

Area
GFL2160
Machine Id
501074
Component
Diesel Engine
Fluid
DIESEL ENGINE OIL SAE 40 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0113891	GFL0080278	---
Sample Date		Client Info		04 Apr 2024	17 May 2023	---
Machine Age	kms	Client Info		644677	603154	---
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				NORMAL	NORMAL	---

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>110	20	8	---
Chromium	ppm	ASTM D5185(m)	>4	<1	<1	---
Nickel	ppm	ASTM D5185(m)	>2	<1	0	---
Titanium	ppm	ASTM D5185(m)		0	0	---
Silver	ppm	ASTM D5185(m)	>2	0	0	---
Aluminum	ppm	ASTM D5185(m)	>25	6	2	---
Lead	ppm	ASTM D5185(m)	>45	0	<1	---
Copper	ppm	ASTM D5185(m)	>85	2	1	---
Tin	ppm	ASTM D5185(m)	>4	0	0	---
Vanadium	ppm	ASTM D5185(m)		0	0	---

CONTAMINATION

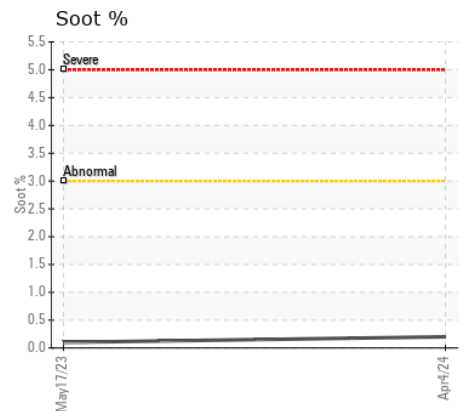
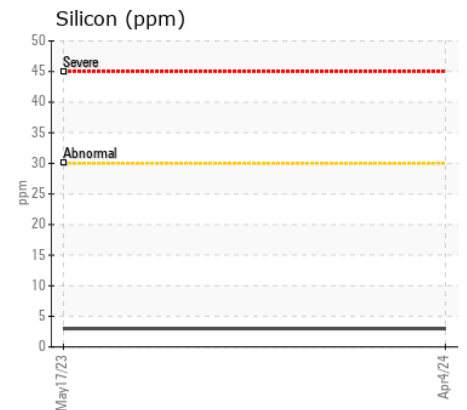
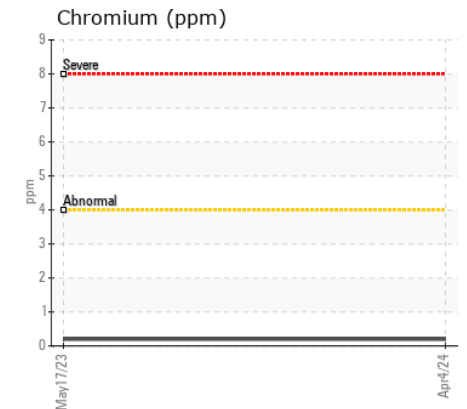
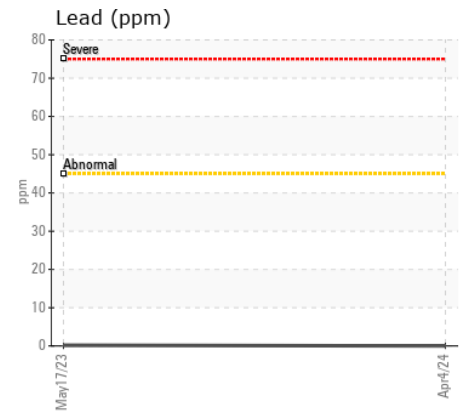
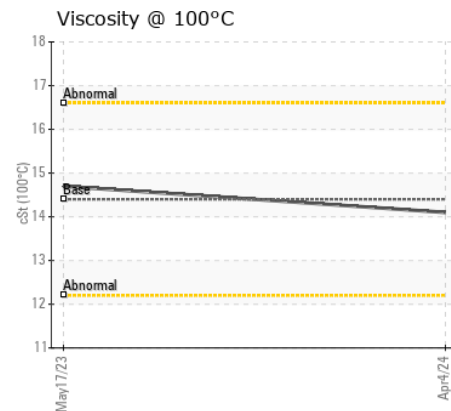
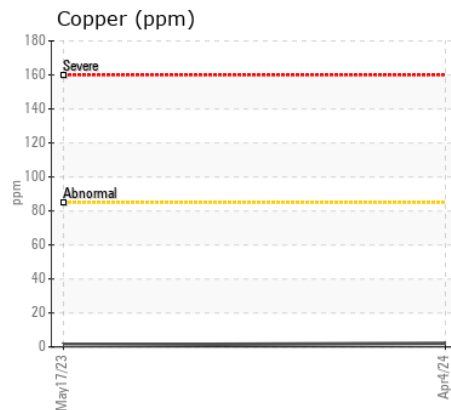
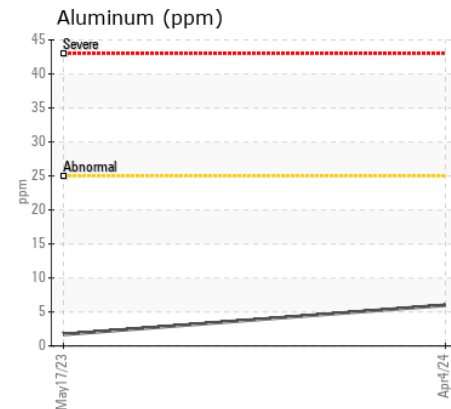
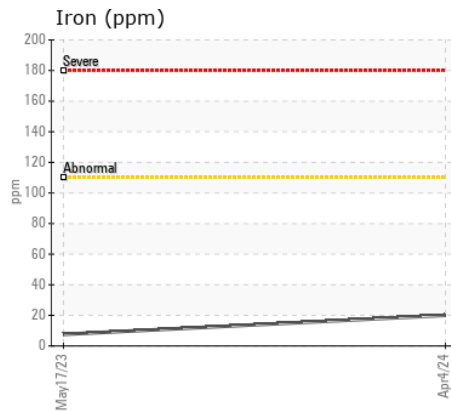
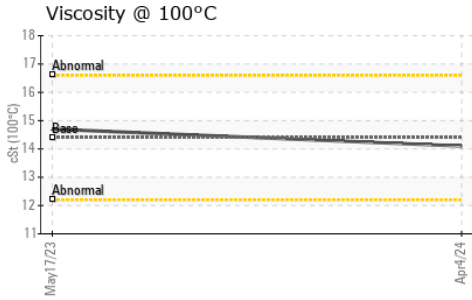
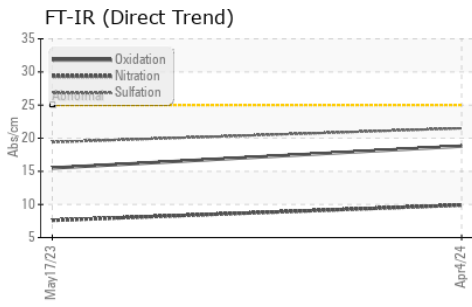
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>30	3	3	---
