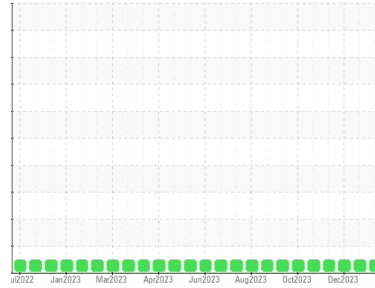




# OIL ANALYSIS REPORT

Sample Rating Trend

**NORMAL**



Machine Id  
**912069**

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>GFL0090937</b>	GFL0103001	GFL0103021
Sample Date	Client Info	<b>28 Dec 2023</b>	14 Dec 2023	07 Dec 2023
Machine Age	hrs Client Info	<b>5858</b>	4496	5722
Oil Age	hrs Client Info	<b>136</b>	5722	315
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>6</b>	15	4
Chromium	ppm ASTM D5185m >20	<b>0</b>	<1	0
Nickel	ppm ASTM D5185m >4	<b>0</b>	0	0
Titanium	ppm ASTM D5185m	<b>0</b>	<1	0
Silver	ppm ASTM D5185m >3	<b>0</b>	0	0
Aluminum	ppm ASTM D5185m >20	<b>2</b>	4	2
Lead	ppm ASTM D5185m >40	<b>0</b>	<1	0
Copper	ppm ASTM D5185m >330	<b>2</b>	2	0
Tin	ppm ASTM D5185m >15	<b>&lt;1</b>	<1	0
Vanadium	ppm ASTM D5185m	<b>0</b>	<1	0
Cadmium	ppm ASTM D5185m	<b>0</b>	0	0

## ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185m 0	<b>&lt;1</b>	0	<1
Barium	ppm ASTM D5185m 0	<b>0</b>	0	0
Molybdenum	ppm ASTM D5185m 60	<b>61</b>	60	58
Manganese	ppm ASTM D5185m 0	<b>0</b>	<1	0
Magnesium	ppm ASTM D5185m 1010	<b>1034</b>	952	905
Calcium	ppm ASTM D5185m 1070	<b>1093</b>	984	935
Phosphorus	ppm ASTM D5185m 1150	<b>1116</b>	966	1032
Zinc	ppm ASTM D5185m 1270	<b>1360</b>	1276	1220
Sulfur	ppm ASTM D5185m 2060	<b>3260</b>	2943	3217

## CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >25	<b>4</b>	9	2
Sodium	ppm ASTM D5185m	<b>&lt;1</b>	2	<1
Potassium	ppm ASTM D5185m >20	<b>&lt;1</b>	3	2

## INFRA-RED

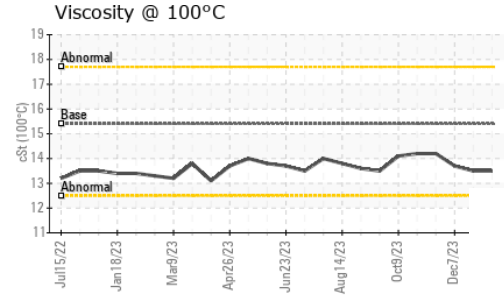
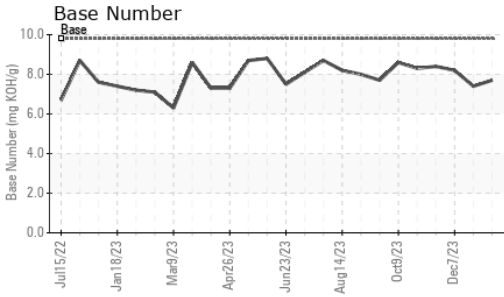
method	limit/base	current	history1	history2
Soot %	% *ASTM D7844 >3	<b>0.3</b>	0.3	0.2
Nitration	Abs/cm *ASTM D7624 >20	<b>7.5</b>	7.3	6.7
Sulfation	Abs/.1mm *ASTM D7415 >30	<b>18.7</b>	19.2	18.2

## FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	<b>14.9</b>	14.6	14.2
Base Number (BN)	mg KOH/g ASTM D2896 9.8	<b>7.7</b>	7.4	8.2



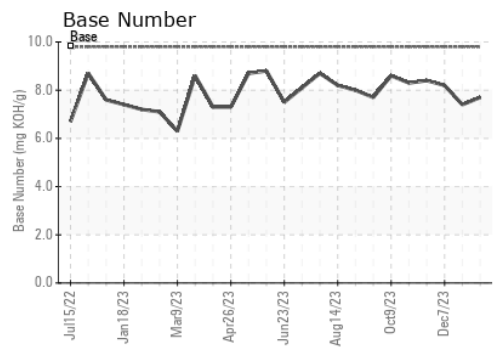
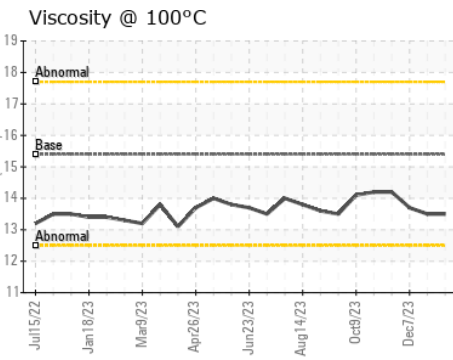
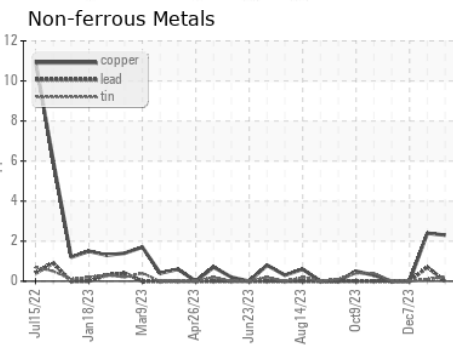
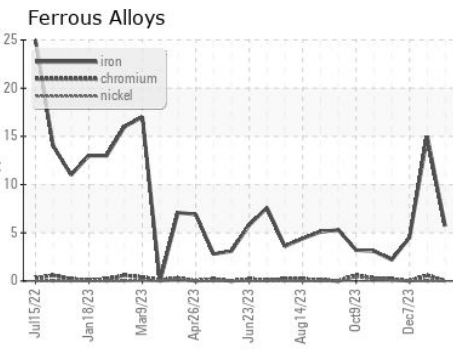
# OIL ANALYSIS REPORT



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>13.5</b>	13.5	13.7

## GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0090937 **Recieved** : 02 Jan 2024  
**Lab Number** : **06049468** **Diagnosed** : 04 Jan 2024  
**Unique Number** : 10810076 **Diagnostician** : Wes Davis  
**Test Package** : FLEET

**GFL Environmental - 814 - Little Rock Hauling**  
 4005 Hwy 161 N.  
 Little Rock, AR  
 US 72117  
 Contact: Brad Manager

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: