

VIE Precision Matrix

3/03/2016

41 test results have been reported. Lab C had to abandon their engine after test 2 and has restarted testing at test 1.

All reported data is posted at: <ftp://ftp.astmtmc.cmu.edu/refdata/gas/VIE/data/ltms.csv>
The field COM2 will identify the test as a precision matrix test with a value of "MATRIX".

Oils: 542-2 (0W-20), 544 (5W-30) and 1010-1 (5W-20)

Estimated matrix completion: Week of April 4, 2016

Please note that the PM Design Statisticians have revised the matrix design as follows:

For stand A2 the 5th-11th tests have been moved to A1 because of a failed engine in A2. A2 testing ends at test 4.

Oil assignments on stand A1 have been changed from previous A2 assignments for runs 7 and 10.

G2 assignments for runs 10 and 11 have been flip-flopped.

B1 test 10 has been changed from 542-2 to 544.

The revised matrix and reported test results are shown as follows.

If there are any questions please let me know.

Best regards,
Frank

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<ftp://ftp.astmtmc.cmu.edu/docs/gas/GF6matrix/StatusReports/VIE/20160303VIEMatrixTestStatus.pdf>

VIE Precision Matrix

Step	Run Order	A 1	A 2	G 1	G 2	B	D	C	F	Eng. Hrs
	SOT Engine Hours	150	150	150	150	150	150	150	150	
1	1	544 113244-VIE	1010-1 110587-VIE	542-2 105705-VIE	544 113224-VIE	542-2 110003-VIE	542-2 110588-VIE	544 113298-VIE 544 116040-VIE (new engine)	1010-1 113223-VIE	350
	2	544 113247-VIE	1010-1 110725-VIE	1010-1 113235-VIE	542-2 105704-VIE	544 113258-VIE	542-2 113293-VIE	1010-1 113300-VIE 1010-1 113301-VIE (new engine)	544 113220-VIE	550
	3	542-2 111451-VIE	542-2 111176-VIE	1010-1 113236-VIE	1010-1 108989-VIE	1010-1 110595-VIE	544 113292-VIE	542-2 113299-VIE Oil Con. Engine Abandoned	544 113221-VIE	750
	4	1010-1 110726-VIE	544 113243-VIE	544 113225-VIE	1010-1 113234-VIE	544 113259-VIE	1010-1 110589-VIE	542-2	542-2 113222-VIE	950
2	5	544 113246-VIE	544 113245-VIE Failed Eng.		542-2 113229-VIE	544 113260-VIE				115 0
	6	1010-1 110727-VIE	1010-1		542-2 113230-VIE	542-2 110004-VIE				135 0
	7	1010-1	544		544 113226-VIE	542-2 113261-VIE				155 0
	8	542-2	542-2		544 113227-VIE	1010-1 113265-VIE				175 0
	9	542-2	542-2		1010-1 113238-VIE	1010-1 113266-VIE				195 0
	10	544	1010-1		542-2 113232-VIE	544 116027-VIE				215 0
	11	1010-1	1010-1		544 113228-VIE					235 0
	EOT Engine Hours	950	2350	950	2350	2150	950	950	950	Total Runs
	Runs/Engine	4	11	4	11	10	4	4	4	52

Test Reported

Invalid

VIE Precision Matrix

Sorted by Engine Hours

IND	Testkey	Lab/Stand	FEI1	FEI2	FEISUM	Total Oil Cons., ml	Engine Hours	Comment
542-2	110588-VIE	D2	2.77	1.70	4.47	400	370	
	105705-VIE	G1	2.34	1.70	4.04	700	390	
	110003-VIE	B1	3.00	1.86	4.86	600	399	
	105704-VIE	G2	2.93	2.16	5.09	800	561	
	113293-VIE	D2	2.53	1.74	4.27	400	571	
	111176-VIE	A2	2.46	1.48	3.94	600	776	
	111451-VIE	A1	2.32	1.41	3.73	1100	779	
	113222-VIE	F2	2.72	1.99	4.71	700	968	
	113229-VIE	G2	2.30	1.73	4.03	1000	1154	
	113230-VIE	G2	2.02	1.31	3.33	1200	1371	
	110004-VIE	B1	1.91	1.07	2.98	800	1406	
	113261-VIE	B1	1.84	0.78	2.62	1200	1603	
544	113224-VIE	G2	1.36	1.83	3.19	600	363	
	113298-VIE	C2	2.14	2.08	4.22	700	368	
	113244-VIE	A1	1.07	0.49	1.56	1000	374	
	113220-VIE	F2	0.84	1.51	2.35	650	569	
	113247-VIE	A1	1.44	1.47	2.91	800	579	
	113258-VIE	B1	1.48	1.64	3.12	1000	597	
	113221-VIE	F2	1.04	1.64	2.68	700	768	
	113292-VIE	D2	1.48	1.24	2.72	800	772	
	113243-VIE	A2	1.24	1.11	2.35	700	978	
	113259-VIE	B1	1.04	1.38	2.42	800	992	
	113225-VIE	G1	1.10	1.04	2.14	1600	1002	
	113246-VIE	A1	1.31	1.32	2.63	700	1202	
	113260-VIE	B1	0.89	1.02	1.91	1000	1210	
	113226-VIE	G2	1.07	1.10	2.17	1000	1568	
113227-VIE	G2	0.79	0.71	1.50	1100	1767		
1010-1	113223-VIE	F2	2.12	2.14	4.26	500	364	
	110587-VIE	A2	1.60	1.74	3.34	600	374	
	113300-VIE	C2	2.18	1.82	4.00	1100	570	
	110725-VIE	A2	1.84	1.59	3.43	700	574	
	113235-VIE	G1	1.67	1.51	3.18	1100	602	
	108989-VIE	G2	1.95	2.12	4.07	1000	758	
	110595-VIE	B1	1.77	1.99	3.76	1000	794	
	113236-VIE	G1	1.59	1.49	3.08	1700	803	
	110589-VIE	D2	1.83	1.68	3.51	900	928	
	113234-VIE	G2	1.71	2.00	3.71	1100	956	
	110726-VIE	A1	1.57	1.43	3.00	700	1003	
	113265-VIE	B1	1.34	0.75	2.09	600	1799	
	113238-VIE	G2	1.41	1.12	2.53	1000	1966	
113266-VIE	B1	1.45	0.80	2.25	1400	2021		