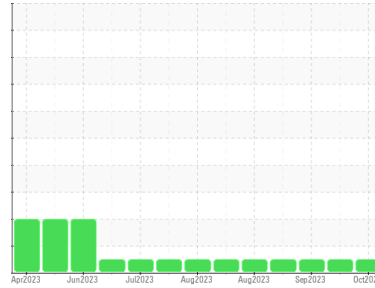




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id  
**913178**

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>GFL0098831</b>	GFL0098806	GFL0090951
Sample Date	Client Info		<b>27 Oct 2023</b>	10 Oct 2023	20 Sep 2023
Machine Age	hrs	Client Info	<b>1684</b>	1550	1616
Oil Age	hrs	Client Info	<b>68</b>	1616	341
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
Glycol	WC Method		<b>NEG</b>	NEG	NEG

## WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >100	<b>12</b>	11	7
Chromium	ppm	ASTM D5185m >20	<b>&lt;1</b>	<1	0
Nickel	ppm	ASTM D5185m >4	<b>1</b>	<1	0
Titanium	ppm	ASTM D5185m	<b>0</b>	<1	0
Silver	ppm	ASTM D5185m >3	<b>&lt;1</b>	<1	0
Aluminum	ppm	ASTM D5185m >20	<b>2</b>	2	<1
Lead	ppm	ASTM D5185m >40	<b>&lt;1</b>	<1	0
Copper	ppm	ASTM D5185m >330	<b>1</b>	2	1
Tin	ppm	ASTM D5185m >15	<b>&lt;1</b>	<1	0
Vanadium	ppm	ASTM D5185m	<b>0</b>	0	0
Cadmium	ppm	ASTM D5185m	<b>0</b>	<1	0

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 0	<b>5</b>	0	<1
Barium	ppm	ASTM D5185m 0	<b>0</b>	3	0
Molybdenum	ppm	ASTM D5185m 60	<b>59</b>	60	62
Manganese	ppm	ASTM D5185m 0	<b>&lt;1</b>	<1	0
Magnesium	ppm	ASTM D5185m 1010	<b>910</b>	895	1029
Calcium	ppm	ASTM D5185m 1070	<b>982</b>	1005	1142
Phosphorus	ppm	ASTM D5185m 1150	<b>1037</b>	962	1088
Zinc	ppm	ASTM D5185m 1270	<b>1232</b>	1143	1363
Sulfur	ppm	ASTM D5185m 2060	<b>2741</b>	2608	4000

## CONTAMINANTS

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

## INFRA-RED

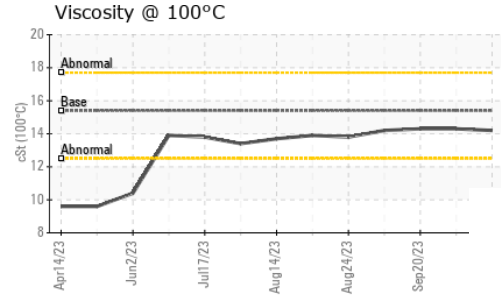
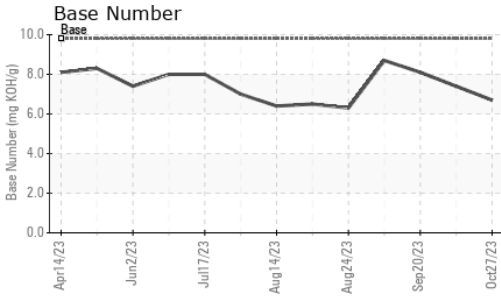
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >3	<b>0.5</b>	0.4	0.2
Nitration	Abs/cm	*ASTM D7624 >20	<b>9.7</b>	8.3	6.9
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>21.4</b>	19.8	18.7

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>18.0</b>	16.2	14.9
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	<b>6.7</b>	7.4	8.1



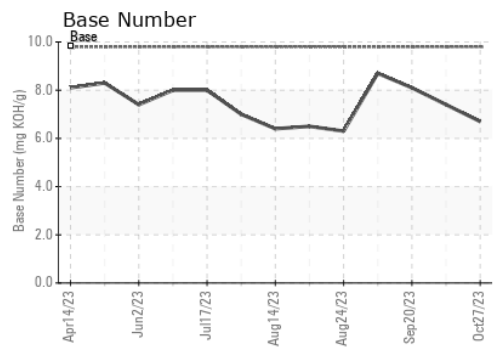
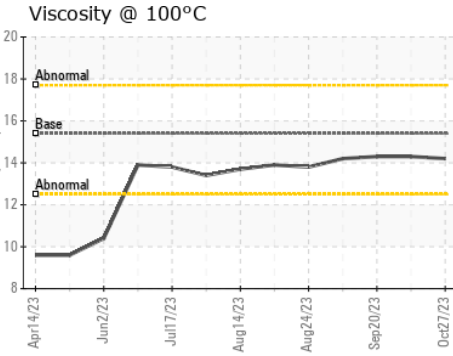
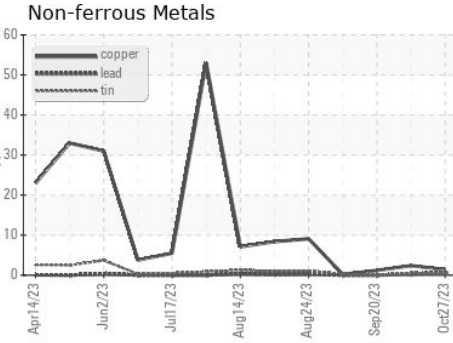
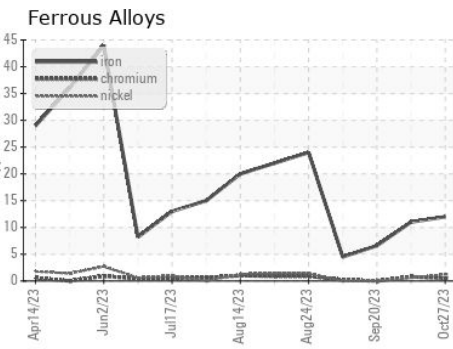
# OIL ANALYSIS REPORT



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	<b>14.2</b>	14.3	14.3

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0098831 **Received** : 01 Nov 2023  
**Lab Number** : **05996196** **Diagnosed** : 02 Nov 2023  
**Unique Number** : 10724556 **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: