



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id
514005
Component
Diesel Engine
Fluid
DIESEL ENGINE OIL SAE 10W30 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0120103	GFL0098558	---
Sample Date		Client Info		25 Jun 2024	05 Jan 2024	---
Machine Age	kms	Client Info		113718	67323	---
Oil Age	kms	Client Info		46395	0	---
Filter Age	kms	Client Info		0	0	---
Oil Changed		Client Info		Changed	Changed	---
Filter Changed		Client Info		Changed	Changed	---
Sample Status				NORMAL	ABNORMAL	---

WEAR

Metal levels are typical for a new component breaking in.

Iron	ppm	ASTM D5185(m)	>120	40	68	---
Chromium	ppm	ASTM D5185(m)	>20	1	1	---
Nickel	ppm	ASTM D5185(m)	>5	8	5	---
Titanium	ppm	ASTM D5185(m)	>2	0	0	---
Silver	ppm	ASTM D5185(m)	>2	<1	<1	---
Aluminum	ppm	ASTM D5185(m)	>20	8	26	---
Lead	ppm	ASTM D5185(m)	>40	1	6	---
Copper	ppm	ASTM D5185(m)	>330	56	214	---
Tin	ppm	ASTM D5185(m)	>15	2	5	---
Vanadium	ppm	ASTM D5185(m)		0	0	---

CONTAMINATION

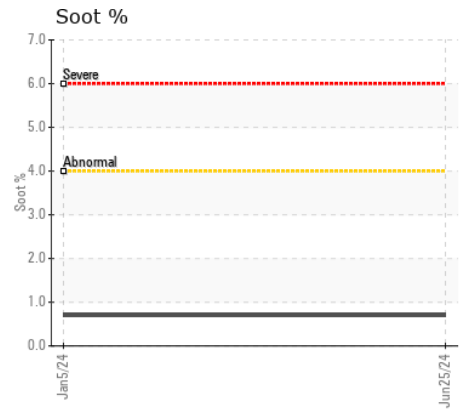
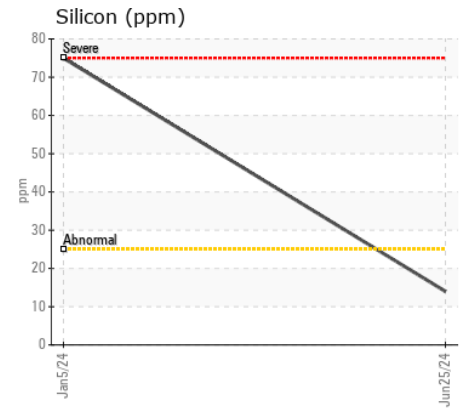
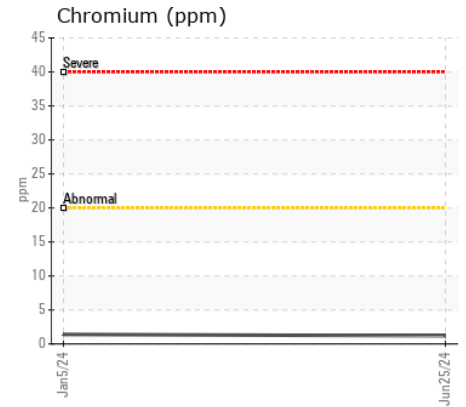
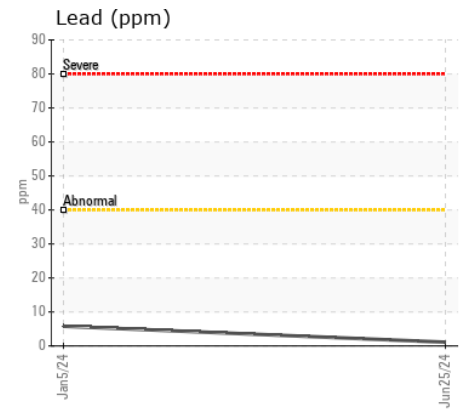
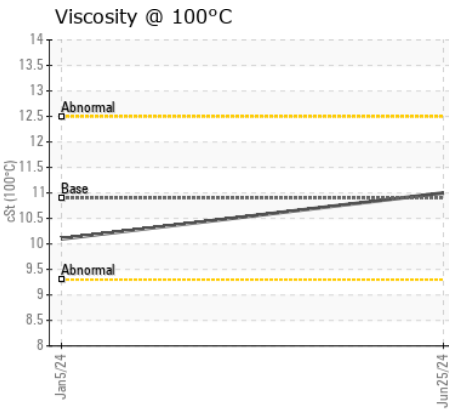
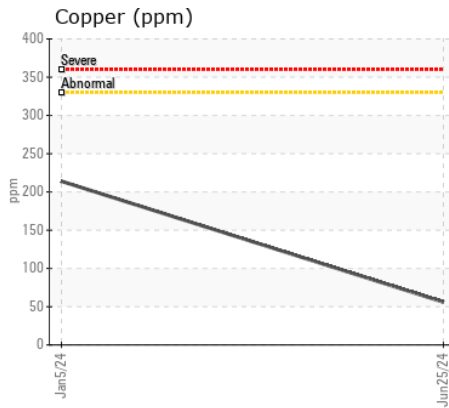
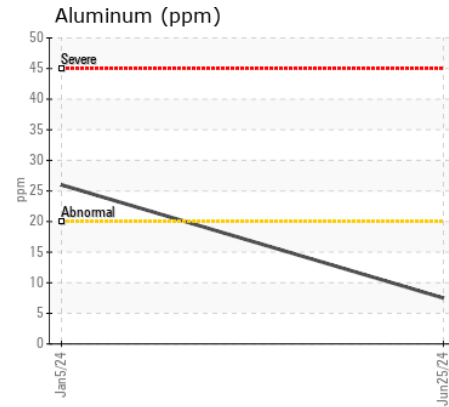
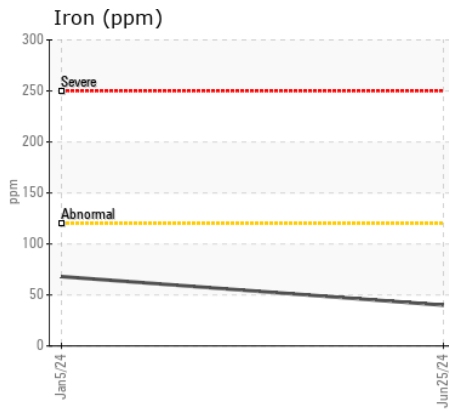
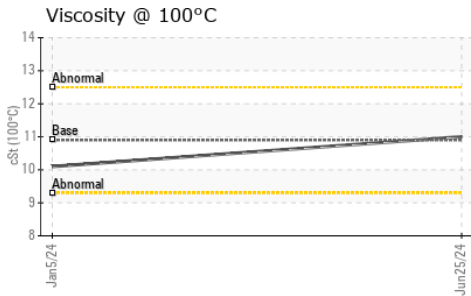
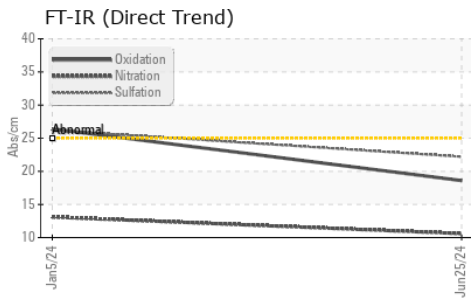
Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>25	14	▲ 75	---
Potassium	ppm	ASTM D5185(m)	>20	17	64	---
Fuel		WC Method	>3.0	<1.0	0.8	---
Water		WC Method	>0.2	NEG	NEG	---
Glycol		WC Method		NEG	NEG	---
Soot %	%	ASTM D7844*	>4	0.7	0.7	---
Nitration	Abs/cm	ASTM D7624*	>20	10.6	13.1	---
Sulfation	Abs/.1mm	ASTM D7415*	>30	22.2	26.2	---
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	---

FLUID CONDITION

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

Sodium	ppm	ASTM D5185(m)		2	5	---
Boron	ppm	ASTM D5185(m)	250	4	23	---
Barium	ppm	ASTM D5185(m)	10	<1	0	---
Molybdenum	ppm	ASTM D5185(m)	100	66	115	---
Manganese	ppm	ASTM D5185(m)		1	4	---
Magnesium	ppm	ASTM D5185(m)	450	895	725	---
Calcium	ppm	ASTM D5185(m)	3000	1170	1437	---
Phosphorus	ppm	ASTM D5185(m)	1150	823	679	---
Zinc	ppm	ASTM D5185(m)	1350	1097	777	---
Sulfur	ppm	ASTM D5185(m)	4250	2019	1791	---
Oxidation	Abs/.1mm	ASTM D7414*	>25	18.6	26.4	---
Visc @ 100°C	cSt	ASTM D7279(m)	10.9	11.0	10.1	---



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0120103
Lab Number : 02644506
Unique Number : 5802045
Test Package : MOB 1
Received : 28 Jun 2024
Tested : 28 Jun 2024
Diagnosed : 28 Jun 2024 - Wes Davis

GFL Environmental - 245 - BJ Bear
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 CA N0B 1E0
 Contact: Erik Prpic
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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.