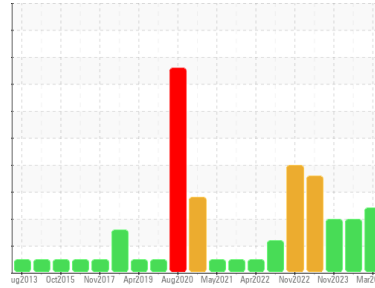




OIL ANALYSIS REPORT

Sample Rating Trend



FUEL



Machine Id
7940
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (20 LTR)

DIAGNOSIS

▲ Recommendation

We advise that you check the fuel injection system. 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 high 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	GFL0111115	GFL0103085	GFL0101080
Sample Date	Client Info	13 Mar 2024	21 Nov 2023	06 Nov 2023
Machine Age	kms Client Info	157667	147595	146739
Oil Age	kms Client Info	737	0	0
Oil Changed	Client Info	Changed	Changed	Changed
Sample Status		SEVERE	ATTENTION	ABNORMAL

CONTAMINATION

method	limit/base	current	history1	history2
Water	WC Method >0.2	NEG	NEG	NEG
Glycol	WC Method	NEG	0.0	0.0

WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm ASTM D5185(m) >90	21	8	26
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	0	<1	<1
Aluminum	ppm ASTM D5185(m) >20	2	1	4
Lead	ppm ASTM D5185(m) >40	<1	2	8
Copper	ppm ASTM D5185(m) >330	1	1	4
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) 0	3	2	2
Barium	ppm ASTM D5185(m) 0	0	<1	<1
Molybdenum	ppm ASTM D5185(m) 60	34	55	55
Manganese	ppm ASTM D5185(m) 0	0	0	<1
Magnesium	ppm ASTM D5185(m) 1010	552	921	898
Calcium	ppm ASTM D5185(m) 1070	606	991	969
Phosphorus	ppm ASTM D5185(m) 1150	597	965	979
Zinc	ppm ASTM D5185(m) 1270	668	1117	1075
Sulfur	ppm ASTM D5185(m) 2060	1583	2448	2400
Lithium	ppm ASTM D5185(m)	<1	<1	<1

CONTAMINANTS

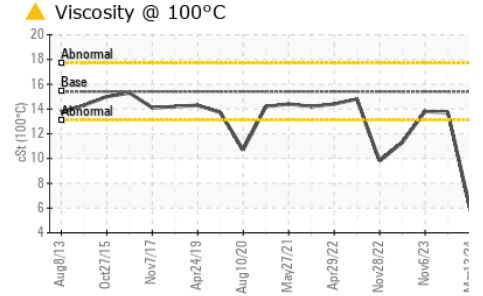
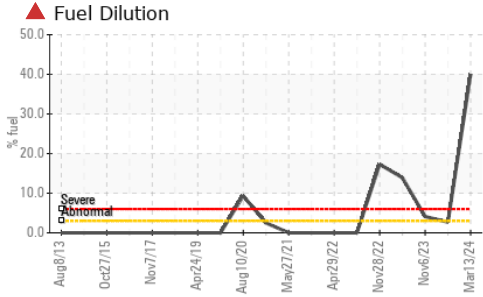
method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185(m) >25	5	2	4
Sodium	ppm ASTM D5185(m)	68	169	886
Potassium	ppm ASTM D5185(m) >20	3	1	6
Fuel	% ASTM D7593* >3.0	▲ 40	▲ 2.7	▲ 4.1

INFRA-RED

method	limit/base	current	history1	history2
Soot %	% ASTM D7844* >6	0.2	0.1	0.7
Nitration	Abs/cm ASTM D7624* >20	9.4	5.9	10.0
Sulfation	Abs.1mm ASTM D7415* >30	18.1	18.8	20.6



