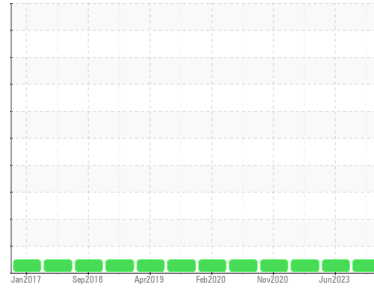




OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL



Machine Id
701034
Component
Left Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (23 LTR)

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		GFL0094215	GFL0086494	GFL0077223
Sample Date	Client Info		05 Sep 2023	06 Jun 2023	15 Mar 2023
Machine Age	kms	Client Info	0	100802	100802
Oil Age	kms	Client Info	0	0	94124
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
Glycol	WC Method		NEG	NEG	NEG

WEAR METALS

	method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185(m)	>80	25	28	36
Chromium	ppm	ASTM D5185(m)	>5	<1	<1	<1
Nickel	ppm	ASTM D5185(m)	>2	0	<1	<1
Titanium	ppm	ASTM D5185(m)		0	<1	<1
Silver	ppm	ASTM D5185(m)	>3	<1	0	0
Aluminum	ppm	ASTM D5185(m)	>30	3	6	14
Lead	ppm	ASTM D5185(m)	>30	0	0	<1
Copper	ppm	ASTM D5185(m)	>150	2	2	2
Tin	ppm	ASTM D5185(m)	>5	0	0	<1
Antimony	ppm	ASTM D5185(m)		0	0	<1
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	11	144	16
Barium	ppm	ASTM D5185(m)	0	0	0	0
Molybdenum	ppm	ASTM D5185(m)	60	61	78	55
Manganese	ppm	ASTM D5185(m)	0	<1	<1	<1
Magnesium	ppm	ASTM D5185(m)	1010	892	475	778
Calcium	ppm	ASTM D5185(m)	1070	1100	1439	1384
Phosphorus	ppm	ASTM D5185(m)	1150	1046	1112	1051
Zinc	ppm	ASTM D5185(m)	1270	1207	1227	1192
Sulfur	ppm	ASTM D5185(m)	2060	2395	2637	2498
Lithium	ppm	ASTM D5185(m)		<1	<1	<1

CONTAMINANTS

	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185(m)	>20	8	6	6
Sodium	ppm	ASTM D5185(m)		9	8	8
Potassium	ppm	ASTM D5185(m)	>20	3	6	24

INFRA-RED

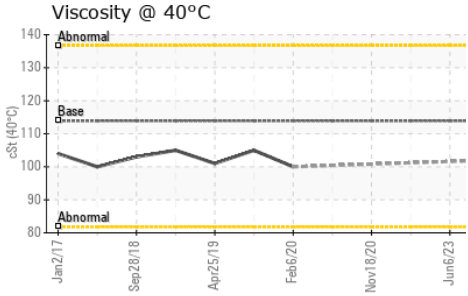
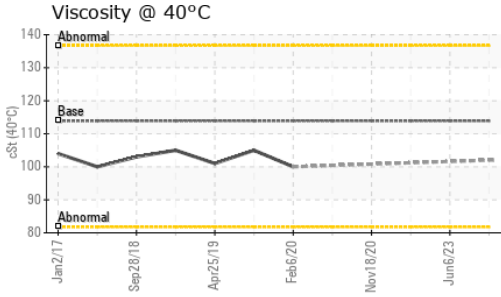
	method	limit/base	current	history1	history2	
Soot %	%	ASTM D7844*	>3	0.4	0.5	0.5
Nitration	Abs/cm	ASTM D7624*	>20	9.9	9.2	11.6
Sulfation	Abs/.1mm	ASTM D7415*	>30	22.3	24.6	25.8

FLUID DEGRADATION

	method	limit/base	current	history1	history2	
Oxidation	Abs/.1mm	ASTM D7414*	>25	17.0	19.5	20.5



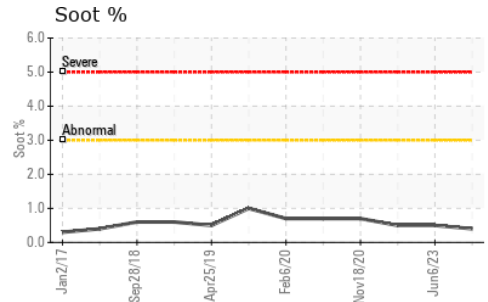
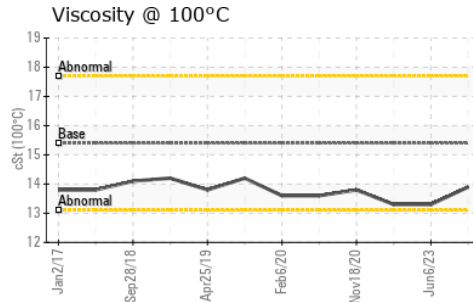
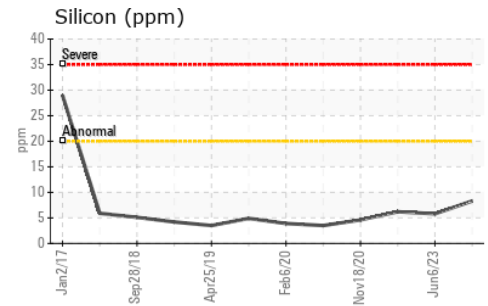
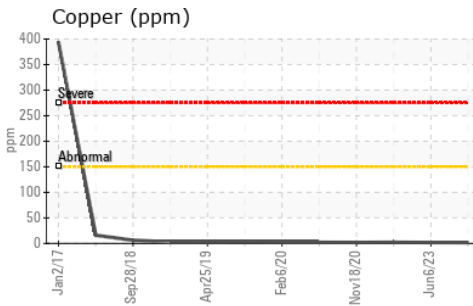
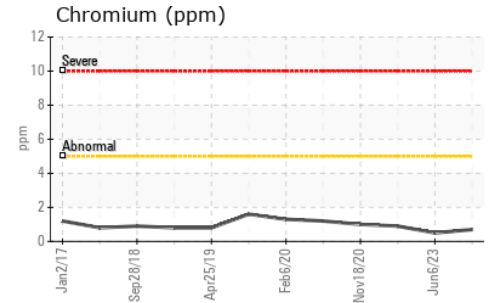
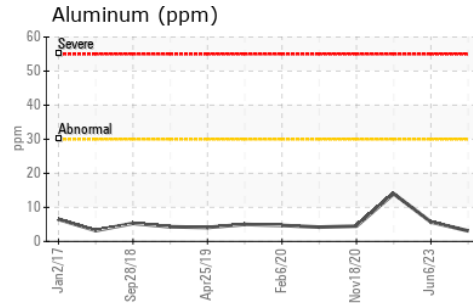
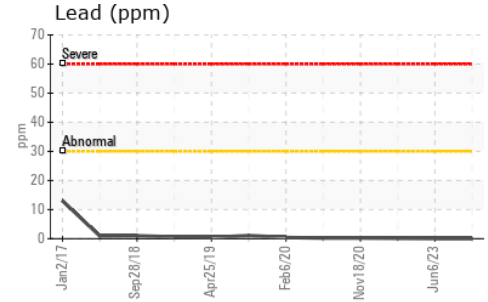
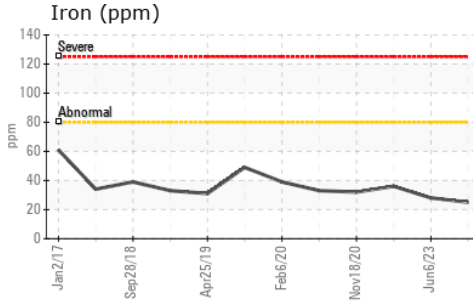
OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG
Free Water	scalar	Visual*		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	113.9	102	---
Visc @ 100°C	cSt	ASTM D7279(m)	15.4	13.9	13.3
Viscosity Index (VI)	Scale	ASTM D2270*	142	137	---

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0094215
Lab Number : 02581096
Unique Number : 5642161
Test Package : MOB 1 (Additional Tests: KV40, VI)

GFL Environmental - 217 - Aurora
 14131 BAYVIEW AVE, AURORA YARD
 AURORA, ON
 CA L4G 0K6
 Contact: Mike Havens
 MHavens@gflenv.com

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.

T:
 F: (905)713-2445