

Machine Id **141915** Component **Diesel Engine** Fluid **DIESEL ENGINE OIL SAE 40 (--- 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		IL06151607	IL05617592	IL05202262
	Sample Date		Client Info		09 Apr 2024	20 Jul 2022	25 Feb 2021
	Machine Age	hrs	Client Info		4933	3405	1842
brand, type, and viscosity of the on on your next sample.	Oil Age	hrs	Client Info		0	0	0
	Filter Age	hrs	Client Info		0	0	0
	Oil Changed		Client Info		N/A	N/A	N/A
	Filter Changed		Client Info		N/A	N/A	N/A
	Sample Status				NORMAL	NORMAL	NORMAL
WEAR	Iron	ppm	ASTM D5185m	>100	44	28	27
All component wear rates are normal.	Chromium	ppm	ASTM D5185m	>20	<1	<1	<1
	Nickel	ppm	ASTM D5185m	>4	<1	0	1
	Titanium	ppm	ASTM D5185m		0	0	<1
	Silver	ppm	ASTM D5185m	>3	0	0	0
	Aluminum	ppm	ASTM D5185m	>20	7	8	8
	Lead	ppm	ASTM D5185m	>40	<1	<1	<1
	Copper	ppm	ASTM D5185m	>330	1	2	2
	Tin	ppm	ASTM D5185m		0	<1	0
	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	ppm	ASTM D5185m	>25	7	7	7
There is no indication of any contamination in the oil.	Potassium	ppm	ASTM D5185m	>20	2	7	27
	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	0.9	0.7	0.5
	Nitration	Abs/cm	*ASTM D7624	>20	12.4	11.0	8.8
	Sulfation	Abs/.1mm	*ASTM D7415		23.7	22.0	20.8
	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		*Visual	>0.2	NEG	NEG	NEG
FLUID CONDITION	Sodium	ppm	ASTM D5185m	>216	2	2	2
The DN requilt indicates that there is quitable alkelinity remaining in the	Boron	ppm	ASTM D5185m	250	2	8	7
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		<1	0	0
	Molybdenum	ppm	ASTM D5185m	100	64	60	61
	Manganese	ppm	ASTM D5185m		<1	<1	<1
	Magnesium	ppm	ASTM D5185m	450	964	953	1084
	Calcium	ppm	ASTM D5185m	3000	1123	1172	1173
	Phosphorus	ppm	ASTM D5185m	1150	982	1074	1058
	Zinc	ppm	ASTM D5185m	1350	1211	1337	1260

Sulfur

Oxidation

Visc @ 100°C cSt

ppm ASTM D5185m 4250

ASTM D445 14.4

Abs/.1mm *ASTM D7414 >25

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

3554

17.9

9.8

13.0

2730

16.2

8.9

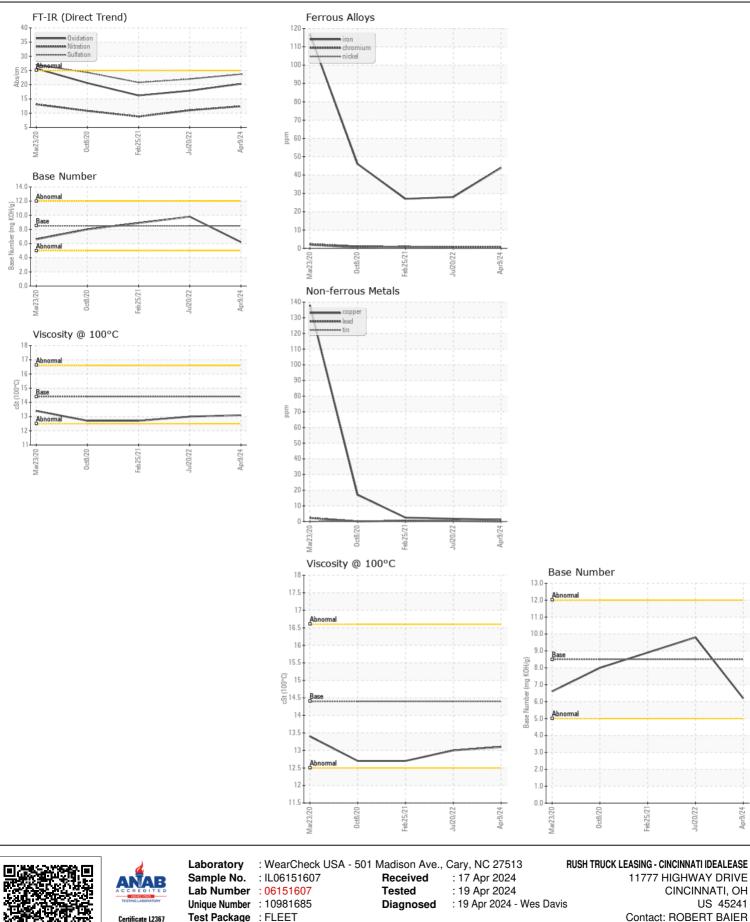
12.7

3497

20.3

6.2

13.1



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.

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

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