

Machine Id **738215** Component **Diesel Engine** Fluid **DIESEL ENGINE OIL SAE 15W40 (--- QTS)**

RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
Oil and filter change at the time of sampling has been noted. No corrective action is recommended at this time. Resample at the next service interval to monitor.	Sample Number		Client Info		WC0903116		
	Sample Date		Client Info		18 Apr 2024		
	Machine Age	mls	Client Info		260222		
	Oil Age	mls	Client Info		60000		
	Filter Age	mls	Client Info		60000		
	Oil Changed		Client Info		Changed		
	Filter Changed		Client Info		Changed		
	Sample Status				ATTENTION		
WEAR All component wear rates are normal.	Iron	ppm	ASTM D5185m	>100	52		
	Chromium	ppm	ASTM D5185m	>20	3		
	Nickel	ppm	ASTM D5185m	>4	1		
	Titanium	ppm	ASTM D5185m		1		
	Silver	ppm	ASTM D5185m	>3	0		
	Aluminum	ppm	ASTM D5185m	>20	15		
	Lead	ppm	ASTM D5185m	>40	<1		
	Copper	ppm	ASTM D5185m	>330	22		
	Tin	ppm	ASTM D5185m	>15	2		
	Vanadium	ppm	ASTM D5185m		<1		
	White Metal	scalar	*Visual	NONE	NONE		
	Yellow Metal	scalar	*Visual	NONE	NONE		
CONTAMINATION	Silicon	ppm	ASTM D5185m		10		
Tests indicate that there is no fuel present in the oil. There is no indication of any contamination in the oil.	Potassium	ppm	ASTM D5185m		31		
	Fuel	%	ASTM D3524	>5	0.2		
	Water		WC Method	>0.2	NEG		
	Glycol		WC Method		NEG		
	Soot %	%	*ASTM D7844	>3	1.8		
	Nitration	Abs/cm	*ASTM D7624	>20	13.2		
	Sulfation	Abs/.1mm	*ASTM D7415	>30	26.7		
	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		
	Sodium	nom	ASTM D5185m	159	3		
FLUID CONDITION	Boron	ppm ppm	ASTM D5185m		2		
The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.	Barium	ppm	ASTM D5185m		0		
	Molybdenum	ppm	ASTM D5185m		63		
	Manganese	ppm	ASTM D5185m	100	1		
	Magnesium	ppm	ASTM D5185m	450	1009		
	Calcium	ppm	ASTM D5185m	3000	1253		
	Phosphorus	ppm	ASTM D5185m		1207		
	Zinc	ppm	ASTM D5185m		1360		
	Sulfur	ppm	ASTM D5185m		2930		
	Oxidation		*ASTM D5185111		2930		
	Oxidation	MU5/.111111	AG11VI D7414	>20	24.0		

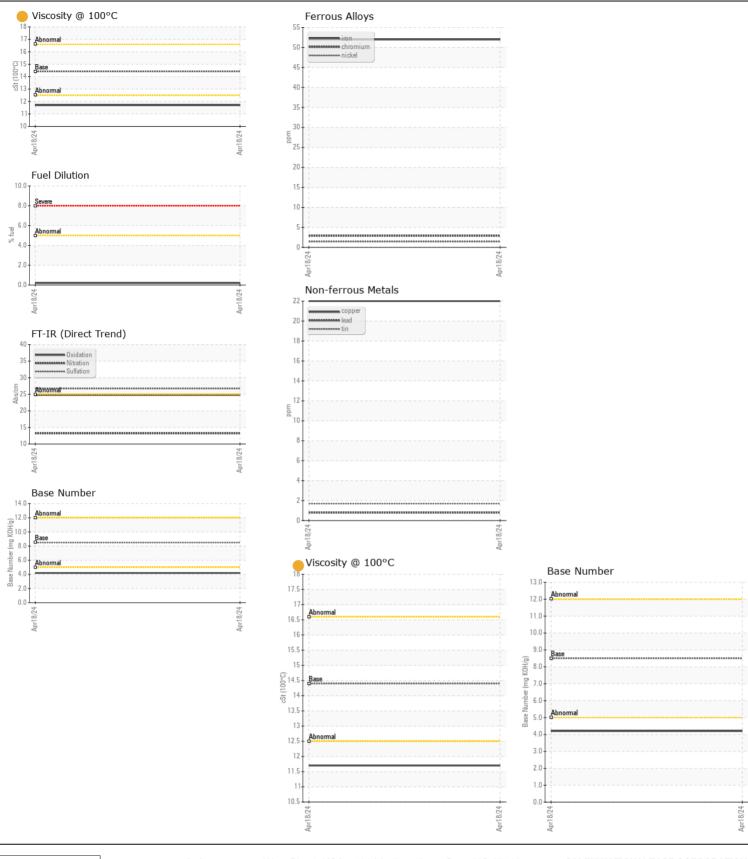
Base Number (BN) mg KOH/g ASTM D2896 8.5

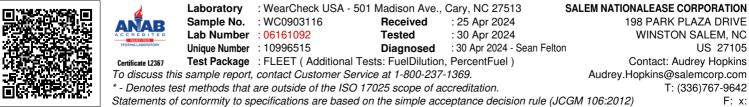
ASTM D445 14.4

Visc @ 100°C cSt

4.2

11.7





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