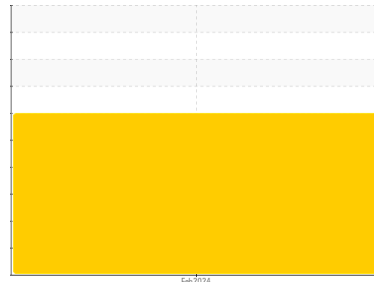


# OIL ANALYSIS REPORT

Sample Rating Trend



WEAR



Machine Id  
**1424183**  
 Component  
**Diesel Engine**  
 Fluid  
**PETRO CANADA DURON SHP 10W30 (--- GAL)**

## DIAGNOSIS

### Recommendation

Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

### Wear

The aluminum level is severe. Piston wear is indicated.

### 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 oil is no longer serviceable as a result of the abnormal and/or severe wear.

## SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		PCA0111440	---	---
Sample Date	Client Info		12 Feb 2024	---	---
Machine Age	mls	Client Info	215073	---	---
Oil Age	mls	Client Info	215073	---	---
Oil Changed	Client Info		Changed	---	---
Sample Status			SEVERE	---	---

## CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>5	<1.0	---	---
Water	WC Method	>0.2	NEG	---	---
Glycol	WC Method		NEG	---	---

## WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >100	71	---	---
Chromium	ppm	ASTM D5185m >20	5	---	---
Nickel	ppm	ASTM D5185m >4	<1	---	---
Titanium	ppm	ASTM D5185m	0	---	---
Silver	ppm	ASTM D5185m >3	<1	---	---
Aluminum	ppm	ASTM D5185m >20	▲ 120	---	---
Lead	ppm	ASTM D5185m >40	<1	---	---
Copper	ppm	ASTM D5185m >330	5	---	---
Tin	ppm	ASTM D5185m >15	<1	---	---
Vanadium	ppm	ASTM D5185m	<1	---	---
Cadmium	ppm	ASTM D5185m	0	---	---

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 2	22	---	---
Barium	ppm	ASTM D5185m 0	0	---	---
Molybdenum	ppm	ASTM D5185m 50	70	---	---
Manganese	ppm	ASTM D5185m 0	1	---	---
Magnesium	ppm	ASTM D5185m 950	883	---	---
Calcium	ppm	ASTM D5185m 1050	1407	---	---
Phosphorus	ppm	ASTM D5185m 995	1120	---	---
Zinc	ppm	ASTM D5185m 1180	1285	---	---
Sulfur	ppm	ASTM D5185m 2600	3771	---	---

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	10	---	---
Sodium	ppm	ASTM D5185m	8	---	---
Potassium	ppm	ASTM D5185m >20	10	---	---

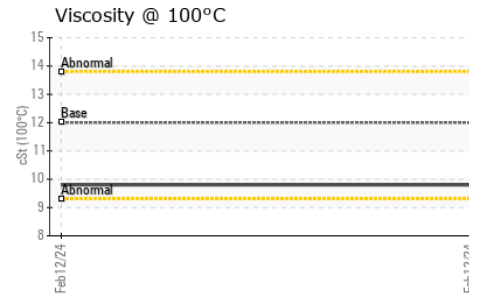
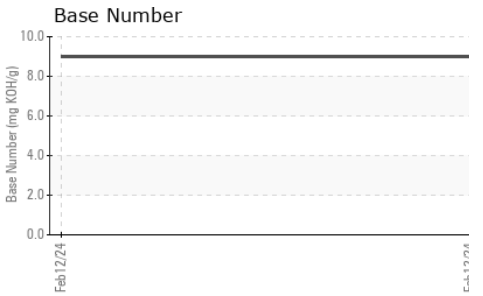
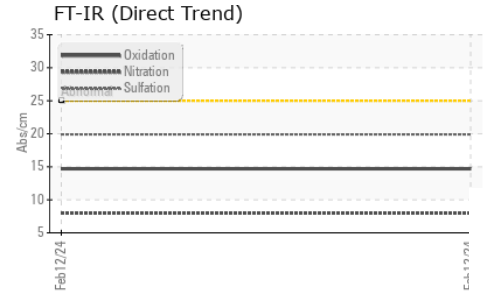
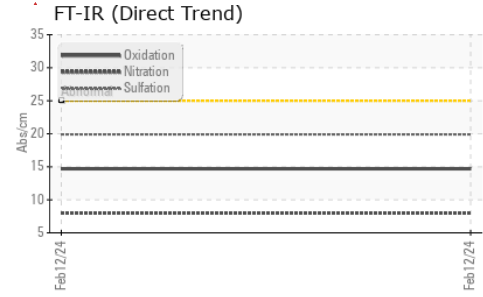
## INFRA-RED

	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >3	0.7	---	---
Nitration	Abs/cm	*ASTM D7624 >20	8.0	---	---
Sulfation	Abs/.1mm	*ASTM D7415 >30	19.9	---	---

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	14.7	---	---
Base Number (BN)	mg KOH/g	ASTM D2896	9.0	---	---

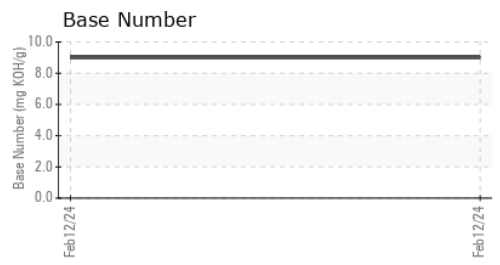
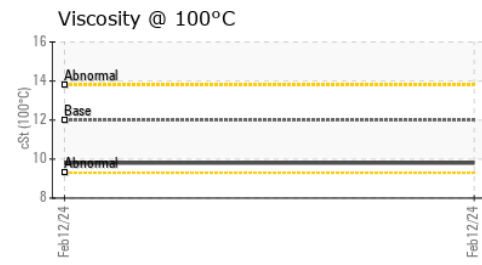
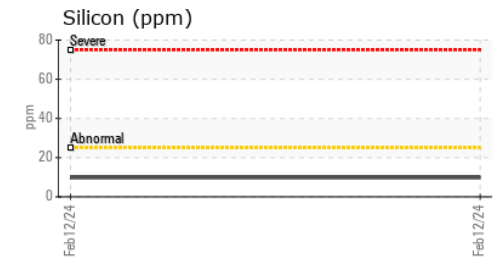
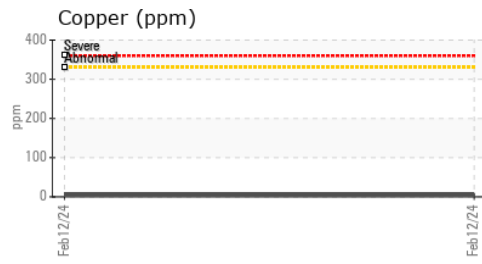
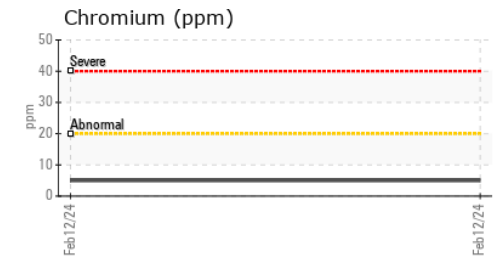
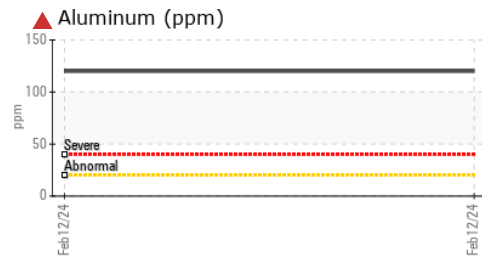
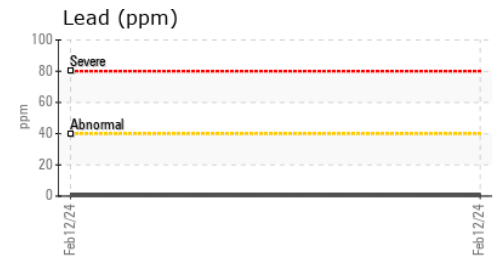
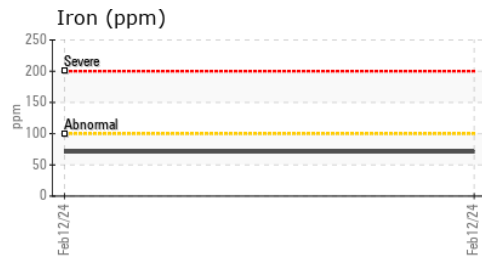
# OIL ANALYSIS REPORT



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	9.8	---

### GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : PCA0111440      **Received** : 22 May 2024  
**Lab Number** : 06188382      **Tested** : 28 May 2024  
**Unique Number** : 11045134      **Diagnosed** : 28 May 2024 - Jonathan Hester  
**Test Package** : MOB 1 ( Additional Tests: TBN )

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 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)