



# OIL ANALYSIS REPORT

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

Machine Id  
**FREIGHTLINER 36404**

Component  
**Diesel Engine**

Fluid  
**DIESEL ENGINE OIL SAE 15W40 (44 QTS)**

## RECOMMENDATION

Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>WC0798088</b>	WC0798031	WC0502200
Sample Date		Client Info		<b>14 Mar 2024</b>	27 Sep 2023	04 Apr 2022
Machine Age	mls	Client Info		<b>373856</b>	357615	288621
Oil Age	mls	Client Info		<b>16241</b>	37014	12216
Filter Age	mls	Client Info		<b>16241</b>	37014	12216
Oil Changed		Client Info		<b>Changed</b>	Changed	N/A
Filter Changed		Client Info		<b>Changed</b>	Changed	N/A
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>80	<b>28</b>	46	19
Chromium	ppm	ASTM D5185m	>5	<b>&lt;1</b>	1	1
Nickel	ppm	ASTM D5185m	>2	<b>0</b>	0	2
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	0	<1
Silver	ppm	ASTM D5185m	>3	<b>&lt;1</b>	0	0
Aluminum	ppm	ASTM D5185m	>30	<b>3</b>	5	5
Lead	ppm	ASTM D5185m	>30	<b>4</b>	16	3
Copper	ppm	ASTM D5185m	>150	<b>1</b>	2	<1
Tin	ppm	ASTM D5185m	>5	<b>&lt;1</b>	<1	<1
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	0	<1
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

## CONTAMINATION

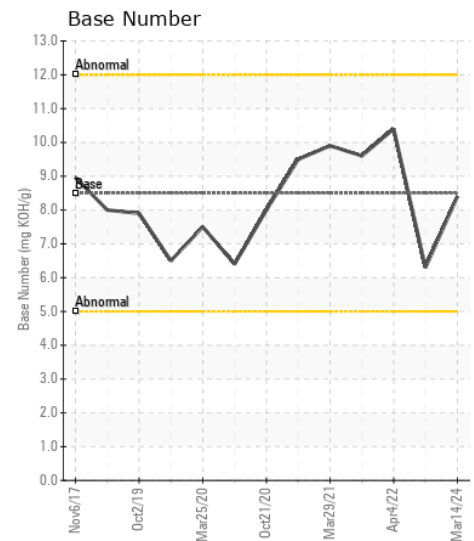
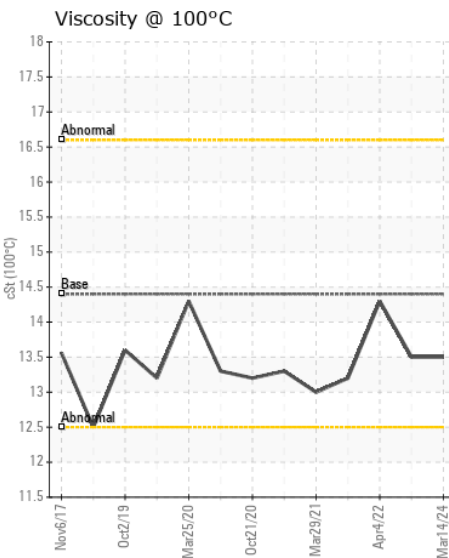
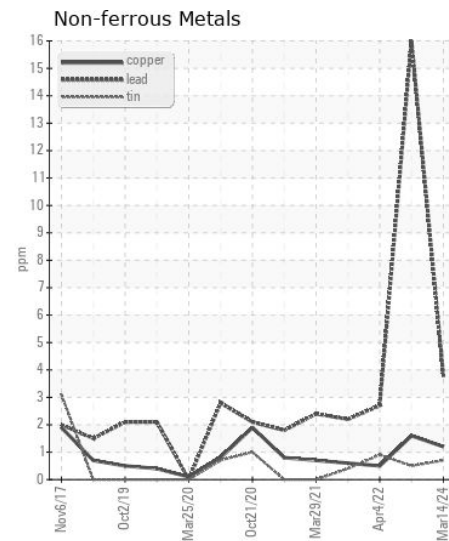
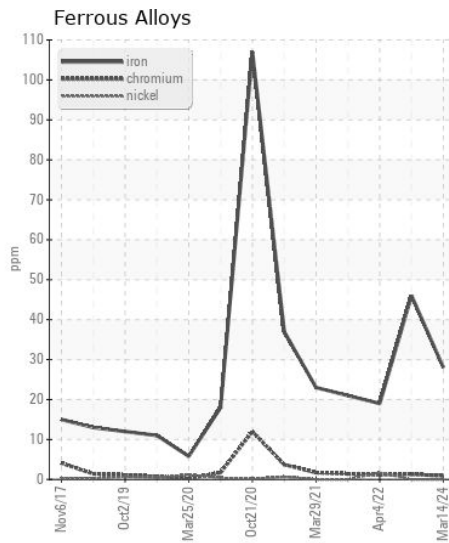
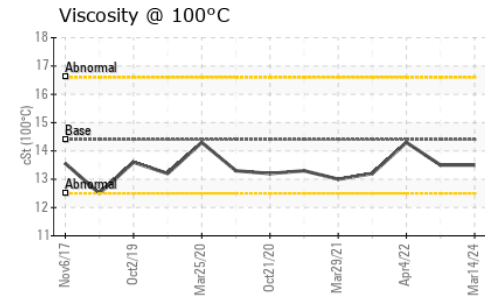
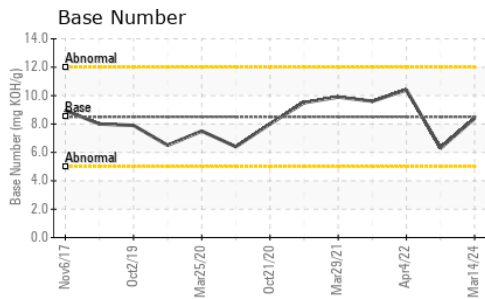
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>20	<b>8</b>	10	4
Potassium	ppm	ASTM D5185m	>20	<b>6</b>	8	10
Fuel		WC Method	>5	<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	>3	<b>0.6</b>	1	0.6
Nitration	Abs/cm	*ASTM D7624	>20	<b>8.7</b>	11.7	8.9
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>20.8</b>	25.4	21.9
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	>158	<b>0</b>	2	2
Boron	ppm	ASTM D5185m	250	<b>2</b>	4	8
Barium	ppm	ASTM D5185m	10	<b>2</b>	0	0
Molybdenum	ppm	ASTM D5185m	100	<b>75</b>	67	72
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m	450	<b>1010</b>	1036	1020
Calcium	ppm	ASTM D5185m	3000	<b>1229</b>	1144	1286
Phosphorus	ppm	ASTM D5185m	1150	<b>1012</b>	1067	1067
Zinc	ppm	ASTM D5185m	1350	<b>1307</b>	1338	1318
Sulfur	ppm	ASTM D5185m	4250	<b>3295</b>	2859	2928
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>16.4</b>	20.3	16.3
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	<b>8.4</b>	6.3	10.4
Visc @ 100°C	cSt	ASTM D445	14.4	<b>13.5</b>	13.5	14.3



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0798088  
**Lab Number** : 06125390  
**Unique Number** : 10939541  
**Test Package** : FLEET

**Received** : 21 Mar 2024  
**Tested** : 22 Mar 2024  
**Diagnosed** : 22 Mar 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)