



# OIL ANALYSIS REPORT

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

Machine Id  
**FREIGHTLINER 45834**  
Component  
**Diesel Engine**  
Fluid  
**EXXON 15W40 (44 QTS)**

## RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>WC0903543</b>	WC0725106	WC0725080
Sample Date		Client Info		<b>08 Apr 2024</b>	02 Mar 2023	16 Nov 2022
Machine Age	mls	Client Info		<b>424549</b>	414587	407982
Oil Age	mls	Client Info		<b>27916</b>	6605	11349
Filter Age	mls	Client Info		<b>27916</b>	6605	11349
Oil Changed		Client Info		<b>Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>Changed</b>	Changed	Changed
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>165	<b>19</b>	6	9
Chromium	ppm	ASTM D5185m	>5	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185m	>4	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m	>2	<b>0</b>	<1	0
Silver	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>20	<b>16</b>	2	2
Lead	ppm	ASTM D5185m	>150	<b>&lt;1</b>	<1	2
Copper	ppm	ASTM D5185m	>90	<b>&lt;1</b>	<1	<1
Tin	ppm	ASTM D5185m	>5	<b>&lt;1</b>	<1	<1
Vanadium	ppm	ASTM D5185m		<b>0</b>	<1	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

## CONTAMINATION

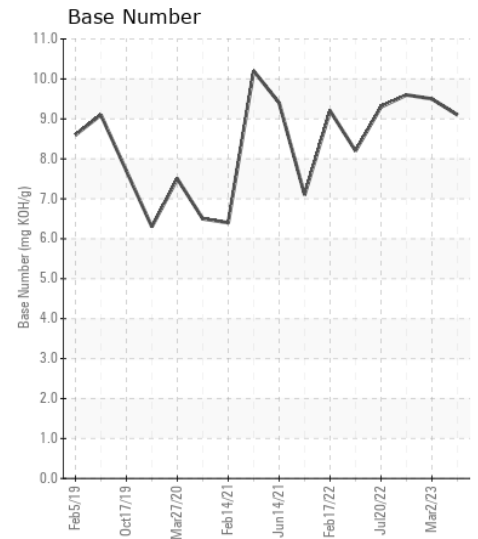
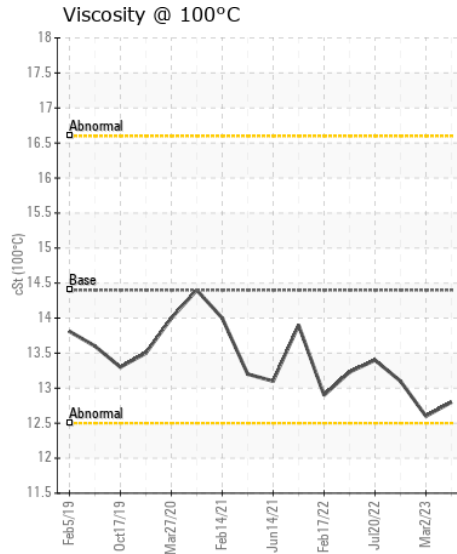
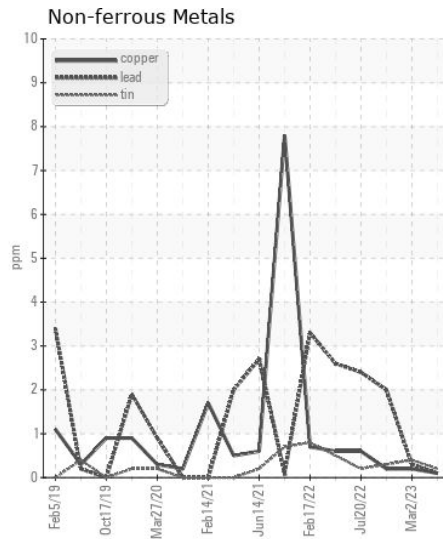
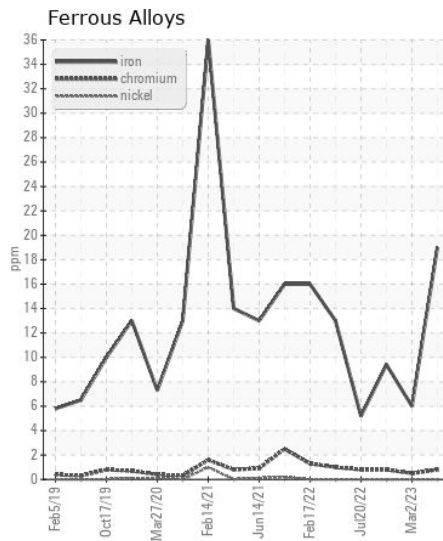
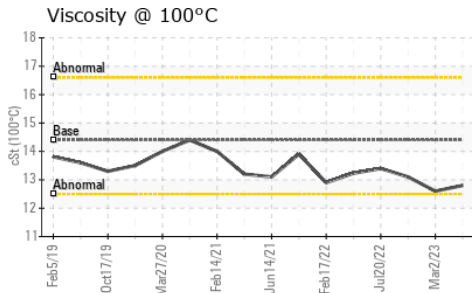
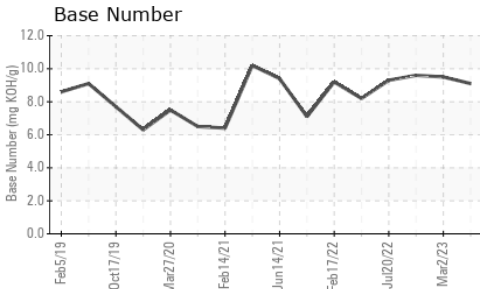
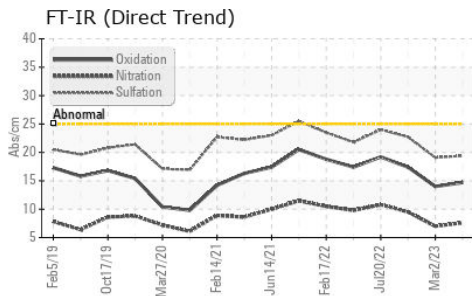
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>35	<b>5</b>	4	4
Potassium	ppm	ASTM D5185m	>20	<b>30</b>	1	4
Fuel		WC Method	>3.0	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>7.5	<b>0.4</b>	0.3	0.4
Nitration	Abs/cm	*ASTM D7624	>20	<b>7.6</b>	7.0	9.5
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>19.4</b>	19.1	22.7
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	<b>NEG</b>	NEG	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>1</b>	2	1
Boron	ppm	ASTM D5185m		<b>12</b>	7	7
Barium	ppm	ASTM D5185m		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>68</b>	64	70
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	1	<1
Magnesium	ppm	ASTM D5185m		<b>1067</b>	915	969
Calcium	ppm	ASTM D5185m		<b>1172</b>	1120	1182
Phosphorus	ppm	ASTM D5185m		<b>1186</b>	990	1012
Zinc	ppm	ASTM D5185m		<b>1395</b>	1189	1358
Sulfur	ppm	ASTM D5185m		<b>4094</b>	3271	3631
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>14.7</b>	14.0	17.4
Base Number (BN)	mg KOH/g	ASTM D2896		<b>9.1</b>	9.5	9.6
Visc @ 100°C	cSt	ASTM D445	14.4	<b>12.8</b>	12.6	13.1



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0903543  
**Lab Number** : 06149388  
**Unique Number** : 10979466  
**Test Package** : FLEET

**Received** : 15 Apr 2024  
**Tested** : 16 Apr 2024  
**Diagnosed** : 16 Apr 2024 - Wes Davis

**SALEM NATIONALEASE CORPORATION**  
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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)