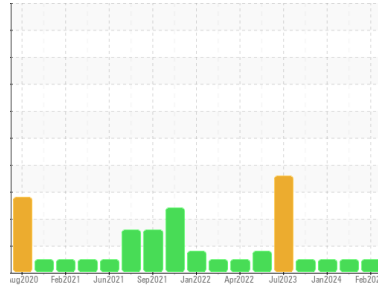




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id  
**822023-120**

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>GFL0111844</b>	GFL0108265	GFL0098179
Sample Date	Client Info	<b>23 Feb 2024</b>	30 Jan 2024	16 Jan 2024
Machine Age	hrs	<b>8135</b>	7956	7926
Oil Age	hrs	<b>179</b>	5571	7926
Oil Changed	Client Info	<b>Not Changed</b>	Changed	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
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>13</b>	16	13
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>	<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 >45	<b>0</b>	<1	<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>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>14</b>	7	10
Barium	ppm ASTM D5185m 0	<b>8</b>	<1	0
Molybdenum	ppm ASTM D5185m 60	<b>53</b>	58	59
Manganese	ppm ASTM D5185m 0	<b>0</b>	0	<1
Magnesium	ppm ASTM D5185m 1010	<b>804</b>	882	1024
Calcium	ppm ASTM D5185m 1070	<b>987</b>	1112	1142
Phosphorus	ppm ASTM D5185m 1150	<b>934</b>	1016	1109
Zinc	ppm ASTM D5185m 1270	<b>1083</b>	1182	1354
Sulfur	ppm ASTM D5185m 2060	<b>3083</b>	3287	3523

## CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >30	<b>3</b>	2	6
Sodium	ppm ASTM D5185m	<b>0</b>	0	1
Potassium	ppm ASTM D5185m >20	<b>3</b>	3	<1

## INFRA-RED

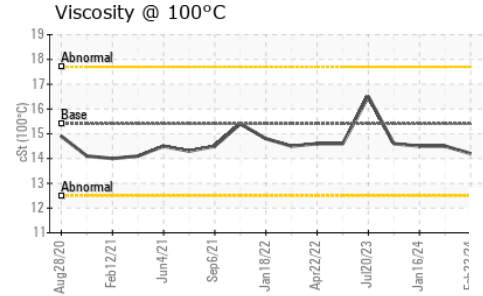
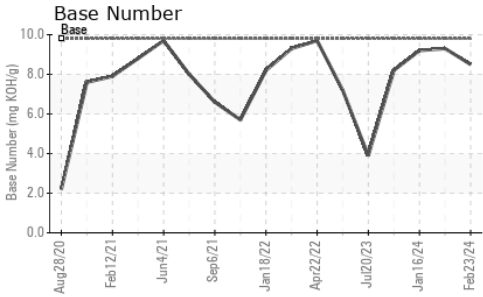
method	limit/base	current	history1	history2
Soot %	% *ASTM D7844 >3	<b>1.2</b>	1.1	0.5
Nitration	Abs/cm *ASTM D7624 >20	<b>6.0</b>	5.8	4.8
Sulfation	Abs/.1mm *ASTM D7415 >30	<b>19.0</b>	18.9	17.8

## FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	<b>12.6</b>	12.6	12.4
Base Number (BN)	mg KOH/g ASTM D2896 9.8	<b>8.5</b>	9.3	9.2



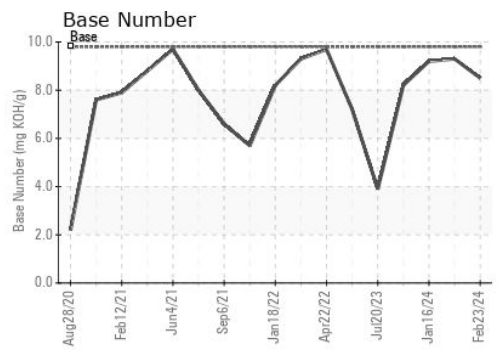
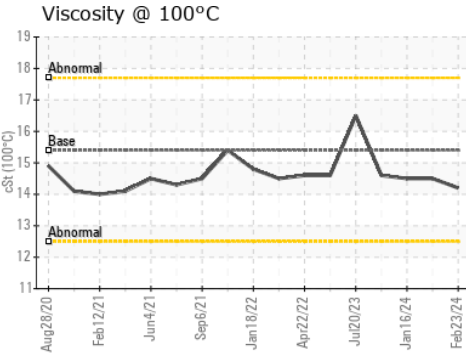
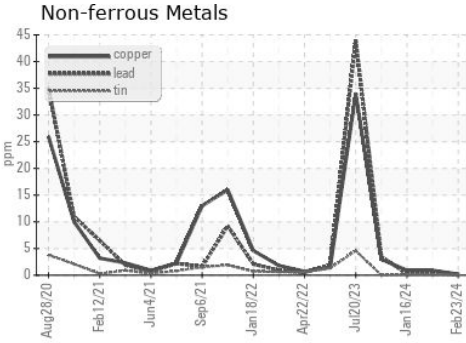
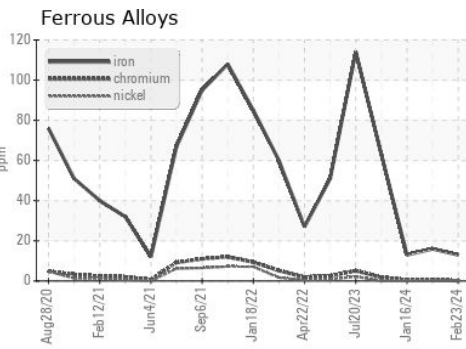
# OIL ANALYSIS REPORT



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>14.2</b>	14.5	14.5

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0111844  
**Lab Number** : 06100009  
**Unique Number** : 10898239  
**Test Package** : FLEET  
**Received** : 26 Feb 2024  
**Tested** : 27 Feb 2024  
**Diagnosed** : 27 Feb 2024 - Wes Davis

**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)