



# OIL ANALYSIS REPORT

Sample Rating Trend

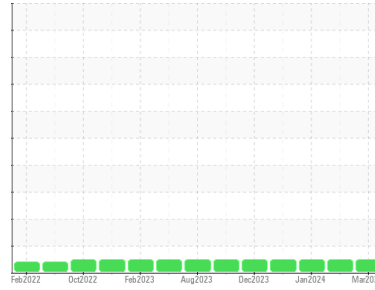
**NORMAL**



Machine Id  
**812036**

Component  
**Diesel Engine**

Fluid  
**PETRO CANADA DURON SHP 15W40 (--- Shots)**



## 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>GFL0111966</b>	GFL0107963	GFL0107967
Sample Date	Client Info	<b>07 Mar 2024</b>	20 Feb 2024	29 Jan 2024
Machine Age	hrs	<b>4442</b>	4352	4227
Oil Age	hrs	<b>600</b>	0	0
Oil Changed	Client Info	<b>Changed</b>	Not Changd	Not Changd
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>11</b>	11	5
Chromium	ppm ASTM D5185m >4	<b>0</b>	<1	<1
Nickel	ppm ASTM D5185m >2	<b>0</b>	0	0
Titanium	ppm ASTM D5185m	<b>2</b>	<1	<1
Silver	ppm ASTM D5185m >2	<b>0</b>	0	0
Aluminum	ppm ASTM D5185m >25	<b>4</b>	4	3
Lead	ppm ASTM D5185m >45	<b>0</b>	0	<1
Copper	ppm ASTM D5185m >85	<b>&lt;1</b>	1	<1
Tin	ppm ASTM D5185m >4	<b>0</b>	<1	<1
Vanadium	ppm ASTM D5185m	<b>&lt;1</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>4</b>	1	1
Barium	ppm ASTM D5185m 0	<b>0</b>	0	0
Molybdenum	ppm ASTM D5185m 60	<b>60</b>	61	61
Manganese	ppm ASTM D5185m 0	<b>0</b>	<1	<1
Magnesium	ppm ASTM D5185m 1010	<b>1044</b>	952	902
Calcium	ppm ASTM D5185m 1070	<b>1173</b>	1070	1013
Phosphorus	ppm ASTM D5185m 1150	<b>1031</b>	1003	1014
Zinc	ppm ASTM D5185m 1270	<b>1323</b>	1200	1150
Sulfur	ppm ASTM D5185m 2060	<b>3537</b>	2809	2791

## CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >30	<b>3</b>	0	3
Sodium	ppm ASTM D5185m	<b>1</b>	1	1
Potassium	ppm ASTM D5185m >20	<b>1</b>	0	0

## INFRA-RED

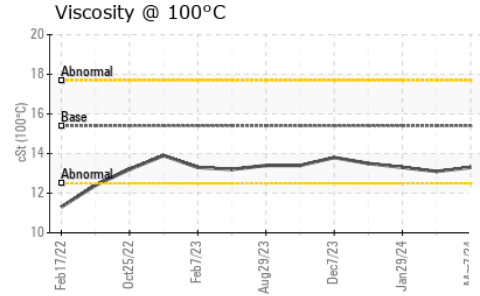
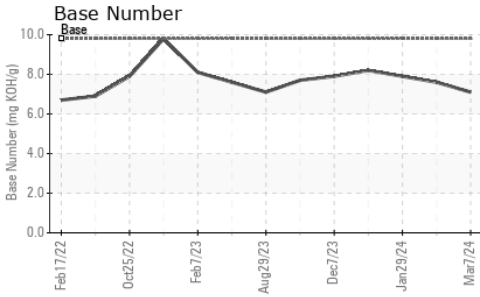
method	limit/base	current	history1	history2
Soot %	% *ASTM D7844 >3	<b>0.4</b>	0.4	0.3
Nitration	Abs/cm *ASTM D7624 >20	<b>8.6</b>	7.9	7.1
Sulfation	Abs/.1mm *ASTM D7415 >30	<b>19.9</b>	19.5	19.1

## FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	<b>16.1</b>	15.2	14.5
Base Number (BN)	mg KOH/g ASTM D2896 9.8	<b>7.1</b>	7.6	7.9



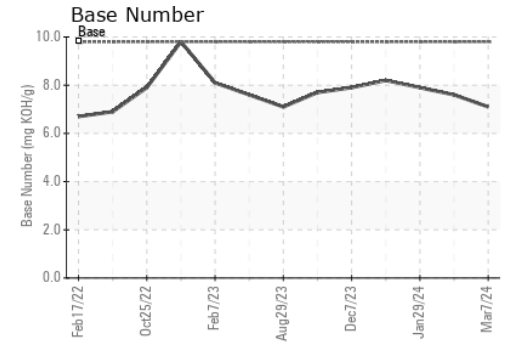
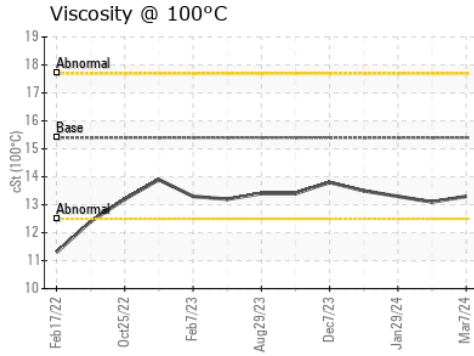
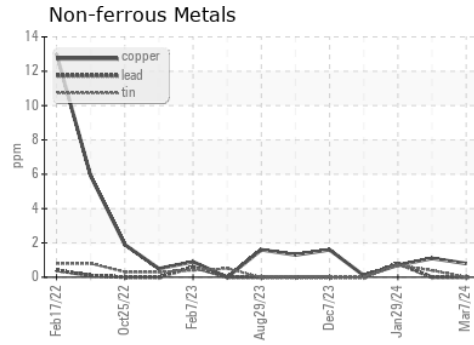
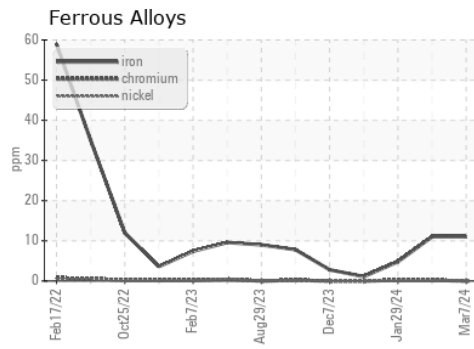
# OIL ANALYSIS REPORT



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>13.3</b>	13.1	13.3

## GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
 Sample No. : GFL0111966  
 Lab Number : **06115016**  
 Unique Number : 10923849  
 Test Package : FLEET

Received : 11 Mar 2024  
 Tested : 12 Mar 2024  
 Diagnosed : 12 Mar 2024 - Wes Davis

GFL Environmental - 892 - Pauls Valley Hauling  
 405 East Airport Industrial Road  
 Pauls Valley, OK  
 US 73075  
 Contact: Tony Graham  
 tgraham2@wcamerica.com

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)

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