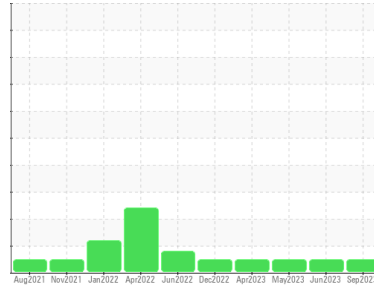




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id
727085-310038
 Component
Diesel Engine
 Fluid
PETRO CANADA DURON GEO LD 15W40 (--- LTR)

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	GFL0071763	GFL0071755	GFL0058480
Sample Date	Client Info	13 Sep 2023	05 Jun 2023	11 May 2023
Machine Age	hrs	16074	15598	15186
Oil Age	hrs	600	600	450
Oil Changed	Client Info	Changed	Changed	Oil Added
Sample Status		NORMAL	NORMAL	NORMAL

CONTAMINATION

method	limit/base	current	history1	history2
Fuel	WC Method >5	<1.0	<1.0	<1.0
Glycol	WC Method	NEG	NEG	NEG

WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm ASTM D5185m >80	18	12	11
Chromium	ppm ASTM D5185m >5	3	<1	<1
Nickel	ppm ASTM D5185m >2	<1	0	0
Titanium	ppm ASTM D5185m	<1	<1	<1
Silver	ppm ASTM D5185m >3	0	0	0
Aluminum	ppm ASTM D5185m >30	4	2	<1
Lead	ppm ASTM D5185m >30	10	0	0
Copper	ppm ASTM D5185m >150	6	<1	<1
Tin	ppm ASTM D5185m >5	2	0	0
Vanadium	ppm ASTM D5185m	<1	0	0
Cadmium	ppm ASTM D5185m	<1	0	0

ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185m 50	9	23	26
Barium	ppm ASTM D5185m 5	0	0	0
Molybdenum	ppm ASTM D5185m 50	60	48	50
Manganese	ppm ASTM D5185m 0	2	<1	<1
Magnesium	ppm ASTM D5185m 560	681	524	540
Calcium	ppm ASTM D5185m 1510	1908	1558	1586
Phosphorus	ppm ASTM D5185m 780	900	702	788
Zinc	ppm ASTM D5185m 870	1147	927	965
Sulfur	ppm ASTM D5185m 2040	3193	2752	2684

CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >20	8	3	6
Sodium	ppm ASTM D5185m	13	8	8
Potassium	ppm ASTM D5185m >20	4	2	3

INFRA-RED

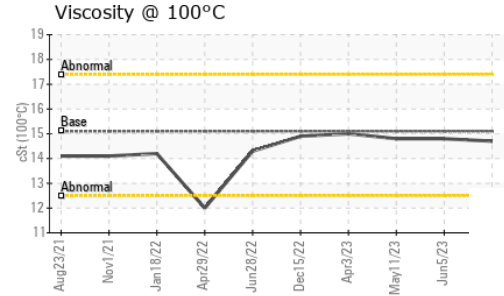
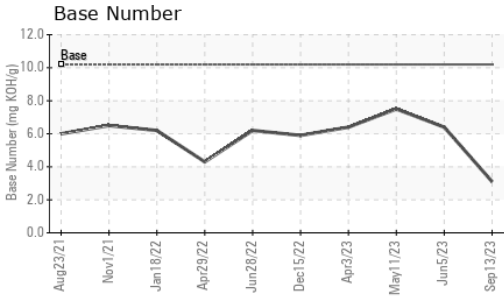
method	limit/base	current	history1	history2
Soot %	% *ASTM D7844 >3	0.1	0.5	0.4
Nitration	Abs/cm *ASTM D7624 >20	12.1	11.4	10.0
Sulfation	Abs/.1mm *ASTM D7415 >30	29.0	23.5	21.6

FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	25.0	23.3	19.9
Base Number (BN)	mg KOH/g ASTM D2896 10.2	3.1	6.4	7.5



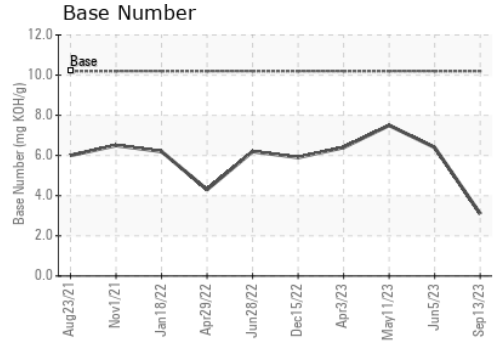
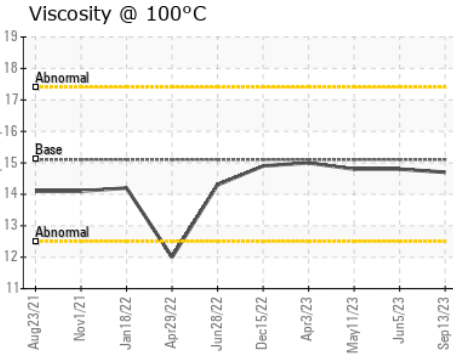
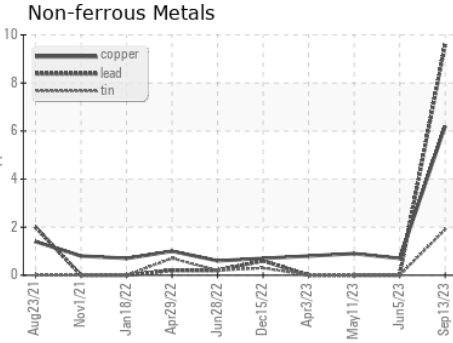
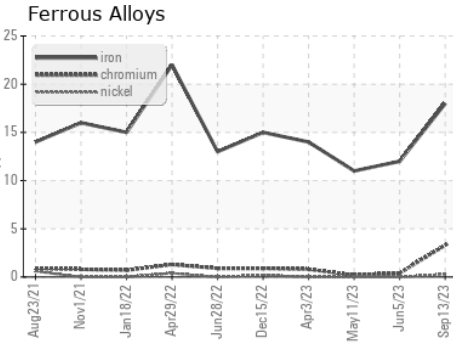
OIL ANALYSIS REPORT



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	>0.2	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	14.8	14.8

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0071763 **Received** : 14 Sep 2023
Lab Number : 05951922 **Diagnosed** : 19 Sep 2023
Unique Number : 10647881 **Diagnostician** : Jonathan Hester
Test Package : FLEET

GFL Environmental - 883 - Orange City
 1378 South Volusia Ave
 Orange City, FL
 US 32763
 Contact: JEFF COOPERSMITH
 JCOOPERSMITH@GFLENV.COM
 T: (386)503-8468
 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)