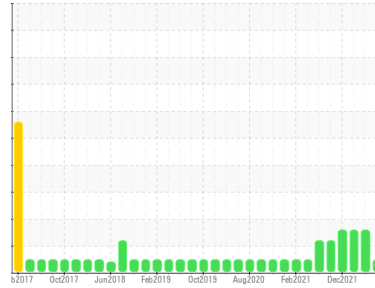




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id  
**3740**

Component  
**Diesel Engine**

Fluid  
**PETRO CANADA DURON SHP 15W40 (10 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>GFL0109094</b>	GFL0057658	GFL0042690
Sample Date	Client Info		<b>23 Jan 2024</b>	17 Nov 2022	04 Feb 2022
Machine Age	hrs	Client Info	<b>17385</b>	15674	13290
Oil Age	hrs	Client Info	<b>0</b>	0	0
Oil Changed	Client Info		<b>Not Changed</b>	Changed	Not Changed
Sample Status			<b>NORMAL</b>	ABNORMAL	ABNORMAL

## 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	0.0

## WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >165	<b>15</b>	14	19
Chromium	ppm	ASTM D5185m >5	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185m >4	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m >2	<b>0</b>	0	<1
Silver	ppm	ASTM D5185m >2	<b>0</b>	0	1
Aluminum	ppm	ASTM D5185m >20	<b>1</b>	1	6
Lead	ppm	ASTM D5185m >150	<b>&lt;1</b>	3	2
Copper	ppm	ASTM D5185m >90	<b>2</b>	<1	2
Tin	ppm	ASTM D5185m >5	<b>&lt;1</b>	<1	<1
Antimony	ppm	ASTM D5185m	<b>---</b>	---	0
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>20</b>	8	13
Barium	ppm	ASTM D5185m 0	<b>0</b>	0	<1
Molybdenum	ppm	ASTM D5185m 60	<b>65</b>	74	71
Manganese	ppm	ASTM D5185m 0	<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m 1010	<b>837</b>	795	760
Calcium	ppm	ASTM D5185m 1070	<b>1173</b>	1025	1031
Phosphorus	ppm	ASTM D5185m 1150	<b>996</b>	899	929
Zinc	ppm	ASTM D5185m 1270	<b>1199</b>	1135	971
Sulfur	ppm	ASTM D5185m 2060	<b>2986</b>	3093	2137

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >35	<b>14</b>	9	10
Sodium	ppm	ASTM D5185m	<b>37</b>	▲ 321	▲ 238
Potassium	ppm	ASTM D5185m >20	<b>10</b>	2	3

## INFRA-RED

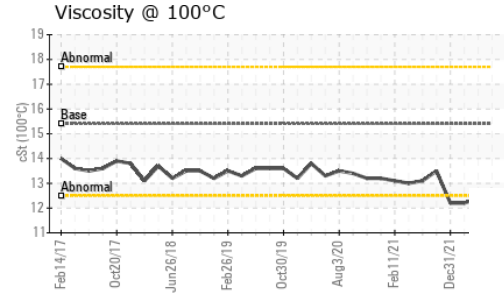
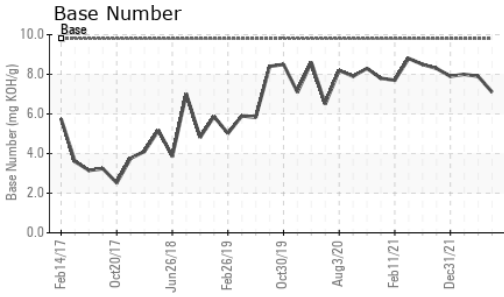
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >7.5	<b>0.5</b>	0.5	0.7
Nitration	Abs/cm	*ASTM D7624 >20	<b>8.9</b>	11.3	8.8
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>20.3</b>	23.0	20.1

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>15.5</b>	17.7	14.1
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	<b>7.1</b>	7.9	8



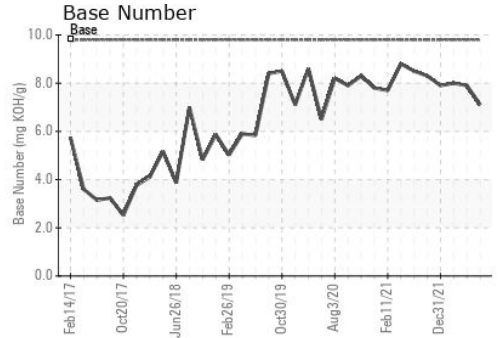
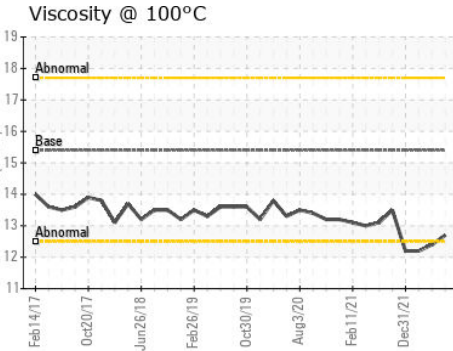
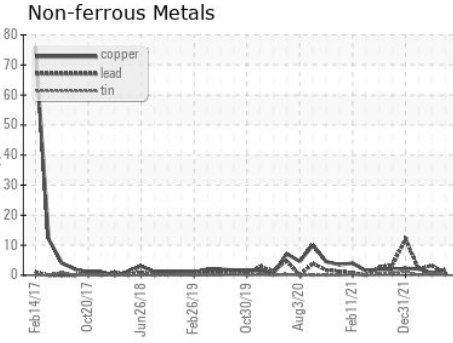
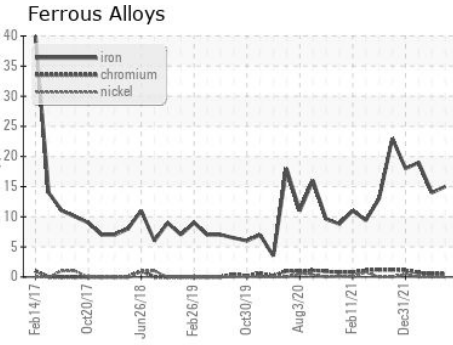
# OIL ANALYSIS REPORT



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>12.7</b>	▲ 12.4	▲ 12.2

## GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0109094 **Recieved** : 26 Jan 2024  
**Lab Number** : **06072071** **Diagnosed** : 29 Jan 2024  
**Unique Number** : 10848748 **Diagnostician** : Wes Davis  
**Test Package** : FLEET

**GFL Environmental - 009 - Fairburn**  
 6905 Roosevelt Hwy  
 Fairburn, GA  
 US 30213  
 Contact: Eric Jones  
 erjones@gflenv.com  
 T: (678)630-9927  
 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)