTMS Lab								#
	A	E	G	I	V	BB	BC	BE	
Severe Lead Concentration	0	0	2	1	0	0	0	0	3
Mild Copper Concentration	0	0	5	3	0	0	0	0	8
Severe Copper Concentration	1	0	0	1	3	0	0	0	5
Total	1	0	7	5	3	0	0	0	16

HTCBT Lost Tests*

Status	Cause	#
Invalid	Temperature/Heater Malfunction	2
Invalid	Power Outage	2
Invalid	Sample Spill/Contamination	1
Total		5

*Invalid and aborted calibration tests

HTCBT Lost Tests by Lab

Cause	LTMS Lab								#
	A	E	G	I	V	BB	BC	BE	
Temperature/Heater Malfunction	0	0	1	1	0	0	0	0	2
Power Outage	0	0	0	0	0	0	1	0	1
Sample Spill/Contamination	0	0	0	1	1	0	0	0	2
Total	0	0	1	2	1	0	1	0	5

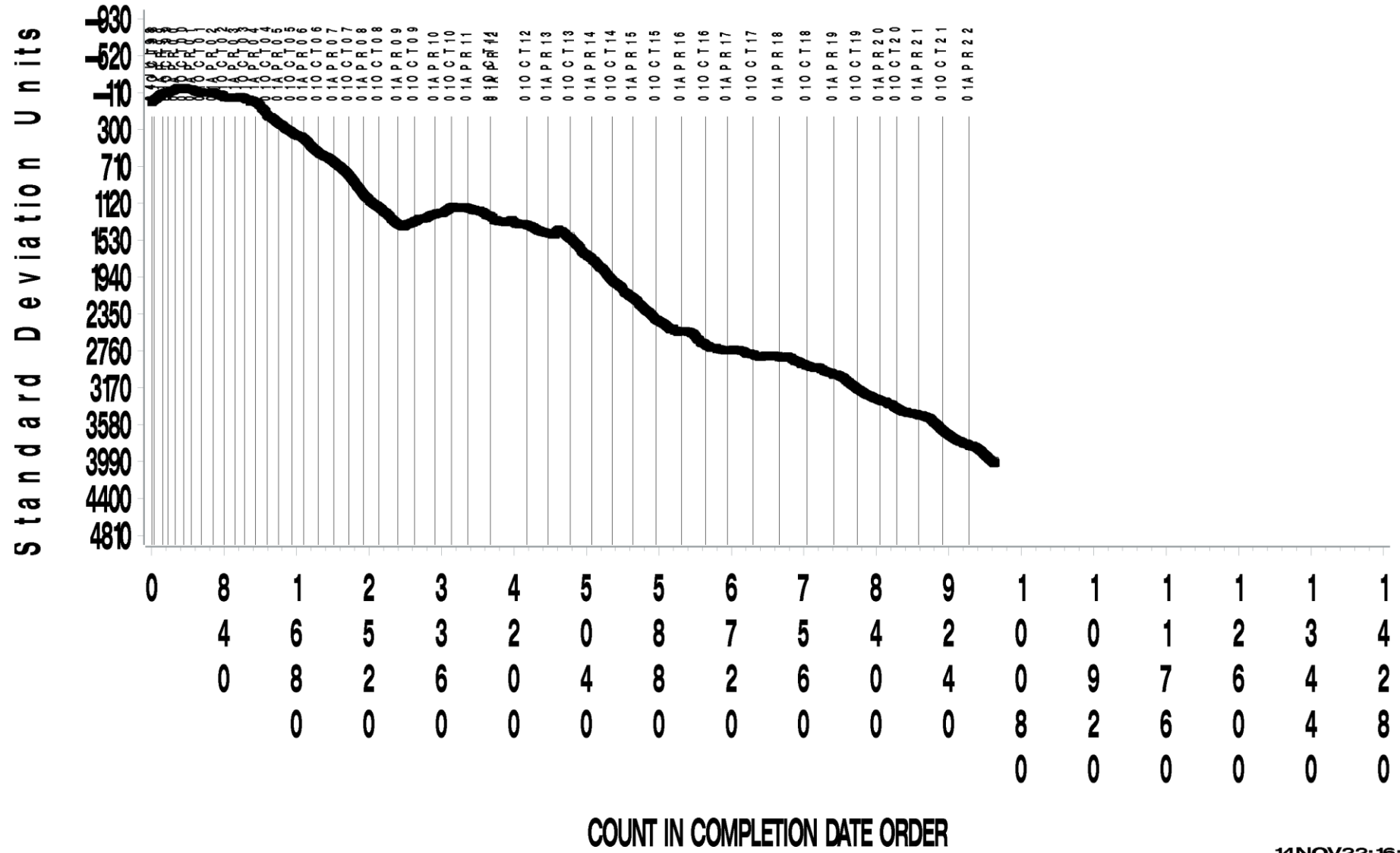
HTCBT Test Severity

- ▶ Copper concentration trending severe
- ▶ Lead concentration trending severe

COPPER CHANGE (ppm)

CUSUM Severity Analysis

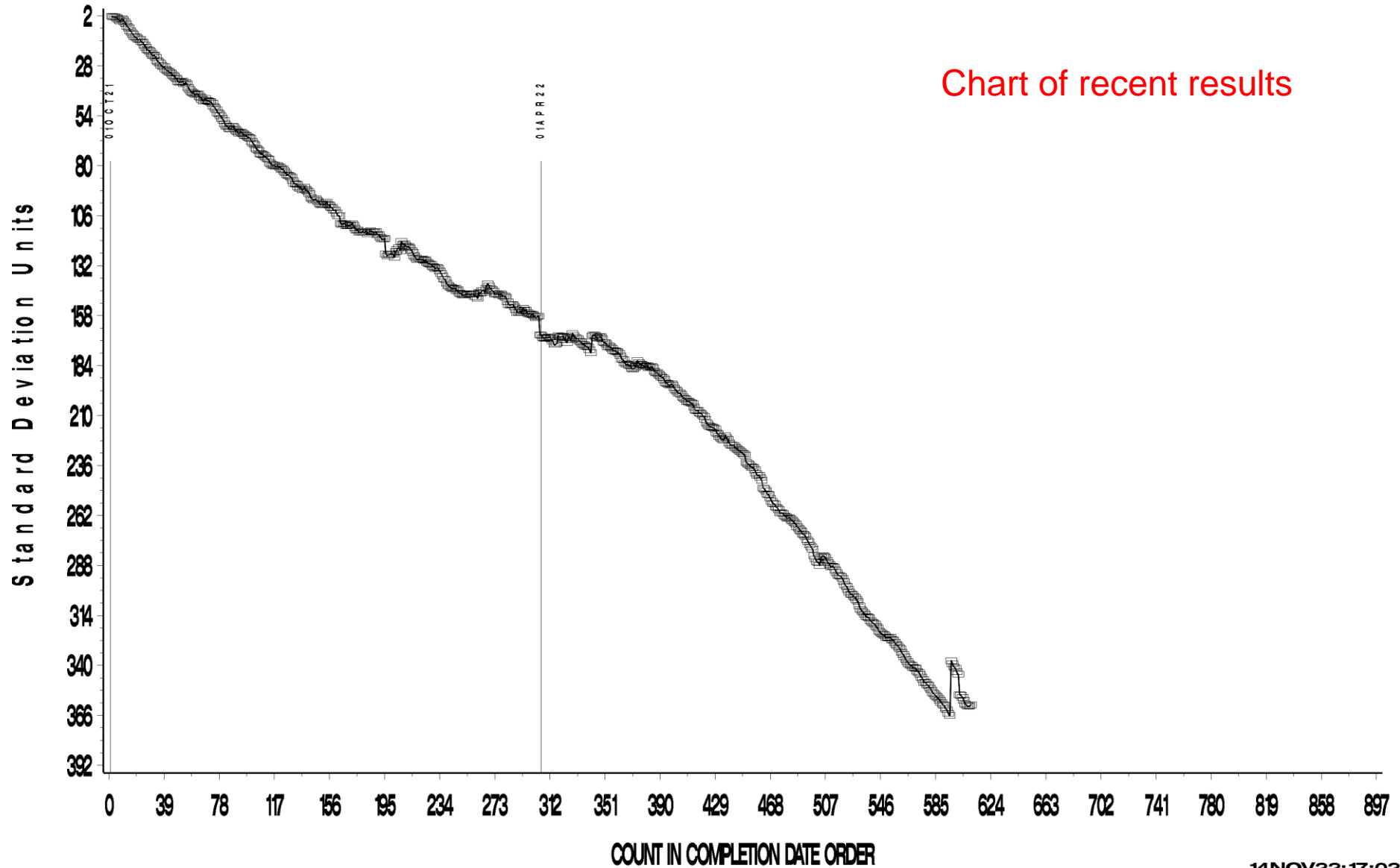
Historical Chart



COPPER CHANGE (ppm)

CUSUM Severity Analysis

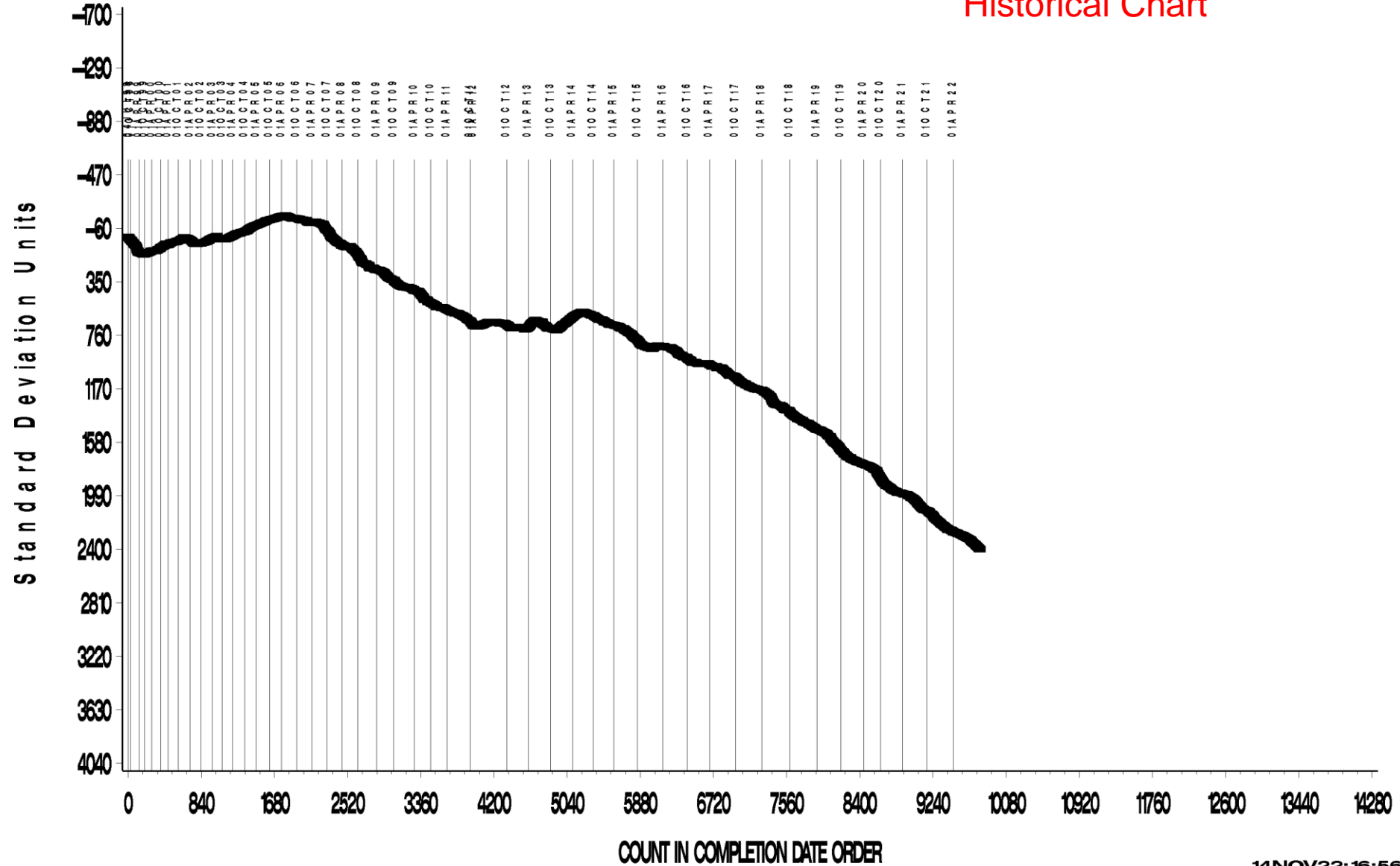
Chart of recent results



LEAD CHANGE (ppm)

CUSUM Severity Analysis

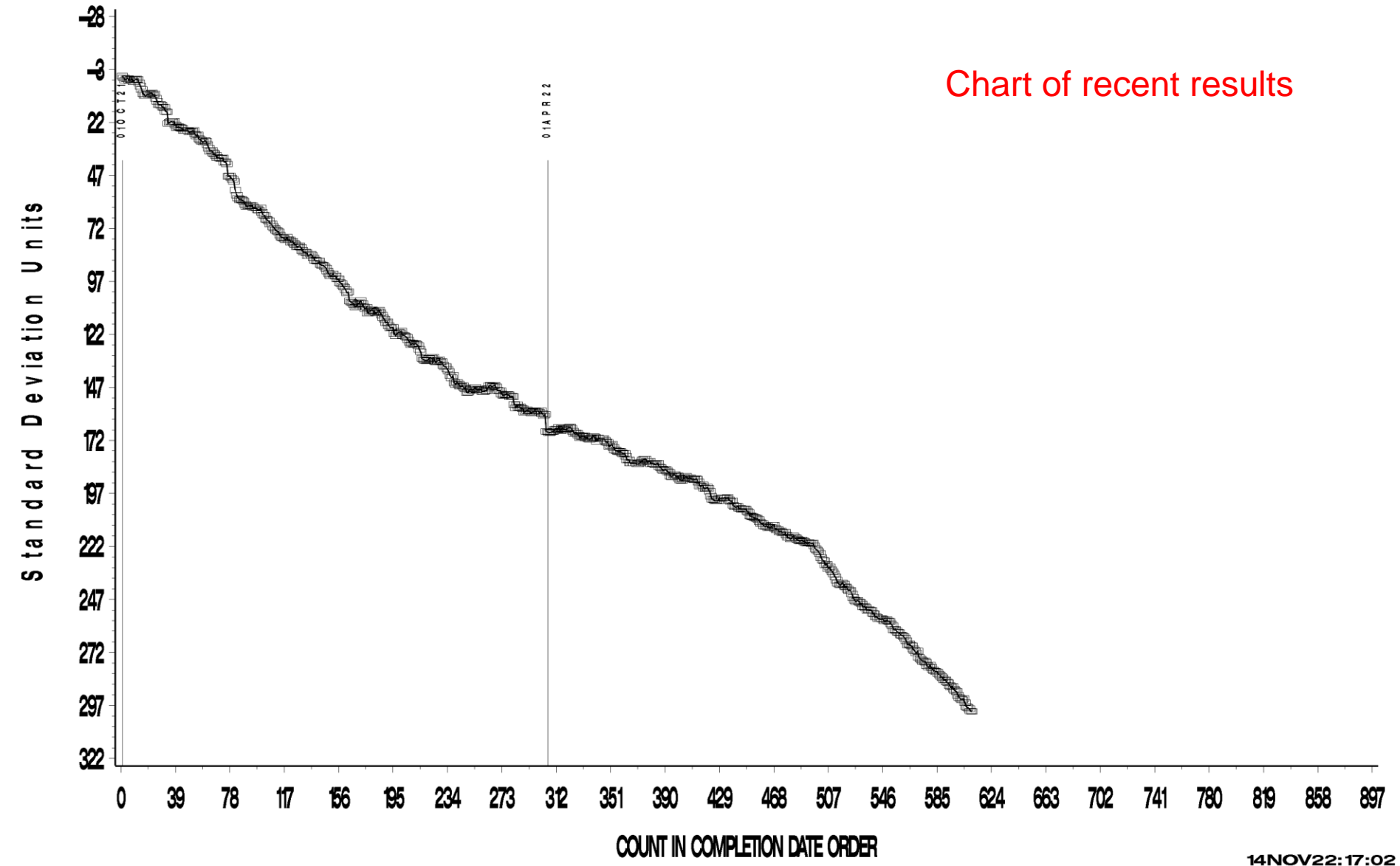
Historical Chart



LEAD CHANGE (ppm)

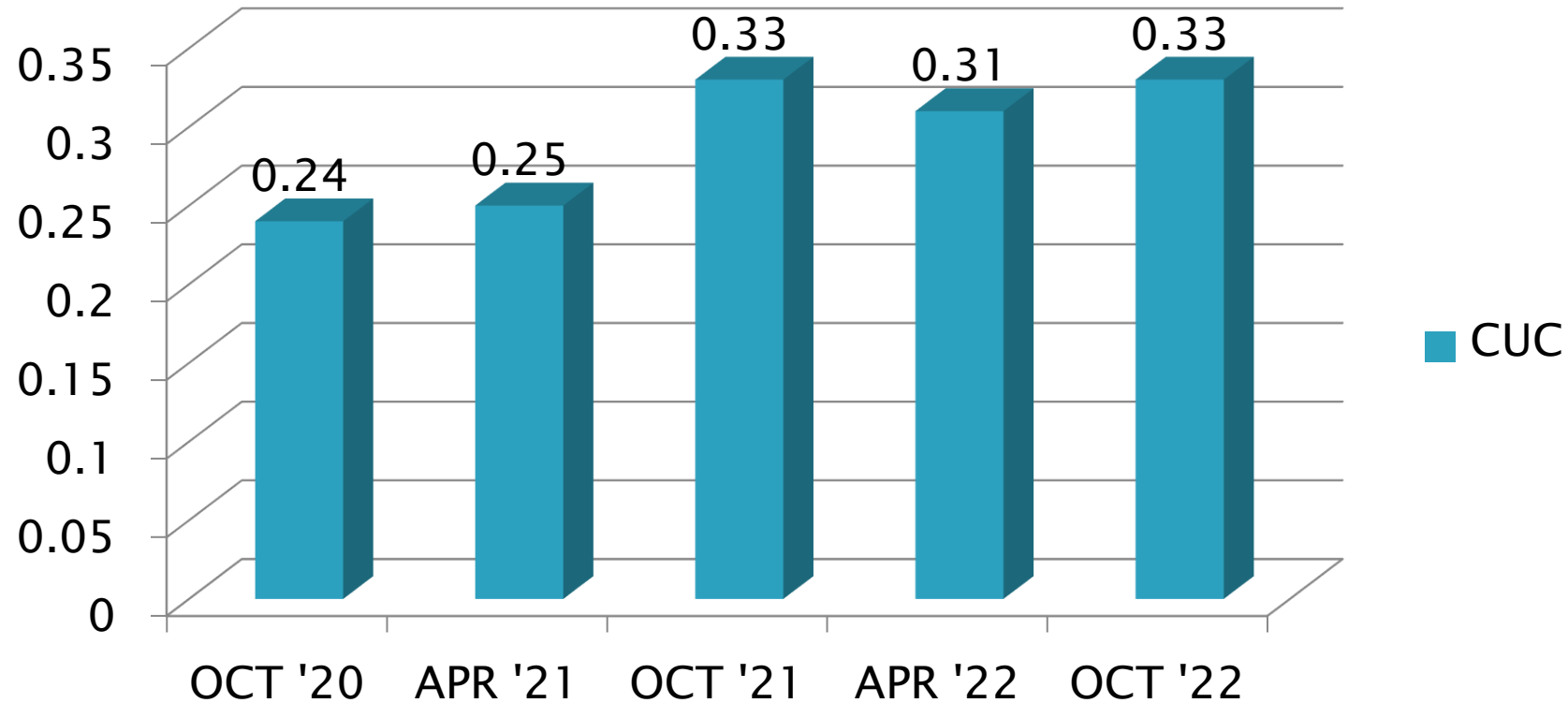
CUSUM Severity Analysis

Chart of recent results



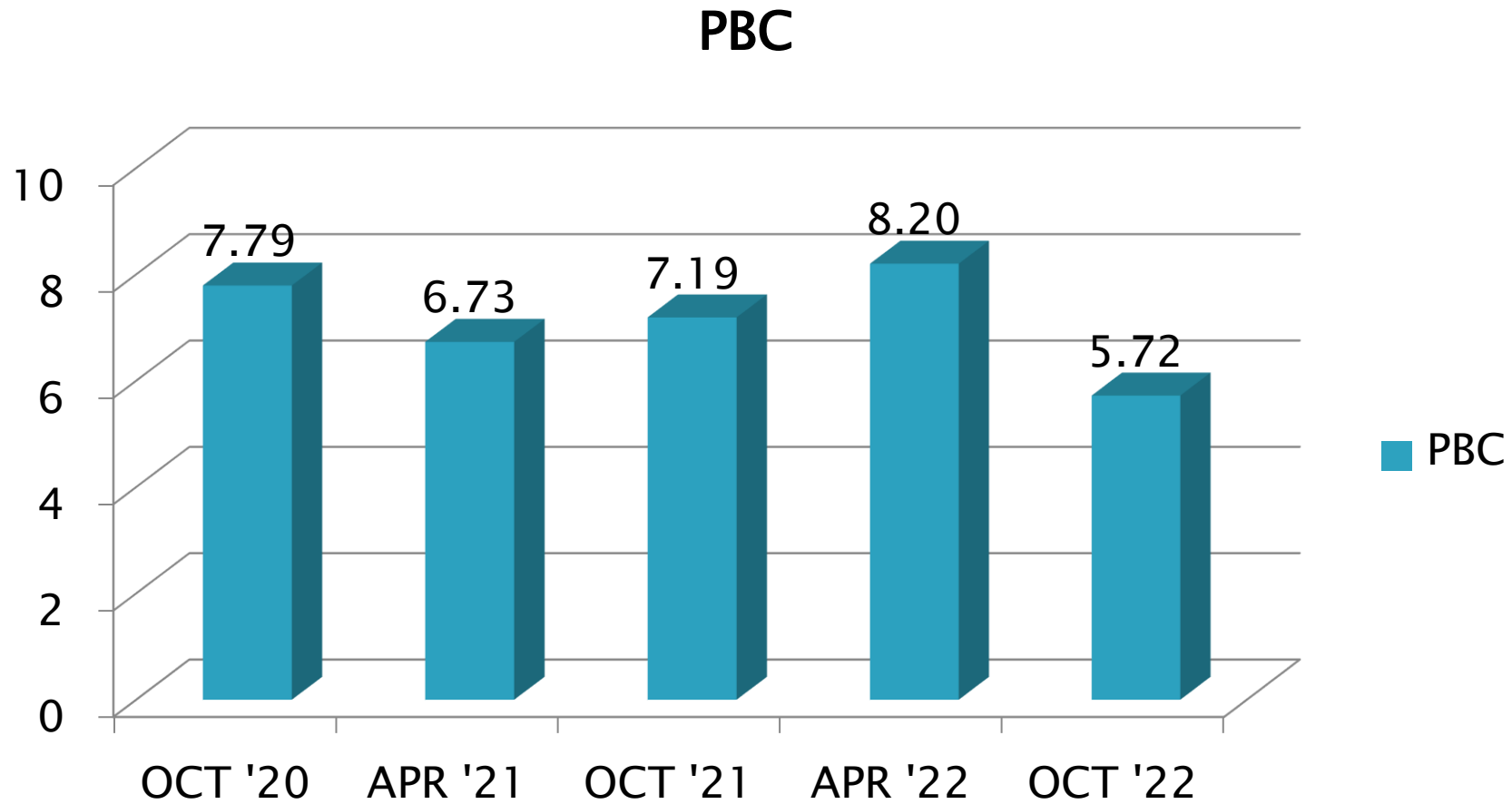
HTCBT Precision Estimates

CUC



** Two results significantly deviating from the expected targets are impacting the plot summaries.

HTCBT Precision Estimates



Information Letters*

Test	Date	IL	Topic
			No information letters this period.

*Available from TMC Website

Reference Oil Inventory Estimated Life

Oil	TMC Inventory (gallons)	Quantity Shipped in last 6 months (gallons)	Lab Inventory (samples)	Estimated Life
44-4	4.5	2.7	76	<1 year
1005-5	1.6 (remaining in reserved drum - Additional oil available at the TMC)	6.8	156	1.5 years

- Re-blended oil 44-5 is available at the TMC and is currently being evaluated by the surveillance panel to establish targets

Miscellaneous Information

- ▶ Available on TMC Website:
 - Oil Assignment Request and Test File Upload
 - Live Reference Test Data Bases
 - Surveillance Panel Meeting Minutes
- ▶ <https://www.astmtmc.org/>



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