

## Machine Id **7111** Component **Diesel Engine** Fluid **DIESEL ENGINE OIL SAE 15W40 (--- QTS)**

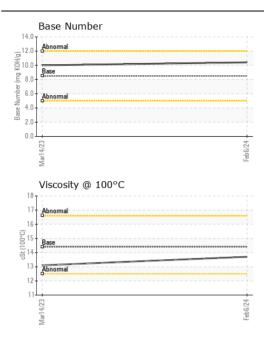
RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
Resample at the next service interval to monitor. Please specify the component make and model with your next sample.	Sample Number		Client Info		RW0004662	RW0003920	
	Sample Date		Client Info		06 Feb 2024	14 Mar 2023	
	Machine Age	hrs	Client Info		531	359	
	Oil Age	hrs	Client Info		150	100	
	Filter Age	hrs	Client Info		150	100	
	Oil Changed		Client Info		Changed	Changed	
	Filter Changed		Client Info		Changed	Changed	
	Sample Status				NORMAL	NORMAL	
WEAR Metal levels are typical for a new component breaking in.	Iron	ppm	ASTM D5185m	>100	3	5	
	Chromium	ppm	ASTM D5185m	>20	<1	<1	
	Nickel	ppm	ASTM D5185m	>4	<1	0	
	Titanium	ppm	ASTM D5185m		0	0	
	Silver	ppm	ASTM D5185m	>3	0	0	
	Aluminum	ppm	ASTM D5185m	>20	3	3	
	Lead	ppm	ASTM D5185m		0	0	
	Copper	ppm	ASTM D5185m	>330	1	2	
	Tin	ppm	ASTM D5185m	>15	<1	<1	
	Vanadium	ppm	ASTM D5185m		0	0	
	White Metal	scalar	*Visual	NONE	NONE	NONE	
	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	
CONTAMINATION	Silicon		ASTM D5185m	<u>\</u> 25	3	5	
	Potassium	ppm ppm	ASTM D5185m		-3 <1	0	
There is no indication of any contamination in the oil.	Fuel	ррпі	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	5.8	5.5	
	Sulfation	Abs/.1mm	*ASTM D7415		17.4	17.6	
	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	Codium			. 150	4	0	
	Sodium Boron	ppm	ASTM D5185m ASTM D5185m		1 8	2 19	
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.	Barium	ppm	ASTM D5185m		0	0	
	Molybdenum	ppm ppm	ASTM D5185m		58	65	
	Manganese	ppm	ASTM D5185m	100		<1	
	Magnesium	ppm	ASTM D5185m	450	892	828	
	Calcium	ppm	ASTM D5185m		1016	1271	
	Phosphorus	ppm	ASTM D5185m		937	1026	
	Zinc		ASTM D5185m		1196	1245	
	Sulfur	ppm ppm	ASTM D5185m		2889	3885	
	Oxidation	Abs/.1mm	*ASTM D3103111		13.8	13.1	
	Base Number (BN)				10.42	10.00	
				0.0	10.42	10.00	

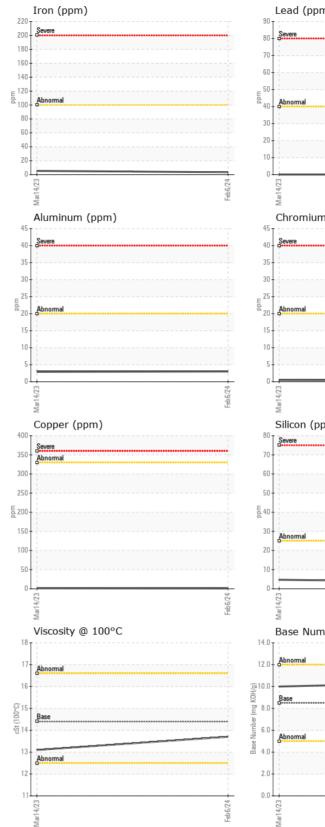
Visc @ 100°C cSt

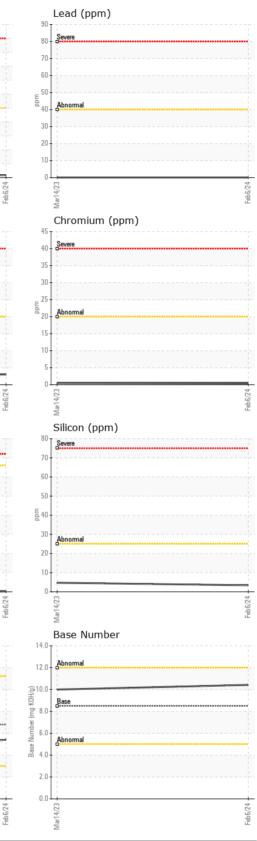
ASTM D445 14.4

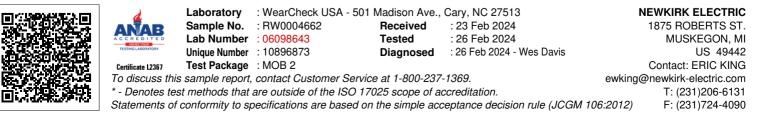
13.1

13.7









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