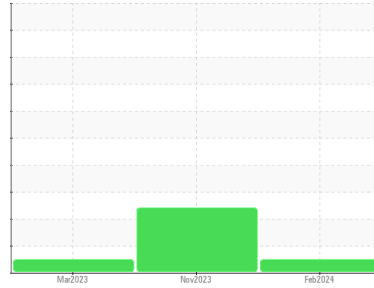




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id
831006

Component
Natural Gas 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 BN result indicates that there is suitable alkalinity remaining in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		GFL0099559	GFL0091596	GFL0044551
Sample Date	Client Info		03 Feb 2024	16 Nov 2023	15 Mar 2023
Machine Age	hrs	Client Info	6163	63220	4248
Oil Age	hrs	Client Info	0	0	1200
Oil Changed	Client Info		Changed	Changed	Changed
Sample Status			NORMAL	ABNORMAL	NORMAL

CONTAMINATION

	method	limit/base	current	history1	history2
Water	WC Method	>0.1	NEG	NEG	NEG

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m) >50	9	11	10
Chromium	ppm	ASTM D5185(m) >4	1	1	<1
Nickel	ppm	ASTM D5185(m) >2	<1	<1	<1
Titanium	ppm	ASTM D5185(m)	0	0	<1
Silver	ppm	ASTM D5185(m) >3	0	<1	0
Aluminum	ppm	ASTM D5185(m) >9	2	2	2
Lead	ppm	ASTM D5185(m) >30	<1	<1	<1
Copper	ppm	ASTM D5185(m) >35	<1	1	2
Tin	ppm	ASTM D5185(m) >4	<1	0	<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) 50	7	7	9
Barium	ppm	ASTM D5185(m) 5	0	<1	0
Molybdenum	ppm	ASTM D5185(m) 50	51	51	53
Manganese	ppm	ASTM D5185(m) 0	0	<1	<1
Magnesium	ppm	ASTM D5185(m) 560	523	532	543
Calcium	ppm	ASTM D5185(m) 1510	1601	1604	1593
Phosphorus	ppm	ASTM D5185(m) 780	654	657	734
Zinc	ppm	ASTM D5185(m) 870	882	910	894
Sulfur	ppm	ASTM D5185(m) 2040	2057	1917	2001
Lithium	ppm	ASTM D5185(m)	<1	<1	<1

CONTAMINANTS

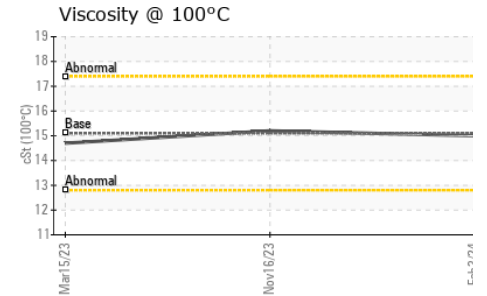
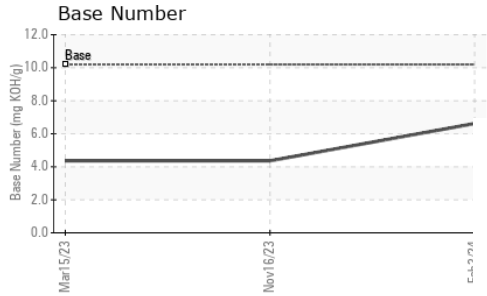
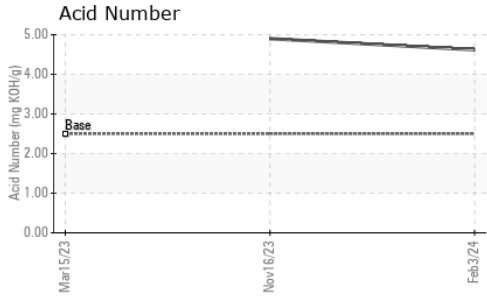
	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m) >+100	3	5	13
Sodium	ppm	ASTM D5185(m)	7	7	2
Potassium	ppm	ASTM D5185(m) >20	1	<1	0

INFRA-RED

	method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*	0	0	0
Nitration	Abs/cm	ASTM D7624*	11.0	11.1	9.2
Sulfation	Abs./1mm	ASTM D7415*	22.4	22.6	23.4



OIL ANALYSIS REPORT

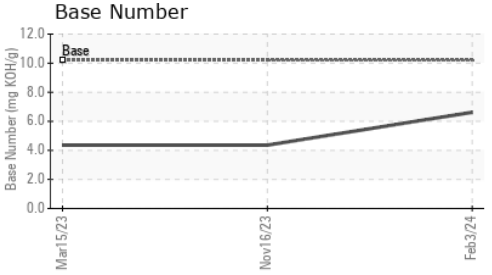
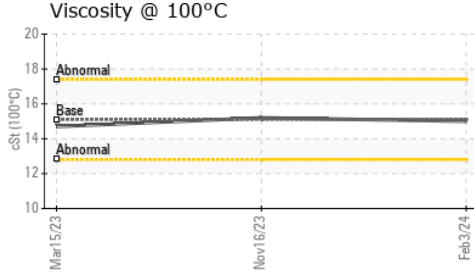
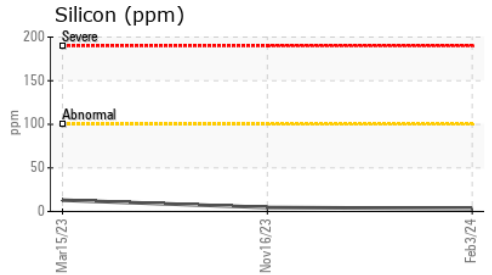
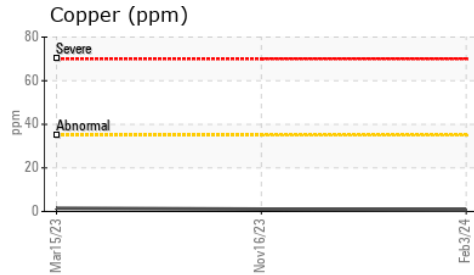
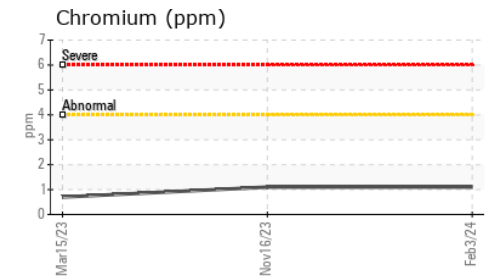
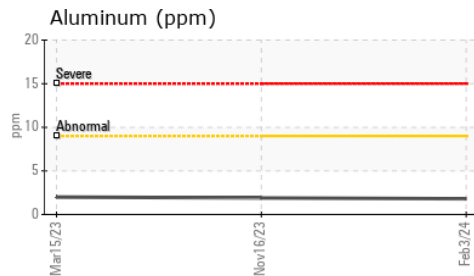
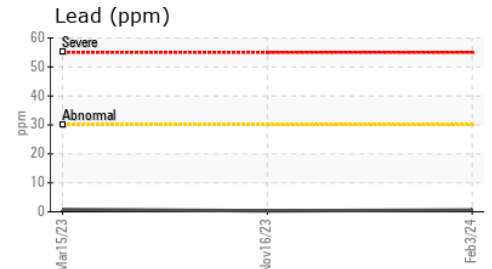
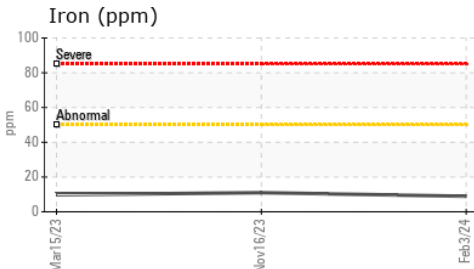


FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs./1mm	ASTM D7414*	>25	19.0	19.8	16.1
Acid Number (AN)	mg KOH/g	ASTM D974*	2.5	4.62	▲ 4.90	---
Base Number (BN)	mg KOH/g	ASTM D2896*	10.2	6.62	4.36	4.36
i-pH	Scale 0-14	ASTM D7946*	<4.5	5.23	▲ 4.03	---

VISUAL		method	limit/base	current	history1	history2
Emulsified Water	scalar	Visual*	>0.1	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)	15.1	15.0	15.2	14.7

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0099559 **Received** : 08 Feb 2024
Lab Number : 02614198 **Tested** : 12 Feb 2024
Unique Number : 5723293 **Diagnosed** : 12 Feb 2024 - Wes Davis
Test Package : MOB 2 (Additional Tests: i-pH, TAN Auto, TAN Man)

GFL Environmental - 550 - Rocky View County
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 F: (403)369-6163

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.