



PROBLEM SUMMARY

Sample Rating Trend

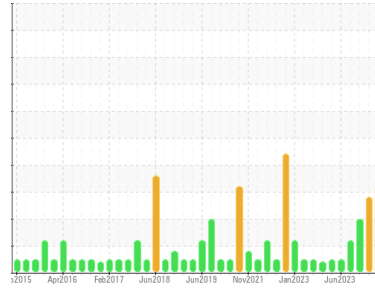
GLYCOL



Machine Id
10530

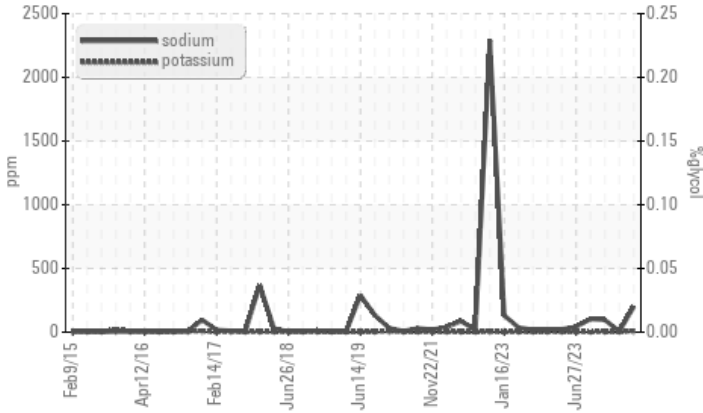
Component
Diesel Engine

Fluid
PETRO CANADA DURON SHP 15W40 (7 GAL)

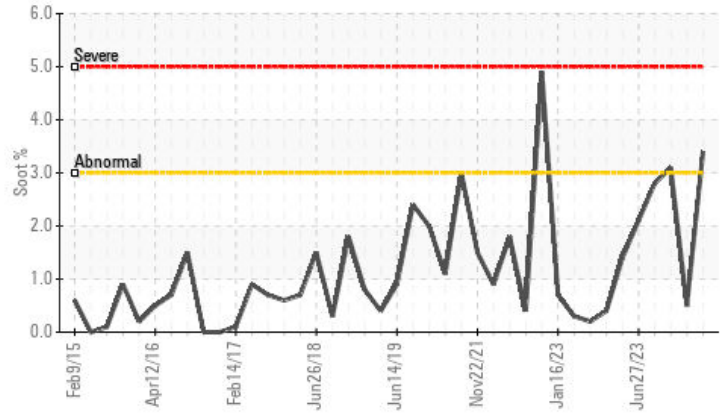


COMPONENT CONDITION SUMMARY

▲ Glycol Contamination



▲ Soot %



RECOMMENDATION

We advise that you check for the source of the coolant leak. Check for low coolant level. The oil is near the end of its useful service life, recommend schedule an oil change. We recommend you service the filters on this component. We recommend an early resample to monitor this condition.

PROBLEMATIC TEST RESULTS

Sample Status				ABNORMAL	SEVERE	ABNORMAL
Sodium	ppm	ASTM D5185m		▲ 199	6	▲ 96
Soot %	%	*ASTM D7844	>3	▲ 3.4	0.5	▲ 3.1
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	▲ 3.7	5.8	5.3

Customer Id: GFL010
Sample No.: GFL0088708
Lab Number: 05929438
Test Package: FLEET



To manage this report scan the QR code

To discuss the diagnosis or test data:
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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
Service/change Fluid	---	---	?	The oil is near the end of it's useful service life, recommend schedule an oil change.
Change Filter	---	---	?	We recommend you service the filters on this component.
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

16 Aug 2023 Diag: Wes Davis

FUEL



We advise that you check the fuel injection system. We recommend that you drain the oil from the component if this has not already been done. We recommend an early resample to monitor this condition. Please specify the component make and model with your next sample. 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



01 Aug 2023 Diag: Jonathan Hester

GLYCOL



We recommend you service the filters on this component. Resample at the next service interval to monitor. All component wear rates are normal. Sodium and/or potassium levels remain high. There is an abnormal amount of solids and carbon present in the oil. 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



10 Jul 2023 Diag: Jonathan Hester

GLYCOL



Oil and filter 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. Test for glycol is negative. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service.

