

Machine Id **49358** Component **Diesel Engine** Fluid **DIESEL ENGINE OIL SAE 15W40 (--- GAL)**

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		WC0925924		
	Sample Date		Client Info		29 Mar 2024		
	Machine Age	mls	Client Info		17039		
	Oil Age	mls	Client Info		0		
	Filter Age	mls	Client Info		0		
	Oil Changed		Client Info		Changed		
	Filter Changed		Client Info		Changed		
	Sample Status				ATTENTION		
WEAR	Iron	ppm	ASTM D5185m	>100	33		
Metal levels are typical for a new component breaking in.	Chromium	ppm	ASTM D5185m	>20	1		
	Nickel	ppm	ASTM D5185m	>4	2		
	Titanium	ppm	ASTM D5185m		0		
	Silver	ppm	ASTM D5185m	>3	2		
	Aluminum	ppm	ASTM D5185m	>20	66		
	Lead	ppm	ASTM D5185m	>40	<1		
	Copper	ppm	ASTM D5185m	>330	192		
	Tin	ppm	ASTM D5185m		9		
	Vanadium	ppm	ASTM D5185m		0		
	White Metal	scalar	*Visual	NONE	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. There is no indication of any contamination in the oil.	Silicon	ppm	ASTM D5185m	>25	8		
	Potassium	ppm	ASTM D5185m	>20	168		
	Fuel	%	ASTM D3524	>5	0.2		
	Water		WC Method	>0.2	NEG		
	Glycol		WC Method		NEG		
	Soot %	%	*ASTM D7844	>3	0.3		
	Nitration	Abs/cm	*ASTM D7624	>20	7.0		
	Sulfation	Abs/.1mm	*ASTM D7415	>30	23.0		
	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		
LUID CONDITION	Sodium	ppm	ASTM D5185m	>158	6		
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	250	55		
	Barium	ppm	ASTM D5185m		0		
	Molybdenum	ppm	ASTM D5185m	100	41		
	Manganese	ppm	ASTM D5185m		5		
	Magnesium	ppm	ASTM D5185m	450	528		
	Calcium	ppm	ASTM D5185m	3000	1706		
	Phosphorus	ppm	ASTM D5185m		761		
		1.1.					

Zinc

Sulfur

Oxidation

Visc @ 100°C cSt

932

2671

20.7

9.6

9.4

ASTM D5185m 1350

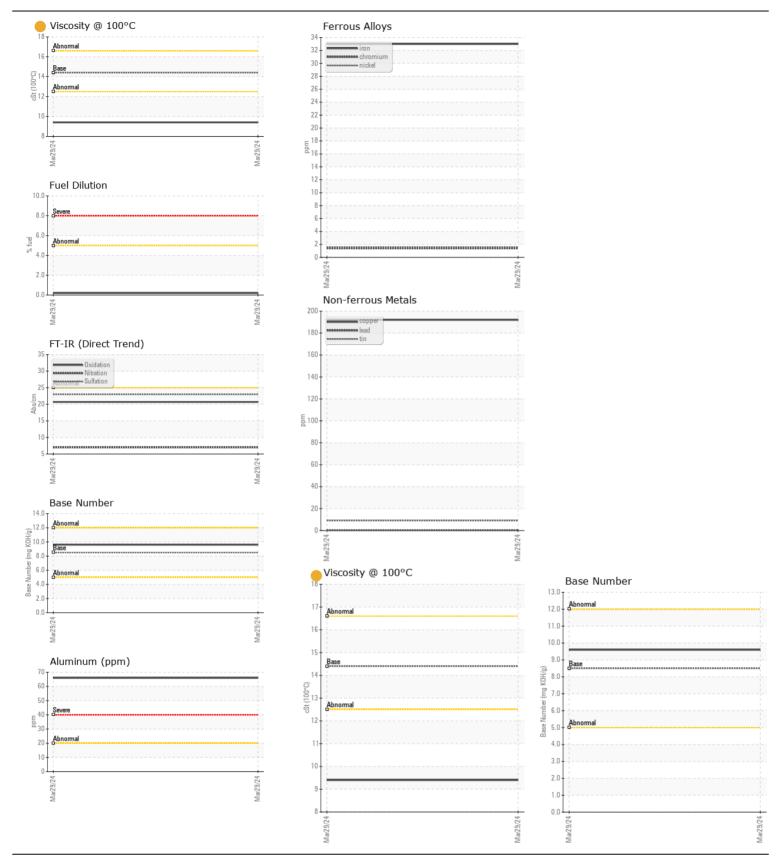
ASTM D445 14.4

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 : WC0925924 : 10 Apr 2024 Lab Number : 06145198 WINSTON SALEM, NC Tested : 15 Apr 2024 US 27105 Unique Number : 10970006 Diagnosed : 15 Apr 2024 - Jonathan Hester 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