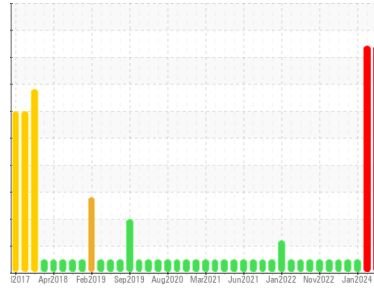




PROBLEM SUMMARY

Area
(P633830)
 Machine Id
3759C
 Component
Natural Gas Engine
 Fluid
PETRO CANADA DURON GEO LD 15W40 (40 QTS)

Sample Rating Trend

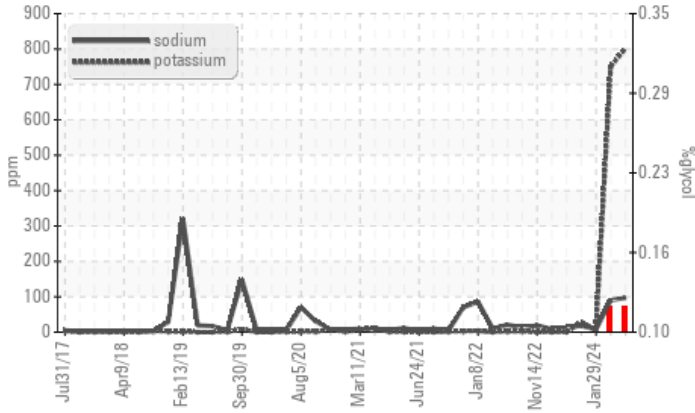


GLYCOL



COMPONENT CONDITION SUMMARY

▲ Glycol Contamination



RECOMMENDATION

We advise that you check for the source of the coolant leak. Check for low coolant level. Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

PROBLEMATIC TEST RESULTS

Sample Status				SEVERE	SEVERE	NORMAL
Sodium	ppm	ASTM D5185m		▲ 97	▲ 90	7
Potassium	ppm	ASTM D5185m	>20	▲ 802	▲ 751	6
Glycol	%	*ASTM D2982		▲ 0.12	▲ 0.12	---

Customer Id: GFL030
 Sample No.: GFL0101766
 Lab Number: 06144088
 Test Package: FLEET



To manage this report scan the QR code

To discuss the diagnosis or test data:
 Jonathan Hester +1 919-379-4092 x4092
jhester@wearcheckusa.com

To change component or sample information:
 Customer Service +1 1-800-237-1369
customerservice@wearcheck.com

RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Change Fluid	---	---	?	Oil and filter change at the time of sampling has been noted.
Change Filter	---	---	?	Oil and filter change at the time of sampling has been noted.
Resample	---	---	?	We recommend an early resample to monitor this condition.
Check Glycol Access	---	---	?	We advise that you check for the source of the coolant leak.

HISTORICAL DIAGNOSIS

GLYCOL



08 Apr 2024 Diag: Jonathan Hester

We advise that you check for the source of the coolant leak. Check for low coolant level. Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition. All component wear rates are normal. Sodium and/or potassium levels are high. Test for glycol is positive. The BN result indicates that there is suitable alkalinity remaining in the oil. The oil is no longer serviceable due to the presence of contaminants.

[view report](#)



NORMAL



29 Jan 2024 Diag: Wes Davis

Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

[view report](#)



NORMAL



22 Jun 2023 Diag: Angela Borella

Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

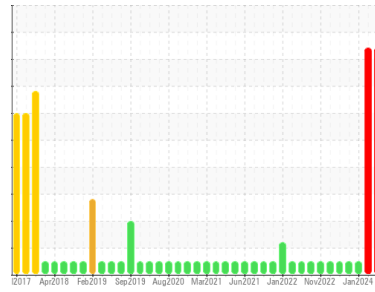
[view report](#)





OIL ANALYSIS REPORT

Sample Rating Trend



GLYCOL



Area
(P633830)
 Machine Id
3759C
 Component
Natural Gas Engine
 Fluid
PETRO CANADA DURON GEO LD 15W40 (40 QTS)

DIAGNOSIS

▲ Recommendation

We advise that you check for the source of the coolant leak. Check for low coolant level. Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

Wear

All component wear rates are normal.

▲ Contamination

Sodium and/or potassium levels are high. Test for glycol is positive.

▲ Fluid Condition

The BN result indicates that there is suitable alkalinity remaining in the oil.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		GFL0101766	GFL0101764	GFL0101780
Sample Date	Client Info		09 Apr 2024	08 Apr 2024	29 Jan 2024
Machine Age	hrs	Client Info	18000	17600	17000
Oil Age	hrs	Client Info	600	600	600
Oil Changed	Client Info		Changed	Changed	Changed
Sample Status			SEVERE	SEVERE	NORMAL

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	23	33	10
Chromium	ppm	ASTM D5185m >4	3	4	1
Nickel	ppm	ASTM D5185m >2	1	2	<1
Titanium	ppm	ASTM D5185m	<1	<1	<1
Silver	ppm	ASTM D5185m >3	0	0	0
Aluminum	ppm	ASTM D5185m >9	7	8	4
Lead	ppm	ASTM D5185m >30	6	5	<1
Copper	ppm	ASTM D5185m >35	1	1	<1
Tin	ppm	ASTM D5185m >4	1	1	0
Vanadium	ppm	ASTM D5185m	<1	<1	0
Cadmium	ppm	ASTM D5185m	<1	<1	0

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 50	8	9	8
Barium	ppm	ASTM D5185m 5	0	0	<1
Molybdenum	ppm	ASTM D5185m 50	63	63	50
Manganese	ppm	ASTM D5185m 0	1	1	<1
Magnesium	ppm	ASTM D5185m 560	560	564	483
Calcium	ppm	ASTM D5185m 1510	1665	1694	1431
Phosphorus	ppm	ASTM D5185m 780	711	712	643
Zinc	ppm	ASTM D5185m 870	999	1017	865
Sulfur	ppm	ASTM D5185m 2040	2682	2722	2299

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >+100	11	12	4
Sodium	ppm	ASTM D5185m	▲ 97	▲ 90	7
Potassium	ppm	ASTM D5185m >20	▲ 802	▲ 751	6
Glycol	%	*ASTM D2982	▲ 0.12	▲ 0.12	---

INFRA-RED

	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	0	0	0
Nitration	Abs/cm	*ASTM D7624 >20	12.0	11.7	10.9
Sulfation	Abs/.1mm	*ASTM D7415 >30	23.4	23.3	21.1

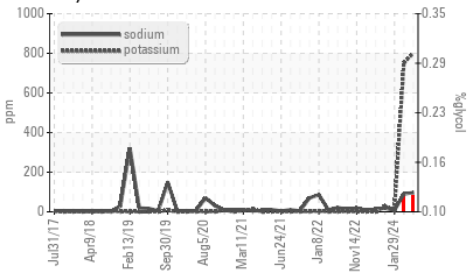
FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	19.5	19.4	17.9
Base Number (BN)	mg KOH/g	ASTM D2896 10.2	5.1	5.1	4.5

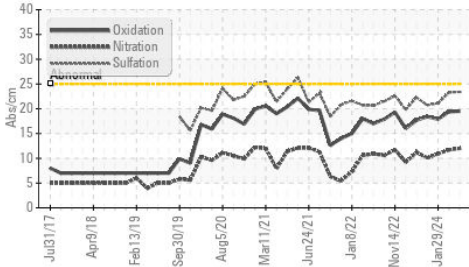


OIL ANALYSIS REPORT

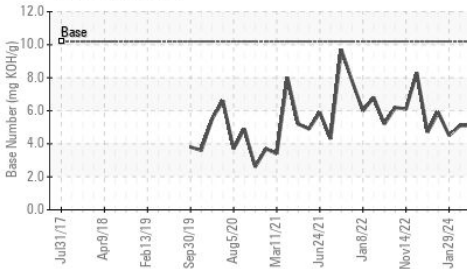
Glycol Contamination



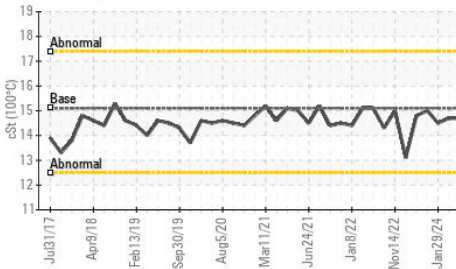
FT-IR (Direct Trend)



Base Number



Viscosity @ 100°C



VISUAL

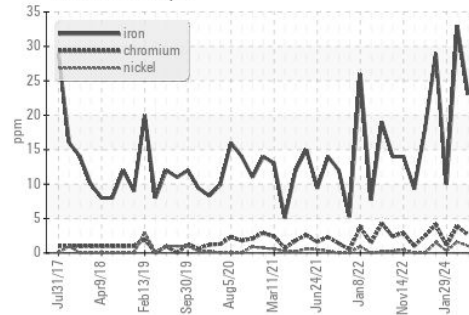
method	limit/base	current	history1	history2		
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE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

FLUID PROPERTIES

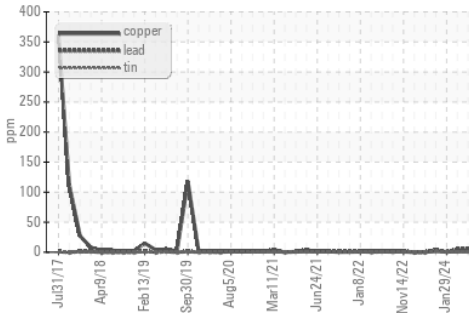
method	limit/base	current	history1	history2	
Visc @ 100°C	cSt	ASTM D445	15.1	14.7	14.5

GRAPHS

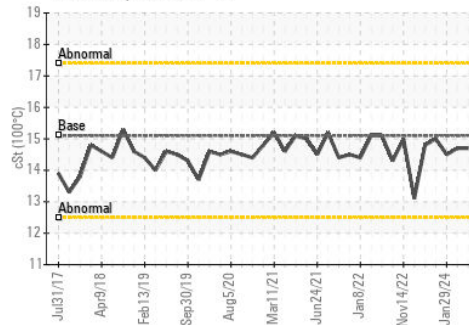
Ferrous Alloys



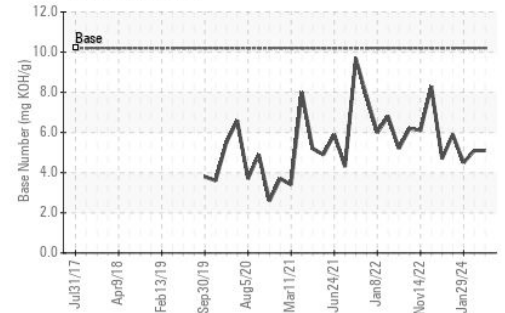
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
 Sample No. : GFL0101766
 Lab Number : 06144088
 Unique Number : 10968896
 Test Package : FLEET

Received : 10 Apr 2024
 Tested : 12 Apr 2024
 Diagnosed : 15 Apr 2024 - Jonathan Hester

GFL Environmental - 030 - Conway Myrtle Beach
 3010 HWY 378
 Conway, SC
 US 29527
 Contact: ARCILIO RUEZ
 aruiz@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)