



Review of VIE Data

(Reference Oil Viscosity Analysis)

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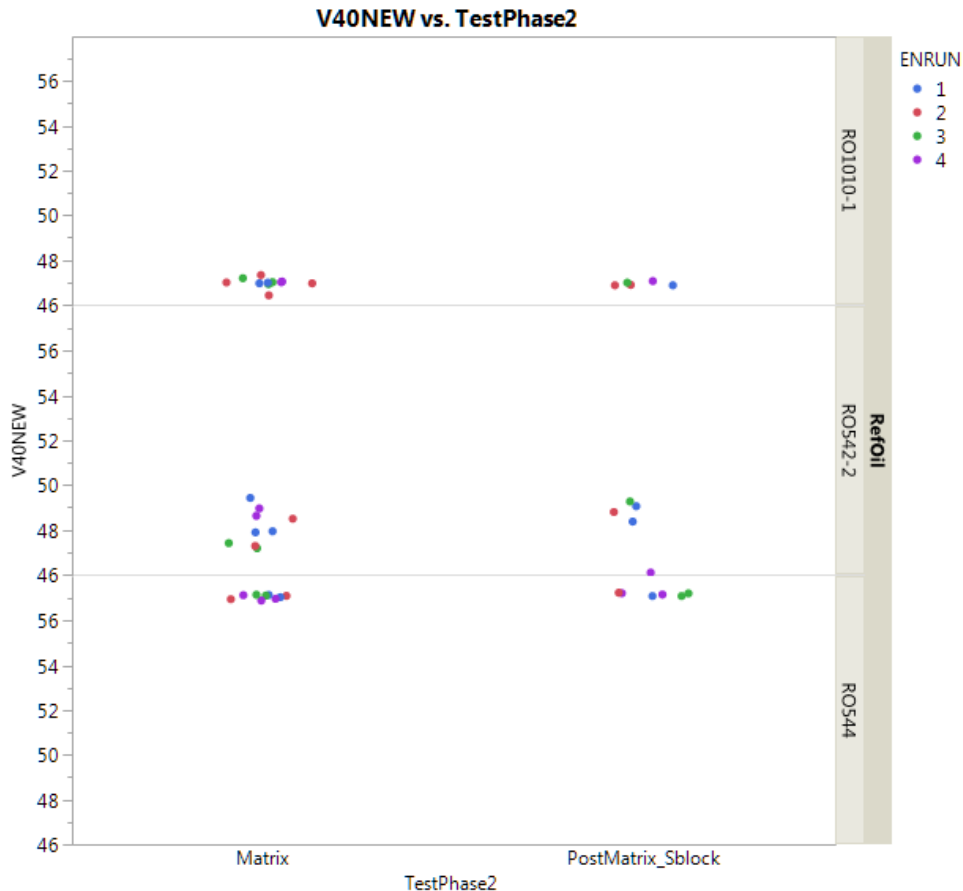
Passion for Solutions™

Review of VIE Data

Analysis of VIE Reference Oil Viscosity Data

Plot of Fresh Oil KV40 Data

- Includes n = 29 Precision Matrix (PM) and n = 16 Short Block Matrix (SBM) Tests

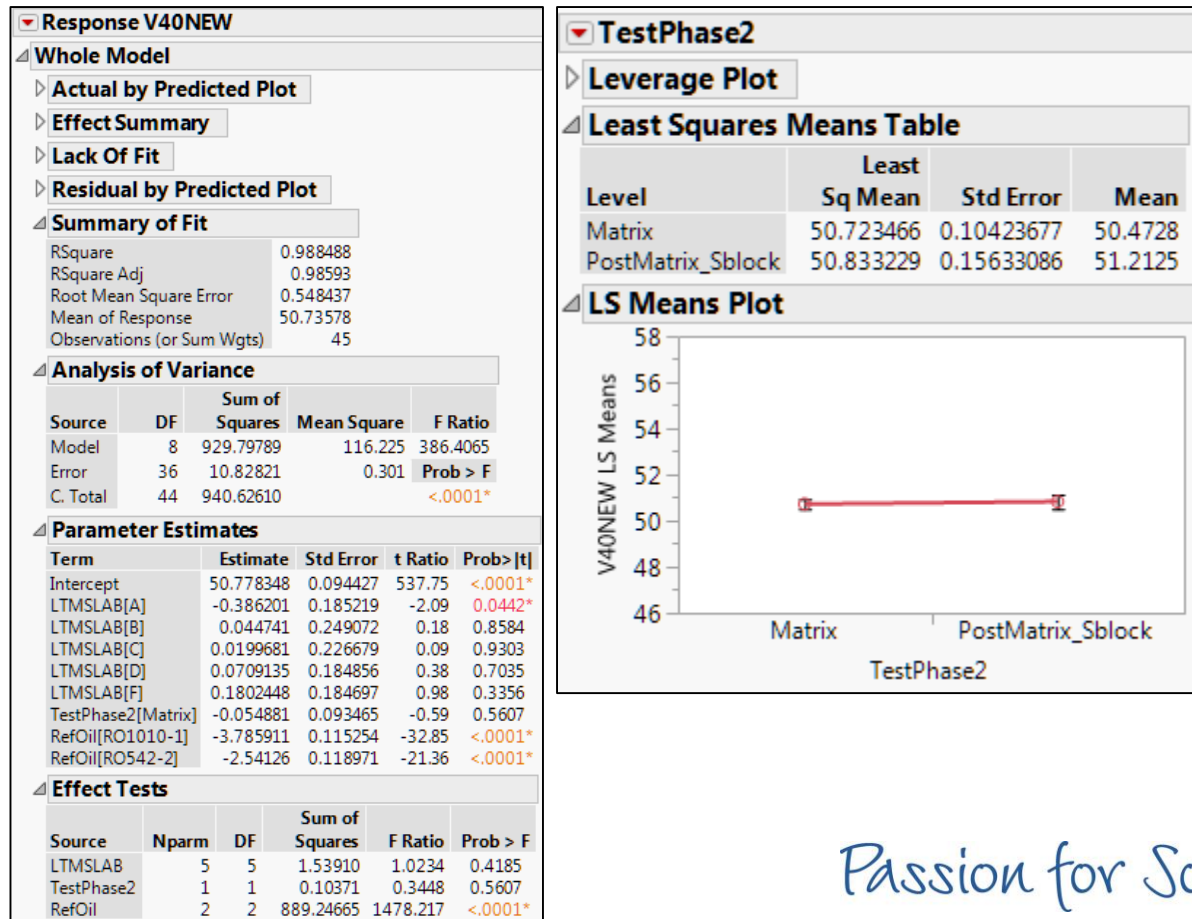


Review of VIE Data

Analysis of VIE Reference Oil Viscosity Data

▲ KV40 Fresh Oil Analysis (PM n = 29 & n = 16 SBM)

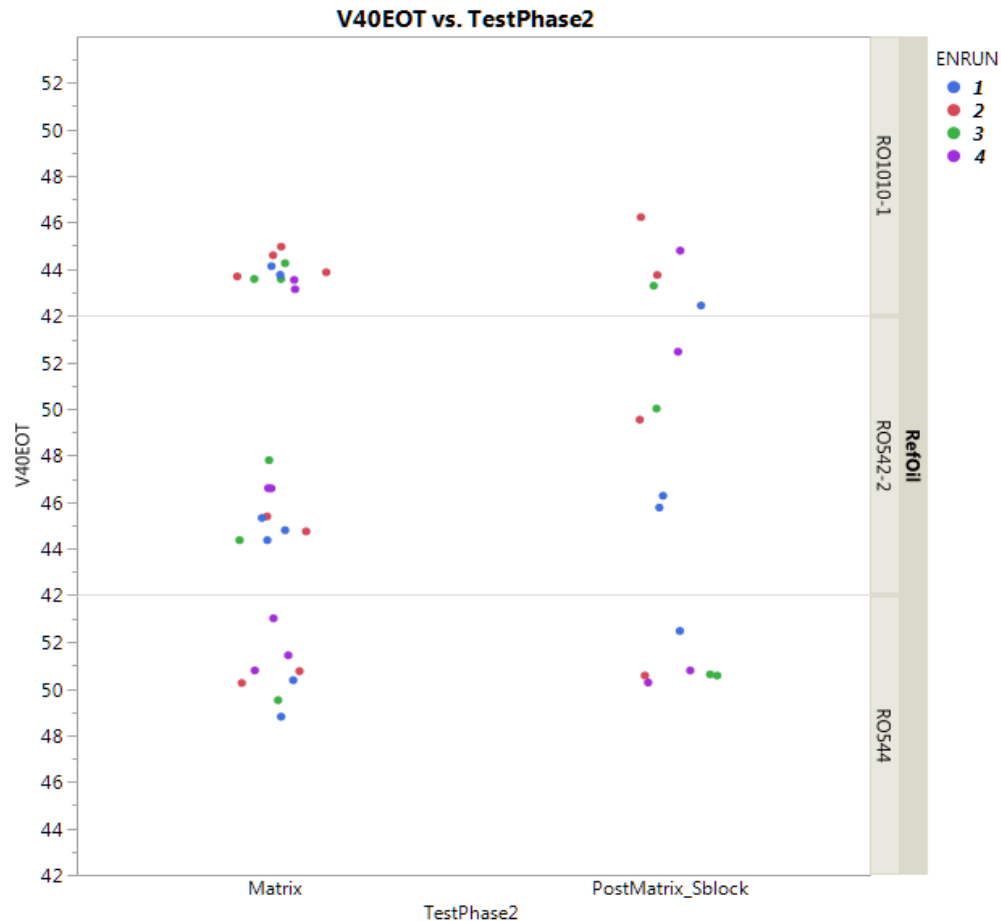
- Analysis suggests no significant difference in KV40 fresh oil viscosities between the test phases (PM vs. SBM)



Review of VIE Data

Analysis of VIE Reference Oil Viscosity Data

Plot of EOT Oil KV40 Data



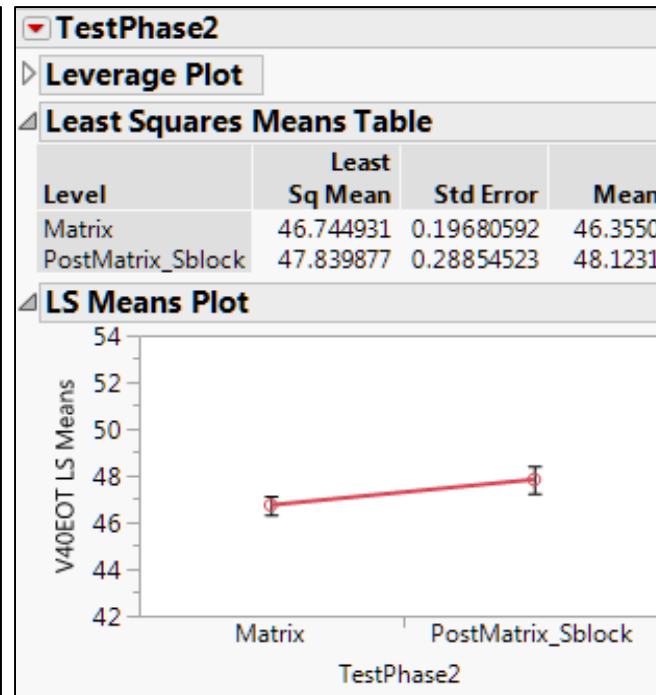
Review of VIE Data

Analysis of VIE Reference Oil Viscosity Data

▲ KV40 EOT Oil Analysis (PM n = 28¹ & n = 16 SBM)

- Analysis suggests significant increase in KV40 EOT viscosity between the 2 test phases (PM-EOT-KV40 < SBM-EOT-KV40)

Response V40EOT					
Whole Model					
▷ Actual by Predicted Plot					
▷ Effect Summary					
▷ Residual by Predicted Plot					
Summary of Fit					
RSquare		0.922925			
RSquare Adj		0.902523			
Root Mean Square Error		1.008013			
Mean of Response		46.99795			
Observations (or Sum Wgts)		44			
Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Ratio	
Model	9	413.67968	45.9644	45.2366	
Error	34	34.54704	1.0161	Prob > F	
C. Total	43	448.22672		<.0001*	
Parameter Estimates					
Term	Estimate	Std Error	t Ratio	Prob> t	
Intercept	45.813023	0.481718	95.10	<.0001*	
LTMSLAB[A]	2.0196439	0.340691	5.93	<.0001*	
LTMSLAB[B]	-0.206296	0.461472	-0.45	0.6577	
LTMSLAB[C]	-0.057227	0.418086	-0.14	0.8919	
LTMSLAB[D]	-0.857543	0.340012	-2.52	0.0165*	
LTMSLAB[F]	-0.49293	0.363351	-1.36	0.1838	
TestPhase2[Matrix]	-0.547473	0.175463	-3.12	0.0037*	
RefOil[RO1010-1]	-3.12665	0.214131	-14.60	<.0001*	
RefOil[RO542-2]	-0.419212	0.220769	-1.90	0.0661	
ENHREND	0.002206	0.00067	3.29	0.0023*	
Effect Tests					
Source	Nparm	DF	Sum of Squares	F Ratio	Prob > F
LTMSLAB	5	5	41.88479	8.2443	<.0001*
TestPhase2	1	1	9.89202	9.7354	0.0037*
RefOil	2	2	316.06649	155.5309	<.0001*
ENHREND	1	1	11.02211	10.8476	0.0023*

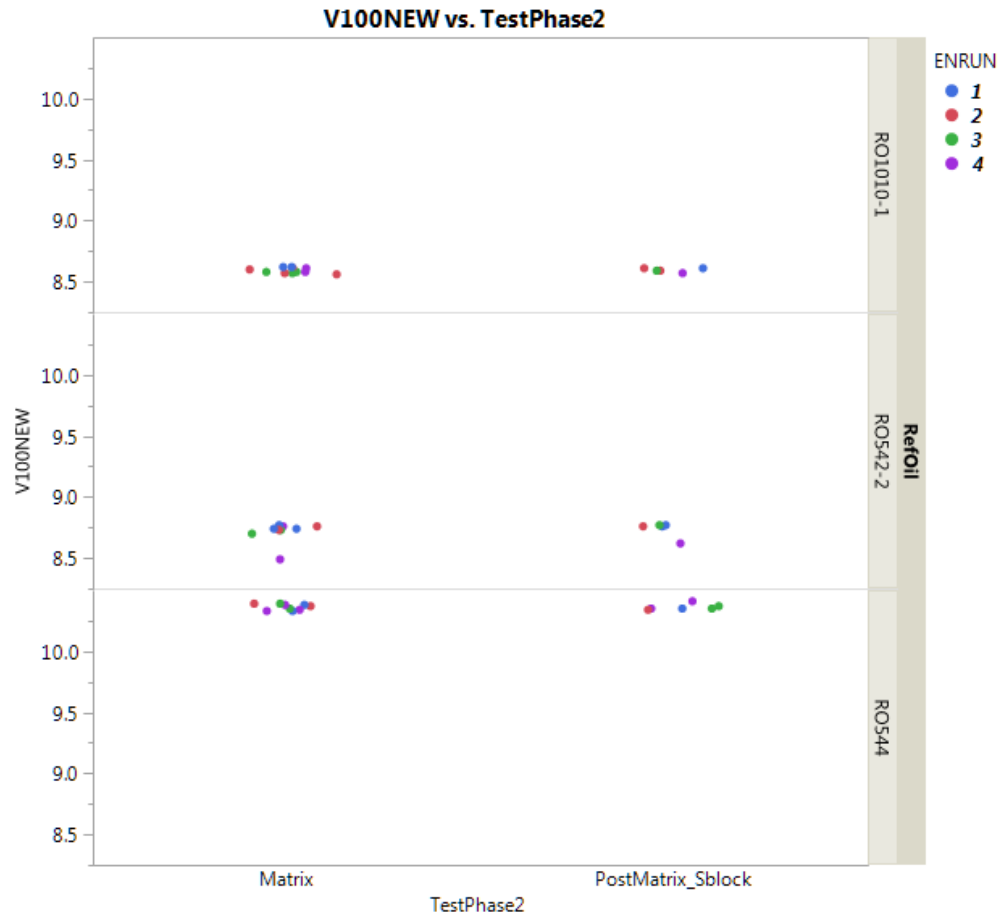


Note 1: One observation missing PM EOT viscosity data

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Analysis of VIE Reference Oil Viscosity Data

Plot of Fresh Oil KV100 Data

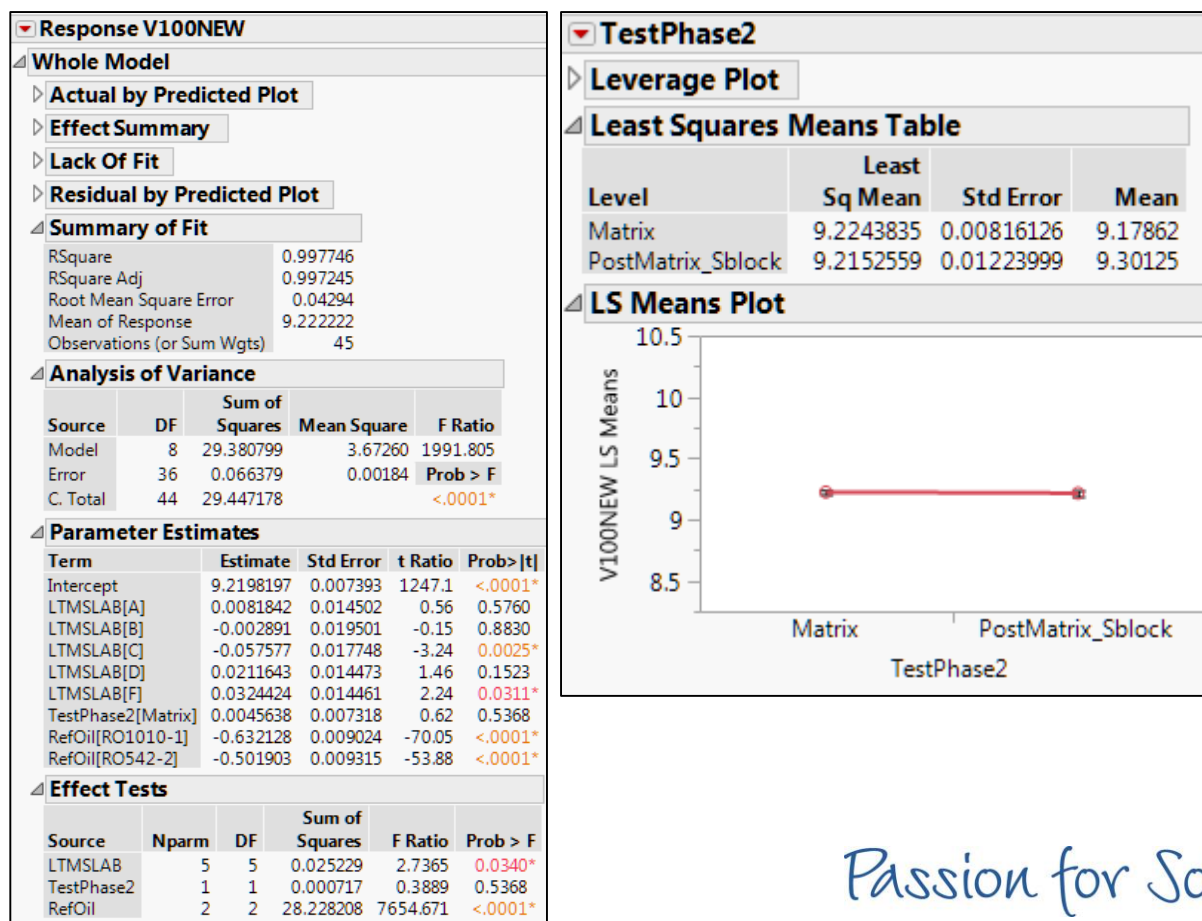


Review of VIE Data

Analysis of VIE Reference Oil Viscosity Data

▲ KV100 Fresh Oil Analysis (PM n = 29 & n = 16 SBM)

