

Machine Id **145486** Component **Diesel Engine** Fluid **DIESEL ENGINE OIL SAE 15W40 (--- QTS)**

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RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
Resample at the next service interval to monitor. Please specify the	Sample Number		Client Info		WC0945831	WC0787751	
component make and model with your next sample. Please specify the brand, type, and viscosity of the oil on your next sample.	Sample Date		Client Info		25 Jun 2024	13 Oct 2023	
	Machine Age	mls	Client Info		60000	0	
	Oil Age	mls	Client Info		60000	0	
	Filter Age	mls	Client Info		60000	0	
	Oil Changed		Client Info		Changed	Changed	
	Filter Changed		Client Info		Changed	Changed	
	Sample Status				NORMAL	NORMAL	
				400			
WEAR Metal levels are typical for a new component breaking in.	Iron	ppm	ASTM D5185m		11	39	
	Chromium	ppm	ASTM D5185m		<1	<1	
	Nickel	ppm	ASTM D5185m	>4	<1	<1	
	Titanium	ppm	ASTM D5185m	0	1	0	
	Silver	ppm	ASTM D5185m		<1	0	
	Aluminum	ppm	ASTM D5185m		6	21	
	Lead	ppm	ASTM D5185m		<1	<1	
	Copper	ppm	ASTM D5185m		5	220	
	Tin	ppm	ASTM D5185m	>15	<1	0	
	Vanadium	ppm	ASTM D5185m		<1	0	
	White Metal	scalar	*Visual	NONE	NONE	NONE	
	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	
CONTAMINATION Silicon ppm ASTM D5185m >25						14	
CONTAMINATION	Potassium	ppm ppm	ASTM D5185m		8 6	68	
There is no indication of any contamination in the oil.	Fuel	ppiii	WC Method		<1.0	0.4	
	Water		WC Method		NEG	NEG	
	Glycol		WC Method	20.2	NEG	NEG	
	Soot %	%	*ASTM D7844	<u>\</u> 3	0.5	0.8	
	Nitration	Abs/cm	*ASTM D7624	>20	7.2	9.3	
	Sulfation	Abs/.1mm	*ASTM D7415		21.5	21.6	
	Silt	scalar	*Visual	NONE	NONE	NONE	
	Debris	scalar	*Visual	NONE	NONE	NONE	
	Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	
	Appearance	scalar	*Visual	NORML	NORML	NORML	
	Odor	scalar	*Visual	NORML	NORML	NORML	
	Emulsified Water		*Visual	>0.2	NEG	NEG	
FLUID CONDITION	Sodium	ppm	ASTM D5185m	>158	1	4	
	Boron	ppm	ASTM D5185m	250	304	31	
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.	Barium	ppm	ASTM D5185m	10	<1	6	
	Molybdenum	ppm	ASTM D5185m	100	88	64	
	Manganese	ppm	ASTM D5185m		<1	4	
	Magnesium	ppm	ASTM D5185m	450	438	377	
	Calcium	ppm	ASTM D5185m	3000	1431	1718	
	Phosphorus	ppm	ASTM D5185m	1150	972	950	
	Zinc	ppm	ASTM D5185m		1173	1212	
	Sulfur	ppm	ASTM D5185m	4250	2876	3054	
	Oxidation	Abs/.1mm	*ASTM D7414	>25	14.7	17.9	

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

ASTM D445 14.4

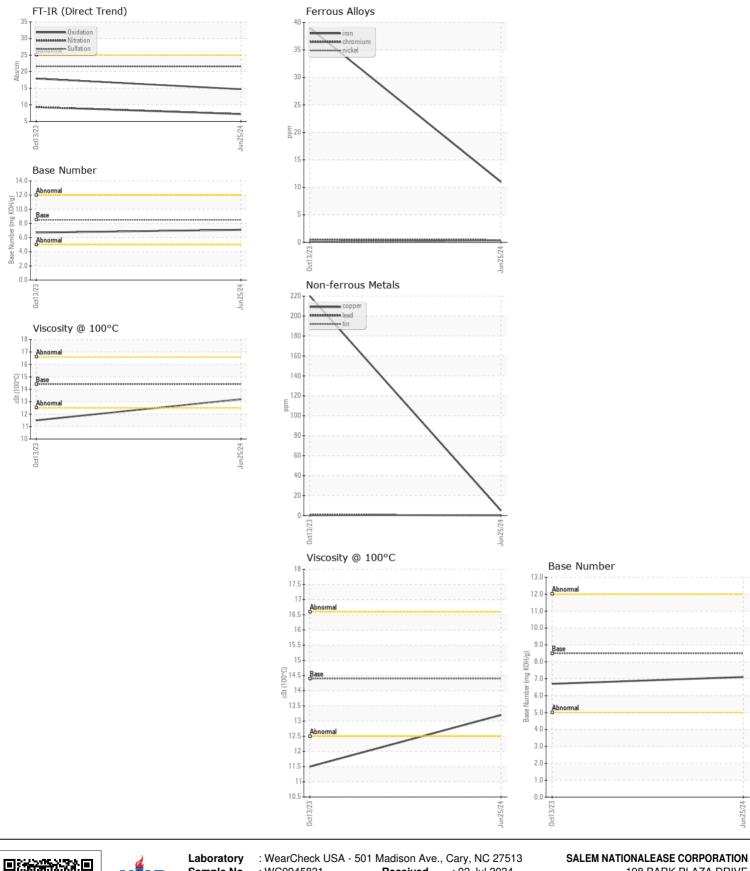
Visc @ 100°C cSt

6.7

11.5

7.1

13.2



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513 SALEM NATIONALEASE CORPORATION Sample No. : WC0945831 Received 198 PARK PLAZA DRIVE : 02 Jul 2024 Lab Number : 06226035 Tested WINSTON SALEM, NC : 03 Jul 2024 Diagnosed Unique Number : 11109528 : 03 Jul 2024 - Wes Davis US 27105 Test Package : FLEET **Contact: Audrey Hopkins** Certificate L2367 To discuss this sample report, contact Customer Service at 1-800-237-1369. Audrey.Hopkins@salemcorp.com * - Denotes test methods that are outside of the ISO 17025 scope of accreditation. T: (336)767-9642 Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012) F: x:

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