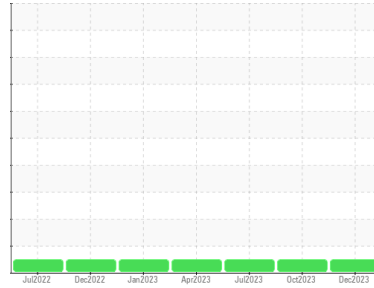




# OIL ANALYSIS REPORT

Sample Rating Trend

**NORMAL**



Machine Id  
**722032**

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>GFL0103104</b>	GFL0091940	GFL0075058
Sample Date	Client Info	<b>29 Dec 2023</b>	03 Oct 2023	03 Jul 2023
Machine Age	hrs	<b>40162</b>	40266	40132
Oil Age	hrs	<b>150</b>	134	600
Oil Changed	Client Info	<b>Not Changed</b>	N/A	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 >150	<b>9</b>	5	17
Chromium	ppm ASTM D5185m >15	<b>0</b>	0	<1
Nickel	ppm ASTM D5185m >4	<b>0</b>	<1	0
Titanium	ppm ASTM D5185m	<b>0</b>	0	0
Silver	ppm ASTM D5185m >3	<b>0</b>	0	0
Aluminum	ppm ASTM D5185m >15	<b>&lt;1</b>	<1	<1
Lead	ppm ASTM D5185m >70	<b>&lt;1</b>	0	<1
Copper	ppm ASTM D5185m >175	<b>&lt;1</b>	0	3
Tin	ppm ASTM D5185m >5	<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>4</b>	6	10
Barium	ppm ASTM D5185m 0	<b>0</b>	0	0
Molybdenum	ppm ASTM D5185m 60	<b>62</b>	63	65
Manganese	ppm ASTM D5185m 0	<b>0</b>	<1	<1
Magnesium	ppm ASTM D5185m 1010	<b>1058</b>	1019	1001
Calcium	ppm ASTM D5185m 1070	<b>1131</b>	1093	1196
Phosphorus	ppm ASTM D5185m 1150	<b>1115</b>	1178	1103
Zinc	ppm ASTM D5185m 1270	<b>1334</b>	1376	1350
Sulfur	ppm ASTM D5185m 2060	<b>3395</b>	3455	3953

## CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >25	<b>3</b>	3	3
Sodium	ppm ASTM D5185m	<b>&lt;1</b>	1	2
Potassium	ppm ASTM D5185m >20	<b>0</b>	2	2

## INFRA-RED

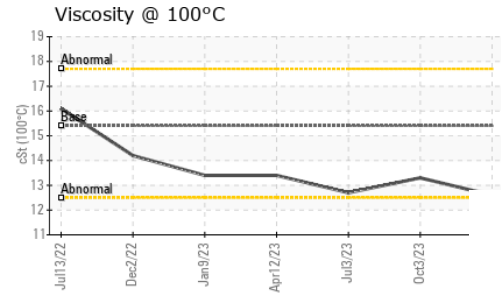
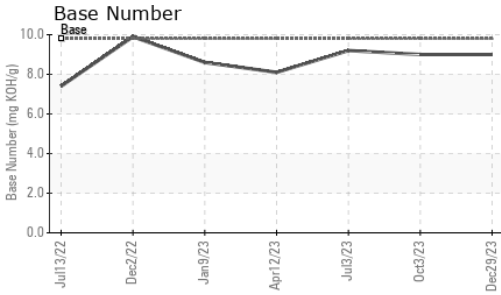
method	limit/base	current	history1	history2
Soot %	% *ASTM D7844 >3	<b>0.3</b>	0.3	0.5
Nitration	Abs/cm *ASTM D7624 >20	<b>5.1</b>	5.1	6.3
Sulfation	Abs/.1mm *ASTM D7415 >30	<b>18.1</b>	18.0	19.2

## FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	<b>13.5</b>	13.7	14.5
Base Number (BN)	mg KOH/g ASTM D2896 9.8	<b>9.0</b>	9.0	9.2



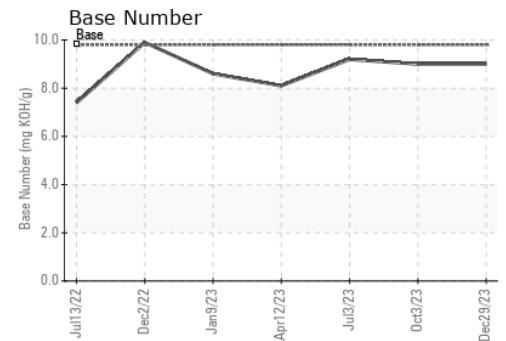
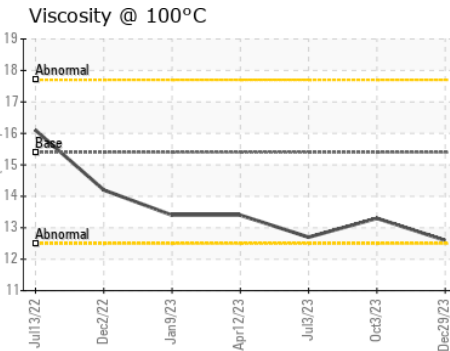
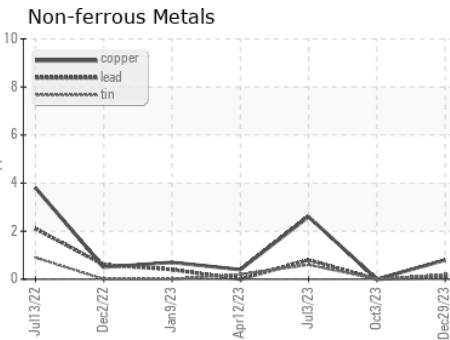
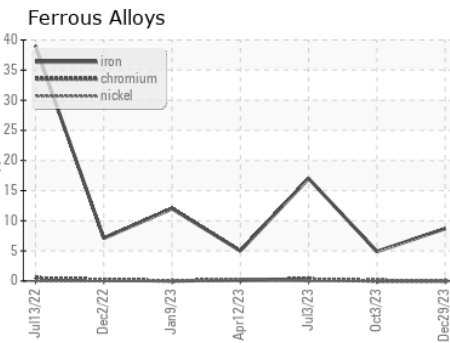
# OIL ANALYSIS REPORT



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	12.6	13.3

## GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
 Sample No. : GFL0103104      Recieved : 02 Jan 2024  
 Lab Number : 06049350      Diagnosed : 04 Jan 2024  
 Unique Number : 10809958      Diagnostician : Wes Davis  
 Test Package : FLEET

GFL Environmental - 683 - Ruckersville Hauling  
 261 INDUSTRIAL DR  
 Ruckersville, VA  
 US 22698  
 Contact: Jaf Finney  
 jfinney@gflenv.com  
 T: (434)990-4972  
 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)