



# OIL ANALYSIS REPORT

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

Machine Id  
**FREIGHTLINER 2127**  
Component  
**Diesel Engine**  
Fluid  
**MOBIL 15W40 (--- GAL)**

## RECOMMENDATION

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>WC0878828</b>	---	---
Sample Date		Client Info		<b>05 Jan 2024</b>	---	---
Machine Age	mls	Client Info		<b>242749</b>	---	---
Oil Age	mls	Client Info		<b>0</b>	---	---
Filter Age	mls	Client Info		<b>0</b>	---	---
Oil Changed		Client Info		<b>Changed</b>	---	---
Filter Changed		Client Info		<b>Changed</b>	---	---
Sample Status				<b>ABNORMAL</b>	---	---

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>80	<b>15</b>	---	---
Chromium	ppm	ASTM D5185m	>5	<b>1</b>	---	---
Nickel	ppm	ASTM D5185m	>2	<b>0</b>	---	---
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	---	---
Silver	ppm	ASTM D5185m	>3	<b>0</b>	---	---
Aluminum	ppm	ASTM D5185m	>30	<b>1</b>	---	---
Lead	ppm	ASTM D5185m	>30	<b>4</b>	---	---
Copper	ppm	ASTM D5185m	>150	<b>&lt;1</b>	---	---
Tin	ppm	ASTM D5185m	>5	<b>&lt;1</b>	---	---
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	---	---
White Metal	scalar	*Visual	NONE	<b>NONE</b>	---	---
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	---	---

## CONTAMINATION

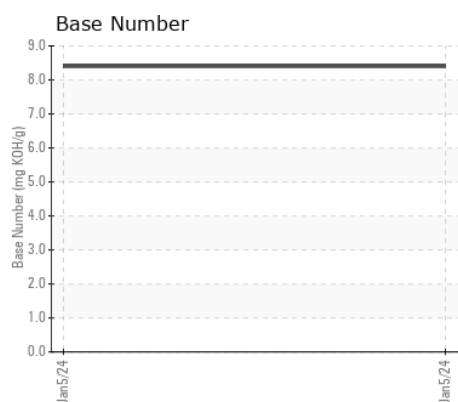
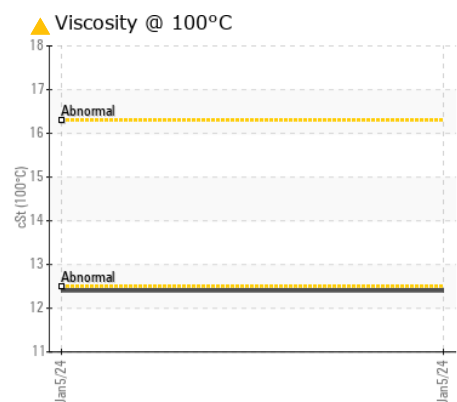
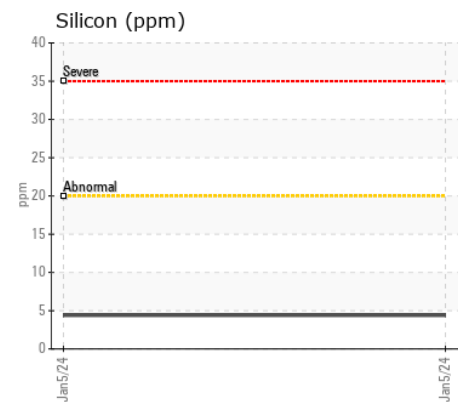
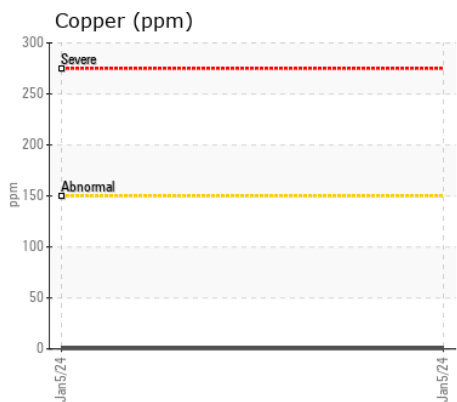
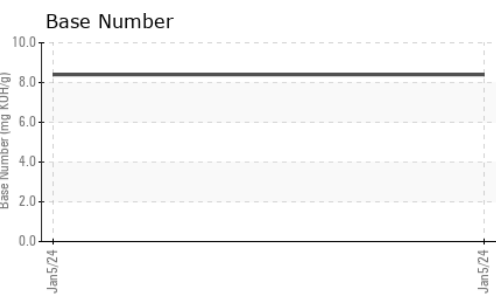
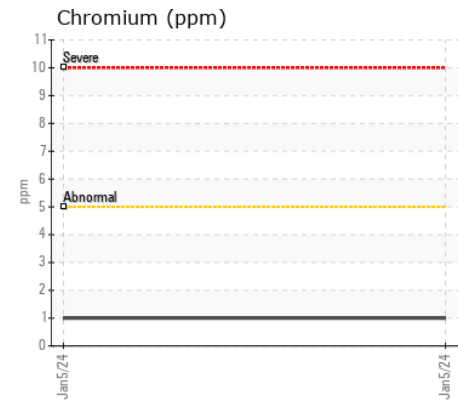
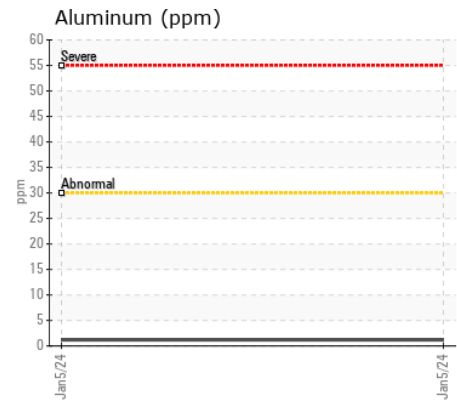
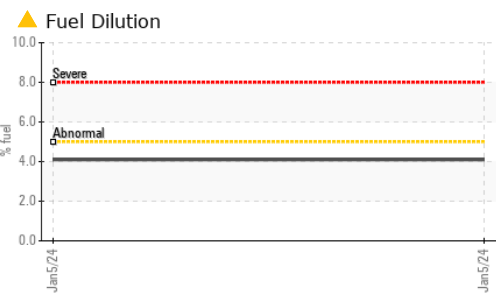
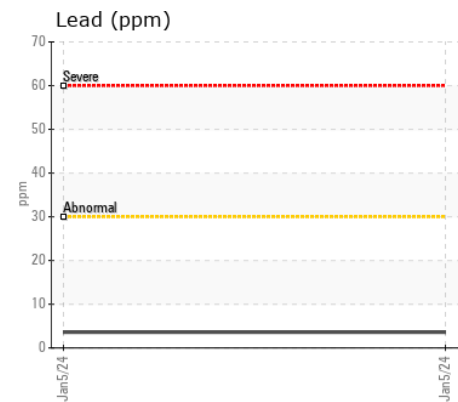
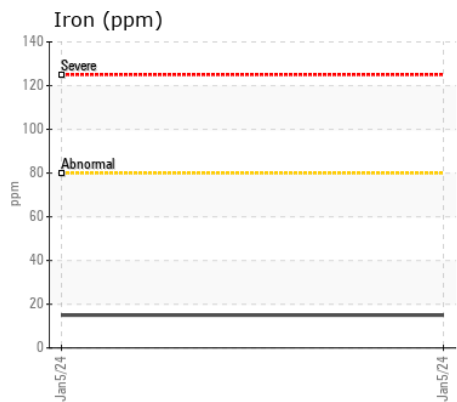
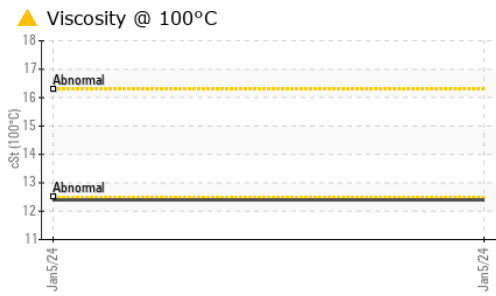
Light fuel dilution occurring.

