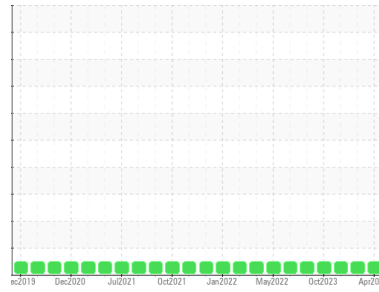




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Area  
**(P663866)**

Machine Id  
**10947**

Component  
**Diesel Engine**

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

## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor. ( Customer Sample Comment: Adjusted hours )

### 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>GFL0110381</b>	GFL0096907	GFL0096940
Sample Date	Client Info	<b>24 Apr 2024</b>	05 Feb 2024	09 Jan 2024
Machine Age	hrs	<b>4465</b>	3913	3732
Oil Age	hrs	<b>0</b>	14108	3732
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>14</b>	9	14
Chromium	ppm ASTM D5185m >5	<b>1</b>	<1	<1
Nickel	ppm ASTM D5185m >4	<b>&lt;1</b>	<1	0
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>5</b>	3	5
Lead	ppm ASTM D5185m >25	<b>&lt;1</b>	<1	0
Copper	ppm ASTM D5185m >100	<b>1</b>	<1	<1
Tin	ppm ASTM D5185m >4	<b>&lt;1</b>	<1	0
Vanadium	ppm ASTM D5185m	<b>&lt;1</b>	0	<1
Cadmium	ppm ASTM D5185m	<b>&lt;1</b>	<1	0

## ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185m 0	<b>7</b>	12	10
Barium	ppm ASTM D5185m 0	<b>0</b>	0	0
Molybdenum	ppm ASTM D5185m 60	<b>60</b>	64	53
Manganese	ppm ASTM D5185m 0	<b>&lt;1</b>	<1	0
Magnesium	ppm ASTM D5185m 1010	<b>863</b>	926	822
Calcium	ppm ASTM D5185m 1070	<b>1027</b>	1089	984
Phosphorus	ppm ASTM D5185m 1150	<b>1098</b>	973	958
Zinc	ppm ASTM D5185m 1270	<b>1181</b>	1228	1096
Sulfur	ppm ASTM D5185m 2060	<b>3530</b>	3048	2859

## CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >25	<b>8</b>	4	4
Sodium	ppm ASTM D5185m	<b>4</b>	0	1
Potassium	ppm ASTM D5185m >20	<b>1</b>	1	1

## INFRA-RED

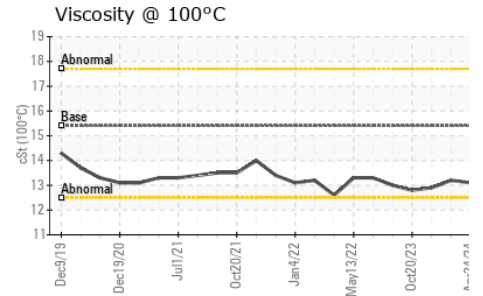
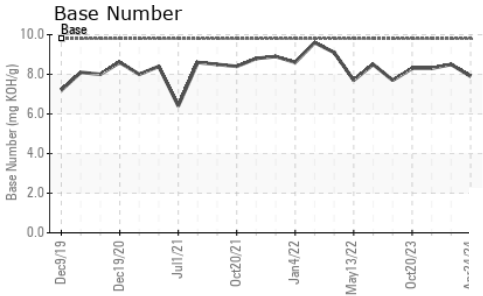
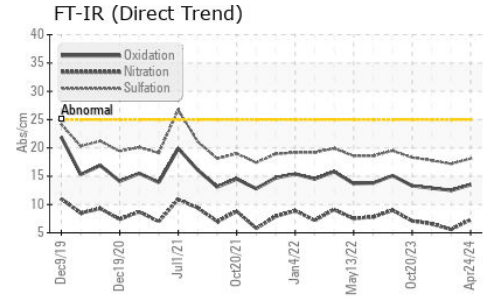
method	limit/base	current	history1	history2
Soot %	% *ASTM D7844 >6	<b>0.5</b>	0.3	0.5
Nitration	Abs/cm *ASTM D7624 >20	<b>7.3</b>	5.6	6.6
Sulfation	Abs/.1mm *ASTM D7415 >30	<b>18.1</b>	17.2	17.8

## FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	<b>13.5</b>	12.5	12.9
Base Number (BN)	mg KOH/g ASTM D2896 9.8	<b>7.9</b>	8.5	8.3



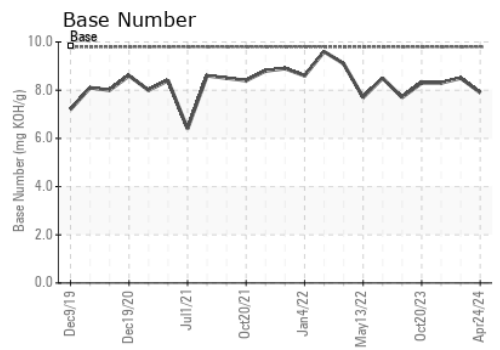
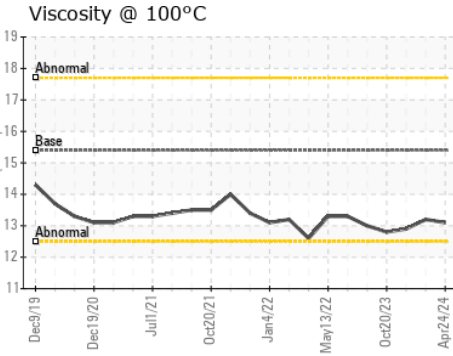
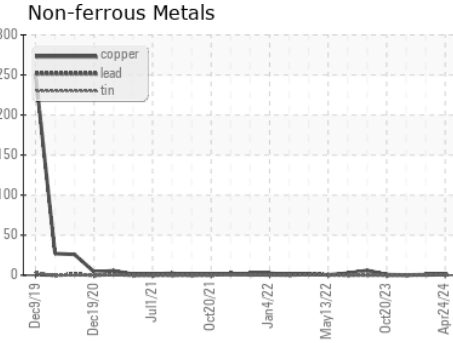
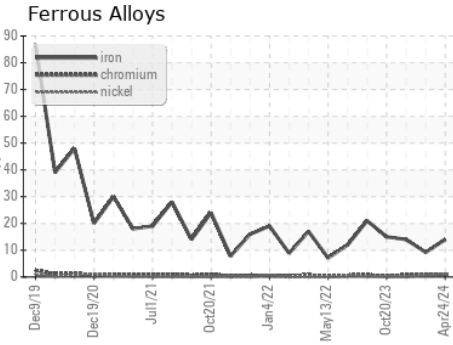
# OIL ANALYSIS REPORT



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	13.1	13.2	12.9

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0110381      **Received** : 25 Apr 2024  
**Lab Number** : **06161116**      **Tested** : 29 Apr 2024  
**Unique Number** : 10996539      **Diagnosed** : 29 Apr 2024 - Don Baldrige  
**Test Package** : FLEET

**GFL Environmental - 031 - Greenville/Spartanburg**  
 1635 Antioch Church Rd  
 Piedmont, SC  
 US 29673  
 Contact: TECHNICIAN ACCOUNT  
 catherine.anastasio@wearcheck.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)