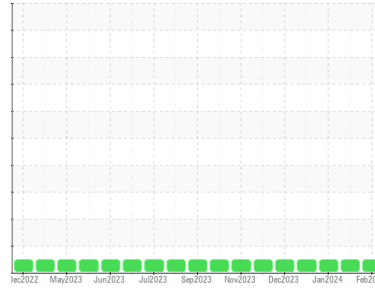




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id  
**812101**

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>GFL0111087</b>	GFL0111101	GFL0103526
Sample Date	Client Info	<b>13 Feb 2024</b>	07 Feb 2024	24 Jan 2024
Machine Age	hrs	<b>7163</b>	7082	7032
Oil Age	hrs	<b>426</b>	345	295
Oil Changed	Client Info	<b>N/A</b>	N/A	N/A
Sample Status		<b>NORMAL</b>	NORMAL	NORMAL

## CONTAMINATION

method	limit/base	current	history1	history2
Fuel	WC Method >5	<b>&lt;1.0</b>	<1.0	<1.0
Water	WC Method >0.2	<b>NEG</b>	NEG	NEG
Glycol	WC Method	<b>NEG</b>	NEG	NEG

## WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm ASTM D5185m >110	<b>6</b>	6	3
Chromium	ppm ASTM D5185m >4	<b>0</b>	<1	0
Nickel	ppm ASTM D5185m >2	<b>0</b>	0	<1
Titanium	ppm ASTM D5185m	<b>0</b>	<1	0
Silver	ppm ASTM D5185m >2	<b>0</b>	0	0
Aluminum	ppm ASTM D5185m >25	<b>2</b>	3	3
Lead	ppm ASTM D5185m >45	<b>0</b>	<1	<1
Copper	ppm ASTM D5185m >85	<b>&lt;1</b>	<1	0
Tin	ppm ASTM D5185m >4	<b>&lt;1</b>	<1	<1
Vanadium	ppm ASTM D5185m	<b>0</b>	<1	0
Cadmium	ppm ASTM D5185m	<b>0</b>	0	0

## ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185m 0	<b>12</b>	13	20
Barium	ppm ASTM D5185m 0	<b>0</b>	0	0
Molybdenum	ppm ASTM D5185m 60	<b>87</b>	91	86
Manganese	ppm ASTM D5185m 0	<b>0</b>	0	<1
Magnesium	ppm ASTM D5185m 1010	<b>981</b>	953	909
Calcium	ppm ASTM D5185m 1070	<b>1124</b>	1160	1033
Phosphorus	ppm ASTM D5185m 1150	<b>1081</b>	1038	985
Zinc	ppm ASTM D5185m 1270	<b>1229</b>	1238	1215
Sulfur	ppm ASTM D5185m 2060	<b>3015</b>	3010	2935

## CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >30	<b>3</b>	3	3
Sodium	ppm ASTM D5185m	<b>&lt;1</b>	<1	<1
Potassium	ppm ASTM D5185m >20	<b>8</b>	10	10

## INFRA-RED

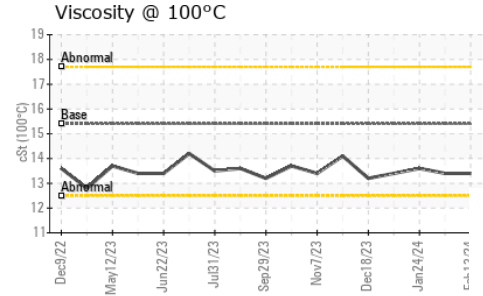
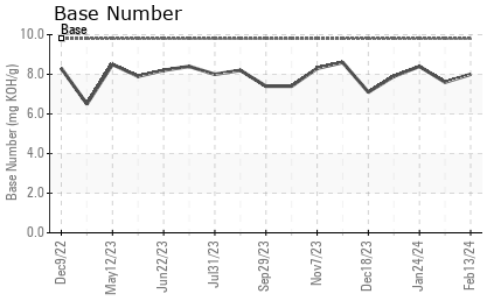
method	limit/base	current	history1	history2
Soot %	% *ASTM D7844 >3	<b>0.3</b>	0.3	0.2
Nitration	Abs/cm *ASTM D7624 >20	<b>7.1</b>	6.9	6.3
Sulfation	Abs/.1mm *ASTM D7415 >30	<b>18.9</b>	18.7	18.5

## FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	<b>14.4</b>	14.2	13.9
Base Number (BN)	mg KOH/g ASTM D2896 9.8	<b>8.0</b>	7.6	8.4



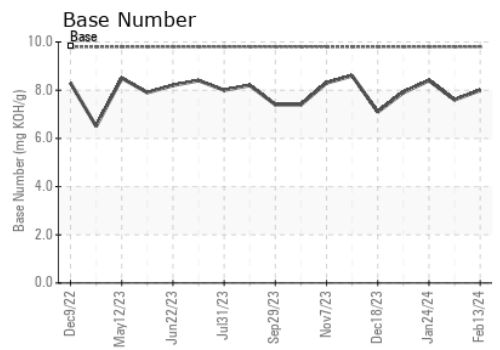
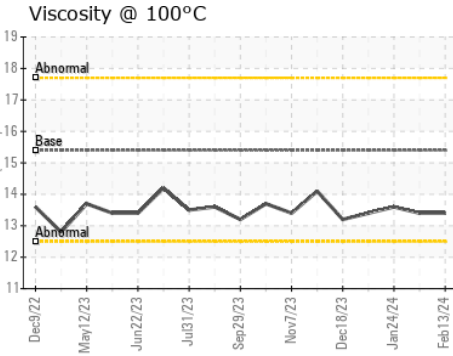
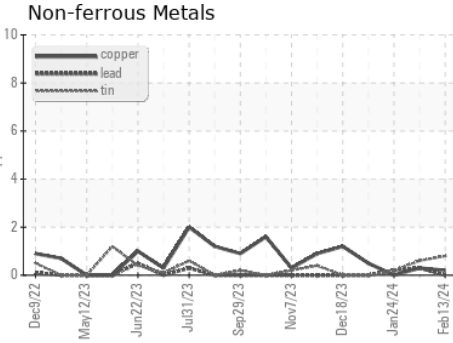
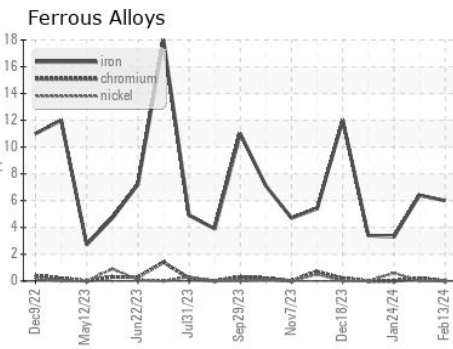
# OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2	
Visc @ 100°C	cSt	ASTM D445	15.4	<b>13.4</b>	13.4	13.6

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0111087  
**Lab Number** : **06109858**  
**Unique Number** : 10913355  
**Test Package** : FLEET  
**Received** : 06 Mar 2024  
**Tested** : 07 Mar 2024  
**Diagnosed** : 07 Mar 2024 - Wes Davis

**GFL environmental - 867 - Trafford (Blount Hauling)**  
 1130 County Line Rd  
 Trafford, AL  
 US 35172  
 Contact: Jonathan Williams  
 jonathan.williams@gflenv.com  
 T:  
 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)