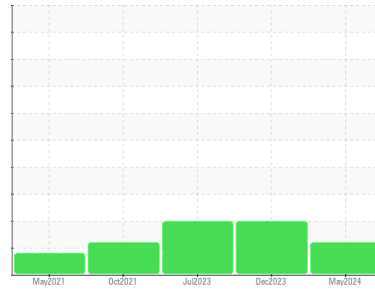




OIL ANALYSIS REPORT

Sample Rating Trend



FUEL



Machine Id

101039

Component

Diesel Engine

Fluid

PETRO CANADA DURON UHP 10W40 (--- GAL)

DIAGNOSIS

Recommendation

The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

Wear

All component wear rates are normal.

Contamination

There is a moderate amount of fuel present in the oil. Tests confirm the presence of fuel in the oil.

Fluid Condition

Fuel is present in the oil and is lowering the viscosity. The oil is no longer serviceable due to the presence of contaminants.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		GFL0100576	GFL0100640	GFL0077034
Sample Date	Client Info		30 May 2024	27 Dec 2023	21 Jul 2023
Machine Age	kms	Client Info	189850	177748	169572
Oil Age	kms	Client Info	0	8000	0
Oil Changed	Client Info		Changed	Changed	Changed
Sample Status			ABNORMAL	SEVERE	SEVERE

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	34	48	81
Chromium	ppm	ASTM D5185(m)	>20	1	2	3
Nickel	ppm	ASTM D5185(m)	>2	<1	1	1
Titanium	ppm	ASTM D5185(m)	>2	0	0	0
Silver	ppm	ASTM D5185(m)	>2	0	<1	<1
Aluminum	ppm	ASTM D5185(m)	>25	5	6	8
Lead	ppm	ASTM D5185(m)	>40	<1	4	4
Copper	ppm	ASTM D5185(m)	>330	3	4	6
Tin	ppm	ASTM D5185(m)	>15	0	<1	<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)	2	<1	1	<1
Barium	ppm	ASTM D5185(m)	0	0	0	0
Molybdenum	ppm	ASTM D5185(m)	60	55	54	53
Manganese	ppm	ASTM D5185(m)	0	<1	0	<1
Magnesium	ppm	ASTM D5185(m)	1010	886	836	823
Calcium	ppm	ASTM D5185(m)	1070	946	885	862
Phosphorus	ppm	ASTM D5185(m)	1150	893	884	931
Zinc	ppm	ASTM D5185(m)	1270	1064	1028	1018
Sulfur	ppm	ASTM D5185(m)	2060	2133	2243	2051
Lithium	ppm	ASTM D5185(m)		<1	<1	<1

CONTAMINANTS

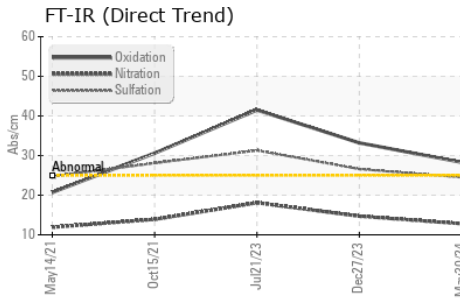
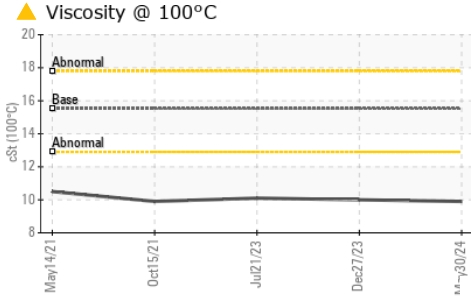
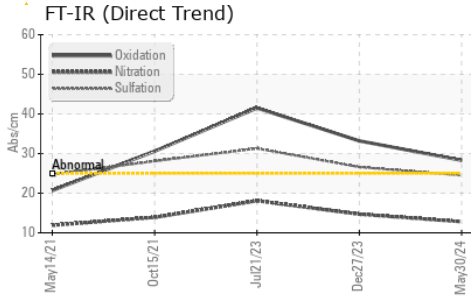
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Silicon	ppm	ASTM D5185(m)	>25	5	6	9
Sodium	ppm	ASTM D5185(m)		5	2	2
Potassium	ppm	ASTM D5185(m)	>20	<1	<1	<1
Fuel	%	ASTM D7593*	>5	▲ 7.8	▲ 8.5	▲ 9.6

INFRA-RED

	method	limit/base	current	history1	history2	
Soot %	%	ASTM D7844*	>3	0.6	0.6	0.8
Nitration	Abs/cm	ASTM D7624*	>20	12.8	14.7	18.1
Sulfation	Abs/.1mm	ASTM D7415*	>30	24.5	26.6	31.3



OIL ANALYSIS REPORT

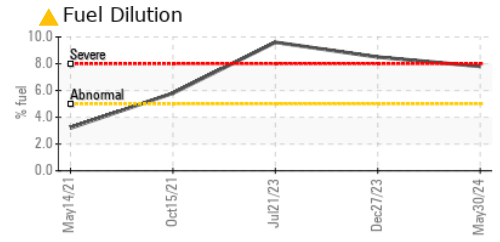
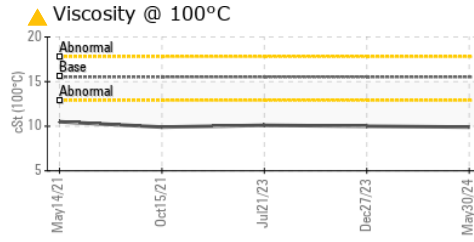
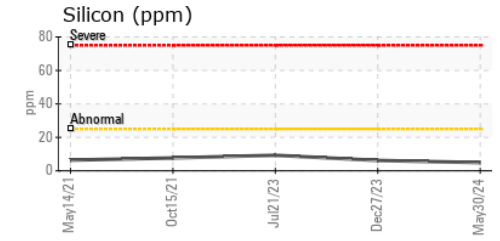
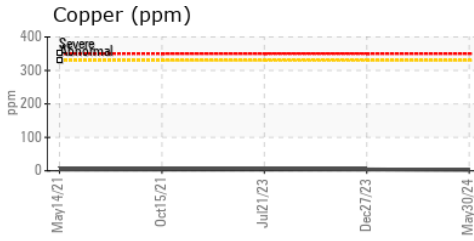
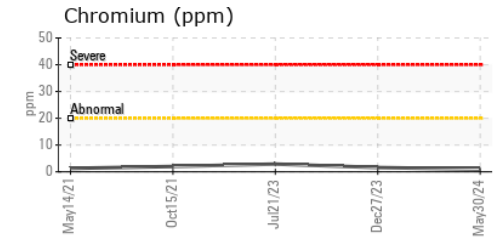
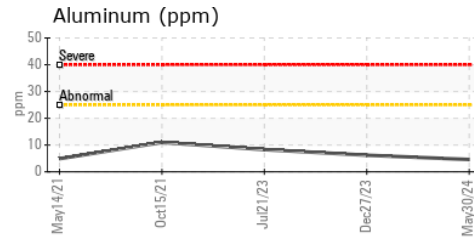
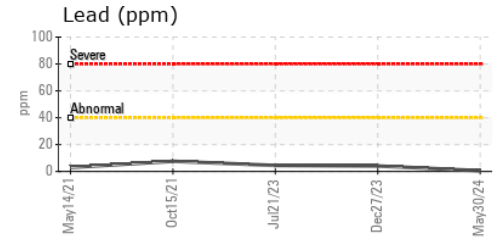
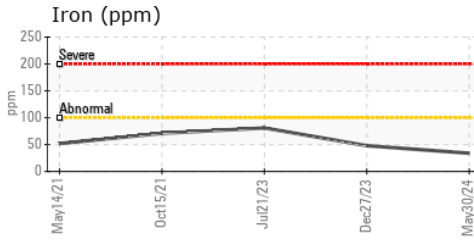


FLUID DEGRADATION	method	limit/base	current	history1	history2	
Oxidation	Abs./1mm	ASTM D7414*	>25	28.3	33.2	41.5

VISUAL	method	limit/base	current	history1	history2	
White Metal	scalar	Visual*	NONE	NONE	---	---
Yellow Metal	scalar	Visual*	NONE	NONE	---	---
Precipitate	scalar	Visual*	NONE	NONE	---	---
Silt	scalar	Visual*	NONE	NONE	---	---
Debris	scalar	Visual*	NONE	NONE	---	---
Sand/Dirt	scalar	Visual*	NONE	NONE	---	---
Appearance	scalar	Visual*	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)	15.52	▲ 9.9	10.0	10.1

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0100576
Lab Number : 02639553
Unique Number : 5788715
Test Package : MOB 1 (Additional Tests: PercentFuel, Visual)

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

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.