



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



Machine Id  
**FREIGHTLINER 115-1701**  
Component  
**Diesel Engine**  
Fluid  
**DIESEL ENGINE OIL SAE 15W40 (--- GAL)**

**RECOMMENDATION**

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>PC0084807</b>	PC0073009	PC0059343
Sample Date		Client Info		<b>02 Apr 2024</b>	05 Apr 2023	29 Mar 2022
Machine Age	kms	Client Info		<b>135900</b>	118631	102519
Oil Age	kms	Client Info		<b>0</b>	0	10000
Filter Age	kms	Client Info		<b>0</b>	0	10000
Oil Changed		Client Info		<b>Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>Changed</b>	Changed	Changed
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>80	<b>13</b>	17	15
Chromium	ppm	ASTM D5185(m)	>5	<b>&lt;1</b>	2	1
Nickel	ppm	ASTM D5185(m)	>2	<b>&lt;1</b>	<1	<1
Titanium	ppm	ASTM D5185(m)		<b>0</b>	<1	0
Silver	ppm	ASTM D5185(m)	>3	<b>0</b>	0	<1
Aluminum	ppm	ASTM D5185(m)	>30	<b>8</b>	11	9
Lead	ppm	ASTM D5185(m)	>30	<b>0</b>	<1	<1
Copper	ppm	ASTM D5185(m)	>150	<b>8</b>	15	17
Tin	ppm	ASTM D5185(m)	>5	<b>&lt;1</b>	<1	1
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	0
White Metal	scalar	Visual*	NONE	<b>NONE</b>	---	---
Yellow Metal	scalar	Visual*	NONE	<b>NONE</b>	---	---

**CONTAMINATION**

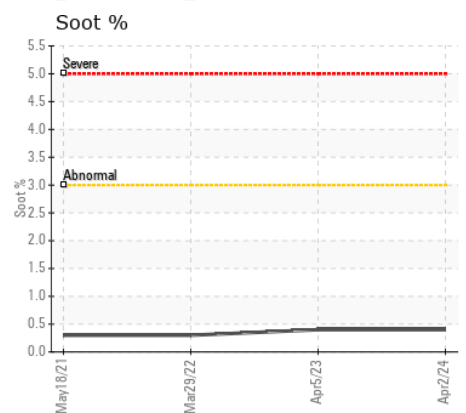
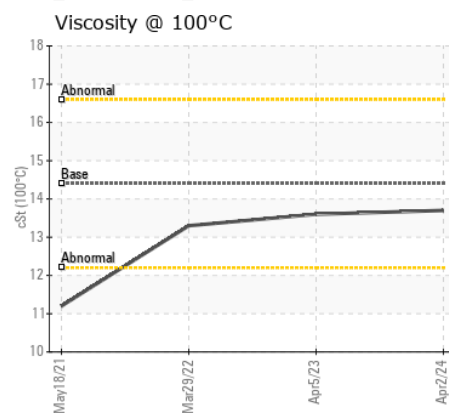
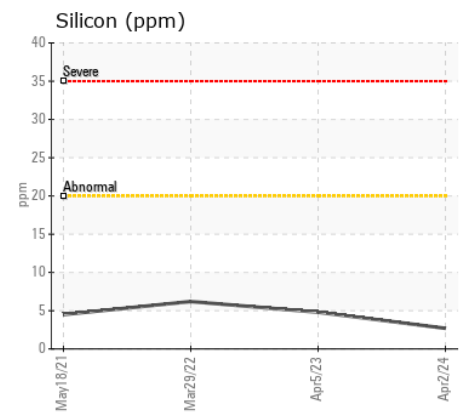
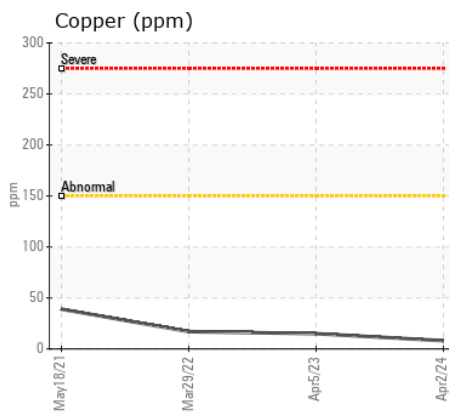
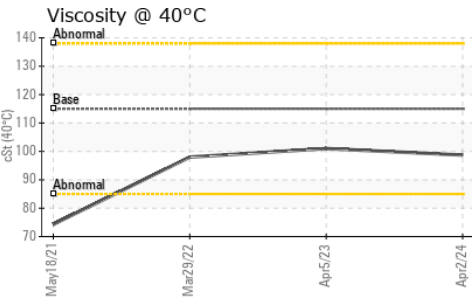
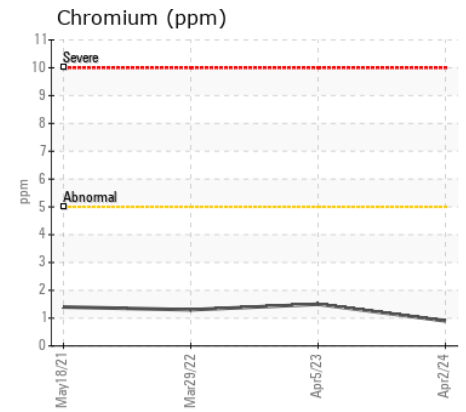
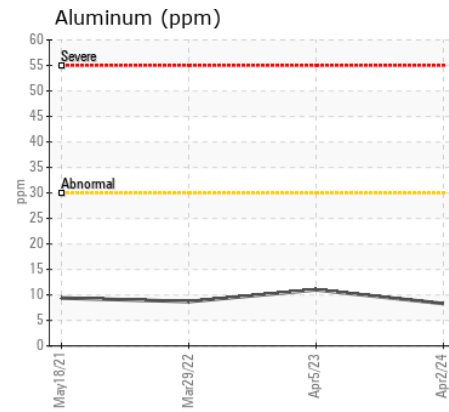
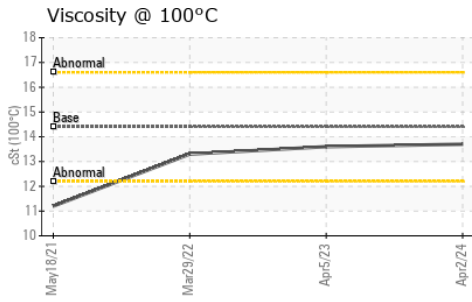
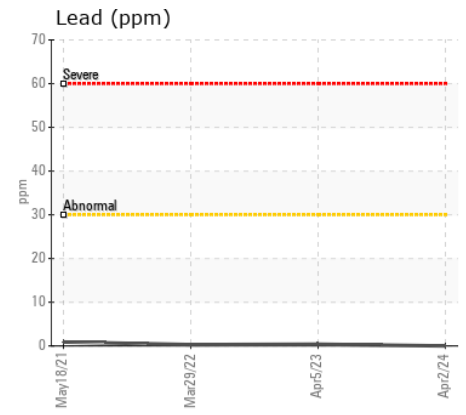
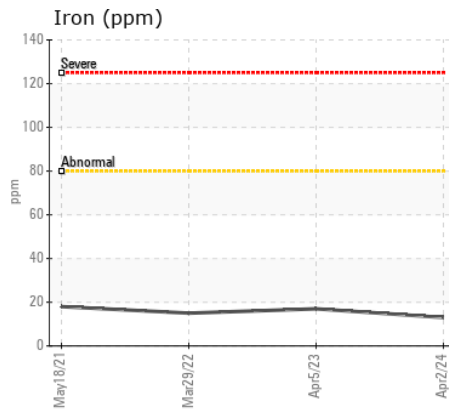
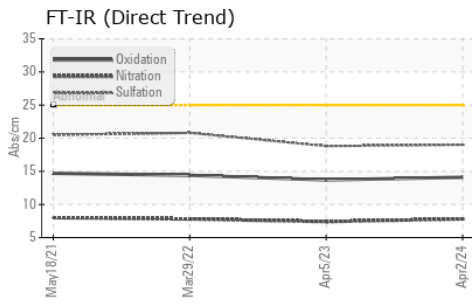
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>20	<b>3</b>	5	6
Potassium	ppm	ASTM D5185(m)	>20	<b>4</b>	5	7
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>0.4</b>	0.4	0.3
Nitration	Abs/cm	ASTM D7624*	>20	<b>7.8</b>	7.4	7.8
Sulfation	Abs/.1mm	ASTM D7415*	>30	<b>19.0</b>	18.8	20.8
Silt	scalar	Visual*	NONE	<b>VLITE</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>	NORML	NORML
Emulsified Water	scalar	Visual*	>0.2	<b>NEG</b>	NEG	NEG

**FLUID CONDITION**

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

Sodium	ppm	ASTM D5185(m)	>158	<b>1</b>	1	2
Boron	ppm	ASTM D5185(m)	250	<b>4</b>	3	3
Barium	ppm	ASTM D5185(m)	10	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185(m)	100	<b>60</b>	58	59
Manganese	ppm	ASTM D5185(m)		<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185(m)	450	<b>961</b>	977	1023
Calcium	ppm	ASTM D5185(m)	3000	<b>1049</b>	1135	1038
Phosphorus	ppm	ASTM D5185(m)	1150	<b>965</b>	1098	1036
Zinc	ppm	ASTM D5185(m)	1350	<b>1153</b>	1218	1214
Sulfur	ppm	ASTM D5185(m)	4250	<b>2394</b>	2606	2513
Oxidation	Abs/.1mm	ASTM D7414*	>25	<b>14.1</b>	13.7	14.4
Visc @ 40°C	cSt	ASTM D7279(m)	115	<b>98.7</b>	101	98.0
Visc @ 100°C	cSt	ASTM D7279(m)	14.4	<b>13.7</b>	13.6	13.3
Viscosity Index (VI)	Scale	ASTM D2270*	126	<b>139</b>	134	134



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : PC0084807 **Received** : 19 Apr 2024  
**Lab Number** : 02630114 **Tested** : 19 Apr 2024  
**Unique Number** : 5763246 **Diagnosed** : 19 Apr 2024 - Wes Davis  
**Test Package** : MOB 1 ( Additional Tests: KV40, VI, Visual )

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.

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