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Machine Id **11868** Component **Diesel Engine** Fluid **DIESEL ENGINE OIL SAE 15W40 (--- QTS)**

RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
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.	Sample Number		Client Info		WC0883265	WC0795918	WC0795943
	Sample Date		Client Info		01 Feb 2024	28 Aug 2023	01 Jun 2023
	Machine Age	mls	Client Info		201021	148961	0
	Oil Age	mls	Client Info		0	25000	0
	Filter Age	mls	Client Info		25000	0	0
	Oil Changed		Client Info		Changed	Changed	Changed
	Filter Changed		Client Info		Changed	Changed	Changed
	Sample Status				NORMAL	NORMAL	NORMAL
				400	40		40
WEAR	Iron	ppm	ASTM D5185m		12	11	10
All component wear rates are normal.	Chromium	ppm	ASTM D5185m		<1	<1	1
	Nickel	ppm	ASTM D5185m	>4	0	0	0
	Titanium	ppm	ASTM D5185m	0	0	<1	0
	Silver	ppm	ASTM D5185m		0	0 13	0
	Aluminum	ppm	ASTM D5185m		9		9
	Lead	ppm	ASTM D5185m		0 3	<1 8	0
	Copper Tin	ppm	ASTM D5185m ASTM D5185m			0	0
	Vanadium	ppm	ASTM D5185m	>15	<1 0	<1	
	White Metal	ppm scalar	*Visual	NONE	NONE	NONE	0 NONE
	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
		Scalai	visuai				NONL
CONTAMINATION	Silicon	ppm	ASTM D5185m	>25	5	4	3
	Potassium	ppm	ASTM D5185m	>20	8	26	20
There is no indication of any contamination in the oil.	Fuel		WC Method	>5	<1.0	<1.0	<1.0
	Water		WC Method	>0.2	NEG	NEG	NEG
	Glycol		WC Method		NEG	NEG	NEG
	Soot %	%	*ASTM D7844	>3	0.7	0.7	0.7
	Nitration	Abs/cm	*ASTM D7624	>20	8.1	8.1	7.9
	Sulfation	Abs/.1mm	*ASTM D7415	>30	22.0	21.2	21.5
	Silt	scalar	*Visual	NONE	NONE	NONE	NONE
	Debris	scalar	*Visual	NONE	NONE	NONE	NONE
	Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
	Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
	Odor	scalar	*Visual	NORML	NORML	NORML	NORML
	Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	NEG
FLUID CONDITION	Sodium	ppm	ASTM D5185m	>158	2	1	0
	Boron	ppm	ASTM D5185m		124	0	3
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		0	0	2
	Molybdenum	ppm	ASTM D5185m		72	62	49
	Manganese	ppm	ASTM D5185m		<1	<1	<1
	Magnesium	ppm	ASTM D5185m	450	563	1029	760
	Calcium	ppm	ASTM D5185m	3000	1215	1146	934
	Phosphorus	ppm	ASTM D5185m	1150	908	986	799
	Zinc	ppm	ASTM D5185m	1350	1001	1283	1010

Sulfur

Oxidation

Visc @ 100°C cSt

ppm ASTM D5185m 4250

Abs/.1mm *ASTM D7414 >25

ASTM D445 14.4

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

3512

16.0

8.6

13.5

2649

16.1 7.2

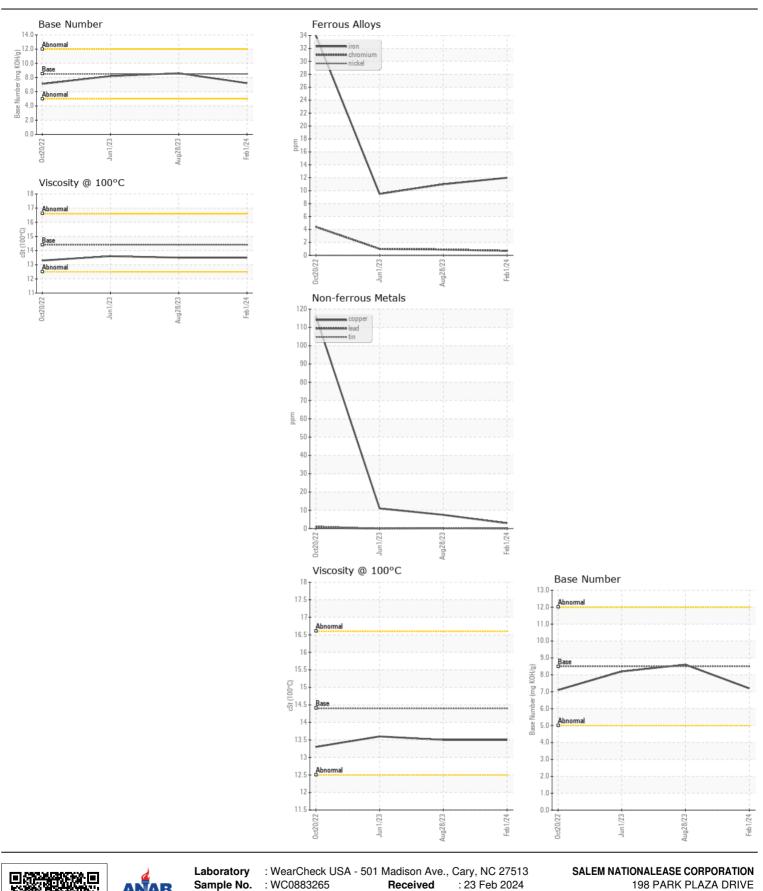
13.5

2617

17.3

8.2

13.6



Lab Number : 06098254 : 26 Feb 2024 WINSTON SALEM, NC Tested Unique Number : 10896484 : 26 Feb 2024 - Wes Davis US 27105 Diagnosed 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)

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