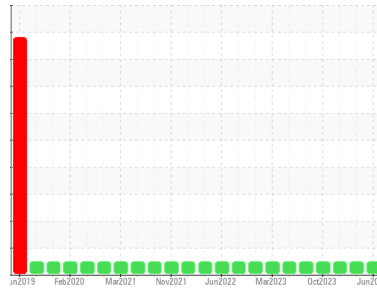




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Area
[1295380]

Machine Id
501095

Component
Diesel Engine

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

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

Fluid Condition

The condition of the oil is acceptable for the time in service.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		GFL0118545	GFL0110692	GFL0102718
Sample Date	Client Info		14 Jun 2024	04 Apr 2024	03 Jan 2024
Machine Age	hrs	Client Info	15038	14538	14029
Oil Age	hrs	Client Info	600	0	0
Oil Changed	Client Info		Changed	N/A	Changed
Sample Status			NORMAL	NORMAL	NORMAL

CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>3.0	<1.0	<1.0	<1.0
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)	>165	19	12	16
Chromium	ppm	ASTM D5185(m)	>5	<1	<1	<1
Nickel	ppm	ASTM D5185(m)	>4	0	0	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	2
Lead	ppm	ASTM D5185(m)	>150	16	2	6
Copper	ppm	ASTM D5185(m)	>90	2	<1	1
Tin	ppm	ASTM D5185(m)	>5	<1	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	2	4	2
Barium	ppm	ASTM D5185(m)	0	0	0	0
Molybdenum	ppm	ASTM D5185(m)	60	72	64	63
Manganese	ppm	ASTM D5185(m)	0	<1	0	0
Magnesium	ppm	ASTM D5185(m)	1010	1158	1057	1034
Calcium	ppm	ASTM D5185(m)	1070	1289	1143	1337
Phosphorus	ppm	ASTM D5185(m)	1150	1181	1064	1115
Zinc	ppm	ASTM D5185(m)	1270	1454	1304	1354
Sulfur	ppm	ASTM D5185(m)	2060	2621	2561	2796
Lithium	ppm	ASTM D5185(m)		<1	<1	<1

CONTAMINANTS

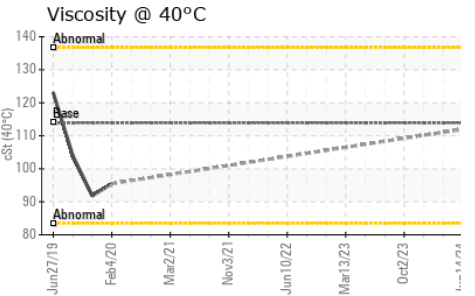
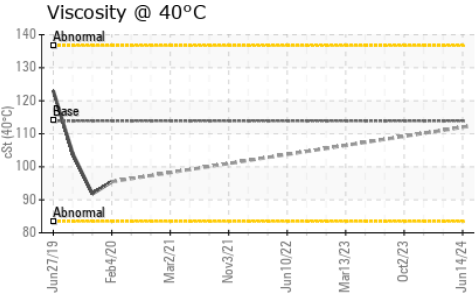
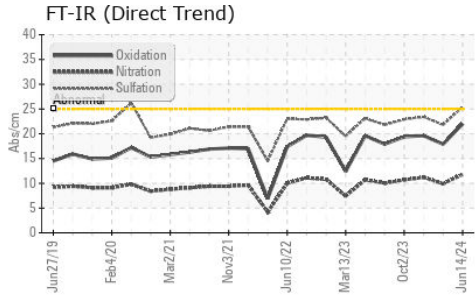
	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185(m)	>35	5	2	4
Sodium	ppm	ASTM D5185(m)		7	5	5
Potassium	ppm	ASTM D5185(m)	>20	2	1	2

INFRA-RED

	method	limit/base	current	history1	history2	
Soot %	%	ASTM D7844*	>7.5	0.3	0.2	0.3
Nitration	Abs/cm	ASTM D7624*	>20	11.8	9.9	11.2
Sulfation	Abs./1mm	ASTM D7415*	>30	25.4	21.8	23.4



OIL ANALYSIS REPORT

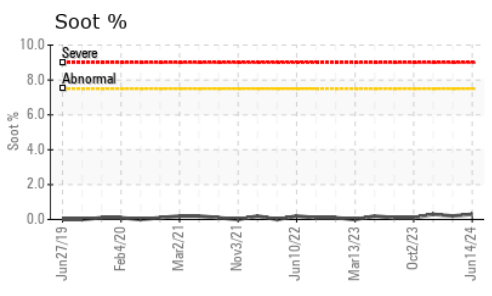
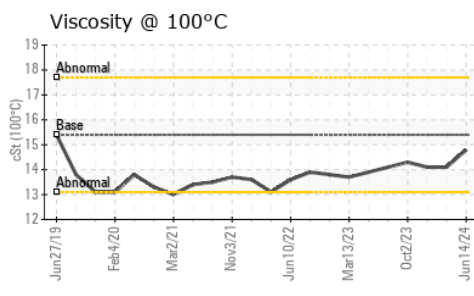
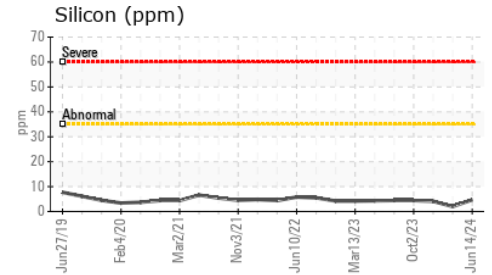
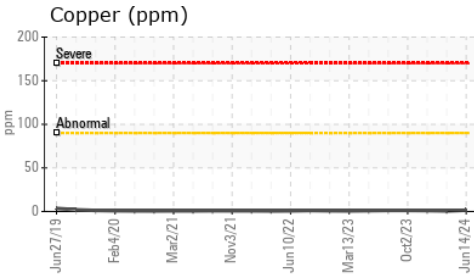
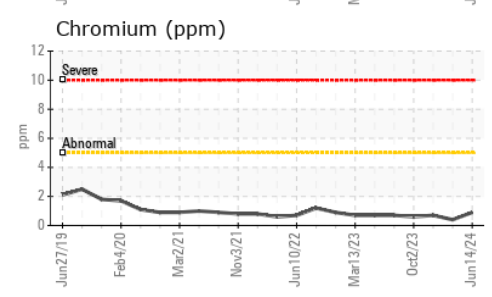
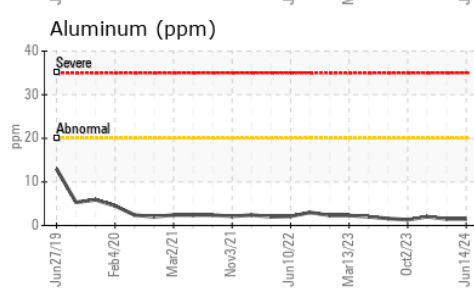
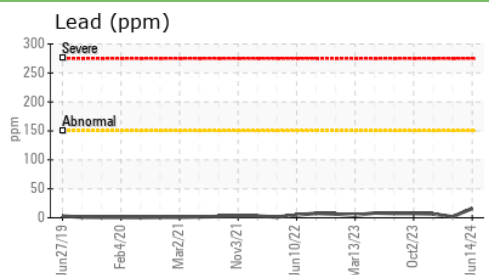
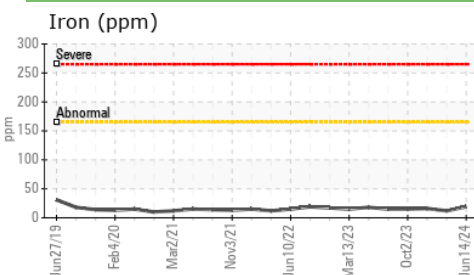


FLUID DEGRADATION						
method	limit/base	current	history1	history2		
Oxidation	Abs./1mm ASTM D7414*	>25	22.0	17.9	19.6	

VISUAL						
method	limit/base	current	history1	history2		
Odor	scalar Visual*	NORML	NORML	NORML		
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 @ 40°C	cSt ASTM D7279(m)	113.9	112	---	---	
Visc @ 100°C	cSt ASTM D7279(m)	15.4	14.8	14.1	14.1	
Viscosity Index (VI)	Scale ASTM D2270*	142	136	---	---	

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0118545 **Received** : 18 Jun 2024
Lab Number : 02642510 **Tested** : 18 Jun 2024
Unique Number : 5800049 **Diagnosed** : 18 Jun 2024 - Wes Davis
Test Package : MOB 1 (Additional Tests: KV40, VI, Visual)

GFL Environmental - 207 - Pickering SW
 1034 TOY AVENUE, PICKERING YARD
 PICKERING, ON
 CA L1W 3P1
 Contact: Ian Patton
 ipatton@gflenv.com
 T: (905)831-6297
 F: (905)426-3577

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.