



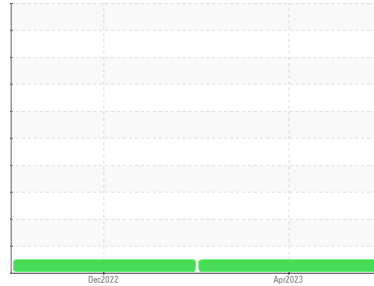
OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL



Machine Id
929039
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (--- GAL)



DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All 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		GFL0071258	GFL0065045	---
Sample Date	Client Info		17 Apr 2023	14 Dec 2022	---
Machine Age	hrs	Client Info	26977	26370	---
Oil Age	hrs	Client Info	26977	26370	---
Oil Changed	Client Info		Not Chngd	Not Chngd	---
Sample Status			NORMAL	NORMAL	---

CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>5	<1.0	<1.0	---
Water	WC Method	>0.2	NEG	NEG	---
Glycol	WC Method		NEG	NEG	---

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >120	9	4	---
Chromium	ppm	ASTM D5185m >20	0	<1	---
Nickel	ppm	ASTM D5185m >5	0	<1	---
Titanium	ppm	ASTM D5185m >2	0	0	---
Silver	ppm	ASTM D5185m >2	0	0	---
Aluminum	ppm	ASTM D5185m >20	4	1	---
Lead	ppm	ASTM D5185m >40	0	<1	---
Copper	ppm	ASTM D5185m >330	<1	<1	---
Tin	ppm	ASTM D5185m >15	<1	<1	---
Vanadium	ppm	ASTM D5185m	0	0	---
Cadmium	ppm	ASTM D5185m	0	0	---

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 0	0	4	---
Barium	ppm	ASTM D5185m 0	0	0	---
Molybdenum	ppm	ASTM D5185m 60	59	58	---
Manganese	ppm	ASTM D5185m 0	0	<1	---
Magnesium	ppm	ASTM D5185m 1010	957	930	---
Calcium	ppm	ASTM D5185m 1070	1063	1058	---
Phosphorus	ppm	ASTM D5185m 1150	976	993	---
Zinc	ppm	ASTM D5185m 1270	1204	1232	---
Sulfur	ppm	ASTM D5185m 2060	3186	3490	---

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	4	4	---
Sodium	ppm	ASTM D5185m	4	2	---
Potassium	ppm	ASTM D5185m >20	0	0	---

INFRA-RED

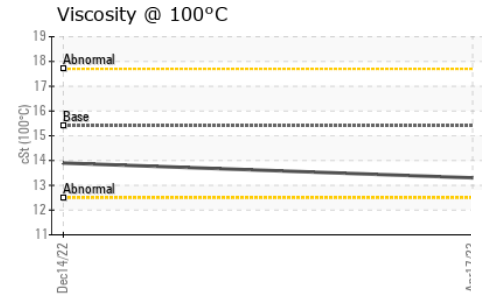
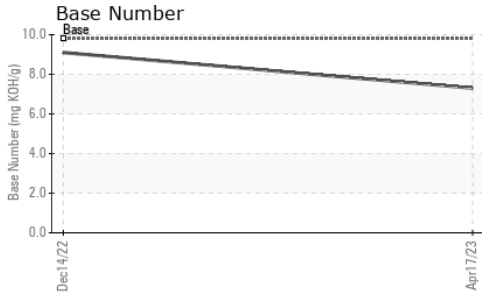
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >4	0.3	0.2	---
Nitration	Abs/cm	*ASTM D7624 >20	10.2	5.8	---
Sulfation	Abs/.1mm	*ASTM D7415 >30	20.2	17.8	---

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	17.9	13.7	---
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	7.3	9.1	---



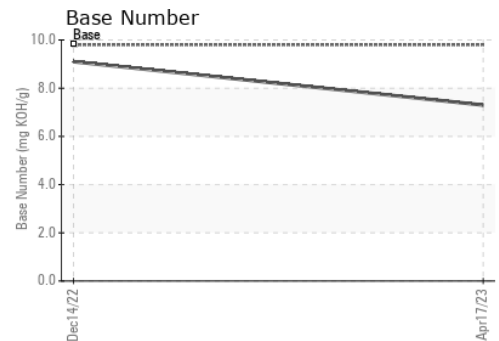
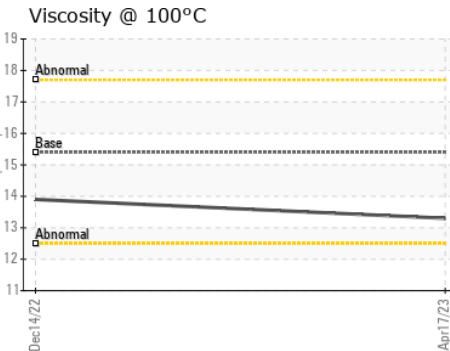
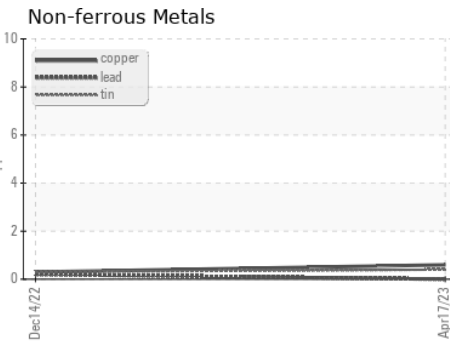
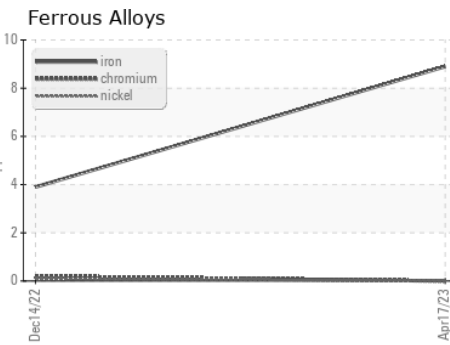
OIL ANALYSIS REPORT



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

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.4	13.3	13.9

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
 Sample No. : GFL0071258
 Lab Number : 05849400
 Unique Number : 10473507
 Test Package : FLEET

Received : 17 May 2023
 Tested : 18 May 2023
 Diagnosed : 18 May 2023 - Wes Davis

GFL Environmental - 932 - Muskego HC
 W144 S6400 College Ct.
 Muskego, WI
 US 53150
 Contact: Brian Schlomann
 brian.schlomann@gflenv.com
 T: (262)510-4586
 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)