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**LSPI Matrix Test Status**  
**September 19, 2016**

All tests that were to be re-run have been reported.

Data can be retrieved at: <ftp://ftp.astmtmc.cmu.edu/refdata/gas/lspi/data/ltms.csv>

The field COM2 will identify the test as a precision matrix test with a value of "MATRIX".

Test Length ~1 day/test

Matrix Completion: September 13, 2016

### LSPI Matrix Test Status

Run Order	B 1	G 1	G 2	A 1	A 2
1	222 114968-LSPI 2016 Hardware	220 114954-LSPI Coolant Thermocouple Cal. Out	222 114960-LSPI Coolant Flow Control Problems	220 ✓ 116220-LSPI	221 ✓ 114973-LSPI
	222 118675-LSPI 2014 Hardware	220 ✓ 116222-LSPI	222 118888-LSPI		
2	220 114962-LSPI 2016 Hardware	221 114956-LSPI Coolant Thermocouple Cal. Out	221 114955-LSPI Coolant Flow Con. Problems	222 ✓ 114976-LSPI	221 ✓ 114974-LSPI
	220 114964-LSPI 2014 Hardware	221 ✓ 114957-LSPI	221 117632-LSPI		
3	220 114963-LSPI 2016 Hardware	221 ✓ 114958-LSPI	220 116223-LSPI Coolant Flow Con. Problems	222 ✓ 114978-LSPI	222 ✓ 114977-LSPI
	220 118365-LSPI 2014 Hardware		220 118369-LSPI		
4	221 114965-LSPI 2016 Hardware	222 ✓ 114961-LSPI	220 117631-LSPI Coolant Flow Con. Problems	221 ✓ 114975-LSPI	220 ✓ 116959-LSPI
	221 114966-LSPI 2014 Hardware		220 119944-LSPI		

✓ Indicates Task Force has reviewed operational data and found the test to be operationally valid.

Test Reported

Invalid

Oil	TestKey	Lab Stand	Average Valid Pre-Ignition Events	Comment
220(5W30) LEO	116220-LSPI	A1	0.8	
	116222-LSPI	G1	0.8	
	116223-LSPI	G2	2.2	Coolant Flow Control Problems
	114962-LSPI	B1	0.5	2016 Hardware
	117631-LSPI	G2	5.8	Coolant Flow Control Problems
	114963-LSPI	B1	0.0	2016 Hardware
	116959-LSPI	A2	0.5	
	118369-LSPI	G2	0.2	Rerun
	119944-LSPI	G2	1.2	Rerun
	114964-LSPI	B1	0.3	2014 Hardware Re-run
	118365-LSPI	B1	0.0	2014 Hardware Re-run
221(0W16) MEO	114973-LSPI	A2	16.8	
	114974-LSPI	A2	11.8	
	114955-LSPI	G2	13.0	Coolant Flow Control Problems
	114975-LSPI	A1	10.5	
	114957-LSPI	G1	11.2	
	114958-LSPI	G1	9.2	
	114965-LSPI	B1	6.5	2016 Hardware
	117632-LSPI	G2	10.0	Rerun
	114966-LSPI	B1	13.3	2014 Hardware Re-run
222 (10W30) HEO	114960-LSPI	G2	21.5	Coolant Flow Control Problems
	114976-LSPI	A1	25.8	
	114978-LSPI	A1	19.8	
	114968-LSPI	B1	12.8	2016 Hardware
	114977-LSPI	A2	19.2	
	114961-LSPI	G1	17.0	
	118888-LSPI	G2	16.0	Rerun
	118675-LSPI	B1	15.8	2014 Hardware Re-run

If there are any questions please let me know.

Best regards,

Frank

Frank Farber

<ftp://ftp.astmtmc.cmu.edu/docs/gas/GF6Matrix/cwt/20160919LSPIMatrixTestStatus.pdf>