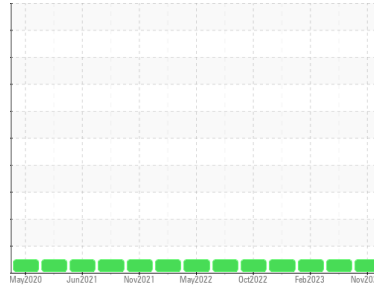




OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL



Machine Id
725002
 Component
Diesel Engine
 Fluid
DIESEL ENGINE OIL SAE 15W40 (--- GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

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	GFL0097323	GFL0078494	GFL0071321
Sample Date	Client Info	16 Nov 2023	24 Jul 2023	07 Feb 2023
Machine Age	hrs	0	22482	22044
Oil Age	hrs	23946	0	565
Oil Changed	Client Info	N/A	N/A	Changed
Sample Status		NORMAL	NORMAL	NORMAL

CONTAMINATION

method	limit/base	current	history1	history2
Fuel	WC Method >3.0	<1.0	<1.0	<1.0
Glycol	WC Method	NEG	NEG	NEG

WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm ASTM D5185(m) >120	8	17	14
Chromium	ppm ASTM D5185(m) >20	0	<1	<1
Nickel	ppm ASTM D5185(m) >5	0	<1	0
Titanium	ppm ASTM D5185(m) >2	0	<1	<1
Silver	ppm ASTM D5185(m) >2	<1	0	0
Aluminum	ppm ASTM D5185(m) >20	<1	2	4
Lead	ppm ASTM D5185(m) >40	<1	1	<1
Copper	ppm ASTM D5185(m) >330	<1	<1	1
Tin	ppm ASTM D5185(m) >15	0	<1	<1
Antimony	ppm ASTM D5185(m)	0	0	<1
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) 250	81	38	3
Barium	ppm ASTM D5185(m) 10	<1	0	0
Molybdenum	ppm ASTM D5185(m) 100	18	19	58
Manganese	ppm ASTM D5185(m)	0	<1	<1
Magnesium	ppm ASTM D5185(m) 450	242	260	931
Calcium	ppm ASTM D5185(m) 3000	1834	1801	1112
Phosphorus	ppm ASTM D5185(m) 1150	880	948	1010
Zinc	ppm ASTM D5185(m) 1350	1101	1126	1176
Sulfur	ppm ASTM D5185(m) 4250	2559	2540	2358
Lithium	ppm ASTM D5185(m)	<1	<1	<1

CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185(m) >25	3	5	4
Sodium	ppm ASTM D5185(m) >158	3	6	4
Potassium	ppm ASTM D5185(m) >20	3	5	<1

INFRA-RED

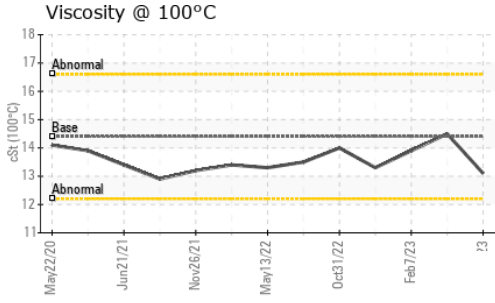
method	limit/base	current	history1	history2
Soot %	% ASTM D7844* >4	0.4	0.9	0.7
Nitration	Abs/cm ASTM D7624* >20	7.5	8.7	8.8
Sulfation	Abs/.1mm ASTM D7415* >30	21.6	25.9	22.2

FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm ASTM D7414* >25	16.2	20.2	16.1



