

# OIL ANALYSIS REPORT

Sample Rating Trend

**NORMAL**



Area  
**(AY660D) Supermarket**  
Machine Id  
**FREIGHTLINER 107A1857**  
Component  
**Diesel Engine**  
Fluid  
**PETRO CANADA DURON SHP 10W30 (11 GAL)**

## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor.

### Wear

All component wear rates are normal.

### Contamination

Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. 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 condition of the oil is suitable for further service.

## SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	<b>PCA0104827</b>	---	---
Sample Date	Client Info	<b>24 Aug 2023</b>	---	---
Machine Age	hrs Client Info	<b>57493</b>	---	---
Oil Age	hrs Client Info	<b>23573</b>	---	---
Oil Changed	Client Info	<b>Changed</b>	---	---
Sample Status		<b>NORMAL</b>	---	---

## CONTAMINATION

method	limit/base	current	history1	history2
Fuel	WC Method >5	<b>&lt;1.0</b>	---	---
Glycol	WC Method	<b>NEG</b>	---	---

## WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm ASTM D5185m >80	<b>45</b>	---	---
Chromium	ppm ASTM D5185m >5	<b>4</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>87</b>	---	---
Lead	ppm ASTM D5185m >30	<b>0</b>	---	---
Copper	ppm ASTM D5185m >150	<b>65</b>	---	---
Tin	ppm ASTM D5185m >5	<b>2</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 2	<b>10</b>	---	---
Barium	ppm ASTM D5185m 0	<b>0</b>	---	---
Molybdenum	ppm ASTM D5185m 50	<b>66</b>	---	---
Manganese	ppm ASTM D5185m 0	<b>2</b>	---	---
Magnesium	ppm ASTM D5185m 950	<b>943</b>	---	---
Calcium	ppm ASTM D5185m 1050	<b>1428</b>	---	---
Phosphorus	ppm ASTM D5185m 995	<b>1020</b>	---	---
Zinc	ppm ASTM D5185m 1180	<b>1313</b>	---	---
Sulfur	ppm ASTM D5185m 2600	<b>2790</b>	---	---

## CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >20	<b>5</b>	---	---
Sodium	ppm ASTM D5185m	<b>4</b>	---	---
Potassium	ppm ASTM D5185m >20	<b>214</b>	---	---

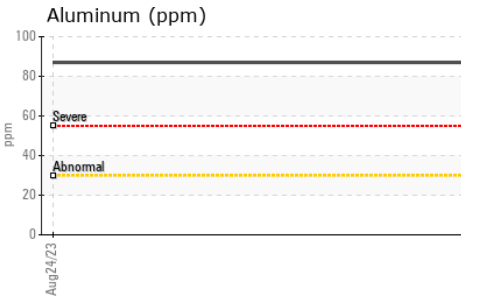
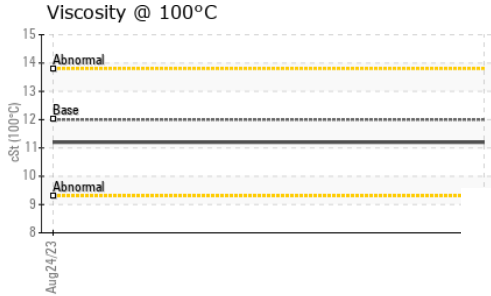
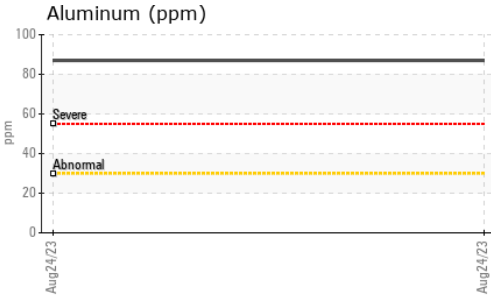
## INFRA-RED

method	limit/base	current	history1	history2
Soot %	% *ASTM D7844 >3	<b>0.9</b>	---	---
Nitration	Abs/cm *ASTM D7624 >20	<b>9.2</b>	---	---
Sulfation	Abs/.1mm *ASTM D7415 >30	<b>22.7</b>	---	---

## FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	<b>19.7</b>	---	---
Base Number (BN)	mg KOH/g ASTM D2896	<b>7.1</b>	---	---

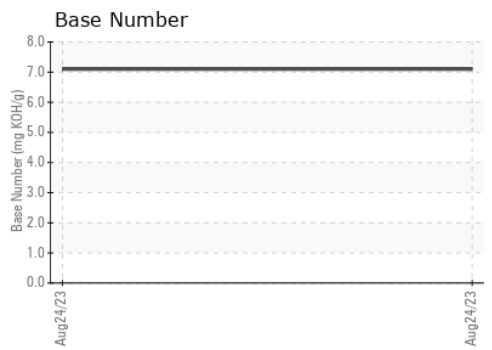
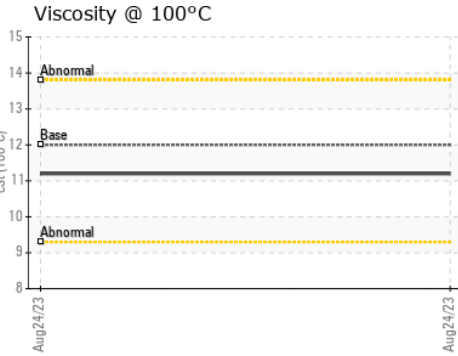
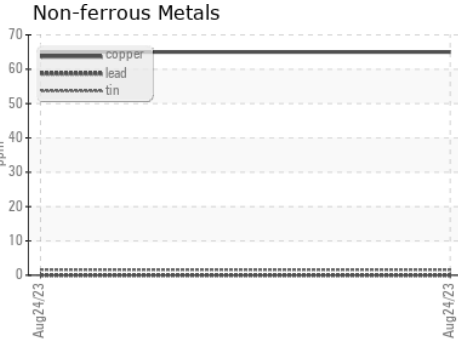
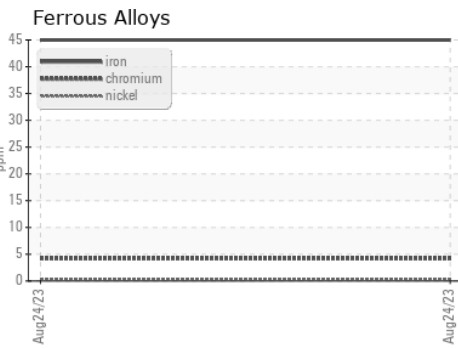
# OIL ANALYSIS REPORT



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	12.00	11.2	---	---

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : PCA0104827 **Received** : 28 Aug 2023  
**Lab Number** : **05935954** **Diagnosed** : 28 Aug 2023  
**Unique Number** : 10621225 **Diagnostician** : Wes Davis  
**Test Package** : FLEET

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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)