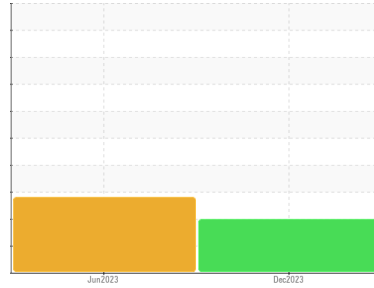




PROBLEM SUMMARY

Sample Rating Trend



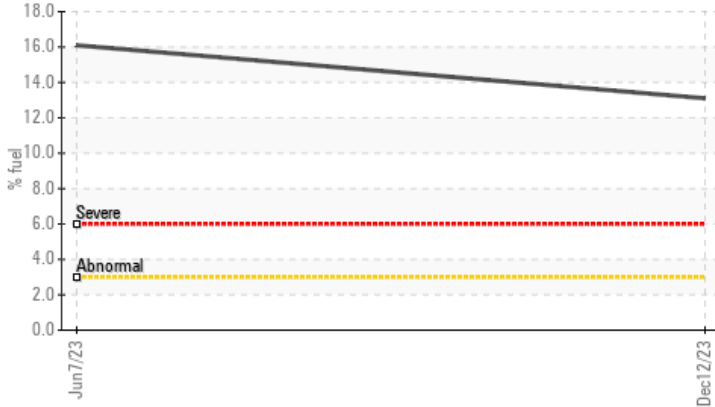
FUEL



Machine Id
778M
 Component
Diesel Engine
 Fluid
PETRO CANADA DURON SHP 15W40 (--- GAL)

COMPONENT CONDITION SUMMARY

Fuel Dilution



RECOMMENDATION

We advise that you check the fuel injection system. The oil 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	>3.0	13.1	16.1	---

Customer Id: GFL415
 Sample No.: GFL0105610
 Lab Number: 06034424
 Test Package: FLEET



To manage this report scan the QR code

To discuss the diagnosis or test data:
 Wes Davis +1 905-569-8600 x223
wesd@wearcheck.ca

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

RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Resample	---	---	?	We recommend an early resample to monitor this condition.
Check Fuel/injector System	---	---	?	We advise that you check the fuel injection system.

HISTORICAL DIAGNOSIS

07 Jun 2023 Diag: Wes Davis

FUEL



We advise that you check the fuel injection system. The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition. All component wear rates are normal. There is a high amount of fuel present in the oil. Tests confirm the presence of fuel in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. Fuel is present in the oil and is lowering the viscosity. The oil is no longer serviceable due to the presence of contaminants.

view report





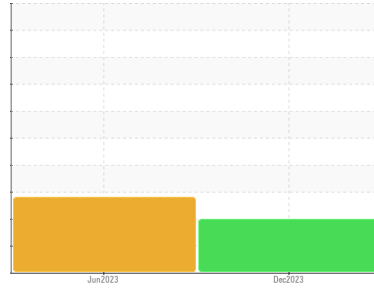
OIL ANALYSIS REPORT

Sample Rating Trend

FUEL



Machine Id
778M
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (--- GAL)



DIAGNOSIS

Recommendation

We advise that you check the fuel injection system. The oil 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. Tests confirm the presence of fuel in the oil.

Fluid Condition

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.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		GFL0105610	GFL0069854	---
Sample Date	Client Info		12 Dec 2023	07 Jun 2023	---
Machine Age	hrs	Client Info	11512	10372	---
Oil Age	hrs	Client Info	0	600	---
Oil Changed	Client Info		Changed	Changed	---
Sample Status			SEVERE	SEVERE	---

CONTAMINATION

	method	limit/base	current	history1	history2
Water	WC Method	>0.2	NEG	NEG	---
Glycol	WC Method		NEG	NEG	---

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >90	30	35	---
Chromium	ppm	ASTM D5185m >20	2	1	---
Nickel	ppm	ASTM D5185m >2	<1	<1	---
Titanium	ppm	ASTM D5185m >2	0	0	---
Silver	ppm	ASTM D5185m >2	0	0	---
Aluminum	ppm	ASTM D5185m >20	3	3	---
Lead	ppm	ASTM D5185m >40	0	<1	---
Copper	ppm	ASTM D5185m >330	2	<1	---
Tin	ppm	ASTM D5185m >15	0	<1	---
Vanadium	ppm	ASTM D5185m	0	0	---
Cadmium	ppm	ASTM D5185m	0	0	---

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 0	3	5	---
Barium	ppm	ASTM D5185m 0	0	0	---
Molybdenum	ppm	ASTM D5185m 60	57	46	---
Manganese	ppm	ASTM D5185m 0	<1	<1	---
Magnesium	ppm	ASTM D5185m 1010	943	762	---
Calcium	ppm	ASTM D5185m 1070	1031	842	---
Phosphorus	ppm	ASTM D5185m 1150	1049	834	---
Zinc	ppm	ASTM D5185m 1270	1282	1020	---
Sulfur	ppm	ASTM D5185m 2060	3068	2205	---

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	8	6	---
Sodium	ppm	ASTM D5185m	10	6	---
Potassium	ppm	ASTM D5185m >20	1	<1	---
Fuel	%	ASTM D3524 >3.0	13.1	16.1	---

INFRA-RED

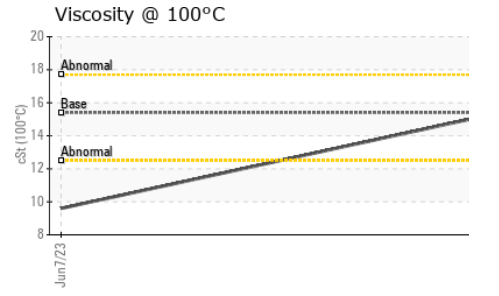
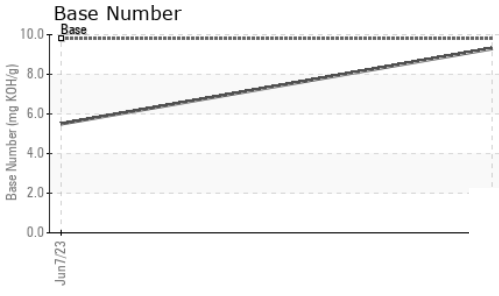
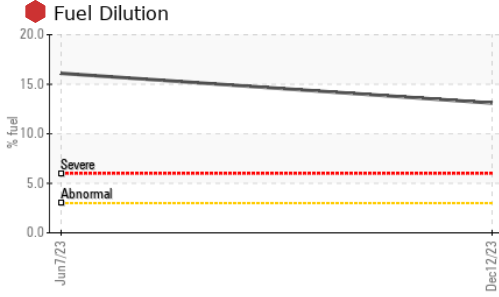
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >6	3	0.7	---
Nitration	Abs/cm	*ASTM D7624 >20	11.2	11.7	---
Sulfation	Abs/.1mm	*ASTM D7415 >30	25.5	22.0	---

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	17.1	20.0	---
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	9.3	5.5	---



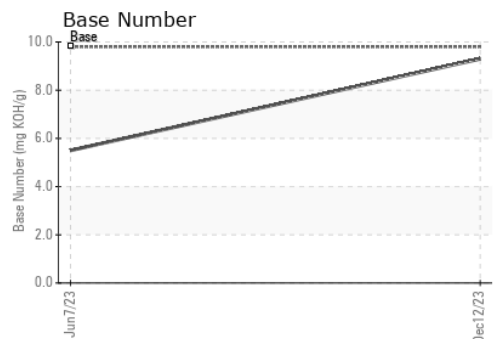
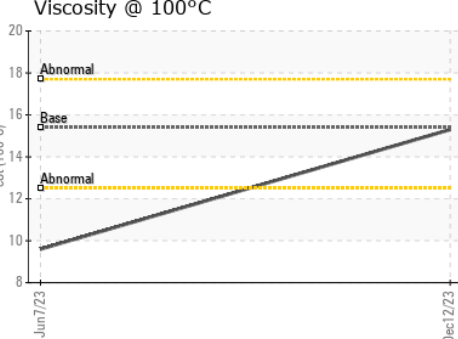
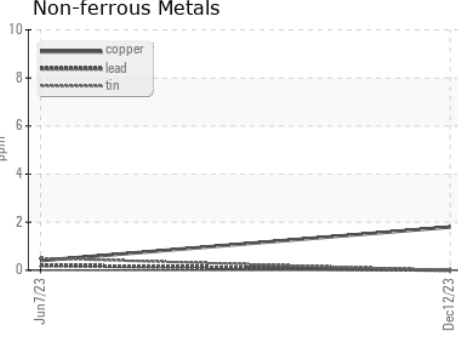
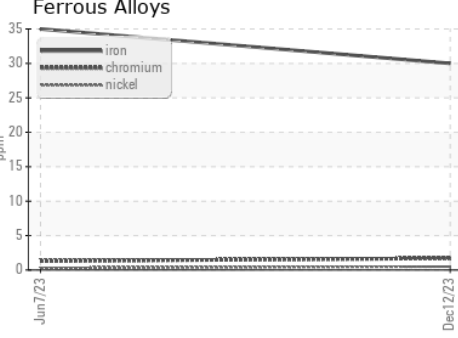
OIL ANALYSIS REPORT



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	15.3	9.6

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0105610 **Received** : 14 Dec 2023
Lab Number : **06034424** **Diagnosed** : 19 Dec 2023
Unique Number : 10789653 **Diagnostician** : Wes Davis
Test Package : FLEET (Additional Tests: PercentFuel)

GFL Environmental - 415 - Michigan East
 6200 Elmridge
 Sterling Heights, MI
 US 48313
 Contact: Frank Wolak
 fwolak@gflenv.com
 T: (586)825-9514
 F:

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)