A Program of ASTM International

Test Monitoring Center

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

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

MEMORANDUM: 13-031

DATE: May 17, 2013

TO: Gil Reinhard, Chairman, CBT Surveillance Panel

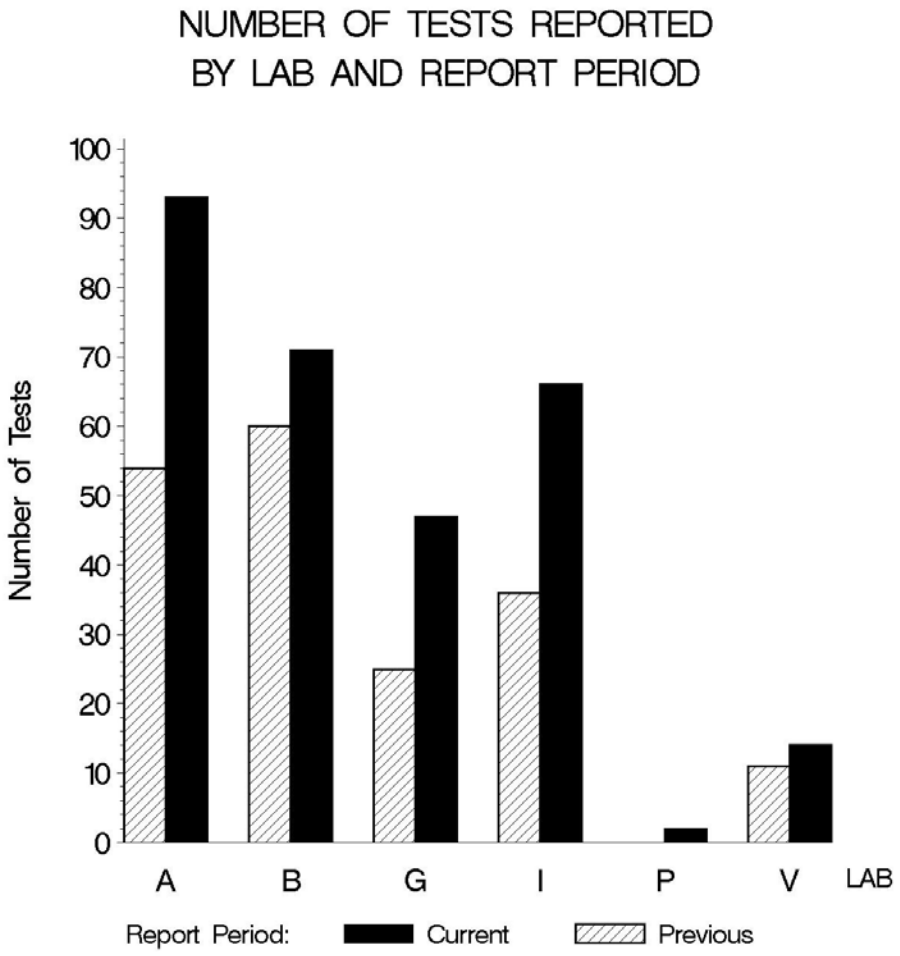
FROM: Michael T. Kasimirsky

SUBJECT: HTCBT Testing from October 1, 2012 through March 31, 2013

A total of 293 HTCBT tests were reported to the Test Monitoring Center during the period from October 1, 2012 through March 31, 2013. Following is a summary of testing activity this period.

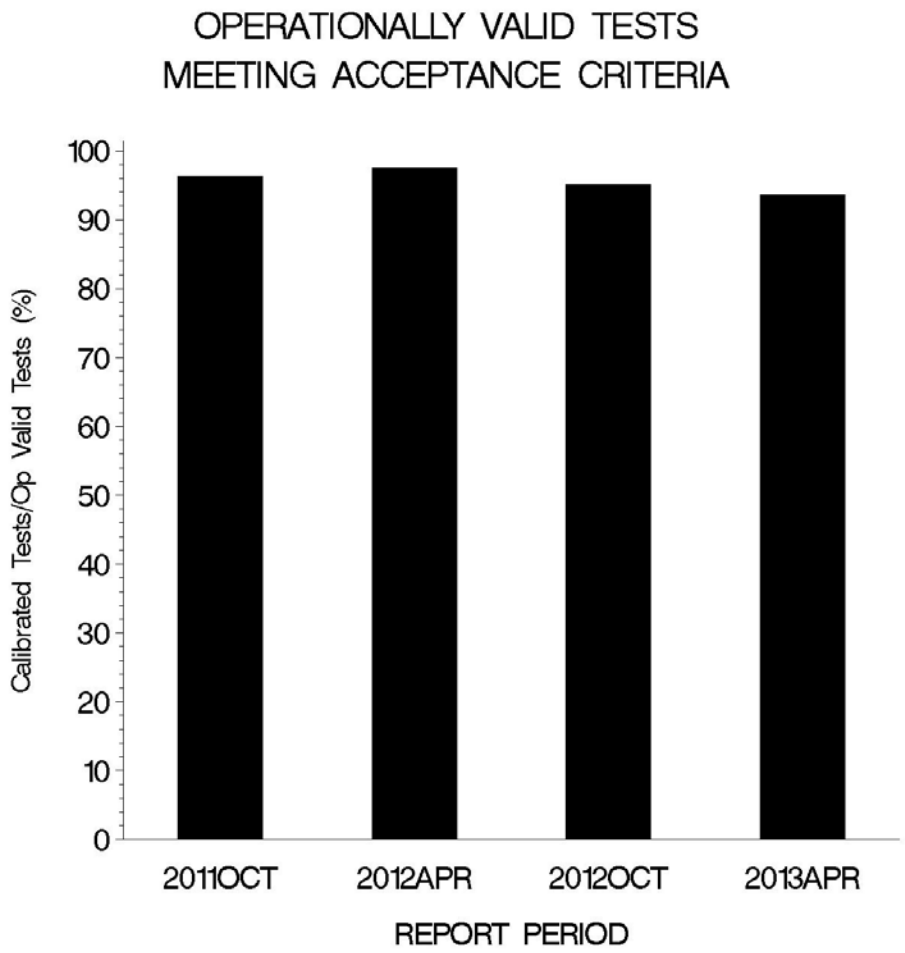
	Reporting Data
Number of Labs	6

Tests reported this period were distributed as shown below:



Test Distribution by Validity

	TMC Validity Codes	No. of Tests
Operationally and Statistically Acceptable	AC	230
Failed Acceptance Criteria	OC	16
Operationally Invalid	LC, RC	7
Aborted	XC	0
Acceptable Donated Tests	AG, NI	30
Unacceptable Donated Tests	OG, MI	10
Total		293



The above chart shows the percentage of accepted operationally valid tests. Sixteen tests failed to meet the acceptance criteria this period.

The reasons for failed, invalid, or aborted tests are shown in the following tables:

Summary of Reasons for Failed Tests

	No. of Tests
Copper, severe	2
Copper, mild	3
Lead, severe	6
Lead, mild	2
Copper & Lead, severe	3

Summary of Reasons for Invalid Tests

	No. of Tests
Sample Problem	2
Bath Failure	1
Wrong Oil Used	1
Wrong Coupon Manufacturer	3

Summary of Reasons for Aborted Tests

	No. of Tests
No tests aborted this period	0

Industry Severity Summary

The following table shows the average Δ/s, by laboratory and for the industry overall, for both copper and lead concentration for this ASTM report period.

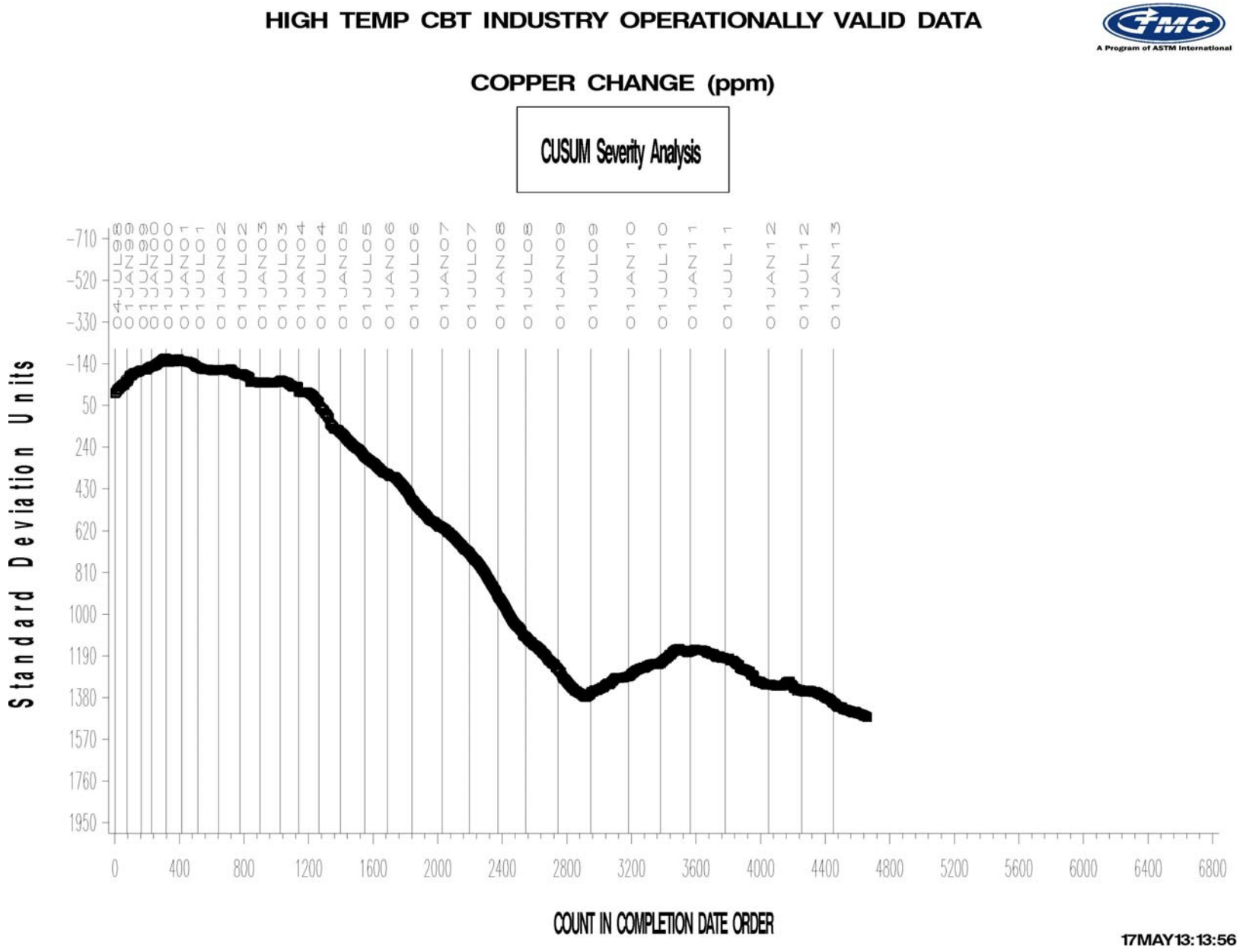
Average Δ/s by Lab

Lab	n	CUC	PBC
A	81	1.107	-0.267
B	61	0.211	-0.576
G	35	0.877	0.725
I	56	-0.993	0.259
P	2	0.991	-0.321
V	11	1.026	3.384
Industry	246	0.369	0.080

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

ftp://ftp.astmtmc.cmu.edu/refdata/bench/htcbt/data/

The plots of summation delta/s from target for change in copper and change in lead, respectively, are shown on the following pages. Copper concentration results are very slightly severe and lead concentration results are on target for the period.


HIGH TEMP CBT INDUSTRY OPERATIONALLY VALID DATA
A Program of ASTM International
COPPER CHANGE (ppm)
CUSUM Severity Analysis
Standard Deviation Units
-710
-520
-330
-140
50
240
430
620
810
1000
1190
1380
1570
1760
1950
01JAN98
01JUL98
01JAN99
01JUL99
01JAN00
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01JAN12
01JUL12
01JAN13
0
400
800
1200
1600
2000
2400
2800
3200
3600
4000
4400
4800
5200
5600
6000
6400
6800
COUNT IN COMPLETION DATE ORDER
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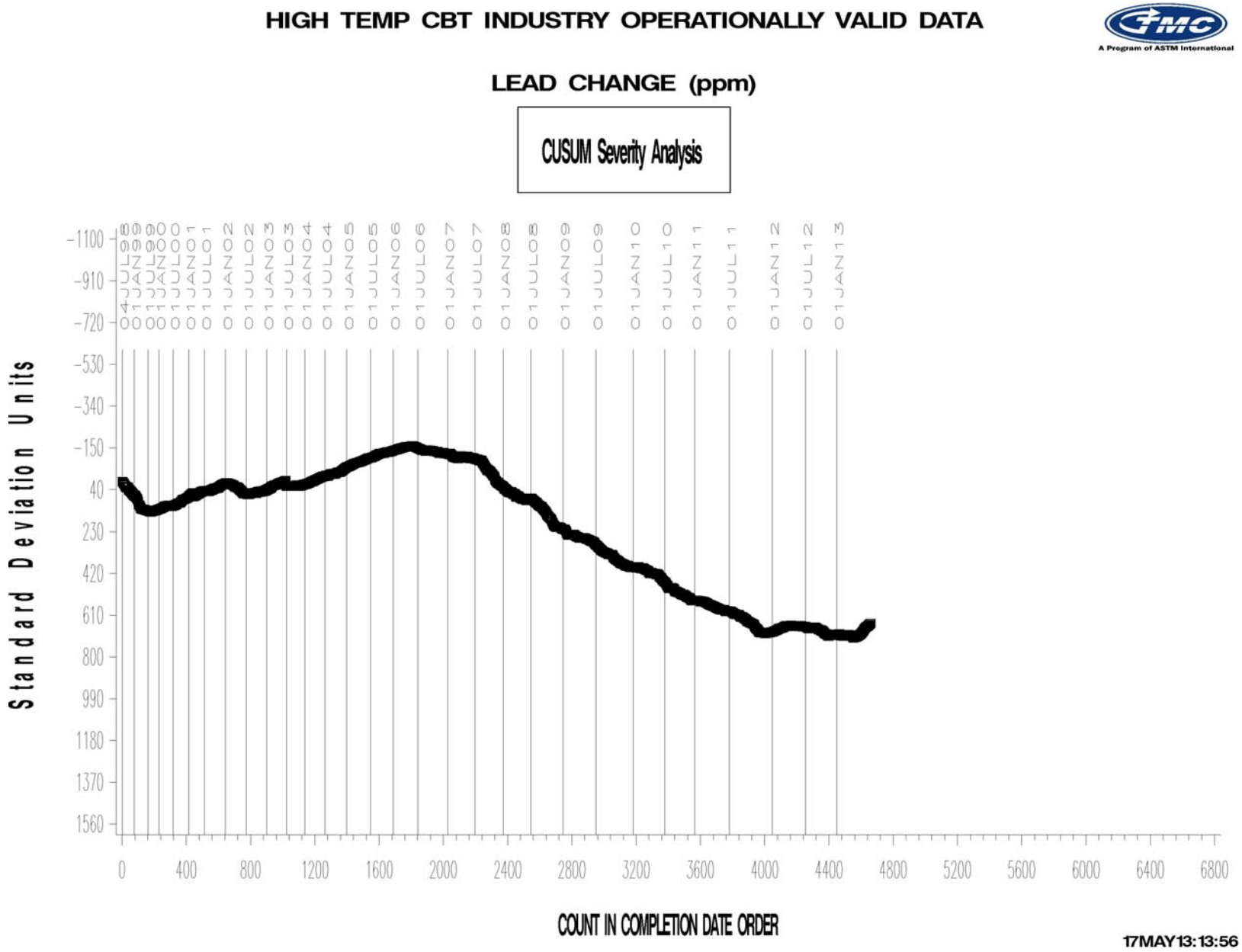
HIGH TEMP CBT INDUSTRY OPERATIONALLY VALID DATA
A Program of ASTM International
LEAD CHANGE (ppm)
CUSUM Severity Analysis
Standard Deviation Units
-1100
-910
-720
-530
-340
-150
40
230
420
610
800
990
1180
1370
1560
01JUL95
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4000
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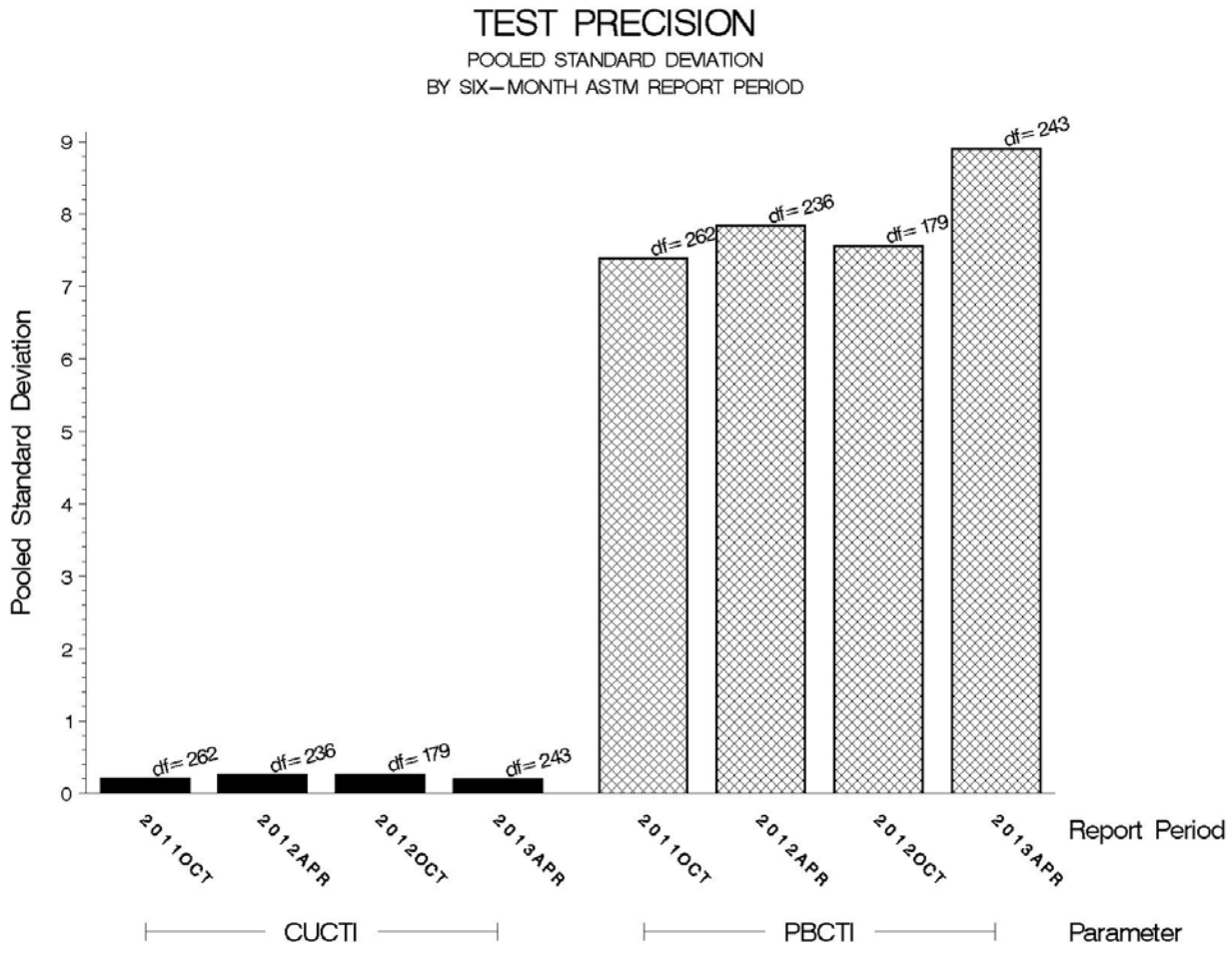
4800
5200
5600
6000
6400
6800
COUNT IN COMPLETION DATE ORDER
17MAY13:13:56

POOLED S:

Precision estimates, by report period are depicted below. Precision estimates for both copper and lead are within historical levels.



STATUS OF REFERENCE OIL SUPPLY:
At the end of this report period, the testing oil supply stood as outlined in the following table:

		@ TMC	
Oil	Samples @ Labs	Samples	Gallons
44-1	0	0	0.0
44-2	2	0	0.0
44-3	92	768	24.0
1005-1	0	0	0.0
1005-3	116	982	30.7
Total	210	1750	54.7

The TMC supply of reference oil 44-2 has been depleted. The TMC has procured a reblend of this oil, reference oil 44-3, which has been introduced into the reference oil system at this time. A quantity of reference oil 1005-3 has been set aside for HTCBT use exclusively; the quantity remaining of that reserved amount is shown in the table.

INFORMATION LETTERS:
No information letters were issued this period.

SUMMARY

- Over the course of this report period, copper severity, as measured by cusum plotting, was very slightly severe.

- Over the course of this report period, lead severity, as measured by cusum plotting, was on target.

  Precision, as measured by pooled standard deviation, is still comparable to historical levels, for both copper and lead concentration.

MTK/mtk/astm0413.doc/mem13-031.mtk.doc
c: F. M. Farber
J. A. Clark
CBT Surveillance Panel
ftp://ftp.astmtmc.cmu.edu/docs/bench/htcbt/semiannualreports/htcbt-04-2013.pdf

Distribution: email