



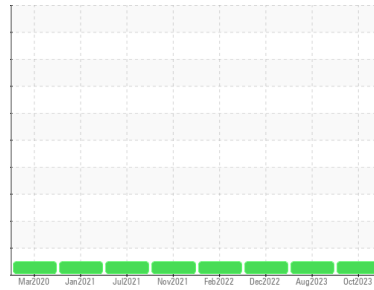
OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL



Machine Id
901145
 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		GFL0097553	GFL0088941	GFL0061090
Sample Date	Client Info		16 Oct 2023	02 Aug 2023	06 Dec 2022
Machine Age	hrs	Client Info	3723	0	1464
Oil Age	hrs	Client Info	557	0	1011
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
Glycol	WC Method		NEG	NEG	NEG

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m) >120	8	15	13
Chromium	ppm	ASTM D5185(m) >20	<1	1	1
Nickel	ppm	ASTM D5185(m) >5	<1	<1	<1
Titanium	ppm	ASTM D5185(m) >2	0	0	<1
Silver	ppm	ASTM D5185(m) >2	<1	0	0
Aluminum	ppm	ASTM D5185(m) >20	2	3	3
Lead	ppm	ASTM D5185(m) >40	2	10	2
Copper	ppm	ASTM D5185(m) >330	<1	<1	<1
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	7	7	6
Barium	ppm	ASTM D5185(m) 5	<1	0	0
Molybdenum	ppm	ASTM D5185(m) 50	50	55	53
Manganese	ppm	ASTM D5185(m) 0	0	<1	<1
Magnesium	ppm	ASTM D5185(m) 560	522	612	567
Calcium	ppm	ASTM D5185(m) 1510	1561	1698	1718
Phosphorus	ppm	ASTM D5185(m) 780	615	792	750
Zinc	ppm	ASTM D5185(m) 870	857	960	915
Sulfur	ppm	ASTM D5185(m) 2040	1867	2007	1940
Lithium	ppm	ASTM D5185(m)	<1	<1	<1

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m) >25	3	4	6
Sodium	ppm	ASTM D5185(m)	8	11	9
Potassium	ppm	ASTM D5185(m) >20	<1	2	0

INFRA-RED

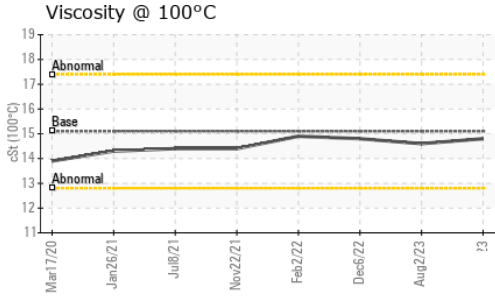
	method	limit/base	current	history1	history2
Soot %	%	ASTM D7844* >4	0	0	0
Nitration	Abs/cm	ASTM D7624* >20	11.3	12.8	12.8
Sulfation	Abs/.1mm	ASTM D7415* >30	21.2	26.4	26.1

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	ASTM D7414* >25	17.9	22.5	21.8



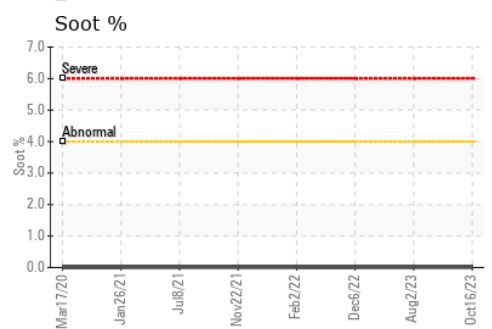
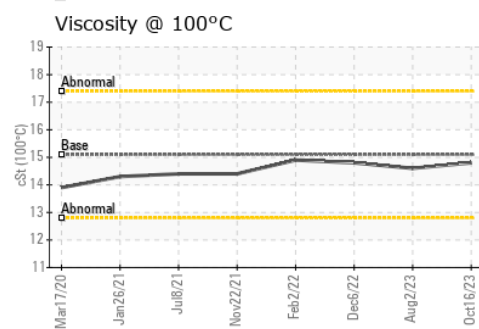
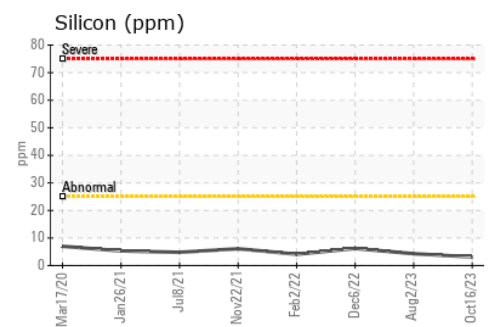
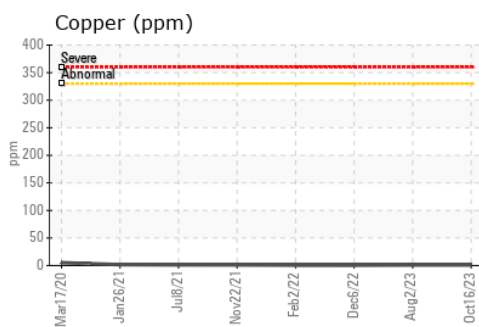
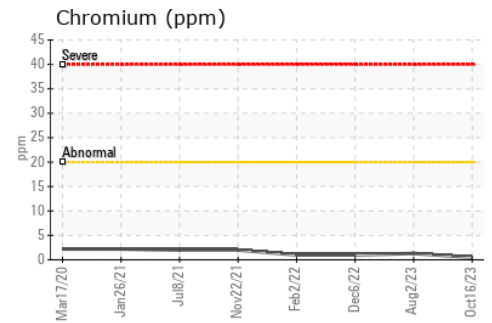
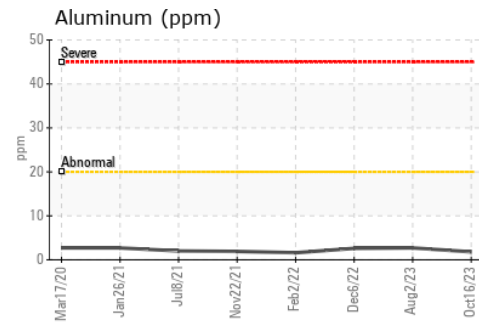
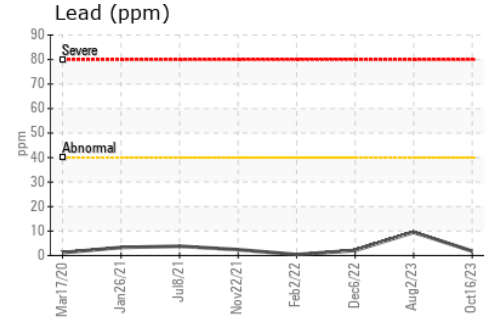
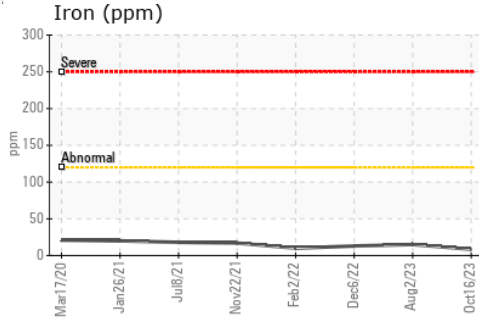
OIL ANALYSIS REPORT



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 @ 100°C	cSt	ASTM D7279(m)	15.1	14.8	14.6

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0097553 **Received** : 18 Oct 2023
Lab Number : 02589954 **Diagnosed** : 18 Oct 2023
Unique Number : 5659020 **Diagnostician** : Wes Davis
Test Package : MOB 1

GFL Environmental - 216
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 Toronto, ON
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 Contact: Tom Hatzioannidis
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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.