



Test Monitoring Center

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

MEMORANDUM: 17-010

DATE: May 8, 2017

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

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

SUBJECT: EOWT Testing from October 1, 2016 through March 31, 2017

A total of 872 EOWT tests were reported to the Test Monitoring Center during the report period from October 1, 2016 through March 31, 2017.

Please find attached a summary of testing activity this period.

MTK/mtk/astm0417.doc/mem17-010.mtk.doc

cc: F. M. Farber

J. A. Clark

EOWT Surveillance Panel

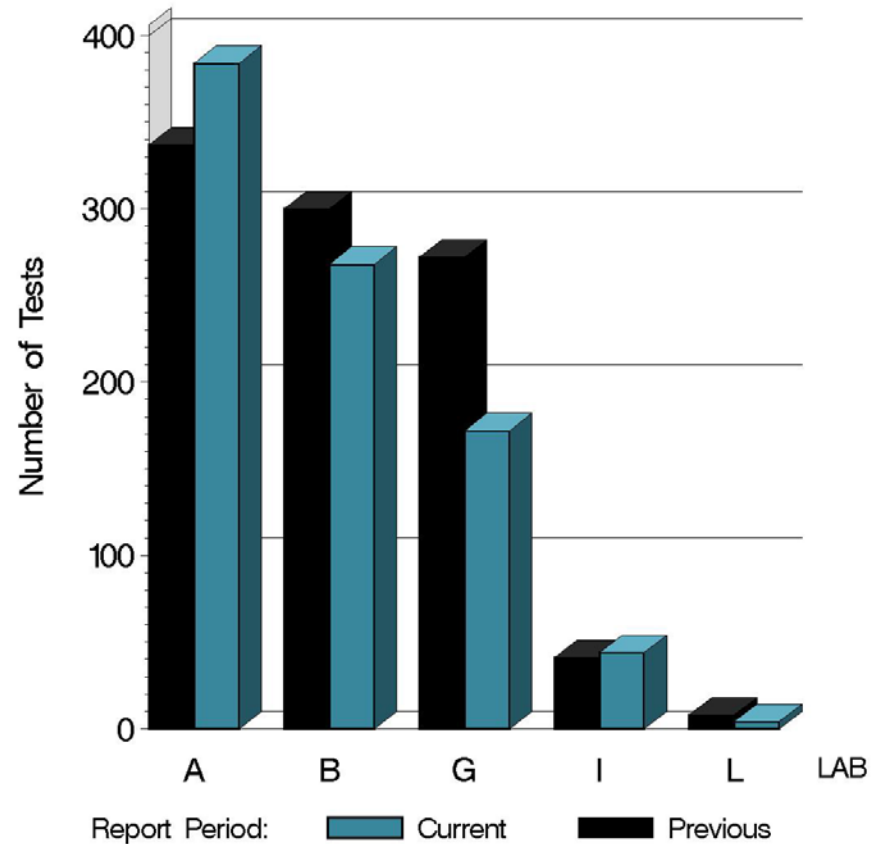
<ftp://ftp.astmtmc.cmu.edu/docs/bench/eowt/semiannualreports/eowt-04-2017.pdf>

Distribution: email

EOWT (D 6794)

Reporting Data	
Number of Labs	5

NUMBER OF TESTS REPORTED
BY LAB AND REPORT PERIOD



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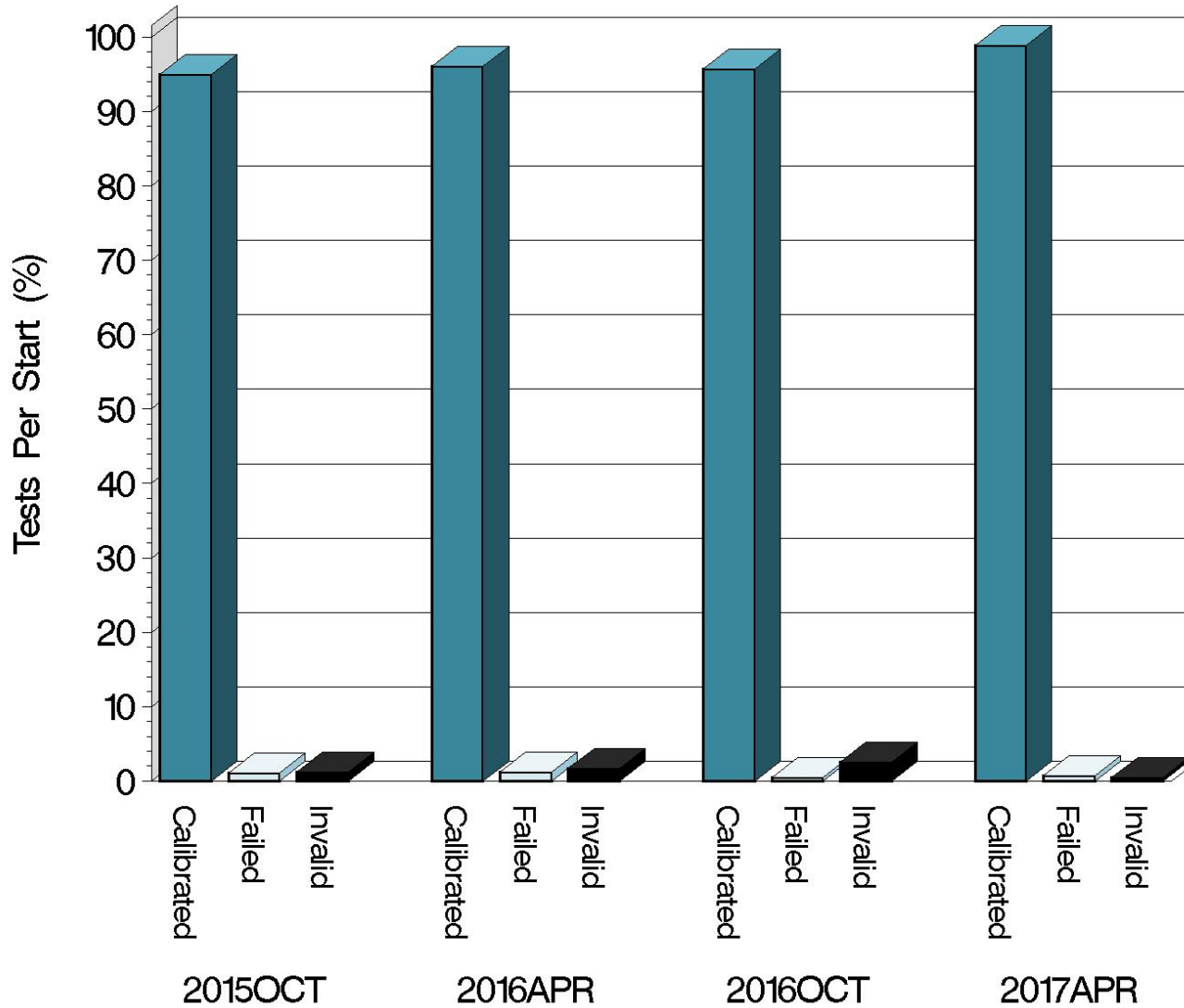
EOWT (D 6794)

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	285	161	0	416	215	216	216	215	862	917
Rejected Tests	OC	3	3	0	0	1	0	1	4	6	5
Operationally Invalid (lab)	LC	0	0	0	0	0	0	0	0	0	3
Operationally Invalid (lab/TMC)	RC	0	0	0	0	0	0	0	0	0	0
Aborted Calibration	XC	0	0	0	4	1	1	1	1	4	21
Unusable Calibration	MC	0	0	0	0	0	0	0	0	0	0
Acceptable Donated Tests	NI	0	0	0	0	0	0	0	0	0	12
Unacceptable Donated Tests	MI	0	0	0	0	0	0	0	0	0	0
Invalid Donated Tests	LI	0	0	0	0	0	0	0	0	0	0
Aborted Donated Tests	XI	0	0	0	0	0	0	0	0	0	0
Total		288	164	0	420	217	217	218	220	872	958

EOWT (D 6794)

CALIBRATION ATTEMPT SUMMARY



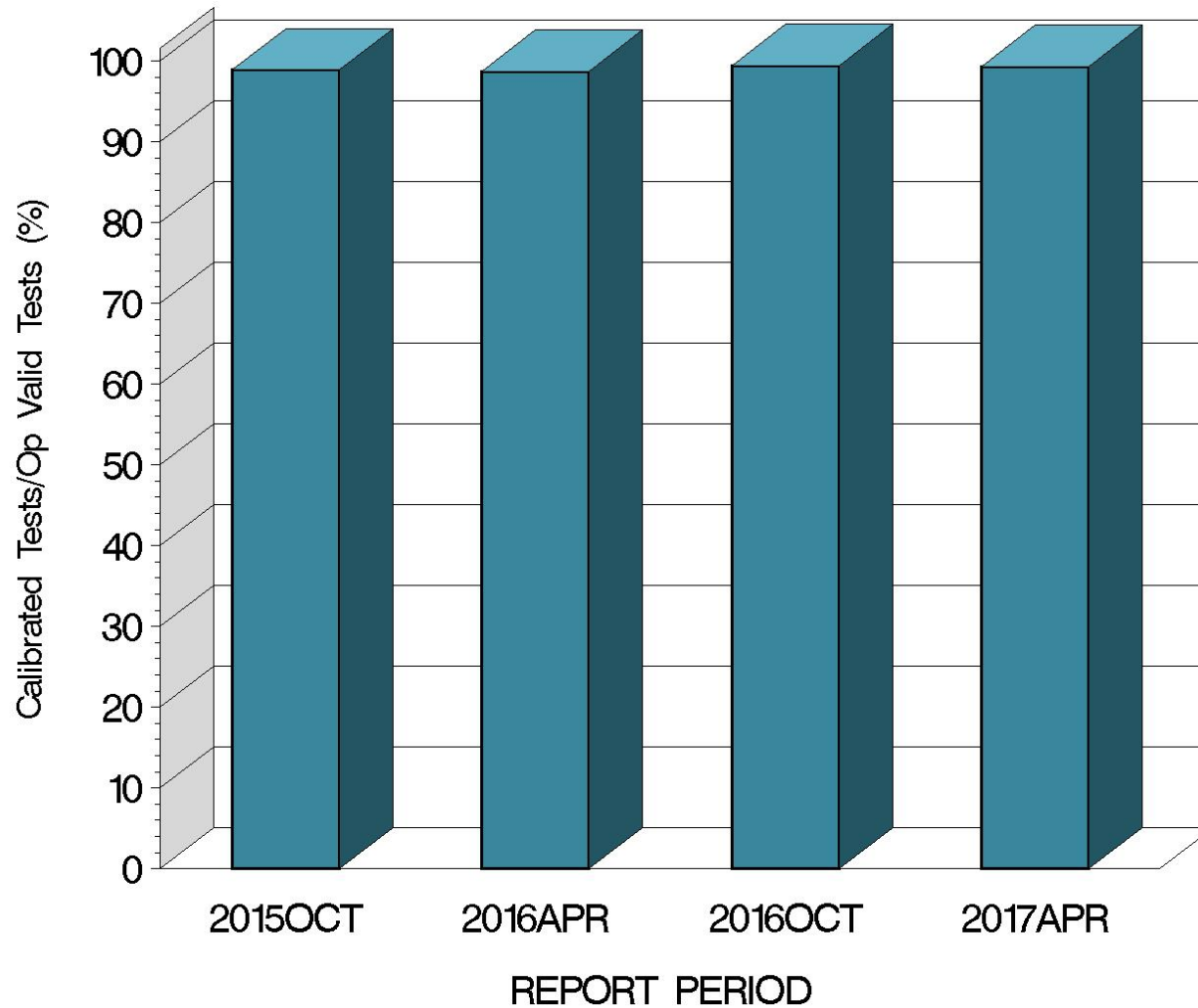
Resolution

Report Period

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EOWT (D 6794)

OPERATIONALLY VALID TESTS
MEETING ACCEPTANCE CRITERIA



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EOWT (D 6794)

CAUSES FOR LOST TESTS

		Oil				Validity			Loss Rate		
Lab	Cause	77-2	77-3	78-2	79	LC	RC/ MC	XC	Lost	Starts	%
B	Computer Failure	0	0	0	4	0	0	4	4	268	1.5
	Lost	0	0	0	4	0	0	4			
	Starts	288	164	0	420	872	872	872			
	%	0	0	0	0.9	0	0	0.4			

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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	95	-0.577
	B	66	0.815
	G	43	1.317
	I	11	0.344
	L	1	2.242
	Industry	216	0.285
1.0	A	95	-0.459
	B	66	0.452
	G	43	1.213
	I	11	0.766
	L	1	0.920
	Industry	216	0.221
2.0	A	96	-0.218
	B	66	0.736
	G	43	1.271
	I	11	0.746
	L	1	1.476
	Industry	217	0.424
3.0	A	98	-0.285
	B	66	0.800
	G	43	1.149
	I	11	0.711
	L	1	2.322
	Industry	219	0.386

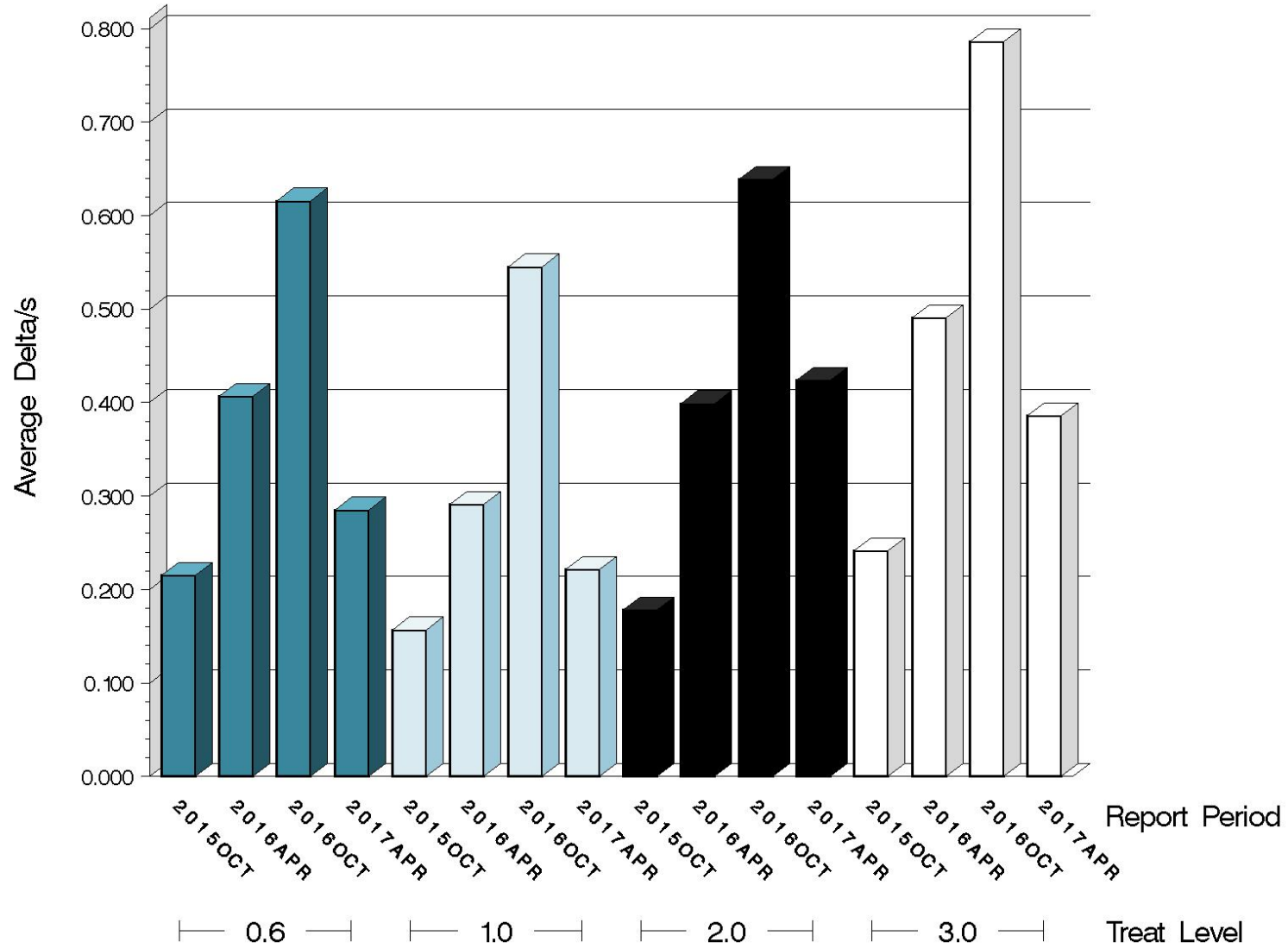
EOWT (D 6794)

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

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

EOWT (D 6794)

AVERAGE DELTA/S



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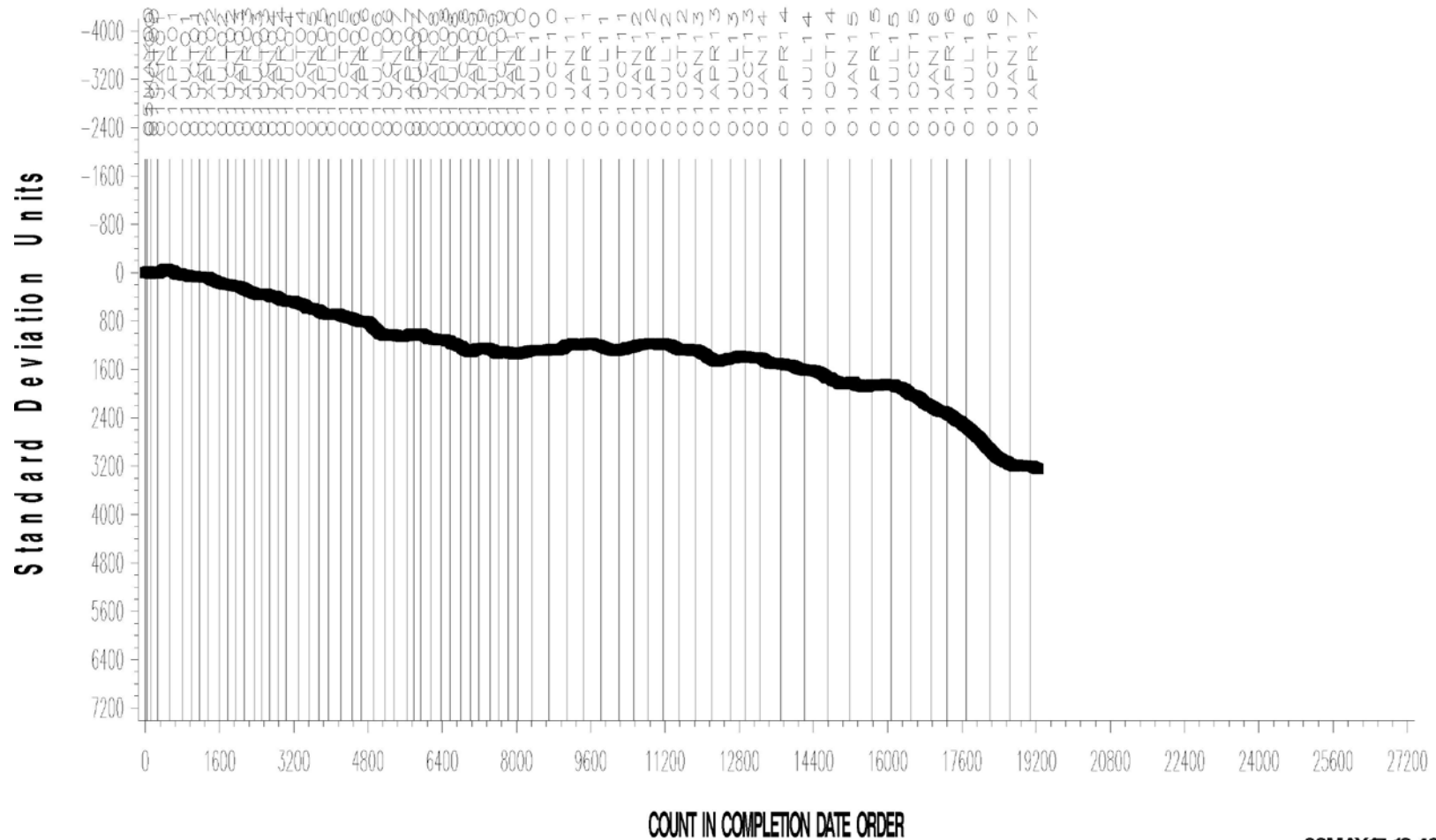
EOWT (D 6794)

EOWT INDUSTRY OPERATIONALLY VALID DATA



20 – 25 ML CHANGE IN FLOWRATE AVG.