Silicon	ppm	ASTM D5185m	>20	<b>4</b>	---	---
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	---	---
Fuel	%	ASTM D3524	>5	<b>▲ 4.1</b>	---	---
Water		WC Method	>0.2	<b>NEG</b>	---	---
Glycol		WC Method		<b>NEG</b>	---	---
Soot %	%	*ASTM D7844	>3	<b>0.7</b>	---	---
Nitration	Abs/cm	*ASTM D7624	>20	<b>6.5</b>	---	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>18.8</b>	---	---
Silt	scalar	*Visual	NONE	<b>NONE</b>	---	---
Debris	scalar	*Visual	NONE	<b>NONE</b>	---	---
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	---	---
Appearance	scalar	*Visual	NORML	<b>NORML</b>	---	---
Odor	scalar	*Visual	NORML	<b>NORML</b>	---	---
Emulsified Water	scalar	*Visual	>0.2	<b>NEG</b>	---	---

## FLUID CONDITION

Fuel is present in the oil and is lowering the viscosity. The BN result indicates that there is suitable alkalinity remaining in the oil.

Sodium	ppm	ASTM D5185m	>118	<b>1</b>	---	---
Boron	ppm	ASTM D5185m		<b>3</b>	---	---
Barium	ppm	ASTM D5185m		<b>0</b>	---	---
Molybdenum	ppm	ASTM D5185m		<b>53</b>	---	---
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	---	---
Magnesium	ppm	ASTM D5185m		<b>950</b>	---	---
Calcium	ppm	ASTM D5185m		<b>1021</b>	---	---
Phosphorus	ppm	ASTM D5185m		<b>988</b>	---	---
Zinc	ppm	ASTM D5185m		<b>1143</b>	---	---
Sulfur	ppm	ASTM D5185m		<b>2911</b>	---	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>13.4</b>	---	---
Base Number (BN)	mg KOH/g	ASTM D2896		<b>8.4</b>	---	---
Visc @ 100°C	cSt	ASTM D445		<b>▲ 12.4</b>	---	---



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0878828 **Received** : 31 Jan 2024  
**Lab Number** : 06075397 **Diagnosed** : 02 Feb 2024  
**Unique Number** : 10857488 **Diagnostician** : Jonathan Hester  
**Test Package** : MOB 1 ( Additional Tests: FuelDilution, PercentFuel, TBN )

**CONCRETE SERVICE CO**  
 161 BUILDERS BLVD  
 FAYETTEVILLE, NC  
 US 28301  
 Contact: Service Manager

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)

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F: