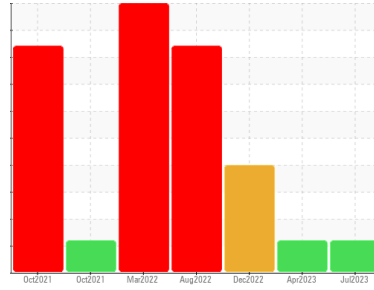




PROBLEM SUMMARY

Sample Rating Trend



GLYCOL



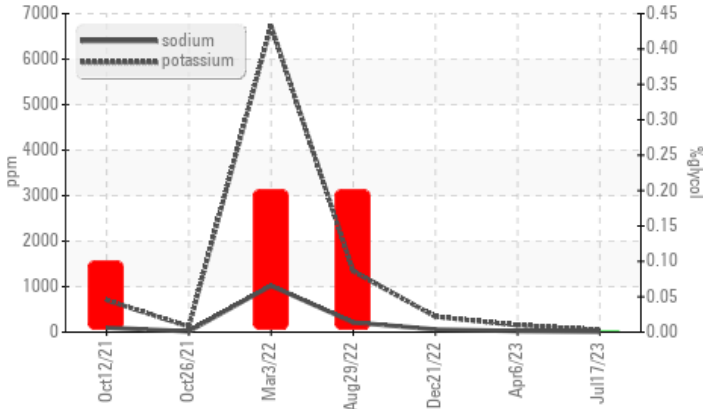
Machine Id
825038-154

Component
Diesel Engine

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

COMPONENT CONDITION SUMMARY

▲ Glycol Contamination



RECOMMENDATION

Resample at the next service interval to monitor.

PROBLEMATIC TEST RESULTS

Sample Status				ABNORMAL	ABNORMAL	ABNORMAL
Potassium	ppm	ASTM D5185m	>20	▲ 47	▲ 153	▲ 341

Customer Id: GFL659
 Sample No.: GFL0085086
 Lab Number: 05904772
 Test Package: FLEET



To manage this report scan the QR code

To discuss the diagnosis or test data:
 Don Baldrige +1
don.b505@comcast.net

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

RECOMMENDED ACTIONS

There are no recommended actions for this sample.

HISTORICAL DIAGNOSIS

06 Apr 2023 Diag: Jonathan Hester

GLYCOL



We advise that you check for possible 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 remain high. The BN result indicates that there is suitable alkalinity remaining in the oil.

view report



21 Dec 2022 Diag: Jonathan Hester

DIRT



We advise that you check for the source of the coolant leak. Check for low coolant level. 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 remain high. Elemental level of silicon (Si) above normal indicating ingress of seal material. The BN result indicates that there is suitable alkalinity remaining in the oil.

view report



29 Aug 2022 Diag: Wes Davis

GLYCOL



We advise that you check for the source of the coolant leak. The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample. Please specify the component make and model with your next sample. Metal levels are typical for a new component breaking in. Test for glycol is positive. There is a high concentration of glycol present in the oil. 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.

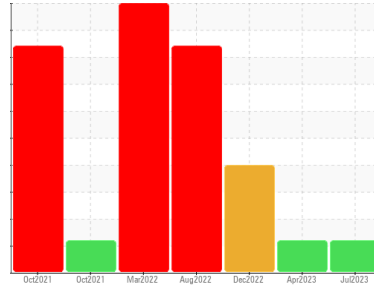
view report





OIL ANALYSIS REPORT

Sample Rating Trend



GLYCOL



Machine Id
825038-154

Component
Diesel Engine

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

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

Sodium and/or potassium levels are high. Test for glycol is negative.

Fluid Condition

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	GFL0085086	GFL0077709	GFL0048059
Sample Date	Client Info	17 Jul 2023	06 Apr 2023	21 Dec 2022
Machine Age	hrs	17550	17131	16630
Oil Age	hrs	0	0	0
Oil Changed	Client Info	Not Changed	N/A	Changed
Sample Status		ABNORMAL	ABNORMAL	ABNORMAL

CONTAMINATION

method	limit/base	current	history1	history2
Fuel	WC Method >5	<1.0	<1.0	<1.0

WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm ASTM D5185m >100	17	25	28
Chromium	ppm ASTM D5185m >20	<1	1	1
Nickel	ppm ASTM D5185m >4	0	<1	0
Titanium	ppm ASTM D5185m	0	0	0
Silver	ppm ASTM D5185m >3	0	0	0
Aluminum	ppm ASTM D5185m >20	2	2	2
Lead	ppm ASTM D5185m >40	0	<1	2
Copper	ppm ASTM D5185m >330	95	223	104
Tin	ppm ASTM D5185m >15	0	<1	0
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	8	5	12
Barium	ppm ASTM D5185m 0	<1	0	0
Molybdenum	ppm ASTM D5185m 60	69	75	100
Manganese	ppm ASTM D5185m 0	<1	<1	0
Magnesium	ppm ASTM D5185m 1010	1018	926	952
Calcium	ppm ASTM D5185m 1070	1181	1081	1207
Phosphorus	ppm ASTM D5185m 1150	1109	1031	1009
Zinc	ppm ASTM D5185m 1270	1355	1236	1303
Sulfur	ppm ASTM D5185m 2060	3712	2875	3324

CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >25	11	17	▲ 28
Sodium	ppm ASTM D5185m	8	24	▲ 60
Potassium	ppm ASTM D5185m >20	▲ 47	▲ 153	▲ 341
Glycol	% *ASTM D2982	0.0	NEG	NEG

INFRA-RED

method	limit/base	current	history1	history2
Soot %	% *ASTM D7844 >3	0.3	0.4	0.5
Nitration	Abs/cm *ASTM D7624 >20	8.1	8.6	10.2
Sulfation	Abs/.1mm *ASTM D7415 >30	20.0	19.0	23.3

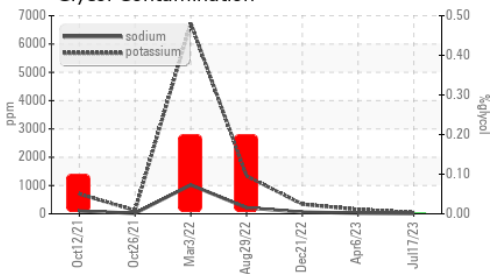
FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	15.3	15.5	18.1
Base Number (BN)	mg KOH/g ASTM D2896 9.8	8.1	6.7	8.0

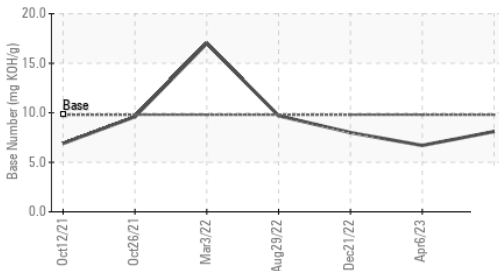


OIL ANALYSIS REPORT

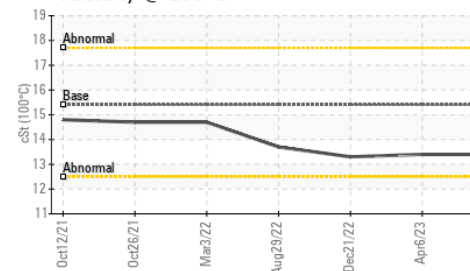
Glycol Contamination



Base Number



Viscosity @ 100°C

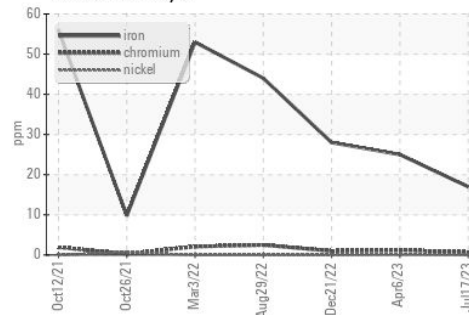


VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	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

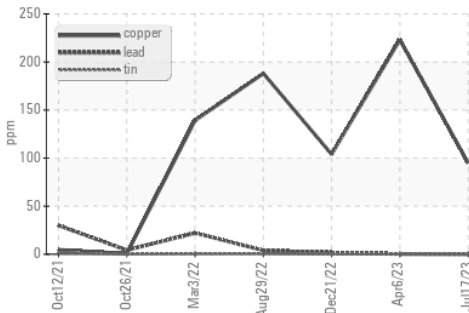
FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.4	13.4	13.3

GRAPHS

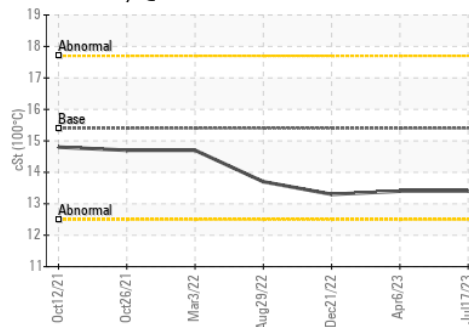
Ferrous Alloys



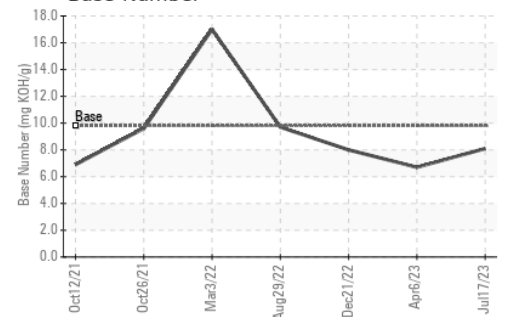
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0085086 **Received** : 21 Jul 2023
Lab Number : 05904772 **Diagnosed** : 25 Jul 2023
Unique Number : 10566128 **Diagnostician** : Don Baldrige
Test Package : FLEET (Additional Tests: Glycol)

GFL Environmental - 659 - Mechanicsville
 8280 RICHFOOD RD
 Mechanicsville, VA
 US 23116
 Contact: ANGELA BARON
 abaron@gflenv.com
 T: (804)489-3066
 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)