

# OIL ANALYSIS REPORT

Sample Rating Trend

**NORMAL**

 Machine Id  
**221508**

 Component  
**Diesel Engine**

 Fluid  
**PETRO CANADA DURON SHP 10W30 (--- GAL)**

**DIAGNOSIS**
**Recommendation**

Oil and filter change at the time of sampling has been noted. No corrective action is recommended at this time. 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	history 1	history 2
Sample Number	Client Info		<b>PCA0098994</b>	---	---
Sample Date	Client Info		<b>01 Jul 2023</b>	---	---
Machine Age	mls	Client Info	<b>21950</b>	---	---
Oil Age	mls	Client Info	<b>21950</b>	---	---
Oil Changed	Client Info		<b>Changed</b>	---	---
Sample Status			<b>NORMAL</b>	---	---

**CONTAMINATION**

	method	limit/base	current	history 1	history 2
Fuel	WC Method	>5	<b>&lt;1.0</b>	---	---
Glycol	WC Method		<b>NEG</b>	---	---

**WEAR METALS**

	method	limit/base	current	history 1	history 2
Iron	ppm	ASTM D5185m >100	<b>117</b>	---	---
Chromium	ppm	ASTM D5185m >20	<b>3</b>	---	---
Nickel	ppm	ASTM D5185m >4	<b>2</b>	---	---
Titanium	ppm	ASTM D5185m	<b>&lt;1</b>	---	---
Silver	ppm	ASTM D5185m >3	<b>&lt;1</b>	---	---
Aluminum	ppm	ASTM D5185m >20	<b>28</b>	---	---
Lead	ppm	ASTM D5185m >40	<b>&lt;1</b>	---	---
Copper	ppm	ASTM D5185m >330	<b>52</b>	---	---
Tin	ppm	ASTM D5185m >15	<b>6</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 2	<b>36</b>	---	---
Barium	ppm	ASTM D5185m 0	<b>0</b>	---	---
Molybdenum	ppm	ASTM D5185m 50	<b>43</b>	---	---
Manganese	ppm	ASTM D5185m 0	<b>9</b>	---	---
Magnesium	ppm	ASTM D5185m 950	<b>549</b>	---	---
Calcium	ppm	ASTM D5185m 1050	<b>1647</b>	---	---
Phosphorus	ppm	ASTM D5185m 995	<b>743</b>	---	---
Zinc	ppm	ASTM D5185m 1180	<b>955</b>	---	---
Sulfur	ppm	ASTM D5185m 2600	<b>2597</b>	---	---

**CONTAMINANTS**

	method	limit/base	current	history 1	history 2
Silicon	ppm	ASTM D5185m >25	<b>13</b>	---	---
Sodium	ppm	ASTM D5185m	<b>1</b>	---	---
Potassium	ppm	ASTM D5185m >20	<b>72</b>	---	---

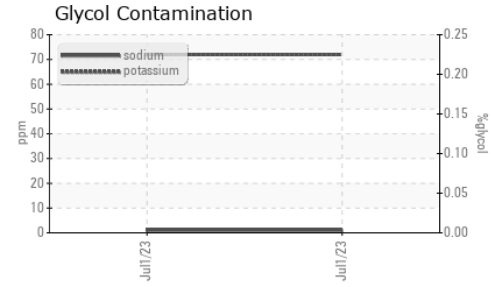
**INFRA-RED**

	method	limit/base	current	history 1	history 2
Soot %	%	*ASTM D7844 >3	<b>0.9</b>	---	---
Nitration	Abs/cm	*ASTM D7624 >20	<b>12.3</b>	---	---
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>24.6</b>	---	---

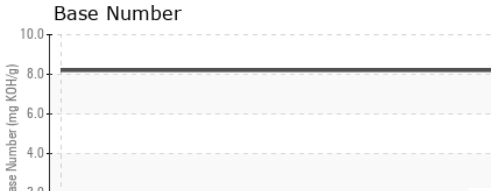
**FLUID DEGRADATION**

	method	limit/base	current	history 1	history 2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>23.4</b>	---	---
Base Number (BN)	mg KOH/g	ASTM D2896	<b>8.2</b>	---	---

# OIL ANALYSIS REPORT

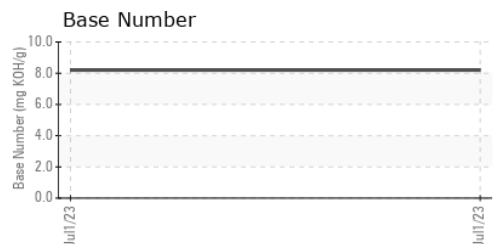
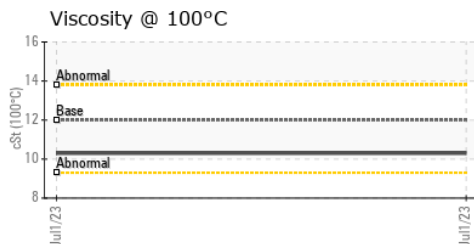
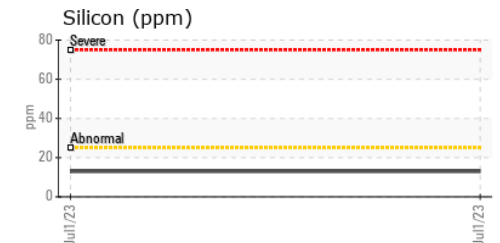
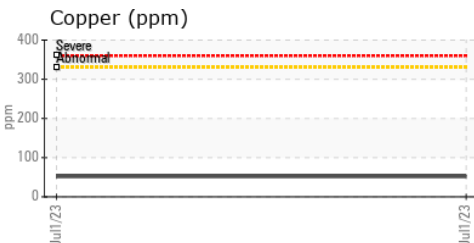
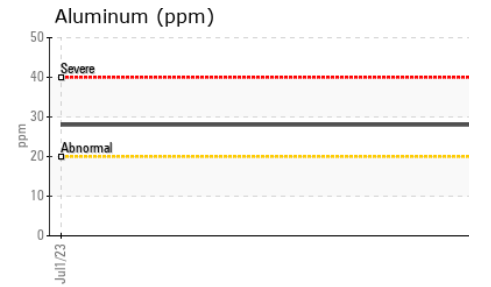
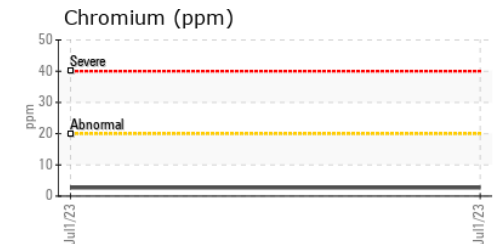
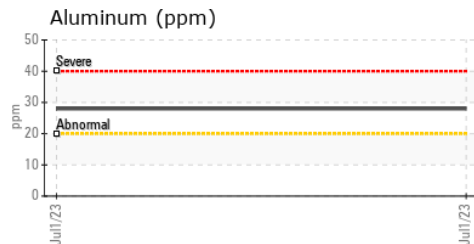
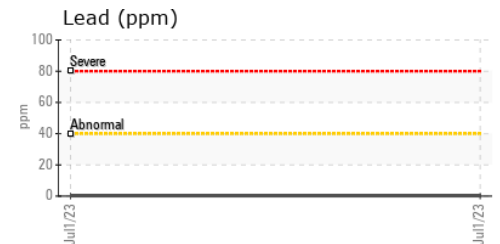
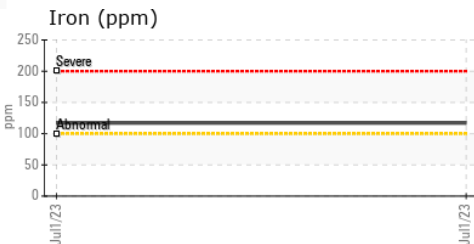
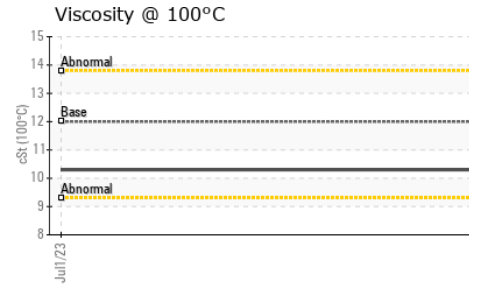


VISUAL	method	limit/base	current	history 1	history 2
White Metal	scalar	*Visual	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	---
Precipitate	scalar	*Visual	NONE	NONE	---
Silt	scalar	*Visual	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---
Appearance	scalar	*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	12.00	10.3	---

### GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : PCA0098994 **Received** : 10 Jul 2023  
**Lab Number** : **05893512** **Diagnosed** : 11 Jul 2023  
**Unique Number** : 10549322 **Diagnostician** : Don Baldrige  
**Test Package** : MOB 1 ( Additional Tests: TBN )

**MILLER TRUCK LEASING #112**  
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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)