



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id
FREIGHTLINER 827003
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0112663	GFL0056303	GFL0056350
Sample Date		Client Info		12 Jun 2024	22 Dec 2023	05 Apr 2023
Machine Age	kms	Client Info		173589	166225	152944
Oil Age	kms	Client Info		0	0	0
Filter Age	kms	Client Info		0	0	0
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>75	18	15	25
Chromium	ppm	ASTM D5185(m)	>5	<1	<1	1
Nickel	ppm	ASTM D5185(m)	>4	<1	<1	<1
Titanium	ppm	ASTM D5185(m)	>2	0	0	<1
Silver	ppm	ASTM D5185(m)	>2	<1	0	0
Aluminum	ppm	ASTM D5185(m)	>15	4	4	5
Lead	ppm	ASTM D5185(m)	>25	0	<1	<1
Copper	ppm	ASTM D5185(m)	>100	1	1	1
Tin	ppm	ASTM D5185(m)	>4	0	0	<1
Vanadium	ppm	ASTM D5185(m)		0	0	0

CONTAMINATION

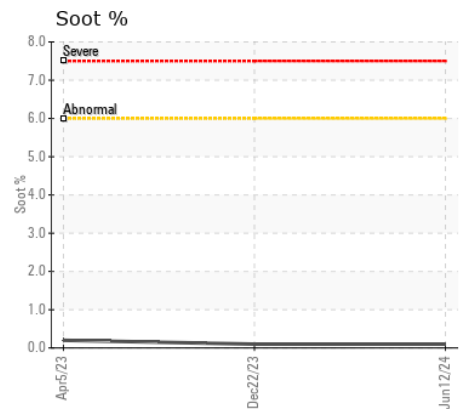
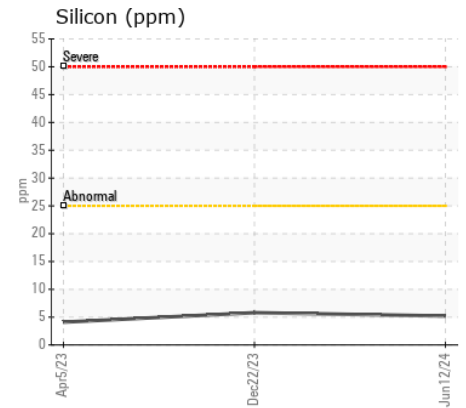
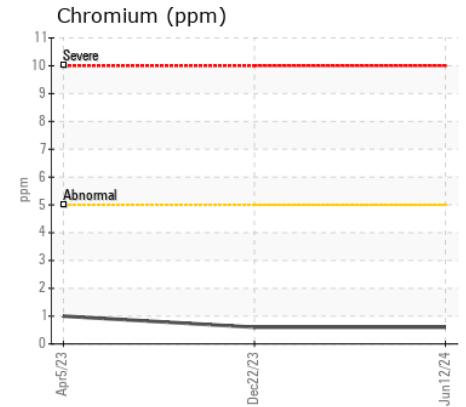
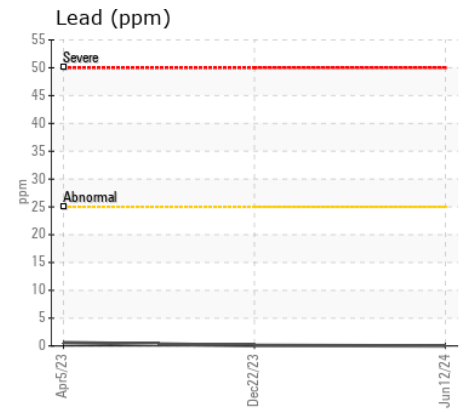
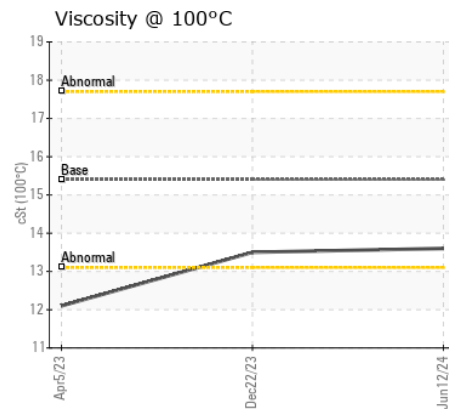
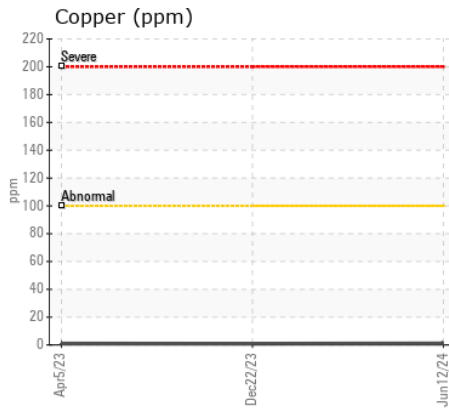
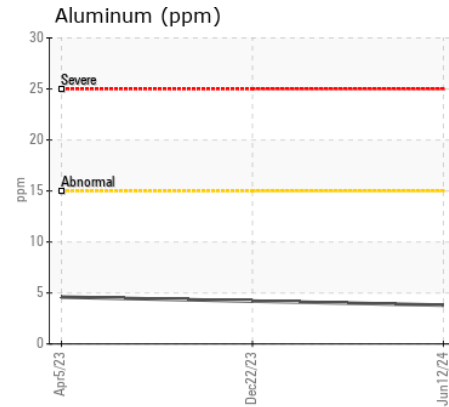
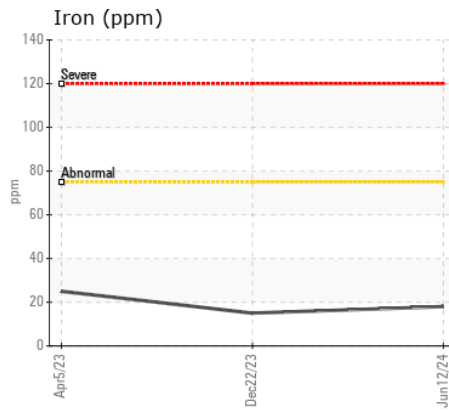
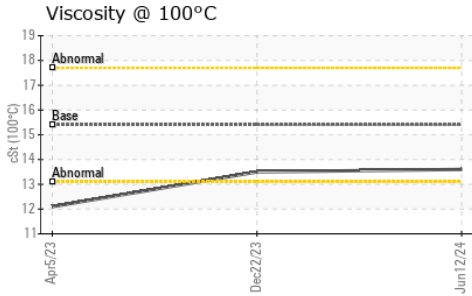
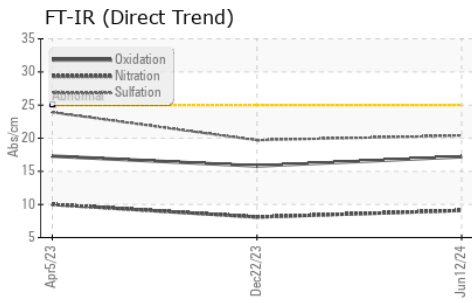
Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>25	5	6	4
Potassium	ppm	ASTM D5185(m)	>20	5	5	5
Fuel		WC Method	>3.0	<1.0	<1.0	1.4
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	ASTM D7844*	>6	0.1	0.1	0.2
Nitration	Abs/cm	ASTM D7624*	>20	9.1	8.1	10.0
Sulfation	Abs/.1mm	ASTM D7415*	>30	20.4	19.7	23.9
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	NEG

FLUID CONDITION

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

Sodium	ppm	ASTM D5185(m)		6	5	3
Boron	ppm	ASTM D5185(m)	0	16	18	21
Barium	ppm	ASTM D5185(m)	0	0	0	0
Molybdenum	ppm	ASTM D5185(m)	60	67	64	67
Manganese	ppm	ASTM D5185(m)	0	<1	0	<1
Magnesium	ppm	ASTM D5185(m)	1010	951	960	914
Calcium	ppm	ASTM D5185(m)	1070	1121	1118	1242
Phosphorus	ppm	ASTM D5185(m)	1150	1014	1008	1060
Zinc	ppm	ASTM D5185(m)	1270	1206	1189	1148
Sulfur	ppm	ASTM D5185(m)	2060	2492	2922	2663
Oxidation	Abs/.1mm	ASTM D7414*	>25	17.2	15.8	17.3
Visc @ 100°C	cSt	ASTM D7279(m)	15.4	13.6	13.5	12.1



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0112663
Lab Number : 02642803
Unique Number : 5800342
Test Package : MOB 1

GFL Environmental - 255 - Blind River
 9 Industrial Park Road East
 Blind River, ON
 CA P0R 1B0
 Contact: GFL Tech
 wcgfldemo@gmail.com

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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