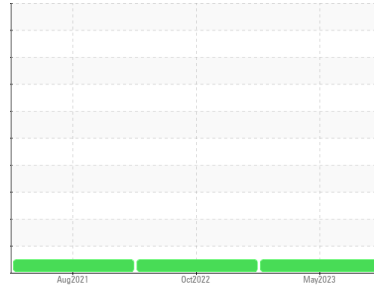




OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL



Machine Id
801127

Component
Diesel Engine

Fluid
PETRO CANADA DURON GEO LD 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	GFL0057417	GFL0057434	GFL0020638
Sample Date	Client Info	31 May 2023	26 Oct 2022	24 Aug 2021
Machine Age	hrs Client Info	2428	1369	13726
Oil Age	hrs Client Info	600	600	1200
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) >100	13	13	13
Chromium	ppm ASTM D5185(m) >20	<1	<1	1
Nickel	ppm ASTM D5185(m) >4	<1	<1	<1
Titanium	ppm ASTM D5185(m)	<1	1	<1
Silver	ppm ASTM D5185(m) >3	0	0	0
Aluminum	ppm ASTM D5185(m) >20	1	2	2
Lead	ppm ASTM D5185(m) >40	<1	1	1
Copper	ppm ASTM D5185(m) >330	1	2	4
Tin	ppm ASTM D5185(m) >15	<1	<1	<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) 50	12	8	8
Barium	ppm ASTM D5185(m) 5	0	<1	0
Molybdenum	ppm ASTM D5185(m) 50	51	52	52
Manganese	ppm ASTM D5185(m) 0	<1	<1	<1
Magnesium	ppm ASTM D5185(m) 560	547	526	547
Calcium	ppm ASTM D5185(m) 1510	1580	1628	1523
Phosphorus	ppm ASTM D5185(m) 780	712	689	706
Zinc	ppm ASTM D5185(m) 870	895	897	916
Sulfur	ppm ASTM D5185(m) 2040	2023	2075	2017
Lithium	ppm ASTM D5185(m)	<1	<1	<1

CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185(m) >25	4	5	4
Sodium	ppm ASTM D5185(m)	9	10	3
Potassium	ppm ASTM D5185(m) >20	<1	2	<1

INFRA-RED

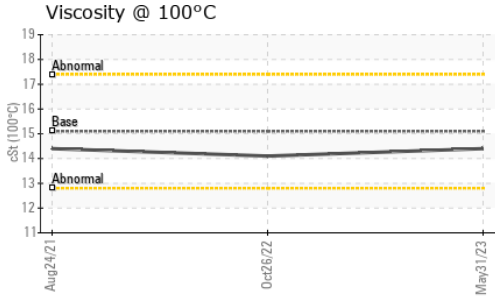
method	limit/base	current	history1	history2
Soot %	% ASTM D7844* >3	0	0	0
Nitration	Abs/cm ASTM D7624* >20	11.4	11.8	11.5
Sulfation	Abs/.1mm ASTM D7415* >30	23.9	24.5	24.1

FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm ASTM D7414* >25	18.9	19.5	20.2



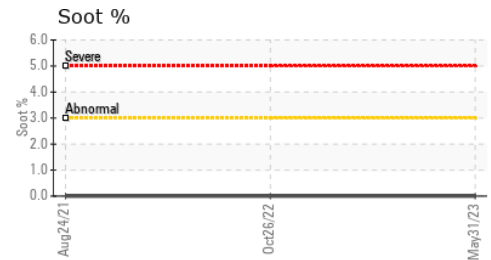
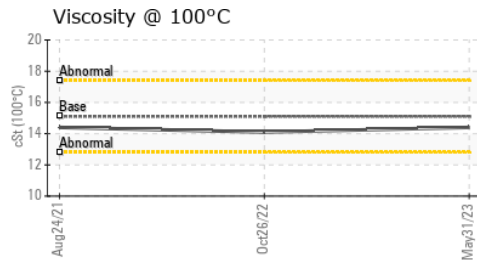
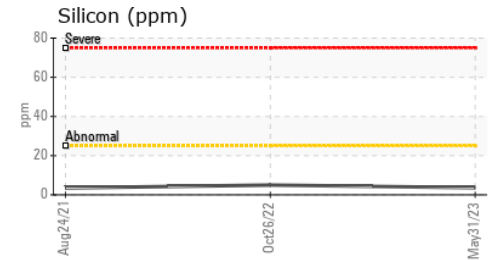
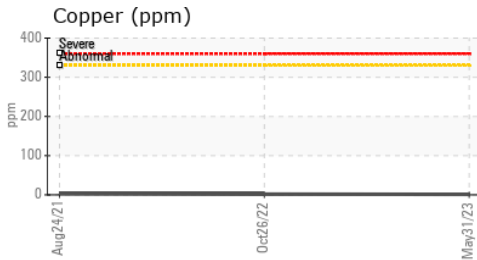
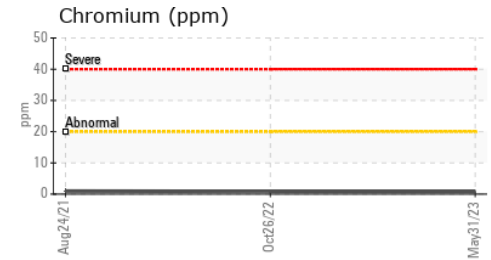
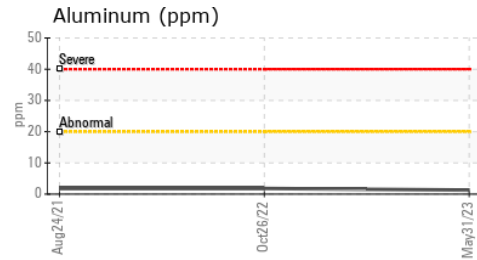
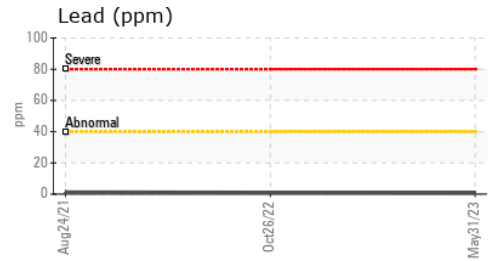
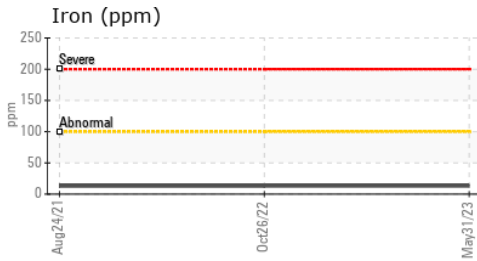
OIL ANALYSIS REPORT



PARAMETER	method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	---	---
Yellow Metal	scalar	Visual*	NONE	---	---
Precipitate	scalar	Visual*	NONE	---	---
Silt	scalar	Visual*	NONE	---	---
Debris	scalar	Visual*	NONE	---	---
Sand/Dirt	scalar	Visual*	NONE	---	---
Appearance	scalar	Visual*	NORML	---	---
Odor	scalar	Visual*	NORML	NORML	NORML
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG
Free Water	scalar	Visual*		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D7279(m)	15.1	14.4	14.1

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 GFL Environmental - 574 - Vancouver Fleet
Sample No. : GFL0057417 **Received** : 14 Jul 2023
Lab Number : 02570095 **Diagnosed** : 14 Jul 2023
Unique Number : 5607141 **Diagnostician** : Wes Davis
Test Package : MOB 1 (Additional Tests: Visual)

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.

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