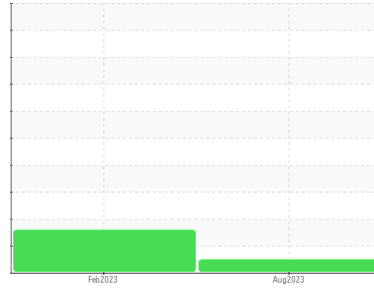




# OIL ANALYSIS REPORT

## Sample Rating Trend



**NORMAL**



Machine Id  
**521031**

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>GFL0085620</b>	GFL0076874	---
Sample Date	Client Info	<b>10 Aug 2023</b>	27 Feb 2023	---
Machine Age	hrs	<b>7068</b>	6866	---
Oil Age	hrs	<b>202</b>	600	---
Oil Changed	Client Info	<b>Changed</b>	Changed	---
Sample Status		<b>NORMAL</b>	ABNORMAL	---

### CONTAMINATION

method	limit/base	current	history1	history2
Fuel	WC Method >5	<b>&lt;1.0</b>	<1.0	---
Glycol	WC Method	<b>NEG</b>	0.0	---

### WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm ASTM D5185m >110	<b>17</b>	17	---
Chromium	ppm ASTM D5185m >4	<b>1</b>	1	---
Nickel	ppm ASTM D5185m >2	<b>&lt;1</b>	0	---
Titanium	ppm ASTM D5185m	<b>&lt;1</b>	<1	---
Silver	ppm ASTM D5185m >2	<b>0</b>	0	---
Aluminum	ppm ASTM D5185m >25	<b>2</b>	3	---
Lead	ppm ASTM D5185m >45	<b>3</b>	4	---
Copper	ppm ASTM D5185m >85	<b>4</b>	11	---
Tin	ppm ASTM D5185m >4	<b>2</b>	3	---
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>16</b>	80	---
Barium	ppm ASTM D5185m 0	<b>0</b>	0	---
Molybdenum	ppm ASTM D5185m 60	<b>54</b>	73	---
Manganese	ppm ASTM D5185m 0	<b>&lt;1</b>	2	---
Magnesium	ppm ASTM D5185m 1010	<b>846</b>	894	---
Calcium	ppm ASTM D5185m 1070	<b>1115</b>	1219	---
Phosphorus	ppm ASTM D5185m 1150	<b>930</b>	935	---
Zinc	ppm ASTM D5185m 1270	<b>1136</b>	1165	---
Sulfur	ppm ASTM D5185m 2060	<b>3290</b>	3568	---

### CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >30	<b>15</b>	▲ 33	---
Sodium	ppm ASTM D5185m	<b>6</b>	15	---
Potassium	ppm ASTM D5185m >20	<b>16</b>	64	---

### INFRA-RED

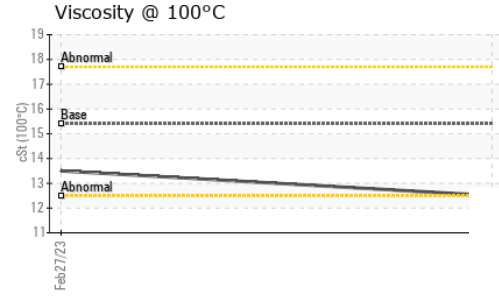
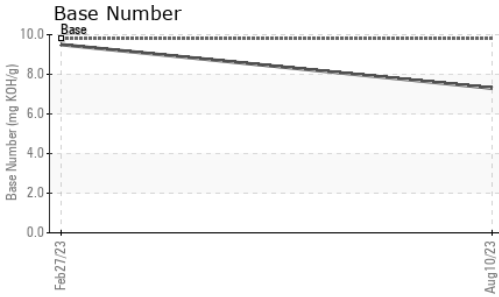
method	limit/base	current	history1	history2
Soot %	% *ASTM D7844 >3	<b>0.3</b>	0.2	---
Nitration	Abs/cm *ASTM D7624 >20	<b>9.0</b>	6.8	---
Sulfation	Abs/.1mm *ASTM D7415 >30	<b>19.6</b>	19.4	---

### FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	<b>16.5</b>	14.5	---
Base Number (BN)	mg KOH/g ASTM D2896 9.8	<b>7.3</b>	9.5	---



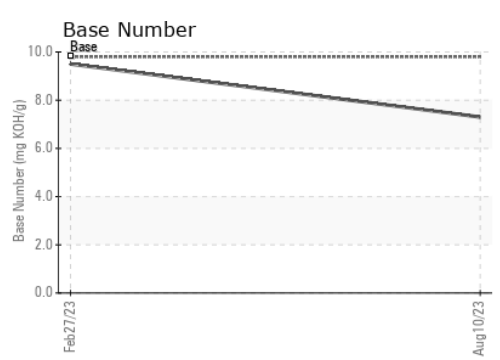
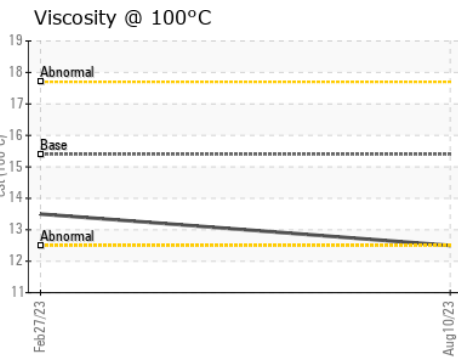
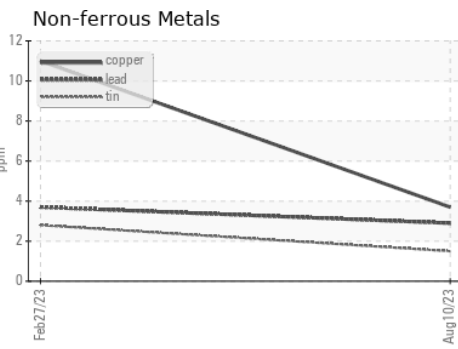
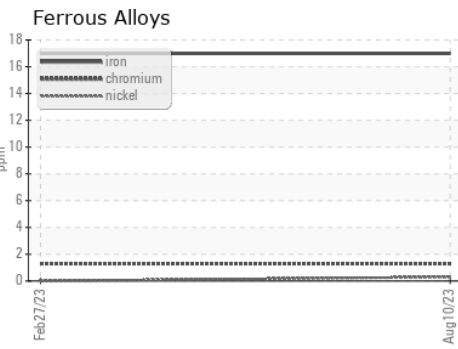
# OIL ANALYSIS REPORT



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	12.5	13.5

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0085620 **Received** : 15 Aug 2023  
**Lab Number** : 05925353 **Diagnosed** : 16 Aug 2023  
**Unique Number** : 10605300 **Diagnostician** : Wes Davis  
**Test Package** : FLEET

**GFL Environmental - 411 - Kingsford HC**  
 1001 E Blvd  
 Kingsford, MI  
 US 49802  
 Contact: Service Manager

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: