



# OIL ANALYSIS REPORT

WEAR	<b>NORMAL</b>
CONTAMINATION	<b>NORMAL</b>
FLUID CONDITION	<b>NORMAL</b>



Machine Id  
**FREIGHTLINER RL-52**  
Component  
**Diesel Engine**  
Fluid  
**GIBRALTAR 15W/40 SUPER S-3 LX (--- GAL)**

## RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>WC0941106</b>	WC0875519	---
Sample Date		Client Info		<b>20 Jun 2024</b>	04 Apr 2024	---
Machine Age	hrs	Client Info		<b>16355</b>	15778	---
Oil Age	hrs	Client Info		<b>600</b>	0	---
Filter Age	hrs	Client Info		<b>600</b>	0	---
Oil Changed		Client Info		<b>Changed</b>	Changed	---
Filter Changed		Client Info		<b>Changed</b>	Changed	---
Sample Status				<b>NORMAL</b>	NORMAL	---

## WEAR

Metal levels are typical for a new component breaking in.

Iron	ppm	ASTM D5185m	>80	<b>31</b>	9	---
Chromium	ppm	ASTM D5185m	>5	<b>2</b>	0	---
Nickel	ppm	ASTM D5185m	>2	<b>&lt;1</b>	0	---
Titanium	ppm	ASTM D5185m		<b>0</b>	0	---
Silver	ppm	ASTM D5185m	>3	<b>&lt;1</b>	0	---
Aluminum	ppm	ASTM D5185m	>30	<b>6</b>	1	---
Lead	ppm	ASTM D5185m	>30	<b>1</b>	0	---
Copper	ppm	ASTM D5185m	>150	<b>1</b>	0	---
Tin	ppm	ASTM D5185m	>5	<b>0</b>	<1	---
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	0	---
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	---

## CONTAMINATION

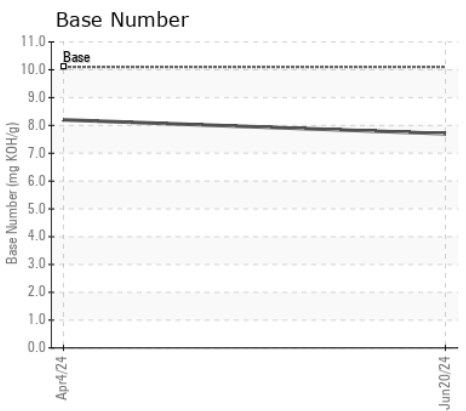
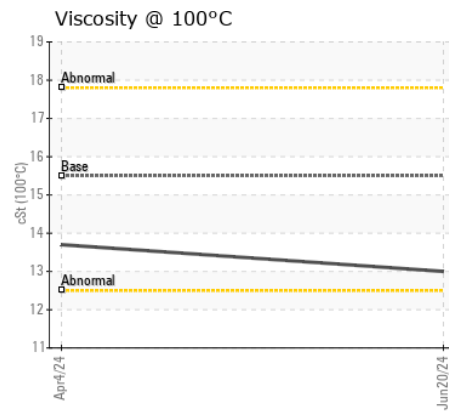
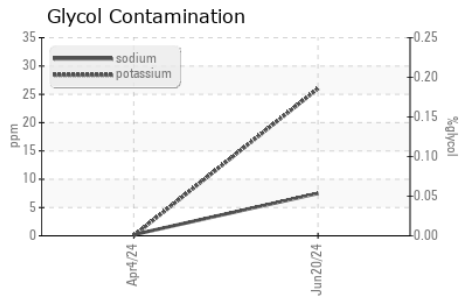
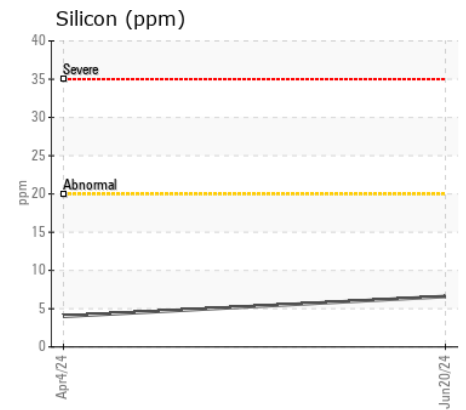
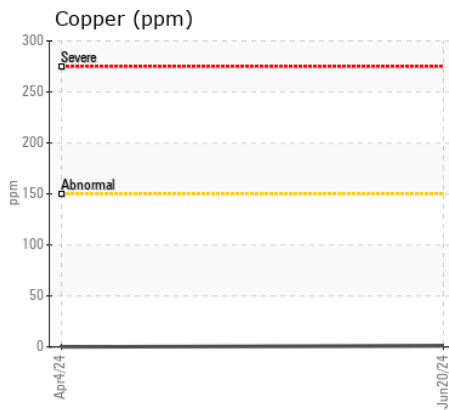
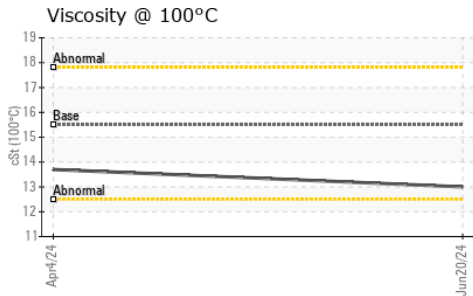
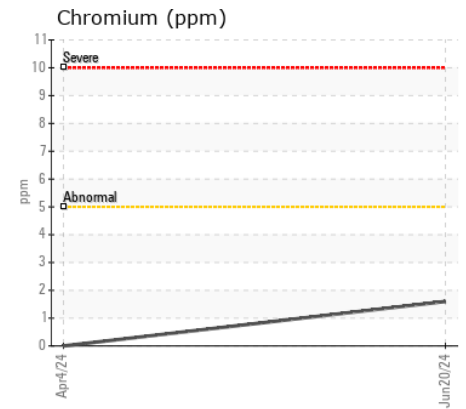
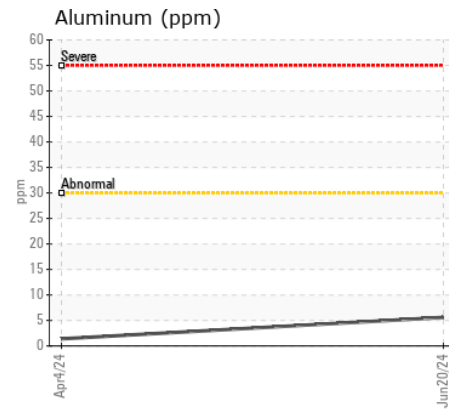
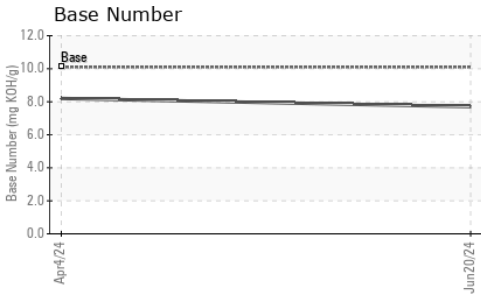
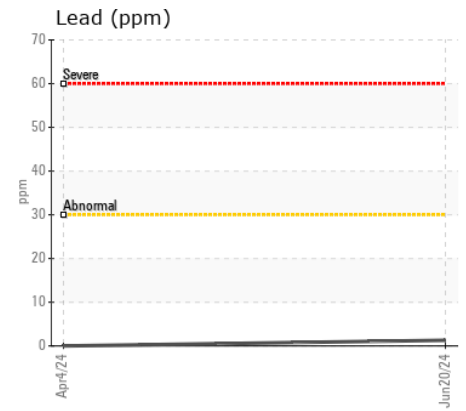
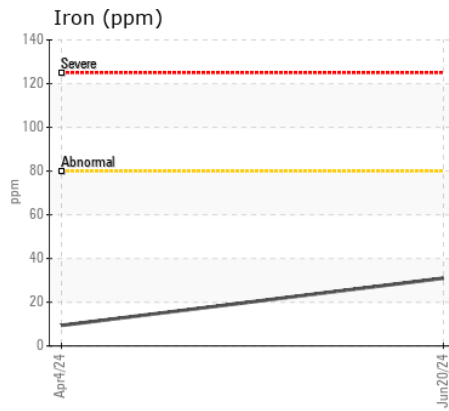
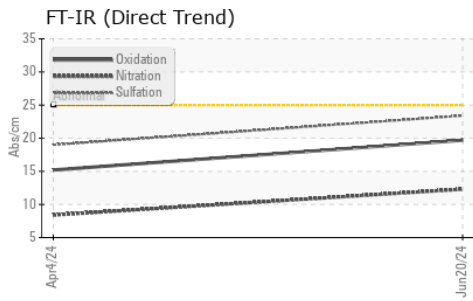
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>20	<b>7</b>	4	---
Potassium	ppm	ASTM D5185m	>20	<b>26</b>	0	---
Fuel		WC Method	>5	<b>&lt;1.0</b>	<1.0	---
Water		WC Method	>0.2	<b>NEG</b>	NEG	---
Glycol	%	*ASTM D2982		<b>NEG</b>	NEG	---
Soot %	%	*ASTM D7844	>3	<b>1.7</b>	0.5	---
Nitration	Abs/cm	*ASTM D7624	>20	<b>12.3</b>	8.4	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>23.4</b>	19.0	---
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	---
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	---
Emulsified Water	scalar	*Visual	>0.2	<b>NEG</b>	NEG	---

## FLUID CONDITION

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		<b>8</b>	<1	---
Boron	ppm	ASTM D5185m		<b>2</b>	7	---
Barium	ppm	ASTM D5185m		<b>2</b>	<1	---
Molybdenum	ppm	ASTM D5185m	66	<b>74</b>	69	---
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	0	---
Magnesium	ppm	ASTM D5185m	1000	<b>916</b>	871	---
Calcium	ppm	ASTM D5185m	1050	<b>1349</b>	1191	---
Phosphorus	ppm	ASTM D5185m	1150	<b>1108</b>	1082	---
Zinc	ppm	ASTM D5185m	1270	<b>1342</b>	1261	---
Sulfur	ppm	ASTM D5185m		<b>3778</b>	3541	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>19.7</b>	15.2	---
Base Number (BN)	mg KOH/g	ASTM D2896	10.1	<b>7.7</b>	8.2	---
Visc @ 100°C	cSt	ASTM D445	15.5	<b>13.0</b>	13.7	---



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0941106 **Received** : 01 Jul 2024  
**Lab Number** : 06224417 **Tested** : 08 Jul 2024  
**Unique Number** : 11102614 **Diagnosed** : 08 Jul 2024 - Sean Felton  
**Test Package** : MOB 1 ( Additional Tests: Glycol, TBN )

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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