



## **Test Monitoring Center**

@ Carnegie Mellon University  
6555 Penn Avenue, Pittsburgh, PA 15206, USA

<http://astmtmc.cmu.edu>  
412-365-1000

MEMORANDUM: 18-003  
DATE: April 13, 2018  
TO: Angela Trader, Chairman, L-33-1 Surveillance Panel  
FROM: Dylan Beck  
SUBJECT: L-33-1 Testing from October 1, 2017 through March 31, 2018

Attached is a summary of testing activity this period.

DJB/djb/mem18-003.djb.doc

cc: Frank Farber

Jeff Clark

Scott Parke

L-33-1 Surveillance Panel

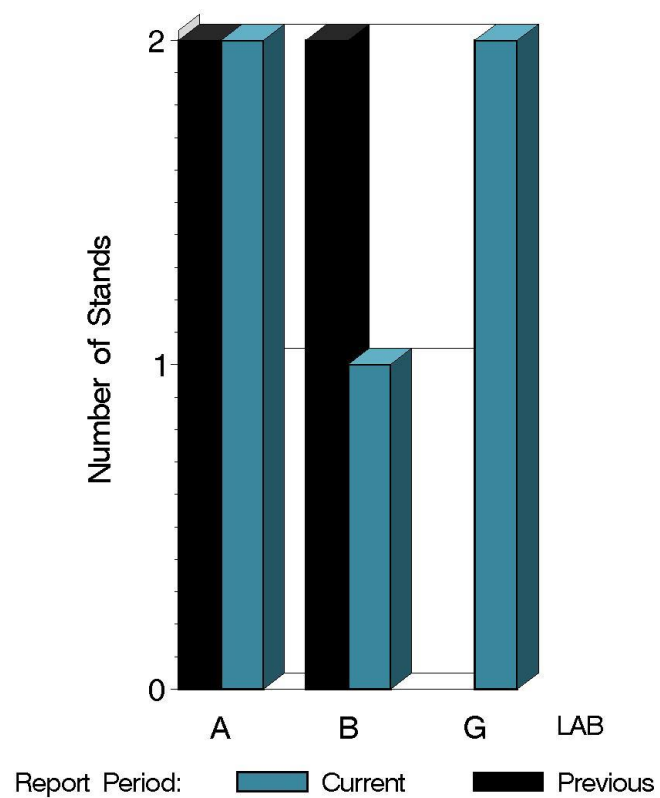
<http://www.astmtmc.cmu.edu/ftp/docs/gear/1331/semiannualreports/1331-04-2018.pdf>

Distribution: email

# L-33-1 (D7038)

	Reporting Data	Calibrated on 3-31-18
Number of Labs	3	3
Number of Stands	5	5

BY-LAB STAND  
DISTRIBUTION



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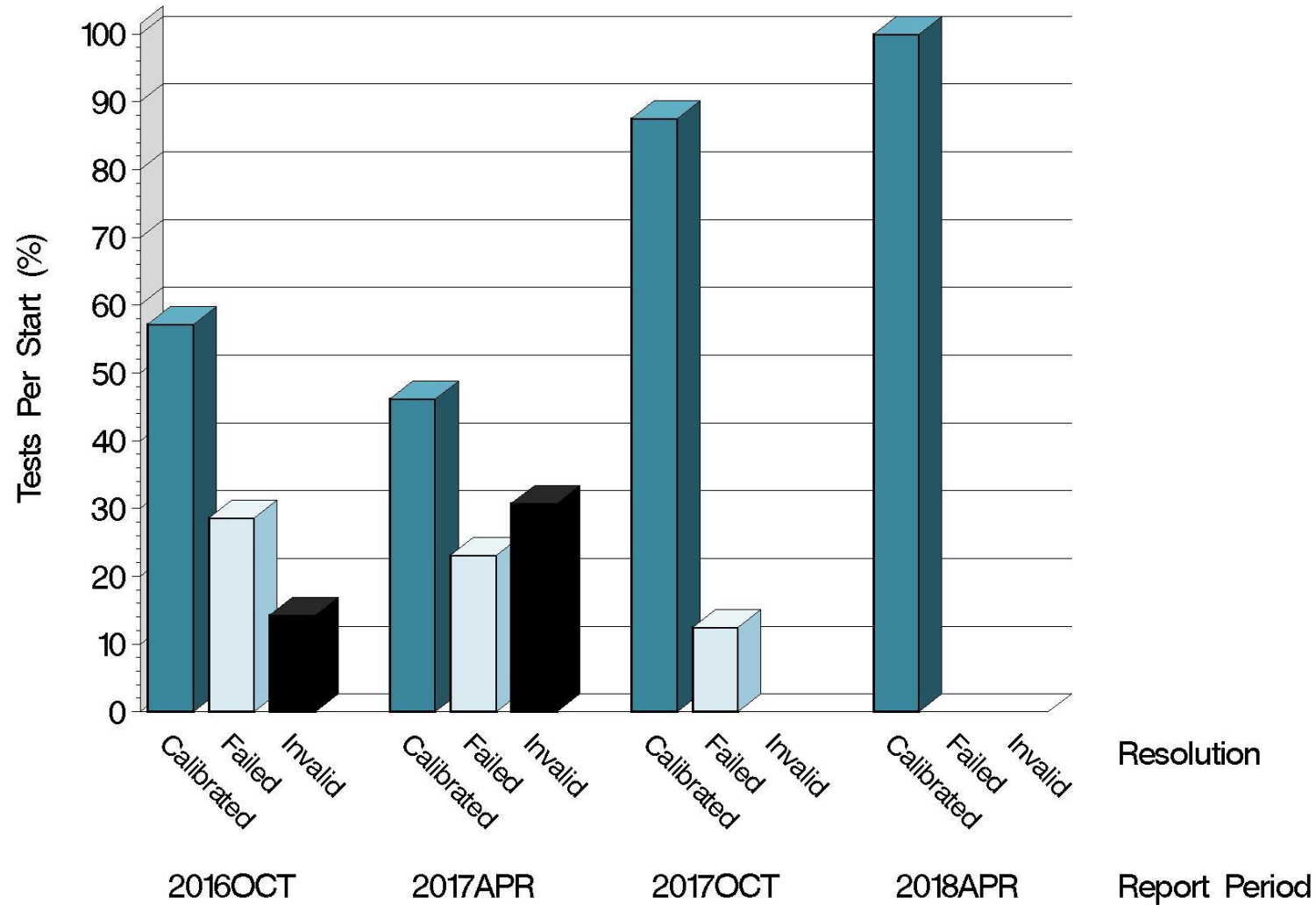
# L-33-1 (D7038)

## Test Distribution by Oil and Validity

					Totals	
					Last Period	This Period
		123-2	155	155-1		
Accepted for calibration	AC	4	0	3	7	7
Rejected (Mild)	OC	0	0	0	1	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
Unacceptable info run	MI	0	0	0	0	0
Accepted information run	NI	1	0	0	0	1
Total		5	0	3	8	8

# L-33-1 (D7038)

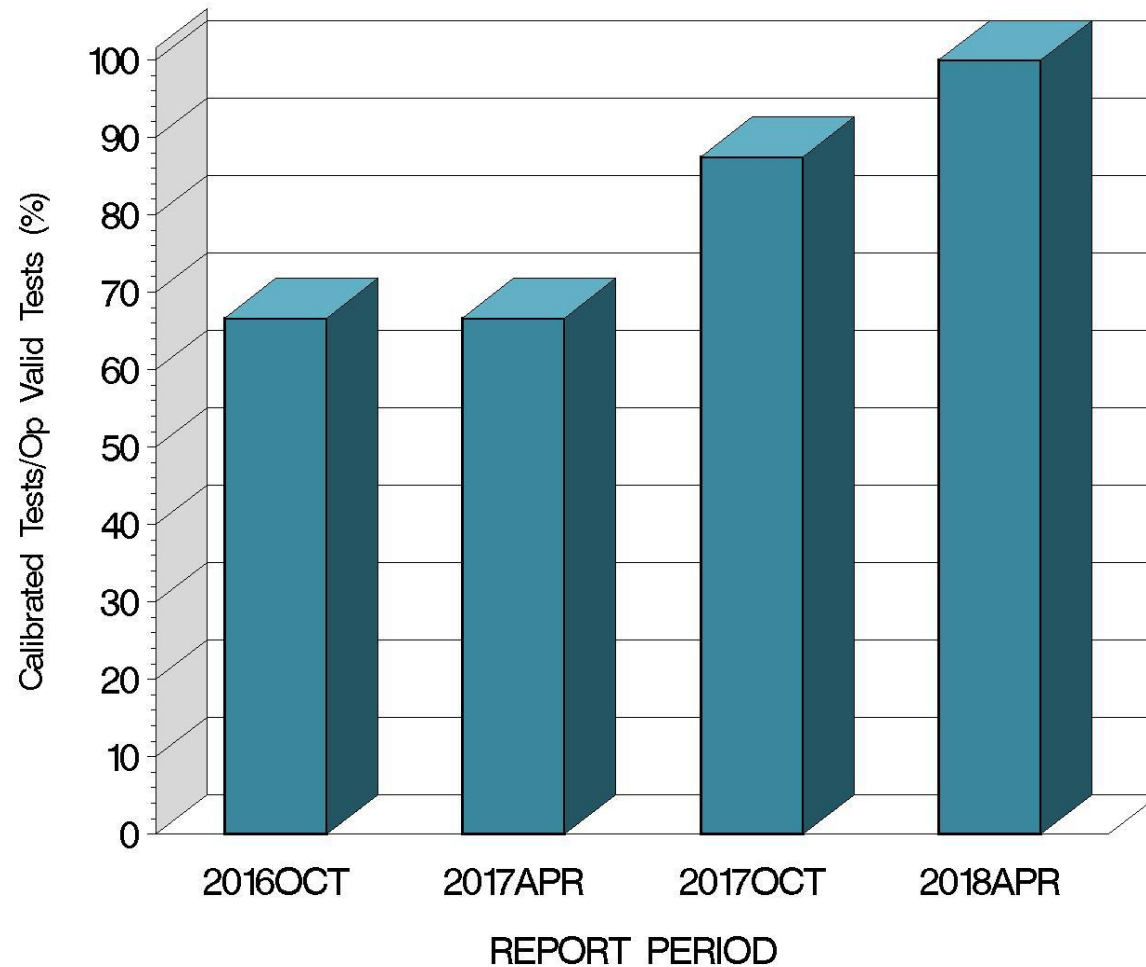
## CALIBRATION ATTEMPT SUMMARY



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# L-33-1 (D7038)

OPERATIONALLY VALID TESTS  
MEETING ACCEPTANCE CRITERIA



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# L-33-1 (D7038)

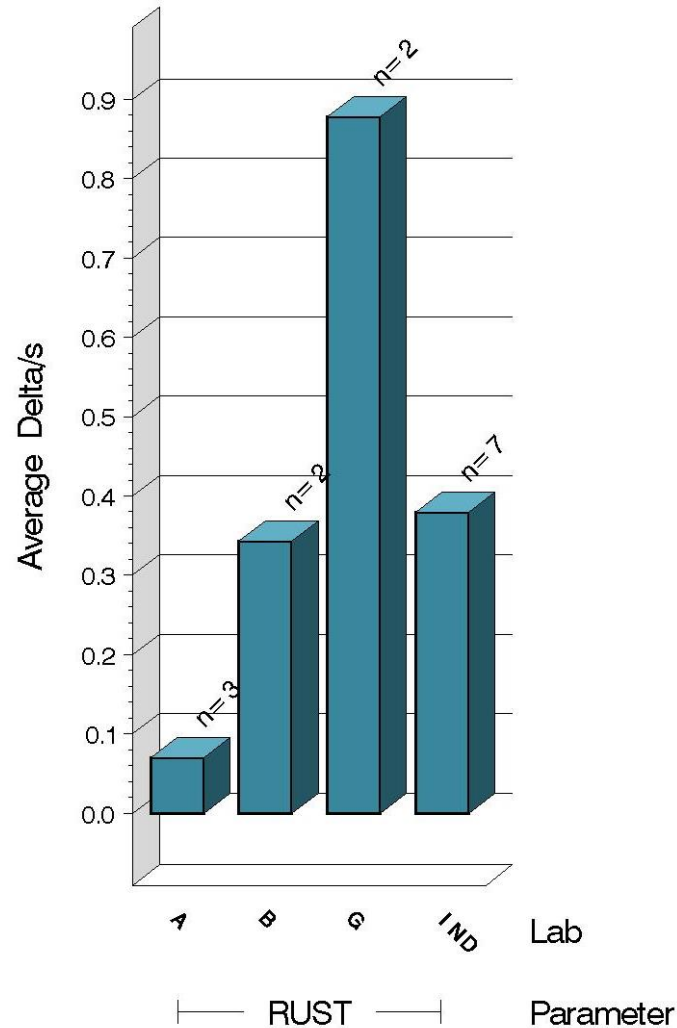
## CAUSES FOR LOST TESTS

		Oil			Validity			Loss Rate		
Lab	Cause	123-2	155	155-1	RC	LC	XC	Lost	Starts	%
	No tests were lost this period							0	8	0%
	Lost	0	0	0	0	0	0			
	Starts	5	0	3	8	8	8			
	%	0%	0%	0%	0%	0%	0%			

# L-33-1 (D7038)

## TEST SEVERITY

DELTA/S BY LAB

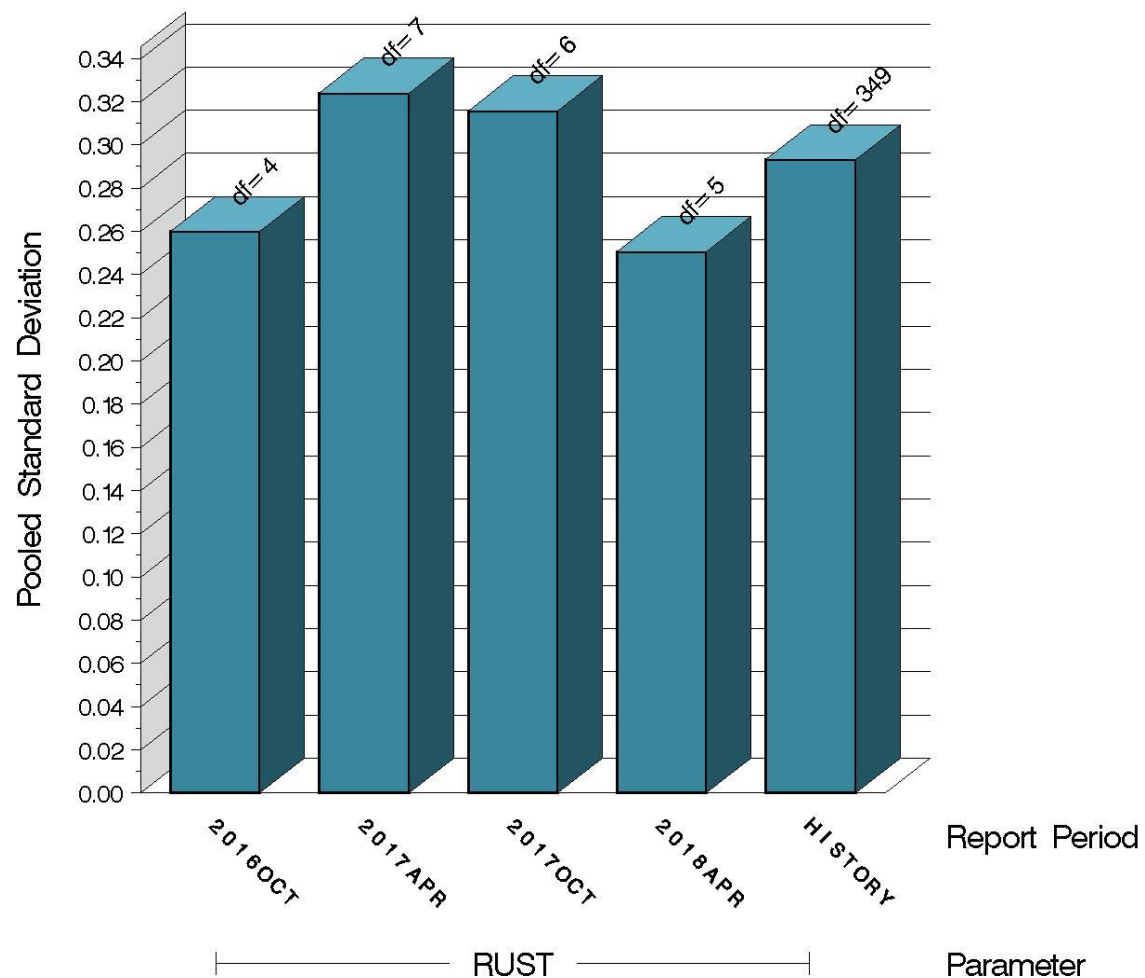


Average $\Delta/s$ by Lab		
Lab	n	RUST
A	3	0.070
B	2	0.343
G	2	0.878
Industry	7	0.379
Shift	7	0.095 merits

# L-33-1 (D7038)

## TEST PRECISION

POOLED STANDARD DEVIATION  
BY SIX-MONTH ASTM REPORT PERIOD



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# L-33-1 (D7038)

## SUMMARY OF SEVERITY & PRECISION

Severity
Average RUST $\Delta$ /s this period was 0.379. Using the target standard deviation for oil 155 (0.250), this equates to 0.095 merits severe.
Precision
In the previous report period precision exceeded the action limit but has remained within the warning limit for this period.

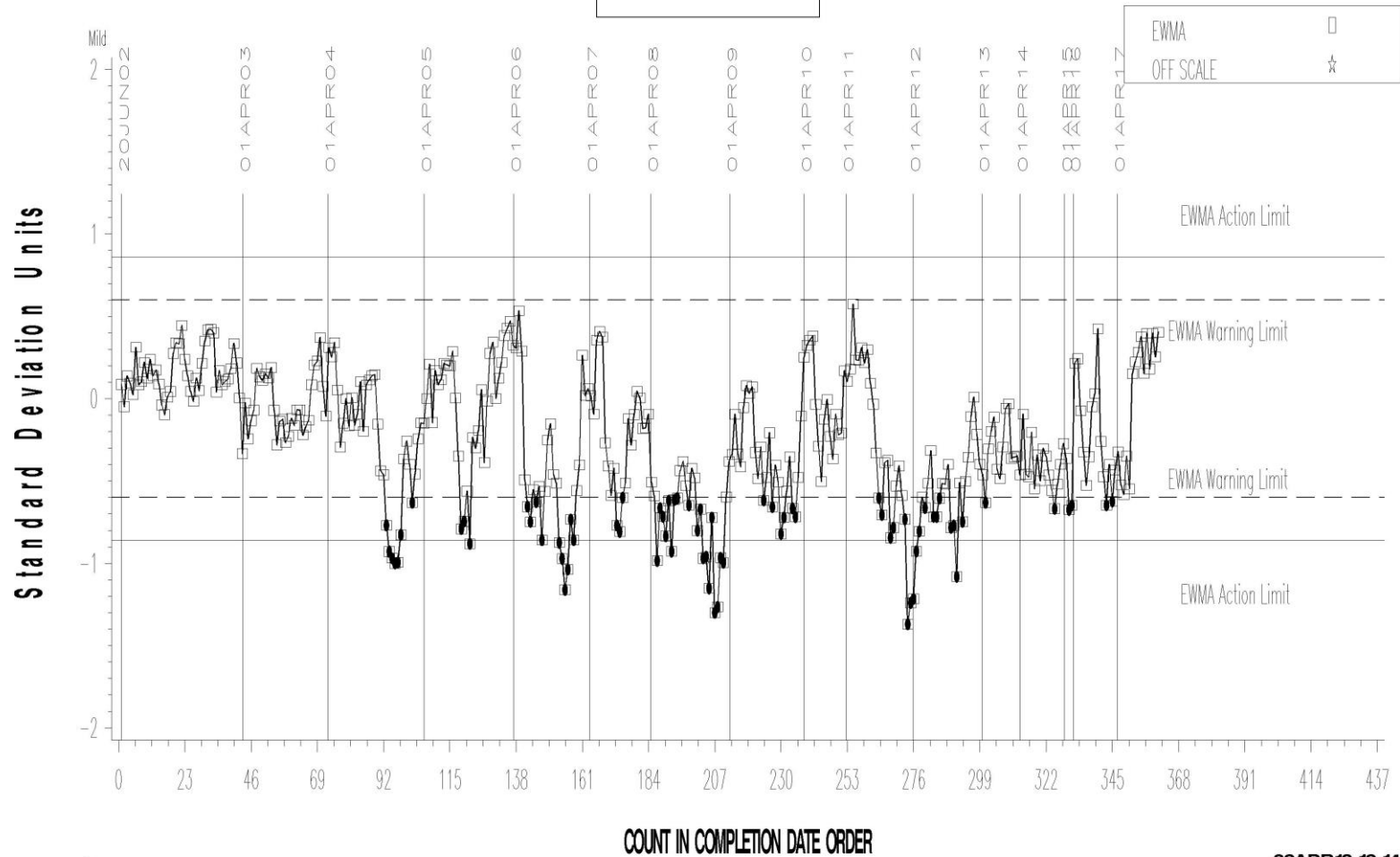
Industry control charts follow.

# L-33-1 (D7038)

L-33-1 INDUSTRY OPERATIONALLY VALID DATA

FINAL RUST RESULT

LTMS Severity Analysis



Severity

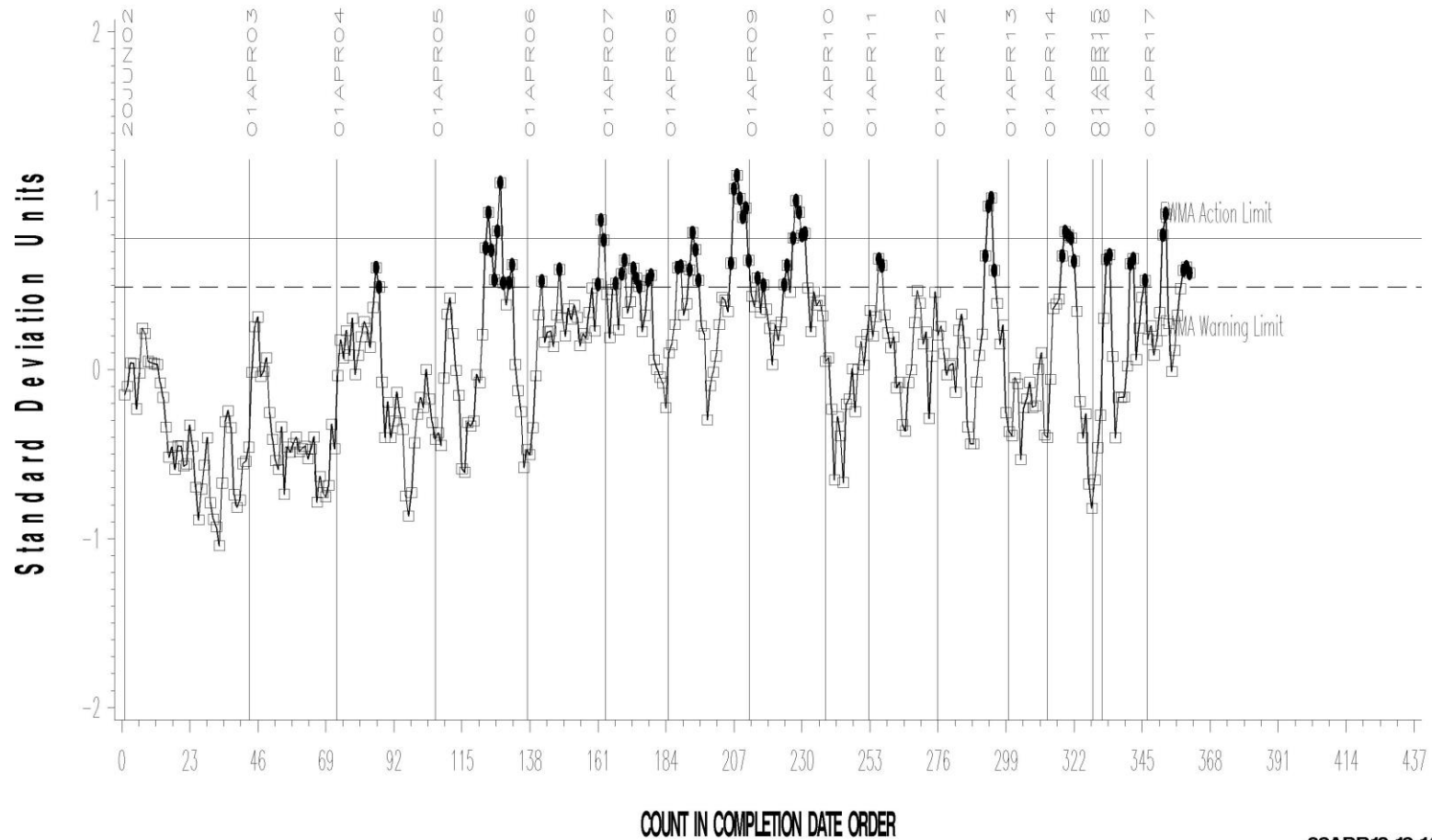
03APR18: 13: 14

# L-33-1 (D7038)

L-33-1 INDUSTRY OPERATIONALLY VALID DATA

FINAL RUST RESULT

LTMS Precision Analysis



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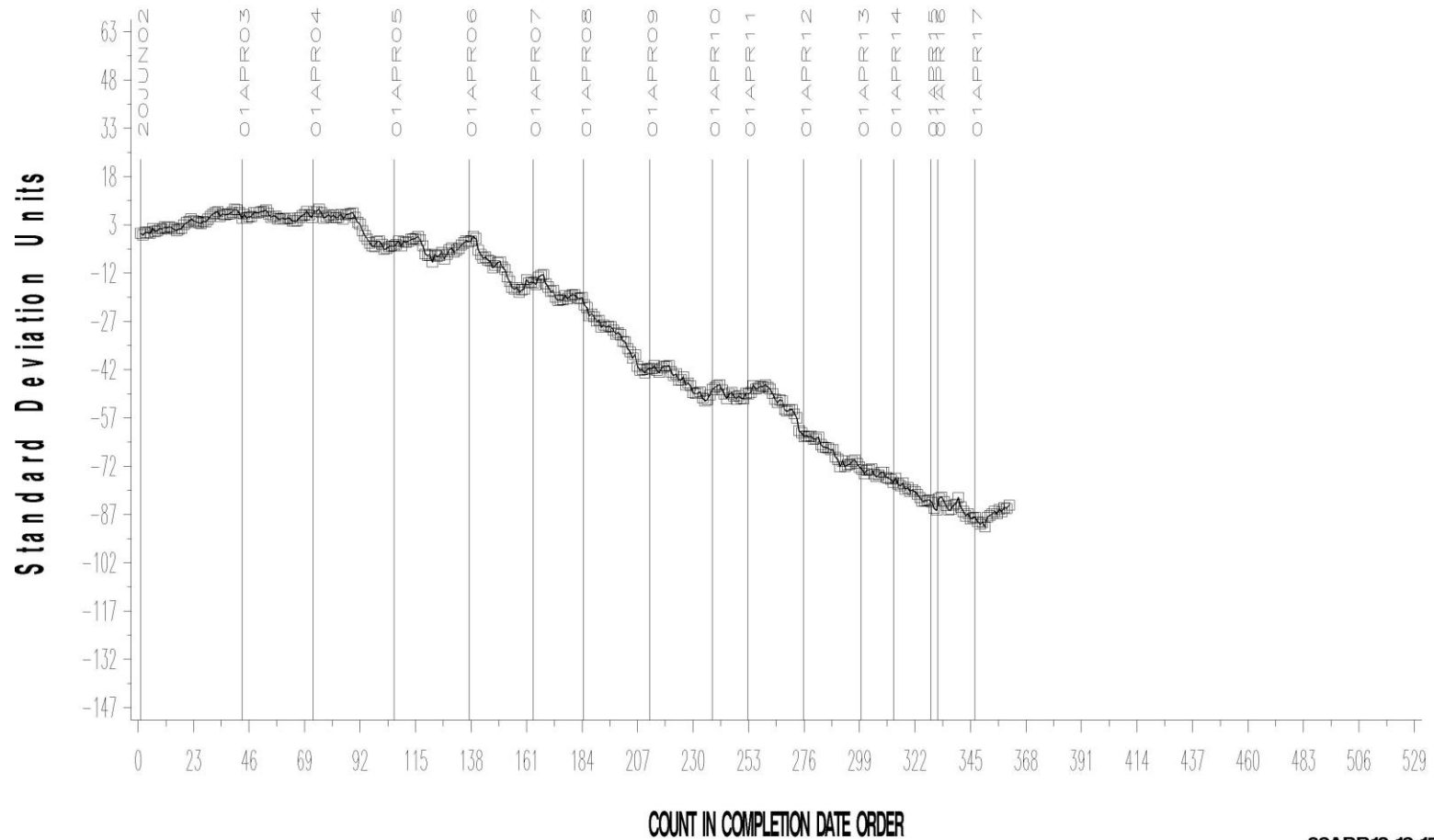
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# L-33-1 (D7038)

L-33-1 INDUSTRY OPERATIONALLY VALID DATA

FINAL RUST RESULT

CUSUM Severity Analysis



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# L-33-1 (D7038)

## TIMELINE ADDITIONS

Effective Date	Information Letter	Event
20180121	18-1	Extension of “Use-by” date on Dana V01.1 hardware

# L-33-1 (D7038)

## LAB VISITS

One L-33-1 lab visit was conducted during this period. No procedural non-conformances were found.

## INFORMATION LETTERS

Information Letter 18-1 was issued during this period to change the “use-by” date on Dana V01.1 hardware from June 23, 2017 to December 31, 2018.

# L-33-1 (D7038)

## STATUS OF REFERENCE OIL SUPPLY

		@ TMC	
Oil	Cans @ Labs	Cans	Gallons
123-2	9	115	115.8
155	0	15	15.0
155-1	11	176	176.5
Total	20	306	307.2

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