



Test Monitoring Center

@ Carnegie Mellon University
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<http://astmtmc.cmu.edu>
412-365-1000

MEMORANDUM: 18-042
DATE: November 13, 2018
TO: Mike Lopez, Chairman, CBT Surveillance Panel
FROM: Michael T. Kasimirsky *Michael T. Kasimirsky*
SUBJECT: HTCBT Testing from April 1, 2018 through September 30, 2018

A total of 351 HTCBT tests were reported to the Test Monitoring Center during the report period from April 1, 2018 through September 30, 2018.

Please find attached a summary of testing activity this period.

MTK/mtk/astm1018.doc/mem18-042.mtk.doc

cc: F. M. Farber

J. A. Clark

CBT Surveillance Panel

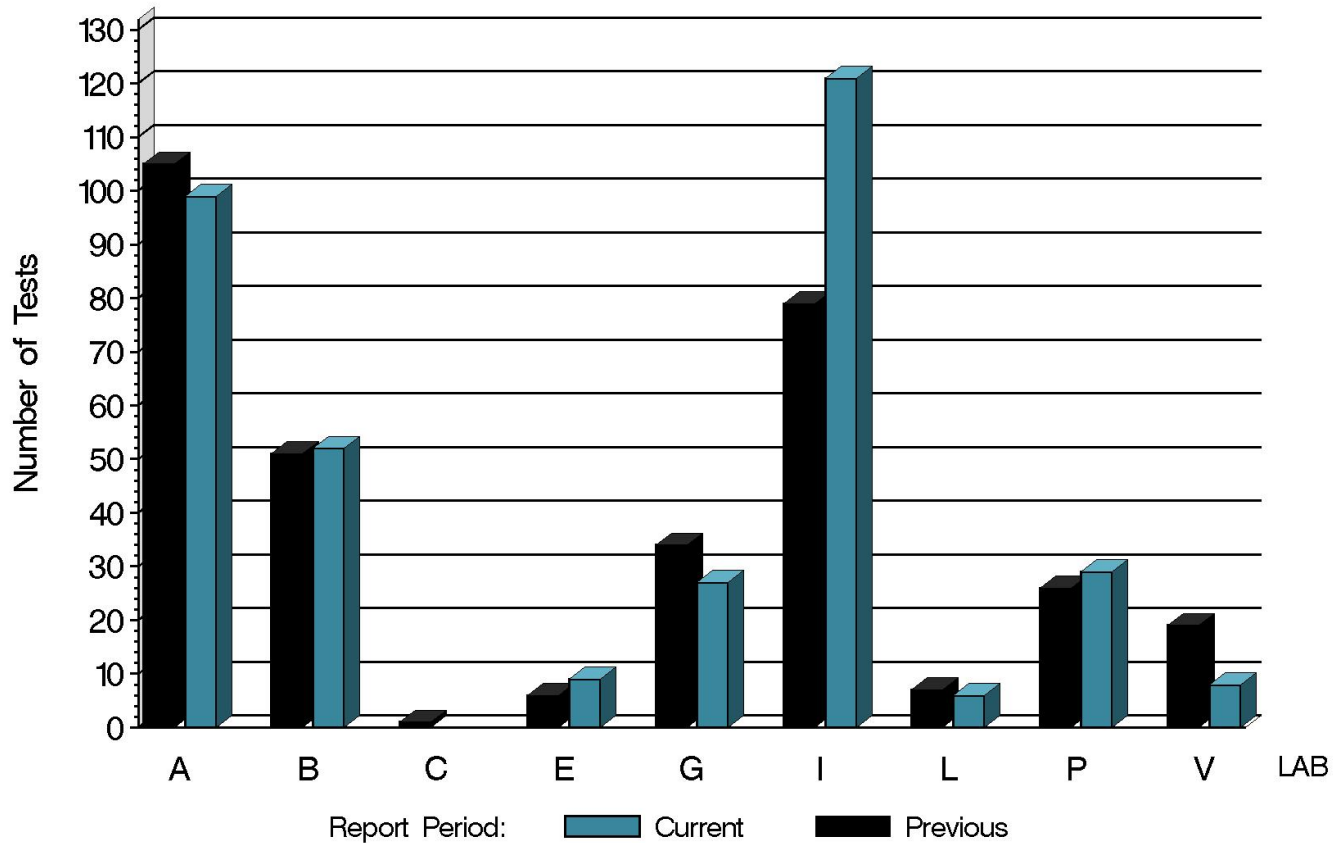
<http://www.astmtmc.cmu.edu/ftp/docs/bench/htcbt/semiannualreports//htcbt-10-2018.pdf>

Distribution: email

HTCBT (D 6594)

	Reporting Data
Number of Labs	8

NUMBER OF TESTS REPORTED
BY LAB AND REPORT PERIOD



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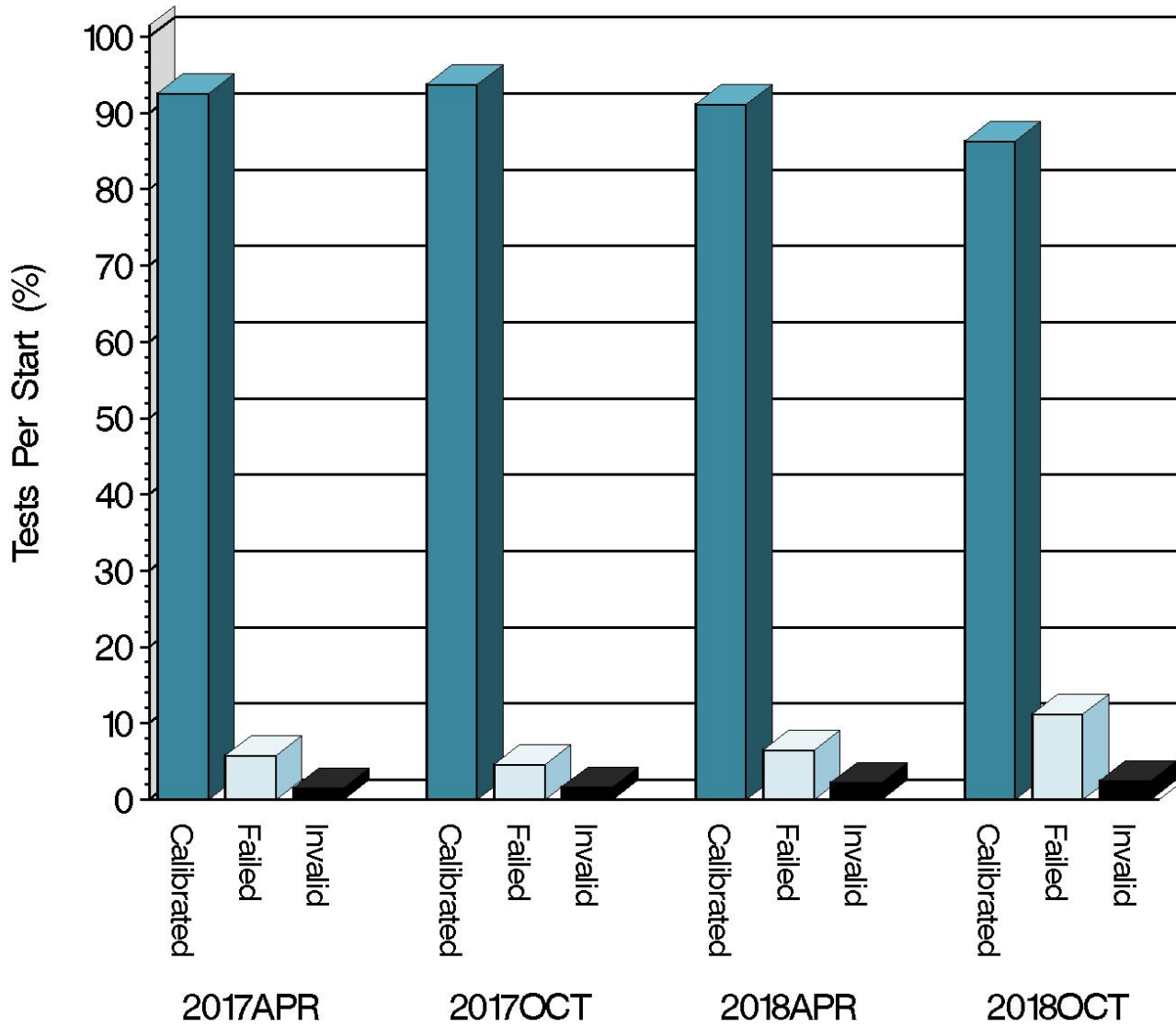
HTCBT (D 6594)

Test Distribution by Validity

		Number of Tests
Acceptable Calibration Test	AC	284
Unacceptable Calibration Test	OC	37
Invalid Calibration Test	LC	1
Invalid by TMC Calibration Test	RC	1
Aborted Calibration Test	XC	6
Acceptable Shakedown Run	AS	10
Unacceptable Shakedown Run	OS	3
Invalid Shakedown Run	LS	8
Aborted Shakedown Run	XS	1
Total		351

HTCBT (D 6594)

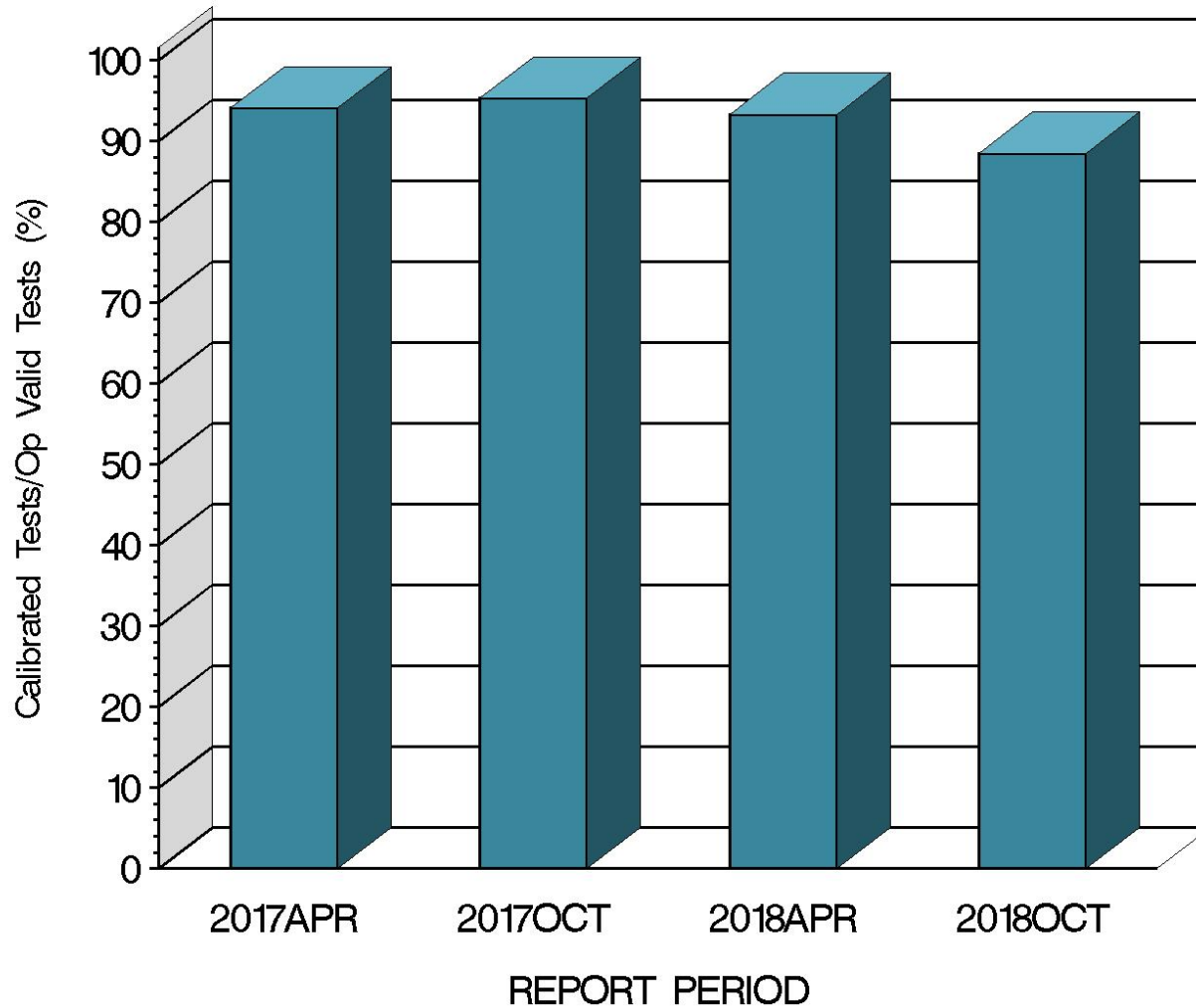
CALIBRATION ATTEMPT SUMMARY



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HTCBT (D 6594)

OPERATIONALLY VALID TESTS
MEETING ACCEPTANCE CRITERIA



11:53:24 13NOV2018

HTCBT (D 6594)

CAUSES FOR LOST TESTS

Summary of Reasons for Failed Tests	No. of Tests
Copper & Lead, severe	6
Copper, severe	4
Lead, severe	24
Copper & Lead, mild	2
Copper, mild	1

HTCBT (D 6594)

CAUSES FOR LOST TESTS (CONTINUED)

Summary of Reasons for Invalid Tests	No. of Tests
Wrong Coupons	1
Temperature control	1

HTCBT (D 6594)

CAUSES FOR LOST TESTS (CONTINUED)

Summary of Reasons for Aborted Tests	No. of Tests
Incorrect Temperature	1
Power Failure	4
Bath Failure	1

HTCBT (D 6594)

Average Δ/s By Laboratory			
Lab	n	CUC	PBC
A	96	-0.032	0.571
B	51	0.566	0.175
C	-	-	-
E	5	1.326	4.013
G	15	1.557	3.218
I	121	0.057	0.051
L	6	1.816	3.647
P	25	0.570	0.048
V	2	0.660	0.333
Industry	321	0.278	0.505

Individual test results can be found on the TMC Web Page at the following link:

<http://www.astmtmc.cmu.edu/ftp/refdata/bench/htcbt/data/>

HTCBT (D 6594)

HIGH TEMP CBT INDUSTRY OPERATIONALLY VALID DATA



COPPER CHANGE (ppm)

CUSUM Severity Analysis



COUNT IN COMPLETION DATE ORDER

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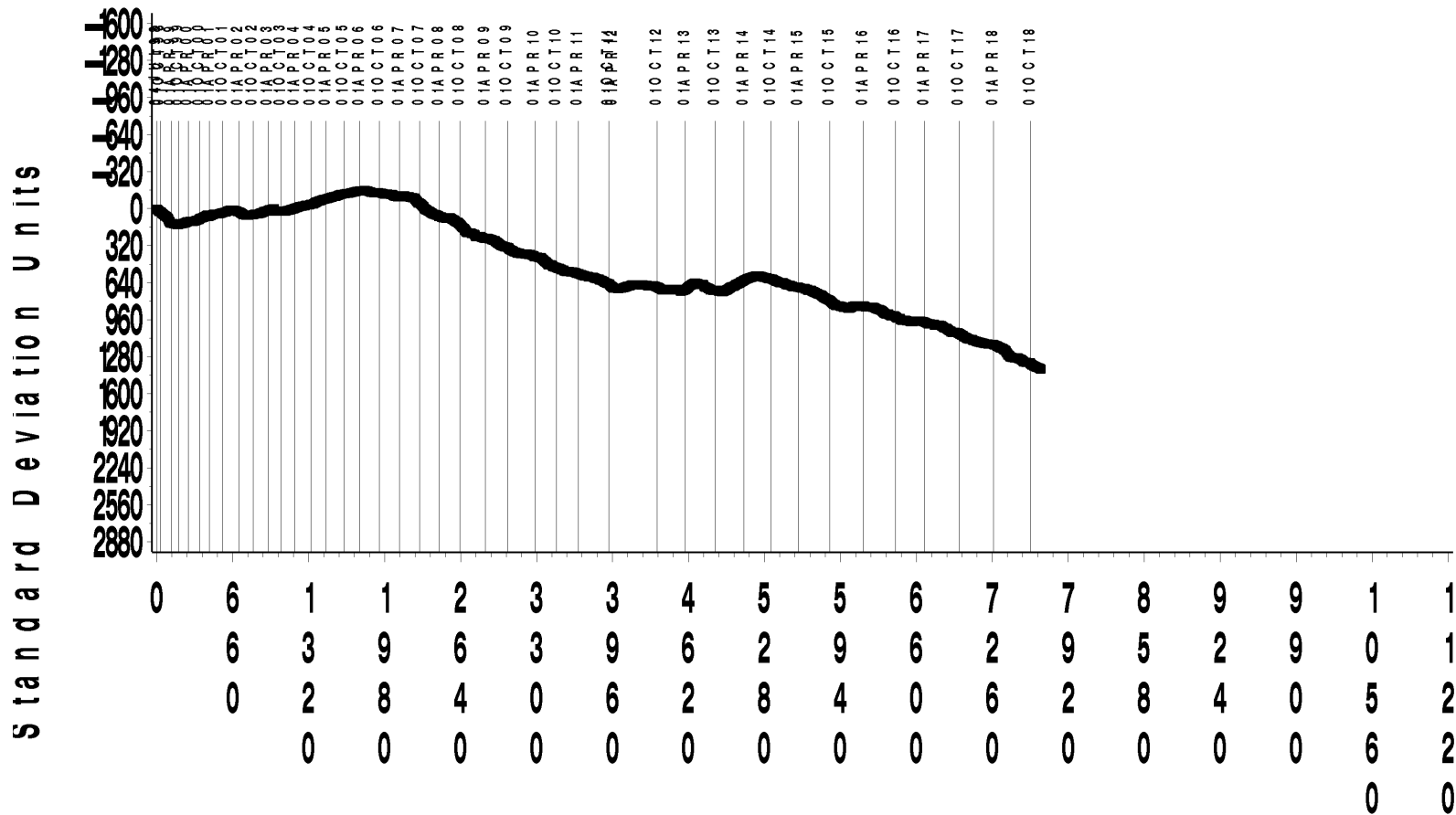
HTCBT (D 6594)

HIGH TEMP CBT INDUSTRY OPERATIONALLY VALID DATA



LEAD CHANGE (ppm)

