



# OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id  
**FREIGHTLINER 274**  
Component  
**Diesel Engine**  
Fluid  
**DIESEL ENGINE OIL SAE 15W40 (17 QTS)**

## RECOMMENDATION

No corrective action is recommended at this time. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>WC0906125</b>	WC0870840	WC0792908
Sample Date		Client Info		<b>14 Mar 2024</b>	08 Dec 2023	28 Mar 2023
Machine Age	mls	Client Info		<b>279484</b>	274143	264517
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>Not Changd</b>	Not Changd	Not Changd
Filter Changed		Client Info		<b>Not Changd</b>	Not Changd	Not Changd
Sample Status				<b>NORMAL</b>	ABNORMAL	NORMAL

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>90	<b>28</b>	10	57
Chromium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	<1	2
Nickel	ppm	ASTM D5185m	>2	<b>0</b>	<1	1
Titanium	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Silver	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>20	<b>5</b>	5	6
Lead	ppm	ASTM D5185m	>40	<b>0</b>	0	<1
Copper	ppm	ASTM D5185m	>330	<b>0</b>	7	6
Tin	ppm	ASTM D5185m	>15	<b>0</b>	<1	<1
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	<1
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

## CONTAMINATION

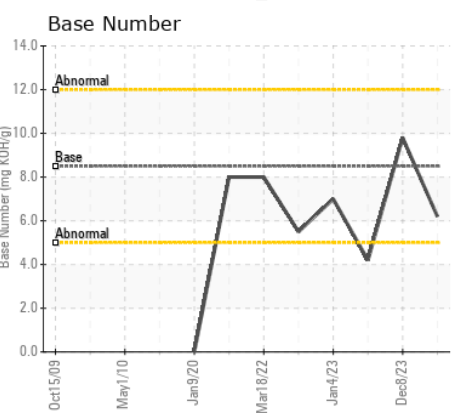
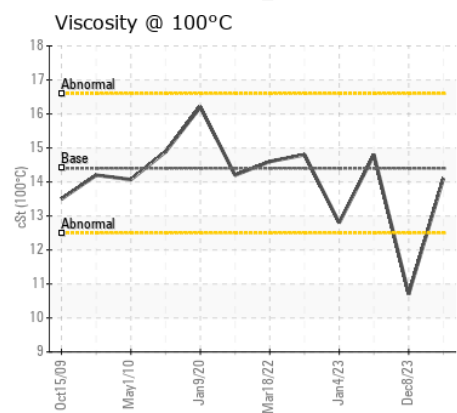
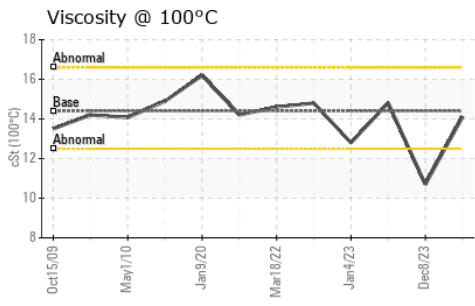
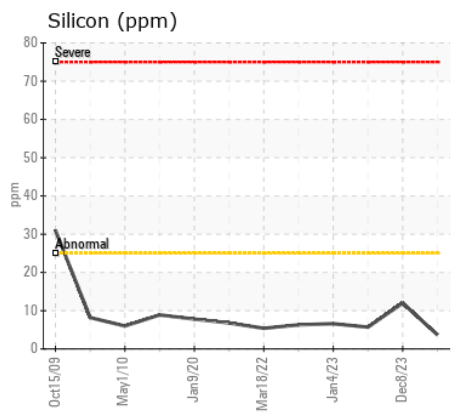
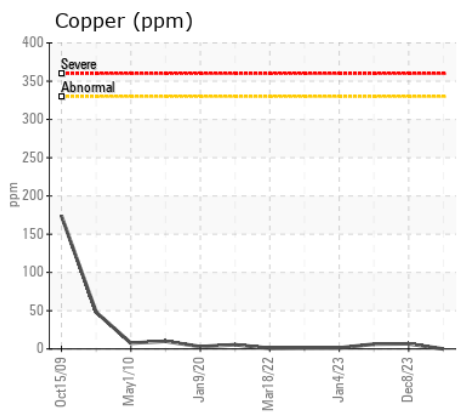
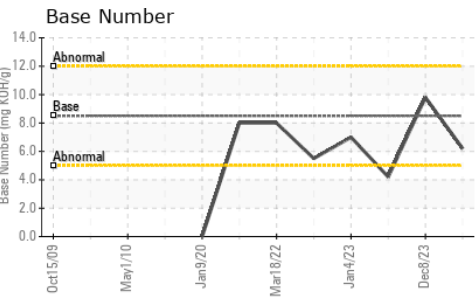
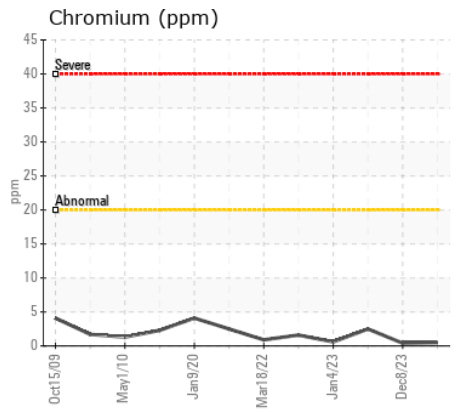
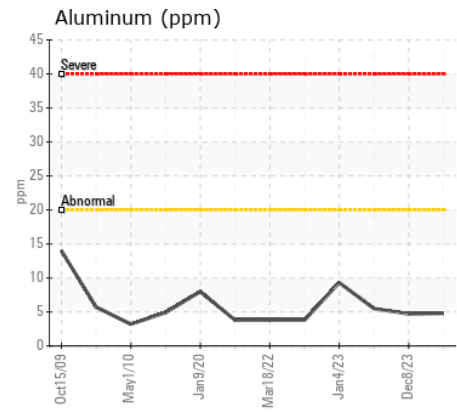
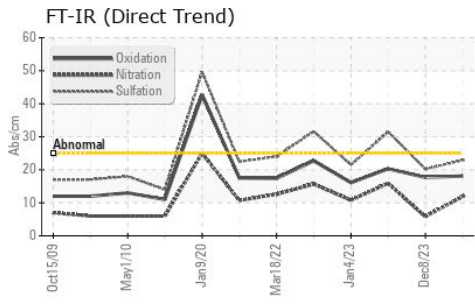
