

Machine Condition

NORMAL

Lubricant Condition

NORMAL

Machine Name: Lexus RC-F

Analysis Report

Component Information

Machine Type: Gasoline Engine Sump Size: 9.8
 Lubricant: Renewable Lubricants/BioSyn HD 5w30
 Machine MFG: LEXUS
 Machine MOD: RC-F

Sample Information

Received: 08/16/2017
 Report: 08/16/2017
 Sample No.:
 Analyst/Test: ETR / LD4

Customer Information

Lucas Dynamics
 Contact: Daniel Mackey

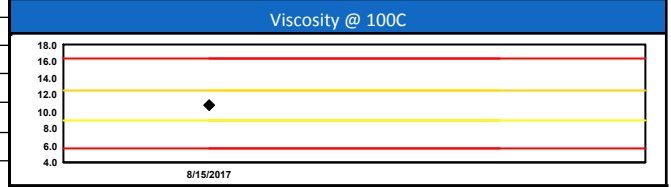
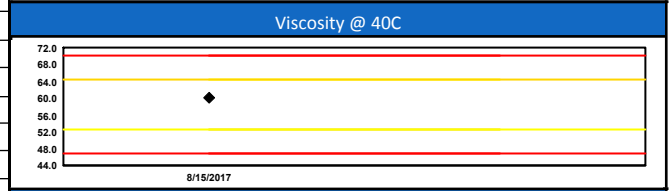
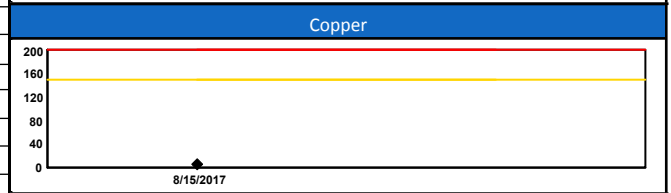
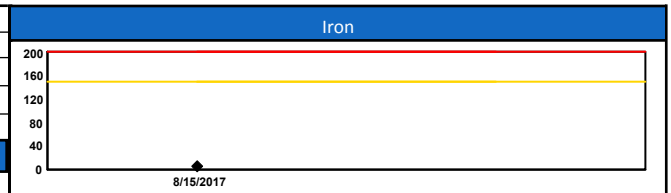
CUSTOMER NOTES

Mach Hours: 25000 *

Date Sampled	NEW OIL	8/15/2017			
Lab No		2021500			
Machine / Lube Cond.		N / N			
Lube Hours		5000	6400		
Machine Hours		25000			

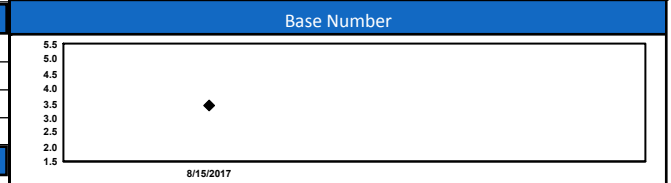
ELEMENTAL SPECTROSCOPY (ppm) ASTM D5185 Mod (-) indicates below detection limit

Wear Metals	Iron		5	11	
	Copper		5	11	😊
	Lead		-		
	Aluminum		2	3	
	Tin		-		
	Nickel		-		
	Chromium		-		
	Titanium		-		
	Vanadium		-		
Additives	Calcium		2093		
	Magnesium		119		
	Phosphorus		956		
	Zinc		1101		
	Barium		-		
Contaminants	Molybdenum		-	21	
	Silicon		5	5	
	Boron		53	61	
	Lithium		-		
	Sodium		-		
Potassium		-			



FTIR SPECTROSCOPY (Indexing Numbers) ASTM E2412

Oxidation		101	105		
Glycol		0			
Soot		3	5		
Fuel Dilution		0			



PARTICLE COUNT (particles per ml) ISO 4406:99

ISO Code	21/18/15	17/16/12			
>4 Micron		945			
>6 Micron		367			
>14 Micron		28			
>50 Micron		1	😊		
>100 Micron		0			

VISCOSITY (centistokes) ASTM D445 MOD

Viscosity@40°C		60.1	57.22		
Viscosity@100°C		10.8	10.18		

VISCOSITY INDEX (VI) D2270 *

Viscosity Index		173.0	167		
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BASE NUMBER (mg KOH/g) † - ASTM D4739 ‡ - IWI-390

Base Number		3.40 ‡	7.48	😊	
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ACID NUMBER (mg KOH/g) ASTM D974 MOD

Acid Number		1.78	2.68	😊	
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Testing performed by Insight Services®, an ISO/IEC 17025:2005 accredited laboratory L-A-B Accredited Certificate Number 2221 Testing. (*) - Not in scope of accreditation. Lucas Dynamics - Roselle assumes sole responsibility for the application of and reliance upon results and recommendations reported by Lucas Dynamics, whose obligation is limited to good faith performance.

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Date Sampled	New	8/15/2017				
Lab No	0	2021500				
Machine / Lube Cond.		N / N				
WATER (%) a-ASTM D6304C b-IWI-134* c-Crackle d-IWI-135* e-IWI-370*						
Water		0.0281 (a)	940ppm	💡		
FUEL DILUTION BY GC (%)						
Fuel Dilution		1.2	2.95%	😬		