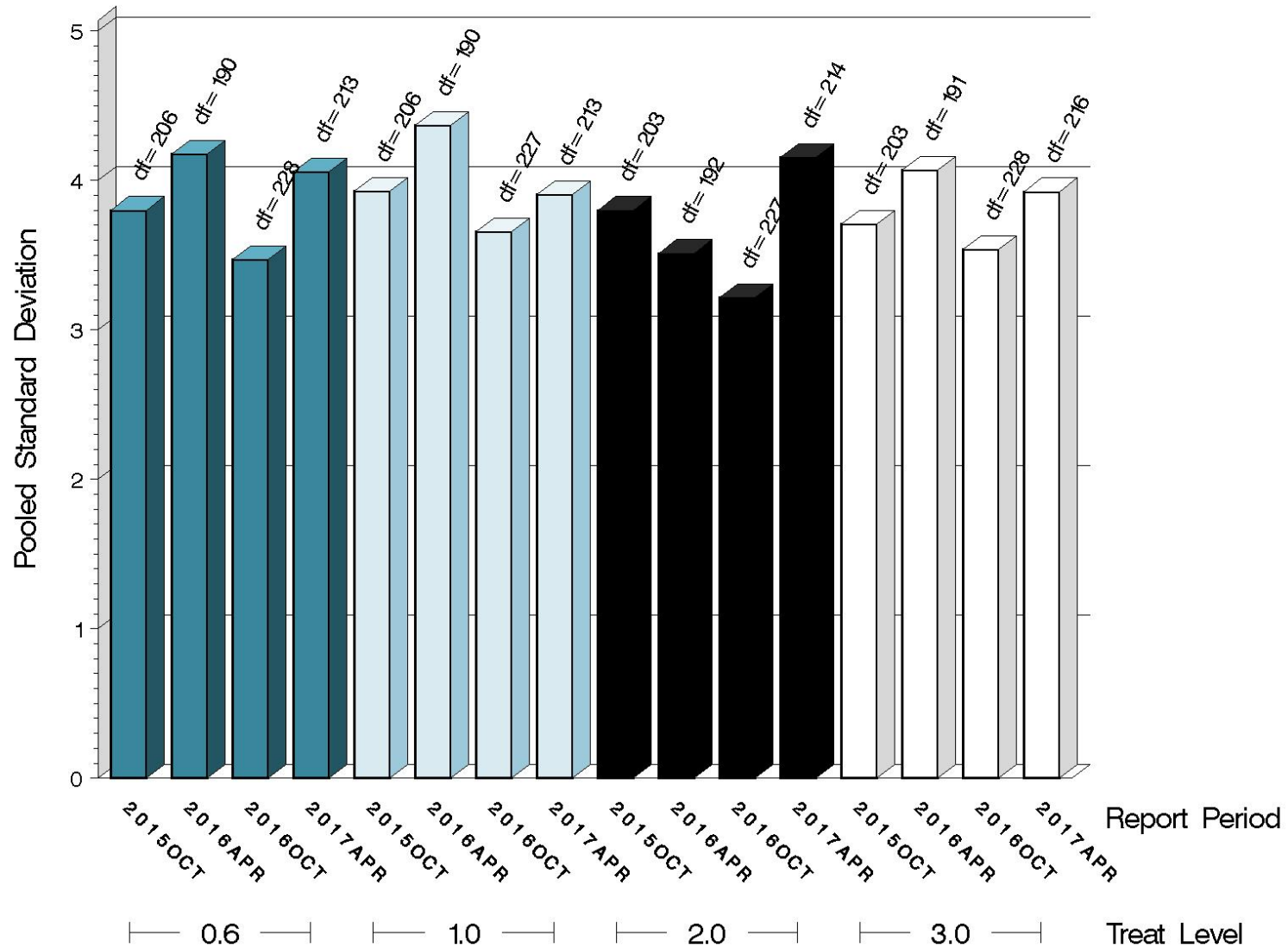
CUSUM Severity Analysis



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EOWT (D 6794)

POOLED STANDARD DEVIATION



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EOWT (D 6794)

SUMMARY OF SEVERITY & PRECISION

Severity

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

Precision

Pooled s values for this period are 4.06 (0.6%), 3.90 (1.0%), 4.15 (2.0%), and 3.92 (3.0%).

Precision, as measured by pooled standard deviation, is 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	9	0	0.0
77-3	115	11,237	865.3
78-2	0	0	0.0
79	146	10,459	805.4
Total	270	21,696	1,670.7

The TMC inventory of oils 77-2 and 78-2 are depleted. Lab inventories of oil 78-2 have also been depleted, but a few samples of 77-2 remain at the labs.

The TMC has procured a reblend of oil 77-2, reference oil 77-3, which has been introduced into EOWT.

Testing on reference oil 77-3 has begun.