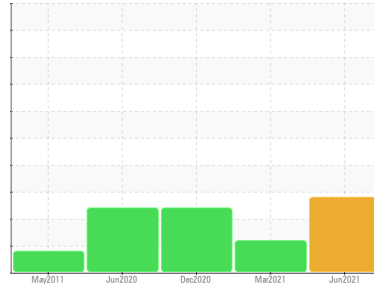




OIL ANALYSIS REPORT

Sample Rating Trend



FUEL



Machine Id
8832

Component
Diesel Engine

Fluid
PETRO CANADA DURON SHP 15W40 (--- GAL)

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

Metal levels are typical for a new component breaking in.

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	GFL0025601	GFL0014435	GFL0014409
Sample Date	Client Info	09 Jun 2021	11 Mar 2021	18 Dec 2020
Machine Age	hrs	30297	29764	500
Oil Age	hrs	500	500	500
Oil Changed	Client Info	Changed	Changed	N/A
Sample Status		SEVERE	ABNORMAL	ABNORMAL

CONTAMINATION

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

WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm ASTM D5185(m) >100	12	14	35
Chromium	ppm ASTM D5185(m) >20	<1	<1	<1
Nickel	ppm ASTM D5185(m) >4	0	<1	<1
Titanium	ppm ASTM D5185(m)	0	0	0
Silver	ppm ASTM D5185(m) >3	<1	<1	<1
Aluminum	ppm ASTM D5185(m) >20	3	3	7
Lead	ppm ASTM D5185(m) >40	1	<1	<1
Copper	ppm ASTM D5185(m) >330	4	2	2
Tin	ppm ASTM D5185(m) >15	<1	<1	<1
Antimony	ppm ASTM D5185(m)	0	<1	<1
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	1	2	3
Barium	ppm ASTM D5185(m) 0	0	0	0
Molybdenum	ppm ASTM D5185(m) 60	42	57	58
Manganese	ppm ASTM D5185(m) 0	<1	<1	<1
Magnesium	ppm ASTM D5185(m) 1010	665	943	849
Calcium	ppm ASTM D5185(m) 1070	735	1051	1048
Phosphorus	ppm ASTM D5185(m) 1150	696	952	759
Zinc	ppm ASTM D5185(m) 1270	867	1221	1107
Sulfur	ppm ASTM D5185(m) 2060	1772	2598	2431
Lithium	ppm ASTM D5185(m)	<1	<1	<1

CONTAMINANTS

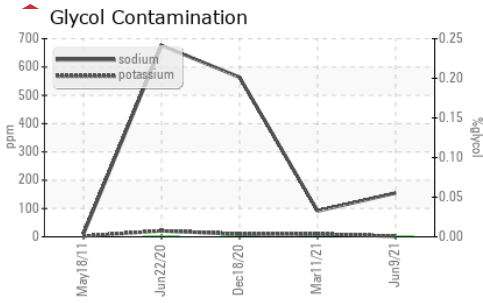
method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185(m) >25	4	4	8
Sodium	ppm ASTM D5185(m)	155	91	▲ 564
Potassium	ppm ASTM D5185(m) >20	2	10	10
Fuel	% ASTM D7593* >2.0	● 18.3	▲ 2.4	▲ 2.8
Glycol	% ASTM D7922*	0.0	0.0	0.0

INFRA-RED

method	limit/base	current	history1	history2
Soot %	% ASTM D7844* >3	0	0	0.2
Nitration	Abs/cm ASTM D7624* >20	11.4	8.9	11.7
Sulfation	Abs/.1mm ASTM D7415* >30	29.7	20.4	24.7



OIL ANALYSIS REPORT



FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs./1mm ASTM D7414*	>25	36.4	16.9, 24.6

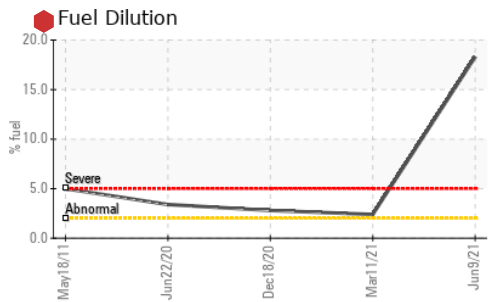
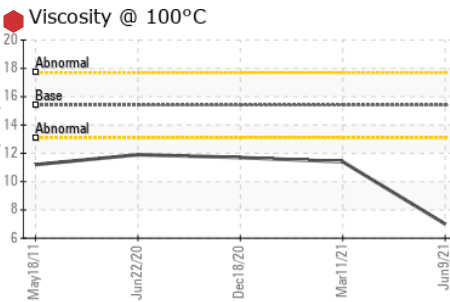
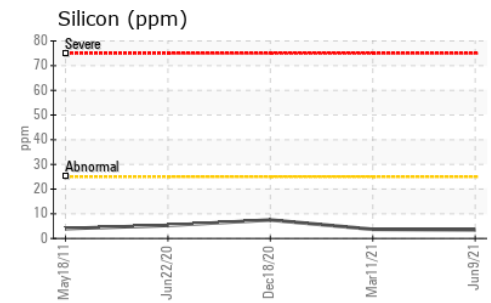
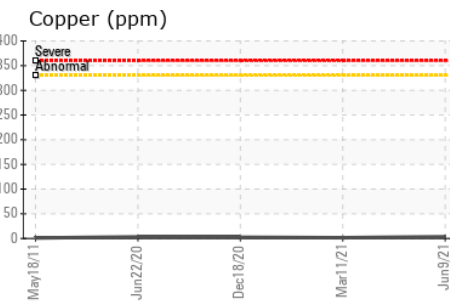
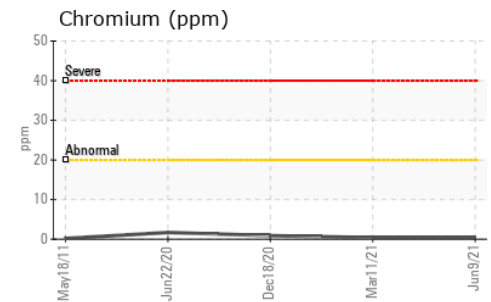
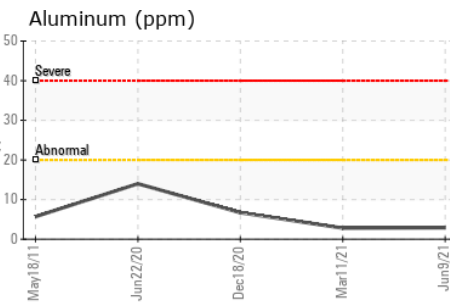
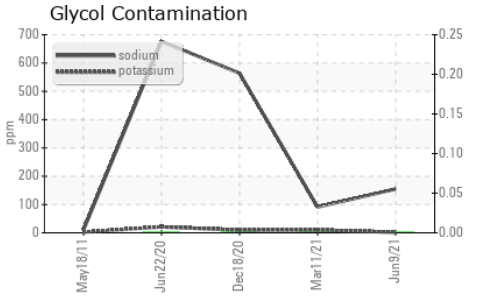
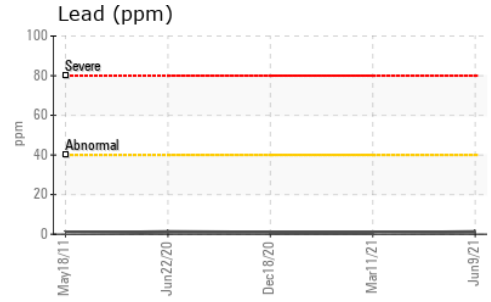
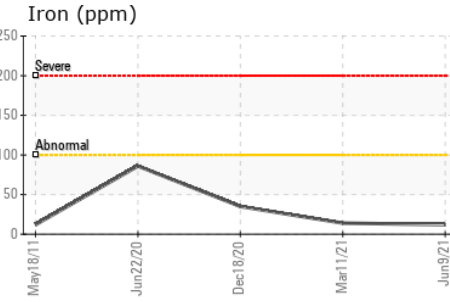
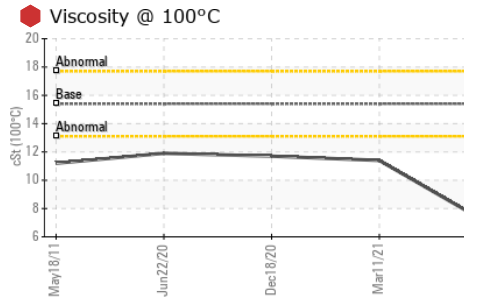
VISUAL

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	7.0	11.4, 11.7

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 GFL Environmental - 9998 - Moved No Longer Used Units
Sample No. : GFL0025601 **Received** : 10 Jun 2021 CANADIAN UNITS
Lab Number : 02426313 **Diagnosed** : 11 Jun 2021
Unique Number : 5237814 **Diagnostician** : Kevin Marson CA
Test Package : MOB 1 (Additional Tests: Glycol, PercentFuel) Contact: Service Manager

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.