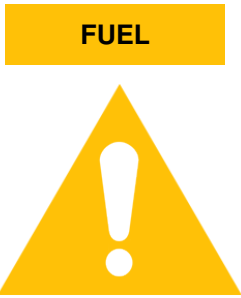
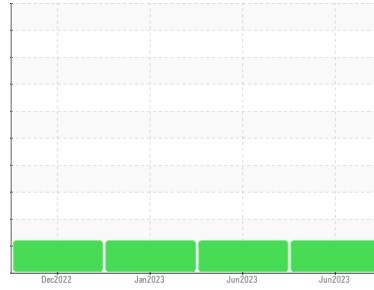




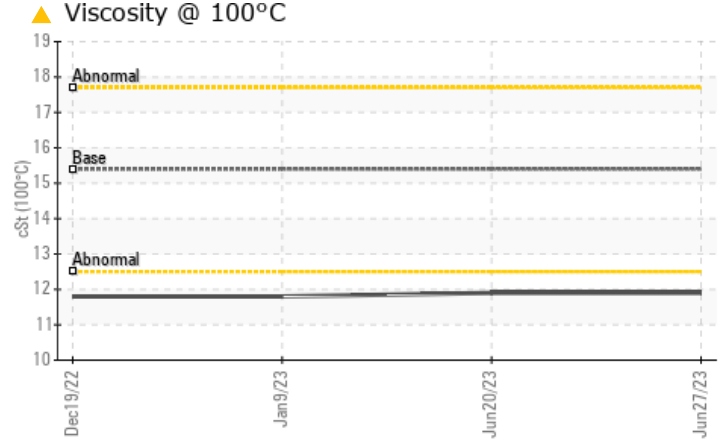
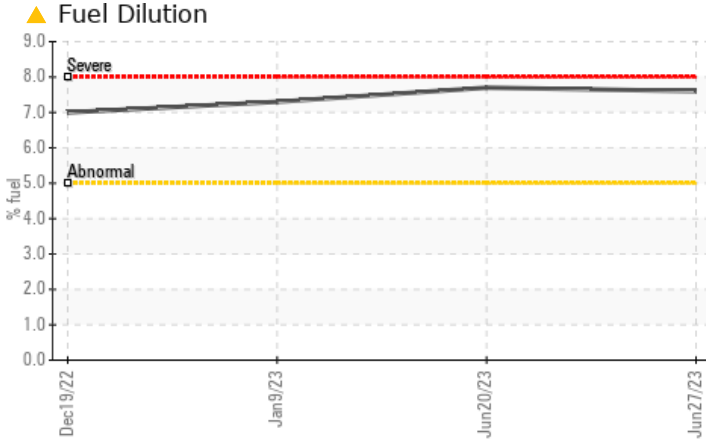
# PROBLEM SUMMARY

Area  
**TALLASSEE**  
 Machine Id  
**421035**  
 Component  
**Diesel Engine**  
 Fluid  
**PETRO CANADA DURON SHP 15W40 (--- GAL)**

Sample Rating Trend



## COMPONENT CONDITION SUMMARY



## RECOMMENDATION

We recommend that you drain the oil from the component if this has not already been done. We recommend an early resample to monitor this condition.

## PROBLEMATIC TEST RESULTS

Sample Status				<b>ABNORMAL</b>	ABNORMAL	ABNORMAL
Fuel	%	ASTM D3524	>5	<b>▲ 7.6</b>	▲ 7.7	▲ 7.3
Visc @ 100°C	cSt	ASTM D445	15.4	<b>▲ 11.9</b>	▲ 11.9	▲ 11.8

Customer Id: GFL172  
 Sample No.: GFL0086004  
 Lab Number: 05888730  
 Test Package: FLEET



To manage this report scan the QR code

To discuss the diagnosis or test data:  
 Wes Davis +1 905-569-8600 x223  
[wesd@wearcheck.ca](mailto:wesd@wearcheck.ca)

To change component or sample information:  
 Customer Service +1 1-800-237-1369  
[customerservice@wearcheck.com](mailto:customerservice@wearcheck.com)

## RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Change Fluid	---	---	?	We recommend that you drain the oil from the component if this has not already been done.
Resample	---	---	?	We recommend an early resample to monitor this condition.

## HISTORICAL DIAGNOSIS

### 20 Jun 2023 Diag: Wes Davis

#### FUEL



We recommend that you drain the oil from the component if this has not already been done. We recommend an early resample to monitor this condition. All component wear rates are normal. There is a moderate amount of fuel present in the oil. Tests confirm the presence of fuel in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The oil is no longer serviceable due to the presence of contaminants.

[view report](#)



### 09 Jan 2023 Diag: Wes Davis

#### FUEL



The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample. All component wear rates are normal. There is a moderate amount of fuel present in the oil. Tests confirm the presence of fuel in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The oil is no longer serviceable due to the presence of contaminants.

[view report](#)



### 19 Dec 2022 Diag: Doug Bogart

#### FUEL



We advise that you check the fuel injection system. Resample at the next service interval to monitor. All component wear rates are normal. There is a moderate amount of fuel present in the oil. Fuel is present in the oil and is lowering the viscosity. The BN result indicates that there is suitable alkalinity remaining in the oil.

[view report](#)





# OIL ANALYSIS REPORT

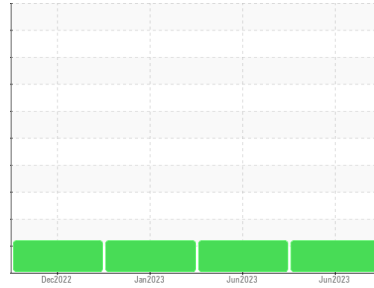
Sample Rating Trend

FUEL

Area  
**TALLASSEE**  
Machine Id  
**421035**

Component  
**Diesel Engine**  
Fluid

**PETRO CANADA DURON SHP 15W40 (--- GAL)**



## DIAGNOSIS

### Recommendation

We recommend that you drain the oil from the component if this has not already been done. We recommend an early resample to monitor this condition.

### Wear

All component wear rates are normal.

### Contamination

There is a moderate amount of fuel present in the oil. Tests confirm the presence of fuel in the oil.

### Fluid Condition

The BN result indicates that there is suitable alkalinity remaining in the oil. The oil is no longer serviceable due to the presence of contaminants.

SAMPLE INFORMATION		method	limit/base	current	history 1	history 2
Sample Number	Client Info			<b>GFL0086004</b>	GFL0086005	GFL0046346
Sample Date	Client Info			<b>27 Jun 2023</b>	20 Jun 2023	09 Jan 2023
Machine Age	hrs	Client Info		<b>12517</b>	12537	12460
Oil Age	hrs	Client Info		<b>12517</b>	0	0
Oil Changed	Client Info			<b>N/A</b>	N/A	Changed
Sample Status				<b>ABNORMAL</b>	ABNORMAL	ABNORMAL

CONTAMINATION		method	limit/base	current	history 1	history 2
Glycol	WC Method			<b>NEG</b>	NEG	NEG

WEAR METALS		method	limit/base	current	history 1	history 2
Iron	ppm	ASTM D5185m	>80	<b>36</b>	37	25
Chromium	ppm	ASTM D5185m	>5	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185m	>2	<b>&lt;1</b>	0	<1
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	0	<1
Silver	ppm	ASTM D5185m	>3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>30	<b>2</b>	0	<1
Lead	ppm	ASTM D5185m	>30	<b>2</b>	<1	2
Copper	ppm	ASTM D5185m	>150	<b>4</b>	3	3
Tin	ppm	ASTM D5185m	>5	<b>&lt;1</b>	0	<1
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	0
Cadmium	ppm	ASTM D5185m		<b>0</b>	0	0

ADDITIVES		method	limit/base	current	history 1	history 2
Boron	ppm	ASTM D5185m	0	<b>43</b>	42	50
Barium	ppm	ASTM D5185m	0	<b>2</b>	0	0
Molybdenum	ppm	ASTM D5185m	60	<b>67</b>	66	65
Manganese	ppm	ASTM D5185m	0	<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m	1010	<b>667</b>	782	748
Calcium	ppm	ASTM D5185m	1070	<b>1232</b>	1287	1317
Phosphorus	ppm	ASTM D5185m	1150	<b>792</b>	813	849
Zinc	ppm	ASTM D5185m	1270	<b>965</b>	1026	1046
Sulfur	ppm	ASTM D5185m	2060	<b>2863</b>	3349	3251

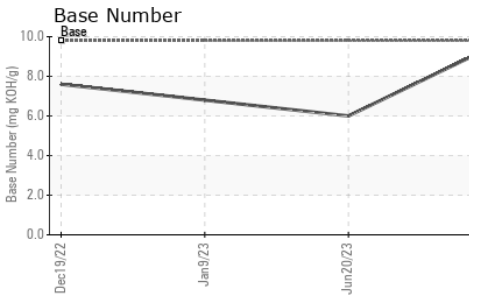
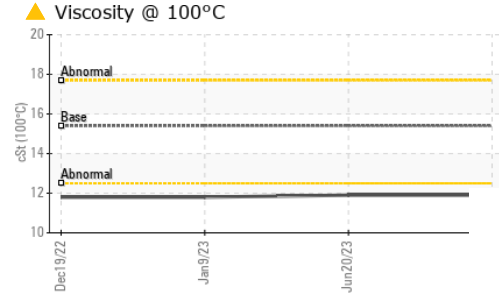
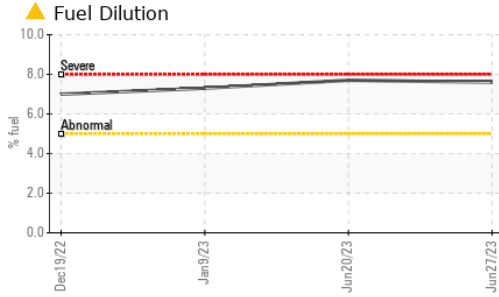
CONTAMINANTS		method	limit/base	current	history 1	history 2
Silicon	ppm	ASTM D5185m	>20	<b>5</b>	5	5
Sodium	ppm	ASTM D5185m		<b>0</b>	4	3
Potassium	ppm	ASTM D5185m	>20	<b>3</b>	<1	<1
Fuel	%	ASTM D3524	>5	<b>▲ 7.6</b>	▲ 7.7	▲ 7.3

INFRA-RED		method	limit/base	current	history 1	history 2
Soot %	%	*ASTM D7844	>3	<b>0.1</b>	0.6	0.5
Nitration	Abs/cm	*ASTM D7624	>20	<b>5.0</b>	11.0	10.2
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>18.1</b>	22.7	20.4

FLUID DEGRADATION		method	limit/base	current	history 1	history 2
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>14.4</b>	19.4	17.3
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	<b>9.5</b>	6.0	6.8



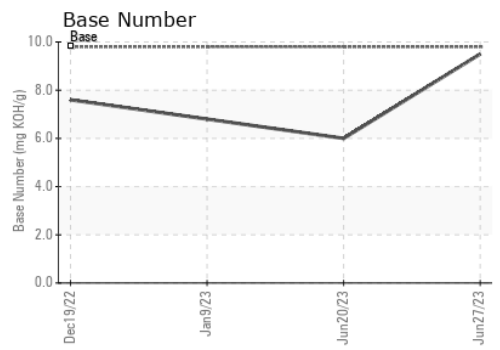
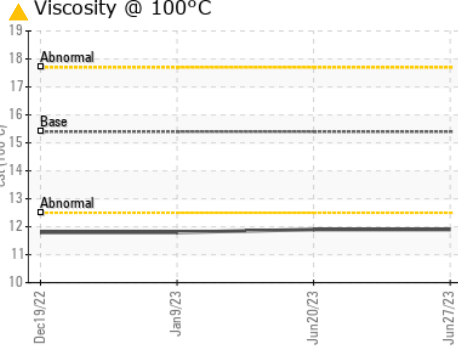
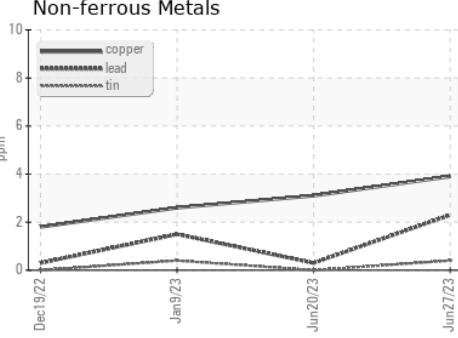
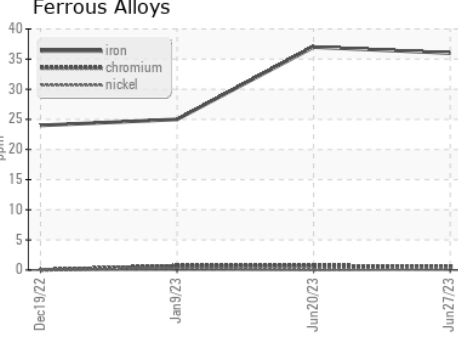
# OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history 1	history 2
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	history 1	history 2
Visc @ 100°C	cSt	ASTM D445	15.4	▲ 11.9	▲ 11.9

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0086004 **Received** : 03 Jul 2023  
**Lab Number** : 05888730 **Diagnosed** : 05 Jul 2023  
**Unique Number** : 10539213 **Diagnostician** : Wes Davis  
**Test Package** : FLEET ( Additional Tests: PercentFuel )

GFL Environmental - 172 - Montgomery-Alexander City-Tallahassee  
 Multiple Sites  
 Montgomery, AL  
 US 36108  
 Contact: BRANDON HURST  
 brandonhurst@gflenv.com

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)