

## Machine Id **172** Component **Diesel Engine** Fluid **DIESEL ENGINE OIL SAE 40 (--- GAL)**

RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
	Sample Number		Client Info		WC06160023	WC06083229	
Resample at the next service interval to monitor. Please specify the	Sample Date		Client Info		24 Apr 2024	07 Feb 2024	
component make and model with your next sample. Please specify the brand, type, and viscosity of the oil on your next sample.	Machine Age	mls	Client Info		738362	709577	
brand, type, and viscosity of the off off your next sample.	Oil Age	mls	Client Info		0	0	
	Filter Age	mls	Client Info		0	0	
	Oil Changed		Client Info		N/A	N/A	
	Filter Changed		Client Info		N/A	N/A	
	Sample Status				NORMAL	NORMAL	
WEAR	Iron	ppm	ASTM D5185m	>100	9	12	
	Chromium	ppm	ASTM D5185m	>20	0	<1	
All component wear rates are normal.	Nickel	ppm	ASTM D5185m		0	0	
	Titanium	ppm	ASTM D5185m		90	84	
	Silver	ppm	ASTM D5185m	>3	0	0	
	Aluminum	ppm	ASTM D5185m	>20	2	3	
	Lead	ppm	ASTM D5185m	>40	0	0	
	Copper	ppm	ASTM D5185m	>330	<1	2	
	Tin	ppm	ASTM D5185m	>15	0	<1	
	Vanadium	ppm	ASTM D5185m		0	1	
	White Metal	scalar	*Visual	NONE	NONE	NONE	
	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	
CONTAMINATION	Silicon		ASTM D5185m	. 05	6	6	
CONTAMINATION	Potassium	ppm ppm	ASTM D5185m		2	2	
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	20.2	NEG	NEG	
	Soot %	%	*ASTM D7844	>3	0.1	0.1	
	Nitration	Abs/cm	*ASTM D7624	>20	9.7	9.9	
	Sulfation	Abs/.1mm	*ASTM D7415		24.7	25.1	
	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	
	~ "				•		
FLUID CONDITION	Sodium	ppm	ASTM D5185m		3	4	
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.	Boron	ppm	ASTM D5185m		55	53	
	Barium	ppm	ASTM D5185m		0	0	
	Molybdenum	ppm	ASTM D5185m ASTM D5185m	100	6 0	13 <1	
	Manganese Magnesium	ppm ppm	ASTM D5185m	150	469	403	
	Calcium	ppm	ASTM D5185m		2055	1695	
	Phosphorus	ppm	ASTM D5185m		1085	978	
	Zinc	ppm	ASTM D5185m		1364	1209	
	Sulfur	ppm	ASTM D5185m		4489	3413	
	Ovidation	Aba/ 1mm		4230	4405	00.1	

Oxidation

Visc @ 100°C cSt

22.1

5.6

14.4

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21.3

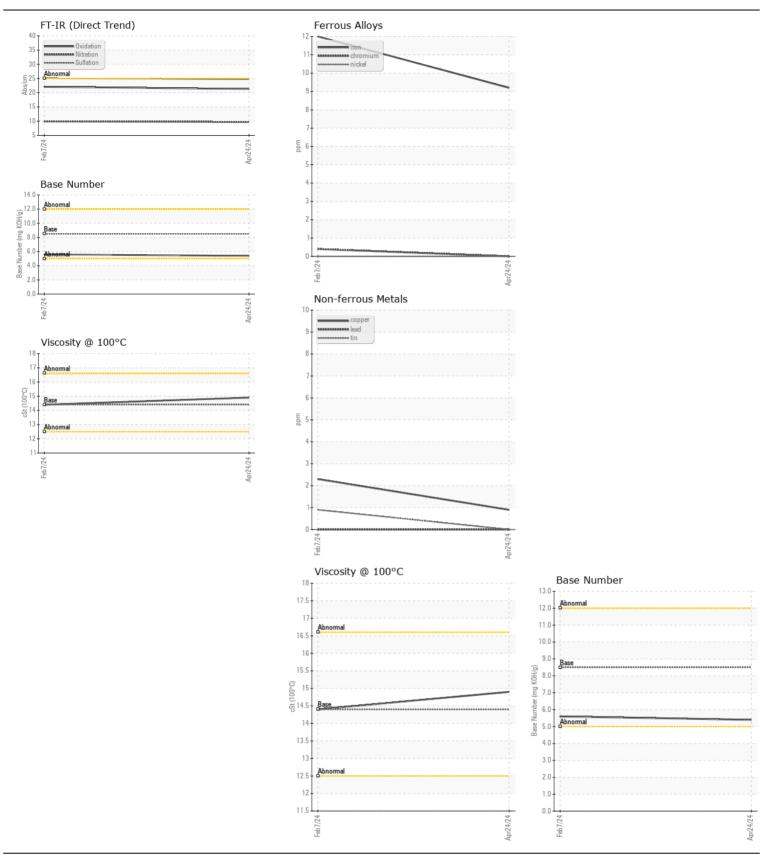
5.4

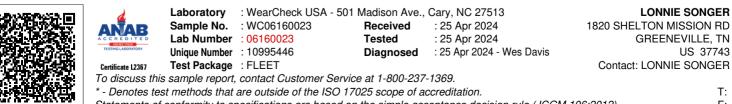
14.9

Abs/.1mm \*ASTM D7414 >25

ASTM D445 14.4

Base Number (BN) mg KOH/g ASTM D2896 8.5





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Contact/Location: LONNIE SONGER - LONGRETN Page 2 of 2