



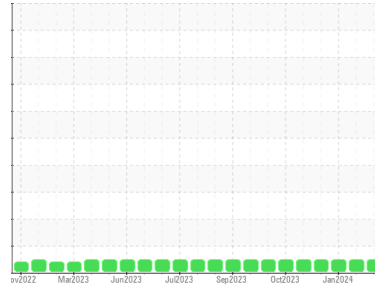
# OIL ANALYSIS REPORT

Sample Rating Trend

**NORMAL**



Area  
**(57A2YN6)**  
Machine Id  
**413052**  
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>GFL0110567</b>	GFL0100272	GFL0100212
Sample Date	Client Info	<b>13 Feb 2024</b>	26 Jan 2024	16 Jan 2024
Machine Age	hrs	<b>29947</b>	29947	29947
Oil Age	hrs	<b>400</b>	600	600
Oil Changed	Client Info	<b>Not Changed</b>	Changed	Not 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 >120	<b>2</b>	14	13
Chromium	ppm ASTM D5185m >20	<b>0</b>	<1	<1
Nickel	ppm ASTM D5185m >5	<b>1</b>	5	2
Titanium	ppm ASTM D5185m >2	<b>0</b>	0	<1
Silver	ppm ASTM D5185m >2	<b>&lt;1</b>	0	<1
Aluminum	ppm ASTM D5185m >20	<b>2</b>	3	2
Lead	ppm ASTM D5185m >40	<b>&lt;1</b>	<1	1
Copper	ppm ASTM D5185m >330	<b>2</b>	5	6
Tin	ppm ASTM D5185m >15	<b>&lt;1</b>	1	2
Vanadium	ppm ASTM D5185m	<b>0</b>	0	<1
Cadmium	ppm ASTM D5185m	<b>0</b>	0	<1

## ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185m 0	<b>3</b>	<1	<1
Barium	ppm ASTM D5185m 0	<b>0</b>	0	1
Molybdenum	ppm ASTM D5185m 60	<b>57</b>	60	64
Manganese	ppm ASTM D5185m 0	<b>&lt;1</b>	<1	1
Magnesium	ppm ASTM D5185m 1010	<b>936</b>	948	995
Calcium	ppm ASTM D5185m 1070	<b>979</b>	968	1015
Phosphorus	ppm ASTM D5185m 1150	<b>994</b>	1007	928
Zinc	ppm ASTM D5185m 1270	<b>1226</b>	1227	1273
Sulfur	ppm ASTM D5185m 2060	<b>3046</b>	2793	2880

## CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >25	<b>3</b>	7	6
Sodium	ppm ASTM D5185m	<b>2</b>	3	0
Potassium	ppm ASTM D5185m >20	<b>2</b>	6	7

## INFRA-RED

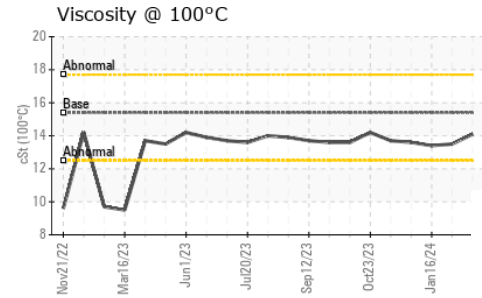
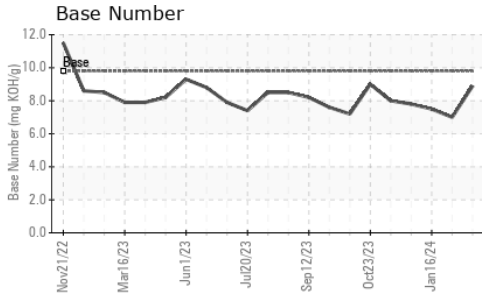
method	limit/base	current	history1	history2
Soot %	% *ASTM D7844 >4	<b>0.1</b>	0.4	0.4
Nitration	Abs/cm *ASTM D7624 >20	<b>5.4</b>	8.7	8.3
Sulfation	Abs/.1mm *ASTM D7415 >30	<b>18.0</b>	19.8	19.5

## FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	<b>14.1</b>	16.1	15.6
Base Number (BN)	mg KOH/g ASTM D2896 9.8	<b>8.9</b>	7.0	7.5



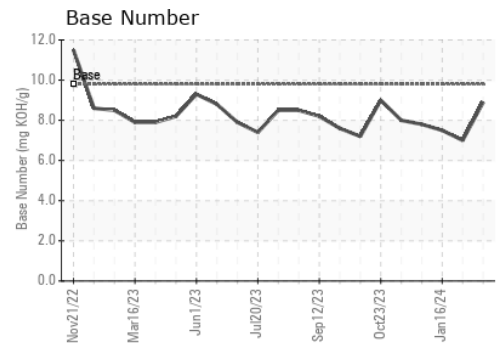
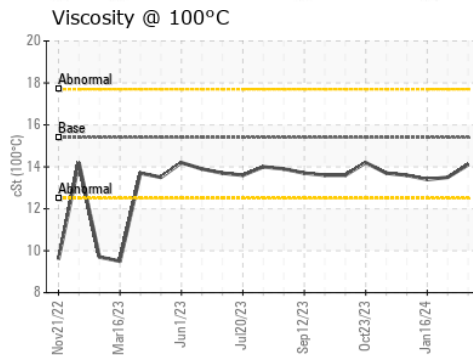
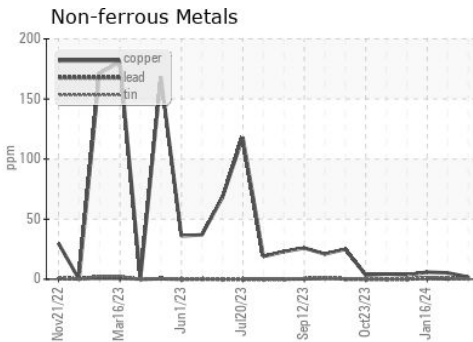
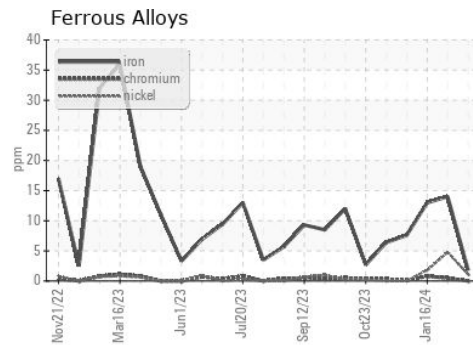
# OIL ANALYSIS REPORT



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>14.1</b>	13.5	13.4

## GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0110567  
**Lab Number** : 06091463  
**Unique Number** : 10884316  
**Test Package** : FLEET

**Received** : 16 Feb 2024  
**Tested** : 16 Feb 2024  
**Diagnosed** : 16 Feb 2024 - Wes Davis

**GFL Environmental - 166 - Phenix City**  
 18 Old Brickyard Rd  
 Phenix City, AL  
 US 36869  
 Contact: DEAN PEACE JR  
 dean.peace@gflenv.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)

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F: