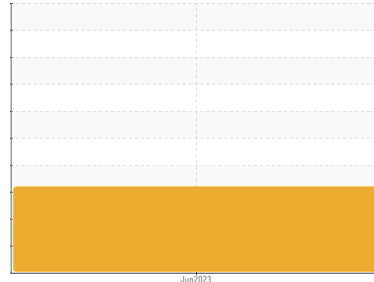


# OIL ANALYSIS REPORT

Sample Rating Trend


**DIRT**

 Machine Id  
**5087**

 Component  
**Diesel Engine**

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

## DIAGNOSIS

### ▲ Recommendation

We advise that you check the air filter, air induction system, and any areas where dirt may enter the component. Resample at the next service interval to monitor.

### ▲ Wear

Cylinder, crank, or cam shaft wear is indicated. All other component wear rates are normal.

### ▲ Contamination

Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress. 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 acceptable for the time in service.

## SAMPLE INFORMATION

	method	limit/base	current	history 1	history 2
Sample Number	Client Info		<b>PCA0098028</b>	---	---
Sample Date	Client Info		<b>24 Jun 2023</b>	---	---
Machine Age	mls	Client Info	<b>0</b>	---	---
Oil Age	mls	Client Info	<b>0</b>	---	---
Oil Changed	Client Info		<b>N/A</b>	---	---
Sample Status			<b>ABNORMAL</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>▲ 107</b>	---	---
Chromium	ppm	ASTM D5185m >20	<b>2</b>	---	---
Nickel	ppm	ASTM D5185m >4	<b>&lt;1</b>	---	---
Titanium	ppm	ASTM D5185m	<b>&lt;1</b>	---	---
Silver	ppm	ASTM D5185m >3	<b>0</b>	---	---
Aluminum	ppm	ASTM D5185m >20	<b>▲ 15</b>	---	---
Lead	ppm	ASTM D5185m >40	<b>4</b>	---	---
Copper	ppm	ASTM D5185m >330	<b>147</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>26</b>	---	---
Barium	ppm	ASTM D5185m 0	<b>&lt;1</b>	---	---
Molybdenum	ppm	ASTM D5185m 50	<b>51</b>	---	---
Manganese	ppm	ASTM D5185m 0	<b>3</b>	---	---
Magnesium	ppm	ASTM D5185m 950	<b>574</b>	---	---
Calcium	ppm	ASTM D5185m 1050	<b>1227</b>	---	---
Phosphorus	ppm	ASTM D5185m 995	<b>1035</b>	---	---
Zinc	ppm	ASTM D5185m 1180	<b>1294</b>	---	---
Sulfur	ppm	ASTM D5185m 2600	<b>2685</b>	---	---

## CONTAMINANTS

	method	limit/base	current	history 1	history 2
Silicon	ppm	ASTM D5185m >25	<b>▲ 27</b>	---	---
Sodium	ppm	ASTM D5185m	<b>2</b>	---	---
Potassium	ppm	ASTM D5185m >20	<b>4</b>	---	---

## INFRA-RED

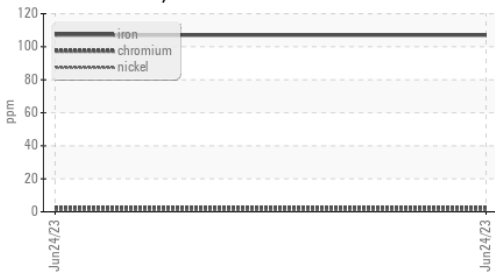
	method	limit/base	current	history 1	history 2
Soot %	%	*ASTM D7844 >3	<b>1.1</b>	---	---
Nitration	Abs/cm	*ASTM D7624 >20	<b>11.9</b>	---	---
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>24.4</b>	---	---

## FLUID DEGRADATION

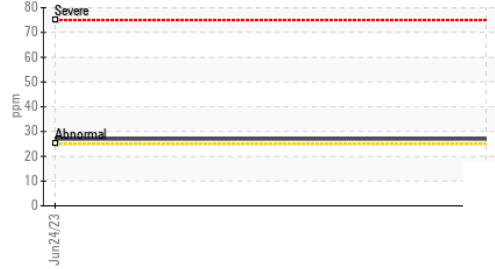
	method	limit/base	current	history 1	history 2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>23.1</b>	---	---
Base Number (BN)	mg KOH/g	ASTM D2896	<b>7.6</b>	---	---

# OIL ANALYSIS REPORT

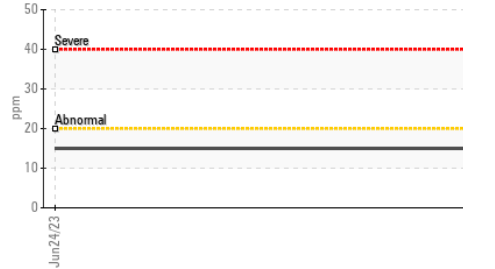
**▲ Ferrous Alloys**



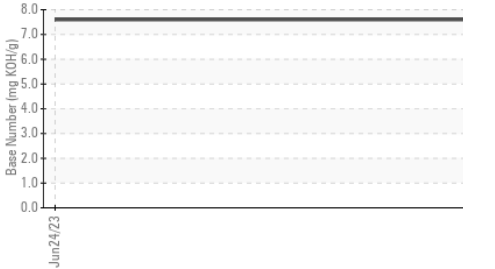
**▲ Silicon (ppm)**



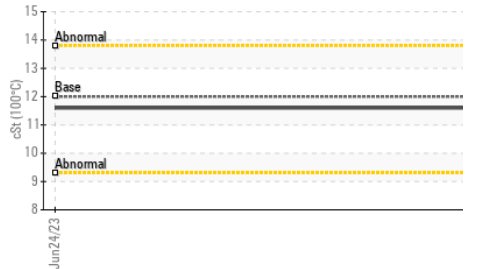
**▲ Aluminum (ppm)**



**Base Number**



**Viscosity @ 100°C**

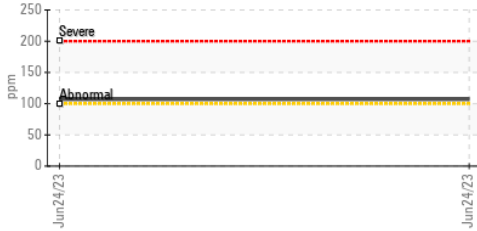


VISUAL	method	limit/base	current	history 1	history 2	
White Metal	scalar	*Visual	NONE	NONE	---	---
Yellow Metal	scalar	*Visual	NONE	NONE	---	---
Precipitate	scalar	*Visual	NONE	NONE	---	---
Silt	scalar	*Visual	NONE	NONE	---	---
Debris	scalar	*Visual	NONE	NONE	---	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---	---
Appearance	scalar	*Visual	NORML	NORML	---	---
Odor	scalar	*Visual	NORML	NORML	---	---
Emulsified Water	scalar	*Visual	>0.2	NEG	---	---
Free Water	scalar	*Visual		NEG	---	---

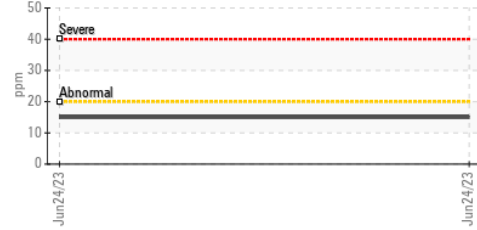
FLUID PROPERTIES	method	limit/base	current	history 1	history 2	
Visc @ 100°C	cSt	ASTM D445	12.00	11.6	---	---

**GRAPHS**

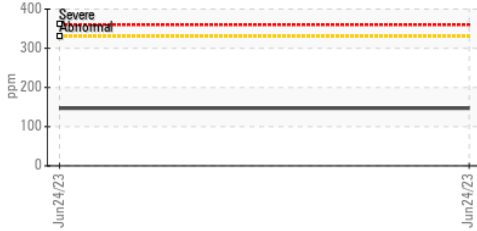
**▲ Iron (ppm)**



**▲ Aluminum (ppm)**



**Copper (ppm)**



**Viscosity @ 100°C**



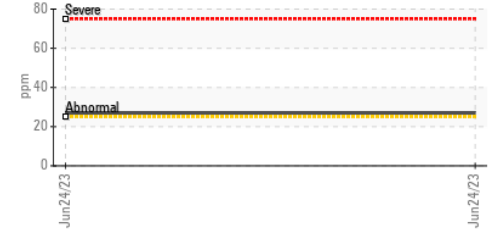
**Lead (ppm)**



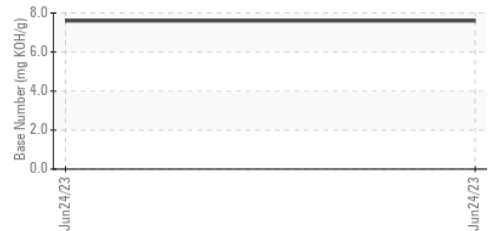
**Chromium (ppm)**



**▲ Silicon (ppm)**



**Base Number**



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : PCA0098028 **Received** : 05 Jul 2023  
**Lab Number** : 05889841 **Diagnosed** : 06 Jul 2023  
**Unique Number** : 10545651 **Diagnostician** : Don Baldrige  
**Test Package** : MOB 1 ( Additional Tests: TBN )

**MILLER TRUCK LEASING #119**  
 39 INDUSTRIAL AVE  
 HASBROUCK HEIGHTS, NJ  
 US 07604  
 Contact: MIKE LONGETTE  
 mlongette@millertransgroup.com

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)

T: (201)528-7053