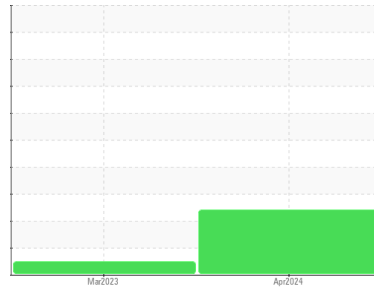


# PROBLEM SUMMARY

Machine Id  
**5612**  
 Component  
**Diesel Engine**  
 Fluid  
**PETRO CANADA DURON SHP 10W30 (18 QTS)**

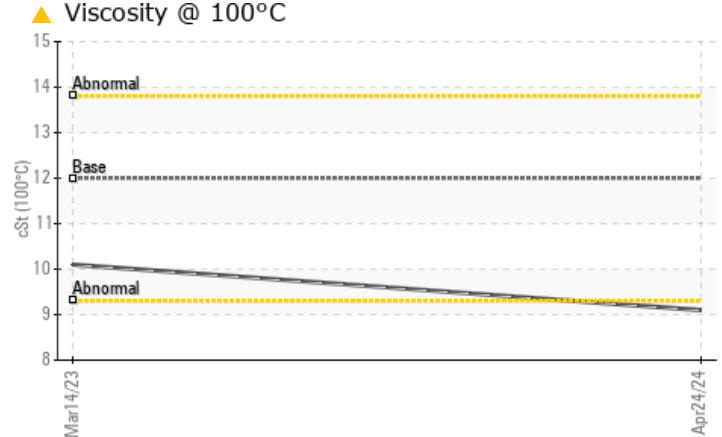
Sample Rating Trend



**FUEL**



## COMPONENT CONDITION SUMMARY



## RECOMMENDATION

We advise that you check the fuel injection system. Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

## PROBLEMATIC TEST RESULTS

Sample Status				SEVERE	NORMAL	---
Fuel	%	ASTM D3524	>5	▲ 14.7	<1.0	---
Visc @ 100°C	cSt	ASTM D445	12.00	▲ 9.1	10.1	---

Customer Id: ICSB370  
 Sample No.: PCA0112708  
 Lab Number: 06215307  
 Test Package: FLEET



To manage this report scan the QR code

To discuss the diagnosis or test data:  
 Don Baldrige +1  
[don.b505@comcast.net](mailto:don.b505@comcast.net)

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	---	---	?	Oil and filter change at the time of sampling has been noted.
Change Filter	---	---	?	Oil and filter change at the time of sampling has been noted.
Resample	---	---	?	We recommend an early resample to monitor this condition.
Check Fuel/injector System	---	---	?	We advise that you check the fuel injection system.

## HISTORICAL DIAGNOSIS

NORMAL



### 14 Mar 2023 Diag: Don Baldrige

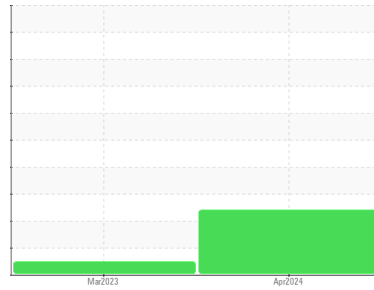
Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

view report



# OIL ANALYSIS REPORT

## Sample Rating Trend



FUEL



Machine Id  
**5612**  
 Component  
**Diesel Engine**  
 Fluid  
**PETRO CANADA DURON SHP 10W30 (18 QTS)**

### DIAGNOSIS

#### ▲ Recommendation

We advise that you check the fuel injection system. Oil and filter 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 high amount of fuel present 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	history1	history2
Sample Number	Client Info			<b>PCA0112708</b>	PCA0071421	---
Sample Date	Client Info			<b>24 Apr 2024</b>	14 Mar 2023	---
Machine Age	mls	Client Info		<b>66560</b>	53543	---
Oil Age	mls	Client Info		<b>13017</b>	53543	---
Oil Changed	Client Info			<b>Changed</b>	Changed	---
Sample Status				<b>SEVERE</b>	NORMAL	---

CONTAMINATION		method	limit/base	current	history1	history2
Water	WC Method		>0.2	<b>NEG</b>	NEG	---
Glycol	WC Method			<b>NEG</b>	NEG	---

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	<b>46</b>	59	---
Chromium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	1	---
Nickel	ppm	ASTM D5185m	>4	<b>0</b>	0	---
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	0	---
Silver	ppm	ASTM D5185m	>3	<b>0</b>	0	---
Aluminum	ppm	ASTM D5185m	>20	<b>4</b>	6	---
Lead	ppm	ASTM D5185m	>40	<b>&lt;1</b>	0	---
Copper	ppm	ASTM D5185m	>330	<b>1</b>	2	---
Tin	ppm	ASTM D5185m	>15	<b>0</b>	<1	---
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	0	---
Cadmium	ppm	ASTM D5185m		<b>0</b>	0	---

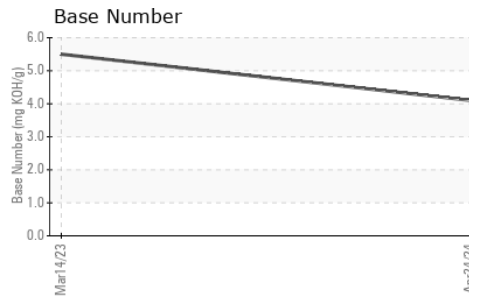
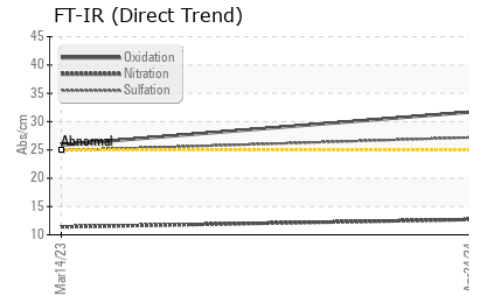
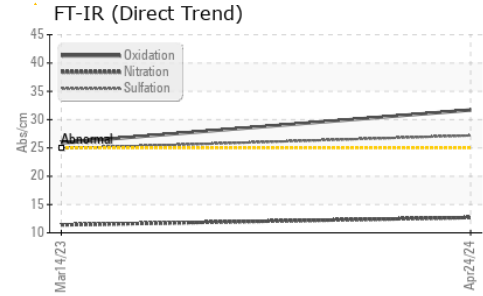
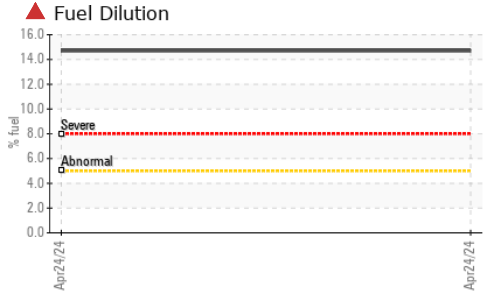
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	2	<b>0</b>	5	---
Barium	ppm	ASTM D5185m	0	<b>0</b>	0	---
Molybdenum	ppm	ASTM D5185m	50	<b>51</b>	57	---
Manganese	ppm	ASTM D5185m	0	<b>&lt;1</b>	<1	---
Magnesium	ppm	ASTM D5185m	950	<b>801</b>	899	---
Calcium	ppm	ASTM D5185m	1050	<b>961</b>	1016	---
Phosphorus	ppm	ASTM D5185m	995	<b>845</b>	899	---
Zinc	ppm	ASTM D5185m	1180	<b>1052</b>	1174	---
Sulfur	ppm	ASTM D5185m	2600	<b>2910</b>	3361	---

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	<b>6</b>	13	---
Sodium	ppm	ASTM D5185m		<b>3</b>	2	---
Potassium	ppm	ASTM D5185m	>20	<b>5</b>	4	---
Fuel	%	ASTM D3524	>5	<b>▲ 14.7</b>	<1.0	---

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	<b>0.6</b>	0.7	---
Nitration	Abs/cm	*ASTM D7624	>20	<b>12.7</b>	11.4	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>27.2</b>	24.9	---

FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>31.7</b>	25.9	---
Base Number (BN)	mg KOH/g	ASTM D2896		<b>4.1</b>	5.5	---

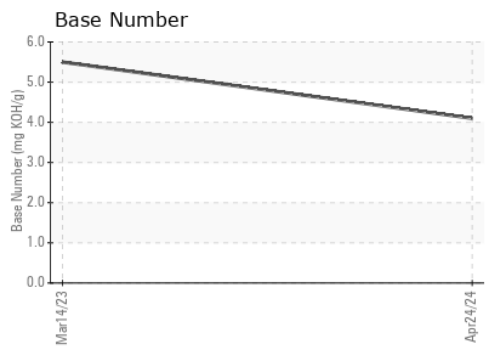
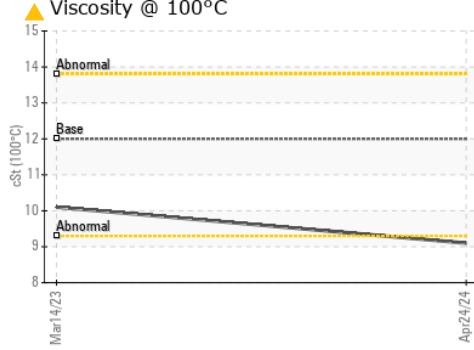
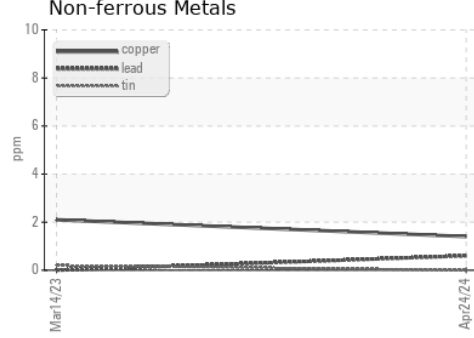
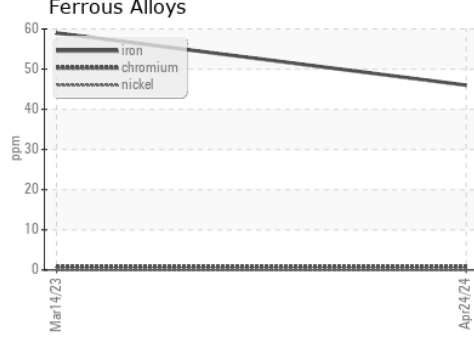
# OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2
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	history1	history2	
Visc @ 100°C	cSt	ASTM D445	12.00	▲ 9.1	10.1	---

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : PCA0112708      **Received** : 20 Jun 2024  
**Lab Number** : 06215307      **Tested** : 24 Jun 2024  
**Unique Number** : 11088171      **Diagnosed** : 24 Jun 2024 - Don Baldrige  
**Test Package** : FLEET ( Additional Tests: FuelDilution, PercentFuel )

**ICSB370 - Alton**  
 4525 North Alby Road  
 Godfrey, IL  
 US 62035  
 Contact: Chad Ingold  
 c.ingold@illinois-central.com  
 T: (618)466-5400  
 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)