view report





OIL ANALYSIS REPORT

Sample Rating Trend

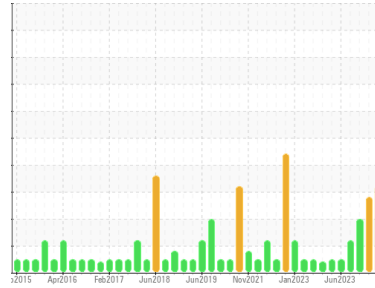
GLYCOL



Machine Id
10530

Component
Diesel Engine

Fluid
PETRO CANADA DURON SHP 15W40 (7 GAL)



DIAGNOSIS

Recommendation

We advise that you check for the source of the coolant leak. Check for low coolant level. The oil is near the end of its useful service life, recommend schedule an oil change. We recommend you service the filters on this 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. Fuel content negligible. There is an abnormal amount of solids and carbon present in the oil.

Fluid Condition

The BN level is low.

SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	GFL0088708	GFL0088718	GFL0088789
Sample Date	Client Info	18 Aug 2023	16 Aug 2023	01 Aug 2023
Machine Age	hrs	20633	20488	20481
Oil Age	hrs	332	187	746
Oil Changed	Client Info	Not Chngd	Not Chngd	Not Chngd
Sample Status		ABNORMAL	SEVERE	ABNORMAL

WEAR METALS

method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185m >100	55	14	51
Chromium	ppm	ASTM D5185m >20	2	<1	1
Nickel	ppm	ASTM D5185m >4	<1	0	0
Titanium	ppm	ASTM D5185m	<1	<1	<1
Silver	ppm	ASTM D5185m >3	0	0	0
Aluminum	ppm	ASTM D5185m >20	10	2	8
Lead	ppm	ASTM D5185m >40	<1	<1	<1
Copper	ppm	ASTM D5185m >330	3	9	4
Tin	ppm	ASTM D5185m >15	<1	<1	0
Vanadium	ppm	ASTM D5185m	0	<1	<1
Cadmium	ppm	ASTM D5185m	0	0	0

ADDITIVES

method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185m 0	10	8	8
Barium	ppm	ASTM D5185m 0	0	0	0
Molybdenum	ppm	ASTM D5185m 60	69	51	61
Manganese	ppm	ASTM D5185m 0	<1	<1	<1
Magnesium	ppm	ASTM D5185m 1010	733	656	730
Calcium	ppm	ASTM D5185m 1070	1152	984	1128
Phosphorus	ppm	ASTM D5185m 1150	907	779	871
Zinc	ppm	ASTM D5185m 1270	1132	959	1110
Sulfur	ppm	ASTM D5185m 2060	2762	2748	2995

CONTAMINANTS

method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m >25	12	6	13
Sodium	ppm	ASTM D5185m	▲ 199	6	▲ 96
Potassium	ppm	ASTM D5185m >20	10	3	3
Fuel	%	ASTM D3524 >5	1.3	12.1	<1.0
Glycol	%	*ASTM D2982	NEG	NEG	NEG

INFRA-RED

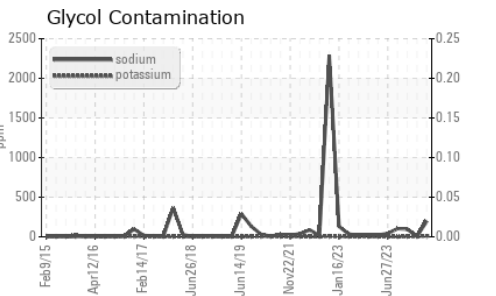
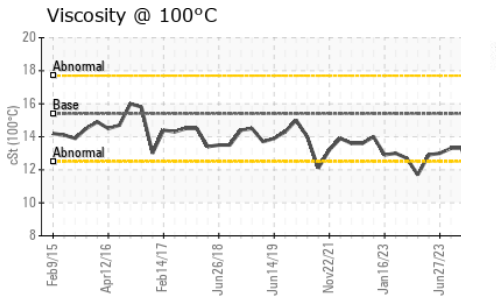
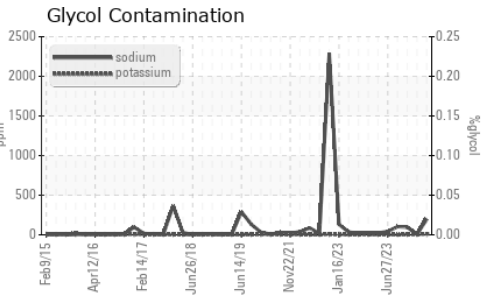
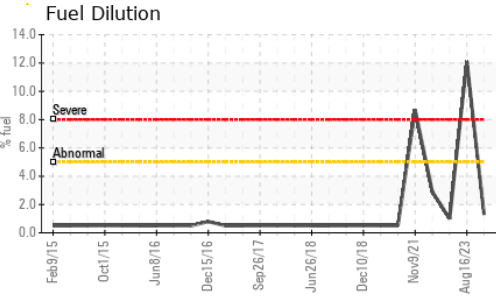
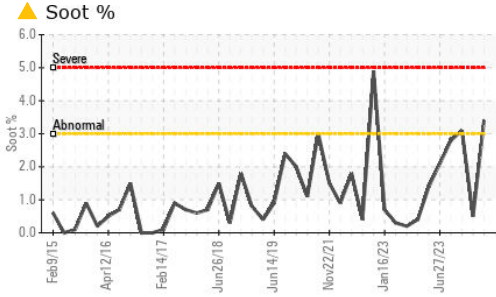
method	limit/base	current	history1	history2	
Soot %	%	*ASTM D7844 >3	▲ 3.4	0.5	▲ 3.1
Nitration	Abs/cm	*ASTM D7624 >20	11.7	9.2	11.4
Sulfation	Abs/.1mm	*ASTM D7415 >30	26.2	18.4	25.1

