

Machine Id  
**411145**  
 Component  
**Diesel Engine**  
 Fluid  
**PETRO CANADA DURON SHP 10W30 (--- GAL)**

**DIAGNOSIS**

**Recommendation**

Resample at the next service interval to monitor. Please specify the component make and model with your next sample.

**Wear**

Metal levels are typical for a new component breaking in.

**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 condition of the oil is suitable for further service.

| SAMPLE INFORMATION |             | method      | limit/base | current            | history1    | history2    |
|--------------------|-------------|-------------|------------|--------------------|-------------|-------------|
| Sample Number      | Client Info |             |            | <b>PCA0110497</b>  | PCA0103023  | PCA0095898  |
| Sample Date        | Client Info |             |            | <b>08 Nov 2023</b> | 26 Jul 2023 | 27 Apr 2023 |
| Machine Age        | mls         | Client Info |            | <b>57196</b>       | 53583       | 50168       |
| Oil Age            | mls         | Client Info |            | <b>0</b>           | 0           | 0           |
| Oil Changed        | Client Info |             |            | <b>Changed</b>     | Not Changd  | Not Changd  |
| Sample Status      |             |             |            | <b>NORMAL</b>      | NORMAL      | NORMAL      |

| CONTAMINATION |           | method | limit/base | current        | history1 | history2 |
|---------------|-----------|--------|------------|----------------|----------|----------|
| Fuel          | WC Method | >5     |            | <b>&lt;1.0</b> | <1.0     | <1.0     |
| Water         | WC Method | >0.2   |            | <b>NEG</b>     | NEG      | NEG      |
| Glycol        | WC Method |        |            | <b>NEG</b>     | NEG      | NEG      |

| WEAR METALS |     | method      | limit/base | current      | history1 | history2 |
|-------------|-----|-------------|------------|--------------|----------|----------|
| Iron        | ppm | ASTM D5185m | >100       | <b>13</b>    | 7        | 25       |
| Chromium    | ppm | ASTM D5185m | >20        | <b>&lt;1</b> | <1       | 1        |
| Nickel      | ppm | ASTM D5185m | >4         | <b>0</b>     | 0        | <1       |
| Titanium    | ppm | ASTM D5185m |            | <b>&lt;1</b> | 0        | 0        |
| Silver      | ppm | ASTM D5185m | >3         | <b>0</b>     | 0        | 0        |
| Aluminum    | ppm | ASTM D5185m | >20        | <b>6</b>     | 2        | 7        |
| Lead        | ppm | ASTM D5185m | >40        | <b>0</b>     | 0        | 0        |
| Copper      | ppm | ASTM D5185m | >330       | <b>2</b>     | 1        | 3        |
| Tin         | ppm | ASTM D5185m | >15        | <b>1</b>     | 0        | <1       |
| Vanadium    | ppm | ASTM D5185m |            | <b>&lt;1</b> | <1       | 0        |
| Cadmium     | ppm | ASTM D5185m |            | <b>0</b>     | 0        | 0        |

