



# OIL ANALYSIS REPORT

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

Machine Id  
**FREIGHTLINER 12733**  
Component  
**Diesel Engine**  
Fluid  
**EXXON 15W40 (32 QTS)**

## RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>WC0875788</b>	WC0787822	WC0787830
Sample Date		Client Info		<b>26 Dec 2023</b>	10 Aug 2023	06 Jul 2023
Machine Age	mls	Client Info		<b>359294</b>	328316	319248
Oil Age	mls	Client Info		<b>0</b>	0	0
Filter Age	mls	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>Changed</b>	N/A	Changed
Filter Changed		Client Info		<b>Changed</b>	N/A	Changed
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>80	<b>26</b>	13	13
Chromium	ppm	ASTM D5185m	>5	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185m	>2	<b>&lt;1</b>	0	0
Titanium	ppm	ASTM D5185m		<b>0</b>	<1	0
Silver	ppm	ASTM D5185m	>3	<b>0</b>	<1	<1
Aluminum	ppm	ASTM D5185m	>30	<b>5</b>	3	2
Lead	ppm	ASTM D5185m	>30	<b>&lt;1</b>	<1	<1
Copper	ppm	ASTM D5185m	>150	<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

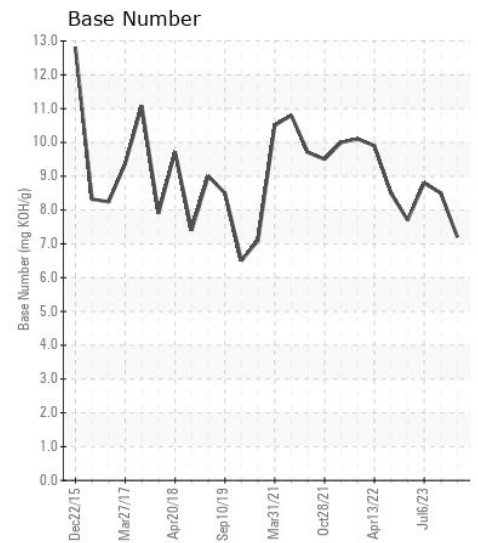
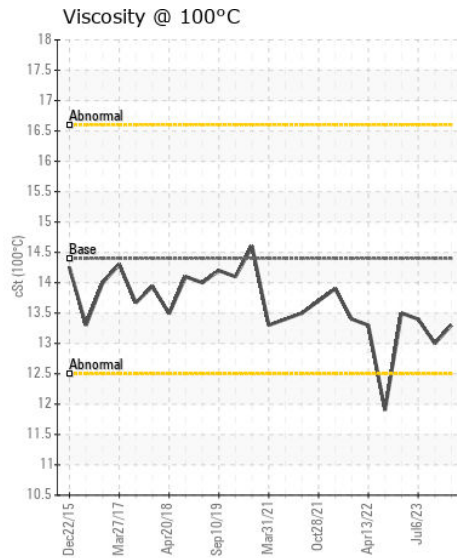
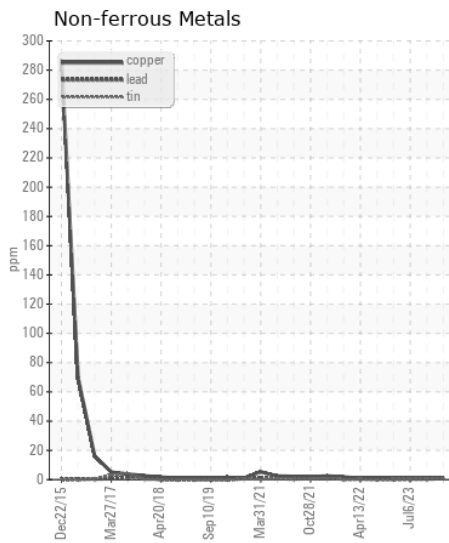
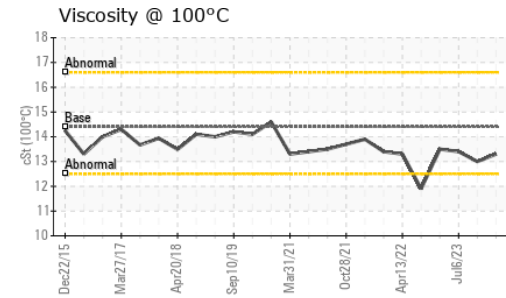
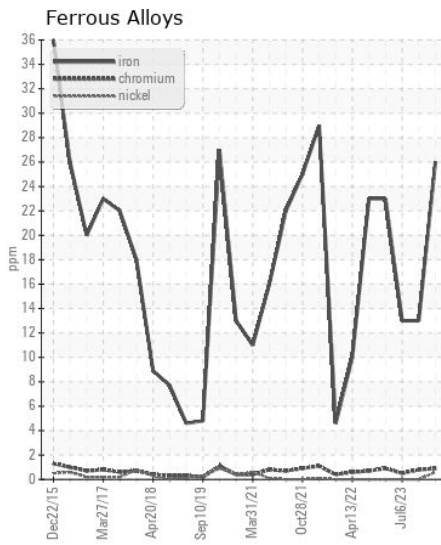
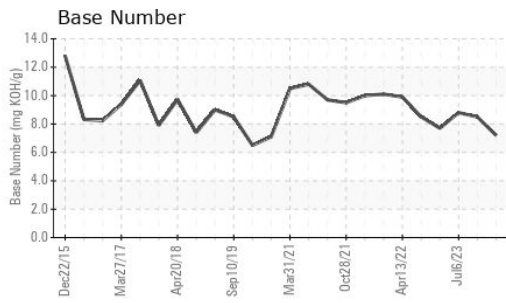
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>20	<b>5</b>	5	5
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	2	3
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>0.8</b>	0.5	0.5
Nitration	Abs/cm	*ASTM D7624	>20	<b>14.4</b>	11.5	11.4
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>25.5</b>	22.1	22.6
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>4</b>	5	<1
Boron	ppm	ASTM D5185m		<b>9</b>	4	4
Barium	ppm	ASTM D5185m		<b>0</b>	0	<1
Molybdenum	ppm	ASTM D5185m		<b>82</b>	71	72
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m		<b>1009</b>	1051	942
Calcium	ppm	ASTM D5185m		<b>1162</b>	1216	1218
Phosphorus	ppm	ASTM D5185m		<b>1139</b>	1073	1043
Zinc	ppm	ASTM D5185m		<b>1353</b>	1332	1277
Sulfur	ppm	ASTM D5185m		<b>3169</b>	3849	3134
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>24.3</b>	20.3	20.7
Base Number (BN)	mg KOH/g	ASTM D2896		<b>7.2</b>	8.5	8.8
Visc @ 100°C	cSt	ASTM D445	14.4	<b>13.3</b>	13.0	13.4



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0875788 **Received** : 17 Jan 2024  
**Lab Number** : 06063396 **Diagnosed** : 18 Jan 2024  
**Unique Number** : 10834778 **Diagnostician** : Wes Davis  
**Test Package** : FLEET

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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)