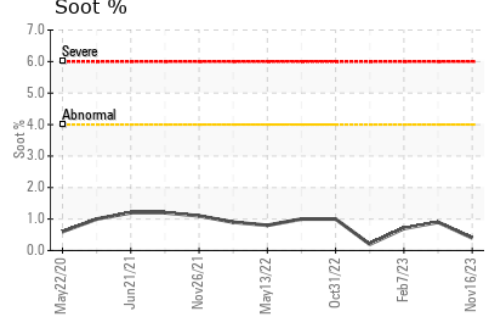
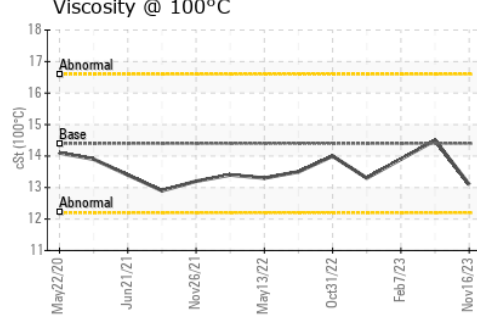
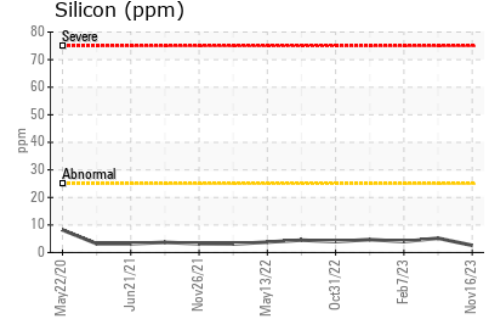
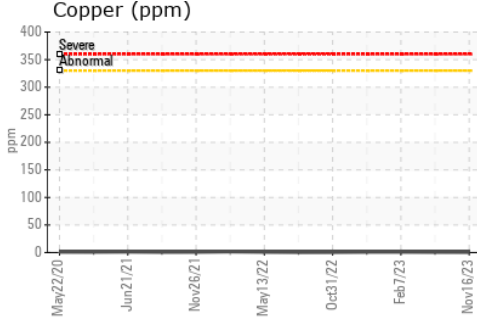
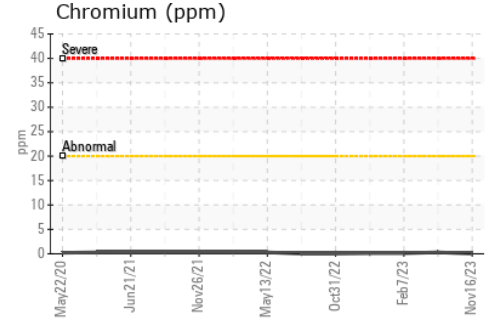
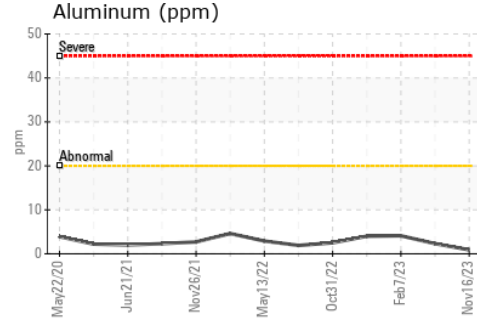
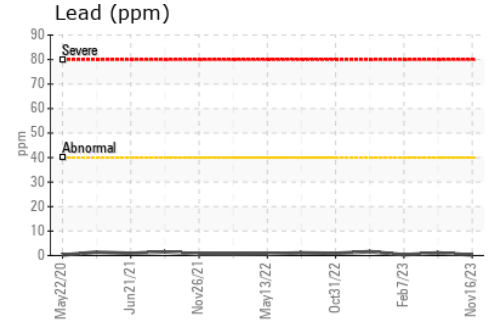
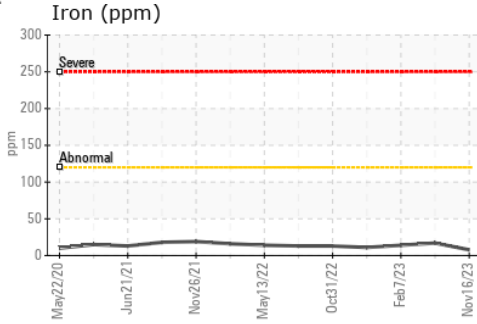
OIL ANALYSIS REPORT



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

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D7279(m)	14.4	13.1	14.5

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 **GFL Environmental - 246 - Windsor**
Sample No. : GFL0097323 **Received** : 17 Nov 2023
Lab Number : 02597020 **Diagnosed** : 17 Nov 2023
Unique Number : 5682100 **Diagnostician** : Wes Davis
Test Package : MOB 1

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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