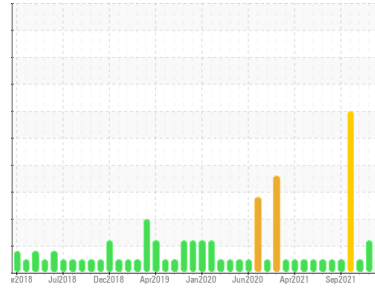




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Area  
**TALLASSEE**  
Machine Id  
**10456**  
Component  
**Diesel Engine**  
Fluid  
**PETRO CANADA DURON SHP 15W40 (13 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>GFL0086023</b>	GFL0057597	GFL0057657	
Sample Date	Client Info	<b>22 Aug 2023</b>	08 Mar 2023	17 Nov 2022	
Machine Age	hrs	Client Info	<b>12437</b>	14056	12268
Oil Age	hrs	Client Info	<b>12437</b>	14056	0
Oil Changed	Client Info	<b>N/A</b>	N/A	Changed	
Sample Status		<b>NORMAL</b>	MARGINAL	NORMAL	

## CONTAMINATION

method	limit/base	current	history1	history2
Fuel	WC Method >3.0	<b>&lt;1.0</b>	▲ 3.8	<1.0
Glycol	WC Method	<b>NEG</b>	NEG	NEG

## WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm ASTM D5185m >75	<b>3</b>	36	11
Chromium	ppm ASTM D5185m >5	<b>0</b>	2	<1
Nickel	ppm ASTM D5185m >4	<b>0</b>	1	0
Titanium	ppm ASTM D5185m >2	<b>0</b>	0	0
Silver	ppm ASTM D5185m >2	<b>0</b>	<1	<1
Aluminum	ppm ASTM D5185m >15	<b>0</b>	6	3
Lead	ppm ASTM D5185m >25	<b>&lt;1</b>	<1	0
Copper	ppm ASTM D5185m >100	<b>0</b>	1	<1
Tin	ppm ASTM D5185m >4	<b>0</b>	<1	<1
Antimony	ppm ASTM D5185m	<b>---</b>	---	---
Vanadium	ppm ASTM D5185m	<b>0</b>	<1	0
Cadmium	ppm ASTM D5185m	<b>0</b>	<1	0

## ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185m 0	<b>46</b>	14	14
Barium	ppm ASTM D5185m 0	<b>0</b>	0	0
Molybdenum	ppm ASTM D5185m 60	<b>60</b>	60	54
Manganese	ppm ASTM D5185m 0	<b>0</b>	<1	<1
Magnesium	ppm ASTM D5185m 1010	<b>973</b>	750	750
Calcium	ppm ASTM D5185m 1070	<b>1215</b>	1038	972
Phosphorus	ppm ASTM D5185m 1150	<b>975</b>	900	868
Zinc	ppm ASTM D5185m 1270	<b>1250</b>	1117	1100
Sulfur	ppm ASTM D5185m 2060	<b>3736</b>	2760	3093

## CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >25	<b>5</b>	5	3
Sodium	ppm ASTM D5185m	<b>1</b>	4	2
Potassium	ppm ASTM D5185m >20	<b>2</b>	2	0

## INFRA-RED

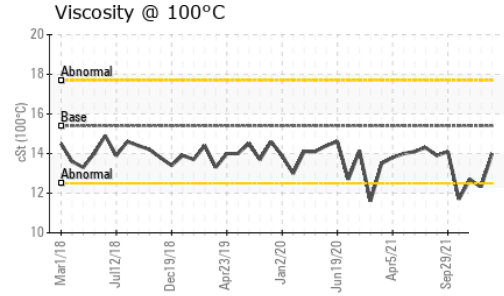
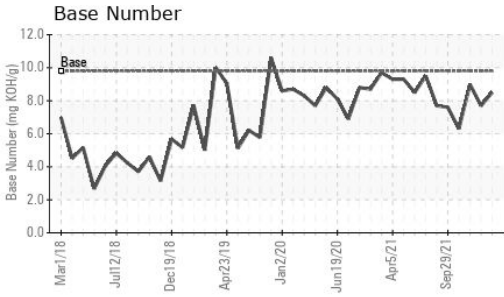
method	limit/base	current	history1	history2
Soot %	% *ASTM D7844 >6	<b>0.2</b>	1	0.3
Nitration	Abs/cm *ASTM D7624 >20	<b>5.7</b>	9.6	6.9
Sulfation	Abs/.1mm *ASTM D7415 >30	<b>17.9</b>	20.3	18.4

## FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	<b>13.1</b>	15.4	13.3
Base Number (BN)	mg KOH/g ASTM D2896 9.8	<b>8.5</b>	7.7	9.0



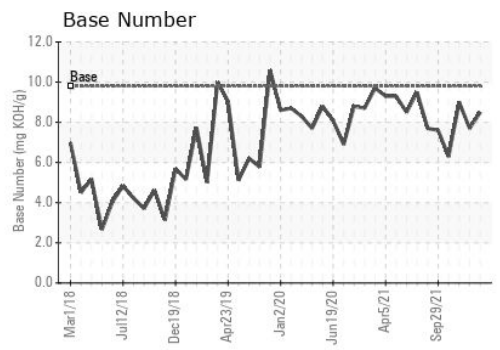
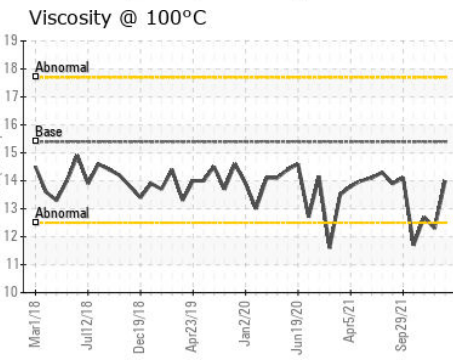
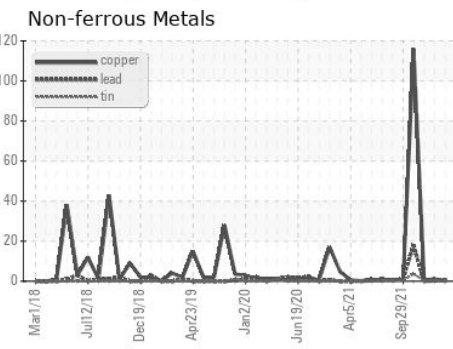
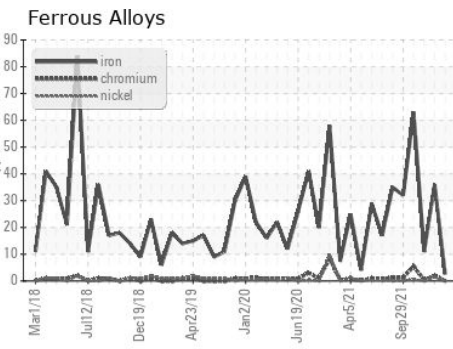
# OIL ANALYSIS REPORT



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>14.0</b>	▲ 12.3	12.7

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0086023 **Received** : 29 Aug 2023  
**Lab Number** : **05937719** **Diagnosed** : 30 Aug 2023  
**Unique Number** : 10622990 **Diagnostician** : Wes Davis  
**Test Package** : FLEET

GFL Environmental - 172 - Montgomery-Alexander City-Tallahassee  
 Multiple Sites  
 Montgomery, AL  
 US 36108  
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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)