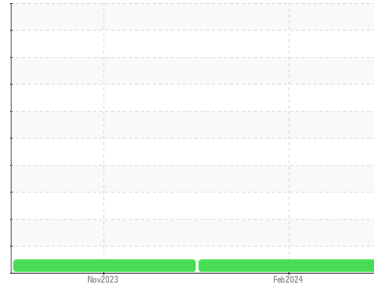




# OIL ANALYSIS REPORT

Sample Rating Trend

**NORMAL**



Machine Id  
**423083**  
 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		<b>GFL0093018</b>	GFL0093026	---
Sample Date	Client Info		<b>27 Feb 2024</b>	14 Nov 2023	---
Machine Age	mls	Client Info	<b>91792</b>	75950	---
Oil Age	mls	Client Info	<b>0</b>	0	---
Oil Changed	Client Info		<b>Changed</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>17</b>	12	---
Chromium	ppm	ASTM D5185m >20	<b>&lt;1</b>	<1	---
Nickel	ppm	ASTM D5185m >5	<b>3</b>	3	---
Titanium	ppm	ASTM D5185m >2	<b>0</b>	0	---
Silver	ppm	ASTM D5185m >2	<b>0</b>	<1	---
Aluminum	ppm	ASTM D5185m >20	<b>3</b>	3	---
Lead	ppm	ASTM D5185m >40	<b>0</b>	0	---
Copper	ppm	ASTM D5185m >330	<b>4</b>	4	---
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>2</b>	8	---
Barium	ppm	ASTM D5185m 0	<b>0</b>	0	---
Molybdenum	ppm	ASTM D5185m 60	<b>60</b>	58	---
Manganese	ppm	ASTM D5185m 0	<b>&lt;1</b>	<1	---
Magnesium	ppm	ASTM D5185m 1010	<b>1050</b>	858	---
Calcium	ppm	ASTM D5185m 1070	<b>1177</b>	1026	---
Phosphorus	ppm	ASTM D5185m 1150	<b>1101</b>	975	---
Zinc	ppm	ASTM D5185m 1270	<b>1316</b>	1139	---
Sulfur	ppm	ASTM D5185m 2060	<b>3494</b>	2702	---

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	<b>4</b>	4	---
Sodium	ppm	ASTM D5185m	<b>6</b>	2	---
Potassium	ppm	ASTM D5185m >20	<b>8</b>	9	---

## INFRA-RED

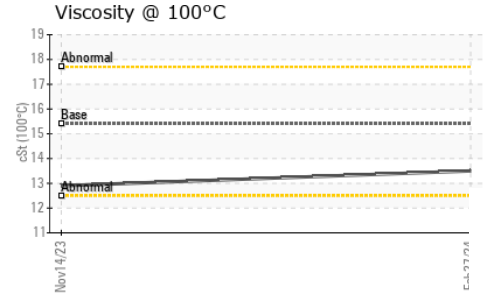
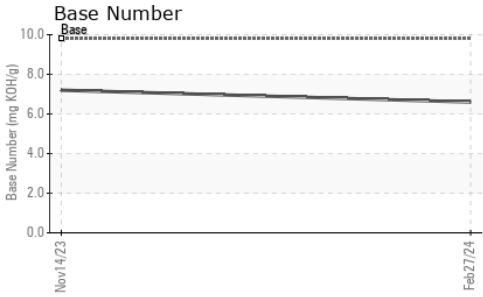
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >4	<b>0.5</b>	0.5	---
Nitration	Abs/cm	*ASTM D7624 >20	<b>9.7</b>	8.5	---
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>20.5</b>	19.6	---

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>17.3</b>	15.5	---
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	<b>6.6</b>	7.2	---



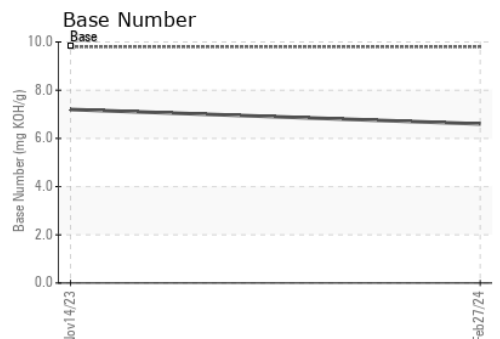
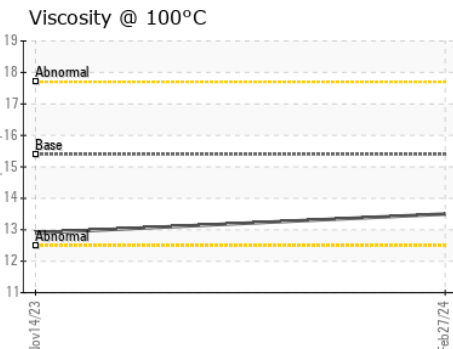
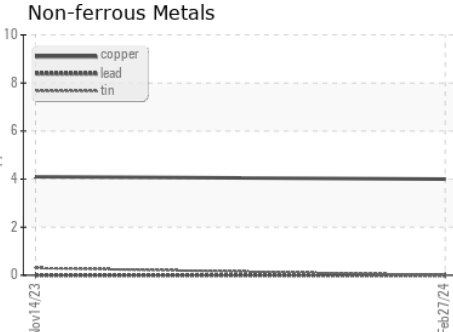
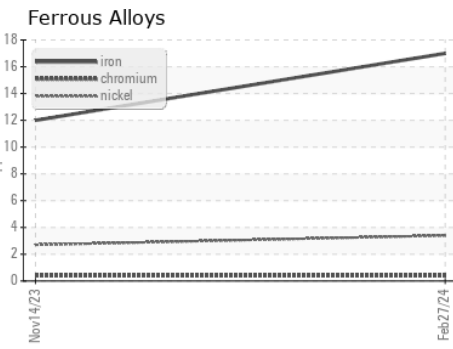
# OIL ANALYSIS REPORT



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>13.5</b>	12.9

## GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0093018      **Received** : 29 Mar 2024  
**Lab Number** : **06132949**      **Tested** : 01 Apr 2024  
**Unique Number** : 10952414      **Diagnosed** : 01 Apr 2024 - Wes Davis  
**Test Package** : FLEET

**GFL Environmental - 413 - Whiteland Hauling**  
 2959 S EMERSON AVE  
 WHITELAND, IN  
 US 46184  
 Contact: Christyan Trent-Proctor  
 ctrentproctor@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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