

**PC-11 VGRA Matrix Test Status**  
**April 1, 2016**

T-13:

The T-13 matrix has completed and all tests have been reviewed by the surveillance panel and determined to be operationally valid. The statisticians are in the process of analyzing the data. All T-13 data is posted at:

<ftp://ftp.astmtmc.cmu.edu/refdata/diesel/T13/data/ltms.csv>

COAT:

All COAT VGRA tests have been reported. The only test that has not been reviewed by the surveillance panel is 114523-

COAT. All COAT data is posted at: <ftp://ftp.astmtmc.cmu.edu/refdata/diesel/COAT/data/ltms.csv>

The field COM1 will identify the tests as VGRA matrix tests with a value of "VGRA".

### T-13 VGRA Matrix Test Status

	Lab-Stand	A-1	A-2	D-1	G-1	G-2
Run Order	1	PC11A* 10W30 BS1 Tech1 111339-T13 ✓	PC11Y 10W40 BS1 Tech 1 111446-T13 ✓	PC11LL 15W40 BS2 Tech3 111349-T13 ✓	PC11A 10W30 BS1 Tech1 111337-T13 ✓	PC11KK 15W40 BS2 Tech2 111439-T13 ✓
	2	PC11KK 15W40 BS2 Tech2 111438-T13 ✓		PC11Y 10W40 BS1 Tech1 111445-T13 ✓	PC11G 15W40 BS1 Tech1 113302-T13 ✓	PC11LL 15W40 BS2 Tech3 111350-T13 ✓
	3	PC11G 15W40 BS1 Tech1 108381-T13 ✓				

✓ Surveillance Panel judged operationally valid.

Test Reported

Invalid

Wrong Oil

\* Failed reference criteria

T-13 Reported Results  
(Results are not lab severity adjusted)

Oil	TestKey	Lab	Stand	IR Peak Height @ EOT	Viscosity Increase@ 40°C (%)	Comment
PC11A	111339-T13	A	1	91.8	32.4	Failed reference criteria in mild direction
	111337-T13	G	1	116	61.2	Passed reference criteria
PC11KK	111439-T13	G	2	38.0	4.9	
	111438-T13	A	1	64.8	16.1	
PC11LL	111349-T13	D	1	117.3	56.1	
	111350-T13	G	2	100.0	48.6	
PC11Y	111446-T13	A	2	123.0	59.8	
	111445-T13	D	1	116.1	51.3	
PC11G	113302-T13	G	1	116.0	53.5	
	108381-T13	A	1	119.6	62.9	

Wrong Oil

### COAT

Run #	A	G
1	823✓ 10W30 BS1 Tech 1 110156-COAT	832*✓ 15W40 BS1 Tech 1 110729-COAT
2	PC11X✓ 10W40 BS2 Tech 2 111441-COAT	PC11FF 10W30 BS2 Tech 3 111352-COAT
3	PC11FF✓ 10W30 BS2 Tech 3 111351-COAT	PC11EE✓ 10W30 BS2 Tech 2 111564-COAT
4	PC11EE 10W30 BS2 Tech 2 111563-COAT Aborted Oil Leak	PC11X✓ 10W40 BS2 Tech2 111442-COAT
	PC11EE Re-run Aborted Oil Leak	
	PC11EE 10W30 BS2 Tech 2 114523-COAT	
		PC11FF (rerun)✓ 10W30 BS2 Tech 3 113212-COAT
		823 (Correct Oil)☒✓ 10W30 BS1 Tech 1 113303-COAT

✓ Judged operationally valid.

\* Failed reference criteria

Test Reported

Invalid

Wrong Oil



COAT Reported Results  
(Results are not lab severity adjusted)

Oil	TestKey	Lab	Stand	Average Aeration (40-50) - %	Comment
832	110729-COAT	G	1	10.99	Failed reference prediction error criteria in the severe direction
PC11X	111442-COAT	G	1	11.40	
	111441-COAT	A	1	10.80	
PC11EE	111564-COAT	G	1	10.01	
	114523-COAT	A	1	9.36	
PC11FF	111351-COAT	A	1	10.73	
	113212_COAT	G	1	11.03	
823	110156-COAT	A	1	10.19	
	113303-COAT	G	1	10.39	

**Wrong Oil**

If there are any questions please let me know.

Best regards,  
Frank

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[ftp://ftp.astmtmc.cmu.edu/docs/diesel/PC11matrix/20160401\\_VGRAMatrixTestStatus.pdf](ftp://ftp.astmtmc.cmu.edu/docs/diesel/PC11matrix/20160401_VGRAMatrixTestStatus.pdf)