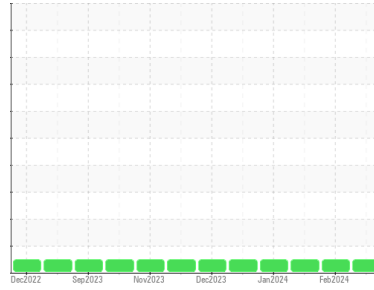




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id  
**710037**

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>GFL0111108</b>	GFL0111107	GFL0111098
Sample Date	Client Info	<b>01 Mar 2024</b>	21 Feb 2024	07 Feb 2024
Machine Age	hrs	<b>4448</b>	4389	4299
Oil Age	hrs	<b>491</b>	432	342
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>8</b>	12	8
Chromium	ppm ASTM D5185m >4	<b>&lt;1</b>	<1	<1
Nickel	ppm ASTM D5185m >2	<b>0</b>	0	0
Titanium	ppm ASTM D5185m	<b>&lt;1</b>	<1	<1
Silver	ppm ASTM D5185m >2	<b>0</b>	0	0
Aluminum	ppm ASTM D5185m >25	<b>4</b>	6	5
Lead	ppm ASTM D5185m >45	<b>0</b>	0	1
Copper	ppm ASTM D5185m >85	<b>&lt;1</b>	7	6
Tin	ppm ASTM D5185m >4	<b>0</b>	0	<1
Vanadium	ppm ASTM D5185m	<b>&lt;1</b>	<1	<1
Cadmium	ppm ASTM D5185m	<b>0</b>	0	0

## ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185m 0	<b>11</b>	12	15
Barium	ppm ASTM D5185m 0	<b>0</b>	0	0
Molybdenum	ppm ASTM D5185m 60	<b>91</b>	74	77
Manganese	ppm ASTM D5185m 0	<b>0</b>	0	0
Magnesium	ppm ASTM D5185m 1010	<b>907</b>	803	855
Calcium	ppm ASTM D5185m 1070	<b>1084</b>	1178	1288
Phosphorus	ppm ASTM D5185m 1150	<b>1014</b>	997	1027
Zinc	ppm ASTM D5185m 1270	<b>1216</b>	1193	1215
Sulfur	ppm ASTM D5185m 2060	<b>3241</b>	3247	3132

## CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >30	<b>3</b>	4	3
Sodium	ppm ASTM D5185m	<b>2</b>	3	2
Potassium	ppm ASTM D5185m >20	<b>12</b>	17	13

## INFRA-RED

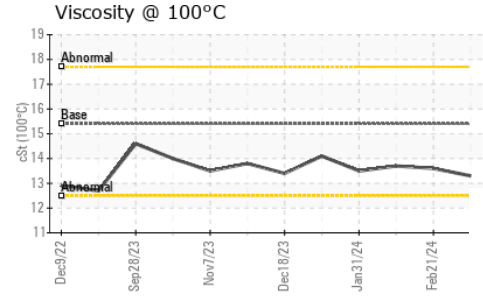
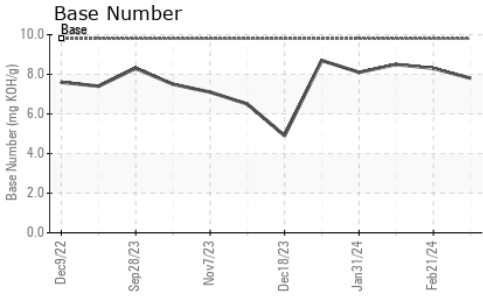
method	limit/base	current	history1	history2
Soot %	% *ASTM D7844 >3	<b>0.3</b>	0.3	0.2
Nitration	Abs/cm *ASTM D7624 >20	<b>7.7</b>	7.2	6.3
Sulfation	Abs/.1mm *ASTM D7415 >30	<b>18.9</b>	18.4	18.3

## FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	<b>15.1</b>	14.3	13.5
Base Number (BN)	mg KOH/g ASTM D2896 9.8	<b>7.8</b>	8.3	8.5



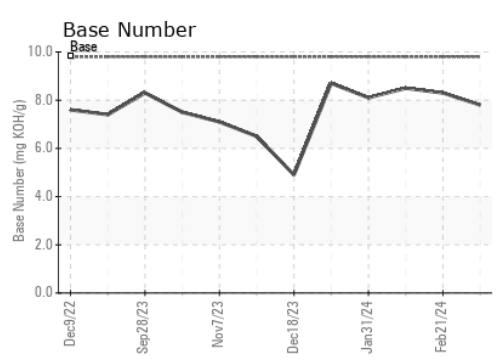
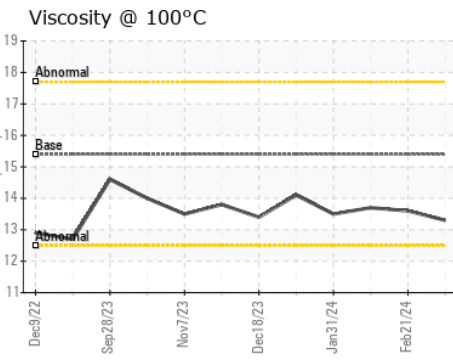
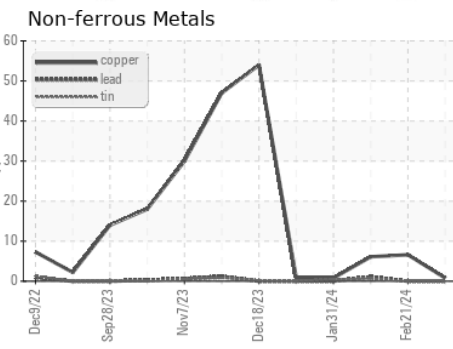
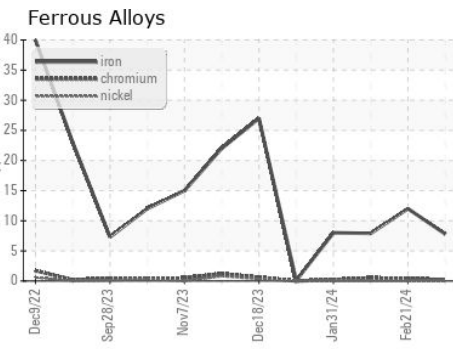
# OIL ANALYSIS REPORT



PARAMETER	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>13.3</b>	13.6	13.7

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0111108 **Received** : 07 Mar 2024  
**Lab Number** : **06111152** **Tested** : 07 Mar 2024  
**Unique Number** : 10914649 **Diagnosed** : 07 Mar 2024 - Wes Davis  
**Test Package** : FLEET

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