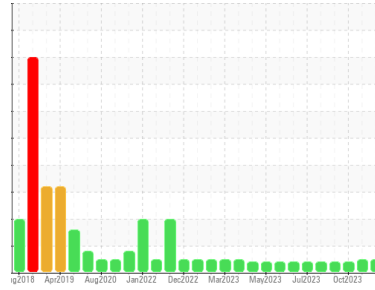




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id  
**11319**

Component  
**Diesel Engine**

Fluid  
**PETRO CANADA DURON SHP 15W40 (28 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>GFL0107181</b>	GFL0107234	GFL0097869
Sample Date	Client Info	<b>30 Jan 2024</b>	12 Jan 2024	30 Oct 2023
Machine Age	hrs	<b>7313</b>	7180	6763
Oil Age	hrs	<b>133</b>	547	130
Oil Changed	Client Info	<b>Not Chngd</b>	Changed	Not Chngd
Sample Status		<b>NORMAL</b>	NORMAL	ATTENTION

## 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>4</b>	3	6
Chromium	ppm ASTM D5185m >5	<b>0</b>	<1	0
Nickel	ppm ASTM D5185m >4	<b>0</b>	0	<1
Titanium	ppm ASTM D5185m >2	<b>0</b>	0	0
Silver	ppm ASTM D5185m >2	<b>0</b>	0	<1
Aluminum	ppm ASTM D5185m >15	<b>1</b>	2	2
Lead	ppm ASTM D5185m >25	<b>0</b>	0	1
Copper	ppm ASTM D5185m >100	<b>0</b>	0	2
Tin	ppm ASTM D5185m >4	<b>&lt;1</b>	0	<1
Vanadium	ppm ASTM D5185m	<b>0</b>	0	0
Cadmium	ppm ASTM D5185m	<b>0</b>	0	0

## ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185m 0	<b>14</b>	26	15
Barium	ppm ASTM D5185m 0	<b>0</b>	3	0
Molybdenum	ppm ASTM D5185m 60	<b>56</b>	71	47
Manganese	ppm ASTM D5185m 0	<b>0</b>	0	<1
Magnesium	ppm ASTM D5185m 1010	<b>818</b>	1092	682
Calcium	ppm ASTM D5185m 1070	<b>940</b>	1199	823
Phosphorus	ppm ASTM D5185m 1150	<b>961</b>	1186	834
Zinc	ppm ASTM D5185m 1270	<b>1124</b>	1388	916
Sulfur	ppm ASTM D5185m 2060	<b>2847</b>	4210	2406

## CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >25	<b>3</b>	6	3
Sodium	ppm ASTM D5185m	<b>10</b>	7	12
Potassium	ppm ASTM D5185m >20	<b>2</b>	2	2

## INFRA-RED

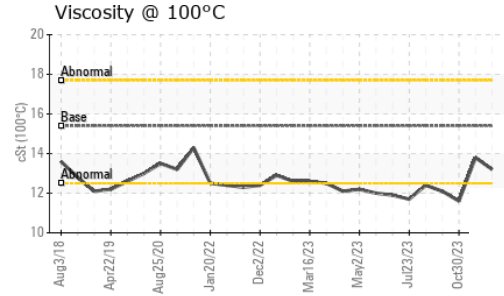
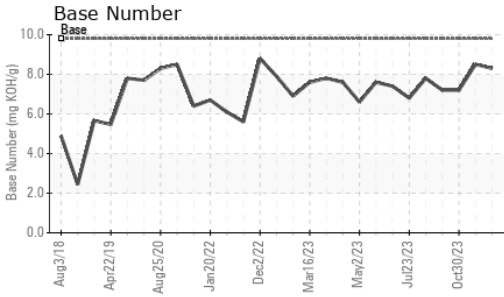
method	limit/base	current	history1	history2
Soot %	% *ASTM D7844 >6	<b>0.2</b>	0.1	0.1
Nitration	Abs/cm *ASTM D7624 >20	<b>6.4</b>	4.8	5.6
Sulfation	Abs/.1mm *ASTM D7415 >30	<b>17.6</b>	17.1	19.0

## FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	<b>13.5</b>	12.4	16.7
Base Number (BN)	mg KOH/g ASTM D2896 9.8	<b>8.3</b>	8.5	7.2



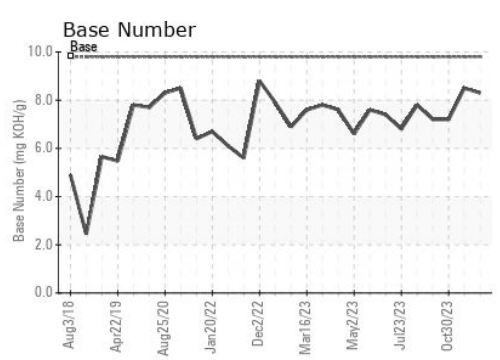
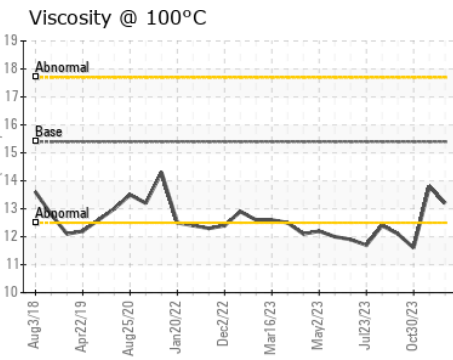
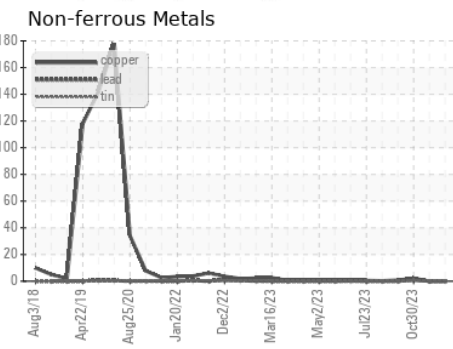
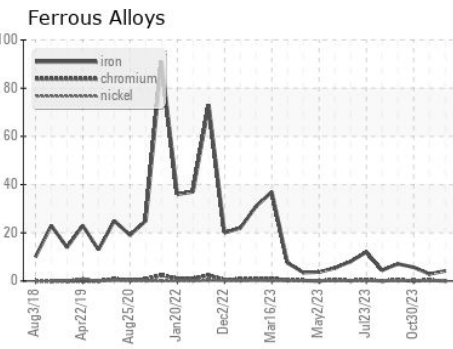
# OIL ANALYSIS REPORT



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>13.2</b>	13.8 ▲ 11.6

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0107181 **Received** : 02 Feb 2024  
**Lab Number** : **06078001** **Diagnosed** : 02 Feb 2024  
**Unique Number** : 10860092 **Diagnostician** : Wes Davis  
**Test Package** : FLEET

**GFL Environmental - 010 - Stockbridge**  
 1280 Rum Creek Parkway  
 Stockbridge, GA  
 US 30281  
 Contact: JOSHUA TINKER  
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 T:  
 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)