



# OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id  
**FREIGHTLINER TRUCK 2117**  
Component  
**Diesel Engine**  
Fluid  
**MOBIL 15W40 (--- GAL)**

## RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>WC0917104</b>	WC0906267	---
Sample Date		Client Info		<b>06 May 2024</b>	15 Feb 2024	---
Machine Age	mls	Client Info		<b>457731</b>	443202	---
Oil Age	mls	Client Info		<b>0</b>	0	---
Filter Age	mls	Client Info		<b>0</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

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>80	<b>22</b>	11	---
Chromium	ppm	ASTM D5185m	>5	<b>2</b>	1	---
Nickel	ppm	ASTM D5185m	>2	<b>0</b>	0	---
Titanium	ppm	ASTM D5185m		<b>0</b>	<1	---
Silver	ppm	ASTM D5185m	>3	<b>0</b>	0	---
Aluminum	ppm	ASTM D5185m	>30	<b>2</b>	<1	---
Lead	ppm	ASTM D5185m	>30	<b>10</b>	3	---
Copper	ppm	ASTM D5185m	>150	<b>&lt;1</b>	<1	---
Tin	ppm	ASTM D5185m	>5	<b>&lt;1</b>	<1	---
Vanadium	ppm	ASTM D5185m		<b>0</b>	<1	---
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	---

## CONTAMINATION

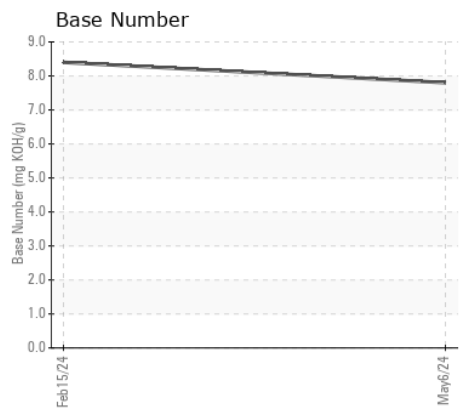
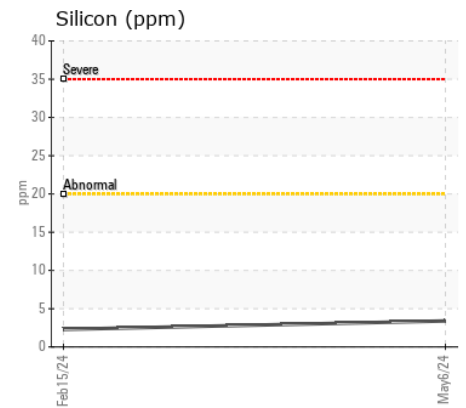
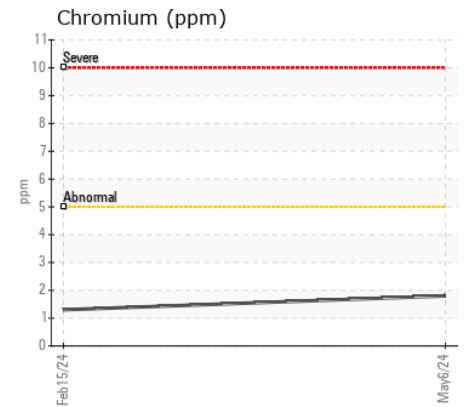
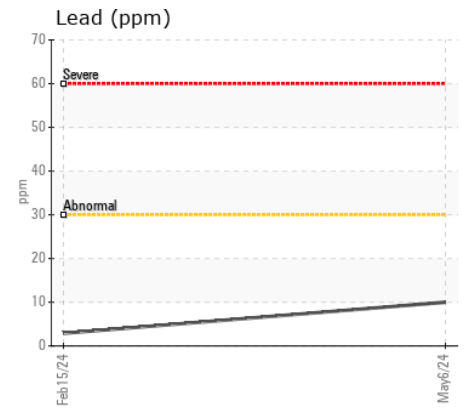
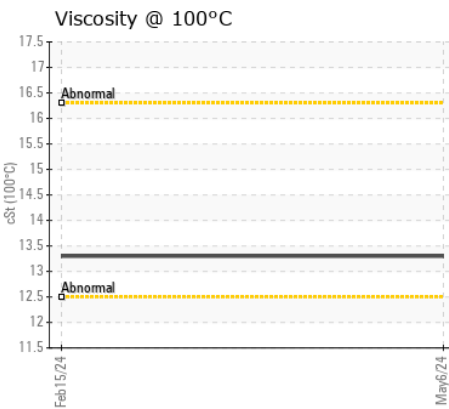
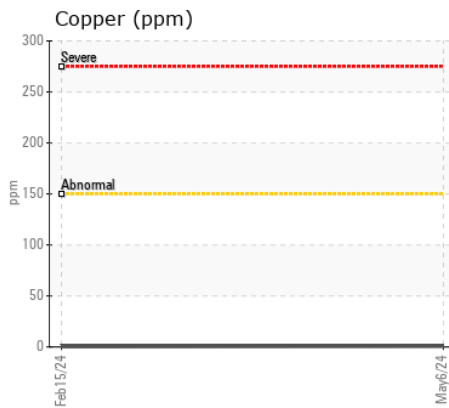
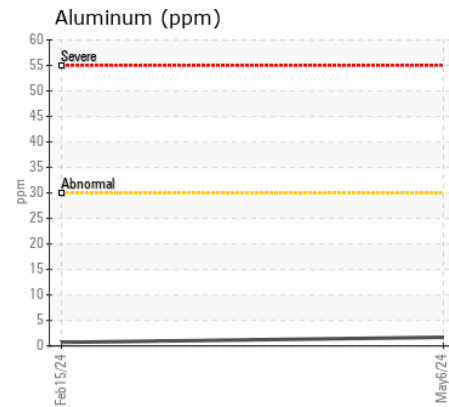
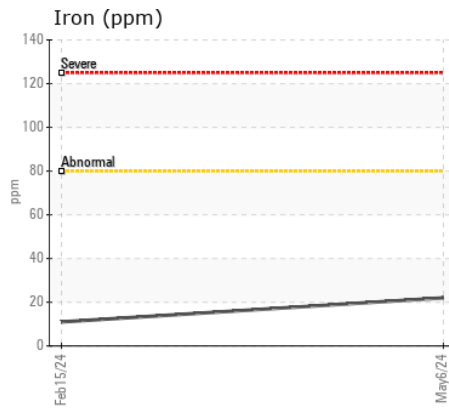
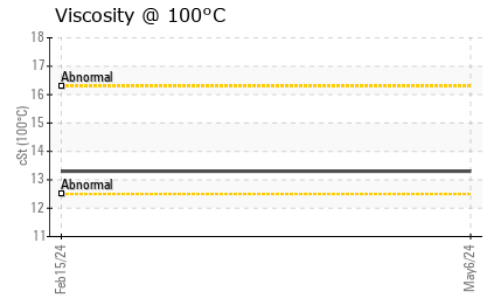
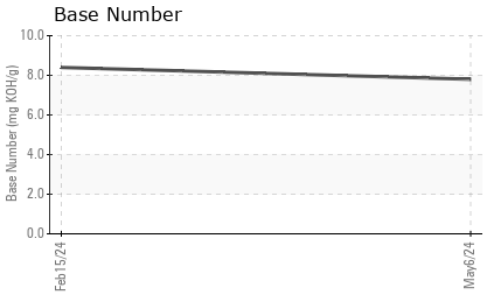
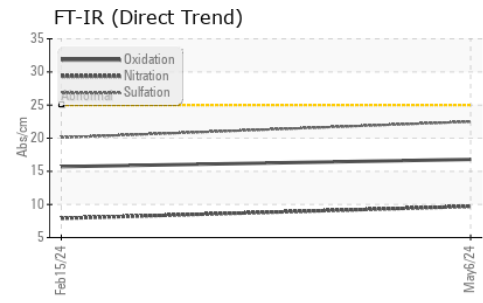
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>20	<b>3</b>	2	---
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	0	---
Fuel		WC Method	>5	<b>&lt;1.0</b>	<1.0	---
Water		WC Method	>0.2	<b>NEG</b>	NEG	---
Glycol		WC Method		<b>NEG</b>	NEG	---
Soot %	%	*ASTM D7844	>3	<b>1.5</b>	0.8	---
Nitration	Abs/cm	*ASTM D7624	>20	<b>9.7</b>	7.9	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>22.5</b>	20.1	---
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	>118	<b>&lt;1</b>	3	---
Boron	ppm	ASTM D5185m		<b>5</b>	2	---
Barium	ppm	ASTM D5185m		<b>0</b>	0	---
Molybdenum	ppm	ASTM D5185m		<b>64</b>	56	---
Manganese	ppm	ASTM D5185m		<b>0</b>	0	---
Magnesium	ppm	ASTM D5185m		<b>968</b>	919	---
Calcium	ppm	ASTM D5185m		<b>1084</b>	1064	---
Phosphorus	ppm	ASTM D5185m		<b>1075</b>	923	---
Zinc	ppm	ASTM D5185m		<b>1266</b>	1138	---
Sulfur	ppm	ASTM D5185m		<b>2831</b>	3306	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>16.8</b>	15.7	---
Base Number (BN)	mg KOH/g	ASTM D2896		<b>7.8</b>	8.4	---
Visc @ 100°C	cSt	ASTM D445		<b>13.3</b>	13.3	---



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0917104 **Received** : 19 Jun 2024  
**Lab Number** : 06214216 **Tested** : 20 Jun 2024  
**Unique Number** : 11087080 **Diagnosed** : 20 Jun 2024 - Wes Davis  
**Test Package** : MOB 1 ( Additional Tests: TBN )

**CONCRETE SERVICE CO - FAY BLOCK**  
 161 BUILDERS BLVD  
 FAYETTEVILLE, NC  
 US 28301  
 Contact: BRYAN VANNIMAN  
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 F:

Certificate L2367  
 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)