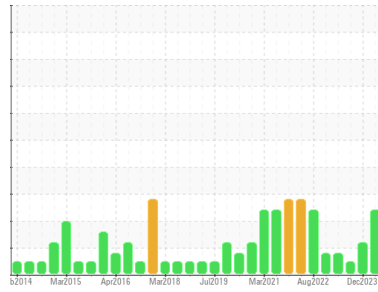




OIL ANALYSIS REPORT

Sample Rating Trend



FUEL



Machine Id
4470
 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		GFL0126212	GFL0097536	GFL0088948
Sample Date	Client Info		11 Jul 2024	27 Dec 2023	25 Sep 2023
Machine Age	hrs	Client Info	18397	17467	16925
Oil Age	hrs	Client Info	930	524	403
Oil Changed	Client Info		Changed	Changed	Changed
Sample Status			SEVERE	ABNORMAL	NORMAL

CONTAMINATION

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

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m) >90	33	17	12
Chromium	ppm	ASTM D5185(m) >20	1	<1	<1
Nickel	ppm	ASTM D5185(m) >2	<1	<1	0
Titanium	ppm	ASTM D5185(m) >2	0	0	0
Silver	ppm	ASTM D5185(m) >2	0	0	<1
Aluminum	ppm	ASTM D5185(m) >20	2	2	<1
Lead	ppm	ASTM D5185(m) >40	0	0	<1
Copper	ppm	ASTM D5185(m) >330	<1	<1	<1
Tin	ppm	ASTM D5185(m) >15	0	0	0
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	5	4
Barium	ppm	ASTM D5185(m) 0	0	0	<1
Molybdenum	ppm	ASTM D5185(m) 60	52	55	58
Manganese	ppm	ASTM D5185(m) 0	<1	0	0
Magnesium	ppm	ASTM D5185(m) 1010	829	883	918
Calcium	ppm	ASTM D5185(m) 1070	894	998	1008
Phosphorus	ppm	ASTM D5185(m) 1150	834	930	982
Zinc	ppm	ASTM D5185(m) 1270	1019	1089	1141
Sulfur	ppm	ASTM D5185(m) 2060	2086	2422	2388
Lithium	ppm	ASTM D5185(m)	<1	<1	<1

CONTAMINANTS

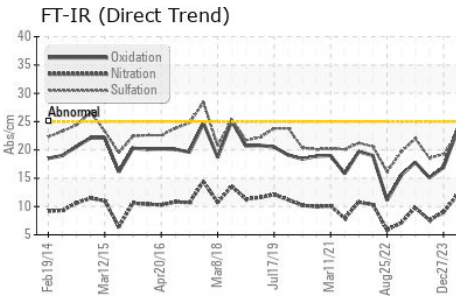
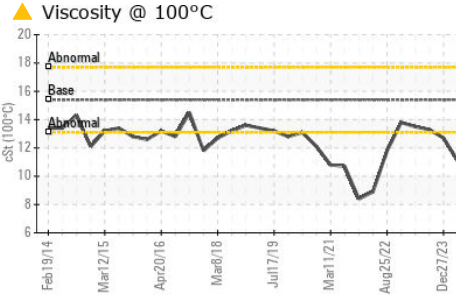
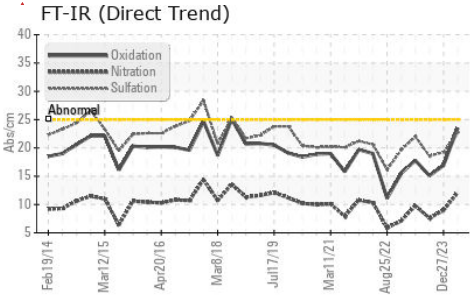
	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m) >25	3	2	2
Sodium	ppm	ASTM D5185(m)	1	1	2
Potassium	ppm	ASTM D5185(m) >20	<1	3	<1
Fuel	%	ASTM D7593* >3.0	▲ 11	▲ 5.6	<1.0

INFRA-RED

	method	limit/base	current	history1	history2
Soot %	%	ASTM D7844* >6	0.7	0.4	0.2
Nitration	Abs/cm	ASTM D7624* >20	12.1	9.0	7.6
Sulfation	Abs./1mm	ASTM D7415* >30	22.6	19.2	18.6



