

Machine Id **4500014 (S/N LC1732)** Component **Diesel Engine** Fluid **SHELL ROTELLA T 15W40 (--- GAL)**

RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
Resample at the next service interval to monitor. Please specify the	Sample Number		Client Info		WCMC153999	WC0602108	
	Sample Date		Client Info		06 Feb 2024	11 Oct 2021	
component make and model with your next sample.	Machine Age	hrs	Client Info		5978	4431	
	Oil Age	hrs	Client Info		0	250	
	Filter Age	hrs	Client Info		0	250	
	Oil Changed		Client Info		N/A	Changed	
	Filter Changed		Client Info		N/A	Changed	
	Sample Status				NORMAL	NORMAL	
WEAR All component wear rates are normal.	Iron	ppm	ASTM D5185m	>100	19	18	
	Chromium	ppm	ASTM D5185m	>20	1	<1	
	Nickel	ppm	ASTM D5185m		0	<1	
	Titanium	ppm	ASTM D5185m		<1	<1	
	Silver	ppm	ASTM D5185m	-3	0	<1	
	Aluminum	ppm	ASTM D5185m		3	2	
	Lead		ASTM D5185m		0	<1	
	Copper	ppm	ASTM D5185m		1	< 1	
	Tin	ppm				-1	
		ppm	ASTM D5185m	>15	<1	<1	
	Vanadium	ppm	ASTM D5185m	NONE	<1	0	
	White Metal	scalar	*Visual	NONE	NONE	NONE	
	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	
CONTAMINATION	Silicon	ppm	ASTM D5185m	>25	6	6	
CONTRIMINATION	Potassium	ppm	ASTM D5185m		2	8	
There is no indication of any contamination in the oil.	Fuel	ppm	WC Method		<1.0	<1.0	
	Water		WC Method		NEG	NEG	
	Glycol		WC Method	>0.2	NEG	NEG	
	Soot %	%	*ASTM D7844	. 0		0.4	
					0.3		
	Nitration	Abs/cm	*ASTM D7624	>20	8.9	10.7	
	Sulfation	Abs/.1mm	*ASTM D7415		23.3	25.5	
	Silt	scalar	*Visual	NONE	NONE	NONE	
	Debris	scalar	*Visual	NONE	NONE	NONE	
	Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	
	Appearance	scalar	*Visual	NORML	NORML	NORML	
	Odor	scalar	*Visual	NORML	NORML	NORML	
	Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	
	Cadium				0	0	
FLUID CONDITION	Sodium	ppm	ASTM D5185m	010	2	2	
The BN result indicates that there is suitable alkalinity remaining in the	Boron	ppm	ASTM D5185m		189	65	
oil. The condition of the oil is suitable for further service.	Barium	ppm	ASTM D5185m		0	0	
	Molybdenum	ppm	ASTM D5185m	1.2	86	<1	
	Manganese	ppm	ASTM D5185m		<1	<1	
	Magnesium	ppm	ASTM D5185m		381	18	
	Calcium	ppm	ASTM D5185m		1657	2490	
	Phosphorus	ppm	ASTM D5185m		1044	1044	
	Zinc	ppm	ASTM D5185m	1160	1263	1315	
	Sulfur	ppm	ASTM D5185m	4996	3217	3105	
	Oxidation	Abs/.1mm	*ASTM D7414	>25	19.4	21.5	
	Dese Niersker (DNI)		AOTH DOOOD	40.4	<u> </u>		

Base Number (BN) mg KOH/g ASTM D2896 10.1

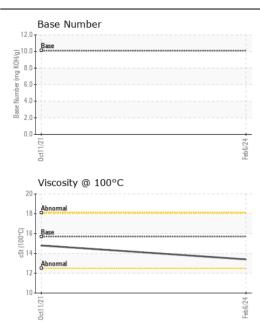
ASTM D445 15.7

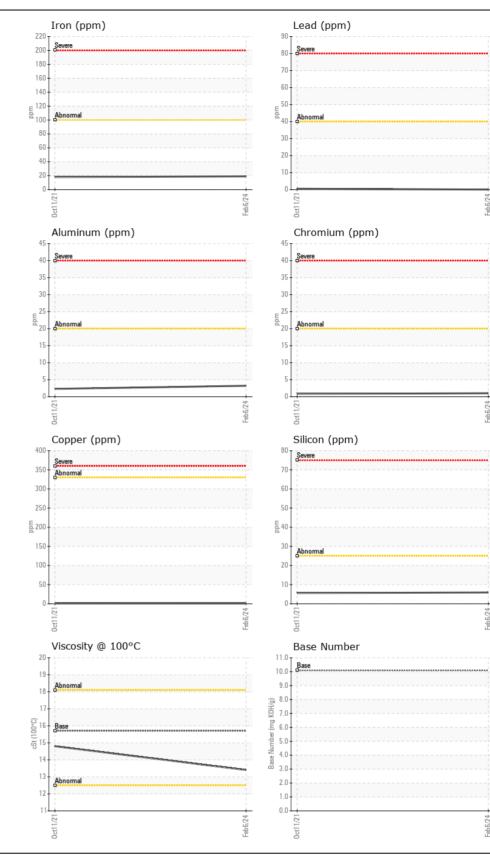
Visc @ 100°C cSt

14.8

6.0

13.4





Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513 **KELLER-NA - KERNERSVILLE** Sample No. : WCMC153999 Received 1024 EAST MOUNTAIN ST :08 Feb 2024 Lab Number : 06084156 Tested : 09 Feb 2024 KERNERSVILLE, NC Unique Number : 10871601 : 09 Feb 2024 - Wes Davis US 27284 Diagnosed Test Package : MOB 1 (Additional Tests: TBN) Contact: KEN COOK Certificate L2367 KENNETH.COOK@KELLER-NA.COM To discuss this sample report, contact Customer Service at 1-800-237-1369. * - Denotes test methods that are outside of the ISO 17025 scope of accreditation. T: Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012) F: (336)668-3259

Contact/Location: KEN COOK - HAYCOL

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