OIL ANALYSIS REPORT

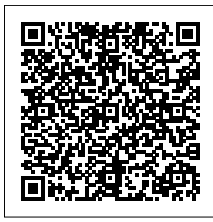
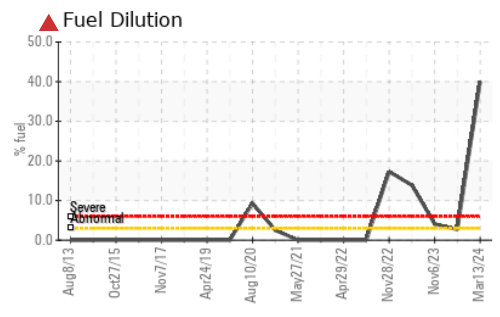
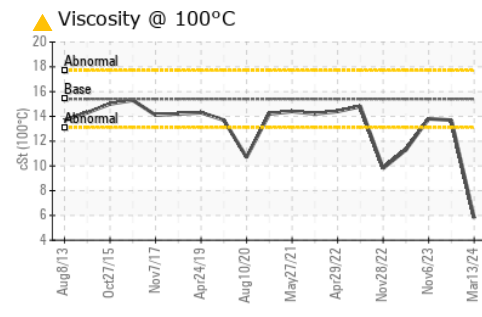
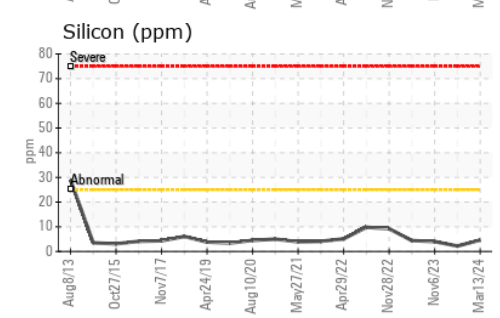
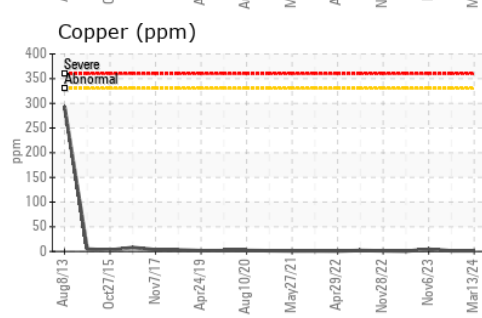
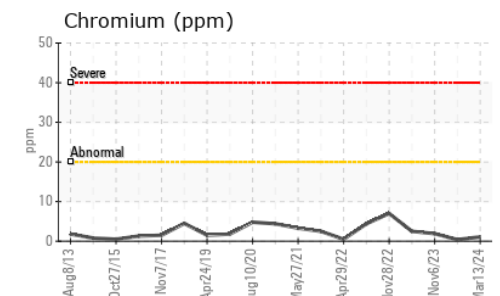
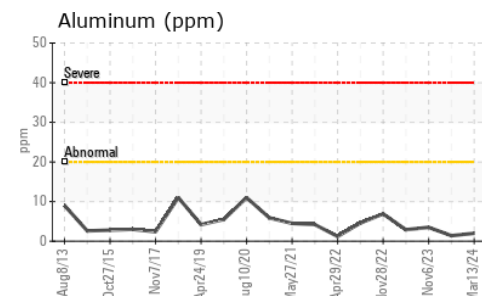
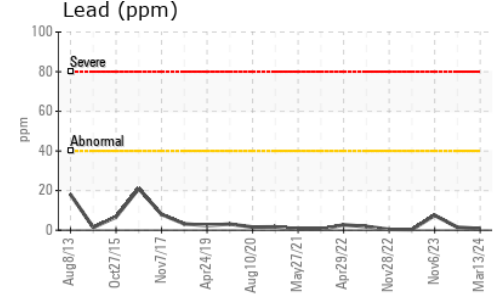
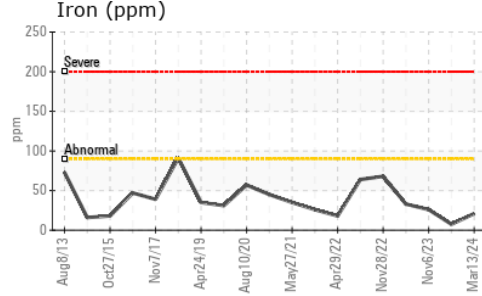


FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs.:1mm	ASTM D7414*	>25	15.9	14.1	15.9

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)	15.4	▲ 5.8	13.7	13.8

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0111115 **Received** : 15 Mar 2024
Lab Number : 02622250 **Tested** : 18 Mar 2024
Unique Number : 5747369 **Diagnosed** : 18 Mar 2024 - Wes Davis
Test Package : MOB 1 (Additional Tests: FuelDilution, PercentFuel)

GFL Environmental - 225 - COT(D2)
 20 Brydon Drive
 Etobicoke, ON
 CA M9W 5R6
 Contact: Rick Philip
 rphilip@gflenv.com
 T: (416)745-8080
 F:

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.