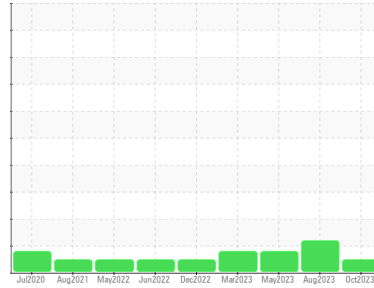




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id
228003

Component
Diesel Engine

Fluid
DIESEL ENGINE OIL SAE 15W40 (24 LTR)

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		GFL0097318	GFL0090846	GFL0082574
Sample Date	Client Info		25 Oct 2023	17 Aug 2023	19 May 2023
Machine Age	hrs	Client Info	0	197795	184179
Oil Age	hrs	Client Info	8201	0	0
Oil Changed	Client Info		N/A	N/A	N/A
Sample Status			NORMAL	ABNORMAL	MARGINAL

CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>3.0	<1.0	▲ 2	▲ 2.4
Glycol	WC Method		NEG	NEG	NEG

WEAR METALS

	method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185(m)	>90	14	25	25
Chromium	ppm	ASTM D5185(m)	>20	<1	<1	<1
Nickel	ppm	ASTM D5185(m)	>2	0	0	<1
Titanium	ppm	ASTM D5185(m)	>2	0	<1	<1
Silver	ppm	ASTM D5185(m)	>2	<1	0	0
Aluminum	ppm	ASTM D5185(m)	>20	3	5	7
Lead	ppm	ASTM D5185(m)	>40	0	0	0
Copper	ppm	ASTM D5185(m)	>330	<1	<1	<1
Tin	ppm	ASTM D5185(m)	>15	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)	250	6	27	70
Barium	ppm	ASTM D5185(m)	10	0	0	0
Molybdenum	ppm	ASTM D5185(m)	100	54	42	58
Manganese	ppm	ASTM D5185(m)		0	<1	<1
Magnesium	ppm	ASTM D5185(m)	450	807	497	432
Calcium	ppm	ASTM D5185(m)	3000	1037	1664	1785
Phosphorus	ppm	ASTM D5185(m)	1150	914	807	1110
Zinc	ppm	ASTM D5185(m)	1350	1077	896	1192
Sulfur	ppm	ASTM D5185(m)	4250	2315	2111	2834
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	2	2	1
Potassium	ppm	ASTM D5185(m)	>20	<1	4	4

INFRA-RED

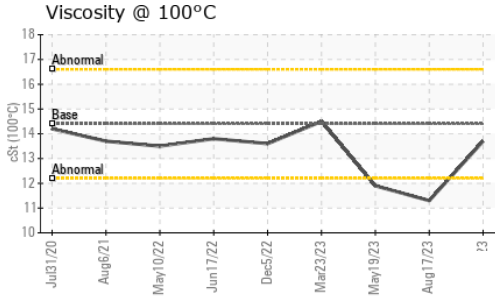
	method	limit/base	current	history1	history2	
Soot %	%	ASTM D7844*	>6	0.6	0.8	0.9
Nitration	Abs/cm	ASTM D7624*	>20	8.1	10.0	8.9
Sulfation	Abs/.1mm	ASTM D7415*	>30	19.8	23.9	21.7

FLUID DEGRADATION

	method	limit/base	current	history1	history2	
Oxidation	Abs/.1mm	ASTM D7414*	>25	15.7	21.9	17.3



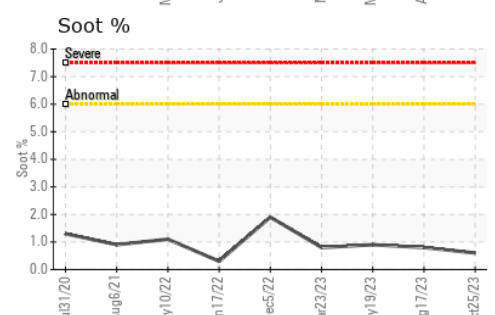
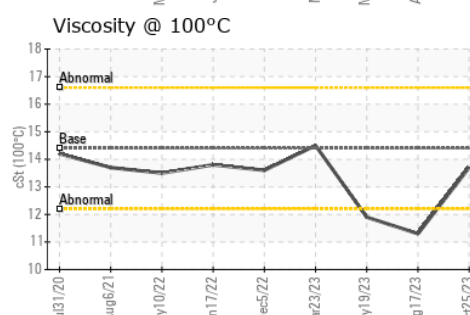
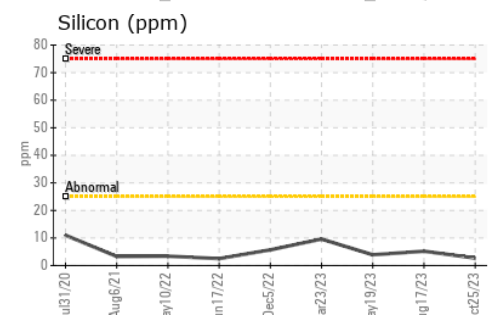
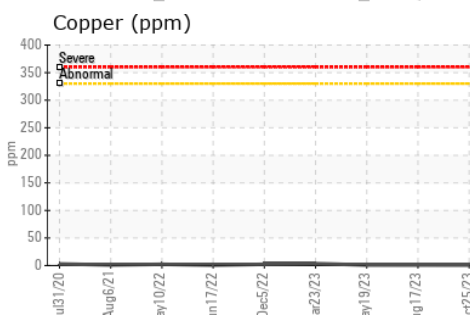
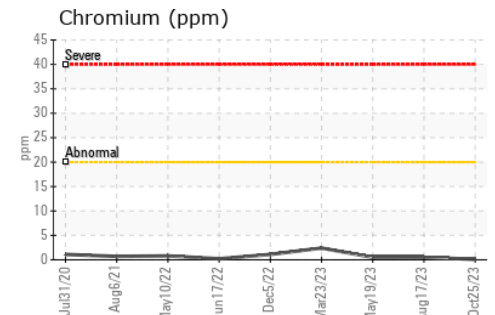
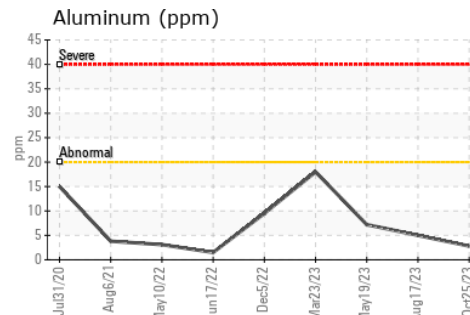
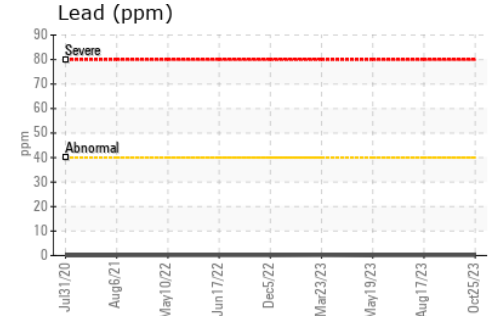
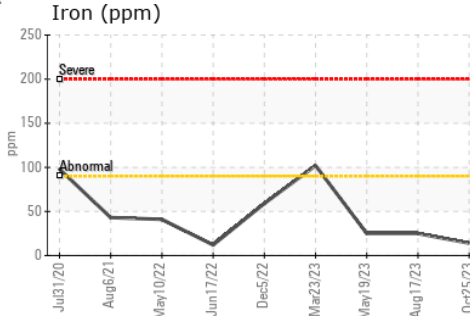
OIL ANALYSIS REPORT



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	13.7	▲ 11.3

GRAPHS



ISO 17025:2017
Accredited
Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 **GFL Environmental - 246 - Windsor**
Sample No. : GFL0097318 **Received** : 26 Oct 2023
Lab Number : 02591975 **Diagnosed** : 26 Oct 2023
Unique Number : 5669054 **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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T: (519)944-8009
F: