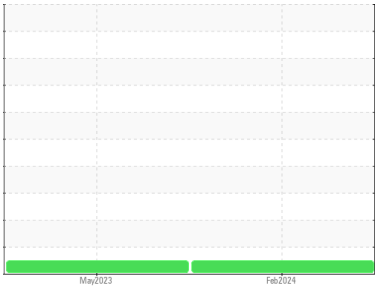
OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL

Machine Id
FREIGHTLINER 1902
Component
Diesel Engine
Fluid
DIESEL ENGINE OIL SAE 15W40 (--- GAL)

DIAGNOSIS

Recommendation
Resample at the next service interval to monitor.

Wear
All component wear rates are normal.

Contamination
Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. There is no indication of any contamination in the oil.

Fluid Condition
The condition of the oil is acceptable for the time in service.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**WC0889840**	WC0776233	---
Sample Date		Client Info		**16 Feb 2024**	11 May 2023	---
Machine Age	kms	Client Info		**438249**	355510	---
Oil Age	kms	Client Info		**0**	0	---
Oil Changed		Client Info		**Changed**	Changed	---
Sample Status				**NORMAL**	NORMAL	---

CONTAMINATION		method	limit/base	current	history1	history2
Fuel		WC Method	>3.0	**<1.0**	0.5	---
Water		WC Method	>0.2	**NEG**	NEG	---
Glycol		WC Method		**NEG**	NEG	---

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>65	**26**	37	---
Chromium	ppm	ASTM D5185(m)	>5	**<1**	1	---
Nickel	ppm	ASTM D5185(m)	>3	**<1**	<1	---
Titanium	ppm	ASTM D5185(m)	>5	**0**	<1	---
Silver	ppm	ASTM D5185(m)	>2	**0**	0	---
Aluminum	ppm	ASTM D5185(m)	>35	**10**	9	---
Lead	ppm	ASTM D5185(m)	>10	**0**	0	---
Copper	ppm	ASTM D5185(m)	>180	**10**	8	---
Tin	ppm	ASTM D5185(m)	>8	**<1**	<1	---
Antimony	ppm	ASTM D5185(m)	>35	**0**	0	---
Vanadium	ppm	ASTM D5185(m)		**0**	0	---
Beryllium	ppm	ASTM D5185(m)		**0**	0	---
Cadmium	ppm	ASTM D5185(m)		**0**	0	---

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	250	**6**	11	---
Barium	ppm	ASTM D5185(m)	10	**0**	0	---
Molybdenum	ppm	ASTM D5185(m)	100	**84**	42	---
Manganese	ppm	ASTM D5185(m)		**0**	<1	---
Magnesium	ppm	ASTM D5185(m)	450	**437**	36	---
Calcium	ppm	ASTM D5185(m)	3000	**1927**	2460	---
Phosphorus	ppm	ASTM D5185(m)	1150	**1021**	1012	---
Zinc	ppm	ASTM D5185(m)	1350	**1271**	1116	---
Sulfur	ppm	ASTM D5185(m)	4250	**2636**	3025	---
Lithium	ppm	ASTM D5185(m)		**<1**	<1	---

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>15	**3**	5	---
Sodium	ppm	ASTM D5185(m)	>158	**3**	2	---
Potassium	ppm	ASTM D5185(m)	>20	**12**	9	---

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*	>3	**0.5**	0.3	---
Nitration	Abs/cm	ASTM D7624*	>20	**11.0**	9.0	---
Sulfation	Abs/.1mm	ASTM D7415*	>30	**25.7**	22.2	---

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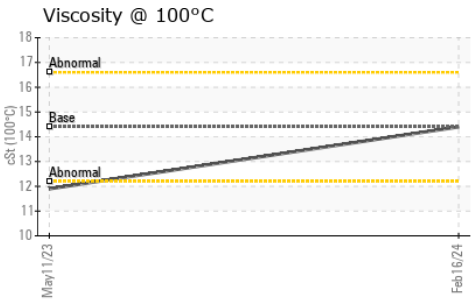
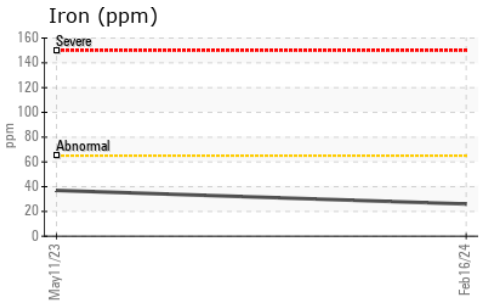


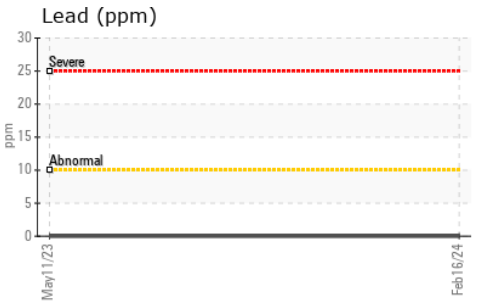
FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	ASTM D7414*	>25	**23.0**	15.3	---

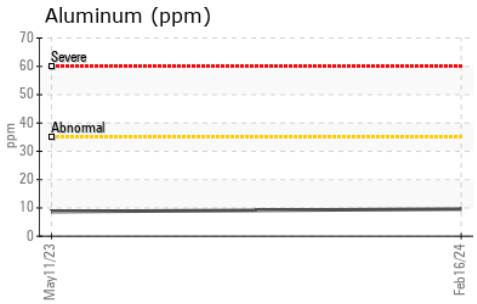
VISUAL		method	limit/base	current	history1	history2
Emulsified Water	scalar	Visual*	>0.2	**NEG**	NEG	---
Free Water	scalar	Visual*		**NEG**	NEG	---

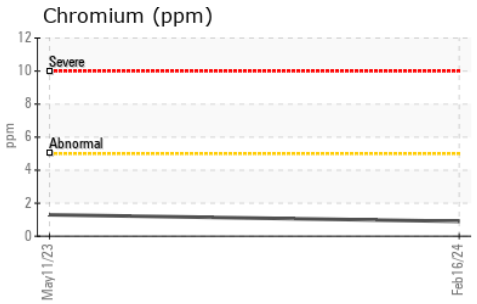
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D7279(m)	14.4	**14.4**	11.9	---

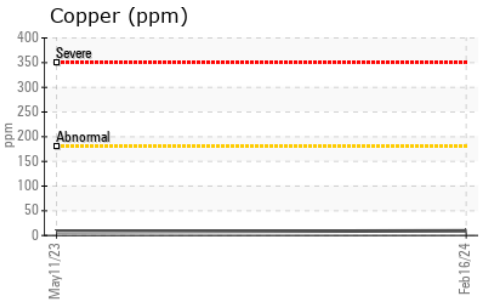
GRAPHS

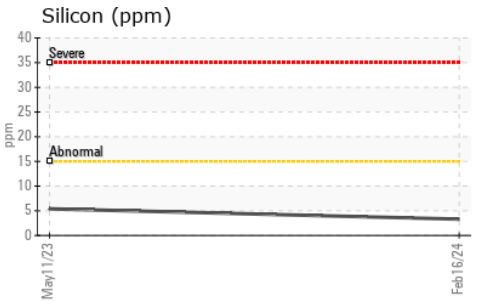


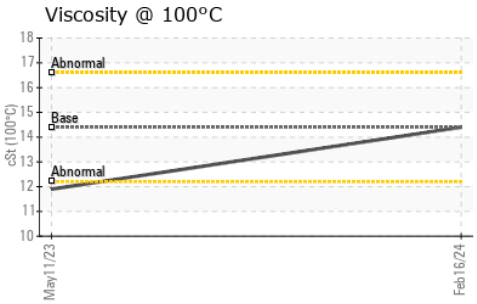


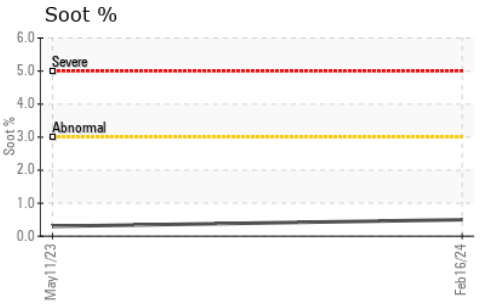












ISO 17025:2017 Accredited Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0889840
Lab Number : 02623931
Unique Number : 5749050
Test Package : MOB 1

Received : 22 Mar 2024
Tested : 22 Mar 2024
Diagnosed : 22 Mar 2024 - Wes Davis

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.

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