



PROBLEM SUMMARY

Sample Rating Trend

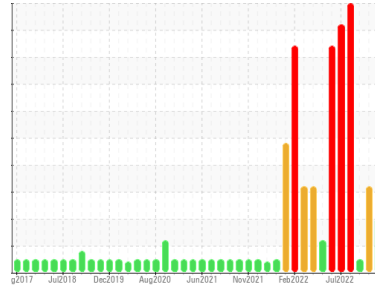
COOL CHEMICALS



Machine Id
10640C

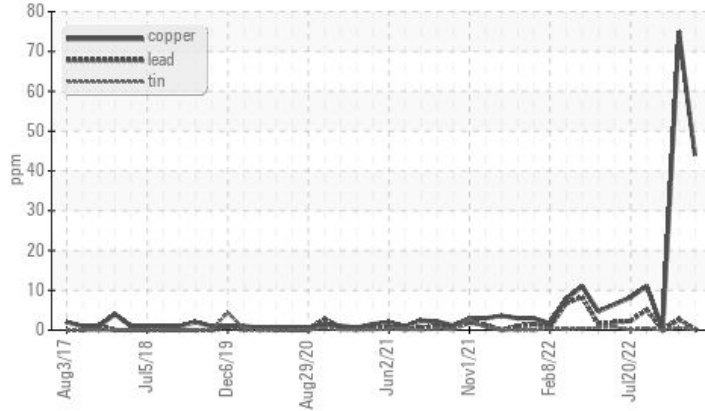
Component
Natural Gas Engine

Fluid
PETRO CANADA DURON GEO LD 15W40 (36 QTS)

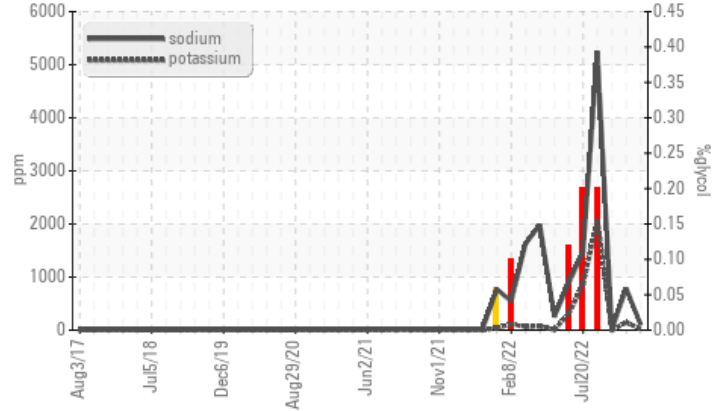


COMPONENT CONDITION SUMMARY

▲ Non-ferrous Metals



▲ Glycol Contamination



RECOMMENDATION

No corrective action is recommended at this time.
Resample at the next service interval to monitor.

PROBLEMATIC TEST RESULTS

Sample Status			ABNORMAL	ABNORMAL	NORMAL	
Copper	ppm	ASTM D5185m	>35	▲ 44	▲ 75	<1
Sodium	ppm	ASTM D5185m		▲ 100	▲ 787	15

Customer Id: GFL006
Sample No.: GFL0082226
Lab Number: 05846796
Test Package: FLEET



To manage this report scan the QR code

To discuss the diagnosis or test data:
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jhester@wearcheckusa.com

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

RECOMMENDED ACTIONS

There are no recommended actions for this sample.

HISTORICAL DIAGNOSIS

06 Mar 2023 Diag: Jonathan Hester

COOL CHEMICALS



We advise that you check for the source of the coolant leak. Check for low coolant level. We recommend an early resample to monitor this condition. The copper level is abnormal. All other component wear rates are normal. Sodium and/or potassium levels are high. The BN result indicates that there is suitable alkalinity remaining in the oil.

view report



31 Oct 2022 Diag: Doug Bogart

NORMAL



No corrective action is recommended at this time. Resample at the next service interval to monitor. All component wear rates are normal. Test for glycol is negative. 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



26 Sep 2022 Diag: Jonathan Hester

GLYCOL



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. Piston, ring and cylinder wear is indicated. Valve wear is indicated. Sodium and/or potassium levels are high. There is a high concentration of glycol present in the oil. The oil is no longer serviceable due to the presence of contaminants.

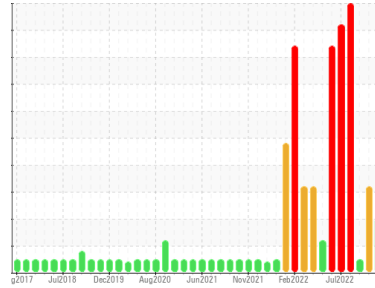
view report





OIL ANALYSIS REPORT

Sample Rating Trend



COOL CHEMICALS



Machine Id
10640C

Component
Natural Gas Engine

Fluid
PETRO CANADA DURON GEO LD 15W40 (36 QTS)

DIAGNOSIS

▲ Recommendation

No corrective action is recommended at this time. Resample at the next service interval to monitor.

▲ Wear

The copper level is abnormal. All other component wear rates are normal.

Contamination

Sodium and/or potassium levels remain high. Test for glycol is negative.

▲ 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		GFL0082226	GFL0069235	GFL0059671
Sample Date	Client Info		12 May 2023	06 Mar 2023	31 Oct 2022
Machine Age	hrs	Client Info	18564	18016	16969
Oil Age	hrs	Client Info	600	1194	147
Oil Changed	Client Info		Not Changed	Not Changed	Not Changed
Sample Status			ABNORMAL	ABNORMAL	NORMAL

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >50	20	37	10
Chromium	ppm	ASTM D5185m >4	1	5	1
Nickel	ppm	ASTM D5185m >2	<1	2	0
Titanium	ppm	ASTM D5185m	0	0	0
Silver	ppm	ASTM D5185m >3	0	0	<1
Aluminum	ppm	ASTM D5185m >9	2	4	1
Lead	ppm	ASTM D5185m >30	<1	3	0
Copper	ppm	ASTM D5185m >35	▲ 44	▲ 75	<1
Tin	ppm	ASTM D5185m >4	<1	<1	0
Vanadium	ppm	ASTM D5185m	0	0	0
Cadmium	ppm	ASTM D5185m	0	0	0

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 50	5	6	31
Barium	ppm	ASTM D5185m 5	2	0	0
Molybdenum	ppm	ASTM D5185m 50	60	138	47
Manganese	ppm	ASTM D5185m 0	<1	2	<1
Magnesium	ppm	ASTM D5185m 560	508	517	529
Calcium	ppm	ASTM D5185m 1510	1546	1593	1557
Phosphorus	ppm	ASTM D5185m 780	615	631	737
Zinc	ppm	ASTM D5185m 870	914	895	914
Sulfur	ppm	ASTM D5185m 2040	2212	2585	2855

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >+100	4	8	4
Sodium	ppm	ASTM D5185m	▲ 100	▲ 787	15
Potassium	ppm	ASTM D5185m >20	18	▲ 148	0
Glycol	%	*ASTM D2982	---	---	0.0

INFRA-RED

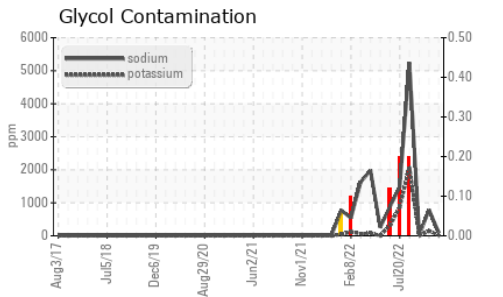
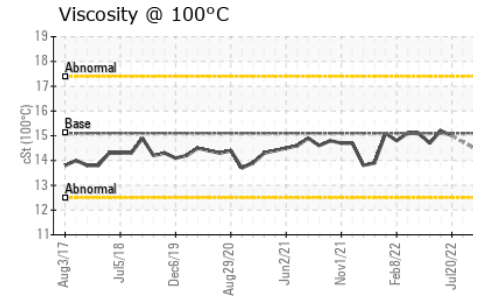
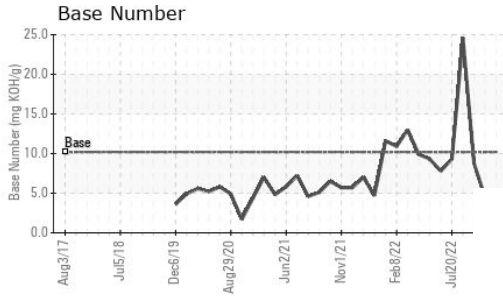
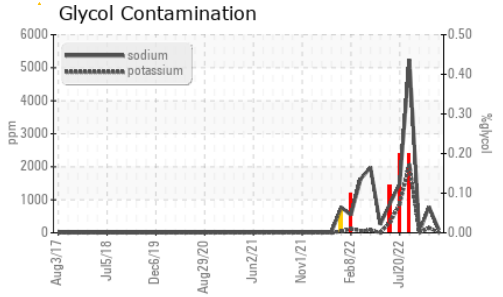
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	0	0.1	0.1
Nitration	Abs/cm	*ASTM D7624 >20	10.7	13.1	8.6
Sulfation	Abs/.1mm	*ASTM D7415 >30	22.6	26.6	20.2

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	19.1	21.0	17.1
Base Number (BN)	mg KOH/g	ASTM D2896 10.2	4.2	4.5	8.8



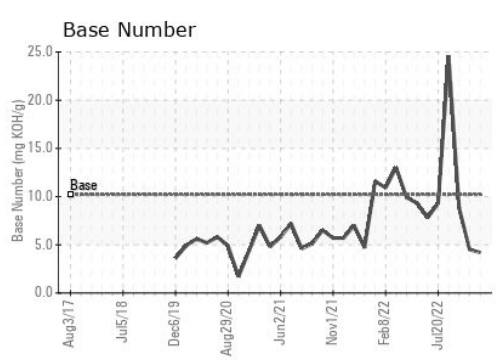
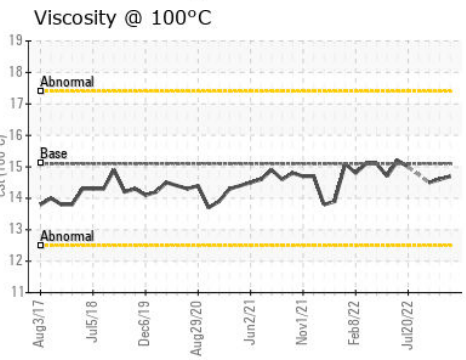
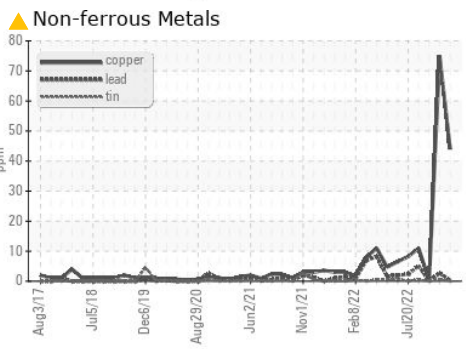
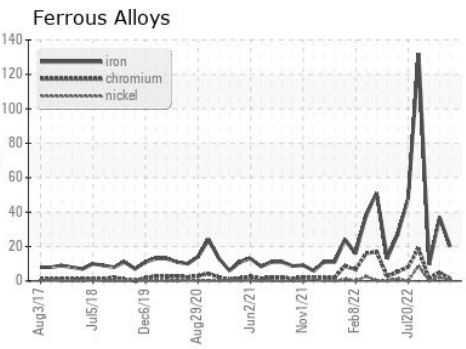
OIL ANALYSIS REPORT



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	14.6

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0082226 **Received** : 15 May 2023
Lab Number : 05846796 **Diagnosed** : 17 May 2023
Unique Number : 10470903 **Diagnostician** : Jonathan Hester
Test Package : FLEET (Additional Tests: Glycol)

GFL Environmental - 006 - Wilmington
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 US 28401
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Certificate L2367
 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)