



Test Monitoring Center

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

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

MEMORANDUM: 19-020

DATE: April 26, 2019

TO: Yong-Li McFarland,
Chairwoman, Engine Oil Filterability Test Surveillance Panel

FROM: Michael T. Kasimirsky *Michael T. Kasimirsky*

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

A total of 865 EOWT tests were reported to the Test Monitoring Center during the report period from October 1, 2018 through March 31, 2019.

Please find attached a summary of testing activity this period.

MTK/mtk/astm0419.doc/mem19-020.mtk.doc

cc: F. M. Farber

J. A. Clark

EOWT Surveillance Panel

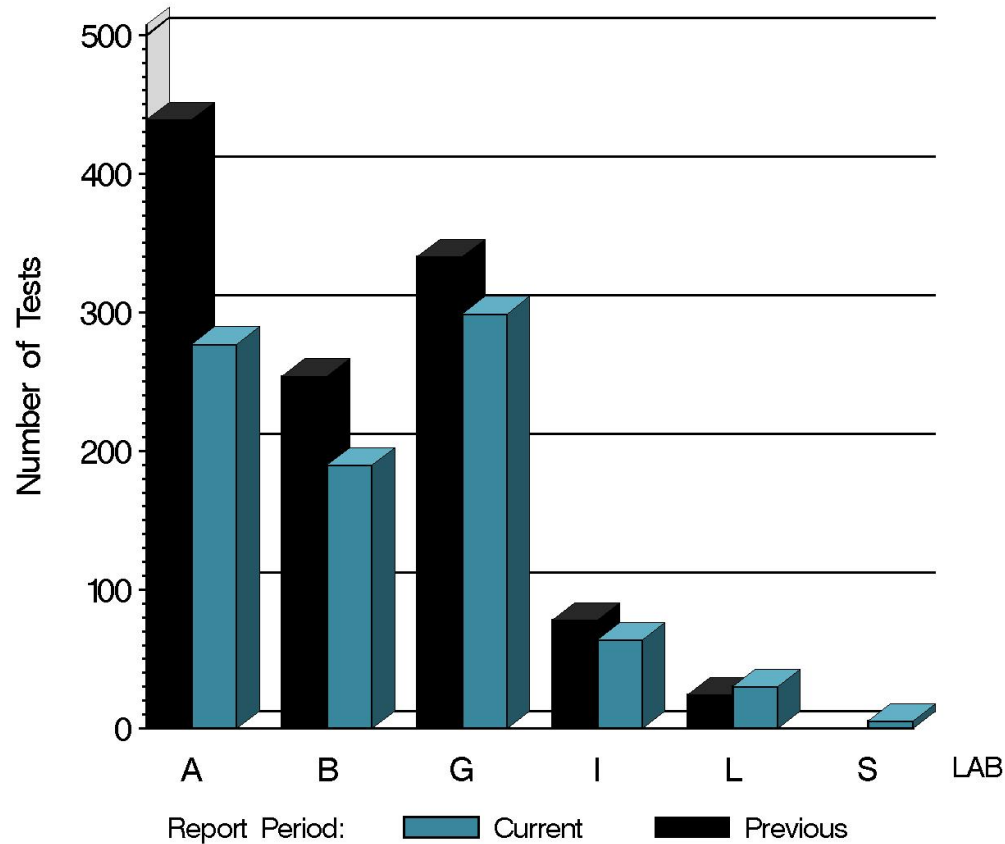
<http://www.astmtmc.cmu.edu/docs/bench/eowt/semiannualreports/eowt-04-2019.pdf>

Distribution: email

EOWT (D 6794)

	Reporting Data
Number of Labs	6

NUMBER OF TESTS REPORTED
BY LAB AND REPORT PERIOD



13:54:43 24APR2019

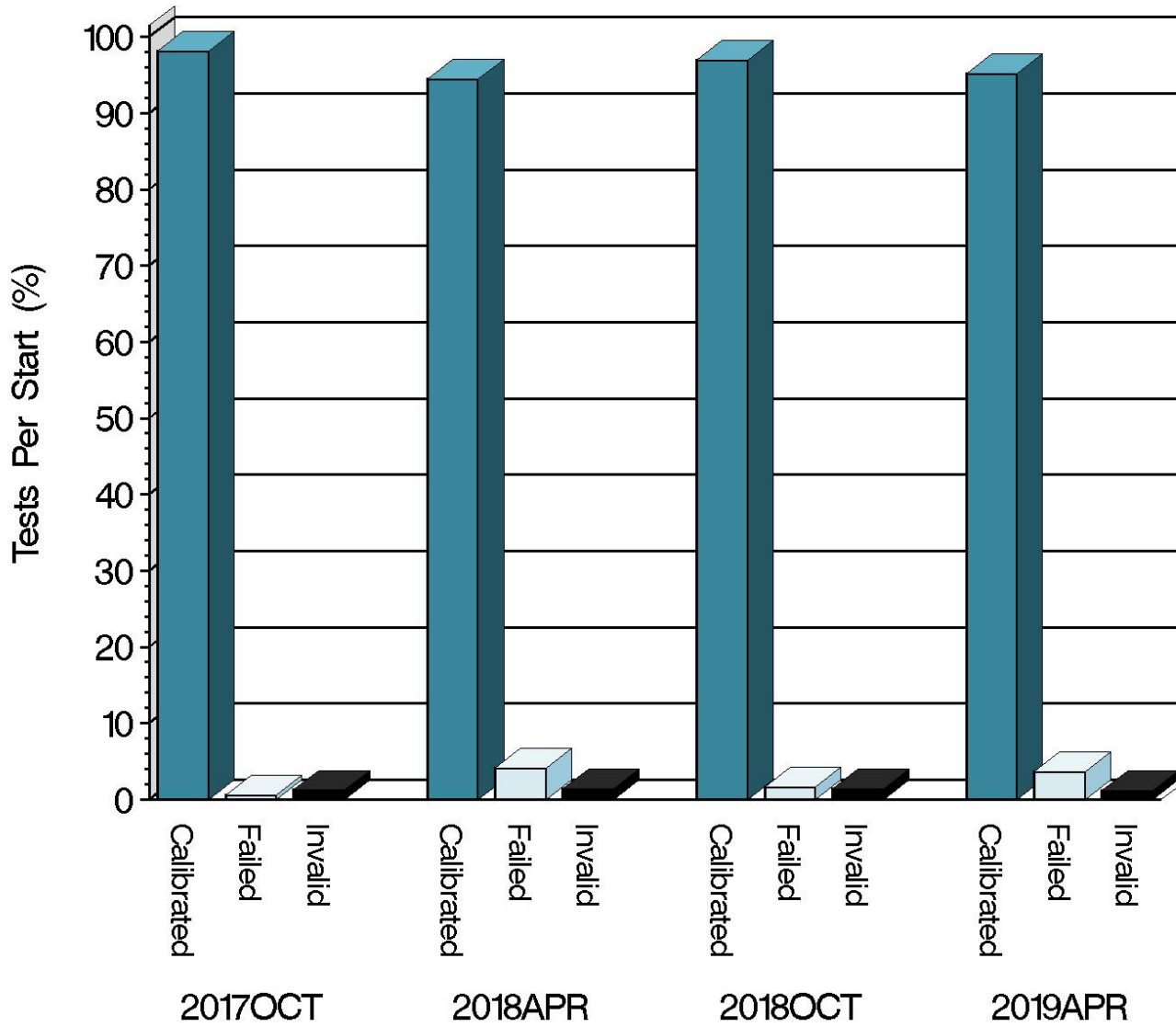
EOWT (D 6794)

Test Distribution by Oil and Validity

		By Oil				By Treat Level				Totals	
		77-2	77-3	78-2	79	0.6	1.0	2.0	3.0	This Period	Last Period
Accepted for Calibration	AC	1	382	0	402	198	197	196	194	785	1100
Rejected Tests	OC	0	17	0	13	6	9	6	9	30	19
Operationally Invalid (lab)	LC	0	0	0	0	0	0	0	0	0	0
Operationally Invalid (lab/TMC)	RC	0	0	0	0	0	0	0	0	0	0
Aborted Calibration	XC	0	2	0	8	1	2	4	3	10	12
Acceptable Shakedown	NN	0	16	0	19	8	9	10	8	35	0
Unacceptable Shakedown	MN	0	0	0	5	2	1	0	2	5	0
Total		1	417	0	447	215	218	216	216	865	1131

EOWT (D 6794)

CALIBRATION ATTEMPT SUMMARY



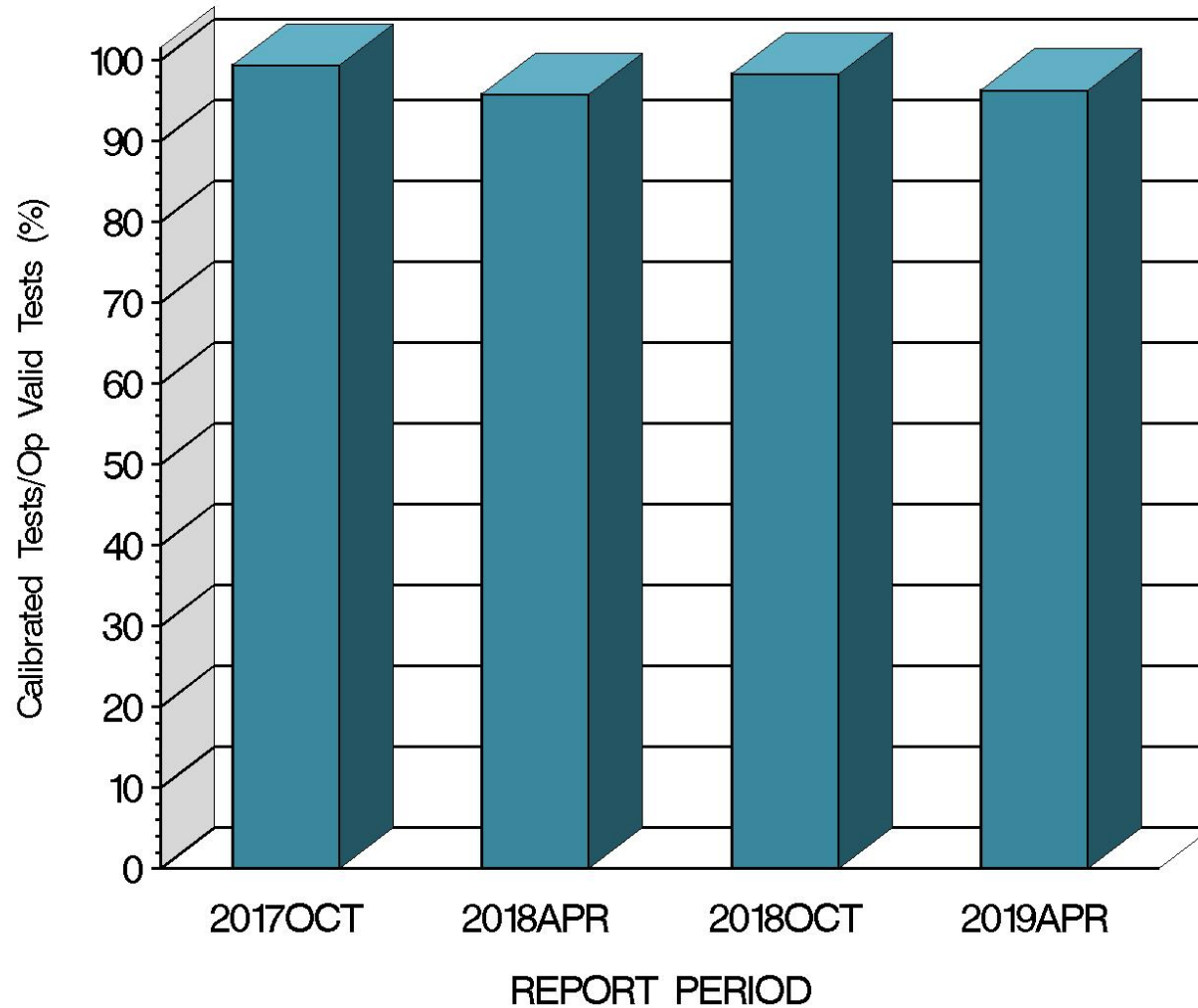
Resolution

Report Period

9:50:47 25APR2019

EOWT (D 6794)

OPERATIONALLY VALID TESTS
MEETING ACCEPTANCE CRITERIA



9:50:47 25APR2019

EOWT (D 6794)

CAUSES FOR LOST TESTS

Lab	Cause	Oil				Validity			Loss Rate		
		77-2	77-3	78-2	79	LC	RC/ MC	XC	Lost	Starts	%
A	Sample Contaminated	0	1	0	1	0	0	2	2	277	0.7
B	Mechanical Failure	0	0	0	1	0	0	1	1	190	0.5
G	Sample Prep Error	0	1	0	6	0	0	7	7	299	2.3
	Lost	0	2	0	8	0	0	10			
	Starts	1	401	0	423	825	825	825			
	%	0	0.5	0	1.9	0	0	1.2			

Lost tests are calibration attempts that were either aborted or operationally invalid

EOWT (D 6794)

Average Δ/s By Laboratory			
Treat Level	Lab	n	CFAYI
0.6	A	59	-0.717
	B	47	-0.323
	G	73	0.255
	I	16	1.236
	L	7	-1.693
	S	2	1.267
	Industry	204	-0.139
1.0	A	59	-0.382
	B	49	-0.251
	G	73	0.519
	I	16	1.720
	L	8	-0.815
	S	1	1.159
	Industry	206	0.123
2.0	A	58	-0.241
	B	47	-0.280
	G	73	0.543
	I	16	0.998
	L	7	-1.064
	S	1	1.343
	Industry	202	0.111
3.0	A	59	-0.370
	B	46	-0.219
	G	73	0.717
	I	16	1.183
	L	8	-1.722
	S	1	0.868
	Industry	203	0.131

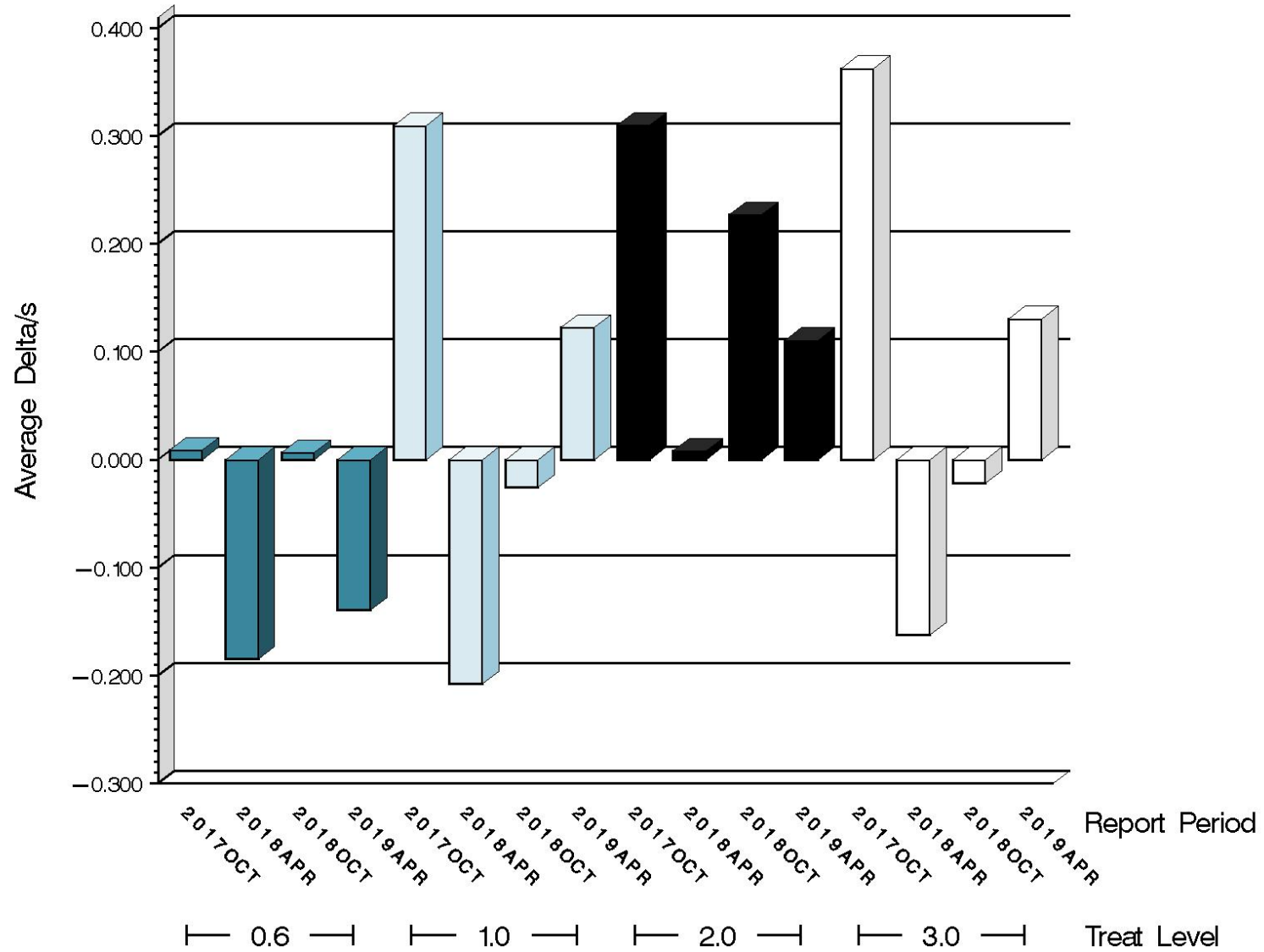
EOWT (D 6794)

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

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

EOWT (D 6794)

AVERAGE DELTA/S



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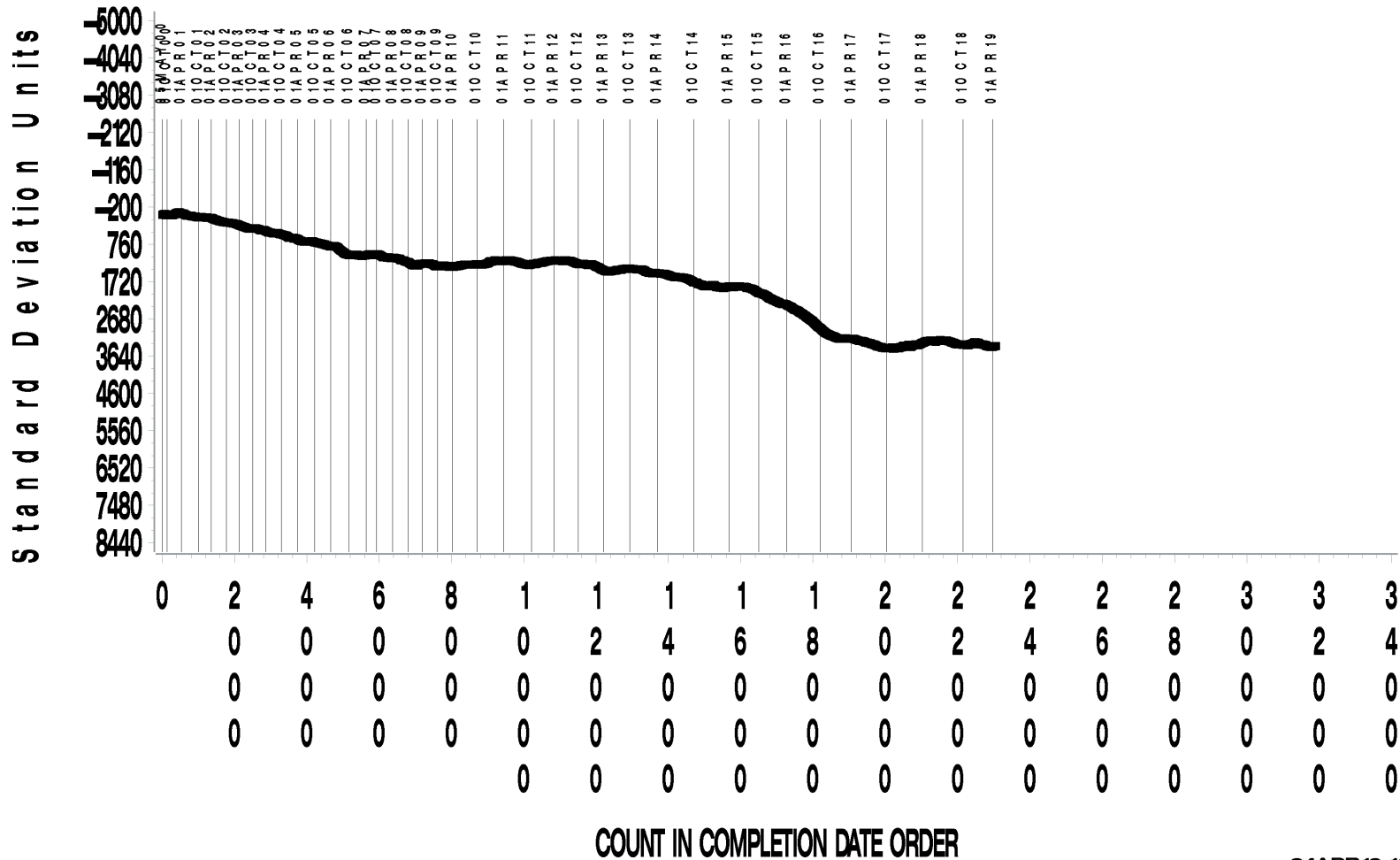
EOWT (D 6794)

EOWT INDUSTRY OPERATIONALLY VALID DATA

20 —25 ML CHANGE IN FLOWRATE AVG.



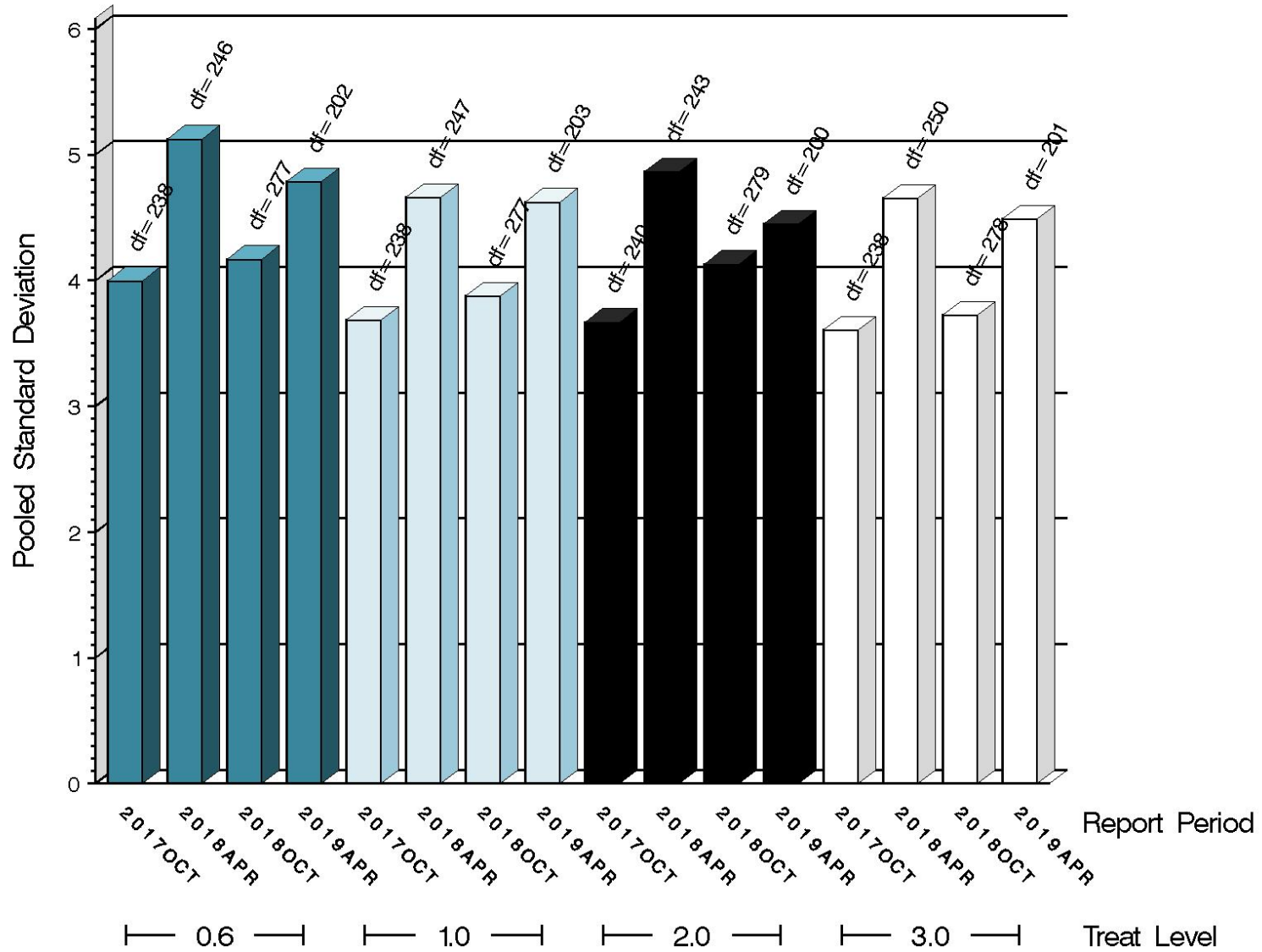
CUSUM Severity Analysis



24APR19:13:51

EOWT (D 6794)

POOLED STANDARD DEVIATION



13:54:43 24APR2019

EOWT (D 6794)

SUMMARY OF SEVERITY & PRECISION

Severity

Over the course of this report period, CIFA severity, as measured by CUSUM plotting, is slightly mild.

Precision

Pooled s values for this period are 4.79 (0.6%), 4.62 (1.0%), 4.45 (2.0%), and 4.49 (3.0%).

Precision, as measured by pooled standard deviation, is slightly worse than previous periods, but still comparable to historical performance.

EOWT (D 6794)

INFORMATION LETTERS

No EOWT Information Letters were issued this period.

EOWT (D 6794)

STATUS OF REFERENCE OIL SUPPLY

Oil	Samples @ Labs	@ TMC	
		Samples (290 mL)	Gallons
77-2	0	0	0.0
77-3	124	9,337	719.0
78-2	0	0	0.0
79	103	7,820	602.2
Total	227	17,157	1,321.2