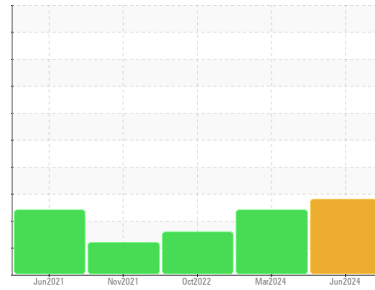




OIL ANALYSIS REPORT

Sample Rating Trend



FUEL



Machine Id

801186

Component

Diesel Engine

Fluid

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

DIAGNOSIS

▲ Recommendation

We advise that you check the fuel injection system. We recommend that you drain the oil from the component if this has not already been done. 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		GFL0100579	GFL0100605	GFL0054672
Sample Date	Client Info		23 Jun 2024	26 Mar 2024	30 Oct 2022
Machine Age	hrs	Client Info	18999	18430	15346
Oil Age	hrs	Client Info	0	904	1256
Oil Changed	Client Info		Not Chngd	Changed	Changed
Sample Status			SEVERE	SEVERE	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) >90	44	71	▲ 102
Chromium	ppm	ASTM D5185(m) >20	3	3	4
Nickel	ppm	ASTM D5185(m) >2	<1	<1	<1
Titanium	ppm	ASTM D5185(m) >2	0	0	<1
Silver	ppm	ASTM D5185(m) >2	0	0	0
Aluminum	ppm	ASTM D5185(m) >20	5	6	6
Lead	ppm	ASTM D5185(m) >40	0	0	<1
Copper	ppm	ASTM D5185(m) >330	2	2	5
Tin	ppm	ASTM D5185(m) >15	0	0	<1
Antimony	ppm	ASTM D5185(m)	0	0	<1
Vanadium	ppm	ASTM D5185(m)	0	0	<1
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	2	2	4
Barium	ppm	ASTM D5185(m) 0	0	0	0
Molybdenum	ppm	ASTM D5185(m) 60	46	51	60
Manganese	ppm	ASTM D5185(m) 0	<1	0	1
Magnesium	ppm	ASTM D5185(m) 1010	742	825	982
Calcium	ppm	ASTM D5185(m) 1070	808	909	1106
Phosphorus	ppm	ASTM D5185(m) 1150	741	832	1074
Zinc	ppm	ASTM D5185(m) 1270	919	1005	1242
Sulfur	ppm	ASTM D5185(m) 2060	1876	1934	2324
Lithium	ppm	ASTM D5185(m)	<1	<1	<1

CONTAMINANTS

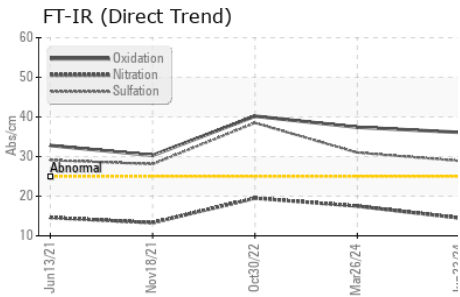
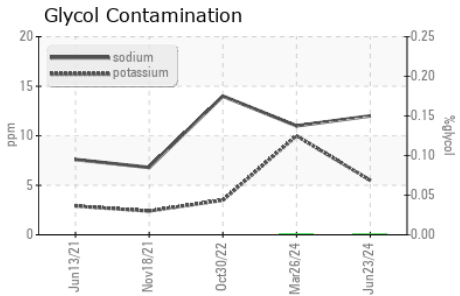
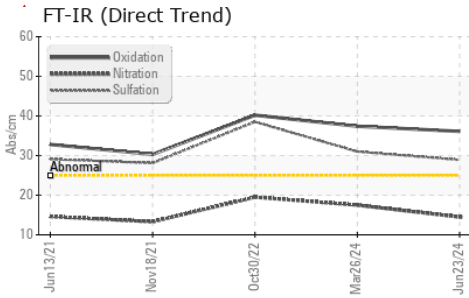
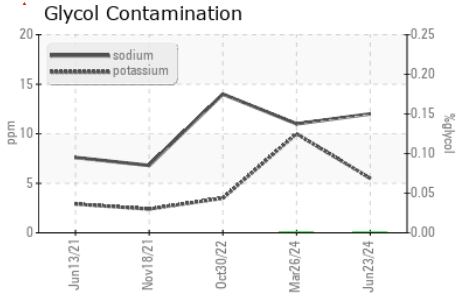
	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m) >25	13	11	14
Sodium	ppm	ASTM D5185(m)	12	11	14
Potassium	ppm	ASTM D5185(m) >20	6	10	4
Fuel	%	ASTM D7593* >3.0	▲ 13.6	▲ 11.1	▲ 2.6
Glycol	%	ASTM D7922*	0.0	0.0	NEG

INFRA-RED

	method	limit/base	current	history1	history2
Soot %	%	ASTM D7844* >6	0.7	1.1	1.7
Nitration	Abs/cm	ASTM D7624* >20	14.5	17.5	19.5
Sulfation	Abs./1mm	ASTM D7415* >30	28.9	31.0	38.5



OIL ANALYSIS REPORT

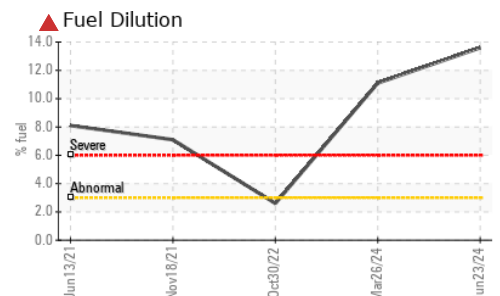
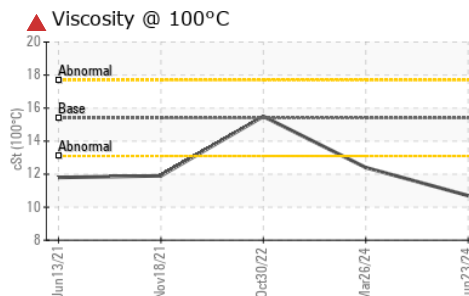
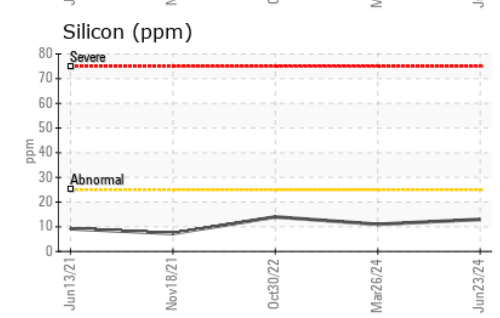
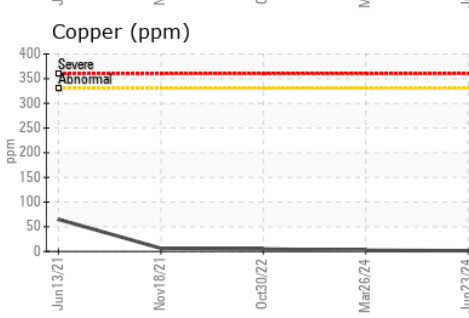
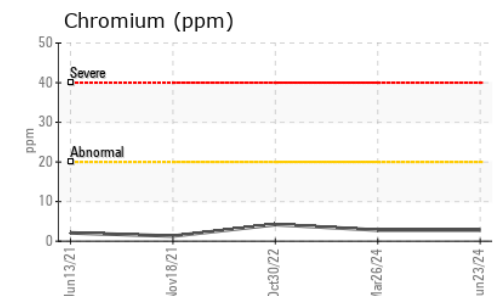
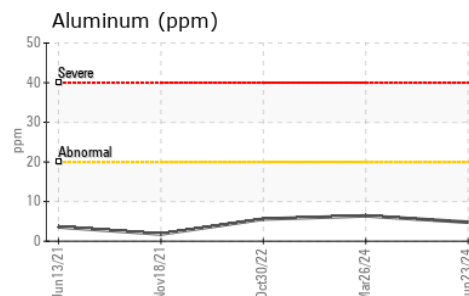
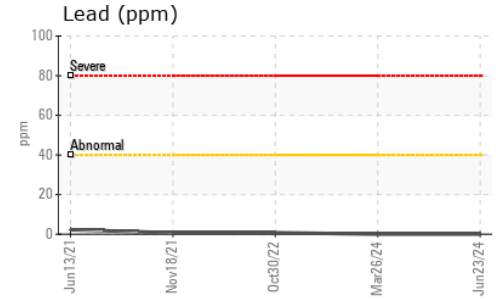
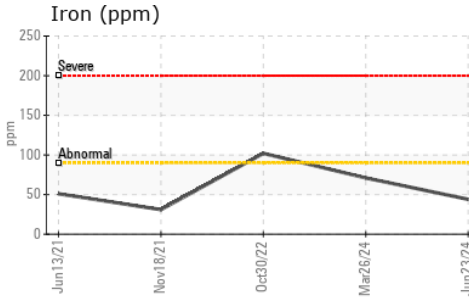


FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs./1mm	ASTM D7414*	>25	36.1	37.4	40.2

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	▲ 10.7	▲ 12.4	15.5

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0100579
Lab Number : 02644096
Unique Number : 5801635
Test Package : MOB 1 (Additional Tests: Glycol, PercentFuel)

GFL Environmental - 575 - Squamish Hauling
 38950 Queens Way,
 Squamish, BC
 CA V8B 0K8
 Contact: Dean Imbeau
 dimbeau@gflenv.com
 T: (604)892-5604
 F: (604)892-5238

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.