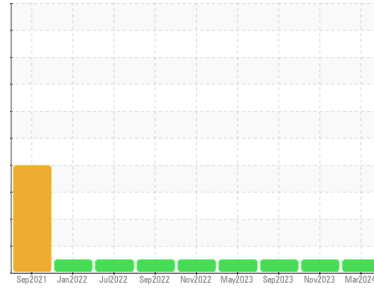




OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL



Machine Id
719004
 Component
Diesel Engine
 Fluid
CASTROL 15W40 (--- GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

Metal levels are typical for a new component breaking in.

Contamination

There is no indication of any contamination in the oil.

Fluid Condition

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

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		GFL0093121	GFL0093122	GFL0093114
Sample Date	Client Info		22 Mar 2024	21 Nov 2023	26 Sep 2023
Machine Age	kms	Client Info	86988	77399	72639
Oil Age	kms	Client Info	0	0	0
Oil Changed	Client Info		Changed	Changed	Changed
Sample Status			NORMAL	NORMAL	NORMAL

CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>5	<1.0	<1.0	<1.0
Water	WC Method	>0.2	NEG	NEG	NEG
Glycol	WC Method		NEG	NEG	NEG

WEAR METALS

	method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185(m)	>80	40	14	29
Chromium	ppm	ASTM D5185(m)	>5	<1	<1	<1
Nickel	ppm	ASTM D5185(m)	>2	<1	<1	<1
Titanium	ppm	ASTM D5185(m)		0	0	0
Silver	ppm	ASTM D5185(m)	>3	0	<1	<1
Aluminum	ppm	ASTM D5185(m)	>30	15	5	10
Lead	ppm	ASTM D5185(m)	>30	0	0	<1
Copper	ppm	ASTM D5185(m)	>150	2	<1	2
Tin	ppm	ASTM D5185(m)	>5	0	0	0
Antimony	ppm	ASTM D5185(m)		0	0	0
Vanadium	ppm	ASTM D5185(m)		0	0	0
Beryllium	ppm	ASTM D5185(m)		0	0	0
Cadmium	ppm	ASTM D5185(m)		0	0	0

ADDITIVES

	method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185(m)		7	9	10
Barium	ppm	ASTM D5185(m)		0	0	<1
Molybdenum	ppm	ASTM D5185(m)		49	46	34
Manganese	ppm	ASTM D5185(m)		0	0	0
Magnesium	ppm	ASTM D5185(m)		764	714	501
Calcium	ppm	ASTM D5185(m)		1220	1223	1501
Phosphorus	ppm	ASTM D5185(m)		911	950	852
Zinc	ppm	ASTM D5185(m)		1149	1102	1085
Sulfur	ppm	ASTM D5185(m)		2589	2766	2719
Lithium	ppm	ASTM D5185(m)		<1	<1	<1

CONTAMINANTS

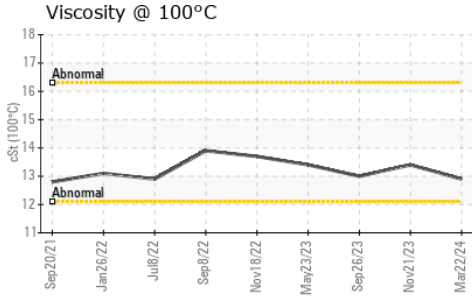
	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185(m)	>20	3	2	4
Sodium	ppm	ASTM D5185(m)	>406	1	<1	2
Potassium	ppm	ASTM D5185(m)	>20	5	3	6

INFRA-RED

	method	limit/base	current	history1	history2	
Soot %	%	ASTM D7844*	>3	0.5	0.3	0.6
Nitration	Abs/cm	ASTM D7624*	>20	11.1	8.8	10.9
Sulfation	Abs./1mm	ASTM D7415*	>30	19.7	19.2	20.6



OIL ANALYSIS REPORT



FLUID DEGRADATION

	method	limit/base	current	history1	history2	
Oxidation	Abs./1mm	ASTM D7414*	>25	16.8	15.1	16.0

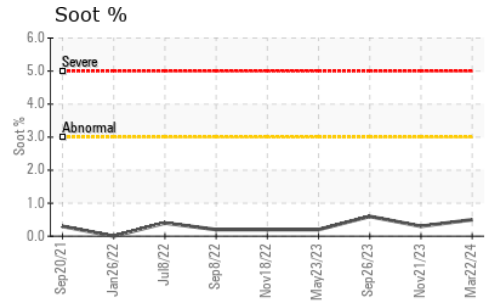
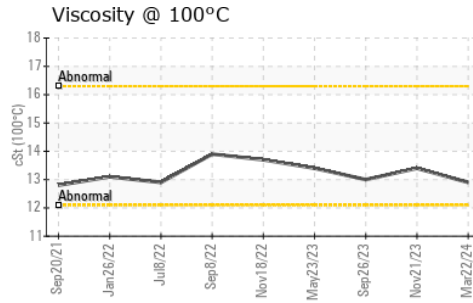
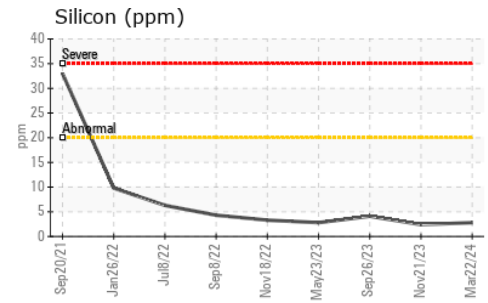
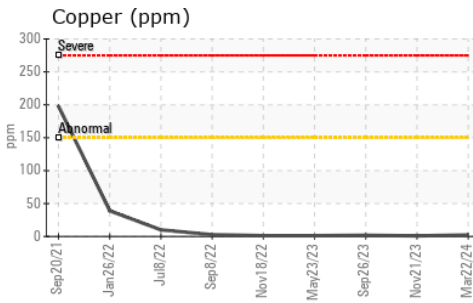
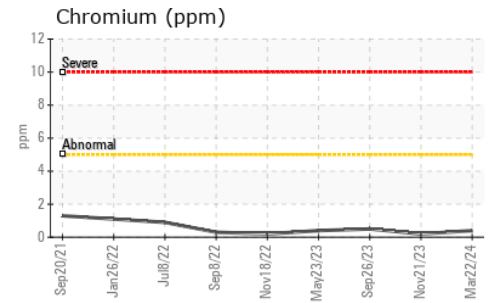
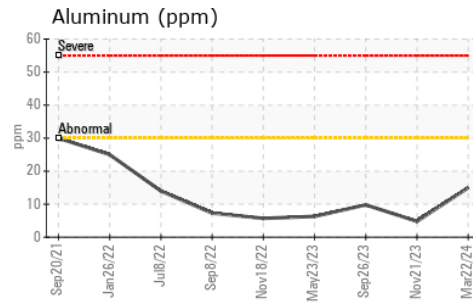
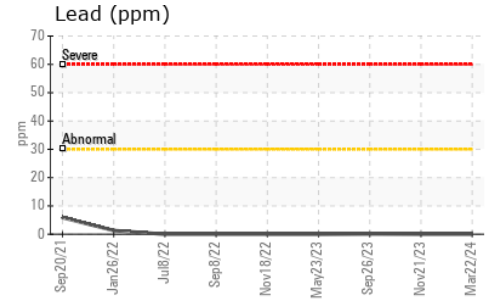
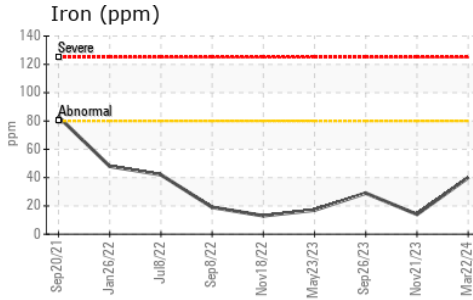
VISUAL

	method	limit/base	current	history1	history2	
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	NEG
Free Water	scalar	Visual*		NEG	NEG	NEG

FLUID PROPERTIES

	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D7279(m)	12.9	13.4	13.0

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0093121 **Received** : 27 Mar 2024
Lab Number : **02624831** **Tested** : 27 Mar 2024
Unique Number : 5749950 **Diagnosed** : 27 Mar 2024 - Wes Davis
Test Package : MOB 1

GFL Environmental - 860 - Fredericton
 160 BLIZZARD ST
 FREDERICTON, NB
 CA E3B 8K2
 Contact: Crystal Beach-Nassuai
 cbeachnassuai@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: