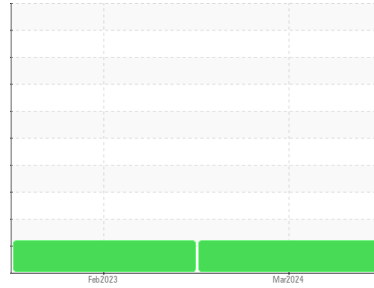




OIL ANALYSIS REPORT

Sample Rating Trend



FUEL



Machine Id

426121

Component

Diesel Engine

Fluid

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

DIAGNOSIS

▲ Recommendation

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

There is a moderate amount of fuel present in the oil. Tests confirm the presence of fuel 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		GFL0069930	GFL0069940	---
Sample Date	Client Info		25 Mar 2024	22 Feb 2023	---
Machine Age	mls	Client Info	225718	215790	---
Oil Age	mls	Client Info	0	0	---
Oil Changed	Client Info		Changed	N/A	---
Sample Status			ABNORMAL	ABNORMAL	---

CONTAMINATION

	method	limit/base	current	history1	history2
Water	WC Method	>0.2	NEG	NEG	---
Glycol	WC Method		NEG	NEG	---

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >100	27	18	---
Chromium	ppm	ASTM D5185m >20	<1	<1	---
Nickel	ppm	ASTM D5185m >4	0	<1	---
Titanium	ppm	ASTM D5185m	0	<1	---
Silver	ppm	ASTM D5185m >3	0	0	---
Aluminum	ppm	ASTM D5185m >20	4	5	---
Lead	ppm	ASTM D5185m >40	<1	1	---
Copper	ppm	ASTM D5185m >330	3	3	---
Tin	ppm	ASTM D5185m >15	0	<1	---
Vanadium	ppm	ASTM D5185m	<1	0	---
Cadmium	ppm	ASTM D5185m	0	0	---

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 0	12	86	---
Barium	ppm	ASTM D5185m 0	0	0	---
Molybdenum	ppm	ASTM D5185m 60	61	47	---
Manganese	ppm	ASTM D5185m 0	<1	2	---
Magnesium	ppm	ASTM D5185m 1010	928	497	---
Calcium	ppm	ASTM D5185m 1070	1305	1598	---
Phosphorus	ppm	ASTM D5185m 1150	1058	739	---
Zinc	ppm	ASTM D5185m 1270	1207	943	---
Sulfur	ppm	ASTM D5185m 2060	3525	2727	---

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	4	6	---
Sodium	ppm	ASTM D5185m	1	3	---
Potassium	ppm	ASTM D5185m >20	1	<1	---
Fuel	%	ASTM D3524 >2.0	▲ 2.9	▲ 3.0	---

INFRA-RED

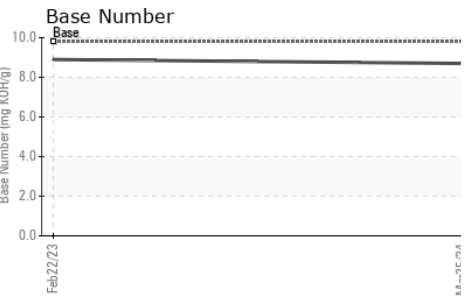
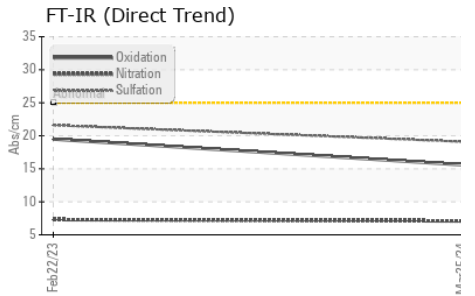
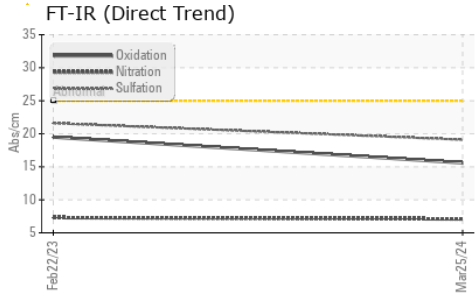
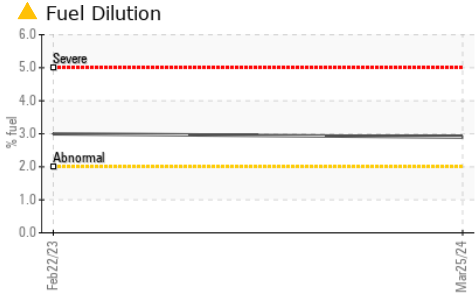
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >3	0.2	0.1	---
Nitration	Abs/cm	*ASTM D7624 >20	7.1	7.3	---
Sulfation	Abs/.1mm	*ASTM D7415 >30	19.1	21.6	---

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	15.6	19.5	---
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	8.7	8.9	---



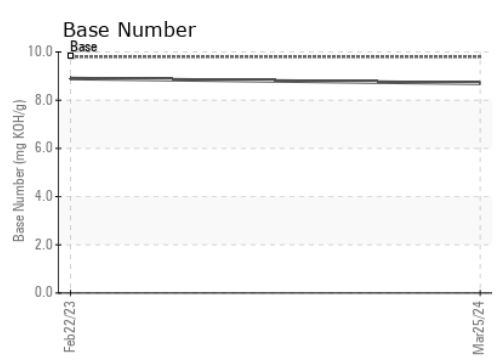
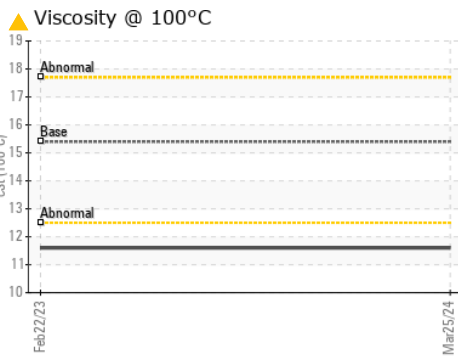
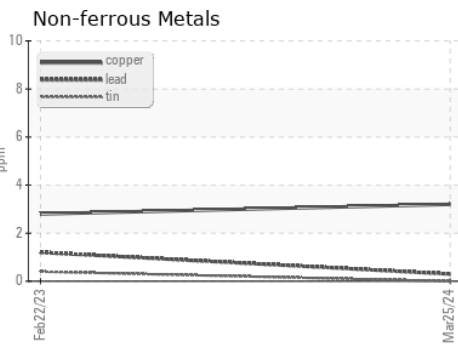
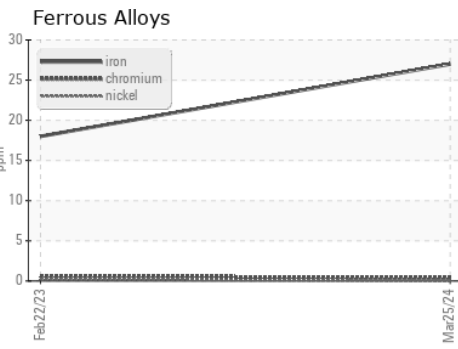
OIL ANALYSIS REPORT



VISUAL	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	▲ 11.6	▲ 11.6

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0069930 **Received** : 09 Apr 2024
Lab Number : 06142739 **Tested** : 11 Apr 2024
Unique Number : 10967547 **Diagnosed** : 11 Apr 2024 - Wes Davis
Test Package : FLEET (Additional Tests: PercentFuel)

GFL Environmental - 902 - Chilton NC
 428 High St
 Chilton, WI
 US 53014
 Contact: Keith Mueller
 keith.mueller@gflenv.com

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)