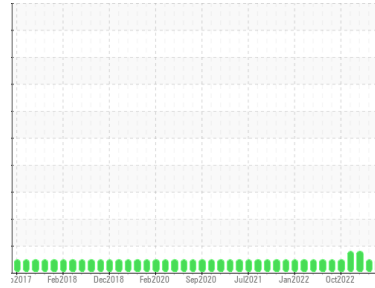




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id
10545C

Component
Natural Gas Engine

Fluid
PETRO CANADA DURON GEO LD 15W40 (9 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		GFL0087535	GFL0071834	GFL0071808
Sample Date	Client Info		19 Jul 2023	25 Apr 2023	24 Feb 2023
Machine Age	hrs	Client Info	22437	21875	21457
Oil Age	hrs	Client Info	562	572	154
Oil Changed	Client Info		N/A	Changed	Not Changed
Sample Status			NORMAL	NORMAL	ABNORMAL

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >50	13	41	36
Chromium	ppm	ASTM D5185m >4	1	4	3
Nickel	ppm	ASTM D5185m >2	<1	<1	1
Titanium	ppm	ASTM D5185m	<1	<1	<1
Silver	ppm	ASTM D5185m >3	0	0	0
Aluminum	ppm	ASTM D5185m >9	2	8	8
Lead	ppm	ASTM D5185m >30	3	26	▲ 30
Copper	ppm	ASTM D5185m >35	<1	2	2
Tin	ppm	ASTM D5185m >4	<1	2	2
Vanadium	ppm	ASTM D5185m	<1	0	0
Cadmium	ppm	ASTM D5185m	0	0	0

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 50	12	22	16
Barium	ppm	ASTM D5185m 5	0	0	0
Molybdenum	ppm	ASTM D5185m 50	59	71	72
Manganese	ppm	ASTM D5185m 0	<1	2	2
Magnesium	ppm	ASTM D5185m 560	610	795	735
Calcium	ppm	ASTM D5185m 1510	1801	2144	2169
Phosphorus	ppm	ASTM D5185m 780	785	1056	1026
Zinc	ppm	ASTM D5185m 870	1042	1308	1304
Sulfur	ppm	ASTM D5185m 2040	3060	3387	2869

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >+100	3	6	6
Sodium	ppm	ASTM D5185m	10	15	14
Potassium	ppm	ASTM D5185m >20	<1	0	1

INFRA-RED

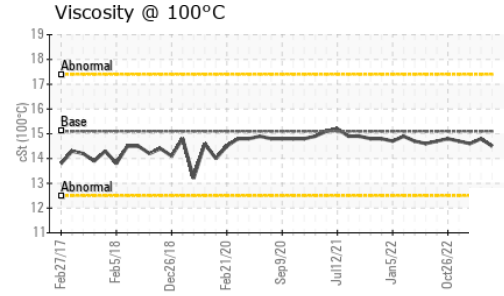
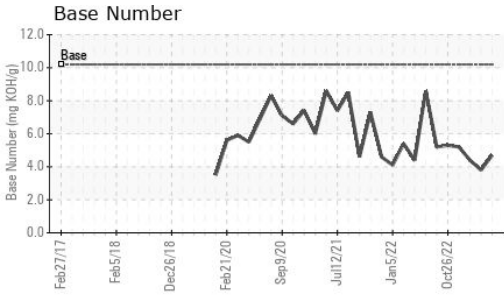
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	0.1	0.1	0.1
Nitration	Abs/cm	*ASTM D7624 >20	11.5	14.3	14.9
Sulfation	Abs/.1mm	*ASTM D7415 >30	22.3	28.0	28.6

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	19.0	24.2	24.2
Base Number (BN)	mg KOH/g	ASTM D2896 10.2	4.7	3.8	4.4



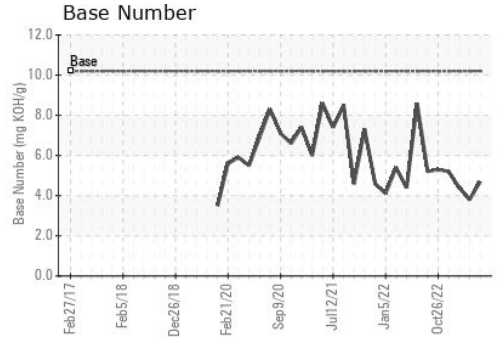
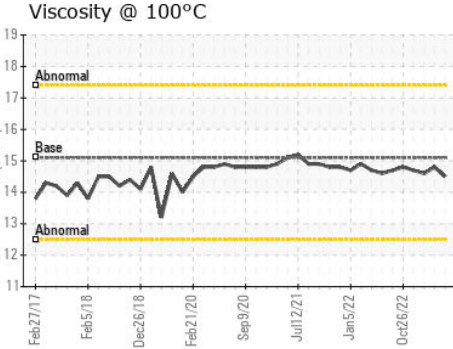
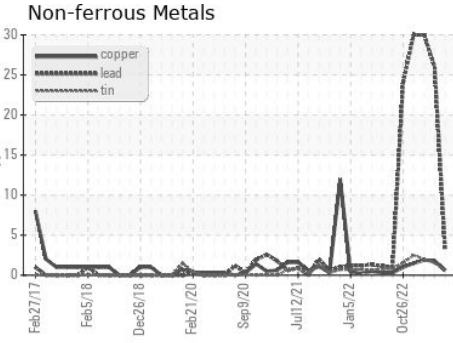
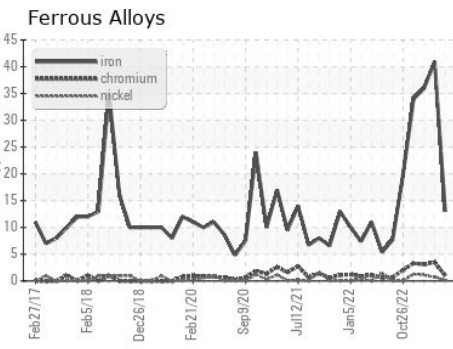
OIL ANALYSIS REPORT



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	14.8	14.6

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0087535 **Received** : 20 Jul 2023
Lab Number : 05903041 **Diagnosed** : 20 Jul 2023
Unique Number : 10564397 **Diagnostician** : Wes Davis
Test Package : FLEET

GFL Environmental - 331 - Columbus
 180 Ada Moore Rd
 Columbus, NC
 US 28722
 Contact: Matt Segars
 matt.segars@gflenv.com
 T: (800)207-6618
 F: (252)617-2494

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)