



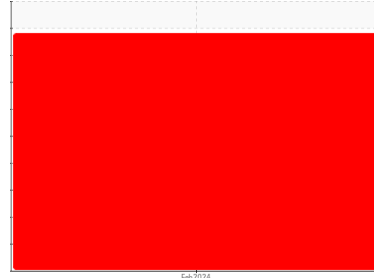
OIL ANALYSIS REPORT

Sample Rating Trend

GLYCOL



Area
[1224412]
 Machine Id
101011
 Component
Diesel Engine
 Fluid
PETRO CANADA DURON SHP 15W40 (--- GAL)



DIAGNOSIS

Recommendation

We advise that you check for the source of the coolant leak. We recommend that you drain the oil from the component if this has not already been done. We advise that you flush the component thoroughly before re-filling with oil. We recommend an early resample to monitor this condition.

Wear

All component wear rates are normal.

Contamination

Fuel content negligible. Test for glycol is positive. There is a high concentration of glycol present in the oil.

Fluid Condition

Viscosity of sample indicates oil is within SAE 30 range, advise investigate. The oil is no longer serviceable due to the presence of contaminants.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		GFL0107932	---	---
Sample Date	Client Info		09 Feb 2024	---	---
Machine Age	hrs	Client Info	24943	---	---
Oil Age	hrs	Client Info	40	---	---
Oil Changed	Client Info		N/A	---	---
Sample Status			SEVERE	---	---

CONTAMINATION

	method	limit/base	current	history1	history2
Water	WC Method	>0.2	NEG	---	---

WEAR METALS

	method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185(m)	>120	7	---	---
Chromium	ppm	ASTM D5185(m)	>20	0	---	---
Nickel	ppm	ASTM D5185(m)	>5	<1	---	---
Titanium	ppm	ASTM D5185(m)	>2	0	---	---
Silver	ppm	ASTM D5185(m)	>2	0	---	---
Aluminum	ppm	ASTM D5185(m)	>20	2	---	---
Lead	ppm	ASTM D5185(m)	>40	1	---	---
Copper	ppm	ASTM D5185(m)	>330	15	---	---
Tin	ppm	ASTM D5185(m)	>15	<1	---	---
Antimony	ppm	ASTM D5185(m)		0	---	---
Vanadium	ppm	ASTM D5185(m)		0	---	---
Beryllium	ppm	ASTM D5185(m)		0	---	---
Cadmium	ppm	ASTM D5185(m)		0	---	---

ADDITIVES

	method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185(m)	0	4	---	---
Barium	ppm	ASTM D5185(m)	0	0	---	---
Molybdenum	ppm	ASTM D5185(m)	60	69	---	---
Manganese	ppm	ASTM D5185(m)	0	0	---	---
Magnesium	ppm	ASTM D5185(m)	1010	836	---	---
Calcium	ppm	ASTM D5185(m)	1070	951	---	---
Phosphorus	ppm	ASTM D5185(m)	1150	980	---	---
Zinc	ppm	ASTM D5185(m)	1270	1070	---	---
Sulfur	ppm	ASTM D5185(m)	2060	2629	---	---
Lithium	ppm	ASTM D5185(m)		<1	---	---

CONTAMINANTS

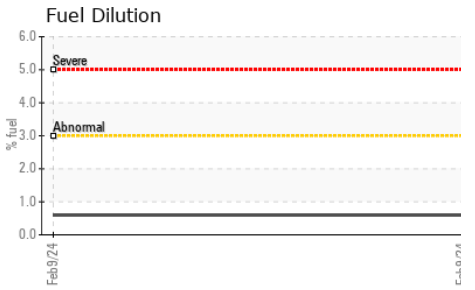
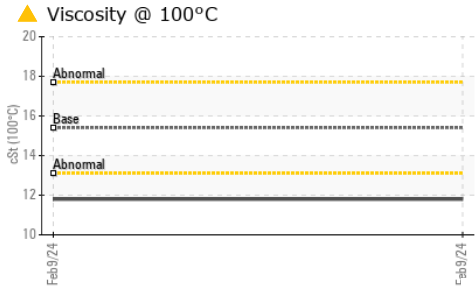
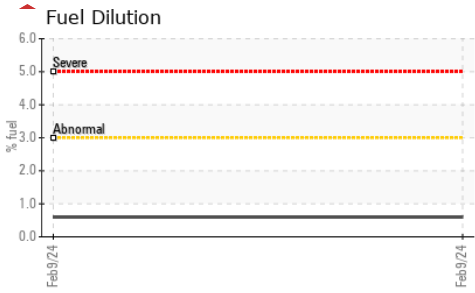
	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185(m)	>25	25	---	---
Sodium	ppm	ASTM D5185(m)		▲ 167	---	---
Potassium	ppm	ASTM D5185(m)	>20	▲ 194	---	---
Fuel	%	ASTM D7593*	>3.0	0.6	---	---
Glycol	%	ASTM D7922*		◆ 0.154	---	---

INFRA-RED

	method	limit/base	current	history1	history2	
Soot %	%	ASTM D7844*	>4	0	---	---
Nitration	Abs/cm	ASTM D7624*	>20	6.2	---	---
Sulfation	Abs/.1mm	ASTM D7415*	>30	18.7	---	---



OIL ANALYSIS REPORT

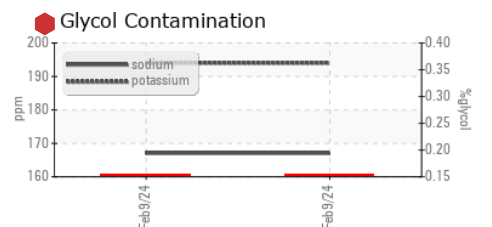
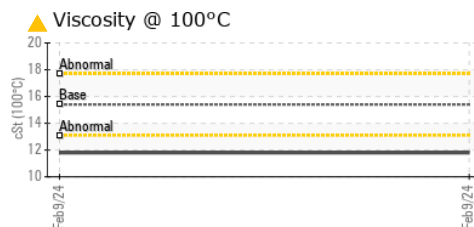
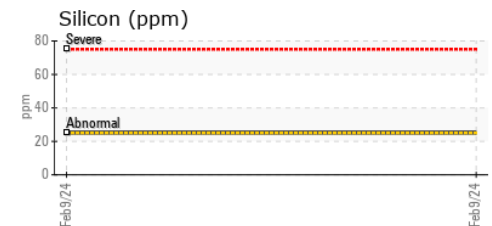
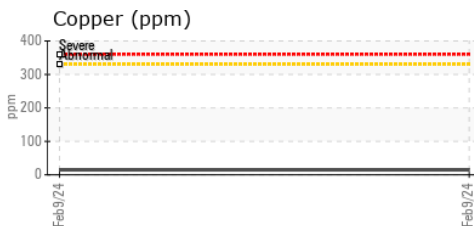
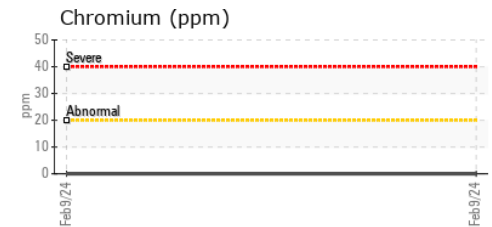
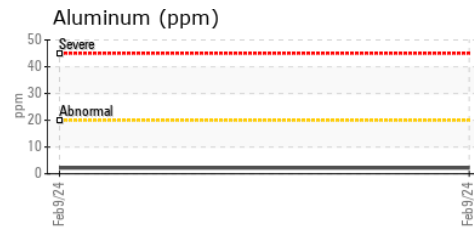
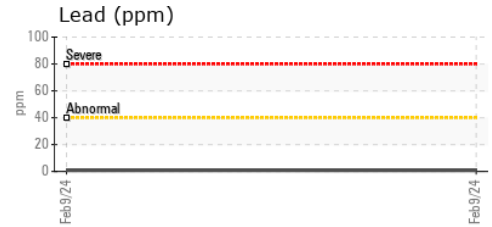
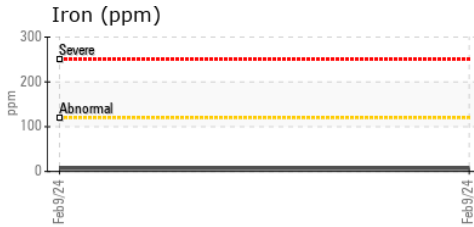


FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs./1mm	ASTM D7414*	>25	14.0	---	---

VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	NONE	---	---
Yellow Metal	scalar	Visual*	NONE	VLITE	---	---
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	---	---
Emulsified Water	scalar	Visual*	>0.2	NEG	---	---
Free Water	scalar	Visual*		NEG	---	---

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D7279(m)	15.4	▲ 11.8	---	---

GRAPHS



ISO 17025:2017
Accredited
Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0107932
Lab Number : 02615235
Unique Number : 5724330
Test Package : MOB 1 (Additional Tests: FuelDilution, Glycol, PercentFuel, Visual)

GFL Environmental - 350 - Emerald Park Regina
 2B Industrial Drive., Great Plains Industrial Park,
 Emerald Park, SK
 CA S4L 1B6
 Contact: Vaughn Hortness
 vhortness@gflenv.com
 T: (877)244-9500
 F: (306)244-9501

*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.*