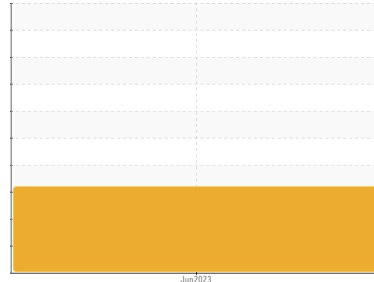




OIL ANALYSIS REPORT

Sample Rating Trend



DIRT



Machine Id
221094

Component
Genset
Fluid

PETRO CANADA DURON SHP 10W30 (--- LTR)

DIAGNOSIS

▲ Recommendation

We advise that you check the air filter, air induction system, and any areas where dirt may enter the component. We recommend that you drain the oil from the component if this has not already been done. We recommend you service the filters on this component. Confirm the source of the lubricant being utilized for top-up/fill. We recommend an early resample to monitor this condition. Please specify the component make and model with your next sample.

▲ Wear

Iron and tin ppm levels are abnormal. Cylinder, crank, or cam shaft wear is indicated. Slide bearing wear is indicated.

▲ Contamination

Light fuel dilution occurring. There is a moderate concentration of dirt present in the oil. High amount of ingressed dirt has caused abrasive wear to the component. No other contaminants were detected in the oil.

Fluid Condition

Additive levels indicate the addition of a different brand, or type of oil. The oil is no longer serviceable as a result of the abnormal and/or severe wear.

SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	GFL0085919	---	---
Sample Date	Client Info	27 Jun 2023	---	---
Machine Age	hrs	Client Info	0	---
Oil Age	hrs	Client Info	0	---
Oil Changed	Client Info	N/A	---	---
Sample Status		ABNORMAL	---	---

CONTAMINATION

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

WEAR METALS

method	limit/base	current	history1	history2
PQ	ASTM D8184*	35	---	---
Iron	ppm	ASTM D5185(m) >25	▲ 87	---
Chromium	ppm	ASTM D5185(m) >5	5	---
Nickel	ppm	ASTM D5185(m) >5	<1	---
Titanium	ppm	ASTM D5185(m)	0	---
Silver	ppm	ASTM D5185(m) >5	<1	---
Aluminum	ppm	ASTM D5185(m) >10	17	---
Lead	ppm	ASTM D5185(m) >10	2	---
Copper	ppm	ASTM D5185(m) >20	22	---
Tin	ppm	ASTM D5185(m) >5	▲ 12	---
Antimony	ppm	ASTM D5185(m)	0	---
Vanadium	ppm	ASTM D5185(m)	<1	---
Beryllium	ppm	ASTM D5185(m)	0	---
Cadmium	ppm	ASTM D5185(m)	0	---

ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m) 2	156	---
Barium	ppm	ASTM D5185(m) 0	3	---
Molybdenum	ppm	ASTM D5185(m) 50	157	---
Manganese	ppm	ASTM D5185(m) 0	2	---
Magnesium	ppm	ASTM D5185(m) 950	170	---
Calcium	ppm	ASTM D5185(m) 1050	2296	---
Phosphorus	ppm	ASTM D5185(m) 995	917	---
Zinc	ppm	ASTM D5185(m) 1180	1003	---
Sulfur	ppm	ASTM D5185(m) 2600	4180	---
Lithium	ppm	ASTM D5185(m)	<1	---

CONTAMINANTS

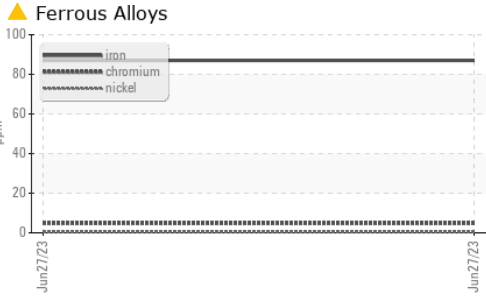
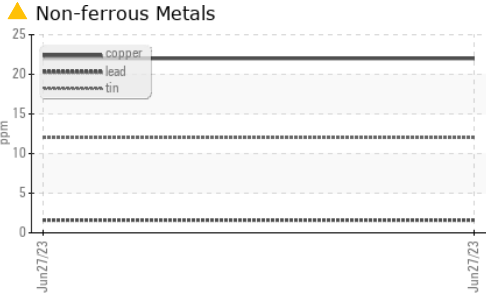
method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m) >25	▲ 70	---
Sodium	ppm	ASTM D5185(m)	4	---
Potassium	ppm	ASTM D5185(m) >20	2	---
Fuel	%	ASTM D7593* >4.0	1.7	---

INFRA-RED

method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*	0.9	---
Nitration	Abs/cm	ASTM D7624* >20	10.2	---
Sulfation	Abs./1mm	ASTM D7415* >30	21.9	---



OIL ANALYSIS REPORT

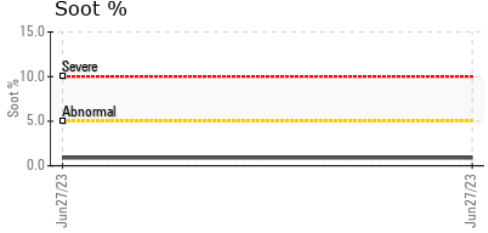
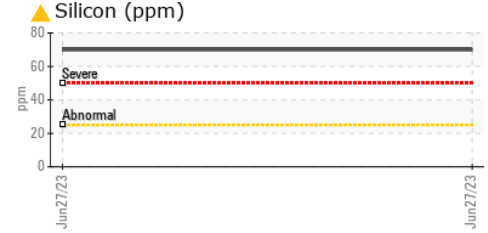
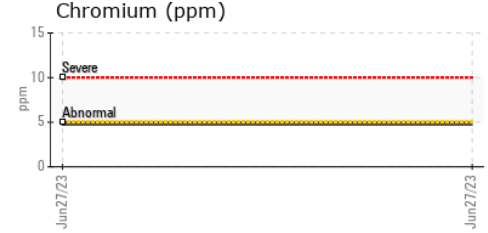
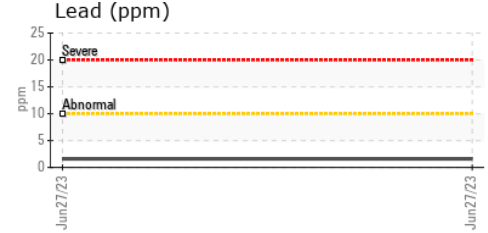
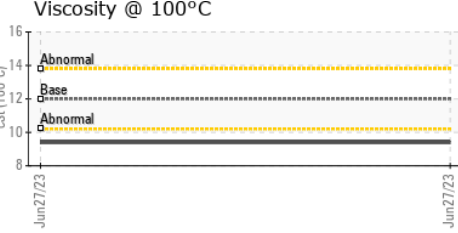
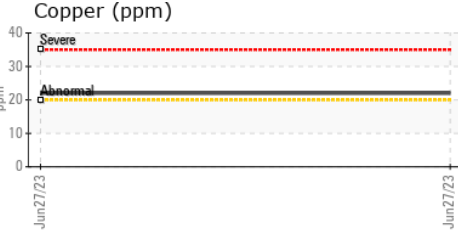
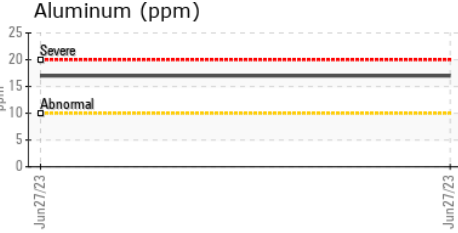
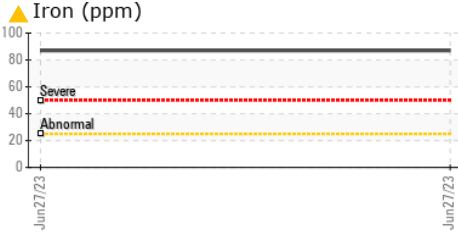
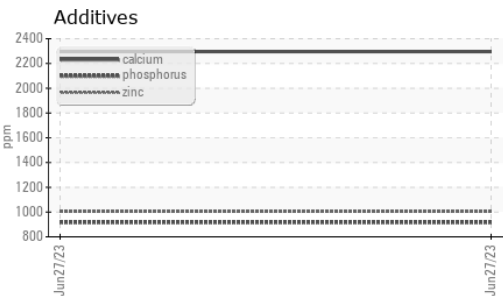
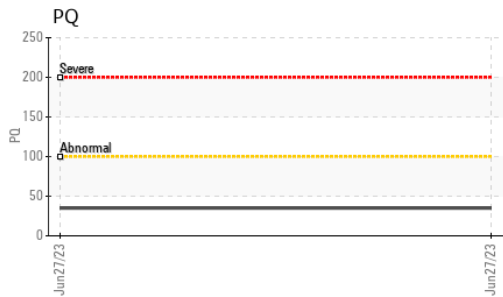
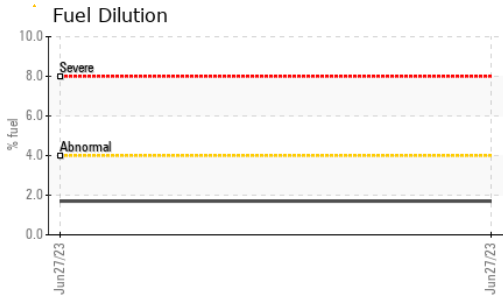


FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs./1mm	ASTM D7414*	>25	14.9	---	---

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	NONE	---	---
Sand/Dirt	scalar	Visual*	NONE	NONE	---	---
Appearance	scalar	Visual*	NORML	NORML	---	---
Odor	scalar	Visual*	NORML	NORML	---	---
Emulsified Water	scalar	Visual*	>0.1	NEG	---	---
Free Water	scalar	Visual*		NEG	---	---

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D7279(m)	12.00	9.4	---	---

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 GFL Environmental - 554 - Edmonton SW
Sample No. : GFL0085919 **Received** : 13 Jul 2023
Lab Number : 02569642 **Diagnosed** : 14 Jul 2023
Unique Number : 5606688 **Diagnostician** : Kevin Marson
Test Package : MOB 1 (Additional Tests: FuelDilution, PercentFuel, PQ, Visual)

8409 -15th Street NW
 Edmonton, AB
 CA T6P 0B8
 Contact: Tim Greig
 tgreig@gflenv.com

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.

T:
F: