

Machine Id
FREIGHTLINER 827004
Component
Diesel Engine
Fluid
PETRO CANADA 15W40 (--- GAL)

RECOMMENDATION

We advise that you check the fuel injection system. The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0056318	GFL0056327	---
Sample Date		Client Info		20 Jun 2023	24 Oct 2022	---
Machine Age	kms	Client Info		388298	371238	---
Oil Age	kms	Client Info		0	0	---
Filter Age	kms	Client Info		0	0	---
Oil Changed		Client Info		Changed	Changed	---
Filter Changed		Client Info		Changed	Changed	---
Sample Status				SEVERE	MARGINAL	---

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>80	63	26	---
Chromium	ppm	ASTM D5185(m)	>5	3	1	---
Nickel	ppm	ASTM D5185(m)	>2	<1	<1	---
Titanium	ppm	ASTM D5185(m)		<1	<1	---
Silver	ppm	ASTM D5185(m)	>3	0	0	---
Aluminum	ppm	ASTM D5185(m)	>30	6	4	---
Lead	ppm	ASTM D5185(m)	>30	5	1	---
Copper	ppm	ASTM D5185(m)	>150	2	1	---
Tin	ppm	ASTM D5185(m)	>5	<1	<1	---
Vanadium	ppm	ASTM D5185(m)		0	0	---

CONTAMINATION

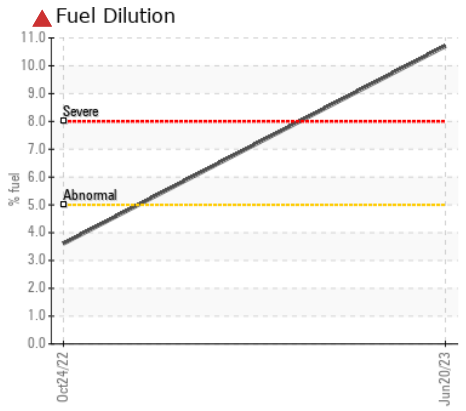
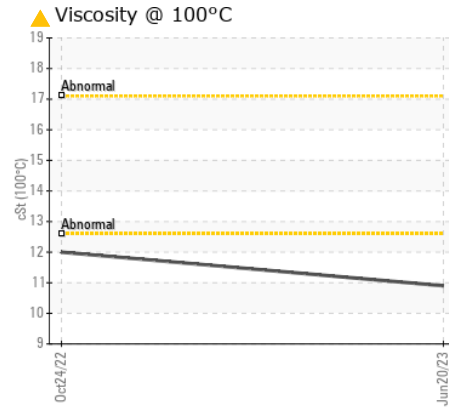
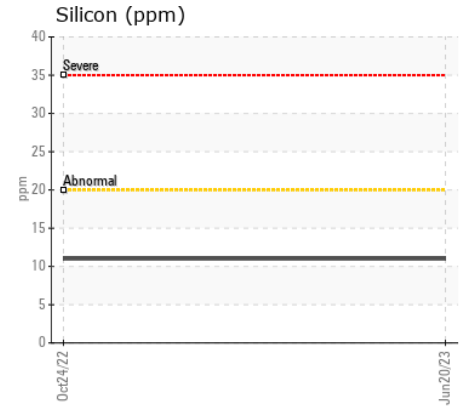
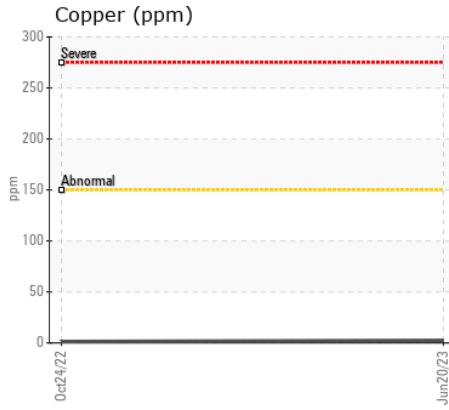
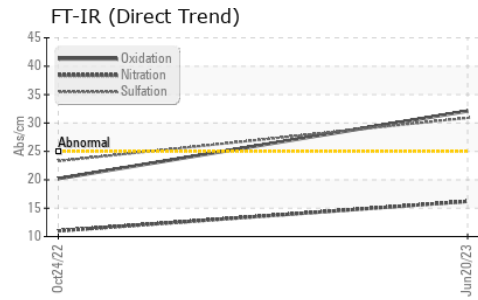
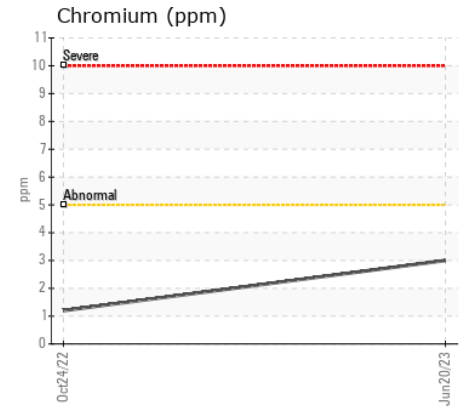
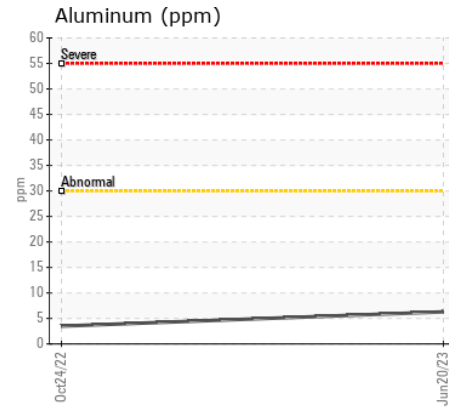
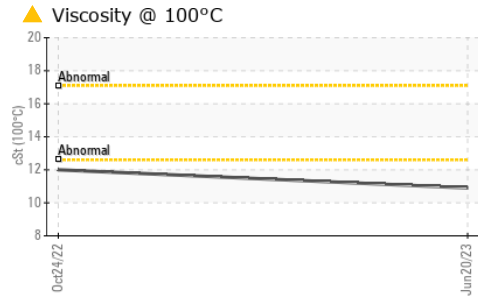
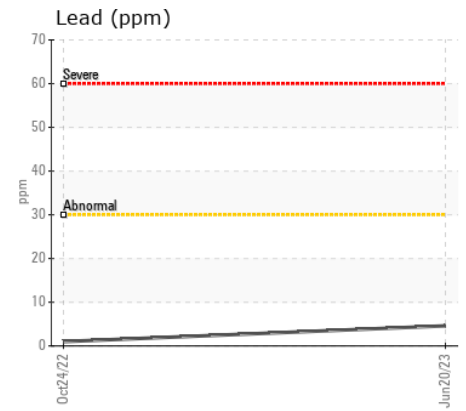
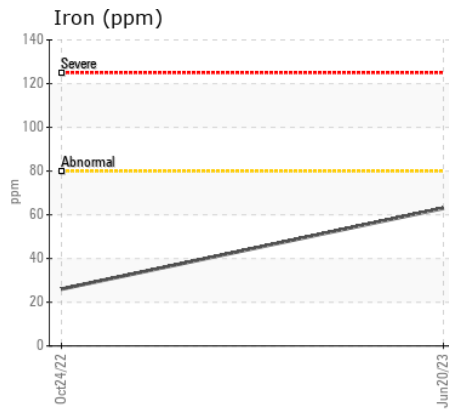
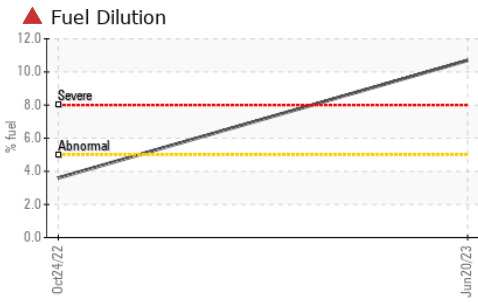
There is a high amount of fuel present in the oil. Tests confirm the presence of fuel in the oil.

Silicon	ppm	ASTM D5185(m)	>20	11	11	---
Potassium	ppm	ASTM D5185(m)	>20	2	3	---
Fuel	%	ASTM D7593*	>5	▲ 10.7	▲ 3.6	---
Water		WC Method	>0.2	NEG	NEG	---
Glycol		WC Method		NEG	NEG	---
Soot %	%	ASTM D7844*	>3	1	0.5	---
Nitration	Abs/cm	ASTM D7624*	>20	16.2	11.0	---
Sulfation	Abs/.1mm	ASTM D7415*	>30	30.9	23.3	---
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	---

FLUID CONDITION

Fuel is present in the oil and is lowering the viscosity. The oil is no longer serviceable due to the presence of contaminants.

Sodium	ppm	ASTM D5185(m)		15	18	---
Boron	ppm	ASTM D5185(m)		15	38	---
Barium	ppm	ASTM D5185(m)		0	0	---
Molybdenum	ppm	ASTM D5185(m)		58	48	---
Manganese	ppm	ASTM D5185(m)		<1	<1	---
Magnesium	ppm	ASTM D5185(m)		789	626	---
Calcium	ppm	ASTM D5185(m)		1101	1370	---
Phosphorus	ppm	ASTM D5185(m)		923	985	---
Zinc	ppm	ASTM D5185(m)		1052	1059	---
Sulfur	ppm	ASTM D5185(m)		2172	2514	---
Oxidation	Abs/.1mm	ASTM D7414*	>25	32.1	20.2	---
Visc @ 100°C	cSt	ASTM D7279(m)		▲ 10.9	12.0	---



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0056318 **Received** : 22 Jun 2023
Lab Number : 02565845 **Tested** : 23 Jun 2023
Unique Number : 5602891 **Diagnosed** : 23 Jun 2023 - Kevin Marson
Test Package : MOB 1 (Additional Tests: FuelDilution, PercentFuel)

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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.