



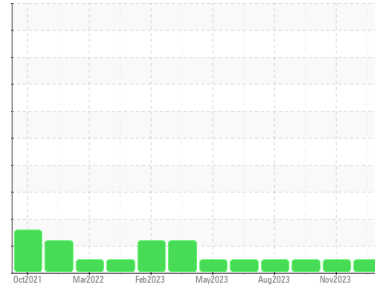
# OIL ANALYSIS REPORT

## Sample Rating Trend

**NORMAL**



Area  
**(H916537)**  
Machine Id  
**427114**  
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>GFL0098970</b>	GFL0098976	GFL0094909	
Sample Date	Client Info	<b>04 Jan 2024</b>	14 Nov 2023	27 Oct 2023	
Machine Age	hrs	Client Info	<b>18564</b>	18520	18520
Oil Age	hrs	Client Info	<b>18564</b>	18553	18258
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 >6.0	<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 >100	<b>7</b>	7	4
Chromium	ppm ASTM D5185m >20	<b>&lt;1</b>	<1	0
Nickel	ppm ASTM D5185m >2	<b>0</b>	<1	0
Titanium	ppm ASTM D5185m	<b>0</b>	<1	0
Silver	ppm ASTM D5185m >2	<b>0</b>	0	0
Aluminum	ppm ASTM D5185m >25	<b>2</b>	2	1
Lead	ppm ASTM D5185m >40	<b>0</b>	1	<1
Copper	ppm ASTM D5185m >330	<b>&lt;1</b>	<1	<1
Tin	ppm ASTM D5185m >15	<b>0</b>	0	0
Vanadium	ppm ASTM D5185m	<b>0</b>	0	0
Cadmium	ppm ASTM D5185m	<b>0</b>	<1	0

### ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185m 0	<b>0</b>	0	2
Barium	ppm ASTM D5185m 0	<b>3</b>	9	0
Molybdenum	ppm ASTM D5185m 60	<b>58</b>	60	53
Manganese	ppm ASTM D5185m 0	<b>0</b>	<1	<1
Magnesium	ppm ASTM D5185m 1010	<b>960</b>	877	856
Calcium	ppm ASTM D5185m 1070	<b>1022</b>	1020	936
Phosphorus	ppm ASTM D5185m 1150	<b>1011</b>	1019	975
Zinc	ppm ASTM D5185m 1270	<b>1190</b>	1149	1131
Sulfur	ppm ASTM D5185m 2060	<b>3494</b>	3389	2908

### CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >25	<b>2</b>	5	3
Sodium	ppm ASTM D5185m	<b>3</b>	5	6
Potassium	ppm ASTM D5185m >20	<b>17</b>	16	12

### INFRA-RED

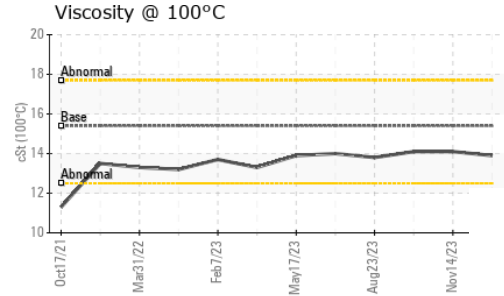
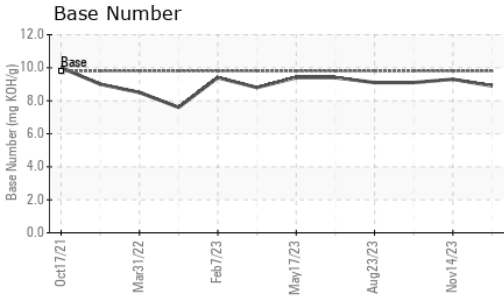
method	limit/base	current	history1	history2
Soot %	% *ASTM D7844 >3	<b>0.2</b>	0.2	0.2
Nitration	Abs/cm *ASTM D7624 >20	<b>4.9</b>	4.9	4.8
Sulfation	Abs/.1mm *ASTM D7415 >30	<b>17.6</b>	17.8	17.6

### FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	<b>12.9</b>	13.3	13.1
Base Number (BN)	mg KOH/g ASTM D2896 9.8	<b>8.9</b>	9.3	9.1



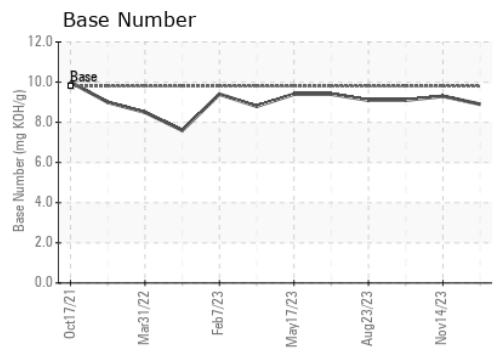
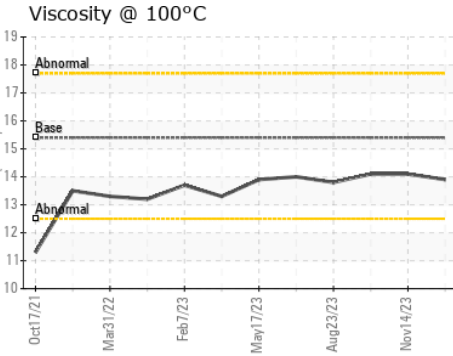
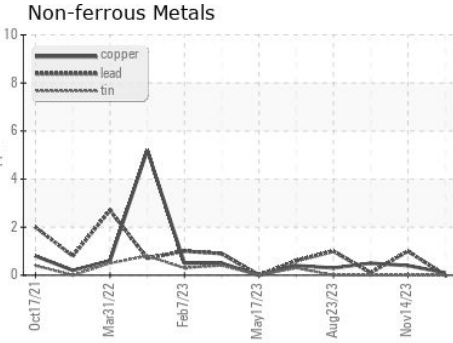
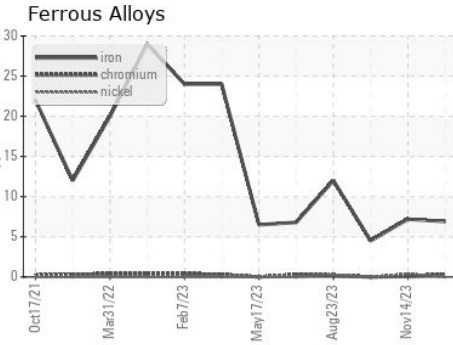
# OIL ANALYSIS REPORT



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>13.9</b>	14.1	14.1

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0098970 **Received** : 18 Jan 2024  
**Lab Number** : **06064006** **Diagnosed** : 19 Jan 2024  
**Unique Number** : 10835388 **Diagnostician** : Wes Davis  
**Test Package** : FLEET

**GFL Environmental - 084 - Clarksville**  
 699 Jack Miller Boulevard  
 Clarksville, TN  
 US 37042  
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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)