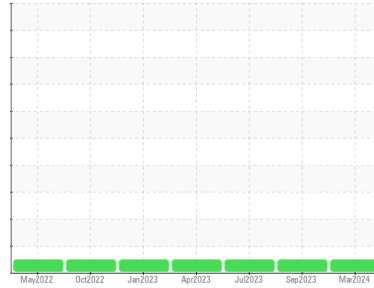




# OIL ANALYSIS REPORT

Sample Rating Trend

**NORMAL**



Machine Id  
**712024**

Component  
**Diesel Engine**

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

## 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>GFL0106115</b>	GFL0078669	GFL0082081
Sample Date	Client Info	<b>12 Mar 2024</b>	21 Sep 2023	06 Jul 2023
Machine Age	hrs	<b>6101</b>	4983	4439
Oil Age	hrs	<b>600</b>	600	0
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 >110	<b>12</b>	15	16
Chromium	ppm ASTM D5185m >4	<b>&lt;1</b>	<1	<1
Nickel	ppm ASTM D5185m >2	<b>0</b>	0	0
Titanium	ppm ASTM D5185m	<b>0</b>	0	<1
Silver	ppm ASTM D5185m >2	<b>0</b>	<1	0
Aluminum	ppm ASTM D5185m >25	<b>6</b>	6	7
Lead	ppm ASTM D5185m >45	<b>0</b>	0	<1
Copper	ppm ASTM D5185m >85	<b>1</b>	2	<1
Tin	ppm ASTM D5185m >4	<b>0</b>	<1	0
Vanadium	ppm ASTM D5185m	<b>0</b>	0	<1
Cadmium	ppm ASTM D5185m	<b>0</b>	0	0

## ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185m 0	<b>9</b>	10	7
Barium	ppm ASTM D5185m 0	<b>0</b>	0	0
Molybdenum	ppm ASTM D5185m 60	<b>56</b>	67	63
Manganese	ppm ASTM D5185m 0	<b>&lt;1</b>	<1	<1
Magnesium	ppm ASTM D5185m 1010	<b>861</b>	982	931
Calcium	ppm ASTM D5185m 1070	<b>1016</b>	1156	1141
Phosphorus	ppm ASTM D5185m 1150	<b>949</b>	1079	1003
Zinc	ppm ASTM D5185m 1270	<b>1155</b>	1305	1231
Sulfur	ppm ASTM D5185m 2060	<b>2881</b>	3784	3744

## CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >30	<b>2</b>	4	3
Sodium	ppm ASTM D5185m	<b>&lt;1</b>	4	2
Potassium	ppm ASTM D5185m >20	<b>0</b>	2	5

## INFRA-RED

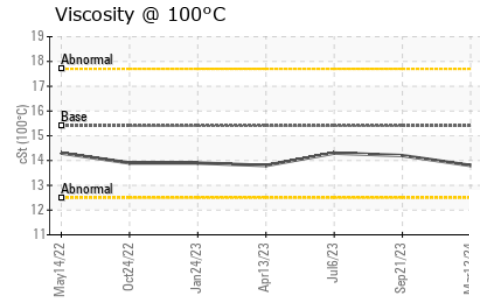
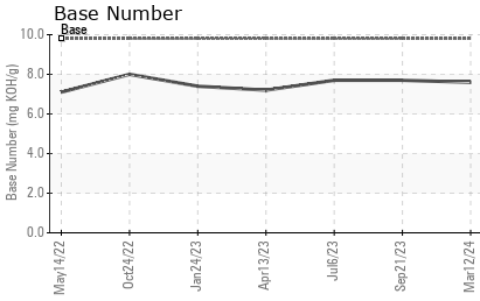
method	limit/base	current	history1	history2
Soot %	% *ASTM D7844 >3	<b>1.9</b>	1.9	2.5
Nitration	Abs/cm *ASTM D7624 >20	<b>8.4</b>	7.6	9.6
Sulfation	Abs/.1mm *ASTM D7415 >30	<b>20.7</b>	20.6	23.3

## FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	<b>13.9</b>	13.2	15.0
Base Number (BN)	mg KOH/g ASTM D2896 9.8	<b>7.6</b>	7.7	7.7



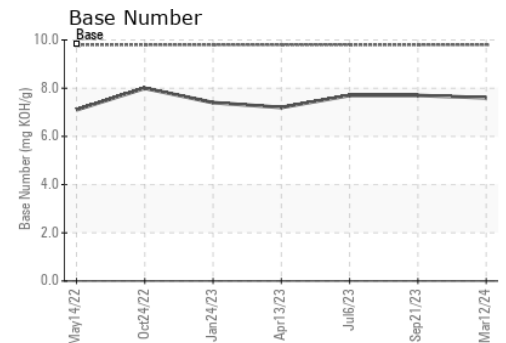
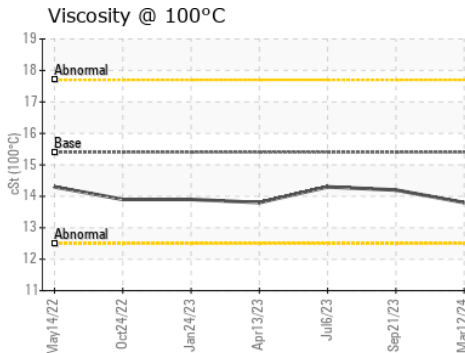
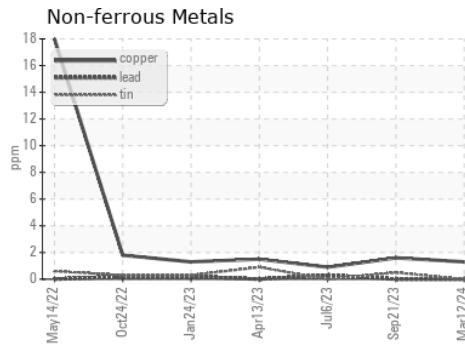
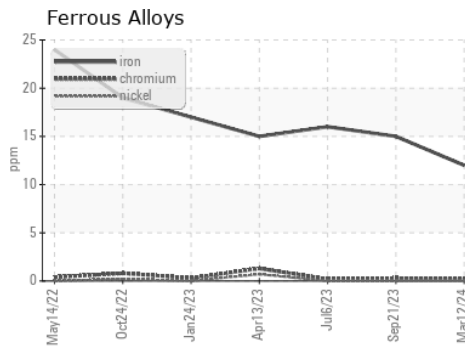
# OIL ANALYSIS REPORT



PARAMETER	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	13.8	14.2

## GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
 Sample No. : GFL0106115  
 Lab Number : 06120058  
 Unique Number : 10928891  
 Test Package : FLEET

GFL Environmental - 152 - Jacksonville  
 7580 PHILIPS HWY  
 Jacksonville, FL  
 US 32256  
 Contact: Chris Smith  
 chris.smith@gflenv.com  
 T: (904)252-0013  
 F:

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)