Test Monitoring Center
6555 Penn Avenue
Pittsburgh, PA 15206-4489
(412) 365-1000

MEMORANDUM: 07-087

DATE: November 28, 2007

TO: Leonard Orzech,
Chairman, Ball Rust Test Surveillance Panel

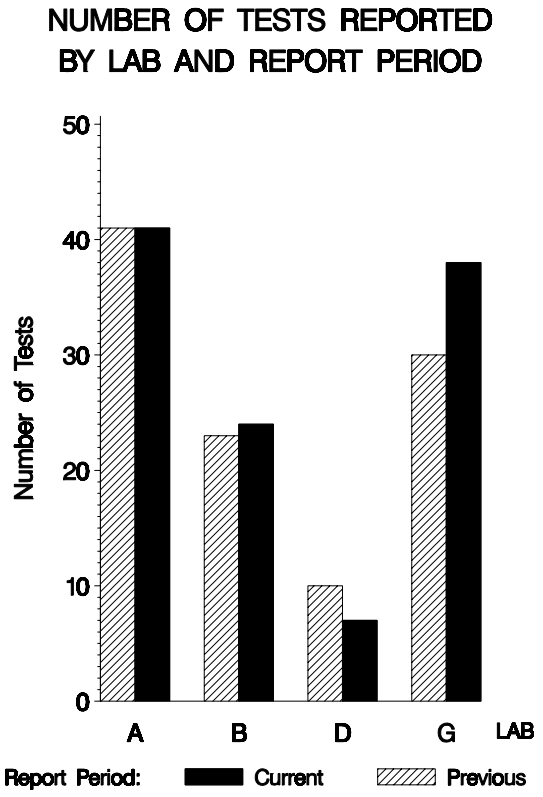
FROM: Scott Parke

SUBJECT: BRT Testing from April 1, 2007 through September 30, 2007

A total of 110 BRT tests were reported to the Test Monitoring Center during the period from April 1, 2007 through September 30, 2007. The data from these tests is shown beginning on page 5. Following is a summary of testing activity this period.

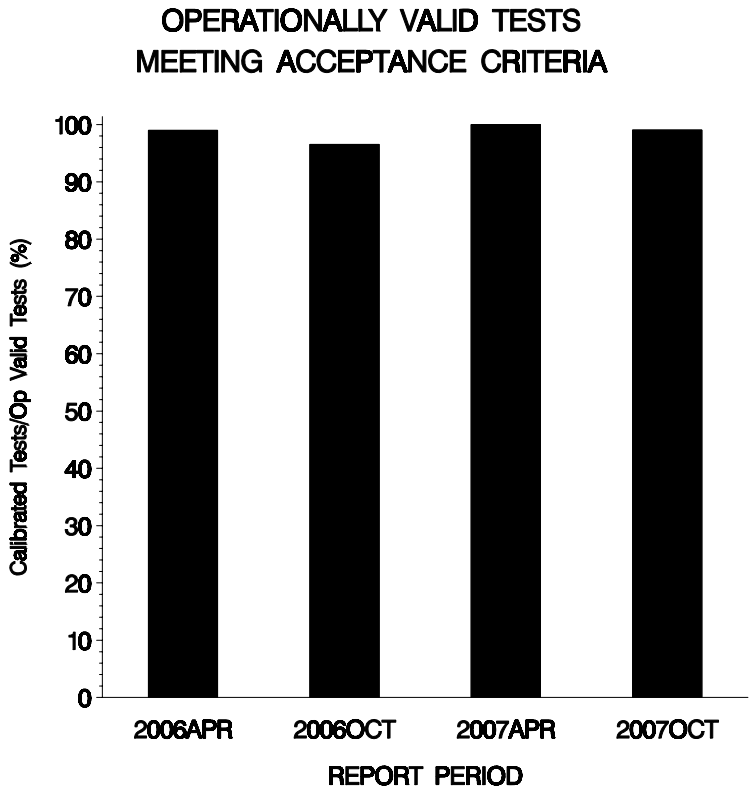
	Reporting Data
Number of Labs	4

Tests reported this period were distributed as shown below:



Test Distribution by Oil and Validity

					Totals	
		1006	**81**	**82**	Last Period	This Period
Accepted for Calibration	AC	26	53	24	102	103
Hardware Qualification Run	NI	0	0	0	0	0
Rejected Mild	OC	0	0	0	0	0
Rejected Severe	OC	1	0	0	0	1
Operationally Invalid (lab)	LC	0	0	2	1	2
Operationally Invalid (lab/TMC)	RC	0	0	0	0	0
Aborted Calibration	XC	0	2	2	1	4
Total		27	55	28	104	110



The above chart shows the percentage of accepted operationally valid tests. One test failed to meet the acceptance criteria this period; it was severe and ran oil 1006.

Lost Tests per Start by Lab and Oil

	1006			**81**			**82**			Total		
Lab	Lost	Starts	%	Lost	Starts	%	Lost	Starts	%	Lost	Starts	%
A	0	9	0	0	22	0	0	10	0	0	41	0
B	0	5	0	0	13	0	0	6	0	0	24	0
D	0	2	0	0	3	0	0	2	0	0	7	0
G	0	11	0	2	17	12	4	10	40	6	38	16
Total	0	27	0	2	55	4	4	28	14	6	110	5

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

Causes for Lost Tests

			Oil			Validity			Loss Rate		
Lab	Cause	1006	81	82	LC	RC	XC	Lost	Starts	%
G	Shaker table failure.		●				●	6	38	16%
	Appearance of sample.		●				●			
	Flow problem.			●	●					
	Flow problem.			●	●					
	Power outage.			●			●			
	Heater not on during run.			●			●			
	Lost	0	2	4	2	0	4			
	Starts	11	17	10	110	110	110			
	%	0%	12%	40%	2%	0%	4%			

Average Δ/s by Lab

Lab	n	AGVYI
A	41	0.559
B	24	0.886
D	7	-0.224
G	32	0.280
Industry	104	0.496

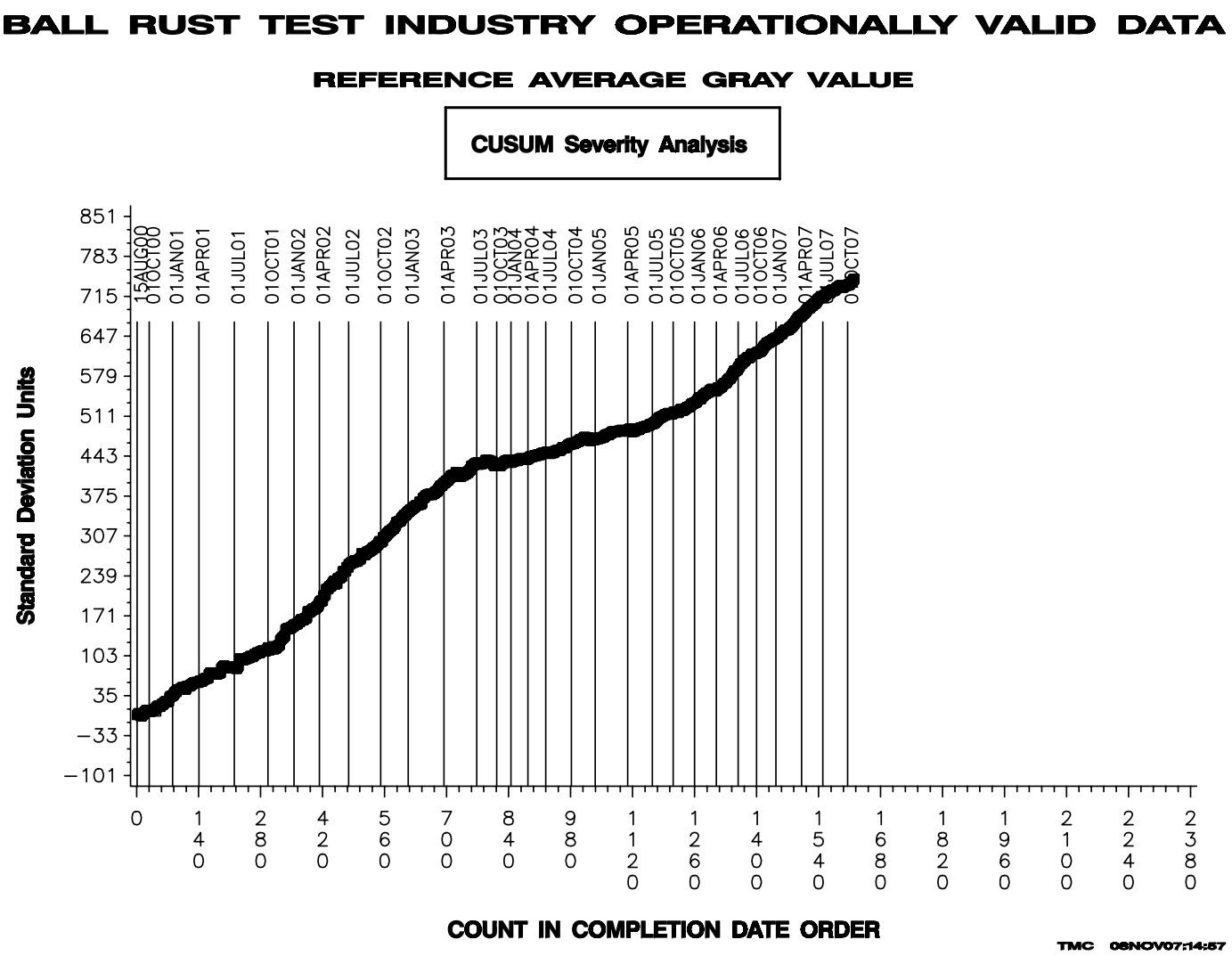
DATA FROM ALL OPERATIONALLY VALID TESTS REPORTED THIS PERIOD:

LTMS DATE	LAB	OIL	AGV	AGVYI
20070403	G	1006	131	0.416
20070413	G	82	47	-0.043
20070413	B	81	131	1.357
20070417	G	81	128	1.143
20070420	A	1006	128	0.000
20070424	B	82	52	0.391
20070425	A	81	126	1.000
20070426	G	81	132	1.429
20070501	A	81	117	0.357
20070501	B	1006	131	0.416
20070502	A	81	130	1.286
20070503	A	81	127	1.071
20070503	D	82	63	1.348
20070504	A	82	53	0.478
20070504	B	81	131	1.357
20070508	B	81	127	1.071
20070508	G	1006	130	0.277
20070509	A	82	47	-0.043
20070511	A	1006	122	-0.832
20070511	G	81	127	1.071
20070512	A	81	128	1.143
20070513	A	81	126	1.000
20070516	G	81	129	1.214
20070518	A	1006	127	-0.139
20070521	A	82	45	-0.217
20070522	A	81	128	1.143
20070522	D	81	127	1.071
20070522	G	81	117	0.357
20070523	B	81	130	1.286
20070524	A	1006	131	0.416
20070526	G	1006	124	-0.555
20070531	A	81	121	0.643
20070601	G	81	133	1.500
20070605	B	81	130	1.286
20070606	A	81	129	1.214
20070608	A	82	54	0.565
20070612	B	81	130	1.286

LTMS DATE	LAB	OIL	AGV	AGVYI
20070612	G	81	128	1.143
20070614	G	82	51	0.304
20070620	B	81	126	1.000
20070621	A	82	49	0.130
20070622	A	1006	127	-0.139
20070625	G	81	128	1.143
20070627	A	81	129	1.214
20070627	B	81	134	1.571
20070628	A	1006	122	-0.832
20070628	G	1006	120	-1.110
20070629	A	82	52	0.391
20070703	D	1006	128	0.000
20070703	G	81	121	0.643
20070706	G	81	122	0.714
20070710	B	82	60	1.087
20070710	G	81	122	0.714
20070712	G	1006	130	0.277
20070717	D	81	111	-0.071
20070717	G	81	137	1.786
20070718	A	81	124	0.857
20070719	A	82	52	0.391
20070719	B	82	60	1.087
20070720	A	81	129	1.214
20070720	D	82	37	-0.913
20070724	A	1006	123	-0.693
20070725	A	1006	125	-0.416
20070725	G	1006	125	-0.416
20070726	A	81	130	1.286
20070727	A	81	127	1.071
20070727	B	81	128	1.143
20070727	G	82	66	1.609
20070731	B	1006	122	-0.832
20070801	A	81	129	1.214
20070802	B	82	60	1.087
20070808	D	81	70	-3.000
20070808	B	81	128	1.143
20070810	B	81	126	1.000
20070815	A	1006	131	0.416
20070815	G	1006	121	-0.971
20070817	B	81	132	1.429
20070818	G	81	121	0.643
20070821	B	82	54	0.565
20070822	A	81	127	1.071
20070824	A	81	128	1.143
20070824	G	81	112	0.000
20070829	B	82	46	-0.130
20070905	B	1006	133	0.693
20070906	G	1006	134	0.832
20070907	A	81	125	0.929
20070911	A	82	50	0.217
20070911	D	1006	128	0.000

LTMS DATE	LAB	OIL	AGV	AGVYI
20070911	G	82	50	0.217
20070914	G	82	61	1.174
20070918	B	1006	130	0.277
20070918	G	1006	99	-4.022
20070920	A	81	129	1.214
20070920	G	1006	115	-1.803
20070921	A	81	123	0.786
20070925	A	81	127	1.071
20070925	G	81	124	0.857
20070926	A	81	128	1.143
20070926	B	81	126	1.000
20070926	G	1006	120	-1.110
20070927	A	82	48	0.043
20070927	G	82	42	-0.478
20070928	A	82	49	0.130
20070928	B	1006	133	0.693

CUSUM PLOT


BALL RUST TEST INDUSTRY OPERATIONALLY VALID DATA
REFERENCE AVERAGE GRAY VALUE
CUSUM Severity Analysis
Standard Deviation Units
851
783
715
647
579
511
443
375
307
239
171
103
35
−33
−101
15AUG00
01OCT00
01JAN01
01APR01
01JUL01
01OCT01
01JAN02
01APR02
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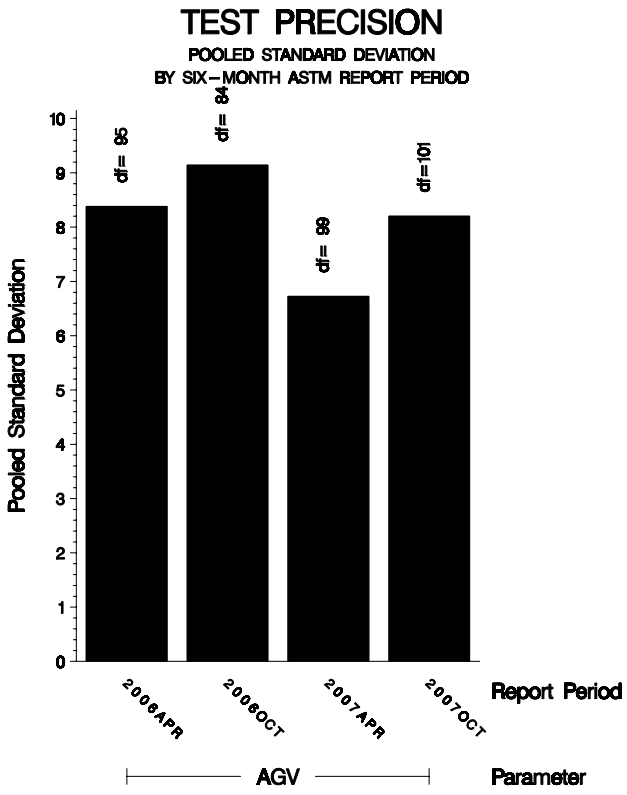
01JAN06
01APR06
01JUL06
01OCT06
01JAN07
01APR07
01JUL07
01OCT07
0
140
280
420
560
700
840
980
1120
1260
1400
1540
1680
1820
1960
2100
2240
2380
COUNT IN COMPLETION DATE ORDER
TMC 08NOV07:14:57

POOLED S:

Pooled s for this period is 8.20. 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:

		@ TMC	
Oil	Cans @ Labs	Cans	Gallons
1006	46	5107	40.9
81	69	1859	14.9
82	51	989	7.9
Total	166	7955	63.7

* 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/astm1007.doc/mem07-087.sdp.doc
c: J. L. Zalar
F. M. Farber
BRT Surveillance Panel
ftp://ftp.astmtmc.cmu.edu/docs/bench/eoec/semiannualreports/brt-10-2007.pdf

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