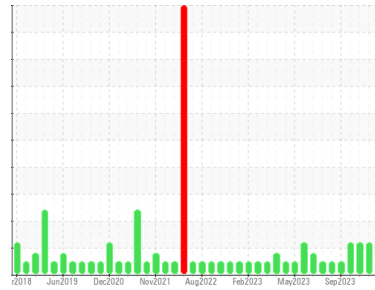




PROBLEM SUMMARY

Sample Rating Trend



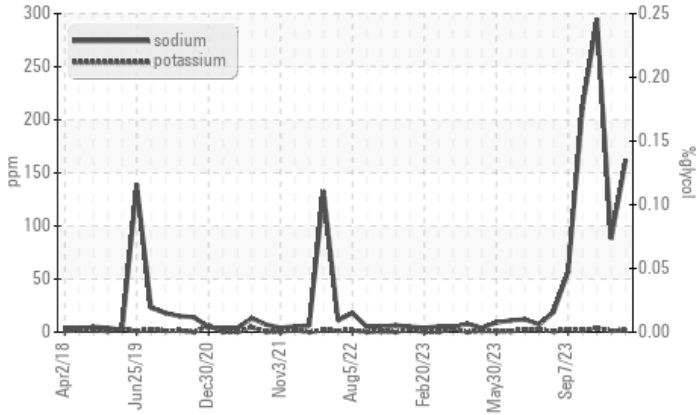
GLYCOL



Machine Id
3667
 Component
Diesel Engine
 Fluid
PETRO CANADA DURON SHP 15W40 (38 QTS)

COMPONENT CONDITION SUMMARY

▲ Glycol Contamination



RECOMMENDATION

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.

PROBLEMATIC TEST RESULTS

Sample Status			ABNORMAL	ATTENTION	ABNORMAL
Sodium	ppm	ASTM D5185m	▲ 162	▲ 88	▲ 295

Customer Id: GFL073
 Sample No.: GFL0097238
 Lab Number: 06016221
 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 Glycol Access	---	---	?	We advise that you check for the source of the coolant leak.

HISTORICAL DIAGNOSIS

10 Nov 2023 Diag: Jonathan Hester

GLYCOL



No corrective action is recommended at this time. Resample at the next service interval to monitor. All component wear rates are normal. Sodium and/or potassium levels remain high. Test for glycol is negative. 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](#)



13 Oct 2023 Diag: Jonathan Hester

GLYCOL



We advise that you check for the source of the coolant leak. Check for low coolant level. 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. Sodium and/or potassium levels are high. The BN result indicates that there is suitable alkalinity remaining in the oil.

[view report](#)



19 Sep 2023 Diag: Jonathan Hester

GLYCOL



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. All 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.

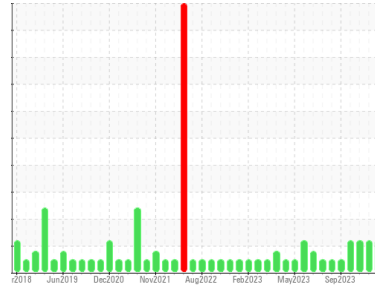
[view report](#)





OIL ANALYSIS REPORT

Sample Rating Trend



GLYCOL



Machine Id
3667

Component

Diesel Engine

Fluid

PETRO CANADA DURON SHP 15W40 (38 QTS)

DIAGNOSIS

▲ Recommendation

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.

Wear

All component wear rates are normal.

Contamination

Sodium and/or potassium levels are high.

▲ 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	GFL0097238	GFL0097234	GFL0097198
Sample Date	Client Info	16 Nov 2023	10 Nov 2023	13 Oct 2023
Machine Age	hrs	20534	20410	20261
Oil Age	hrs	0	0	0
Oil Changed	Client Info	Not Changed	Not Changd	Changed
Sample Status		ABNORMAL	ATTENTION	ABNORMAL

CONTAMINATION

method	limit/base	current	history1	history2
Fuel	WC Method >5	<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	28	21	50
Chromium	ppm ASTM D5185m >20	2	1	3
Nickel	ppm ASTM D5185m >4	<1	0	<1
Titanium	ppm ASTM D5185m	<1	0	<1
Silver	ppm ASTM D5185m >3	0	0	0
Aluminum	ppm ASTM D5185m >20	11	7	14
Lead	ppm ASTM D5185m >40	<1	0	2
Copper	ppm ASTM D5185m >330	3	<1	5
Tin	ppm ASTM D5185m >15	<1	<1	<1
Vanadium	ppm ASTM D5185m	<1	0	<1
Cadmium	ppm ASTM D5185m	0	0	<1

ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185m 0	7	8	8
Barium	ppm ASTM D5185m 0	0	0	10
Molybdenum	ppm ASTM D5185m 60	63	56	68
Manganese	ppm ASTM D5185m 0	<1	<1	<1
Magnesium	ppm ASTM D5185m 1010	878	902	838
Calcium	ppm ASTM D5185m 1070	1041	945	954
Phosphorus	ppm ASTM D5185m 1150	1058	986	946
Zinc	ppm ASTM D5185m 1270	1207	1204	1089
Sulfur	ppm ASTM D5185m 2060	2561	2945	2799

CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >25	14	10	22
Sodium	ppm ASTM D5185m	▲ 162	▲ 88	▲ 295
Potassium	ppm ASTM D5185m >20	2	1	3
Glycol	% *ASTM D2982	NEG	NEG	NEG

INFRA-RED

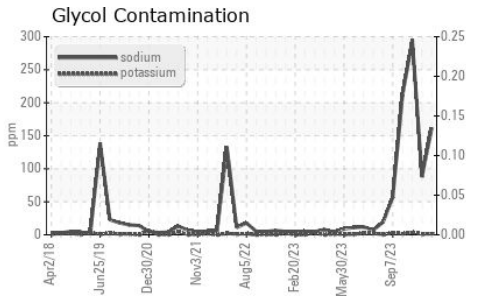
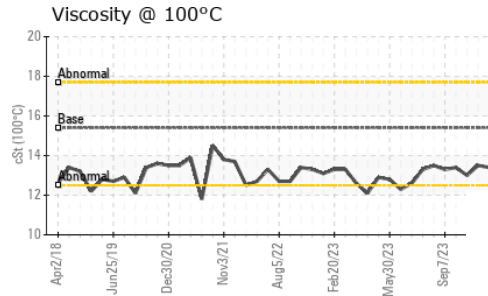
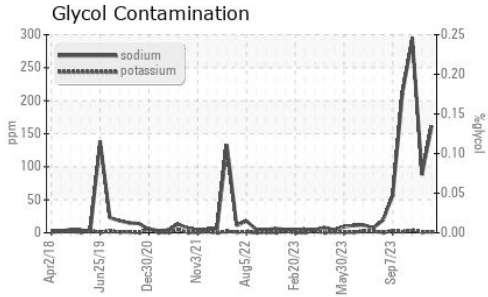
method	limit/base	current	history1	history2
Soot %	% *ASTM D7844 >3	0.5	0.4	1
Nitration	Abs/cm *ASTM D7624 >20	6.9	6.3	9.7
Sulfation	Abs/.1mm *ASTM D7415 >30	18.4	18.0	20.4

FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	13.4	13.0	14.6
Base Number (BN)	mg KOH/g ASTM D2896 9.8	8.8	8.6	8.0



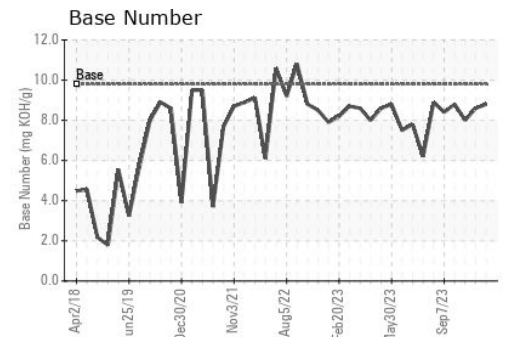
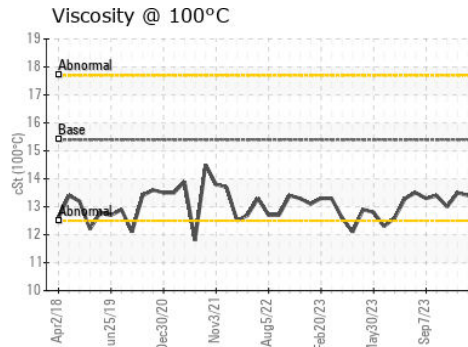
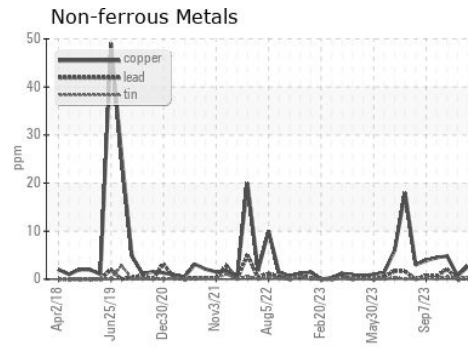
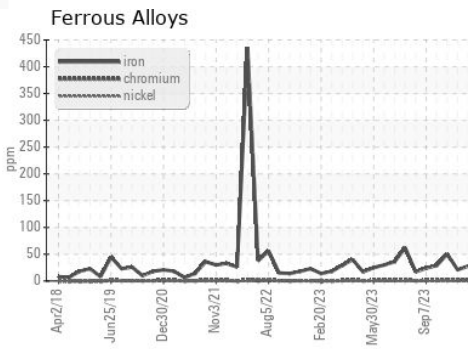
OIL ANALYSIS REPORT



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	13.4	13.5	13.0

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0097238 **Received** : 24 Nov 2023
Lab Number : 06016221 **Diagnosed** : 28 Nov 2023
Unique Number : 10755365 **Diagnostician** : Jonathan Hester
Test Package : FLEET (Additional Tests: Glycol)

GFL Environmental - 073 - Warner Robins - Transwaste
 155 Story Road
 Warner Robins, GA
 US 31093
 Contact: Mike Taft

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: