



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
512005
 Component
Diesel Engine
 Fluid
DIESEL ENGINE OIL SAE 10W30 (--- LTR)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0120307	GFL0098559	GFL0063872
Sample Date		Client Info		17 May 2024	20 Dec 2023	23 Nov 2022
Machine Age	kms	Client Info		323209	260378	98577
Oil Age	kms	Client Info		0	60	0
Filter Age	kms	Client Info		0	60	0
Oil Changed		Client Info		N/A	N/A	Changed
Filter Changed		Client Info		N/A	N/A	Changed
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>100	38	28	36
Chromium	ppm	ASTM D5185(m)	>20	<1	<1	<1
Nickel	ppm	ASTM D5185(m)	>4	1	<1	<1
Titanium	ppm	ASTM D5185(m)		0	0	<1
Silver	ppm	ASTM D5185(m)	>3	0	<1	<1
Aluminum	ppm	ASTM D5185(m)	>20	3	3	11
Lead	ppm	ASTM D5185(m)	>40	2	2	4
Copper	ppm	ASTM D5185(m)	>330	9	6	63
Tin	ppm	ASTM D5185(m)	>15	1	1	3
Vanadium	ppm	ASTM D5185(m)		0	0	0
White Metal	scalar	Visual*	NONE	NONE	NONE	---
Yellow Metal	scalar	Visual*	NONE	NONE	NONE	---

CONTAMINATION

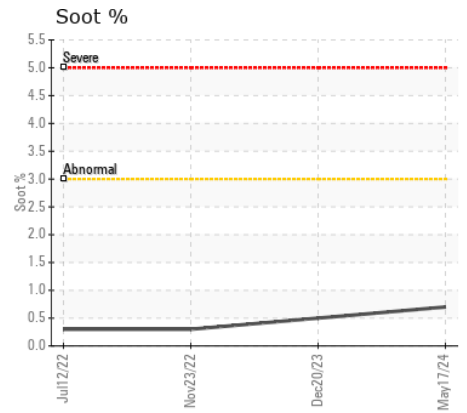
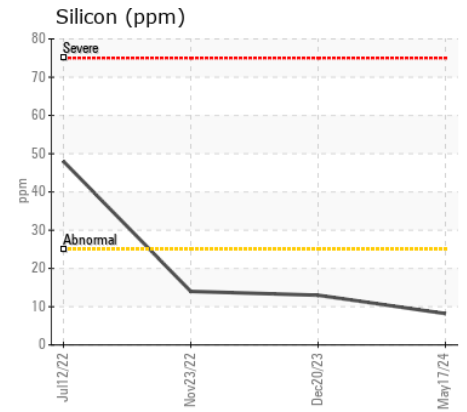
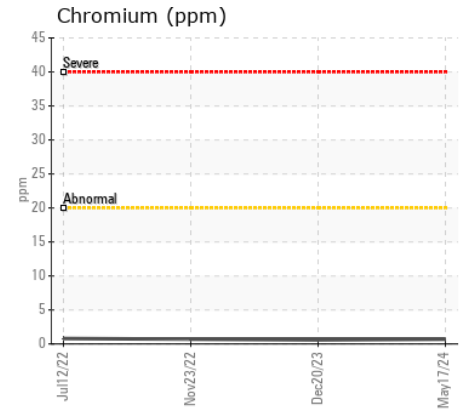
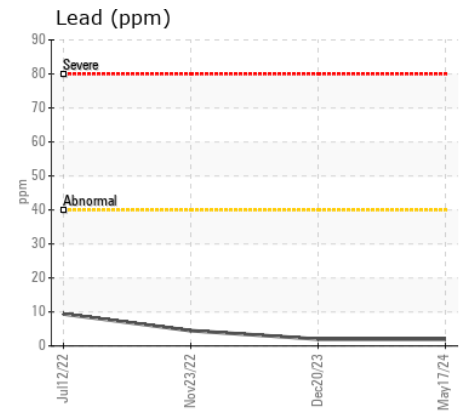
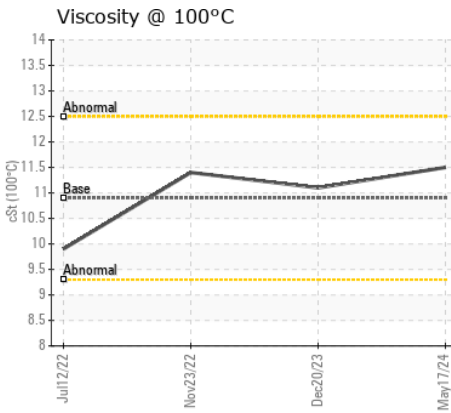
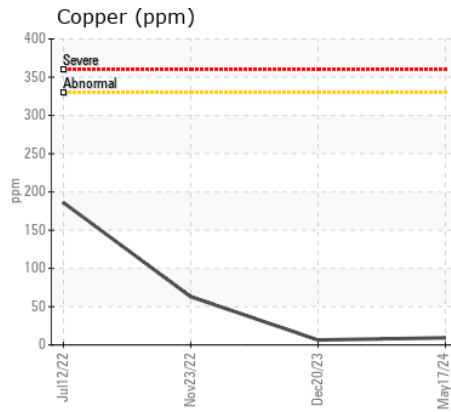
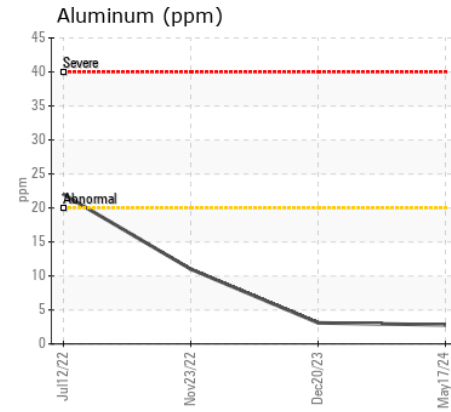
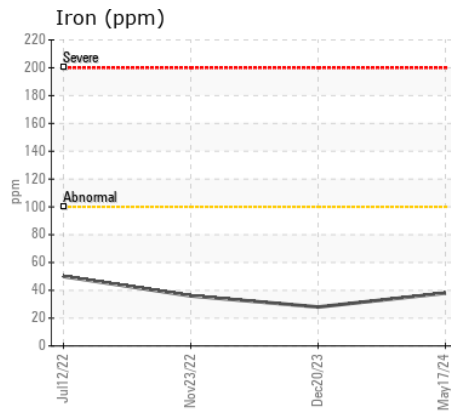
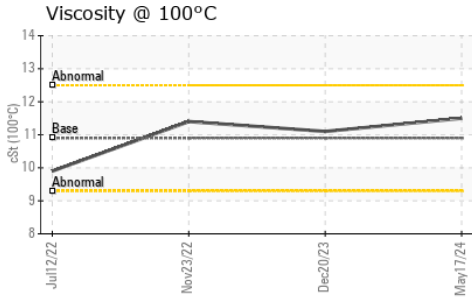
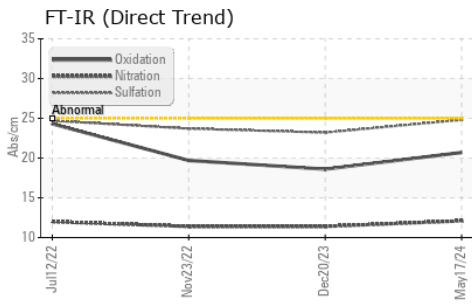
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>25	8	13	14
Potassium	ppm	ASTM D5185(m)	>20	4	4	28
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	ASTM D7844*	>3	0.7	0.5	0.3
Nitration	Abs/cm	ASTM D7624*	>20	12.1	11.4	11.4
Sulfation	Abs/.1mm	ASTM D7415*	>30	24.8	23.2	23.7
Silt	scalar	Visual*	NONE	NONE	NONE	---
Debris	scalar	Visual*	NONE	VLITE	NONE	---
Sand/Dirt	scalar	Visual*	NONE	NONE	NONE	---
Appearance	scalar	Visual*	NORML	NORML	NORML	---
Odor	scalar	Visual*	NORML	NORML	NORML	NORML
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)		2	2	3
Boron	ppm	ASTM D5185(m)	250	2	2	3
Barium	ppm	ASTM D5185(m)	10	0	0	0
Molybdenum	ppm	ASTM D5185(m)	100	64	63	66
Manganese	ppm	ASTM D5185(m)		<1	<1	1
Magnesium	ppm	ASTM D5185(m)	450	999	935	927
Calcium	ppm	ASTM D5185(m)	3000	1235	1138	1154
Phosphorus	ppm	ASTM D5185(m)	1150	978	940	882
Zinc	ppm	ASTM D5185(m)	1350	1257	1188	1141
Sulfur	ppm	ASTM D5185(m)	4250	2243	2321	1996
Oxidation	Abs/.1mm	ASTM D7414*	>25	20.7	18.6	19.7
Visc @ 100°C	cSt	ASTM D7279(m)	10.9	11.5	11.1	11.4



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0120307 **Received** : 22 May 2024
Lab Number : 02636864 **Tested** : 22 May 2024
Unique Number : 5786026 **Diagnosed** : 22 May 2024 - Wes Davis
Test Package : MOB 1 (Additional Tests: Visual)

GFL Environmental - 245 - BJ Bear
 2616 Cedar Creek Road
 Ayr, ON
 CA N0B 1E0
 Contact: Erik Prpic
 eprpic@gflenv.com
 T: (519)570-9000
 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.