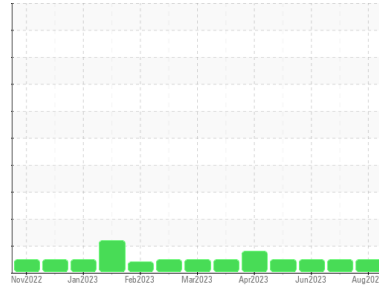




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Area  
**ALEXANDER CITY**  
 Machine Id  
**711006**

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>GFL0083583</b>	GFL0086063	GFL0086006
Sample Date	Client Info		<b>02 Aug 2023</b>	29 Jun 2023	20 Jun 2023
Machine Age	hrs	Client Info	<b>5403</b>	5286	5069
Oil Age	hrs	Client Info	<b>961</b>	844	5069
Oil Changed	Client Info		<b>Not Chngd</b>	Not Chngd	N/A
Sample Status			<b>NORMAL</b>	NORMAL	NORMAL

## CONTAMINATION

	method	limit/base	current	history1	history2
Glycol	WC Method		<b>NEG</b>	NEG	NEG

## WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >100	<b>24</b>	23	19
Chromium	ppm	ASTM D5185m >20	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185m >4	<b>0</b>	<1	0
Titanium	ppm	ASTM D5185m	<b>0</b>	0	0
Silver	ppm	ASTM D5185m >3	<b>&lt;1</b>	0	0
Aluminum	ppm	ASTM D5185m >20	<b>5</b>	5	3
Lead	ppm	ASTM D5185m >40	<b>&lt;1</b>	0	0
Copper	ppm	ASTM D5185m >330	<b>2</b>	3	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>	0	0

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 0	<b>19</b>	23	22
Barium	ppm	ASTM D5185m 0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m 60	<b>68</b>	70	67
Manganese	ppm	ASTM D5185m 0	<b>&lt;1</b>	1	<1
Magnesium	ppm	ASTM D5185m 1010	<b>821</b>	907	880
Calcium	ppm	ASTM D5185m 1070	<b>1187</b>	1196	1180
Phosphorus	ppm	ASTM D5185m 1150	<b>966</b>	1005	964
Zinc	ppm	ASTM D5185m 1270	<b>1140</b>	1234	1170
Sulfur	ppm	ASTM D5185m 2060	<b>2984</b>	3672	3509

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	<b>8</b>	8	6
Sodium	ppm	ASTM D5185m	<b>1</b>	2	2
Potassium	ppm	ASTM D5185m >20	<b>6</b>	8	5
Fuel	%	ASTM D3524 >5	<b>&lt;1.0</b>	<1.0	<1.0

## INFRA-RED

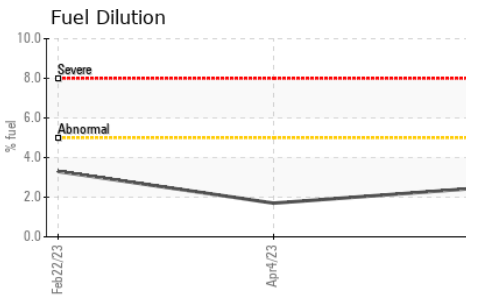
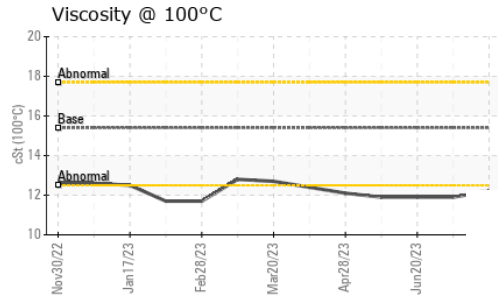
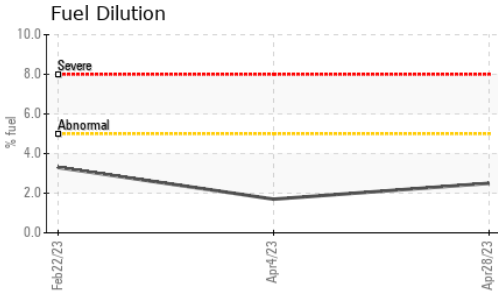
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >3	<b>0.5</b>	0.6	0.5
Nitration	Abs/cm	*ASTM D7624 >20	<b>8.5</b>	9.3	9.1
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>18.6</b>	19.4	19.0

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>14.0</b>	14.5	14.3
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	<b>7.2</b>	7.8	8.4



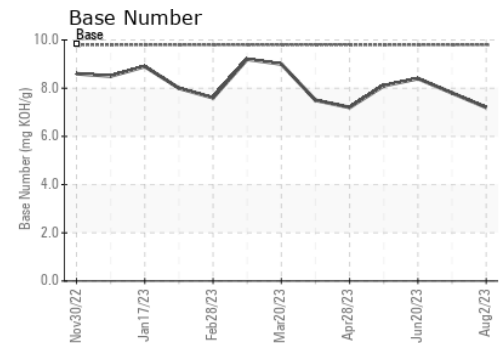
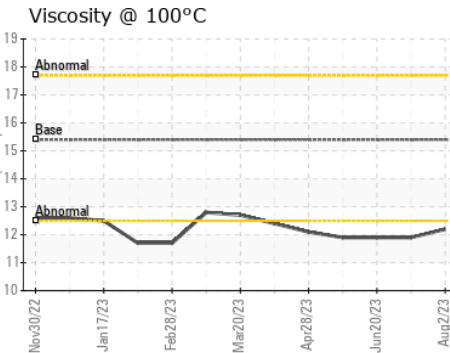
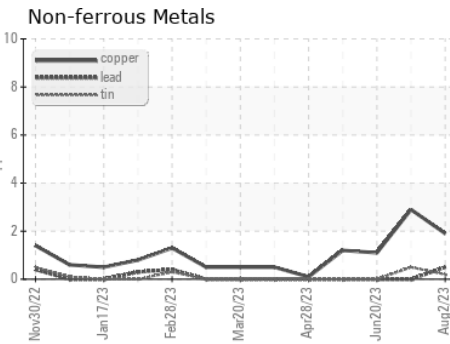
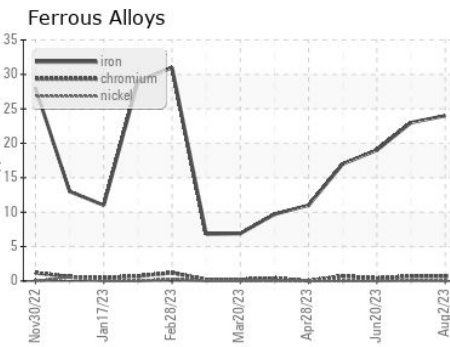
# OIL ANALYSIS REPORT



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>12.2</b>	11.9	11.9

## GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0083583 **Received** : 09 Aug 2023  
**Lab Number** : **05920049** **Diagnosed** : 10 Aug 2023  
**Unique Number** : 10591963 **Diagnostician** : Sean Felton  
**Test Package** : FLEET ( Additional Tests: FuelDilution )

GFL Environmental - 172 - Montgomery-Alexander City-Tallahassee  
 Multiple Sites  
 Montgomery, AL  
 US 36108  
 Contact: Lisa Reeves  
 lisa.reeves@gflenv.com  
 T: (334)946-9566  
 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)