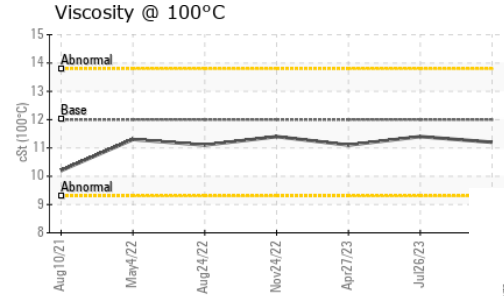
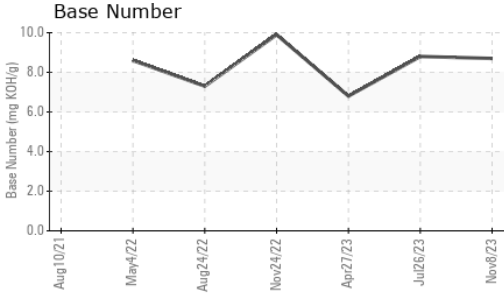
| ADDITIVES  |     | method      | limit/base | current      | history1 | history2 |
|------------|-----|-------------|------------|--------------|----------|----------|
| Boron      | ppm | ASTM D5185m | 2          | <b>12</b>    | 15       | 13       |
| Barium     | ppm | ASTM D5185m | 0          | <b>0</b>     | 0        | 0        |
| Molybdenum | ppm | ASTM D5185m | 50         | <b>61</b>    | 60       | 64       |
| Manganese  | ppm | ASTM D5185m | 0          | <b>&lt;1</b> | <1       | 1        |
| Magnesium  | ppm | ASTM D5185m | 950        | <b>919</b>   | 911      | 964      |
| Calcium    | ppm | ASTM D5185m | 1050       | <b>1120</b>  | 1095     | 1155     |
| Phosphorus | ppm | ASTM D5185m | 995        | <b>989</b>   | 987      | 1070     |
| Zinc       | ppm | ASTM D5185m | 1180       | <b>1224</b>  | 1210     | 1319     |
| Sulfur     | ppm | ASTM D5185m | 2600       | <b>2982</b>  | 3606     | 3960     |

| CONTAMINANTS |     | method      | limit/base | current  | history1 | history2 |
|--------------|-----|-------------|------------|----------|----------|----------|
| Silicon      | ppm | ASTM D5185m | >25        | <b>4</b> | 5        | 5        |
| Sodium       | ppm | ASTM D5185m |            | <b>1</b> | 1        | 2        |
| Potassium    | ppm | ASTM D5185m | >20        | <b>3</b> | 2        | 6        |

| INFRA-RED |          | method      | limit/base | current     | history1 | history2 |
|-----------|----------|-------------|------------|-------------|----------|----------|
| Soot %    | %        | *ASTM D7844 | >3         | <b>0.4</b>  | 0.2      | 0.4      |
| Nitration | Abs/cm   | *ASTM D7624 | >20        | <b>8.6</b>  | 6.9      | 9.2      |
| Sulfation | Abs/.1mm | *ASTM D7415 | >30        | <b>19.7</b> | 18.5     | 18.7     |

| FLUID DEGRADATION |          | method      | limit/base | current     | history1 | history2 |
|-------------------|----------|-------------|------------|-------------|----------|----------|
| Oxidation         | Abs/.1mm | *ASTM D7414 | >25        | <b>15.9</b> | 14.5     | 16.6     |
| Base Number (BN)  | mg KOH/g | ASTM D2896  |            | <b>8.7</b>  | 8.8      | 6.8      |

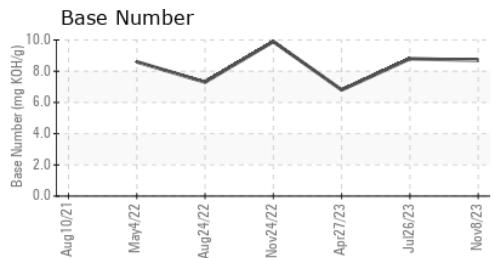
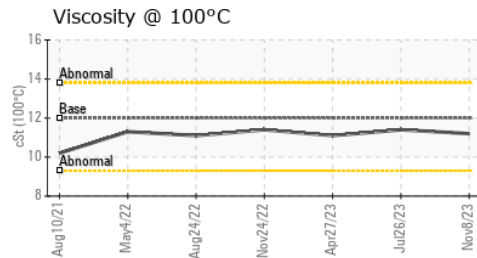
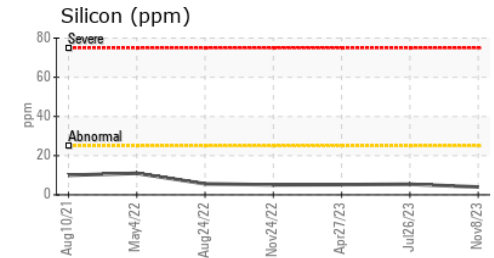
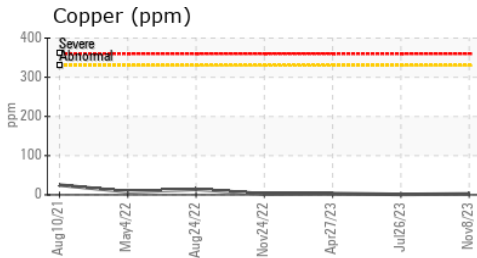
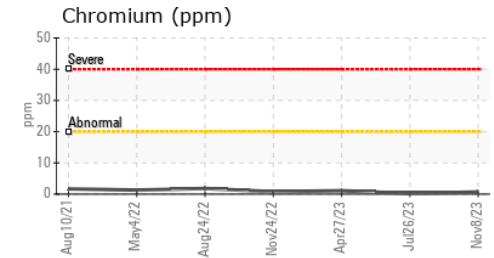
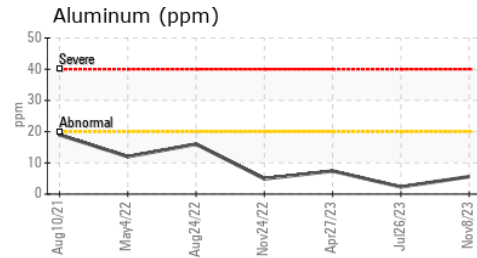
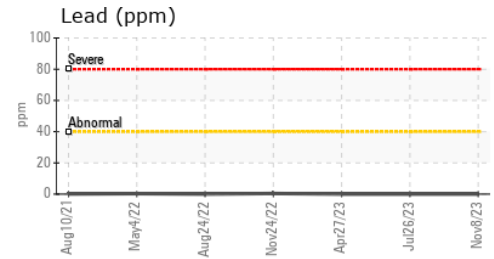
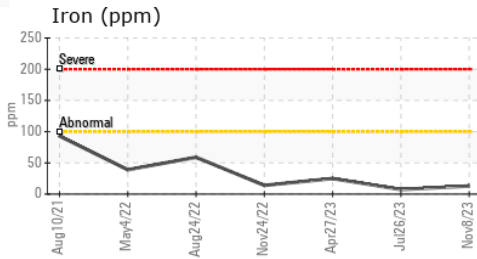
# OIL ANALYSIS REPORT



| VISUAL           | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|---------|----------|----------|
| White Metal      | scalar | *Visual    | NONE    | NONE     | NONE     |
| Yellow Metal     | scalar | *Visual    | NONE    | NONE     | NONE     |
| Precipitate      | scalar | *Visual    | NONE    | NONE     | NONE     |
| Silt             | scalar | *Visual    | NONE    | NONE     | NONE     |
| Debris           | scalar | *Visual    | NONE    | NONE     | NONE     |
| Sand/Dirt        | scalar | *Visual    | NONE    | NONE     | NONE     |
| Appearance       | scalar | *Visual    | NORML   | NORML    | NORML    |
| Odor             | scalar | *Visual    | NORML   | NORML    | NORML    |
| Emulsified Water | scalar | *Visual    | >0.2    | NEG      | NEG      |
| Free Water       | scalar | *Visual    |         | NEG      | NEG      |

| FLUID PROPERTIES | method | limit/base | current | history1 | history2 |      |
|------------------|--------|------------|---------|----------|----------|------|
| Visc @ 100°C     | cSt    | ASTM D445  | 12.00   | 11.2     | 11.4     | 11.1 |

## GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : PCA0110497 **Received** : 20 Nov 2023  
**Lab Number** : 06012994 **Diagnosed** : 21 Nov 2023  
**Unique Number** : 10752138 **Diagnostician** : Wes Davis  
**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)

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