



PROBLEM SUMMARY

Sample Rating Trend

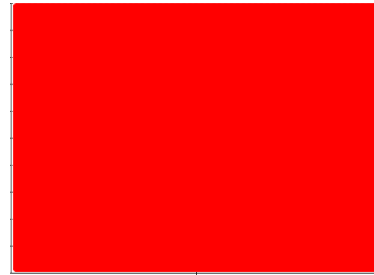
GLYCOL



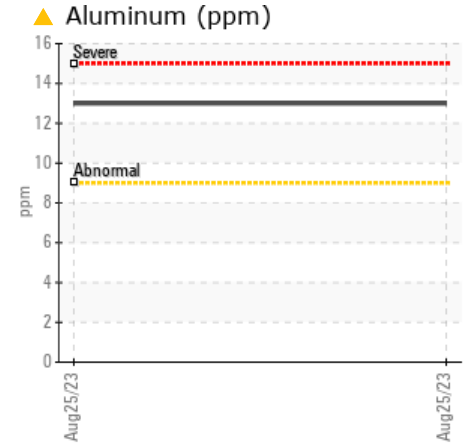
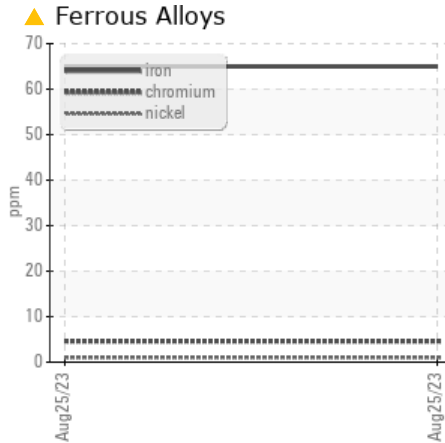
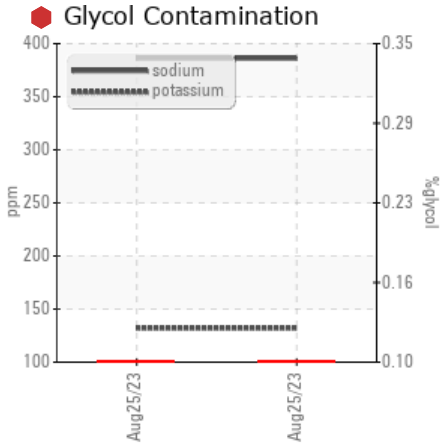
Machine Id
548000

Component
Natural Gas Engine

Fluid
PETRO CANADA DURON GEO LD 15W40 (--- GAL)



COMPONENT CONDITION SUMMARY



RECOMMENDATION

We advise that you check for the source of the coolant leak. 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	---	---
Iron	ppm	ASTM D5185m	>50	▲ 65	---	---
Chromium	ppm	ASTM D5185m	>4	▲ 5	---	---
Aluminum	ppm	ASTM D5185m	>9	▲ 13	---	---
Sodium	ppm	ASTM D5185m		▲ 386	---	---
Potassium	ppm	ASTM D5185m	>20	▲ 132	---	---
Glycol	%	*ASTM D2982		● 0.10	---	---

Customer Id: GFL963
Sample No.: GFL0090358
Lab Number: 05938126
Test Package: FLEET



To manage this report scan the QR code

To discuss the diagnosis or test data:
Doug Bogart +1 (800)237-1369 x4016
dougb@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



OIL ANALYSIS REPORT

Sample Rating Trend

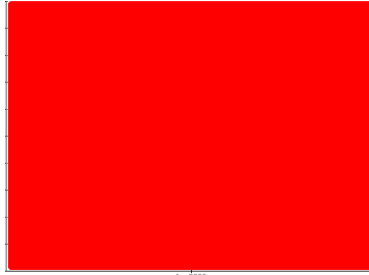
GLYCOL



Machine Id
548000

Component
Natural Gas Engine

Fluid
PETRO CANADA DURON GEO LD 15W40 (--- GAL)



DIAGNOSIS

Recommendation

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

Wear

Piston, ring and cylinder wear is indicated.

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	GFL0090358	---	---
Sample Date	Client Info	25 Aug 2023	---	---
Machine Age	hrs	8227	---	---
Oil Age	hrs	8227	---	---
Oil Changed	Client Info	Changed	---	---
Sample Status		SEVERE	---	---

WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >50	▲ 65	---
Chromium	ppm	ASTM D5185m >4	▲ 5	---
Nickel	ppm	ASTM D5185m >2	1	---
Titanium	ppm	ASTM D5185m	<1	---
Silver	ppm	ASTM D5185m >3	0	---
Aluminum	ppm	ASTM D5185m >9	▲ 13	---
Lead	ppm	ASTM D5185m >30	5	---
Copper	ppm	ASTM D5185m >35	4	---
Tin	ppm	ASTM D5185m >4	<1	---
Vanadium	ppm	ASTM D5185m	0	---
Cadmium	ppm	ASTM D5185m	0	---

ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 50	59	---
Barium	ppm	ASTM D5185m 5	0	---
Molybdenum	ppm	ASTM D5185m 50	132	---
Manganese	ppm	ASTM D5185m 0	1	---
Magnesium	ppm	ASTM D5185m 560	748	---
Calcium	ppm	ASTM D5185m 1510	1414	---
Phosphorus	ppm	ASTM D5185m 780	733	---
Zinc	ppm	ASTM D5185m 870	907	---
Sulfur	ppm	ASTM D5185m 2040	3859	---

CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >+100	78	---
Sodium	ppm	ASTM D5185m	▲ 386	---
Potassium	ppm	ASTM D5185m >20	▲ 132	---
Glycol	%	*ASTM D2982	● 0.10	---

