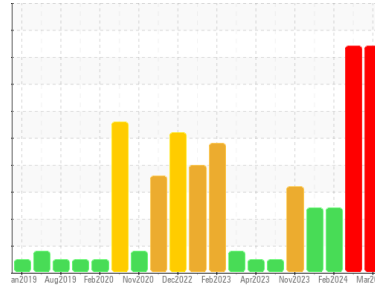




PROBLEM SUMMARY

Sample Rating Trend



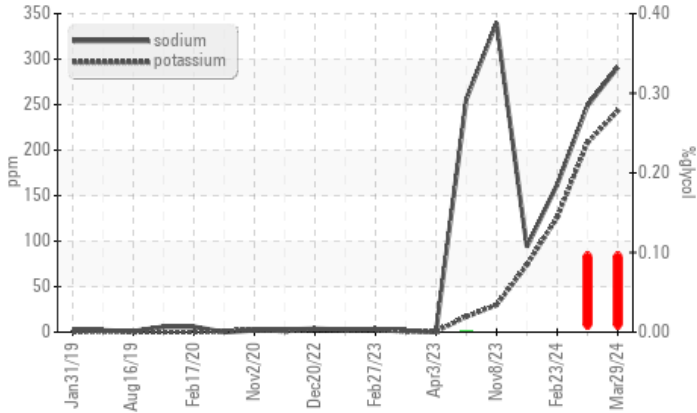
GLYCOL



Machine Id
727044-361326
 Component
Diesel Engine
 Fluid
PETRO CANADA DURON SHP 15W40 (8 GAL)

COMPONENT CONDITION SUMMARY

▲ Glycol Contamination



RECOMMENDATION

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.

PROBLEMATIC TEST RESULTS

Sample Status				SEVERE	SEVERE	ABNORMAL
Potassium	ppm	ASTM D5185m	>20	▲ 243	▲ 208	▲ 126
Glycol	%	*ASTM D2982		▲ 0.10	▲ 0.10	NEG

Customer Id: GFL829
 Sample No.: GFL0112186
 Lab Number: 06136065
 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 Glycol Access	---	---	?	We advise that you check for the source of the coolant leak.

HISTORICAL DIAGNOSIS

GLYCOL



15 Mar 2024 Diag: Wes Davis

We advise that you check for the source of the coolant leak. We recommend that you drain the oil from the component if this has not already been done. We advise that you flush the component thoroughly before re-filling with oil. We recommend an early resample to monitor this condition. All component wear rates are normal. 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](#)



GLYCOL



23 Feb 2024 Diag: Jonathan Hester

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](#)



GLYCOL



08 Jan 2024 Diag: Jonathan Hester

No corrective action is recommended at this time. 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 suitable for further service.

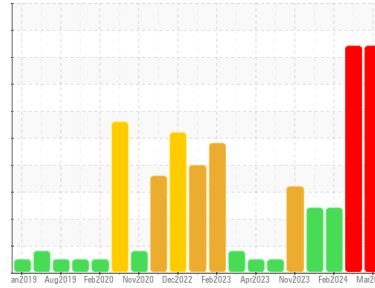
[view report](#)





OIL ANALYSIS REPORT

Sample Rating Trend



GLYCOL



Machine Id
727044-361326
 Component
Diesel Engine
 Fluid
PETRO CANADA DURON SHP 15W40 (8 GAL)

DIAGNOSIS

Recommendation

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.

Wear

All component wear rates are normal.

Contamination

Test for glycol is positive. There is a high concentration of glycol present 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	GFL0112186	GFL0112214	GFL0098680
Sample Date	Client Info	29 Mar 2024	15 Mar 2024	23 Feb 2024
Machine Age	hrs	1727	1587	1445
Oil Age	hrs	600	150	150
Oil Changed	Client Info	Changed	Not Changd	Not Changd
Sample Status		SEVERE	SEVERE	ABNORMAL

CONTAMINATION

method	limit/base	current	history1	history2
Fuel	WC Method >3.0	<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 >120	71	50	28
Chromium	ppm ASTM D5185m >20	2	1	1
Nickel	ppm ASTM D5185m >5	0	<1	<1
Titanium	ppm ASTM D5185m >2	0	<1	<1
Silver	ppm ASTM D5185m >2	0	0	0
Aluminum	ppm ASTM D5185m >20	9	8	5
Lead	ppm ASTM D5185m >40	27	25	14
Copper	ppm ASTM D5185m >330	6	6	4
Tin	ppm ASTM D5185m >15	1	1	<1
Vanadium	ppm ASTM D5185m	0	0	0
Cadmium	ppm ASTM D5185m	0	0	<1

ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185m 0	2	0	1
Barium	ppm ASTM D5185m 0	0	0	0
Molybdenum	ppm ASTM D5185m 60	124	114	90
Manganese	ppm ASTM D5185m 0	1	<1	<1
Magnesium	ppm ASTM D5185m 1010	870	878	906
Calcium	ppm ASTM D5185m 1070	978	996	969
Phosphorus	ppm ASTM D5185m 1150	949	953	984
Zinc	ppm ASTM D5185m 1270	1123	1167	1213
Sulfur	ppm ASTM D5185m 2060	3008	3004	3300

CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >25	15	11	5
Sodium	ppm ASTM D5185m	291	249	162
Potassium	ppm ASTM D5185m >20	243	208	126
Glycol	% *ASTM D2982	0.10	0.10	NEG

INFRA-RED

method	limit/base	current	history1	history2
Soot %	% *ASTM D7844 >4	3.3	2.5	1.7
Nitration	Abs/cm *ASTM D7624 >20	10.4	9.3	7.2
Sulfation	Abs./1mm *ASTM D7415 >30	23.1	22.9	19.3

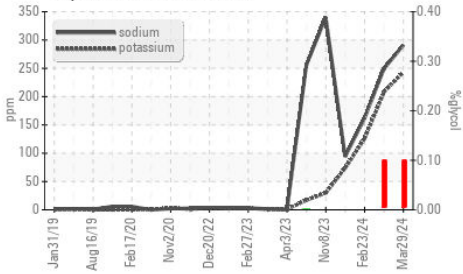
FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs./1mm *ASTM D7414 >25	14.4	13.4	12.9
Base Number (BN)	mg KOH/g ASTM D2896 9.8	8.5	9.3	10.1

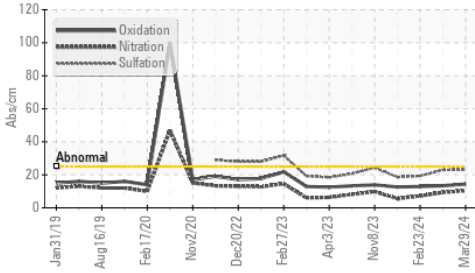


OIL ANALYSIS REPORT

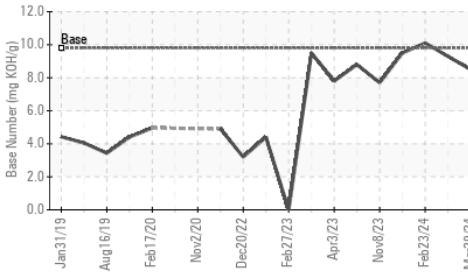
▲ Glycol Contamination



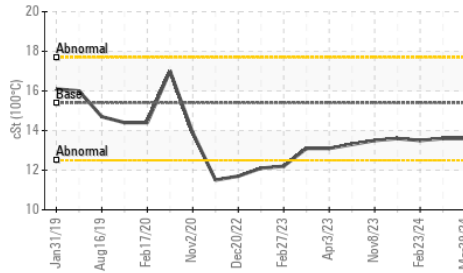
FT-IR (Direct Trend)



Base Number



Viscosity @ 100°C



VISUAL

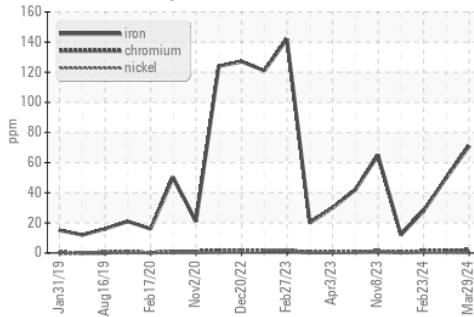
method	limit/base	current	history1	history2
White Metal	*Visual	NONE	NONE	NONE
Yellow Metal	*Visual	NONE	NONE	NONE
Precipitate	*Visual	NONE	NONE	NONE
Silt	*Visual	NONE	NONE	NONE
Debris	*Visual	NONE	NONE	NONE
Sand/Dirt	*Visual	NONE	NONE	NONE
Appearance	*Visual	NORML	NORML	NORML
Odor	*Visual	NORML	NORML	NORML
Emulsified Water	*Visual	>0.2	NEG	NEG
Free Water	*Visual	NEG	NEG	NEG

FLUID PROPERTIES

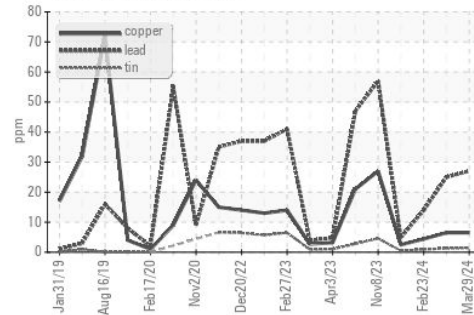
method	limit/base	current	history1	history2
Visc @ 100°C	ASTM D445	15.4	13.6	13.5

GRAPHS

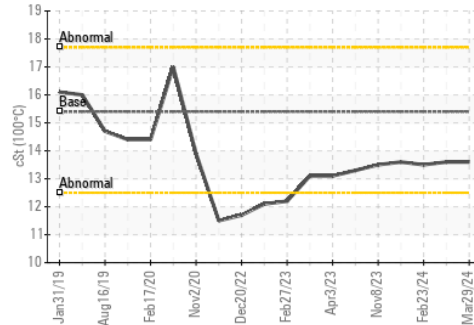
Ferrous Alloys



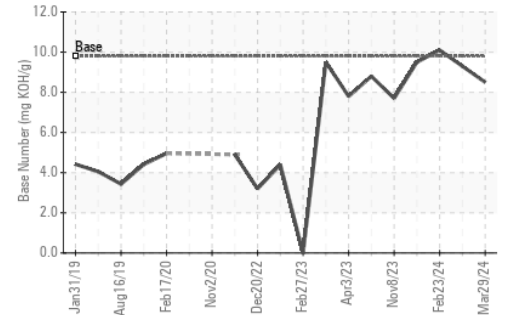
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
 Sample No. : GFL0112186
 Lab Number : 06136065
 Unique Number : 10955530
 Test Package : FLEET

GFL Environmental - 829 - Wilco Hauling
 5054 Highway HH
 Hartville, MO
 US 65667
 Contact: James Jones
 james.jones@gflenv.com
 T: (417)349-5006
 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)