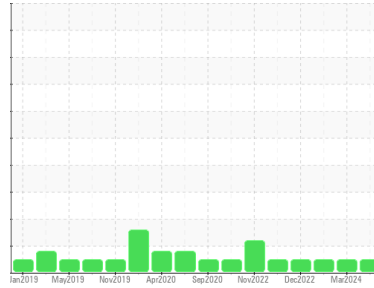




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id  
**726041-361664**

Component  
**Diesel Engine**

Fluid  
**PETRO CANADA DURON SHP 15W40 (--- 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>GFL0065696</b>	GFL0107998	GFL0065750
Sample Date	Client Info	<b>14 Mar 2024</b>	02 Mar 2024	04 Jan 2024
Machine Age	hrs	<b>0</b>	0	0
Oil Age	hrs	<b>0</b>	0	0
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 >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 >100	<b>32</b>	27	10
Chromium	ppm ASTM D5185m >20	<b>2</b>	1	<1
Nickel	ppm ASTM D5185m >4	<b>&lt;1</b>	0	1
Titanium	ppm ASTM D5185m	<b>0</b>	0	0
Silver	ppm ASTM D5185m >3	<b>0</b>	0	<1
Aluminum	ppm ASTM D5185m >20	<b>6</b>	5	4
Lead	ppm ASTM D5185m >40	<b>&lt;1</b>	0	<1
Copper	ppm ASTM D5185m >330	<b>2</b>	1	1
Tin	ppm ASTM D5185m >15	<b>2</b>	<1	<1
Vanadium	ppm ASTM D5185m	<b>&lt;1</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>0</b>	1	<1
Barium	ppm ASTM D5185m 0	<b>0</b>	0	0
Molybdenum	ppm ASTM D5185m 60	<b>61</b>	60	60
Manganese	ppm ASTM D5185m 0	<b>&lt;1</b>	<1	<1
Magnesium	ppm ASTM D5185m 1010	<b>989</b>	911	904
Calcium	ppm ASTM D5185m 1070	<b>1114</b>	1019	998
Phosphorus	ppm ASTM D5185m 1150	<b>968</b>	1016	1018
Zinc	ppm ASTM D5185m 1270	<b>1264</b>	1199	1218
Sulfur	ppm ASTM D5185m 2060	<b>3371</b>	3102	2947

## CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >25	<b>7</b>	6	4
Sodium	ppm ASTM D5185m	<b>11</b>	9	6
Potassium	ppm ASTM D5185m >20	<b>2</b>	0	4

## INFRA-RED

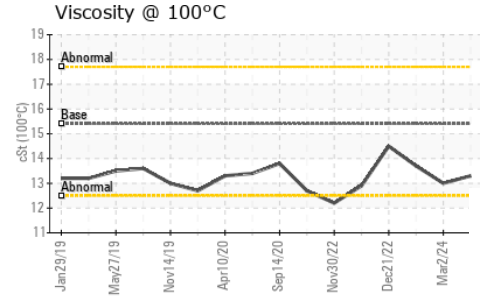
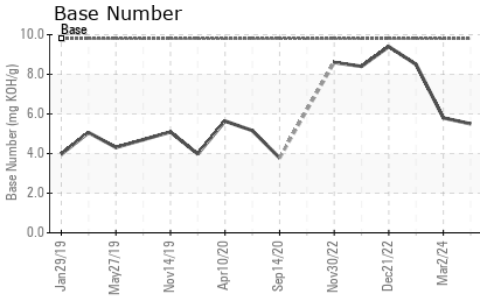
method	limit/base	current	history1	history2
Soot %	% *ASTM D7844 >3	<b>1.3</b>	1	0.6
Nitration	Abs/cm *ASTM D7624 >20	<b>11.7</b>	10.6	8.3
Sulfation	Abs/.1mm *ASTM D7415 >30	<b>22.5</b>	21.0	19.6

## FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	<b>18.2</b>	17.1	14.9
Base Number (BN)	mg KOH/g ASTM D2896 9.8	<b>5.5</b>	5.8	8.5



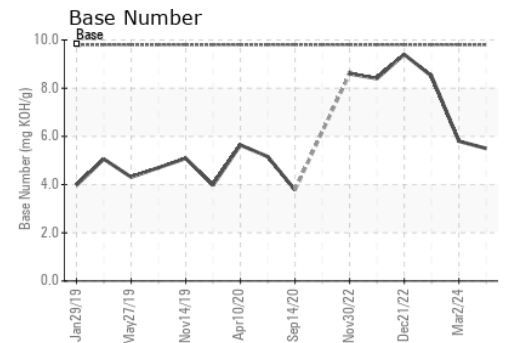
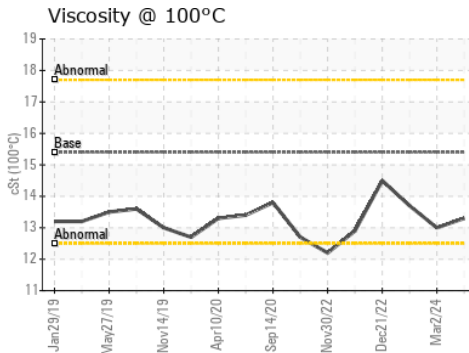
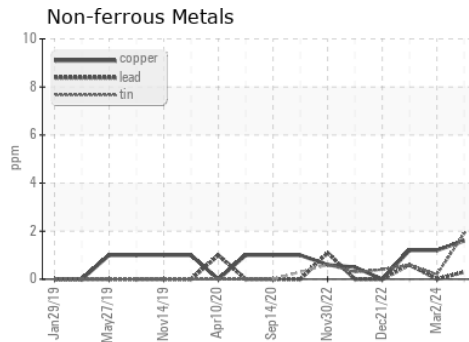
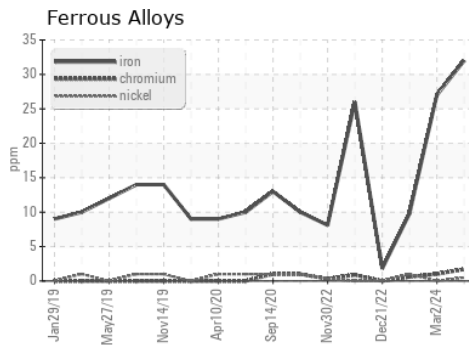
# OIL ANALYSIS REPORT



PARAMETER	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	13.3	13.0

## GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
 Sample No. : GFL0065696  
 Lab Number : 06131566  
 Unique Number : 10951031  
 Test Package : FLEET

Received : 28 Mar 2024  
 Tested : 28 Mar 2024  
 Diagnosed : 28 Mar 2024 - Wes Davis

GFL Environmental - 823 - Central Missouri Hauling  
 24461 Oak Grove Lane  
 Sedalia, MO  
 US 65301

Contact: Terry Randolph  
 trandolph@gflenv.com

T: (660)631-2116

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)