



Test Monitoring Center

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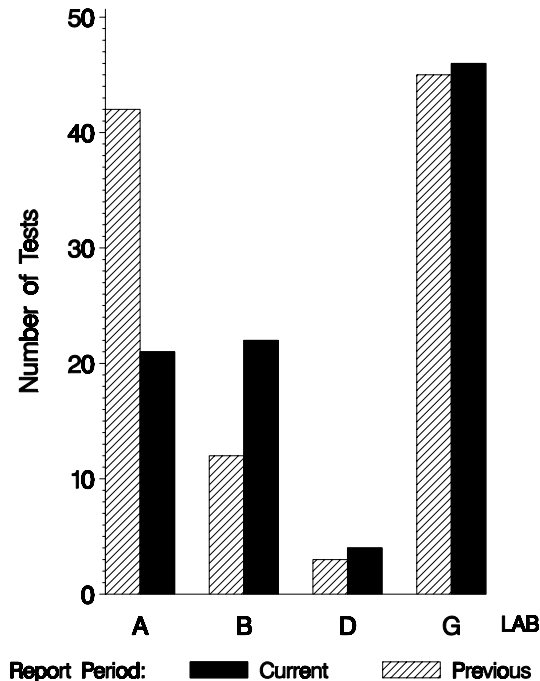
MEMORANDUM: 06-091
DATE: November 20, 2006
TO: Leonard Orzech,
Chairman, Ball Rust Test Surveillance Panel
FROM: Scott Parke
SUBJECT: BRT Testing from April 1, 2006 through September 30, 2006

A total of 93 BRT tests were reported to the Test Monitoring Center during the period from April 1, 2006 through September 30, 2006. The data from these tests is shown on page 5. Following is a summary of testing activity this period.

	Reporting Data
Number of Labs	4

Tests reported this period were distributed as shown below:

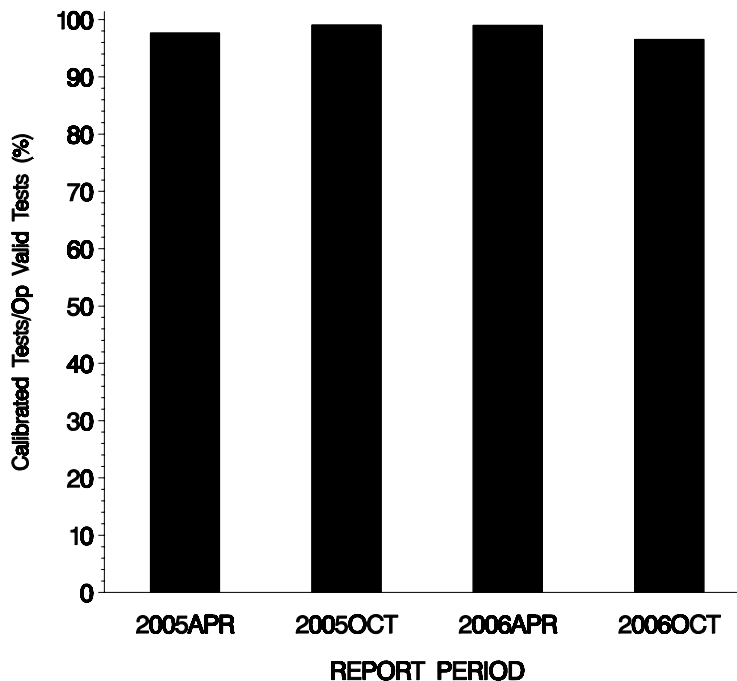
NUMBER OF TESTS REPORTED BY LAB AND REPORT PERIOD



Test Distribution by Oil and Validity

					Totals	
		1006	81	82	Last Period	This Period
Accepted for Calibration	AC	20	47	17	97	84
Hardware Qualification Run	NI	1	1	1	0	3
Rejected Mild	OC	0	0	2	0	2
Rejected Severe	OC	1	0	0	1	1
Operationally Invalid (lab)	LC	0	2	0	3	2
Operationally Invalid (lab/TMC)	RC	0	0	0	0	0
Aborted Calibration	XC	1	0	0	1	1
Total		23	50	20	102	93

**OPERATIONALLY VALID TESTS
MEETING ACCEPTANCE CRITERIA**



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

Lost Tests per Start by Lab and Oil

Lab	1006			81			82			Total		
	Lost	Starts	%	Lost	Starts	%	Lost	Starts	%	Lost	Starts	%
A	0	5	0	1	12	8	0	4	0	1	21	5
B	1	6	17	0	12	0	0	4	0	1	22	5
D	0	1	0	0	2	0	0	1	0	0	4	0
G	0	11	0	1	24	4	0	11	0	1	46	2
Total	1	23	4	2	50	4	0	20	0	3	93	3

Lost tests are those that were either aborted, rejected by lab, or operationally invalid.

Causes for Lost Tests

Lab	Cause	Oil			Validity			Loss Rate		
		1006	81	82	LC	RC	XC	Lost	Starts	%
A	Syringe pump failure.	●	●		●			1	21	
B	Shaker table failure at 13hrs.	●					●	1	22	
G	Acid pump failure.		●		●			1	46	0%
	Lost	1	2	0	0	0	0			
	Starts	23	50	20	93	93	93			
	%	0%	0%	0%	0%	0%	0%			

Average Δ /s by Lab		
Lab	n	AGVYI
A	20	0.083
B	18	0.600
D	4	0.847
G	45	1.028
Industry	87	0.714

DATA FROM ALL OPERATIONALLY VALID TESTS REPORTED THIS PERIOD:

LTMS DATE	LAB	OIL	AGV	AGVYI
20060405	A	81	117	0.357
20060405	G	82	67	1.696
20060407	G	81	134	1.571
20060407	D	81	136	1.714
20060411	G	1006	133	0.693
20060413	B	1006	110	-2.497
20060413	G	81	133	1.500
20060418	A	81	113	0.071
20060418	G	82	51	0.304
20060419	G	82	56	0.739
20060420	A	1006	129	0.139
20060421	G	1006	132	0.555
20060424	B	81	130	1.286
20060425	G	81	132	1.429
20060426	B	81	129	1.214
20060427	G	81	121	0.643
20060429	B	82	49	0.130
20060501	G	81	130	1.286
20060502	A	81	114	0.143
20060502	G	1006	129	0.139
20060503	A	81	114	0.143
20060512	A	82	42	-0.478
20060512	G	81	137	1.786
20060516	B	81	130	1.286
20060516	G	82	68	1.783
20060517	A	1006	130	0.277
20060519	G	81	132	1.429
20060523	G	1006	133	0.693
20060525	A	81	123	0.786
20060526	A	81	119	0.500
20060531	B	82	34	-1.174
20060531	D	81	129	1.214
20060606	B	81	134	1.571
20060607	G	81	134	1.571

LTMS DATE	LAB	OIL	AGV	AGVYI
20060609	G	81	128	1.143
20060614	B	81	130	1.286
20060615	G	81	132	1.429
20060616	G	81	134	1.571
20060620	B	1006	132	0.555
20060621	G	82	85	3.261
20060622	D	82	48	0.043
20060626	G	1006	129	0.139
20060627	A	82	36	-1.000
20060627	G	81	131	1.357
20060628	G	82	57	0.826
20060630	G	81	136	1.714
20060706	B	81	132	1.429
20060706	G	81	136	1.714
20060711	G	1006	131	0.416
20060712	A	81	120	0.571
20060713	G	82	87	3.435
20060717	G	81	123	0.786
20060718	G	1006	123	-0.693
20060719	A	81	121	0.643
20060719	B	1006	132	0.555
20060719	G	81	126	1.000
20060720	A	81	125	0.929
20060725	G	82	67	1.696
20060727	B	81	133	1.500
20060728	G	1006	115	-1.803
20060801	A	81	123	0.786
20060803	G	82	66	1.609
20060804	D	1006	131	0.416
20060809	G	81	127	1.071
20060810	B	81	129	1.214
20060810	G	81	117	0.357
20060811	G	81	117	0.357
20060816	G	81	128	1.143
20060817	B	82	46	-0.130
20060818	A	1006	118	-1.387
20060823	G	81	123	0.786
20060823	B	81	122	0.714
20060824	G	1006	128	0.000
20060825	G	82	66	1.609
20060829	G	82	64	1.435
20060831	B	81	126	1.000
20060902	A	81	125	0.929
20060906	G	81	132	1.429
20060912	A	1006	126	-0.277
20060913	B	1006	128	0.000
20060914	G	1006	127	-0.139

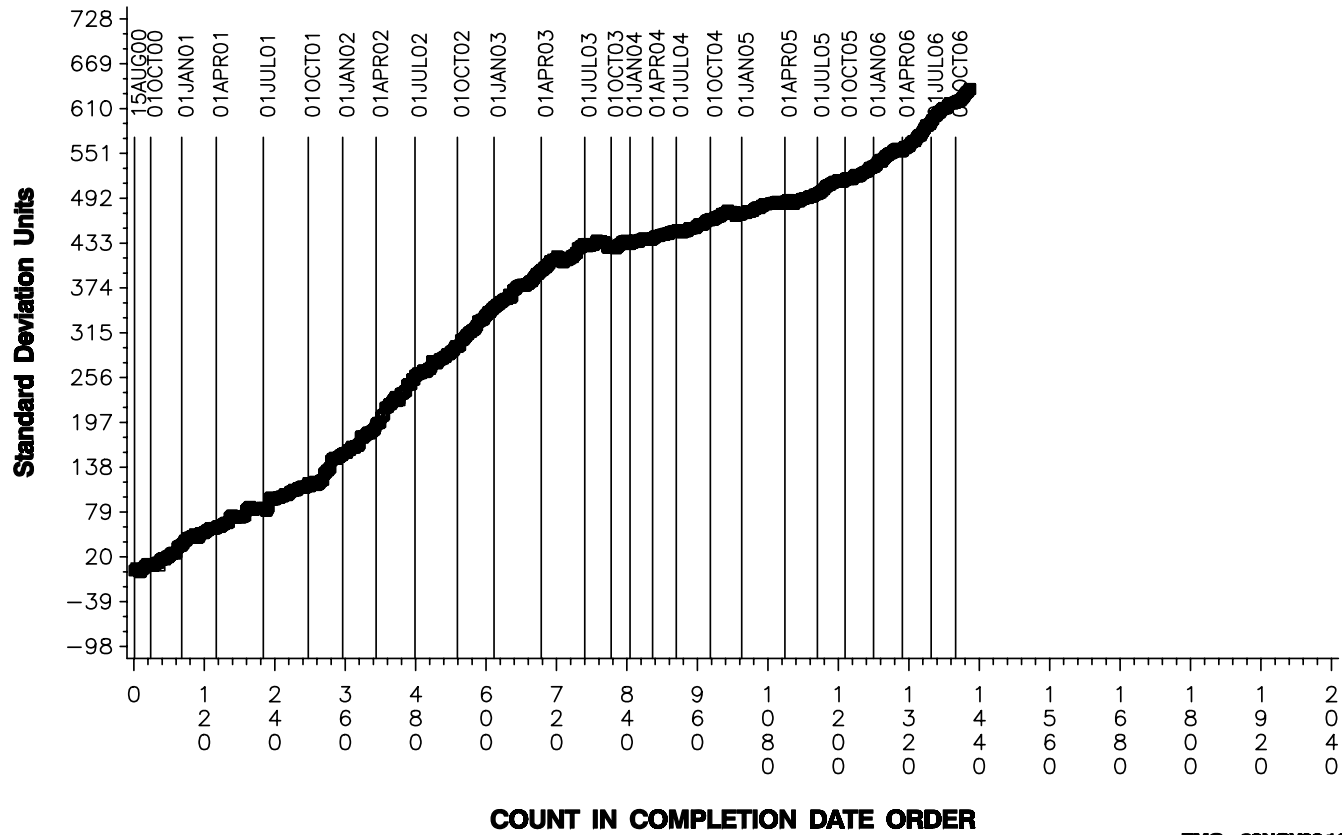
LTMS DATE	LAB	OIL	AGV	AGVYI
20060918	G	1006	125	-0.416
20060920	A	1006	128	0.000
20060921	B	81	124	0.857
20060922	A	82	39	-0.739
20060925	G	81	129	1.214
20060926	A	82	39	-0.739

CUSUM PLOT

BALL RUST TEST INDUSTRY OPERATIONALLY VALID DATA

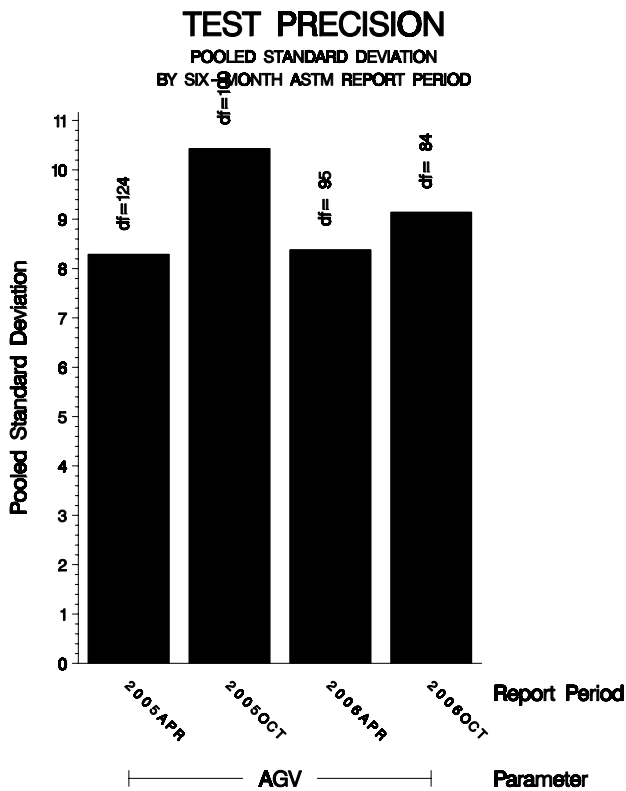
REFERENCE AVERAGE GRAY VALUE

CUSUM Severity Analysis



POOLED S:

Pooled s for this period is 9.14. Shown below are bar charts comparing the pooled s values for AGV over the last four report periods. Where degrees of freedom equal zero, no bars are shown. This will occur where only one test was reported or where multiple tests are reported but all are on different oils. Periods showing no information had no tests reported.



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
1006	43	5162	41.3
81	52	1975	15.8
82	43	1037	8.3
Total	138	8174	65.4

* Future reblends of oils marked with an asterisk are not obtainable by TMC.

INFORMATION LETTERS:

No information letters were issued during this report period.

SUMMARY

- Over the course of this report period, AGV severity as measured by cusum plotting continued the mild trend that has existed since the inception of the test.
- Precision as measured by pooled standard deviation is comparable to previous periods.

SDP/sdp/astm1006.doc/mem06-091.sdp.doc

c: J. L. Zalar
 F. M. Farber
 BRT Surveillance Panel
<ftp://ftp.astmtmc.cmu.edu/docs/bench/brt/semiannualreports/brt-10-2006.pdf>

Distribution: email