



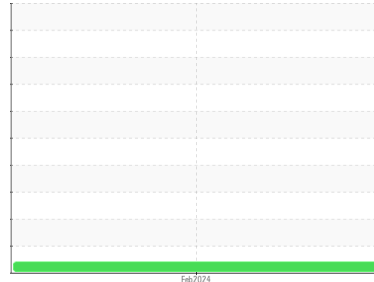
OIL ANALYSIS REPORT

Sample Rating Trend

VISCOSITY



Machine Id
214009
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

Metal levels are typical for a new component breaking in.

Contamination

Fuel content negligible. There is no indication of any contamination in the oil.

Fluid Condition

The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		GFL0113687	---	---
Sample Date	Client Info		22 Feb 2024	---	---
Machine Age	hrs	Client Info	144	---	---
Oil Age	hrs	Client Info	0	---	---
Oil Changed	Client Info		N/A	---	---
Sample Status			ATTENTION	---	---

CONTAMINATION

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

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >120	52	---	---
Chromium	ppm	ASTM D5185m >20	1	---	---
Nickel	ppm	ASTM D5185m >5	0	---	---
Titanium	ppm	ASTM D5185m >2	<1	---	---
Silver	ppm	ASTM D5185m >2	0	---	---
Aluminum	ppm	ASTM D5185m >20	8	---	---
Lead	ppm	ASTM D5185m >40	0	---	---
Copper	ppm	ASTM D5185m >330	51	---	---
Tin	ppm	ASTM D5185m >15	0	---	---
Vanadium	ppm	ASTM D5185m	0	---	---
Cadmium	ppm	ASTM D5185m	0	---	---

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 0	57	---	---
Barium	ppm	ASTM D5185m 0	5	---	---
Molybdenum	ppm	ASTM D5185m 60	44	---	---
Manganese	ppm	ASTM D5185m 0	5	---	---
Magnesium	ppm	ASTM D5185m 1010	553	---	---
Calcium	ppm	ASTM D5185m 1070	1474	---	---
Phosphorus	ppm	ASTM D5185m 1150	755	---	---
Zinc	ppm	ASTM D5185m 1270	940	---	---
Sulfur	ppm	ASTM D5185m 2060	2537	---	---

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	26	---	---
Sodium	ppm	ASTM D5185m	7	---	---
Potassium	ppm	ASTM D5185m >20	12	---	---
Fuel	%	ASTM D3524 >3.0	0.6	---	---

INFRA-RED

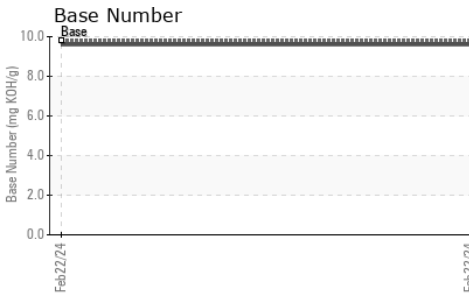
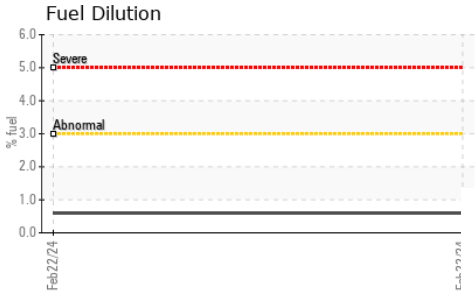
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >4	0.1	---	---
Nitration	Abs/cm	*ASTM D7624 >20	6.4	---	---
Sulfation	Abs/.1mm	*ASTM D7415 >30	21.6	---	---

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	19.5	---	---
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	9.6	---	---



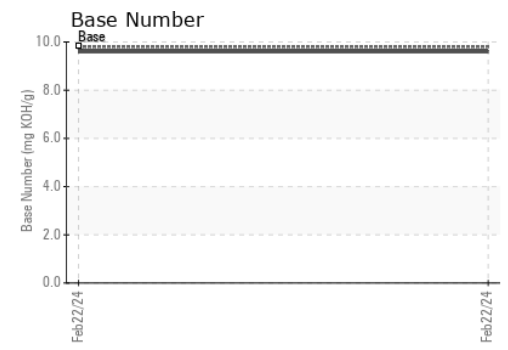
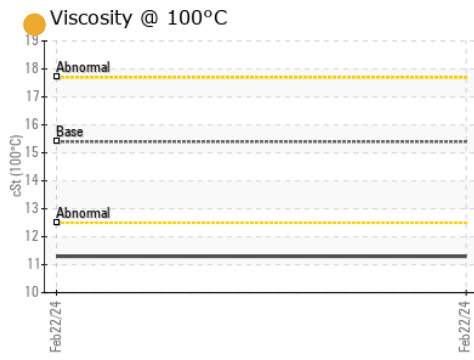
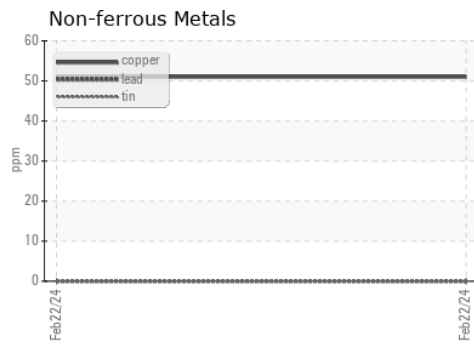
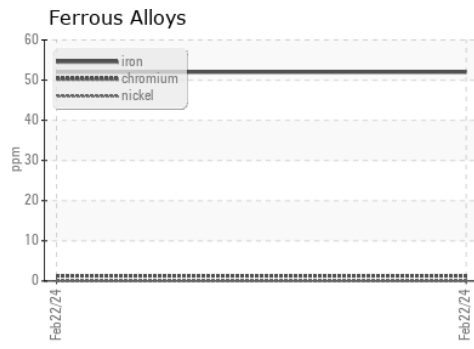
OIL ANALYSIS REPORT



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	● 11.3	---	---

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0113687 **Received** : 05 Mar 2024
Lab Number : **06108394** **Tested** : 07 Mar 2024
Unique Number : 10911891 **Diagnosed** : 07 Mar 2024 - Jonathan Hester
Test Package : FLEET (Additional Tests: FuelDilution, PercentFuel)

GFL Environmental - 868 - Childersburg Fines Hauling (Alpine)
 13737 Plant Rd
 Childersburg, AL
 US 35044
 Contact: JONATHAN WILLIAMS
 jonathan.williams@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)