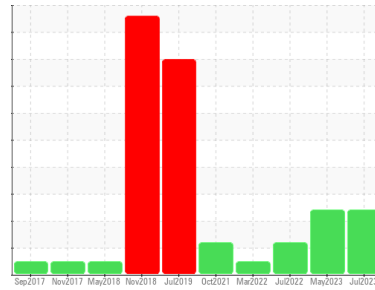




OIL ANALYSIS REPORT

Sample Rating Trend



FUEL



Machine Id
8137
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 10W30 (--- 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

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

The oil is no longer serviceable due to the presence of contaminants.

SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	GFL0085922	GFL0077985	GFL0054193
Sample Date	Client Info	03 Jul 2023	13 May 2023	19 Jul 2022
Machine Age	kms Client Info	258577	17448	0
Oil Age	kms Client Info	0	0	0
Oil Changed	Client Info	Changed	N/A	Changed
Sample Status		SEVERE	SEVERE	ABNORMAL

CONTAMINATION

method	limit/base	current	history1	history2
Glycol	WC Method	NEG	NEG	NEG

WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm ASTM D5185(m) >80	23	46	34
Chromium	ppm ASTM D5185(m) >5	2	3	2
Nickel	ppm ASTM D5185(m) >2	<1	<1	<1
Titanium	ppm ASTM D5185(m)	0	0	<1
Silver	ppm ASTM D5185(m) >3	0	0	0
Aluminum	ppm ASTM D5185(m) >30	2	3	3
Lead	ppm ASTM D5185(m) >30	<1	<1	2
Copper	ppm ASTM D5185(m) >150	1	2	2
Tin	ppm ASTM D5185(m) >5	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) 2	2	<1	3
Barium	ppm ASTM D5185(m) 0	0	0	0
Molybdenum	ppm ASTM D5185(m) 50	52	52	52
Manganese	ppm ASTM D5185(m) 0	<1	<1	<1
Magnesium	ppm ASTM D5185(m) 950	870	848	854
Calcium	ppm ASTM D5185(m) 1050	909	956	948
Phosphorus	ppm ASTM D5185(m) 995	959	932	867
Zinc	ppm ASTM D5185(m) 1180	1068	1033	1063
Sulfur	ppm ASTM D5185(m) 2600	2302	2190	2191
Lithium	ppm ASTM D5185(m)	<1	<1	<1

CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185(m) >20	6	11	6
Sodium	ppm ASTM D5185(m)	6	8	11
Potassium	ppm ASTM D5185(m) >20	<1	2	2
Fuel	% ASTM D7593* >5	8.8	9.6	5.8

INFRA-RED

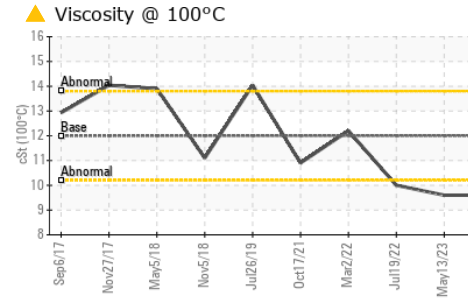
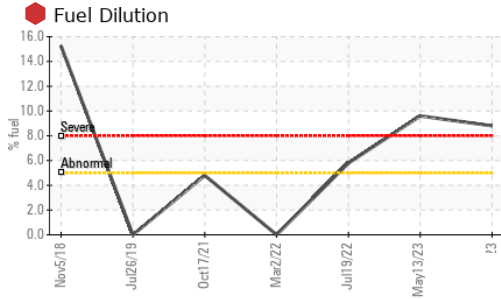
method	limit/base	current	history1	history2
Soot %	% ASTM D7844* >3	0.4	0.7	1
Nitration	Abs/cm ASTM D7624* >20	8.2	10.1	11.3
Sulfation	Abs/.1mm ASTM D7415* >30	22.1	23.6	24.8

FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm ASTM D7414* >25	21.2	24.4	24.3



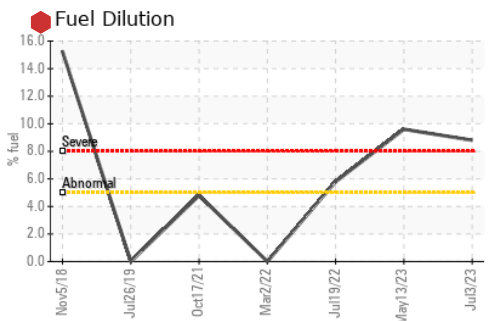
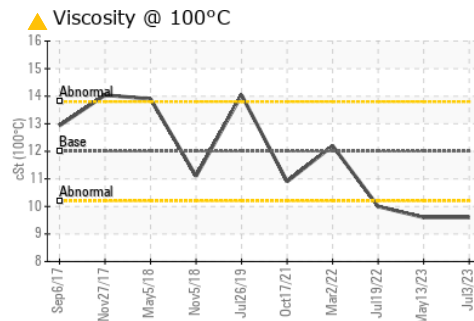
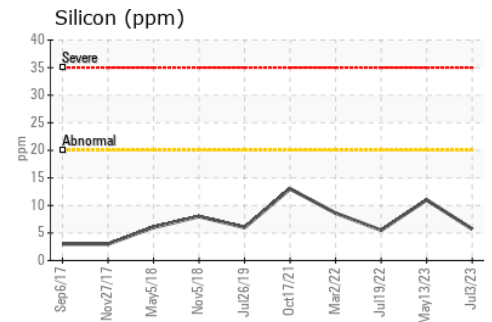
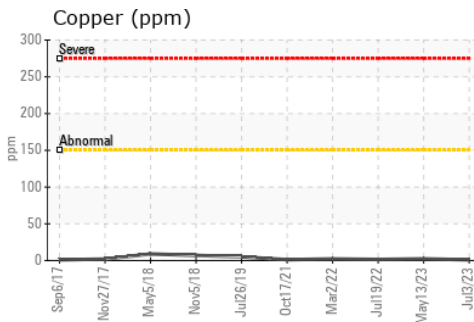
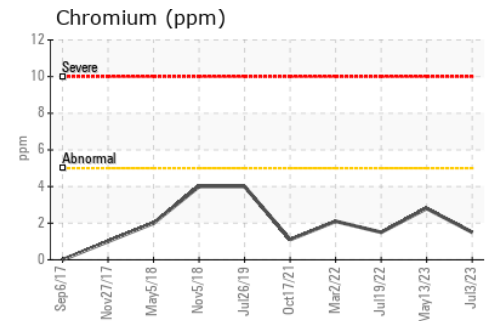
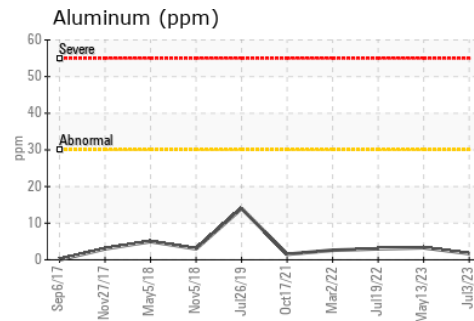
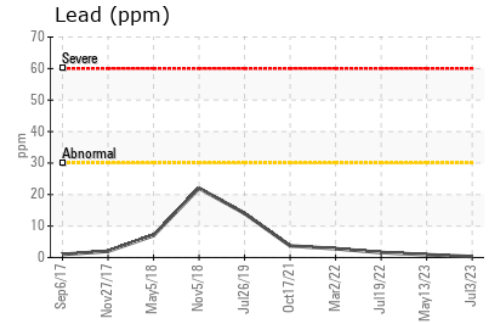
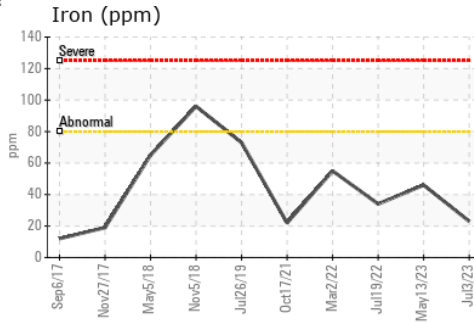
OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG
Free Water	scalar	Visual*		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D7279(m)	12.00	▲ 9.6	▲ 9.6

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 GFL Environmental - 554 - Edmonton SW
Sample No. : GFL0085922 **Received** : 13 Jul 2023
Lab Number : 02569643 **Diagnosed** : 14 Jul 2023
Unique Number : 5606689 **Diagnostician** : Wes Davis
Test Package : MOB 1 (Additional Tests: PercentFuel)

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.

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