



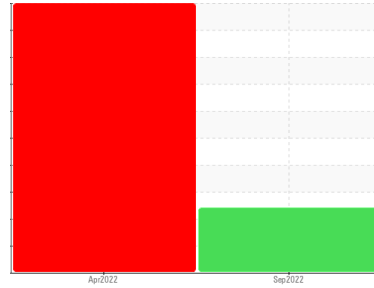
PROBLEM SUMMARY

Sample Rating Trend

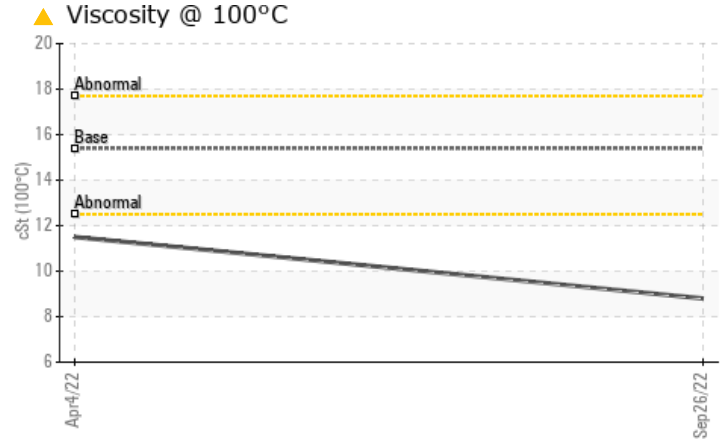
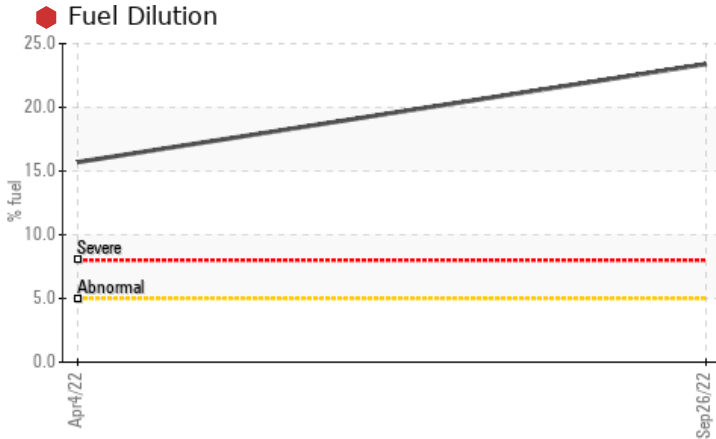
FUEL



Machine Id
Manual side load
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (20 QTS)



COMPONENT CONDITION SUMMARY



RECOMMENDATION

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	---
Fuel	%	ASTM D3524	>5	23.4	15.7	---
Visc @ 100°C	cSt	ASTM D445	15.4	8.8	11.5	---

Customer Id: GFL656
Sample No.: GFL0048391
Lab Number: 05655655
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	MISSED	Mar 30 2023	?	We recommend an early resample to monitor this condition.

HISTORICAL DIAGNOSIS

04 Apr 2022 Diag: Jonathan Hester

WEAR



We advise that you check the fuel injection system. Oil and filter change at the time of sampling has been noted. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition. Cylinder, crank, or cam shaft wear is indicated. Sodium and/or potassium levels are high. There is a high amount of fuel present in the oil. Test for glycol is negative. Fuel is present in the oil and is lowering the viscosity. The BN level is low. The oil is no longer serviceable due to the presence of contaminants.

view report





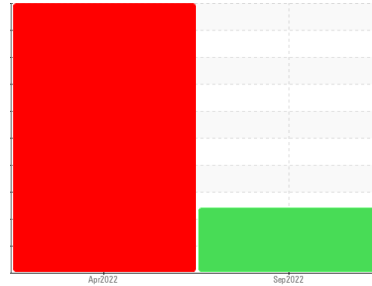
OIL ANALYSIS REPORT

Sample Rating Trend

FUEL



Machine Id
Manual side load
 Component
Diesel Engine
 Fluid
PETRO CANADA DURON SHP 15W40 (20 QTS)



DIAGNOSIS

Recommendation

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

There is a high amount of fuel present in the oil.

Fluid Condition

Fuel is present in the oil and is lowering the viscosity. 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		GFL0048391	GFL0031137	---
Sample Date	Client Info		26 Sep 2022	04 Apr 2022	---
Machine Age	hrs	Client Info	8772	8480	---
Oil Age	hrs	Client Info	292	600	---
Oil Changed	Client Info		Changed	Changed	---
Sample Status			SEVERE	SEVERE	---

CONTAMINATION

	method	limit/base	current	history1	history2
Glycol	WC Method		NEG	NEG	---

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >80	52	205	---
Chromium	ppm	ASTM D5185m >5	1	6	---
Nickel	ppm	ASTM D5185m >2	<1	1	---
Titanium	ppm	ASTM D5185m	6	53	---
Silver	ppm	ASTM D5185m	0	0	---
Aluminum	ppm	ASTM D5185m >30	2	7	---
Lead	ppm	ASTM D5185m >30	<1	11	---
Copper	ppm	ASTM D5185m >150	<1	4	---
Tin	ppm	ASTM D5185m >5	1	2	---
Vanadium	ppm	ASTM D5185m	<1	<1	---
Cadmium	ppm	ASTM D5185m	0	0	---

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 0	7	37	---
Barium	ppm	ASTM D5185m 0	0	0	---
Molybdenum	ppm	ASTM D5185m 60	41	12	---
Manganese	ppm	ASTM D5185m 0	<1	2	---
Magnesium	ppm	ASTM D5185m 1010	637	427	---
Calcium	ppm	ASTM D5185m 1070	847	1400	---
Phosphorus	ppm	ASTM D5185m 1150	787	772	---
Zinc	ppm	ASTM D5185m 1270	911	917	---
Sulfur	ppm	ASTM D5185m 2060	2282	2249	---

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >20	12	17	---
Sodium	ppm	ASTM D5185m	9	18	---
Potassium	ppm	ASTM D5185m >20	13	51	---
Fuel	%	ASTM D3524 >5	23.4	15.7	---

INFRA-RED

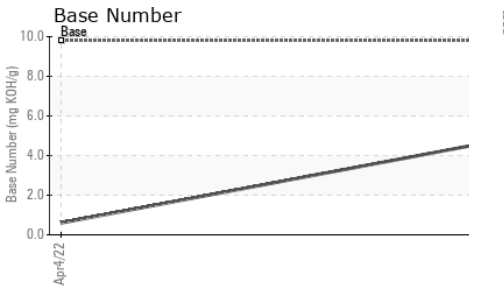
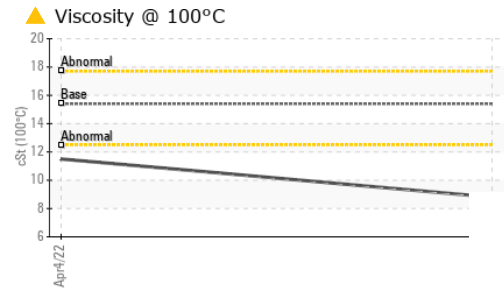
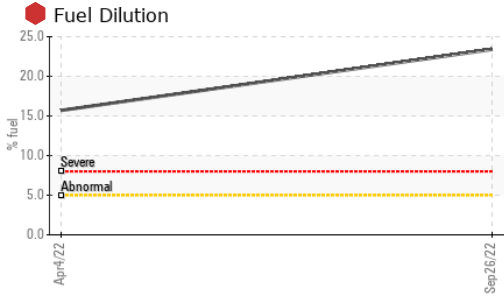
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >3	0.7	1.7	---
Nitration	Abs/cm	*ASTM D7624 >20	15.7	25.9	---
Sulfation	Abs/.1mm	*ASTM D7415 >30	28.4	50.7	---

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	35.8	78.8	---
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	4.7	0.6	---



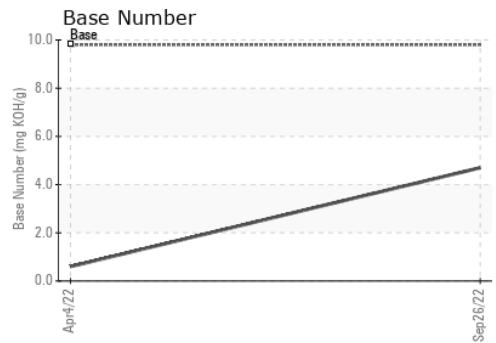
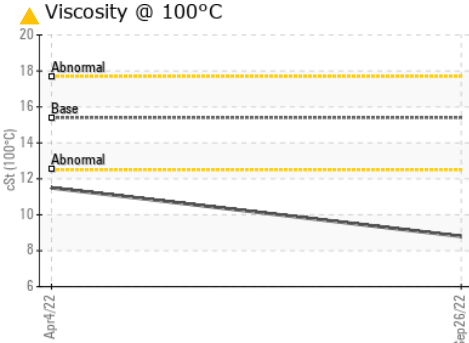
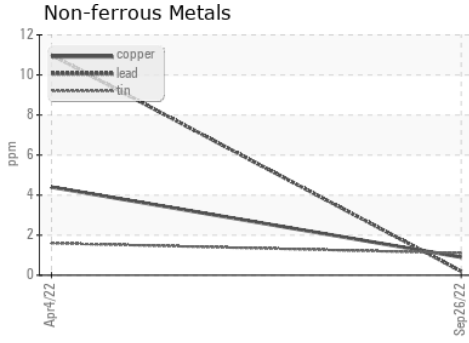
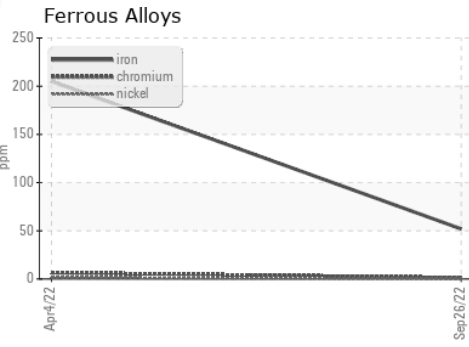
OIL ANALYSIS REPORT



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	>0.2	NEG	---
Free Water	scalar	*Visual		NEG	---

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.4	▲ 8.8	▲ 11.5

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0048391 **Received** : 30 Sep 2022
Lab Number : 05655655 **Diagnosed** : 04 Oct 2022
Unique Number : 10155207 **Diagnostician** : Doug Bogart
Test Package : FLEET (Additional Tests: PercentFuel)

GFL Environmental - 656 - Culpeper Hauling
 15490 Montanus Drive
 Culpeper, VA
 US 22701
 Contact: Matt Hanna
 mhanna@gflenv.com
 T: (540)727-0887
 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)