



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Area
[1263400]
 Machine Id
FREIGHTLINER 810056
 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		GFL0093965	GFL0056300	GFL0056309
Sample Date		Client Info		22 Apr 2024	04 Apr 2024	27 Dec 2023
Machine Age	kms	Client Info		5552	106608	89521
Oil Age	kms	Client Info		0	0	0
Filter Age	kms	Client Info		0	0	0
Oil Changed		Client Info		N/A	Changed	Changed
Filter Changed		Client Info		N/A	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

Metal levels are typical for a new component breaking in.

Iron	ppm	ASTM D5185(m)	>75	19	45	81
Chromium	ppm	ASTM D5185(m)	>5	<1	2	4
Nickel	ppm	ASTM D5185(m)	>4	<1	<1	<1
Titanium	ppm	ASTM D5185(m)	>2	0	0	0
Silver	ppm	ASTM D5185(m)	>2	0	0	<1
Aluminum	ppm	ASTM D5185(m)	>15	6	8	15
Lead	ppm	ASTM D5185(m)	>25	0	0	1
Copper	ppm	ASTM D5185(m)	>100	2	3	5
Tin	ppm	ASTM D5185(m)	>4	0	0	<1
Vanadium	ppm	ASTM D5185(m)		0	0	0

CONTAMINATION

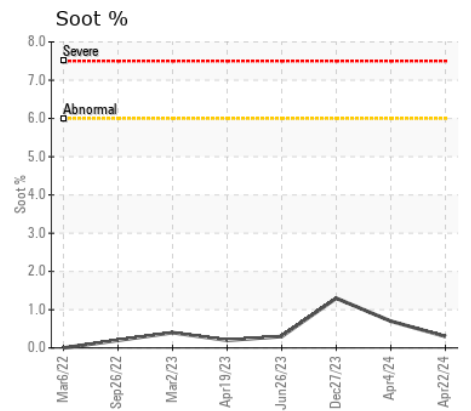
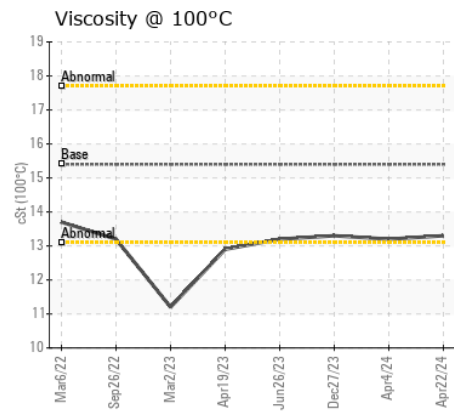
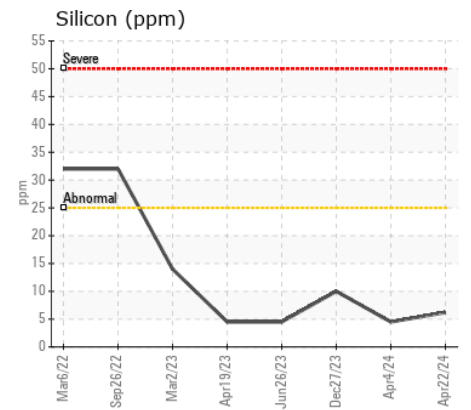
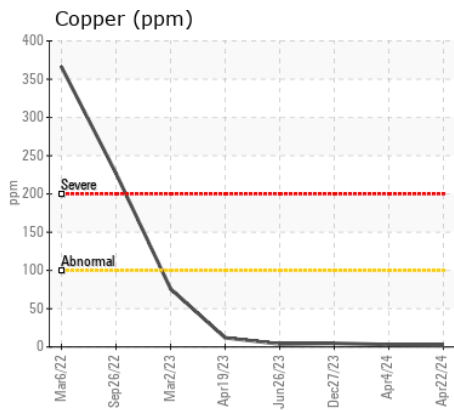
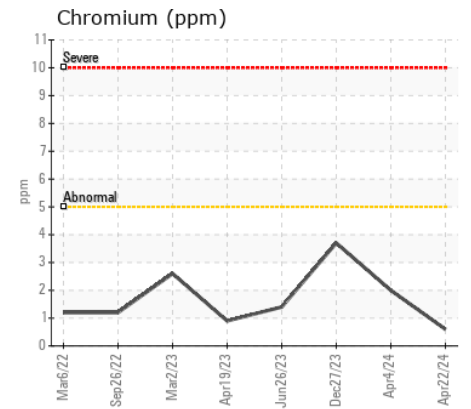
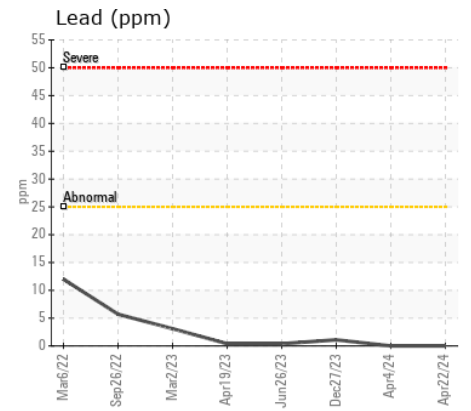
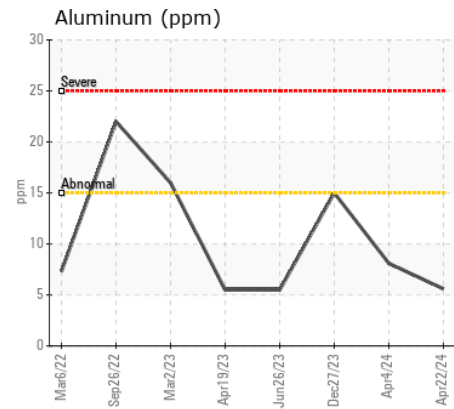
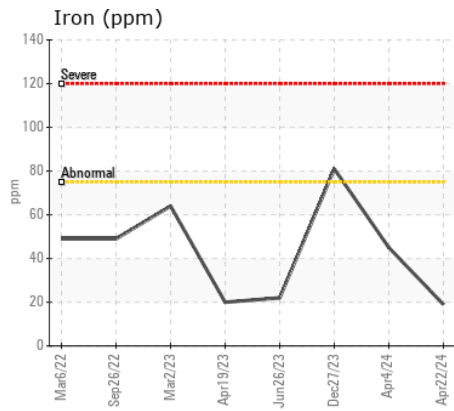
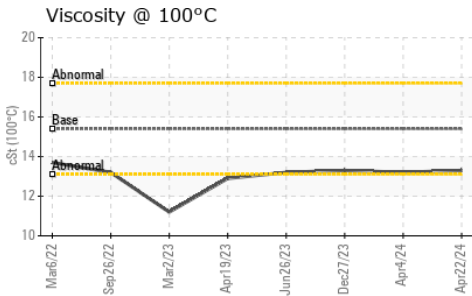
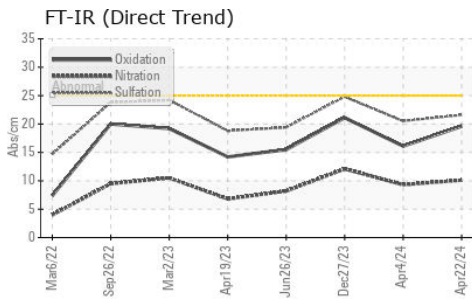
Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>25	6	4	10
Potassium	ppm	ASTM D5185(m)	>20	7	7	22
Fuel		WC Method	>3.0	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	0.0	NEG
Soot %	%	ASTM D7844*	>6	0.3	0.7	1.3
Nitration	Abs/cm	ASTM D7624*	>20	10.1	9.3	12.1
Sulfation	Abs/.1mm	ASTM D7415*	>30	21.6	20.5	24.8
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)		8	6	8
Boron	ppm	ASTM D5185(m)	0	6	10	4
Barium	ppm	ASTM D5185(m)	0	0	0	0
Molybdenum	ppm	ASTM D5185(m)	60	60	64	63
Manganese	ppm	ASTM D5185(m)	0	<1	<1	<1
Magnesium	ppm	ASTM D5185(m)	1010	965	949	964
Calcium	ppm	ASTM D5185(m)	1070	1117	1080	1110
Phosphorus	ppm	ASTM D5185(m)	1150	981	981	963
Zinc	ppm	ASTM D5185(m)	1270	1167	1169	1190
Sulfur	ppm	ASTM D5185(m)	2060	2366	2423	2357
Oxidation	Abs/.1mm	ASTM D7414*	>25	19.6	16.1	21.1
Visc @ 100°C	cSt	ASTM D7279(m)	15.4	13.3	13.2	13.3



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0093965
Lab Number : 02632725
Unique Number : 5773878
Test Package : MOB 1
Received : 02 May 2024
Tested : 02 May 2024
Diagnosed : 02 May 2024 - Wes Davis

GFL Environmental - 255 - Blind River
 9 Industrial Park Road East
 Blind River, ON
 CA P0R 1B0
 Contact: Jason Haman
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 F:

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.