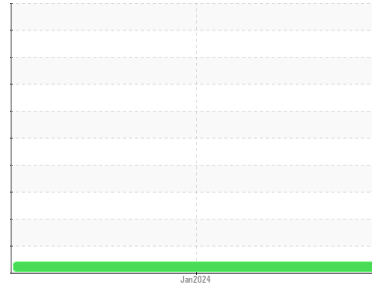




# OIL ANALYSIS REPORT

Sample Rating Trend



VISCOSITY



Machine Id  
**517005**

Component  
**Diesel Engine**

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

## DIAGNOSIS

### ▲ Recommendation

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

### Wear

All component wear rates are normal.

### 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	<b>GFL0100396</b>	---	---
Sample Date	Client Info	<b>23 Jan 2024</b>	---	---
Machine Age	hrs Client Info	<b>9774</b>	---	---
Oil Age	hrs Client Info	<b>571</b>	---	---
Oil Changed	Client Info	<b>Changed</b>	---	---
Sample Status		<b>ATTENTION</b>	---	---

## CONTAMINATION

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

## WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm ASTM D5185m >80	<b>38</b>	---	---
Chromium	ppm ASTM D5185m >5	<b>2</b>	---	---
Nickel	ppm ASTM D5185m >2	<b>0</b>	---	---
Titanium	ppm ASTM D5185m	<b>&lt;1</b>	---	---
Silver	ppm ASTM D5185m >3	<b>0</b>	---	---
Aluminum	ppm ASTM D5185m >30	<b>20</b>	---	---
Lead	ppm ASTM D5185m >30	<b>0</b>	---	---
Copper	ppm ASTM D5185m >150	<b>6</b>	---	---
Tin	ppm ASTM D5185m >5	<b>&lt;1</b>	---	---
Vanadium	ppm ASTM D5185m	<b>&lt;1</b>	---	---
Cadmium	ppm ASTM D5185m	<b>0</b>	---	---

## ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185m 0	<b>36</b>	---	---
Barium	ppm ASTM D5185m 0	<b>0</b>	---	---
Molybdenum	ppm ASTM D5185m 60	<b>59</b>	---	---
Manganese	ppm ASTM D5185m 0	<b>&lt;1</b>	---	---
Magnesium	ppm ASTM D5185m 1010	<b>416</b>	---	---
Calcium	ppm ASTM D5185m 1070	<b>1720</b>	---	---
Phosphorus	ppm ASTM D5185m 1150	<b>952</b>	---	---
Zinc	ppm ASTM D5185m 1270	<b>1226</b>	---	---
Sulfur	ppm ASTM D5185m 2060	<b>3030</b>	---	---

## CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >20	<b>4</b>	---	---
Sodium	ppm ASTM D5185m	<b>2</b>	---	---
Potassium	ppm ASTM D5185m >20	<b>31</b>	---	---
Fuel	% ASTM D3524 >5	<b>0.2</b>	---	---

## INFRA-RED

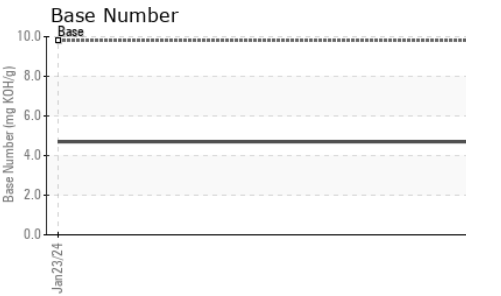
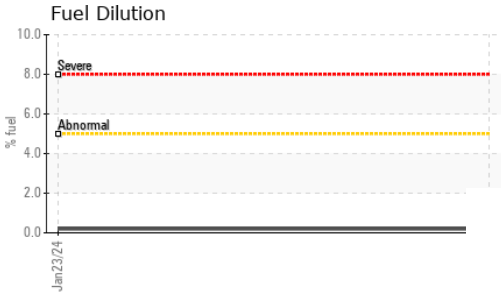
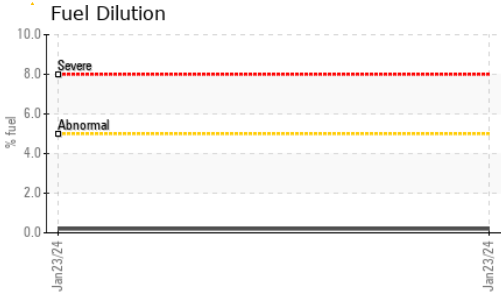
method	limit/base	current	history1	history2
Soot %	% *ASTM D7844 >3	<b>0.5</b>	---	---
Nitration	Abs/cm *ASTM D7624 >20	<b>8.3</b>	---	---
Sulfation	Abs/.1mm *ASTM D7415 >30	<b>20.3</b>	---	---

## FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	<b>17.2</b>	---	---
Base Number (BN)	mg KOH/g ASTM D2896 9.8	<b>4.7</b>	---	---



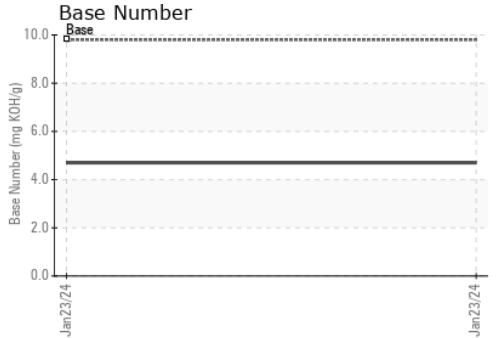
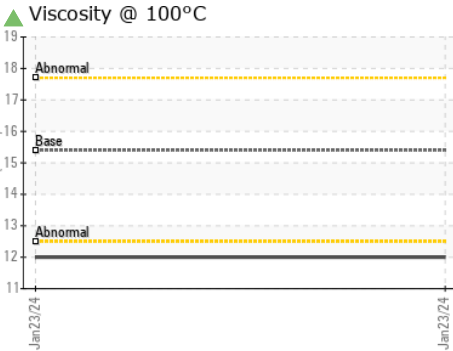
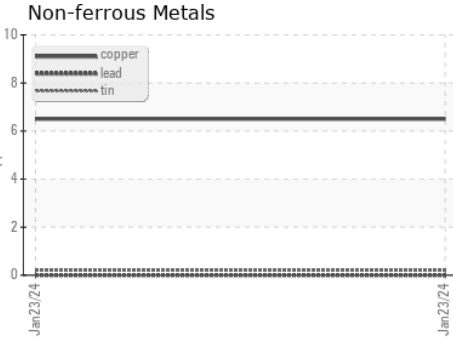
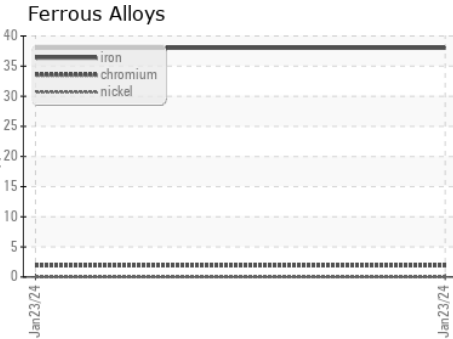
# OIL ANALYSIS REPORT



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 ▲ 12.0	---	---

## GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0100396 **Received** : 30 Jan 2024  
**Lab Number** : 06073485 **Diagnosed** : 31 Jan 2024  
**Unique Number** : 10850162 **Diagnostician** : Don Baldrige  
**Test Package** : FLEET ( Additional Tests: FuelDilution, PercentFuel )

**GFL Environmental - 935 - Omro HC**  
 250 Alder Avenue  
 Omro, WI  
 US 54963  
 Contact: Tim Kieffer  
 tim.kieffer@gflenv.com  
 T: (608)219-0288  
 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)