

### **Test Monitoring Center**

Carnegie Mellon University 6555 Penn Avenue, Pittsburgh, PA 15206, USA http://astmtmc.cmu.edu 412-365-1000

MEMORANDUM: 12-004

DATE: April 16, 2012

TO: Brian Koehler, Chairman, High Temperature Cyclic Durability Test

Surveillance Panel

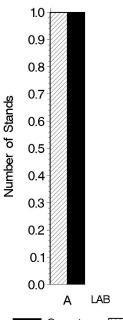
FROM: Scott Parke

SUBJECT: HTCT Testing from October 1, 2011 through March 31, 2012

One HTCT test was 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 | Calibrated on 3-31-12 |
|------------------|----------------|-----------------------|
| Number of Labs   | 1              | 1                     |
| Number of Stands | 1              | 1                     |

# BY-LAB STAND DISTRIBUTION



Report Period:

Current

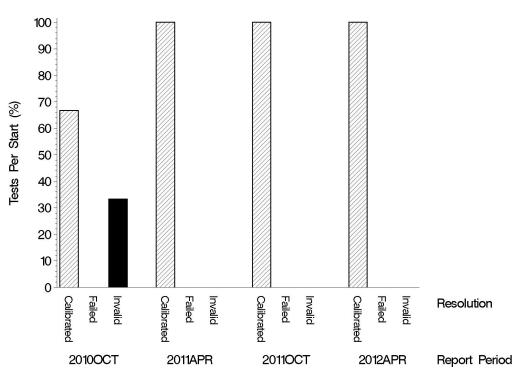
Previous

#### **Test Distribution by Oil and Validity**

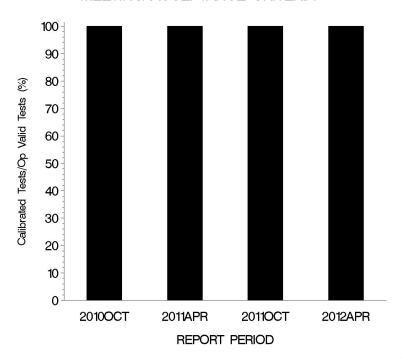
| Totals |
|--------|
|--------|

|                          |    | 150-2 | 154 | 155 | Last Period | This Period |
|--------------------------|----|-------|-----|-----|-------------|-------------|
| Accepted for calibration | AC | 0     | 0   | 1   | 1           | 1           |
| Rejected (Mild)          | OC | 0     | 0   | 0   | 0           | 0           |
| Rejected (Severe)        | OC | 0     | 0   | 0   | 0           | 0           |
| Rejected (Precision)     | OC | 0     | 0   | 0   | 0           | 0           |
| Invalidated calibration  | LC | 0     | 0   | 0   | 0           | 0           |
| Aborted                  | XC | 0     | 0   | 0   | 0           | 0           |
| Accepted information run | NN | 0     | 0   | 0   | 0           | 0           |
| Total                    |    | 0     | 0   | 1   | 1           | 1           |

#### CALIBRATION ATTEMPT SUMMARY



# OPERATIONALLY VALID TESTS MEETING ACCEPTANCE CRITERIA

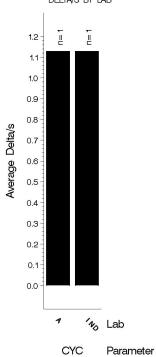


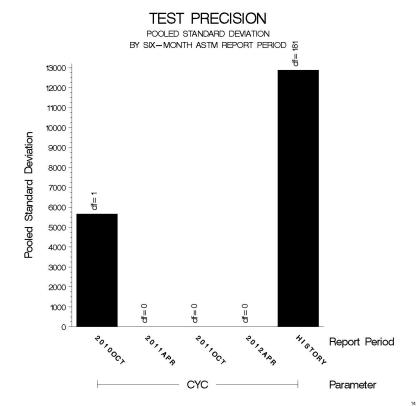
#### CAUSES FOR LOST TESTS:

|                                 |       |        | Oil   |     | Validity |    |    | Loss Rate |      |        |   |
|---------------------------------|-------|--------|-------|-----|----------|----|----|-----------|------|--------|---|
| Lab                             | Cause |        | 150-2 | 154 | 155      | RC | LC | XC        | Lost | Starts | % |
| No tests were lost this period. |       |        |       |     |          |    |    | 0         | 1    | 0%     |   |
|                                 |       | Lost   | 0     | 0   | 0        | 0  | 0  | 0         |      |        |   |
|                                 |       | Starts | 0     | 0   | 1        | 1  | 1  | 1         |      |        |   |
|                                 |       | %      | 0%    | 0%  | 0%       | 0% | 0% | 0%        |      |        |   |

| Average Δ/s by Lab |   |       |  |  |
|--------------------|---|-------|--|--|
| Lab n CYC          |   |       |  |  |
| A                  | 1 | 1.13  |  |  |
| Industry           | 1 | 1.13  |  |  |
| Shift              | 1 | 10896 |  |  |

## TEST SEVERITY DELTA/S BY LAB



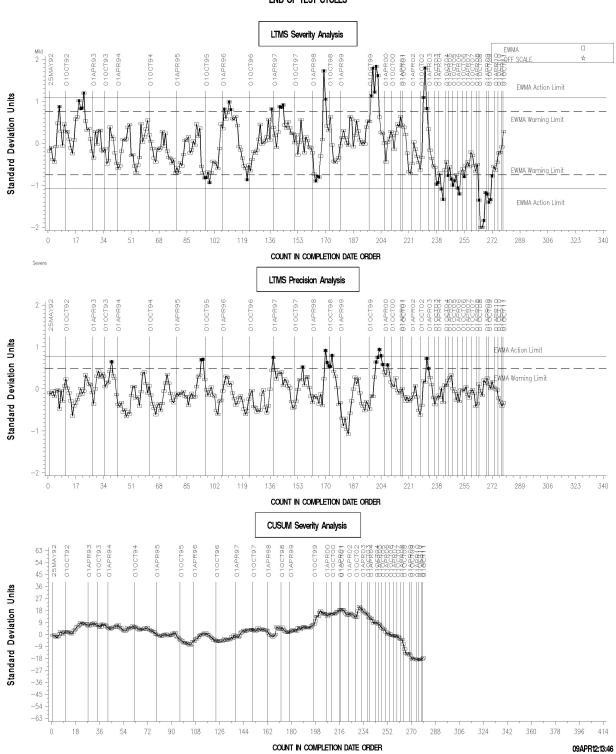


#### **INDUSTRY CONTROL CHART:**

The industry control chart is shown below. CYC is currently within both severity and precision limits. Average  $\Delta$ /s reported this period was 1.13.

#### HTCT INDUSTRY OPERATIONALLY VALID DATA

#### END OF TEST CYCLES



### TIMELINE OF SIGNIFICANT EVENTS IN THE HISTORY OF THE HTCT TEST:

| Effective Date | Information<br>Letter | Event   |  |  |
|----------------|-----------------------|---|--|--|
| 19960701       |                       | Surveillance panel approved acceptance bands and targets  |  |  |
| 19961210       | 97-1                  | Change to allow replacement of main box shift rail cover with aluminum plate  |  |  |
| 19970324       | 97-1                  | Forms and data dictionary changes, version 19970128   |  |  |
| 19970918       | 97-2                  | Replacement of appendix x1 with annex a5 (editorial changes)  |  |  |
| 19971110       | 97-3                  | Revison to shift time definition and inclusion of shift time plot   |  |  |
| 19980209       | 98-1                  | Revison to shift time definition and inclusion of shift time plot   |  |  |
| 19980215       |                       | First test on new sychronizer assembly reported   |  |  |
| 19980626       | 98-2                  | Defined acceptable hardare configuations, revised forms and data dictionary to document hardware configuration utilized |  |  |
| 19990413       | 99-1                  | Clarified the calibration period, allows non-reference oil tests to start up to and including                           |  |  |
| 19990413       | 99-1                  | The last day of the calibration period.   |  |  |
| 19990625       | 99-2                  | Redefined acceptable hardware configurations  |  |  |
| 20000613       | 00-1                  | Requires use of TESTWMPC5460 friction plates  |  |  |
| 20020920       | 02-1                  | Failing reference oil run requirement   |  |  |
| 20020920       | 02-1                  | Test hardware correction and revisions  |  |  |
| 20030916       | 03-1                  | Report Forms and Data Dictionary  |  |  |
| 20040101       | 03-1                  | Cleaning Solvent Specification  |  |  |
| 20041203       | 04-1                  | One Quart Test Oil EOT Save Requirement Dropped   |  |  |
| 20050221       | 05-1                  | Revised Solvent Specification   |  |  |
| 20050504       | 05-2                  | Surveillance Panel Use of Donated Reference Oil Test Programs   |  |  |
| 20050504       | 05-2                  | Guidelines for Shortening or Lengthening Reference Oil Calibration Periods  |  |  |
| 20050504       | 05-2                  | Updated Test Precision  |  |  |
| 20050504       | 05-2                  | Rounding Test Results Using ASTM E 29   |  |  |
| 20050504       | 05-2                  | Piston, High Low Range Shift Outside Diameter Specification   |  |  |
| 20050504       | 05-2                  | Company Name Change   |  |  |
| 20060911       |                       | Reference oil targets set using only configuration 2 data   |  |  |
| 20090327       | 09-1                  | Revision to Percent Deviation Calculation   |  |  |
| 20090519       | 09-2                  | Shift Time RPM Correction   |  |  |
| 20091002       | 09-3                  | P/Ns revised to Volvo part numbers.   |  |  |
| 20110601       | 11-1                  | Remove requirement for mailing paper test report to TMC.  |  |  |

#### TMC LAB VISITS:

No HTCT lab visits were conducted this report period.

#### **INFORMATION LETTERS:**

No information letters were issued this period.

#### STATUS OF REFERENCE OIL SUPPLY:

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

|       |             | @ TMC |         |  |
|-------|-------------|-------|---------|--|
| Oil   | Cans @ Labs | Cans  | Gallons |  |
| 150-2 | 3           | 3     | 33.7    |  |
| 154   | 4           | 16    | 176.0   |  |
| 155   | 0           | 9     | 102.9   |  |
| 155-1 | 3           | 40    | 446.8   |  |
| Total | 10          | 68    | 759.3   |  |

The TMC quantity remaining presumes usage only for HTCT testing. Oil 155 is also used in other test areas. TMC has recently acquired a reblend of oil 155. This oil is ready for introduction. A total of 6 tests-worth of oil 150-2 remain. Oil 154 is the replacement and is ready for introduction. The Surveillance Panel has not yet devised a scheme for introducing the new oils.

SDP/sdp/mem12-004.sdp.doc

cc: Frank Farber Jeff Clark

HTCT Surveillance Panel

ftp://ftp.astmtmc.cmu.edu/docs/gear/htct/semiannualreports/htct-04-2012.pdf

Distribution: email