



Test Monitoring Center

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

MEMORANDUM: 19-003

DATE: April 8, 2019

TO: Mary Stevens, Chairman, High Temperature Cyclic Durability Test Surveillance Panel

FROM: Dylan Beck *Dylan Beck*

SUBJECT: HTCT Testing from October 1, 2018 through March 31, 2019

Attached is a summary of testing activity this period.

DJB/djb/mem19-003.djb.doc

cc: Frank Farber
Jeff Clark

HTCT Surveillance Panel

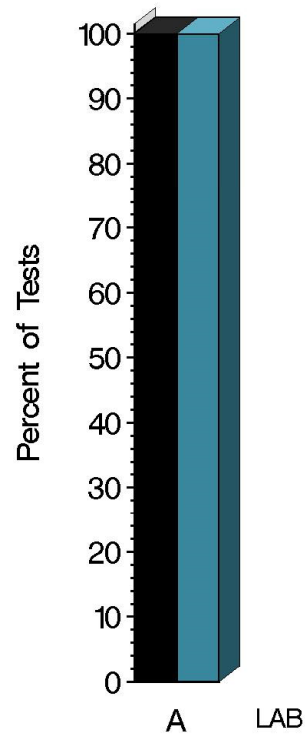
<http://www.astmtmc.cmu.edu/ftp/docs/gear/137/semiannualreports/L37-04-2019.pdf>

Distribution: email

High Temperature Cyclic Transmission

	Reporting Data	Calibrated on 3-31-19
Number of Labs	1	1
Number of Stands	1	1

BY-LAB TEST
DISTRIBUTION



Report Period: ■ Current ■ Previous

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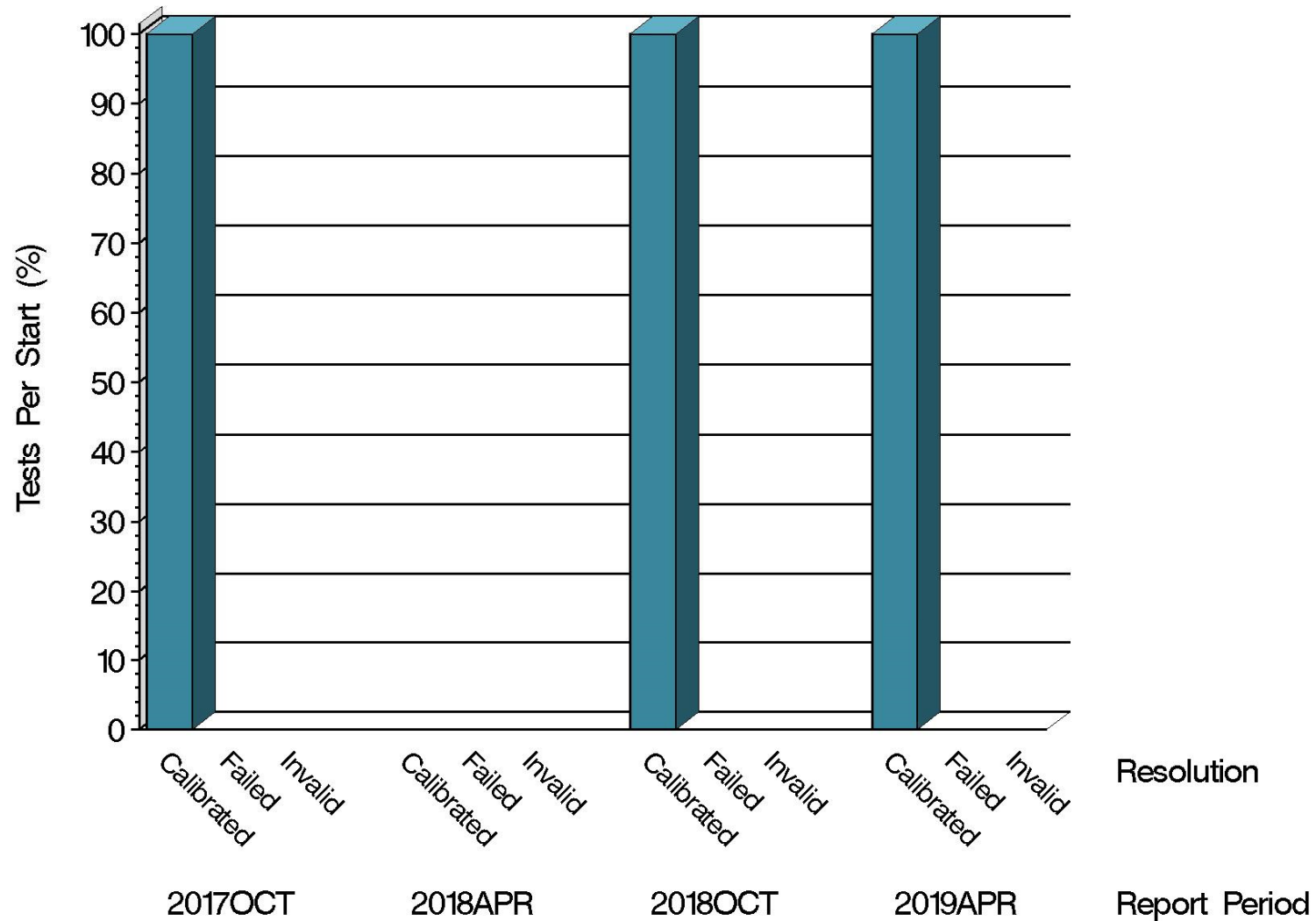
High Temperature Cyclic Transmission

Test Distribution by Oil and Validity

					Totals	
		154	155	155-1	Last Period	This Period
Accepted for calibration	AC	0	0	1	1	1
Rejected (Mild)	OC	0	0	0	0	0
Rejected (Severe)	OC	0	0	0	0	0
Rejected (Precision)	OC	0	0	0	0	0
Invalidated calibration	LC	0	0	0	0	0
Aborted	XC	0	0	0	0	0
Accepted information run	NI	0	0	0	0	0
Total		0	0	1	1	1

High Temperature Cyclic Transmission

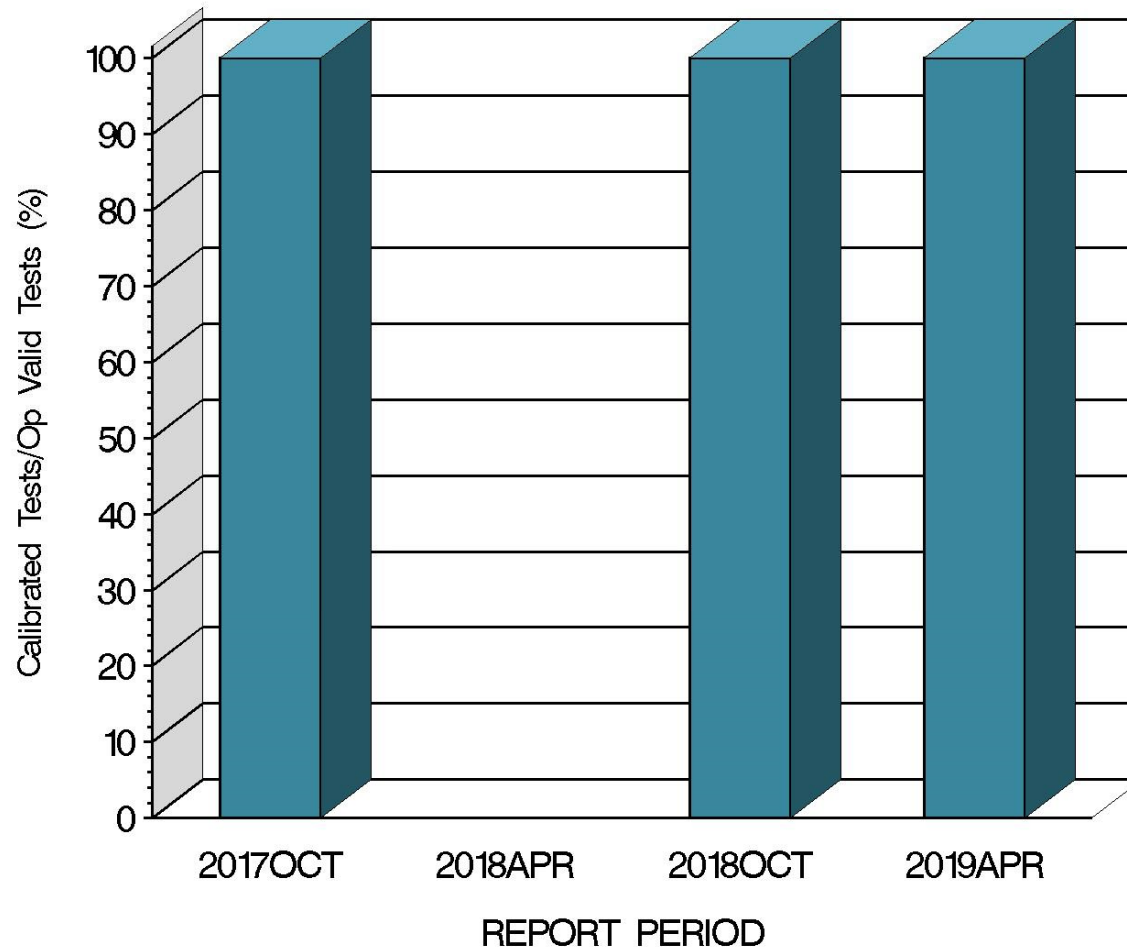
CALIBRATION ATTEMPT SUMMARY



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High Temperature Cyclic Transmission

OPERATIONALLY VALID TESTS
MEETING ACCEPTANCE CRITERIA



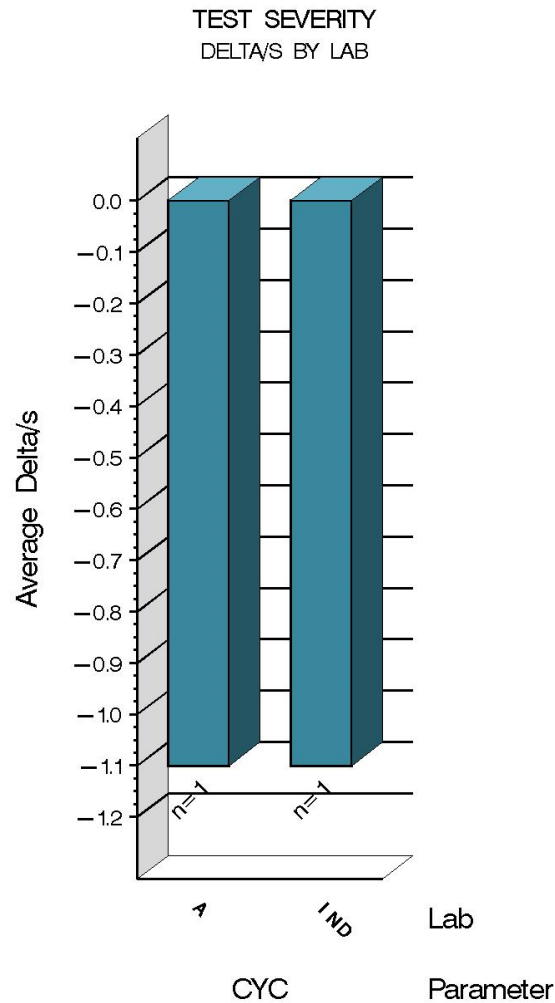
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High Temperature Cyclic Transmission

CAUSES FOR LOST TESTS

		Oil			Validity			Loss Rate		
Lab	Cause	154	155	155-1	RC	LC	XC	Lost	Starts	%
	No tests were lost this period.							0	1	0%
	Lost	0	0	0	0	0	0			
	Starts	0	0	1	1	1	1			
	%	0%	0%	0%	0%	0%	0%			

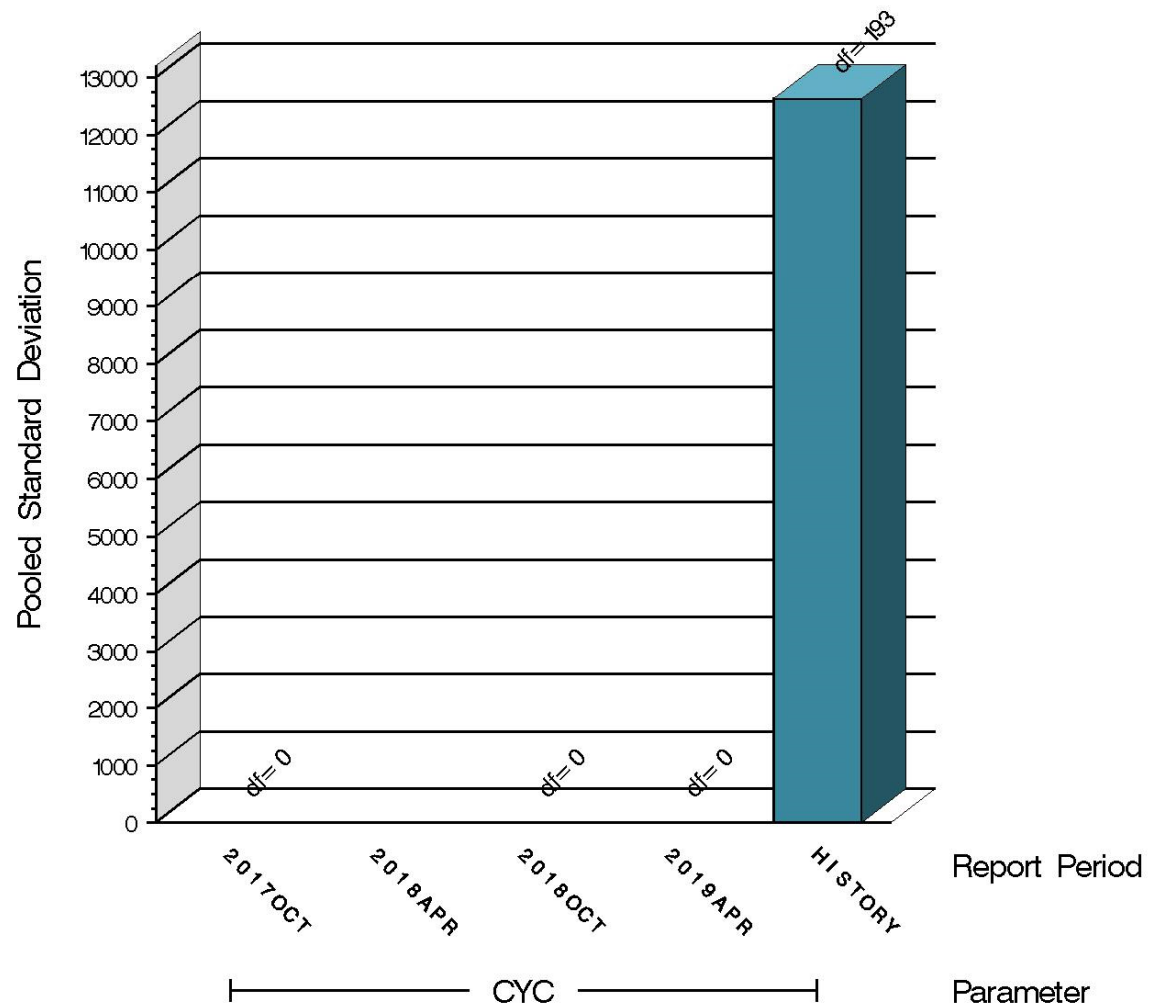
High Temperature Cyclic Transmission



Average Δ/s by Lab		
Lab	n	CYC
A	1	-1.09
Industry	1	-1.09
Shift	1	-10524

High Temperature Cyclic Transmission

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



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High Temperature Cyclic Transmission

SUMMARY OF SEVERITY & PRECISION

Severity

The CYC result reported this period was within industry control chart action limits.

Precision

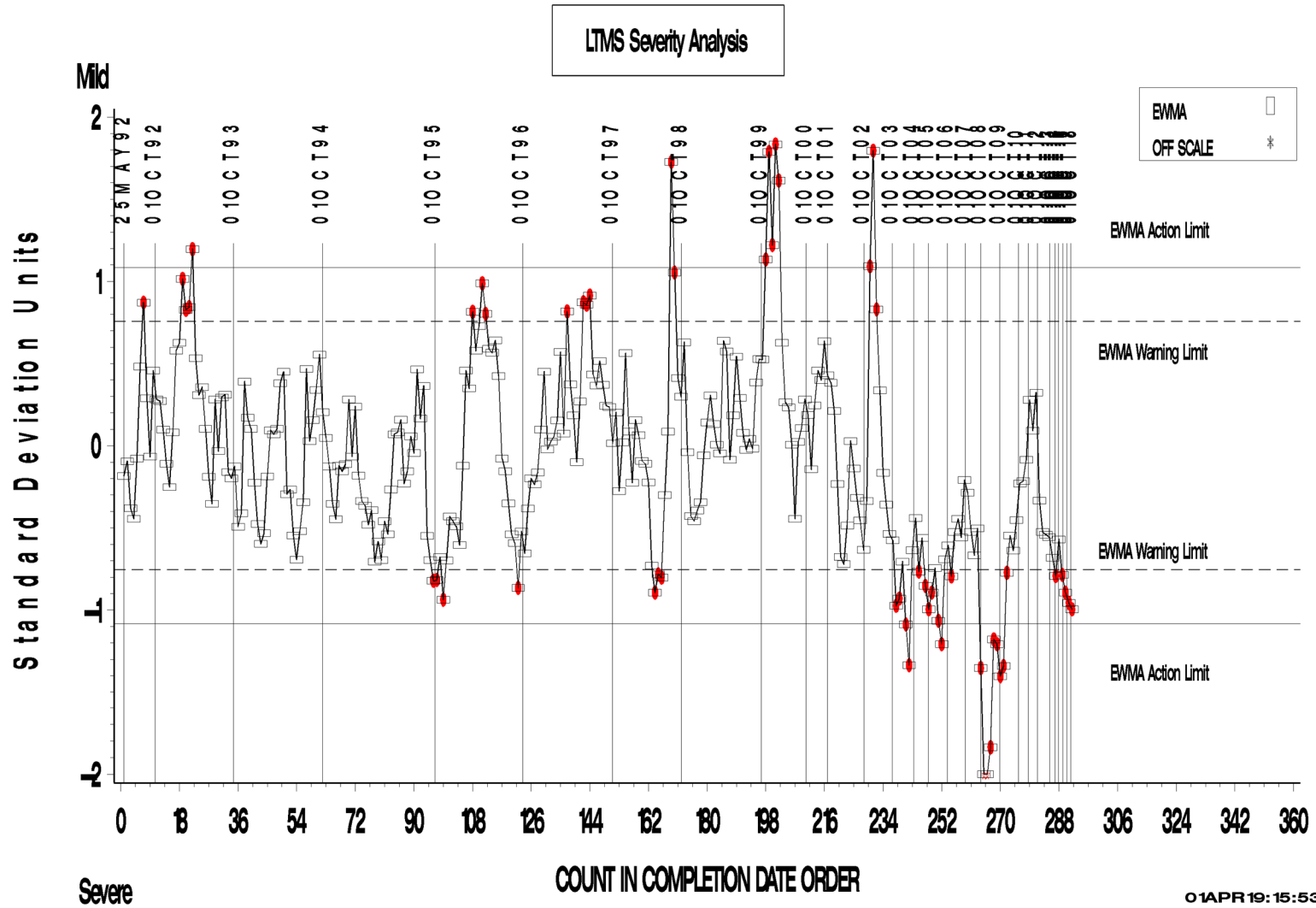
The CYC result reported this period did not result in any precision alarms.

Industry control charts follow.

High Temperature Cyclic Transmission

HTCT INDUSTRY OPERATIONALLY VALID DATA

END OF TEST CYCLES

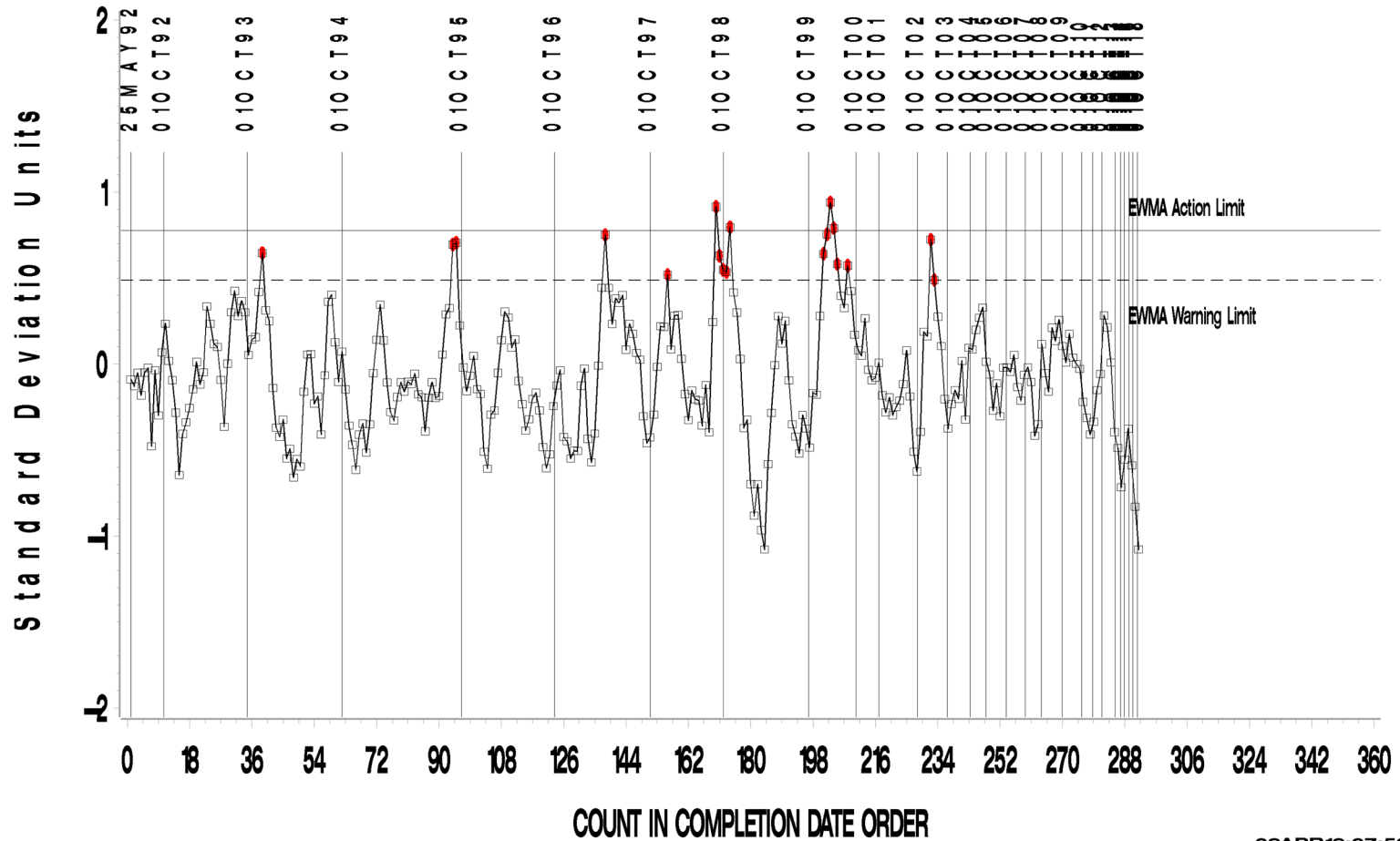


High Temperature Cyclic Transmission

HTCT INDUSTRY OPERATIONALLY VALID DATA

END OF TEST CYCLES

LTMS Precision Analysis



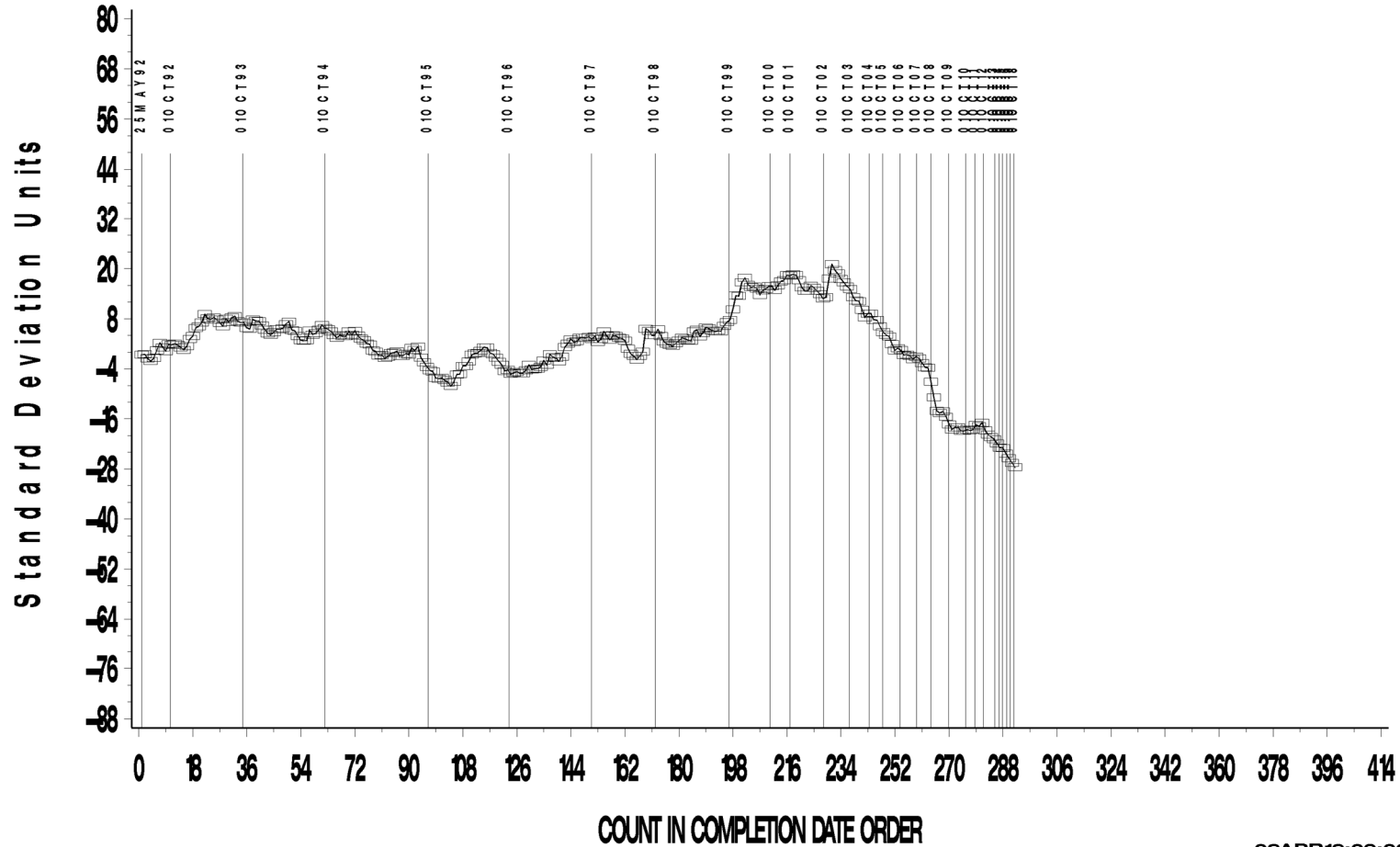
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High Temperature Cyclic Transmission

HTCT INDUSTRY OPERATIONALLY VALID DATA

END OF TEST CYCLES

CUSUM Severity Analysis



02APR19:08:00

Test Monitoring Center

<http://astmtmc.cmu.edu>



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High Temperature Cyclic Transmission

TIMELINE ADDITIONS

Effective Date	Information Letter	Event
October 10, 2018	18-1	Definitions of new test stand and new test lab added to test procedure.

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LAB VISITS

One HTCT lab visit was conducted during this period. All observed aspects of the test stand were found to be in compliance with the procedure.

INFORMATION LETTERS

Information Letter 18-1 was issued during this period. This information letter added a definition of a new test lab, and the definition of a new test stand to the test procedure.

High Temperature Cyclic Transmission

STATUS OF REFERENCE OIL SUPPLY

Oil	Cans @ Labs	@ TMC	
		Cans	Gallons
154	2	16	176.0
155	0	1	15.0
155-1	4	10	111.6
Total	6	27	302.6

The TMC quantity remaining presumes usage only for HTCT testing. Oil 155/155-1 is also used in other test areas (L-33-1, L-37, L-60-1 and L-37-1). Oil 154 is the discrimination oil used only for new hardware approval.