



Test Monitoring Center

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

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

MEMORANDUM: 11-049

DATE: November 8, 2011

TO: Becky Grinfield,
Chairman, Engine Oil Water Tolerance Surveillance Panel

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

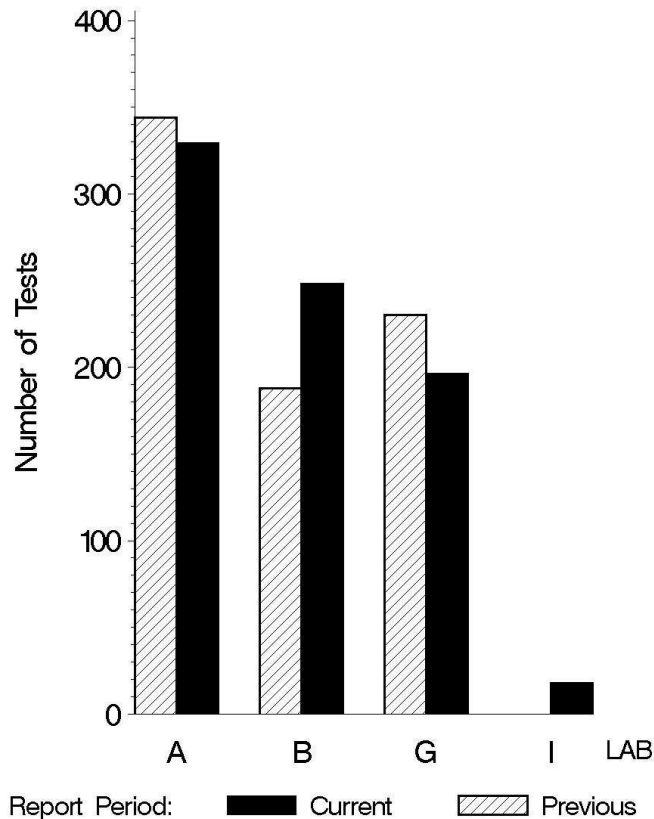
SUBJECT: EOWT Testing from April 1, 2011 through September 30, 2011

A total of 791 EOWT tests were reported to the Test Monitoring Center during the period from April 1, 2011 through September 30, 2011. Following is a summary of testing activity this period.

Reporting Data	
Number of Labs	4

Tests reported this period were distributed as shown below:

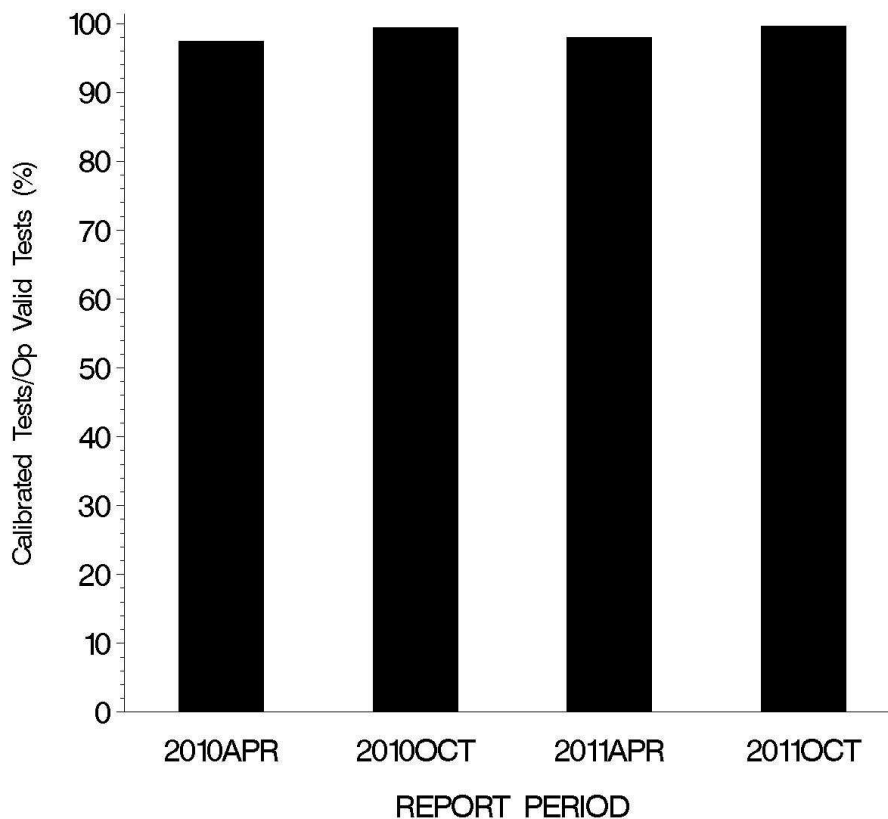
NUMBER OF TESTS REPORTED BY LAB AND REPORT PERIOD



Test Distribution by Oil, Treat Level and Validity

		By Oil				By Treat Level				Totals	
		77-1	77-2	78-1	78-2	0.6	1.0	2.0	3.0	This Period	Last Period
Accepted for Calibration	AC	457	0	130	153	188	184	183	185	740	738
Accepted for Target Generation	AG	0	0	0	36	9	9	9	9	36	0
Rejected Tests	OC	3	0	1	0	2	0	1	1	4	16
Operationally Invalid (lab)	LC	0	0	4	0	1	1	1	1	4	7
Operationally Invalid (lab/TMC)	RC	0	0	0	0	0	0	0	0	0	0
Aborted Calibration	XC	2	0	4	1	3	1	1	2	7	1
Total		462	0	139	190	203	195	195	198	791	762

**OPERATIONALLY VALID TESTS
MEETING ACCEPTANCE CRITERIA**



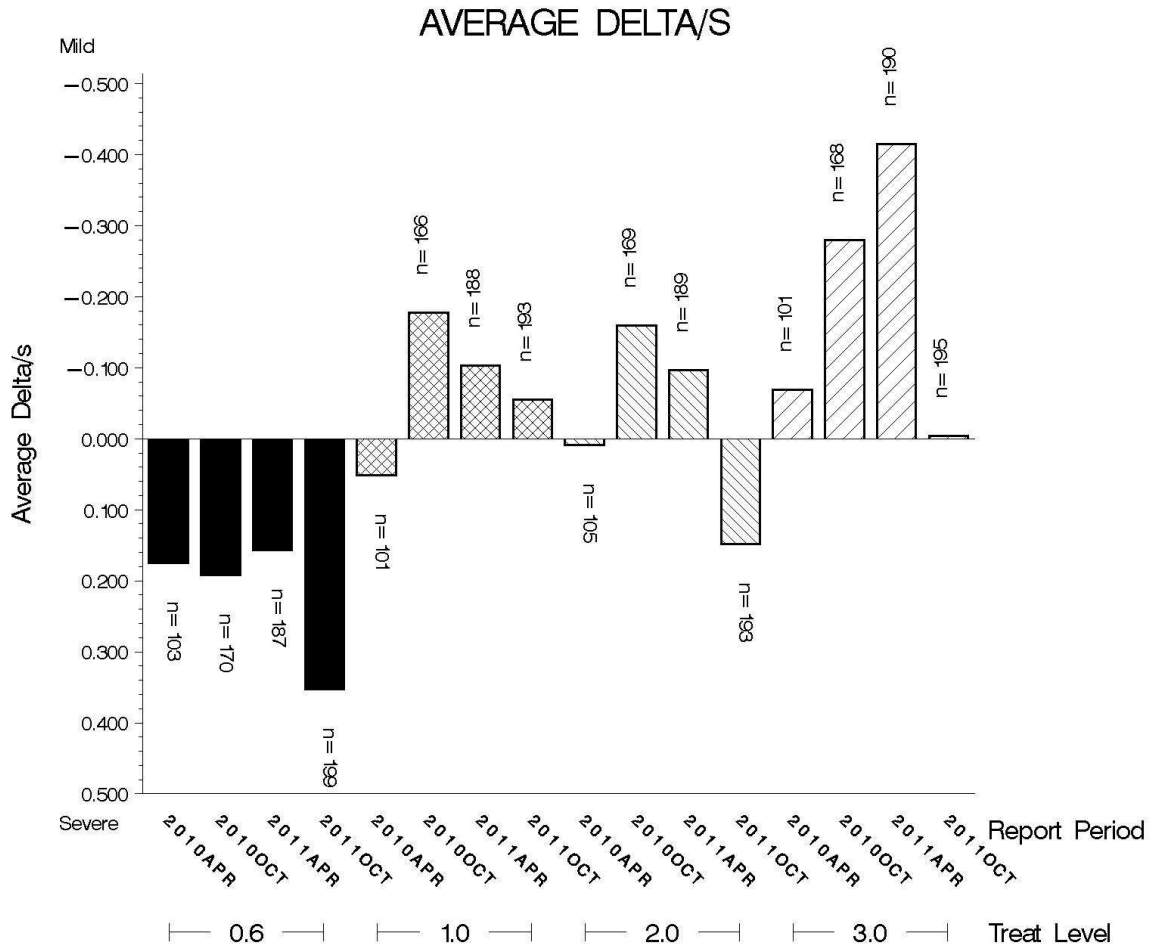
The above chart shows the percentage of accepted operationally valid tests.

Causes for Lost Tests

Lab	Cause	Oil				Validity			Loss Rate		
		77-1	77-2	78-1	78-2	LC	RC	XC	Lost	Starts	%
A	Oven Failure			●				●	4	791	0.5%
	Sample Spilled	●			●			●	2	791	0.2%
	Blended as EOFT by mistake			●				●	1	791	0.1%
I	Burette Broken			●		●			4	791	0.5%
Total		1	0	9	1	4	0	7			
Starts		462	0	139	190	791	791	791			
%		0.2%	0%	6.5%	0.5%	0.5%	0%	0.8%			

Average Δ 's by Lab and Treat Level

Treat Level	Lab	n	CFAYI
0.6	A	85	0.124
	B	62	0.298
	G	49	0.812
	I	3	0.666
	Industry	199	0.353
1.0	A	78	-0.122
	B	62	-0.311
	G	49	0.440
	I	4	-0.726
	Industry	193	-0.055
2.0	A	79	-0.014
	B	62	-0.301
	G	49	0.994
	I	3	0.114
	Industry	193	0.148
3.0	A	80	-0.256
	B	62	-0.360
	G	49	0.824
	I	4	0.588
	Industry	195	-0.004

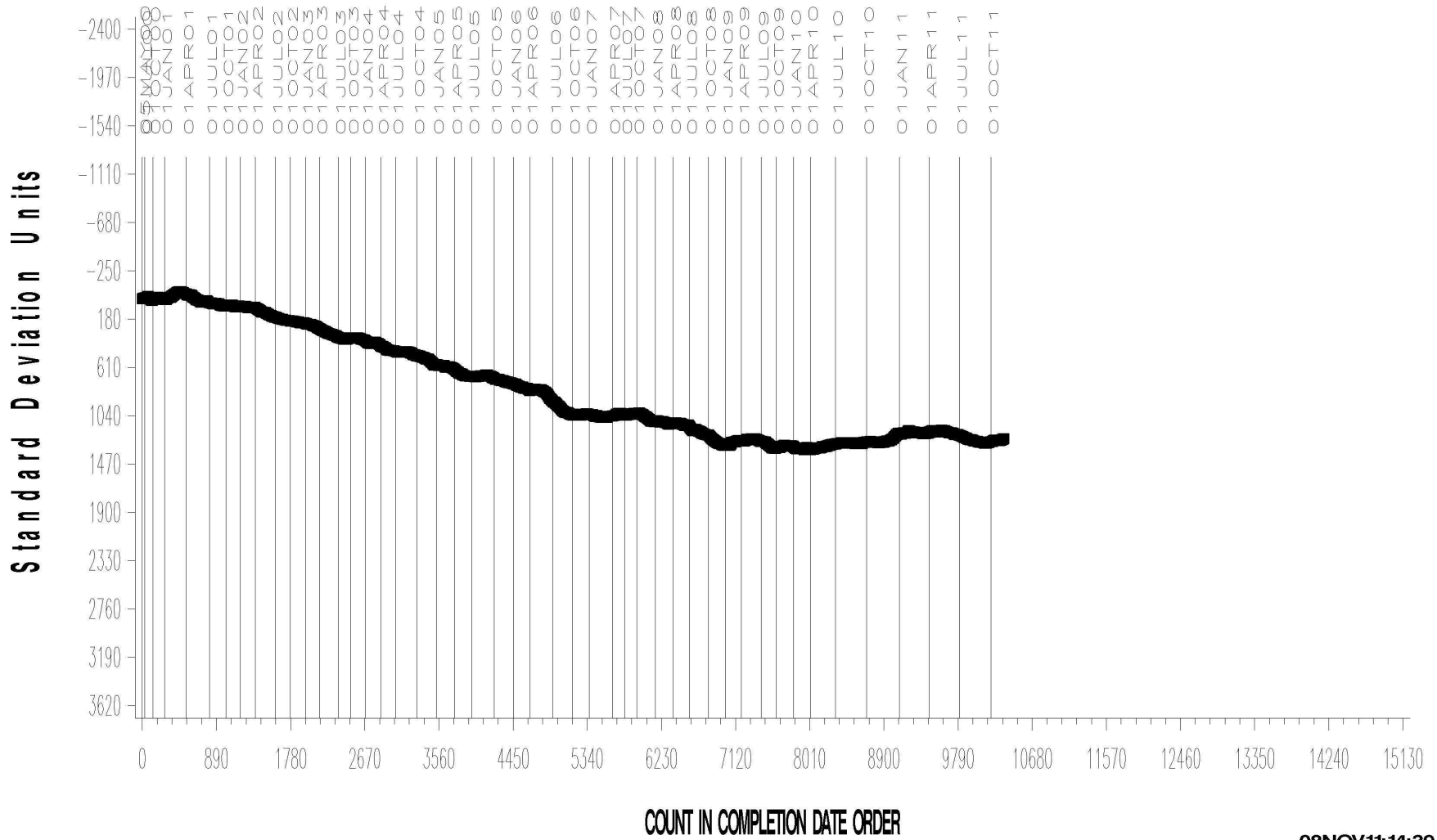


EOWT INDUSTRY OPERATIONALLY VALID DATA



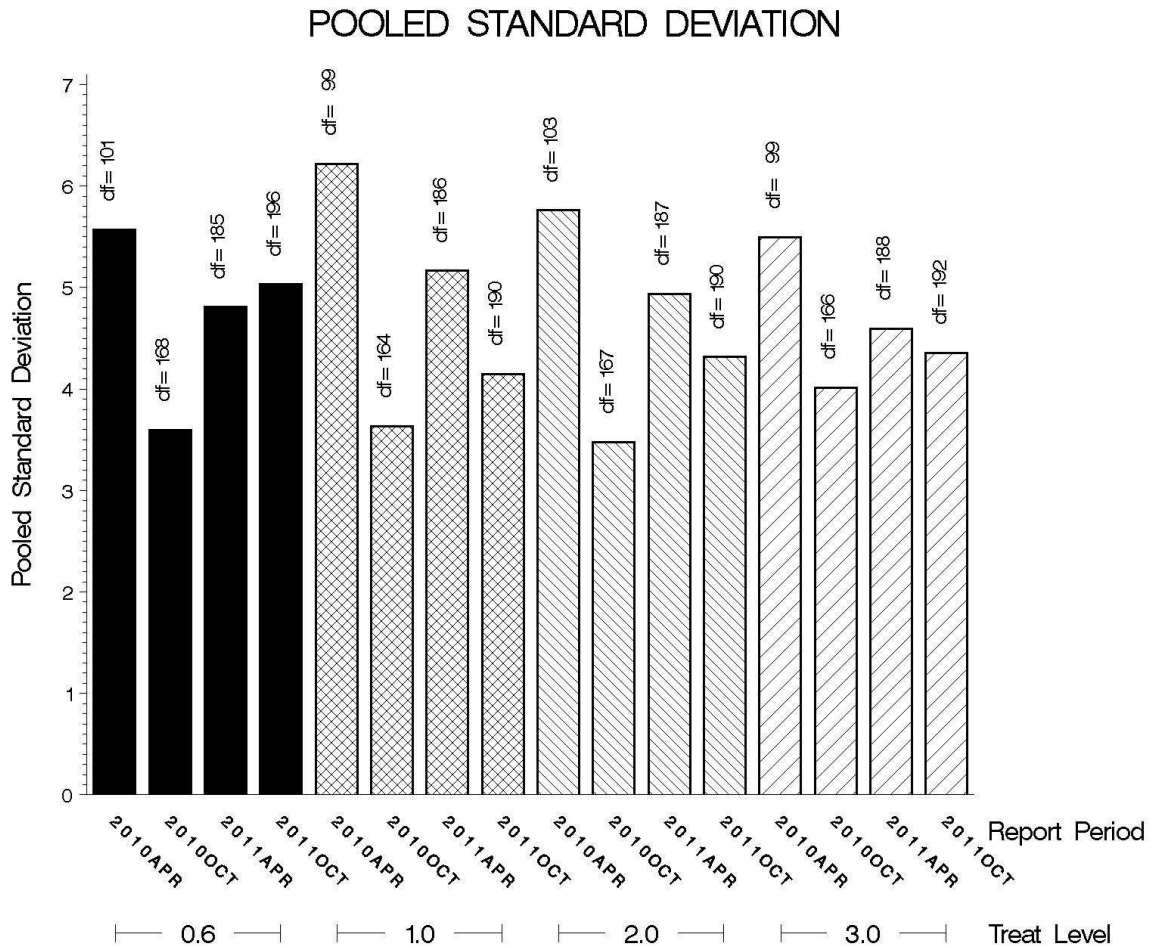
20 – 25 ML CHANGE IN FLOWRATE AVG.

CUSUM Severity Analysis



POOLED S:

Shown below are bar charts comparing the pooled s values for the EOWT test parameters over the last four report periods.



STATUS OF REFERENCE OIL SUPPLY:

At the end of this report period, the testing oil supply stood as outlined in the following table:

Oil	Cans @ Labs	@ TMC	
		Cans	Gallons
77-1	51	1312	101.1
77-2	0	3571	275.0
78-1	16	0	0.0
78-2	42	3176	244.6
Total	109	8059	620.7

Be aware that this table presumes that all of each of these oils at the TMC is dedicated to EOWT use. This is not the case, as oils 78-1 and 78-2 are also used in the EOFT test.

On the June 6, 2011 EOWT Surveillance Panel conference call, the panel approved a motion to introduce reference oil 78-2, based upon the data presented at that meeting.

The initial test targets, which took effect on June 6, 2011, are shown in the following table:

Reference Oil 78-2					
WT%	N	Mean	Std Dev	K	Target Range
0.6	9	29.06	8.64	1.96	12.12 to 46.00
1.0	9	27.18	7.69	1.96	12.11 to 42.26
2.0	9	22.62	7.64	1.96	7.64 to 37.60
3.0	9	19.31	7.54	1.96	4.53 to 34.09

Note that the upper and lower limits shown in the "Target Range" block are the official test targets for the EOWT test; the target mean and standard deviation are shown for information purposes only.

INFORMATION LETTERS:

No information letters were issued during this report period.

SUMMARY

- Over the course of this report period, CFA severity as measured by cusum plotting remained on target.
- Precision, as measured by pooled standard deviation, has improved slightly when compared to the previous period, but is still within historical levels.
- The TMC supply of reference oil 78-1 has been exhausted.

MTK/mtk/astm1011.doc/mem11-049.doc.doc

c: F. M. Farber

J. A. Clark

EOWT Surveillance Panel

<ftp://ftp.astmtmc.cmu.edu/docs/bench/eowt/semiannualreports/eowt-10-2011.pdf>

Distribution: email