



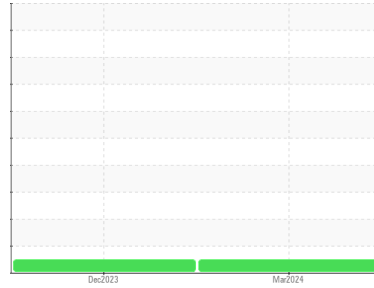
# OIL ANALYSIS REPORT

Sample Rating Trend

**NORMAL**



Area  
**(36765HA)**  
Machine Id  
**723005**  
Component  
**1 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		<b>GFL0113601</b>	GFL0103821	---
Sample Date	Client Info		<b>07 Mar 2024</b>	14 Dec 2023	---
Machine Age	hrs	Client Info	<b>16171</b>	15911	---
Oil Age	hrs	Client Info	<b>260</b>	289	---
Oil Changed	Client Info		<b>N/A</b>	Changed	---
Sample Status			<b>NORMAL</b>	NORMAL	---

## CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>3.0	<b>&lt;1.0</b>	<1.0	---
Water	WC Method	>0.2	<b>NEG</b>	NEG	---
Glycol	WC Method		<b>NEG</b>	NEG	---

## WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >120	<b>11</b>	22	---
Chromium	ppm	ASTM D5185m >20	<b>&lt;1</b>	1	---
Nickel	ppm	ASTM D5185m >5	<b>3</b>	4	---
Titanium	ppm	ASTM D5185m >2	<b>0</b>	<1	---
Silver	ppm	ASTM D5185m >2	<b>0</b>	0	---
Aluminum	ppm	ASTM D5185m >20	<b>&lt;1</b>	16	---
Lead	ppm	ASTM D5185m >40	<b>0</b>	<1	---
Copper	ppm	ASTM D5185m >330	<b>15</b>	3	---
Tin	ppm	ASTM D5185m >15	<b>0</b>	1	---
Vanadium	ppm	ASTM D5185m	<b>0</b>	0	---
Cadmium	ppm	ASTM D5185m	<b>0</b>	0	---

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 0	<b>12</b>	5	---
Barium	ppm	ASTM D5185m 0	<b>0</b>	<1	---
Molybdenum	ppm	ASTM D5185m 60	<b>58</b>	60	---
Manganese	ppm	ASTM D5185m 0	<b>&lt;1</b>	1	---
Magnesium	ppm	ASTM D5185m 1010	<b>905</b>	918	---
Calcium	ppm	ASTM D5185m 1070	<b>1072</b>	1039	---
Phosphorus	ppm	ASTM D5185m 1150	<b>915</b>	1076	---
Zinc	ppm	ASTM D5185m 1270	<b>1104</b>	1243	---
Sulfur	ppm	ASTM D5185m 2060	<b>3208</b>	2963	---

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	<b>9</b>	5	---
Sodium	ppm	ASTM D5185m	<b>2</b>	6	---
Potassium	ppm	ASTM D5185m >20	<b>&lt;1</b>	2	---

## INFRA-RED

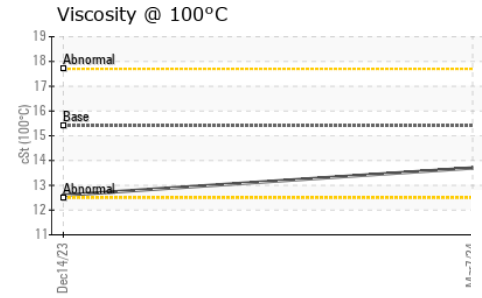
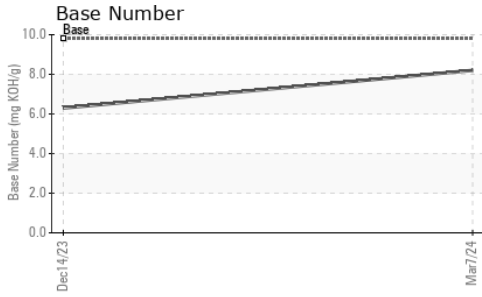
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >4	<b>0.2</b>	0.3	---
Nitration	Abs/cm	*ASTM D7624 >20	<b>6.8</b>	8.5	---
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>18.9</b>	19.1	---

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>15.2</b>	15.7	---
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	<b>8.2</b>	6.3	---



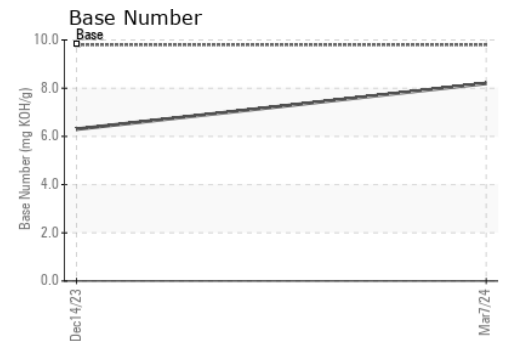
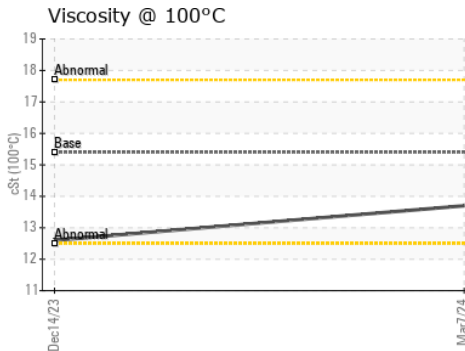
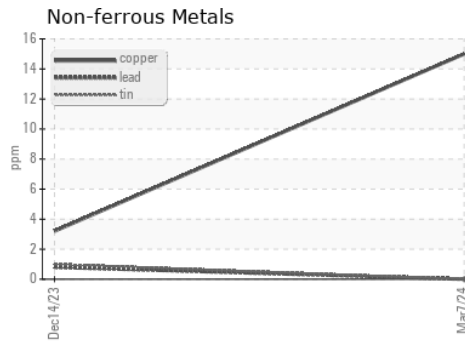
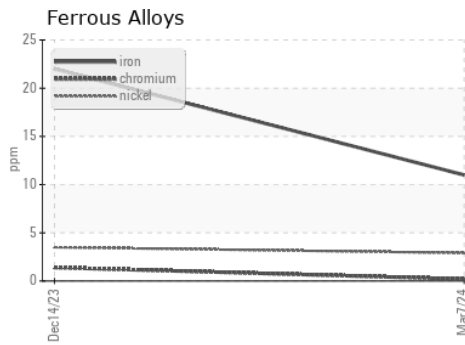
# OIL ANALYSIS REPORT



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	<b>13.7</b>	12.6

## GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0113601  
**Lab Number** : 06114779  
**Unique Number** : 10923612  
**Test Package** : FLEET

**Received** : 11 Mar 2024  
**Tested** : 12 Mar 2024  
**Diagnosed** : 12 Mar 2024 - Wes Davis

**GFL Environmental - 654S - Midlothian**  
 12230 Deergrove Road  
 Midlothian, VA  
 US 23112  
 Contact: Corbin Umphlet  
 cumphlet@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)

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F: