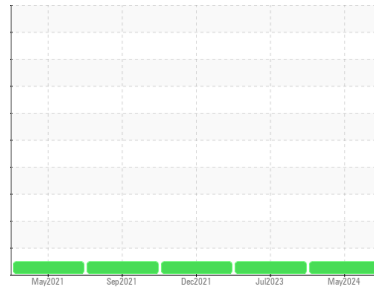




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id

401143

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		GFL0100574	GFL0076996	GFL0035394
Sample Date	Client Info		03 May 2024	30 Jul 2023	04 Dec 2021
Machine Age	hrs	Client Info	457070	3585	763
Oil Age	hrs	Client Info	0	0	0
Oil Changed	Client Info		Changed	Changed	N/A
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	47	42	37
Chromium	ppm	ASTM D5185(m) >20	<1	1	4
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	3	3	4
Lead	ppm	ASTM D5185(m) >40	6	9	3
Copper	ppm	ASTM D5185(m) >330	4	1	1
Tin	ppm	ASTM D5185(m) >15	<1	<1	<1
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	2	5
Barium	ppm	ASTM D5185(m) 0	0	0	0
Molybdenum	ppm	ASTM D5185(m) 60	66	64	61
Manganese	ppm	ASTM D5185(m) 0	<1	<1	<1
Magnesium	ppm	ASTM D5185(m) 1010	1071	1053	1058
Calcium	ppm	ASTM D5185(m) 1070	1192	1114	1109
Phosphorus	ppm	ASTM D5185(m) 1150	1055	1103	1062
Zinc	ppm	ASTM D5185(m) 1270	1301	1279	1282
Sulfur	ppm	ASTM D5185(m) 2060	2434	2435	2502
Lithium	ppm	ASTM D5185(m)	<1	<1	<1

CONTAMINANTS

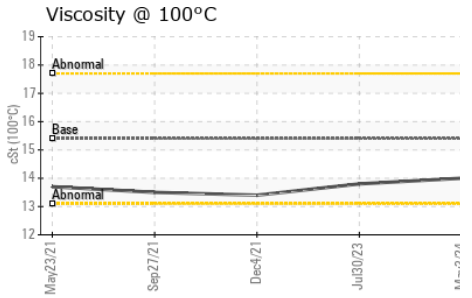
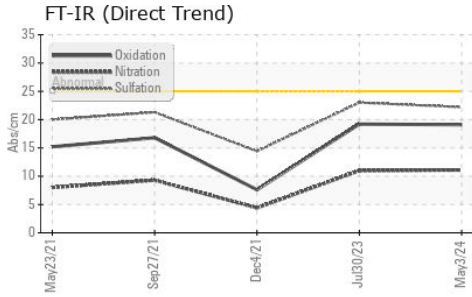
	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m) >25	5	7	6
Sodium	ppm	ASTM D5185(m)	6	6	5
Potassium	ppm	ASTM D5185(m) >20	2	2	6

INFRA-RED

	method	limit/base	current	history1	history2
Soot %	%	ASTM D7844* >3	0.4	0.4	0
Nitration	Abs/cm	ASTM D7624* >20	11.1	11.0	4.4
Sulfation	Abs/.1mm	ASTM D7415* >30	22.2	23.0	14.4



OIL ANALYSIS REPORT



FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs./1mm ASTM D7414*	>25	19.2	7.6

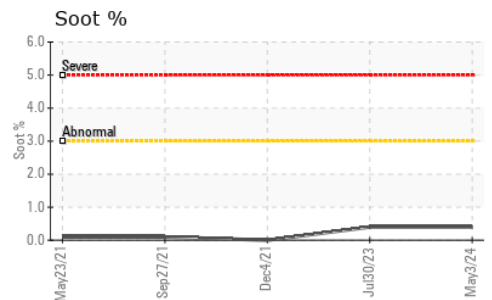
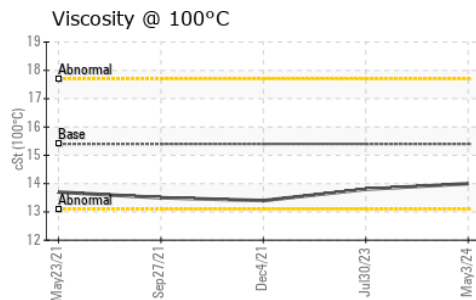
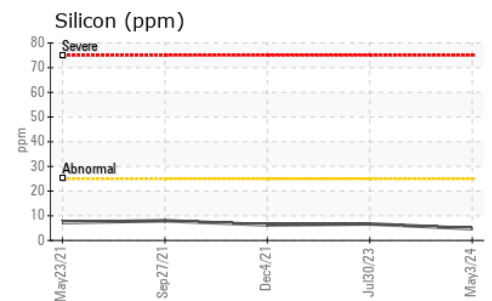
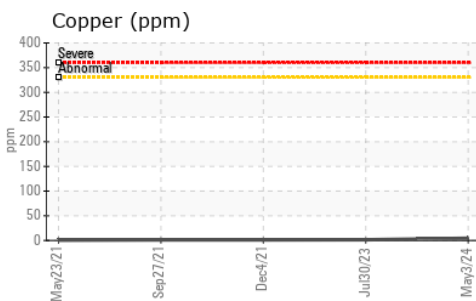
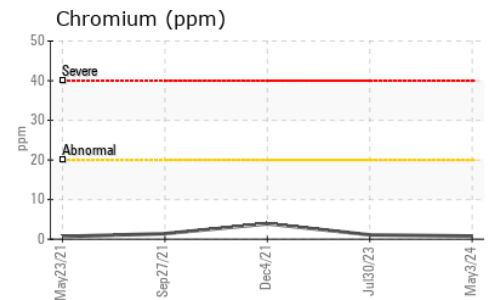
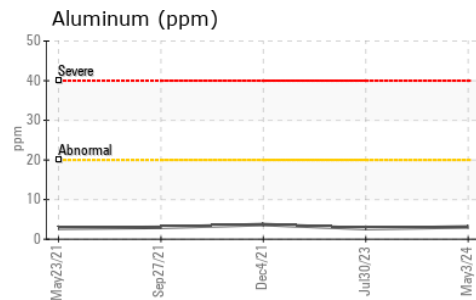
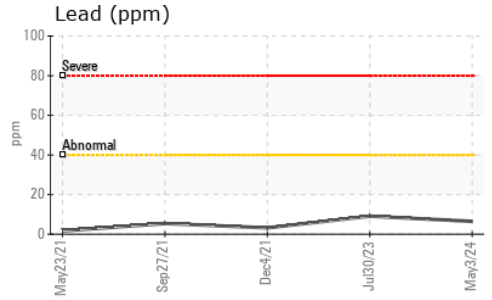
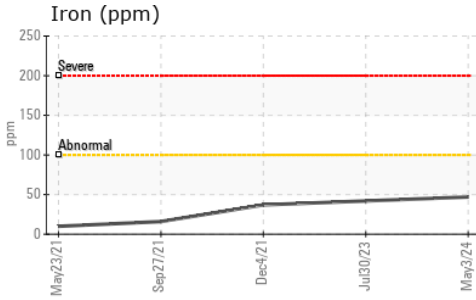
VISUAL

method	limit/base	current	history1	history2
Emulsified Water	scalar Visual*	>0.2	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	13.8	13.4

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0100574
Lab Number : 02634018
Unique Number : 5775171
Test Package : MOB 1

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.