

# PROBLEM SUMMARY

Sample Rating Trend

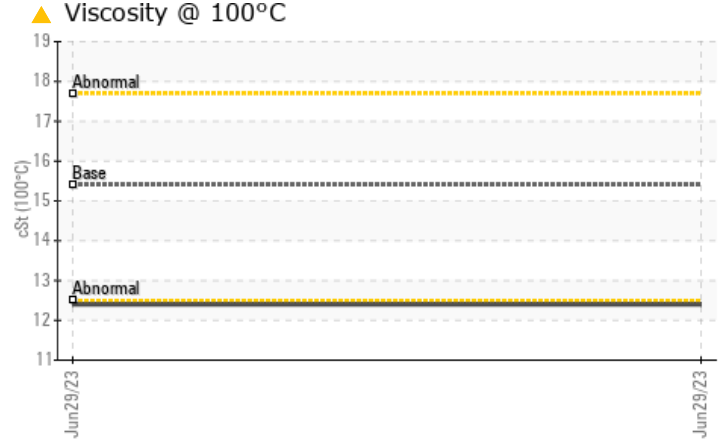
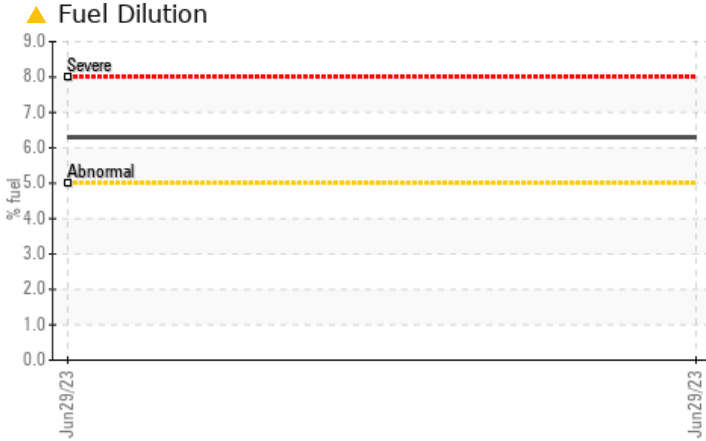


FUEL



Machine Id  
**FREIGHTLINER 78**  
 Component  
**Diesel Engine**  
 Fluid  
**PETRO CANADA DURON SHP 15W40 (13 LTR)**

## COMPONENT CONDITION SUMMARY



## RECOMMENDATION

The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

## PROBLEMATIC TEST RESULTS

Sample Status				<b>ABNORMAL</b>	---	---
Fuel	%	ASTM D3524	>5	<b>▲ 6.3</b>	---	---
Visc @ 100°C	cSt	ASTM D445	15.4	<b>▲ 12.4</b>	---	---

Customer Id: ATRPIN  
 Sample No.: PCA0100683  
 Lab Number: 05889868  
 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
Resample	---	---	?	We recommend an early resample to monitor this condition.

## HISTORICAL DIAGNOSIS

# OIL ANALYSIS REPORT

Sample Rating Trend



**FUEL**



Machine Id  
**FREIGHTLINER 78**  
 Component  
**Diesel Engine**  
 Fluid  
**PETRO CANADA DURON SHP 15W40 (13 LTR)**

## DIAGNOSIS

### ▲ Recommendation

The oil change at the time of sampling has been noted. 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. Fuel is present in the oil and is lowering the viscosity. 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>PCA0100683</b>	---	---
Sample Date	Client Info			<b>29 Jun 2023</b>	---	---
Machine Age	mls	Client Info		<b>484920</b>	---	---
Oil Age	mls	Client Info		<b>26778</b>	---	---
Oil Changed	Client Info			<b>Changed</b>	---	---
Sample Status				<b>ABNORMAL</b>	---	---

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

WEAR METALS		method	limit/base	current	history 1	history 2
Iron	ppm	ASTM D5185m	>80	<b>16</b>	---	---
Chromium	ppm	ASTM D5185m	>5	<b>1</b>	---	---
Nickel	ppm	ASTM D5185m	>2	<b>&lt;1</b>	---	---
Titanium	ppm	ASTM D5185m		<b>0</b>	---	---
Silver	ppm	ASTM D5185m	>3	<b>0</b>	---	---
Aluminum	ppm	ASTM D5185m	>30	<b>&lt;1</b>	---	---
Lead	ppm	ASTM D5185m	>30	<b>3</b>	---	---
Copper	ppm	ASTM D5185m	>150	<b>&lt;1</b>	---	---
Tin	ppm	ASTM D5185m	>5	<b>&lt;1</b>	---	---
Vanadium	ppm	ASTM D5185m		<b>0</b>	---	---
Cadmium	ppm	ASTM D5185m		<b>0</b>	---	---

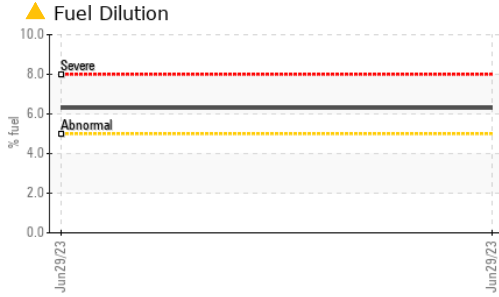
ADDITIVES		method	limit/base	current	history 1	history 2
Boron	ppm	ASTM D5185m	0	<b>0</b>	---	---
Barium	ppm	ASTM D5185m	0	<b>0</b>	---	---
Molybdenum	ppm	ASTM D5185m	60	<b>57</b>	---	---
Manganese	ppm	ASTM D5185m	0	<b>&lt;1</b>	---	---
Magnesium	ppm	ASTM D5185m	1010	<b>855</b>	---	---
Calcium	ppm	ASTM D5185m	1070	<b>1086</b>	---	---
Phosphorus	ppm	ASTM D5185m	1150	<b>967</b>	---	---
Zinc	ppm	ASTM D5185m	1270	<b>1151</b>	---	---
Sulfur	ppm	ASTM D5185m	2060	<b>3024</b>	---	---

CONTAMINANTS		method	limit/base	current	history 1	history 2
Silicon	ppm	ASTM D5185m	>20	<b>3</b>	---	---
Sodium	ppm	ASTM D5185m		<b>0</b>	---	---
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	---	---
Fuel	%	ASTM D3524	>5	<b>▲ 6.3</b>	---	---

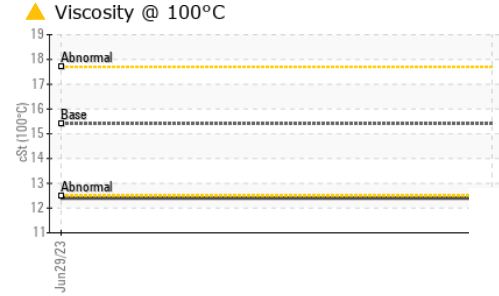
INFRA-RED		method	limit/base	current	history 1	history 2
Soot %	%	*ASTM D7844	>3	<b>2.6</b>	---	---
Nitration	Abs/cm	*ASTM D7624	>20	<b>9.7</b>	---	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>25.9</b>	---	---

FLUID DEGRADATION		method	limit/base	current	history 1	history 2
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>19.8</b>	---	---
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	<b>6.8</b>	---	---

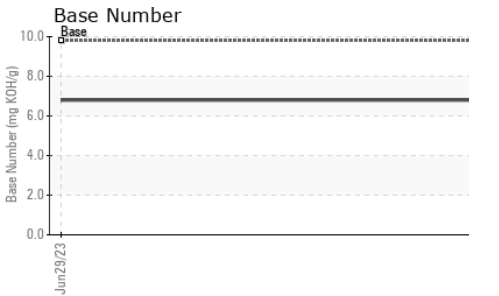
# OIL ANALYSIS REPORT



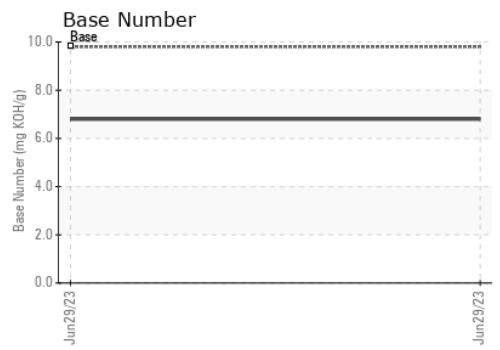
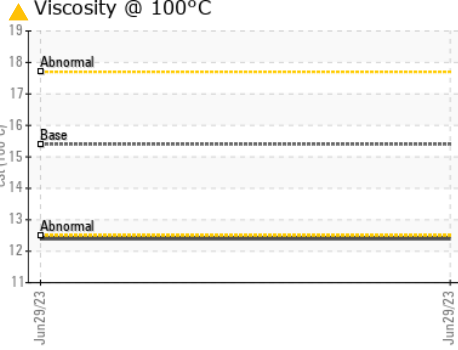
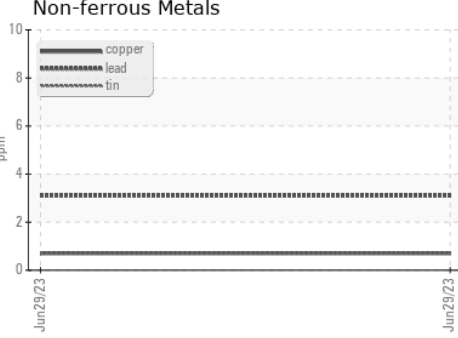
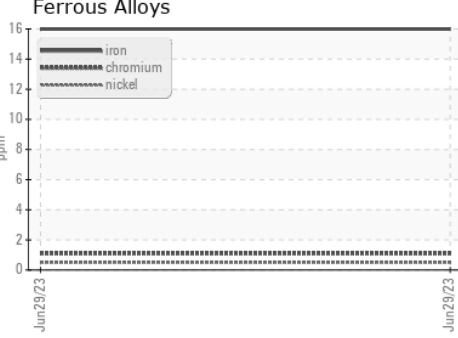
VISUAL	method	limit/base	current	history 1	history 2	
White Metal	scalar	*Visual	NONE	NONE	---	---
Yellow Metal	scalar	*Visual	NONE	NONE	---	---
Precipitate	scalar	*Visual	NONE	NONE	---	---
Silt	scalar	*Visual	NONE	NONE	---	---
Debris	scalar	*Visual	NONE	NONE	---	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---	---
Appearance	scalar	*Visual	NORML	NORML	---	---
Odor	scalar	*Visual	NORML	NORML	---	---
Emulsified Water	scalar	*Visual	>0.2	NEG	---	---
Free Water	scalar	*Visual		NEG	---	---



FLUID PROPERTIES	method	limit/base	current	history 1	history 2	
Visc @ 100°C	cSt	ASTM D445	15.4	▲ 12.4	---	---



### GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : PCA0100683 **Received** : 05 Jul 2023  
**Lab Number** : 05889868 **Diagnosed** : 06 Jul 2023  
**Unique Number** : 10545678 **Diagnostician** : Wes Davis  
**Test Package** : FLEET ( Additional Tests: FuelDilution, PercentFuel )

**A Truck Repair**  
 9349 China Grove Church Road  
 Pineville, NC  
 US 28134  
 Contact: Vlad Melnichuk  
 shop@migway.com  
 T: (980)255-3200  
 F:

Certificate L2367  
 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)