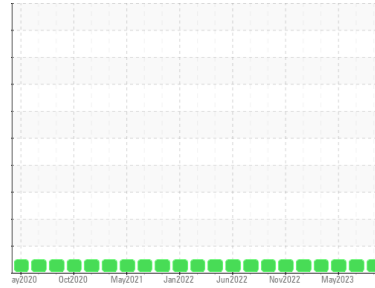




# OIL ANALYSIS REPORT

Sample Rating Trend

**NORMAL**



Machine Id  
**427032-4030**

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>GFL0098193</b>	GFL0083866	GFL0061468
Sample Date	Client Info	<b>26 Oct 2023</b>	10 Aug 2023	19 May 2023
Machine Age	mls Client Info	<b>183695</b>	183695	183695
Oil Age	mls Client Info	<b>183695</b>	183695	183695
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 >5	<b>&lt;1.0</b>	<1.0	<1.0
Glycol	WC Method	<b>NEG</b>	NEG	NEG

## WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm ASTM D5185m >110	<b>25</b>	27	13
Chromium	ppm ASTM D5185m >4	<b>2</b>	2	0
Nickel	ppm ASTM D5185m >2	<b>&lt;1</b>	0	0
Titanium	ppm ASTM D5185m	<b>&lt;1</b>	<1	<1
Silver	ppm ASTM D5185m >2	<b>0</b>	0	0
Aluminum	ppm ASTM D5185m >25	<b>4</b>	5	<1
Lead	ppm ASTM D5185m >45	<b>2</b>	1	<1
Copper	ppm ASTM D5185m >85	<b>&lt;1</b>	<1	<1
Tin	ppm ASTM D5185m >4	<b>&lt;1</b>	<1	<1
Vanadium	ppm ASTM D5185m	<b>&lt;1</b>	0	0
Cadmium	ppm ASTM D5185m	<b>0</b>	0	<1

## ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185m 0	<b>9</b>	4	4
Barium	ppm ASTM D5185m 0	<b>0</b>	0	0
Molybdenum	ppm ASTM D5185m 60	<b>61</b>	60	60
Manganese	ppm ASTM D5185m 0	<b>&lt;1</b>	<1	<1
Magnesium	ppm ASTM D5185m 1010	<b>958</b>	949	966
Calcium	ppm ASTM D5185m 1070	<b>1083</b>	1073	1159
Phosphorus	ppm ASTM D5185m 1150	<b>1034</b>	1045	1021
Zinc	ppm ASTM D5185m 1270	<b>1334</b>	1271	1351
Sulfur	ppm ASTM D5185m 2060	<b>3170</b>	3439	3367

## CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >30	<b>10</b>	11	5
Sodium	ppm ASTM D5185m	<b>4</b>	5	3
Potassium	ppm ASTM D5185m >20	<b>3</b>	2	2

## INFRA-RED

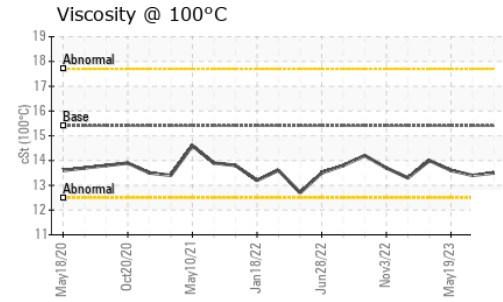
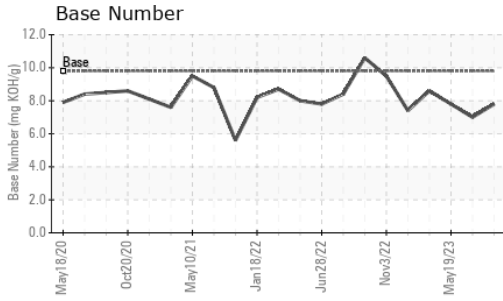
method	limit/base	current	history1	history2
Soot %	% *ASTM D7844 >3	<b>0.6</b>	0.6	0.4
Nitration	Abs/cm *ASTM D7624 >20	<b>10.0</b>	10.1	9.3
Sulfation	Abs/.1mm *ASTM D7415 >30	<b>21.6</b>	21.2	21.0

## FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	<b>17.9</b>	17.8	17.4
Base Number (BN)	mg KOH/g ASTM D2896 9.8	<b>7.8</b>	7.0	7.8



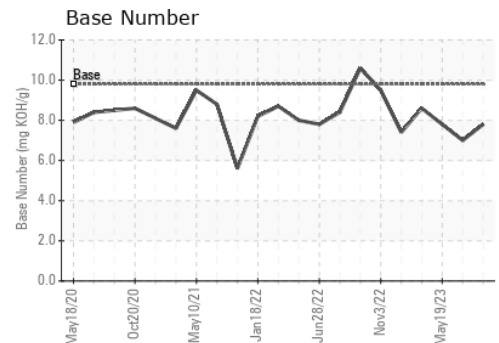
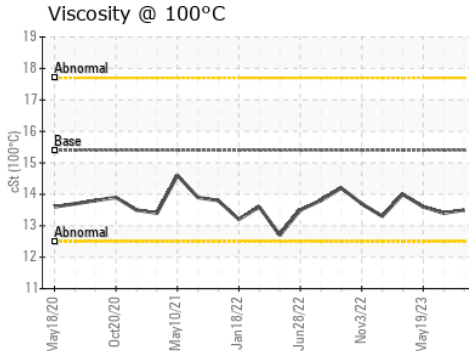
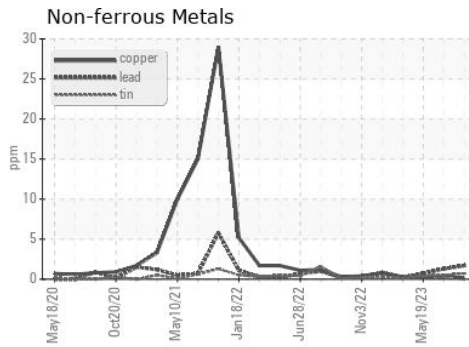
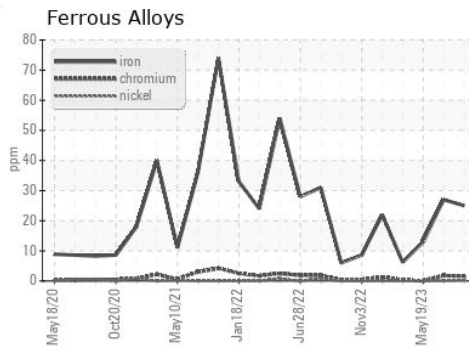
# OIL ANALYSIS REPORT



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



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0098193 **Received** : 03 Nov 2023  
**Lab Number** : **05998343** **Diagnosed** : 06 Nov 2023  
**Unique Number** : 10726703 **Diagnostician** : Wes Davis  
**Test Package** : FLEET

**GFL Environmental - 652 - Fredericksburg Hauling**  
 10954 Houser Drive  
 Fredericksburg, VA  
 US 22408  
 Contact: WILLIAM MILO  
 wmilo@gflenv.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)

T:  
F: