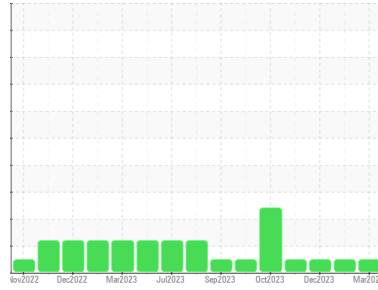




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id  
**929127**

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>GFL0105284</b>	GFL0105158	GFL0090286
Sample Date	Client Info	<b>19 Mar 2024</b>	02 Jan 2024	05 Dec 2023
Machine Age	hrs	<b>13328</b>	13268	13151
Oil Age	hrs	<b>150</b>	150	300
Oil Changed	Client Info	<b>Not Changed</b>	Not Changed	Not 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>4</b>	1	<1
Chromium	ppm ASTM D5185m >20	<b>&lt;1</b>	0	0
Nickel	ppm ASTM D5185m >4	<b>0</b>	0	0
Titanium	ppm ASTM D5185m	<b>&lt;1</b>	<1	0
Silver	ppm ASTM D5185m >3	<b>0</b>	0	0
Aluminum	ppm ASTM D5185m >20	<b>2</b>	<1	<1
Lead	ppm ASTM D5185m >40	<b>&lt;1</b>	<1	0
Copper	ppm ASTM D5185m >330	<b>&lt;1</b>	<1	0
Tin	ppm ASTM D5185m >15	<b>&lt;1</b>	<1	0
Vanadium	ppm ASTM D5185m	<b>0</b>	<1	<1
Cadmium	ppm ASTM D5185m	<b>0</b>	0	0

## ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185m 0	<b>79</b>	1	1
Barium	ppm ASTM D5185m 0	<b>0</b>	0	0
Molybdenum	ppm ASTM D5185m 60	<b>54</b>	59	58
Manganese	ppm ASTM D5185m 0	<b>0</b>	<1	0
Magnesium	ppm ASTM D5185m 1010	<b>531</b>	974	1014
Calcium	ppm ASTM D5185m 1070	<b>1576</b>	1071	1095
Phosphorus	ppm ASTM D5185m 1150	<b>789</b>	1072	1097
Zinc	ppm ASTM D5185m 1270	<b>931</b>	1247	1306
Sulfur	ppm ASTM D5185m 2060	<b>2571</b>	3221	3316

## CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >25	<b>14</b>	6	5
Sodium	ppm ASTM D5185m	<b>6</b>	3	4
Potassium	ppm ASTM D5185m >20	<b>2</b>	0	<1

## INFRA-RED

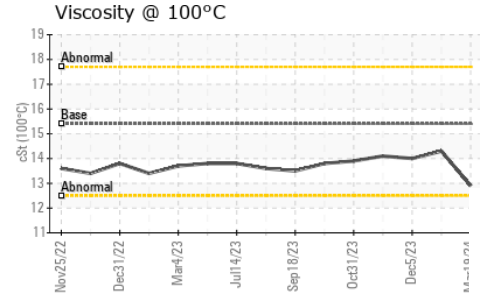
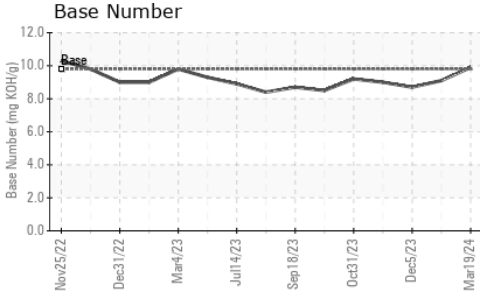
method	limit/base	current	history1	history2
Soot %	% *ASTM D7844 >3	<b>0.1</b>	0	0.1
Nitration	Abs/cm *ASTM D7624 >20	<b>5.0</b>	4.3	4.6
Sulfation	Abs/.1mm *ASTM D7415 >30	<b>20.8</b>	17.2	17.4

## FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	<b>18.2</b>	13.0	13.1
Base Number (BN)	mg KOH/g ASTM D2896 9.8	<b>9.9</b>	9.1	8.7



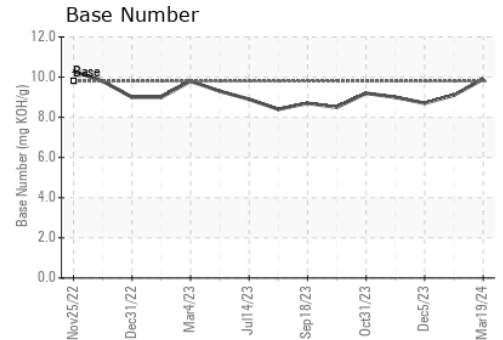
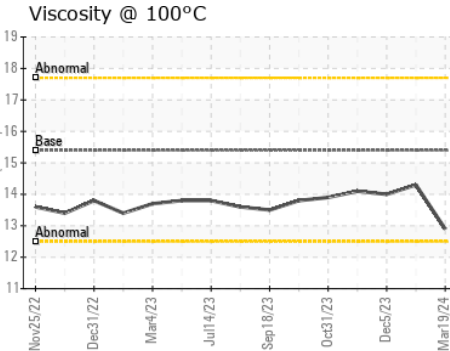
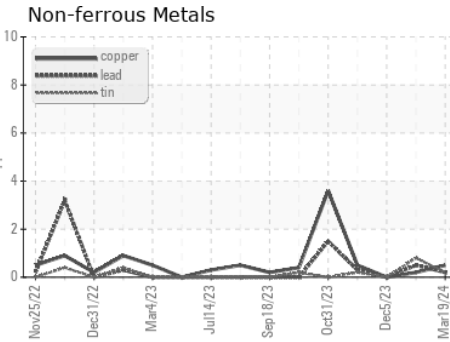
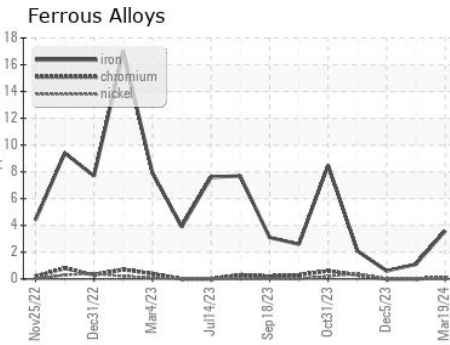
# OIL ANALYSIS REPORT



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>12.9</b>	14.3	14.0

## GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
 Sample No. : GFL0105284  
 Lab Number : **06126155**  
 Unique Number : 10940306  
 Test Package : FLEET

Received : 22 Mar 2024  
 Tested : 22 Mar 2024  
 Diagnosed : 26 Mar 2024 - Don Baldrige

GFL Environmental - 821 - Ozarks Hauling  
 33924 Olath Drive  
 Lebanon, MO  
 US 65536

Contact: Landen Johnson  
 landen.johnson@gflenv.com

T: (417)664-0010

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)