

Machine Id **9725** Component **Diesel Engine** Fluid **DIESEL ENGINE OIL SAE 15W40 (--- QTS)**

RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
	Sample Number		Client Info		WC0891657	WC0874168	WC0861134
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 Date		Client Info		29 Jan 2024	15 Dec 2023	09 Oct 2023
	Machine Age	hrs	Client Info		259000	257376	253031
	Oil Age	hrs	Client Info		0	0	0
	Filter Age	hrs	Client Info		0	0	0
	Oil Changed		Client Info		Changed	Changed	Changed
	Filter Changed		Client Info		Changed	Changed	Changed
	Sample Status				NORMAL	NORMAL	NORMAL
WEAR	Iron	ppm	ASTM D5185m	>100	6	4	3
All component wear rates are normal.	Chromium	ppm	ASTM D5185m		<1	<1	<1
	Nickel	ppm	ASTM D5185m		0	0	0
	Titanium	ppm	ASTM D5185m		<1	0	0
	Silver	ppm	ASTM D5185m	>3	<1	0	0
	Aluminum	ppm	ASTM D5185m	>20	4	2	1
	Lead	ppm	ASTM D5185m		<1	0	<1
	Copper	ppm	ASTM D5185m	>330	6	<1	<1
	Tin	ppm	ASTM D5185m	>15	0	0	<1
	Vanadium	ppm	ASTM D5185m		<1	0	0
	White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
CONTAMINATION	Silicon		ASTM D5185m	、 25	3	3	3
CONTAMINATION	Potassium	ppm	ASTM D5185m		8	2	1
There is no indication of any contamination in the oil.	Fuel	ppm	WC Method		ہ <1.0	<1.0	<1.0
	Water		WC Method		NEG	NEG	NEG
	Glycol		WC Method	20.L	NEG	NEG	NEG
	Soot %	%	*ASTM D7844	>3	0.1	0.1	0.2
	Nitration	Abs/cm	*ASTM D7624		5.1	5.4	5.9
	Sulfation	Abs/.1mm	*ASTM D7415	>30	17.8	18.2	18.4
	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	<15Q	<1	0	0
I LOID CONDITION	Boron	ppm	ASTM D5185m		<1	<1	0
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	0
	Molybdenum	ppm	ASTM D5185m		62	63	57
	Manganese	ppm	ASTM D5185m		<1	0	0
	Magnesium	ppm	ASTM D5185m	450	1045	1037	987
	Calcium	ppm	ASTM D5185m		1145	1133	1034
	Phosphorus	ppm	ASTM D5185m		1121	1096	1038
	Zinc	ppm	ASTM D5185m		1307	1261	1300
	Sulfur	ppm	ASTM D5185m	4250	4081	3730	3349

Oxidation

Visc @ 100°C cSt

Abs/.1mm *ASTM D7414 >25

ASTM D445 14.4

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

13.8

9.8

13.4

13.8

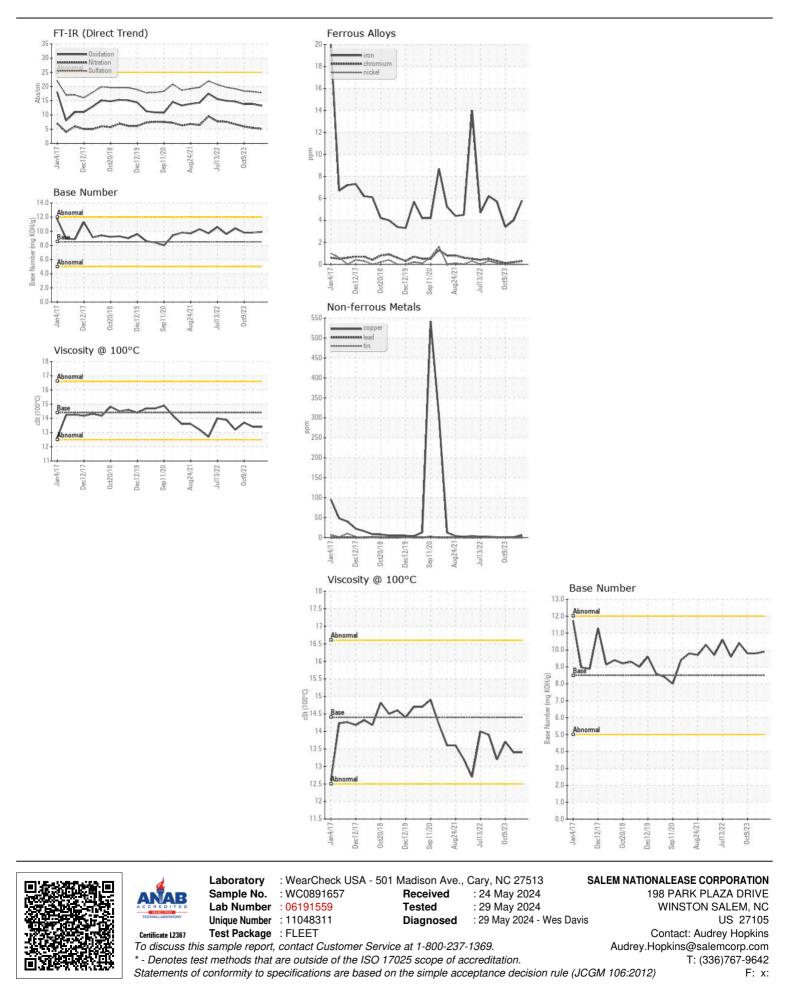
9.8

13.7

13.2

9.9

13.4



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