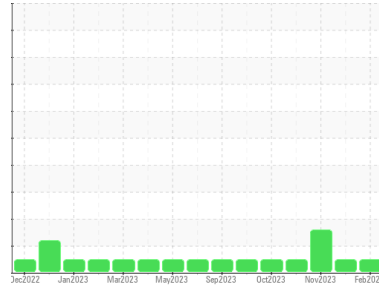




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id
933025

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 condition of the oil is suitable for further service.

SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	GFL0109777	GFL0099926	GFL0099904
Sample Date	Client Info	12 Feb 2024	02 Dec 2023	27 Nov 2023
Machine Age	hrs	2093	1958	1789
Oil Age	hrs	0	0	0
Oil Changed	Client Info	Not Changed	Not Changed	Not Changed
Sample Status		NORMAL	NORMAL	ABNORMAL

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 D5185m >50	9	9	▲ 47
Chromium	ppm ASTM D5185m >4	1	<1	1
Nickel	ppm ASTM D5185m >2	0	0	2
Titanium	ppm ASTM D5185m	0	0	0
Silver	ppm ASTM D5185m >3	0	0	0
Aluminum	ppm ASTM D5185m >9	6	<1	▲ 12
Lead	ppm ASTM D5185m >30	2	4	3
Copper	ppm ASTM D5185m >35	2	0	16
Tin	ppm ASTM D5185m >4	<1	0	2
Vanadium	ppm ASTM D5185m	0	0	<1
Cadmium	ppm ASTM D5185m	0	0	0

ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185m 50	21	21	10
Barium	ppm ASTM D5185m 5	0	0	2
Molybdenum	ppm ASTM D5185m 50	49	48	56
Manganese	ppm ASTM D5185m 0	<1	0	10
Magnesium	ppm ASTM D5185m 560	594	547	790
Calcium	ppm ASTM D5185m 1510	1478	1620	1525
Phosphorus	ppm ASTM D5185m 780	766	716	846
Zinc	ppm ASTM D5185m 870	957	952	1022
Sulfur	ppm ASTM D5185m 2040	2487	2365	2288

CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >+100	12	4	25
Sodium	ppm ASTM D5185m	4	7	7
Potassium	ppm ASTM D5185m >20	19	0	10

INFRA-RED

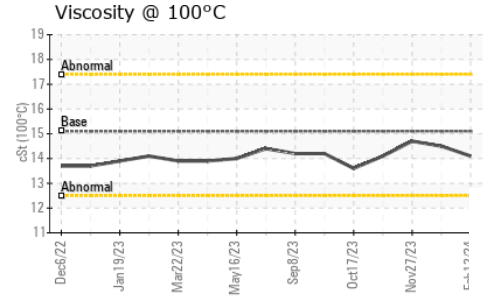
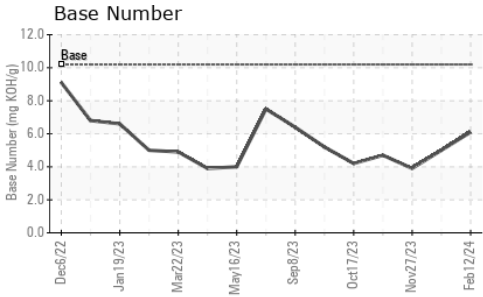
method	limit/base	current	history1	history2
Soot %	% *ASTM D7844	0	0	0
Nitration	Abs/cm *ASTM D7624 >20	8.9	10.2	12.8
Sulfation	Abs/.1mm *ASTM D7415 >30	21.1	23.4	26.3

FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	17.6	19.6	24.3
Base Number (BN)	mg KOH/g ASTM D2896 10.2	6.1	5.0	3.9



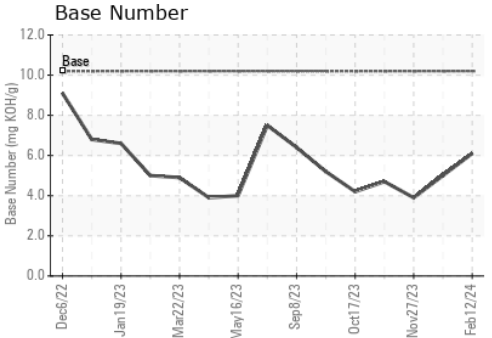
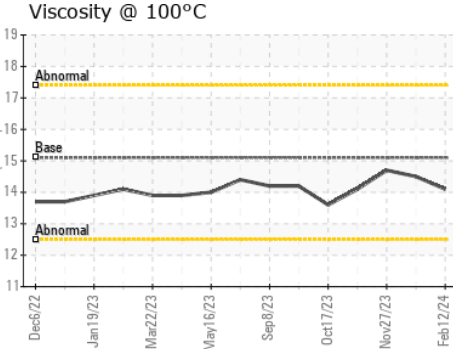
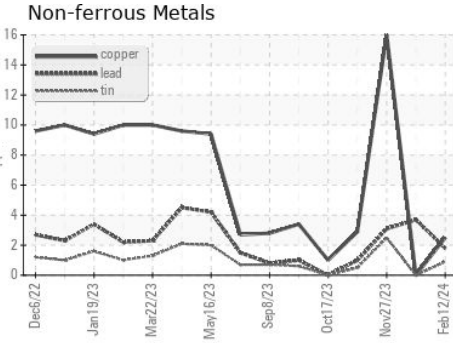
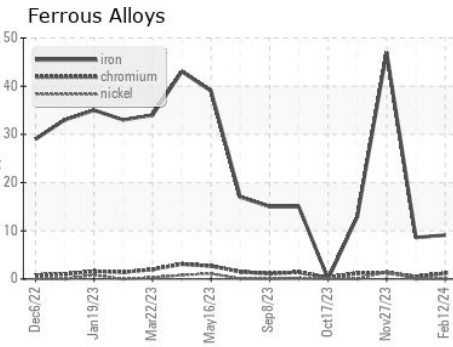
OIL ANALYSIS REPORT



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

FLUID PROPERTIES	method	limit/base	current	history1	history2	
Visc @ 100°C	cSt	ASTM D445	15.1	14.1	14.5	14.7

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0109777
Lab Number : 06089829
Unique Number : 10882682
Test Package : FLEET
Received : 15 Feb 2024
Tested : 16 Feb 2024
Diagnosed : 16 Feb 2024 - Don Baldrige

GFL Environmental - 836 - Kansas City Hauling
 7801 East Truman Road
 Kansas City, MO
 US 64126
 Contact: Loyce Stewart
 loyce.stewart@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)

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F: