



# OIL ANALYSIS REPORT

Sample Rating Trend



FUEL



Machine Id  
**NOT GIVEN WC0727303**

Component  
**Diesel Engine**

Fluid  
**PETRO CANADA DURON HP 15W40 (--- GAL)**

## DIAGNOSIS

### ▲ Recommendation

The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition. Please specify the component make and model with your next sample.

### 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	history1	history2
Sample Number	Client Info	<b>WC0727303</b>	---	---
Sample Date	Client Info	<b>21 Dec 2023</b>	---	---
Machine Age	mls Client Info	<b>164783</b>	---	---
Oil Age	mls Client Info	<b>5000</b>	---	---
Oil Changed	Client Info	<b>Changed</b>	---	---
Sample Status		<b>ABNORMAL</b>	---	---

## CONTAMINATION

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

## WEAR METALS

method	limit/base	current	history1	history2
Iron ppm	ASTM D5185m >100	<b>32</b>	---	---
Chromium ppm	ASTM D5185m >20	<b>&lt;1</b>	---	---
Nickel ppm	ASTM D5185m >4	<b>0</b>	---	---
Titanium ppm	ASTM D5185m	<b>0</b>	---	---
Silver ppm	ASTM D5185m >3	<b>0</b>	---	---
Aluminum ppm	ASTM D5185m >20	<b>6</b>	---	---
Lead ppm	ASTM D5185m >40	<b>&lt;1</b>	---	---
Copper ppm	ASTM D5185m >330	<b>1</b>	---	---
Tin ppm	ASTM D5185m >15	<b>0</b>	---	---
Vanadium ppm	ASTM D5185m	<b>0</b>	---	---
Cadmium ppm	ASTM D5185m	<b>0</b>	---	---

## ADDITIVES

method	limit/base	current	history1	history2
Boron ppm	ASTM D5185m	<b>3</b>	---	---
Barium ppm	ASTM D5185m	<b>0</b>	---	---
Molybdenum ppm	ASTM D5185m	<b>58</b>	---	---
Manganese ppm	ASTM D5185m	<b>0</b>	---	---
Magnesium ppm	ASTM D5185m	<b>871</b>	---	---
Calcium ppm	ASTM D5185m	<b>981</b>	---	---
Phosphorus ppm	ASTM D5185m	<b>920</b>	---	---
Zinc ppm	ASTM D5185m	<b>1116</b>	---	---
Sulfur ppm	ASTM D5185m	<b>2922</b>	---	---

## CONTAMINANTS

method	limit/base	current	history1	history2
Silicon ppm	ASTM D5185m >25	<b>6</b>	---	---
Sodium ppm	ASTM D5185m	<b>2</b>	---	---
Potassium ppm	ASTM D5185m >20	<b>16</b>	---	---
Fuel %	ASTM D3524 >5	<b>▲ 7.2</b>	---	---

## INFRA-RED

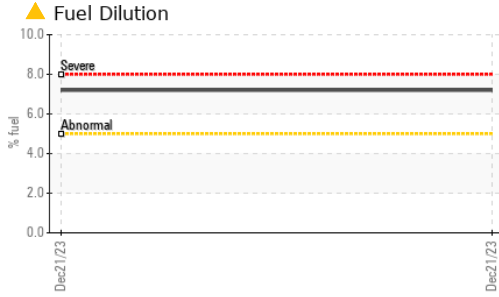
method	limit/base	current	history1	history2
Soot %	*ASTM D7844 >3	<b>0.7</b>	---	---
Nitration	*ASTM D7624 >20	<b>9.8</b>	---	---
Sulfation	*ASTM D7415 >30	<b>19.6</b>	---	---

## FLUID DEGRADATION

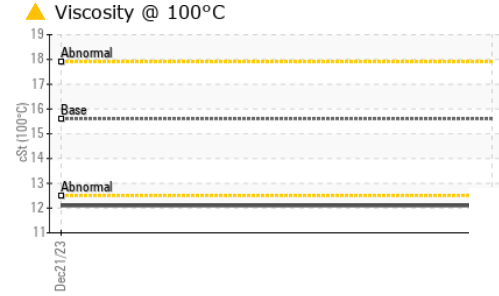
method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	<b>17.4</b>	---	---
Base Number (BN)	mg KOH/g ASTM D2896 9.8	<b>7.8</b>	---	---



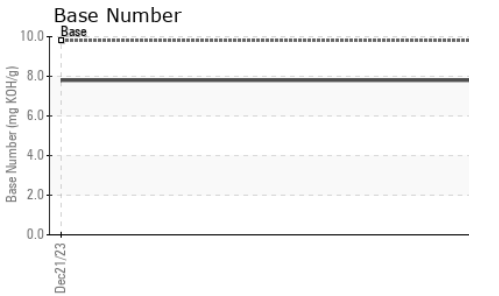
# OIL ANALYSIS REPORT



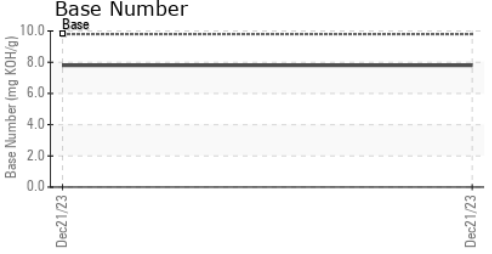
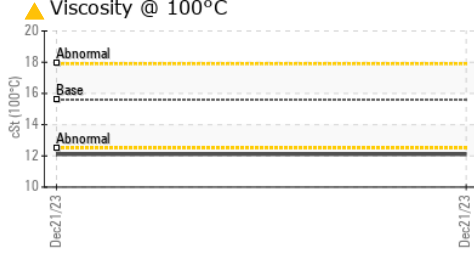
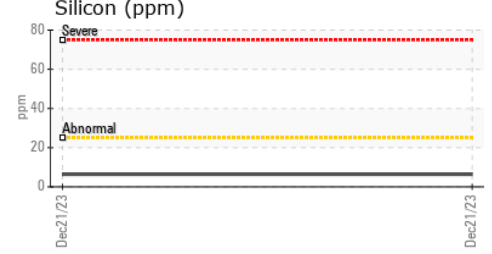
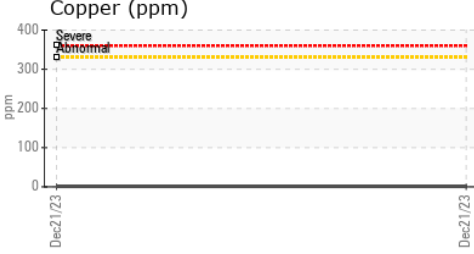
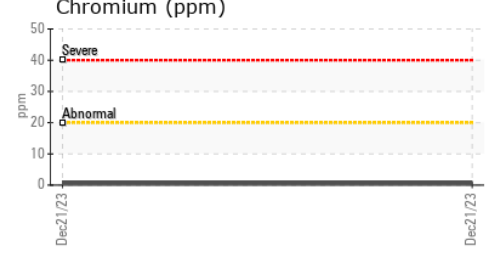
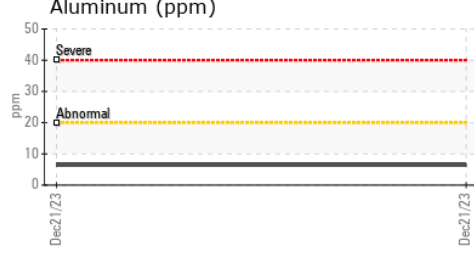
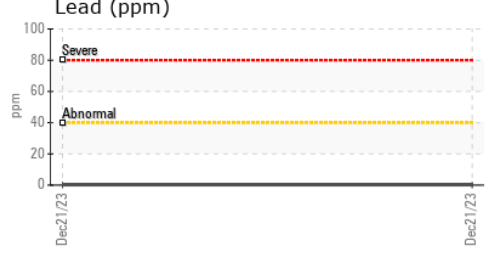
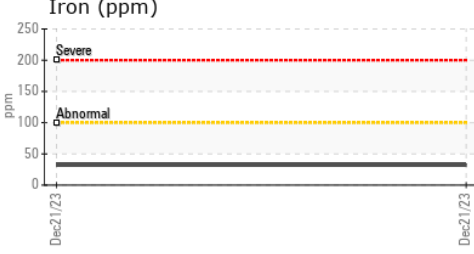
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	---
Precipitate	scalar	*Visual	NONE	NONE	---
Silt	scalar	*Visual	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---
Appearance	scalar	*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	15.6 ▲ 12.1	---	---



### GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0727303 **Recieved** : 10 Jan 2024  
**Lab Number** : 06057253 **Diagnosed** : 12 Jan 2024  
**Unique Number** : 10823202 **Diagnostician** : Wes Davis  
**Test Package** : MOB 1 ( Additional Tests: FuelDilution, PercentFuel, TBN )

**WAYNE CO SCHOOL BUS GARAGE**  
 1603 SALEM CHURCH RD  
 GOLDSBORO, NC  
 US 27530  
 Contact: BRANDON BRIGGS  
 brandonbriggs@wcps.org  
 T:  
 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)