



# Test Monitoring Center

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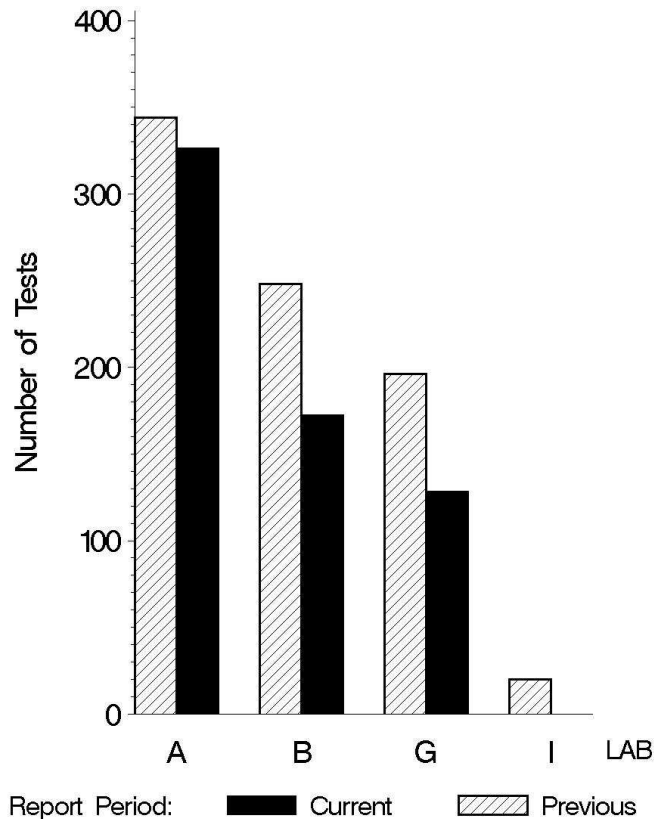
MEMORANDUM: 12-019  
DATE: May 22, 2012  
TO: Becky Grinfield,  
Chairman, Engine Oil Water Tolerance Surveillance Panel  
FROM: Michael T. Kasimirsky *Michael T. Kasimirsky*  
SUBJECT: EOWT Testing from October 1, 2011 through March 31, 2012

A total of 626 EOWT tests were reported to the Test Monitoring Center during the period from October 1, 2011 through March 31, 2012. Following is a summary of testing activity this period.

|                | Reporting Data |
|----------------|----------------|
| Number of Labs | 3              |

Tests reported this period were distributed as shown below:

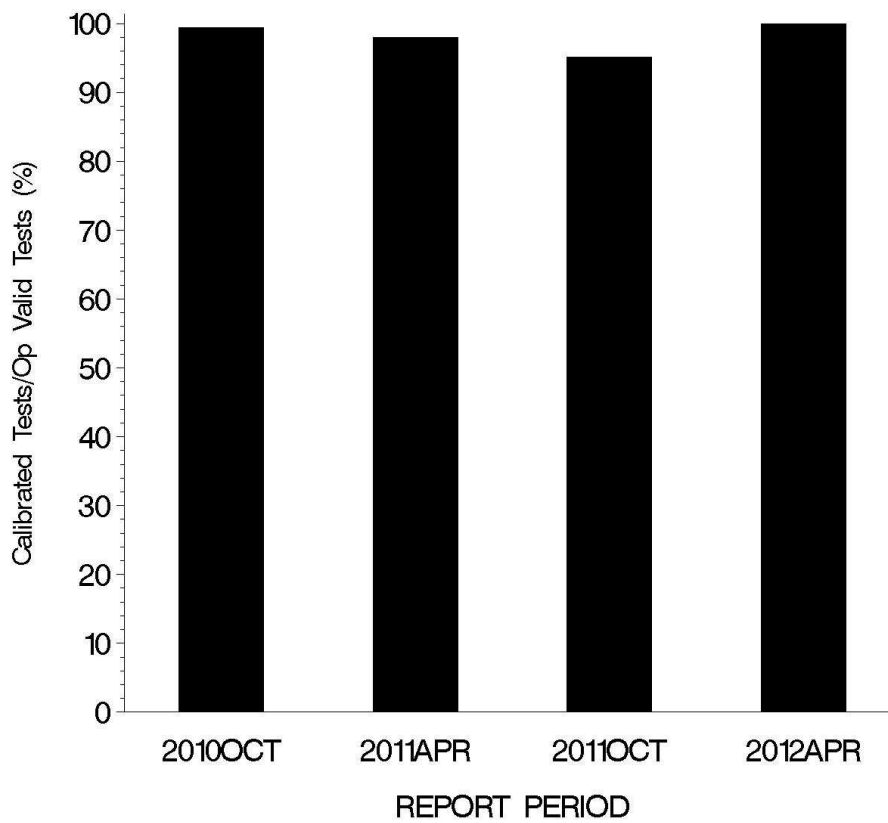
## NUMBER OF TESTS REPORTED BY LAB AND REPORT PERIOD



**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 | 311        | 0        | 0        | 313        | 156            | 156        | 155        | 157        | 624         | 740         |
| Accepted for Target Generation  | AG | 0          | 0        | 0        | 0          | 0              | 0          | 0          | 0          | 0           | 36          |
| Rejected Tests                  | OC | 0          | 0        | 0        | 1          | 0              | 0          | 1          | 0          | 1           | 4           |
| Operationally Invalid (lab)     | LC | 0          | 0        | 0        | 0          | 0              | 0          | 0          | 0          | 0           | 4           |
| Operationally Invalid (lab/TMC) | RC | 0          | 0        | 0        | 0          | 0              | 0          | 0          | 0          | 0           | 0           |
| Aborted Calibration             | XC | 0          | 0        | 0        | 1          | 1              | 0          | 0          | 0          | 1           | 7           |
| <b>Total</b>                    |    | <b>311</b> | <b>0</b> | <b>0</b> | <b>314</b> | <b>157</b>     | <b>156</b> | <b>156</b> | <b>157</b> | <b>626</b>  | <b>791</b>  |

**OPERATIONALLY VALID TESTS  
MEETING ACCEPTANCE CRITERIA**



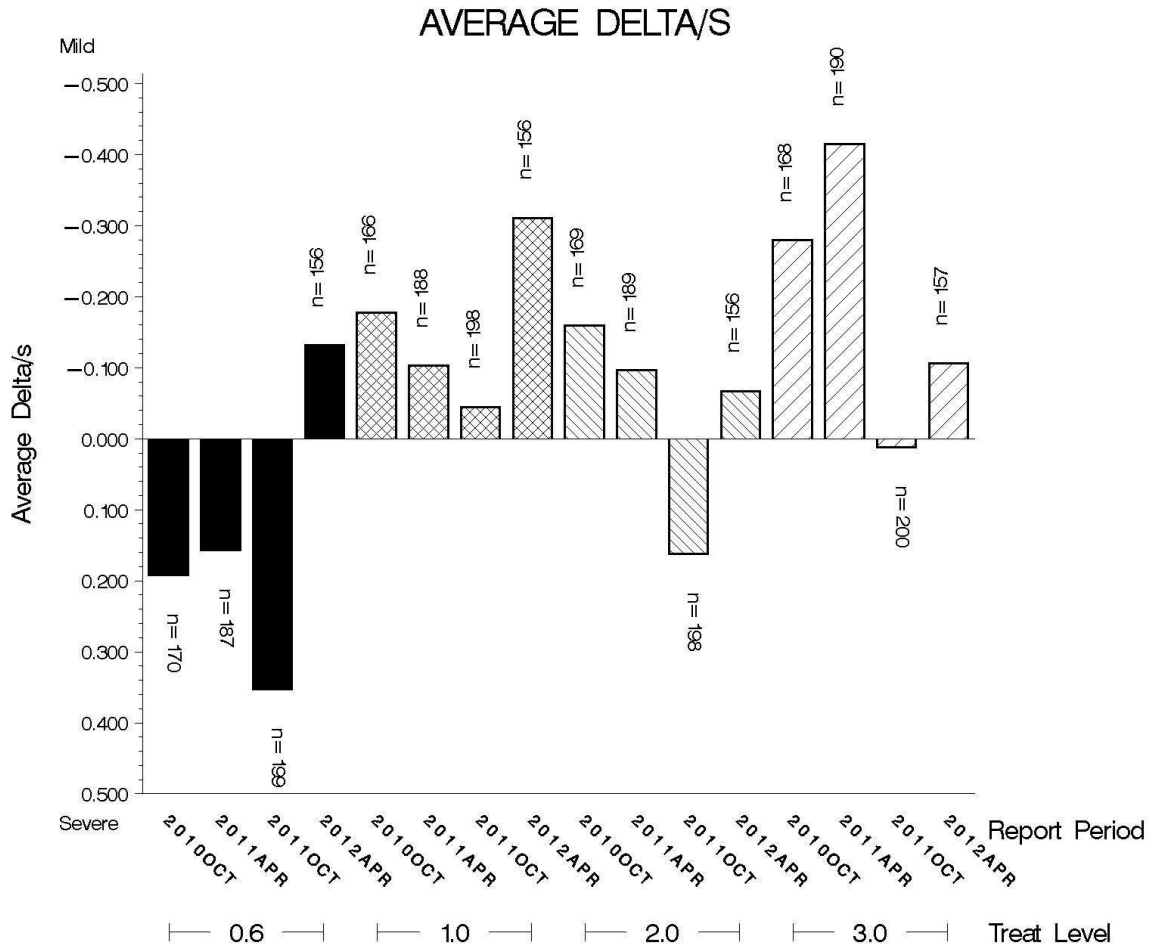
The above chart shows the percentage of accepted operationally valid tests.

Causes for Lost Tests

| Lab | Cause          | Oil  |      |      |      | Validity |     |      | Loss Rate |        |      |
|-----|----------------|------|------|------|------|----------|-----|------|-----------|--------|------|
|     |                | 77-1 | 77-2 | 78-1 | 78-2 | LC       | RC  | XC   | Lost      | Starts | %    |
| A   | Sample Spilled |      |      |      | ●    |          |     | ●    | 1         | 626    | 0.2% |
|     | Total          | 0    | 0    | 0    | 1    | 0        | 0   | 1    |           |        |      |
|     | Starts         | 311  | 0    | 0    | 315  | 626      | 626 | 626  |           |        |      |
|     | %              | 0%   | 0%   | 0%   | 0.3% | 0%       | 0%  | 0.2% |           |        |      |

Average  $\Delta$ 's by Lab and Treat Level

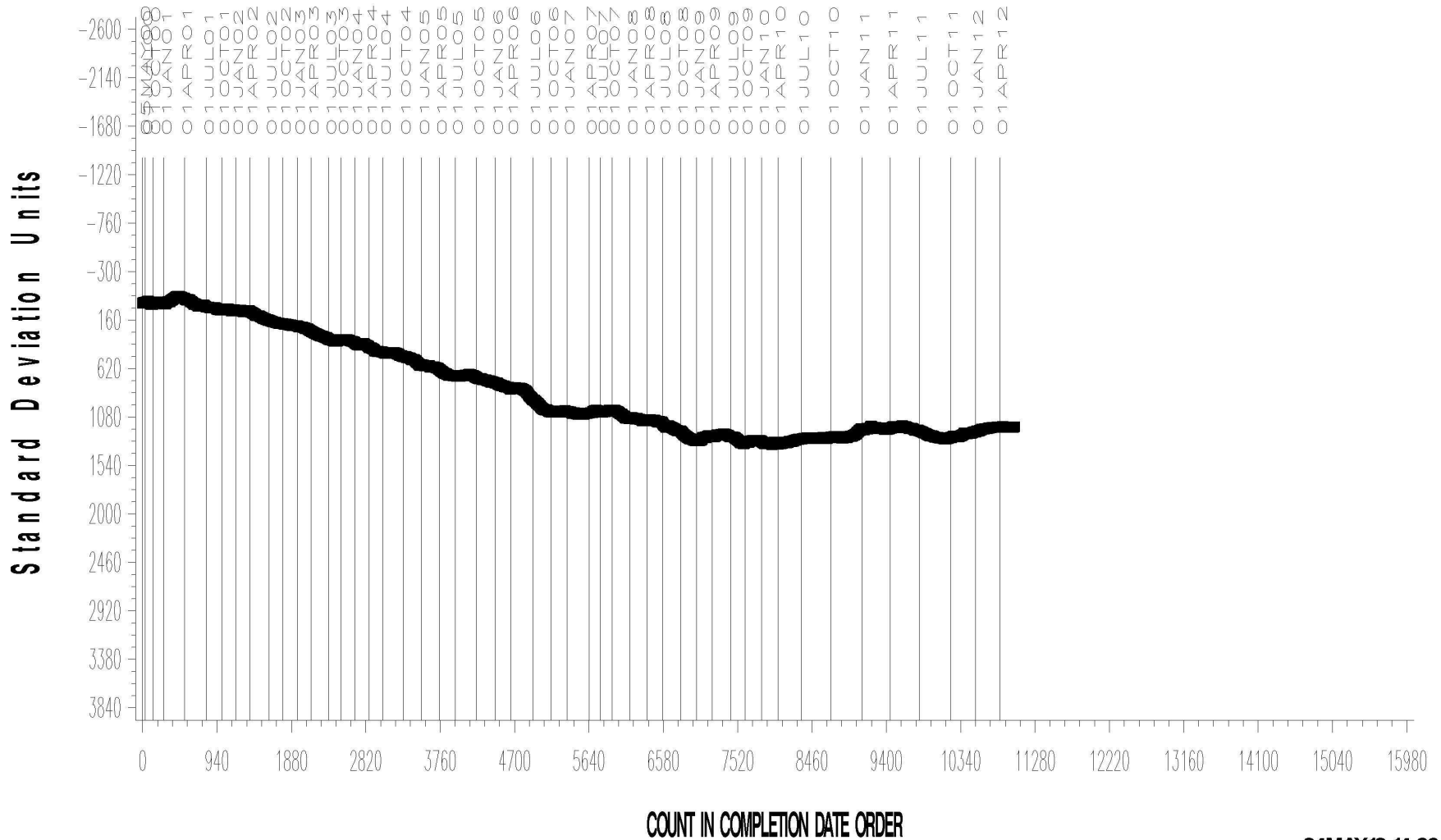
| Treat Level | Lab      | n   | CFAYI  |
|-------------|----------|-----|--------|
| 0.6         | A        | 81  | -0.376 |
|             | B        | 43  | -0.419 |
|             | G        | 32  | 0.873  |
|             | I        | 0   |        |
|             | Industry | 155 | -0.131 |
| 1.0         | A        | 81  | -0.438 |
|             | B        | 43  | -0.542 |
|             | G        | 32  | 0.321  |
|             | I        | 0   |        |
|             | Industry | 155 | -0.311 |
| 2.0         | A        | 81  | -0.113 |
|             | B        | 43  | -0.618 |
|             | G        | 32  | 0.789  |
|             | I        | 0   |        |
|             | Industry | 155 | -0.059 |
| 3.0         | A        | 82  | -0.141 |
|             | B        | 43  | -0.532 |
|             | G        | 32  | 0.556  |
|             | I        | 0   |        |
|             | Industry | 157 | -0.106 |



**EOWT INDUSTRY OPERATIONALLY VALID DATA**  
**20 – 25 ML CHANGE IN FLOWRATE AVG.**

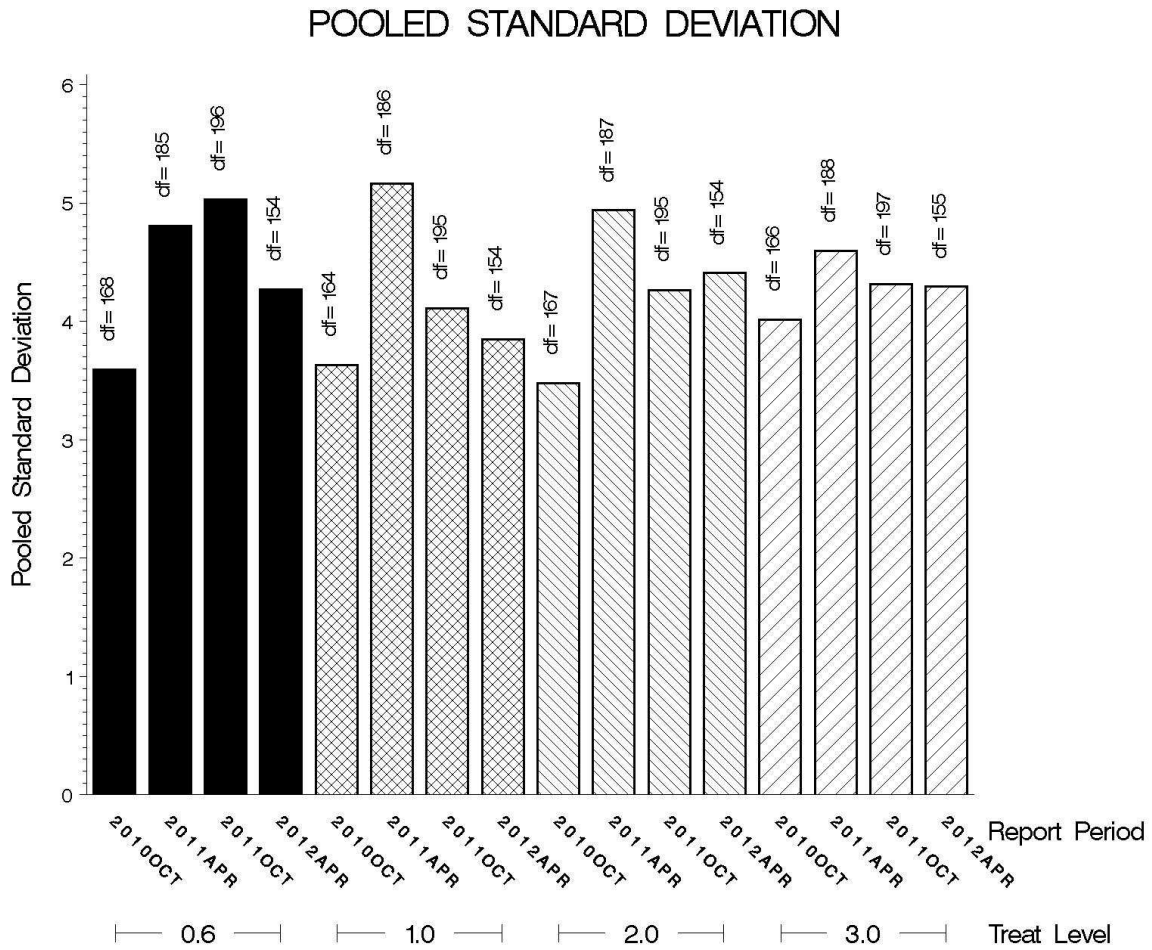


CUSUM Severity Analysis



POOLED S:

Shown below are bar charts comparing the pooled standard deviation 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  | 119         | 966   | 74.4    |
| 77-2  | 0           | 3571  | 275.0   |
| 78-1  | 16          | 0     | 0.0     |
| 78-2  | 104         | 2710  | 208.7   |
| Total | 239         | 7247  | 558.1   |

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.

**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/astm0412.doc/mem12-019.doc.doc

c: F. M. Farber

J. A. Clark

EOWT Surveillance Panel

<ftp://ftp.astmtmc.cmu.edu/docs/bench/eowt/semiannualreports/eowt-04-2012.pdf>

Distribution: email