OIL ANALYSIS REPORT

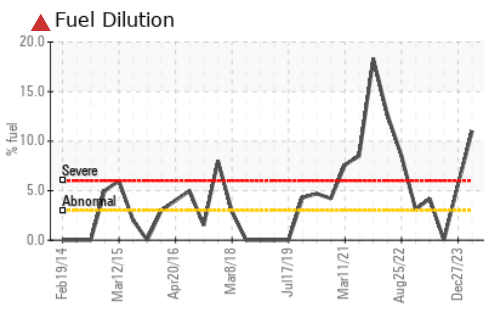
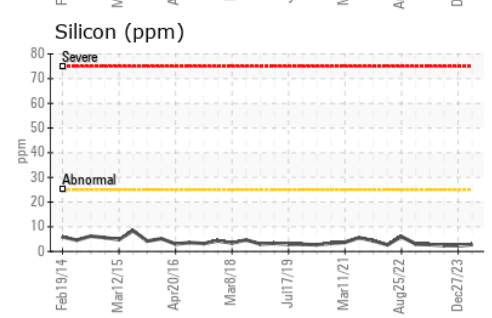
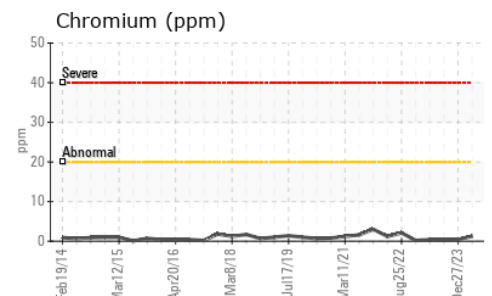
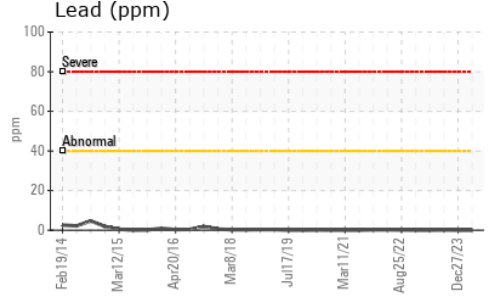
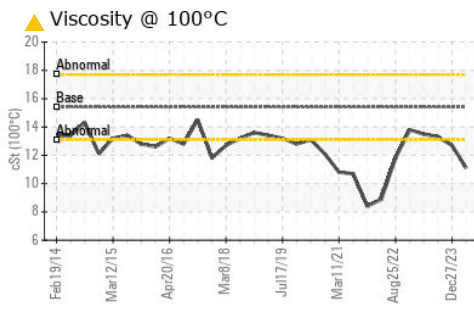
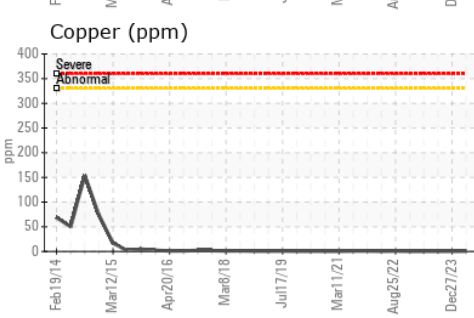
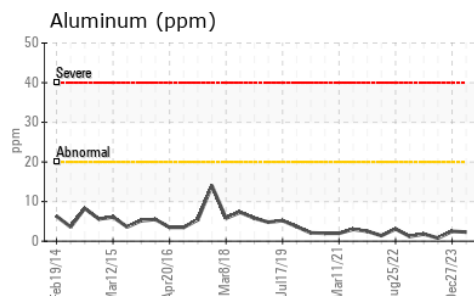
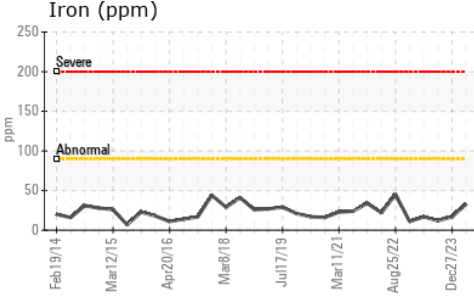


FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs./1mm	ASTM D7414*	>25	23.5	16.9	15.1

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	▲ 11.1	▲ 12.7	13.3

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0126212 **Received** : 15 Jul 2024
Lab Number : **02647786** **Tested** : 16 Jul 2024
Unique Number : 5813338 **Diagnosed** : 16 Jul 2024 - Wes Davis
Test Package : MOB 1 (Additional Tests: PercentFuel)

GFL Environmental - 216
 15 Bermondsey Road
 Toronto, ON
 CA M4B 1Y9
 Contact: Tom Hatzioannidis
 thatzioannidis@gflenv.com
 T: (416)678-9340
 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.