



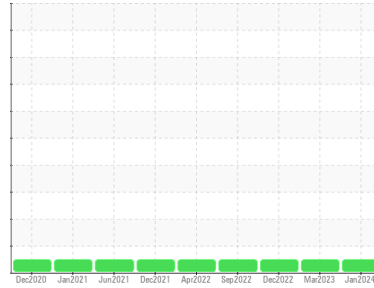
# OIL ANALYSIS REPORT

Sample Rating Trend

**NORMAL**



Machine Id  
**424016-4010**  
 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>GFL0110177</b>	GFL0060468	GFL0060414
Sample Date	Client Info	<b>08 Jan 2024</b>	02 Mar 2023	15 Dec 2022
Machine Age	hrs	<b>24010</b>	22243	21688
Oil Age	hrs	<b>600</b>	0	600
Oil Changed	Client Info	<b>Changed</b>	N/A	Changed
Sample Status		<b>NORMAL</b>	NORMAL	NORMAL

## CONTAMINATION

method	limit/base	current	history1	history2
Fuel	WC Method >3.0	<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 >120	<b>21</b>	4	7
Chromium	ppm ASTM D5185m >20	<b>&lt;1</b>	0	<1
Nickel	ppm ASTM D5185m >5	<b>&lt;1</b>	0	<1
Titanium	ppm ASTM D5185m >2	<b>&lt;1</b>	<1	<1
Silver	ppm ASTM D5185m >2	<b>0</b>	0	0
Aluminum	ppm ASTM D5185m >20	<b>2</b>	<1	2
Lead	ppm ASTM D5185m >40	<b>&lt;1</b>	0	1
Copper	ppm ASTM D5185m >330	<b>1</b>	<1	<1
Tin	ppm ASTM D5185m >15	<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>0</b>	2	11
Barium	ppm ASTM D5185m 0	<b>0</b>	0	0
Molybdenum	ppm ASTM D5185m 60	<b>55</b>	54	53
Manganese	ppm ASTM D5185m 0	<b>&lt;1</b>	1	<1
Magnesium	ppm ASTM D5185m 1010	<b>859</b>	835	790
Calcium	ppm ASTM D5185m 1070	<b>952</b>	1071	1313
Phosphorus	ppm ASTM D5185m 1150	<b>958</b>	909	962
Zinc	ppm ASTM D5185m 1270	<b>1145</b>	1131	1164
Sulfur	ppm ASTM D5185m 2060	<b>2834</b>	3020	3179

## CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >25	<b>7</b>	4	4
Sodium	ppm ASTM D5185m	<b>3</b>	3	4
Potassium	ppm ASTM D5185m >20	<b>6</b>	<1	3

## INFRA-RED

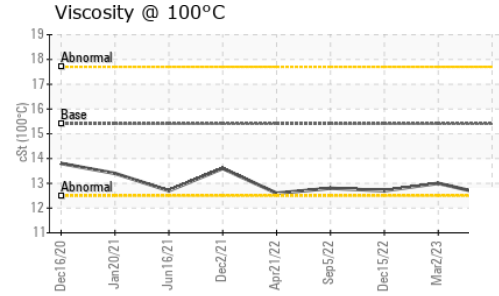
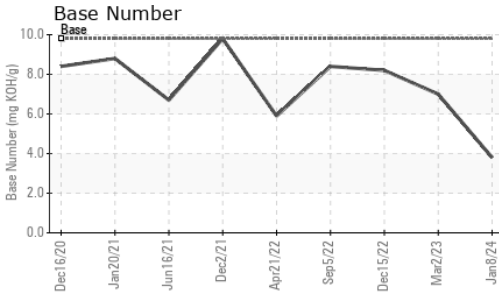
method	limit/base	current	history1	history2
Soot %	% *ASTM D7844 >4	<b>0.5</b>	0.2	0.3
Nitration	Abs/cm *ASTM D7624 >20	<b>11.7</b>	8.7	10.1
Sulfation	Abs/.1mm *ASTM D7415 >30	<b>23.5</b>	18.2	20.6

## FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	<b>19.5</b>	15.0	18.2
Base Number (BN)	mg KOH/g ASTM D2896 9.8	<b>3.8</b>	7.0	8.2



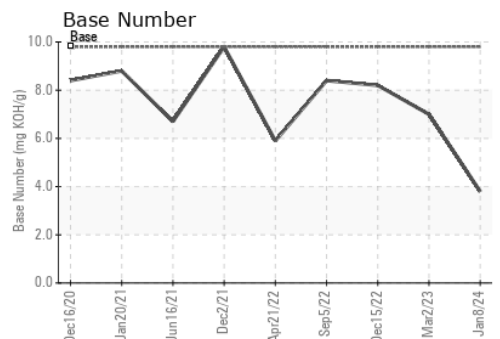
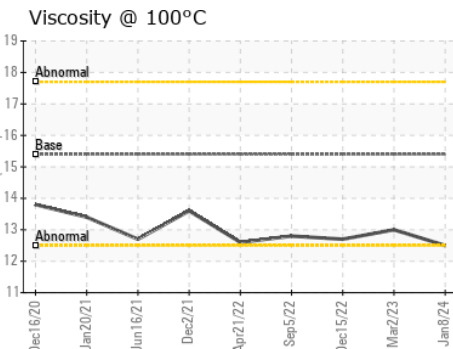
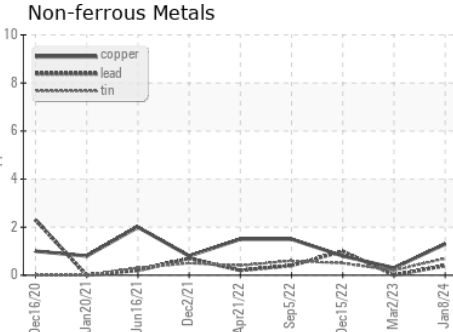
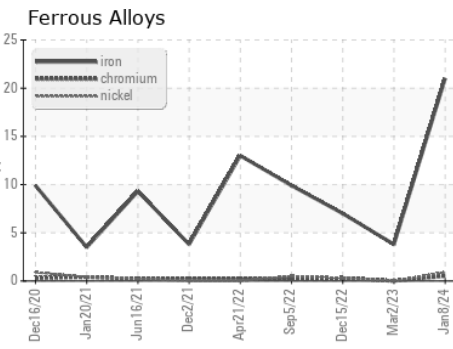
# OIL ANALYSIS REPORT



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>12.5</b>	13.0	12.7

## GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0110177 **Received** : 11 Jan 2024  
**Lab Number** : 06058633 **Diagnosed** : 12 Jan 2024  
**Unique Number** : 10830015 **Diagnostician** : Wes Davis  
**Test Package** : FLEET

**GFL Environmental - 660 - Lynchburg Hauling**  
 2410 Mayflower Drive  
 Lynchburg, VA  
 US 24501  
 Contact: Delbert Beasley  
 dbeasley@countyrecycling.net  
 T: (434)665-5998  
 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)