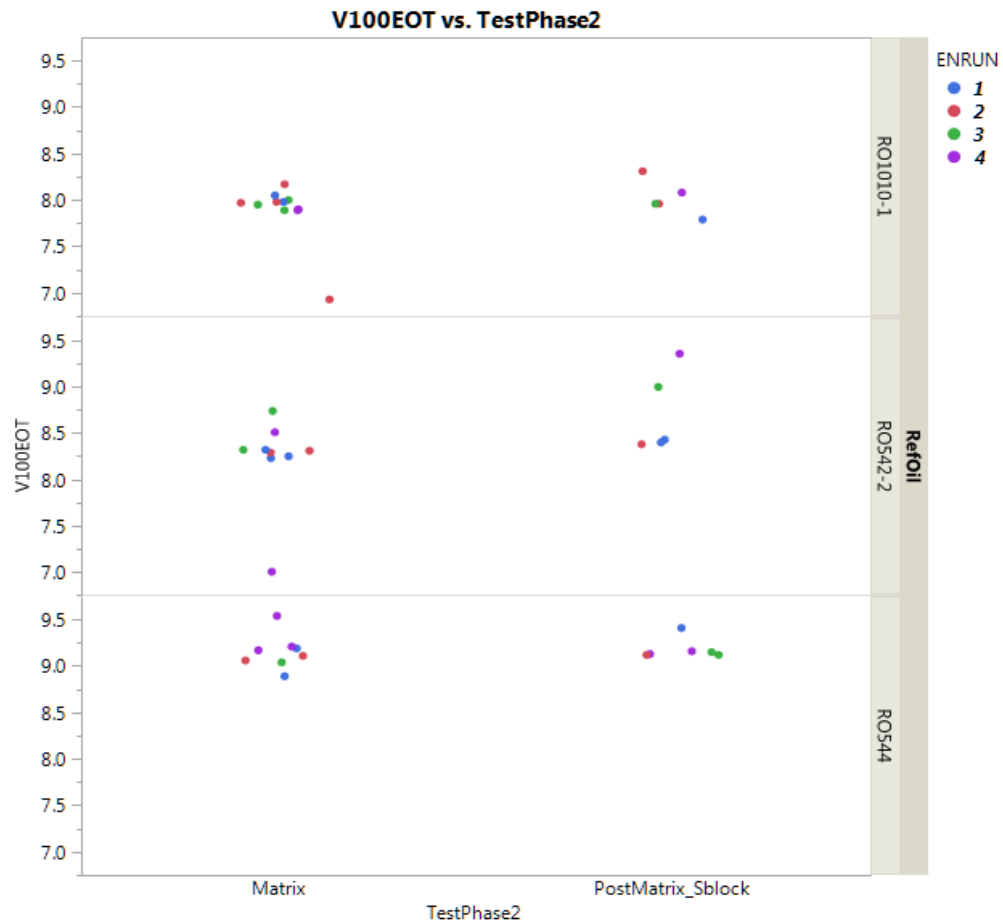
- Analysis suggests no significant difference in KV100 fresh oil viscosities between the test phases (PM vs. SBM)



Review of VIE Data

Analysis of VIE Reference Oil Viscosity Data

Plot of EOT Oil KV100 Data



Review of VIE Data

Analysis of VIE Reference Oil Viscosity Data

- ▲ KV100 EOT Oil Analysis (PM n = 28¹ & n = 16 SBM)
 - Analysis suggests no significant difference in KV100 EOT oil viscosity between the two test phases (PM vs. SBM)

