



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



Machine Id  
**FREIGHTLINER 15-46**  
Component  
**Diesel Engine**  
Fluid  
**PETRO CANADA DURON UHP 5W40 (--- GAL)**

**RECOMMENDATION**

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>PC0083266</b>	PC0081761	PC0053959
Sample Date		Client Info		<b>07 Jun 2024</b>	10 Apr 2024	07 Mar 2024
Machine Age	kms	Client Info		<b>0</b>	245841	0
Oil Age	kms	Client Info		<b>31150</b>	58341	0
Filter Age	kms	Client Info		<b>31150</b>	58341	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	SEVERE

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>200	<b>8</b>	6	13
Chromium	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	<1	2
Nickel	ppm	ASTM D5185(m)	>2	<b>&lt;1</b>	0	1
Titanium	ppm	ASTM D5185(m)	>2	<b>0</b>	0	0
Silver	ppm	ASTM D5185(m)	>2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185(m)	>30	<b>2</b>	2	3
Lead	ppm	ASTM D5185(m)	>30	<b>0</b>	0	<1
Copper	ppm	ASTM D5185(m)	>30	<b>2</b>	4	9
Tin	ppm	ASTM D5185(m)	>15	<b>0</b>	0	<1
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	0
White Metal	scalar	Visual*	NONE	<b>VLITE</b>	---	---
Yellow Metal	scalar	Visual*	NONE	<b>NONE</b>	---	---

**CONTAMINATION**

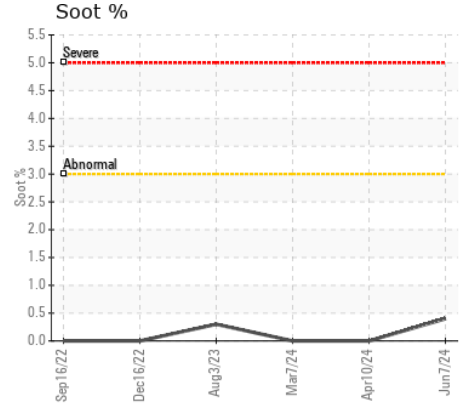
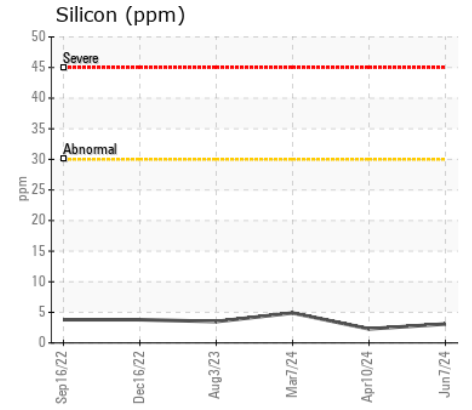
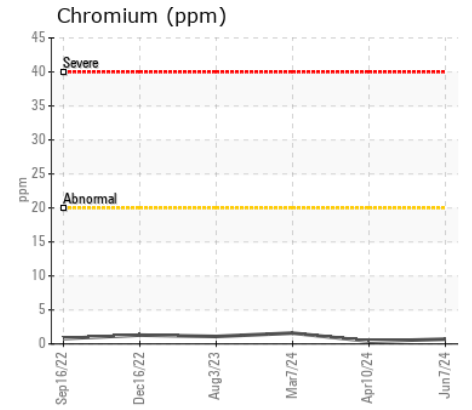
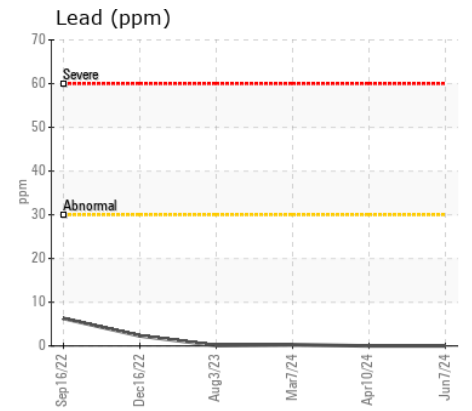
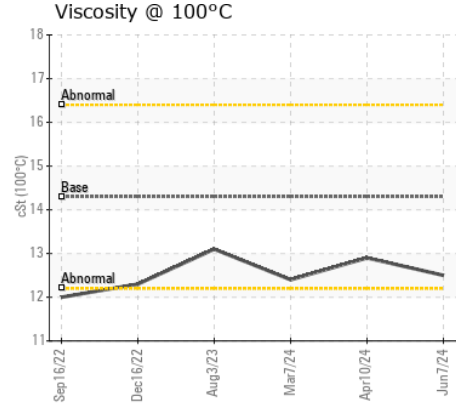
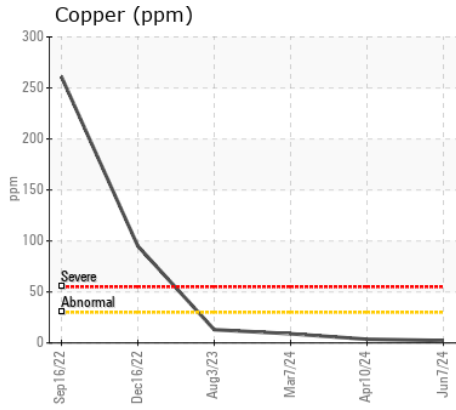
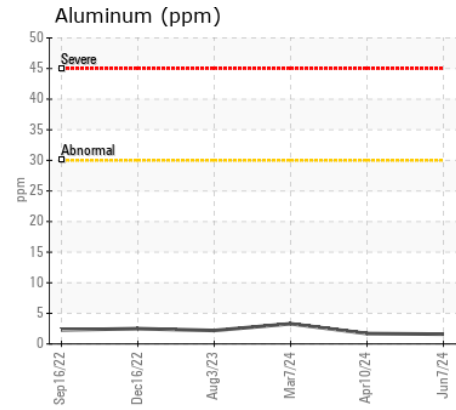
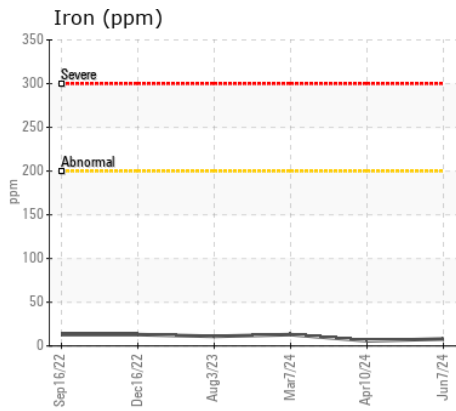
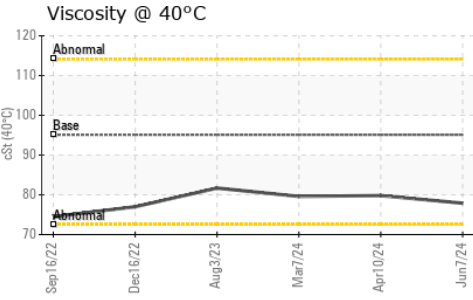
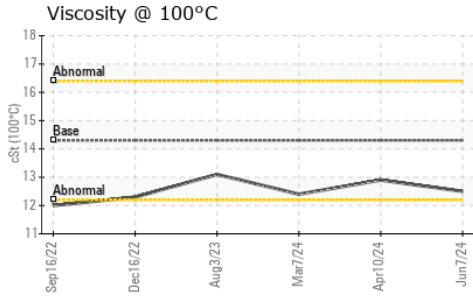
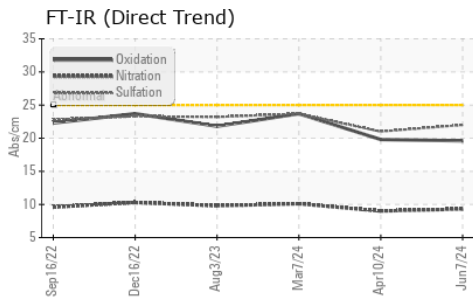
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>30	<b>3</b>	2	5
Potassium	ppm	ASTM D5185(m)	>20	<b>2</b>	7	▲ 27
Fuel		WC Method	>3.0	<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>	0.0	▲ 0.161
Soot %	%	ASTM D7844*	>3	<b>0.4</b>	0	0
Nitration	Abs/cm	ASTM D7624*	>20	<b>9.3</b>	9.0	10.1
Sulfation	Abs/.1mm	ASTM D7415*	>30	<b>22.0</b>	21.0	23.7
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>	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)		<b>5</b>	11	● 29
Boron	ppm	ASTM D5185(m)	65	<b>25</b>	26	23
Barium	ppm	ASTM D5185(m)	0	<b>0</b>	0	<1
Molybdenum	ppm	ASTM D5185(m)	65	<b>58</b>	61	64
Manganese	ppm	ASTM D5185(m)	0	<b>&lt;1</b>	0	0
Magnesium	ppm	ASTM D5185(m)	1160	<b>1081</b>	1146	1156
Calcium	ppm	ASTM D5185(m)	820	<b>877</b>	845	882
Phosphorus	ppm	ASTM D5185(m)	1160	<b>931</b>	1004	1024
Zinc	ppm	ASTM D5185(m)	1260	<b>1192</b>	1192	1240
Sulfur	ppm	ASTM D5185(m)	3000	<b>2503</b>	2621	2635
Oxidation	Abs/.1mm	ASTM D7414*	>25	<b>19.6</b>	19.8	23.7
Visc @ 40°C	cSt	ASTM D7279(m)	95.1	<b>77.9</b>	79.8	79.6
Visc @ 100°C	cSt	ASTM D7279(m)	14.3	<b>12.5</b>	12.9	12.4
Viscosity Index (VI)	Scale	ASTM D2270*	169	<b>159</b>	162	153



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : PC0083266  
**Lab Number** : **02643158**  
**Unique Number** : 5800697  
**Test Package** : MOB 1 ( Additional Tests: KV40, VI, Visual )

**Received** : 20 Jun 2024  
**Tested** : 20 Jun 2024  
**Diagnosed** : 20 Jun 2024 - Wes Davis

**B & A PETROLEUM**  
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 CA S9H 5J5  
 Contact: DARRYL MEYER  
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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.

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