

## Machine Id 9741

## Diesel Engine

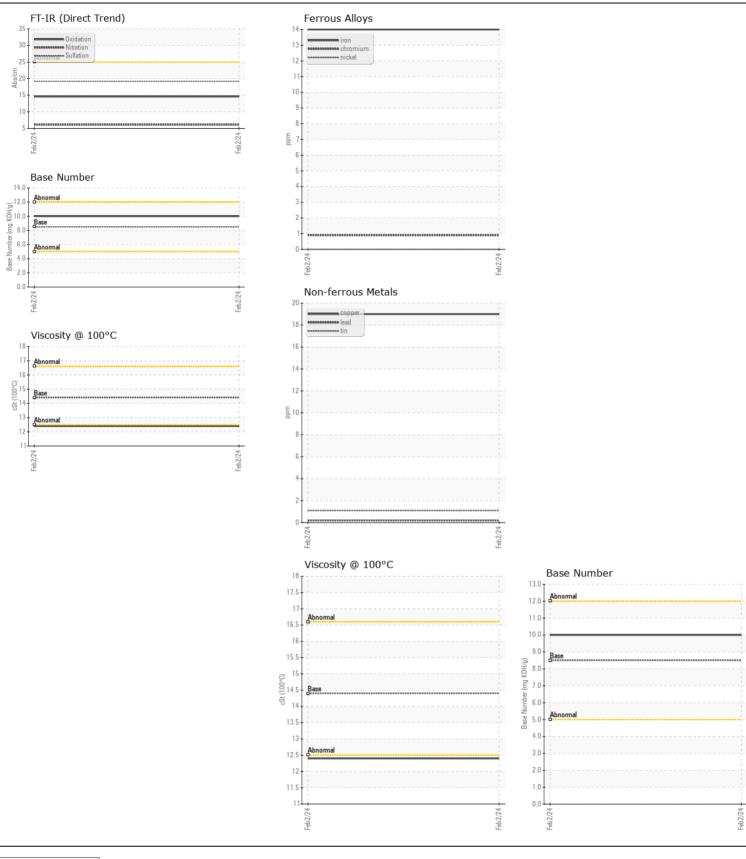
## DIESEL ENGINE OIL SAE 15W40 (--- QTS)

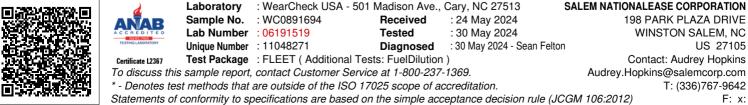
RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
Resample at the next service interval to monitor.	Sample Number		Client Info		WC0891694		
	Sample Date		Client Info		02 Feb 2024		
	Machine Age	mls	Client Info		13171		
	Oil Age	mls	Client Info		0		
	Filter Age	mls	Client Info		0		
	Oil Changed		Client Info		N/A		
	Filter Changed		Client Info		N/A		
	Sample Status				NORMAL		
WEAR	Iron	ppm	ASTM D5185m	>100	14		
Metal levels are typical for a new component breaking in.	Chromium	ppm	ASTM D5185m	>20	<1		
	Nickel	ppm	ASTM D5185m	>4	0		
	Titanium	ppm	ASTM D5185m		<1		
	Silver	ppm	ASTM D5185m	>3	<1		
	Aluminum	ppm	ASTM D5185m	>20	15		
	Lead	ppm	ASTM D5185m		<1		
	Copper	ppm	ASTM D5185m	>330	19		
	Tin	ppm	ASTM D5185m		1		
	Vanadium	ppm	ASTM D5185m		<1		
	White Metal	scalar	*Visual	NONE	NONE		
	Yellow Metal	scalar	*Visual	NONE	NONE		
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CONTAMINATION	Silicon	ppm	ASTM D5185m	>25	3		
There is no indication of any contamination in the oil.	Potassium	ppm	ASTM D5185m	>20	47		
	Fuel	%	ASTM D3524	>5	<1.0		
	Water		WC Method	>0.2	NEG		
	Glycol		WC Method		NEG		
	Soot %	%	*ASTM D7844	>3	0.3		
	Nitration	Abs/cm	*ASTM D7624	>20	6.1		
	Sulfation	Abs/.1mm	*ASTM D7415	>30	19.2		
	Silt	scalar	*Visual	NONE	NONE		
	Debris	scalar	*Visual	NONE	NONE		
	Sand/Dirt	scalar	*Visual	NONE	NONE		
	Appearance	scalar	*Visual	NORML	NORML		
	Odor	scalar	*Visual	NORML	NORML		
	Emulsified Water	scalar	*Visual	>0.2	NEG		
FLUID CONDITION							
	Sodium	ppm	ASTM D5185m		2		
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service.	Boron	ppm	ASTM D5185m		7		
	Barium	ppm	ASTM D5185m		0		
	Molybdenum	ppm	ASTM D5185m	100	59		
	Manganese	ppm	ASTM D5185m		1		
	Magnesium	ppm	ASTM D5185m		978		
	Calcium	ppm	ASTM D5185m		1226		
	Phosphorus	ppm	ASTM D5185m	1150	1055		
	Zinc	ppm	ASTM D5185m	1350	1249		
	Sulfur	ppm	ASTM D5185m	4250	3835		
	Oxidation	Abs/.1mm	*ASTM D7414	>25	14.6		
	Base Number (BN)	mg KOH/g	ASTM D2896	8.5	10.0		
		- C+		- 4 4	10.4		

Visc @ 100°C cSt

ASTM D445 14.4

12.4





Contact/Location: Audrey Hopkins - SALWIN Page 2 of 2