CUSUM Severity Analysis



COUNT IN COMPLETION DATE ORDER

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Test Monitoring Center

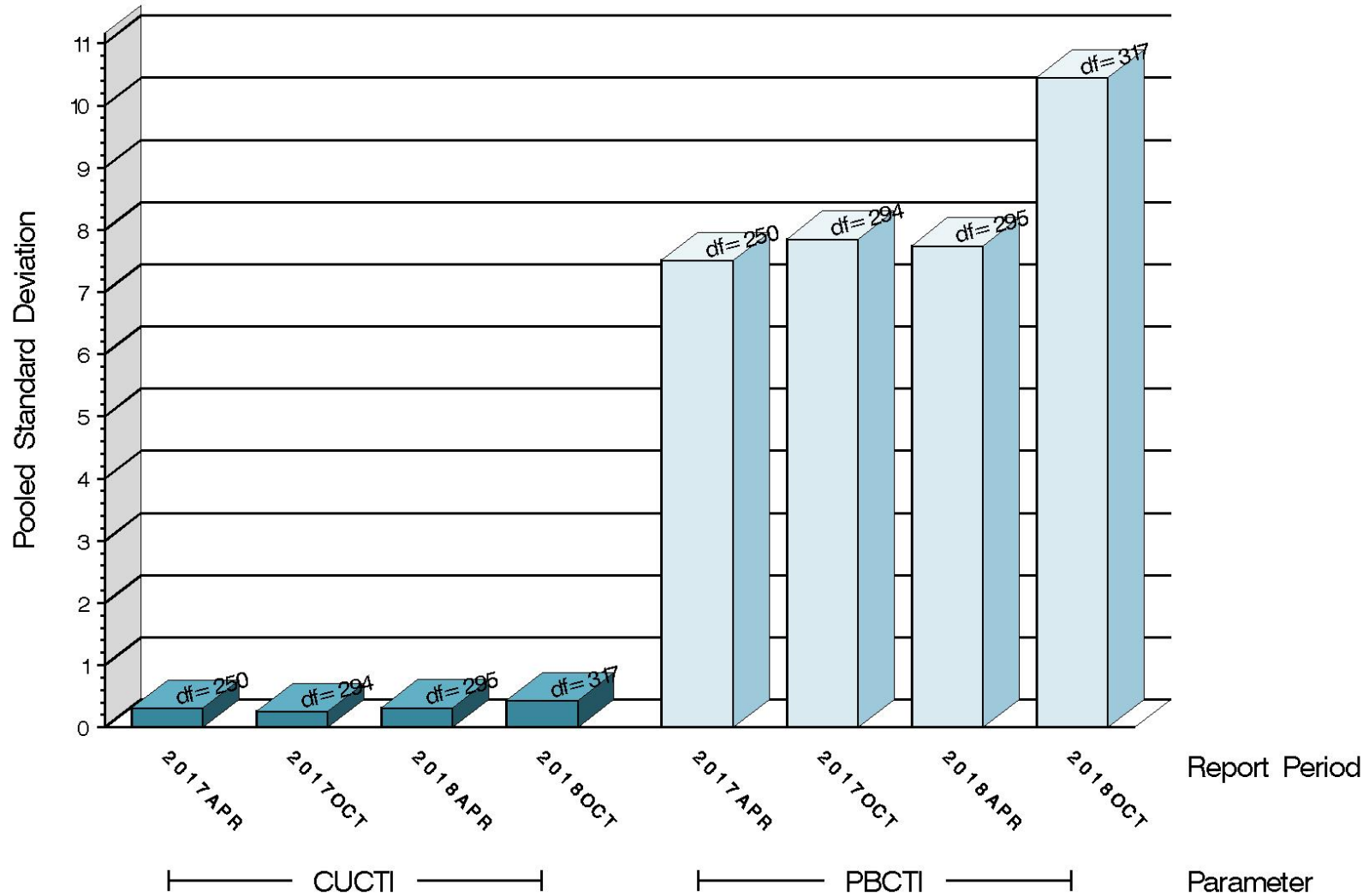
<http://astmtmc.cmu.edu>



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HTCBT (D 6594)

TEST PRECISION
POOLED STANDARD DEVIATION
BY SIX-MONTH ASTM REPORT PERIOD



11:53:24 13NOV2018

HTCBT (D 6594)

SUMMARY OF SEVERITY & PRECISION

Severity

Over the course of this report period, copper severity, as measured by cusum plotting, was severe.

Over the course of this report period, lead severity, as measured by cusum plotting, was severe.

Precision

Pooled s for this period is 0.43 for copper and 10.45 for lead.

Over the course of this report period, Precision, as measured by pooled standard deviation, is worse than last period for both copper and lead concentration, but is still within historical levels.

HTCBT (D 6594)

INFORMATION LETTERS

No HTCBT Information Letters were issued this period.

HTCBT (D 6594)

STATUS OF REFERENCE OIL SUPPLY

Reference Oil	Samples @ Labs	@ TMC	
		Samples (4 oz)	Gallons
44-3	5	0	0.0
44-4	96	938	29.3
1005-1	0	0	0.0
1005-3	4	0	0.0
1005-5	151	2196	68.7
Total	256	3134	98.0

TMC inventories of Reference Oils 44-3 and 1005-3 have been depleted. The TMC has reserved another drum of Reference Oil 1005-5 for HTCBT use, increasing the remaining inventory of this oil by 55 gallons, which is shown in the table.