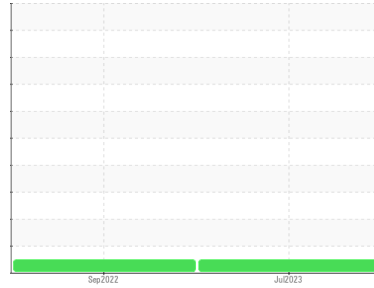




# OIL ANALYSIS REPORT

Sample Rating Trend

**NORMAL**



Machine Id  
**929056**

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>GFL0072505</b>	GFL0055998	---
Sample Date	Client Info	<b>11 Jul 2023</b>	15 Sep 2022	---
Machine Age	hrs	Client Info	<b>9480</b>	0
Oil Age	hrs	Client Info	<b>603</b>	0
Oil Changed	Client Info	<b>Changed</b>	Changed	---
Sample Status		<b>NORMAL</b>	NORMAL	---

## CONTAMINATION

method	limit/base	current	history1	history2
Fuel	WC Method >5	<b>&lt;1.0</b>	<1.0	---
Glycol	WC Method	<b>NEG</b>	NEG	---

## WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >110	<b>14</b>	5
Chromium	ppm	ASTM D5185m >4	<b>0</b>	0
Nickel	ppm	ASTM D5185m >2	<b>0</b>	0
Titanium	ppm	ASTM D5185m	<b>0</b>	0
Silver	ppm	ASTM D5185m >2	<b>0</b>	<1
Aluminum	ppm	ASTM D5185m >25	<b>4</b>	5
Lead	ppm	ASTM D5185m >45	<b>0</b>	0
Copper	ppm	ASTM D5185m >85	<b>1</b>	2
Tin	ppm	ASTM D5185m >4	<b>&lt;1</b>	0
Vanadium	ppm	ASTM D5185m	<b>0</b>	<1
Cadmium	ppm	ASTM D5185m	<b>0</b>	0

## ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 0	<b>26</b>	254
Barium	ppm	ASTM D5185m 0	<b>0</b>	0
Molybdenum	ppm	ASTM D5185m 60	<b>72</b>	139
Manganese	ppm	ASTM D5185m 0	<b>&lt;1</b>	<1
Magnesium	ppm	ASTM D5185m 1010	<b>1003</b>	640
Calcium	ppm	ASTM D5185m 1070	<b>1359</b>	1570
Phosphorus	ppm	ASTM D5185m 1150	<b>1031</b>	671
Zinc	ppm	ASTM D5185m 1270	<b>1350</b>	844
Sulfur	ppm	ASTM D5185m 2060	<b>3489</b>	2830

## CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >30	<b>3</b>	5
Sodium	ppm	ASTM D5185m	<b>2</b>	0
Potassium	ppm	ASTM D5185m >20	<b>&lt;1</b>	3

## INFRA-RED

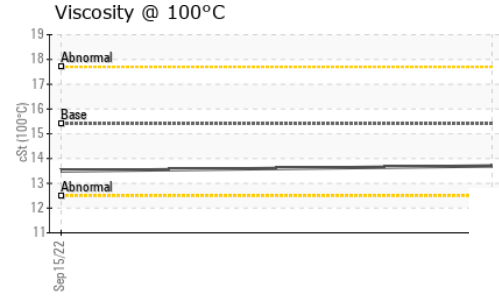
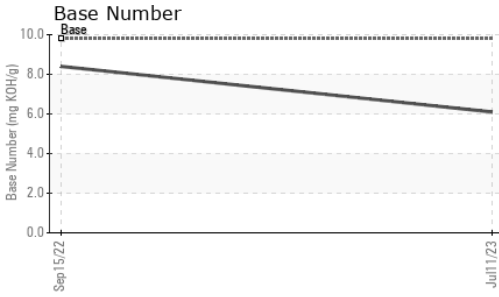
method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >3	<b>0.5</b>	0.3
Nitration	Abs/cm	*ASTM D7624 >20	<b>9.3</b>	9.2
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>22.3</b>	25.5

## FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>18.7</b>	20.2
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	<b>6.1</b>	8.4



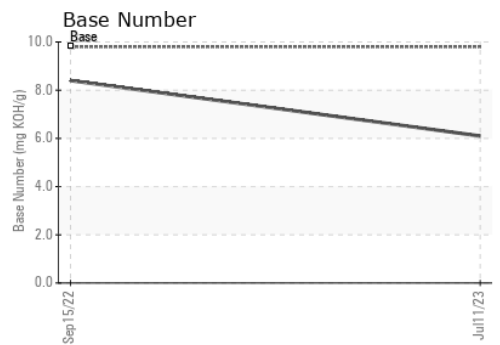
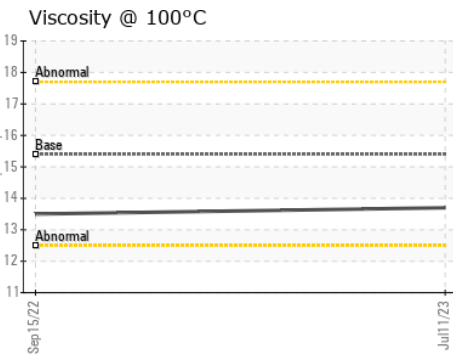
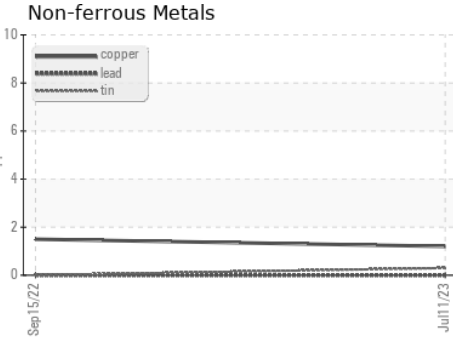
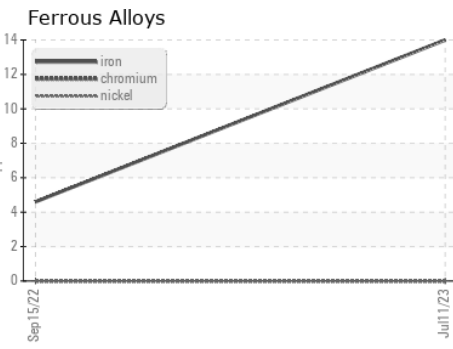
# OIL ANALYSIS REPORT



PARAMETER	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	---
Precipitate	scalar	*Visual	NONE	NONE	---
Silt	scalar	*Visual	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---
Appearance	scalar	*Visual	NORML	NORML	---
Odor	scalar	*Visual	NORML	NORML	---
Emulsified Water	scalar	*Visual	>0.2	NEG	---
Free Water	scalar	*Visual		NEG	---

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.4	13.7	13.5

## GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0072505 **Received** : 08 Aug 2023  
**Lab Number** : 05918394 **Diagnosed** : 09 Aug 2023  
**Unique Number** : 10590308 **Diagnostician** : Wes Davis  
**Test Package** : FLEET

**GFL Environmental - 912 - Fort Atkinson HC**  
 1215 Klement St.  
 Fort Atkinson, WI  
 US 53538  
 Contact: LEONARD KOZLEUCHAR  
 leonard.kozleuchar@gflenv.com  
 T: (262)210-6528  
 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)