Potassium	ppm	ASTM D5185(m)	>20	10	<1	---
Fuel		WC Method	>5	<1.0	<1.0	---
Water		WC Method	>0.2	NEG	NEG	---
Glycol		WC Method		NEG	NEG	---
Soot %	%	ASTM D7844*	>3	0.2	0.1	---
Nitration	Abs/cm	ASTM D7624*	>20	9.9	7.6	---
Sulfation	Abs/.1mm	ASTM D7415*	>30	21.5	19.4	---
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)	>216	2	2	---
Boron	ppm	ASTM D5185(m)	250	4	12	---
Barium	ppm	ASTM D5185(m)	10	0	0	---
Molybdenum	ppm	ASTM D5185(m)	100	58	66	---
Manganese	ppm	ASTM D5185(m)		<1	<1	---
Magnesium	ppm	ASTM D5185(m)	450	885	921	---
Calcium	ppm	ASTM D5185(m)	3000	1151	1109	---
Phosphorus	ppm	ASTM D5185(m)	1150	952	994	---
Zinc	ppm	ASTM D5185(m)	1350	1144	1104	---
Sulfur	ppm	ASTM D5185(m)	4250	2297	2452	---
Oxidation	Abs/.1mm	ASTM D7414*	>25	18.8	15.5	---
Visc @ 100°C	cSt	ASTM D7279(m)	14.4	14.1	14.7	---



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0113891
Lab Number : 02628138
Unique Number : 5761270
Test Package : MOB 1

GFL Environmental - 252 - GTA Hauling
 3668 Weston Road
 North York, ON
 CA M9L 1W2
 Contact: Amanda Cipollone
 acipollone@gflenv.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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F: