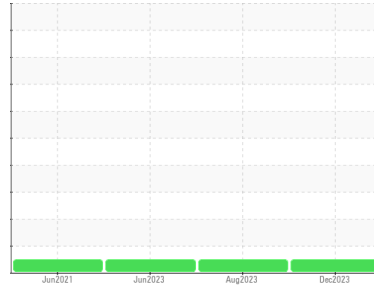


# OIL ANALYSIS REPORT

## Sample Rating Trend



**NORMAL**



Machine Id  
**390484**  
 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

All component wear rates are normal.

#### 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>PCA0112219</b>  | PCA0102899  | PCA0095799  |
| Sample Date   | Client Info |             | <b>11 Dec 2023</b> | 15 Aug 2023 | 10 Jun 2023 |
| Machine Age   | mls         | Client Info | <b>0</b>           | 206767      | 189346      |
| Oil Age       | mls         | Client Info | <b>16065</b>       | 206767      | 189346      |
| Oil Changed   | Client Info |             | <b>Changed</b>     | Changed     | Changed     |
| 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>21</b>    | 32       | 28       |
| 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>2</b>     | 3        | 6        |
| Silver   | ppm    | ASTM D5185m >3   | <b>0</b>     | 0        | 0        |
| Aluminum | ppm    | ASTM D5185m >20  | <b>4</b>     | 8        | 3        |
| Lead     | ppm    | ASTM D5185m >40  | <b>4</b>     | 1        | 3        |
| Copper   | ppm    | ASTM D5185m >330 | <b>2</b>     | 0        | 3        |
| Tin      | ppm    | ASTM D5185m >15  | <b>&lt;1</b> | 0        | <1       |
| Antimony | ppm    | ASTM D5185m      | <b>---</b>   | ---      | ---      |
| Vanadium | ppm    | ASTM D5185m      | <b>&lt;1</b> | 0        | 0        |
| Cadmium  | ppm    | ASTM D5185m      | <b>0</b>     | 0        | 0        |

### ADDITIVES

|            | method | limit/base       | current      | history1 | history2 |
|------------|--------|------------------|--------------|----------|----------|
| Boron      | ppm    | ASTM D5185m 2    | <b>4</b>     | 7        | 4        |
| Barium     | ppm    | ASTM D5185m 0    | <b>0</b>     | 0        | 0        |
| Molybdenum | ppm    | ASTM D5185m 50   | <b>59</b>    | 80       | 59       |
| Manganese  | ppm    | ASTM D5185m 0    | <b>&lt;1</b> | 0        | <1       |
| Magnesium  | ppm    | ASTM D5185m 950  | <b>957</b>   | 1253     | 906      |
| Calcium    | ppm    | ASTM D5185m 1050 | <b>1194</b>  | 1583     | 1208     |
| Phosphorus | ppm    | ASTM D5185m 995  | <b>1078</b>  | 1372     | 1023     |
| Zinc       | ppm    | ASTM D5185m 1180 | <b>1307</b>  | 1825     | 1263     |
| Sulfur     | ppm    | ASTM D5185m 2600 | <b>3109</b>  | 5303     | 3376     |

### CONTAMINANTS

|           | method | limit/base      | current  | history1 | history2 |
|-----------|--------|-----------------|----------|----------|----------|
| Silicon   | ppm    | ASTM D5185m >25 | <b>4</b> | 4        | 4        |
| Sodium    | ppm    | ASTM D5185m     | <b>8</b> | 3        | 5        |
| Potassium | ppm    | ASTM D5185m >20 | <b>0</b> | 0        | 3        |

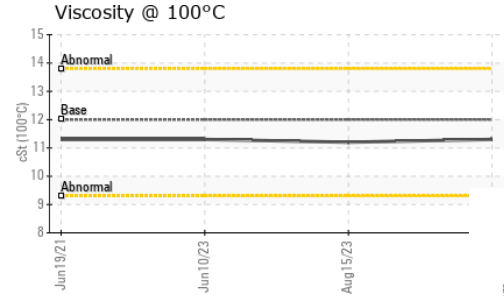
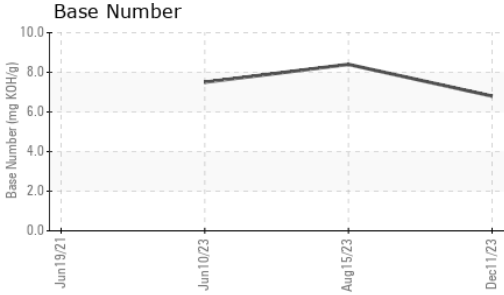
### INFRA-RED

|           | method   | limit/base      | current     | history1 | history2 |
|-----------|----------|-----------------|-------------|----------|----------|
| Soot %    | %        | *ASTM D7844 >3  | <b>1.6</b>  | 1.4      | 1.4      |
| Nitration | Abs/cm   | *ASTM D7624 >20 | <b>13.1</b> | 12.3     | 13.2     |
| Sulfation | Abs/.1mm | *ASTM D7415 >30 | <b>24.3</b> | 22.9     | 25.2     |

### FLUID DEGRADATION

|                  | method   | limit/base      | current     | history1 | history2 |
|------------------|----------|-----------------|-------------|----------|----------|
| Oxidation        | Abs/.1mm | *ASTM D7414 >25 | <b>22.6</b> | 20.3     | 23.0     |
| Base Number (BN) | mg KOH/g | ASTM D2896      | <b>6.8</b>  | 8.4      | 7.5      |

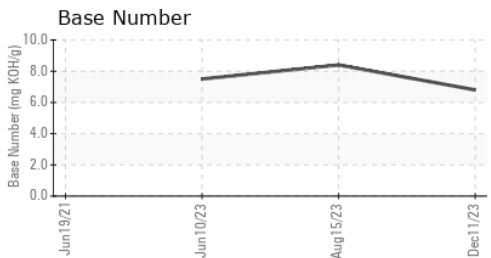
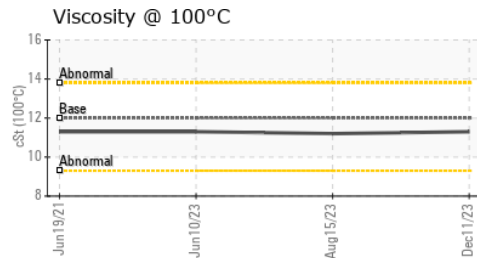
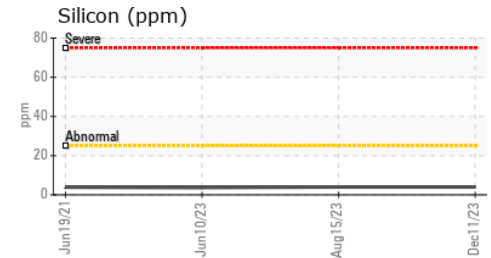
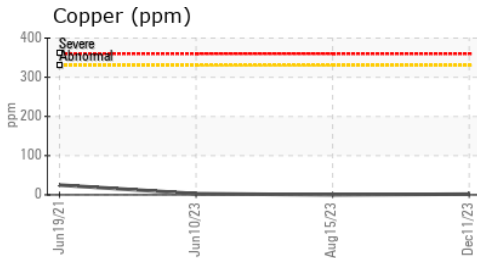
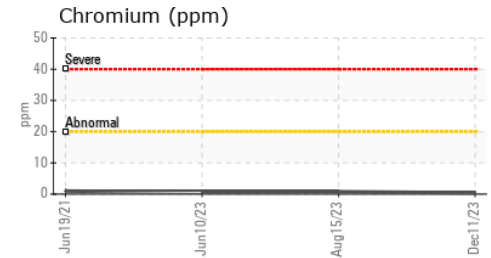
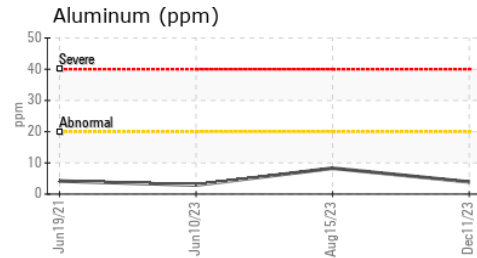
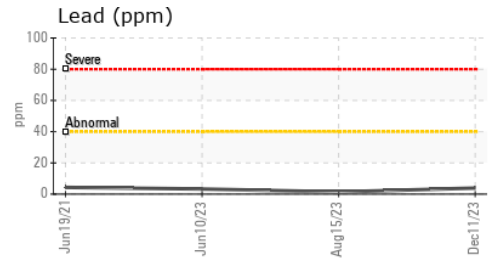
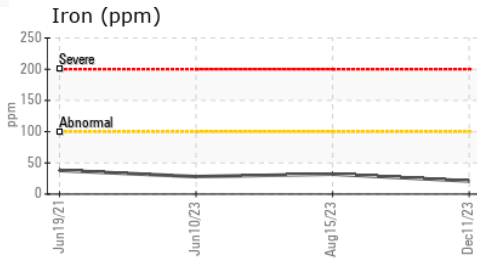
# OIL ANALYSIS REPORT



| 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   | 11.3     | 11.2     | 11.3 |

### GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : PCA0112219 **Recieved** : 22 Dec 2023  
**Lab Number** : 06042877 **Diagnosed** : 26 Dec 2023  
**Unique Number** : 10803485 **Diagnostician** : Wes Davis  
**Test Package** : MOB 1 ( Additional Tests: TBN )

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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