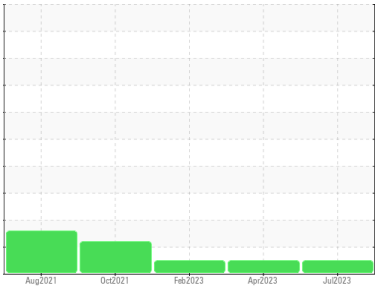
OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL

Machine Id
301293
Component
Gasoline Engine
Fluid
NOT GIVEN (--- GAL)

DIAGNOSIS

Recommendation
No corrective action is recommended at this time. Resample at the next service interval to monitor. Please specify the component make and model with your next sample. Please specify the brand, type, and viscosity of the oil on your next sample.

Wear
All component wear rates are normal.

Contamination
Light fuel dilution occurring. No other contaminants were detected in the oil.

Fluid Condition
Viscosity of sample indicates oil is within SAE 20 range, advise investigate. The condition of the oil is acceptable for the time in service.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**GFL0084199**	GFL0073176	GFL0063641
Sample Date		Client Info		**19 Jul 2023**	21 Apr 2023	02 Feb 2023
Machine Age	kms	Client Info		**326626**	6384	1497
Oil Age	kms	Client Info		**0**	0	600
Oil Changed		Client Info		**N/A**	Changed	Changed
Sample Status				**NORMAL**	NORMAL	NORMAL

CONTAMINATION	method	limit/base	current	history1	history2
Glycol	WC Method		**NEG**	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>150	**10**	12	16
Chromium	ppm	ASTM D5185(m)	>20	**1**	1	2
Nickel	ppm	ASTM D5185(m)	>5	**<1**	<1	<1
Titanium	ppm	ASTM D5185(m)		**0**	0	<1
Silver	ppm	ASTM D5185(m)	>2	**0**	0	0
Aluminum	ppm	ASTM D5185(m)	>40	**1**	2	2
Lead	ppm	ASTM D5185(m)	>50	**<1**	<1	1
Copper	ppm	ASTM D5185(m)	>155	**<1**	<1	<1
Tin	ppm	ASTM D5185(m)	>10	**0**	0	0
Antimony	ppm	ASTM D5185(m)		**0**	<1	0
Vanadium	ppm	ASTM D5185(m)		**<1**	<1	<1
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**	7	8
Barium	ppm	ASTM D5185(m)		**0**	0	0
Molybdenum	ppm	ASTM D5185(m)		**65**	64	68
Manganese	ppm	ASTM D5185(m)		**0**	<1	<1
Magnesium	ppm	ASTM D5185(m)		**406**	394	413
Calcium	ppm	ASTM D5185(m)		**993**	1060	1146
Phosphorus	ppm	ASTM D5185(m)		**599**	617	622
Zinc	ppm	ASTM D5185(m)		**664**	652	665
Sulfur	ppm	ASTM D5185(m)		**1607**	1698	1707
Lithium	ppm	ASTM D5185(m)		**<1**	<1	<1

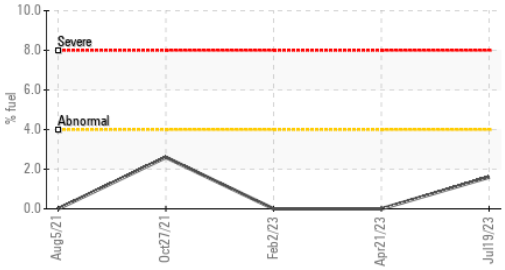
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>30	**8**	8	12
Sodium	ppm	ASTM D5185(m)	>400	**13**	18	27
Potassium	ppm	ASTM D5185(m)	>20	**<1**	<1	2
Fuel	%	ASTM D7593*	>4.0	**1.6**	<1.0	<1.0

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*		**0**	0	0
Nitration	Abs/cm	ASTM D7624*	>20	**10.4**	10.3	11.1
Sulfation	Abs/.1mm	ASTM D7415*	>30	**24.4**	23.4	25.3

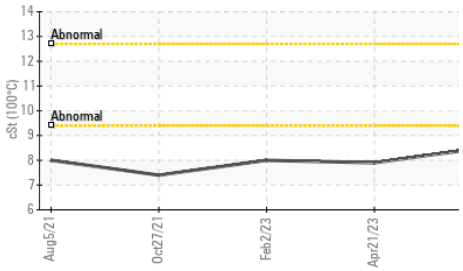
FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	ASTM D7414*	>25	**17.1**	15.6	16.3

OIL ANALYSIS REPORT

Fuel Dilution



Viscosity @ 100°C

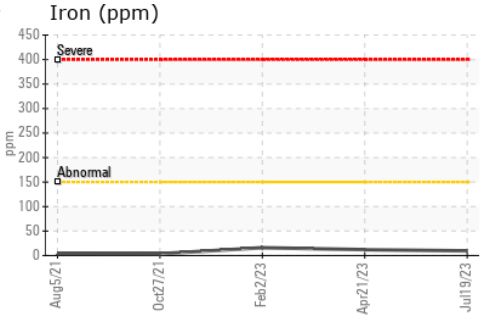


VISUAL		method	limit/base	current	history1	history2
Emulsified Water	scalar	Visual*	>0.2	**NEG**	NEG	NEG
Free Water	scalar	Visual*		**NEG**	NEG	NEG

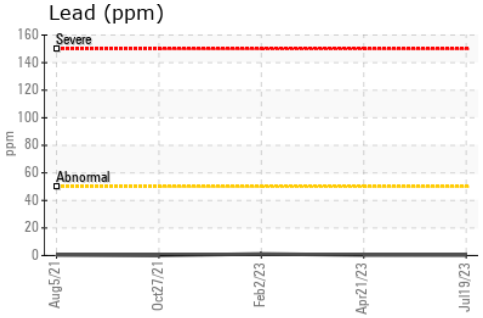
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D7279(m)		**8.5**	7.9	8

GRAPHS

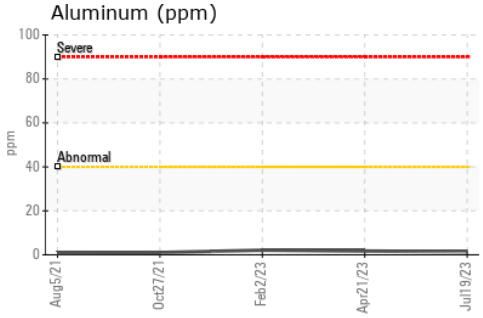
Iron (ppm)



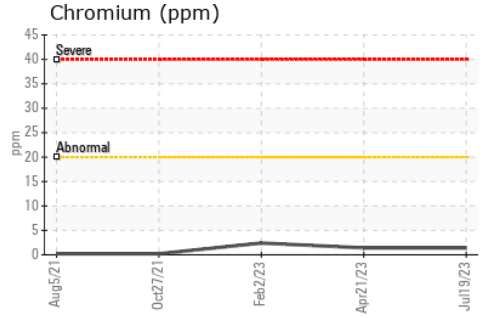
Lead (ppm)



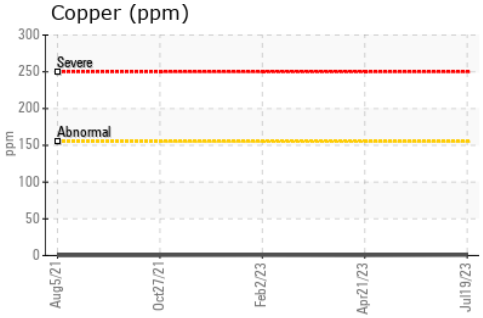
Aluminum (ppm)



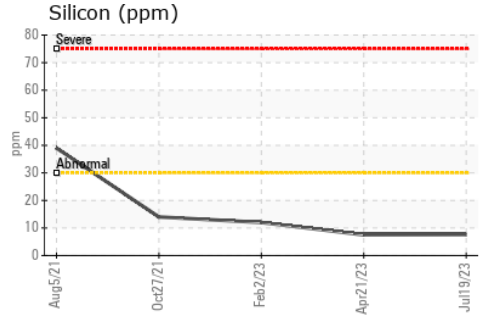
Chromium (ppm)



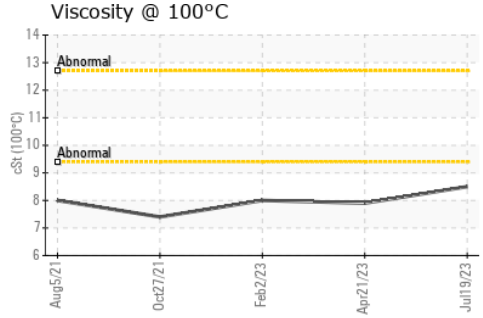
Copper (ppm)



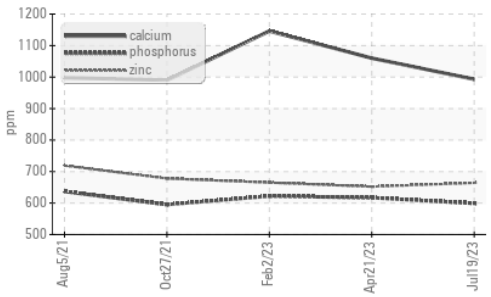
Silicon (ppm)



Viscosity @ 100°C



Additives



ISO 17025:2017 Accredited Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 **GFL Environmental - 574 - Vancouver Fleet**
Sample No. : GFL0084199 **Received** : 02 Aug 2023
Lab Number : 02573596 **Diagnosed** : 03 Aug 2023
Unique Number : 5618647 **Diagnostician** : Kevin Marson
Test Package : MOB 1 (Additional Tests: FuelDilution, PercentFuel)

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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