

Machine Id **11401** Component **Diesel Engine** Fluid **DIESEL ENGINE OIL SAE 15W40 (--- QTS)**

RECOMMENDATION

Resample at the next service interval to monitor. Please specify the component make and model with your next sample. Please specify the brand, type, and viscosity of the oil on your next sample.

WEAR

Metal levels are typical for a new component breaking in.

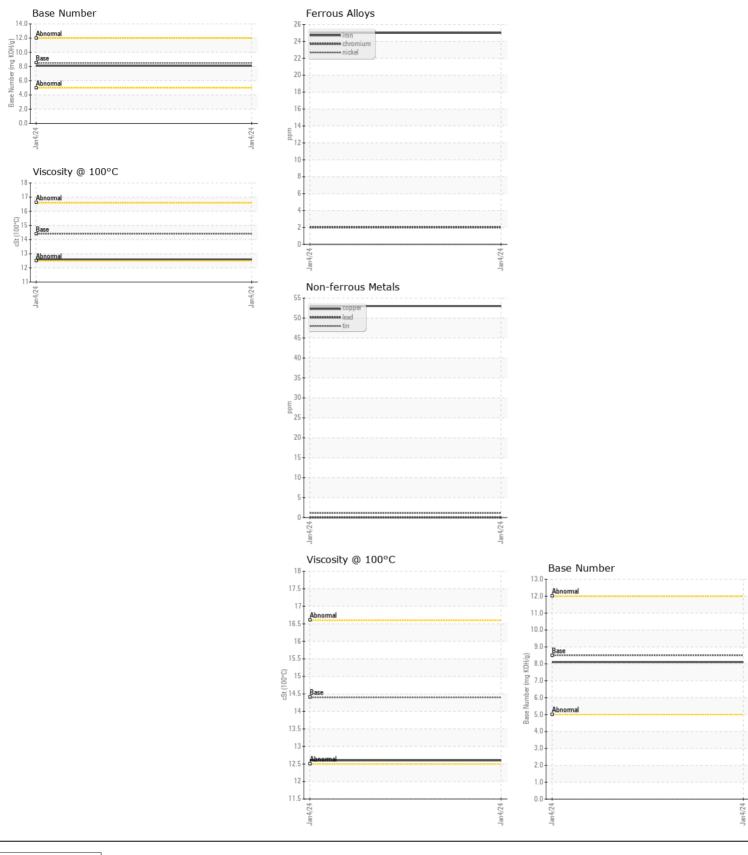
CONTAMINATION

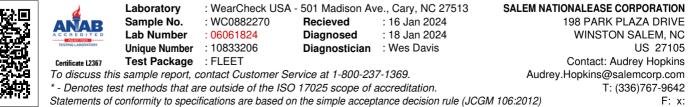
Elevated aluminum (AI) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. There is no indication of any contamination in the oil.

	Test	UOM	Method	Limit/Abn	Current	History1	History2
	Sample Number		Client Info		WC0882270		
	Sample Date		Client Info		04 Jan 2024		
	Machine Age	mls	Client Info		71084		
	Oil Age	mls	Client Info		28372		
	Filter Age	mls	Client Info		28372		
	Oil Changed		Client Info		Changed		
	Filter Changed		Client Info		Changed		
	Sample Status				NORMAL		
	Iron		ASTM D5185m	. 100	05		
	Iron	ppm		>100	25 2		
	Chromium Nickel	ppm	ASTM D5185m ASTM D5185m	>20 >4	2		
	Titanium	ppm	ASTM D5185m	>4	0		
	Silver	ppm		>3	0		
	Aluminum	ppm	ASTM D5185m ASTM D5185m	>3	14		
	Lead	ppm	ASTM D5185m	>20	0		
		ppm			53		
	Copper Tin	ppm	ASTM D5185m ASTM D5185m	>330 >15	- 53 - 1		
	Vanadium	ppm	ASTM D5185m	>10	। <1		
	White Metal	ppm scalar	*Visual	NONE	NONE		
	Yellow Metal	scalar	*Visual	NONE	NONE		
		Scalai	visuai				
	Silicon	ppm	ASTM D5185m	>25	6		
	Potassium	ppm	ASTM D5185m	>20	34		
	Fuel		WC Method	>5	<1.0		
	Water		WC Method	>0.2	NEG		
	Glycol		WC Method		NEG		
	Soot %	%	*ASTM D7844	>3	0.5		
	Nitration	Abs/cm	*ASTM D7624	>20	8.6		
	Sulfation	Abs/.1mm	*ASTM D7415	>30	21.2		
	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		
				150	0		
	Sodium	ppm	ASTM D5185m	>158 250	2 9		
	Boron	ppm	ASTM D5185m		-		
	Barium	ppm	ASTM D5185m ASTM D5185m	10 100	0 62		
	Molybdenum Manganese	ppm	ASTM D5185m	100			
	0	ppm	ASTM D5185m	450	1 914		
	Magnesium Calcium	ppm	ASTM D5185m	450 3000	1280		
	Phosphorus	ppm ppm	ASTM D5185m	1150	951		
	Zinc		ASTM D5185m	1350	1217		
	Sulfur	ppm ppm	ASTM D5185m	4250	2296		
	Oxidation	Abs/.1mm	*ASTM D3103111	>25	18.1		
	Base Number (BN)	mg KOH/g	ASTM D7414 ASTM D2896	8.5	8.1		
	Visc @ 100°C	cSt	ASTM D2030 ASTM D445	14.4	12.6		
		501	. 10 1101 0110	17.7	12.0		

FLUID CONDITION

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.





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Contact/Location: Audrey Hopkins - SALWIN