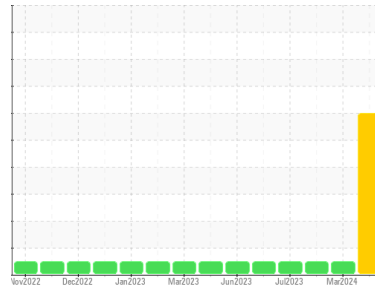




PROBLEM SUMMARY

Machine Id
217004
 Component
Diesel Engine
 Fluid
PETRO CANADA DURON SHP 15W40 (--- LTR)

Sample Rating Trend

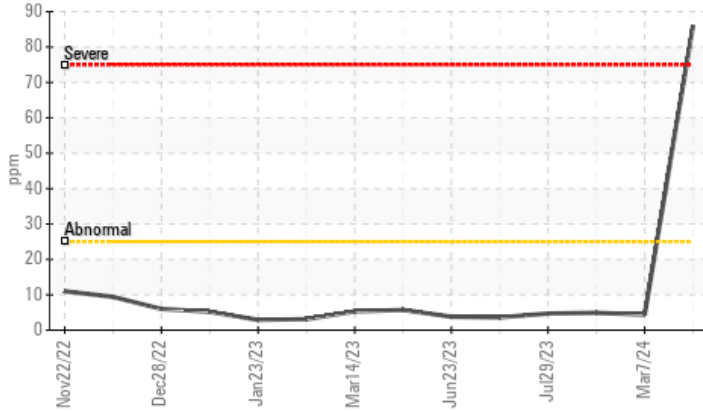


DIRT

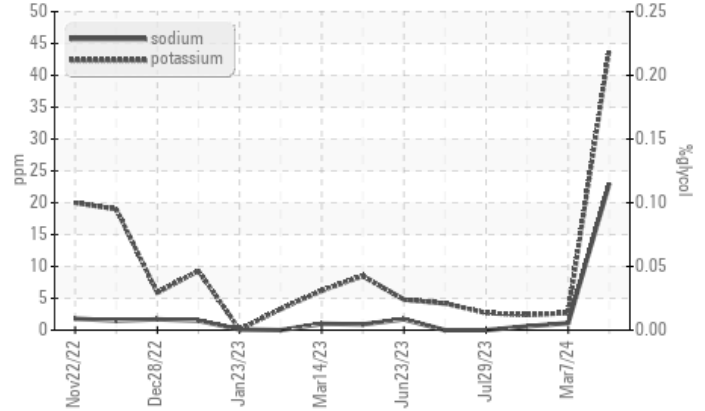


COMPONENT CONDITION SUMMARY

▲ Silicon (ppm)



▲ Glycol Contamination



RECOMMENDATION

We advise that you check the air filter, air induction system, and any areas where dirt may enter the component. We recommend an early resample to monitor this condition.

PROBLEMATIC TEST RESULTS

Sample Status				SEVERE	NORMAL	NORMAL
Silicon	ppm	ASTM D5185m	>25	▲ 86	4	5
Potassium	ppm	ASTM D5185m	>20	▲ 44	3	2

Customer Id: GFL868
 Sample No.: GFL0113707
 Lab Number: 06140820
 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
Resample	---	---	?	We recommend an early resample to monitor this condition.
Check Dirt Access	---	---	?	We advise that you check the air filter, air induction system, and any areas where dirt may enter the component.

HISTORICAL DIAGNOSIS

NORMAL



07 Mar 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



18 Aug 2023 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



29 Jul 2023 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.

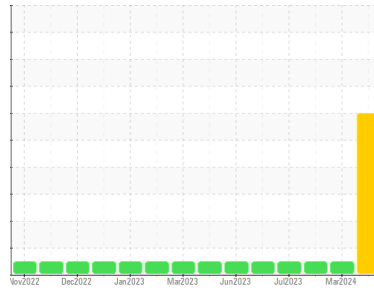
[view report](#)





OIL ANALYSIS REPORT

Sample Rating Trend



DIRT



Machine Id

217004

Component

Diesel Engine

Fluid

PETRO CANADA DURON SHP 15W40 (--- LTR)

DIAGNOSIS

▲ Recommendation

We advise that you check the air filter, air induction system, and any areas where dirt may enter the component. We recommend an early resample to monitor this condition.

Wear

All component wear rates are normal.

▲ Contamination

Sodium and/or potassium levels are high. Elemental level of silicon (Si) above normal indicating ingress of dirt/seal material. Test for glycol is negative.

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		GFL0113707	GFL0113702	GFL0090441
Sample Date	Client Info		25 Mar 2024	07 Mar 2024	18 Aug 2023
Machine Age	hrs	Client Info	11588	11491	11157
Oil Age	hrs	Client Info	0	0	37736
Oil Changed	Client Info		N/A	Not Changd	Not Changd
Sample Status			SEVERE	NORMAL	NORMAL

CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>2.0	<1.0	<1.0	<1.0
Water	WC Method	>0.2	NEG	NEG	NEG

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >100	32	6	9
Chromium	ppm	ASTM D5185m >20	2	<1	<1
Nickel	ppm	ASTM D5185m >4	0	0	0
Titanium	ppm	ASTM D5185m	0	0	0
Silver	ppm	ASTM D5185m >3	0	0	0
Aluminum	ppm	ASTM D5185m >20	3	2	5
Lead	ppm	ASTM D5185m >40	3	<1	0
Copper	ppm	ASTM D5185m >330	25	<1	0
Tin	ppm	ASTM D5185m >15	1	<1	<1
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 0	35	6	2
Barium	ppm	ASTM D5185m 0	0	0	0
Molybdenum	ppm	ASTM D5185m 60	83	65	64
Manganese	ppm	ASTM D5185m 0	1	0	<1
Magnesium	ppm	ASTM D5185m 1010	896	873	1038
Calcium	ppm	ASTM D5185m 1070	1165	1045	1126
Phosphorus	ppm	ASTM D5185m 1150	989	987	1127
Zinc	ppm	ASTM D5185m 1270	1156	1163	1378
Sulfur	ppm	ASTM D5185m 2060	3404	2983	3952

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	▲ 86	4	5
Sodium	ppm	ASTM D5185m	23	1	<1
Potassium	ppm	ASTM D5185m >20	▲ 44	3	2
Glycol	%	*ASTM D2982	NEG	NEG	NEG

INFRA-RED

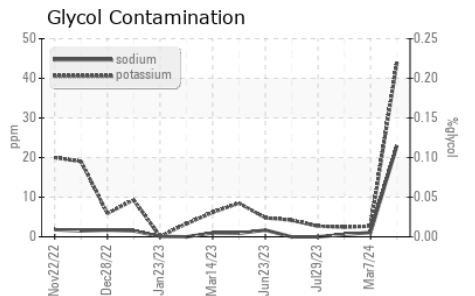
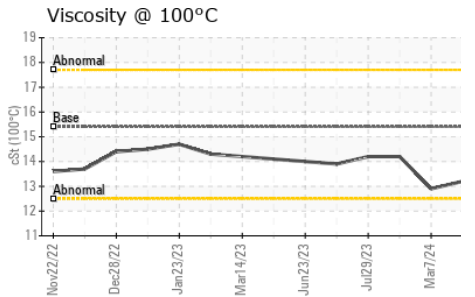
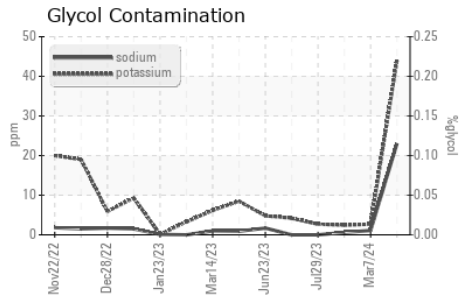
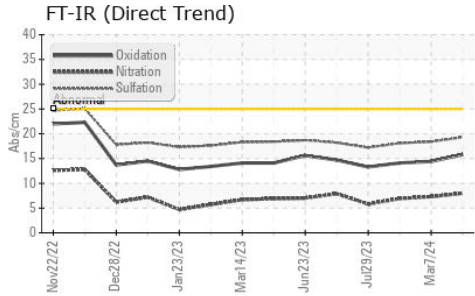
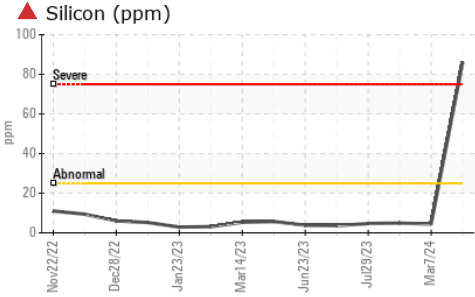
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >3	0.2	0.2	0.2
Nitration	Abs/cm	*ASTM D7624 >20	8.0	7.3	6.9
Sulfation	Abs/.1mm	*ASTM D7415 >30	19.3	18.4	18.1

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	15.8	14.4	14.1
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	8.1	8.0	8.5



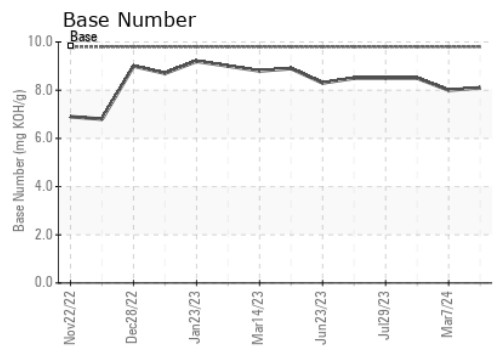
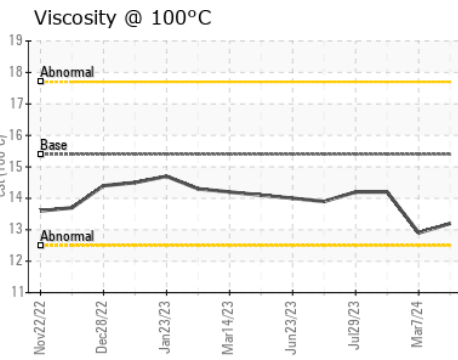
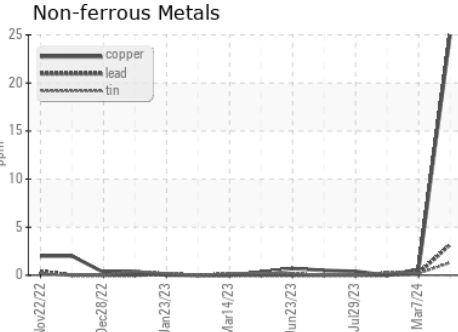
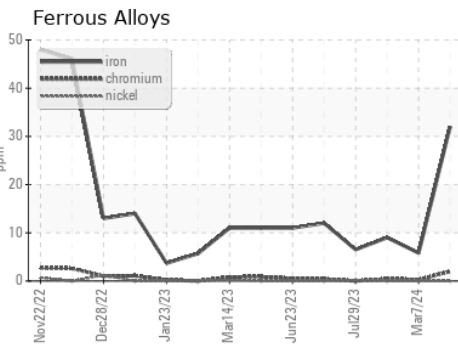
OIL ANALYSIS REPORT



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	>0.2	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.4	13.2	12.9

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0113707 **Received** : 08 Apr 2024
Lab Number : 06140820 **Tested** : 10 Apr 2024
Unique Number : 10965628 **Diagnosed** : 10 Apr 2024 - Jonathan Hester
Test Package : FLEET (Additional Tests: Glycol)

GFL Environmental - 868 - Childersburg Fines Hauling (Alpine)
 13737 Plant Rd
 Childersburg, AL
 US 35044
 Contact: JONATHAN WILLIAMS
 jonathan.williams@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)