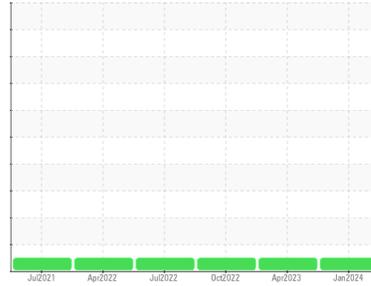




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Area  
**(42988HA)**  
 Machine Id  
**728015**

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>GFL0110173</b>	GFL0060481	GFL0060456	
Sample Date	Client Info	<b>22 Jan 2024</b>	03 Apr 2023	15 Oct 2022	
Machine Age	hrs	Client Info	<b>6533</b>	6262	6137
Oil Age	hrs	Client Info	<b>600</b>	600	600
Oil Changed	Client Info	<b>Changed</b>	Changed	Changed	
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 >100	<b>18</b>	11	8
Chromium	ppm ASTM D5185m >20	<b>0</b>	<1	<1
Nickel	ppm ASTM D5185m >4	<b>0</b>	0	0
Titanium	ppm ASTM D5185m	<b>0</b>	<1	<1
Silver	ppm ASTM D5185m >3	<b>0</b>	0	0
Aluminum	ppm ASTM D5185m >20	<b>7</b>	6	6
Lead	ppm ASTM D5185m >40	<b>0</b>	0	0
Copper	ppm ASTM D5185m >330	<b>1</b>	2	2
Tin	ppm ASTM D5185m >15	<b>&lt;1</b>	0	0
Vanadium	ppm ASTM D5185m	<b>0</b>	0	0
Cadmium	ppm ASTM D5185m	<b>0</b>	0	0

## ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185m 0	<b>&lt;1</b>	18	33
Barium	ppm ASTM D5185m 0	<b>0</b>	0	0
Molybdenum	ppm ASTM D5185m 60	<b>54</b>	54	45
Manganese	ppm ASTM D5185m 0	<b>&lt;1</b>	<1	<1
Magnesium	ppm ASTM D5185m 1010	<b>951</b>	734	604
Calcium	ppm ASTM D5185m 1070	<b>1027</b>	1279	1529
Phosphorus	ppm ASTM D5185m 1150	<b>991</b>	921	830
Zinc	ppm ASTM D5185m 1270	<b>1176</b>	1090	954
Sulfur	ppm ASTM D5185m 2060	<b>2804</b>	2691	3096

## CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >25	<b>5</b>	6	5
Sodium	ppm ASTM D5185m	<b>3</b>	0	4
Potassium	ppm ASTM D5185m >20	<b>2</b>	2	<1

## INFRA-RED

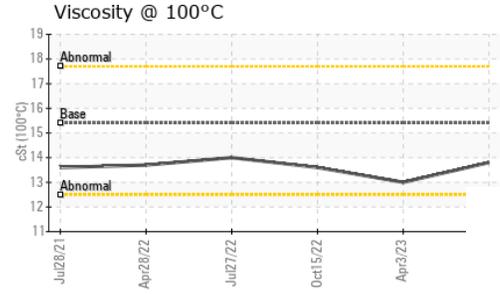
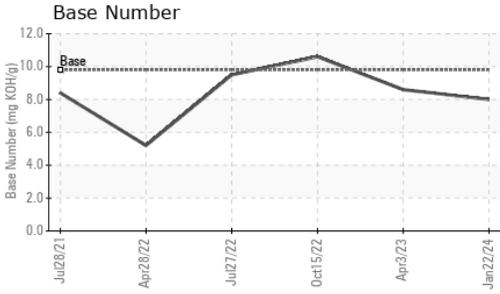
method	limit/base	current	history1	history2
Soot %	% *ASTM D7844 >3	<b>0.3</b>	0.3	0.1
Nitration	Abs/cm *ASTM D7624 >20	<b>8.0</b>	7.9	6.9
Sulfation	Abs/.1mm *ASTM D7415 >30	<b>18.6</b>	20.1	22.9

## FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	<b>15.3</b>	17.1	19.7
Base Number (BN)	mg KOH/g ASTM D2896 9.8	<b>8.0</b>	8.6	10.6



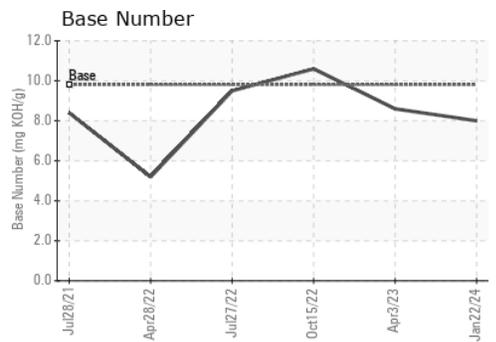
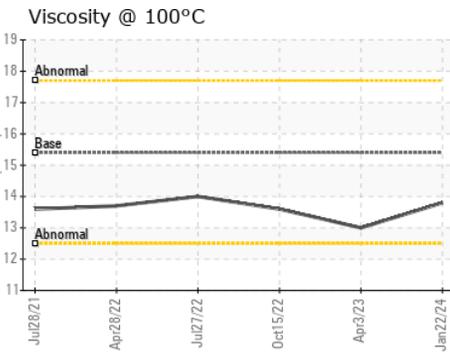
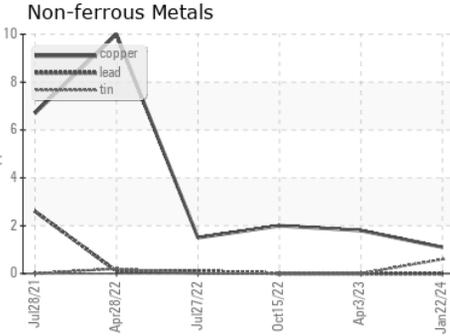
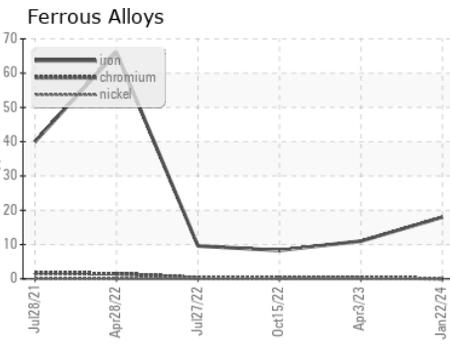
# OIL ANALYSIS REPORT



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>13.8</b>	13.0	13.6

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0110173 **Received** : 24 Jan 2024  
**Lab Number** : 06069890 **Diagnosed** : 25 Jan 2024  
**Unique Number** : 10846567 **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:

Certificate L2367  
 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)