

Machine Id FREIGHTLINER 44629 Component Diesel Engine Fluid DIESEL ENGINE OIL SAE 15W40 (--- QTS)

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RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
	Sample Number		Client Info		WC0929008	WC0841916	WC0841863
Resample at the next service interval to monitor. Please specify the	Sample Date		Client Info		10 May 2024	18 Jan 2024	19 Oct 2023
brand, type, and viscosity of the oil on your next sample.	Machine Age	mls	Client Info		665917	643814	625750
	Oil Age	mls	Client Info		0	0	0
	Filter Age	mls	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 All component wear rates are normal.	Iron	ppm	ASTM D5185m	>90	9	8	8
	Chromium	ppm	ASTM D5185m	>20	0	<1	<1
	Nickel	ppm	ASTM D5185m	>2	<1	<1	0
	Titanium	ppm	ASTM D5185m	>2	0	0	0
	Silver	ppm	ASTM D5185m	>2	<1	0	0
	Aluminum	ppm	ASTM D5185m	>20	4	4	4
	Lead	ppm	ASTM D5185m	>40	1	2	<1
	Copper	ppm	ASTM D5185m	>330	<1	<1	0
	Tin	ppm	ASTM D5185m	>15	<1	<1	<1
	Vanadium	ppm	ASTM D5185m		0	0	0
	White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
CONTAMINATION	Silicon	ppm	ASTM D5185m	>25	6	5	5
There is no indication of any contamination in the cil	Potassium	ppm	ASTM D5185m	>20	2	4	3
There is no indication of any contamination in the oil.	Fuel		WC Method	>3.0	<1.0	<1.0	<1.0
	Water		WC Method	>0.2	NEG	NEG	NEG
	Glycol		WC Method		NEG	NEG	NEG
	Soot %	%	*ASTM D7844	>6	0.4	0.4	0.6
	Nitration	Abs/cm	*ASTM D7624	>20	8.0	7.4	8.7
	Sulfation	Abs/.1mm	*ASTM D7415	>30	20.7	19.4	20.6
	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
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FLUID CONDITION	Sodium	ppm	ASTM D5185m		2	1	1
The BN result indicates that there is suitable alkalinity remaining in the	Boron	ppm	ASTM D5185m		183	14	1
oil. The condition of the oil is suitable for further service.	Barium	ppm	ASTM D5185m		0	0	0
	Molybdenum	ppm	ASTM D5185m	100	66	58	57
	Manganese	ppm	ASTM D5185m		<1	<1	<1
	Magnesium	ppm	ASTM D5185m		636	943	916
	Calcium	ppm	ASTM D5185m		1306	1108	1057
	Phosphorus	ppm	ASTM D5185m		960	1047	986
	Zinc	ppm	ASTM D5185m		1184	1241	1208
	Sulfur	ppm	ASTM D5185m		3665	3232	3018
	Oxidation	Abs/.1mm	*ASTM D7414	>25	15.1	14.4	15.6
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Base Number (BN) mg KOH/g ASTM D2896 8.5

ASTM D445 14.4

Visc @ 100°C cSt

9.1

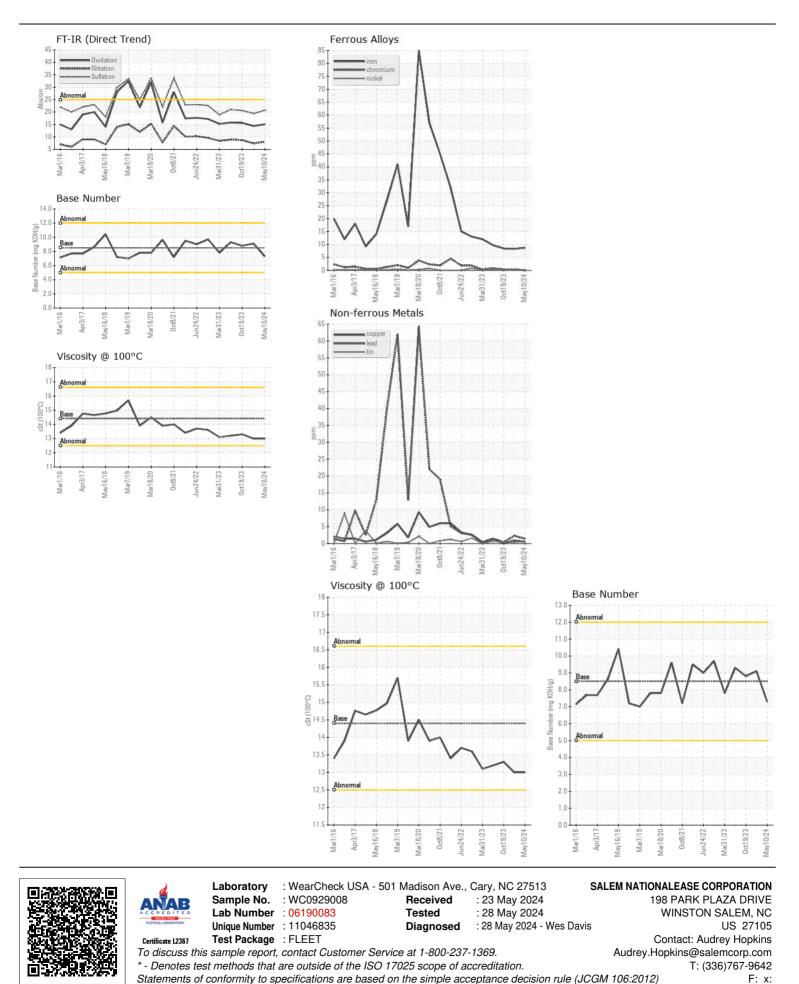
13.0

8.8

13.3

7.3

13.0



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