

Machine Id **11876** 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. Resample at the next service interval to monitor.	Sample Number		Client Info		WC0879874		
	Sample Date		Client Info		14 May 2024		
	Machine Age	mls	Client Info		24615		
	Oil Age	mls	Client Info		24615		
	Filter Age	mls	Client Info		24615		
	Oil Changed		Client Info		Changed		
	Filter Changed		Client Info		Changed		
	Sample Status				ATTENTION		
WEAR	Iron	ppm	ASTM D5185m	>100	32		
All component wear rates are normal.	Chromium	ppm	ASTM D5185m	>20	2		
	Nickel	ppm	ASTM D5185m	>4	2		
	Titanium	ppm	ASTM D5185m		0		
	Silver	ppm	ASTM D5185m	>3	1		
	Aluminum	ppm	ASTM D5185m	>20	60		
	Lead	ppm	ASTM D5185m	>40	<1		
	Copper	ppm	ASTM D5185m	>330	167		
	Tin	ppm	ASTM D5185m	>15	9		
	Vanadium	ppm	ASTM D5185m		0		
	White Metal	scalar	*Visual	NONE	NONE		
	Yellow Metal	scalar	*Visual	NONE	NONE		
				~-	•		
CONTAMINATION Fuel content negligible. 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.	Silicon	ppm	ASTM D5185m		8		
	Potassium	ppm	ASTM D5185m		159		
	Fuel	%	ASTM D3524		0.2		
	Water		WC Method	>0.2	NEG		
	Glycol	0/	WC Method	0	NEG		
	Soot %	%	*ASTM D7844 *ASTM D7624		0.4		
	Nitration	Abs/cm		>20	8.1		
	Sulfation Silt	Abs/.1mm scalar	*ASTM D7415 *Visual	>30 NONE	22.6 NONE		
	Debris	scalar	*Visual	NONE	NONE		
	Sand/Dirt	scalar	*Visual	NONE	NONE		
	Appearance	scalar	*Visual	NORML	NORML		
	Odor	scalar	*Visual	NORML	NORML		
	Emulsified Water		*Visual	>0.2	NEG		
		Scalai	visuai	>0.2			
FLUID CONDITION	Sodium	ppm	ASTM D5185m	>158	6		
The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.	Boron	ppm	ASTM D5185m		79		
	Barium	ppm	ASTM D5185m		0		
	Molybdenum	ppm	ASTM D5185m	100	49		
	Manganese	ppm	ASTM D5185m		4		
	Magnesium	ppm	ASTM D5185m	450	523		
	Calcium	ppm	ASTM D5185m	3000	1682		
	Phosphorus	ppm	ASTM D5185m	1150	798		
					070		

Zinc

Sulfur

Oxidation

Visc @ 100°C cSt

972

2550

20.4

8.2

10.5

ASTM D5185m 1350

ASTM D445 14.4

ppm ASTM D5185m 4250

Abs/.1mm *ASTM D7414 >25

ppm

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



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513 SALEM NATIONALEASE CORPORATION Sample No. Received 198 PARK PLAZA DRIVE : WC0879874 : 28 May 2024 Lab Number : 06193435 Tested WINSTON SALEM, NC : 31 May 2024 : 31 May 2024 - Don Baldridge US 27105 Unique Number : 11050187 Diagnosed Test Package : FLEET (Additional Tests: FuelDilution, PercentFuel) **Contact: Audrey Hopkins** Certificate L2367 Audrey.Hopkins@salemcorp.com To discuss this sample report, contact Customer Service at 1-800-237-1369. * - Denotes test methods that are outside of the ISO 17025 scope of accreditation. T: (336)767-9642 F: x: Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

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