



Machine Id
910038
Component
Diesel Engine
Fluid
DIESEL ENGINE OIL SAE 15W40 (25 LTR)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0111752	GFL0111759	WC0875069
Sample Date		Client Info		22 Feb 2024	08 Feb 2024	20 Nov 2023
Machine Age	hrs	Client Info		838860	8461	139156
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Not Chngd	Changed	Changed
Filter Changed		Client Info		Not Chngd	Changed	Changed
Sample Status				NORMAL	ABNORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>90	2	9	11
Chromium	ppm	ASTM D5185(m)	>20	0	<1	<1
Nickel	ppm	ASTM D5185(m)	>2	<1	▲ 5	2
Titanium	ppm	ASTM D5185(m)	>2	0	0	0
Silver	ppm	ASTM D5185(m)	>2	0	<1	<1
Aluminum	ppm	ASTM D5185(m)	>20	1	3	2
Lead	ppm	ASTM D5185(m)	>40	0	<1	1
Copper	ppm	ASTM D5185(m)	>330	<1	2	2
Tin	ppm	ASTM D5185(m)	>15	0	0	<1
Vanadium	ppm	ASTM D5185(m)		0	0	0
White Metal	scalar	Visual*	NONE	VLITE	---	---
Yellow Metal	scalar	Visual*	NONE	NONE	---	---

CONTAMINATION

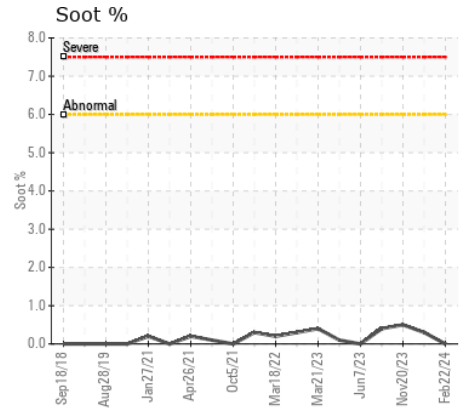
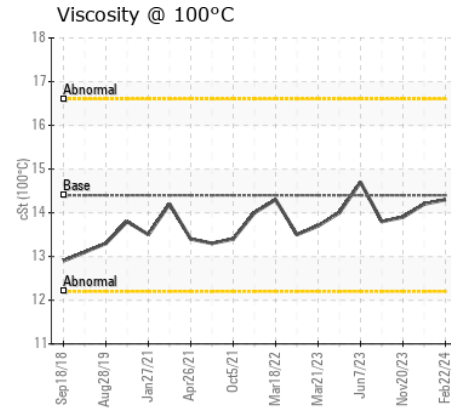
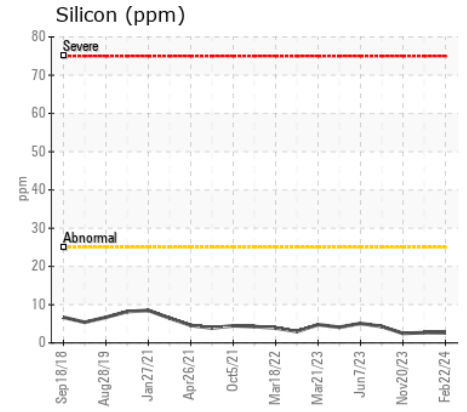
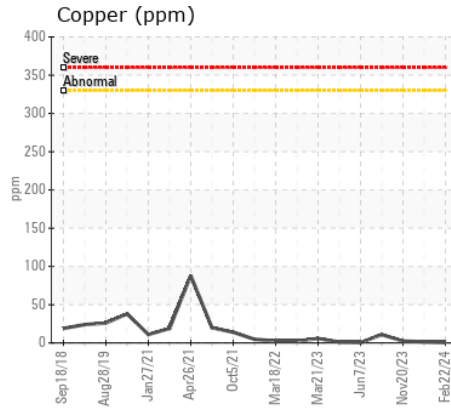
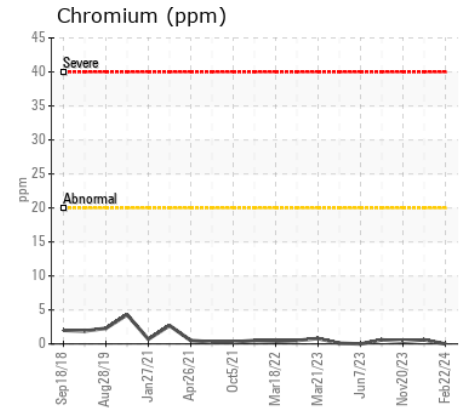
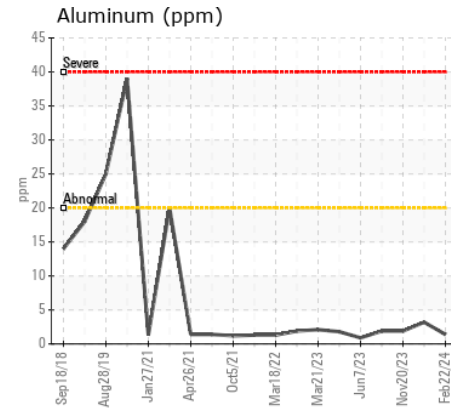
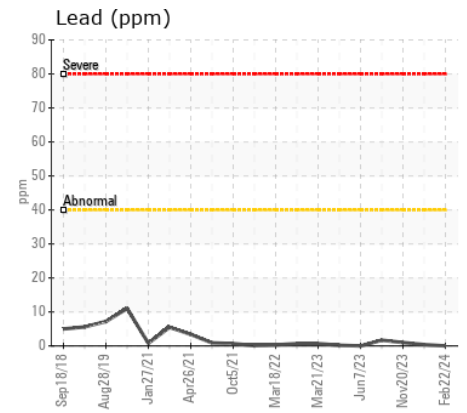
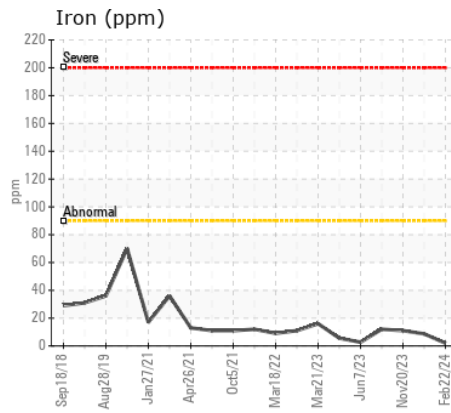
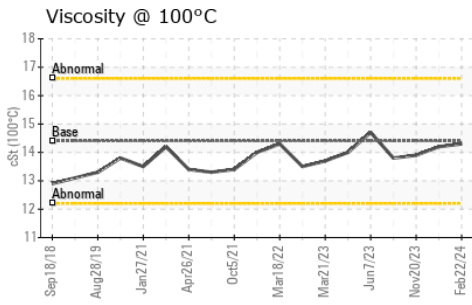
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>25	3	3	2
Potassium	ppm	ASTM D5185(m)	>20	1	3	1
Fuel		WC Method	>3.0	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	ASTM D7844*	>6	0	0.3	0.5
Nitration	Abs/cm	ASTM D7624*	>20	5.0	9.2	9.3
Sulfation	Abs/.1mm	ASTM D7415*	>30	18.1	20.8	21.2
Silt	scalar	Visual*	NONE	NONE	---	---
Debris	scalar	Visual*	NONE	NONE	---	---
Sand/Dirt	scalar	Visual*	NONE	NONE	---	---
Appearance	scalar	Visual*	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)	>158	<1	1	2
Boron	ppm	ASTM D5185(m)	250	9	14	2
Barium	ppm	ASTM D5185(m)	10	0	0	0
Molybdenum	ppm	ASTM D5185(m)	100	57	61	62
Manganese	ppm	ASTM D5185(m)		0	0	0
Magnesium	ppm	ASTM D5185(m)	450	920	933	995
Calcium	ppm	ASTM D5185(m)	3000	1014	1078	1118
Phosphorus	ppm	ASTM D5185(m)	1150	995	1013	989
Zinc	ppm	ASTM D5185(m)	1350	1127	1188	1236
Sulfur	ppm	ASTM D5185(m)	4250	2721	2616	2311
Oxidation	Abs/.1mm	ASTM D7414*	>25	13.0	16.2	16.9
Visc @ 100°C	cSt	ASTM D7279(m)	14.4	14.3	14.2	13.9



ISO 17025:2017
Accredited
Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0111752
Lab Number : 02617597
Unique Number : 5734707
Test Package : MOB 1 (Additional Tests: Visual)

Received : 23 Feb 2024
Tested : 23 Feb 2024
Diagnosed : 23 Feb 2024 - Wes Davis

GFL Environmental - 217 - Aurora
 14131 BAYVIEW AVE, AURORA YARD
 AURORA, ON
 CA L4G 0K6
 Contact: Mike Havens
 MHavens@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.

T:
 F: (905)713-2445