



A Program of ASTM International

Test Monitoring Center

<http://astmtmc.cmu.edu>

ASTM Reference Testing Semi-Annual Report HTCBT

Fall 2019

HTCBT Test Activity*

Test Status	Validity Code	Number of Tests
Acceptable Calibration Test	AC	248
Failed Calibration Test	OC	25
Operationally Invalid, by lab	LC	8
Operationally Invalid, by TMC	RC	1
Aborted Calibration Test	XC	3
Acceptable Shakedown Run	NN	7
Unacceptable Shakedown Run	MN	8
Aborted Shakedown Run	XN	2
Hardware Run – N coupons	NI	14
Unacceptable Hardware Run – N coupons	MI	2
Invalid Hardware Run – N coupons	LI, RI	8
Total		326

*April 1, 2019 – September 30, 2019

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HTCBT Failed Tests

Failed Parameter	Number of Tests
Severe Lead Concentration	12
Severe Copper Concentration	5
Severe Copper & Lead Concentration	6
Mild Copper Concentration	2
Total	25

HTCBT Lost Tests*

Status	Cause	#
Invalid	Power Failure	7
Invalid	Airflow Control Problems	2
Invalid	Unapproved Hardware	1
Aborted	Heater Failure	1
Aborted	Sample Spilled	1
Total		12