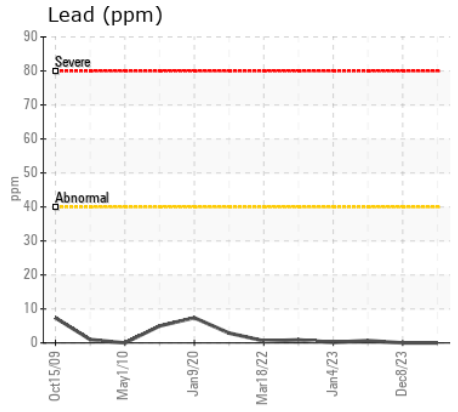
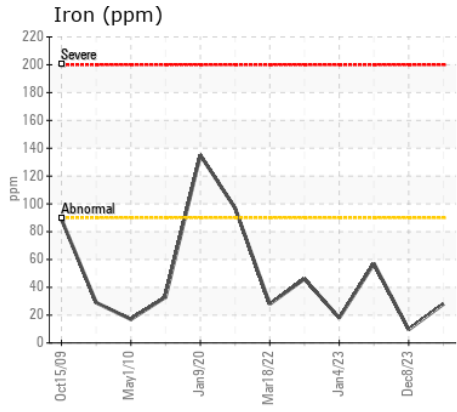
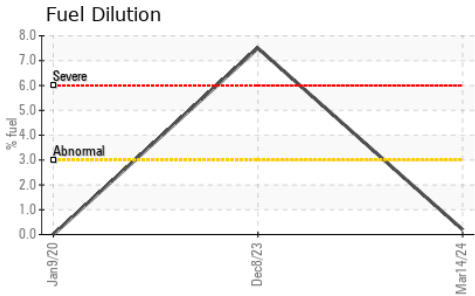
Fuel content negligible. There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>4</b>	12	6
Potassium	ppm	ASTM D5185m	>20	<b>7</b>	14	2
Fuel	%	ASTM D3524	>3.0	<b>0.2</b>	▲ 7.5	<1.0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>6	<b>1</b>	0.1	4.4
Nitration	Abs/cm	*ASTM D7624	>20	<b>11.9</b>	5.8	15.9
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>22.9</b>	20.2	31.5
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>8</b>	12	3
Boron	ppm	ASTM D5185m	250	<b>26</b>	60	23
Barium	ppm	ASTM D5185m	10	<b>0</b>	2	2
Molybdenum	ppm	ASTM D5185m	100	<b>85</b>	42	84
Manganese	ppm	ASTM D5185m		<b>0</b>	2	<1
Magnesium	ppm	ASTM D5185m	450	<b>102</b>	396	58
Calcium	ppm	ASTM D5185m	3000	<b>2083</b>	1547	2186
Phosphorus	ppm	ASTM D5185m	1150	<b>960</b>	757	987
Zinc	ppm	ASTM D5185m	1350	<b>1138</b>	870	1188
Sulfur	ppm	ASTM D5185m	4250	<b>3941</b>	2951	3664
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>18.1</b>	17.7	20.3
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	<b>6.2</b>	9.8	4.2
Visc @ 100°C	cSt	ASTM D445	14.4	<b>14.1</b>	▲ 10.7	14.8



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0906125 **Received** : 30 May 2024  
**Lab Number** : 06195158 **Tested** : 04 Jun 2024  
**Unique Number** : 11057281 **Diagnosed** : 04 Jun 2024 - Wes Davis  
**Test Package** : MOB 1 ( Additional Tests: PercentFuel, TBN )

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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)