INFRA-RED

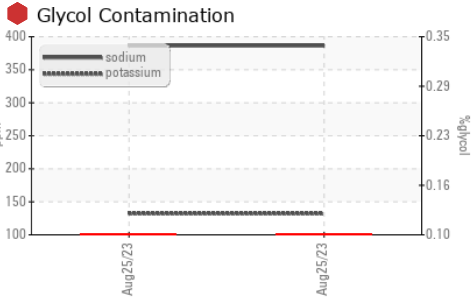
method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	0.1	---
Nitration	Abs/cm	*ASTM D7624 >20	7.7	---
Sulfation	Abs/.1mm	*ASTM D7415 >30	21.9	---

FLUID DEGRADATION

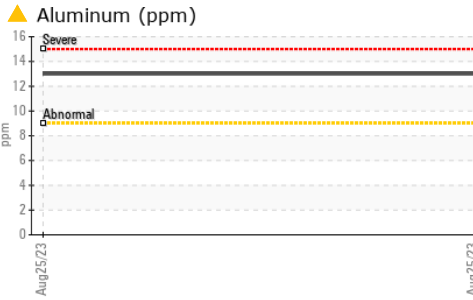
method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	14.8	---
Base Number (BN)	mg KOH/g	ASTM D2896 10.2	8.0	---



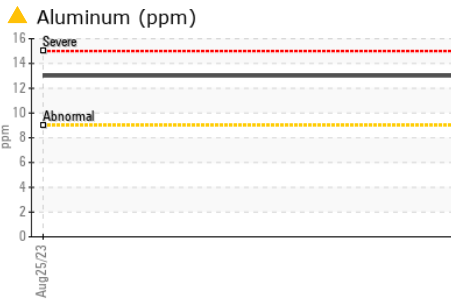
OIL ANALYSIS REPORT



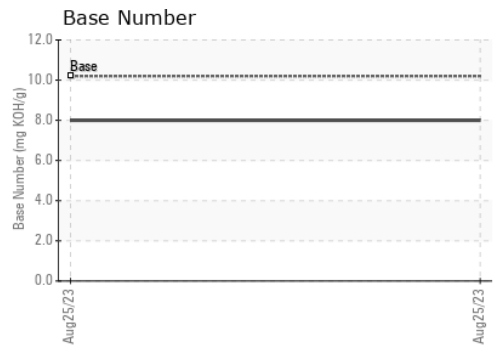
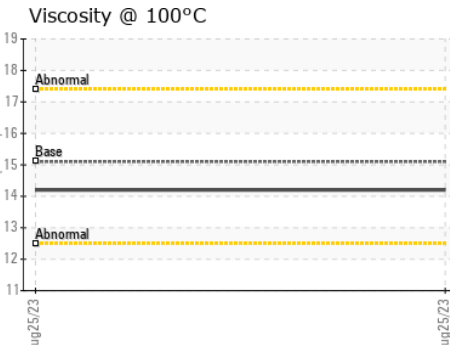
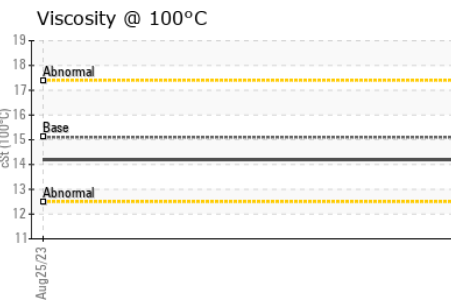
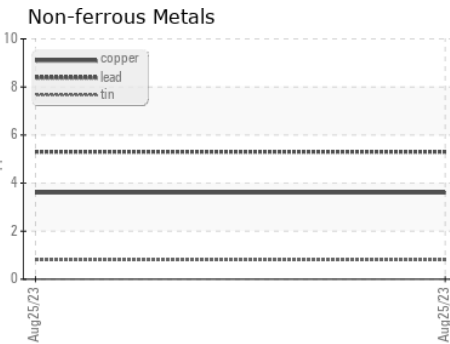
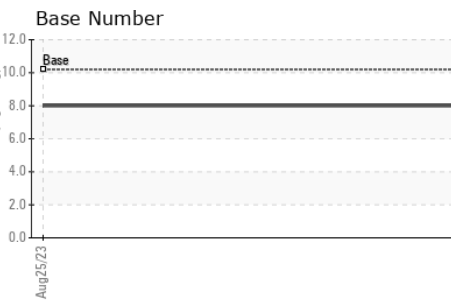
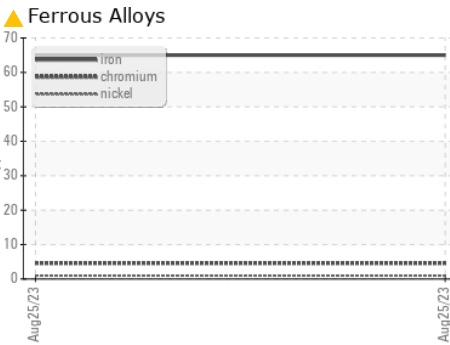
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	---
Precipitate	scalar	*Visual	NONE	NONE	---
Silt	scalar	*Visual	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---
Appearance	scalar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



FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.1	14.2	---



GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0090358 **Received** : 30 Aug 2023
Lab Number : 05938126 **Diagnosed** : 04 Sep 2023
Unique Number : 10628738 **Diagnostician** : Doug Bogart
Test Package : FLEET (Additional Tests: Glycol)

GFL Environmental - 963 - Peoria HC Disposal
 1113 N. Swords Ave.
 West Peoria, IL
 US 61604
 Contact: Corey Dozard
 cdozard@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)

T:
F: