



Test Monitoring Center

Carnegie Mellon University
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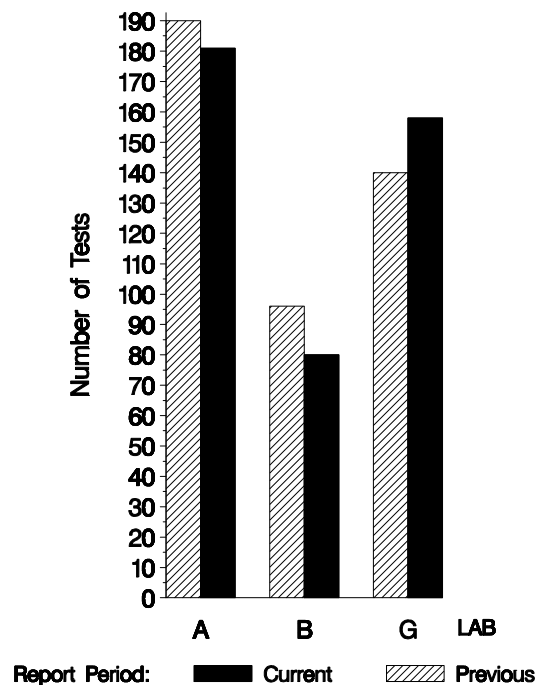
MEMORANDUM: 10-023
DATE: May 25, 2010
TO: Becky Grinfield,
Chairman, Engine Oil Water Tolerance Surveillance Panel
FROM: Michael T. Kasimirsky *Michael T. Kasimirsky*
SUBJECT: EOWT Testing from October 1, 2009 through March 31, 2010

A total of 419 EOWT tests were reported to the Test Monitoring Center during the period from October 1, 2009 through March 31, 2010. Following is a summary of testing activity this period.

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

Tests reported this period were distributed as shown below:

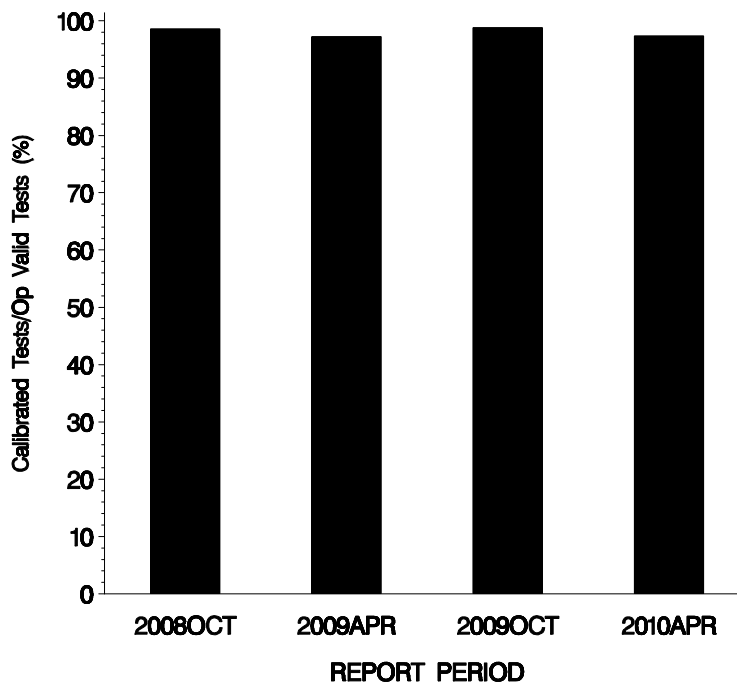
NUMBER OF TESTS REPORTED BY LAB AND REPORT PERIOD



Test Distribution by Oil, Treat Level and Validity

| | | By Oil | | By Treat Level | | | | Totals | |
|---------------------------------|----|------------|------------|----------------|------------|------------|------------|-------------|-------------|
| | | 77-1 | 78-1 | 0.6 | 1.0 | 2.0 | 3.0 | This Period | Last Period |
| Accepted for Calibration | AC | 190 | 209 | 100 | 100 | 100 | 99 | 399 | 413 |
| Accepted for Target Generation | AG | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Rejected Tests | OC | 2 | 9 | 3 | 1 | 5 | 2 | 11 | 5 |
| Operationally Invalid (lab) | LC | 2 | 2 | 1 | 1 | 1 | 1 | 4 | 4 |
| Operationally Invalid (lab/TMC) | RC | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Aborted Calibration | XC | 1 | 4 | 1 | 2 | 1 | 1 | 5 | 4 |
| Total | | 195 | 224 | 105 | 104 | 107 | 103 | 419 | 426 |

**OPERATIONALLY VALID TESTS
MEETING ACCEPTANCE CRITERIA**



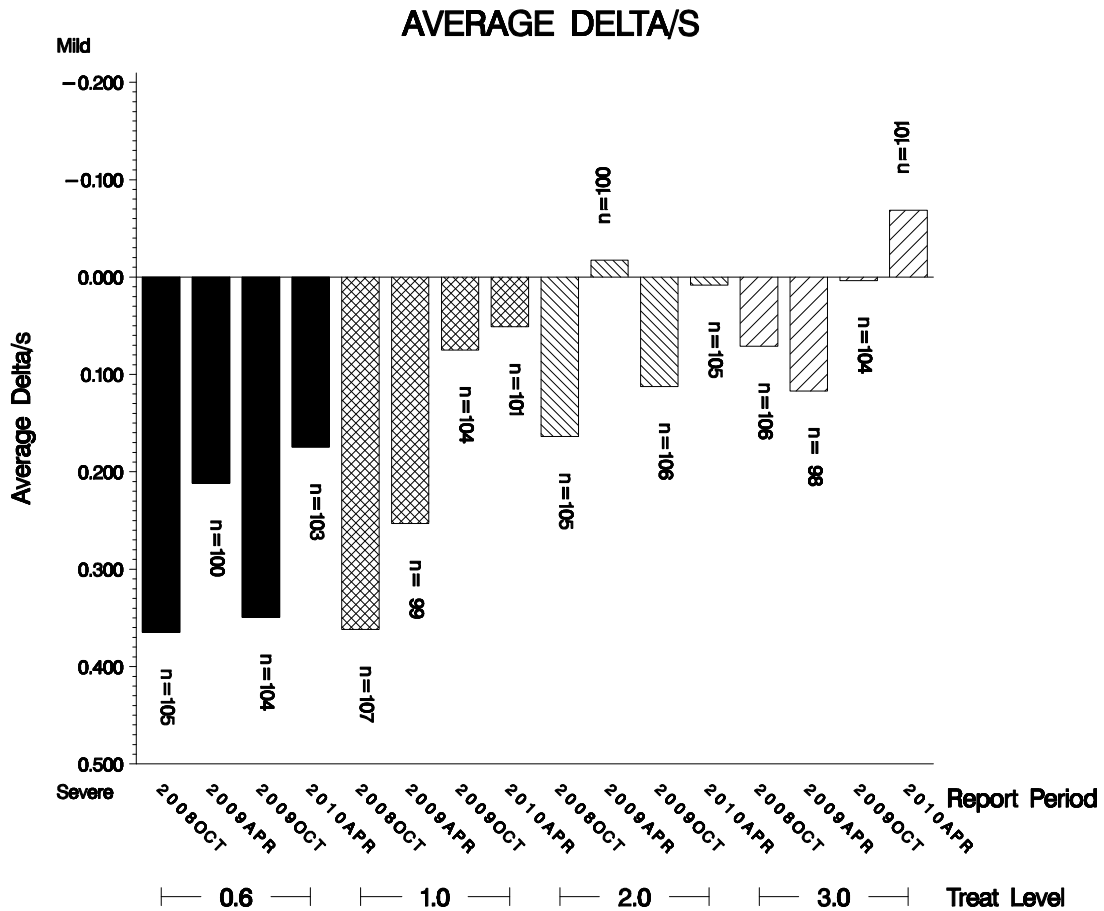
The above chart shows the percentage of accepted operationally valid tests.

Causes for Lost Tests

| Lab | Cause | Oil | | Validity | | | Loss Rate | | |
|-----|----------------|------|------|----------|-----|-----|-----------|--------|------|
| | | 77-1 | 78-1 | LC | RC | XC | Lost | Starts | % |
| A | Sample Spilled | ● | | ● | | | 2 | 419 | 0.4% |
| A | Mixing Error | ● | | | | ● | 3 | 419 | 0.7% |
| G | Mixing Error | | ● | | | ● | 4 | 419 | 1% |
| | Total | 4 | 5 | 4 | 0 | 5 | | | |
| | Starts | 195 | 224 | 419 | 419 | 419 | | | |
| | % | 2% | 2% | 1% | 0% | 1% | | | |

Average Δ /s by Lab and Treat Level

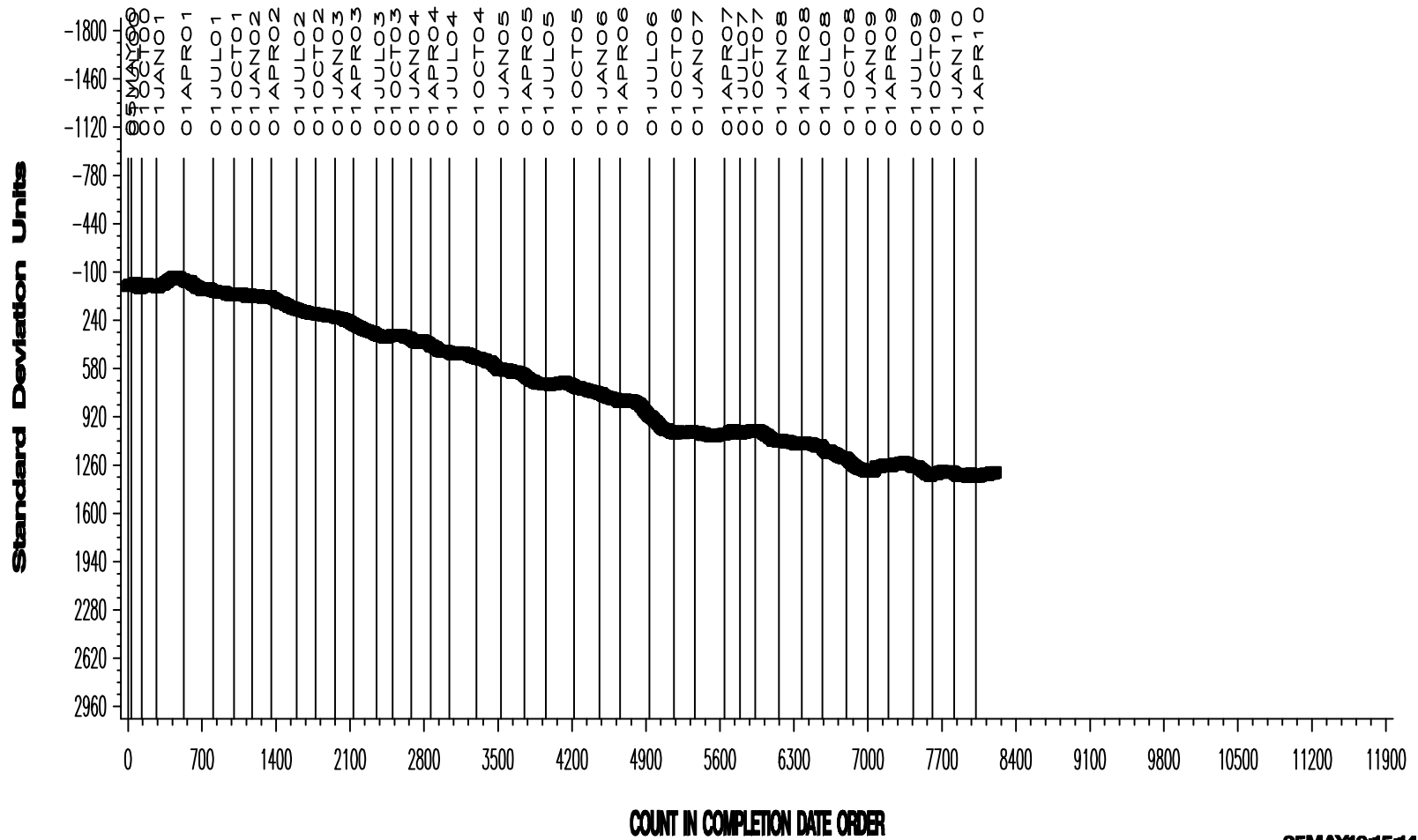
| Treat Level | Lab | n | CFAYI |
|-------------|----------|-----|--------|
| 0.6 | A | 44 | -0.726 |
| | B | 20 | 0.540 |
| | G | 39 | 1.004 |
| | Industry | 103 | 0.175 |
| 1.0 | A | 43 | -0.574 |
| | B | 20 | -0.483 |
| | G | 38 | 1.039 |
| | Industry | 101 | 0.051 |
| 2.0 | A | 46 | -0.655 |
| | B | 20 | -0.751 |
| | G | 39 | 1.180 |
| | Industry | 105 | 0.008 |
| 3.0 | A | 43 | -0.533 |
| | B | 20 | -0.939 |
| | G | 38 | 0.915 |
| | Industry | 101 | -0.068 |



EOWT INDUSTRY OPERATIONALLY VALID DATA

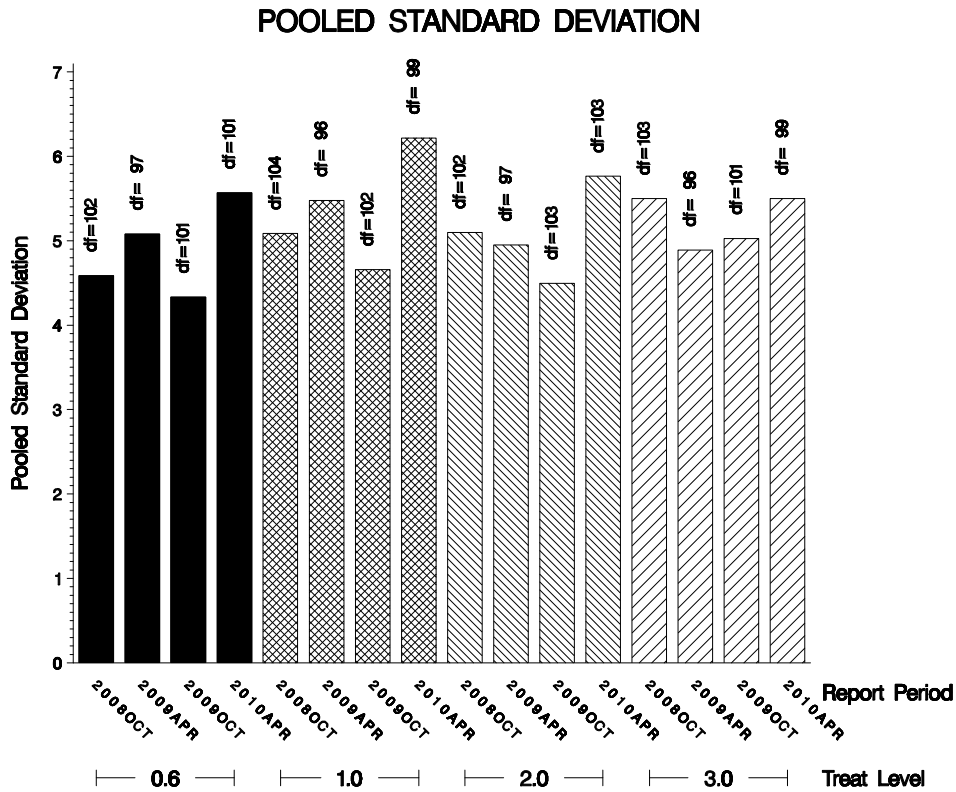
20 – 25 ML CHANGE IN FLOWRATE AVG.

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 | Samples @ Labs | @ TMC | |
|--------------|----------------|-------------|--------------|
| | | Samples | Gallons |
| 77-1 | 66 | 2701 | 208.0 |
| 78-1 | 64 | 1035 | 79.7 |
| Total | 130 | 3736 | 287.7 |

Be aware that this table presumes that all of each of these oils is dedicated to the EOWT test area. This is not the case, as oil 78-1 is 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 is comparable to previous periods.

MTK/mtk/astm0410.doc/mem10-023.doc.doc

c: F. M. Farber

J. A. Clark

EOWT Surveillance Panel

<ftp://ftp.astmtmc.cmu.edu/docs/bench/eowt/semiannualreports/eowt-04-2010.pdf>

Distribution: email