*Invalid and aborted calibration tests

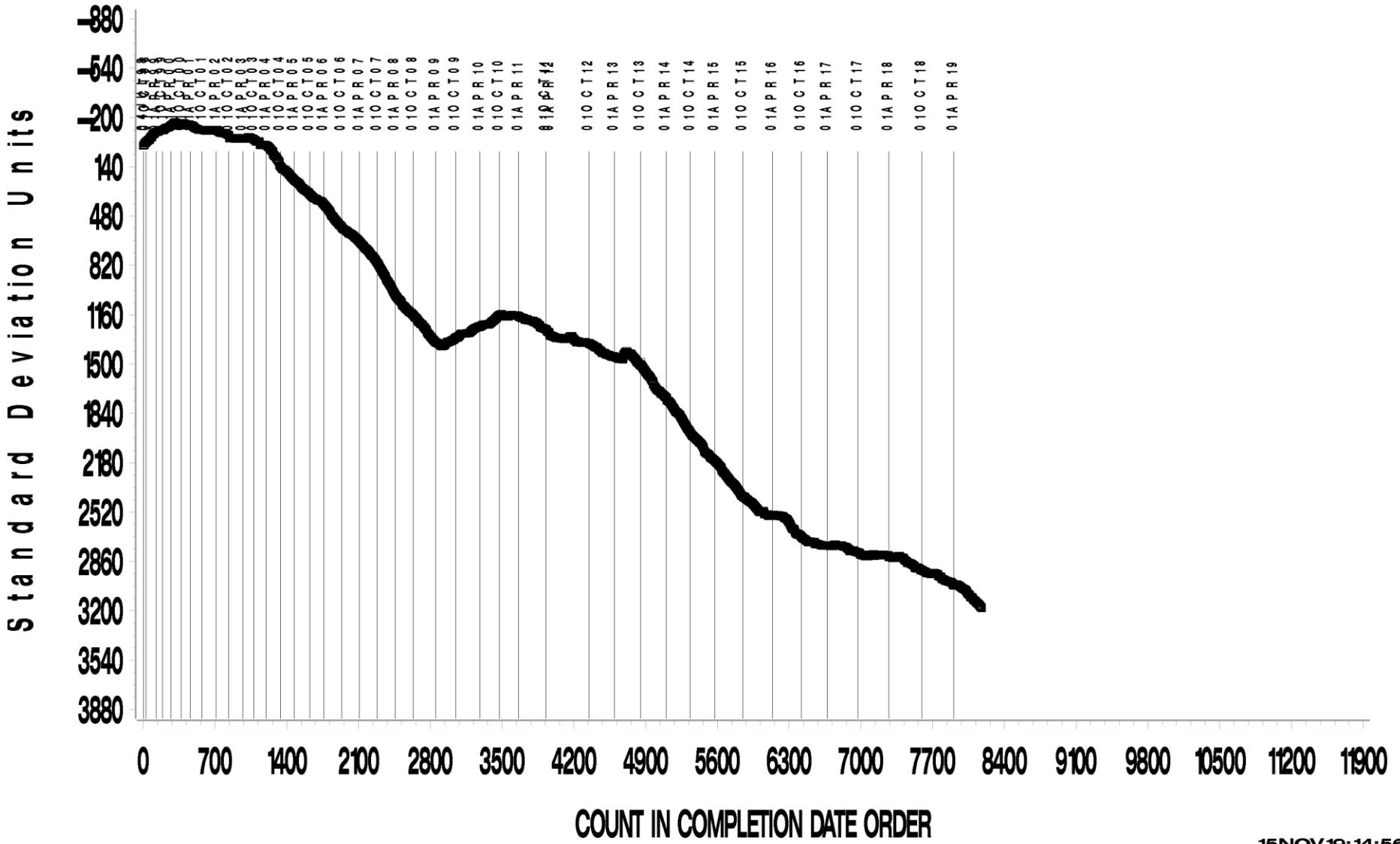
HTCBT Test Severity

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

COPPER CHANGE (ppm)

CUSUM Severity Analysis

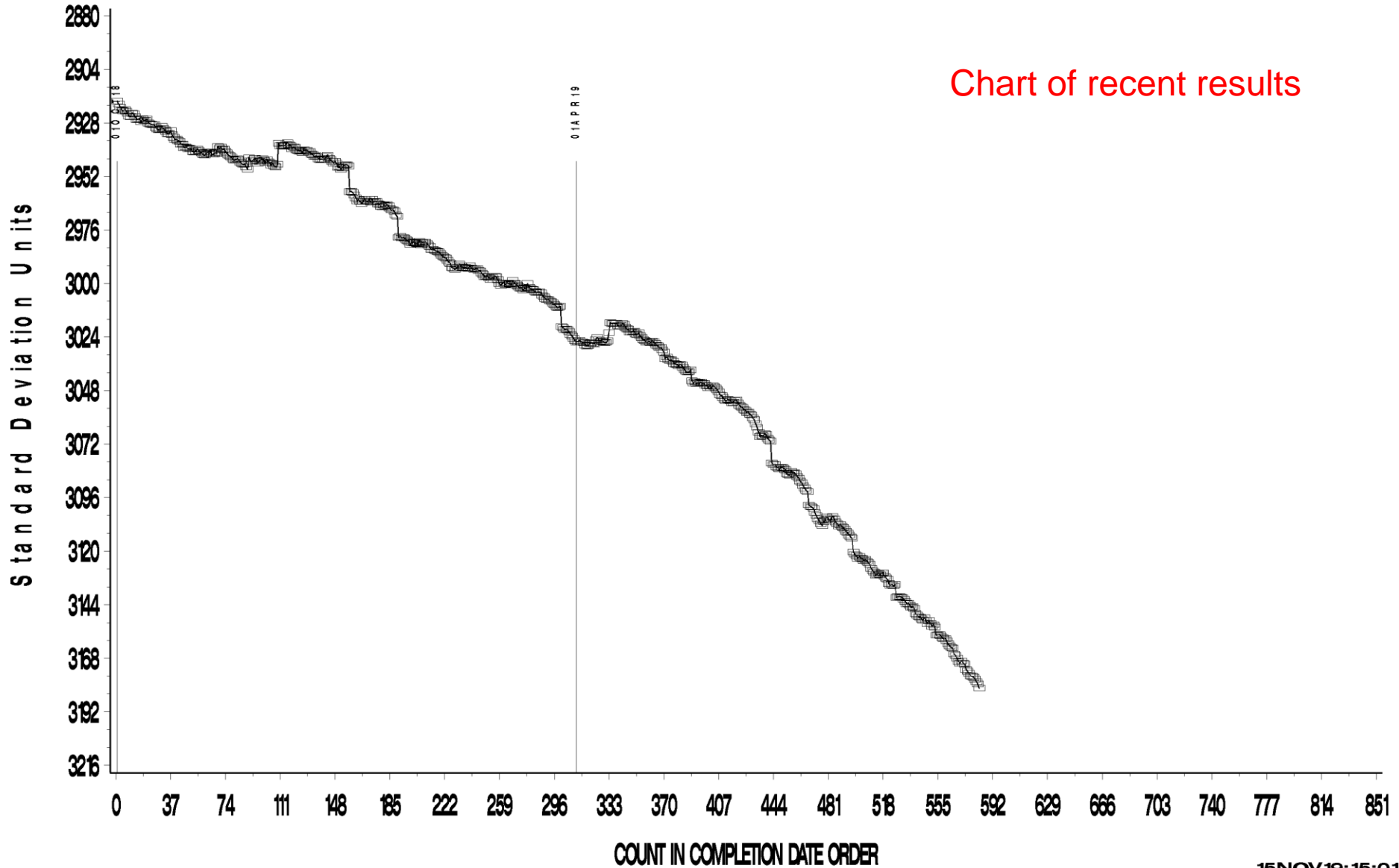
Historical Chart



COPPER CHANGE (ppm)

CUSUM Severity Analysis

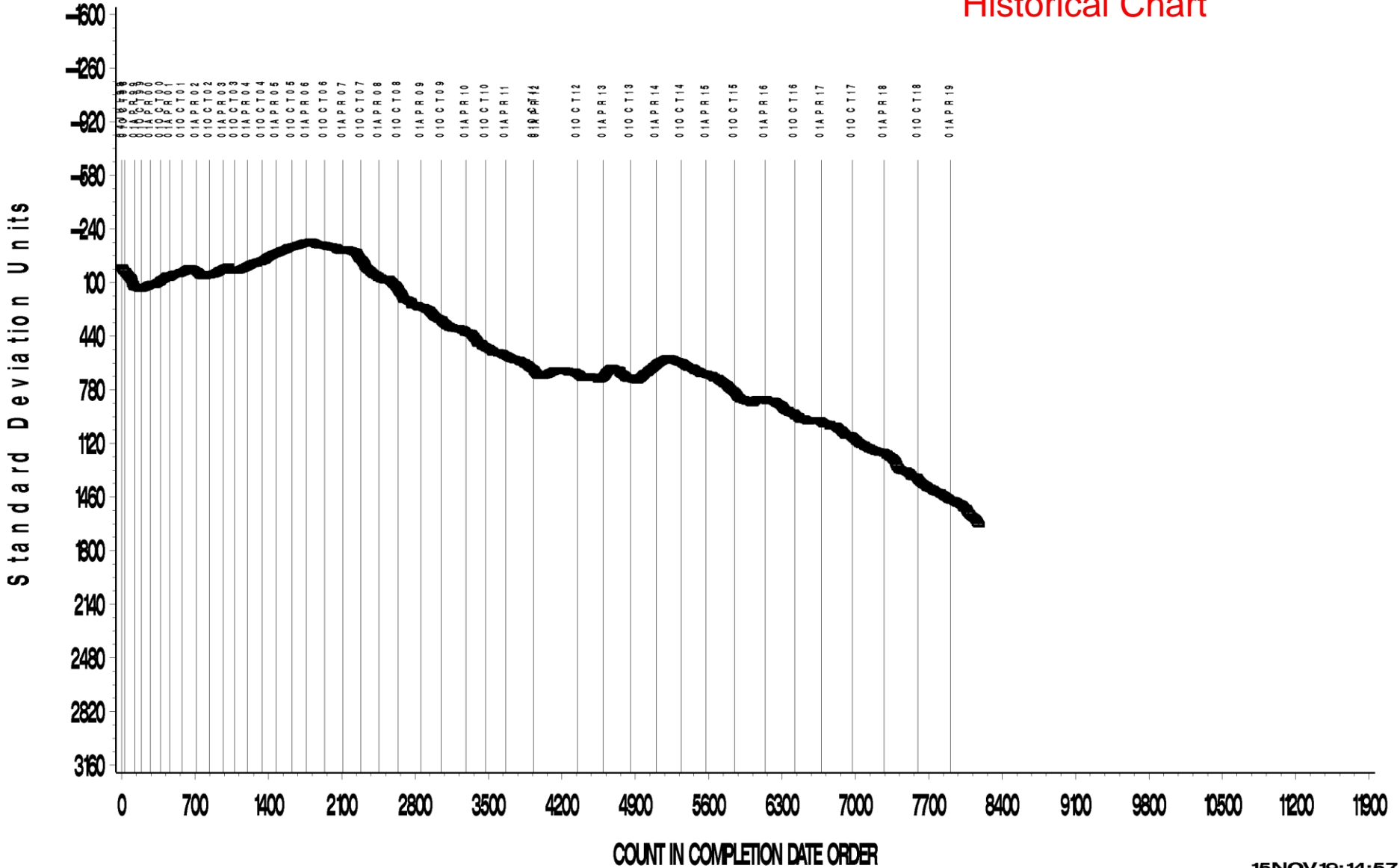
Chart of recent results



LEAD CHANGE (ppm)

CUSUM Severity Analysis

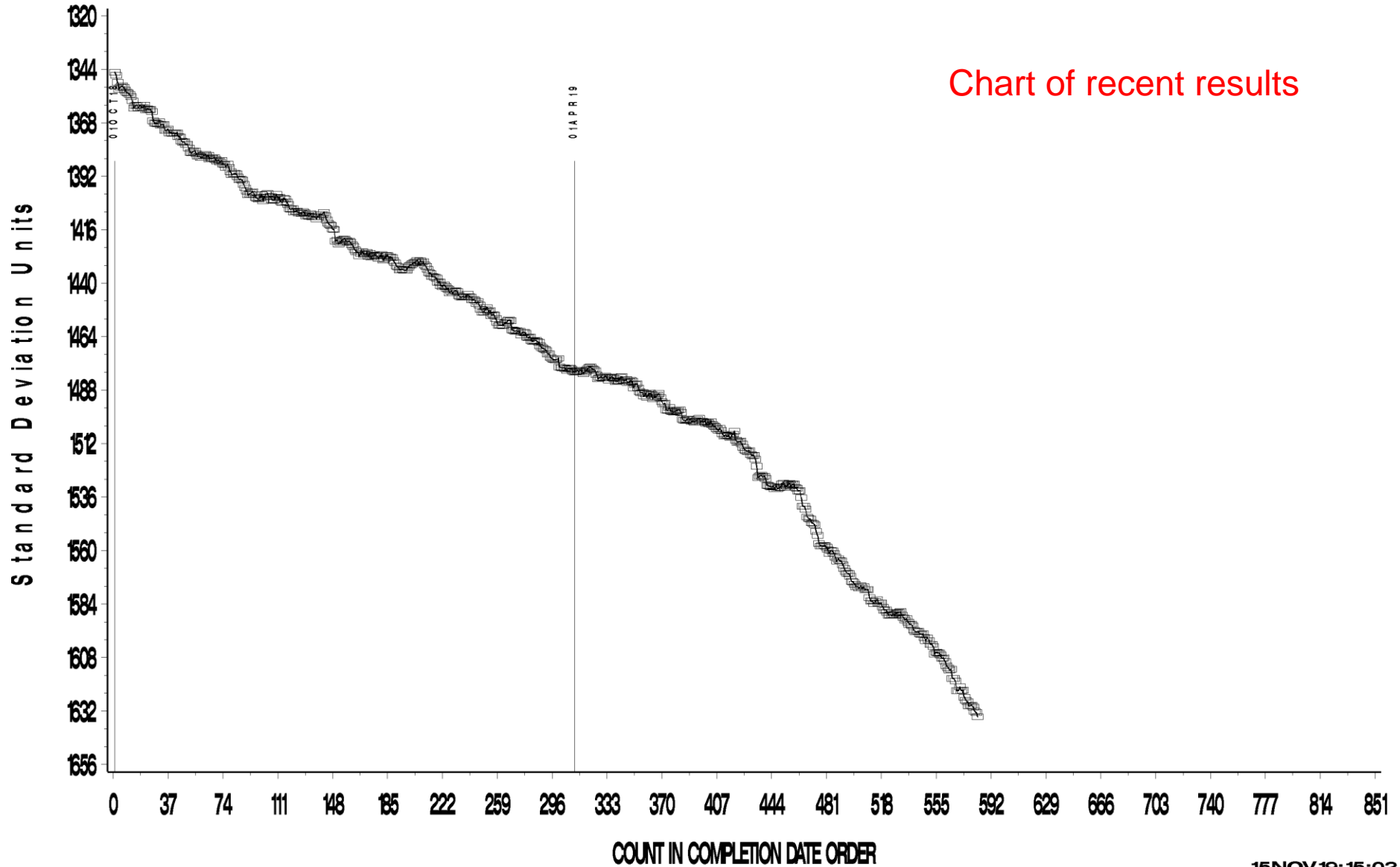
Historical Chart



LEAD CHANGE (ppm)

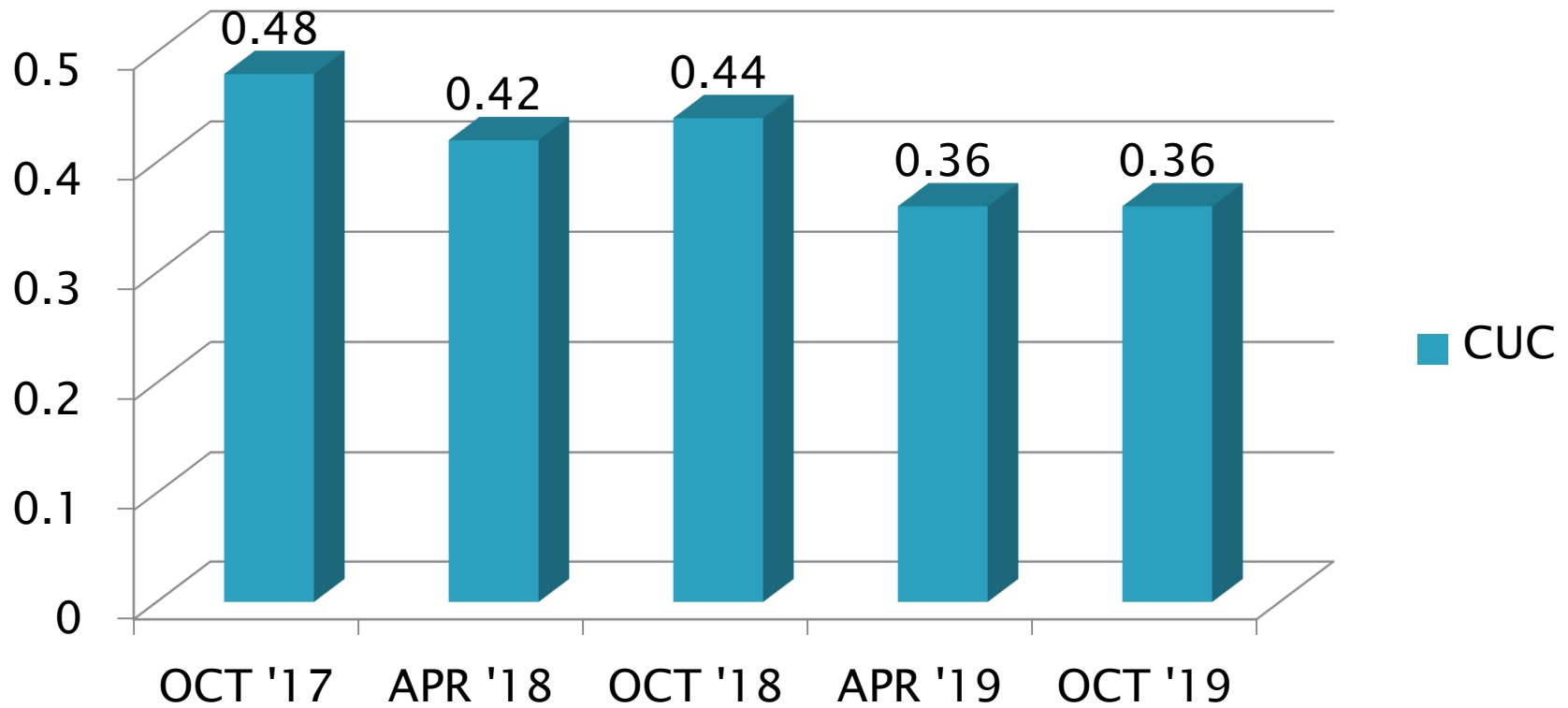
CUSUM Severity Analysis

Chart of recent results



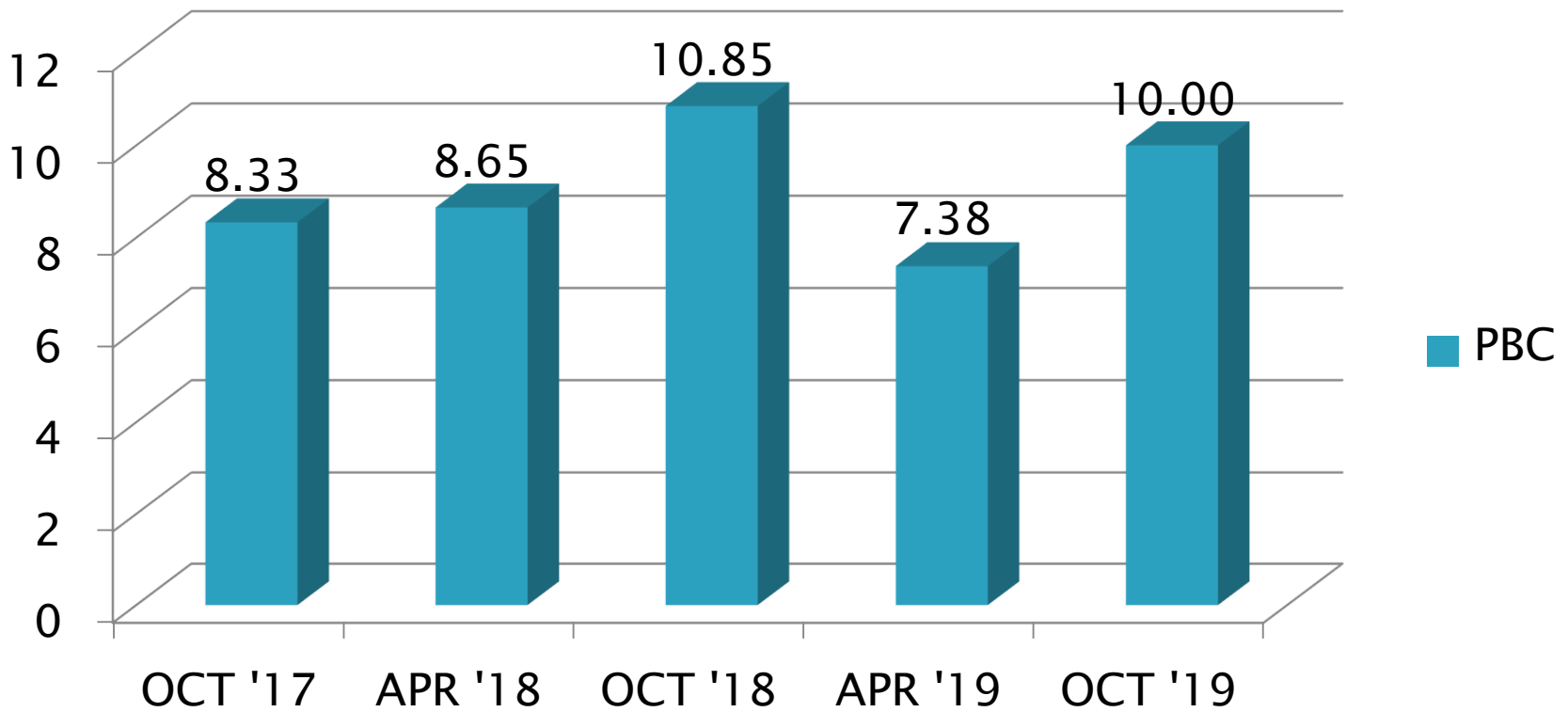
HTCBT Precision Estimates

CUC



HTCBT Precision Estimates

PBC



Information Letters*

Test	Date	IL	Topic
HTCBT	6/3/2019	19-1	Standardization of Test Result Calculation Precision and Reporting
HTCBT	10/31/2019	19-2**	Clarification of Test Result Calculation Precision and Reporting

*Available from TMC Website

***IL 19-2 addresses a negative vote received for IL 19-1 and was issued after the close of the report period.*

Reference Oil Inventory Estimated Life

Oil	TMC Inventory (gallons)	Quantity Shipped in last 6 months (gallons)	Lab Inventory (samples)	Estimated Life
44-4	22.3	3.5	81	5+ years
1005-5	43.8	10.3	200	4+ years

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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