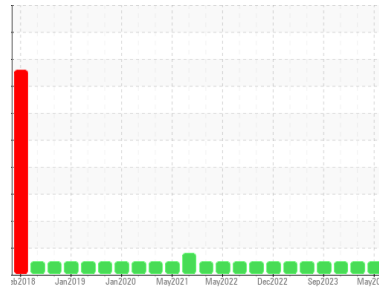




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id

701047

Component

Diesel Engine

Fluid

PETRO CANADA DURON SHP 15W40 (20 LTR)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

Metal levels are typical for a new component breaking in.

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		GFL0116855	GFL0110735	GFL0097452
Sample Date	Client Info		27 May 2024	14 Feb 2024	30 Nov 2023
Machine Age	hrs	Client Info	570	570	570
Oil Age	hrs	Client Info	570	570	570
Oil Changed	Client Info		Changed	Changed	Changed
Sample Status			NORMAL	NORMAL	NORMAL

CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>5	<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)	>100	14	8	14
Chromium	ppm	ASTM D5185(m)	>20	<1	<1	<1
Nickel	ppm	ASTM D5185(m)	>4	0	0	<1
Titanium	ppm	ASTM D5185(m)		0	0	0
Silver	ppm	ASTM D5185(m)	>3	0	<1	<1
Aluminum	ppm	ASTM D5185(m)	>20	1	2	2
Lead	ppm	ASTM D5185(m)	>40	0	<1	<1
Copper	ppm	ASTM D5185(m)	>330	2	1	2
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	1	2	2
Barium	ppm	ASTM D5185(m)	0	0	0	<1
Molybdenum	ppm	ASTM D5185(m)	60	58	55	55
Manganese	ppm	ASTM D5185(m)	0	0	0	0
Magnesium	ppm	ASTM D5185(m)	1010	948	892	886
Calcium	ppm	ASTM D5185(m)	1070	1019	988	963
Phosphorus	ppm	ASTM D5185(m)	1150	966	946	907
Zinc	ppm	ASTM D5185(m)	1270	1159	1111	1123
Sulfur	ppm	ASTM D5185(m)	2060	2282	2448	2247
Lithium	ppm	ASTM D5185(m)		<1	<1	<1

CONTAMINANTS

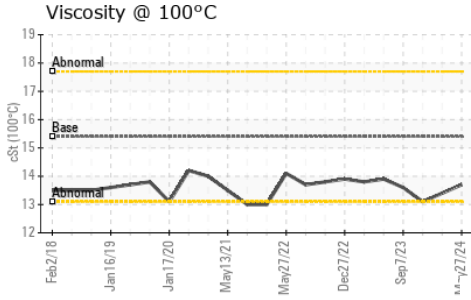
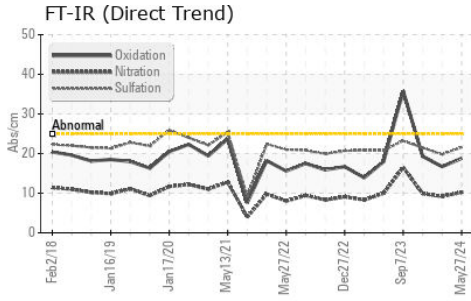
	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185(m)	>25	6	2	3
Sodium	ppm	ASTM D5185(m)		7	2	2
Potassium	ppm	ASTM D5185(m)	>20	1	1	1

INFRA-RED

	method	limit/base	current	history1	history2	
Soot %	%	ASTM D7844*	>3	0.4	0.2	0.3
Nitration	Abs/cm	ASTM D7624*	>20	10.2	9.2	9.9
Sulfation	Abs/.1mm	ASTM D7415*	>30	21.6	19.8	21.5



OIL ANALYSIS REPORT

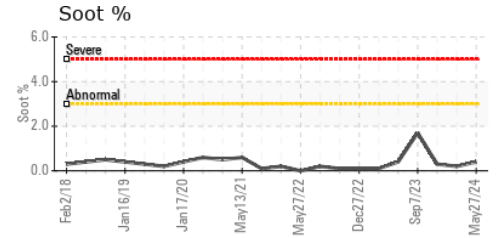
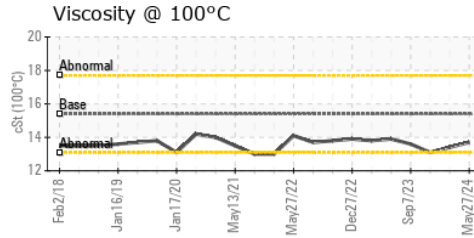
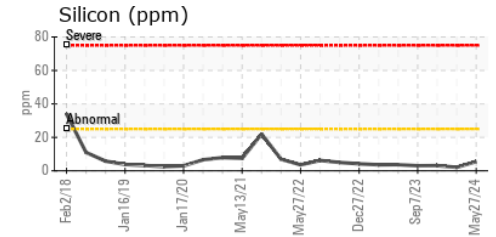
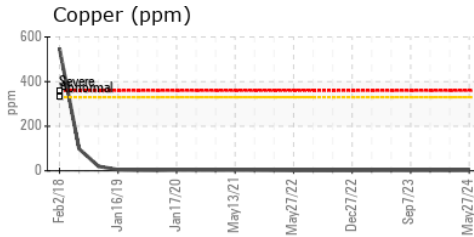
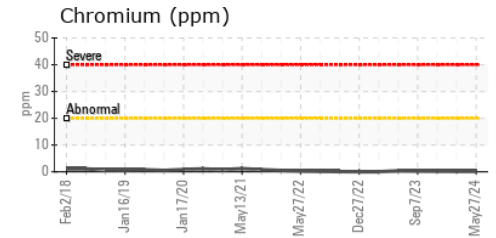
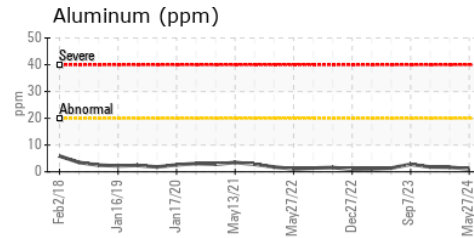
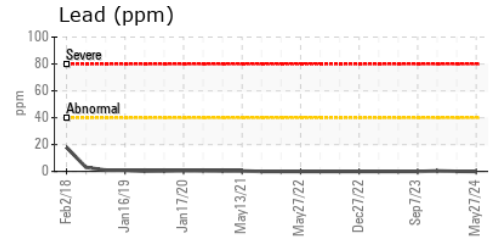
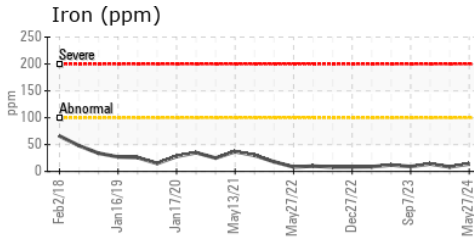


FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs./1mm	ASTM D7414*	>25	18.8	16.7	19.3

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	VLITE	---	---
Debris	scalar	Visual*	NONE	NONE	---	---
Sand/Dirt	scalar	Visual*	NONE	NONE	---	---
Appearance	scalar	Visual*	NORML	NORML	---	---
Odor	scalar	Visual*	NORML	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 @ 100°C	cSt	ASTM D7279(m)	15.4	13.7	13.4	13.1

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0116855
Lab Number : **02638364**
Unique Number : 5787526
Test Package : MOB 1 (Additional Tests: Visual)

GFL Environmental - 221 - Windsor
 905 Tecumseh Road W
 Windsor, ON
 CA N8W 4J5
 Contact: Pamela-Jean Butler
 pamela.jean.butler@gflenv.com
 T: (519)948-8126
 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.