

## Machine Id **34139** Component **Diesel Engine** Fluid **DIESEL ENGINE OIL SAE 15W40 (--- GAL)**

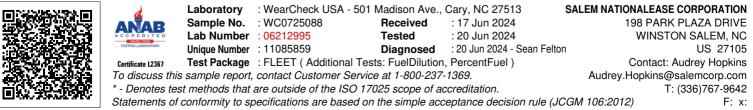
RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
No corrective action is recommended at this time. Resample at the next service interval to monitor.	Sample Number		Client Info		WC0725088		
	Sample Date		Client Info		14 May 2024		
	Machine Age	mls	Client Info		21927		
	Oil Age	mls	Client Info		0		
	Filter Age	mls	Client Info		0		
	Oil Changed		Client Info		N/A		
	Filter Changed		Client Info		N/A		
	Sample Status				ATTENTION		
WEAR Metal levels are typical for a new component breaking in.	Iron	ppm	ASTM D5185m	<100	31		
	Chromium	ppm	ASTM D5185m		3		
	Nickel	ppm	ASTM D5185m		1		
	Titanium	ppm	ASTM D5185m	24	۰ <1		
	Silver		ASTM D5185m	.2	2		
	Aluminum	ppm	ASTM D5185m		2 48		
	Lead	ppm	ASTM D5185m		48 <1		
		ppm	ASTM D5185m ASTM D5185m		<1 185		
	Copper Tin	ppm	ASTM D5185m		3		
	Vanadium	ppm	ASTM D5185m	210	ა <1		
	White Metal	ppm	*Visual	NONE	NONE		
		scalar			NONE		
	Yellow Metal	scalar	*Visual	NONE	NONE		
CONTAMINATION Fuel content negligible. Elevated aluminum (Al) 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. No other contaminants were detected in the oil.	Silicon	ppm	ASTM D5185m	>25	8		
	Potassium	ppm	ASTM D5185m		148		
	Fuel	%	ASTM D3524		0.0		
	Water		WC Method		NEG		
	Glycol		WC Method		NEG		
	Soot %	%	*ASTM D7844	>3	0.3		
	Nitration	Abs/cm	*ASTM D7624	>20	7.4		
	Sulfation	Abs/.1mm	*ASTM D7415	>30	22.8		
	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 The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.							
	Sodium	ppm	ASTM D5185m		4		
	Boron	ppm	ASTM D5185m	250	86		
	Barium	ppm	ASTM D5185m	10	1		
	Molybdenum	ppm	ASTM D5185m	100	50		
	Manganese	ppm	ASTM D5185m		4		
	Magnesium	ppm	ASTM D5185m	450	484		
	Calcium	ppm	ASTM D5185m	3000	1649		
	Phosphorus	ppm	ASTM D5185m	1150	860		
	Zinc	ppm	ASTM D5185m	1350	974		
	Sulfur	ppm	ASTM D5185m	4250	2581		
	Oxidation	Abs/.1mm	*ASTM D7414	>25	20.3		
	Base Number (BN)	mg KOH/g	ASTM D2896	8.5	9.0		
		<u> </u>	AOTH DATE		• · • ·		

Visc @ 100°C cSt

ASTM D445 14.4

10.1





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