

## **OIL ANALYSIS REPORT**

Sample Rating Trend



Machine Id

# **FREIGHTLINER 1129**

Component Diesel Engine Fluid SAE 15W30 (--- GAL)

### Recommendation

Resample at the next service interval to monitor.

#### Wear

All component wear rates are normal.

#### Contamination

There is no indication of any contamination in the oil.

### Fluid Condition

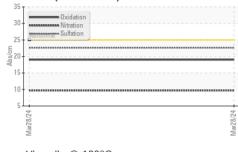
Viscosity of sample indicates oil is within SAE 40 range, advise investigate. The condition of the oil is acceptable for the time in service.

SAMPLE INFORM	IATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0889863		
Sample Date		Client Info		28 Mar 2024		
Machine Age	kms	Client Info		228131		
Oil Age	kms	Client Info		0		
Oil Changed		Client Info		Changed		
Sample Status				NORMAL		
CONTAMINATION	٧	method	limit/base	current	history1	history2
Fuel		WC Method	>3.0	<1.0		
Water		WC Method	>0.2	NEG		
Glycol		WC Method		NEG		
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>65	14		
Chromium	ppm	ASTM D5185(m)	>5	<1		
Nickel	ppm	ASTM D5185(m)	>3	0		
Titanium	ppm	ASTM D5185(m)	>5	0		
Silver	ppm	ASTM D5185(m)	>2	0		
Aluminum	ppm	ASTM D5185(m)	>35	7		
Lead	ppm	ASTM D5185(m)	>10	0		
Copper	ppm	ASTM D5185(m)	>180	15		
Tin	ppm	ASTM D5185(m)	>8	1		
Antimony	ppm	ASTM D5185(m)	>35	0		
Vanadium	ppm	ASTM D5185(m)		0		
Beryllium	ppm	ASTM D5185(m)		0		
Cadmium	ppm	ASTM D5185(m)		0		
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)		21		
Barium	ppm	ASTM D5185(m)		0		
Molybdenum	ppm	ASTM D5185(m)		86		
Manganese	ppm	ASTM D5185(m)		<1		
Magnesium	ppm	ASTM D5185(m)		60		
Calcium	ppm	ASTM D5185(m)		2261		
Phosphorus	ppm	ASTM D5185(m)		980		
Zinc	ppm	ASTM D5185(m)		1193		
Sulfur	ppm	ASTM D5185(m)		2797		
Lithium	ppm	ASTM D5185(m)		<1		
CONTAMINANTS	i i	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>15	3		
Sodium	ppm	ASTM D5185(m)	>70	2		
Potassium	ppm	ASTM D5185(m)	>20	8		
INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*	>3	0.4		
Nitration	Abs/cm	ASTM D7624*	>20	9.7		
Sulfation	Abs/.1mm	ASTM D7415*	>30	22.6		



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#### FT-IR (Direct Trend)



#### Viscosity @ 100°C



FLUID DEGRADATION >25 Oxidation ASTM D7414\* 19.0 Abs/.1mm VISUAL **Emulsified Water** Visual\* >0.2 NEG scalar Free Water NEG Visual\* scalar FLUID PROPERTIES Visc @ 100°C cSt 14.1 ASTM D7279(m) 11.0 GRAPHS Iron (ppm) Lead (ppm) 160 30 T Severe 140 25 120 20 100 ۲ ۵.15 Md 80 60 10 40 5 20 n 10/20/01 Mar28/24 Chromium (ppm) Aluminum (ppm) 70 12 60 10 50 40 Ab 20 10 0 Ο Aar28/24 Copper (ppm) Silicon (ppm) 400 4 350 35 300 30 250 25 <u>ل</u> 200 ۲<u>ط</u> 20 150 100 10 50 0 0 Aar28/7 Viscosity @ 100°C Soot % 16 6.0 15 5.0 14 4.0 Ab ₩ 53.0 . ق 11 Ba Abnorma 1.0 0.0 Mar28/24 Mar28/24

Mar28



: WC0889863 Sample No. Received : 12 Apr 2024 Lab Number : 02628429 Tested : 12 Apr 2024 ISO 17025:2017 Accredited Laboratory Unique Number : 5761561 Diagnosed : 12 Apr 2024 - Kevin Marson Test Package : MOB 1 To discuss this sample report, contact Customer Service at 1-800-268-2131. Test denoted (\*) outside scope of accreditation, (m) method modified, (e) tested at external lab. Validity of results and interpretation are based on the sample and information as supplied.

: WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9

**BRITANNIA FLEET SERVICES** 

1831 SHAWSON DRIVE (SHOP) MISSISSAUGA, ON CA L4W 1T9 Contact: Tania Henriques tania.henriques@britanniafleet.ca T: (905)670-4545 F: (905)670-9036

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CALA

Laboratory

Contact/Location: Tania Henriques - BRI183MIS