



# OIL ANALYSIS REPORT

Sample Rating Trend

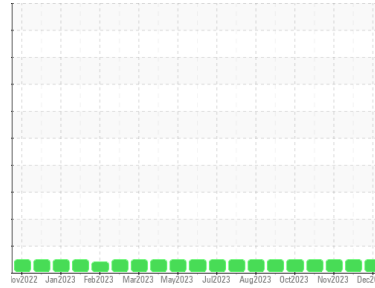
**NORMAL**



Machine Id  
**422089**

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>GFL0101102</b>	GFL0101111	GFL0098462
Sample Date	Client Info	<b>14 Dec 2023</b>	24 Nov 2023	02 Nov 2023
Machine Age	hrs	Client Info	<b>0</b>	0
Oil Age	hrs	Client Info	<b>0</b>	0
Oil Changed	Client Info	<b>Not Changed</b>	Not 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	<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>	6	6
Chromium	ppm ASTM D5185m >4	<b>&lt;1</b>	1	<1
Nickel	ppm ASTM D5185m >2	<b>0</b>	<1	0
Titanium	ppm ASTM D5185m	<b>0</b>	<1	<1
Silver	ppm ASTM D5185m >2	<b>0</b>	0	<1
Aluminum	ppm ASTM D5185m >25	<b>2</b>	2	3
Lead	ppm ASTM D5185m >45	<b>&lt;1</b>	<1	<1
Copper	ppm ASTM D5185m >85	<b>0</b>	<1	<1
Tin	ppm ASTM D5185m >4	<b>&lt;1</b>	<1	0
Vanadium	ppm ASTM D5185m	<b>0</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>0</b>	1	2
Barium	ppm ASTM D5185m 0	<b>0</b>	0	7
Molybdenum	ppm ASTM D5185m 60	<b>60</b>	55	61
Manganese	ppm ASTM D5185m 0	<b>0</b>	<1	0
Magnesium	ppm ASTM D5185m 1010	<b>908</b>	905	979
Calcium	ppm ASTM D5185m 1070	<b>1200</b>	1131	1212
Phosphorus	ppm ASTM D5185m 1150	<b>1012</b>	1006	1164
Zinc	ppm ASTM D5185m 1270	<b>1175</b>	1220	1322
Sulfur	ppm ASTM D5185m 2060	<b>3064</b>	2861	4005

## CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >30	<b>4</b>	5	4
Sodium	ppm ASTM D5185m	<b>2</b>	2	4
Potassium	ppm ASTM D5185m >20	<b>1</b>	3	2

## INFRA-RED

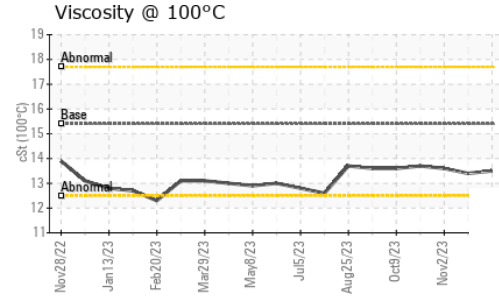
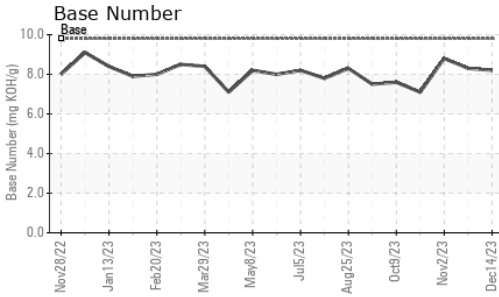
method	limit/base	current	history1	history2
Soot %	% *ASTM D7844 >3	<b>0.2</b>	0.1	0.1
Nitration	Abs/cm *ASTM D7624 >20	<b>6.7</b>	5.9	5.3
Sulfation	Abs/.1mm *ASTM D7415 >30	<b>18.9</b>	18.4	18.2

## FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	<b>14.8</b>	14.1	13.9
Base Number (BN)	mg KOH/g ASTM D2896 9.8	<b>8.2</b>	8.3	8.8



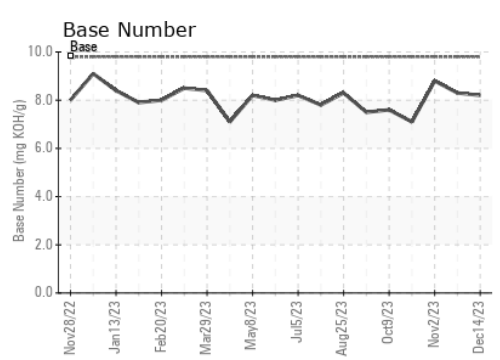
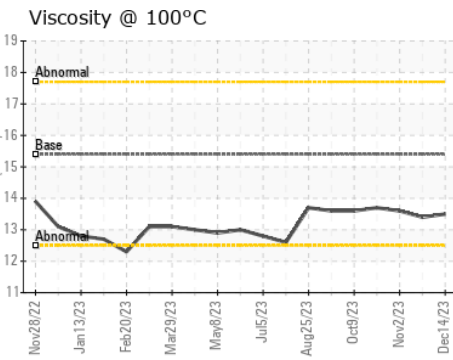
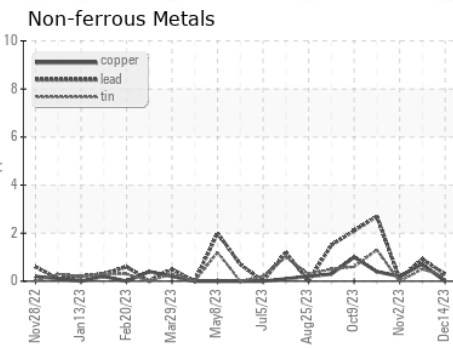
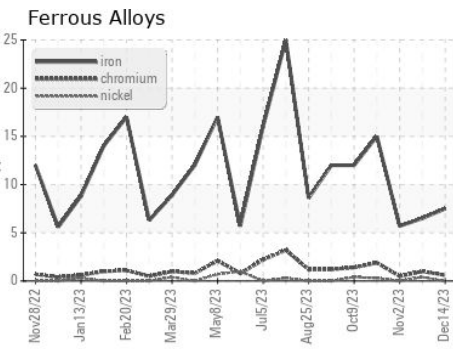
# OIL ANALYSIS REPORT



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>13.5</b>	13.4	13.6

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0101102 **Received** : 28 Dec 2023  
**Lab Number** : **06046747** **Diagnosed** : 28 Dec 2023  
**Unique Number** : 10807355 **Diagnostician** : Wes Davis  
**Test Package** : FLEET

**GFL Environmental - 846 - Mayfield Hauling**  
 3426 State Route 45  
 Mayfield, KY  
 US 42066  
 Contact: Jack Lindsey  
 jack.lindsey@gflenv.com  
 T: (270)970-3690  
 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)