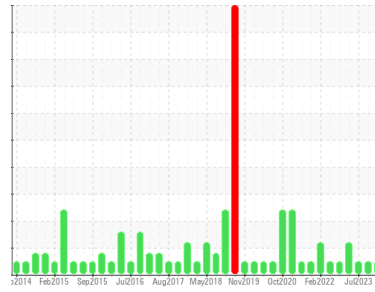




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Area  
**(YA115842) GFL035**

Machine Id  
**3510**

Component  
**Diesel Engine**

Fluid  
**PETRO CANADA DURON SHP 15W40 (11 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>GFL0103794</b>	GFL0071566	GFL0071577
Sample Date	Client Info	<b>23 Feb 2024</b>	15 Aug 2023	18 Jul 2023
Machine Age	hrs	<b>70989</b>	70189	70189
Oil Age	hrs	<b>800</b>	600	600
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 >3.0	<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 >75	<b>23</b>	15	52
Chromium	ppm ASTM D5185m >5	<b>2</b>	<1	2
Nickel	ppm ASTM D5185m >4	<b>&lt;1</b>	0	<1
Titanium	ppm ASTM D5185m >2	<b>&lt;1</b>	<1	0
Silver	ppm ASTM D5185m >2	<b>0</b>	0	0
Aluminum	ppm ASTM D5185m >15	<b>4</b>	4	4
Lead	ppm ASTM D5185m >25	<b>0</b>	0	2
Copper	ppm ASTM D5185m >100	<b>&lt;1</b>	<1	1
Tin	ppm ASTM D5185m >4	<b>&lt;1</b>	0	<1
Vanadium	ppm ASTM D5185m	<b>0</b>	<1	0
Cadmium	ppm ASTM D5185m	<b>&lt;1</b>	0	0

## ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185m 0	<b>5</b>	6	4
Barium	ppm ASTM D5185m 0	<b>0</b>	0	<1
Molybdenum	ppm ASTM D5185m 60	<b>60</b>	60	70
Manganese	ppm ASTM D5185m 0	<b>&lt;1</b>	<1	<1
Magnesium	ppm ASTM D5185m 1010	<b>908</b>	942	1050
Calcium	ppm ASTM D5185m 1070	<b>1065</b>	1149	1249
Phosphorus	ppm ASTM D5185m 1150	<b>1022</b>	1031	1163
Zinc	ppm ASTM D5185m 1270	<b>1221</b>	1260	1417
Sulfur	ppm ASTM D5185m 2060	<b>3100</b>	3766	3882

## CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >25	<b>6</b>	11	8
Sodium	ppm ASTM D5185m	<b>8</b>	3	10
Potassium	ppm ASTM D5185m >20	<b>2</b>	<1	<1

## INFRA-RED

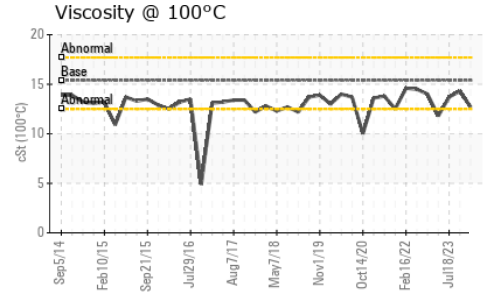
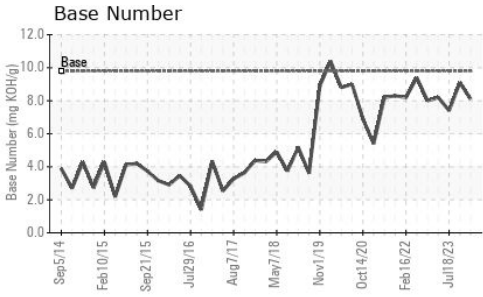
method	limit/base	current	history1	history2
Soot %	% *ASTM D7844 >6	<b>0.8</b>	0.2	1.4
Nitration	Abs/cm *ASTM D7624 >20	<b>8.9</b>	5.3	12.6
Sulfation	Abs/.1mm *ASTM D7415 >30	<b>20.6</b>	17.8	25.0

## FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	<b>15.7</b>	13.4	21.5
Base Number (BN)	mg KOH/g ASTM D2896 9.8	<b>8.1</b>	9.1	7.4



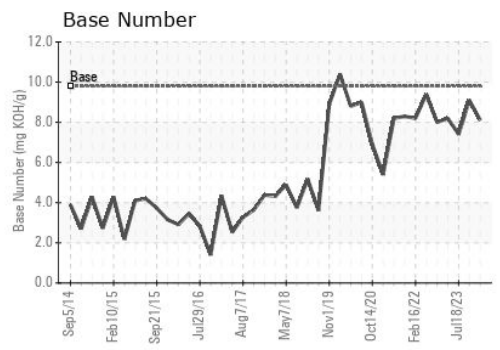
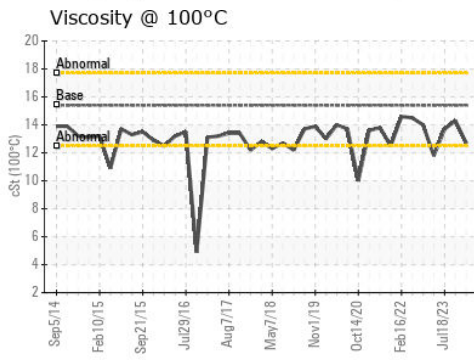
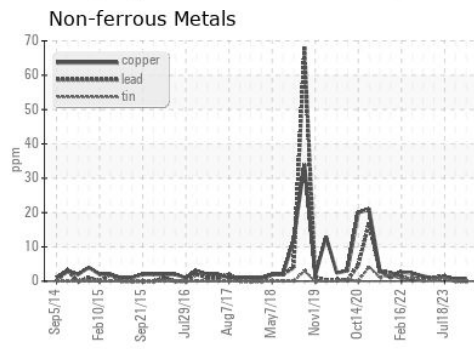
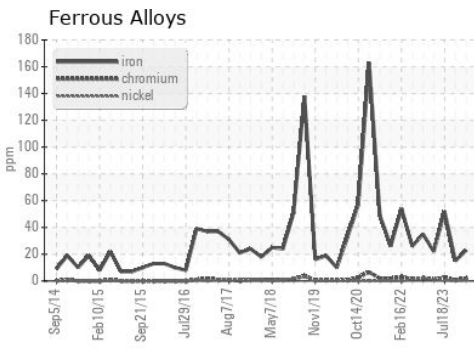
# OIL ANALYSIS REPORT



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>12.7</b>	14.3	13.7

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0103794  
**Lab Number** : **06102767**  
**Unique Number** : 10900997  
**Test Package** : FLEET  
**Received** : 28 Feb 2024  
**Tested** : 29 Feb 2024  
**Diagnosed** : 29 Feb 2024 - Wes Davis

**GFL Environmental - 020 - Alamance**  
 703 East Gilbreath St  
 Graham, NC  
 US 27253  
 Contact:

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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