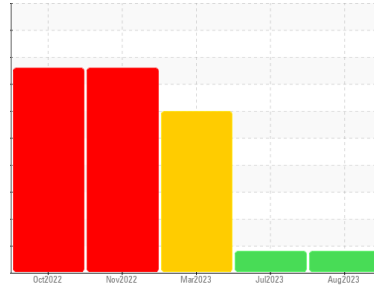




PROBLEM SUMMARY

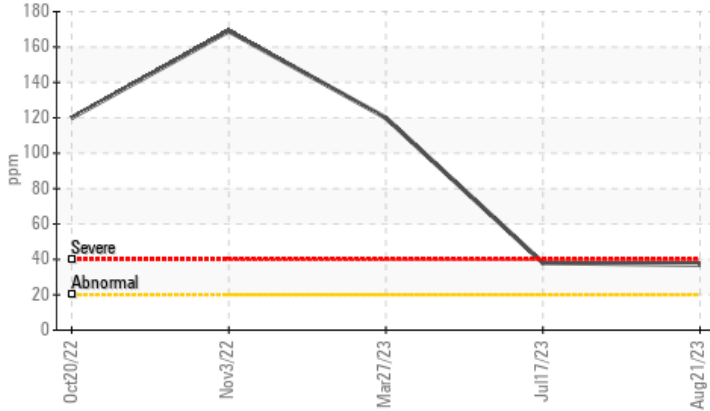
Sample Rating Trend



Machine Id
822026-1554
 Component
Diesel Engine
 Fluid
PETRO CANADA DURON SHP 15W40 (--- GAL)

COMPONENT CONDITION SUMMARY

▲ Aluminum (ppm)



RECOMMENDATION

No corrective action is recommended at this time.
 Resample at the next service interval to monitor.

PROBLEMATIC TEST RESULTS

Sample Status				ABNORMAL	ABNORMAL	SEVERE
Aluminum	ppm	ASTM D5185m	>20	▲ 37	▲ 38	◆ 120

Customer Id: GFL659
 Sample No.: GFL0090777
 Lab Number: 05937740
 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

17 Jul 2023 Diag: Don Baldrige

WEAR



No corrective action is recommended at this time. Resample at the next service interval to monitor. The aluminum level has decreased, but is still abnormal. All other 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



27 Mar 2023 Diag: Don Baldrige

WEAR



We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition. The aluminum level is severe. 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 acceptable for the time in service.

view report



03 Nov 2022 Diag: Don Baldrige

WEAR



We advise that you check for faulty combustion, plugged air filters, or aftercoolers. Oil and filter change at the time of sampling has been noted. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition. Piston, ring and cylinder wear is indicated. There is an abnormal amount of solids and carbon present in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil.

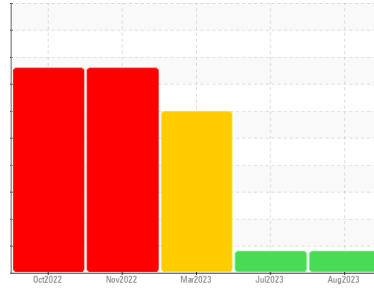
view report





OIL ANALYSIS REPORT

Sample Rating Trend



WEAR



Machine Id
822026-1554

Component
Diesel Engine

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

DIAGNOSIS

▲ Recommendation

No corrective action is recommended at this time. Resample at the next service interval to monitor.

▲ Wear

The aluminum level is abnormal. All other component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

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		GFL0090777	GFL0085089	GFL0059785
Sample Date	Client Info		21 Aug 2023	17 Jul 2023	27 Mar 2023
Machine Age	hrs	Client Info	16778	16585	15901
Oil Age	hrs	Client Info	14995	14995	14995
Oil Changed	Client Info		N/A	Not Changd	N/A
Sample Status			ABNORMAL	ABNORMAL	SEVERE

CONTAMINATION

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

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >100	21	29	69
Chromium	ppm	ASTM D5185m >20	<1	2	4
Nickel	ppm	ASTM D5185m >4	0	<1	3
Titanium	ppm	ASTM D5185m	0	0	<1
Silver	ppm	ASTM D5185m >3	0	0	0
Aluminum	ppm	ASTM D5185m >20	▲ 37	▲ 38	120
Lead	ppm	ASTM D5185m >40	<1	0	0
Copper	ppm	ASTM D5185m >330	<1	2	4
Tin	ppm	ASTM D5185m >15	0	0	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	4	7	17
Barium	ppm	ASTM D5185m 0	0	<1	0
Molybdenum	ppm	ASTM D5185m 60	59	63	66
Manganese	ppm	ASTM D5185m 0	<1	<1	1
Magnesium	ppm	ASTM D5185m 1010	1014	1004	948
Calcium	ppm	ASTM D5185m 1070	1158	1142	1208
Phosphorus	ppm	ASTM D5185m 1150	1045	1117	1087
Zinc	ppm	ASTM D5185m 1270	1304	1339	1307
Sulfur	ppm	ASTM D5185m 2060	3877	3916	3972

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	5	5	10
Sodium	ppm	ASTM D5185m	2	3	4
Potassium	ppm	ASTM D5185m >20	1	<1	5

INFRA-RED

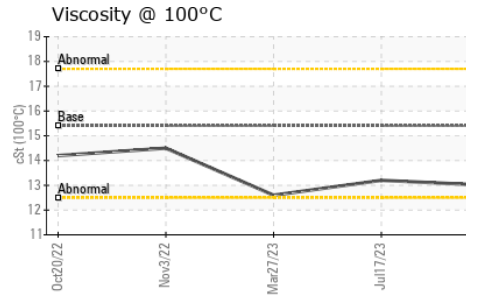
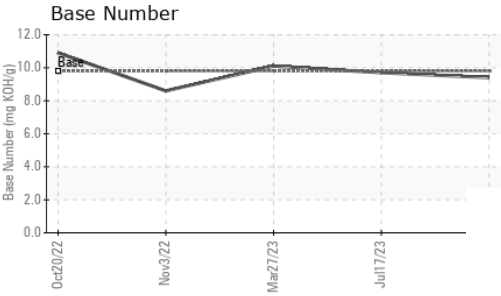
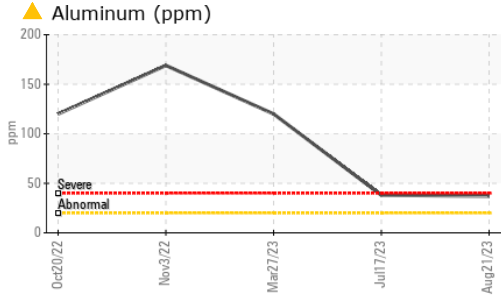
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >3	1.2	1.1	1.3
Nitration	Abs/cm	*ASTM D7624 >20	6.3	6.8	8.9
Sulfation	Abs/.1mm	*ASTM D7415 >30	19.2	19.5	19.8

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	12.6	13.3	14.3
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	9.4	9.7	10.1



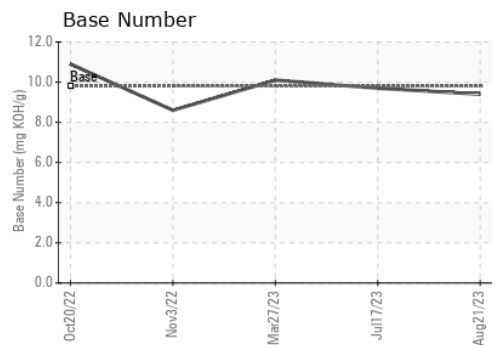
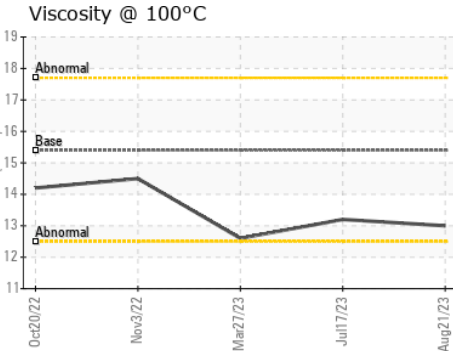
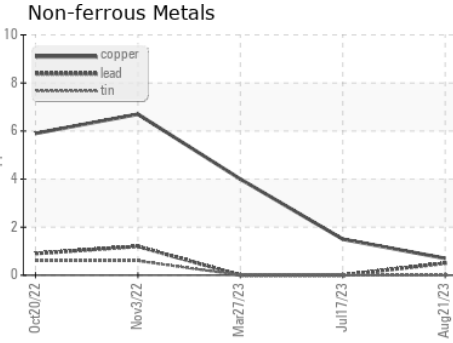
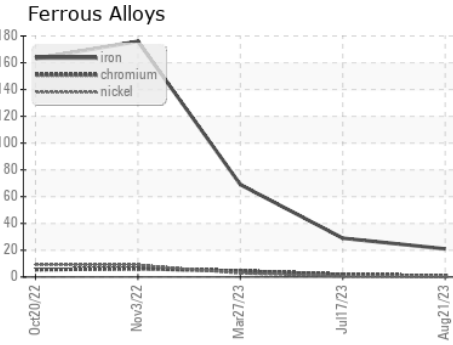
OIL ANALYSIS REPORT



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	13.0	13.2	12.6

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0090777 **Received** : 29 Aug 2023
Lab Number : **05937740** **Diagnosed** : 30 Aug 2023
Unique Number : 10628352 **Diagnostician** : Don Baldrige
Test Package : FLEET

GFL Environmental - 659 - Mechanicsville
 8280 RICHFOOD RD
 Mechanicsville, VA
 US 23116
 Contact: Dwayne Oliver
 dwayneoliver@gflenv.com
 T:
 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)