FLUID DEGRADATION

method	limit/base	current	history1	history2	
Oxidation	Abs/.1mm	*ASTM D7414 >25	14.9	14.3	16.1
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	▲ 3.7	5.8	5.3



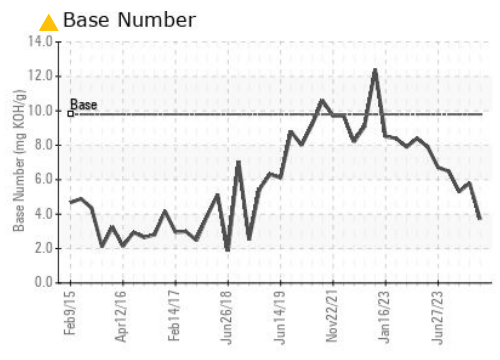
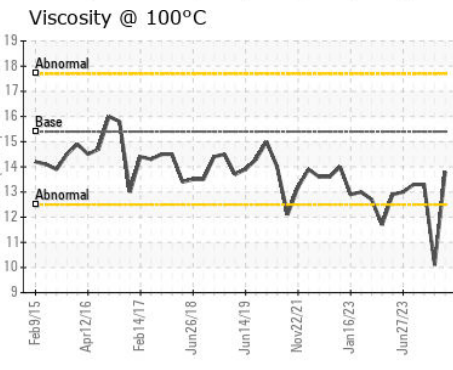
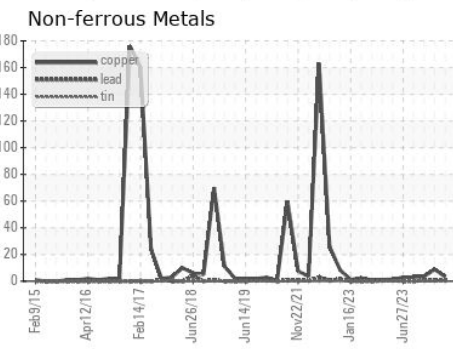
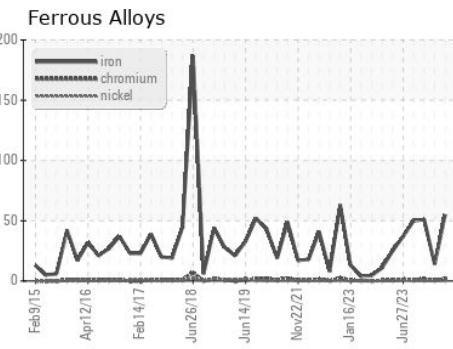
OIL ANALYSIS REPORT



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	13.8	10.1	13.3

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0088708 **Received** : 21 Aug 2023
Lab Number : 05929438 **Diagnosed** : 23 Aug 2023
Unique Number : 10609385 **Diagnostician** : Jonathan Hester
Test Package : FLEET (Additional Tests: Glycol, PercentFuel)

GFL Environmental - 010 - Stockbridge
 1280 Rum Creek Parkway
 Stockbridge, GA
 US 30281
 Contact: JOSHUA TINKER
 joshuatinker@gflenv.com

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)