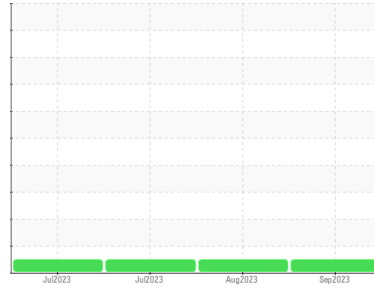




OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL



Machine Id
934021
 Component
Natural Gas Engine
 Fluid
PETRO CANADA DURON GEO LD 15W40 (--- GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

Metal levels are typical for a new component breaking in.

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	GFL0090646	GFL0087208	GFL0087152
Sample Date	Client Info	04 Sep 2023	16 Aug 2023	24 Jul 2023
Machine Age	hrs Client Info	594	490	323
Oil Age	hrs Client Info	0	0	323
Oil Changed	Client Info	Not Changed	Not Changed	Not Changed
Sample Status		NORMAL	NORMAL	NORMAL

WEAR METALS

method	limit/base	current	history1	history2
Iron ppm ASTM D5185m	>50	10	37	35
Chromium ppm ASTM D5185m	>5	<1	<1	<1
Nickel ppm ASTM D5185m	>4	0	<1	<1
Titanium ppm ASTM D5185m	>5	0	0	0
Silver ppm ASTM D5185m	>3	0	0	<1
Aluminum ppm ASTM D5185m	>25	2	5	4
Lead ppm ASTM D5185m	>40	<1	1	0
Copper ppm ASTM D5185m	>150	<1	17	18
Tin ppm ASTM D5185m	>4	<1	2	1
Vanadium ppm ASTM D5185m		0	<1	0
Cadmium ppm ASTM D5185m		0	0	0

ADDITIVES

method	limit/base	current	history1	history2
Boron ppm ASTM D5185m	50	11	10	17
Barium ppm ASTM D5185m	5	0	0	6
Molybdenum ppm ASTM D5185m	50	54	54	51
Manganese ppm ASTM D5185m	0	<1	10	10
Magnesium ppm ASTM D5185m	560	584	796	861
Calcium ppm ASTM D5185m	1510	1704	1279	1257
Phosphorus ppm ASTM D5185m	780	701	715	784
Zinc ppm ASTM D5185m	870	982	934	987
Sulfur ppm ASTM D5185m	2040	2820	2687	2942

CONTAMINANTS

method	limit/base	current	history1	history2
Silicon ppm ASTM D5185m	>25	4	34	33
Sodium ppm ASTM D5185m		7	6	4
Potassium ppm ASTM D5185m	>20	0	3	3

INFRA-RED

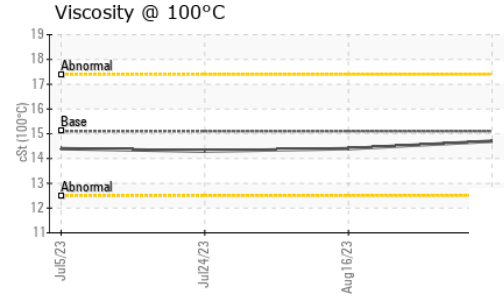
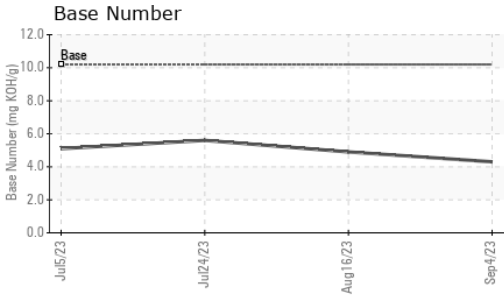
method	limit/base	current	history1	history2
Soot % *ASTM D7844		0.1	0	0
Nitration Abs/cm *ASTM D7624	>20	10.8	11.2	11.2
Sulfation Abs/.1mm *ASTM D7415	>30	21.9	21.0	20.5

FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation Abs/.1mm *ASTM D7414	>25	18.2	19.6	19.6
Base Number (BN) mg KOH/g ASTM D2896	10.2	4.3	4.9	5.6



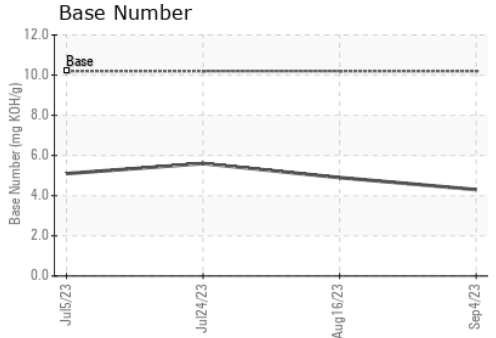
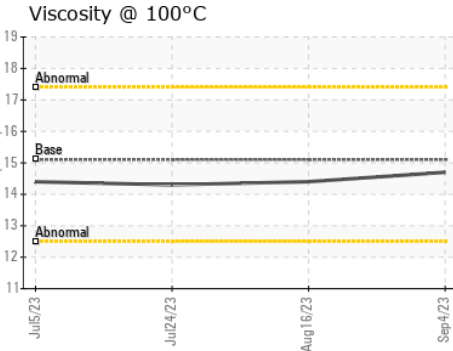
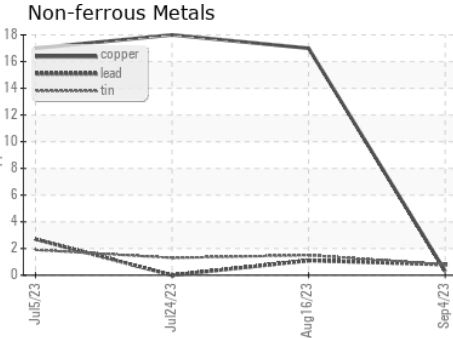
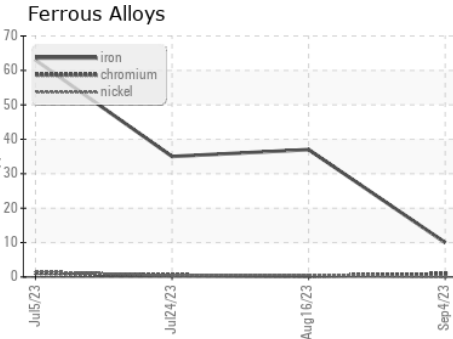
OIL ANALYSIS REPORT



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	14.7	14.4	14.3

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0090646 **Received** : 07 Sep 2023
Lab Number : **05945020** **Diagnosed** : 08 Sep 2023
Unique Number : 10635632 **Diagnostician** : Wes Davis
Test Package : FLEET

GFL Environmental - 836 - Kansas City Hauling
 7801 East Truman Road
 Kansas City, MO
 US 64126
 Contact: Robert Hart
 rhart@gflenv.com
 T: (580)461-1509
 F:

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)