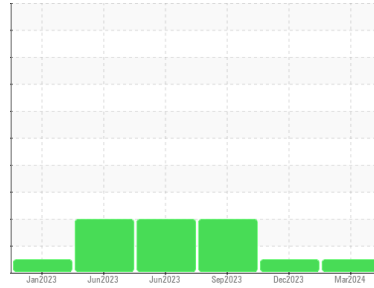




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id  
**727157**  
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>GFL0086978</b>	GFL0086963	GFL0086936
Sample Date	Client Info		<b>08 Mar 2024</b>	04 Dec 2023	07 Sep 2023
Machine Age	hrs	Client Info	<b>5000</b>	4700	4666
Oil Age	hrs	Client Info	<b>602</b>	502	468
Oil Changed	Client Info		<b>Not Chngd</b>	N/A	Not Chngd
Sample Status			<b>NORMAL</b>	NORMAL	ABNORMAL

## 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>11</b>	8	24
Chromium	ppm	ASTM D5185m >20	<b>0</b>	<1	1
Nickel	ppm	ASTM D5185m >5	<b>0</b>	0	<1
Titanium	ppm	ASTM D5185m >2	<b>0</b>	0	0
Silver	ppm	ASTM D5185m >2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m >20	<b>&lt;1</b>	<1	<1
Lead	ppm	ASTM D5185m >40	<b>2</b>	0	4
Copper	ppm	ASTM D5185m >330	<b>&lt;1</b>	<1	5
Tin	ppm	ASTM D5185m >15	<b>0</b>	0	1
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>4</b>	5	6
Barium	ppm	ASTM D5185m 0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m 60	<b>59</b>	56	68
Manganese	ppm	ASTM D5185m 0	<b>0</b>	0	<1
Magnesium	ppm	ASTM D5185m 1010	<b>1008</b>	952	1071
Calcium	ppm	ASTM D5185m 1070	<b>1140</b>	848	1214
Phosphorus	ppm	ASTM D5185m 1150	<b>1040</b>	853	1129
Zinc	ppm	ASTM D5185m 1270	<b>1269</b>	1072	1385
Sulfur	ppm	ASTM D5185m 2060	<b>3708</b>	2924	3687

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	<b>2</b>	5	3
Sodium	ppm	ASTM D5185m	<b>&lt;1</b>	<1	2
Potassium	ppm	ASTM D5185m >20	<b>&lt;1</b>	0	5

## INFRA-RED

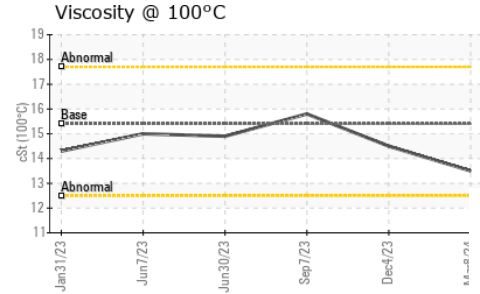
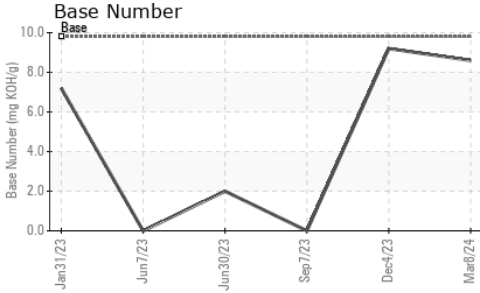
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >4	<b>0.2</b>	0.4	▲ 5.1
Nitration	Abs/cm	*ASTM D7624 >20	<b>6.1</b>	4.6	13.5
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>17.8</b>	17.6	30.5

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>13.8</b>	12.4	19.8
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	<b>8.6</b>	9.2	▲ 0.0



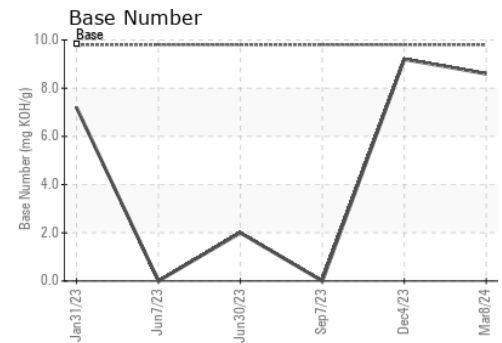
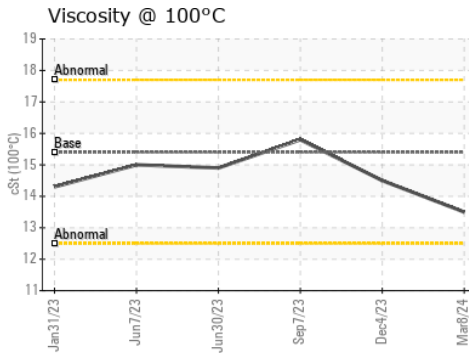
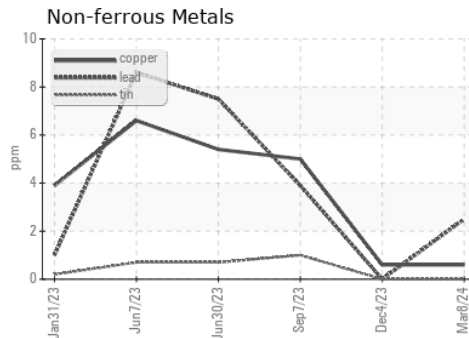
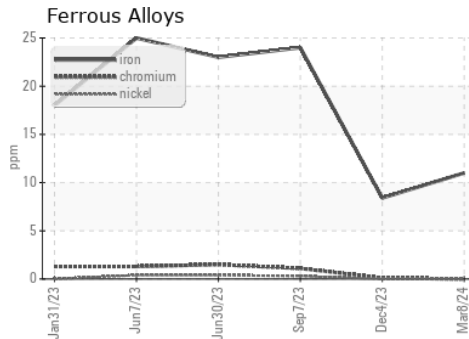
# OIL ANALYSIS REPORT



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>	14.5	15.8

## GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0086978  
**Lab Number** : **06114992**  
**Unique Number** : 10923825  
**Test Package** : FLEET

**Received** : 11 Mar 2024  
**Tested** : 12 Mar 2024  
**Diagnosed** : 12 Mar 2024 - Wes Davis

**GFL Environmental - 408 - Brown City**  
 4235 M-53  
 BROWN CITY, MI  
 US 48416  
 Contact: WILLIAM DEOLA  
 bdeola@gflenv.com  
 T: (810)238-2836  
 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)