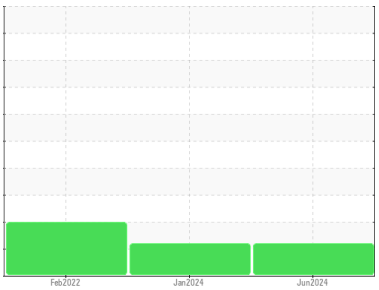
OIL ANALYSIS REPORT

Sample Rating Trend



FUEL

Machine Id
301287
Component
Diesel Engine
Fluid
PETRO CANADA SUPREME 5W30 (--- GAL)

DIAGNOSIS

Recommendation
The oil change at the time of sampling has been noted. Resample at the next service interval to monitor.

Wear
All component wear rates are normal.

Contamination
Light fuel dilution occurring.

Fluid Condition
Fuel is present in the oil and is lowering the viscosity. The condition of the oil is acceptable for the time in service.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**GFL0100583**	GFL0100643	GFL0024365
Sample Date		Client Info		**14 Jun 2024**	02 Jan 2024	23 Feb 2022
Machine Age	kms	Client Info		**136876**	125155	0
Oil Age	kms	Client Info		**136876**	0	6000
Oil Changed		Client Info		**Changed**	N/A	Changed
Sample Status				**ABNORMAL**	ABNORMAL	ABNORMAL

CONTAMINATION		method	limit/base	current	history1	history2
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)	>100	**21**	21	30
Chromium	ppm	ASTM D5185(m)	>20	**<1**	<1	2
Nickel	ppm	ASTM D5185(m)	>2	**<1**	<1	<1
Titanium	ppm	ASTM D5185(m)	>2	**0**	0	0
Silver	ppm	ASTM D5185(m)	>2	**<1**	<1	▲ 2
Aluminum	ppm	ASTM D5185(m)	>25	**4**	4	5
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	<1
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)	186	**33**	22	14
Barium	ppm	ASTM D5185(m)	<1	**0**	0	0
Molybdenum	ppm	ASTM D5185(m)	79	**75**	91	73
Manganese	ppm	ASTM D5185(m)	0	**3**	2	3
Magnesium	ppm	ASTM D5185(m)	578	**537**	486	449
Calcium	ppm	ASTM D5185(m)	1002	**978**	948	1120
Phosphorus	ppm	ASTM D5185(m)	745	**673**	563	655
Zinc	ppm	ASTM D5185(m)	837	**774**	637	737
Sulfur	ppm	ASTM D5185(m)	2502	**2387**	2084	1705
Lithium	ppm	ASTM D5185(m)		**<1**	<1	0

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>25	**12**	9	12
Sodium	ppm	ASTM D5185(m)		**4**	4	4
Potassium	ppm	ASTM D5185(m)	>20	**<1**	2	2
Fuel	%	ASTM D7593*	>5	▲ **4.1**	▲ 6.1	▲ 5

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*	>3	**0**	0	0
Nitration	Abs/cm	ASTM D7624*	>20	**12.2**	14.0	13.9
Sulfation	Abs/.1mm	ASTM D7415*	>30	**30.9**	30.6	28.1

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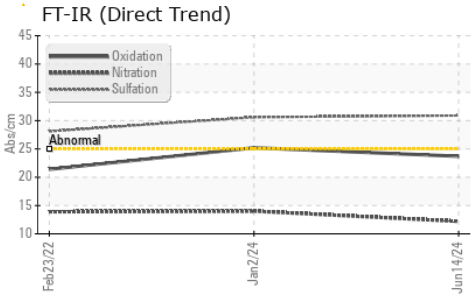
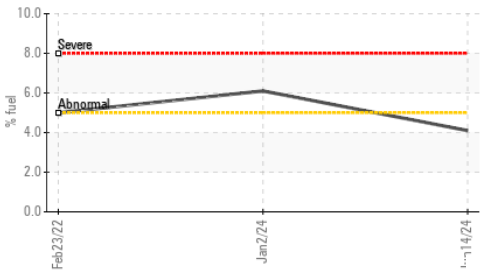
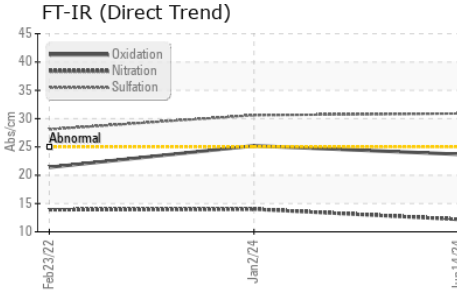
FT-IR (Direct Trend)



Fuel Dilution



FT-IR (Direct Trend)



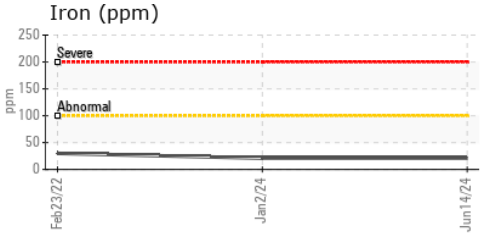
FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	ASTM D7414*	>25	**23.7**	25.2	21.4

VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	**NONE**	NONE	---
Yellow Metal	scalar	Visual*	NONE	**NONE**	NONE	---
Precipitate	scalar	Visual*	NONE	**NONE**	NONE	---
Silt	scalar	Visual*	NONE	**NONE**	NONE	---
Debris	scalar	Visual*	NONE	**NONE**	VLITE	---
Sand/Dirt	scalar	Visual*	NONE	**NONE**	NONE	---
Appearance	scalar	Visual*	NORML	**NORML**	NORML	---
Odor	scalar	Visual*	NORML	**NORML**	NORML	NORML
Emulsified Water	scalar	Visual*	>0.2	**NEG**	NEG	NEG
Free Water	scalar	Visual*		**NEG**	NEG	NEG

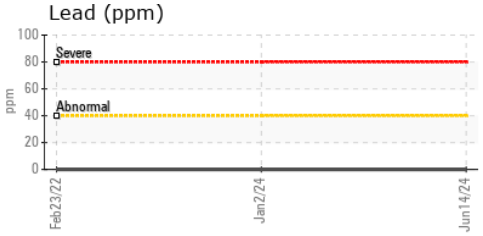
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D7279(m)	11.42	▲ **8.4**	▲ 7.6	▲ 7.3

GRAPHS

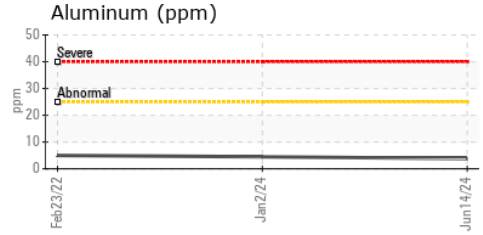
Iron (ppm)



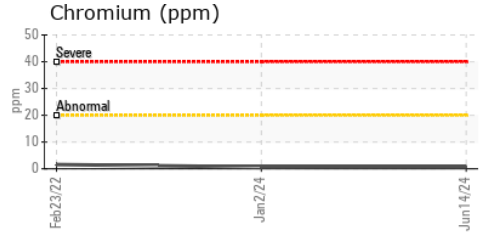
Lead (ppm)



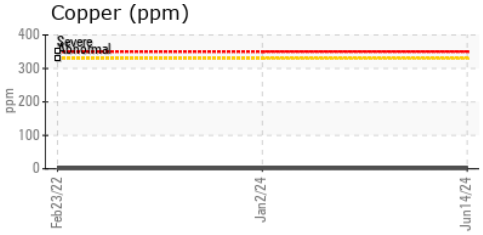
Aluminum (ppm)



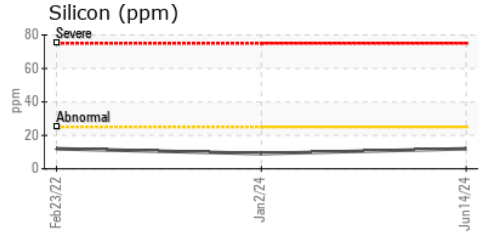
Chromium (ppm)



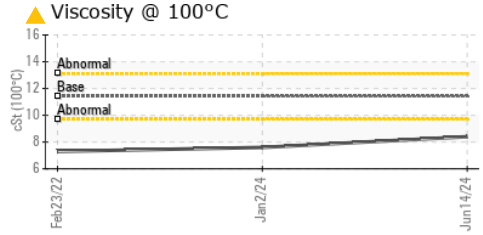
Copper (ppm)



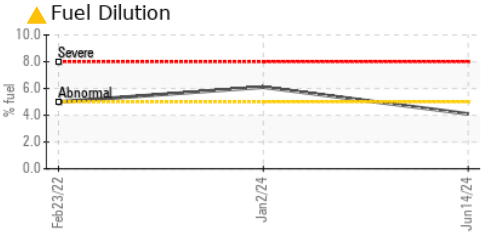
Silicon (ppm)



▲ Viscosity @ 100°C



▲ Fuel Dilution



ISO 17025:2017 Accredited Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0100583
Lab Number : 02642486
Unique Number : 5800025
Test Package : MOB 1 (Additional Tests: PercentFuel, Visual)

Received : 18 Jun 2024
Tested : 19 Jun 2024
Diagnosed : 19 Jun 2024 - Kevin Marson

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.

GFL Environmental - 575 - Squamish Hauling
38950 Queens Way,
Squamish, BC
CA V8B 0K8
Contact: Dean Imbeau
dimbeau@gflenv.com
T: (604)892-5604
F: (604)892-5238

Report Id: GFL575 [WCAMIS] 02642486 (Generated: 06/19/2024 11:47:23) Rev: 1

Submitted By: Jonas Araujo