



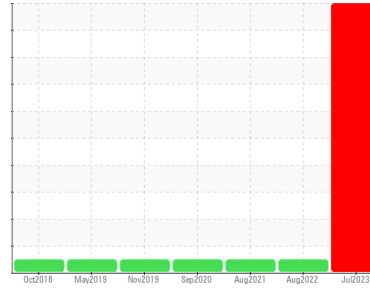
OIL ANALYSIS REPORT

Sample Rating Trend

GLYCOL



Machine Id
801061
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (25 LTR)



DIAGNOSIS

Recommendation

We advise that you check the fuel injection system. We advise that you check for the source of the coolant leak. The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition. NOTE: Test values may be askew due high concentration of free water present in sample.

Wear

Metal levels are typical for a new component breaking in.

Contamination

Test for glycol is positive. There is a high amount of fuel present in the oil. There is a high concentration of glycol present in the oil. There is a high concentration of water present in the oil. Excessive free water present. 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		GFL0086485	GFL0047707	GFL0034411
Sample Date	Client Info		19 Jul 2023	12 Aug 2022	17 Aug 2021
Machine Age	kms	Client Info	81072	81072	0
Oil Age	kms	Client Info	0	0	0
Oil Changed	Client Info		Changed	Changed	Changed
Sample Status			SEVERE	NORMAL	NORMAL

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m) >80	18	23	56
Chromium	ppm	ASTM D5185(m) >5	<1	<1	2
Nickel	ppm	ASTM D5185(m) >2	0	<1	<1
Titanium	ppm	ASTM D5185(m)	0	<1	0
Silver	ppm	ASTM D5185(m) >3	<1	0	<1
Aluminum	ppm	ASTM D5185(m) >30	4	3	5
Lead	ppm	ASTM D5185(m) >30	<1	0	<1
Copper	ppm	ASTM D5185(m) >150	2	2	6
Tin	ppm	ASTM D5185(m) >5	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) 0	10	3	2
Barium	ppm	ASTM D5185(m) 0	0	0	0
Molybdenum	ppm	ASTM D5185(m) 60	40	59	61
Manganese	ppm	ASTM D5185(m) 0	<1	<1	<1
Magnesium	ppm	ASTM D5185(m) 1010	633	975	1018
Calcium	ppm	ASTM D5185(m) 1070	693	1099	1048
Phosphorus	ppm	ASTM D5185(m) 1150	708	1010	1001
Zinc	ppm	ASTM D5185(m) 1270	767	1217	1236
Sulfur	ppm	ASTM D5185(m) 2060	1791	2529	2270
Lithium	ppm	ASTM D5185(m)	<1	<1	<1

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m) >20	7	6	5
Sodium	ppm	ASTM D5185(m)	▲ 35	9	9
Potassium	ppm	ASTM D5185(m) >20	4	1	4
Fuel	%	ASTM D7593* >5	● 27.4	<1.0	<1.0
Glycol	%	ASTM D7922*	● 0.339	NEG	NEG

INFRA-RED

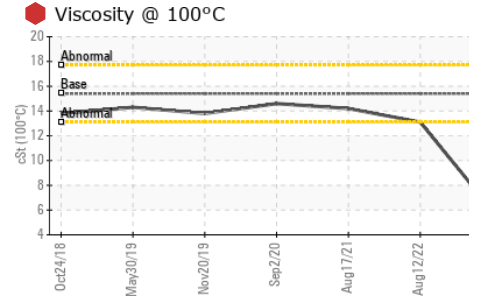
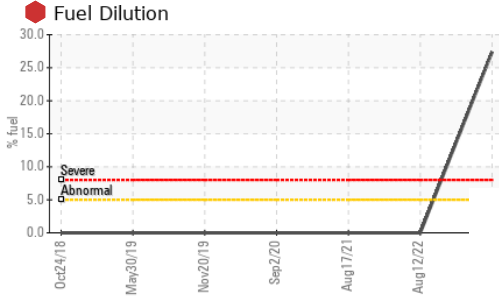
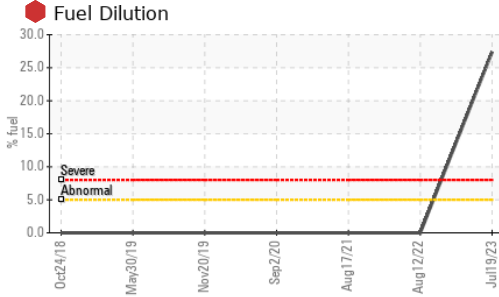
	method	limit/base	current	history1	history2
Soot %	%	ASTM D7844* >3	0.2	0.4	0.8
Nitration	Abs/cm	ASTM D7624* >20	9.3	10.0	12.7
Sulfation	Abs/.1mm	ASTM D7415* >30	18.0	20.9	25.0

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	ASTM D7414* >25	15.6	17.1	23.1



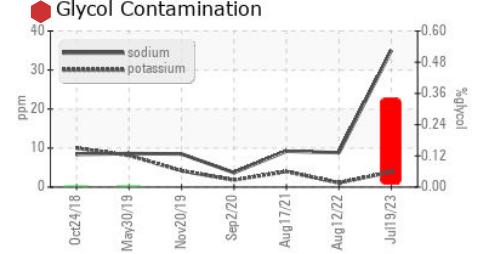
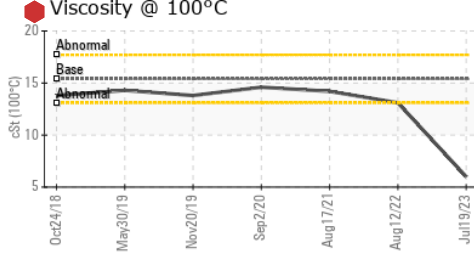
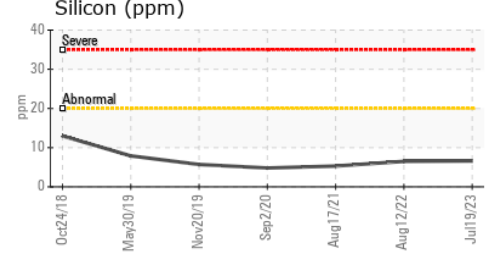
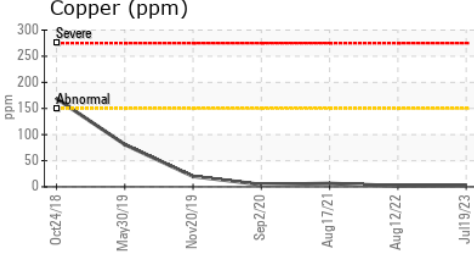
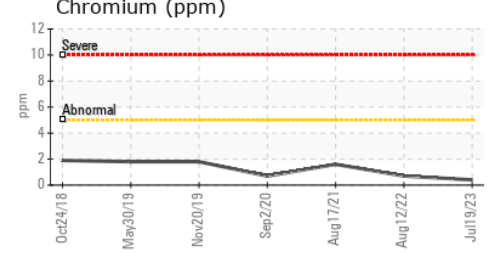
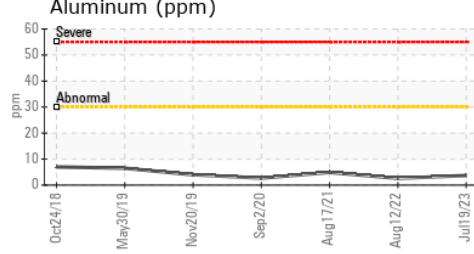
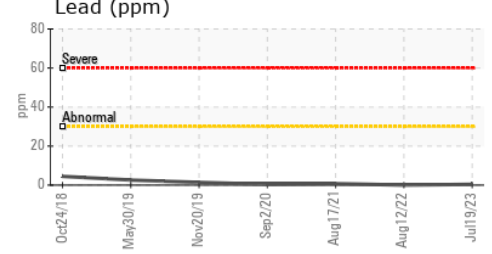
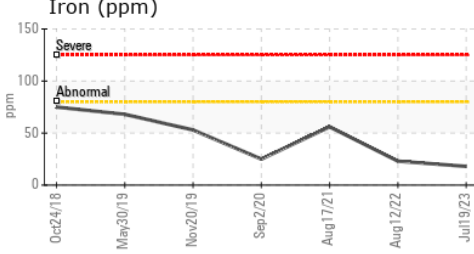
OIL ANALYSIS REPORT



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	VLITE	---
Sand/Dirt	scalar	Visual*	NONE	NONE	---
Appearance	scalar	Visual*	NORML	NORML	---
Odor	scalar	Visual*	NORML	NORML	---
Emulsified Water	scalar	Visual*	>0.2	▲ .2%	NEG
Free Water	scalar	Visual*		◆ 1%	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D7279(m)	15.4	◆ 6	13.1

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0086485
Lab Number : 02571825
Unique Number : 5616876
Test Package : MOB 1 (Additional Tests: FuelDilution, Glycol, PercentFuel, Visual)

GFL Environmental - 217 - Aurora
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 AURORA, ON
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 F: (905)713-2445

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.