



## Test Monitoring Center


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

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

MEMORANDUM: 13-020

DATE: April 16, 2013

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

FROM: Scott Parke 

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

Please find attached a summary of testing activity this period.

SDP/sdp/mem13-020.sdp.doc

cc: Frank Farber

Jeff Clark

HTCT Surveillance Panel

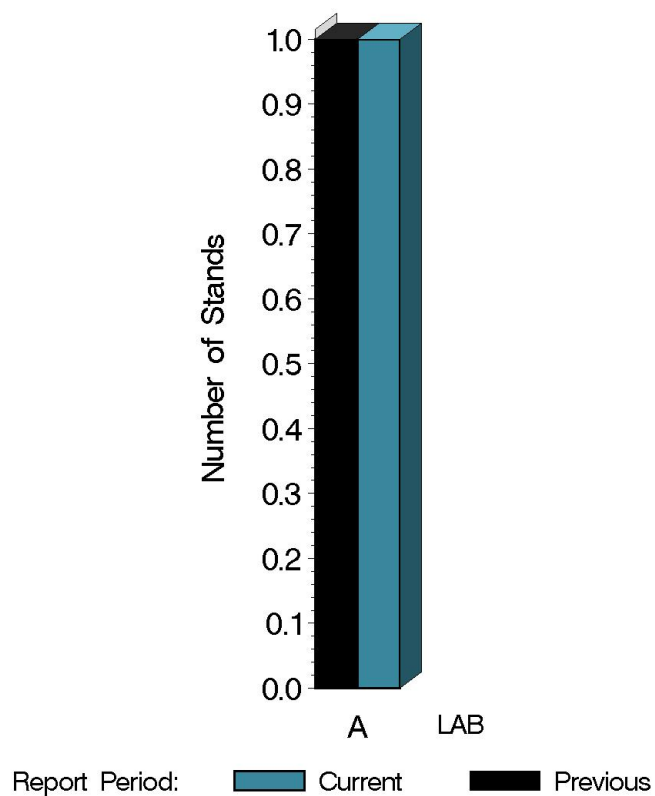
<ftp://ftp.astmtmc.cmu.edu/docs/gear/htct/semiannualreports/htct-04-2013.pdf>

Distribution: email

# High Temperature Cyclic Transmission

	Reporting Data	Calibrated on 3-31-13
Number of Labs	1	1
Number of Stands	1	1

BY-LAB STAND  
DISTRIBUTION



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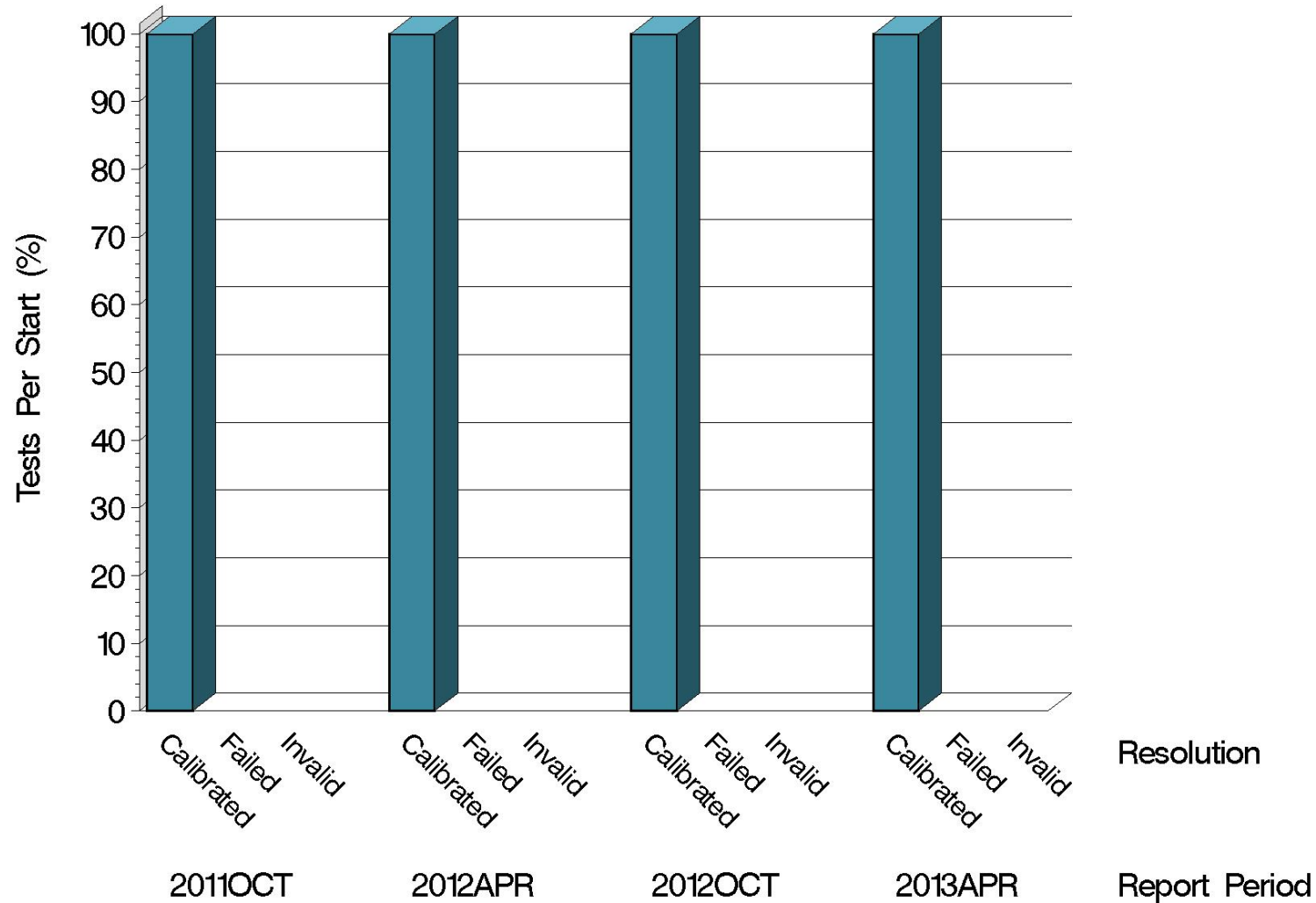
# High Temperature Cyclic Transmission

## Test Distribution by Oil and Validity

					Totals	
					Last Period	This Period
		150-2	155	155-1		
Accepted for calibration	AC	0	1	2	1	3
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	NI	0	0	0	1	0
Total		0	1	2	2	3

# High Temperature Cyclic Transmission

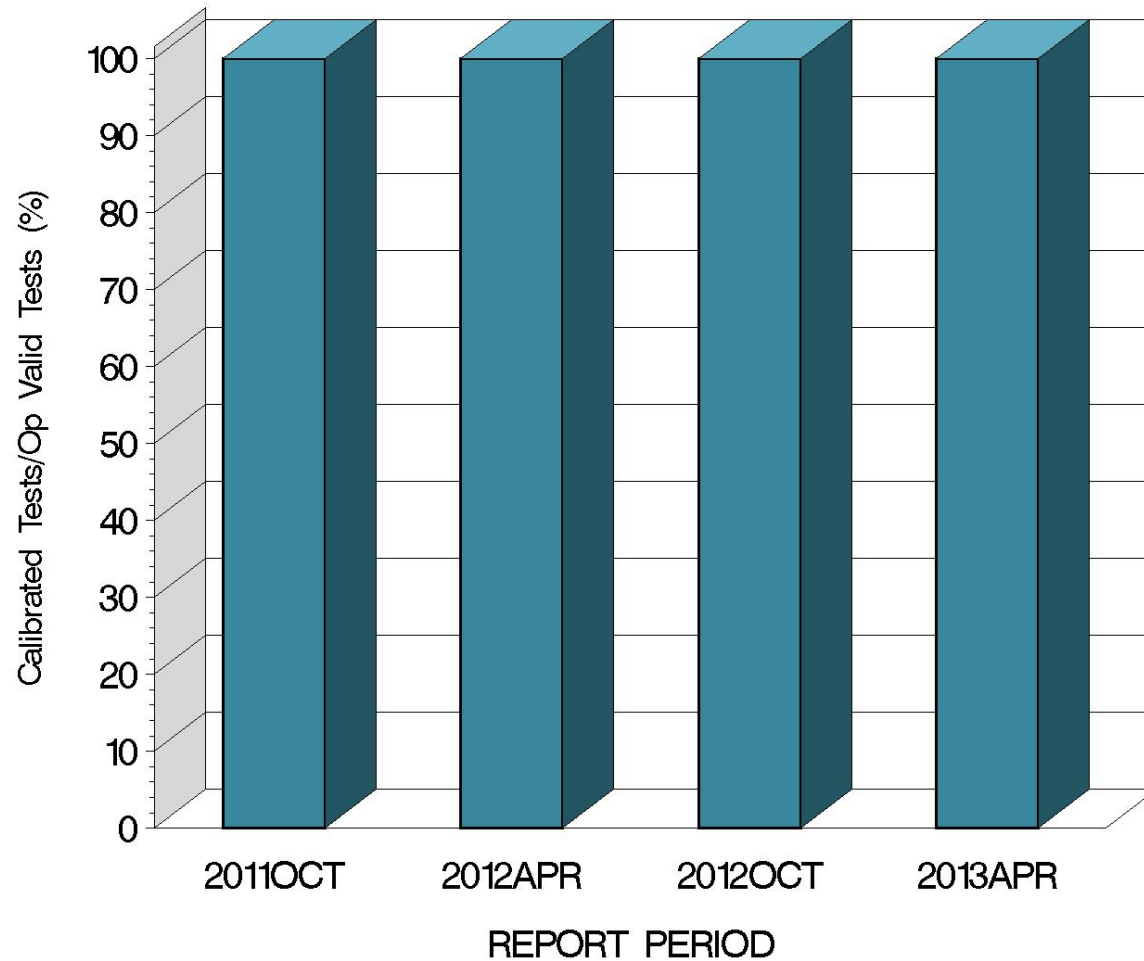
## CALIBRATION ATTEMPT SUMMARY



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# High Temperature Cyclic Transmission

OPERATIONALLY VALID TESTS  
MEETING ACCEPTANCE CRITERIA



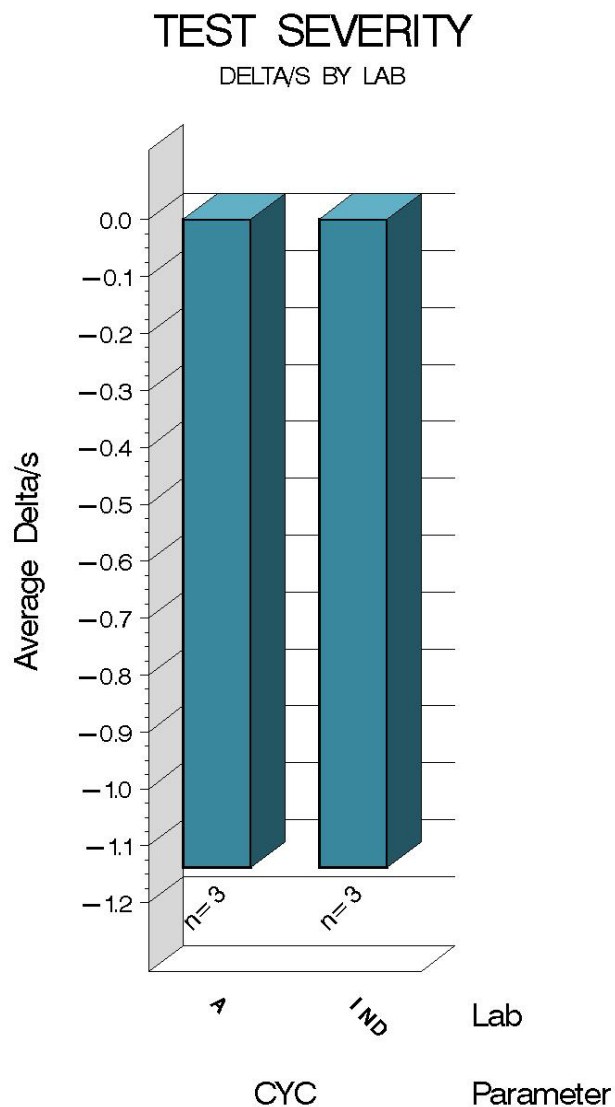
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# High Temperature Cyclic Transmission

## CAUSES FOR LOST TESTS

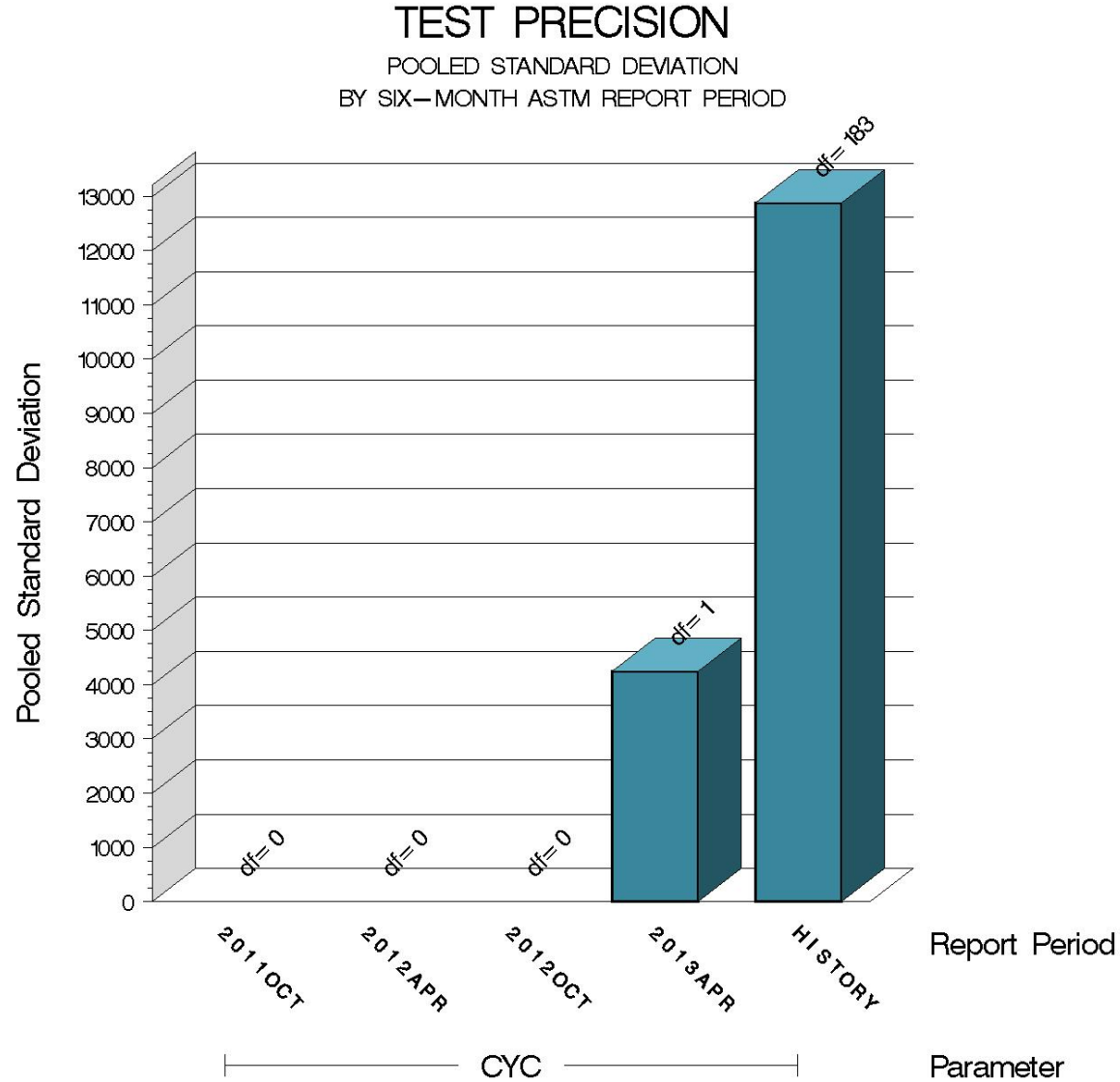
		Oil			Validity			Loss Rate		
Lab	Cause	150-2	155	155-1	RC	LC	XC	Lost	Starts	%
	No tests were lost this period.							0	3	0%
	Lost	0	0	0	0	0	0			
	Starts	0	1	2	3	3	3			
	%	0%	0%	0%	0%	0%	0%			

# High Temperature Cyclic Transmission



Average $\Delta/s$ by Lab		
Lab	n	CYC
A	3	-1.14
Industry	3	-1.14
Shift	3	-11004

# High Temperature Cyclic Transmission



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# High Temperature Cyclic Transmission

## SUMMARY OF SEVERITY & PRECISION

Severity
CYC severity remained within control chart limits over the three tests reported this period.
Precision
CYC precision remained within control chart limits throughout this period.

Industry control charts follow.

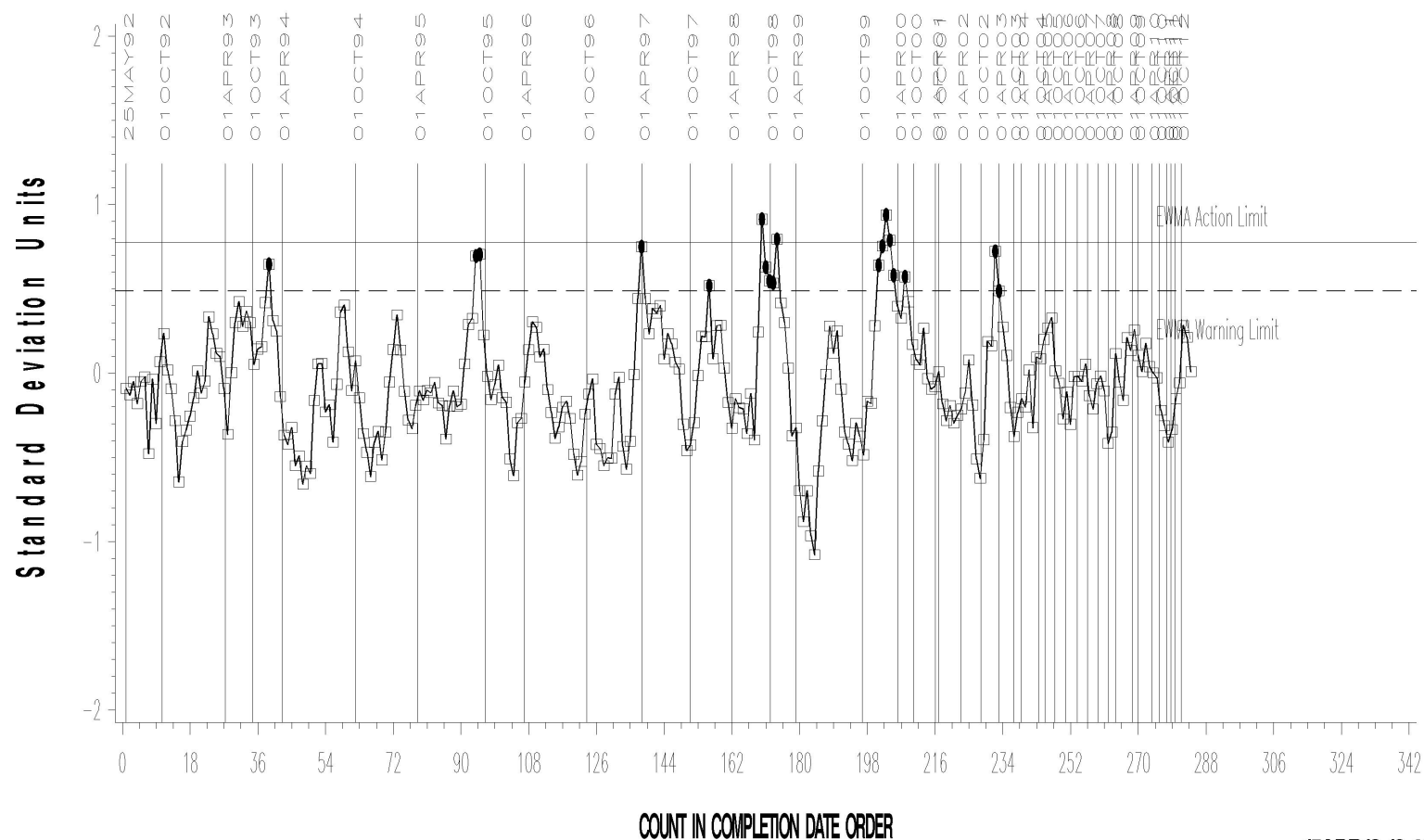


## High Temperature Cyclic Transmission

## HTCT INDUSTRY OPERATIONALLY VALID DATA

**END OF TEST CYCLES**

## LTMS Precision Analysis



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## High Temperature Cyclic Transmission

## HTCT INDUSTRY OPERATIONALLY VALID DATA

**END OF TEST CYCLES**

### CUSUM Severity Analysis



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# High Temperature Cyclic Transmission

## TIMELINE ADDITIONS

Effective Date	Information Letter	Event
20130206	13-1	Documentation of tests using FSB 431-003 range clutch synchronizer components as "CONFIGURATION3".

# High Temperature Cyclic Transmission

## LAB VISITS

No HTCT lab visits were conducted during this period.

## INFORMATION LETTERS

Information Letter 13-1 was issued during this period to add instructions for documenting tests using FSB 431-003 range clutch synchronizer components as “CONFIGURATION3”.

# High Temperature Cyclic Transmission

## STATUS OF REFERENCE OIL SUPPLY

		@ TMC	
Oil	Cans @ Labs	Cans	Gallons
150-2	0	3	33.7
154	2	16	176.0
155	0	3	36.4
155-1	2	36	406.8
Total	4	58	652.8

The TMC quantity remaining presumes usage only for HTCT testing. Oil 155/155-1 is also used in other test areas (most notably L-37 and L-37-1). The reblended oil 155-1 was introduced last period. A total of 3 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 this oil.