



Machine Id  
**FREIGHTLINER 05-15**  
Component  
**Diesel Engine**  
Fluid  
**B&A 5W40 (--- GAL)**

**RECOMMENDATION**

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>PC0083267</b>	---	---
Sample Date		Client Info		<b>20 Jun 2024</b>	---	---
Machine Age	hrs	Client Info		<b>22122</b>	---	---
Oil Age	hrs	Client Info		<b>600</b>	---	---
Filter Age	hrs	Client Info		<b>600</b>	---	---
Oil Changed		Client Info		<b>Changed</b>	---	---
Filter Changed		Client Info		<b>Changed</b>	---	---
Sample Status				<b>NORMAL</b>	---	---

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>80	<b>12</b>	---	---
Chromium	ppm	ASTM D5185(m)	>5	<b>1</b>	---	---
Nickel	ppm	ASTM D5185(m)	>2	<b>&lt;1</b>	---	---
Titanium	ppm	ASTM D5185(m)		<b>0</b>	---	---
Silver	ppm	ASTM D5185(m)	>3	<b>0</b>	---	---
Aluminum	ppm	ASTM D5185(m)	>30	<b>3</b>	---	---
Lead	ppm	ASTM D5185(m)	>30	<b>0</b>	---	---
Copper	ppm	ASTM D5185(m)	>150	<b>2</b>	---	---
Tin	ppm	ASTM D5185(m)	>5	<b>0</b>	---	---
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	---	---
White Metal	scalar	Visual*	NONE	<b>NONE</b>	---	---
Yellow Metal	scalar	Visual*	NONE	<b>VLITE</b>	---	---

**CONTAMINATION**

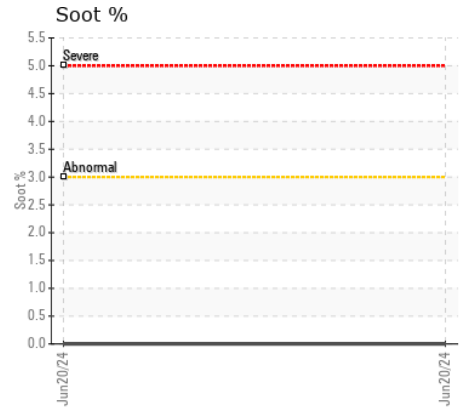
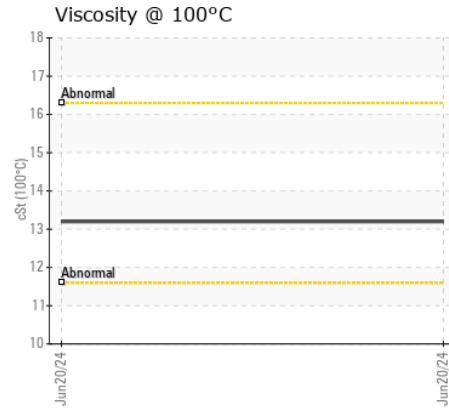
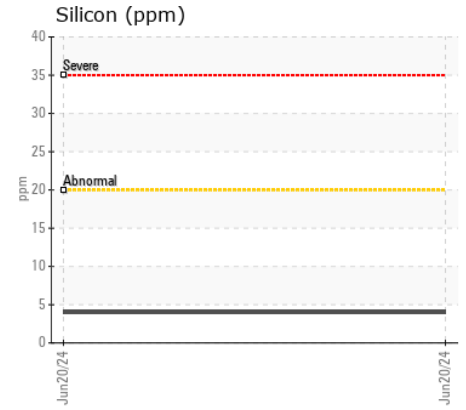
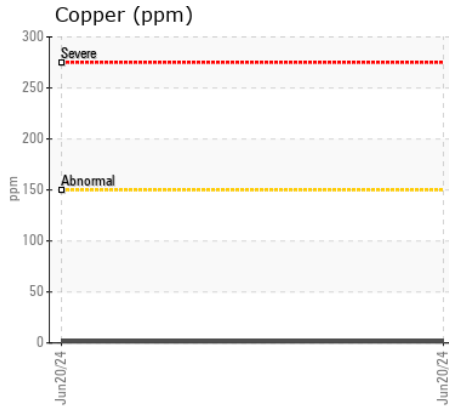
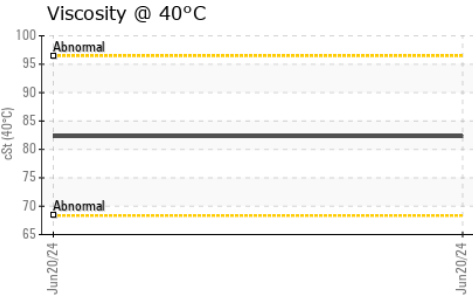
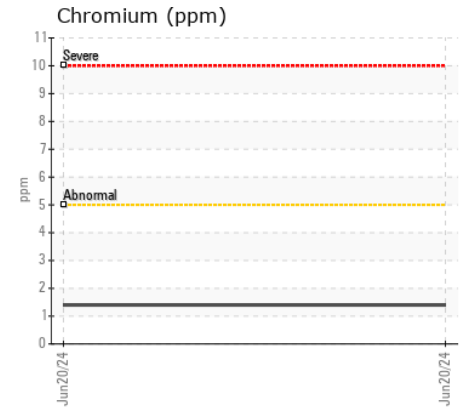
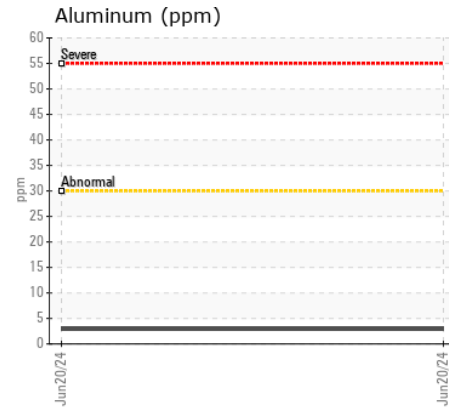
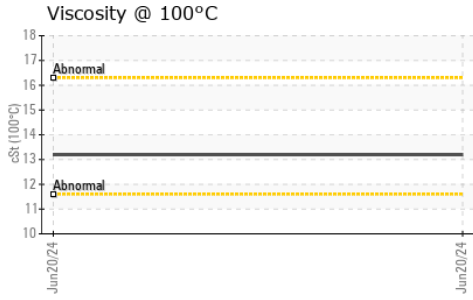
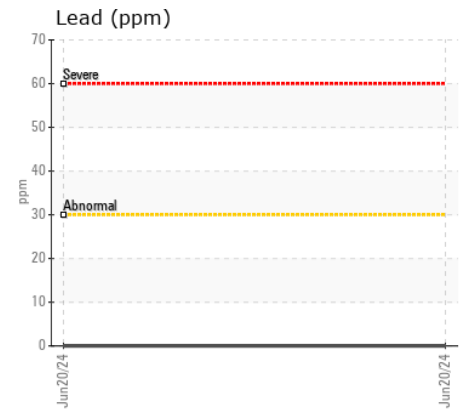
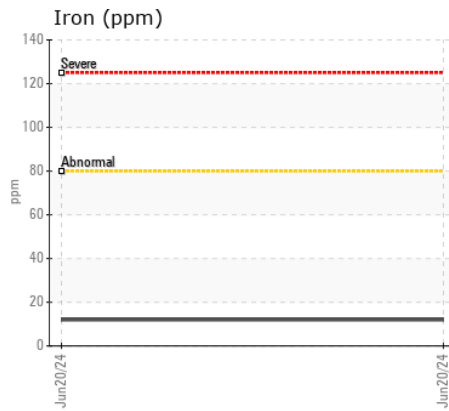
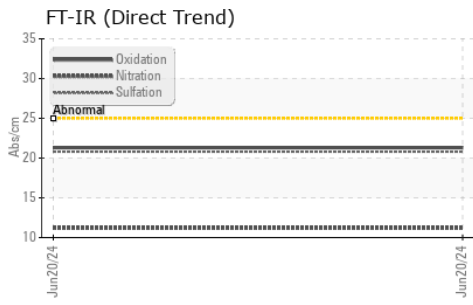
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>20	<b>4</b>	---	---
Potassium	ppm	ASTM D5185(m)	>20	<b>0</b>	---	---
Fuel		WC Method	>5	<b>&lt;1.0</b>	---	---
Water		WC Method	>0.2	<b>NEG</b>	---	---
Glycol		WC Method		<b>NEG</b>	---	---
Soot %	%	ASTM D7844*	>3	<b>0</b>	---	---
Nitration	Abs/cm	ASTM D7624*	>20	<b>11.2</b>	---	---
Sulfation	Abs/.1mm	ASTM D7415*	>30	<b>20.8</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**

The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185(m)		<b>4</b>	---	---
Boron	ppm	ASTM D5185(m)		<b>48</b>	---	---
Barium	ppm	ASTM D5185(m)		<b>0</b>	---	---
Molybdenum	ppm	ASTM D5185(m)		<b>58</b>	---	---
Manganese	ppm	ASTM D5185(m)		<b>&lt;1</b>	---	---
Magnesium	ppm	ASTM D5185(m)		<b>1088</b>	---	---
Calcium	ppm	ASTM D5185(m)		<b>804</b>	---	---
Phosphorus	ppm	ASTM D5185(m)		<b>1035</b>	---	---
Zinc	ppm	ASTM D5185(m)		<b>1216</b>	---	---
Sulfur	ppm	ASTM D5185(m)		<b>2822</b>	---	---
Oxidation	Abs/.1mm	ASTM D7414*	>25	<b>21.3</b>	---	---
Visc @ 40°C	cSt	ASTM D7279(m)		<b>82.3</b>	---	---
Visc @ 100°C	cSt	ASTM D7279(m)		<b>13.2</b>	---	---
Viscosity Index (VI)	Scale	ASTM D2270*		<b>162</b>	---	---



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : PC0083267  
**Lab Number** : 02643676  
**Unique Number** : 5801215  
**Test Package** : MOB 1 ( Additional Tests: KV40, VI, Visual )

**Received** : 24 Jun 2024  
**Tested** : 25 Jun 2024  
**Diagnosed** : 25 Jun 2024 - Wes Davis

**B & A PETROLEUM**  
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To discuss this sample report, contact Customer Service at 1-800-268-2131.  
 Test denoted (\*) outside scope of accreditation, (m) method modified, (e) tested at external lab.  
 Validity of results and interpretation are based on the sample and information as supplied.