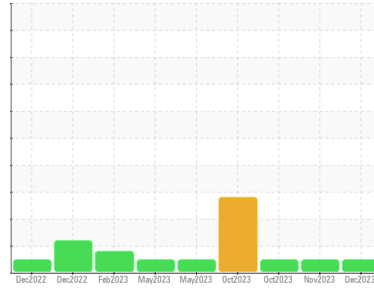




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id  
**729043-361418**

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>GFL0065492</b>	GFL0098745	GFL0065470
Sample Date	Client Info	<b>13 Dec 2023</b>	10 Nov 2023	23 Oct 2023
Machine Age	hrs	<b>5108</b>	5108	150
Oil Age	hrs	<b>150</b>	600	150
Oil Changed	Client Info	<b>Not Changed</b>	Changed	Not 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	0.8
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>3</b>	10	5
Chromium	ppm ASTM D5185m >20	<b>0</b>	<1	<1
Nickel	ppm ASTM D5185m >4	<b>0</b>	0	<1
Titanium	ppm ASTM D5185m	<b>0</b>	<1	<1
Silver	ppm ASTM D5185m >3	<b>0</b>	<1	0
Aluminum	ppm ASTM D5185m >20	<b>&lt;1</b>	2	2
Lead	ppm ASTM D5185m >40	<b>0</b>	2	<1
Copper	ppm ASTM D5185m >330	<b>&lt;1</b>	3	<1
Tin	ppm ASTM D5185m >15	<b>&lt;1</b>	<1	0
Vanadium	ppm ASTM D5185m	<b>0</b>	<1	0
Cadmium	ppm ASTM D5185m	<b>0</b>	<1	<1

## ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185m 0	<b>1</b>	<1	1
Barium	ppm ASTM D5185m 0	<b>0</b>	0	3
Molybdenum	ppm ASTM D5185m 60	<b>52</b>	56	61
Manganese	ppm ASTM D5185m 0	<b>&lt;1</b>	<1	0
Magnesium	ppm ASTM D5185m 1010	<b>878</b>	854	883
Calcium	ppm ASTM D5185m 1070	<b>937</b>	955	999
Phosphorus	ppm ASTM D5185m 1150	<b>922</b>	949	1067
Zinc	ppm ASTM D5185m 1270	<b>1173</b>	1124	1186
Sulfur	ppm ASTM D5185m 2060	<b>2847</b>	2848	3182

## CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >25	<b>2</b>	2	4
Sodium	ppm ASTM D5185m	<b>1</b>	7	13
Potassium	ppm ASTM D5185m >20	<b>&lt;1</b>	3	5

## INFRA-RED

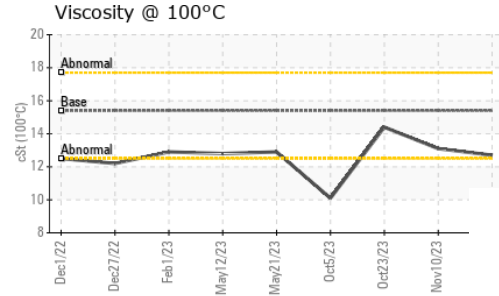
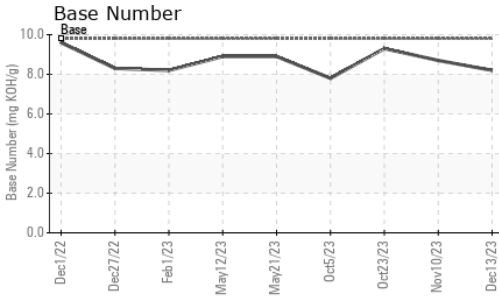
method	limit/base	current	history1	history2
Soot %	% *ASTM D7844 >3	<b>0.3</b>	0.3	0.8
Nitration	Abs/cm *ASTM D7624 >20	<b>5.8</b>	6.0	4.9
Sulfation	Abs/.1mm *ASTM D7415 >30	<b>18.1</b>	18.1	18.4

## FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	<b>13.5</b>	13.5	12.6
Base Number (BN)	mg KOH/g ASTM D2896 9.8	<b>8.2</b>	8.7	9.3



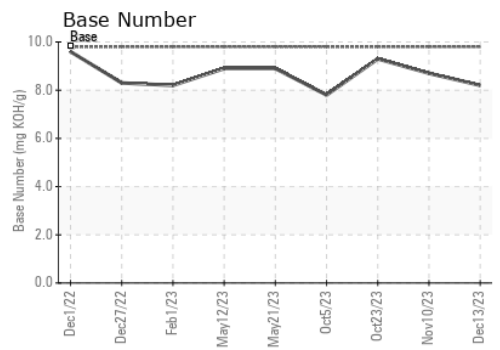
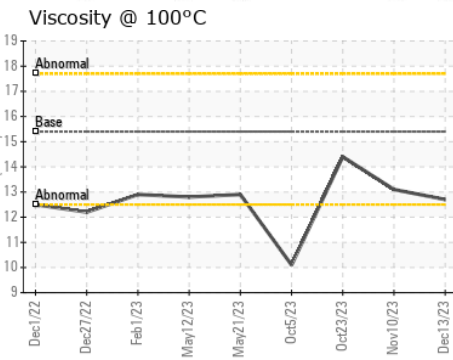
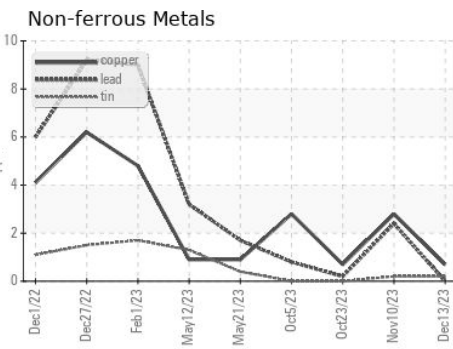
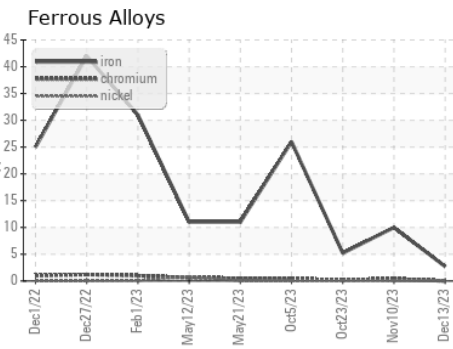
# OIL ANALYSIS REPORT



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>12.7</b>	13.1	14.4

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0065492 **Received** : 18 Dec 2023  
**Lab Number** : **06037500** **Diagnosed** : 19 Dec 2023  
**Unique Number** : 10792729 **Diagnostician** : Wes Davis  
**Test Package** : FLEET

**GFL Environmental - 829 - Wilco Hauling**  
 5054 Highway HH  
 Hartville, MO  
 US 65667  
 Contact: James Jones  
 james.jones@gflenv.com  
 T: (417)349-5006  
 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)