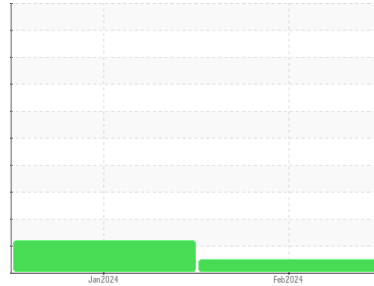




OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL



Machine Id
433020

Component
Natural Gas Engine

Fluid
PETRO CANADA DURON GEO LD 15W40 (--- GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor. (Customer Sample Comment: Engine oil sample)

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 condition of the oil is acceptable for the time in service.

SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	GFL0114496	GFL0103963	---
Sample Date	Client Info	24 Feb 2024	27 Jan 2024	---
Machine Age	hrs	862	603	---
Oil Age	hrs	862	603	---
Oil Changed	Client Info	Not Changed	Changed	---
Sample Status		NORMAL	ABNORMAL	---

CONTAMINATION

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

WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm ASTM D5185m >50	12	31	---
Chromium	ppm ASTM D5185m >4	0	<1	---
Nickel	ppm ASTM D5185m >2	0	<1	---
Titanium	ppm ASTM D5185m	0	0	---
Silver	ppm ASTM D5185m >3	0	0	---
Aluminum	ppm ASTM D5185m >9	4	11	---
Lead	ppm ASTM D5185m >30	0	1	---
Copper	ppm ASTM D5185m >35	3	15	---
Tin	ppm ASTM D5185m >4	0	1	---
Vanadium	ppm ASTM D5185m	0	0	---
Cadmium	ppm ASTM D5185m	0	0	---

ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185m 50	23	7	---
Barium	ppm ASTM D5185m 5	0	2	---
Molybdenum	ppm ASTM D5185m 50	53	48	---
Manganese	ppm ASTM D5185m 0	2	13	---
Magnesium	ppm ASTM D5185m 560	675	710	---
Calcium	ppm ASTM D5185m 1510	1727	1143	---
Phosphorus	ppm ASTM D5185m 780	930	653	---
Zinc	ppm ASTM D5185m 870	1150	872	---
Sulfur	ppm ASTM D5185m 2040	2945	2233	---

CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >+100	8	33	---
Sodium	ppm ASTM D5185m	5	4	---
Potassium	ppm ASTM D5185m >20	16	▲ 51	---

INFRA-RED

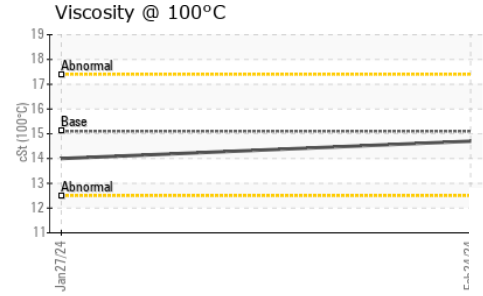
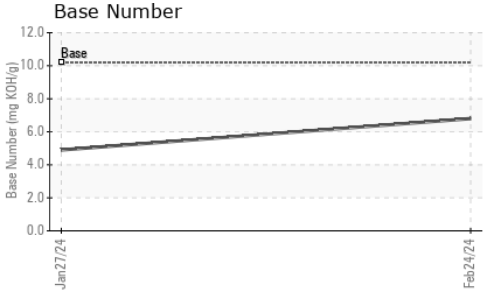
method	limit/base	current	history1	history2
Soot %	% *ASTM D7844	0	0	---
Nitration	Abs/cm *ASTM D7624 >20	9.2	12.3	---
Sulfation	Abs/.1mm *ASTM D7415 >30	19.6	21.5	---

FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	17.1	20.0	---
Base Number (BN)	mg KOH/g ASTM D2896 10.2	6.8	4.9	---



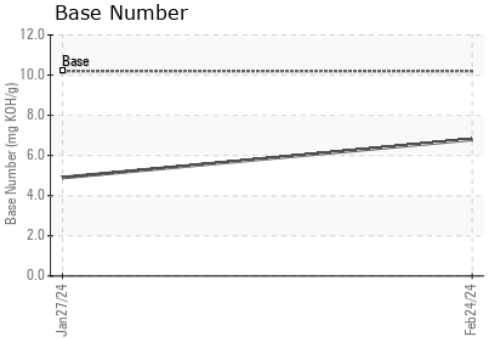
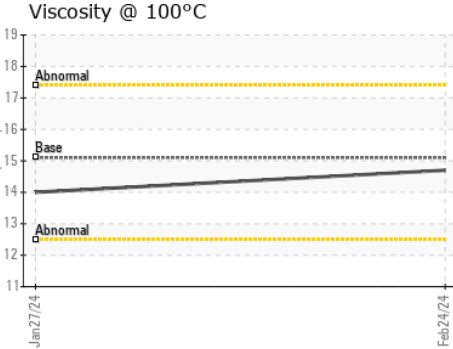
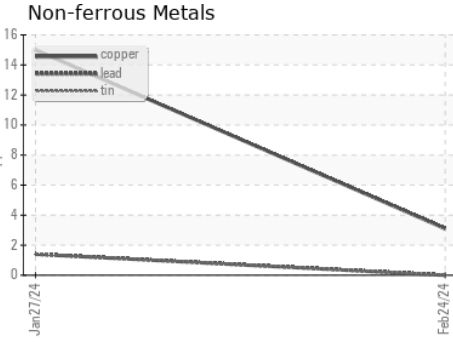
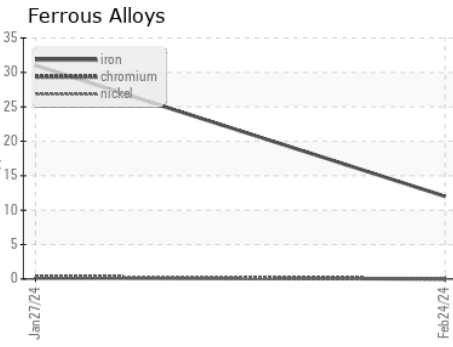
OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	---
Precipitate	scalar	*Visual	NONE	NONE	---
Silt	scalar	*Visual	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---
Appearance	scalar	*Visual	NORML	NORML	---
Odor	scalar	*Visual	NORML	NORML	---
Emulsified Water	scalar	*Visual	>0.1	NEG	---
Free Water	scalar	*Visual		NEG	---

FLUID PROPERTIES	method	limit/base	current	history1	history2	
Visc @ 100°C	cSt	ASTM D445	15.1	14.7	14.0	---

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0114496 **Received** : 01 Mar 2024
Lab Number : **06106672** **Tested** : 05 Mar 2024
Unique Number : 10910169 **Diagnosed** : 05 Mar 2024 - Sean Felton
Test Package : FLEET

GFL Environmental - 865 - East Mount Hauling
 7213 East Mount Houston Road
 Houston, TX
 US 77050
 Contact: Saul Castillo
 saul.castillo@gflenv.com

To discuss this sample report, contact Customer Service at 1-800-237-1369.

* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

T:
F: